National Park Service
U.S. Department of the Interior

Natural Resource Program Center

# Creation of Glacier Bay oceanographic information products defined in protocol OC-2010.1 using legacy data covering 1993 through 2008

*Methods, quality levels, and exceptions*

Natural Resource Data Series NPS/SEAN/NRDS—2011/130

**ON THE COVER**
Top: NPS oceanography crew aboard R/V Boomer II in 2010
Bottom: USGS oceanography crew aboard R/V Sigma-T in 2004
NPS photos

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Natural Resource Data Series NPS/SEAN/NRDS—2011/130

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January 2011

U.S. Department of the Interior
National Park Service
Natural Resource Program Center
Fort Collins, Colorado

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Please cite this publication as:

Johnson, W. F. and M. M. Stachura. 2011. Creation of Glacier Bay oceanographic information products defined in protocol OC-2010.1 using legacy data covering 1993 through 2008: methods, quality levels, and exceptions. Natural Resource Data Series NPS/SEAN/NRDS—2011/130. National Park Service, Fort Collins, Colorado.

NPS 132/106414, January 2011

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# Abstract

The Southeast Alaska Inventory and Monitoring Network (SEAN) embarked on a project in summer 2010 to build the detailed physical oceanography information products specified in its formal protocol OC-2010.1 based on historic legacy data collected by USGS in Glacier Bay National Park and Preserve. The intention was to make a consistent and comparable data set covering 1993 through the present. The project completed successfully and these products are accessible at http://science.nature.nps.gov/im/units/sean/OC_Main.aspx (accessed on 29 October 2010). This paper documents the methods used to collect and process legacy data in order to create the detailed products. It explains how the required quality control levels were obtained. Exceptional data circumstances for each product are also listed. An appendix compares overall differences between original legacy values and those obtained through the project.

# Acknowledgments

This project could not have been undertaken without the complete original data set covering 1993 through 2008 that had been stewarded over the years by the USGS Alaska Science Center and the National Park Service (NPS). The authors are particularly indebted to Lewis Sharman, Philip Hooge, Elizabeth Hooge, Lisa Etherington, Erica Madison, and Mayumi Arimitsu for maintaining the original data and metadata.

We also thank Seth Danielson of the University of Alaska Fairbanks (UAF), Institute of Marine Science, for his excellent guidance regarding methods for reprocessing raw data into high-quality information, as well as for handling various exceptions encountered in the quality control processes.

Finally, we thank Brendan Moynahan of the Southeast Alaska Inventory and Monitoring Network (SEAN) for providing the resources and encouragement to bring this project to completion.

# Introduction

## Background

In 2009 the Southeast Alaska Network (SEAN) of the National Park Service Inventory and Monitoring Division (I&M) established a formal monitoring program to track physical oceanographic parameters in Glacier Bay National Park and Preserve, Alaska. The monitoring protocol is detailed in Danielson et al. (2010) *Glacier Bay National Park and Preserve oceanographic monitoring protocol OC–2010.1*. This protocol pays particular attention to a rigorous definition of the data and information products that are generated by the monitoring program. It also details precise methods for disseminating these products to the scientific community, following the network's data management guidelines established in Johnson and Moynahan (2008).

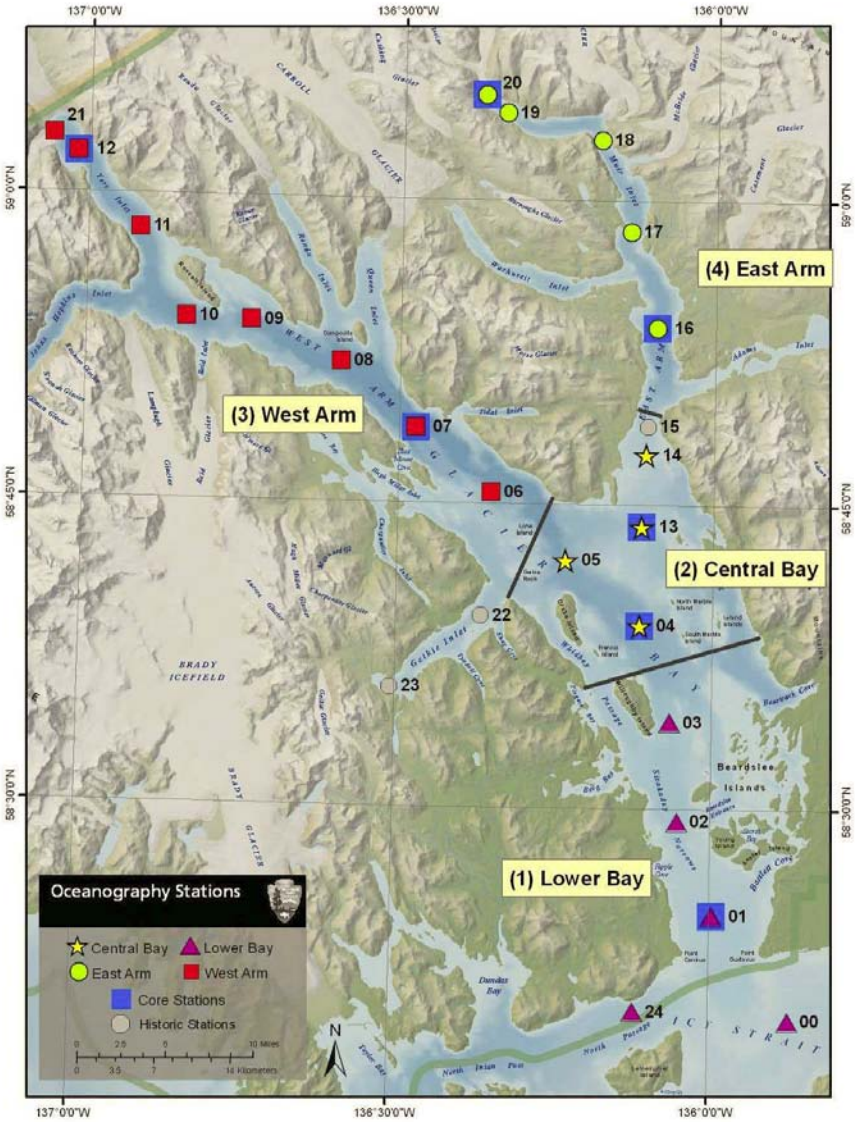


**Figure 1.** Fixed survey station locations employed by physical oceanography protocol OC-2010.1.

The SEAN program adapted many of its procedures from a similar program operated by United States Geological Survey (USGS) in Glacier Bay between 1993 and 2008. While the two programs differed in some areas, they were both centered in recording data at fixed stations with the same type of instrumentation using similar field techniques. The fixed station locations of both programs were for the most part identical. Figure 1 lists the current target stations.

A comprehensive source describing the legacy USGS program as it operated at the time is Hooge et al. (2003) *Fjord Oceanography Monitoring Handbook: Glacier Bay, Alaska*.

## Project Objective

The network executed a project during the summer of 2010 intended to generate the complete set of deliverable data products from the legacy USGS program that met the data standards required by the latest protocol. This was to be accomplished by locating original raw data files, metadata, and source field forms going back to 1993, and then running them through the detailed standard operating procedures (SOPs) for data product creation laid out in protocol OC-2010.1. The objective was realized in January 2011.

## Information Product Specifications

The data products created were a subset of those defined in protocol OC-2010.1 and are listed in Table 1. Certain omitted products were by their nature impractical to implement, such as a five-year report covering 1993-1997. However, the data that form the basis of such products already have been generated and are readily available to those wishing to do analyses from sites such as http://science.nature.nps.gov/im/units/sean/OC_Main.aspx.

## Data Scope

Legacy USGS data included some commingled special project oceanography files and documents. When it could be assured the core monitoring protocol was being followed in a special project's data collection effort, then its data were retained. Ultimately, only the Internal Wave special project of May 2001 met the criteria. SEAN excluded all other special project data. In the interest of preserving the physical record, however, the product designated OC_H contains images of field log sheets of all USGS activity, including special projects.

## Organization of this Report

The remainder of this report details the creation of each product. The items addressed include the methods employed to create the product, specific quality control functions applied, and data exceptions encountered and how they were treated.

Because many subsequent references are made to individual information products, extensive use is made of the designators denoted in Table 1 as a type of shorthand.

We report products in alphabetic designator order. However, because some products were prerequisites for others, actual generation of products had to be done in the order OC_H, OC_G, OC_A, OC_B, OC_C, OC_D, OC_M.

**Table 1.** Standard SEAN products created by this project from the legacy data and metadata.

| Designator | Product Title | Description | Form |
|---|---|---|---|
| OC_A | CON calibration files | The collection of calibration files used to adjust raw CTD data to standard levels based on the particular sensitivity of each sensor in the instrument array. | Windows files in the proprietary “CON” format of vendor Sea-Bird Electronics. |
| OC_B | Raw HEX files | The collection of raw CTD data taken in one cast. One HEX file is created for each cast. Values represent relative voltages or frequencies sampled from sensors. | Windows files in vendor’s ASCII “HEX” format, wrapped into a single ZIP file. |
| OC_C | Processed CNV files | The collection of raw data processed against calibration factors, binned into one meter segments, and expressed in engineering units. One CNV file is created for each cast. | Windows files in vendor’s ASCII “CNV” format, wrapped into a single ZIP file. |
| OC_D | Cumulative database | A single cumulative database of all certified OC_C data subject to additional quality control, from which customers extract data onto their workstations interactively through the web. | ASCII CSV files downloaded from web and saved onto local workstations. |
| OC_G | Calibration certificates | Scanned images of certificates provided by instrument servicers that document sensor sensitivity factors at the time of each calibration. | Individual PDF files, one for each certificate. |
| OC_H | Field log sheets | Two-sided color scans of the original field log sheets documenting each cast. | One PDF file containing one cruise year. |
| OC_M | Data quality assessments | Documentation of the quality of each cast, comments on exceptions, and status of individual instruments. | One PDF file covering one cruise year. |

# Project Activities

## Creating OC_A: CON Calibration Files

CON files contain CTD configuration and calibration details in a form proprietary to Sea-Bird Electronics, Inc. CON files typically are revised whenever a sensor is added, removed, or repaired on a CTD – each of which change the calibration and/or configuration values. A number of valid calibration files may exist in a given calendar year for a particular CTD.

