THE pebble PARTNERSHIP

Pre-Permitting Environmental/ Socio-Economic Data Report Series

Report Series A-Meteorology

Report A-2
2007 Annual Data Report – Pebble 4 Station

Submitted to the Alaska Department of Environmental Conservation April 2008

Preliminary data. Do not cite or quote.

The Pebble Partnership is providing environmental and socio-economic baseline data collected to inform the development of the Pebble Project to state and federal agencies, project stakeholders and the general public prior to project permitting as part of its commitment to full and open disclosure.

A comprehensive Environmental Baseline Document (EBD) will subsequently be prepared and appended to future project permit applications. The EBD will also be made publicly available when complete.

Hoefler CONSULTING GROUP

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2007 Annual Data Report
Pebble 4 Station

for the:

Pebble Project
Meteorological Monitoring Program
Iliamna, Alaska

prepared for:

Pebble Limited Partnership,
care of Pebble Mines Corp.

prepared by:

Hoefler
CONSULTING GROUP

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Pebble 4 Station
2007 Annual Data Report

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Executive Summary

On behalf of The Pebble Limited Partnership, care of Pebble Mines Corp., its general partner, HCG, Inc., dba. Hoefler Consulting Group is collecting meteorological data to support baseline environmental studies, mine design objectives, and Prevention of Significant Deterioration (PSD) permitting needs for the Pebble Project.

PSD-quality meteorological monitoring for the Pebble Project began on August 1, 2005. This report provides details of the first year of meteorological measurements collected from January 1, 2007 through December 31, 2007 at the Pebble 4 station.

Table E-1 and E-2 provide monthly and annual valid data capture hours and the percent data capture, respectively, for the Pebble 4 meteorological monitoring station. The Pebble 4 meteorological monitoring station met all PSD requirements during the monitoring year with the exception of the vertical temperature difference parameter during Quarters C and D.

Table E-1. Meteorological Data Capture – Valid Hours per Month

Period	Meteorological Parameters													
	2-m Temp	10-m Temp	Δ T	WS (CLM)[1]	WD (CLM)	Sigma (CLM)	WS (RMY)[2]	WD (RMY)	Sigma (RMY)	RH	Solar	BP	Precip	Evap[3]
January 2007	738	738	738	738	738	738	738	738	738	744	744	744	740	0
February 2007	672	672	672	672	672	672	672	672	672	672	672	672	670	0
March 2007	744	744	744	744	744	744	744	744	744	744	744	744	744	0
April 2007	720	720	720	720	720	720	720	720	720	720	720	720	720	0
May 2007	744	744	744	744	744	744	744	744	744	744	744	744	741	709
June 2007	720	720	720	720	720	720	720	720	720	720	720	720	720	720
July 2007	744	744	744	744	744	744	744	744	744	744	744	744	744	744
August 2007	744	744	744	744	744	744	744	744	744	744	744	744	744	744
September 2007	717	717	157	717	717	717	717	717	717	717	717	717	709	717
October 2007	744	744	0	744	744	744	744	744	744	744	744	744	741	120
November 2007	720	720	0	700	720	720	719	719	719	720	720	720	720	0
December 2007	744	744	0	707	744	744	744	744	744	744	744	744	744	0
Monitoring Year	**8,751**	**8,751**	**5,983**	**8,694**	**8,751**	**8,751**	**8,750**	**8,750**	**8,750**	**8,757**	**8,757**	**8,757**	**8,740**	**3,754**

[1] CLM = Climatronics wind speed and wind direction sensor.
[2] RMY = R.M. Young wind speed and wind direction sensor.
[3] Evaporation gauge decommissioned for winter. Gauge operated May 2 through October 5, 2007.

Table E-2. Meteorological Data Capture – Percent Data Capture

Period	Meteorological Parameters													
	2-m Temp	10-m Temp	Δ T	WS (CLM)[1]	WD (CLM)	Sigma (CLM)	WS (RMY)[2]	WD (RMY)	Sigma (RMY)	RH	Solar	BP	Precip	Evap[3]
January 2007	99.2%	99.2%	99.2%	99.2%	99.2%	99.2%	99.2%	99.2%	99.2%	100%	100%	100%	99.5%	0%
February 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.7%	0%
March 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%
Quarter A	**99.7%**	**99.7%**	**99.7%**	**99.7%**	**99.7%**	**99.7%**	**99.7%**	**99.7%**	**99.7%**	**100%**	**100%**	**100%**	**99.7%**	**0%**
April 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%
May 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.6%	95.3%
June 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Quarter B	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**99.9%**	**65.4%**
July 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
August 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
September 2007	99.6%	99.6%	21.8%	99.6%	99.6%	99.6%	99.6%	99.6%	99.6%	99.6%	99.6%	99.6%	98.5%	99.6%
Quarter C	**99.9%**	**99.9%**	**74.5%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.5%**	**99.9%**
October 2007	100%	100%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	16%
November 2007	100%	100%	0%	97.2%	100%	100%	99.9%	99.9%	99.9%	100%	100%	100%	100%	0%
December 2007	100%	100%	0%	95.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%
Quarter D	**100%**	**100%**	**0%**	**97.4%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**5%**
Monitoring Year	**99.9%**	**99.9%**	**68.3%**	**99.2%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**100%**	**100%**	**100%**	**99.8%**	**99.9%**

[1] CLM = Climatronics wind speed and wind direction sensor.
[2] RMY = R.M. Young wind speed and wind direction sensor.
[3] Evaporation gauge decommissioned for winter. Gauge operated May 2 through October 5, 2007
[4] The Climatronics wind speed sensor was affected by icing during Quarter D. The R.M. Young wind speed sensor will be used to achieve the required data capture requirement of 90 percent or greater per monitoring quarter.

1.0 Introduction

1.1 Project Summary

On behalf of the Pebble Limited Partnership, care of Pebble Mines Corp., its general partner, HCG, Inc., dba. Hoefler Consulting Group is collecting meteorological data to support baseline environmental studies, mine design objectives, and future Prevention of Significant Deterioration (PSD) permitting needs for the Pebble Project, an initiative to develop and operate an open-pit gold, copper, molybdenum, and silver mine in the Bristol Bay region of southwest Alaska. This project currently consists of three PSD-quality meteorological monitoring stations located at the proposed mill site (Pebble 1), the tailings storage facility (Pebble 4), and possible shipping site (Pebble Port). An additional, non-PSD meteorological monitoring station (Pebble 3) is being used for engineering and mine design purposes. This report focuses on the first year of measurements collected at the Pebble 4 station from January 1, 2007 through December 31, 2007. A separate annual data report has been prepared for each of the Pebble Port and Pebble 1 stations.

Figure 1-1 is a map of the Pebble Project meteorological monitoring sites located in southwest Alaska. Figures 1-2 and 1-3 provide a higher resolution map and a site photo, respectively, of the Pebble 4 station.

The Pebble 4 station collects data for the following parameters:

- Air temperature, two meters above ground (degrees Celsius [°C])
- Air temperature, ten meters above ground (degrees Celsius [°C])
- Vertical temperature difference (ΔT, “Delta T” (degrees Celsius [°C]))
- Wind speed (meters per second [m/s])
- Wind direction (degrees [°])
- Wind direction standard deviation (wind sigma [σ_θ])
- Relative humidity (percent [%])
- Solar radiation (Watts per square meter [W/m^2])
- Barometric Pressure (millibar [mb]).
- Precipitation (millimeters [mm])
- Evaporation (millimeters [mm])

Measurements of these parameters will provide at least one year of representative surface observations for use in air dispersion modeling and PSD permitting needs.

1.2 Measurements Method Table

Table 1-1 lists each parameter measured at the Pebble 4 station and includes the sensor manufacturer and model number, measurement range, accuracy, sampling frequency, and sample averaging period. All instruments meet or exceed the U.S. Environmental Protection Agency (EPA) PSD requirements for range accuracies, thresholds, response times, resolutions, damping ratios, and other measures of instrument performance. For this project, wind speed and wind direction measurements are collected using two different types of PSD-quality sensors collocated at 10-meters above ground level. The Climatronics F460 (CLM) features a three-cup anemometer and separate wind vane, while the RM Young 05305-AQ (RMY) is a propeller-vane anemometer, which is a single unit consisting of a four-blade propeller fitted to the front end of a wind vane. Dual wind sensors are deployed at the Pebble 4 station to prevent the loss of valid data in the event that one of the sensors is damaged or subjected to inclement weather conditions. Because the manufacturers' stated wind speed accuracy, wind direction accuracy, and wind speed threshold values of the CLM sensor exceed those of the RMY sensor, the CLM sensor has been designated as the "primary" wind instrument at the Pebble 4 PSD station.

1.3 Variations from the Quality Assurance Project Plan

During the first monitoring year, there were no variations from the Pebble Project Meteorological Monitoring Quality Assurance Project Plan (QAPP).

Table 1-1. Meteorological Measurement Methods

Parameter	Sensor Manufacturer/ Model Number	Measurement Method	Range	Accuracy	Sampling Frequency	Averaging Period
Ambient Temperature	Met One, Inc. Model 062 MP	Solid state thermistor	+50°C to -50°C	± 0.05°C	1 second	1 hour
Wind Speed[1]	Climatronics, Inc. F460 (P/N 100075)	Three-cup anemometer, LED photo chopper	0 to 65 m/s	± 0.15 m/s or 1%	1 second	1 hour
Wind Direction[1]	Climatronics, Inc. F460 (P/N 100076)	Light-weight vane, Low torque potentiometer	0 to 360°	± 2°	1 second	1 hour
Wind Speed[1]	RM Young Co. 05305-AQ	Propeller, magnetically induced AC sine wave	0 to 60 m/s	± 0.3 m/s or 1%	1 second	1 hour
Wind Direction[1]	RM Young Co. 05305-AQ	Light-weight vane, Low torque potentiometer	0 to 360°	± 3°	1 second	1 hour
Relative Humidity	Vaisala, Inc. HMP 45C	Capacitive polymer chip	0.8 to 100%	± 2%	1 second	1 hour
Solar Radiation	LI-COR, Inc. LI200X	Silicon photovoltaic detector	0 to 3,000 W/m^2 (400 to 1,100 nm)	± 5%	1 second	1 hour
Barometric Pressure	Vaisala, Inc. PTB 101B	Silicon capacitive sensor	600 to 1060 mb	± 0.5 mb	1 hour[2]	N/A[2]
Precipitation	Met One	Tipping bucket mechanism	0 to76.2mm/hr	± 1%	N/A[3]	N/A[3]
Evaporation	Nova Lynx 255-100	Change in pressure head determined by float mechanism	3 to 10 in	± 0.25% over 10 in range	1 second	1 minute

[1] Wind speed and wind direction measurements are collected using two different types of PSD-quality sensors.
[2] Instantaneous barometric pressure measurements are collected for 1 second during every hour.
[3] Instantaneous precipitation measurements are collected by the datalogger and subsequently summed on an hourly basis.

Figure 1-1. Map of the Pebble Project Area

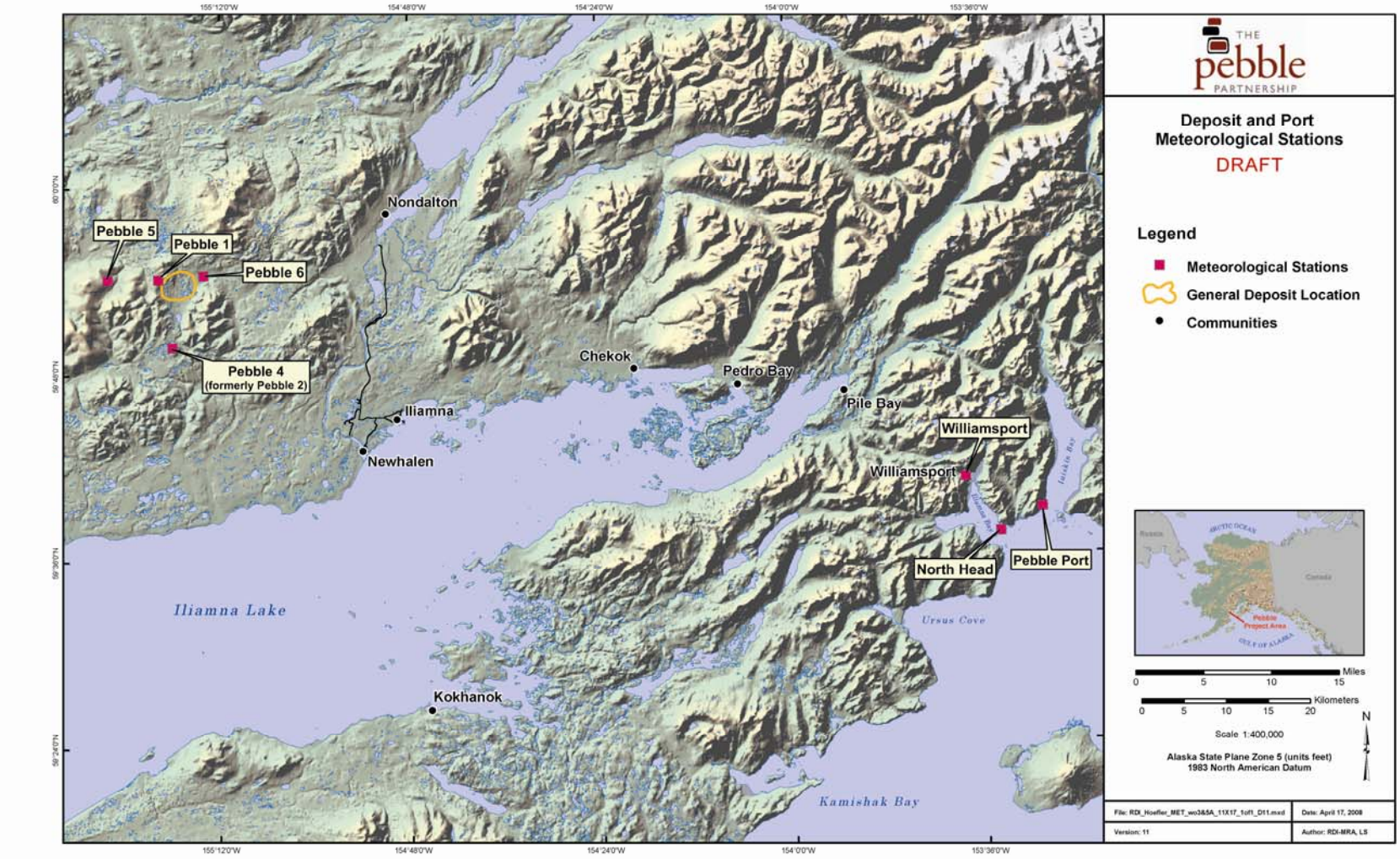


Figure 1-2. Map of the Pebble 4 Station

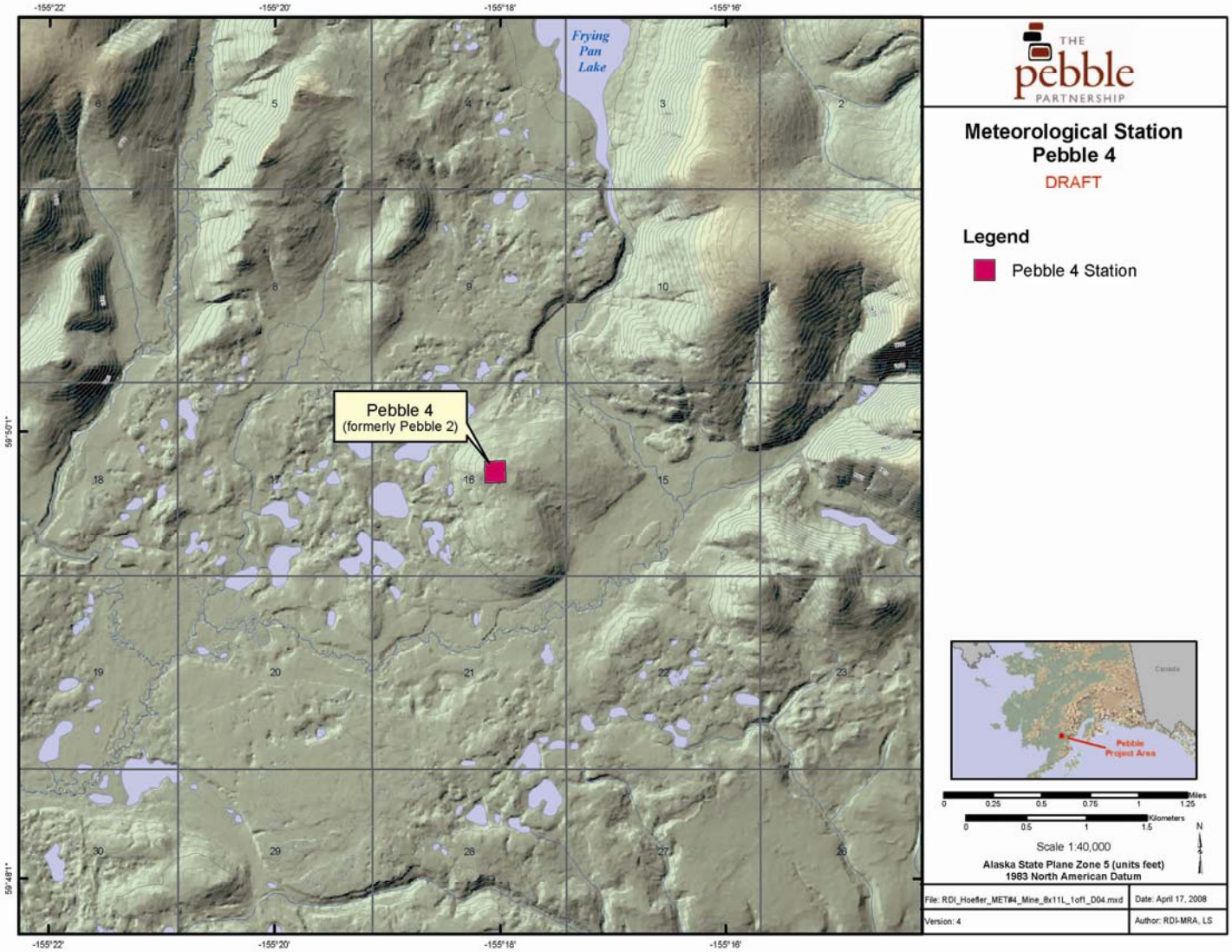
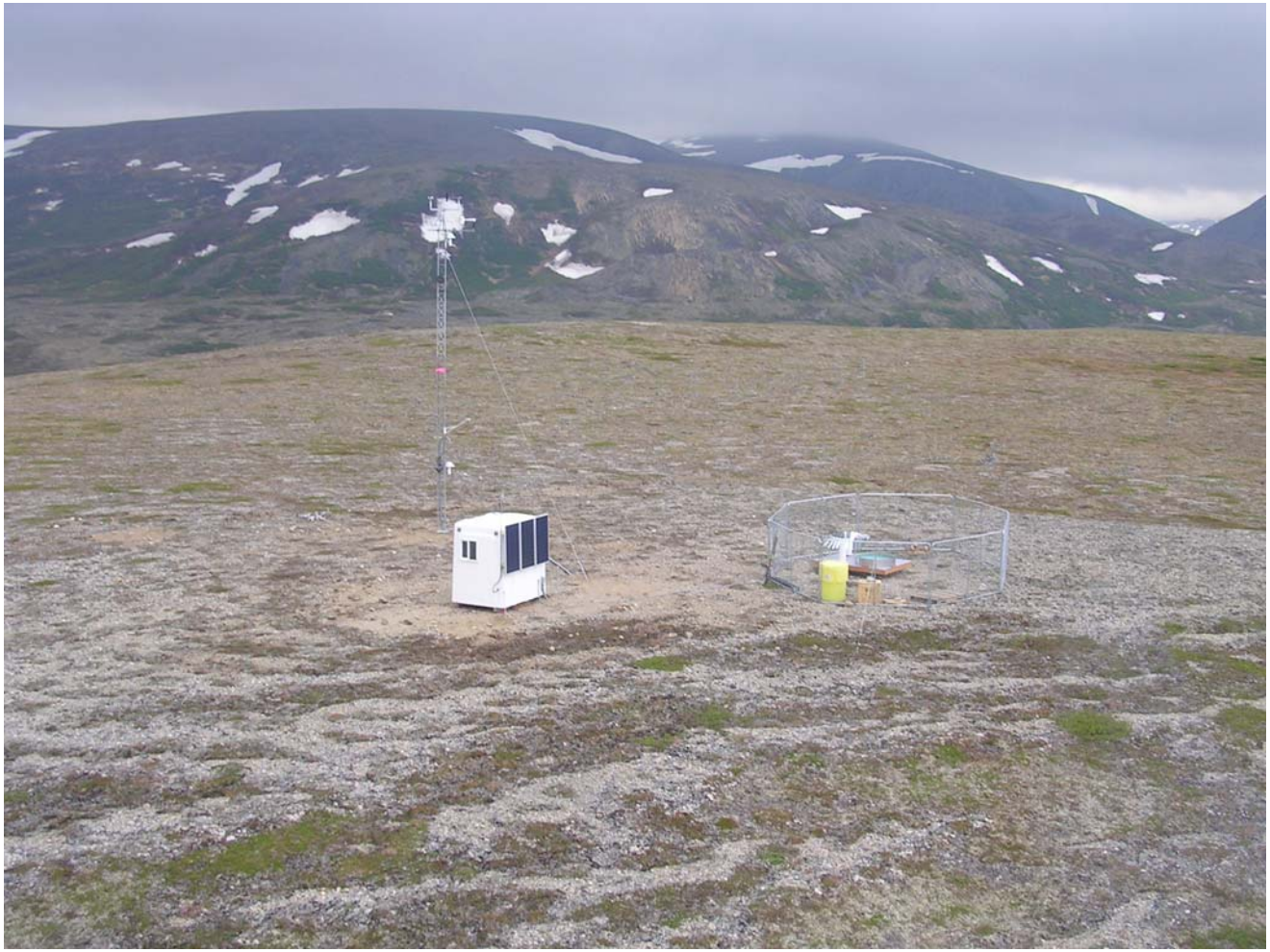


Figure 1-3. Pebble 4 Meteorological Monitoring Station



2.0 Station Performance Summary

2.1 Significant Project Events

Table 2-1 summarizes the significant events that occurred at the Pebble 4 station relevant to the 2007 meteorological monitoring year.

Table 2-1. Chronology of Significant Events

Date	Event
January 1, 2007	Beginning of 2007 monitoring year.
January 18, 2007	Full audit performed (all sensors passed), refreshed Metone precipitation gauge snowfall adapter.
March 22, 2007	Replaced aspirator control relay, uploaded new datalogger program, temporary repair of fence.
May 2, 2007	Calibrated and refreshed precipitation gauge, calibrated and started evaporation gauge, repaired evaporation fence, cleaned station and tightened guy wires.
Sept. 5-7, 2007	Station audit performed. Upgraded DAS to CR1000. Climatronics and RM Young wind instruments replaced.
October 18, 2007	Evaporation gauge decommissioned for winter. Valid evaporation data ends October 5, 2007.
November 7, 2007	Started Thermo-Electric Generator.
November 23-24, 2007	Climatronics wind speed sensor frozen. 20 Hours of wind speed data invalidated.
December 6-8, 2007	Climatronics wind speed sensor frozen. 39 Hours of wind speed data invalidated.
December 31, 2007	End of 2007 monitoring year.
February 12-13, 2008	Annual Performance audit conducted. Vertical temperature difference parameter failed audit. Data invalidated to date of last audit. Both 2-meter and 10-meter thermistors replaced and an as-left audit conducted.

2.2 Missing, Invalid, and Adjusted Data

The data for the Pebble 4 station were carefully reviewed during the quality assurance process. Some data were removed as a result of planned site activities, including data collected during station system and performance audits and calibrations.

All data were validated only after being screened by the criteria listed in Table 8-4 of *Meteorological Monitoring Guidance for Regulatory Modeling Applications* (EPA-454/R-99-005). Table 2-2 lists the quantities of data that were flagged according to EPA criteria, yet not removed from the refined final data set. All flagged data were carefully examined, but generally remained in the reduced data unless dictated by certain circumstances, including values outside the normal range of variation, consecutive repetitive values recorded for an unidentified reason, maintenance activity at the site, and impairing damage to sensors.

2.3 Network Data Completeness

Data completeness is a measure of the amount of data actually collected compared to the amount of data that could have been collected. Data completeness was calculated by dividing the number of valid hours of data by the total number of hours during the monitoring period. The data quality objective (DQO) for data completeness for the Pebble Project Meteorological Monitoring Program is 90 percent data capture per quarter for each parameter listed in Section 1.1. Table 2-3 provides a summary of data completeness, in terms of a percentage, for the 2007 monitoring year at the Pebble 4 station.

Table 2-2. Percentage of Final Data Set Flagged

Parameter	Flagging Criteria[1]	Percent Flagged
Wind Speed (Climatronics)	Value is < 0 m/s	0.0%
	Value is > 25 m/s	1.3%
	< 0.1 m/s variation for 3 consecutive hours	0.7%
	<0.5 m/s variation for 12 consecutive hours	0.0%
Wind Direction (Climatronics)	Value is < 0°, > 360°	0.0%
	<1° variation over 3 consecutive hours	1.8%
	< 10° variation over 18 consecutive hours	0.7%
Wind Speed (RM Young)	Value is < 0 m/s	0.0%
	Value is > 25 m/s	0.5%
	< 0.1 m/s variation for 3 consecutive hours	0.6%
	<0.5 m/s variation for 12 consecutive hours	0.0%
Wind Direction (RM Young)	Value is < 0°, > 360°	0.0%
	<1° variation over 3 consecutive hours	1.8%
	< 10° variation over 18 consecutive hours	0.7%
Temperature (2 meters)	> 5°C variation from previous hour	0.0%
	< 0.5°C variation for 12 consecutive hours	1.3%
	Value is > record high, < record low	0.0%
Temperature (10 meters)	> 5°C variation from previous hour	0.0%
	< 0.5°C variation for 12 consecutive hours	1.3%
	Value is > record high, < record low	0.0%
Temperature Difference, ΔT	Value is > 0.8°C during the daytime	0.3%
	Value is < -0.8°C during the night	0.0%
	Value is > 5°C, < -3°C	0.0%
Relative Humidity (Dew Point Temperature)[2]	Value is > ambient temperature	0.0%
	> 5°C variation from previous hour	0.0%
	< 0.5°C variation for 12 consecutive hours	1.3%
	Equals ambient temperature for 12 consecutive hours	1.9%
Solar Radiation	> 0 W/m^2 at night	0.0%
	Greater than the maximum possible value for date	0.0%
Barometric Pressure	> 1060 mb (sea level)	0.0%
	< 940 mb (sea level)	3.7%
	> 6 mb variation for 3 consecutive hours	0.1%
Precipitation	> 25 mm in one hour	0.0%
	> 100 mm in 24 hours	0.0%
	< 50 mm in one month	49.4%

[1] Based upon Table 8-4: Suggested Data Screening Criteria in *Meteorological Monitoring Guidance for Regulatory Modeling Applications* (EPA-454/R-99-005).
[2] Guidance document provides criteria relative to dew point temperature.

Table 2-3. Pebble 4 Station Percent Data Capture.

Period	Meteorological Parameters													
	2-m Temp	10-m Temp	Δ T	WS (CLM)[1]	WD (CLM)	Sigma (CLM)	WS (RMY)[2]	WD (RMY)	Sigma (RMY)	RH	Solar	BP	Precip	Evap
January 2007	99.2%	99.2%	99.2%	99.2%	99.2%	99.2%	99.2%	99.2%	99.2%	100%	100%	100%	99.5%	0%
February 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.7%	0%
March 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%
Quarter A	**99.7%**	**99.7%**	**99.7%**	**99.7%**	**99.7%**	**99.7%**	**99.7%**	**99.7%**	**99.7%**	**100%**	**100%**	**100%**	**99.7%**	**0%**
April 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%
May 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.6%	95.3%
June 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Quarter B	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**99.9%**	**65.4%**
July 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
August 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
September 2007	99.6%	99.6%	21.8%	99.6%	99.6%	99.6%	99.6%	99.6%	99.6%	99.6%	99.6%	99.6%	98.5%	99.6%
Quarter C	**99.9%**	**99.9%**	**74.5%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.5%**	**99.9%**
October 2007	100%	100%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	16%
November 2007	100%	100%	0%	97.2%	100%	100%	99.9%	99.9%	99.9%	100%	100%	100%	100%	0%
December 2007	100%	100%	0%	95.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%
Quarter D	**100%**	**100%**	**0%**	**97.4%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**5%**
Monitoring Year	**99.9%**	**99.9%**	**68.3%**	**99.2%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**100%**	**100%**	**100%**	**99.8%**	**99.9%**

[1] CLM = Climatronics wind speed and wind direction sensor.
[2] RMY = R.M. Young wind speed and wind direction sensor.
[3] Evporation gauge decommissioned for winter. Gauge operational from May 2 through October 5, 2007.
[4] The Climatronics wind speed sensor was affected by icing during Quarter D. The R.M. Young wind speed sensor will be used to achieve the required data capture requirement of 90 percent or greater per monitoring quarter.

2.4 Precision Statistics

2.4.1 Monitoring Network Precision Statistics

Not applicable.

2.4.2 Analytical Laboratory Precision Statistics

Not applicable.

2.4.3 Analytical Laboratory Precision Statistics for Lead Analysis of Particulate Samples

Not applicable.

2.5 Accuracy Statistics

2.5.1 Instrument Calibration Statistics

Not applicable.

2.5.2 Independent Quality Assurance Audits

A preliminary systems and performance audit was conducted at the Pebble 4 station on July 12, 2006, all sensors passed. The results of the initial systems and performance audit are presented in Table 2-4.

A semiannual performance audit was conducted at the Pebble 4 station primarily on January 18, 2007. The evaporation pan and tipping bucket precipitation gauge were audited prior to winterization on October 11, 2006. The results of these performance audits are presented in Table 2-5 and Table 2-6.

An annual performance audit was conducted at the Pebble 4 station September 5 through September 6, 2007, all sensors passed. A second audit was performed on all station sensors from September 6 through September 7, 2007 to check sensor operation after replacing the CR10X data logger with a CR1000 data logger, all sensors passed. The results of these performance audits are presented in Table 2-7 and Table 2.8.

On February 12 through 13, 2008 an annual performance audit was conducted at Pebble 4. All sensors passed with the exception of the vertical temperature difference parameter. Both the 2-meter and 10-meter temperature thermistors were replaced and an as-left audit was conducted. Vertical temperature difference data was invalidated

from the date of the last audit on September 7, 2007. The results of this performance audit are presented in Table 2-9.

The performance audit involves reading the data acquisition system (DAS) output for each meteorological sensor and comparing the value with the input from appropriate audit equipment or from calibrated instruments collocated with the sensor. For each reading, the difference between the station value and the predicted value is compared with established PSD limits to assess the accuracy of the sensor.

During each of these audits, the power supply, DAS, communications system, and audited sensors all worked properly. A technical systems audit was performed during the September 5 and 6, 2007, audit and found that the station is well-planned, equipped with PSD quality equipment, and properly sited according to criteria recommended by EPA. The operator provided adequate manuals for system maintenance and proper documentation to report operation and quality control activities. The operator was knowledgeable and competent with all meteorological equipment, communications equipment, and the power supply system.

Appendix C contains all of the complete technical systems and performance audit reports.

Table 2-4. July 12, 2006 Performance Audit Summary

Parameter	Limit	Units	Max Err	Status
Datalogger Time	≤ ±5:00	Min:Sec	-0:02	Pass
2-m Temperature Accuracy	≤ ±0.5	°C	0.32	Pass
10-m Temperature Accuracy	≤ ±0.5	°C	0.32	Pass
Air Temperature Difference	≤ ±0.1	°C	0.00	Pass
Relative Humidity (dew point)	≤ ±1.5	°C	0.3	Pass
Climatronics Wind System				
Wind Speed Torque	≤ 0.0049	oz-in	<0.003	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque	≤ 0.104	oz-in	0.030	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	2.5	Pass
Wind Direction Accuracy	≤ ±5	Degree	4.7	Pass
Wind Direction Linearity	≤ 3	Degree	2.7	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	4.0	Pass
RM Young Wind System				
Wind Speed Torque	≤ 0.014	oz-in	0.010	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque	≤ 11	g-cm	4.0	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	3.1	Pass
Wind Direction Accuracy	≤ ±5	Degree	2.3	Pass
Wind Direction Linearity	≤ 3	Degree	1.1	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	3.4	Pass
Barometric Pressure	≤ ±3	Mbar	1.3	Pass
Solar Radiation	≤ ±5+Res	% input	-3.9	Pass
Tipping Precipitation	≤ ±10	% input	3.6	Pass
Evaporation	≤ ±10	% input	2.4	Pass

Table 2-5. October 11, 2006 Supplemental Performance Audit Summary[1]

Parameter	Limit	Units	Max Err	Status
Tipping Precipitation	≤ ±10	% input	2.0	Pass
Evaporation	≤ ±10	% input	2.5	Pass

[1]Gauges audited prior to winterizing.

Table 2-6. January 18, 2007 Performance Audit Summary

Parameter	Limit	Units	Max Err	Status
Datalogger Time	≤ ±5:00	Min:Sec	0:05	Pass
2-m Temperature Accuracy	≤ ±0.5	°C	0.29	Pass
10-m Temperature Accuracy	≤ ±0.5	°C	0.29	Pass
Air Temperature Difference	≤ ±0.1	°C	0.00	Pass
Relative Humidity (dew point)	≤ ±1.5	°C	0.4	Pass
Climatronics Wind System				
Wind Speed Torque	≤ 0.0049	oz-in	<0.003	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque	≤ 0.104	oz-in	0.040	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	4.1	Pass
Wind Direction Accuracy	≤ ±5	Degree	2.2	Pass
Wind Direction Linearity	≤ 3	Degree	1.0	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	1.6	Pass
RM Young Wind System				
Wind Speed Torque	≤ 0.014	oz-in	0.007	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque	≤ 11	g-cm	8.0	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	-3.9	Pass
Wind Direction Accuracy	≤ ±5	Degree	2.8	Pass
Wind Direction Linearity	≤ 3	Degree	1.3	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	-3.5	Pass
Barometric Pressure	≤ ±3	Mbar	1.3	Pass
Solar Radiation	≤ ±5+Res	% input	-6.8[1]	Pass
Tipping Precipitation	≤ ±10	% input	-8.5	Pass

[1]Max percent error value of 6.8 within limit of 5% input + resolution, see audit.

Table 2-7. September 5-6, 2007 Performance Audit Summary (CR10X)

Parameter	Limit	Units	Max Err	Status
Datalogger Time	≤ ±5:00	Min:Sec	-0:24	Pass
2-m Temperature Accuracy	≤ ±0.5	°C	0.12	Pass
10-m Temperature Accuracy	≤ ±0.5	°C	0.12	Pass
Air Temperature Difference	≤ ±0.1	°C	0.05	Pass
Relative Humidity (dew point)	≤ ±1.5	°C	1.0	Pass
Climatronics Wind System				
Wind Speed Torque	≤ 0.0049	oz-in	<0.003	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque	≤ 0.104	oz-in	0.060	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	4.3	Pass
Wind Direction Accuracy	≤ ±5	Degree	2.4	Pass
Wind Direction Linearity	≤ 3	Degree	1.1	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	N/A[1]	N/A
RM Young Wind System				
Wind Speed Torque	≤ 0.014	oz-in	0.008	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque	≤ 11	g-cm	10.0	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	4.5	Pass
Wind Direction Accuracy	≤ ±5	Degree	3.5	Pass
Wind Direction Linearity	≤ 3	Degree	1.5	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	N/A[1]	N/A
Barometric Pressure	≤ ±3	Mbar	1.8	Pass
Solar Radiation	≤ ±5+Res	% input	-10.0[2]	Pass
Tipping Precipitation	≤ ±10	% input	-4.0	Pass
Evaporation	≤ ±10	% input	2.0	Pass

[1]Not re-tested until after DAS/sensor change.

[2]Max percent error value of 10.0 within limit of 5% input + resolution, see audit.

Table 2-8. September 6-7, 2007 Performance Audit Summary (CR1000)

Parameter	Limit	Units	Max Err	Status
Datalogger Time	≤ ±5:00	Min:Sec	-0:22	Pass
2-m Temperature Accuracy	≤ ±0.5	°C	0.17	Pass
10-m Temperature Accuracy	≤ ±0.5	°C	0.17	Pass
Air Temperature Difference	≤ ±0.1	°C	0.03	Pass
Relative Humidity (dew point)	≤ ±1.5	°C	0.6	Pass
Climatronics Wind System				
Wind Speed Torque	≤ 0.0049	oz-in	<0.003	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque	≤ 0.104	oz-in	0.070	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	N/A[1]	N/A
Wind Direction Accuracy	≤ ±5	Degree	1.7	Pass
Wind Direction Linearity	≤ 3	Degree	0.8	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	-3.3	Pass
RM Young Wind System				
Wind Speed Torque	≤ 0.014	oz-in	0.007	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque	≤ 11	g-cm	7.0	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	N/A[1]	N/A
Wind Direction Accuracy	≤ ±5	Degree	2.1	Pass
Wind Direction Linearity	≤ 3	Degree	0.7	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	-4.3	Pass
Barometric Pressure	≤ ±3	Mbar	1.8	Pass
Solar Radiation	≤ ±5+Res	% input	-8.1[2]	Pass
Tipping Precipitation	≤ ±10	% input	3.0	Pass
Evaporation	≤ ±10	% input	2.4	Pass

[1]New DAS/sensor, no as-found value.

[2]Max percent error value of 8.1 within limit of 5% input + resolution, see audit.

Table 2-9. February 12-13, 2008 Performance Audit Summary

Parameter	Limit	Units	Max Err	Status
Datalogger Time	≤ ±5:00	Min:Sec	-0:36	Pass
2-m Temperature Accuracy (old)	≤ ±0.5	°C	0.40	Pass
10-m Temperature Accuracy (old)	≤ ±0.5	°C	0.20	Pass
Air Temperature Difference (old)	≤ ±0.1	°C	0.25	Fail
2-m Temperature Accuracy (new)[1]	≤ ±0.5	°C	0.15	Pass
10-m Temperature Accuracy (new) [1]	≤ ±0.5	°C	0.15	Pass
Air Temperature Difference (new) [1]	≤ ±0.1	°C	0.00	Pass
Relative Humidity (dew point)	≤ ±1.5	°C	1.0	Pass
Climatronics Wind System				
Wind Speed Torque	≤ 0.0049	oz-in	<0.003	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque	≤ 0.104	oz-in	0.060	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	3.8	Pass
Wind Direction Accuracy	≤ ±5	Degree	1.8	Pass
Wind Direction Linearity	≤ 3	Degree	0.7	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	3.4	Pass
RM Young Wind System				
Wind Speed Torque	≤ 0.014	oz-in	0.004	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque	≤ 11	g-cm	9.0	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	-3.5	Pass
Wind Direction Accuracy	≤ ±5	Degree	1.3	Pass
Wind Direction Linearity	≤ 3	Degree	0.7	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	-3.4	Pass
Barometric Pressure	≤ ±3	Mbar	0.4	Pass
Solar Radiation	≤ ±5+Res	% input	-6.5[2]	Pass
Tipping Precipitation	≤ ±10	% input	-5.0	Pass

[1] As left audit after thermistor replacement.

[2] Max percent error value of 6.5 within limit of 5% input + resolution, see audit.

3.0 Monitoring Data Network Summary

3.1 Air Quality Data Summary

Not applicable.

3.2 Meteorological Data Summary

3.2.1 Wind Speed (WS) and Wind Direction (WD) Climatology

Table 3-1 provides a statistical summary of Climatronics (CLM) and RM Young (RMY) wind speed measurements during the 2007 year of meteorological monitoring at the Pebble 4 station. The mean hourly average wind speed during the monitoring year was 8.29 m/s and 7.99 m/s for the CLM and RMY sensors, respectively. Maximum hourly average wind speeds of 37.57 m/s and 32.14 m/s were measured by the CLM and RMY sensors, respectively, on March 6, 2007. Table 3-2 provides the mean and maximum daily wind speeds at the Iliamna Airport, located approximately 20 km from the Pebble 4 station. During the monitoring year the mean daily average wind speed at the Iliamna airport was 3.95 m/s, while the maximum daily average wind speed was 17.88 m/s, recorded on December 9, 2007.

Table 3-1. Average and Maximum Wind Speeds at Pebble 4 Station

Monitoring Period	Mean Hourly Average Wind Speed (m/s) (CLM)	Mean Hourly Average Wind Speed (m/s) (RMY)	Maximum Hourly Average Wind Speed (m/s) (CLM)	Maximum Hourly Average Wind Speeds (m/s) (RMY)
Quarter A	10.29	9.55	37.57	32.14
Quarter B	6.74	6.64	29.98	27.20
Quarter C	6.32	6.20	25.26	23.87
Quarter D	9.90	9.58	33.32	31.82
Monitoring Year	**8.29**	**7.99**	**37.57**	**32.14**

Table 3-2. Average and Maximum Wind Speeds at Iliamna

Monitoring Period	Mean Hourly Average Wind Speed (m/s)	Maximum Hourly Average Wind Speed (m/s)
Quarter A	4.15	17.43
Quarter B	2.98	16.99
Quarter C	3.20	15.20
Quarter D	5.49	17.88
Monitoring Year	**3.95**	**17.88**

Figure 3-1 provides wind roses for the CLM and RMY wind instruments during the 2007 monitoring year. Winds were predominantly from the north, east, and southeast, with other minor wind components. Figures 3-2 and 3-3 present the quarterly wind roses for the CLM and RMY sensors, respectively. Quarters A and D are characterized by a major wind component from the north, with Quarter D also exhibiting a component from the east. Quarters B and C are characterized with a major component from the southeast and minor wind components the east and other directions. The Quarter A and Quarter D wind roses indicate a lack of southwesterly winds during this period. Tables 3-3 through 3-7 are the annual and quarterly wind analysis tables for the Climatronics wind measurements. Tables 3-8 through 3-12 are the annual and quarterly wind analysis tables for the RM Young wind measurements.

Figure 3-4 shows the 2007 monitoring year wind rose (derived from the Climatronics wind sensor measurements) superimposed over a map of the meteorological station and vicinity. The wind rose in Figure 3-4 is centered over the location of the Pebble 4 station.

Figure 3-1. 2007 Pebble 4 Station Wind Roses

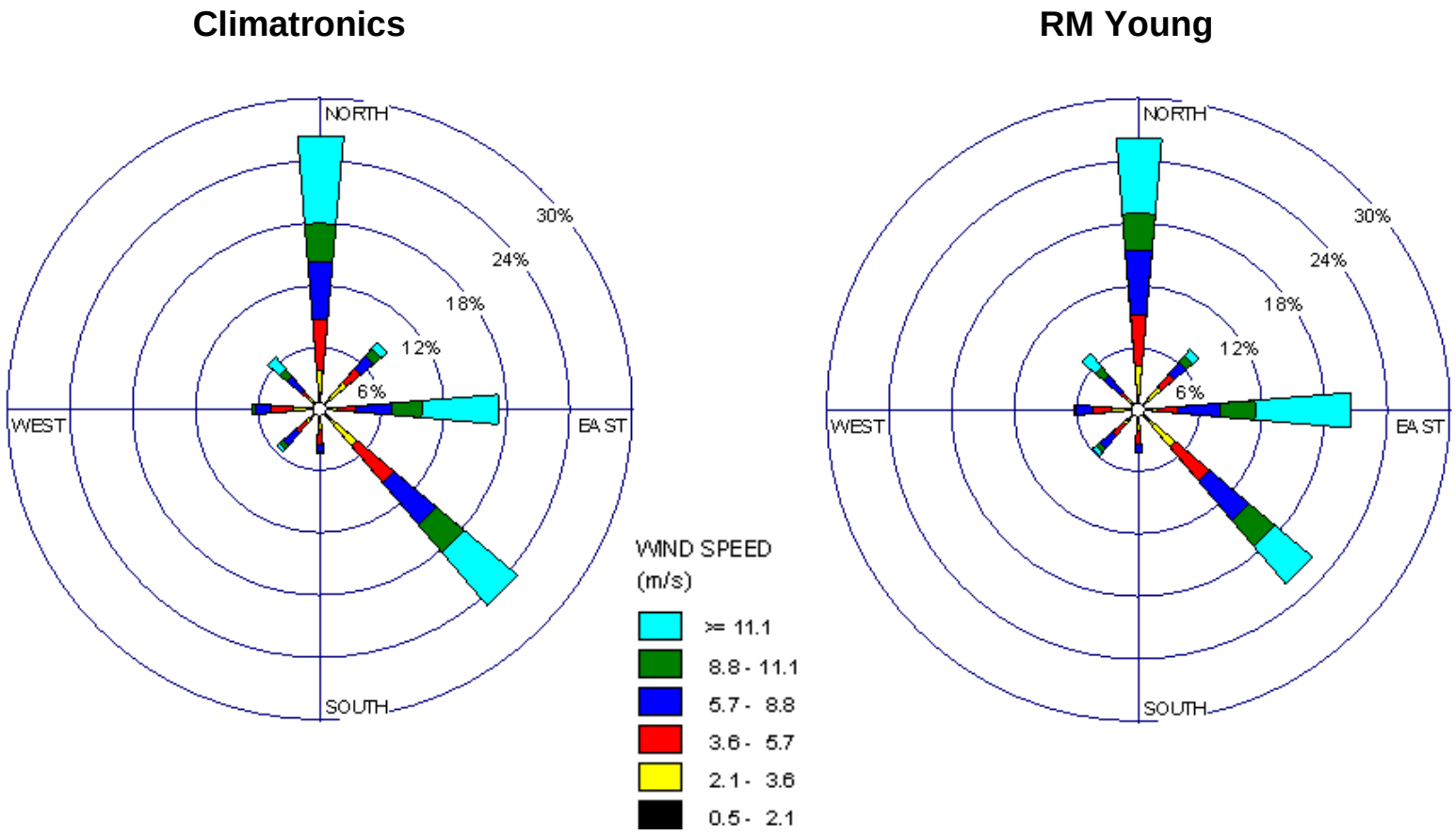
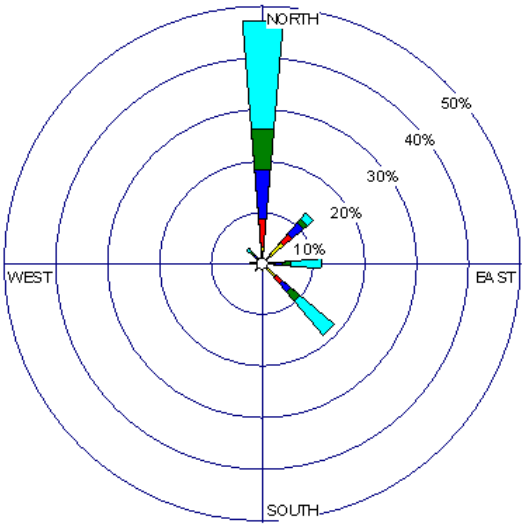
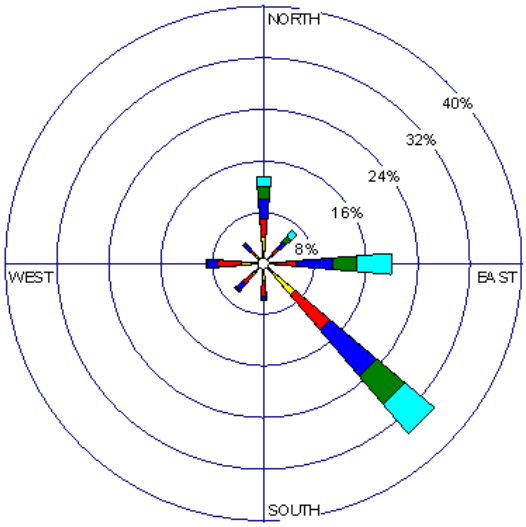


Figure 3-2. Quarterly Pebble 4 Station Wind Roses (Climatronics)

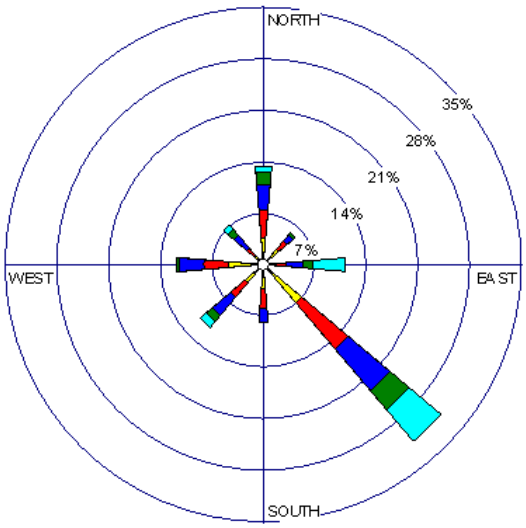
Quarter A (1/1/07 – 3/31/07)



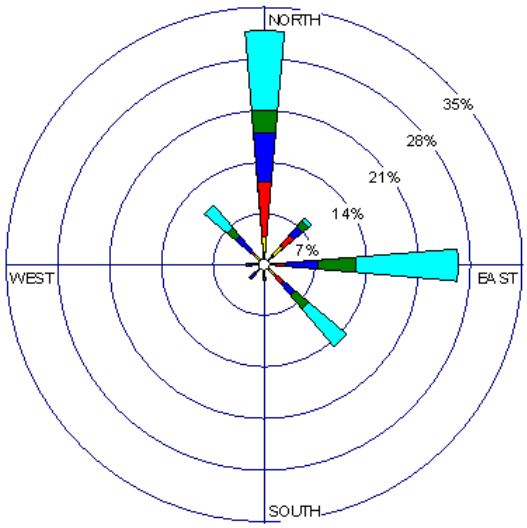
Quarter B (4/1/07 – 6/30/07)



Quarter C (7/1/07 – 9/30/07)



Quarter D (10/1/07 – 12/31/07)



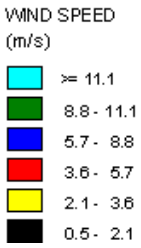
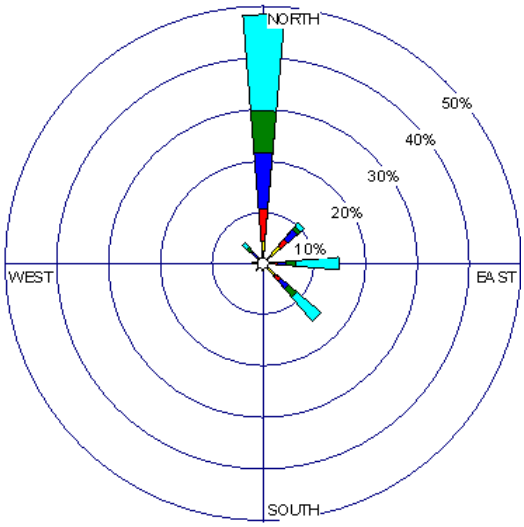
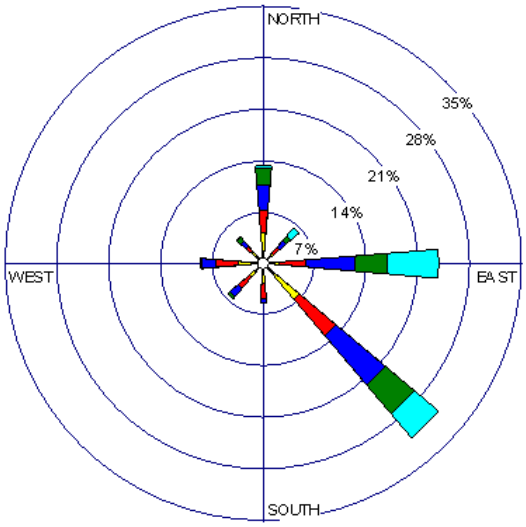


Figure 3-3. Quarterly Pebble 4 Station Wind Roses (RM Young)

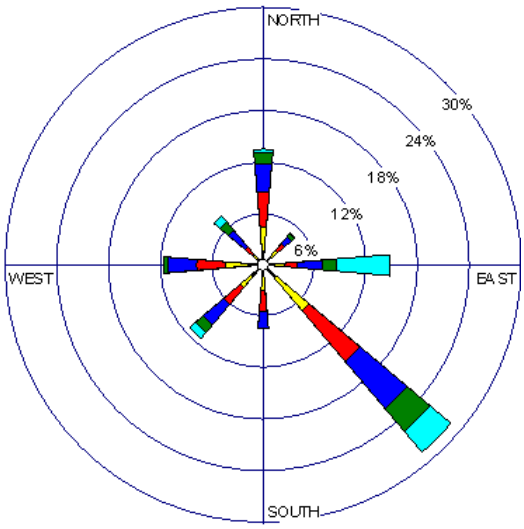
Quarter A (1/1/07 – 3/31/07)



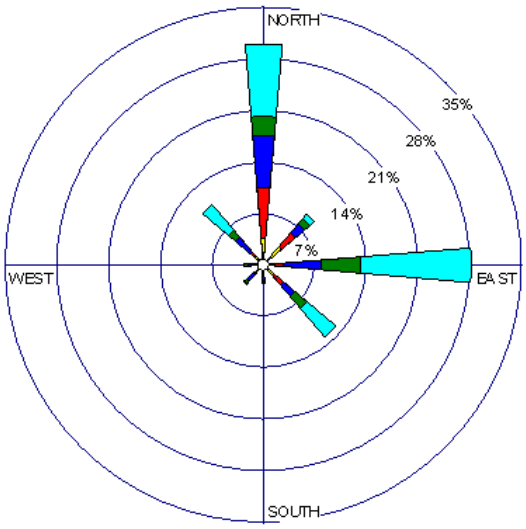
Quarter B (4/1/07 – 6/30/07)



Quarter C (7/1/07 – 9/30/07)



Quarter D (10/1/07 – 12/31/07)



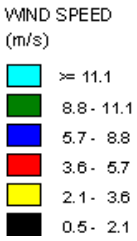


Table 3-3. 2007 Annual Wind Rose Analysis Table (Climatronics)

Station ID: Pebble 4 (Climatronics) Run ID: 2007
Start Date: January 1, 2007 End Date: December 31, 2007

Frequency Distribution
(Percent)

Speed (m/s)

Direction	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	Total
N	1.13%	2.63%	4.88%	5.61%	3.67%	8.42%	26.34%
NE	1.08%	2.36%	1.68%	1.69%	0.84%	0.84%	8.49%
E	0.78%	0.98%	1.77%	3.39%	2.90%	7.36%	17.18%
SE	1.68%	3.08%	4.64%	5.31%	3.45%	6.71%	24.87%
S	0.95%	1.10%	1.48%	0.74%	0.07%	0.06%	4.41%
SW	1.09%	0.77%	1.27%	1.53%	0.47%	0.43%	5.56%
W	1.21%	1.51%	2.04%	1.45%	0.29%	0.02%	6.51%
NW	0.90%	0.60%	0.83%	1.87%	0.94%	1.40%	6.54%
Sub-Total:	8.82%	13.03%	18.58%	21.60%	12.63%	25.24%	99.90%
Calms (<0.5m/s):							0.10%
Total:							100.00%

Table 3-4. Quarter A Wind Rose Analysis Table (Climatronics)

Station ID: Pebble 4 (Climatronics) Run ID: Quarter A
Start Date: January 1, 2007 End Date: March 31, 2007

Frequency Distribution
(Percent)

Speed (m/s)

Direction	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	Total
N	0.84%	2.46%	5.43%	9.52%	7.90%	21.04%	47.19%
NE	1.86%	3.58%	2.14%	2.97%	0.98%	1.44%	12.96%
E	0.79%	0.88%	0.98%	1.25%	1.77%	5.81%	11.47%
SE	1.67%	2.00%	1.49%	2.23%	2.37%	8.55%	18.30%
S	1.07%	0.14%	0.19%	0.00%	0.00%	0.09%	1.49%
SW	0.79%	0.05%	0.05%	0.46%	0.28%	0.46%	2.09%
W	1.07%	0.37%	0.60%	0.42%	0.05%	0.00%	2.51%
NW	0.51%	0.19%	0.33%	1.39%	0.84%	0.74%	3.99%
Sub-Total:	8.59%	9.66%	11.19%	18.25%	14.17%	38.13%	100.00%
Calms (<0.5m/s):							0.00%
Total:							100.00%

Table 3-5. Quarter B Wind Rose Analysis Table (Climatronics)

Station ID: Pebble 4 (Climatronics) Run ID: Quarter B
Start Date: April 1, 2007 End Date: June 30, 2007

Frequency Distribution
(Percent)

Speed (m/s)

Direction	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	Total
N	1.33%	2.84%	2.88%	2.98%	2.11%	1.37%	13.51%
NE	1.01%	1.10%	1.14%	1.37%	0.96%	1.28%	6.87%
E	0.78%	1.37%	3.02%	5.68%	3.62%	5.45%	19.92%
SE	2.24%	4.21%	7.05%	9.48%	5.68%	6.00%	34.66%
S	0.92%	1.83%	2.47%	0.50%	0.05%	0.00%	5.77%
SW	1.42%	1.05%	1.74%	1.37%	0.27%	0.05%	5.91%
W	1.33%	2.20%	3.57%	1.56%	0.23%	0.05%	8.93%
NW	1.14%	0.78%	0.96%	1.01%	0.37%	0.14%	4.40%
Sub-Total:	10.16%	15.38%	22.85%	23.95%	13.28%	14.33%	99.95%
Calms (<0.5m/s):							0.04%
Total:							100.00%

Table 3-6. Quarter C Wind Rose Analysis Table (Climatronics)

Station ID: Pebble 4 (Climatronics) Run ID: Quarter C
Start Date: July 1, 2007 End Date: September 30, 2007

Frequency Distribution
(Percent)

Speed (m/s)

Direction	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	Total
N	1.22%	2.40%	3.85%	3.40%	1.72%	0.82%	13.42%
NE	0.77%	2.04%	1.50%	1.00%	0.41%	0.00%	5.71%
E	0.73%	1.22%	1.27%	2.27%	1.27%	4.44%	11.20%
SE	1.86%	5.12%	8.20%	7.34%	3.40%	5.53%	31.46%
S	1.41%	1.95%	2.63%	1.95%	0.00%	0.00%	7.93%
SW	1.63%	1.68%	2.54%	3.26%	1.09%	1.04%	11.24%
W	1.72%	2.99%	3.40%	3.26%	0.45%	0.05%	11.88%
NW	1.00%	0.63%	1.36%	2.31%	1.04%	0.77%	7.12%
Sub-Total:	10.34%	18.04%	24.75%	24.80%	9.38%	12.65%	99.95%
Calms (<0.5m/s):							0.04%
Total:							100.00%

Table 3-7. Quarter D Wind Rose Analysis Table (Climatronics)

Station ID: Pebble 4 (Climatronics) Run ID: Quarter D
Start Date: October 1, 2007 End Date: December 31, 2007

Frequency Distribution
(Percent)

Speed (m/s)

Direction	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	Total
N	1.12%	2.84%	7.39%	6.65%	3.02%	10.74%	31.75%
NE	0.70%	2.74%	1.95%	1.44%	1.02%	0.65%	8.51%
E	0.84%	0.42%	1.81%	4.37%	4.97%	13.85%	26.27%
SE	0.93%	0.93%	1.67%	2.09%	2.32%	6.79%	14.74%
S	0.42%	0.46%	0.60%	0.46%	0.23%	0.14%	2.32%
SW	0.51%	0.28%	0.70%	0.98%	0.23%	0.14%	2.84%
W	0.70%	0.42%	0.51%	0.51%	0.42%	0.00%	2.56%
NW	0.93%	0.79%	0.65%	2.79%	1.53%	4.00%	10.69%
Sub-Total:	6.14%	8.88%	15.30%	19.29%	13.76%	36.31%	99.67%
Calms (<0.5m/s):							0.32%
Total:							100.00%

Table 3-8. 2007 Annual Wind Rose Analysis Table (RM Young)

Station ID: Pebble 4 (RM Young) Run ID: 2007
Start Date: January 1, 2007 End Date: December 31, 2007

Frequency Distribution
(Percent)

Speed (m/s)

Direction	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	Total
N	1.26%	2.99%	4.97%	6.16%	3.53%	7.25%	26.16%
NE	1.02%	2.01%	1.53%	1.57%	0.79%	0.82%	7.74%
E	0.91%	1.04%	1.94%	4.06%	3.34%	9.13%	20.42%
SE	1.66%	3.05%	4.35%	4.96%	3.17%	4.73%	21.92%
S	0.99%	1.03%	1.33%	0.79%	0.08%	0.07%	4.29%
SW	1.20%	0.74%	1.38%	1.59%	0.53%	0.43%	5.87%
W	1.25%	1.33%	1.86%	1.55%	0.26%	0.03%	6.29%
NW	1.03%	0.55%	0.80%	1.99%	1.14%	1.63%	7.14%
Sub-Total:	9.31%	12.74%	18.17%	22.66%	12.83%	24.10%	99.83%
Calms (<0.5m/s):							0.17%
Total:							100.00%

Table 3-9. Quarter A Wind Rose Analysis Table (RM Young)

Station ID: Pebble 4 (RM Young) Run ID: Quarter A
Start Date: January 1, 2007 End Date: March 31, 2007

Frequency Distribution
(Percent)

Speed (m/s)

Direction	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	Total
N	0.88%	3.62%	6.13%	10.96%	8.04%	18.63%	48.26%
NE	1.86%	2.79%	1.58%	2.51%	0.84%	1.02%	10.59%
E	1.11%	0.84%	0.93%	1.58%	2.04%	8.31%	14.82%
SE	1.49%	1.90%	1.35%	1.95%	2.00%	6.27%	14.96%
S	1.02%	0.14%	0.09%	0.14%	0.05%	0.09%	1.53%
SW	0.79%	0.00%	0.09%	0.37%	0.28%	0.56%	2.09%
W	0.88%	0.33%	0.56%	0.42%	0.00%	0.00%	2.18%
NW	0.65%	0.19%	0.42%	1.77%	1.25%	1.11%	5.39%
Sub-Total:	8.69%	9.80%	11.15%	19.69%	14.49%	36.00%	99.81%
Calms (<0.5m/s):							0.18%
Total:							100.00%

Table 3-10. Quarter B Wind Rose Analysis Table (RM Young)

Station ID: Pebble 4 (RM Young) Run ID: Quarter B
Start Date: April 1, 2007 End Date: June 30, 2007

Frequency Distribution
(Percent)

Speed (m/s)

Direction	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	Total
N	1.33%	2.98%	2.93%	3.48%	2.24%	0.37%	13.32%
NE	0.96%	0.96%	1.01%	1.14%	0.87%	1.47%	6.41%
E	0.87%	1.37%	3.57%	6.59%	4.44%	6.91%	23.76%
SE	2.15%	4.30%	6.46%	8.75%	5.13%	4.30%	31.09%
S	1.05%	1.74%	2.20%	0.41%	0.00%	0.00%	5.40%
SW	1.47%	1.01%	2.01%	1.51%	0.37%	0.05%	6.41%
W	1.47%	2.01%	3.02%	1.88%	0.14%	0.05%	8.56%
NW	1.42%	0.82%	0.92%	0.92%	0.69%	0.14%	4.90%
Sub-Total:	10.71%	15.20%	22.12%	24.68%	13.87%	13.28%	99.86%
Calms (<0.5m/s):							0.14%
Total:							100.00%

Table 3-11. Quarter C Wind Rose Analysis Table (RM Young)

Station ID: Pebble 4 (RM Young) Run ID: Quarter C
Start Date: July 1, 2007 End Date: September 30, 2007

Frequency Distribution
(Percent)

Speed (m/s)

Direction	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	Total
N	1.72%	2.72%	4.08%	3.26%	1.31%	0.41%	13.51%
NE	0.50%	1.72%	1.09%	1.09%	0.45%	0.05%	4.90%
E	0.95%	1.54%	1.54%	2.90%	1.59%	6.30%	14.82%
SE	2.09%	4.94%	7.84%	7.12%	3.40%	3.17%	28.56%
S	1.36%	1.72%	2.40%	1.99%	0.00%	0.05%	7.52%
SW	1.90%	1.63%	2.54%	3.13%	1.13%	0.95%	11.29%
W	1.90%	2.54%	3.31%	3.35%	0.45%	0.09%	11.65%
NW	1.00%	0.63%	1.13%	2.58%	1.31%	0.82%	7.48%
Sub-Total:	11.42%	17.45%	23.93%	25.43%	9.66%	11.83%	99.73%
Calms (<0.5m/s):							0.27%
Total:							100.00%

Table 3-12. Quarter D Wind Rose Analysis Table (RM Young)

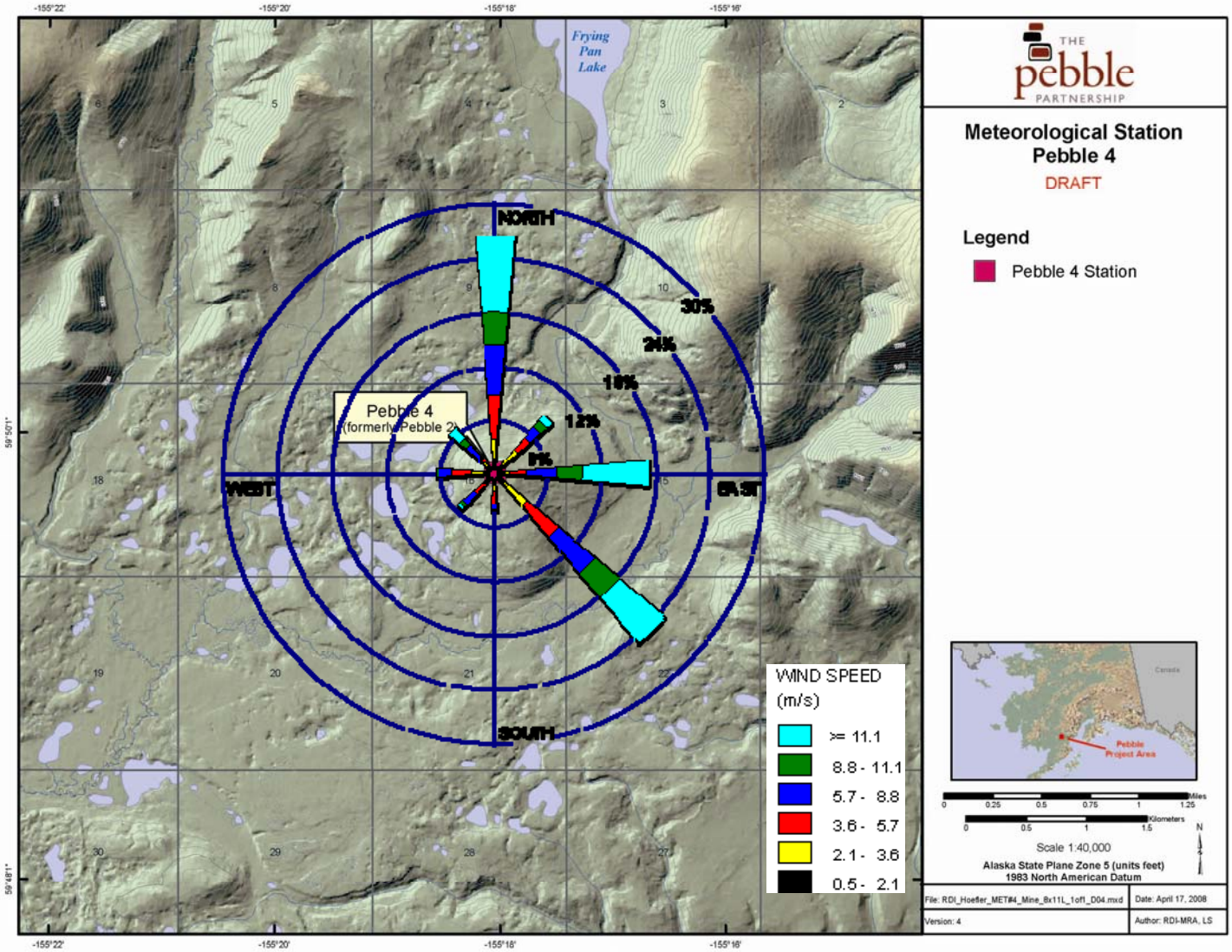
Station ID: Pebble 4 (RM Young) Run ID: Quarter D
Start Date: October 1, 2007 End Date: December 31, 2007

Frequency Distribution
(Percent)

Speed (m/s)

Direction	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	Total
N	1.09%	2.67%	6.75%	7.02%	2.63%	9.79%	29.95%
NE	0.77%	2.58%	2.45%	1.54%	1.00%	0.77%	9.11%
E	0.73%	0.41%	1.72%	5.12%	5.26%	14.95%	28.18%
SE	0.91%	1.04%	1.72%	1.99%	2.13%	5.21%	13.00%
S	0.54%	0.50%	0.59%	0.59%	0.27%	0.14%	2.63%
SW	0.63%	0.32%	0.86%	1.31%	0.32%	0.18%	3.62%
W	0.73%	0.41%	0.54%	0.54%	0.45%	0.00%	2.67%
NW	1.04%	0.54%	0.73%	2.67%	1.31%	4.44%	10.74%
Sub-Total:	6.43%	8.47%	15.36%	20.80%	13.37%	35.48%	99.91%
Calms (<0.5m/s):							0.09%
Total:							100.00%

Figure 3-4. 2007 Wind Rose Superimposed on Site Map



3.2.2 Temperature Climatology

Tables 3-13 and 3-14 provides maximum and minimum daily mean temperatures, monthly mean temperatures, and maximum and minimum hourly average temperatures for the 2-meter and 10-meter temperature measurements, respectively. Hourly average temperatures at the Pebble 4 station ranged from 23.0°C on August 12, 2007 to -31.1°C on January 7, 2007. January 7, 2007 was also the coldest day at the Pebble 1 meteorological station. The average 2-meter temperature during the monitoring year was 0.0°C, which is slightly less than the mean temperature of 1.78°C observed at the Iliamna airport during the same time span.

Figure 3-5 provides a graph of the 2-meter and 10-meter hourly average temperatures. There was considerable monthly temperature variation throughout the late-autumn and winter months. The coldest temperatures were observed during January 2007. Figure 3-5 also includes a plot of average daily temperatures recorded at the Iliamna Airport meteorological monitoring station.

Figure 3-6 is a plot of the vertical temperature difference (the difference between 10-m and 2-m temperature values) during the monitoring year. The greatest positive vertical temperature difference was 2.8°C measured on January 4, 2007. The greatest negative vertical temperature difference was -1.7°C measured on July 28, 2007.

Table 3-13. 2-Meter Temperature Summary

Period	Maximum Daily Mean Temperature (°C)	Minimum Daily Mean Temperature (°C)	Monthly Mean Temperature (°C)	Maximum Temperature (°C)	Minimum Temperature (°C)
January 2007	2.8	-30.1	-11.7	5.4	-31.1
February 2007	1.9	-21.2	-7.5	5.5	-24.3
March 2007	-1.3	-25.4	-15.2	1.7	-27.9
Quarter A	**2.8**	**-30.1**	**-11.4**	**5.5**	**-31.1**
April 2007	5.8	-1.1	1.3	9.9	-4.3
May 2007	7.1	1.2	4.6	11.7	-0.8
June 2007	17.4	5.4	9.0	22.5	1.7
Quarter B	**17.4**	**-1.1**	**5.0**	**22.5**	**-4.3**
July 2007	17.5	7.2	11.6	22.6	6.4
August 2007	17.7	8.7	11.8	23.0	7.2
September 2007	10.8	3.9	7.5	14.7	2.2
Quarter C	**17.7**	**3.9**	**10.3**	**23.0**	**2.2**
October 2007	4.2	-5.1	-1.0	6.4	-7.5
November 2007	4.5	-14.7	-2.0	5.5	-16.5
December 2007	0.7	-24.7	-8.0	2.3	-25.9
Quarter D	**4.5**	**-24.7**	**-3.7**	**6.4**	**-25.9**
Monitoring Year	**17.7**	**-30.1**	**0.0**	**23.0**	**-31.1**

Table 3-14. 10-Meter Temperature Summary

Period	Maximum Daily Mean Temperature (°C)	Minimum Daily Mean Temperature (°C)	Monthly Mean Temperature (°C)	Maximum Temperature (°C)	Minimum Temperature (°C)
January 2007	3.0	-30.0	-11.3	5.9	-30.9
February 2007	2.1	-21.1	-7.3	6.1	-24.2
March 2007	-0.8	-25.7	-15.1	1.2	-27.9
Quarter A	**3.0**	**-30.0**	**-11.2**	**6.1**	**-30.9**
April 2007	6.1	-1.1	1.4	9.7	-4.2
May 2007	7.0	1.1	4.4	11.1	-0.9
June 2007	17.0	5.1	8.7	21.3	2.3
Quarter B	**17.0**	**-1.1**	**4.9**	**21.3**	**-4.2**
July 2007	17.5	7.0	11.4	21.7	6.6
August 2007	17.5	8.5	11.7	22.2	7.0
September 2007	10.9	3.8	7.5	14.2	2.2
Quarter C	**17.5**	**3.8**	**10.2**	**22.2**	**2.2**
October 2007	4.1	-5.2	-0.8	6.1	-7.5
November 2007	4.5	-14.7	-2.0	5.5	-16.4
December 2007	1.1	-24.4	-7.8	2.4	-25.6
Quarter D	**4.5**	**-24.4**	**-3.6**	**6.1**	**-25.6**
Monitoring Year	**17.5**	**-30.0**	**0.0**	**22.2**	**-30.9**

Figure 3-5. Hourly Average 2-Meter and 10-Meter Temperatures

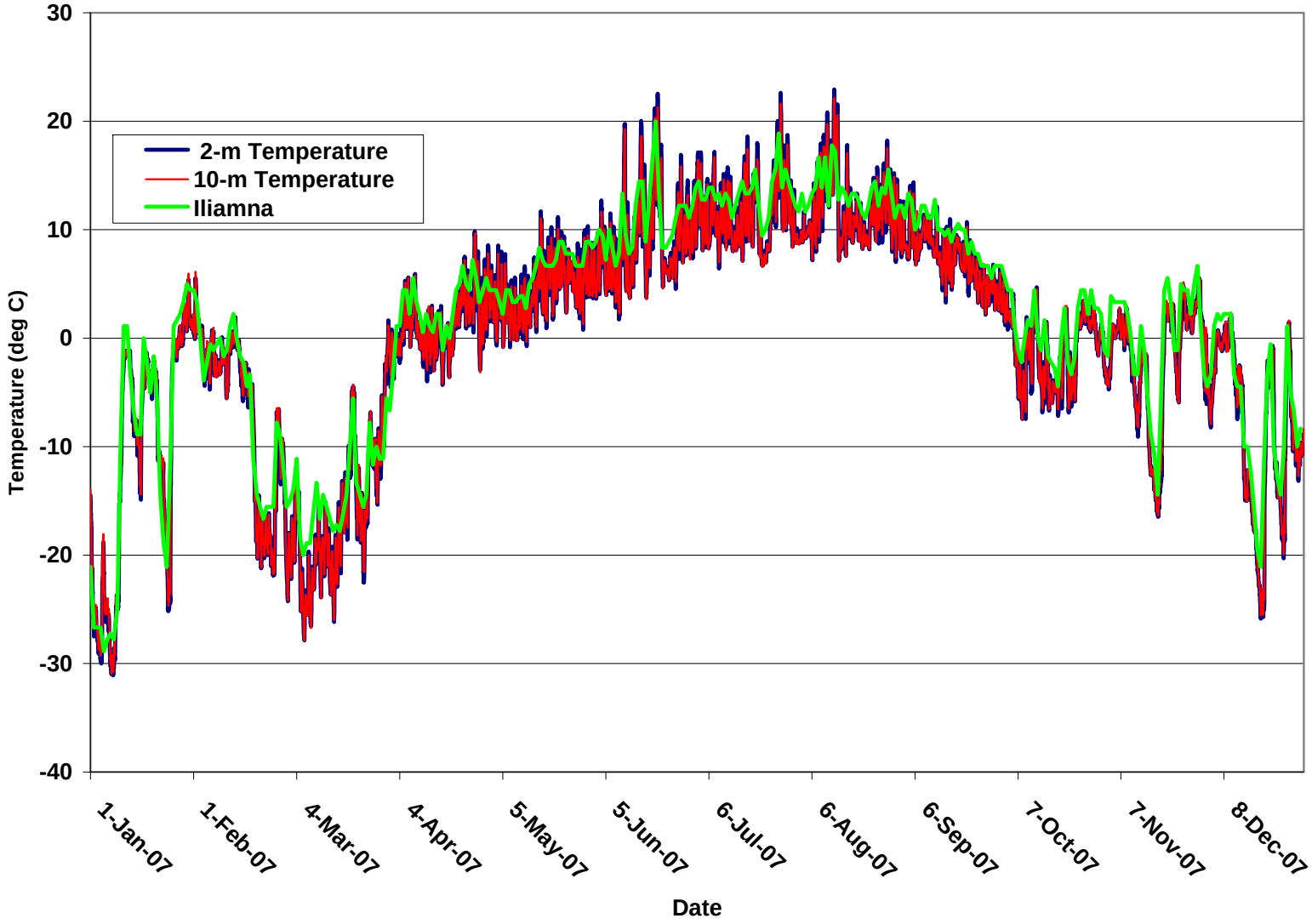
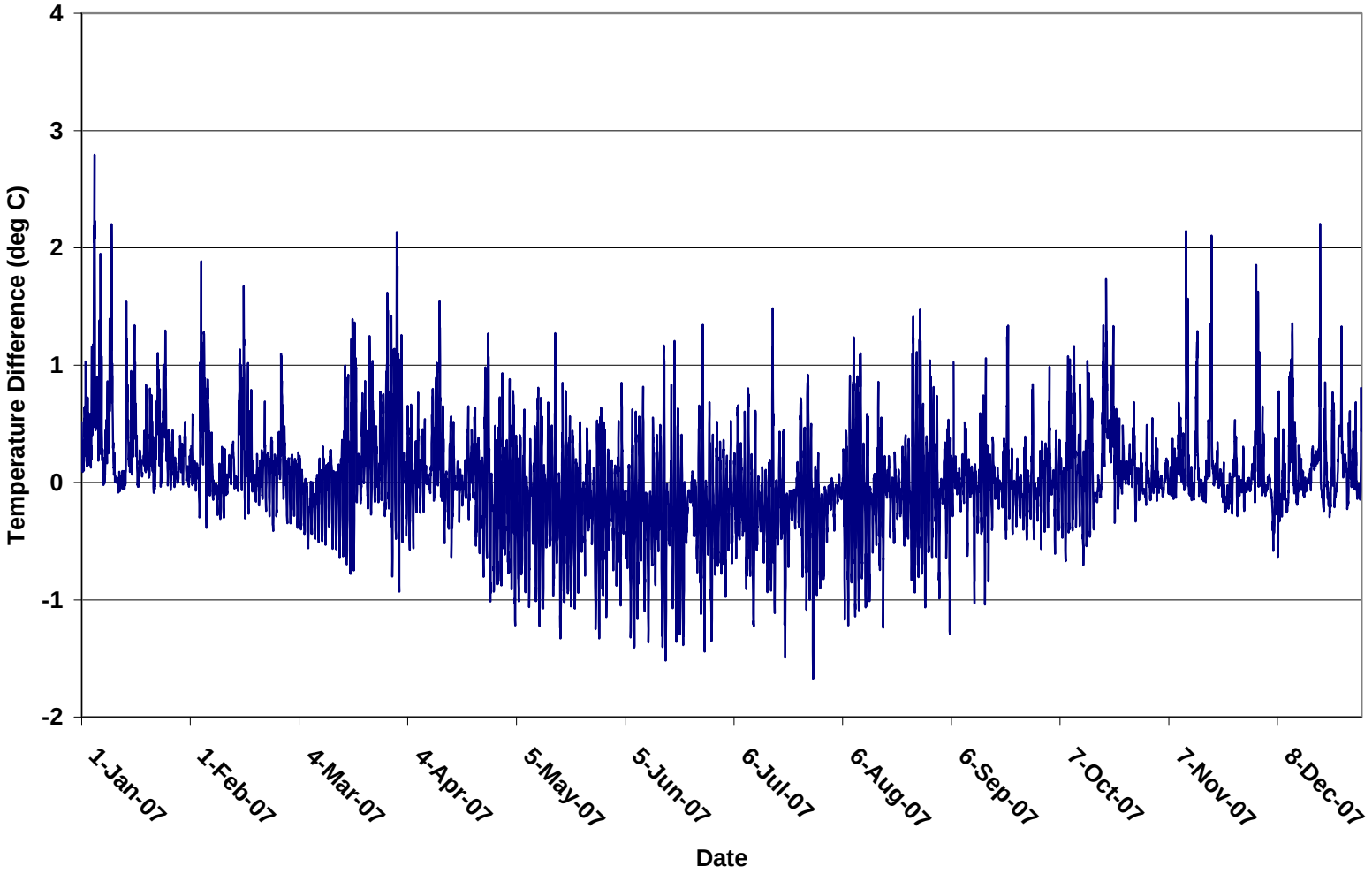


Figure 3-6. Hourly Average Vertical Temperature Difference



3.3.3 Other Meteorological Parameters

Other measured meteorological parameters include relative humidity, barometric pressure, solar radiation, precipitation, and evaporation.

Table 3-15 provides a summary of the relative humidity, barometric pressure, and solar radiation at the Pebble 4 station during the 2007 monitoring year.

Figure 3-7 is a plot of the annual hourly average relative humidity. The mean relative humidity at the Pebble 4 station was 82.8 percent. The minimum relative humidity was 27.1 percent, measured on March 31, 2007. The mean relative humidity at the Iliamna Airport meteorological station for the monitoring period was 75.5 percent.

Figure 3-8 is a plot of the annual hourly instantaneous barometric pressure. Barometric pressure varied from a minimum of 923 mb on October 30, 2007 to a maximum of 987 mb observed on March 31, 2007. The mean barometric pressure during the monitoring year was 961 mb. The mean barometric pressure at the Iliamna Airport meteorological station for the monitoring period was 1,007 mb.

Figure 3-9 is a plot of the annual hourly average solar radiation. The maximum hourly average solar radiation was 910 W/m^2 recorded on June 18, 2007. The mean hourly average solar radiation for the monitoring year was 98 W/m^2.

Figure 3-10 is a graph of total daily precipitation and the cumulative precipitation during the 2007 monitoring year. The highest total daily precipitation was 42.8 mm measured on September 18, 2007. The maximum monthly precipitation was 310.2 mm during September 2007. The cumulative precipitation during the monitoring year was 877.2 mm. Daily winter precipitation data (October through April) should be closely examined before use because snowfall adaptors may influence daily totals.

A table of total daily evaporation is provided in Appendix D. The maximum total monthly evaporation at the Pebble 4 station was 89.8 mm during June 2007.

Comprehensive hourly data tables of temperature, vertical temperature difference, wind speed, wind direction, wind sigma, relative humidity, barometric pressure, and solar radiation are also provided in Appendix D.

Table 3-15. Relative Humidity, Barometric Pressure, and Solar Radiation Summary

Period	Mean Relative Humidity (%)	Minimum Relative Humidity (%)	Mean Barometric Pressure (mb)	Minimum Barometric Pressure (mb)	Maximum Barometric Pressure (mb)	Mean Solar Radiation (W/m^2)	Maximum Solar Radiation (W/m^2)
January 2007	86.2	45.9	957	929	985	17.1	188.0
February 2007	79.9	41.8	963	944	983	54.4	398.6
March 2007	66.2	27.1	962	928	987	138.4	595.8
Quarter A	**77.4**	**27.1**	**960**	**928**	**987**	**70.5**	**595.8**
April 2007	79.7	35.3	956	927	985	151.3	733.0
May 2007	78.5	40.6	967	957	976	182.2	841.0
June 2007	78.6	31.1	968	954	981	196.6	910.0
Quarter B	**79.0**	**31.1**	**964**	**927**	**985**	**176.8**	**910.0**
July 2007	82.9	44.0	969	961	977	157.3	796.0
August 2007	84.4	36.9	970	950	983	129.4	796.0
September 2007	91.6	51.3	963	943	975	65.8	614.4
Quarter C	**86.2**	**36.9**	**967**	**943**	**983**	**118.1**	**796.0**
October 2007	87.2	50.9	954	923	974	51.2	398.8
November 2007	90.7	49.3	952	928	983	18.6	256.0
December 2007	88.0	38.4	955	935	975	10.8	130.5
Quarter D	**88.6**	**38.4**	**954**	**923**	**983**	**26.9**	**398.8**
Monitoring Year	**82.8**	**27.1**	**961**	**923**	**987**	**98.0**	**910.0**

Figure 3-7. Hourly Average Relative Humidity

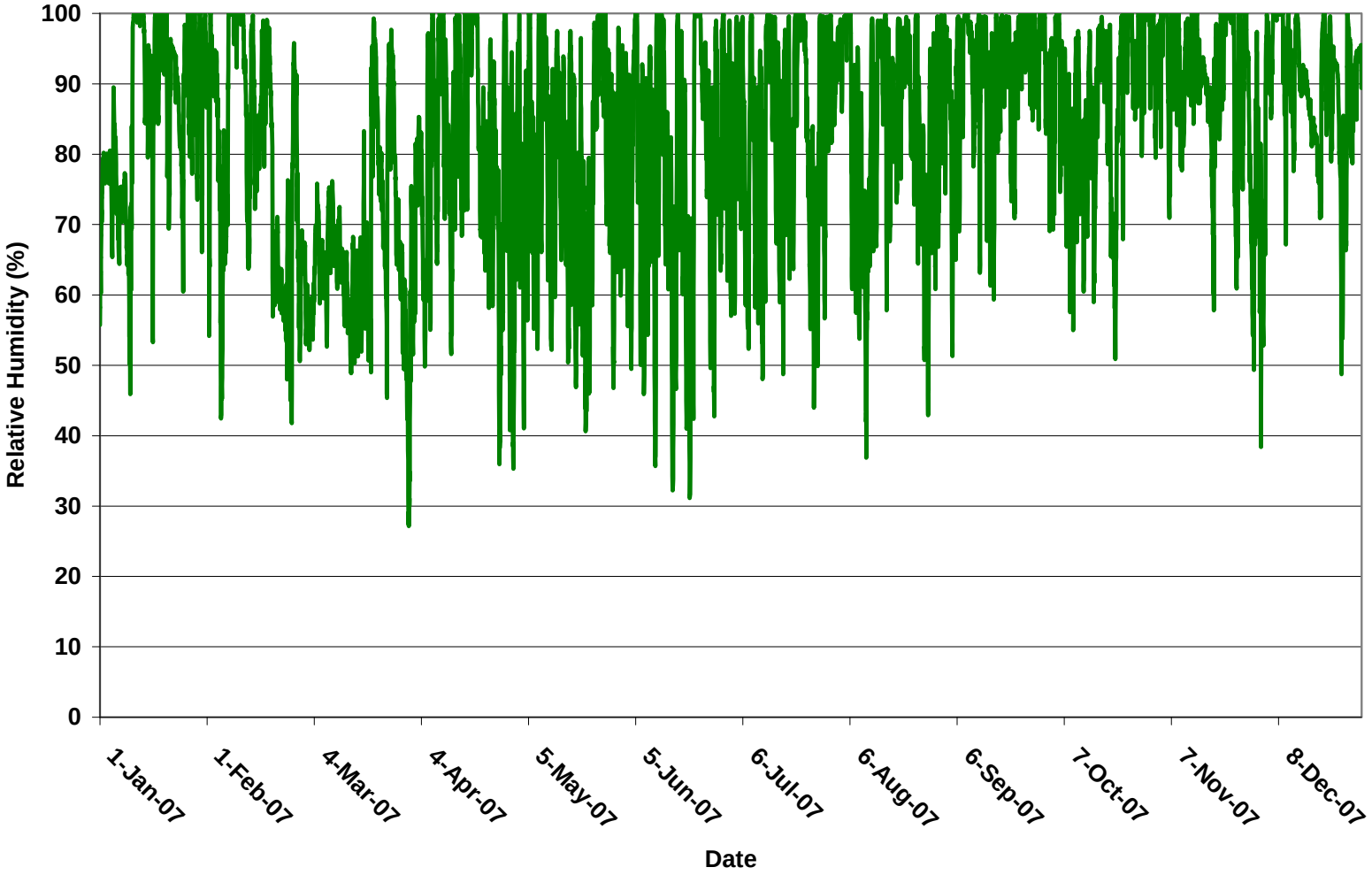


Figure 3-8. Barometric Pressure

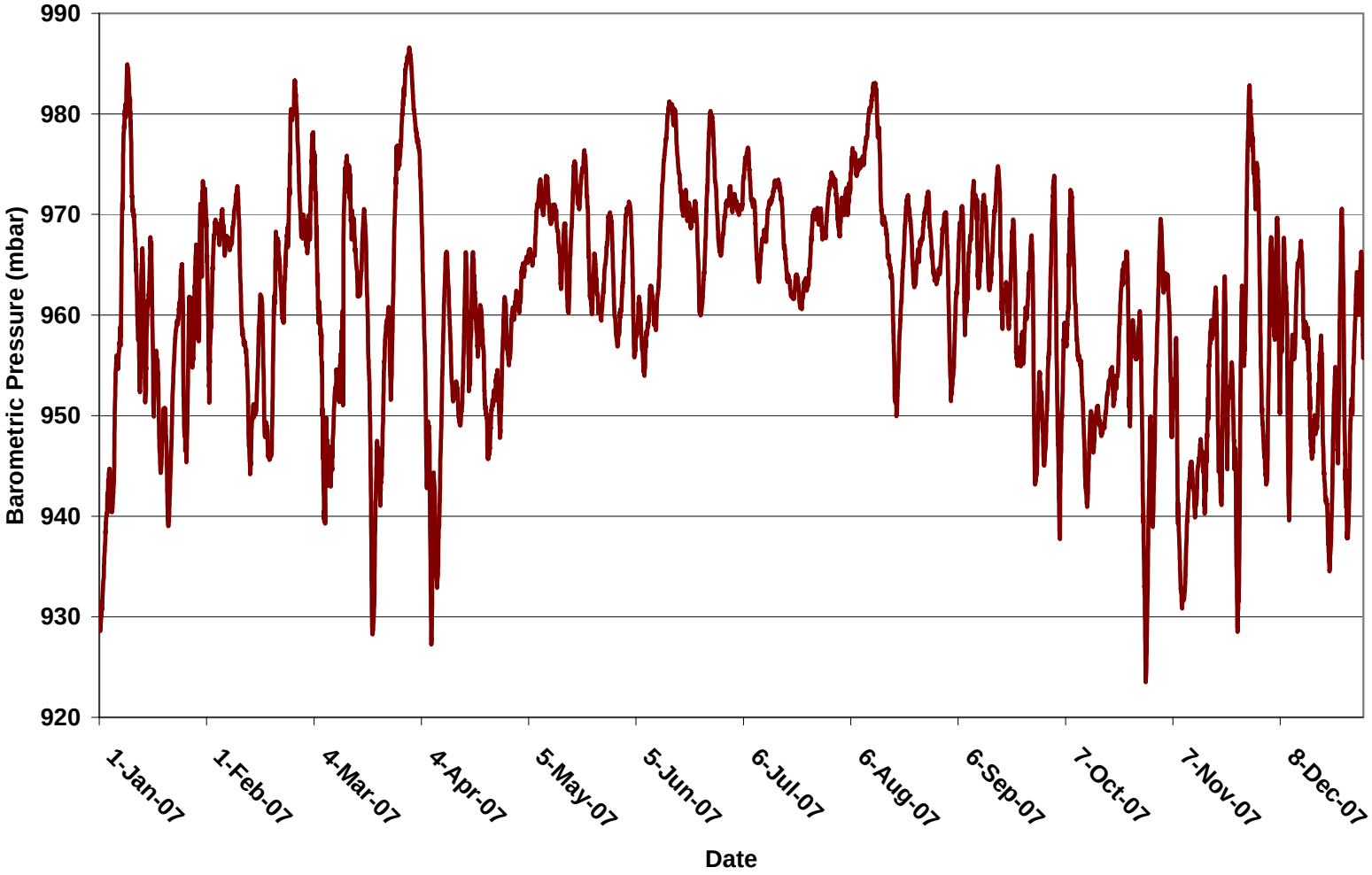


Figure 3-9. Hourly Average Solar Radiation

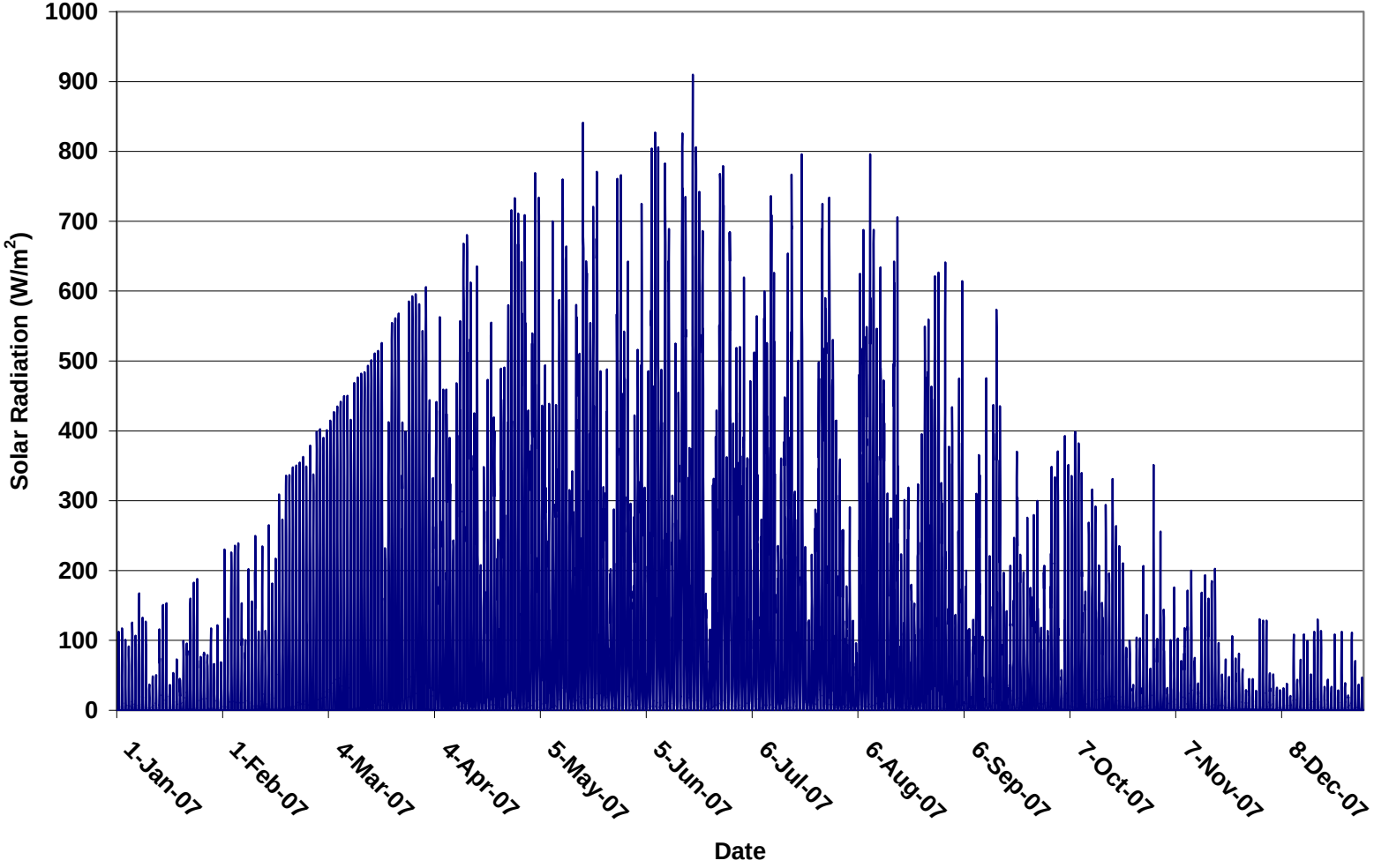
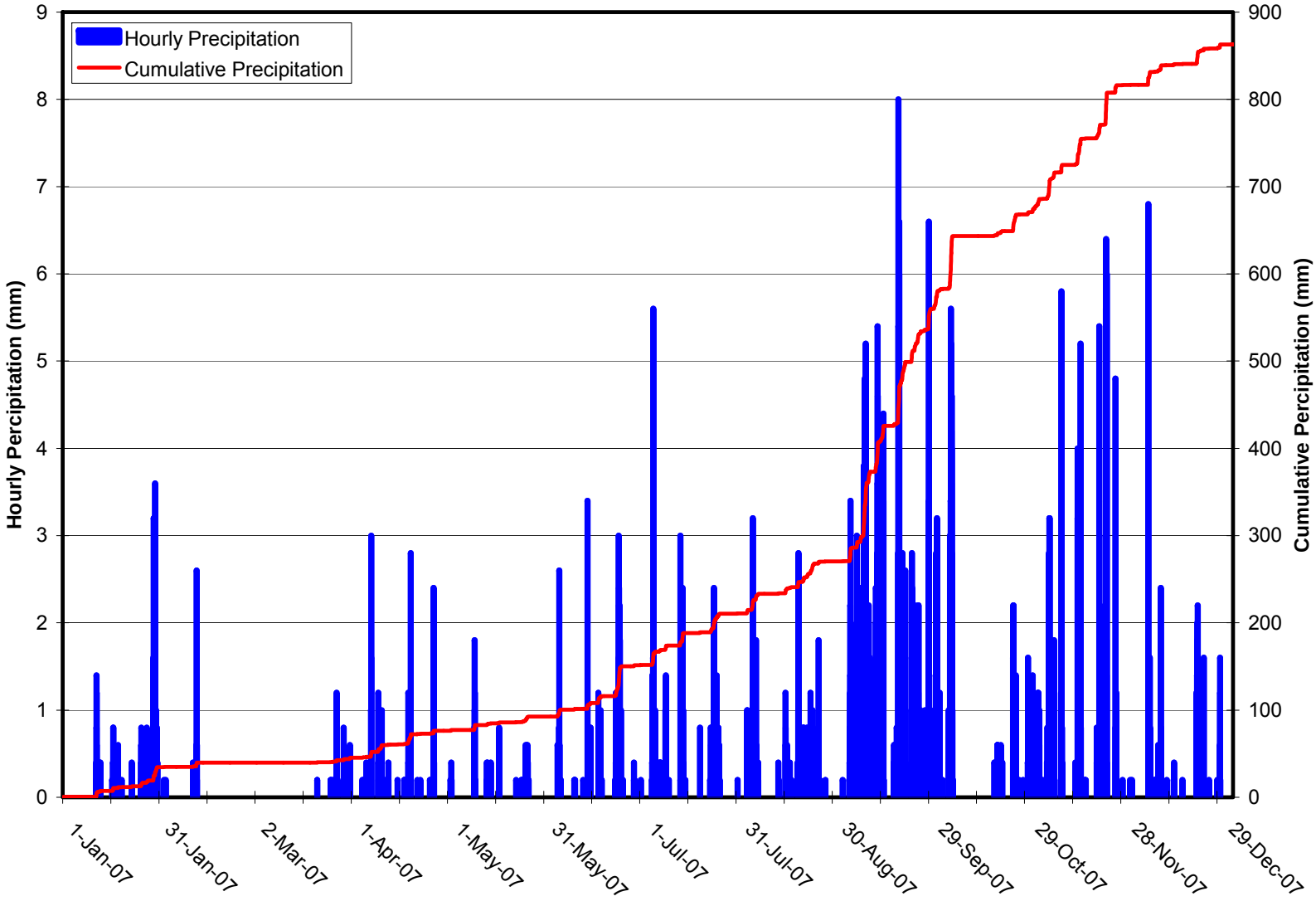


Figure 3-10. Hourly and Cumulative Precipitation



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Appendix A

Data Processing Specifications and Statistical Formulae

A.1 Data Recovery Percentage

Data completeness for meteorological monitoring methods was calculated assuming a minimum of 90 percent valid hourly average data to calculate quarterly average data completeness and a minimum of 90 percent quarterly data completeness for four consecutive quarters.

Quarterly data completeness (DC_i) was determined using the following equation:

$$DC_i = h_v/h_i \times 100$$

Where: h_v = number of hours of valid data actually collected
h_i = number of possible valid hours of data collection during the monitoring period

Table A-1. Station Performance Summary – Data Recovery 2007

Period	Meteorological Parameters													
	2-m Temp	10-m Temp	Δ T	WS (CLM)[1]	WD (CLM)	Sigma (CLM)	WS (RMY)[2]	WD (RMY)	Sigma (RMY)	RH	Solar	BP	Precip	Evap
Jan 2007	99.2%	99.2%	99.2%	99.2%	99.2%	99.2%	99.2%	99.2%	99.2%	100%	100%	100%	99.5%	0%
Feb 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.7%	0%
Mar 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%
Quarter A	**99.7%**	**99.7%**	**99.7%**	**99.7%**	**99.7%**	**99.7%**	**99.7%**	**99.7%**	**99.7%**	**100%**	**100%**	**100%**	**99.7%**	**0%**
Apr 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%
May 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.6%	95.3%
June 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Quarter B	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**99.9%**	**65.4%**
July 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Aug 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Sept 2007	99.6%	99.6%	21.8%	99.6%	99.6%	99.6%	99.6%	99.6%	99.6%	99.6%	99.6%	99.6%	98.5%	99.6%
Quarter C	**99.9%**	**99.9%**	**74.5%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.5%**	**99.9%**
Oct 2007	100%	100%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	16%
Nov 2007	100%	100%	0%	97.2%	100%	100%	99.9%	99.9%	99.9%	100%	100%	100%	100%	0%
Dec 2007	100%	100%	0%	95.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%
Quarter D	**100%**	**100%**	**0%**	**97.4%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**5%**
Monitoring Year	**99.9%**	**99.9%**	**68.3%**	**99.2%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**99.9%**	**100%**	**100%**	**100%**	**99.8%**	**99.9%**

[1]CLM = Climatronics wind speed and wind direction sensor.
[2]RMY = R.M. Young wind speed and wind direction sensor.
[3] Evaporation gauge decommissioned for winter. Gauge operated May 2 through October 5, 2007
[4] The Climatronics wind speed sensor was affected by icing during Quarter D. The R.M. Young wind speed sensor will be used to achieve the required data capture requirement of 90% or greater per monitoring quarter.

A.2 Data Bias Correction Using Calibration Information

Not Applicable.

A.3 Estimation of Pasquill-Gifford Stability Categories

Not Applicable.

Appendix B

Precision Data

Not Applicable.

Appendix C

Accuracy Data

Pebble 4 PSD Meteorological Monitoring Station
July 2006
Quality Assurance Systems Audit
and Performance Audit

Prepared for:

Northern Dynasty Mines, Inc.
Anchorage, Alaska

Prepared by:

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3401 Minnesota Drive, Suite 300
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1.0 INTRODUCTION

Hoefler Consulting Group, Inc. (HCG) operates meteorological monitoring stations for Northern Dynasty Mines, Inc. (NDM) in support of the Pebble Mine Project near Iliamna, Alaska. The air monitoring program is one component of ongoing baseline environmental studies being conducted to support mine permitting, mine design and mine transportation infrastructure development. The stations meet Prevention of Significant Deterioration (PSD) guidelines, although PSD permits may not be required. This report covers the Pebble 4 Station (Pebble 4) located near the proposed mine site.

Pebble 4 is located approximately five miles south of the mine ore body on top of a windswept knoll at about 1,200 foot elevation. The station consists of an instrumented 11-meter sectional tower secured with three guy wires. Approximately 50 foot south of the tower is an evaporation pan and a tipping precipitation gauge mounted on a 6' by 8' deck. Between the tower and the gauges is a 5' by 7' insulated building which houses the datalogger and power supply system. Pebble 4 is instrumented with PSD quality sensors monitoring the following parameters:

- Ambient Temperature (°C): Met One 062MP Thermistor Probe at 2-m
- Temperature Difference (°C): Met One 062MP Thermistors at 2-m and 10-m
- Relative Humidity (%RH): Vaisala HMP45AC Relative Humidity Sensor
- Wind Speed 1 (m/s): Climatronics F460 P/N 100075 Wind Speed Sensor
- Wind Direction 1 (°): Climatronics F460 P/N 100076 Wind Direction Sensor
- Wind Speed 2 (m/s): RM Young 05305 Wind Monitor-AQ
- Wind Direction 2 (°): RM Young 05305 Wind Monitor-AQ
- Sigma Theta (°): Campbell Scientific CR10X DAS calculated (Yamartino)
- Barometric Pressure (mbar): Vaisala PT101B Barometric Pressure Sensor
- Solar Radiation (W/m2): LI-COR Li-200SX Solar Radiation Pyranometer
- Precipitation (mm H_2O): Met-One Model 370 Tipping Precipitation Gauge
- Evaporation (mm H_2O): Nova-Lynx Model 255-100/200 Pan and Gauge.

This report has been prepared for NDM to serve as an official review of the Pebble 4 station and a review of the overall Pebble Project Meteorological Monitoring Program. To that end, Systems and Performance Audits were undertaken in order to help demonstrate that the equipment and procedures used for collecting meteorological data by HCG meet the requirements set forth by the U.S. Environmental Protection Agency (EPA) and the Alaska Department of Environmental Conservation (ADEC).

2.0 SYSTEMS AUDIT

2.1 Systems Audit Methodology

In the *Quality Assurance Handbook for Air Pollution Measurement Systems* and the *Meteorological Monitoring Guidance for Regulatory Modeling Applications*, EPA provides guidance for conducting systems audits. EPA recommends that a systems audit be conducted to serve as a qualitative review of all aspects of a meteorological monitoring program. The systems audit includes a review of the program plan, station site, facilities, equipment, personnel, procedures, record keeping, data validation and data reporting. The systems audit should be completed within the first 30 days of operation and every year thereafter.

The *Quality Assurance Project Plan for the Pebble Project Meteorological Monitoring Program* was completed by HCG in August 2006. This systems audit consisted of a review of the plan, site visits and personnel interviews. Personnel were also observed during station maintenance and calibration operations. All aspects of the program not specifically mentioned in the Plan were reviewed to determine consistency with EPA and ADEC guidelines. The complete systems audit report contained in Appendix A is organized into six major sections; 1) General Program Information, 2) Monitoring Program Staff Organization, 3) Meteorological Monitoring Station Equipment, 4) Standard Operating Procedures, 5) Documentation, 6) Data Processing and Validation, 7) Quality Assurance and Quality Control (QA/QC), and 8) Comments and Suggestions. Each section consists of a question and answer format with additional comments to provide clarity. Flow charts are also used to accurately document program staff organization and the data handling process. A complete list of the references used for the systems audit is contained in Section 4.

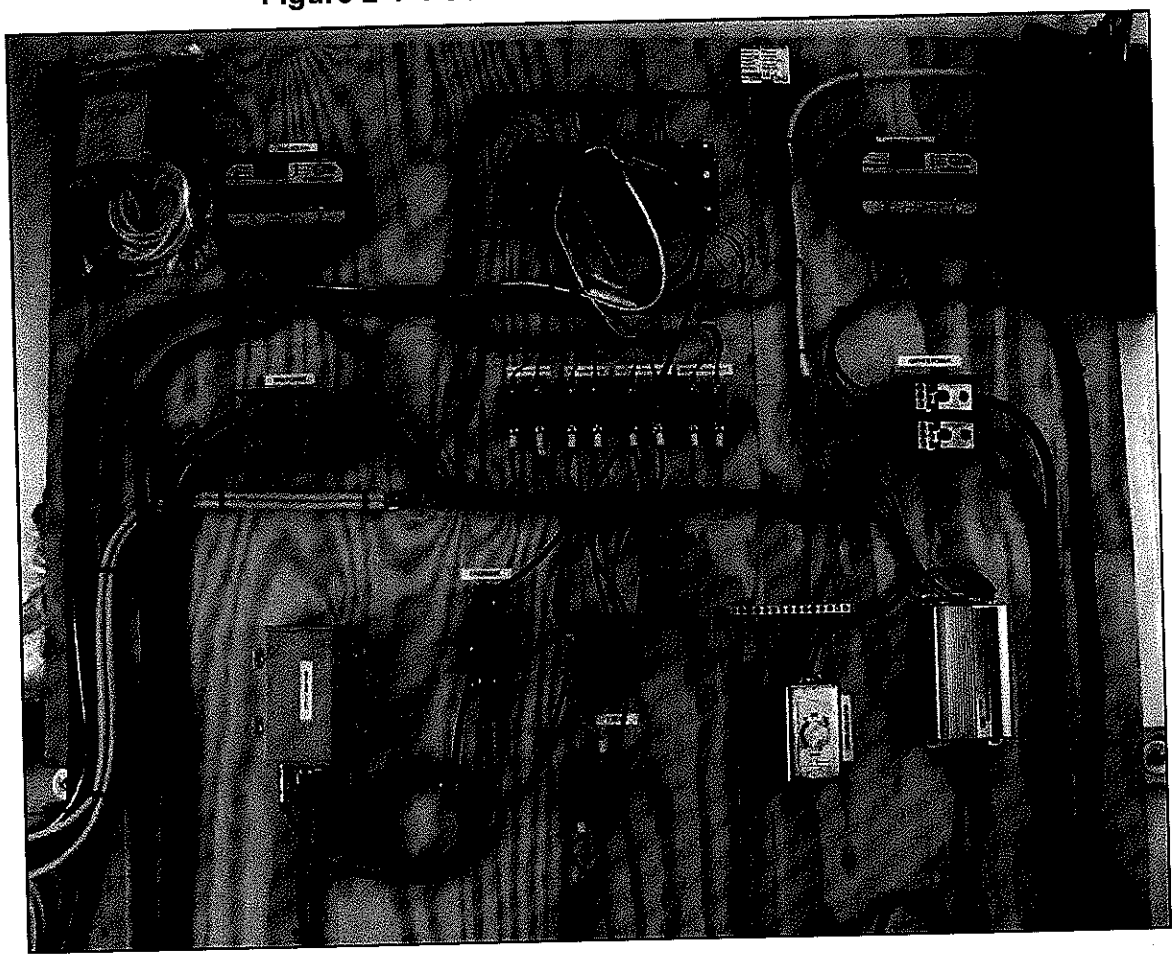
2.2 Meteorological Station Onsite Systems Audit

The on-site systems audit of the Pebble 4 station was conducted in mid July 2006. Eric Brudie of HCG completed the systems audit with Dominic Shallies of HCG assisting and witnessing. Mr. Brudie serves as an independent auditor on this project and is not involved with day to day operations of the station.

The Pebble 4 meteorological monitoring station is founded on a stable, well anchored tower with PSD quality sensors securely affixed. The evaporation pan, evaporation gauge and a tipping precipitation gauge are mounted on a 6' by 8' deck supported on four adjustable pier blocks, which allow leveling. The evaporation deck is surrounded by a 6' high fence and all instrumentation wires from the tower, precipitation gauge and evaporation gauge are protected in conduit These conduits all converge at a 5' by 7'

insulated prefab building. The data acquisition system (DAS), communications system, solar controllers and power distribution system are mounted on a 4' by 4' plywood wiring panel mounted in the building, see photo.

Figure 2-1 Pebble 4 Station DAS Wiring Panel



The Campbell Scientific CR10X DAS wiring is well organized and needs no further discussion. Constant communication between the DAS and a dedicated polling computer in the HCG office is integral to this installation. FreeWave spread spectrum radio modems transmit the signal to a SixNet industrial phone modem which is linked to the grid in Iliamna. The met station radio and base radio rely on directional Yagi antennas focused on an omni-directional antenna at the repeater radio. The repeater radio is powered by one 70-Watt solar panel buffered through a solar controller and five 100 Amp-Hr deep cycle gel cell batteries.

Power generation at the meteorological monitoring station consists of three 70-Watt solar panels and a Global Thermoelectric Generator (TEG). One solar panel is

dedicated to the DAS and meteorological instrumentation; wired through a solar controller and buffered through two 200 Amp-Hr deep cycle gel cell batteries. Two solar panels are dedicated to the aspirator fans, Climatronics bearing heaters, shelter lighting and 120VAC power; also wired through a solar controller and buffered through two 200 Amp-Hr deep cycle gel cell batteries. The shelter lights and 120VAC inverter for laptop use are routed through manual timers to ensure use only when operators are on site. During the winter months, November through April, the TEG is turned on to supplement the power system. The TEG power is routed through relays wired to the DAS control ports which isolate the critical DAS/sensor system during upset conditions. Climatronics heaters are also controlled through relays programmed to limit heater use to weather conditions conducive to icing. All system battery voltages are constantly monitored by the DAS.

2.3 Operations, Data Management and Documentation Systems Audit

This phase of the systems audit consists of a review of the HCG *Quality Assurance Project Plan for the Pebble Project Meteorological Monitoring Program* (Plan), and other system documentation, and a review of system operations. System operations include physically running the station and subsequent data management.

The Plan is a comprehensive document which adequately details the Pebble meteorological monitoring program. Program objectives, installations, operations, data management and quality assurance are all clearly outlined. Equally, the Pebble 4 station is representative of the Plan design. The Plan provides standard operating procedures and standard forms for all equipment field calibrations and audits. Station operators also had complete DAS and meteorological sensor manuals on hand at the station. Plan and documentation review are covered further in Appendix A.

Station operators were observed during calibration and maintenance procedures and appeared knowledgeable about all facets of operating the monitoring station. Data are downloaded daily using an automated script on a dedicated polling computer located at the HCG office. The raw data are appended to a station file located on the HCG server, which is backed up daily. The data manager copies the raw data to a custom Access/Excel database, leaving the raw data unaltered. The custom database creates a series of graphs of all meteorological data as well as some station operational parameters. These plots are reviewed 5-6 days per week in order to immediately identify station upsets. An example is a graph of solar radiation and battery voltage; which reveals potential problems with daily charge cycles. Both the Climatronics and RM Young Wind sensor data are plotted together to indicate problems with one of the sensors. All station parameters are plotted with ranges and pairings intended to best

reveal upset conditions. Problems are immediately identified and corrective action planned and executed. Steps are taken to flag data which may have been identified as suspect during this graphical data review. Data generated during station maintenance, audits and calibrations are also flagged as invalid.

Prior to compilation of data summary reports, data are screened using EPA recommended screening criteria. Data flagged as outliers by the screening program are further reviewed for consistency with prevailing conditions and then permanently invalidated or validated. Data ultimately invalidated are permanently removed from the database and the reasoning is codified in a special column in the database. This cleaned dataset is used for all subsequent data summaries, wind roses, data reports and capture rate calculations. More detailed discussion of the operations and data management are contained in the Systems Audit Appendix A.

2.4 Comments and Suggestions

The Pebble 4 station is a well designed and operated meteorological monitoring station. The remote station is equipped with a robust and sophisticated power supply which is constantly monitored. The systems audit revealed that HCG possesses the necessary organization, personnel, training, equipment, quality assurance, and quality control procedures to accurately collect and report PSD quality data. HCG adequately maintains the Pebble 4 station and practices sufficient data review and preventive maintenance to avoid unnecessary data loss.

The following recommendations are made to the program in order to improve the operation of the stations and ensure their operation is in accordance with standards:

- Create custom site visit procedural and inventory checklists
- Keep files on site containing copies of previous visit checklists
- Always use paper calibration forms as well as computer entered forms.

3.0 PERFORMANCE AUDIT

3.1 Performance Audit Methodology

During the performance audit, the station datalogger is interfaced with a portable laptop computer to display the outputs for the meteorological sensors. The value of each meteorological sensor is compared to the output value from the appropriate piece of audit equipment or from calibrated instruments collocated with the sensor. The difference between the station's datalogger reading and the output from each audit instrument is compared with established PSD limits to determine the accuracy of each sensor. Additionally, threshold torques for wind speed and wind direction are measured with audit equipment and compared with manufacturer torques corresponding to the PSD threshold speed of 0.5 m/s. Table 3-1 provides a summary of the performance audit methods and limits used to audit each parameter at the stations.

Table 3-1 Performance Audit Methods and Acceptable Limits

Parameter	Audit Method	EPA/Manufacturer Limit
Datalogger Time	NOAA Clock	≤ ±5:00 minutes from AST
Temperature Accuracy	Collocated NIST thermistor	≤ ±0.5 °C
Temperature Difference	Collocated NIST thermistor	≤ ±0.1 °C
Relative Humidity	Collocated NIST RH sensor	≤ ±1.5 °C of dew point
Wind Speed Accuracy	Synchronous rpm motor	≤ ±0.2 m/s + 5 % observed
Wind Spd Torque (Clim)	Torque watch	≤ 0.35 g-cm (0.0049 oz-in)
Wind Spd Torque (RMY)	Torque watch	≤ 1.0 g-cm (0.014 oz-in)
Wind Direction Alignment	GPS, compass or landmark	≤ ±5° from true azimuth
Wind Direction Accuracy	Linearity tester	≤ ±5° per audit point
Wind Direction Linearity	Linearity tester	≤ 3° mean absolute average
Wind Dir Torque (Clim)	Torque watch	≤ 7.5 g-cm (0.104 oz-in)
Wind Dir Torque (RMY)	Vane torque gauge	≤ 11 g-cm (0.153 oz-in)
Barometric Pressure	Collocated NIST BP sensor	≤ ±3 mbar
Solar Radiation	Collocated NIST sensor	≤ ±5% of input+resolutuion[1]
Precipitation	Calibrated water volume	≤ ±10% of input
Evaporation	Measured water level	≤ ±10% of input

1. This audit limit is modified from PSD standard, as discussed below.

3.1.1 Data Acquisition System

An audit of the datalogger is conducted by comparing all datalogger outputs to the audit standards, as described below. The datalogger time is checked against an instantaneous time reading from the National Oceanic and Atmospheric Administration (NOAA) clock in Boulder, Colorado, via a global positioning system (GPS) handheld unit or telephone contact with the NOAA clock.

3.1.2 Air Temperature and Air Temperature Difference

The 2-meter and 10-meter thermistors are removed from their aspirator shields and collocated with a National Institute of Standards and Technology (NIST) traceable digital thermometer. The station thermistors and the transfer standard NIST thermometer are taped together and immersed in insulated thermoses containing a series of fluid baths; hot water (35°C to 45°C), warm water (15°C to 25°C), water/ice bath (0°C), cold glycol (-15°C to -25°C) and very cold glycol (-35°C to -45°C). Dry ice is used to cool the glycol baths. Each liquid bath is agitated and allowed to equilibrate before simultaneous readings are taken from the three instruments.

An alternate method can also be used for the low temperature audits, employing a Thermal Mass Device (TMD). The TMD consists of a 6" diameter by 9" high solid aluminum block milled to fit snuggly inside of an insulated Dewar flask. On the top of the TMD, and in corresponding locations on the flask lid, are holes sized to accommodate a variety of Campbell, Climatronics, Met-One and VWR thermistors. The TMD is cooled to the target temperatures by contact with dry ice and then placed in the insulated flask. The audit and station thermistors are inserted through the flask lid and into the appropriate holes in the TMD. After the TMD and the thermistors are allowed to equilibrate, readings for all thermistors are simultaneously taken. The aluminum TMD has a very high thermal conductivity and when allowed to equilibrate inside of the insulated flask, thermal gradients across the TMD are very small.

In all cases, the difference between the individual station thermistors and the NIST standard are compared to the PSD temperature accuracy limit of ±0.5°C. The difference between the two station thermistors (10-m°C minus 2-m°C) is compared to the PSD temperature difference limit of ±0.1°C.

3.1.3 Relative Humidity

Relative humidity (RH) is audited using a collocated NIST traceable RH sensor. The NIST sensor and the field sensor are collocated out of direct sunlight to eliminate solar radiation effects, preferably inside of the motor aspirated shield. If the NIST standard reads directly in dew point °C, those readings are used; if not, relative humidity and

temperature readings are used. For the audit, instantaneous readings of dew point, relative humidity and ambient temperature are recorded from the transfer standard and the DAS. All relative humidity and temperature readings are converted to dew point in order to assess the PSD error limit of ±1.5°C dew point.

3.1.4 Wind Speed

Anemometers are audited to determine their accuracies in reading known wind speeds and to ascertain the sensor's threshold torque. The Climatronics and RM Young sensors are audited in very similar manners and are discussed together. The instruments are tested after removal from the tower and after removal of the sensor's props or cups.

First, an RM Young synchronous motor is attached to the shaft of the anemometer by using brand specific coupling devices. The sensor shaft is rotated at several different known revolutions per minute (rpm). Each rotational speed in rpm is equated to a wind speed in meters per second (m/s) by using the anemometer manufacturer's linear calibration formula. The difference between the calculated input speed in m/s and the datalogger output is compared to established PSD limits for each input rpm.

Next, a high precision torque watch is attached to the shaft of the anemometer, once again using custom couplings. Torque readings are made in both directions in each quadrant along the axis of rotation of the shaft. The maximum reading is recorded for the torque required to turn the shaft of the anemometer. The torque value recorded during the audit is compared to manufacturer's torque corresponding to the minimum PSD threshold speed of 0.5m/s.

3.1.5 Wind Direction

The wind direction sensors are first audited as-found to determine the accuracy of their alignment with respect to true north (true azimuth alignment) using one of four methods. In one method, a handheld GPS unit is used to measure the position of the auditor with respect to a waypoint captured under the wind sensor's position on the tower. Using binoculars, the tail of the wind vane is aligned with the auditor's position at a distance of several hundred feet from the tower. The GPS bearing back to the tower waypoint is then compared to the DAS reading. The difference between the two should not exceed ±5° per audit point. This procedure is repeated at least 4 times, once per quadrant, generally near the cardinal directions. The second method uses a calibrated precision compass mounted on a gimbal and tripod. The compass declination is preset for the specific location and date using one of a variety of magnetic declination computer models. The sensor tail is aligned toward the auditor while auditor sights the

compass toward the sensor and readings are taken in a similar manner to the GPS method.

Another option is to align the tail of the sensor with a distant identifiable landmark of know bearing. The bearing to the landmark may be ascertained using a variety of methods. One method involves physically capturing a distant GPS waypoint, such as at a discernable structure or emissions stack. Bearings to inaccessible natural landmarks, usually distant mountain peaks, are acquired through the use of various computer mapping programs, such as Natural Geographic's TOPO program or USGS digital raster graphics (DRGs) loaded into AutoCAD. The bearing from the station location to the landmark is compared to the DAS reading. This method yields the most accurate audit value, but is limited by weather and availability of discernable landmarks. The final method is to align the vane with the tower guy wires or preset survey markers, whose bearing has been ascertained using precision survey equipment.

The wind direction accuracy and linearity are subsequently audited after the wind direction sensor is removed from the tower. The Climatronics sensor is mounted on a Climatronics Model 101984 linearity tester and the RM Young sensor is mounted on an RM Young Model 18112 Vane Angle Bench Stand. Both test fixtures are keyed to their respective sensor and graduated from 0° to 360°. A series of readings starting at 30° and then clockwise in 30° increments are taken. The RM Young is read from 30° to 360° and the Climatronics is read from 30° to 540°. The Climatronics sensor is tested 180° past 360° in order to test the second potentiometer used in some DAS programming. Although not required, the Climatronics sensor is also tested with the vane attached in order to ascertain sensor accuracy and linearity relative to the instrument crossarm. The vane is aligned along the axis of the crossarm to yield the 0°/360° and 180° values and against a square held to the crossarm for the 90° and 270° directions. Four readings are taken in a clockwise direction and four are taken counterclockwise to complete the test. For both the linearity test fixture and crossarm tests, individual error values are assessed for the PSD accuracy limit of ±5° per point and the mean absolute average error is assessed against the linearity limit of 3°.

Next, the RM Young wind direction threshold is tested by measuring wind vane torque using an RM Young Model 18331 Vane Torque Gauge. This device saddles the wind vane and a calibrated spring is pulled to determine maximum torque from readings taken in both directions in all four quadrants. The Climatronics wind direction starting torque is measured with the vane removed by using a precision torque watch in the same manner as the wind speed torque. The highest torque readings are compared to specific manufacturer limits for instrument staring torque.

Finally, the wind direction sensors are placed back on the tower and as-left audits of the azimuth alignments are conducted to ensure the instruments are properly reinstalled.

3.1.6 Barometric Pressure

Barometric pressure (BP) is audited using a collocated NIST traceable BP sensor. The difference between the NIST sensor and the station sensor are compared to the PSD limit of ±3 mbar.

3.1.7 Solar Radiation

Outputs of the station sensor are compared to the output of a level collocated audit solar radiation sensor. The audit sensor is connected to an independent audit datalogger with the scan interval and clock synchronized with the station DAS. Hourly average solar radiation readings and instantaneous readings are recorded during the audit and then input into a custom spreadsheet to calculate a linear regression for the data. The PSD limit for solar radiation audits is ±5% of observed, but this standard is very difficult to obtain at the northern latitude of this installation. This EPA standard is currently undergoing review and is expected to change. A well excepted substitute is that individual DAS and audit data pairs are compared to a limit of ±5% of observed + **EPA minimum instrument resolution (10W/m²)**. Individual data pairs are evaluated against this standard, but the overall set is restricted to a 5% error by limiting allowable linear slope to 1.0±0.05.

3.1.8 Precipitation

The Met-One tipping precipitation gauge is audited by slowly adding precisely measured volumes of water to the gauge using a dripping Nova Lynx Model 260-2595 Rain Gauge Calibrator. The predicted millimeters of precipitation corresponding to the measured volume added are calculated using the diameter of the gauge opening. The tare reading from the DAS is initially recorded and subsequent DAS readings are recorded after each test run. The percent difference between the predicted audit value and the DAS value is compared to the PSD limit of ±10%.

3.1.9 Evaporation

The evaporation gauge is first checked to confirm that the pan and gauge are level. The accuracy is checked by first removing or adding enough water to bring the initial level to approximately 50 mm or 240 mm, the minimum and maximum for this gauge. An accurate millimeter scale is taped to the inside of the evaporation pan and the water level on the scale is compared to the DAS output. Water is added to or removed from the pan to change the level by 10-20mm and another set of readings are taken. This process is repeated until the level in the pan reaches the upper or lower limit of the

gauge. The resultant suite of DAS and scaled water level readings are then input into a custom spreadsheet which calculates a linear regression for the data. The evaporation gauge reads change in water level due to evaporation and rainfall, so the calculated intercept must be removed from measured water levels. The adjusted level is compared to the DAS output with a maximum allowable error of ±10% of input and the slope of resultant line has a limit of 1.0±0.1.

3.2 Performance Audit Results

The performance audit was conducted at the Pebble 4 station on July 12, 2006, with Dominic Shallies of HCG assisting. All sensors were challenged with certified audit equipment and yielded errors below the PSD limits. Summary audit results are contained in Table 3-2 and complete audit reports and audit equipment calibration certificates are contained in Appendix B and Appendix C respectively.

3.3 Performance Audit Recommendations

- None.

Table 3-2 Pebble 4 July 12, 2006 Performance Audit Summary

Parameter	Limit	Units	Max Err	Status
Datalogger Time	≤ ±5:00	Min:Sec	-0:02	Pass
2-m Temperature Accuracy	≤ ±0.5	°C	0.32	Pass
10-m Temperature Accuracy	≤ ±0.5	°C	0.32	Pass
Air Temperature Difference	≤ ±0.1	°C	0.00	Pass
Relative Humidity (dew point)	≤ ±1.5	°C	0.3	Pass
Climatronics Wind System				
Wind Speed Torque	≤ 0.0049	oz-in	<0.003	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque	≤ 0.104	oz-in	0.030	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	2.5	Pass
Wind Direction Accuracy	≤ ±5	Degree	4.7	Pass
Wind Direction Linearity	≤ 3	Degree	2.7	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	4.0	Pass
RM Young Wind System				
Wind Speed Torque	≤ 0.014	oz-in	0.010	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque	≤ 11	g-cm	4.0	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	3.1	Pass
Wind Direction Accuracy	≤ ±5	Degree	2.3	Pass
Wind Direction Linearity	≤ 3	Degree	1.1	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	3.4	Pass
Barometric Pressure	≤ ±3	Mbar	1.3	Pass
Solar Radiation	≤ ±5+Res	% input	-3.9	Pass
Tipping Precipitation	≤ ±10	% input	3.6	Pass
Evaporation	≤ ±10	% input	2.4	Pass

4.0 REFERENCES

"Quality Assurance Project Plan for the Pebble Project Meteorological Monitoring Program", Hoefler Consulting Group, Inc., August 2006.

"Quality Assurance Manual for Ambient Air Quality Monitoring" ADEC, August 1996.

"Elements for Ambient Air Monitoring Quality Assurance Project Plan (QAPP)", ADEC, September 2004.

"Ambient Air and/or Meteorological Monitoring Quality Assurance Project Plan (QAPP) Review Checklist", ADEC, September 2004.

"Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)", EPA-450/4-87-007, May 1987.

"Quality Assurance Requirements for Prevention of Significant Deterioration (PSD) Air Monitoring", EPA-40 CFR Part 58, Appendix B, November 2004.

"On-Site Meteorological Program Guidance for Regulatory Modeling Applications", EPA-450/4-87-013, August 1995.

"Meteorological Monitoring Guidance for Regulatory Modeling Applications", EPA-454/R-99-005, February 2000.

"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II: Part I, Ambient Air Quality Monitoring Program Quality System Development", EPA-454/R-98-004, August 1998.

"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Measurements", EPA/600/R-94/038d, March 1995.

"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume V: Precipitation Measurement Systems", EPA/600/R-94/038e, April 1994.

APPENDIX A
SYSTEMS AUDIT DATA SHEETS

Pebble 4 PSD Meteorological Station Systems Audit

Owner: NDM Operator: Dominic Shallies Alternate: Steve Mackey Date: Jul 12, 2006
Witnesses: Dominic Shallies Auditor: Eric Brudie

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Pebble 4 PSD Meteorological Station Systems Audit

Owner: NDM | Operator: Dominic Shallies | Alternate: Steve Mackey | Date: Jul 12, 2006
Witnesses: Dominic Shallies | Auditor: Eric Brudie

1.0 GENERAL PROGRAM INFORMATION

1.1 Site Description

The Pebble 4 station is located on the crest of a knoll approximately 5 miles south of the mine ore body. The site is windswept and treeless with very little organics and virtually no obstructions around the station.

1.2 Site Location

1.2.1 Coordinates

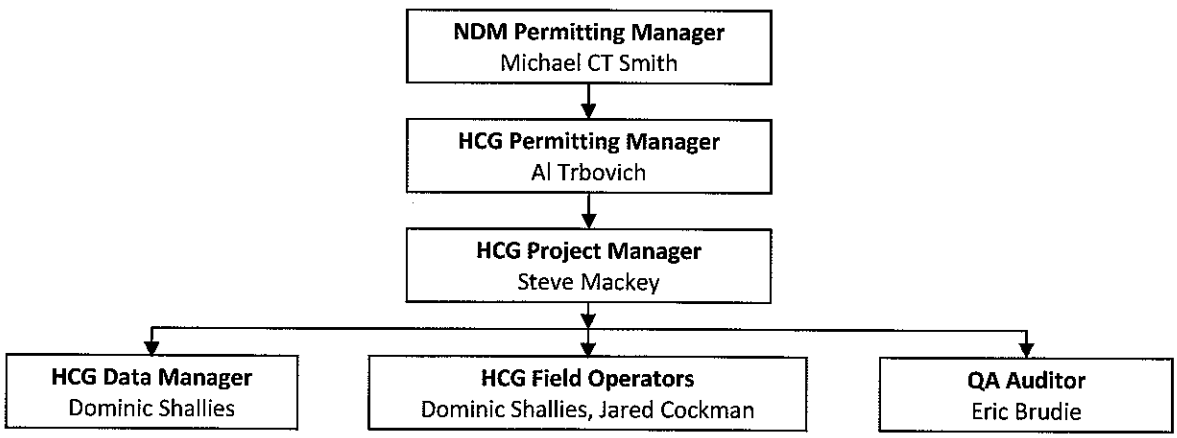
Indicated by Operator	Determined by Auditor
59° 50' N	59° 49.837 N
155° 18' W	155° 18.041'
Elevation: 1,200 feet	Elevation: 1,190 feet

1.2.2 Appearance and Safety

Does the site appear clean, organized and well maintained?	■ Yes □ No	Comments: None.
Does the site appear to be safe and reasonably hazard free?	■ Yes □ No	Comments: None.
Does the site have a shelter for operators?	■ Yes □ No	Comments: None.
Does the site have emergency equipment such as a first aid kit available?	■ Yes □ No	Comments: None.
Does the site have adequate measures to prevent human tampering?	■ Yes □ No	Comments: Remote site.
Does the site have adequate measures to prevent damage from animals?	■ Yes □ No	Comments: Cables protected in liquid-tight conduit and electronics inside shelter.

2.0 MONITORING PROGRAM STAFF ORGANIZATION

- Draw a diagram of the organizational structure of the monitoring program, including names and titles:



Pebble 4 PSD Meteorological Station Systems Audit

Owner: NDM Operator: Dominic Shallies Alternate: Steve Mackey Date: Jul 12, 2006
Witnesses: Dominic Shallies Auditor: Eric Brudie

3.0 METEOROLOGICAL MONITORING STATION EQUIPMENT

3.1 Inventory

Parameter	Make	Model	Serial No.
DAS	Campbell Scientific	CR10X	X45838
DAS Wiring Panel	Campbell Scientific	CR10X	35367
Temperature (2-meter)	Met One	062MP	E2777, ID #2/2
Temperature (10-meter)	Met One	062MP	E2777, ID #1/2
Temperature Aspirators	Met One	076B-4	F5259 & F5260
Relative Humidity	Vaisala	HMP45AC	A4350044
Primary Wind Speed	Climatronics	F460-100075	5081
Primary Wind Speed Cups	Climatronics	HD Al. P/N 101287	2299
Primary Wind Direction	Climatronics	F460-100076	4745
Primary Wind Direction Vane	Climatronics	HD P/N 101288	1452
Wind Sigma	Campbell Scientific	DAS Calculated	N/A
Backup Wind Monitor	RM Young	05305 Wind Mon-AQ	71368
Backup Wind Spd Prop	RM Young	08254	63635
Barometric Pressure	Vaisala	PTB101B	B0440012
Solar Radiation	LI-COR	Li-200SX	PY52709
Precipitation-Tipping	Met-One	370	A6431
Precip. Tipping Wind Screen	NovaLynx	260-952 Alter Type	N/A
Evaporation Gauge	NovaLynx	255-100	687
Evaporation Pan	NovaLynx	255-200	None

3.2 Equipment Evaluation

3.2.1 Data Acquisition System (DAS) and Communications System

Is the DAS well protected from the elements with adequate room for maintenance?	■ Yes □ No	Comments: DAS inside of a weatherproof building, mounted on a 4'x4' wiring panel.
Is the DAS rated for operation in the expected local temperature range?	■ Yes □ No	Comments: -55°C to + 85°C.
Are all sensor cables neatly and securely connected to the correct DAS channels?	■ Yes □ No	Comments: Well organized wiring panel.
Is remote communication to the DAS system available to operators?	■ Yes □ No	Comments: DAS connected to FreeWave network linked to SixNet modem on telephone grid.
Are all components of the DAS and communications system operational?	■ Yes □ No	Comments: None.
Are the DAS and communication equipment properly grounded?	■ Yes □ No	Comments: 8' ground rod wired to central ground buss.
Are the DAS and communication equipment protected from lightning?	□ Yes ■ No	Comments: There is no lighting protection, but area not prone to strikes.

3.2.2 Power Supply System

Does the system have a stable power supply or line power?	■ Yes □ No	Comments: Very robust alternative power supply described below.

- Describe the meteorological monitoring station power supply system.

The DAS, communications equipment and meteorological sensors are powered by one 70-Watt solar panel, buffered through two 200 amp-hr deep cycle gel cell batteries. The aspirator fans and Climatronics wind sensor heaters are powered by two 70-Watt solar panels buffered through two 200 amp-hr deep cycle gel cell batteries. During the winter months (November through April), the aspirator/heater system is also powered by a propane Thermo-Electric Generator (TEG). The isolated DAS and Aspirator power systems can be interconnected during upset conditions through an array of relays managed through the DAS control ports. The DAS monitors battery levels and can connect the two power systems should one run low. The DAS also has algorithms programmed to assess weather conditions and limit heater use when not essential.

3.2.3 Meteorological Monitoring Sensors

Do all sensors appear to be clean, intact, in good condition and well maintained?	■ Yes □ No	Comments: None.
Are all sensors operational, online and reporting data?	■ Yes □ No	Comments: None.
Do all sensors meet EPA criteria for PSD quality sensors?	■ Yes □ No	Comments: See table below.
Are spare parts stocked for items which are frequently worn out or broken?	■ Yes □ No	Comments: Spare props, cups and vanes onsite and spare bearings in field kit.

3.2.4 EPA PSD Meteorological Instrument Standards

Parameter	Instrument Specifications	EPA Standard	Pass?
Air Temperature (2-M, 10-M & Delta-T) – Met One Mdl. 062MP			
Accuracy (2-m & 10-m):	±0.05 °C	±0.5 °C	Yes
Accuracy (Delta-T):	±0.02 °C	±0.1 °C	Yes
Range (Operating Temp):	-50°C to +50°C	-20°C to +30°C	Yes
*Resolution. (2-m & 10-m):	0.01°C	0.1°C	Yes
*Resolution (Delta-T):	0.01°C	0.02°C	Yes
Response Time:	10 seconds	≤1 minute	Yes
Relative Humidity – Vaisala Mdl. HMP45AC			
Accuracy:	±2/3% at 0-90/90-100% RH	±1.5°C Dew Point**	Yes
Range:	0.8% to 100% RH	-30°C to +30°C Dew Point**	Yes
*Resolution:	0.1% RH	1% RH	Yes
Response Time:	10 sec	≤30 minutes	Yes
Operating Temperatures:	-40°C to +60°C	-30°C to + 30°C	Yes
** EPA criteria in units of dew point, RH and operating temperature ranges meet these criteria.			

Pebble 4 PSD Meteorological Station Systems Audit

Owner: NDM Operator: Dominic Shallies Alternate: Steve Mackey Date: Jul 12, 2006
Witnesses: Dominic Shallies Auditor: Eric Brudie

Parameter (Continued)	Instrument Specifications	EPA Standard	Pass?
Wind Speed – Climatronics Mdl. F460-100075			
Accuracy:	±0.07 m/s or ±1% of obs.	±0.2 m/s + 5% of observed	Yes
Range:	0.0 m/s to 65 m/s	0.5 m/s to 50 m/s	Yes
*Resolution:	0.01m/s	0.1 m/s	Yes
Threshold Speed:	0.22 m/s	≤0.5 m/s	Yes
Distance Constant:	<4.0 m (HD Alum. Cups)	≤5 m	Yes
Operating Temperatures:	-40°C to +60°C	-30°C to + 30°C	Yes
Wind Direction – Climatronics Mdl. F460-100076			
Accuracy:	±2°	±5°	Yes
Range:	0° to 360°	0° to 360°	Yes
*Resolution:	0.1°	1°	Yes
Threshold Speed:	0.22 m/s	≤0.5 m/s	Yes
Distance Constant:	<2.5 m (Heavy Duty Vane)	≤5 m	Yes
Damping Ratio:	>0.4 @10° initial angle	0.4 to 0.7	Yes
Operating Temperatures:	-50°C to +60°C	-30°C to + 30°C	Yes
Wind Speed – RM Young Mdl. 05305 Wind Monitor-AQ			
Accuracy:	±0.2 m/s or 1% of observed	±0.2 m/s + 5% of observed	Yes
Range:	0.0 m/s to 50 m/s	0.5 m/s to 50 m/s	Yes
*Resolution:	0.01m/s	0.1 m/s	Yes
Threshold Speed:	0.4 m/s	≤0.5 m/s	Yes
Distance Constant:	2.1 m	≤5 m	Yes
Operating Temperatures:	-50°C to +50°C	-30°C to + 30°C	Yes
Wind Direction – RM Young Mdl. 05305 Wind Monitor-AQ			
Accuracy:	±3°	±5°	Yes
Range:	0° to 360°	0° to 360°	Yes
*Resolution:	0.1°	1°	Yes
Threshold Speed:	0.5 m/s @10° displacement	≤0.5 m/s	Yes
Distance Constant:	1.2 m	≤5 m	Yes
Damping Ratio:	0.45	0.4 to 0.7	Yes
Operating Temperatures:	-50°C to +50°C	-30°C to + 30°C	Yes
Barometric Pressure – Vaisala Mdl. PTB101B			
Accuracy:	±0.5 mbar	±3 mbar	Yes
Range:	600 mbar to 1060 mbar	Not Specified	N/A
*Resolution:	0.1 mbar	0.5 mbar	Yes
Response Time:	300 msec	Not Specified	N/A
Operating Temperatures:	-40°C to +60°C	Not Specified	N/A
Solar Radiation – LI-COR Mdl. Li-200SX Pyranometer			
Accuracy:	±5% Observed	±5% Observed	Yes
Range:	0 W/m^2 to 3000 W/m^2	Not Specified	N/A
*Resolution:	1 W/m^2	10 W/m^2	Yes
Response Time:	10 µs	5 seconds	Yes
Spectral Response:	400 nm to 1,100 nm	285 nm to 2800 nm	No
Operating Temperatures:	-40°C to +65°C	-20°C to +40°C	Yes

Pebble 4 PSD Meteorological Station Systems Audit

Owner: NDM Operator: Dominic Shallies Alternate: Steve Mackey Date: Jul 12, 2006
Witnesses: Dominic Shallies Auditor: Eric Brudie

Parameter (Continued)	Instrument Specifications	EPA Standard	Pass?
Tipping Precipitation – Met One Mdl. 370-0.2mm			
Accuracy:	±1% of 1-3 in/hr (±0.5mm)	±10% observed or ±0.5 mm	Yes
Range:	0-76 mm/hr (0-3 in/hr)	0-50 mm/hr (0-2 in/hr)	Yes
*Resolution:	0.2 mm	0.3 mm	Yes
Operating Temperatures:	-50°C to +50°C	Not Specified	N/A
Evaporation – NovaLynx Mdl. 255-100/200			
Accuracy:	±0.25% over 10" range	Not Specified	N/A
Range:	2" to 10"	Not Specified	N/A
*Resolution:	0.1 mm	Not Specified	N/A
Operating Temperatures:	0°C to +60°C	Not Specified	N/A
* For all instruments; resolutions are the result of instrument type, configuration and DAS programming.			

3.3 Station Location and Sensor Placement

3.3.1 Tower

Do all obstructions exist below a 1:10 slope away from the tower base?	■ Yes □ No	Comments: None.
Is the height of the tower at least 10 meters above the ground?	■ Yes □ No	Comments: None.
Is the tower stable and plumb?	■ Yes □ No	Comments: None.
Is the tower protected from lightning?	□ Yes ■ No	Comments: There is no lighting protection, but area not prone to strikes.

3.3.2 Temperature Sensors

Are the sensors mounted at least 2-m above open level ground at least 9-m in diameter?	■ Yes □ No	Comments: None.
Are the temperature difference probes at heights of 2-m and 10-m above the ground?	■ Yes □ No	Comments: None.
Are the sensors at a distance greater than four times the height of any obstruction?	■ Yes □ No	Comments: None.
Is the ground beneath the temperature sensors natural native material?	■ Yes □ No	Comments: None.
Is the site free of any natural features that could bias temperature data (e.g. open water, sloping ridge, etc.)?	■ Yes □ No	Comments: None.
Is the site free of any man-made features that could bias temperature data (e.g. asphalt, concrete, exhaust plumes, etc.)?	■ Yes □ No	Comments: None.
Are the sensors located at least 30 meters from large paved areas?	■ Yes □ No	Comments: None.

Pebble 4 PSD Meteorological Station Systems Audit

Owner: NDM Operator: Dominic Shallies Alternate: Steve Mackey Date: Jul 12, 2006
Witnesses: Dominic Shallies Auditor: Eric Brudie

Is the ambient temperature sensor protected from the influence of solar radiation?	■ Yes □ No	Comments: Housed in Met One Mdl 076B-4 Motor Aspirated Radiation Shield.
Are the temperature difference sensors located in identical aspirated shields?	■ Yes □ No	Comments: Housed in Met One Mdl 076B-4 Motor Aspirated Radiation Shields.

3.3.3 Relative Humidity Sensor

Is the relative humidity sensor open to the atmosphere & protected from precipitation?	■ Yes □ No	Comments: Housed in 2-m aspirated shield with temperature sensor.

3.3.4 Wind Speed and Wind Direction Sensors

Is the horizontal distance between the instruments and any obstruction at least 10 times the height of the obstruction?	■ Yes □ No	Comments: None.
Are the instruments at least 1.5 times nearby building height(s) above the building roof(s), or 10-m high?	■ Yes □ No	Comments: None.
Are the wind speed and wind direction sensors stable and plumb?	■ Yes □ No	Comments: None.
Is the distance of the sensor on the cross-arm at least twice the diameter of the tower?	■ Yes □ No	Comments: Climatronics Sensors mounted on a crossarm which meets this criterion.
Is the distance of the sensor on the cross-arm at least twice the diameter of the tower?	■ Yes □ No	Comments: RM Young sensor mounted on an extension arm which meets this criterion.
Is the wind direction sigma theta data being collected according to EPA requirements?	■ Yes □ No	Comments: DAS calculated using Yamartino method and a one-second scan interval.

3.3.5 Barometric Pressure Sensor

Is the barometric pressure sensor open to atmosphere & protected from precipitation?	■ Yes □ No	Comments: Housed in unsealed shelter, mounted on the wiring panel.

3.3.6 Solar Radiation Sensor

Is the instrument situated above the plane of any obstructions that could cast shadows?	■ Yes □ No	Comments: None.
Is the sensor situated south of the tower to minimize obstruction from the tower?	■ Yes □ No	Comments: None.

3.3.7 Precipitation Gauge

Are all obstructions to the wind farther away from the gauge than the obstruction height?	■ Yes □ No	Comments: None.
If located in an open and windy area, is a windshield being used?	■ Yes □ No	Comments: Alter type shield surrounds Met-One gauge.
Is the area surrounding the rain gauge covered by natural vegetation or gravel?	■ Yes □ No	Comments: None.
Is the instrument mounted at least 30 cm above the ground?	■ Yes □ No	Comments: None.

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Witnesses: Dominic Shallies Auditor: Eric Brudie

Is the instrument mounted level?	■ Yes □ No	Comments: None.

3.3.8 Evaporation Gauge

Is the evaporation pan above the plane of any obstructions that could cast shadows?	■ Yes □ No	Comments: None.
Are the pan and gauge mounted on a stable and level platform?	■ Yes □ No	Comments: Mounted on a 6' x 8' deck supported on adjustable pier blocks.
Is the evaporation pan protected from animals?	■ Yes □ No	Comments: Six-foot fence surrounds evaporation pan and gauge.

4.0 STANDARD OPERATING PROCEDURES

4.1 General

Is the station visited on a preset schedule?	■ Yes □ No	Comments: None.
Have standard SOPs been developed, and are they being followed by the operators?	■ Yes □ No	Comments: None.
Does the operator follow a preventative maintenance schedule?	■ Yes □ No	Comments: None.
Are site visits and maintenance activities properly documented in a Station Log?	■ Yes □ No	Comments: Site visit memos are compiled.
Are station operators knowledgeable and competent regarding effective operation?	■ Yes □ No	Comments: None.
Have operators attended any formal training for operating met monitoring stations?	■ Yes □ No	Comments: The lead operator has formal training and all operators have onsite experience.
Are copies of the NIST certifications for the calibration equipment made available?	■ Yes □ No	Comments: Attached.

4.2 DAS and Meteorological Sensors

Are regular multipoint QC checks performed on the DAS?	■ Yes □ No	Comments: DAS audited by virtue of the instrument output values.
Are regular multipoint QC checks performed on the meteorological sensors?	■ Yes □ No	Comments: None.
Are the sensors visually inspected for defects and problems?	■ Yes □ No	Comments: None.
Are ambient conditions compared with sensor readings from the DAS?	■ Yes □ No	Comments: DAS output compared to Iliamna Airport weather station.
Are data frequently reviewed for reasonableness and completeness?	■ Yes □ No	Comments: None.
Is a copy of the datalogger program made available for review?	■ Yes □ No	Comments: None.

Pebble 4 PSD Meteorological Station Systems Audit

Owner: NDM | Operator: Dominic Shallies | Alternate: Steve Mackey | Date: Jul 12, 2006
Witnesses: Dominic Shallies | Auditor: Eric Brudie

5.0 DOCUMENTATION

5.1 System Reference and Maintenance Manuals

Does the operator have all required DAS and meteorological instrument manuals?	■ Yes □ No	Comments: On-site and at HCG offices.
Does the operator have configuration and wiring schematics specific to the station?	■ Yes □ No	Comments: Operator carries wiring schematics.

5.2 Station Monitoring Plan and Report Forms

Is the Monitoring/QA plan comprehensive and reflective of the actual installation?	■ Yes □ No	Comments: None.
Does the Monitoring/QA plan indicate the intended use for the data collected during the monitoring program?	■ Yes □ No	Comments: Collect PSD quality data to meet dispersion modeling requirements and satisfy mine/transportation design requirements.
Does the system outlined in the QA plan meet the objectives outlined above?	■ Yes □ No	Comments: PSD quality installation.
Does the QA Plan indicate the intended schedule for reports to be submitted?	■ Yes □ No	Comments: None.
Does the station have an activity log?	□ Yes ■ No	Comments: Site visit memos written after each visit to supplant a log book.
Does the station have a formal Site Visit and Checklist Form?	□ Yes ■ No	Comments: No formal checklist used.
Does the station have an adequate Operations Manual?	■ Yes □ No	Comments: Monitoring/QA plan and equipment manuals.
Does the station have an adequate calibration form and copies of previous audits & cals?	■ Yes □ No	Comments: None.
Are report forms and site logs properly completed and current?	■ Yes □ No	Comments: None.

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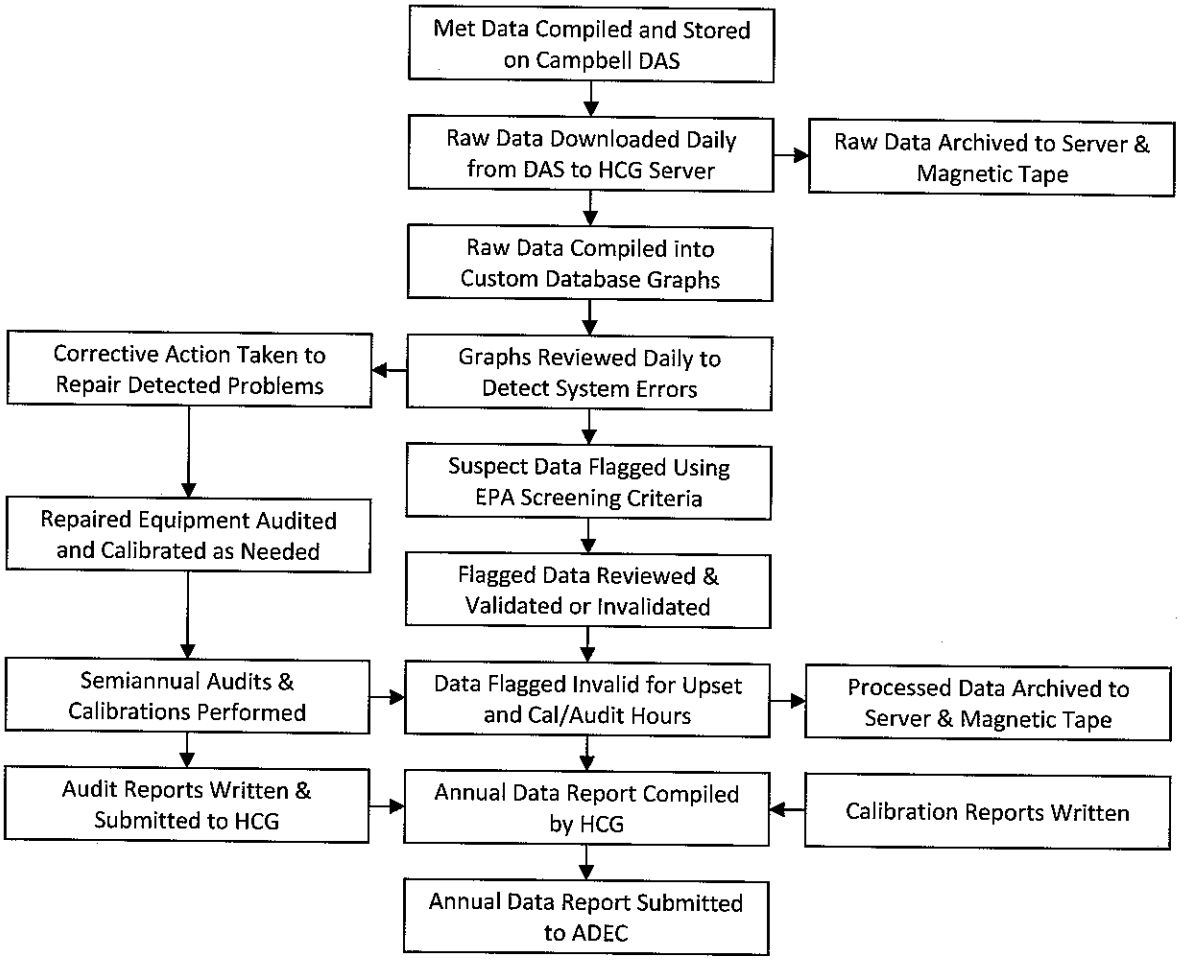
Witnesses: Dominic Shallies Auditor: Eric Brudie

6.0 DATA PROCESSING and VALIDATAION

6.1 Overall Data Management

- Diagram the flow of data from monitoring equipment to submission of a final report.



6.2 Data Collection and Initial Data Review

Is the station polled and data downloaded on a regular basis?	■ Yes □ No	Comments: Daily via RF modem and telephony modem.
Are the monitoring station data reviewed on a regular basis?	■ Yes □ No	Comments: Data imported into custom graphs and reviewed 5-6 days per week.
Are the monitoring station data screened on a regular basis?	■ Yes □ No	Comments: Data screened using EPA criteria prior to summary compilations.
Are procedures in place for backing up raw data?	■ Yes □ No	Comments: Raw data files are backed up on the HCG server and on magnetic tape.
Are written procedures for data handling available for the project?	■ Yes □ No	Comments: None.

- Describe the data polling process and initial data evaluation.

Data is downloaded from the station on a daily basis using a dedicated data polling computer located at the HCG office. The raw *.dat file is appended to the existing raw station data file located on the HCG server, which is backed up to tape daily. The raw data are copied to an Access/Excel database file which generates custom graphs of the various meteorological and operational parameters. These graphs are reviewed 5-6 days per week in order to identify station problems. This graphical data review is the frontline of maintaining a complete and defensible dataset. Station upsets are instantly identified and repaired within days. Copies of both the raw unadjusted data and the custom database files are retained for a minimum of 5 years.

6.3 Corrective Actions

Are procedures established for initiating corrective actions during data processing? ■ Yes □ No Comments: Daily graphical data review and subsequent reactions.

- Describe procedures for initiating, tracking and closing corrective actions.

When nonconformance issues are recognized during graphical review, the Lead Operator/Data Manager plans and executes corrective action. A calibration check is performed on any sensor which is repaired or replaced during the action. A site visit memo outlining the nature of the problem and repairs undertaken is written and saved to the station file. Any quantifiable error is also documented for possible data validation. The Operator/Data Manager ensures the erroneous data are flagged for the period from initial noncompliance until repair and calibration are affected.

6.4 Data Validation

Are data validation procedures established and in use? ■ Yes □ No Comments: None.

Are adjusted and unadjusted data sets maintained? ■ Yes □ No Comments: Both are backed up on the HCG server and magnetic tape.

- Describe the initial data validation procedure.

Data is compiled in a custom Excel spreadsheet programmed to evaluate meteorological data against EPA recommended PSD data screening criteria. The data are screened for events such as; extended periods of zero wind speed (indicating icing or worn bearings), temperatures outside of the known monthly max/min for the area, etc. Nonconforming data are flagged by the screening program for further investigation. Also, data periods for individual parameters are flagged for times when the corresponding instrument was undergoing field servicing, calibrations or audits. Periods when instruments are known to have been out of calibration or malfunctioning are also flagged.

- Describe procedures for validating and invalidating flagged data (outliers).

Data flagged during the screening process described above are manually reviewed. If the data have a quantifiable, consistent and documented bias, they may be adjusted and then validated. Specific guidelines are detailed in the Plan. Data which have been flagged by the screening program are also compared to local weather conditions as determined from other sources. Examples where data flagged during screening may be validated include periods when winds were known to have been exceptionally calm at nearby stations or extreme temperatures outside the historical max/min were witnessed. At this point, flagged data are permanently validated and left in the database or invalidated and removed from the database. Data removed from the database are replaced with an alphanumeric code to indicate the reason for invalidation.

- Identify those responsible for data validation.

Name: Dominic Shallies
Position: Lead Operator & Data Manager
Affiliation: Hoefler Consulting Group, Inc.

Name: Isaac Bertschi
Position: Data Management
Affiliation: Hoefler Consulting Group, Inc.

6.5 Data Capture

- Identify the desired data capture rate for the monitoring data.

Target rate for PSD Quality Meteorological Monitoring Data is 90%.

Is the desired data capture rate being met for each data type?	■ Yes □ No	Comments: None.

6.6 Data Reporting

Are quarterly and annual data reports being submitted for the site?	■ Yes □ No	Comments: None.
Are qualified staff personnel reviewing data reports prior to submittal?	■ Yes □ No	Comments: None.
Is finalized data set submitted with report to ADEC?	■ Yes □ No	Comments: None.

7.0 QUALITY ASSURANCE AND QUALITY CONTROL

7.1 Quality Assurance Program

Has a quality assurance plan been written describing quality assurance procedures?	■ Yes □ No	Comments: None.
Is a copy of the plan available to field and data processing personnel?	■ Yes □ No	Comments: None.
Has the quality assurance plan been approved by the ADEC?	■ Yes □ No	Comments: None.

- Identify those person(s) responsible for updating the plan SOPs.

Name: Steve Mackey
Position: Project Manager
Affiliation: Hoefler Consulting Group, Inc.

7.2 Quality Assurance Methods and Audits

Have adequate audit procedures been identified within the quality assurance plan?	■ Yes □ No	Comments: None.
Does the Plan correctly document PSD accuracy limits for calibrating and auditing?	■ Yes □ No	Comments: None.
Have audits been conducted on the suggested schedule of every six months?	■ Yes □ No	Comments: None.

- Identify the person(s) responsible for conducting audits on the monitoring instrumentation.

Name: Eric Brudie
Position: Field Auditor
Affiliation: Hoefler Consulting Group, Inc.

8.0 COMMENTS AND SUGGESTIONS

- Prepare and compile site specific station checklists and visit forms.

APPENDIX B
PERFORMANCE AUDIT DATA SHEETS and ALIGNMENT MAP

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Jul 12, 2006

• *DAS TIME AUDIT*

PSD Limits: DAS time = Alaska Standard Time (AST) +/- 5 minutes.
Conversions: Winter; (AST) = (DST), Summer; (AST) = (DST) - 1 hr.
Comments: None.

DAS TIME vs. NOAA CLOCK			
AST Time	DAS Time	Error Min:Sec	Pass/ Fail?
11:35:00	11:34:58	**-00:02**	**PASS**

• *TEMPERATURE SENSORS & ΔT AUDIT*

Lower Height: 2.0 **Meters** **Upper Height:** 9.9 **Meters**

2-M Thermistor: **Make:** Met One **Model:** 062MP **S.N.#:** E2777 # 2/2 **Range:** -50 to 50 °C
10-M Thermistor: **Make:** Met One **Model:** 062MP **S.N.#:** E2777 # 1/2 **Range:** -50 to 50 °C
Audit Digital Thermometer: **Make:** Van Waters & Rogers **Model:** 61220/601 **S.N.#:** 51091749 **Range:** -40 to 150 °C
Audit Probe: **Make:** Van Waters & Rogers **Model:** 61220/604 **S.N.#:** 240301145 **Range:** -40 to 150 °C

Begin: 1520
End: 1550

COLLOCATED THERMISTOR TEST										
Thermal Input			Station Response (2M)			Station Response (10M)			Station (Delta T)	
Temp Range	Target °C	Input °C	DAS °C	Error °C	Pass/ Fail?	DAS °C	Error °C	Pass/ Fail?	Delta T °C	Pass/ Fail?
Hot	35 to 45	32.62	32.58	-0.04	Pass	32.58	-0.04	Pass	0.00	Pass
Warm	15 to 25	21.44	21.39	-0.05	Pass	21.39	-0.05	Pass	0.00	Pass
Ice Bath	0	0.05	0.05	0.00	Pass	0.05	0.00	Pass	0.00	Pass
Cold	-15 to -25	-17.02	-16.72	0.30	Pass	-16.72	0.30	Pass	0.00	Pass
Very Cold	-35 to -45	-35.00	-34.68	0.32	Pass	-34.68	0.32	Pass	0.00	Pass
		Max Abs. Error		0.32	**PASS**		0.32	**PASS**	0.00	**PASS**

PSD Limits: Max Absolute Error > 0.5 °C (Sensor Accuracy); Max Absolute Error > 0.1 °C (Delta Temperature).
Comments: None.

• *RELATIVE HUMIDITY SENSOR AUDIT*

Height: 2.0 **Meters**

RH Sensor: **Make:** Vaisala **Model:** HMP45C-L **S.N.#:** A4350044 **Range:** 0.8 to 100 **% RH**
Audit Equipment: **Make:** Vaisala **Model:** HMI 41 **S.N.#:** X0650080 **Range:** 0 to 100 **% RH**
Audit Equipment: **Probe#** HMI41 X07450015

COLLOCATED STANDARD TEST								
Reading Time	Input %RH	Input AT (°C)	Input DP (°C)	DAS %RH	DAS AT (°C)	DAS DP (°C)	Error DP (°C)	Pass/ Fail?
1640	43.0	23.1	10.0	44.0	23.2	10.3	0.3	Pass
					Max Abs. Error		0.3	**PASS**

PSD Limits: Max Absolute Error > 1.5°C Dew Point.
Conversions: Td=DP(°C), Ta=AT(°C), RH=Fraction: $Td=b*\gamma/(a-\gamma)$, where $\gamma=a*Ta/(b+Ta)+\ln(RH)$, and a = 17.27, b=237.7°C.
Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Jul 12, 2006

• *BAROMETRIC PRESSURE SENSOR AUDIT*

Height: N/A **Meters**

Pressure Sensor: **Make:** Vaisala **Model:** PTB101B **S.N.#:** B0440012 **Range:** 600-1060 **hPa**
Audit Equipment: **Make:** PRETEL **Model:** AltiPlus A2 **S.N.#:** 27806 **Range:** 470-1040 **hPa**

COLLOCATED STANDARD TEST						
Reading Time	Raw Input in Hg	Adj Input in Hg	Adj Input mb	DAS mb	Error mb	Pass/ Fail?
1557	28.51	28.39	961.5	962.8	1.3	Pass
			Max Abs. Error		1.3	**PASS**

Audit Inst Cal Data	
Cal. Date: 05/24/06	
Audit Inst	Offset Amount
24.13	-0.13
26.24	-0.13
28.12	-0.12
30.11	-0.11
Intercept	**-0.22**
Slope	**0.0035**

PSD Limits: Max Absolute Error > 3mb (0.3kPa).
Comments: None.

• *HORIZONTAL WIND SPEED SENSOR AUDIT - CLIMATRONICS*

Height: 11.4 **Meters**

Wind Spd Sensor: **Make:** Climatronics **Model:** 100075 **S.N.#:** 5081 **Cup #:** 2299 **Range:** 0-60 **m/s**
Audit Equipment: **Low Spd:** RM Young **Model:** 18811 **S.N.#:** CA02136 **Torque:** Watters Mdl 366-3 **S.N.#:** 4864
Audit Equipment: **High Spd:** RM Young **Model:** 18801 **S.N.#:** CA06174

Begin: 1450
End: 1455

TORQUE TEST			
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/ Fail?
In-Situ	0.0049	<<0.003	**PASS**
New	0.0049	N/A	N/A

SYNCHRONOUS MOTOR TEST					
Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/ Fail?
0	0.22	0.22	0.00	N/A	Pass
100	2.57	2.57	0.00	N/A	Pass
200	4.92	4.92	0.00	N/A	Pass
400	9.62	9.62	N/A	0.0	Pass
1000	23.72	23.72	N/A	0.0	Pass
2000	47.22	47.21	N/A	0.0	Pass
	Max Abs. Error		**0.00**	**0.0**	**PASS**

PSD Limits: Threshold Torque >0.35gm-cm (0.0049oz-in) @ 0.50m/s. Max Absolute Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.
Conversions: Heavy Duty Al Cups: m/s = rpm÷42.55+0.22. gm-cm=72*oz-in.
Comments: None.

• *HORIZONTAL WIND SPEED SENSOR AUDIT - RM YOUNG*

Height: 10.6 **Meters**

Wind Spd Sensor: **Make:** RM Young **Model:** 05305 AQ **S.N.#:** 71368 **Prop #:** 63635 **Range:** 0-50 **m/s**
Audit Equipment: **Low Spd:** RM Young **Model:** 18811 **S.N.#:** CA02136 **Torque:** Watters Mdl 366-3 **S.N.#:** 4864
Audit Equipment: **High Spd:** RM Young **Model:** 18801 **S.N.#:** CA06174

Begin: 1455
End: 1500

TORQUE TEST			
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/ Fail?
In-Situ	0.014	0.010	**PASS**
New	0.014	N/A	N/A

SYNCHRONOUS MOTOR TEST					
Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/ Fail?
0	0.00	0.00	0.00	N/A	Pass
400	2.05	2.05	0.00	N/A	Pass
1000	5.12	5.12	N/A	0.0	Pass
2000	10.24	10.24	N/A	0.0	Pass
5000	25.60	25.60	N/A	0.0	Pass
10000	51.20	51.20	N/A	0.0	Pass
	Max Abs. Error		**0.00**	**0.0**	**PASS**

PSD Limits: Threshold Torque >1.0gm-cm (0.014oz-in) @ 0.50m/s. Max Absolute Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.
Conversions: Model 08254 Prop: m/s = 0.00512*rpm. gm-cm=72*oz-in.
Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Jul 12, 2006

• *HORIZONTAL WIND DIRECTION SENSOR AUDIT - CLIMATRONICS*

Height: 11.4 **Meters**

Wind Dir Sensor: **Make:** Climatronics **Model:** 100076 **S.N.#:** 4745 **Vane #:** 1452 **Range:** 0-360 **Deg**
Audit Equipment: **Linearity:** Climatronics **Model:** 101984 **S.N.#:** 145 **Torque:** Honeywell Mdl 366-0 **S.N.#:** 5042
Compass: Brunton **Model:** 11-F5008 **S.N.#:** 5080799319 **Magnetic Declin:** 17.6 **E of N**

TORQUE TEST

Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/ Fail?
In-Situ	0.104	0.030	**PASS**
New	0.104	N/A	**N/A**

IN SITU AZIMUTH ALIGNMENT TEST

Description	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
Compass	95.5	97.2	1.7	Pass
Compass	263.5	266.0	2.5	Pass
Compass	4.5	2.9	-1.6	Pass
Sharp Mtn West	46.1	47.9	1.8	Pass
	Max Abs. Error		**2.5**	**PASS**
	Mean Abs. Error		**1.9**	**GOOD**

Time: Begin: 1202 End: 1240

CROSSARM-VANE ACCUR. & LIN. TEST

Input Dir	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
South	180.0	180.0	0.0	Pass
West	270.0	271.2	1.2	Pass
North	360.0	0.1	0.1	Pass
East	90.0	90.3	0.3	Pass
North	360.0	0.1	0.1	Pass
West	270.0	271.7	1.7	Pass
South	180.0	180.3	0.3	Pass
East	90.0	90.3	0.3	Pass
	Max Abs. Error		**1.7**	**PASS**
	Mean Abs. Error		**0.5**	**PASS**

Time: Begin: 1330 End: 1335

BENCH STAND ACCURACY & LINEARITY TEST

Input Deg	DAS Deg	Error Deg	Pass/ Fail?	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
30.0	31.1	1.1	Pass	330.0	334.7	4.7	Pass
60.0	61.3	1.3	Pass	355.0	359.0	4.0	Pass
90.0	92.0	2.0	Pass	30.0	31.1	1.1	Pass
120.0	122.4	2.4	Pass	60.0	61.6	1.6	Pass
150.0	152.5	2.5	Pass	90.0	92.0	2.0	Pass
180.0	182.9	2.9	Pass	120.0	123.4	3.4	Pass
210.0	213.3	3.3	Pass	150.0	152.5	2.5	Pass
240.0	244.1	4.1	Pass	180.0	182.7	2.7	Pass
270.0	273.4	3.4	Pass	**Max Abs. Error**		**4.7**	**PASS**
300.0	304.4	4.4	Pass	**Mean Abs. Error**		**2.7**	**PASS**

Time: Begin: 1335 End: 1340

POST-AUDIT AZIMUTH ALIGNMENT TEST

Description	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
Sharp Mtn West	46.1	49.1	3.0	Pass
Compass	13.0	12.2	-0.8	Pass
Compass	95.0	95.0	0.0	Pass
Compass	171.5	171.4	-0.1	Pass
Compass	271.0	271.5	0.5	Pass
Peak 1590	104.4	108.4	4.0	Pass
	Max Abs. Error		**4.0**	**PASS**
	Mean Abs. Error		**1.4**	**GOOD**

Time: Begin: 1615 End: 1630

PSD Limits: Threshold Torque >7.5 gm-cm (.104 oz-in) @ 0.5 m/s. Max Absolute Error >5° from True Azimuth (alignment). Max Absolute Error >5° (accuracy). Mean Absolute Error >3° (linearity). Azimuth Mean Absolute Error calculated for information only.

Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Jul 12, 2006

• *HORIZONTAL WIND DIRECTION SENSOR AUDIT - RM YOUNG*

Height: 10.6 **Meters**

Wind Dir Sensor: **Make:** RM Young **Model:** 05305 AQ **S.N.#:** 71368 **Vane #:** N/A **Range:** 0-360 **Deg**
Audit Equipment: **Linearity:** RMY Mdl 18112 Bench Stand **S.N.#:** None **Torque:** RMY Mdl 18331 Torque Gauge **S.N.#:** None
Compass: Brunton **Model:** 11-F5008 **S.N.#:** 5080799319 **Magnetic Declin:** 17.6 **E of N**

TORQUE TEST

Bearings Replaced?	Limit gm-cm	Torque gm-cm	Pass/ Fail?
In-Situ	11.0	4.0	**PASS**
New	11.0	N/A	**N/A**

IN SITU AZIMUTH ALIGNMENT TEST

Description	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
Compass	95.5	96.4	0.9	Pass
Compass	263.5	262.1	-1.4	Pass
Compass	4.5	2.9	-1.6	Pass
Sharp Mtn West	46.1	49.2	3.1	Pass
		Max Abs. Error	**3.1**	**PASS**
Time: Begin: 1202 End: 1240		**Mean Abs. Error**	**1.8**	**GOOD**

BENCH STAND ACCURACY & LINEARITY TEST

Input Deg	DAS Deg	Error Deg	Pass/ Fail?	Input Deg	DAS Deg	Error Deg	Pass/ Fail?	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
30.0	29.0	-1.0	Pass	150.0	150.1	0.1	Pass	270.0	268.1	-1.9	Pass
60.0	59.1	-0.9	Pass	180.0	179.5	-0.5	Pass	300.0	297.7	-2.3	Pass
90.0	90.0	0.0	Pass	210.0	209.4	-0.6	Pass	330.0	328.1	-1.9	Pass
120.0	119.5	-0.5	Pass	240.0	238.7	-1.3	Pass	355.0	353.4	-1.6	Pass
								Max Abs. Error		**2.3**	**PASS**
Time: Begin: 1340 End: 1345								**Mean Abs. Error**		**1.1**	**PASS**

POST-AUDIT AZIMUTH ALIGNMENT TEST

Description	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
Sharp Mtn West	46.1	48.5	2.4	Pass
Compass	13.0	11.7	-1.3	Pass
Compass	95.0	95.8	0.8	Pass
Compass	171.5	171.1	-0.4	Pass
Compass	271.0	268.4	-2.6	Pass
Peak 1590	104.4	107.8	3.4	Pass
	Max Abs. Error		**3.4**	**PASS**
Time: Begin: 1615 End: 1630	**Mean Abs. Error**		**1.8**	**GOOD**

PSD Limits: Threshold Torque >11.0 gm-cm (0.153 oz-in) @ 0.5 m/s. Max Absolute Error >5° from True Azimuth (alignment). Max Absolute Error >5° (accuracy). Mean Absolute Error >3° (linearity). Azimuth Mean Absolute Error calculated for information only.

Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Jul 12, 2006

• *TIPPING PRECIPITATION GAUGE AUDIT*

Height: 1.0 **Meters**

Precipitation Gauge: **Make:** Met-One **Model:** 370 - 0.2mm **S.N.#:** A6431 **Range:** 3 **Inches per Hour**
Audit Equipment: **Make:** Nova Lynx Corp. **Model:** 260-2595 **S.N.#:** 936 **Range:** 2 **Inches per Hour**
Diameter: 8.00 **Inches** **Volume Rate** 32.43 **ml/mm** **Int Dat:** DAS hourly data and/or adjustments.

TIPPING PRECIPITATION GAUGE VOLUME TEST

Start Time	Input Vol ml	Input mm	Begin mm	Int Dat mm	End mm	End Time	Final mm	Error % Input	Pass/ Fail?	Notes
1125	800	24.7	0.0	23.2	2.0	1300	25.2	2.0%	Pass	
1305	800	24.7	0.0	0.0	25.2	1400	25.2	2.0%	Pass	
1403	800	24.7	0.0	0.0	25.6	1500	25.6	3.6%	Pass	
1504	800	24.7	0.0	0.0	25.6	1600	25.6	3.6%	Pass	
						Max Abs. Error		**3.6%**	**PASS**	

PSD Limits: Max Absolute Error > 10 % of Input.
Comments: None.

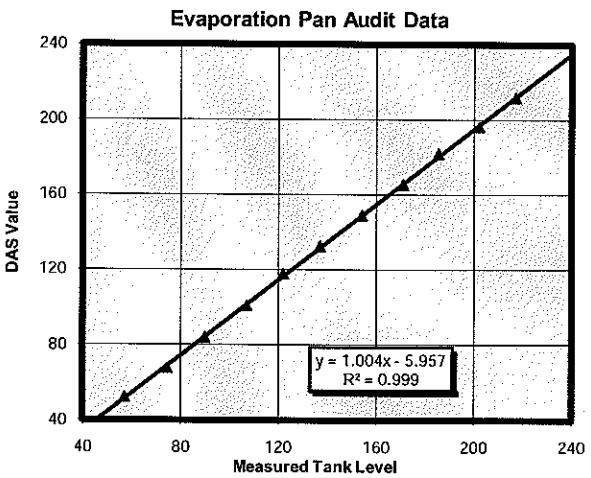
• *EVAPORATION GAUGE AUDIT*

Height: 0.5 **Meters**

Evaporation Gauge: **Make:** NovaLynx **Model:** 255-100 **S.N.#:** 687 **Range:** 40-254 **mm**
Evaporation Pan: **Make:** NovaLynx **Model:** 255-200 **S.N.#:** None **Range:** 0-254 **mm**

EVAPORATION PAN STAGE HEIGHT TEST

Pan Level	DAS mm	Level + Intcpt	Error mm	Error % Input	Pass/ Fail?
57.0	52.3	51.0	1.2	2.4%	Pass
74.5	67.7	68.5	-0.8	-1.2%	Pass
90.0	83.7	84.0	-0.3	-0.4%	Pass
107.0	101.0	101.0	-0.1	-0.1%	Pass
122.0	117.5	116.0	1.4	1.2%	Pass
137.0	132.4	131.0	1.3	1.0%	Pass
154.0	148.9	148.0	0.8	0.6%	Pass
171.0	165.3	165.0	0.3	0.2%	Pass
185.5	181.6	179.5	2.1	1.2%	Pass
202.0	196.3	196.0	0.3	0.2%	Pass
217.0	211.6	211.0	0.5	0.2%	Pass
	Max Abs. Error		**2.1**	**2.4%**	**PASS**
	Intercept	**-6.0**	**Slope**	**1.0045**	**PASS**



Time: Begin: 1706 End: 1738

PSD Limits: Max Absolute Error > 10 % of Input adjusted for slope/intercept.
Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Jul 12, 2006

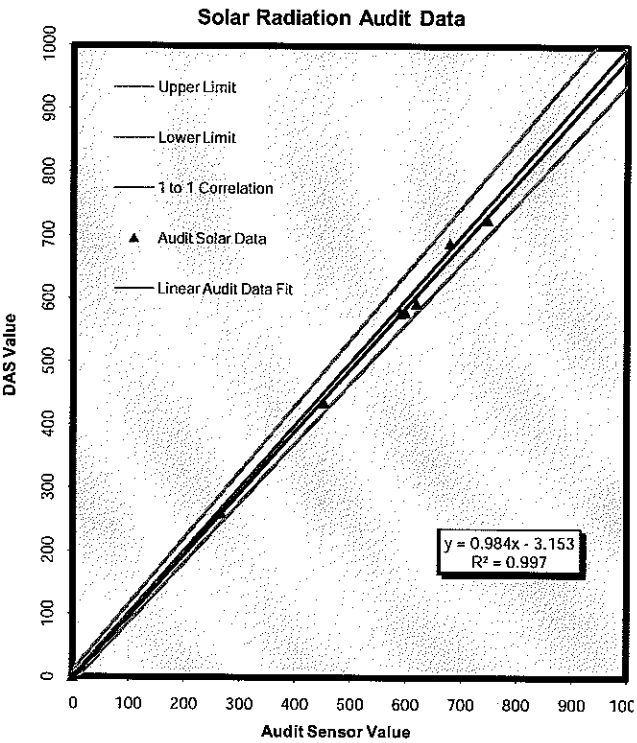
• *SOLAR RADIATION SENSOR AUDIT*

Height: 3.9 **Meters**

Station Sensor: **Make:** Li-Cor **Model:** Li-200SX **S.N.#:** PY52709 **Range:** 0-3000 **W/m²**
Audit Sensor: **Make:** Eppley **Model:** PSP **S.N.#:** 34377F3 **Range:** 0-2800 **W/m²**

SOLAR RADIATION SENSOR TEST

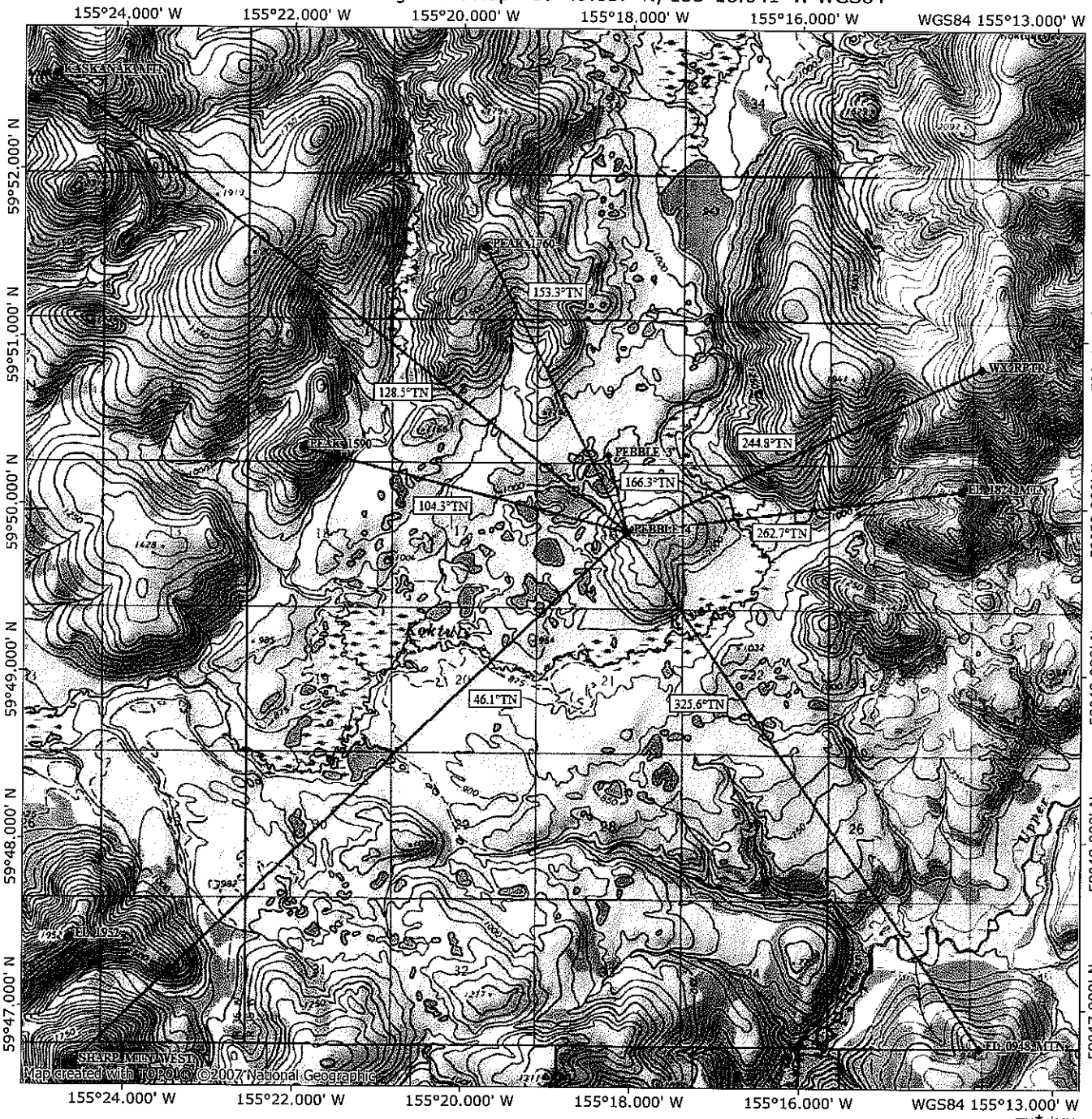
Data Hr AST	Audit W/m²	DAS W/m²	Error W/m²	Allow Err W/m²	Error % Input	Pass/ Fail?
1200	677.5	688.9	11.4	±43.9	1.7%	Pass
1300	588.8	577.7	-11.1	±39.4	-1.9%	Pass
1400	746.0	726.0	-20.0	±47.3	-2.7%	Pass
1500	597.9	578.1	-19.8	±39.9	-3.3%	Pass
1600	617.5	593.2	-24.3	±40.9	-3.9%	Pass
1700	451.9	434.9	-17.0	±32.6	-3.8%	Pass
1800	266.5	259.5	-7.0	±23.3	-2.6%	Pass
2400	0.0	0.0	0.0	±10.0	n/a	Pass
Corr. Val	**0.9989**	**Max Abs. Percent Error**			**3.9%**	**PASS**
R² Value	**0.9978**	**Intercept**	**-3.2**	**Slope**	**0.9841**	**PASS**



Begin Date: 07/12/06 **End Date:** 07/12/06

PSD Limits: Max Abs Err <5% of Observed + Resolution(10W/m²). Linear regression slope in range 1.0±5% (0.95 to 1.05) when $R^2 > 0.995$.
Note: Instantaneous values are associated with minute timestamps and hourly averages coincide with whole hour timestamps.
Comments: None.

Pebble 4 TOPO Alignment Map - 59°49.837' N, 155°18.041' W WGS84



NATIONAL GEOGRAPHIC

0.0 0.5 1.0 1.5 2.0 miles

0.0 0.5 1.0 1.5 2.0 2.5 3.0 km

TN * / MN

17½°

08/30/06

APPENDIX C
AUDIT EQUIPMENT CALIBRATION CERTIFICATES

Certificate 1750.01

Calibration complies with ISO/IEC 17025 AND ANSI/NCSL Z540-1

Cert. No.: 4000-1338226

Traceable® Certificate of Calibration for Digital Thermometer

Instrument Identification:

Hoefler Consulting Group, 3401 Minnesota Dr, Suite300, Attn: Dominic Shallies, Anchorage, AK 99503 U.S.A. (RMA:933478)

Model: 61220-601 S/N: 51091749 Manufacturer : Control Company

Model: 61220-604 S/N: 240301145

Standards/Equipment:

Description	Serial Number	Due Date	NIST Traceable Reference
Temperature Probe	128	12/08/06	A5B28010-1
Thermistor Module	A17118	8/12/06	A5819038
Temperature Calibration Bath TC179	A45240		
Temperature Calibration Bath TC191	A42238		
Temperature Probe	157	9/01/06	A5815063
Thermistor Module	A27129	7/05/06	1000189003

Certificate Information:

Technician: 68 Procedure: CAL-06 Cal Date: 6/07/06 **Cal Due: 6/07/07**

Test Conditions: 25.5°C 39.0 %RH 1013 mBar

Calibration Data:

Unit(s)	Nominal	As Found	In Tol	Nominal	As Left	In Tol	Min	Max	±uc	TUR
°C	0.000	0.072	N	0.000	-0.004	Y	-0.050	0.050	0.013	3.8:1
°C	25.000	25.020	Y	25.000	24.999	Y	24.950	25.050	0.013	3.8:1
°C	60.002	59.999	Y	60.001	59.999	Y	59.951	60.051	0.013	3.8:1
°C	100.002	100.001	Y	100.002	100.004	Y	99.952	100.052	0.013	3.8:1

This Instrument was calibrated using Instruments Traceable to National Institute of Standards and Technology.

A Test Uncertainty Ratio of at least 4:1 is maintained unless otherwise stated and is calculated using the expanded measurement uncertainty. Uncertainty evaluation includes the instrument under test and is calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM). The uncertainty represents an expanded uncertainty using a coverage factor k=2 to approximate a 95% confidence level. In tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The results contained herein relate only to the item calibrated. This certificate shall not be reproduced except in full, without written approval of Control Company.

Nominal=Standard's Reading; As Left=Instrument's Reading; In Tol=In Tolerance; Min/Max=Acceptance Range; ±uc=Measurement Uncertainty; TUR=Test Uncertainty Ratio; Accuracy=±(Max-Min)/2

Wallace Berry

Wallace Berry, Technical Manager

Maintaining Accuracy:

In our opinion once calibrated your Digital Thermometer should maintain its accuracy. There is no exact way to determine how long calibration will be maintained. Digital Thermometers change little, if any at all, but can be affected by aging, temperature, shock, and contamination.

Recalibration:

For factory calibration and re-certification traceable to National Institute of Standards and Technology contact Control Company.

CONTROL COMPANY 4455 Rex Road Friendswood, TX 77546 USA
Phone 281 482-1714 Fax 281 482-9448 service@control3.com www.control3.com

VAISALA

Certificate of Calibration

Report #: 101705-X0740015-RH **RMA #:** 95-49728 **Calibration Date:** Oct-17-2005
Model #: HMI41/HMP45 **Serial #:** X0650080 / X0740015
Instrument Type: Humidity Transmitter Calibration Procedure: 11603100
Instrument Range: 0 to 100%RH Recommended Calibration Due Date: Oct-17-2006

Customer: HOEFLER CONSULTING GROUP
City, State: ANCHORAGE, AK

This unit was calibrated by adjusting its reading at 0%* against a dry-air line and at 75% against reference humidity and temperature instrument, Vaisala model HMP233. Additional instrument verification checkpoints were made against HMP233 reference at 11%RH, 33%RH and 97%* RH. Calibration and instrument verification sequences utilize a dry-air line and a set of controlled aqueous salt solutions Vaisala model HMK13B. Laboratory ambient conditions are humidity and temperature controlled. The calibration uncertainty is presented at 95% confidence level, k=2. The standard uncertainty of the measurement has been determined in accordance with U.S. Guide to the Expression of Uncertainty in Measurement. *Note: the 0% and 97% RH points are not ISO17025 Accredited.

Calibration Data (As Found)

Out of Tolerance: NO

Temperature Calibration, °C

Reference	Unit Under Test	Error	± Tolerance, °C	± Uncertainty, °C
21.35	21.50	0.15	0.20	0.07

Humidity Calibration, %RH

Reference	Unit Under Test	Error	± Tolerance, %	± Uncertainty %
11.13	11.40	0.27	2.00	0.92
32.70	33.10	0.40	2.00	1.01
75.44	75.00	-0.44	2.00	1.02
97.60	97.50	-0.10	3.00	N/A *

Calibration Data (As Left)

Temperature Calibration, °C

Reference	Unit Under Test	Error	± Tolerance, °C	± Uncertainty, °C
21.35	21.50	0.15	0.20	0.07

Humidity Calibration, %RH

Reference	Unit Under Test	Error	± Tolerance, %	± Uncertainty %
11.13	11.40	0.27	2.00	0.92
32.70	33.10	0.40	2.00	1.01
75.44	75.00	-0.44	2.00	1.02
97.60	97.50	-0.10	3.00	N/A *

Problem Noted: None
Action Taken: No Adjustment Was Necessary

The results of this calibration are related only to the items being calibrated, and, are traceable to the National Institute of Standards and Technology through NIST Test Report Number 270953-05, dated Oct. 29, 2004. Vaisala's calibration system has been established to meet the requirements of ANSI/NCSL Z540-1-1994. This certificate can not be reproduced, except in full, without the expressed written consent of Vaisala. The certificate was established to comply with the requirements of ISO/IEC17025. Vaisala is ISO 9001:2000 certified.

Calibration Equipment Used: Workstation 1B

Model Number	Serial Number	Calibration Date	Due Date
Power Supply	TW14949	Nov. 24, 2004	Nov. 24, 2006
Fluke 45	7405014	Aug. 16, 2005	Aug. 16, 2006
HMK13B	500004	Sep. 2, 2005	Mar. 5, 2006
HMP233	V4210040	Jul. 21, 2005	Oct. 21, 2005

Ambient Conditions

Temperature:	21.50 °C
Humidity:	50.00 %RH

Approved By

Technical Operator
Jari Siltavuo

Vaisala Inc., Boston Office
10-D Gill Street, Woburn, MA 01801, USA
Telephone 781 933 4500 • Fax 781 933 8029
www.vaisala.com

Certificate of Accuracy

Transfer Standard Type: Barometric Pressure/Altimeter

Certificate No: B 052406. 03

Transfer standard model: Pretel AltiPlus A2
Serial number: 27806
submitted by/owner: Hoefler Consulting Group
3401 Minnesota Drive
Suite 300
Anchorage, AK 99503

Was compared to Precision Absolute Reference Barometer:
Model number: 355-AI0900 Serial number: 913930-M1
Certified accuracy of ± 0.007"Hg
NIST traceable to Ruska Deadweight Tester SN 38342/C-85

Date: 05/24/06

Lab temperature	72.8	°F
Lab pressure	663.1	mm Hg

Reference barometer ("Hg)	Transfer Standard ("Hg)	Difference from Reference ("Hg)	Transfer Standard Correction* ("Hg)
24.00	24.13	0.13	-0.13
26.11	26.24	0.13	-0.13
28.00	28.12	0.12	-0.12
30.00	30.11	0.11	-0.11

Note:
If no sign is given on the correction, the true pressure is higher than the indicated pressure. If the sign is negative, the true pressure is lower than the indicated pressure.

Transfer Standard adjustments made? YES ☐ **NO** ☒
Post-calibration measurements:

Reference barometer ("Hg)	Transfer Standard ("Hg)	Difference from Reference ("Hg)	Transfer Standard Correction* ("Hg)

Reviewed: R Sanders Date: 5-24-06

Roger L. Sanders, PE

Chinook Engineering
a division of Inter-Mountain Laboratories, Inc.
555 Absaraka Street
Sheridan, Wyoming 82801 USA
(307) 672-7790
chinook@imlinc.com

R.M. Young Company
2801 Aero Park Drive
Traverse City, Michigan 49686 USA

Certificate of Calibration and Testing

Test Unit:			
Model:	18811	Serial Number:	CA02136
Description:	Anemometer Drive - 20 to 990 RPM		
	- Comprised of Models 18820A Control Unit & 18831A Motor Assembly		

R.M. Young Company certifies that the above equipment has been inspected and calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technologies (NIST).

Nominal Motor Rpm	27106D Output Frequency Hz (1)	Calculated Rpm (2)	Indicated Rpm (3)
30.0	5	30.0	30.0
150.0	25	150.0	150.0
300.0	50	300.0	300.0
450.0	75	450.0	450.0
600.0	100	600.0	600.0
750.0	125	750.0	750.0
990.0	165	990.0	990.0
☑ Clockwise and Counterclockwise rotation verified			

(1) Measured frequency output of RM Young Model 27106D standard anemometer attached to motor shaft
(2) 27106D produces 10 pulses per revolution of anemometer shaft
(3) Indicated on the Control Unit LCD display

*Indicates out of tolerance

☑ No Calibration Adjustments Required ☐ As Found ☐ As Left

Traceable frequency meter used in calibration DP4863

Date of inspection 24 May 2006

Tested By EJ

Tel: 231-946-3980 Fax: 231-946-4772 Email: met.sales@youngusa.com Website: www.youngusa.com

R.M. Young Company
2801 Aero Park Drive
Traverse City, Michigan 49686 USA

Certificate of Calibration and Testing

Test Unit:			
Model:	18801	Serial Number:	CA01674
Description:	Anemometer Drive - 10 to 10,000 RPM		
	- Comprised of Models 18820 Control Unit & 18830 Motor Assembly		

R.M. Young Company certifies that the above equipment has been inspected and calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technologies (NIST).

Nominal Motor Rpm	Output Frequency (1) Hz	Calculated Rpm (2)	Indicated Rpm (3)
600	320	600	600
1200	640	1200	1200
2400	1280	2400	2400
4200	2240	4200	4200
6000	3200	6000	6000
8100	4320	8100	8100
9900	5280	9900	9900
☑ Clockwise and Counterclockwise rotation verified			

(1) Measured at the optical encoder output
(2) Frequency output produces 32 pulses per revolution of the motor shaft
(3) Indicated on the Control Unit LCD display

*Indicates out of tolerance

☑ No Calibration Adjustments Required ☐ As Found ☐ As Left

Traceable frequency meter used in calibration DP4863

Date of inspection 17 November 2005

Tested By EP

Tel: 231-946-3980 Fax: 231-946-4772 Email: met.sales@youngusa.com Website: www.youngusa.com

Alaska Calibration, Inc.

Troubleshooting, Repair and Calibration of
Test & Measurement Equipment

CERTIFICATE OF CALIBRATION

WORK ORDER NO. 8884

TRACEABILITY CERTIFICATE NO. 05090203

ISSUED TO: Hoefler Consulting Group

INSTRUMENT: 366-3, .003-.03 Inch Ounces Torque Watch, Waters Manufacturing, Inc, S/N 4864

DATE DONE: September 02, 2005

DATE DUE: September 01, 2006

CERTIFIED BY METROLOGIST: E.P. Young

TEMPERATURE: 72 °F **HUMIDITY:** 43% RH

INCOMING STATUS: This instrument was in (XX) was out of ( ) tolerance when received.

PROCEDURE/LIMITATIONS/ACCURACY STATEMENT: T.O. 33k6-4-2630-1. Accuracy: +/- 10 % of Full Scale.

COMPLIANCE

Alaska Calibration, Inc.'s calibration practices and procedures comply with the requirements of ANSI/ISO/Z540-1 and ANS/ ISO/IEC17025: 2000 and relevant requirements of ISO 9002: 1994. The standards used are certified as being traceable to the National Institute of Standards and Technology (NIST), by comparison to SI units through laboratory standards in an unbroken chain of calibrations through appropriate primary and national measurement standards, derived from an acceptable value of a natural physical constant, or derived by the ratio type of self calibration techniques. This Certificate shall not be reproduced, except in full, without the written approval of Alaska Calibration, Inc.

4706 Harding Drive, Suite A, Anchorage, Alaska 99517-3119 (907) 677-1993

Houston Precision, Inc.

8729 Gulf Freeway
Houston, TX 77017-6504

Calibration Report

Company:	Hoefler Consulting Group	**Doc #:**	33479
Address:	3401 Minnesota Drive Suite 300 Anchorage, AK 99503	**Date:**	12/20/2005
Contact:	Chris Lindsey	**PO#:**	Verbal
Dept:		**Page:**	1
Gage:	.06-.60 oz Torque Watch	**Control:**	5042
Mfg:	Honeywell	**Model:**	.06-.60 oz Torque Watch
Location:		**Serial #:**	5042

Parameters:

Parameter:

Text:

Comments:

Calibration Completed by: Cal-Tech Calibration, INC
Original Certificate (attached) # 1768

Reference HPI S/O # 13385

We certify the equipment used for this calibration is traceable to NIST through one or more of the following numbers:
:

Last / Next Cal Dates: -->

Gage Status: PASS

Next Callbration Due: 12/20/2006

Certified By: Jorge Ashook Signature: _____

This certificate is not valid unless all 1 page(s) are present.
*Laboratory Environmental Conditions: Temperature: 21C +/- 2C, Relative Humidity: between 40% and 60%.
*Calibration measurements are performed in accordance with guidelines set forth in ANSI/NCSL Z540-1-1994, ISO10012-1, and Houston Precision's Quality manual.
*If additional information regarding this calibration is required, please contact this laboratory.
*All calibrations have been performed under the supervision and authority of Gary Deterling Lab Manager.

End of document.

Certificate of Calibration

The instrument listed below meets or exceeds published specifications and has been calibrated under controlled conditions and is traceable to the National Institute of Standards and Technology(N.I.S.T.), or to accepted intrinsic standards of measurement, or by the ratio type of self-calibration techniques. Cal-Tech Calibration conforms to the following, ANSI/NCSL Z540-1-1994, ISO/IEC 25/17025.

Customer: Houston Precision
Certificate Number: 1768
Instrument Make: Honeywell
Model: .06-.60" oz Torque Watch
S/N: None
ID: 5042

Date: 12-20-05
Temp: 74 Deg f
Humidity: 40%
Rec. In Tol.
Due Date: 12-20-06

Certification by: 

Accuracy: +\- 5% of full scale.

Comments:

Standards Used	Model	Certification Number	Due Date
Troemner	**1g-100g**	**822/265036-01**	**3-22-06**

Inch Oz. Range	As Found	After Adjust	Final Reading
.06	.05	none	.05
.18	.17	none	.17
.36	.35	none	.35
.48	.47	none	.47
.60	.59	none	.59

Cal-Tech Calibration, Inc.
1314 FM 646 West /Ste. 15 / Dickinson, Texas 77539 /Phone 281-614-0050 / Fax 281-614-0046

THE BRUNTON COMPANY
Certificate Of Calibration

Equipment Owner:
Name: Hoefler Consulting Group

Address: 3401 Minnesota Drive Ste. 300

City, State, Zip: Anchorage, AK 99503

Calibration traceable to the National Institute of Standards and Technology in accordance with Mil-STD-45662A has been accomplished on the instrument listed below by comparison with standards maintained by The Brunton Co. The accuracy and stability of all standards maintained by The Brunton Co. are traceable to national standards maintained by the National Institute of Standards and Technology in Washington, D.C. and Boulder, CO. Complete record of all work performed is maintained by The Brunton Co. and is available for inspection upon request.

This Unit has been calibrated to Lietz TM10E serial number 30937 traceable to N.B.S. no. 738 227675 this 12th Day of July 20 05

DESCRIPTION: Pocket Transit

PURCHASE ORDER: S. Mackay

ORDER NUMBER: 176322

LOT NUMBER: 9680

MODEL NUMBER: 11-F.5008

SERIAL NUMBER: 508079931?

CALIBRATION DATE: 7/12/05

RECALIBRATION DUE DATE: 7/12/06

Signed: Raelene White
QUALITY CONTROL MANAGER

THE EPPLEY LABORATORY, INC.

12 Sheffield Ave., P.O. Box 419, Newport, RI 02840 USA
Telephone: 401-847-1020 Fax: 401-847-1031
Email: info@eppleylab.com Internet: www.eppleylab.com

EPLAB
Scientific Instruments
for Precision Measurements
Since 1917

STANDARDIZATION OF EPPLEY PRECISION SPECTRAL PYRANOMETER Model PSP

Serial Number: 34377F3

Resistance: 603 Ω at 23 °C
Temperature Compensation Range: -20 to 40 °C

This radiometer has been compared with Standard Precision Spectral Pyranometer, Serial Number 21231F3 in Eppley's Integrating Hemisphere under radiation intensities of approximately 700 watts meter^{-2} (roughly one-half a solar constant). The adopted calibration temperature is 25 °C.

As a result of a series of comparisons, it has been found to have a sensitivity of:

$$9.33 \times 10^{-6} \text{ volts/watts meter}^{-2}$$

The calculation of this constant is based on the fact that the relationship between radiation intensity and emf is rectilinear to intensities of 1400 watts meter^{-2}. This radiometer is linear to within ± 0.5% up to this intensity.

The calibration of this instrument is traceable to standard self-calibrating cavity pyrheliometers in terms of the Systems Internationale des Unites (SI units), which participated in the Ninth International Pyrheliometric Comparisons (IPC IX) at Davos, Switzerland in September-October 2000.