### *Method*

In preparation for generating OC_A, project team staff first completed the OC_G certificate image product (*q.v.)*. We then searched for historic CON files in the archive provided to NPS by the original USGS data collectors. We reconciled the dated calibration factors within these files against the corresponding certificates. Where conflicts were identified, we used the certificated values.

We renamed the new CON files using the standard defined in OC-2010.1 SOP 3. The naming scheme includes references to the year and month. Since sensors may be calibrated at different times independent of each other, several months and years may be represented in a single CON file. The year-month used in the file name was the latest one chronologically inside the file. (This convention greatly simplified identifying files to use when the OC_Cs were built later.)

### *Quality*

Validation

The validation criteria for this product are:

1. Must be able to be opened, updated, and resaved using the Config function of SBEDataproc.exe 7.18 or later.
2. Values must match those in corresponding OC_G certificate images from the same time period.

All files successfully opened in SBEDataproc.exe 7.20G. We sight verified each file's contents against corresponding OC_G certificate images. Additionally, we verified the year/month in the file name corresponded to the most recent calibration date in the file.

Certification

The project manager certified the 23 resulting CON files as correct on 8/19/2010.

### *Exceptions*

There were cases where certificates were available for certain dates, but no historic CON files referenced them. Since the CTDs were in continuous use, it follows that CON files reflecting the most recent values were required in order to generate accurate parameters from casts made directly afterwards. In such cases we created additional new CON files. They were based on the most recent historic CON file available prior to the certificate date. We then edited the certificate values into the file using Sea-Bird's data processing software suite. As a result, the new data set contains more CON files than the legacy set.

No calibration certificates were available for the CTD 2 fluorometer (serial number 272) prior to July 15, 1999. The original CON files used by USGS for this period included the fluorometer with a scale factor of 1 and offset of 0. We retained these but cannot ascertain their accuracy.

## Creating OC_B: Raw HEX Files

HEX files contain raw sensor outputs, with one file representing one cast. Over the 16 years in which legacy data were collected, raw data files largely conformed to the specifications set for product OC_B in the OC-2010.1 protocol. However, over these years operators made various adjustments to field procedures. Of the most significance were the soak times for the CTD to acclimate to marine conditions before it was sent down, the exact stations surveyed, and the time periods surveyed. One field procedure that did not change, however, was collecting data on both the downcast and the upcast.

Besides raw sensor data, HEX files hold useful header information and metadata. Some information is automatically written to file by the CTD, such as instrument serial number, timestamp of download, cast number, and number of records. Other items are manually provided by the operator during the process of downloading the CTD memory into computer HEX files. Operator provided data was generally copied from field log forms, though the exact format appearing in the HEX file varied considerably.

### *Method*

Project team staff copied the original HEX files from the USGS-provided archive. We compared the individual casts against the OC_H field log records (*q.v.*) to ensure no field logs were missing.

Various "Read Me"-type files accompanied some of the original HEX data. We reviewed these for content and subsequently used some to help resolve data issues.

We again consulted the OC_H field logs to determine whether individual casts acquired from special projects complied with OC-2010.1 strictures. A primary determinant was whether or not the data collected fell within the discrete stations defined for the program (Figure 1). Additionally, special project staff needed to be trained users of the USGS protocol: outside researchers could not be expected to follow it closely and were excluded. One project called "Internal Waves" surveyed a subset of stations, though casting multiple times at each location. Since they technically fit within the data requirements, they were retained. Other projects recorded GPS locations that did not fall within the fixed survey stations. Since their spatial locations could not be categorized in the required manner, we excluded their data. Excluded projects are referenced as PrimnoaOcean, Halibut Chronosequence, Benthic Chronosequence, Halibut Diet, Glacier Bay SSF Sampling, Kittiwakes, FOG, Coastal Monitoring, Bay Wide Fluorometry, NFingers, Currents, MADS, Drifters, and ADCP.

We edited every original HEX file to contain the required header information specified in OC-2010.1 (Figure 2). We obtained much of this by interpreting the original field log forms and the header information originally associated with the HEX files. In cases where the field log form and original HEX file header information were not consistent, we used the field log information. We converted Date and Time from local time zone to GMT using the conversion application at website http://www.timezoneconverter.com/cgi-bin/tzc.tzc. Also, latitude and

longitude were present in a number of forms. We standardized all to the required WGS-84 datum and decimal degrees using the conversion application at website http://www.rcn.montana.edu/resources/tools/coordinates.aspx?nav=11. We converted any Fathometer Depth and Cast Target Depth values originally recorded in fathoms to meters using http://www.calculateme.com/Length/Fathoms/ToMeters.htm.

```
* Sea-Bird SBE19 Data File:
* FileName = c2014007.hex
* Software Version 1.09
* Temperature SN = 775
* Conductivity SN = 775
* System UpLoad Time = Feb 02 2005 11:04:14
** Vessel:Gyre
** CTD#:2
** Dump#:0140
** Observer:Madison
** Cast#:07
** Station:23
** Latitude:58.62357
** Longitude:-136.44788
** Date GMT:2005/02/01
** Time GMT:03:44
** Fathometer depth:103
** Cast target depth:90
** We did not make it to the head of Geikie due to ice.
* ds
* SEACAT PROFILER V2.1e  SN 775   02/02/05  10:49:59.073
* pressure sensor: serial no = 164921,  range = 500 psia,  tc = 410
```

**Figure 2.** Example standard HEX file header metadata (in bold) required by protocol OC-2010.1. The first twelve items preceded by '**' are required. Any additional '**' lines are comments.

We revised file names to reflect the requirements of SOP 5. This requires accurate representation of CTD #, Dump #, and Cast #. We built file names strictly from the internal header information, regardless of original file names. Formal validation enforced this correspondence.

Some HEX files from 1993 to 2001 had two lines of code preceding the data lines and one line of code following the data lines which did not appear to have any purpose, but were objected to by later versions of Sea-Bird software. We deleted these extra lines of code. The removal did not impact the data processing outcome values.

For casts having an unrecorded Fathometer Depth, we used the nominal depths provided in Appendix A: Oceanographic Station Locations of protocol OC-2010.1.

In some cases the HEX files contained data lines that were too long, too short, or included invalid characters. This was the result of unrecoverable communication errors between the CTD and computer during downloading. We deleted such damaged data lines from the HEX file, with remaining lines left intact.

The Cast Target Depth values were not recorded in the logs or HEX files for 1993 and 1994. We retrospectively inserted values that reflected the actual greatest depth calculated in the processed CNV files that were created from these HEX files.

We initially verified all spatial coordinates against a bounding box covering the Glacier Bay area. Then we visualized the HEX file coordinates of all casts using Google Earth to locate significant errors in latitude and longitude (Figure 3). In several cases the latitude and longitude information were obviously inaccurate (*e.g.*, they had the exact same coordinates as the immediately preceding cast; their coordinates were of inland locations). However, all files exhibiting this problem did have proper station numbers recorded in the field logs. For these cases we used the target latitude and longitude of the station, as specified in Appendix A: Oceanographic Station Locations of protocol OC-2010.1.

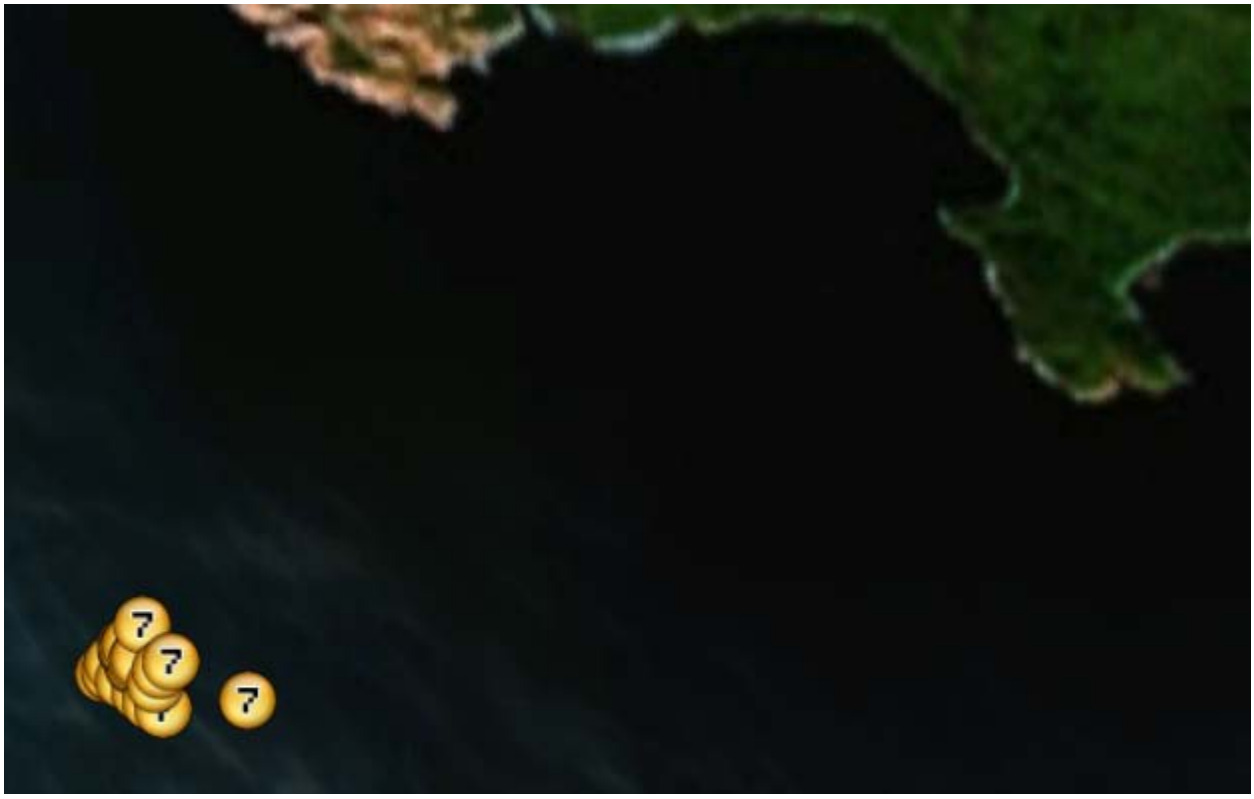


**Figure 3.** Example visualization of station 7 metadata, employed to verify all cast latitudes and longitudes.

We sight verified each HEX file to ensure it met the form and restrictions specified in Appendix J.2 of OC-2010.1.