Useful conversion facts: 1 cal cm^{-2} min^{-1} = 697.3 watts meter^{-2}
1 BTU/ft^2-hr^{-1} = 3.153 watts meter^{-2}

Shipped to:
Hoefler Consulting Group
Anchorage, AK

Date of Test: October 20, 2005

In Charge of Test: R. T. Eppley

S.O. Number: 60557
Date: January 11, 2006

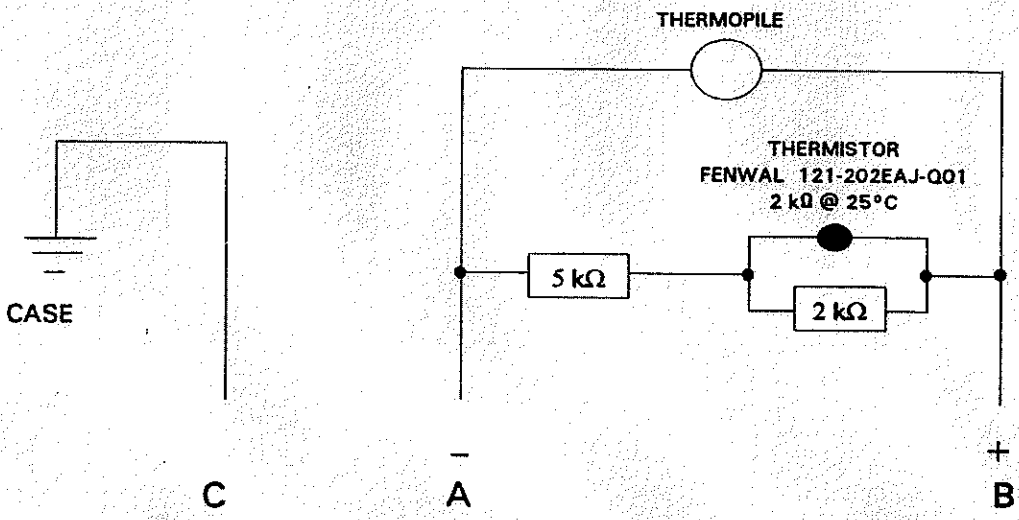
Reviewed by: George L. Kirk

Remarks:

PRECISION SPECTRAL PYRANOMETER
MODEL PSP

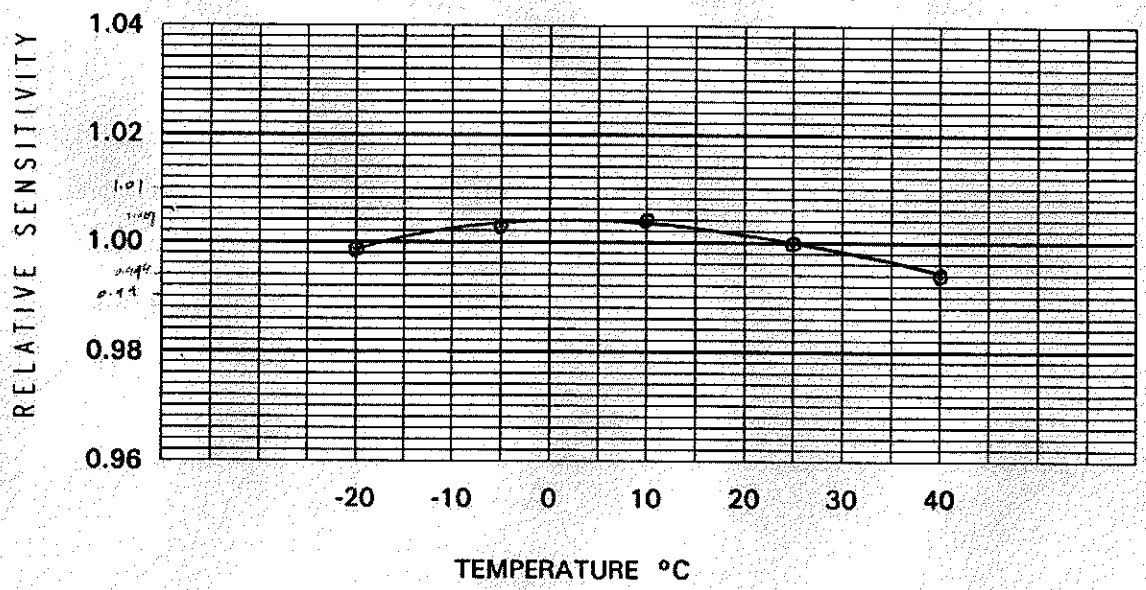
INSTRUMENT SERIAL NUMBER: 34377F3

INTERNAL WIRING



PIN CONNECTIONS ON PLUG

TEMPERATURE DEPENDENCE



EPLAB

TESTED BY: R. Eseman

DATE: Oct 18, 2005

Pebble 4
PSD Meteorological Monitoring Station

January 2007

Quality Assurance Performance Audit

Pebble Project
NORTHERN DYNASTY MINES INC.

for the

Pebble Project
Meteorological Monitoring Program
Iliamna, Alaska

prepared for

Northern Dynasty Mines, Inc.

Pebble 4 PSD Meteorological Monitoring Station
January 2007
Quality Assurance Performance Audit

Prepared for:

Northern Dynasty Mines, Inc.
Anchorage, Alaska

Prepared by:

Hoefler Consulting Group, Inc.
3401 Minnesota Drive, Suite 300
Anchorage, Alaska 99503

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1.0 INTRODUCTION

Hoefler Consulting Group, Inc. (HCG) operates meteorological monitoring stations for Northern Dynasty Mines, Inc. (NDM) in support of the Pebble Mine Project near Iliamna, Alaska. The air monitoring program is one component of ongoing baseline environmental studies being conducted to support mine permitting, mine design and mine transportation infrastructure development. The stations meet Prevention of Significant Deterioration (PSD) guidelines, although PSD permits may not be required. This report covers the Pebble 4 Station (Pebble 4) located near the proposed mine site.

Pebble 4 is located approximately five miles south of the mine ore body on top of a windswept knoll at about 1,200 foot elevation. The station consists of an instrumented 11-meter sectional tower secured with three guy wires. Approximately 50 foot south of the tower is an evaporation pan and a tipping precipitation gauge mounted on a 6' by 8' deck. Between the tower and the gauges is a 5' by 7' insulated building which houses the datalogger and power supply system. Pebble 4 is instrumented with PSD quality sensors monitoring the following parameters:

- Ambient Temperature (°C): Met One 062MP Thermistor Probe at 2-m
- Temperature Difference (°C): Met One 062MP Thermistors at 2-m and 10-m
- Relative Humidity (%RH): Vaisala HMP45AC Relative Humidity Sensor
- Wind Speed 1 (m/s): Climatronics F460 P/N 100075 Wind Speed Sensor
- Wind Direction 1 (°): Climatronics F460 P/N 100076 Wind Direction Sensor
- Wind Speed 2 (m/s): RM Young 05305 Wind Monitor-AQ
- Wind Direction 2 (°): RM Young 05305 Wind Monitor-AQ
- Sigma Theta (°): Campbell Scientific CR10X DAS calculated (Yamartino)
- Barometric Pressure (mbar): Vaisala PT101B Barometric Pressure Sensor
- Solar Radiation (W/m2): LI-COR Li-200SX Solar Radiation Pyranometer
- Precipitation 1 (mm H_2O): Met-One Model 370 Tipping Precipitation Gauge
- Precipitation 2 (mm H_2O): ETI Model Noah II Weighing Precipitation Gauge
- Evaporation (mm H_2O): Nova-Lynx Model 255-100/200 Pan and Gauge.

This report has been prepared for NDM to serve as a quantitative review of the Pebble 4 station. To that end, a Performance Audit was undertaken in order to demonstrate that the equipment installed at the meteorological monitoring station is operating correctly and meets the requirements set forth by the U.S. Environmental Protection Agency (EPA) and the Alaska Department of Environmental Conservation (ADEC).

2.0 PERFORMANCE AUDIT

2.1 Performance Audit Methodology

During the performance audit, the station datalogger is interfaced with a portable laptop computer to display the outputs for the meteorological sensors. The value of each meteorological sensor is compared to the output value from the appropriate piece of audit equipment or from calibrated instruments collocated with the sensor. The difference between the station's datalogger reading and the output from each audit instrument is compared with established PSD limits to determine the accuracy of each sensor. Additionally, threshold torques for wind speed and wind direction are measured with audit equipment and compared with manufacturer torques corresponding to the PSD threshold speed of 0.5 m/s. Table 2-1 provides a summary of the performance audit methods and limits used to audit each parameter at the stations.

Table 2-1 Performance Audit Methods and Acceptable Limits

Parameter	Audit Method	EPA/Manufacturer Limit
Datalogger Time	NOAA Clock	≤ ±5:00 minutes from AST
Temperature Accuracy	Collocated NIST thermistor	≤ ±0.5 °C
Temperature Difference	Collocated NIST thermistor	≤ ±0.1 °C
Relative Humidity	Collocated NIST RH sensor	≤ ±1.5 °C of dew point
Wind Speed Accuracy	Synchronous rpm motor	≤ ±0.2 m/s + 5 % observed
Wind Spd Torque (Clim)	Torque watch	≤ 0.35 g-cm (0.0049 oz-in)
Wind Spd Torque (RMY)	Torque watch	≤ 1.0 g-cm (0.014 oz-in)
Wind Direction Alignment	GPS, compass or landmark	≤ ±5° from true azimuth
Wind Direction Accuracy	Linearity tester	≤ ±5° per audit point
Wind Direction Linearity	Linearity tester	≤ 3° mean absolute average
Wind Dir Torque (Clim)	Torque watch	≤ 7.5 g-cm (0.104 oz-in)
Wind Dir Torque (RMY)	Vane torque gauge	≤ 11 g-cm (0.153 oz-in)
Barometric Pressure	Collocated NIST BP sensor	≤ ±3 mbar
Solar Radiation	Collocated NIST sensor	≤ ±5% of input+resolutuion[1]
Precipitation	Calibrated water volume	≤ ±10% of input
Evaporation	Measured water level	≤ ±10% of input

1. This audit limit is modified from PSD standard, as discussed below.

2.1.1 Data Acquisition System

An audit of the datalogger is conducted by comparing all datalogger outputs to the audit standards, as described below. The datalogger time is checked against an instantaneous time reading from the National Oceanic and Atmospheric Administration (NOAA) clock in Boulder, Colorado, via a global positioning system (GPS) handheld unit or telephone contact with the NOAA clock.

2.1.2 Air Temperature and Air Temperature Difference

The 2-meter and 10-meter thermistors are removed from their aspirator shields and collocated with a National Institute of Standards and Technology (NIST) traceable digital thermometer. The station thermistors and the transfer standard NIST thermometer are taped together and immersed in insulated thermoses containing a series of fluid baths; hot water (35°C to 45°C), warm water (15°C to 25°C), water/ice bath (0°C), cold glycol (-15°C to -25°C) and very cold glycol (-35°C to -45°C). Dry ice is used to cool the glycol baths. Each liquid bath is agitated and allowed to equilibrate before simultaneous readings are taken from the three instruments.

An alternate method can also be used for the low temperature audits, employing a Thermal Mass Device (TMD). The TMD consists of a 6" diameter by 9" high solid aluminum block milled to fit snuggly inside of an insulated Dewar flask. On the top of the TMD, and in corresponding locations on the flask lid, are holes sized to accommodate a variety of Campbell, Climatronics, Met-One and VWR thermistors. The TMD is cooled to the target temperatures by contact with dry ice and then placed in the insulated flask. The audit and station thermistors are inserted through the flask lid and into the appropriate holes in the TMD. After the TMD and the thermistors are allowed to equilibrate, readings for all thermistors are simultaneously taken. The aluminum TMD has a very high thermal conductivity and when allowed to equilibrate inside of the insulated flask, thermal gradients across the TMD are very small.

In all cases, the difference between the individual station thermistors and the NIST standard are compared to the PSD temperature accuracy limit of ±0.5°C. The difference between the two station thermistors (10-m°C minus 2-m°C) is compared to the PSD temperature difference limit of ±0.1°C.

2.1.3 Relative Humidity

Relative humidity (RH) is audited using a collocated NIST traceable RH sensor. The NIST sensor and the field sensor are collocated out of direct sunlight to eliminate solar radiation effects, preferably inside of the motor aspirated shield. If the NIST standard reads directly in dew point °C, those readings are used; if not, relative humidity and

temperature readings are used. For the audit; instantaneous readings of dew point, relative humidity and ambient temperature are recorded from the transfer standard and the DAS. All relative humidity and temperature readings are converted to dew point in order to assess the PSD error limit of ±1.5°C dew point.

2.1.4 Wind Speed

Anemometers are audited to determine their accuracies in reading known wind speeds and to ascertain the sensor's threshold torque. The Climatronics and RM Young sensors are audited in very similar manners and are discussed together. The instruments are tested after removal from the tower and after removal of the sensor's props or cups.

First, an RM Young synchronous motor is attached to the shaft of the anemometer by using brand specific coupling devices. The sensor shaft is rotated at several different known revolutions per minute (rpm). Each rotational speed in rpm is equated to a wind speed in meters per second (m/s) by using the anemometer manufacturer's linear calibration formula. The difference between the calculated input speed in m/s and the datalogger output is compared to established PSD limits for each input rpm.

Next, a high precision torque watch is attached to the shaft of the anemometer, once again using custom couplings. Torque readings are made in both directions in each quadrant along the axis of rotation of the shaft. The maximum reading is recorded for the torque required to turn the shaft of the anemometer. The torque value recorded during the audit is compared to manufacturer's torque corresponding to the minimum PSD threshold speed of 0.5m/s.

2.1.5 Wind Direction

The wind direction sensors are first audited as-found to determine the accuracy of their alignment with respect to true north (true azimuth alignment) using one of four methods. In one method, a handheld GPS unit is used to measure the position of the auditor with respect to a waypoint captured under the wind sensor's position on the tower. Using binoculars, the tail of the wind vane is aligned with the auditor's position at a distance of several hundred feet from the tower. The GPS bearing back to the tower waypoint is then compared to the DAS reading. The difference between the two should not exceed ±5° per audit point. This procedure is repeated at least 4 times, once per quadrant, generally near the cardinal directions. The second method uses a calibrated precision compass mounted on a gimbal and tripod. The compass declination is preset for the specific location and date using one of a variety of magnetic declination computer models. The sensor tail is aligned toward the auditor while auditor sights the

compass toward the sensor and readings are taken in a similar manner to the GPS method.

Another option is to align the tail of the sensor with a distant identifiable landmark of know bearing. The bearing to the landmark may be ascertained using a variety of methods. One method involves physically capturing a distant GPS waypoint, such as at a discernable structure or emissions stack. Bearings to inaccessible natural landmarks, usually distant mountain peaks, are acquired through the use of various computer mapping programs, such as Natural Geographic's TOPO program or USGS digital raster graphics (DRGs) loaded into AutoCAD. The bearing from the station location to the landmark is compared to the DAS reading. This method yields the most accurate audit value, but is limited by weather and availability of discernable landmarks. The final method is to align the vane with the tower guy wires or preset survey markers, whose bearing has been ascertained using precision survey equipment.

The wind direction accuracy and linearity are subsequently audited after the wind direction sensor is removed from the tower. The Climatronics sensor is mounted on a Climatronics Model 101984 linearity tester and the RM Young sensor is mounted on an RM Young Model 18112 Vane Angle Bench Stand. Both test fixtures are keyed to their respective sensor and graduated from 0° to 360°. A series of readings starting at 30° and then clockwise in 30° increments are taken. The RM Young is read from 30° to 360° and the Climatronics is read from 30° to 540°. The Climatronics sensor is tested 180° past 360° in order to test the second potentiometer used in some DAS programming. Although not required, the Climatronics sensor is also tested with the vane attached in order to ascertain sensor accuracy and linearity relative to the instrument crossarm. The vane is aligned along the axis of the crossarm to yield the 0°/360° and 180° values and against a square held to the crossarm for the 90° and 270° directions. Four readings are taken in a clockwise direction and four are taken counterclockwise to complete the test. For both the linearity test fixture and crossarm tests, individual error values are assessed for the PSD accuracy limit of ±5° per point and the mean absolute average error is assessed against the linearity limit of 3°.

Next, the RM Young wind direction threshold is tested by measuring wind vane torque using an RM Young Model 18331 Vane Torque Gauge. This device saddles the wind vane and a calibrated spring is pulled to determine maximum torque from readings taken in both directions in all four quadrants. The Climatronics wind direction starting torque is measured with the vane removed by using a precision torque watch in the same manner as the wind speed torque. The highest torque readings are compared to specific manufacturer limits for instrument staring torque.

Finally, the wind direction sensors are placed back on the tower and as-left audits of the azimuth alignments are conducted to ensure the instruments are properly reinstalled.

2.1.6 Barometric Pressure

Barometric pressure (BP) is audited using a collocated NIST traceable BP sensor. The difference between the NIST sensor and the station sensor are compared to the PSD limit of ±3 mbar.

2.1.7 Solar Radiation

Outputs of the station sensor are compared to the output of a level collocated audit solar radiation sensor. The audit sensor is connected to an independent audit datalogger with the scan interval and clock synchronized with the station DAS. Hourly average solar radiation readings and instantaneous readings are recorded during the audit and then input into a custom spreadsheet to calculate a linear regression for the data. The PSD limit for solar radiation audits is ±5% of observed, but this standard is very difficult to obtain at the northern latitude of this installation. This EPA standard is currently undergoing review and is expected to change. A well excepted substitute is that individual DAS and audit data pairs are compared to a limit of ±5% of observed **+ EPA minimum instrument resolution (10W/m²)**. Individual data pairs are evaluated against this standard, but the overall set is restricted to a 5% error by limiting allowable linear slope to 1.0±0.05.

2.1.8 Precipitation

The Met-One tipping precipitation gauge is audited by slowly adding precisely measured volumes of water to the gauge using a dripping Nova Lynx Model 260-2595 Rain Gauge Calibrator. The predicted millimeters of precipitation corresponding to the measured volume added are calculated using the diameter of the gauge opening. The tare reading from the DAS is initially recorded and subsequent DAS readings are recorded after each test run. The percent difference between the predicted audit value and the DAS value is compared to the PSD limit of ±10%.

2.1.9 Evaporation

The evaporation gauge is first checked to confirm that the pan and gauge are level. The accuracy is checked by first removing or adding enough water to bring the initial level to approximately 50 mm or 240 mm, the minimum and maximum for this gauge. An accurate millimeter scale is taped to the inside of the evaporation pan and the water level on the scale is compared to the DAS output. Water is added to or removed from the pan to change the level by 10-20mm and another set of readings are taken. This process is repeated until the level in the pan reaches the upper or lower limit of the

gauge. The resultant suite of DAS and scaled water level readings are then input into a custom spreadsheet which calculates a linear regression for the data. The evaporation gauge reads change in water level due to evaporation and rainfall, so the calculated intercept must be removed from measured water levels. The adjusted level is compared to the DAS output with a maximum allowable error of ±10% of input and the slope of resultant line has a limit of 1.0±0.1.

2.2 Performance Audit Results

The performance audit was conducted at the Pebble 4 station on January 18, 2007, with Dominic Shallies of HCG assisting. Supplemental audits of some instruments were performed during October of 2006. On October 11, 2006 the evaporation pan and precipitation gauge were audited prior to winterization. All sensors were challenged with certified audit equipment and yielded errors below the PSD limits. Table 2-2 contains summary data from the January 2007 audit and Table 2-3 summarizes the supplemental performance audit. Complete audit reports and audit equipment calibration certificates are contained in Appendix A and Appendix B respectively.

2.3 Performance Audit Recommendations

- None.

Table 2-2 Pebble 4 January 18, 2007 Performance Audit Summary

Parameter	Limit	Units	Max Err	Status
Datalogger Time	≤ ±5:00	Min:Sec	0:05	Pass
2-m Temperature Accuracy	≤ ±0.5	°C	0.29	Pass
10-m Temperature Accuracy	≤ ±0.5	°C	0.29	Pass
Air Temperature Difference	≤ ±0.1	°C	0.00	Pass
Relative Humidity (dew point)	≤ ±1.5	°C	0.4	Pass
Climatronics Wind System				
Wind Speed Torque	≤ 0.0049	oz-in	<0.003	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque	≤ 0.104	oz-in	0.040	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	4.1	Pass
Wind Direction Accuracy	≤ ±5	Degree	2.2	Pass
Wind Direction Linearity	≤ 3	Degree	1.0	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	1.6	Pass
RM Young Wind System				
Wind Speed Torque	≤ 0.014	oz-in	0.007	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque	≤ 11	g-cm	8.0	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	-3.9	Pass
Wind Direction Accuracy	≤ ±5	Degree	2.8	Pass
Wind Direction Linearity	≤ 3	Degree	1.3	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	-3.5	Pass
Barometric Pressure	≤ ±3	Mbar	1.3	Pass
Solar Radiation	≤ ±5+Res	% input	-6.8[1]	Pass
Tipping Precipitation	≤ ±10	% input	-8.5	Pass

1. Max % error value of 6.8 within limit of 5% input + resolution, see audit.

Table 2-3 Pebble 4 Oct. 11, 2006 Supplemental Performance Audit Summary

Parameter[1]	Limit	Units	Max Err	Status
Tipping Precipitation	≤ ±10	% input	2.0	Pass
Evaporation	≤ ±10	% input	2.5	Pass

1. Gauges audited prior to winterizing.

3.0 REFERENCES

"Draft Quality Assurance Project Plan for the Pebble Project Meteorological Monitoring Program", Hoefler Consulting Group, Inc.

"Quality Assurance Manual for Ambient Air Quality Monitoring" ADEC, August 1996.

"Elements for Ambient Air Monitoring Quality Assurance Project Plan (QAPP)", ADEC, September 2004.

"Ambient Air and/or Meteorological Monitoring Quality Assurance Project Plan (QAPP) Review Checklist", ADEC, September 2004.

"Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)", EPA-450/4-87-007, May 1987.

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"On-Site Meteorological Program Guidance for Regulatory Modeling Applications", EPA-450/4-87-013, August 1995.

"Meteorological Monitoring Guidance for Regulatory Modeling Applications", EPA-454/R-99-005, February 2000.

"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II: Part I, Ambient Air Quality Monitoring Program Quality System Development", EPA-454/R-98-004, August 1998.

"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Measurements", EPA/600/R-94/038d, March 1995.

"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume V: Precipitation Measurement Systems", EPA/600/R-94/038e, April 1994.

APPENDIX A
PERFORMANCE AUDIT DATA SHEETS and ALIGNMENT MAP

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Jan 18, 2007

• *DAS TIME AUDIT*

PSD Limits: DAS time = Alaska Standard Time (AST) +/- 5 minutes.
Conversions: Winter; (AST) = (DST), Summer; (AST) = (DST) - 1 hr.
Comments: None.

DAS TIME vs. NOAA CLOCK			
AST Time	DAS Time	Error Min:Sec	Pass/ Fail?
11:18:00	11:18:05	**00:05**	**PASS**

• *TEMPERATURE SENSORS & ΔT AUDIT*

Lower Height: 2.0 **Meters** **Upper Height:** 9.9 **Meters**

2-M Thermistor:	**Make:**	Met One	**Model:**	062MP	**S.N.#:**	E2777 # 2/2	**Range:**	-50 to 50 °C
10-M Thermistor:	**Make:**	Met One	**Model:**	062MP	**S.N.#:**	E2777 # 1/2	**Range:**	-50 to 50 °C
Audit Digital Thermometer:	**Make:**	Van Waters & Rogers	**Model:**	61220/601	**S.N.#:**	51091749	**Range:**	-40 to 150 °C
Audit Probe:	**Make:**	Van Waters & Rogers	**Model:**	61220/604	**S.N.#:**	240301145	**Range:**	-40 to 150 °C

Wiring Check	
2m=2m	✓
10m=10m	✓

Time:
Begin: 1400
End: 1455

THERMISTOR COLLOCATED STANDARD TEST										
Thermal Input			Station Response (2M)			Station Response (10M)			Station (Delta T)	
Temp Range	Target °C	Input °C	DAS °C	Error °C	Pass/ Fail?	DAS °C	Error °C	Pass/ Fail?	Delta T °C	Pass/ Fail?
Hot	35 to 45	42.38	42.41	0.03	Pass	42.41	0.03	Pass	0.00	Pass
Warm	15 to 25	24.44	24.43	-0.01	Pass	24.43	-0.01	Pass	0.00	Pass
Ice Bath	0	0.02	0.13	0.11	Pass	0.13	0.11	Pass	0.00	Pass
Cold	-15 to -25	-22.68	-22.47	0.21	Pass	-22.47	0.21	Pass	0.00	Pass
Very Cold	-35 to -45	-34.37	-34.08	0.29	Pass	-34.08	0.29	Pass	0.00	Pass
		Max Abs. Error	0.29	**PASS**		0.29	**PASS**	0.00	**PASS**	

PSD Limits: Max Absolute Error > 0.5 °C (Sensor Accuracy); Max Absolute Error > 0.1 °C (Delta Temperature).
Comments: None.

• *RELATIVE HUMIDITY SENSOR AUDIT*

Height: 2.0 **Meters**

RH Sensor:	**Make:**	Vaisala	**Model:**	HMP45C-L	**S.N.#:**	A4350044	**Range:**	0.8 to 100 % RH
Audit Equipment:	**Make:**	Vaisala	**Model:**	HMI 41	**S.N.#:**	X0650080	**Range:**	0 to 100 % RH
Audit Equipment:	**Probe#**	HMI41 X07450015						

RH COLLOCATED STANDARD TEST								
Reading Time	Input %RH	Input AT (°C)	Input DP (°C)	DAS %RH	DAS AT (°C)	DAS DP (°C)	Error DP (°C)	Pass/ Fail?
1238	94.9	-2.7	-3.3	99.6	-2.8	-2.9	0.4	Pass
1317	96.6	-2.7	-3.1	100.0	-2.8	-2.8	0.3	Pass
					Max Abs. Error		0.4	**PASS**

PSD Limits: Max Absolute Error > 1.5°C Dew Point.
Conversions: Td=DP(°C), Ta=AT(°C), RH=Fraction: $Td=b*\gamma/(a-\gamma)$, where $\gamma=a*Ta/(b+Ta)+\ln(RH)$, and a = 17.27, b=237.7°C.
Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Jan 18, 2007

• *HORIZONTAL WIND SENSOR AUDIT - CLIMATRONICS*

Height: 11.4 **Meters**

Wind Spd Sensor:	**Make:**	Climatronics	**Model:**	100075	**S.N.#:**	5081	**Cup #:**	2299	**Range:**	0-60 m/s
Wind Dir Sensor:	**Make:**	Climatronics	**Model:**	100076	**S.N.#:**	4745	**Vane #:**	1452	**Range:**	0-360 Deg
Spd Audit Eq:	**Low Spd:**	RM Young	**Model:**	18811	**S.N.#:**	CA02136	**Torque:**	Watters Mdl 366-3	**S.N.#:**	4864
Spd Audit Eq:	**High Spd:**	RM Young	**Model:**	18801	**S.N.#:**	CA01674				
Dir Audit Eq:	**Linearity:**	Climatronics	**Model:**	101984	**S.N.#:**	145	**Torque:**	Honeywell Mdl 366-0	**S.N.#:**	5042
Dir Audit Eq:	**Compass:**	Brunton	**Model:**	11-F5008	**S.N.#:**	5080799319	**Magnetic Declin:**		17.5	E of N

WIND SPD SYNCHRONOUS MOTOR TEST

Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/ Fail?
0	0.22	0.22	0.00	N/A	Pass
100	2.57	2.57	0.00	N/A	Pass
200	4.92	4.92	0.00	N/A	Pass
400	9.62	9.62	N/A	0.0	Pass
1000	23.72	23.71	N/A	0.0	Pass
2000	47.22	47.21	N/A	0.0	Pass
	Max Abs. Error		**0.00**	**0.0**	**PASS**

Time: Begin: 1300 End: 1303

Conversion: Heavy Duty Al Cups: m/s = rpm÷42.55+0.22.
Cups rotate clockwise.

WIND DIR IN-SITU AZIMUTH ALIGNMENT TEST

Cups Aligned North? ✓ Input Description	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
Compass	91.5	91.2	-0.3	Pass
Pebble Station 3	166.3	170.4	4.1	Pass
Compass	350.0	351.8	1.8	Pass
Compass	273.5	274.9	1.4	Pass
Compass	170.5	170.5	0.0	Pass
	Max Abs. Error		**4.1**	**PASS**
	Mean Abs. Error		**1.5**	**GOOD**

Time: Begin: 1140 End: 1200

CROSSARM-VANE ACCUR. & LIN. TEST

Input Dir	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
South	180.0	180.0	0.0	Pass
West	270.0	271.6	1.6	Pass
North	360.0	0.1	0.1	Pass
East	90.0	90.7	0.7	Pass
North	360.0	0.1	0.1	Pass
West	270.0	272.0	2.0	Pass
South	180.0	179.4	-0.6	Pass
East	90.0	90.3	0.3	Pass
	Max Abs. Error		**2.0**	**PASS**
	Mean Abs. Error		**0.7**	**PASS**

Time: Begin: 1245 End: 1248

WIND DIR BENCH STAND ACCURACY & LINEARITY TEST

Input Deg	DAS Deg	Error Deg	Pass/ Fail?	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
30.0	27.8	-2.2	Pass	330.0	331.6	1.6	Pass
60.0	58.5	-1.5	Pass	355.0	356.9	1.9	Pass
90.0	88.9	-1.1	Pass	30.0	28.1	-1.9	Pass
120.0	121.4	1.4	Pass	60.0	58.6	-1.4	Pass
150.0	150.1	0.1	Pass	90.0	89.2	-0.8	Pass
180.0	179.4	-0.6	Pass	120.0	121.1	1.1	Pass
210.0	209.9	-0.1	Pass	150.0	150.2	0.2	Pass
240.0	240.5	0.5	Pass	180.0	179.5	-0.5	Pass
270.0	270.7	0.7	Pass	**Max Abs. Error**		**2.2**	**PASS**
300.0	301.2	1.2	Pass	**Mean Abs. Error**		**1.0**	**PASS**

Time: Begin: 1250 End: 1254

WIND SPD TORQUE TEST

Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/ Fail?
In-Situ	0.0049	<0.003	**PASS**
New	0.0049	N/A	**N/A**

WIND DIR TORQUE TEST

Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/ Fail?
In-Situ	0.104	0.040	**PASS**
New	0.104	N/A	**N/A**

WIND DIR POST-AUDIT AZIMUTH ALIGNMENT TEST

Cups Aligned North? ✓ Input Description	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
Compass	91.5	91.4	-0.1	Pass
Compass	346.5	348.1	1.6	Pass
Compass	267.5	267.7	0.2	Pass
Compass	172.0	172.2	0.2	Pass
	Max Abs. Error		**1.6**	**PASS**
	Mean Abs. Error		**0.5**	**GOOD**

Time: Begin: 1340 End: 1400

Spd PSD Limits: Threshold Torque >0.35gm-cm (0.0049oz-in) @ 0.50m/s.
Max Abs Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.

Dir PSD Limits: Threshold Torque >7.5 gm-cm (.104 oz-in) @ 0.5 m/s. Max Abs Error >5° from True Azimuth (alignment).
Max Abs Error >5° (accuracy). Mean Abs Error >3° (linearity). Azimuth Mean Abs Error calculated for information only.

Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Jan 18, 2007

• *HORIZONTAL WIND SENSOR AUDIT - RM YOUNG AQ*

Height: 10.6 **Meters**

Wind Sensor: **Make:** RM Young **Model:** 05305 AQ **S.N.#:** 71368 **Prop #:** 63635 **Range:** 0-360 **Deg**
Spd Audit Eq: **Low Spd:** RM Young **Model:** 18811 **S.N.#:** CA02136 **Torque:** Watters Mdl 366-3 **S.N.#:** 4864
Spd Audit Eq: **High Spd:** RM Young **Model:** 18801 **S.N.#:** CA06174
Dir Audit Eq: **Linearity:** RMY Mdl 18112 Bench Stand **S.N.#:** None **Torque:** RMY Mdl 18331 Torque Gauge **S.N.#:** None
Dir Audit Eq: **Compass:** Brunton **Model:** 11-F5008 **S.N.#:** 5080799319 **Magnetic Declin:** 17.5 **E of N**

WIND SPD SYNCHRONOUS MOTOR TEST

Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/ Fail?
0	0.00	0.00	0.00	N/A	Pass
400	2.05	2.05	0.00	N/A	Pass
1000	5.12	5.12	N/A	0.0	Pass
2000	10.24	10.24	N/A	0.0	Pass
5000	25.60	25.60	N/A	0.0	Pass
10000	51.20	51.20	N/A	0.0	Pass
	Max Abs. Error		**0.00**	**0.0**	**PASS**

Time: Begin: 1230 End: 1233

Conversion: Model 08254 Prop: m/s = 0.00512*rpm.
Prop rotates counterclockwise.

WIND DIR IN-SITU AZIMUTH ALIGNMENT TEST

Box Aligned South? ✓ Input Description	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
Compass	91.5	91.4	-0.1	Pass
Pebble Station 3	166.3	168.5	2.2	Pass
Compass	350.0	347.8	-2.2	Pass
Compass	273.5	269.6	-3.9	Pass
Compass	170.5	169.6	-0.9	Pass
Time: Begin: 1140	**Max Abs. Error**		**3.9**	**PASS**
End: 1200	**Mean Abs. Error**		**1.9**	**GOOD**

WIND DIR BENCH STAND ACCURACY & LINEARITY TEST

Input Deg	DAS Deg	Error Deg	Pass/ Fail?	Input Deg	DAS Deg	Error Deg	Pass/ Fail?	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
30.0	29.1	-0.9	Pass	150.0	149.8	-0.2	Pass	270.0	268.0	-2.0	Pass
60.0	59.3	-0.7	Pass	180.0	179.2	-0.8	Pass	300.0	297.4	-2.6	Pass
90.0	89.9	-0.1	Pass	210.0	208.7	-1.3	Pass	330.0	327.5	-2.5	Pass
120.0	119.7	-0.3	Pass	240.0	238.4	-1.6	Pass	355.0	352.2	-2.8	Pass
					Time: Begin: 1220			**Max Abs. Error**		**2.8**	**PASS**
					End: 1224			**Mean Abs. Error**		**1.3**	**PASS**

WIND SPD TORQUE TEST

Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/ Fail?
In-Situ	0.014	0.007	**PASS**
New	0.014	N/A	**N/A**

WIND DIR TORQUE TEST

Bearings Replaced?	Limit gm-cm	Torque gm-cm	Pass/ Fail?
In-Situ	11.0	8.0	**PASS**
New	11.0	N/A	**N/A**

WIND DIR POST-AUDIT AZIMUTH ALIGNMENT TEST

Box Aligned South? ✓ Input Description	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
Compass	90.5	91.9	1.4	Pass
Compass	346.0	342.5	-3.5	Pass
Compass	269.0	266.0	-3.0	Pass
Compass	161.5	161.7	0.2	Pass
Time: Begin: 1340	**Max Abs. Error**		**3.5**	**PASS**
End: 1400	**Mean Abs. Error**		**2.0**	**GOOD**

Spd PSD Limits: Threshold Torque >1.0gm-cm (0.014oz-in) @ 0.50m/s. Max Abs Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.
Dir PSD Limits: Threshold Torque >11.0 gm-cm (0.153 oz-in) @ 0.5 m/s. Max Abs Error >5° from True Azimuth (alignment).
Max Abs Error >5° (accuracy). Mean Abs Error >3° (linearity). Azimuth Mean Abs Error calculated for information only.
Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Jan 18, 2007

• *BAROMETRIC PRESSURE SENSOR AUDIT*

Height: N/A **Meters**

Pressure Sensor: **Make:** Vaisala **Model:** PTB101B **S.N.#:** B0440012 **Range:** 600-1060 **hPa**
Audit Equipment: **Make:** PRETEL **Model:** AltiPlus A2 **S.N.#:** 27806 **Range:** 470-1040 **hPa**

BP COLLOCATED STANDARD TEST						
Reading Time	Raw Input in Hg	Adj Input in Hg	Adj Input mb	DAS mb	Error mb	Pass/ Fail?
1130	28.03	27.91	945.2	946.4	1.3	Pass
1426	28.01	27.89	944.5	945.8	1.3	Pass
			Max Abs. Error		1.3	**PASS**

Audit Inst Cal Data	
Cal. Date: 05/24/06	
Audit Inst	Offset Amount
24.13	-0.13
26.24	-0.13
28.12	-0.12
30.11	-0.11
Intercept	**-0.22**
Slope	**0.0035**

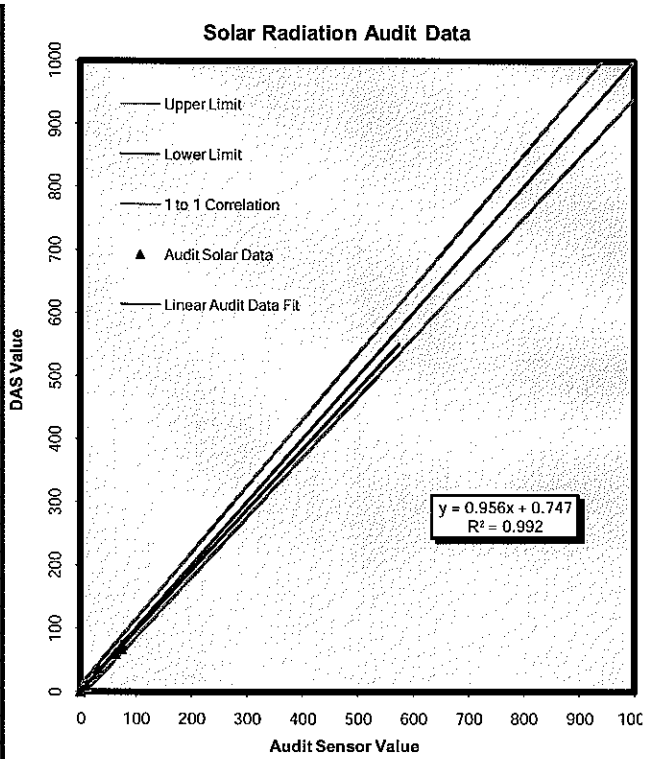
PSD Limits: Max Absolute Error > 3mb (0.3kPa).
Comments: None.

• *SOLAR RADIATION SENSOR AUDIT*

Height: 3.9 **Meters**

Station Sensor: **Make:** Li-Cor **Model:** Li-200SX **S.N.#:** PY52709 **Range:** 0-3000 **W/m²**
Audit Sensor: **Make:** Eppley **Model:** PSP **S.N.#:** 34377F3 **Range:** 0-2800 **W/m²**

SOLAR RADIATION COLLOCATED STANDARD TEST						
Data Hr AST	Audit W/m²	DAS W/m²	Error W/m²	Allow Err W/m²	Error % Input	Pass/ Fail?
1450	72.6	67.6	-4.9	±13.6	-6.8%	Pass
1200	31.7	36.4	4.7	±11.6	n/a	Pass
1300	61.9	59.5	-2.4	±13.1	-3.9%	Pass
1400	74.8	72.7	-2.1	±13.7	-2.8%	Pass
1500	74.6	72.6	-2.0	±13.7	-2.7%	Pass
1700	10.8	8.5	-2.3	±10.5	n/a	Pass
1900	0.0	0.0	0.0	±10.0	n/a	Pass
Corr. Val	**0.9962**	**Max Abs. Percent Error**			**6.8%**	**PASS**
R² Value	**0.9924**	**Intercept**	**0.7**	**Slope**	**0.9564**	**PASS**



Begin Date: 01/18/07 **End Date:** 01/18/07

PSD Limits: Max Abs Err <5% of Observed + Resolution(10W/m²). Linear regression slope in range 1.0±5% (0.95 to 1.05) when R² > 0.995.
Note: Instantaneous values are associated with minute timestamps and hourly averages coincide with whole hour timestamps.
Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Jan 18, 2007

• *TIPPING PRECIPITATION GAUGE AUDIT*

Height with Snowfall Adapter Off/On: 1.0/1.5 **Meters**

Precipitation Gauge: **Make:** Met-One **Model:** 370 - 0.2mm **S.N.#:** A6431 **Range:** 3 **Inches per Hour**
Audit Equipment: **Make:** Nova Lynx Corp. **Model:** 260-2595 **S.N.#:** 936 **Range:** 2 **Inches per Hour**
Diameter: 8.00 **Inches** **Volume Rate** 32.43 **ml/mm** **Int Dat:** DAS hourly data and/or adjustments.

TIPPING PRECIPITATION GAUGE VOLUME TEST

Start Time	Input Vol ml	Input mm	Begin mm	Int Dat mm	End mm	End Time	Final mm	Error % Input	Pass/ Fail?	Notes
1105	800	24.7	0.0		23.8	1200	23.8	-3.6%	Pass	
1220	800	24.7	0.0		22.6	1300	22.6	-8.5%	Pass	
1420	650	20.0	0.0		20.0	1500	20.0	0.0%	Pass	
						Max Abs. Error		**8.5%**	**PASS**	

PSD Limits: Max Absolute Error > 10 % of Input.
Comments: Snowfall adapter on.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Oct 11, 2006

• *TIPPING PRECIPITATION GAUGE AUDIT*

Height with Snowfall Adapter Off/On: 1.0/1.5 **Meters**

Precipitation Gauge: **Make:** Met-One **Model:** 370 - 0.2mm **S.N.#:** A6431 **Range:** 3 **Inches per Hour**
Audit Equipment: **Make:** Nova Lynx Corp. **Model:** 260-2595 **S.N.#:** 936 **Range:** 2 **Inches per Hour**
Diameter: 8.00 **Inches** **Volume Rate** 32.43 **ml/mm** **Int Dat:** DAS hourly data and/or adjustments.

TIPPING PRECIPITATION GAUGE VOLUME TEST

Start Time	Input Vol ml	Input mm	Begin mm	Int Dat mm	End mm	End Time	Final mm	Error % Input	Pass/ Fail?	Notes
1430	800	24.7	0.0	23.2	1.2	1505	24.4	-1.2%	Pass	w/o snofall adapter
1510	800	24.7	1.2	0.0	26.4	1600	25.2	2.0%	Pass	w/o snofall adapter
1615	800	24.7	6.4	30.8	0.6	1710	25.0	1.2%	Pass	w/ snofall adapter
						Max Abs. Error		**2.0%**	**PASS**	

PSD Limits: Max Absolute Error > 10 % of Input.
Comments: None.

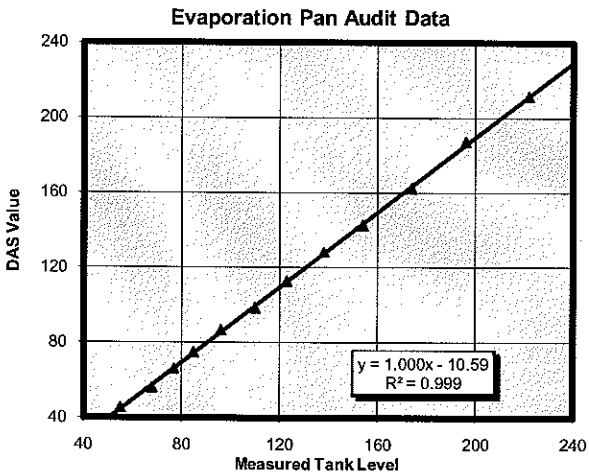
• *EVAPORATION GAUGE AUDIT*

Height: 0.5 **Meters**

Evaporation Gauge: **Make:** NovaLynx **Model:** 255-100 **S.N.#:** 687 **Range:** 40-254 **mm**
Evaporation Pan: **Make:** NovaLynx **Model:** 255-200 **S.N.#:** None **Range:** 0-254 **mm**

EVAPORATION PAN STAGE HEIGHT TEST

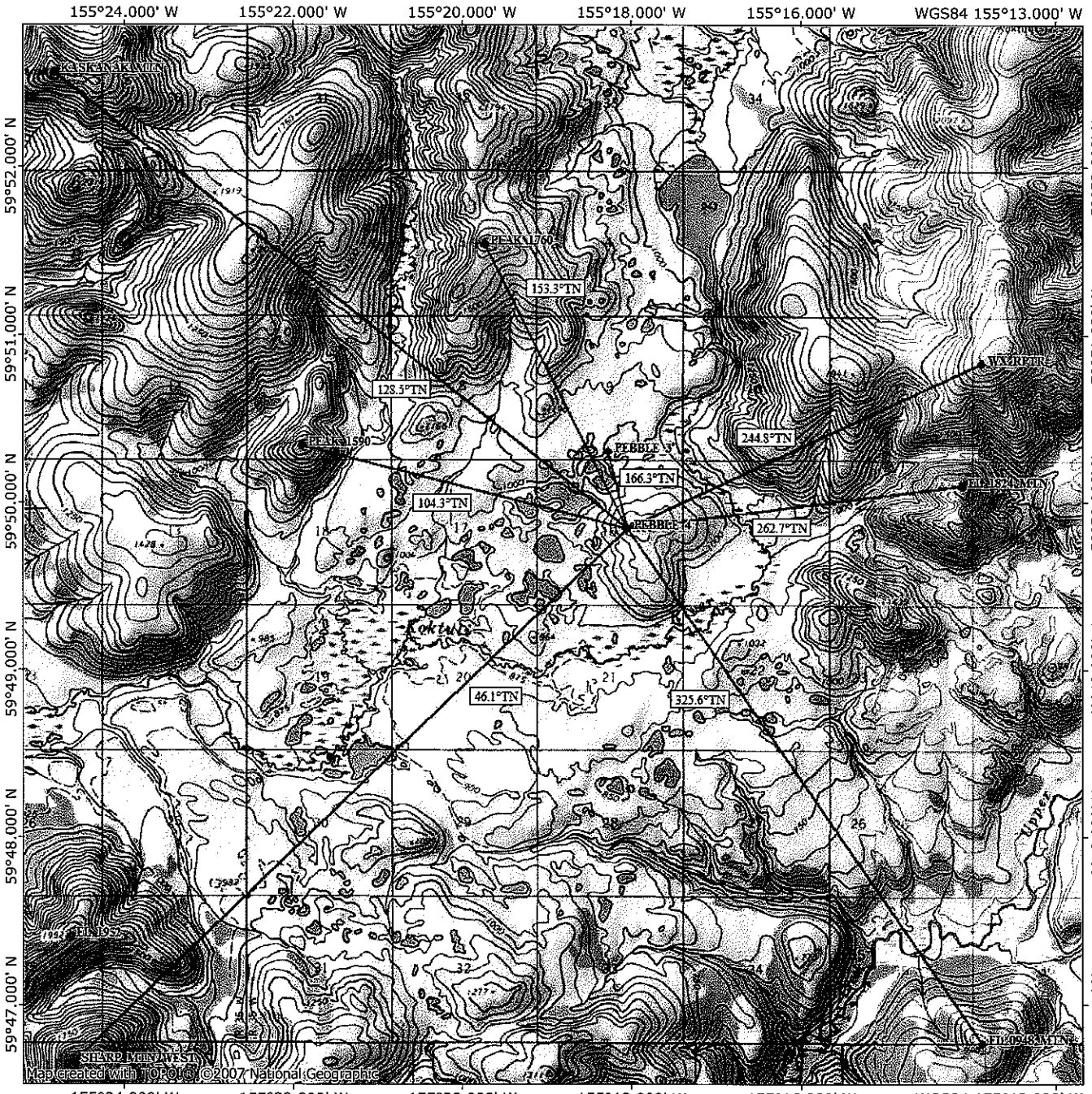
Pan inch	Pan mm	DAS mm	Pan Level + Intcpt	Error mm	Error % Input	Pass/ Fail?
	222.0	211.4	211.4	0.0	0.0%	Pass
	196.0	187.0	185.4	1.6	0.9%	Pass
	174.0	162.2	163.4	-1.2	-0.7%	Pass
	154.0	142.5	143.4	-0.9	-0.6%	Pass
	138.0	128.4	127.4	1.0	0.8%	Pass
	123.0	112.5	112.4	0.1	0.1%	Pass
	110.0	98.2	99.4	-1.2	-1.2%	Pass
	96.0	86.8	85.4	1.4	1.6%	Pass
	85.0	74.6	74.4	0.2	0.3%	Pass
	77.0	66.2	66.4	-0.3	-0.4%	Pass
	68.0	56.2	57.4	-1.2	-2.1%	Pass
	55.0	45.5	44.4	1.1	2.5%	Pass
		Max Abs. Error		**1.6**	**2.5%**	**PASS**
		Intercept	**-10.6**	**Slope**	**1.0005**	**PASS**



Time: Begin: 1445 End: 1530

PSD Limits: Max Absolute Error > 10 % of Input adjusted for slope/intercept.
Comments: None.

Pebble 4 TOPO Alignment Map - 59°49.837' N, 155°18.041' W WGS84



NATIONAL GEOGRAPHIC

0.0 0.5 1.0 1.5 2.0 miles
0.0 0.5 1.0 1.5 2.0 2.5 3.0 km

TN / MN
17½°
03/15/07

APPENDIX B
AUDIT EQUIPMENT CALIBRATION CERTIFICATES

Certificate 1750.01

Calibration complies with ISO/IEC 17025 AND ANSI/NCSL Z540-1

Cert. No.: 4000-1338226

Traceable® Certificate of Calibration for Digital Thermometer

Instrument Identification:

Hoefler Consulting Group, 3401 Minnesota Dr, Suite300, Attn: Dominic Shallies, Anchorage, AK 99503 U.S.A. (RMA:933478)

Model: 61220-601 S/N: 51091749 Manufacturer : Control Company

Model: 61220-604 S/N: 240301145

Standards/Equipment:

Description	Serial Number	Due Date	NIST Traceable Reference
Temperature Probe	128	12/08/06	A5B28010-1
Thermistor Module	A17118	8/12/06	A5819038
Temperature Calibration Bath TC179	A45240		
Temperature Calibration Bath TC191	A42238		
Temperature Probe	157	9/01/06	A5815063
Thermistor Module	A27129	7/05/06	1000189003

Certificate Information:

Technician: 68 Procedure: CAL-06 Cal Date: 6/07/06 **Cal Due: 6/07/07**

Test Conditions: 25.5°C 39.0 %RH 1013 mBar

Calibration Data:

Unit(s)	Nominal	As Found	In Tol	Nominal	As Left	In Tol	Min	Max	±uc	TUR
°C	0.000	0.072	N	0.000	-0.004	Y	-0.050	0.050	0.013	3.8:1
°C	25.000	25.020	Y	25.000	24.999	Y	24.950	25.050	0.013	3.8:1
°C	60.002	59.999	Y	60.001	59.999	Y	59.951	60.051	0.013	3.8:1
°C	100.002	100.001	Y	100.002	100.004	Y	99.952	100.052	0.013	3.8:1

This Instrument was calibrated using Instruments Traceable to National Institute of Standards and Technology.

A Test Uncertainty Ratio of at least 4:1 is maintained unless otherwise stated and is calculated using the expanded measurement uncertainty. Uncertainty evaluation includes the instrument under test and is calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM). The uncertainty represents an expanded uncertainty using a coverage factor k=2 to approximate a 95% confidence level. In tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The results contained herein relate only to the item calibrated. This certificate shall not be reproduced except in full, without written approval of Control Company.

Nominal=Standard's Reading; As Left=Instrument's Reading; In Tol=In Tolerance; Min/Max=Acceptance Range; ±uc=Measurement Uncertainty; TUR=Test Uncertainty Ratio; Accuracy=±(Max-Min)/2

Wallace Berry

Wallace Berry, Technical Manager

Maintaining Accuracy:

In our opinion once calibrated your Digital Thermometer should maintain its accuracy. There is no exact way to determine how long calibration will be maintained. Digital Thermometers change little, if any at all, but can be affected by aging, temperature, shock, and contamination.

Recalibration:

For factory calibration and re-certification traceable to National Institute of Standards and Technology contact Control Company.

CONTROL COMPANY 4455 Rex Road Friendswood, TX 77546 USA
Phone 281 482-1714 Fax 281 482-9448 service@control3.com www.control3.com

VAISALA Certificate of Calibration

Report #: 112006-X0740015-RH **RMA #:** 95-56707 **Calibration Date:** Nov-20-2006
Model #: HMI41/HMP45 **Serial #:** X0650080/X0740015
Instrument Type: Humidity Transmitter Calibration Procedure: 11603100
Instrument Range: 0 to 100%RH, -20 to 60°C, Temp. Recommended Calibration Due Date: Nov-20-2007

Customer: HOEFLER CONSULTING GROUP
City, State: ANCHORAGE, AK USA

This unit was calibrated by adjusting its reading at 0%* against a dry-air line and at 75% RH against reference humidity and temperature instrument, Vaisala model HMP233. Additional instrument verification checkpoints were made against HMP233 reference at 11% and 97%* RH. Calibration and instrument verification sequences utilize a dry-air line and a set of controlled aqueous salt solutions Vaisala model HMK13B Laboratory ambient conditions are humidity and temperature controlled. The calibration uncertainty is presented at 95% confidence level, k=2. The standard uncertainty of the measurement has been determined in accordance with U S Guide to the Expression of Uncertainty in Measurement *Note: the 0% and 97% RH points are not ISO17025 Accredited

Calibration Data (As Found)

Out of Tolerance: NO

Temperature Calibration, °C

Reference	Unit Under Test	Error	± Tolerance, °C	± Uncertainty, °C
21.12	21.20	0.08	0.21	0.07

Humidity Calibration, %RH

Reference	Unit Under Test	Error	± Tolerance, %	± Uncertainty %
0.03	-0.30	-0.33	2.00	0.50 *
11.55	11.30	-0.25	2.00	0.92
75.10	74.60	-0.50	2.00	1.02
97.60	96.40	-1.20	3.00	1.50 *

Calibration Data (As Left)

Temperature Calibration, °C

Reference	Unit Under Test	Error	± Tolerance, °C	± Uncertainty, °C
21.57	21.60	0.03	0.21	0.07

Humidity Calibration, %RH

Reference	Unit Under Test	Error	± Tolerance, %	± Uncertainty %
0.03	0.10	0.07	2.00	0.50 *
11.43	11.60	0.17	2.00	0.92
75.10	75.10	0.00	2.00	1.02
97.60	96.70	-0.90	3.00	1.50 *

Problem Noted: None
Action Taken: The Unit Was Calibrated

The results of this calibration are related only to the items being calibrated, and, are traceable to the National Institute of Standards and Technology through NIST Test Report Number TN 274176, dated Oct. 2006. Vaisala's calibration system has been established to meet the requirements of ANSI/NCSL Z540-1-1994 This certificate can not be reproduced, except in full, without the expressed written consent of Vaisala. The certificate was established to comply with the requirements of ISO/IEC17025. Vaisala is ISO 9001:2000 certified.

Calibration Equipment Used: Workstation 3A

Model Number	Serial Number	Calibration Date	Due Date
Power Supply	21609085	Nov. 24, 2004	Nov. 24, 2006
Fluke 45	7781003	Jan. 12, 2006	Jan. 12, 2007
HMK13B	V324	Oct. 13, 2006	Apr. 13, 2007
HMP233	671210	Nov. 10, 2006	Feb. 10, 2007
HMT333	B0920004	Sep. 27, 2006	Dec. 27, 2006
HMI41/HMP45	S1130071	Sep. 1, 2006	Dec. 1, 2006

Ambient Conditions

Temperature:	21.80 °C
Humidity:	49.10 %RH

Approved By

Technical Operator
Johnson François

Vaisala Inc., Boston Office
10-D Gill Street, Woburn, MA 01801, USA
Telephone 781 933 4500 • Fax 781 933 8029
www.vaisala.com

R.M. Young Company
2801 Aero Park Drive
Traverse City, Michigan 49686 USA

Certificate of Calibration and Testing

Test Unit:			
Model:	18811	Serial Number:	CA02136
Description:	Anemometer Drive - 20 to 990 RPM		
	- Comprised of Models 18820A Control Unit & 18831A Motor Assembly		

R.M. Young Company certifies that the above equipment has been inspected and calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technologies (NIST).

Nominal Motor Rpm	27106D Output Frequency Hz (1)	Calculated Rpm (2)	Indicated Rpm (3)
30.0	5	30.0	30.0
150.0	25	150.0	150.0
300.0	50	300.0	300.0
450.0	75	450.0	450.0
600.0	100	600.0	600.0
750.0	125	750.0	750.0
990.0	165	990.0	990.0
☑ Clockwise and Counterclockwise rotation verified			

(1) Measured frequency output of RM Young Model 27106D standard anemometer attached to motor shaft
(2) 27106D produces 10 pulses per revolution of anemometer shaft
(3) Indicated on the Control Unit LCD display

*Indicates out of tolerance

☑ No Calibration Adjustments Required ☐ As Found ☐ As Left

Traceable frequency meter used in calibration DP4863

Date of inspection 24 May 2006

Tested By EP

Tel: 231-946-3980 Fax: 231-946-4772 Email: met.sales@youngusa.com Website: www.youngusa.com

R.M. Young Company
2801 Aero Park Drive
Traverse City, Michigan 49686 USA

Certificate of Calibration and Testing

Test Unit:			
Model:	18801	Serial Number:	CA01674
Description:	Anemometer Drive - 10 to 10,000 RPM		
	- Comprised of Models 18820 Control Unit & 18830 Motor Assembly		

R.M. Young Company certifies that the above equipment has been inspected and calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technologies (NIST).

Nominal Motor Rpm	Output Frequency (1) Hz	Calculated Rpm (2)	Indicated Rpm (3)
600	320	600	600
1200	640	1200	1200
2400	1280	2400	2400
4200	2240	4200	4200
6000	3200	6000	6000
8100	4320	8100	8100
9900	5280	9900	9900
☑ Clockwise and Counterclockwise rotation verified			

(1) Measured at the optical encoder output
(2) Frequency output produces 32 pulses per revolution of the motor shaft
(3) Indicated on the Control Unit LCD display

*Indicates out of tolerance

☑ No Calibration Adjustments Required ☐ As Found ☐ As Left

Traceable frequency meter used in calibration DP4863

Date of inspection 22 November 2006

Tested By EK

Tel: 231-946-3980 Fax: 231-946-4772 Email: met.sales@youngusa.com Website: www.youngusa.com

Houston Precision, Inc.

8729 Gulf Freeway
Houston, TX 77017-6504

Calibration Report

Company:	Hoefler Consulting Group	**Doc #:**	36861
Address:	3401 Minnesota Drive Suite 300 Anchorage, AK 99503	**Date:**	10/25/2006
		PO#:	1208-003-161
Contact:	Chris Lindsey	**Page:**	1
Dept:			

Gage:	Torque Watch m#366-3	**Control:**	4864
Mfg:	Water's	**Model:**	Torque Watch m#366-3
Location:		**Serial #:**	4864

Parameters:

Parameter:

Text:

Comments:

Calibration Completed by: Caltech Calibration
Original Certificate (attached) # 4074

Reference HPI S/O # 14307

We certify the equipment used for this calibration is traceable to NIST through one or more of the following numbers:

:

Last / Next Cal Dates: -->

Gage Status: PASS **Next Calibration Due: 10/25/2007**

Certified By: Denice V. Mills Signature: Denice V Mills

This certificate is not valid unless all 1 page(s) are present.
*Laboratory Environmental Conditions: Temperature: 68°F +/- 3.6°F and/or 20C +/- 2C, Relative Humidity: between 40% and 60%.
*Calibration measurements are performed in accordance with guidelines set forth in ANSI/NCSL Z540-1-1994 and Houston Precision's Quality manual.
*The measurement of uncertainity has not been taken into account when reporting readings "in" or "out of tolerance" on this calibration report.
*If additional information regarding this calibration is required, please contact this laboratory.
*All calibrations have been performed under the supervision and authority of Omar Martinez, Lab Manager.
*Any number of factors may cause the subject of this calibration to drift out of calibration before the recommended interval has expired.
HPI will not be held responsible for the calibration status of an item whose calibration interval exceeds the actual validity of the calibration.

End of document.

Certificate of Calibration

The instrument listed below meets or exceeds published specifications and has been calibrated under controlled conditions and is traceable to the National Institute of Standards and Technology(N.I.S.T.), or to accepted intrinsic standards of measurement, or by the ratio type of self-calibration techniques. Cal-Tech Calibration conforms to the following, ANSI/NCSL Z540-1-1994, ISO/IEC 25/17025.

Customer: Houston Precision
Certificate Number: 4074
Instrument Make: Water TQ Watch
Model: 366-3
S/N: 4864
ID: 4864

Date: 10-25-06
Temp: 74 Deg f
Humidity: 43%
Rec. In Tol.
Due Date: 10-25-07

Certification by:_____

Comments:

Standards Used	Model	Certification Number	Due Date
Troemner Weights	**1156**	**822/270636-04**	**3-01-08**
In. Oz. Range Red	**As Found**	**After Adjust**	**Final Reading**
.003	.003	none	.003
.009	.008	none	.008
.015	.014	none	.014
.021	.022	none	.022
.027	.028	none	.028
.03	.02	none	.02
Black			
.03	.03	none	.03
.024	.024	none	.024
.018	.017	none	.017
.012	.011	none	.011
.006	.005	none	.005
.003	.002	none	.002

Cal-Tech Calibration, Inc.
1314 FM 646 West /Ste. 15 / Dickinson, Texas 77539 /Phone 281-614-0050 / Fax 281-614-0046

Houston Precision, Inc.

8729 Gulf Freeway
Houston, TX 77017-6504

Calibration Report

Company:	Hoefler Consulting Group	**Doc #:**	37827
Address:		**Date:**	1/10/2007
	3401 Minnesota Drive, Suite 300		
	Anchorage, AK 99503	**PO#:**	1208-004-403
Contact:	Dominic Shallies	**Page:**	1
Dept:			

Gage:	Torque Watch	**Control:**	5042
Mfg:	HONEYWELL	**Model:**	366
Location:	Calibration Lab	**Serial #:**	5042

Parameters:

Parameter:

Text:

Comments:

Calibration Completed by:Cal-Tech Calibration, Inc.
Original Certificate (attached) #4327

Reference HPI S/O #14549

We certify the equipment used for this calibration is traceable to NIST through one or more of the following numbers:
: VENDOR MASTER
Last / Next Cal Dates: -->

Gage Status: PASS **Next Calibration Due: 1/10/2008**

Certified By: Denice V. Mills Signature: Denice V Mills

This certificate is not valid unless all 1 page(s) are present.
*Laboratory Environmental Conditions: Temperature: 68°F +/- 3.6°F and/or 20C +/- 2C, Relative Humidity: between 40% and 60%.
*Calibration measurements are performed in accordance with guidelines set forth in ANSI/NCSL Z540-1-1994 and Houston Precision's Quality manual.
*The measurement of uncertainity has not been taken into account when reporting readings "In" or "out of tolerance" on this calibration report.
*If additional information regarding this calibration is required, please contact this laboratory.
*All calibrations have been performed under the supervision and authority of Omar Martinez, Lab Manager.
*Any number of factors may cause the subject of this calibration to drift out of calibration before the recommended interval has expired.
HPI will not be held responsible for the calibration status of an item whose calibration interval exceeds the actual validity of the calibration.
*This Report shall not be reproduced expect in full, or with the expressed written permission of Houston Precision, Inc.
End of document.

Certificate of Calibration

The instrument listed below meets or exceeds published specifications and has been calibrated under controlled conditions and is traceable to the National Institute of Standards and Technology(N.I.S.T.), or to accepted intrinsic standards of measurement, or by the ratio type of self-calibration techniques. Cal-Tech Calibration conforms to the following, ANSI/NCSL Z540-1-1994, ISO/IEC 25/17025.

Customer: Houston Precision
Certificate Number: 4327
Instrument Make: Honeywell Torque Watch
Model: 366
S/N: none
ID: 5042

Date: 1-10-07
Temp: 72 Deg f
Humidity: 39%
Rec. In Tol.
Due Date: 1-10-08

Certification by: J. Sean

Accuracy: +\- .1% of reading.

Comments:

Standards Used	Model	Certification Number	Due Date
Acculab	300g	822/270236-04	12-01-07

Reading In/oz	As Found	After Adjust	Final Reading
0.10	0.1	none	0.1
0.20	0.19	none	0.19
0.40	0.40	none	0.40
0.60	0.60	none	0.60

Cal-Tech Calibration, Inc.
1314 FM 646 West /Ste. 15 / Dickinson, Texas 77539 /Phone 281-614-0050 / Fax 281-614-0046

THE BRUNTON COMPANY
Certificate Of Calibration

Equipment Owner:
Name: DOMINIC SHALLIES

Address: 3401 MINNESOTA DR. STE # 300

City, State, Zip: ANCHORAGE, AK 99503

Calibration traceable to the National Institute of Standards and Technology in accordance with Mil-STD-45662A has been accomplished on the instrument listed below by comparison with standards maintained by The Brunton Co. The accuracy and stability of all standards maintained by The Brunton Co. are traceable to national standards maintained by the National Institute of Standards and Technology in Washington, D.C. and Boulder, CO. Complete record of all work performed is maintained by The Brunton Co. and is available for inspection upon request.

This Unit has been calibrated to Lietz TM10E serial number 30937 traceable to N.B.S. no. 738 227675 this 2ND Day of NOVEMBER 2006

DESCRIPTION: POCKET TRANSIT

PURCHASE ORDER: RA 7277

ORDER NUMBER: 23732

LOT NUMBER: 19802

MODEL NUMBER: 5008

SERIAL NUMBER: 508079319

CALIBRATION DATE: 11-2-06

RECALIBRATION DUE DATE: 11-2-07

Signed: Linda Kenyon
QUALITY CONTROL MANAGER

Certificate of Accuracy

Transfer Standard Type: Barometric Pressure/Altimeter

Certificate No: B 052406. 03

Transfer standard model: Pretel AltiPlus A2
Serial number: 27806
submitted by/owner: Hoefler Consulting Group
3401 Minnesota Drive
Suite 300
Anchorage, AK 99503

Was compared to Precision Absolute Reference Barometer:
Model number: 355-AI0900 Serial number: 913930-M1
Certified accuracy of ± 0.007"Hg
NIST traceable to Ruska Deadweight Tester SN 38342/C-85

Date: 05/24/06 Lab temperature 72.8 °F
Lab pressure 663.1 mm Hg

Reference barometer ("Hg)	Transfer Standard ("Hg)	Difference from Reference ("Hg)	Transfer Standard Correction* ("Hg)
24.00	24.13	0.13	-0.13
26.11	26.24	0.13	-0.13
28.00	28.12	0.12	-0.12
30.00	30.11	0.11	-0.11

Note:
If no sign is given on the correction, the true pressure is higher than the indicated pressure. If the sign is negative, the true pressure is lower than the indicated pressure.

Transfer Standard adjustments made? YES ☐ **NO** ☒
Post-calibration measurements:

Reference barometer ("Hg)	Transfer Standard ("Hg)	Difference from Reference ("Hg)	Transfer Standard Correction* ("Hg)

Reviewed: R Sanders Date: 5-24-06

Roger L. Sanders, PE

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(307) 672-7790
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THE EPPLEY LABORATORY, INC.
12 Sheffield Ave., P.O. Box 419, Newport, RI 02840 USA
Telephone: 401-847-1020 Fax: 401-847-1031
Email: eplab@mail.bbsnet.com Internet: www.eppleylab.com

EPLAB
Scientific Instruments
for Precision Measurements
Since 1917

STANDARDIZATION OF EPPLEY PRECISION SPECTRAL PYRANOMETER Model PSP

Serial Number: 34377F3

Resistance: 603 Ω at 23 °C
Temperature Compensation Range: -20 to 40 °C

This radiometer has been compared with Standard Precision Spectral Pyranometer, Serial Number 21231F3 in Eppley's Integrating Hemisphere under radiation intensities of approximately 700 watts meter^{-2} (roughly one-half a solar constant). The adopted calibration temperature is 25 °C.

As a result of a series of comparisons, it has been found to have a sensitivity of:

$$9.29 \times 10^{-6} \text{ volts/watts meter}^{-2}$$

The calculation of this constant is based on the fact that the relationship between radiation intensity and emf is rectilinear to intensities of 1400 watts meter^{-2}. This radiometer is linear to within ± 0.5% up to this intensity.

The calibration of this instrument is traceable to standard self-calibrating cavity pyrheliometers in terms of the Systems Internationale des Unites (SI units), which participated in the Ninth International Pyrheliometric Comparisons (IPC IX) at Davos, Switzerland in September-October 2000.

Useful conversion facts: 1 cal cm^{-2} min^{-1} = 697.3 watts meter^{-2}
1 BTU/ft^2-hr^{-1} = 3.153 watts meter^{-2}

Shipped to:
Hoefler Consulting Group
Anchorage, Alaska

Date of Test: November 30, 2006

In Charge of Test: R. T. Eppley

S.O. Number: 60951
Date: November 30, 2006

Reviewed by: Thomas D. Kirk

Remarks:

Pebble 4
PSD Meteorological Monitoring Station

September 2007

Quality Assurance Systems Audit and Performance Audit

Pebble Project
NORTHERN DYNASTY MINES INC.

for the

Pebble Project
Meteorological Monitoring Program
Iliamna, Alaska

prepared for

Northern Dynasty Mines, Inc.

Pebble 4 PSD Meteorological Monitoring Station
September 2007
Quality Assurance Systems Audit
and Performance Audit

Prepared for:

Northern Dynasty Mines, Inc.
Anchorage, Alaska

Prepared by:

Hoefler Consulting Group, Inc.
3401 Minnesota Drive, Suite 300
Anchorage, Alaska 99503

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1.0 INTRODUCTION

Hoefler Consulting Group, Inc. (HCG) operates meteorological monitoring stations for Northern Dynasty Mines, Inc. (NDM) in support of the Pebble Mine Project near Iliamna, Alaska. The air monitoring program is one component of ongoing baseline environmental studies being conducted to support mine permitting, mine design and mine transportation infrastructure development. The stations meet Prevention of Significant Deterioration (PSD) guidelines, although PSD permits may not be required. This report covers the Pebble 4 Station (Pebble 4) located near the proposed mine site.

Pebble 4 is located approximately five miles south of the mine ore body on top of a windswept knoll at about 1,200 foot elevation. The station consists of an instrumented 11-meter sectional tower secured with three guy wires. Approximately 50 foot south of the tower is an evaporation pan and a tipping precipitation gauge mounted on a 6' by 8' deck. Between the tower and the gauges is a 5' by 7' insulated building which houses the datalogger and power supply system. Pebble 4 is instrumented with PSD quality sensors monitoring the following parameters:

- Ambient Temperature (°C): Met One 062MP Thermistor Probe at 2-m
- Temperature Difference (°C): Met One 062MP Thermistors at 2-m and 10-m
- Relative Humidity (%RH): Vaisala HMP45AC Relative Humidity Sensor
- Wind Speed 1 (m/s): Climatronics F460 P/N 100075 Wind Speed Sensor
- Wind Direction 1 (°): Climatronics F460 P/N 100076 Wind Direction Sensor
- Wind Speed 2 (m/s): RM Young 05305 Wind Monitor-AQ
- Wind Direction 2 (°): RM Young 05305 Wind Monitor-AQ
- Sigma Theta (°): Campbell Scientific CR10X DAS calculated (Yamartino)
- Barometric Pressure (mbar): Vaisala PT101B Barometric Pressure Sensor
- Solar Radiation (W/m2): LI-COR Li-200SX Solar Radiation Pyranometer
- Precipitation (mm H_2O): Met-One Model 370 Tipping Precipitation Gauge
- Evaporation (mm H_2O): Nova-Lynx Model 255-100/200 Pan and Gauge.

This report has been prepared for NDM to serve as an official review of the Pebble 4 station and a review of the overall Pebble Project Meteorological Monitoring Program. To that end, Systems and Performance Audits were undertaken in order to help demonstrate that the equipment and procedures used for collecting meteorological data by HCG meet the requirements set forth by the U.S. Environmental Protection Agency (EPA) and the Alaska Department of Environmental Conservation (ADEC).

2.0 SYSTEMS AUDIT

2.1 Systems Audit Methodology

In the *Quality Assurance Handbook for Air Pollution Measurement Systems* and the *Meteorological Monitoring Guidance for Regulatory Modeling Applications*, EPA provides guidance for conducting systems audits. EPA recommends that a systems audit be conducted to serve as a qualitative review of all aspects of a meteorological monitoring program. The systems audit includes a review of the program plan, station site, facilities, equipment, personnel, procedures, record keeping, data validation and data reporting. The systems audit should be completed within the first 30 days of operation and every year thereafter.

The *Quality Assurance Project Plan for the Pebble Project Meteorological Monitoring Program* was completed by HCG in August 2006. This systems audit consisted of a review of the plan, site visits and personnel interviews. Personnel were also observed during station maintenance and calibration operations. All aspects of the program not specifically mentioned in the Plan were reviewed to determine consistency with EPA and ADEC guidelines. The complete systems audit report contained in Appendix A is organized into six major sections; 1) General Program Information, 2) Monitoring Program Staff Organization, 3) Meteorological Monitoring Station Equipment, 4) Standard Operating Procedures, 5) Documentation, 6) Data Processing and Validation, 7) Quality Assurance and Quality Control (QA/QC), and 8) Comments and Suggestions. Each section consists of a question and answer format with additional comments to provide clarity. Flow charts are also used to accurately document program staff organization and the data handling process. A complete list of the references used for the systems audit is contained in Section 4.

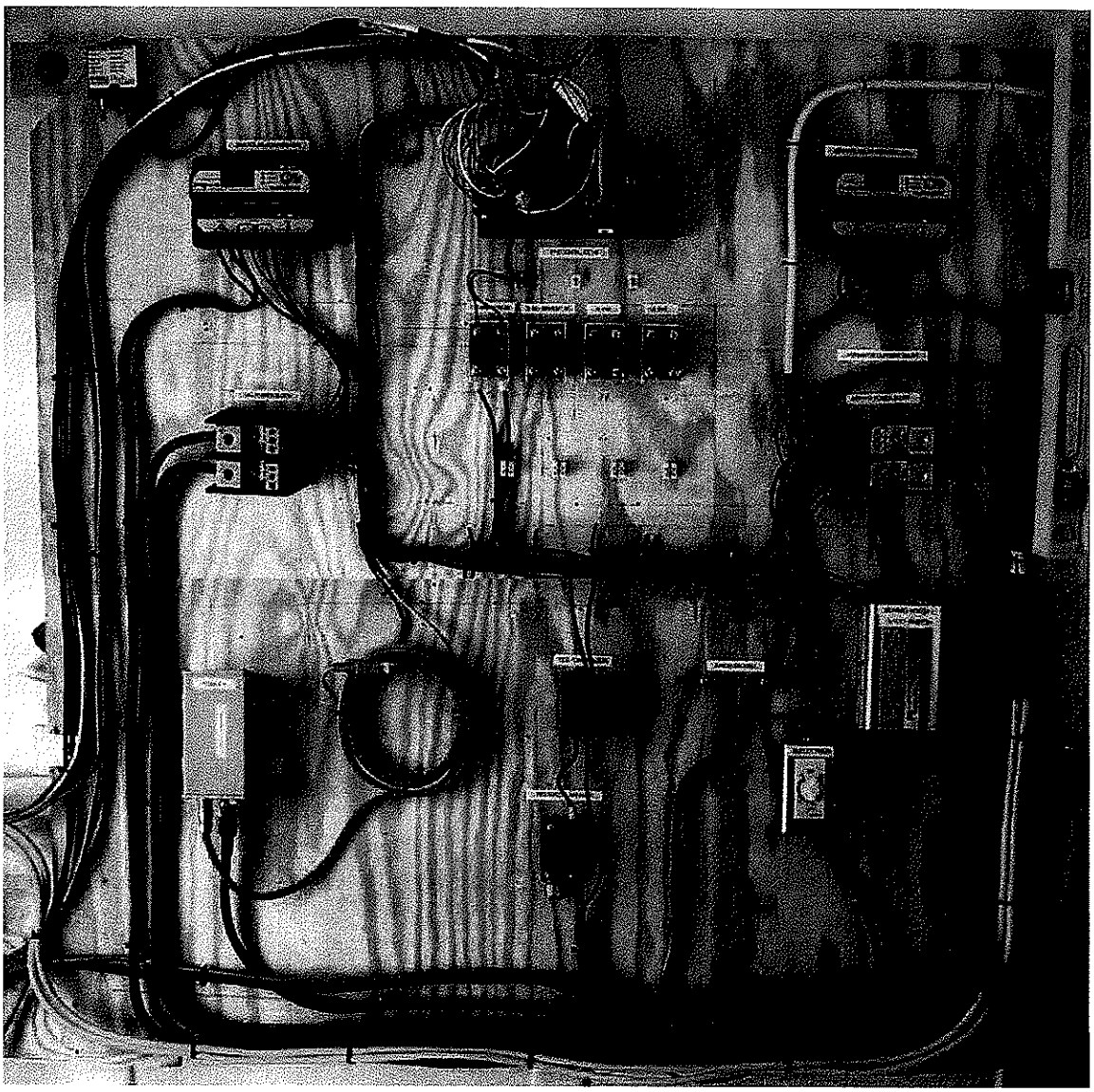
2.2 Meteorological Station Onsite Systems Audit

The on-site systems audit of the Pebble 4 station was conducted in early September 2007. Eric Brudie of HCG completed the systems audit with Dominic Shallies of HCG assisting and witnessing. Mr. Brudie serves as an independent auditor on this project and is not involved with day to day operations of the station.

The Pebble 4 meteorological monitoring station is founded on a stable, well anchored tower with PSD quality sensors securely affixed. The evaporation pan, evaporation gauge and a tipping precipitation gauge are mounted on a 6' by 8' deck supported on four adjustable pier blocks, which allow leveling. The evaporation deck is surrounded by a 6' high fence and all instrumentation wires from the tower, precipitation gauge and evaporation gauge are protected in conduit These conduits all converge at a 5' by 7'

insulated prefab building. The data acquisition system (DAS), communications system, solar controllers and power distribution system are mounted on a 4' by 4' plywood wiring panel mounted in the building, see photo.

Figure 2-1 Pebble 4 Station DAS Wiring Panel



The Campbell Scientific CR10X/CR1000 DAS wiring is well organized and needs no further discussion. Constant communication between the DAS and a dedicated polling computer in the HCG office is integral to this installation. FreeWave spread spectrum radio modems transmit the signal to a SixNet industrial phone modem which is linked to the grid in Iliamna. The met station radio and base radio rely on directional Yagi antennas focused on an omni-directional antenna at the repeater radio. The repeater

radio is powered by one 70-Watt solar panel buffered through a solar controller and five 100 Amp-Hr deep cycle gel cell batteries.

Power generation at the meteorological monitoring station consists of three 70-Watt solar panels and a Global Thermoelectric Generator (TEG). One solar panel is dedicated to the DAS and meteorological instrumentation; wired through a solar controller and buffered through two 200 Amp-Hr deep cycle gel cell batteries. Two solar panels are dedicated to the aspirator fans, Climatronics bearing heaters, shelter lighting and 120VAC power; also wired through a solar controller and buffered through two 200 Amp-Hr deep cycle gel cell batteries. The shelter lights and 120VAC inverter for laptop use are routed through manual timers to ensure use only when operators are on site. During the winter months, November through April, the TEG is turned on to supplement the power system. The TEG power is routed through relays wired to the DAS control ports which isolate the critical DAS/sensor system during upset conditions. Climatronics heaters are also controlled through relays programmed to limit heater use to weather conditions conducive to icing. All system battery voltages are monitored by the DAS and the thermistor aspirator fans are wired through a current shunt in order to monitor fan operation.

2.3 Operations, Data Management and Documentation Systems Audit

This phase of the systems audit consists of a review of the HCG *Quality Assurance Project Plan for the Pebble Project Meteorological Monitoring Program* (Plan), and other system documentation, and a review of system operations. System operations include physically running the station and subsequent data management.

The Plan is a comprehensive document which adequately details the Pebble meteorological monitoring program. Program objectives, installations, operations, data management and quality assurance are all clearly outlined. Equally, the Pebble 4 station is representative of the Plan design. The Plan provides standard operating procedures and standard forms for all equipment field calibrations and audits. Station operators also had complete DAS and meteorological sensor manuals on hand at the station. Plan and documentation review are covered further in Appendix A.

Station operators were observed during calibration and maintenance procedures and appeared knowledgeable about all facets of operating the monitoring station. Data are downloaded daily using an automated script on a dedicated polling computer located at the HCG office. The raw data are appended to a station file located on the HCG server, which is backed up daily. The data manager copies the raw data to a custom Access/Excel database, leaving the raw data unaltered. The custom database creates

a series of graphs of all meteorological data as well as some station operational parameters. These plots are reviewed 5-6 days per week in order to immediately identify station upsets. An example is a graph of solar radiation and battery voltage; which reveals potential problems with daily charge cycles. Both the Climatronics and RM Young Wind sensor data are plotted together to indicate problems with one of the sensors. All station parameters are plotted with ranges and pairings intended to best reveal upset conditions. Problems are immediately identified and corrective action planned and executed. Steps are taken to flag data which may have been identified as suspect during this graphical data review. Data generated during station maintenance, audits and calibrations are also flagged as invalid.

Prior to compilation of data summary reports, data are screened using EPA recommended screening criteria. Data flagged as outliers by the screening program are further reviewed for consistency with prevailing conditions and then permanently invalidated or validated. Data ultimately invalidated are permanently removed from the database and the reasoning is codified in a special column in the database. This cleaned dataset is used for all subsequent data summaries, wind roses, data reports and capture rate calculations. More detailed discussion of the operations and data management are contained in the Systems Audit Appendix A.

2.4 Comments and Suggestions

The Pebble 4 station is a well designed and operated meteorological monitoring station. During the recent audit the operator upgraded the data acquisition system and added current shunts to the system in order to remotely monitor the aspirator fans. The remote station is equipped with a robust and sophisticated power supply which is constantly monitored. The systems audit revealed that HCG possesses the necessary organization, personnel, training, equipment, quality assurance, and quality control procedures to accurately collect and report PSD quality data. HCG adequately maintains the Pebble 4 station and practices sufficient data review and preventive maintenance to avoid unnecessary data loss.

The following recommendations are made to the program in order to improve the operation of the stations and ensure their operation is in accordance with standards:

- Create custom site visit procedural and inventory checklists
- Keep files on site containing copies of previous visit checklists
- Always use paper calibration forms as well as computer entered forms.

3.0 PERFORMANCE AUDIT

3.1 Performance Audit Methodology

During the performance audit, the station datalogger is interfaced with a portable laptop computer to display the outputs for the meteorological sensors. The value of each meteorological sensor is compared to the output value from the appropriate piece of audit equipment or from calibrated instruments collocated with the sensor. The difference between the station's datalogger reading and the output from each audit instrument is compared with established PSD limits to determine the accuracy of each sensor. Additionally, threshold torques for wind speed and wind direction are measured with audit equipment and compared with manufacturer torques corresponding to the PSD threshold speed of 0.5 m/s. Table 3-1 provides a summary of the performance audit methods and limits used to audit each parameter at the stations.

Table 3-1 Performance Audit Methods and Acceptable Limits

Parameter	Audit Method	EPA/Manufacturer Limit
Datalogger Time	NOAA Clock	≤ ±5:00 minutes from AST
Temperature Accuracy	Collocated NIST thermistor	≤ ±0.5 °C
Temperature Difference	Collocated NIST thermistor	≤ ±0.1 °C
Relative Humidity	Collocated NIST RH sensor	≤ ±1.5 °C of dew point
Wind Speed Accuracy	Synchronous rpm motor	≤ ±0.2 m/s + 5 % observed
Wind Spd Torque (Clim)	Torque watch	≤ 0.35 g-cm (0.0049 oz-in)
Wind Spd Torque (RMY)	Torque watch	≤ 1.0 g-cm (0.014 oz-in)
Wind Direction Alignment	GPS, compass or landmark	≤ ±5° from true azimuth
Wind Direction Accuracy	Linearity tester	≤ ±5° per audit point
Wind Direction Linearity	Linearity tester	≤ 3° mean absolute average
Wind Dir Torque (Clim)	Torque watch	≤ 7.5 g-cm (0.104 oz-in)
Wind Dir Torque (RMY)	Vane torque gauge	≤ 11 g-cm (0.153 oz-in)
Barometric Pressure	Collocated NIST BP sensor	≤ ±3 mbar
Solar Radiation	Collocated NIST sensor	≤ ±5% of input+resolutuion[1]
Precipitation	Calibrated water volume	≤ ±10% of input
Evaporation	Measured water level	≤ ±10% of input

1. This audit limit is modified from PSD standard, as discussed below.

3.1.1 Data Acquisition System

An audit of the datalogger is conducted by comparing all datalogger outputs to the audit standards, as described below. The datalogger time is checked against an instantaneous time reading from the National Oceanic and Atmospheric Administration (NOAA) clock in Boulder, Colorado, via a global positioning system (GPS) handheld unit or telephone contact with the NOAA clock.

3.1.2 Air Temperature and Air Temperature Difference

The 2-meter and 10-meter thermistors are removed from their aspirator shields and collocated with a National Institute of Standards and Technology (NIST) traceable digital thermometer. The station thermistors and the transfer standard NIST thermometer are taped together and immersed in insulated thermoses containing a series of fluid baths; hot water (35°C to 45°C), warm water (15°C to 25°C), water/ice bath (0°C), cold glycol (-15°C to -25°C) and very cold glycol (-35°C to -45°C). Dry ice is used to cool the glycol baths. Each liquid bath is agitated and allowed to equilibrate before simultaneous readings are taken from the three instruments.

An alternate method can also be used for the low temperature audits, employing a Thermal Mass Device (TMD). The TMD consists of a 6" diameter by 9" high solid aluminum block milled to fit snuggly inside of an insulated Dewar flask. On the top of the TMD, and in corresponding locations on the flask lid, are holes sized to accommodate a variety of Campbell, Climatronics, Met-One and VWR thermistors. The TMD is cooled to the target temperatures by contact with dry ice and then placed in the insulated flask. The audit and station thermistors are inserted through the flask lid and into the appropriate holes in the TMD. After the TMD and the thermistors are allowed to equilibrate, readings for all thermistors are simultaneously taken. The aluminum TMD has a very high thermal conductivity and when allowed to equilibrate inside of the insulated flask, thermal gradients across the TMD are very small.

In all cases, the difference between the individual station thermistors and the NIST standard are compared to the PSD temperature accuracy limit of ±0.5°C. The difference between the two station thermistors (10-m°C minus 2-m°C) is compared to the PSD temperature difference limit of ±0.1°C.

3.1.3 Relative Humidity

Relative humidity (RH) is audited using a collocated NIST traceable RH sensor. The NIST sensor and the field sensor are collocated out of direct sunlight to eliminate solar radiation effects, preferably inside of the motor aspirated shield. If the NIST standard reads directly in dew point °C, those readings are used; if not, relative humidity and

temperature readings are used. For the audit, instantaneous readings of dew point, relative humidity and ambient temperature are recorded from the transfer standard and the DAS. All relative humidity and temperature readings are converted to dew point in order to assess the PSD error limit of ±1.5°C dew point.

3.1.4 Wind Speed

Anemometers are audited to determine their accuracies in reading known wind speeds and to ascertain the sensor's threshold torque. The Climatronics and RM Young sensors are audited in very similar manners and are discussed together. The instruments are tested after removal from the tower and after removal of the sensor's props or cups.

First, an RM Young synchronous motor is attached to the shaft of the anemometer by using brand specific coupling devices. The sensor shaft is rotated at several different known revolutions per minute (rpm). Each rotational speed in rpm is equated to a wind speed in meters per second (m/s) by using the anemometer manufacturer's linear calibration formula. The difference between the calculated input speed in m/s and the datalogger output is compared to established PSD limits for each input rpm.

Next, a high precision torque watch is attached to the shaft of the anemometer, once again using custom couplings. Torque readings are made in both directions in each quadrant along the axis of rotation of the shaft. The maximum reading is recorded for the torque required to turn the shaft of the anemometer. The torque value recorded during the audit is compared to manufacturer's torque corresponding to the minimum PSD threshold speed of 0.5m/s.

3.1.5 Wind Direction

The wind direction sensors are first audited as-found to determine the accuracy of their alignment with respect to true north (true azimuth alignment) using one of four methods. In one method, a handheld GPS unit is used to measure the position of the auditor with respect to a waypoint captured under the wind sensor's position on the tower. Using binoculars, the tail of the wind vane is aligned with the auditor's position at a distance of several hundred feet from the tower. The GPS bearing back to the tower waypoint is then compared to the DAS reading. The difference between the two should not exceed ±5° per audit point. This procedure is repeated at least 4 times, once per quadrant, generally near the cardinal directions. The second method uses a calibrated precision compass mounted on a gimbal and tripod. The compass declination is preset for the specific location and date using one of a variety of magnetic declination computer models. The sensor tail is aligned toward the auditor while auditor sights the

compass toward the sensor and readings are taken in a similar manner to the GPS method.

Another option is to align the tail of the sensor with a distant identifiable landmark of know bearing. The bearing to the landmark may be ascertained using a variety of methods. One method involves physically capturing a distant GPS waypoint, such as at a discernable structure or emissions stack. Bearings to inaccessible natural landmarks, usually distant mountain peaks, are acquired through the use of various computer mapping programs, such as Natural Geographic's TOPO program or USGS digital raster graphics (DRGs) loaded into AutoCAD. The bearing from the station location to the landmark is compared to the DAS reading. This method yields the most accurate audit value, but is limited by weather and availability of discernable landmarks. The final method is to align the vane with the tower guy wires or preset survey markers, whose bearing has been ascertained using precision survey equipment.

The wind direction accuracy and linearity are subsequently audited after the wind direction sensor is removed from the tower. The Climatronics sensor is mounted on a Climatronics Model 101984 linearity tester and the RM Young sensor is mounted on an RM Young Model 18112 Vane Angle Bench Stand. Both test fixtures are keyed to their respective sensor and graduated from 0° to 360°. A series of readings starting at 30° and then clockwise in 30° increments are taken. The RM Young is read from 30° to 360° and the Climatronics is read from 30° to 540°. The Climatronics sensor is tested 180° past 360° in order to test the second potentiometer used in some DAS programming. Although not required, the Climatronics sensor is also tested with the vane attached in order to ascertain sensor accuracy and linearity relative to the instrument crossarm. The vane is aligned along the axis of the crossarm to yield the 0°/360° and 180° values and against a square held to the crossarm for the 90° and 270° directions. Four readings are taken in a clockwise direction and four are taken counterclockwise to complete the test. For both the linearity test fixture and crossarm tests, individual error values are assessed for the PSD accuracy limit of ±5° per point and the mean absolute average error is assessed against the linearity limit of 3°.

Next, the RM Young wind direction threshold is tested by measuring wind vane torque using an RM Young Model 18331 Vane Torque Gauge. This device saddles the wind vane and a calibrated spring is pulled to determine maximum torque from readings taken in both directions in all four quadrants. The Climatronics wind direction starting torque is measured with the vane removed by using a precision torque watch in the same manner as the wind speed torque. The highest torque readings are compared to specific manufacturer limits for instrument staring torque.

Finally, the wind direction sensors are placed back on the tower and as-left audits of the azimuth alignments are conducted to ensure the instruments are properly reinstalled.

3.1.6 Barometric Pressure

Barometric pressure (BP) is audited using a collocated NIST traceable BP sensor. The difference between the NIST sensor and the station sensor are compared to the PSD limit of ±3 mbar.

3.1.7 Solar Radiation

Outputs of the station sensor are compared to the output of a level collocated audit solar radiation sensor. The audit sensor is connected to an independent audit datalogger with the scan interval and clock synchronized with the station DAS. Hourly average solar radiation readings and instantaneous readings are recorded during the audit and then input into a custom spreadsheet to calculate a linear regression for the data. The PSD limit for solar radiation audits is ±5% of observed, but this standard is very difficult to obtain at the northern latitude of this installation. This EPA standard is currently undergoing review and is expected to change. A well excepted substitute is that individual DAS and audit data pairs are compared to a limit of ±5% of observed + **EPA minimum instrument resolution (10W/m²)**. Individual data pairs are evaluated against this standard, but the overall set is restricted to a 5% error by limiting allowable linear slope to 1.0±0.05.

3.1.8 Precipitation

The Met-One tipping precipitation gauge is audited by slowly adding precisely measured volumes of water to the gauge using a dripping Nova Lynx Model 260-2595 Rain Gauge Calibrator. The predicted millimeters of precipitation corresponding to the measured volume added are calculated using the diameter of the gauge opening. The tare reading from the DAS is initially recorded and subsequent DAS readings are recorded after each test run. The percent difference between the predicted audit value and the DAS value is compared to the PSD limit of ±10%.

3.1.9 Evaporation

The evaporation gauge is first checked to confirm that the pan and gauge are level. The accuracy is checked by first removing or adding enough water to bring the initial level to approximately 50 mm or 240 mm, the minimum and maximum for this gauge. An accurate millimeter scale is taped to the inside of the evaporation pan and the water level on the scale is compared to the DAS output. Water is added to or removed from the pan to change the level by 10-20mm and another set of readings are taken. This process is repeated until the level in the pan reaches the upper or lower limit of the

gauge. The resultant suite of DAS and scaled water level readings are then input into a custom spreadsheet which calculates a linear regression for the data. The evaporation gauge reads change in water level due to evaporation and rainfall, so the calculated intercept must be removed from measured water levels. The adjusted level is compared to the DAS output with a maximum allowable error of ±10% of input and the slope of resultant line has a limit of 1.0±0.1.

3.2 Performance Audit Results

The performance audits were conducted at the Pebble 4 station from September 5-7, 2007, with Dominic Shallies of HCG assisting. The station was audited as found on September 5-6, 2007. After the initial audit the datalogger was upgraded from a Campbell Scientific CR10X to a CR1000 and the RM Young and Climatronics wind direction sensors were replaced. After these modifications the station was re-audited on September 6-7, 2007. All sensors were challenged with certified audit equipment and yielded errors below the PSD limits. Summary audit results are contained in Tables 3-2 and 3-3, and complete audit reports and audit equipment calibration certificates are contained in Appendix B and Appendix C respectively.

3.3 Performance Audit Recommendations

- None.

Table 3-2 Pebble 4 September 5-6, 2007 Performance Audit Summary (CR10X)

Parameter	Limit	Units	Max Err	Status
Datalogger Time	≤ ±5:00	Min:Sec	-0:24	Pass
2-m Temperature Accuracy	≤ ±0.5	°C	0.12	Pass
10-m Temperature Accuracy	≤ ±0.5	°C	0.12	Pass
Air Temperature Difference	≤ ±0.1	°C	0.05	Pass
Relative Humidity (dew point)	≤ ±1.5	°C	1.0	Pass
Climatronics Wind System				
Wind Speed Torque	≤ 0.0049	oz-in	<0.003	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque	≤ 0.104	oz-in	0.060	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	4.3	Pass
Wind Direction Accuracy	≤ ±5	Degree	2.4	Pass
Wind Direction Linearity	≤ 3	Degree	1.1	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	N/A[1]	N/A
RM Young Wind System				
Wind Speed Torque	≤ 0.014	oz-in	0.008	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque	≤ 11	g-cm	10.0	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	4.5	Pass
Wind Direction Accuracy	≤ ±5	Degree	3.5	Pass
Wind Direction Linearity	≤ 3	Degree	1.5	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	N/A[1]	N/A
Barometric Pressure	≤ ±3	Mbar	1.8	Pass
Solar Radiation	≤ ±5+Res	% input	-10.0[2]	Pass
Tipping Precipitation	≤ ±10	% input	-4.0	Pass
Evaporation	≤ ±10	% input	2.0	Pass

1. Not re-tested until after DAS/sensor change.
2. Max % error value of 10.0 within limit of 5% input + resolution, see audit.

Table 3-3 Pebble 4 September 6-7, 2007 Performance Audit Summary (CR1000)

Parameter	Limit	Units	Max Err	Status
Datalogger Time	≤ ±5:00	Min:Sec	-0:22	Pass
2-m Temperature Accuracy	≤ ±0.5	°C	0.17	Pass
10-m Temperature Accuracy	≤ ±0.5	°C	0.17	Pass
Air Temperature Difference	≤ ±0.1	°C	0.03	Pass
Relative Humidity (dew point)	≤ ±1.5	°C	0.6	Pass
Climatronics Wind System				
Wind Speed Torque	≤ 0.0049	oz-in	<0.003	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque	≤ 0.104	oz-in	0.070	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	N/A[1]	N/A
Wind Direction Accuracy	≤ ±5	Degree	1.7	Pass
Wind Direction Linearity	≤ 3	Degree	0.8	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	-3.3	Pass
RM Young Wind System				
Wind Speed Torque	≤ 0.014	oz-in	0.007	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque	≤ 11	g-cm	7.0	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	N/A[1]	N/A
Wind Direction Accuracy	≤ ±5	Degree	2.1	Pass
Wind Direction Linearity	≤ 3	Degree	0.7	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	-4.3	Pass
Barometric Pressure	≤ ±3	Mbar	1.8	Pass
Solar Radiation	≤ ±5+Res	% input	-8.1[2]	Pass
Tipping Precipitation	≤ ±10	% input	3.0	Pass
Evaporation	≤ ±10	% input	2.4	Pass

1. New DAS/sensor, no as-found value.
2. Max % error value of 8.1 within limit of 5% input + resolution, see audit.

4.0 REFERENCES

"Quality Assurance Project Plan for the Pebble Project Meteorological Monitoring Program", Hoefler Consulting Group, Inc., August 2006.

"Quality Assurance Manual for Ambient Air Quality Monitoring" ADEC, August 1996.

"Elements for Ambient Air Monitoring Quality Assurance Project Plan (QAPP)", ADEC, September 2004.

"Ambient Air and/or Meteorological Monitoring Quality Assurance Project Plan (QAPP) Review Checklist", ADEC, September 2004.

"Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)", EPA-450/4-87-007, May 1987.

"Quality Assurance Requirements for Prevention of Significant Deterioration (PSD) Air Monitoring", EPA-40 CFR Part 58, Appendix B, November 2004.

"On-Site Meteorological Program Guidance for Regulatory Modeling Applications", EPA-450/4-87-013, August 1995.

"Meteorological Monitoring Guidance for Regulatory Modeling Applications", EPA-454/R-99-005, February 2000.

"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II: Part I, Ambient Air Quality Monitoring Program Quality System Development", EPA-454/R-98-004, August 1998.

"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Measurements", EPA/600/R-94/038d, March 1995.

"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume V: Precipitation Measurement Systems", EPA/600/R-94/038e, April 1994.

APPENDIX A
SYSTEMS AUDIT DATA SHEETS

Pebble 4 PSD Meteorological Station Systems Audit

Owner: NDM Operator: Dominic Shallies Alternate: Steve Mackey Date: Sep 6-7, 2007
Witnesses: Dominic Shallies Auditor: Eric Brudie

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Pebble 4 PSD Meteorological Station Systems Audit

Owner: NDM Operator: Dominic Shallies Alternate: Steve Mackey Date: Sep 6-7, 2007
Witnesses: Dominic Shallies Auditor: Eric Brudie

1.0 GENERAL PROGRAM INFORMATION

1.1 Site Description

The Pebble 4 station is located on the crest of a knoll approximately 5 miles south of the mine ore body. The site is windswept and treeless with very little organics and virtually no obstructions around the station.

1.2 Site Location

1.2.1 Coordinates

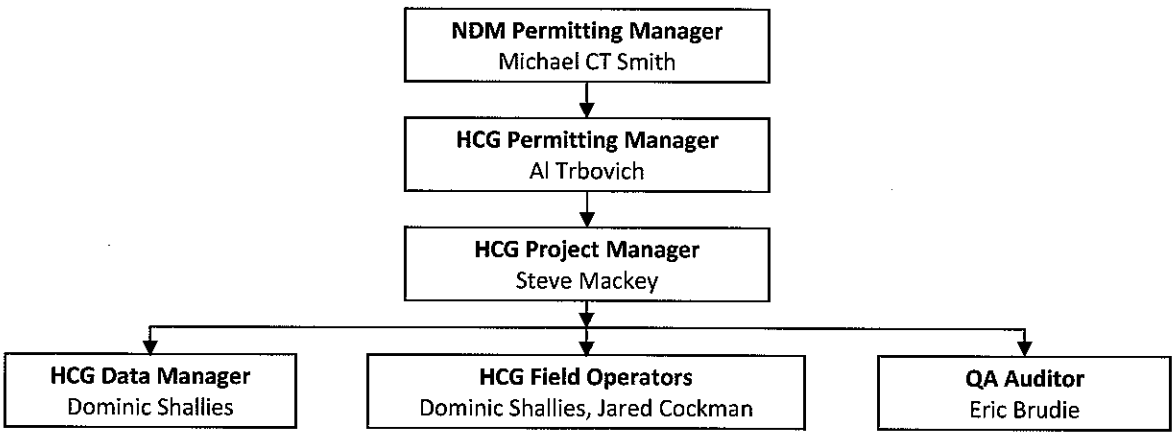
Indicated by Operator	Determined by Auditor
59° 50' N	59° 49.837 N
155° 18' W	155° 18.041'
Elevation: 1,200 feet	Elevation: 1,190 feet

1.2.2 Appearance and Safety

Does the site appear clean, organized and well maintained?	■ Yes □ No	Comments: None.
Does the site appear to be safe and reasonably hazard free?	■ Yes □ No	Comments: None.
Does the site have a shelter for operators?	■ Yes □ No	Comments: None.
Does the site have emergency equipment such as a first aid kit available?	■ Yes □ No	Comments: None.
Does the site have adequate measures to prevent human tampering?	■ Yes □ No	Comments: Remote site.
Does the site have adequate measures to prevent damage from animals?	■ Yes □ No	Comments: Cables protected in liquid-tight conduit and electronics inside shelter.

2.0 MONITORING PROGRAM STAFF ORGANIZATION

- Draw a diagram of the organizational structure of the monitoring program, including names and titles:



Owner: NDM Operator: Dominic Shallies Alternate: Steve Mackey Date: Sep 6-7, 2007
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3.0 METEOROLOGICAL MONITORING STATION EQUIPMENT

3.1 Inventory

Parameter	Make	Model	Serial No.
Old DAS[1]	Campbell Scientific	CR10X	X45838
Old DAS Wiring Panel	Campbell Scientific	CR10X	35367
New DAS[2]	Campbell Scientific	CR1000	Unknown
New DAS Wiring Panel	Campbell Scientific	CR1000	8248
Temperature (2-meter)	Met One	062MP	E2777, ID #2/2
Temperature (10-meter)	Met One	062MP	E2777, ID #1/2
Temperature Aspirators	Met One	076B-4	F5259 & F5260
Relative Humidity	Vaisala	HMP45AC	A4350044
Primary Wind Speed	Climatronics	F460-100075	5081
Primary Wind Speed Cups	Climatronics	HD Al. P/N 101287	2299
Old Primary Wind Direction	Climatronics	F460-100076	4745
New Primary Wind Direction	Climatronics	F460-100076	4662
Primary Wind Direction Vane	Climatronics	HD P/N 101288	1452
Wind Sigma	Campbell Scientific	DAS Calculated	N/A
Old Backup Wind Monitor	RM Young	05305 Wind Mon-AQ	71368
New Backup Wind Monitor	RM Young	05305 Wind Mon-AQ	77028
Backup Wind Spd Prop	RM Young	08254	63635
Barometric Pressure	Vaisala	PTB101B	B0440012
Solar Radiation	LI-COR	Li-200SX	PY52709
Precipitation-Tipping	Met-One	370	A6431
Precip. Tipping Wind Screen	NovaLynx	260-952 Alter Type	N/A
Evaporation Gauge	NovaLynx	255-100	687
Evaporation Pan	NovaLynx	255-200	None

1. DAS and some sensors replaced after initial audit on Sep 6, 2007.
2. New DAS and sensors audited on Sep 6-7, 2007.

3.2 Equipment Evaluation

3.2.1 Data Acquisition System (DAS) and Communications System

Is the DAS well protected from the elements with adequate room for maintenance?	■ Yes □ No	Comments: DAS inside of a weatherproof building, mounted on a 4'x4' wiring panel.
Is the DAS rated for operation in the expected local temperature range?	■ Yes □ No	Comments: -55°C to + 85°C.
Are all sensor cables neatly and securely connected to the correct DAS channels?	■ Yes □ No	Comments: Well organized wiring panel.
Is remote communication to the DAS system available to operators?	■ Yes □ No	Comments: DAS connected to FreeWave network linked to SixNet modem on telephone grid.
Are all components of the DAS and communications system operational?	■ Yes □ No	Comments: None.

Pebble 4 PSD Meteorological Station Systems Audit

Owner: NDM Operator: Dominic Shallies Alternate: Steve Mackey Date: Sep 6-7, 2007
Witnesses: Dominic Shallies Auditor: Eric Brudie

Are the DAS and communication equipment properly grounded?	■ Yes □ No	Comments: 8' ground rod wired to central ground buss.
Are the DAS and communication equipment protected from lightning?	□ Yes ■ No	Comments: There is no lighting protection, but area not prone to strikes.

3.2.2 Power Supply System

Does the system have a stable power supply or line power?	■ Yes □ No	Comments: Very robust alternative power supply described below.

- Describe the meteorological monitoring station power supply system.

The DAS, communications equipment and meteorological sensors are powered by one 70-Watt solar panel, buffered through two 200 amp-hr deep cycle gel cell batteries. The aspirator fans and Climatronics wind sensor heaters are powered by two 70-Watt solar panels buffered through two 200 amp-hr deep cycle gel cell batteries. During the winter months (November through April), the aspirator/heater system is also powered by a propane Thermo-Electric Generator (TEG). The isolated DAS and Aspirator power systems can be interconnected during upset conditions through an array of relays managed through the DAS control ports. The DAS monitors battery levels and can connect the two power systems should one run low. The DAS also has algorithms programmed to assess weather conditions and limit heater use when not essential.

3.2.3 Meteorological Monitoring Sensors

Do all sensors appear to be clean, intact, in good condition and well maintained?	■ Yes □ No	Comments: None.
Are all sensors operational, online and reporting data?	■ Yes □ No	Comments: None.
Do all sensors meet EPA criteria for PSD quality sensors?	■ Yes □ No	Comments: See table below.
Are spare parts stocked for items which are frequently worn out or broken?	■ Yes □ No	Comments: Spare props, cups and vanes onsite and spare bearings in field kit.

3.2.4 EPA PSD Meteorological Instrument Standards

Parameter	Instrument Specifications	EPA Standard	Pass?
Air Temperature (2-M, 10-M & Delta-T) – Met One Mdl. 062MP			
Accuracy (2-m & 10-m):	±0.05 °C	±0.5 °C	Yes
Accuracy (Delta-T):	±0.02 °C	±0.1 °C	Yes
Range (Operating Temp):	-50°C to +50°C	-20°C to +30°C	Yes
*Resolution. (2-m & 10-m):	0.01°C	0.1°C	Yes
*Resolution (Delta-T):	0.01°C	0.02°C	Yes
Response Time:	10 seconds	≤1 minute	Yes
Relative Humidity – Vaisala Mdl. HMP45AC			
Accuracy:	±2/3% at 0-90/90-100% RH	±1.5°C Dew Point**	Yes
Range:	0.8% to 100% RH	-30°C to +30°C Dew Point**	Yes
*Resolution:	0.1% RH	1% RH	Yes
Response Time:	10 sec	≤30 minutes	Yes
Operating Temperatures:	-40°C to +60°C	-30°C to + 30°C	Yes
** EPA criteria in units of dew point, RH and operating temperature ranges meet these criteria.			

Pebble 4 PSD Meteorological Station Systems Audit

Owner: NDM Operator: Dominic Shallies Alternate: Steve Mackey Date: Sep 6-7, 2007
Witnesses: Dominic Shallies Auditor: Eric Brudie

Parameter (Continued)	Instrument Specifications	EPA Standard	Pass?
Wind Speed – Climatronics Mdl. F460-100075			
Accuracy:	±0.07 m/s or ±1% of obs.	±0.2 m/s + 5% of observed	Yes
Range:	0.0 m/s to 65 m/s	0.5 m/s to 50 m/s	Yes
*Resolution:	0.01m/s	0.1 m/s	Yes
Threshold Speed:	0.22 m/s	≤0.5 m/s	Yes
Distance Constant:	<4.0 m (HD Alum. Cups)	≤5 m	Yes
Operating Temperatures:	-40°C to +60°C	-30°C to + 30°C	Yes
Wind Direction – Climatronics Mdl. F460-100076			
Accuracy:	±2°	±5°	Yes
Range:	0° to 360°	0° to 360°	Yes
*Resolution:	0.1°	1°	Yes
Threshold Speed:	0.22 m/s	≤0.5 m/s	Yes
Distance Constant:	<2.5 m (Heavy Duty Vane)	≤5 m	Yes
Damping Ratio:	>0.4 @10° initial angle	0.4 to 0.7	Yes
Operating Temperatures:	-50°C to +60°C	-30°C to + 30°C	Yes
Wind Speed – RM Young Mdl. 05305 Wind Monitor-AQ			
Accuracy:	±0.2 m/s or 1% of observed	±0.2 m/s + 5% of observed	Yes
Range:	0.0 m/s to 50 m/s	0.5 m/s to 50 m/s	Yes
*Resolution:	0.01m/s	0.1 m/s	Yes
Threshold Speed:	0.4 m/s	≤0.5 m/s	Yes
Distance Constant:	2.1 m	≤5 m	Yes
Operating Temperatures:	-50°C to +50°C	-30°C to + 30°C	Yes
Wind Direction – RM Young Mdl. 05305 Wind Monitor-AQ			
Accuracy:	±3°	±5°	Yes
Range:	0° to 360°	0° to 360°	Yes
*Resolution:	0.1°	1°	Yes
Threshold Speed:	0.5 m/s @10° displacement	≤0.5 m/s	Yes
Distance Constant:	1.2 m	≤5 m	Yes
Damping Ratio:	0.45	0.4 to 0.7	Yes
Operating Temperatures:	-50°C to +50°C	-30°C to + 30°C	Yes
Barometric Pressure – Vaisala Mdl. PTB101B			
Accuracy:	±0.5 mbar	±3 mbar	Yes
Range:	600 mbar to 1060 mbar	Not Specified	N/A
*Resolution:	0.1 mbar	0.5 mbar	Yes
Response Time:	300 msec	Not Specified	N/A
Operating Temperatures:	-40°C to +60°C	Not Specified	N/A
Solar Radiation – LI-COR Mdl. Li-200SX Pyranometer			
Accuracy:	±5% Observed	±5% Observed	Yes
Range:	0 W/m^2 to 3000 W/m^2	Not Specified	N/A
*Resolution:	1 W/m^2	10 W/m^2	Yes
Response Time:	10 µs	5 seconds	Yes
Spectral Response:	400 nm to 1,100 nm	285 nm to 2800 nm	No
Operating Temperatures:	-40°C to +65°C	-20°C to +40°C	Yes

Parameter (Continued)	Instrument Specifications	EPA Standard	Pass?
Tipping Precipitation – Met One Mdl. 370-0.2mm			
Accuracy:	±1% of 1-3 in/hr (±0.5mm)	±10% observed or ±0.5 mm	Yes
Range:	0-76 mm/hr (0-3 in/hr)	0-50 mm/hr (0-2 in/hr)	Yes
*Resolution:	0.2 mm	0.3 mm	Yes
Operating Temperatures:	-50°C to +50°C	Not Specified	N/A
Evaporation – NovaLynx Mdl. 255-100/200			
Accuracy:	±0.25% over 10" range	Not Specified	N/A
Range:	2" to 10"	Not Specified	N/A
*Resolution:	0.1 mm	Not Specified	N/A
Operating Temperatures:	0°C to +60°C	Not Specified	N/A
* For all instruments; resolutions are the result of instrument type, configuration and DAS programming.			

3.3 Station Location and Sensor Placement

3.3.1 Tower

Do all obstructions exist below a 1:10 slope away from the tower base?	■ Yes □ No	Comments: None.
Is the height of the tower at least 10 meters above the ground?	■ Yes □ No	Comments: None.
Is the tower stable and plumb?	■ Yes □ No	Comments: None.
Is the tower protected from lightning?	□ Yes ■ No	Comments: There is no lighting protection, but area not prone to strikes.

3.3.2 Temperature Sensors

Are the sensors mounted at least 2-m above open level ground at least 9-m in diameter?	■ Yes □ No	Comments: None.
Are the temperature difference probes at heights of 2-m and 10-m above the ground?	■ Yes □ No	Comments: None.
Are the sensors at a distance greater than four times the height of any obstruction?	■ Yes □ No	Comments: None.
Is the ground beneath the temperature sensors natural native material?	■ Yes □ No	Comments: None.
Is the site free of any natural features that could bias temperature data (e.g. open water, sloping ridge, etc.)?	■ Yes □ No	Comments: None.
Is the site free of any man-made features that could bias temperature data (e.g. asphalt, concrete, exhaust plumes, etc.)?	■ Yes □ No	Comments: None.
Are the sensors located at least 30 meters from large paved areas?	■ Yes □ No	Comments: None.

Pebble 4 PSD Meteorological Station Systems Audit

Owner: NDM Operator: Dominic Shallies Alternate: Steve Mackey Date: Sep 6-7, 2007
Witnesses: Dominic Shallies Auditor: Eric Brudie

Is the ambient temperature sensor protected from the influence of solar radiation?	■ Yes □ No	Comments: Housed in Met One Mdl 076B-4 Motor Aspirated Radiation Shield.
Are the temperature difference sensors located in identical aspirated shields?	■ Yes □ No	Comments: Housed in Met One Mdl 076B-4 Motor Aspirated Radiation Shields.

3.3.3 Relative Humidity Sensor

Is the relative humidity sensor open to the atmosphere & protected from precipitation?	■ Yes □ No	Comments: Housed in 2-m aspirated shield with temperature sensor.

3.3.4 Wind Speed and Wind Direction Sensors

Is the horizontal distance between the instruments and any obstruction at least 10 times the height of the obstruction?	■ Yes □ No	Comments: None.
Are the instruments at least 1.5 times nearby building height(s) above the building roof(s), or 10-m high?	■ Yes □ No	Comments: None.
Are the wind speed and wind direction sensors stable and plumb?	■ Yes □ No	Comments: None.
Is the distance of the sensor on the cross-arm at least twice the diameter of the tower?	■ Yes □ No	Comments: Climatronics Sensors mounted on a crossarm which meets this criterion.
Is the distance of the sensor on the cross-arm at least twice the diameter of the tower?	■ Yes □ No	Comments: RM Young sensor mounted on an extension arm which meets this criterion.
Is the wind direction sigma theta data being collected according to EPA requirements?	■ Yes □ No	Comments: DAS calculated using Yamartino method and a one-second scan interval.

3.3.5 Barometric Pressure Sensor

Is the barometric pressure sensor open to atmosphere & protected from precipitation?	■ Yes □ No	Comments: Housed in unsealed shelter, mounted on the wiring panel.

3.3.6 Solar Radiation Sensor

Is the instrument situated above the plane of any obstructions that could cast shadows?	■ Yes □ No	Comments: None.
Is the sensor situated south of the tower to minimize obstruction from the tower?	■ Yes □ No	Comments: None.

3.3.7 Precipitation Gauge

Are all obstructions to the wind farther away from the gauge than the obstruction height?	■ Yes □ No	Comments: None.
If located in an open and windy area, is a windshield being used?	■ Yes □ No	Comments: Alter type shield surrounds Met-One gauge.
Is the area surrounding the rain gauge covered by natural vegetation or gravel?	■ Yes □ No	Comments: None.
Is the instrument mounted at least 30 cm above the ground?	■ Yes □ No	Comments: None.

Owner: NDM Operator: Dominic Shallies Alternate: Steve Mackey Date: Sep 6-7, 2007
Witnesses: Dominic Shallies Auditor: Eric Brudie

Is the instrument mounted level?	■ Yes □ No	Comments: None.

3.3.8 Evaporation Gauge

Is the evaporation pan above the plane of any obstructions that could cast shadows?	■ Yes □ No	Comments: None.
Are the pan and gauge mounted on a stable and level platform?	■ Yes □ No	Comments: Mounted on a 6' x 8' deck supported on adjustable pier blocks.
Is the evaporation pan protected from animals?	■ Yes □ No	Comments: Six-foot fence surrounds evaporation pan and gauge.

4.0 STANDARD OPERATING PROCEDURES

4.1 General

Is the station visited on a preset schedule?	■ Yes □ No	Comments: None.
Have standard SOPs been developed, and are they being followed by the operators?	■ Yes □ No	Comments: None.
Does the operator follow a preventative maintenance schedule?	■ Yes □ No	Comments: None.
Are site visits and maintenance activities properly documented in a Station Log?	■ Yes □ No	Comments: Site visit memos are compiled.
Are station operators knowledgeable and competent regarding effective operation?	■ Yes □ No	Comments: None.
Have operators attended any formal training for operating met monitoring stations?	■ Yes □ No	Comments: The lead operator has formal training and all operators have onsite experience.
Are copies of the NIST certifications for the calibration equipment made available?	■ Yes □ No	Comments: Attached.

4.2 DAS and Meteorological Sensors

Are regular multipoint QC checks performed on the DAS?	■ Yes □ No	Comments: DAS audited by virtue of the instrument output values.
Are regular multipoint QC checks performed on the meteorological sensors?	■ Yes □ No	Comments: None.
Are the sensors visually inspected for defects and problems?	■ Yes □ No	Comments: None.
Are ambient conditions compared with sensor readings from the DAS?	■ Yes □ No	Comments: DAS output compared to Iliamna Airport weather station.
Are data frequently reviewed for reasonableness and completeness?	■ Yes □ No	Comments: None.
Is a copy of the datalogger program made available for review?	■ Yes □ No	Comments: None.

Owner: NDM Operator: Dominic Shallies Alternate: Steve Mackey Date: Sep 6-7, 2007
Witnesses: Dominic Shallies Auditor: Eric Brudie

5.0 DOCUMENTATION

5.1 System Reference and Maintenance Manuals

Does the operator have all required DAS and meteorological instrument manuals?	■ Yes □ No	Comments: On-site and at HCG offices.
Does the operator have configuration and wiring schematics specific to the station?	■ Yes □ No	Comments: Operator carries wiring schematics.

5.2 Station Monitoring Plan and Report Forms

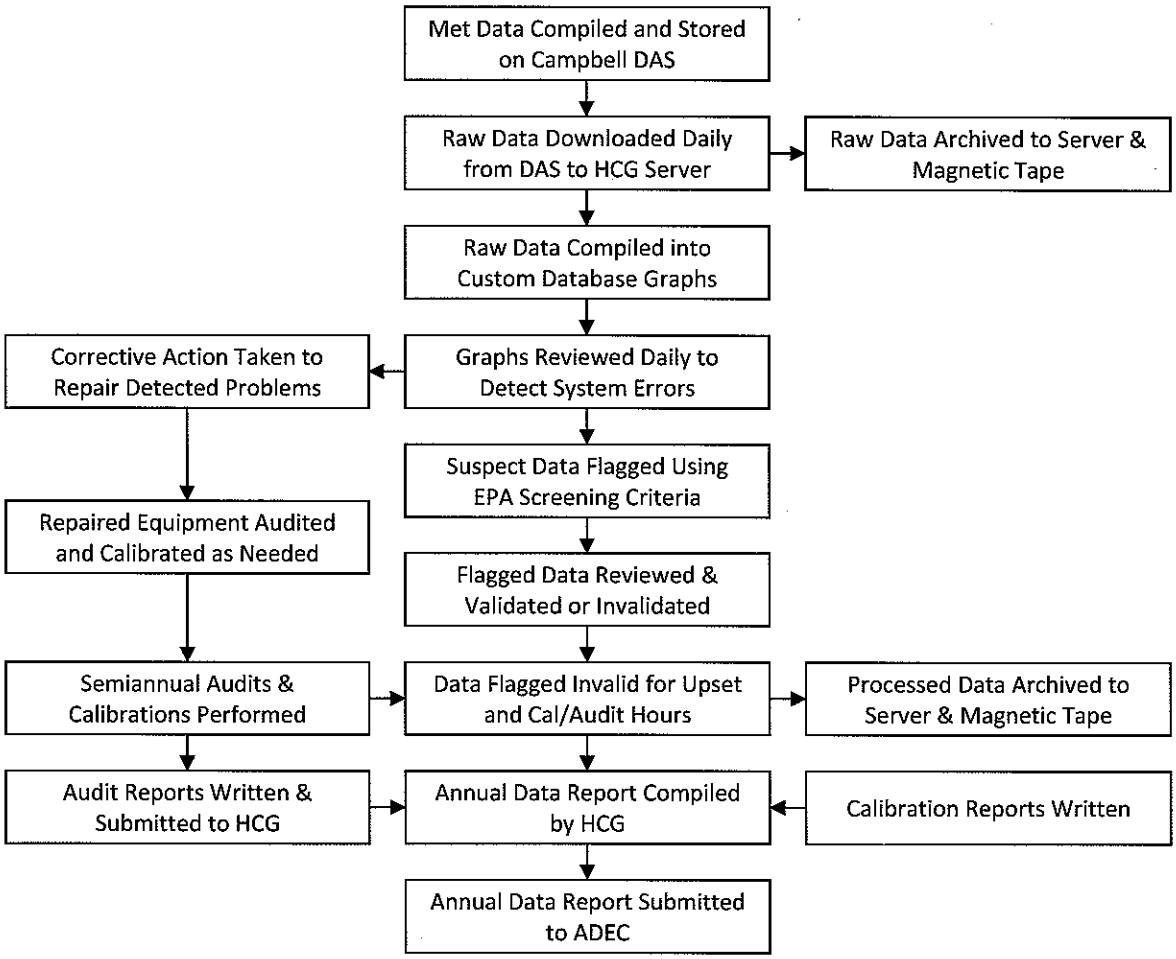
Is the Monitoring/QA plan comprehensive and reflective of the actual installation?	■ Yes □ No	Comments: None.
Does the Monitoring/QA plan indicate the intended use for the data collected during the monitoring program?	■ Yes □ No	Comments: Collect PSD quality data to meet dispersion modeling requirements and satisfy mine/transportation design requirements.
Does the system outlined in the QA plan meet the objectives outlined above?	■ Yes □ No	Comments: PSD quality installation.
Does the QA Plan indicate the intended schedule for reports to be submitted?	■ Yes □ No	Comments: None.
Does the station have an activity log?	□ Yes ■ No	Comments: Site visit memos written after each visit to supplant a log book.
Does the station have a formal Site Visit and Checklist Form?	□ Yes ■ No	Comments: No formal checklist used.
Does the station have an adequate Operations Manual?	■ Yes □ No	Comments: Monitoring/QA plan and equipment manuals.
Does the station have an adequate calibration form and copies of previous audits & cals?	■ Yes □ No	Comments: None.
Are report forms and site logs properly completed and current?	■ Yes □ No	Comments: None.

Owner: NDM Operator: Dominic Shallies Alternate: Steve Mackey Date: Sep 6-7, 2007
Witnesses: Dominic Shallies Auditor: Eric Brudie

6.0 DATA PROCESSING and VALIDATAION

6.1 Overall Data Management

- Diagram the flow of data from monitoring equipment to submission of a final report.



6.2 Data Collection and Initial Data Review

Is the station polled and data downloaded on a regular basis?	■ Yes □ No	Comments: Daily via RF modem and telephony modem.
Are the monitoring station data reviewed on a regular basis?	■ Yes □ No	Comments: Data imported into custom graphs and reviewed 5-6 days per week.
Are the monitoring station data screened on a regular basis?	■ Yes □ No	Comments: Data screened using EPA criteria prior to summary compilations.
Are procedures in place for backing up raw data?	■ Yes □ No	Comments: Raw data files are backed up on the HCG server and on magnetic tape.
Are written procedures for data handling available for the project?	■ Yes □ No	Comments: None.

- Describe the data polling process and initial data evaluation.

Data is downloaded from the station on a daily basis using a dedicated data polling computer located at the HCG office. The raw *.dat file is appended to the existing raw station data file located on the HCG server, which is backed up to tape daily. The raw data are copied to an Access/Excel database file which generates custom graphs of the various meteorological and operational parameters. These graphs are reviewed 5-6 days per week in order to identify station problems. This graphical data review is the frontline of maintaining a complete and defensible dataset. Station upsets are instantly identified and repaired within days. Copies of both the raw unadjusted data and the custom database files are retained for a minimum of 5 years.

6.3 Corrective Actions

Are procedures established for initiating corrective actions during data processing?	■ Yes □ No	Comments: Daily graphical data review and subsequent reactions.

- Describe procedures for initiating, tracking and closing corrective actions.

When nonconformance issues are recognized during graphical review, the Lead Operator/Data Manager plans and executes corrective action. A calibration check is performed on any sensor which is repaired or replaced during the action. A site visit memo outlining the nature of the problem and repairs undertaken is written and saved to the station file. Any quantifiable error is also documented for possible data validation. The Operator/Data Manager ensures the erroneous data are flagged for the period from initial noncompliance until repair and calibration are affected.

6.4 Data Validation

Are data validation procedures established and in use?	■ Yes □ No	Comments: None.
Are adjusted and unadjusted data sets maintained?	■ Yes □ No	Comments: Both are backed up on the HCG server and magnetic tape.

- Describe the initial data validation procedure.

Data is compiled in a custom Excel spreadsheet programmed to evaluate meteorological data against EPA recommended PSD data screening criteria. The data are screened for events such as; extended periods of zero wind speed (indicating icing or worn bearings), temperatures outside of the known monthly max/min for the area, etc. Nonconforming data are flagged by the screening program for further investigation. Also, data periods for individual parameters are flagged for times when the corresponding instrument was undergoing field servicing, calibrations or audits. Periods when instruments are known to have been out of calibration or malfunctioning are also flagged.

- Describe procedures for validating and invalidating flagged data (outliers).

Data flagged during the screening process described above are manually reviewed. If the data have a quantifiable, consistent and documented bias, they may be adjusted and then validated. Specific guidelines are detailed in the Plan. Data which have been flagged by the screening program are also compared to local weather conditions as determined from other sources. Examples where data flagged during screening may be validated include periods when winds were known to have been exceptionally calm at nearby stations or extreme temperatures outside the historical max/min were witnessed. At this point, flagged data are permanently validated and left in the database or invalidated and removed from the database. Data removed from the database are replaced with an alphanumeric code to indicate the reason for invalidation.

- Identify those responsible for data validation.

Name: Dominic Shallies
Position: Lead Operator & Data Manager
Affiliation: Hoefler Consulting Group, Inc.

Name: Rebecca Van Wyck
Position: Data Management
Affiliation: Hoefler Consulting Group, Inc.

6.5 Data Capture

- Identify the desired data capture rate for the monitoring data.

Target rate for PSD Quality Meteorological Monitoring Data is 90%.

Is the desired data capture rate being met for each data type?	■ Yes □ No	Comments: None.

6.6 Data Reporting

Are quarterly and annual data reports being submitted for the site?	■ Yes □ No	Comments: None.
Are qualified staff personnel reviewing data reports prior to submittal?	■ Yes □ No	Comments: None.
Is finalized data set submitted with report to ADEC?	■ Yes □ No	Comments: None.

7.0 QUALITY ASSURANCE AND QUALITY CONTROL

7.1 Quality Assurance Program

Has a quality assurance plan been written describing quality assurance procedures?	■ Yes □ No	Comments: None.
Is a copy of the plan available to field and data processing personnel?	■ Yes □ No	Comments: None.
Has the quality assurance plan been approved by the ADEC?	■ Yes □ No	Comments: None.

- Identify those person(s) responsible for updating the plan SOPs.

Name: Steve Mackey
Position: Project Manager
Affiliation: Hoefler Consulting Group, Inc.

7.2 Quality Assurance Methods and Audits

Have adequate audit procedures been identified within the quality assurance plan?	■ Yes □ No	Comments: None.
Does the Plan correctly document PSD accuracy limits for calibrating and auditing?	■ Yes □ No	Comments: None.
Have audits been conducted on the suggested schedule of every six months?	■ Yes □ No	Comments: None.

Owner: NDM Operator: Dominic Shallies Alternate: Steve Mackey Date: Sep 6-7, 2007
Witnesses: Dominic Shallies Auditor: Eric Brudie

- Identify the person(s) responsible for conducting audits on the monitoring instrumentation.

Name: Eric Brudie
Position: Field Auditor
Affiliation: Hoefler Consulting Group, Inc.

8.0 COMMENTS AND SUGGESTIONS

- Prepare and compile site specific station checklists and visit forms.

APPENDIX B
PERFORMANCE AUDIT DATA SHEETS and ALIGNMENT MAP

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Sep 5-6, 2007

• *DAS TIME AUDIT*

PSD Limits: DAS time = Alaska Standard Time (AST) +/- 5 minutes.
Conversions: Winter; (AST) = (DST), Summer; (AST) = (DST) - 1 hr.
Comments: CR10X audit. Most audits on 9/6/07, only solar started on 9/5/07.

DAS TIME vs. NOAA CLOCK			
AST Time	DAS Time	Error Min:Sec	Pass/ Fail?
9:43:00	9:42:36	**-00:24**	**PASS**

• *TEMPERATURE SENSORS & ΔT AUDIT*

Lower Height: 2.0 **Meters** **Upper Height:** 9.9 **Meters**

2-M Thermistor:	**Make:**	Met One	**Model:**	062MP	**S.N.#:**	E2777 # 2/2	**Range:**	-50 to 50 °C
10-M Thermistor:	**Make:**	Met One	**Model:**	062MP	**S.N.#:**	E2777 # 1/2	**Range:**	-50 to 50 °C
Audit Digital Thermometer:	**Make:**	Van Waters & Rogers	**Model:**	61220/601	**S.N.#:**	51091749	**Range:**	-40 to 150 °C
Audit Probe:	**Make:**	Van Waters & Rogers	**Model:**	61220/604	**S.N.#:**	240301145	**Range:**	-40 to 150 °C

Wiring Check	
2m=2m	✓
10m=10m	✓

Time:
Begin: 1155
End: 1215

THERMISTOR COLLOCATED STANDARD TEST										
Thermal Input			Station Response (2M)			Station Response (10M)			Station (Delta T)	
Temp Range	Target °C	Input °C	DAS °C	Error °C	Pass/ Fail?	DAS °C	Error °C	Pass/ Fail?	Delta T °C	Pass/ Fail?
Hot	35 to 45	40.00	40.12	0.12	Pass	40.12	0.12	Pass	0.00	Pass
Warm	15 to 25	13.58	13.63	0.05	Pass	13.63	0.05	Pass	0.00	Pass
Ice Bath	0	-0.01	-0.03	-0.02	Pass	-0.03	-0.02	Pass	0.00	Pass
Cold	-15 to -25	-10.02	-9.98	0.04	Pass	-9.98	0.04	Pass	0.00	Pass
Very Cold	-35 to -45	-29.62	-29.55	0.07	Pass	-29.50	0.12	Pass	0.05	Pass
		Max Abs. Error		0.12	**PASS**		0.12	**PASS**	0.05	**PASS**

PSD Limits: Max Absolute Error > 0.5 °C (Sensor Accuracy); Max Absolute Error > 0.1 °C (Delta Temperature).
Comments: None.

• *RELATIVE HUMIDITY SENSOR AUDIT*

Height: 2.0 **Meters**

RH Sensor:	**Make:**	Vaisala	**Model:**	HMP45C-L	**S.N.#:**	A4350044	**Range:**	0.8 to 100 **% RH**
Audit Equipment:	**Make:**	Vaisala	**Model:**	HMI 41	**S.N.#:**	X0650080	**Range:**	0 to 100 **% RH**
Audit Equipment:	**Probe#**	HMI41 X07450015						

RH COLLOCATED STANDARD TEST								
Reading Time	Input %RH	Input AT (°C)	Input DP (°C)	DAS %RH	DAS AT (°C)	DAS DP (°C)	Error DP (°C)	Pass/ Fail?
907	94.8	8.1	7.3	98.9	8.3	8.1	0.8	Pass
1042	93.5	8.7	7.7	95.2	8.9	8.2	0.5	Pass
1112	93.3	8.8	7.2	94.0	9.1	8.2	1.0	Pass
					Max Abs. Error		1.0	**PASS**

PSD Limits: Max Absolute Error > 1.5°C Dew Point.
Conversions: Td=DP(°C), Ta=AT(°C), RH=Fraction: $Td=b*\gamma/(a-\gamma)$, where $\gamma=a*Ta/(b+Ta)+\ln(RH)$, and a = 17.27, b=237.7°C.
Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Sep 5-6, 2007

• *HORIZONTAL WIND SENSOR AUDIT - CLIMATRONICS*

Height: 11.4 **Meters**

Wind Spd Sensor:	**Make:**	Climatronics	**Model:**	100075	**S.N.#:**	5081	**Cup #:** 2299	**Range:**	0-60 m/s
Wind Dir Sensor:	**Make:**	Climatronics	**Model:**	100076	**S.N.#:**	4745	**Vane #:** 1452	**Range:**	0-360 Deg
Spd Audit Eq:	**Low Spd:**	RM Young	**Model:**	18811	**S.N.#:**	CA02136	**Torque:** Watters Mdl 366-3	**S.N.#:**	4864
Spd Audit Eq:	**High Spd:**	RM Young	**Model:**	18801	**S.N.#:**	CA01674			
Dir Audit Eq:	**Linearity:**	Climatronics	**Model:**	101984	**S.N.#:**	145	**Torque:** Honeywell Mdl 366-0	**S.N.#:**	5042
Dir Audit Eq:	**Compass:**	Brunton	**Model:**	11-F5008	**S.N.#:**	5080799319	**Magnetic Declin:**	17.3	E of N

WIND SPD SYNCHRONOUS MOTOR TEST

Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/ Fail?
0	0.22	0.22	0.00	N/A	Pass
100	2.57	2.57	0.00	N/A	Pass
200	4.92	4.92	0.00	N/A	Pass
400	9.62	9.62	N/A	0.0	Pass
1000	23.72	23.71	N/A	0.0	Pass
2000	47.22	47.21	N/A	0.0	Pass
	Max Abs. Error		**0.00**	**0.0**	**PASS**

Time: Begin: 1142 End: 1145

Conversion: Heavy Duty Al Cups: m/s = rpm÷42.55+0.22.
Cups rotate clockwise.

WIND DIR IN-SITU AZIMUTH ALIGNMENT TEST

Cups Aligned North? ✓ Input Description	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
Pebble Station 3	166.3	170.6	4.3	Pass
Peak 1590	104.4	108.4	4.0	Pass
Hill 0948	325.6	327.1	1.5	Pass
Compass	272.5	274.0	1.5	Pass
	Max Abs. Error		**4.3**	**PASS**
	Mean Abs. Error		**2.8**	**GOOD**

Time: Begin: 1000 End: 1025

CROSSARM-VANE ACCUR. & LIN. TEST

Input Dir	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
South	180.0	181.0	1.0	Pass
West	270.0	272.8	2.8	Pass
North	360.0	0.0	0.0	Pass
East	90.0	90.1	0.1	Pass
North	360.0	3.2	3.2	Pass
West	270.0	273.1	3.1	Pass
South	180.0	180.4	0.4	Pass
East	90.0	89.2	-0.8	Pass
	Max Abs. Error		**3.2**	**PASS**
	Mean Abs. Error		**1.4**	**PASS**

Time: Begin: 1125 End: 1129

WIND DIR BENCH STAND ACCURACY & LINEARITY TEST

Input Deg	DAS Deg	Error Deg	Pass/ Fail?	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
30.0	27.6	-2.4	Pass	330.0	331.6	1.6	Pass
60.0	57.8	-2.2	Pass	355.0	356.2	1.2	Pass
90.0	88.3	-1.7	Pass	30.0	28.4	-1.6	Pass
120.0	119.7	-0.3	Pass	60.0	58.2	-1.8	Pass
150.0	149.2	-0.8	Pass	90.0	88.7	-1.3	Pass
180.0	178.7	-1.3	Pass	120.0	120.0	0.0	Pass
210.0	209.6	-0.4	Pass	150.0	149.3	-0.7	Pass
240.0	240.2	0.2	Pass	180.0	179.2	-0.8	Pass
270.0	270.8	0.8	Pass	**Max Abs. Error**		**2.4**	**PASS**
300.0	301.3	1.3	Pass	**Mean Abs. Error**		**1.1**	**PASS**

Time: Begin: 1136 End: 1140

WIND SPD TORQUE TEST

Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/ Fail?
In-Situ	0.0049	<0.003	**PASS**
New	0.0049	N/A	**N/A**

WIND DIR TORQUE TEST

Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/ Fail?
In-Situ	0.104	0.060	**PASS**
New	0.104	N/A	**N/A**

WIND DIR POST-AUDIT AZIMUTH ALIGNMENT TEST

Cups Aligned North? ✓ Input Description	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
Instrument/DAS Changed-				
No Post-Audit Test				
	Max Abs. Error			
	Mean Abs. Error			

Time: Begin: End:

Spd PSD Limits: Threshold Torque >0.35gm-cm (0.0049oz-in) @ 0.50m/s.
Max Abs Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.

Dir PSD Limits: Threshold Torque >7.5 gm-cm (.104 oz-in) @ 0.5 m/s. Max Abs Error >5° from True Azimuth (alignment).
Max Abs Error >5° (accuracy). Mean Abs Error >3° (linearity). Azimuth Mean Abs Error calculated for information only.

Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Sep 5-6, 2007

• *HORIZONTAL WIND SENSOR AUDIT - RM YOUNG AQ*

Height: 10.6 **Meters**

Wind Sensor: **Make:** RM Young **Model:** 05305 AQ **S.N.#:** 71368 **Prop #:** 63635 **Range:** 0-360 **Deg**
Spd Audit Eq: **Low Spd:** RM Young **Model:** 18811 **S.N.#:** CA02136 **Torque:** Watters Mdl 366-3 **S.N.#:** 4864
Spd Audit Eq: **High Spd:** RM Young **Model:** 18801 **S.N.#:** CA06174
Dir Audit Eq: **Linearity:** RMY Mdl 18112 Bench Stand **S.N.#:** None **Torque:** RMY Mdl 18331 Torque Gauge **S.N.#:** None
Dir Audit Eq: **Compass:** Brunton **Model:** 11-F5008 **S.N.#:** 5080799319 **Magnetic Declin:** 17.3 **E of N**

WIND SPD SYNCHRONOUS MOTOR TEST

Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/ Fail?
0	0.00	0.00	0.00	N/A	Pass
400	2.05	2.05	0.00	N/A	Pass
1000	5.12	5.12	N/A	0.0	Pass
2000	10.24	10.24	N/A	0.0	Pass
5000	25.60	25.60	N/A	0.0	Pass
10000	51.20	51.20	N/A	0.0	Pass
	Max Abs. Error		**0.00**	**0.0**	**PASS**

Time: Begin: 1105 End: 1113

Conversion: Model 08254 Prop: m/s = 0.00512*rpm.
Prop rotates counterclockwise.

WIND DIR IN-SITU AZIMUTH ALIGNMENT TEST

Box Aligned South? ✓ Input Description	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
Pebble Station 3	166.3	168.9	2.6	Pass
Peak 1590	104.4	107.3	2.9	Pass
Hill 0948	325.6	330.1	4.5	Pass
Compass	272.5	269.3	-3.2	Pass
	Max Abs. Error		**4.5**	**PASS**
	Mean Abs. Error		**3.3**	**ALERT**

Time: Begin: 1000 End: 1025

WIND DIR BENCH STAND ACCURACY & LINEARITY TEST

Input Deg	DAS Deg	Error Deg	Pass/ Fail?	Input Deg	DAS Deg	Error Deg	Pass/ Fail?	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
30.0	30.9	0.9	Pass	150.0	149.5	-0.5	Pass	270.0	267.6	-2.4	Pass
60.0	60.2	0.2	Pass	180.0	180.0	0.0	Pass	300.0	296.9	-3.1	Pass
90.0	90.6	0.6	Pass	210.0	208.9	-1.1	Pass	330.0	326.5	-3.5	Pass
120.0	119.7	-0.3	Pass	240.0	238.0	-2.0	Pass	355.0	351.5	-3.5	Pass
								Max Abs. Error		**3.5**	**PASS**
								Mean Abs. Error		**1.5**	**PASS**

Time: Begin: 1055 End: 1100

WIND SPD TORQUE TEST

Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/ Fail?
In-Situ	0.014	0.008	**PASS**
New	0.014	N/A	**N/A**

WIND DIR TORQUE TEST

Bearings Replaced?	Limit gm-cm	Torque gm-cm	Pass/ Fail?
In-Situ	11.0	10.0	**PASS**
New	11.0	N/A	**N/A**

WIND DIR POST-AUDIT AZIMUTH ALIGNMENT TEST

Box Aligned South? ✓ Input Description	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
Instrument/DAS Changed-				
No Post-Audit Test				
	Max Abs. Error			
	Mean Abs. Error			

Time: Begin: End:

Spd PSD Limits: Threshold Torque >1.0gm-cm (0.014oz-in) @ 0.50m/s. Max Abs Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.
Dir PSD Limits: Threshold Torque >11.0 gm-cm (0.153 oz-in) @ 0.5 m/s. Max Abs Error >5° from True Azimuth (alignment).
Max Abs Error >5° (accuracy). Mean Abs Error >3° (linearity). Azimuth Mean Abs Error calculated for information only.
Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Sep 5-6, 2007

• *BAROMETRIC PRESSURE SENSOR AUDIT*

Height: N/A **Meters**

Pressure Sensor: **Make:** Vaisala **Model:** PTB101B **S.N.#:** B0440012 **Range:** 600-1060 **hPa**
Audit Equipment: **Make:** PRETEL **Model:** AltiPlus A2 **S.N.#:** 27806 **Range:** 470-1040 **hPa**

BP COLLOCATED STANDARD TEST						
Reading Time	Raw Input in Hg	Adj Input in Hg	Adj Input mb	DAS mb	Error mb	Pass/ Fail?
905	28.64	28.54	966.6	968.4	1.8	Pass
			Max Abs. Error		1.8	PASS

Audit Inst Cal Data	
Cal. Date: 07/26/07	
Audit Inst	Offset Amount
24.11	-0.11
26.28	-0.10
28.10	-0.10
30.09	-0.09
Intercept	**-0.18**
Slope	**0.0031**

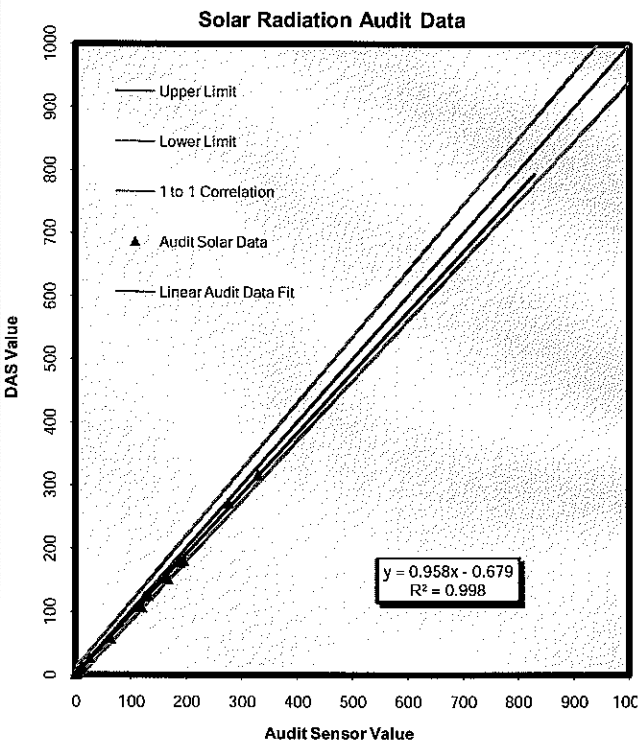
PSD Limits: Max Absolute Error > 3mb (0.3kPa).
Comments: None.

• *SOLAR RADIATION SENSOR AUDIT*

Height: 3.9 **Meters**

Station Sensor: **Make:** Li-Cor **Model:** Li-200SX **S.N.#:** PY52709 **Range:** 0-3000 **W/m²**
Audit Sensor: **Make:** Eppley **Model:** PSP **S.N.#:** 34377F3 **Range:** 0-2800 **W/m²**

SOLAR RADIATION COLLOCATED STANDARD TEST						
Data Hr AST	Audit W/m²	DAS W/m²	Error W/m²	Allow Err W/m²	Error % Input	Pass/ Fail?
1458	275.4	272.0	-3.4	±23.8	-1.2%	Pass
850	131.2	125.3	-5.9	±16.6	-4.5%	Pass
1137	194.4	180.8	-13.6	±19.7	-7.0%	Pass
1217	328.3	315.9	-12.4	±26.4	-3.8%	Pass
1600	124.4	123.1	-1.3	±16.2	-1.0%	Pass
1700	9.6	10.8	1.3	±10.5	n/a	Pass
1800	10.0	9.7	-0.3	±10.5	n/a	Pass
1900	12.3	12.2	-0.1	±10.6	n/a	Pass
2000	6.1	6.2	0.1	±10.3	n/a	Pass
2100	0.5	0.3	-0.1	±10.0	n/a	Pass
2200	0.0	0.0	0.0	±10.0	n/a	Pass
600	0.0	0.0	0.0	±10.0	n/a	Pass
700	3.0	2.7	-0.3	±10.1	n/a	Pass
800	26.4	25.9	-0.5	±11.3	n/a	Pass
900	63.4	57.5	-5.9	±13.2	-9.3%	Pass
1000	119.0	107.1	-11.9	±16.0	-10.0%	Pass
1100	166.2	151.4	-14.8	±18.3	-8.9%	Pass
1200	188.5	177.3	-11.2	±19.4	-5.9%	Pass
Corr. Val	**0.9993**	**Max Abs. Percent Error**			**10.0%**	**PASS**
R² Value	**0.9986**	**Intercept**	**-0.7**	**Slope**	**0.9589**	**PASS**



Begin Date: 09/05/07 **End Date:** 09/06/07

PSD Limits: Max Abs Err <5% of Observed + Resolution(10W/m²). Linear regression slope in range 1.0±5% (0.95 to 1.05) when R² > 0.995.
Note: Instantaneous values are associated with minute timestamps and hourly averages coincide with whole hour timestamps.
Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Sep 5-6, 2007

• *TIPPING PRECIPITATION GAUGE AUDIT*

Height with Snowfall Adapter Off/On: 1.0/1.5 **Meters**

Precipitation Gauge: **Make:** Met-One **Model:** 370 - 0.2mm **S.N.#:** A6431 **Range:** 3 **Inches per Hour**
Audit Equipment: **Make:** Nova Lynx Corp. **Model:** 260-2595 **S.N.#:** 936 **Range:** 2 **Inches per Hour**
Diameter: 8.00 **Inches** **Volume Rate** 32.43 **ml/mm** **Int Dat:** DAS hourly data and/or adjustments.

TIPPING PRECIPITATION GAUGE VOLUME TEST

Start Time	Input Vol ml	Input mm	Begin mm	Int Dat mm	End mm	End Time	Final mm	Error % Input	Pass/ Fail?	Notes
817	650	20.0	0.0		19.2	900	19.2	-4.0%	Pass	
901	650	20.0	0.0		19.6	1000	19.6	-2.0%	Pass	
1003	650	20.0	0.0		19.4	1100	19.4	-3.0%	Pass	
1110	650	20.0	0.0		20.0	1200	20.0	0.0%	Pass	
						Max Abs. Error		**4.0%**	**PASS**	

PSD Limits: Max Absolute Error > 10 % of Input.
Comments: Snowfall adapter off.

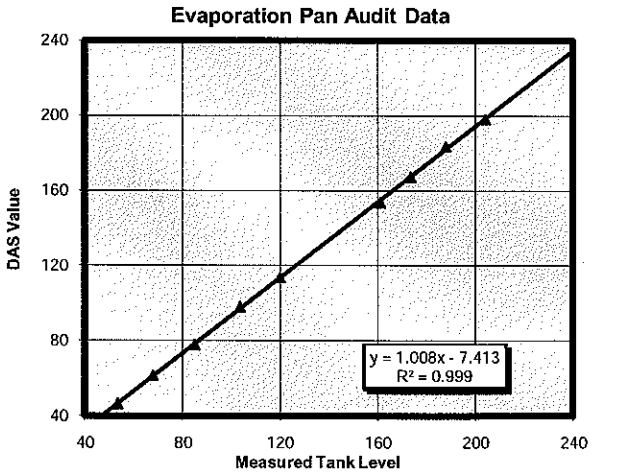
• *EVAPORATION GAUGE AUDIT*

Height: 0.5 **Meters**

Evaporation Gauge: **Make:** NovaLynx **Model:** 255-100 **S.N.#:** 687 **Range:** 40-254 **mm**
Evaporation Pan: **Make:** NovaLynx **Model:** 255-200 **S.N.#:** None **Range:** 0-254 **mm**

EVAPORATION PAN STAGE HEIGHT TEST

Pan inch	Pan mm	DAS mm	Pan Level + Intcpt	Error mm	Error % Input	Pass/ Fail?
	120.0	113.9	112.6	1.3	1.2%	Pass
	103.5	98.0	96.1	1.9	2.0%	Pass
	85.0	77.6	77.6	0.0	0.0%	Pass
	68.0	61.6	60.6	1.0	1.7%	Pass
	53.5	46.3	46.1	0.2	0.5%	Pass
	161.0	153.4	153.6	-0.2	-0.1%	Pass
	173.5	167.1	166.1	1.0	0.6%	Pass
	188.0	183.7	180.6	3.1	1.7%	Pass
	204.0	198.2	196.6	1.6	0.8%	Pass
		Max Abs. Error		**3.1**	**2.0%**	**PASS**
		Intercept	**-7.4**	**Slope**	**1.0087**	**PASS**



Time: Begin: 1030 End: 1115

PSD Limits: Max Absolute Error > 10 % of Input adjusted for slope/intercept.
Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Sep 6-7, 2007

• *DAS TIME AUDIT*

PSD Limits: DAS time = Alaska Standard Time (AST) +/- 5 minutes.
Conversions: Winter; (AST) = (DST), Summer; (AST) = (DST) - 1 hr.
Comments: CR1000 audit.

DAS TIME vs. NOAA CLOCK			
AST Time	DAS Time	Error Min:Sec	Pass/ Fail?
16:36:30	16:36:08	**-00:22**	**PASS**

• *TEMPERATURE SENSORS & ΔT AUDIT*

Lower Height: 2.0 **Meters** **Upper Height:** 9.9 **Meters**

2-M Thermistor:	**Make:**	Met One	**Model:**	062MP	**S.N.#:**	E2777 # 2/2	**Range:**	-50 to 50 **°C**
10-M Thermistor:	**Make:**	Met One	**Model:**	062MP	**S.N.#:**	E2777 # 1/2	**Range:**	-50 to 50 **°C**
Audit Digital Thermometer:	**Make:**	Van Waters & Rogers	**Model:**	61220/601	**S.N.#:**	51091749	**Range:**	-40 to 150 **°C**
Audit Probe:	**Make:**	Van Waters & Rogers	**Model:**	61220/604	**S.N.#:**	240301145	**Range:**	-40 to 150 **°C**

Wiring Check	
2m=2m	✓
10m=10m	✓

Time:
Begin: 1520
End: 1535

THERMISTOR COLLOCATED STANDARD TEST										
Thermal Input			Station Response (2M)			Station Response (10M)			Station (Delta T)	
Temp Range	Target °C	Input °C	DAS °C	Error °C	Pass/ Fail?	DAS °C	Error °C	Pass/ Fail?	Delta T °C	Pass/ Fail?
Hot	35 to 45	42.08	42.25	0.17	Pass	42.25	0.17	Pass	0.00	Pass
Warm	15 to 25	20.01	20.05	0.04	Pass	20.05	0.04	Pass	0.00	Pass
Ice Bath	0	-0.05	0.10	0.15	Pass	0.10	0.15	Pass	0.00	Pass
Cold	-15 to -25	-9.90	-9.95	-0.05	Pass	-9.95	-0.05	Pass	0.00	Pass
Very Cold	-35 to -45	-23.87	-23.76	0.11	Pass	-23.73	0.14	Pass	0.03	Pass
		Max Abs. Error		0.17	**PASS**		0.17	**PASS**	0.03	**PASS**

PSD Limits: Max Absolute Error > 0.5 °C (Sensor Accuracy); Max Absolute Error > 0.1 °C (Delta Temperature).
Comments: None.

• *RELATIVE HUMIDITY SENSOR AUDIT*

Height: 2.0 **Meters**

RH Sensor:	**Make:**	Vaisala	**Model:**	HMP45C-L	**S.N.#:**	A4350044	**Range:**	0.8 to 100 **% RH**
Audit Equipment:	**Make:**	Vaisala	**Model:**	HMI 41	**S.N.#:**	X0650080	**Range:**	0 to 100 **% RH**
Audit Equipment:	**Probe#**	HMI41 X07450015						

RH COLLOCATED STANDARD TEST									
Date:	Reading Time	Input %RH	Input AT (°C)	Input DP (°C)	DAS %RH	DAS AT (°C)	DAS DP (°C)	Error DP (°C)	Pass/ Fail?
09/06/07	1530	66.1	10.5	4.5	68.7	10.6	5.1	0.6	Pass
09/07/07	1330	93.0	8.3	7.3	92.3	8.6	7.4	0.1	Pass
						Max Abs. Error		0.6	**PASS**

PSD Limits: Max Absolute Error > 1.5°C Dew Point.
Conversions: Td=DP(°C), Ta=AT(°C), RH=Fraction: $Td=b*\gamma/(a-\gamma)$, where $\gamma=a*Ta/(b + Ta) + \ln(RH)$, and a = 17.27, b=237.7°C.
Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Sep 6-7, 2007

• *HORIZONTAL WIND SENSOR AUDIT - CLIMATRONICS*

Height: 11.4 **Meters**

Wind Spd Sensor:	**Make:**	Climatronics	**Model:**	100075	**S.N.#:**	5081	**Cup #:**	2299	**Range:**	0-60 m/s
Wind Dir Sensor:	**Make:**	Climatronics	**Model:**	100076	**S.N.#:**	4662	**Vane #:**	1452	**Range:**	0-360 Deg
Spd Audit Eq:	**Low Spd:**	RM Young	**Model:**	18811	**S.N.#:**	CA02136	**Torque:**	Watters Mdl 366-3	**S.N.#:**	4864
Spd Audit Eq:	**High Spd:**	RM Young	**Model:**	18801	**S.N.#:**	CA01674				
Dir Audit Eq:	**Linearity:**	Climatronics	**Model:**	101984	**S.N.#:**	145	**Torque:**	Honeywell Mdl 366-0	**S.N.#:**	5042
Dir Audit Eq:	**Compass:**	Brunton	**Model:**	11-F5008	**S.N.#:**	5080799319		**Magnetic Declin:**	17.3	**E of N**

WIND SPD SYNCHRONOUS MOTOR TEST

Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/ Fail?
0	0.22	0.22	0.00	N/A	Pass
100	2.57	2.57	0.00	N/A	Pass
200	4.92	4.92	0.00	N/A	Pass
400	9.62	9.62	N/A	0.0	Pass
1000	23.72	23.71	N/A	0.0	Pass
2000	47.22	47.21	N/A	0.0	Pass
	Max Abs. Error		**0.00**	**0.0**	**PASS**

Time: Begin: 1617 End: 1620

Conversion: Heavy Duty Al Cups: m/s = rpm÷42.55+0.22.
Cups rotate clockwise.

WIND DIR IN-SITU AZIMUTH ALIGNMENT TEST

Cups Aligned North? ✓ Input Description	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
New Instrument/DAS-				
No In-Situ Test				
Time: Begin:	**Max Abs. Error**			
End:	**Mean Abs. Error**			

CROSSARM-VANE ACCUR. & LIN. TEST

Input Dir	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
South	180.0	180.5	0.5	Pass
West	270.0	272.6	2.6	Pass
North	360.0	0.7	0.7	Pass
East	90.0	92.3	2.3	Pass
North	360.0	0.9	0.9	Pass
West	270.0	272.4	2.4	Pass
South	180.0	180.8	0.8	Pass
East	90.0	92.6	2.6	Pass
	Max Abs. Error		**2.6**	**PASS**
	Mean Abs. Error		**1.6**	**PASS**

Time: Begin: 1633 End: 1640

WIND DIR BENCH STAND ACCURACY & LINEARITY TEST

Input Deg	DAS Deg	Error Deg	Pass/ Fail?	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
30.0	29.8	-0.2	Pass	330.0	331.7	1.7	Pass
60.0	59.3	-0.7	Pass	355.0	356.2	1.2	Pass
90.0	91.0	1.0	Pass	30.0	29.2	-0.8	Pass
120.0	121.1	1.1	Pass	60.0	60.8	0.8	Pass
150.0	150.2	0.2	Pass	90.0	91.0	1.0	Pass
180.0	180.3	0.3	Pass	120.0	121.5	1.5	Pass
210.0	210.1	0.1	Pass	150.0	150.4	0.4	Pass
240.0	240.2	0.2	Pass	180.0	179.1	-0.9	Pass
270.0	270.8	0.8	Pass	**Max Abs. Error**		**1.7**	**PASS**
300.0	300.8	0.8	Pass	**Mean Abs. Error**		**0.8**	**PASS**

Time: Begin: 1621 End: 1623

WIND SPD TORQUE TEST

Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/ Fail?
In-Situ	0.0049	<0.003	**PASS**
New	0.0049	N/A	**N/A**

WIND DIR TORQUE TEST

Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/ Fail?
In-Situ	0.104	0.070	**PASS**
New	0.104	N/A	**N/A**

WIND DIR POST-AUDIT AZIMUTH ALIGNMENT TEST

Cups Aligned North? ✓ Input Description	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
West Sharp Mtn	46.1	45.7	-0.4	Pass
Peak 1590	104.4	105.1	0.7	Pass
Peak 1760	153.4	152.9	-0.5	Pass
Hill 0948	325.6	326.7	1.1	Pass
Compass	273.0	269.7	-3.3	Pass
Peak 1824	262.7	261.8	-0.9	Pass
Time: Begin: 1700	**Max Abs. Error**		**3.3**	**PASS**
End: 1735	**Mean Abs. Error**		**1.1**	**GOOD**

Spd PSD Limits: Threshold Torque >0.35gm-cm (0.0049oz-in) @ 0.50m/s.
Max Abs Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.

Dir PSD Limits: Threshold Torque >7.5 gm-cm (.104 oz-in) @ 0.5 m/s. Max Abs Error >5° from True Azimuth (alignment).
Max Abs Error >5° (accuracy). Mean Abs Error >3° (linearity). Azimuth Mean Abs Error calculated for information only.

Comments: New wind direction instrument SN 4662 replaced SN 4745.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Sep 6-7, 2007

• *HORIZONTAL WIND SENSOR AUDIT - RM YOUNG AQ*

Height: 10.6 **Meters**

Wind Sensor: **Make:** RM Young **Model:** 05305 AQ **S.N.#:** 77028 **Prop #:** 63635 **Range:** 0-360 **Deg**
Spd Audit Eq: **Low Spd:** RM Young **Model:** 18811 **S.N.#:** CA02136 **Torque:** Watters Mdl 366-3 **S.N.#:** 4864
Spd Audit Eq: **High Spd:** RM Young **Model:** 18801 **S.N.#:** CA06174
Dir Audit Eq: **Linearity:** RMY Mdl 18112 Bench Stand **S.N.#:** None **Torque:** RMY Mdl 18331 Torque Gauge **S.N.#:** None
Dir Audit Eq: **Compass:** Brunton **Model:** 11-F5008 **S.N.#:** 5080799319 **Magnetic Declin:** 17.3 **E of N**

WIND SPD SYNCHRONOUS MOTOR TEST

Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/ Fail?
0	0.00	0.00	0.00	N/A	Pass
400	2.05	2.05	0.00	N/A	Pass
1000	5.12	5.12	N/A	0.0	Pass
2000	10.24	10.24	N/A	0.0	Pass
5000	25.60	25.60	N/A	0.0	Pass
10000	51.20	51.20	N/A	0.0	Pass
	Max Abs. Error		**0.00**	**0.0**	**PASS**

Time: Begin: 1515 End: 1520

Conversion: Model 08254 Prop: m/s = 0.00512*rpm.
Prop rotates counterclockwise.

WIND DIR IN-SITU AZIMUTH ALIGNMENT TEST

Box Aligned South? ✓ Input Description	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
New Instrument/DAS- No In-Situ Test				
Time: Begin:	**Max Abs. Error**			
End:	**Mean Abs. Error**			

WIND DIR BENCH STAND ACCURACY & LINEARITY TEST

Input Deg	DAS Deg	Error Deg	Pass/ Fail?	Input Deg	DAS Deg	Error Deg	Pass/ Fail?	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
30.0	32.1	2.1	Pass	150.0	149.6	-0.4	Pass	270.0	270.6	0.6	Pass
60.0	61.2	1.2	Pass	180.0	180.1	0.1	Pass	300.0	301.0	1.0	Pass
90.0	90.5	0.5	Pass	210.0	210.0	0.0	Pass	330.0	331.1	1.1	Pass
120.0	120.2	0.2	Pass	240.0	240.1	0.1	Pass	355.0	354.5	-0.5	Pass
					Time:	Begin: 1600		**Max Abs. Error**		**2.1**	**PASS**
						End: 1618		**Mean Abs. Error**		**0.7**	**PASS**

WIND SPD TORQUE TEST

Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/ Fail?
In-Situ	0.014	0.007	**PASS**
New	0.014	N/A	**N/A**

WIND DIR TORQUE TEST

Bearings Replaced?	Limit gm-cm	Torque gm-cm	Pass/ Fail?
In-Situ	11.0	7.0	**PASS**
New	11.0	N/A	**N/A**

WIND DIR POST-AUDIT AZIMUTH ALIGNMENT TEST

Box Aligned South? ✓ Input Description	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
West Sharp Mtn	46.1	47.0	0.9	Pass
Peak 1590	104.4	104.3	-0.1	Pass
Peak 1760	153.4	151.4	-2.0	Pass
Hill 0948	325.6	324.3	-1.3	Pass
Compass	273.0	268.7	-4.3	Pass
Peak 1824	262.7	261.7	-1.0	Pass
Time: Begin: 1700	**Max Abs. Error**	**4.3**	**PASS**	
End: 1735	**Mean Abs. Error**	**1.6**	**GOOD**	

Spd PSD Limits: Threshold Torque >1.0gm-cm (0.014oz-in) @ 0.50m/s. Max Abs Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.
Dir PSD Limits: Threshold Torque >11.0 gm-cm (0.153 oz-in) @ 0.5 m/s. Max Abs Error >5° from True Azimuth (alignment).
Max Abs Error >5° (accuracy). Mean Abs Error >3° (linearity). Azimuth Mean Abs Error calculated for information only.
Comments: New sensor SN 77028 replaced sensor SN 71368.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Sep 6-7, 2007

• *BAROMETRIC PRESSURE SENSOR AUDIT*

Height: N/A **Meters**

Pressure Sensor: **Make:** Vaisala **Model:** PTB101B **S.N.#:** B0440012 **Range:** 600-1060 **hPa**
Audit Equipment: **Make:** PRETEL **Model:** AltiPlus A2 **S.N.#:** 27806 **Range:** 470-1040 **hPa**

BP COLLOCATED STANDARD TEST						
Reading Time	Raw Input in Hg	Adj Input in Hg	Adj Input mb	DAS mb	Error mb	Pass/ Fail?
1724	28.66	28.56	967.3	969.1	1.8	Pass
			Max Abs. Error		1.8	**PASS**

Audit Inst Cal Data	
Cal. Date: 07/26/07	
Audit Inst	Offset Amount
24.11	-0.11
26.28	-0.10
28.10	-0.10
30.09	-0.09
Intercept	**-0.18**
Slope	**0.0031**

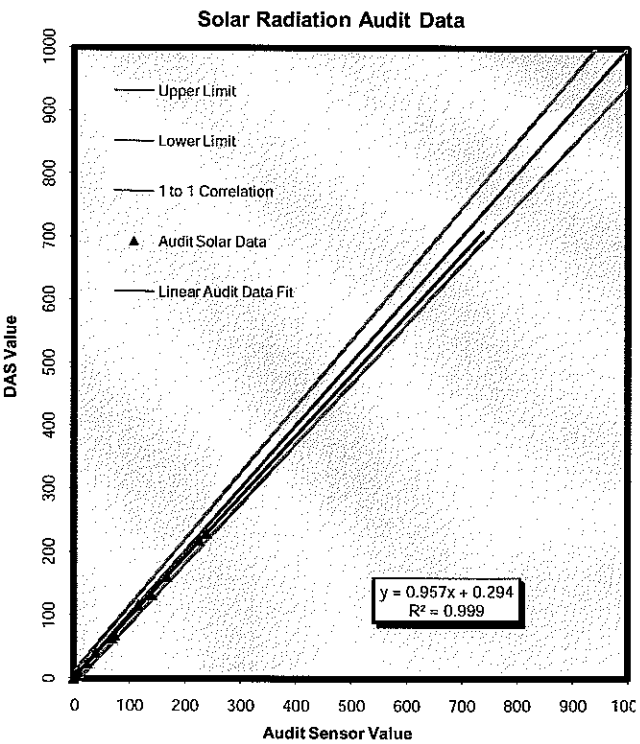
PSD Limits: Max Absolute Error > 3mb (0.3kPa).
Comments: None.

• *SOLAR RADIATION SENSOR AUDIT*

Height: 3.9 **Meters**

Station Sensor: **Make:** Li-Cor **Model:** Li-200SX **S.N.#:** PY52709 **Range:** 0-3000 **W/m²**
Audit Sensor: **Make:** Eppley **Model:** PSP **S.N.#:** 34377F3 **Range:** 0-2800 **W/m²**

SOLAR RADIATION COLLOCATED STANDARD TEST						
Data Hr AST	Audit W/m²	DAS W/m²	Error W/m²	Allow Err W/m²	Error % Input	Pass/ Fail?
1535	238.7	229.7	-9.0	±21.9	-3.8%	Pass
1555	225.9	217.6	-8.3	±21.3	-3.7%	Pass
1620	168.0	160.3	-7.7	±18.4	-4.6%	Pass
1700	140.5	131.3	-9.2	±17.0	-6.5%	Pass
1800	73.3	68.2	-5.1	±13.7	-6.9%	Pass
1900	23.3	23.3	0.0	±11.2	n/a	Pass
2000	8.7	9.7	1.0	±10.4	n/a	Pass
2100	0.0	0.2	0.2	±10.0	n/a	Pass
2200	0.0	0.0	0.0	±10.0	n/a	Pass
600	0.0	0.0	0.0	±10.0	n/a	Pass
700	4.4	4.2	-0.2	±10.2	n/a	Pass
800	38.5	40.5	2.0	±11.9	n/a	Pass
900	116.2	115.0	-1.2	±15.8	-1.0%	Pass
1000	68.4	62.9	-5.5	±13.4	-8.1%	Pass
Corr. Val	**0.9997**	**Max Abs. Percent Error**			**8.1%**	**PASS**
R² Value	**0.9994**	**Intercept**	**0.3**	**Slope**	**0.9574**	**PASS**



Begin Date: 09/06/07 **End Date:** 09/07/07

PSD Limits: Max Abs Err <5% of Observed + Resolution(10W/m²). Linear regression slope in range 1.0±5% (0.95 to 1.05) when R² > 0.995.
Note: Instantaneous values are associated with minute timestamps and hourly averages coincide with whole hour timestamps.
Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Sep 6-7, 2007

• *TIPPING PRECIPITATION GAUGE AUDIT*

Height with Snowfall Adapter Off/On: 1.0/1.5 **Meters**

Precipitation Gauge: **Make:** Met-One **Model:** 370 - 0.2mm **S.N.#:** A6431 **Range:** 3 **Inches per Hour**
Audit Equipment: **Make:** Nova Lynx Corp. **Model:** 260-2595 **S.N.#:** 936 **Range:** 2 **Inches per Hour**
Diameter: 8.00 **Inches** **Volume Rate** 32.43 **ml/mm** **Int Dat:** DAS hourly data and/or adjustments.

TIPPING PRECIPITATION GAUGE VOLUME TEST											
Date:	Start Time	Input Vol ml	Input mm	Begin mm	Int Dat mm	End mm	End Time	Final mm	Error % Input	Pass/ Fail?	Notes
09/06/07	1625	650	20.0	0.0		20.6	1700	20.6	3.0%	Pass	
09/07/07	940	650	20.0	0.0	19.2	1.4	1100	20.6	3.0%	Pass	
							Max Abs. Error		3.0%	PASS	

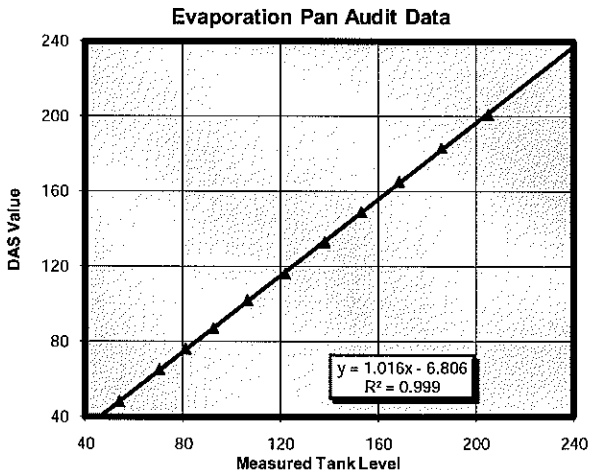
PSD Limits: Max Absolute Error > 10 % of Input.
Comments: Snowfall adapter off.

• *EVAPORATION GAUGE AUDIT*

Height: 0.5 **Meters**

Evaporation Gauge: **Make:** NovaLynx **Model:** 255-100 **S.N.#:** 687 **Range:** 40-254 **mm**
Evaporation Pan: **Make:** NovaLynx **Model:** 255-200 **S.N.#:** None **Range:** 0-254 **mm**

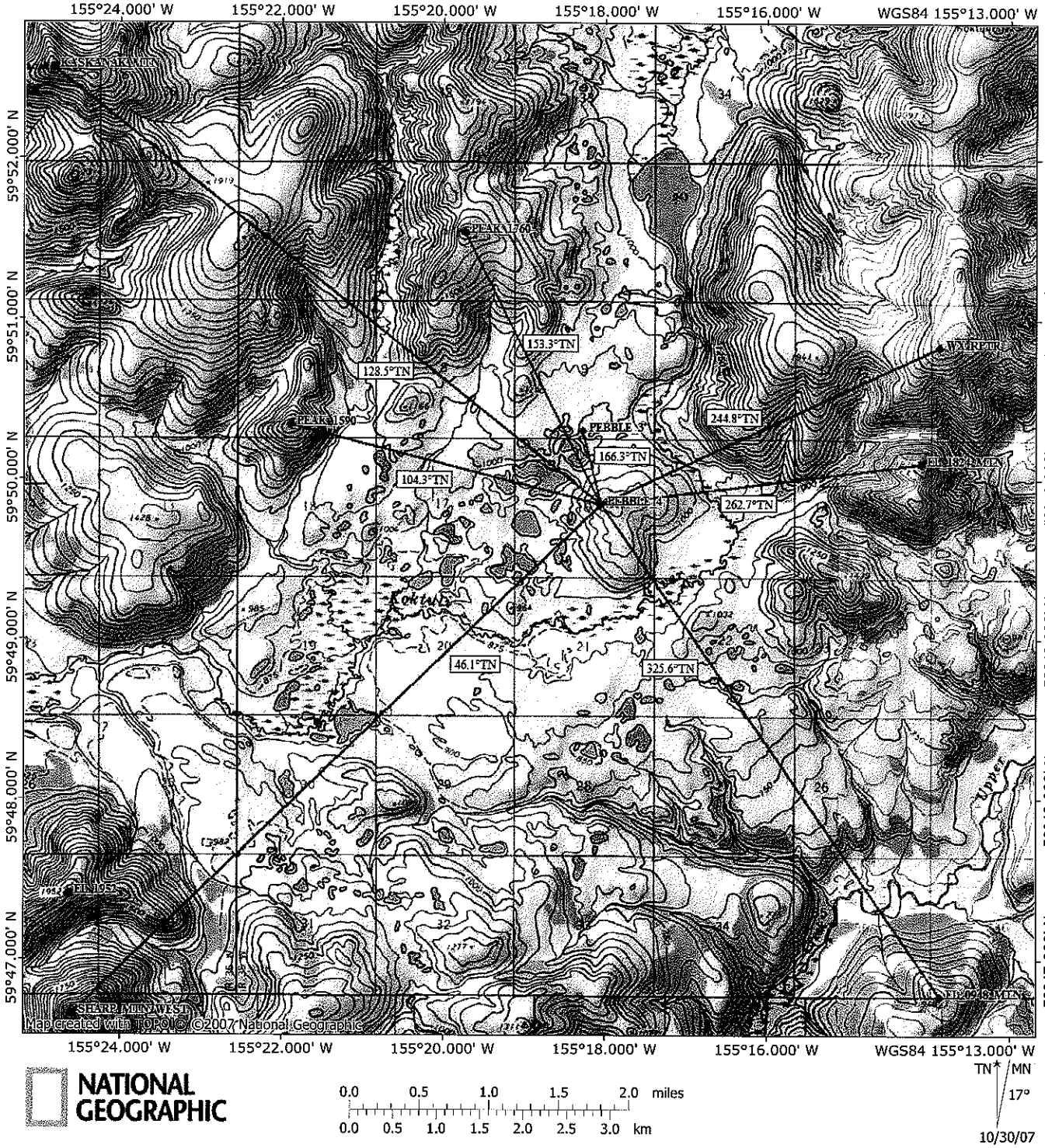
EVAPORATION PAN STAGE HEIGHT TEST						
Pan inch	Pan mm	DAS mm	Pan Level + Intcpt	Error mm	Error % Input	Pass/ Fail?
	205.0	200.9	198.2	2.7	1.4%	Pass
	186.0	183.3	179.2	4.1	2.3%	Pass
	168.5	165.1	161.7	3.4	2.1%	Pass
	153.0	149.0	146.2	2.8	1.9%	Pass
	138.0	132.8	131.2	1.6	1.2%	Pass
	122.0	116.1	115.2	0.9	0.8%	Pass
	106.5	101.8	99.7	2.1	2.1%	Pass
	92.5	87.0	85.7	1.3	1.5%	Pass
	81.0	76.0	74.2	1.8	2.4%	Pass
	70.5	65.2	63.7	1.5	2.4%	Pass
	54.0	48.0	47.2	0.8	1.7%	Pass
		Max Abs. Error		4.1	2.4%	PASS
		Intercept	-6.8	Slope	1.0168	PASS



Date: 09/07/07 **Time:** Begin: 1030 End: 1115

PSD Limits: Max Absolute Error > 10 % of Input adjusted for slope/intercept.
Comments: Windy.

Pebble 4 TOPO Alignment Map - 59°49.837' N, 155°18.041' W WGS84



APPENDIX C
AUDIT EQUIPMENT CALIBRATION CERTIFICATES

Alaska Calibration, Inc.

Troubleshooting, Repair and Calibration of
Test & Measurement Equipment

Black unit

CERTIFICATE OF CALIBRATION

WORK ORDER NO. 9665 **TRACEABILITY CERTIFICATE** 07041701

ISSUED TO: Hoefler Consulting Group, Inc

INSTRUMENT:61220-601,Digital Thermometer & 61220-604 Temperature Probe, Fisher Scientific, S/N's 51091749 & 240301145

DATE DONE: April 17, 2007 **DATE DUE:** April 16, 2008

CERTIFIED BY METROLOGIST: A.T. Grabowski **TEMPERATURE:** 69°F **HUMIDITY:** 43% RH

INCOMING STATUS: This instrument was in (XX) was out of ( ) tolerance when received.

CALIBRATION APPARATUS USED

MODEL	NOMENCLATURE	MFR	SERIAL NO.	DUE DATE
MK3900	Temperature Chamber	Delta Design	89308	NCR
32°F/ 0°C	Ice Bath	Alaska Calibration, Inc	Made as Needed	Natural Phys. Const.
RFJA0TL150CA060	Temperature Probe	Watlow/Gordon	A135	11/13/07
DP41-RTD	Digital Thermometer	Omega Engineering	4381337	11/13/07

CHARTED TEMPERATURE READINGS

Laboratory Probe	Test Instrument Thermometer	System Uncertainty
-50.013°C	- 50.025°C	0.009°C
-25.038°C	- 25.052°C	0.009°C
0.007°C	0.011°C	0.009°C
+ 25.033°C	+25.047°C	0.009°C
+50.004°C	+50.012°C	0.009°C

RANGE/LIMITATIONS: Calibrated over entire range.

PROCEDURE & ACCURACY STATEMENT: T.O. 33K5-4-42-1. Accuracy: See Chart Above.

NIST TRACEABLE REPORT NUMBERS

MODEL	NOMENCLATURE	MFR	DUE DATE	REPORT NO.
RFJA0TL150CA060	Temperature Probe	Watlow/Gordon	11/13/07.	G209372
-32°F/ 0°C	Ice Bath	Alaska Calibration, Inc	Natural Phys. Const.	Made as Needed

COMPLIANCE

Alaska Calibration Inc.'s calibration practices and procedures comply with the requirements of ANSI/ISO/ Z540-1 and ANSI/ISO/IEC 17025: 2000 and relevant requirements of ISO 9002:1994. The standards used are certified as being traceable to the National Institute of Standards and Technology (NIST), by comparison to SI units through laboratory standards in an unbroken chain of Calibrations through appropriate primary and national measurement standards, derived from an acceptable value of a natural physical constant, or derived by the ratio type of self calibration techniques. Certificate shall not be reproduced, except in full, without the written approval of Alaska Calibration, Inc.

4706 Harding Drive, Suite A, Anchorage, Alaska 99517-3119 (907) 677-1993

VAISALA Certificate of Calibration

Report #: 060407-X0740015-RH RMA #: 95-60966 **Calibration Date: Jun-04-2007**
Model #: HMI41/HMP41 **Serial #: X0650080/X0740015**
Instrument Type: Humidity Transmitter Calibration Procedure: 11603100
Instrument Range: 0 to 100%, RH Recommended Calibration Due Date: Jun-04-2008
Instrument Range: -20 to +60 °C, T

Customer: HOEFLER CONSULTING GROUP
City, State: ANCHORAGE, AK

This unit was calibrated by adjusting its reading at 0%* against a dry-air line and at 75% against reference humidity and temperature instrument, Vaisala model HMP233. Additional instrument verification checkpoints were made against HMP233 reference at 11%RH and 33%RH. Calibration and instrument verification sequences utilize a dry-air line and a set of controlled aqueous salt solutions Vaisala model HMK13B. Laboratory ambient conditions are humidity and temperature controlled. The calibration uncertainty is presented at 95% confidence level, k=2. The standard uncertainty of the measurement has been determined in accordance with U.S. Guide to the Expression of Uncertainty in Measurement. *Note: the 0% RH point is not ISO17025 Accredited.

Calibration Data (As Left)

Temperature Calibration, °C

Reference	Unit Under Test	Error	± Tolerance, °C	± Uncertainty, °C
21.07	21.10	0.03	0.20	0.07

Humidity Calibration, %RH

Reference	Unit Under Test	Error	± Tolerance, %	± Uncertainty %
0.03	0.10	0.07	2.00	0.50 *
11.17	11.30	0.13	2.00	0.92
32.67	32.50	-0.17	2.00	1.01
74.78	74.80	0.02	2.00	1.02

Problem Noted: **No "As Found" Data. Intermittent readings from Temp Sensor. Damage to Temp Sensor. RH sensor dirty.**
Action Taken: **Replaced Temp and RH sensors. The unit was calibrated.**

The results of this calibration are related only to the items being calibrated at the time of calibration, and, are traceable to the National Institute of Standards and Technology through NIST Test Report Numbers TN 274176 and TN 274579-07. Vaisala's calibration system has been established to meet the requirements of ANSI/NCSL Z540-1-1994. This certificate can not be reproduced, except in full, without the expressed written consent of Vaisala. The certificate was established to comply with the requirements of ISO/IEC17025. Vaisala is ISO 9001:2000 certified.

Calibration Equipment Used: Workstation 4A

Model Number	Serial Number	Calibration Date	Due Date
Power Supply	9900610	Nov. 27, 2006	Nov. 27, 2008
Fluke 45	7405020	Aug. 4, 2006	Aug. 4, 2007
HMK13B	513796	Mar. 26, 2007	Sep. 26, 2007
HMP233	V4310014	May. 22, 2007	Aug. 22, 2007
HMT333	B0920003	May. 22, 2007	Aug. 22, 2007
HMI41/HMP45	S0720005	Mar. 5, 2007	Jun. 5, 2007

Ambient Conditions

Temperature:	22.00 °C
Humidity:	49.40 %RH

Approved By

Technical Operator
Matthew Nocivelli

Vaisala Inc., Boston Office
10-D Gill Street, Woburn, MA 01801, USA
Telephone 781 933 4500 • Fax 781 933 8029
www.vaisala.com

YOUNG

CERTIFICATE OF CALIBRATION AND TESTING

MODEL: 18811 (Comprised of Models 18820A Control Unit & 18831A Motor Assembly)
SERIAL NUMBER: CA02136

R. M. Young Company certifies that the above equipment was inspected and calibrated prior to shipment in accordance with established manufacturing and testing procedures. Standards established by R.M. Young Company for calibrating the measuring and test equipment used in controlling product quality are traceable to the National Institute of Standards and Technology.

Nominal Motor Rpm	27106D Output Frequency Hz (1)	Calculated Rpm (2)	Indicated Rpm (3)
30.0	5	30.0	30.0
150.0	25	150.0	150.0
300.0	50	300.0	300.0
450.0	75	450.0	450.0
600.0	100	600.0	600.0
750.0	125	750.0	750.0
990.0	165	990.0	990.0
☑ Clockwise and Counterclockwise rotation verified			

(1) Measured frequency output of RM Young Model 27106D standard anemometer attached to motor shaft
(2) 27106D produces 10 pulses per revolution of the anemometer shaft
(3) Indicated on the Control Unit LCD display

*Indicates out of tolerance

☑ No Calibration Adjustments Required ☐ As Found ☐ As Left

Traceable frequency meter used in calibration DP4863

Date of inspection 26 July 2007

Tested By EJ

R.M. YOUNG COMPANY 2801 Aero Park Drive, Traverse City Michigan 49686-9171 USA
TEL. (231) 946-3980 FAX: (231) 946-4772 Email: met sales@youngusa com

R.M. Young Company
2801 Aero Park Drive
Traverse City, Michigan 49686 USA

Certificate of Calibration and Testing

Test Unit:			
Model:	18801	Serial Number:	CA01674
Description:	Anemometer Drive - 10 to 10,000 RPM - Comprised of Models 18820 Control Unit & 18830 Motor Assembly		

R.M. Young Company certifies that the above equipment has been inspected and calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technologies (NIST).

Nominal Motor Rpm	Output Frequency (1) Hz	Calculated Rpm (2)	Indicated Rpm (3)
600	320	600	600
1200	640	1200	1200
2400	1280	2400	2400
4200	2240	4200	4200
6000	3200	6000	6000
8100	4320	8100	8100
9900	5280	9900	9900
☑ Clockwise and Counterclockwise rotation verified			

(1) Measured at the optical encoder output
(2) Frequency output produces 32 pulses per revolution of the motor shaft
(3) Indicated on the Control Unit LCD display

*Indicates out of tolerance

☑ No Calibration Adjustments Required ☐ As Found ☐ As Left

Traceable frequency meter used in calibration DP4863

Date of inspection 22 November 2006

Tested By EP

Tel: 231-946-3980 Fax: 231-946-4772 Email: met.sales@youngusa.com Website: www.youngusa.com

Houston Precision, Inc.

8729 Gulf Freeway
Houston, TX 77017-6504

Calibration Report

Company:	Hoefler Consulting Group	**Doc #:**	36861
Address:	3401 Minnesota Drive Suite 300 Anchorage, AK 99503	**Date:**	10/25/2006
		PO#:	1208-003-161
Contact:	Chris Lindsey	**Page:**	1
Dept:			

Gage:	Torque Watch m#366-3	**Control:**	4864
Mfg:	Water's	**Model:**	Torque Watch m#366-3
Location:		**Serial #:**	4864

Parameters:

Parameter:

Text:

Comments:

Calibration Completed by: Caltech Calibration
Original Certificate (attached) # 4074

Reference HPI S/O # 14307

We certify the equipment used for this calibration is traceable to NIST through one or more of the following numbers:

Last / Next Cal Dates: -->

Gage Status: PASS **Next Calibration Due: 10/25/2007**

Certified By: Denice V. Mills Signature: Denice V Mills

This certificate is not valid unless all 1 page(s) are present.
*Laboratory Environmental Conditions: Temperature: 68°F +/- 3.6°F and/or 20C +/- 2C, Relative Humidity: between 40% and 60%.
*Calibration measurements are performed in accordance with guidelines set forth in ANSI/NCSL Z540-1-1994 and Houston Precision's Quality manual.
*The measurement of uncertainity has not been taken into account when reporting readings "in" or "out of tolerance" on this calibration report.
*If additional information regarding this calibration is required, please contact this laboratory.
*All calibrations have been performed under the supervision and authority of Omar Martinez, Lab Manager.
*Any number of factors may cause the subject of this calibration to drift out of calibration before the recommended interval has expired.
HPI will not be held responsible for the calibration status of an item whose calibration interval exceeds the actual validity of the calibration.

End of document.

Certificate of Calibration

The instrument listed below meets or exceeds published specifications and has been calibrated under controlled conditions and is traceable to the National Institute of Standards and Technology(N.I.S.T.), or to accepted intrinsic standards of measurement, or by the ratio type of self-calibration techniques. Cal-Tech Calibration conforms to the following, ANSI/NCSL Z540-1-1994, ISO/IEC 25/17025.

Customer: Houston Precision
Certificate Number: 4074
Instrument Make: Water TQ Watch
Model: 366-3
S/N: 4864
ID: 4864

Date: 10-25-06
Temp: 74 Deg f
Humidity: 43%
Rec. In Tol.
Due Date: 10-25-07

Certification by:_____

Comments:

Standards Used	Model	Certification Number	Due Date
Troemner Weights	**1156**	**822/270636-04**	**3-01-08**
In. Oz. Range Red	**As Found**	**After Adjust**	**Final Reading**
.003	.003	none	.003
.009	.008	none	.008
.015	.014	none	.014
.021	.022	none	.022
.027	.028	none	.028
.03	.02	none	.02
Black			
.03	.03	none	.03
.024	.024	none	.024
.018	.017	none	.017
.012	.011	none	.011
.006	.005	none	.005
.003	.002	none	.002

Cal-Tech Calibration, Inc.
1314 FM 646 West /Ste. 15 / Dickinson, Texas 77539 /Phone 281-614-0050 / Fax 281-614-0046

Houston Precision, Inc.

8729 Gulf Freeway
Houston, TX 77017-6504

Calibration Report

Company:	Hoefler Consulting Group	**Doc #:**	37827
Address:		**Date:**	1/10/2007
	3401 Minnesota Drive, Suite 300		
	Anchorage, AK 99503	**PO#:**	1208-004-403
Contact:	Dominic Shallies	**Page:**	1
Dept:			

Gage:	Torque Watch	**Control:**	5042
Mfg:	HONEYWELL	**Model:**	366
Location:	Calibration Lab	**Serial #:**	5042

Parameters:

Parameter:

Text:

Comments:

Calibration Completed by:Cal-Tech Calibration, Inc.
Original Certificate (attached) #4327

Reference HPI S/O #14549

We certify the equipment used for this calibration is traceable to NIST through one or more of the following numbers:
: VENDOR MASTER
Last / Next Cal Dates: -->

Gage Status: PASS **Next Calibration Due: 1/10/2008**

Certified By: Denice V. Mills Signature: Denice V Mills

This certificate is not valid unless all 1 page(s) are present.
*Laboratory Environmental Conditions: Temperature: 68°F +/- 3.6°F and/or 20C +/- 2C, Relative Humidity: between 40% and 60%.
*Calibration measurements are performed in accordance with guidelines set forth in ANSI/NCSL Z540-1-1994 and Houston Precision's Quality manual.
*The measurement of uncertainity has not been taken into account when reporting readings "In" or "out of tolerance" on this calibration report.
*If additional information regarding this calibration is required, please contact this laboratory.
*All calibrations have been performed under the supervision and authority of Omar Martinez, Lab Manager.
*Any number of factors may cause the subject of this calibration to drift out of calibration before the recommended interval has expired.
HPI will not be held responsible for the calibration status of an item whose calibration interval exceeds the actual validity of the calibration.

End of document.

Certificate of Calibration

The instrument listed below meets or exceeds published specifications and has been calibrated under controlled conditions and is traceable to the National Institute of Standards and Technology(N.I.S.T.), or to accepted intrinsic standards of measurement, or by the ratio type of self-calibration techniques. Cal-Tech Calibration conforms to the following, ANSI/NCSL Z540-1-1994, ISO/IEC 25/17025.

Customer: Houston Precision
Certificate Number: 4327
Instrument Make: Honeywell Torque Watch
Model: 366
S/N: none
ID: 5042

Date: 1-10-07
Temp: 72 Deg f
Humidity: 39%
Rec. In Tol.
Due Date: 1-10-08

Certification by: J. Sears

Accuracy: +\- 1% of reading.

Comments:

Standards Used	Model	Certification Number	Due Date
Acculab	300g	822/270236-04	12-01-07

Reading In/oz	As Found	After Adjust	Final Reading
0.10	0.1	none	0.1
0.20	0.19	none	0.19
0.40	0.40	none	0.40
0.60	0.60	none	0.60

Cal-Tech Calibration, Inc.
1314 FM 646 West /Ste. 15 / Dickinson, Texas 77539 /Phone 281-614-0050 / Fax 281-614-0046

THE BRUNTON COMPANY
Certificate Of Calibration

Equipment Owner:
Name: DOMINIC SHALLIES

Address: 3401 MINNESOTA DR. STE # 300

City, State, Zip: ANCHORAGE, AK 99503

Calibration traceable to the National Institute of Standards and Technology in accordance with Mil-STD-45662A has been accomplished on the instrument listed below by comparison with standards maintained by The Brunton Co. The accuracy and stability of all standards maintained by The Brunton Co. are traceable to national standards maintained by the National Institute of Standards and Technology in Washington, D.C. and Boulder, CO. Complete record of all work performed is maintained by The Brunton Co. and is available for inspection upon request.

This Unit has been calibrated to Lietz TM10E serial number 30937 traceable to N.B.S. no. 738 227675 this 2ND Day of NOVEMBER 2006

DESCRIPTION: POCKET TRANSIT

PURCHASE ORDER: RA 7277

ORDER NUMBER: 23732

LOT NUMBER: 19802

MODEL NUMBER: 5008

SERIAL NUMBER: 508079931 9

CALIBRATION DATE: 11-2-06

RECALIBRATION DUE DATE: 11-2-07

Signed: Linda Kenyon
QUALITY CONTROL MANAGER

Certificate of Accuracy

Transfer Standard Type: Barometric Pressure/Altimeter

Certificate No: B 072607. 01 C

Transfer standard model: Pretel AltiPlus A2
Serial number: 27806
submitted by/owner: Hoefler Consulting Group
3401 Minnesota Drive
Suite 300
Anchorage, AK 99503

Was compared to Precision Absolute Reference Barometer:
Model number: 355-AI0900 Serial number: 913930-M1
Certified accuracy of ± 0.007"Hg
NIST traceable to Ruska Deadweight Tester SN 38342/C-85

Date: 07/26/07 Lab temperature 73.0 ℉
Lab pressure 664.9 mm Hg

Reference barometer ("Hg)	Transfer Standard ("Hg)	Difference from Reference ("Hg)	Transfer Standard Correction* ("Hg)
24.00	24.11	0.11	-0.11
26.18	26.28	0.10	-0.10
28.00	28.10	0.10	-0.10
30.00	30.09	0.09	-0.09

Note:
If no sign is given on the correction, the true pressure is higher than the indicated pressure. If the sign is negative, the true pressure is lower than the indicated pressure.

Transfer Standard adjustments made? YES **NO**
Post-calibration measurements:

Reference barometer ("Hg)	Transfer Standard ("Hg)	Difference from Reference ("Hg)	Transfer Standard Correction* ("Hg)

Reviewed: RLS Date: 7/26/2007

Correction: RLS **Corrected Date:** **10/04/07**

Roger L. Sanders, PE

Chinook Engineering
a division of Inter-Mountain Laboratories, Inc.
555 Absaraka Street
Sheridan, Wyoming 82801 USA
(307) 672-7790
chinook@imlinc.com

THE EPPLEY LABORATORY, INC.
12 Sheffield Ave., P.O. Box 419, Newport, RI 02840 USA
Telephone: 401-847-1020 Fax: 401-847-1031
Email: eplab@mail.bbsnet.com Internet: www.eppleylab.com

EPLAB
Scientific Instruments for Precision Measurements Since 1917

STANDARDIZATION OF EPPLEY PRECISION SPECTRAL PYRANOMETER Model PSP

Serial Number: 34377F3

Resistance: 603 Ω at 23 °C
Temperature Compensation Range: -20 to 40 °C

This radiometer has been compared with Standard Precision Spectral Pyranometer, Serial Number 21231F3 in Eppley's Integrating Hemisphere under radiation intensities of approximately 700 watts meter^{-2} (roughly one-half a solar constant). The adopted calibration temperature is 25 °C.

As a result of a series of comparisons, it has been found to have a sensitivity of:

9.29×10^{-6} volts/watts meter^{-2}

The calculation of this constant is based on the fact that the relationship between radiation intensity and emf is rectilinear to intensities of 1400 watts meter^{-2}. This radiometer is linear to within ± 0.5% up to this intensity.

The calibration of this instrument is traceable to standard self-calibrating cavity pyrheliometers in terms of the Systems Internationale des Unites (SI units), which participated in the Ninth International Pyrheliometric Comparisons (IPC IX) at Davos, Switzerland in September-October 2000.

Useful conversion facts: 1 cal cm^{-2} min^{-1} = 697.3 watts meter^{-2}
1 BTU/ft^2-hr^{-1} = 3.153 watts meter^{-2}

Shipped to:
Hoefler Consulting Group
Anchorage, Alaska

Date of Test: November 30, 2006

In Charge of Test: R. T. Eppman

S.O. Number: 60951
Date: November 30, 2006

Reviewed by: Thomas D. Kirk

Remarks:

Pebble 4
PSD Meteorological Monitoring Station

February 2008

Quality Assurance Performance Audit

for the

Pebble Project Meteorological Monitoring Program

Iliamna, Alaska

THE pebble PARTNERSHIP

prepared for

The Pebble Limited Partnership, care of Pebble Mines Corporation

Pebble 4 PSD Meteorological Monitoring Station
February 2008
Quality Assurance Performance Audit

Prepared for:

The Pebble Limited Partnership,
care of Pebble Mines Corporation
Anchorage, Alaska

Prepared by:

Hoefler Consulting Group, Inc.
3401 Minnesota Drive, Suite 300
Anchorage, Alaska 99503

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1.0 INTRODUCTION

Hoefler Consulting Group, Inc. (HCG) operates meteorological monitoring stations for The Pebble Limited Partnership, care of Pebble Mines Corporation; in support of the Pebble Mine Project near Iliamna, Alaska. The air monitoring program is one component of ongoing baseline environmental studies being conducted to support mine permitting, mine design and mine transportation infrastructure development. The stations meet Prevention of Significant Deterioration (PSD) guidelines, although PSD permits may not be required. This report covers the Pebble 4 Station (Pebble 4) located near the proposed mine site.

Pebble 4 is located approximately five miles south of the mine ore body on top of a windswept knoll at about 1,200 foot elevation. The station consists of an instrumented 11-meter sectional tower secured with three guy wires. Approximately 50 foot south of the tower is an evaporation pan and a tipping precipitation gauge mounted on a 6' by 8' deck. Between the tower and the gauges is a 5' by 7' insulated building which houses the datalogger and power supply system. Pebble 4 is instrumented with PSD quality sensors monitoring the following parameters:

- Ambient Temperature (°C): Met One 062MP Thermistor Probe at 2-m
- Temperature Difference (°C): Met One 062MP Thermistors at 2-m and 10-m
- Relative Humidity (%RH): Vaisala HMP45AC Relative Humidity Sensor
- Wind Speed 1 (m/s): Climatronics F460 P/N 100075 Wind Speed Sensor
- Wind Direction 1 (°): Climatronics F460 P/N 100076 Wind Direction Sensor
- Wind Speed 2 (m/s): RM Young 05305 Wind Monitor-AQ
- Wind Direction 2 (°): RM Young 05305 Wind Monitor-AQ
- Sigma Theta (°): Campbell Scientific CR10X DAS calculated (Yamartino)
- Barometric Pressure (mbar): Vaisala PT101B Barometric Pressure Sensor
- Solar Radiation (W/m2): LI-COR Li-200SX Solar Radiation Pyranometer
- Precipitation (mm H_2O): Met-One Model 370 Tipping Precipitation Gauge
- Evaporation (mm H_2O): Nova-Lynx Model 255-100/200 Pan and Gauge.

This report has been prepared for NDM to serve as a quantitative review of the Pebble 4 station. To that end, a Performance Audit was undertaken in order to demonstrate that the equipment installed at the meteorological monitoring station is operating correctly and meets the requirements set forth by the U.S. Environmental Protection Agency (EPA) and the Alaska Department of Environmental Conservation (ADEC).

2.0 PERFORMANCE AUDIT

2.1 Performance Audit Methodology

During the performance audit, the station datalogger is interfaced with a portable laptop computer to display the outputs for the meteorological sensors. The value of each meteorological sensor is compared to the output value from the appropriate piece of audit equipment or from calibrated instruments collocated with the sensor. The difference between the station's datalogger reading and the output from each audit instrument is compared with established PSD limits to determine the accuracy of each sensor. Additionally, threshold torques for wind speed and wind direction are measured with audit equipment and compared with manufacturer torques corresponding to the PSD threshold speed of 0.5 m/s. Table 2-1 provides a summary of the performance audit methods and limits used to audit each parameter at the stations.

Table 2-1 Performance Audit Methods and Acceptable Limits

Parameter	Audit Method	EPA/Manufacturer Limit
Datalogger Time	NOAA Clock	≤ ±5:00 minutes from AST
Temperature Accuracy	Collocated NIST thermistor	≤ ±0.5 °C
Temperature Difference	Collocated NIST thermistor	≤ ±0.1 °C
Relative Humidity	Collocated NIST RH sensor	≤ ±1.5 °C of dew point
Wind Speed Accuracy	Synchronous rpm motor	≤ ±0.2 m/s + 5 % observed
Wind Spd Torque (Clim)	Torque watch	≤ 0.35 g-cm (0.0049 oz-in)
Wind Spd Torque (RMY)	Torque watch	≤ 1.0 g-cm (0.014 oz-in)
Wind Direction Alignment	GPS, compass or landmark	≤ ±5° from true azimuth
Wind Direction Accuracy	Linearity tester	≤ ±5° per audit point
Wind Direction Linearity	Linearity tester	≤ 3° mean absolute average
Wind Dir Torque (Clim)	Torque watch	≤ 7.5 g-cm (0.104 oz-in)
Wind Dir Torque (RMY)	Vane torque gauge	≤ 11 g-cm (0.153 oz-in)
Barometric Pressure	Collocated NIST BP sensor	≤ ±3 mbar
Solar Radiation	Collocated NIST sensor	≤ ±5% of input+resolutuion[1]
Precipitation	Calibrated water volume	≤ ±10% of input
Evaporation	Measured water level	≤ ±10% of input

1. This audit limit is modified from PSD standard, as discussed below.

2.1.1 Data Acquisition System

An audit of the datalogger is conducted by comparing all datalogger outputs to the audit standards, as described below. The datalogger time is checked against an instantaneous time reading from the National Oceanic and Atmospheric Administration (NOAA) clock in Boulder, Colorado, via a global positioning system (GPS) handheld unit or telephone contact with the NOAA clock.

2.1.2 Air Temperature and Air Temperature Difference

The 2-meter and 10-meter thermistors are removed from their aspirator shields and collocated with a National Institute of Standards and Technology (NIST) traceable digital thermometer. The station thermistors and the transfer standard NIST thermometer are taped together and immersed in insulated thermoses containing a series of fluid baths; hot water (35°C to 45°C), warm water (15°C to 25°C), water/ice bath (0°C), cold glycol (-15°C to -25°C) and very cold glycol (-35°C to -45°C). Dry ice is used to cool the glycol baths. Each liquid bath is agitated and allowed to equilibrate before simultaneous readings are taken from the three instruments.

An alternate method can also be used for the low temperature audits, employing a Thermal Mass Device (TMD). The TMD consists of a 6" diameter by 9" high solid aluminum block milled to fit snuggly inside of an insulated Dewar flask. On the top of the TMD, and in corresponding locations on the flask lid, are holes sized to accommodate a variety of Campbell, Climatronics, Met-One and VWR thermistors. The TMD is cooled to the target temperatures by contact with dry ice and then placed in the insulated flask. The audit and station thermistors are inserted through the flask lid and into the appropriate holes in the TMD. After the TMD and the thermistors are allowed to equilibrate, readings for all thermistors are simultaneously taken. The aluminum TMD has a very high thermal conductivity and when allowed to equilibrate inside of the insulated flask, thermal gradients across the TMD are very small.

In all cases, the difference between the individual station thermistors and the NIST standard are compared to the PSD temperature accuracy limit of ±0.5°C. The difference between the two station thermistors (10-m°C minus 2-m°C) is compared to the PSD temperature difference limit of ±0.1°C.

2.1.3 Relative Humidity

Relative humidity (RH) is audited using a collocated NIST traceable RH sensor. The NIST sensor and the field sensor are collocated out of direct sunlight to eliminate solar radiation effects, preferably inside of the motor aspirated shield. If the NIST standard reads directly in dew point °C, those readings are used; if not, relative humidity and

temperature readings are used. For the audit; instantaneous readings of dew point, relative humidity and ambient temperature are recorded from the transfer standard and the DAS. All relative humidity and temperature readings are converted to dew point in order to assess the PSD error limit of ±1.5°C dew point.

2.1.4 Wind Speed

Anemometers are audited to determine their accuracies in reading known wind speeds and to ascertain the sensor's threshold torque. The Climatronics and RM Young sensors are audited in very similar manners and are discussed together. The instruments are tested after removal from the tower and after removal of the sensor's props or cups.

First, an RM Young synchronous motor is attached to the shaft of the anemometer by using brand specific coupling devices. The sensor shaft is rotated at several different known revolutions per minute (rpm). Each rotational speed in rpm is equated to a wind speed in meters per second (m/s) by using the anemometer manufacturer's linear calibration formula. The difference between the calculated input speed in m/s and the datalogger output is compared to established PSD limits for each input rpm.

Next, a high precision torque watch is attached to the shaft of the anemometer, once again using custom couplings. Torque readings are made in both directions in each quadrant along the axis of rotation of the shaft. The maximum reading is recorded for the torque required to turn the shaft of the anemometer. The torque value recorded during the audit is compared to manufacturer's torque corresponding to the minimum PSD threshold speed of 0.5m/s.

2.1.5 Wind Direction

The wind direction sensors are first audited as-found to determine the accuracy of their alignment with respect to true north (true azimuth alignment) using one of four methods. In one method, a handheld GPS unit is used to measure the position of the auditor with respect to a waypoint captured under the wind sensor's position on the tower. Using binoculars, the tail of the wind vane is aligned with the auditor's position at a distance of several hundred feet from the tower. The GPS bearing back to the tower waypoint is then compared to the DAS reading. The difference between the two should not exceed ±5° per audit point. This procedure is repeated at least 4 times, once per quadrant, generally near the cardinal directions. The second method uses a calibrated precision compass mounted on a gimbal and tripod. The compass declination is preset for the specific location and date using one of a variety of magnetic declination computer models. The sensor tail is aligned toward the auditor while auditor sights the

compass toward the sensor and readings are taken in a similar manner to the GPS method.

Another option is to align the tail of the sensor with a distant identifiable landmark of know bearing. The bearing to the landmark may be ascertained using a variety of methods. One method involves physically capturing a distant GPS waypoint, such as at a discernable structure or emissions stack. Bearings to inaccessible natural landmarks, usually distant mountain peaks, are acquired through the use of various computer mapping programs, such as Natural Geographic's TOPO program or USGS digital raster graphics (DRGs) loaded into AutoCAD. The bearing from the station location to the landmark is compared to the DAS reading. This method yields the most accurate audit value, but is limited by weather and availability of discernable landmarks. The final method is to align the vane with the tower guy wires or preset survey markers, whose bearing has been ascertained using precision survey equipment.