***Quality***

Validation

The submission and validation cycles performed for OC_B follow the process defined in detail in SOP 6 of OC-2010.1. Technicians compressed the HEX files for each year into a ZIP archive and submitted them to the Data Manager for formal validation. For this deliverable, formal validation is performed by a custom application that rigorously checks for violations of

mandatory and optional criteria as defined in OC-2010.1 Appendix J.2. Any mandatory violation caused the entire submission to be returned to the project for correction. It was typical for a year's OC_B product to be returned for rebuilding numerous times before it passed validation. All 16 years eventually passed. Under no circumstances were the mandatory criteria specified in the protocol violated by any final OC_B products. Appendix A illustrates an example report from the automated validation system.

Certification

We deferred certification of the OC_B submissions until successful completion of the OC_C and OC_D products. This was required because validation criteria violations detected in these later products typically required revision of underlying OC_Bs to correct.

The Data Manager certified all OC_B products by August 26, 2010.

### *Exceptions*

From the "ReadMe" files associated with the USGS HEX files, we determined that the PAR sensor broke in the September 1996 cast 9609_2_0026_09.hex, and remained broken until the device was calibrated in May 1998. Therefore, PAR data from September 1996 through February 1998 are not usable. Additionally, the conductivity cell broke in October 1995 and was not repaired until the device was calibrated in July 1996. Therefore, salinity and density data from October 1995 through June 1996 are not usable.

The Internal Wave Study project data of May 2001 has been included. Its data reflect the protocol of the time, even though it is spatially limited to station 4.

Some dump numbers in the legacy source data were created as non-numeric. For these, we assigned substitute dump numbers beginning at 9999 and working down in the direction of 0000. For year 2000, CTD 2 had several casts with malformed dump numbers that were reassigned in this manner: (PCTD34 = 9999; PCTD33 = 9998; PCTD32 = 9997; PCTD28 = 9996; PCTD26 = 9995; PCTD21 = 9994).

Dump 0010 had been used twice in 1994: once for CTD 1 and again for CTD 2. Reuse of dump numbers is prohibited in OC-2010.1. We renamed dump 0010 taken by CTD 1 in 1994 to dump number 9993 and then processed normally.

While not technically an exception, a side effect of converting timestamps to GMT is that many casts are shifted ahead one day. In some cases this also results in casts falling in a different month than the original records indicate. This causes noticeable differences in reports categorized by month, which users should be aware of when making comparisons with original USGS files.

## Creating OC_C: Processed CNV Files

A CNV file contains data expressed in engineering units summarized in 1-meter depth bins. It is automatically created by a standard data processing function which takes as input a HEX raw data file and a CON calibration file. The data processing function consists of a particular set of sub-functions performed in a specific order using a single group of processing parameter options. Because of this, when an OC_C fails validation, it must be corrected by regenerating the underlying OC_B and/or OC_A. The software employed to accomplish this function was in the

suite of tools distributed by Sea-Bird Electronics as “SBE Data Processing” version 7.20G. Its operation is detailed in Sea-Bird Electronics, Inc (2010).

### *Method*

Within a year, HEX files have to be associated with the most appropriate CON file. Since it was possible for CTD reconfiguration or recalibration to occur during a season, it was possible for multiple groups of HEX files to be paired with different CON files in a year. The pairing was done by selecting the CON file for a CTD whose most recent internal calibration date most directly preceded the cast date of the HEX file (Table 2). For purposes of this project, the temporal domain covered by a particular CON file is referred to as its CON domain.

Initial attempts at generating CNV products resulted in many vertical data streams not starting until fairly deep in the water column. This was a significant shortcoming, as the top of the column is often of great interest. We determined the cause was field procedures that had varying soak times over the years, most of which were shorter than that called for in OC-2010.1 When combined with the standard raw data record “skipover” of 180 (used to remove noise as the sensors acclimate at the surface), the data processing function was often discarding valuable data points closest to the surface.

To help resolve this problem we generated three test OC_Cs using 2005 data, employing skipovers of zero, 90, and 180. Seth Danielson of the University of Alaska, Institute of Marine Science reviewed these. His recommendation was to employ a skipover of 90 for legacy data. This balanced the importance of calculating the top bins while avoiding inaccurate readings encountered when the instrument is first submerged. Skipover 90 corresponds to ignoring the first 45 seconds of data after the instrument is turned on at the start of each cast.

The automated data processing function also generated vertical profile plots for every cast (Figure 4). We visually reviewed them to confirm the data processing function was operating properly and to ascertain that no corruption had been introduced after processing. We also used them to determine if any observations needed to be marked as degraded in the final database (OC_D) due to equipment malfunctions.

**Table 2.** CON domain assignments used with legacy data.

| Year | CTD# | Dump start | Dump end | Best CON Domain[1] | Notes |
|---|---|---|---|---|---|
| 2008 | 1 | 0170 | 0177 | 1_0712 | |
| 2007 | 1 | 0163 | 0169 | 1_0604 | |
| 2006 | 1 | 0158 | 0162 | 1_0604 | |
| | 1 | 0156 | 0157 | 1_0412 | |
| 2005 | 1 | 0143 | 0155 | 1_0412 | |
| | 2 | 0140 | 0141 | 2_0410 | |
| 2004 | 1 | 0125 | 0139 | 1_0405 | |
| | 1 | 0121 | 0123 | 1_0301 | |
| 2003 | 1 | 0105 | 0120 | 1_0301 | Dump ranges are non-inclusive as |
| | 2 | 0107 | 0111 | 2_0301 | CTDs were shifted in and out of service |
| 2002 | 1 | 0080 | 0104 | 1_0008a | Dump ranges are non-inclusive as |
| | 2 | 0093 | 0103 | 2_0206 | CTDs were shifted in and out of service |
| | 2 | 0084 | 0084 | 2_0106 | |
| 2001 | 1 | 0065 | 0079 | 1_0008a | Dumps 0069, 0070, 0071, and 0076 |
| | 2 | 0073 | 0074 | 2_0106 | from Internal Waves Study / Dump |
| | 2 | 0064 | 0071 | 2_9907a | ranges are non-inclusive as CTDs were shifted in and out of service |
| 2000 | 2 | 0051 | 0063 | 2_9907a | 999x series dump numbers assigned to |
| | 2 | 9994 | 9999 | 2_9907a | replace original alphanumeric dump ids |
| 1999 | 2 | 0046 | 0050 | 2_9907a | |
| | 2 | 0040 | 0044 | 2_9806 | |
| 1998 | 2 | 0035 | 0039 | 2_9806 | |
| | 2 | 0033 | 0033 | 2_9607 | No PAR 0033 |
| 1997 | 2 | 0029 | 0032 | 2_9607 | No PAR all year |
| 1996 | 2 | 0026 | 0028 | 2_9607 | No PAR 0026-09 to end of year. |
| | 2 | 0022 | 0025 | 2_9310b | No conductivity cell 0022-0025. |
| | | | | | Dump 0022 crossed years. |
| 1995 | 2 | 0021 | 0022 | 2_9310b | No conductivity cell |
| 1994 | 1 | 9993 | 9993 | 1_9306 | 9993 assigned to duplicate dump 0010 |
| | 2 | 0010 | 0013 | 2_9310a | erroneously defined both for CTD #1 as well as for CTD #2. |
| 1993 | 2 | 0008 | 0009 | 2_9305a | |
| | 2 | 0004 | 0007 | 2_9305 | |

[1]CON domains are named using the specification in OC-2010.1 SOP 3.

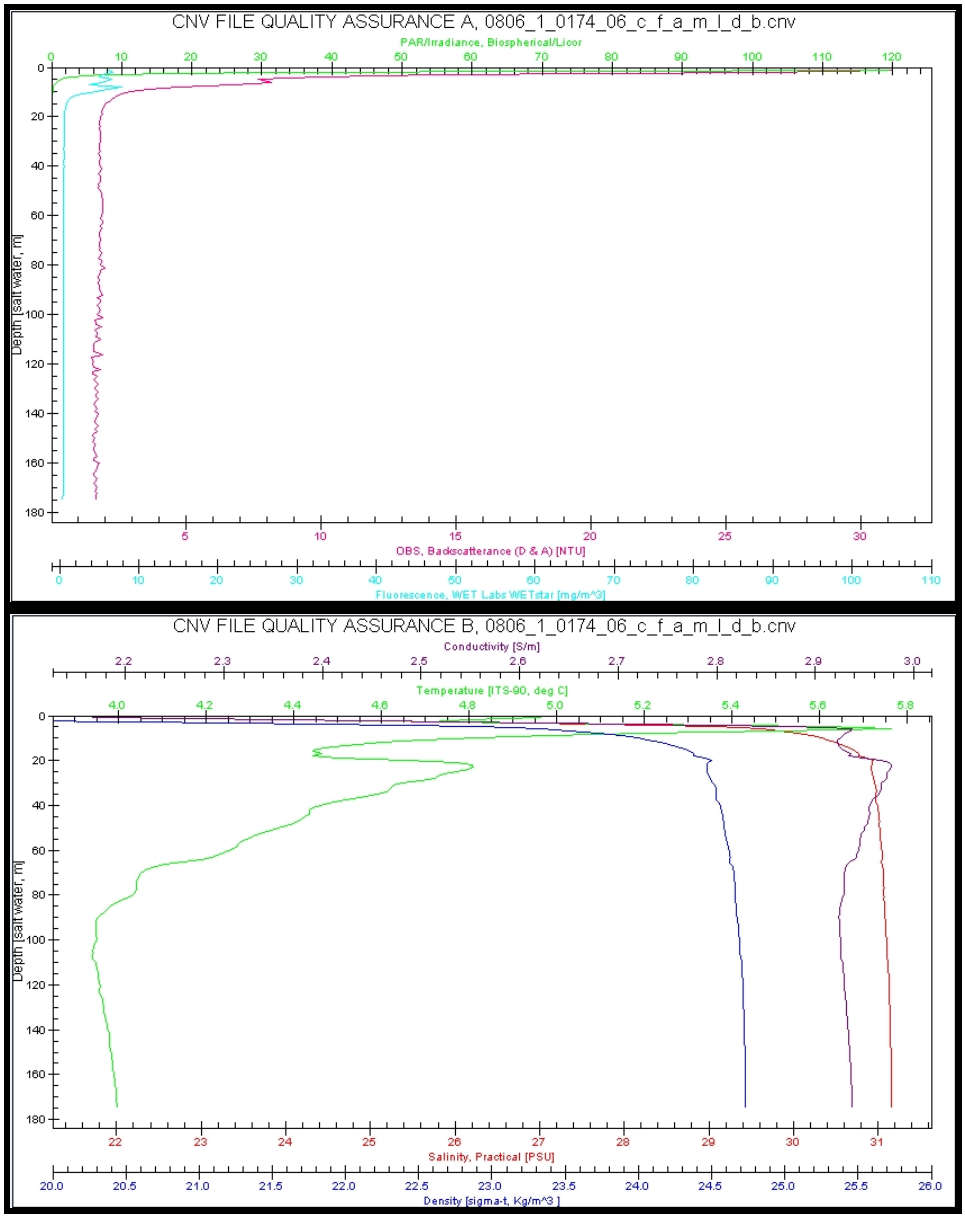


**Figure 4.** A pair of vertical profile plots used to verify operational state of sensors. Every cast's CNV file was plotted in order to detect irregularities requiring attention.

### *Quality*

Validation

The submission and validation cycles performed for OC_C follow the process defined in detail in SOP 8 of OC-2010.1. Technicians compressed the CNV files for each year into a ZIP archive and submitted them to the Data Manager for formal validation. For this deliverable, formal validation is performed by a custom application that rigorously checks for violations of mandatory and optional criteria as defined in OC-2010.1 Appendix J.3. Any mandatory violation always caused the entire submission to be returned to the project team for correction. It was typical for a year's OC_C product to be returned for rebuilding numerous times before it

passed validation. Correcting an OC_C generally required revising its underlying OC_B and/or OC_A products. All 16 years eventually passed.

Certification

The Data Manager deferred certification of the OC_C submissions until the OC_D product was successful completed. This was necessary because validation criteria violations and other quality issues detected in OC_D typically required revision of underlying OC_Cs to correct them.

The Data Manager certified all OC_C products by December 9, 2010.

#### *Exceptions*

No legacy CNV files reflect the first 90 raw sensor readings of each cast, as explained in the skipover section above under Method.

Raw data file 0307_2_0111_17.HEX contained fewer than 90 sensor array observations. It was not possible to generate a CNV for this cast.

Original field staff had recorded dump numbers 0021 through 0025 using a defective conductivity cell. This resulted in highly erroneous values for conductivity, salinity, and sigma-T. We ultimately processed these dumps using a CON domain having no conductivity cell in the configuration. This produced CNV files without those three misleading attributes, all of which are optional under OC-2010.1.

Field staff used dump #0010 twice in 1994, though on different CTDs. We reassigned the CTD 1 casts to dump 9993.

This project discovered several calibration certificates not represented in the legacy data set. Therefore, some HEX files were paired with newer CON files resulting in slightly different CNV values for certain sensors when compared with legacy data.

### Creating OC_D: Database Entries

OC_D contains updates applied to SEAN's cumulative oceanography database. They are deterministically created from valid OC_C products by a custom application. However, since the database is presented as the program's best monitoring data, corrections were occasionally introduced through special processes to improve certain values. Therefore, some OC_C data will not exactly match corresponding OC_D items. Note OC_C depends solely on its input OC_A and OC_B: OC_C always reflects the exact observed data. OC_D may differ from the observed data in order to provide more useful values.

It is crucial to database management that OC_Cs always contain one and only one complete year of data, as specified in OC-2010.1.

#### *Method*

Standard Process

The automated OC_D application sequences through four phases.

- The source OC_C for a year is revalidated against mandatory criteria to ensure nothing has been damaged in the file after its original successful validation. Results are reported

in a manner similar to that illustrated in Appendix A. If invalid data are found, no further phases are executed.

- Any existing oceanography data for that year is provisionally deleted from the database, the deletion being made permanent on successful completion of the entire process.
- OC_C data are inserted into the database, subject to cleanups explained below. Rows that had been flagged as bad by data processing are skipped over. Because the database is defined with strict internal validity constraints, it is possible for an insert to fail, resulting in termination of the process and restoration of the database to its original state. In such cases, the application reports the nature of the problem before closing down.
- Automated adjustments may be performed to clear up certain known issues. The only global adjustment currently performed is, when a cast is missing bins at any of the first four meters, these are imputed from the first valid bin in the column; but if bins are missing beyond four meters, no adjustment is attempted and they are left lost.

Two "cleanups" are made during the insertion phase.

- Any individual values marked with the Sea-Bird bad flag are made null in the database.
- Any negative values for sensor readings (except temperature) are stored as zero. This is because the accuracy of sensors is such that an occasional, say, -0.01 is recorded. Note that OC_C validation has already rejected any CNV files having significantly negative sensor values.

<u>Special Process</u>

After the standard process completes successfully, a comprehensive SQL database is the outcome. This database provided the opportunity to assess the completeness of the converted data through SQL queries. Project staff performed cross queries on the combined legacy and new databases to determine differences at gross levels (*e.g.*, dump numbers present in one database but not the other). The team analyzed results and any necessary corrections were made to the underlying OC-2010.1 products, followed by a reiteration of the OC_D creation process.

Once the differences were resolved, we identified casts with significant missing data near the important top of their water columns. After review, Seth Danielson of the UAF Institute of Marine Science provided a list of casts that would be more useful if their OC_Cs were recomputed based on the upcast data that was always recorded but not routinely used. His analysis also recommended nullifying certain individual parameter readings that he judged to be spurious.

The special process involved regenerating CNV files for temporary use based on upcasts. To this were added certain CNVs based on downcasts identified as having spurious data. All these files then had their spurious values manually set to the Sea-Bird bad data flag. Each year with affected casts then had its individual OC_C reassembled and run through the OC_D application in order to repopulate the database with corrected casts for the year. The temporary CNV files and OC_C files were then discarded to prevent anyone mistaking them for the original certified products. The casts involved are listed in Table 3.

The data processing function calculated upcasts with zero skipover, since the readings began at the cast bottom with a fully acclimated instrument.

**Table 3.** Changes made to individual casts in OC_D by the "Special Process".

| Year | CTD# | Best CON domain[3] | Casts regenerated using upcasts[1] | Cast/attribute/bins set to bad data flag[2] |
|---|---|---|---|---|
| 2005 | 1 | 1_0412 | 0144-03 | 0144-03 OBS m0 |
| | 2 | 2_0410 | 0140-04 | 0140-04 OBS m0-1 \| PAR m240-end |
| | | | 0140-09 | 0140-09 OBS m0 \| PAR m140-end |
| 2004 | 1 | 1_0405 | 0126-05 | (none) |
| 1999 | 2 | 2_9907a | (none) | 0050-10 OBS m1-10 \| FLU m1-10 |
| | 2 | 2_9806 | 0044-23 | (none) |
| 1998 | 2 | 2_9607 | 0033-15 | (none) |
| 1997 | 2 | 2_9607 | (none) | 0030-07 FLU m0-8 \| SAL m227 \| DEN m227 |
| | | | 0030-09 | |
| | | | 0031-00 | |
| | | | 0032-00 | |
| | | | 0032-06 | |
| | | | 0032-17 | |
| | | | 0032-18 | |

[1]Expressed as 4-digit dump number followed by 2-digit cast within the dump.
[2]Bins expressed as meter levels. *E.g.*, m0-8 refers to the nine top bins from the surface; m0 refers to the surface bin only.
[3]CON domains are named according to the specification in OC-2010.1 SOP 3.

### *Quality*

Validation

OC_D products are implicitly valid on creation by the application, which rejects in total any attempted update in which underlying input violates any mandatory criteria.

Global Verification

Once the historic database was complete, it became possible to do a detailed comparison of the complete legacy data against the reconstructed OC-2010.1 data. The intent of this was to uncover discrepancies, determine their cause, and effect any needed corrections to the reconstructed data. This verification is documented in Appendix C.

Certification

The creation application automatically certified OC_D products on successful completion, without additional review.

### *Exceptions*

A few casts were missing significant data that were recovered using extraordinary methods. These are explained, above, under Special Process.

## Creating OC_G: Calibration Certificates

### *Method*

Field staff make measurements using a CTD device configured with a set of sensors. Over time the sensor configurations change. Sensors have sensitivities and responses that differ from each other. Furthermore, a particular sensor's response typically changes over time. When calculating oceanographic parameters from the raw signals coming out of sensors, adjustments need to be made to account for the sensitivity of each one. The values that describe this sensitivity are documented by instrument makers in the process called calibration. Calibration

does not involve physically adjusting sensors to meet a fixed response curve. Rather, the sensor's response is recorded so it may be subsequently used in calculating accurate values.

When a sensor is sent out for calibration, it is typically returned with a certificate documenting appropriate adjustment values for the unit. The project made an effort to gather these certificates for the instruments in its scope. Sources searched include:

- Files of Lewis Sharman, Ecologist, NPS, Glacier Bay National Park and Preserve
- Files of Mayumi Arimitsu, Ecologist, USGS, Juneau
- Customer records of Sea-Bird Electronics, CTD servicing agent, Bellevue
- Files residing in the USGS gear cache, Glacier Bay National Park and Preserve

We created a checklist of calibration references found inside existing CON files to help direct the search. Copies of 62 certificates were eventually obtained. The certificates were scanned into individual PDF files and named according to the scheme required by OC-2010.1 SOP 2.

#### *Quality*

Validation

The validation criteria for this product are:

1. Must successfully open using Adobe Reader 7.0 or greater.
2. Filename must conform to submission unit pattern described in detailed steps in SOP 2

All files successfully opened in Adobe Reader 9.0.0. The filenames all followed the specification.

Certification

The Data Manager certified all 62 files covering 1993 through 2008 on July 21, 2010.

#### *Exceptions*

A physical certificate could not be located for every reference to a calibration event made in the existing CON files. In such cases we accepted the CON file content, having no better information available.

Sea-Bird provided their records as printouts from a recently implemented tracking database. Where the records they provided overlapped historic paper certificates we obtained from other sources, there were occasional disagreements on parameter values. In such cases, we assumed the Sea-Bird application experienced some transcription errors when it was initially populated: the original certificates were retained and the conflicting Sea-Bird printouts were discarded. Sea-Bird technical support concurred with us on this methodology.