The wind direction accuracy and linearity are subsequently audited after the wind direction sensor is removed from the tower. The Climatronics sensor is mounted on a Climatronics Model 101984 linearity tester and the RM Young sensor is mounted on an RM Young Model 18112 Vane Angle Bench Stand. Both test fixtures are keyed to their respective sensor and graduated from 0° to 360°. A series of readings starting at 30° and then clockwise in 30° increments are taken. The RM Young is read from 30° to 360° and the Climatronics is read from 30° to 540°. The Climatronics sensor is tested 180° past 360° in order to test the second potentiometer used in some DAS programming. Although not required, the Climatronics sensor is also tested with the vane attached in order to ascertain sensor accuracy and linearity relative to the instrument crossarm. The vane is aligned along the axis of the crossarm to yield the 0°/360° and 180° values and against a square held to the crossarm for the 90° and 270° directions. Four readings are taken in a clockwise direction and four are taken counterclockwise to complete the test. For both the linearity test fixture and crossarm tests, individual error values are assessed for the PSD accuracy limit of ±5° per point and the mean absolute average error is assessed against the linearity limit of 3°.

Next, the RM Young wind direction threshold is tested by measuring wind vane torque using an RM Young Model 18331 Vane Torque Gauge. This device saddles the wind vane and a calibrated spring is pulled to determine maximum torque from readings taken in both directions in all four quadrants. The Climatronics wind direction starting torque is measured with the vane removed by using a precision torque watch in the same manner as the wind speed torque. The highest torque readings are compared to specific manufacturer limits for instrument staring torque.

Finally, the wind direction sensors are placed back on the tower and as-left audits of the azimuth alignments are conducted to ensure the instruments are properly reinstalled.

2.1.6 Barometric Pressure

Barometric pressure (BP) is audited using a collocated NIST traceable BP sensor. The difference between the NIST sensor and the station sensor are compared to the PSD limit of ±3 mbar.

2.1.7 Solar Radiation

Outputs of the station sensor are compared to the output of a level collocated audit solar radiation sensor. The audit sensor is connected to an independent audit datalogger with the scan interval and clock synchronized with the station DAS. Hourly average solar radiation readings and instantaneous readings are recorded during the audit and then input into a custom spreadsheet to calculate a linear regression for the data. The PSD limit for solar radiation audits is ±5% of observed, but this standard is very difficult to obtain at the northern latitude of this installation. This EPA standard is currently undergoing review and is expected to change. A well excepted substitute is that individual DAS and audit data pairs are compared to a limit of ±5% of observed + **EPA minimum instrument resolution (10W/m²)**. Individual data pairs are evaluated against this standard, but the overall set is restricted to a 5% error by limiting allowable linear slope to 1.0±0.05.

2.1.8 Precipitation

The Met-One tipping precipitation gauge is audited by slowly adding precisely measured volumes of water to the gauge using a dripping Nova Lynx Model 260-2595 Rain Gauge Calibrator. The predicted millimeters of precipitation corresponding to the measured volume added are calculated using the diameter of the gauge opening. The tare reading from the DAS is initially recorded and subsequent DAS readings are recorded after each test run. The percent difference between the predicted audit value and the DAS value is compared to the PSD limit of ±10%.

2.1.9 Evaporation

The evaporation gauge is first checked to confirm that the pan and gauge are level. The accuracy is checked by first removing or adding enough water to bring the initial level to approximately 50 mm or 240 mm, the minimum and maximum for this gauge. An accurate millimeter scale is taped to the inside of the evaporation pan and the water level on the scale is compared to the DAS output. Water is added to or removed from the pan to change the level by 10-20mm and another set of readings are taken. This process is repeated until the level in the pan reaches the upper or lower limit of the

gauge. The resultant suite of DAS and scaled water level readings are then input into a custom spreadsheet which calculates a linear regression for the data. The evaporation gauge reads change in water level due to evaporation and rainfall, so the calculated intercept must be removed from measured water levels. The adjusted level is compared to the DAS output with a maximum allowable error of ±10% of input and the slope of resultant line has a limit of 1.0±0.1.

2.2 Performance Audit Results

A performance audit was conducted at the Pebble 4 station on February 12-13, 2008, with Dominic Shallies of HCG assisting. The ambient temperature was too low to use the low flow tester required for the tipping precipitation gauge, so that instrument was tested on a March 6, 2008. All sensors were challenged with certified audit equipment and all instruments except the thermistors yielded errors below the PSD limits. The thermistors were replaced and re-audited. Table 2-2 contains summary data from the audit and complete audit reports and audit equipment calibration certificates are contained in Appendix A and Appendix B respectively.

2.3 Performance Audit Recommendations

- None.

Table 2-2 Pebble 4 February 12-13, 2008 Performance Audit Summary

Parameter	Limit	Units	Max Err	Status
Datalogger Time	≤ ±5:00	Min:Sec	-0:36	Pass
2-m Temperature Accuracy (Old)	≤ ±0.5	°C	0.40	Pass
10-m Temperature Accuracy (Old)	≤ ±0.5	°C	0.20	Pass
Air Temperature Difference (Old)	≤ ±0.1	°C	0.25	Fail
2-m Temperature Accuracy (New)	≤ ±0.5	°C	0.15	Pass
10-m Temperature Accuracy (New)	≤ ±0.5	°C	0.15	Pass
Air Temperature Difference (New)	≤ ±0.1	°C	0.00	Pass
Relative Humidity (dew point)	≤ ±1.5	°C	1.0	Pass
Climatronics Wind System				
Wind Speed Torque	≤ 0.0049	oz-in	<0.003	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque	≤ 0.104	oz-in	0.060	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	3.8	Pass
Wind Direction Accuracy	≤ ±5	Degree	1.8	Pass
Wind Direction Linearity	≤ 3	Degree	0.7	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	3.4	Pass
RM Young Wind System				
Wind Speed Torque	≤ 0.014	oz-in	0.004	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque	≤ 11	g-cm	9.0	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	-3.5	Pass
Wind Direction Accuracy	≤ ±5	Degree	1.3	Pass
Wind Direction Linearity	≤ 3	Degree	0.7	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	-3.4	Pass
Barometric Pressure	≤ ±3	Mbar	0.4	Pass
Solar Radiation	≤ ±5+Res	% input	-6.5[1]	Pass
Tipping Precipitation	≤ ±10	% input	-5.0	Pass

1. Max % error value of 6.5 within limit of 5% input + resolution, see audit.

3.0 REFERENCES

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"Ambient Air and/or Meteorological Monitoring Quality Assurance Project Plan (QAPP) Review Checklist", ADEC, September 2004.

"Meteorological Measurement Methods Validation Criteria", ADEC, November 2007.

"Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)", EPA-450/4-87-007, May 1987.

"Quality Assurance Requirements for Prevention of Significant Deterioration (PSD) Air Monitoring", EPA-40 CFR Part 58, Appendix B, November 2004.

"On-Site Meteorological Program Guidance for Regulatory Modeling Applications", EPA-450/4-87-013, August 1995.

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"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II: Part I, Ambient Air Quality Monitoring Program Quality System Development", EPA-454/R-98-004, August 1998.

"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Measurements", EPA/600/R-94/038d, March 1995.

"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume V: Precipitation Measurement Systems", EPA/600/R-94/038e, April 1994.

APPENDIX A
PERFORMANCE AUDIT DATA SHEETS and ALIGNMENT MAP

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Feb 12-13, 2008

• *DAS TIME AUDIT*

PSD Limits: DAS time = Alaska Standard Time (AST) +/- 5 minutes.
Conversions: Winter; (AST) = (DST), Summer; (AST) = (DST) - 1 hr.
Comments: CR1000 SN: 8522. Wire panel #8248.

DAS TIME vs. NOAA CLOCK			
AST Time	DAS Time	Error Min:Sec	Pass/ Fail?
10:41:00	10:40:24	**-00:36**	**PASS**

• *TEMPERATURE SENSORS & ΔT AUDIT (Existing)*

Lower Height: 2.0 **Meters** **Upper Height:** 9.9 **Meters**

2-M Thermistor:	**Make:**	Met One	**Model:**	062MP	**S.N.#:**	E2777 # 2/2	**Range:**	-50 to 50 °C
10-M Thermistor:	**Make:**	Met One	**Model:**	062MP	**S.N.#:**	E2777 # 1/2	**Range:**	-50 to 50 °C
Audit Digital Thermometer:	**Make:**	Van Waters & Rogers	**Model:**	61220/601	**S.N.#:**	51091749	**Range:**	-40 to 150 °C
Audit Probe:	**Make:**	Van Waters & Rogers	**Model:**	61220/604	**S.N.#:**	240301145	**Range:**	-40 to 150 °C

Wiring Check	
2m=2m	✓
10m=10m	✓

Date: 02/12/08
Time:
Begin: 1410
End: 1500

THERMISTOR COLLOCATED STANDARD TEST										
Thermal Input			Station Response (2M)			Station Response (10M)			Station (Delta T)	
Temp Range	Target °C	Input °C	DAS °C	Error °C	Pass/ Fail?	DAS °C	Error °C	Pass/ Fail?	Delta T °C	Pass/ Fail?
Hot	35 to 45	37.88	38.28	0.40	Pass	38.03	0.15	Pass	-0.25	Fail
Warm	15 to 25	20.69	20.89	0.20	Pass	20.69	0.00	Pass	-0.20	Fail
Ice Bath	0	-0.02	0.20	0.22	Pass	0.14	0.16	Pass	-0.06	Pass
Cold	-15 to -25	-21.38	-21.24	0.14	Pass	-21.24	0.14	Pass	0.00	Pass
Very Cold	-35 to -45	9.92	10.22	0.30	Pass	10.12	0.20	Pass	-0.10	Pass
		Max Abs. Error		0.40	**PASS**		0.20	**PASS**	0.25	**FAIL**

PSD Limits: Max Absolute Error > 0.5 °C (Sensor Accuracy); Max Absolute Error > 0.1 °C (Delta Temperature).
Comments: Sensors failed Delta T criteria, sensors replaced and re-tested.

• *TEMPERATURE SENSORS & ΔT AUDIT (Replacement)*

Lower Height: 2.0 **Meters** **Upper Height:** 9.9 **Meters**

2-M Thermistor:	**Make:**	Met One	**Model:**	062MP	**S.N.#:**	G9580 # 1/2	**Range:**	-50 to 50 °C
10-M Thermistor:	**Make:**	Met One	**Model:**	062MP	**S.N.#:**	G9580 # 2/2	**Range:**	-50 to 50 °C
Audit Digital Thermometer:	**Make:**	Van Waters & Rogers	**Model:**	61220/601	**S.N.#:**	51091749	**Range:**	-40 to 150 °C
Audit Probe:	**Make:**	Van Waters & Rogers	**Model:**	61220/604	**S.N.#:**	240301145	**Range:**	-40 to 150 °C

Wiring Check	
2m=2m	✓
10m=10m	✓

Date: 02/13/08
Time:
Begin: 1410
End: 1500

THERMISTOR COLLOCATED STANDARD TEST										
Thermal Input			Station Response (2M)			Station Response (10M)			Station (Delta T)	
Temp Range	Target °C	Input °C	DAS °C	Error °C	Pass/ Fail?	DAS °C	Error °C	Pass/ Fail?	Delta T °C	Pass/ Fail?
Hot	35 to 45	39.43	39.58	0.15	Pass	39.58	0.15	Pass	0.00	Pass
Warm	15 to 25	21.15	21.13	-0.02	Pass	21.13	-0.02	Pass	0.00	Pass
Ice Bath	0	-0.01	0.07	0.08	Pass	0.07	0.08	Pass	0.00	Pass
Cold	-15 to -25	-1.89	-1.82	0.07	Pass	-1.82	0.07	Pass	0.00	Pass
Very Cold	-35 to -45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Max Abs. Error		0.15	**PASS**		0.15	**PASS**	0.00	**PASS**

PSD Limits: Max Absolute Error > 0.5 °C (Sensor Accuracy); Max Absolute Error > 0.1 °C (Delta Temperature).
Comments: Replacement thermistors. No dry ice remaining for low temperature tests.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Feb 12-13, 2008

• *HORIZONTAL WIND SENSOR AUDIT - CLIMATRONICS*

Height: 11.4 **Meters**

Wind Spd Sensor:	**Make:**	Climatronics	**Model:**	100075	**S.N.#:**	5081	**Cup #:**	2299	**Range:**	0-60 m/s
Wind Dir Sensor:	**Make:**	Climatronics	**Model:**	100076	**S.N.#:**	4662	**Vane #:**	1452	**Range:**	0-360 Deg
Spd Audit Eq:	**Low Spd:**	RM Young	**Model:**	18811	**S.N.#:**	CA02136	**Torque:**	Watters Mdl 366-3	**S.N.#:**	4864
Spd Audit Eq:	**High Spd:**	RM Young	**Model:**	18801	**S.N.#:**	CA01674				
Dir Audit Eq:	**Linearity:**	Climatronics	**Model:**	101984	**S.N.#:**	145	**Torque:**	Honeywell Mdl 366-0	**S.N.#:**	5042
Dir Audit Eq:	**Compass:**	Brunton	**Model:**	11-F5008	**S.N.#:**	5080799319	**Magnetic Declin:**	17.2	**E of N**	

WIND SPD SYNCHRONOUS MOTOR TEST

Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/ Fail?
0	0.22	0.22	0.00	N/A	Pass
100	2.57	2.57	0.00	N/A	Pass
200	4.92	4.92	0.00	N/A	Pass
400	9.62	9.62	N/A	0.0	Pass
1000	23.72	23.72	N/A	0.0	Pass
2000	47.22	47.21	N/A	0.0	Pass
	Max Abs. Error		**0.00**	**0.0**	**PASS**

Time: Begin: 1419 End: 1421

Conversion: Heavy Duty Al Cups: m/s = rpm÷42.55+0.22.
Cups rotate clockwise.

WIND DIR IN-SITU AZIMUTH ALIGNMENT TEST

Cups Aligned North? ✓ Input Description	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
Sharp West	46.1	46.4	0.3	Pass
Peak 1590	104.3	106.1	1.8	Pass
Pebble 3	166.3	166.2	-0.1	Pass
Peak 0918	325.6	326.5	0.9	Pass
Compass	261.5	257.7	-3.8	Pass
Peak 1824	262.7	263.1	0.4	Pass
		Max Abs. Error	**3.8**	**PASS**
		Mean Abs. Error	**1.2**	**GOOD**

Time: Begin: 1300 End: 1325

CROSSARM-VANE ACCUR. & LIN. TEST

Input Dir	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
South	180.0	181.4	1.4	Pass
West	270.0	271.9	1.9	Pass
North	360.0	1.5	1.5	Pass
East	90.0	91.9	1.9	Pass
North	360.0	0.9	0.9	Pass
West	270.0	271.4	1.4	Pass
South	180.0	181.4	1.4	Pass
East	90.0	91.7	1.7	Pass
	Max Abs. Error		**1.9**	**PASS**
	Mean Abs. Error		**1.5**	**PASS**

Time: Begin: 1350 End: 1352

WIND DIR BENCH STAND ACCURACY & LINEARITY TEST

Input Deg	DAS Deg	Error Deg	Pass/ Fail?	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
30.0	29.5	-0.5	Pass	330.0	331.4	1.4	Pass
60.0	59.7	-0.3	Pass	355.0	356.8	1.8	Pass
90.0	90.8	0.8	Pass	30.0	29.3	-0.7	Pass
120.0	120.5	0.5	Pass	60.0	60.6	0.6	Pass
150.0	150.1	0.1	Pass	90.0	90.4	0.4	Pass
180.0	180.5	0.5	Pass	120.0	121.4	1.4	Pass
210.0	210.1	0.1	Pass	150.0	150.2	0.2	Pass
240.0	240.6	0.6	Pass	180.0	179.8	-0.2	Pass
270.0	271.1	1.1	Pass	**Max Abs. Error**		**1.8**	**PASS**
300.0	301.3	1.3	Pass	**Mean Abs. Error**		**0.7**	**PASS**

Time: Begin: 1424 End: 1426

WIND SPD TORQUE TEST

Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/ Fail?
In-Situ	0.0049	<0.003	**PASS**
New	0.0049	N/A	**N/A**

WIND DIR TORQUE TEST

Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/ Fail?
In-Situ	0.104	0.060	**PASS**
New	0.104	N/A	**N/A**

WIND DIR POST-AUDIT AZIMUTH ALIGNMENT TEST

Cups Aligned North? ✓ Input Description	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
Sharp West	46.1	46.2	0.1	Pass
Peak 1590	104.3	106.2	1.9	Pass
Pebble 3	166.3	166.7	0.4	Pass
Peak 0918	325.6	327.2	1.6	Pass
Compass	278.0	274.6	-3.4	Pass
		Max Abs. Error	**3.4**	**PASS**
		Mean Abs. Error	**1.5**	**GOOD**

Time: Begin: 1550 End: 1605

Spd PSD Limits: Threshold Torque >0.35gm-cm (0.0049oz-in) @ 0.50m/s.
Max Abs Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.

Dir PSD Limits: Threshold Torque >7.5 gm-cm (.104 oz-in) @ 0.5 m/s. Max Abs Error >5° from True Azimuth (alignment).
Max Abs Error >5° (accuracy). Mean Abs Error >3° (linearity). Azimuth Mean Abs Error calculated for information only.

Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Feb 12-13, 2008

• *HORIZONTAL WIND SENSOR AUDIT - RM YOUNG AQ*

Height: 10.6 **Meters**

Wind Sensor: **Make:** RM Young **Model:** 05305 AQ **S.N.#:** 77028 **Prop #:** 63635 **Range:** 0-360 **Deg**
Spd Audit Eq: **Low Spd:** RM Young **Model:** 18811 **S.N.#:** CA02136 **Torque:** Watters Mdl 366-3 **S.N.#:** 4864
Spd Audit Eq: **High Spd:** RM Young **Model:** 18801 **S.N.#:** CA06174
Dir Audit Eq: **Linearity:** RMY Mdl 18112 Bench Stand **S.N.#:** None **Torque:** RMY Mdl 18331 Torque Gauge **S.N.#:** None
Dir Audit Eq: **Compass:** Brunton **Model:** 11-F5008 **S.N.#:** 5080799319 **Magnetic Declin:** 17.2 **E of N**

WIND SPD SYNCHRONOUS MOTOR TEST

Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/ Fail?
0	0.00	0.00	0.00	N/A	Pass
400	2.05	2.05	0.00	N/A	Pass
1000	5.12	5.12	N/A	0.0	Pass
2000	10.24	10.24	N/A	0.0	Pass
5000	25.60	25.60	N/A	0.0	Pass
10000	51.20	51.20	N/A	0.0	Pass
	Max Abs. Error		**0.00**	**0.0**	**PASS**

Time: Begin: 1349 End: 1351

Conversion: Model 08254 Prop: m/s = 0.00512*rpm.
Prop rotates counterclockwise.

WIND DIR IN-SITU AZIMUTH ALIGNMENT TEST

Box Aligned South? ✓ Input Description	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
Sharp West	46.1	47.9	1.8	Pass
Peak 1590	104.3	105.2	0.9	Pass
Pebble 3	166.3	166.2	-0.1	Pass
Peak 0918	325.6	324.7	-0.9	Pass
Compass	261.5	258.0	-3.5	Pass
Time: Begin: 1300	**Max Abs. Error**		**3.5**	**PASS**
End: 1325	**Mean Abs. Error**		**1.4**	**GOOD**

WIND DIR BENCH STAND ACCURACY & LINEARITY TEST

Input Deg	DAS Deg	Error Deg	Pass/ Fail?	Input Deg	DAS Deg	Error Deg	Pass/ Fail?	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
30.0	31.3	1.3	Pass	150.0	149.2	-0.8	Pass	270.0	270.9	0.9	Pass
60.0	61.0	1.0	Pass	180.0	179.4	-0.6	Pass	300.0	300.6	0.6	Pass
90.0	90.6	0.6	Pass	210.0	210.2	0.2	Pass	330.0	331.3	1.3	Pass
120.0	120.3	0.3	Pass	240.0	240.2	0.2	Pass	355.0	354.3	-0.7	Pass
				Time:	Begin: 1330			**Max Abs. Error**		**1.3**	**PASS**
					End: 1333			**Mean Abs. Error**		**0.7**	**PASS**

WIND SPD TORQUE TEST

Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/ Fail?
In-Situ	0.014	0.004	**PASS**
New	0.014	N/A	**N/A**

WIND DIR TORQUE TEST

Bearings Replaced?	Limit gm-cm	Torque gm-cm	Pass/ Fail?
In-Situ	11.0	9.0	**PASS**
New	11.0	N/A	**N/A**

WIND DIR POST-AUDIT AZIMUTH ALIGNMENT TEST

Box Aligned South? ✓ Input Description	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
Sharp West	46.1	48.2	2.1	Pass
Peak 1590	104.3	106.3	2.0	Pass
Pebble 3	166.3	167.7	1.4	Pass
Peak 0918	325.6	325.4	-0.2	Pass
Compass	278.0	274.6	-3.4	Pass
Time: Begin: 1550	**Max Abs. Error**		**3.4**	**PASS**
End: 1605	**Mean Abs. Error**		**1.8**	**GOOD**

Spd PSD Limits: Threshold Torque >1.0gm-cm (0.014oz-in) @ 0.50m/s. Max Abs Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.
Dir PSD Limits: Threshold Torque >11.0 gm-cm (0.153 oz-in) @ 0.5 m/s. Max Abs Error >5° from True Azimuth (alignment).
Max Abs Error >5° (accuracy). Mean Abs Error >3° (linearity). Azimuth Mean Abs Error calculated for information only.
Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Feb 12-13, 2008

• *BAROMETRIC PRESSURE SENSOR AUDIT*

Height: N/A **Meters**

Pressure Sensor: **Make:** Vaisala **Model:** PTB101B **S.N.#:** B0440012 **Range:** 600-1060 hPa
Audit Equipment: **Make:** PRETEL **Model:** AltiPlus A2 **S.N.#:** 27806 **Range:** 470-1040 hPa

BP COLLOCATED STANDARD TEST						
Reading Time	Raw Input in Hg	Adj Input in Hg	Adj Input mb	DAS mb	Error mb	Pass/ Fail?
1118	28.38	28.28	957.80	958.18	0.38	Pass
			Max Abs. Error		0.38	PASS

Audit Inst Cal Data	
Cal. Date: 07/26/07	
Audit Inst	Offset Amount
24.11	-0.11
26.28	-0.10
28.10	-0.10
30.09	-0.09
Intercept	-0.18
Slope	0.0031

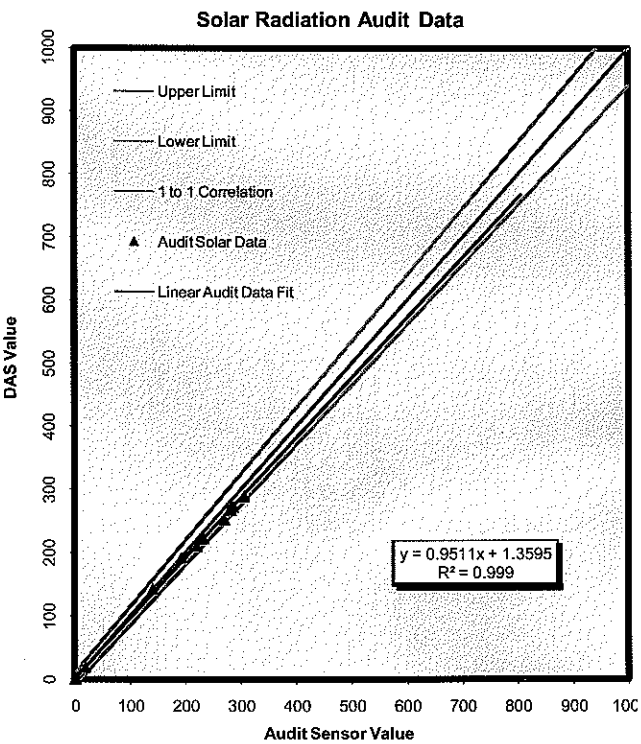
PSD Limits: Max Absolute Error > 3mb (0.3kPa).
Comments: None.

• *SOLAR RADIATION SENSOR AUDIT*

Height: 3.9 **Meters**

Station Sensor: **Make:** Li-Cor **Model:** Li-200SX **S.N.#:** PY52709 **Range:** 0-3000 W/m²
Audit Sensor: **Make:** Eppley **Model:** PSP **S.N.#:** 34377F3 **Range:** 0-2800 W/m²

SOLAR RADIATION COLLOCATED STANDARD TEST						
Data Hr AST	Audit W/m²	DAS W/m²	Error W/m²	Allow Err W/m²	Error % Input	Pass/ Fail?
1038	140.2	141.6	1.4	±17.0	1.0%	Pass
1114	191.5	191.4	-0.1	±19.6	-0.1%	Pass
1138	231.4	221.3	-10.1	±21.6	-4.4%	Pass
1210	269.2	251.6	-17.6	±23.5	-6.5%	Pass
1253	305.2	289.3	-15.9	±25.3	-5.2%	Pass
1435	285.6	271.3	-14.3	±24.3	-5.0%	Pass
1800	18.5	17.8	-0.7	±10.9	n/a	Pass
1900	1.3	0.9	-0.3	±10.1	n/a	Pass
2000	0.2	0.0	-0.2	±10.0	n/a	Pass
2100	0.1	0.0	-0.1	±10.0	n/a	Pass
2200	0.0	0.0	0.0	±10.0	n/a	Pass
1200	219.7	209.4	-10.3	±21.0	-4.7%	Pass
1300	281.4	266.5	-14.9	±24.1	-5.3%	Pass
1400	304.1	288.0	-16.1	±25.2	-5.3%	Pass
1500	280.8	271.3	-9.5	±24.0	-3.4%	Pass
1600	224.9	220.7	-4.2	±21.2	-1.9%	Pass
Corr. Val	0.9995	Max Abs. Percent Error			6.5%	PASS
R^2 Value	0.9990	Intercept	1.4	Slope	0.9511	PASS



Begin Date: 09/06/07 **End Date:** 09/07/07

PSD Limits: Max Abs Err <5% of Observed + Resolution(10W/m²). Linear regression slope in range 1.0±5% (0.95 to 1.05) when R^2 > 0.995.
Note: Instantaneous values are associated with minute timestamps and hourly averages coincide with whole hour timestamps.
Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty **Operator:** Dominic Shallies **Alternate:** Steve Mackey **Station Site:** Pebble 4
Auditor: Eric Brudie **Witness(s):** Dominic Shallies **Audit Date:** Feb 12-13, 2008

• *TIPPING PRECIPITATION GAUGE AUDIT*

Height with Snowfall Adapter Off/On: 1.0/1.5 **Meters**

Precipitation Gauge: **Make:** Met-One **Model:** 370 - 0.2mm **S.N.#:** A6431 **Range:** 3 **Inches per Hour**
Audit Equipment: **Make:** Nova Lynx Corp. **Model:** 260-2595 **S.N.#:** 936 **Range:** 2 **Inches per Hour**
Diameter: 8.00 **Inches** **Volume Rate** 32.43 **ml/mm** **Int Dat:** DAS hourly data and/or adjustments.

TIPPING PRECIPITATION GAUGE VOLUME TEST

Date:	Start Time	Input Vol ml	Input mm	Begin mm	Int Dat mm	End mm	End Time	Final mm	Error % Input	Pass/ Fail?	Notes
03/06/08	1317	650	20.0	0.2		19.2	1339	19.0	-5.0%	Pass	
03/06/08	1340	450	13.9	19.2		33.2	1358	14.0	0.7%	Pass	
03/06/08	1400	400	12.3	0.0		12.0	1418	12.0	-2.4%	Pass	
							Max Abs. Error		5.0%	PASS	

PSD Limits: Max Absolute Error > 10 % of Input.
Comments: Too cold in February, audited in March.

• *RELATIVE HUMIDITY SENSOR AUDIT*

Height: 2.0 **Meters**

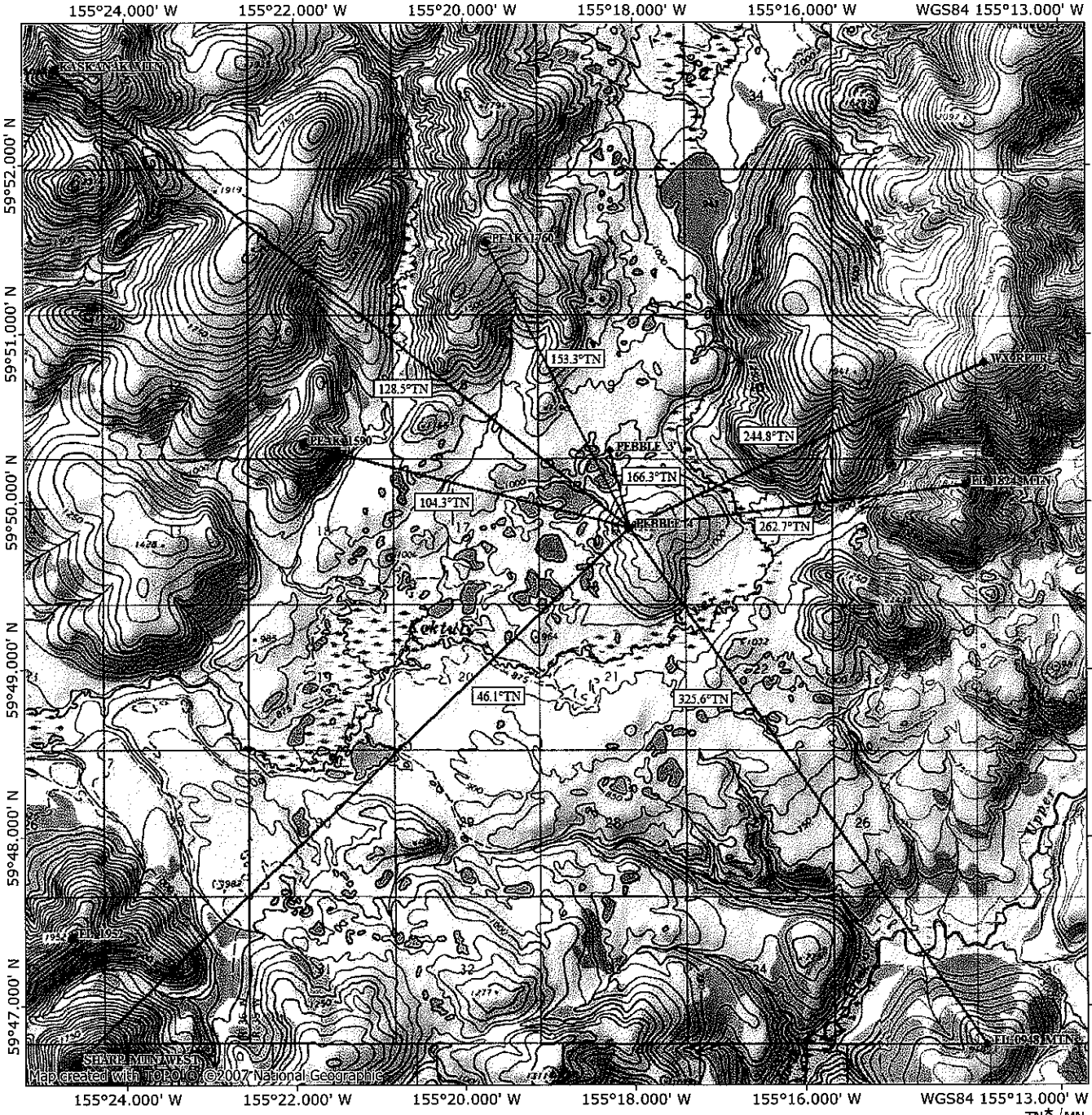
RH Sensor: **Make:** Vaisala **Model:** HMP45C-L **S.N.#:** A4350044 **Range:** 0.8 to 100 **% RH**
Audit Equipment: **Make:** Vaisala **Model:** HMI 41 **S.N.#:** X0650080 **Range:** 0 to 100 **% RH**
Audit Equipment: **Probe#** HMI41 X07450015

RH COLLOCATED STANDARD TEST

Reading Time	Input %RH	Input AT (°C)	Input DP (°C)	DAS %RH	DAS AT (°C)	DAS DP (°C)	Error DP (°C)	Pass/ Fail?
1116	71.9	-25.1	-28.4	82.4	-25.2	-27.4	1.0	Pass
					Max Abs. Error		1.0	PASS

PSD Limits: Max Absolute Error > 1.5°C Dew Point.
Conversions: Td=DP(°C), Ta=AT(°C), RH=Fraction: $Td=b*\gamma/(a-\gamma)$, where $\gamma=a*Ta/(b+Ta)+\ln(RH)$, and a = 17.27, b=237.7°C.
Comments: None.

Pebble 4 TOPO Alignment Map - 59°49.837' N, 155°18.041' W WGS84



NATIONAL GEOGRAPHIC

0.0 0.5 1.0 1.5 2.0 miles
0.0 0.5 1.0 1.5 2.0 2.5 3.0 km

TN* / MN
17°
10/30/07

APPENDIX B
AUDIT EQUIPMENT CALIBRATION CERTIFICATES

Alaska Calibration, Inc.

Troubleshooting, Repair and Calibration of
Test & Measurement Equipment

Black unit

CERTIFICATE OF CALIBRATION

WORK ORDER NO. 9665 **TRACEABILITY CERTIFICATE** 07041701

ISSUED TO: Hoefler Consulting Group, Inc

INSTRUMENT:61220-601,Digital Thermometer & 61220-604 Temperature Probe, Fisher Scientific, S/N's 51091749 & 240301145

DATE DONE: April 17, 2007 **DATE DUE:** April 16, 2008

CERTIFIED BY METROLOGIST: A.T. Grabowski **TEMPERATURE:** 69°F **HUMIDITY:** 43% RH

INCOMING STATUS: This instrument was in (XX) was out of ( ) tolerance when received.

CALIBRATION APPARATUS USED

MODEL	NOMENCLATURE	MFR	SERIAL NO.	DUE DATE
MK3900	Temperature Chamber	Delta Design	89308	NCR
32°F/ 0°C	Ice Bath	Alaska Calibration, Inc	Made as Needed	Natural Phys. Const.
RFJA0TL150CA060	Temperature Probe	Watlow/Gordon	A135	11/13/07
DP41-RTD	Digital Thermometer	Omega Engineering	4381337	11/13/07

CHARTED TEMPERATURE READINGS

Laboratory Probe	Test Instrument Thermometer	System Uncertainty
-50.013°C	- 50.025°C	0.009°C
-25.038°C	- 25.052°C	0.009°C
0.007°C	0.011°C	0.009°C
+ 25.033°C	+25.047°C	0.009°C
+50.004°C	+50.012°C	0.009°C

RANGE/LIMITATIONS: Calibrated over entire range.

PROCEDURE & ACCURACY STATEMENT: T.O. 33K5-4-42-1. Accuracy: See Chart Above.

NIST TRACEABLE REPORT NUMBERS

MODEL	NOMENCLATURE	MFR	DUE DATE	REPORT NO.
RFJA0TL150CA060	Temperature Probe	Watlow/Gordon	11/13/07	G209372
-32°F/ 0°C	Ice Bath	Alaska Calibration, Inc	Natural Phys. Const.	Made as Needed

COMPLIANCE

Alaska Calibration Inc.'s calibration practices and procedures comply with the requirements of ANSI/ISO/ Z540-1 and ANSI/ISO/IEC 17025: 2000 and relevant requirements of ISO 9002:1994. The standards used are certified as being traceable to the National Institute of Standards and Technology (NIST), by comparison to SI units through laboratory standards in an unbroken chain of Calibrations through appropriate primary and national measurement standards, derived from an acceptable value of a natural physical constant, or derived by the ratio type of self calibration techniques. Certificate shall not be reproduced, except in full, without the written approval of Alaska Calibration, Inc.

4706 Harding Drive, Suite A, Anchorage, Alaska 99517-3119 (907) 677-1993

VAISALA Certificate of Calibration

Report #: 060407-X0740015-RH RMA #: 95-60966 **Calibration Date: Jun-04-2007**
Model #: HMI41/HMP41 **Serial #: X0650080/X0740015**
Instrument Type: Humidity Transmitter Calibration Procedure: 11603100
Instrument Range: 0 to 100%, RH Recommended Calibration Due Date: Jun-04-2008
Instrument Range: -20 to +60 °C, T

Customer: HOEFLER CONSULTING GROUP
City, State: ANCHORAGE, AK

This unit was calibrated by adjusting its reading at 0%* against a dry-air line and at 75% against reference humidity and temperature instrument, Vaisala model HMP233. Additional instrument verification checkpoints were made against HMP233 reference at 11%RH and 33%RH. Calibration and instrument verification sequences utilize a dry-air line and a set of controlled aqueous salt solutions Vaisala model HMK13B. Laboratory ambient conditions are humidity and temperature controlled. The calibration uncertainty is presented at 95% confidence level, k=2. The standard uncertainty of the measurement has been determined in accordance with U.S. Guide to the Expression of Uncertainty in Measurement. *Note: the 0% RH point is not ISO17025 Accredited.

Calibration Data (As Left)

Temperature Calibration, °C				
Reference	Unit Under Test	Error	± Tolerance, °C	± Uncertainty, °C
21.07	21.10	0.03	0.20	0.07
Humidity Calibration, %RH				
Reference	Unit Under Test	Error	± Tolerance, %	± Uncertainty %
0.03	0.10	0.07	2.00	0.50 *
11.17	11.30	0.13	2.00	0.92
32.67	32.50	-0.17	2.00	1.01
74.78	74.80	0.02	2.00	1.02

Problem Noted: **No "As Found" Data. Intermittent readings from Temp Sensor. Damage to Temp Sensor. RH sensor dirty.**
Action Taken: **Replaced Temp and RH sensors. The unit was calibrated.**

The results of this calibration are related only to the items being calibrated at the time of calibration, and, are traceable to the National Institute of Standards and Technology through NIST Test Report Numbers TN 274176 and TN 274579-07. Vaisala's calibration system has been established to meet the requirements of ANSI/NCSL Z540-1-1994. This certificate can not be reproduced, except in full, without the expressed written consent of Vaisala. The certificate was established to comply with the requirements of ISO/IEC17025. Vaisala is ISO 9001:2000 certified.

Calibration Equipment Used: Workstation 4A			
Model Number	Serial Number	Calibration Date	Due Date
Power Supply	9900610	Nov. 27, 2006	Nov. 27, 2008
Fluke 45	7405020	Aug. 4, 2006	Aug. 4, 2007
HMK13B	513796	Mar. 26, 2007	Sep. 26, 2007
HMP233	V4310014	May. 22, 2007	Aug. 22, 2007
HMT333	B0920003	May. 22, 2007	Aug. 22, 2007
HMI41/HMP45	S0720005	Mar. 5, 2007	Jun. 5, 2007

Ambient Conditions	
Temperature:	22.00 °C
Humidity:	49.40 %RH

Approved By

Technical Operator
Matthew Nocivelli

Vaisala Inc., Boston Office
10-D Gill Street, Woburn, MA 01801, USA
Telephone 781 933 4500 • Fax 781 933 8029
www.vaisala.com

YOUNG

CERTIFICATE OF CALIBRATION AND TESTING

MODEL: 18811 (Comprised of Models 18820A Control Unit & 18831A Motor Assembly)
SERIAL NUMBER: CA02136

R. M. Young Company certifies that the above equipment was inspected and calibrated prior to shipment in accordance with established manufacturing and testing procedures. Standards established by R.M. Young Company for calibrating the measuring and test equipment used in controlling product quality are traceable to the National Institute of Standards and Technology.

Nominal Motor Rpm	27106D Output Frequency Hz (1)	Calculated Rpm (2)	Indicated Rpm (3)
30.0	5	30.0	30.0
150.0	25	150.0	150.0
300.0	50	300.0	300.0
450.0	75	450.0	450.0
600.0	100	600.0	600.0
750.0	125	750.0	750.0
990.0	165	990.0	990.0
☑ Clockwise and Counterclockwise rotation verified			

(1) Measured frequency output of RM Young Model 27106D standard anemometer attached to motor shaft
(2) 27106D produces 10 pulses per revolution of the anemometer shaft
(3) Indicated on the Control Unit LCD display

*Indicates out of tolerance

☑ No Calibration Adjustments Required ☐ As Found ☐ As Left

Traceable frequency meter used in calibration DP4863

Date of inspection 26 July 2007

Tested By EK

R.M. YOUNG COMPANY 2801 Aero Park Drive, Traverse City Michigan 49686-9171 USA
TEL. (231) 946-3980 FAX: (231) 946-4772 Email: met sales@youngusa com

CERTIFICATE OF CALIBRATION AND TESTING

MODEL: **18801** (Comprised of Models 18820 Control Unit & 18830 Motor Assembly)
SERIAL NUMBER: CA01674

R. M. Young Company certifies that the above equipment was inspected and calibrated prior to shipment in accordance with established manufacturing and testing procedures. Standards established by R.M. Young Company for calibrating the measuring and test equipment used in controlling product quality are traceable to the National Institute of Standards and Technology.

Nominal Motor Rpm	Output Frequency Hz (1)	Calculated Rpm (2)	Indicated Rpm (3)
600	320	600	600
1200	640	1200	1200
2400	1280	2400	2400
4200	2240	4200	4200
6,000	3200	6000	6000
8,100	4320	8100	8100
9,900	5280	9900	9900
☑ Clockwise and Counterclockwise rotation verified			

(1) Measured at the optical encoder output.
(2) Frequency output produces 32 pulses per revolution of motor shaft.
(3) Indicated on the Control Unit LCD display.

* Indicates out of tolerance

☑ No Calibration Adjustments Required ☐ As Found ☐ As Left

Traceable frequency meter used in calibration Model: DP5740 SN: 4863

Date of inspection 28 Nov 2007
Inspection Interval One Year

Tested By EJC

Certificate of Calibration

The instrument listed below meets or exceeds published specifications and has been calibrated under controlled conditions and is traceable to the National Institute of Standards and Technology(N.I.S.T.), or to accepted intrinsic standards of measurement, or by the ratio type of self-calibration techniques. Cal-Tech Calibration conforms to the following, ANSI/NCSL Z540-1-1994, ISO/IEC 25/17025.

Customer: Hoefler
Certificate Number: 5944
Instrument Make: Waters Torque Watch
Model: 366-3
S/N: 4864
ID: n/a

Date: 12-05-07
Temp: 73 Deg f
Humidity: 43%
Rec. In Tol.
Due Date: 12-05-08

Certification by: J. Soens (2)

Accuracy: +/- 3%

Comments:

Standards Used	Model	Certification Number	Due Date
Troemner	1156	822/266607/02	3-01-08

In.oz. Range	As Found	Adjustments	Final
.015	.015	none	.015
.021	.021	none	.021
.024	.024	none	.024
.03	.03	none	.03

Cal-Tech Calibration, Inc.
1314 FM 646 West /Ste. 15 / Dickinson, Texas 77539 /Phone 281-614-0050 / Fax 281-614-0046

Houston Precision, Inc.

8729 Gulf Freeway
Houston, TX 77017-6504

Calibration Report

Company:	Hoefler Consulting Group	**Doc #:**	37827
Address:		**Date:**	1/10/2007
	3401 Minnesota Drive, Suite 300		
	Anchorage, AK 99503	**PO#:**	1208-004-403
Contact:	Dominic Shallies	**Page:**	1
Dept:			

Gage:	Torque Watch	**Control:**	5042
Mfg:	HONEYWELL	**Model:**	366
Location:	Calibration Lab	**Serial #:**	5042

Parameters:

Parameter:

Text:

Comments:

Calibration Completed by:Cal-Tech Calibration, Inc.
Original Certificate (attached) #4327

Reference HPI S/O #14549

We certify the equipment used for this calibration is traceable to NIST through one or more of the following numbers:
: VENDOR MASTER
Last / Next Cal Dates: –>

Gage Status: PASS **Next Calibration Due: 1/10/2008**

Certified By: Denice V. Mills Signature: Denice V Mills

This certificate is not valid unless all 1 page(s) are present.
*Laboratory Environmental Conditions: Temperature: 68°F +/- 3.6°F and/or 20C +/- 2C, Relative Humidity: between 40% and 60%.
*Calibration measurements are performed in accordance with guidelines set forth in ANSI/NCSL Z540-1-1994 and Houston Precision's Quality manual.
*The measurement of uncertainity has not been taken into account when reporting readings "in" or "out of tolerance" on this calibration report.
*If additional information regarding this calibration is required, please contact this laboratory.
*All calibrations have been performed under the supervision and authority of Omar Martinez, Lab Manager.
*Any number of factors may cause the subject of this calibration to drift out of calibration before the recommended interval has expired.
HPI will not be held responsible for the calibration status of an item whose calibration interval exceeds the actual validity of the calibration.

End of document.

Certificate of Calibration

The instrument listed below meets or exceeds published specifications and has been calibrated under controlled conditions and is traceable to the National Institute of Standards and Technology(N.I.S.T.), or to accepted intrinsic standards of measurement, or by the ratio type of self-calibration techniques. Cal-Tech Calibration conforms to the following, ANSI/NCSL Z540-1-1994, ISO/IEC 25/17025.

Customer: Houston Precision
Certificate Number: 4327
Instrument Make: Honeywell Torque Watch
Model: 366
S/N: none
ID: 5042

Date: 1-10-07
Temp: 72 Deg f
Humidity: 39%
Rec. In Tol.
Due Date: 1-10-08

Certification by: J. Sean

Accuracy: +\- 1% of reading.

Comments:

Standards Used	Model	Certification Number	Due Date
Acculab	300g	822/270236-04	12-01-07

Reading In/oz	As Found	After Adjust	Final Reading
0.10	0.1	none	0.1
0.20	0.19	none	0.19
0.40	0.40	none	0.40
0.60	0.60	none	0.60

Cal-Tech Calibration, Inc.
1314 FM 646 West /Ste. 15 / Dickinson, Texas 77539 /Phone 281-614-0050 / Fax 281-614-0046

THE BRUNTON COMPANY
Certificate Of Calibration

Equipment Owner: HOEFLER Consulting Group
Name: _____

Address: 3401 MINNESOTA DR. STE. 300

City, State, Zip: ANCHORAGE AK 99503

Calibration traceable to the National Institute of Standards and Technology in accordance with Mil-STD-45662A has been accomplished on the instrument listed below by comparison with standards maintained by The Brunton Co. The accuracy and stability of all standards maintained by The Brunton Co. are traceable to national standards maintained by the National Institute of Standards and Technology in Washington, D.C. and Boulder, CO. Complete record of all work performed is maintained by The Brunton Co. and is available for inspection upon request.

This Unit has been calibrated to Lietz TM10E serial number 30937 traceable to N.B.S. no. 738 227675 this 18TH Day of JANUARY 2008

DESCRIPTION: POCKET TRANSIT

PURCHASE ORDER: BA 52200

ORDER NUMBER: 1572739

LOT NUMBER: _____

MODEL NUMBER: 5008

SERIAL NUMBER: 508099319

CALIBRATION DATE: 1-18-08

RECALIBRATION DUE DATE: 1-18-09

Signed: Linda Kenyon
QUALITY CONTROL MANAGER

Certificate of Accuracy

Transfer Standard Type: Barometric Pressure/Altimeter

Certificate No: B 072607. 01 C

Transfer standard model: Pretel AltiPlus A2
Serial number: 27806
submitted by/owner: Hoefler Consulting Group
3401 Minnesota Drive
Suite 300
Anchorage, AK 99503

Was compared to Precision Absolute Reference Barometer:
Model number: 355-AI0900 Serial number: 913930-M1
Certified accuracy of ± 0.007"Hg
NIST traceable to Ruska Deadweight Tester SN 38342/C-85

Date: 07/26/07 Lab temperature 73.0 ℉
Lab pressure 664.9 mm Hg

Reference barometer ("Hg)	Transfer Standard ("Hg)	Difference from Reference ("Hg)	Transfer Standard Correction* ("Hg)
24.00	24.11	0.11	-0.11
26.18	26.28	0.10	-0.10
28.00	28.10	0.10	-0.10
30.00	30.09	0.09	-0.09

Note:
If no sign is given on the correction, the true pressure is higher than the indicated pressure. If the sign is negative, the true pressure is lower than the indicated pressure.

Transfer Standard adjustments made? YES **NO**
Post-calibration measurements:

Reference barometer ("Hg)	Transfer Standard ("Hg)	Difference from Reference ("Hg)	Transfer Standard Correction* ("Hg)

Reviewed: RLS Date: 7/26/2007

Correction: RLS **Corrected Date: 10/04/07**

Roger L. Sanders, PE

Chinook Engineering
a division of Inter-Mountain Laboratories, Inc.
555 Absaraka Street
Sheridan, Wyoming 82801 USA
(307) 672-7790
chinook@imlinc.com

THE EPPLEY LABORATORY, INC.
12 Sheffield Ave., P.O. Box 419, Newport, RI 02840 USA
Telephone: 401-847-1020 Fax: 401-847-1031
Email: info@eppleylab.com Internet: www.eppleylab.com

EPLAB
Scientific Instruments
for Precision Measurements
Since 1917

STANDARDIZATION OF EPPLEY PRECISION SPECTRAL PYRANOMETER Model PSP

Serial Number: 34377F3

Resistance: 603 Ω at 23 °C
Temperature Compensation Range: -20° to +40 °C

This radiometer has been compared with Standard Precision Spectral Pyranometer, Serial Number 21231F3 in Eppley's Integrating Hemisphere under radiation intensities of approximately 700 watts meter^{-2} (roughly one half a solar conatant).

As a result of a series of comparisons, it has been found to have a sensitivity of:

9.24 x 10^{-6} volts/watts meter^{-2}

The calculation of this constant is based on the fact that the relationship between radiation intensity and emf is rectilinear to intensities of 1400 watts meter^{-2}. This radiometer is linear to within ± 0.5% up to this intensity.

The calibration of this instrument is traceable to standard self-calibrating cavity pyrheliometers in terms of the Systems Internationale des Unites (SI units), which participated in the Tenth International Pyrheliometric Comparisons (IPC X) at Davos, Switzerland in September-October 2005.

Eppley recommends a minimum calibration cycle of five (5) years but encourages annual calibrations for highest measurement accuracy. Unless otherwise stated in the remarks section below or on the Sales Order, the results are "AS FOUND / AS LEFT".

Useful conversion facts: 1 cal cm^{-2} min^{-1} = 697.3 watts meter^{-2}
1 BTU/ft^2-hr^{-1} = 3.153 watts meter^{-2}

Shipped to: Hoefler Consulting Group
Anchorage, AK

Date of Test: March 4, 2008

In Charge of Test: R. T. Eppley

S.O. Number: 61537
Date: March 6, 2008

Reviewed by: Thomas J. Kirk

Remarks:

Appendix D

Validated Continuous Data Summaries

Pebble 4 Meteorological Station - Temperature at 2 meters (deg. C)

January *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-14.5	-15.2	-16.1	-16.2	-16.8	-17.1	-17.4	-17.5	-19.4	-21.0	-21.3	-21.3	-21.6	-21.2	-22.0	-23.0	-23.5	-24.2	-24.9	-25.0	-25.8	-25.4	-25.5	-26.8	-14.5	-26.8	-20.9
2	-26.4	-27.1	-27.5	-26.9	-26.9	-25.8	-25.9	-26.1	-26.0	-25.6	-25.4	-25.5	-25.3	-25.1	-25.3	-24.8	-25.1	-26.2	-26.4	-26.9	-26.9	-26.6	-27.3	-27.1	-24.8	-27.5	-26.2
3	-26.7	-27.2	-27.2	-27.4	-28.0	-27.6	-27.3	-27.5	-28.6	-28.3	-28.5	-29.1	-28.3	-28.0	-28.8	-28.9	-27.6	-27.4	-28.2	-28.7	-28.9	-29.1	-29.2	-28.8	-26.7	-29.2	-28.1
4	-29.7	-29.4	-29.8	-29.4	-29.2	-29.4	-29.7	-30.0	-29.6	-28.8	-28.2	-27.4	-25.5	-23.2	-22.6	-23.3	-22.1	-21.9	-20.9	-20.0	-19.0	-18.8	-19.4	-19.8	-18.8	-30.0	-25.3
5	-21.7	-21.6	-23.5	-24.1	-24.3	-23.9	-24.1	-24.4	-25.2	-26.2	-25.6	-26.1	-25.5	-25.2	-25.7	-25.7	-25.4	-25.4	-25.4	-24.6	-25.0	-25.8	-26.0	-25.7	-21.6	-26.2	-24.8
6	-25.8	-26.3	-25.8	-25.8	-25.3	-25.0	-26.0	-25.4	-25.6	-27.0	-26.1	-25.5	-25.7	-25.9	-26.1	-26.8	-27.9	-27.9	-27.7	-28.2	-29.2	-29.1	-29.8	-29.7	-25.0	-29.8	-26.8
7	-30.3	-30.3	-29.9	-29.9	-29.3	-30.0	-30.3	-31.0	-30.4	-30.7	-30.2	-30.4	-30.1	-29.3	-29.2	-29.7	-29.7	-30.1	-30.3	-30.8	-31.1	-30.3	-29.8	-30.5	-29.2	-31.1	-30.1
8	-30.5	-30.3	-30.0	-28.6	-29.0	-29.2	-28.8	-29.3	-29.7	-29.3	-28.2	-27.8	-26.8	-26.5	-26.2	-25.6	-25.5	-24.7	-25.0	-24.9	-24.5	-23.8	-23.7	-24.2	-23.7	-30.5	-27.2
9	-23.7	-23.9	-24.2	-25.1	-24.4	-24.3	-23.9	-24.4	-24.9	-23.7	-24.3	-21.8	-20.1	-20.3	-18.6	-16.3	-15.2	-15.2	-14.4	-14.6	-15.1	-14.9	-14.1	-13.3	-13.3	-25.1	-20.0
10	-13.1	-13.0	-12.5	-12.4	-12.2	-12.0	-11.6	-10.7	-9.6	-8.4	-7.6	-6.8	-6.2	-5.7	-5.2	-4.9	-4.6	-4.1	-3.9	-3.6	-3.4	-3.2	-3.1	-2.8	-2.8	-13.1	-7.5
11	-2.6	-2.2	-2.0	-1.9	-2.0	-1.9	-1.8	-1.7	-1.7	-1.7	-1.7	-1.4	-1.3	-1.4	-1.3	-1.3	-1.3	-1.2	-1.2	-1.2	-1.1	-1.2	-1.2	-1.4	-1.1	-2.6	-1.6
12	-1.5	-1.6	-1.7	-1.7	-1.6	-1.6	-1.5	-1.5	-1.5	-1.5	-1.5	-1.5	-1.5	-1.3	-1.2	-1.2	-1.1	-1.2	-1.2	-1.2	-1.1	-1.2	-1.4	-2.4	-1.1	-2.4	-1.5
13	-2.9	-3.3	-3.2	-2.9	-2.9	-3.1	-3.3	-3.6	-3.6	-3.6	-3.8	-3.6	-3.7	-3.9	-3.9	-4.4	-5.2	-5.9	-7.7	-7.5	-7.5	-7.3	-7.3	-7.2	-2.9	-7.7	-4.6
14	-7.6	-8.0	-8.8	-9.1	-8.7	-8.9	-8.3	-7.9	-8.0	-7.8	-7.8	-7.7	-7.5	-8.0	-7.9	-8.3	-7.9	-7.7	-7.5	-7.6	-7.9	-7.7	-7.7	-7.9	-7.5	-9.1	-8.0
15	-8.3	-9.6	-10.3	-10.8	-10.5	-9.2	-8.6	-8.7	-9.2	-9.4	-9.4	-9.8	-10.3	-10.4	-10.3	-10.4	-10.5	-11.1	-11.9	-12.3	-12.9	-13.8	-14.3	-14.0	-8.3	-14.3	-10.7
16	-13.8	-14.4	-14.4	-14.9	-13.5	-10.2	-7.8	-7.5	-7.2	-6.8	-6.4	-6.4	-6.4	-6.0	-5.4	-4.9	-4.4	-4.1	-3.8	-3.8	-3.9	-3.9	-3.9	-3.5	-3.5	-14.9	-7.4
17	-3.4	-3.6	-4.1	-4.3	-4.4	-4.5	-4.6	-4.5	-4.1	-3.8	-3.7	-3.0	-2.7	-2.2	-2.0	-2.2	-2.2	-2.1	-1.6	-1.4	-1.3	-1.5	-1.6	-2.1	-1.3	-4.6	-3.0
18	-2.3	-2.4	-2.7	-3.0	-2.4	-2.2	-1.9	-2.3	-2.1	-2.1	-2.2							-3.0	-3.2	-3.1	-4.0	-3.9	-3.8	-4.2	-1.9	-4.2	-2.8
19	-4.2	-4.1	-3.9	-3.7	-3.8	-3.7	-3.8	-4.0	-4.0	-4.9	-5.3	-5.3	-5.6	-5.5	-4.3	-4.0	-4.0	-3.9	-3.2	-2.8	-2.5	-2.6	-2.4	-2.3	-2.3	-5.6	-3.9
20	-2.4	-2.4	-2.4	-2.5	-2.5	-2.6	-3.2	-3.0	-3.0	-3.6	-3.4	-3.2	-2.9	-3.9	-4.2	-3.4	-3.1	-3.1	-3.1	-3.4	-4.2	-4.4	-4.1	-3.9	-2.4	-4.4	-3.2
21	-4.2	-4.3	-5.9	-5.9	-7.4	-9.7	-9.9	-10.9	-11.1	-11.0	-11.3	-10.5	-10.2	-10.3	-10.5	-10.5	-10.4	-10.4	-10.7	-10.8	-10.8	-10.8	-10.7	-10.9	-4.2	-11.3	-9.5
22	-10.9	-10.9	-11.3	-11.2	-11.2	-11.3	-11.3	-11.9	-11.8	-11.8	-12.3	-12.1	-11.6	-12.2	-11.9	-12.1	-12.3	-12.5	-12.8	-12.9	-12.5	-11.5	-12.7	-14.6	-10.9	-14.6	-12.0
23	-14.9	-15.0	-14.9	-15.0	-15.5	-15.8	-16.5	-16.7	-16.5	-17.1	-17.3	-17.4	-17.3	-17.3	-17.3	-17.8	-18.2	-17.9	-17.7	-18.5	-18.5	-19.4	-19.9	-20.6	-14.9	-20.6	-17.2
24	-20.9	-21.2	-21.3	-21.8	-22.1	-22.6	-23.3	-24.6	-25.2	-24.8	-24.9	-25.1	-25.1	-24.6	-24.5	-24.9	-24.1	-24.3	-23.7	-23.1	-23.1	-24.2	-23.9	-24.5	-20.9	-25.2	-23.7
25	-24.1	-22.1	-16.3	-14.0	-13.5	-12.6	-11.2	-9.8	-7.0	-5.8	-5.3	-4.3	-3.8	-3.0	-2.9	-2.6	-2.5	-2.0	-1.9	-1.6	-1.4	-1.4	-1.1	-0.8	-0.8	-24.1	-7.1
26	-0.7	-0.9	-0.9	-1.0	-1.1	-1.0	-0.7	-0.5	-0.7	-0.9	-0.8	-0.3	-0.3	-0.3	-0.2	-0.3	-0.5	-0.8	-1.3	-1.5	-1.6	-2.1	-2.0	-1.9	-0.2	-2.1	-0.9
27	-1.2	-1.1	-1.0	-0.8	-0.3	-0.2	-0.2	-0.5	-0.4	-0.3	-0.6	-0.8	-0.9	-0.8	-0.8	-0.1	0.2	-0.4	0.1	0.6	0.9	1.1	0.9	0.5	1.1	-1.2	-0.3
28	0.3	0.1	-0.1	0.1	-0.2	-0.2	-0.3	-0.5	-0.3	-0.4	-0.7	-0.7	-0.5	0.2	0.3	0.2	0.0	-0.6	-0.6	-0.1	-0.2	0.6	1.0	1.2	1.2	-0.7	-0.1
29	1.4	1.0	2.0	2.0	2.4	2.3	1.5	1.3	1.2	1.8	1.8	2.2	2.8	2.9	2.9	2.3	2.6	2.4	2.0	1.6	1.0	0.7	0.6	0.6	2.9	0.6	1.8
30	1.0	1.7	1.9	2.0	2.2	2.3	2.3	2.9	3.3	3.8	4.2	5.4	5.4	4.5	4.8	4.7	3.4	2.2	1.9	1.6	1.6	1.4	1.2	1.1	5.4	1.0	2.8
31	1.2	1.3	1.5	1.5	1.6	1.5	1.5	1.1	1.1	1.0	0.8	0.9	0.9	1.5	1.1	1.2	1.2	1.0	0.9	1.6	2.0	1.6	1.0	0.5	2.0	0.5	1.2
Max.	**1.4**	**1.7**	**2.0**	**2.0**	**2.4**	**2.3**	**2.3**	**2.9**	**3.3**	**3.8**	**4.2**	**5.4**	**5.4**	**4.5**	**4.8**	**4.7**	**3.4**	**2.4**	**2.0**	**1.6**	**2.0**	**1.6**	**1.2**	**1.2**	**5.4**		
Min.	**-30.5**	**-30.3**	**-30.0**	**-29.9**	**-29.3**	**-30.0**	**-30.3**	**-31.0**	**-30.4**	**-30.7**	**-30.2**	**-30.4**	**-30.1**	**-29.3**	**-29.2**	**-29.7**	**-29.7**	**-30.1**	**-30.3**	**-30.8**	**-31.1**	**-30.3**	**-29.8**	**-30.5**		**-31.1**	
Avg.	**-11.7**	**-11.9**	**-11.8**	**-11.8**	**-11.7**	**-11.6**	**-11.5**	**-11.6**	**-11.6**	**-11.6**	**-11.5**	**-11.5**	**-11.2**	**-11.1**	**-11.0**	**-11.0**	**-10.9**	**-10.8**	**-10.8**	**-10.8**	**-10.9**	**-10.9**	**-11.0**	**-11.2**			**-11.2**

Total Hours in Month 744 **Hours Data Available** 738 **Data Recovery** 99.2%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 2 meters (deg. C)

February 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0.4	0.7	1.2	1.3	0.8	0.7	0.6	0.2	0.4	0.4	-0.1	1.3	2.0	2.5	4.3	5.5	5.1	3.8	4.6	4.3	2.9	0.7	0.6	0.4	5.5	-0.1	1.9
2	0.6	0.6	0.9	1.3	1.7	1.8	1.4	1.2	1.2	1.2	1.3	1.6	1.8	1.8	1.6	1.5	1.4	1.3	1.2	1.2	1.1	0.9	0.9	0.7	1.8	0.6	1.3
3	0.6	0.3	0.4	0.5	0.4	0.2	0.2	0.1	0.0	-0.2	0.2	0.6	0.9	1.1	1.2	1.0	0.6	0.1	-0.7	-1.5	-2.0	-2.1	-2.2	-2.0	1.2	-2.2	-0.1
4	-2.9	-3.1	-3.8	-2.8	-2.4	-3.5	-3.4	-2.6	-3.6	-4.4	-4.0	-3.7	-3.7	-2.9	-2.0	-2.3	-2.5	-3.2	-3.5	-3.7	-2.6	-2.4	-2.9	-2.0	-2.0	-4.4	-3.1
5	-1.0	-1.1	-1.3	-1.1	-1.3	-1.9	-1.3	-0.9	-1.2	-1.7	-1.0	-0.8	-1.8	-1.7	-2.1	-2.2	-1.6	-1.5	-1.2	-2.4	-4.0	-4.7	-4.7	-3.9	-0.8	-4.7	-1.9
6	-3.4	-2.9	-2.4	-1.6	-1.6	-1.4	-0.7	-0.4	-0.4	-0.8	-0.2	0.2	0.1	0.7	0.3	-0.2	-0.4	-1.0	-0.7	-0.6	-0.7	-0.2	0.3	0.6	0.7	-3.4	-0.7
7	-0.6	-2.6	-2.4	-2.9	-2.1	-1.2	-2.7	-3.5	-3.5	-3.4	-3.3	-3.2	-3.0	-2.9	-2.8	-2.3	-1.6	-1.8	-2.7	-3.4	-3.4	-3.5	-3.5	-3.4	-0.6	-3.5	-2.7
8	-3.3	-3.1	-3.0	-3.0	-2.8	-2.8	-2.7	-2.8	-2.9	-2.8	-2.9	-2.8	-2.4	-2.0	-2.0	-2.3	-2.5	-2.8	-2.8	-3.0	-3.3	-3.3	-3.2	-3.1	-2.0	-3.3	-2.8
9	-3.0	-3.3	-3.1	-2.9	-2.7	-2.5	-2.4	-2.3	-1.8	-1.6	-1.2	-0.6	-0.2	0.1	-0.2	-1.2	-1.5	-1.9	-1.7	-1.9	-2.0	-2.1	-2.4	-2.4	0.1	-3.3	-1.9
10	-2.1	-1.8	-1.4	-1.0	-1.3	-2.1	-2.0	-1.8	-1.8	-1.7	-1.7	-1.7	-1.7	-1.7	-1.6	-1.6	-1.6	-1.8	-2.7	-4.3	-5.1	-5.4	-5.5	-5.5	-1.0	-5.5	-2.5
11	-5.4	-4.8	-4.4	-4.7	-4.9	-4.9	-4.5	-4.3	-4.3	-4.4	-3.7	-2.8	-1.9	-1.4	-1.3	-0.7	-0.4	-0.7	-0.8	-0.7	-0.9	-1.3	-1.1	-1.1	-0.4	-5.4	-2.7
12	-1.1	-1.5	-1.0	-0.7	-0.8	-0.8	-0.8	-0.6	-0.8	-0.8	-0.9	-0.2	0.1	0.5	0.6	0.4	0.2	0.0	-0.3	-0.3	-0.2	-0.4	-0.4	-0.4	0.6	-1.5	-0.4
13	-0.8	-0.3	0.2	-0.2	-0.1	0.3	0.0	-0.3	-0.5	-0.1	0.8	0.8	1.4	1.6	1.9	1.4	1.1	0.6	0.2	0.1	0.1	-0.4	-0.7	-0.9	1.9	-0.9	0.3
14	-0.5	-0.7	-1.0	-0.8	-0.8	-1.0	-1.1	-0.9	-0.9	-1.1	-1.1	-0.9	-0.5	-0.3	-0.4	-0.2	-0.4	-0.9	-1.5	-1.2	-1.0	-1.5	-2.4	-2.4	-0.2	-2.4	-1.0
15	-2.8	-2.4	-2.2	-3.1	-3.1	-2.8	-3.6	-2.9	-4.4	-3.6	-4.0	-3.6	-3.6	-3.8	-3.6	-4.2	-4.5	-5.2	-5.7	-5.4	-5.5	-5.8	-5.6	-5.5	-2.2	-5.8	-4.0
16	-5.6	-5.2	-3.8	-4.1	-4.5	-5.2	-4.0	-4.5	-3.8	-3.8	-2.9	-2.6	-2.7	-2.4	-2.2	-2.3	-2.4	-2.4	-2.3	-3.2	-3.4	-3.4	-3.4	-3.4	-2.2	-5.6	-3.5
17	-3.6	-3.7	-3.8	-3.8	-3.9	-4.0	-4.9	-4.9	-4.8	-5.0	-6.4	-4.9	-4.6	-3.0	-2.9	-3.2	-3.7	-3.9	-4.8	-4.8	-4.9	-4.2	-4.4	-5.2	-2.9	-6.4	-4.3
18	-5.3	-4.9	-4.8	-5.0	-5.5	-5.4	-5.1	-5.9	-6.0	-6.1	-6.3	-5.7	-5.5	-5.1	-5.1	-5.0	-4.2	-4.6	-5.4	-6.0	-6.3	-6.4	-6.7	-6.7	-4.2	-6.7	-5.5
19	-7.1	-7.6	-7.7	-8.6	-9.2	-9.7	-10.4	-11.1	-11.3	-12.5	-13.8	-15.1	-15.0	-14.6	-14.5	-14.6	-15.6	-16.5	-17.5	-18.3	-18.8	-18.8	-18.3	-18.3	-7.1	-18.8	-13.5
20	-18.3	-17.5	-18.1	-18.7	-18.5	-19.8	-20.3	-20.1	-19.5	-19.5	-18.8	-17.9	-16.8	-15.4	-14.8	-14.5	-14.7	-15.3	-16.0	-16.2	-16.4	-17.1	-17.6	-17.6	-14.5	-20.3	-17.5
21	-18.0	-18.2	-18.8	-19.0	-19.3	-20.0	-20.8	-21.2	-21.1	-21.0	-21.1	-20.3	-18.7	-17.4	-17.0	-16.8	-16.8	-16.8	-17.7	-18.2	-18.6	-19.1	-19.2	-19.1	-16.8	-21.2	-18.9
22	-19.0	-19.2	-19.0	-19.0	-19.0	-20.1	-20.3	-19.9	-19.7	-20.2	-20.1	-19.9	-18.9	-17.8	-17.2	-16.7	-16.4	-16.4	-16.8	-17.3	-17.5	-17.5	-17.8	-17.8	-16.4	-20.3	-18.5
23	-18.2	-18.8	-19.0	-18.5	-19.1	-19.3	-19.5	-19.8	-19.9	-20.0	-19.7	-18.5	-18.0	-17.4	-16.9	-16.3	-16.1	-17.1	-17.4	-17.8	-17.8	-18.6	-19.0	-18.3	-16.1	-20.0	-18.4
24	-18.8	-19.3	-19.4	-18.3	-18.3	-18.3	-19.1	-20.1	-20.7	-21.0	-20.1	-19.5	-19.1	-19.0	-19.0	-19.1	-19.4	-20.0	-20.7	-21.2	-21.5	-21.8	-21.9	-21.8	-18.3	-21.9	-19.9
25	-21.9	-21.9	-21.4	-21.1	-21.2	-21.3	-21.5	-21.8	-21.3	-20.7	-19.8	-18.3	-16.9	-14.9	-14.4	-14.1	-14.6	-15.3	-16.0	-15.3	-14.1	-13.4	-11.5	-9.2	-9.2	-21.9	-17.6
26	-6.8	-7.0	-7.5	-8.4	-8.4	-8.4	-7.9	-7.0	-6.9	-7.7	-8.3	-8.4	-7.5	-7.0	-6.7	-6.5	-6.6	-7.3	-8.2	-8.8	-8.8	-10.6	-10.0	-10.2	-6.5	-10.6	-7.9
27	-10.2	-11.1	-12.0	-12.8	-13.1	-13.4	-13.5	-12.9	-12.4	-11.7	-11.0	-10.6	-10.8	-10.2	-9.6	-9.3	-9.3	-9.4	-9.9	-9.6	-9.8	-9.8	-9.7	-10.0	-9.3	-13.5	-10.9
28	-10.2	-10.6	-10.6	-11.4	-12.0	-12.0	-12.5	-12.9	-13.9	-14.4	-15.2	-15.3	-15.3	-15.0	-15.3	-16.2	-17.1	-17.8	-19.0	-19.7	-20.1	-20.7	-20.9	-21.4	-10.2	-21.4	-15.4
Max.	**0.6**	**0.7**	**1.2**	**1.3**	**1.7**	**1.8**	**1.4**	**1.2**	**1.2**	**1.2**	**1.3**	**1.6**	**2.0**	**2.5**	**4.3**	**5.5**	**5.1**	**3.8**	**4.6**	**4.3**	**2.9**	**0.9**	**0.9**	**0.7**	**5.5**		
Min.	**-21.9**	**-21.9**	**-21.4**	**-21.1**	**-21.2**	**-21.3**	**-21.5**	**-21.8**	**-21.3**	**-21.0**	**-21.1**	**-20.3**	**-19.1**	**-19.0**	**-19.0**	**-19.1**	**-19.4**	**-20.0**	**-20.7**	**-21.2**	**-21.5**	**-21.8**	**-21.9**	**-21.8**		**-21.9**	
Avg.	**-6.7**	**-6.8**	**-6.7**	**-6.8**	**-6.9**	**-7.1**	**-7.2**	**-7.3**	**-7.3**	**-7.5**	**-7.3**	**-6.9**	**-6.5**	**-6.0**	**-5.8**	**-5.8**	**-5.9**	**-6.3**	**-6.8**	**-7.1**	**-7.3**	**-7.6**	**-7.6**	**-7.5**			**-6.9**

Total Hours in Month 672 **Hours Data Available** 672 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 2 meters (deg. C)

March *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-21.6	-21.8	-22.1	-22.4	-22.8	-23.6	-23.8	-23.9	-24.3	-23.8	-23.1	-22.1	-21.1	-19.7	-18.7	-18.0	-17.9	-18.0	-18.3	-19.0	-19.8	-20.4	-20.9	-20.8	-17.9	-24.3	-21.2
2	-20.9	-21.0	-21.0	-21.3	-21.1	-21.3	-21.7	-21.7	-22.2	-22.0	-21.5	-20.4	-19.2	-18.3	-17.0	-16.5	-16.4	-16.7	-17.2	-17.4	-17.5	-17.8	-18.2	-18.7	-16.4	-22.2	-19.5
3	-18.9	-19.0	-19.4	-19.9	-19.8	-19.9	-20.2	-20.6	-20.7	-20.4	-19.4	-18.0	-16.9	-15.6	-14.6	-13.8	-13.4	-13.7	-14.4	-14.4	-14.3	-15.0	-14.3	-15.1	-13.4	-20.7	-17.1
4	-15.8	-16.0	-15.9	-15.4	-15.7	-15.6	-16.3	-17.0	-16.8	-16.3	-15.5	-15.5	-15.0	-14.6	-14.3	-14.1	-14.3	-14.8	-15.6	-16.9	-17.7	-18.0	-18.5	-19.2	-14.1	-19.2	-16.0
5	-20.0	-21.0	-21.9	-22.7	-23.3	-23.8	-24.4	-24.9	-25.2	-24.7	-24.1	-23.4	-22.8	-22.0	-21.4	-21.2	-21.3	-21.7	-22.4	-23.2	-23.8	-24.2	-24.7	-25.2	-20.0	-25.2	-23.0
6	-25.6	-26.1	-26.5	-26.8	-27.1	-27.4	-27.6	-27.7	-27.9	-27.4	-26.5	-25.8	-25.1	-24.2	-23.8	-23.3	-23.2	-23.4	-23.8	-24.1	-24.1	-24.3	-24.5	-24.7	-23.2	-27.9	-25.4
7	-24.8	-24.9	-24.9	-25.2	-25.2	-25.4	-25.4	-25.3	-25.5	-24.8	-23.8	-23.1	-22.1	-21.3	-20.4	-19.9	-19.7	-20.0	-20.7	-21.6	-22.2	-22.9	-23.6	-24.3	-19.7	-25.5	-23.2
8	-24.8	-25.3	-25.7	-25.8	-26.0	-26.3	-26.5	-26.5	-26.6	-26.3	-25.8	-25.1	-24.1	-22.9	-21.9	-21.2	-21.1	-21.1	-21.5	-21.9	-21.8	-21.9	-22.0	-22.3	-21.1	-26.6	-23.9
9	-22.6	-22.8	-23.0	-23.2	-23.1	-23.2	-23.1	-22.9	-22.3	-21.9	-21.9	-21.2	-20.4	-19.6	-18.9	-18.3	-18.1	-18.6	-19.5	-20.3	-20.9	-20.8	-20.3	-19.9	-18.1	-23.2	-21.1
10	-19.7	-19.5	-19.4	-19.1	-19.5	-19.7	-19.5	-19.0	-19.4	-19.3	-19.3	-18.5	-17.7	-16.4	-15.9	-15.5	-15.2	-15.7	-16.4	-17.8	-18.6	-19.1	-19.2	-19.6	-15.2	-19.7	-18.3
11	-20.5	-20.8	-21.0	-21.5	-21.9	-22.6	-23.1	-23.7	-23.9	-23.6	-22.9	-22.1	-21.1	-20.1	-19.2	-18.6	-18.2	-18.2	-18.4	-18.5	-18.4	-18.7	-19.1	-19.5	-18.2	-23.9	-20.7
12	-19.7	-20.0	-19.8	-19.9	-20.3	-20.5	-20.3	-20.3	-22.0	-21.3	-20.7	-19.8	-18.4	-16.2	-15.6	-15.2	-15.1	-15.1	-15.3	-15.7	-16.0	-16.9	-17.5	-17.6	-15.1	-22.0	-18.3
13	-17.6	-18.0	-18.7	-18.7	-18.9	-19.3	-19.7	-20.5	-21.1	-20.8	-20.2	-19.5	-18.7	-18.2	-17.9	-17.5	-17.9	-18.2	-18.8	-19.6	-19.8	-20.0	-20.7	-21.6	-17.5	-21.6	-19.2
14	-22.2	-22.5	-22.7	-22.9	-23.1	-23.1	-23.2	-23.7	-23.6	-22.9	-22.0	-21.4	-20.7	-20.2	-19.7	-19.4	-19.2	-19.6	-20.0	-20.6	-21.2	-21.7	-21.9	-22.4	-19.2	-23.7	-21.7
15	-23.0	-23.6	-24.3	-24.9	-25.5	-25.7	-26.1	-26.2	-26.0	-25.2	-23.9	-22.8	-21.6	-20.7	-20.0	-19.0	-18.2	-18.1	-18.8	-19.7	-20.6	-20.8	-21.2	-21.9	-18.1	-26.2	-22.4
16	-22.1	-22.2	-22.2	-22.2	-22.5	-22.7	-22.9	-22.7	-22.4	-21.6	-20.4	-19.2	-18.1	-16.7	-15.7	-15.2	-15.1	-15.7	-16.9	-18.1	-18.7	-19.4	-19.5	-19.7	-15.1	-22.9	-19.7
17	-20.1	-20.4	-20.5	-21.1	-20.7	-20.9	-21.2	-21.5	-21.7	-20.6	-18.8	-17.7	-16.9	-15.9	-14.8	-14.0	-13.2	-13.2	-14.0	-15.4	-16.4	-16.9	-16.4	-16.4	-13.2	-21.7	-17.9
18	-16.0	-15.7	-16.1	-16.3	-17.0	-17.1	-17.1	-17.5	-17.9	-17.9	-17.1	-16.0	-15.0	-13.9	-13.1	-12.7	-12.4	-12.5	-13.3	-14.9	-15.8	-15.6	-17.0	-17.4	-12.4	-17.9	-15.6
19	-17.2	-17.1	-17.9	-17.6	-17.8	-18.4	-18.6	-18.2	-18.0	-16.8	-15.4	-14.1	-13.2	-12.4	-11.2	-10.5	-9.9	-9.9	-10.9	-11.4	-12.9	-12.6	-12.5	-12.3	-9.9	-18.6	-14.4
20	-12.3	-12.4	-12.5	-12.9	-12.2	-12.7	-12.6	-12.2	-11.0	-9.8	-8.8	-7.9	-7.1	-6.4	-5.5	-4.9	-5.4	-5.9	-5.8	-5.6	-5.3	-4.9	-4.6	-4.5	-4.5	-12.9	-8.5
21	-4.8	-4.7	-4.5	-5.5	-5.7	-5.5	-5.3	-5.1	-5.0	-8.6	-9.3	-9.1	-9.1	-9.0	-8.9	-9.2	-9.6	-9.8	-10.3	-11.0	-11.5	-12.1	-13.8	-14.3	-4.5	-14.3	-8.4
22	-14.6	-15.3	-15.8	-16.6	-16.7	-18.1	-18.5	-18.6	-17.9	-17.7	-16.8	-16.0	-14.9	-13.7	-12.8	-12.1	-12.0	-12.0	-12.6	-13.4	-14.1	-14.9	-15.7	-16.2	-12.0	-18.6	-15.3
23	-16.6	-17.2	-17.3	-16.7	-16.5	-17.3	-18.3	-18.9	-18.9	-18.6	-18.1	-17.0	-16.2	-15.9	-15.5	-14.4	-14.3	-14.5	-14.9	-15.6	-16.5	-17.5	-17.8	-18.3	-14.3	-18.9	-16.8
24	-19.2	-19.6	-21.6	-21.5	-22.6	-22.2	-22.5	-22.1	-21.9	-20.5	-19.9	-19.3	-18.6	-17.8	-17.0	-16.5	-16.1	-15.9	-16.4	-17.4	-17.5	-17.4	-17.4	-17.4	-15.9	-22.6	-19.1
25	-16.0	-16.0	-16.0	-16.4	-16.8	-16.4	-17.1	-17.0	-17.1	-16.2	-15.2	-14.6	-13.4	-12.1	-11.3	-10.6	-10.3	-9.7	-9.7	-9.6	-9.5	-9.0	-9.0	-9.1	-9.0	-17.1	-13.2
26	-8.9	-8.4	-7.6	-7.6	-7.1	-6.8	-7.1	-7.5	-8.9	-10.0	-10.8	-11.2	-11.2	-11.2	-11.3	-11.3	-11.3	-11.6	-11.5	-10.8	-11.4	-11.8	-11.4	-10.6	-6.8	-11.8	-9.9
27	-9.8	-9.5	-10.6	-10.9	-11.4	-11.6	-11.8	-11.9	-12.0	-11.2	-10.9	-10.2	-10.0	-9.6	-9.4	-9.3	-9.5	-9.4	-9.8	-10.5	-11.4	-12.5	-12.9	-13.8	-9.3	-13.8	-10.8
28	-13.6	-14.5	-14.5	-14.2	-14.0	-14.2	-14.7	-15.2	-15.4	-14.5	-13.3	-11.9	-10.6	-9.8	-9.1	-8.6	-8.3	-8.5	-8.8	-9.9	-10.5	-10.2	-10.6	-11.0	-8.3	-15.4	-11.9
29	-10.5	-12.5	-12.5	-12.5	-12.9	-12.3	-13.0	-11.1	-12.7	-11.6	-10.4	-8.9	-7.3	-6.5	-5.6	-5.4	-5.3	-5.3	-6.0	-6.8	-7.2	-7.5	-7.7	-8.5	-5.3	-13.0	-9.2
30	-9.1	-8.4	-9.0	-8.1	-8.5	-8.5	-9.3	-10.0	-9.1	-7.8	-7.2	-6.5	-5.3	-4.3	-3.4	-2.8	-2.3	-2.4	-3.1	-3.2	-3.1	-2.4	-2.8	-3.4	-2.3	-10.0	-5.8
31	-3.4	-4.2	-3.8	-2.7	-3.0	-2.2	-1.5	-1.9	-1.7	-0.8	-0.6	-0.3	0.1	0.7	1.2	1.7	1.3	1.0	0.4	-0.9	-3.1	-2.7	-2.5	-2.9	1.7	-4.2	-1.3
Max.	**-3.4**	**-4.2**	**-3.8**	**-2.7**	**-3.0**	**-2.2**	**-1.5**	**-1.9**	**-1.7**	**-0.8**	**-0.6**	**-0.3**	**0.1**	**0.7**	**1.2**	**1.7**	**1.3**	**1.0**	**0.4**	**-0.9**	**-3.1**	**-2.4**	**-2.5**	**-2.9**	**1.7**		
Min.	**-25.6**	**-26.1**	**-26.5**	**-26.8**	**-27.1**	**-27.4**	**-27.6**	**-27.7**	**-27.9**	**-27.4**	**-26.5**	**-25.8**	**-25.1**	**-24.2**	**-23.8**	**-23.3**	**-23.2**	**-23.4**	**-23.8**	**-24.1**	**-24.1**	**-24.3**	**-24.7**	**-25.2**		**-27.9**	
Avg.	**-17.2**	**-17.4**	**-17.7**	**-17.8**	**-18.0**	**-18.2**	**-18.5**	**-18.6**	**-18.7**	**-18.2**	**-17.5**	**-16.7**	**-15.9**	**-15.0**	**-14.3**	**-13.8**	**-13.6**	**-13.8**	**-14.3**	**-15.0**	**-15.5**	**-15.8**	**-16.1**	**-16.4**			**-16.4**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 2 meters (deg. C)

April *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-2.9	-3.0	-3.7	-3.3	-3.1	-3.6	-3.7	-4.5	-3.6	-3.2	-1.5	-1.2	-0.1	0.6	0.8	0.8	0.5	0.4	-0.6	-1.5	-1.9	-1.2	-1.4	-2.1	0.8	-4.5	-1.8
2	-2.2	-2.0	-2.2	-2.7	-2.9	-3.6	-3.8	-3.1	-2.6	-1.6	-0.4	0.3	0.3	0.2	-0.1	-0.1	-0.1	-0.3	-0.6	-1.0	-0.9	-1.1	-1.0	-1.2	0.3	-3.8	-1.4
3	-1.3	-1.3	-1.2	-1.1	-1.4	-1.5	-1.7	-1.4	-1.6	-1.3	-0.8	-0.3	-0.1	0.1	0.4	0.3	0.3	0.0	-0.5	-0.7	-1.0	-1.2	-1.5	-1.8	0.4	-1.8	-0.9
4	-2.3	-2.1	-2.0	-1.6	-1.5	-1.4	-1.8	-1.9	-1.1	-0.4	0.1	0.4	0.6	1.1	0.7	0.7	0.7	0.2	-0.3	-0.4	-0.4	-0.2	0.1	0.3	1.1	-2.3	-0.5
5	0.3	0.3	0.2	0.3	-0.6	0.7	0.7	1.7	2.1	2.6	2.7	3.1	3.9	4.2	4.7	5.2	5.3	2.3	2.1	1.4	1.1	1.2	1.3	1.1	5.3	-0.6	2.0
6	0.8	0.9	1.3	1.2	1.5	1.3	1.8	2.2	2.8	2.9	3.6	4.2	4.7	5.4	5.6	5.5	5.1	3.5	1.7	0.9	1.3	2.2	2.9	3.3	5.6	0.8	2.8
7	2.5	1.0	0.6	-0.1	-0.5	-0.8	-0.6	-0.3	-0.2	0.0	0.3	0.2	0.7	1.0	1.6	2.0	1.9	1.9	1.4	0.8	0.8	1.6	1.8	1.7	2.5	-0.8	0.8
8	2.0	1.7	1.6	1.7	2.1	2.4	3.0	3.1	3.3	4.0	4.7	5.5	5.6	5.7	5.7	5.9	5.1	4.9	4.2	3.6	3.0	2.5	1.2	0.8	5.9	0.8	3.5
9	0.8	0.6	0.5	0.6	0.8	0.8	0.2	0.0	0.0	0.1	0.5	0.8	0.8	1.0	1.5	1.3	1.2	0.9	1.0	0.9	0.5	0.2	-0.1	-0.2	1.5	-0.2	0.6
10	-0.4	-0.6	-0.7	-0.8	-1.0	-1.0	-1.0	-1.0	-0.9	-0.9	-0.5	0.3	0.4	0.8	0.7	0.8	1.0	1.4	0.8	-0.2	-0.8	-0.9	-1.3	-1.4	1.4	-1.4	-0.3
11	-2.4	-2.2	-2.3	-2.3	-2.7	-2.5	-1.8	-2.0	-2.0	-1.3	0.0	0.6	1.0	1.1	1.0	1.1	0.9	0.6	0.2	-0.6	-1.7	-1.9	-2.2	-2.2	1.1	-2.7	-1.0
12	-2.1	-2.2	-1.9	-2.9	-2.6	-3.3	-4.0	-3.6	-2.8	-1.6	-0.7	0.1	1.0	1.7	1.9	2.2	2.6	2.7	2.4	1.2	0.5	0.5	0.2	-1.2	2.7	-4.0	-0.5
13	-2.0	-2.2	-2.1	-2.7	-3.0	-3.0	-3.2	-2.7	-2.0	-1.8	-1.5	-1.2	-0.4	0.6	1.3	2.0	2.7	3.0	2.0	0.5	-0.4	-0.9	-0.6	-0.6	3.0	-3.2	-0.8
14	-0.7	-1.4	-1.3	-1.3	-1.8	-2.1	-2.8	-3.0	-2.6	-2.1	-1.7	-0.6	0.8	1.5	1.9	1.4	1.8	1.6	0.9	0.1	-0.7	-1.3	-1.6	-1.8	1.9	-3.0	-0.7
15	-1.8	-2.0	-1.8	-1.5	-1.6	-1.4	-1.4	-1.0	-0.3	0.2	1.0	1.3	1.7	1.8	2.1	1.9	2.4	2.5	1.4	1.0	0.7	0.6	0.7	0.7	2.5	-2.0	0.3
16	1.1	1.2	0.9	0.9	0.2	-0.2	-0.8	-0.5	0.0	1.4	2.5	3.0	2.9	0.0	-1.2	-1.5	-1.6	-1.9	-2.5	-3.1	-3.8	-4.0	-4.3	-4.0	3.0	-4.3	-0.6
17	-4.1	-4.0	-3.3	-2.5	-1.8	-1.0	-0.5	-0.3	-0.2	-0.7	-1.0	-1.0	-0.9	-0.9	-0.9	-0.9	-0.8	-0.6	-0.6	-0.5	-0.4	-0.3	-0.2	-0.3	-0.2	-4.1	-1.1
18	-0.3	-0.3	-0.3	-0.2	-0.1	0.1	0.0	0.0	0.2	0.4	0.7	1.1	1.3	1.4	1.0	0.6	-1.4	-2.2	-2.7	-3.0	-3.1	-3.3	-3.6	-3.2	1.4	-3.6	-0.7
19	-1.9	-1.5	-2.0	-2.1	-1.1	-0.4	-0.4	-0.5	-0.3	0.0	0.1	0.2	0.1	0.0	-0.4	-0.8	-1.0	-1.2	-1.5	-1.6	-1.5	-1.3	-0.9	-0.9	0.2	-2.1	-0.9
20	-0.9	-1.0	-1.0	-0.7	-0.4	-0.3	0.6	0.9	0.9	1.3	1.6	1.9	2.5	2.7	2.6	2.7	2.5	1.7	1.7	1.4	1.2	1.0	0.8	1.3	2.7	-1.0	1.1
21	1.7	1.9	1.9	2.2	2.1	2.1	1.5	0.9	1.8	2.1	3.2	3.7	4.2	4.3	3.6	3.6	3.1	2.7	1.9	1.5	1.4	1.0	1.7	1.5	4.3	0.9	2.3
22	1.6	2.0	2.0	2.4	2.2	2.9	3.4	2.9	2.7	2.7	3.3	3.8	4.8	4.7	4.8	4.9	4.3	4.0	3.3	3.0	2.9	2.9	2.8	2.7	4.9	1.6	3.2
23	2.5	2.9	3.3	3.2	2.5	2.7	3.1	3.5	4.4	5.0	5.9	7.4	6.4	6.7	7.5	5.3	5.2	5.5	3.8	3.5	2.7	1.7	1.7	1.2	7.5	1.2	4.1
24	0.9	1.3	1.6	2.0	1.9	1.9	2.2	2.6	3.1	3.9	5.3	6.3	5.7	5.2	6.0	6.1	5.8	5.7	4.9	3.6	2.3	1.9	1.2	1.2	6.3	0.9	3.4
25	1.3	1.6	1.6	1.5	1.3	1.5	1.6	2.1	2.8	3.1	4.2	3.4	2.9	3.6	4.2	4.1	4.0	3.9	3.5	2.9	2.7	2.7	2.4	2.2	4.2	1.3	2.7
26	2.0	2.3	2.0	2.1	2.3	1.3	0.5	2.5	3.5	4.7	6.2	7.7	8.7	9.6	9.9	9.4	9.5	9.3	9.3	8.9	7.7	6.3	6.0	6.6	9.9	0.5	5.8
27	4.3	4.9	3.1	2.6	3.1	3.0	3.1	3.8	3.9	5.0	5.9	7.3	7.8	7.9	7.7	8.0	6.6	5.2	4.2	3.0	2.0	1.0	0.2	-0.4	8.0	-0.4	4.3
28	-0.7	-1.5	-1.9	-2.3	-2.9	-2.9	-2.9	-2.5	-2.2	-1.7	-0.5	1.9	3.9	4.9	5.4	5.5	4.9	4.0	3.5	2.4	0.7	-0.5	-0.8	-1.0	5.5	-2.9	0.5
29	-0.4	0.1	0.0	-0.4	-0.2	-0.4	0.3	1.7	2.4	3.0	3.4	4.2	5.7	6.3	6.4	7.3	6.9	6.2	6.2	5.3	3.4	1.8	0.9	0.7	7.3	-0.4	2.9
30	0.7	0.6	0.7	0.7	0.2	0.7	0.8	1.8	3.2	5.1	6.4	7.1	7.6	7.8	8.0	8.6	8.4	8.2	7.7	6.6	5.6	5.1	4.9	4.3	8.6	0.2	4.6
Max.	**4.3**	**4.9**	**3.3**	**3.2**	**3.1**	**3.0**	**3.4**	**3.8**	**4.4**	**5.1**	**6.4**	**7.7**	**8.7**	**9.6**	**9.9**	**9.4**	**9.5**	**9.3**	**9.3**	**8.9**	**7.7**	**6.3**	**6.0**	**6.6**	**9.9**		
Min.	**-4.1**	**-4.0**	**-3.7**	**-3.3**	**-3.1**	**-3.6**	**-4.0**	**-4.5**	**-3.6**	**-3.2**	**-1.7**	**-1.2**	**-0.9**	**-0.9**	**-1.2**	**-1.5**	**-1.6**	**-2.2**	**-2.7**	**-3.1**	**-3.8**	**-4.0**	**-4.3**	**-4.0**		**-4.5**	
Avg.	**-0.1**	**-0.1**	**-0.2**	**-0.2**	**-0.3**	**-0.3**	**-0.2**	**0.0**	**0.5**	**1.0**	**1.8**	**2.4**	**2.8**	**3.0**	**3.1**	**3.1**	**2.9**	**2.5**	**2.0**	**1.3**	**0.8**	**0.5**	**0.4**	**0.2**			**1.1**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 2 meters (deg. C)

May *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	2.8	2.5	2.6	2.1	1.5	1.9	2.0	3.0	4.0	4.3	4.3	5.2	5.6	6.2	6.7	6.1	5.8	5.6	4.3	3.5	3.2	2.7	2.4	3.1	6.7	1.5	3.8
2	3.4	3.3	3.2	2.7	1.5	1.5	2.0	2.2	1.7	2.5	3.2	4.5	4.0	5.3	5.8	5.4	4.9	4.0	3.2	2.2	1.6	1.0	0.1	-0.2	5.8	-0.2	2.9
3	-0.3	-0.4	-0.4	-0.2	-0.7	-0.7	-0.3	0.1	1.0	2.4	4.0	5.2	6.5	7.2	8.2	8.5	7.2	5.9	5.9	4.8	4.1	4.0	3.9	3.2	8.5	-0.7	3.3
4	2.9	2.1	2.0	2.4	2.6	2.3	1.7	1.8	2.9	3.7	4.7	5.2	6.2	6.6	7.6	8.0	7.9	7.1	6.2	5.3	4.9	3.5	2.1	1.5	8.0	1.5	4.2
5	1.6	0.7	-0.7	-0.8	-0.6	-0.6	-0.4	-0.2	-0.2	0.4	1.6	2.3	3.6	4.7	6.2	6.9	7.5	7.5	7.8	6.8	5.6	5.5	4.3	4.2	7.8	-0.8	3.1
6	4.6	4.5	4.2	3.0	2.1	1.9	2.2	1.9	1.7	2.8	3.2	4.0	4.6	4.9	4.9	4.9	4.6	4.1	3.6	3.2	2.6	2.4	2.0	1.6	4.9	1.6	3.3
7	1.3	1.3	0.8	0.3	-0.3	-0.8	0.5	1.2	2.3	3.0	3.3	3.7	4.3	5.1	5.4	5.3	4.1	3.7	3.7	3.4	2.8	2.2	1.7	1.3	5.4	-0.8	2.5
8	1.0	0.7	0.5	0.4	0.2	0.1	0.0	-0.1	0.2	0.5	1.0	1.9	3.1	4.0	5.2	5.6	5.3	5.5	4.8	4.4	3.7	1.6	0.9	0.8	5.6	-0.1	2.1
9	0.9	0.7	-0.1	-0.2	0.1	0.3	0.1	0.0	-0.1	-0.2	-0.2	0.1	0.5	1.1	2.0	3.0	3.5	3.7	3.7	3.2	2.4	1.5	1.5	1.3	3.7	-0.2	1.2
10	1.0	1.1	0.9	0.6	0.4	0.7	1.2	1.2	1.9	2.8	3.6	4.4	4.7	5.4	5.7	5.9	5.4	5.0	4.8	4.5	2.9	2.7	1.7	1.1	5.9	0.4	2.9
11	1.2	0.8	-0.1	-0.1	0.1	0.4	0.9	2.1	2.9	4.2	5.0	5.7	6.1	6.5	6.6	6.6	6.4	5.9	5.2	4.3	2.9	1.1	0.2	-0.2	6.6	-0.2	3.1
12	0.0	-0.3	0.1	-0.2	-0.7	-0.7	0.5	1.6	2.7	3.8	4.7	5.2	5.1	5.4	5.7	5.8	5.5	5.1	4.7	3.4	2.5	1.3	1.3	1.2	5.8	-0.7	2.7
13	1.4	1.3	1.2	1.1	1.1	1.1	1.0	1.3	1.9	2.5	3.2	2.9	3.1	3.5	3.8	4.0	4.0	4.3	4.0	3.6	3.4	3.1	2.9	2.5	4.3	1.0	2.6
14	3.6	3.0	3.2	2.5	3.7	3.8	4.1	4.9	5.6	6.5	6.7	7.5	5.4	5.6	5.5	4.6	4.7	5.1	4.6	3.8	2.9	1.9	1.8	1.3	7.5	1.3	4.3
15	1.2	1.0	0.6	1.0	1.4	1.9	2.3	3.3	4.1	4.5	5.5	6.7	6.6	5.6	6.0	6.1	6.7	6.8	7.1	7.4	7.5	6.1	5.3	4.7	7.5	0.6	4.6
16	4.0	3.8	3.5	3.7	4.0	4.5	5.4	6.7	7.7	9.5	10.7	11.6	11.7	10.8	10.5	11.0	10.9	10.1	9.4	6.5	4.8	3.8	3.0	2.7	11.7	2.7	7.1
17	2.7	2.5	2.3	2.2	2.3	2.3	2.5	2.9	3.6	5.4	7.1	8.1	7.9	8.0	7.8	7.8	7.2	6.8	6.1	4.9	3.8	2.9	2.3	1.7	8.1	1.7	4.6
18	1.6	1.6	1.7	1.5	0.9	1.2	1.6	2.7	4.0	5.3	6.2	6.7	7.1	7.7	7.9	8.4	9.2	9.3	8.4	7.4	6.5	6.0	6.0	5.9	9.3	0.9	5.2
19	5.6	5.0	4.6	4.1	4.0	4.5	5.2	7.0	7.7	7.7	8.3	7.8	7.9	9.3	9.9	10.2	10.1	9.7	9.2	8.2	7.0	6.0	5.3	5.0	10.2	4.0	7.1
20	4.5	3.5	2.6	1.7	2.4	1.9	2.6	3.5	4.8	4.9	6.2	7.4	8.5	9.0	8.6	9.1	9.1	9.0	9.0	8.2	7.2	5.4	4.6	4.0	9.1	1.7	5.7
21	3.9	3.7	3.2	3.2	3.4	3.4	4.1	4.8	5.9	7.4	8.6	9.4	9.9	10.7	11.0	11.2	11.0	10.2	9.3	8.1	7.1	5.9	5.3	5.1	11.2	3.2	6.9
22	4.9	4.7	4.5	4.8	4.8	5.0	5.5	5.7	6.4	4.7	4.7	6.8	8.4	6.7	7.3	9.0	9.8	9.2	7.5	5.5	5.0	5.3	5.0	5.1	9.8	4.5	6.1
23	5.3	5.1	5.7	5.6	5.9	7.0	7.6	8.1	8.2	8.8	9.4	8.6	8.7	7.0	6.5	6.6	6.9	6.7	5.7	4.9	4.6	4.0	3.6	3.1	9.4	3.1	6.4
24	2.8	2.6	2.5	2.4	2.4	2.4	2.7	3.4	4.9	5.5	5.7	6.4	7.1	7.9	7.2	5.8	6.1	7.0	8.2	7.4	6.3	6.3	5.3	5.2	8.2	2.4	5.1
25	5.1	5.1	6.7	6.0	5.8	6.5	6.7	5.9	5.8	5.7	5.9	5.7	6.0	6.3	6.4	6.5	6.8	6.8	6.8	6.9	6.7	6.6	6.9	6.9	6.9	5.1	6.3
26	7.1	7.0	4.9	4.4	4.3	4.4	4.8	4.7	4.7	5.3	6.3	6.3	6.6	6.3	5.9	5.5	5.7	5.5	5.1	5.0	4.7	4.1	3.8	3.6	7.1	3.6	5.3
27	3.4	2.9	2.9	2.8	2.9	2.9	3.2	3.4	4.9	6.6	7.1	7.6	8.2	8.8	8.6	8.2	8.3	8.2	7.6	6.7	5.4	3.7	2.9	2.3	8.8	2.3	5.4
28	2.6	2.6	2.5	2.5	1.8	2.1	3.1	3.6	4.8	6.3	7.0	7.1	7.4	8.2	8.1	7.4	7.1	6.1	5.7	5.2	4.3	3.2	2.1	2.3	8.2	1.8	4.7
29	2.5	2.2	1.9	1.5	0.8	1.5	2.8	4.5	6.5	7.5	8.2	8.8	9.6	9.8	9.4	9.4	9.3	10.0	8.8	8.3	6.8	5.2	5.0	5.0	10.0	0.8	6.1
30	5.0	5.0	5.2	4.5	3.8	3.7	4.7	5.7	6.7	7.8	8.4	9.3	9.4	9.8	10.2	10.3	9.3	8.0	7.1	6.3	5.8	4.8	4.2	3.9	10.3	3.7	6.6
31	3.8	4.1	4.8	5.5	5.1	5.0	5.3	5.2	4.3	5.0	6.9	7.1	7.3	7.8	7.7	8.4	8.8	8.5	7.5	6.7	6.3	5.9	5.4	5.3	8.8	3.8	6.2
Max.	**7.1**	**7.0**	**6.7**	**6.0**	**5.9**	**7.0**	**7.6**	**8.1**	**8.2**	**9.5**	**10.7**	**11.6**	**11.7**	**10.8**	**11.0**	**11.2**	**11.0**	**10.2**	**9.4**	**8.3**	**7.5**	**6.6**	**6.9**	**6.9**	**11.7**		
Min.	**-0.3**	**-0.4**	**-0.7**	**-0.8**	**-0.7**	**-0.8**	**-0.4**	**-0.2**	**-0.2**	**-0.2**	**-0.2**	**0.1**	**0.5**	**1.1**	**2.0**	**3.0**	**3.5**	**3.7**	**3.2**	**2.2**	**1.6**	**1.0**	**0.1**	**-0.2**		**-0.8**	
Avg.	**3.0**	**2.7**	**2.5**	**2.3**	**2.2**	**2.3**	**2.8**	**3.3**	**4.0**	**4.7**	**5.5**	**6.1**	**6.5**	**6.8**	**7.0**	**7.1**	**7.1**	**6.8**	**6.3**	**5.5**	**4.7**	**3.9**	**3.3**	**3.1**			**4.6**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 2 meters (deg. C)

June *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	4.6	3.7	3.8	3.7	4.0	4.0	4.4	5.8	6.8	7.2	7.5	7.8	8.5	7.8	8.8	8.3	7.6	6.3	5.8	5.8	5.2	4.4	4.2	4.2	8.8	3.7	5.9
2	4.1	4.0	3.9	3.6	3.7	3.8	4.0	4.3	4.5	5.2	5.8	6.8	7.9	8.6	8.9	9.1	9.4	9.8	9.6	9.0	8.2	6.9	5.6	5.4	9.8	3.6	6.3
3	5.6	4.9	4.6	4.1	4.2	4.5	4.9	5.7	6.6	7.1	7.6	8.7	9.6	9.9	10.8	12.2	12.7	11.8	12.0	11.4	11.3	10.2	9.2	7.7	12.7	4.1	8.2
4	7.3	6.7	6.5	6.9	6.9	7.2	7.5	7.5	7.5	8.1	8.4	8.8	9.8	10.3	9.8	9.2	9.7	8.3	6.6	6.0	5.4	5.1	4.6	4.5	10.3	4.5	7.4
5	4.3	4.3	4.2	4.0	4.0	4.2	4.7	4.7	4.9	5.3	6.0	7.1	7.8	7.3	7.3	8.2	8.0	7.3	6.8	7.2	6.5	5.8	5.6	5.0	8.2	4.0	5.8
6	4.5	4.4	4.6	4.7	4.7	4.7	5.0	6.6	8.2	10.3	11.5	10.9	10.7	10.6	10.1	9.4	8.8	8.6	8.6	6.6	5.4	4.3	4.1	4.4	11.5	4.1	7.1
7	4.2	5.3	5.3	4.4	4.8	6.7	6.2	7.2	9.0	10.3	9.9	9.5	9.6	8.9	9.4	8.0	6.9	6.5	5.8	5.9	5.2	4.2	3.2	2.9	10.3	2.9	6.6
8	2.9	2.8	3.0	3.2	2.9	3.8	4.3	5.1	5.2	6.2	7.3	8.4	9.1	8.1	7.4	7.6	8.5	6.7	6.3	5.8	4.8	3.9	3.2	2.4	9.1	2.4	5.4
9	1.7	2.0	2.3	2.2	2.1	2.5	2.4	3.9	5.1	6.4	7.4	8.2	8.6	8.3	8.4	9.1	9.1	9.0	9.4	9.6	9.0	8.2	7.8	7.8	9.6	1.7	6.3
10	7.9	7.7	7.4	7.2	6.8	8.1	8.1	9.0	9.7	11.2	13.4	15.2	16.4	17.5	18.5	19.1	19.7	19.4	19.8	17.7	12.8	9.2	7.5	6.7	19.8	6.7	12.3
11	5.8	5.2	4.6	4.5	4.3	4.4	4.6	5.2	6.0	6.7	7.8	9.5	11.5	12.6	12.4	11.4	9.9	8.8	8.0	6.8	5.4	4.8	4.5	4.3	12.6	4.3	7.0
12	4.2	4.2	4.2	4.1	4.0	3.7	4.1	4.4	4.7	4.9	4.9	5.2	5.5	5.8	6.1	7.2	7.9	8.2	8.3	8.1	7.6	6.4	5.7	5.6	8.3	3.7	5.6
13	5.3	5.4	5.4	5.5	5.0	4.7	5.8	7.0	7.7	8.3	8.9	9.4	9.2	9.5	10.4	11.2	9.6	9.4	9.9	9.7	9.3	9.0	8.7	8.3	11.2	4.7	8.0
14	7.9	7.7	7.1	7.1	7.0	7.1	7.7	8.7	9.7	10.8	11.7	12.6	12.8	13.0	11.7	11.9	12.1	12.3	12.8	12.8	12.5	12.1	12.1	11.4	13.0	7.0	10.5
15	10.6	10.3	9.8	9.8	9.9	9.5	9.9	10.9	12.0	13.9	15.4	16.5	17.6	18.6	19.4	19.3	20.1	19.9	19.4	18.9	17.8	16.3	14.5	12.2	20.1	9.5	14.7
16	11.3	10.4	9.3	8.4	8.6	9.1	9.6	10.8	12.1	13.7	14.5	15.4	15.8	16.0	16.0	16.0	15.3	14.7	13.2	12.0	11.1	10.3	9.2	7.5	16.0	7.5	12.1
17	6.3	5.2	4.4	4.0	3.8	3.7	3.9	4.2	4.7	5.4	6.2	6.3	6.9	7.9	8.6	9.8	10.5	9.0	8.7	9.1	9.2	8.9	8.5	7.8	10.5	3.7	6.8
18	7.7	7.6	7.6	7.2	6.1	5.8	7.1	8.1	9.1	9.6	9.7	10.1	11.1	12.9	13.9	14.2	13.4	13.5	12.2	11.6	9.9	9.3	9.3	9.2	14.2	5.8	9.8
19	9.1	9.1	8.2	8.9	9.1	9.0	9.5	10.9	12.4	13.7	15.2	16.5	17.7	18.8	19.8	20.3	21.0	21.2	21.2	20.9	20.0	18.7	17.3	16.3	21.2	8.2	15.2
20	14.7	14.1	13.1	13.0	12.3	12.7	13.5	14.4	15.7	17.5	18.9	20.2	21.1	21.7	22.2	22.5	22.4	22.1	21.5	19.8	18.4	16.6	14.9	14.2	22.5	12.3	17.4
21	13.7	13.2	12.0	12.4	11.7	11.2	11.5	12.4	13.2	14.3	15.4	15.7	16.6	17.1	17.3	17.8	17.9	17.5	16.5	15.3	12.8	11.2	9.4	7.4	17.9	7.4	13.9
22	6.5	6.0	5.6	5.1	4.7	4.7	5.0	5.3	5.5	6.0	6.3	6.6	6.7	7.0	7.4	7.3	7.4	7.4	7.3	7.2	7.1	6.9	6.8	6.7	7.4	4.7	6.3
23	6.5	6.3	6.5	6.3	6.2	6.1	6.3	6.3	6.4	6.5	6.4	6.4	6.5	6.5	6.5	6.5	6.4	6.2	6.0	6.0	6.0	6.0	5.7	5.6	6.5	5.6	6.3
24	5.5	5.5	5.3	5.4	5.5	5.9	6.2	6.7	6.8	7.3	7.6	7.5	7.4	7.9	7.5	7.6	7.4	7.7	7.5	7.2	6.9	6.5	6.4	6.3	7.9	5.3	6.7
25	6.0	5.7	5.7	5.6	5.6	5.8	6.1	6.6	7.5	8.3	8.1	8.0	8.0	8.3	9.0	8.7	8.9	8.8	8.2	8.2	7.4	6.3	5.5	5.2	9.0	5.2	7.1
26	4.8	4.5	4.9	5.4	5.7	6.2	6.9	7.9	9.0	9.7	10.4	10.5	11.7	12.4	13.3	13.6	13.6	14.0	14.3	13.9	12.9	10.9	9.9	9.4	14.3	4.5	9.8
27	8.8	8.2	7.4	7.3	7.3	7.7	8.9	10.4	11.8	12.7	13.4	13.6	14.8	15.5	15.5	16.9	16.8	16.7	15.9	14.6	12.8	10.8	9.7	8.9	16.9	7.3	11.9
28	8.3	8.1	7.4	7.0	7.1	7.0	7.0	7.3	7.7	8.5	8.9	8.7	9.0	10.1	10.9	10.7	10.6	11.1	11.8	11.6	10.9	10.1	9.2	8.9	11.8	7.0	9.1
29	8.8	8.8	8.7	8.1	7.7	7.6	8.3	9.4	10.5	11.6	12.6	13.0	13.6	13.9	14.0	14.6	13.8	13.3	13.1	12.1	11.1	9.7	8.6	7.9	14.6	7.6	10.9
30	8.3	8.4	8.3	8.3	8.3	8.2	8.0	7.7	7.6	7.8	7.8	8.6	10.0	10.6	11.6	12.1	12.0	11.8	11.8	11.3	9.3	9.2	8.6	8.4	12.1	7.6	9.3
Max.	**14.7**	**14.1**	**13.1**	**13.0**	**12.3**	**12.7**	**13.5**	**14.4**	**15.7**	**17.5**	**18.9**	**20.2**	**21.1**	**21.7**	**22.2**	**22.5**	**22.4**	**22.1**	**21.5**	**20.9**	**20.0**	**18.7**	**17.3**	**16.3**	**22.5**		
Min.	**1.7**	**2.0**	**2.3**	**2.2**	**2.1**	**2.5**	**2.4**	**3.9**	**4.5**	**4.9**	**4.9**	**5.2**	**5.5**	**5.8**	**6.1**	**6.5**	**6.4**	**6.2**	**5.8**	**5.8**	**4.8**	**3.9**	**3.2**	**2.4**		**1.7**	
Avg.	**6.9**	**6.7**	**6.4**	**6.2**	**6.1**	**6.3**	**6.7**	**7.5**	**8.3**	**9.1**	**9.8**	**10.4**	**11.0**	**11.4**	**11.8**	**12.0**	**11.9**	**11.6**	**11.3**	**10.7**	**9.7**	**8.7**	**8.0**	**7.4**			**9.0**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 2 meters (deg. C)

July *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	8.5	8.7	8.7	8.4	7.3	7.9	8.7	9.5	10.6	12.0	12.4	12.8	13.8	14.0	14.4	14.5	14.2	14.1	13.8	13.4	12.4	10.4	9.7	9.7	14.5	7.3	11.2
2	9.4	9.0	8.3	8.3	8.4	8.7	9.0	10.1	11.7	13.6	14.4	15.0	15.4	15.5	16.2	16.0	16.5	16.9	17.1	16.7	16.0	15.1	13.7	13.4	17.1	8.3	13.1
3	13.0	12.5	11.5	10.8	10.4	10.3	10.5	10.9	11.7	12.4	13.6	14.4	15.0	15.6	16.4	17.1	16.4	15.6	13.0	12.2	11.7	11.2	10.9	10.0	17.1	10.0	12.8
4	9.2	8.7	8.6	8.3	8.1	8.3	8.5	9.1	9.8	10.5	11.2	11.9	11.6	11.7	12.8	13.1	12.1	11.3	11.4	11.8	11.7	11.0	9.7	9.3	13.1	8.1	10.4
5	8.8	8.5	8.5	8.4	8.6	9.2	9.5	10.2	11.7	12.8	13.6	14.5	14.3	14.4	14.7	14.1	13.1	13.0	9.8	8.9	8.6	8.4	8.3	8.3	14.7	8.3	10.8
6	8.8	8.8	8.7	8.6	8.6	8.6	8.8	9.0	9.2	9.4	9.5	9.8	10.8	11.4	12.5	13.3	13.9	14.0	14.2	14.2	13.8	13.4	11.5	11.1	14.2	8.6	10.9
7	10.5	10.5	10.1	9.8	9.7	10.2	10.5	11.5	13.4	14.5	15.0	15.4	15.7	16.1	16.7	16.9	17.2	16.9	14.8	13.7	12.7	11.5	10.8	10.3	17.2	9.7	13.1
8	10.0	9.8	9.7	9.6	9.5	9.9	9.4	9.7	10.1	10.4	10.5	10.6	11.0	11.4	11.4	11.4	11.6	12.1	11.8	11.4	10.0	8.9	8.4	7.8	12.1	7.8	10.3
9	7.1	6.4	6.4	6.7	6.8	7.4	7.7	8.3	8.9	9.7	10.7	11.6	13.0	13.1	14.3	14.1	13.8	14.3	13.6	13.2	12.7	12.1	11.3	10.1	14.3	6.4	10.6
10	9.3	9.2	8.9	9.2	8.9	10.2	10.3	11.8	13.1	14.4	14.4	15.1	14.7	14.0	15.0	15.1	13.4	12.4	11.5	10.8	10.3	9.7	9.0	8.9	15.1	8.9	11.6
11	8.7	8.7	9.1	8.9	8.8	8.5	8.4	9.1	10.6	11.7	13.3	14.1	14.9	15.4	15.3	15.4	15.8	15.6	14.9	14.1	13.0	10.9	10.2	9.7	15.8	8.4	11.9
12	9.2	9.0	9.3	8.8	8.7	9.5	10.0	11.4	12.5	13.5	13.6	14.1	14.9	14.6	12.3	12.3	10.4	10.1	10.3	10.4	10.3	9.8	9.5	9.3	14.9	8.7	11.0
13	8.9	8.6	8.3	8.1	8.0	8.0	8.1	8.2	8.3	8.4	8.7	8.7	8.9	9.1	9.4	9.7	9.8	10.3	10.1	9.9	9.9	9.7	9.2	8.7	10.3	8.0	9.0
14	8.4	8.4	8.3	8.2	8.1	8.1	8.3	8.4	8.7	9.5	10.5	11.1	11.6	12.0	11.2	11.0	11.1	10.8	10.5	10.1	10.0	9.7	9.4	9.2	12.0	8.1	9.7
15	8.8	8.8	8.7	8.6	8.5	8.6	8.7	9.1	9.5	10.1	11.5	12.0	12.6	13.4	13.4	13.2	13.1	13.1	12.7	12.1	11.1	10.3	9.9	8.9	13.4	8.5	10.7
16	8.4	8.2	8.0	7.5	7.1	7.3	7.8	9.1	9.7	10.8	12.4	13.8	14.5	15.0	15.1	15.8	16.1	16.5	16.8	16.7	15.4	13.8	11.9	10.9	16.8	7.1	12.0
17	10.1	10.4	9.3	9.3	8.9	8.9	10.4	11.7	13.2	14.6	15.4	16.1	16.9	17.2	18.1	18.6	18.4	15.6	13.7	12.1	11.2	10.0	9.5	9.6	18.6	8.9	12.9
18	9.4	9.3	9.2	9.1	9.0	9.0	9.3	10.0	10.6	11.3	11.8	13.0	14.0	13.9	11.5	12.4	12.0	11.2	11.0	11.5	11.7	11.5	11.2	10.7	14.0	9.0	11.0
19	10.5	10.0	9.6	10.1	9.3	8.5	8.4	9.1	10.7	12.2	13.0	14.0	15.2	15.0	14.9	14.6	14.9	14.6	14.9	14.6	14.1	13.7	13.5	13.8	15.2	8.4	12.5
20	13.4	13.4	13.2	12.6	12.9	12.6	13.4	12.9	13.4	14.5	14.9	15.1	16.1	17.6	18.0	17.7	17.4	17.2	16.5	16.3	14.3	12.7	11.8	10.5	18.0	10.5	14.5
21	9.9	9.6	9.3	8.7	8.3	7.9	7.8	7.9	7.8	7.8	8.4	8.7	8.8	9.6	9.9	9.9	9.8	8.7	8.3	8.1	7.6	7.1	6.7	6.9	9.9	6.7	8.5
22	6.9	6.9	6.8	6.8	6.8	6.7	6.7	6.8	6.8	6.8	7.0	7.3	7.4	7.7	7.7	7.8	8.1	7.8	7.6	7.4	7.3	7.3	7.3	7.3	8.1	6.7	7.2
23	7.5	7.5	7.0	7.0	7.0	7.0	7.1	7.4	7.7	8.1	8.4	8.7	8.7	9.0	8.9	8.8	8.7	8.8	8.6	8.6	8.1	8.2	8.1	8.1	9.0	7.0	8.0
24	8.0	8.3	8.4	8.2	8.1	8.0	8.2	8.4	9.1	9.8	10.2	10.1	10.4	10.6	10.8	11.3	11.9	11.4	11.4	11.3	11.0	11.2	11.3	10.8	11.9	8.0	9.9
25	10.7	10.8	11.0	11.3	11.4	11.3	11.9	13.0	13.7	14.6	14.7	15.5	15.9	16.4	16.1	15.7	15.3	15.3	14.9	14.9	14.4	13.7	13.4	13.1	16.4	10.7	13.7
26	12.8	11.8	11.4	11.4	11.0	10.2	11.2	12.2	12.8	13.5	15.5	17.3	18.2	19.3	18.9	17.6	19.1	20.1	19.2	18.4	17.6	16.7	15.9	14.1	20.1	10.2	15.3
27	14.5	15.3	15.0	12.9	13.6	14.7	15.0	15.6	15.8	17.3	18.6	18.6	19.8	20.4	21.3	22.1	22.6	21.3	20.6	19.2	17.6	16.0	16.0	16.8	22.6	12.9	17.5
28	15.8	14.5	11.8	11.1	10.6	10.3	10.1	10.1	10.1	10.5	10.8	12.7	15.3	16.4	17.4	17.8	17.6	17.7	17.2	15.6	13.4	11.7	11.1	10.9	17.8	10.1	13.3
29	10.7	10.6	10.6	10.3	10.2	9.9	10.8	10.9	11.7	12.7	14.0	15.8	16.8	17.1	17.9	18.5	18.7	18.6	18.5	17.1	16.9	15.5	13.6	13.2	18.7	9.9	14.2
30	13.5	13.3	12.5	11.2	11.0	10.8	10.7	10.8	11.1	10.7	10.9	11.1	12.2	12.7	14.0	14.4	14.6	14.1	13.1	12.8	12.1	11.4	10.5	10.0	14.6	10.0	12.1
31	9.8	9.6	9.2	9.0	8.7	8.4	8.5	9.0	9.4	9.7	10.1	10.6	11.4	12.8	13.5	13.7	13.5	12.6	11.2	10.6	10.1	9.4	9.3	9.2	13.7	8.4	10.4
Max.	**15.8**	**15.3**	**15.0**	**12.9**	**13.6**	**14.7**	**15.0**	**15.6**	**15.8**	**17.3**	**18.6**	**18.6**	**19.8**	**20.4**	**21.3**	**22.1**	**22.6**	**21.3**	**20.6**	**19.2**	**17.6**	**16.7**	**16.0**	**16.8**	**22.6**		
Min.	**6.9**	**6.4**	**6.4**	**6.7**	**6.8**	**6.7**	**6.7**	**6.8**	**6.8**	**6.8**	**7.0**	**7.3**	**7.4**	**7.7**	**7.7**	**7.8**	**8.1**	**7.8**	**7.6**	**7.4**	**7.3**	**7.1**	**6.7**	**6.9**		**6.4**	
Avg.	**10.0**	**9.8**	**9.5**	**9.3**	**9.1**	**9.2**	**9.5**	**10.0**	**10.7**	**11.5**	**12.2**	**12.9**	**13.5**	**13.9**	**14.2**	**14.3**	**14.2**	**13.9**	**13.3**	**12.8**	**12.2**	**11.4**	**10.7**	**10.3**			**11.6**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 2 meters (deg. C)

August *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	9.2	9.2	9.1	9.1	9.1	8.9	8.9	8.8	8.9	9.1	9.6	10.2	9.7	10.0	10.0	10.0	9.7	9.2	9.2	9.2	9.0	8.8	8.9	8.9	10.2	8.8	9.3
2	8.8	8.8	8.8	8.7	8.7	8.9	9.0	8.8	8.9	9.2	9.1	9.1	9.1	9.3	9.4	9.5	9.2	9.3	9.6	9.8	9.9	9.6	9.5	9.4	9.9	8.7	9.2
3	9.2	9.3	9.1	9.0	8.9	8.8	8.9	9.2	9.5	9.8	10.1	10.3	10.9	10.9	11.5	11.7	11.4	11.0	10.4	9.8	9.4	9.3	9.3	9.3	11.7	8.8	9.9
4	9.3	9.3	9.2	9.2	9.2	9.3	9.3	9.4	9.4	9.4	9.6	9.7	10.0	10.0	10.0	10.0	10.0	10.2	10.3	10.1	10.0	10.0	9.9	10.1	10.3	9.2	9.7
5	10.1	10.2	10.1	9.7	9.6	9.8	9.9	10.5	10.9	10.6	10.5	10.4	9.8	9.5	9.4	9.7	10.0	10.1	10.4	10.6	10.4	9.9	9.6	9.0	10.9	9.0	10.0
6	8.4	7.9	7.6	7.3	7.2	8.2	9.6	10.2	10.5	11.5	11.7	12.4	13.0	13.9	14.3	13.0	12.6	13.2	12.8	12.8	11.4	10.5	9.5	8.9	14.3	7.2	10.8
7	8.7	8.2	8.6	9.1	8.8	8.0	8.4	9.6	10.8	11.8	12.7	13.0	13.6	14.5	15.6	15.9	16.3	16.2	15.7	15.1	14.2	13.0	11.5	10.3	16.3	8.0	12.1
8	10.2	9.2	9.4	8.9	9.0	8.9	9.4	9.8	10.4	12.0	14.1	15.0	16.2	16.5	17.2	17.4	17.6	18.0	17.4	16.2	15.0	13.5	12.6	12.7	18.0	8.9	13.2
9	11.8	11.1	11.4	11.5	10.8	9.9	10.6	12.2	13.3	14.5	15.8	16.8	17.5	18.7	18.3	18.8	18.6	18.0	18.0	17.2	15.9	15.5	15.3	13.9	18.8	9.9	14.8
10	13.4	13.8	14.0	13.9	13.9	13.4	12.6	13.4	15.0	16.4	17.6	18.5	19.3	20.1	20.7	20.8	20.8	20.3	20.0	18.5	16.8	16.3	15.4	15.2	20.8	12.6	16.7
11	14.2	14.0	12.3	12.1	12.1	12.3	12.8	13.0	13.9	14.5	15.1	16.5	17.6	17.5	17.2	18.0	18.2	17.3	17.0	16.5	15.9	15.5	15.1	14.9	18.2	12.1	15.1
12	15.0	14.8	14.1	13.7	13.3	13.4	13.2	13.3	13.4	13.9	14.1	15.2	16.7	18.8	19.0	21.3	22.5	23.0	22.9	21.9	20.4	18.5	17.7	17.0	23.0	13.2	17.0
13	16.8	16.7	16.1	15.8	16.3	15.6	15.1	15.7	16.5	17.8	18.6	19.4	19.9	20.9	20.8	21.3	21.6	21.5	19.8	19.0	17.5	15.7	13.7	12.6	21.6	12.6	17.7
14	11.4	9.5	8.3	7.5	7.2	7.5	7.8	8.0	8.1	7.9	8.0	8.4	8.7	9.4	9.7	9.8	9.5	9.5	9.3	9.6	9.3	8.6	8.3	8.2	11.4	7.2	8.7
15	8.2	8.3	8.4	8.5	8.9	9.1	9.3	9.4	9.8	10.3	11.2	11.3	11.5	11.9	12.2	11.9	11.9	11.6	11.3	11.4	10.9	10.5	10.3	9.8	12.2	8.2	10.3
16	9.6	9.3	9.0	8.2	7.6	7.6	7.6	8.1	10.2	10.9	11.3	13.4	15.1	16.4	16.9	17.8	17.5	15.4	15.0	13.7	12.0	11.8	11.6	11.5	17.8	7.6	12.0
17	11.1	10.4	10.0	9.4	9.5	9.3	9.2	9.5	10.7	12.1	12.0	12.1	12.4	13.9	12.9	12.9	12.4	12.3	11.4	10.8	10.1	9.9	9.6	9.1	13.9	9.1	11.0
18	9.5	9.5	9.1	8.9	8.9	9.0	8.9	8.8	9.1	9.3	9.2	9.2	9.3	9.8	10.5	11.2	11.4	11.2	11.0	10.9	10.9	10.8	10.7	10.8	11.4	8.8	9.9
19	10.7	10.8	10.4	10.4	10.3	10.0	10.6	11.0	11.5	11.8	12.4	12.9	12.7	12.7	13.3	13.3	12.5	12.2	11.2	10.6	10.4	10.2	10.1	9.8	13.3	9.8	11.3
20	9.5	9.2	9.0	9.1	9.1	9.1	9.1	9.0	9.0	9.5	9.8	10.5	10.8	11.2	11.5	12.1	12.2	12.5	11.6	10.8	9.4	9.1	9.1	9.3	12.5	9.0	10.1
21	9.3	9.2	8.8	8.5	8.6	8.3	8.2	8.3	8.4	8.7	9.0	9.2	9.3	9.5	10.1	10.6	10.5	10.7	10.6	10.2	9.6	9.2	8.8	8.7	10.7	8.2	9.3
22	9.0	8.9	9.0	8.7	8.7	8.7	8.7	8.6	8.7	9.0	9.4	9.7	9.8	9.7	9.5	9.6	9.7	9.6	9.4	9.0	8.8	8.6	8.6	8.6	9.8	8.6	9.1
23	8.6	8.8	9.0	8.6	8.8	8.5	8.3	8.2	8.5	9.4	10.4	11.1	11.5	12.1	12.4	12.4	12.5	12.4	12.2	11.8	11.5	11.5	11.6	11.9	12.5	8.2	10.5
24	11.9	11.7	11.3	11.0	10.4	10.4	10.5	10.4	10.7	11.4	12.1	13.0	14.3	14.8	14.0	13.5	14.7	14.3	12.4	12.0	12.0	11.3	10.3	10.6	14.8	10.3	12.0
25	10.6	10.5	10.6	10.1	9.5	9.3	9.0	9.0	9.1	9.4	9.9	10.3	11.2	13.0	14.4	15.3	15.8	15.3	14.0	12.4	10.6	9.8	9.4	9.7	15.8	9.0	11.2
26	9.8	9.3	8.7	8.9	9.1	9.4	9.6	9.5	10.2	10.9	12.1	12.8	12.9	13.5	14.2	13.9	13.7	13.5	12.7	11.7	11.4	11.0	10.8	11.1	14.2	8.7	11.3
27	11.4	10.8	9.9	10.4	9.0	8.8	9.2	10.2	12.2	12.8	14.3	15.7	15.5	15.4	15.6	16.1	15.7	15.6	15.2	14.9	14.2	12.7	12.0	12.3	16.1	8.8	12.9
28	11.9	10.4	10.3	9.8	10.7	9.7	9.8	9.9	10.9	13.1	14.5	15.2	16.2	17.0	17.4	17.5	17.8	18.2	17.0	15.4	14.3	13.4	12.5	12.5	18.2	9.7	13.6
29	11.3	11.4	11.7	10.9	10.6	10.7	10.5	10.5	10.7	10.7	11.5	12.3	13.6	14.9	15.3	15.6	15.6	15.4	15.1	14.0	13.0	12.3	11.2	10.8	15.6	10.5	12.5
30	9.6	9.6	9.0	8.3	7.9	8.5	8.7	8.9	9.9	11.3	12.1	12.7	13.0	13.5	14.2	14.7	14.7	15.2	14.8	13.7	11.7	10.9	10.1	9.7	15.2	7.9	11.4
31	9.6	8.6	8.4	8.6	7.4	7.2	7.3	7.0	8.4	10.2	10.7	12.6	14.4	14.6	14.7	13.8	13.2	13.5	13.0	12.7	11.4	10.1	10.2	11.0	14.7	7.0	10.8
Max.	**16.8**	**16.7**	**16.1**	**15.8**	**16.3**	**15.6**	**15.1**	**15.7**	**16.5**	**17.8**	**18.6**	**19.4**	**19.9**	**20.9**	**20.8**	**21.3**	**22.5**	**23.0**	**22.9**	**21.9**	**20.4**	**18.5**	**17.7**	**17.0**	**23.0**		
Min.	**8.2**	**7.9**	**7.6**	**7.3**	**7.2**	**7.2**	**7.3**	**7.0**	**8.1**	**7.9**	**8.0**	**8.4**	**8.7**	**9.3**	**9.4**	**9.5**	**9.2**	**9.2**	**9.2**	**9.0**	**8.8**	**8.6**	**8.3**	**8.2**		**7.0**	
Avg.	**10.6**	**10.3**	**10.0**	**9.8**	**9.6**	**9.6**	**9.7**	**9.9**	**10.6**	**11.3**	**11.9**	**12.5**	**13.1**	**13.7**	**13.9**	**14.2**	**14.2**	**14.1**	**13.6**	**13.0**	**12.2**	**11.5**	**11.1**	**10.9**			**11.7**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 2 meters (deg. C)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	11.3	10.5	10.4	9.8	9.1	8.6	8.3	8.3	8.5	8.7	9.0	9.3	9.8	10.5	11.2	12.0	12.7	12.4	11.3	9.6	8.2	7.6	7.5	7.7	12.7	7.5	9.7
2	8.0	8.1	8.1	8.0	7.8	8.0	8.2	8.4	9.0	9.4	10.3	11.1	11.4	12.3	12.6	11.9	11.2	10.6	10.2	9.5	8.9	8.6	8.5	8.4	12.6	7.8	9.5
3	8.6	8.5	8.5	8.6	8.6	8.5	8.3	8.3	8.2	8.5	8.8	8.8	8.8	8.5	8.4	8.2	8.0	7.8	7.6	7.5	7.4	7.4	7.4	7.3	8.8	7.3	8.2
4	7.3	7.6	7.8	7.7	7.8	8.0	7.3	7.4	8.8	10.4	10.9	11.8	12.7	13.7	13.8	14.1	13.0	12.6	12.5	10.6	10.6	10.3	10.3	9.8	14.1	7.3	10.3
5	10.1	10.0	10.0	9.7	9.2	8.4	9.3	9.0	8.4	9.7	11.3	11.3	13.2	13.9	14.4	12.9	9.7	8.4	8.6	8.8	9.3	9.3	9.2	8.8	14.4	8.4	10.1
6	8.5	7.8	7.3	7.2	7.6	7.2	6.8	7.2	7.6	8.4	8.8	9.1					10.7	10.5	10.0	9.5	9.1	7.7	7.2	7.2	10.7	6.8	8.3
7	7.4	7.6	7.6	7.7	7.7	7.9	7.9	7.9	8.1	8.5	8.6	8.6	8.9	9.0	9.2	9.5	9.7	9.3	9.2	8.4	8.2	8.4	8.7	8.8	9.7	7.4	8.5
8	8.9	8.8	9.1	9.2	9.4	9.6	9.7	10.0	10.1	10.2	10.0	10.1	10.2	10.2	10.5	10.7	10.8	11.4	11.3	11.2	11.0	10.5	10.0	9.8	11.4	8.8	10.1
9	9.5	9.2	8.9	9.0	9.1	9.0	9.0	9.1	9.0	9.0	9.3	9.6	9.6	10.3	10.4	10.9	11.1	11.4	11.0	10.6	9.8	9.3	9.3	9.5	11.4	8.9	9.7
10	9.0	9.1	9.3	8.9	8.7	8.7	8.6	8.8	8.3	9.0	9.9	10.7	11.1	11.0	11.1	11.2	10.9	11.2	10.7	9.8	9.2	8.7	8.8	8.8	11.2	8.3	9.7
11	8.4	8.5	8.8	8.8	8.8	8.5	8.5	8.4	8.5	8.9	9.3	8.7	8.7	8.4	7.9	7.8	7.8	7.9	7.6	7.5	7.5	7.8	8.1	8.3	9.3	7.5	8.3
12	8.3	8.3	8.2	8.1	8.0	8.2	7.9	7.5	7.8	7.7	8.1	9.2	10.4	11.2	11.8	12.1	12.1	9.7	8.4	8.0	7.8	7.5	7.7	7.5	12.1	7.5	8.8
13	7.3	7.2	6.8	6.9	7.0	7.2	7.0	6.9	7.0	7.2	7.3	7.2	7.5	8.4	8.1	8.2	8.1	7.2	7.0	7.2	6.6	6.4	6.2	5.7	8.4	5.7	7.1
14	5.6	5.9	6.0	6.1	5.9	6.0	5.8	5.0	4.4	5.3	6.8	7.5	8.1	8.8	8.9	9.8	10.0	9.7	9.1	9.0	7.7	6.9	6.5	6.2	10.0	4.4	7.1
15	5.9	5.9	5.7	5.3	5.7	5.0	4.4	4.4	3.3	4.4	6.0	7.3	7.8	8.7	9.7	10.3	9.7	8.7	9.6	9.4	7.7	6.8	7.1	7.1	10.3	3.3	6.9
16	6.6	6.2	5.9	5.9	5.6	6.3	6.4	6.6	5.8	5.1	6.9	8.6	9.1	9.3	10.5	11.0	10.9	10.3	10.2	8.9	7.4	7.1	6.7	6.2	11.0	5.1	7.6
17	5.6	5.0	4.5	4.5	4.8	5.1	4.9	5.0	5.2	5.7	6.1	6.5	6.7	7.0	7.8	8.3	8.5	8.8	9.1	8.4	7.4	7.4	7.5	7.9	9.1	4.5	6.6
18	8.0	7.7	6.9	6.8	6.9	7.0	7.2	8.0	8.2	8.4	8.8	9.1	9.5	9.5	9.4	9.0	9.2	9.2	8.9	8.7	8.6	8.4	8.5	9.1	9.5	6.8	8.4
19	9.2	9.1	9.2	9.0	8.3	8.0	8.1	8.1	7.9	8.1	8.2	8.4	8.4	8.5	8.3	8.8	8.2	7.6	7.3	7.1	6.8	6.8	6.7	6.6	9.2	6.6	8.0
20	6.5	6.5	6.5	6.4	6.5	6.5	6.5	6.4	6.4	6.4	6.2	6.4	6.7	7.0	7.4	7.7	8.2	8.9	8.0	7.4	7.2	7.4	6.9	6.3	8.9	6.2	6.9
21	6.2	6.0	5.7	5.9	6.1	6.2	6.7	6.4	6.7	7.1	7.8	8.5	9.0	9.2	9.6	10.0	9.8	10.7	10.0	9.4	7.9	7.0	6.3	5.4	10.7	5.4	7.7
22	5.4	4.6	4.1	4.4	4.5	4.0	3.9	4.6	5.0	5.6	5.6	7.5	7.8	8.8	9.0	8.8	8.7	8.2	7.1	6.2	6.0	5.7	5.5	5.3	9.0	3.9	6.1
23	5.3	5.5	5.5	5.9	5.9	5.8	6.2	5.9	6.0	6.5	6.3	6.9	7.3	7.7	7.8	7.5	7.0	6.5	6.4	6.2	6.0	6.0	6.1	6.2	7.8	5.3	6.4
24	6.2	5.7	5.6	5.8	5.5	4.9	4.6	4.8	5.1	5.3	5.8	6.1	6.6	6.8	7.3	7.7	6.0	6.8	4.9	5.0	5.0	4.9	4.4	3.9	7.7	3.9	5.6
25	3.3	3.2	3.5	3.7	4.1	4.9	5.0	5.1	4.8	4.7	5.1	5.6	6.1	6.5	6.2	6.4	6.2	5.9	5.7	5.2	5.2	5.2	5.0	4.7	6.5	3.2	5.0
26	4.4	4.1	3.9	3.5	3.5	3.3	3.2	3.2	3.0	2.9	3.6	5.0	5.2	5.5	5.8	5.9	6.4	6.3	6.7	6.2	5.6	5.5	5.4	5.5	6.7	2.9	4.7
27	5.0	5.0	4.8	4.9	3.1	3.2	2.5	2.5	2.2	2.5	2.8	3.7	4.3	4.7	5.6	5.6	5.3	5.7	5.7	5.7	5.7	5.6	5.3	5.0	5.7	2.2	4.4
28	5.0	4.6	4.0	3.4	3.1	3.0	3.0	3.2	3.2	3.4	3.7	4.1	4.5	4.6	4.7	5.0	5.3	5.7	5.6	5.1	4.9	4.6	4.7	4.8	5.7	3.0	4.3
29	4.2	4.4	4.1	4.0	3.4	3.8	3.6	3.4	3.4	3.7	4.7	5.1	6.0	6.4	6.8	6.4	6.1	5.9	5.7	5.5	5.3	5.5	5.0	4.5	6.8	3.4	4.9
30	4.2	3.7	2.7	2.6	3.0	3.1	3.2	3.2	3.2	3.3	3.5	4.7	4.8	5.2	4.8	5.2	4.9	5.1	4.5	3.9	3.8	4.0	4.1	4.1	5.2	2.6	4.0
Max.	**11.3**	**10.5**	**10.4**	**9.8**	**9.4**	**9.6**	**9.7**	**10.0**	**10.1**	**10.4**	**11.3**	**11.8**	**13.2**	**13.9**	**14.4**	**14.1**	**13.0**	**12.6**	**12.5**	**11.2**	**11.0**	**10.5**	**10.3**	**9.8**	**14.4**		
Min.	**3.3**	**3.2**	**2.7**	**2.6**	**3.0**	**3.0**	**2.5**	**2.5**	**2.2**	**2.5**	**2.8**	**3.7**	**4.3**	**4.6**	**4.7**	**5.0**	**4.9**	**5.1**	**4.5**	**3.9**	**3.8**	**4.0**	**4.1**	**3.9**		**2.2**	
Avg.	**7.0**	**6.8**	**6.7**	**6.6**	**6.5**	**6.5**	**6.4**	**6.4**	**6.4**	**6.8**	**7.3**	**7.9**	**8.3**	**8.7**	**8.9**	**9.1**	**8.9**	**8.7**	**8.3**	**7.9**	**7.4**	**7.1**	**7.0**	**6.9**			**7.4**

Total Hours in Month 720 **Hours Data Available** 716 **Data Recovery** 99.4%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 2 meters (deg. C)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	3.9	3.7	3.3	3.0	2.9	2.8	2.9	2.7	2.5	3.1	4.0	5.0	5.3	5.4	5.9	6.4	6.4	6.2	4.8	4.8	4.1	3.9	3.9	3.5	6.4	2.5	4.2
2	3.2	2.9	2.4	2.4	2.5	2.3	2.3	2.4	2.4	2.4	2.3	2.6	3.3	4.1	4.4	4.9	5.3	5.4	4.7	3.7	3.5	3.0	2.6	2.1	5.4	2.1	3.2
3	1.6	1.5	1.5	1.5	1.4	1.2	1.5	1.5	1.3	1.3	1.7	2.8	3.6	4.3	4.4	4.5	4.3	4.3	3.9	3.4	2.7	2.3	1.5	1.8	4.5	1.2	2.5
4	0.8	1.4	1.7	1.7	1.6	1.4	1.5	1.8	2.4	2.1	2.0	2.0	2.2	2.4	2.5	2.6	2.6	2.3	1.8	1.6	1.4	1.5	2.0	1.9	2.6	0.8	1.9
5	1.8	1.8	1.5	1.6	1.8	1.8	1.5	1.1	0.9	1.6	1.9	2.0	2.1	2.7	3.6	4.1	3.7	3.6	2.5	2.2	1.6	1.1	0.6	0.2	4.1	0.2	2.0
6	-0.2	-0.6	-1.0	-1.1	-1.3	-1.3	-1.4	-1.7	-2.0	-2.4	-2.5	-2.2	-1.4	-1.0	-0.6	-0.4	-0.7	-0.5	-1.0	-1.6	-2.0	-2.1	-3.0	-3.2	-0.2	-3.2	-1.5
7	-3.8	-4.3	-4.7	-5.2	-5.5	-5.6	-5.5	-5.2	-4.9	-5.0	-4.8	-4.0	-3.3	-2.7	-2.7	-2.4	-2.2	-2.0	-2.9	-3.8	-4.7	-5.2	-5.6	-5.9	-2.0	-5.9	-4.2
8	-5.8	-5.6	-5.6	-6.0	-6.4	-6.5	-6.6	-7.0	-7.5	-7.4	-7.2	-6.0	-5.0	-4.0	-3.2	-2.7	-2.4	-2.6	-3.2	-4.1	-4.5	-4.0	-4.0	-5.4	-2.4	-7.5	-5.1
9	-5.8	-5.4	-5.2	-5.5	-6.1	-7.0	-6.8	-6.5	-7.5	-7.2	-5.7	-3.3	-0.8	0.8	1.3	2.0	1.9	1.0	0.1	-0.8	-1.8	-1.3	0.1	0.0	2.0	-7.5	-2.9
10	0.0	-0.7	-0.3	-0.5	-1.5	-0.3	-0.7	-1.2	-1.8	-2.3	-1.3	-0.3	0.4	0.7	0.9	1.2	0.9	1.0	0.0	-1.5	-2.1	-2.6	-3.3	-3.6	1.2	-3.6	-0.8
11	-4.4	-5.1	-4.7	-4.8	-4.6	-4.7	-4.9	-4.9	-4.1	-3.5	-2.7	-0.9	0.1	0.9	1.7	2.0	1.9	1.3	1.4	1.5	1.6	1.8	1.9	1.8	2.0	-5.1	-1.3
12	2.0	2.1	2.2	2.1	2.2	2.0	1.7	1.6	1.8	0.5	1.2	1.9	2.8	3.5	4.2	4.5	4.7	4.5	4.4	3.1	2.2	1.2	0.9	0.6	4.7	0.5	2.4
13	0.1	-0.2	-0.1	-0.3	-0.8	-1.3	-2.0	-2.7	-2.9	-3.4	-3.7	-3.8	-3.1	-2.6	-1.8	-1.0	-0.6	-1.4	-2.4	-3.3	-3.1	-3.0	-3.2	-3.2	0.1	-3.8	-2.1
14	-3.7	-4.1	-4.3	-4.4	-4.5	-4.6	-5.0	-5.2	-5.6	-6.8	-6.2	-4.6	-3.9	-3.0	-2.5	-2.3	-2.2	-2.7	-3.3	-3.0	-4.2	-5.3	-6.1	-6.0	-2.2	-6.8	-4.3
15	-5.8	-5.3	-4.7	-4.8	-4.8	-5.0	-4.6	-5.4	-4.7	-4.4	-2.6	-1.7	-0.4	1.3	1.3	1.5	1.4	1.2	0.8	-0.4	-0.5	-0.6	-0.7	-1.0	1.5	-5.8	-2.1
16	-1.4	-2.4	-3.1	-3.1	-3.8	-4.6	-5.2	-5.4	-6.1	-6.7	-6.1	-5.1	-4.5	-4.4	-4.2	-3.5	-3.4	-3.7	-4.5	-5.0	-5.0	-5.4	-5.5	-5.6	-1.4	-6.7	-4.5
17	-5.6	-5.6	-5.7	-5.7	-5.8	-5.9	-6.0	-5.9	-6.0	-5.8	-5.6	-5.6	-5.3	-5.0	-4.5	-4.0	-3.9	-4.0	-4.2	-4.2	-4.1	-4.4	-4.6	-4.5	-3.9	-6.0	-5.1
18	-4.5	-4.5	-4.7	-4.8	-4.7	-4.8	-4.8	-4.8	-5.0	-4.8	-4.9	-4.5	-4.5	-4.0	-3.7	-3.4	-3.8	-4.2	-4.4	-4.4	-4.6	-4.7	-5.2	-5.5	-3.4	-5.5	-4.5
19	-5.8	-6.5	-6.9	-6.6	-7.2	-7.0	-6.8	-6.4	-5.7	-5.9	-4.9	-3.7	-3.7	-3.7	-2.5	-2.2	-1.7	-1.9	-2.9	-4.1	-4.5	-4.2	-3.6	-3.6	-1.7	-7.2	-4.7
20	-3.5	-4.3	-4.6	-4.4	-5.1	-6.3	-6.5	-6.1	-5.3	-5.0	-4.7	-5.0	-2.2	-1.7	-0.7	-0.8	-0.3	0.0	0.4	0.5	0.8	1.1	1.4	1.7	1.7	-6.5	-2.5
21	1.6	1.9	2.2	2.3	2.5	2.5	2.2	2.2	2.2	1.8	2.0	2.1	2.2	2.8	2.7	2.2	2.2	1.9	0.8	0.7	0.3	-0.5	-1.0	-1.8	2.8	-1.8	1.6
22	-2.6	-3.4	-3.6	-4.8	-5.3	-6.0	-6.5	-6.9	-6.5	-6.4	-6.2	-6.4	-6.0	-3.9	-3.9	-1.5	-1.3	-1.5	-2.7	-3.2	-3.4	-4.4	-4.8	-4.3	-1.3	-6.9	-4.4
23	-4.8	-5.4	-6.3	-6.0	-5.1	-5.0	-5.3	-5.7	-5.0	-5.2	-5.0	-5.2	-4.8	-4.0	-3.6	-3.4	-3.2	-3.2	-3.8	-4.9	-5.4	-4.7	-4.9	-3.9	-3.2	-6.3	-4.7
24	-3.4	-3.5	-4.3	-5.1	-5.9	-5.1	-5.1	-4.8	-4.3	-3.6	-3.4	-2.6	-1.5	-0.5	0.1	-0.2	-0.3	-0.3	0.0	0.2	0.4	0.6	1.0	1.2	1.2	-5.9	-2.1
25	1.2	1.3	1.7	2.2	2.4	2.1	1.5	1.9	2.1	1.8	1.7	1.7	2.0	2.1	2.1	2.0	1.6	1.4	1.4	1.3	0.9	1.3	1.1	1.2	2.4	0.9	1.7
26	1.4	1.4	1.6	1.5	1.5	1.6	1.3	1.6	1.6	1.7	1.9	2.1	2.4	2.9	3.2	3.4	3.4	3.1	2.8	2.8	2.5	2.5	2.4	2.4	3.4	1.3	2.2
27	2.3	2.3	2.2	1.9	2.0	2.0	2.1	2.0	1.3	1.3	1.7	2.2	2.9	3.2	2.9	2.1	2.0	2.5	2.3	1.9	2.0	2.1	2.1	2.0	3.2	1.3	2.1
28	1.9	2.0	1.7	1.9	1.9	1.9	1.4	1.3	1.2	1.2	0.9	1.0	1.3	1.8	1.9	1.8	1.7	1.8	1.4	1.2	0.9	0.6	0.7	0.9	2.0	0.6	1.4
29	1.2	1.4	1.5	1.4	1.4	1.3	1.4	1.6	1.6	1.8	2.3	2.5	2.6	3.0	2.4	2.4	2.6	2.5	2.6	2.5	2.2	1.6	1.1	0.8	3.0	0.8	1.9
30	1.2	2.2	1.8	1.0	1.1	1.3	1.4	0.9	1.0	1.2	0.9	0.4	0.3	0.1	-0.2	-0.3	-0.5	-0.7	-0.9	-1.1	-1.0	-0.9	-0.9	-0.8	2.2	-1.1	0.3
31	-0.9	-1.0	-1.0	-1.1	-1.3	-1.6	-1.2	-0.6	-0.4	-0.5	-0.6	-0.4	-0.2	0.0	0.3	0.5	0.6	0.3	-0.3	-0.3	-0.1	0.1	-0.1	0.5	0.6	-1.6	-0.4
Max.	**3.9**	**3.7**	**3.3**	**3.0**	**2.9**	**2.8**	**2.9**	**2.7**	**2.5**	**3.1**	**4.0**	**5.0**	**5.3**	**5.4**	**5.9**	**6.4**	**6.4**	**6.2**	**4.8**	**4.8**	**4.1**	**3.9**	**3.9**	**3.5**	**6.4**		
Min.	**-5.8**	**-6.5**	**-6.9**	**-6.6**	**-7.2**	**-7.0**	**-6.8**	**-7.0**	**-7.5**	**-7.4**	**-7.2**	**-6.4**	**-6.0**	**-5.0**	**-4.5**	**-4.0**	**-3.9**	**-4.2**	**-4.5**	**-5.0**	**-5.4**	**-5.4**	**-6.1**	**-6.0**		**-7.5**	
Avg.	**-1.2**	**-1.4**	**-1.5**	**-1.6**	**-1.8**	**-1.9**	**-2.0**	**-2.1**	**-2.0**	**-2.1**	**-1.7**	**-1.2**	**-0.5**	**0.1**	**0.4**	**0.7**	**0.7**	**0.5**	**0.0**	**-0.5**	**-0.8**	**-0.9**	**-1.1**	**-1.2**			**-1.0**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 2 meters (deg. C)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	0.6	1.0	0.7	0.7	1.4	1.2	1.0	0.5	0.5	0.6	0.7	0.5	0.5	0.7	0.6	0.6	-0.1	-0.8	-1.2	-1.7	-2.0	-2.1	-2.2	-2.4	1.4	-2.4	0.0
2	-2.6	-2.8	-2.6	-2.7	-3.1	-3.2	-3.5	-3.5	-3.6	-3.1	-3.1	-3.2	-3.0	-3.5	-3.9	-4.1	-3.9	-3.2	-3.3	-4.0	-3.9	-3.8	-3.9	-4.0	-2.6	-4.1	-3.4
3	-4.0	-4.2	-4.2	-4.3	-4.0	-4.2	-4.1	-4.1	-4.6	-4.7	-4.4	-4.2	-3.7	-3.0	-2.7	-2.8	-3.0	-3.5	-3.8	-3.4	-3.0	-2.8	-2.4	-1.8	-1.8	-4.7	-3.6
4	-1.5	-1.5	-1.1	-0.6	-0.3	-0.1	0.0	0.4	0.7	0.9	1.1	1.3	1.2	1.2	1.1	0.9	0.9	1.1	1.1	0.9	1.1	1.2	1.2	0.8	1.3	-1.5	0.5
5	0.7	0.6	0.6	0.6	0.5	0.3	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.4	0.4	0.6	0.6	0.7	0.8	0.7	0.7	0.7	0.7	0.6	0.8	0.0	0.5
6	0.6	0.6	0.8	0.8	1.0	1.0	1.4	1.7	1.5	1.6	1.7	1.7	1.8	1.9	2.4	2.7	2.2	1.9	1.5	1.2	0.9	1.0	0.5	-0.1	2.7	-0.1	1.4
7	0.1	0.3	0.2	0.3	0.6	1.0	1.0	1.3	1.4	1.3	1.3	1.5	1.9	2.1	1.2	1.4	1.4	1.0	0.2	0.1	0.1	0.0	0.0	-0.2	2.1	-0.2	0.8
8	-0.4	-0.8	-1.1	-0.8	-0.3	0.1	0.7	1.1	1.3	0.5	0.5	0.9	1.1	1.5	2.1	2.3	2.4	2.8	2.4	2.5	2.1	1.2	0.7	0.8	2.8	-1.1	1.0
9	0.7	0.1	0.1	0.3	0.4	0.0	-0.2	-0.4	-0.6	-0.5	-0.3	0.1	0.3	0.5	1.0	1.0	0.9	0.3	-0.4	0.1	-0.1	0.0	-0.7	-1.0	1.0	-1.0	0.1
10	-1.1	-1.0	-0.7	-0.9	-1.3	-2.3	-2.3	-2.6	-3.0	-4.0	-3.4	-3.4	-2.2	-1.6	-1.6	-1.7	-1.6	-1.8	-2.2	-2.5	-2.8	-3.1	-3.3	-4.1	-0.7	-4.1	-2.3
11	-4.3	-4.3	-4.6	-4.5	-4.7	-5.0	-5.3	-5.2	-5.9	-6.3	-6.4	-6.0	-5.8	-5.9	-5.9	-6.1	-6.3	-6.8	-7.1	-7.3	-7.8	-8.2	-8.0	-7.7	-4.3	-8.2	-6.1
12	-8.6	-8.3	-8.0	-6.9	-9.1	-8.0	-7.0	-7.2	-8.2	-7.3	-7.7	-7.0	-7.4	-7.0	-6.4	-5.5	-4.1	-4.1	-4.1	-4.2	-4.1	-3.5	-3.3	-2.9	-2.9	-9.1	-6.2
13	-2.6	-2.3	-2.1	-2.0	-1.8	-1.6	-1.3	-1.4	-1.3	-1.1	-0.5	-0.1	-1.0	-1.3	-1.4	-2.1	-2.2	-1.9	-1.5	-1.6	-1.5	-1.5	-1.4	-1.2	-0.1	-2.6	-1.5
14	-1.5	-1.5	-1.6	-1.5	-1.7	-1.7	-1.9	-2.2	-2.4	-2.6	-2.9	-2.6	-1.8	-1.8	-1.7	-1.7	-1.7	-1.6	-1.9	-2.3	-3.1	-4.2	-4.9	-5.4	-1.5	-5.4	-2.4
15	-5.3	-5.8	-6.5	-6.5	-6.2	-6.2	-6.8	-6.9	-7.7	-8.9	-9.9	-9.9	-10.1	-10.3	-10.3	-10.5	-10.8	-11.4	-11.1	-11.7	-11.9	-12.1	-12.6	-12.4	-5.3	-12.6	-9.2
16	-11.9	-11.8	-11.8	-11.9	-11.9	-12.0	-12.2	-12.5	-12.5	-12.6	-12.6	-12.5	-12.4	-12.5	-12.3	-12.3	-12.3	-12.2	-12.1	-12.0	-12.4	-12.8	-12.9	-13.2	-11.8	-13.2	-12.3
17	-13.6	-13.9	-14.1	-13.8	-14.0	-13.9	-14.1	-14.0	-14.1	-14.1	-14.5	-15.0	-14.5	-14.4	-14.3	-14.2	-14.6	-14.7	-15.1	-15.8	-16.0	-15.9	-15.7	-15.9	-13.6	-16.0	-14.6
18	-16.2	-15.9	-16.1	-16.1	-16.3	-16.5	-16.3	-16.4	-16.1	-15.4	-15.4	-15.7	-14.9	-14.2	-13.7	-13.6	-13.7	-13.8	-14.3	-12.7	-12.9	-13.8	-13.5	-13.3	-12.7	-16.5	-14.9
19	-12.6	-13.2	-12.7	-13.1	-12.0	-10.9	-12.7	-10.2	-10.0	-8.9	-7.6	-6.4	-5.1	-4.6	-4.2	-3.9	-3.6	-2.9	-2.7	-2.5	-2.4	-1.5	-1.6	-1.3	-1.3	-13.2	-6.9
20	-0.5	0.3	0.6	0.9	1.2	2.3	2.7	2.4	2.9	2.7	2.7	2.5	2.4	2.6	2.4	2.4	2.7	2.6	3.2	2.9	2.4	2.1	3.0	2.9	3.2	-0.5	2.2
21	2.9	2.9	2.1	1.7	1.7	1.6	2.0	2.0	2.2	2.4	2.6	2.4	2.4	2.6	2.7	3.1	3.0	3.0	2.8	2.8	2.8	2.8	2.8	2.7	3.1	1.6	2.5
22	2.8	2.9	2.3	2.2	1.3	0.8	0.6	0.8	1.1	2.0	1.7	1.5	0.8	1.2	1.7	2.2	2.8	3.1	2.9	2.9	2.4	2.4	1.6	-0.2	3.1	-0.2	1.8
23	-0.5	-0.4	-0.1	-0.2	-0.4	-0.6	-0.7	-0.8	-1.2	-1.4	-1.5	-1.8	-2.3	-2.7	-2.7	-3.1	-2.8	-3.0	-2.9	-2.4	-2.9	-4.1	-4.9	-5.1	-0.1	-5.1	-2.0
24	-5.2	-5.2	-5.2	-5.2	-5.2	-5.4	-5.7	-5.7	-5.8	-5.6	-5.9	-4.9	-3.5	-2.4	-1.8	-1.3	-1.1	-0.9	-0.7	-0.9	-0.7	-0.3	-0.1	0.4	0.4	-5.9	-3.3
25	0.6	0.5	0.6	0.7	1.3	2.2	3.1	3.4	3.4	4.1	4.2	3.7	3.8	4.1	4.6	4.6	4.5	4.7	4.9	4.4	4.3	4.7	4.6	4.0	4.9	0.5	3.4
26	3.7	3.3	3.6	3.4	3.4	4.1	4.1	3.8	3.2	2.4	2.2	1.7	1.6	1.7	1.9	2.1	1.9	1.7	1.6	1.4	0.9	0.8	1.3	2.0	4.1	0.8	2.4
27	1.7	2.1	1.8	2.1	2.4	2.2	2.3	2.2	2.3	2.5	2.6	2.9	2.9	2.7	2.6	2.6	2.8	2.4	2.3	2.2	1.8	1.8	1.7	1.9	2.9	1.7	2.3
28	1.9	2.0	1.9	1.5	1.2	0.8	0.6	0.8	0.7	0.5	0.5	0.6	0.7	0.9	1.0	1.2	1.5	1.8	2.1	2.3	2.3	2.4	2.4	2.4	2.4	0.5	1.4
29	2.4	2.4	2.5	2.3	2.2	2.3	2.3	2.3	2.7	2.8	2.8	2.9	3.1	3.3	3.5	3.3	3.3	3.0	2.9	3.0	3.2	3.2	3.3	3.5	3.5	2.2	2.8
30	3.6	3.7	3.9	4.0	4.1	4.3	4.5	4.8	5.0	4.9	4.7	5.3	5.4	5.5	5.5	5.4	5.0	4.4	4.1	4.0	4.9	5.3	4.7	2.6	5.5	2.6	4.6
Max.	**3.7**	**3.7**	**3.9**	**4.0**	**4.1**	**4.3**	**4.5**	**4.8**	**5.0**	**4.9**	**4.7**	**5.3**	**5.4**	**5.5**	**5.5**	**5.4**	**5.0**	**4.7**	**4.9**	**4.4**	**4.9**	**5.3**	**4.7**	**4.0**	**5.5**		
Min.	**-16.2**	**-15.9**	**-16.1**	**-16.1**	**-16.3**	**-16.5**	**-16.3**	**-16.4**	**-16.1**	**-15.4**	**-15.4**	**-15.7**	**-14.9**	**-14.4**	**-14.3**	**-14.2**	**-14.6**	**-14.7**	**-15.1**	**-15.8**	**-16.0**	**-15.9**	**-15.7**	**-15.9**		**-16.5**	
Avg.	**-2.3**	**-2.3**	**-2.4**	**-2.3**	**-2.3**	**-2.2**	**-2.3**	**-2.2**	**-2.3**	**-2.2**	**-2.2**	**-2.1**	**-1.9**	**-1.7**	**-1.6**	**-1.6**	**-1.5**	**-1.6**	**-1.7**	**-1.8**	**-1.9**	**-2.0**	**-2.1**	**-2.3**			**-2.0**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 2 meters (deg. C)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	2.0	2.3	2.1	1.9	1.6	2.1	1.6	1.4	1.3	1.0	0.7	0.6	1.1	1.4	1.7	1.3	0.4	0.2	0.3	-0.1	-1.3	-0.4	0.3	-1.8	2.3	-1.8	0.9
2	-1.9	-2.0	-2.6	-3.3	-3.7	-4.3	-4.6	-4.4	-5.1	-5.7	-5.6	-4.4	-4.0	-4.5	0.0	0.4	0.3	-1.7	-5.1	-6.1	-4.5	-2.4	-3.0	-3.9	0.4	-6.1	-3.4
3	-3.9	-3.6	-3.6	-3.8	-4.1	-4.5	-4.8	-5.5	-5.8	-5.6	-5.2	-4.9	-4.7	-4.5	-4.3	-4.7	-5.6	-6.5	-7.3	-7.6	-7.5	-7.9	-7.5	-7.5	-3.6	-7.9	-5.5
4	-7.6	-8.2	-7.8	-7.1	-6.3	-6.2	-6.5	-6.1	-5.8	-5.6	-5.8	-5.9	-5.7	-5.3	-4.8	-4.6	-4.6	-4.6	-4.4	-4.1	-3.9	-3.7	-3.6	-3.4	-3.4	-8.2	-5.5
5	-3.2	-3.1	-3.1	-2.9	-2.7	-2.7	-2.9	-3.1	-3.1	-3.2	-3.0	-2.4	-1.4	-0.8	-0.5	-0.3	-0.2	0.0	0.1	0.3	0.5	0.4	0.4	0.5	0.5	-3.2	-1.5
6	0.4	0.6	0.5	0.4	0.7	0.6	0.5	0.6	0.6	0.5	0.4	0.3	0.2	0.0	-0.4	-0.7	-0.7	-0.6	-0.4	-0.3	-0.2	-0.1	-0.2	-0.1	0.7	-0.7	0.1
7	-0.2	-0.1	-0.2	-0.3	-0.4	-0.5	-0.8	-0.8	-1.1	-1.2	-0.9	-0.5	-0.4	-0.6	-0.5	-0.3	-0.3	-0.2	-0.1	0.1	0.3	0.3	0.3	0.3	0.3	-1.2	-0.3
8	0.4	0.3	0.4	0.4	0.2	0.4	0.4	0.5	1.0	1.2	0.8	0.6	1.1	0.9	0.5	0.2	0.1	-0.4	-0.8	-1.1	-0.9	-0.8	-0.6	-0.7	1.2	-1.1	0.2
9	-0.8	-0.9	-0.6	-0.6	-0.6	-0.7	-0.8	-0.9	-1.0	-0.5	-0.1	0.3	0.8	1.1	1.4	1.5	1.6	1.6	1.8	1.8	1.8	1.7	1.6	1.7	1.8	-1.0	0.5
10	1.6	1.5	1.6	1.5	2.2	1.8	1.1	0.6	0.1	0.3	0.4	0.6	0.2	0.3	-0.5	-0.6	-0.8	-0.8	-0.6	-0.5	-0.3	-0.2	-0.3	-0.8	2.2	-0.8	0.4
11	-1.2	-1.4	-1.6	-2.2	-1.9	-2.0	-2.7	-3.5	-2.9	-3.5	-4.3	-4.0	-3.4	-3.3	-4.4	-4.0	-5.3	-5.0	-4.2	-4.8	-5.0	-6.1	-6.9	-7.4	-1.2	-7.4	-3.8
12	-7.5	-6.6	-5.8	-6.9	-6.9	-6.8	-5.3	-4.7	-3.7	-6.8	-6.2	-5.0	-3.8	-4.1	-3.5	-2.5	-3.8	-3.4	-3.2	-2.5	-3.0	-2.9	-4.0	-4.1	-2.5	-7.5	-4.7
13	-4.0	-3.3	-3.6	-3.4	-3.5	-3.5	-4.0	-3.9	-4.0	-4.3	-4.3	-4.4	-4.4	-4.3	-4.5	-5.0	-5.4	-6.5	-6.8	-7.1	-7.6	-8.9	-8.9	-10.4	-3.3	-10.4	-5.2
14	-11.7	-12.6	-13.0	-12.8	-12.7	-12.7	-13.0	-13.8	-14.6	-15.0	-14.2	-14.4	-14.3	-14.3	-14.0	-14.1	-14.9	-14.6	-14.5	-14.4	-14.0	-15.0	-15.0	-14.0	-11.7	-15.0	-13.9
15	-13.8	-14.6	-14.1	-12.3	-12.2	-12.3	-12.6	-12.7	-12.7	-12.4	-12.6	-12.9	-12.7	-12.6	-12.6	-12.7	-12.6	-12.7	-12.7	-12.8	-12.8	-12.6	-12.3	-12.4	-12.2	-14.6	-12.8
16	-13.0	-13.8	-14.2	-14.5	-14.7	-15.0	-15.0	-15.0	-15.0	-15.2	-15.6	-15.9	-15.9	-16.1	-16.3	-16.6	-17.0	-17.1	-17.0	-16.8	-16.9	-17.0	-17.1	-17.4	-13.0	-17.4	-15.8
17	-17.6	-17.7	-17.8	-17.8	-17.7	-17.8	-17.9	-17.9	-17.9	-17.8	-17.7	-17.7	-17.7	-17.6	-17.7	-17.8	-18.2	-18.7	-19.3	-19.5	-19.4	-20.0	-20.6	-20.7	-17.6	-20.7	-18.4
18	-20.7	-20.9	-21.2	-21.5	-21.3	-21.3	-21.7	-21.7	-21.9	-22.0	-22.3	-22.4	-22.6	-22.8	-22.9	-22.9	-22.7	-22.9	-23.4	-23.7	-23.6	-24.1	-24.4	-24.6	-20.7	-24.6	-22.5
19	-25.0	-25.9	-25.5	-25.5	-25.0	-24.4	-23.7	-24.2	-24.6	-24.5	-24.4	-24.8	-24.7	-24.3	-23.3	-23.6	-24.2	-25.2	-25.4	-25.4	-25.5	-25.7	-24.5	-23.5	-23.3	-25.9	-24.7
20	-24.0	-24.2	-25.0	-24.3	-23.4	-21.5	-15.7	-13.7	-13.2	-12.8	-12.1	-11.6	-10.5	-9.6	-8.6	-7.8	-7.1	-6.8	-6.9	-5.6	-5.6	-5.6	-5.3	-4.6	-4.6	-25.0	-12.7
21	-3.8	-2.8	-2.5	-2.2	-2.0	-2.1	-2.3	-3.1	-3.5	-4.1	-4.0	-3.9	-4.3	-4.6	-3.4	-3.8	-4.5	-3.9	-4.2	-4.0	-4.1	-3.9	-3.7	-3.0	-2.0	-4.6	-3.5
22	-2.4	-2.4	-2.3	-2.4	-2.2	-1.9	-1.5	-1.7	-2.1	-1.8	-1.4	-1.3	-1.0	-0.9	-0.7	-0.8	-0.7	-1.2	-1.1	-1.0	-1.0	-2.9	-4.2	-4.6	-0.7	-4.6	-1.8
23	-5.7	-7.9	-9.0	-9.5	-10.0	-10.0	-10.5	-11.1	-11.9	-12.1	-12.1	-12.0	-12.0	-12.0	-12.0	-12.0	-12.0	-12.7	-13.1	-12.5	-11.9	-11.4	-11.8	-12.4	-5.7	-13.1	-11.1
24	-13.8	-14.3	-14.1	-14.2	-14.7	-13.9	-13.2	-14.2	-14.6	-14.5	-14.4	-14.0	-13.9	-13.7	-13.9	-14.0	-14.0	-13.9	-14.2	-14.7	-14.6	-14.1	-14.1	-14.2	-13.2	-14.7	-14.1
25	-15.0	-15.7	-15.7	-15.8	-16.2	-16.8	-17.0	-17.2	-17.3	-17.8	-18.5	-18.5	-18.3	-18.1	-17.9	-18.4	-18.2	-18.5	-18.0	-18.3	-18.8	-18.1	-19.4	-20.1	-15.0	-20.1	-17.7
26	-20.3	-19.5	-19.3	-18.3	-17.4	-17.3	-18.7	-16.8	-14.9	-11.2	-11.2	-10.8	-10.6	-9.5	-8.0	-6.2	-5.1	-4.1	-3.9	-4.6	-4.8	-4.0	-3.6	-2.9	-2.9	-20.3	-11.0
27	-2.7	-2.3	-2.1	-1.9	-1.6	-1.1	-0.6	-0.1	0.1	0.5	0.8	1.1	1.1	1.3	1.5	0.7	0.2	-0.1	-0.1	-0.1	-0.3	-1.0	-1.2	-1.3	1.5	-2.7	-0.4
28	-1.3	-3.3	-5.0	-5.3	-5.8	-6.5	-6.8	-7.3	-6.8	-6.4	-7.1	-7.6	-7.2	-7.6	-7.8	-8.6	-9.4	-9.0	-9.6	-10.4	-10.3	-9.2	-8.7	-8.4	-1.3	-10.4	-7.3
29	-7.9	-8.1	-8.3	-8.8	-9.3	-9.1	-8.8	-9.3	-9.2	-9.1	-9.9	-10.0	-9.8	-9.6	-9.9	-11.6	-11.8	-10.0	-10.0	-9.4	-9.6	-9.6	-9.3	-9.4	-7.9	-11.8	-9.5
30	-9.4	-9.5	-9.9	-9.9	-10.1	-10.6	-11.5	-11.7	-12.3	-13.1	-13.2	-12.8	-12.2	-11.7	-11.4	-10.9	-11.0	-10.4	-11.2	-11.4	-11.7	-11.0	-10.9	-10.9	-9.4	-13.2	-11.2
31	-10.3	-10.2	-9.7	-9.8	-9.6	-10.0	-10.4	-10.8	-10.6	-10.9	-10.7	-10.5	-10.6	-10.2	-10.5	-10.6	-10.5	-10.4	-10.3	-9.8	-9.7	-9.9	-10.3	-9.0	-9.0	-10.9	-10.2
Max.	**2.0**	**2.3**	**2.1**	**1.9**	**2.2**	**2.1**	**1.6**	**1.4**	**1.3**	**1.2**	**0.8**	**1.1**	**1.1**	**1.4**	**1.7**	**1.5**	**1.6**	**1.6**	**1.8**	**1.8**	**1.8**	**1.7**	**1.6**	**1.7**	**2.3**		
Min.	**-25.0**	**-25.9**	**-25.5**	**-25.5**	**-25.0**	**-24.4**	**-23.7**	**-24.2**	**-24.6**	**-24.5**	**-24.4**	**-24.8**	**-24.7**	**-24.3**	**-23.3**	**-23.6**	**-24.2**	**-25.2**	**-25.4**	**-25.4**	**-25.5**	**-25.7**	**-24.5**	**-24.6**		**-25.9**	
Avg.	**-7.9**	**-8.1**	**-8.2**	**-8.2**	**-8.1**	**-8.1**	**-8.1**	**-8.1**	**-8.1**	**-8.2**	**-8.2**	**-8.0**	**-7.8**	**-7.7**	**-7.4**	**-7.5**	**-7.7**	**-7.8**	**-7.9**	**-8.0**	**-7.9**	**-8.0**	**-8.0**	**-8.1**			**-8.0**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 10 meters (deg. C)

January *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-14.0	-14.8	-15.8	-15.9	-16.5	-16.9	-17.3	-17.4	-19.3	-20.8	-20.9	-21.1	-21.4	-21.0	-21.9	-22.7	-23.2	-23.9	-24.4	-24.6	-25.1	-24.9	-25.1	-26.2	-14.0	-26.2	-20.6
2	-25.8	-26.5	-26.5	-25.9	-26.3	-25.2	-25.7	-25.8	-25.7	-25.4	-25.2	-25.3	-25.2	-25.0	-25.1	-24.6	-24.8	-25.5	-25.8	-26.3	-26.4	-26.3	-26.8	-26.8	-24.6	-26.8	-25.7
3	-26.6	-27.0	-26.9	-27.3	-27.7	-27.4	-27.1	-27.3	-28.3	-27.7	-28.2	-28.8	-28.0	-27.8	-28.6	-28.7	-27.3	-27.1	-28.0	-28.5	-28.2	-28.0	-28.8	-28.2	-26.6	-28.8	-27.8
4	-29.3	-28.9	-29.1	-28.5	-28.4	-28.7	-28.6	-28.8	-28.9	-28.2	-27.8	-26.2	-23.3	-21.0	-20.5	-20.5	-20.0	-19.9	-18.6	-18.5	-18.1	-18.1	-18.9	-19.3	-18.1	-29.3	-24.1
5	-21.1	-21.1	-22.8	-23.4	-23.5	-23.3	-23.5	-23.9	-24.7	-25.3	-24.9	-25.5	-24.9	-24.7	-25.1	-25.1	-24.7	-24.9	-25.0	-24.4	-24.6	-25.3	-25.4	-25.0	-21.1	-25.5	-24.2
6	-25.0	-24.9	-24.9	-25.1	-24.4	-24.0	-25.0	-24.8	-25.3	-25.1	-25.1	-25.1	-25.4	-25.6	-25.4	-26.5	-26.8	-26.9	-27.3	-27.9	-28.9	-28.9	-29.7	-29.4	-24.0	-29.7	-26.1
7	-30.1	-30.1	-29.7	-29.7	-29.4	-30.0	-30.3	-30.9	-30.3	-30.5	-30.0	-30.3	-30.1	-29.3	-29.2	-29.6	-29.7	-29.9	-29.8	-30.4	-30.8	-30.1	-29.6	-30.2	-29.2	-30.9	-30.0
8	-30.0	-29.8	-29.6	-28.2	-28.7	-29.0	-28.3	-28.9	-29.2	-28.4	-27.6	-27.5	-26.5	-26.2	-25.8	-25.4	-25.1	-23.9	-24.6	-24.4	-24.0	-23.5	-23.2	-22.8	-22.8	-30.0	-26.7
9	-23.0	-23.1	-23.1	-24.4	-23.6	-23.5	-22.9	-23.5	-23.7	-22.7	-22.6	-20.7	-18.7	-18.1	-16.9	-15.6	-14.5	-14.2	-13.5	-13.7	-14.5	-14.4	-13.8	-13.0	-13.0	-24.4	-19.1
10	-12.8	-12.8	-12.4	-12.3	-12.1	-11.9	-11.5	-10.5	-9.3	-8.2	-7.5	-6.8	-6.2	-5.7	-5.2	-4.8	-4.6	-4.1	-3.9	-3.6	-3.4	-3.2	-3.1	-2.8	-2.8	-12.8	-7.4
11	-2.6	-2.2	-2.0	-1.9	-2.0	-1.9	-1.7	-1.7	-1.7	-1.7	-1.7	-1.5	-1.4	-1.5	-1.4	-1.4	-1.3	-1.2	-1.1	-1.1	-1.1	-1.2	-1.3	-1.5	-1.1	-2.6	-1.6
12	-1.5	-1.6	-1.7	-1.7	-1.6	-1.5	-1.5	-1.5	-1.6	-1.6	-1.5	-1.4	-1.5	-1.2	-1.1	-1.3	-1.2	-1.2	-1.3	-1.2	-1.2	-1.3	-1.4	-2.4	-1.1	-2.4	-1.5
13	-2.8	-3.2	-3.1	-2.9	-2.9	-3.1	-3.3	-3.6	-3.6	-3.6	-3.8	-3.7	-3.7	-3.8	-3.8	-4.2	-4.7	-5.1	-6.2	-6.4	-6.5	-6.1	-6.5	-6.5	-2.8	-6.5	-4.3
14	-6.8	-7.2	-8.1	-8.2	-8.2	-8.6	-7.8	-7.5	-7.7	-7.6	-7.6	-7.5	-7.4	-7.7	-7.6	-7.9	-7.6	-7.5	-7.4	-7.5	-7.7	-7.4	-7.5	-7.7	-6.8	-8.6	-7.6
15	-7.9	-8.8	-9.5	-9.9	-9.8	-8.7	-8.3	-8.6	-9.1	-9.3	-9.3	-9.5	-9.8	-10.1	-10.0	-10.1	-10.3	-10.6	-11.4	-11.8	-12.5	-13.4	-13.7	-13.2	-7.9	-13.7	-10.2
16	-13.0	-13.1	-13.2	-14.4	-12.7	-9.2	-7.0	-6.9	-6.8	-6.3	-5.7	-5.7	-6.0	-5.8	-5.1	-4.5	-4.0	-3.7	-3.5	-3.5	-3.8	-3.8	-3.9	-3.6	-3.5	-14.4	-6.9
17	-3.4	-3.7	-4.1	-4.3	-4.4	-4.5	-4.7	-4.4	-4.0	-3.7	-3.6	-2.8	-2.5	-2.0	-1.7	-2.0	-2.0	-1.9	-1.4	-1.2	-1.1	-1.4	-1.5	-1.9	-1.1	-4.7	-2.8
18	-2.1	-2.2	-2.6	-3.0	-2.3	-2.1	-1.8	-2.2	-2.1	-2.0	-2.1							-2.9	-3.0	-3.0	-3.5	-3.5	-3.5	-4.0	-1.8	-4.0	-2.7
19	-4.0	-3.9	-3.8	-3.4	-3.6	-3.6	-3.6	-3.9	-3.9	-4.1	-4.8	-4.8	-4.9	-4.8	-4.0	-3.8	-3.8	-3.7	-2.9	-2.6	-2.3	-2.4	-2.2	-2.1	-2.1	-4.9	-3.6
20	-2.3	-2.3	-2.3	-2.4	-2.5	-2.6	-3.0	-3.0	-2.8	-3.2	-3.0	-2.6	-2.1	-3.2	-3.6	-2.9	-2.8	-2.8	-2.9	-3.3	-3.9	-4.0	-3.3	-3.5	-2.1	-4.0	-2.9
21	-3.9	-3.9	-5.4	-5.5	-7.3	-9.6	-9.7	-10.8	-10.8	-10.6	-11.1	-10.5	-10.3	-10.3	-10.5	-10.5	-10.5	-10.5	-10.7	-10.8	-10.9	-10.9	-10.8	-10.9	-3.9	-11.1	-9.4
22	-10.9	-10.8	-10.9	-10.9	-11.0	-11.0	-10.9	-11.3	-11.3	-11.3	-11.6	-11.4	-11.1	-11.6	-11.3	-11.2	-11.2	-11.4	-11.8	-12.1	-11.7	-11.1	-12.1	-13.7	-10.8	-13.7	-11.4
23	-14.0	-14.5	-14.6	-14.9	-15.2	-15.5	-15.7	-15.9	-16.2	-16.8	-16.9	-17.2	-17.1	-17.3	-17.2	-17.5	-18.1	-17.9	-17.7	-18.4	-18.3	-19.3	-19.7	-20.3	-14.0	-20.3	-16.9
24	-20.4	-20.8	-21.1	-21.4	-21.6	-22.0	-22.7	-23.9	-24.2	-24.0	-24.3	-24.5	-24.7	-24.1	-24.0	-24.3	-23.6	-23.8	-23.3	-22.7	-22.3	-22.9	-22.9	-23.5	-20.4	-24.7	-23.0
25	-23.5	-21.3	-15.8	-13.6	-13.3	-12.4	-11.0	-9.6	-6.7	-5.5	-5.1	-4.2	-3.6	-3.0	-2.9	-2.6	-2.3	-1.6	-1.5	-1.2	-1.0	-1.1	-0.7	-0.5	-0.5	-23.5	-6.8
26	-0.4	-0.6	-0.6	-0.8	-1.0	-0.8	-0.5	-0.4	-0.7	-1.0	-0.8	-0.2	-0.3	-0.2	-0.1	-0.2	-0.4	-0.6	-1.2	-1.3	-1.4	-1.8	-1.6	-1.4	-0.1	-1.8	-0.8
27	-0.9	-0.9	-0.7	-0.6	-0.1	-0.1	-0.1	-0.4	-0.3	-0.2	-0.6	-0.8	-1.0	-0.8	-0.7	0.1	0.4	-0.2	0.2	0.8	1.1	1.2	1.0	0.6	1.2	-1.0	-0.1
28	0.4	0.2	0.0	0.1	-0.2	-0.2	-0.3	-0.5	-0.4	-0.4	-0.7	-0.7	-0.5	0.2	0.4	0.4	0.1	-0.4	-0.4	0.1	0.1	0.9	1.2	1.5	1.5	-0.7	0.0
29	1.6	1.3	2.4	2.3	2.7	2.6	1.7	1.5	1.3	1.9	2.0	2.5	3.1	3.2	3.2	2.6	3.0	2.6	2.2	1.7	1.0	0.7	0.6	0.7	3.2	0.6	2.0
30	1.1	1.9	2.2	2.3	2.5	2.5	2.6	3.3	3.7	4.2	4.6	5.9	5.8	4.9	5.1	5.1	3.6	2.3	2.0	1.7	1.7	1.5	1.2	1.1	5.9	1.1	3.0
31	1.2	1.4	1.6	1.6	1.7	1.6	1.6	1.1	1.1	1.0	0.8	0.9	0.9	1.5	1.0	1.2	1.2	1.0	1.0	1.7	2.2	1.8	1.1	0.6	2.2	0.6	1.3
Max.	**1.6**	**1.9**	**2.4**	**2.3**	**2.7**	**2.6**	**2.6**	**3.3**	**3.7**	**4.2**	**4.6**	**5.9**	**5.8**	**4.9**	**5.1**	**5.1**	**3.6**	**2.6**	**2.2**	**1.7**	**2.2**	**1.8**	**1.2**	**1.5**	**5.9**		
Min.	**-30.1**	**-30.1**	**-29.7**	**-29.7**	**-29.4**	**-30.0**	**-30.3**	**-30.9**	**-30.3**	**-30.5**	**-30.0**	**-30.3**	**-30.1**	**-29.3**	**-29.2**	**-29.6**	**-29.7**	**-29.9**	**-29.8**	**-30.4**	**-30.8**	**-30.1**	**-29.7**	**-30.2**		**-30.9**	
Avg.	**-11.4**	**-11.5**	**-11.4**	**-11.4**	**-11.4**	**-11.3**	**-11.2**	**-11.3**	**-11.4**	**-11.2**	**-11.2**	**-11.2**	**-10.9**	**-10.7**	**-10.6**	**-10.6**	**-10.5**	**-10.4**	**-10.4**	**-10.5**	**-10.6**	**-10.6**	**-10.7**	**-10.8**			**-10.9**

Total Hours in Month 744 **Hours Data Available** 738 **Data Recovery** 99.2%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 10 meters (deg. C)

February 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0.6	1.0	1.4	1.6	1.1	1.0	0.8	0.4	0.7	0.7	0.0	1.6	2.2	2.5	4.6	6.1	5.6	4.3	5.2	4.6	3.1	0.6	0.7	0.5	6.1	0.0	2.1
2	0.6	0.6	1.0	1.5	1.9	2.0	1.5	1.2	1.3	1.3	1.4	1.6	1.7	1.7	1.5	1.5	1.5	1.4	1.3	1.4	1.3	1.1	1.0	0.8	2.0	0.6	1.3
3	0.7	0.4	0.5	0.6	0.5	0.2	0.2	0.2	0.1	-0.1	0.2	0.5	0.7	0.9	0.9	0.7	0.6	0.2	-0.1	-0.7	-1.0	-1.7	-1.8	-1.6	0.9	-1.8	0.0
4	-2.3	-2.3	-1.9	-2.3	-2.0	-2.4	-2.8	-2.2	-2.4	-3.4	-3.0	-3.1	-3.5	-2.7	-1.9	-2.1	-2.2	-2.5	-2.8	-2.6	-1.3	-1.2	-1.6	-0.9	-0.9	-3.5	-2.3
5	-0.3	-0.4	-0.6	-0.3	-0.5	-1.1	-0.9	-0.4	-0.5	-1.2	-0.5	-0.7	-2.0	-2.0	-2.5	-2.4	-1.6	-0.9	-0.5	-1.8	-3.4	-4.2	-3.9	-3.2	-0.3	-4.2	-1.5
6	-2.5	-2.3	-1.7	-0.9	-1.0	-0.8	-0.2	-0.1	-0.2	-0.4	0.1	0.2	0.2	0.6	0.2	-0.3	-0.4	-0.9	-0.5	-0.5	-0.5	0.1	0.7	1.0	1.0	-2.5	-0.4
7	-0.3	-2.4	-2.0	-2.9	-2.0	-1.1	-2.7	-3.4	-3.6	-3.5	-3.4	-3.3	-3.2	-3.0	-2.9	-2.3	-1.6	-1.8	-2.8	-3.5	-3.5	-3.6	-3.5	-3.4	-0.3	-3.6	-2.7
8	-3.4	-3.1	-3.0	-3.0	-2.8	-2.8	-2.7	-2.8	-3.0	-2.8	-2.9	-2.9	-2.6	-2.2	-2.1	-2.4	-2.7	-3.1	-3.1	-3.3	-3.4	-3.5	-3.3	-3.3	-2.1	-3.5	-2.9
9	-3.2	-3.4	-3.1	-2.9	-2.7	-2.5	-2.5	-2.3	-1.7	-1.5	-1.2	-0.8	-0.5	-0.2	-0.5	-1.5	-1.7	-2.0	-1.7	-2.0	-2.1	-2.2	-2.4	-2.3	-0.2	-3.4	-2.0
10	-1.8	-1.7	-1.3	-0.8	-1.1	-1.8	-1.8	-1.8	-1.9	-1.8	-1.8	-2.0	-2.0	-2.0	-1.9	-1.7	-1.7	-1.9	-2.6	-4.0	-5.0	-5.4	-5.5	-5.6	-0.8	-5.6	-2.4
11	-5.5	-4.7	-4.4	-4.7	-5.0	-4.8	-4.6	-4.3	-4.3	-4.4	-3.8	-2.9	-2.0	-1.5	-1.3	-0.7	-0.3	-0.7	-0.8	-0.6	-0.9	-1.2	-1.0	-1.0	-0.3	-5.5	-2.7
12	-1.0	-1.3	-0.8	-0.6	-0.7	-0.7	-0.6	-0.5	-0.7	-0.7	-0.8	-0.1	0.3	0.6	0.6	0.4	0.3	0.2	0.1	0.0	0.1	-0.1	-0.2	-0.1	0.6	-1.3	-0.3
13	-0.5	0.0	0.4	0.1	0.2	0.6	0.3	-0.1	-0.3	0.1	1.0	1.0	1.5	1.6	1.9	1.3	1.1	0.6	0.2	0.2	0.2	-0.4	-0.7	-0.9	1.9	-0.9	0.4
14	-0.5	-0.7	-0.9	-0.8	-0.8	-1.1	-1.1	-0.9	-0.9	-1.1	-1.1	-0.9	-0.6	-0.4	-0.4	-0.2	-0.4	-0.6	-0.8	-0.6	-0.6	-0.8	-1.6	-1.7	-0.2	-1.7	-0.8
15	-1.8	-1.8	-1.5	-2.2	-1.9	-2.1	-2.8	-2.1	-3.6	-2.6	-3.1	-3.0	-3.0	-3.2	-3.4	-4.3	-4.5	-4.9	-5.1	-4.5	-4.8	-5.2	-5.3	-5.2	-1.5	-5.3	-3.4
16	-5.3	-4.9	-3.3	-3.6	-2.9	-3.5	-2.8	-3.3	-2.8	-2.9	-2.7	-2.7	-2.9	-2.6	-2.6	-2.5	-2.5	-2.4	-2.2	-3.1	-3.3	-3.3	-3.2	-3.2	-2.2	-5.3	-3.1
17	-3.4	-3.5	-3.6	-3.7	-3.8	-3.8	-4.2	-4.2	-4.3	-4.4	-5.4	-4.5	-4.3	-3.2	-3.1	-3.4	-3.8	-3.9	-4.6	-4.6	-4.3	-3.9	-4.2	-4.9	-3.1	-5.4	-4.0
18	-5.2	-4.9	-4.8	-5.0	-5.4	-5.4	-5.0	-5.8	-5.7	-5.3	-5.6	-5.0	-5.3	-5.0	-5.0	-4.9	-4.3	-4.5	-5.2	-5.8	-6.1	-6.3	-6.7	-6.7	-4.3	-6.7	-5.4
19	-7.1	-7.6	-7.7	-8.6	-9.2	-9.7	-10.5	-11.2	-11.4	-12.6	-13.9	-15.0	-15.0	-14.7	-14.5	-14.7	-15.8	-16.5	-17.5	-18.3	-18.8	-18.7	-18.2	-18.2	-7.1	-18.8	-13.6
20	-18.1	-17.3	-18.0	-18.6	-18.4	-19.8	-20.3	-19.9	-19.4	-19.5	-18.7	-17.9	-16.9	-15.6	-15.0	-14.7	-14.8	-15.3	-15.9	-16.2	-16.3	-16.9	-17.5	-17.4	-14.7	-20.3	-17.4
21	-17.9	-18.1	-18.7	-19.0	-19.3	-20.1	-20.8	-21.1	-20.8	-20.9	-21.2	-20.4	-18.8	-17.6	-17.1	-17.0	-16.8	-16.7	-17.5	-18.0	-18.4	-18.9	-19.0	-19.0	-16.7	-21.2	-18.9
22	-18.8	-18.9	-18.7	-18.7	-18.7	-19.4	-20.0	-19.6	-19.4	-20.0	-20.1	-20.0	-19.1	-18.0	-17.5	-16.8	-16.4	-16.3	-16.6	-17.1	-17.4	-17.3	-17.6	-17.6	-16.3	-20.1	-18.3
23	-18.0	-18.6	-18.8	-18.3	-18.9	-19.1	-19.3	-19.6	-19.7	-19.9	-19.7	-18.7	-18.1	-17.7	-17.1	-16.5	-16.2	-17.0	-17.3	-17.7	-17.6	-18.4	-18.9	-18.1	-16.2	-19.9	-18.3
24	-18.6	-19.0	-19.0	-18.0	-18.1	-18.0	-18.7	-19.7	-20.3	-20.9	-20.1	-19.7	-19.4	-19.4	-19.5	-19.5	-19.7	-20.1	-20.7	-21.1	-21.4	-21.7	-21.7	-21.6	-18.0	-21.7	-19.8
25	-21.8	-21.7	-21.2	-20.9	-21.0	-21.1	-21.3	-21.6	-21.2	-20.5	-19.8	-18.2	-17.1	-15.2	-14.7	-14.4	-14.8	-15.3	-15.8	-15.1	-14.0	-13.2	-11.1	-8.8	-8.8	-21.8	-17.5
26	-6.5	-6.8	-7.4	-8.2	-8.0	-7.9	-7.5	-6.7	-6.7	-7.5	-7.9	-8.3	-7.5	-6.8	-6.7	-6.5	-6.5	-7.0	-7.8	-8.6	-8.6	-9.5	-9.1	-9.2	-6.5	-9.5	-7.6
27	-9.4	-10.2	-11.3	-12.1	-12.5	-13.0	-12.8	-12.3	-11.8	-11.4	-10.9	-10.6	-10.9	-10.3	-9.7	-9.3	-9.3	-9.3	-9.8	-9.3	-9.3	-9.5	-9.4	-9.7	-9.3	-13.0	-10.6
28	-10.1	-10.4	-10.6	-11.3	-12.0	-12.0	-12.5	-12.9	-13.7	-14.4	-15.3	-15.6	-15.6	-15.3	-15.6	-16.5	-17.3	-17.9	-18.9	-19.5	-19.9	-20.5	-20.7	-21.2	-10.1	-21.2	-15.4
Max.	**0.7**	**1.0**	**1.4**	**1.6**	**1.9**	**2.0**	**1.5**	**1.2**	**1.3**	**1.3**	**1.4**	**1.6**	**2.2**	**2.5**	**4.6**	**6.1**	**5.6**	**4.3**	**5.2**	**4.6**	**3.1**	**1.1**	**1.0**	**1.0**	**6.1**		
Min.	**-21.8**	**-21.7**	**-21.2**	**-20.9**	**-21.0**	**-21.1**	**-21.3**	**-21.6**	**-21.2**	**-20.9**	**-21.2**	**-20.4**	**-19.4**	**-19.4**	**-19.5**	**-19.5**	**-19.7**	**-20.1**	**-20.7**	**-21.1**	**-21.4**	**-21.7**	**-21.7**	**-21.6**		**-21.8**	
Avg.	**-6.5**	**-6.6**	**-6.5**	**-6.6**	**-6.6**	**-6.8**	**-7.0**	**-7.0**	**-7.1**	**-7.2**	**-7.1**	**-6.8**	**-6.5**	**-6.1**	**-5.9**	**-5.9**	**-5.9**	**-6.2**	**-6.6**	**-6.9**	**-7.0**	**-7.3**	**-7.4**	**-7.2**			**-6.7**

Total Hours in Month 672 **Hours Data Available** 672 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 10 meters (deg. C)

March 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-21.5	-21.6	-21.9	-22.2	-22.7	-23.5	-23.6	-23.8	-24.2	-23.8	-23.2	-22.4	-21.4	-20.1	-19.0	-18.2	-18.1	-18.0	-18.1	-18.8	-19.6	-20.2	-20.7	-20.6	-18.0	-24.2	-21.1
2	-20.7	-20.9	-20.8	-21.1	-21.0	-21.1	-21.5	-21.6	-22.1	-21.9	-21.5	-20.6	-19.5	-18.6	-17.3	-16.8	-16.6	-16.7	-17.0	-17.2	-17.3	-17.7	-18.1	-18.6	-16.6	-22.1	-19.4
3	-18.7	-18.8	-19.2	-19.8	-19.7	-19.7	-20.0	-20.5	-20.6	-20.4	-19.6	-18.3	-17.2	-16.0	-14.9	-14.0	-13.5	-13.7	-14.3	-14.1	-14.1	-14.8	-14.1	-15.0	-13.5	-20.6	-17.1
4	-15.7	-15.9	-15.7	-15.1	-15.6	-15.5	-16.1	-16.8	-16.7	-16.3	-15.6	-15.8	-15.4	-15.0	-14.6	-14.5	-14.5	-15.0	-15.6	-16.8	-17.6	-18.0	-18.5	-19.3	-14.5	-19.3	-16.1
5	-20.1	-21.0	-21.9	-22.7	-23.4	-23.9	-24.4	-25.0	-25.2	-24.9	-24.4	-23.8	-23.2	-22.4	-21.9	-21.6	-21.6	-21.9	-22.4	-23.1	-23.8	-24.2	-24.7	-25.2	-20.1	-25.2	-23.2
6	-25.6	-26.1	-26.5	-26.9	-27.1	-27.4	-27.6	-27.8	-27.9	-27.6	-26.9	-26.3	-25.6	-24.8	-24.3	-23.8	-23.7	-23.7	-24.0	-24.3	-24.3	-24.5	-24.7	-25.0	-23.7	-27.9	-25.7
7	-25.1	-25.1	-25.1	-25.3	-25.3	-25.6	-25.6	-25.5	-25.5	-25.0	-24.2	-23.6	-22.5	-21.7	-20.7	-20.4	-20.0	-20.2	-20.8	-21.6	-22.2	-23.0	-23.8	-24.4	-20.0	-25.6	-23.4
8	-25.0	-25.4	-25.8	-26.0	-26.1	-26.5	-26.7	-26.6	-26.7	-26.5	-26.0	-25.4	-24.5	-23.4	-22.4	-21.6	-21.3	-21.2	-21.7	-22.1	-22.0	-22.0	-22.1	-22.4	-21.2	-26.7	-24.1
9	-22.6	-22.8	-23.0	-23.1	-23.2	-23.2	-23.1	-22.9	-22.4	-22.1	-22.1	-21.5	-20.8	-20.1	-19.4	-18.7	-18.4	-18.8	-19.4	-20.1	-20.7	-20.8	-20.4	-20.0	-18.4	-23.2	-21.2
10	-19.7	-19.5	-19.3	-19.0	-19.5	-19.6	-19.4	-18.9	-19.5	-19.5	-19.5	-18.8	-18.2	-16.8	-16.4	-16.0	-15.6	-15.8	-16.3	-17.5	-18.3	-18.8	-19.1	-19.5	-15.6	-19.7	-18.3
11	-20.3	-20.6	-20.8	-21.3	-21.8	-22.5	-23.1	-23.7	-24.0	-23.8	-23.2	-22.5	-21.6	-20.7	-19.7	-19.1	-18.5	-18.4	-18.4	-18.4	-18.4	-18.6	-19.0	-19.4	-18.4	-24.0	-20.7
12	-19.6	-19.9	-19.8	-19.9	-20.3	-20.6	-20.3	-20.4	-21.8	-21.3	-20.8	-20.0	-18.7	-16.6	-16.0	-15.5	-15.3	-15.2	-15.3	-15.5	-15.9	-16.7	-17.2	-17.3	-15.2	-21.8	-18.3
13	-17.5	-17.8	-18.5	-18.5	-18.7	-19.1	-19.6	-20.4	-21.0	-20.9	-20.4	-19.9	-19.2	-18.7	-18.4	-18.0	-18.2	-18.3	-18.8	-19.5	-19.7	-20.0	-20.6	-21.6	-17.5	-21.6	-19.3
14	-22.3	-22.5	-22.7	-22.8	-23.0	-23.1	-23.3	-23.7	-23.7	-23.0	-22.2	-21.7	-21.2	-20.7	-20.2	-19.9	-19.6	-19.8	-20.1	-20.5	-21.1	-21.6	-21.9	-22.3	-19.6	-23.7	-21.8
15	-22.9	-23.5	-24.2	-24.7	-25.4	-25.6	-26.0	-26.0	-25.9	-25.4	-24.3	-23.3	-22.1	-21.3	-20.6	-19.6	-18.7	-18.4	-18.8	-19.6	-20.5	-20.7	-21.1	-21.7	-18.4	-26.0	-22.5
16	-22.0	-22.1	-22.1	-22.1	-22.3	-22.3	-22.7	-22.5	-22.3	-21.7	-20.7	-19.7	-18.6	-17.3	-16.4	-15.8	-15.6	-15.9	-16.8	-17.6	-18.3	-19.0	-19.1	-19.3	-15.6	-22.7	-19.7
17	-19.4	-19.6	-19.9	-20.1	-20.0	-20.3	-20.7	-20.8	-21.0	-20.5	-19.2	-18.3	-17.5	-16.6	-15.5	-14.6	-13.7	-13.3	-13.7	-14.8	-15.6	-16.0	-15.7	-15.6	-13.3	-21.0	-17.6
18	-15.1	-15.2	-15.9	-16.0	-16.8	-16.8	-17.0	-17.2	-17.7	-18.0	-17.4	-16.4	-15.6	-14.6	-13.8	-13.5	-13.1	-12.9	-13.2	-14.3	-15.1	-15.1	-15.8	-16.3	-12.9	-18.0	-15.5
19	-16.5	-16.5	-17.0	-16.9	-16.9	-17.2	-17.2	-17.2	-17.5	-16.8	-15.7	-14.7	-13.7	-13.0	-11.9	-11.2	-10.4	-10.2	-10.6	-10.9	-11.5	-11.3	-11.9	-11.9	-10.2	-17.5	-14.1
20	-12.1	-12.1	-12.2	-11.8	-11.5	-11.7	-11.6	-11.4	-10.7	-9.8	-8.9	-8.1	-7.2	-6.5	-5.5	-4.8	-5.4	-6.0	-5.8	-5.5	-5.1	-4.7	-4.3	-4.3	-4.3	-12.2	-8.2
21	-4.7	-4.5	-4.3	-5.5	-5.7	-5.5	-5.3	-5.1	-5.0	-8.6	-9.3	-9.2	-9.3	-9.2	-9.1	-9.4	-9.6	-9.8	-10.3	-10.8	-11.4	-11.9	-13.5	-13.7	-4.3	-13.7	-8.3
22	-14.2	-14.6	-15.1	-16.1	-16.2	-17.5	-18.2	-18.1	-17.5	-17.5	-16.7	-16.0	-14.9	-13.8	-12.7	-12.0	-11.8	-11.7	-12.1	-12.6	-13.6	-14.3	-15.2	-15.8	-11.7	-18.2	-14.9
23	-16.2	-16.9	-16.9	-16.3	-16.3	-17.2	-17.9	-18.6	-18.7	-18.5	-18.1	-17.1	-16.3	-16.0	-15.7	-14.6	-14.3	-14.4	-14.7	-15.3	-16.0	-17.0	-17.3	-17.9	-14.3	-18.7	-16.6
24	-18.7	-19.0	-20.3	-20.5	-21.4	-21.2	-21.5	-21.5	-21.6	-20.4	-20.0	-19.5	-18.9	-18.1	-17.3	-16.7	-16.2	-15.9	-16.3	-16.9	-17.0	-17.0	-16.7	-16.4	-15.9	-21.6	-18.7
25	-15.4	-15.3	-15.6	-16.0	-16.1	-16.1	-16.6	-16.4	-16.5	-15.8	-15.0	-14.6	-13.5	-12.2	-11.5	-10.8	-10.5	-9.8	-9.5	-9.6	-9.2	-8.8	-8.6	-8.7	-8.6	-16.6	-13.0
26	-8.4	-7.9	-7.3	-7.3	-6.8	-6.8	-7.1	-7.5	-8.9	-10.0	-10.7	-11.1	-11.3	-11.3	-11.5	-11.5	-11.5	-11.7	-11.6	-10.7	-11.3	-11.7	-11.2	-10.5	-6.8	-11.7	-9.8
27	-9.7	-9.4	-10.2	-10.1	-10.7	-11.0	-11.1	-11.4	-11.8	-11.1	-10.9	-10.2	-10.0	-9.7	-9.4	-9.4	-9.5	-9.3	-9.6	-10.1	-10.9	-12.1	-12.5	-13.1	-9.3	-13.1	-10.5
28	-13.0	-13.8	-13.9	-13.8	-13.7	-14.0	-14.6	-15.0	-15.2	-14.3	-13.3	-12.0	-10.9	-9.9	-9.3	-8.9	-8.5	-8.5	-8.6	-9.2	-9.5	-9.3	-10.0	-10.6	-8.5	-15.2	-11.7
29	-10.1	-11.5	-11.6	-11.2	-11.3	-11.2	-11.8	-9.6	-11.3	-11.3	-10.4	-9.0	-7.4	-6.7	-5.8	-5.7	-5.3	-5.4	-5.7	-6.1	-6.5	-6.9	-7.2	-7.8	-5.3	-11.8	-8.6
30	-8.4	-7.7	-8.3	-7.3	-7.8	-7.7	-8.2	-8.6	-8.4	-7.5	-7.1	-6.9	-5.6	-4.9	-4.2	-3.4	-2.9	-2.4	-2.6	-2.6	-2.3	-1.8	-2.2	-3.0	-1.8	-8.6	-5.5
31	-2.9	-3.1	-3.0	-2.0	-1.9	-1.4	-1.1	-1.3	-1.3	-0.9	-0.7	-0.6	-0.2	0.3	0.7	1.2	1.1	1.1	0.9	0.2	-1.0	-1.1	-1.2	-1.6	1.2	-3.1	-0.8
Max.	**-2.9**	**-3.1**	**-3.0**	**-2.0**	**-1.9**	**-1.4**	**-1.1**	**-1.3**	**-1.3**	**-0.9**	**-0.7**	**-0.6**	**-0.2**	**0.3**	**0.7**	**1.2**	**1.1**	**1.1**	**0.9**	**0.2**	**-1.0**	**-1.1**	**-1.2**	**-1.6**	**1.2**		
Min.	**-25.6**	**-26.1**	**-26.5**	**-26.9**	**-27.1**	**-27.4**	**-27.6**	**-27.8**	**-27.9**	**-27.6**	**-26.9**	**-26.3**	**-25.6**	**-24.8**	**-24.3**	**-23.8**	**-23.7**	**-23.7**	**-24.0**	**-24.3**	**-24.3**	**-24.5**	**-24.7**	**-25.2**		**-27.9**	
Avg.	**-16.9**	**-17.1**	**-17.4**	**-17.5**	**-17.7**	**-17.9**	**-18.1**	**-18.2**	**-18.5**	**-18.2**	**-17.7**	**-17.0**	**-16.2**	**-15.4**	**-14.7**	**-14.1**	**-13.9**	**-13.9**	**-14.2**	**-14.7**	**-15.2**	**-15.5**	**-15.8**	**-16.1**			**-16.3**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 10 meters (deg. C)