### Creating OC_H: Field Log Sheets

#### *Method*

In 2008 all original field forms related to Glacier Bay physical oceanography sampling had been delivered to SEAN by custodians of the former USGS programs. SEAN project team staff arranged the forms in loose-leaf binders by order of collection. In various places free-form note pages regarding cruise events and observations had been inserted among the blocks of field forms. Some forms were one-sided, others were two-sided. Some one-sided forms had notes

recorded on their back sides. The specific layout and content of forms changed somewhat over time, as did their size. Various colors of ink were employed on source forms, particularly where editing occurred.

We operated on each year individually. We removed original forms for each year from the binders along with any associated note pages. We ordered the forms chronologically as ascertained from fields such as Date, Time, Cast Name, and Logbook Page. We ran them through a duplex color scanner which output a single PDF file of images for each year. Totally blank page sides were automatically deleted by the scanning software. We visually compared all the original pages against the PDF file. When we encountered omissions or poorly rendered pages, were re-scanned the missing items and manually spliced them into the file.

#### *Quality*

Validation

The validation criteria for this product are:

1. Must successfully open using Adobe Reader 7.0 or greater.
2. Filename must conform to submission unit pattern described in SOP12.

All files successfully opened in Adobe Reader 9.0.0. The filenames all followed the stated specification. Note in the exceptions, however, that calendar year was used in place of cruise year when working with legacy data.

Certification

The Data Manager certified all 16 files covering 1993 through 2008 by January 10, 2011.

#### *Exceptions*

OC_H calls for one PDF file of images to be created for each November-October cruise year. Because the legacy data had been organized and documented on an annual basis, it was considered impractical to reallocate the source documents by cruise years: cutting up of forms and notes would have resulted. Therefore, OC_H for 1993 through 2008 are presented on a calendar year basis.

The original collection of all sampling forms, including those from special studies using non-standard methods, was included in this product. These special studies may not be reflected in other data products created under the project when their design could not be reasonably mapped into OC-2010.1 processes.

We discovered some 1992 forms, associated with a special halibut study, in preparing this product. Though they are not within the formal 1993-2008 scope of the project, we included them in OC_H for 1993 in order to provide background on the early methodologies.

### Creating OC_M: Data Quality Assessment

#### *Method*

The team initialized a separate reporting form for each dump in the scope of the project. We followed the processes specified in OC-2010.1 under SOP 11, along with subsidiary tasks defined in SOP 9.

### *Quality*

Validation

The mandatory validation criteria for this product are:

1. CTD number must be a digit 1 through 9 and may not be null.
2. DUMP must be of the form of a four-digit, zero-filled number and may not be null.
3. CAST must be of the form of a two-digit, zero-filled number.
4. QUALITY_CODE must be a digit 1 through 9.
5. COMMENT must be null if QUALITY_CODE is null.
6. Must be in spreadsheet form readable using Microsoft Excel 2007.

The Data Manager opened the files in Excel 2007, reviewed their details, and determined they met the mandatory criteria.

Certification

The Data Manager certified all 16 assessment reports covering 1993 through 2008 on January 11, 2011.

### *Exceptions*

OC_M calls for dumps to be partitioned using November-October cruise years. However, to be consistent with the existing legacy data organization and the other reconstructed products, OC_M for 1993 through 2008 are presented on a calendar year basis.

When we found conflicts between dates found both in sampling log forms and embedded in data files, we always used the log form values to complete the OC_M sheets.

Part of SOP 11 calls for comparing immediate pre- and post-season calibration values and then assigning specific quality levels when certain high levels of drift are encountered during the course of a season. The historic protocols did not provide for pre- and post-season calibrations. Instead, calibrations were performed sporadically. Therefore, it was not possible to calculate drift over a season. However, for each year calibrations were compared by using the one closest to season start against the closest to season end values, though in some instances this covered a multi-year span. Regardless, comparison of bracketing calibrations never indicated drift significant enough to trigger a quality flag.

## Results

This project resulted in creation of a continuous set of data products covering Glacier Bay, Alaska's physical oceanography spanning 1993 through the present. The products have consistent content, nomenclature, coding, and quality levels. They may be reviewed at http://science.nature.nps.gov/im/units/sean/OC_Main.aspx.

## Literature Cited


Danielson, S., W. Johnson, L. Sharman, G. Eckert and B. Moynahan. 2010. Glacier Bay National Park and Preserve oceanographic monitoring protocol OC–2010.1. Natural Resource Report NPS/SEAN/NRR–2010/265. National Park Service, Fort Collins, Colorado.

Hooge, Philip N., E.R. Hooge, E.K. Solomon, C.L. Dezan, C.A. Dick, J. Mondragon, H.S. Rieden, L.L. Etherington. 2003. Fjord oceanography monitoring handbook: Glacier Bay, Alaska. United States Geological Survey Alaska Science Center, Juneau, Alaska.

Johnson, W. F., and B. J. Moynahan. 2008. Data management plan: Southeast Alaska network. Natural Resource Report NPS/SEAN/NRR–2008/058. National Park Service, Fort Collins, Colorado.

Sea-Bird Electronics, Inc. 2010. SEASOFT-V2: SBE Data Processing CTD Data Processing and Plotting Software for Windows 2000/XP User's Manual. Available from http://www.seabird.com/pdf_documents/manuals/SBEDataProcessing_7.21.pdf (accessed 29 October 2010).

# Appendix A: Example of automated validation notification reporting

Products OC_B, OC_C, and OC_D are subjected to rigorous validation by custom computer applications built expressly for this purpose. A permanent audit trail of validation attempts is maintained in SEAN's production database. Also, each attempt results in a report detailing data files worked with, optional validation errors, mandatory validation errors, and whether or not the product is valid under the specifications in OC-2010.1. Selected lines extracted from an actual validation notification report generated by this project, below, illustrate the nature of SEAN automated validation. While the example pertains to OC_C, the other products are analyzed and reported on in the same fashion.

**OC_C Validation Findings for Submission 191 Begun Thursday, August 19, 2010 4:44 PM**

Checking \\inpglbafs03\data\SEAN_Data\staging\OC\OC_C\191\9903_2_0040_00_c_f_a_m_l_d_B.cnv
...Total lines: 218 of which 46 are data, 12 are header information, 19 are '*' comment lines, 140 are '#' processing history lines, and 1 are blank.

Checking \\inpglbafs03\data\SEAN_Data\staging\OC\OC_C\191\9903_2_0040_01_c_f_a_m_l_d_B.cnv
...Total lines: 218 of which 46 are data, 12 are header information, 19 are '*' comment lines, 140 are '#' processing history lines, and 1 are blank.
.
.
.
Checking \\inpglbafs03\data\SEAN_Data\staging\OC\OC_C\191\9906_2_0042_10_c_f_a_m_l_d_B.cnv
Optional: at line 173: Sigma_T <13.6858> should be between 15.0 and 27.0.
...Total lines: 402 of which 230 are data, 12 are header information, 19 are '*' comment lines, 140 are '#' processing history lines, and 1 are blank.
.
.
.
Checking \\inpglbafs03\data\SEAN_Data\staging\OC\OC_C\191\9906_2_0042_18_c_f_a_m_l_d_B.cnv
Optional: at line 452: Sigma_T <14.7011> should be between 15.0 and 27.0.
Optional: No PAR signal on 1 depth points.
...Total lines: 452 of which 279 are data, 13 are header information, 19 are '*' comment lines, 140 are '#' processing history lines, and 1 are blank.
.
.
.
Checking \\inpglbafs03\data\SEAN_Data\staging\OC\OC_C\191\9906_2_0043_02_c_f_a_m_l_d_B.cnv
**** MANDATORY at line 174: Sigma_T <-2.0079> is not between 0.0 and 30.0. Salinity <-2.3888> is not between 0.0 and 40.0. Conductivity <-0.228204> is not between 0.0 and 10.0.**
Optional: at line 175: Sigma_T <11.7904> should be between 15.0 and 27.0.
...Total lines: 222 of which 49 are data, 13 are header information, 19 are '*' comment lines, 140 are '#' processing history lines, and 1 are blank.
.
.
.
Checking \\inpglbafs03\data\SEAN_Data\staging\OC\OC_C\191\9908_2_0048_00_c_f_a_m_l_d_B.cnv
Optional: at line 189: Sigma_T <13.3903> should be between 15.0 and 27.0.
Optional: at line 194: Fluorescence <73.9060> should be no more than 70.0.
...Total lines: 479 of which 291 are data, 12 are header information, 19 are '*' comment lines, 156 are '#' processing history lines, and 1 are blank.
.
.
.

Checking \\inpglbafs03\data\SEAN_Data\staging\OC\OC_C\191\9910_2_0050_22_c_f_a_m_l_d_B.cnv
...Total lines: 323 of which 135 are data, 12 are header information, 19 are '*' comment lines, 156 are '#' processing history lines, and 1 are blank.

Mandatory errors: 1
Optional errors: 33
Files having mandatory errors: 1 out of the 105 CNV files that were checked.
The submission status has been updated to "F" - Failed.

**----- Validation attempt ended at Thursday, August 19, 2010 4:45 PM -----**

# Appendix B: Standard data processing function

The creation of OC_C CNV files was done using the SBE Data Processing suite for Windows version 7.20G. Its purpose, operations, and methods are detailed in Sea-Bird Electronics (2010). This appendix documents the particular components used, their order of invocation, and parameters employed in the project.

## Scripting files used to execute the data processing function

Generating an OC_C is performed by executing one batch file. Source data of types OC_A and OC_B must be in a prescribed directory structure, as illustrated in the OC-2010.1 protocol document. The operator must supply a year and the name of the OC_A file to use.

**File CNV_Create.bat:**

```
@echo off
rem This file is CNV_Create.bat for reconstruction project use only

rem Get year and cal file name----------------------------------------
set /p sb-year=Enter 4-digit year:
set /p sb-cal=Enter calibration CON file name (without extension):

rem set environment ----------------------------------------------------
set sb-base-dir=\\inpglbafs03\data\SEAN_Data_Mgmt\Vital_signs_heap\OC\Reconstruction\OC_C\
set sb-destination=%sb-base-dir%%sb-year%\

rem invoke SBEBatch to make CNV from HEX and then plot the CNVs --------
sbebatch CNV_Create.txt %sb-base-dir% %sb-cal% %sb-destination%.
```

The batch file invokes Sea-Bird's "sbebatch.exe" with instructions in CNV_Create.txt.