April *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-1.6	-1.1	-2.2	-2.6	-2.4	-2.5	-2.8	-3.4	-3.2	-2.6	-1.9	-1.5	-1.0	-0.3	0.3	0.5	0.3	0.3	-0.6	-1.1	-1.5	-0.9	-1.2	-1.1	0.5	-3.4	-1.4
2	-1.6	-1.5	-1.8	-2.3	-2.1	-2.4	-2.9	-2.6	-2.4	-1.6	-0.7	-0.2	-0.1	0.0	-0.1	-0.1	-0.1	-0.3	-0.6	-0.8	-0.6	-0.9	-0.8	-1.0	0.0	-2.9	-1.1
3	-1.1	-1.1	-1.1	-1.0	-1.3	-1.4	-1.6	-1.3	-1.6	-1.4	-1.1	-0.6	-0.4	-0.3	0.0	-0.1	-0.1	-0.3	-0.7	-0.6	-0.8	-1.0	-1.3	-1.3	0.0	-1.6	-0.9
4	-1.6	-1.6	-1.6	-1.2	-1.1	-1.1	-1.4	-1.6	-1.1	-0.6	-0.3	0.0	0.2	0.5	0.3	0.4	0.3	0.0	-0.3	-0.1	0.0	0.2	0.7	0.9	0.9	-1.6	-0.4
5	0.8	0.7	0.7	0.9	0.0	1.0	1.0	1.9	2.1	2.5	2.6	2.9	3.4	3.8	4.2	5.0	5.1	2.2	2.1	1.4	1.2	1.2	1.4	1.1	5.1	0.0	2.1
6	0.9	0.9	1.4	1.3	1.7	1.5	2.1	2.4	2.8	2.7	3.4	4.1	4.5	5.2	5.6	5.6	5.4	3.7	1.8	0.9	1.5	2.8	3.7	3.7	5.6	0.9	2.9
7	3.0	1.1	0.7	-0.2	-0.6	-0.9	-0.6	-0.2	-0.1	0.2	0.3	0.1	0.5	0.8	1.4	1.8	1.8	1.9	1.4	0.9	0.9	2.0	2.1	2.1	3.0	-0.9	0.9
8	2.3	2.0	1.9	2.1	2.5	2.9	3.4	3.5	3.6	4.1	4.7	5.3	5.4	5.6	5.6	5.8	5.1	5.0	4.4	3.8	3.5	3.0	1.3	0.8	5.8	0.8	3.7
9	0.9	0.6	0.5	0.7	0.9	1.0	0.2	0.0	0.0	0.1	0.5	0.9	0.8	1.0	1.6	1.3	1.2	0.9	1.1	1.0	0.6	0.2	-0.1	-0.2	1.6	-0.2	0.7
10	-0.5	-0.6	-0.7	-0.9	-1.0	-1.0	-1.1	-1.1	-1.0	-1.0	-0.5	0.3	0.5	0.9	0.8	0.9	1.1	1.5	0.9	0.1	-0.4	-0.5	-0.7	-1.1	1.5	-1.1	-0.2
11	-1.7	-1.5	-1.5	-1.5	-2.0	-2.0	-1.4	-1.5	-1.6	-1.3	-0.2	0.5	0.9	1.0	0.9	1.0	0.8	0.6	0.4	-0.4	-1.3	-1.5	-1.7	-1.7	1.0	-2.0	-0.7
12	-1.4	-1.4	-1.1	-2.4	-2.1	-2.6	-3.0	-2.6	-2.4	-1.4	-0.6	0.1	1.1	1.7	1.9	2.2	2.7	3.0	2.9	1.5	0.6	0.7	0.7	-0.4	3.0	-3.0	-0.1
13	-0.8	-0.7	-1.2	-1.7	-1.7	-2.1	-2.5	-2.0	-1.7	-1.7	-1.5	-1.3	-0.4	0.5	1.2	1.9	2.6	2.8	2.0	0.8	-0.2	-0.8	-0.4	-0.2	2.8	-2.5	-0.4
14	-0.4	-0.8	-1.0	-1.1	-1.6	-1.7	-2.8	-3.1	-2.8	-2.4	-2.1	-1.1	0.3	1.3	1.6	1.2	1.5	1.4	0.8	0.0	-0.6	-1.3	-1.5	-1.7	1.6	-3.1	-0.7
15	-1.7	-1.9	-1.8	-1.5	-1.6	-1.3	-1.4	-1.0	-0.3	0.1	0.9	1.1	1.3	1.4	1.7	1.6	2.0	2.2	1.4	1.0	0.8	0.8	1.0	1.0	2.2	-1.9	0.2
16	1.2	1.3	1.1	1.3	0.7	0.3	-0.2	-0.1	0.6	1.5	2.3	2.3	2.4	0.0	-1.4	-1.8	-2.0	-2.2	-2.8	-3.4	-4.1	-4.2	-4.2	-3.8	2.4	-4.2	-0.6
17	-3.6	-3.6	-3.0	-2.1	-1.6	-0.8	-0.4	-0.4	-0.3	-0.7	-0.9	-0.9	-1.0	-0.9	-0.9	-0.9	-0.8	-0.6	-0.7	-0.6	-0.4	-0.4	-0.3	-0.3	-0.3	-3.6	-1.1
18	-0.4	-0.4	-0.3	-0.2	0.1	0.3	0.0	0.1	0.3	0.6	0.8	1.2	1.3	1.4	0.9	0.6	-1.7	-2.3	-2.8	-3.1	-3.2	-3.3	-3.7	-3.2	1.4	-3.7	-0.7
19	-1.8	-1.5	-2.0	-2.2	-1.1	-0.4	-0.4	-0.6	-0.3	0.0	0.1	0.2	0.2	-0.1	-0.6	-0.9	-1.1	-1.3	-1.7	-1.7	-1.6	-1.3	-0.9	-1.0	0.2	-2.2	-0.9
20	-0.9	-1.0	-1.0	-0.7	-0.4	-0.3	0.7	0.9	1.0	1.5	1.7	2.0	2.6	2.7	2.7	2.6	2.4	1.8	1.8	1.6	1.4	1.2	1.1	1.5	2.7	-1.0	1.1
21	2.1	2.3	2.4	2.7	2.7	2.7	2.1	1.3	2.0	2.1	2.9	3.5	4.2	4.2	3.5	3.6	3.2	2.7	1.9	1.7	1.5	1.1	1.8	1.7	4.2	1.1	2.5
22	1.9	2.2	2.2	2.7	2.6	3.4	3.8	3.2	2.9	2.7	3.3	4.0	4.9	4.7	4.6	4.9	4.4	4.0	3.4	3.3	3.2	3.2	3.1	3.1	4.9	1.9	3.4
23	3.0	3.3	3.7	3.7	3.1	3.3	3.6	3.8	4.2	4.9	5.8	6.9	6.3	6.3	7.2	5.2	4.7	5.3	3.7	3.7	3.1	2.0	1.9	1.5	7.2	1.5	4.2
24	1.2	1.6	1.9	2.4	2.3	2.2	2.5	2.8	3.1	3.8	4.8	5.7	5.3	5.0	5.7	5.9	5.7	5.6	4.9	3.7	2.5	2.0	1.4	1.4	5.9	1.2	3.5
25	1.5	1.7	1.7	1.6	1.5	1.7	1.8	2.3	2.7	3.0	3.8	3.1	2.4	3.0	3.4	3.4	3.5	3.5	3.2	2.8	2.7	2.9	2.9	2.7	3.8	1.5	2.6
26	2.6	3.0	2.7	3.0	3.2	2.2	1.3	2.6	3.5	4.4	5.9	7.2	8.2	8.9	9.4	9.3	9.5	9.6	9.7	9.3	8.6	7.4	7.3	7.2	9.7	1.3	6.1
27	5.3	6.0	3.9	3.2	3.3	3.3	3.2	3.5	3.5	4.3	5.2	6.4	6.9	6.9	6.8	7.1	6.3	5.0	4.2	3.0	2.0	1.1	0.2	-0.4	7.1	-0.4	4.2
28	-0.7	-1.7	-2.1	-2.6	-3.1	-3.2	-3.1	-2.7	-2.5	-2.0	-0.8	1.2	3.2	3.9	4.5	4.7	4.2	3.6	3.3	2.5	1.1	0.0	-0.3	-0.6	4.7	-3.2	0.3
29	-0.1	0.4	0.3	-0.1	0.0	0.0	0.5	1.7	2.4	2.9	3.2	3.9	4.9	5.5	5.7	6.4	6.3	5.9	5.8	5.3	3.6	2.3	1.4	1.0	6.4	-0.1	2.9
30	1.0	0.8	0.9	0.8	0.9	1.5	1.3	1.8	2.9	4.5	5.7	6.3	6.7	7.1	7.4	7.8	7.6	7.5	7.2	6.4	5.7	5.4	5.1	5.0	7.8	0.8	4.5
Max.	**5.3**	**6.0**	**3.9**	**3.7**	**3.3**	**3.4**	**3.8**	**3.8**	**4.2**	**4.9**	**5.9**	**7.2**	**8.2**	**8.9**	**9.4**	**9.3**	**9.5**	**9.6**	**9.7**	**9.3**	**8.6**	**7.4**	**7.3**	**7.2**	**9.7**		
Min.	**-3.6**	**-3.6**	**-3.0**	**-2.6**	**-3.1**	**-3.2**	**-3.1**	**-3.4**	**-3.2**	**-2.6**	**-2.1**	**-1.5**	**-1.0**	**-0.9**	**-1.4**	**-1.8**	**-2.0**	**-2.3**	**-2.8**	**-3.4**	**-4.1**	**-4.2**	**-4.2**	**-3.8**		**-4.2**	
Avg.	**0.3**	**0.3**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.3**	**0.6**	**1.0**	**1.6**	**2.1**	**2.5**	**2.7**	**2.9**	**2.9**	**2.7**	**2.4**	**1.9**	**1.4**	**1.0**	**0.8**	**0.7**	**0.6**			**1.2**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 10 meters (deg. C)

May *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	3.8	2.9	2.9	2.5	1.8	2.1	2.2	3.0	3.7	3.8	3.8	4.7	5.2	5.8	6.3	5.4	5.2	5.2	4.2	3.4	3.3	3.0	2.7	3.4	6.3	1.8	3.8
2	3.4	3.4	3.3	3.0	1.8	1.8	2.2	2.2	1.4	2.2	2.8	4.2	3.5	4.7	5.3	4.8	4.2	3.4	2.7	2.1	1.6	1.1	0.5	0.3	5.3	0.3	2.7
3	0.3	0.5	0.3	0.1	-0.4	-0.2	-0.1	0.1	0.8	2.0	3.3	4.5	5.7	6.5	7.3	7.8	6.8	5.5	5.6	4.7	4.2	4.2	4.2	3.6	7.8	-0.4	3.2
4	3.3	2.8	2.8	2.8	3.0	2.7	2.4	1.8	2.4	3.3	4.1	4.4	5.2	5.6	6.4	6.8	6.8	6.6	5.8	5.3	4.9	3.9	2.2	1.7	6.8	1.7	4.0
5	1.9	0.9	-0.8	-0.9	-0.5	-0.4	-0.6	-0.5	-0.5	-0.2	0.8	1.5	2.8	3.9	5.3	5.9	6.5	6.5	7.0	6.7	5.8	5.9	4.5	4.5	7.0	-0.9	2.8
6	4.8	4.7	4.5	3.4	2.4	2.2	2.2	1.7	1.3	2.0	2.6	3.3	3.8	4.2	4.2	4.3	4.1	3.7	3.4	3.1	2.7	2.5	2.2	1.8	4.8	1.3	3.1
7	1.6	1.5	1.1	0.7	0.2	-0.2	0.7	1.1	2.1	2.5	2.8	3.1	3.6	4.1	4.7	4.8	3.9	3.5	3.5	3.3	2.9	2.3	1.7	1.2	4.8	-0.2	2.4
8	0.9	0.7	0.5	0.4	0.1	0.0	-0.1	-0.2	0.0	0.2	0.7	1.5	2.7	3.4	4.1	4.7	4.6	4.7	4.4	4.2	3.7	1.8	1.3	1.0	4.7	-0.2	1.9
9	1.0	0.7	-0.1	0.0	0.2	0.3	0.1	0.0	-0.2	-0.3	-0.2	0.0	0.4	1.1	1.9	2.6	3.0	3.1	3.2	2.9	2.2	1.5	1.4	1.3	3.2	-0.3	1.1
10	1.2	1.2	0.9	0.9	0.9	1.1	1.2	1.1	1.6	2.4	3.0	3.5	3.7	4.4	4.8	4.9	4.5	4.3	4.3	4.3	3.1	3.1	2.1	1.6	4.9	0.9	2.7
11	1.5	1.5	0.6	0.5	0.9	0.9	1.1	1.8	2.5	3.4	4.0	4.6	5.0	5.3	5.5	5.6	5.5	5.2	4.6	4.0	2.9	1.5	0.8	0.6	5.6	0.5	2.9
12	0.6	0.3	0.5	0.1	-0.4	-0.2	0.6	1.3	2.2	3.1	3.7	4.2	4.3	4.4	4.6	4.8	4.6	4.4	4.1	3.2	2.5	1.4	1.3	1.2	4.8	-0.4	2.4
13	1.4	1.3	1.2	1.2	1.2	1.1	1.0	1.2	1.7	2.2	2.8	2.5	2.6	3.0	3.3	3.5	3.6	4.0	3.7	3.4	3.4	3.2	3.1	2.9	4.0	1.0	2.4
14	4.2	3.5	3.7	3.1	4.2	4.1	4.3	4.9	5.4	5.9	6.2	6.9	5.0	5.3	5.3	4.3	4.3	4.6	4.2	3.7	2.9	2.2	2.1	1.7	6.9	1.7	4.2
15	1.7	1.5	1.0	1.3	1.6	2.1	2.4	3.2	3.8	4.1	4.7	5.7	5.7	4.7	5.1	5.4	5.9	6.0	6.5	7.1	7.3	6.5	5.9	5.3	7.3	1.0	4.4
16	4.9	4.6	4.7	4.7	4.5	4.8	5.5	6.6	7.4	9.0	10.1	10.9	11.1	10.2	10.1	10.6	10.4	9.6	9.0	6.2	4.6	3.6	2.9	2.7	11.1	2.7	7.0
17	2.7	2.5	2.3	2.3	2.3	2.3	2.4	2.7	3.3	4.8	6.3	6.8	6.8	6.7	6.6	6.7	6.2	6.0	5.4	4.5	3.6	2.8	2.4	1.9	6.8	1.9	4.2
18	1.8	2.1	2.0	1.8	1.8	1.6	1.6	2.4	3.4	4.5	5.3	5.8	6.2	6.6	7.0	7.4	8.2	8.5	8.0	7.4	6.6	6.3	6.3	6.2	8.5	1.6	4.9
19	6.0	5.7	5.2	4.8	4.5	4.8	5.4	6.6	7.2	7.3	7.6	7.3	7.5	8.6	9.0	9.3	9.2	9.0	8.7	8.0	7.1	6.3	5.7	5.2	9.3	4.5	6.9
20	4.9	3.8	2.9	2.0	2.7	2.4	2.9	3.4	4.4	4.2	5.3	6.7	7.5	8.0	7.9	8.2	8.2	8.3	8.4	7.8	7.1	5.7	4.9	4.4	8.4	2.0	5.5
21	4.3	4.1	3.6	3.6	3.6	3.7	4.1	4.7	5.6	7.0	7.9	8.7	9.0	9.7	9.9	10.1	9.9	9.3	8.7	7.8	7.0	6.0	5.5	5.3	10.1	3.6	6.6
22	5.1	4.9	4.6	5.0	5.0	5.1	5.4	5.6	6.2	4.8	4.5	6.6	7.9	6.1	6.4	8.0	9.2	8.6	6.9	5.2	4.9	5.4	5.1	5.3	9.2	4.5	5.9
23	5.6	5.5	6.2	6.0	6.4	7.3	7.7	7.9	7.8	8.3	8.8	8.1	8.2	6.5	5.9	6.0	6.6	6.4	5.5	4.9	4.5	3.9	3.5	3.0	8.8	3.0	6.3
24	2.8	2.5	2.5	2.3	2.4	2.4	2.6	3.2	4.5	5.0	5.2	5.9	6.6	7.1	6.7	5.4	5.8	6.8	8.1	7.3	6.3	6.4	5.3	5.2	8.1	2.3	4.9
25	5.1	5.2	7.2	6.3	6.2	6.8	6.8	5.8	5.6	5.5	5.6	5.3	5.6	6.0	6.0	6.1	6.4	6.5	6.6	6.7	6.5	6.7	7.1	7.1	7.2	5.1	6.2
26	7.1	7.1	4.8	4.3	4.2	4.3	4.7	4.5	4.5	5.0	6.0	6.1	6.1	5.8	5.6	5.1	5.4	5.2	4.9	4.9	4.7	4.0	3.8	3.7	7.1	3.7	5.1
27	3.4	3.0	2.9	2.9	2.8	2.8	3.0	3.2	4.4	5.7	6.2	6.6	7.1	7.5	7.5	7.1	7.3	7.2	6.9	6.3	5.3	3.9	3.3	2.9	7.5	2.8	5.0
28	3.0	2.9	2.8	2.6	2.2	2.5	3.0	3.4	4.4	5.6	6.2	6.2	6.4	7.0	6.8	6.2	6.1	5.4	5.1	4.7	4.1	3.3	2.6	2.7	7.0	2.2	4.4
29	2.7	2.6	2.4	2.1	1.3	1.9	2.8	4.1	5.8	7.0	7.7	8.4	8.7	9.3	8.9	8.7	8.6	9.0	8.3	7.9	6.8	5.7	5.4	5.2	9.3	1.3	5.9
30	5.2	5.2	5.3	4.8	4.2	4.1	4.7	5.6	6.5	7.4	7.9	8.7	8.8	9.2	9.5	9.2	8.4	7.3	6.6	6.0	5.5	4.7	4.1	3.9	9.5	3.9	6.4
31	3.9	4.3	5.1	5.7	5.3	5.1	5.3	5.2	4.0	4.5	6.3	6.5	7.0	7.5	7.3	8.0	8.5	8.3	7.5	6.8	6.4	6.0	5.6	5.5	8.5	3.9	6.1
Max.	**7.1**	**7.1**	**7.2**	**6.3**	**6.4**	**7.3**	**7.7**	**7.9**	**7.8**	**9.0**	**10.1**	**10.9**	**11.1**	**10.2**	**10.1**	**10.6**	**10.4**	**9.6**	**9.0**	**8.0**	**7.3**	**6.7**	**7.1**	**7.1**	**11.1**		
Min.	**0.3**	**0.3**	**-0.8**	**-0.9**	**-0.5**	**-0.4**	**-0.6**	**-0.5**	**-0.5**	**-0.3**	**-0.2**	**0.0**	**0.4**	**1.1**	**1.9**	**2.6**	**3.0**	**3.1**	**2.7**	**2.1**	**1.6**	**1.1**	**0.5**	**0.3**		**-0.9**	
Avg.	**3.2**	**3.0**	**2.8**	**2.6**	**2.5**	**2.6**	**2.8**	**3.1**	**3.7**	**4.3**	**4.9**	**5.5**	**5.8**	**6.1**	**6.3**	**6.4**	**6.4**	**6.2**	**5.9**	**5.3**	**4.7**	**4.0**	**3.5**	**3.3**			**4.4**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 10 meters (deg. C)

June *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	4.7	3.9	4.0	3.9	4.2	4.1	4.4	5.6	6.5	6.9	7.3	7.5	8.0	7.4	8.1	7.7	7.1	6.0	5.6	5.6	5.1	4.4	4.2	4.3	8.1	3.9	5.7
2	4.1	4.2	4.0	3.8	3.9	3.8	3.9	4.1	4.3	4.7	5.3	6.1	7.0	7.7	8.2	8.5	8.8	9.1	9.2	8.8	8.0	6.9	5.8	5.5	9.2	3.8	6.1
3	5.6	5.2	5.1	4.3	4.3	4.7	4.8	5.5	6.3	6.6	7.1	8.1	9.0	9.4	10.3	11.3	11.7	11.3	11.4	11.0	11.0	10.3	9.5	8.6	11.7	4.3	8.0
4	8.0	7.3	6.9	7.2	7.1	7.3	7.4	7.4	7.4	7.9	8.2	8.5	9.4	10.1	9.5	8.9	9.3	7.9	6.4	5.8	5.3	5.0	4.6	4.4	10.1	4.4	7.4
5	4.2	4.2	4.1	3.9	3.9	4.1	4.5	4.6	4.7	5.0	5.7	6.6	7.2	6.9	6.9	7.5	7.4	7.0	6.4	6.7	6.3	5.8	5.6	5.1	7.5	3.9	5.6
6	4.7	4.5	4.7	4.8	4.8	4.7	5.0	6.2	7.7	9.5	10.7	10.0	9.6	9.2	8.8	8.2	7.7	7.7	7.7	6.0	5.2	4.4	4.3	4.5	10.7	4.3	6.7
7	4.5	5.9	5.6	4.7	5.1	7.0	6.2	7.0	8.5	9.5	9.2	8.9	8.8	8.1	7.9	6.6	5.8	5.6	5.2	5.5	5.1	4.3	3.4	3.2	9.5	3.2	6.3
8	3.4	3.4	3.4	3.5	3.4	4.0	4.2	4.8	4.9	5.8	6.6	7.5	8.0	7.1	6.7	6.9	7.6	6.0	5.7	5.5	4.7	3.9	3.2	2.7	8.0	2.7	5.1
9	2.3	2.4	2.6	2.4	2.4	2.6	2.8	3.7	4.7	5.9	6.8	7.5	8.0	7.8	8.1	8.8	8.8	8.6	9.1	9.4	8.9	8.3	8.1	8.3	9.4	2.3	6.2
10	8.5	8.3	8.2	7.7	7.3	8.3	8.2	9.0	9.4	10.5	12.5	14.2	15.3	16.4	17.5	18.3	18.8	19.0	19.3	17.4	12.7	9.0	7.3	6.6	19.3	6.6	12.1
11	5.7	5.1	4.5	4.4	4.2	4.2	4.4	5.0	5.6	6.2	7.2	8.7	10.4	11.4	11.1	10.0	8.7	7.7	7.2	6.2	5.1	4.6	4.4	4.2	11.4	4.2	6.5
12	4.1	4.1	4.1	4.0	3.9	3.6	3.9	4.2	4.4	4.6	4.6	4.7	5.0	5.2	5.5	6.5	7.2	7.5	7.6	7.7	7.4	7.0	6.1	5.9	7.7	3.6	5.4
13	5.7	5.5	5.7	5.7	5.2	4.9	5.7	6.7	7.4	7.8	8.4	8.7	8.5	8.8	9.5	10.4	9.2	9.1	9.4	9.4	9.1	9.0	8.8	8.5	10.4	4.9	7.8
14	8.1	8.1	7.5	7.2	7.2	7.2	7.6	8.5	9.4	10.3	11.1	12.0	12.4	12.6	11.4	11.5	11.7	11.9	12.5	12.7	12.6	12.4	12.5	11.9	12.7	7.2	10.4
15	11.0	10.6	10.2	10.2	10.2	9.6	9.8	10.7	11.6	13.2	14.5	15.6	16.5	17.4	18.1	18.4	18.7	18.6	18.5	18.3	17.5	16.5	15.2	13.3	18.7	9.6	14.3
16	12.5	11.5	10.3	9.5	9.3	9.2	9.4	10.3	11.5	12.8	13.6	14.0	14.3	14.6	14.7	14.6	14.2	13.9	12.8	11.9	11.1	10.3	9.1	7.4	14.7	7.4	11.8
17	6.2	5.1	4.3	3.9	3.8	3.6	3.7	3.8	4.2	4.9	5.8	5.9	6.4	7.3	8.1	9.3	10.0	8.7	8.4	8.8	9.1	8.9	8.5	7.9	10.0	3.6	6.5
18	7.9	7.7	7.7	7.5	7.0	6.4	6.9	7.8	8.8	9.3	9.4	9.7	10.8	12.3	12.8	13.3	12.7	13.1	11.9	11.2	9.7	9.3	9.7	9.8	13.3	6.4	9.7
19	9.6	9.5	9.4	9.7	9.6	9.2	9.5	10.5	11.7	12.9	14.2	15.4	16.3	17.5	18.4	19.1	19.8	20.2	20.3	20.3	19.8	18.8	17.7	16.8	20.3	9.2	14.8
20	15.3	14.7	13.7	13.4	12.7	12.9	13.4	14.0	15.1	16.6	17.9	19.1	19.8	20.5	20.9	21.3	21.1	21.0	20.8	19.6	18.5	16.7	15.1	14.5	21.3	12.7	17.0
21	14.1	13.6	12.4	12.6	11.9	11.2	11.4	12.0	12.7	13.3	14.4	14.4	15.2	15.8	16.0	16.5	16.7	16.5	15.6	14.7	12.6	11.2	9.2	7.3	16.7	7.3	13.4
22	6.4	5.9	5.5	5.0	4.6	4.6	4.7	5.0	5.2	5.5	5.8	6.1	6.3	6.6	6.9	6.9	7.0	7.2	7.0	7.0	6.9	6.8	6.7	6.6	7.2	4.6	6.1
23	6.4	6.3	6.4	6.3	6.1	6.0	6.2	6.3	6.3	6.4	6.3	6.3	6.4	6.3	6.4	6.4	6.2	6.1	5.9	5.8	5.9	6.0	5.7	5.6	6.4	5.6	6.2
24	5.5	5.6	5.4	5.4	5.6	5.9	6.2	6.6	6.6	7.1	7.4	7.3	7.0	7.4	7.2	7.3	7.1	7.3	7.2	7.1	6.9	6.5	6.4	6.3	7.4	5.4	6.6
25	6.0	5.7	5.7	5.6	5.5	5.7	5.9	6.3	7.1	7.7	7.6	7.5	7.5	7.8	8.2	8.1	8.3	8.4	8.0	8.0	7.3	6.5	5.9	5.7	8.4	5.5	6.9
26	5.3	5.2	5.6	5.8	6.0	6.2	6.7	7.4	8.2	8.9	9.5	9.8	10.9	11.5	12.2	12.6	12.9	13.2	13.5	13.2	12.5	10.9	10.4	10.1	13.5	5.2	9.5
27	9.5	9.1	8.7	8.7	8.1	8.1	9.0	10.1	11.3	12.2	12.6	12.8	13.7	14.3	14.4	15.5	15.8	15.9	15.2	14.2	12.6	10.7	9.7	8.9	15.9	8.1	11.7
28	8.3	8.1	7.4	7.0	7.1	6.9	6.8	7.1	7.6	8.2	8.6	8.3	8.6	9.5	10.3	10.2	10.3	10.7	11.4	11.4	10.8	10.2	9.7	9.5	11.4	6.8	8.9
29	9.4	9.3	8.9	8.4	8.0	7.8	8.1	9.0	9.9	10.8	11.6	12.1	12.5	12.8	13.0	13.2	12.5	12.1	12.0	11.6	10.8	9.7	8.8	8.3	13.2	7.8	10.4
30	8.5	8.4	8.2	8.2	8.2	8.0	7.8	7.5	7.3	7.4	7.3	8.0	9.3	10.1	11.0	11.3	11.3	11.2	11.3	10.9	9.1	9.3	8.8	8.7	11.3	7.3	9.0
Max.	**15.3**	**14.7**	**13.7**	**13.4**	**12.7**	**12.9**	**13.4**	**14.0**	**15.1**	**16.6**	**17.9**	**19.1**	**19.8**	**20.5**	**20.9**	**21.3**	**21.1**	**21.0**	**20.8**	**20.3**	**19.8**	**18.8**	**17.7**	**16.8**	**21.3**		
Min.	**2.3**	**2.4**	**2.6**	**2.4**	**2.4**	**2.6**	**2.8**	**3.7**	**4.2**	**4.6**	**4.6**	**4.7**	**5.0**	**5.2**	**5.5**	**6.4**	**5.8**	**5.6**	**5.2**	**5.5**	**4.7**	**3.9**	**3.2**	**2.7**		**2.3**	
Avg.	**7.2**	**6.9**	**6.7**	**6.5**	**6.4**	**6.4**	**6.6**	**7.2**	**7.9**	**8.6**	**9.2**	**9.7**	**10.3**	**10.7**	**10.9**	**11.2**	**11.1**	**10.9**	**10.7**	**10.4**	**9.6**	**8.8**	**8.1**	**7.7**			**8.7**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 10 meters (deg. C)

July *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	8.7	8.9	8.8	8.6	7.9	8.2	8.6	9.2	10.0	11.3	12.0	12.3	13.1	13.4	13.7	13.8	13.8	13.7	13.5	13.2	12.3	10.4	9.9	9.9	13.8	7.9	11.0
2	9.6	9.3	8.6	8.4	8.6	8.8	8.9	9.8	11.4	12.9	13.7	14.3	14.7	14.9	15.6	15.5	15.9	16.3	16.4	16.2	15.7	15.0	14.0	13.6	16.4	8.4	12.8
3	13.3	12.8	11.7	11.1	10.6	10.4	10.3	10.6	11.3	11.9	13.0	13.7	14.4	14.9	15.5	16.2	15.5	14.8	12.9	12.2	11.8	11.3	11.1	10.3	16.2	10.3	12.6
4	9.3	8.7	8.5	8.2	8.0	8.2	8.5	9.0	9.5	10.1	10.7	11.3	11.3	11.4	12.2	12.6	11.9	11.2	11.3	11.8	11.7	11.1	9.9	9.4	12.6	8.0	10.2
5	8.9	8.7	8.8	8.9	8.8	9.3	9.4	10.0	11.4	12.5	13.1	13.8	13.8	14.0	14.2	13.8	12.8	12.8	9.6	8.8	8.5	8.3	8.2	8.3	14.2	8.2	10.7
6	8.9	9.0	8.9	8.8	8.8	8.8	8.9	9.0	9.0	9.1	9.2	9.5	10.3	11.1	12.0	12.6	13.3	13.6	13.8	13.9	13.7	13.5	11.8	11.5	13.9	8.8	10.8
7	11.1	11.0	10.7	10.4	10.4	10.4	10.6	11.5	13.2	14.1	14.7	15.0	15.3	15.8	16.3	16.4	16.7	16.6	14.5	13.4	12.6	11.7	11.1	10.5	16.7	10.4	13.1
8	10.1	9.9	9.9	9.7	9.6	9.9	9.3	9.5	9.8	10.0	10.2	10.3	10.6	10.9	11.0	10.9	11.3	11.7	11.4	11.1	9.8	8.9	8.5	8.0	11.7	8.0	10.1
9	7.4	7.0	7.0	7.1	7.1	7.5	7.8	8.1	8.6	9.3	10.3	11.1	12.1	12.5	13.5	13.4	13.2	13.5	12.8	12.8	12.4	12.1	11.6	10.8	13.5	7.0	10.4
10	10.1	10.0	9.6	9.8	9.6	10.7	10.6	11.6	12.8	13.8	13.9	14.7	14.1	13.5	14.3	14.3	12.6	11.9	11.1	10.4	10.1	9.7	9.1	9.0	14.7	9.0	11.5
11	8.9	9.0	9.2	9.0	8.8	8.4	8.1	8.7	9.9	10.9	12.3	13.0	13.7	14.2	14.2	14.2	14.5	14.5	14.2	13.6	12.8	11.1	10.4	10.1	14.5	8.1	11.4
12	9.4	9.2	9.5	9.4	9.3	9.5	9.9	11.0	12.0	12.9	13.2	13.6	14.3	14.1	12.0	11.8	10.0	9.7	10.1	10.2	10.1	9.8	9.6	9.3	14.3	9.2	10.8
13	8.8	8.5	8.2	8.0	8.0	7.9	8.0	8.0	8.1	8.2	8.4	8.4	8.5	8.7	9.0	9.2	9.4	9.9	9.8	9.7	9.7	9.6	9.2	8.7	9.9	7.9	8.7
14	8.3	8.5	8.4	8.3	8.2	8.0	8.1	8.2	8.4	9.1	10.0	10.5	11.0	11.4	10.7	10.5	10.6	10.4	10.2	9.8	9.7	9.6	9.3	9.2	11.4	8.0	9.4
15	9.0	8.9	8.8	8.6	8.5	8.5	8.6	8.9	9.2	9.6	10.8	11.3	11.8	12.4	12.6	12.4	12.5	12.4	12.2	11.8	11.0	10.3	10.0	9.1	12.6	8.5	10.4
16	8.4	8.2	8.0	7.4	7.1	7.5	7.6	8.7	9.3	10.4	11.7	13.0	13.7	14.3	14.4	14.9	15.3	15.8	16.2	16.1	15.0	13.9	12.6	12.0	16.2	7.1	11.7
17	11.3	11.2	10.8	10.1	9.4	9.5	10.4	11.4	12.7	13.9	14.9	15.7	16.2	16.2	17.1	17.5	17.4	14.9	13.1	11.7	10.9	10.0	9.5	9.5	17.5	9.4	12.7
18	9.4	9.3	9.2	9.1	9.0	8.9	9.2	9.7	10.3	11.0	11.3	12.6	13.5	13.5	11.1	11.9	11.7	11.0	10.8	11.4	11.6	11.6	11.5	11.1	13.5	8.9	10.8
19	10.9	10.4	9.9	10.3	9.5	8.4	8.5	9.1	10.6	11.8	12.6	13.5	14.7	14.6	14.4	14.2	14.5	14.1	14.5	14.4	14.1	13.8	13.7	14.0	14.7	8.4	12.4
20	13.8	13.5	13.3	13.0	13.2	13.0	13.4	12.7	13.0	13.7	13.6	13.9	15.2	16.1	16.5	16.4	16.1	16.2	15.6	15.7	13.9	12.6	11.6	10.4	16.5	10.4	14.0
21	9.8	9.5	9.2	8.6	8.2	7.8	7.6	7.7	7.6	7.5	8.0	8.1	8.1	8.9	9.4	9.4	9.3	8.4	8.1	7.9	7.5	7.0	6.7	6.8	9.8	6.7	8.2
22	6.8	6.8	6.8	6.7	6.7	6.6	6.6	6.7	6.6	6.6	6.7	6.9	7.1	7.4	7.4	7.5	7.7	7.5	7.4	7.2	7.2	7.3	7.2	7.2	7.7	6.6	7.0
23	7.4	7.4	6.9	6.9	6.9	7.0	7.0	7.3	7.5	7.8	8.0	8.3	8.4	8.7	8.7	8.6	8.6	8.7	8.5	8.6	8.1	8.2	8.2	8.0	8.7	6.9	7.9
24	8.0	8.3	8.5	8.4	8.2	8.1	8.3	8.4	8.9	9.6	9.8	9.8	10.0	10.3	10.6	11.0	11.5	11.2	11.2	11.4	11.4	11.8	11.9	11.5	11.9	8.0	9.9
25	11.4	11.5	11.7	12.0	12.0	12.0	12.3	13.1	13.5	14.2	14.3	14.8	15.3	15.6	15.5	15.3	15.0	15.1	14.9	14.8	14.3	13.7	13.7	13.3	15.6	11.4	13.7
26	13.0	12.1	11.9	11.7	11.4	10.7	11.2	12.3	12.7	13.2	14.9	16.5	17.5	18.5	18.2	16.9	18.4	19.0	18.5	18.2	17.9	17.4	16.6	14.9	19.0	10.7	15.1
27	15.2	15.8	15.9	13.5	14.4	15.4	15.5	15.6	15.7	16.8	17.8	18.0	19.0	19.7	20.3	21.2	21.7	20.9	20.2	19.0	17.7	16.3	16.4	17.3	21.7	13.5	17.5
28	16.3	14.9	12.0	11.1	10.6	10.2	10.0	9.9	9.8	10.1	10.3	11.7	13.8	14.7	15.7	16.1	16.2	16.4	16.3	15.1	13.2	11.7	11.1	10.8	16.4	9.8	12.8
29	10.7	10.5	10.5	10.2	10.1	10.1	10.7	10.8	11.5	12.2	13.4	14.9	15.9	16.3	17.0	17.5	17.8	17.9	17.7	16.8	16.7	15.6	13.5	13.3	17.9	10.1	13.8
30	13.7	13.5	12.5	11.1	10.9	10.8	10.6	10.7	10.8	10.5	10.5	10.6	11.4	11.9	13.1	13.7	13.7	13.4	12.7	12.5	11.9	11.3	10.4	9.9	13.7	9.9	11.7
31	9.7	9.4	9.1	8.8	8.6	8.3	8.4	8.8	9.1	9.4	9.7	10.2	10.8	11.9	12.7	13.0	12.7	12.0	10.8	10.4	9.9	9.3	9.3	9.2	13.0	8.3	10.1
Max.	**16.3**	**15.8**	**15.9**	**13.5**	**14.4**	**15.4**	**15.5**	**15.6**	**15.7**	**16.8**	**17.8**	**18.0**	**19.0**	**19.7**	**20.3**	**21.2**	**21.7**	**20.9**	**20.2**	**19.0**	**17.9**	**17.4**	**16.6**	**17.3**	**21.7**		
Min.	**6.8**	**6.8**	**6.8**	**6.7**	**6.7**	**6.6**	**6.6**	**6.7**	**6.6**	**6.6**	**6.7**	**6.9**	**7.1**	**7.4**	**7.4**	**7.5**	**7.7**	**7.5**	**7.4**	**7.2**	**7.2**	**7.0**	**6.7**	**6.8**		**6.6**	
Avg.	**10.3**	**10.0**	**9.8**	**9.5**	**9.3**	**9.3**	**9.4**	**9.9**	**10.5**	**11.1**	**11.7**	**12.3**	**12.9**	**13.3**	**13.5**	**13.6**	**13.6**	**13.4**	**12.9**	**12.6**	**12.0**	**11.4**	**10.9**	**10.5**			**11.4**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 10 meters (deg. C)

August 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	9.1	9.1	9.0	9.1	9.1	8.8	8.8	8.7	8.8	8.9	9.3	9.6	9.3	9.6	9.6	9.6	9.4	8.9	8.9	9.1	9.0	8.7	8.8	8.9	9.6	8.7	9.1
2	8.7	8.8	8.7	8.7	8.7	8.9	8.9	8.7	8.7	9.0	8.9	9.0	9.0	9.1	9.3	9.3	9.0	9.2	9.4	9.7	9.9	9.6	9.5	9.4	9.9	8.7	9.1
3	9.2	9.3	9.1	9.0	8.9	8.8	8.9	9.1	9.4	9.7	9.9	10.0	10.6	10.6	11.1	11.4	11.1	10.8	10.2	9.7	9.4	9.3	9.2	9.2	11.4	8.8	9.7
4	9.3	9.3	9.2	9.2	9.2	9.2	9.3	9.3	9.3	9.3	9.5	9.6	9.8	9.8	9.9	9.9	9.9	10.1	10.2	10.1	10.0	10.0	9.9	10.2	10.2	9.2	9.6
5	10.2	10.3	10.1	9.6	9.6	9.7	9.9	10.4	10.8	10.5	10.4	10.2	9.6	9.4	9.3	9.6	9.9	10.1	10.3	10.6	10.4	9.9	9.6	8.9	10.8	8.9	10.0
6	8.3	7.9	7.5	7.2	7.3	8.5	9.8	10.3	10.5	11.1	11.4	11.9	12.2	12.9	13.1	12.4	12.2	12.6	12.5	12.4	11.4	10.8	9.9	9.4	13.1	7.2	10.6
7	9.1	8.7	9.0	9.4	9.0	8.3	8.5	9.5	10.4	11.1	11.9	12.2	12.8	13.5	14.3	14.8	15.3	15.4	15.1	14.8	14.1	13.3	12.0	11.0	15.4	8.3	11.8
8	10.8	10.1	10.0	9.4	9.4	9.4	9.6	9.7	10.2	11.6	13.4	14.2	15.3	15.7	16.4	16.8	16.9	17.1	16.9	16.2	15.5	14.3	13.3	13.6	17.1	9.4	13.1
9	12.6	12.0	12.2	12.5	12.0	11.1	11.1	12.1	12.9	13.9	15.1	16.1	16.6	17.5	17.3	17.7	17.6	17.5	17.4	17.0	16.5	16.0	15.8	14.6	17.7	11.1	14.8
10	14.2	14.2	14.3	14.2	14.1	13.8	13.5	13.9	14.8	16.0	16.9	17.7	18.4	19.1	19.6	19.8	19.8	19.7	19.4	18.4	17.6	16.9	16.1	16.0	19.8	13.5	16.6
11	15.3	14.9	13.2	13.2	12.9	12.9	13.2	13.1	13.7	13.9	14.4	15.8	16.7	16.8	16.6	17.3	17.6	16.8	16.7	16.3	15.9	15.7	15.3	15.3	17.6	12.9	15.1
12	15.2	15.0	14.1	13.7	13.3	13.4	13.2	13.2	13.3	13.6	13.9	14.8	15.9	17.7	18.4	20.4	21.5	21.9	22.2	21.5	20.5	19.1	18.1	17.5	22.2	13.2	16.7
13	17.1	17.0	16.5	16.2	16.5	16.1	15.6	15.9	16.2	17.4	18.0	18.8	19.3	19.9	20.0	20.5	20.6	20.6	19.4	18.9	17.4	15.6	13.7	12.5	20.6	12.5	17.5
14	11.3	9.4	8.2	7.4	7.0	7.4	7.7	7.9	7.9	7.7	7.8	8.1	8.4	9.0	9.1	9.2	9.2	9.2	9.1	9.3	9.2	8.6	8.3	8.2	11.3	7.0	8.5
15	8.3	8.4	8.4	8.5	8.9	9.2	9.3	9.4	9.7	10.2	10.8	10.9	11.2	11.5	11.6	11.6	11.7	11.4	11.2	11.3	11.0	10.6	10.5	10.1	11.7	8.3	10.2
16	9.9	9.5	9.1	8.8	8.5	8.0	7.6	8.6	10.3	10.5	10.9	13.1	14.6	15.7	16.4	17.1	16.8	14.9	14.6	13.5	12.4	12.1	11.8	11.7	17.1	7.6	11.9
17	11.3	11.0	10.3	9.6	9.7	9.6	9.3	9.4	10.5	11.6	11.7	11.6	11.8	12.6	12.3	12.2	11.9	11.9	11.3	10.6	10.0	9.9	9.7	9.3	12.6	9.3	10.8
18	9.6	9.5	9.1	8.8	8.9	9.1	8.9	8.8	9.1	9.3	9.1	9.2	9.2	9.8	10.5	11.1	11.3	11.2	10.9	10.9	10.9	10.8	10.8	10.9	11.3	8.8	9.9
19	10.8	10.9	10.5	10.5	10.4	10.2	10.8	11.0	11.4	11.8	12.3	12.8	12.7	12.5	12.8	13.0	12.3	12.0	11.1	10.5	10.3	10.1	10.0	9.8	13.0	9.8	11.3
20	9.5	9.2	9.0	9.1	9.1	9.1	9.1	8.9	8.9	9.3	9.6	10.1	10.4	10.8	11.1	11.6	11.8	12.0	11.3	10.7	9.6	9.4	9.2	9.4	12.0	8.9	9.9
21	9.4	9.3	8.9	8.6	8.7	8.3	8.2	8.3	8.4	8.6	8.8	9.1	9.1	9.3	9.8	10.3	10.3	10.5	10.4	10.1	9.7	9.2	8.9	8.8	10.5	8.2	9.2
22	9.1	9.0	9.0	8.6	8.6	8.6	8.6	8.5	8.6	8.7	9.1	9.4	9.6	9.4	9.2	9.3	9.4	9.4	9.2	8.9	8.6	8.6	8.6	8.6	9.6	8.5	9.0
23	8.8	9.1	9.3	8.8	9.0	8.8	8.4	8.2	8.3	9.1	10.1	10.7	11.0	11.5	11.9	12.0	12.2	12.2	12.2	12.0	11.8	11.9	12.0	12.2	12.2	8.2	10.5
24	12.2	12.0	11.5	11.2	10.6	10.6	10.5	10.4	10.6	11.2	11.8	12.6	13.8	14.4	13.9	13.3	14.2	13.9	12.3	12.1	12.4	11.7	10.6	10.8	14.4	10.4	12.0
25	10.6	10.5	10.6	10.0	9.5	9.2	8.9	8.8	8.9	9.2	9.6	9.9	10.8	12.4	13.7	14.6	14.9	14.7	13.7	12.4	11.2	10.8	10.5	10.4	14.9	8.8	11.1
26	10.1	10.0	10.1	10.1	10.3	10.4	10.3	10.1	10.2	10.6	11.6	12.2	12.4	12.9	13.2	13.2	13.3	12.9	12.2	11.4	11.4	11.2	11.2	11.6	13.3	10.0	11.4
27	11.9	11.5	10.9	11.5	9.6	9.6	9.7	10.5	12.0	12.4	13.8	15.0	15.1	15.0	15.2	15.3	15.1	15.1	14.9	14.8	14.4	13.7	13.2	13.0	15.3	9.6	13.0
28	12.5	11.9	11.2	10.9	11.5	10.9	10.8	10.6	11.0	12.7	13.9	14.7	15.6	16.2	16.7	16.9	17.2	17.5	16.3	15.2	15.0	14.0	13.2	13.0	17.5	10.6	13.7
29	11.8	11.8	11.9	11.2	10.9	10.8	10.6	10.4	10.5	10.6	11.0	11.5	12.6	13.8	14.3	14.6	14.7	14.7	14.7	14.1	13.4	12.6	11.6	11.1	14.7	10.4	12.3
30	9.9	9.8	9.2	8.6	8.2	8.7	8.8	8.9	9.7	10.9	11.6	12.1	12.5	13.0	13.6	14.1	14.4	14.9	14.6	13.7	12.6	12.0	11.1	10.5	14.9	8.2	11.4
31	10.0	9.5	9.3	9.0	8.0	7.9	7.8	7.4	8.3	10.0	10.1	12.0	13.7	14.2	14.2	13.5	13.1	13.4	13.1	12.9	12.1	10.7	11.0	11.7	14.2	7.4	10.9
Max.	**17.1**	**17.0**	**16.5**	**16.2**	**16.5**	**16.1**	**15.6**	**15.9**	**16.2**	**17.4**	**18.0**	**18.8**	**19.3**	**19.9**	**20.0**	**20.5**	**21.5**	**21.9**	**22.2**	**21.5**	**20.5**	**19.1**	**18.1**	**17.5**	**22.2**		
Min.	**8.3**	**7.9**	**7.5**	**7.2**	**7.0**	**7.4**	**7.6**	**7.4**	**7.9**	**7.7**	**7.8**	**8.1**	**8.4**	**9.0**	**9.1**	**9.2**	**9.0**	**8.9**	**8.9**	**8.9**	**8.6**	**8.6**	**8.3**	**8.2**		**7.0**	
Avg.	**10.8**	**10.6**	**10.3**	**10.1**	**9.9**	**9.8**	**9.9**	**10.0**	**10.4**	**11.0**	**11.5**	**12.1**	**12.6**	**13.1**	**13.4**	**13.6**	**13.7**	**13.6**	**13.3**	**12.9**	**12.4**	**11.8**	**11.4**	**11.2**			**11.6**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 10 meters (deg. C)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2300	Max.	Min.	Avg.
1	11.6	10.8	10.7	10.2	9.2	8.5	8.2	8.2	8.3	8.5	8.7	9.0	9.4	10.1	10.7	11.5	12.0	11.8	11.0	9.8	8.7	8.4	8.2	8.1	12.0	8.1	9.6
2	8.1	8.2	8.2	7.9	7.8	7.9	8.1	8.3	8.8	9.0	9.7	10.2	10.6	11.3	11.7	11.3	10.7	10.2	9.9	9.4	8.8	8.6	8.4	8.3	11.7	7.8	9.2
3	8.6	8.5	8.6	8.6	8.5	8.5	8.3	8.3	8.1	8.4	8.6	8.7	8.6	8.4	8.3	8.1	7.9	7.7	7.6	7.4	7.4	7.6	7.6	7.5	8.7	7.4	8.1
4	7.5	7.9	8.1	7.9	8.1	8.3	7.6	7.4	8.8	10.2	10.7	11.5	12.3	13.1	13.3	13.6	12.6	12.2	12.0	10.8	11.1	10.6	10.6	10.3	13.6	7.4	10.3
5	10.5	10.3	10.2	10.0	9.7	8.9	9.5	9.2	8.3	9.3	10.6	10.5	11.9	12.6	13.4	12.2	9.5	8.7	9.0	9.0	9.5	9.4	9.3	9.0	13.4	8.3	10.0
6	8.5	7.9	7.4	7.4	7.9	7.4	6.7	7.1	7.4	8.1	8.6	9.3					11.7	11.2	10.2	9.5	9.2	7.8	7.3	7.3	11.7	6.7	8.4
7	7.4	7.5	7.6	7.8	7.9	8.1	8.1	8.0	8.2	8.5	8.6	8.6	8.9	9.0	9.2	9.4	9.6	9.2	9.2	8.4	8.3	8.5	8.7	8.8	9.6	7.4	8.5
8	8.9	8.8	9.0	9.2	9.4	9.6	9.7	10.1	10.2	10.2	10.0	10.0	10.1	10.0	10.3	10.5	10.6	11.1	11.2	11.2	11.0	10.5	10.0	9.8	11.2	8.8	10.1
9	9.5	9.2	9.0	9.3	9.3	9.2	9.3	9.2	9.1	9.1	9.3	9.5	9.5	10.1	10.2	10.7	11.0	11.5	11.2	10.7	10.0	9.8	9.7	9.9	11.5	9.0	9.8
10	9.5	9.3	9.6	9.3	9.0	8.9	8.8	8.9	8.8	9.0	9.7	10.2	10.5	10.4	10.6	10.6	10.4	11.0	10.5	9.8	9.3	8.9	8.9	8.9	11.0	8.8	9.6
11	8.6	8.7	9.0	8.9	8.8	8.6	8.6	8.5	8.6	8.9	9.2	8.8	8.8	8.3	7.8	7.7	7.8	7.8	7.5	7.4	7.6	7.9	8.2	8.3	9.2	7.4	8.3
12	8.4	8.3	8.2	8.0	8.0	8.2	7.9	7.4	7.8	7.5	7.8	8.9	9.8	10.3	10.8	11.2	11.3	9.5	8.4	8.0	7.9	7.7	7.7	7.6	11.3	7.4	8.6
13	7.4	7.2	6.9	6.9	7.0	7.1	6.9	6.8	7.0	7.2	7.1	7.0	7.2	8.0	7.8	7.8	7.8	7.0	7.0	7.2	6.6	6.4	6.2	5.7	8.0	5.7	7.1
14	5.7	6.0	6.1	6.1	6.0	6.1	6.1	5.6	4.9	5.3	6.6	7.3	7.9	8.4	8.5	9.4	9.7	9.3	8.8	8.7	8.0	7.4	7.0	6.7	9.7	4.9	7.2
15	6.5	6.4	6.3	6.1	6.3	5.5	5.0	4.8	3.9	4.5	5.9	6.9	7.4	8.1	8.8	9.3	8.9	8.6	9.3	9.2	8.4	7.8	7.5	7.3	9.3	3.9	7.0
16	6.8	6.2	6.0	6.0	5.7	6.5	6.5	6.9	6.0	5.3	6.7	8.1	8.6	8.8	9.6	10.2	10.1	9.7	9.7	8.8	7.7	7.1	6.8	6.3	10.2	5.3	7.5
17	5.6	5.1	4.7	4.7	4.9	5.0	4.9	5.0	5.1	5.7	5.9	6.3	6.5	6.8	7.5	7.9	8.2	8.5	8.8	8.6	7.7	7.8	7.8	8.2	8.8	4.7	6.5
18	8.2	7.9	6.9	6.8	7.0	7.0	7.3	8.2	8.3	8.4	8.8	9.0	9.4	9.4	9.3	9.0	9.1	9.1	8.9	8.7	8.5	8.4	8.5	9.1	9.4	6.8	8.4
19	9.2	9.1	9.3	9.0	8.2	8.1	8.2	8.2	8.0	8.0	8.1	8.3	8.3	8.4	8.1	8.7	8.1	7.5	7.3	7.0	6.8	6.8	6.7	6.6	9.3	6.6	8.0
20	6.5	6.5	6.5	6.4	6.4	6.5	6.4	6.4	6.3	6.3	6.2	6.4	6.6	6.8	7.2	7.6	8.2	8.8	8.1	7.5	7.5	7.6	6.8	6.3	8.8	6.2	6.9
21	6.2	6.3	6.1	6.2	6.4	6.4	7.0	6.5	6.9	7.2	7.8	8.3	8.6	8.9	9.3	9.6	9.5	10.3	9.8	9.5	8.6	7.6	7.0	6.7	10.3	6.1	7.8
22	6.5	5.9	5.3	5.1	5.6	5.3	5.0	5.0	5.2	5.9	5.7	7.3	7.6	8.4	8.8	8.7	8.8	8.3	7.2	6.3	6.0	5.7	5.4	5.2	8.8	5.0	6.4
23	5.3	5.5	5.6	6.0	5.9	5.9	6.5	6.1	6.2	6.5	6.1	6.5	6.9	7.3	7.5	7.3	6.8	6.3	6.3	6.1	6.0	6.0	6.1	6.2	7.5	5.3	6.3
24	6.2	5.7	5.5	5.8	5.4	4.9	4.5	4.7	5.0	5.2	5.6	5.9	6.4	6.7	6.9	7.3	6.1	6.8	5.0	5.0	5.2	5.0	4.4	3.9	7.3	3.9	5.6
25	3.3	3.3	3.5	3.7	4.0	4.8	5.0	5.1	4.7	4.6	4.9	5.4	5.8	6.2	6.0	6.2	5.8	5.7	5.6	5.1	5.2	5.2	5.0	4.7	6.2	3.3	4.9
26	4.4	4.0	3.8	3.4	3.4	3.2	3.1	3.1	2.9	2.8	3.4	4.7	4.9	5.1	5.4	5.6	6.2	6.0	6.5	6.1	5.7	5.8	5.5	5.6	6.5	2.8	4.6
27	5.0	5.1	5.1	5.3	3.3	3.3	2.5	2.6	2.2	2.4	2.6	3.3	3.9	4.2	5.2	5.4	5.0	5.6	5.7	5.7	5.8	5.7	5.3	5.0	5.8	2.2	4.4
28	5.0	4.6	4.0	3.3	3.1	3.0	3.0	3.1	3.2	3.3	3.5	3.9	4.2	4.3	4.4	4.7	5.1	5.5	5.4	5.1	4.9	4.8	4.9	5.0	5.5	3.0	4.2
29	4.5	4.7	4.8	4.7	4.2	4.3	4.3	4.2	4.1	4.2	4.9	4.9	5.6	5.9	6.3	6.0	5.8	5.7	5.5	5.3	5.3	5.5	4.9	4.4	6.3	4.1	5.0
30	4.2	3.6	2.7	2.5	2.9	3.0	3.1	3.2	3.1	3.2	3.3	4.6	4.7	5.0	4.6	4.9	4.7	4.9	4.4	3.9	3.8	4.1	4.0	4.0	5.0	2.5	3.8
Max.	**11.6**	**10.8**	**10.7**	**10.2**	**9.7**	**9.6**	**9.7**	**10.1**	**10.2**	**10.2**	**10.7**	**11.5**	**12.3**	**13.1**	**13.4**	**13.6**	**12.6**	**12.2**	**12.0**	**11.2**	**11.1**	**10.6**	**10.6**	**10.3**	**13.6**		
Min.	**3.3**	**3.3**	**2.7**	**2.5**	**2.9**	**3.0**	**2.5**	**2.6**	**2.2**	**2.4**	**2.6**	**3.3**	**3.9**	**4.2**	**4.4**	**4.7**	**4.7**	**4.9**	**4.4**	**3.9**	**3.8**	**4.1**	**4.0**	**3.9**		**2.2**	
Avg.	**7.1**	**6.9**	**6.8**	**6.8**	**6.6**	**6.6**	**6.5**	**6.5**	**6.5**	**6.8**	**7.2**	**7.6**	**8.0**	**8.3**	**8.5**	**8.7**	**8.6**	**8.5**	**8.2**	**7.8**	**7.6**	**7.3**	**7.2**	**7.0**			**7.4**

Total Hours in Month 720 **Hours Data Available** 716 **Data Recovery** 99.4%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 10 meters (deg. C)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	3.8	3.6	3.2	2.9	2.8	2.7	2.9	2.7	2.5	3.4	3.9	4.8	5.1	5.2	5.7	6.1	5.8	5.9	4.7	5.0	4.2	4.2	4.2	3.7	6.1	2.5	4.1
2	3.3	3.0	2.4	2.5	2.6	2.4	2.4	2.6	2.5	2.5	2.4	2.4	3.0	3.9	4.0	4.5	4.9	5.3	4.8	4.0	3.8	3.3	2.9	2.3	5.3	2.3	3.2
3	1.8	1.7	1.7	1.6	1.6	1.4	1.8	1.7	1.4	1.4	1.8	2.6	3.3	3.9	4.0	4.1	4.1	4.1	4.1	3.7	3.1	2.8	2.2	2.2	4.1	1.4	2.6
4	1.8	1.8	2.1	2.1	1.8	1.7	1.7	2.0	2.5	2.1	2.0	1.9	2.1	2.4	2.4	2.6	2.6	2.2	1.7	1.5	1.4	1.5	2.0	1.9	2.6	1.4	2.0
5	1.8	1.8	1.5	1.8	1.8	1.8	1.5	1.1	1.0	1.6	1.8	1.7	1.9	2.2	3.0	3.5	3.3	3.4	2.6	2.3	1.8	1.4	1.0	0.6	3.5	0.6	1.9
6	0.1	-0.4	-0.8	-1.1	-1.3	-1.3	-1.4	-1.7	-2.1	-2.4	-2.6	-2.2	-1.6	-1.1	-0.9	-0.8	-0.8	-0.7	-1.0	-1.3	-1.6	-2.0	-2.6	-3.1	0.1	-3.1	-1.5
7	-3.6	-4.1	-4.6	-5.1	-5.4	-5.5	-5.4	-5.0	-4.6	-4.9	-4.8	-4.2	-3.6	-3.0	-3.1	-2.8	-2.7	-2.5	-3.0	-3.8	-4.6	-5.1	-5.6	-5.8	-2.5	-5.8	-4.3
8	-5.7	-5.6	-5.5	-5.9	-6.3	-6.4	-6.6	-7.0	-7.4	-7.5	-7.3	-6.4	-5.5	-4.6	-3.9	-3.3	-3.0	-3.0	-3.3	-3.9	-4.1	-3.9	-3.9	-5.2	-3.0	-7.5	-5.2
9	-5.6	-4.9	-4.4	-4.8	-5.5	-6.4	-6.2	-5.5	-6.6	-6.8	-5.5	-3.5	-1.2	0.4	1.0	1.6	1.5	0.8	0.2	-0.2	-0.7	-0.6	0.3	0.4	1.6	-6.8	-2.6
10	0.5	0.2	0.1	-0.4	-1.0	0.0	-0.4	-1.0	-1.5	-2.0	-1.2	-0.5	0.1	0.3	0.5	0.8	0.7	0.7	0.2	-0.7	-1.5	-1.9	-2.5	-2.8	0.8	-2.8	-0.6
11	-3.7	-4.0	-4.1	-4.1	-3.9	-4.2	-4.2	-4.1	-3.6	-3.3	-2.4	-0.9	0.0	0.6	1.3	1.8	1.7	1.2	1.4	1.6	1.7	1.9	1.9	1.8	1.9	-4.2	-1.1
12	2.1	2.2	2.3	2.2	2.3	2.1	2.0	1.8	2.1	0.9	1.5	1.9	2.6	3.3	3.8	4.1	4.3	4.3	4.5	3.9	3.0	1.8	1.1	0.8	4.5	0.8	2.5
13	0.3	-0.2	-0.1	-0.3	-0.8	-1.2	-2.1	-2.7	-2.9	-3.5	-3.9	-4.1	-3.6	-3.0	-2.3	-1.5	-1.3	-1.8	-2.5	-3.0	-2.9	-3.0	-3.2	-3.3	0.3	-4.1	-2.2
14	-3.7	-4.1	-4.4	-4.5	-4.6	-4.7	-5.0	-5.2	-5.5	-6.5	-6.2	-4.8	-4.4	-3.5	-3.0	-2.8	-2.6	-2.8	-3.1	-3.0	-3.6	-4.2	-5.2	-5.6	-2.6	-6.5	-4.3
15	-5.4	-4.8	-4.4	-4.5	-4.4	-4.5	-4.0	-4.5	-3.8	-3.6	-2.2	-1.7	-0.6	0.8	0.9	1.1	1.3	1.5	1.1	0.2	-0.2	-0.3	-0.4	-0.5	1.5	-5.4	-1.8
16	-0.8	-1.7	-2.5	-2.5	-3.1	-4.1	-4.9	-5.0	-6.0	-6.6	-6.2	-5.3	-4.8	-4.7	-4.6	-3.9	-3.7	-3.9	-4.6	-5.1	-5.1	-5.5	-5.6	-5.7	-0.8	-6.6	-4.4
17	-5.7	-5.7	-5.8	-5.8	-5.9	-6.0	-6.1	-6.0	-6.1	-5.9	-5.7	-5.7	-5.5	-5.1	-4.6	-4.1	-4.0	-4.1	-4.3	-4.2	-4.2	-4.4	-4.6	-4.6	-4.0	-6.1	-5.2
18	-4.6	-4.5	-4.7	-4.8	-4.8	-4.9	-4.8	-4.9	-5.0	-4.8	-5.0	-4.6	-4.6	-4.1	-3.8	-3.6	-3.9	-4.2	-4.4	-4.4	-4.7	-4.7	-5.0	-5.3	-3.6	-5.3	-4.6
19	-5.7	-6.3	-6.3	-6.1	-6.6	-6.2	-6.1	-5.4	-4.8	-4.6	-4.4	-3.5	-3.1	-3.1	-2.3	-2.0	-1.6	-1.7	-2.4	-3.4	-3.8	-3.2	-3.2	-2.7	-1.6	-6.6	-4.1
20	-2.5	-3.1	-3.4	-3.2	-3.4	-5.0	-5.5	-4.8	-4.1	-3.8	-3.9	-4.1	-1.6	-1.2	-0.3	-0.3	0.2	0.4	0.9	1.0	1.3	1.6	1.9	2.1	2.1	-5.5	-1.7
21	2.0	2.4	2.7	2.8	3.0	2.8	2.4	2.5	2.5	2.2	2.5	2.5	2.5	3.0	2.9	2.5	2.6	2.5	1.7	1.6	0.9	0.1	-0.1	-1.1	3.0	-1.1	2.1
22	-2.0	-3.1	-3.1	-3.9	-4.2	-4.7	-6.0	-6.5	-6.1	-5.7	-5.6	-6.1	-5.6	-3.9	-3.7	-1.8	-1.6	-1.7	-2.4	-3.0	-3.3	-4.1	-4.4	-4.2	-1.6	-6.5	-4.0
23	-4.5	-5.1	-5.7	-5.4	-4.9	-4.7	-4.8	-5.2	-4.8	-5.0	-4.8	-5.0	-4.9	-4.2	-3.9	-3.5	-3.3	-3.3	-3.8	-4.4	-5.0	-4.5	-4.3	-3.8	-3.3	-5.7	-4.5
24	-3.2	-3.3	-4.3	-5.0	-5.8	-5.1	-5.0	-4.6	-4.3	-3.6	-3.4	-2.6	-1.5	-0.5	0.0	-0.2	-0.4	-0.4	-0.1	0.1	0.4	0.6	1.3	1.7	1.7	-5.8	-2.0
25	1.6	1.5	1.9	2.5	2.7	2.3	1.6	2.0	2.3	1.9	1.8	1.7	2.1	2.2	2.3	2.1	1.7	1.4	1.4	1.4	0.9	1.4	1.1	1.3	2.7	0.9	1.8
26	1.5	1.6	1.8	1.7	1.6	1.7	1.5	1.7	1.7	1.8	2.0	2.2	2.4	2.9	3.2	3.4	3.4	3.2	3.1	3.0	2.7	2.7	2.8	2.7	3.4	1.5	2.3
27	2.5	2.5	2.3	2.0	2.1	2.1	2.3	2.1	1.4	1.5	1.8	2.4	2.9	3.2	2.9	2.1	2.1	2.5	2.5	2.3	2.4	2.5	2.4	2.1	3.2	1.4	2.3
28	2.2	2.5	2.4	2.6	2.1	2.1	1.8	1.6	1.5	1.5	1.0	0.9	1.1	1.5	1.6	1.5	1.5	1.6	1.4	1.2	1.0	0.7	0.8	1.0	2.6	0.7	1.5
29	1.3	1.4	1.5	1.4	1.4	1.4	1.4	1.7	1.7	1.9	2.4	2.6	2.6	2.9	2.3	2.3	2.5	2.5	2.7	2.5	2.2	1.5	1.0	0.8	2.9	0.8	1.9
30	1.3	2.5	1.9	1.1	1.2	1.5	1.6	0.9	1.2	1.4	1.0	0.4	0.3	0.0	-0.2	-0.4	-0.6	-0.8	-1.0	-1.1	-1.1	-1.0	-0.9	-0.9	2.5	-1.1	0.3
31	-1.0	-1.1	-1.1	-1.2	-1.4	-1.7	-1.3	-0.7	-0.5	-0.6	-0.7	-0.5	-0.3	-0.2	0.3	0.7	0.8	0.6	0.2	-0.1	0.2	0.2	-0.1	0.5	0.8	-1.7	-0.4
Max.	**3.8**	**3.6**	**3.2**	**2.9**	**3.0**	**2.8**	**2.9**	**2.7**	**2.5**	**3.4**	**3.9**	**4.8**	**5.1**	**5.2**	**5.7**	**6.1**	**5.8**	**5.9**	**4.8**	**5.0**	**4.2**	**4.2**	**4.2**	**3.7**	**6.1**		
Min.	**-5.7**	**-6.3**	**-6.3**	**-6.1**	**-6.6**	**-6.4**	**-6.6**	**-7.0**	**-7.4**	**-7.5**	**-7.3**	**-6.4**	**-5.6**	**-5.1**	**-4.6**	**-4.1**	**-4.0**	**-4.2**	**-4.6**	**-5.1**	**-5.1**	**-5.5**	**-5.6**	**-5.8**		**-7.5**	
Avg.	**-1.0**	**-1.1**	**-1.2**	**-1.3**	**-1.5**	**-1.6**	**-1.8**	**-1.8**	**-1.8**	**-1.8**	**-1.6**	**-1.2**	**-0.7**	**-0.1**	**0.2**	**0.4**	**0.5**	**0.4**	**0.1**	**-0.2**	**-0.5**	**-0.7**	**-0.8**	**-0.9**			**-0.8**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 10 meters (deg. C)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	0.6	1.1	0.7	0.7	1.5	1.3	1.1	0.5	0.6	0.6	0.7	0.5	0.5	0.6	0.5	0.5	-0.2	-0.9	-1.4	-1.9	-2.1	-2.3	-2.3	-2.5	1.5	-2.5	-0.1
2	-2.7	-2.8	-2.7	-2.6	-3.0	-3.0	-3.3	-3.1	-3.0	-2.8	-2.9	-2.9	-2.9	-3.4	-4.0	-4.2	-4.0	-3.3	-3.3	-4.0	-4.0	-3.9	-3.9	-4.0	-2.6	-4.2	-3.3
3	-3.9	-4.1	-4.1	-4.3	-4.1	-4.2	-4.2	-4.0	-4.5	-4.3	-4.0	-4.0	-3.7	-3.1	-2.8	-3.0	-3.1	-3.5	-3.5	-3.2	-2.9	-2.8	-2.3	-1.7	-1.7	-4.5	-3.6
4	-1.4	-1.6	-1.1	-0.7	-0.4	-0.2	-0.1	0.4	0.7	0.8	1.1	1.3	1.2	1.2	1.1	0.8	0.9	1.1	1.2	0.9	1.1	1.2	1.3	0.8	1.3	-1.6	0.5
5	0.6	0.5	0.6	0.5	0.5	0.2	-0.1	-0.1	-0.1	0.0	0.1	0.1	0.2	0.3	0.3	0.5	0.6	0.7	0.8	0.7	0.7	0.7	0.8	0.7	0.8	-0.1	0.4
6	0.7	0.7	0.8	0.8	1.0	1.1	1.5	1.9	1.7	1.8	1.9	1.8	2.0	2.1	2.6	2.9	2.4	2.0	1.5	1.3	0.9	0.9	0.4	-0.1	2.9	-0.1	1.4
7	0.0	0.3	0.2	0.4	0.5	0.9	1.0	1.3	1.3	1.3	1.4	1.6	2.0	2.2	1.2	1.5	1.5	1.1	0.2	0.0	0.0	-0.1	-0.1	-0.3	2.2	-0.3	0.8
8	-0.4	-0.6	-0.7	-0.7	-0.2	0.2	0.8	1.1	1.3	0.4	0.4	0.8	1.1	1.5	2.3	2.5	2.7	3.1	2.7	2.8	2.2	1.2	0.7	0.7	3.1	-0.7	1.1
9	0.6	0.0	0.0	0.3	0.4	0.0	-0.1	-0.2	-0.3	-0.3	-0.1	0.3	0.4	0.6	1.0	1.1	1.1	0.6	0.0	0.4	0.2	0.3	0.0	-0.5	1.1	-0.5	0.2
10	-0.7	-0.6	-0.3	-0.6	-1.3	-2.1	-2.0	-2.3	-2.5	-3.4	-3.0	-3.0	-2.1	-1.5	-1.6	-1.6	-1.6	-1.8	-2.1	-2.5	-2.8	-3.0	-3.3	-3.9	-0.3	-3.9	-2.1
11	-4.0	-4.1	-4.4	-4.2	-4.3	-5.0	-5.3	-5.2	-5.8	-6.3	-6.4	-6.0	-5.8	-5.8	-5.9	-6.1	-6.2	-6.7	-7.0	-7.3	-7.8	-8.1	-7.4	-6.9	-4.0	-8.1	-5.9
12	-6.4	-7.0	-7.0	-6.2	-8.2	-7.3	-6.5	-6.6	-6.9	-6.6	-6.8	-6.0	-5.8	-6.9	-6.4	-5.3	-4.0	-4.1	-4.1	-4.3	-4.2	-3.6	-3.4	-3.0	-3.0	-8.2	-5.7
13	-2.7	-2.4	-2.2	-2.1	-1.8	-1.7	-1.2	-1.5	-1.3	-1.1	-0.4	0.1	-1.2	-1.4	-1.6	-2.3	-2.3	-2.0	-1.5	-1.7	-1.6	-1.6	-1.6	-1.3	0.1	-2.7	-1.6
14	-1.6	-1.7	-1.8	-1.7	-1.8	-1.8	-2.0	-2.3	-2.4	-2.6	-2.7	-2.2	-1.7	-1.7	-1.5	-1.4	-1.4	-1.4	-1.6	-2.0	-2.3	-3.5	-4.1	-4.4	-1.4	-4.4	-2.1
15	-4.6	-4.8	-5.3	-5.4	-4.9	-5.7	-6.5	-6.7	-7.5	-8.8	-9.8	-9.9	-10.0	-10.2	-10.3	-10.5	-10.9	-11.4	-11.0	-11.8	-11.9	-12.1	-12.7	-12.5	-4.6	-12.7	-9.0
16	-11.9	-11.8	-11.8	-11.9	-11.9	-11.9	-12.1	-12.5	-12.5	-12.6	-12.6	-12.5	-12.4	-12.5	-12.3	-12.3	-12.4	-12.2	-12.3	-12.1	-12.5	-12.9	-13.0	-13.3	-11.8	-13.3	-12.3
17	-13.8	-14.0	-14.1	-13.9	-14.1	-14.0	-14.2	-14.0	-14.1	-14.2	-14.5	-14.9	-14.6	-14.6	-14.5	-14.3	-14.6	-14.5	-15.0	-15.7	-15.9	-15.8	-15.7	-15.9	-13.8	-15.9	-14.6
18	-16.1	-15.8	-16.1	-15.9	-16.1	-16.4	-16.0	-16.1	-15.6	-14.9	-15.1	-15.3	-14.7	-14.1	-13.6	-13.6	-13.5	-13.3	-13.7	-12.2	-11.9	-12.6	-12.3	-12.0	-11.9	-16.4	-14.4
19	-11.5	-11.9	-11.6	-12.2	-10.8	-10.1	-10.6	-9.1	-9.2	-8.6	-7.4	-6.2	-4.9	-4.4	-4.1	-3.8	-3.5	-2.8	-2.6	-2.4	-2.4	-1.5	-1.6	-1.3	-1.3	-12.2	-6.4
20	-0.5	0.4	0.7	0.9	1.3	2.5	2.7	2.4	3.0	2.8	2.8	2.6	2.4	2.7	2.5	2.5	2.8	2.7	3.5	3.1	2.6	2.2	3.2	3.2	3.5	-0.5	2.3
21	3.2	3.0	2.2	1.7	1.7	1.5	2.0	2.0	2.2	2.4	2.7	2.4	2.4	2.6	2.7	3.1	3.1	3.1	2.9	2.9	2.9	2.9	2.9	2.8	3.2	1.5	2.6
22	2.8	2.9	2.4	2.3	1.2	0.7	0.5	0.7	1.0	2.0	1.6	1.4	0.6	1.1	1.7	2.2	2.9	3.3	2.9	2.8	2.3	2.4	1.5	-0.4	3.3	-0.4	1.8
23	-0.7	-0.6	-0.3	-0.4	-0.6	-0.9	-1.0	-1.1	-1.4	-1.6	-1.7	-2.0	-2.5	-2.9	-2.9	-3.2	-3.0	-3.1	-2.9	-2.6	-3.1	-4.3	-5.1	-5.4	-0.3	-5.4	-2.2
24	-5.4	-5.5	-5.4	-5.4	-5.4	-5.6	-5.9	-5.9	-5.9	-5.7	-5.9	-4.9	-3.6	-2.5	-1.9	-1.4	-1.2	-1.0	-0.7	-0.8	-0.8	-0.4	-0.1	0.3	0.3	-5.9	-3.4
25	0.3	0.3	0.3	0.4	1.1	2.1	3.1	3.5	3.5	4.3	4.3	3.8	3.9	4.2	4.7	4.7	4.7	4.9	5.1	4.7	4.7	5.2	5.2	4.4	5.2	0.3	3.5
26	4.0	3.7	4.0	3.6	3.8	4.5	4.4	3.9	3.2	2.6	2.3	1.6	1.4	1.4	1.6	1.9	1.7	1.6	1.5	1.2	0.8	0.7	1.2	1.9	4.5	0.7	2.4
27	1.7	2.1	1.8	2.1	2.2	2.1	2.2	2.2	2.2	2.5	2.6	2.9	2.9	2.7	2.6	2.6	2.9	2.4	2.3	2.1	1.8	1.8	1.6	1.9	2.9	1.6	2.3
28	1.9	1.9	1.9	1.4	1.3	1.0	0.9	0.8	0.8	0.8	0.4	0.4	0.5	0.6	0.8	1.1	1.5	1.8	2.1	2.3	2.3	2.3	2.3	2.4	2.4	0.4	1.4
29	2.3	2.4	2.4	2.2	2.2	2.2	2.3	2.3	2.6	2.8	2.8	2.9	3.1	3.3	3.4	3.3	3.3	3.0	2.9	3.0	3.2	3.2	3.3	3.4	3.4	2.2	2.8
30	3.5	3.6	3.8	3.9	4.0	4.2	4.4	4.7	5.0	4.9	4.7	5.3	5.4	5.5	5.5	5.4	5.1	4.5	4.2	4.2	5.1	5.4	4.9	2.7	5.5	2.7	4.6
Max.	**4.0**	**3.7**	**4.0**	**3.9**	**4.0**	**4.5**	**4.4**	**4.7**	**5.0**	**4.9**	**4.7**	**5.3**	**5.4**	**5.5**	**5.5**	**5.4**	**5.1**	**4.9**	**5.1**	**4.7**	**5.1**	**5.4**	**5.2**	**4.4**	**5.5**		
Min.	**-16.1**	**-15.8**	**-16.1**	**-15.9**	**-16.1**	**-16.4**	**-16.0**	**-16.1**	**-15.6**	**-14.9**	**-15.1**	**-15.3**	**-14.7**	**-14.6**	**-14.5**	**-14.3**	**-14.6**	**-14.5**	**-15.0**	**-15.7**	**-15.9**	**-15.8**	**-15.7**	**-15.9**		**-16.4**	
Avg.	**-2.2**	**-2.2**	**-2.2**	**-2.2**	**-2.2**	**-2.2**	**-2.1**	**-2.1**	**-2.1**	**-2.1**	**-2.1**	**-2.0**	**-1.9**	**-1.7**	**-1.6**	**-1.5**	**-1.5**	**-1.5**	**-1.6**	**-1.7**	**-1.9**	**-1.9**	**-2.0**	**-2.1**			**-2.0**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature at 10 meters (deg. C)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	2.1	2.3	2.1	1.9	1.8	2.2	1.8	1.6	1.6	1.2	0.9	0.8	1.1	1.3	1.5	1.3	0.8	0.3	0.4	0.1	-0.4	0.3	0.9	0.1	2.3	-0.4	1.2
2	-0.9	-1.2	-2.0	-3.0	-3.4	-3.9	-4.1	-3.8	-4.5	-4.9	-4.5	-3.1	-2.4	-3.4	1.0	0.5	0.2	-1.0	-4.5	-5.1	-3.4	-1.6	-2.3	-3.1	1.0	-5.1	-2.7
3	-3.7	-3.6	-3.6	-3.8	-4.1	-4.5	-4.7	-5.3	-5.5	-5.3	-4.9	-4.7	-4.6	-4.5	-4.4	-4.8	-5.4	-6.0	-6.7	-7.1	-7.1	-7.5	-7.2	-7.2	-3.6	-7.5	-5.3
4	-7.4	-7.9	-7.4	-6.8	-6.2	-6.2	-6.5	-6.2	-5.9	-5.7	-5.8	-6.0	-5.8	-5.4	-4.9	-4.7	-4.6	-4.7	-4.4	-4.2	-3.9	-3.7	-3.7	-3.4	-3.4	-7.9	-5.5
5	-3.3	-3.2	-3.1	-3.0	-2.8	-2.8	-2.9	-3.1	-3.1	-3.2	-3.0	-2.4	-1.3	-0.8	-0.5	-0.3	-0.2	0.1	0.1	0.3	0.5	0.4	0.4	0.4	0.5	-3.3	-1.5
6	0.3	0.5	0.4	0.3	0.7	0.5	0.4	0.5	0.5	0.4	0.3	0.1	0.0	-0.2	-0.6	-0.9	-1.0	-1.0	-0.8	-0.9	-0.7	-0.6	-0.4	-0.4	0.7	-1.0	-0.1
7	-0.5	-0.5	-0.7	-0.8	-0.7	-0.8	-0.8	-0.9	-1.2	-0.8	-0.6	-0.5	-0.7	-0.9	-0.7	-0.5	-0.4	-0.4	-0.2	0.1	0.2	0.4	0.4	0.4	0.4	-1.2	-0.5
8	0.4	0.2	0.1	0.0	-0.4	-0.1	0.1	0.4	0.8	0.9	0.9	1.4	1.6	0.9	0.3	-0.1	-0.1	-0.6	-1.0	-1.3	-1.1	-1.0	-0.8	-0.9	1.6	-1.3	0.0
9	-1.0	-1.1	-0.8	-0.8	-0.7	-0.8	-1.0	-1.2	-1.0	-0.5	-0.2	0.4	0.8	1.2	1.7	1.9	2.0	1.8	2.0	1.7	1.7	1.5	1.5	1.6	2.0	-1.2	0.4
10	1.6	1.5	1.7	1.5	2.4	1.8	1.0	0.4	0.0	0.2	0.3	0.5	0.0	0.1	-0.7	-0.8	-1.0	-1.0	-0.8	-0.7	-0.5	-0.5	-0.5	-1.0	2.4	-1.0	0.2
11	-1.4	-1.6	-1.8	-2.3	-1.9	-2.1	-2.7	-3.2	-2.6	-3.1	-3.8	-3.1	-3.0	-3.2	-3.9	-3.5	-4.5	-4.0	-4.0	-4.4	-4.4	-5.2	-6.1	-6.3	-1.4	-6.3	-3.4
12	-6.4	-6.0	-5.4	-6.2	-5.7	-5.6	-4.0	-3.3	-2.6	-6.1	-5.3	-4.5	-3.4	-3.9	-3.4	-2.5	-3.8	-3.4	-3.2	-2.6	-3.1	-3.0	-3.9	-3.6	-2.5	-6.4	-4.2
13	-3.6	-2.8	-3.2	-3.0	-3.2	-3.3	-4.0	-3.9	-4.0	-4.3	-4.4	-4.6	-4.6	-4.5	-4.7	-5.2	-5.6	-6.6	-6.9	-7.2	-7.7	-8.9	-8.9	-10.4	-2.8	-10.4	-5.2
14	-11.6	-12.5	-12.7	-12.6	-12.5	-12.4	-12.9	-13.6	-14.4	-14.7	-14.1	-14.3	-14.2	-14.1	-13.8	-13.9	-14.7	-14.6	-14.3	-14.2	-14.0	-15.1	-14.9	-13.9	-11.6	-15.1	-13.8
15	-13.8	-14.6	-14.0	-12.2	-12.1	-12.3	-12.6	-12.7	-12.7	-12.4	-12.6	-12.9	-12.8	-12.7	-12.7	-12.8	-12.7	-12.7	-12.8	-12.8	-12.9	-12.6	-12.3	-12.4	-12.1	-14.6	-12.8
16	-13.0	-13.9	-14.3	-14.5	-14.7	-14.9	-15.0	-15.1	-15.1	-15.2	-15.7	-16.0	-15.9	-16.1	-16.3	-16.6	-17.0	-17.2	-17.1	-16.8	-16.8	-17.0	-17.1	-17.4	-13.0	-17.4	-15.8
17	-17.6	-17.7	-17.7	-17.7	-17.7	-17.7	-17.9	-17.8	-17.8	-17.7	-17.7	-17.7	-17.7	-17.6	-17.6	-17.9	-18.1	-18.6	-19.2	-19.3	-19.2	-19.8	-20.3	-20.5	-17.6	-20.5	-18.3
18	-20.4	-20.7	-20.9	-21.2	-21.0	-21.1	-21.5	-21.5	-21.7	-21.8	-22.1	-22.3	-22.5	-22.7	-22.8	-22.8	-22.6	-22.8	-23.2	-23.4	-23.4	-24.0	-24.3	-24.4	-20.4	-24.4	-22.3
19	-24.8	-25.6	-25.3	-25.2	-24.8	-24.2	-23.6	-24.0	-24.5	-24.2	-24.2	-24.6	-24.5	-24.2	-23.1	-23.4	-24.0	-25.0	-25.1	-25.2	-25.2	-25.5	-24.3	-23.1	-23.1	-25.6	-24.5
20	-23.3	-23.0	-24.1	-23.7	-22.3	-19.3	-14.9	-13.5	-13.0	-12.8	-12.1	-11.6	-10.6	-9.7	-8.7	-7.9	-7.2	-6.9	-7.0	-5.7	-5.7	-5.7	-5.4	-4.8	-4.8	-24.1	-12.4
21	-3.9	-3.0	-2.7	-2.5	-2.3	-2.3	-2.6	-3.4	-3.7	-4.1	-4.0	-3.9	-3.9	-3.9	-3.1	-3.0	-3.6	-3.5	-3.8	-3.8	-3.7	-3.6	-3.4	-2.8	-2.3	-4.1	-3.4
22	-2.3	-2.3	-2.1	-2.4	-2.3	-1.9	-1.5	-1.7	-2.2	-1.9	-1.4	-1.3	-1.1	-1.0	-0.9	-1.0	-0.9	-1.3	-1.3	-1.2	-1.2	-3.2	-4.5	-4.8	-0.9	-4.8	-1.9
23	-6.0	-8.1	-9.2	-9.7	-10.2	-10.2	-10.5	-11.1	-11.9	-12.1	-12.0	-11.9	-11.9	-11.7	-11.4	-11.4	-11.3	-12.0	-12.3	-11.9	-11.9	-11.4	-11.6	-12.0	-6.0	-12.3	-11.0
24	-13.2	-13.6	-13.5	-13.7	-14.1	-13.7	-13.3	-14.4	-14.7	-14.7	-14.5	-14.1	-14.0	-13.8	-14.1	-14.2	-14.1	-14.0	-14.3	-14.8	-14.7	-14.1	-14.1	-14.3	-13.2	-14.8	-14.1
25	-15.1	-15.7	-15.7	-15.9	-16.2	-16.7	-16.9	-17.0	-17.1	-17.6	-18.1	-18.2	-17.9	-17.6	-17.5	-17.9	-17.8	-18.0	-17.5	-17.9	-18.4	-17.7	-19.0	-19.7	-15.1	-19.7	-17.4
26	-19.9	-19.0	-18.9	-17.9	-16.9	-16.3	-18.0	-15.9	-13.6	-10.7	-11.0	-10.5	-10.3	-9.1	-7.7	-5.9	-4.9	-4.0	-3.9	-4.6	-4.7	-3.9	-3.4	-2.7	-2.7	-19.9	-10.6
27	-2.5	-2.2	-2.0	-1.8	-1.4	-0.9	-0.3	0.1	0.3	0.7	1.0	1.3	1.2	1.5	1.6	0.8	0.4	0.0	0.1	0.0	-0.4	-1.2	-1.4	-1.6	1.6	-2.5	-0.3
28	-1.5	-3.5	-5.1	-5.5	-5.9	-6.7	-7.0	-7.4	-6.8	-6.1	-6.6	-7.3	-6.8	-7.2	-7.5	-8.0	-8.8	-8.6	-9.3	-10.3	-10.1	-9.2	-8.7	-8.3	-1.5	-10.3	-7.2
29	-7.8	-8.0	-8.2	-8.9	-9.3	-9.0	-8.7	-9.2	-9.1	-9.1	-9.7	-9.7	-9.6	-9.3	-9.6	-11.2	-11.3	-9.6	-9.6	-9.2	-9.5	-9.5	-9.3	-9.4	-7.8	-11.3	-9.3
30	-9.4	-9.6	-9.9	-10.0	-10.1	-10.5	-11.0	-11.2	-11.7	-12.4	-12.7	-12.6	-11.9	-11.7	-11.3	-10.9	-11.0	-10.5	-11.4	-11.6	-11.9	-11.1	-11.0	-11.0	-9.4	-12.7	-11.1
31	-10.4	-10.2	-9.7	-9.8	-9.7	-10.1	-10.5	-10.8	-10.7	-10.9	-10.9	-10.6	-10.7	-10.3	-10.6	-10.7	-10.6	-10.5	-10.2	-9.6	-9.4	-9.4	-9.5	-8.5	-8.5	-10.9	-10.2
Max.	**2.1**	**2.3**	**2.1**	**1.9**	**2.4**	**2.2**	**1.8**	**1.6**	**1.6**	**1.2**	**1.0**	**1.4**	**1.6**	**1.5**	**1.7**	**1.9**	**2.0**	**1.8**	**2.0**	**1.7**	**1.7**	**1.5**	**1.5**	**1.6**	**2.4**		
Min.	**-24.8**	**-25.6**	**-25.3**	**-25.2**	**-24.8**	**-24.2**	**-23.6**	**-24.0**	**-24.5**	**-24.2**	**-24.2**	**-24.6**	**-24.5**	**-24.2**	**-23.1**	**-23.4**	**-24.0**	**-25.0**	**-25.1**	**-25.2**	**-25.2**	**-25.5**	**-24.3**	**-24.4**		**-25.6**	
Avg.	**-7.8**	**-8.0**	**-8.1**	**-8.1**	**-8.0**	**-7.9**	**-7.9**	**-8.0**	**-8.0**	**-8.0**	**-8.0**	**-7.9**	**-7.7**	**-7.6**	**-7.3**	**-7.4**	**-7.5**	**-7.6**	**-7.8**	**-7.9**	**-7.8**	**-7.9**	**-7.9**	**-7.9**			**-7.8**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

January *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0.51	0.34	0.28	0.31	0.22	0.19	0.10	0.13	0.09	0.19	0.36	0.13	0.18	0.23	0.10	0.32	0.27	0.26	0.54	0.40	0.64	0.51	0.44	0.64	0.64	0.09	0.31
2	0.62	0.61	1.03	1.02	0.66	0.58	0.22	0.29	0.27	0.19	0.17	0.14	0.14	0.14	0.22	0.23	0.27	0.73	0.55	0.59	0.51	0.35	0.55	0.33	1.03	0.14	0.43
3	0.15	0.22	0.29	0.16	0.31	0.18	0.16	0.16	0.32	0.59	0.34	0.33	0.31	0.15	0.13	0.23	0.29	0.32	0.20	0.22	0.66	1.16	0.44	0.62	1.16	0.13	0.33
4	0.40	0.52	0.79	0.97	0.87	0.70	1.16	1.18	0.69	0.60	0.47	1.13	2.19	2.17	2.05	2.80	2.11	2.08	2.23	1.41	0.83	0.73	0.50	0.44	2.80	0.40	1.21
5	0.59	0.59	0.69	0.69	0.82	0.60	0.60	0.57	0.54	0.90	0.71	0.60	0.57	0.46	0.61	0.66	0.66	0.57	0.40	0.19	0.33	0.51	0.60	0.76	0.90	0.19	0.59
6	0.81	1.38	0.88	0.75	0.89	1.02	0.98	0.56	0.24	1.95	0.97	0.36	0.37	0.30	0.66	0.34	1.08	0.97	0.45	0.35	0.25	0.19	0.20	0.28	1.95	0.19	0.68
7	0.16	0.19	0.21	0.17	-0.02	-0.02	0.03	0.07	0.13	0.15	0.19	0.05	-0.01	0.06	0.09	0.08	0.06	0.17	0.44	0.40	0.29	0.24	0.18	0.31	0.44	-0.02	0.15
8	0.43	0.53	0.41	0.35	0.24	0.16	0.47	0.44	0.52	0.86	0.61	0.36	0.36	0.27	0.42	0.25	0.34	0.84	0.35	0.44	0.43	0.32	0.46	1.40	1.40	0.16	0.47
9	0.61	0.77	1.05	0.73	0.76	0.76	0.96	0.81	1.16	1.06	1.72	1.13	1.44	2.20	1.69	0.68	0.74	1.02	0.91	0.91	0.68	0.53	0.29	0.30	2.20	0.29	0.95
10	0.34	0.18	0.12	0.13	0.10	0.06	0.09	0.25	0.25	0.22	0.11	0.05	0.00	0.02	0.02	0.04	0.04	0.05	0.02	0.03	0.03	0.01	0.01	0.02	0.34	0.00	0.09
11	0.03	0.03	0.04	0.00	-0.01	0.02	0.02	0.01	-0.01	-0.01	-0.03	-0.09	-0.08	-0.07	-0.06	-0.04	0.00	0.07	0.09	0.02	-0.01	-0.07	-0.08	-0.06	0.09	-0.09	-0.01
12	-0.05	-0.04	-0.05	-0.02	-0.01	0.05	0.04	0.02	-0.04	-0.01	0.03	0.04	0.03	0.10	0.09	-0.05	-0.05	-0.05	-0.06	-0.03	-0.04	-0.05	0.03	0.01	0.10	-0.06	0.00
13	0.10	0.10	0.05	0.01	0.02	-0.06	-0.01	-0.03	0.00	-0.02	-0.02	-0.01	-0.01	0.08	0.10	0.23	0.48	0.77	1.54	1.04	1.03	1.22	0.84	0.75	1.54	-0.06	0.34
14	0.81	0.83	0.69	0.83	0.50	0.37	0.53	0.40	0.30	0.20	0.20	0.18	0.14	0.23	0.32	0.34	0.29	0.26	0.09	0.13	0.22	0.28	0.21	0.18	0.83	0.09	0.36
15	0.37	0.80	0.85	0.95	0.65	0.51	0.32	0.11	0.07	0.09	0.10	0.26	0.47	0.31	0.31	0.28	0.22	0.51	0.54	0.43	0.38	0.37	0.62	0.76	0.95	0.07	0.43
16	0.83	1.34	1.14	0.48	0.84	1.03	0.83	0.64	0.45	0.45	0.67	0.65	0.34	0.22	0.32	0.38	0.39	0.40	0.32	0.22	0.12	0.08	-0.02	-0.02	1.34	-0.02	0.50
17	-0.02	-0.04	-0.04	-0.03	-0.04	-0.03	-0.03	0.05	0.12	0.06	0.11	0.18	0.16	0.20	0.28	0.20	0.18	0.22	0.23	0.23	0.15	0.15	0.15	0.15	0.28	-0.04	0.11
18	0.15	0.19	0.09	0.07	0.05	0.05	0.05	0.06	0.07	0.08	0.08							0.14	0.23	0.15	0.43	0.44	0.29	0.23	0.44	0.05	0.16
19	0.24	0.22	0.11	0.31	0.18	0.10	0.15	0.09	0.12	0.83	0.43	0.42	0.74	0.70	0.32	0.17	0.16	0.13	0.25	0.20	0.20	0.19	0.17	0.15	0.83	0.09	0.27
20	0.10	0.16	0.11	0.06	0.04	0.06	0.25	0.06	0.19	0.40	0.38	0.67	0.80	0.67	0.63	0.46	0.34	0.29	0.20	0.15	0.23	0.42	0.75	0.36	0.80	0.04	0.32
21	0.34	0.49	0.53	0.39	0.14	0.09	0.18	0.13	0.30	0.39	0.20	-0.04	-0.08	-0.09	-0.08	-0.09	-0.07	-0.05	-0.04	-0.05	-0.06	-0.05	-0.03	-0.03	0.53	-0.09	0.10
22	0.01	0.12	0.42	0.27	0.20	0.26	0.42	0.64	0.50	0.54	0.69	0.70	0.43	0.60	0.64	0.86	1.08	1.10	0.98	0.84	0.82	0.41	0.59	0.96	1.10	0.01	0.59
23	0.89	0.54	0.25	0.14	0.27	0.34	0.77	0.80	0.34	0.34	0.42	0.27	0.15	-0.04	0.17	0.27	0.08	-0.01	0.04	0.07	0.18	0.05	0.19	0.33	0.89	-0.04	0.28
24	0.50	0.33	0.25	0.32	0.50	0.61	0.55	0.71	1.00	0.83	0.60	0.66	0.49	0.51	0.51	0.60	0.43	0.49	0.43	0.38	0.74	1.30	0.92	0.97	1.30	0.25	0.61
25	0.61	0.80	0.49	0.33	0.18	0.22	0.21	0.23	0.34	0.28	0.21	0.18	0.12	0.07	-0.03	0.05	0.18	0.36	0.42	0.45	0.41	0.34	0.35	0.33	0.80	-0.03	0.30
26	0.31	0.24	0.29	0.19	0.12	0.16	0.20	0.17	-0.03	-0.07	-0.02	0.09	0.02	0.10	0.10	0.12	0.13	0.13	0.14	0.18	0.18	0.28	0.43	0.45	0.45	-0.07	0.16
27	0.35	0.25	0.21	0.19	0.16	0.08	0.06	0.06	0.08	0.09	-0.04	-0.04	-0.02	-0.02	0.09	0.21	0.20	0.13	0.14	0.16	0.16	0.17	0.12	0.09	0.35	-0.04	0.12
28	0.09	0.05	0.05	0.06	0.03	0.02	0.01	0.01	0.00	0.00	0.03	0.02	0.00	0.01	0.04	0.14	0.11	0.25	0.24	0.25	0.27	0.28	0.28	0.24	0.28	0.00	0.10
29	0.21	0.29	0.40	0.34	0.32	0.29	0.18	0.18	0.09	0.12	0.21	0.25	0.33	0.30	0.31	0.32	0.33	0.29	0.21	0.08	0.02	-0.02	-0.02	0.06	0.40	-0.02	0.21
30	0.13	0.27	0.31	0.29	0.28	0.23	0.25	0.39	0.39	0.38	0.45	0.52	0.45	0.34	0.26	0.39	0.20	0.15	0.15	0.11	0.08	0.02	0.04	0.03	0.52	0.02	0.25
31	0.04	0.06	0.06	0.09	0.12	0.14	0.13	0.03	0.03	0.04	0.00	-0.01	-0.02	-0.01	-0.04	0.00	0.02	0.05	0.05	0.11	0.23	0.16	0.09	0.10	0.23	-0.04	0.06
Max.	**0.89**	**1.38**	**1.14**	**1.02**	**0.89**	**1.03**	**1.16**	**1.18**	**1.16**	**1.95**	**1.72**	**1.13**	**2.19**	**2.20**	**2.05**	**2.80**	**2.11**	**2.08**	**2.23**	**1.41**	**1.03**	**1.30**	**0.92**	**1.40**	**2.80**		
Min.	**-0.05**	**-0.04**	**-0.05**	**-0.03**	**-0.04**	**-0.06**	**-0.03**	**-0.03**	**-0.04**	**-0.07**	**-0.04**	**-0.09**	**-0.08**	**-0.09**	**-0.08**	**-0.09**	**-0.07**	**-0.05**	**-0.06**	**-0.05**	**-0.06**	**-0.07**	**-0.08**	**-0.06**		**-0.09**	
Avg.	**0.34**	**0.40**	**0.39**	**0.34**	**0.30**	**0.28**	**0.32**	**0.30**	**0.27**	**0.38**	**0.33**	**0.31**	**0.33**	**0.34**	**0.34**	**0.35**	**0.35**	**0.41**	**0.40**	**0.32**	**0.34**	**0.34**	**0.31**	**0.36**			**0.34**

Total Hours in Month 744 **Hours Data Available** 738 **Data Recovery** 99.2%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

February 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0.14	0.28	0.28	0.28	0.27	0.27	0.22	0.20	0.31	0.26	0.11	0.22	0.21	-0.03	0.32	0.59	0.59	0.49	0.57	0.29	0.18	-0.01	0.03	0.04	0.59	-0.03	0.25
2	0.02	0.01	0.09	0.18	0.19	0.17	0.06	0.04	0.03	0.06	0.05	0.04	0.00	-0.07	-0.06	0.00	0.05	0.05	0.08	0.14	0.16	0.14	0.16	0.13	0.19	-0.07	0.07
3	0.12	0.11	0.09	0.05	0.09	0.06	0.03	0.06	0.12	0.12	0.01	-0.06	-0.13	-0.18	-0.30	-0.28	-0.07	0.05	0.65	0.76	1.02	0.44	0.46	0.43	1.02	-0.30	0.15
4	0.65	0.77	1.89	0.51	0.39	1.12	0.58	0.45	1.19	1.02	1.00	0.63	0.22	0.24	0.15	0.20	0.37	0.72	0.68	1.13	1.28	1.27	1.27	1.03	1.89	0.15	0.78
5	0.75	0.74	0.69	0.79	0.89	0.76	0.43	0.45	0.74	0.52	0.53	0.13	-0.24	-0.24	-0.39	-0.23	0.03	0.58	0.70	0.58	0.67	0.57	0.81	0.72	0.89	-0.39	0.46
6	0.88	0.65	0.66	0.65	0.61	0.57	0.47	0.35	0.25	0.43	0.35	0.08	0.09	-0.11	-0.02	-0.08	0.04	0.14	0.17	0.08	0.27	0.36	0.39	0.37	0.88	-0.11	0.32
7	0.27	0.14	0.43	0.01	0.16	0.09	0.01	0.05	-0.10	-0.11	-0.11	-0.14	-0.15	-0.13	-0.06	0.02	-0.01	-0.06	-0.10	-0.10	-0.07	-0.08	-0.03	-0.03	0.43	-0.15	-0.01
8	-0.04	-0.01	-0.04	-0.04	-0.02	-0.04	-0.03	-0.02	-0.03	-0.01	-0.08	-0.11	-0.14	-0.16	-0.13	-0.08	-0.18	-0.24	-0.28	-0.24	-0.10	-0.14	-0.04	-0.12	-0.01	-0.28	-0.10
9	-0.12	-0.12	-0.04	-0.02	-0.03	-0.05	-0.03	0.01	0.16	0.08	-0.02	-0.15	-0.30	-0.31	-0.30	-0.30	-0.23	-0.14	-0.02	-0.09	-0.09	-0.06	-0.05	0.07	0.16	-0.31	-0.09
10	0.30	0.15	0.14	0.18	0.23	0.29	0.24	-0.04	-0.04	-0.08	-0.13	-0.21	-0.30	-0.26	-0.30	-0.10	-0.09	-0.11	0.08	0.29	0.09	0.00	-0.06	-0.06	0.30	-0.30	0.01
11	-0.03	0.07	-0.04	-0.02	-0.11	0.03	-0.03	-0.03	-0.04	-0.07	-0.08	-0.08	-0.09	-0.10	-0.09	-0.01	0.05	0.05	0.04	0.07	0.05	0.07	0.04	0.07	0.07	-0.11	-0.01
12	0.16	0.18	0.23	0.09	0.09	0.10	0.11	0.13	0.09	0.10	0.10	0.16	0.17	0.06	-0.02	0.01	0.11	0.20	0.32	0.31	0.29	0.24	0.25	0.28	0.32	-0.02	0.16
13	0.31	0.29	0.23	0.31	0.35	0.27	0.25	0.21	0.21	0.21	0.20	0.17	0.08	-0.02	-0.05	-0.04	-0.04	0.01	0.00	0.06	0.05	-0.02	0.02	-0.01	0.35	-0.05	0.13
14	0.05	0.03	0.03	0.05	0.01	-0.05	-0.03	0.00	0.02	0.00	-0.02	-0.03	-0.03	-0.07	-0.06	-0.06	-0.02	0.28	0.69	0.59	0.41	0.64	0.75	0.77	0.77	-0.07	0.16
15	1.01	0.56	0.64	0.97	1.14	0.70	0.81	0.82	0.82	1.00	0.91	0.58	0.60	0.60	0.13	-0.07	0.01	0.30	0.52	0.89	0.72	0.58	0.29	0.34	1.14	-0.07	0.62
16	0.29	0.29	0.50	0.52	1.59	1.67	1.17	1.22	1.01	0.92	0.13	-0.04	-0.12	-0.18	-0.31	-0.14	-0.12	-0.02	0.08	0.12	0.14	0.05	0.15	0.27	1.67	-0.31	0.38
17	0.23	0.24	0.25	0.18	0.09	0.18	0.62	0.70	0.53	0.60	1.02	0.38	0.21	-0.22	-0.27	-0.17	-0.08	0.05	0.17	0.23	0.61	0.35	0.25	0.33	1.02	-0.27	0.27
18	0.12	0.01	0.03	0.05	0.10	0.05	0.14	0.13	0.31	0.79	0.71	0.70	0.26	0.04	0.13	0.09	-0.08	0.16	0.15	0.16	0.18	0.16	0.05	0.00	0.79	-0.08	0.18
19	-0.05	-0.06	0.00	0.00	0.02	-0.01	-0.08	-0.10	-0.11	-0.10	-0.02	0.07	0.00	-0.03	-0.04	-0.13	-0.16	-0.01	0.00	-0.04	-0.03	0.01	0.09	0.12	0.12	-0.16	-0.03
20	0.24	0.24	0.03	0.08	0.06	0.07	0.05	0.12	0.08	0.03	0.10	-0.07	-0.09	-0.19	-0.20	-0.17	-0.12	-0.01	0.06	0.07	0.06	0.12	0.14	0.19	0.24	-0.20	0.04
21	0.11	0.10	0.08	0.05	-0.01	-0.03	0.05	0.10	0.28	0.08	-0.08	-0.11	-0.11	-0.14	-0.14	-0.12	-0.04	0.11	0.18	0.16	0.15	0.20	0.16	0.16	0.28	-0.14	0.05
22	0.26	0.25	0.22	0.22	0.31	0.69	0.30	0.32	0.24	0.15	0.00	-0.11	-0.20	-0.20	-0.24	-0.06	-0.01	0.05	0.21	0.18	0.18	0.20	0.18	0.21	0.69	-0.24	0.14
23	0.24	0.19	0.21	0.25	0.20	0.20	0.22	0.18	0.14	0.09	-0.02	-0.12	-0.17	-0.29	-0.21	-0.17	-0.10	0.04	0.09	0.12	0.20	0.14	0.08	0.19	0.25	-0.29	0.07
24	0.19	0.31	0.39	0.38	0.18	0.33	0.33	0.35	0.35	0.11	0.01	-0.15	-0.36	-0.36	-0.42	-0.39	-0.30	-0.10	0.02	0.06	0.07	0.12	0.15	0.19	0.39	-0.42	0.06
25	0.11	0.18	0.24	0.17	0.19	0.21	0.20	0.20	0.19	0.15	0.06	0.17	-0.15	-0.29	-0.23	-0.25	-0.23	0.02	0.15	0.24	0.14	0.16	0.39	0.39	0.39	-0.29	0.10
26	0.33	0.18	0.14	0.18	0.37	0.43	0.42	0.23	0.23	0.17	0.43	0.15	0.06	0.21	0.03	0.06	0.15	0.26	0.41	0.24	0.23	1.10	0.91	1.08	1.10	0.03	0.33
27	0.77	0.87	0.76	0.73	0.66	0.40	0.66	0.58	0.56	0.28	0.12	-0.02	-0.11	-0.14	-0.13	-0.08	0.09	0.10	0.14	0.26	0.48	0.32	0.34	0.33	0.87	-0.14	0.33
28	0.10	0.21	0.06	0.08	0.00	-0.03	-0.01	0.00	0.18	-0.02	-0.12	-0.24	-0.28	-0.31	-0.32	-0.35	-0.22	-0.07	0.10	0.16	0.18	0.13	0.13	0.11	0.21	-0.35	-0.02
Max.	**1.01**	**0.87**	**1.89**	**0.97**	**1.59**	**1.67**	**1.17**	**1.22**	**1.19**	**1.02**	**1.02**	**0.70**	**0.60**	**0.60**	**0.32**	**0.59**	**0.59**	**0.72**	**0.70**	**1.13**	**1.28**	**1.27**	**1.27**	**1.08**	**1.89**		
Min.	**-0.12**	**-0.12**	**-0.04**	**-0.04**	**-0.11**	**-0.05**	**-0.08**	**-0.10**	**-0.11**	**-0.11**	**-0.13**	**-0.24**	**-0.36**	**-0.36**	**-0.42**	**-0.39**	**-0.30**	**-0.24**	**-0.28**	**-0.24**	**-0.10**	**-0.14**	**-0.06**	**-0.12**		**-0.42**	
Avg.	**0.26**	**0.24**	**0.29**	**0.25**	**0.29**	**0.30**	**0.26**	**0.24**	**0.28**	**0.24**	**0.18**	**0.07**	**-0.04**	**-0.10**	**-0.12**	**-0.08**	**-0.02**	**0.10**	**0.21**	**0.24**	**0.27**	**0.25**	**0.26**	**0.27**			**0.17**

Total Hours in Month 672 **Hours Data Available** 672 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

March 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0.13	0.21	0.13	0.12	0.09	0.07	0.13	0.11	0.08	-0.01	-0.15	-0.26	-0.32	-0.35	-0.32	-0.26	-0.16	0.03	0.19	0.21	0.21	0.20	0.18	0.24	0.24	-0.35	0.02
2	0.16	0.19	0.21	0.15	0.16	0.17	0.17	0.16	0.10	0.04	-0.09	-0.23	-0.24	-0.28	-0.29	-0.28	-0.17	-0.01	0.14	0.20	0.15	0.11	0.11	0.14	0.21	-0.29	0.03
3	0.19	0.13	0.15	0.15	0.16	0.14	0.14	0.13	0.11	0.00	-0.15	-0.28	-0.35	-0.39	-0.36	-0.25	-0.14	0.02	0.16	0.26	0.24	0.19	0.21	0.10	0.26	-0.39	0.02
4	0.13	0.12	0.23	0.23	0.15	0.20	0.20	0.18	0.10	0.04	-0.18	-0.35	-0.33	-0.40	-0.35	-0.37	-0.27	-0.16	0.03	0.11	0.09	0.05	0.00	-0.05	0.23	-0.40	-0.03
5	-0.08	-0.07	-0.01	-0.01	-0.10	-0.03	-0.04	-0.05	-0.04	-0.18	-0.34	-0.42	-0.44	-0.43	-0.44	-0.42	-0.35	-0.18	-0.02	0.03	-0.04	-0.04	-0.01	-0.02	0.03	-0.44	-0.15
6	-0.03	-0.07	-0.08	-0.03	0.00	-0.02	-0.05	-0.04	-0.05	-0.20	-0.43	-0.52	-0.55	-0.55	-0.56	-0.51	-0.42	-0.31	-0.25	-0.21	-0.22	-0.21	-0.24	-0.24	0.00	-0.56	-0.24
7	-0.25	-0.24	-0.23	-0.15	-0.14	-0.24	-0.20	-0.17	0.01	-0.20	-0.36	-0.43	-0.42	-0.43	-0.37	-0.44	-0.36	-0.22	-0.08	0.00	0.00	-0.06	-0.14	-0.17	0.01	-0.44	-0.22
8	-0.15	-0.10	-0.10	-0.14	-0.16	-0.18	-0.21	-0.15	-0.14	-0.22	-0.23	-0.33	-0.39	-0.42	-0.48	-0.39	-0.22	-0.12	-0.11	-0.12	-0.19	-0.17	-0.11	-0.07	-0.07	-0.48	-0.20
9	0.03	0.03	0.04	0.07	-0.07	-0.04	0.03	0.01	-0.08	-0.22	-0.24	-0.32	-0.45	-0.47	-0.51	-0.46	-0.32	-0.17	0.10	0.21	0.18	0.02	-0.08	-0.07	0.21	-0.51	-0.12
10	-0.05	0.02	0.02	0.04	0.02	0.10	0.08	0.05	-0.03	-0.18	-0.19	-0.36	-0.48	-0.46	-0.50	-0.44	-0.31	-0.11	0.16	0.31	0.28	0.24	0.18	0.16	0.31	-0.50	-0.06
11	0.21	0.18	0.17	0.14	0.10	0.03	0.03	0.04	-0.06	-0.21	-0.30	-0.43	-0.49	-0.53	-0.50	-0.45	-0.31	-0.17	-0.01	0.15	0.07	0.08	0.07	0.09	0.21	-0.53	-0.09
12	0.11	0.04	-0.01	-0.04	-0.06	-0.06	-0.02	-0.05	0.16	0.05	-0.08	-0.21	-0.29	-0.38	-0.38	-0.35	-0.24	-0.11	0.03	0.22	0.15	0.23	0.28	0.23	0.28	-0.38	-0.03
13	0.13	0.17	0.28	0.23	0.19	0.15	0.14	0.11	0.02	-0.08	-0.22	-0.36	-0.45	-0.57	-0.53	-0.48	-0.36	-0.17	-0.01	0.09	0.10	0.06	0.07	0.01	0.28	-0.57	-0.06
14	-0.01	0.03	0.03	0.06	0.09	0.03	-0.07	-0.02	-0.04	-0.12	-0.24	-0.33	-0.47	-0.51	-0.57	-0.54	-0.42	-0.23	-0.07	0.09	0.09	0.05	0.06	0.10	0.10	-0.57	-0.13
15	0.09	0.12	0.11	0.14	0.12	0.13	0.15	0.15	0.05	-0.18	-0.34	-0.46	-0.57	-0.60	-0.64	-0.60	-0.44	-0.24	-0.02	0.15	0.15	0.13	0.10	0.20	0.20	-0.64	-0.10
16	0.10	0.11	0.06	0.15	0.26	0.36	0.24	0.19	0.09	-0.12	-0.28	-0.45	-0.50	-0.63	-0.62	-0.62	-0.46	-0.22	0.10	0.44	0.40	0.38	0.40	0.39	0.44	-0.63	-0.01
17	0.73	0.78	0.62	1.00	0.70	0.61	0.53	0.63	0.63	0.09	-0.37	-0.53	-0.62	-0.68	-0.70	-0.63	-0.55	-0.17	0.34	0.64	0.75	0.90	0.73	0.83	1.00	-0.70	0.26
18	0.92	0.43	0.18	0.26	0.26	0.35	0.18	0.29	0.25	-0.07	-0.32	-0.41	-0.57	-0.68	-0.77	-0.78	-0.78	-0.41	0.11	0.60	0.68	0.45	1.22	1.05	1.22	-0.78	0.10
19	0.65	0.57	0.84	0.65	0.89	1.21	1.39	0.96	0.57	0.05	-0.36	-0.62	-0.43	-0.57	-0.75	-0.66	-0.55	-0.33	0.32	0.52	1.37	1.33	0.58	0.39	1.39	-0.75	0.33
20	0.26	0.29	0.40	1.06	0.68	0.97	0.98	0.79	0.32	-0.03	-0.17	-0.17	-0.12	-0.07	-0.02	0.01	0.01	-0.01	0.05	0.16	0.20	0.21	0.25	0.19	1.06	-0.17	0.26
21	0.17	0.22	0.18	0.06	0.06	0.02	0.00	-0.01	0.01	-0.02	0.03	-0.02	-0.18	-0.13	-0.15	-0.12	0.04	0.00	-0.04	0.22	0.13	0.16	0.34	0.60	0.60	-0.18	0.07
22	0.40	0.76	0.72	0.50	0.56	0.55	0.26	0.48	0.38	0.20	0.05	0.00	0.01	-0.01	0.07	0.12	0.25	0.30	0.47	0.87	0.55	0.61	0.58	0.40	0.87	-0.01	0.38
23	0.40	0.24	0.41	0.44	0.19	0.14	0.43	0.27	0.13	0.05	-0.04	-0.09	-0.11	-0.10	-0.17	-0.22	-0.07	0.09	0.15	0.33	0.47	0.50	0.50	0.41	0.50	-0.22	0.18
24	0.45	0.55	1.25	1.00	1.13	0.94	1.02	0.61	0.35	0.08	-0.06	-0.20	-0.28	-0.27	-0.26	-0.22	-0.12	-0.04	0.11	0.52	0.50	0.47	0.71	1.04	1.25	-0.28	0.39
25	0.68	0.69	0.37	0.43	0.61	0.30	0.46	0.56	0.60	0.37	0.19	0.05	-0.05	-0.15	-0.15	-0.17	-0.12	-0.10	0.14	0.01	0.29	0.27	0.34	0.45	0.69	-0.17	0.25
26	0.48	0.42	0.25	0.30	0.21	0.08	-0.04	-0.01	-0.02	0.00	0.08	0.07	-0.06	-0.15	-0.16	-0.17	-0.16	-0.11	-0.10	0.05	0.12	0.13	0.16	0.13	0.48	-0.17	0.06
27	0.08	0.13	0.47	0.77	0.64	0.56	0.75	0.48	0.29	0.15	0.02	0.04	0.02	-0.15	0.01	-0.08	0.02	0.13	0.20	0.34	0.55	0.39	0.45	0.68	0.77	-0.15	0.29
28	0.59	0.75	0.64	0.46	0.33	0.20	0.16	0.25	0.18	0.15	0.05	-0.06	-0.29	-0.17	-0.20	-0.23	-0.19	-0.01	0.23	0.73	0.95	0.90	0.57	0.37	0.95	-0.29	0.27
29	0.37	1.01	0.91	1.29	1.62	1.10	1.22	1.47	1.43	0.27	0.07	-0.14	-0.09	-0.17	-0.22	-0.22	-0.09	-0.01	0.26	0.74	0.68	0.58	0.55	0.78	1.62	-0.22	0.56
30	0.72	0.69	0.72	0.80	0.68	0.81	1.03	1.42	0.75	0.35	0.04	-0.38	-0.26	-0.64	-0.80	-0.58	-0.52	0.02	0.53	0.51	0.75	0.60	0.64	0.41	1.42	-0.80	0.34
31	0.48	1.14	0.85	0.73	1.14	0.81	0.46	0.61	0.37	-0.05	-0.11	-0.32	-0.33	-0.41	-0.45	-0.48	-0.19	0.13	0.52	1.02	2.14	1.53	1.31	1.32	2.14	-0.48	0.51
Max.	**0.92**	**1.14**	**1.25**	**1.29**	**1.62**	**1.21**	**1.39**	**1.47**	**1.43**	**0.37**	**0.19**	**0.07**	**0.02**	**-0.01**	**0.07**	**0.12**	**0.25**	**0.30**	**0.53**	**1.02**	**2.14**	**1.53**	**1.31**	**1.32**	**2.14**		
Min.	**-0.25**	**-0.24**	**-0.23**	**-0.15**	**-0.16**	**-0.24**	**-0.21**	**-0.17**	**-0.14**	**-0.22**	**-0.43**	**-0.62**	**-0.62**	**-0.68**	**-0.80**	**-0.78**	**-0.78**	**-0.41**	**-0.25**	**-0.21**	**-0.22**	**-0.21**	**-0.24**	**-0.24**		**-0.80**	
Avg.	**0.26**	**0.31**	**0.32**	**0.35**	**0.34**	**0.30**	**0.31**	**0.31**	**0.21**	**-0.01**	**-0.15**	**-0.27**	**-0.33**	**-0.38**	**-0.39**	**-0.36**	**-0.26**	**-0.09**	**0.12**	**0.30**	**0.38**	**0.33**	**0.32**	**0.32**			**0.09**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

April *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	1.31	1.84	1.44	0.63	0.66	1.08	0.91	1.10	0.49	0.62	-0.37	-0.31	-0.84	-0.93	-0.52	-0.32	-0.22	-0.12	0.02	0.44	0.39	0.29	0.24	1.05	1.84	-0.93	0.37
2	0.51	0.50	0.35	0.39	0.82	1.26	0.91	0.51	0.24	-0.08	-0.37	-0.51	-0.39	-0.15	0.00	0.02	0.00	-0.01	0.05	0.19	0.25	0.24	0.23	0.19	1.26	-0.51	0.21
3	0.16	0.14	0.17	0.16	0.13	0.11	0.13	0.11	-0.03	-0.14	-0.22	-0.30	-0.28	-0.45	-0.45	-0.38	-0.35	-0.27	-0.11	0.17	0.26	0.17	0.20	0.45	0.45	-0.45	-0.03
4	0.65	0.45	0.46	0.41	0.47	0.33	0.37	0.28	0.02	-0.19	-0.37	-0.39	-0.49	-0.58	-0.35	-0.33	-0.33	-0.19	-0.01	0.21	0.36	0.41	0.61	0.66	0.66	-0.58	0.10
5	0.46	0.47	0.50	0.63	0.63	0.31	0.32	0.16	0.05	-0.05	-0.08	-0.18	-0.42	-0.45	-0.56	-0.28	-0.17	-0.08	0.02	-0.01	0.09	0.07	0.08	0.03	0.63	-0.56	0.06
6	0.08	0.05	0.10	0.09	0.16	0.21	0.35	0.23	0.03	-0.20	-0.25	-0.10	-0.13	-0.25	-0.04	0.13	0.35	0.23	0.11	0.07	0.24	0.60	0.77	0.36	0.77	-0.25	0.13
7	0.45	0.10	0.13	-0.04	-0.04	-0.03	-0.03	0.03	0.10	0.19	0.03	-0.04	-0.20	-0.20	-0.26	-0.13	-0.08	-0.07	0.04	0.09	0.19	0.40	0.33	0.35	0.45	-0.26	0.05
8	0.26	0.33	0.32	0.34	0.37	0.44	0.46	0.39	0.37	0.10	0.00	-0.19	-0.25	-0.16	-0.14	-0.15	0.04	0.07	0.16	0.25	0.51	0.54	0.07	0.07	0.54	-0.25	0.17
9	0.10	0.06	0.06	0.09	0.12	0.14	0.01	0.01	-0.02	0.00	0.03	0.06	0.03	0.03	0.05	0.00	0.02	0.04	0.07	0.07	0.03	-0.02	-0.03	-0.03	0.14	-0.03	0.04
10	-0.06	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.07	-0.09	-0.07	0.00	0.08	0.06	0.14	0.11	0.13	0.10	0.12	0.34	0.40	0.42	0.58	0.37	0.58	-0.09	0.09
11	0.73	0.75	0.79	0.80	0.68	0.54	0.39	0.47	0.39	0.04	-0.14	-0.16	-0.13	-0.12	-0.08	-0.10	-0.05	0.03	0.11	0.23	0.37	0.44	0.49	0.50	0.80	-0.16	0.29
12	0.63	0.79	0.90	0.52	0.54	0.74	1.02	1.01	0.42	0.23	0.17	0.02	0.05	0.01	-0.02	-0.03	0.09	0.31	0.46	0.25	0.11	0.26	0.56	0.79	1.02	-0.03	0.41
13	1.25	1.55	0.94	1.00	1.32	0.96	0.70	0.72	0.26	0.05	-0.01	-0.12	-0.07	-0.06	-0.12	-0.11	-0.12	-0.16	0.04	0.28	0.17	0.07	0.22	0.42	1.55	-0.16	0.38
14	0.35	0.65	0.32	0.24	0.27	0.37	-0.09	-0.11	-0.20	-0.28	-0.38	-0.52	-0.44	-0.26	-0.32	-0.25	-0.23	-0.25	-0.14	-0.08	0.07	0.05	0.08	0.08	0.65	-0.52	-0.04
15	0.07	0.09	-0.01	-0.01	-0.03	0.03	-0.01	-0.02	-0.01	-0.03	-0.12	-0.22	-0.31	-0.35	-0.38	-0.28	-0.40	-0.27	0.04	0.09	0.14	0.21	0.28	0.33	0.33	-0.40	-0.05
16	0.13	0.13	0.14	0.39	0.52	0.48	0.53	0.46	0.56	0.07	-0.18	-0.64	-0.51	-0.06	-0.20	-0.36	-0.39	-0.29	-0.26	-0.29	-0.27	-0.21	0.06	0.21	0.56	-0.64	0.00
17	0.52	0.39	0.25	0.30	0.19	0.21	0.10	-0.05	-0.06	0.01	0.03	0.06	-0.02	-0.03	0.00	-0.02	-0.01	-0.03	-0.06	-0.06	-0.03	-0.04	-0.05	-0.07	0.52	-0.07	0.06
18	-0.07	-0.04	-0.03	0.01	0.13	0.18	0.03	0.06	0.10	0.17	0.09	0.07	0.02	-0.04	-0.02	0.01	-0.34	-0.17	-0.10	-0.09	-0.08	-0.07	-0.06	0.01	0.18	-0.34	-0.01
19	0.11	-0.02	-0.04	-0.01	-0.02	-0.01	-0.05	-0.05	-0.05	0.02	-0.01	0.01	0.06	-0.10	-0.20	-0.11	-0.13	-0.12	-0.11	-0.11	-0.06	-0.02	-0.05	-0.06	0.11	-0.20	-0.05
20	-0.05	-0.01	-0.06	0.01	0.00	0.04	0.08	0.09	0.09	0.19	0.19	0.10	0.03	0.07	0.04	-0.14	-0.07	0.02	0.10	0.14	0.20	0.19	0.22	0.26	0.26	-0.14	0.07
21	0.35	0.41	0.45	0.43	0.61	0.64	0.65	0.38	0.20	-0.02	-0.32	-0.17	-0.10	-0.11	-0.15	-0.04	0.09	0.04	0.01	0.20	0.10	0.11	0.16	0.18	0.65	-0.32	0.17
22	0.24	0.25	0.22	0.30	0.32	0.45	0.44	0.26	0.17	-0.01	0.06	0.13	0.10	0.06	-0.13	0.04	0.09	0.05	0.09	0.25	0.29	0.31	0.33	0.33	0.45	-0.13	0.19
23	0.56	0.43	0.40	0.46	0.53	0.64	0.51	0.30	-0.13	-0.15	-0.09	-0.54	-0.20	-0.47	-0.33	-0.10	-0.42	-0.24	-0.09	0.23	0.32	0.33	0.19	0.28	0.64	-0.54	0.10
24	0.26	0.27	0.24	0.35	0.38	0.28	0.28	0.27	0.05	-0.17	-0.56	-0.61	-0.34	-0.18	-0.35	-0.28	-0.06	-0.09	0.05	0.18	0.17	0.10	0.19	0.18	0.38	-0.61	0.03
25	0.18	0.18	0.16	0.16	0.19	0.21	0.20	0.12	-0.01	-0.09	-0.39	-0.29	-0.45	-0.64	-0.81	-0.70	-0.48	-0.41	-0.35	-0.07	0.07	0.21	0.55	0.46	0.55	-0.81	-0.08
26	0.58	0.73	0.77	0.98	0.85	0.96	0.80	0.13	-0.01	-0.29	-0.30	-0.41	-0.58	-0.64	-0.41	-0.13	0.06	0.32	0.38	0.38	0.88	1.17	1.27	0.56	1.27	-0.64	0.33
27	1.04	1.07	0.84	0.66	0.21	0.29	0.11	-0.23	-0.40	-0.62	-0.78	-0.87	-0.91	-1.02	-0.86	-0.94	-0.29	-0.19	-0.02	0.01	0.08	0.07	-0.01	-0.03	1.07	-1.02	-0.12
28	-0.04	-0.16	-0.18	-0.24	-0.24	-0.22	-0.24	-0.19	-0.23	-0.24	-0.27	-0.75	-0.72	-0.93	-0.92	-0.82	-0.70	-0.44	-0.22	0.02	0.33	0.48	0.46	0.39	0.48	-0.93	-0.25
29	0.32	0.28	0.27	0.36	0.25	0.36	0.20	0.00	-0.01	-0.16	-0.20	-0.36	-0.77	-0.82	-0.67	-0.87	-0.56	-0.30	-0.39	-0.06	0.27	0.47	0.47	0.24	0.47	-0.87	-0.07
30	0.30	0.22	0.10	0.10	0.68	0.73	0.49	0.02	-0.23	-0.56	-0.68	-0.76	-0.85	-0.71	-0.52	-0.76	-0.88	-0.74	-0.52	-0.13	0.11	0.23	0.22	0.63	0.73	-0.88	-0.15
Max.	**1.31**	**1.84**	**1.44**	**1.00**	**1.32**	**1.26**	**1.02**	**1.10**	**0.56**	**0.62**	**0.19**	**0.13**	**0.10**	**0.07**	**0.14**	**0.13**	**0.35**	**0.32**	**0.46**	**0.44**	**0.88**	**1.17**	**1.27**	**1.05**	**1.84**		
Min.	**-0.07**	**-0.16**	**-0.18**	**-0.24**	**-0.24**	**-0.22**	**-0.24**	**-0.23**	**-0.40**	**-0.62**	**-0.78**	**-0.87**	**-0.91**	**-1.02**	**-0.92**	**-0.94**	**-0.88**	**-0.74**	**-0.52**	**-0.29**	**-0.27**	**-0.21**	**-0.06**	**-0.07**		**-1.02**	
Avg.	**0.38**	**0.39**	**0.33**	**0.31**	**0.35**	**0.39**	**0.32**	**0.21**	**0.07**	**-0.06**	**-0.19**	**-0.27**	**-0.30**	**-0.32**	**-0.29**	**-0.24**	**-0.18**	**-0.11**	**-0.02**	**0.11**	**0.20**	**0.25**	**0.29**	**0.31**			**0.08**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

May *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0.93	0.46	0.30	0.43	0.29	0.21	0.19	-0.05	-0.26	-0.49	-0.52	-0.56	-0.43	-0.37	-0.45	-0.62	-0.53	-0.39	-0.11	-0.10	0.12	0.23	0.30	0.24	0.93	-0.62	-0.05
2	0.03	0.12	0.09	0.22	0.34	0.36	0.27	0.01	-0.26	-0.28	-0.41	-0.38	-0.42	-0.68	-0.59	-0.60	-0.78	-0.58	-0.50	-0.11	-0.04	0.12	0.38	0.45	0.45	-0.78	-0.13
3	0.55	0.88	0.71	0.31	0.34	0.49	0.26	0.01	-0.16	-0.38	-0.63	-0.65	-0.77	-0.65	-0.91	-0.73	-0.37	-0.43	-0.30	-0.09	0.16	0.26	0.32	0.40	0.88	-0.91	-0.06
4	0.41	0.78	0.74	0.44	0.38	0.45	0.66	-0.05	-0.44	-0.43	-0.68	-0.76	-1.03	-0.99	-1.18	-1.22	-1.09	-0.56	-0.40	-0.01	-0.01	0.40	0.08	0.23	0.78	-1.22	-0.18
5	0.32	0.25	-0.06	-0.10	0.16	0.21	-0.17	-0.26	-0.32	-0.54	-0.81	-0.82	-0.83	-0.85	-0.90	-1.00	-1.00	-1.02	-0.80	-0.14	0.20	0.40	0.27	0.28	0.40	-1.02	-0.31
6	0.16	0.21	0.26	0.39	0.32	0.23	0.01	-0.20	-0.41	-0.79	-0.60	-0.68	-0.77	-0.71	-0.72	-0.65	-0.50	-0.46	-0.20	-0.11	0.11	0.15	0.14	0.19	0.39	-0.79	-0.19
7	0.23	0.16	0.27	0.47	0.48	0.62	0.20	-0.05	-0.26	-0.52	-0.54	-0.60	-0.73	-0.94	-0.68	-0.50	-0.18	-0.27	-0.14	-0.03	0.04	0.05	0.01	-0.02	0.62	-0.94	-0.12
8	-0.04	-0.04	-0.04	-0.04	-0.06	-0.06	-0.08	-0.15	-0.19	-0.29	-0.35	-0.41	-0.36	-0.63	-1.06	-0.94	-0.74	-0.74	-0.44	-0.14	0.08	0.25	0.37	0.19	0.37	-1.06	-0.25
9	0.15	0.02	0.08	0.15	0.03	0.02	-0.03	-0.04	-0.07	-0.09	-0.10	-0.10	-0.11	-0.07	-0.09	-0.39	-0.50	-0.52	-0.45	-0.31	-0.22	-0.01	-0.04	0.00	0.15	-0.52	-0.11
10	0.16	0.11	0.09	0.31	0.48	0.46	0.06	-0.12	-0.22	-0.46	-0.55	-0.83	-1.01	-1.01	-0.89	-1.01	-0.93	-0.65	-0.48	-0.21	0.20	0.38	0.42	0.51	0.51	-1.01	-0.22
11	0.34	0.68	0.72	0.62	0.81	0.45	0.20	-0.24	-0.41	-0.78	-0.97	-1.13	-1.08	-1.23	-1.09	-1.07	-0.97	-0.72	-0.56	-0.33	0.05	0.41	0.58	0.72	0.81	-1.23	-0.21
12	0.58	0.64	0.33	0.30	0.35	0.56	0.19	-0.24	-0.54	-0.77	-1.01	-1.02	-0.83	-0.91	-1.08	-1.01	-0.90	-0.66	-0.54	-0.18	0.00	0.15	0.01	0.07	0.64	-1.08	-0.27
13	-0.02	-0.01	0.00	0.02	0.04	0.01	-0.04	-0.08	-0.17	-0.34	-0.43	-0.48	-0.54	-0.56	-0.45	-0.45	-0.39	-0.30	-0.30	-0.20	0.00	0.11	0.17	0.45	0.45	-0.56	-0.16
14	0.68	0.52	0.52	0.57	0.47	0.32	0.22	-0.01	-0.25	-0.53	-0.48	-0.55	-0.39	-0.25	-0.17	-0.24	-0.45	-0.49	-0.32	-0.16	-0.02	0.23	0.30	0.44	0.68	-0.55	0.00
15	0.43	0.46	0.49	0.34	0.25	0.21	0.11	-0.10	-0.33	-0.38	-0.76	-0.96	-0.97	-0.87	-0.87	-0.75	-0.82	-0.80	-0.54	-0.34	-0.14	0.40	0.59	0.58	0.59	-0.97	-0.20
16	0.89	0.77	1.27	0.98	0.55	0.36	0.07	-0.18	-0.31	-0.49	-0.55	-0.69	-0.65	-0.58	-0.48	-0.41	-0.49	-0.47	-0.41	-0.36	-0.27	-0.14	-0.02	-0.01	1.27	-0.69	-0.07
17	-0.01	-0.02	0.00	0.08	0.06	0.00	-0.10	-0.23	-0.33	-0.59	-0.80	-1.24	-1.14	-1.33	-1.16	-1.12	-1.01	-0.84	-0.68	-0.37	-0.21	-0.05	0.08	0.25	0.25	-1.33	-0.45
18	0.14	0.42	0.32	0.30	0.85	0.40	0.01	-0.38	-0.61	-0.82	-0.93	-0.92	-0.94	-1.02	-0.88	-0.99	-1.02	-0.81	-0.33	0.00	0.16	0.24	0.31	0.33	0.85	-1.02	-0.26
19	0.38	0.78	0.64	0.63	0.54	0.34	0.21	-0.31	-0.45	-0.46	-0.69	-0.43	-0.38	-0.76	-0.90	-0.95	-0.92	-0.72	-0.57	-0.19	0.14	0.33	0.35	0.23	0.78	-0.95	-0.13
20	0.37	0.34	0.26	0.31	0.32	0.57	0.26	-0.04	-0.44	-0.67	-0.93	-0.71	-0.95	-1.06	-0.67	-0.91	-0.92	-0.74	-0.64	-0.38	-0.09	0.29	0.29	0.44	0.57	-1.06	-0.24
21	0.34	0.40	0.40	0.33	0.19	0.29	0.05	-0.11	-0.27	-0.40	-0.67	-0.74	-0.84	-1.01	-1.07	-1.07	-1.08	-0.91	-0.61	-0.29	-0.08	0.17	0.20	0.16	0.40	-1.08	-0.27
22	0.17	0.16	0.14	0.15	0.16	0.10	-0.02	-0.08	-0.14	0.13	-0.18	-0.15	-0.54	-0.64	-0.94	-0.93	-0.60	-0.64	-0.60	-0.32	-0.15	0.10	0.13	0.20	0.20	-0.94	-0.19
23	0.34	0.33	0.49	0.38	0.51	0.33	0.08	-0.15	-0.35	-0.50	-0.58	-0.45	-0.56	-0.50	-0.59	-0.51	-0.27	-0.27	-0.17	-0.05	-0.08	-0.08	-0.05	-0.05	0.51	-0.59	-0.11
24	-0.01	-0.02	0.01	-0.02	-0.02	-0.05	-0.08	-0.15	-0.40	-0.52	-0.46	-0.50	-0.49	-0.80	-0.44	-0.34	-0.31	-0.20	-0.06	-0.09	-0.01	0.15	0.00	0.00	0.15	-0.80	-0.20
25	-0.02	0.13	0.46	0.33	0.37	0.34	0.10	-0.13	-0.18	-0.23	-0.28	-0.31	-0.41	-0.33	-0.38	-0.38	-0.34	-0.30	-0.25	-0.27	-0.15	0.08	0.16	0.27	0.46	-0.41	-0.07
26	0.07	0.08	-0.08	-0.07	-0.08	-0.10	-0.17	-0.23	-0.21	-0.30	-0.26	-0.29	-0.53	-0.49	-0.37	-0.35	-0.34	-0.29	-0.24	-0.16	-0.07	-0.02	0.00	0.02	0.08	-0.53	-0.19
27	-0.02	0.12	0.07	0.09	-0.04	-0.11	-0.13	-0.18	-0.50	-0.88	-0.88	-1.00	-1.04	-1.25	-1.12	-1.10	-0.99	-0.95	-0.67	-0.38	-0.11	0.21	0.40	0.53	0.53	-1.25	-0.41
28	0.37	0.32	0.24	0.15	0.43	0.50	-0.06	-0.21	-0.49	-0.66	-0.79	-0.82	-1.05	-1.19	-1.33	-1.20	-1.01	-0.74	-0.59	-0.52	-0.21	0.08	0.56	0.37	0.56	-1.33	-0.33
29	0.15	0.33	0.55	0.64	0.51	0.38	-0.07	-0.42	-0.66	-0.53	-0.43	-0.47	-0.91	-0.53	-0.48	-0.75	-0.75	-0.96	-0.48	-0.39	-0.03	0.51	0.38	0.18	0.64	-0.96	-0.18
30	0.15	0.16	0.08	0.29	0.45	0.33	0.00	-0.14	-0.22	-0.38	-0.42	-0.66	-0.59	-0.59	-0.72	-1.15	-0.92	-0.75	-0.49	-0.36	-0.25	-0.08	-0.07	-0.03	0.45	-1.15	-0.27
31	0.09	0.23	0.28	0.23	0.24	0.17	-0.02	-0.07	-0.30	-0.49	-0.58	-0.55	-0.35	-0.36	-0.37	-0.31	-0.33	-0.17	-0.06	0.05	0.08	0.14	0.17	0.16	0.28	-0.58	-0.09
Max.	**0.93**	**0.88**	**1.27**	**0.98**	**0.85**	**0.62**	**0.66**	**0.01**	**-0.07**	**0.13**	**-0.10**	**-0.10**	**-0.11**	**-0.07**	**-0.09**	**-0.24**	**-0.18**	**-0.17**	**-0.06**	**0.05**	**0.20**	**0.51**	**0.59**	**0.72**	**1.27**		
Min.	**-0.04**	**-0.04**	**-0.08**	**-0.10**	**-0.08**	**-0.11**	**-0.17**	**-0.42**	**-0.66**	**-0.88**	**-1.01**	**-1.24**	**-1.14**	**-1.33**	**-1.33**	**-1.22**	**-1.09**	**-1.02**	**-0.80**	**-0.52**	**-0.27**	**-0.14**	**-0.07**	**-0.05**		**-1.33**	
Avg.	**0.27**	**0.31**	**0.31**	**0.30**	**0.31**	**0.27**	**0.07**	**-0.15**	**-0.33**	**-0.48**	**-0.59**	**-0.64**	**-0.70**	**-0.75**	**-0.74**	**-0.76**	**-0.69**	**-0.59**	**-0.42**	**-0.21**	**-0.03**	**0.18**	**0.22**	**0.25**			**-0.19**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

June *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0.14	0.15	0.14	0.18	0.19	0.08	0.01	-0.23	-0.33	-0.32	-0.25	-0.27	-0.50	-0.39	-0.75	-0.67	-0.55	-0.35	-0.20	-0.17	-0.10	-0.04	0.01	0.02	0.19	-0.75	-0.17
2	0.06	0.12	0.07	0.13	0.14	0.00	-0.11	-0.21	-0.28	-0.43	-0.51	-0.69	-0.88	-0.88	-0.68	-0.63	-0.55	-0.63	-0.46	-0.29	-0.16	0.00	0.21	0.08	0.21	-0.88	-0.27
3	0.05	0.37	0.52	0.25	0.10	0.13	-0.11	-0.18	-0.29	-0.42	-0.48	-0.63	-0.68	-0.43	-0.51	-0.95	-1.05	-0.51	-0.62	-0.34	-0.26	0.10	0.32	0.85	0.85	-1.05	-0.20
4	0.69	0.64	0.37	0.26	0.28	0.11	-0.05	-0.06	-0.14	-0.23	-0.25	-0.33	-0.44	-0.26	-0.34	-0.33	-0.38	-0.41	-0.19	-0.19	-0.12	-0.08	-0.08	-0.08	0.69	-0.44	-0.07
5	-0.07	-0.08	-0.08	-0.07	-0.07	-0.16	-0.19	-0.17	-0.19	-0.27	-0.34	-0.45	-0.65	-0.42	-0.44	-0.73	-0.65	-0.30	-0.33	-0.45	-0.17	-0.07	-0.01	0.07	0.07	-0.73	-0.26
6	0.14	0.15	0.12	0.15	0.12	0.00	-0.05	-0.45	-0.51	-0.82	-0.83	-0.88	-1.10	-1.32	-1.27	-1.23	-1.05	-0.93	-0.85	-0.57	-0.21	0.13	0.24	0.04	0.24	-1.32	-0.46
7	0.27	0.63	0.25	0.30	0.32	0.25	-0.04	-0.26	-0.45	-0.82	-0.63	-0.56	-0.81	-0.77	-1.41	-1.39	-1.15	-0.85	-0.55	-0.46	-0.17	0.05	0.20	0.37	0.63	-1.41	-0.32
8	0.52	0.61	0.34	0.36	0.41	0.17	-0.07	-0.32	-0.38	-0.49	-0.69	-0.95	-1.17	-0.95	-0.79	-0.68	-0.87	-0.66	-0.56	-0.38	-0.07	-0.03	0.02	0.32	0.61	-1.17	-0.26
9	0.56	0.45	0.28	0.22	0.27	0.18	0.39	-0.17	-0.40	-0.51	-0.53	-0.67	-0.62	-0.47	-0.34	-0.33	-0.32	-0.32	-0.33	-0.20	-0.08	0.14	0.33	0.51	0.56	-0.67	-0.08
10	0.52	0.57	0.82	0.56	0.52	0.27	0.11	-0.03	-0.33	-0.64	-0.90	-1.02	-1.06	-1.10	-1.01	-0.82	-0.85	-0.49	-0.49	-0.28	-0.09	-0.16	-0.12	-0.14	0.82	-1.10	-0.26
11	-0.13	-0.12	-0.12	-0.10	-0.11	-0.18	-0.23	-0.22	-0.35	-0.52	-0.64	-0.80	-1.11	-1.15	-1.25	-1.37	-1.22	-1.08	-0.85	-0.58	-0.35	-0.25	-0.19	-0.14	-0.10	-1.37	-0.54
12	-0.12	-0.10	-0.10	-0.08	-0.10	-0.11	-0.15	-0.20	-0.27	-0.37	-0.36	-0.43	-0.56	-0.56	-0.59	-0.71	-0.70	-0.70	-0.62	-0.45	-0.16	0.55	0.44	0.35	0.55	-0.71	-0.25
13	0.38	0.15	0.29	0.20	0.25	0.19	-0.10	-0.26	-0.34	-0.49	-0.51	-0.69	-0.65	-0.68	-0.85	-0.88	-0.32	-0.36	-0.48	-0.29	-0.13	0.03	0.15	0.14	0.38	-0.88	-0.22
14	0.19	0.33	0.41	0.10	0.27	0.13	-0.11	-0.23	-0.32	-0.49	-0.59	-0.57	-0.42	-0.37	-0.22	-0.31	-0.34	-0.40	-0.31	-0.12	0.09	0.22	0.41	0.49	0.49	-0.59	-0.09
15	0.45	0.32	0.37	0.39	0.30	0.16	-0.13	-0.24	-0.39	-0.73	-0.92	-0.99	-1.09	-1.17	-1.31	-0.92	-1.40	-1.24	-0.91	-0.60	-0.28	0.21	0.72	1.09	1.09	-1.40	-0.35
16	1.17	1.06	1.02	1.04	0.66	0.17	-0.22	-0.46	-0.64	-0.89	-0.92	-1.33	-1.52	-1.43	-1.36	-1.32	-1.10	-0.76	-0.40	-0.17	-0.07	-0.01	-0.01	-0.10	1.17	-1.52	-0.32
17	-0.09	-0.09	-0.10	-0.10	-0.09	-0.14	-0.18	-0.35	-0.47	-0.49	-0.42	-0.43	-0.43	-0.52	-0.52	-0.54	-0.47	-0.33	-0.29	-0.28	-0.10	0.01	0.05	0.08	0.08	-0.54	-0.26
18	0.19	0.08	0.06	0.32	0.84	0.64	-0.20	-0.30	-0.37	-0.30	-0.35	-0.36	-0.34	-0.67	-1.07	-0.85	-0.68	-0.42	-0.35	-0.40	-0.20	0.02	0.32	0.58	0.84	-1.07	-0.16
19	0.50	0.50	1.21	0.76	0.55	0.13	-0.02	-0.41	-0.67	-0.82	-0.99	-1.07	-1.33	-1.26	-1.36	-1.26	-1.16	-1.01	-0.89	-0.59	-0.24	0.15	0.47	0.49	1.21	-1.36	-0.35
20	0.57	0.63	0.60	0.39	0.41	0.27	-0.08	-0.40	-0.64	-0.84	-0.99	-1.10	-1.22	-1.24	-1.29	-1.25	-1.26	-1.07	-0.77	-0.17	0.09	0.11	0.22	0.31	0.63	-1.29	-0.36
21	0.32	0.33	0.41	0.28	0.18	0.06	-0.07	-0.35	-0.56	-0.94	-0.99	-1.28	-1.39	-1.30	-1.29	-1.31	-1.19	-0.99	-0.92	-0.59	-0.18	0.01	-0.14	-0.15	0.41	-1.39	-0.50
22	-0.11	-0.11	-0.11	-0.11	-0.12	-0.17	-0.22	-0.28	-0.33	-0.44	-0.52	-0.48	-0.43	-0.39	-0.42	-0.40	-0.37	-0.21	-0.27	-0.22	-0.17	-0.12	-0.09	-0.08	-0.08	-0.52	-0.26
23	-0.08	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.09	-0.09	-0.11	-0.13	-0.17	-0.15	-0.13	-0.15	-0.17	-0.15	-0.14	-0.17	-0.10	0.01	0.00	-0.01	0.01	-0.17	-0.10
24	0.00	0.06	0.04	0.06	0.10	0.08	0.03	-0.07	-0.21	-0.18	-0.20	-0.18	-0.34	-0.46	-0.30	-0.30	-0.38	-0.46	-0.35	-0.16	-0.07	-0.05	0.02	0.02	0.10	-0.46	-0.14
25	0.00	-0.01	-0.01	-0.02	-0.04	-0.08	-0.18	-0.34	-0.38	-0.66	-0.56	-0.52	-0.49	-0.55	-0.77	-0.54	-0.55	-0.42	-0.25	-0.20	-0.04	0.20	0.37	0.45	0.45	-0.77	-0.23
26	0.47	0.62	0.66	0.41	0.32	0.06	-0.20	-0.46	-0.74	-0.83	-0.86	-0.68	-0.82	-0.84	-1.12	-1.03	-0.72	-0.78	-0.82	-0.77	-0.41	0.06	0.52	0.73	0.73	-1.12	-0.30
27	0.73	0.93	1.25	1.35	0.76	0.45	0.08	-0.24	-0.45	-0.45	-0.75	-0.80	-1.07	-1.26	-1.10	-1.44	-1.00	-0.81	-0.69	-0.42	-0.18	-0.07	0.00	0.02	1.35	-1.44	-0.21
28	0.01	0.00	-0.02	-0.04	-0.04	-0.10	-0.20	-0.22	-0.19	-0.32	-0.37	-0.36	-0.39	-0.54	-0.62	-0.49	-0.33	-0.33	-0.37	-0.19	-0.14	0.06	0.49	0.58	0.58	-0.62	-0.17
29	0.69	0.47	0.20	0.34	0.30	0.14	-0.19	-0.42	-0.63	-0.77	-1.00	-0.91	-1.08	-1.10	-1.06	-1.35	-1.31	-1.16	-1.08	-0.54	-0.30	0.02	0.16	0.41	0.69	-1.35	-0.42
30	0.19	-0.01	-0.07	-0.08	-0.11	-0.18	-0.19	-0.27	-0.36	-0.43	-0.44	-0.57	-0.66	-0.56	-0.66	-0.79	-0.73	-0.58	-0.52	-0.39	-0.21	0.10	0.21	0.29	0.29	-0.79	-0.29
Max.	**1.17**	**1.06**	**1.25**	**1.35**	**0.84**	**0.64**	**0.39**	**-0.03**	**-0.09**	**-0.09**	**-0.11**	**-0.13**	**-0.17**	**-0.15**	**-0.13**	**-0.15**	**-0.17**	**-0.15**	**-0.14**	**-0.12**	**0.09**	**0.55**	**0.72**	**1.09**	**1.35**		
Min.	**-0.13**	**-0.12**	**-0.12**	**-0.11**	**-0.12**	**-0.18**	**-0.23**	**-0.46**	**-0.74**	**-0.94**	**-1.00**	**-1.33**	**-1.52**	**-1.43**	**-1.41**	**-1.44**	**-1.40**	**-1.24**	**-1.08**	**-0.77**	**-0.41**	**-0.25**	**-0.19**	**-0.15**		**-1.52**	
Avg.	**0.27**	**0.29**	**0.29**	**0.25**	**0.22**	**0.08**	**-0.09**	**-0.26**	**-0.39**	**-0.53**	**-0.60**	**-0.67**	**-0.78**	**-0.77**	**-0.83**	**-0.83**	**-0.76**	**-0.62**	**-0.53**	**-0.35**	**-0.15**	**0.04**	**0.18**	**0.25**			**-0.26**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

July *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0.22	0.23	0.11	0.17	0.52	0.28	-0.15	-0.32	-0.61	-0.71	-0.45	-0.49	-0.61	-0.59	-0.67	-0.69	-0.42	-0.39	-0.29	-0.24	-0.12	-0.02	0.22	0.18	0.52	-0.71	-0.20
2	0.19	0.21	0.35	0.12	0.19	0.10	-0.09	-0.23	-0.28	-0.69	-0.78	-0.69	-0.70	-0.60	-0.63	-0.42	-0.63	-0.61	-0.70	-0.45	-0.28	-0.12	0.28	0.22	0.35	-0.78	-0.26
3	0.36	0.36	0.28	0.28	0.27	0.09	-0.20	-0.25	-0.42	-0.49	-0.53	-0.64	-0.69	-0.66	-0.85	-0.98	-0.95	-0.71	-0.16	-0.02	0.11	0.04	0.16	0.23	0.36	-0.98	-0.22
4	0.10	-0.08	-0.08	-0.08	-0.05	-0.09	-0.07	-0.13	-0.29	-0.32	-0.49	-0.58	-0.27	-0.32	-0.53	-0.44	-0.19	-0.10	-0.14	-0.07	-0.02	0.15	0.19	0.11	0.19	-0.58	-0.16
5	0.09	0.23	0.33	0.53	0.16	0.10	-0.02	-0.18	-0.27	-0.38	-0.49	-0.69	-0.49	-0.45	-0.51	-0.25	-0.21	-0.19	-0.20	-0.17	-0.12	-0.10	-0.07	0.00	0.53	-0.69	-0.14
6	0.15	0.18	0.16	0.25	0.23	0.15	0.08	-0.02	-0.20	-0.30	-0.31	-0.25	-0.43	-0.34	-0.56	-0.65	-0.63	-0.49	-0.40	-0.32	-0.09	0.09	0.31	0.36	0.36	-0.65	-0.13
7	0.64	0.57	0.60	0.56	0.66	0.19	0.15	-0.06	-0.26	-0.46	-0.38	-0.43	-0.36	-0.34	-0.48	-0.48	-0.49	-0.30	-0.28	-0.29	-0.10	0.22	0.34	0.27	0.66	-0.49	-0.02
8	0.15	0.08	0.21	0.10	0.12	-0.03	-0.08	-0.19	-0.26	-0.32	-0.31	-0.36	-0.40	-0.46	-0.41	-0.42	-0.34	-0.42	-0.34	-0.29	-0.18	-0.04	0.11	0.19	0.21	-0.46	-0.16
9	0.36	0.55	0.61	0.43	0.28	0.12	0.05	-0.21	-0.33	-0.42	-0.43	-0.58	-0.91	-0.64	-0.77	-0.66	-0.58	-0.78	-0.80	-0.38	-0.31	-0.06	0.30	0.71	0.71	-0.91	-0.18
10	0.80	0.79	0.71	0.65	0.75	0.44	0.28	-0.24	-0.35	-0.56	-0.49	-0.49	-0.65	-0.51	-0.74	-0.76	-0.80	-0.50	-0.38	-0.34	-0.21	-0.08	0.08	0.08	0.80	-0.80	-0.11
11	0.23	0.24	0.11	0.11	0.06	-0.11	-0.29	-0.41	-0.70	-0.82	-0.97	-1.12	-1.21	-1.19	-1.18	-1.20	-1.23	-1.07	-0.72	-0.47	-0.26	0.24	0.21	0.35	0.35	-1.23	-0.47
12	0.20	0.18	0.21	0.61	0.59	0.01	-0.16	-0.45	-0.53	-0.54	-0.45	-0.47	-0.58	-0.44	-0.24	-0.53	-0.38	-0.38	-0.28	-0.19	-0.20	0.00	0.05	-0.08	0.61	-0.58	-0.17
13	-0.09	-0.10	-0.10	-0.09	-0.08	-0.10	-0.12	-0.14	-0.15	-0.21	-0.31	-0.35	-0.36	-0.38	-0.41	-0.42	-0.39	-0.41	-0.28	-0.20	-0.16	-0.02	-0.04	-0.01	-0.01	-0.42	-0.20
14	-0.02	0.11	0.13	0.10	0.10	-0.10	-0.15	-0.25	-0.31	-0.32	-0.51	-0.62	-0.68	-0.65	-0.48	-0.51	-0.46	-0.41	-0.27	-0.22	-0.24	-0.16	-0.07	0.05	0.13	-0.68	-0.25
15	0.11	0.06	0.06	0.07	-0.01	-0.11	-0.14	-0.16	-0.34	-0.47	-0.67	-0.72	-0.81	-0.94	-0.79	-0.74	-0.60	-0.69	-0.50	-0.26	-0.09	0.01	0.08	0.17	0.17	-0.94	-0.31
16	-0.02	-0.03	-0.03	-0.04	-0.04	0.19	-0.20	-0.40	-0.40	-0.48	-0.69	-0.83	-0.76	-0.74	-0.65	-0.92	-0.72	-0.66	-0.60	-0.68	-0.37	0.12	0.72	1.03	1.03	-0.92	-0.30
17	1.16	0.82	1.49	0.81	0.49	0.59	0.04	-0.31	-0.52	-0.68	-0.55	-0.45	-0.65	-1.00	-1.00	-1.11	-1.05	-0.72	-0.62	-0.44	-0.23	-0.05	-0.03	-0.01	1.49	-1.11	-0.17
18	0.02	0.00	0.01	0.00	0.02	-0.06	-0.10	-0.22	-0.33	-0.32	-0.48	-0.42	-0.47	-0.40	-0.44	-0.53	-0.33	-0.22	-0.22	-0.14	-0.02	0.11	0.24	0.31	0.31	-0.53	-0.17
19	0.43	0.39	0.22	0.22	0.22	-0.08	0.03	-0.01	-0.05	-0.33	-0.41	-0.48	-0.48	-0.47	-0.45	-0.32	-0.42	-0.44	-0.36	-0.18	-0.01	0.13	0.21	0.21	0.43	-0.48	-0.10
20	0.43	0.14	0.11	0.42	0.25	0.45	-0.04	-0.21	-0.40	-0.76	-1.21	-1.16	-0.95	-1.43	-1.49	-1.35	-1.32	-0.95	-0.88	-0.63	-0.35	-0.11	-0.16	-0.13	0.45	-1.49	-0.49
21	-0.10	-0.10	-0.09	-0.10	-0.10	-0.12	-0.15	-0.18	-0.22	-0.30	-0.46	-0.61	-0.68	-0.72	-0.57	-0.48	-0.49	-0.29	-0.23	-0.17	-0.11	-0.09	-0.07	-0.10	-0.07	-0.72	-0.27
22	-0.08	-0.08	-0.08	-0.08	-0.08	-0.09	-0.11	-0.15	-0.19	-0.19	-0.30	-0.31	-0.29	-0.26	-0.31	-0.30	-0.32	-0.23	-0.22	-0.15	-0.14	-0.09	-0.07	-0.07	-0.07	-0.32	-0.17
23	-0.06	-0.06	-0.08	-0.07	-0.08	-0.06	-0.10	-0.13	-0.21	-0.29	-0.36	-0.39	-0.35	-0.30	-0.25	-0.19	-0.13	-0.12	-0.11	-0.05	-0.03	0.04	0.03	-0.02	0.04	-0.39	-0.14
24	0.00	0.06	0.09	0.17	0.10	0.09	0.04	-0.05	-0.12	-0.25	-0.35	-0.33	-0.38	-0.37	-0.30	-0.27	-0.35	-0.16	-0.13	0.12	0.38	0.57	0.54	0.67	0.67	-0.38	-0.01
25	0.70	0.72	0.68	0.66	0.63	0.69	0.41	0.11	-0.23	-0.46	-0.39	-0.64	-0.61	-0.81	-0.63	-0.42	-0.35	-0.21	-0.02	-0.10	-0.12	0.04	0.27	0.21	0.72	-0.81	0.01
26	0.21	0.32	0.46	0.29	0.42	0.47	0.07	0.04	-0.09	-0.28	-0.56	-0.73	-0.66	-0.76	-0.73	-0.70	-0.76	-1.09	-0.74	-0.24	0.24	0.67	0.75	0.85	0.85	-1.09	-0.11
27	0.64	0.45	0.92	0.58	0.83	0.63	0.48	0.00	-0.13	-0.42	-0.77	-0.63	-0.77	-0.73	-1.00	-0.91	-0.96	-0.43	-0.48	-0.19	0.13	0.27	0.40	0.46	0.92	-1.00	-0.07
28	0.50	0.44	0.15	0.04	0.00	-0.07	-0.13	-0.20	-0.28	-0.44	-0.52	-1.04	-1.45	-1.68	-1.64	-1.66	-1.46	-1.23	-0.90	-0.51	-0.21	-0.05	-0.07	-0.09	0.50	-1.68	-0.52
29	-0.08	-0.08	-0.06	-0.07	-0.07	0.14	-0.11	-0.12	-0.20	-0.49	-0.64	-0.86	-0.89	-0.86	-0.93	-0.96	-0.91	-0.75	-0.79	-0.36	-0.22	0.10	-0.07	0.13	0.14	-0.96	-0.38
30	0.25	0.16	0.08	-0.06	-0.04	-0.02	-0.11	-0.16	-0.25	-0.25	-0.39	-0.49	-0.80	-0.85	-0.90	-0.68	-0.86	-0.75	-0.44	-0.28	-0.19	-0.13	-0.12	-0.11	0.25	-0.90	-0.31
31	-0.10	-0.12	-0.11	-0.13	-0.10	-0.11	-0.17	-0.23	-0.27	-0.32	-0.36	-0.39	-0.56	-0.82	-0.77	-0.76	-0.79	-0.57	-0.36	-0.26	-0.14	-0.06	-0.04	-0.06	-0.04	-0.82	-0.32
Max.	**1.16**	**0.82**	**1.49**	**0.81**	**0.83**	**0.69**	**0.48**	**0.11**	**-0.05**	**-0.19**	**-0.30**	**-0.25**	**-0.27**	**-0.26**	**-0.24**	**-0.19**	**-0.13**	**-0.10**	**-0.02**	**0.12**	**0.38**	**0.67**	**0.75**	**1.03**	**1.49**		
Min.	**-0.10**	**-0.12**	**-0.11**	**-0.13**	**-0.10**	**-0.12**	**-0.29**	**-0.45**	**-0.70**	**-0.82**	**-1.21**	**-1.16**	**-1.45**	**-1.68**	**-1.64**	**-1.66**	**-1.46**	**-1.23**	**-0.90**	**-0.68**	**-0.37**	**-0.16**	**-0.16**	**-0.13**		**-1.68**	
Avg.	**0.24**	**0.21**	**0.24**	**0.21**	**0.20**	**0.11**	**-0.03**	**-0.18**	**-0.30**	**-0.43**	**-0.51**	**-0.59**	**-0.64**	**-0.67**	**-0.69**	**-0.67**	**-0.63**	**-0.52**	**-0.41**	**-0.26**	**-0.12**	**0.05**	**0.15**	**0.20**			**-0.21**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

August *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-0.05	-0.06	-0.06	-0.06	-0.07	-0.10	-0.10	-0.10	-0.14	-0.20	-0.32	-0.51	-0.39	-0.39	-0.41	-0.42	-0.28	-0.25	-0.26	-0.14	-0.08	-0.08	-0.04	-0.03	-0.03	-0.51	-0.19
2	-0.04	-0.05	-0.05	-0.05	-0.03	-0.02	-0.07	-0.09	-0.18	-0.17	-0.17	-0.16	-0.19	-0.19	-0.15	-0.24	-0.19	-0.18	-0.15	-0.08	0.01	0.03	0.04	0.00	0.04	-0.24	-0.10
3	-0.02	0.01	0.00	0.00	-0.02	-0.03	-0.08	-0.08	-0.12	-0.19	-0.24	-0.29	-0.29	-0.27	-0.41	-0.34	-0.26	-0.19	-0.13	-0.09	-0.07	-0.07	-0.05	-0.04	0.01	-0.41	-0.14
4	-0.05	-0.02	-0.04	-0.03	-0.02	-0.04	-0.04	-0.05	-0.05	-0.07	-0.10	-0.13	-0.18	-0.15	-0.16	-0.13	-0.12	-0.11	-0.09	-0.05	-0.02	0.00	0.01	0.04	0.04	-0.18	-0.07
5	0.07	0.04	0.01	-0.06	-0.05	-0.04	-0.07	-0.06	-0.07	-0.13	-0.10	-0.13	-0.11	-0.10	-0.09	-0.09	-0.14	-0.09	-0.10	-0.06	-0.01	0.00	-0.01	-0.07	0.07	-0.14	-0.06
6	-0.05	0.04	-0.01	-0.01	0.09	0.28	0.26	0.10	0.00	-0.37	-0.36	-0.53	-0.82	-0.98	-1.17	-0.52	-0.40	-0.64	-0.27	-0.44	-0.01	0.27	0.38	0.44	0.44	-1.17	-0.20
7	0.43	0.43	0.38	0.27	0.18	0.30	0.16	-0.09	-0.37	-0.70	-0.82	-0.76	-0.84	-1.01	-1.22	-1.10	-0.97	-0.79	-0.61	-0.39	-0.06	0.33	0.51	0.65	0.65	-1.22	-0.25
8	0.65	0.91	0.59	0.47	0.37	0.45	0.16	-0.09	-0.19	-0.41	-0.71	-0.77	-0.85	-0.78	-0.78	-0.61	-0.66	-0.84	-0.50	-0.06	0.50	0.83	0.71	0.83	0.91	-0.85	-0.03
9	0.79	0.86	0.78	0.95	1.24	1.21	0.45	-0.15	-0.40	-0.60	-0.69	-0.67	-0.98	-1.14	-1.03	-1.08	-0.92	-0.52	-0.55	-0.16	0.51	0.54	0.49	0.71	1.24	-1.14	-0.01
10	0.85	0.43	0.35	0.24	0.17	0.40	0.91	0.51	-0.18	-0.44	-0.63	-0.81	-0.87	-1.00	-1.09	-1.06	-0.99	-0.66	-0.56	-0.09	0.76	0.56	0.65	0.84	0.91	-1.09	-0.07
11	1.09	0.82	0.90	1.10	0.82	0.69	0.46	0.12	-0.27	-0.53	-0.69	-0.69	-0.82	-0.75	-0.68	-0.69	-0.66	-0.50	-0.28	-0.12	-0.01	0.15	0.13	0.33	1.10	-0.82	0.00
12	0.23	0.16	0.02	0.00	-0.07	0.00	-0.06	-0.08	-0.12	-0.24	-0.22	-0.40	-0.85	-1.07	-0.61	-0.95	-1.03	-1.06	-0.70	-0.41	0.08	0.58	0.32	0.44	0.58	-1.07	-0.25
13	0.35	0.33	0.36	0.38	0.23	0.56	0.45	0.15	-0.24	-0.43	-0.58	-0.58	-0.60	-0.92	-0.78	-0.80	-1.01	-0.91	-0.38	-0.14	-0.04	-0.06	-0.05	-0.10	0.56	-1.01	-0.20
14	-0.12	-0.10	-0.10	-0.10	-0.13	-0.09	-0.10	-0.13	-0.18	-0.17	-0.19	-0.25	-0.35	-0.46	-0.60	-0.52	-0.31	-0.27	-0.24	-0.28	-0.18	0.04	-0.01	0.03	0.04	-0.60	-0.20
15	0.06	0.07	0.04	0.07	0.05	0.03	0.01	-0.01	-0.04	-0.12	-0.32	-0.33	-0.37	-0.38	-0.54	-0.29	-0.27	-0.20	-0.14	-0.11	0.04	0.14	0.25	0.28	0.28	-0.54	-0.09
16	0.29	0.22	0.10	0.63	0.86	0.37	-0.03	0.47	0.09	-0.46	-0.35	-0.24	-0.48	-0.70	-0.52	-0.75	-0.68	-0.51	-0.42	-0.16	0.36	0.32	0.23	0.19	0.86	-0.75	-0.05
17	0.16	0.55	0.28	0.20	0.20	0.26	0.06	-0.11	-0.18	-0.46	-0.34	-0.45	-0.55	-1.24	-0.65	-0.66	-0.50	-0.44	-0.19	-0.13	-0.07	0.01	0.13	0.23	0.55	-1.24	-0.16
18	0.13	0.10	0.04	-0.01	0.03	0.11	0.06	-0.03	-0.02	-0.05	-0.11	-0.02	-0.08	0.01	-0.05	-0.13	-0.12	-0.06	-0.07	0.00	0.02	0.05	0.09	0.08	0.13	-0.13	0.00
19	0.11	0.09	0.12	0.14	0.13	0.23	0.19	0.01	-0.08	-0.03	-0.04	-0.12	-0.04	-0.19	-0.47	-0.36	-0.22	-0.19	-0.12	-0.13	-0.08	-0.04	-0.06	-0.01	0.23	-0.47	-0.05
20	0.02	0.04	0.00	0.00	0.02	0.03	0.04	-0.04	-0.11	-0.16	-0.27	-0.41	-0.33	-0.35	-0.40	-0.52	-0.39	-0.51	-0.29	-0.07	0.26	0.23	0.19	0.13	0.26	-0.52	-0.12
21	0.10	0.10	0.11	0.07	0.05	0.00	-0.01	-0.04	-0.04	-0.07	-0.12	-0.17	-0.15	-0.18	-0.31	-0.27	-0.26	-0.27	-0.16	-0.05	0.03	0.04	0.08	0.11	0.11	-0.31	-0.06
22	0.09	0.05	0.03	-0.03	-0.08	-0.05	-0.05	-0.10	-0.12	-0.25	-0.29	-0.29	-0.25	-0.26	-0.23	-0.26	-0.24	-0.20	-0.16	-0.11	-0.15	-0.02	0.01	0.05	0.09	-0.29	-0.12
23	0.24	0.27	0.31	0.19	0.17	0.22	0.14	0.04	-0.15	-0.29	-0.33	-0.39	-0.49	-0.54	-0.52	-0.40	-0.30	-0.18	-0.04	0.18	0.34	0.38	0.40	0.34	0.40	-0.54	-0.02
24	0.32	0.27	0.19	0.17	0.17	0.17	0.06	-0.02	-0.13	-0.17	-0.31	-0.40	-0.46	-0.40	-0.08	-0.20	-0.48	-0.45	-0.01	0.12	0.37	0.34	0.29	0.21	0.37	-0.48	-0.02
25	0.00	-0.04	-0.06	-0.08	-0.08	-0.08	-0.11	-0.14	-0.20	-0.23	-0.34	-0.37	-0.42	-0.55	-0.70	-0.76	-0.83	-0.59	-0.30	0.03	0.59	0.99	1.10	0.69	1.10	-0.83	-0.10
26	0.30	0.69	1.41	1.19	1.23	1.04	0.77	0.60	-0.05	-0.34	-0.47	-0.68	-0.50	-0.60	-0.94	-0.72	-0.42	-0.55	-0.48	-0.32	0.03	0.25	0.44	0.51	1.41	-0.94	0.10
27	0.57	0.71	1.00	1.11	0.62	0.75	0.50	0.25	-0.25	-0.43	-0.55	-0.70	-0.43	-0.42	-0.45	-0.81	-0.60	-0.54	-0.36	-0.12	0.22	0.97	1.22	0.74	1.22	-0.81	0.12
28	0.63	1.47	0.91	1.05	0.83	1.21	0.93	0.68	0.10	-0.40	-0.56	-0.47	-0.68	-0.78	-0.75	-0.59	-0.58	-0.70	-0.65	-0.17	0.61	0.56	0.67	0.47	1.47	-0.78	0.16
29	0.47	0.35	0.20	0.23	0.22	0.09	0.08	-0.10	-0.26	-0.14	-0.57	-0.78	-0.98	-1.07	-0.94	-1.00	-0.90	-0.65	-0.38	0.02	0.34	0.32	0.40	0.32	0.47	-1.07	-0.20
30	0.30	0.25	0.23	0.25	0.25	0.25	0.12	0.03	-0.20	-0.44	-0.56	-0.60	-0.55	-0.59	-0.58	-0.58	-0.34	-0.32	-0.21	0.08	0.87	1.04	0.95	0.83	1.04	-0.60	0.02
31	0.41	0.85	0.90	0.42	0.65	0.67	0.45	0.39	-0.10	-0.21	-0.56	-0.64	-0.63	-0.40	-0.47	-0.33	-0.09	-0.13	0.11	0.22	0.63	0.60	0.81	0.67	0.90	-0.64	0.18
Max.	**1.09**	**1.47**	**1.41**	**1.19**	**1.24**	**1.21**	**0.93**	**0.68**	**0.10**	**-0.03**	**-0.04**	**-0.02**	**-0.04**	**0.01**	**-0.05**	**-0.09**	**-0.09**	**-0.06**	**0.11**	**0.22**	**0.87**	**1.04**	**1.22**	**0.84**	**1.47**		
Min.	**-0.12**	**-0.10**	**-0.10**	**-0.10**	**-0.13**	**-0.10**	**-0.11**	**-0.15**	**-0.40**	**-0.70**	**-0.82**	**-0.81**	**-0.98**	**-1.24**	**-1.22**	**-1.10**	**-1.03**	**-1.06**	**-0.70**	**-0.44**	**-0.18**	**-0.08**	**-0.06**	**-0.10**		**-1.24**	
Avg.	**0.27**	**0.32**	**0.29**	**0.28**	**0.26**	**0.29**	**0.18**	**0.06**	**-0.14**	**-0.29**	**-0.38**	**-0.44**	**-0.50**	**-0.58**	**-0.57**	**-0.55**	**-0.49**	**-0.43**	**-0.28**	**-0.10**	**0.19**	**0.30**	**0.33**	**0.32**			**-0.07**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	0.3	0.33	0.33	0.32	0.17	-0.09	-0.11	-0.15	-0.22	-0.24	-0.33	-0.29	-0.31	-0.35	-0.46	-0.56	-0.64	-0.56	-0.30	0.17	0.50	0.74	0.74	0.41	0.74	-0.64	-0.03
2	0.1	0.07	0.05	-0.05	-0.06	-0.07	-0.07	-0.11	-0.19	-0.40	-0.59	-0.83	-0.76	-0.99	-0.96	-0.61	-0.51	-0.38	-0.26	-0.11	-0.09	-0.05	-0.06	-0.05	0.12	-0.99	-0.29
3	0.0	0.01	0.03	-0.01	-0.03	-0.01	-0.03	-0.02	-0.07	-0.12	-0.14	-0.16	-0.18	-0.17	-0.14	-0.10	-0.09	-0.08	-0.07	-0.03	0.06	0.17	0.19	0.21	0.21	-0.18	-0.03
4	0.3	0.29	0.27	0.27	0.24	0.34	0.28	-0.02	-0.05	-0.22	-0.14	-0.31	-0.47	-0.64	-0.51	-0.46	-0.34	-0.41	-0.43	0.16	0.46	0.34	0.33	0.44	0.46	-0.64	-0.01
5	0.3	0.31	0.18	0.28	0.48	0.54	0.26	0.19	-0.07	-0.37	-0.78	-0.84	-1.27	-1.29	-1.03	-0.77	-0.18	0.31	0.38	0.16	0.23	0.10	0.13	0.15	0.54	-1.29	-0.11
6	0.1	0.12	0.10	0.19	0.21	0.15	-0.08	-0.10	-0.18	-0.29	-0.13	0.14					1.03	0.66	0.17	0.01	0.14	0.15	0.05	0.12	1.03	-0.29	0.13
7	0.0	-0.05	0.06	0.12	0.18	0.22	0.19	0.12	0.12	-0.02	-0.01	0.03	-0.01	-0.06	-0.05	-0.08	-0.10	-0.07	-0.02	-0.01	0.03				0.22	-0.10	0.03
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Max.	**0.3**	**0.33**	**0.33**	**0.32**	**0.48**	**0.54**	**0.28**	**0.19**	**0.12**	**-0.02**	**-0.01**	**0.14**	**-0.01**	**-0.06**	**-0.05**	**-0.08**	**1.03**	**0.66**	**0.38**	**0.17**	**0.50**	**0.74**	**0.74**	**0.44**	**1.03**		
Min.	**0.0**	**-0.05**	**0.03**	**-0.05**	**-0.06**	**-0.09**	**-0.11**	**-0.15**	**-0.22**	**-0.40**	**-0.78**	**-0.84**	**-1.27**	**-1.29**	**-1.03**	**-0.77**	**-0.64**	**-0.56**	**-0.43**	**-0.11**	**-0.09**	**-0.05**	**-0.06**	**-0.05**		**-1.29**	
Avg.	**0.1**	**0.15**	**0.14**	**0.16**	**0.17**	**0.15**	**0.07**	**-0.01**	**-0.09**	**-0.24**	**-0.30**	**-0.32**	**-0.50**	**-0.58**	**-0.52**	**-0.43**	**-0.12**	**-0.08**	**-0.07**	**0.05**	**0.19**	**0.24**	**0.23**	**0.21**			**-0.04**

Total Hours in Month 720 **Hours Data Available** 161 **Data Recovery** 22.4%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

October *2007*

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
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Total Hours in Month 744 **Hours Data Available** 0 **Data Recovery** 0.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
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Total Hours in Month 720 **Hours Data Available** 0 **Data Recovery** 0.0%

HCG, Inc.

Pebble 4 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
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Total Hours in Month 744 **Hours Data Available** 0 **Data Recovery** 0.0%

HCG, Inc.

Pebble 4 Meteorological Station - Relative Humidity (%)

January 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	55.7	58.2	62.9	61.7	62.5	63.4	62.9	60.3	65.3	68.5	69.4	70.8	72.0	70.4	71.6	73.8	74.6	76.2	76.9	77.8	78.9	78.0	77.8	79.5	79.5	55.7	69.5
2	79.0	79.8	80.2	79.5	79.1	77.8	78.2	79.0	78.9	77.3	76.3	75.8	76.1	76.0	76.2	76.1	76.5	78.6	79.3	79.2	79.8	79.2	79.8	80.1	80.2	75.8	78.2
3	78.5	78.1	77.8	77.5	78.5	79.2	79.5	77.4	77.9	76.9	76.6	76.7	76.3	75.8	76.4	78.0	77.5	76.8	77.6	77.1	77.5	78.3	80.5	80.1	80.5	75.8	77.8
4	80.5	79.0	78.1	78.0	78.1	77.8	77.0	76.3	74.5	71.2	69.6	67.9	67.0	65.4	65.7	69.1	70.8	73.2	73.9	75.4	80.0	83.1	88.4	89.5	89.5	65.4	75.4
5	87.3	87.2	85.0	84.5	83.8	84.3	83.9	83.5	82.5	81.9	82.5	81.8	82.2	82.0	81.0	80.0	78.6	77.2	75.6	71.8	71.5	73.9	74.1	74.8	87.3	71.5	80.5
6	74.8	75.3	75.0	74.9	72.3	70.7	70.6	68.3	67.9	71.4	66.9	65.5	66.2	65.8	64.4	69.2	72.1	72.4	71.7	73.6	75.3	74.5	74.7	75.2	75.3	64.4	71.2
7	75.3	75.0	74.9	74.9	75.3	75.4	74.1	73.8	71.7	72.0	71.1	71.0	70.6	70.4	70.9	72.3	72.2	73.6	73.9	74.3	74.3	73.6	72.9	74.8	75.4	70.4	73.3
8	75.6	75.0	76.3	75.7	76.0	77.3	76.2	76.9	77.1	77.0	75.1	73.5	71.5	70.2	70.5	69.9	69.1	66.7	66.6	67.3	67.3	65.3	64.2	65.7	77.3	64.2	71.9
9	64.8	64.5	66.0	68.5	65.9	64.7	63.0	62.9	63.9	63.2	63.8	58.4	54.0	54.2	50.2	65.5	66.2	61.9	52.2	45.9	58.9	72.5	70.6	68.8	72.5	45.9	62.1
10	60.7	72.8	70.9	73.0	69.4	83.8	84.0	75.9	77.2	80.6	87.2	96.8	98.0	98.5	98.7	98.9	99.2	99.4	99.7	99.8	99.9	100.0	100.0	100.0	100.0	60.7	88.5
11	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.4	98.7	99.3	100.0	100.0	100.0	100.0	100.0	98.7	99.9
12	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.7	98.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.2	99.9
13	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.8	99.8	99.5	99.0	98.6	97.3	97.7	97.7	96.2	95.5	92.6	100.0	92.6	98.9
14	88.5	84.4	85.2	84.4	85.5	90.4	93.3	93.8	94.9	95.2	93.9	93.4	92.3	88.9	87.8	88.5	88.3	88.1	89.1	89.1	89.6	79.5	82.7	90.8	95.2	79.5	89.1
15	92.1	95.5	93.8	94.9	93.7	89.9	90.3	91.2	92.6	92.3	92.5	90.8	89.3	91.1	88.8	89.7	90.9	91.6	91.8	91.9	93.7	94.0	93.5	92.3	95.5	88.8	92.0
16	89.6	89.9	89.3	90.1	82.2	66.0	54.1	53.3	60.8	69.9	74.1	83.7	89.4	90.0	85.1	84.3	84.8	86.5	87.8	92.5	96.8	97.4	99.4	99.9	99.9	53.3	83.2
17	100.0	100.0	99.8	99.6	99.5	99.5	99.4	99.5	99.6	99.7	99.7	99.4	95.9	93.2	91.6	92.1	91.0	89.5	84.9	84.3	84.3	85.5	84.5	87.5	100.0	84.3	94.2
18	88.9	89.3	94.5	99.9	99.6	98.6	96.6	95.0	95.7	94.4	94.5	94.9	99.0	97.6	91.9	97.9	100.0	100.0	100.0	99.8	99.7	99.9	99.6	99.8	100.0	88.9	97.0
19	99.9	99.8	99.6	99.3	99.2	99.1	98.8	99.7	96.0	94.2	97.0	99.7	98.0	98.9	91.9	91.3	96.6	97.5	93.1	93.8	93.0	93.2	92.6	94.3	99.9	91.3	96.5
20	96.4	96.4	96.5	98.8	98.1	98.2	97.5	99.9	97.4	94.6	91.1	83.4	76.8	79.2	82.4	80.4	78.3	85.4	90.1	89.1	83.5	77.9	72.7	69.4	99.9	69.4	88.1
21	70.4	70.7	76.9	74.2	76.1	86.1	86.2	89.8	88.9	88.4	92.8	96.4	95.8	95.6	95.4	95.5	95.5	95.5	95.3	95.3	95.3	95.3	95.4	95.2	96.4	70.4	89.3
22	95.2	95.1	94.9	95.1	94.8	94.9	94.6	94.4	94.6	94.4	94.1	94.3	94.5	94.0	94.2	94.0	93.0	90.8	89.1	90.5	91.5	87.3	91.1	94.0	95.2	87.3	93.4
23	92.8	92.1	92.3	92.1	91.6	91.3	90.9	90.6	91.0	90.3	90.2	90.0	90.1	90.3	89.9	89.7	89.4	89.5	89.0	88.0	86.2	85.6	84.5	83.6	92.8	83.6	89.6
24	83.4	82.6	81.2	81.3	80.9	81.0	81.4	83.0	83.8	82.3	80.7	81.4	80.8	79.4	78.3	79.4	77.4	77.7	76.0	73.9	70.9	74.7	72.5	74.7	83.8	70.9	79.1
25	76.4	72.1	60.4	69.6	86.0	90.7	91.2	91.5	90.7	91.4	92.2	92.8	94.9	96.5	98.4	98.0	95.4	89.5	88.8	88.3	89.1	91.2	92.7	91.3	98.4	60.4	88.3
26	91.5	92.7	91.4	93.1	95.9	94.6	91.9	91.7	96.5	99.5	100.0	98.3	98.2	94.2	87.0	85.2	87.8	88.4	87.2	83.8	82.7	84.2	82.9	81.4	100.0	81.4	90.8
27	79.6	83.7	84.4	85.3	87.5	91.4	91.1	92.9	90.1	93.0	98.7	100.0	100.0	100.0	95.8	82.1	77.2	85.6	83.8	82.7	83.7	85.4	88.5	91.7	100.0	77.2	88.9
28	93.9	96.1	97.7	95.7	98.4	98.0	99.0	99.8	99.8	99.0	100.0	100.0	98.7	96.4	94.6	93.0	94.4	95.7	95.8	92.4	92.6	86.8	84.7	83.4	100.0	83.4	95.2
29	82.7	84.3	76.6	77.1	73.5	74.4	84.0	87.8	92.7	91.7	94.0	92.7	88.6	89.6	90.4	95.6	92.7	94.4	97.0	98.6	99.8	100.0	100.0	100.0	100.0	73.5	89.9
30	100.0	97.9	95.4	93.0	91.9	92.1	92.8	84.9	79.7	75.9	74.4	66.1	68.2	76.0	74.4	74.2	83.0	90.5	91.3	93.4	95.3	97.4	98.8	99.2	100.0	66.1	86.9
31	98.5	98.3	96.0	92.9	90.5	90.0	92.2	98.1	99.4	99.4	100.0	99.7	99.7	96.0	97.4	95.4	94.3	94.4	95.7	93.5	87.6	86.6	90.9	94.7	100.0	86.6	95.1
Max.	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**		
Min.	**55.7**	**58.2**	**60.4**	**61.7**	**62.5**	**63.4**	**54.1**	**53.3**	**60.8**	**63.2**	**63.8**	**58.4**	**54.0**	**54.2**	**50.2**	**65.5**	66.2	61.9	**52.2**	**45.9**	**58.9**	**65.3**	**64.2**	**65.7**		**45.9**	
Avg.	**85.5**	**86.0**	**85.6**	**86.0**	**86.0**	**86.5**	**86.3**	**86.2**	**86.5**	**86.6**	**87.0**	**86.9**	**86.6**	**86.3**	**85.1**	**85.8**	**86.0**	**86.6**	**86.1**	**85.8**	**86.3**	**86.3**	**86.6**	**87.2**			**86.2**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Relative Humidity (%)

February 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	94.0	91.1	87.7	87.0	88.4	88.1	90.0	93.9	90.7	90.1	94.3	82.9	79.1	77.5	62.3	54.2	57.0	65.2	64.0	70.6	84.5	98.5	100.0	100.0	100.0	54.2	83.0
2	100.0	100.0	98.3	94.5	90.3	90.2	94.8	97.0	95.7	94.8	94.0	91.3	89.8	89.9	90.6	90.2	89.8	89.9	89.8	88.2	88.7	90.3	89.7	91.3	100.0	88.2	92.5
3	92.2	94.3	94.1	93.7	93.1	94.7	94.8	93.1	92.8	93.7	93.1	91.2	89.0	87.5	88.1	90.2	90.9	93.2	94.5	93.2	91.5	90.9	91.3	85.4	94.8	85.4	91.9
4	86.3	85.3	87.9	83.8	80.2	82.6	81.1	76.2	79.3	82.2	80.1	80.9	83.3	80.3	76.0	78.4	76.6	73.9	72.0	77.5	60.4	56.0	59.5	49.8	87.9	49.8	76.2
5	42.4	42.7	43.0	43.5	47.0	48.8	47.6	45.2	47.1	48.3	50.2	52.3	59.6	63.3	72.0	74.0	68.3	65.5	63.5	68.9	77.6	83.4	82.6	77.7	83.4	42.4	58.9
6	73.8	71.7	67.4	64.4	65.2	65.4	65.2	66.0	68.1	68.9	66.1	66.0	68.4	68.3	72.7	77.5	76.9	78.1	75.9	74.5	74.1	72.5	73.1	69.9	78.1	64.4	70.4
7	75.6	90.0	89.3	92.4	95.0	96.8	99.4	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.9	100.0	100.0	75.6	97.4
8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.2	96.8	96.0	95.6	96.0	95.9	95.7	100.0	95.6	99.0
9	95.7	98.0	98.4	98.5	98.3	98.8	99.8	100.0	99.5	98.6	97.5	95.8	93.5	92.3	93.4	98.9	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	92.3	98.2
10	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.2	98.4	98.6	99.9	99.5	99.0	98.9	100.0	98.4	99.7
11	99.0	99.5	99.5	99.4	99.1	99.4	99.5	99.6	99.5	99.6	99.9	99.7	98.2	96.3	97.6	94.6	92.1	93.5	93.3	91.5	92.9	94.0	92.2	91.9	99.9	91.5	96.7
12	91.6	93.5	90.8	90.3	89.4	88.3	87.5	85.5	86.9	86.9	85.2	77.4	74.4	72.1	70.5	71.2	71.6	71.7	70.7	68.5	65.3	64.9	64.6	63.7	93.5	63.7	78.4
13	68.2	64.5	63.9	68.6	67.8	65.8	72.0	80.8	85.6	82.0	73.9	77.0	76.3	75.7	76.4	83.6	86.9	91.6	97.3	97.8	95.2	97.7	98.4	98.0	98.4	63.9	81.0
14	91.6	93.3	95.4	94.2	96.2	99.6	99.7	97.6	95.7	95.4	94.9	93.2	89.5	90.0	90.6	87.3	87.2	88.1	84.0	75.6	72.2	73.5	77.4	76.9	99.7	72.2	89.1
15	77.6	76.2	74.8	78.2	76.9	75.6	78.6	74.7	79.5	78.2	79.0	78.6	79.2	81.3	82.2	85.5	84.4	84.4	84.3	83.5	83.9	85.1	83.3	82.9	85.5	74.7	80.3
16	82.2	81.1	77.9	80.0	80.8	83.0	80.6	82.3	82.0	85.0	86.0	85.5	87.1	87.0	87.0	87.5	88.1	86.4	84.6	91.6	95.0	97.6	97.2	93.0	97.6	77.9	86.2
17	93.4	94.5	95.5	96.3	97.1	98.1	99.0	97.6	96.6	94.8	98.7	93.8	88.7	78.2	78.4	84.0	93.2	90.7	93.9	93.5	88.4	84.5	84.3	90.4	99.0	78.2	91.8
18	94.6	96.0	97.7	97.1	98.8	98.8	96.5	99.1	99.0	99.0	98.9	98.0	97.3	96.3	95.7	95.0	93.6	93.0	95.2	95.9	95.6	96.1	98.0	97.5	99.1	93.0	96.8
19	94.8	94.0	92.7	94.0	90.9	89.6	90.2	91.4	90.1	89.7	88.4	88.9	86.9	86.4	85.9	83.8	84.3	84.4	84.2	82.8	81.0	77.9	72.3	62.5	94.8	62.5	86.1
20	59.2	56.9	59.3	64.1	66.4	67.2	68.4	66.5	63.4	63.2	63.5	63.3	60.5	60.0	58.5	59.1	61.0	63.0	64.0	63.3	64.5	66.2	67.0	66.1	68.4	56.9	63.1
21	66.4	67.0	69.1	67.7	65.5	67.7	70.7	71.1	69.4	68.8	70.0	68.2	64.3	61.5	59.7	59.5	59.6	58.9	63.0	63.5	62.5	63.9	63.1	61.4	71.1	58.9	65.1
22	60.3	60.5	58.7	58.4	57.9	62.5	62.2	59.3	58.1	60.1	60.1	63.7	63.5	59.5	59.9	57.4	57.4	59.1	59.7	60.5	60.9	59.4	58.7	57.6	63.7	57.4	59.8
23	58.4	58.8	58.6	56.3	58.7	59.2	59.5	60.4	60.4	60.7	61.1	58.8	60.5	60.1	59.7	58.5	54.9	59.3	58.2	58.2	53.7	57.8	61.5	53.5	61.5	53.5	58.6
24	53.3	54.8	55.5	48.0	61.4	65.2	67.0	71.0	73.6	76.3	75.1	71.7	66.5	57.2	54.7	55.1	55.7	53.1	54.3	56.0	57.8	58.7	55.7	52.3	76.3	48.0	60.4
25	51.5	50.4	47.5	45.1	45.0	46.5	46.8	50.0	46.4	43.6	42.4	41.8	43.4	47.2	63.8	72.7	76.6	78.7	78.1	79.6	83.2	87.0	91.1	92.9	92.9	41.8	60.5
26	92.7	92.8	95.0	95.8	95.1	94.0	93.5	92.0	89.4	89.7	90.9	91.8	86.6	83.0	83.0	81.8	82.0	84.3	88.5	90.2	88.5	91.3	82.7	79.3	95.8	79.3	88.9
27	70.5	73.0	73.6	77.3	75.5	74.9	72.8	67.7	65.2	66.4	63.7	62.0	63.8	58.7	55.3	56.0	58.9	57.5	57.3	50.6	51.6	53.2	55.3	59.8	77.3	50.6	63.4
28	58.1	57.5	54.2	61.0	63.4	62.9	64.4	63.9	65.8	66.0	68.2	69.2	68.0	64.6	65.0	65.1	64.3	64.4	65.8	66.0	66.6	67.1	66.3	67.1	69.2	54.2	64.4
Max.	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**		
Min.	**42.4**	**42.7**	**43.0**	**43.5**	**45.0**	**46.5**	**46.8**	**45.2**	**46.4**	**43.6**	**42.4**	**41.8**	**43.4**	**47.2**	**54.7**	**54.2**	54.9	53.1	**54.3**	**50.6**	**51.6**	**53.2**	**55.3**	**49.8**		**41.8**	
Avg.	**79.4**	**79.9**	**79.5**	**79.6**	**80.1**	**80.8**	**81.5**	**81.5**	**81.4**	**81.5**	**81.3**	**80.1**	**79.2**	**77.7**	**77.8**	**78.6**	**79.0**	**79.5**	**79.7**	**79.9**	**79.7**	**80.8**	**80.7**	**79.1**			**79.9**

Total Hours in Month 672 **Hours Data Available** 672 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Relative Humidity (%)

March 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	67.2	66.2	66.4	66.8	66.8	67.5	67.3	66.5	67.1	63.9	61.8	60.7	57.5	55.5	53.1	53.0	54.4	55.2	54.9	57.1	58.8	60.3	61.5	60.2	67.5	53.0	61.2
2	60.1	60.2	59.2	59.0	56.4	56.6	57.1	56.5	58.7	57.5	57.0	56.5	54.2	54.3	53.7	52.7	52.2	53.7	56.2	55.0	54.3	54.3	54.8	55.7	60.2	52.2	56.1
3	55.2	54.5	56.1	57.9	57.5	58.3	59.1	59.3	59.7	58.4	58.1	55.9	55.5	53.9	53.7	55.3	55.7	55.9	59.8	58.6	57.4	61.7	59.0	59.5	61.7	53.7	57.3
4	61.7	63.9	63.7	63.0	63.9	64.3	66.1	68.6	68.2	69.0	69.9	69.2	68.6	67.3	66.3	65.8	66.4	67.5	69.3	73.7	75.8	74.5	73.4	72.9	75.8	61.7	68.0
5	72.4	72.6	72.7	72.2	72.1	72.1	71.8	70.9	70.2	68.6	66.3	63.8	62.3	60.9	58.8	58.9	59.1	59.6	59.9	60.8	61.6	62.6	62.8	64.0	72.7	58.8	65.7
6	65.2	64.9	64.7	65.6	66.4	67.5	67.5	67.8	67.7	66.8	64.6	63.2	62.5	61.2	60.1	59.8	59.5	59.7	59.9	60.0	60.0	60.1	59.9	61.6	67.8	59.5	63.2
7	62.4	62.4	62.3	63.0	64.0	63.8	64.1	64.4	66.1	63.9	61.2	59.6	57.9	55.7	53.6	52.6	53.4	54.1	58.8	63.4	64.9	68.0	69.4	69.8	69.8	52.6	61.6
8	71.4	72.6	72.4	72.4	73.9	74.7	74.1	74.8	75.3	74.6	72.3	69.8	69.5	68.6	65.8	63.5	63.1	64.5	67.6	69.2	69.1	69.1	69.8	70.7	75.3	63.1	70.4
9	72.0	72.3	72.0	73.1	74.7	75.2	76.2	75.9	75.0	74.1	73.0	70.9	69.0	67.3	65.5	64.3	64.1	65.5	67.3	68.1	69.2	69.3	68.9	69.8	76.2	64.1	70.5
10	69.5	68.6	68.8	67.5	68.0	68.1	68.5	64.9	65.0	64.4	65.2	65.7	63.9	62.0	61.5	61.0	60.9	61.7	63.0	67.8	69.4	68.5	67.4	68.4	69.5	60.9	65.8
11	70.6	70.2	70.6	70.8	71.0	70.5	70.9	72.3	72.5	71.3	69.7	68.0	65.9	64.2	63.2	62.1	61.9	61.7	63.9	65.4	64.3	63.4	64.5	66.3	72.5	61.7	67.3
12	65.8	66.6	65.2	65.2	66.2	66.3	64.0	62.5	64.7	62.5	62.6	64.8	64.3	60.0	61.5	58.3	57.1	56.8	57.6	56.5	55.5	60.9	63.9	62.3	66.6	55.5	62.1
13	58.7	58.0	59.4	58.4	58.4	58.8	60.2	62.8	65.2	66.1	64.9	64.4	62.0	61.7	60.8	57.7	56.1	54.5	56.1	59.0	59.4	58.9	59.4	59.1	66.1	54.5	60.0
14	59.4	57.4	57.3	57.0	57.0	56.5	56.0	58.0	57.8	54.9	52.0	51.6	50.3	49.4	48.9	50.0	48.9	49.5	50.2	51.4	52.7	55.0	55.3	57.7	59.4	48.9	53.9
15	60.6	61.8	63.3	65.4	67.3	66.5	68.3	67.9	66.6	64.5	62.6	60.9	57.9	55.2	54.1	50.7	50.3	51.8	55.7	58.1	60.7	60.6	63.4	65.1	68.3	50.3	60.8
16	65.3	65.0	65.4	65.5	65.5	65.5	66.3	65.2	64.4	63.1	61.6	59.8	58.2	55.4	53.1	51.3	51.3	54.7	61.3	63.6	64.6	66.0	63.8	61.6	66.3	51.3	61.6
17	62.2	63.0	63.8	65.1	64.0	64.4	65.7	67.0	67.8	68.2	62.9	60.3	60.1	57.3	55.6	52.5	51.9	54.5	57.2	60.1	62.7	64.4	61.6	60.3	68.2	51.9	61.4
18	58.4	57.3	61.4	61.3	62.5	63.2	73.0	75.8	79.5	83.3	77.3	71.7	66.6	60.9	57.7	56.9	57.8	55.2	58.8	64.3	66.2	63.3	68.5	69.3	83.3	55.2	65.4
19	67.9	66.8	68.7	67.6	67.6	69.5	70.3	68.9	68.6	67.9	63.4	59.2	56.7	56.9	54.4	53.6	51.3	50.7	55.3	55.4	59.9	58.3	57.2	60.3	70.3	50.7	61.5
20	59.3	59.0	58.7	56.7	53.9	54.7	56.0	56.5	53.5	49.9	49.0	68.5	86.8	92.3	86.4	85.4	91.1	95.4	95.0	89.9	85.1	81.4	76.8	81.4	95.4	49.0	71.8
21	88.7	89.6	92.0	98.3	99.3	98.9	98.8	98.9	98.7	96.1	96.2	96.3	96.3	96.4	96.4	96.2	95.9	95.7	95.5	94.5	94.0	93.8	91.7	90.5	99.3	88.7	95.4
22	87.8	85.8	83.8	85.3	85.3	87.4	88.1	87.3	85.9	84.6	81.6	80.0	79.4	79.1	78.5	79.1	78.5	75.8	74.3	75.3	76.4	78.0	81.0	80.5	88.1	74.3	81.6
23	79.6	79.1	80.2	79.0	73.7	73.3	77.3	79.1	78.9	79.5	80.2	78.9	75.1	77.7	75.2	72.0	75.0	75.9	76.2	74.1	72.9	71.0	68.1	66.8	80.2	66.8	75.8
24	67.8	66.6	69.7	68.6	70.3	69.2	70.3	69.4	69.1	65.6	64.2	63.9	64.8	65.7	63.9	63.7	63.4	62.5	59.6	60.3	59.1	58.5	57.4	55.5	70.3	55.5	64.5
25	46.0	45.4	52.8	70.5	76.5	80.5	84.8	86.9	89.3	90.0	89.7	90.8	91.0	92.1	92.8	94.1	95.7	94.9	93.1	92.9	88.0	84.4	79.8	78.8	95.7	45.4	82.5
26	77.8	78.1	80.4	86.4	87.6	94.0	97.7	97.2	96.1	95.4	94.9	94.6	94.6	94.4	93.2	92.0	91.6	94.1	92.0	88.0	89.3	91.9	90.3	89.8	97.7	77.8	90.9
27	90.3	88.6	86.4	84.1	80.3	78.9	80.0	78.8	79.8	79.5	79.7	76.4	76.7	74.1	74.6	74.6	73.1	67.1	65.8	65.4	64.3	69.5	71.0	72.5	90.3	64.3	76.3
28	68.4	71.2	69.5	66.0	64.6	65.0	65.9	68.4	73.6	70.0	65.7	65.7	63.5	63.9	64.2	64.0	65.5	65.9	65.7	67.6	66.8	64.4	64.1	62.9	73.6	62.9	66.3
29	59.4	66.3	66.0	65.5	66.7	64.1	66.3	61.5	67.2	67.0	65.6	66.1	57.8	56.1	51.8	55.9	59.0	56.9	60.6	59.0	54.6	51.5	49.4	51.9	67.2	49.4	60.2
30	55.9	59.4	62.2	57.7	58.2	57.6	59.4	61.0	57.5	54.1	55.6	57.8	54.0	52.7	50.3	49.3	48.0	49.2	50.0	47.0	45.6	42.3	45.4	48.7	62.2	42.3	53.3
31	46.4	46.0	44.6	37.9	36.5	31.3	27.4	29.1	28.3	27.1	29.2	28.1	31.1	30.0	34.9	33.6	42.1	45.5	48.8	51.4	60.6	51.6	47.7	56.9	60.6	27.1	39.4
Max.	**90.3**	**89.6**	**92.0**	**98.3**	**99.3**	**98.9**	**98.8**	**98.9**	**98.7**	**96.1**	**96.2**	**96.3**	**96.3**	**96.4**	**96.4**	**96.2**	**95.9**	**95.7**	**95.5**	**94.5**	**94.0**	**93.8**	**91.7**	**90.5**	**99.3**		
Min.	**46.0**	**45.4**	**44.6**	**37.9**	**36.5**	**31.3**	**27.4**	**29.1**	**28.3**	**27.1**	**29.2**	**28.1**	**31.1**	**30.0**	**34.9**	**33.6**	42.1	45.5	**48.8**	**47.0**	**45.6**	**42.3**	**45.4**	**48.7**		**27.1**	
Avg.	**66.2**	**66.4**	**67.1**	**67.5**	**67.6**	**67.9**	**69.0**	**69.2**	**69.6**	**68.4**	**67.0**	**66.6**	**65.6**	**64.6**	**63.3**	**62.6**	**63.0**	**63.4**	**64.8**	**65.6**	**65.9**	**65.7**	**65.4**	**66.2**			**66.2**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Relative Humidity (%)

April *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	68.8	74.5	75.5	73.2	71.9	74.3	73.2	72.3	63.4	62.1	54.4	59.0	53.3	51.5	52.8	56.1	61.5	62.2	64.2	67.1	62.7	58.3	56.2	58.2	75.5	51.5	63.6
2	63.9	69.9	68.4	61.2	57.3	59.7	70.0	79.5	81.5	80.4	77.3	75.7	76.8	78.6	80.4	80.9	80.0	80.7	82.2	81.0	77.5	76.4	72.7	72.8	82.2	57.3	74.4
3	76.3	78.9	79.0	79.1	83.1	84.4	85.3	82.7	85.1	85.2	84.5	79.8	76.1	75.7	73.8	74.3	75.0	78.2	82.6	79.2	79.1	81.1	83.1	78.7	85.3	73.8	80.0
4	80.5	79.5	78.0	73.8	72.4	71.3	72.8	73.9	71.0	67.0	65.2	62.2	61.9	59.4	59.8	60.2	60.3	61.9	65.0	63.9	62.0	58.6	54.2	51.2	80.5	51.2	66.1
5	49.8	50.8	52.1	54.1	60.8	59.9	63.4	59.0	61.5	62.6	64.6	64.0	64.0	64.5	63.0	59.2	59.3	88.9	89.2	94.6	96.8	96.9	95.3	97.2	97.2	49.8	69.7
6	95.9	95.9	91.9	92.7	89.2	88.8	83.3	81.8	78.1	79.4	75.3	69.7	64.0	57.9	55.0	56.1	56.2	72.3	90.2	97.2	94.5	83.3	78.3	78.9	97.2	55.0	79.4
7	82.4	95.2	99.3	99.9	100.0	100.0	100.0	100.0	100.0	98.9	95.8	96.5	95.8	93.1	89.3	85.2	84.7	84.0	87.0	90.5	90.2	80.6	79.2	81.3	100.0	79.2	92.0
8	80.7	82.2	82.3	81.9	78.9	75.7	70.7	71.1	71.3	69.9	67.5	64.6	64.8	64.4	67.0	66.3	74.0	71.8	76.1	80.1	84.1	87.1	95.9	99.3	99.3	64.4	76.2
9	96.2	96.7	96.6	93.9	91.8	90.7	97.5	100.0	100.0	99.9	97.6	94.7	95.3	93.9	88.5	90.5	91.6	93.0	92.2	92.9	94.8	97.0	98.6	98.4	100.0	88.5	95.1
10	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.8	87.9	83.1	78.2	79.8	79.3	77.9	70.8	79.1	85.4	90.0	88.1	88.6	90.8	100.0	70.8	90.7
11	96.3	94.0	92.2	90.1	90.7	89.9	88.4	86.8	85.8	83.8	78.3	76.3	74.8	73.8	75.6	75.4	77.0	76.8	75.6	80.6	84.2	82.1	82.7	80.0	96.3	73.8	83.0
12	79.0	78.5	71.5	73.1	74.4	76.6	77.4	74.5	73.0	67.1	65.5	63.1	60.4	52.7	52.7	51.6	54.6	54.4	54.4	63.7	63.6	61.9	65.1	73.0	79.0	51.6	65.9
13	77.5	78.7	80.2	84.3	88.0	89.8	91.6	91.7	90.3	91.1	91.2	91.7	88.1	82.8	79.0	75.2	69.3	70.3	73.9	83.6	94.7	99.4	98.3	97.0	99.4	69.3	85.7
14	93.8	94.4	93.4	93.6	94.0	95.8	100.0	100.0	100.0	99.9	99.8	94.2	85.6	77.4	76.8	79.9	76.8	79.7	83.9	89.9	91.1	96.0	98.5	99.7	100.0	76.8	91.4
15	97.3	94.4	94.5	93.1	95.7	91.7	93.5	90.5	84.9	82.4	76.7	76.9	75.2	74.9	72.2	74.5	68.4	68.5	80.4	82.5	83.6	83.0	80.1	81.1	97.3	68.4	83.2
16	77.7	75.6	77.3	75.8	79.9	82.9	85.2	83.2	81.7	75.2	72.0	75.2	75.9	97.0	100.0	100.0	99.4	96.2	94.4	93.9	95.8	96.9	97.6	95.3	100.0	72.0	86.8
17	93.1	92.0	93.5	88.3	85.0	74.0	72.1	82.0	87.4	96.2	98.7	99.2	99.6	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	72.1	94.2
18	100.0	100.0	100.0	100.0	99.0	96.2	96.8	96.7	95.4	96.3	96.3	93.0	91.2	92.3	95.7	97.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	91.2	97.8
19	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	99.8	99.9	99.2	98.6	100.0	100.0	100.0	100.0	99.7	99.0	100.0	100.0	100.0	98.6	99.8
20	100.0	99.7	99.9	98.6	98.2	99.5	93.7	92.2	92.1	87.4	86.4	85.2	82.1	81.0	80.6	81.1	80.9	83.8	80.8	81.2	81.5	83.3	82.7	77.0	100.0	77.0	87.9
21	71.9	69.3	69.3	68.3	69.2	69.3	72.8	78.1	74.0	74.9	75.8	73.4	68.2	68.2	75.3	72.6	73.9	75.3	82.5	85.2	86.6	89.5	85.2	82.2	89.5	68.2	75.5
22	80.3	78.7	81.8	77.7	79.5	71.4	65.9	72.0	75.7	79.5	75.1	69.9	63.4	64.8	69.8	68.7	72.9	78.0	84.6	84.7	83.0	81.3	80.2	78.5	84.7	63.4	75.7
23	79.0	74.2	70.8	72.3	79.9	79.5	77.8	77.2	75.1	72.9	69.0	61.3	63.0	63.2	58.2	73.9	77.0	74.9	88.7	87.8	90.6	95.1	95.8	95.4	95.8	58.2	77.2
24	96.3	93.4	90.6	86.2	85.4	85.6	83.3	80.5	78.7	74.8	69.1	60.0	62.2	64.8	59.4	58.4	61.5	62.3	67.7	77.8	86.9	89.2	93.2	92.5	96.3	58.4	77.5
25	89.8	87.7	86.9	87.0	87.9	85.9	84.3	81.3	78.0	76.5	71.6	77.0	83.4	77.6	74.7	74.3	73.5	71.7	74.7	77.9	78.2	76.0	76.8	77.4	89.8	71.6	79.6
26	77.6	72.7	72.4	71.5	69.3	73.0	77.7	69.6	64.2	59.2	54.9	46.2	41.3	36.2	36.0	40.7	38.3	39.3	39.2	40.3	43.6	51.1	52.8	48.6	77.7	36.0	54.8
27	58.8	56.2	61.9	70.0	67.7	67.7	69.9	68.7	69.7	66.4	61.4	55.0	55.2	57.6	59.1	57.4	68.4	78.9	82.4	88.4	91.7	94.1	97.6	98.9	98.9	55.0	71.0
28	98.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.1	86.3	73.5	68.7	66.7	66.2	70.3	69.6	74.8	83.9	89.2	88.4	89.5	100.0	66.2	88.4
29	87.3	84.5	85.4	86.2	85.5	85.8	82.2	74.2	71.2	69.7	65.2	59.6	51.8	48.2	47.1	40.8	40.9	45.7	48.0	52.7	66.5	77.3	84.4	87.6	87.6	40.8	67.8
30	90.4	93.1	94.3	94.5	93.9	85.0	83.7	79.5	72.9	59.4	44.9	38.6	39.0	37.1	35.3	38.9	40.8	41.0	44.4	48.4	51.8	52.1	52.0	53.5	94.5	35.3	61.0
Max.	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**99.8**	**99.8**	**99.9**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**		
Min.	**49.8**	**50.8**	**52.1**	**54.1**	**57.3**	**59.7**	**63.4**	**59.0**	**61.5**	**59.2**	**44.9**	**38.6**	**39.0**	**36.2**	**35.3**	**38.9**	**38.3**	**39.3**	**39.2**	**40.3**	**43.6**	**51.1**	**52.0**	**48.6**		**35.3**	
Avg.	**84.6**	**84.7**	**84.6**	**84.0**	**84.3**	**83.5**	**83.7**	**83.3**	**82.1**	**80.6**	**77.8**	**74.9**	**72.7**	**71.3**	**70.8**	**71.1**	**72.0**	**74.4**	**77.8**	**80.8**	**83.0**	**83.5**	**83.8**	**83.8**			**79.7**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Relative Humidity (%)

May *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	61.6	63.8	66.5	73.0	85.7	84.7	83.7	77.3	74.2	74.1	74.2	71.2	69.0	63.5	62.2	73.9	77.2	77.4	85.9	90.9	92.4	94.7	95.8	88.9	95.8	61.6	77.6
2	85.3	85.2	85.5	88.2	96.1	96.2	93.1	92.5	99.8	97.6	92.5	76.1	78.0	70.6	61.0	64.0	65.5	67.7	68.5	73.2	76.5	79.3	81.5	80.9	99.8	61.0	81.5
3	80.1	78.5	77.8	76.1	78.2	78.8	77.5	78.2	77.1	70.0	64.5	61.1	54.5	48.3	45.3	41.0	57.7	69.6	67.3	76.3	81.3	80.4	77.6	79.6	81.3	41.0	69.9
4	81.3	85.9	86.8	85.6	83.5	86.1	89.2	91.9	86.9	84.5	81.1	78.8	74.8	69.2	61.2	56.4	56.4	58.2	64.5	68.2	74.0	80.9	89.8	93.2	93.2	56.4	77.8
5	90.2	94.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	97.9	92.1	83.1	74.4	71.1	67.3	69.0	67.0	71.1	75.8	75.5	87.5	83.6	100.0	67.0	87.5
6	74.6	69.4	66.0	70.1	74.4	74.7	72.9	77.9	85.3	80.8	75.2	63.9	57.3	55.2	55.9	57.2	59.3	64.4	66.9	69.0	71.5	72.4	74.3	76.5	85.3	55.2	69.4
7	74.5	74.9	77.4	79.9	81.4	82.8	79.2	76.8	71.8	68.4	67.5	65.2	60.6	56.0	52.3	55.5	73.8	81.0	82.7	85.6	90.3	95.8	99.1	100.0	100.0	52.3	76.4
8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.5	93.4	82.8	74.4	67.9	67.0	66.1	68.4	69.3	73.5	84.9	88.4	90.4	100.0	66.1	88.6
9	90.7	91.5	98.1	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	97.3	91.4	87.7	84.9	88.0	91.7	96.1	96.4	96.2	100.0	84.9	96.2
10	96.7	95.6	95.8	96.1	94.4	90.5	89.2	92.4	90.2	82.9	80.3	77.9	74.0	66.8	62.3	62.1	64.8	67.6	66.3	68.0	79.2	81.9	86.8	88.2	96.7	62.1	81.2
11	87.8	82.1	84.4	83.9	82.1	83.8	81.8	77.6	71.0	61.4	57.4	53.9	53.3	52.8	52.5	52.2	55.4	57.7	62.1	67.3	75.1	83.8	89.6	92.1	92.1	52.2	70.9
12	91.0	90.2	85.7	86.2	87.9	90.7	87.7	84.0	76.2	67.0	63.9	61.6	61.8	62.5	64.1	60.8	59.7	63.9	66.5	77.4	83.4	91.3	91.6	92.2	92.2	59.7	77.0
13	91.6	94.2	95.1	94.9	95.2	95.8	97.5	97.2	95.6	93.1	90.7	93.8	93.6	92.1	89.8	88.4	86.9	83.3	89.8	91.6	89.8	91.0	91.0	91.6	97.5	83.3	92.2
14	79.5	83.7	79.3	82.2	74.0	75.0	73.2	71.8	71.0	68.9	68.1	65.0	84.9	78.5	78.0	86.1	84.6	78.3	78.1	82.7	86.3	89.4	89.3	90.5	90.5	65.0	79.1
15	90.2	91.1	93.9	93.6	93.2	90.2	86.6	81.5	79.1	77.9	76.1	67.0	67.5	78.0	74.8	73.1	70.6	69.6	67.6	65.7	64.3	68.2	75.1	80.4	93.9	64.3	78.1
16	84.0	84.6	81.9	80.2	79.3	76.2	71.5	64.5	59.6	54.0	52.0	50.4	51.1	54.7	55.2	52.4	55.0	61.3	66.8	83.2	91.7	93.7	94.3	94.4	94.4	50.4	70.5
17	93.5	95.6	97.1	97.5	95.7	94.9	95.3	93.7	92.9	84.0	67.2	58.6	61.6	62.3	62.0	60.9	65.2	65.6	71.6	78.1	83.7	87.0	89.6	91.3	97.5	58.6	81.0
18	90.8	90.5	89.1	90.6	90.8	88.2	89.6	86.4	75.3	64.8	58.4	55.7	55.7	54.7	52.3	49.7	47.6	46.9	49.0	52.2	55.9	57.2	56.3	56.3	90.8	46.9	66.8
19	57.9	63.9	71.0	75.6	79.8	80.2	78.5	71.1	64.5	64.3	63.5	68.4	70.8	61.5	57.5	55.8	57.4	58.4	60.4	63.7	70.0	75.0	76.3	80.0	80.2	55.8	67.7
20	84.3	87.1	95.9	96.5	87.2	86.5	82.6	81.6	76.9	79.5	73.1	62.0	60.6	59.0	59.2	55.9	54.3	51.4	54.8	60.2	66.1	75.1	79.0	78.4	96.5	51.4	72.8
21	72.2	75.4	74.4	69.8	67.6	66.8	64.6	63.3	59.3	49.8	45.2	43.8	48.8	40.6	41.8	45.2	45.9	44.6	43.5	47.2	53.7	59.1	60.9	62.2	75.4	40.6	56.1
22	63.7	67.5	71.6	69.2	68.9	67.4	64.2	65.2	58.9	75.5	79.5	59.6	46.0	66.0	65.0	54.5	46.3	52.7	63.8	74.4	76.9	72.1	72.6	76.2	79.5	46.0	65.7
23	76.4	75.4	69.2	69.0	67.9	63.6	62.0	61.6	64.6	62.6	58.5	62.2	63.3	79.1	87.3	87.5	74.8	73.0	80.2	84.9	86.7	91.7	93.4	95.9	95.9	58.5	74.6
24	97.9	98.7	98.6	97.7	97.9	97.9	96.9	95.0	89.7	88.7	89.9	91.7	85.7	83.5	87.1	97.1	96.3	91.8	83.8	89.5	95.3	93.6	98.5	99.3	99.3	83.5	93.4
25	99.5	99.7	94.8	95.2	93.9	89.0	88.4	96.8	99.0	99.3	99.5	99.6	99.7	99.7	99.7	99.7	99.7	99.5	99.4	99.4	99.4	99.5	99.0	98.9	99.7	88.4	97.8
26	99.0	98.7	99.3	99.9	100.0	100.0	100.0	100.0	100.0	99.9	98.1	91.4	88.5	87.5	87.4	90.3	88.3	87.4	87.6	86.1	85.3	88.7	90.1	92.0	100.0	85.3	93.6
27	94.5	97.5	98.9	99.5	99.9	100.0	100.0	100.0	94.6	80.6	77.2	75.4	72.8	70.0	70.3	72.7	71.6	70.9	71.0	72.9	80.9	90.8	93.6	94.9	100.0	70.0	85.4
28	93.5	93.5	91.9	92.1	94.5	93.8	90.4	89.6	81.5	72.6	67.0	68.8	69.9	66.0	70.0	71.6	70.4	74.1	74.4	76.4	81.4	88.3	91.4	87.1	94.5	66.0	81.3
29	85.1	85.6	87.5	86.8	88.0	89.0	87.1	81.6	73.6	65.0	57.9	50.2	52.7	46.8	50.8	49.5	50.6	50.4	55.8	61.2	69.7	77.0	77.5	78.0	89.0	46.8	69.1
30	76.9	77.1	76.2	81.4	87.0	88.6	85.6	83.7	78.8	71.5	71.0	63.7	65.5	64.1	63.2	67.8	73.3	77.9	79.9	83.4	85.7	91.1	95.2	97.2	97.2	63.2	78.6
31	98.0	95.4	89.8	84.0	85.4	86.3	86.6	85.7	92.1	88.2	76.3	76.0	69.4	63.4	71.1	66.1	59.9	61.7	66.2	73.3	76.3	79.9	83.3	82.6	98.0	59.9	79.0
Max.	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**99.8**	**99.7**	**99.7**	**99.5**	**99.4**	**99.4**	**99.4**	**99.5**	**99.1**	**100.0**	**100.0**		
Min.	**57.9**	**63.8**	**66.0**	**69.0**	**67.6**	**63.6**	**62.0**	**61.6**	**58.9**	**49.8**	**45.2**	**43.8**	**46.0**	**40.6**	**41.8**	**41.0**	45.9	44.6	**43.5**	**47.2**	**53.7**	**57.2**	**56.3**	**56.3**		**40.6**	
Avg.	**85.2**	**86.0**	**86.4**	**86.9**	**87.4**	**87.0**	**85.6**	**84.5**	**81.9**	**78.3**	**75.0**	**71.3**	**70.2**	**68.3**	**67.4**	**67.2**	**67.6**	**68.7**	**70.8**	**75.2**	**79.5**	**83.4**	**86.0**	**86.7**			**78.6**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Relative Humidity (%)

June *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	86.1	93.9	95.2	95.5	92.3	91.5	88.6	80.3	74.1	72.3	69.1	69.8	65.5	71.5	64.0	66.7	69.1	78.1	82.4	80.9	83.4	90.4	91.4	91.0	95.5	64.0	81.0
2	91.2	89.9	92.1	94.4	93.0	92.9	91.8	88.6	87.6	82.3	78.3	72.3	66.4	61.8	59.3	57.5	56.7	55.6	56.4	62.8	70.5	74.8	82.9	81.0	94.4	55.6	76.7
3	79.5	87.6	91.3	89.2	87.2	89.7	89.7	86.6	81.1	79.6	76.5	71.0	65.1	62.8	58.7	53.5	49.5	51.2	52.5	54.6	55.3	59.2	64.0	72.3	91.3	49.5	71.1
4	75.3	79.3	82.3	81.3	82.3	82.0	82.9	87.6	92.1	93.0	94.1	94.7	92.2	88.0	93.9	97.0	95.0	97.2	98.6	99.1	99.3	99.5	99.8	99.9	99.9	75.3	91.1
5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.6	98.0	86.5	77.5	76.1	76.2	73.1	73.2	76.9	81.5	78.5	79.8	82.3	83.0	86.9	100.0	73.1	88.7
6	89.4	89.8	88.3	87.2	87.0	88.7	86.3	78.7	71.1	60.4	50.1	63.0	64.1	67.6	69.6	71.7	73.8	74.3	74.4	82.5	87.5	92.3	92.8	91.6	92.8	50.1	78.4
7	91.8	84.7	82.2	89.5	86.9	67.9	73.7	69.1	56.9	45.9	46.1	48.8	49.1	56.7	60.0	66.5	70.8	70.2	72.8	72.6	77.6	83.9	90.5	90.8	91.8	45.9	71.0
8	88.9	89.3	87.8	85.1	85.9	80.3	79.4	76.8	75.4	69.3	64.5	58.9	54.3	65.3	73.1	71.9	64.0	76.6	73.5	74.1	79.7	85.8	88.2	91.5	91.5	54.3	76.7
9	95.0	93.6	93.3	94.7	95.3	92.1	93.8	87.7	82.8	75.7	71.8	65.6	64.7	72.3	75.5	72.3	75.5	80.0	78.9	74.8	84.6	89.2	86.5	82.9	95.3	64.7	82.4
10	80.9	79.8	78.6	79.6	82.1	74.8	75.8	69.9	67.9	64.8	57.1	49.0	45.7	42.3	39.3	37.1	35.7	37.0	37.0	47.9	68.8	86.3	94.0	95.9	95.9	35.7	63.6
11	97.9	99.1	99.6	99.9	100.0	100.0	100.0	99.9	99.8	97.8	91.5	82.0	73.0	66.0	65.5	66.0	70.7	75.7	78.8	85.2	91.6	94.4	96.2	98.7	100.0	65.5	88.7
12	99.7	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.8	99.6	99.1	91.4	84.3	81.1	80.7	79.9	82.3	89.6	94.3	95.1	100.0	79.9	94.9
13	98.3	99.2	97.5	90.2	92.3	94.5	90.7	83.8	81.1	78.8	74.5	69.9	74.2	73.4	69.1	64.3	79.8	84.8	81.1	82.0	83.3	81.1	81.8	81.5	99.2	64.3	82.8
14	83.6	83.2	86.0	82.9	83.5	83.5	83.0	78.1	77.1	70.5	65.8	60.8	62.5	64.1	75.5	78.9	76.7	78.5	77.0	73.9	75.4	75.5	72.0	71.9	86.0	60.8	75.8
15	76.7	77.7	81.0	80.4	81.5	82.4	79.8	75.2	70.3	62.4	56.0	51.2	47.2	41.8	36.0	34.3	32.2	32.8	32.8	33.8	37.9	41.6	46.8	55.1	82.4	32.2	56.1
16	55.5	60.6	67.8	72.6	70.8	68.6	69.0	65.5	61.9	57.3	54.2	49.6	47.4	48.4	47.0	46.6	48.8	51.2	64.4	67.9	73.8	78.5	81.8	92.5	92.5	46.6	62.6
17	98.2	99.0	99.5	99.7	99.7	99.9	99.6	99.2	96.4	91.7	85.0	86.2	85.1	79.6	76.0	68.3	66.4	84.8	90.6	87.9	86.9	89.2	90.0	93.6	99.9	66.4	89.7
18	92.2	93.7	92.7	93.4	95.8	97.5	95.0	91.2	87.2	83.3	83.7	82.1	75.3	65.3	62.9	60.1	62.5	61.1	68.0	69.4	81.8	86.8	85.0	86.7	97.5	60.1	81.4
19	86.7	86.0	90.6	89.5	88.9	89.9	89.6	86.2	80.8	74.8	68.4	63.8	58.6	53.7	48.4	45.0	42.8	41.0	41.4	45.1	46.5	49.7	53.5	56.7	90.6	41.0	65.7
20	63.5	66.1	69.7	68.8	71.2	69.2	66.1	63.4	59.2	52.9	47.6	43.8	41.3	38.8	36.2	31.1	31.4	31.6	31.6	36.8	43.0	48.6	54.7	57.0	71.2	31.1	51.0
21	56.9	58.8	64.4	61.0	65.6	70.9	70.4	66.7	63.6	61.1	57.3	55.6	52.2	48.0	46.0	43.5	42.5	42.4	60.6	68.2	79.1	83.2	91.1	97.6	97.6	42.4	62.8
22	98.9	99.2	99.5	99.7	99.9	100.0	100.0	99.9	99.9	99.9	99.9	99.9	99.9	100.0	99.9	99.9	99.9	99.7	99.7	99.8	99.8	99.9	99.9	100.0	100.0	98.9	99.8
23	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.7	99.4	99.2	98.6	95.4	92.8	94.7	95.6	100.0	92.8	99.0
24	95.3	92.9	94.2	93.8	92.7	91.2	89.5	87.3	90.1	88.1	85.0	87.3	91.0	90.6	90.5	87.6	89.5	88.2	86.1	85.7	87.3	88.6	88.1	89.0	95.3	85.0	89.6
25	91.6	94.0	93.9	95.3	95.9	94.9	94.0	91.5	84.6	79.3	80.1	81.1	81.9	79.7	73.9	75.0	74.6	75.0	76.8	76.3	79.5	85.0	88.4	88.8	95.9	73.9	84.6
26	90.2	91.9	91.0	89.4	87.2	87.1	86.9	81.9	76.8	72.5	67.4	63.0	57.6	53.4	50.1	50.0	49.6	50.7	52.1	56.7	65.6	76.7	80.7	80.0	91.9	49.6	71.2
27	82.5	85.4	88.6	89.0	89.5	89.3	87.0	76.9	68.3	63.0	65.9	65.1	56.9	51.7	46.9	46.2	47.0	42.7	50.9	56.5	64.7	77.5	83.4	86.0	89.5	42.7	69.2
28	90.3	92.7	97.2	98.1	94.6	96.6	98.5	99.0	96.5	91.7	90.8	94.8	93.7	87.5	80.3	81.0	80.4	78.3	72.7	71.4	74.9	76.9	78.6	78.1	99.0	71.4	87.3
29	76.9	76.0	76.1	79.7	81.3	82.1	80.3	74.1	72.7	73.4	68.8	66.1	64.8	63.4	65.8	64.4	68.8	70.2	69.8	74.3	80.9	88.2	97.5	97.7	97.7	63.4	75.6
30	93.9	94.9	96.3	99.1	99.4	99.5	99.6	99.7	99.8	99.8	99.8	99.7	94.9	84.4	76.3	72.7	72.3	74.0	74.3	79.1	92.9	90.0	93.7	93.7	99.8	72.3	90.9
Max.	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**99.9**	**99.9**	**99.7**	**99.7**	**99.8**	**99.8**	**99.9**	**99.9**	**100.0**	**100.0**		
Min.	**55.5**	**58.8**	**64.4**	**61.0**	**65.6**	**67.9**	**66.1**	**63.4**	**56.9**	**45.9**	**46.1**	**43.8**	**41.3**	**38.8**	**36.0**	**31.1**	**31.4**	**31.6**	**31.6**	**33.8**	**37.9**	**41.6**	**46.8**	**55.1**		**31.1**	
Avg.	**86.9**	**87.9**	**89.3**	**89.3**	**89.4**	**88.6**	**88.0**	**84.8**	**81.8**	**78.0**	**74.9**	**72.7**	**70.1**	**68.5**	**67.2**	**65.8**	**66.1**	**68.0**	**69.9**	**71.9**	**77.0**	**81.2**	**84.2**	**86.0**			**78.6**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Relative Humidity (%)

July *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	94.1	90.0	89.4	89.5	94.1	92.8	91.7	88.7	85.5	75.4	70.7	66.3	62.0	63.3	64.0	63.4	63.5	65.3	66.1	68.8	73.9	82.8	86.2	86.5	94.1	62.0	78.1
2	89.0	92.7	97.4	99.0	98.7	96.2	94.4	89.9	81.2	68.7	62.8	61.1	59.4	60.1	57.0	59.1	59.1	59.1	57.8	60.2	70.8	75.9	82.7	85.4	99.0	57.0	75.7
3	89.6	92.9	90.5	91.1	89.7	88.5	84.2	81.2	80.1	78.1	72.9	69.9	67.4	63.7	60.3	57.3	57.8	60.2	77.7	79.9	83.3	87.0	87.4	86.0	92.9	57.3	78.2
4	90.7	97.8	99.1	99.3	99.5	99.5	99.5	98.3	94.8	91.0	84.6	80.4	81.5	82.7	77.9	73.6	80.1	86.4	86.5	83.3	87.3	86.1	92.5	94.4	99.5	73.6	89.5
5	97.1	98.5	96.8	94.1	92.6	88.3	88.1	85.9	83.3	80.0	74.6	69.3	70.8	71.6	71.4	75.9	85.8	87.3	97.1	99.0	99.3	99.4	99.5	99.3	99.5	69.3	87.7
6	92.8	90.7	89.8	88.2	87.1	87.2	87.4	87.3	87.6	86.8	86.8	85.4	78.9	76.3	72.4	67.7	63.2	61.8	58.9	58.5	62.8	64.2	73.6	71.1	92.8	58.5	77.8
7	74.4	73.2	71.9	73.4	74.1	72.7	74.3	69.2	58.9	56.3	55.3	55.7	56.0	55.1	52.6	52.3	52.4	54.7	60.2	71.0	74.5	79.5	81.3	85.8	85.8	52.3	66.0
8	87.2	89.4	92.2	96.8	98.7	97.6	99.0	99.4	99.6	99.6	99.7	99.7	99.7	99.7	99.7	99.4	95.5	87.2	83.6	82.0	84.0	85.2	85.6	87.6	99.7	82.0	93.7
9	88.8	89.9	90.9	90.7	90.8	85.8	84.5	83.3	79.9	75.8	72.0	70.0	66.1	67.2	58.2	62.5	65.2	63.1	70.3	71.7	76.2	80.1	80.5	84.5	90.9	58.2	77.0
10	85.8	86.7	89.5	88.4	84.8	71.6	73.7	67.7	63.1	60.8	62.2	56.0	66.8	68.6	65.6	62.8	72.6	76.1	79.9	86.4	89.5	90.1	93.2	94.4	94.4	56.0	76.5
11	94.7	92.0	90.3	90.9	89.3	90.5	92.4	90.6	80.9	73.3	63.5	56.6	54.6	53.3	54.2	53.7	49.8	48.0	48.6	56.6	63.0	71.8	75.2	77.8	94.7	48.0	71.3
12	84.1	86.1	81.8	85.1	85.6	81.3	80.8	77.3	71.3	66.6	63.4	62.9	59.0	63.7	89.1	92.1	96.7	98.3	96.4	95.6	97.5	96.0	95.7	98.9	98.9	59.0	83.6
13	99.3	99.5	99.6	99.7	99.7	99.8	99.8	99.8	99.9	99.9	99.9	99.9	99.8	99.8	99.4	98.0	94.6	90.3	92.5	94.0	95.1	96.2	98.5	99.3	99.9	90.3	98.1
14	99.4	98.5	96.9	97.1	98.2	99.0	99.5	99.6	99.2	96.9	90.2	86.2	84.2	82.0	85.0	86.7	87.6	89.2	91.2	94.8	94.8	96.0	96.7	96.7	99.6	82.0	93.6
15	98.2	98.6	98.1	98.6	98.9	99.4	99.5	98.4	96.5	94.7	83.8	79.9	75.5	72.2	70.6	68.6	69.2	67.3	67.4	71.3	78.3	82.2	84.7	88.7	99.5	67.3	85.0
16	91.1	91.3	92.6	93.4	95.9	95.0	95.3	92.7	89.8	86.0	78.4	70.6	64.7	63.5	62.3	62.1	61.4	58.9	59.0	61.6	69.0	73.8	81.8	87.2	95.9	58.9	78.2
17	88.4	85.2	88.3	88.2	89.1	90.4	86.2	81.6	77.1	71.2	63.7	61.3	63.9	65.8	60.2	54.1	48.7	64.4	74.2	82.0	85.6	91.2	94.6	94.2	94.6	48.7	77.1
18	94.6	94.8	95.1	96.4	96.8	97.7	96.0	91.9	88.2	83.8	84.5	76.0	68.5	71.6	87.4	81.1	84.1	91.7	91.2	85.6	80.9	79.2	79.8	85.6	97.7	68.5	86.8
19	85.3	87.9	92.1	91.1	93.1	99.1	99.4	99.6	95.9	82.0	77.9	70.0	62.3	65.3	68.1	71.6	69.0	73.0	69.5	70.9	75.2	75.4	74.1	68.4	99.6	62.3	79.8
20	70.5	70.4	73.5	76.9	73.7	76.3	75.5	81.7	82.7	85.0	83.7	81.8	73.4	66.3	63.7	64.9	67.7	69.0	74.2	74.2	86.1	94.4	96.4	98.2	98.2	63.7	77.5
21	99.0	99.2	99.4	99.5	99.6	99.6	99.7	99.8	99.8	99.8	98.0	94.1	91.6	87.6	84.9	84.0	85.7	92.1	93.4	95.5	96.8	98.0	98.2	99.1	99.8	84.0	95.6
22	99.4	99.5	99.6	99.7	99.7	99.8	99.8	99.8	99.9	99.8	99.8	99.7	99.6	98.3	97.2	96.9	96.1	96.8	98.6	99.1	99.5	99.6	99.7	99.8	99.9	96.1	99.1
23	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.8	99.8	99.8	99.6	99.6	99.0	99.1	98.7	96.4	96.5	94.7	96.9	96.3	96.8	97.8	99.9	94.7	98.7
24	98.8	96.0	94.8	94.2	95.0	93.8	92.9	93.5	87.4	82.3	84.6	85.8	87.5	88.1	87.2	84.6	81.8	83.1	83.6	80.3	81.9	77.3	73.9	77.3	98.8	73.9	86.9
25	78.3	76.8	74.8	71.1	70.5	70.4	68.3	64.0	64.4	62.1	62.1	59.8	55.6	55.1	55.7	57.3	61.3	59.6	59.0	61.5	70.7	79.0	72.0	77.1	79.0	55.1	66.1
26	76.3	80.7	80.4	79.7	81.4	84.0	79.8	78.7	78.0	76.4	67.5	56.5	48.7	44.0	52.9	63.0	57.3	52.0	53.4	55.6	56.2	60.1	63.0	72.8	84.0	44.0	66.6
27	68.7	65.9	68.7	76.7	75.6	74.8	77.4	76.6	78.1	73.8	68.7	69.0	65.3	61.2	59.3	54.8	49.9	54.7	58.4	68.1	73.6	83.0	79.9	71.7	83.0	49.9	68.9
28	74.9	80.1	96.9	98.7	99.1	99.3	99.5	99.6	99.6	99.6	99.7	96.7	81.9	75.5	71.7	70.0	70.5	71.0	72.6	78.4	88.2	95.4	98.7	99.1	99.7	70.0	88.2
29	99.3	99.4	99.5	99.5	99.6	99.6	99.6	99.4	97.6	89.3	81.1	72.4	66.5	65.2	59.7	58.4	56.7	58.4	60.7	69.2	68.2	75.4	93.0	92.6	99.6	56.7	81.7
30	83.5	81.2	90.4	98.6	99.2	99.3	99.5	99.5	99.3	99.3	99.4	99.5	97.8	94.4	85.3	81.4	80.4	81.9	86.6	86.4	88.9	91.2	93.8	95.3	99.5	80.4	92.2
31	96.0	97.9	99.1	99.0	99.3	99.5	99.6	99.7	99.7	99.7	99.7	99.6	98.0	89.5	85.2	81.6	82.3	81.8	86.7	87.8	87.2	90.1	89.7	90.4	99.7	81.6	93.3
Max.	**99.8**	**99.8**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.8**	**99.8**	**99.7**	**99.4**	**98.7**	**98.3**	**98.6**	**99.1**	**99.5**	**99.6**	**99.7**	**99.8**	**99.9**		
Min.	**68.7**	**65.9**	**68.7**	**71.1**	**70.5**	**70.4**	**68.3**	**64.0**	**58.9**	**56.3**	**55.3**	**55.7**	**48.7**	**44.0**	**52.6**	**52.3**	48.7	48.0	**48.6**	**55.6**	**56.2**	**60.1**	**63.0**	**68.4**		**44.0**	
Avg.	**89.3**	**89.8**	**90.9**	**91.8**	**91.9**	**91.2**	**90.9**	**89.5**	**87.1**	**83.7**	**80.4**	**77.2**	**74.4**	**73.2**	**72.8**	**72.2**	**72.4**	**73.5**	**75.9**	**78.2**	**81.8**	**84.9**	**87.1**	**88.5**			**82.9**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Relative Humidity (%)

August 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	90.7	91.1	91.4	91.7	92.7	95.8	95.5	93.2	92.0	91.4	87.3	84.1	86.5	84.5	88.3	86.5	90.5	94.7	91.4	88.6	89.7	92.0	90.9	90.9	95.8	84.1	90.5
2	91.4	91.8	92.1	92.1	91.7	90.3	90.8	94.7	95.3	94.1	97.1	97.2	97.9	97.1	95.4	96.6	98.1	97.4	95.5	93.1	91.0	92.3	92.6	94.4	98.1	90.3	94.2
3	95.9	95.1	96.1	97.6	98.1	98.8	99.2	98.5	97.2	96.3	95.3	95.4	92.7	91.9	88.3	86.0	86.5	87.6	90.8	94.4	97.5	98.7	98.9	98.8	99.2	86.0	94.8
4	98.9	98.6	98.8	99.0	99.1	99.2	99.3	99.4	99.5	99.5	99.6	99.6	99.6	99.6	99.7	99.7	99.6	98.5	96.9	96.5	95.9	95.8	95.9	94.1	99.7	94.1	98.4
5	93.3	93.3	94.3	98.4	99.3	99.5	99.5	99.6	99.6	99.6	99.7	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.7	99.7	99.8	93.3	98.9
6	99.8	99.8	99.8	99.9	99.8	97.2	90.1	85.2	83.7	77.5	77.0	72.5	69.2	62.6	60.8	65.2	66.5	64.8	66.7	68.0	76.2	79.2	83.3	87.4	99.9	60.8	80.5
7	88.3	89.3	87.4	86.8	88.6	92.3	92.7	90.7	84.3	78.2	70.0	68.5	65.6	61.9	60.1	60.0	58.4	57.4	60.8	63.6	68.6	72.9	79.4	84.6	92.7	57.4	75.4
8	86.7	90.4	89.3	92.7	93.8	95.2	94.9	95.0	92.4	86.0	76.8	71.3	63.2	61.9	57.4	54.4	54.4	53.7	54.9	61.0	67.3	73.9	79.0	78.1	95.2	53.7	76.0
9	81.4	84.5	83.3	82.1	85.1	88.7	87.0	82.7	79.1	75.0	69.3	62.8	67.8	64.2	66.6	64.0	62.8	63.2	61.1	64.1	68.4	69.2	68.2	73.3	88.7	61.1	73.1
10	73.3	70.5	67.3	68.1	68.7	71.8	74.8	73.6	70.8	63.2	59.5	56.1	49.9	43.7	42.8	42.0	43.3	36.9	37.7	44.8	54.7	55.4	57.5	56.6	74.8	36.9	57.6
11	58.6	59.9	64.0	63.3	63.5	63.3	64.9	71.6	72.2	73.0	74.9	70.5	69.3	71.8	76.6	72.0	64.0	72.2	73.1	75.8	79.2	79.9	82.1	82.5	82.5	58.6	70.8
12	82.9	83.8	87.0	93.8	97.6	98.4	98.7	99.1	99.3	99.3	99.3	99.3	99.1	95.6	89.3	78.1	71.2	68.6	66.2	68.7	74.8	82.4	84.6	87.8	99.3	66.2	87.7
13	89.1	89.4	90.4	91.8	88.4	90.6	92.8	91.2	89.8	83.7	81.7	73.8	74.9	69.7	68.4	66.9	68.5	69.6	76.9	80.3	85.8	86.3	91.3	98.2	98.2	66.9	82.9
14	98.8	99.0	98.9	98.3	98.5	96.5	93.9	94.2	96.2	97.7	98.1	97.9	98.1	96.0	95.9	94.6	95.7	96.0	98.5	98.4	98.9	99.0	98.7	96.5	99.0	93.9	97.3
15	95.5	93.7	95.0	94.1	95.8	95.5	95.9	95.5	94.3	91.9	88.6	88.2	86.8	84.2	84.2	87.8	89.3	91.7	94.4	95.0	95.1	96.8	97.7	98.5	98.5	84.2	92.7
16	99.2	99.4	99.5	99.6	99.7	99.7	99.8	99.8	99.2	97.7	98.1	85.7	78.6	69.9	61.0	57.8	65.5	76.4	71.8	80.4	88.0	86.4	86.9	87.5	99.8	57.8	87.0
17	90.6	92.7	95.7	97.8	90.9	91.2	92.1	92.3	86.6	77.9	74.4	75.3	74.9	67.6	70.8	72.7	71.3	69.9	75.8	81.9	86.2	86.4	85.8	86.4	97.8	67.6	82.8
18	82.7	82.8	88.6	92.7	92.3	89.7	91.9	93.7	92.3	90.9	92.5	90.6	92.9	87.4	82.7	79.9	78.9	81.1	83.4	84.0	83.2	83.4	81.9	80.3	93.7	78.9	86.7
19	80.7	79.5	83.6	83.2	83.6	84.6	80.9	81.4	79.2	78.4	75.4	73.1	74.0	75.8	74.2	74.8	80.6	83.4	93.1	97.8	98.8	99.1	99.2	99.3	99.3	73.1	83.9
20	97.3	95.8	97.3	97.2	96.6	95.4	95.1	97.0	99.2	98.7	96.4	94.1	91.4	86.3	82.7	78.0	76.5	77.2	80.1	84.4	91.6	91.8	91.2	88.5	99.2	76.5	90.8
21	88.0	88.2	92.0	95.3	94.4	97.0	96.6	96.2	95.8	95.5	96.4	97.7	98.0	97.6	95.8	92.5	93.0	90.6	89.5	90.9	94.2	96.2	96.8	95.0	98.0	88.0	94.3
22	92.2	93.8	94.0	97.5	98.8	99.3	99.4	99.5	99.0	98.2	97.2	96.1	95.2	96.6	98.6	99.0	98.7	98.2	98.2	98.6	99.0	98.3	97.3	96.3	99.5	92.2	97.5
23	95.6	93.0	90.0	92.7	90.4	91.9	94.0	95.4	96.8	94.1	88.4	86.6	85.2	82.3	81.2	80.4	80.0	79.7	80.7	83.7	84.6	82.3	80.6	80.1	96.8	79.7	87.1
24	79.3	80.5	83.5	85.3	88.9	88.4	87.8	88.9	87.5	84.9	82.6	79.4	74.1	72.8	78.6	84.1	79.4	81.7	94.9	96.9	89.7	94.0	98.6	99.3	99.3	72.8	85.9
25	99.5	99.6	99.6	99.7	99.7	99.8	99.8	99.8	99.9	99.8	99.8	99.8	99.5	88.8	73.2	67.1	64.4	66.1	74.1	82.8	89.1	91.0	90.3	87.2	99.9	64.4	90.4
26	86.1	85.1	84.1	83.3	82.4	82.0	82.1	83.2	83.3	82.7	77.4	75.5	74.7	74.3	69.2	67.8	67.2	70.1	73.9	81.2	80.6	81.0	81.0	73.7	86.1	67.2	78.4
27	68.8	70.3	77.1	75.7	84.1	84.0	82.7	78.7	69.6	69.9	59.0	53.4	50.7	52.6	52.5	54.2	55.7	57.6	59.1	58.7	59.3	65.0	66.0	65.3	84.1	50.7	65.4
28	66.5	74.9	75.8	77.1	73.1	75.5	74.3	73.5	71.3	63.1	54.4	51.7	46.0	42.9	43.8	48.3	48.9	46.4	55.1	61.3	65.5	73.3	80.0	81.0	81.0	42.9	63.5
29	87.9	89.7	89.2	92.5	94.4	95.0	95.0	94.8	93.9	92.5	88.4	85.4	78.9	71.8	69.0	65.9	66.1	68.1	68.2	72.4	77.9	83.2	86.3	87.1	95.0	65.9	83.1
30	92.0	91.8	93.4	95.4	97.2	96.5	96.1	96.5	94.6	89.3	82.3	76.7	73.3	71.7	67.1	63.9	64.7	60.8	65.7	72.9	82.5	86.4	89.9	91.1	97.2	60.8	83.0
31	91.4	94.2	93.1	93.6	97.0	99.0	98.9	99.3	99.6	98.2	94.6	81.9	68.5	66.8	71.5	80.2	71.8	77.4	78.5	78.0	87.5	89.9	89.8	86.9	99.6	66.8	87.0
Max.	**99.8**	**99.8**	**99.8**	**99.9**	**99.8**	**99.8**	**99.8**	**99.8**	**99.9**	**99.8**	**99.8**	**99.8**	**99.7**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.7**	**99.7**	**99.9**		
Min.	**58.6**	**59.9**	**64.0**	**63.3**	**63.5**	**63.3**	**64.9**	**71.6**	**69.6**	**63.1**	**54.4**	**51.7**	**46.0**	**42.9**	**42.8**	**42.0**	43.3	36.9	**37.7**	**44.8**	**54.7**	**55.4**	**57.5**	**56.6**		**36.9**	
Avg.	**87.8**	**88.4**	**89.4**	**90.6**	**91.1**	**91.7**	**91.5**	**91.4**	**90.1**	**87.7**	**84.9**	**81.9**	**79.9**	**77.1**	**75.7**	**74.8**	**74.6**	**75.4**	**77.6**	**80.6**	**83.9**	**85.9**	**87.1**	**87.3**			**84.4**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Relative Humidity (%)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	83.0	89.2	90.1	94.1	98.6	99.3	99.5	99.6	99.7	99.7	99.7	99.7	99.6	98.1	89.8	81.8	78.7	79.5	83.6	90.7	96.1	97.2	97.2	96.9	99.7	78.7	93.4
2	96.3	94.4	94.9	97.0	98.4	99.3	99.5	99.6	99.7	99.6	97.3	84.4	81.3	74.9	74.4	79.0	86.6	90.5	91.2	92.5	96.2	97.8	97.5	98.1	99.7	74.4	92.5
3	94.3	93.9	93.5	93.0	92.6	91.6	92.0	91.9	94.5	95.5	93.3	94.3	94.7	95.9	95.2	94.9	95.5	95.3	96.2	95.9	93.3	88.8	87.2	87.4	96.2	87.2	93.4
4	88.0	85.8	85.0	85.9	85.2	82.9	88.2	89.0	82.0	73.3	70.3	65.5	59.7	54.8	52.9	51.3	62.6	66.5	71.5	77.4	71.7	74.0	73.0	73.7	89.0	51.3	73.8
5	70.5	74.1	78.5	78.8	79.4	83.3	77.4	80.2	87.5	82.3	80.2	85.1	75.5	70.3	65.4	65.0	83.3	92.5	91.1	91.1	94.7	93.9	94.4	95.5	95.5	65.0	82.1
6	97.4	98.5	99.2	99.4	95.9	95.7	99.2	99.5	99.6	97.4	94.9	90.3					69.0	69.9	73.8	79.3	82.8	94.4	96.1	96.9	99.6	69.0	91.5
7	98.0	99.1	98.8	96.3	94.0	92.5	93.0	94.7	93.1	89.7	89.6	92.1	90.8	90.4	87.4	84.6	82.4	84.6	85.6	94.5	97.7	98.4	98.7	98.8	99.1	82.4	92.7
8	99.1	99.3	99.5	99.6	99.7	99.7	99.7	99.6	99.1	98.9	99.3	99.6	99.7	99.7	99.7	99.7	99.8	99.7	99.7	99.8	99.8	99.8	99.9	99.9	99.9	98.9	99.6
9	99.9	99.9	100.0	99.9	99.5	98.6	98.0	97.3	97.0	98.3	98.6	98.8	98.8	98.4	98.6	98.1	96.4	94.4	95.4	97.4	98.6	98.8	98.1	97.0	100.0	94.4	98.2
10	97.3	98.1	95.3	95.7	96.8	97.1	97.4	94.7	96.2	92.4	90.0	88.7	88.7	89.7	89.4	86.1	85.7	79.3	78.2	79.9	79.0	81.0	80.4	80.3	98.1	78.2	89.1
11	83.2	83.7	82.8	84.1	83.7	86.8	87.6	87.8	86.4	85.2	84.8	89.6	86.2	90.3	96.4	96.4	94.9	95.1	98.0	98.4	97.7	95.6	94.3	94.3	98.4	82.8	90.1
12	95.9	96.8	97.4	98.8	99.3	99.6	99.7	99.7	99.8	99.8	99.7	89.3	75.4	68.1	64.3	63.1	64.3	81.9	88.2	87.5	90.8	94.0	95.3	94.8	99.8	63.1	89.3
13	95.0	96.2	98.1	99.1	98.7	99.4	99.5	99.4	99.4	98.5	97.5	96.6	95.8	89.6	91.5	93.5	93.0	94.8	94.2	97.3	97.8	99.3	99.6	98.0	99.6	89.6	96.7
14	97.8	97.0	96.5	95.5	96.1	95.8	95.4	97.8	99.5	98.8	94.5	88.8	85.0	78.7	80.1	68.6	67.7	70.3	79.1	78.0	78.7	83.6	82.3	83.8	99.5	67.7	87.1
15	86.2	86.8	85.6	84.8	82.7	85.7	87.2	89.7	94.5	91.9	83.2	77.8	74.1	71.8	64.2	61.3	63.7	68.6	62.7	64.5	70.7	74.9	82.9	90.3	94.5	61.3	78.6
16	94.6	97.2	96.6	95.1	93.7	87.5	87.8	83.1	88.1	91.2	86.7	76.6	72.0	71.7	63.3	59.3	61.7	67.5	69.6	85.3	91.2	94.2	90.1	88.5	97.2	59.3	83.0
17	90.6	94.0	95.4	96.5	97.1	97.6	99.4	99.8	99.8	99.6	99.5	93.5	90.5	90.3	85.5	85.1	85.1	82.3	80.3	84.9	90.8	87.3	85.5	82.5	99.8	80.3	91.4
18	82.1	86.0	94.9	97.2	94.0	94.2	93.9	90.8	90.0	87.9	87.2	85.4	83.2	91.3	94.8	98.2	99.2	99.4	99.5	99.4	99.3	99.4	99.6	99.7	99.7	82.1	93.6
19	99.7	99.7	99.0	98.6	99.2	99.0	98.7	98.4	98.9	99.1	98.9	98.5	98.5	98.4	94.3	86.7	88.1	92.0	92.0	94.3	97.7	99.1	99.3	99.4	99.7	86.7	97.0
20	99.5	99.5	99.4	99.4	99.2	99.5	99.6	99.6	99.6	99.4	98.2	97.8	99.0	99.4	98.0	94.8	92.4	89.5	91.6	94.1	92.6	92.2	97.0	99.0	99.6	89.5	97.1
21	99.5	99.5	97.7	95.7	94.7	94.9	90.4	93.0	91.0	90.1	87.3	84.0	81.8	79.8	77.2	75.8	79.8	73.3	75.1	78.3	82.1	85.2	87.5	90.4	99.5	73.3	86.8
22	90.9	93.5	95.4	95.6	94.1	95.1	95.7	93.1	90.2	85.5	88.3	79.7	78.0	72.0	70.9	75.0	71.6	75.1	84.6	91.0	91.4	95.6	96.3	97.3	97.3	70.9	87.3
23	96.3	94.4	94.2	90.4	90.7	90.2	85.5	86.9	86.4	86.3	91.7	93.4	88.0	86.0	85.1	85.9	94.1	98.8	99.3	99.5	99.5	99.4	99.0	98.3	99.5	85.1	92.5
24	98.9	98.3	99.3	99.6	99.4	98.6	99.4	99.8	99.9	99.9	99.8	99.8	99.6	97.3	93.2	90.3	89.2	91.3	94.2	93.8	92.4	94.6	98.6	98.8	99.9	89.2	96.9
25	99.8	99.2	98.3	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.8	96.8	94.2	92.2	93.3	94.1	91.6	94.0	96.0	95.6	95.4	94.1	96.3	100.0	91.6	97.1
26	98.4	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.9	95.8	95.4	92.4	94.4	92.0	94.5	92.4	94.7	97.1	97.1	97.6	95.7	100.0	92.0	97.3
27	94.1	91.9	89.5	87.0	97.8	97.2	99.9	100.0	100.0	100.0	100.0	100.0	100.0	99.4	93.5	91.6	95.5	86.3	87.7	90.4	85.2	84.8	86.5	91.3	100.0	84.8	93.7
28	90.5	93.9	97.5	98.9	98.9	98.9	97.4	97.0	97.5	99.0	100.0	99.8	97.7	97.4	97.4	96.5	93.8	89.6	88.1	89.8	90.2	91.2	90.8	86.6	100.0	86.6	94.9
29	90.9	89.4	89.4	90.1	92.3	92.7	92.9	94.3	93.3	91.9	88.8	91.8	89.0	89.7	83.5	87.1	89.4	92.8	97.7	99.2	99.4	98.5	98.5	99.4	99.4	83.5	92.6
30	99.8	100.0	99.6	98.5	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	95.8	95.4	94.9	97.4	98.3	98.3	98.4	98.5	99.0	99.1	99.0	99.9	100.0	94.9	98.8
Max.	**99.9**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**99.7**	**99.7**	**99.7**	**99.8**	**99.7**	**99.7**	**99.8**	**99.8**	**99.8**	**99.9**	**99.9**	**100.0**		
Min.	**70.5**	**74.1**	**78.5**	**78.8**	**79.4**	**82.9**	**77.4**	**80.2**	**82.0**	**73.3**	**70.3**	**65.5**	**59.7**	**54.8**	**52.9**	**51.3**	**61.7**	66.5	62.7	**64.5**	**70.7**	**74.0**	**73.0**	**73.7**		**51.3**	
Avg.	**93.6**	**94.3**	**94.7**	**94.8**	**95.1**	**95.1**	**95.1**	**95.2**	**95.4**	**94.4**	**93.3**	**91.3**	**88.7**	**87.2**	**85.0**	**84.0**	**84.9**	**86.2**	**87.8**	**90.4**	**91.6**	**92.8**	**93.2**	**93.6**			**91.6**

Total Hours in Month 720 **Hours Data Available** 716 **Data Recovery** 99.4%

HCG, Inc.

Pebble 4 Meteorological Station - Relative Humidity (%)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.4	97.7	93.8	92.9	93.2	89.2	83.7	85.0	82.9	90.8	85.6	89.6	86.4	87.4	89.3	100.0	82.9	93.6
2	90.5	90.1	91.9	92.3	92.2	93.5	94.0	92.8	93.0	93.8	94.3	94.1	92.7	86.7	87.2	85.5	78.1	69.5	69.0	75.6	74.7	79.6	86.1	90.4	94.3	69.0	87.0
3	93.3	93.1	94.3	95.0	94.5	95.4	92.3	93.3	96.0	96.5	94.4	87.8	80.6	75.7	76.0	76.0	73.6	70.7	69.3	73.1	78.2	79.2	82.7	78.3	96.5	69.3	85.0
4	83.9	76.8	71.5	71.5	76.0	81.4	88.1	83.2	81.7	93.6	97.9	99.5	98.4	96.0	95.2	94.6	96.2	98.2	99.8	100.0	100.0	100.0	100.0	100.0	100.0	71.5	91.0
5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.5	93.9	94.8	88.3	81.4	75.8	74.6	76.7	78.1	76.8	100.0	74.6	93.3
6	80.1	84.3	87.0	91.7	94.6	96.1	96.1	93.2	90.6	91.7	93.7	93.0	87.1	83.5	82.7	80.9	81.0	78.7	82.5	84.2	85.8	92.4	91.8	92.8	96.1	78.7	88.1
7	94.3	94.7	91.4	92.8	93.7	95.0	92.2	89.7	82.7	83.6	82.8	79.6	76.0	71.3	70.3	68.1	68.1	66.9	69.2	74.2	75.7	76.5	80.9	80.9	95.0	66.9	81.3
8	80.4	84.6	83.4	85.7	88.3	88.2	88.6	90.2	91.4	91.4	89.4	83.2	76.9	70.2	66.1	60.6	57.6	59.9	63.3	71.8	74.9	73.7	73.1	80.0	91.4	57.6	78.0
9	82.2	78.3	74.9	76.9	79.3	83.1	82.8	79.9	84.7	86.5	82.1	72.1	66.9	64.3	59.3	55.0	58.5	62.1	64.9	70.2	77.6	81.3	79.7	75.7	86.5	55.0	74.1
10	72.6	75.4	78.5	85.0	91.4	80.5	87.7	93.5	94.6	96.5	92.5	86.9	78.0	75.0	69.0	67.5	73.1	74.7	72.9	79.9	83.5	85.8	90.3	92.2	96.5	67.5	82.4
11	94.4	97.5	96.4	96.6	94.7	92.4	91.4	89.9	84.0	81.6	79.4	75.3	73.1	72.9	71.5	72.8	79.7	83.1	82.0	81.0	80.5	79.4	79.5	81.9	97.5	71.5	83.8
12	78.8	78.4	79.1	80.3	78.5	78.4	79.3	79.3	77.3	84.8	80.6	76.8	73.7	68.1	62.6	60.5	61.3	62.1	62.2	67.4	73.8	81.2	82.2	82.7	84.8	60.5	74.5
13	84.7	85.1	82.7	83.5	85.7	86.7	87.7	85.0	82.2	83.2	83.7	83.2	80.6	77.1	73.6	70.1	68.3	70.9	74.8	78.5	79.8	79.7	81.3	86.0	87.7	68.3	80.6
14	91.6	91.2	92.2	93.7	94.0	94.4	95.1	94.0	93.8	97.5	96.8	91.7	90.1	86.5	84.4	83.3	80.1	76.6	81.8	78.8	81.3	87.7	88.4	88.3	97.5	76.6	88.9
15	88.0	85.8	83.2	84.9	85.5	86.5	86.3	89.5	87.4	85.4	84.2	80.8	73.2	59.0	61.1	63.1	63.0	61.7	63.1	67.8	70.0	72.6	72.2	72.7	89.5	59.0	76.1
16	73.9	77.6	79.0	77.4	79.9	84.4	86.5	87.5	90.1	92.2	91.5	87.8	85.9	84.8	86.4	83.2	82.4	85.6	93.4	97.7	97.8	97.1	97.6	97.3	97.8	73.9	87.4
17	96.9	96.8	96.2	96.7	96.4	97.1	98.3	97.6	97.9	96.7	95.1	94.8	94.0	93.1	92.1	90.4	93.2	96.3	99.4	99.3	98.0	99.5	98.9	97.4	99.5	90.4	96.3
18	96.7	96.2	96.6	96.7	97.1	97.7	96.4	95.3	94.8	92.6	93.6	92.1	93.9	92.5	90.0	87.4	88.3	92.0	91.3	89.6	94.8	94.9	92.3	91.8	97.7	87.4	93.5
19	92.9	94.3	95.0	94.9	97.2	97.5	97.4	95.5	90.2	89.9	85.4	80.2	81.1	81.5	79.2	78.7	79.1	78.6	80.7	87.4	93.9	92.4	89.1	88.3	97.5	78.6	88.3
20	87.9	90.1	92.0	90.6	93.3	98.4	98.4	97.7	90.7	84.5	76.3	78.9	66.4	65.4	69.3	73.1	72.9	73.7	70.1	67.9	68.0	66.6	65.7	67.9	98.4	65.4	79.4
21	71.7	70.4	65.2	66.2	65.4	66.7	70.7	69.4	66.7	67.0	62.2	61.4	62.5	59.6	58.1	61.1	55.7	54.1	56.1	51.7	50.9	58.2	61.5	64.7	71.7	50.9	62.4
22	65.3	69.0	69.4	75.8	77.4	80.3	82.2	83.9	82.0	81.7	81.7	86.0	86.4	84.4	82.9	82.7	87.2	91.7	93.7	90.7	91.3	89.6	90.8	88.6	93.7	65.3	83.1
23	89.7	90.6	92.6	91.8	90.1	91.5	94.4	95.3	95.0	97.6	97.0	97.8	99.5	98.7	99.4	99.0	99.5	99.7	96.4	90.8	87.3	79.8	80.9	73.3	99.7	73.3	92.8
24	67.9	70.8	86.2	95.6	99.0	99.1	99.1	99.1	99.4	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	94.9	100.0	67.9	96.3
25	92.3	92.7	94.2	91.5	89.2	88.7	95.6	97.0	93.9	95.2	96.3	96.5	96.0	97.6	98.4	99.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	88.7	96.4
26	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.6	96.7	94.4	93.4	91.9	90.3	91.0	89.8	86.5	87.5	100.0	86.5	96.7
27	88.7	90.6	93.8	96.0	95.4	93.5	91.2	91.4	95.9	96.1	93.6	88.4	84.9	86.4	89.4	94.1	93.4	94.0	94.3	93.2	92.1	91.8	91.1	89.7	96.1	84.9	92.0
28	90.2	91.7	91.0	86.7	87.1	87.2	89.0	91.1	95.5	96.9	99.6	100.0	100.0	100.0	99.4	99.4	99.6	98.5	99.8	100.0	100.0	100.0	99.5	96.7	100.0	86.7	95.8
29	94.6	95.0	95.4	96.3	95.5	94.9	93.2	91.1	90.4	85.4	79.8	79.7	80.8	82.3	87.6	87.7	87.2	87.3	85.8	87.2	89.4	96.1	99.0	99.8	99.8	79.7	90.1
30	96.7	85.8	88.6	95.6	97.7	99.2	98.8	99.2	99.1	98.9	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	85.8	98.3
31	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.0	98.6	98.2	98.3	98.3	93.9	86.5	95.5	93.3	100.0	86.5	98.4
Max.	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**		
Min.	**65.3**	**69.0**	**65.2**	**66.2**	**65.4**	**66.7**	**70.7**	**69.4**	**66.7**	**67.0**	**62.2**	**61.4**	**62.5**	**59.0**	**58.1**	**55.0**	**55.7**	54.1	56.1	**51.7**	**50.9**	**58.2**	**61.5**	**64.7**		**50.9**	
Avg.	**87.7**	**88.0**	**88.4**	**89.7**	**90.6**	**91.2**	**92.0**	**91.8**	**91.0**	**91.6**	**90.3**	**88.4**	**86.2**	**84.1**	**83.1**	**82.2**	**82.2**	**82.2**	**83.2**	**84.1**	**85.4**	**86.3**	**87.2**	**87.1**			**87.3**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Relative Humidity (%)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	93.2	89.7	95.9	97.1	93.7	95.2	96.2	99.1	99.9	99.8	97.9	98.8	99.9	99.3	100.0	100.0	100.0	100.0	100.0	99.7	99.9	99.6	97.2	97.0	100.0	89.7	97.9
2	97.0	97.7	93.5	90.1	91.6	89.2	87.6	82.3	84.3	82.5	81.6	79.8	79.5	87.6	92.5	94.6	92.8	88.2	86.5	92.8	92.6	93.3	94.4	94.4	97.7	79.5	89.4
3	93.6	97.0	98.2	98.1	96.3	97.9	98.0	94.1	97.2	98.5	94.4	92.2	92.7	90.2	91.1	95.7	98.1	96.1	99.1	96.9	91.9	90.7	84.1	81.0	99.1	81.0	94.3
4	90.5	99.4	99.9	99.0	100.0	100.0	100.0	99.4	97.5	97.2	94.9	93.9	95.6	98.5	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.5	98.6
5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.7	99.4	98.9	98.3	96.8	92.9	100.0	92.9	99.4
6	89.6	89.2	87.4	87.6	84.0	81.2	76.9	72.9	72.8	71.0	71.0	73.7	74.8	76.1	74.6	74.1	78.8	82.6	87.4	90.0	92.2	93.7	98.2	100.0	100.0	71.0	82.5
7	100.0	100.0	100.0	97.7	95.6	92.3	93.6	92.7	93.9	98.1	97.5	96.6	92.4	86.3	95.7	96.4	94.4	97.3	99.9	100.0	100.0	99.1	99.9	99.8	100.0	86.3	96.6
8	100.0	100.0	99.5	95.4	88.2	88.0	86.8	88.3	91.5	99.1	100.0	97.4	97.7	99.9	100.0	93.8	89.5	84.1	87.9	89.3	92.2	98.3	99.7	100.0	100.0	84.1	94.4
9	100.0	100.0	100.0	99.7	97.1	97.9	95.2	95.4	94.8	94.9	92.5	87.9	87.2	85.6	81.6	79.2	78.3	82.6	86.8	82.5	83.5	83.2	82.2	82.0	100.0	78.3	89.6
10	80.5	77.7	79.4	80.6	82.2	85.6	86.5	88.0	88.6	91.7	86.8	88.2	85.5	81.1	82.5	83.2	83.6	84.6	86.8	88.3	90.1	91.7	93.2	95.1	95.1	77.7	85.9
11	94.8	95.0	96.1	95.0	95.3	98.5	98.8	96.9	96.6	97.1	97.5	95.2	93.0	92.5	92.8	94.9	95.6	96.8	99.3	98.8	97.9	97.4	97.4	97.1	99.3	92.5	96.3
12	97.0	96.8	95.3	88.3	95.8	94.8	92.6	94.3	97.7	98.1	97.4	98.0	97.4	98.1	98.4	98.4	86.9	88.7	92.6	96.9	99.5	99.9	100.0	100.0	100.0	86.9	96.0
13	100.0	100.0	100.0	100.0	96.3	96.0	90.2	95.4	95.0	91.7	84.3	84.6	98.9	100.0	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	84.3	97.2
14	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	97.7	95.8	94.8	91.7	91.6	89.4	89.1	89.9	93.1	87.2	91.3	94.4	92.6	100.0	87.2	95.8
15	90.0	93.1	96.3	91.9	89.3	87.2	87.9	88.1	91.2	92.5	93.0	93.2	91.2	90.2	89.6	89.8	90.8	91.6	91.4	90.8	92.4	92.4	92.8	93.3	96.3	87.2	91.3
16	93.5	93.6	93.8	93.8	93.8	93.6	93.6	93.5	93.1	92.8	92.5	92.7	91.9	91.9	91.7	91.3	91.2	91.5	91.3	90.9	90.8	89.9	90.5	90.5	93.8	89.9	92.2
17	89.7	89.5	89.0	88.5	89.3	90.3	90.0	90.8	90.7	90.3	88.8	88.7	86.8	86.4	85.7	84.6	85.4	85.6	86.2	88.0	88.5	88.0	87.2	86.7	90.8	84.6	88.1
18	87.7	87.9	87.6	88.1	88.9	89.5	87.8	87.2	86.4	84.6	84.0	85.8	83.8	81.8	80.4	80.3	78.6	76.9	79.3	74.2	72.6	74.4	72.3	71.4	89.5	71.4	82.1
19	68.6	71.3	67.7	70.3	66.2	60.2	68.4	57.8	71.8	90.6	93.3	93.6	85.1	82.7	78.2	85.2	86.1	83.3	82.3	87.3	96.7	93.7	97.3	98.5	98.5	57.8	80.7
20	96.3	90.3	90.3	90.0	89.2	83.8	83.7	88.7	87.1	87.8	89.3	91.1	93.5	93.6	97.2	97.7	95.1	94.3	88.5	90.9	91.8	90.5	82.1	82.6	97.7	82.1	90.2
21	83.5	84.9	91.1	93.4	95.1	97.7	99.3	100.0	100.0	100.0	99.5	96.8	97.5	97.9	98.2	94.4	86.3	86.4	88.4	88.6	88.7	88.3	89.0	90.2	100.0	83.5	93.1
22	87.7	87.8	89.7	89.3	96.6	97.5	98.4	98.1	99.0	98.6	99.2	100.0	100.0	100.0	100.0	99.9	98.8	96.9	97.5	98.6	99.9	100.0	100.0	100.0	100.0	87.7	97.2
23	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.5	99.2	99.1	100.0	99.1	99.9
24	99.1	99.0	99.1	99.1	99.0	98.8	98.7	98.7	98.7	98.8	98.6	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.7	98.1	97.1	97.2	100.0	97.1	99.1
25	99.0	100.0	100.0	100.0	97.5	86.0	74.7	76.1	77.5	72.6	72.8	76.8	76.1	73.8	68.7	68.4	68.4	65.8	61.6	62.3	61.6	60.9	61.3	67.2	100.0	60.9	76.2
26	70.2	71.6	67.8	69.3	67.8	65.4	70.7	75.8	81.8	90.5	93.8	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	65.4	88.5
27	100.0	99.7	98.6	97.0	96.8	97.5	95.0	92.0	90.2	86.2	82.3	78.3	76.9	77.0	77.4	76.0	75.0	81.7	81.4	82.6	86.0	87.4	90.2	89.0	100.0	75.0	87.3
28	90.1	89.9	90.8	95.1	97.9	100.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.7	95.0	92.6	92.7	93.2	94.6	93.4	100.0	89.9	96.8
29	93.0	93.6	93.0	94.5	94.0	93.8	93.4	93.8	90.7	88.3	87.7	85.5	83.8	80.4	77.0	76.1	76.2	78.8	79.9	79.3	77.3	74.9	73.2	72.5	94.5	72.5	84.6
30	71.2	70.0	67.7	67.4	67.7	65.9	64.6	61.5	60.9	62.8	63.9	57.4	56.5	54.5	54.2	54.5	56.9	61.0	61.5	61.1	52.7	49.3	52.7	70.0	71.2	49.3	61.1
Max.	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**		
Min.	**68.6**	**70.0**	**67.7**	**67.4**	**66.2**	**60.2**	**64.6**	**57.8**	**60.9**	**62.8**	**63.9**	**57.4**	**56.5**	**54.5**	**54.2**	**54.5**	**56.9**	61.0	61.5	**61.1**	**52.7**	**49.3**	**52.7**	**67.2**		**49.3**	
Avg.	**91.9**	**92.2**	**92.3**	**91.9**	**91.5**	**90.8**	**90.3**	**90.0**	**91.0**	**91.9**	**91.1**	**90.8**	**90.4**	**90.0**	**90.0**	**90.0**	**89.2**	**89.4**	**90.0**	**90.5**	**90.6**	**90.6**	**90.6**	**91.1**			**90.7**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Relative Humidity (%)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	74.8	71.1	72.2	72.2	71.6	67.1	72.3	74.8	76.5	83.5	87.3	87.8	86.5	86.8	86.2	87.7	92.2	97.4	94.8	94.4	92.9	76.4	68.3	78.3	97.4	67.1	81.4
2	81.3	80.8	85.7	86.6	77.4	76.1	77.4	76.4	79.2	81.6	81.3	75.5	74.4	78.6	57.5	58.3	59.5	68.0	77.9	81.5	74.8	40.8	38.4	40.7	86.6	38.4	71.2
3	52.6	64.8	67.7	70.7	72.2	71.1	71.1	73.4	71.9	66.1	60.4	57.6	56.0	54.7	52.8	54.4	58.7	62.1	67.4	69.9	67.6	72.7	66.3	66.3	73.4	52.6	64.5
4	66.1	69.3	68.0	65.8	66.2	79.6	89.8	90.4	93.4	95.8	95.0	96.8	96.8	96.7	99.7	99.8	99.4	99.0	98.6	96.5	95.3	96.9	98.8	97.3	99.8	65.8	89.6
5	96.9	96.9	96.9	96.6	95.2	94.2	93.9	93.9	93.8	94.4	91.8	89.7	88.5	90.5	91.4	93.5	92.7	90.2	90.5	87.4	85.1	86.7	85.8	87.8	96.9	85.1	91.8
6	90.0	87.8	91.4	93.4	91.4	95.2	96.6	96.9	98.2	98.7	99.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	87.8	97.5
7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.0	99.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.0	99.9
8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.8	94.7	90.1	93.1	95.7	98.0	96.8	95.4	95.3	94.2	91.5	85.6	88.4	89.1	88.8	88.0	81.8	100.0	81.8	94.3
10	77.1	72.4	69.3	70.3	67.2	75.9	86.7	88.9	92.4	93.3	94.3	91.8	93.1	89.0	93.8	96.8	98.0	99.5	99.7	100.0	100.0	100.0	96.5	95.8	100.0	67.2	89.2
11	95.4	95.5	95.3	93.6	89.6	90.6	91.7	97.6	88.4	88.4	91.3	90.7	89.2	86.0	91.6	90.8	92.4	93.8	89.6	89.8	90.1	92.0	94.7	94.7	97.6	86.0	91.8
12	94.8	89.1	83.9	87.4	85.1	86.5	82.7	82.1	77.6	82.6	82.3	80.4	79.1	81.6	80.5	86.5	94.8	94.4	93.0	93.0	93.7	97.1	98.5	99.1	99.1	77.6	87.7
13	99.3	98.5	99.6	98.8	98.5	98.7	99.9	99.9	99.8	99.6	99.5	99.4	99.4	99.4	99.3	98.9	98.5	98.0	97.7	96.9	95.9	95.6	94.5	92.7	99.9	92.7	98.3
14	92.4	92.8	91.8	90.5	89.6	89.9	89.0	90.3	91.2	91.8	91.3	90.8	89.5	89.1	88.2	88.6	92.1	92.1	92.0	92.4	91.7	91.4	92.4	92.3	92.8	88.2	91.0
15	91.2	91.1	92.7	91.9	91.7	90.7	90.2	89.6	88.7	89.7	90.3	91.0	90.9	90.5	89.6	89.4	88.7	90.3	90.9	92.0	91.6	91.7	91.0	91.4	92.7	88.7	90.7
16	91.8	91.0	90.9	90.4	89.7	90.2	90.4	89.8	89.3	88.2	88.7	89.3	88.7	87.9	87.9	87.6	86.8	86.7	86.4	86.8	87.6	87.3	87.6	87.5	91.8	86.4	88.7
17	85.4	86.3	87.6	87.5	87.7	87.8	87.2	85.6	84.9	85.0	84.9	83.3	83.1	82.4	81.3	81.5	81.1	82.6	84.1	84.2	83.4	84.5	84.8	84.9	87.8	81.1	84.6
18	84.7	84.6	85.0	85.2	83.9	83.5	83.9	84.0	84.1	83.8	84.1	83.3	82.6	82.1	82.5	82.6	82.3	82.5	82.9	82.8	81.5	82.0	82.2	82.2	85.2	81.5	83.3
19	82.6	82.3	81.5	81.3	80.5	78.8	76.9	77.4	77.7	78.9	78.5	80.0	79.4	78.5	75.9	76.7	78.1	80.8	80.6	79.2	77.9	78.0	75.9	70.9	82.6	70.9	78.7
20	72.0	71.1	73.5	72.2	74.1	76.3	74.6	71.1	73.2	90.7	93.3	94.7	95.3	95.9	96.6	97.1	97.7	97.8	97.9	98.6	98.5	98.5	98.8	99.2	99.2	71.1	87.9
21	99.7	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.8	99.4	99.4	99.3	98.5	93.9	88.3	87.6	88.8	86.7	86.2	88.3	86.7	83.7	82.7	84.3	100.0	82.7	93.9
22	86.0	86.3	88.6	92.8	94.0	94.1	91.3	92.5	96.8	94.1	91.1	90.1	89.1	89.9	89.1	93.3	92.6	92.6	93.3	93.1	93.2	99.4	99.6	99.2	99.6	86.0	92.6
23	98.3	97.0	96.3	95.9	95.3	83.3	78.9	82.8	87.0	86.9	83.1	80.7	82.9	88.5	89.4	87.5	85.9	90.2	90.7	91.9	95.3	94.9	94.1	94.0	98.3	78.9	89.6
24	92.7	92.7	92.8	92.5	92.4	93.2	93.4	92.1	92.3	92.3	92.4	92.8	92.8	93.0	92.8	92.8	92.7	92.9	92.6	92.2	92.4	92.8	92.7	92.5	93.4	92.1	92.7
25	91.9	91.5	91.5	91.3	91.0	90.4	89.9	89.4	88.5	86.7	85.7	85.6	84.0	81.0	79.9	80.4	79.4	78.8	79.0	78.2	78.1	77.0	79.7	79.4	91.9	77.0	84.5
26	77.0	71.2	68.5	61.6	54.1	48.8	56.1	61.2	62.4	66.2	68.3	65.2	63.4	53.8	57.4	66.1	74.6	80.6	85.5	84.4	82.0	77.5	76.8	75.3	85.5	48.8	68.2
27	79.7	79.8	80.0	77.3	74.6	73.3	70.6	69.4	69.0	67.8	67.7	66.3	67.8	67.7	67.0	72.8	76.4	79.7	79.9	82.3	92.4	99.8	100.0	100.0	100.0	66.3	77.5
28	100.0	99.4	98.9	98.8	98.4	98.0	97.7	97.6	97.9	96.5	94.2	95.1	92.8	91.8	92.4	94.2	96.4	92.8	93.7	95.3	95.6	94.8	92.2	88.8	100.0	88.8	95.6
29	81.8	80.1	79.5	82.1	84.7	82.7	80.0	83.1	82.8	78.7	83.7	85.0	84.6	83.3	83.3	87.8	89.9	87.9	89.2	89.7	92.4	92.5	90.9	91.0	92.5	78.7	85.3
30	91.3	91.4	92.8	92.4	91.8	92.7	92.8	91.2	91.6	93.4	94.0	92.8	87.5	84.9	84.9	89.6	94.7	93.6	94.7	94.2	93.5	93.7	93.4	93.6	94.7	84.9	91.9
31	94.0	93.6	93.2	93.1	93.4	93.7	94.2	95.1	94.2	93.7	93.5	94.8	94.9	93.8	93.5	95.1	93.7	94.4	94.4	94.7	95.2	95.5	94.4	91.9	95.5	91.9	94.1
Max.	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**		
Min.	**52.6**	**64.8**	**67.7**	**61.6**	**54.1**	**48.8**	**56.1**	**61.2**	**62.4**	**66.1**	**60.4**	**57.6**	**56.0**	**53.8**	**52.8**	**54.4**	**58.7**	62.1	67.4	**69.9**	**67.6**	**40.8**	**38.4**	**40.7**		**38.4**	
Avg.	**87.8**	**87.4**	**87.6**	**87.5**	**86.5**	**86.5**	**87.1**	**87.6**	**87.7**	**88.3**	**88.4**	**87.9**	**87.4**	**86.7**	**86.1**	**87.5**	**88.8**	**89.6**	**90.0**	**90.3**	**90.1**	**89.1**	**88.4**	**88.2**			**88.0**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Solar (Watts/m^2)

January 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	0	0	0	0	0	0	9	60	104	112	82	37	5	0	0	0	0	0	0	0	112	0	17
2	0	0	0	0	0	0	0	0	0	0	5	49	85	118	89	37	5	0	0	0	0	0	0	0	118	0	16
3	0	0	0	0	0	0	0	0	0	0	10	64	97	101	62	34	7	0	0	0	0	0	0	0	101	0	16
4	0	0	0	0	0	0	0	0	0	0	7	31	91	79	65	36	6	0	0	0	0	0	0	0	91	0	13
5	0	0	0	0	0	0	0	0	0	0	12	57	108	126	107	56	9	0	0	0	0	0	0	0	126	0	20
6	0	0	0	0	0	0	0	0	0	0	14	66	107	93	95	44	7	0	0	0	0	0	0	0	107	0	18
7	0	0	0	0	0	0	0	0	0	0	15	66	117	167	99	46	8	0	0	0	0	0	0	0	167	0	22
8	0	0	0	0	0	0	0	0	0	0	19	74	121	133	107	51	9	0	0	0	0	0	0	0	133	0	21
9	0	0	0	0	0	0	0	0	0	0	18	69	127	87	93	67	7	0	0	0	0	0	0	0	127	0	20
10	0	0	0	0	0	0	0	0	0	0	3	16	30	37	32	18	3	0	0	0	0	0	0	0	37	0	6
11	0	0	0	0	0	0	0	0	0	0	4	21	40	48	44	30	7	0	0	0	0	0	0	0	48	0	8
12	0	0	0	0	0	0	0	0	0	0	10	29	43	50	36	14	3	0	0	0	0	0	0	0	50	0	8
13	0	0	0	0	0	0	0	0	0	0	7	39	116	81	68	75	22	1	0	0	0	0	0	0	116	0	17
14	0	0	0	0	0	0	0	0	0	0	24	94	149	151	127	62	15	1	0	0	0	0	0	0	151	0	26
15	0	0	0	0	0	0	0	0	0	1	10	61	139	153	88	25	20	1	0	0	0	0	0	0	153	0	21
16	0	0	0	0	0	0	0	0	0	0	6	26	29	36	32	21	7	0	0	0	0	0	0	0	36	0	7
17	0	0	0	0	0	0	0	0	0	0	8	29	49	53	47	25	7	0	0	0	0	0	0	0	53	0	9
18	0	0	0	0	0	0	0	0	0	0	11	36	60	73	73	30	9	1	0	0	0	0	0	0	73	0	12
19	0	0	0	0	0	0	0	0	0	1	26	45	20	44	31	26	10	1	0	0	0	0	0	0	45	0	8
20	0	0	0	0	0	0	0	0	0	1	11	39	77	99	85	50	18	1	0	0	0	0	0	0	99	0	16
21	0	0	0	0	0	0	0	0	0	1	25	84	96	79	80	85	43	2	0	0	0	0	0	0	96	0	21
22	0	0	0	0	0	0	0	0	0	2	32	106	149	160	147	106	31	2	0	0	0	0	0	0	160	0	31
23	0	0	0	0	0	0	0	0	0	2	29	84	88	183	157	120	29	2	0	0	0	0	0	0	183	0	29
24	0	0	0	0	0	0	0	0	0	3	59	146	184	188	167	112	35	3	0	0	0	0	0	0	188	0	37
25	0	0	0	0	0	0	0	0	0	0	14	71	60	77	64	74	29	2	0	0	0	0	0	0	77	0	16
26	0	0	0	0	0	0	0	0	0	1	16	45	81	79	83	55	28	3	0	0	0	0	0	0	83	0	16
27	0	0	0	0	0	0	0	0	0	1	17	44	68	79	68	63	27	3	0	0	0	0	0	0	79	0	15
28	0	0	0	0	0	0	0	0	0	2	18	47	70	99	118	80	27	3	0	0	0	0	0	0	118	0	19
29	0	0	0	0	0	0	0	0	0	2	56	66	56	66	41	23	13	2	0	0	0	0	0	0	66	0	14
30	0	0	0	0	0	0	0	0	0	6	61	122	100	100	97	18	12	3	0	0	0	0	0	0	122	0	22
31	0	0	0	0	0	0	0	0	0	0	5	25	44	69	54	54	18	2	0	0	0	0	0	0	69	0	11
Max.	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**61**	**146**	**184**	**188**	**167**	**120**	**43**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**188**		
Min.	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**16**	**20**	**36**	**31**	**14**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**	
Avg.	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**18**	**58**	**87**	**97**	**82**	**51**	**15**	**1**	**0**	**0**	**0**	**0**	**0**	**0**			**17**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Solar (Watts/m^2)

February 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	0	0	0	0	0	5	32	73	157	230	194	103	42	5	0	0	0	0	0	0	230	0	35
2	0	0	0	0	0	0	0	0	0	5	53	95	115	131	79	29	18	4	0	0	0	0	0	0	131	0	22
3	0	0	0	0	0	0	0	0	0	12	48	149	203	226	194	144	69	11	0	0	0	0	0	0	226	0	44
4	0	0	0	0	0	0	0	0	0	13	91	171	220	236	215	162	79	11	0	0	0	0	0	0	236	0	50
5	0	0	0	0	0	0	0	0	0	15	96	176	224	239	218	166	84	11	0	0	0	0	0	0	239	0	51
6	0	0	0	0	0	0	0	0	0	10	30	71	87	153	93	103	57	11	0	0	0	0	0	0	153	0	26
7	0	0	0	0	0	0	0	0	0	6	39	57	82	75	89	101	41	14	0	0	0	0	0	0	101	0	21
8	0	0	0	0	0	0	0	0	0	6	28	52	87	181	202	97	44	12	0	0	0	0	0	0	202	0	29
9	0	0	0	0	0	0	0	0	0	10	41	81	132	141	156	100	29	7	0	0	0	0	0	0	156	0	29
10	0	0	0	0	0	0	0	0	0	6	33	87	198	147	250	115	58	13	1	0	0	0	0	0	250	0	38
11	0	0	0	0	0	0	0	0	0	6	37	74	94	113	95	62	24	6	0	0	0	0	0	0	113	0	21
12	0	0	0	0	0	0	0	0	0	13	60	97	139	171	235	155	74	23	1	0	0	0	0	0	235	0	40
13	0	0	0	0	0	0	0	0	0	15	55	75	107	114	103	75	41	9	1	0	0	0	0	0	114	0	25
14	0	0	0	0	0	0	0	0	0	28	53	126	193	265	150	106	60	35	2	0	0	0	0	0	265	0	42
15	0	0	0	0	0	0	0	0	1	22	127	142	164	182	172	149	83	27	2	0	0	0	0	0	182	0	45
16	0	0	0	0	0	0	0	0	1	18	62	108	149	217	209	160	81	27	3	0	0	0	0	0	217	0	43
17	0	0	0	0	0	0	0	0	2	51	170	254	300	309	265	203	85	30	2	0	0	0	0	0	309	0	70
18	0	0	0	0	0	0	0	0	2	28	85	158	179	273	183	107	85	30	4	0	0	0	0	0	273	0	47
19	0	0	0	0	0	0	0	0	3	86	169	254	321	336	313	249	159	58	5	0	0	0	0	0	336	0	81
20	0	0	0	0	0	0	0	0	4	75	183	269	323	337	314	253	170	62	5	0	0	0	0	0	337	0	83
21	0	0	0	0	0	0	0	0	5	85	194	279	333	348	324	260	175	67	5	0	0	0	0	0	348	0	86
22	0	0	0	0	0	0	0	0	6	88	195	281	334	351	326	160	135	94	11	0	0	0	0	0	351	0	83
23	0	0	0	0	0	0	0	0	7	92	199	283	311	355	261	255	169	66	10	0	0	0	0	0	355	0	84
24	0	0	0	0	0	0	0	0	9	98	199	289	348	363	345	278	191	82	9	0	0	0	0	0	363	0	92
25	0	0	0	0	0	0	0	0	13	89	195	264	349	268	204	129	120	42	8	0	0	0	0	0	349	0	70
26	0	0	0	0	0	0	0	0	7	70	188	287	346	329	379	251	182	86	14	0	0	0	0	0	379	0	89
27	0	0	0	0	0	0	0	0	17	79	160	222	310	338	309	228	126	45	9	0	0	0	0	0	338	0	77
28	0	0	0	0	0	0	0	0	12	101	216	303	371	399	372	308	219	107	15	0	0	0	0	0	399	0	101
Max.	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**17**	**101**	**216**	**303**	**371**	**399**	**379**	**308**	**219**	**107**	**15**	**0**	**0**	**0**	**0**	**0**	**399**		
Min.	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**28**	**52**	**82**	**75**	**79**	**29**	**18**	**4**	**0**	**0**	**0**	**0**	**0**	**0**		**0**	
Avg.	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**40**	**108**	**171**	**221**	**244**	**223**	**161**	**96**	**35**	**4**	**0**	**0**	**0**	**0**	**0**			**54**

Total Hours in Month 672 **Hours Data Available** 672 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Solar (Watts/m^2)

March 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	0	0	0	0	24	137	242	330	385	402	377	310	220	108	17	0	0	0	0	0	402	0	106
2	0	0	0	0	0	0	0	0	23	124	232	321	374	390	370	307	219	112	19	0	0	0	0	0	390	0	104
3	0	0	0	0	0	0	0	0	26	133	242	332	381	401	369	300	224	111	26	0	0	0	0	0	401	0	106
4	0	0	0	0	0	0	0	0	30	141	257	348	401	415	389	325	235	122	24	1	0	0	0	0	415	0	112
5	0	0	0	0	0	0	0	0	39	160	271	359	413	427	401	335	244	133	26	1	0	0	0	0	427	0	117
6	0	0	0	0	0	0	0	1	44	164	276	366	422	435	409	344	250	139	29	1	0	0	0	0	435	0	120
7	0	0	0	0	0	0	0	1	46	174	285	375	429	442	414	348	256	146	35	1	0	0	0	0	442	0	123
8	0	0	0	0	0	0	0	1	26	115	214	371	431	450	416	324	203	96	28	1	0	0	0	0	450	0	111
9	0	0	0	0	0	0	0	1	31	152	227	347	431	450	424	358	264	152	32	1	0	0	0	0	450	0	120
10	0	0	0	0	0	0	0	1	51	206	239	331	416	408	399	367	271	159	42	2	0	0	0	0	416	0	120
11	0	0	0	0	0	0	0	2	69	197	311	401	454	469	442	372	277	166	46	2	0	0	0	0	469	0	134
12	0	0	0	0	0	0	0	3	60	182	291	386	443	477	449	379	282	169	51	3	0	0	0	0	477	0	132
13	0	0	0	0	0	0	0	4	87	213	328	415	468	482	454	386	292	178	55	3	0	0	0	0	482	0	140
14	0	0	0	0	0	0	0	5	90	217	332	420	474	484	458	392	296	180	51	5	0	0	0	0	484	0	142
15	0	0	0	0	0	0	0	7	99	225	339	428	480	493	464	396	302	187	64	4	0	0	0	0	493	0	145
16	0	0	0	0	0	0	0	8	105	232	341	437	488	501	473	404	308	192	68	5	0	0	0	0	501	0	148
17	0	0	0	0	0	0	0	11	114	242	357	446	499	511	482	412	316	199	74	6	0	0	0	0	511	0	153
18	0	0	0	0	0	0	0	8	82	190	346	452	502	514	485	415	318	203	78	7	0	0	0	0	514	0	150
19	0	0	0	0	0	0	0	15	129	256	372	462	515	526	496	426	329	211	85	8	0	0	0	0	526	0	160
20	0	0	0	0	0	0	0	13	64	111	160	156	232	212	216	198	113	74	36	4	0	0	0	0	232	0	66
21	0	0	0	0	0	0	0	9	44	131	181	257	334	374	413	269	227	186	99	12	0	0	0	0	413	0	106
22	0	0	0	0	0	0	0	26	157	283	402	489	530	554	527	454	350	224	79	13	0	0	0	0	554	0	170
23	0	0	0	0	0	0	0	14	148	289	408	498	548	561	531	457	333	203	104	15	0	0	0	0	561	0	171
24	0	0	0	0	0	0	0	30	163	295	414	504	557	568	536	463	363	240	112	14	0	0	0	0	568	0	177
25	0	0	0	0	0	0	0	25	104	259	228	258	325	336	317	412	241	152	63	13	0	0	0	0	412	0	114
26	0	0	0	0	0	0	0	16	51	89	174	250	368	399	384	388	316	215	122	18	0	0	0	0	399	0	116
27	0	0	0	0	0	0	1	44	180	314	436	527	577	585	552	476	375	252	123	20	0	0	0	0	585	0	186
28	0	0	0	0	0	0	1	48	186	324	444	533	583	593	560	486	385	260	131	22	0	0	0	0	593	0	190
29	0	0	0	0	0	0	1	57	204	324	445	532	585	596	564	489	389	264	125	24	0	0	0	0	596	0	192
30	0	0	0	0	0	0	2	59	178	310	428	518	573	581	549	486	392	260	126	27	0	0	0	0	581	0	187
31	0	0	0	0	0	0	2	55	129	227	353	472	526	543	518	493	342	261	147	29	1	0	0	0	543	0	171
Max.	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**59**	**204**	**324**	**445**	**533**	**585**	**596**	**564**	**493**	**392**	**264**	**147**	**29**	**1**	**0**	**0**	**0**	**596**		
Min.	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**23**	**89**	**160**	**156**	**232**	**212**	**216**	**198**	**113**	**74**	**17**	**0**	**0**	**0**	**0**	**0**		**0**	
Avg.	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**15**	**90**	**207**	**309**	**397**	**456**	**470**	**446**	**386**	**288**	**179**	**68**	**8**	**0**	**0**	**0**	**0**			**138**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Solar (Watts/m^2)

April *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	0	0	2	56	179	293	444	538	565	606	523	426	322	210	121	38	1	0	0	0	606	0	180
2	0	0	0	0	0	0	2	48	147	244	334	394	381	444	350	307	272	178	80	32	1	0	0	0	444	0	134
3	0	0	0	0	0	0	1	21	77	114	175	233	227	312	333	231	263	184	93	29	1	0	0	0	333	0	95
4	0	0	0	0	0	0	3	46	166	268	361	394	407	441	273	251	224	170	65	16	1	0	0	0	441	0	129
5	0	0	0	0	0	0	6	91	131	177	152	245	429	393	563	314	252	156	82	26	1	0	0	0	563	0	126
6	0	0	0	0	0	0	10	80	118	270	234	301	360	459	307	228	116	62	26	10	1	0	0	0	459	0	108
7	0	0	0	0	0	0	2	34	125	197	194	187	459	297	424	336	226	192	70	19	1	0	0	0	459	0	115
8	0	0	0	0	0	0	7	56	89	205	326	390	367	300	324	249	161	136	70	31	2	0	0	0	390	0	113
9	0	0	0	0	0	0	6	30	80	126	183	228	243	243	234	186	132	89	60	42	2	0	0	0	243	0	78
10	0	0	0	0	0	0	7	38	121	211	318	468	434	415	277	328	394	390	137	43	3	0	0	0	468	0	149
11	0	0	0	0	0	0	13	73	255	406	486	501	557	467	333	429	284	286	190	58	6	0	0	0	557	0	181
12	0	0	0	0	0	0	9	61	277	370	533	628	668	608	585	575	516	354	179	78	6	0	0	0	668	0	227
13	0	0	0	0	0	0	13	85	263	242	434	538	680	680	655	469	511	368	169	48	10	0	0	0	680	0	215
14	0	0	0	0	0	0	7	52	178	226	351	531	450	359	612	377	427	350	137	33	5	0	0	0	612	0	171
15	0	0	0	0	0	0	9	61	129	186	288	324	365	344	347	238	425	347	65	42	7	0	0	0	425	0	132
16	0	0	0	0	0	0	15	52	130	358	409	636	557	429	353	250	223	207	115	43	7	0	0	0	636	0	158
17	0	0	0	0	0	1	12	61	83	114	174	194	185	208	164	146	120	90	73	67	10	0	0	0	208	0	71
18	0	0	0	0	0	0	10	28	104	189	348	296	287	276	175	111	110	170	79	37	8	0	0	0	348	0	93
19	0	0	0	0	0	1	18	62	136	285	248	228	375	473	363	223	180	129	81	29	6	0	0	0	473	0	118
20	0	0	0	0	0	0	15	60	150	265	307	411	537	373	346	555	329	153	104	52	8	0	0	0	555	0	153
21	0	0	0	0	0	1	19	57	96	191	419	306	352	399	378	256	130	133	113	36	8	0	0	0	419	0	121
22	0	0	0	0	0	1	16	53	91	217	159	193	214	245	240	144	88	116	63	14	4	0	0	0	245	0	77
23	0	0	0	0	0	3	45	137	225	364	322	489	323	445	412	218	342	242	187	97	14	0	0	0	489	0	161
24	0	0	0	0	0	1	19	64	157	244	441	491	257	172	279	236	157	123	74	51	13	0	0	0	491	0	116
25	0	0	0	0	0	1	22	64	146	213	412	255	360	478	580	444	364	279	213	66	24	0	0	0	580	0	163
26	0	0	0	0	0	6	80	250	311	531	593	672	716	704	583	403	414	411	350	205	28	1	0	0	716	0	261
27	0	0	0	0	0	7	132	247	357	449	595	666	733	727	569	594	278	240	79	38	17	1	0	0	733	0	239
28	0	0	0	0	0	5	25	73	153	222	477	667	542	711	578	577	513	376	270	132	33	2	0	0	711	0	223
29	0	0	0	0	0	6	86	138	137	180	224	284	642	581	465	568	378	233	249	135	38	2	0	0	642	0	181
30	0	0	0	0	0	9	111	238	375	503	611	709	655	538	356	553	554	411	260	139	38	3	0	0	709	0	253
Max.	**0**	**0**	**0**	**0**	**0**	**9**	**132**	**250**	**375**	**531**	**611**	**709**	**733**	**727**	**655**	**594**	**554**	**411**	**350**	**205**	**38**	**3**	**0**	**0**	**733**		
Min.	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**21**	**77**	**114**	**152**	**187**	**185**	**172**	**164**	**111**	**88**	**62**	**26**	**10**	**1**	**0**	**0**	**0**		**0**	
Avg.	**0**	**0**	**0**	**0**	**0**	**2**	**24**	**80**	**166**	**262**	**352**	**413**	**444**	**438**	**399**	**341**	**290**	**226**	**128**	**56**	**10**	**0**	**0**	**0**			**151**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Solar (Watts/m^2)

May *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	0	4	43	103	213	308	369	429	354	347	349	315	372	140	61	36	12	1	0	0	429	0	144
2	0	0	0	0	0	7	52	105	137	177	293	379	225	525	399	391	540	379	301	104	52	2	0	0	540	0	169
3	0	0	0	0	0	13	82	209	348	499	616	691	769	650	727	563	168	219	192	106	22	2	0	0	769	0	245
4	0	0	0	0	0	15	111	249	383	467	374	448	648	609	734	707	590	278	184	82	39	4	0	0	734	0	247
5	0	0	0	0	0	9	70	78	114	214	276	301	377	436	334	390	378	386	267	98	42	1	0	0	436	0	157
6	0	0	0	0	0	10	38	129	216	494	274	318	316	284	318	286	221	189	107	84	42	3	0	0	494	0	139
7	0	0	0	0	0	23	112	115	199	242	206	255	292	439	405	206	114	143	93	54	24	2	0	0	439	0	122
8	0	0	0	0	0	4	17	42	75	110	160	269	294	322	700	487	308	332	174	63	28	4	0	0	700	0	141
9	0	0	0	0	0	6	25	61	92	182	231	295	277	276	338	437	286	345	234	120	53	5	0	0	437	0	136
10	0	0	0	0	1	15	70	117	287	353	418	511	588	576	538	502	427	309	221	85	30	5	0	0	588	0	210
11	0	0	0	0	1	32	88	272	362	511	640	724	745	760	717	650	556	406	292	179	68	9	0	0	760	0	292
12	0	0	0	0	1	26	137	270	391	522	606	646	479	532	664	582	526	350	294	129	32	6	0	0	664	0	258
13	0	0	0	0	0	7	24	49	87	192	244	263	278	315	280	275	252	198	140	85	29	5	0	0	315	0	113
14	0	0	0	0	0	11	58	169	192	342	300	277	243	186	175	159	284	264	136	76	31	7	0	0	342	0	121
15	0	0	0	0	1	22	42	107	203	194	469	580	573	450	563	404	416	380	312	195	81	14	0	0	580	0	209
16	0	0	0	0	1	19	101	200	237	382	508	511	421	284	259	204	247	219	180	109	48	11	0	0	511	0	164
17	0	0	0	0	1	16	56	104	316	461	585	841	683	674	672	661	527	445	304	129	54	12	0	0	841	0	273
18	0	0	0	0	3	49	159	291	419	560	643	630	609	607	591	626	593	369	132	54	36	9	0	0	643	0	266
19	0	0	0	0	6	64	120	315	305	178	396	191	251	465	510	555	460	456	348	135	55	18	1	0	555	0	201
20	0	0	0	0	5	55	154	290	431	449	499	539	721	569	274	409	435	349	303	201	93	18	1	0	721	0	241
21	0	0	0	0	5	58	169	299	432	558	675	647	659	771	657	693	595	466	338	198	116	24	1	0	771	0	307
22	0	0	0	0	2	23	62	108	96	54	146	226	377	295	473	486	314	364	244	108	50	7	0	0	486	0	143
23	0	0	0	0	4	19	72	121	184	262	319	218	288	242	312	265	137	132	58	22	21	5	0	0	319	0	112
24	0	0	0	0	1	18	42	108	410	393	277	428	367	488	205	161	140	129	93	60	22	6	0	0	488	0	139
25	0	0	0	0	2	22	47	69	76	88	82	127	196	125	174	202	166	142	121	75	32	14	1	0	202	0	73
26	0	0	0	0	3	17	41	65	67	125	145	154	288	223	129	185	210	128	100	56	21	8	0	0	288	0	82
27	0	0	0	0	2	15	29	77	327	567	492	609	616	761	606	563	520	458	316	227	98	21	2	0	761	0	263
28	0	0	0	0	6	31	143	149	336	375	364	409	562	714	766	614	461	280	221	231	78	15	3	0	766	0	240
29	0	0	0	0	8	80	190	320	454	344	328	212	542	315	186	435	324	474	151	142	65	24	4	0	542	0	192
30	0	0	0	0	6	30	83	96	181	292	306	269	255	281	347	642	398	278	137	88	43	20	2	0	642	0	156
31	0	0	0	0	8	23	69	92	153	272	296	284	173	160	171	146	154	74	50	36	23	13	2	0	296	0	92
Max.	**0**	**0**	**0**	**0**	**8**	**80**	**190**	**320**	**454**	**567**	**675**	**841**	**769**	**771**	**766**	**707**	**595**	**474**	**348**	**231**	**116**	**24**	**4**	**0**	**841**		
Min.	**0**	**0**	**0**	**0**	**0**	**4**	**17**	**42**	**67**	**54**	**82**	**127**	**173**	**125**	**129**	**146**	**114**	**74**	**50**	**22**	**12**	**1**	**0**	**0**		**0**	
Avg.	**0**	**0**	**0**	**0**	**2**	**24**	**81**	**154**	**249**	**328**	**372**	**409**	**434**	**441**	**438**	**426**	**359**	**293**	**197**	**109**	**47**	**10**	**1**	**0**			**182**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Solar (Watts/m^2)

June *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	3	15	51	170	178	161	121	211	277	212	422	314	255	176	112	72	33	8	1	0	422	0	116
2	0	0	0	0	7	22	76	81	109	202	293	331	516	455	360	332	283	327	182	81	57	15	1	0	516	0	155
3	0	0	0	0	3	28	66	135	183	254	286	494	388	331	317	725	608	250	316	186	125	38	5	0	725	0	197
4	0	0	0	0	5	28	55	83	116	159	165	244	319	163	194	183	206	121	29	48	16	2	0	0	319	0	89
5	0	0	0	0	4	41	53	53	78	150	236	357	475	278	301	485	328	154	153	255	81	22	3	0	485	0	146
6	0	0	0	1	12	27	87	308	472	572	551	598	761	790	804	688	608	401	323	151	52	31	6	0	804	0	302
7	0	0	0	0	13	105	145	222	347	464	249	264	409	419	827	737	523	420	295	253	111	29	6	0	827	0	243
8	0	0	0	0	11	59	102	160	157	231	470	514	806	496	469	417	403	254	223	151	60	18	5	0	806	0	209
9	0	0	0	0	7	33	83	140	224	353	317	488	363	305	412	336	245	244	225	126	54	19	3	0	488	0	166
10	0	0	0	1	11	40	102	163	277	467	652	749	767	783	711	666	481	204	253	135	80	26	2	0	783	0	274
11	0	0	0	0	6	32	74	134	191	242	370	512	642	614	638	689	606	476	378	149	43	12	1	0	689	0	242
12	0	0	0	0	1	10	34	63	89	129	131	135	240	209	259	307	307	302	207	125	62	25	6	0	307	0	110
13	0	0	0	1	7	31	87	148	196	236	268	254	209	291	525	496	157	242	273	138	62	19	2	0	525	0	152
14	0	0	0	0	5	33	144	188	250	411	455	408	327	351	257	237	243	235	160	110	55	14	4	0	455	0	162
15	0	0	0	1	20	63	211	257	351	569	662	729	807	826	772	502	747	598	392	254	145	50	7	0	826	0	332
16	0	0	0	2	19	88	214	318	425	567	588	689	735	670	534	545	398	269	162	93	45	14	2	0	735	0	266
17	0	0	0	0	1	18	51	105	204	333	259	185	196	326	338	376	257	133	179	122	74	25	4	0	376	0	133
18	0	0	0	1	13	93	176	192	374	179	178	254	608	768	910	522	515	180	132	129	34	19	6	0	910	0	220
19	0	0	0	1	14	54	178	299	466	558	648	657	801	806	772	703	614	503	379	254	144	51	8	1	806	0	330
20	0	0	0	1	13	99	207	328	453	575	677	733	742	687	719	620	604	501	321	149	85	34	5	0	742	0	315
21	0	0	0	1	9	35	92	237	320	538	512	635	686	548	496	546	460	334	305	220	81	21	3	0	686	0	253
22	0	0	0	0	4	17	40	62	107	152	167	147	132	145	142	126	116	69	70	44	19	6	0	0	167	0	65
23	0	0	0	0	2	9	19	30	47	54	62	86	102	102	107	102	115	82	56	80	40	14	2	0	115	0	46
24	0	0	0	0	4	24	54	101	150	163	189	158	231	323	188	230	272	332	231	111	51	21	5	0	332	0	118
25	0	0	0	0	8	37	68	139	219	391	280	233	235	297	429	258	288	212	117	139	59	19	6	0	429	0	143
26	0	0	0	1	10	48	175	299	478	551	501	357	653	722	768	760	467	453	368	253	146	38	8	0	768	0	294
27	0	0	0	1	14	105	166	268	462	473	568	586	779	731	592	723	444	319	267	189	81	28	4	0	779	0	283
28	0	0	0	0	4	22	43	73	115	217	228	161	270	324	363	218	139	152	178	93	64	45	11	1	363	0	113
29	0	0	0	2	16	83	207	331	479	630	684	643	685	616	545	597	422	406	351	151	94	31	8	1	685	0	291
30	0	0	0	0	13	48	52	75	117	141	164	411	351	270	319	346	270	220	215	104	44	34	6	0	411	0	133
Max.	**0**	**0**	**0**	**2**	**20**	**105**	**214**	**331**	**479**	**630**	**684**	**749**	**807**	**826**	**910**	**760**	**747**	**598**	**392**	**255**	**146**	**51**	**11**	**1**	**910**		
Min.	**0**	**0**	**0**	**0**	**1**	**9**	**19**	**30**	**47**	**54**	**62**	**86**	**102**	**102**	**107**	**102**	**115**	**69**	**29**	**44**	**16**	**2**	**0**	**0**		**0**	
Avg.	**0**	**0**	**0**	**1**	**9**	**45**	**104**	**172**	**254**	**337**	**364**	**407**	**484**	**462**	**483**	**460**	**379**	**286**	**228**	**145**	**70**	**24**	**4**	**0**			**197**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Solar (Watts/m^2)

July *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	6	25	82	142	435	519	195	295	426	279	355	278	131	161	104	79	42	19	3	0	519	0	149
2	0	0	0	0	8	39	161	332	447	511	520	421	341	288	364	155	321	276	266	180	89	49	3	0	520	0	199
3	0	0	0	0	6	36	137	188	272	350	391	377	386	438	604	619	438	300	104	77	26	5	1	0	619	0	198
4	0	0	0	0	1	10	33	72	156	175	346	343	214	263	361	284	177	115	131	95	56	23	3	0	361	0	119
5	0	0	0	1	10	28	72	266	346	360	300	471	210	229	204	120	88	129	52	45	13	10	1	0	471	0	123
6	0	0	0	0	4	16	38	69	131	199	199	295	403	336	512	464	371	322	246	158	81	38	6	0	512	0	162
7	0	0	0	0	7	60	196	310	436	564	439	285	244	315	337	227	238	150	116	104	47	16	1	0	564	0	171
8	0	0	0	0	1	9	20	53	99	133	117	166	197	248	226	169	174	273	171	144	75	22	3	0	273	0	96
9	0	0	0	0	3	20	45	142	177	271	323	421	561	429	600	501	368	437	366	198	116	54	8	0	600	0	210
10	0	0	0	0	7	70	182	310	458	526	246	420	237	222	376	361	322	184	123	87	54	27	4	0	526	0	176
11	0	0	0	0	8	57	103	172	433	566	655	693	736	689	601	709	625	493	316	233	119	20	3	0	736	0	301
12	0	0	0	0	4	89	132	341	457	626	233	247	528	161	155	339	139	166	98	68	54	29	3	0	626	0	161
13	0	0	0	0	1	7	14	18	25	65	125	148	188	172	236	225	224	205	87	50	36	9	2	0	236	0	77
14	0	0	0	0	2	14	35	81	146	239	331	361	354	325	155	215	160	123	50	32	55	9	2	0	361	0	112
15	0	0	0	0	1	17	43	71	110	225	384	357	350	448	285	284	223	276	161	89	61	14	1	0	448	0	142
16	0	0	0	0	3	31	62	189	192	259	447	654	411	292	290	391	313	275	257	244	122	26	3	0	654	0	186
17	0	0	0	0	4	58	172	291	420	541	532	472	531	767	690	693	545	288	236	176	93	24	2	0	767	0	272
18	0	0	0	0	1	12	54	100	214	185	308	306	313	163	215	273	157	82	112	100	45	6	1	0	313	0	110
19	0	0	0	0	2	26	84	220	189	207	255	445	500	199	188	178	192	168	141	79	43	12	1	0	500	0	130
20	0	0	0	0	2	37	125	231	407	561	690	554	513	796	749	568	529	355	288	197	104	11	1	0	796	0	280
21	0	0	0	0	1	11	31	46	80	111	210	204	214	234	207	190	184	68	47	29	17	3	0	0	234	0	79
22	0	0	0	0	0	3	13	30	45	47	106	126	110	92	121	122	129	62	50	21	27	7	0	0	129	0	46
23	0	0	0	0	1	4	23	47	113	119	156	223	163	146	94	55	58	85	62	39	12	2	0	0	223	0	58
24	0	0	0	0	0	9	35	67	153	260	256	227	288	242	233	233	282	159	136	60	31	8	0	0	288	0	112
25	0	0	0	0	1	15	53	169	293	346	263	498	362	475	331	229	210	149	89	97	79	30	1	0	498	0	154
26	0	0	0	0	1	21	63	121	75	206	486	689	605	725	431	386	518	464	266	101	26	7	1	0	725	0	216
27	0	0	0	0	1	9	47	100	179	294	590	400	464	400	574	511	527	182	206	68	33	10	1	0	590	0	191
28	0	0	0	0	0	8	23	57	102	223	318	585	703	734	696	641	539	417	287	159	62	17	1	0	734	0	232
29	0	0	0	0	1	27	64	88	152	218	463	472	424	428	530	527	459	310	271	84	79	8	0	0	530	0	192
30	0	0	0	0	0	7	20	50	107	76	129	226	414	320	415	251	308	225	102	60	23	5	0	0	415	0	114
31	0	0	0	0	0	4	25	61	100	142	192	163	194	254	331	334	359	218	92	68	48	7	0	0	359	0	108
Max.	**0**	**0**	**0**	**1**	**10**	**89**	**196**	**341**	**458**	**626**	**690**	**693**	**736**	**796**	**749**	**709**	**625**	**493**	**366**	**244**	**122**	**54**	**8**	**0**	**796**		
Min.	**0**	**0**	**0**	**0**	**0**	**3**	**13**	**18**	**25**	**47**	**106**	**126**	**110**	**92**	**94**	**55**	**58**	**62**	**47**	**21**	**12**	**2**	**0**	**0**		**0**	
Avg.	**0**	**0**	**0**	**0**	**3**	**25**	**70**	**143**	**224**	**294**	**329**	**372**	**374**	**358**	**370**	**340**	**300**	**230**	**162**	**104**	**57**	**17**	**2**	**0**			**157**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Solar (Watts/m^2)

August *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	0	1	7	22	46	77	186	258	162	206	258	208	171	133	115	38	14	3	0	0	258	0	79
2	0	0	0	0	0	5	22	43	102	101	99	96	118	128	118	178	107	114	81	93	43	7	0	0	178	0	61
3	0	0	0	0	0	4	17	34	55	93	110	142	157	168	291	199	144	90	49	47	14	1	0	0	291	0	67
4	0	0	0	0	0	1	7	20	33	39	65	88	128	97	97	56	63	51	29	15	6	1	0	0	128	0	33
5	0	0	0	0	0	5	17	18	36	68	50	96	65	59	40	42	82	43	43	24	6	2	0	0	96	0	29
6	0	0	0	0	0	8	70	243	221	481	300	418	563	618	625	254	197	366	132	179	37	7	0	0	625	0	197
7	0	0	0	0	0	7	38	202	354	518	493	370	504	574	688	594	499	386	276	168	59	6	0	0	688	0	239
8	0	0	0	0	0	7	39	91	196	360	535	420	549	379	388	288	324	310	216	102	47	5	0	0	549	0	177
9	0	0	0	0	0	9	112	229	338	475	536	622	675	796	524	590	424	269	262	124	48	5	0	0	796	0	252
10	0	0	0	0	0	7	88	212	337	455	562	638	667	688	668	603	500	377	260	138	48	4	0	0	688	0	261
11	0	0	0	0	0	10	89	157	281	408	530	546	503	464	336	364	243	165	104	54	19	1	0	0	546	0	178
12	0	0	0	0	0	1	3	17	36	104	112	319	575	634	358	490	470	385	257	144	40	3	0	0	634	0	165
13	0	0	0	0	0	5	81	196	298	440	361	472	262	458	384	357	411	353	108	56	12	1	0	0	472	0	177
14	0	0	0	0	0	1	10	39	42	46	56	87	123	224	310	221	131	118	58	78	25	1	0	0	310	0	65
15	0	0	0	0	0	2	10	41	106	132	239	163	230	192	275	182	151	115	77	56	19	1	0	0	275	0	83
16	0	0	0	0	0	2	40	191	307	378	496	435	624	642	493	612	275	175	170	125	30	2	0	0	642	0	208
17	0	0	0	0	0	2	23	104	125	308	185	219	308	706	261	350	215	237	62	43	9	1	0	0	706	0	132
18	0	0	0	0	0	0	5	41	68	91	77	65	91	132	190	224	149	81	62	30	10	1	0	0	224	0	55
19	0	0	0	0	0	1	28	81	111	107	116	125	72	147	301	202	136	93	72	42	10	0	0	0	301	0	69
20	0	0	0	0	0	0	1	5	30	108	154	244	169	236	286	305	259	319	161	88	16	1	0	0	319	0	99
21	0	0	0	0	0	0	9	18	17	41	63	68	55	85	180	170	157	157	102	34	6	0	0	0	180	0	48
22	0	0	0	0	0	0	6	36	54	119	144	153	130	114	88	107	80	74	50	16	3	0	0	0	153	0	49
23	0	0	0	0	0	0	6	28	89	162	220	224	288	324	272	203	176	116	64	24	4	0	0	0	324	0	92
24	0	0	0	0	0	0	26	59	114	119	181	240	235	207	155	178	396	258	22	14	6	0	0	0	396	0	92
25	0	0	0	0	0	0	7	22	68	142	159	213	372	459	549	476	476	333	203	84	10	0	0	0	549	0	149
26	0	0	0	0	0	0	23	51	99	303	330	485	212	378	559	295	203	266	213	99	13	0	0	0	559	0	147
27	0	0	0	0	0	1	30	92	277	388	460	463	230	228	334	446	396	279	228	106	10	0	0	0	463	0	165
28	0	0	0	0	0	0	34	155	267	379	491	567	610	622	522	425	376	312	186	69	5	0	0	0	622	0	209
29	0	0	0	0	0	0	27	94	133	120	381	467	610	627	494	509	414	281	166	58	6	0	0	0	627	0	183
30	0	0	0	0	0	0	22	131	218	326	301	238	296	252	256	285	184	218	92	21	3	0	0	0	326	0	118
31	0	0	0	0	0	0	12	109	229	371	426	554	641	203	227	130	125	121	71	18	2	0	0	0	641	0	135
Max.	**0**	**0**	**0**	**0**	**0**	**10**	**112**	**243**	**354**	**518**	**562**	**638**	**675**	**796**	**688**	**612**	**500**	**386**	**276**	**179**	**59**	**7**	**0**	**0**	**796**		
Min.	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**5**	**17**	**39**	**50**	**65**	**55**	**59**	**40**	**42**	**63**	**43**	**22**	**14**	**2**	**0**	**0**	**0**		**0**	
Avg.	**0**	**0**	**0**	**0**	**0**	**3**	**29**	**90**	**151**	**234**	**272**	**306**	**330**	**356**	**340**	**308**	**256**	**213**	**129**	**71**	**19**	**2**	**0**	**0**			**129**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Solar (Watts/m^2)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	0	0	0	0	0	0	3	21	63	73	146	124	152	184	321	377	343	260	102	18	2	0	0	0	377	0	91
2	0	0	0	0	0	0	2	21	54	145	331	352	353	434	391	185	152	93	46	14	1	0	0	0	434	0	107
3	0	0	0	0	0	0	2	16	46	89	121	135	137	121	107	65	37	42	20	7	1	0	0	0	137	0	39
4	0	0	0	0	0	0	3	48	142	256	199	252	355	475	381	299	154	173	147	29	2	0	0	0	475	0	121
5	0	0	0	0	0	0	8	45	99	280	383	335	614	544	480	123	11	10	12	6	0	0	0	0	614	0	123
6	0	0	0	0	0	0	3	26	57	107	151	177					200	131	68	23	10	0	0	0	200	0	48
7	0	0	0	0	0	0	0	4	40	115	63	49	75	74	87	117	93	42	29	16	4	0	0	0	117	0	34
8	0	0	0	0	0	0	0	1	7	19	16	38	56	80	90	81	63	130	33	19	4	0	0	0	130	0	27
9	0	0	0	0	0	0	0	0	7	32	72	105	81	123	140	217	310	155	50	58	27	1	0	0	310	0	57
10	0	0	0	0	0	0	0	4	79	193	264	365	356	249	247	337	304	167	180	55	9	0	0	0	365	0	117
11	0	0	0	0	0	0	0	2	24	76	105	42	30	34	33	47	46	34	14	17	3	0	0	0	105	0	21
12	0	0	0	0	0	0	0	0	8	28	112	197	420	475	474	381	338	99	56	35	10	0	0	0	475	0	110
13	0	0	0	0	0	0	0	0	4	32	35	70	180	221	103	136	102	39	48	13	6	0	0	0	221	0	41
14	0	0	0	0	0	0	0	1	31	117	148	131	215	270	236	437	131	197	123	113	11	0	0	0	437	0	90
15	0	0	0	0	0	0	0	2	48	163	283	396	358	368	574	548	288	99	169	99	10	0	0	0	574	0	142
16	0	0	0	0	0	0	0	2	22	152	265	358	212	319	435	353	268	181	151	79	8	0	0	0	435	0	117
17	0	0	0	0	0	0	0	0	8	14	39	94	79	136	156	194	196	197	156	49	8	0	0	0	197	0	55
18	0	0	0	0	0	0	0	0	10	35	55	103	142	103	41	18	33	27	17	9	6	0	0	0	142	0	25
19	0	0	0	0	0	0	0	1	15	37	35	64	49	117	207	121	124	68	62	28	1	0	0	0	207	0	39
20	0	0	0	0	0	0	0	0	8	20	39	61	73	106	157	120	170	247	37	11	3	0	0	0	247	0	44
21	0	0	0	0	0	0	0	0	15	69	260	333	370	173	171	261	236	305	164	67	4	0	0	0	370	0	101
22	0	0	0	0	0	0	0	1	17	64	105	182	183	223	147	71	46	29	13	4	0	0	0	0	223	0	45
23	0	0	0	0	0	0	0	0	11	71	142	179	198	190	111	86	66	42	22	8	1	0	0	0	198	0	47
24	0	0	0	0	0	0	0	0	3	17	31	72	87	94	276	199	72	51	10	5	0	0	0	0	276	0	38
25	0	0	0	0	0	0	0	0	10	35	56	137	175	154	143	120	163	85	43	22	1	0	0	0	175	0	48
26	0	0	0	0	0	0	0	0	11	59	199	280	187	125	232	111	127	110	81	15	1	0	0	0	280	0	64
27	0	0	0	0	0	0	0	0	8	34	88	230	148	300	281	97	146	91	41	10	0	0	0	0	300	0	61
28	0	0	0	0	0	0	0	0	3	24	60	101	103	101	97	118	86	87	51	9	1	0	0	0	118	0	35
29	0	0	0	0	0	0	0	0	9	90	197	174	205	182	207	148	95	57	41	11	0	0	0	0	207	0	59
30	0	0	0	0	0	0	0	0	2	20	33	51	80	114	104	106	45	46	16	5	0	0	0	0	114	0	26
Max.	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**48**	**142**	**280**	**383**	**396**	**614**	**544**	**574**	**548**	**343**	**305**	**180**	**113**	**27**	**1**	**0**	**0**	**614**		
Min.	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**14**	**16**	**38**	**30**	**34**	**33**	**18**	**11**	**10**	**10**	**4**	**0**	**0**	**0**	**0**		**0**	
Avg.	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**7**	**29**	**82**	**134**	**173**	**196**	**210**	**222**	**189**	**148**	**110**	**67**	**28**	**4**	**0**	**0**	**0**			**66**

Total Hours in Month 720 **Hours Data Available** 716 **Data Recovery** 99.4%

HCG, Inc.

Pebble 4 Meteorological Station - Solar (Watts/m^2)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	0	0	0	0	0	0	0	0	5	49	177	147	224	153	175	269	349	121	27	12	0	0	0	0	349	0	71
2	0	0	0	0	0	0	0	0	4	33	66	138	210	210	309	324	334	197	54	17	0	0	0	0	334	0	79
3	0	0	0	0	0	0	0	0	4	52	157	296	371	337	306	296	108	117	35	5	0	0	0	0	371	0	87
4	0	0	0	0	0	0	0	0	1	10	22	31	42	48	43	58	43	26	11	2	0	0	0	0	58	0	14
5	0	0	0	0	0	0	0	0	1	17	45	128	85	197	393	312	255	129	61	24	0	0	0	0	393	0	69
6	0	0	0	0	0	0	0	0	1	16	33	135	210	196	351	312	111	82	43	6	0	0	0	0	351	0	62
7	0	0	0	0	0	0	0	0	5	34	116	220	335	336	230	295	292	253	99	13	0	0	0	0	336	0	93
8	0	0	0	0	0	0	0	0	5	46	66	248	349	395	399	363	291	176	84	9	0	0	0	0	399	0	101
9	0	0	0	0	0	0	0	0	3	58	167	265	339	379	382	349	278	189	81	8	0	0	0	0	382	0	104
10	0	0	0	0	0	0	0	0	2	49	118	238	340	191	199	156	111	140	51	4	0	0	0	0	340	0	67
11	0	0	0	0	0	0	0	0	1	28	84	109	151	143	170	97	76	26	9	1	0	0	0	0	170	0	37
12	0	0	0	0	0	0	0	0	0	12	42	93	173	215	269	251	249	118	64	3	0	0	0	0	269	0	62
13	0	0	0	0	0	0	0	0	1	16	56	96	161	182	316	303	261	168	50	2	0	0	0	0	316	0	67
14	0	0	0	0	0	0	0	0	1	26	146	241	266	292	215	144	139	55	15	1	0	0	0	0	292	0	64
15	0	0	0	0	0	0	0	0	1	29	128	135	146	207	182	172	102	53	24	1	0	0	0	0	207	0	49
16	0	0	0	0	0	0	0	0	1	17	62	154	142	80	133	119	71	34	8	0	0	0	0	0	154	0	34
17	0	0	0	0	0	0	0	0	0	18	59	141	174	294	243	238	112	61	13	1	0	0	0	0	294	0	56
18	0	0	0	0	0	0	0	0	0	19	59	117	153	196	180	156	101	63	20	1	0	0	0	0	196	0	44
19	0	0	0	0	0	0	0	0	0	16	137	229	289	331	331	297	225	118	19	1	0	0	0	0	331	0	83
20	0	0	0	0	0	0	0	0	0	21	108	221	229	204	264	139	111	55	13	0	0	0	0	0	264	0	57
21	0	0	0	0	0	0	0	0	0	6	43	90	166	235	144	102	102	99	19	0	0	0	0	0	235	0	42
22	0	0	0	0	0	0	0	0	0	6	36	75	119	127	210	203	203	88	13	0	0	0	0	0	210	0	45
23	0	0	0	0	0	0	0	0	0	5	30	76	90	89	77	87	82	29	12	0	0	0	0	0	90	0	24
24	0	0	0	0	0	0	0	0	0	5	41	67	100	87	86	81	68	29	5	0	0	0	0	0	100	0	24
25	0	0	0	0	0	0	0	0	0	3	22	31	28	37	29	19	13	10	2	0	0	0	0	0	37	0	8
26	0	0	0	0	0	0	0	0	0	3	26	36	69	104	91	87	79	23	4	0	0	0	0	0	104	0	22
27	0	0	0	0	0	0	0	0	0	1	26	54	68	103	69	24	32	27	4	0	0	0	0	0	103	0	17
28	0	0	0	0	0	0	0	0	0	3	20	59	109	207	117	81	71	54	5	0	0	0	0	0	207	0	30
29	0	0	0	0	0	0	0	0	0	1	13	41	67	137	79	54	35	17	2	0	0	0	0	0	137	0	19
30	0	0	0	0	0	0	0	0	0	1	7	19	34	47	60	53	35	19	2	0	0	0	0	0	60	0	12
31	0	0	0	0	0	0	0	0	0	2	21	64	351	248	158	75	87	59	5	0	0	0	0	0	351	0	45
Max.	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**58**	**177**	**296**	**371**	**395**	**399**	**363**	**349**	**253**	**99**	**24**	**0**	**0**	**0**	**0**	**399**		
Min.	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**7**	**19**	**28**	**37**	**29**	**19**	**13**	**10**	**2**	**0**	**0**	**0**	**0**	**0**		**0**	
Avg.	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**19**	**69**	**129**	**180**	**194**	**200**	**178**	**143**	**85**	**28**	**4**	**0**	**0**	**0**	**0**			**51**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Solar (Watts/m^2)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	0	0	0	0	0	0	0	0	0	5	38	86	100	69	85	103	40	16	2	0	0	0	0	0	103	0	23
2	0	0	0	0	0	0	0	0	0	2	30	80	219	255	256	150	118	27	3	0	0	0	0	0	256	0	47
3	0	0	0	0	0	0	0	0	0	2	25	69	105	144	133	86	84	40	2	0	0	0	0	0	144	0	29
4	0	0	0	0	0	0	0	0	0	0	7	17	24	30	32	23	23	10	1	0	0	0	0	0	32	0	7
5	0	0	0	0	0	0	0	0	0	1	11	40	69	101	84	68	45	16	2	0	0	0	0	0	101	0	18
6	0	0	0	0	0	0	0	0	0	0	12	29	32	48	176	148	61	16	2	0	0	0	0	0	176	0	22
7	0	0	0	0	0	0	0	0	0	0	8	34	40	66	86	103	66	10	3	0	0	0	0	0	103	0	17
8	0	0	0	0	0	0	0	0	0	0	5	14	25	28	48	71	40	38	2	0	0	0	0	0	71	0	11
9	0	0	0	0	0	0	0	0	0	1	19	82	57	92	91	118	107	17	1	0	0	0	0	0	118	0	24
10	0	0	0	0	0	0	0	0	0	1	9	68	172	115	120	90	51	24	1	0	0	0	0	0	172	0	27
11	0	0	0	0	0	0	0	0	0	1	36	81	138	200	197	165	104	29	1	0	0	0	0	0	200	0	40
12	0	0	0	0	0	0	0	0	0	1	15	41	70	71	75	67	28	10	0	0	0	0	0	0	75	0	16
13	0	0	0	0	0	0	0	0	0	0	4	17	26	23	38	30	26	20	1	0	0	0	0	0	38	0	8
14	0	0	0	0	0	0	0	0	0	0	24	80	144	107	169	98	60	24	1	0	0	0	0	0	169	0	29
15	0	0	0	0	0	0	0	0	0	0	8	61	110	125	194	160	91	19	1	0	0	0	0	0	194	0	32
16	0	0	0	0	0	0	0	0	0	0	8	73	155	105	160	91	49	18	1	0	0	0	0	0	160	0	27
17	0	0	0	0	0	0	0	0	0	0	6	38	145	181	185	155	88	16	0	0	0	0	0	0	185	0	34
18	0	0	0	0	0	0	0	0	0	0	8	43	70	203	150	149	67	16	0	0	0	0	0	0	203	0	29
19	0	0	0	0	0	0	0	0	0	0	7	24	60	83	96	69	37	7	0	0	0	0	0	0	96	0	16
20	0	0	0	0	0	0	0	0	0	0	1	6	25	51	51	36	26	7	0	0	0	0	0	0	51	0	8
21	0	0	0	0	0	0	0	0	0	0	1	5	18	27	27	73	25	4	0	0	0	0	0	0	73	0	7
22	0	0	0	0	0	0	0	0	0	0	0	4	7	17	26	48	17	1	0	0	0	0	0	0	48	0	5
23	0	0	0	0	0	0	0	0	0	0	3	22	73	106	92	67	69	14	0	0	0	0	0	0	106	0	19
24	0	0	0	0	0	0	0	0	0	0	3	17	35	74	41	53	45	7	0	0	0	0	0	0	74	0	12
25	0	0	0	0	0	0	0	0	0	0	2	31	55	81	61	45	22	3	0	0	0	0	0	0	81	0	13
26	0	0	0	0	0	0	0	0	0	0	1	12	20	53	59	42	26	2	0	0	0	0	0	0	59	0	9
27	0	0	0	0	0	0	0	0	0	0	1	11	11	23	29	26	27	11	0	0	0	0	0	0	29	0	6
28	0	0	0	0	0	0	0	0	0	0	2	21	45	35	36	31	18	3	0	0	0	0	0	0	45	0	8
29	0	0	0	0	0	0	0	0	0	0	1	15	33	45	44	26	13	1	0	0	0	0	0	0	45	0	8
30	0	0	0	0	0	0	0	0	0	0	0	6	14	28	25	18	9	1	0	0	0	0	0	0	28	0	4
Max.	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**38**	**86**	**219**	**255**	**256**	**165**	**118**	**40**	**3**	**0**	**0**	**0**	**0**	**0**	**256**		
Min.	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**7**	**17**	**25**	**18**	**9**	**1**	**0**	**0**	**0**	**0**	**0**	**0**		**0**	
Avg.	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**10**	**38**	**70**	**86**	**95**	**80**	**49**	**14**	**1**	**0**	**0**	**0**	**0**	**0**			**19**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Solar (Watts/m^2)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	0	0	0	0	0	0	0	0	0	0	5	31	84	119	131	98	30	4	0	0	0	0	0	0	131	0	21
2	0	0	0	0	0	0	0	0	0	0	4	34	83	123	129	100	43	5	0	0	0	0	0	0	129	0	22
3	0	0	0	0	0	0	0	0	0	0	1	25	72	101	129	99	41	5	0	0	0	0	0	0	129	0	20
4	0	0	0	0	0	0	0	0	0	0	1	11	51	53	27	31	31	7	0	0	0	0	0	0	53	0	9
5	0	0	0	0	0	0	0	0	0	0	1	9	28	52	49	39	21	1	0	0	0	0	0	0	52	0	9
6	0	0	0	0	0	0	0	0	0	0	0	2	10	20	26	32	18	3	0	0	0	0	0	0	32	0	5
7	0	0	0	0	0	0	0	0	0	0	0	5	18	29	25	17	7	2	0	0	0	0	0	0	29	0	4
8	0	0	0	0	0	0	0	0	0	0	1	7	27	30	32	23	16	2	0	0	0	0	0	0	32	0	6
9	0	0	0	0	0	0	0	0	0	0	0	7	25	38	37	23	10	1	0	0	0	0	0	0	38	0	6
10	0	0	0	0	0	0	0	0	0	0	0	7	19	20	21	16	7	1	0	0	0	0	0	0	21	0	4
11	0	0	0	0	0	0	0	0	0	0	1	14	60	101	109	73	21	3	0	0	0	0	0	0	109	0	16
12	0	0	0	0	0	0	0	0	0	0	0	15	34	37	44	36	18	2	0	0	0	0	0	0	44	0	8
13	0	0	0	0	0	0	0	0	0	0	0	5	25	45	73	41	27	3	0	0	0	0	0	0	73	0	9
14	0	0	0	0	0	0	0	0	0	0	1	18	73	109	109	80	28	3	0	0	0	0	0	0	109	0	18
15	0	0	0	0	0	0	0	0	0	0	0	10	43	86	99	77	31	3	0	0	0	0	0	0	99	0	15
16	0	0	0	0	0	0	0	0	0	0	0	8	27	47	51	41	17	3	0	0	0	0	0	0	51	0	8
17	0	0	0	0	0	0	0	0	0	0	0	12	56	103	112	81	34	4	0	0	0	0	0	0	112	0	17
18	0	0	0	0	0	0	0	0	0	0	1	16	72	120	130	101	45	4	0	0	0	0	0	0	130	0	20
19	0	0	0	0	0	0	0	0	0	0	0	11	56	101	114	87	36	3	0	0	0	0	0	0	114	0	17
20	0	0	0	0	0	0	0	0	0	0	0	4	20	31	34	31	15	1	0	0	0	0	0	0	34	0	6
21	0	0	0	0	0	0	0	0	0	0	0	9	41	44	44	28	14	2	0	0	0	0	0	0	44	0	8
22	0	0	0	0	0	0	0	0	0	0	0	11	19	29	31	34	22	3	0	0	0	0	0	0	34	0	6
23	0	0	0	0	0	0	0	0	0	0	0	6	39	103	109	82	33	4	0	0	0	0	0	0	109	0	16
24	0	0	0	0	0	0	0	0	0	0	0	3	16	28	29	21	10	1	0	0	0	0	0	0	29	0	5
25	0	0	0	0	0	0	0	0	0	0	0	11	54	99	113	88	38	5	0	0	0	0	0	0	113	0	17
26	0	0	0	0	0	0	0	0	0	0	0	3	19	32	39	28	12	2	0	0	0	0	0	0	39	0	6
27	0	0	0	0	0	0	0	0	0	0	0	4	21	18	19	14	7	1	0	0	0	0	0	0	21	0	4
28	0	0	0	0	0	0	0	0	0	0	0	10	52	97	111	60	25	3	0	0	0	0	0	0	111	0	15
29	0	0	0	0	0	0	0	0	0	0	0	7	33	59	71	48	18	4	0	0	0	0	0	0	71	0	10
30	0	0	0	0	0	0	0	0	0	0	0	4	19	32	37	30	14	3	0	0	0	0	0	0	37	0	6
31	0	0	0	0	0	0	0	0	0	0	0	4	19	35	47	34	17	3	0	0	0	0	0	0	47	0	7
Max.	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**34**	**84**	**123**	**131**	**101**	**45**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**131**		
Min.	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**10**	**18**	**19**	**14**	**7**	**1**	**0**	**0**	**0**	**0**	**0**	**0**		**0**	
Avg.	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**10**	**39**	**63**	**69**	**51**	**23**	**3**	**0**	**0**	**0**	**0**	**0**	**0**			**11**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Barometric Pressure (mbar)

January *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	932	931	930	929	929	929	930	929	929	929	929	930	930	930	930	931	931	931	931	931	931	931	932	932	932	929	930.2
2	932	933	933	933	933	934	934	934	935	935	935	936	936	936	936	937	937	938	938	939	938	939	939	939	939	932	935.8
3	940	940	940	940	940	940	940	941	942	942	942	942	942	943	944	944	943	944	944	944	944	945	945	945	945	940	942.3
4	945	944	944	943	943	942	942	941	940	941	941	941	941	941	941	941	940	941	941	941	941	941	941	942	945	940	941.5
5	942	942	942	943	943	944	944	945	946	947	948	949	950	951	952	953	953	954	955	955	955	955	955	956	956	942	949.2
6	956	956	956	956	956	956	955	955	955	955	955	955	955	956	956	956	956	956	957	957	957	957	957	958	958	955	956.0
7	958	959	958	957	958	958	960	960	963	963	964	966	967	968	970	971	971	971	972	973	974	975	976	976	976	957	966.2
8	977	978	978	979	979	979	979	979	980	980	980	980	980	981	981	980	980	981	981	981	982	983	984	984	984	977	980.2
9	984	984	985	985	984	984	985	984	984	984	984	984	984	983	983	983	982	982	982	981	981	981	980	980	985	980	983.1
10	980	979	979	979	978	977	976	974	973	973	972	972	972	972	970	971	970	970	971	970	970	970	970	970	980	970	973.2
11	970	970	969	969	969	968	968	967	967	968	967	966	967	966	965	964	965	964	964	963	962	962	961	960	970	960	966.0
12	960	960	959	959	958	958	958	958	958	958	959	958	957	956	955	954	953	953	952	953	954	955	954	958	960	952	956.5
13	959	962	962	963	964	965	965	965	965	966	966	967	966	966	965	965	964	963	963	962	961	960	959	959	967	959	963.5
14	958	956	956	955	954	953	952	951	952	953	952	952	955	955	955	957	958	959	959	959	960	960	961	961	961	951	956.0
15	961	961	961	961	961	962	962	962	962	963	963	963	964	964	965	966	965	966	968	967	967	967	967	967	968	961	963.9
16	967	967	966	964	964	962	961	961	959	958	957	956	955	954	953	951	951	950	950	951	952	952	953	953	967	950	957.1
17	954	955	955	956	956	956	956	956	956	956	956	956	956	956	955	955	954	955	955	956	955	955	954	954	956	954	955.4
18	954	953	952	951	950	950	949	948	948	947	946	947	946	946	945	945	945	944	944	944	944	945	945	946	954	944	947.3
19	946	946	947	947	947	948	948	949	949	950	950	950	951	951	951	951	950	950	950	951	951	951	951	951	951	946	949.3
20	951	950	950	950	949	949	948	948	948	947	947	946	945	945	943	942	942	941	941	940	939	939	939	939	951	939	945.0
21	939	939	939	940	940	940	941	941	942	942	943	944	944	944	945	945	945	946	946	947	947	948	948	949	949	939	943.5
22	950	950	951	952	952	952	953	953	953	954	954	955	955	955	955	956	956	956	957	957	957	957	958	958	958	950	954.4
23	958	958	958	958	958	959	959	959	959	959	959	959	959	959	959	959	959	959	959	959	960	960	960	961	961	958	959.1
24	961	961	961	961	961	960	961	961	962	961	962	963	964	964	964	964	964	965	964	965	965	965	965	964	965	960	962.8
25	963	963	962	961	958	957	955	953	952	952	951	950	949	948	948	949	949	949	948	948	947	946	948	948	963	946	952.4
26	948	948	947	947	945	946	946	947	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	961	961	945	952.0
27	962	962	961	961	961	961	962	962	961	962	962	960	960	960	960	958	957	958	957	956	955	955	955	956	962	955	959.3
28	956	956	956	956	956	957	957	958	958	960	961	962	963	963	963	963	965	965	965	965	966	966	966	967	967	956	961.1
29	966	965	965	964	962	962	960	961	958	961	961	961	958	959	959	959	959	957	958	958	958	961	964	967	967	957	960.8
30	967	968	970	971	971	971	970	970	967	967	964	966	966	966	964	968	969	971	972	972	972	971	973	973	973	964	969.1
31	971	971	971	971	971	971	971	971	971	972	973	972	973	973	972	972	971	971	971	970	970	969	970	969	973	969	971.0
Max.	**984**	**984**	**985**	**985**	**984**	**984**	**985**	**984**	**984**	**984**	**984**	**984**	**984**	**983**	**983**	**983**	**982**	**982**	**982**	**981**	**982**	**983**	**984**	**984**	**985**		
Min.	**932**	**931**	**930**	**929**	**929**	**929**	**930**	**929**	**929**	**929**	**929**	**930**	**930**	**930**	**930**	**931**	**931**	**931**	**931**	**931**	**931**	**931**	**932**	**932**		**929**	
Avg.	**957**	**957**	**957**	**957**	**957**	**956**	**956**	**956**	**956**	**957**	**957**	**957**	**957**	**957**	**957**	**957**	**957**	**957**	**957**	**957**	**957**	**957**	**958**	**958**			**956.9**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Barometric Pressure (mbar)

February 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	968	967	965	966	965	964	963	963	962	961	960	960	959	958	955	955	953	953	951	953	954	955	956	955	968	951	959.2
2	957	957	958	958	958	959	959	959	959	959	960	961	961	962	963	963	964	965	965	965	966	966	966	967	967	957	961.6
3	967	967	968	968	968	968	968	968	969	969	969	969	969	969	969	969	969	969	969	968	968	968	968	969	969	967	968.5
4	969	969	969	969	968	968	968	968	968	968	968	968	968	968	968	967	967	967	967	968	968	968	968	968	969	967	968.0
5	969	969	969	969	969	970	969	969	970	970	970	970	970	971	970	970	969	969	968	969	969	969	969	969	971	968	969.4
6	968	968	967	967	966	966	966	966	966	967	967	967	967	967	967	967	967	967	968	968	968	968	967	967	968	966	967.1
7	967	968	968	968	967	967	967	967	967	967	968	968	967	967	967	967	966	967	967	967	967	967	967	967	968	966	967.1
8	967	967	967	967	967	967	967	967	968	968	968	969	969	969	969	969	969	969	969	969	970	970	970	970	970	967	968.4
9	970	970	971	971	971	971	971	971	971	971	972	972	972	972	972	972	972	972	973	973	973	973	973	972	973	970	971.7
10	972	972	972	971	971	971	970	970	969	969	968	968	967	966	966	965	965	964	963	963	962	962	961	961	972	961	967.1
11	961	960	960	959	959	958	958	958	958	959	958	958	958	958	958	958	957	957	957	957	957	957	957	957	961	957	958.2
12	957	957	957	957	957	957	957	956	957	956	957	956	956	956	955	955	955	954	954	954	953	953	952	951	957	951	955.4
13	951	950	949	948	947	947	947	947	946	946	945	945	945	945	944	945	945	945	945	946	947	947	948	949	951	944	946.7
14	949	949	949	950	950	950	950	950	950	951	951	951	951	951	951	950	950	950	950	950	950	950	950	950	951	949	950.2
15	950	950	950	950	950	950	950	950	951	951	952	952	953	953	953	953	954	954	955	955	955	956	957	957	957	950	952.6
16	958	958	959	959	959	959	960	960	960	961	961	962	962	962	962	962	962	962	962	962	962	962	961	961	962	958	960.7
17	961	961	960	960	959	958	958	957	956	955	955	954	952	952	951	950	949	949	948	948	948	948	948	948	961	948	953.6
18	949	949	949	949	949	949	949	949	949	949	949	949	949	948	948	947	947	946	946	946	946	946	946	946	949	946	947.9
19	946	946	946	946	946	946	946	946	946	946	947	947	947	947	946	946	947	947	947	946	947	948	949	951	951	946	946.7
20	951	952	952	953	955	956	956	958	960	960	961	962	961	960	962	961	962	962	962	963	965	966	967	968	968	951	959.8
21	968	966	965	965	965	967	967	967	966	967	967	967	968	968	967	967	967	967	966	966	966	966	966	966	968	965	966.5
22	966	965	965	965	965	964	964	963	963	963	963	963	963	962	962	961	961	961	960	960	960	960	960	960	966	960	962.4
23	960	960	960	959	960	960	959	960	961	961	962	963	963	964	964	964	965	965	965	966	965	966	967	967	967	959	962.6
24	967	967	967	968	968	968	968	968	969	969	969	967	968	969	968	968	969	969	971	971	972	972	973	972	973	967	968.9
25	975	976	976	975	978	979	980	980	980	981	981	980	980	980	980	980	979	979	980	980	980	980	980	980	981	975	979.1
26	980	980	980	980	980	981	982	982	983	983	983	983	983	982	983	982	982	982	982	982	981	981	981	981	983	980	981.7
27	980	980	980	979	978	978	977	977	977	977	976	976	975	975	974	974	973	973	972	972	972	971	971	971	980	971	975.4
28	971	971	970	970	969	969	968	968	968	968	968	968	968	968	968	968	968	968	968	969	968	969	969	970	971	968	968.7
Max.	**980**	**980**	**980**	**980**	**980**	**981**	**982**	**982**	**983**	**983**	**983**	**983**	**983**	**982**	**983**	**982**	**982**	**982**	**982**	**982**	**981**	**981**	**981**	**981**	**983**		
Min.	**946**	**946**	**946**	**946**	**946**	**946**	**946**	**946**	**946**	**946**	**945**	**945**	**945**	**945**	**944**	**945**	**945**	**945**	**945**	**946**	**946**	**946**	**946**	**946**		**944**	
Avg.	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**			**963.0**

Total Hours in Month 672 **Hours Data Available** 672 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Barometric Pressure (mbar)

March *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	970	970	969	970	969	969	968	969	969	969	969	969	969	968	968	968	967	967	967	967	968	968	968	967	970	967	968.4
2	968	967	966	968	967	968	968	968	968	969	969	969	970	970	967	968	969	968	969	968	968	968	970	971	971	966	968.3
3	970	972	973	973	972	973	974	975	975	976	977	977	978	978	978	978	978	978	978	978	977	976	975	976	978	970	975.7
4	976	975	975	975	976	975	974	974	973	973	971	972	972	972	970	970	969	967	969	969	967	966	965	963	976	963	971.1
5	963	964	964	962	961	961	960	959	960	960	960	959	961	960	960	961	960	960	960	959	958	958	958	959	964	958	960.3
6	957	956	956	958	956	955	954	955	955	952	950	951	950	947	946	947	945	945	943	943	942	941	940	941	958	940	949.3
7	939	942	942	945	942	939	944	948	949	947	947	947	949	948	950	945	947	948	947	947	947	946	943	943	950	939	945.5
8	944	944	945	944	944	945	945	946	946	946	947	947	947	947	947	946	945	945	944	943	943	944	944	945	947	943	945.1
9	945	945	945	945	945	945	945	947	946	947	948	948	948	948	948	949	949	950	950	951	951	951	952	952	952	945	947.9
10	952	952	953	953	953	953	953	953	953	953	953	955	955	954	954	954	954	953	953	953	954	954	954	954	955	952	953.3
11	953	953	952	953	951	952	952	951	952	952	954	955	955	955	955	955	956	953	955	955	954	956	956	957	957	951	953.9
12	958	956	958	958	958	958	960	960	951	952	953	954	954	968	969	970	971	971	972	972	973	973	973	974	974	951	963.1
13	974	974	975	973	975	974	975	975	975	975	976	975	976	975	974	975	974	975	975	973	973	975	974	972	976	972	974.5
14	973	973	974	975	975	972	972	972	972	974	974	972	973	971	971	969	970	969	970	970	969	968	970	969	975	968	971.4
15	970	969	970	969	969	969	969	969	969	970	970	969	969	969	969	968	968	967	967	967	966	967	966	967	970	966	968.5
16	966	966	966	965	965	965	965	965	965	964	964	964	964	963	963	962	962	962	962	962	962	962	962	962	966	962	963.7
17	962	962	962	962	962	962	962	962	962	963	963	963	964	964	964	964	964	964	965	965	966	967	967	968	968	962	963.7
18	968	968	968	969	969	969	969	970	970	970	970	971	970	970	970	970	970	969	969	969	968	968	968	968	971	968	969.2
19	967	967	966	965	964	964	963	963	962	962	961	960	960	959	957	957	957	956	956	955	954	954	954	953	967	953	959.8
20	953	953	952	951	950	949	948	947	945	944	943	942	939	938	935	934	932	931	929	929	929	928	928	928	953	928	939.9
21	929	929	929	929	930	930	930	930	931	931	933	934	935	936	937	938	939	939	940	941	942	943	943	944	944	929	935.0
22	945	945	947	946	947	948	947	946	946	946	947	947	947	947	946	946	945	945	945	945	944	944	944	943	948	943	945.7
23	943	943	942	941	942	943	943	943	943	943	944	945	944	944	945	945	946	946	947	947	948	949	949	951	951	941	944.9
24	951	952	952	953	954	954	955	955	955	956	957	957	958	958	958	958	958	958	958	959	959	959	959	959	959	951	956.4
25	959	959	959	959	960	960	960	959	960	960	960	961	961	961	961	960	960	959	959	958	957	957	956	955	961	955	959.2
26	954	954	953	952	952	952	952	953	953	954	954	955	957	957	958	958	958	959	960	961	962	962	963	964	964	952	956.4
27	964	966	967	968	968	969	969	970	970	970	971	972	972	972	972	974	973	975	975	976	976	977	976	976	977	964	971.5
28	976	976	976	976	976	977	977	975	975	976	975	976	975	975	975	975	975	975	975	976	976	976	976	977	977	975	975.6
29	977	977	977	977	977	978	978	978	979	979	980	980	980	980	980	981	981	981	981	981	982	982	982	983	983	977	979.7
30	982	982	982	982	983	983	983	984	984	984	984	984	984	985	985	985	985	985	985	985	985	985	986	986	986	982	984.1
31	986	986	986	986	986	986	986	986	986	986	986	987	987	986	986	986	986	986	986	986	986	986	985	986	987	985	985.9
Max.	**986**	**986**	**986**	**986**	**986**	**986**	**986**	**986**	**986**	**986**	**986**	**987**	**987**	**986**	**986**	**986**	**986**	**986**	**986**	**986**	**986**	**986**	**986**	**986**	**987**		
Min.	**929**	**929**	**929**	**929**	**930**	**930**	**930**	**930**	**931**	**931**	**933**	**934**	**935**	**936**	**935**	**934**	**932**	**931**	**929**	**929**	**929**	**928**	**928**	**928**		**928**	
Avg.	**961**	**961**	**961**	**961**	**961**	**961**	**961**	**962**	**961**	**961**	**962**	**962**	**962**	**962**	**962**	**962**	**962**	**962**	**962**	**962**	**961**	**962**	**962**	**962**			**961.5**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Barometric Pressure (mbar)

April *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	985	985	985	985	984	984	984	984	983	983	983	983	982	982	982	981	981	981	980	980	980	980	980	980	985	980	982.5
2	980	980	980	979	979	979	979	979	978	978	978	979	978	978	978	978	978	978	978	977	977	977	977	978	980	977	978.3
3	977	977	977	977	977	977	977	977	976	976	976	976	976	976	975	975	974	974	973	973	973	972	972	972	977	972	975.2
4	971	970	969	969	968	967	967	966	965	965	964	964	964	963	962	962	960	960	960	959	958	958	958	957	971	957	963.6
5	956	956	955	954	953	952	951	950	949	948	946	945	944	944	943	943	944	945	945	947	948	948	948	949	956	943	948.6
6	949	949	949	949	949	948	948	948	947	946	944	943	940	939	937	935	934	932	931	929	928	928	927	928	949	927	939.8
7	928	930	931	933	934	936	938	940	941	942	943	944	944	944	944	944	944	943	943	943	942	942	941	940	944	928	939.8
8	939	938	937	936	936	936	935	935	934	934	934	933	933	933	933	934	934	934	934	935	935	936	937	937	939	933	935.1
9	938	939	939	939	940	940	941	941	942	943	944	945	946	946	947	947	948	948	949	949	950	951	952	953	953	938	944.9
10	954	954	954	955	956	956	957	957	958	959	959	960	961	961	961	962	962	962	963	964	964	965	965	966	966	954	959.7
11	966	966	966	966	966	966	966	966	966	966	966	966	966	965	965	964	964	963	963	963	963	963	962	962	966	962	964.8
12	961	961	960	960	959	959	959	958	958	958	957	957	956	956	955	955	954	954	954	953	953	953	953	953	961	953	956.5
13	952	952	952	952	951	951	952	952	952	952	952	952	952	952	952	952	952	952	952	953	953	953	953	953	953	951	952.1
14	953	953	953	953	953	953	953	953	953	953	953	952	952	952	951	951	950	950	950	950	950	950	950	949	953	949	951.7
15	949	950	949	949	949	949	949	949	949	949	950	950	950	950	950	950	950	951	951	951	952	952	953	953	953	949	950.3
16	954	954	954	955	956	956	957	958	958	959	960	961	961	962	962	963	964	965	965	966	966	966	966	965	966	954	960.5
17	965	965	964	963	962	961	960	960	960	959	958	958	958	957	956	956	955	954	952	953	953	954	953	953	965	952	957.9
18	954	955	955	955	956	956	957	958	958	958	959	961	961	962	962	964	965	965	966	966	966	966	966	966	966	954	960.7
19	965	965	966	965	964	964	964	963	963	962	962	962	962	961	962	961	961	960	961	960	959	959	959	958	966	958	961.9
20	959	958	958	957	957	957	957	957	956	956	957	957	957	957	957	958	958	959	959	959	960	960	961	961	961	956	957.9
21	961	961	961	961	961	961	961	961	960	960	960	959	958	958	958	958	958	958	957	957	957	957	957	957	961	957	959.0
22	956	955	954	954	953	952	952	952	951	952	951	951	951	951	951	950	950	950	950	950	950	950	950	950	956	950	951.5
23	948	947	946	946	946	946	946	946	946	946	946	946	946	946	946	947	947	947	947	947	947	948	948	949	949	946	946.7
24	949	949	949	950	950	950	951	950	951	951	951	951	951	952	951	951	951	951	951	951	952	952	952	952	952	949	950.9
25	953	952	952	952	952	952	952	952	952	951	952	953	954	953	954	954	954	954	954	954	954	954	955	955	955	951	953.0
26	954	953	953	953	953	952	952	952	952	951	951	950	950	950	949	949	948	948	948	949	948	949	950	950	954	948	950.6
27	951	951	952	953	953	954	954	955	956	956	956	957	957	958	958	958	958	959	959	960	961	961	961	961	961	951	956.6
28	962	962	962	962	962	961	961	961	961	961	961	960	959	959	958	958	958	957	957	957	957	957	957	956	962	956	959.3
29	956	956	956	955	956	956	955	955	955	955	956	956	956	956	956	956	956	956	956	957	957	958	958	959	959	955	956.2
30	960	960	960	960	960	960	960	960	961	961	961	961	961	960	960	960	960	960	960	960	960	960	960	960	961	960	960.1
Max.	**985**	**985**	**985**	**985**	**984**	**984**	**984**	**984**	**983**	**983**	**983**	**983**	**982**	**982**	**982**	**981**	**981**	**981**	**980**	**980**	**980**	**980**	**980**	**980**	**985**		
Min.	**928**	**930**	**931**	**933**	**934**	**936**	**935**	**935**	**934**	**934**	**934**	**933**	**933**	**933**	**933**	**934**	**934**	**932**	**931**	**929**	**928**	**928**	**927**	**928**		**927**	
Avg.	**957**	**957**	**957**	**957**	**956**	**956**	**956**	**956**	**956**	**956**	**956**	**956**	**956**	**956**	**956**	**956**	**956**	**956**	**956**	**956**	**956**	**956**	**956**	**956**			**956.2**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Barometric Pressure (mbar)

May *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	961	961	961	961	961	961	962	962	962	962	962	962	962	962	962	962	962	962	962	962	962	962	962	962	962	961	961.7
2	962	962	961	961	961	960	960	961	961	961	961	961	961	961	961	961	961	962	962	963	964	964	964	964	964	960	961.8
3	965	965	965	965	965	965	965	965	965	965	965	965	964	964	964	964	964	964	964	965	965	965	965	965	965	964	964.7
4	965	965	965	965	965	965	966	966	966	966	966	966	966	966	965	965	965	966	966	966	966	966	966	966	966	965	965.6
5	966	966	966	966	966	966	967	966	966	966	966	966	967	966	966	966	966	965	965	965	965	965	966	966	967	965	966.1
6	966	966	965	965	966	966	966	966	966	966	966	966	966	966	966	966	966	966	966	966	967	967	968	968	968	965	966.1
7	968	969	969	969	970	970	970	970	971	971	971	971	971	971	971	971	971	971	971	971	972	972	972	973	973	968	970.7
8	973	973	973	973	973	973	973	974	974	974	973	973	973	973	972	972	971	971	971	971	971	971	971	970	974	970	972.3
9	970	970	970	970	970	970	970	970	970	971	971	971	971	971	971	971	972	972	972	973	973	973	973	974	974	970	971.3
10	974	974	974	974	974	974	974	974	974	974	973	973	973	973	972	972	972	972	971	971	971	971	971	971	974	971	972.6
11	970	970	970	970	969	969	969	969	969	969	969	969	969	969	969	969	969	969	970	970	970	971	971	971	971	969	969.6
12	971	971	971	971	971	971	971	971	971	971	971	971	971	971	971	970	970	970	970	970	970	970	970	970	971	970	970.6
13	970	969	969	969	969	969	969	968	968	968	968	968	968	968	967	967	967	967	967	967	966	967	966	966	970	966	967.8
14	966	966	965	964	964	963	963	963	963	963	963	963	964	964	965	965	965	965	965	966	966	967	967	967	967	963	964.7
15	968	968	968	968	968	969	969	969	969	969	969	969	969	969	968	968	967	967	966	966	966	965	964	964	969	964	967.6
16	964	963	962	962	961	961	961	960	960	960	960	960	960	960	961	961	962	962	962	963	964	965	965	966	966	960	962.0
17	966	966	967	967	967	968	968	968	969	969	969	970	970	970	970	971	971	971	972	973	973	974	974	975	975	966	969.8
18	975	975	975	975	975	975	975	975	975	975	975	975	975	974	974	974	973	973	973	973	973	972	972	972	975	972	974.1
19	972	972	972	971	971	971	971	971	971	971	971	971	971	971	971	971	971	971	971	972	972	972	973	973	973	971	971.3
20	973	973	973	973	974	974	974	974	974	974	975	975	975	974	975	974	975	974	974	974	975	976	976	976	976	973	974.4
21	976	976	976	976	976	976	976	976	976	976	975	975	975	974	974	973	973	973	972	972	972	972	971	971	976	971	974.2
22	971	971	970	969	968	968	967	966	966	966	965	964	964	964	963	963	962	962	962	962	962	962	962	961	971	961	964.9
23	961	961	961	960	960	960	960	960	961	961	961	962	962	963	963	963	963	963	964	964	965	965	966	966	966	960	962.4
24	966	966	966	966	966	966	965	965	965	965	963	964	964	963	963	963	963	962	962	962	962	962	962	962	966	962	963.8
25	961	961	960	960	960	960	960	960	960	961	961	961	961	961	961	961	960	960	960	960	960	960	960	959	961	959	960.3
26	960	960	960	961	961	961	961	961	961	962	962	962	963	963	963	963	962	963	963	964	964	964	965	965	965	960	962.1
27	965	965	965	965	965	965	965	966	966	966	966	967	967	967	967	967	967	967	968	968	968	969	969	970	970	965	966.7
28	970	970	970	970	969	969	970	970	970	970	970	970	969	970	969	969	970	970	970	969	969	969	969	969	970	969	969.6
29	968	968	968	967	967	966	966	966	965	964	964	963	963	962	962	961	961	960	960	960	960	960	960	960	968	960	963.3
30	959	959	959	958	958	958	958	958	958	958	957	957	957	957	957	957	957	957	957	957	958	958	958	958	959	957	957.8
31	958	958	958	958	958	959	959	960	960	960	960	961	960	960	961	960	960	961	961	961	961	962	962	963	963	958	960.0
Max.	976	976	976	976	976	976	976	976	976	976	975	975	975	974	975	974	975	974	974	974	975	976	976	976	976		
Min.	958	958	958	958	958	958	958	958	958	958	957	957	957	957	957	957	957	957	957	957	958	958	958	958		957	
Avg.	967	967	967	967	967	967	967	967	967	967	967	967	967	967	967	966	966	966	966	967	967	967	967	967			966.8

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Barometric Pressure (mbar)

June *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	963	963	963	963	963	964	964	964	965	965	966	966	966	966	966	967	967	968	968	968	968	969	969	969	969	963	965.8
2	970	970	970	970	970	970	970	970	971	970	971	971	970	970	970	971	970	970	970	970	970	971	971	971	971	970	970.4
3	971	971	971	971	971	971	971	971	971	970	970	970	970	969	969	968	968	968	967	967	967	966	966	965	971	965	969.1
4	964	964	963	962	961	960	959	958	957	957	957	956	956	956	956	956	956	957	957	957	957	958	958	958	964	956	958.2
5	958	958	958	958	958	958	958	958	959	959	959	959	959	959	960	960	961	961	961	961	961	962	962	961	962	958	959.5
6	961	961	961	961	961	961	961	961	960	959	959	959	958	958	958	958	957	957	957	957	957	957	957	956	961	956	958.6
7	956	955	955	955	955	954	955	955	954	954	954	955	955	955	955	956	956	957	957	957	957	958	958	958	958	954	955.6
8	958	958	958	958	958	958	958	959	959	959	959	959	959	959	959	959	959	960	960	961	961	962	962	962	962	958	959.4
9	963	963	963	963	963	963	963	963	963	963	963	963	963	963	962	962	962	962	962	961	961	961	961	961	963	961	962.2
10	961	960	960	960	960	960	959	959	959	960	960	959	959	959	959	959	959	959	958	959	959	960	961	961	961	958	959.5
11	961	961	962	962	962	962	962	962	962	963	963	963	963	963	964	964	964	965	965	966	966	967	968	968	968	961	963.6
12	968	968	969	969	969	970	970	970	971	971	972	972	972	973	973	973	973	973	974	974	974	974	975	975	975	968	971.9
13	975	975	975	976	976	976	976	976	976	977	977	977	977	977	977	977	978	978	978	978	978	979	979	979	979	975	977.0
14	979	980	980	980	980	980	980	980	980	981	981	981	981	981	981	981	981	981	981	981	981	981	981	981	981	979	980.6
15	981	981	981	981	981	981	981	981	981	981	981	981	981	980	980	980	979	979	979	979	979	979	979	980	981	979	980.2
16	980	980	980	980	980	980	980	980	980	980	980	979	979	979	979	978	978	977	977	976	976	976	976	976	980	976	978.6
17	976	976	975	975	975	975	974	974	974	974	974	974	974	974	974	973	973	973	973	972	972	972	972	972	976	972	973.8
18	972	972	971	971	971	971	971	971	970	970	970	970	970	970	970	970	970	970	970	971	971	971	972	972	972	970	970.8
19	972	972	972	972	972	972	972	972	972	972	972	972	971	971	971	971	971	970	970	969	970	970	970	970	972	969	971.2
20	971	971	971	971	971	971	971	971	971	971	971	970	970	970	969	970	969	969	969	969	969	969	969	969	971	969	970.1
21	969	970	970	969	970	970	970	970	970	970	970	970	970	970	970	970	970	969	970	970	970	971	970	971	971	969	970.0
22	971	971	971	971	971	971	971	971	970	970	970	970	969	969	969	968	968	967	967	967	966	966	966	965	971	965	969.0
23	965	964	964	963	962	962	961	961	960	960	961	961	961	961	960	960	960	960	960	960	960	960	960	961	965	960	961.1
24	961	961	961	961	961	962	962	962	962	963	963	964	964	964	964	964	964	964	965	965	966	966	966	967	967	961	963.4
25	967	968	968	968	969	969	970	970	970	971	972	972	973	972	973	973	974	974	975	975	976	976	977	977	977	967	972.1
26	978	978	978	979	979	979	980	980	980	980	980	980	980	980	980	980	980	980	980	980	979	980	980	980	980	978	979.5
27	980	979	979	979	979	979	979	978	978	977	977	977	976	976	975	975	974	974	974	973	973	973	973	973	980	973	976.3
28	973	973	973	972	972	972	971	971	971	970	970	970	969	969	969	968	968	968	968	967	967	967	967	967	973	967	969.7
29	967	967	966	966	966	967	966	966	966	966	966	966	966	966	966	966	966	967	967	967	967	967	967	968	968	966	966.5
30	968	968	968	968	968	968	968	969	969	969	969	969	970	970	970	970	970	970	970	970	970	971	971	971	971	968	969.3
Max.	**981**	**981**	**981**	**981**	**981**	**981**	**981**	**981**	**981**	**981**	**981**	**981**	**981**	**981**	**981**	**981**	**981**	**981**	**981**	**981**	**981**	**981**	**981**	**981**	**981**		
Min.	**956**	**955**	**955**	**955**	**955**	**954**	**955**	**955**	**954**	**954**	**954**	**955**	**955**	**955**	**955**	**956**	**956**	**957**	**957**	**957**	**957**	**957**	**957**	**956**		**954**	
Avg.	**969**	**969**	**969**	**969**	**968**	**968**	**968**	**968**	**968**	**968**	**968**	**968**	**968**	**968**	**968**	**968**	**968**	**968**	**968**	**968**	**968**	**969**	**969**	**969**			**968.4**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Barometric Pressure (mbar)

July *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	971	971	971	971	971	971	971	971	971	971	971	971	971	971	971	971	971	971	971	971	972	972	972	973	973	971	971.3
2	973	973	973	973	973	973	973	973	972	972	972	972	972	972	971	971	971	971	970	970	970	970	971	971	973	970	971.7
3	971	971	971	971	971	971	971	971	972	972	972	972	972	972	972	971	971	971	971	971	971	971	971	971	972	971	971.4
4	971	971	971	971	970	971	971	970	971	971	971	970	971	970	970	970	970	970	970	970	970	970	970	971	971	970	970.5
5	971	971	971	971	971	971	971	971	971	971	971	970	971	971	971	971	971	971	971	972	973	973	973	973	973	970	971.2
6	974	974	974	974	974	974	974	975	975	975	975	975	976	975	975	975	975	975	975	975	975	975	976	976	976	974	974.9
7	976	976	976	976	977	977	976	977	977	977	977	976	976	975	975	975	974	975	974	974	974	973	973	973	977	973	975.4
8	973	973	972	972	972	971	971	971	971	971	971	972	971	971	971	971	971	971	971	971	971	971	971	971	973	971	971.5
9	971	971	971	971	971	971	971	970	970	970	970	969	969	968	968	967	967	967	966	966	966	966	966	965	971	965	968.6
10	965	965	965	964	964	964	964	964	964	963	963	963	963	964	964	964	964	964	965	965	965	965	966	966	966	963	964.2
11	966	966	966	966	966	967	967	967	967	967	967	967	968	968	968	968	968	967	967	968	968	968	968	968	968	966	967.2
12	968	968	968	968	968	968	968	968	968	968	968	968	967	967	968	968	968	969	969	969	969	969	970	970	970	967	968.3
13	970	970	970	970	971	970	971	971	971	971	971	971	971	971	971	971	971	971	971	971	971	971	971	971	971	970	971.0
14	972	972	971	971	971	972	972	972	972	972	972	972	972	972	972	972	972	972	973	973	973	973	973	973	973	971	972.1
15	973	973	973	973	973	973	973	973	973	973	973	973	973	973	973	973	973	973	973	973	973	973	973	973	973	973	973.1
16	973	973	973	973	973	973	973	973	973	973	973	973	973	973	972	972	972	972	972	972	971	972	972	971	973	971	972.5
17	972	971	971	971	971	971	970	970	970	969	969	968	968	968	967	967	967	967	967	967	967	967	967	967	972	967	968.6
18	966	966	966	966	966	966	965	965	965	965	964	964	964	964	964	964	964	964	963	963	964	964	964	964	966	963	964.5
19	964	964	964	963	963	964	963	963	963	963	963	963	963	963	962	962	962	962	962	962	962	962	962	962	964	962	962.8
20	962	962	962	962	962	962	962	962	962	962	962	962	962	962	962	962	962	962	962	962	962	963	963	963	963	962	962.0
21	964	964	964	964	964	964	964	964	964	964	964	964	964	964	964	964	964	963	963	963	963	963	963	963	964	963	963.6
22	963	962	962	962	961	961	961	961	961	961	961	961	961	961	961	961	961	961	961	961	961	961	961	961	963	961	961.2
23	962	962	962	962	962	962	962	962	962	963	963	963	963	963	963	963	963	963	963	963	963	964	963	964	964	962	962.7
24	964	963	963	963	963	963	963	962	963	963	963	964	963	963	963	963	963	963	963	964	963	964	964	965	965	962	963.2
25	964	964	965	965	965	965	965	966	966	966	967	967	968	968	968	968	968	967	968	969	969	969	970	970	970	964	966.9
26	970	970	970	970	970	970	970	970	970	970	970	970	970	970	970	970	970	969	970	970	970	970	970	970	970	969	970.0
27	970	970	970	970	970	970	970	970	971	971	971	971	970	970	970	969	969	969	969	970	970	970	970	970	971	969	970.0
28	970	970	970	970	970	970	970	970	971	970	970	970	970	969	969	968	968	968	968	968	968	968	968	969	971	968	969.3
29	969	969	969	968	968	968	968	968	968	968	968	968	968	968	968	968	968	968	968	968	968	969	969	969	969	968	968.3
30	969	970	970	970	970	971	971	971	971	971	972	972	972	972	972	972	972	972	973	973	973	973	973	973	973	969	971.5
31	973	973	973	973	973	973	973	973	974	974	974	974	974	974	974	974	973	974	974	974	974	974	974	974	974	973	973.6
Max.	976	976	976	976	977	977	976	977	977	977	977	976	976	975	975	975	975	975	975	975	975	975	976	976	977		
Min.	962	962	962	962	961	961	961	961	961	961	961	961	961	961	961	961	961	961	961	961	961	961	961	961		961	
Avg.	969	969	969	969	969	969	969	969	969	969	969	969	969	969	969	969	968	968	968	969	969	969	969	969			968.8

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Barometric Pressure (mbar)

August *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	973	973	973	973	973	973	973	973	973	973	973	973	974	973	973	973	973	972	972	972	972	971	971	971	974	971	972.7
2	972	971	970	970	970	969	970	969	969	969	969	969	969	968	968	968	968	968	968	968	968	969	969	969	972	968	969.1
3	969	969	970	970	970	970	971	971	971	971	972	972	972	971	971	971	971	971	972	971	971	972	971	971	972	969	970.8
4	971	970	971	970	970	970	971	970	971	971	971	972	972	972	972	972	973	973	973	973	973	972	972	971	973	970	971.4
5	970	971	970	970	970	971	971	971	971	972	972	971	972	972	973	972	973	973	973	972	972	973	973	974	974	970	971.7
6	974	974	974	974	975	975	975	976	975	976	976	976	977	976	976	976	976	976	976	976	976	976	976	976	977	974	975.6
7	976	975	975	976	976	976	975	975	975	975	975	975	975	974	974	974	974	974	974	974	974	974	975	975	976	974	974.8
8	975	975	974	974	974	975	975	975	975	975	975	975	975	975	975	975	975	975	975	975	975	975	975	975	975	974	974.9
9	975	975	975	975	975	975	975	975	976	976	976	976	976	976	975	975	975	975	975	975	976	976	976	976	976	975	975.4
10	977	977	977	977	977	977	977	977	977	978	978	978	978	978	978	978	978	978	978	978	979	979	979	979	979	977	977.5
11	979	979	980	980	980	980	980	980	980	980	981	980	980	980	980	980	981	981	981	981	981	981	981	981	981	979	980.4
12	981	981	982	982	982	982	982	982	982	983	983	983	983	983	983	982	982	982	982	982	983	983	983	983	983	981	982.3
13	983	983	983	983	983	983	982	982	983	982	982	981	981	980	980	979	979	979	978	978	978	978	978	978	983	978	980.7
14	978	979	978	979	978	978	977	977	976	976	975	975	974	973	973	972	971	971	971	970	970	971	970	970	979	970	974.3
15	970	970	969	969	970	970	969	969	969	969	970	969	970	970	970	970	969	969	969	969	969	969	969	969	970	969	969.4
16	969	969	969	968	968	968	968	968	968	968	968	968	967	967	966	966	966	966	966	966	966	966	966	966	969	966	967.2
17	966	965	965	965	965	965	965	965	965	965	965	965	965	964	964	964	964	964	964	964	964	964	964	963	966	963	964.5
18	963	962	961	961	960	960	959	958	958	957	957	956	956	954	954	953	952	952	952	951	951	951	951	951	963	951	955.9
19	952	952	951	951	951	950	950	950	951	952	952	952	953	953	953	953	954	954	955	955	956	956	957	957	957	950	952.9
20	958	958	958	958	958	959	959	960	960	960	961	961	961	961	961	961	962	962	963	963	963	964	964	964	964	958	960.8
21	965	965	965	965	965	965	966	966	966	967	967	968	968	968	969	969	969	969	969	969	970	970	971	971	971	965	967.6
22	971	971	971	971	971	971	971	972	972	972	972	972	972	972	972	971	971	971	971	971	970	970	970	970	972	970	971.2
23	970	970	970	969	969	969	969	969	969	969	968	968	968	968	967	967	967	966	966	966	965	965	965	964	970	964	967.6
24	964	964	964	963	963	963	963	963	963	963	963	963	964	963	963	963	963	963	963	964	964	964	965	965	965	963	963.5
25	965	965	965	965	965	966	966	966	966	966	967	967	967	966	966	966	965	965	966	966	967	967	967	967	967	965	966.0
26	967	967	967	967	967	967	967	967	968	967	968	968	968	967	968	968	968	968	968	968	969	969	969	969	969	967	967.7
27	969	969	969	969	970	970	970	970	970	970	970	970	970	971	971	971	970	970	971	971	971	971	972	972	972	969	970.3
28	972	972	972	972	972	972	972	972	972	972	972	972	972	971	971	970	970	969	969	969	969	969	968	968	972	968	970.8
29	968	968	968	968	968	967	967	967	966	966	966	966	966	966	966	965	965	965	965	964	964	964	965	964	968	964	965.9
30	964	964	964	964	963	964	964	964	964	964	964	964	964	964	964	964	963	963	963	963	964	964	964	963	964	963	963.7
31	964	964	964	964	964	964	964	964	964	965	965	965	964	964	964	964	964	964	964	964	965	965	965	965	965	964	964.3
Max.	983	983	983	983	983	983	982	982	983	983	983	983	983	983	983	982	982	982	982	982	983	983	983	983	983		
Min.	952	952	951	951	951	950	950	950	951	952	952	952	953	953	953	953	952	952	952	951	951	951	951	951		950	
Avg.	970	970	970	970	970	970	970	970	970	970	970	970	970	970	970	969	969	969	969	969	969	970	970	970			969.7

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Barometric Pressure (mbar)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	966	966	966	966	966	967	967	968	968	968	968	969	968	969	969	968	968	968	969	969	969	969	970	970	970	966	967.9
2	970	970	970	970	970	970	970	970	970	970	970	970	970	969	969	969	968	968	967	967	967	967	966	966	970	966	968.9
3	965	965	964	963	962	962	961	960	960	959	959	958	958	957	956	955	955	954	954	954	953	953	951	953	965	951	957.8
4	952	952	952	953	953	953	953	953	953	953	954	954	954	954	954	954	955	955	955	955	956	956	957	958	958	952	954.1
5	958	959	959	959	960	960	961	961	962	962	962	962	962	962	962	962	963	963	963	963	964	964	964	965	965	958	961.8
6	965	965	966	967	967	968	968	968	968	969	969	969					969	969	969	969	969	970	970	970	970	965	968.2
7	970	971	971	970	971	970	970	970	970	970	970	968	968	967	966	965	965	964	963	961	961	960	959	958	971	958	966.6
8	958	960	960	960	960	960	961	961	960	961	961	960	961	960	961	961	962	962	962	963	964	964	965	965	965	958	961.3
9	965	966	966	966	966	966	966	967	967	967	967	968	968	968	968	968	967	968	968	968	968	969	969	970	970	965	967.3
10	970	970	971	971	972	972	972	972	972	973	973	973	973	973	973	972	972	972	972	972	972	971	971	971	973	970	971.9
11	972	972	972	971	972	971	971	970	971	971	970	969	971	967	967	967	965	964	965	964	963	963	963	963	972	963	968.1
12	964	963	964	964	964	964	964	964	965	965	965	965	965	965	965	966	966	966	967	967	968	969	969	970	970	963	965.6
13	971	971	971	971	971	971	971	971	971	972	972	972	972	972	971	971	971	970	970	971	971	971	971	970	972	970	971.1
14	970	970	970	969	969	969	968	968	967	967	967	967	966	966	966	965	965	964	964	964	963	963	963	963	970	963	966.4
15	963	962	963	963	963	963	963	963	963	963	963	963	964	964	964	964	965	965	965	966	966	966	966	967	967	962	964.1
16	967	967	968	968	968	969	969	969	969	970	970	970	970	970	970	970	970	971	971	971	971	972	972	972	972	967	969.8
17	972	973	973	973	974	973	974	974	974	974	974	975	975	975	975	974	974	974	974	974	974	973	973	972	975	972	973.8
18	972	972	972	971	970	969	966	966	966	965	965	964	962	961	961	961	961	960	960	959	959	959	960	961	972	959	964.1
19	961	961	961	961	962	962	962	962	962	962	962	963	962	962	962	963	962	962	962	963	963	963	963	963	963	961	962.2
20	963	963	963	963	962	962	961	960	960	960	960	959	959	959	959	959	959	959	959	959	960	960	961	961	963	959	960.5
21	962	962	963	963	963	964	965	965	965	966	966	966	967	968	968	968	968	968	968	969	969	969	970	969	970	962	966.3
22	969	969	968	968	968	967	967	966	966	966	965	964	963	962	961	960	959	959	958	956	957	956	956	956	969	956	962.9
23	956	956	955	955	955	955	956	956	956	956	957	956	957	956	956	956	956	955	955	955	955	955	955	955	957	955	955.7
24	955	955	955	955	956	956	957	957	957	958	958	958	958	958	958	957	957	956	956	955	955	955	955	956	958	955	956.5
25	956	957	957	958	958	958	959	959	959	960	960	961	961	960	961	961	960	960	960	960	960	960	960	961	961	956	959.4
26	961	961	961	961	962	962	963	963	963	963	964	964	964	964	964	964	964	964	965	965	965	966	966	967	967	961	963.5
27	967	967	968	968	968	968	968	967	967	967	967	966	966	964	964	963	961	960	957	956	954	952	951	949	968	949	962.7
28	948	947	946	945	945	943	944	943	943	944	944	944	944	944	944	944	944	944	945	945	946	946	947	948	948	943	944.8
29	948	949	949	950	951	951	951	952	953	953	953	954	954	954	954	954	954	953	953	953	952	952	952	952	954	948	952.2
30	952	952	952	952	952	951	950	950	949	949	949	948	949	948	948	947	946	946	945	945	945	945	945	945	952	945	948.4
Max.	**972**	**973**	**973**	**973**	**974**	**973**	**974**	**974**	**974**	**974**	**974**	**975**	**975**	**975**	**975**	**974**	**974**	**974**	**974**	**974**	**974**	**973**	**973**	**972**	**975**		
Min.	**948**	**947**	**946**	**945**	**945**	**943**	**944**	**943**	**943**	**944**	**944**	**944**	**944**	**944**	**944**	**944**	**944**	**944**	**945**	**945**	**945**	**945**	**945**	**945**		**943**	
Avg.	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**963**	**962**	**962**	**962**	**962**	**962**	**962**	**962**	**962**	**962**			**962.8**

Total Hours in Month 720 **Hours Data Available** 716 **Data Recovery** 99.4%

HCG, Inc.