**File CNV_Create.txt:**

```
Datcnv   /i%1raw\*.hex /o%3temp /c%1\cal\%2\%2.con /p%1\cal\%2\%2_CNV_Convert.psa /s /a_C
Filter   /i%3temp\*_C.cnv /o%3temp /p%1\cal\%2\%2_CNV_Filter.psa /s /a_F
Alignctd /i%3temp\*_F.cnv /o%3temp /p%1\cal\%2\%2_CNV_AlignCTD.psa /s /a_A
CellTM   /i%3temp\*_A.cnv /o%3temp /p%1\cal\%2\%2_CNV_CellTM.psa /s /a_M
Loopedit /i%3temp\*_M.cnv /o%3temp /p%1\cal\%2\%2_CNV_LoopEdit.psa /s /a_L
Derive   /i%3temp\*_L.cnv /o%3temp /p%1\cal\%2\%2_CNV_Derive.psa /c%1\cal\%2\%2.con /s /a_D
Binavg   /i%3temp\*_D.cnv /o%3 /p%1\cal\%2\%2_CNV_Binavg.psa /s /a_B
Seaplot  /i%3*.cnv /o%3plot /p%1\cal\%2\%2_CNV_Plot_A.psa /s
Seaplot  /i%3*.cnv /o%3plot /p%1\cal\%2\%2_CNV_Plot_B.psa /s
```

Within the file are the names of the sub-functions to perform, in the order in which to execute them. Each command line typically specifies file locations plus a parameter file. The file specifications have been defined so that the intermediate files created by each sub-function are retained in a "temp" directory as an aid to problem diagnosis.

## Typical parameter files

Each of the sub-function references in CNV_Create.txt includes specification of a ".psa" parameter file. Each type of sub-function requires a uniquely defined parameter file. That is, say, the Device.psa file cannot be called for when invoking CellTM. In order to tailor processing

to accommodate certain exceptions, a separate set of PSAs was defined for each CON domain. For example, when the failed conductivity cell was removed from domain 2-9310b the AlignCTD, Datcnv, and Derive parameters operating on conductivity were deleted from its PSA set. The domains, however, have very few differences among their corresponding PSAs; for the most part they are identical.

The contents of a typical parameter file set are listed below, in this case for domain 2_0410. Note that any internal file name references are moot: the command line always overrides the PSA file specifications. The two detailed CNV_Plot PSAs do not alter the final CNV file contents so are omitted.

**File 2_0410_CNV_AlignCTD.psa:**


```
<?xml version="1.0" encoding="UTF-8"?>
<Align_CTD >
  <Version value="7.18c" />
  <ServerName value="Align CTD" />
  <InputDir value="\\nps\akrdfs\GLBA\Science\Data\Oceanography\Data\TEST\CNV_Processed\temp" />
  <InputFileArray size="2" GrowBy="-1" >
    <ArrayItem index="0" value="0908_1_0186_01_c_F.cnv" />
    <ArrayItem index="1" value="0908_1_0186_02_c_F.cnv" />
  </InputFileArray>
  <OutputDir value="\\nps\akrdfs\GLBA\Science\Data\Oceanography\Data\TEST\CNV_Processed\temp" />
  <NameAppend value="_a" />
  <OutputFile value="" />
  <LastProcessed value="0" />
  <CalcArray Size="5" >
    <CalcArrayItem index="0" CalcID="35" >
      <Calc UnitID="38" Ordinal="0" >
        <FullName value="Fluorescence, Wetlab Wetstar [mg/m^3]" />
      </Calc>
    </CalcArrayItem>
    <CalcArrayItem index="1" CalcID="45" >
      <Calc UnitID="45" Ordinal="0" >
        <FullName value="OBS, Backscatterance (D &amp; A) [NTU]" />
      </Calc>
    </CalcArrayItem>
    <CalcArrayItem index="2" CalcID="59" >
      <Calc UnitID="-1" Ordinal="0" >
        <FullName value="PAR/Irradiance, Biospherical/Licor" />
      </Calc>
    </CalcArrayItem>
    <CalcArrayItem index="3" CalcID="81" >
      <Calc UnitID="6" Ordinal="0" >
        <FullName value="Temperature [ITS-90, deg C]" />
      </Calc>
    </CalcArrayItem>
    <CalcArrayItem index="4" CalcID="12" >
      <Calc UnitID="58" Ordinal="0" >
        <FullName value="Conductivity [S/m]" />
      </Calc>
    </CalcArrayItem>
  </CalcArray>
  <ValArray size="5" >
    <ValArrayItem index="0" value="0.000000" variable_name="Fluorescence, Wetlab Wetstar" />
    <ValArrayItem index="1" value="0.000000" variable_name="OBS, Backscatterance (D &amp; A)" />
    <ValArrayItem index="2" value="0.000000" variable_name="PAR/Irradiance, Biospherical/Licor" />
    <ValArrayItem index="3" value="0.500000" variable_name="Temperature" />
    <ValArrayItem index="4" value="0.000000" variable_name="Conductivity" />
```

```
  </ValArray>
</Align_CTD>
```


**File 2_0410_CNV_BinAvg.psa:**


```
<?xml version="1.0" encoding="UTF-8"?>
<Bin_Average >
  <Version value="7.18c" />
  <ServerName value="Bin Average" />
  <InputDir value="\\nps\akrdfs\GLBA\Science\Data\Oceanography\Data\2010\CNV_processed\temp" />
  <InputFileArray size="8" GrowBy="-1" >
    <ArrayItem index="0" value="1002_5_0189_02_C_F_a_M_L_D.cnv" />
    <ArrayItem index="1" value="1002_5_0189_03_C_F_a_M_L_D.cnv" />
    <ArrayItem index="2" value="1002_5_0189_04_C_F_a_M_L_D.cnv" />
    <ArrayItem index="3" value="1002_5_0189_05_C_F_a_M_L_D.cnv" />
    <ArrayItem index="4" value="1002_5_0189_06_C_F_a_M_L_D.cnv" />
    <ArrayItem index="5" value="1002_5_0189_07_C_F_a_M_L_D.cnv" />
    <ArrayItem index="6" value="1002_5_0189_08_C_F_a_M_L_D.cnv" />
    <ArrayItem index="7" value="1002_5_0189_09_C_F_a_M_L_D.cnv" />
  </InputFileArray>
  <OutputDir value="\\nps\akrdfs\GLBA\Science\Data\Oceanography\Data\2010\CNV_processed" />
  <NameAppend value="_B" />
  <OutputFile value="" />
  <LastProcessed value="0" />
  <BinType value="2" />
  <BinSize value="1.000000" />
  <IncludeNumberScans value="0" />
  <ExcludeMarkedBad value="1" />
  <ScansToSkip value="0" />
  <CastToProcess value="1" high="2" low="0" initialValue="0" />
  <IncludeSurfaceBin value="1" />
  <SurfaceBinMinVal value="0.200000" />
  <SurfaceBinMaxVal value="0.800000" />
  <SurfaceBinVal value="0.000000" />
</Bin_Average>
```


**File 2_0410_CNV_CellTM.psa:**


```
<?xml version="1.0" encoding="UTF-8"?>
<Cell_Thermal_Mass >
  <Version value="7.18c" />
  <ServerName value="Cell Thermal Mass" />
  <InputDir value="\\nps\akrdfs\GLBA\Science\Data\Oceanography\Data\TEST\CNV_Processed\temp" />
  <InputFileArray size="2" GrowBy="-1" >
    <ArrayItem index="0" value="0908_1_0186_01_c_F_a.cnv" />
    <ArrayItem index="1" value="0908_1_0186_02_c_F_a.cnv" />
  </InputFileArray>
  <OutputDir value="\\nps\akrdfs\GLBA\Science\Data\Oceanography\Data\TEST\CNV_Processed\temp" />
  <NameAppend value="_M" />
  <OutputFile value="" />
  <LastProcessed value="0" />
  <Primary >
    <Correct value="1" />
    <TempSensor value="0" />
    <TA_Amplitude value="0.040000" />
    <TA_TimeConstant value="8.000000" />
  </Primary>
  <Secondary >
    <Correct value="0" />
```

```
    <TempSensor value="1" />
    <TA_Amplitude value="0.030000" />
    <TA_TimeConstant value="7.000000" />
  </Secondary>
</Cell_Thermal_Mass>
```


**File 2_0410_CNV_convert.psa:**


```
<?xml version="1.0" encoding="UTF-8"?>
<Data_Conversion >
  <Version value="7.18c" />
  <ServerName value="Data Conversion" />
  <InstrumentPath value="\\nps\akrdfs\GLBA\Science\Data\Oceanography\Data\TEST\CON_calibration\1_0436.con" />
  <InstrumentMatch value="0" />
  <InputDir value="\\nps\akrdfs\GLBA\Science\Data\Oceanography\Data\TEST\HEX_raw" />
  <InputFileArray size="0" GrowBy="-1" />
  <OutputDir value="\\nps\akrdfs\GLBA\Science\Data\Oceanography\Data\TEST\CNV_processed\temp" />
  <NameAppend value="_C" />
  <OutputFile value="" />
  <LastProcessed value="0" />
  <ProcessScansToEnd value="1" />
  <ScansToSkip value="90" />
  <ScansToProcess value="1" />
  <MergeHeaderFile value="0" />
  <OutputFormat value="0" high="1" low="0" initialValue="0" />
  <FromCast value="1" high="1" low="0" initialValue="0" />
  <CreateFile value="0" high="2" low="0" initialValue="0" />
  <ScanRangeSource value="3" high="3" low="0" initialValue="3" />
  <ScanRangeOffset value="0.000000" />
  <ScanRangeDuration value="2.000000" />
  <CalcArray Size="6" >
    <CalcArrayItem index="0" CalcID="35" >
      <Calc UnitID="38" Ordinal="0" >
        <FullName value="Fluorescence, Wetlab Wetstar [mg/m^3]" />
      </Calc>
    </CalcArrayItem>
    <CalcArrayItem index="1" CalcID="45" >
      <Calc UnitID="45" Ordinal="0" >
        <FullName value="OBS, Backscatterance (D &amp; A) [NTU]" />
      </Calc>
    </CalcArrayItem>
    <CalcArrayItem index="2" CalcID="59" >
      <Calc UnitID="-1" Ordinal="0" >
        <FullName value="PAR/Irradiance, Biospherical/Licor" />
      </Calc>
    </CalcArrayItem>
    <CalcArrayItem index="3" CalcID="81" >
      <Calc UnitID="6" Ordinal="0" >
        <FullName value="Temperature [ITS-90, deg C]" />
      </Calc>
    </CalcArrayItem>
    <CalcArrayItem index="4" CalcID="67" >
      <Calc UnitID="3" Ordinal="0" >
        <FullName value="Pressure, Strain Gauge [db]" />
      </Calc>
    </CalcArrayItem>
    <CalcArrayItem index="5" CalcID="12" >
      <Calc UnitID="58" Ordinal="0" >
        <FullName value="Conductivity [S/m]" />
      </Calc>
```

```
    </CalcArrayItem>
  </CalcArray>
  <MiscellaneousDataForCalculations >
    <Latitude value="58.500000" />
    <DescentRateAndAcceleration >
      <WindowSize value="2.000000" />
    </DescentRateAndAcceleration>
    <AverageSoundVelocity >
      <MinimumPressure value="20.000000" />
      <MinimumSalinity value="20.000000" />
      <PressureWindowSize value="20.000000" />
      <TimeWindowSize value="60.000000" />
    </AverageSoundVelocity>
    <PlumeAnomaly >
      <ThetaB value="0.000000" />
      <SalinityB value="0.000000" />
      <ThetaZSalinityZRatio value="0.000000" />
      <ReferencePressure value="0.000000" />
    </PlumeAnomaly>
    <PotentialTempAnomaly >
      <A0 value="0.000000" />
      <A1 value="0.000000" />
      <A1Multiplier value="0" />
    </PotentialTempAnomaly>
  </MiscellaneousDataForCalculations>
</Data_Conversion>
```


**File 2_0410_CNV_Derive.psa:**


```
<?xml version="1.0" encoding="UTF-8"?>
<Derive >
  <Version value="7.18c" />
  <ServerName value="Derive" />
  <InstrumentPath value="\\nps\akrdfs\GLBA\Science\Data\Oceanography\Data\TEST\CON_calibration\1_0436.con" />
  <InstrumentMatch value="0" />
  <InputDir value="\\nps\akrdfs\GLBA\Science\Data\Oceanography\Data\TEST\CNV_Processed\temp" />
  <InputFileArray size="0" GrowBy="-1" />
  <OutputDir value="\\nps\akrdfs\GLBA\Science\Data\Oceanography\Data\TEST\CNV_Processed\temp" />
  <NameAppend value="_D" />
  <OutputFile value="" />
  <LastProcessed value="0" />
  <CalcArray Size="3" >
    <CalcArrayItem index="0" CalcID="15" >
      <Calc UnitID="54" Ordinal="0" >
        <FullName value="Density [sigma-t, Kg/m^3 ]" />
      </Calc>
    </CalcArrayItem>
    <CalcArrayItem index="1" CalcID="70" >
      <Calc UnitID="49" Ordinal="0" >
        <FullName value="Salinity [PSU]" />
      </Calc>
    </CalcArrayItem>
    <CalcArrayItem index="2" CalcID="17" >
      <Calc UnitID="31" Ordinal="0" >
        <FullName value="Depth [salt water, m]" />
        <Latitude value="58.500000" />
      </Calc>
    </CalcArrayItem>
  </CalcArray>
  <MiscellaneousDataForCalculations >
```

```
    <Latitude value="58.500000" />
    <DescentRateAndAcceleration >
      <WindowSize value="2.000000" />
    </DescentRateAndAcceleration>
    <AverageSoundVelocity >
      <MinimumPressure value="20.000000" />
      <MinimumSalinity value="20.000000" />
      <PressureWindowSize value="20.000000" />
      <TimeWindowSize value="60.000000" />
    </AverageSoundVelocity>
    <PlumeAnomaly >
      <ThetaB value="0.000000" />
      <SalinityB value="0.000000" />
      <ThetaZSalinityZRatio value="0.000000" />
      <ReferencePressure value="0.000000" />
    </PlumeAnomaly>
    <PotentialTempAnomaly >
      <A0 value="0.000000" />
      <A1 value="0.000000" />
      <A1Multiplier value="0" />
    </PotentialTempAnomaly>
  </MiscellaneousDataForCalculations>
</Derive>
```


**File 2_0410_CNV_Filter.psa:**


```
<?xml version="1.0" encoding="UTF-8"?>
<Filter >
  <Version value="7.18c" />
  <ServerName value="Filter" />
  <InputDir value="K:\SEAN_Data_Mgmt\Vital_signs_heap\OC\Reconstruction\OC_C\2007\Temp" />
  <InputFileArray size="1" GrowBy="-1" >
    <ArrayItem index="0" value="0704_1_0163_00_C.cnv" />
  </InputFileArray>
  <OutputDir value="K:\SEAN_Data_Mgmt\Vital_signs_heap\OC\Reconstruction\OC_C\2007\Temp" />
  <NameAppend value="_F" />
  <OutputFile value="" />
  <LastProcessed value="0" />
  <TimeConstFilterA value="0.500000" />
  <TimeConstFilterB value="2.000000" />
  <CalcArray Size="6" >
    <CalcArrayItem index="0" CalcID="35" >
      <Calc UnitID="38" Ordinal="0" >
        <FullName value="Fluorescence, Wetlab Wetstar [mg/m^3]" />
      </Calc>
    </CalcArrayItem>
    <CalcArrayItem index="1" CalcID="45" >
      <Calc UnitID="45" Ordinal="0" >
        <FullName value="OBS, Backscatterance (D &amp; A) [NTU]" />
      </Calc>
    </CalcArrayItem>
    <CalcArrayItem index="2" CalcID="59" >
      <Calc UnitID="-1" Ordinal="0" >
        <FullName value="PAR/Irradiance, Biospherical/Licor" />
      </Calc>
    </CalcArrayItem>
    <CalcArrayItem index="3" CalcID="81" >
      <Calc UnitID="6" Ordinal="0" >
        <FullName value="Temperature [ITS-90, deg C]" />
      </Calc>
```

```
    </CalcArrayItem>
    <CalcArrayItem index="4" CalcID="67" >
      <Calc UnitID="3" Ordinal="0" >
        <FullName value="Pressure, Strain Gauge [db]" />
      </Calc>
    </CalcArrayItem>
    <CalcArrayItem index="5" CalcID="12" >
      <Calc UnitID="58" Ordinal="0" >
        <FullName value="Conductivity [S/m]" />
      </Calc>
    </CalcArrayItem>
  </CalcArray>
  <FilterTypeArray >
    <ArrayItem index="0" value="0" />
    <ArrayItem index="1" value="0" />
    <ArrayItem index="2" value="0" />
    <ArrayItem index="3" value="1" />
    <ArrayItem index="4" value="2" />
    <ArrayItem index="5" value="1" />
  </FilterTypeArray>
</Filter>
```


**File 2_0410_CNV_LoopEdit.psa:**


```
<?xml version="1.0" encoding="UTF-8"?>
<Loop_Edit >
  <Version value="7.18c" />
  <ServerName value="Loop Edit" />
  <InputDir value="\\nps\akrdfs\GLBA\Science\Data\Oceanography\Data\TEST\CNV_Processed\temp" />
  <InputFileArray size="2" GrowBy="-1" >
    <ArrayItem index="0" value="0908_1_0186_01_c_F_a_M.cnv" />
    <ArrayItem index="1" value="0908_1_0186_02_c_F_a_M.cnv" />
  </InputFileArray>
  <OutputDir value="\\nps\akrdfs\GLBA\Science\Data\Oceanography\Data\TEST\CNV_Processed\temp" />
  <NameAppend value="_L" />
  <OutputFile value="" />
  <LastProcessed value="0" />
  <MinVelocityType value="0" high="1" low="0" initialValue="0" />
  <MinCTD_Velocity value="0.100000" />
  <TimeWindowSize value="300.000000" />
  <PercentMeanSpeed value="20.000000" />
  <ExcludeMarkedBad value="1" />
  <RemoveSurfaceSoak value="0" />
  <UseDeckPressure value="1" />
  <SurfaceSoakDepth value="10.000000" />
  <SurfaceSoakDepthMin value="5.000000" />
  <SurfaceSoakDepthMax value="20.000000" />
</Loop_Edit>
```

# Appendix C: Comparison of OC-2010.1 converted data to original legacy data

Once the final OC_D product was in the database alongside the original USGS tables, we made a comparison in order to locate areas of significant discrepancy. We reviewed such areas and commented on them below. Because differences are often caused by a particular physical or procedural situation that occurred over a contiguous block of time, we decided to compare the two data sets on a year-month basis. Furthermore, since the conversion of all data to GMT resulted in certain casts being recorded as one month later than originally, we further stratified the comparison by station within year-month. The finer granularity made the time-stratification artifact much easier to recognize.

Table C.2 summarizes the six possible attributes measured by the instruments. The difference between the new and original values is presented in a third "delta" column for each attribute. Delta column results are color coded to highlight significant differences between re-processed and original data. Gold cells indicate new data being greater than original by a significant amount. Pink cells indicate original data significantly greater than new data. The thresholds for significance for temperature, conductivity, and fluorescence are 0.1 difference. Pressure and OBS (turbidity) use a 1.0 threshold. PAR uses 2.5.

Where blocks of discrepancies appeared, suggesting possible systematic error, we boxed and labeled the table cells with reference letters. We researched the reasons for these and explained them in Table C.1. We did not pursue further individual outlier differences that did not suggest systematic processing errors.