Pebble 4 Meteorological Station - Barometric Pressure (mbar)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	945	946	946	946	947	947	947	947	947	948	948	949	949	950	950	950	951	951	951	952	953	954	954	954	954	945	949.2
2	955	955	956	956	956	956	956	957	957	958	959	960	961	961	962	962	963	964	964	965	965	966	966	967	967	955	960.3
3	968	968	969	969	970	970	970	971	971	972	972	972	973	972	973	973	973	974	974	973	973	972	972	971	974	968	971.5
4	970	969	968	967	965	964	963	962	960	959	957	957	955	954	953	952	951	950	949	948	948	947	947	947	970	947	956.7
5	945	944	943	942	941	940	939	939	938	938	938	940	942	943	944	944	945	946	947	948	949	950	950	950	950	938	943.6
6	950	950	951	951	952	953	953	954	955	956	956	956	958	957	958	959	959	959	959	959	959	959	959	958	959	950	955.9
7	958	958	958	957	957	957	957	957	957	958	958	958	959	959	959	959	960	960	960	960	961	961	962	963	963	957	958.9
8	964	966	965	967	968	968	968	970	968	970	972	972	972	972	972	972	972	972	972	972	972	971	970	970	972	964	969.9
9	969	969	969	968	968	967	967	967	966	966	966	965	965	964	963	963	962	962	962	961	961	961	961	961	969	961	964.7
10	960	960	959	959	959	958	958	957	958	957	957	957	956	956	957	956	956	955	956	956	956	956	956	956	960	955	957.1
11	956	955	955	956	956	955	955	955	955	955	956	955	955	955	954	954	954	953	953	952	952	952	952	952	956	952	954.3
12	951	951	951	950	950	950	949	949	948	948	947	947	947	946	945	945	944	944	944	943	943	943	943	942	951	942	946.7
13	942	942	942	942	941	941	941	941	941	941	942	942	942	943	944	944	944	945	945	946	946	947	947	948	948	941	943.4
14	948	948	949	950	950	950	950	950	950	950	950	950	950	950	950	949	949	949	948	948	947	947	947	947	950	947	949.0
15	946	946	946	947	947	947	947	947	947	948	948	949	949	949	949	949	949	950	950	950	950	950	950	950	950	946	948.4
16	951	951	951	951	951	951	951	951	951	951	951	950	950	950	950	949	950	950	949	950	949	949	949	949	951	949	950.2
17	950	949	949	949	949	949	948	948	948	948	948	949	949	948	948	948	948	948	948	948	949	949	949	949	950	948	948.6
18	949	949	949	949	949	949	949	949	949	949	950	950	950	950	950	950	950	950	951	951	951	951	951	952	952	949	949.9
19	952	952	952	952	952	952	952	952	953	953	953	953	953	954	953	953	953	953	953	953	953	954	954	954	954	952	952.9
20	954	955	955	955	954	954	954	954	954	955	955	955	955	954	954	953	953	953	952	952	951	951	952	951	955	951	953.5
21	952	951	952	952	952	952	952	952	953	953	954	954	954	953	953	953	953	953	953	954	954	954	954	954	954	951	952.9
22	954	954	954	954	954	955	955	955	956	956	957	958	958	959	959	959	959	959	960	960	961	961	961	962	962	954	957.5
23	962	962	962	963	963	963	963	963	964	964	964	965	964	964	964	963	963	963	964	965	965	965	965	965	965	962	963.7
24	965	965	965	965	965	965	965	965	965	965	965	965	966	966	966	966	966	966	966	966	966	966	965	964	966	964	965.4
25	964	963	962	961	960	957	957	956	954	952	951	952	951	951	950	949	949	950	951	953	955	956	957	957	964	949	954.9
26	957	957	958	958	958	958	958	958	959	959	959	959	960	959	959	959	958	958	957	957	957	957	956	956	960	956	958.1
27	957	956	956	956	956	956	956	956	956	956	956	956	956	956	956	956	956	956	957	957	957	957	958	958	958	956	956.3
28	958	958	958	959	959	959	959	959	960	960	960	960	960	960	960	960	959	958	958	957	956	955	954	953	960	953	958.4
29	952	951	950	949	948	947	945	944	943	942	941	939	940	939	938	937	936	935	934	933	933	933	932	930	952	930	940.5
30	930	928	927	926	924	923	924	924	925	925	926	927	928	929	929	930	931	932	933	934	935	936	937	939	939	923	929.3
31	940	940	941	942	944	944	945	946	946	946	948	949	950	950	950	949	949	948	948	946	945	944	943	941	950	940	945.6
Max.	**970**	**969**	**969**	**969**	**970**	**970**	**970**	**971**	**971**	**972**	**972**	**972**	**973**	**972**	**973**	**973**	**973**	**974**	**974**	**973**	**973**	**972**	**972**	**971**	**974**		
Min.	**930**	**928**	**927**	**926**	**924**	**923**	**924**	**924**	**925**	**925**	**926**	**927**	**928**	**929**	**929**	**930**	**931**	**932**	**933**	**933**	**933**	**933**	**932**	**930**		**923**	
Avg.	**954**	**954**	**954**	**954**	**954**	**953**	**953**	**953**	**953**	**953**	**954**	**954**	**954**	**954**	**954**	**954**	**954**	**954**	**954**	**954**	**954**	**954**	**954**	**954**			**953.8**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Barometric Pressure (mbar)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	941	940	940	939	939	939	939	939	940	941	941	942	943	943	944	944	945	946	946	948	948	950	950	951	951	939	943.3
2	952	953	954	954	955	955	955	956	956	957	957	958	958	959	959	959	960	961	962	962	963	963	963	963	963	952	958.1
3	964	965	966	966	967	967	968	968	968	969	969	970	970	969	969	969	969	969	969	968	968	967	967	967	970	964	967.7
4	966	966	965	964	964	963	963	962	963	963	963	963	963	963	963	963	963	963	963	964	964	964	964	964	966	962	963.6
5	964	964	964	964	964	963	963	963	963	964	964	964	964	964	964	964	963	962	962	962	962	961	961	961	964	961	963.0
6	961	960	960	959	958	957	956	955	954	953	953	952	950	949	949	949	948	949	949	948	949	950	952	953	961	948	953.1
7	954	953	953	953	952	952	951	951	951	952	952	952	952	952	953	954	954	954	955	956	956	957	957	958	958	951	953.5
8	957	957	956	954	953	950	949	947	945	943	941	939	941	941	940	940	939	939	939	938	937	937	937	937	957	937	944.0
9	936	936	935	935	934	934	933	933	933	933	933	932	932	932	932	931	931	931	931	932	932	932	932	932	936	931	932.8
10	932	932	932	932	932	932	932	932	932	932	932	933	933	933	933	934	934	935	935	936	937	937	937	938	938	932	933.5
11	938	939	939	939	939	940	940	941	941	941	942	942	942	942	942	942	943	943	943	943	944	944	944	945	945	938	941.6
12	945	945	945	945	945	945	945	945	945	945	945	945	945	945	945	944	944	944	943	943	943	943	943	943	945	943	944.4
13	943	943	943	943	942	941	941	941	941	940	940	940	940	941	941	941	942	941	941	941	942	942	942	942	943	940	941.4
14	943	944	944	944	945	945	945	945	945	945	945	945	946	946	946	946	946	946	946	946	947	947	947	947	947	943	945.4
15	947	948	948	947	947	947	946	947	946	946	946	946	946	946	946	946	945	945	945	945	944	945	944	944	948	944	946.0
16	943	943	941	942	941	941	940	942	942	943	943	944	942	943	944	944	944	945	946	945	947	948	948	948	948	940	943.7
17	949	950	950	950	951	952	950	950	951	953	955	955	955	955	956	956	957	957	957	958	958	958	957	958	958	949	954.1
18	959	959	959	959	958	958	958	958	958	958	958	958	958	958	958	958	958	958	959	959	959	960	960	960	960	958	958.6
19	961	961	961	961	962	962	962	962	962	963	963	962	962	961	961	960	960	959	958	957	956	955	954	952	963	952	959.8
20	950	949	949	947	946	945	945	944	945	945	945	945	945	945	945	944	944	943	943	943	942	942	941	942	950	941	944.8
21	941	941	941	943	943	943	946	948	949	950	951	952	953	954	955	956	957	958	960	961	962	963	963	964	964	941	952.3
22	964	964	963	962	961	959	958	956	955	954	952	951	951	949	948	946	946	945	945	947	947	948	950	951	964	945	953.0
23	952	952	953	953	953	953	952	952	953	953	952	952	953	953	952	952	953	953	953	954	954	954	955	955	955	952	952.9
24	955	955	955	955	955	954	954	953	953	952	951	951	950	949	949	947	948	947	945	947	946	945	946	946	955	945	950.3
25	946	946	947	946	945	943	940	939	938	936	935	935	934	932	931	929	929	928	930	930	930	931	931	932	947	928	935.9
26	932	932	933	934	935	936	938	940	942	944	946	948	950	952	954	955	956	958	959	961	961	961	962	962	962	932	947.9
27	963	962	962	962	961	960	959	959	958	958	958	958	958	957	955	956	956	957	956	957	958	958	959	960	963	955	958.6
28	961	961	963	963	965	966	967	969	970	971	972	974	975	975	976	977	977	978	978	978	979	980	981	981	981	961	972.4
29	982	982	982	982	983	982	981	981	981	981	981	981	980	980	980	979	980	979	979	977	977	978	977	978	983	977	980.2
30	977	978	977	976	977	976	974	974	974	975	975	974	974	974	974	973	974	973	972	972	972	971	972	972	978	971	974.2
Max.	**982**	**982**	**982**	**982**	**983**	**982**	**981**	**981**	**981**	**981**	**981**	**981**	**980**	**980**	**980**	**979**	**980**	**979**	**979**	**978**	**979**	**980**	**981**	**981**	**983**		
Min.	**932**	**932**	**932**	**932**	**932**	**932**	**932**	**932**	**932**	**932**	**932**	**932**	**932**	**932**	**931**	**929**	**929**	**928**	**930**	**930**	**930**	**931**	**931**	**932**		**928**	
Avg.	**953**	**953**	**953**	**952**	**952**	**952**	**952**	**952**	**952**	**952**	**952**	**952**	**952**	**952**	**952**	**952**	**952**	**952**	**952**	**953**	**953**	**953**	**953**	**954**			**952.3**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Barometric Pressure (mbar)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	973	974	974	974	973	974	975	975	974	974	974	974	975	974	973	973	973	972	972	971	970	969	968	968	975	968	972.8
2	967	965	964	963	962	961	960	958	958	957	956	955	955	954	953	952	951	950	950	951	950	949	949	949	967	949	955.8
3	949	949	948	948	948	947	947	947	946	946	946	947	946	946	946	945	945	945	944	944	944	944	944	943	949	943	946.0
4	943	943	943	943	944	944	944	944	945	946	947	949	950	951	952	953	954	955	955	956	957	958	959	961	961	943	949.8
5	962	964	964	965	966	967	967	967	967	968	968	968	967	967	967	966	966	966	965	965	964	964	963	963	968	962	965.7
6	961	961	960	960	959	959	958	958	958	958	958	958	958	959	960	961	963	964	964	966	966	967	968	968	968	958	961.3
7	969	969	970	969	970	969	969	969	968	967	967	966	964	963	961	958	956	955	955	953	951	950	950	950	970	950	962.0
8	952	953	955	956	956	957	956	956	957	957	957	956	957	957	958	958	959	960	961	962	963	964	965	966	966	952	958.2
9	967	967	968	968	967	966	966	965	965	964	964	963	963	963	963	962	963	962	962	961	960	961	960	960	968	960	963.8
10	958	958	955	953	950	949	948	946	945	944	942	941	941	940	940	940	940	941	942	943	944	945	945	946	958	940	945.6
11	948	949	950	951	953	954	955	955	956	956	957	957	958	958	958	957	957	957	957	957	957	956	956	956	958	948	955.2
12	956	956	956	956	956	956	956	957	957	958	958	959	960	960	961	961	961	962	963	963	963	964	964	965	965	956	959.5
13	965	965	965	965	965	965	965	965	965	965	965	965	966	966	965	965	966	966	966	966	967	967	967	967	967	965	965.6
14	967	967	967	967	966	966	966	966	966	965	965	964	963	963	962	961	960	959	959	959	958	958	958	958	967	958	962.9
15	959	959	959	958	959	959	959	959	959	959	959	959	959	958	959	958	957	958	957	958	958	957	958	958	959	957	958.4
16	959	957	956	958	955	954	957	956	955	954	954	952	953	952	951	952	949	949	949	948	950	948	947	948	959	947	952.6
17	948	946	946	946	946	946	947	949	949	947	946	949	948	947	948	949	949	949	949	949	949	950	950	950	950	946	948.0
18	950	950	949	949	949	948	948	948	948	949	949	949	949	949	949	949	949	949	950	950	950	951	951	952	952	948	949.3
19	952	953	953	953	953	953	953	953	954	955	955	956	956	956	956	956	956	957	958	958	958	957	957	956	958	952	955.2
20	956	956	955	954	954	952	951	950	948	947	947	947	946	945	945	944	944	944	944	944	944	943	943	943	956	943	947.8
21	942	942	942	942	942	941	942	942	942	942	942	941	941	941	941	941	940	940	939	938	938	937	937	937	942	937	940.5
22	937	936	936	936	935	935	935	935	935	935	936	936	936	937	937	937	937	938	938	939	939	940	941	941	941	935	936.9
23	942	942	943	945	945	946	947	948	948	949	950	951	951	952	952	952	953	953	953	954	954	954	954	955	955	942	949.6
24	954	955	954	953	953	952	951	951	951	950	950	949	948	947	947	946	946	945	946	947	948	949	950	950	955	945	949.7
25	952	953	954	958	959	960	960	961	962	963	964	964	965	967	968	968	969	970	970	970	971	969	969	968	971	952	963.9
26	969	968	967	965	965	963	963	961	960	959	957	955	953	951	949	949	948	947	946	946	944	945	943	942	969	942	954.8
27	942	941	941	941	941	940	939	938	938	938	938	938	938	938	938	939	939	939	940	940	941	941	942	942	942	938	939.6
28	943	943	945	946	947	948	949	949	950	950	951	951	951	951	952	952	952	951	952	951	951	950	951	952	952	943	949.4
29	953	953	954	955	955	955	956	956	957	957	957	958	958	958	959	959	960	960	960	961	961	962	962	962	962	953	957.8
30	963	963	964	964	964	964	964	964	964	964	963	964	963	963	962	961	961	960	960	960	960	960	961	962	964	960	962.4
31	962	963	964	964	965	965	965	966	966	966	966	966	966	966	965	965	964	963	962	961	960	959	958	957	966	957	963.6
Max.	**973**	**974**	**974**	**974**	**973**	**974**	**975**	**975**	**974**	**974**	**974**	**974**	**975**	**974**	**973**	**973**	**973**	**972**	**972**	**971**	**971**	**969**	**969**	**968**	**975**		
Min.	**937**	**936**	**936**	**936**	**935**	**935**	**935**	**935**	**935**	**935**	**936**	**936**	**936**	**937**	**937**	**937**	**937**	**938**	**938**	**938**	**938**	**937**	**937**	**937**		**935**	
Avg.	**955**	**956**	**956**	**956**	**956**	**955**	**955**	**955**	**955**	**955**	**955**	**955**	**955**	**955**	**955**	**955**	**954**	**954**	**954**	**954**	**954**	**954**	**955**	**955**			**955.0**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (Climtrncs) (m/s)

January 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	10.8	11.3	12.9	13.5	14.3	14.5	8.5	8.4	9.0	11.0	11.8	11.8	11.2	10.0	8.4	7.9	7.5	7.9	6.9	8.1	7.6	7.6	7.1	7.5	14.5	6.9	9.8
2	7.1	7.0	7.0	7.5	7.7	8.5	8.9	8.6	9.4	9.4	9.9	9.1	9.1	9.2	9.5	9.4	8.6	8.2	8.4	9.3	9.0	8.6	10.0	9.4	10.0	7.0	8.7
3	9.3	8.1	8.8	8.6	10.0	9.4	11.9	11.9	9.1	9.6	8.4	10.4	12.3	10.8	5.7	5.7	11.2	11.7	6.5	3.9	5.8	7.4	5.5	6.9	12.3	3.9	8.7
4	5.6	6.9	7.1	7.3	7.2	5.8	6.5	6.2	5.4	6.0	6.2	5.0	3.5	2.2	2.0	1.7	3.2	2.9	2.4	2.7	1.5	1.1	1.3	1.1	7.3	1.1	4.2
5	1.4	1.9	3.5	4.1	4.7	2.6	4.1	6.8	5.9	5.6	7.6	6.8	6.5	4.9	6.1	6.4	4.9	3.0	2.5	1.7	2.0	3.0	3.3	3.4	7.6	1.4	4.3
6	4.0	4.5	3.7	3.1	3.5	2.9	4.6	4.6	3.7	8.2	10.2	8.0	8.0	5.1	5.3	5.3	8.0	8.3	7.9	9.9	9.3	11.0	11.1	11.8	11.8	2.9	6.8
7	12.3	12.8	16.4	18.9	21.2	22.5	21.4	16.6	19.3	17.0	18.6	18.7	16.6	15.1	12.0	9.0	9.8	14.2	17.0	16.4	14.9	14.6	13.0	10.3	22.5	9.0	15.8
8	9.5	11.0	10.9	13.3	9.6	7.2	9.5	8.2	6.9	7.8	9.8	11.3	10.6	10.9	10.1	12.3	14.4	11.4	11.3	12.4	10.3	6.1	5.9	7.1	14.4	5.9	9.9
9	8.2	6.6	6.0	2.4	6.2	5.9	5.2	4.3	4.7	3.0	3.8	1.5	1.4	2.4	3.3	2.7	3.5	5.4	4.7	5.0	5.7	3.9	6.5	7.0	8.2	1.4	4.6
10	5.2	7.1	9.1	5.5	5.3	6.7	6.7	11.5	16.9	19.0	17.9	19.0	17.5	15.3	17.1	16.7	15.7	17.0	14.8	14.7	15.4	14.4	13.5	14.2	19.0	5.2	13.2
11	13.7	15.8	15.5	15.8	15.2	14.8	16.0	17.2	16.4	15.8	17.1	19.3	20.0	19.0	19.6	19.0	19.0	17.8	16.8	17.6	18.6	19.5	19.4	19.0	20.0	13.7	17.4
12	19.0	17.7	17.2	15.9	16.0	16.9	17.3	16.2	14.5	14.5	13.3	12.5	12.1	14.7	15.9	17.4	19.0	20.3	19.2	18.0	15.5	13.2	14.2	20.1	20.3	12.1	16.3
13	16.9	15.6	11.8	10.2	9.8	7.4	8.0	7.2	5.0	7.6	5.5	3.8	3.8	1.9	1.8	2.5	3.2	3.5	6.2	8.0	7.9	8.8	9.0	9.9	16.9	1.8	7.3
14	10.0	10.9	14.1	14.5	15.8	17.2	21.3	23.9	25.6	23.7	23.4	22.1	21.3	18.7	18.2	13.9	14.1	8.8	6.7	8.7	7.3	8.1	7.7	7.5	25.6	6.7	15.1
15	6.8	7.7	7.0	8.1	9.7	11.0	8.5	10.3	9.0	7.7	9.2	12.1	11.0	11.0	9.5	8.7	9.6	13.0	7.7	4.5	8.1	5.3	8.1	6.6	13.0	4.5	8.8
16	4.3	3.7	4.3	6.3	6.1	5.2	13.3	14.0	15.2	16.2	21.0	21.4	18.8	18.2	19.7	20.3	20.4	21.7	22.0	22.3	18.5	16.6	15.0	15.5	22.3	3.7	15.0
17	14.7	10.2	10.4	11.0	9.1	6.4	5.9	6.2	9.0	10.4	10.6	10.5	10.5	14.0	15.5	15.5	14.0	14.0	12.2	12.8	11.2	8.8	10.3	10.6	15.5	5.9	11.0
18	7.9	6.1	6.1	4.7	3.7	3.4	5.3	5.6	5.7	4.5	4.4							3.3	1.8	1.4	3.4	2.4	2.3	1.8	7.9	1.4	4.1
19	1.6	1.2	1.3	0.8	1.7	1.6	1.3	1.0	1.7	3.2	3.0	2.6	1.3	1.7	2.3	2.1	5.7	7.7	9.6	8.6	8.9	8.0	8.6	9.4	9.6	0.8	3.9
20	8.2	8.8	8.6	8.6	9.5	9.8	10.5	10.1	8.4	9.3	7.7	6.8	7.3	7.7	7.8	9.5	8.3	8.9	9.2	11.4	10.1	8.9	7.6	6.2	11.4	6.2	8.7
21	5.2	5.8	5.0	2.7	2.7	4.2	2.8	6.0	4.8	5.6	5.9	7.7	6.7	7.1	7.2	5.5	6.5	4.9	5.7	5.5	4.7	4.3	4.8	3.8	7.7	2.7	5.2
22	2.6	2.7	2.3	1.3	2.5	2.5	1.5	1.0	1.7	2.0	2.7	2.9	2.9	3.7	3.9	4.0	3.7	3.9	4.0	4.0	3.3	1.9	2.6	5.0	5.0	1.0	2.9
23	4.0	4.4	4.8	4.3	5.9	6.5	4.9	5.7	6.5	6.6	6.9	7.3	7.6	8.0	8.2	10.2	10.0	10.5	10.2	10.4	11.0	11.2	10.8	9.0	11.2	4.0	7.7
24	10.1	8.9	10.3	7.9	8.4	10.0	7.4	7.1	6.6	9.4	9.8	9.8	7.4	4.9	7.0	7.2	7.2	7.6	7.4	6.5	4.4	5.0	5.6	5.5	10.3	4.4	7.6
25	8.4	6.9	10.1	14.1	15.7	16.7	15.2	15.8	17.0	19.7	16.8	19.3	17.6	21.9	21.6	20.9	16.1	18.1	19.9	20.1	21.2	22.5	24.2	21.7	24.2	6.9	17.6
26	22.4	22.7	23.0	24.8	24.1	23.3	22.6	21.2	22.1	21.5	19.3	16.1	14.6	13.7	14.0	12.7	10.8	10.7	9.7	9.9	10.2	8.1	10.0	11.3	24.8	8.1	16.6
27	13.5	13.6	14.5	15.3	19.1	18.6	18.0	16.6	16.1	21.5	19.3	20.8	20.5	21.5	18.0	19.2	18.9	14.3	15.0	15.0	16.2	17.7	16.0	15.2	21.5	13.5	17.3
28	14.5	13.9	14.6	14.9	13.6	13.9	12.6	12.2	12.7	10.0	6.0	5.7	5.1	8.7	8.3	7.8	8.6	8.3	10.7	12.7	12.8	14.1	15.0	13.2	15.0	5.1	11.2
29	13.0	11.9	12.8	10.6	16.1	17.0	18.7	17.5	21.3	23.3	16.9	18.3	21.3	21.8	19.2	15.6	17.1	17.8	18.7	22.7	23.9	23.0	22.5	16.5	23.9	10.6	18.2
30	13.9	16.0	17.4	17.7	18.8	20.4	20.1	20.7	23.4	25.6	24.6	25.6	31.3	29.1	30.3	25.5	24.3	22.2	18.3	18.0	19.6	22.9	15.4	13.1	31.3	13.1	21.4
31	14.1	14.4	16.4	17.8	16.8	17.4	17.2	16.3	18.0	13.8	14.8	13.8	10.4	12.1	12.7	11.3	12.6	11.7	8.7	6.5	11.4	9.4	9.1	8.0	18.0	6.5	13.1
Max.	**22.4**	**22.7**	**23.0**	**24.8**	**24.1**	**23.3**	**22.6**	**23.9**	**25.6**	**25.6**	**24.6**	**25.6**	**31.3**	**29.1**	**30.3**	**25.5**	**24.3**	**22.2**	**22.0**	**22.7**	**23.9**	**23.0**	**24.2**	**21.7**	**31.3**		
Min.	**1.4**	**1.2**	**1.3**	**0.8**	**1.7**	**1.6**	**1.3**	**1.0**	**1.7**	**2.0**	**2.7**	**1.5**	**1.3**	**1.7**	**1.8**	**1.7**	**3.2**	**2.9**	**1.8**	**1.4**	**1.5**	**1.1**	**1.3**	**1.1**		**0.8**	
Avg.	**9.6**	**9.6**	**10.1**	**10.0**	**10.6**	**10.6**	**10.8**	**10.9**	**11.3**	**11.9**	**11.7**	**12.0**	**11.6**	**11.5**	**11.3**	**10.9**	**11.2**	**10.9**	**10.4**	**10.6**	**10.6**	**10.2**	**10.2**	**9.9**			**10.8**

Total Hours in Month 744 **Hours Data Available** 738 **Data Recovery** 99.2%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (Climtrncs) (m/s)

February 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	7.9	12.0	11.6	10.1	8.0	11.0	13.1	12.0	7.2	8.5	9.6	8.3	7.5	8.0	16.4	17.6	17.6	17.7	18.3	21.0	20.9	18.7	20.7	22.8	22.8	7.2	13.6
2	22.1	20.2	16.9	18.9	21.6	18.5	19.5	20.3	21.1	22.7	21.8	20.5	21.3	22.5	21.9	20.0	17.0	17.5	18.1	18.3	18.0	16.6	15.6	16.5	22.7	15.6	19.5
3	17.0	15.2	14.6	12.2	14.1	12.9	12.2	9.9	8.9	7.6	7.8	7.6	7.2	5.3	2.9	1.9	1.0	0.7	1.6	2.9	3.9	3.8	3.8	4.1	17.0	0.7	7.5
4	4.0	5.2	7.0	3.9	3.5	5.3	5.2	4.2	4.8	5.2	4.4	5.7	4.5	3.0	1.7	2.4	3.1	3.5	3.2	3.1	2.7	2.8	2.8	2.8	7.0	1.7	3.9
5	2.9	2.9	2.7	1.9	3.8	3.8	2.3	2.4	3.0	2.3	4.6	5.2	3.1	4.2	3.0	2.6	2.9	7.4	9.0	8.6	6.0	4.9	3.8	3.3	9.0	1.9	4.0
6	7.6	9.6	9.8	10.3	10.8	10.5	12.2	11.6	10.7	10.1	10.3	9.1	8.2	7.5	5.0	2.9	2.6	2.0	1.7	1.3	2.1	2.6	3.9	4.4	12.2	1.3	6.9
7	3.8	1.8	2.5	1.8	2.0	3.6	3.1	1.7	1.0	1.0	1.1	1.1	2.4	2.3	1.1	1.2	2.8	2.5	3.1	2.6	1.4	1.9	1.1	1.9	3.8	1.0	2.0
8	1.5	1.4	1.5	1.1	2.1	3.2	3.1	3.3	2.3	3.3	3.9	3.3	2.9	4.6	4.2	4.1	2.5	2.3	2.1	1.8	1.2	1.3	1.2	1.3	4.6	1.1	2.5
9	1.7	1.1	1.4	1.6	1.3	1.1	1.1	0.9	1.0	1.5	1.8	2.3	4.0	4.6	4.3	2.0	1.8	1.5	0.9	1.4	0.9	1.4	0.5	1.1	4.6	0.5	1.7
10	2.8	2.3	1.9	2.1	1.2	2.6	2.9	3.8	4.5	4.7	3.9	3.5	2.7	4.0	5.4	6.0	2.6	2.4	3.1	5.9	4.9	3.0	3.7	2.6	6.0	1.2	3.4
11	2.0	1.5	2.4	2.6	2.7	2.2	3.1	4.8	6.2	4.2	6.2	8.8	9.0	9.3	9.1	9.2	10.9	13.0	13.6	13.5	11.6	12.7	12.9	11.8	13.6	1.5	7.6
12	12.1	9.7	10.5	10.6	10.0	9.7	9.7	9.3	9.1	10.5	9.0	10.7	11.5	11.3	11.6	9.5	7.2	6.8	6.7	8.2	10.9	11.9	10.4	11.7	12.1	6.7	9.9
13	10.0	8.6	10.3	11.5	11.6	11.8	10.9	6.9	6.4	5.8	8.3	7.5	6.8	6.4	7.3	8.5	7.3	8.3	10.9	12.0	10.4	8.7	8.1	7.5	12.0	5.8	8.8
14	10.8	10.4	10.7	10.6	11.3	9.2	8.9	10.2	10.4	8.9	8.8	8.6	8.1	7.1	5.6	6.1	4.5	5.8	3.9	3.5	2.4	2.0	3.0	3.0	11.3	2.0	7.2
15	3.5	3.1	2.8	3.1	3.0	2.8	3.0	1.9	3.6	2.7	2.5	2.5	1.2	1.9	2.1	4.0	4.1	3.8	3.8	3.2	3.3	3.6	3.4	3.5	4.1	1.2	3.0
16	4.5	3.7	1.8	1.7	2.3	2.0	1.9	2.0	1.6	2.0	3.4	4.3	3.7	3.1	1.3	0.8	0.8	0.8	1.2	2.7	1.7	1.3	1.1	1.9	4.5	0.8	2.1
17	1.8	1.8	2.4	1.9	1.2	0.8	1.3	1.3	1.2	1.5	2.9	2.0	3.1	4.2	4.7	5.4	4.3	5.0	3.9	2.3	4.3	4.1	3.2	3.2	5.4	0.8	2.8
18	2.5	2.2	2.7	2.0	2.0	2.8	2.7	2.9	2.2	1.7	2.0	1.6	1.8	2.8	2.9	1.8	2.2	2.2	2.2	3.4	3.6	3.7	3.4	4.6	4.6	1.6	2.6
19	6.3	6.0	6.7	11.0	12.8	10.5	8.3	9.7	9.0	9.0	8.8	9.0	9.1	9.2	12.4	15.8	16.5	12.7	17.5	23.2	23.9	23.7	23.2	19.7	23.9	6.0	13.1
20	19.2	19.1	20.8	20.6	22.4	19.2	20.2	19.5	20.7	18.2	16.3	15.1	19.5	22.3	22.0	22.2	21.1	22.9	22.7	25.6	24.4	17.2	15.0	13.7	25.6	13.7	20.0
21	14.5	17.6	23.1	24.5	26.7	21.8	17.2	18.7	19.2	18.7	16.1	15.0	12.1	8.5	10.9	10.8	7.6	9.2	7.6	11.1	10.0	8.0	7.5	7.9	26.7	7.5	14.3
22	8.0	7.8	6.7	8.1	7.6	6.6	5.9	7.5	7.5	6.9	6.9	4.9	5.4	6.4	6.9	5.7	6.7	6.7	7.0	7.8	7.0	8.2	7.6	6.0	8.2	4.9	6.9
23	6.9	6.0	5.7	9.3	10.6	9.2	11.3	11.5	9.1	7.8	9.7	7.0	10.9	10.1	9.6	9.9	7.5	8.1	10.8	10.2	10.5	11.8	10.0	9.4	11.8	5.7	9.3
24	6.3	10.8	11.7	12.9	8.9	10.3	9.0	10.8	11.1	11.0	14.9	17.3	20.9	18.2	22.5	23.7	22.5	20.3	22.0	21.9	22.3	21.2	22.2	22.5	23.7	6.3	16.5
25	17.7	12.3	16.8	20.0	18.2	13.0	7.7	7.5	4.9	4.2	5.6	7.0	7.4	6.6	7.2	7.3	6.7	6.5	6.3	4.8	3.4	2.8	3.0	4.3	20.0	2.8	8.4
26	9.2	11.9	13.5	15.2	13.5	11.4	10.0	9.2	8.0	4.8	4.4	2.9	3.4	5.7	6.8	6.9	6.0	6.0	5.6	2.2	4.6	6.6	9.4	8.8	15.2	2.2	7.7
27	9.5	9.3	8.6	8.2	9.7	10.6	12.1	9.0	7.2	9.4	8.5	6.7	8.8	6.8	5.8	5.9	6.8	6.2	5.9	5.1	2.9	3.5	3.6	4.1	12.1	2.9	7.3
28	3.0	2.0	3.2	6.3	6.8	6.9	6.6	7.4	8.1	8.9	9.4	11.5	11.5	12.7	14.0	12.9	13.7	14.8	13.7	12.7	13.2	13.6	12.7	12.2	14.8	2.0	9.9
Max.	**22.1**	**20.2**	**23.1**	**24.5**	**26.7**	**21.8**	**20.2**	**20.3**	**21.1**	**22.7**	**21.8**	**20.5**	**21.3**	**22.5**	**22.5**	**23.7**	**22.5**	**22.9**	**22.7**	**25.6**	**24.4**	**23.7**	**23.2**	**22.8**	**26.7**		
Min.	**1.5**	**1.1**	**1.4**	**1.1**	**1.2**	**0.8**	**1.1**	**0.9**	**1.0**	**1.0**	**1.1**	**1.1**	**1.2**	**1.9**	**1.1**	**0.8**	**0.8**	**0.7**	**0.9**	**1.3**	**0.9**	**1.3**	**0.5**	**1.1**		**0.5**	
Avg.	**7.8**	**7.7**	**8.2**	**8.7**	**8.9**	**8.3**	**8.0**	**7.9**	**7.5**	**7.2**	**7.6**	**7.5**	**7.8**	**7.8**	**8.2**	**8.1**	**7.5**	**7.7**	**8.1**	**8.6**	**8.3**	**7.9**	**7.7**	**7.7**			**8.0**

Total Hours in Month 672 **Hours Data Available** 672 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (Climtrncs) (m/s)

March 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	11.9	12.7	13.3	12.8	14.1	12.8	14.0	13.4	13.5	11.9	11.6	11.4	11.1	10.2	12.5	11.4	15.8	16.0	15.9	14.6	12.1	12.0	12.1	13.1	16.0	10.2	12.9
2	15.7	16.0	17.9	17.0	16.6	16.3	13.6	16.1	15.9	15.6	13.7	16.4	13.1	13.1	15.4	18.6	16.5	16.3	14.3	18.4	20.3	21.4	20.8	13.2	21.4	13.1	16.3
3	13.8	14.8	9.8	10.1	12.8	11.7	11.1	8.4	10.7	12.6	11.1	11.2	11.7	9.0	7.9	10.8	10.7	9.8	10.2	9.0	10.0	15.7	21.2	21.1	21.2	7.9	11.9
4	20.3	20.3	20.8	22.9	17.8	18.5	19.0	19.4	22.0	21.8	22.4	23.8	18.7	19.6	16.3	20.3	19.4	23.8	20.6	17.6	18.7	22.0	25.0	26.6	26.6	16.3	20.7
5	27.1	24.6	20.3	20.9	24.7	22.1	22.0	22.6	18.7	21.2	22.3	21.8	19.6	15.7	14.7	12.7	17.2	16.9	16.6	18.3	23.2	23.9	22.1	20.1	27.1	12.7	20.4
6	20.7	23.4	23.8	19.3	13.9	17.8	19.8	20.1	16.9	20.1	25.2	25.6	25.7	27.4	32.2	33.0	29.9	32.0	33.8	35.5	36.5	36.2	37.6	37.2	37.6	13.9	26.8
7	37.4	37.0	37.6	30.2	29.9	36.9	32.8	30.1	18.2	24.2	28.1	30.7	25.2	24.8	20.3	26.2	27.0	24.9	23.5	24.8	23.5	25.1	28.0	28.6	37.6	18.2	28.1
8	26.9	23.3	23.2	22.2	22.4	22.1	20.0	18.9	17.9	16.6	15.1	14.8	13.5	12.2	11.5	13.1	15.7	17.9	17.6	20.5	22.9	21.9	16.4	17.4	26.9	11.5	18.5
9	14.4	13.3	15.4	16.9	15.9	17.9	16.5	13.9	13.4	13.4	14.3	13.0	13.2	12.3	11.4	10.9	10.0	9.7	8.8	9.0	8.6	8.3	7.0	5.6	17.9	5.6	12.2
10	6.2	6.4	7.1	7.1	8.6	8.6	10.3	11.1	12.9	14.5	11.7	10.6	9.3	8.5	8.5	9.4	9.4	9.0	8.1	8.7	9.0	9.0	8.6	9.1	14.5	6.2	9.2
11	11.4	13.1	13.2	15.4	14.5	19.3	19.8	18.0	18.3	19.9	15.5	16.7	16.0	15.2	14.9	14.9	13.4	13.0	21.3	18.9	25.2	22.4	22.4	20.5	25.2	11.4	17.2
12	18.4	22.8	25.4	26.6	27.2	28.6	26.7	27.3	19.9	19.6	17.6	19.4	17.8	16.6	15.4	13.9	12.1	11.1	7.2	9.8	5.4	8.0	11.6	10.9	28.6	5.4	17.5
13	7.1	6.0	7.8	13.4	13.5	8.5	13.4	11.0	5.2	7.0	7.6	7.4	9.5	9.5	13.7	12.3	15.3	12.7	10.7	14.0	18.7	19.5	16.0	21.1	21.1	5.2	11.7
14	21.9	20.7	19.8	18.4	13.9	21.7	25.1	21.8	19.8	16.5	11.1	17.5	16.0	17.9	19.5	23.0	21.4	19.6	21.0	16.3	20.9	22.9	21.3	19.9	25.1	11.1	19.5
15	13.7	13.8	12.2	12.1	9.6	11.6	10.9	9.5	9.0	8.6	9.8	9.7	9.7	8.8	9.6	10.3	11.3	11.5	11.9	11.9	14.2	12.3	13.7	10.8	14.2	8.6	11.1
16	9.0	7.4	6.9	6.7	6.7	5.6	6.7	7.6	8.5	9.7	11.0	11.1	9.0	8.3	8.3	9.3	9.5	8.6	7.1	7.7	7.9	8.1	7.2	6.2	11.1	5.6	8.1
17	5.7	5.4	5.2	5.0	3.5	3.2	4.0	3.9	2.9	4.0	4.0	4.4	4.6	4.7	4.3	4.0	4.0	4.3	4.8	5.5	5.4	5.1	3.6	3.2	5.7	2.9	4.4
18	2.4	0.8	1.1	0.9	1.3	1.7	1.6	1.3	1.7	1.4	1.3	1.3	2.0	2.4	2.6	3.4	4.5	2.5	4.1	6.1	5.1	7.1	6.5	4.8	7.1	0.8	2.8
19	4.3	4.1	5.1	4.4	4.5	5.1	5.0	4.3	3.8	3.7	3.9	2.4	1.4	2.3	3.2	3.6	2.5	2.6	3.7	2.7	4.3	3.5	2.8	1.4	5.1	1.4	3.5
20	0.7	0.6	1.5	2.9	2.8	5.0	4.5	8.0	10.5	12.1	14.9	15.1	17.1	17.2	17.6	17.5	14.6	12.0	11.6	11.0	10.5	9.6	8.8	8.5	17.6	0.6	9.8
21	6.7	4.4	4.8	3.2	3.6	6.5	8.4	9.0	11.1	14.1	14.4	14.3	10.4	7.7	8.7	7.7	11.9	11.9	10.3	4.7	9.1	10.4	11.4	13.8	14.4	3.2	9.1
22	11.2	11.4	8.1	6.5	8.4	7.6	4.0	7.0	13.1	13.3	11.3	10.2	9.1	6.7	7.8	9.8	9.8	9.1	7.8	8.2	8.1	9.6	12.3	12.6	13.3	4.0	9.3
23	12.4	6.0	10.1	17.3	15.6	11.4	14.0	15.8	14.3	15.8	14.5	10.3	11.0	15.2	13.8	8.9	8.6	11.5	13.8	12.4	13.3	11.3	11.2	11.6	17.3	6.0	12.5
24	12.0	13.0	9.8	8.1	7.1	6.1	7.8	9.1	8.0	8.1	7.2	6.2	5.4	6.0	5.8	6.2	6.3	3.9	2.4	3.2	2.7	1.6	2.2	2.4	13.0	1.6	6.3
25	0.9	0.8	0.9	1.1	1.1	1.0	1.6	1.9	1.5	2.2	1.1	1.4	1.0	1.3	1.0	1.9	1.1	2.3	3.7	6.0	7.3	8.8	11.7	12.6	12.6	0.8	3.1
26	13.9	14.8	13.1	12.0	14.6	13.8	9.7	11.2	9.4	10.0	12.4	11.0	7.8	6.4	6.5	5.8	6.3	5.2	3.6	5.2	4.7	3.8	5.6	8.1	14.8	3.6	8.9
27	9.7	6.1	8.4	10.1	9.7	11.8	14.7	15.3	15.8	17.3	19.9	20.0	21.1	19.3	22.7	18.0	12.8	15.5	11.5	11.7	10.7	8.5	13.0	15.4	22.7	6.1	14.1
28	14.2	15.3	12.8	9.9	10.3	3.6	2.8	10.0	15.2	13.3	8.7	7.6	5.6	8.0	8.3	8.3	7.9	7.2	7.4	6.3	7.4	8.1	5.6	3.6	15.3	2.8	8.6
29	3.8	6.2	4.6	5.6	6.8	5.5	6.2	8.6	7.4	6.7	6.9	5.5	8.7	9.1	9.9	10.3	8.0	7.1	7.5	8.7	11.0	6.8	4.9	7.9	11.0	3.8	7.2
30	9.2	14.5	13.8	11.5	8.9	8.7	8.0	7.3	5.3	4.5	4.1	3.9	5.4	3.7	3.0	3.9	3.1	3.3	3.2	2.5	2.3	1.5	0.9	1.4	14.5	0.9	5.6
31	1.0	2.2	2.4	1.4	1.0	0.8	0.7	0.8	0.8	0.6	0.8	1.0	1.0	1.2	1.3	1.6	3.8	3.9	3.9	4.5	6.9	6.4	5.6	5.8	6.9	0.6	2.5
Max.	**37.4**	**37.0**	**37.6**	**30.2**	**29.9**	**36.9**	**32.8**	**30.1**	**22.0**	**24.2**	**28.1**	**30.7**	**25.7**	**27.4**	**32.2**	**33.0**	**29.9**	**32.0**	**33.8**	**35.5**	**36.5**	**36.2**	**37.6**	**37.2**	**37.6**		
Min.	**0.7**	**0.6**	**0.9**	**0.9**	**1.0**	**0.8**	**0.7**	**0.8**	**0.8**	**0.6**	**0.8**	**1.0**	**1.0**	**1.2**	**1.0**	**1.6**	**1.1**	**2.3**	**2.4**	**2.5**	**2.3**	**1.5**	**0.9**	**1.4**		**0.6**	
Avg.	**12.4**	**12.3**	**12.1**	**12.0**	**11.6**	**12.0**	**12.1**	**12.3**	**11.7**	**12.3**	**12.0**	**12.1**	**11.3**	**11.0**	**11.2**	**11.6**	**11.6**	**11.4**	**11.2**	**11.4**	**12.4**	**12.6**	**12.8**	**12.7**			**11.9**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (Climtrncs) (m/s)

April *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	5.1	5.7	5.3	4.6	4.6	5.1	5.0	5.3	4.7	5.2	2.3	1.6	3.0	3.3	1.5	1.4	1.2	1.3	1.9	1.8	1.9	1.4	1.2	3.6	5.7	1.2	3.2
2	2.7	2.2	1.9	2.0	3.2	5.4	6.5	8.0	8.8	10.1	11.6	12.2	12.2	14.5	14.4	13.2	12.5	11.9	11.4	12.2	14.8	13.0	13.4	11.0	14.8	1.9	9.5
3	10.3	10.0	9.8	10.7	8.8	9.4	8.5	8.8	8.1	9.1	9.8	9.7	10.1	9.7	11.3	10.8	11.0	10.5	9.4	10.0	8.5	9.9	7.8	7.6	11.3	7.6	9.6
4	9.1	9.0	8.5	10.3	8.3	7.9	8.0	7.5	9.8	11.3	12.5	12.5	12.1	13.3	12.0	12.1	11.1	10.9	8.3	6.3	4.9	5.0	6.1	4.7	13.3	4.7	9.2
5	3.4	2.7	3.3	5.0	3.8	9.6	11.7	13.1	11.4	14.0	16.3	16.2	16.9	14.3	14.0	11.9	15.5	20.7	17.3	15.7	12.0	14.0	14.7	12.4	20.7	2.7	12.1
6	13.4	12.5	14.8	13.6	13.6	9.2	11.6	11.8	8.1	8.4	10.3	11.7	14.3	15.0	12.7	9.6	9.7	11.0	9.0	7.7	7.7	7.2	6.6	4.3	15.0	4.3	10.6
7	2.1	2.2	1.9	2.4	0.2	13.3	17.2	17.8	17.9	17.7	16.2	15.8	15.7	13.7	11.9	13.8	10.7	9.9	9.8	7.5	5.4	6.7	9.1	12.2	17.9	0.2	10.5
8	14.2	14.1	15.1	14.9	14.4	12.6	13.1	12.4	11.7	11.0	10.7	10.3	10.5	10.7	10.7	7.3	5.3	3.3	3.4	4.3	4.4	5.9	5.2	5.5	15.1	3.3	9.6
9	8.6	7.6	6.5	7.1	6.4	4.4	4.4	2.7	4.6	6.7	7.5	10.6	11.0	11.8	11.1	12.1	10.7	9.3	9.9	12.0	10.3	11.6	8.7	7.1	12.1	2.7	8.4
10	5.1	4.8	5.9	5.7	5.3	3.9	4.7	4.7	4.5	4.7	6.0	8.4	9.1	8.2	8.9	8.1	8.0	8.7	8.4	7.0	5.5	7.8	6.4	5.4	9.1	3.9	6.5
11	4.5	5.4	5.2	5.7	4.5	3.3	4.0	4.9	3.9	1.3	4.2	6.1	7.1	7.3	7.3	8.1	9.1	8.9	9.1	5.7	4.8	5.2	6.3	6.2	9.1	1.3	5.7
12	6.8	5.3	5.0	3.4	4.8	5.1	5.5	4.7	3.4	2.5	3.1	2.5	3.3	2.6	1.9	2.9	4.2	3.9	2.8	3.6	3.0	1.6	3.1	4.4	6.8	1.6	3.7
13	6.4	6.1	5.1	5.7	6.2	5.7	5.4	5.0	5.6	5.3	6.1	7.0	5.7	4.2	2.7	2.5	2.1	2.9	3.9	5.0	7.1	7.0	5.2	5.2	7.1	2.1	5.1
14	3.0	2.3	1.7	1.1	2.1	1.9	2.5	3.4	3.1	2.5	2.4	3.2	3.9	6.5	8.3	7.8	7.5	7.4	6.0	6.1	6.2	7.0	6.9	8.7	8.7	1.1	4.7
15	8.9	8.2	9.0	9.3	8.3	9.0	8.6	7.5	10.5	9.7	9.5	9.6	9.4	7.8	5.9	4.5	2.8	2.9	3.0	1.2	1.4	1.7	2.4	2.0	10.5	1.2	6.4
16	2.0	2.4	1.9	6.1	7.1	5.9	3.9	3.5	3.6	3.7	3.2	4.8	5.0	10.6	11.8	10.3	9.4	7.7	8.0	7.4	5.5	2.2	1.2	1.8	11.8	1.2	5.4
17	3.3	4.1	6.4	7.7	11.4	15.6	19.1	20.5	19.6	22.2	23.3	25.4	24.5	25.8	26.7	25.7	25.5	26.8	29.2	29.4	30.0	27.6	25.0	25.6	30.0	3.3	20.9
18	24.5	21.0	18.1	20.5	21.2	19.4	16.8	17.1	17.7	18.4	17.6	16.2	16.5	15.9	14.2	11.3	5.6	3.6	2.1	2.1	2.4	3.1	3.6	2.7	24.5	2.1	13.0
19	3.8	4.6	2.7	2.4	6.1	10.0	8.9	7.1	8.4	12.6	12.2	13.8	13.2	19.1	18.3	14.6	13.6	13.1	12.4	12.5	11.4	12.5	12.7	12.5	19.1	2.4	10.8
20	10.8	12.8	10.2	9.6	11.6	7.1	9.4	12.0	13.8	15.0	15.6	11.9	14.6	15.8	16.0	16.8	16.5	13.9	13.0	14.1	12.6	9.8	7.3	7.6	16.8	7.1	12.4
21	7.5	7.8	7.8	7.4	7.9	7.7	5.8	4.1	4.5	5.3	8.9	9.5	11.5	15.0	14.7	15.5	14.7	12.9	13.2	12.4	10.5	8.7	10.8	11.5	15.5	4.1	9.8
22	9.4	13.7	15.6	14.6	13.0	14.0	13.7	15.7	15.9	15.4	13.6	15.1	14.2	14.8	12.9	13.2	14.7	11.9	10.6	8.7	9.5	9.0	8.2	7.5	15.9	7.5	12.7
23	7.3	13.9	13.3	13.7	12.5	11.1	9.6	9.9	7.7	7.9	5.5	5.2	8.4	7.0	6.7	9.1	3.7	6.0	6.0	4.1	2.1	3.5	6.0	8.0	13.9	2.1	7.8
24	6.9	7.2	6.3	5.4	4.2	4.0	5.2	7.8	9.6	7.6	7.3	9.0	6.4	3.3	4.4	4.9	4.5	2.9	6.7	6.1	4.5	5.0	7.1	8.1	9.6	2.9	6.0
25	8.8	10.0	10.2	11.2	10.7	10.0	10.5	11.3	12.5	14.0	16.4	16.6	15.3	14.5	14.5	12.6	12.4	11.1	8.8	7.1	2.4	2.1	3.4	3.8	16.6	2.1	10.4
26	4.7	7.8	7.7	9.6	9.3	6.0	6.1	7.1	8.6	7.5	7.8	6.4	4.8	5.0	6.6	7.5	9.0	10.6	8.9	7.2	5.8	8.6	6.2	5.3	10.6	4.7	7.3
27	4.4	3.9	5.1	3.3	1.3	2.0	2.6	5.6	4.1	3.1	3.8	4.9	6.3	6.5	6.5	6.3	7.8	8.2	7.2	5.9	5.2	5.2	4.2	4.3	8.2	1.3	4.9
28	3.9	4.8	3.1	3.4	3.7	2.9	1.7	1.0	1.0	1.0	1.2	2.6	4.0	5.3	7.0	9.0	9.9	9.9	10.6	9.3	7.0	5.7	7.6	8.8	10.6	1.0	5.2
29	10.3	11.6	10.0	8.5	9.4	8.0	8.8	8.0	10.7	11.4	13.3	11.8	12.8	13.2	11.9	12.6	11.7	9.8	7.8	6.8	3.4	1.9	2.3	0.8	13.3	0.8	9.0
30	1.5	2.1	1.2	1.4	2.5	2.6	4.2	4.6	5.9	5.2	4.1	4.2	4.4	3.5	4.2	4.7	3.8	3.3	4.3	3.3	1.8	1.5	1.6	1.9	5.9	1.2	3.2
Max.	**24.5**	**21.0**	**18.1**	**20.5**	**21.2**	**19.4**	**19.1**	**20.5**	**19.6**	**22.2**	**23.3**	**25.4**	**24.5**	**25.8**	**26.7**	**25.7**	**25.5**	**26.8**	**29.2**	**29.4**	**30.0**	**27.6**	**25.0**	**25.6**	**30.0**		
Min.	**1.5**	**2.1**	**1.2**	**1.1**	**0.2**	**1.9**	**1.7**	**1.0**	**1.0**	**1.0**	**1.2**	**1.6**	**3.0**	**2.6**	**1.5**	**1.4**	**1.2**	**1.3**	**1.9**	**1.2**	**1.4**	**1.4**	**1.2**	**0.8**		**0.2**	
Avg.	**7.1**	**7.5**	**7.3**	**7.5**	**7.5**	**7.7**	**8.1**	**8.4**	**8.6**	**9.0**	**9.4**	**9.8**	**10.2**	**10.6**	**10.4**	**10.0**	**9.5**	**9.2**	**8.7**	**8.1**	**7.1**	**7.1**	**7.0**	**7.0**			**8.5**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (Climtrncs) (m/s)

May *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	3.4	2.3	2.0	2.3	2.4	1.3	1.2	2.2	1.9	2.6	2.1	1.5	1.4	1.7	2.1	3.6	2.5	2.7	3.4	1.4	1.6	1.6	2.0	1.4	3.6	1.2	2.1
2	0.8	1.2	0.7	1.9	3.7	4.9	5.7	5.2	2.7	1.9	2.1	2.8	7.7	4.8	7.0	9.5	12.4	12.1	14.3	10.5	8.3	7.7	7.3	6.7	14.3	0.7	5.9
3	7.2	5.6	4.0	1.8	1.7	1.7	1.0	1.1	1.0	2.3	2.7	3.0	3.1	2.5	2.9	2.6	5.6	4.6	4.4	4.9	4.1	2.2	1.6	2.5	7.2	1.0	3.1
4	2.6	3.7	3.6	1.6	1.0	1.6	1.4	1.7	1.7	1.3	2.9	4.8	6.1	5.8	5.9	5.5	5.5	5.8	4.2	3.3	1.7	3.5	3.8	2.6	6.1	1.0	3.4
5	1.8	2.4	4.5	3.8	1.5	2.5	4.6	2.5	3.1	4.3	4.4	4.7	5.0	5.7	6.3	6.8	7.3	7.3	5.4	5.1	5.2	5.6	5.4	4.7	7.3	1.5	4.6
6	3.5	2.6	7.5	5.1	3.2	3.8	4.3	4.1	5.7	6.1	6.1	6.7	6.8	7.5	8.3	8.2	9.0	10.1	9.4	8.3	7.6	8.0	7.9	7.7	10.1	2.6	6.6
7	9.3	8.5	8.5	8.3	6.7	4.6	4.4	4.3	4.6	4.3	3.9	4.2	5.3	4.9	3.6	4.5	6.7	5.8	5.0	4.9	5.0	5.5	6.5	5.2	9.3	3.6	5.6
8	5.6	5.5	5.6	5.3	5.7	5.1	5.5	5.1	5.2	5.6	5.0	3.9	2.1	3.1	4.2	3.9	4.3	4.8	4.4	4.1	2.7	3.7	3.1	1.9	5.7	1.9	4.4
9	1.5	1.2	1.4	1.6	2.4	3.5	3.5	3.4	2.0	2.8	3.2	3.8	3.2	4.0	6.0	5.8	5.4	5.1	4.3	3.3	2.9	1.5	0.9	1.1	6.0	0.9	3.1
10	1.1	1.1	0.8	1.0	1.4	1.1	0.9	1.4	1.1	2.0	2.4	3.5	3.5	3.7	4.0	5.1	4.8	4.6	4.0	4.3	3.5	3.7	3.6	2.6	5.1	0.8	2.7
11	2.1	3.3	3.3	3.0	6.7	7.0	6.1	6.9	8.7	10.2	10.1	9.5	8.9	8.3	8.4	8.4	8.1	7.8	7.2	8.2	6.7	4.3	3.9	4.1	10.2	2.1	6.7
12	2.9	2.1	2.1	1.9	2.3	4.6	5.8	6.7	8.3	9.3	9.2	9.1	9.8	10.7	11.5	11.0	11.3	10.1	10.3	11.3	9.8	6.8	6.4	6.8	11.5	1.9	7.5
13	6.8	7.3	6.7	6.3	7.4	7.9	7.6	6.7	7.3	8.8	8.5	8.1	8.2	9.0	9.1	9.6	9.5	8.9	6.6	5.4	5.8	5.1	5.9	6.0	9.6	5.1	7.4
14	4.7	3.6	6.0	6.1	11.1	11.5	10.9	9.4	8.2	6.6	5.2	6.6	5.1	5.2	8.7	8.6	10.3	9.6	8.4	8.4	7.3	5.8	6.0	7.7	11.5	3.6	7.5
15	8.0	5.9	6.2	7.5	6.6	5.3	2.4	4.6	4.3	7.2	8.6	9.5	8.5	6.3	5.0	3.7	3.8	3.3	1.8	1.8	2.0	3.6	6.1	7.0	9.5	1.8	5.4
16	7.2	5.3	5.4	7.5	6.7	6.9	6.5	5.8	5.2	4.0	2.5	3.6	3.6	3.6	3.0	4.0	6.1	4.6	5.4	8.4	7.2	7.8	6.4	6.6	8.4	2.5	5.5
17	8.2	6.7	6.8	6.3	5.3	3.8	2.7	3.1	3.0	4.2	8.2	9.1	8.1	8.7	10.8	11.2	10.5	10.2	9.1	6.6	6.3	3.7	2.6	1.8	11.2	1.8	6.5
18	1.7	3.3	4.0	4.2	5.4	2.5	2.5	3.0	4.3	5.5	5.1	5.0	4.6	4.6	3.8	3.7	3.2	3.6	3.5	2.3	2.7	2.3	2.4	1.7	5.5	1.7	3.5
19	1.6	2.5	3.4	2.9	3.0	2.7	1.9	2.9	3.0	3.2	4.7	6.5	4.3	5.0	6.5	7.7	7.5	8.0	8.5	6.1	3.9	3.7	3.0	1.5	8.5	1.5	4.3
20	2.0	2.6	2.6	3.5	2.5	4.1	3.3	3.9	4.5	4.8	4.6	2.9	3.6	4.8	4.9	5.6	5.7	5.1	5.7	6.3	5.9	4.8	2.2	2.8	6.3	2.0	4.1
21	2.1	3.0	2.6	2.3	2.0	1.5	1.0	0.9	1.2	1.6	2.3	2.9	3.7	4.9	6.4	7.2	8.5	9.4	12.4	12.7	12.4	10.8	8.8	10.8	12.7	0.9	5.5
22	10.3	9.2	8.6	7.5	7.9	6.6	10.7	12.2	14.0	9.7	6.1	13.4	14.1	10.3	9.7	9.1	10.5	9.7	7.6	4.8	1.5	1.9	1.7	3.4	14.1	1.5	8.4
23	4.2	3.8	3.2	3.2	3.2	3.5	5.9	9.4	9.0	11.2	13.7	12.7	13.3	11.3	10.6	10.8	14.7	17.2	15.7	11.6	11.8	10.5	11.9	8.7	17.2	3.2	9.6
24	12.6	10.6	11.3	10.7	10.3	10.1	9.4	9.8	12.1	13.1	13.7	14.4	12.5	10.8	9.6	6.9	4.9	4.2	7.1	4.2	3.1	2.7	1.8	2.1	14.4	1.8	8.7
25	2.1	1.7	6.8	4.2	1.9	1.3	1.0	1.1	1.6	2.4	2.9	4.3	4.2	4.2	4.6	3.7	2.7	2.6	1.7	1.2	1.3	1.7	2.7	3.6	6.8	1.0	2.7
26	4.0	6.0	5.7	3.6	3.0	2.7	3.1	4.7	5.8	4.3	3.9	7.2	8.1	7.4	7.4	8.9	12.2	10.2	8.5	6.9	5.3	3.9	2.5	2.7	12.2	2.5	5.7
27	3.7	3.6	3.8	3.2	3.8	4.5	6.7	6.6	7.0	7.8	8.4	7.6	7.6	9.7	9.8	9.3	8.7	10.1	9.6	9.4	8.2	6.9	5.8	5.7	10.1	3.2	7.0
28	4.6	6.0	6.1	5.6	5.7	5.5	4.1	3.1	4.1	5.9	8.2	8.2	8.9	10.3	10.1	11.4	10.9	9.3	7.9	8.0	9.5	6.2	4.3	1.8	11.4	1.8	6.9
29	1.0	1.3	1.5	2.1	4.2	7.7	8.1	7.5	6.4	4.7	3.9	4.3	3.5	3.2	4.8	5.9	4.3	4.0	4.7	4.9	5.1	3.0	2.1	0.6	8.1	0.6	4.1
30	0.7	0.6	0.6	1.7	3.4	3.4	3.0	3.0	1.6	2.4	2.6	6.5	6.3	7.3	8.0	8.0	8.1	7.7	7.5	6.5	6.0	4.3	2.4	3.0	8.1	0.6	4.4
31	2.4	2.6	3.9	4.7	5.9	6.8	9.2	11.8	9.3	5.9	7.5	5.8	7.7	6.7	4.2	3.8	3.7	4.0	5.9	6.4	6.8	5.1	5.6	6.4	11.8	2.4	5.9
Max.	**12.6**	**10.6**	**11.3**	**10.7**	**11.1**	**11.5**	**10.9**	**12.2**	**14.0**	**13.1**	**13.7**	**14.4**	**14.1**	**11.3**	**11.5**	**11.4**	**14.7**	**17.2**	**15.7**	**12.7**	**12.4**	**10.8**	**11.9**	**10.8**	**17.2**		
Min.	**0.7**	**0.6**	**0.6**	**1.0**	**1.0**	**1.1**	**0.9**	**0.9**	**1.0**	**1.3**	**2.1**	**1.5**	**1.4**	**1.7**	**2.1**	**2.6**	**2.5**	**2.6**	**1.7**	**1.2**	**1.3**	**1.5**	**0.9**	**0.6**		**0.6**	
Avg.	**4.2**	**4.0**	**4.5**	**4.2**	**4.4**	**4.5**	**4.7**	**5.0**	**5.1**	**5.3**	**5.6**	**6.3**	**6.4**	**6.3**	**6.7**	**6.9**	**7.4**	**7.2**	**6.9**	**6.2**	**5.5**	**4.8**	**4.4**	**4.2**			**5.4**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (Climtrncs) (m/s)

June *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	4.4	4.3	5.5	5.7	7.5	5.3	4.6	6.4	7.6	7.4	7.4	9.0	10.4	9.8	13.0	11.6	12.2	10.5	7.9	8.3	7.6	6.0	6.1	6.4	13.0	4.3	7.7
2	6.0	5.4	4.4	4.0	3.3	3.9	5.1	4.1	3.0	4.1	3.9	5.4	5.9	5.5	4.4	4.4	3.8	4.4	4.1	4.8	5.1	4.0	3.5	1.5	6.0	1.5	4.3
3	0.8	1.9	2.3	2.2	1.7	2.4	0.9	1.0	2.3	2.8	3.1	2.6	3.2	2.3	3.2	4.7	4.5	3.0	3.7	2.1	1.8	1.3	2.0	4.5	4.7	0.8	2.5
4	7.0	7.7	7.6	9.6	10.2	10.5	10.4	10.3	7.9	8.1	9.8	9.7	9.9	6.6	3.1	2.7	2.3	6.9	8.1	8.2	9.1	7.9	7.0	6.8	10.5	2.3	7.8
5	7.5	6.8	4.9	4.4	3.6	4.0	5.1	6.3	6.5	7.0	8.8	13.8	16.9	19.4	17.5	17.0	16.0	14.4	10.9	12.9	12.5	10.1	9.8	12.1	19.4	3.6	10.3
6	12.4	10.9	12.5	12.4	9.3	4.7	5.6	4.0	3.3	5.3	6.0	6.0	6.2	6.9	6.8	7.3	5.4	4.3	5.0	6.3	4.0	2.8	2.1	1.4	12.5	1.4	6.3
7	2.2	2.7	1.9	3.1	3.4	8.0	3.6	1.5	4.4	7.4	8.1	8.0	10.7	14.4	17.2	17.9	16.7	17.2	15.7	13.4	14.4	12.9	9.0	7.1	17.9	1.5	9.2
8	6.7	6.7	7.6	5.1	7.5	8.2	7.1	7.1	6.0	4.8	4.5	6.6	6.6	8.1	5.8	4.7	7.4	10.1	11.6	11.2	9.6	7.9	6.5	6.6	11.6	4.5	7.2
9	3.9	2.8	2.7	1.7	1.0	1.3	1.5	2.0	3.5	2.9	4.2	4.4	3.9	3.6	1.6	1.5	1.9	1.2	2.7	5.4	4.5	3.4	5.5	5.5	5.5	1.0	3.0
10	7.1	8.7	9.8	11.4	10.8	10.8	10.3	13.4	12.6	10.2	8.5	7.1	5.7	5.0	4.8	4.3	4.4	3.5	4.0	5.1	8.7	7.0	7.6	4.7	13.4	3.5	7.7
11	3.8	3.5	5.2	4.1	2.8	2.5	1.4	0.7	2.5	3.7	2.6	2.9	5.3	7.5	8.3	9.4	9.6	9.2	8.5	8.6	8.2	8.0	5.4	4.1	9.6	0.7	5.3
12	5.5	5.0	4.2	3.5	2.2	1.7	1.0	2.0	3.0	4.4	4.3	4.2	4.7	4.8	4.7	4.1	4.2	4.1	3.9	2.8	3.0	3.5	3.0	1.9	5.5	1.0	3.6
13	1.3	0.6	1.6	1.7	1.6	2.7	3.2	2.6	2.1	2.9	3.2	4.0	5.5	4.9	3.8	3.8	5.5	4.6	5.4	4.4	4.0	1.9	1.7	1.7	5.5	0.6	3.1
14	2.0	2.9	3.8	2.6	3.4	3.4	3.5	2.6	2.8	4.4	4.1	3.9	2.9	3.5	1.9	2.2	3.1	3.6	4.5	4.7	4.9	5.5	5.5	6.1	6.1	1.9	3.7
15	8.3	9.0	8.5	10.8	12.8	12.2	12.1	12.5	11.5	11.3	10.2	9.2	7.8	7.5	8.4	8.8	8.6	9.2	9.0	8.7	8.4	9.1	10.2	9.3	12.8	7.5	9.7
16	9.5	9.4	8.5	9.5	9.6	8.8	8.2	9.6	7.4	5.6	5.7	6.8	8.1	7.1	7.4	7.1	7.1	8.0	9.8	8.8	8.8	8.9	9.2	9.2	9.8	5.6	8.3
17	8.2	7.3	6.5	5.7	5.7	4.3	4.1	4.0	3.5	2.9	2.2	3.0	3.2	3.7	3.0	3.2	3.3	3.5	2.1	3.6	3.5	2.5	2.7	3.6	8.2	2.1	4.0
18	3.5	2.4	1.6	2.2	4.3	5.3	4.6	3.1	1.7	1.4	2.0	1.9	1.5	1.9	3.5	3.7	3.0	2.1	2.6	3.9	4.1	1.1	0.7	2.3	5.3	0.7	2.7
19	2.7	3.3	6.3	7.6	7.9	8.4	9.4	7.4	6.6	7.7	7.6	9.0	10.1	10.7	11.3	11.5	10.9	10.0	10.3	10.6	11.4	12.1	13.1	14.1	14.1	2.7	9.2
20	11.9	12.3	11.0	11.3	11.2	12.3	12.9	12.9	11.3	12.4	12.3	12.3	11.7	10.0	10.4	10.5	11.4	10.6	11.1	10.5	10.7	14.6	14.0	12.7	14.6	10.0	11.8
21	10.8	11.5	7.7	9.8	8.6	6.4	6.3	7.1	7.2	7.2	6.7	7.2	7.3	7.7	8.1	7.4	7.4	7.5	10.8	12.2	8.8	7.4	8.2	8.6	12.2	6.3	8.2
22	7.2	8.1	6.4	6.1	3.7	1.8	2.2	3.2	5.7	5.1	4.7	4.7	4.3	3.7	4.3	4.2	3.2	3.7	3.4	3.5	3.7	4.3	6.1	6.6	8.1	1.8	4.6
23	7.9	7.4	8.4	8.4	9.4	10.5	11.8	12.6	13.8	13.4	13.3	13.4	12.9	12.8	13.4	12.3	13.1	12.9	12.1	11.5	10.8	9.9	10.3	10.4	13.8	7.4	11.4
24	10.3	9.6	8.1	7.8	7.9	8.9	8.5	8.6	7.3	8.7	9.7	9.7	9.8	9.8	9.0	10.7	10.7	11.8	11.6	10.8	10.0	8.8	9.8	10.1	11.8	7.3	9.5
25	8.6	7.3	7.5	7.5	6.8	6.8	5.3	5.7	8.8	10.1	9.9	9.7	9.9	10.0	11.9	12.1	12.4	12.0	10.7	10.9	8.7	7.9	7.6	7.3	12.4	5.3	9.0
26	5.4	5.1	6.5	6.7	5.3	5.1	4.5	5.3	6.5	5.9	5.4	4.5	4.2	3.8	4.0	3.3	2.3	3.2	4.4	6.0	6.7	5.6	2.9	1.8	6.7	1.8	4.8
27	2.4	3.4	4.2	4.1	3.7	3.9	2.4	2.5	2.4	2.0	3.4	3.9	4.3	5.2	5.0	5.4	5.9	5.9	7.1	6.1	7.3	7.6	6.0	5.9	7.6	2.0	4.6
28	5.2	4.2	3.4	3.5	3.2	4.0	3.2	1.7	1.0	1.7	2.5	3.2	2.8	4.4	5.3	4.0	3.2	2.3	5.9	6.4	5.9	5.8	5.9	6.1	6.4	1.0	3.9
29	4.7	2.6	1.7	1.9	1.4	1.0	1.9	3.4	3.6	3.9	4.0	4.3	4.5	4.0	4.8	6.2	8.5	6.9	6.2	6.1	6.7	4.7	4.0	4.4	8.5	1.0	4.2
30	2.4	2.5	1.9	2.3	2.0	3.1	4.2	4.7	4.0	4.6	4.3	3.6	4.0	3.1	3.0	4.0	4.0	4.6	4.6	6.2	4.4	4.0	2.0	2.1	6.2	1.9	3.6
Max.	**12.4**	**12.3**	**12.5**	**12.4**	**12.8**	**12.3**	**12.9**	**13.4**	**13.8**	**13.4**	**13.3**	**13.8**	**16.9**	**19.4**	**17.5**	**17.9**	**16.7**	**17.2**	**15.7**	**13.4**	**14.4**	**14.6**	**14.0**	**14.1**	**19.4**		
Min.	**0.8**	**0.6**	**1.6**	**1.7**	**1.0**	**1.0**	**0.9**	**0.7**	**1.0**	**1.4**	**2.0**	**1.9**	**1.5**	**1.9**	**1.6**	**1.5**	**1.9**	**1.2**	**2.1**	**2.1**	**1.8**	**1.1**	**0.7**	**1.4**		**0.6**	
Avg.	**6.0**	**5.8**	**5.7**	**5.9**	**5.7**	**5.7**	**5.5**	**5.6**	**5.7**	**6.0**	**6.1**	**6.5**	**6.8**	**6.9**	**7.0**	**7.0**	**7.1**	**7.0**	**7.3**	**7.5**	**7.2**	**6.5**	**6.2**	**6.2**			**6.4**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (Climtrncs) (m/s)

July *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	1.3	1.2	0.7	1.1	2.8	2.6	3.3	5.1	5.3	4.0	3.7	3.7	3.1	3.9	3.9	4.2	4.1	4.5	4.5	4.3	3.0	3.5	3.9	3.2	5.3	0.7	3.4
2	2.5	2.4	2.3	1.0	0.8	1.1	0.7	1.0	1.6	4.0	4.0	4.0	4.5	4.2	3.8	4.8	4.3	5.5	6.1	5.9	5.5	5.7	4.4	5.1	6.1	0.7	3.6
3	4.0	3.1	4.6	4.3	2.8	1.7	2.0	2.5	3.6	2.7	2.7	3.3	3.4	3.1	3.3	4.5	6.3	6.5	5.0	4.4	2.4	0.9	2.3	5.9	6.5	0.9	3.5
4	5.9	5.8	5.4	6.5	4.7	4.5	4.1	3.4	3.4	5.5	6.5	7.2	7.7	5.9	7.3	8.1	7.3	5.3	3.8	3.8	3.3	4.7	6.0	5.3	8.1	3.3	5.5
5	3.3	2.9	2.4	3.1	1.2	0.7	0.8	1.0	1.4	2.4	3.9	4.0	3.6	3.9	4.6	4.7	4.3	2.7	8.9	8.5	7.2	6.8	6.3	5.3	8.9	0.7	3.9
6	5.8	5.5	4.5	4.5	4.9	4.5	3.6	3.7	2.8	2.9	2.5	1.2	2.2	1.8	2.7	3.1	3.1	2.4	2.2	2.1	1.1	1.0	3.0	2.4	5.8	1.0	3.1
7	2.5	2.4	2.2	1.9	2.1	0.5	1.1	1.1	1.2	1.7	1.3	2.5	1.7	1.7	2.6	3.9	4.1	3.9	5.3	4.8	4.3	4.0	3.4	2.2	5.3	0.5	2.6
8	1.3	0.9	1.1	0.8	0.5	0.9	1.9	2.2	3.2	3.9	3.7	3.6	3.5	5.1	5.5	6.3	7.4	8.8	8.2	6.9	7.0	6.0	4.7	4.9	8.8	0.5	4.1
9	7.9	6.3	5.6	4.8	2.9	1.4	2.4	2.7	3.5	3.0	3.1	4.8	5.7	4.1	3.7	3.8	2.8	3.9	4.3	2.2	2.9	2.2	2.2	2.6	7.9	1.4	3.7
10	3.8	4.7	4.0	3.2	3.2	2.4	2.6	1.2	1.4	2.6	3.6	2.6	5.6	4.7	3.7	5.9	8.2	7.4	6.6	6.9	6.2	6.4	7.1	6.3	8.2	1.2	4.6
11	4.7	4.4	4.0	4.2	5.4	5.5	6.4	5.6	5.0	5.2	6.0	6.7	7.3	7.1	7.0	6.3	6.1	6.5	7.4	6.8	6.1	5.6	4.6	3.9	7.4	3.9	5.7
12	2.4	1.9	1.0	1.5	2.6	3.0	2.8	2.5	2.7	2.0	2.0	3.4	2.8	3.4	5.3	5.9	5.5	4.4	4.3	3.4	3.5	4.2	4.6	5.1	5.9	1.0	3.3
13	4.3	3.8	4.4	4.1	3.9	3.3	3.2	3.0	2.7	4.3	4.4	5.1	4.8	4.6	4.6	4.6	3.7	3.8	3.4	2.8	2.1	2.2	2.5	2.4	5.1	2.1	3.7
14	2.6	1.8	1.6	1.5	1.8	1.5	1.7	3.2	2.6	2.3	3.5	5.4	5.4	5.4	5.5	6.4	6.7	6.0	5.3	4.4	3.9	4.2	3.5	2.4	6.7	1.5	3.7
15	2.3	1.7	1.8	1.5	2.0	1.0	1.0	1.1	2.8	3.1	3.8	4.3	4.9	5.6	6.8	6.7	7.5	6.8	6.0	5.7	5.2	4.0	5.3	5.4	7.5	1.0	4.0
16	5.2	3.7	4.3	3.9	2.6	1.3	2.1	3.7	2.5	3.3	4.7	4.8	4.9	5.7	5.6	6.3	6.2	5.4	6.1	6.9	9.0	9.2	7.0	7.4	9.2	1.3	5.1
17	6.2	4.4	5.9	5.3	4.5	4.4	4.3	5.2	4.1	3.5	2.4	1.8	2.8	4.4	4.1	5.4	7.1	8.2	8.3	7.7	7.3	5.4	2.7	5.6	8.3	1.8	5.0
18	7.1	8.8	9.1	7.4	7.9	4.4	3.6	2.6	2.2	1.8	1.9	2.4	2.7	3.9	4.5	3.5	4.7	2.4	1.4	1.4	1.4	1.4	1.8	1.3	9.1	1.3	3.7
19	1.7	2.6	3.5	2.8	2.5	2.0	1.1	1.9	2.0	3.3	3.5	2.8	2.0	2.3	2.8	2.6	2.5	4.2	2.6	2.3	2.6	2.4	2.0	1.3	4.2	1.1	2.5
20	0.9	1.0	0.9	1.1	0.9	1.3	1.3	1.4	1.9	3.7	5.4	5.3	4.8	5.5	6.3	6.9	5.4	5.7	5.1	6.0	8.2	6.9	7.1	8.1	8.2	0.9	4.2
21	8.3	8.7	7.0	7.1	7.7	7.8	7.5	7.7	8.5	8.5	7.9	7.4	7.1	6.1	6.0	6.8	7.2	7.1	6.6	6.0	6.4	5.8	4.4	5.2	8.7	4.4	7.0
22	4.9	5.3	5.6	6.1	6.7	7.0	6.8	6.6	6.8	6.5	6.2	6.1	5.5	5.2	5.1	4.5	4.9	4.5	4.7	4.7	5.2	5.4	5.1	4.9	7.0	4.5	5.6
23	5.1	3.5	1.3	1.3	1.5	0.9	1.0	2.1	2.1	2.8	3.8	4.8	5.1	6.4	6.1	6.5	9.1	10.1	7.6	7.6	6.8	7.6	6.6	7.4	10.1	0.9	4.9
24	5.7	8.2	8.6	8.9	8.8	7.8	7.6	7.6	8.0	8.6	6.5	5.6	5.0	6.9	6.9	6.7	6.2	5.3	4.9	5.2	4.0	7.0	7.0	5.7	8.9	4.0	6.8
25	6.5	9.4	10.1	10.5	11.1	10.2	10.5	9.3	10.8	9.5	7.2	5.9	6.0	7.5	8.7	8.0	8.2	8.6	9.1	4.7	2.8	1.3	2.0	1.2	11.1	1.2	7.5
26	1.5	1.8	1.8	1.3	1.3	3.3	2.3	5.1	4.9	3.8	3.3	3.5	2.9	3.3	4.3	5.0	3.1	5.3	6.2	5.6	3.4	3.9	2.9	2.8	6.2	1.3	3.4
27	1.0	1.5	1.4	2.1	1.2	2.6	3.9	3.1	2.2	4.7	4.0	4.3	4.3	5.1	6.2	5.6	6.0	8.1	6.0	6.6	5.0	6.8	2.6	1.9	8.1	1.0	4.0
28	2.1	2.7	3.7	4.5	4.4	5.2	5.5	5.6	5.6	6.4	6.7	6.8	7.8	8.6	9.0	9.3	9.0	8.3	8.6	10.3	9.5	7.3	6.2	6.9	10.3	2.1	6.7
29	7.1	5.4	4.3	3.7	2.8	2.7	5.5	5.5	5.0	4.9	4.9	5.4	5.9	6.0	6.3	5.8	5.9	5.8	5.8	5.9	5.3	4.6	5.6	2.5	7.1	2.5	5.1
30	3.2	3.5	1.7	2.3	2.1	2.2	2.1	2.3	3.0	3.1	4.4	4.5	4.4	5.0	4.8	5.6	6.1	5.8	5.1	4.2	4.0	3.0	3.7	4.0	6.1	1.7	3.7
31	3.3	2.8	2.5	3.2	2.6	2.1	1.6	2.1	3.5	5.0	5.7	5.6	5.8	6.9	7.6	9.7	9.9	11.5	11.1	11.1	10.4	11.0	11.5	10.6	11.5	1.6	6.6
Max.	**8.3**	**9.4**	**10.1**	**10.5**	**11.1**	**10.2**	**10.5**	**9.3**	**10.8**	**9.5**	**7.9**	**7.4**	**7.8**	**8.6**	**9.0**	**9.7**	**9.9**	**11.5**	**11.1**	**11.1**	**10.4**	**11.0**	**11.5**	**10.6**	**11.5**		
Min.	**0.9**	**0.9**	**0.7**	**0.8**	**0.5**	**0.5**	**0.7**	**1.0**	**1.2**	**1.7**	**1.3**	**1.2**	**1.7**	**1.7**	**2.6**	**2.6**	**2.5**	**2.4**	**1.4**	**1.4**	**1.1**	**0.9**	**1.8**	**1.2**		**0.5**	
Avg.	**4.0**	**3.9**	**3.8**	**3.7**	**3.6**	**3.2**	**3.4**	**3.6**	**3.7**	**4.2**	**4.3**	**4.5**	**4.6**	**5.0**	**5.3**	**5.7**	**5.9**	**6.0**	**5.8**	**5.5**	**5.0**	**4.8**	**4.6**	**4.5**			**4.5**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (Climtrncs) (m/s)

August 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	12.5	12.3	11.7	12.2	11.8	11.9	11.8	12.8	13.3	13.4	13.1	13.0	12.9	12.4	12.6	13.8	11.8	12.8	13.0	13.1	14.5	13.8	14.6	15.2	15.2	11.7	12.9
2	13.7	13.5	14.7	14.3	14.5	15.3	15.9	14.5	14.6	15.4	14.5	15.2	14.7	14.1	15.0	14.7	13.1	12.8	12.5	11.8	12.5	11.6	10.5	10.9	15.9	10.5	13.8
3	10.7	11.1	10.3	9.5	8.0	7.2	7.0	7.8	8.3	9.1	8.8	8.9	9.9	11.5	13.4	13.2	12.3	12.7	13.0	11.8	10.9	8.4	10.3	11.5	13.4	7.0	10.2
4	10.7	12.7	11.3	12.8	13.0	13.1	13.9	13.7	14.3	13.7	13.0	12.9	12.6	12.0	12.0	11.2	9.9	8.7	8.5	8.9	9.1	9.3	9.3	12.1	14.3	8.5	11.6
5	14.2	11.7	10.3	8.6	10.3	9.2	9.4	8.0	11.5	11.1	11.4	13.3	12.3	11.1	10.2	10.1	10.3	9.3	8.9	10.0	13.0	13.0	13.1	11.3	14.2	8.0	10.9
6	9.7	11.0	10.9	10.8	7.7	7.5	10.9	12.7	11.8	11.1	9.7	11.6	12.3	12.6	13.2	12.6	12.5	12.3	10.4	10.0	9.6	9.7	10.7	11.0	13.2	7.5	10.9
7	11.8	10.0	11.7	10.0	5.2	6.7	9.9	10.6	13.5	11.9	11.9	10.9	10.8	11.5	12.6	11.6	11.0	12.2	10.4	9.8	8.6	9.1	6.3	4.6	13.5	4.6	10.1
8	6.7	7.9	7.6	7.8	7.9	9.3	8.6	7.6	7.9	8.9	9.3	8.3	7.4	6.8	5.9	5.7	6.4	7.2	6.9	5.8	6.0	6.9	7.3	8.2	9.3	5.7	7.4
9	7.9	7.3	8.1	8.2	8.0	8.1	8.9	5.8	3.3	3.8	4.1	2.9	3.6	4.0	4.7	5.1	5.0	4.2	4.2	3.5	2.5	1.8	1.8	3.6	8.9	1.8	5.0
10	3.5	1.8	1.5	0.9	0.6	0.7	1.4	1.4	1.2	2.5	3.4	3.5	3.4	3.5	3.9	4.4	4.6	4.1	4.7	4.4	3.8	3.0	2.9	3.0	4.7	0.6	2.8
11	2.1	1.3	3.3	3.6	2.1	1.8	1.9	1.7	1.5	2.2	2.9	2.1	2.8	3.2	3.9	3.6	4.5	4.9	3.4	3.2	2.6	2.0	1.7	2.1	4.9	1.3	2.7
12	1.7	1.6	2.2	2.0	1.8	2.5	2.6	2.9	3.7	4.1	2.9	4.7	6.5	3.9	2.7	4.1	5.9	6.0	5.7	6.6	5.0	4.9	1.9	3.1	6.6	1.6	3.7
13	2.5	1.9	2.2	2.2	1.4	2.2	1.9	1.9	2.1	1.7	2.7	3.1	3.4	4.4	4.1	4.1	5.2	4.2	4.4	5.2	7.3	8.2	7.5	9.2	9.2	1.4	3.9
14	10.3	9.4	9.7	8.6	3.7	3.2	2.0	4.6	5.4	5.9	5.5	5.1	5.2	5.2	4.4	3.6	5.6	5.1	3.1	3.4	3.1	4.8	4.6	5.6	10.3	2.0	5.3
15	7.2	8.1	9.1	9.4	9.3	9.0	9.4	9.8	13.3	14.1	11.0	9.8	11.5	6.2	7.9	7.3	6.5	6.5	6.1	5.1	4.9	4.7	4.6	5.0	14.1	4.6	8.1
16	4.4	4.0	2.8	3.0	3.6	3.8	2.8	2.4	2.4	3.0	1.8	1.1	2.0	2.2	2.0	2.5	3.7	4.7	4.8	5.4	4.4	3.6	2.4	1.5	5.4	1.1	3.1
17	1.4	2.6	3.1	5.5	7.5	4.8	2.2	0.9	2.5	5.8	9.1	8.0	8.3	9.3	9.4	11.0	11.0	10.8	10.8	9.3	8.1	8.1	9.3	9.1	11.0	0.9	7.0
18	10.0	9.4	9.1	12.7	15.2	15.4	12.7	13.4	14.1	12.8	11.0	13.8	12.2	14.5	14.8	16.8	18.4	17.8	17.2	16.6	16.5	14.2	13.1	13.8	18.4	9.1	14.0
19	11.1	12.2	11.6	10.5	9.2	11.1	12.1	12.8	13.2	12.9	12.0	12.0	11.2	10.7	12.7	12.6	12.8	11.6	9.1	9.4	9.5	10.8	9.5	9.1	13.2	9.1	11.2
20	7.1	6.5	5.5	5.8	6.8	6.4	5.6	5.9	6.3	7.5	7.1	6.8	7.0	8.5	9.6	10.2	11.2	11.1	9.8	8.3	6.5	7.5	9.0	8.8	11.2	5.5	7.7
21	8.7	8.9	8.2	6.6	7.5	7.4	8.0	7.7	7.2	8.0	8.4	8.0	7.8	8.2	7.6	8.6	9.1	8.7	8.4	8.5	8.0	6.6	6.3	7.3	9.1	6.3	7.9
22	8.4	8.2	8.5	7.7	8.2	7.7	8.5	8.3	7.5	7.7	8.9	8.8	8.9	8.4	8.1	8.3	8.5	7.8	8.4	7.8	6.3	6.5	6.3	5.7	8.9	5.7	7.9
23	4.9	4.6	3.4	2.8	2.2	2.3	2.3	2.1	2.7	2.9	4.2	5.3	5.7	6.2	7.6	7.3	7.3	7.1	7.3	6.3	6.0	8.1	8.4	8.5	8.5	2.1	5.2
24	8.3	9.3	8.7	10.3	7.9	8.6	8.3	8.0	8.6	8.6	8.6	8.3	6.3	4.3	2.2	3.4	2.3	4.2	3.3	2.3	2.0	2.0	3.3	2.8	10.3	2.0	5.9
25	2.0	1.9	1.7	4.7	3.8	2.4	1.6	1.4	1.3	1.1	2.6	2.3	2.6	3.8	4.5	5.9	7.2	7.9	8.5	6.1	3.6	4.7	5.4	3.7	8.5	1.1	3.8
26	2.1	2.8	4.7	5.1	4.7	4.1	3.5	4.0	3.9	3.3	3.8	4.6	5.3	5.1	6.5	6.3	6.0	5.3	3.9	3.1	1.4	3.4	4.4	8.2	8.2	1.4	4.4
27	7.3	6.4	7.0	7.5	4.3	4.0	3.2	2.1	3.4	3.3	5.6	6.3	5.4	4.2	3.2	4.7	3.9	3.3	2.6	1.4	1.1	2.1	2.1	1.5	7.5	1.1	4.0
28	1.2	3.9	3.2	3.1	2.0	2.6	2.6	2.9	2.6	3.0	2.7	1.9	3.2	3.8	4.2	2.2	2.8	4.9	6.2	5.5	7.4	7.6	6.9	9.8	9.8	1.2	4.0
29	9.8	9.1	10.9	8.5	7.1	8.6	11.1	12.7	13.3	15.8	14.9	12.5	10.4	10.6	9.0	9.6	10.3	8.5	7.7	7.9	10.2	11.7	11.2	11.2	15.8	7.1	10.5
30	10.0	10.8	8.8	9.1	9.6	9.9	9.8	10.2	5.7	6.2	5.5	5.0	3.8	3.9	4.8	4.1	3.9	2.4	2.2	1.9	4.9	5.5	6.0	4.7	10.8	1.9	6.2
31	4.9	5.0	4.9	4.1	4.1	3.6	3.9	4.0	3.1	4.3	4.7	3.8	2.4	2.2	3.1	3.6	1.7	2.3	1.4	1.0	2.6	3.9	3.5	2.1	5.0	1.0	3.3
Max.	**14.2**	**13.5**	**14.7**	**14.3**	**15.2**	**15.4**	**15.9**	**14.5**	**14.6**	**15.8**	**14.9**	**15.2**	**14.7**	**14.5**	**15.0**	**16.8**	**18.4**	**17.8**	**17.2**	**16.6**	**16.5**	**14.2**	**14.6**	**15.2**	**18.4**		
Min.	**1.2**	**1.3**	**1.5**	**0.9**	**0.6**	**0.7**	**1.4**	**0.9**	**1.2**	**1.1**	**1.8**	**1.1**	**2.0**	**2.2**	**2.0**	**2.2**	**1.7**	**2.3**	**1.4**	**1.0**	**1.1**	**1.8**	**1.7**	**1.5**		**0.6**	
Avg.	**7.3**	**7.3**	**7.3**	**7.4**	**6.7**	**6.8**	**6.9**	**6.9**	**7.2**	**7.6**	**7.6**	**7.5**	**7.5**	**7.4**	**7.6**	**7.8**	**7.9**	**7.8**	**7.3**	**6.9**	**6.8**	**7.0**	**6.9**	**7.2**			**7.3**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (Climatronics) (m/s)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	1.1	2.1	2.1	2.1	2.7	3.9	4.0	3.5	3.7	4.9	4.3	3.1	3.2	4.0	3.2	3.9	4.7	5.0	5.5	5.1	3.8	4.4	3.7	3.1	5.5	1.1	3.6
2	3.4	2.9	3.9	4.4	3.8	3.8	4.2	3.5	2.6	4.6	5.1	5.1	4.2	4.9	5.0	6.3	6.6	7.0	8.0	7.6	5.6	5.9	6.5	5.4	8.0	2.6	5.0
3	7.8	8.3	9.6	10.5	11.1	11.2	10.0	12.0	12.1	12.5	14.4	13.8	14.1	13.6	13.7	13.5	13.9	14.0	13.0	11.3	12.2	12.6	12.0	14.8	14.8	7.8	12.2
4	11.0	11.0	11.7	7.6	6.0	4.3	3.4	1.3	2.7	5.6	7.7	6.0	4.6	5.1	3.1	2.8	5.8	5.7	7.6	7.8	7.7	8.0	9.4	5.4	11.7	1.3	6.3
5	2.4	2.3	2.8	4.7	4.3	4.1	2.7	2.4	5.1	6.6	7.3	6.6	6.5	6.6	5.5	5.8	2.0	1.4	2.4	2.7	3.1	2.4	2.5	2.6	7.3	1.4	4.0
6	3.0	4.1	2.8	3.2	2.8	3.0	2.3	2.1	1.9	5.0	2.2	0.7					0.2	1.4	4.6	3.7	2.9	3.3	3.0	2.0	5.0	0.2	2.7
7	3.8	5.9	6.5	7.4	6.5	7.2	7.9	9.6	11.3	12.6	13.1	13.2	14.2	16.2	17.4	19.1	19.1	18.2	18.8	19.2	17.9	18.1	20.3	21.6	21.6	3.8	13.5
8	20.1	14.5	10.2	11.0	9.3	12.8	11.6	10.3	9.8	11.2	10.8	11.3	10.1	9.6	9.0	8.4	7.1	7.8	9.6	7.9	5.4	5.1	5.8	6.4	20.1	5.1	9.8
9	6.6	5.9	5.5	5.8	5.9	5.5	6.1	5.9	5.2	5.1	5.2	5.5	4.2	3.7	4.9	3.9	4.4	4.6	3.7	3.9	3.4	2.6	2.4	2.0	6.6	2.0	4.7
10	1.5	1.1	1.3	1.7	1.4	1.7	1.3	1.5	1.3	1.6	1.1	3.5	5.8	6.7	9.4	10.8	9.9	11.0	10.0	8.7	11.3	13.5	16.0	15.0	16.0	1.1	6.1
11	12.0	14.0	15.9	15.7	16.6	16.9	17.3	18.9	19.6	17.3	18.1	18.2	20.1	21.7	20.0	20.3	21.6	25.3	23.3	21.5	22.2	21.9	20.4	20.3	25.3	12.0	19.1
12	17.7	17.1	15.5	13.3	8.8	7.3	4.5	3.1	5.0	4.3	2.9	3.1	5.2	7.2	6.5	7.2	6.7	7.5	9.6	8.8	7.3	6.4	8.6	7.7	17.7	2.9	8.0
13	3.6	4.1	4.2	4.1	4.5	5.0	4.9	6.4	6.7	6.6	5.4	4.4	3.0	4.2	4.1	2.7	2.9	5.7	3.8	5.0	4.7	4.3	4.3	3.0	6.7	2.7	4.5
14	2.7	3.3	3.5	2.8	2.9	2.6	2.2	1.8	2.6	2.9	1.9	1.3	1.1	2.4	2.8	2.4	3.9	4.4	5.3	5.8	6.3	6.8	8.1	8.1	8.1	1.1	3.7
15	7.8	7.8	9.2	8.1	8.1	8.1	7.1	8.6	6.4	8.4	11.0	11.7	11.5	10.1	11.4	11.9	11.6	9.0	8.4	7.4	5.9	5.6	7.8	8.1	11.9	5.6	8.8
16	6.2	7.4	5.8	5.5	5.1	2.7	2.6	2.2	1.9	2.8	4.9	4.6	4.9	5.0	5.3	6.1	6.5	6.2	5.9	7.5	7.0	6.7	8.1	6.8	8.1	1.9	5.3
17	7.3	4.5	5.4	4.9	2.1	3.0	3.8	2.3	2.4	3.8	4.8	4.7	4.2	2.3	3.1	3.7	2.9	2.3	3.1	3.6	4.2	3.3	4.7	6.8	7.3	2.1	3.9
18	6.6	8.0	8.5	8.1	10.7	12.6	13.6	16.0	15.9	19.2	19.7	20.1	22.6	22.5	20.5	17.5	17.8	17.0	14.9	14.7	14.6	13.1	8.0	6.0	22.6	6.0	14.5
19	6.2	5.9	6.5	8.8	5.2	4.6	6.0	7.3	5.1	5.9	7.1	8.0	10.7	11.7	13.2	12.9	13.9	14.2	15.7	13.5	13.3	12.9	12.2	13.2	15.7	4.6	9.7
20	13.6	11.9	12.8	12.3	10.3	10.4	10.1	10.9	10.9	8.7	8.2	8.4	9.3	7.9	7.3	5.5	6.4	6.7	6.4	3.5	3.0	5.9	4.2	4.9	13.6	3.0	8.3
21	3.8	2.4	3.1	2.9	3.6	6.1	4.8	3.8	6.0	7.9	9.6	10.7	9.7	7.6	6.9	7.9	6.4	7.1	7.6	6.8	6.7	5.4	3.2	4.9	10.7	2.4	6.0
22	4.7	5.5	6.2	4.8	4.7	5.4	5.0	3.6	2.5	3.2	3.0	6.0	6.1	8.4	9.5	8.6	11.0	10.1	9.5	12.9	14.2	11.5	12.5	10.4	14.2	2.5	7.5
23	9.1	6.7	5.7	8.2	6.0	6.3	4.5	3.1	3.8	3.8	4.1	3.7	5.1	6.1	8.0	7.6	7.7	7.1	7.7	9.2	8.2	6.0	5.4	3.9	9.2	3.1	6.1
24	5.9	3.6	2.5	7.4	7.8	8.4	6.8	4.8	5.1	5.6	5.6	7.5	6.7	6.1	8.8	8.0	6.4	5.4	6.1	2.8	3.6	5.0	5.4	7.0	8.8	2.5	5.9
25	6.6	6.4	7.6	5.4	2.8	6.2	8.1	7.9	7.9	8.8	7.6	7.5	7.8	7.1	7.5	7.6	6.5	7.5	8.5	7.0	8.0	8.1	8.1	7.5	8.8	2.8	7.3
26	6.8	7.9	7.1	7.0	6.1	4.3	3.9	3.9	3.3	2.4	1.4	4.5	3.4	3.8	2.5	1.5	1.3	2.3	2.7	3.6	3.1	3.4	2.1	2.2	7.9	1.3	3.8
27	2.3	2.1	3.4	4.1	3.2	2.9	3.2	2.9	3.0	3.3	2.7	2.1	4.4	4.1	4.0	4.6	6.0	6.6	9.8	9.6	13.5	14.6	16.0	14.8	16.0	2.1	6.0
28	16.7	16.8	17.2	16.3	13.8	14.1	14.1	12.1	9.8	6.7	4.9	6.0	6.8	6.5	5.8	4.0	2.0	3.3	3.9	3.7	3.6	2.7	2.1	1.6	17.2	1.6	8.1
29	4.0	4.0	5.2	4.7	4.9	4.9	4.9	4.1	2.7	2.2	1.8	1.6	2.5	4.0	4.9	5.3	4.2	3.4	3.4	4.2	5.5	6.0	8.2	8.6	8.6	1.6	4.4
30	7.4	6.4	5.6	3.5	5.8	5.2	7.0	6.0	7.4	8.8	8.1	9.8	9.7	8.1	5.5	5.1	4.3	6.0	6.9	3.3	1.3	3.3	4.4	4.7	9.8	1.3	6.0
Max.	**20.1**	**17.1**	**17.2**	**16.3**	**16.6**	**16.9**	**17.3**	**18.9**	**19.6**	**19.2**	**19.7**	**20.1**	**22.6**	**22.5**	**20.5**	**20.3**	**21.6**	**25.3**	**23.3**	**21.5**	**22.2**	**21.9**	**20.4**	**21.6**	**25.3**		
Min.	**1.1**	**1.1**	**1.3**	**1.7**	**1.4**	**1.7**	**1.3**	**1.3**	**1.3**	**1.6**	**1.1**	**0.7**	**1.1**	**2.3**	**2.5**	**1.5**	**0.2**	**1.4**	**2.4**	**2.7**	**1.3**	**2.4**	**2.1**	**1.6**		**0.2**	
Avg.	**7.0**	**6.8**	**6.9**	**6.9**	**6.2**	**6.5**	**6.3**	**6.1**	**6.1**	**6.7**	**6.8**	**7.1**	**7.7**	**7.8**	**7.9**	**7.7**	**7.5**	**7.8**	**8.2**	**7.7**	**7.7**	**7.6**	**7.9**	**7.6**			**7.2**

Total Hours in Month 720 **Hours Data Available** 716 **Data Recovery** 99.4%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (Climatronics) (m/s)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	6.1	6.0	5.7	4.5	2.6	2.0	1.6	1.5	1.3	1.4	2.3	2.4	2.2	4.0	6.4	8.0	8.3	9.3	10.4	11.6	11.1	9.0	8.8	10.5	11.6	1.3	5.7
2	10.1	9.3	9.2	10.6	13.1	13.7	14.8	14.4	14.0	15.4	13.8	10.8	10.4	11.5	11.9	11.9	12.3	11.7	9.2	11.0	14.2	13.4	13.6	13.9	15.4	9.2	12.3
3	12.1	11.3	10.6	8.3	11.3	12.4	12.5	12.1	12.1	12.7	12.0	12.6	13.7	12.5	12.2	11.8	9.1	3.5	7.4	4.0	2.6	2.5	2.2	1.7	13.7	1.7	9.3
4	3.1	1.8	1.8	2.4	2.7	5.2	7.6	6.9	8.8	10.5	14.0	13.5	14.3	14.4	15.4	15.9	14.1	12.7	13.0	14.7	16.5	14.5	15.0	12.9	16.5	1.8	10.5
5	12.6	13.0	14.2	15.1	15.5	13.8	13.8	13.4	13.1	13.0	12.2	9.6	4.0	4.6	10.8	10.5	12.3	12.1	15.4	13.3	10.3	9.3	8.5	10.5	15.5	4.0	11.7
6	10.6	13.0	12.8	11.0	13.1	13.8	12.4	12.4	12.7	12.4	12.3	14.6	15.6	16.4	14.9	14.8	11.6	10.9	10.0	8.5	6.5	7.7	7.1	7.6	16.4	6.5	11.8
7	8.9	8.7	9.0	10.3	10.7	12.9	12.0	12.1	14.1	13.0	13.3	14.2	13.4	14.3	14.6	17.1	15.1	15.8	16.4	18.7	18.8	19.8	18.7	16.8	19.8	8.7	14.1
8	20.7	18.3	14.1	16.9	12.9	14.6	17.0	15.5	15.7	16.7	8.4	5.0	8.9	9.6	9.1	9.1	9.9	7.4	6.2	7.3	7.6	5.6	9.1	9.7	20.7	5.0	11.5
9	7.4	8.7	6.6	5.0	4.7	4.1	3.9	3.6	4.0	4.3	3.8	3.2	2.2	2.1	1.7	1.8	3.7	5.6	4.6	5.9	5.4	4.9	5.8	5.1	8.7	1.7	4.5
10	6.4	6.8	8.4	8.1	5.5	7.5	9.1	9.9	9.1	8.3	9.3	8.1	8.5	8.9	8.2	6.4	5.3	6.0	5.3	5.7	3.9	3.6	3.6	3.8	9.9	3.6	6.9
11	4.1	5.7	3.9	4.4	4.0	3.7	6.0	4.6	3.8	4.1	3.6	5.3	7.1	6.8	6.8	7.8	9.5	10.7	11.4	11.4	11.4	10.7	10.3	9.5	11.4	3.6	6.9
12	9.8	8.9	7.6	7.2	7.2	5.9	4.7	2.8	2.2	3.1	2.7	1.7	1.4	1.2	2.0	2.8	3.7	2.8	2.8	3.9	6.1	6.8	5.0	5.3	9.8	1.2	4.5
13	5.4	5.0	5.2	4.4	5.1	5.4	6.5	7.7	7.2	6.8	7.3	7.4	7.3	7.5	5.8	5.4	6.2	6.7	7.1	6.6	6.8	6.8	7.5	5.5	7.7	4.4	6.4
14	6.1	8.0	5.9	5.9	5.5	5.7	6.4	7.8	6.8	4.4	4.9	6.6	6.2	6.2	5.5	4.7	5.5	5.9	5.1	5.6	4.7	6.3	6.3	5.1	8.0	4.4	5.9
15	4.6	4.9	4.0	3.6	3.9	3.2	2.6	3.1	3.1	3.1	3.4	3.1	2.7	4.4	3.7	4.0	3.6	3.3	3.6	4.3	5.3	5.0	4.4	4.8	5.3	2.6	3.8
16	5.2	6.2	6.7	6.1	6.2	6.0	4.0	6.5	6.7	4.7	4.6	6.5	8.4	8.7	8.7	9.9	9.0	8.2	7.6	8.4	8.5	11.7	10.8	8.7	11.7	4.0	7.4
17	7.3	8.0	7.8	7.9	8.5	7.6	7.3	7.5	7.3	7.2	7.6	6.7	6.7	6.9	6.8	7.4	6.1	5.5	5.4	4.5	4.7	4.5	4.9	5.4	8.5	4.5	6.6
18	4.7	4.3	4.4	4.4	4.7	4.4	5.2	4.7	4.0	3.8	3.8	3.2	2.0	2.0	3.4	1.8	2.4	3.4	2.8	3.6	3.4	3.5	3.2	2.6	5.2	1.8	3.6
19	2.0	2.2	3.2	4.0	4.9	6.0	3.6	2.9	2.8	3.4	2.0	1.5	1.4	1.3	1.3	0.8	0.8	0.9	2.1	2.9	2.8	2.8	2.7	2.3	6.0	0.8	2.5
20	2.5	2.7	2.8	2.6	2.9	3.6	3.7	3.5	3.7	3.3	3.4	4.3	7.5	9.0	10.1	11.3	10.8	10.7	11.4	11.9	13.7	12.1	12.5	12.4	13.7	2.5	7.2
21	12.1	15.0	13.3	14.1	13.4	11.1	11.1	12.0	11.5	6.9	6.5	6.3	7.9	9.1	9.5	9.2	9.1	7.0	6.3	4.6	3.0	3.2	3.6	4.5	15.0	3.0	8.8
22	4.5	4.0	4.2	4.6	5.7	6.8	5.2	5.0	3.6	3.2	2.7	2.9	2.5	2.1	1.4	2.9	3.1	3.6	2.1	1.3	1.7	1.9	1.1	1.2	6.8	1.1	3.2
23	2.0	1.7	2.0	1.5	1.5	1.7	1.6	1.8	1.1	1.9	2.0	1.3	2.0	2.2	2.6	2.1	1.4	3.5	7.6	6.8	3.6	2.1	2.0	1.4	7.6	1.1	2.4
24	1.2	2.1	1.2	2.0	1.9	0.8	0.7	0.6	1.7	3.7	4.2	4.5	4.7	2.9	4.0	3.1	4.6	5.4	5.9	5.8	5.9	6.4	6.6	9.1	9.1	0.6	3.7
25	10.2	10.5	14.5	16.4	17.8	17.6	21.8	20.9	23.3	27.0	24.9	23.7	21.7	19.9	20.2	22.3	23.0	21.2	19.6	18.6	10.7	8.8	6.5	3.6	27.0	3.6	17.7
26	5.2	6.3	5.9	4.8	4.4	5.3	5.9	6.5	5.2	5.3	5.2	4.1	5.5	5.5	5.5	4.8	5.2	5.5	6.7	8.5	7.9	8.1	8.5	8.4	8.5	4.1	6.0
27	8.5	8.4	8.6	8.6	8.1	8.5	6.9	7.3	5.9	5.1	7.1	5.7	4.1	5.5	8.7	8.0	7.1	6.1	5.8	5.7	3.8	2.4	1.4	1.5	8.7	1.4	6.2
28	2.8	5.0	4.2	2.9	1.0	0.9	1.2	1.8	1.6	3.0	2.6	2.2	2.4	3.0	3.6	4.3	4.7	5.4	5.7	5.8	8.1	8.7	9.1	10.4	10.4	0.9	4.2
29	12.5	13.2	14.6	15.6	14.9	14.6	16.4	18.2	17.2	17.8	17.7	19.1	18.6	17.7	16.8	15.6	15.3	14.7	14.7	14.7	15.8	13.0	13.6	12.8	19.1	12.5	15.6
30	8.0	7.4	9.6	11.1	14.7	15.3	13.8	9.6	8.4	7.0	5.7	6.2	3.4	2.2	3.3	4.0	5.4	6.4	4.9	5.0	5.1	2.5	2.7	2.4	15.3	2.2	6.8
31	2.7	3.3	4.3	6.1	7.2	7.2	5.6	6.9	7.7	9.0	9.3	8.0	6.9	6.4	6.2	6.3	6.5	4.6	6.0	9.2	10.4	10.5	9.9	11.4	11.4	2.7	7.2
Max.	**20.7**	**18.3**	**14.6**	**16.9**	**17.8**	**17.6**	**21.8**	**20.9**	**23.3**	**27.0**	**24.9**	**23.7**	**21.7**	**19.9**	**20.2**	**22.3**	**23.0**	**21.2**	**19.6**	**18.7**	**18.8**	**19.8**	**18.7**	**16.8**	**27.0**		
Min.	**1.2**	**1.7**	**1.2**	**1.5**	**1.0**	**0.8**	**0.7**	**0.6**	**1.1**	**1.4**	**2.0**	**1.3**	**1.4**	**1.2**	**1.3**	**0.8**	**0.8**	**0.9**	**2.1**	**1.3**	**1.7**	**1.9**	**1.1**	**1.2**		**0.6**	
Avg.	**7.1**	**7.4**	**7.3**	**7.4**	**7.6**	**7.8**	**7.9**	**7.8**	**7.7**	**7.8**	**7.5**	**7.2**	**7.2**	**7.4**	**7.8**	**7.9**	**7.9**	**7.6**	**7.8**	**8.1**	**7.8**	**7.4**	**7.3**	**7.1**			**7.6**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (Climatronics) (m/s)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	9.5	7.5	8.1	7.8	7.2	6.0	5.6	4.5	4.6	5.1	5.5	4.9	3.9	3.0	1.9	1.1	3.3	4.1	5.4	6.2	8.5	6.6	6.9	8.3	9.5	1.1	5.6
2	7.2	4.8	1.7	2.2	1.7	1.7	1.9	3.6	5.7	5.1	5.8	6.8	6.0	4.9	5.9	6.1	5.7	5.1	5.6	7.3	6.0	6.8	8.9	8.1	8.9	1.7	5.2
3	9.4	8.3	7.0	7.4	7.7	7.3	6.5	5.1	2.0	1.9	1.2	1.6	0.9	0.6	2.1	3.2	3.2	2.0	3.2	5.3	7.8	10.0	10.8	12.0	12.0	0.6	5.3
4	13.7	13.5	13.9	15.4	15.2	14.7	15.3	15.4	15.6	15.1	14.6	15.2	14.8	15.7	16.4	17.0	15.7	13.5	13.1	8.8	8.0	8.3	9.0	9.6	17.0	8.0	13.6
5	10.1	9.9	9.5	9.4	8.8	7.6	2.0	0.2	0.2	0.2	0.2	3.9	5.4	5.7	5.7	4.6	5.3	7.7	9.0	9.4	9.9	10.2	10.6	9.8	10.6	0.2	6.5
6	9.8	10.1	11.0	12.3	11.2	11.3	12.8	15.2	15.7	15.8	16.3	16.5	18.0	18.5	17.5	17.2	15.0	15.9	14.2	14.0	13.9	16.6	12.6	10.2	18.5	9.8	14.2
7	7.6	8.1	9.2	11.1	10.7	13.7	14.5	12.9	13.6	13.3	12.4	12.6	12.4	12.5	11.3	10.7	9.1	7.5	8.5	6.4	6.9	6.8	6.0	5.3	14.5	5.3	10.1
8	3.9	2.5	4.9	7.7	11.0	12.8	15.2	15.8	18.0	16.4	19.4	21.6	20.2	15.9	14.3	13.3	14.0	13.7	11.7	12.5	11.3	10.3	9.8	8.2	21.6	2.5	12.7
9	8.6	8.2	9.2	8.8	10.1	9.9	9.2	10.7	9.2	8.4	8.7	8.7	8.3	7.1	8.7	9.8	10.4	9.7	7.4	7.6	7.0	5.8	4.0	3.6	10.7	3.6	8.3
10	4.2	5.0	5.4	5.5	6.0	4.4	6.3	7.1	7.4	4.4	4.4	6.4	7.0	8.3	8.9	9.1	8.0	7.2	5.0	4.4	4.8	4.1	4.6	5.5	9.1	4.1	6.0
11	5.1	5.2	5.3	3.7	4.8	7.9	7.2	5.8	5.6	6.3	4.8	5.6	6.8	7.9	7.6	7.1	7.7	8.0	6.8	6.7	4.8	3.5	2.5	1.7	8.0	1.7	5.8
12	1.8	2.6	1.7	1.3	2.4	1.7	1.2	0.8	0.9	1.4	1.4	1.3	1.4	2.1	2.2	2.5	3.4	6.9	9.5	10.3	11.8	12.3	12.3	11.5	12.3	0.8	4.4
13	11.7	12.6	11.8	11.2	10.5	10.6	12.4	11.4	11.1	10.4	9.4	10.1	5.8	4.6	4.9	2.6	2.6	3.5	7.9	7.5	8.0	7.2	7.5	9.0	12.6	2.6	8.5
14	9.3	8.8	8.3	8.9	7.9	7.3	7.9	4.0	1.7	1.4	2.4	3.3	4.8	5.2	4.6	5.1	5.7	5.1	6.1	6.0	4.2	3.7	4.2	4.8	9.3	1.4	5.5
15	5.2	5.8	6.1	5.8	8.2	9.5	11.0	12.3	12.1	12.7	13.3	14.2	13.1	13.1	15.3	15.7	19.2	19.6	21.9	21.0	21.2	22.3	22.9	23.0	23.0	5.2	14.4
16	24.5	28.0	29.3	31.1	33.2	32.0	33.3	32.0	30.1	30.0	29.6	27.4	27.0	30.2	27.4	26.9	25.8	25.6	22.0	27.1	26.3	21.0	24.5	25.7	33.3	21.0	27.9
17	23.8	22.1	21.5	26.2	26.9	28.4	29.2	33.2	30.9	28.5	20.2	19.1	21.2	23.8	23.3	21.4	16.1	16.2	13.7	13.6	9.7	12.8	17.8	6.8	33.2	6.8	21.1
18	8.8	9.2	4.5	7.1	8.7	9.4	5.7	7.2	6.3	5.7	5.9	6.1	6.2	5.6	5.7	4.7	4.9	3.7	4.1	2.1	2.2	2.4	2.1	2.2	9.4	2.1	5.4
19	1.9	2.5	2.2	3.3	2.1	1.5	2.5	1.3	1.8	3.9	3.0	5.4	9.2	9.9	10.0	11.4	10.5	10.2	9.2	9.9	8.9	9.3	9.5	9.8	11.4	1.3	6.2
20	11.7	12.0	11.1	10.5	12.1	14.5	15.3	14.2	16.3	14.7	16.3	14.8	16.4	19.4	15.1	12.1	13.5	11.8	12.6	12.1	13.0	10.7	10.8	7.8	19.4	7.8	13.3
21	11.9	13.3	15.0	11.7	9.8	14.7	13.8	9.4	7.6	9.6	14.6	13.6	11.9	12.1	14.0	13.5	12.1	14.8	16.4	15.2	14.3	13.6	13.0	13.7	16.4	7.6	12.9
22	13.2	12.2	6.7	10.3	6.9	9.8	8.6	10.0	10.2	13.8	15.6	17.5	15.6	16.0	16.9	18.3	22.3	18.3	18.5	18.4	11.0	14.5	13.1	6.3	22.3	6.3	13.5
23	5.1	4.4	4.7	5.3	5.2	5.2	6.8	7.6	5.7	5.4	5.1	3.7	3.3	3.7	2.8	4.4	3.7	3.4	1.8						7.6	1.8	4.6
24														6.7	11.7	13.7	13.6	13.3	17.0	14.2	11.0	17.1	17.5	15.7	17.5	6.7	13.8
25	15.8	16.0	14.0	12.5	13.4	13.6	15.3	12.5	13.8	19.1	19.6	17.2	15.6	20.0	21.4	21.1	20.1	19.5	17.0	7.7	5.2	8.9	7.0	8.9	21.4	5.2	14.8
26	12.2	13.6	13.0	10.1	7.3	6.1	4.8	3.1	1.8	2.4	2.8	3.0	3.3	1.8	1.7	3.7	4.0	5.4	6.9	6.3	5.1	4.8	7.1	10.6	13.6	1.7	5.9
27	7.8	10.7	11.8	15.4	14.1	14.5	16.7	17.1	20.0	21.2	20.0	19.9	18.0	21.0	18.4	16.1	16.7	13.7	14.3	12.7	12.6	11.4	10.2	11.5	21.2	7.8	15.2
28	9.3	9.7	7.3	8.4	5.9	3.7	3.0	1.1	1.4	2.6	4.2	5.6	6.7	6.4	7.3	8.6	8.1	8.1	9.1	10.7	10.9	11.0	8.7	10.2	11.0	1.1	7.0
29	10.0	10.6	12.4	12.8	13.7	9.8	14.2	15.2	18.7	18.4	17.1	15.8	15.7	19.2	19.1	19.6	18.0	17.8	18.4	21.1	20.9	20.4	20.6	21.9	21.9	9.8	16.7
30	22.6	20.4	20.9	22.0	22.0	21.6	22.4	22.5	22.2	22.7	21.6	21.7	21.8	20.9	20.5	18.8	14.4	11.8	14.0	17.6	20.6	19.5	18.5	12.9	22.7	11.8	19.8
Max.	**24.5**	**28.0**	**29.3**	**31.1**	**33.2**	**32.0**	**33.3**	**33.2**	**30.9**	**30.0**	**29.6**	**27.4**	**27.0**	**30.2**	**27.4**	**26.9**	**25.8**	**25.6**	**22.0**	**27.1**	**26.3**	**22.3**	**24.5**	**25.7**	**33.3**		
Min.	**1.8**	**2.5**	**1.7**	**1.3**	**1.7**	**1.5**	**1.2**	**0.2**	**0.2**	**0.2**	**0.2**	**1.3**	**0.9**	**0.6**	**1.7**	**1.1**	**2.6**	**2.0**	**1.8**	**2.1**	**2.2**	**2.4**	**2.1**	**1.7**		**0.2**	
Avg.	**10.2**	**10.3**	**9.9**	**10.5**	**10.5**	**10.7**	**11.1**	**10.7**	**10.7**	**10.9**	**10.9**	**11.2**	**11.1**	**11.4**	**11.4**	**11.3**	**11.1**	**10.8**	**11.0**	**11.1**	**10.5**	**10.8**	**10.8**	**10.2**			**10.8**

Total Hours in Month 720 **Hours Data Available** 702 **Data Recovery** 97.5%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (Climatronics) (m/s)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	12.6	12.6	11.2	8.7	10.7	13.8	9.0	5.0	6.2	9.6	9.9	7.2	8.8	6.6	8.9	7.4	4.2	1.4	1.2	1.4	2.8	3.2	2.4	6.0	13.8	1.2	7.1
2	5.6	5.2	4.3	4.8	3.6	4.3	4.9	5.7	5.1	4.4	4.4	3.6	2.8	3.7	1.0	2.2	0.8	2.3	4.1	4.3	6.0	10.7	7.3	5.8	10.7	0.8	4.5
3	8.9	9.1	10.1	11.0	12.8	12.3	13.2	11.2	9.8	11.0	13.4	11.2	8.9	9.0	7.7	7.4	8.1	6.1	6.7	8.3	8.7	9.1	8.8	9.4	13.4	6.1	9.7
4	10.8	9.7	10.3	9.4	9.2	8.1	5.0	5.0	7.3	9.2	9.5	6.8	6.7	5.7	6.5	7.7	7.2	9.7	11.3	10.4	12.8	13.4	12.4	12.8	13.4	5.0	9.0
5	12.3	11.5	11.4	11.6	10.7	9.6	9.6	9.6	10.6	9.9	10.0	11.2	13.1	14.8	15.6	16.0	16.7	18.1	18.2	18.0	18.9	20.2	18.6	21.4	21.4	9.6	14.1
6	24.2	24.6	25.3	23.5	22.4	21.5	21.2	21.1	20.8	20.3	18.8	17.7	17.3	16.2	12.6	11.6	6.1	1.2							25.3	1.2	18.1
7												9.7	12.9	12.8	13.9	16.5	18.3	17.6	15.0	16.5	16.4	15.7	14.3	13.3	18.3	9.7	14.8
8	15.9	12.0	9.4	7.1	5.1				0.5	3.1	3.3	6.3	8.6	5.2	10.2	5.1	0.4								15.9	0.4	6.6
9												13.8	18.4	20.4	20.0	21.9	20.5	19.0	19.2	20.2	21.2	19.7	18.3	16.1	21.9	13.8	19.1
10	17.1	15.3	10.1	10.7	14.6	13.5	10.2	10.4	9.1	11.8	13.4	12.0	8.9	10.0	11.7	12.0	11.3	9.7	7.2	4.4	3.4	4.7	7.3	10.5	17.1	3.4	10.4
11	13.9	15.1	15.7	15.5	12.0	8.3	5.2	6.0	3.6	3.1	3.5	3.0	1.5	1.0	2.3	2.1	3.4	2.4	0.8	0.9	1.4	2.8	3.9	4.7	15.7	0.8	5.5
12	5.4	4.5	5.7	5.4	4.2	3.7	4.9	5.4	6.2	4.1	4.2	4.8	3.7	4.1	3.6	4.2	5.2	5.4	4.5	2.8	2.9	2.5	2.8	2.0	6.2	2.0	4.3
13	2.0	1.6	2.4	2.7	2.7	2.6	3.1	2.9	2.7	3.2	3.3	3.7	3.3	4.0	4.8	5.1	6.5	7.9	8.8	7.9	9.9	9.9	9.7	10.2	10.2	1.6	5.0
14	10.4	12.9	12.4	12.0	11.8	11.5	11.0	11.6	12.7	14.0	15.2	13.2	14.5	9.4	10.8	11.6	16.2	17.6	17.7	16.5	21.3	19.0	17.9	19.5	21.3	9.4	14.2
15	19.7	16.2	13.6	18.2	18.8	19.4	18.9	15.9	14.9	16.2	18.6	18.6	18.0	19.0	21.4	21.8	23.3	22.1	23.3	21.6	20.5	25.0	28.4	24.1	28.4	13.6	19.9
16	20.3	21.3	24.5	23.4	22.2	26.9	21.7	20.4	21.2	22.3	21.3	21.5	22.2	22.0	23.7	19.7	20.1	22.2	25.0	24.4	21.7	18.4	23.8	22.3	26.9	18.4	22.2
17	21.1	24.2	27.1	28.3	26.1	28.0	22.9	18.1	15.4	18.5	22.9	22.6	20.8	24.0	22.6	21.5	19.2	17.5	15.0	13.2	13.0	10.8	8.0	8.3	28.3	8.0	19.6
18	7.4	6.3	7.9	7.3	7.3	8.5	9.6	8.5	8.0	8.3	8.5	9.0	8.5	8.9	8.9	8.8	8.5	9.2	10.5	9.9	10.2	8.7	8.9	13.1	13.1	6.3	8.8
19	10.7	7.5	5.7	10.7	16.6	17.1	17.8	20.5	19.7	17.5	19.5	17.0	16.0	15.6	18.2	19.2	21.4	18.1	11.6	6.9	13.0	7.0	8.2	7.9	21.4	5.7	14.3
20	6.8	5.9	5.7	4.8	4.2	3.0	6.6	10.8	12.3	14.5	14.2	13.4	15.8	16.2	15.5	14.9	13.7	8.4	4.7	6.1	4.4	3.1	2.3	3.3	16.2	2.3	8.8
21	6.5	9.9	11.1	12.0	10.1	11.1	9.6	9.1	9.7	6.4	7.8	7.1	7.2	5.6	6.1	6.9	6.6	8.0	9.5	10.8	11.8	11.9	11.2	11.1	12.0	5.6	9.0
22	12.6	14.7	15.1	12.4	13.5	15.6	16.0	17.6	15.4	15.2	14.8	14.3	14.6	13.5	11.9	12.9	12.3	11.3	11.0	10.3	9.2	6.2	4.8	6.0	17.6	4.8	12.6
23	9.9	11.4	12.9	11.2	7.8	8.3	7.9	6.1	3.4	2.4	2.1	2.7	3.3	4.2	4.7	4.5	3.9	2.5	3.0	2.2	2.1	1.5	1.4	1.4	12.9	1.4	5.0
24	3.0	3.1	2.9	3.6	4.8	5.8	8.1	15.0	17.2	16.7	15.1	18.7	23.7	25.3	25.6	26.1	26.6	27.9	28.7	27.8	27.7	27.0	26.5	26.5	28.7	2.9	18.1
25	27.3	28.6	28.6	24.6	16.4	17.2	18.0	19.3	19.0	16.4	15.5	17.4	17.6	14.2	13.1	12.8	12.7	10.7	13.4	10.1	8.1	13.2	15.3	13.5	28.6	8.1	16.8
26	5.5	5.9	8.5	8.3	7.0	2.8	4.3	5.0	4.5	7.3	5.2	8.1	9.5	9.9	14.3	13.2	8.8	13.6	16.4	16.2	16.4	18.0	18.1	19.5	19.5	2.8	10.3
27	19.4	20.3	19.0	15.2	15.6	16.3	16.9	17.4	15.9	17.2	16.8	15.0	15.0	16.6	15.8	9.2	6.6	5.2	5.3	5.2	5.1	3.1	4.9	6.9	20.3	3.1	12.7
28	10.8	14.6	13.5	9.6	9.4	8.9	8.3	6.9	7.2	14.0	13.4	10.6	11.5	10.6	10.1	9.5	6.8	9.8	12.8	11.4	15.8	20.2	21.7	21.2	21.7	6.8	12.0
29	20.2	17.3	15.8	8.2	4.8	10.1	8.0	8.3	9.3	9.0	10.8	13.4	15.2	14.4	12.1	10.6	11.2	12.3	10.7	10.5	9.4	7.3	8.5	9.7	20.2	4.8	11.1
30	11.0	10.2	9.2	8.2	7.9	5.4	5.6	5.8	7.2	6.4	6.7	8.0	9.0	10.0	7.8	7.5	8.2	7.8	9.1	9.8	10.9	10.8	10.6	9.3	11.0	5.4	8.4
31	7.6	5.5	3.9	4.4	4.7	4.9	4.7	5.9	6.9	7.5	7.7	7.1	8.1	7.2	7.5	7.1	7.3	8.2	9.1	9.5	11.0	11.3	11.8	12.1	12.1	3.9	7.5
Max.	**27.3**	**28.6**	**28.6**	**28.3**	**26.1**	**28.0**	**22.9**	**21.1**	**21.2**	**22.3**	**22.9**	**22.6**	**23.7**	**25.3**	**25.6**	**26.1**	**26.6**	**27.9**	**28.7**	**27.8**	**27.7**	**27.0**	**28.4**	**26.5**	**28.7**		
Min.	**2.0**	**1.6**	**2.4**	**2.7**	**2.7**	**2.6**	**3.1**	**2.9**	**0.5**	**2.4**	**2.1**	**2.7**	**1.5**	**1.0**	**1.0**	**2.1**	**0.4**	**1.2**	**0.8**	**0.9**	**1.4**	**1.5**	**1.4**	**1.4**		**0.4**	
Avg.	**12.4**	**12.3**	**12.2**	**11.5**	**10.9**	**11.4**	**10.8**	**10.9**	**10.4**	**11.0**	**11.4**	**11.2**	**11.8**	**11.6**	**11.9**	**11.5**	**11.0**	**11.1**	**11.5**	**10.9**	**11.6**	**11.5**	**11.7**	**12.0**			**11.4**

Total Hours in Month 744 **Hours Data Available** 706 **Data Recovery** 94.9%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (Climtrncs) (Degrees)

January *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	25.0	24.5	21.5	18.4	20.9	21.7	15.2	11.8	19.9	18.5	16.0	18.2	16.1	22.5	24.3	16.3	17.0	18.8	14.3	20.3	16.6	11.4	18.8	10.1
2	17.8	21.1	16.0	16.7	14.8	19.9	24.8	17.4	15.3	17.7	21.0	21.5	19.1	19.7	19.5	17.6	16.3	11.8	7.1	15.5	16.0	15.5	13.4	14.7
3	23.2	14.5	8.9	3.3	2.4	3.1	357.5	352.9	351.9	342.9	325.4	335.8	341.2	322.9	355.3	357.5	342.5	343.3	357.4	350.1	342.5	355.2	21.5	357.2
4	15.1	18.5	14.7	19.0	24.5	24.7	25.2	27.2	29.1	29.5	27.1	23.5	24.9	10.9	13.7	25.1	27.9	27.4	25.1	23.5	20.1	33.5	223.0	197.1
5	179.9	307.0	18.9	22.7	15.9	343.5	3.8	18.5	17.7	3.6	9.0	12.0	14.1	4.0	9.5	12.7	14.9	1.5	350.1	291.5	300.4	13.4	10.9	7.2
6	18.0	21.8	27.1	15.4	15.9	7.2	21.6	14.1	18.5	13.1	16.4	16.1	16.7	4.4	9.7	10.7	6.0	0.2	1.6	8.6	4.8	0.7	9.6	358.6
7	8.2	13.5	5.9	4.8	358.4	358.4	359.7	2.3	0.6	357.5	1.4	350.4	4.1	4.0	3.0	359.3	356.6	3.5	1.1	1.8	0.1	355.7	355.4	354.9
8	357.4	0.6	355.0	352.0	4.6	17.2	1.7	2.3	7.9	7.3	6.5	8.7	7.5	2.0	2.2	18.4	11.3	7.4	18.2	11.3	15.3	29.2	18.8	11.8
9	13.2	20.1	12.2	284.6	12.3	17.8	17.4	19.7	23.9	37.8	42.0	71.9	41.9	39.8	92.2	142.3	128.8	131.7	133.4	138.6	131.5	169.4	137.1	130.2
10	136.3	133.8	138.0	141.5	134.0	123.5	122.5	118.2	119.2	118.5	118.1	115.8	126.5	129.7	127.8	128.0	126.2	120.2	125.1	125.6	121.8	123.8	127.5	122.6
11	120.8	118.4	119.3	119.1	121.7	122.6	121.7	118.4	119.9	121.8	118.8	115.8	114.9	115.7	114.0	113.7	114.6	114.5	108.6	107.6	110.1	111.2	110.9	111.6
12	110.1	110.2	107.4	107.8	110.7	111.4	113.8	119.8	124.5	122.1	122.7	121.7	121.6	119.1	122.2	115.8	115.5	114.3	116.9	116.6	118.8	125.0	180.5	238.1
13	230.3	230.6	230.8	229.1	219.2	207.7	204.7	204.1	176.9	206.1	200.4	195.2	214.5	184.1	141.3	81.8	19.7	23.4	14.0	17.6	14.8	18.2	24.9	25.2
14	18.7	16.5	18.3	13.3	16.8	13.8	1.0	359.0	359.3	0.1	0.3	1.7	2.2	1.3	359.9	8.6	6.7	350.6	338.6	342.9	338.7	321.0	323.9	326.4
15	338.2	339.7	357.0	1.6	352.0	340.9	329.6	330.1	333.8	321.8	327.3	341.7	337.5	336.2	343.0	345.7	329.0	348.0	338.0	1.6	0.7	1.3	17.7	22.7
16	24.1	29.3	27.0	27.8	32.6	68.6	96.3	103.9	101.1	106.2	109.1	108.5	102.3	100.9	104.3	104.6	107.1	110.3	112.6	114.3	116.5	117.4	119.8	115.0
17	119.1	137.6	143.7	141.6	136.7	132.8	134.6	133.5	129.0	120.7	124.0	118.8	133.7	134.2	123.1	124.5	125.5	129.3	119.5	124.3	125.1	131.7	129.1	121.9
18	122.7	123.8	115.1	90.9	72.6	52.0	71.7	53.4	70.1	47.8	17.5							264.9	278.6	293.9	11.9	344.2	357.3	289.4
19	318.0	291.5	267.1	291.5	262.3	253.3	209.9	235.1	258.4	16.6	32.5	32.7	54.5	44.7	61.3	85.0	91.5	96.8	104.8	106.4	106.0	106.8	104.0	102.5
20	107.0	107.5	110.8	104.8	104.7	99.1	99.2	99.5	100.1	98.6	97.8	82.0	71.9	31.8	19.1	21.6	19.8	6.3	357.3	10.7	19.6	17.6	18.9	21.5
21	19.7	7.2	1.7	3.3	304.9	257.7	261.2	255.0	288.0	279.1	256.8	258.4	259.1	249.1	244.3	248.4	253.0	257.1	262.4	257.2	252.6	251.4	255.5	256.1
22	250.8	204.6	166.0	147.8	132.7	122.5	99.7	41.0	22.6	22.0	27.7	19.4	29.8	21.8	17.6	18.2	9.8	15.5	14.9	19.8	11.4	355.2	4.6	25.0
23	20.0	19.8	17.3	8.6	12.8	18.0	8.7	3.5	13.2	6.4	8.7	10.7	4.8	10.2	4.6	345.3	350.4	0.3	360.0	14.0	3.1	351.1	351.6	357.8
24	349.3	340.8	341.2	333.3	331.4	332.4	339.6	356.1	340.5	348.0	2.3	2.8	6.7	1.9	3.0	14.5	18.0	11.8	20.7	32.7	25.9	25.5	26.1	21.5
25	21.4	34.0	84.7	95.6	92.5	91.0	82.0	83.1	100.9	105.3	105.7	106.2	106.8	108.3	104.2	104.6	102.0	100.5	104.8	107.5	106.8	107.7	111.6	114.2
26	111.6	111.6	112.2	113.3	113.4	113.1	113.9	116.2	117.0	113.4	115.5	120.0	127.3	127.7	138.3	141.4	135.6	125.2	125.3	124.6	129.8	133.2	116.7	113.8
27	114.4	109.2	106.7	108.5	111.8	112.8	112.4	115.7	116.1	130.6	121.6	115.7	115.0	108.7	114.1	117.3	112.7	99.8	104.4	104.1	102.6	100.4	101.4	102.2
28	103.7	101.5	106.6	108.9	107.3	109.2	105.0	107.0	114.1	122.0	131.2	139.8	144.8	140.6	133.7	128.3	128.2	116.5	112.3	119.0	125.4	120.4	122.8	118.7
29	113.9	103.4	98.6	98.7	107.9	106.0	102.1	104.6	107.2	114.4	109.6	108.6	109.6	109.7	109.3	108.2	110.4	112.8	114.8	112.3	113.3	114.5	115.7	119.0
30	106.8	107.0	111.1	112.5	116.5	114.6	110.1	111.1	112.2	113.6	118.4	119.0	125.9	123.3	117.7	133.9	139.0	136.7	137.6	139.5	139.4	139.8	135.4	140.4
31	139.7	141.6	145.6	143.4	146.4	137.1	134.6	145.6	141.9	134.9	142.1	149.6	138.3	147.8	148.9	123.8	114.0	113.0	110.8	127.6	118.7	114.3	134.8	124.0

Total Hours in Month 744 **Hours Data Available** 738 **Data Recovery** 99.2%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (Climtrncs) (Degrees)

February 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	121.7	129.8	134.0	133.4	127.2	116.4	125.8	137.0	134.4	151.1	135.6	143.0	131.4	106.3	110.4	107.4	100.9	97.5	99.6	130.8	131.0	132.4	121.9	119.1
2	109.7	109.6	111.2	117.9	117.4	120.2	119.1	120.4	120.2	123.5	123.7	123.1	121.9	120.5	117.9	114.0	116.7	113.8	111.5	112.3	115.2	118.8	121.0	121.3
3	116.2	118.9	121.4	121.1	116.6	110.3	113.1	122.4	124.3	127.5	120.0	122.0	126.0	132.8	157.2	191.3	179.2	277.1	12.1	23.3	17.7	23.6	28.6	26.8
4	26.9	26.2	19.4	26.4	28.2	21.4	22.4	28.5	21.1	19.4	24.9	24.8	25.1	26.1	12.6	16.9	26.1	26.8	25.0	25.3	28.7	39.0	33.7	51.4
5	86.9	129.2	98.1	84.6	99.5	118.6	107.8	95.6	115.8	102.2	110.5	113.5	144.2	139.4	157.5	150.9	148.7	117.1	110.8	123.4	121.3	121.2	129.3	140.9
6	112.4	106.1	100.6	100.6	103.2	101.4	107.3	109.3	107.8	103.7	113.6	114.5	108.9	112.5	136.3	140.6	131.7	156.7	56.6	128.0	82.6	67.5	77.9	76.0
7	110.5	116.7	143.2	128.6	66.3	83.6	131.0	163.3	188.6	210.7	181.9	181.0	139.7	159.7	232.4	30.7	37.4	106.2	135.0	138.8	126.4	130.3	123.4	118.4
8	114.6	99.6	147.0	161.5	143.6	135.4	135.2	135.6	148.3	142.7	145.4	142.4	148.5	144.2	146.8	139.9	145.4	148.9	165.5	202.5	225.1	237.2	240.3	225.6
9	199.1	250.6	247.0	254.8	216.9	194.0	275.6	257.6	120.9	128.5	131.6	126.5	109.4	118.9	150.3	162.1	173.2	153.5	109.9	150.2	193.9	120.7	197.8	343.1
10	24.8	23.9	38.1	31.1	22.3	18.0	22.9	23.9	13.3	10.3	12.4	358.6	28.8	11.8	14.7	19.2	13.2	345.4	352.4	24.8	26.1	28.9	27.8	28.9
11	24.8	91.0	117.4	125.5	130.2	127.6	134.9	120.9	122.5	126.1	115.9	113.4	118.4	120.9	127.0	124.2	118.1	117.6	117.2	116.0	105.4	105.7	106.8	105.6
12	106.3	104.6	107.2	110.7	106.5	105.8	105.2	103.9	105.3	107.3	104.7	110.0	113.6	115.6	114.3	111.3	106.2	99.9	79.1	69.9	61.7	56.4	60.0	51.3
13	41.4	60.8	56.6	42.3	45.8	48.6	54.2	56.2	61.8	53.0	55.6	52.8	66.2	72.1	94.6	108.5	115.8	119.5	113.5	105.6	116.6	125.4	124.7	129.5
14	118.3	128.7	125.1	120.1	116.4	120.9	121.0	119.1	120.6	121.2	114.3	111.4	120.1	126.2	132.2	119.7	104.7	115.8	85.8	80.3	77.0	46.0	24.5	25.8
15	22.8	21.5	23.7	23.5	26.3	28.3	31.5	35.5	23.3	24.6	37.7	25.7	32.2	21.3	17.1	21.1	26.0	28.5	28.5	27.1	26.4	29.9	29.1	30.6
16	31.2	30.5	18.4	20.2	81.2	32.6	48.8	44.0	73.1	94.4	124.7	133.9	139.3	138.2	163.5	268.6	291.0	338.6	87.7	131.2	128.4	132.2	102.7	132.7
17	137.5	124.5	125.8	117.6	125.0	97.3	50.9	31.3	32.3	36.7	23.6	36.7	29.0	84.2	103.3	114.3	138.8	124.8	127.7	109.6	109.1	114.6	114.0	116.2
18	101.9	77.1	102.5	37.1	30.2	26.1	40.5	27.2	25.0	29.4	38.7	53.2	38.0	24.0	16.8	33.4	80.5	57.1	29.1	23.7	21.6	14.1	14.4	13.2
19	15.9	11.9	0.8	4.7	2.2	2.6	357.9	352.2	339.1	332.1	336.3	355.0	358.9	2.3	0.7	2.6	1.1	6.1	5.2	4.5	3.5	5.4	6.8	16.5
20	23.5	27.1	23.9	18.9	4.1	11.6	9.3	9.7	3.6	9.1	6.2	10.1	356.3	351.5	350.6	348.8	343.7	347.7	349.4	350.9	356.5	3.6	10.6	347.7
21	351.3	358.5	0.0	357.5	357.0	6.6	5.0	11.4	11.2	9.7	9.2	16.0	19.9	11.9	0.5	2.6	10.0	18.3	22.0	20.7	26.4	20.9	26.4	23.9
22	19.1	17.3	18.2	23.8	15.9	13.3	13.9	18.3	18.8	22.6	15.7	16.4	7.0	15.6	28.7	32.0	32.0	19.7	16.9	31.9	33.1	36.8	29.0	26.2
23	27.7	28.7	31.7	20.8	18.1	15.8	12.3	21.4	23.4	20.3	23.7	16.5	13.4	2.2	2.4	13.0	28.1	20.9	30.7	21.9	0.9	10.9	15.5	331.4
24	332.6	9.8	9.2	0.7	358.6	357.2	349.8	347.0	357.8	7.4	1.6	6.3	353.5	350.9	0.9	360.0	355.5	352.4	2.2	7.5	7.9	4.8	3.8	2.0
25	8.0	3.1	355.6	0.2	356.2	0.2	12.7	7.3	24.3	6.5	14.1	11.7	8.3	4.0	7.8	6.1	10.4	10.0	13.7	5.8	334.1	21.3	42.2	352.5
26	318.2	333.5	333.0	332.7	337.9	336.9	338.6	341.8	339.4	343.4	350.6	36.0	338.1	326.5	313.6	318.3	321.1	325.9	2.1	51.2	21.2	14.9	11.2	3.9
27	356.9	356.1	8.3	5.3	7.1	10.9	15.8	20.5	28.6	27.3	17.6	22.1	19.8	23.3	26.2	22.8	23.5	27.3	29.9	28.9	30.6	24.8	19.6	19.7
28	27.5	16.8	22.4	19.3	12.3	17.1	17.3	19.9	18.9	27.1	21.2	20.2	17.9	10.8	8.3	10.6	14.6	14.6	13.4	17.3	15.4	22.6	29.4	25.4

Total Hours in Month 672 **Hours Data Available** 672 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (Climtrncs) (Degrees)

March *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	27.9	32.6	30.0	26.7	24.0	20.3	31.8	26.3	31.6	32.5	30.2	27.0	21.3	20.1	22.3	20.6	13.1	7.1	7.9	9.0	7.7	9.6	7.3	8.9
2	14.1	14.1	13.5	14.7	23.6	18.4	12.9	16.3	12.5	7.3	7.9	9.2	6.6	4.0	6.2	4.4	6.3	8.0	15.9	7.8	1.4	5.4	6.7	10.0
3	6.7	10.3	8.4	3.5	5.4	8.7	20.2	29.0	21.9	15.8	26.2	25.5	23.7	9.5	4.9	7.9	11.6	15.5	13.2	11.6	4.9	16.8	358.2	358.7
4	2.2	2.4	1.8	2.4	11.3	17.5	26.0	22.8	28.5	16.9	9.6	4.1	2.9	1.9	2.4	0.1	2.9	3.8	358.0	356.3	6.5	2.6	359.1	1.3
5	1.3	3.1	6.3	4.9	4.9	6.8	3.8	1.9	8.1	12.3	7.4	3.1	2.5	2.5	356.9	358.2	2.1	359.4	357.8	358.2	358.7	0.5	2.2	1.4
6	0.2	0.5	2.0	7.7	4.2	4.7	5.0	5.6	355.7	359.3	1.2	4.3	5.7	2.9	358.0	1.4	9.3	7.7	1.5	0.7	2.0	1.5	359.9	0.4
7	0.3	2.1	3.3	11.8	7.9	359.4	0.5	2.0	4.9	359.0	2.1	1.4	4.6	3.8	5.5	1.9	357.5	354.1	353.4	348.3	351.4	357.6	0.0	1.3
8	0.2	359.5	357.8	359.5	358.3	359.7	0.8	1.7	1.4	1.2	1.6	1.4	359.5	2.3	353.6	349.8	350.5	358.1	356.0	0.4	357.6	357.0	356.8	2.2
9	3.7	3.4	6.7	6.0	5.2	5.6	4.1	0.5	356.8	354.9	2.6	355.7	356.0	359.6	357.0	359.1	359.8	358.1	10.9	20.9	25.6	25.8	27.0	20.7
10	24.1	26.7	17.6	25.0	24.1	20.5	20.0	23.9	22.8	21.4	16.9	15.3	22.1	22.4	27.3	13.0	18.4	16.2	14.5	14.0	17.5	18.3	17.3	14.7
11	12.0	10.4	9.0	6.6	6.2	2.7	4.9	5.1	3.5	0.8	0.1	358.2	0.7	358.6	359.5	359.6	359.4	357.9	1.5	3.5	0.7	0.5	2.4	0.9
12	2.7	6.5	357.8	4.2	2.3	2.9	1.3	1.5	318.5	326.8	319.5	327.8	332.6	347.1	345.7	335.2	343.2	346.6	331.0	343.3	321.8	349.6	354.9	351.0
13	347.4	334.1	344.3	344.2	348.2	334.4	339.9	338.1	19.2	0.3	342.9	337.2	332.7	326.1	332.2	347.3	342.5	345.2	344.1	351.6	352.1	355.6	359.5	1.1
14	1.2	357.7	357.7	1.2	0.2	358.8	358.1	5.9	1.6	4.7	355.6	345.5	356.3	351.6	355.8	351.8	351.7	349.1	354.3	355.5	354.7	359.1	356.9	354.7
15	2.2	357.7	355.3	358.1	15.5	12.0	20.9	23.7	24.2	21.3	11.4	7.8	7.1	3.5	3.1	358.4	357.9	352.2	354.9	352.6	1.7	4.9	6.2	12.1
16	17.2	21.6	28.2	30.0	27.4	14.9	23.5	19.6	17.1	15.8	11.3	10.2	8.4	1.7	0.4	353.6	355.2	0.4	5.6	7.0	15.4	23.2	22.5	18.0
17	17.9	20.6	23.3	20.9	25.8	26.3	22.2	30.4	26.4	23.2	22.7	17.0	18.2	11.3	15.0	4.4	348.7	335.9	340.4	8.4	22.7	23.4	14.8	15.2
18	58.1	34.1	162.6	248.4	247.3	208.7	147.6	140.2	129.5	121.4	30.7	292.2	252.4	252.9	257.9	258.1	261.0	317.5	327.9	333.8	4.7	8.9	15.3	11.8
19	18.6	12.7	19.7	14.3	15.6	16.5	16.4	16.1	21.7	18.5	20.8	22.1	318.0	313.0	12.7	8.4	350.4	1.4	13.6	19.1	29.7	32.8	35.6	106.0
20	204.7	175.0	34.9	59.8	83.2	111.6	88.4	113.5	107.6	105.1	106.1	106.9	106.1	101.2	99.5	97.6	92.6	86.0	81.0	85.0	90.0	92.3	92.4	93.1
21	73.8	65.6	80.5	148.6	143.0	143.0	144.5	145.2	156.0	210.7	227.1	239.4	249.4	250.5	244.6	245.1	234.9	232.6	237.6	317.9	336.2	351.4	359.9	353.3
22	5.9	349.6	350.5	8.8	9.9	22.2	13.4	5.2	19.3	19.5	21.2	24.8	18.5	27.3	4.0	5.9	10.3	20.6	19.1	14.1	16.1	15.3	13.0	12.0
23	14.4	351.3	0.4	359.7	15.5	20.6	7.5	7.8	12.1	8.2	0.3	4.0	349.1	350.6	349.1	348.4	348.8	344.7	334.0	331.1	331.4	331.4	335.0	340.1
24	353.2	357.3	3.8	1.9	6.3	6.7	3.5	7.1	14.8	30.5	29.1	33.3	22.7	20.2	6.4	8.4	0.7	340.2	348.8	3.9	348.8	292.4	2.2	26.8
25	118.0	305.6	350.7	28.0	40.8	118.2	67.4	110.3	133.8	116.9	53.9	22.0	183.4	154.6	225.4	250.1	291.7	115.4	111.4	111.1	95.4	101.2	101.1	105.6
26	105.2	97.7	96.8	101.7	105.9	118.6	143.2	178.8	210.0	225.4	230.4	225.5	221.1	224.2	237.5	251.7	257.0	261.2	283.8	341.9	357.2	354.2	13.3	15.8
27	20.3	47.2	15.8	15.1	13.7	13.5	12.8	16.2	11.9	8.5	6.0	358.6	1.9	2.3	1.3	352.0	350.3	354.8	344.3	352.4	0.2	14.7	7.5	6.8
28	1.7	4.0	3.8	7.1	20.1	26.8	13.2	13.6	9.1	10.0	359.0	341.5	317.2	336.7	343.0	327.9	323.0	332.4	331.0	334.3	337.4	330.8	354.4	8.1
29	13.6	8.0	357.7	358.4	12.4	13.2	5.1	340.4	359.5	358.5	5.0	351.7	331.3	335.9	321.6	326.1	332.1	323.7	330.2	340.4	4.7	351.0	334.9	358.4
30	6.9	8.3	16.5	18.1	24.9	24.4	14.6	11.9	21.7	22.5	10.7	18.8	16.9	17.9	17.1	17.4	20.8	11.2	14.3	19.0	23.5	43.3	149.5	123.8
31	84.1	25.0	22.8	52.2	349.8	351.3	161.5	101.9	324.2	211.0	187.2	269.3	303.3	319.9	305.2	302.1	8.4	359.3	3.2	4.0	9.5	10.9	13.3	12.8

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (Climtrncs) (Degrees)

April *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	10.5	10.3	14.6	15.8	13.7	14.3	18.8	18.2	17.8	18.7	21.3	7.8	16.7	19.3	36.9	207.7	209.0	183.0	134.2	136.0	128.7	128.0	96.8	101.6
2	109.3	93.3	104.6	77.3	99.2	104.1	97.1	103.6	104.1	106.9	113.3	116.4	122.5	127.4	127.5	127.2	128.5	124.8	125.0	122.5	116.3	110.7	112.9	107.4
3	106.2	107.9	105.0	109.4	112.9	109.3	110.2	113.4	113.6	113.1	104.2	105.6	115.2	110.7	113.2	112.7	113.3	112.4	106.9	94.2	102.3	106.5	100.7	97.2
4	99.9	100.9	86.2	83.2	79.1	73.9	80.0	92.6	100.6	106.3	112.2	112.2	109.3	111.4	110.9	114.6	112.7	108.0	106.6	96.2	85.8	85.2	98.0	99.7
5	92.5	73.4	74.4	75.5	28.3	53.5	50.6	53.1	49.0	47.6	46.3	57.6	51.2	50.8	49.2	50.5	97.9	98.2	103.0	105.2	100.4	100.9	104.4	103.2
6	104.3	102.3	105.6	109.1	107.0	103.5	97.6	97.3	85.0	41.6	49.9	44.0	45.8	47.4	43.5	41.8	37.6	13.8	24.1	16.6	21.3	26.6	43.5	58.0
7	142.4	138.6	152.9	141.5	121.4	117.5	126.3	116.2	115.1	117.9	118.1	118.4	115.9	112.0	101.6	105.0	104.0	108.5	110.6	101.3	88.6	70.0	46.5	44.5
8	51.3	48.3	47.9	46.2	47.3	49.2	49.4	45.0	45.2	51.5	47.8	49.9	51.6	52.8	49.6	62.0	92.3	120.0	125.1	114.9	96.8	112.0	136.0	126.2
9	118.7	106.5	100.5	98.5	94.8	99.6	93.8	90.6	105.7	106.6	110.6	107.9	108.4	113.4	118.5	114.7	119.5	116.6	123.3	123.0	127.3	127.4	125.9	127.8
10	123.5	126.4	131.4	138.2	143.8	134.8	128.6	127.3	120.9	109.1	121.6	131.2	142.0	149.1	136.1	133.8	126.9	144.5	133.1	138.2	131.0	130.0	119.1	128.8
11	130.2	126.7	133.5	114.4	113.7	94.7	100.8	115.9	124.7	123.6	105.3	111.9	119.3	122.2	129.0	131.6	123.2	136.2	137.2	125.2	119.1	92.4	101.3	99.2
12	90.3	78.8	60.5	27.8	33.1	19.4	16.8	15.4	20.9	356.3	25.7	15.1	21.6	24.7	315.0	299.3	311.2	326.6	335.8	227.5	277.4	266.5	1.5	19.6
13	15.7	16.8	23.7	21.1	18.0	20.7	22.4	10.7	18.2	10.1	9.6	11.7	0.4	350.5	338.7	322.5	325.7	272.8	308.7	4.9	13.3	11.9	21.6	22.2
14	24.1	26.6	55.1	76.9	34.5	46.9	127.3	129.3	120.8	159.0	148.6	124.3	128.9	135.6	139.3	140.1	140.0	140.5	134.0	138.2	108.7	96.4	97.6	99.9
15	100.2	101.5	97.3	103.5	102.9	100.2	101.4	95.1	107.3	107.2	109.4	101.2	100.3	105.9	111.2	96.8	158.6	235.2	201.7	218.0	230.5	302.7	329.2	348.0
16	13.1	344.6	347.2	356.0	7.7	7.1	357.3	353.4	0.1	349.2	311.9	292.0	270.9	227.5	235.0	246.5	250.8	235.6	237.5	255.1	255.8	322.6	207.0	108.8
17	101.9	103.3	118.9	119.6	109.5	110.3	114.6	118.3	121.4	120.1	118.8	113.3	113.3	112.5	111.5	111.2	110.2	114.0	117.7	116.4	114.3	113.8	112.4	110.9
18	110.9	108.8	107.1	111.2	112.1	111.1	105.7	111.4	109.8	111.9	111.3	115.7	118.9	118.7	123.3	143.7	194.5	216.8	277.5	258.7	263.5	252.8	261.6	6.0
19	79.3	122.5	165.9	124.4	114.5	117.2	121.3	128.5	126.0	121.4	121.0	123.0	129.7	129.4	126.1	123.9	122.5	124.4	124.6	117.0	105.3	104.8	105.3	108.9
20	103.7	111.0	104.4	102.6	108.4	89.6	93.2	97.7	96.1	97.0	100.2	95.8	100.9	105.2	110.9	108.6	105.6	107.4	108.6	113.7	114.8	114.3	111.3	115.3
21	111.1	101.2	97.3	98.4	102.3	101.2	112.2	113.4	114.8	119.8	107.6	104.9	105.3	108.5	108.1	108.2	111.3	111.7	110.5	107.0	112.9	103.8	102.1	104.1
22	102.4	101.5	97.0	105.3	104.9	98.2	101.0	100.8	106.1	102.7	100.5	104.4	90.0	100.4	84.5	83.4	82.3	74.3	68.2	60.1	65.0	69.3	64.2	57.6
23	46.2	72.5	61.8	53.1	44.7	49.0	51.4	52.4	61.1	54.1	48.5	81.0	129.0	125.9	127.1	144.2	110.8	143.3	121.0	95.9	128.9	128.9	115.0	107.5
24	105.6	99.7	90.7	91.6	99.2	91.3	100.2	107.2	112.0	105.4	109.7	114.1	105.0	80.2	118.2	121.2	121.4	133.8	117.6	123.8	149.5	115.0	101.0	103.0
25	103.5	101.0	101.3	99.7	99.2	101.3	103.6	103.4	101.6	106.9	104.8	107.1	104.1	111.3	117.4	118.8	121.2	115.8	120.7	116.9	80.6	56.8	92.2	77.8
26	49.1	50.0	42.6	47.6	50.5	28.2	20.4	23.9	20.5	15.9	11.6	16.8	353.3	12.4	356.9	359.6	350.0	343.4	339.0	330.8	340.0	343.0	15.7	15.5
27	29.5	44.4	118.0	126.9	209.2	175.2	141.3	119.9	138.0	153.8	171.2	152.3	173.4	197.4	204.7	200.4	209.6	226.2	229.2	234.2	210.4	227.5	238.6	252.8
28	252.6	248.1	263.1	266.1	262.7	254.8	268.4	258.2	149.7	130.3	126.3	138.0	141.6	133.5	125.9	131.3	138.4	136.4	137.3	138.5	134.5	125.8	112.3	104.7
29	102.4	98.1	96.3	98.0	102.1	101.1	92.9	89.1	98.4	108.8	104.0	102.0	105.0	110.3	104.6	103.6	109.7	119.1	118.5	114.3	122.1	189.4	175.3	267.0
30	184.5	146.0	135.7	5.9	20.9	36.7	23.2	29.6	30.7	53.1	87.7	91.2	30.3	28.0	33.6	154.0	190.2	182.4	193.1	198.6	228.6	286.9	282.0	352.9

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (Climtrncs) (Degrees)

May *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	64.4	149.5	162.4	191.6	162.0	275.3	153.8	105.0	126.8	159.0	178.4	216.5	250.1	339.6	56.4	169.2	320.4	255.3	167.4	218.8	225.5	244.5	251.6	298.8
2	193.9	97.2	351.9	101.9	20.1	16.2	20.4	85.4	149.9	161.5	221.2	66.9	91.3	78.3	119.8	134.3	126.1	125.4	120.9	119.9	118.4	107.2	113.6	114.6
3	117.7	106.4	114.8	132.7	131.0	83.2	16.3	7.6	273.1	343.2	13.7	2.6	4.0	339.5	286.0	263.5	317.5	318.0	248.3	252.2	257.1	281.3	311.1	23.9
4	24.6	26.8	26.3	58.4	349.2	7.8	16.0	230.0	173.3	203.7	239.8	252.1	250.4	244.1	242.4	243.2	238.1	232.6	170.6	178.7	240.3	256.5	262.1	265.8
5	340.3	280.7	253.5	253.6	258.0	21.5	18.7	342.6	257.5	265.1	275.8	260.2	253.1	247.8	299.4	296.7	294.2	283.0	284.3	289.4	279.6	292.3	266.6	249.7
6	247.6	312.3	359.5	333.9	351.6	347.0	302.8	275.3	267.2	260.0	262.3	273.9	296.1	311.3	317.2	316.0	310.9	299.1	312.6	321.1	316.9	318.4	320.0	322.7
7	323.3	324.9	324.3	330.8	344.8	7.8	348.7	347.1	339.9	346.2	326.6	333.7	317.2	319.5	336.6	280.0	255.1	240.4	249.2	259.2	252.1	266.4	260.5	256.3
8	251.5	252.7	258.2	257.1	259.5	255.6	252.5	254.3	254.9	254.1	256.0	255.0	229.3	223.5	232.4	239.8	229.3	234.8	224.5	218.9	209.5	148.9	151.9	122.8
9	148.3	204.8	301.0	43.4	102.6	112.9	118.3	125.2	137.1	123.6	133.6	123.3	135.3	121.4	127.6	138.1	146.7	142.4	153.6	168.3	185.4	183.7	212.4	120.3
10	169.9	129.3	38.0	355.0	24.4	56.4	140.7	145.7	152.2	153.0	149.9	173.7	187.8	181.7	167.8	177.3	178.5	152.9	142.8	136.1	124.2	118.6	124.3	94.0
11	92.9	90.4	109.1	82.0	96.9	97.2	96.2	105.7	113.3	115.4	123.1	126.2	127.8	127.0	132.4	133.9	140.5	142.8	144.5	149.4	149.4	138.7	132.8	137.9
12	156.5	154.1	111.3	117.6	79.4	101.5	110.8	110.6	121.1	127.1	124.8	137.4	135.6	134.1	135.9	138.2	132.8	133.1	133.1	131.0	130.9	134.2	126.6	118.2
13	116.4	122.4	120.7	110.3	110.8	112.1	114.8	111.1	113.2	115.5	113.6	114.9	114.4	120.4	120.6	113.0	107.2	104.3	86.4	75.3	67.7	62.9	52.1	39.9
14	76.8	88.7	65.4	30.5	48.7	48.5	40.4	38.1	71.6	98.6	81.6	98.5	139.1	112.4	115.4	128.0	118.9	120.1	117.6	120.2	125.1	120.1	113.2	107.6
15	111.3	110.9	112.8	111.4	107.0	92.7	60.0	77.7	84.4	106.0	110.6	121.1	134.4	156.9	143.7	162.5	178.7	179.4	220.0	288.9	318.1	7.8	18.7	21.8
16	21.2	25.4	23.2	14.8	25.3	23.6	29.3	25.9	28.1	75.1	118.4	118.6	134.3	162.1	147.7	148.6	156.6	166.4	161.6	154.7	148.0	142.0	140.0	142.5
17	141.3	142.2	143.6	139.1	145.7	148.4	150.4	146.4	142.6	149.5	140.9	134.8	158.1	161.2	153.3	151.6	154.2	155.1	156.1	156.2	148.0	150.0	133.4	109.7
18	149.0	124.2	118.0	115.2	118.8	177.2	141.5	135.8	140.8	138.4	136.3	146.0	146.6	173.1	154.0	171.0	184.8	161.5	193.8	208.7	192.9	237.7	266.2	315.6
19	330.9	4.5	11.6	10.5	17.3	359.7	332.6	310.7	284.8	288.5	269.5	258.9	225.6	232.5	243.1	240.0	246.7	236.0	237.2	243.2	246.1	261.7	273.2	282.9
20	264.2	282.1	270.8	269.1	270.0	264.5	272.8	253.1	245.1	245.8	248.8	256.6	244.5	230.9	228.7	222.1	212.8	227.0	234.6	234.4	233.0	240.1	273.3	274.0
21	263.1	273.3	281.5	292.4	284.7	297.4	315.7	249.6	274.5	55.2	165.7	125.2	138.8	143.9	143.0	137.1	145.5	132.6	122.3	120.1	112.1	105.9	103.6	108.0
22	110.0	104.6	100.3	103.6	103.0	100.5	106.5	87.6	110.3	113.0	125.8	115.6	118.1	146.6	137.9	133.8	127.6	141.4	148.8	148.3	21.5	125.7	135.4	86.4
23	86.2	20.3	45.7	39.2	46.1	75.3	75.4	106.9	112.6	115.6	116.5	116.6	121.7	138.9	143.8	126.0	118.5	118.0	117.1	129.7	133.8	126.4	130.0	119.9
24	124.3	126.7	124.3	118.5	119.0	123.2	121.1	125.5	129.4	127.4	126.2	122.1	128.7	128.0	129.3	131.9	118.8	117.7	107.9	127.8	126.3	147.0	143.2	84.3
25	120.7	186.4	91.8	113.1	123.6	54.8	139.8	139.7	130.5	142.2	177.2	150.9	146.6	147.7	147.4	138.4	137.1	144.7	154.6	193.9	233.2	328.6	12.6	8.0
26	12.1	49.7	144.2	154.1	151.7	117.1	147.9	134.6	131.0	132.0	153.1	146.2	151.4	154.7	142.2	138.9	140.7	134.1	128.5	127.5	130.6	131.4	147.2	164.1
27	145.4	137.4	152.1	138.2	145.2	139.1	138.5	146.0	140.0	142.4	146.1	143.7	147.0	148.5	151.2	155.9	152.0	149.9	148.0	137.1	144.6	131.6	123.0	121.6
28	114.3	112.1	104.7	102.8	117.0	111.8	104.6	133.7	129.3	127.3	122.8	140.5	131.6	137.2	153.5	152.1	146.0	152.9	149.4	141.7	141.9	141.9	126.4	163.1
29	272.3	358.1	4.0	8.3	14.7	20.3	23.4	22.6	18.6	17.4	11.3	18.9	181.7	136.9	209.9	156.2	176.7	180.9	156.8	161.2	156.7	149.8	163.7	271.6
30	268.2	204.4	358.0	356.1	27.4	24.2	27.8	19.8	63.4	114.7	129.4	114.0	124.8	129.2	138.7	156.8	147.0	142.3	141.6	134.5	138.8	134.1	121.0	124.4
31	110.0	74.2	66.5	89.3	96.7	101.5	104.7	120.0	127.5	125.4	132.7	138.7	128.9	93.4	25.0	50.1	80.1	95.0	116.4	104.8	109.6	99.2	98.7	112.0

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (Climtrncs) (Degrees)

June *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	126.4	124.9	116.8	122.2	114.5	121.1	102.4	116.2	119.3	116.3	119.1	124.7	128.0	123.3	121.7	136.0	131.1	133.1	135.1	124.4	135.3	136.3	117.1	107.1
2	107.5	111.6	98.6	97.5	102.4	95.7	99.4	115.9	122.4	116.6	123.7	102.2	118.7	103.7	120.1	136.5	128.6	138.7	145.4	145.9	128.4	142.7	132.9	113.4
3	64.8	30.5	41.0	147.8	121.9	120.7	237.0	87.8	117.7	145.8	132.2	138.1	142.9	92.5	116.3	154.0	155.7	133.7	152.3	167.1	300.3	293.2	334.9	5.3
4	12.0	15.9	18.3	17.7	15.9	14.5	17.0	20.2	20.9	24.1	12.8	12.7	19.7	26.0	128.6	147.2	190.2	161.8	156.7	153.4	146.1	142.6	142.3	143.1
5	148.4	145.3	144.3	144.4	135.3	121.3	114.2	120.3	121.8	128.6	128.6	122.2	117.9	112.6	115.6	117.3	114.9	121.7	129.9	123.6	116.4	111.5	106.7	113.9
6	112.2	114.2	108.4	110.1	115.1	111.0	94.1	84.1	47.2	43.4	81.8	150.6	147.6	156.8	149.3	151.7	157.0	164.3	163.5	156.9	149.1	141.5	118.7	3.3
7	21.1	49.6	34.2	18.6	17.0	47.0	139.0	88.4	82.4	64.8	70.1	101.7	116.8	113.6	118.4	120.9	117.1	115.2	115.8	113.5	110.6	111.0	101.1	102.2
8	105.7	105.4	102.2	95.8	96.3	100.0	100.4	115.7	109.7	124.5	126.2	134.5	125.8	122.2	118.0	102.4	128.2	125.3	125.3	120.5	118.1	137.1	125.7	117.6
9	103.9	100.0	121.2	91.8	6.6	327.9	15.2	10.1	17.6	19.3	20.6	13.5	0.2	11.8	328.6	54.7	351.9	36.5	348.5	1.8	348.6	356.3	357.4	15.4
10	11.1	4.8	3.9	7.3	9.9	4.6	10.3	359.6	0.3	5.2	2.1	359.1	331.8	325.8	329.4	328.0	329.3	313.3	319.8	243.1	226.8	251.6	246.7	241.5
11	248.1	222.6	210.8	238.6	231.2	236.7	247.1	179.8	138.9	167.3	196.8	170.1	161.7	158.1	160.5	159.9	153.8	149.7	137.4	147.5	146.3	148.3	153.9	168.6
12	163.8	169.0	170.9	134.7	188.7	238.4	140.0	142.5	145.5	141.6	148.5	168.2	170.3	172.1	171.2	173.9	171.4	177.2	175.2	182.4	166.5	161.1	142.0	130.7
13	166.1	165.0	289.1	288.0	327.7	14.0	15.5	5.0	282.6	271.2	261.3	263.4	256.4	258.9	276.7	250.6	200.7	249.2	262.5	259.8	274.3	344.0	327.3	329.6
14	314.2	314.1	349.7	1.1	4.2	0.1	359.3	353.7	302.0	5.4	14.8	24.9	92.8	115.5	116.1	208.1	264.0	264.1	263.7	257.7	266.3	276.6	316.6	1.3
15	12.7	15.6	13.2	8.4	4.5	11.8	11.7	5.4	3.2	4.0	8.2	5.9	4.3	1.7	344.0	349.5	332.0	338.9	348.1	342.9	340.3	343.2	344.8	2.5
16	9.2	8.2	11.8	10.4	8.5	5.7	8.6	7.4	11.4	337.1	335.1	290.3	287.9	292.4	285.9	293.6	281.1	264.4	248.6	238.5	234.4	238.2	247.1	258.4
17	244.3	238.2	238.5	238.4	240.1	244.1	236.0	256.8	247.3	246.7	255.4	260.0	261.9	330.1	334.8	7.6	19.5	146.4	26.3	0.1	359.8	354.1	313.8	8.2
18	8.2	334.7	331.6	340.9	6.2	13.2	19.2	22.5	345.2	307.8	237.7	221.7	287.5	245.4	231.6	224.4	350.4	338.4	247.9	184.5	143.1	34.5	199.9	311.8
19	7.7	353.7	9.0	12.9	17.0	14.9	10.5	8.9	11.0	358.3	359.2	355.2	1.9	0.2	358.3	359.9	0.3	353.7	340.4	340.9	346.8	348.1	349.1	349.5
20	1.6	3.4	14.0	10.2	11.2	7.1	4.9	9.4	5.6	359.3	0.5	355.6	353.0	344.5	334.3	333.8	335.0	340.4	320.4	323.4	318.8	330.6	342.9	349.2
21	358.0	356.0	11.8	359.7	359.6	2.1	2.3	0.2	352.3	340.4	313.5	294.5	300.1	300.3	289.3	284.0	289.8	279.1	252.2	251.1	247.9	238.5	247.1	245.3
22	251.0	250.1	249.1	247.4	228.5	237.3	243.1	219.2	222.7	218.4	200.6	200.5	181.0	168.8	187.1	188.9	198.2	200.2	177.1	172.8	171.9	147.3	149.8	125.2
23	122.0	122.0	120.3	124.1	120.4	119.0	116.4	112.3	112.6	117.5	120.3	119.9	119.4	117.3	114.7	111.5	112.2	109.1	106.7	104.0	103.9	105.4	105.3	104.5
24	99.1	99.7	101.5	101.0	102.9	105.3	106.3	110.0	107.3	108.0	110.6	117.1	119.5	122.9	134.3	130.4	126.8	127.7	126.9	125.2	125.1	122.4	117.4	117.7
25	126.5	127.8	127.6	128.1	125.2	131.2	137.3	141.4	138.2	132.4	131.7	130.5	130.3	124.9	129.2	130.1	133.4	133.0	134.0	133.4	127.1	122.3	124.4	118.5
26	127.7	121.8	115.1	115.8	119.1	125.6	139.7	132.1	127.6	129.4	139.5	139.2	133.8	131.9	158.2	192.5	233.2	212.6	254.7	260.5	257.9	262.5	262.2	309.6
27	11.6	16.3	25.2	19.2	15.6	21.7	5.4	27.2	35.7	52.6	150.4	161.6	162.1	163.3	176.3	189.7	177.4	177.7	191.6	220.5	253.1	251.5	255.8	258.3
28	254.3	266.9	261.5	269.3	277.1	268.6	267.6	255.1	139.5	149.7	145.7	145.1	134.4	126.1	134.0	145.9	141.1	141.9	125.5	135.1	112.0	117.3	112.2	112.2
29	109.6	101.7	83.8	143.9	212.3	207.9	84.7	120.7	133.8	135.3	149.4	139.7	155.6	164.7	221.4	235.2	254.4	256.2	253.4	254.5	257.4	260.4	262.4	260.7
30	287.2	270.3	264.2	242.7	241.2	229.9	239.8	256.2	263.3	260.4	254.2	253.2	259.0	229.4	191.0	171.3	171.4	157.6	144.3	146.1	148.9	147.9	139.1	150.2

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (Climtrncs) (Degrees)

July *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	130.2	118.1	127.7	334.2	28.1	19.4	14.9	24.2	18.9	13.5	0.3	1.1	350.8	326.1	323.5	303.1	256.3	252.7	268.9	288.1	253.1	124.0	117.5	121.5
2	135.4	141.7	161.2	192.3	192.2	200.2	156.9	208.1	242.7	337.1	327.5	310.8	328.6	336.5	328.2	344.1	324.3	330.7	340.4	351.0	334.8	343.4	7.3	11.1
3	22.2	42.2	112.8	120.5	133.8	183.6	164.2	139.3	144.2	150.3	144.6	148.5	149.5	142.0	148.2	154.0	160.4	148.5	139.4	138.1	133.9	200.8	181.3	133.7
4	129.3	128.8	131.6	129.6	127.0	138.8	125.8	132.2	145.2	130.3	134.5	127.0	127.7	127.0	122.8	124.1	120.3	113.7	120.0	127.3	148.0	150.3	134.8	136.1
5	139.2	151.6	147.8	156.3	309.9	334.9	345.0	278.5	269.3	285.0	285.7	273.9	303.4	357.4	275.0	255.1	4.5	113.0	132.7	130.6	131.8	132.4	125.5	112.4
6	106.4	113.6	112.8	113.7	122.5	119.5	126.6	126.1	128.2	134.4	150.4	127.9	155.4	144.0	152.3	165.1	168.8	173.8	174.8	214.8	229.0	343.4	88.4	113.4
7	97.4	104.0	121.0	110.3	105.0	47.9	37.5	12.3	238.4	235.5	13.5	32.0	279.4	276.8	260.6	294.5	272.9	263.5	152.8	145.3	135.3	129.3	127.0	101.8
8	164.2	158.6	135.3	215.1	60.2	120.0	118.2	117.1	123.4	127.6	145.5	163.6	153.2	144.8	149.8	146.1	138.3	132.2	121.4	129.9	145.2	145.3	150.9	155.7
9	141.3	135.4	122.6	125.3	129.2	116.1	130.7	121.0	113.8	115.3	87.4	91.2	110.1	82.3	112.6	149.9	168.6	172.1	166.2	166.4	227.9	291.7	13.2	15.1
10	20.2	24.3	19.3	17.9	17.8	29.9	9.8	24.6	138.0	356.8	14.5	26.5	159.4	175.9	179.8	151.5	141.7	144.3	145.2	150.3	143.6	137.7	128.9	129.0
11	132.2	131.2	134.1	133.1	136.3	139.2	138.5	140.3	146.6	143.5	143.8	151.8	146.5	152.1	163.6	152.2	162.7	164.7	161.2	159.0	151.3	146.5	135.7	138.4
12	150.0	141.6	130.1	23.0	26.7	20.2	29.1	29.3	38.3	348.1	306.3	242.4	2.0	277.6	186.0	163.7	134.5	143.6	145.3	139.0	146.5	127.3	129.8	128.5
13	144.7	149.0	149.2	144.9	134.1	137.1	148.3	165.0	138.4	132.3	145.7	145.7	148.4	147.5	145.2	146.4	154.4	149.5	151.6	151.0	137.8	151.7	158.4	150.0
14	150.4	138.1	176.5	145.7	164.1	180.2	144.0	131.4	144.9	142.1	149.0	143.2	152.4	161.8	152.6	146.0	160.1	165.8	160.4	149.0	131.1	131.2	152.1	166.8
15	166.5	167.2	154.0	160.9	187.0	174.0	270.1	265.7	250.2	255.3	250.5	251.8	256.1	255.9	267.4	263.8	269.6	257.8	254.5	256.1	258.7	259.9	262.0	260.5
16	253.6	268.7	268.2	271.0	261.2	284.6	303.8	342.2	274.7	313.7	355.8	354.9	352.9	342.3	334.9	328.5	330.5	332.8	335.7	321.1	328.5	342.1	6.7	10.7
17	13.1	2.8	11.3	13.5	9.7	14.1	17.3	19.4	33.2	38.7	42.0	101.0	146.5	152.4	149.2	152.9	152.3	153.5	146.8	139.9	139.6	144.6	131.9	122.1
18	126.4	120.2	117.2	124.1	119.5	125.5	113.1	107.9	131.8	104.4	195.3	28.5	6.3	123.8	142.1	143.0	132.8	137.6	182.9	84.5	174.6	38.5	75.7	19.6
19	11.8	16.2	17.8	45.2	65.6	112.1	332.6	309.7	333.3	12.5	16.8	336.8	298.5	231.3	162.6	115.1	170.3	264.0	271.8	253.2	254.1	259.3	269.9	301.2
20	334.3	255.7	270.0	352.4	322.5	0.3	252.6	217.0	243.9	242.4	255.2	253.6	246.7	236.4	242.5	255.8	270.0	259.9	251.1	250.8	260.2	265.2	258.7	253.1
21	252.3	254.8	247.7	255.6	254.2	256.0	255.3	255.0	253.0	254.6	250.7	255.8	258.9	254.7	237.9	231.7	230.7	225.2	222.7	225.5	219.7	217.6	206.1	200.5
22	186.9	182.1	184.3	180.5	181.4	189.1	182.4	188.1	190.8	191.9	193.3	186.5	180.0	179.2	170.7	160.5	144.1	140.8	137.3	132.7	128.8	126.6	131.3	127.6
23	128.5	129.5	220.5	261.8	275.4	281.5	124.1	126.9	131.3	173.8	150.4	140.5	134.6	128.9	126.1	125.4	119.2	118.7	127.2	124.6	127.2	122.8	120.4	119.3
24	118.0	108.5	103.8	102.9	102.3	102.2	101.8	101.6	91.9	94.8	87.0	73.6	54.4	48.6	45.4	59.2	63.3	64.6	53.7	59.2	57.0	49.6	59.0	75.4
25	64.2	45.3	44.9	46.9	47.3	44.3	51.0	52.9	48.4	48.2	64.3	70.0	66.8	46.6	35.9	40.0	49.3	56.8	71.0	85.0	117.0	125.9	148.3	255.0
26	261.1	231.6	232.4	268.1	326.7	4.0	344.8	10.8	12.0	14.5	29.4	37.6	29.1	10.7	96.1	152.4	181.1	252.4	260.5	260.2	244.8	232.0	204.8	129.7
27	205.9	274.7	19.6	133.5	323.1	353.2	3.9	11.1	345.7	14.7	11.5	7.4	343.2	355.3	339.0	321.5	335.7	342.1	350.8	354.3	13.1	15.9	329.3	275.3
28	298.2	302.3	272.2	272.1	270.7	265.5	267.1	267.2	262.9	259.7	255.6	252.4	259.6	258.0	259.2	259.5	256.4	258.3	259.8	265.1	267.8	256.6	260.4	261.8
29	260.3	264.6	265.8	266.3	282.2	344.5	346.0	337.3	350.1	351.2	351.0	330.9	336.6	335.6	339.0	345.1	339.3	327.7	311.5	296.6	320.6	304.9	262.6	281.4
30	321.4	350.3	284.5	244.2	260.1	242.9	257.7	250.2	257.1	251.0	252.4	254.4	251.8	257.2	252.9	245.9	250.5	255.6	246.9	234.3	224.3	220.2	214.9	225.6
31	229.0	262.0	213.7	205.2	221.4	241.8	220.5	169.9	140.8	146.2	139.7	145.0	141.5	146.8	134.9	132.0	133.4	128.2	118.4	121.8	125.4	127.5	122.6	119.7

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (Climtrncs) (Degrees)

August *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	118.5	114.5	111.2	116.9	117.5	121.2	116.2	112.8	113.8	115.1	126.3	130.1	129.6	126.3	122.9	124.1	130.5	128.2	126.3	118.6	119.5	115.9	118.3	116.8
2	116.5	122.4	115.4	113.8	113.4	114.7	115.7	114.9	116.3	118.1	118.8	116.6	115.2	113.7	115.0	119.9	119.7	117.9	117.7	119.8	116.5	119.1	120.3	118.9
3	119.7	118.2	126.2	128.5	131.1	132.6	128.2	123.1	123.7	121.7	118.6	127.9	124.6	130.4	130.1	131.2	129.0	135.0	133.7	126.4	126.4	127.1	117.5	119.1
4	119.4	117.0	111.5	111.8	114.6	115.0	115.3	116.7	118.3	120.1	123.6	130.5	136.4	133.3	129.7	132.1	131.4	136.7	133.0	129.4	132.4	132.7	134.4	128.9
5	127.4	126.0	133.4	143.6	140.5	146.2	140.7	166.5	202.5	205.4	205.7	210.9	217.1	220.2	220.6	221.9	217.6	229.1	226.8	229.4	233.1	235.2	242.5	257.3
6	269.1	268.7	273.2	270.0	282.5	290.2	310.3	323.9	328.4	325.0	323.3	319.6	308.7	318.9	319.6	328.9	330.5	334.3	327.7	321.5	328.8	332.9	330.8	331.3
7	337.2	349.0	332.3	334.8	359.5	0.7	355.6	354.9	350.5	357.0	350.2	355.8	353.8	351.9	350.8	351.5	352.5	353.0	351.1	344.6	337.6	341.4	354.0	27.1
8	15.5	7.7	12.5	17.4	15.2	4.1	356.4	4.5	6.3	355.9	349.8	338.2	346.5	335.3	337.6	335.7	331.2	316.0	324.5	334.0	337.4	345.2	355.2	0.3
9	8.5	13.1	16.6	13.6	11.7	10.3	11.3	19.4	44.8	29.2	29.7	15.1	169.1	180.0	167.1	161.5	168.1	161.5	159.8	160.4	154.3	148.8	145.2	130.6
10	135.4	144.8	104.9	262.8	66.2	22.2	3.1	25.6	107.3	121.5	134.7	163.3	154.7	153.4	163.3	166.2	164.0	153.1	162.0	152.7	138.7	125.9	132.3	100.2
11	45.9	6.3	13.9	22.8	356.3	15.7	21.4	354.5	25.0	173.9	142.5	173.2	164.7	148.7	151.7	188.4	259.5	255.5	253.7	255.4	252.7	235.6	243.3	228.0
12	248.2	242.1	258.6	250.4	206.7	185.9	205.7	233.9	237.2	240.4	260.5	252.8	255.5	233.9	152.7	228.7	237.1	217.4	232.1	256.9	261.3	262.1	286.8	261.2
13	269.1	277.9	260.6	284.0	299.7	249.2	219.5	269.0	227.4	210.8	211.3	233.0	210.5	225.4	222.8	204.0	203.8	209.2	172.1	210.3	241.2	254.9	247.3	242.0
14	245.4	245.2	256.5	251.8	265.0	273.6	281.0	229.2	220.6	228.8	226.9	220.8	211.0	216.9	192.5	187.4	232.1	230.0	239.9	254.2	273.3	5.6	2.7	357.3
15	342.7	334.9	338.0	334.6	328.5	334.1	332.2	342.9	358.2	0.6	354.9	352.7	359.0	348.7	354.4	351.8	346.2	359.2	8.6	7.8	9.3	19.3	18.3	25.0
16	28.5	27.0	30.3	29.9	26.8	29.8	29.0	355.7	49.0	146.6	231.8	232.0	174.8	212.6	18.6	198.1	170.3	164.1	138.4	134.2	126.6	152.1	149.8	166.2
17	151.3	110.5	130.0	129.5	124.6	123.6	175.6	187.8	102.6	116.2	123.6	129.8	133.3	124.0	117.1	126.1	115.2	119.1	117.7	125.4	122.2	104.1	107.4	105.3
18	97.1	97.6	109.7	111.5	111.4	113.9	108.3	110.6	112.3	107.1	102.5	105.7	100.2	98.1	102.0	106.0	108.9	109.1	111.4	109.5	108.9	104.2	99.3	104.2
19	99.8	103.8	103.4	98.0	91.7	97.2	91.0	96.9	96.0	104.7	113.6	110.9	118.5	113.8	111.6	110.9	111.7	115.6	118.6	113.6	118.5	111.5	117.3	115.4
20	113.6	114.9	105.7	99.3	95.7	96.0	99.9	121.8	105.8	105.6	112.4	117.4	122.2	125.0	122.7	116.5	123.6	124.6	120.7	125.6	125.1	117.3	112.9	114.6
21	117.0	111.1	120.6	124.0	112.3	102.9	101.6	101.3	101.0	107.5	113.9	117.4	118.5	121.7	121.9	123.1	123.6	126.8	125.3	122.2	120.1	112.6	111.6	120.6
22	115.3	114.8	110.6	108.5	116.3	117.5	114.0	114.0	111.7	113.8	118.2	118.8	121.0	119.3	119.4	119.2	119.5	115.9	111.1	108.5	103.9	100.4	99.1	92.1
23	83.9	77.1	71.5	12.3	13.9	16.3	22.7	23.3	16.2	2.9	3.9	350.0	349.7	350.3	355.4	357.1	357.4	355.4	348.9	338.7	327.4	332.6	331.5	330.2
24	329.9	327.2	330.0	338.8	2.2	8.4	8.8	9.6	12.5	5.6	7.0	2.5	343.3	346.2	41.0	324.9	248.8	127.1	127.8	115.2	104.9	108.0	140.7	143.5
25	155.4	136.8	159.9	223.8	225.5	241.7	242.3	177.7	224.5	166.9	149.6	144.9	129.2	125.4	111.2	137.8	133.8	137.9	140.8	145.0	129.1	115.4	114.0	121.1
26	113.3	108.1	101.7	91.5	90.7	97.5	103.5	100.5	107.5	96.1	109.3	130.2	124.4	132.7	147.8	142.8	127.5	148.1	156.7	172.9	104.9	72.4	73.7	68.7
27	72.8	58.7	42.3	45.3	34.3	15.4	28.8	39.8	95.0	19.7	30.1	77.3	87.7	103.4	129.4	153.5	138.2	153.3	148.1	149.9	110.6	21.1	30.7	13.8
28	330.6	22.5	26.9	26.5	27.4	20.1	23.7	20.4	18.0	34.2	29.9	5.0	14.7	27.5	25.7	273.7	165.0	304.0	266.6	274.3	320.4	354.1	8.9	5.2
29	13.5	9.2	2.9	15.5	15.3	12.6	8.5	9.8	9.3	4.2	6.9	6.1	7.4	4.9	357.8	356.7	358.1	351.7	348.2	355.7	355.2	0.2	1.1	3.4
30	18.7	10.1	17.0	15.2	10.1	4.5	1.7	6.8	8.9	359.6	359.5	357.3	358.5	3.3	11.4	7.6	8.3	13.3	294.6	288.2	10.9	15.8	14.8	14.1
31	21.0	22.9	23.1	15.6	16.5	14.2	25.5	23.5	26.5	23.0	20.0	13.7	22.9	20.1	121.6	146.7	220.3	219.5	231.5	248.9	28.5	25.4	27.2	20.2

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (Climatronics) (Degrees)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	149.2	129.0	135.1	121.7	124.8	138.5	145.1	162.4	149.9	138.0	142.7	156.4	145.2	144.8	135.5	132.4	142.4	144.1	160.1	153.1	135.1	125.7	129.7	135.0
2	126.9	131.7	131.1	121.1	134.1	134.1	136.1	143.9	170.5	219.4	224.3	200.1	174.7	176.0	165.5	153.9	144.9	138.8	139.0	136.6	135.6	135.4	137.5	125.9
3	119.5	117.3	112.1	110.0	111.3	108.2	103.2	105.7	104.8	105.1	110.2	111.0	109.6	107.1	105.8	106.5	105.1	105.7	104.9	103.7	100.9	97.2	99.7	107.8
4	103.7	100.6	101.1	100.9	90.4	78.4	30.7	54.3	23.2	45.1	48.4	50.0	51.8	29.8	6.1	354.3	317.5	290.4	276.4	307.9	321.3	342.5	333.9	337.3
5	287.3	235.1	283.2	277.5	269.3	250.1	267.9	253.3	256.7	257.9	256.4	252.8	256.5	252.6	248.5	235.7	208.0	248.2	258.4	273.9	264.5	286.2	276.6	269.2
6	254.9	258.8	250.6	260.8	238.9	257.3	271.5	247.3	229.2	201.3	342.6	334.0					280.1	269.9	157.4	135.9	153.0	134.3	113.0	117.9
7	117.3	114.1	111.4	104.6	104.7	99.4	97.7	101.4	105.3	105.4	105.4	109.9	112.7	110.9	115.3	115.5	113.7	107.4	109.1	108.6	108.7	112.8	109.1	108.9
8	113.6	118.2	125.9	121.2	129.0	127.0	120.8	121.9	122.3	120.8	130.1	124.9	129.1	137.7	135.8	166.0	167.2	152.6	131.8	162.0	159.3	146.2	139.1	140.6
9	134.9	130.6	129.5	132.4	130.7	128.4	132.5	139.0	134.3	136.2	135.0	128.5	130.1	153.1	136.6	146.9	132.0	128.4	133.3	129.0	128.6	117.6	102.7	98.9
10	161.9	236.2	177.2	154.6	132.8	112.1	192.2	322.6	322.0	247.0	159.1	98.2	122.2	135.3	140.3	144.5	141.8	142.3	138.2	125.2	118.5	117.2	115.6	118.4
11	119.5	122.5	119.2	114.6	114.2	112.5	113.6	115.0	117.0	115.0	111.4	110.8	111.4	106.6	109.2	109.5	115.1	114.5	111.5	112.0	111.8	109.7	109.6	109.6
12	114.8	112.9	115.1	121.3	145.3	155.3	159.7	186.4	180.5	161.2	170.2	171.5	186.5	202.9	188.2	185.8	202.3	228.5	227.5	221.0	209.1	203.4	196.3	203.0
13	175.7	144.1	136.2	128.9	131.0	132.1	132.9	136.8	163.4	189.8	192.0	179.6	154.0	163.8	161.8	180.5	143.6	135.3	137.0	170.4	137.8	129.4	122.3	171.0
14	106.6	90.4	88.8	78.1	66.2	73.8	77.0	32.0	21.5	24.7	19.9	63.1	8.0	16.3	258.6	1.0	334.8	309.1	288.3	313.8	325.0	325.7	325.2	324.1
15	328.0	328.1	326.6	320.2	319.9	324.6	327.8	329.9	351.5	345.2	334.7	331.6	329.9	325.0	302.9	309.8	293.3	298.8	292.7	292.2	309.2	293.8	290.5	288.8
16	281.1	289.8	285.9	273.7	304.7	331.6	300.3	346.4	319.1	9.7	7.8	346.3	332.0	335.7	289.4	286.5	264.9	261.1	254.2	254.3	262.5	254.1	257.7	263.0
17	257.9	246.4	254.8	255.8	257.7	228.5	241.7	245.0	235.2	227.7	232.7	221.8	199.6	167.0	164.4	167.9	156.9	142.2	103.9	118.7	93.2	72.2	91.4	92.0
18	108.1	113.6	120.2	118.0	109.5	108.7	102.0	111.0	100.7	107.1	110.4	109.1	108.5	108.3	110.0	120.9	125.4	116.7	113.6	115.0	112.0	113.3	142.3	165.6
19	194.3	221.0	216.7	212.0	239.8	214.9	195.0	208.8	186.0	167.6	181.1	199.5	206.0	208.9	221.1	217.7	226.5	222.8	217.6	216.2	211.7	209.1	210.0	209.3
20	208.5	222.5	216.7	225.6	218.7	214.6	219.9	226.8	225.9	219.4	223.6	216.9	228.8	232.3	243.5	235.1	235.8	236.9	230.9	298.4	311.0	272.3	268.1	260.6
21	275.9	292.9	283.4	275.8	307.6	303.1	303.2	269.5	304.2	319.6	322.0	323.7	320.5	321.6	314.7	289.5	317.2	321.7	329.6	328.5	324.8	354.1	356.7	7.7
22	7.6	13.8	16.4	8.9	14.5	11.3	19.2	19.5	27.7	24.8	25.0	97.1	103.5	104.5	104.2	98.6	104.6	95.8	97.5	88.3	91.4	97.0	96.0	98.9
23	93.7	72.5	48.3	62.2	49.4	47.1	60.4	81.2	78.4	113.6	136.2	137.9	138.3	141.7	149.9	137.1	149.7	144.3	148.7	157.4	197.9	201.3	198.7	194.4
24	205.0	214.6	203.9	227.0	238.8	244.7	244.2	231.7	228.7	244.4	251.0	237.0	231.6	224.6	224.5	202.6	200.5	201.4	241.5	217.7	100.0	122.9	161.3	191.3
25	241.4	248.0	243.3	242.4	236.1	234.9	236.6	238.6	238.4	243.6	237.9	232.4	231.8	236.2	220.3	209.2	222.6	233.8	230.3	223.3	231.1	229.2	227.3	233.7
26	235.6	238.6	233.6	234.2	238.7	252.4	256.6	258.3	255.0	270.1	220.2	241.7	252.9	244.9	257.9	271.0	259.8	240.9	241.5	256.2	276.6	283.0	249.6	249.6
27	239.5	283.4	276.1	280.3	250.5	246.3	255.9	249.2	255.8	237.9	261.8	204.5	149.5	162.6	156.2	147.4	112.6	110.2	109.4	122.1	115.8	115.1	115.1	108.7
28	109.1	113.9	108.0	106.1	102.6	100.7	108.7	121.3	120.7	132.1	140.9	130.8	125.1	123.3	122.8	119.7	84.1	52.2	58.2	51.6	32.4	12.1	0.6	336.6
29	5.4	356.6	3.6	354.4	357.3	5.9	11.2	14.0	358.7	8.0	22.0	191.6	179.1	170.4	218.2	224.6	224.4	210.2	162.2	139.7	211.5	223.7	225.8	239.4
30	249.0	246.4	234.6	220.3	194.7	178.8	181.9	159.4	137.4	130.4	127.0	207.8	226.2	208.9	212.8	176.5	171.1	173.0	172.7	195.1	157.1	191.6	234.2	233.4

Total Hours in Month 720 **Hours Data Available** 716 **Data Recovery** 99.4%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (Climatronics) (Degrees)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	238.5	249.3	247.3	243.5	248.9	259.6	272.4	227.8	229.3	311.4	336.5	348.8	3.5	346.3	326.6	309.8	296.9	287.7	291.4	310.0	297.7	302.3	289.9	287.7
2	287.1	284.3	284.2	285.8	293.4	297.4	304.2	308.7	312.0	319.1	316.2	314.3	318.2	317.8	319.4	320.1	321.0	316.8	316.7	309.4	316.7	317.5	321.3	324.5
3	326.3	326.2	323.1	319.0	325.9	331.4	332.0	327.4	327.1	332.2	331.5	337.7	345.1	333.5	341.9	342.5	351.6	343.8	330.3	335.7	6.1	24.5	9.0	317.4
4	28.6	14.9	24.1	57.0	56.3	91.5	107.6	120.2	124.1	128.3	113.5	120.8	112.6	111.5	114.9	114.8	119.8	120.8	123.0	128.6	123.7	128.8	139.2	138.0
5	139.6	141.8	132.6	142.3	141.6	141.6	140.4	138.8	123.8	109.3	106.1	96.5	130.1	271.5	300.3	300.7	302.0	299.4	301.6	307.2	312.0	312.1	312.4	318.1
6	321.7	322.2	320.6	317.8	322.0	322.0	324.0	325.0	327.9	339.9	336.6	337.7	331.7	332.2	340.4	333.6	331.2	324.5	323.2	323.9	327.6	336.1	326.7	318.3
7	320.0	321.8	326.8	339.8	341.9	333.7	340.9	326.2	334.1	332.4	329.6	331.3	338.2	337.7	344.8	342.1	346.0	349.2	346.3	347.5	347.6	350.7	353.6	352.4
8	346.7	350.2	343.4	348.6	348.9	341.2	339.8	331.6	337.3	347.0	338.0	350.1	346.6	344.8	342.9	337.4	336.3	342.2	337.9	333.7	332.8	1.5	353.5	1.2
9	5.8	358.7	2.1	22.7	31.8	22.3	21.1	23.0	27.9	24.4	24.0	24.2	40.6	150.9	273.2	254.7	344.9	358.6	353.3	5.4	3.1	337.3	318.9	320.0
10	319.9	323.9	324.5	328.8	340.9	310.2	314.9	327.6	343.4	333.0	323.1	322.9	340.3	346.9	330.8	325.0	326.7	334.2	335.2	349.8	348.6	1.9	9.8	7.3
11	13.8	13.8	16.7	12.3	18.1	17.0	13.3	22.9	25.4	27.3	41.6	86.2	93.0	105.6	105.7	106.1	112.9	109.3	112.3	112.4	114.1	112.2	114.9	112.3
12	115.5	116.6	113.1	109.8	101.6	94.8	95.6	78.1	39.0	23.5	11.3	18.4	170.9	262.9	2.1	20.7	346.9	341.1	0.7	2.6	4.8	9.7	29.1	16.9
13	22.0	12.0	18.5	7.5	5.6	10.6	12.1	9.8	11.4	16.0	14.7	14.7	10.7	8.5	11.6	356.4	304.8	324.8	325.8	317.3	318.2	333.3	333.2	325.4
14	332.9	335.2	326.6	339.3	348.3	0.4	350.7	344.3	344.1	343.8	341.0	320.2	340.9	336.2	347.6	340.3	346.7	334.1	332.9	346.4	354.0	8.4	10.2	19.5
15	18.3	20.5	30.3	30.0	27.7	27.0	38.0	20.6	38.6	35.3	65.2	33.3	44.9	83.2	42.2	15.3	14.1	27.4	18.9	17.3	18.0	19.0	19.1	15.1
16	16.7	17.8	19.7	22.1	20.0	22.9	358.5	15.2	17.5	2.5	359.9	1.1	18.5	14.3	9.5	5.9	8.5	9.3	4.2	4.3	2.1	10.3	8.4	9.3
17	12.3	11.8	9.1	3.4	3.1	7.4	11.1	11.2	13.8	14.1	14.1	12.8	10.7	13.9	11.0	359.4	0.2	9.2	3.7	1.2	6.9	9.2	12.1	17.8
18	14.8	15.7	16.9	19.3	18.1	10.9	15.2	14.5	10.0	10.2	358.3	3.7	316.4	326.0	15.1	262.2	290.5	307.3	300.1	297.5	290.4	294.4	293.3	304.4
19	17.2	14.7	356.3	351.7	1.9	9.9	5.0	7.5	4.0	18.5	335.2	283.1	315.0	0.3	20.7	92.2	79.1	47.1	38.8	32.1	29.6	43.3	35.0	46.4
20	59.4	37.7	17.8	19.9	17.8	20.0	22.3	21.1	19.9	20.2	28.8	24.3	84.0	81.1	78.2	85.1	79.1	82.3	74.4	75.4	75.7	72.5	71.6	71.2
21	86.5	84.3	87.6	85.6	86.0	88.5	94.1	100.8	99.1	94.1	81.8	70.4	57.2	53.4	53.0	43.8	49.1	38.2	4.3	19.5	7.9	18.3	16.7	19.6
22	18.4	351.7	4.8	5.4	12.6	12.8	22.5	24.2	23.7	24.4	20.7	26.6	45.5	83.5	73.2	127.0	125.7	140.7	157.3	85.8	104.2	108.0	85.1	91.1
23	123.2	128.6	18.1	109.8	127.9	103.4	39.1	54.3	133.5	134.3	131.2	203.4	221.3	195.2	166.5	121.0	84.4	348.8	336.0	315.6	299.5	345.2	350.6	306.3
24	306.0	246.0	358.4	39.1	31.2	196.8	340.5	76.1	136.4	133.8	151.5	139.7	160.9	165.8	169.7	143.0	135.3	111.7	99.1	98.6	92.3	82.6	87.3	98.0
25	104.6	103.8	107.0	106.3	109.9	104.4	107.4	111.5	109.8	108.2	105.0	103.0	102.4	102.7	105.0	105.4	105.6	104.0	103.9	107.5	129.3	124.7	147.6	164.9
26	125.6	118.8	120.6	109.0	101.2	102.3	102.7	115.5	136.9	127.2	124.0	133.7	116.9	115.4	122.5	113.2	114.9	93.6	93.7	93.0	94.8	95.1	94.1	91.9
27	96.8	97.7	98.5	98.1	98.6	101.6	97.6	101.8	65.4	41.8	40.2	57.2	72.8	95.6	96.3	91.9	88.8	103.1	107.8	109.2	109.2	109.8	130.8	129.0
28	120.7	93.8	88.4	97.2	186.3	147.0	62.3	170.4	144.9	156.3	163.5	159.8	146.8	159.6	133.0	129.5	114.5	112.8	110.4	108.2	102.6	104.7	98.7	98.5
29	101.9	102.4	105.8	107.3	105.1	100.8	102.0	104.6	100.3	99.7	97.4	96.5	95.7	100.0	100.7	100.4	104.1	103.1	98.2	103.0	99.6	98.6	100.5	96.9
30	88.1	61.4	30.8	29.5	32.2	33.4	35.2	11.3	8.0	5.1	6.4	14.1	326.7	234.4	244.1	241.8	231.2	237.2	246.3	247.9	248.1	251.9	250.8	252.5
31	262.6	254.1	241.9	243.1	245.8	244.3	242.8	235.6	231.2	226.9	220.6	211.3	213.5	207.2	196.3	180.4	168.4	141.5	99.7	79.2	79.6	82.6	72.2	62.4

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (Climatronics) (Degrees)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	70.4	53.0	56.0	66.0	59.6	38.4	35.7	21.4	7.0	19.2	18.6	19.3	21.9	20.1	277.2	227.6	223.0	242.1	267.8	272.3	256.2	260.8	265.9	271.6
2	269.9	261.9	313.9	298.1	310.4	285.6	267.4	320.4	333.3	328.6	333.4	328.7	326.2	328.0	333.7	8.0	335.1	299.9	304.8	312.8	308.9	318.6	332.0	321.9
3	330.1	321.0	321.0	317.4	318.6	319.6	322.5	343.3	8.1	12.8	341.1	272.9	308.7	71.0	153.4	144.4	201.6	170.6	104.0	102.5	108.4	105.1	107.6	106.8
4	110.2	108.3	103.3	102.2	106.0	109.8	103.5	109.7	113.3	115.0	121.0	121.9	122.0	123.1	119.6	120.3	120.4	119.1	119.1	138.0	133.7	122.9	119.6	107.7
5	105.4	104.9	106.6	107.8	111.2	109.2	100.8	100.2	98.9	97.0	97.5	97.2	96.1	87.9	82.2	81.5	82.2	94.7	94.9	98.3	99.0	99.3	98.2	100.8
6	97.7	97.3	101.0	99.9	103.0	98.0	89.9	86.5	86.9	86.4	91.2	89.1	89.1	94.5	95.0	94.6	96.7	100.0	100.0	98.7	102.2	109.7	133.9	153.4
7	138.9	123.2	107.6	104.2	103.4	106.9	109.7	117.3	125.2	125.1	119.9	123.5	124.6	142.3	168.0	167.5	180.6	169.2	181.6	209.4	204.5	210.4	204.2	177.9
8	159.7	121.7	96.4	88.5	95.1	95.1	96.8	100.1	103.5	99.6	100.7	99.6	103.9	110.5	107.5	110.2	105.7	111.2	108.2	118.3	107.1	99.5	103.0	99.6
9	101.6	101.3	103.0	106.2	107.2	101.3	98.4	97.4	97.9	100.0	98.1	102.4	101.7	98.7	102.4	104.7	109.2	111.0	99.9	92.0	91.7	90.0	62.4	30.1
10	15.8	15.5	17.7	24.4	27.3	10.6	12.3	14.9	13.4	1.8	15.4	17.0	10.6	7.9	6.4	356.4	8.2	5.0	5.6	12.6	10.1	13.3	10.7	13.3
11	13.3	19.1	21.2	14.9	15.8	21.0	20.3	19.7	17.4	16.7	4.3	6.8	15.2	13.9	18.5	14.1	13.8	10.8	19.9	17.4	21.9	21.3	13.2	322.1
12	21.2	20.6	325.7	327.7	26.6	82.7	129.7	297.7	312.3	269.3	341.4	12.9	50.3	36.2	40.5	54.3	105.4	102.1	105.3	107.7	104.9	107.4	106.4	106.7
13	107.1	104.7	103.8	102.4	96.8	99.5	100.9	101.1	99.9	97.3	91.7	91.0	88.1	128.3	170.9	296.5	10.2	76.1	94.7	95.4	99.1	102.2	109.3	119.6
14	142.1	152.3	157.1	145.8	149.4	152.9	137.4	146.3	165.7	72.6	45.3	77.7	84.8	88.2	85.3	80.5	76.1	71.9	74.0	70.2	56.1	28.2	14.5	16.7
15	15.2	18.7	20.1	19.6	10.4	15.4	17.4	14.2	13.5	19.2	18.7	14.1	13.5	11.7	14.1	15.6	7.8	11.1	4.8	15.9	10.7	13.8	13.6	18.6
16	5.5	356.6	354.1	354.8	352.8	357.4	351.3	352.9	357.5	354.5	354.7	1.2	1.0	353.4	353.8	355.8	353.0	350.5	0.0	352.5	354.7	359.9	355.3	355.8
17	355.5	349.6	355.8	354.2	350.1	347.2	351.1	349.4	352.4	351.9	0.2	359.2	356.4	357.9	358.2	357.3	347.6	348.9	359.0	354.6	360.0	0.2	1.5	18.9
18	18.2	9.2	352.9	14.7	11.8	11.9	0.6	4.1	10.4	18.8	19.4	10.8	15.7	9.8	13.4	3.3	12.2	7.7	13.1	326.5	354.8	22.3	19.9	19.3
19	26.5	26.7	28.4	20.4	21.8	358.7	21.7	348.1	76.4	88.0	83.0	84.5	92.0	86.2	85.3	94.0	97.9	89.5	78.7	73.0	72.2	66.5	70.8	71.7
20	73.8	75.3	77.9	82.4	79.6	92.3	97.8	94.6	97.5	93.7	95.7	95.6	97.3	99.2	98.9	92.3	97.0	93.4	82.3	63.8	54.7	43.6	66.2	74.3
21	52.5	58.8	67.7	67.7	81.3	95.0	119.3	135.0	148.6	123.9	117.8	116.9	115.1	111.1	109.4	119.4	131.1	120.7	116.4	116.7	116.9	117.4	116.9	119.4
22	122.0	134.2	99.8	89.9	79.2	45.0	43.3	49.4	86.3	96.3	98.8	97.6	96.0	95.0	87.9	83.0	81.0	89.4	98.7	114.6	122.9	128.8	149.1	161.1
23	158.2	164.8	175.7	183.2	197.8	218.8	218.7	207.9	208.7	212.4	218.3	220.8	227.3	229.0	232.4	237.2	253.2	256.4	237.4	230.7	237.3	239.7	250.4	244.2
24	235.1	248.2	247.1	267.4	218.3	207.1	204.5	203.8	202.6	193.9	122.2	96.3	91.2	94.4	99.5	97.6	98.4	99.5	101.7	99.7	91.3	100.7	101.4	95.1
25	99.0	99.2	94.6	94.6	98.0	96.4	92.1	80.9	83.7	92.1	93.5	99.2	92.0	91.2	88.2	92.9	88.6	88.1	84.5	75.0	77.0	80.9	73.5	45.0
26	44.2	43.7	37.9	23.7	25.9	36.4	54.9	60.7	120.8	102.9	116.5	134.6	133.6	152.3	133.0	158.8	135.3	147.3	160.2	164.7	160.6	127.3	123.9	116.5
27	129.6	119.6	103.1	108.1	112.2	114.3	107.5	105.2	107.4	108.9	110.2	113.8	107.0	110.4	108.3	105.2	112.9	125.6	108.9	99.0	104.2	107.9	103.9	111.8
28	117.5	114.8	108.7	114.7	126.6	131.1	129.7	235.0	164.3	156.9	133.0	123.3	133.4	135.5	127.6	127.0	129.9	129.9	124.0	117.3	120.0	120.9	130.3	126.1
29	119.1	118.7	116.5	113.6	108.2	99.6	108.5	109.3	112.1	112.2	115.3	115.3	117.3	114.4	114.5	112.2	111.4	111.5	110.7	111.4	114.5	114.9	115.5	112.7
30	110.0	113.7	111.1	110.7	114.9	114.8	115.6	114.3	113.1	117.1	115.8	111.5	109.2	111.9	118.7	118.7	123.5	128.0	129.3	117.4	114.0	115.7	116.1	117.8

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (Climatronics) (Degrees)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	123.7	120.5	130.7	140.8	132.8	132.6	133.7	150.7	118.7	130.0	118.8	125.9	127.5	132.6	119.4	123.9	151.8	168.1	162.4	284.0	4.1	348.9	345.6	19.6
2	9.2	4.1	19.5	25.8	28.9	21.8	19.5	18.4	21.8	21.0	24.6	21.6	37.5	23.3	241.4	178.8	202.7	20.2	25.0	23.9	55.5	63.9	72.9	92.4
3	95.5	97.2	96.0	100.7	101.8	103.1	101.4	98.2	97.1	94.9	95.4	87.8	92.2	97.4	88.7	87.0	85.1	75.1	78.1	78.5	78.5	78.3	75.6	73.6
4	73.7	78.7	82.6	79.0	84.0	88.8	47.2	38.4	75.3	76.5	75.6	76.7	77.1	91.1	121.7	128.5	127.1	119.8	122.7	123.1	127.1	125.9	130.8	128.6
5	130.2	129.0	124.8	126.5	125.6	125.9	126.0	125.9	122.4	109.5	104.9	104.6	107.3	110.9	115.4	115.7	113.4	109.5	109.7	112.4	112.9	109.6	120.0	115.0
6	113.0	115.6	117.9	119.9	117.6	117.4	119.8	122.0	117.8	113.3	115.0	112.8	111.1	109.9	118.4	121.5	139.6	178.2	210.1	236.4	222.2	214.7	195.1	193.9
7	189.1	162.2	147.8	133.1	119.8	119.2	107.3	100.6	97.4	90.5	85.5	98.1	109.6	97.9	96.2	99.9	100.4	100.7	98.1	94.7	93.2	94.0	95.2	100.7
8	108.1	121.7	150.7	162.4	157.1	158.5	171.4	160.2	144.8	132.8	118.7	114.0	121.3	135.5	138.3	146.8	218.0	236.4	217.3	236.4	231.7	226.0	230.6	250.0
9	242.4	207.6	120.3	126.9	104.7	95.9	88.7	90.6	89.3	100.3	105.1	105.3	107.7	107.4	106.0	109.3	110.0	112.6	110.5	111.8	114.8	116.2	115.6	115.1
10	114.2	120.8	109.1	93.0	95.2	77.9	38.5	43.5	38.0	33.5	30.3	21.9	10.5	8.0	13.9	19.6	20.5	17.1	12.4	13.9	3.3	351.1	320.5	325.8
11	325.5	328.6	325.0	320.3	308.5	301.5	290.8	280.2	304.8	1.5	11.1	354.1	353.5	316.5	5.6	8.7	18.5	25.4	226.8	290.1	6.5	23.3	21.6	15.5
12	13.1	23.7	27.8	21.0	27.5	30.0	57.8	63.1	63.7	13.5	5.3	8.9	14.2	21.2	13.3	53.6	10.6	12.7	18.5	24.6	22.0	24.3	23.3	22.7
13	25.7	28.0	27.9	39.3	33.6	30.7	26.0	26.0	29.4	31.1	30.1	23.3	23.2	20.3	17.8	14.9	20.8	23.7	23.7	17.7	19.0	12.2	16.1	19.6
14	16.5	11.6	14.1	16.6	14.7	12.6	14.0	13.1	6.3	10.4	13.6	16.6	9.4	359.9	16.1	18.2	9.2	12.2	7.3	8.9	0.8	9.6	5.1	348.9
15	347.9	11.0	17.5	348.4	338.9	342.0	339.9	334.8	327.7	326.9	326.2	328.2	327.0	326.9	325.6	329.0	326.5	329.7	329.0	334.7	337.8	339.3	338.7	332.1
16	334.4	333.3	335.1	340.3	341.0	337.7	349.2	350.2	344.1	348.5	348.9	351.5	344.9	344.5	349.0	349.6	347.7	354.7	354.1	354.8	355.7	351.6	352.4	357.3
17	349.4	353.5	354.1	355.2	355.9	355.4	356.5	346.5	346.1	349.0	354.6	351.3	350.2	355.6	355.3	356.2	356.1	358.3	5.4	6.5	3.6	2.8	7.4	12.6
18	13.0	14.0	18.4	21.9	22.7	24.1	22.8	15.9	14.0	18.8	19.6	25.1	18.5	18.7	20.4	16.4	10.7	10.7	14.6	14.3	11.0	13.3	16.2	7.7
19	2.1	0.7	9.9	0.3	358.6	12.3	14.0	3.6	8.8	15.0	9.0	12.6	23.3	12.9	357.6	1.4	359.1	6.2	5.4	22.1	7.0	14.4	26.4	19.6
20	24.3	23.6	21.8	27.5	22.8	32.2	84.5	88.5	88.0	92.9	96.2	103.4	104.3	106.1	108.3	110.2	115.7	128.0	126.1	122.0	136.6	139.7	135.6	118.9
21	110.8	116.1	112.8	115.3	123.2	117.7	139.7	172.6	166.9	141.0	148.3	144.3	143.2	130.4	116.3	109.8	112.9	100.5	102.6	107.2	104.5	100.1	100.1	111.4
22	115.0	106.9	105.6	98.3	101.3	105.6	109.5	109.4	109.8	110.1	106.2	107.0	114.1	117.0	117.8	121.3	123.2	119.3	114.9	116.0	129.2	215.5	249.6	236.2
23	235.3	238.2	229.3	231.4	227.0	218.9	217.8	220.1	243.3	311.4	311.9	312.0	303.4	272.2	278.6	290.7	297.4	330.2	1.5	348.5	269.9	219.5	328.7	43.6
24	22.0	21.4	24.2	22.3	23.3	19.6	13.4	10.7	9.6	8.3	3.2	356.6	355.0	354.8	354.5	355.3	357.0	354.6	346.8	346.9	349.1	349.1	346.2	343.7
25	340.6	340.2	342.0	341.1	336.0	334.1	334.4	337.1	338.6	340.7	349.3	346.7	334.7	326.1	322.1	322.7	321.8	341.2	334.1	348.5	18.2	357.5	7.6	10.5
26	17.5	25.6	24.7	29.9	26.7	46.8	42.3	37.0	69.0	109.7	103.3	103.4	90.9	84.5	88.9	95.4	94.4	101.5	109.6	99.2	89.9	91.8	92.7	90.9
27	90.7	89.4	93.4	93.9	93.6	90.1	87.3	81.6	84.4	87.1	88.6	90.2	91.2	89.8	89.8	81.5	77.8	73.6	79.8	96.3	121.0	165.1	186.1	175.4
28	172.0	187.9	199.1	207.3	223.1	260.3	270.3	278.9	270.3	334.2	352.0	15.1	1.3	3.6	10.8	11.5	17.3	4.2	6.7	6.1	1.9	356.1	359.2	3.1
29	357.0	353.7	346.3	22.4	11.7	342.7	332.4	349.6	6.8	8.9	0.1	2.2	356.4	349.7	336.5	1.2	353.6	322.5	319.0	319.7	316.9	323.3	320.0	317.6
30	320.6	326.9	336.4	336.4	341.7	3.7	4.2	5.2	11.9	19.7	19.5	18.1	14.3	19.2	20.7	31.2	25.9	26.4	20.1	23.2	20.9	18.8	20.5	22.8
31	24.6	13.4	15.1	19.7	17.6	18.6	22.3	17.6	18.8	18.0	21.7	18.5	20.6	20.1	20.4	17.6	18.9	20.1	18.9	19.3	16.4	17.4	15.5	18.3

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (Climtrncs)

January 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	3.1	3.1	3.2	2.9	3.2	3.0	7.1	4.6	5.5	4.0	3.4	3.6	4.1	4.4	4.9	4.2	4.8	4.0	4.5	3.8	5.8	4.1	4.1	4.0	7.1	2.9	4.1
2	3.9	3.5	3.0	3.7	3.1	3.9	3.9	4.8	4.4	5.7	3.9	3.7	3.8	4.1	3.1	3.5	3.2	2.9	4.0	2.7	3.6	3.3	2.5	3.3	5.7	2.5	3.6
3	3.6	4.8	4.6	7.6	6.2	7.6	5.1	5.8	5.3	4.2	4.3	3.3	2.8	5.6	8.0	6.9	3.4	2.8	6.3	9.4	6.0	6.6	7.5	4.5	9.4	2.8	5.5
4	15.2	5.1	6.0	3.4	3.5	4.6	3.7	4.5	5.6	5.5	5.5	5.6	5.1	12.3	14.9	9.1	3.7	5.0	4.5	6.0	15.2	33.1	13.2	27.9	33.1	3.4	9.1
5	14.7	18.1	6.3	6.4	5.0	12.0	7.7	4.4	4.9	17.0	5.7	3.6	4.5	20.3	6.4	5.9	4.8	5.4	8.4	18.3	17.2	5.8	5.3	4.0	20.3	3.6	8.8
6	4.8	3.1	6.7	5.0	4.5	4.1	5.6	6.6	10.5	5.2	2.1	3.2	3.6	7.1	4.5	5.1	4.3	5.0	11.1	4.5	5.3	5.8	5.6	6.2	11.1	2.1	5.4
7	4.0	5.7	4.1	3.8	4.0	5.0	4.7	4.2	4.1	3.3	3.9	5.3	5.0	4.4	4.2	6.7	6.7	3.5	5.6	1.9	3.2	4.3	3.7	3.7	6.7	1.9	4.4
8	4.6	3.2	4.8	3.5	5.2	5.3	4.4	4.7	4.0	3.5	3.7	2.9	4.4	6.1	4.8	5.3	4.6	3.8	3.4	4.3	5.1	7.6	7.3	3.4	7.6	2.9	4.6
9	7.6	5.0	5.2	24.4	8.5	4.6	8.7	6.5	8.6	11.4	9.5	37.6	49.1	8.5	11.9	25.3	6.3	5.6	6.5	6.8	4.5	17.0	9.0	5.1	49.1	4.5	12.2
10	6.8	6.2	5.8	6.7	5.6	5.9	5.1	4.3	3.9	3.5	3.6	3.6	3.0	2.9	3.2	3.0	3.5	3.5	3.4	3.2	3.8	3.7	3.2	3.5	6.8	2.9	4.2
11	3.3	3.4	3.3	3.2	3.4	3.3	3.2	3.4	3.5	3.4	3.5	3.5	3.2	3.3	3.2	3.4	3.4	3.4	3.8	3.6	3.8	3.6	3.7	3.8	3.8	3.2	3.4
12	3.9	4.1	3.9	3.8	4.1	4.1	3.9	3.6	3.1	3.0	3.3	3.5	3.4	3.3	3.1	3.6	3.4	3.6	3.8	3.6	3.3	5.3	8.8	3.8	8.8	3.0	3.9
13	4.1	4.3	4.4	3.9	3.8	4.1	4.0	3.8	15.8	3.6	3.7	6.2	8.2	13.6	5.1	11.9	6.4	7.3	4.8	3.4	3.5	2.5	3.2	3.0	15.8	2.5	5.6
14	3.0	3.7	5.0	4.0	6.3	7.0	4.6	4.2	5.4	5.9	5.5	1.9	2.3	3.9	4.5	5.2	5.6	5.1	12.3	9.2	9.0	8.3	5.2	3.5	12.3	1.9	5.4
15	5.1	5.0	5.5	4.3	6.2	2.0	3.3	3.6	3.6	5.1	4.5	3.4	3.0	3.6	5.1	5.7	5.6	3.7	48.3	41.0	5.8	7.8	4.0	4.1	48.3	2.0	7.9
16	6.6	5.4	5.0	7.0	8.1	18.0	3.8	3.8	3.9	4.0	3.6	4.1	4.4	4.3	3.9	4.1	4.2	4.1	3.9	3.9	3.9	3.5	3.3	3.0	18.0	3.0	5.0
17	3.0	3.6	2.8	3.1	2.9	4.1	4.8	3.1	2.9	5.0	3.4	4.0	3.9	3.5	3.9	3.4	3.3	3.1	4.0	4.5	3.8	3.8	3.5	3.2	5.0	2.8	3.6
18	3.2	4.0	5.2	5.9	10.1	10.3	6.8	5.3	6.8	8.7	10.6							5.7	23.9	21.4	6.0	26.1	10.1	17.3	26.1	3.2	10.4
19	16.6	21.1	11.0	43.3	11.4	10.8	19.4	16.7	47.8	5.4	7.6	6.0	23.7	22.6	21.3	29.8	3.7	4.3	4.0	4.2	4.2	4.5	4.1	4.2	47.8	3.7	14.5
20	4.4	3.8	4.1	3.3	3.4	3.3	3.1	3.3	3.4	4.0	4.2	3.5	5.4	5.3	6.0	3.8	4.4	4.4	9.1	5.0	6.3	3.5	3.0	4.2	9.1	3.0	4.3
21	4.7	5.9	4.3	11.3	40.2	9.3	13.8	6.1	18.5	9.8	13.2	4.1	4.2	3.2	3.9	5.0	5.0	10.7	5.4	7.1	5.2	5.5	5.0	4.8	40.2	3.2	8.6
22	12.8	9.4	11.6	24.0	5.3	4.2	21.4	19.9	3.5	3.6	4.1	5.2	5.0	5.8	5.7	6.2	5.4	8.9	6.0	5.6	5.1	8.0	6.2	4.7	24.0	3.5	8.2
23	6.4	4.8	4.4	11.9	4.1	4.1	3.2	5.7	4.4	3.5	6.1	3.1	4.5	5.1	6.0	6.2	12.0	3.9	8.5	4.0	8.0	4.4	3.6	7.0	12.0	3.1	5.6
24	9.6	5.7	2.9	2.7	2.6	3.1	7.7	11.2	9.1	6.0	7.0	4.1	3.9	10.7	6.1	4.5	4.3	4.0	4.0	13.1	5.6	5.0	6.5	5.5	13.1	2.6	6.0
25	6.4	13.4	12.6	4.1	4.5	3.3	3.5	6.1	5.1	3.9	4.1	4.2	5.2	4.1	4.0	4.3	4.9	4.4	3.6	3.7	3.5	3.4	3.3	3.9	13.4	3.3	5.0
26	3.5	3.6	3.8	3.6	3.7	3.8	3.9	4.3	4.0	3.8	4.1	4.5	3.6	3.2	3.6	3.2	3.8	3.2	3.2	2.9	3.2	6.1	3.8	3.6	6.1	2.9	3.8
27	3.2	3.8	3.2	3.7	3.5	3.7	4.0	5.0	5.2	3.5	5.8	4.5	3.6	3.5	4.2	3.6	3.5	4.6	4.4	4.4	3.9	4.5	4.3	3.9	5.8	3.2	4.1
28	3.3	3.4	3.7	3.8	3.7	3.6	3.1	3.4	3.8	3.2	3.0	4.4	3.9	4.0	3.5	3.5	3.2	4.6	4.3	3.3	2.2	2.9	2.5	3.4	4.6	2.2	3.5
29	4.1	5.2	4.5	3.8	3.8	4.0	3.9	5.1	4.5	3.7	4.6	4.1	3.8	3.4	3.7	4.2	4.3	4.3	4.3	4.4	4.2	4.1	4.2	4.5	5.2	3.4	4.2
30	4.2	3.8	4.3	4.1	4.5	4.1	4.0	4.0	4.4	4.4	4.5	4.7	4.1	4.4	4.3	4.8	4.5	4.0	4.4	4.2	4.4	4.2	4.4	4.9	4.9	3.8	4.3
31	4.4	4.2	4.0	4.2	4.0	3.8	4.8	4.2	3.9	4.3	4.3	4.0	4.7	4.6	4.8	5.7	4.9	4.7	5.2	10.3	5.0	6.0	8.1	7.0	10.3	3.8	5.0
Max.	**16.6**	**21.1**	**12.6**	**43.3**	**40.2**	**18.0**	**21.4**	**19.9**	**47.8**	**17.0**	**13.2**	**37.6**	**49.1**	**22.6**	**21.3**	**29.8**	**12.0**	**10.7**	**48.3**	**41.0**	**17.2**	**33.1**	**13.2**	**27.9**	**49.1**		
Min.	**3.0**	**3.1**	**2.8**	**2.7**	**2.6**	**2.0**	**3.1**	**3.1**	**2.9**	**3.0**	**2.1**	**1.9**	**2.3**	**2.9**	**3.1**	**3.0**	**3.2**	**2.8**	**3.2**	**1.9**	**2.2**	**2.5**	**2.5**	**3.0**		**1.9**	
Avg.	**5.9**	**5.8**	**5.1**	**7.3**	**6.1**	**5.5**	**6.0**	**5.7**	**7.1**	**5.2**	**5.0**	**5.2**	**6.3**	**6.4**	**5.7**	**6.6**	**4.7**	**4.6**	**7.4**	**7.2**	**5.5**	**6.9**	**5.2**	**5.4**			**5.9**

Total Hours in Month 744 **Hours Data Available** 738 **Data Recovery** 99.2%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (Climtrncs)

February 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	7.9	3.9	4.7	8.8	7.4	6.0	3.7	4.6	6.0	9.5	7.0	14.6	15.4	39.0	31.0	4.1	4.8	5.3	5.1	6.6	6.1	4.2	4.3	4.2	39.0	3.7	8.9
2	4.3	4.3	5.1	4.6	4.1	4.4	4.3	4.3	4.7	3.6	3.9	4.2	4.1	4.4	4.5	4.6	5.0	4.7	4.4	4.0	4.0	3.9	3.9	3.8	5.1	3.6	4.3
3	3.8	3.9	3.9	4.0	4.0	4.7	4.2	4.1	3.5	4.0	4.5	4.1	3.5	5.9	9.7	11.1	34.7	41.4	8.5	5.2	4.0	8.0	11.2	8.6	41.4	3.5	8.3
4	6.7	6.0	2.5	12.0	8.9	3.4	5.1	7.1	4.4	4.3	5.4	4.1	5.7	7.8	8.1	6.9	4.8	4.8	5.8	4.6	5.8	8.2	6.0	11.6	12.0	2.5	6.3
5	13.8	13.3	9.4	18.5	8.2	9.2	9.5	22.6	10.2	26.1	12.2	6.2	7.8	6.7	7.6	7.9	16.5	6.7	4.5	6.2	4.9	4.6	4.8	9.8	26.1	4.5	10.3
6	4.6	4.0	4.2	4.0	3.9	3.8	3.7	4.2	4.5	4.2	4.9	4.5	4.0	4.1	4.6	8.5	7.1	15.3	14.2	9.6	17.8	12.9	7.0	4.6	17.8	3.7	6.7
7	7.6	35.0	24.5	27.1	19.5	6.8	7.2	33.0	16.0	17.4	13.6	17.7	13.0	9.6	41.2	32.1	8.6	26.4	3.8	9.9	14.8	4.7	33.0	8.2	41.2	3.8	17.9
8	12.3	38.9	11.0	11.6	8.2	6.3	6.3	5.8	7.6	6.8	5.1	5.3	6.3	6.9	7.3	6.0	7.8	7.8	12.5	8.5	14.6	7.7	12.7	10.3	38.9	5.1	9.7
9	13.7	15.5	22.1	12.9	10.9	26.2	13.1	24.0	38.5	10.6	13.1	13.3	7.5	8.0	7.6	12.7	8.6	10.4	45.5	21.7	20.9	45.6	65.1	25.8	65.1	7.5	20.5
10	5.4	8.2	15.2	9.7	17.8	6.7	3.7	5.1	4.9	5.4	6.8	7.2	10.6	7.2	5.1	6.0	8.1	16.1	14.3	3.9	2.9	5.2	4.5	8.0	17.8	2.9	7.8
11	5.7	15.1	6.9	7.1	5.4	10.3	12.5	5.0	4.5	6.3	5.3	4.3	4.3	4.1	3.5	3.8	3.9	3.7	3.9	3.9	5.0	4.0	4.2	4.5	15.1	3.5	5.7
12	4.6	4.6	3.7	4.6	4.2	4.1	4.0	4.2	4.3	3.9	4.3	4.4	4.1	4.6	4.8	5.4	4.4	4.7	7.8	6.1	4.5	4.9	4.6	4.2	7.8	3.7	4.6
13	5.5	6.0	5.8	3.7	3.2	3.4	3.7	5.2	4.0	4.9	5.1	5.5	5.4	5.6	6.9	5.4	5.2	4.6	4.5	4.2	4.7	4.8	4.3	4.1	6.9	3.2	4.8
14	4.1	3.6	3.4	3.8	4.0	3.9	3.6	3.8	3.4	3.5	4.0	3.6	4.0	4.3	4.0	4.2	4.6	3.8	12.7	5.5	7.0	11.2	4.6	4.6	12.7	3.4	4.8
15	4.0	5.1	4.1	3.7	2.7	3.6	5.6	9.4	4.7	4.1	13.2	3.8	23.2	5.3	5.0	4.6	4.1	4.4	4.5	3.4	4.5	3.5	5.8	6.0	23.2	2.7	5.8
16	4.9	5.8	11.2	32.7	8.2	8.5	7.4	8.5	8.5	9.3	4.4	5.5	4.3	6.9	29.3	23.8	15.9	14.7	15.1	4.2	22.5	4.8	23.1	6.4	32.7	4.2	11.9
17	8.9	8.9	7.1	6.4	10.2	15.3	10.5	5.9	6.2	9.5	3.8	8.6	10.6	19.0	7.2	6.2	6.5	5.5	5.0	12.6	6.0	5.0	5.5	5.1	19.0	3.8	8.1
18	10.2	11.4	5.6	11.0	12.1	17.6	24.8	5.8	7.6	7.9	9.7	12.9	6.2	5.1	5.7	9.9	8.8	17.3	7.6	5.9	3.8	3.3	4.2	3.2	24.8	3.2	9.1
19	4.2	4.6	9.3	4.5	3.5	5.0	4.4	4.0	5.0	4.9	6.0	5.2	5.7	5.9	4.4	3.9	3.4	5.1	3.8	3.1	2.7	3.6	4.0	6.0	9.3	2.7	4.7
20	4.9	5.4	4.9	6.9	4.9	4.4	3.5	4.3	3.2	4.0	4.6	4.9	4.5	4.3	3.7	3.6	3.7	3.5	3.5	3.8	4.3	5.7	4.9	5.2	6.9	3.2	4.4
21	8.9	6.9	5.6	6.7	4.7	4.2	4.2	2.9	3.0	3.2	3.1	3.7	4.9	6.0	4.7	3.0	4.3	5.2	7.2	5.5	5.3	4.3	5.9	6.3	8.9	2.9	5.0
22	6.5	5.0	6.3	5.3	3.4	4.9	6.3	6.3	4.3	7.0	5.2	5.6	4.1	3.3	4.3	6.6	4.8	4.0	4.7	5.3	6.5	6.1	6.5	10.8	10.8	3.3	5.5
23	8.0	7.5	6.9	4.9	4.2	4.7	4.8	4.0	5.1	5.5	5.1	6.9	5.0	3.7	4.2	4.6	7.1	6.9	6.0	7.5	8.4	5.2	6.3	8.4	8.4	3.7	5.9
24	18.9	4.5	3.5	3.2	9.9	7.5	7.8	5.6	6.8	5.4	4.4	6.4	4.0	4.0	3.6	4.7	5.4	3.6	4.8	4.2	3.5	3.8	2.5	2.9	18.9	2.5	5.5
25	4.1	5.5	4.0	4.6	5.0	5.2	6.0	5.1	7.9	10.0	8.5	5.2	4.6	5.3	6.3	6.2	4.7	3.7	4.1	4.5	17.6	39.0	16.2	34.8	39.0	3.7	9.1
26	9.0	4.9	3.6	2.8	2.8	2.7	3.4	4.4	6.4	19.4	11.8	28.8	15.2	10.9	4.5	5.2	5.9	5.5	17.9	18.3	16.2	3.5	2.8	2.7	28.8	2.7	8.7
27	4.6	4.4	4.3	2.8	2.2	2.8	1.9	3.0	5.4	3.5	4.4	6.1	4.0	6.3	4.6	3.1	3.1	5.1	5.9	5.8	6.8	6.2	3.3	3.7	6.8	1.9	4.3
28	6.4	7.9	6.0	3.4	4.7	5.4	4.9	4.2	4.2	4.9	4.3	3.3	4.1	4.5	4.2	5.3	4.3	3.8	4.5	4.4	3.8	3.8	3.2	4.0	7.9	3.2	4.6
Max.	**18.9**	**38.9**	**24.5**	**32.7**	**19.5**	**26.2**	**24.8**	**33.0**	**38.5**	**26.1**	**13.6**	**28.8**	**23.2**	**39.0**	**41.2**	**32.1**	**34.7**	**41.4**	**45.5**	**21.7**	**22.5**	**45.6**	**65.1**	**34.8**	**65.1**		
Min.	**3.8**	**3.6**	**2.5**	**2.8**	**2.2**	**2.7**	**1.9**	**2.9**	**3.0**	**3.2**	**3.1**	**3.3**	**3.5**	**3.3**	**3.5**	**3.0**	**3.1**	**3.5**	**3.5**	**3.1**	**2.7**	**3.3**	**2.5**	**2.7**		**1.9**	
Avg.	**7.3**	**8.9**	**7.3**	**8.3**	**6.7**	**6.8**	**6.4**	**7.4**	**7.0**	**7.5**	**6.5**	**7.3**	**7.0**	**7.5**	**8.5**	**7.5**	**7.4**	**8.7**	**8.6**	**6.7**	**8.2**	**8.1**	**9.4**	**7.8**			**7.6**

Total Hours in Month 672 **Hours Data Available** 672 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (Climtrncs)

March *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	3.5	3.0	3.7	4.4	4.2	4.1	3.8	3.9	3.2	4.2	3.9	4.5	4.8	6.0	4.2	5.1	3.8	3.7	4.1	4.2	4.5	5.9	4.3	4.4	6.0	3.0	4.2
2	4.2	3.9	3.7	4.8	4.8	4.5	4.9	4.5	4.2	3.7	4.0	3.5	4.4	4.2	4.1	3.2	4.0	4.7	5.9	3.7	3.5	3.2	4.0	6.7	6.7	3.2	4.3
3	4.3	5.5	5.3	4.4	4.8	5.0	5.0	5.4	5.3	4.1	7.5	5.4	4.1	5.8	4.6	3.9	4.3	5.8	4.5	14.2	12.5	5.8	3.9	3.4	14.2	3.4	5.6
4	3.8	2.6	3.1	3.0	4.8	5.1	4.1	4.7	4.2	3.5	4.1	3.1	3.6	4.3	4.6	4.3	3.4	3.0	3.2	3.5	4.1	3.8	4.8	3.6	5.1	2.6	3.8
5	3.2	4.2	3.8	4.1	3.9	4.7	3.8	3.4	5.1	4.2	4.5	4.2	4.4	4.9	6.0	6.4	5.4	4.6	4.7	4.3	4.6	3.8	3.9	3.6	6.4	3.2	4.4
6	3.9	2.9	3.4	5.0	5.7	4.8	4.3	4.1	5.2	3.8	4.6	3.6	3.7	4.6	5.3	4.5	4.4	5.1	3.3	5.3	5.0	4.3	5.7	7.9	7.9	2.9	4.6
7	6.0	5.4	7.1	7.0	5.0	5.5	4.8	5.1	5.6	6.5	5.8	6.0	4.4	4.8	5.4	4.7	5.7	5.0	4.6	3.5	4.4	4.5	5.6	4.4	7.1	3.5	5.3
8	4.9	4.0	5.7	5.0	5.0	5.8	3.2	3.3	3.9	3.0	4.2	3.4	3.9	4.4	4.7	4.2	3.8	4.1	4.2	4.4	5.3	4.6	4.9	4.0	5.8	3.0	4.3
9	4.0	4.5	3.8	2.9	3.8	3.4	2.8	5.7	5.8	5.8	4.7	5.5	4.8	4.7	5.3	5.1	4.2	4.0	4.3	4.0	3.3	2.7	3.1	3.6	5.8	2.7	4.2
10	3.5	3.2	3.8	3.2	3.0	4.2	3.9	4.5	4.1	4.0	5.7	6.4	6.6	6.3	6.1	4.5	4.2	3.9	4.0	3.8	3.4	4.0	4.3	4.6	6.6	3.0	4.4
11	4.1	3.7	5.4	4.0	4.7	4.2	3.7	3.9	4.4	3.8	3.8	3.9	5.4	5.1	6.0	5.1	6.2	8.2	6.8	5.7	5.1	5.1	4.8	6.4	8.2	3.7	5.0
12	5.6	4.8	4.8	5.0	6.3	5.6	3.8	4.7	3.0	3.4	3.5	3.7	4.3	5.7	7.2	7.3	6.6	6.8	57.5	12.3	26.6	8.6	5.6	6.3	57.5	3.0	8.7
13	34.9	29.7	12.4	6.8	7.2	13.5	7.9	8.5	47.7	12.7	9.8	9.6	7.6	9.0	5.5	7.0	6.4	6.1	8.6	6.2	5.3	6.2	7.6	5.2	47.7	5.2	11.7
14	6.1	5.9	4.9	4.9	6.4	5.9	6.6	4.5	5.5	6.8	9.4	7.5	6.1	7.3	4.8	5.3	4.7	4.8	4.6	4.6	4.2	3.4	4.2	3.9	9.4	3.4	5.5
15	6.8	4.3	4.3	4.3	5.5	5.1	3.5	3.2	3.6	4.0	5.0	4.2	4.5	5.1	4.6	4.4	4.1	4.0	3.9	4.8	5.1	5.4	4.7	3.9	6.8	3.2	4.5
16	4.0	4.0	5.0	4.0	4.0	7.0	4.6	4.9	4.2	4.4	4.4	4.3	4.6	5.3	6.1	6.0	5.1	4.4	3.3	3.9	4.6	3.7	3.9	4.8	7.0	3.3	4.6
17	3.6	3.5	3.5	2.9	5.4	5.4	5.0	5.9	5.9	5.5	5.6	5.5	6.7	7.7	7.6	9.0	10.2	4.4	3.3	9.9	4.9	3.5	4.2	3.4	10.2	2.9	5.5
18	19.8	46.1	30.6	27.3	10.0	9.6	5.0	8.8	5.1	41.4	10.2	31.4	10.6	17.3	25.4	12.8	10.5	18.6	4.9	4.4	10.1	8.9	2.3	3.7	46.1	2.3	15.6
19	5.1	6.3	4.9	5.0	4.1	3.5	2.9	4.0	5.4	5.8	4.4	14.0	29.4	20.1	11.6	10.0	10.8	9.7	4.5	4.5	3.2	4.4	7.7	18.3	29.4	2.9	8.3
20	33.3	24.0	26.3	10.8	14.9	5.7	10.8	5.0	4.0	3.8	4.1	4.2	4.2	4.2	4.5	4.9	6.2	4.2	4.3	3.9	4.2	4.0	4.4	4.0	33.3	3.8	8.3
21	7.0	13.8	6.9	9.3	4.7	4.0	3.5	3.9	10.2	4.1	3.6	4.5	3.7	4.1	3.0	4.7	4.2	3.6	7.3	11.0	3.2	4.1	4.1	4.1	13.8	3.0	5.5
22	5.6	3.7	40.4	49.7	6.9	6.2	9.7	12.3	3.0	3.6	3.9	4.4	4.4	8.6	4.0	3.0	3.5	4.1	5.0	4.0	3.3	4.8	4.4	4.1	49.7	3.0	8.4
23	5.4	30.9	8.1	5.7	6.7	7.8	4.0	4.8	4.3	3.1	5.1	5.6	6.1	3.3	5.2	7.0	6.1	4.1	3.0	2.8	2.2	2.6	3.1	2.7	30.9	2.2	5.8
24	4.6	5.8	3.4	6.3	3.7	6.0	5.0	4.5	4.5	5.6	4.1	4.4	6.5	4.6	4.3	4.6	3.0	9.8	14.5	6.8	10.9	19.7	12.5	6.1	19.7	3.0	6.7
25	44.8	31.6	30.3	39.7	16.1	60.4	18.1	10.7	28.4	7.1	20.7	50.2	41.7	40.2	40.6	11.4	31.1	16.2	10.8	9.6	5.5	5.4	4.8	3.6	60.4	3.6	24.1
26	3.9	4.8	5.1	4.1	4.0	3.5	4.5	4.2	5.0	4.4	3.1	3.4	3.6	4.6	4.2	4.0	3.8	4.7	12.1	7.5	7.6	12.1	7.1	4.4	12.1	3.1	5.2
27	4.6	15.3	5.0	4.3	4.5	5.8	3.6	4.1	3.4	3.8	3.7	4.2	5.3	2.9	4.3	4.6	6.1	4.9	5.3	4.9	4.6	25.8	4.9	4.4	25.8	2.9	5.9
28	3.4	2.7	3.9	4.2	5.3	22.2	32.7	7.0	3.4	3.8	6.2	6.2	21.8	7.3	6.1	7.0	4.9	6.3	5.6	4.2	13.0	6.7	12.6	10.6	32.7	2.7	8.6
29	11.2	7.2	7.8	5.4	5.9	8.1	7.4	5.1	4.1	5.0	3.6	7.9	6.2	6.6	11.1	6.6	3.9	7.4	6.4	7.2	5.2	9.2	8.5	5.4	11.2	3.6	6.8
30	4.2	3.5	3.0	5.9	4.7	3.7	3.4	3.7	5.0	5.8	4.9	3.9	4.4	6.3	6.2	3.8	4.7	3.4	5.2	5.7	6.0	11.6	35.1	28.5	35.1	3.0	7.2
31	16.3	5.4	5.6	15.5	26.7	28.2	29.1	33.8	24.2	47.6	22.9	31.1	31.3	21.5	21.1	19.5	6.4	4.9	3.2	4.5	3.4	3.3	4.1	3.4	47.6	3.2	17.2
Max.	**44.8**	**46.1**	**40.4**	**49.7**	**26.7**	**60.4**	**32.7**	**33.8**	**47.7**	**47.6**	**22.9**	**50.2**	**41.7**	**40.2**	**40.6**	**19.5**	**31.1**	**18.6**	**57.5**	**14.2**	**26.6**	**25.8**	**35.1**	**28.5**	**60.4**		
Min.	**3.2**	**2.6**	**3.0**	**2.9**	**3.0**	**3.4**	**2.8**	**3.2**	**3.0**	**3.0**	**3.1**	**3.1**	**3.6**	**2.9**	**3.0**	**3.0**	**3.0**	**3.0**	**3.0**	**2.8**	**2.2**	**2.6**	**2.3**	**2.7**		**2.2**	
Avg.	**8.9**	**9.5**	**8.6**	**8.7**	**6.5**	**8.7**	**6.9**	**6.2**	**7.4**	**7.4**	**6.2**	**8.4**	**8.5**	**8.0**	**7.9**	**6.3**	**6.2**	**6.0**	**7.2**	**5.8**	**6.1**	**6.5**	**6.3**	**5.9**			**7.2**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (Climtrncs)

April *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	4.5	2.9	4.5	5.9	5.4	3.4	4.9	6.8	6.5	3.7	12.8	47.1	6.1	5.3	55.1	42.7	9.4	13.3	6.1	21.8	5.5	9.4	45.2	5.0	55.1	2.9	13.9
2	5.7	7.3	15.5	20.4	14.1	4.1	3.5	4.3	4.0	4.0	4.5	4.9	4.5	4.0	3.4	3.9	3.7	3.6	3.4	3.3	3.8	5.0	4.4	4.6	20.4	3.3	5.8
3	5.6	4.4	4.8	4.7	5.2	6.9	3.9	4.1	4.5	4.5	4.3	5.2	5.1	5.3	4.6	5.1	4.8	4.8	4.2	4.5	4.3	3.8	5.0	4.5	6.9	3.8	4.8
4	3.1	4.0	5.5	3.8	5.0	5.5	4.8	5.5	4.7	4.8	5.2	5.6	5.9	5.4	5.5	4.9	5.0	5.2	4.5	4.9	6.1	5.5	6.5	7.1	7.1	3.1	5.2
5	7.3	15.3	18.3	7.5	17.7	5.4	4.9	4.8	3.7	4.1	4.2	5.3	5.2	5.2	3.9	5.0	10.0	5.4	4.9	4.6	4.7	4.5	4.8	5.5	18.3	3.7	6.8
6	4.5	4.8	4.6	4.6	4.1	3.9	4.0	3.9	9.6	5.7	4.7	4.1	4.4	4.9	4.4	3.5	7.0	7.3	5.0	4.2	5.3	4.1	5.5	46.3	46.3	3.5	6.7
7	40.2	8.3	9.4	11.3	6.1	4.2	3.5	4.4	4.7	5.0	4.5	4.3	4.6	4.9	4.5	4.6	5.5	4.9	4.7	6.0	5.9	6.2	3.4	2.7	40.2	2.7	6.8
8	3.6	3.4	3.4	3.7	4.1	4.2	3.5	3.6	3.4	4.6	3.3	4.2	4.4	4.7	3.7	7.0	8.5	11.6	7.1	44.1	8.8	5.3	8.9	6.4	44.1	3.3	6.9
9	5.0	6.6	6.7	6.1	6.0	12.2	6.1	8.4	5.9	5.0	3.9	3.6	4.0	4.0	4.4	4.6	4.2	4.1	3.8	3.7	3.3	3.3	3.3	3.3	12.2	3.3	5.1
10	3.3	3.5	2.8	2.9	2.9	3.6	2.8	3.6	4.4	4.7	5.1	4.0	3.0	5.0	3.4	3.7	4.7	6.4	3.7	2.5	3.1	2.9	3.9	3.5	6.4	2.5	3.7
11	3.3	3.9	3.7	4.3	5.4	5.4	3.7	3.1	4.0	23.9	8.4	7.1	4.8	5.0	8.4	9.7	4.8	4.9	4.3	5.1	6.6	7.6	4.8	6.2	23.9	3.1	6.2
12	4.7	5.3	4.2	17.7	7.8	4.6	4.1	4.8	7.1	28.1	7.4	13.4	10.0	23.9	17.2	7.7	7.0	6.0	7.0	38.0	10.6	18.5	12.6	5.0	38.0	4.1	11.4
13	2.9	2.4	3.4	4.1	2.2	3.6	3.7	4.7	5.9	4.8	5.3	6.5	6.3	11.3	17.2	11.1	14.7	19.7	10.0	8.1	6.1	3.4	3.7	2.5	19.7	2.2	6.8
14	9.5	6.5	37.6	38.4	4.5	27.4	9.3	5.4	5.2	14.7	20.6	12.2	13.6	9.4	7.9	6.6	7.4	7.8	6.7	5.1	4.6	4.8	4.6	4.2	38.4	4.2	11.4
15	4.1	4.8	4.5	4.0	4.0	4.5	4.1	5.5	4.6	5.3	6.9	6.6	7.5	7.8	14.4	7.2	16.7	11.5	10.2	12.1	17.9	15.8	14.3	20.6	20.6	4.0	9.0
16	11.9	15.1	22.5	7.0	4.9	4.4	11.3	9.1	4.8	10.8	29.3	9.2	13.7	4.9	4.4	5.5	5.9	6.5	4.7	4.9	4.4	19.7	33.6	9.1	33.6	4.4	10.7
17	5.6	6.2	7.3	6.8	4.4	4.6	4.8	4.6	4.3	4.4	4.3	4.2	4.4	4.4	4.1	4.4	4.4	4.5	4.5	4.6	4.4	4.4	4.4	4.1	7.3	4.1	4.8
18	4.4	4.7	4.6	4.3	4.3	4.8	5.3	5.1	4.4	4.1	4.4	4.8	4.3	4.5	4.1	11.0	5.2	7.5	11.8	9.0	7.6	4.1	4.4	16.5	16.5	4.1	6.1
19	11.0	9.0	8.7	7.1	4.7	3.9	3.2	3.4	3.9	3.7	4.5	4.0	3.7	3.9	3.7	3.9	4.0	5.2	4.4	4.5	4.5	3.9	3.8	4.2	11.0	3.2	4.9
20	4.7	4.6	4.5	5.1	4.0	5.9	5.4	4.3	3.9	3.7	3.6	4.6	5.3	5.3	5.6	4.8	5.1	4.7	4.7	3.6	3.4	3.8	5.0	4.5	5.9	3.4	4.6
21	4.6	3.7	3.8	4.1	3.4	3.3	4.5	4.0	10.0	11.1	6.4	5.3	5.2	5.4	4.8	5.0	4.1	4.0	4.4	4.4	4.1	4.7	4.9	4.8	11.1	3.3	5.0
22	4.9	4.6	4.7	4.7	4.5	5.0	4.9	4.7	4.6	4.8	5.3	4.8	5.2	4.7	7.0	5.6	5.0	5.8	4.6	4.7	4.9	5.1	4.6	5.4	7.0	4.5	5.0
23	4.0	4.2	4.3	4.3	2.8	2.2	3.3	2.9	4.6	4.8	11.4	15.4	7.7	9.0	9.4	7.1	13.1	9.3	4.4	5.7	17.0	10.9	6.6	4.5	17.0	2.2	7.0
24	6.1	5.0	5.6	5.5	5.1	7.4	5.8	5.4	4.8	5.4	7.0	7.7	15.7	21.8	11.4	9.8	8.7	14.1	6.5	5.8	10.6	10.1	7.6	4.7	21.8	4.7	8.2
25	4.7	4.7	4.0	4.6	4.5	5.1	4.5	4.7	4.9	5.6	6.5	5.6	5.1	5.2	5.3	5.3	6.4	6.1	5.5	6.0	13.5	13.7	6.0	7.7	13.7	4.0	6.0
26	7.6	5.1	6.9	2.2	2.7	6.8	4.2	4.4	3.2	6.1	6.8	7.9	12.3	15.8	9.4	11.4	7.8	3.3	4.3	19.0	14.6	7.2	8.9	16.1	19.0	2.2	8.1
27	7.3	13.3	4.8	9.5	17.2	9.3	7.2	5.0	9.7	15.4	12.6	17.3	11.9	10.1	9.5	9.7	8.7	4.7	4.5	6.0	7.3	6.0	8.2	11.4	17.3	4.5	9.4
28	36.9	6.6	6.9	6.5	7.1	6.1	12.0	19.7	37.3	32.0	54.4	33.9	13.3	12.1	10.1	8.0	6.6	5.3	4.6	4.3	3.8	4.5	5.3	4.3	54.4	3.8	14.2
29	5.3	4.7	5.1	4.8	4.8	4.5	4.6	5.6	5.6	5.1	5.7	6.8	8.4	9.2	8.6	9.1	7.6	5.9	5.8	5.3	17.8	25.0	5.9	51.3	51.3	4.5	9.3
30	19.5	9.9	26.1	12.4	11.7	24.5	4.7	9.2	5.5	12.0	17.3	18.3	21.3	28.1	12.5	30.6	21.2	20.5	11.0	4.8	9.8	10.6	9.7	11.0	30.6	4.7	15.1
Max.	**40.2**	**15.3**	**37.6**	**38.4**	**17.7**	**27.4**	**12.0**	**19.7**	**37.3**	**32.0**	**54.4**	**47.1**	**21.3**	**28.1**	**55.1**	**42.7**	**21.2**	**20.5**	**11.8**	**44.1**	**17.9**	**25.0**	**45.2**	**51.3**	**55.1**		
Min.	**2.9**	**2.4**	**2.8**	**2.2**	**2.2**	**2.2**	**2.8**	**2.9**	**3.2**	**3.7**	**3.3**	**3.6**	**3.0**	**3.9**	**3.4**	**3.5**	**3.7**	**3.3**	**3.4**	**2.5**	**3.1**	**2.9**	**3.3**	**2.5**		**2.2**	
Avg.	**8.2**	**6.2**	**8.3**	**7.6**	**6.0**	**6.6**	**5.1**	**5.5**	**6.3**	**8.4**	**9.3**	**9.5**	**7.6**	**8.3**	**8.9**	**8.6**	**7.6**	**7.5**	**5.7**	**8.7**	**7.5**	**7.8**	**8.3**	**9.6**			**7.6**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (Climtrncs)

May *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	24.6	21.3	29.7	7.3	34.6	18.2	20.8	6.9	14.0	18.6	28.9	31.9	41.4	49.3	42.3	39.9	21.6	10.0	17.7	16.3	21.0	34.3	19.5	7.7	49.3	6.9	24.1
2	50.9	14.1	38.3	18.0	4.9	4.6	4.2	21.7	12.2	22.1	22.5	31.5	9.6	11.9	13.6	10.8	7.5	6.4	5.1	4.8	5.1	5.3	5.5	6.6	50.9	4.2	14.1
3	4.9	5.3	7.2	11.7	29.4	19.7	19.4	9.2	19.6	20.9	20.5	16.0	24.9	52.4	27.6	32.9	54.2	11.7	10.1	5.3	4.9	26.0	21.0	8.5	54.2	4.9	19.3
4	6.1	4.2	4.2	49.7	38.2	9.3	50.6	19.0	18.5	29.6	11.9	7.1	8.4	13.5	14.7	12.9	16.3	10.7	9.6	10.7	22.4	6.0	8.0	7.5	50.6	4.2	16.2
5	22.4	19.3	5.2	4.8	14.3	9.3	6.1	8.5	4.8	4.8	6.8	5.7	6.6	8.8	12.0	7.9	8.7	7.4	6.9	7.9	7.7	6.8	7.2	6.9	22.4	4.8	8.6
6	27.0	36.3	12.1	12.9	33.7	41.0	30.8	13.3	6.9	6.0	10.9	7.7	7.7	8.6	8.5	8.6	6.5	4.5	4.9	4.7	3.7	3.9	3.8	3.8	41.0	3.7	12.8
7	3.5	3.6	3.3	3.4	9.4	5.6	10.6	6.4	5.4	8.9	10.1	10.2	8.2	10.1	17.4	20.0	5.9	6.5	6.6	6.2	6.1	5.0	4.7	6.2	20.0	3.3	7.6
8	6.5	6.0	5.0	5.0	5.2	5.6	4.3	4.4	5.2	5.2	5.8	11.6	27.4	21.8	22.8	16.1	12.1	12.0	8.2	7.8	7.5	5.9	4.6	9.5	27.4	4.3	9.4
9	17.7	22.4	12.2	9.9	14.1	5.3	5.7	6.1	6.8	5.8	5.6	7.1	8.2	8.5	6.6	10.4	8.8	8.4	7.9	9.8	6.8	19.7	34.9	33.0	34.9	5.3	11.7
10	14.9	19.3	15.6	8.3	11.3	17.8	19.4	10.7	48.0	19.4	23.6	19.3	18.1	17.5	17.3	13.1	12.2	12.4	10.0	7.6	6.4	3.7	5.9	11.8	48.0	3.7	15.1
11	11.5	7.0	8.0	11.9	4.0	4.4	5.3	5.3	6.6	8.3	8.6	8.8	9.7	12.6	12.5	11.4	10.7	10.8	7.1	5.1	4.3	8.3	5.7	4.2	12.6	4.0	8.0
12	12.5	20.9	12.1	19.1	13.8	10.6	5.0	5.2	6.5	6.9	8.1	11.4	7.9	6.9	7.0	7.2	7.2	7.0	6.9	4.5	4.3	4.0	4.1	5.1	20.9	4.0	8.5
13	5.0	3.8	4.3	4.7	4.4	4.5	5.0	5.4	4.8	4.9	6.9	6.7	5.5	5.3	5.7	7.1	6.1	7.1	6.2	6.0	5.5	5.7	5.5	5.2	7.1	3.8	5.5
14	9.3	8.4	6.9	7.6	3.7	4.2	5.8	6.7	6.2	12.1	18.0	13.7	8.0	8.4	7.6	9.6	5.6	7.6	5.6	4.5	4.9	4.5	5.7	4.2	18.0	3.7	7.5
15	4.5	5.3	4.3	4.3	3.5	11.1	14.7	5.9	9.3	7.6	7.9	9.7	9.9	10.6	15.6	18.5	21.2	17.1	46.1	16.9	11.7	9.9	5.9	3.5	46.1	3.5	11.5
16	3.3	4.6	4.1	4.0	3.4	3.3	3.6	4.0	5.7	25.6	28.1	23.8	14.2	13.1	15.5	10.7	7.3	8.2	10.3	5.6	5.8	5.0	5.5	5.3	28.1	3.3	9.2
17	5.0	4.9	4.1	4.1	4.6	5.7	8.3	8.4	14.4	13.0	9.4	7.0	13.4	11.4	9.6	7.3	9.4	8.5	8.8	7.7	6.7	8.9	10.9	12.6	14.4	4.1	8.5
18	12.3	8.4	5.0	6.1	4.1	20.3	15.6	10.2	13.2	13.8	18.0	24.8	17.8	19.9	25.9	29.8	30.3	26.9	19.6	20.4	9.4	8.3	8.7	18.3	30.3	4.1	16.1
19	15.1	5.4	5.3	5.3	5.9	5.9	7.3	8.6	14.6	14.0	19.0	8.1	14.0	16.0	9.3	11.5	12.3	10.6	7.5	6.4	5.2	6.5	8.8	13.9	19.0	5.2	9.9
20	19.8	12.4	11.0	9.4	11.4	5.6	8.1	6.8	6.0	5.5	8.4	28.3	21.4	19.6	18.5	16.0	10.8	12.8	15.2	6.0	4.0	7.2	9.9	6.0	28.3	4.0	11.7
21	8.6	7.4	6.6	7.5	7.8	17.7	18.0	12.6	18.3	61.7	46.3	36.2	38.3	22.5	16.0	12.9	11.7	10.7	6.9	5.4	5.4	5.1	6.2	4.9	61.7	4.9	16.4
22	5.5	5.0	5.2	6.5	4.8	7.4	7.7	7.8	7.4	9.4	8.4	5.4	6.1	10.4	8.4	9.8	8.7	12.1	7.2	8.2	35.9	18.0	36.7	19.0	36.7	4.8	10.9
23	15.6	4.6	11.4	7.3	13.0	5.2	6.9	6.1	6.5	7.1	7.2	6.6	5.7	11.8	5.8	5.7	5.8	5.1	4.9	5.2	4.6	5.1	5.0	5.6	15.6	4.6	7.0
24	4.4	3.7	4.0	4.6	4.5	4.4	4.7	4.8	5.6	5.5	4.6	4.7	5.9	6.5	5.4	5.4	7.2	13.9	6.7	13.6	9.4	14.1	18.4	16.0	18.4	3.7	7.4
25	15.5	59.8	5.5	10.7	17.2	31.1	40.2	39.4	10.6	8.1	9.5	7.6	7.4	9.5	6.9	7.5	7.9	9.0	21.1	15.7	8.5	10.0	6.7	4.1	59.8	4.1	15.4
26	7.8	7.9	5.7	6.2	5.5	10.7	7.8	6.2	6.6	7.2	11.0	7.0	5.9	7.3	6.8	5.2	4.3	4.8	5.1	5.9	6.7	9.2	11.0	9.1	11.0	4.3	7.1
27	6.1	6.7	7.2	9.6	6.9	5.3	4.8	6.2	6.3	9.2	9.9	11.4	12.0	8.8	9.8	8.6	9.4	7.2	7.5	6.3	5.8	4.2	4.5	4.9	12.0	4.2	7.4
28	6.4	6.1	6.7	5.8	4.9	4.3	6.9	9.0	10.2	9.9	8.4	8.1	11.2	10.2	9.4	7.2	7.0	7.8	7.3	7.6	4.7	4.1	4.8	17.2	17.2	4.1	7.7
29	36.1	41.5	6.5	6.0	7.9	3.8	3.6	5.1	9.0	11.5	16.2	19.8	22.3	31.8	17.1	12.7	23.0	20.6	12.7	7.9	8.3	4.0	6.4	26.8	41.5	3.6	15.0
30	21.6	20.1	17.7	11.3	4.1	5.3	7.5	6.6	31.6	22.0	23.6	10.2	11.5	12.7	12.5	10.2	8.8	8.0	7.7	7.4	5.9	6.7	12.6	8.9	31.6	4.1	12.3
31	9.4	13.3	10.1	6.7	5.6	4.8	5.1	5.5	5.2	8.0	11.4	10.2	7.6	11.2	13.3	12.0	11.7	15.3	6.0	5.6	8.4	9.2	7.1	5.4	15.3	4.8	8.7
Max.	**50.9**	**59.8**	**38.3**	**49.7**	**38.2**	**41.0**	**50.6**	**39.4**	**48.0**	**61.7**	**46.3**	**36.2**	**41.4**	**52.4**	**42.3**	**39.9**	**54.2**	**26.9**	**46.1**	**20.4**	**35.9**	**34.3**	**36.7**	**33.0**	**61.7**		
Min.	**3.3**	**3.6**	**3.3**	**3.4**	**3.4**	**3.3**	**3.6**	**4.0**	**4.8**	**4.8**	**4.6**	**4.7**	**5.5**	**5.3**	**5.4**	**5.2**	**4.3**	**4.5**	**4.9**	**4.5**	**3.7**	**3.7**	**3.8**	**3.5**		**3.3**	
Avg.	**13.3**	**13.2**	**9.2**	**9.3**	**10.8**	**10.1**	**11.7**	**9.1**	**11.2**	**13.3**	**14.1**	**13.5**	**13.4**	**15.1**	**13.6**	**12.9**	**12.3**	**10.4**	**10.1**	**8.2**	**8.3**	**8.9**	**9.8**	**9.7**			**11.3**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (Climtrncs)

June *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	5.9	6.7	5.1	6.9	4.1	5.6	5.8	6.5	7.4	6.8	7.7	7.1	6.5	5.8	6.2	7.4	6.0	5.6	6.0	4.9	4.6	4.7	5.2	5.1	7.7	4.1	6.0
2	4.7	3.9	8.7	7.2	7.8	6.9	5.8	7.1	13.4	10.8	14.5	9.3	15.2	12.5	13.4	14.1	17.9	15.4	11.8	7.3	5.6	5.2	5.3	25.9	25.9	3.9	10.4
3	34.6	7.5	15.6	9.9	5.7	5.6	45.4	25.9	18.2	16.3	17.0	25.1	18.1	43.7	22.8	16.8	26.8	22.8	27.2	27.6	11.1	38.7	18.4	7.7	45.4	5.6	21.2
4	5.7	4.5	3.8	4.2	3.4	3.7	3.9	4.0	5.3	5.7	4.2	4.5	5.2	6.9	23.1	15.5	19.2	7.1	7.8	5.8	5.5	6.6	7.1	7.2	23.1	3.4	7.1
5	6.3	6.7	6.8	6.1	8.6	7.0	7.7	5.4	5.5	7.0	6.6	5.6	5.8	5.7	5.1	5.7	5.4	5.4	5.5	5.4	5.3	5.8	6.9	4.9	8.6	4.9	6.1
6	4.3	4.6	4.5	4.3	4.8	18.7	10.4	13.6	19.2	14.6	14.8	15.0	11.7	12.9	11.9	9.7	12.7	13.5	11.2	6.5	5.1	6.4	16.3	44.9	44.9	4.3	12.1
7	21.7	15.2	16.5	13.9	17.1	4.3	41.8	53.4	25.3	10.7	8.4	8.4	7.0	6.6	7.4	6.6	6.7	5.9	5.7	6.5	4.7	4.6	4.7	5.3	53.4	4.3	12.9
8	4.5	5.3	5.7	7.4	4.7	5.8	7.4	7.0	10.0	9.4	17.6	12.8	14.6	11.2	12.3	14.8	10.8	10.2	8.1	6.5	5.1	4.1	5.3	4.7	17.6	4.1	8.5
9	8.7	11.8	7.2	24.6	37.3	14.5	5.4	9.2	8.7	16.0	14.5	14.2	16.7	10.7	47.4	41.2	21.8	40.5	12.0	3.7	6.0	6.1	5.3	6.8	47.4	3.7	16.3
10	3.9	3.6	3.8	3.3	3.5	5.0	5.8	4.8	4.2	4.6	8.0	11.2	13.8	19.0	22.7	25.4	21.9	24.0	14.1	20.6	10.8	7.9	6.7	9.8	25.4	3.3	10.8
11	10.4	8.3	5.5	10.2	10.4	16.7	22.4	46.1	17.6	11.8	21.5	23.3	14.3	8.7	9.3	8.0	7.6	7.4	7.3	7.0	5.8	4.9	5.4	7.0	46.1	4.9	12.4
12	4.5	5.2	5.8	6.0	14.3	7.6	17.8	8.5	9.4	6.4	8.8	10.4	8.3	8.1	7.9	11.0	10.5	11.3	12.7	11.8	7.5	2.5	6.1	7.1	17.8	2.5	8.7
13	9.1	22.6	12.1	11.1	18.0	6.6	5.3	8.9	24.4	15.3	18.4	13.8	8.0	8.5	17.0	17.1	14.2	6.7	7.7	7.3	7.2	10.9	14.4	19.1	24.4	5.3	12.6
14	15.6	9.8	13.6	11.6	9.0	7.0	4.7	9.2	21.7	10.6	16.3	14.3	27.7	28.1	30.3	25.7	9.0	6.6	5.9	4.8	4.9	5.4	7.6	9.5	30.3	4.7	12.9
15	4.9	3.6	4.4	4.5	3.8	4.2	4.0	3.8	3.7	5.5	7.9	7.3	12.4	12.1	11.9	12.6	9.0	10.2	7.8	6.4	4.5	3.2	2.9	4.0	12.6	2.9	6.4
16	4.2	5.0	3.8	2.8	4.1	4.8	5.3	3.9	5.7	11.4	13.6	12.0	11.5	12.7	12.4	12.0	12.5	10.4	6.3	5.7	5.2	5.0	5.0	3.9	13.6	2.8	7.5
17	5.0	5.4	6.1	5.5	5.1	5.9	5.8	7.0	8.3	13.0	24.0	15.2	17.9	13.0	25.9	17.8	24.2	16.5	37.5	9.9	6.0	8.7	13.2	7.3	37.5	5.0	12.7
18	7.2	10.5	33.3	16.3	3.2	2.8	5.4	7.5	26.5	32.3	19.7	20.9	45.9	61.8	24.7	36.3	27.6	39.2	48.5	34.4	6.7	45.8	51.5	15.3	61.8	2.8	26.0
19	9.3	10.7	2.7	3.6	3.5	3.5	3.4	5.3	7.2	7.0	8.5	8.0	7.8	7.8	8.1	8.5	6.6	7.0	7.2	6.4	4.5	3.9	3.5	3.4	10.7	2.7	6.1
20	5.8	4.6	4.0	4.9	4.6	4.1	3.6	4.2	5.4	5.1	5.9	7.6	11.1	11.4	9.3	10.1	8.3	8.3	7.8	4.9	4.3	4.1	4.1	3.5	11.4	3.5	6.1
21	3.8	3.4	6.7	6.5	5.2	6.2	5.8	5.3	5.7	6.9	10.9	9.6	11.9	8.8	8.3	12.9	13.3	9.0	6.5	5.3	6.3	6.8	6.9	6.9	13.3	3.4	7.5
22	9.3	6.9	9.3	6.8	9.4	19.8	20.6	10.8	6.6	6.4	6.8	8.9	9.4	9.9	8.8	6.7	11.3	6.8	7.5	7.2	5.1	5.8	5.1	5.0	20.6	5.0	8.7
23	4.4	4.6	5.0	4.7	4.6	4.5	5.2	5.0	5.5	5.4	5.5	5.0	5.4	5.3	4.9	5.5	5.3	5.6	5.2	5.6	5.7	5.5	5.3	5.3	5.7	4.4	5.2
24	5.4	5.3	5.1	4.9	4.7	4.6	4.7	5.0	5.7	5.8	6.0	5.6	4.9	6.0	6.0	5.4	4.9	5.5	5.7	5.4	5.8	4.3	4.4	4.2	6.0	4.2	5.2
25	3.8	3.9	4.0	4.0	4.3	4.4	5.2	5.4	6.2	6.8	6.1	7.4	6.8	7.2	7.3	5.7	5.9	6.1	5.3	5.7	4.8	4.4	3.5	4.5	7.4	3.5	5.4
26	7.7	4.8	3.8	4.0	5.0	5.0	7.1	7.6	9.9	10.7	12.1	13.4	23.0	21.7	31.3	34.9	63.3	39.5	16.5	8.1	5.6	6.2	5.4	13.7	63.3	3.8	15.0
27	5.9	5.3	3.6	3.8	5.0	5.0	9.0	8.1	16.8	35.2	18.7	13.5	20.5	15.8	13.7	16.3	13.8	13.9	6.7	10.6	6.0	4.9	6.1	6.2	35.2	3.6	11.0
28	6.0	7.8	6.5	7.7	9.1	5.9	7.6	10.0	48.8	16.7	11.7	9.0	11.9	9.3	9.7	10.4	9.7	16.3	8.9	6.4	5.3	5.1	4.8	4.9	48.8	4.8	10.4
29	4.6	8.0	18.6	18.5	13.7	27.0	17.5	8.6	11.9	13.2	15.1	15.1	18.1	17.8	25.2	16.6	8.2	8.4	6.3	6.7	4.5	5.5	6.8	6.4	27.0	4.5	12.6
30	16.8	8.6	9.8	9.5	7.8	6.3	6.3	7.8	8.1	7.1	6.7	11.5	12.9	19.6	18.5	12.9	13.8	13.4	11.0	6.9	7.3	6.4	6.7	17.8	19.6	6.3	10.6
Max.	**34.6**	**22.6**	**33.3**	**24.6**	**37.3**	**27.0**	**45.4**	**53.4**	**48.8**	**35.2**	**24.0**	**25.1**	**45.9**	**61.8**	**47.4**	**41.2**	**63.3**	**40.5**	**48.5**	**34.4**	**11.1**	**45.8**	**51.5**	**44.9**	**63.3**		
Min.	**3.8**	**3.4**	**2.7**	**2.8**	**3.2**	**2.8**	**3.4**	**3.8**	**3.7**	**4.6**	**4.2**	**4.5**	**4.9**	**5.3**	**4.9**	**5.4**	**4.9**	**5.4**	**5.2**	**3.7**	**4.3**	**2.5**	**2.9**	**3.4**		**2.5**	
Avg.	**8.1**	**7.1**	**8.0**	**7.8**	**8.1**	**7.6**	**10.2**	**10.5**	**12.4**	**11.1**	**11.9**	**11.5**	**13.5**	**14.3**	**15.4**	**14.8**	**14.3**	**13.3**	**11.2**	**8.7**	**5.9**	**8.0**	**8.3**	**9.3**			**10.5**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (Climtrncs)

July *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	16.2	10.7	33.7	28.5	5.8	6.9	4.5	5.6	7.8	13.3	21.2	13.1	25.5	13.2	18.2	16.7	10.9	6.9	10.3	4.9	38.6	4.4	3.5	4.7	38.6	3.5	13.5
2	6.6	4.9	10.8	23.6	45.9	15.3	19.8	24.6	26.0	23.1	17.4	24.2	12.4	9.4	13.1	11.4	14.1	10.5	9.6	9.6	5.1	6.9	6.6	5.1	45.9	4.9	14.8
3	3.2	9.3	4.7	4.7	4.6	14.5	12.5	8.1	10.7	15.9	19.4	13.0	19.2	22.7	28.4	19.0	10.5	8.6	4.6	4.2	6.7	21.2	8.4	5.2	28.4	3.2	11.6
4	4.5	4.3	4.8	3.8	5.8	6.4	4.6	6.5	8.1	6.4	6.9	7.1	4.9	6.7	7.8	6.1	4.8	6.1	6.0	5.0	5.5	5.3	3.4	5.0	8.1	3.4	5.7
5	7.0	5.6	8.0	25.8	24.6	40.9	38.9	18.6	16.5	27.0	17.5	18.6	15.4	23.6	13.9	9.0	21.1	15.8	5.1	4.8	5.8	4.6	5.2	5.6	40.9	4.6	15.8
6	5.1	4.9	5.4	5.6	4.8	6.1	6.3	5.8	7.2	8.8	10.6	23.8	19.6	25.7	20.5	20.8	19.0	24.3	18.4	14.1	12.0	23.6	23.2	6.7	25.7	4.8	13.4
7	6.0	8.7	5.8	6.8	15.6	32.8	12.9	32.6	21.8	25.0	68.1	19.3	38.8	37.9	29.9	17.9	14.4	14.6	10.2	6.3	3.9	2.6	3.0	11.9	68.1	2.6	18.6
8	12.0	28.4	45.8	30.1	47.8	37.4	6.7	8.9	6.7	8.2	8.5	9.0	12.2	6.8	6.1	6.8	6.1	7.4	4.7	6.0	5.3	4.3	5.3	11.3	47.8	4.3	13.8
9	3.6	4.6	5.5	5.8	7.5	22.3	11.2	9.0	7.6	14.1	15.8	10.7	14.0	14.7	19.6	13.5	42.9	18.1	11.1	24.9	19.0	15.3	31.9	5.5	42.9	3.6	14.5
10	4.7	4.8	7.1	7.8	9.5	13.4	17.8	28.4	32.5	20.4	11.6	25.6	12.0	8.6	12.9	13.8	8.2	6.0	5.5	4.7	4.9	4.4	2.7	3.1	32.5	2.7	11.3
11	4.7	5.1	5.9	4.9	4.9	4.6	5.0	6.7	11.9	11.0	12.3	10.6	11.2	14.7	9.8	15.1	13.8	11.8	7.2	6.2	4.6	3.8	5.8	5.3	15.1	3.8	8.2
12	9.2	21.6	58.6	6.6	5.6	6.6	9.7	11.6	16.2	33.5	34.9	42.1	37.9	22.7	6.6	9.0	6.7	10.3	5.2	4.4	4.3	3.8	4.9	5.4	58.6	3.8	15.7
13	5.7	4.6	8.2	5.4	4.4	5.4	5.8	8.3	7.5	6.8	5.9	5.5	5.0	6.0	6.7	7.5	8.4	7.9	6.4	6.2	7.3	5.7	5.5	4.6	8.4	4.4	6.3
14	11.0	11.7	15.2	11.2	6.5	10.8	10.0	6.4	8.9	11.9	12.1	7.0	10.7	8.4	8.3	6.9	6.9	5.4	6.1	5.8	5.7	5.9	6.1	6.1	15.2	5.4	8.5
15	5.4	7.1	5.7	14.6	7.3	18.7	45.7	15.5	9.5	9.3	14.0	10.5	9.1	10.7	7.5	7.8	7.9	9.4	9.8	6.3	5.5	6.7	6.1	6.6	45.7	5.4	10.7
16	5.7	8.9	7.2	6.8	7.7	32.2	20.9	16.7	20.8	21.3	12.3	14.5	12.9	14.9	9.7	10.1	9.4	9.4	8.1	6.5	4.2	4.8	4.9	3.2	32.2	3.2	11.4
17	4.9	6.9	2.5	4.8	6.5	4.2	5.1	5.3	7.7	12.8	23.2	56.8	44.2	14.5	20.8	14.6	10.5	6.6	6.1	5.1	5.0	4.8	16.8	6.9	56.8	2.5	12.4
18	5.4	4.1	4.4	4.7	4.3	7.1	7.0	11.8	19.6	28.4	24.1	30.1	12.9	19.9	8.6	12.8	8.1	13.1	24.0	48.9	26.4	29.9	23.4	9.1	48.9	4.1	16.2
19	5.6	6.4	6.8	14.0	20.2	39.4	32.5	14.8	27.2	6.6	7.8	13.6	33.9	22.2	13.1	11.5	16.9	8.6	9.6	8.2	5.6	7.1	6.6	20.1	39.4	5.6	14.9
20	41.7	22.8	18.1	29.3	17.0	17.2	17.4	18.6	13.0	10.1	6.9	7.9	11.3	15.4	12.1	10.2	9.6	11.7	6.4	5.7	5.2	5.1	6.2	5.0	41.7	5.0	13.5
21	5.4	5.2	5.6	5.6	5.4	5.6	5.9	5.6	5.7	6.2	5.7	7.4	7.5	7.7	9.2	7.3	8.7	5.8	6.4	6.3	5.5	5.2	6.1	5.8	9.2	5.2	6.3
22	7.2	7.0	6.9	7.2	6.9	5.9	6.0	6.1	5.7	5.6	7.0	6.5	7.8	7.5	8.3	10.2	6.6	7.1	6.6	4.8	4.3	4.5	4.0	4.1	10.2	4.0	6.4
23	4.0	11.5	10.7	11.0	6.6	27.2	11.2	5.6	7.3	10.0	8.0	6.8	7.9	7.3	5.2	5.1	5.5	5.3	4.8	4.9	5.2	4.7	4.7	5.2	27.2	4.0	7.7
24	5.5	5.5	5.2	4.9	4.9	4.8	4.7	5.3	6.8	6.2	7.9	7.8	9.3	7.3	7.2	7.0	8.8	6.0	7.2	5.8	5.3	3.6	4.3	4.9	9.3	3.6	6.1
25	4.9	2.5	3.0	3.4	3.9	3.2	3.1	4.4	4.2	6.0	6.7	10.0	10.1	9.8	6.7	7.3	6.4	4.6	4.9	7.9	10.5	11.4	16.0	14.6	16.0	2.5	6.9
26	12.6	11.1	11.7	25.6	15.1	7.5	36.0	4.2	4.7	7.7	13.9	13.3	28.2	21.6	21.7	8.7	26.1	9.6	5.7	5.7	10.5	7.9	25.2	5.9	36.0	4.2	14.2
27	27.9	26.5	49.1	31.2	33.0	6.9	3.8	6.1	18.8	7.6	12.2	10.0	19.1	12.9	10.3	12.2	10.2	10.2	8.6	8.3	8.1	5.9	19.3	12.9	49.1	3.8	15.5
28	26.0	25.4	10.2	5.8	5.6	5.2	5.5	5.1	5.4	6.0	5.3	7.1	6.9	7.1	6.9	6.3	7.3	7.7	7.4	5.3	5.2	5.7	6.3	5.7	26.0	5.1	7.9
29	5.8	5.6	5.6	6.7	10.1	12.1	8.5	7.1	8.1	8.4	12.9	11.6	11.3	9.2	10.9	11.8	10.7	11.4	9.2	5.5	6.0	9.7	6.0	23.1	23.1	5.5	9.5
30	9.7	9.8	37.8	13.3	11.8	6.2	7.2	10.0	9.4	5.9	5.0	6.7	6.4	7.1	8.7	10.0	8.7	8.6	6.7	8.4	6.9	8.0	6.7	6.2	37.8	5.0	9.4
31	5.6	7.7	10.2	5.1	6.8	5.6	9.1	10.4	6.2	6.0	7.8	7.2	8.2	6.8	8.5	6.7	6.6	5.4	5.0	4.7	5.5	5.4	4.8	4.7	10.4	4.7	6.7
Max.	**41.7**	**28.4**	**58.6**	**31.2**	**47.8**	**40.9**	**45.7**	**32.6**	**32.5**	**33.5**	**68.1**	**56.8**	**44.2**	**37.9**	**29.9**	**20.8**	**42.9**	**24.3**	**24.0**	**48.9**	**38.6**	**29.9**	**31.9**	**23.1**	**68.1**		
Min.	**3.2**	**2.5**	**2.5**	**3.4**	**3.9**	**3.2**	**3.1**	**4.2**	**4.2**	**5.6**	**5.0**	**5.5**	**4.9**	**6.0**	**5.2**	**5.1**	**4.8**	**4.6**	**4.6**	**4.2**	**3.9**	**2.6**	**2.7**	**3.1**		**2.5**	
Avg.	**9.1**	**9.8**	**13.6**	**11.8**	**11.8**	**13.9**	**12.8**	**10.8**	**11.9**	**12.6**	**14.3**	**14.8**	**15.7**	**13.6**	**12.2**	**10.7**	**11.5**	**9.5**	**8.0**	**8.2**	**8.2**	**7.8**	**9.1**	**7.4**			**11.2**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (Climtrncs)

August *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	4.3	4.6	5.1	4.7	5.0	5.4	5.7	4.8	5.1	5.1	5.1	6.3	5.0	5.4	5.4	5.3	6.0	4.5	4.9	4.8	4.4	4.7	4.3	4.3	6.3	4.3	5.0
2	4.8	4.9	4.6	4.5	5.1	4.9	4.5	4.9	4.9	4.9	4.9	4.8	5.0	4.9	4.6	5.4	5.4	4.8	4.7	4.7	4.4	4.5	4.8	4.8	5.4	4.4	4.8
3	4.4	4.5	4.1	3.8	3.7	3.9	4.2	4.4	4.9	4.9	5.1	6.2	6.5	5.4	5.1	5.0	5.7	5.6	4.7	4.5	4.4	5.2	4.6	4.6	6.5	3.7	4.8
4	4.7	4.7	5.4	5.0	4.8	4.6	4.6	5.1	4.9	4.8	5.4	5.5	5.7	5.7	5.7	5.4	5.1	5.8	5.0	4.8	5.3	5.6	5.1	5.0	5.8	4.6	5.1
5	4.4	5.2	5.2	6.5	5.2	6.1	4.4	7.1	5.7	6.2	5.2	6.2	6.1	6.7	6.5	7.6	6.8	6.9	5.6	5.1	5.7	5.1	6.9	5.5	7.6	4.4	5.9
6	7.0	4.2	4.7	4.5	5.7	7.3	5.8	5.3	6.6	7.0	9.3	7.8	5.7	7.6	6.1	4.6	6.0	8.0	6.0	5.7	4.7	3.8	4.0	2.8	9.3	2.8	5.8
7	2.8	6.1	3.4	4.8	19.5	6.9	4.7	5.3	5.1	7.1	8.4	6.9	7.4	9.6	7.4	8.1	7.8	6.2	6.1	5.2	4.3	4.1	12.7	8.9	19.5	2.8	7.0
8	6.9	4.8	5.5	5.3	6.1	3.2	4.5	6.0	4.5	5.8	8.9	9.4	10.9	10.8	14.7	12.5	8.0	7.7	6.7	3.5	2.7	5.4	7.1	4.3	14.7	2.7	6.9
9	3.8	3.9	3.5	2.6	2.7	2.0	3.0	6.1	9.5	8.6	9.1	27.9	18.5	27.8	14.1	12.4	10.8	7.2	8.6	5.6	5.5	7.5	8.0	2.4	27.9	2.0	8.8
10	4.8	9.7	9.0	21.3	43.7	39.7	9.7	7.6	44.2	20.4	14.6	14.9	19.6	19.0	23.3	18.3	16.1	12.4	8.6	3.6	3.3	3.9	14.1	6.1	44.2	3.3	16.2
11	9.0	19.4	15.4	5.4	9.3	4.3	6.9	12.5	34.5	19.1	14.2	21.8	18.4	15.9	9.5	21.0	7.4	6.0	5.3	5.2	7.1	9.1	12.2	13.5	34.5	4.3	12.6
12	19.9	15.6	23.3	28.5	17.1	27.4	17.7	17.9	8.2	8.6	14.4	11.1	5.4	18.2	18.4	21.0	11.7	8.4	11.6	5.8	5.5	7.7	50.4	5.9	50.4	5.4	15.8
13	7.8	17.0	10.1	15.4	23.4	10.8	11.0	12.4	14.2	25.3	27.0	19.1	28.2	13.4	15.0	16.7	10.2	15.7	7.0	7.5	5.6	5.9	6.5	5.6	28.2	5.6	13.8
14	5.4	8.3	5.8	6.8	21.0	17.8	53.4	7.3	5.8	5.3	5.7	5.8	7.4	7.8	12.5	15.0	10.4	5.3	13.8	6.2	12.6	3.0	3.6	6.5	53.4	3.0	10.5
15	4.4	3.6	4.1	4.0	4.8	4.7	4.2	4.7	3.9	3.5	5.2	6.2	4.1	11.9	6.9	5.7	6.8	4.7	4.4	5.8	4.5	4.3	4.0	3.9	11.9	3.5	5.0
16	3.6	4.1	4.6	5.2	4.4	4.1	8.8	16.8	16.9	11.7	20.9	66.0	42.0	46.6	32.7	51.7	31.8	7.8	5.4	4.2	3.9	6.4	5.0	23.7	66.0	3.6	17.8
17	17.4	9.6	9.5	5.0	4.1	6.9	39.6	47.2	15.3	13.6	6.3	6.8	7.5	7.7	7.0	7.3	6.8	6.4	6.1	5.2	4.9	5.3	6.0	5.9	47.2	4.1	10.7
18	5.2	6.0	5.9	5.2	4.8	5.0	5.1	5.0	4.9	5.8	5.4	5.5	5.7	5.9	5.6	5.9	5.8	5.6	5.4	5.5	5.4	6.0	5.6	5.6	6.0	4.8	5.5
19	5.2	5.2	5.2	5.4	6.3	5.5	6.4	5.2	4.8	5.1	5.8	6.5	6.1	6.2	5.7	5.7	4.9	5.4	5.0	4.8	5.3	4.6	4.7	5.0	6.5	4.6	5.4
20	5.5	5.0	5.6	5.8	4.9	5.3	5.2	6.0	7.1	5.7	5.9	8.0	7.6	7.1	6.9	6.7	6.3	7.0	5.8	4.8	3.8	4.3	4.6	4.5	8.0	3.8	5.8
21	4.5	4.5	4.2	4.1	4.4	4.5	4.6	4.6	4.8	5.3	4.8	4.7	5.3	4.8	5.0	5.2	4.7	4.9	4.4	4.1	3.9	4.5	5.2	4.8	5.3	3.9	4.7
22	5.1	4.3	4.9	5.0	4.5	4.3	4.4	4.6	4.7	4.8	5.0	5.0	5.2	5.3	5.1	5.2	5.7	5.0	4.7	4.8	4.8	4.8	5.0	4.7	5.7	4.3	4.9
23	3.9	5.1	6.2	11.1	14.5	17.4	9.4	6.2	4.6	6.0	6.4	9.5	9.2	9.3	7.4	6.0	5.7	5.1	3.9	4.2	3.3	3.1	3.4	4.2	17.4	3.1	6.9
24	4.2	3.8	4.3	3.4	6.4	4.9	5.5	5.4	6.2	4.3	4.3	4.7	10.0	17.0	18.7	23.1	24.5	23.6	8.1	8.7	7.3	12.5	5.6	9.9	24.5	3.4	9.4
25	8.9	4.9	19.1	6.9	6.2	8.9	18.4	37.0	15.3	38.5	15.1	15.5	15.6	12.2	13.0	10.6	12.5	7.0	5.0	4.9	8.7	7.3	4.4	6.2	38.5	4.4	12.6
26	8.8	7.2	3.9	3.4	2.7	4.4	4.6	5.7	7.1	8.3	11.2	15.2	14.4	16.0	9.2	10.6	10.6	11.2	7.7	13.0	35.2	10.3	6.9	4.7	35.2	2.7	9.7
27	5.8	7.7	5.5	4.4	23.8	5.9	16.7	45.7	10.9	10.5	7.4	13.1	9.2	8.8	13.4	19.6	11.9	13.6	12.7	28.3	18.1	11.2	4.2	13.0	45.7	4.2	13.4
28	49.2	3.9	5.2	3.6	5.9	3.5	4.1	3.6	7.8	9.5	16.8	37.3	40.0	20.0	55.3	69.5	48.7	18.1	5.2	6.0	6.0	7.1	6.1	3.8	69.5	3.5	18.2
29	3.6	5.3	4.8	6.3	6.0	7.8	5.7	4.6	4.2	3.3	4.6	4.7	5.8	6.0	8.8	6.8	5.4	7.1	6.0	4.8	3.7	3.3	3.6	3.4	8.8	3.3	5.2
30	4.9	5.9	5.7	4.2	4.5	4.2	4.1	3.2	8.2	6.5	12.1	9.2	13.8	13.2	11.4	12.6	10.2	20.9	15.5	31.5	4.9	3.4	4.2	5.1	31.5	3.2	9.1
31	5.9	2.7	4.0	5.1	3.9	5.2	5.5	4.6	7.0	7.8	8.8	11.1	33.1	18.8	19.1	21.6	10.7	22.8	31.2	28.5	5.4	5.3	5.3	5.2	33.1	2.7	11.6
Max.	**49.2**	**19.4**	**23.3**	**28.5**	**43.7**	**39.7**	**53.4**	**47.2**	**44.2**	**38.5**	**27.0**	**66.0**	**42.0**	**46.6**	**55.3**	**69.5**	**48.7**	**23.6**	**31.2**	**31.5**	**35.2**	**12.5**	**50.4**	**23.7**	**69.5**		
Min.	**2.8**	**2.7**	**3.4**	**2.6**	**2.7**	**2.0**	**3.0**	**3.2**	**3.9**	**3.3**	**4.3**	**4.7**	**4.1**	**4.8**	**4.6**	**4.6**	**4.7**	**4.5**	**3.9**	**3.5**	**2.7**	**3.0**	**3.4**	**2.4**		**2.0**	
Avg.	**7.6**	**6.5**	**6.7**	**6.7**	**9.2**	**8.0**	**9.4**	**10.2**	**9.4**	**9.1**	**9.1**	**12.3**	**12.4**	**12.1**	**12.2**	**13.9**	**10.7**	**9.0**	**7.6**	**7.8**	**6.6**	**5.8**	**7.3**	**6.2**			**9.0**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (Climatronics)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	36.2	8.6	4.1	8.8	9.1	3.5	4.4	5.7	5.5	5.6	8.4	10.6	11.1	9.2	14.6	17.4	11.0	8.3	5.8	3.5	4.3	4.6	6.1	4.8	36.2	3.5	8.8
2	3.6	4.5	5.2	4.1	2.5	3.4	3.7	6.8	15.5	8.3	10.1	11.8	11.4	11.3	13.2	7.4	7.8	5.3	4.6	4.5	4.3	4.2	4.4	5.4	15.5	2.5	6.8
3	4.6	4.6	4.8	5.1	5.1	5.6	5.7	5.7	5.2	5.4	5.2	5.1	5.3	4.9	5.0	5.5	5.1	5.0	5.3	5.3	5.4	5.8	5.2	4.8	5.8	4.6	5.2
4	5.0	5.1	4.5	5.2	7.0	7.8	10.0	53.3	45.9	6.6	4.1	7.1	10.8	14.5	26.8	20.5	11.4	18.6	7.7	5.8	5.4	6.9	5.0	16.4	53.3	4.1	13.0
5	15.5	44.2	52.0	11.7	16.7	9.0	12.4	12.1	6.4	6.1	6.3	5.6	7.1	8.3	10.4	28.1	39.5	46.1	29.6	7.1	9.4	11.2	7.8	8.8	52.0	5.6	17.1
6	10.3	5.2	7.4	6.2	13.9	18.7	14.1	10.0	17.4	26.0	39.7	61.2					1.0	100.1	49.6	5.5	10.0	12.1	18.6	12.8	100.1	1.0	22.0
7	8.0	6.0	4.4	5.7	5.8	4.9	5.1	5.6	4.9	5.5	5.0	5.0	5.5	5.0	5.6	4.9	5.4	5.0	5.5	5.0	5.2	5.0	4.9	5.1	8.0	4.4	5.3
8	5.1	5.7	5.6	6.1	5.6	6.2	5.1	5.6	6.0	5.5	5.4	5.7	9.1	5.1	8.9	32.9	21.5	18.8	6.2	12.8	7.8	9.4	7.8	5.8	32.9	5.1	8.9
9	4.5	3.5	4.8	5.0	5.0	4.9	5.3	5.3	7.3	7.5	9.2	4.3	5.4	15.6	10.4	9.4	7.9	11.8	7.5	8.1	5.5	16.7	13.7	9.2	16.7	3.5	7.8
10	80.3	35.3	16.3	8.5	31.3	14.7	55.1	36.7	31.1	10.6	85.7	12.2	12.5	8.0	6.1	5.3	6.0	6.1	7.0	5.6	5.2	4.6	4.1	4.4	85.7	4.1	20.5
11	4.8	4.7	4.7	5.9	4.4	4.6	4.8	4.9	5.2	6.0	5.8	5.3	5.3	5.6	5.3	4.9	5.2	5.1	5.4	5.4	4.5	5.2	5.0	4.9	6.0	4.4	5.1
12	4.8	4.9	5.5	8.3	9.7	9.9	12.9	11.0	7.4	6.5	9.6	23.2	24.0	13.4	14.7	12.0	13.1	11.0	8.9	9.2	6.7	7.9	6.9	6.3	24.0	4.8	10.3
13	22.5	8.2	5.4	6.2	7.9	7.0	12.1	10.9	12.6	4.9	9.5	6.8	19.0	12.6	12.2	20.5	11.4	14.7	16.7	23.4	9.3	5.5	24.0	52.5	52.5	4.9	14.0
14	13.4	8.4	8.5	8.0	12.0	17.3	23.4	14.7	6.7	6.5	12.2	49.6	84.0	25.0	18.5	36.6	25.5	28.1	20.8	12.2	4.4	4.0	4.0	3.3	84.0	3.3	18.6
15	4.1	4.7	4.2	3.4	4.2	4.3	8.2	5.7	13.3	11.8	5.4	5.6	5.5	10.4	8.8	12.8	6.7	7.1	6.5	5.6	6.6	13.5	4.5	5.2	13.5	3.4	7.0
16	11.7	8.8	21.5	7.5	18.2	31.1	25.9	16.7	53.1	10.6	10.0	20.1	12.6	13.2	29.5	23.7	14.8	12.1	6.0	7.7	6.2	8.0	5.5	4.8	53.1	4.8	15.8
17	5.1	13.9	6.7	4.7	9.7	14.6	10.5	10.3	10.8	7.8	5.0	7.6	13.5	28.0	20.8	11.9	26.2	20.4	10.4	12.4	13.8	11.1	11.6	5.7	28.0	4.7	12.2
18	7.1	9.3	4.7	6.5	6.2	5.1	6.1	10.9	6.0	4.9	4.8	4.8	4.7	4.6	5.4	7.9	5.4	6.0	4.8	6.5	5.7	5.9	12.8	25.2	25.2	4.6	7.1
19	7.6	10.7	9.6	10.4	6.1	14.0	12.8	10.8	8.8	13.6	9.4	10.3	6.7	6.2	6.6	7.8	6.5	7.7	6.1	6.4	6.9	6.3	6.4	5.5	14.0	5.5	8.5
20	5.5	9.2	6.1	5.9	7.0	5.0	5.8	6.5	6.3	7.1	7.4	7.7	5.4	7.4	6.4	10.7	9.1	8.0	15.7	22.9	51.5	6.1	6.6	5.1	51.5	5.0	9.8
21	11.4	28.1	11.3	24.4	32.8	9.3	14.5	11.9	21.7	5.4	6.4	5.9	8.4	8.1	9.9	12.4	13.8	10.5	5.2	7.4	6.7	16.3	20.2	10.5	32.8	5.2	13.0
22	10.3	5.2	4.2	7.6	5.4	4.1	7.7	7.9	25.1	15.3	24.9	6.7	7.0	8.0	6.2	5.8	5.4	6.9	5.2	5.2	5.7	5.4	5.0	5.2	25.1	4.1	8.1
23	7.4	9.0	10.0	5.1	11.3	8.1	15.9	17.6	11.9	8.9	15.7	9.8	8.8	8.4	8.5	6.0	5.5	6.1	6.2	13.8	9.3	5.7	6.1	13.0	17.6	5.1	9.5
24	15.7	9.4	6.8	13.1	6.4	8.1	6.4	9.8	8.5	13.3	12.4	6.2	8.2	8.1	21.7	15.4	9.1	7.2	14.1	41.3	17.9	14.7	11.7	25.7	41.3	6.2	13.0
25	5.9	4.7	7.8	10.4	24.2	9.4	5.9	5.5	6.0	6.2	6.7	8.5	8.1	8.3	10.1	14.4	11.4	8.0	7.6	8.6	5.1	6.1	5.0	5.1	24.2	4.7	8.3
26	6.0	5.9	8.0	6.6	6.3	8.7	8.9	9.5	9.5	44.3	31.1	14.7	13.3	9.8	15.8	26.3	44.3	11.1	7.7	13.8	9.4	8.3	16.5	17.8	44.3	5.9	14.7
27	49.4	49.3	14.5	23.3	18.7	12.3	10.9	14.4	15.8	12.5	24.7	40.9	14.0	12.7	15.2	11.3	10.9	5.8	4.9	6.2	5.3	4.9	5.4	6.3	49.4	4.9	16.2
28	5.5	5.2	6.0	5.1	5.8	5.3	6.6	4.6	4.4	6.6	6.7	6.5	6.1	5.5	7.0	7.7	27.3	16.9	9.8	13.3	13.7	9.9	13.8	23.3	27.3	4.4	9.3
29	8.9	12.7	11.7	10.0	12.1	9.6	4.6	3.6	17.7	8.6	10.4	53.4	32.3	35.5	9.1	9.6	7.8	12.3	10.8	13.7	26.9	5.3	8.1	5.7	53.4	3.6	14.2
30	6.5	6.9	7.1	19.5	8.6	9.8	5.0	13.7	4.9	6.3	9.1	23.3	6.6	6.9	9.4	15.9	14.0	10.9	9.1	13.2	32.4	48.6	8.6	5.1	48.6	4.9	12.5
Max.	**80.3**	**49.3**	**52.0**	**24.4**	**32.8**	**31.1**	**55.1**	**53.3**	**53.1**	**44.3**	**85.7**	**61.2**	**84.0**	**35.5**	**29.5**	**36.6**	**44.3**	**100.1**	**49.6**	**41.3**	**51.5**	**48.6**	**24.0**	**52.5**	**100.1**		
Min.	**3.6**	**3.5**	**4.1**	**3.4**	**2.5**	**3.4**	**3.7**	**3.6**	**4.4**	**4.9**	**4.1**	**4.3**	**4.7**	**4.6**	**5.0**	**4.9**	**1.0**	**5.0**	**4.6**	**3.5**	**4.3**	**4.0**	**4.0**	**3.3**		**1.0**	
Avg.	**12.9**	**11.4**	**9.1**	**8.6**	**10.6**	**9.2**	**11.0**	**11.6**	**13.4**	**9.8**	**13.5**	**14.9**	**12.8**	**11.0**	**11.8**	**14.0**	**13.0**	**14.7**	**10.4**	**10.4**	**10.4**	**9.3**	**8.8**	**10.5**			**11.4**

Total Hours in Month 720 **Hours Data Available** 716 **Data Recovery** 99.4%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (Climatronics)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	6.0	5.3	5.4	6.8	10.9	9.0	27.7	26.8	15.9	58.5	24.6	36.5	25.0	27.8	9.4	10.7	8.5	8.1	6.3	5.3	6.9	11.9	5.4	5.8	58.5	5.3	15.2
2	5.6	7.0	7.6	6.1	6.8	5.6	5.0	4.9	5.1	4.5	6.3	7.5	8.0	6.3	6.8	7.1	7.8	7.6	6.5	6.3	5.3	5.7	4.2	4.0	8.0	4.0	6.2
3	4.7	5.1	6.2	7.7	5.7	4.2	4.4	4.1	4.2	4.7	6.3	5.3	6.2	6.9	8.2	7.9	14.0	44.5	8.5	5.5	13.8	9.9	33.1	53.6	53.6	4.1	11.4
4	18.8	21.8	13.9	38.6	23.9	10.6	6.2	5.3	8.2	12.4	6.9	9.8	5.0	4.9	5.4	4.8	4.4	5.0	7.3	6.6	5.2	5.5	4.9	5.4	38.6	4.4	10.0
5	8.8	10.4	5.7	5.4	4.7	6.4	7.0	5.8	6.3	5.9	5.0	5.1	47.0	19.3	6.7	7.3	5.7	6.9	7.5	8.0	7.4	4.1	5.6	4.8	47.0	4.1	8.6
6	5.8	4.1	4.2	6.4	4.6	4.2	5.2	5.3	5.9	6.5	5.2	4.5	4.8	5.0	5.6	4.3	5.5	5.6	5.3	4.5	3.8	4.3	8.2	5.2	8.2	3.8	5.2
7	5.0	5.4	5.7	5.7	6.0	7.1	4.6	4.7	4.5	4.6	4.7	4.5	7.0	5.5	7.0	5.9	7.3	10.4	6.6	6.9	4.9	8.4	13.3	12.2	13.3	4.5	6.6
8	4.4	8.0	7.1	4.5	11.8	6.0	4.8	6.2	5.2	5.0	23.1	19.9	10.3	9.4	12.2	9.5	8.3	7.9	8.1	6.9	5.2	16.7	17.5	16.2	23.1	4.4	9.8
9	11.1	8.5	12.0	7.0	7.7	7.6	6.7	5.7	4.9	4.3	5.5	6.7	40.2	28.9	61.4	42.8	16.9	13.4	11.5	13.7	9.8	11.3	5.2	10.4	61.4	4.3	14.7
10	5.0	3.8	3.9	8.7	11.0	6.0	5.4	10.0	4.6	10.5	4.3	5.9	14.2	9.8	10.4	10.3	12.3	18.7	9.9	7.1	13.3	16.9	9.4	7.6	18.7	3.8	9.1
11	8.5	4.3	6.2	8.3	6.3	8.4	8.5	8.1	12.3	14.1	30.8	8.3	5.5	6.5	7.5	6.7	5.4	4.5	4.1	4.1	3.9	4.2	4.1	5.3	30.8	3.9	7.8
12	4.7	4.4	4.7	3.9	5.4	6.4	5.6	19.7	21.3	5.8	11.8	34.6	42.0	57.5	30.2	24.7	14.6	13.4	9.8	8.5	11.9	5.8	5.2	5.6	57.5	3.9	14.9
13	4.3	11.0	7.8	9.2	12.1	8.5	6.8	8.9	5.3	5.2	6.3	6.6	6.5	12.2	11.5	37.8	15.1	10.2	7.9	8.0	8.0	8.0	4.6	7.0	37.8	4.3	9.5
14	5.3	7.4	14.3	8.3	10.4	13.1	11.1	7.1	7.9	13.3	16.9	6.5	9.7	9.6	14.8	13.3	11.7	6.9	5.3	11.6	8.8	2.8	5.5	5.9	16.9	2.8	9.5
15	9.9	11.6	7.4	6.2	6.1	6.4	14.5	6.0	18.3	21.7	26.4	31.3	39.0	8.1	29.3	12.1	6.5	12.9	6.9	5.2	4.4	4.4	7.3	7.3	39.0	4.4	12.9
16	5.5	4.4	4.3	6.5	6.0	5.9	25.2	4.8	5.9	15.2	16.1	14.8	6.8	4.7	10.7	12.8	7.4	7.6	13.6	12.5	14.9	7.3	6.5	7.0	25.2	4.3	9.4
17	7.0	6.5	9.2	13.4	12.0	9.6	3.8	3.8	3.2	3.7	4.3	4.0	7.1	4.8	6.9	14.5	12.6	5.6	10.9	11.3	8.6	3.3	3.4	4.1	14.5	3.2	7.2
18	4.9	4.1	6.0	5.1	4.1	6.5	5.9	6.3	8.8	8.0	9.6	9.0	24.6	35.0	12.5	25.3	30.7	21.2	20.8	12.3	7.2	7.1	11.2	22.4	35.0	4.1	12.9
19	13.0	7.3	12.3	13.0	10.7	6.2	9.0	6.2	8.9	3.7	44.0	9.7	28.0	30.9	77.9	88.5	29.9	80.1	8.1	4.4	8.6	12.8	11.8	10.0	88.5	3.7	22.3
20	16.4	16.7	6.3	12.5	6.9	5.6	6.1	6.5	6.8	12.9	21.7	9.3	6.9	4.6	5.0	3.7	5.2	4.2	6.3	5.3	5.3	7.9	7.4	7.2	21.7	3.7	8.2
21	7.6	5.7	5.5	5.4	5.0	7.1	6.9	4.6	4.3	4.8	6.4	14.6	9.2	9.0	4.9	4.9	5.1	21.0	10.6	12.2	17.1	8.7	5.9	9.5	21.0	4.3	8.2
22	10.1	14.9	9.6	9.3	5.7	4.2	6.3	4.9	6.4	5.2	7.1	5.2	17.2	44.8	23.4	16.2	11.0	6.2	16.2	40.9	19.6	35.8	53.8	16.9	53.8	4.2	16.3
23	9.7	18.4	60.4	73.6	31.7	20.7	78.3	28.5	33.5	5.7	19.7	26.9	16.4	16.1	11.6	8.5	24.0	12.9	7.4	9.1	26.2	20.5	15.6	27.2	78.3	5.7	25.1
24	31.3	13.6	68.4	14.8	21.8	43.9	62.9	68.2	23.6	8.2	10.7	8.0	17.1	29.1	20.7	9.0	8.4	6.6	4.1	3.6	6.2	5.1	7.5	5.0	68.4	3.6	20.7
25	4.3	5.0	4.7	4.7	4.6	4.6	4.3	5.5	4.8	4.9	4.8	5.1	4.9	4.9	5.2	5.1	4.7	5.1	5.3	5.7	14.5	6.0	22.4	22.1	22.4	4.3	6.8
26	7.2	4.9	4.5	10.2	5.8	5.8	10.0	15.5	9.9	6.8	7.3	10.7	5.1	6.7	6.9	6.0	8.0	5.1	5.0	4.9	4.6	4.9	6.0	4.9	15.5	4.5	6.9
27	4.3	4.2	4.7	4.8	4.4	5.0	6.8	5.8	13.1	5.8	5.1	18.1	7.1	9.5	5.7	6.4	7.0	4.8	5.0	6.0	7.4	12.2	32.9	34.1	34.1	4.2	9.2
28	35.0	3.8	3.6	9.6	49.1	68.5	29.9	17.7	25.2	8.1	9.4	11.6	14.1	14.1	12.1	9.0	7.4	7.6	8.3	7.0	5.3	5.1	5.2	4.8	68.5	3.6	15.5
29	4.7	5.0	4.8	4.6	5.5	5.6	5.7	5.3	5.2	5.1	5.5	5.9	6.4	6.5	5.8	5.7	5.6	6.1	5.5	5.7	5.4	5.2	5.1	5.8	6.5	4.6	5.5
30	13.5	7.1	6.3	4.2	4.0	4.3	6.0	7.4	6.9	11.2	13.4	5.9	52.0	6.8	8.4	11.2	12.2	7.8	7.7	5.2	5.7	9.1	7.6	6.9	52.0	4.0	9.6
31	7.3	6.3	6.3	5.2	5.1	5.0	7.1	6.0	6.7	5.5	6.1	5.4	5.1	6.3	6.3	7.0	7.9	15.1	9.8	5.8	5.2	5.0	7.5	6.9	15.1	5.0	6.7
Max.	**35.0**	**21.8**	**68.4**	**73.6**	**49.1**	**68.5**	**78.3**	**68.2**	**33.5**	**58.5**	**44.0**	**36.5**	**52.0**	**57.5**	**77.9**	**88.5**	**30.7**	**80.1**	**20.8**	**40.9**	**26.2**	**35.8**	**53.8**	**53.6**	**88.5**		
Min.	**4.3**	**3.8**	**3.6**	**3.9**	**4.0**	**4.2**	**3.8**	**3.8**	**3.2**	**3.7**	**4.3**	**4.0**	**4.8**	**4.6**	**4.9**	**3.7**	**4.4**	**4.2**	**4.1**	**3.6**	**3.8**	**2.8**	**3.4**	**4.0**		**2.8**	
Avg.	**9.3**	**7.9**	**10.6**	**10.6**	**10.2**	**10.3**	**12.8**	**10.5**	**9.8**	**9.4**	**12.1**	**11.5**	**16.1**	**14.6**	**14.5**	**14.2**	**10.7**	**12.7**	**8.3**	**8.4**	**8.8**	**8.9**	**11.1**	**11.3**			**11.0**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (Climatronics)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	4.6	10.6	7.5	6.7	10.1	16.7	5.7	12.6	10.5	7.1	6.2	8.3	8.7	7.3	51.5	46.3	27.3	6.2	12.4	9.9	5.2	7.5	7.6	6.7	51.5	4.6	12.6
2	9.6	10.6	39.2	34.8	31.7	36.9	11.6	23.6	6.5	6.8	5.4	6.3	6.2	5.2	13.6	8.7	30.9	16.9	16.1	6.8	7.9	7.8	5.5	5.9	39.2	5.2	14.8
3	5.3	4.8	7.5	5.7	3.8	3.7	4.4	20.1	15.4	10.9	29.4	30.5	40.7	53.0	38.7	11.5	24.2	43.5	6.3	7.7	5.4	4.5	5.8	4.3	53.0	3.7	16.1
4	4.3	4.9	4.2	4.1	4.2	4.6	4.0	5.0	4.5	4.3	3.9	4.6	4.9	4.9	4.2	4.4	4.5	4.2	4.1	9.0	7.3	4.4	4.8	5.0	9.0	3.9	4.8
5	4.1	4.0	4.5	4.4	5.9	7.0	3.6	3.9	4.0	4.0	4.3	4.8	6.4	6.7	4.8	5.1	8.1	4.3	4.1	3.9	3.9	4.0	4.4	3.9	8.1	3.6	4.7
6	4.4	4.4	4.3	6.1	4.6	6.8	6.2	5.3	5.6	5.2	5.3	4.8	4.9	6.6	5.3	5.1	5.7	5.5	7.0	6.1	5.5	4.8	16.6	8.5	16.6	4.3	6.0
7	5.3	5.5	4.4	5.3	5.2	4.3	4.5	6.0	5.6	5.5	4.2	4.5	4.9	6.6	11.7	10.6	5.0	10.6	11.8	5.9	6.4	8.4	6.8	16.4	16.4	4.2	6.9
8	8.3	13.3	6.9	9.1	4.4	5.5	4.6	5.3	5.4	4.8	4.8	5.0	6.6	5.2	5.1	5.2	4.6	4.6	7.1	4.5	5.8	5.0	4.9	5.5	13.3	4.4	5.9
9	5.5	6.1	5.4	5.1	4.9	5.0	5.3	4.1	4.8	6.1	4.8	4.8	4.6	4.7	4.6	4.4	4.1	5.2	5.9	5.9	4.4	6.1	27.3	18.9	27.3	4.1	6.6
10	6.0	7.0	6.0	4.9	5.5	16.6	4.9	3.9	4.0	15.4	9.3	5.1	9.4	9.0	13.4	14.1	12.3	11.0	12.0	10.9	9.0	4.5	8.3	3.5	16.6	3.5	8.6
11	4.7	4.8	6.0	9.7	7.3	4.4	4.7	5.6	5.7	6.1	13.9	11.0	5.1	5.1	6.0	4.6	3.9	5.2	8.3	6.7	9.5	6.3	10.3	27.6	27.6	3.9	7.6
12	6.8	4.9	28.8	46.8	9.2	72.6	59.5	73.6	41.5	37.2	28.2	22.5	18.0	6.7	6.7	24.0	19.2	7.5	6.1	5.5	3.9	3.9	4.3	4.3	73.6	3.9	22.6
13	4.2	4.1	4.2	4.5	4.5	4.7	4.5	4.7	5.3	5.7	5.9	7.2	7.0	33.1	52.1	29.8	20.9	30.8	4.2	4.1	6.1	5.3	6.8	7.1	52.1	4.1	11.1
14	6.3	4.9	5.8	7.0	9.3	13.2	5.1	10.2	21.8	18.1	37.4	24.2	4.5	4.3	4.4	5.5	4.4	4.2	4.1	4.6	14.4	18.9	4.8	5.4	37.4	4.1	10.1
15	6.9	6.3	4.6	5.9	4.0	3.1	3.4	4.1	3.7	3.8	3.9	4.7	4.2	6.3	5.8	4.6	7.2	5.4	15.8	8.5	6.6	6.8	6.2	4.7	15.8	3.1	5.7
16	20.3	20.3	14.5	15.4	8.6	23.2	7.4	13.8	23.2	14.6	16.8	20.5	20.5	9.0	9.1	15.1	9.4	8.5	16.1	10.9	14.0	20.7	16.8	16.6	23.2	7.4	15.2
17	16.2	6.8	15.1	13.3	7.8	4.2	6.3	2.7	7.3	6.0	18.0	17.4	16.8	19.7	18.7	17.2	8.3	3.7	15.0	11.3	14.8	15.9	21.7	46.1	46.1	2.7	13.8
18	10.0	13.2	25.1	11.6	7.7	11.9	12.0	9.7	8.5	5.3	7.0	9.0	6.4	4.5	7.0	11.8	4.9	6.8	8.2	16.7	22.8	6.4	5.0	4.1	25.1	4.1	9.8
19	33.0	5.8	7.2	5.4	29.7	62.5	18.7	30.9	23.9	7.7	21.2	17.3	5.0	5.5	4.4	4.3	5.0	6.5	4.4	4.8	5.8	5.2	4.6	4.3	62.5	4.3	13.5
20	4.6	4.3	4.4	5.3	4.6	6.1	4.6	4.7	4.6	4.7	4.9	5.4	5.0	4.7	5.3	5.8	6.9	5.1	10.2	5.5	12.2	9.3	7.7	10.3	12.2	4.3	6.1
21	6.2	6.3	4.3	5.9	13.2	6.2	11.2	5.6	4.8	8.1	4.5	5.5	4.4	4.4	5.4	8.3	5.7	6.5	4.3	4.3	4.4	4.2	4.5	5.0	13.2	4.2	6.0
22	5.1	6.6	14.6	6.5	15.1	6.7	7.5	7.7	12.8	6.5	6.4	5.3	5.1	5.7	5.5	6.1	6.7	6.3	6.8	8.7	4.6	5.0	17.3	8.2	17.3	4.6	7.8
23	4.4	6.1	6.4	6.7	12.6	6.6	8.2	6.3	6.2	7.5	11.2	8.2	7.0	6.0	8.0	7.1	15.1	5.5	13.4	8.8	4.9	7.0	6.0	10.2	15.1	4.4	7.9
24	7.8	6.2	9.4	16.9	18.4	1.1	0.3	0.4	0.7	3.5	51.5	4.4	5.3	5.4	4.8	4.3	4.5	4.9	4.4	5.4	8.6	5.3	5.4	4.8	51.5	0.3	7.6
25	4.7	4.7	5.1	4.4	4.8	7.5	5.4	8.2	11.8	7.3	6.0	4.9	6.4	6.1	6.8	5.8	5.2	5.5	8.0	7.7	11.7	9.6	7.9	6.1	11.8	4.4	6.7
26	3.7	3.5	4.3	8.0	11.3	12.0	9.7	19.6	30.7	8.5	27.1	6.5	8.5	14.0	14.9	11.0	16.4	11.9	6.4	5.9	7.4	10.7	6.0	4.2	30.7	3.5	10.9
27	5.2	5.3	4.8	5.0	4.4	5.1	4.2	4.6	4.3	4.7	5.7	5.6	7.1	5.2	6.0	6.0	4.9	5.3	8.8	5.6	4.9	5.6	7.1	6.3	8.8	4.2	5.5
28	4.8	4.5	5.3	5.4	7.1	18.6	24.2	35.5	40.8	17.1	9.3	4.4	7.3	6.2	4.2	5.3	4.4	5.5	5.3	4.9	4.0	4.7	5.9	5.0	40.8	4.0	10.0
29	5.0	4.1	3.6	4.5	3.8	5.3	4.4	4.1	4.2	3.9	3.9	4.8	4.3	4.0	5.0	4.6	5.2	4.7	4.6	4.5	5.4	4.4	4.5	4.0	5.4	3.6	4.5
30	4.7	5.3	4.7	5.0	5.2	5.6	4.8	4.9	4.7	5.0	4.8	5.2	4.5	4.4	4.8	4.5	5.5	4.8	7.1	5.6	4.7	5.3	4.8	6.1	7.1	4.4	5.1
Max.	**33.0**	**20.3**	**39.2**	**46.8**	**31.7**	**72.6**	**59.5**	**73.6**	**41.5**	**37.2**	**51.5**	**30.5**	**40.7**	**53.0**	**52.1**	**46.3**	**30.9**	**43.5**	**16.1**	**16.7**	**22.8**	**20.7**	**27.3**	**46.1**	**73.6**		
Min.	**3.7**	**3.5**	**3.6**	**4.1**	**3.8**	**1.1**	**0.3**	**0.4**	**0.7**	**3.5**	**3.9**	**4.4**	**4.2**	**4.0**	**4.2**	**4.3**	**3.9**	**3.7**	**4.1**	**3.9**	**3.9**	**3.9**	**4.3**	**3.5**		**0.3**	
Avg.	**7.4**	**6.6**	**8.9**	**9.3**	**9.0**	**12.9**	**8.7**	**11.6**	**11.1**	**8.4**	**12.2**	**9.1**	**8.3**	**9.0**	**11.3**	**10.0**	**9.7**	**8.6**	**8.3**	**7.0**	**7.7**	**7.2**	**8.3**	**9.0**			**9.1**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (Climatronics)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	4.6	5.0	8.2	5.8	4.5	5.6	30.5	53.1	43.6	9.1	5.7	11.5	7.3	14.7	5.7	6.9	9.4	65.1	91.9	63.9	23.9	32.7	37.1	3.9	91.9	3.9	22.9
2	7.0	12.6	9.8	6.6	7.5	6.1	7.3	5.0	7.5	5.2	5.2	7.4	17.4	8.0	53.9	18.4	60.7	18.7	6.9	11.0	21.1	7.3	5.6	14.9	60.7	5.0	13.8
3	8.6	9.4	5.4	5.7	5.2	5.2	5.5	4.6	4.7	5.9	5.1	6.0	6.8	6.7	6.8	5.0	8.8	5.8	5.5	4.0	4.0	3.9	3.9	4.6	9.4	3.9	5.7
4	5.3	3.6	3.3	3.5	6.0	6.3	19.3	25.4	8.1	5.4	3.7	4.2	4.5	15.8	6.4	5.3	4.5	3.9	3.9	4.6	4.0	4.5	4.0	4.1	25.4	3.3	6.6
5	4.1	4.7	4.1	4.0	4.6	4.7	4.3	4.1	5.4	6.5	5.5	4.1	4.2	4.5	4.4	4.3	4.3	4.1	4.6	4.9	5.5	4.4	4.7	4.5	6.5	4.0	4.6
6	4.6	4.5	4.1	4.3	5.4	4.9	4.3	4.2	4.3	4.3	4.7	4.1	4.0	4.2	3.8	3.9	6.3	49.3	39.3	11.1	11.1	14.7	5.5	7.9	49.3	3.8	9.0
7	8.2	13.8	9.8	5.1	9.8	9.8	4.5	6.6	4.6	5.1	5.9	7.7	6.1	4.4	3.9	3.9	4.1	4.2	4.6	5.7	5.2	4.2	4.0	4.1	13.8	3.9	6.1
8	4.7	6.0	14.4	8.7	7.5	6.7	8.8	13.3	6.8	8.0	6.9	5.2	11.1	7.6	5.7	6.8	32.7	9.8	5.8	6.5	8.9	10.8	7.5	9.8	32.7	4.7	9.2
9	6.6	100.2	28.6	10.5	10.4	5.1	4.5	4.0	3.9	4.9	5.4	6.2	3.7	4.1	3.6	3.7	3.6	3.7	4.2	4.0	5.1	3.9	4.3	4.6	100.2	3.6	9.9
10	4.9	5.2	7.6	5.5	6.5	11.2	6.5	6.2	7.1	6.6	4.2	7.2	5.4	9.8	7.4	4.9	6.1	7.8	5.8	5.9	10.6	17.8	10.7	3.5	17.8	3.5	7.3
11	4.0	4.1	5.9	4.8	9.2	13.9	30.5	14.6	17.3	24.3	6.1	16.5	29.3	37.2	12.3	16.4	5.9	6.7	75.4	89.0	28.3	7.3	6.3	5.5	89.0	4.0	19.6
12	11.6	18.7	12.8	7.3	15.2	19.2	21.7	16.6	14.2	12.4	13.4	9.8	10.0	5.7	9.9	17.1	13.1	6.9	7.9	11.9	11.5	11.1	6.0	7.0	21.7	5.7	12.1
13	7.5	11.5	7.8	15.3	9.0	8.5	6.8	8.4	7.3	6.1	5.3	5.6	5.2	4.7	3.4	4.0	3.6	3.7	4.2	8.4	4.1	4.4	4.2	4.4	15.3	3.4	6.4
14	5.9	3.1	3.0	4.2	3.7	4.4	4.6	7.4	9.7	5.0	8.6	8.7	12.7	14.8	12.1	10.1	10.1	13.6	12.7	5.6	21.2	9.4	15.3	13.3	21.2	3.0	9.1
15	6.2	15.1	17.4	8.1	4.6	4.0	3.6	5.0	3.9	6.5	4.8	5.1	4.0	4.4	3.3	4.2	3.3	4.1	4.1	3.3	3.7	2.9	2.9	4.7	17.4	2.9	5.4
16	5.0	3.3	3.4	4.4	3.3	3.2	9.7	3.9	4.8	5.1	6.0	6.5	4.0	5.8	4.1	10.0	5.1	14.3	10.8	11.6	17.4	10.3	10.2	16.8	17.4	3.2	7.5
17	3.6	12.7	10.7	13.3	18.5	16.8	17.6	4.1	6.4	5.4	11.3	7.3	5.1	16.2	12.9	15.3	14.5	18.4	10.3	10.9	12.9	12.1	9.5	6.9	18.5	3.6	11.3
18	6.6	9.6	4.3	4.4	4.0	3.3	5.7	4.3	3.7	4.7	5.4	4.1	5.3	4.3	4.5	6.3	9.4	9.1	3.7	3.9	5.5	5.9	7.3	7.0	9.6	3.3	5.5
19	12.4	13.6	15.5	14.2	12.2	7.6	9.1	16.4	14.1	11.9	10.8	6.2	5.1	9.2	13.1	17.5	17.7	9.6	8.0	18.3	14.6	12.0	7.2	8.3	18.3	5.1	11.9
20	5.1	8.0	7.4	7.6	6.6	16.8	18.2	4.6	4.0	3.9	4.4	3.9	3.7	3.3	3.5	3.1	4.5	5.7	6.2	4.9	3.2	3.4	6.2	7.3	18.2	3.1	6.1
21	3.7	3.6	3.5	3.5	3.2	3.7	16.9	4.6	5.9	8.6	4.6	7.7	11.3	3.9	6.0	4.5	6.4	4.8	4.4	3.6	3.6	5.8	3.2	8.2	16.9	3.2	5.6
22	3.5	4.5	4.0	5.1	4.1	3.5	3.8	3.5	4.1	3.9	4.5	4.0	3.3	3.8	4.3	3.7	3.4	3.7	3.1	3.5	18.8	26.0	9.7	8.9	26.0	3.1	5.9
23	5.2	10.2	5.1	6.5	10.2	5.0	6.3	6.5	27.5	18.1	13.6	16.1	22.4	5.8	7.8	7.8	6.7	21.1	10.7	86.0	20.5	51.5	46.9	22.9	86.0	5.0	18.3
24	7.9	7.1	7.1	6.4	3.9	5.4	7.9	7.6	7.8	12.0	14.0	14.2	12.4	9.0	10.1	12.0	19.6	14.0	3.2	2.9	2.8	2.8	3.0	3.2	19.6	2.8	8.2
25	2.9	3.1	2.7	3.3	3.8	3.8	3.1	3.7	2.9	6.1	8.1	4.1	3.2	5.3	5.2	4.8	4.7	17.7	4.7	18.6	8.5	13.4	10.4	3.0	18.6	2.7	6.1
26	21.0	7.1	5.3	5.5	9.4	71.7	25.2	34.8	36.2	10.6	16.4	6.4	6.1	5.0	5.9	5.9	5.0	6.9	4.7	5.3	4.1	5.0	4.9	4.4	71.7	4.1	13.0
27	4.3	4.3	4.5	4.5	5.1	4.5	4.8	4.3	4.9	4.4	4.0	4.5	4.0	4.0	4.0	7.7	5.3	5.4	8.2	10.6	8.1	14.0	7.8	5.9	14.0	4.0	5.8
28	4.0	10.7	6.4	4.2	14.4	16.6	8.2	6.9	20.8	7.4	11.6	8.0	14.2	17.4	9.3	6.4	4.2	12.7	8.3	6.1	15.7	15.1	18.6	18.4	20.8	4.0	11.1
29	15.0	13.5	10.7	13.4	28.3	11.4	15.9	15.2	11.9	10.6	14.9	17.4	14.3	13.4	7.5	16.5	15.7	5.3	3.4	3.9	3.8	17.7	6.6	4.1	28.3	3.4	12.1
30	2.7	7.2	2.8	3.7	3.0	10.7	10.8	9.1	9.0	3.2	3.9	6.6	12.4	4.0	6.2	7.0	4.1	7.0	4.7	3.8	4.3	3.1	3.4	3.6	12.4	2.7	5.7
31	5.0	6.0	8.8	6.2	7.7	5.1	5.5	3.8	3.9	3.3	3.9	3.8	5.3	3.7	6.4	4.2	5.0	5.1	4.8	3.9	3.6	3.7	4.4	2.9	8.8	2.9	4.8
Max.	**21.0**	**100.2**	**28.6**	**15.3**	**28.3**	**71.7**	**30.5**	**53.1**	**43.6**	**24.3**	**16.4**	**17.4**	**29.3**	**37.2**	**53.9**	**18.4**	**60.7**	**65.1**	**91.9**	**89.0**	**28.3**	**51.5**	**46.9**	**22.9**	**100.2**		
Min.	**2.7**	**3.1**	**2.7**	**3.3**	**3.0**	**3.2**	**3.1**	**3.5**	**2.9**	**3.2**	**3.7**	**3.8**	**3.2**	**3.3**	**3.3**	**3.1**	**3.3**	**3.7**	**3.1**	**2.9**	**2.8**	**2.8**	**2.9**	**2.9**		**2.7**	
Avg.	**6.5**	**11.0**	**7.9**	**6.6**	**8.0**	**9.8**	**10.7**	**10.1**	**10.2**	**7.6**	**7.3**	**7.4**	**8.5**	**8.4**	**8.2**	**8.0**	**9.9**	**11.9**	**12.1**	**14.1**	**10.2**	**11.0**	**9.1**	**7.4**			**9.2**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (RMYoung) (m/s)

January 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	11.0	11.5	13.0	13.5	14.4	14.6	8.3	7.6	8.9	10.9	11.3	11.7	10.7	10.2	8.6	7.7	7.3	8.0	6.5	8.2	7.4	6.8	7.2	6.4	14.6	6.4	9.6
2	7.1	7.2	6.9	7.4	7.3	8.5	9.1	8.5	8.7	9.1	10.0	9.3	9.2	9.2	9.7	9.3	8.6	7.3	7.5	9.1	8.6	8.1	9.3	9.0	10.0	6.9	8.5
3	9.5	7.6	7.2	7.4	8.6	7.9	10.4	11.7	8.9	9.8	8.6	10.6	12.4	10.9	5.5	5.1	11.3	11.8	5.9	3.7	6.0	7.0	5.3	6.6	12.4	3.7	8.3
4	4.9	6.1	6.4	7.4	7.5	6.0	6.7	6.3	5.6	6.2	6.4	5.1	3.6	2.0	1.9	1.8	3.3	3.0	2.5	2.7	1.4	0.9	1.2	1.0	7.5	0.9	4.2
5	1.3	1.8	3.6	4.2	4.6	2.5	3.7	7.0	5.8	4.9	6.8	6.3	6.5	4.8	5.5	5.8	4.6	2.6	2.3	1.6	2.0	2.8	2.9	3.0	7.0	1.3	4.0
6	3.9	4.6	3.7	3.0	3.2	2.6	4.6	4.4	3.5	7.1	10.0	8.0	7.9	4.3	4.5	4.7	6.2	7.3	7.2	8.3	7.4	9.9	9.4	10.1	10.1	2.6	6.1
7	9.8	11.1	12.3	14.0	19.2	20.0	18.7	14.2	15.8	15.4	14.6	18.1	13.5	12.0	9.3	8.1	8.9	10.8	14.2	12.4	12.7	14.0	12.7	10.2	20.0	8.1	13.4
8	8.7	9.3	10.4	13.2	9.2	7.1	7.9	6.8	5.5	6.2	8.2	8.9	8.5	9.3	8.1	11.8	12.7	9.2	11.2	10.8	9.3	6.2	5.8	6.4	13.2	5.5	8.8
9	7.5	6.7	5.6	2.3	6.0	5.9	4.9	4.2	4.7	3.0	3.9	1.4	1.2	2.5	3.2	2.5	3.4	5.4	4.7	5.0	5.6	3.9	6.4	7.0	7.5	1.2	4.5
10	5.1	7.1	9.0	5.4	5.2	6.7	6.7	11.3	16.3	18.2	17.3	18.2	16.7	14.8	16.4	16.1	15.3	16.6	14.5	14.1	14.8	13.9	13.1	13.6	18.2	5.1	12.8
11	13.2	15.2	15.0	15.3	14.7	14.2	15.3	16.4	15.7	15.3	16.4	18.4	19.2	18.2	18.9	18.4	18.5	17.5	16.6	17.3	18.2	19.0	18.9	18.4	19.2	13.2	16.8
12	18.4	17.2	16.8	15.6	15.7	15.9	17.0	16.5	14.7	14.6	13.4	12.6	12.3	14.6	15.6	17.0	18.5	19.5	18.5	17.8	15.7	13.4	13.1	18.0	19.5	12.3	15.9
13	15.5	14.8	11.8	11.2	11.1	8.7	9.4	8.2	5.8	8.5	6.4	4.5	4.5	2.2	1.3	1.3	1.8	2.3	6.0	8.7	8.3	9.5	9.6	10.4	15.5	1.3	7.6
14	10.4	11.0	13.7	12.3	14.4	15.2	19.2	20.2	21.3	19.1	18.2	15.3	14.8	14.3	15.0	11.3	10.8	8.5	6.6	8.7	7.4	8.3	8.0	7.8	21.3	6.6	13.0
15	7.1	7.9	6.5	6.8	8.9	11.3	8.8	10.6	9.3	7.9	9.5	12.3	11.3	11.3	9.8	8.9	9.9	13.1	7.5	4.3	7.2	4.6	8.1	7.0	13.1	4.3	8.7
16	4.4	3.9	4.4	6.4	6.3	5.1	13.0	13.7	14.8	15.7	20.1	20.5	18.1	17.6	19.0	19.5	19.6	20.7	21.0	21.3	17.8	16.1	14.6	15.2	21.3	3.9	14.5
17	14.4	10.1	10.2	10.8	9.9	7.4	7.2	8.9	13.7	14.3	12.8	12.0	11.4	14.4	15.2	15.0	13.7	13.7	12.1	12.6	11.1	8.8	10.2	10.6	15.2	7.2	11.7
18	7.9	6.2	6.1	4.8	4.0	3.9	6.0	6.2	6.2	4.9	4.4							3.5	1.8	1.4	3.2	2.5	2.1	1.8	7.9	1.4	4.3
19	1.6	1.2	1.3	0.6	1.8	1.7	1.2	1.0	1.7	3.3	3.3	2.9	1.3	1.7	2.4	2.0	5.9	7.9	9.9	8.8	9.0	8.1	8.7	9.5	9.9	0.6	4.0
20	8.3	8.8	8.6	8.7	9.6	9.8	10.5	10.2	8.5	9.3	7.8	6.9	7.5	7.9	7.7	9.7	8.4	7.5	8.5	9.6	9.7	9.0	7.6	6.3	10.5	6.3	8.6
21	5.2	5.1	4.1	2.3	2.6	4.2	2.8	6.0	4.8	5.7	6.0	7.6	6.7	7.1	7.3	5.6	6.6	4.9	5.9	5.6	4.8	4.5	5.0	4.0	7.6	2.3	5.2
22	2.6	2.8	2.4	1.2	2.7	2.7	1.6	1.0	1.9	2.3	3.1	3.2	3.3	3.8	3.8	3.9	3.2	3.8	3.7	4.0	3.2	1.7	2.3	5.0	5.0	1.0	2.9
23	3.8	5.0	5.0	3.9	5.5	6.8	3.6	4.6	6.2	4.9	5.8	5.9	6.3	7.1	7.5	10.5	9.8	9.0	9.4	9.6	9.8	11.3	10.8	8.7	11.3	3.6	7.1
24	10.3	9.0	10.6	8.2	8.7	10.2	7.4	6.6	6.8	9.2	9.6	8.5	6.5	4.6	6.5	6.7	7.0	6.4	7.5	6.6	4.5	5.1	5.8	5.5	10.6	4.5	7.4
25	8.4	7.1	10.0	13.9	15.3	16.2	14.9	15.5	16.5	19.0	16.3	18.6	17.1	20.9	20.6	20.1	15.8	17.5	19.2	19.4	20.3	21.5	23.1	20.8	23.1	7.1	17.0
26	21.4	21.7	22.0	23.6	22.9	22.2	21.6	20.3	21.1	20.4	18.2	15.7	14.2	13.3	13.6	12.4	10.6	10.6	9.7	9.9	10.1	8.0	10.0	11.2	23.6	8.0	16.0
27	13.3	13.4	14.3	15.0	18.5	18.1	17.5	16.2	15.7	20.4	18.6	19.2	19.2	19.9	16.6	17.8	18.1	14.1	14.8	14.7	15.9	17.2	15.7	15.0	20.4	13.3	16.6
28	14.3	13.8	14.3	14.7	13.5	13.8	12.7	12.4	12.9	10.1	6.1	5.8	5.1	8.7	8.3	7.8	8.6	8.3	10.7	12.6	12.6	13.8	14.7	13.0	14.7	5.1	11.2
29	12.8	11.8	12.7	10.6	15.8	16.6	18.2	17.1	20.5	22.2	16.5	17.7	20.5	20.9	18.6	15.3	16.7	17.4	18.1	21.8	22.8	21.9	21.4	16.0	22.8	10.6	17.7
30	13.7	15.7	16.9	17.2	18.1	19.6	19.4	19.9	22.3	24.3	23.4	24.3	29.5	27.5	28.6	24.1	23.0	21.0	17.6	17.3	18.7	21.7	14.8	12.7	29.5	12.7	20.5
31	13.7	14.0	15.8	17.1	16.2	16.7	16.5	15.7	17.2	13.4	14.3	13.4	10.2	11.8	12.4	11.2	12.5	11.6	8.7	6.5	11.2	9.4	8.9	7.9	17.2	6.5	12.8
Max.	**21.4**	**21.7**	**22.0**	**23.6**	**22.9**	**22.2**	**21.6**	**20.3**	**22.3**	**24.3**	**23.4**	**24.3**	**29.5**	**27.5**	**28.6**	**24.1**	**23.0**	**21.0**	**21.0**	**21.8**	**22.8**	**21.9**	**23.1**	**20.8**	**29.5**		
Min.	**1.3**	**1.2**	**1.3**	**0.6**	**1.8**	**1.7**	**1.2**	**1.0**	**1.7**	**2.3**	**3.1**	**1.4**	**1.2**	**1.7**	**1.3**	**1.3**	**1.8**	**2.3**	**1.8**	**1.4**	**1.4**	**0.9**	**1.2**	**1.0**		**0.6**	
Avg.	**9.3**	**9.3**	**9.7**	**9.6**	**10.4**	**10.4**	**10.5**	**10.6**	**11.0**	**11.5**	**11.2**	**11.4**	**11.0**	**10.9**	**10.7**	**10.4**	**10.7**	**10.4**	**10.0**	**10.1**	**10.2**	**10.0**	**9.9**	**9.6**			**10.4**

Total Hours in Month 744 **Hours Data Available** 738 **Data Recovery** 99.2%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (RMYoung) (m/s)

February 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	7.9	11.8	11.3	9.9	8.0	10.9	12.9	11.8	7.2	8.4	9.5	8.1	7.4	7.9	15.8	17.2	17.1	17.2	17.7	20.0	20.0	18.0	19.9	21.8	21.8	7.2	13.2
2	21.2	19.4	16.4	18.2	20.7	17.8	18.8	19.5	20.2	21.6	20.8	19.6	20.4	21.4	20.9	19.2	16.5	17.0	17.6	17.8	17.4	16.1	15.2	16.0	21.6	15.2	18.7
3	16.5	14.8	14.3	12.1	13.8	12.7	12.1	9.9	8.9	7.6	7.8	7.6	7.2	5.3	2.8	1.8	0.8	0.4	1.4	2.9	3.8	3.8	3.7	4.1	16.5	0.4	7.3
4	4.0	5.3	7.2	3.8	3.5	5.5	5.3	4.2	4.9	5.1	4.6	5.9	4.7	3.1	1.6	2.4	3.1	3.6	3.2	3.1	2.8	2.9	2.9	2.8	7.2	1.6	4.0
5	2.8	2.8	2.6	1.8	3.7	3.8	2.2	2.3	2.9	2.1	4.5	5.2	3.1	4.2	3.0	2.5	2.7	7.4	9.0	8.6	6.0	4.9	3.7	3.2	9.0	1.8	4.0
6	7.6	9.6	9.7	10.2	10.8	10.4	12.1	11.4	10.6	10.0	10.3	9.1	8.2	7.5	5.0	2.8	2.6	1.8	1.7	1.2	2.0	2.6	3.9	4.5	12.1	1.2	6.9
7	3.7	1.7	2.4	1.6	1.9	3.6	3.1	1.6	0.9	0.9	1.0	1.1	2.5	2.4	1.0	1.1	2.8	2.4	3.1	2.5	1.3	1.7	0.9	1.7	3.7	0.9	2.0
8	1.3	1.2	1.3	0.9	1.9	3.4	3.3	3.5	2.5	3.7	4.5	3.9	3.4	5.2	4.3	4.1	2.5	2.3	2.0	1.7	1.0	1.2	1.0	1.2	5.2	0.9	2.6
9	1.6	1.0	1.3	1.5	1.2	0.9	1.0	0.8	0.8	1.4	1.6	2.2	4.0	4.7	4.3	2.0	1.7	1.4	0.7	1.3	0.7	1.3	0.2	0.9	4.7	0.2	1.6
10	2.8	2.2	1.8	2.0	1.1	2.5	3.0	3.8	4.0	3.9	3.4	3.2	2.6	3.5	5.0	6.0	2.3	2.3	3.1	6.1	5.0	2.9	3.7	2.6	6.1	1.1	3.3
11	2.0	1.4	2.4	2.6	2.8	2.2	3.6	6.1	7.4	4.4	6.3	8.8	8.9	9.1	9.0	9.1	10.8	12.9	13.3	13.3	11.6	12.6	12.8	11.7	13.3	1.4	7.7
12	12.0	9.7	10.4	10.6	10.0	9.7	9.7	9.3	9.1	10.4	9.0	10.6	11.4	11.2	11.5	9.5	7.3	6.9	6.8	8.4	11.0	12.1	10.5	11.9	12.1	6.8	10.0
13	10.3	8.7	10.5	11.7	11.8	12.1	11.1	7.1	6.6	6.0	8.5	7.7	7.0	6.5	7.4	8.5	7.3	8.4	11.1	12.3	10.6	8.9	8.3	7.6	12.3	6.0	9.0
14	10.8	10.5	10.7	10.6	11.3	9.3	9.0	10.3	10.5	9.0	8.9	8.7	8.3	7.2	5.6	6.1	4.6	5.9	3.9	3.6	2.3	1.9	3.1	3.1	11.3	1.9	7.3
15	3.5	3.1	2.8	3.1	3.0	2.9	3.1	1.9	3.6	2.8	2.5	2.5	1.0	1.9	2.0	4.0	4.3	4.0	3.9	3.3	3.4	3.7	3.5	3.6	4.3	1.0	3.1
16	4.7	3.8	1.6	1.6	2.2	2.0	1.9	2.0	1.6	1.9	3.3	4.3	3.7	3.1	1.1	0.6	0.7	0.6	1.1	2.6	1.6	1.2	0.9	1.8	4.7	0.6	2.1
17	1.7	1.7	2.4	1.9	1.1	0.6	1.3	1.2	1.2	1.5	2.9	2.0	3.1	4.2	4.8	5.4	4.3	5.0	3.9	2.2	4.3	4.1	3.1	3.2	5.4	0.6	2.8
18	2.4	2.1	2.7	2.0	2.0	2.5	2.6	3.0	2.2	1.8	2.1	1.6	1.8	2.9	2.8	1.8	2.2	2.2	2.2	3.5	3.8	3.4	3.2	4.3	4.3	1.6	2.5
19	6.1	5.3	5.8	9.3	10.1	8.6	7.6	9.9	9.3	9.3	8.9	8.6	8.2	8.4	10.5	12.9	13.6	10.2	13.0	17.2	17.6	17.4	17.8	18.0	18.0	5.3	11.0
20	18.8	18.7	20.2	19.1	16.9	16.2	15.8	15.6	15.6	14.3	13.7	12.4	17.9	21.6	21.4	21.8	20.8	22.4	22.2	24.7	22.3	14.5	12.6	13.5	24.7	12.4	18.0
21	13.9	15.2	19.5	22.2	24.3	17.2	12.8	15.8	15.9	14.7	12.5	13.9	11.9	7.4	9.5	8.5	6.3	8.6	7.5	10.8	10.2	8.1	7.7	8.0	24.3	6.3	12.6
22	7.7	7.5	6.5	8.3	7.3	6.0	5.4	7.2	7.3	6.5	6.5	4.5	4.2	6.2	7.2	5.9	7.0	6.4	6.6	8.0	7.1	8.4	7.8	6.1	8.4	4.2	6.7
23	7.1	6.1	5.8	9.3	10.4	8.6	10.2	11.5	9.2	7.7	9.8	6.6	9.4	8.4	7.9	8.9	7.6	7.9	11.0	10.1	9.8	10.5	9.4	9.4	11.5	5.8	8.9
24	6.3	9.0	9.3	11.1	8.2	9.8	9.0	10.8	10.1	9.1	12.3	14.7	20.0	17.7	18.4	19.6	20.9	19.8	17.2	16.8	17.1	16.5	16.4	17.2	20.9	6.3	14.0
25	13.5	10.5	15.6	16.3	16.7	11.4	6.9	6.1	4.8	3.9	5.1	6.4	6.0	5.6	6.2	6.5	5.9	5.4	5.7	4.0	3.1	2.8	3.0	4.2	16.7	2.8	7.3
26	9.4	12.1	13.6	15.2	13.6	11.6	10.2	9.4	8.2	4.7	4.4	2.9	3.2	5.8	7.0	7.1	6.2	6.2	5.6	2.1	4.1	6.3	8.0	6.7	15.2	2.1	7.7
27	9.0	8.9	7.1	6.1	7.0	8.7	11.7	9.3	7.5	9.7	8.2	6.7	8.8	6.9	6.1	6.1	7.1	6.5	6.1	5.3	2.9	3.6	3.6	4.1	11.7	2.9	7.0
28	3.0	1.8	3.2	6.4	6.3	6.6	6.3	7.3	8.1	9.2	9.5	11.6	11.2	10.5	10.9	11.2	12.5	13.5	12.0	12.1	12.4	13.6	12.9	12.3	13.6	1.8	9.3
Max.	**21.2**	**19.4**	**20.2**	**22.2**	**24.3**	**17.8**	**18.8**	**19.5**	**20.2**	**21.6**	**20.8**	**19.6**	**20.4**	**21.6**	**21.4**	**21.8**	**20.9**	**22.4**	**22.2**	**24.7**	**22.3**	**18.0**	**19.9**	**21.8**	**24.7**		
Min.	**1.3**	**1.0**	**1.3**	**0.9**	**1.1**	**0.6**	**1.0**	**0.8**	**0.8**	**0.9**	**1.0**	**1.1**	**1.0**	**1.9**	**1.0**	**0.6**	**0.7**	**0.4**	**0.7**	**1.2**	**0.7**	**1.2**	**0.2**	**0.9**		**0.2**	
Avg.	**7.6**	**7.3**	**7.8**	**8.2**	**8.3**	**7.8**	**7.6**	**7.6**	**7.2**	**6.8**	**7.2**	**7.2**	**7.5**	**7.5**	**7.6**	**7.6**	**7.2**	**7.4**	**7.6**	**8.0**	**7.7**	**7.3**	**7.1**	**7.3**			**7.5**

Total Hours in Month 672 **Hours Data Available** 672 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (RMYoung) (m/s)

March 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	12.1	13.0	13.5	12.9	14.1	12.8	14.1	13.5	13.6	12.1	11.9	11.6	11.1	10.1	12.6	11.2	13.9	12.5	12.3	11.6	9.4	9.9	9.3	10.4	14.1	9.3	12.1
2	14.0	14.3	15.7	15.2	16.3	15.3	12.0	15.0	13.8	11.7	10.9	12.8	10.0	10.1	11.9	13.9	12.9	12.8	13.2	14.0	16.1	15.9	15.6	10.6	16.3	10.0	13.5
3	10.5	12.3	8.0	8.0	9.8	9.4	10.9	8.7	10.3	11.7	11.1	11.4	11.9	8.2	6.1	8.5	9.1	9.1	9.0	8.0	9.1	14.9	18.8	18.1	18.8	6.1	10.5
4	15.8	15.2	16.0	17.6	14.7	17.2	18.7	19.0	21.6	20.5	18.0	17.6	14.6	15.3	12.8	16.9	14.8	17.4	17.9	16.2	14.4	17.2	21.8	21.1	21.8	12.8	17.2
5	21.4	18.6	15.2	15.6	19.5	17.4	17.0	18.0	15.0	18.2	17.4	16.7	15.3	12.5	13.3	11.1	14.0	14.6	14.9	16.4	20.0	19.9	16.9	15.9	21.4	11.1	16.4
6	17.2	19.4	19.1	15.1	11.0	14.0	15.1	15.3	15.5	17.0	20.0	19.3	19.5	21.1	28.1	27.1	23.9	25.4	27.1	29.2	28.7	29.1	32.1	31.1	32.1	11.0	21.7
7	31.5	29.1	29.3	25.9	25.0	31.6	27.1	24.0	14.3	20.9	22.1	24.7	19.2	19.4	16.0	21.3	23.9	23.3	22.4	24.2	22.6	22.1	23.4	22.7	31.6	14.3	23.6
8	22.4	19.8	20.7	18.9	20.0	18.9	16.5	14.8	14.2	13.5	12.2	12.1	11.9	10.1	11.3	13.2	15.5	16.2	16.3	17.1	20.6	19.7	15.1	14.1	22.4	10.1	16.0
9	11.6	11.0	12.2	12.8	12.3	13.6	12.6	11.9	12.1	12.6	11.6	12.2	12.2	10.7	10.6	9.8	8.8	8.9	7.7	9.2	8.9	8.6	7.3	5.8	13.6	5.8	10.6
10	6.4	6.6	6.9	7.4	8.9	8.7	10.4	11.3	12.9	14.5	11.1	10.0	9.2	8.4	8.8	8.4	9.3	8.7	7.6	8.1	8.9	8.9	8.5	8.5	14.5	6.4	9.1
11	10.0	11.0	11.4	12.2	11.8	14.8	15.2	14.0	13.9	16.5	13.3	14.9	13.4	13.4	12.7	13.0	11.3	11.2	17.0	15.0	20.7	18.4	17.5	16.8	20.7	10.0	14.1
12	16.0	19.1	22.3	20.2	22.0	22.0	21.2	21.5	19.7	19.4	17.6	19.3	17.8	16.4	15.2	14.1	12.2	11.1	7.1	9.7	5.4	7.8	11.0	10.5	22.3	5.4	15.8
13	6.7	5.9	7.9	13.3	13.0	8.6	13.4	11.0	5.1	6.5	7.6	7.5	9.7	9.7	13.8	12.1	15.1	12.7	10.7	13.6	17.9	17.8	13.8	16.9	17.9	5.1	11.3
14	17.3	18.2	17.3	14.7	11.7	18.6	21.8	16.5	15.7	13.7	10.0	17.2	14.6	16.7	18.0	21.9	20.6	19.2	19.9	15.4	19.8	19.6	19.2	18.3	21.9	10.0	17.3
15	11.9	12.4	11.6	10.8	9.0	10.4	11.0	9.7	9.2	8.8	8.6	7.9	7.9	7.5	8.1	9.2	10.2	11.5	11.6	11.8	11.9	9.6	10.7	9.5	12.4	7.5	10.0
16	8.8	7.5	7.1	7.0	6.9	5.4	6.9	7.6	8.4	9.1	9.2	9.6	7.8	7.2	7.2	9.2	9.2	7.3	5.5	6.0	7.5	8.3	7.4	6.2	9.6	5.4	7.6
17	5.7	5.5	5.4	5.1	3.5	3.3	4.0	4.0	2.9	4.1	4.1	4.3	4.5	4.1	4.0	3.6	3.9	4.4	5.0	5.4	5.4	5.2	3.4	3.0	5.7	2.9	4.3
18	2.4	0.5	0.9	0.8	1.1	1.6	1.5	1.2	1.7	1.3	1.1	1.2	1.9	2.3	2.5	3.4	4.5	2.5	4.2	6.3	5.0	6.4	6.4	4.1	6.4	0.5	2.7
19	4.3	3.7	5.1	4.1	4.4	4.8	4.9	4.2	3.9	3.7	3.9	2.3	1.2	2.1	2.9	3.4	2.3	2.2	3.4	2.6	4.5	3.7	2.9	1.3	5.1	1.2	3.4
20	0.5	0.4	1.4	2.9	2.7	4.9	4.5	7.9	10.5	12.0	14.6	14.8	16.6	16.7	17.1	17.0	14.3	11.9	11.6	11.1	10.5	9.7	8.9	8.6	17.1	0.4	9.6
21	6.8	4.5	4.8	3.2	3.7	6.6	8.4	9.0	11.0	14.0	14.2	14.0	10.4	7.9	8.8	7.9	11.7	11.7	10.2	4.8	9.3	10.2	9.9	13.6	14.2	3.2	9.0
22	9.8	11.6	7.9	5.3	7.3	7.7	3.7	6.0	13.0	13.2	11.5	10.5	8.9	6.7	6.0	7.4	8.1	9.3	7.7	7.7	8.0	8.9	10.8	10.9	13.2	3.7	8.7
23	11.3	5.1	8.8	14.9	14.3	11.0	11.0	13.2	12.4	12.0	12.8	8.4	10.6	15.2	13.8	9.0	8.8	11.7	13.9	12.6	13.4	11.5	11.4	11.8	15.2	5.1	11.6
24	11.7	12.1	7.9	6.5	5.4	5.1	6.9	7.4	7.6	8.3	7.4	6.5	5.1	5.9	4.8	5.6	5.5	3.9	2.3	2.7	2.6	1.6	2.2	2.4	12.1	1.6	5.7
25	0.8	0.6	0.7	1.0	1.1	0.8	1.5	1.8	1.4	2.2	1.0	1.4	0.9	1.1	0.9	1.9	1.0	2.3	3.8	6.1	7.4	8.8	11.6	12.5	12.5	0.6	3.0
26	13.6	14.5	13.0	11.9	14.4	13.5	9.5	11.1	9.4	10.0	12.1	10.8	7.8	6.5	6.6	5.9	6.4	5.2	3.7	5.4	4.4	3.5	5.4	7.8	14.5	3.5	8.8
27	9.7	6.2	7.8	9.3	8.7	10.5	12.8	14.4	13.4	13.5	15.2	17.2	16.6	14.9	18.3	17.0	11.9	14.3	11.7	11.3	9.3	6.8	10.1	12.5	18.3	6.2	12.2
28	11.4	11.8	9.9	7.9	10.1	3.5	2.6	8.9	11.9	11.1	8.5	7.8	5.6	8.2	8.5	8.6	8.1	7.4	7.7	6.5	7.3	8.3	5.5	3.3	11.9	2.6	7.9
29	3.5	5.6	4.2	5.0	6.0	5.0	5.6	8.9	6.4	5.8	5.4	5.1	8.9	9.4	10.0	10.6	8.3	7.3	7.6	8.8	9.8	6.6	5.0	7.1	10.6	3.5	6.9
30	7.4	11.5	12.9	11.2	8.8	8.8	7.4	6.4	5.2	4.5	3.5	3.7	5.0	3.5	2.8	3.9	3.2	2.9	2.9	2.4	2.3	1.5	0.8	1.3	12.9	0.8	5.2
31	0.9	2.2	2.4	1.2	0.8	0.6	0.5	0.7	0.6	0.4	0.6	0.8	0.8	1.0	1.1	1.4	3.4	3.5	3.3	3.6	5.9	5.5	5.1	5.3	5.9	0.4	2.1
Max.	**31.5**	**29.1**	**29.3**	**25.9**	**25.0**	**31.6**	**27.1**	**24.0**	**21.6**	**20.9**	**22.1**	**24.7**	**19.5**	**21.1**	**28.1**	**27.1**	**23.9**	**25.4**	**27.1**	**29.2**	**28.7**	**29.1**	**32.1**	**31.1**	**32.1**		
Min.	**0.5**	**0.4**	**0.7**	**0.8**	**0.8**	**0.6**	**0.5**	**0.7**	**0.6**	**0.4**	**0.6**	**0.8**	**0.8**	**1.0**	**0.9**	**1.4**	**1.0**	**2.2**	**2.3**	**2.4**	**2.3**	**1.5**	**0.8**	**1.3**		**0.4**	
Avg.	**10.8**	**10.6**	**10.6**	**10.3**	**10.3**	**10.5**	**10.6**	**10.9**	**10.5**	**11.0**	**10.6**	**10.8**	**10.0**	**9.8**	**10.2**	**10.6**	**10.5**	**10.4**	**10.3**	**10.4**	**11.2**	**11.2**	**11.2**	**11.0**			**10.6**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (RMYoung) (m/s)

April *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	4.3	4.7	4.9	4.4	4.2	4.8	5.0	5.2	4.5	5.2	2.2	1.3	2.8	3.3	1.4	1.2	1.0	1.2	1.8	1.7	1.8	1.3	1.0	3.6	5.2	1.0	3.0
2	2.7	2.1	1.7	1.8	3.1	5.4	6.5	8.0	8.8	10.1	11.5	12.1	12.1	14.2	14.1	13.0	12.3	11.7	11.3	12.0	14.6	12.9	13.3	10.9	14.6	1.7	9.4
3	10.3	10.0	9.8	10.7	8.8	9.4	8.5	8.8	8.2	9.1	9.8	9.7	10.0	9.7	11.3	10.8	11.0	10.5	9.4	10.0	8.5	9.9	7.9	7.7	11.3	7.7	9.6
4	9.1	9.1	8.6	10.3	8.4	8.0	8.1	7.5	9.8	11.3	12.4	12.3	12.0	13.1	11.9	11.9	11.0	10.9	8.3	6.4	5.0	5.1	6.1	4.7	13.1	4.7	9.2
5	3.4	2.7	3.2	5.1	3.7	9.8	11.9	13.3	11.7	14.2	16.4	16.2	16.9	14.4	14.2	12.2	15.1	20.0	16.9	15.3	11.9	13.9	14.5	12.3	20.0	2.7	12.0
6	13.3	12.4	14.5	13.4	13.4	9.2	11.5	11.8	8.2	8.7	10.5	12.0	14.5	15.2	13.0	10.0	10.0	10.0	9.2	7.5	7.8	7.5	6.8	4.3	15.2	4.3	10.6
7	2.1	2.2	1.8	5.1	12.2	16.1	16.4	17.6	16.9	16.8	15.9	15.5	15.3	13.5	11.8	13.6	10.7	9.9	9.8	7.6	5.5	6.9	9.4	12.5	17.6	1.8	11.0
8	14.4	14.3	15.3	15.1	14.6	12.9	13.4	12.7	12.0	11.3	11.0	10.6	10.8	11.0	11.0	7.6	5.4	3.2	3.3	4.3	4.4	6.0	5.2	5.5	15.3	3.2	9.8
9	8.6	7.7	6.5	7.1	6.5	4.4	4.6	3.2	5.6	7.7	9.5	10.9	11.0	11.8	11.1	12.1	10.6	9.3	9.8	11.9	10.2	11.5	9.0	7.5	12.1	3.2	8.7
10	5.8	5.9	7.2	6.9	6.2	4.5	5.3	5.3	5.0	6.0	7.5	10.0	10.1	8.1	8.8	8.1	8.0	8.7	8.4	7.0	5.5	7.8	6.4	5.3	10.1	4.5	7.0
11	4.4	5.3	5.1	5.7	4.5	3.3	4.0	5.0	3.9	1.1	4.2	6.2	7.2	7.3	7.3	8.1	9.1	8.8	9.0	5.7	4.8	5.2	6.4	6.2	9.1	1.1	5.7
12	6.9	5.4	5.1	3.2	4.8	5.1	5.4	4.4	3.4	2.3	3.0	2.3	3.2	2.5	1.9	3.0	4.3	4.0	2.9	3.6	2.9	1.4	2.9	4.4	6.9	1.4	3.7
13	6.2	6.2	5.3	5.8	6.3	5.8	5.5	4.4	5.5	4.4	5.3	6.2	4.9	4.0	2.7	2.5	2.0	2.9	4.0	4.4	6.7	6.1	5.3	5.3	6.7	2.0	4.9
14	2.9	2.3	1.6	1.0	2.2	1.9	2.5	3.3	3.1	2.5	2.3	3.2	3.9	6.5	8.3	7.7	7.5	7.4	6.0	6.1	6.3	7.1	7.0	8.7	8.7	1.0	4.6
15	8.9	8.3	9.0	9.3	8.3	9.0	8.7	7.6	10.5	9.7	9.5	9.6	9.4	7.9	6.0	4.5	2.7	2.9	3.0	1.1	1.2	1.6	2.2	1.7	10.5	1.1	6.4
16	1.8	2.2	1.7	5.8	5.9	4.6	3.0	2.9	3.1	3.5	3.2	4.8	5.0	10.6	11.7	10.2	9.5	7.8	8.1	7.5	5.6	2.1	1.1	1.7	11.7	1.1	5.1
17	3.3	4.1	6.4	7.7	11.3	15.3	18.4	19.6	18.9	21.2	22.2	24.2	23.4	24.5	25.5	24.7	24.5	25.7	27.2	25.9	26.6	24.8	22.9	23.6	27.2	3.3	19.7
18	22.5	19.5	16.9	19.6	20.2	18.5	16.0	16.2	17.3	17.8	17.1	15.8	16.1	15.5	14.0	11.2	5.7	3.7	2.1	2.2	2.5	3.3	3.7	3.5	22.5	2.1	12.5
19	5.1	4.9	2.8	2.4	6.5	10.7	9.6	7.5	8.8	12.7	12.0	13.5	13.0	18.3	17.6	14.3	13.3	12.6	11.9	12.0	11.3	12.4	12.5	12.3	18.3	2.4	10.8
20	10.6	12.5	10.1	9.5	11.5	7.2	9.6	11.9	13.6	14.8	15.3	11.9	14.3	15.5	15.7	16.4	16.1	13.7	12.9	13.9	12.5	9.8	7.3	7.6	16.4	7.2	12.3
21	7.5	7.9	7.9	7.5	8.0	7.8	5.9	4.1	4.4	5.4	8.9	9.5	11.4	14.8	14.5	15.2	14.4	12.8	13.1	12.3	10.5	8.7	10.8	11.5	15.2	4.1	9.8
22	9.4	13.5	15.3	14.4	12.9	13.8	13.5	15.4	15.6	15.1	13.4	14.9	14.1	14.6	12.8	13.2	14.5	12.0	10.8	9.0	9.7	9.2	8.3	7.7	15.6	7.7	12.6
23	7.5	14.0	13.4	13.9	12.7	11.3	9.9	10.1	7.9	8.2	5.7	5.2	8.4	7.0	6.7	9.0	3.7	6.0	6.1	4.2	2.0	3.4	6.0	8.0	14.0	2.0	7.9
24	6.9	7.2	6.3	5.4	4.2	4.0	5.2	7.8	9.5	7.7	7.4	9.0	6.4	3.3	4.4	4.9	4.5	2.8	6.7	6.1	4.5	5.0	7.1	8.1	9.5	2.8	6.0
25	8.8	10.0	10.2	11.2	10.7	9.9	10.4	11.3	12.4	13.8	16.0	16.2	15.1	14.3	14.2	12.5	12.2	11.1	8.8	7.1	2.4	2.0	3.5	3.9	16.2	2.0	10.3
26	4.8	8.0	7.9	9.9	9.6	6.2	6.2	7.3	8.8	7.0	6.7	6.0	4.6	4.8	6.2	6.9	9.0	10.9	9.2	7.4	5.8	8.8	6.0	4.8	10.9	4.6	7.2
27	4.2	4.0	5.1	3.3	1.1	1.9	2.5	5.6	4.1	3.0	3.8	4.8	6.4	6.5	6.5	6.4	7.9	8.2	7.3	5.9	5.3	5.2	4.2	4.3	8.2	1.1	4.9
28	3.8	4.7	2.9	3.2	3.5	2.7	1.6	0.9	0.6	0.8	1.1	2.4	4.0	5.2	6.9	8.9	9.8	9.8	10.4	9.2	6.9	5.7	7.6	8.8	10.4	0.6	5.1
29	10.3	11.6	10.0	8.6	9.4	8.0	8.9	8.1	10.7	11.3	13.1	11.7	12.7	13.1	11.8	12.5	11.7	9.7	7.8	6.9	3.4	1.9	2.3	0.7	13.1	0.7	9.0
30	1.4	2.0	1.0	1.3	2.4	2.4	4.3	4.7	6.1	5.3	4.1	4.1	4.3	3.4	4.2	4.7	3.7	3.2	4.3	3.3	1.7	1.4	1.5	1.8	6.1	1.0	3.2
Max.	**22.5**	**19.5**	**16.9**	**19.6**	**20.2**	**18.5**	**18.4**	**19.6**	**18.9**	**21.2**	**22.2**	**24.2**	**23.4**	**24.5**	**25.5**	**24.7**	**24.5**	**25.7**	**27.2**	**25.9**	**26.6**	**24.8**	**22.9**	**23.6**	**27.2**		
Min.	**1.4**	**2.0**	**1.0**	**1.0**	**1.1**	**1.9**	**1.6**	**0.9**	**0.6**	**0.8**	**1.1**	**1.3**	**2.8**	**2.5**	**1.4**	**1.2**	**1.0**	**1.2**	**1.8**	**1.1**	**1.2**	**1.3**	**1.0**	**0.7**		**0.6**	
Avg.	**7.0**	**7.5**	**7.3**	**7.6**	**7.9**	**7.8**	**8.1**	**8.4**	**8.6**	**8.9**	**9.4**	**9.7**	**10.1**	**10.5**	**10.2**	**9.9**	**9.4**	**9.0**	**8.7**	**7.9**	**6.9**	**6.9**	**6.9**	**7.0**			**8.4**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (RMYoung) (m/s)

May *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	3.4	2.2	2.0	2.3	2.3	1.2	1.0	2.2	1.8	2.6	2.0	1.3	1.2	1.4	1.9	3.5	2.3	2.6	3.4	1.2	1.5	1.5	2.0	1.3	3.5	1.0	2.0
2	0.6	1.0	0.5	1.6	3.7	4.7	5.7	5.3	2.6	1.7	2.0	2.7	7.8	4.9	7.0	9.4	12.2	12.0	14.0	10.5	8.3	7.7	7.3	6.7	14.0	0.5	5.8
3	7.2	5.6	4.0	1.7	1.5	1.6	0.9	0.9	0.7	2.0	2.5	2.8	2.9	2.3	2.8	2.5	5.7	4.7	4.4	4.9	4.1	2.1	1.5	2.4	7.2	0.7	3.0
4	2.5	3.8	3.7	1.4	0.8	1.5	1.3	1.6	1.5	1.1	2.8	4.9	6.2	5.8	5.9	5.5	5.5	5.8	4.2	3.3	1.6	3.5	3.8	2.5	6.2	0.8	3.3
5	1.7	2.3	4.5	3.7	1.4	2.4	4.4	2.2	3.2	4.4	4.5	4.7	5.1	5.7	6.4	6.9	7.4	7.5	5.5	5.2	5.2	5.6	5.4	4.7	7.5	1.4	4.6
6	3.4	2.4	7.0	5.0	3.0	3.6	4.2	4.1	5.8	6.1	6.2	6.8	6.9	7.7	8.5	8.4	9.2	10.3	9.6	8.6	7.9	8.3	8.1	7.9	10.3	2.4	6.6
7	9.5	8.8	8.7	8.5	6.6	3.8	4.2	4.1	4.8	4.2	4.0	4.3	5.4	5.1	3.5	4.5	6.8	5.8	5.0	4.9	5.0	5.6	6.6	5.3	9.5	3.5	5.6
8	5.7	5.5	5.6	5.4	5.8	5.2	5.6	5.1	5.5	5.9	5.0	3.9	1.9	3.0	4.1	3.8	4.3	4.8	4.4	4.1	2.7	3.7	3.1	1.8	5.9	1.8	4.4
9	1.4	1.0	1.3	1.5	2.4	3.6	3.7	3.7	2.1	3.1	3.6	4.0	3.2	4.1	6.0	5.8	5.4	5.1	4.2	3.3	2.8	1.4	0.7	0.9	6.0	0.7	3.1
10	0.9	0.9	0.5	0.7	1.3	1.0	0.7	1.2	0.8	1.8	2.2	3.5	3.5	3.6	3.9	5.1	4.8	4.6	3.9	4.3	3.4	3.7	3.6	2.6	5.1	0.5	2.6
11	2.0	3.3	3.2	2.9	6.7	7.0	6.1	7.0	8.7	10.1	10.0	9.4	8.8	8.2	8.4	8.3	8.0	7.8	7.2	8.2	6.7	4.2	3.8	4.0	10.1	2.0	6.7
12	2.8	1.9	2.0	1.7	2.2	4.5	5.9	6.8	8.3	9.3	9.1	9.0	9.7	10.5	11.3	10.8	11.1	10.0	10.2	11.1	9.7	6.7	6.4	6.8	11.3	1.7	7.4
13	6.8	7.3	6.8	6.4	7.4	8.0	7.7	6.7	7.3	8.8	8.5	8.1	8.2	9.0	9.1	9.5	9.5	8.9	6.7	5.5	6.0	5.3	6.1	6.2	9.5	5.3	7.5
14	4.8	3.7	6.1	6.3	11.3	11.7	11.2	9.7	8.4	6.7	5.2	6.7	5.1	5.2	8.7	8.5	10.2	9.5	8.4	8.4	7.3	5.8	6.1	7.8	11.7	3.7	7.6
15	8.0	5.9	6.1	7.5	6.6	5.3	2.3	4.7	4.3	7.2	8.6	9.5	8.5	6.3	5.0	3.6	3.7	3.2	1.6	1.7	1.9	3.2	5.9	7.2	9.5	1.6	5.3
16	7.4	5.5	5.5	7.0	6.9	7.1	6.7	6.0	5.4	4.0	2.4	3.5	3.5	3.5	2.9	4.0	6.1	4.6	5.4	8.4	7.2	7.7	6.3	6.5	8.4	2.4	5.6
17	8.2	6.7	6.8	6.3	5.3	3.8	2.6	3.1	2.9	4.2	8.2	9.1	8.1	8.6	10.6	11.0	10.3	10.0	9.1	6.6	6.3	3.6	2.5	1.6	11.0	1.6	6.5
18	1.6	3.2	3.9	4.2	5.4	2.4	2.4	2.9	4.2	5.4	5.1	4.9	4.5	4.6	3.7	3.6	3.1	3.5	3.4	2.2	2.7	2.2	2.3	1.6	5.4	1.6	3.5
19	1.4	2.1	3.0	2.5	2.9	2.4	1.9	2.9	2.9	3.2	4.8	6.5	4.3	4.9	6.5	7.7	7.5	8.0	8.5	6.2	3.9	3.7	2.9	1.4	8.5	1.4	4.2
20	1.8	2.5	2.6	3.5	2.4	4.1	3.3	3.9	4.5	4.8	4.7	2.8	3.6	4.7	4.9	5.6	5.7	5.1	5.8	6.4	6.0	4.7	2.1	2.8	6.4	1.8	4.1
21	2.0	2.9	2.6	2.3	1.9	1.4	0.8	0.7	1.0	1.3	2.1	2.7	3.6	4.8	6.3	7.2	8.5	9.3	12.2	12.5	12.3	10.7	8.8	10.7	12.5	0.7	5.4
22	10.2	9.2	8.6	7.5	7.9	6.6	10.6	12.1	13.8	9.6	6.1	13.2	13.8	10.1	9.6	9.0	10.4	9.6	7.5	4.7	1.4	1.8	1.6	3.4	13.8	1.4	8.3
23	4.3	3.8	3.2	3.2	3.2	3.6	5.9	9.4	9.0	11.1	13.5	12.5	13.0	11.1	10.5	10.7	14.3	16.7	15.3	11.4	11.6	10.3	11.7	8.7	16.7	3.2	9.5
24	12.4	10.4	11.2	10.6	10.3	10.0	9.3	9.7	11.8	12.8	13.4	14.1	12.2	10.7	9.5	6.9	4.9	4.2	7.1	4.1	3.0	2.6	1.7	2.1	14.1	1.7	8.5
25	2.0	1.5	6.9	4.1	1.7	1.1	0.8	1.0	1.5	2.3	2.9	4.3	4.2	4.2	4.6	3.7	2.7	2.5	1.6	1.1	1.2	1.6	2.4	2.9	6.9	0.8	2.6
26	3.5	6.1	5.7	3.6	3.0	2.7	3.1	4.7	5.8	4.3	3.9	7.1	8.1	7.4	7.3	8.8	12.0	10.0	8.4	6.9	5.3	3.9	2.4	2.6	12.0	2.4	5.7
27	3.7	3.5	3.7	3.1	3.8	4.5	6.6	6.6	6.9	7.7	8.3	7.5	7.6	9.6	9.7	9.2	8.7	10.0	9.5	9.3	8.1	6.9	5.7	5.7	10.0	3.1	6.9
28	4.6	6.1	6.1	5.7	5.7	5.5	4.1	3.0	4.1	5.9	8.1	8.2	8.8	10.2	10.0	11.2	10.7	9.2	7.8	8.0	9.4	6.1	4.3	1.7	11.2	1.7	6.8
29	0.9	1.1	1.2	1.7	3.9	7.7	8.3	7.7	6.2	4.4	3.6	4.1	3.4	3.1	4.8	5.9	4.3	3.9	4.7	4.9	5.1	3.0	2.0	0.3	8.3	0.3	4.0
30	0.5	0.4	0.5	1.4	3.4	3.5	3.0	2.8	1.5	2.3	2.5	6.5	6.3	7.3	8.0	7.9	8.1	7.7	7.4	6.5	6.0	4.3	2.3	2.9	8.1	0.4	4.3
31	2.4	2.5	3.9	4.8	5.9	6.9	9.2	11.7	9.2	5.9	7.4	5.7	7.6	6.8	4.2	3.8	3.7	4.0	6.0	6.5	6.8	5.2	5.6	6.4	11.7	2.4	5.9
Max.	**12.4**	**10.4**	**11.2**	**10.6**	**11.3**	**11.7**	**11.2**	**12.1**	**13.8**	**12.8**	**13.5**	**14.1**	**13.8**	**11.1**	**11.3**	**11.2**	**14.3**	**16.7**	**15.3**	**12.5**	**12.3**	**10.7**	**11.7**	**10.7**	**16.7**		
Min.	**0.5**	**0.4**	**0.5**	**0.7**	**0.8**	**1.0**	**0.7**	**0.7**	**0.7**	**1.1**	**2.0**	**1.3**	**1.2**	**1.4**	**1.9**	**2.5**	**2.3**	**2.5**	**1.6**	**1.1**	**1.2**	**1.4**	**0.7**	**0.3**		**0.3**	
Avg.	**4.1**	**4.0**	**4.4**	**4.1**	**4.4**	**4.5**	**4.6**	**4.9**	**5.1**	**5.3**	**5.6**	**6.3**	**6.3**	**6.3**	**6.6**	**6.9**	**7.3**	**7.1**	**6.9**	**6.2**	**5.5**	**4.7**	**4.4**	**4.2**			**5.4**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (RMYoung) (m/s)

June *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	4.4	4.2	5.4	5.6	7.5	5.3	4.6	6.3	7.6	7.5	7.4	8.9	10.3	9.7	12.7	11.4	12.0	10.3	7.8	8.3	7.6	5.9	6.1	6.4	12.7	4.2	7.6
2	6.0	5.4	4.5	4.0	3.2	3.9	5.1	4.1	3.0	4.0	3.8	5.4	5.9	5.5	4.3	4.4	3.8	4.3	4.1	4.8	5.1	3.9	3.4	1.3	6.0	1.3	4.3
3	0.6	1.9	2.3	2.1	1.6	2.4	0.8	0.8	2.2	2.7	3.1	2.5	3.1	2.2	3.1	4.6	4.4	2.9	3.6	2.0	1.7	1.2	1.8	3.8	4.6	0.6	2.4
4	6.3	7.3	7.5	9.5	9.8	9.8	10.1	10.4	8.0	8.1	8.6	8.6	9.8	6.6	3.1	2.6	2.2	6.9	8.1	8.2	9.0	7.9	6.9	6.8	10.4	2.2	7.6
5	7.4	6.8	4.9	4.4	3.6	4.0	5.2	6.4	6.5	7.0	8.7	13.5	16.4	18.7	17.0	16.5	15.6	14.1	10.8	12.6	12.4	10.0	9.8	12.0	18.7	3.6	10.2
6	12.2	10.8	12.4	12.2	9.2	4.6	5.6	4.0	3.2	5.4	6.1	6.0	6.1	6.9	6.8	7.2	5.4	4.3	5.0	6.3	3.9	2.7	2.1	1.3	12.4	1.3	6.2
7	2.0	2.6	1.8	2.7	3.0	8.2	3.6	1.3	4.4	7.5	8.3	8.1	10.7	14.1	16.6	17.3	16.2	16.7	15.3	13.2	14.1	12.7	9.0	7.1	17.3	1.3	9.0
8	6.7	6.8	7.6	5.1	7.6	8.2	7.1	7.1	6.0	4.8	4.5	6.5	6.6	8.0	5.8	4.7	7.3	10.0	11.4	11.1	9.5	7.8	6.5	6.6	11.4	4.5	7.2
9	3.9	2.7	2.6	1.6	0.9	1.2	1.4	1.7	3.3	2.7	4.0	4.2	3.7	3.3	1.4	1.3	1.7	0.9	2.6	4.4	4.5	3.1	4.8	5.2	5.2	0.9	2.8
10	6.0	6.5	7.7	8.9	9.0	8.6	9.3	11.4	10.5	8.0	7.4	6.2	5.8	5.0	4.7	4.2	4.3	3.5	4.0	5.1	8.6	6.9	7.6	4.7	11.4	3.5	6.8
11	3.7	3.5	5.2	4.1	2.8	2.4	1.2	0.5	2.4	3.6	2.5	2.8	5.2	7.4	8.2	9.4	9.5	9.1	8.4	8.5	8.1	7.9	5.4	4.2	9.5	0.5	5.3
12	5.6	5.1	4.3	3.5	2.1	1.6	0.9	1.9	3.0	4.4	4.3	4.3	4.8	4.8	4.8	4.2	4.2	4.1	3.8	2.8	2.9	3.5	2.9	1.8	5.6	0.9	3.6
13	1.2	0.4	1.5	1.6	1.4	2.5	3.0	2.3	1.9	2.8	3.1	4.0	5.6	4.9	3.7	3.7	5.5	4.6	5.4	4.4	4.0	1.8	1.5	1.5	5.6	0.4	3.0
14	1.9	2.9	3.6	2.3	2.9	2.9	3.1	2.3	2.6	3.9	3.8	3.8	2.8	3.4	1.8	2.1	3.1	3.6	4.5	4.7	4.9	5.6	5.6	5.5	5.6	1.8	3.5
15	7.6	8.6	7.7	8.7	9.7	10.5	10.4	9.4	8.8	9.0	8.8	7.9	7.1	6.8	8.4	8.4	8.8	9.3	9.1	8.9	8.7	9.4	10.5	8.0	10.5	6.8	8.8
16	7.8	7.8	7.5	7.9	7.6	7.0	6.7	7.5	6.4	5.7	5.8	6.9	8.2	7.2	7.5	7.2	7.2	8.1	9.8	8.8	8.8	8.9	9.1	9.2	9.8	5.7	7.7
17	8.3	7.3	6.6	5.7	5.8	4.3	4.2	4.1	3.5	2.8	2.1	3.0	3.1	3.7	2.9	3.0	3.1	3.5	2.0	3.5	3.2	2.2	2.7	3.4	8.3	2.0	3.9
18	3.1	2.4	1.5	1.9	3.5	4.8	4.6	3.1	1.4	1.3	1.9	1.8	1.2	1.7	3.4	3.6	2.9	1.9	2.5	3.9	4.1	1.0	0.6	2.2	4.8	0.6	2.5
19	2.4	2.7	5.4	7.0	7.7	7.9	7.8	6.0	5.7	6.7	6.7	8.2	8.9	9.5	9.9	10.1	9.3	9.5	10.6	10.8	11.6	12.3	13.2	14.2	14.2	2.4	8.5
20	10.3	10.5	10.1	9.6	9.6	9.9	9.5	10.5	9.1	10.7	10.7	11.4	10.8	10.0	10.5	10.7	11.7	10.8	11.4	10.7	10.9	14.7	14.2	12.8	14.7	9.1	10.9
21	9.7	10.9	6.6	8.8	8.2	5.3	5.3	6.0	7.2	7.4	6.9	7.4	7.4	7.9	8.2	7.4	7.5	7.6	10.7	12.1	8.8	7.4	8.2	8.6	12.1	5.3	8.0
22	7.2	8.0	6.4	6.2	3.7	1.7	2.1	3.1	5.8	5.2	4.7	4.7	4.4	3.7	4.3	4.2	3.2	3.7	3.4	3.5	3.7	4.3	6.1	6.6	8.0	1.7	4.6
23	7.9	7.4	8.4	8.4	9.3	10.4	11.7	12.5	13.6	13.2	13.0	13.2	12.7	12.6	13.2	12.2	12.9	12.8	12.1	11.4	10.8	9.9	10.3	10.3	13.6	7.4	11.2
24	10.3	9.6	8.1	7.8	7.9	8.9	8.5	8.6	7.3	8.7	9.7	9.7	9.8	9.8	9.0	10.5	10.6	11.6	11.4	10.6	9.9	8.7	9.7	10.0	11.6	7.3	9.4
25	8.5	7.2	7.4	7.5	6.8	6.7	5.3	5.7	8.7	10.0	9.8	9.6	9.8	9.9	11.7	11.9	12.1	11.8	10.5	10.7	8.6	7.9	7.6	7.2	12.1	5.3	8.9
26	5.3	5.1	6.5	6.7	5.2	5.1	4.4	5.3	6.4	5.9	5.4	4.5	4.1	3.7	3.9	3.2	2.1	3.1	4.4	6.0	6.8	5.6	2.8	1.7	6.8	1.7	4.7
27	2.1	3.3	4.3	3.9	3.5	3.9	2.0	2.4	2.3	1.9	3.3	3.8	4.2	5.2	4.9	5.3	5.9	5.9	7.1	6.1	7.3	7.6	6.0	6.0	7.6	1.9	4.5
28	5.2	4.2	3.4	3.5	3.1	4.0	3.2	1.5	0.9	1.6	2.4	3.1	2.8	4.3	5.3	4.0	3.1	2.2	5.9	6.4	5.9	5.8	5.9	6.1	6.4	0.9	3.9
29	4.7	2.5	1.6	1.8	1.3	0.8	1.8	3.3	3.6	3.8	3.9	4.2	4.5	3.9	4.8	6.2	8.5	7.0	6.3	6.1	6.7	4.7	3.9	4.4	8.5	0.8	4.2
30	2.3	2.5	1.9	2.2	1.9	3.1	4.3	4.7	4.0	4.7	4.4	3.5	3.9	3.1	2.9	3.9	4.0	4.6	4.5	6.1	4.3	3.9	1.9	2.0	6.1	1.9	3.5
Max.	**12.2**	**10.9**	**12.4**	**12.2**	**9.8**	**10.5**	**11.7**	**12.5**	**13.6**	**13.2**	**13.0**	**13.5**	**16.4**	**18.7**	**17.0**	**17.3**	**16.2**	**16.7**	**15.3**	**13.2**	**14.1**	**14.7**	**14.2**	**14.2**	**18.7**		
Min.	**0.6**	**0.4**	**1.5**	**1.6**	**0.9**	**0.8**	**0.8**	**0.5**	**0.9**	**1.3**	**1.9**	**1.8**	**1.2**	**1.7**	**1.4**	**1.3**	**1.7**	**0.9**	**2.0**	**2.0**	**1.7**	**1.0**	**0.6**	**1.3**		**0.4**	
Avg.	**5.7**	**5.6**	**5.5**	**5.5**	**5.3**	**5.3**	**5.1**	**5.1**	**5.3**	**5.7**	**5.8**	**6.2**	**6.6**	**6.8**	**6.8**	**6.8**	**6.9**	**7.0**	**7.2**	**7.4**	**7.2**	**6.5**	**6.2**	**6.0**			**6.2**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (RMYoung) (m/s)

July *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	1.2	1.1	0.5	1.0	2.8	2.4	3.1	5.2	5.0	3.9	3.6	3.4	3.0	3.9	3.9	4.2	4.1	4.6	4.5	4.4	2.9	3.5	3.9	3.1	5.2	0.5	3.3
2	2.4	2.3	2.2	0.8	0.6	1.0	0.5	0.8	1.4	3.9	4.0	4.0	4.6	4.3	3.8	4.7	4.4	5.6	6.3	5.7	5.7	5.7	3.7	4.4	6.3	0.5	3.5
3	4.2	3.1	4.7	4.3	2.7	1.6	1.8	2.4	3.5	2.6	2.6	3.2	3.3	3.0	3.1	4.4	6.3	6.5	5.0	4.4	2.3	0.7	2.2	5.9	6.5	0.7	3.5
4	5.9	5.9	5.5	6.6	4.7	4.6	4.1	3.4	3.3	5.5	6.5	7.2	7.7	5.9	7.3	8.1	7.3	5.3	3.8	3.8	3.3	4.6	6.0	5.2	8.1	3.3	5.5
5	3.2	2.8	2.3	3.1	1.0	0.5	0.7	0.8	1.3	2.3	3.8	4.0	3.6	3.7	4.6	4.7	4.4	2.7	8.9	8.5	7.2	6.9	6.4	5.3	8.9	0.5	3.9
6	5.8	5.5	4.4	4.4	4.9	4.4	3.5	3.6	2.7	2.8	2.5	1.0	2.1	1.6	2.6	3.0	3.0	2.3	2.1	2.0	1.0	0.8	3.0	2.3	5.8	0.8	3.0
7	2.4	2.4	2.1	1.9	2.0	0.3	0.8	0.9	0.9	1.5	1.0	2.4	1.5	1.5	2.5	3.9	4.1	3.9	5.3	4.8	4.3	4.0	3.4	2.1	5.3	0.3	2.5
8	1.2	0.7	1.0	0.6	0.4	0.8	1.9	2.2	3.2	3.9	3.7	3.7	3.5	5.1	5.5	6.3	7.3	8.7	8.2	6.9	6.9	6.0	4.7	4.8	8.7	0.4	4.1
9	7.8	6.2	5.5	4.7	2.7	1.3	2.3	2.6	3.5	2.9	3.1	4.8	5.7	4.2	3.6	3.8	2.6	3.8	4.3	2.1	2.8	2.1	2.1	2.4	7.8	1.3	3.6
10	3.8	4.8	3.9	2.9	3.0	2.3	2.4	0.9	1.1	2.2	3.2	2.4	5.6	4.7	3.7	5.8	8.1	7.3	6.5	6.9	6.1	6.3	7.1	6.3	8.1	0.9	4.5
11	4.7	4.4	3.9	4.1	5.3	5.4	6.3	5.6	5.0	5.1	5.9	6.6	7.2	7.0	7.0	6.3	6.1	6.5	7.4	6.8	6.1	5.6	4.6	3.9	7.4	3.9	5.7
12	2.3	1.8	0.9	1.4	2.6	2.8	2.7	2.5	2.7	1.8	1.8	3.3	2.7	3.4	5.3	5.9	5.5	4.4	4.3	3.4	3.5	4.2	4.6	5.1	5.9	0.9	3.3
13	4.3	3.8	4.4	4.1	3.9	3.4	3.2	3.0	2.7	4.3	4.4	5.1	4.8	4.7	4.7	4.7	3.6	3.8	3.4	2.7	2.0	2.2	2.5	2.3	5.1	2.0	3.7
14	2.5	1.7	1.5	1.4	1.7	1.4	1.6	3.2	2.6	2.2	3.4	5.3	5.4	5.4	5.5	6.3	6.7	6.1	5.3	4.4	3.8	4.2	3.5	2.3	6.7	1.4	3.6
15	2.2	1.6	1.7	1.3	1.9	0.8	0.8	0.9	2.7	3.0	3.7	4.2	4.9	5.7	6.8	6.7	7.5	6.8	6.0	5.7	5.3	4.0	5.3	5.4	7.5	0.8	4.0
16	5.1	3.7	4.3	3.9	2.5	1.1	2.0	3.6	2.4	3.0	4.2	4.4	4.6	5.6	5.8	6.6	6.4	5.6	6.3	7.1	9.3	9.3	5.7	6.2	9.3	1.1	5.0
17	5.8	3.7	5.0	4.8	3.9	4.3	4.2	5.2	4.1	3.5	2.3	1.5	2.6	4.4	4.0	5.3	7.1	8.1	8.2	7.6	7.2	5.3	2.5	5.5	8.2	1.5	4.8
18	7.1	8.8	9.0	7.3	7.8	4.4	3.6	2.5	2.1	1.6	1.7	2.2	2.4	3.8	4.4	3.4	4.7	2.4	1.3	1.2	1.2	1.2	1.7	1.2	9.0	1.2	3.6
19	1.5	2.3	3.4	2.8	2.4	1.9	0.9	1.7	1.7	2.9	3.3	2.7	1.7	2.2	2.7	2.5	2.4	4.2	2.5	2.2	2.6	2.3	1.9	1.2	4.2	0.9	2.3
20	0.7	0.8	0.8	0.9	0.7	1.0	1.1	1.2	1.7	3.7	5.4	5.3	4.7	5.4	6.3	6.9	5.4	5.7	5.2	6.1	8.2	7.0	7.1	8.2	8.2	0.7	4.2
21	8.3	8.7	7.1	7.1	7.7	7.8	7.5	7.7	8.5	8.5	7.9	7.5	7.1	6.1	6.0	6.9	7.2	7.1	6.6	6.0	6.4	5.8	4.4	5.2	8.7	4.4	7.0
22	4.9	5.3	5.6	6.2	6.7	6.9	6.8	6.6	6.8	6.5	6.2	6.1	5.6	5.2	5.1	4.5	4.9	4.5	4.8	4.8	5.3	5.5	5.1	4.9	6.9	4.5	5.6
23	5.1	3.5	1.2	1.2	1.5	0.7	0.8	2.1	2.1	2.8	3.8	4.8	5.1	6.4	6.1	6.5	9.0	10.0	7.6	7.5	6.8	7.6	6.6	7.4	10.0	0.7	4.8
24	5.8	8.1	8.6	8.9	8.8	7.8	7.7	7.6	8.0	8.6	6.6	5.7	5.1	7.2	7.2	6.9	6.4	5.5	5.1	5.4	4.1	7.2	7.2	5.8	8.9	4.1	6.9
25	6.6	9.7	10.4	10.8	11.4	10.5	10.8	9.5	11.1	9.8	7.4	6.0	6.1	7.7	9.0	8.3	8.4	8.8	9.2	4.7	2.7	1.2	1.9	1.1	11.4	1.1	7.6
26	1.3	1.7	1.7	1.1	1.2	3.0	2.2	4.3	4.4	3.4	3.2	3.5	2.7	3.0	4.3	5.0	3.0	5.3	6.2	5.7	3.3	3.8	2.9	2.8	6.2	1.1	3.3
27	0.8	1.3	1.2	2.0	1.0	2.5	3.1	2.8	1.9	4.4	3.7	3.8	4.1	5.1	6.3	5.8	6.2	7.6	5.7	5.9	4.5	6.4	2.5	1.9	7.6	0.8	3.8
28	2.0	2.7	3.7	4.5	4.4	5.2	5.5	5.7	5.6	6.4	6.8	6.9	7.8	8.7	9.0	9.3	9.0	8.3	8.6	10.3	9.5	7.3	6.2	6.9	10.3	2.0	6.7
29	7.2	5.4	4.4	3.7	2.8	2.7	5.6	5.8	5.0	4.7	4.6	5.5	6.0	6.2	6.4	5.7	6.0	5.9	6.0	6.0	5.5	4.7	5.7	2.4	7.2	2.4	5.2
30	3.0	3.1	1.5	2.2	2.0	2.1	2.0	2.3	3.0	3.0	4.4	4.5	4.5	5.0	4.8	5.6	6.2	5.8	5.2	4.2	4.0	2.9	3.7	4.0	6.2	1.5	3.7
31	3.3	2.8	2.5	3.2	2.6	2.1	1.5	2.1	3.5	5.1	5.7	5.6	5.8	6.9	7.5	9.6	9.8	11.3	11.0	11.0	10.2	10.9	11.3	10.5	11.3	1.5	6.5
Max.	**8.3**	**9.7**	**10.4**	**10.8**	**11.4**	**10.5**	**10.8**	**9.5**	**11.1**	**9.8**	**7.9**	**7.5**	**7.8**	**8.7**	**9.0**	**9.6**	**9.8**	**11.3**	**11.0**	**11.0**	**10.2**	**10.9**	**11.3**	**10.5**	**11.4**		
Min.	**0.7**	**0.7**	**0.5**	**0.6**	**0.4**	**0.3**	**0.5**	**0.8**	**0.9**	**1.5**	**1.0**	**1.0**	**1.5**	**1.5**	**2.5**	**2.5**	**2.4**	**2.3**	**1.3**	**1.2**	**1.0**	**0.7**	**1.7**	**1.1**		**0.3**	
Avg.	**3.9**	**3.9**	**3.7**	**3.7**	**3.5**	**3.1**	**3.3**	**3.5**	**3.7**	**4.1**	**4.2**	**4.4**	**4.6**	**4.9**	**5.3**	**5.7**	**5.9**	**5.9**	**5.8**	**5.4**	**5.0**	**4.8**	**4.5**	**4.4**			**4.5**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (RMYoung) (m/s)

August 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	12.3	12.2	11.5	12.1	11.6	11.7	11.6	12.5	13.0	13.1	12.8	12.7	12.6	12.1	12.4	13.4	11.6	12.5	12.8	12.8	14.1	13.5	14.3	14.9	14.9	11.5	12.7
2	13.4	13.2	14.4	14.1	14.2	14.9	15.5	14.2	14.3	14.9	14.2	14.8	14.4	13.9	14.6	14.4	12.9	12.6	12.4	11.7	12.3	11.4	10.4	10.7	15.5	10.4	13.5
3	10.6	11.0	10.2	9.4	8.0	7.1	7.0	7.8	8.3	9.0	8.8	8.8	9.8	11.3	13.1	12.9	12.0	12.4	12.7	11.6	10.7	8.3	10.3	11.3	13.1	7.0	10.1
4	10.6	12.5	11.2	12.7	12.8	12.9	13.6	13.4	14.0	13.3	12.6	12.5	12.3	11.7	11.7	10.9	9.8	8.6	8.5	8.8	9.0	9.2	9.2	11.8	14.0	8.5	11.4
5	13.8	11.5	10.2	8.5	10.2	9.1	9.2	7.9	11.2	10.9	11.1	12.9	12.1	10.9	10.1	10.0	10.1	9.2	8.9	9.9	12.8	12.8	12.8	11.2	13.8	7.9	10.7
6	9.7	10.9	10.9	10.7	7.7	7.6	11.0	12.9	12.0	11.3	9.9	11.8	12.5	12.8	13.4	12.8	12.7	12.5	10.6	10.2	9.9	9.9	10.9	11.2	13.4	7.6	11.1
7	12.0	9.7	11.9	10.2	5.2	6.2	9.6	10.2	13.5	10.6	11.7	10.1	10.3	10.9	12.2	11.2	10.4	11.8	10.3	10.0	8.9	9.4	6.2	4.6	13.5	4.6	9.9
8	6.3	6.4	6.8	7.4	7.2	7.0	8.2	6.5	6.4	8.3	8.9	8.4	7.3	6.8	5.8	5.8	6.6	7.5	7.1	6.0	6.2	6.9	6.6	6.9	8.9	5.8	7.0
9	6.7	6.6	8.0	7.6	7.0	6.7	7.5	5.7	3.4	3.8	4.1	2.7	3.5	3.9	4.7	5.1	5.0	4.2	4.3	3.5	2.5	1.7	1.7	3.6	8.0	1.7	4.7
10	3.5	1.7	1.4	0.7	0.3	0.5	1.3	1.3	1.0	2.3	3.3	3.4	3.3	3.4	3.9	4.4	4.6	4.0	4.7	4.4	3.8	3.0	2.9	3.0	4.7	0.3	2.7
11	2.1	1.2	3.3	3.6	1.9	1.6	1.8	1.4	1.2	2.0	2.8	2.0	2.7	3.1	3.9	3.6	4.5	4.9	3.4	3.1	2.5	1.9	1.6	2.0	4.9	1.2	2.6
12	1.6	1.4	2.1	1.9	1.7	2.4	2.5	2.9	3.7	4.2	2.9	4.7	6.6	3.8	2.6	4.0	5.9	6.0	5.7	6.6	5.0	4.9	1.7	3.1	6.6	1.4	3.7
13	2.4	1.8	2.0	2.1	1.2	2.1	1.8	1.8	2.0	1.5	2.5	3.0	3.3	4.4	4.1	4.0	5.2	4.2	4.4	5.2	7.4	8.2	7.5	9.2	9.2	1.2	3.8
14	10.2	9.4	9.6	8.6	3.7	3.2	1.8	4.6	5.4	6.0	5.5	5.2	5.3	5.2	4.4	3.6	5.7	5.2	3.1	3.4	3.1	3.7	3.7	5.1	10.2	1.8	5.2
15	7.4	8.4	9.4	9.6	9.5	9.2	9.7	10.0	12.1	11.8	10.4	9.6	10.2	5.9	7.6	7.4	6.6	5.8	4.9	4.2	4.1	4.6	4.6	5.2	12.1	4.1	7.8
16	4.6	4.2	2.9	3.1	3.7	4.0	2.9	2.2	2.2	3.0	1.6	0.8	1.8	1.9	1.8	2.3	3.5	4.7	4.8	5.4	4.4	3.6	2.3	1.3	5.4	0.8	3.0
17	1.3	2.5	3.0	5.5	7.5	4.8	2.1	0.6	2.4	5.8	9.0	7.9	8.3	9.2	9.4	10.8	10.9	10.7	10.7	9.2	8.1	8.1	9.3	9.0	10.9	0.6	6.9
18	10.0	9.4	9.1	12.5	14.9	15.1	12.5	13.2	13.9	12.6	10.9	13.5	12.1	14.3	14.5	16.4	17.8	17.3	16.7	16.1	16.1	13.9	12.9	13.5	17.8	9.1	13.7
19	11.0	12.1	11.6	10.4	9.2	11.0	12.0	12.7	13.1	12.8	11.9	11.8	11.0	10.6	12.5	12.4	12.6	11.4	9.1	9.5	9.5	10.7	9.5	9.1	13.1	9.1	11.1
20	7.1	6.6	5.5	5.8	6.9	6.5	5.7	5.9	6.3	7.5	7.2	6.8	7.0	8.5	9.6	10.1	11.1	11.0	9.8	8.2	6.5	7.5	9.0	8.7	11.1	5.5	7.7
21	8.7	8.9	8.2	6.7	7.5	7.4	8.1	7.8	7.3	8.0	8.4	8.0	7.8	8.2	7.6	8.5	9.0	8.6	8.4	8.4	8.0	6.6	6.3	7.3	9.0	6.3	7.9
22	8.3	8.1	8.5	7.8	8.2	7.8	8.5	8.3	7.6	7.8	8.9	8.8	8.9	8.4	8.1	8.3	8.5	7.8	8.4	7.9	6.3	6.5	6.3	5.8	8.9	5.8	7.9
23	4.9	4.6	3.4	2.4	2.0	2.1	2.2	2.1	2.6	2.4	3.6	5.1	5.6	6.1	7.0	6.7	6.7	6.8	7.5	6.6	6.2	8.4	8.7	8.8	8.8	2.0	5.1
24	8.5	9.5	9.0	10.5	6.7	7.1	7.5	6.8	7.5	6.7	7.0	6.7	6.3	4.2	2.1	3.5	2.2	4.1	3.3	2.3	2.0	1.9	3.3	2.7	10.5	1.9	5.5
25	1.9	1.8	1.6	4.8	3.8	2.4	1.5	1.3	1.2	0.9	2.6	2.2	2.5	3.8	4.4	5.9	7.2	7.9	8.5	6.1	3.5	4.7	5.4	3.6	8.5	0.9	3.7
26	2.0	2.7	4.7	5.2	4.7	4.2	3.5	4.0	3.9	3.3	3.8	4.5	5.3	5.1	6.5	6.2	5.9	5.3	3.8	3.1	1.2	3.4	4.4	8.3	8.3	1.2	4.4
27	7.4	6.6	7.2	7.8	4.3	3.7	3.2	1.9	3.4	3.1	5.8	6.4	5.5	4.2	3.1	4.7	3.8	3.2	2.5	1.2	1.0	2.1	2.1	1.4	7.8	1.0	4.0
28	1.1	3.9	3.3	3.2	2.0	2.5	2.6	2.9	2.5	3.0	2.6	1.6	2.9	3.8	4.0	1.9	2.6	5.0	6.3	5.5	7.6	7.4	5.8	7.5	7.6	1.1	3.8
29	9.1	7.6	8.8	7.8	6.7	8.3	9.2	10.5	10.8	11.6	11.5	9.7	8.6	8.9	8.2	8.9	9.2	8.4	7.8	7.6	9.8	9.8	9.3	8.6	11.6	6.7	9.0
30	9.9	8.9	8.4	8.6	8.1	8.0	8.0	7.6	4.8	5.4	5.1	4.6	3.6	3.5	4.3	3.8	3.4	2.2	2.1	1.6	4.3	5.2	5.5	4.5	9.9	1.6	5.5
31	4.9	5.2	5.1	3.9	4.0	3.3	4.0	4.0	3.2	4.4	4.6	3.6	2.1	2.0	3.0	3.5	1.5	2.2	1.3	0.8	2.6	4.0	3.6	2.0	5.2	0.8	3.3
Max.	**13.8**	**13.2**	**14.4**	**14.1**	**14.9**	**15.1**	**15.5**	**14.2**	**14.3**	**14.9**	**14.2**	**14.8**	**14.4**	**14.3**	**14.6**	**16.4**	**17.8**	**17.3**	**16.7**	**16.1**	**16.1**	**13.9**	**14.3**	**14.9**	**17.8**		
Min.	**1.1**	**1.2**	**1.4**	**0.7**	**0.3**	**0.5**	**1.3**	**0.6**	**1.0**	**0.9**	**1.6**	**0.8**	**1.8**	**1.9**	**1.8**	**1.9**	**1.5**	**2.2**	**1.3**	**0.8**	**1.0**	**1.7**	**1.6**	**1.3**		**0.3**	
Avg.	**7.2**	**7.1**	**7.2**	**7.3**	**6.5**	**6.5**	**6.6**	**6.6**	**6.9**	**7.1**	**7.3**	**7.2**	**7.3**	**7.2**	**7.4**	**7.7**	**7.7**	**7.7**	**7.3**	**6.8**	**6.7**	**6.9**	**6.7**	**7.0**			**7.1**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (RMYoung) (m/s)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	0.9	2.0	2.0	2.0	2.6	3.9	4.0	3.5	3.7	4.9	4.3	3.0	3.2	3.9	3.1	3.8	4.7	4.9	5.5	5.1	3.7	4.3	3.7	3.1	5.5	0.9	3.6
2	3.3	2.9	3.9	4.4	3.8	3.8	4.2	3.5	2.5	4.6	5.1	5.1	4.2	4.9	5.0	6.3	6.6	6.9	7.9	7.5	5.6	5.9	6.5	5.4	7.9	2.5	5.0
3	7.8	8.3	9.6	10.5	11.0	11.1	10.0	11.9	12.0	12.4	14.1	13.6	13.9	13.4	13.5	13.4	13.7	13.8	12.9	11.2	12.1	12.5	11.9	14.5	14.5	7.8	12.0
4	11.0	10.9	11.6	7.7	6.0	4.3	3.5	1.1	2.6	5.8	7.9	6.2	4.7	4.8	2.8	2.5	5.9	5.8	7.7	8.0	7.9	8.0	9.6	5.0	11.6	1.1	6.3
5	2.3	2.2	2.6	4.7	4.3	4.0	2.6	2.3	5.1	6.6	7.3	6.6	6.6	6.7	5.5	5.8	1.8	1.3	2.3	2.7	3.0	2.4	2.4	2.6	7.3	1.3	3.9
6	3.0	4.1	2.8	3.2	2.7	3.0	2.3	2.0	1.8	4.8	0.0	0.5					0.0	0.0	2.7	3.7	2.9	3.3	3.0	2.0	4.8	0.0	2.4
7	3.7	5.9	6.5	7.4	6.5	7.2	7.9	9.6	11.2	12.4	12.9	12.9	13.8	15.7	16.7	18.3	18.3	17.6	18.1	18.4	17.3	17.5	19.5	20.6	20.6	3.7	13.2
8	19.3	14.1	10.0	10.9	9.2	12.5	11.5	10.2	9.7	11.0	10.6	11.1	10.0	9.4	8.9	8.3	7.1	7.8	9.5	8.0	5.5	5.2	5.9	6.4	19.3	5.2	9.7
9	6.6	6.0	5.5	5.8	5.9	5.5	6.1	5.9	5.2	5.2	5.3	5.5	4.2	3.7	4.9	3.9	4.4	4.6	3.7	3.9	3.4	2.5	2.3	2.0	6.6	2.0	4.7
10	1.4	1.0	1.1	1.6	1.3	1.6	1.1	1.3	1.2	1.5	1.0	3.5	5.8	6.7	9.3	10.6	9.8	10.8	9.9	8.6	11.1	13.2	15.5	14.5	15.5	1.0	6.0
11	11.8	13.6	15.3	15.2	16.1	16.3	16.7	18.1	18.7	16.7	17.4	17.5	19.2	20.7	19.2	19.4	20.5	23.9	22.2	20.5	21.1	20.8	19.5	19.5	23.9	11.8	18.3
12	17.1	16.6	15.1	13.0	8.7	7.3	4.5	3.1	5.1	4.3	2.9	3.0	5.2	7.2	6.5	7.2	6.7	7.5	9.6	8.8	7.3	6.5	8.5	7.7	17.1	2.9	7.9
13	3.5	4.0	4.2	4.1	4.5	5.0	4.9	6.5	6.7	6.6	5.5	4.4	3.0	4.2	4.1	2.6	2.8	5.7	3.8	5.0	4.7	4.3	4.3	3.0	6.7	2.6	4.5
14	2.6	3.3	3.5	2.8	2.9	2.6	2.1	1.7	2.6	3.0	1.8	1.2	0.9	2.2	2.7	2.2	3.9	4.4	5.4	6.0	6.5	7.0	8.3	8.3	8.3	0.9	3.7
15	8.0	8.0	9.4	8.3	8.3	8.3	7.3	8.8	6.0	8.2	11.2	11.9	11.7	10.3	11.5	11.9	11.6	9.1	8.5	7.5	6.0	5.6	7.9	8.2	11.9	5.6	8.9
16	6.3	7.5	5.9	5.5	5.1	2.6	2.5	2.0	1.7	2.6	4.4	4.5	5.1	5.1	5.4	6.1	6.6	6.2	6.0	7.6	7.0	6.8	8.2	6.9	8.2	1.7	5.3
17	7.4	4.4	5.5	4.9	1.9	3.0	3.9	2.2	2.3	3.8	4.8	4.7	4.2	2.2	3.0	3.7	2.9	2.2	3.1	3.5	4.2	3.3	4.6	6.8	7.4	1.9	3.9
18	6.6	8.0	8.5	8.1	10.6	12.4	13.4	15.6	15.5	18.4	18.9	19.2	21.4	21.4	19.7	16.9	17.0	16.4	14.6	14.3	14.3	12.9	8.0	6.0	21.4	6.0	14.1
19	6.2	6.0	6.5	8.8	5.3	4.6	6.0	7.3	5.2	6.0	7.1	8.0	10.6	11.6	13.1	12.7	13.7	13.9	15.3	13.2	13.0	12.7	12.0	13.0	15.3	4.6	9.7
20	13.3	11.8	12.6	12.2	10.3	10.3	10.1	10.9	10.8	8.7	8.2	8.4	9.3	8.0	7.5	5.6	6.5	6.8	6.5	3.5	2.9	5.9	4.2	4.9	13.3	2.9	8.3
21	3.8	2.3	3.1	2.9	3.6	6.2	4.9	3.8	6.1	8.1	9.8	10.9	9.9	7.8	7.1	8.0	6.6	7.3	7.8	7.0	6.8	5.2	3.0	4.3	10.9	2.3	6.1
22	4.3	5.4	6.3	4.4	4.6	5.3	5.1	3.7	2.4	3.1	3.0	6.0	6.1	8.4	9.5	8.6	10.9	10.0	9.5	12.8	14.0	11.5	12.3	10.3	14.0	2.4	7.4
23	9.1	6.8	5.9	8.3	6.1	6.4	4.5	3.1	3.8	3.7	4.1	3.6	5.1	6.1	8.0	7.6	7.7	7.1	7.7	9.1	8.2	6.1	5.4	3.9	9.1	3.1	6.1
24	5.9	3.6	2.5	7.4	7.8	8.4	6.9	4.8	5.1	5.7	5.6	7.6	6.7	6.1	8.8	7.9	6.3	5.4	6.1	2.7	3.6	5.0	5.5	7.0	8.8	2.5	5.9
25	6.7	6.5	7.7	5.4	2.7	6.2	8.2	8.0	8.0	8.9	7.7	7.5	7.9	7.2	7.5	7.6	6.6	7.6	8.5	7.0	8.0	8.1	8.2	7.5	8.9	2.7	7.3
26	6.8	8.0	7.1	7.0	6.2	4.4	3.9	3.9	3.3	2.3	1.2	4.5	3.4	3.9	2.4	1.4	1.2	2.3	2.7	3.6	3.0	3.4	2.0	2.1	8.0	1.2	3.7
27	2.1	1.9	3.4	4.1	3.1	2.8	3.1	2.8	3.0	3.3	2.7	2.0	4.4	4.1	3.9	4.6	6.0	6.6	9.7	9.5	13.2	14.2	15.5	14.4	15.5	1.9	5.8
28	16.2	16.3	16.7	15.8	13.6	13.9	13.9	11.9	9.8	6.7	4.9	6.1	6.8	6.5	5.8	4.0	2.0	3.3	3.9	3.7	3.6	2.5	2.0	1.5	16.7	1.5	8.0
29	3.6	3.6	4.5	4.2	4.2	4.4	4.9	4.2	2.6	2.0	1.8	1.4	2.4	4.0	5.0	5.3	4.2	3.4	3.4	4.3	5.6	6.0	8.3	8.7	8.7	1.4	4.3
30	7.5	6.5	5.6	3.5	5.9	5.2	7.1	6.0	7.4	8.7	8.1	9.8	9.7	8.2	5.5	5.2	4.4	6.1	7.0	3.3	1.2	3.3	4.5	4.8	9.8	1.2	6.0
Max.	**19.3**	**16.6**	**16.7**	**15.8**	**16.1**	**16.3**	**16.7**	**18.1**	**18.7**	**18.4**	**18.9**	**19.2**	**21.4**	**21.4**	**19.7**	**19.4**	**20.5**	**23.9**	**22.2**	**20.5**	**21.1**	**20.8**	**19.5**	**20.6**	**23.9**		
Min.	**0.9**	**1.0**	**1.1**	**1.6**	**1.3**	**1.6**	**1.1**	**1.1**	**1.2**	**1.5**	**0.0**	**0.5**	**0.9**	**2.2**	**2.4**	**1.4**	**0.0**	**0.0**	**2.3**	**2.7**	**1.2**	**2.4**	**2.0**	**1.5**		**0.0**	
Avg.	**6.9**	**6.7**	**6.8**	**6.8**	**6.2**	**6.4**	**6.2**	**6.0**	**6.0**	**6.7**	**6.6**	**7.0**	**7.6**	**7.7**	**7.8**	**7.6**	**7.3**	**7.6**	**8.0**	**7.7**	**7.6**	**7.5**	**7.7**	**7.5**			**7.1**

Total Hours in Month 720 **Hours Data Available** 716 **Data Recovery** 99.4%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (RMYoung) (m/s)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	6.2	6.1	5.9	4.5	2.6	1.9	1.4	1.4	1.1	1.3	2.1	2.3	2.0	4.1	6.6	8.1	8.4	9.3	10.4	11.7	11.2	9.1	8.9	10.5	11.7	1.1	5.7
2	10.1	9.3	9.3	10.5	13.0	13.6	14.7	14.4	14.1	15.4	13.8	10.9	10.6	11.6	12.1	12.0	12.4	11.8	9.3	11.1	14.2	13.4	13.7	13.9	15.4	9.3	12.3
3	12.2	11.4	10.7	8.4	11.4	12.5	12.6	12.2	12.3	12.9	12.2	12.7	13.7	12.7	12.2	11.9	9.0	3.2	7.6	4.1	2.3	2.5	2.2	1.6	13.7	1.6	9.4
4	3.1	1.7	1.8	2.3	2.6	5.2	7.5	6.9	8.7	10.4	13.7	13.1	14.0	14.1	15.0	15.4	13.9	12.5	12.7	14.3	15.9	14.0	14.4	12.5	15.9	1.7	10.2
5	12.2	12.6	13.8	14.5	15.0	13.4	13.5	13.1	12.9	12.8	12.1	9.6	4.0	4.6	10.9	10.6	12.4	12.1	15.2	13.3	10.5	9.5	8.7	10.6	15.2	4.0	11.6
6	10.8	13.1	12.9	11.2	13.1	13.8	12.5	12.5	12.9	12.6	12.4	14.6	15.6	16.4	15.0	14.9	11.8	11.1	10.2	8.7	6.7	7.9	7.3	7.7	16.4	6.7	11.9
7	9.1	8.8	9.1	10.4	10.9	13.0	12.1	12.2	14.2	13.1	13.4	14.3	13.4	14.4	14.5	17.0	14.8	15.0	16.1	18.2	18.4	18.6	16.9	15.5	18.6	8.8	13.9
8	20.2	17.5	14.0	16.6	12.4	14.5	16.9	15.4	15.7	16.4	8.2	4.7	8.8	9.5	9.0	9.2	10.1	7.5	6.4	7.5	7.8	5.4	8.6	7.9	20.2	4.7	11.3
9	6.5	8.0	5.7	5.1	4.8	4.2	3.9	3.7	4.2	4.5	3.9	3.3	2.1	1.9	1.4	1.6	3.6	5.1	4.2	5.1	4.7	4.9	5.9	5.2	8.0	1.4	4.3
10	6.6	7.0	8.6	8.3	5.6	7.6	9.3	10.1	9.3	8.4	9.5	8.3	8.3	8.7	8.4	6.5	5.4	6.0	5.4	5.7	3.6	3.6	3.4	3.5	10.1	3.4	7.0
11	3.9	5.8	3.9	4.2	4.0	3.7	5.8	4.7	3.8	4.1	3.5	5.3	7.1	6.8	6.8	7.8	9.4	10.6	11.2	11.3	11.2	10.6	10.2	9.4	11.3	3.5	6.9
12	9.7	8.8	7.5	7.2	7.1	5.9	4.7	2.7	2.2	3.1	2.4	1.5	1.2	0.9	1.9	2.8	3.5	2.7	2.5	3.5	5.4	6.3	5.1	5.5	9.7	0.9	4.3
13	5.6	5.0	5.3	4.1	4.7	5.1	6.3	7.3	7.0	7.0	7.3	7.4	7.2	6.9	5.6	5.3	6.3	6.8	7.4	6.7	7.0	7.0	7.7	5.6	7.7	4.1	6.3
14	6.3	8.2	6.0	6.1	5.4	5.0	6.2	7.9	6.9	4.4	4.9	6.8	6.3	6.3	5.3	4.6	5.4	6.1	5.3	5.5	4.3	5.9	5.9	5.2	8.2	4.3	5.8
15	4.5	4.8	4.2	3.6	4.0	3.3	2.6	3.1	3.1	3.1	3.3	3.0	2.6	4.4	3.7	3.9	3.6	3.4	3.7	4.4	5.5	5.1	4.5	4.8	5.5	2.6	3.8
16	5.3	6.3	6.8	6.3	6.4	6.1	3.5	6.5	6.8	4.3	4.2	6.1	8.5	8.8	8.2	8.9	8.3	7.8	6.7	7.4	7.1	11.0	9.9	8.2	11.0	3.5	7.1
17	7.2	7.8	7.3	6.5	7.5	6.8	7.2	7.4	7.5	7.4	7.7	6.8	6.4	7.0	6.7	6.2	5.1	5.3	4.3	3.8	4.2	4.3	4.9	5.6	7.8	3.8	6.3
18	4.8	4.4	4.5	4.6	4.9	4.2	5.3	4.7	3.7	3.7	3.3	2.6	1.9	1.8	3.3	1.6	2.4	3.4	2.8	3.7	3.4	3.6	3.2	2.5	5.3	1.6	3.5
19	1.9	2.1	3.0	3.6	4.4	5.8	3.2	2.7	2.4	3.5	1.9	1.4	1.2	1.1	1.1	0.7	0.6	0.8	2.1	3.0	2.9	2.8	2.7	2.3	5.8	0.6	2.4
20	2.5	2.7	2.8	2.6	2.9	3.7	3.8	3.6	3.8	3.3	3.4	4.4	7.5	9.0	10.2	11.3	10.9	10.7	11.5	12.0	13.7	12.1	12.5	12.5	13.7	2.5	7.2
21	12.0	14.8	13.2	13.9	13.3	11.1	11.0	11.9	11.4	6.9	6.6	6.4	8.1	9.3	9.7	9.4	9.3	6.9	5.6	4.5	2.9	3.2	3.6	4.5	14.8	2.9	8.7
22	4.5	3.7	3.7	4.0	5.6	6.9	5.3	5.1	3.7	3.3	2.7	3.0	2.5	2.0	1.3	2.8	3.1	3.5	2.0	1.2	1.6	1.8	0.9	1.1	6.9	0.9	3.1
23	1.9	1.6	2.0	1.3	1.3	1.6	1.5	1.7	1.0	1.8	1.9	1.1	2.0	2.2	2.6	2.1	1.4	3.6	8.0	7.2	3.7	1.9	1.7	1.2	8.0	1.0	2.3
24	1.0	2.1	1.1	2.0	1.9	0.6	0.6	0.5	1.9	3.9	4.3	4.7	4.8	2.9	4.2	3.3	5.0	5.7	6.4	6.6	6.6	6.9	6.6	9.1	9.1	0.5	3.9
25	10.1	10.4	14.1	15.9	17.2	17.1	20.9	20.0	22.1	25.5	23.7	22.6	20.8	19.2	19.4	21.4	22.0	20.4	18.8	18.0	10.5	8.7	6.4	3.6	25.5	3.6	17.0
26	5.2	6.3	6.0	4.9	4.4	5.4	5.9	6.4	5.2	5.3	5.2	4.1	5.5	5.5	5.5	4.9	5.2	5.5	6.8	8.6	8.0	8.2	8.5	8.4	8.6	4.1	6.0
27	8.5	8.5	8.6	8.6	8.1	8.5	6.9	7.3	6.0	5.3	7.3	5.8	4.2	5.5	8.7	8.1	7.1	6.1	5.8	5.7	3.8	2.3	1.2	1.3	8.7	1.2	6.2
28	2.6	5.1	4.2	2.9	0.8	0.8	1.1	1.7	1.5	2.9	2.6	2.1	2.3	3.0	3.6	4.3	4.7	5.4	5.7	5.8	8.1	8.7	9.1	10.4	10.4	0.8	4.1
29	12.3	13.0	14.3	15.2	14.5	14.2	16.0	17.6	16.7	17.2	17.2	18.4	18.0	17.2	16.3	15.2	15.0	14.4	14.4	14.4	15.4	12.8	13.4	12.7	18.4	12.3	15.2
30	8.0	7.5	9.9	11.4	14.9	15.5	14.1	9.2	7.7	6.4	5.4	6.3	3.3	2.4	3.6	4.5	6.1	7.1	5.5	5.7	5.8	3.1	3.2	2.8	15.5	2.4	7.1
31	3.2	3.8	5.0	7.1	8.4	8.4	5.8	7.2	9.5	11.1	11.7	10.2	9.0	7.6	6.6	6.4	6.6	4.6	6.0	9.3	10.5	10.6	10.1	12.0	12.0	3.2	7.9
Max.	**20.2**	**17.5**	**14.3**	**16.6**	**17.2**	**17.1**	**20.9**	**20.0**	**22.1**	**25.5**	**23.7**	**22.6**	**20.8**	**19.2**	**19.4**	**21.4**	**22.0**	**20.4**	**18.8**	**18.2**	**18.4**	**18.6**	**16.9**	**15.5**	**25.5**		
Min.	**1.0**	**1.6**	**1.1**	**1.3**	**0.8**	**0.6**	**0.6**	**0.5**	**1.0**	**1.3**	**1.9**	**1.1**	**1.2**	**0.9**	**1.1**	**0.7**	**0.6**	**0.8**	**2.0**	**1.2**	**1.6**	**1.8**	**0.9**	**1.1**		**0.5**	
Avg.	**7.0**	**7.4**	**7.3**	**7.4**	**7.5**	**7.7**	**7.8**	**7.8**	**7.7**	**7.8**	**7.5**	**7.2**	**7.2**	**7.3**	**7.7**	**7.8**	**7.8**	**7.6**	**7.7**	**8.0**	**7.6**	**7.3**	**7.1**	**7.0**			**7.5**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (RMYoung) (m/s)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	10.3	7.8	8.6	8.5	7.5	6.2	5.8	4.6	4.1	5.2	5.7	5.1	4.0	3.1	1.9	1.0	3.4	4.2	5.6	6.3	8.7	6.8	7.1	8.5	10.3	1.0	5.8
2	7.3	4.9	1.6	2.1	1.5	1.5	1.8	3.6	5.9	5.3	6.0	7.0	6.2	5.0	5.9	5.8	5.7	5.1	5.6	7.5	6.1	7.0	9.1	8.3	9.1	1.5	5.2
3	9.6	8.4	7.2	7.6	7.9	7.5	6.6	5.1	1.8	1.7	1.1	1.5	0.7	0.4	2.0	3.2	3.2	1.9	3.2	5.3	7.7	9.9	10.7	11.8	11.8	0.4	5.3
4	13.4	13.2	13.6	15.3	15.5	15.2	16.2	16.4	15.8	14.7	14.3	14.8	14.4	15.3	15.9	16.5	15.3	13.3	12.9	8.8	8.0	8.3	9.0	9.6	16.5	8.0	13.6
5	10.0	9.8	9.5	9.4	8.8	7.7	7.1	6.5	6.9	7.5	7.5	7.6	5.6	5.9	5.8	4.7	5.4	7.7	9.0	9.4	9.8	10.2	10.5	9.8	10.5	4.7	8.0
6	9.8	10.1	10.9	12.1	11.1	11.3	12.6	15.0	15.4	15.6	16.0	16.2	17.5	18.0	17.1	16.8	14.7	15.5	13.9	13.8	13.7	16.1	12.9	10.3	18.0	9.8	14.0
7	7.7	8.8	9.7	11.6	11.2	13.6	14.4	13.0	13.4	13.0	12.2	12.3	12.1	12.3	11.3	10.6	9.1	7.5	8.9	6.8	7.5	7.2	6.5	5.9	14.4	5.9	10.3
8	4.4	3.3	5.4	8.3	11.3	13.0	15.2	15.4	17.5	16.5	19.3	20.7	19.5	15.4	14.0	13.1	13.7	13.4	11.5	12.3	11.2	10.3	9.8	8.2	20.7	3.3	12.6
9	8.7	8.1	9.0	9.3	10.4	10.1	9.3	10.7	9.2	8.4	8.7	8.7	8.3	7.1	8.7	9.8	10.4	9.7	7.4	7.6	7.1	5.9	4.1	3.6	10.7	3.6	8.3
10	4.3	4.9	5.5	5.7	6.2	4.3	6.2	7.3	7.5	4.1	4.3	6.5	6.7	7.4	8.2	7.8	7.4	6.3	4.5	4.2	4.6	4.1	4.4	5.5	8.2	4.1	5.8
11	5.1	5.4	5.5	3.7	4.8	8.1	7.4	6.0	5.7	6.4	4.5	5.1	6.9	8.0	7.8	7.2	7.8	7.9	6.9	6.5	4.6	3.5	2.5	1.6	8.1	1.6	5.8
12	1.8	2.7	1.5	1.2	2.4	1.6	1.1	0.7	0.3	1.3	1.4	1.4	1.6	2.4	2.6	2.8	3.6	6.8	9.4	10.1	11.6	12.1	12.2	11.5	12.2	0.3	4.3
13	11.7	12.6	11.9	11.1	10.5	10.7	12.4	11.4	11.2	10.5	9.5	10.4	6.1	4.9	5.2	2.8	2.9	4.0	8.9	8.3	8.7	7.7	7.9	9.2	12.6	2.8	8.8
14	9.0	8.9	8.6	9.1	8.0	7.5	8.0	4.2	1.9	1.6	2.6	3.5	5.4	6.3	5.5	5.9	6.5	5.7	6.7	6.5	4.7	4.2	4.7	5.2	9.1	1.6	5.8
15	5.6	6.2	6.5	6.1	7.9	9.6	11.0	12.1	11.8	12.5	13.0	13.7	12.7	12.3	14.5	15.1	16.5	17.6	17.5	19.2	18.9	20.3	20.7	21.4	21.4	5.6	13.4
16	19.3	21.8	24.0	25.0	28.3	24.4	29.5	27.6	23.4	25.3	25.1	21.1	20.7	27.2	24.4	22.4	23.0	23.9	17.9	24.6	22.8	16.3	20.6	21.5	29.5	16.3	23.3
17	20.2	20.8	18.1	22.8	25.2	27.3	27.4	31.8	28.5	26.4	16.6	15.4	17.6	18.9	18.6	17.4	15.5	15.9	11.7	12.0	8.0	10.9	13.7	5.9	31.8	5.9	18.6
18	8.8	8.6	4.2	6.7	8.4	9.3	5.1	6.2	6.3	5.8	6.0	5.9	6.2	5.4	5.6	4.2	4.9	3.5	4.1	2.1	2.0	2.4	2.2	2.2	9.3	2.0	5.2
19	1.8	2.5	2.2	3.4	2.1	1.4	2.5	1.2	1.6	3.9	3.0	5.4	9.2	9.9	10.0	11.3	10.4	10.2	9.3	10.0	9.1	9.6	9.8	10.3	11.3	1.2	6.3
20	12.3	12.7	11.6	10.5	12.1	14.3	15.0	14.0	16.0	14.5	15.9	14.5	16.0	18.7	14.8	12.0	13.3	11.7	12.6	12.2	13.1	10.9	10.9	7.9	18.7	7.9	13.2
21	12.1	13.3	15.0	11.7	9.9	14.4	13.6	9.3	7.6	9.5	14.2	13.4	11.8	12.0	13.8	13.2	11.9	14.4	15.9	14.8	14.0	13.3	12.8	13.4	15.9	7.6	12.7
22	13.0	12.0	6.8	10.3	6.9	10.0	8.9	10.2	10.4	13.5	15.3	17.1	15.4	15.7	16.5	17.9	21.5	17.7	17.9	17.7	10.9	14.2	12.9	7.0	21.5	6.8	13.3
23	5.6	4.9	5.5	5.8	5.6	5.5	7.1	8.0	6.1	5.8	5.5	4.1	3.7	3.9	3.0	4.4	3.7	3.4	2.9	4.4	5.1	6.4	5.7	4.5	8.0	2.9	5.0
24	4.0	3.4	2.0	0.7		0.6	2.4	2.2	3.1	4.4	5.6	9.1	11.4	13.6	14.3	16.3	16.2	15.7	19.2	15.4	11.6	17.2	17.3	15.5	19.2	0.6	9.6
25	16.3	16.8	14.8	12.9	13.2	13.5	15.1	12.4	13.7	18.5	19.0	16.8	15.3	19.3	20.6	20.3	19.5	18.9	16.7	7.8	5.2	9.0	7.1	9.2	20.6	5.2	14.7
26	12.5	13.8	13.3	10.4	7.4	6.3	4.9	3.1	1.7	2.4	2.8	3.0	3.4	1.7	1.6	3.7	4.0	5.4	6.9	6.4	5.1	4.9	7.1	10.5	13.8	1.6	5.9
27	7.8	10.6	11.7	15.0	13.8	14.1	16.2	16.6	19.2	20.3	19.1	19.0	17.4	20.0	17.7	15.6	16.2	13.3	13.9	12.6	12.4	11.2	10.2	11.3	20.3	7.8	14.8
28	9.2	9.6	7.3	8.4	5.9	3.7	2.9	1.0	1.3	2.6	4.3	5.6	6.7	6.4	7.3	8.6	8.1	8.1	9.1	10.6	10.7	10.9	8.6	10.1	10.9	1.0	6.9
29	9.9	10.5	12.2	12.6	13.4	9.8	13.9	14.8	18.0	17.7	16.5	15.3	15.2	18.4	18.3	18.7	17.3	17.1	17.7	20.1	19.9	19.5	19.6	20.8	20.8	9.8	16.1
30	21.5	19.5	19.9	20.9	20.8	20.5	21.2	21.3	21.1	21.5	20.5	20.6	20.7	19.9	19.6	18.0	14.0	11.6	13.7	17.0	19.7	18.7	17.8	12.7	21.5	11.6	18.9
Max.	**21.5**	**21.8**	**24.0**	**25.0**	**28.3**	**27.3**	**29.5**	**31.8**	**28.5**	**26.4**	**25.1**	**21.1**	**20.7**	**27.2**	**24.4**	**22.4**	**23.0**	**23.9**	**19.2**	**24.6**	**22.8**	**20.3**	**20.7**	**21.5**	**31.8**		
Min.	**1.8**	**2.5**	**1.5**	**0.7**	**1.5**	**0.6**	**1.1**	**0.7**	**0.3**	**1.3**	**1.1**	**1.4**	**0.7**	**0.4**	**1.6**	**1.0**	**2.9**	**1.9**	**2.9**	**2.1**	**2.0**	**2.4**	**2.2**	**1.6**		**0.3**	
Avg.	**9.8**	**9.9**	**9.5**	**9.9**	**10.3**	**10.1**	**10.7**	**10.4**	**10.2**	**10.5**	**10.5**	**10.7**	**10.6**	**11.2**	**11.1**	**10.9**	**10.8**	**10.6**	**10.7**	**10.7**	**10.1**	**10.3**	**10.3**	**9.8**			**10.4**

Total Hours in Month 720 **Hours Data Available** 719 **Data Recovery** 99.9%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Speed (RMYoung) (m/s)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	12.4	12.3	11.0	8.6	10.5	13.4	8.8	4.9	6.1	9.5	9.8	7.1	8.7	6.5	8.9	7.4	4.2	1.2	1.1	1.3	2.8	3.0	2.4	6.2	13.4	1.1	7.0
2	5.3	4.6	4.3	5.0	3.7	4.4	4.9	5.9	5.2	4.6	4.5	3.7	2.9	3.8	0.9	2.1	0.6	2.3	4.3	4.4	6.1	10.8	7.4	5.8	10.8	0.6	4.5
3	8.8	9.1	10.1	10.9	12.6	12.1	12.9	11.1	9.8	10.9	13.2	11.1	8.9	9.0	7.8	7.5	8.1	6.2	6.8	8.3	8.8	9.1	8.9	9.5	13.2	6.2	9.7
4	10.8	9.8	10.3	9.5	9.2	8.1	5.2	5.0	7.4	9.3	9.6	6.9	6.9	5.8	6.4	7.7	7.9	10.7	11.4	10.3	12.5	13.1	12.2	12.5	13.1	5.0	9.1
5	12.1	11.3	11.2	11.4	10.5	9.4	9.5	9.5	10.4	9.9	10.0	11.1	12.9	14.5	15.1	15.5	16.2	17.5	17.6	17.4	18.2	19.4	17.9	20.4	20.4	9.4	13.7
6	22.9	23.2	23.9	22.2	21.3	20.5	20.2	20.1	19.8	19.3	18.6	18.3	18.1	17.1	13.4	12.3	6.8	2.7	1.7	3.6	3.7	5.8	5.8	4.8	23.9	1.7	14.4
7	4.2	3.4	3.2	3.3	4.4	4.7	6.1	6.3	8.3	9.1	9.3	10.8	13.4	13.1	14.2	16.8	18.8	18.2	15.8	17.2	17.1	16.8	15.9	15.1	18.8	3.2	11.1
8	17.9	13.7	10.8	8.2	6.8	5.6	4.5	4.1	5.0	3.6	3.8	6.6	8.6	5.2	10.0	5.3	1.9	5.4	6.7	5.4	4.4	6.9	7.1	5.8	17.9	1.9	6.8
9	6.0	1.5	2.0	2.6	4.4	6.7	8.1	10.5	10.4	10.9	12.0	13.9	17.8	19.6	19.2	20.9	19.6	18.2	18.5	19.4	20.2	18.9	17.7	15.7	20.9	1.5	13.1
10	16.5	14.9	10.0	10.7	14.3	13.4	10.5	10.6	9.4	12.1	13.6	12.1	8.3	9.0	11.6	12.2	11.5	10.0	7.4	5.0	3.9	5.2	8.8	11.9	16.5	3.9	10.5
11	15.0	15.8	16.2	15.8	12.3	8.6	5.4	6.1	3.7	3.0	3.3	2.9	1.3	0.9	2.2	2.0	3.5	2.4	0.6	0.7	1.3	2.8	4.0	4.8	16.2	0.6	5.6
12	5.1	4.4	5.9	5.5	4.3	3.8	5.0	5.4	6.2	4.0	3.8	4.5	3.7	4.2	3.5	4.3	4.8	5.3	4.5	2.8	2.9	2.5	3.0	2.1	6.2	2.1	4.2
13	2.1	1.7	2.6	2.8	2.8	2.8	3.3	3.1	3.0	3.6	3.7	4.2	3.7	4.4	5.4	5.7	7.2	8.6	9.4	8.2	10.4	10.1	10.1	10.7	10.7	1.7	5.4
14	10.6	12.9	12.8	12.3	12.1	11.5	11.2	11.2	11.0	13.5	14.3	13.0	13.3	8.7	10.6	11.6	14.7	16.2	15.2	15.0	16.0	16.7	15.5	17.8	17.8	8.7	13.2
15	18.9	15.1	12.9	17.3	18.6	19.1	18.7	15.8	15.0	16.1	18.3	18.2	17.8	18.7	20.9	21.2	22.7	21.6	22.7	21.1	20.0	24.4	27.6	23.4	27.6	12.9	19.4
16	19.8	20.8	23.8	22.8	21.7	26.1	20.4	19.6	20.7	21.4	20.4	20.1	21.6	21.3	22.8	18.6	19.4	19.3	22.2	21.4	18.0	17.1	21.6	18.1	26.1	17.1	20.8
17	20.3	21.6	24.2	24.4	21.7	23.6	18.8	17.8	15.1	17.8	20.2	21.1	19.8	20.3	19.4	17.9	16.3	14.0	12.6	12.1	10.6	8.8	7.1	8.2	24.4	7.1	17.2
18	7.4	6.1	8.1	7.6	7.6	8.7	9.8	8.6	8.2	8.5	8.7	9.2	8.7	9.1	9.1	8.8	8.0	8.6	10.6	9.9	9.7	8.5	8.9	11.6	11.6	6.1	8.7
19	8.9	6.7	5.3	9.2	14.3	16.0	16.6	17.0	16.8	16.5	17.2	16.0	16.0	14.7	16.2	15.5	16.7	15.1	9.5	6.5	10.9	6.8	8.4	8.0	17.2	5.3	12.7
20	7.0	6.1	5.9	5.0	4.3	3.0	6.5	10.7	12.2	14.2	13.9	13.1	15.2	15.6	15.0	14.5	13.4	8.4	4.8	6.2	4.5	3.3	2.4	3.5	15.6	2.4	8.7
21	6.9	10.3	11.5	12.4	10.6	11.5	9.8	9.4	9.9	6.5	8.0	7.3	7.4	5.8	6.2	7.1	6.7	8.2	9.6	10.8	11.8	11.9	11.1	11.0	12.4	5.8	9.2
22	12.5	14.4	14.8	12.3	13.3	15.3	15.6	17.0	15.1	14.9	14.5	14.0	14.3	13.3	11.8	12.7	12.2	11.2	10.9	10.3	9.2	6.3	4.9	6.1	17.0	4.9	12.4
23	10.1	11.6	12.9	11.3	7.9	8.3	7.9	6.2	3.4	2.4	2.1	2.7	3.3	4.2	4.8	4.5	3.9	2.3	2.7	2.1	1.9	1.2	1.1	1.2	12.9	1.1	5.0
24	3.2	3.2	2.8	4.2	5.4	6.5	8.3	14.3	15.8	14.9	12.8	16.1	20.6	22.3	22.7	22.6	21.8	24.5	27.7	26.9	26.5	25.9	25.7	25.7	27.7	2.8	16.7
25	26.5	27.7	27.8	24.0	16.3	17.0	17.8	19.0	18.7	16.1	14.9	17.1	17.5	14.2	13.1	12.9	12.8	10.7	13.5	9.8	8.1	11.1	13.1	12.9	27.8	8.1	16.4
26	5.1	6.1	8.7	8.5	7.2	2.8	4.4	5.0	4.5	7.3	5.1	8.0	9.5	9.9	14.1	13.0	8.8	13.3	15.9	15.8	16.0	17.5	17.6	18.8	18.8	2.8	10.1
27	18.8	19.7	18.4	14.9	15.3	15.9	16.6	17.0	15.6	16.9	16.5	14.8	14.8	16.4	15.5	9.2	6.7	5.3	5.4	5.2	5.2	3.3	5.2	7.1	19.7	3.3	12.5
28	10.8	14.8	14.0	10.2	10.1	9.6	8.8	7.4	7.8	14.1	12.9	10.5	9.9	8.6	9.1	8.9	7.0	8.4	10.9	9.5	12.0	16.8	17.2	16.2	17.2	7.0	11.1
29	17.3	15.4	15.5	8.1	4.7	10.0	8.0	7.9	8.4	8.4	9.2	10.1	12.8	13.2	12.1	8.4	9.9	12.5	10.9	10.6	9.6	7.3	8.7	9.9	17.3	4.7	10.4
30	11.2	10.4	9.4	8.4	8.1	5.1	4.8	5.1	6.8	6.6	7.0	8.2	8.4	10.2	8.0	7.7	8.4	8.1	9.3	10.0	11.1	11.0	10.8	9.6	11.2	4.8	8.5
31	7.9	5.5	3.8	4.5	4.8	5.1	4.9	6.1	7.1	7.7	8.0	7.3	8.4	7.5	7.7	7.3	7.5	8.5	9.4	9.8	11.2	11.4	11.8	12.3	12.3	3.8	7.7
Max.	**26.5**	**27.7**	**27.8**	**24.4**	**21.7**	**26.1**	**20.4**	**20.1**	**20.7**	**21.4**	**20.4**	**21.1**	**21.6**	**22.3**	**22.8**	**22.6**	**22.7**	**24.5**	**27.7**	**26.9**	**26.5**	**25.9**	**27.6**	**25.7**	**27.8**		
Min.	**2.1**	**1.5**	**2.0**	**2.6**	**2.8**	**2.8**	**3.3**	**3.1**	**3.0**	**2.4**	**2.1**	**2.7**	**1.3**	**0.9**	**0.9**	**2.0**	**0.6**	**1.2**	**0.6**	**0.7**	**1.3**	**1.2**	**1.1**	**1.2**		**0.6**	
Avg.	**11.7**	**11.4**	**11.4**	**10.8**	**10.4**	**10.6**	**10.1**	**10.3**	**10.2**	**10.8**	**10.9**	**11.0**	**11.4**	**11.2**	**11.5**	**11.0**	**10.6**	**10.5**	**10.6**	**10.2**	**10.5**	**10.8**	**11.0**	**11.2**			**10.8**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

January 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	23.3	22.7	19.7	16.4	18.9	19.9	12.7	9.5	17.6	16.2	13.5	15.8	13.6	20.3	22.3	13.9	14.7	16.4	12.0	18.1	14.1	8.8	16.3	7.6
2	15.5	18.7	13.3	14.1	12.1	17.5	22.8	15.0	12.8	15.3	18.7	19.2	16.7	17.2	17.1	15.2	14.0	9.0	3.7	12.9	13.6	13.2	10.7	12.2
3	21.2	12.2	6.5	0.0	359.0	359.9	353.7	347.5	347.0	338.4	320.9	331.5	336.8	318.6	351.7	353.5	338.0	338.8	353.1	345.6	338.1	350.8	19.9	352.2
4	11.9	16.4	12.6	17.0	22.8	23.1	23.6	25.7	27.7	28.1	25.3	21.9	22.9	8.9	11.8	24.8	26.5	25.6	24.0	22.1	17.7	29.2	219.4	192.9
5	175.4	304.0	17.5	21.3	14.3	338.5	1.2	16.4	15.8	1.1	6.6	9.5	11.5	0.8	6.8	10.3	12.7	358.2	345.6	287.4	296.8	11.5	9.1	4.9
6	16.2	20.1	25.6	14.2	14.4	4.3	20.0	12.2	16.4	10.6	14.3	13.7	14.4	1.2	7.3	8.4	4.0	356.7	358.6	6.2	1.9	356.6	7.0	354.7
7	5.5	11.3	3.5	2.4	353.3	353.6	355.1	358.4	357.0	352.6	358.9	345.0	1.1	1.0	0.5	355.3	352.6	0.7	358.0	0.1	356.6	349.9	349.7	349.3
8	352.9	357.0	350.2	346.7	0.6	14.8	358.4	359.0	5.6	5.1	3.8	5.8	4.5	358.1	358.9	16.2	8.8	5.1	16.1	8.9	13.0	27.2	16.6	9.4
9	10.5	18.1	9.7	280.2	10.0	15.9	16.0	18.6	23.1	37.2	40.0	65.8	39.2	37.5	88.2	139.3	125.4	128.6	130.4	135.7	128.2	167.2	134.3	127.0
10	133.3	130.6	134.9	138.4	130.7	120.0	118.7	114.1	115.2	114.4	114.0	111.7	122.7	126.1	124.0	124.2	122.3	116.0	121.1	121.6	117.7	119.9	123.7	118.5
11	116.6	114.2	115.0	114.8	117.4	118.5	117.5	114.3	115.9	117.8	114.6	111.6	110.7	111.5	109.9	109.6	110.4	110.4	105.1	104.2	106.4	107.4	107.1	107.8
12	106.5	106.6	104.2	104.6	107.0	108.0	110.1	115.6	120.4	117.9	118.4	117.5	117.4	114.7	117.8	111.5	111.2	110.1	112.6	112.3	114.3	120.8	177.7	235.2
13	227.3	227.7	228.2	226.5	216.7	205.2	202.1	201.3	177.4	203.3	197.4	192.3	211.7	181.1	139.0	104.1	69.2	68.2	16.4	14.7	11.8	15.2	22.1	22.3
14	15.5	13.3	15.6	10.5	13.9	11.2	356.9	354.5	355.0	356.0	357.9	0.6	0.8	359.0	356.3	6.3	4.4	345.4	333.9	338.1	334.0	316.6	319.6	322.1
15	333.5	334.8	352.7	358.9	348.6	336.1	325.3	325.7	329.3	317.3	322.9	336.7	332.9	331.7	338.2	340.5	324.4	342.6	336.1	358.4	357.0	357.9	15.0	20.0
16	21.9	27.5	25.0	25.6	30.4	65.2	92.9	100.3	97.7	102.4	105.2	104.9	99.2	97.9	101.1	101.4	103.7	106.6	108.6	110.1	112.2	113.0	115.4	110.6
17	114.7	134.3	141.0	138.8	133.7	129.8	132.2	130.9	125.1	116.9	120.1	114.5	130.1	130.8	119.0	120.5	121.4	125.5	115.0	120.0	120.9	128.1	125.5	117.7
18	118.5	119.6	111.1	87.9	69.9	49.3	69.0	50.9	67.7	45.2	14.9							262.4	274.9	290.0	9.9	341.3	354.7	286.1
19	314.9	288.5	264.7	295.8	259.6	250.8	207.0	233.7	256.1	14.9	31.1	31.3	50.3	41.1	58.4	82.9	88.9	94.2	101.9	103.4	103.0	103.8	101.1	99.6
20	104.0	104.4	107.4	102.0	101.8	96.4	96.5	96.8	97.4	96.0	95.1	79.8	69.6	30.0	17.0	19.7	17.8	4.4	354.0	8.9	17.9	15.7	16.8	19.0
21	17.5	4.8	0.1	0.8	305.3	254.8	258.1	252.7	283.9	275.4	254.2	256.3	256.9	247.1	242.0	246.3	250.7	254.6	259.8	254.7	250.4	249.2	253.3	253.9
22	248.1	201.6	161.5	144.7	129.1	119.1	95.7	37.5	21.6	21.2	26.6	18.3	28.6	20.2	15.9	16.8	8.4	13.7	13.8	18.7	9.6	351.1	2.6	23.7
23	19.1	19.2	16.1	6.7	11.1	16.1	7.1	1.3	10.7	4.7	6.3	8.2	2.6	8.5	2.1	340.8	346.8	357.7	356.8	12.2	0.4	346.4	346.9	354.4
24	345.0	336.9	336.7	329.0	327.2	328.0	335.8	352.2	336.0	344.3	358.7	359.8	4.3	358.9	0.0	12.9	16.2	9.8	18.9	31.1	24.4	24.3	24.6	20.0
25	19.8	32.2	82.1	92.9	90.0	88.7	79.9	80.9	98.2	102.5	102.9	103.4	103.9	105.6	101.5	101.9	99.3	97.9	102.1	104.6	104.1	104.9	108.6	110.9
26	108.5	108.5	109.0	110.0	110.1	109.8	110.6	112.7	113.3	110.2	112.0	116.3	123.9	124.4	135.1	138.1	132.2	121.5	121.6	120.9	126.5	129.9	112.9	110.1
27	110.7	106.1	103.7	105.4	108.4	109.3	109.0	112.1	112.6	127.3	118.1	112.2	111.5	105.8	110.7	113.6	109.3	97.0	101.5	101.2	99.7	97.8	98.7	99.4
28	100.9	98.7	103.6	105.8	104.4	106.0	102.2	104.1	110.4	118.4	128.0	136.4	141.4	137.2	130.2	125.0	124.7	113.2	108.9	115.5	122.0	116.4	119.1	114.8
29	110.4	100.5	96.0	96.0	104.9	103.1	99.4	101.7	104.2	111.0	106.3	105.6	106.5	106.7	106.3	105.2	107.3	109.4	111.2	109.2	110.0	111.0	112.2	115.3
30	103.8	104.1	107.8	109.0	112.8	111.0	107.0	107.9	109.0	110.3	114.8	115.4	122.7	120.0	114.3	130.8	135.8	133.6	134.5	136.3	136.2	136.7	132.1	137.1
31	136.4	138.3	142.3	140.1	143.2	133.8	131.3	142.2	138.6	131.7	138.7	146.4	134.9	144.6	145.6	120.3	110.6	109.6	107.5	124.0	115.1	110.8	131.3	120.5

Total Hours In Month 744 **Hours Data Available** 738 **Data Recovery** 99.2%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

February 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	118.3	126.2	130.6	129.8	123.8	113.0	122.1	133.5	131.0	147.9	132.1	139.6	128.0	103.5	107.5	104.4	98.1	94.8	97.0	127.6	127.7	129.1	118.5	115.7
2	106.4	106.5	107.9	114.2	113.9	116.6	115.6	116.9	116.6	120.1	120.2	119.6	118.4	117.0	114.5	110.6	113.2	110.4	108.2	108.9	111.7	115.2	117.4	117.7
3	112.7	115.3	117.9	117.6	113.1	107.0	109.5	118.5	120.6	123.9	116.3	118.3	122.3	129.1	153.9	188.3	189.8	252.8	10.9	21.9	15.7	21.5	26.7	25.0
4	25.3	24.4	17.1	24.4	26.2	19.4	20.4	26.7	19.1	17.4	22.8	22.6	23.2	24.7	11.1	13.8	24.3	25.2	23.4	23.6	26.5	36.4	31.7	48.3
5	84.1	125.8	94.9	81.0	96.6	114.9	104.6	92.6	112.8	99.2	107.5	109.8	140.7	135.8	154.1	147.4	145.6	113.4	107.3	119.7	117.4	116.9	125.7	137.9
6	108.7	103.0	97.7	97.7	100.3	98.6	104.2	106.0	104.6	100.7	110.1	111.0	105.6	109.0	132.7	136.9	127.9	154.5	54.1	124.7	80.0	65.0	75.2	73.5
7	107.7	115.5	140.1	126.6	62.9	81.1	127.9	160.8	179.6	208.0	180.0	178.5	136.5	156.6	231.3	28.9	35.8	103.3	131.3	135.5	123.6	127.1	110.8	115.4
8	112.2	92.4	143.9	159.2	140.6	131.9	131.7	132.3	145.0	139.5	142.3	139.1	145.0	140.4	143.1	136.3	141.8	145.5	162.6	200.1	223.1	235.6	238.4	224.4
9	197.0	246.8	244.7	252.9	215.9	192.8	272.8	254.3	128.9	125.1	128.9	123.1	106.1	115.4	147.0	158.9	170.2	150.1	105.8	147.4	197.0	117.2	219.6	337.0
10	23.2	22.4	35.9	29.1	20.5	15.4	20.7	21.8	11.3	8.4	10.4	355.1	26.7	9.8	12.7	17.1	11.0	341.6	348.6	22.9	24.3	27.6	26.7	27.9
11	23.5	88.1	114.5	122.7	127.7	125.1	132.3	118.0	118.8	122.4	112.1	109.9	114.6	117.1	123.5	120.6	114.1	113.6	113.3	112.2	102.3	102.7	103.8	102.6
12	103.1	101.6	104.1	107.2	103.5	102.7	102.1	100.8	102.3	104.2	101.8	106.7	109.9	111.7	110.5	107.8	103.1	97.0	76.6	67.5	59.4	54.4	57.8	49.4
13	39.7	58.5	54.4	40.7	44.0	46.8	52.1	54.1	59.5	50.9	53.5	50.8	63.8	69.6	91.8	105.1	112.0	115.5	109.8	102.3	112.9	121.8	121.1	125.8
14	114.4	125.2	121.5	116.2	112.7	116.9	117.1	115.2	116.5	117.1	110.6	107.9	115.9	122.5	128.7	115.7	101.6	111.8	82.8	77.7	74.3	42.8	23.0	24.4
15	21.2	20.2	22.2	22.3	25.0	26.7	29.7	33.1	22.1	23.0	35.6	24.0	28.1	19.7	15.5	19.2	24.1	27.0	27.0	25.8	25.2	28.2	27.4	28.9
16	29.5	29.0	17.1	17.5	77.7	30.5	46.0	40.8	68.9	90.0	120.8	130.3	135.7	134.6	160.4	267.3	287.0	330.3	84.1	127.5	124.7	128.7	100.1	128.6
17	133.4	120.8	121.9	113.9	123.9	94.0	47.4	29.1	30.8	34.2	22.1	34.2	27.0	81.5	100.0	110.9	135.3	121.3	124.3	106.4	105.9	111.2	110.6	112.8
18	98.6	74.1	99.6	35.1	28.1	24.3	38.1	25.5	23.5	27.2	36.2	49.5	35.9	21.9	14.7	31.5	78.2	54.7	27.6	21.9	19.8	12.1	12.7	11.4
19	14.0	10.1	357.9	2.3	0.6	0.3	353.9	347.0	334.6	327.6	331.7	350.7	355.5	359.0	357.8	359.4	358.5	4.2	3.5	3.3	2.5	4.1	5.2	14.8
20	21.9	25.7	22.2	17.1	2.7	9.9	7.5	8.0	2.2	7.4	4.0	8.1	352.0	346.6	345.8	344.1	339.5	343.1	344.6	346.1	351.8	0.9	8.9	343.2
21	347.0	355.4	357.3	353.5	352.9	4.8	3.6	9.5	9.2	7.5	6.9	14.0	18.1	10.0	357.5	1.0	8.4	16.7	20.4	19.1	25.0	19.4	24.8	22.2
22	17.6	15.7	16.5	22.2	14.3	11.6	12.2	16.6	17.1	20.7	13.8	14.5	5.3	13.8	27.1	30.3	30.6	18.2	15.3	30.4	31.6	35.5	27.4	24.2
23	26.1	26.9	30.2	19.2	16.4	14.1	10.6	19.7	21.7	18.3	21.7	14.4	11.6	359.5	359.9	11.3	26.6	19.3	29.3	20.3	357.5	8.9	13.9	327.1
24	328.1	7.9	7.3	358.0	355.2	353.2	345.1	342.3	354.5	5.2	359.0	3.9	348.7	346.3	358.4	357.9	351.4	347.5	0.6	6.0	6.1	3.3	2.6	1.0
25	6.4	0.4	351.4	358.1	352.2	357.1	10.9	5.4	22.6	3.6	12.4	10.0	6.5	1.9	5.9	3.7	8.8	8.4	12.3	3.8	330.5	19.3	40.6	349.5
26	313.9	329.0	328.7	328.2	333.2	332.3	334.0	337.3	334.9	339.6	347.3	33.7	333.8	322.1	309.3	314.0	316.9	321.5	358.5	49.5	19.3	13.2	9.2	2.6
27	352.6	352.1	7.0	3.9	5.3	8.8	13.9	19.0	27.2	25.8	15.7	20.3	18.1	21.5	24.4	21.0	21.9	25.6	28.4	27.4	29.2	23.5	18.1	18.0
28	26.1	15.8	20.8	17.8	10.7	15.4	15.7	18.4	17.3	25.4	19.4	18.3	16.1	8.9	6.5	8.8	12.9	12.9	11.7	15.6	13.7	20.9	28.1	23.9

Total Hours in Month 672 **Hours Data Available** 672 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

March 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	26.6	31.5	28.7	25.3	22.4	18.6	30.6	24.8	30.3	31.0	28.6	25.3	19.3	18.2	20.5	18.9	11.3	5.6	6.5	7.3	6.2	7.9	5.8	7.3
2	12.2	12.3	11.7	12.8	22.0	16.6	11.0	14.4	10.6	5.4	6.1	7.2	4.9	2.4	4.6	3.3	4.9	6.6	14.2	6.2	359.3	4.1	5.3	8.4
3	5.2	8.7	6.6	1.7	3.9	7.2	18.6	27.5	20.2	13.8	24.4	23.7	21.9	7.5	3.2	6.4	9.9	14.0	11.6	9.8	2.3	15.3	354.8	355.6
4	0.7	1.4	0.8	1.2	9.6	15.9	24.6	21.2	27.1	14.9	7.7	2.8	1.0	0.4	0.9	357.9	1.9	2.9	355.0	352.3	5.1	1.1	356.0	359.8
5	359.8	1.9	4.9	3.7	3.2	5.5	2.4	360.0	6.4	10.4	5.7	1.7	1.0	0.6	353.4	355.2	360.0	356.6	354.2	354.8	356.0	358.1	0.8	359.8
6	358.1	358.7	0.1	6.5	2.4	2.8	3.6	4.2	351.9	356.2	359.3	2.8	4.2	1.6	354.9	359.5	7.7	6.3	359.9	358.5	0.6	0.0	356.6	357.9
7	357.2	0.6	2.0	9.9	5.9	355.8	357.6	0.1	3.1	355.3	359.9	358.9	2.8	2.0	3.6	359.6	353.5	349.7	348.4	343.3	346.4	353.9	357.1	359.3
8	357.5	356.2	353.7	356.4	354.3	356.6	358.7	0.3	0.2	359.4	359.7	359.1	355.8	359.8	348.6	344.5	345.5	354.2	351.5	357.7	353.0	352.7	352.4	359.8
9	1.7	1.1	5.0	4.3	3.6	3.8	2.5	357.6	352.8	350.4	0.4	351.2	351.6	356.6	352.9	355.5	356.7	354.2	9.2	19.0	23.8	24.1	25.2	18.8
10	22.3	24.9	15.7	23.1	22.1	18.5	18.1	22.0	20.7	18.9	14.5	12.9	19.8	20.3	25.3	11.2	16.5	14.3	12.4	11.9	15.6	16.3	15.4	13.0
11	9.9	8.4	7.1	4.9	4.6	1.3	3.4	3.4	2.0	357.8	356.8	354.3	357.8	355.1	356.4	356.4	356.4	354.6	359.7	1.4	358.5	358.3	0.7	358.7
12	359.9	4.4	354.2	2.9	0.1	1.4	359.4	359.5	317.4	325.5	318.5	326.7	331.3	342.0	340.8	330.3	338.3	341.6	325.9	338.4	317.0	344.9	350.3	346.2
13	343.4	329.0	339.7	339.4	343.8	329.6	335.3	333.5	19.1	356.4	337.8	332.2	327.9	321.5	327.6	342.7	337.8	340.4	339.2	346.7	347.2	351.4	356.2	359.1
14	359.4	354.5	354.4	359.4	357.5	355.7	354.5	4.6	359.6	2.4	351.3	340.5	351.9	347.2	351.5	347.2	346.8	344.2	349.3	350.8	349.6	355.9	353.0	350.4
15	359.2	354.0	350.8	354.6	13.9	10.4	19.2	22.1	22.5	19.4	9.5	5.7	5.3	1.1	0.9	355.1	354.3	347.1	349.9	347.4	358.7	2.8	4.2	10.1
16	15.4	19.9	26.7	28.5	25.9	12.9	21.8	17.8	15.2	13.6	9.2	8.1	6.3	358.7	357.2	348.6	350.6	357.5	3.8	5.2	13.6	21.5	20.9	16.4
17	16.1	18.9	21.6	19.1	24.3	24.8	20.7	28.8	24.4	21.3	20.6	15.0	16.2	9.3	13.1	0.9	343.3	330.5	335.3	5.7	21.1	21.8	13.5	13.9
18	55.8	25.7	162.5	242.8	244.3	206.5	144.3	136.7	126.4	118.5	27.8	286.5	249.2	249.8	254.7	255.1	257.7	313.0	323.6	329.4	1.9	6.4	13.3	9.7
19	17.0	10.8	17.6	12.6	14.0	14.7	14.7	14.7	20.3	16.6	18.6	19.4	312.4	308.6	9.9	5.9	346.2	359.0	12.1	17.4	27.9	31.3	34.2	102.6
20	192.6	169.1	32.4	56.8	80.1	108.7	85.6	110.7	104.8	102.3	103.3	104.1	103.4	98.6	97.0	95.2	90.4	84.0	79.0	83.0	87.9	90.0	90.2	90.8
21	71.5	63.3	78.3	145.4	139.8	139.9	141.6	142.3	153.2	208.3	224.5	236.7	246.9	247.9	242.1	242.7	232.5	230.3	235.2	313.1	331.4	346.6	356.6	348.1
22	3.3	344.3	346.1	6.9	7.7	20.6	10.9	2.2	17.2	17.3	19.2	23.0	16.5	25.5	2.4	4.3	8.8	19.1	17.4	12.3	14.3	13.4	11.0	10.1
23	12.6	347.7	357.2	356.4	13.7	18.8	5.6	5.9	9.9	5.9	356.3	1.4	344.7	345.2	343.9	343.2	343.8	339.7	329.3	326.4	326.7	326.8	330.2	335.2
24	348.2	353.1	1.3	359.7	4.5	4.2	1.0	5.5	12.7	28.6	27.2	31.5	20.8	18.2	4.4	6.1	357.7	335.7	345.0	1.2	343.5	287.8	359.8	25.2
25	109.2	303.5	351.2	21.2	36.6	109.4	62.2	106.1	130.0	113.0	50.9	20.5	184.4	149.0	220.4	247.4	283.5	112.2	108.3	108.2	93.0	98.7	98.5	103.0
26	102.5	95.3	94.3	99.1	103.1	115.5	140.1	176.2	207.9	223.1	228.0	223.1	218.8	221.8	235.0	249.4	254.5	258.3	279.6	336.9	352.9	350.2	11.2	13.9
27	18.4	45.6	13.7	13.0	11.6	11.5	10.4	14.0	9.4	6.2	3.6	355.2	0.5	1.0	359.6	347.6	346.3	350.8	339.6	348.0	357.2	13.0	5.6	5.1
28	0.1	2.2	1.7	5.3	18.3	24.3	10.4	11.4	6.6	7.8	354.9	336.3	312.5	331.7	338.0	323.2	318.3	327.7	326.2	329.4	332.8	325.8	350.6	5.7
29	11.4	5.7	353.6	354.9	10.4	11.4	2.7	335.3	356.2	354.6	3.1	347.7	326.4	331.0	317.0	321.6	327.4	319.0	325.3	335.5	2.2	347.3	330.0	355.0
30	4.6	6.4	14.6	16.3	23.3	22.9	12.6	9.7	19.9	20.4	8.6	16.8	14.7	16.0	15.3	15.7	19.1	9.9	12.8	17.5	22.3	41.9	148.0	120.5
31	80.5	23.7	21.8	48.0	345.7	346.5	158.9	101.5	327.4	196.0	187.3	263.4	298.3	313.5	299.5	296.4	6.3	356.4	0.7	2.2	7.4	8.8	11.5	11.0

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

April *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	8.6	8.0	13.1	14.0	12.0	12.5	17.2	16.3	15.9	16.4	18.6	3.8	14.6	17.4	31.9	206.3	206.8	180.0	130.5	131.0	124.3	123.6	92.9	99.0
2	106.4	90.3	100.6	73.6	95.4	101.0	94.2	100.7	101.1	103.7	109.2	112.1	118.1	123.1	123.2	122.9	124.3	120.3	120.6	118.0	112.1	107.0	108.9	104.1
3	102.9	104.6	101.9	105.9	109.1	105.9	106.7	109.6	109.8	109.2	101.2	102.7	111.3	107.2	109.7	109.1	109.7	108.9	103.8	91.6	99.5	103.4	98.0	94.5
4	97.0	98.0	83.8	80.9	76.7	71.5	77.6	90.1	97.9	103.2	108.6	108.5	106.0	107.8	107.4	110.8	109.0	104.8	103.5	93.5	83.5	82.8	95.1	97.0
5	89.9	70.9	71.3	73.2	26.0	51.6	48.8	51.4	47.4	46.1	44.9	55.9	49.6	49.2	47.5	48.8	95.3	95.7	100.3	102.4	97.7	98.2	101.6	100.4
6	101.5	99.5	102.7	106.0	104.1	100.7	95.0	94.8	82.6	40.1	48.3	42.5	44.3	45.9	42.1	40.4	36.3	12.1	22.3	14.8	19.5	25.0	41.7	58.7
7	139.3	134.6	149.2	137.8	118.0	114.0	122.9	112.6	111.4	114.0	114.0	114.1	112.1	108.5	98.6	101.9	101.0	105.1	107.2	98.3	85.9	67.8	44.8	42.9
8	49.5	46.7	46.2	44.6	45.7	47.4	47.7	43.4	43.5	49.7	45.9	48.0	49.8	51.0	47.8	60.0	89.8	116.5	121.7	112.2	94.1	108.4	132.4	122.4
9	114.6	103.2	97.6	95.7	92.3	96.8	91.1	87.6	102.3	103.1	107.0	104.5	105.1	109.5	114.1	110.8	115.1	112.6	119.1	118.8	123.4	123.6	121.8	124.0
10	119.1	122.6	128.2	135.2	141.0	132.0	125.8	124.3	118.0	106.0	117.5	127.6	138.9	146.0	132.9	130.5	123.1	141.1	129.7	134.9	127.7	126.8	115.5	125.7
11	126.9	123.2	130.2	110.7	110.1	92.0	97.9	111.8	120.9	120.6	101.9	108.3	115.3	118.1	125.3	127.9	119.3	132.7	133.7	121.6	115.6	89.8	98.3	96.3
12	87.8	76.6	58.4	25.5	31.1	17.5	15.1	13.6	18.8	352.4	23.7	12.6	19.6	22.2	310.5	294.5	306.3	321.9	331.1	224.7	273.0	261.6	359.2	18.1
13	13.8	14.9	22.2	19.4	15.8	18.8	20.8	8.8	16.2	8.7	7.7	10.0	357.4	346.0	334.2	317.7	321.1	269.2	304.0	2.5	11.2	10.1	20.0	20.4
14	22.4	25.0	53.8	75.3	33.4	45.4	123.9	126.0	117.5	156.1	145.2	120.8	125.3	132.2	135.9	136.8	136.6	137.2	130.7	134.9	105.7	94.0	95.1	97.2
15	97.5	98.8	94.9	100.8	100.3	97.6	98.8	92.7	104.3	104.2	106.1	98.5	97.5	102.9	108.0	94.2	155.5	232.7	199.0	217.4	228.5	298.1	324.9	344.3
16	10.7	340.3	343.1	352.0	6.1	5.5	353.4	349.2	356.6	345.5	307.1	287.3	267.3	225.1	232.6	244.2	248.4	233.1	235.0	252.7	253.3	318.7	221.3	105.4
17	99.1	100.3	115.4	116.1	106.4	107.1	110.9	114.4	117.4	116.3	115.1	110.2	110.2	109.4	108.6	108.2	107.3	110.8	114.1	113.0	111.0	110.5	109.2	107.9
18	107.8	106.0	104.3	108.1	108.9	108.0	102.9	107.9	106.5	108.2	107.8	112.0	115.1	114.9	119.6	140.4	190.1	214.4	273.8	255.8	260.4	250.5	258.7	6.2
19	76.8	118.7	162.9	120.6	110.6	113.4	117.1	124.7	122.2	117.2	116.9	119.0	126.1	125.7	122.3	119.9	118.4	120.6	120.8	113.3	102.2	101.7	102.2	105.4
20	100.9	107.5	101.4	99.7	104.9	87.2	90.6	95.0	93.5	94.3	97.3	93.2	97.9	102.0	107.1	104.9	102.2	104.0	105.1	109.8	110.8	110.3	107.5	111.3
21	107.2	98.1	94.4	95.5	99.2	98.2	108.4	109.2	111.2	116.3	104.0	101.6	102.0	104.9	104.5	104.7	107.5	107.8	106.7	103.6	108.9	100.6	99.0	100.9
22	99.3	98.5	94.3	102.1	101.7	95.4	98.0	98.0	102.9	99.7	97.7	101.4	87.6	97.5	82.2	81.2	80.1	72.1	65.9	58.0	62.7	67.1	62.0	55.7
23	44.5	70.4	59.7	51.2	43.2	47.2	49.6	50.5	59.0	52.1	46.8	78.6	125.2	122.1	123.2	140.8	107.5	139.9	117.1	93.3	125.0	125.3	110.8	103.8
24	102.1	96.7	88.2	89.2	96.4	88.5	97.3	103.7	108.0	102.0	105.9	110.0	101.2	77.5	114.2	117.1	117.8	130.2	113.3	119.8	146.2	111.2	97.9	99.9
25	100.4	98.0	98.4	96.9	96.4	98.4	100.6	100.4	98.7	103.5	101.6	103.9	101.1	107.5	113.0	114.4	116.8	111.7	116.2	112.6	77.7	54.6	89.4	75.4
26	47.0	47.9	40.5	45.8	48.6	26.6	18.6	21.9	18.3	13.8	9.5	14.8	349.5	9.8	353.5	355.8	345.5	338.4	334.1	326.2	335.6	338.7	13.7	13.6
27	28.0	42.9	113.7	122.7	207.2	172.5	138.0	115.6	134.5	150.5	168.2	148.9	170.4	194.8	202.2	197.8	207.1	223.6	226.7	231.6	207.8	224.8	235.9	249.8
28	250.1	245.5	260.3	263.3	260.4	253.0	265.4	254.1	189.4	127.0	126.6	136.4	137.8	129.7	121.8	127.5	134.9	133.0	133.9	135.3	131.3	121.8	108.4	101.7
29	99.4	95.4	93.7	95.3	99.2	98.3	90.4	86.7	95.7	105.5	101.0	98.9	101.6	106.6	101.4	100.4	106.0	114.9	114.2	110.3	118.5	186.5	172.4	283.2
30	181.9	142.4	133.8	2.6	18.8	33.7	21.2	27.5	28.8	51.0	85.1	88.5	27.9	25.7	31.6	150.3	186.9	179.4	190.0	195.6	225.9	283.4	278.0	350.2

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

May *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	61.9	145.3	157.4	188.6	157.0	272.7	159.7	101.6	123.2	155.5	175.6	213.4	247.5	335.0	53.8	166.5	316.1	252.4	164.4	217.1	223.7	233.6	248.0	295.4
2	208.7	100.2	330.2	96.2	18.8	14.4	18.4	82.5	146.3	158.9	218.2	62.9	88.5	75.8	116.0	130.5	121.9	121.1	116.4	115.4	114.0	103.8	109.6	110.6
3	113.3	103.0	110.5	128.8	128.3	78.4	13.2	6.4	268.7	339.3	10.6	359.2	0.9	335.3	282.1	260.3	312.6	313.2	245.5	249.4	254.2	276.3	307.7	22.4
4	23.3	25.3	24.6	53.2	336.9	5.4	14.5	227.1	170.4	200.7	236.9	249.3	247.8	241.3	239.6	240.3	235.2	229.9	167.2	175.4	237.0	253.3	258.7	262.1
5	336.8	276.7	250.5	250.6	258.2	20.6	17.2	339.9	254.6	261.7	271.6	257.3	250.4	245.1	294.4	291.8	289.3	278.6	279.8	284.8	275.5	287.7	263.2	246.8
6	244.7	308.2	356.0	329.0	346.9	342.7	297.7	271.1	263.6	257.0	259.0	269.9	291.1	306.3	312.3	311.1	306.0	294.0	307.6	316.2	312.0	313.5	315.1	317.9
7	318.4	320.1	319.4	326.0	341.0	6.1	345.2	343.6	335.0	341.6	321.8	328.9	312.4	314.7	331.9	275.8	252.2	237.7	246.4	256.3	249.4	263.1	257.5	253.2
8	248.7	249.9	255.3	254.3	256.5	252.8	250.5	252.9	252.5	251.5	253.3	252.0	226.5	220.5	229.6	236.9	226.6	232.2	221.9	216.5	207.1	145.4	148.4	119.2
9	144.5	202.3	294.7	40.4	99.3	109.4	114.6	121.7	133.8	119.9	130.1	119.8	132.0	117.7	124.0	134.7	143.3	138.9	150.1	165.2	182.3	173.4	226.0	114.7
10	166.8	137.1	35.6	357.1	23.5	53.0	137.8	141.5	164.8	149.7	147.1	170.6	184.8	178.6	164.6	174.2	175.3	149.4	139.4	132.7	120.7	114.9	120.7	90.7
11	90.0	87.5	105.7	78.7	94.2	94.5	93.5	102.5	109.8	111.7	119.4	122.6	124.3	123.5	128.8	130.3	137.0	139.2	141.1	146.0	146.2	135.3	129.6	134.6
12	153.0	151.2	107.5	113.7	75.9	98.1	107.3	107.2	117.6	123.6	121.3	134.0	132.2	130.9	132.5	134.9	129.4	129.8	129.9	127.9	127.8	131.1	123.3	114.8
13	112.7	118.7	117.0	107.1	107.6	108.6	111.2	107.6	109.6	111.8	110.2	111.2	110.7	116.5	116.9	109.6	104.0	101.2	84.2	73.0	65.5	60.8	50.3	38.2
14	74.5	86.2	63.4	28.9	46.9	46.8	38.7	36.3	69.4	96.0	79.2	96.0	135.8	108.9	111.8	124.3	115.0	116.6	113.7	116.2	121.5	116.3	109.5	104.5
15	107.7	107.4	109.1	108.0	103.9	90.1	57.6	75.3	82.0	102.9	107.1	117.6	131.2	153.7	140.4	159.1	175.5	176.1	216.5	284.1	313.3	5.5	16.9	20.0
16	19.4	24.0	21.5	13.1	23.7	22.0	27.7	24.0	26.3	72.9	114.7	115.5	131.0	158.8	144.2	145.3	153.4	163.1	158.3	151.4	144.8	138.8	136.8	139.3
17	138.1	139.0	140.4	135.9	142.4	145.1	147.0	143.0	139.1	146.2	137.6	131.4	154.9	158.1	150.1	148.3	151.0	151.9	153.0	153.1	144.8	146.6	130.0	106.3
18	146.1	120.6	114.3	111.5	114.7	175.3	138.4	132.4	137.5	135.1	132.9	142.7	143.0	169.9	150.8	167.4	181.7	158.1	190.8	205.7	189.3	234.8	262.5	311.0
19	327.1	2.7	10.3	9.3	16.1	357.1	328.4	305.5	280.2	283.5	265.6	255.9	222.7	229.6	240.6	237.4	243.9	233.4	234.7	240.6	243.4	258.5	269.3	278.8
20	261.3	277.9	266.9	265.5	266.1	261.0	268.5	250.2	242.6	243.2	246.1	253.4	241.3	228.0	226.0	219.5	210.2	224.3	231.9	231.6	230.3	237.4	269.7	270.0
21	259.7	269.3	277.4	288.0	280.3	293.6	312.2	250.7	270.0	50.5	163.1	122.3	135.7	140.4	139.7	133.8	142.2	129.2	118.8	116.5	108.8	103.1	100.9	105.0
22	107.0	101.9	97.7	100.7	100.1	97.7	103.5	85.3	107.2	110.2	122.3	112.0	114.6	143.4	134.6	130.5	124.2	138.2	145.5	145.0	17.6	122.5	133.9	83.7
23	83.9	18.3	43.5	37.3	43.9	73.0	73.2	103.9	109.3	112.1	113.0	113.0	118.1	135.5	140.6	122.9	115.5	114.9	114.1	126.8	131.0	123.4	127.1	116.7
24	121.1	123.6	121.1	115.3	115.8	120.1	117.9	122.4	126.4	124.4	123.0	118.9	125.7	125.0	126.2	128.8	115.7	114.8	105.2	124.8	123.4	144.1	139.3	81.3
25	117.5	193.0	89.6	110.2	121.2	49.2	139.6	145.6	127.1	139.0	174.5	147.6	143.3	144.5	144.1	135.2	133.9	141.4	151.5	191.2	230.8	324.1	10.6	6.1
26	10.0	48.0	140.8	150.8	148.4	114.0	144.6	131.3	127.8	128.8	150.0	143.0	148.4	151.6	139.0	135.8	137.5	131.1	125.3	124.3	127.4	128.2	144.0	161.3
27	142.2	134.2	149.0	135.0	142.0	136.0	135.3	142.9	136.9	139.2	142.9	140.4	143.8	145.2	147.9	152.6	148.6	146.6	144.7	133.9	141.3	128.4	119.7	118.3
28	110.9	108.8	101.8	99.9	113.3	108.3	101.7	130.3	126.0	123.8	119.4	137.2	128.3	133.9	150.2	148.8	142.6	149.7	146.2	138.4	138.6	138.6	123.0	160.9
29	269.7	359.7	3.8	7.4	12.5	18.5	21.5	20.7	16.7	15.3	8.4	16.4	178.8	133.9	207.2	153.1	173.5	177.8	153.6	157.9	153.4	146.0	160.1	252.2
30	277.7	191.5	346.0	353.7	26.1	22.9	26.5	18.1	61.7	112.1	126.3	111.0	121.6	126.0	135.5	153.6	143.7	139.0	138.3	131.3	135.5	130.9	118.0	121.1
31	106.9	71.7	64.2	87.1	94.1	98.8	101.8	116.7	124.3	122.2	129.5	135.6	125.8	90.8	23.3	48.1	77.9	92.6	113.3	102.0	106.6	96.5	96.0	108.9

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

June *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	123.2	121.8	113.6	119.1	111.4	118.0	99.7	113.2	116.1	113.2	115.9	121.5	124.9	120.2	118.5	132.8	128.2	129.9	132.0	121.3	132.1	133.1	113.9	104.2
2	104.5	108.5	95.9	94.5	99.6	93.0	96.7	112.7	119.2	113.6	120.6	99.6	115.7	101.0	116.9	133.2	125.4	135.4	142.1	142.6	125.2	139.3	129.6	110.0
3	51.8	28.1	39.4	144.4	118.2	117.4	247.8	84.2	114.7	142.5	129.0	135.1	139.4	89.7	113.4	150.5	152.3	130.7	149.3	166.2	295.7	285.2	330.3	2.9
4	10.0	14.0	16.4	15.9	14.1	12.7	15.3	18.4	19.1	22.4	11.0	10.8	17.9	24.0	125.6	144.0	187.2	158.7	153.6	150.3	142.8	139.4	139.0	139.7
5	145.1	142.0	141.0	141.1	131.9	118.0	111.0	117.0	118.4	125.4	125.4	118.9	114.7	109.6	112.3	114.1	111.7	118.5	126.8	120.2	113.1	108.4	103.7	110.5
6	109.0	110.8	105.5	106.9	111.7	107.0	91.4	81.7	44.8	41.0	79.3	147.3	144.2	153.6	145.9	148.3	153.6	161.1	160.3	153.7	145.7	138.1	115.6	358.7
7	20.6	47.3	32.4	16.2	13.9	45.0	136.6	93.0	80.2	62.6	67.8	98.7	113.1	110.1	114.5	116.9	113.3	111.5	112.2	110.1	107.3	107.7	98.1	99.2
8	102.6	102.3	99.2	93.1	93.5	97.2	97.6	112.1	106.4	120.9	122.6	130.9	122.2	118.6	114.4	99.3	124.5	121.5	121.5	116.5	114.0	133.7	121.7	113.5
9	100.2	96.6	117.4	88.0	4.6	324.9	14.8	8.5	15.4	16.8	18.4	11.0	356.6	9.3	324.1	50.8	348.2	28.2	343.8	359.4	343.6	352.2	353.5	13.4
10	9.0	3.1	1.9	5.5	7.7	2.7	7.9	356.5	357.3	3.3	358.9	356.0	327.1	321.2	324.9	323.8	324.9	308.6	314.9	239.4	224.5	248.8	244.1	239.1
11	245.5	220.3	208.3	235.9	228.9	234.1	244.6	185.6	135.6	164.3	194.2	167.1	158.4	154.9	157.4	156.8	150.5	146.2	133.9	144.1	142.9	145.0	150.5	165.5
12	160.5	165.9	167.9	130.8	185.6	235.9	138.6	138.9	142.0	138.1	145.0	165.1	167.3	169.2	168.2	170.8	168.4	174.1	172.2	179.4	163.3	157.7	138.1	126.6
13	162.4	156.8	284.7	284.1	324.9	12.4	13.5	2.1	278.3	267.2	257.5	259.9	253.6	255.8	272.5	247.2	197.6	246.5	259.2	256.6	270.2	339.7	323.6	325.5
14	309.8	309.6	345.9	357.6	1.5	356.8	355.4	349.6	298.3	2.5	12.1	22.4	89.6	113.7	112.9	204.3	260.6	260.8	260.5	254.9	263.0	272.5	311.9	358.0
15	10.6	13.6	11.2	6.6	2.7	9.7	9.5	3.5	1.3	1.5	5.7	3.6	1.3	358.6	339.4	345.4	327.3	334.2	343.3	338.0	335.4	338.3	339.7	359.5
16	7.4	6.3	9.9	8.1	6.8	3.8	6.7	5.5	9.5	332.5	330.1	285.6	283.1	287.6	281.5	288.7	276.8	261.2	246.2	236.2	232.0	235.8	244.6	255.6
17	241.9	235.7	236.0	236.0	237.7	241.6	233.6	254.0	244.6	243.6	251.6	256.4	258.5	325.2	330.6	5.0	16.9	143.1	24.1	356.3	356.4	350.8	309.1	5.8
18	5.7	329.8	327.3	336.9	4.2	11.0	17.3	20.5	340.0	303.3	235.1	219.0	283.1	241.9	228.6	221.8	346.7	334.5	247.2	181.7	139.9	22.8	218.0	307.2
19	4.9	349.9	7.1	11.0	15.1	13.1	8.3	7.0	9.0	354.7	355.9	351.2	358.8	356.8	355.0	357.0	357.4	349.4	335.6	336.0	341.8	342.9	343.9	344.3
20	358.5	0.2	12.1	8.3	9.3	5.0	3.2	7.2	3.4	356.0	357.0	351.4	349.2	339.7	329.6	328.9	330.2	335.5	315.7	318.6	314.0	325.7	337.8	344.1
21	354.3	351.4	9.9	356.5	356.1	359.4	359.7	357.3	347.1	335.3	308.6	289.7	295.3	295.5	284.5	279.6	285.3	274.8	249.6	248.6	245.3	236.0	244.5	242.8
22	248.2	247.6	246.4	244.8	226.1	234.8	240.7	216.9	220.4	215.9	197.6	197.7	178.2	165.6	184.0	185.8	195.2	197.5	174.2	169.9	169.2	144.2	146.5	121.7
23	118.1	118.1	116.3	120.4	116.4	114.8	112.3	108.5	108.7	113.3	116.2	115.7	115.3	113.2	110.7	107.8	108.4	105.6	103.4	101.0	100.9	102.3	102.2	101.4
24	96.3	96.9	98.5	98.1	99.9	102.1	103.2	106.4	104.0	104.6	107.0	113.3	115.4	119.1	130.9	126.9	123.1	124.1	123.3	121.7	121.6	118.8	113.8	114.0
25	123.0	124.3	124.1	124.7	121.6	127.8	134.0	138.1	134.9	129.0	128.3	127.1	127.0	121.4	125.7	126.7	130.0	129.6	130.6	130.0	123.5	118.5	120.7	114.9
26	124.4	118.2	111.5	112.3	115.4	122.1	136.4	128.7	124.3	125.8	136.1	135.7	130.5	128.5	154.6	189.6	228.5	209.5	251.2	257.4	255.1	259.4	258.8	306.1
27	10.1	14.8	23.1	17.4	14.0	19.6	1.9	25.0	33.3	49.5	147.2	158.5	158.9	160.1	173.1	186.7	174.4	174.8	188.4	217.8	250.4	248.8	252.7	255.3
28	251.4	263.3	258.1	265.5	272.8	265.0	263.9	252.2	130.0	145.9	142.1	141.6	130.7	122.2	130.5	142.4	137.6	138.6	122.1	131.8	108.6	113.6	108.6	108.8
29	106.2	98.3	80.6	140.8	209.5	207.8	82.0	117.2	130.3	131.9	146.2	136.2	152.1	161.4	218.9	232.6	251.7	253.2	250.6	251.8	254.6	257.4	259.3	257.6
30	283.2	266.6	260.8	239.9	238.9	227.3	237.2	253.3	260.0	257.2	251.4	250.1	255.5	226.6	188.3	168.3	168.4	154.4	140.9	142.9	145.6	144.8	135.8	146.9

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

July *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	127.1	114.3	129.9	328.0	26.4	17.9	12.9	22.3	16.9	10.6	357.1	357.5	346.6	321.3	318.5	298.4	253.4	250.2	265.1	283.1	246.1	120.5	114.0	117.9
2	132.4	138.4	158.4	193.3	269.2	197.8	152.7	205.8	240.2	332.4	322.6	305.8	323.7	331.8	323.2	339.7	319.4	325.7	335.6	346.4	329.8	338.5	5.0	9.3
3	20.0	39.9	109.1	116.7	130.6	181.7	161.2	136.0	140.9	147.0	141.3	144.9	146.2	138.8	144.8	150.6	157.4	145.3	136.2	134.8	130.9	204.2	178.7	130.4
4	126.0	125.4	128.1	126.2	123.4	135.6	122.5	129.1	141.9	127.1	131.3	123.6	124.5	123.7	119.3	120.8	116.6	110.2	116.4	124.1	144.9	147.2	131.6	133.1
5	136.2	148.5	144.6	153.0	306.6	330.9	339.4	275.1	265.1	281.3	281.1	270.1	298.5	353.8	270.9	252.4	2.8	110.3	129.4	127.2	128.4	129.0	121.9	109.2
6	103.4	110.1	109.5	110.4	118.9	116.3	123.4	122.6	124.8	130.9	147.1	124.5	152.0	140.8	148.9	161.8	165.9	170.6	171.6	212.3	227.1	339.7	85.0	109.8
7	94.4	100.8	117.5	106.3	101.1	299.5	34.1	10.5	235.5	232.4	11.1	29.4	277.8	272.2	257.2	290.0	269.1	260.3	149.5	141.9	131.8	125.6	123.3	98.6
8	161.7	164.4	130.3	217.3	58.8	108.5	114.8	113.9	119.6	124.0	142.0	160.4	149.9	141.4	146.5	142.8	134.9	128.8	117.6	126.3	141.9	142.0	147.8	152.7
9	138.0	132.3	118.9	121.6	125.6	113.3	127.4	117.8	110.4	112.2	84.8	88.7	107.0	80.0	109.4	146.5	166.8	168.9	163.0	163.1	224.3	286.9	11.6	13.7
10	18.2	22.2	17.2	16.1	16.2	28.0	6.3	11.0	136.2	353.3	12.3	23.5	156.2	173.0	176.9	148.3	138.4	140.9	141.8	147.0	140.3	134.4	125.5	125.6
11	128.8	127.7	131.2	130.0	133.2	135.9	135.2	136.9	143.3	140.1	140.7	148.6	143.2	148.9	160.5	148.8	159.4	161.5	158.1	155.7	148.1	143.2	132.2	135.0
12	146.5	137.9	125.8	22.1	25.2	18.3	27.2	27.1	36.0	344.3	301.8	239.7	358.5	273.0	182.7	160.5	131.1	140.2	141.9	135.6	143.2	123.7	126.4	125.1
13	141.4	145.6	146.0	141.6	130.8	133.6	144.9	161.7	134.9	128.8	142.4	142.3	145.0	144.1	141.9	143.1	151.1	146.1	148.3	147.6	134.5	148.5	155.1	146.6
14	147.1	134.7	174.1	142.0	160.9	177.4	140.6	127.9	141.4	138.6	145.7	139.9	149.1	158.7	149.3	142.7	157.0	162.8	157.2	145.6	127.7	127.8	148.8	163.8
15	163.7	164.4	150.5	157.2	184.1	171.5	266.1	262.2	247.5	252.2	247.5	248.9	253.1	252.9	263.8	260.6	265.8	254.8	251.7	253.3	255.8	256.7	258.8	257.3
16	250.9	265.0	264.5	267.1	257.7	279.7	298.6	337.4	270.5	310.5	352.2	351.1	348.9	337.5	330.0	323.7	325.6	327.9	330.9	316.2	323.7	337.1	4.5	8.5
17	10.7	359.6	8.6	11.4	7.3	11.6	15.2	17.1	31.0	36.5	39.4	102.0	143.9	149.1	145.8	149.6	149.0	150.3	143.5	136.5	136.3	141.3	128.3	118.4
18	122.9	116.4	113.6	120.4	115.6	121.8	109.8	105.0	128.5	101.8	192.3	26.4	3.5	120.4	138.8	139.6	129.3	134.3	180.1	79.7	175.0	36.4	72.8	18.4
19	11.0	14.8	16.0	43.4	63.0	106.6	330.5	304.5	328.0	10.7	14.8	332.7	293.7	228.4	159.5	112.0	167.2	260.7	267.6	250.5	251.4	256.3	266.3	296.5
20	334.9	254.0	267.5	354.7	319.3	359.1	249.5	214.4	240.9	239.7	252.4	250.9	244.1	233.8	239.9	252.8	266.0	256.6	248.4	248.2	257.1	261.8	255.8	250.5
21	249.7	252.3	245.1	252.8	251.4	253.1	252.6	252.2	250.3	251.9	247.9	252.9	255.8	251.7	235.3	229.2	228.3	222.7	220.2	223.1	217.3	215.3	203.2	197.5
22	183.7	178.9	181.0	177.3	178.2	185.5	179.2	184.6	187.2	188.4	189.9	183.2	177.1	176.3	167.7	157.3	140.6	137.4	134.0	129.2	125.4	122.9	127.9	124.1
23	124.8	126.1	218.5	259.1	271.9	303.8	118.7	123.4	127.7	170.7	147.1	137.1	131.1	125.2	122.4	121.9	115.4	114.9	123.5	120.8	123.4	118.9	116.4	115.4
24	114.3	105.3	100.8	100.1	99.4	99.4	99.0	98.9	89.5	92.4	84.7	71.4	52.5	46.8	43.7	57.3	61.3	62.5	51.8	57.2	55.1	47.8	57.0	73.4
25	62.3	43.6	43.3	45.1	45.6	42.7	49.1	51.0	46.7	46.3	62.2	67.9	64.8	44.7	34.0	38.2	47.4	54.9	68.8	82.7	113.6	121.6	145.0	252.4
26	258.1	228.3	229.2	264.5	325.5	0.9	340.9	8.9	10.4	12.5	27.1	35.5	26.7	7.7	93.3	149.1	177.5	249.8	257.4	257.3	242.1	229.5	201.2	125.5
27	201.7	269.9	12.4	130.4	318.5	348.2	1.9	9.3	341.5	12.6	8.9	4.9	339.4	351.7	334.1	316.5	330.9	338.0	346.3	350.7	11.1	13.7	326.6	271.8
28	293.4	298.1	267.9	267.9	266.7	262.0	263.5	263.5	259.6	256.5	252.9	249.9	256.5	255.1	256.1	256.5	253.7	255.1	256.7	261.6	264.1	253.8	257.2	258.6
29	257.2	261.2	262.4	262.7	277.5	339.2	341.1	332.5	345.4	346.7	346.8	326.2	331.8	331.0	334.4	340.6	334.7	323.0	306.6	291.7	315.7	300.1	259.4	276.4
30	316.8	346.4	280.5	241.1	256.6	240.1	254.6	247.2	253.8	248.2	249.9	251.7	249.2	254.4	250.1	243.4	247.8	252.8	244.4	231.8	222.0	217.9	212.5	223.2
31	226.5	258.6	211.2	202.7	219.0	239.5	218.2	167.2	137.5	143.0	136.5	141.7	138.1	143.6	131.4	128.6	129.8	124.6	114.5	118.0	121.6	123.8	118.7	115.8

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

August *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	114.6	110.9	107.9	113.0	113.7	117.2	112.5	109.4	110.2	111.4	122.4	126.4	125.8	122.4	118.7	120.1	126.4	123.9	122.2	114.4	115.3	111.7	114.0	112.6
2	112.4	118.2	111.3	109.6	109.4	110.7	111.5	110.8	112.2	113.9	114.6	112.4	111.0	109.4	110.7	115.6	115.5	113.6	113.5	115.4	112.3	115.0	116.2	114.8
3	115.5	114.0	122.1	124.3	126.9	128.3	124.0	118.9	119.5	117.5	114.5	123.7	120.4	126.3	126.0	127.2	124.9	130.9	129.6	122.3	122.4	122.9	113.3	114.9
4	115.2	113.0	107.6	107.7	110.4	110.8	111.1	112.6	114.1	115.9	119.6	126.4	132.1	129.1	125.7	128.2	127.4	132.6	128.9	125.2	128.1	128.5	130.2	124.7
5	123.3	121.9	129.4	139.4	136.2	141.9	136.3	163.0	199.8	203.0	203.4	208.7	214.9	217.9	218.3	219.7	215.5	226.9	224.6	227.3	231.0	232.9	240.1	254.5
6	265.6	265.3	269.3	266.5	277.9	285.3	305.0	318.7	323.2	320.0	318.4	314.6	303.8	314.1	314.8	324.0	325.7	329.4	322.9	316.6	323.9	328.0	326.0	326.4
7	332.2	344.8	327.5	329.9	355.7	356.7	350.4	349.8	344.8	352.9	345.0	351.7	349.2	347.5	345.9	347.0	348.0	348.3	346.1	339.8	332.8	336.6	350.2	25.4
8	13.8	5.9	10.6	15.6	13.4	2.7	351.4	1.9	4.3	351.4	345.0	333.5	341.8	330.7	333.3	330.8	326.5	311.1	319.6	329.1	332.6	340.8	352.1	357.6
9	6.5	11.0	14.7	11.6	9.5	7.9	9.2	17.3	42.7	27.1	27.5	12.0	166.2	177.2	164.0	158.3	165.1	158.4	156.6	157.2	150.5	143.6	140.8	127.1
10	131.9	141.5	101.6	261.5	308.7	18.6	2.0	23.9	102.7	118.3	131.1	160.1	151.3	150.0	159.9	163.0	160.7	149.6	158.9	149.4	135.0	121.6	128.3	97.2
11	43.5	6.3	12.4	21.3	351.6	15.0	20.6	351.1	22.2	171.3	139.1	170.4	161.6	145.2	148.3	185.1	256.6	253.0	251.3	252.8	250.1	232.9	240.6	225.6
12	245.5	239.4	255.7	247.5	203.7	183.0	202.8	231.5	234.8	238.2	257.4	250.3	253.2	231.3	149.4	226.3	234.8	215.1	229.8	254.2	258.0	259.1	284.6	258.0
13	265.4	274.5	257.0	280.3	296.5	246.5	217.3	265.7	224.8	207.9	208.8	230.7	208.1	223.2	220.3	201.4	201.2	206.5	169.4	207.8	238.7	252.2	244.9	239.5
14	243.0	242.7	253.7	249.2	261.3	269.7	275.9	226.8	218.3	226.4	224.5	218.6	208.8	214.5	189.7	184.7	229.6	227.5	237.4	251.4	269.9	4.2	0.6	354.2
15	337.7	329.9	333.0	329.6	323.7	329.2	327.3	337.7	353.4	357.4	350.0	347.5	354.7	344.4	349.8	346.6	341.2	355.5	6.9	6.0	7.7	17.5	16.6	23.2
16	26.8	25.3	28.7	28.8	25.6	28.7	27.5	353.6	47.4	143.5	229.5	229.0	172.2	210.6	16.1	196.9	167.2	161.2	135.0	130.6	122.8	148.8	146.9	163.2
17	149.7	106.9	126.5	125.9	120.6	119.8	179.9	187.4	99.7	112.7	119.8	126.2	129.8	120.2	113.4	122.4	111.6	115.3	113.9	121.5	118.2	101.0	104.2	102.2
18	94.5	95.0	106.4	107.9	107.8	110.1	105.0	107.0	108.6	103.8	99.6	102.6	97.4	95.4	99.2	103.0	105.7	105.9	108.0	106.2	105.7	101.4	96.7	101.2
19	97.1	101.0	100.6	95.3	89.2	94.7	88.5	94.2	93.4	102.0	110.5	107.9	115.2	110.6	108.5	108.0	108.7	112.5	115.3	110.5	115.4	108.6	114.2	112.4
20	110.5	111.7	102.6	96.6	93.0	93.4	97.1	118.7	102.9	102.8	109.5	114.5	119.1	121.9	119.6	113.5	120.5	121.6	117.7	122.6	122.3	114.4	110.0	111.6
21	113.9	108.1	117.5	120.8	109.1	100.0	98.8	98.4	98.1	104.5	110.6	114.1	115.3	118.6	118.7	119.9	120.5	123.6	122.2	119.0	116.9	109.5	108.4	117.3
22	112.1	111.5	107.5	105.3	113.0	114.2	110.8	110.8	108.5	110.6	115.0	115.5	117.9	116.2	116.2	116.0	116.2	112.6	107.9	105.3	100.9	97.5	96.2	89.4
23	81.4	74.5	68.8	10.0	11.6	12.9	21.0	21.9	14.5	360.0	1.2	345.5	345.2	345.7	351.2	352.7	353.1	350.1	343.6	333.8	322.7	327.7	326.7	325.5
24	325.1	322.5	325.3	333.9	359.7	6.7	6.2	7.8	10.8	3.7	5.0	360.0	338.6	342.1	39.9	320.3	245.9	124.2	124.2	111.4	101.8	105.0	137.5	139.8
25	151.7	133.3	155.9	221.4	223.0	239.1	239.4	174.7	222.4	164.1	146.3	141.5	125.7	121.9	108.0	134.5	130.4	134.6	137.6	141.8	125.7	111.7	110.6	117.6
26	109.8	104.7	98.8	88.9	88.4	94.9	100.3	97.7	104.6	93.5	106.4	127.0	121.1	129.4	144.5	139.6	124.3	144.7	153.5	170.0	101.2	69.9	71.2	66.5
27	70.5	56.5	40.6	43.3	32.7	13.9	27.1	35.0	92.6	17.4	28.0	75.2	85.6	100.6	126.2	150.4	134.8	149.9	144.6	146.2	105.3	19.8	29.3	13.7
28	327.8	21.3	25.5	24.9	26.2	19.1	22.3	19.1	16.6	32.4	27.4	1.0	11.0	25.2	24.1	263.9	162.4	299.5	263.0	270.3	315.7	350.5	7.1	3.4
29	11.7	7.3	0.4	13.5	13.4	10.1	6.5	7.9	7.4	2.7	5.0	4.4	5.6	2.4	354.2	352.7	354.3	346.9	343.1	350.6	350.1	357.2	358.1	1.8
30	16.8	8.5	15.1	13.3	8.4	2.2	359.0	4.9	6.6	356.2	355.8	353.3	354.8	0.2	9.1	4.8	5.7	10.8	290.6	283.9	8.8	13.6	12.5	11.9
31	19.1	20.7	21.0	13.7	14.7	12.5	23.5	21.4	24.6	20.8	17.6	11.0	20.4	16.3	118.6	143.3	217.3	216.9	228.0	245.8	27.0	23.5	25.4	18.5

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	144.1	124.8	130.8	118.0	121.1	134.4	141.5	159.3	146.5	134.2	139.1	153.0	141.6	141.3	131.7	128.6	138.7	140.5	157.0	149.7	131.4	121.6	125.8	131.1
2	122.9	127.9	127.2	117.1	130.2	130.2	132.4	140.1	167.1	217.0	221.8	197.3	171.8	173.1	162.4	150.7	141.5	135.3	135.5	133.1	132.1	131.9	133.9	122.0
3	115.6	113.5	108.6	106.6	107.9	105.1	100.3	102.6	101.8	102.0	106.9	107.6	106.3	104.0	102.6	103.3	102.0	102.6	101.9	100.6	98.0	94.5	96.9	104.5
4	100.7	97.7	98.2	97.9	87.7	75.9	28.7	53.9	16.1	43.1	46.5	48.0	49.6	27.7	2.4	350.6	312.5	285.6	272.2	302.9	316.2	338.0	329.1	333.5
5	282.8	225.9	278.6	273.3	265.5	247.2	264.3	249.9	253.8	255.0	253.5	250.3	253.8	249.8	245.8	228.6	208.8	250.6	256.2	270.6	261.2	282.0	272.5	265.7
6	251.9	255.8	247.8	257.7	236.1	254.3	267.7	244.7	226.8	199.7	359.9	76.1					307.7	17.2	147.0	133.8	151.3	131.9	110.7	115.1
7	115.0	111.5	108.7	102.3	102.5	97.3	95.7	99.2	102.7	102.8	102.9	107.1	109.8	108.0	112.4	112.6	110.7	104.6	106.3	105.7	105.8	110.0	106.2	106.1
8	110.8	115.3	122.9	118.4	126.1	124.1	117.9	119.1	119.6	118.0	127.1	122.0	126.2	134.9	132.9	164.3	165.7	150.6	128.9	160.3	157.4	144.0	136.6	138.1
9	132.1	127.7	126.8	129.7	128.0	125.8	129.9	136.5	131.7	133.7	132.3	125.8	127.4	151.2	134.1	144.8	129.3	125.8	131.1	126.6	126.1	114.9	100.3	97.1
10	152.4	239.8	177.0	152.7	130.4	109.6	191.2	323.1	323.1	246.9	155.3	96.1	119.7	132.8	138.0	142.1	139.4	139.9	135.7	122.7	115.9	114.4	113.0	115.8
11	117.0	119.9	116.5	111.9	111.6	109.9	111.0	112.4	114.5	112.4	108.9	108.2	108.8	104.2	106.8	107.0	112.6	112.0	108.9	109.5	109.1	107.1	107.1	107.1
12	112.3	110.4	112.6	118.7	142.6	152.8	157.3	185.1	179.0	159.0	168.4	169.7	185.2	201.9	186.7	184.2	201.1	227.9	226.7	220.3	208.4	202.3	194.9	202.0
13	174.1	141.5	133.5	126.1	128.5	129.4	130.4	134.1	161.6	188.4	191.0	178.4	152.0	161.9	160.0	179.4	141.4	133.0	134.6	168.9	135.4	126.9	119.8	169.6
14	104.5	88.6	86.9	76.5	64.8	72.2	75.0	31.8	22.3	25.6	20.2	62.4	2.9	16.1	258.3	1.4	334.1	308.3	287.3	312.8	324.1	324.7	324.1	323.0
15	326.8	327.0	325.4	319.2	319.1	323.5	326.8	328.9	351.3	344.5	333.5	330.4	328.9	324.0	301.8	308.8	292.0	297.5	291.5	291.0	308.3	293.1	289.3	287.7
16	280.3	288.8	285.2	273.3	303.8	331.1	299.3	346.1	319.4	9.8	7.8	345.9	331.4	335.3	289.0	285.8	264.6	261.0	254.0	254.2	262.5	253.9	257.6	262.8
17	257.9	245.9	254.5	255.7	257.6	228.3	241.4	244.9	235.4	227.5	232.4	221.6	199.1	166.0	163.1	166.8	155.2	140.1	101.9	116.6	91.6	70.9	89.9	90.3
18	105.9	111.4	117.8	115.5	107.1	106.1	99.7	108.5	98.4	104.3	107.7	106.3	105.8	105.6	107.4	118.3	122.8	114.2	111.1	112.5	109.4	110.8	139.9	163.7
19	193.1	220.6	216.1	211.5	239.3	214.4	194.2	208.3	184.8	166.0	179.8	198.7	205.4	208.4	220.9	217.6	226.3	222.7	217.5	216.1	211.5	208.9	209.9	209.1
20	208.3	222.4	216.5	225.3	218.6	214.5	219.8	226.5	225.6	219.4	223.5	216.9	228.6	232.2	243.5	235.2	235.8	237.0	230.9	298.2	311.5	272.4	268.4	260.8
21	275.8	292.8	283.0	275.6	307.5	302.0	302.4	269.4	303.4	319.1	321.2	322.9	319.8	321.1	314.0	288.8	316.6	321.4	329.2	328.0	324.1	354.1	356.8	8.1
22	8.1	14.7	17.4	9.2	15.4	12.0	20.2	20.4	28.2	25.4	25.3	95.5	101.7	102.6	102.3	97.0	102.6	94.2	96.0	86.8	89.7	95.3	94.4	97.2
23	92.1	71.3	48.1	61.1	49.6	47.0	59.5	79.8	77.0	111.6	134.2	135.7	136.1	139.6	148.0	134.8	147.7	142.1	146.6	155.6	197.1	200.7	197.9	193.7
24	204.3	214.4	203.7	226.6	238.4	244.5	243.9	231.4	228.5	244.2	250.8	236.6	231.4	224.3	224.4	202.1	200.0	201.0	241.5	217.6	98.2	120.8	159.9	190.5
25	241.3	247.8	243.2	242.2	236.2	234.8	236.5	238.5	238.2	243.3	237.8	232.3	231.7	236.1	220.2	209.0	222.6	233.7	230.2	223.3	230.9	229.2	227.2	233.6
26	235.6	238.5	233.5	234.1	238.7	252.5	256.7	258.6	255.3	269.7	221.0	241.8	252.8	244.8	257.5	271.5	260.9	240.8	241.4	256.1	276.6	282.7	249.6	249.4
27	240.4	284.3	275.9	279.9	250.0	246.1	256.1	249.2	255.7	237.7	261.6	204.0	147.6	161.1	154.6	145.5	110.3	107.9	106.8	119.7	113.2	112.4	112.4	106.2
28	106.6	111.3	105.6	103.8	100.5	98.6	106.2	118.8	118.2	129.5	138.2	128.2	122.4	120.7	120.1	117.1	82.6	51.5	57.3	51.1	32.4	12.3	0.9	335.7
29	5.6	356.7	3.9	354.4	357.1	6.3	11.7	14.3	358.8	8.6	22.4	191.0	177.9	168.8	218.1	224.3	224.2	210.0	160.6	137.6	211.1	223.4	225.5	239.1
30	248.9	246.2	234.5	220.1	194.0	177.7	180.9	157.8	135.1	128.0	124.8	207.3	225.9	208.7	212.8	175.6	170.1	171.9	171.7	194.7	154.2	190.8	234.2	233.3

Total Hours in Month 720 **Hours Data Available** 716 **Data Recovery** 99.4%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	238.4	249.2	247.3	243.6	249.2	260.0	274.1	228.1	230.4	311.5	336.2	348.7	3.7	345.8	325.8	308.9	296.1	287.0	290.4	308.9	296.6	301.4	289.0	287.0
2	286.3	283.6	283.6	285.1	292.6	296.4	303.3	307.9	311.3	318.3	315.4	313.7	317.5	317.3	318.9	319.7	320.7	316.3	316.1	308.6	316.0	316.7	320.6	323.6
3	325.6	325.5	322.5	318.3	325.1	330.6	331.2	326.7	326.4	331.3	330.7	336.8	344.2	332.9	341.1	341.9	351.3	343.2	329.7	335.3	6.3	25.5	9.7	317.5
4	28.9	15.4	24.1	56.2	55.5	89.8	105.2	117.8	121.6	125.7	111.0	118.2	109.8	108.7	112.2	112.1	117.1	118.2	120.3	126.1	121.1	126.3	136.8	135.6
5	137.2	139.4	130.0	140.1	139.3	139.1	138.0	136.3	121.4	106.8	103.7	94.5	127.9	270.9	299.4	299.7	301.1	298.4	300.8	306.4	311.3	311.6	311.9	317.6
6	321.1	321.5	320.1	317.4	321.5	321.4	323.4	324.3	327.3	339.1	335.9	336.9	331.0	331.4	339.8	333.0	330.5	323.8	322.7	323.5	327.1	335.5	326.0	317.7
7	319.4	321.3	326.1	339.1	341.1	332.8	340.1	325.4	333.1	331.4	328.7	330.3	337.3	337.0	344.0	341.4	345.4	348.5	345.4	346.5	346.5	349.9	353.4	351.9
8	345.8	349.3	342.7	347.8	348.5	340.4	339.1	330.9	336.5	346.0	337.6	349.8	346.1	344.2	342.5	337.0	335.9	341.8	337.6	333.0	332.2	1.7	353.5	1.7
9	5.9	358.5	2.2	23.8	32.6	23.5	22.4	23.9	28.8	25.3	24.9	24.7	40.5	148.7	270.4	253.8	344.9	358.9	353.4	5.7	3.5	337.3	318.4	319.7
10	319.5	323.4	324.0	328.2	340.6	309.7	314.4	327.0	342.8	332.3	322.5	322.4	339.9	346.6	330.3	324.4	326.2	333.8	334.7	349.2	348.7	2.4	10.8	7.8
11	14.8	14.6	17.6	12.6	19.0	18.1	14.1	23.9	26.2	28.2	41.1	84.6	91.4	103.7	103.8	104.2	110.7	107.1	110.1	110.2	111.9	110.0	112.7	110.1
12	113.3	114.4	111.0	107.5	99.7	93.2	94.0	77.0	38.8	24.5	12.2	18.6	169.6	262.3	2.2	20.9	346.9	340.7	1.0	2.7	5.2	10.0	29.8	17.7
13	22.8	12.6	19.3	7.9	5.8	11.1	12.9	10.3	12.2	16.8	15.5	15.5	11.2	8.9	12.0	356.7	304.4	324.6	325.4	316.8	317.7	332.7	332.5	325.0
14	332.4	334.6	326.0	338.6	348.0	0.7	350.3	343.6	343.3	343.6	340.6	319.8	340.5	335.9	347.4	340.1	346.6	333.7	332.4	346.1	353.8	8.6	10.9	20.7
15	19.3	21.4	31.1	30.6	28.6	27.7	37.7	21.4	38.2	34.8	63.6	33.5	44.3	81.9	42.0	16.0	14.8	28.0	19.7	18.4	19.0	20.1	20.3	16.2
16	17.9	19.1	20.9	23.2	21.2	23.9	358.9	16.3	18.6	2.6	359.9	0.9	19.3	15.2	10.1	6.2	8.8	10.0	4.0	4.4	2.0	10.8	8.7	10.0
17	13.1	12.5	9.7	3.3	3.1	7.5	11.8	12.1	15.0	15.2	15.1	13.7	11.2	14.8	11.7	359.8	0.1	9.7	3.3	1.7	7.4	9.7	13.0	18.7
18	15.7	16.7	17.9	20.2	19.1	11.5	16.0	15.3	10.5	10.7	358.2	3.8	315.9	325.9	16.1	262.2	290.4	306.7	299.6	297.0	289.9	293.9	293.0	304.1
19	18.1	16.0	356.9	351.9	2.3	10.7	5.8	8.7	4.8	19.8	335.8	284.5	317.1	3.2	29.8	110.6	80.1	48.3	38.7	32.8	30.3	42.9	35.4	45.6
20	58.1	37.7	18.9	20.7	19.1	21.4	23.5	22.2	21.0	21.1	29.0	24.7	82.5	79.9	77.0	83.7	78.0	81.1	73.3	74.3	74.7	71.4	70.6	70.2
21	85.1	82.9	86.1	84.2	84.5	87.1	92.6	99.2	97.4	92.6	80.6	69.5	56.7	53.0	52.7	43.9	49.0	38.1	4.8	20.2	8.0	19.2	17.7	20.4
22	19.3	351.5	5.3	5.5	13.3	13.5	23.5	25.0	24.7	25.5	21.5	27.3	44.1	81.3	69.7	125.0	123.5	138.5	155.6	83.3	102.2	105.9	81.5	89.0
23	120.8	125.3	19.8	106.7	126.7	101.4	41.2	53.6	131.9	132.1	128.9	203.0	220.9	194.6	165.3	118.9	83.3	348.1	335.2	314.9	299.0	345.2	351.2	306.8
24	306.9	246.1	358.8	39.2	30.9	200.4	330.7	68.7	135.0	131.9	150.3	137.9	159.2	164.1	168.2	140.5	133.0	109.6	97.8	97.1	90.8	81.3	85.8	96.5
25	102.7	102.0	105.0	104.2	107.8	102.4	105.3	109.3	107.5	105.9	102.7	100.9	100.4	100.7	102.7	103.1	103.3	101.9	101.8	105.3	126.9	122.3	145.5	163.5
26	123.1	116.5	118.2	106.8	99.1	100.2	100.4	113.3	134.8	125.0	121.7	131.5	114.5	113.1	120.1	110.8	112.5	91.8	91.9	91.1	92.9	93.5	92.3	90.0
27	95.0	95.9	96.6	96.2	96.8	99.6	95.7	99.7	64.2	41.8	40.4	56.6	71.4	93.8	94.6	90.3	87.2	101.2	105.5	107.0	107.0	107.8	130.9	128.0
28	119.5	91.8	86.5	95.0	190.2	141.1	60.0	168.5	142.6	154.3	162.1	157.9	144.8	158.1	130.8	127.3	112.2	110.6	108.2	106.0	100.6	102.4	96.8	96.7
29	99.8	100.1	103.3	104.8	102.8	98.7	99.8	102.3	98.2	97.7	95.3	94.4	93.6	97.9	98.4	98.4	101.8	100.8	96.1	100.6	97.5	96.6	98.4	94.8
30	86.3	60.4	31.2	29.9	32.7	33.6	35.5	11.6	8.3	5.7	7.1	14.5	326.3	234.3	244.1	242.1	231.2	237.1	246.3	247.9	248.4	252.4	251.3	253.1
31	263.4	254.8	242.5	243.6	246.3	244.8	243.9	236.6	231.4	226.9	220.4	210.9	213.1	206.5	195.5	179.5	167.2	139.2	97.7	78.0	78.4	81.4	71.2	61.6

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	69.3	52.6	55.6	65.6	59.0	38.0	35.8	21.5	7.3	19.5	19.2	20.0	22.7	20.8	277.2	229.0	222.6	241.9	267.6	272.1	256.1	260.7	265.8	271.6
2	269.8	261.8	318.6	297.6	309.8	286.0	267.6	319.6	332.8	328.0	332.8	327.8	325.4	327.3	332.8	8.8	334.5	298.9	303.7	311.6	307.7	317.4	330.6	320.6
3	328.9	319.9	319.9	316.3	317.7	318.7	321.5	342.7	9.0	14.1	341.2	272.4	309.9	69.9	152.4	142.1	201.2	169.7	101.9	100.4	106.0	102.9	105.3	104.3
4	107.6	105.9	101.3	100.3	103.6	107.3	101.5	107.2	110.7	112.5	118.6	119.5	119.6	120.7	117.2	117.8	118.1	116.7	116.8	135.6	131.1	120.5	117.2	105.3
5	103.1	102.8	104.3	105.5	108.8	106.8	99.1	98.5	97.3	95.3	95.7	95.4	94.0	86.0	80.5	79.7	80.5	93.0	93.1	96.5	97.1	97.4	96.4	98.8
6	95.7	95.4	98.9	97.8	100.8	95.9	87.8	84.4	84.9	84.4	89.0	87.0	87.1	92.3	93.0	92.5	94.6	97.8	97.8	96.6	99.9	107.1	131.5	151.7
7	137.2	120.6	104.2	101.5	100.8	104.1	106.6	114.5	122.5	122.4	117.1	120.7	121.8	139.7	166.6	165.8	179.5	167.7	180.4	209.5	204.3	210.2	203.8	176.5
8	157.4	119.1	94.5	86.9	93.2	93.2	95.0	98.0	101.2	97.7	98.8	97.5	101.7	107.8	104.9	107.6	103.2	108.5	105.7	115.7	104.6	97.3	100.6	97.5
9	99.4	99.2	100.9	103.5	104.4	98.9	96.2	95.2	95.8	97.7	96.0	99.9	99.5	96.4	99.9	102.0	106.3	108.3	97.7	89.8	89.5	87.8	60.7	29.5
10	16.3	15.8	18.2	24.8	27.6	10.7	12.8	15.3	13.8	1.1	15.6	17.5	10.8	8.0	6.5	356.2	8.3	5.2	5.7	12.9	10.3	13.7	11.0	13.9
11	13.8	19.7	21.8	15.3	16.3	21.4	20.7	20.0	17.6	17.0	3.9	6.7	15.6	14.4	18.9	14.8	14.5	11.3	20.1	17.9	22.6	22.4	14.3	322.8
12	22.5	21.8	327.5	329.5	27.2	79.6	129.5	304.9	330.9	267.9	342.1	13.5	47.9	35.4	39.5	53.0	103.1	99.9	103.1	105.3	102.5	104.8	104.0	104.2
13	104.6	102.4	101.6	100.2	94.8	97.4	98.8	98.9	97.7	95.2	89.7	88.9	86.1	126.3	169.2	296.1	10.7	74.4	92.5	93.2	96.8	100.0	106.9	117.0
14	139.8	150.2	155.1	143.5	147.4	151.2	135.4	144.5	164.4	71.4	46.5	76.6	83.2	86.3	83.2	78.9	74.6	70.4	72.5	68.8	55.1	27.9	15.0	17.3
15	15.9	19.5	20.8	20.4	10.6	16.1	18.1	14.9	14.3	19.9	19.6	14.9	14.4	12.5	14.9	16.4	8.3	11.7	5.0	16.7	11.5	14.7	14.5	19.6
16	6.0	357.1	354.4	355.2	352.7	358.8	350.9	352.9	358.2	354.7	354.6	1.4	0.9	352.5	352.5	355.5	352.1	349.6	359.7	351.6	354.2	0.1	355.2	355.3
17	354.9	348.8	355.6	353.8	349.3	346.3	350.0	348.5	351.3	350.8	0.2	358.9	356.3	357.8	358.2	357.6	346.8	347.9	359.0	354.6	0.3	0.7	1.8	19.3
18	18.7	9.7	352.7	14.9	12.2	12.4	0.6	3.9	10.8	19.6	20.0	11.2	16.5	10.3	14.0	3.8	12.9	8.7	14.0	325.6	356.2	23.4	21.0	20.3
19	21.1	27.0	28.5	21.3	22.7	358.9	21.4	349.1	73.5	86.7	82.0	83.4	90.7	85.0	84.0	92.7	96.4	88.1	77.6	71.9	71.3	65.6	69.8	70.8
20	72.8	74.3	76.9	81.2	78.5	90.9	96.5	93.3	96.2	92.4	94.4	94.2	96.0	97.8	97.4	90.9	95.5	92.0	81.2	62.9	54.3	43.8	65.3	73.3
21	52.2	58.1	66.7	66.7	80.1	93.6	117.4	132.8	146.7	121.8	115.7	114.8	112.9	109.0	107.4	117.4	129.0	118.7	114.5	114.8	115.0	115.4	115.1	117.6
22	120.1	132.1	98.4	88.6	78.2	45.1	43.4	49.3	85.0	95.1	97.5	96.3	94.7	93.7	86.7	82.0	79.9	88.0	97.2	112.6	120.9	126.6	147.2	159.5
23	156.5	163.6	175.4	183.2	197.9	219.0	218.8	207.9	208.7	212.5	218.4	221.2	227.8	229.5	233.2	237.8	253.9	257.0	239.1	231.7	238.3	240.2	250.6	244.6
24	235.7	248.3	247.6	264.3		181.3	172.1	118.8	102.8	92.1	85.5	96.1	90.3	93.1	98.0	96.2	96.9	98.1	100.2	98.2	89.9	99.0	99.6	93.5
25	97.3	97.7	93.2	93.1	96.2	94.7	90.4	79.6	82.3	90.5	91.8	97.5	90.4	89.6	86.7	91.2	87.0	86.6	83.0	73.8	75.7	79.6	72.2	45.0
26	44.1	43.6	38.1	24.4	26.3	36.6	54.4	59.9	118.4	100.5	114.1	131.9	131.1	149.6	129.9	156.6	132.9	145.0	158.1	162.9	158.5	124.9	121.6	114.2
27	127.2	117.2	100.9	105.6	109.7	111.9	105.1	103.0	105.0	106.4	107.6	111.2	104.5	107.8	105.8	102.9	110.3	123.2	106.6	97.1	101.8	105.3	101.6	109.2
28	114.9	112.2	106.1	112.0	124.2	128.7	127.2	236.4	163.4	155.2	130.7	120.9	130.9	133.0	125.1	124.6	127.5	127.6	121.6	114.8	117.7	118.5	127.9	123.6
29	116.6	116.3	114.0	111.2	105.7	97.7	106.0	106.8	109.5	109.7	112.7	112.8	114.9	112.0	112.1	109.7	108.9	108.9	108.2	108.8	112.0	112.3	113.0	110.2
30	107.5	111.3	108.7	108.2	112.4	112.3	113.1	111.8	110.5	114.8	113.3	109.1	106.8	109.4	116.3	116.3	121.2	125.6	126.8	115.0	111.5	113.2	113.7	115.3

Total Hours in Month 720 **Hours Data Available** 719 **Data Recovery** 99.9%

HCG, Inc.

Pebble 4 Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	121.3	118.2	128.2	138.4	130.3	130.1	131.1	148.3	116.4	127.7	116.3	123.6	125.0	130.2	116.9	121.4	149.4	160.8	179.3	285.3	5.0	348.7	345.7	20.4
2	9.4	4.2	20.3	26.5	29.4	22.5	20.3	19.1	22.7	21.9	25.2	22.2	37.1	23.8	241.5	178.1	203.3	20.6	25.8	24.4	54.7	62.7	71.7	90.6
3	93.7	95.3	94.4	98.8	99.9	101.2	99.5	96.5	95.4	93.2	93.8	86.2	90.5	95.6	87.0	85.4	83.6	73.9	76.8	77.3	77.2	77.0	74.3	72.3
4	72.4	77.4	81.2	77.6	82.5	87.2	46.9	37.9	74.1	75.2	74.3	75.4	75.7	89.4	119.3	126.3	125.0	117.5	120.5	120.7	124.7	123.5	128.3	126.2
5	127.7	126.6	122.5	124.1	123.3	123.5	123.7	123.6	120.1	107.3	102.9	102.5	105.1	108.6	113.1	113.4	111.1	107.2	107.4	110.1	110.5	107.3	117.8	112.6
6	110.7	113.3	115.6	117.7	115.3	115.1	117.6	119.8	115.6	111.0	112.9	110.5	108.7	107.4	116.2	119.2	137.4	176.3	220.2	236.8	222.3	214.5	194.3	193.3
7	188.5	160.8	146.0	131.3	118.2	117.5	105.6	98.9	95.7	88.6	83.8	96.3	107.6	96.3	94.5	98.3	98.7	99.0	96.4	92.9	91.4	92.1	93.4	98.9
8	106.4	120.1	148.9	160.7	163.4	163.0	163.0	160.1	143.0	130.7	116.7	111.9	119.3	133.4	136.1	144.6	218.2	236.6	217.3	236.8	232.2	226.5	231.0	250.8
9	243.3	217.4	116.8	124.7	103.7	95.0	87.2	88.9	87.5	98.4	103.2	103.4	105.5	105.3	103.9	107.0	107.7	110.3	108.2	109.5	112.6	114.1	113.4	112.9
10	112.0	118.6	107.0	91.2	93.5	76.5	38.7	43.5	38.2	33.8	30.9	22.3	10.7	7.9	14.3	20.2	21.0	17.7	13.0	14.6	3.8	351.2	319.6	324.8
11	324.7	327.7	324.2	319.6	307.6	300.9	290.4	280.0	304.5	2.0	11.8	354.4	356.0	316.6	6.0	9.3	19.5	25.6	226.0	296.8	7.4	24.1	22.3	16.2
12	13.4	24.3	28.0	21.5	27.7	29.2	56.2	61.2	62.1	12.9	5.1	9.2	14.3	21.6	13.6	52.7	10.9	13.2	19.1	24.8	22.4	24.8	23.8	23.8
13	26.4	27.9	28.2	38.6	33.5	30.5	26.3	26.5	29.8	31.3	30.4	23.7	23.5	20.9	18.4	15.6	21.2	24.1	24.0	18.0	19.4	12.5	16.6	20.0
14	16.9	11.8	14.4	17.0	15.1	13.1	14.4	13.3	6.0	10.6	13.6	16.8	9.6	359.7	16.4	18.7	9.4	12.5	7.1	8.9	0.9	9.3	5.5	348.5
15	347.0	11.1	17.8	347.6	337.9	341.1	338.9	333.8	326.7	325.9	325.4	327.3	326.0	325.9	324.7	328.2	325.5	328.6	328.1	333.7	336.8	338.4	337.9	331.2
16	333.4	332.3	334.1	339.3	340.0	336.8	348.1	348.9	343.0	347.5	347.7	350.5	343.8	343.6	347.9	348.9	346.7	354.0	353.3	354.2	355.4	350.5	351.5	357.2
17	348.1	352.5	353.1	354.5	356.0	354.9	356.8	345.1	345.0	347.8	353.9	350.2	349.1	355.1	354.7	355.7	355.4	357.8	4.9	6.4	3.3	2.4	7.4	13.0
18	13.4	14.3	18.9	22.3	23.2	24.4	23.2	16.3	14.5	19.3	20.1	25.4	18.9	19.2	20.8	16.8	10.8	10.8	15.1	14.7	11.1	13.6	16.5	7.3
19	1.5	0.5	10.0	359.5	358.0	12.2	14.0	3.3	8.4	15.1	8.7	12.4	23.7	12.8	357.3	1.5	359.0	5.6	4.8	22.2	6.7	14.7	26.7	19.9
20	24.6	24.0	22.5	27.9	23.9	31.4	82.9	86.9	86.4	91.3	94.6	101.4	102.3	104.0	106.1	108.1	113.6	125.9	124.0	120.0	134.4	137.4	133.2	116.8
21	108.6	113.8	110.5	113.0	121.0	115.5	137.7	171.6	165.5	138.7	146.2	142.1	141.1	128.1	114.3	107.6	110.9	98.9	100.8	105.1	102.6	98.4	98.5	109.4
22	112.7	104.7	103.4	96.5	99.5	103.4	107.3	107.1	107.5	107.8	104.1	104.8	111.7	114.6	115.5	119.0	120.9	117.0	112.6	113.7	127.0	215.2	249.6	236.0
23	235.1	238.1	229.1	231.0	226.9	218.7	217.6	220.0	243.3	311.7	312.0	312.1	303.7	272.8	279.0	290.7	297.6	331.2	2.4	1.3	270.3	220.3	330.3	44.3
24	23.9	23.7	26.5	23.9	25.0	20.6	13.7	10.9	9.5	8.3	2.9	356.0	354.2	353.7	353.6	354.9	357.3	353.6	345.9	346.0	348.0	348.0	345.3	342.9
25	340.0	339.5	341.3	340.5	335.2	333.3	333.6	336.3	337.9	340.0	348.8	345.9	333.9	325.6	321.8	322.5	321.5	340.6	333.4	348.3	18.4	357.3	7.2	10.3
26	17.5	25.9	25.2	30.2	27.0	48.6	42.4	36.9	67.4	107.4	101.2	101.5	89.1	82.8	87.0	93.3	92.5	99.2	106.9	97.1	87.8	89.7	90.6	88.7
27	88.7	87.4	91.3	91.8	91.5	88.0	85.3	79.8	82.5	85.1	86.5	88.0	89.1	87.8	87.7	79.7	76.2	72.0	78.1	94.0	118.3	163.4	185.0	174.4
28	170.7	186.8	198.4	207.2	222.9	259.8	269.8	278.2	269.7	332.9	350.8	15.0	0.8	3.2	10.4	11.2	17.7	3.9	5.9	5.1	1.2	355.6	358.5	2.2
29	356.2	352.6	345.0	22.4	11.3	341.5	331.5	348.8	6.4	8.7	359.3	1.3	356.2	349.0	335.5	0.6	353.1	321.7	318.3	319.0	316.3	322.7	319.4	317.0
30	319.8	326.0	335.4	335.5	340.6	3.7	3.9	4.9	11.7	20.1	19.8	18.3	14.0	19.6	21.0	31.2	25.9	26.6	20.5	23.6	21.3	19.3	20.9	23.2
31	25.0	13.7	15.7	20.3	18.0	19.1	22.7	18.3	19.3	18.6	22.1	19.0	20.9	20.5	20.7	18.0	19.4	20.6	19.4	19.8	17.0	17.9	15.9	18.8

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (RMYoung)

January 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	3.1	3.2	3.2	3.0	3.3	3.1	8.3	4.6	5.6	4.2	3.6	3.7	4.2	4.6	5.0	4.3	5.0	4.0	4.6	4.0	5.7	4.8	4.3	3.9	8.3	3.0	4.3
2	4.2	3.6	3.3	3.8	3.2	4.2	4.0	5.0	4.5	5.7	4.0	3.8	4.0	4.1	3.2	3.6	3.3	3.0	6.3	3.1	3.7	4.2	2.7	4.0	6.3	2.7	3.9
3	3.7	4.9	5.0	8.7	8.1	9.4	7.1	6.1	7.2	3.9	4.3	3.3	2.6	5.5	8.5	9.3	3.2	2.6	8.8	10.5	5.7	9.1	7.9	5.7	10.5	2.6	6.3
4	16.6	4.9	6.7	3.6	3.7	4.7	3.7	4.6	5.6	5.5	5.6	5.7	5.0	12.4	11.4	7.8	3.6	4.9	4.8	5.8	14.0	36.1	12.8	42.5	42.5	3.6	9.7
5	14.6	18.7	6.4	6.5	5.6	12.7	8.1	4.5	5.3	17.9	7.1	3.7	4.5	21.1	7.2	6.1	4.8	7.0	9.0	17.8	17.0	6.2	5.5	5.1	21.1	3.7	9.3
6	5.1	3.2	6.6	5.0	4.6	5.3	5.7	6.8	10.9	5.4	2.2	3.3	3.6	8.9	5.3	5.3	5.4	9.1	12.3	6.0	7.9	9.6	7.6	10.0	12.3	2.2	6.5
7	5.5	6.8	5.9	9.2	12.0	12.4	13.6	8.9	10.8	9.5	7.6	7.1	10.2	6.9	9.5	8.3	8.8	7.5	13.5	7.4	10.5	8.0	6.5	5.7	13.6	5.5	8.8
8	7.9	9.2	6.1	4.2	5.7	5.7	8.8	7.1	5.3	4.7	7.1	3.3	7.2	7.1	8.7	6.6	7.0	4.5	3.5	5.0	5.4	7.6	7.3	3.9	9.2	3.3	6.2
9	8.7	5.2	5.6	23.5	9.5	4.7	8.9	6.6	8.4	11.4	9.0	39.0	49.5	7.7	11.9	27.0	6.4	5.7	6.5	6.9	4.5	17.1	9.3	5.1	49.5	4.5	12.4
10	6.9	6.3	5.8	6.8	5.6	6.0	5.2	4.2	3.8	3.4	3.5	3.3	3.2	3.2	3.4	3.3	3.8	3.5	3.6	3.4	3.9	3.7	3.3	3.6	6.9	3.2	4.3
11	3.4	3.3	3.3	3.2	3.4	3.4	3.3	3.4	3.5	3.4	3.4	3.4	3.1	3.1	2.9	3.2	3.2	3.1	3.4	3.2	3.3	3.1	3.2	3.3	3.5	2.9	3.3
12	3.3	3.6	3.4	3.2	3.5	3.5	3.4	3.5	3.3	3.1	3.4	3.6	3.5	3.3	3.2	3.4	3.2	3.2	3.5	3.4	3.2	5.5	8.7	3.8	8.7	3.1	3.7
13	4.1	4.4	4.4	3.9	3.7	4.2	4.1	3.8	14.4	3.7	3.7	6.1	8.3	13.3	4.9	6.2	0.2	0.1	13.9	3.4	3.3	2.7	3.3	3.0	14.4	0.1	5.1
14	3.0	3.7	5.5	3.8	6.1	9.2	12.4	16.3	17.3	18.7	22.4	12.2	11.2	15.1	17.2	8.4	8.2	7.4	12.7	9.3	8.9	8.1	5.1	3.4	22.4	3.0	10.2
15	4.8	4.9	9.0	9.2	8.3	1.8	3.6	3.6	3.5	5.0	4.4	3.2	2.8	3.5	4.9	5.5	5.6	5.5	46.9	41.0	7.0	10.0	4.1	4.1	46.9	1.8	8.4
16	6.6	5.4	5.0	7.1	8.3	17.8	3.6	3.5	3.7	3.7	3.2	3.6	4.1	4.0	3.5	3.7	3.7	3.6	3.4	3.6	3.7	3.4	3.3	2.8	17.8	2.8	4.8
17	3.0	3.7	2.9	3.0	2.9	4.1	4.8	3.2	3.2	5.0	3.5	3.9	4.0	3.6	4.0	3.6	3.5	3.4	4.0	4.8	4.0	3.9	3.8	3.3	5.0	2.9	3.7
18	3.3	4.2	5.1	5.6	10.0	10.2	6.7	5.2	6.7	8.8	11.4							5.4	23.0	20.6	6.0	25.7	9.8	17.0	25.7	3.3	10.3
19	16.1	20.9	10.3	34.5	10.5	10.4	19.1	16.4	46.1	5.4	7.5	5.9	22.3	21.7	21.1	29.0	3.4	4.0	3.7	3.9	3.8	4.2	4.0	4.0	46.1	3.4	13.7
20	4.1	3.5	3.6	3.1	3.2	3.2	3.0	3.2	3.3	3.9	4.0	3.5	5.4	5.3	6.0	3.9	4.5	6.4	10.4	4.8	6.9	3.5	3.4	4.9	10.4	3.0	4.5
21	4.8	10.2	7.7	13.8	37.6	9.0	13.2	5.9	18.3	9.3	12.9	3.8	4.1	3.3	3.9	5.0	4.9	10.4	5.0	6.8	5.1	5.4	4.8	4.4	37.6	3.3	8.7
22	12.3	9.4	11.7	28.3	5.2	4.0	21.4	19.7	3.2	3.6	5.4	5.4	5.4	6.0	5.7	6.1	5.7	10.0	5.8	5.4	5.2	8.9	8.6	4.7	28.3	3.2	8.6
23	6.6	5.0	4.5	13.0	4.1	4.1	3.0	7.4	4.9	5.3	7.0	3.0	8.3	5.4	8.3	6.8	13.3	8.2	11.2	4.5	10.6	5.7	6.1	9.0	13.3	3.0	6.9
24	10.5	6.6	2.8	2.6	2.5	2.9	8.4	12.9	9.6	7.5	8.0	5.0	5.4	12.0	7.4	4.2	4.4	4.0	4.0	13.0	5.8	5.1	6.5	5.4	13.0	2.5	6.5
25	6.5	13.4	12.6	3.9	4.2	3.1	3.5	6.0	4.9	3.8	3.9	4.0	5.0	4.0	3.9	4.2	4.6	4.3	3.5	3.5	3.3	3.1	2.9	3.5	13.4	2.9	4.8
26	3.1	3.2	3.4	3.2	3.3	3.4	3.4	4.0	3.7	3.3	3.7	4.5	3.8	3.4	3.4	3.2	3.7	3.3	3.4	3.1	3.3	6.2	3.6	3.4	6.2	3.1	3.6
27	2.9	3.5	2.9	3.4	3.1	3.4	3.6	4.8	5.0	3.5	5.9	4.3	3.3	3.2	4.0	3.4	3.2	4.4	4.1	4.2	3.8	4.3	4.1	3.8	5.9	2.9	3.8
28	3.2	3.2	3.4	3.4	3.3	3.1	2.9	3.1	3.3	3.1	3.0	4.3	3.8	3.9	3.5	3.6	3.3	4.4	3.9	3.2	2.4	2.9	2.7	3.3	4.4	2.4	3.3
29	3.8	5.0	4.3	3.6	3.5	3.8	3.8	4.9	4.3	3.4	4.2	3.8	3.4	3.1	3.4	3.9	4.0	3.9	4.0	4.1	3.8	3.8	4.0	4.5	5.0	3.1	3.9
30	3.9	3.6	3.9	3.8	4.2	3.9	3.6	3.6	4.1	4.0	4.4	4.5	4.3	4.4	4.1	4.7	4.3	3.9	4.4	4.1	4.3	4.1	4.4	4.8	4.8	3.6	4.1
31	4.4	4.1	4.1	4.1	4.0	3.7	4.9	4.2	4.0	4.3	4.3	4.1	4.6	4.7	4.9	5.6	4.6	4.3	5.0	10.2	4.7	5.6	8.1	6.9	10.2	3.7	5.0
Max.	**16.6**	**20.9**	**12.6**	**34.5**	**37.6**	**17.8**	**21.4**	**19.7**	**46.1**	**18.7**	**22.4**	**39.0**	**49.5**	**21.7**	**21.1**	**29.0**	**13.3**	**10.4**	**46.9**	**41.0**	**17.0**	**36.1**	**12.8**	**42.5**	**49.5**		
Min.	**2.9**	**3.2**	**2.8**	**2.6**	**2.5**	**1.8**	**2.9**	**3.1**	**3.2**	**3.1**	**2.2**	**3.0**	**2.6**	**3.1**	**2.9**	**3.2**	**0.2**	**0.1**	**3.4**	**3.1**	**2.4**	**2.7**	**2.7**	**2.8**		**0.1**	
Avg.	**6.1**	**6.2**	**5.4**	**7.5**	**6.3**	**5.8**	**6.7**	**6.4**	**7.7**	**5.9**	**5.9**	**5.6**	**7.0**	**6.9**	**6.5**	**6.6**	**4.8**	**5.0**	**8.1**	**7.4**	**5.8**	**7.5**	**5.5**	**6.2**			**6.4**

Total Hours in Month 744 **Hours Data Available** 738 **Data Recovery** 99.2%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (RMYoung)

February 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	7.7	4.0	4.7	8.9	7.3	5.8	3.8	4.6	6.1	9.7	7.0	14.4	15.4	38.8	32.3	3.9	4.6	5.1	4.8	6.5	6.1	4.1	4.3	4.1	38.8	3.8	8.9
2	4.0	4.0	4.8	4.5	4.0	4.4	4.2	4.3	4.7	3.8	4.0	4.2	4.2	4.4	4.3	4.4	4.9	4.5	4.1	3.7	3.8	3.9	4.0	3.9	4.9	3.7	4.2
3	3.8	3.8	4.0	3.9	3.9	4.4	3.8	4.1	3.7	4.1	4.4	4.0	3.7	5.9	9.8	10.8	10.3	24.4	9.9	5.2	4.0	7.8	10.9	8.7	24.4	3.7	6.6
4	6.7	6.2	2.5	12.4	8.5	3.3	4.9	7.1	4.4	4.5	5.6	4.2	5.7	7.5	8.0	6.9	4.8	4.9	5.6	4.4	5.5	7.8	5.8	10.9	12.4	2.5	6.2
5	13.5	13.3	9.1	18.3	7.6	8.9	8.8	22.2	9.8	26.0	12.1	5.8	7.7	6.6	7.5	7.7	15.8	6.6	4.0	6.2	4.9	4.6	5.0	9.9	26.0	4.0	10.1
6	4.2	3.7	4.0	3.9	3.8	3.7	3.4	3.9	4.2	4.0	4.6	4.2	3.7	3.9	4.6	8.5	7.2	10.7	13.8	8.4	17.7	12.7	7.1	4.6	17.7	3.4	6.3
7	7.6	36.4	24.6	32.5	19.0	6.6	6.8	33.2	27.1	17.6	12.1	17.3	13.3	9.5	36.5	30.1	8.5	26.3	3.7	9.4	14.8	4.4	26.3	7.9	36.5	3.7	18.0
8	11.9	27.4	10.4	10.6	7.8	6.1	6.2	5.7	7.6	6.8	5.1	5.3	6.3	6.9	7.2	5.9	7.6	7.6	12.5	8.3	14.1	7.8	11.6	9.8	27.4	5.1	9.0
9	13.4	14.6	21.5	12.2	10.1	24.9	12.3	14.6	53.2	10.1	12.6	13.1	7.1	7.9	7.6	12.8	9.0	10.5	44.8	20.6	24.8	45.6	56.9	27.0	56.9	7.1	20.3
10	5.6	7.8	15.1	9.6	16.1	7.1	3.7	5.1	4.8	5.5	7.3	8.4	10.6	7.9	5.3	6.0	8.1	16.6	14.6	4.0	3.0	5.2	4.5	7.8	16.6	3.0	7.9
11	5.5	14.9	6.4	6.8	5.3	9.9	12.4	4.8	4.6	6.3	5.0	3.9	4.1	4.1	3.7	3.9	3.7	3.5	3.7	3.5	4.7	3.8	4.0	4.2	14.9	3.5	5.5
12	4.3	4.4	3.4	4.1	3.8	3.8	3.7	4.0	4.0	3.6	4.1	3.9	3.7	4.3	4.4	4.9	4.1	4.4	7.6	6.1	4.3	4.8	4.4	4.0	7.6	3.4	4.3
13	5.4	5.8	5.5	3.6	2.9	3.3	3.6	5.1	3.9	4.7	5.0	5.3	5.3	5.6	6.6	4.9	4.9	4.5	4.2	3.9	4.6	4.8	4.4	4.2	6.6	2.9	4.7
14	3.9	3.7	3.7	3.8	3.8	3.9	3.7	3.7	3.4	3.5	3.6	3.2	4.0	4.5	3.9	4.1	4.3	3.5	13.1	5.4	6.9	10.7	4.5	4.5	13.1	3.2	4.7
15	4.0	5.1	4.1	3.7	2.6	3.6	5.4	9.2	4.8	4.0	12.8	3.8	20.9	4.6	4.7	4.5	4.1	4.4	4.5	3.3	4.3	3.6	5.8	6.0	20.9	2.6	5.6
16	4.9	5.8	10.4	31.7	8.2	8.0	7.0	7.5	8.3	9.0	4.5	5.5	4.2	6.8	29.3	20.7	13.2	12.4	16.3	4.2	25.5	4.6	19.4	6.4	31.7	4.2	11.4
17	8.7	8.4	7.0	6.2	5.1	12.0	9.7	4.9	5.6	8.2	3.9	8.2	10.4	18.7	6.9	6.1	6.5	5.4	5.0	12.4	5.6	4.8	5.1	4.9	18.7	3.9	7.5
18	10.0	11.1	5.3	10.9	11.7	17.5	25.1	5.7	7.3	7.3	9.2	12.3	5.7	5.2	5.6	9.7	8.8	17.0	7.5	6.0	3.8	3.3	4.0	3.2	25.1	3.2	8.9
19	4.2	4.7	10.8	10.2	10.4	9.2	7.8	4.7	4.8	4.9	6.4	6.9	8.7	8.5	12.4	7.5	9.1	6.4	6.1	7.3	5.6	5.8	5.6	8.3	12.4	4.2	7.3
20	5.0	5.6	5.0	8.9	9.6	4.3	3.8	4.6	8.5	5.3	10.6	6.0	10.0	5.0	5.0	3.8	3.7	3.1	3.3	6.1	11.5	11.4	5.0	6.6	11.5	3.1	6.3
21	10.4	12.7	13.7	14.7	14.4	9.1	5.2	2.8	2.9	3.1	2.9	3.8	4.8	6.7	9.8	6.3	4.4	5.4	7.4	5.5	5.3	4.3	6.0	6.4	14.7	2.8	7.0
22	6.5	5.0	6.2	5.3	3.5	4.9	6.5	6.3	4.3	7.3	5.1	5.6	4.6	3.3	4.4	6.6	4.8	4.1	4.7	5.3	6.6	6.0	6.7	11.4	11.4	3.3	5.6
23	8.1	7.5	7.0	4.8	4.2	4.7	6.1	4.0	5.1	5.5	5.1	6.8	5.2	8.9	10.0	4.9	7.1	6.9	6.0	7.6	10.0	7.7	6.6	8.9	10.0	4.0	6.6
24	19.4	5.2	3.6	12.5	13.0	11.8	9.0	6.2	9.3	7.8	9.2	9.9	8.3	5.2	11.3	12.6	11.2	6.3	12.4	4.8	3.8	8.9	5.5	9.3	19.4	3.6	9.0
25	4.3	7.3	10.9	8.8	11.6	12.1	6.0	5.9	8.8	11.5	8.8	7.1	5.1	7.5	7.7	7.8	5.9	4.1	4.0	6.4	17.7	38.3	16.0	33.3	38.3	4.0	10.7
26	9.5	4.7	3.4	2.7	2.7	2.5	3.4	4.3	6.3	19.9	12.0	29.1	15.5	11.0	4.6	5.3	6.0	5.4	18.6	18.0	16.4	3.6	2.9	5.1	29.1	2.5	8.9
27	7.4	7.5	4.6	3.2	2.0	2.9	2.1	2.9	5.4	3.7	4.5	6.1	4.0	6.3	4.6	3.0	3.2	5.1	5.9	5.8	6.8	6.1	3.3	3.8	7.5	2.0	4.6
28	6.2	7.7	5.9	3.4	5.4	5.3	5.2	4.2	4.3	5.0	4.3	3.3	4.2	4.5	4.2	5.9	4.2	3.8	4.6	4.4	3.9	3.9	3.4	4.1	7.7	3.3	4.6
Max.	**19.4**	**36.4**	**24.6**	**32.5**	**19.0**	**24.9**	**25.1**	**33.2**	**53.2**	**26.0**	**12.8**	**29.1**	**20.9**	**38.8**	**36.5**	**30.1**	**15.8**	**26.3**	**44.8**	**20.6**	**25.5**	**45.6**	**56.9**	**33.3**	**56.9**		
Min.	**3.8**	**3.7**	**2.5**	**2.7**	**2.0**	**2.5**	**2.1**	**2.8**	**2.9**	**3.1**	**2.9**	**3.2**	**3.7**	**3.3**	**3.7**	**3.0**	**3.2**	**3.1**	**3.3**	**3.3**	**3.0**	**3.3**	**2.9**	**3.2**		**2.0**	
Avg.	**7.4**	**8.9**	**7.8**	**9.4**	**7.4**	**7.3**	**6.6**	**7.0**	**8.1**	**7.6**	**6.8**	**7.6**	**7.4**	**7.9**	**9.4**	**7.8**	**6.8**	**8.0**	**9.0**	**6.9**	**8.8**	**8.6**	**8.9**	**8.2**			**7.9**

Total Hours in Month 672 **Hours Data Available** 672 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (RMYoung)

March 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	3.7	3.0	3.8	4.5	4.4	4.1	4.0	4.1	3.3	4.2	4.0	4.6	4.7	5.9	4.2	5.0	3.8	6.0	4.6	4.5	4.9	6.6	5.5	5.3	6.6	3.0	4.5
2	4.2	3.9	3.7	4.8	4.8	4.6	4.8	4.6	4.1	3.8	5.3	4.0	7.1	7.6	6.4	5.7	7.0	6.3	6.1	4.9	11.8	5.4	5.6	7.5	11.8	3.7	5.6
3	5.0	6.8	6.0	7.9	7.3	6.0	5.0	5.5	5.4	4.1	7.6	5.4	4.2	8.3	6.2	4.7	4.3	5.8	4.6	14.7	14.2	6.2	13.3	7.0	14.7	4.1	6.9
4	11.6	7.5	10.4	10.5	4.9	5.3	4.1	4.8	4.3	3.5	4.8	8.1	9.3	13.3	11.3	13.1	9.4	6.5	11.9	7.5	6.6	11.2	14.8	14.9	14.9	3.5	8.7
5	14.4	10.1	5.2	6.3	8.5	7.6	9.5	10.6	6.3	4.1	5.4	10.0	10.8	10.7	11.7	10.7	10.3	11.6	11.2	12.6	13.2	15.7	9.9	12.1	15.7	4.1	9.9
6	14.8	16.0	13.8	8.0	10.3	9.2	7.2	6.4	11.5	14.4	14.7	8.1	6.4	10.0	19.7	16.0	5.1	7.9	15.9	17.7	13.0	15.5	19.6	19.5	19.7	5.1	12.5
7	20.4	14.3	11.8	10.3	10.6	21.1	18.7	14.8	8.3	15.7	15.3	16.6	9.2	13.1	8.9	13.0	14.1	10.8	9.4	3.9	8.5	15.7	16.8	14.8	21.1	3.9	13.2
8	17.6	15.8	14.2	15.2	14.5	13.8	14.7	9.4	11.7	12.6	10.7	9.0	9.9	7.9	6.7	4.8	4.6	11.7	10.8	13.4	13.7	14.5	12.7	11.4	17.6	4.6	11.7
9	7.8	8.7	4.9	4.8	6.5	5.1	8.3	9.1	10.1	8.3	9.0	8.6	8.1	8.9	9.7	10.1	9.1	8.0	4.4	4.0	3.3	2.7	3.2	3.6	10.1	2.7	6.9
10	3.5	3.3	3.9	3.2	3.1	4.2	3.9	4.5	4.1	3.9	5.6	7.4	6.7	6.3	6.3	4.5	4.2	3.8	3.9	3.7	3.4	3.9	4.2	4.6	7.4	3.1	4.4
11	4.1	3.9	7.1	5.3	8.2	8.8	7.1	6.4	8.1	11.5	11.4	10.3	9.4	12.2	10.6	11.0	10.7	13.9	12.6	11.5	17.0	15.0	12.7	15.3	17.0	3.9	10.2
12	11.7	9.5	13.2	10.2	12.8	14.6	13.4	15.1	3.0	3.2	3.5	3.5	4.0	6.1	8.0	7.1	6.4	6.6	57.4	12.5	26.9	9.7	9.9	9.8	57.4	3.0	11.6
13	35.0	29.5	12.9	8.0	9.0	13.7	7.9	8.6	44.5	13.8	10.3	9.5	7.4	8.9	5.3	7.4	6.9	6.2	8.8	6.6	7.7	9.8	11.2	13.5	44.5	5.3	12.6
14	11.3	11.7	12.5	13.3	11.2	14.7	15.7	5.0	11.8	10.3	12.3	8.5	10.5	10.0	10.9	8.9	6.8	5.7	8.5	10.3	9.0	15.1	12.5	10.4	15.7	5.0	10.7
15	10.5	10.9	7.2	8.3	5.4	6.2	3.5	3.3	3.7	3.8	4.9	4.6	5.3	7.7	8.3	8.7	8.0	5.3	7.3	7.5	9.2	6.5	6.2	4.4	10.9	3.3	6.5
16	4.0	3.9	5.2	4.1	4.0	8.0	4.6	4.9	4.2	4.3	4.9	5.3	5.4	8.7	8.4	7.5	7.0	7.2	3.3	5.2	4.5	3.5	3.8	4.8	8.7	3.3	5.3
17	3.6	3.5	3.5	3.0	5.5	5.3	4.9	5.9	5.6	5.3	5.5	5.4	6.8	8.4	7.7	12.6	13.4	5.5	3.5	10.4	4.8	3.5	4.1	3.8	13.4	3.0	5.9
18	20.0	31.4	14.1	31.3	9.5	10.7	5.0	8.3	5.2	42.5	9.2	28.9	10.2	17.8	24.8	12.4	10.0	18.5	4.8	4.2	10.6	10.7	2.4	4.0	42.5	2.4	14.4
19	5.0	6.4	5.0	5.0	4.0	3.7	2.9	4.0	5.3	5.6	4.4	14.4	28.3	20.3	12.6	10.1	11.5	10.8	4.7	4.1	3.1	4.3	7.3	17.4	28.3	2.9	8.3
20	35.7	19.4	26.7	10.7	14.6	5.5	10.9	4.8	3.9	3.7	4.0	4.2	4.1	4.1	4.3	4.6	6.0	4.1	4.3	3.8	3.9	3.7	4.2	3.8	35.7	3.7	8.1
21	6.8	13.8	6.9	9.3	4.5	3.9	3.4	3.9	10.1	4.1	3.4	4.4	3.7	4.0	3.1	4.7	4.2	3.5	6.9	11.0	3.0	5.3	11.2	5.7	13.8	3.0	5.9
22	7.2	4.1	40.9	50.3	8.0	6.3	10.1	12.5	3.1	3.6	3.9	4.5	4.4	8.5	5.0	3.8	3.3	4.1	5.0	4.1	3.3	5.7	4.6	4.1	50.3	3.1	8.8
23	5.4	31.4	10.4	11.9	7.0	8.1	4.5	7.2	4.7	2.8	8.8	8.8	8.3	3.1	6.1	7.8	6.2	4.0	2.9	2.7	2.0	2.5	3.0	2.6	31.4	2.0	6.8
24	5.8	7.6	6.6	7.6	3.9	7.2	9.2	6.2	4.9	5.6	4.2	4.3	6.6	4.6	5.8	6.1	7.9	10.0	15.0	7.9	10.9	18.5	13.1	5.8	18.5	3.9	7.7
25	43.0	25.2	27.1	43.0	12.8	57.8	21.1	10.3	28.9	6.6	19.3	49.8	40.5	39.0	39.3	10.8	20.8	15.6	10.4	9.3	5.1	5.1	4.6	3.5	57.8	3.5	22.9
26	3.7	4.6	4.9	3.9	3.9	3.5	4.4	4.2	5.1	4.3	3.0	3.3	3.5	4.5	4.2	4.0	3.6	4.3	11.7	7.6	9.0	13.4	8.3	4.4	13.4	3.0	5.3
27	4.6	15.2	5.0	4.4	5.0	6.9	3.7	4.2	3.4	3.9	6.8	8.8	9.9	10.4	13.6	8.7	8.9	9.3	5.1	7.7	8.5	26.1	5.0	7.0	26.1	3.4	8.0
28	8.6	7.8	7.7	5.6	5.3	21.0	33.0	7.6	3.5	4.3	7.1	6.5	21.6	7.3	6.1	6.9	4.9	6.2	5.5	4.2	13.8	6.6	13.4	11.3	33.0	3.5	9.4
29	11.9	8.9	10.2	6.8	6.4	8.5	8.4	5.0	6.6	7.5	4.2	8.7	6.1	6.5	11.2	6.5	3.8	7.4	6.7	7.5	6.3	9.6	8.5	8.0	11.9	3.8	7.6
30	5.7	3.6	3.0	5.9	4.7	3.8	3.5	3.8	5.1	5.8	4.7	4.0	4.4	6.3	6.1	3.7	4.7	3.3	5.3	5.5	5.5	10.8	27.1	28.9	28.9	3.0	6.9
31	16.2	5.1	5.4	15.1	19.6	27.8	29.7	33.2	23.5	37.2	25.8	30.5	30.5	21.2	19.7	19.3	7.2	5.9	3.8	5.6	3.8	3.7	4.2	3.5	37.2	3.5	16.6
Max.	**43.0**	**31.4**	**40.9**	**50.3**	**19.6**	**57.8**	**33.0**	**33.2**	**44.5**	**42.5**	**25.8**	**49.8**	**40.5**	**39.0**	**39.3**	**19.3**	**20.8**	**18.5**	**57.4**	**17.7**	**26.9**	**26.1**	**27.1**	**28.9**	**57.8**		
Min.	**3.5**	**3.0**	**3.0**	**3.0**	**3.1**	**3.5**	**2.9**	**3.3**	**3.0**	**2.8**	**3.0**	**3.3**	**3.5**	**3.1**	**3.1**	**3.7**	**3.3**	**3.3**	**2.9**	**2.7**	**2.0**	**2.5**	**2.4**	**2.6**		**2.0**	
Avg.	**11.7**	**11.2**	**10.1**	**10.9**	**7.7**	**10.5**	**9.3**	**7.7**	**8.5**	**8.5**	**7.9**	**10.0**	**9.9**	**10.0**	**10.1**	**8.4**	**7.6**	**7.6**	**8.9**	**7.6**	**8.4**	**9.2**	**9.1**	**8.8**			**9.2**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (RMYoung)

April *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	4.5	3.0	4.4	5.8	5.4	3.5	4.9	6.8	6.4	3.8	13.2	46.9	5.9	5.1	54.2	42.5	9.1	13.0	5.6	21.4	5.2	8.0	47.4	5.3	54.2	3.0	13.8
2	5.1	7.1	15.5	20.3	13.1	3.7	3.3	4.0	3.7	3.5	3.9	4.5	4.6	4.4	3.7	4.1	4.1	3.8	3.5	3.3	3.4	4.4	3.8	4.0	20.3	3.3	5.6
3	5.1	3.9	4.4	4.1	4.8	6.3	3.5	3.6	4.0	3.8	4.0	4.9	4.6	4.8	4.1	4.6	4.3	4.3	3.8	4.3	4.1	3.5	4.8	4.3	6.3	3.5	4.3
4	3.0	3.7	5.4	3.8	4.9	5.4	4.7	5.2	4.5	4.5	4.6	5.0	5.4	4.8	5.0	4.4	4.5	4.8	4.1	4.7	5.9	5.5	6.2	6.6	6.6	3.0	4.9
5	7.0	14.9	18.4	7.5	17.9	5.2	4.7	4.6	3.6	3.9	4.0	5.1	5.0	4.9	3.8	4.8	9.7	5.1	4.7	4.3	4.5	4.3	4.5	5.2	18.4	3.6	6.6
6	4.3	4.5	4.3	4.2	3.8	3.7	3.7	3.6	9.3	5.6	4.5	3.9	4.3	4.7	4.2	3.3	7.0	6.9	5.0	4.0	5.4	4.2	5.4	44.8	44.8	3.3	6.4
7	41.1	8.0	9.5	11.6	5.9	4.0	3.8	4.0	4.2	4.7	4.1	3.9	4.2	4.5	4.3	4.4	5.2	4.4	4.3	5.8	5.7	6.1	3.3	2.5	41.1	2.5	6.6
8	3.6	3.3	3.3	3.5	3.9	4.0	3.4	3.4	3.2	4.4	3.2	4.0	4.3	4.5	3.6	6.9	8.1	11.3	7.0	43.2	8.4	4.8	8.8	6.4	43.2	3.2	6.7
9	4.7	6.2	6.2	5.8	5.7	11.7	5.8	8.2	5.5	4.6	3.4	3.3	3.6	3.4	4.0	4.1	4.0	3.6	3.9	3.7	3.7	3.7	3.6	3.5	11.7	3.3	4.8
10	3.5	3.6	2.9	2.9	2.9	3.7	3.1	3.8	4.4	4.1	4.9	4.2	3.1	5.0	3.3	3.7	4.8	6.4	3.6	2.4	3.1	2.9	3.6	3.6	6.4	2.4	3.7
11	3.3	3.9	3.8	4.0	4.9	5.1	3.3	2.7	4.0	23.8	7.9	6.6	4.6	5.0	8.4	9.9	5.0	4.9	4.2	4.9	6.5	7.2	4.5	5.8	23.8	2.7	6.0
12	4.4	5.2	3.9	17.5	7.9	4.4	4.1	4.8	6.9	28.0	7.2	13.7	10.0	23.6	17.5	7.6	6.9	5.9	6.8	38.1	10.0	17.4	12.6	5.0	38.1	3.9	11.2
13	2.9	2.5	3.5	4.0	2.2	3.7	3.7	4.9	5.8	4.6	5.8	6.5	8.1	12.4	17.7	10.9	14.6	18.9	9.9	9.2	6.8	3.4	3.8	2.5	18.9	2.2	7.0
14	9.5	6.4	37.3	37.4	4.3	26.8	9.2	5.4	5.0	14.8	20.5	12.0	13.5	9.4	7.9	6.4	7.3	7.7	6.7	5.1	4.4	4.4	4.3	4.0	37.4	4.0	11.2
15	3.9	4.6	4.2	3.9	3.9	4.3	3.9	5.3	4.2	4.9	6.4	6.2	7.1	7.5	13.9	7.0	16.7	11.3	10.3	8.0	14.3	15.5	14.6	21.1	21.1	3.9	8.5
16	12.5	15.6	22.5	8.3	5.5	4.8	13.1	10.0	6.7	11.1	27.5	8.9	13.1	4.8	4.3	5.5	5.8	6.5	4.7	4.7	4.1	19.4	35.8	8.5	35.8	4.1	11.0
17	5.2	5.8	7.0	6.8	3.9	4.1	4.2	4.3	4.3	4.3	4.1	3.8	3.9	3.8	3.7	3.9	4.0	4.0	4.1	4.1	3.9	3.9	4.0	3.7	7.0	3.7	4.4
18	4.0	4.4	4.2	3.8	3.9	4.3	4.8	4.6	3.9	3.7	3.8	4.5	4.2	4.3	4.1	11.1	21.8	8.8	11.5	8.5	7.1	4.3	4.4	14.3	21.8	3.7	6.4
19	11.2	9.5	9.5	7.7	4.4	3.8	3.2	3.5	4.0	3.8	4.4	4.0	3.9	4.1	3.9	4.0	4.0	5.3	4.6	4.4	4.0	3.5	3.4	3.7	11.2	3.2	4.9
20	4.2	4.2	4.1	4.6	3.5	5.7	5.0	4.0	3.5	3.4	3.3	4.2	4.8	4.9	5.1	4.3	4.6	4.2	4.2	3.4	3.2	3.6	4.6	4.3	5.7	3.2	4.2
21	4.2	3.4	3.5	3.7	3.0	3.0	4.3	3.6	10.0	11.2	5.8	4.8	4.7	4.9	4.3	4.5	3.7	3.7	4.0	3.8	3.8	4.2	4.4	4.4	11.2	3.0	4.6
22	4.5	4.3	4.3	4.3	4.0	4.7	4.5	4.4	4.2	4.5	4.9	4.4	4.9	4.4	6.8	5.5	5.0	5.8	4.5	4.6	4.7	5.1	4.4	5.1	6.8	4.0	4.7
23	3.8	4.1	4.2	4.1	2.6	2.0	3.1	2.7	4.5	4.6	11.3	15.1	7.9	9.0	9.5	7.2	12.6	9.4	4.3	5.4	16.8	10.4	6.1	3.9	16.8	2.0	6.9
24	5.5	4.6	5.3	5.2	4.7	7.2	5.3	4.9	4.3	4.9	6.5	7.2	15.2	20.9	11.1	9.4	8.3	14.0	6.2	5.7	10.8	9.7	7.1	4.3	20.9	4.3	7.8
25	4.3	4.2	3.7	4.4	4.2	4.6	4.1	4.3	4.6	5.0	6.0	5.0	4.7	4.6	5.0	5.1	6.4	5.7	5.4	5.6	12.8	13.5	5.6	7.7	13.5	3.7	5.7
26	7.4	5.0	6.9	2.1	2.5	6.8	4.2	4.4	3.2	6.1	7.2	7.8	13.1	16.4	10.5	13.3	8.6	3.1	4.2	19.1	15.2	7.6	9.9	16.8	19.1	2.1	8.4
27	7.4	12.9	4.6	9.2	16.6	9.0	7.2	4.9	9.8	15.6	12.8	17.6	12.0	10.4	9.7	10.0	8.7	4.6	4.5	6.0	7.4	5.9	8.2	10.8	17.6	4.5	9.4
28	36.3	6.5	6.4	5.9	6.7	5.8	10.3	17.5	20.2	32.2	52.3	31.1	13.5	12.3	10.1	8.3	6.7	5.4	4.6	4.2	3.8	4.7	4.7	4.0	52.3	3.8	13.1
29	4.9	4.5	4.8	4.5	4.4	4.2	4.4	5.3	5.3	4.5	5.3	6.3	7.7	8.6	8.1	8.4	7.0	5.6	5.4	4.8	17.6	24.6	5.8	34.2	34.2	4.2	8.2
30	19.8	9.9	30.2	13.1	11.4	24.3	4.7	9.1	5.6	11.8	16.9	17.9	21.4	28.3	12.5	30.3	21.4	20.9	11.1	5.1	9.6	10.0	9.0	11.6	30.3	4.7	15.2
Max.	**41.1**	**15.6**	**37.3**	**37.4**	**17.9**	**26.8**	**13.1**	**17.5**	**20.2**	**32.2**	**52.3**	**46.9**	**21.4**	**28.3**	**54.2**	**42.5**	**21.8**	**20.9**	**11.5**	**43.2**	**17.6**	**24.6**	**47.4**	**44.8**	**54.2**		
Min.	**2.9**	**2.5**	**2.9**	**2.1**	**2.2**	**2.0**	**3.1**	**2.7**	**3.2**	**3.4**	**3.2**	**3.3**	**3.1**	**3.4**	**3.3**	**3.3**	**3.7**	**3.1**	**3.5**	**2.4**	**3.1**	**2.9**	**3.3**	**2.5**		**2.0**	
Avg.	**8.0**	**6.0**	**8.3**	**7.5**	**5.8**	**6.3**	**4.9**	**5.3**	**5.6**	**8.2**	**9.0**	**9.1**	**7.4**	**8.2**	**8.8**	**8.5**	**8.0**	**7.3**	**5.6**	**8.4**	**7.2**	**7.5**	**8.3**	**8.7**			**7.4**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (RMYoung)

May *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	23.9	21.4	31.2	7.4	34.1	20.1	17.2	6.2	13.5	19.0	29.3	31.2	38.8	49.5	42.5	39.9	22.0	9.5	17.9	13.7	19.6	28.5	19.2	6.3	49.5	6.2	23.4
2	51.0	21.7	36.0	20.4	4.8	4.6	4.0	21.5	12.3	22.2	22.3	30.9	9.4	11.8	13.4	11.1	7.7	6.6	4.9	4.6	4.8	4.8	4.9	6.1	51.0	4.0	14.2
3	4.6	4.7	6.5	11.7	29.1	17.6	18.1	9.0	17.4	21.2	21.2	17.1	25.9	52.5	26.3	32.2	54.1	12.0	9.8	5.1	4.6	23.0	21.4	8.2	54.1	4.6	18.9
4	6.0	4.2	4.1	48.8	28.3	10.2	51.1	18.6	18.4	30.0	11.5	6.9	8.2	13.2	14.4	12.7	16.0	10.6	9.8	10.3	21.5	5.7	7.4	6.9	51.1	4.1	15.6
5	23.1	18.8	5.1	5.5	17.2	10.7	6.3	9.7	4.5	4.5	6.4	5.4	6.4	8.5	11.5	7.8	8.6	7.1	6.6	7.6	7.3	6.4	6.6	6.5	23.1	4.5	8.7
6	26.4	36.3	13.6	13.2	34.2	41.5	30.5	12.9	6.3	5.7	10.6	7.2	7.6	8.7	8.6	8.7	6.5	4.5	4.9	4.8	3.7	4.0	3.8	3.8	41.5	3.7	12.8
7	3.5	3.6	3.3	3.3	10.7	5.9	11.7	6.9	5.3	9.3	10.1	10.0	8.2	10.1	18.0	20.1	5.7	6.3	6.4	5.8	5.9	4.6	4.3	5.8	20.1	3.3	7.7
8	6.3	5.8	4.7	4.7	4.8	5.4	4.5	4.5	5.0	4.9	5.5	11.1	26.9	22.3	22.4	15.6	12.0	12.0	8.0	7.7	7.2	5.9	4.5	8.6	26.9	4.5	9.2
9	17.1	20.8	11.7	9.4	13.5	4.6	5.4	5.8	6.7	5.5	5.5	7.0	8.0	8.3	6.7	10.5	8.9	8.3	7.9	9.7	6.6	37.6	30.9	31.8	37.6	4.6	12.0
10	13.4	11.8	14.1	7.1	9.3	16.8	19.2	10.4	25.5	19.7	23.3	19.6	18.3	17.7	17.5	13.3	12.1	12.3	10.0	7.5	6.3	3.4	5.6	11.2	25.5	3.4	13.6
11	11.1	6.8	7.4	11.5	3.7	4.1	5.1	4.9	6.4	8.0	8.6	8.8	9.7	12.5	12.6	11.5	10.7	10.7	7.1	5.1	4.2	8.3	5.8	4.2	12.6	3.7	7.9
12	12.7	23.0	11.5	19.1	13.4	10.2	4.5	4.8	6.4	7.1	8.3	11.5	7.9	6.9	6.9	7.2	7.2	7.0	6.9	4.6	4.3	3.9	4.3	5.0	23.0	3.9	8.5
13	4.5	3.9	4.3	4.3	3.8	4.0	4.6	4.9	4.4	4.4	6.5	6.3	5.0	5.3	5.7	6.9	5.7	6.8	6.1	6.0	5.4	5.5	5.3	5.1	6.9	3.8	5.2
14	9.1	8.0	6.8	7.6	3.5	4.0	5.8	6.6	6.1	11.8	17.8	13.3	8.0	8.0	7.3	9.6	5.5	7.5	5.5	4.5	5.2	4.4	5.2	3.8	17.8	3.5	7.3
15	4.0	4.8	3.8	3.8	3.2	10.9	14.6	5.8	9.1	7.1	7.4	9.6	10.0	10.7	15.7	18.7	21.6	17.3	45.2	16.3	12.0	10.8	5.8	3.5	45.2	3.2	11.3
16	3.2	4.5	4.1	4.1	3.4	3.3	3.6	4.0	5.8	25.3	28.0	23.5	14.0	13.2	15.6	10.7	7.3	8.2	10.3	5.6	5.7	5.0	5.3	5.1	28.0	3.2	9.1
17	4.8	4.8	4.1	3.9	4.5	5.6	8.1	8.1	14.3	13.1	9.4	7.1	13.6	11.6	9.7	7.3	9.4	8.5	8.8	7.7	6.5	8.8	10.6	12.0	14.3	3.9	8.4
18	12.2	8.3	4.8	5.7	3.9	19.8	15.8	10.3	13.3	13.9	18.1	24.7	17.9	20.1	26.1	30.2	30.6	26.8	19.4	20.6	9.5	8.1	8.0	19.1	30.6	3.9	16.1
19	14.9	6.1	5.2	5.4	5.6	6.3	6.9	8.5	14.3	13.4	18.0	7.8	14.0	15.7	9.2	11.3	12.0	10.4	7.5	6.4	5.1	5.9	8.1	13.2	18.0	5.1	9.6
20	19.2	12.1	10.3	8.9	10.8	5.2	7.4	6.4	6.0	5.5	8.2	27.7	20.9	19.4	18.4	16.1	10.9	12.8	15.3	5.9	4.0	6.9	9.7	5.6	27.7	4.0	11.4
21	7.5	6.8	6.2	7.1	7.3	17.3	18.1	10.7	17.2	61.2	46.0	36.6	37.9	22.6	16.1	12.9	11.6	10.8	7.1	5.5	5.0	4.7	5.7	4.6	61.2	4.6	16.1
22	5.2	4.7	5.0	6.0	4.5	7.1	7.2	7.5	7.0	9.2	8.1	5.0	6.0	10.5	8.4	9.9	8.8	12.0	7.1	8.2	36.0	17.6	35.8	18.6	36.0	4.5	10.6
23	15.3	5.0	11.3	7.2	12.9	5.2	6.7	5.7	6.2	6.8	6.9	6.3	5.8	11.8	5.7	5.7	5.6	5.0	4.7	5.2	4.5	5.1	5.1	5.5	15.3	4.5	6.9
24	4.5	3.8	4.0	4.4	4.4	4.4	4.6	4.8	5.6	5.5	4.8	4.7	5.9	6.4	5.4	5.4	7.0	13.6	6.5	13.3	9.3	14.4	15.1	15.6	15.6	3.8	7.2
25	15.6	58.6	5.3	10.3	17.3	28.0	39.0	51.4	10.2	8.0	9.3	7.6	7.4	9.6	6.9	7.4	7.7	8.7	21.1	15.6	7.9	9.9	7.2	3.7	58.6	3.7	15.6
26	8.2	7.8	5.5	6.2	5.5	10.3	7.8	6.3	6.6	7.1	11.0	7.1	5.9	7.4	6.8	5.1	4.2	4.6	5.2	6.0	6.7	9.2	11.0	9.2	11.0	4.2	7.1
27	6.0	6.6	7.2	9.5	6.8	5.2	4.7	6.2	6.2	9.1	9.9	11.4	12.1	8.8	9.9	8.8	9.5	7.3	7.4	6.1	5.7	4.1	4.5	4.8	12.1	4.1	7.4
28	6.2	5.8	6.3	5.4	4.8	4.1	6.5	8.9	10.3	9.8	8.3	8.1	11.2	10.2	9.4	7.3	7.0	7.8	7.3	7.4	4.6	4.0	4.7	16.2	16.2	4.0	7.6
29	33.7	30.6	7.4	5.8	8.5	3.8	3.5	5.1	9.0	11.9	17.0	20.3	22.3	32.0	17.2	12.8	23.2	21.1	12.8	7.9	8.3	3.9	6.4	23.5	33.7	3.5	14.5
30	18.3	21.1	12.8	10.9	4.0	5.2	7.3	6.5	30.0	21.9	23.3	10.0	11.4	12.6	12.4	10.3	8.8	7.9	7.5	7.2	5.8	6.5	12.4	8.7	30.0	4.0	11.8
31	9.1	13.2	9.8	6.4	5.2	4.6	4.8	5.2	5.2	7.9	11.4	10.0	7.5	11.0	13.2	11.9	11.7	15.1	5.9	5.3	8.1	9.0	6.7	5.2	15.1	4.6	8.5
Max.	**51.0**	**58.6**	**36.0**	**48.8**	**34.2**	**41.5**	**51.1**	**51.4**	**30.0**	**61.2**	**46.0**	**36.6**	**38.8**	**52.5**	**42.5**	**39.9**	**54.1**	**26.8**	**45.2**	**20.6**	**36.0**	**37.6**	**35.8**	**31.8**	**61.2**		
Min.	**3.2**	**3.6**	**3.3**	**3.3**	**3.2**	**3.3**	**3.5**	**4.0**	**4.4**	**4.4**	**4.8**	**4.7**	**5.0**	**5.3**	**5.4**	**5.1**	**4.2**	**4.5**	**4.7**	**4.5**	**3.7**	**3.4**	**3.8**	**3.5**		**3.2**	
Avg.	**12.9**	**12.8**	**8.8**	**9.2**	**10.4**	**9.9**	**11.4**	**9.3**	**10.1**	**13.2**	**13.9**	**13.3**	**13.3**	**15.1**	**13.5**	**12.9**	**12.2**	**10.3**	**10.0**	**8.0**	**8.1**	**9.0**	**9.4**	**9.3**			**11.1**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (RMYoung)

June *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	5.8	6.6	5.0	6.7	3.9	5.5	5.5	6.4	7.3	6.6	7.5	7.1	6.5	5.8	6.3	7.4	5.8	5.5	5.9	5.0	4.5	4.5	5.0	4.8	7.5	3.9	5.9
2	4.4	3.6	8.5	7.0	7.4	6.7	5.5	6.9	13.1	10.6	14.2	8.9	15.0	12.2	13.3	13.8	17.6	15.5	11.7	7.2	5.5	5.2	5.2	25.1	25.1	3.6	10.2
3	34.5	7.7	15.5	9.9	5.4	5.5	41.3	25.8	17.9	16.4	16.6	24.8	18.0	43.7	22.4	17.0	26.8	22.4	27.2	23.8	11.0	38.8	19.1	8.5	43.7	5.4	20.8
4	6.0	4.5	3.8	4.1	3.5	3.7	3.8	3.9	5.2	5.7	4.2	4.5	5.1	6.9	22.7	15.7	19.0	7.2	7.9	5.8	5.6	6.4	7.0	7.1	22.7	3.5	7.0
5	6.3	6.6	6.7	6.0	8.5	7.0	7.5	5.3	5.5	6.9	6.6	5.7	5.7	5.5	5.0	5.5	5.1	5.3	5.5	5.5	5.0	5.5	6.5	4.6	8.5	4.6	6.0
6	3.9	4.3	4.1	3.9	4.5	18.1	10.0	13.4	19.2	14.5	14.6	15.2	11.8	13.1	12.0	9.8	12.7	13.5	11.3	6.6	5.0	6.4	16.0	44.3	44.3	3.9	12.0
7	24.5	14.9	16.0	14.0	17.8	4.2	39.0	51.2	24.4	10.5	8.3	8.2	6.7	6.2	7.1	6.5	6.5	5.5	5.4	6.0	4.4	4.2	4.5	5.1	51.2	4.2	12.5
8	4.3	5.1	5.5	7.0	4.5	5.5	7.0	6.7	9.6	9.2	17.3	12.9	14.5	11.0	11.9	14.2	10.8	10.3	8.3	6.4	4.9	4.1	5.3	4.4	17.3	4.1	8.3
9	8.4	11.3	6.8	23.9	34.4	14.0	5.0	9.1	8.6	16.8	15.2	15.0	18.0	12.1	47.3	41.1	21.6	36.0	13.0	5.1	6.6	7.7	6.8	6.7	47.3	5.0	16.3
10	4.2	5.1	6.9	4.0	4.8	7.6	7.2	10.5	8.9	6.8	10.4	12.7	13.9	19.3	23.2	26.0	22.4	24.4	14.4	20.6	10.7	7.8	6.6	9.7	26.0	4.0	12.0
11	10.1	8.2	5.5	10.0	10.3	16.3	19.0	42.3	17.2	12.0	21.7	23.6	14.5	8.9	9.4	8.3	7.8	7.4	7.3	7.0	5.8	4.9	5.2	7.0	42.3	4.9	12.1
12	4.6	5.2	5.9	6.0	14.1	7.5	16.9	8.4	9.5	6.4	8.9	10.5	8.3	8.2	7.9	11.1	10.5	11.2	12.8	11.8	7.5	2.4	6.0	7.1	16.9	2.4	8.7
13	8.2	21.5	12.7	10.6	18.3	7.3	5.2	9.5	23.6	14.6	17.7	12.9	7.7	8.0	16.3	16.5	14.3	6.4	7.2	6.7	6.7	11.5	14.6	19.5	23.6	5.2	12.4
14	16.2	9.6	14.7	12.5	10.7	8.9	6.6	10.8	21.8	12.5	17.5	15.0	27.9	27.8	30.6	25.9	8.4	6.0	5.3	4.4	4.4	5.0	7.5	11.5	30.6	4.4	13.4
15	5.5	3.6	4.5	6.3	6.1	4.2	4.0	5.4	6.9	7.3	9.0	9.3	14.2	13.5	12.4	14.3	9.0	10.4	9.1	6.5	4.4	3.0	2.5	5.2	14.3	2.5	7.3
16	4.3	5.7	3.6	2.7	4.0	6.1	5.4	3.6	5.8	11.9	13.6	11.7	11.0	12.4	12.1	11.8	11.9	9.8	6.1	5.6	5.1	4.9	4.9	3.6	13.6	2.7	7.4
17	4.9	5.2	6.0	5.5	5.0	5.7	5.7	6.6	8.0	12.6	22.5	14.4	17.5	12.8	27.1	18.9	24.9	16.4	36.7	10.5	6.4	9.2	12.9	7.7	36.7	4.9	12.6
18	8.6	10.4	32.7	16.2	3.3	3.0	5.3	7.5	26.6	32.0	19.4	20.7	44.4	61.0	25.1	36.1	28.1	39.7	45.9	33.6	6.7	46.3	39.4	15.6	61.0	3.0	25.3
19	10.3	11.4	3.7	3.8	3.6	3.5	3.4	5.3	7.8	8.7	10.6	9.9	10.1	10.2	10.8	10.9	8.8	8.7	7.4	6.3	4.3	3.7	3.8	3.2	11.4	3.2	7.1
20	8.0	8.4	4.0	4.8	4.8	5.3	4.1	4.6	7.5	8.6	8.6	9.8	12.8	12.1	9.4	10.0	8.2	8.1	7.9	4.8	4.2	4.0	3.9	3.4	12.8	3.4	7.0
21	9.9	6.8	6.4	8.7	6.7	8.2	8.2	8.2	6.8	6.9	10.8	9.5	11.9	8.8	8.1	12.6	13.1	8.5	6.3	5.2	6.1	6.6	6.8	6.8	13.1	5.2	8.3
22	9.0	6.6	9.0	6.7	9.3	19.8	20.1	10.7	6.5	6.5	7.0	9.4	9.2	10.0	8.9	6.4	11.6	6.8	7.2	7.2	5.2	5.7	5.0	5.1	20.1	5.0	8.7
23	4.7	4.8	5.1	4.9	4.7	4.5	4.9	4.4	5.0	5.1	5.4	5.1	5.2	5.1	4.5	5.0	4.7	5.0	4.6	5.3	5.2	5.0	4.8	4.7	5.4	4.4	4.9
24	5.0	4.9	4.7	4.6	4.3	4.1	4.2	4.4	5.2	5.2	5.5	5.3	4.8	6.1	6.1	5.6	5.0	5.7	5.8	5.5	6.0	4.4	4.2	4.0	6.1	4.0	5.0
25	3.9	4.0	4.1	4.0	4.3	4.3	5.1	5.3	6.2	6.8	6.1	7.4	6.8	7.3	7.3	5.8	6.0	6.2	5.3	5.8	4.8	4.4	3.4	4.3	7.4	3.4	5.4
26	7.7	4.8	3.5	3.8	4.8	4.9	7.1	7.6	10.0	10.8	12.1	13.6	22.7	21.7	31.4	35.8	64.5	39.6	16.1	7.6	5.2	5.6	5.1	13.6	64.5	3.5	15.0
27	5.9	5.1	3.6	4.1	4.8	5.0	10.2	8.0	17.4	34.5	18.8	13.6	20.5	16.0	13.8	16.6	14.0	14.0	6.7	10.8	5.8	4.8	5.9	5.8	34.5	3.6	11.1
28	5.9	7.3	6.1	7.4	8.6	5.5	7.0	9.4	46.6	16.9	11.9	9.1	12.0	9.3	9.7	10.5	9.6	16.3	8.8	6.4	4.9	5.0	4.5	4.5	46.6	4.5	10.1
29	4.3	7.7	18.4	18.7	13.6	26.6	17.7	8.4	12.0	13.2	15.2	15.3	18.5	18.0	25.2	16.4	7.8	8.1	6.1	6.5	4.2	5.1	6.3	6.1	26.6	4.2	12.5
30	16.8	8.3	9.3	9.3	7.7	6.2	6.2	7.4	7.6	6.6	6.5	11.1	12.2	19.6	18.9	13.1	14.0	13.6	11.1	6.9	7.4	6.5	6.6	19.0	19.6	6.2	10.5
Max.	**34.5**	**21.5**	**32.7**	**23.9**	**34.4**	**26.6**	**41.3**	**51.2**	**46.6**	**34.5**	**22.5**	**24.8**	**44.4**	**61.0**	**47.3**	**41.1**	**64.5**	**39.7**	**45.9**	**33.6**	**11.0**	**46.3**	**39.4**	**44.3**	**64.5**		
Min.	**3.9**	**3.6**	**3.5**	**2.7**	**3.3**	**3.0**	**3.4**	**3.6**	**5.0**	**5.1**	**4.2**	**4.5**	**4.8**	**5.1**	**4.5**	**5.0**	**4.7**	**5.0**	**4.6**	**4.4**	**4.2**	**2.4**	**2.5**	**3.2**		**2.4**	
Avg.	**8.5**	**7.3**	**8.1**	**7.9**	**8.1**	**7.8**	**9.9**	**10.6**	**12.6**	**11.4**	**12.1**	**11.7**	**13.6**	**14.4**	**15.5**	**14.9**	**14.3**	**13.1**	**11.1**	**8.6**	**5.8**	**8.0**	**7.8**	**9.3**			**10.5**

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (RMYoung)

July *2007*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	16.6	10.4	25.4	13.8	5.8	6.9	4.3	5.5	8.1	14.1	22.1	14.2	26.5	13.2	18.9	16.7	10.3	6.7	9.6	4.8	38.3	4.6	3.3	4.8	38.3	3.3	12.7
2	6.5	4.8	10.7	23.0	38.0	14.8	24.4	24.6	25.9	23.7	17.7	24.1	12.7	9.4	13.3	11.6	14.1	10.5	10.0	10.7	4.9	6.9	7.0	5.2	38.0	4.8	14.8
3	3.2	9.2	4.4	4.7	4.7	14.6	12.6	8.1	10.8	16.9	19.5	13.2	19.5	22.8	28.6	18.9	10.6	8.7	4.6	4.2	7.0	23.3	8.4	5.3	28.6	3.2	11.8
4	4.7	4.5	4.9	3.8	6.0	6.4	4.8	6.5	8.0	6.4	6.9	7.2	5.1	6.8	7.8	6.2	4.8	5.8	6.1	5.1	5.6	5.4	3.3	5.0	8.0	3.3	5.7
5	6.9	5.6	8.0	26.1	22.9	38.0	38.1	17.4	15.7	27.3	16.9	17.9	15.5	24.3	13.1	8.6	21.7	15.4	5.1	4.9	5.8	4.6	5.3	5.3	38.1	4.6	15.4
6	4.6	4.5	5.1	5.3	4.8	5.9	6.4	5.8	7.1	8.8	10.7	22.8	19.9	26.0	20.9	20.8	19.3	24.4	18.3	14.2	11.5	23.3	22.5	6.3	26.0	4.5	13.3
7	5.6	8.3	5.7	6.4	16.0	30.3	12.2	33.2	20.9	24.6	67.3	19.6	40.1	37.4	29.1	17.8	13.8	14.1	10.3	6.3	3.9	2.6	3.1	11.4	67.3	2.6	18.3
8	11.8	27.0	43.8	29.9	46.6	27.4	6.1	8.6	6.6	8.3	8.6	9.1	12.3	6.9	6.2	6.9	6.2	7.5	4.7	6.1	5.3	4.3	5.4	11.6	46.6	4.3	13.2
9	3.6	4.6	5.4	5.9	7.6	23.1	11.1	8.8	7.3	13.8	15.5	10.4	13.6	14.5	19.3	13.5	42.7	18.3	11.3	25.2	18.9	14.8	33.1	5.7	42.7	3.6	14.5
10	4.6	4.7	7.3	7.8	9.8	13.4	18.8	28.0	31.5	20.6	11.9	26.1	12.2	8.7	13.0	14.0	8.2	6.0	5.5	4.7	4.9	4.4	2.7	3.1	31.5	2.7	11.3
11	4.7	5.1	5.9	4.9	4.8	4.5	5.0	6.7	12.2	11.1	12.5	10.6	11.3	14.9	10.1	15.3	14.0	12.0	7.4	6.2	4.6	3.8	5.7	5.2	15.3	3.8	8.3
12	9.1	22.4	58.0	5.9	5.5	6.5	9.7	11.7	16.2	34.0	34.1	42.4	37.8	22.3	6.3	9.1	6.8	10.3	5.3	4.3	4.3	3.8	4.9	5.5	58.0	3.8	15.7
13	5.6	4.6	8.3	5.4	4.4	5.4	5.9	8.2	7.5	6.9	6.0	5.5	5.0	6.1	6.7	7.6	8.4	7.9	6.4	6.2	7.2	5.9	5.6	4.5	8.4	4.4	6.3
14	10.9	11.9	15.7	11.2	6.6	10.7	9.9	6.4	8.8	11.7	12.3	7.0	10.8	8.6	8.4	6.9	7.0	5.7	6.2	5.7	5.5	6.0	6.1	6.2	15.7	5.5	8.6
15	5.5	7.0	5.7	14.4	7.2	17.9	45.2	14.9	9.1	8.9	13.4	10.2	8.5	10.2	6.9	7.2	7.2	8.9	9.4	5.9	5.0	6.2	5.6	6.1	45.2	5.0	10.3
16	5.4	8.2	6.5	6.3	7.2	31.2	20.6	17.0	20.7	21.1	14.1	15.8	14.3	15.5	9.5	10.2	9.4	9.5	8.2	6.6	4.1	5.2	6.2	3.1	31.2	3.1	11.5
17	4.7	8.7	2.5	4.7	7.3	5.0	4.9	5.0	7.7	12.9	22.8	57.9	44.1	14.7	21.2	14.7	10.6	6.7	6.1	5.1	4.9	4.8	17.1	6.8	57.9	2.5	12.5
18	5.4	3.9	4.2	4.9	4.2	7.1	6.7	11.3	19.6	27.9	23.7	31.0	14.0	19.8	8.6	13.0	8.2	13.0	24.3	47.5	25.8	29.1	22.8	8.7	47.5	3.9	16.0
19	5.6	6.5	6.8	14.1	20.3	38.5	30.6	14.7	26.3	6.5	7.9	14.0	34.0	22.1	13.4	11.2	17.2	8.2	9.0	7.9	5.3	6.6	6.2	20.1	38.5	5.3	14.7
20	40.5	21.8	17.6	26.8	17.2	17.4	17.3	17.9	12.5	10.0	6.7	7.6	11.1	15.1	11.9	9.8	9.1	11.1	6.2	5.6	4.8	4.6	5.8	4.9	40.5	4.6	13.1
21	5.3	4.9	5.5	5.2	5.2	5.3	5.6	5.3	5.4	5.9	5.5	7.1	7.1	7.4	9.0	7.3	8.6	5.7	6.4	6.3	5.4	5.1	6.3	6.1	9.0	4.9	6.1
22	6.9	6.6	6.5	6.8	6.6	5.6	5.4	5.8	5.6	5.7	7.2	6.3	7.6	7.3	8.4	10.2	6.7	7.1	6.6	4.7	4.4	4.7	4.2	4.2	10.2	4.2	6.3
23	4.1	11.5	10.5	10.6	6.1	31.2	10.4	5.4	7.3	10.1	8.0	6.8	8.0	7.4	5.2	5.2	5.2	5.0	5.0	5.0	5.3	4.7	4.5	4.9	31.2	4.1	7.8
24	5.2	5.0	4.9	4.5	4.6	4.4	4.4	5.0	6.6	5.8	7.7	7.8	9.2	7.1	7.0	6.8	8.6	5.8	7.0	5.6	5.3	3.5	4.1	4.9	9.2	3.5	5.9
25	4.7	2.3	2.8	3.2	3.8	2.9	3.0	4.2	3.9	5.8	6.6	10.1	10.0	9.8	6.9	7.3	6.4	4.5	4.8	7.8	10.2	10.4	15.9	14.1	15.9	2.3	6.7
26	12.7	11.0	11.7	25.4	18.6	8.8	36.7	4.2	4.6	7.6	14.3	13.5	28.7	22.4	21.9	8.8	26.3	9.3	5.3	5.2	10.2	7.7	25.7	5.8	36.7	4.2	14.4
27	26.6	27.1	50.2	32.7	29.5	8.1	4.4	6.3	20.3	7.6	13.0	10.6	19.7	13.2	9.9	12.4	10.3	10.9	9.4	9.0	8.2	5.7	18.9	12.4	50.2	4.4	15.7
28	25.7	25.0	9.7	5.4	5.2	4.8	5.1	4.7	5.0	5.5	5.0	6.8	6.4	6.6	6.3	5.8	6.9	7.2	6.9	4.8	4.7	5.3	5.9	5.2	25.7	4.7	7.5
29	5.3	5.1	5.1	6.2	9.6	12.4	8.7	6.9	8.5	9.8	13.7	11.8	11.3	9.1	11.1	12.4	10.9	11.7	9.3	5.5	6.0	9.4	5.5	22.5	22.5	5.1	9.5
30	10.1	10.6	36.9	13.2	11.3	6.2	6.9	9.6	8.8	5.7	4.8	6.5	6.2	6.6	8.3	9.9	8.4	8.1	6.6	8.2	6.9	8.1	6.7	6.2	36.9	4.8	9.2
31	5.5	7.2	10.4	5.4	6.7	5.5	8.9	10.6	6.1	6.1	7.9	7.3	8.3	6.8	8.6	6.8	6.7	5.6	4.7	4.6	5.6	5.4	4.8	4.6	10.6	4.6	6.7
Max.	**40.5**	**27.1**	**58.0**	**32.7**	**46.6**	**38.5**	**45.2**	**33.2**	**31.5**	**34.0**	**67.3**	**57.9**	**44.1**	**37.4**	**29.1**	**20.8**	**42.7**	**24.4**	**24.3**	**47.5**	**38.3**	**29.1**	**33.1**	**22.5**	**67.3**		
Min.	**3.2**	**2.3**	**2.5**	**3.2**	**3.8**	**2.9**	**3.0**	**4.2**	**3.9**	**5.5**	**4.8**	**5.5**	**5.0**	**6.1**	**5.2**	**5.2**	**4.8**	**4.5**	**4.6**	**4.2**	**3.9**	**2.6**	**2.7**	**3.1**		**2.3**	
Avg.	**9.0**	**9.7**	**13.1**	**11.1**	**11.4**	**13.6**	**12.7**	**10.6**	**11.8**	**12.6**	**14.3**	**14.9**	**15.8**	**13.6**	**12.1**	**10.7**	**11.4**	**9.4**	**7.9**	**8.2**	**8.1**	**7.7**	**9.1**	**7.3**			**11.1**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (RMYoung)

August 2007

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	4.1	4.2	4.6	4.3	4.7	5.2	5.2	4.3	4.6	4.7	5.2	6.6	5.2	5.4	5.3	5.3	5.9	4.5	4.8	4.6	4.4	4.5	4.3	4.2	6.6	4.1	4.8
2	4.7	4.8	4.5	4.3	4.7	4.7	4.4	4.6	4.9	4.9	4.8	4.8	4.9	4.9	4.5	5.3	5.3	4.8	4.6	4.6	4.2	4.4	4.6	4.7	5.3	4.2	4.7
3	4.4	4.4	4.1	3.7	3.7	3.8	4.1	4.5	4.8	4.8	5.0	6.1	6.4	5.4	5.1	5.0	5.6	5.6	4.6	4.5	4.5	5.2	4.5	4.5	6.4	3.7	4.8
4	4.7	4.6	5.1	4.8	4.7	4.5	4.6	5.0	4.8	4.8	5.3	5.4	5.6	5.6	5.6	5.3	4.9	5.6	4.8	4.8	5.3	5.4	4.9	4.8	5.6	4.5	5.0
5	4.4	5.1	5.1	6.6	5.2	6.3	4.3	7.2	6.0	6.5	5.5	6.4	6.1	6.6	6.4	7.5	6.6	6.8	5.5	5.1	5.6	5.0	6.7	5.1	7.5	4.3	5.9
6	6.4	3.9	4.3	4.1	5.3	6.9	5.9	5.3	6.6	7.1	9.3	7.8	5.7	7.7	6.2	4.7	6.0	7.8	6.0	5.8	4.6	3.6	3.7	2.6	9.3	2.6	5.7
7	2.6	6.8	3.2	4.6	20.6	9.0	7.0	6.7	5.9	10.2	9.2	9.6	9.1	10.8	8.9	9.9	10.0	7.9	7.5	5.2	4.3	3.9	13.4	8.9	20.6	2.6	8.1
8	6.8	5.7	6.5	5.2	6.2	5.3	5.8	7.5	6.1	8.2	10.2	10.0	12.2	11.5	15.1	12.5	8.0	7.8	6.8	3.4	2.6	6.4	8.6	7.6	15.1	2.6	7.7
9	5.6	3.9	3.5	2.7	2.7	2.0	3.0	5.9	9.6	8.6	9.4	28.6	18.8	28.0	14.3	12.7	11.1	7.4	8.9	5.7	5.4	7.3	8.0	2.4	28.6	2.0	9.0
10	4.7	9.5	8.5	19.6	28.0	45.1	10.2	7.0	45.4	20.9	14.7	15.2	19.9	19.3	23.9	18.7	16.5	12.6	8.8	3.6	3.2	3.9	14.3	5.5	45.4	3.2	15.8
11	8.9	19.9	15.9	5.3	10.4	3.8	7.0	13.7	35.4	19.2	14.3	22.3	18.7	16.3	9.7	21.0	6.8	5.6	4.9	4.7	6.7	8.9	11.9	13.4	35.4	3.8	12.7
12	19.7	15.5	22.8	28.4	16.9	27.7	17.8	17.7	8.2	8.4	13.7	10.5	4.9	18.3	18.8	20.9	11.5	8.4	11.4	5.3	5.1	7.2	49.5	5.4	49.5	4.9	15.6
13	7.1	16.7	9.5	16.0	23.1	10.5	10.9	11.7	14.0	25.3	27.3	18.9	28.3	13.4	14.9	16.9	10.5	15.8	7.2	7.5	5.6	5.6	6.4	5.5	28.3	5.5	13.7
14	5.3	8.0	5.5	6.6	20.4	17.3	53.6	7.3	5.6	5.3	5.6	5.7	7.5	7.9	12.7	15.3	10.3	5.3	13.6	5.9	12.7	3.6	7.1	7.7	53.6	3.6	10.6
15	4.2	3.5	4.1	3.9	4.7	4.5	4.0	4.4	8.9	10.0	7.2	8.8	8.7	12.9	8.0	6.2	6.8	7.2	5.0	6.1	4.6	4.2	3.9	3.9	12.9	3.5	6.1
16	3.7	4.1	4.5	5.0	4.4	4.1	8.8	17.2	16.6	11.6	20.4	66.5	42.9	47.1	33.0	52.7	32.3	8.0	5.5	4.4	3.9	6.5	4.8	24.0	66.5	3.7	18.0
17	17.5	9.0	9.4	5.2	4.1	6.8	34.5	49.2	14.9	13.2	6.2	6.9	7.6	7.6	6.7	7.3	6.4	6.0	5.8	5.2	4.8	4.9	5.6	5.5	49.2	4.1	10.4
18	4.9	5.6	5.5	4.8	4.3	4.6	4.6	4.5	4.4	5.3	5.0	5.2	5.3	5.6	5.3	5.5	5.4	5.1	4.9	5.0	4.9	5.6	5.3	5.3	5.6	4.3	5.1
19	4.9	5.0	5.1	5.1	6.0	5.3	6.2	4.9	4.6	4.9	5.7	6.2	6.0	5.9	5.5	5.4	4.7	5.2	4.9	4.6	5.1	4.4	4.5	4.8	6.2	4.4	5.2
20	5.2	4.8	5.3	5.6	4.6	5.0	4.9	5.9	6.9	5.6	5.8	7.9	7.6	7.0	6.9	6.5	6.2	6.9	5.8	4.9	3.8	4.2	4.4	4.4	7.9	3.8	5.7
21	4.4	4.3	4.1	4.1	4.3	4.3	4.4	4.5	4.5	5.1	4.6	4.6	5.3	4.7	5.0	5.1	4.6	4.8	4.3	4.2	3.9	4.4	5.0	4.7	5.3	3.9	4.6
22	4.9	4.2	4.8	4.8	4.4	4.1	4.2	4.3	4.6	4.7	5.0	4.9	5.1	5.2	5.0	5.1	5.6	4.9	4.5	4.7	4.7	4.6	4.8	4.5	5.6	4.1	4.7
23	4.0	5.0	6.2	11.0	15.0	18.2	9.3	5.9	4.6	7.9	7.8	10.3	10.1	9.8	9.2	8.4	8.6	7.4	3.5	4.0	3.2	3.0	3.3	3.9	18.2	3.0	7.5
24	4.0	3.7	4.2	3.4	7.6	5.0	6.6	5.8	6.3	5.6	5.6	6.5	10.4	17.7	16.5	23.2	23.8	23.6	7.8	7.9	6.6	11.9	5.5	9.9	23.8	3.4	9.5
25	9.0	4.7	19.2	6.9	6.1	8.5	18.2	37.3	14.1	37.9	15.4	15.5	15.6	12.2	12.6	10.8	12.5	7.0	4.9	4.8	8.6	7.0	4.1	6.1	37.9	4.1	12.4
26	8.3	6.7	3.7	3.1	2.5	4.2	4.5	5.5	6.9	8.0	10.9	15.1	14.0	15.8	9.1	10.5	10.5	11.1	7.8	13.3	37.2	10.0	6.8	4.6	37.2	2.5	9.6
27	5.8	7.6	5.3	4.3	23.5	5.9	16.5	45.2	10.6	10.5	7.5	13.1	9.0	8.3	13.2	19.4	11.9	13.6	12.9	26.6	21.2	12.0	4.0	6.5	45.2	4.0	13.1
28	48.2	4.0	5.3	3.6	5.9	3.5	4.1	3.6	7.9	9.5	17.3	37.1	39.9	20.4	56.0	69.6	48.9	18.0	4.8	5.7	6.0	7.5	6.8	5.7	69.6	3.5	18.3
29	3.7	5.8	8.2	6.6	5.9	8.4	5.7	4.6	4.1	4.9	5.1	6.5	6.4	8.0	10.9	9.7	8.3	8.4	6.6	7.4	7.0	10.5	10.3	6.9	10.9	3.7	7.1
30	4.7	6.3	5.4	4.2	5.7	6.1	8.4	3.4	9.0	9.1	13.6	10.8	15.3	14.5	12.3	13.7	11.4	22.0	15.5	32.2	5.2	3.4	4.4	5.8	32.2	3.4	10.1
31	5.8	2.7	3.9	5.3	3.9	4.8	5.5	4.7	7.0	7.7	9.4	12.0	33.4	18.7	18.8	21.8	10.5	22.3	31.2	27.3	5.4	5.4	5.4	5.1	33.4	2.7	11.6
Max.	**48.2**	**19.9**	**22.8**	**28.4**	**28.0**	**45.1**	**53.6**	**49.2**	**45.4**	**37.9**	**27.3**	**66.5**	**42.9**	**47.1**	**56.0**	**69.6**	**48.9**	**23.6**	**31.2**	**32.2**	**37.2**	**12.0**	**49.5**	**24.0**	**69.6**		
Min.	**2.6**	**2.7**	**3.2**	**2.7**	**2.5**	**2.0**	**3.0**	**3.4**	**4.1**	**4.7**	**4.6**	**4.6**	**4.9**	**4.7**	**4.5**	**4.7**	**4.6**	**4.5**	**3.5**	**3.4**	**2.6**	**3.0**	**3.3**	**2.4**		**2.0**	
Avg.	**7.5**	**6.5**	**6.7**	**6.5**	**8.7**	**8.3**	**9.5**	**10.3**	**9.6**	**9.7**	**9.4**	**12.8**	**12.8**	**12.3**	**12.4**	**14.2**	**10.9**	**9.3**	**7.6**	**7.7**	**6.8**	**6.0**	**7.6**	**6.2**			**9.1**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (RMYoung)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	35.6	8.5	4.1	8.4	8.7	3.5	4.4	5.7	5.6	5.7	8.6	10.8	11.4	9.4	14.7	17.5	11.2	8.4	6.0	3.6	4.4	4.7	6.2	4.8	35.6	3.5	8.8
2	3.6	4.6	5.3	4.0	2.4	3.4	3.7	6.9	15.5	8.2	10.0	12.0	11.5	11.4	13.5	7.7	7.9	5.4	4.6	4.6	4.2	4.2	4.4	5.3	15.5	2.4	6.8
3	4.4	4.3	4.4	4.7	4.6	5.1	5.4	5.2	4.9	5.0	4.8	4.8	5.0	4.7	4.8	5.2	4.9	4.8	5.0	5.0	5.1	5.4	4.8	4.5	5.4	4.3	4.9
4	4.7	4.9	4.2	4.8	6.8	7.7	9.8	51.5	45.2	6.5	3.9	6.9	10.6	14.7	27.1	21.2	11.5	17.9	7.1	5.7	5.4	7.9	4.9	16.2	51.5	3.9	12.8
5	15.1	41.8	49.6	11.1	16.0	8.7	11.8	11.6	6.0	5.7	5.9	5.4	6.6	7.9	10.1	27.6	40.3	46.5	27.9	6.8	9.0	10.9	7.4	8.3	49.6	5.4	16.6
6	9.7	5.0	7.1	5.9	13.9	18.2	13.3	9.7	17.1	14.4	43.2	23.0					6.9	11.0	10.0	5.7	10.4	12.3	18.6	12.8	43.2	5.0	13.4
7	8.0	6.0	4.3	5.4	5.5	4.6	4.9	5.2	4.5	5.1	4.7	4.8	5.5	5.0	5.6	5.0	5.4	4.7	5.2	4.8	5.0	4.9	4.7	4.9	8.0	4.3	5.2
8	5.1	5.7	5.6	6.0	5.6	6.1	5.1	5.5	6.0	5.4	5.4	5.6	9.1	5.4	9.2	34.1	22.1	19.7	6.2	13.4	8.1	9.6	8.1	6.1	34.1	5.1	9.1
9	4.7	3.4	4.8	5.1	4.9	4.9	5.4	5.5	7.5	7.7	9.3	4.2	5.3	16.2	10.7	9.8	8.0	11.9	7.7	8.2	5.5	16.5	13.4	9.0	16.5	3.4	7.9
10	82.5	31.0	17.0	8.9	31.9	14.4	56.2	33.7	31.2	10.4	79.0	11.9	12.4	8.2	6.4	5.5	6.2	6.3	7.2	5.6	5.2	4.7	4.2	4.4	82.5	4.2	20.2
11	4.8	4.7	4.8	6.0	4.5	4.7	4.8	4.9	5.1	6.1	5.8	5.3	5.2	5.4	5.2	4.8	5.2	5.1	5.3	5.3	4.4	5.1	5.0	4.9	6.1	4.4	5.1
12	4.8	4.8	5.4	8.2	9.9	10.3	13.3	11.2	7.4	6.9	10.0	23.8	24.6	13.7	15.1	12.2	13.6	11.0	8.9	9.2	6.9	8.2	7.2	6.6	24.6	4.8	10.6
13	23.2	8.5	5.5	6.0	7.9	7.0	12.4	11.1	13.0	5.0	9.6	6.8	19.5	12.9	12.5	21.0	11.7	15.0	17.2	23.9	9.6	5.5	24.5	53.4	53.4	5.0	14.3
14	13.2	8.4	8.4	7.9	11.7	17.0	23.4	13.8	6.7	6.4	12.3	49.1	75.2	25.0	18.4	36.3	25.8	27.9	20.4	12.4	4.3	3.9	4.0	3.1	75.2	3.1	18.1
15	4.1	4.7	4.2	3.4	4.2	4.2	8.3	5.7	13.8	11.9	5.4	5.7	5.4	10.5	8.9	13.0	6.4	7.0	6.2	5.4	6.8	13.3	4.2	4.8	13.8	3.4	7.0
16	11.3	8.4	21.3	7.2	18.4	31.1	25.8	16.6	52.9	8.9	8.2	20.2	12.9	13.4	29.4	23.3	14.5	11.8	6.0	7.8	6.2	8.1	5.5	4.8	52.9	4.8	15.6
17	5.1	14.1	6.7	4.7	9.9	14.7	10.5	10.4	10.9	7.7	5.0	7.5	13.8	27.0	21.4	12.3	27.1	20.8	10.1	12.2	13.4	11.0	11.4	5.7	27.1	4.7	12.2
18	6.9	9.3	4.9	6.6	6.0	4.9	5.7	10.6	5.7	4.6	4.7	4.7	4.5	4.4	5.3	7.8	5.4	6.0	4.7	6.6	5.7	5.9	13.2	25.7	25.7	4.4	7.1
19	7.8	10.7	9.6	10.4	6.1	14.1	13.0	11.1	8.7	13.9	9.4	10.7	6.9	6.4	6.5	7.7	6.4	7.6	6.1	6.4	7.0	6.4	6.6	5.6	14.1	5.6	8.6
20	5.8	9.2	6.0	5.9	6.9	4.9	5.7	6.4	6.3	7.0	7.2	7.6	5.5	7.4	6.5	10.7	9.2	8.1	15.7	22.7	51.5	5.8	6.5	5.1	51.5	4.9	9.7
21	10.8	28.2	11.2	24.7	33.6	9.5	14.2	11.7	21.6	5.5	6.4	5.9	8.5	8.2	10.2	12.0	14.1	10.8	5.3	7.6	6.7	16.9	20.4	9.0	33.6	5.3	13.0
22	7.3	5.8	4.3	6.1	6.2	4.6	7.4	7.8	25.1	15.1	24.3	6.6	6.7	7.6	5.9	5.6	5.0	6.8	5.1	5.1	5.6	5.2	4.8	4.9	25.1	4.3	7.9
23	7.2	8.7	9.4	4.9	10.8	7.8	15.5	17.6	11.7	8.9	15.8	10.0	9.0	8.6	8.8	6.1	5.6	6.3	6.5	14.2	9.6	5.9	6.4	13.4	17.6	4.9	9.5
24	16.0	9.2	6.9	13.0	6.4	8.2	6.4	9.8	8.3	13.3	12.3	6.3	8.2	8.0	21.7	15.6	9.4	7.5	14.2	41.9	17.7	14.8	12.2	26.1	41.9	6.3	13.1
25	5.9	4.7	7.8	10.4	24.3	9.4	5.9	5.5	5.9	6.2	6.7	8.5	8.0	8.3	10.1	14.6	11.4	7.9	7.6	8.4	5.2	6.1	5.0	5.1	24.3	4.7	8.3
26	6.0	5.9	8.1	6.5	6.3	8.8	8.9	9.6	9.6	42.8	31.0	14.7	13.3	10.0	15.8	26.8	38.5	11.2	7.7	13.8	9.1	7.9	16.8	18.0	42.8	5.9	14.5
27	49.1	47.7	14.2	23.1	18.7	12.4	11.1	14.6	16.1	12.5	24.8	41.5	14.5	13.2	15.7	11.6	10.8	5.5	4.7	6.3	5.4	5.0	5.5	6.1	49.1	4.7	16.3
28	5.3	5.2	5.7	4.8	5.4	4.9	6.3	4.6	4.6	6.6	6.9	6.5	6.2	5.5	7.0	7.7	26.7	16.3	9.3	12.7	13.4	9.7	14.5	23.7	26.7	4.6	9.2
29	9.7	12.4	9.8	10.6	11.0	10.8	5.3	3.7	19.0	10.0	10.4	54.0	33.2	36.6	9.0	9.5	7.6	12.5	11.2	14.0	27.5	5.2	7.9	5.7	54.0	3.7	14.4
30	6.5	6.8	7.1	19.8	8.9	10.0	4.8	14.1	4.9	6.2	9.1	23.8	6.5	7.1	9.5	16.3	14.4	11.2	9.5	13.5	31.8	49.7	8.6	5.0	49.7	4.8	12.7
Max.	**82.5**	**47.7**	**49.6**	**24.7**	**33.6**	**31.1**	**56.2**	**51.5**	**52.9**	**42.8**	**79.0**	**54.0**	**75.2**	**36.6**	**29.4**	**36.3**	**40.3**	**46.5**	**27.9**	**41.9**	**51.5**	**49.7**	**24.5**	**53.4**	**82.5**		
Min.	**3.6**	**3.4**	**4.1**	**3.4**	**2.4**	**3.4**	**3.7**	**3.7**	**4.5**	**4.6**	**3.9**	**4.2**	**4.5**	**4.4**	**4.8**	**4.8**	**4.9**	**4.7**	**4.6**	**3.6**	**4.2**	**3.9**	**4.0**	**3.1**		**2.4**	
Avg.	**12.8**	**11.1**	**8.9**	**8.5**	**10.6**	**9.2**	**11.0**	**11.4**	**13.4**	**9.3**	**13.3**	**13.6**	**12.6**	**11.1**	**11.9**	**14.1**	**13.1**	**11.8**	**9.0**	**10.4**	**10.3**	**9.4**	**8.9**	**10.4**			**11.1**

Total Hours in Month 720 **Hours Data Available** 716 **Data Recovery** 99.4%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (RMYoung)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	5.9	5.3	5.4	6.7	10.9	9.1	28.0	27.0	16.2	50.0	24.9	37.1	25.7	28.5	9.5	10.8	8.5	7.8	5.9	5.4	6.9	12.1	5.2	5.4	50.0	5.2	14.9
2	5.3	6.6	7.1	5.7	6.6	5.6	5.0	5.0	5.1	4.5	6.3	7.7	8.1	6.3	6.8	7.1	7.8	7.7	6.6	6.5	5.3	5.7	4.2	3.9	8.1	3.9	6.1
3	4.6	5.1	6.2	7.8	5.8	4.2	4.4	4.2	4.2	4.6	6.3	5.2	6.4	6.9	9.1	8.4	14.4	43.0	8.6	5.5	13.4	9.6	33.6	53.6	53.6	4.2	11.5
4	18.6	22.8	13.6	37.3	23.4	10.3	5.9	5.5	8.3	12.5	6.9	9.7	5.0	4.8	5.4	4.8	4.5	5.0	7.4	6.7	5.2	5.5	5.1	5.6	37.3	4.5	10.0
5	9.0	10.8	5.8	5.5	4.9	6.5	7.1	6.0	6.3	5.8	4.7	5.0	47.7	19.0	6.8	7.4	5.8	6.9	7.7	8.2	7.5	4.2	5.7	4.9	47.7	4.2	8.7
6	5.7	4.1	4.2	6.4	4.5	4.2	5.1	5.2	5.9	6.4	5.3	4.5	4.7	5.0	5.9	4.3	5.5	5.5	5.2	4.4	3.7	4.3	8.2	5.2	8.2	3.7	5.1
7	5.0	5.4	5.6	5.7	5.9	7.2	4.7	4.6	4.5	4.6	4.6	4.6	7.5	5.5	8.0	5.9	8.8	11.6	8.0	7.4	6.1	12.5	15.9	15.0	15.9	4.5	7.3
8	5.4	10.5	7.6	5.5	11.6	5.9	4.6	6.3	5.2	7.3	23.7	19.7	12.0	11.3	11.9	9.5	8.6	7.8	7.9	6.8	5.2	16.6	17.3	13.0	23.7	4.6	10.0
9	9.3	12.3	9.2	7.0	7.6	7.3	6.6	5.5	4.9	4.3	5.3	6.5	39.5	29.9	58.2	41.9	16.5	10.6	9.4	7.8	7.2	12.3	5.1	11.0	58.2	4.3	14.0
10	4.9	3.5	3.7	8.7	11.0	6.1	5.4	10.0	5.1	10.6	4.1	5.8	14.6	11.6	10.2	10.3	12.4	18.5	9.6	6.6	13.2	17.7	8.1	8.0	18.5	3.5	9.1
11	8.2	4.6	6.5	8.0	6.5	8.5	8.0	8.0	12.4	13.9	29.9	8.3	5.4	6.2	7.3	6.4	5.5	4.4	4.1	4.1	4.0	4.2	4.2	5.2	29.9	4.0	7.7
12	4.8	4.5	4.7	3.9	5.2	6.3	5.6	19.2	20.7	5.6	10.5	33.9	43.0	49.9	30.0	24.7	13.7	13.7	8.8	8.6	7.7	6.1	5.1	5.6	49.9	3.9	14.2
13	4.2	10.7	7.5	9.3	9.9	7.4	6.0	6.4	5.3	4.9	5.9	6.2	5.1	8.8	9.0	37.7	15.2	10.2	7.9	8.0	7.9	8.0	4.6	6.9	37.7	4.2	8.9
14	5.2	7.3	14.4	8.0	10.2	10.3	10.6	8.3	8.4	13.2	17.1	6.5	9.5	9.5	15.2	13.2	10.6	6.8	5.3	10.6	9.6	3.3	5.6	5.9	17.1	3.3	9.4
15	10.2	10.9	7.2	6.0	6.0	6.1	13.7	5.8	17.5	21.0	26.1	30.5	38.1	7.7	28.4	11.1	6.2	12.6	6.8	5.2	4.4	4.4	7.1	7.6	38.1	4.4	12.5
16	6.0	4.4	4.2	6.5	6.0	5.9	25.7	5.0	6.0	13.5	14.8	13.2	6.7	4.8	9.6	12.1	6.9	6.3	9.5	10.2	10.8	6.3	5.0	7.2	25.7	4.2	8.6
17	5.8	5.3	6.3	9.3	10.0	5.1	4.2	4.2	3.3	3.7	4.3	4.2	5.8	5.3	5.8	14.7	10.6	4.7	4.3	10.6	7.2	3.2	3.6	3.9	14.7	3.2	6.1
18	4.9	4.1	5.9	4.9	4.0	6.8	6.0	6.2	7.4	6.6	10.6	9.2	24.7	35.3	8.5	24.6	30.5	21.6	20.8	12.4	7.0	7.1	10.9	22.6	35.3	4.0	12.6
19	12.9	7.4	13.0	11.0	9.6	5.2	7.5	6.2	8.1	3.7	43.7	9.4	28.7	26.3	74.6	79.2	26.1	72.2	7.6	4.2	8.2	11.7	11.1	9.3	79.2	3.7	20.7
20	16.0	15.8	6.2	11.7	6.9	5.5	6.1	6.4	6.8	12.9	20.2	9.0	6.8	4.4	4.8	3.4	5.1	4.0	6.1	5.2	5.3	7.7	7.3	7.1	20.2	3.4	7.9
21	7.5	5.4	5.3	5.2	4.8	7.0	6.7	4.4	4.1	4.8	6.2	14.3	8.8	8.5	4.6	4.8	4.8	20.2	10.4	12.0	17.2	8.3	6.2	9.5	20.2	4.1	8.0
22	9.0	14.5	9.0	6.5	5.5	4.7	6.2	4.8	6.2	5.0	6.9	5.2	15.3	44.3	21.8	16.2	10.9	6.3	16.6	40.2	19.2	35.7	52.6	16.4	52.6	4.7	15.8
23	9.8	18.6	59.6	72.3	32.4	20.3	73.1	27.2	34.1	5.7	19.9	27.5	16.5	16.4	11.9	8.4	23.2	13.4	7.9	9.0	26.2	21.2	16.3	26.3	73.1	5.7	24.9
24	31.4	13.8	68.0	13.9	16.6	42.9	50.6	57.7	24.5	8.2	11.2	8.2	17.5	29.7	21.2	9.1	8.4	6.4	3.9	3.5	6.2	4.9	7.3	4.8	68.0	3.5	19.6
25	4.0	4.7	4.4	4.5	4.5	4.3	4.1	5.3	4.7	4.6	4.4	4.7	4.5	4.5	4.8	4.8	4.4	4.7	5.0	5.5	14.7	5.9	22.8	22.7	22.8	4.0	6.6
26	7.3	5.0	4.6	9.9	5.6	5.5	9.7	15.4	10.1	6.7	7.4	10.8	5.1	6.7	6.8	6.0	7.9	5.1	5.0	4.9	4.6	4.9	6.0	4.9	15.4	4.6	6.9
27	4.3	4.1	4.5	4.8	4.2	4.8	6.7	5.5	12.6	5.6	5.0	17.5	7.0	9.3	5.6	6.4	6.9	4.5	4.8	5.9	7.5	12.2	26.4	34.9	34.9	4.1	8.8
28	35.8	3.9	3.5	9.4	49.1	62.0	29.0	18.3	25.9	8.5	9.8	12.2	14.6	14.6	12.2	9.1	7.3	7.5	8.2	6.8	5.0	4.7	5.0	4.6	62.0	3.5	15.3
29	4.4	4.7	4.5	4.3	5.1	5.3	5.4	5.0	5.0	4.9	5.3	5.8	6.3	6.2	5.5	5.4	5.3	5.8	5.4	5.4	5.2	5.1	4.9	5.7	6.3	4.3	5.2
30	13.0	6.8	6.2	4.3	3.9	4.2	5.8	6.1	7.6	14.5	15.6	5.8	52.3	6.4	8.2	11.1	12.2	8.0	7.6	5.2	5.7	9.1	7.5	6.9	52.3	3.9	9.7
31	7.3	6.2	6.2	5.2	5.1	4.9	7.0	6.2	6.8	5.5	6.1	5.7	5.3	6.5	6.6	6.9	8.2	15.4	9.5	5.6	5.0	4.9	7.4	6.6	15.4	4.9	6.7
Max.	**35.8**	**22.8**	**68.0**	**72.3**	**49.1**	**62.0**	**73.1**	**57.7**	**34.1**	**50.0**	**43.7**	**37.1**	**52.3**	**49.9**	**74.6**	**79.2**	**30.5**	**72.2**	**20.8**	**40.2**	**26.2**	**35.7**	**52.6**	**53.6**	**79.2**		
Min.	**4.0**	**3.5**	**3.5**	**3.9**	**3.9**	**4.2**	**4.1**	**4.2**	**3.3**	**3.7**	**4.1**	**4.2**	**4.5**	**4.4**	**4.6**	**3.4**	**4.4**	**4.0**	**3.9**	**3.5**	**3.7**	**3.2**	**3.6**	**3.9**		**3.2**	
Avg.	**9.2**	**8.0**	**10.3**	**10.2**	**9.8**	**9.7**	**12.1**	**10.0**	**9.8**	**9.2**	**12.0**	**11.4**	**16.1**	**14.2**	**14.0**	**13.7**	**10.4**	**12.2**	**7.8**	**8.0**	**8.5**	**9.0**	**10.8**	**11.3**			**10.7**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (RMYoung)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	4.5	10.2	7.1	6.4	9.9	16.3	5.6	12.5	12.3	7.4	5.9	8.7	9.2	7.5	51.6	48.0	27.7	6.4	12.2	9.7	5.3	7.5	7.5	6.4	51.6	4.5	12.7
2	9.5	10.6	46.5	35.6	34.3	36.2	11.4	25.1	6.4	6.9	5.5	6.4	6.3	5.2	18.0	11.4	32.0	17.0	16.0	6.8	7.9	7.8	5.5	5.9	46.5	5.2	15.6
3	5.3	4.6	7.4	5.6	3.7	3.6	4.3	22.5	21.1	13.7	31.3	28.7	39.8	46.0	36.6	11.6	24.9	44.5	6.0	7.4	5.1	4.1	5.4	4.0	46.0	3.6	16.1
4	4.2	4.6	3.8	3.7	3.8	4.3	3.5	4.7	4.4	4.3	4.0	4.6	5.0	4.8	4.4	4.6	4.6	4.3	4.2	9.1	7.4	4.3	4.8	4.8	9.1	3.5	4.7
5	3.8	3.7	4.2	4.1	5.7	6.7	3.3	3.7	3.9	3.9	4.3	4.7	6.4	6.5	4.6	4.9	8.0	4.3	4.1	3.8	3.7	3.8	4.2	3.6	8.0	3.3	4.6
6	4.3	4.4	4.0	5.8	4.3	6.6	6.1	5.2	5.3	5.0	5.2	4.8	4.7	6.5	5.2	5.1	5.5	5.3	6.7	5.8	5.1	4.7	16.8	8.4	16.8	4.0	5.9
7	5.4	5.6	4.1	4.9	4.7	4.0	4.3	6.2	5.6	5.4	4.2	4.5	4.8	6.8	12.2	10.9	4.8	11.0	12.3	6.0	6.6	8.4	7.0	17.1	17.1	4.0	6.9
8	8.7	12.9	6.8	9.0	4.5	5.5	4.6	4.9	5.0	4.5	4.5	4.7	6.3	5.0	4.8	5.0	4.3	4.5	6.8	4.6	5.3	4.8	4.5	5.4	12.9	4.3	5.7
9	5.2	5.9	5.0	4.7	4.6	4.6	5.1	4.0	4.8	5.9	4.7	4.5	4.3	4.5	4.3	4.1	3.9	5.2	5.6	5.9	4.6	6.0	26.8	18.3	26.8	3.9	6.3
10	5.9	7.5	6.0	4.8	5.3	18.4	5.9	4.1	3.8	17.3	10.2	5.1	6.3	7.6	12.5	12.1	11.9	7.7	8.8	9.8	6.0	4.3	7.6	3.7	18.4	3.7	8.0
11	4.6	4.8	6.0	8.9	6.9	4.3	4.6	5.5	5.6	6.6	13.5	8.0	5.1	5.2	6.0	4.7	4.0	4.8	7.9	6.7	9.6	6.4	9.5	27.8	27.8	4.0	7.4
12	6.3	4.9	28.7	45.5	8.6	71.3	57.6	68.9	21.8	32.2	28.3	20.6	16.9	5.7	6.3	23.1	19.1	7.2	5.8	5.2	3.5	3.6	4.0	4.0	71.3	3.5	20.8
13	3.9	3.8	3.8	4.1	4.4	4.4	4.2	4.3	5.0	5.5	5.9	7.0	6.8	33.1	53.2	29.5	22.6	29.9	4.3	4.2	6.0	5.0	6.6	7.2	53.2	3.8	11.0
14	6.4	5.0	5.9	7.1	9.5	13.7	5.1	10.4	22.9	16.3	35.1	23.9	4.1	4.0	4.1	5.2	4.3	4.0	4.0	4.5	13.9	18.2	4.8	5.1	35.1	4.0	9.9
15	7.0	6.3	4.7	6.2	4.1	3.1	3.4	3.7	3.7	3.6	3.7	4.7	4.2	5.6	5.7	4.4	5.2	5.0	12.5	8.1	6.2	6.2	5.8	4.6	12.5	3.1	5.3
16	16.8	23.5	21.8	22.4	20.9	24.2	16.2	19.4	22.5	22.8	23.1	17.4	17.3	20.0	20.9	25.9	19.5	11.6	16.5	16.0	20.1	17.7	21.3	21.9	25.9	11.6	20.0
17	21.7	11.6	19.1	20.0	11.0	5.6	12.3	5.0	16.1	11.9	18.5	17.0	18.5	19.0	20.7	19.6	10.5	6.3	16.1	15.8	13.4	16.8	15.4	46.0	46.0	5.0	16.2
18	10.1	13.3	25.8	11.5	7.8	12.3	11.4	7.2	9.0	5.3	7.0	7.0	6.5	5.3	7.0	9.9	5.2	6.6	8.8	16.6	26.6	6.0	4.8	3.9	26.6	3.9	9.8
19	7.8	5.4	6.5	5.1	29.2	61.1	17.7	30.7	23.4	7.6	21.2	17.3	4.9	5.3	4.2	4.4	4.8	6.4	4.3	4.8	5.7	5.2	4.5	4.2	61.1	4.2	12.2
20	4.4	4.2	4.2	5.0	4.6	6.0	4.5	4.6	4.4	4.7	4.8	5.3	4.9	4.5	5.0	5.7	6.7	5.1	10.1	5.3	11.7	8.8	7.5	10.1	11.7	4.2	5.9
21	5.9	5.9	4.2	5.8	13.0	6.1	11.1	5.6	4.9	8.1	4.6	5.6	4.4	4.2	5.2	8.4	5.7	6.5	4.4	4.3	4.5	4.2	4.5	5.0	13.0	4.2	5.9
22	5.1	6.6	14.2	6.4	14.6	6.4	7.1	7.3	12.7	6.3	6.2	5.2	5.1	5.7	5.4	6.0	6.6	6.1	6.5	8.6	4.5	4.7	17.8	8.5	17.8	4.5	7.7
23	4.7	6.7	7.0	7.1	12.8	6.5	8.2	6.3	6.2	7.5	11.2	8.1	6.9	5.9	7.8	7.0	15.1	5.5	12.7	8.6	4.7	6.7	5.9	10.0	15.1	4.7	7.9
24	7.6	6.1	9.1	12.9		7.6	19.4	13.9	7.5	6.9	6.4	4.3	5.4	5.4	4.5	4.2	4.2	4.6	4.0	5.0	8.4	5.0	4.9	4.8	19.4	4.0	7.1
25	4.4	4.3	5.1	4.3	4.7	7.3	5.3	7.9	11.5	7.2	5.9	4.7	6.2	6.0	6.5	5.7	5.0	5.2	7.8	7.6	11.5	9.4	7.7	5.8	11.5	4.3	6.5
26	3.6	3.4	4.1	7.9	11.2	11.6	9.1	19.0	30.5	8.1	26.8	6.5	8.4	14.3	15.2	11.4	16.6	12.0	6.8	6.2	7.7	10.6	6.0	4.3	30.5	3.4	10.9
27	5.2	5.4	4.3	4.7	4.4	5.1	3.9	4.2	4.1	4.4	5.5	5.6	6.8	5.0	5.7	5.7	4.9	5.3	8.6	5.3	4.6	5.3	6.7	6.2	8.6	3.9	5.3
28	5.0	4.5	5.1	5.5	7.2	18.7	24.1	36.3	43.1	17.7	9.4	4.5	7.3	6.2	4.1	5.2	4.3	5.5	5.3	4.9	4.1	4.7	5.9	4.9	43.1	4.1	10.1
29	5.0	4.2	3.6	4.4	3.7	5.0	4.2	4.0	4.1	3.9	3.9	4.9	4.4	4.0	5.0	4.6	5.1	4.6	4.6	4.4	5.5	4.4	4.5	4.0	5.5	3.6	4.4
30	4.5	5.3	4.6	4.8	5.2	5.6	4.8	4.9	4.7	5.1	4.8	5.0	4.3	4.3	4.9	4.5	5.4	4.7	7.1	5.6	4.7	5.2	4.8	6.1	7.1	4.3	5.0
Max.	**21.7**	**23.5**	**46.5**	**45.5**	**34.3**	**71.3**	**57.6**	**68.9**	**43.1**	**32.2**	**35.1**	**28.7**	**39.8**	**46.0**	**53.2**	**48.0**	**32.0**	**44.5**	**16.5**	**16.6**	**26.6**	**18.2**	**26.8**	**46.0**	**71.3**		
Min.	**3.6**	**3.4**	**3.6**	**3.7**	**3.7**	**3.1**	**3.3**	**3.7**	**3.7**	**3.6**	**3.7**	**4.3**	**4.1**	**4.0**	**4.1**	**4.1**	**3.9**	**4.0**	**4.0**	**3.8**	**3.5**	**3.6**	**4.0**	**3.6**		**3.1**	
Avg.	**6.5**	**6.8**	**9.4**	**9.5**	**9.1**	**13.1**	**9.6**	**12.1**	**11.2**	**8.9**	**10.9**	**8.7**	**8.0**	**9.0**	**11.7**	**10.4**	**10.1**	**8.6**	**8.0**	**7.2**	**7.8**	**7.0**	**8.1**	**9.1**			**9.2**

Total Hours in Month 720 **Hours Data Available** 719 **Data Recovery** 99.9%

HCG, Inc.

Pebble 4 Meteorological Station - Wind Sigma (RMYoung)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	4.6	5.1	8.2	5.8	4.5	5.6	30.5	53.5	43.3	9.0	5.9	11.7	7.3	14.7	5.7	6.9	9.6	56.9	82.7	64.6	24.0	33.6	37.7	3.8	82.7	3.8	22.3
2	6.0	12.2	9.4	6.4	7.2	5.7	7.3	5.1	7.5	5.0	5.2	7.4	15.8	7.4	45.3	19.3	52.8	18.5	6.8	10.9	20.6	7.1	5.6	14.5	52.8	5.0	12.9
3	8.4	9.1	5.3	5.4	4.9	4.9	5.2	4.3	4.5	5.8	5.0	5.9	6.7	6.5	6.7	4.8	8.6	5.8	5.4	4.0	4.0	3.8	3.9	4.5	9.1	3.8	5.6
4	5.2	3.6	3.2	3.5	5.8	6.2	18.6	24.7	8.1	5.4	3.6	4.1	4.5	15.4	6.4	5.1	4.4	4.0	3.8	4.5	3.8	4.4	3.9	3.9	24.7	3.2	6.5
5	4.0	4.5	4.0	3.8	4.4	4.5	4.1	3.9	5.3	6.3	5.1	3.8	4.0	4.4	4.4	4.3	4.3	4.1	4.4	4.8	5.4	4.2	4.7	4.5	6.3	3.8	4.5
6	4.5	4.5	4.2	4.4	5.5	4.9	4.3	4.2	4.4	4.4	4.7	4.0	3.9	4.1	3.9	4.0	6.3	49.7	28.4	11.3	11.1	15.1	5.7	8.1	49.7	3.9	8.6
7	8.4	14.2	10.0	5.0	9.9	9.8	4.3	6.4	4.6	5.1	5.7	7.5	6.0	4.4	4.0	3.7	3.9	4.0	4.6	5.6	5.2	4.3	4.2	4.0	14.2	3.7	6.0
8	4.7	5.9	14.4	8.8	1.7	0.3	0.0	7.1	6.7	8.1	7.0	5.2	11.2	7.6	5.7	6.8	33.5	10.0	5.9	6.6	9.1	11.1	7.7	9.9	33.5	0.0	8.1
9	6.6	59.3	25.4	10.2	10.0	5.0	4.5	4.0	3.9	4.7	5.2	5.9	3.6	3.9	3.3	3.6	3.5	3.7	4.1	4.0	5.0	4.0	4.3	4.6	59.3	3.3	8.0
10	4.9	5.2	7.4	5.5	6.4	10.9	6.3	5.9	6.8	6.4	4.1	7.3	6.0	9.0	6.9	4.7	6.1	7.6	5.4	5.6	10.2	16.3	10.4	3.3	16.3	3.3	7.0
11	3.8	4.0	5.8	4.7	9.3	14.0	30.5	14.3	17.4	24.6	6.1	15.9	28.4	36.8	12.7	16.6	5.8	6.2	68.3	85.0	27.3	7.1	6.2	5.6	85.0	3.8	19.0
12	11.5	18.1	12.5	7.2	14.3	18.2	21.2	16.6	14.1	11.2	12.7	8.9	9.7	5.6	8.6	16.6	10.3	6.2	7.9	11.0	11.0	10.8	5.8	6.7	21.2	5.6	11.5
13	7.3	10.5	7.3	14.4	8.4	8.1	6.5	8.2	7.2	6.0	5.1	5.4	5.0	4.7	3.3	3.9	3.6	3.7	4.2	7.9	3.9	4.8	4.2	4.3	14.4	3.3	6.2
14	6.0	3.4	3.2	4.2	3.7	4.2	4.8	7.2	6.7	4.5	8.2	8.6	9.8	15.2	12.0	10.2	10.2	11.3	8.8	4.5	13.7	7.1	16.6	14.7	16.6	3.2	8.3
15	7.5	16.1	16.8	10.9	4.5	3.8	3.6	5.0	3.8	6.4	4.7	5.0	3.9	4.2	3.2	4.1	3.2	4.1	4.0	3.3	3.6	2.8	2.8	4.7	16.8	2.8	5.5
16	4.9	3.3	3.3	4.3	3.2	3.2	12.2	6.2	5.0	6.4	8.6	10.8	4.5	6.3	6.3	11.6	7.8	20.0	16.7	19.2	19.3	11.6	13.9	21.7	21.7	3.2	9.6
17	6.9	16.6	18.8	23.5	23.5	21.8	20.6	5.7	7.8	8.0	16.9	12.3	9.0	21.9	21.3	18.8	16.1	18.0	9.3	11.2	11.5	10.6	6.4	5.8	23.5	5.7	14.3
18	6.1	9.5	4.2	4.2	3.9	3.3	5.6	4.3	4.2	4.5	5.3	4.1	5.3	4.3	4.4	6.4	8.0	8.3	3.9	4.2	5.7	6.2	7.2	6.5	9.5	3.3	5.4
19	10.7	12.9	15.5	13.9	15.0	6.7	7.9	16.8	12.3	11.6	9.6	5.8	5.1	7.4	14.5	16.5	17.9	10.8	6.0	18.2	11.3	11.2	7.2	8.6	18.2	5.1	11.4
20	5.1	7.7	7.3	7.6	6.4	16.0	18.2	4.5	3.9	3.8	4.3	3.7	3.5	3.1	3.4	3.1	4.5	5.6	6.0	4.9	3.2	3.5	6.2	7.3	18.2	3.1	5.9
21	3.7	3.6	3.5	3.5	3.2	3.8	17.1	4.9	6.3	8.7	4.7	7.7	11.6	3.8	6.0	4.5	6.4	4.6	4.1	3.4	3.3	5.6	3.0	8.0	17.1	3.0	5.6
22	3.5	4.3	3.7	4.9	3.9	3.2	3.7	3.4	4.0	3.8	4.2	3.8	3.3	3.8	4.4	3.7	3.4	3.7	3.1	3.6	19.1	26.4	9.7	8.9	26.4	3.1	5.8
23	5.2	10.3	5.1	6.5	10.2	4.8	6.2	6.2	27.6	17.9	13.5	16.0	22.2	5.5	7.5	7.7	6.8	21.1	10.3	82.6	20.5	51.7	47.0	21.5	82.6	4.8	18.1
24	8.2	7.3	7.2	6.7	4.2	5.5	7.9	5.8	5.9	11.0	12.9	18.2	20.6	21.1	19.9	22.7	25.2	20.1	3.0	3.3	5.2	5.1	2.8	3.0	25.2	2.8	10.5
25	2.8	3.1	2.6	3.3	3.9	3.8	3.2	3.8	3.0	7.2	11.8	4.6	3.2	5.1	5.0	4.6	4.4	18.0	4.7	19.0	8.5	15.3	7.9	3.6	19.0	2.6	6.3
26	20.8	7.1	5.2	5.4	9.3	71.1	24.2	33.7	35.3	10.2	16.1	6.2	6.1	4.7	5.8	5.9	5.1	6.6	4.5	5.1	4.0	4.9	4.9	4.3	71.1	4.0	12.8
27	4.2	4.1	4.5	4.5	5.0	4.5	4.6	4.1	4.6	4.2	3.8	4.4	4.0	3.9	3.9	7.4	5.1	5.3	8.0	10.3	8.2	14.6	7.9	6.1	14.6	3.8	5.7
28	4.2	10.9	6.8	4.2	14.2	16.5	7.9	6.5	20.4	7.3	11.6	7.6	15.7	10.6	7.5	6.4	4.2	11.3	6.0	4.2	14.5	17.5	17.3	11.1	20.4	4.2	10.2
29	17.6	12.4	10.0	12.8	28.8	11.7	16.1	14.1	10.1	9.0	9.7	8.8	19.7	16.8	8.9	9.9	12.8	5.1	3.3	3.8	3.7	17.8	6.5	4.0	28.8	3.3	11.4
30	2.6	7.0	2.8	3.7	2.8	11.2	8.7	7.8	8.0	3.0	3.9	6.7	11.4	4.1	6.0	6.9	4.0	6.8	4.6	3.7	4.2	2.9	3.3	3.4	11.4	2.6	5.4
31	4.9	5.7	8.6	6.0	7.4	4.9	5.3	3.7	3.7	3.2	3.7	3.6	5.2	3.5	6.4	4.1	4.8	5.0	4.8	3.7	3.6	3.7	4.7	2.9	8.6	2.9	4.7
Max.	**20.8**	**59.3**	**25.4**	**23.5**	**28.8**	**71.1**	**30.5**	**53.5**	**43.3**	**24.6**	**16.9**	**18.2**	**28.4**	**36.8**	**45.3**	**22.7**	**52.8**	**56.9**	**82.7**	**85.0**	**27.3**	**51.7**	**47.0**	**21.7**	**85.0**		
Min.	**2.6**	**3.1**	**2.6**	**3.3**	**1.7**	**0.3**	**0.0**	**3.4**	**3.0**	**3.0**	**3.6**	**3.6**	**3.2**	**3.1**	**3.2**	**3.1**	**3.2**	**3.7**	**3.0**	**3.3**	**3.2**	**2.8**	**2.8**	**2.9**		**0.0**	
Avg.	**6.6**	**9.7**	**7.9**	**6.9**	**7.9**	**9.6**	**10.4**	**9.7**	**9.9**	**7.5**	**7.4**	**7.5**	**8.9**	**8.7**	**8.5**	**8.2**	**9.8**	**11.8**	**11.1**	**14.0**	**9.8**	**11.1**	**9.0**	**7.2**			**9.1**

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100.0%

HCG, Inc.

Pebble 4 Meteorological Station - Daily Cumulative Precipitation (mm)

January 2007- December 2007

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.2	1.8	6.8	0.0
2	0.0	0.2	0.0	0.0	0.8	0.0	0.0	3.8	0.0	0.4	0.2	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.8	15.0	0.0	0.6	0.0
4	0.0	0.0	0.0	0.4	0.0	6.8	13.2	10.0	0.6	21.6	21.8	0.0
5	0.0	0.0	0.0	0.6	0.0	1.2	0.6	6.8	6.2	39.0	2.2	11.0
6	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	6.0	0.0	5.6	3.6
7	0.0	0.0	0.0	5.8	0.0	0.0	1.2	0.0	21.4	0.0	0.0	0.6
8	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	40.6	0.0	8.8	1.4
9	0.0	0.0	0.0	3.2	5.4	0.8	0.2	0.0	12.8	0.0	0.0	5.6
10	0.0	0.4	0.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	6.4	4.4	0.0	0.2	0.0	0.0	0.0	0.0	11.4	0.0	0.0	0.2
12	0.8	0.0	0.0	0.6	0.0	0.2	4.2	0.8	23.6	0.0	0.8	0.0
13	0.0	0.0	0.0	0.0	1.8	4.6	10.0	0.0	17.2	0.0	13.6	1.2
14	0.0	0.0	0.0	0.0	0.4	1.8	0.2	5.6	0.4	0.0	15.4	0.0
15	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.8	0.0	0.0	0.4	0.0
16	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.2	0.2
17	0.0	0.0	0.0	0.6	1.0	7.6	0.0	0.0	2.0	0.0	0.0	0.0
18	1.0	0.0	0.0	4.2	0.0	0.4	0.8	6.0	42.8	15.2	0.0	0.0
19	0.2	0.0	0.0	6.8	0.0	0.0	0.0	1.6	15.2	2.6	4.8	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	13.2	1.8	10.6	10.8
21	0.0	0.0	0.4	0.2	0.0	0.0	0.2	4.2	0.0	0.4	0.2	4.8
22	1.0	0.0	0.0	0.2	0.2	8.4	4.8	9.8	11.2	0.0	36.8	1.8
23	0.0	0.0	0.0	0.0	0.0	24.4	12.4	1.8	7.8	0.0	0.0	0.2
24	0.0	0.0	0.0	0.0	1.4	1.6	4.0	2.0	12.8	13.6	0.0	0.2
25	3.8	0.0	0.4	0.4	4.6	0.0	0.0	0.2	3.4	5.2	8.4	0.0
26	0.0	0.0	0.4	3.0	0.6	0.0	0.0	0.2	2.0	0.2	0.0	0.0
27	2.4	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.4	0.2	0.2	4.2
28	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	23.2	0.0	0.0	0.2
29	10.2		1.2	0.0	0.0	0.0	0.0	0.0	3.4	2.4	0.2	0.0
30	5.4		0.2	0.0	0.0	0.2	0.2	0.0	17.4	4.0	0.2	0.0
31	0.0		1.4		0.0		0.0	0.0		4.4		0.0
Total	34.6	5.2	5.6	30.8	16.4	59.0	59.2	59.6	310.2	112.8	137.8	46.0

PLP Pebble 4 Meteorological Station - Daily Total Pan Evaporation (mm)

January 2007- December 2007

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	-	-	-	-	-	2.4	2.5	1.9	0.4	0.0	-	-
2	-	-	-	-	-	1.9	4.3	0.0	1.7	0.3	-	-
3	-	-	-	-	2.1	3.7	0.0	0.0	0.0	0.6	-	-
4	-	-	-	-	3.0	0.0	0.0	0.0	0.8	0.0	-	-
5	-	-	-	-	2.2	0.4	0.1	0.0	0.0	0.0	-	-
6	-	-	-	-	3.9	4.0	0.0	5.6	0.0	-	-	-
7	-	-	-	-	1.2	6.4	1.3	5.3	0.0	-	-	-
8	-	-	-	-	0.0	0.0	0.0	4.2	0.0	-	-	-
9	-	-	-	-	0.0	0.0	2.6	2.6	0.0	-	-	-
10	-	-	-	-	0.0	5.1	3.3	5.3	2.4	-	-	-
11	-	-	-	-	4.5	4.0	6.1	2.9	0.0	-	-	-
12	-	-	-	-	4.1	0.0	0.0	1.4	0.0	-	-	-
13	-	-	-	-	0.0	0.0	0.0	3.2	0.0	-	-	-
14	-	-	-	-	0.4	0.0	0.9	0.0	0.0	-	-	-
15	-	-	-	-	2.9	8.8	2.7	0.0	2.4	-	-	-
16	-	-	-	-	2.0	4.9	4.6	0.6	1.5	-	-	-
17	-	-	-	-	2.1	0.0	3.9	4.0	0.0	-	-	-
18	-	-	-	-	2.9	1.0	0.0	0.0	0.0	-	-	-
19	-	-	-	-	3.5	11.1	0.9	0.0	0.0	-	-	-
20	-	-	-	-	3.1	12.0	5.7	0.0	0.0	-	-	-
21	-	-	-	-	6.2	5.3	1.4	0.0	0.6	-	-	-
22	-	-	-	-	2.2	0.0	0.0	0.0	0.0	-	-	-
23	-	-	-	-	3.2	0.0	0.0	0.0	0.0	-	-	-
24	-	-	-	-	0.0	0.0	0.0	0.0	0.0	-	-	-
25	-	-	-	-	0.0	2.8	3.8	1.0	0.0	-	-	-
26	-	-	-	-	0.0	4.4	4.0	2.3	0.0	-	-	-
27	-	-	-	-	3.7	5.3	5.7	2.5	0.0	-	-	-
28	-	-	-	-	3.8	0.0	3.8	5.5	0.0	-	-	-
29	-		-	-	2.3	4.8	3.9	4.0	0.0	-	-	-
30	-		-	-	2.8	1.6	1.3	0.4	0.0	-	-	-
31	-		-		1.8		3.1	0.8		-		-
Total	0.0	0.0	0.0	0.0	63.8	89.8	65.8	53.5	9.7	0.8	0.0	0.0

Appendix E

Validated Manual Particulate Data

Not Applicable.