**Table C.1.** Explanation of the significant differences between OC-2010.1 and legacy USGS sensor data, as highlighted in Table C.2.

| Label | Discussion |
|---|---|
| A | Significant PAR differences between OC-2010.1 and legacy data in six stations of dump 0013 occur because the CTD was given short acclimation time before its descent. The consistent skipover value of 90 used in reconstruction resulted in truncation of the readings in bin 0 and part of bin 1 for these casts. Since PAR is always highest in bin 0, the OC-2010.1 data understate the mean of this parameter in the six casts. |
| B | The conductivity cell was damaged and gave spurious readings between October 1995 and June 1996. This was further reflected in erroneous salinity and density computed values. The OC-2010.1 data was calculated after removing the broken sensor from the configuration, leaving values for affected stations null. |
| C | The PAR sensor failed during the September 1996 cruise, leaving 60% of the stations unmeasured. Of those ten recorded, the skipover=90 parameter resulted in OC-2010.1 data starting at bin 1 or 2. USGS always reported a bin 0 for these casts, but bins 1 and 2 were sometimes absent and some of the bin 0 values appeared anomalous. From bin 3 on, however, both data sets for the dump were in full agreement. |
| D | After a PAR sensor outage of 21 months, it again became available in June 1998, with a calibration recorded in May 1998. It is not known why legacy does not reflect any PAR values for 1998. |
| E | The fairly small variations in values, particularly fluorescence, occur because USGS dump 0054 had been recorded as taken in May instead of the March stated on all field log forms. |
| F | OC 2010.1 data are empty for this month because conversion to GMT resulted in these casts being moved to the next month. |

| | |
|---|---|
| G | Station data match poorly because OC-2010.1 values also reflect the prior month's data as a result of GMT conversion. |
| H | OC 2010.1 data are empty for this month because conversion to GMT resulted in these casts being moved to the next month. |
| I | USGS data are empty for this month because they did not undergo GMT conversion, so they appear in the prior month. |
| J | Legacy data used a CON file with empty nepholometer calibration factors. OC-2010 used factors from the most contemporaneous existing CON file instead. |
| K | Legacy data were missing dump 0066, which gave a second set of fluorescence readings for each station on the same day. OC-2010.1 included dump 0066. |
| L | This line contains data from the Internal Waves special project, which USGS did not include in their tables. SEAN did include these data in its reconstructed data. |
| M | March 2002 dumps 0082 and 0083 were done with CTD#1 and 0084 was done with CTD#2. In their final data, USGS omitted dump 0084. There were no notes found in the files or field forms to suggest dump 0084 was defective, so it was included under OC-2010.1. |
| N | OC 2010.1 data are empty for this month because conversion to GMT resulted in these casts being moved to the next month. |
| O | USGS data are empty for this month because they did not undergo GMT conversion, so they appear in the prior month. |
| P | GMT conversion resulted in OC-2010.1 casts being in the month following the one assigned by USGS. |
| Q | GMT conversion resulted in OC-2010.1 casts being in the month following the one assigned by USGS. |
| R | In the USGS hex files for Dump 0147 casts 04 and 05, the station numbers were mistyped as 14 and 15, but should have been 04 and 05. |
| S | In the USGS hex files for Dump 0147 casts 04 and 05 the station numbers were mistyped as 14 and 15, but should have been 04 and 05 |
| T | GMT conversion resulted in OC-2010.1 casts being in the month following the one assigned by USGS. |
| U | GMT conversion resulted in OC-2010.1 casts being in the month following the one assigned by USGS. |
| V | Raw data for these three stations were found in USGS files. It is unknown why they were not reported in the final legacy data. |
| W | Most of dump 0175 performed on 2008-06-26 had its date miscoded in legacy data as 2008-08-26. |
| X | Legacy data dumps 0176 and 0177 had no temperatures calculated for reasons unknown. |

**Table C.2.** Comparison of mean sensor attribute values between OC-2010.1 and legacy USGS data sets; stratified by year, month, and station.

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1993 | 7 | 0 | 7.76 | 7.763 | -0.003 | 3.236 | 3.232 | 0.004 | 29.292 | 29.275 | 0.017 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 7 | 1 | 7.692 | 7.695 | -0.003 | 3.254 | 3.255 | -0.001 | 30.806 | 30.789 | 0.017 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 7 | 2 | 7.741 | 7.743 | -0.002 | 3.256 | 3.256 | 0.000 | 46.45 | 45.934 | 0.516 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 7 | 3 | 7.777 | 7.78 | -0.003 | 3.208 | 3.209 | -0.001 | 53.012 | 52.497 | 0.515 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 7 | 4 | 6.14 | 6.141 | -0.001 | 3.067 | 3.069 | -0.002 | 100.473 | 100.467 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 7 | 5 | 5.885 | 5.885 | 0.000 | 3.053 | 3.055 | -0.002 | 99.968 | 99.962 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 7 | 6 | 6.017 | 6.018 | -0.001 | 3.066 | 3.067 | -0.001 | 99.968 | 99.962 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 7 | 7 | 5.99 | 5.965 | 0.025 | 3.053 | 3.058 | -0.005 | 99.968 | 100.467 | -0.499 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 7 | 8 | 5.808 | 5.773 | 0.035 | 3.027 | 3.037 | -0.010 | 99.968 | 100.467 | -0.499 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 7 | 9 | 5.657 | 5.657 | 0.000 | 3.02 | 3.022 | -0.002 | 99.968 | 99.962 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 7 | 10 | 5.508 | 5.506 | 0.002 | 3.003 | 3.006 | -0.003 | 99.968 | 99.962 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 7 | 11 | 5.258 | 5.26 | -0.002 | 2.982 | 2.985 | -0.003 | 99.968 | 99.962 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 7 | 12 | 4.888 | 4.89 | -0.002 | 2.94 | 2.943 | -0.003 | 99.968 | 99.962 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 7 | 14 | 6.974 | 6.991 | -0.017 | 3.09 | 3.092 | -0.002 | 43.422 | 42.905 | 0.517 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 7 | 15 | 6.718 | 6.688 | 0.030 | 3.095 | 3.099 | -0.004 | 60.079 | 60.575 | -0.496 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 7 | 16 | 5.345 | 5.349 | -0.004 | 3 | 3.003 | -0.003 | 100.473 | 99.962 | 0.511 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 7 | 17 | 5.271 | 5.271 | 0.000 | 2.994 | 2.997 | -0.003 | 99.968 | 99.962 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 7 | 18 | 4.997 | 5.003 | -0.006 | 2.958 | 2.961 | -0.003 | 100.473 | 99.962 | 0.511 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 7 | 19 | 4.724 | 4.724 | 0.000 | 2.934 | 2.946 | -0.012 | 99.968 | 99.961 | 0.007 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 7 | 20 | 4.744 | 4.746 | -0.002 | 2.933 | 2.943 | -0.010 | 95.928 | 96.426 | -0.498 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 8 | 0 | 8.298 | 8.256 | 0.042 | 3.261 | 3.247 | 0.014 | 29.797 | 29.275 | 0.522 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 8 | 1 | 7.978 | 7.978 | 0.000 | 3.236 | 3.236 | 0.000 | 30.806 | 30.789 | 0.017 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 8 | 2 | 8.003 | 8.017 | -0.014 | 3.24 | 3.241 | -0.001 | 44.936 | 44.419 | 0.517 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 8 | 3 | 7.51 | 7.491 | 0.019 | 3.166 | 3.172 | -0.006 | 59.07 | 59.565 | -0.495 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 8 | 4 | 6.543 | 6.524 | 0.019 | 3.095 | 3.102 | -0.007 | 99.968 | 100.467 | -0.499 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 8 | 5 | 6.431 | 6.431 | 0.000 | 3.075 | 3.079 | -0.004 | 99.968 | 99.962 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 8 | 6 | 6.64 | 6.615 | 0.025 | 3.103 | 3.106 | -0.003 | 99.968 | 100.466 | -0.498 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 8 | 7 | 6.564 | 6.555 | 0.009 | 3.095 | 3.102 | -0.007 | 99.968 | 100.467 | -0.499 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 8 | 8 | 6.238 | 6.236 | 0.002 | 3.062 | 3.071 | -0.009 | 100.473 | 100.467 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 8 | 9 | 6.191 | 6.172 | 0.019 | 3.059 | 3.065 | -0.006 | 99.968 | 100.466 | -0.498 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 8 | 9 | 6.191 | 6.172 | 0.019 | 3.059 | 3.065 | -0.006 | 99.968 | 100.467 | -0.499 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 8 | 10 | 5.98 | 5.972 | 0.008 | 3.033 | 3.042 | -0.009 | 99.968 | 100.467 | -0.499 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 8 | 11 | 5.755 | 5.75 | 0.005 | 3.014 | 3.023 | -0.009 | 99.968 | 100.467 | -0.499 | | | 0.000 | | | 0.000 | | | 0.000 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1993 | 8 | 12 | 5.496 | 5.503 | -0.007 | 2.979 | 2.99 | -0.011 | 99.968 | 100.466 | -0.498 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 8 | 13 | 6.936 | 6.923 | 0.013 | 3.126 | 3.128 | -0.002 | 70.681 | 71.178 | -0.497 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 8 | 14 | 7.356 | 7.374 | -0.018 | 3.126 | 3.129 | -0.003 | 36.861 | 36.342 | 0.519 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 8 | 15 | 6.596 | 6.588 | 0.008 | 3.088 | 3.094 | -0.006 | 56.545 | 56.536 | 0.009 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 8 | 16 | 5.725 | 5.709 | 0.016 | 3.023 | 3.03 | -0.007 | 99.968 | 100.467 | -0.499 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 8 | 17 | 5.591 | 5.59 | 0.001 | 3.011 | 3.019 | -0.008 | 99.968 | 99.961 | 0.007 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 8 | 18 | 5.467 | 5.461 | 0.006 | 2.981 | 2.993 | -0.012 | 99.968 | 100.467 | -0.499 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 8 | 19 | 5.273 | 5.279 | -0.006 | 2.965 | 2.979 | -0.014 | 99.463 | 99.456 | 0.007 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 8 | 20 | 5.346 | 5.353 | -0.007 | 2.972 | 2.982 | -0.010 | 100.473 | 100.467 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 9 | 0 | 7.529 | 7.505 | 0.024 | 3.239 | 3.24 | -0.001 | 25.257 | 25.729 | -0.472 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 9 | 1 | 8.182 | 8.191 | -0.009 | 3.255 | 3.257 | -0.002 | 31.294 | 30.789 | 0.505 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 9 | 2 | 8.006 | 8.011 | -0.005 | 3.229 | 3.23 | -0.001 | 44.431 | 43.915 | 0.516 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 9 | 3 | 7.941 | 7.943 | -0.002 | 3.206 | 3.207 | -0.001 | 55.031 | 54.516 | 0.515 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 9 | 4 | 7.306 | 7.307 | -0.001 | 3.167 | 3.168 | -0.001 | 100.473 | 100.467 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 9 | 5 | 7.036 | 7.038 | -0.002 | 3.133 | 3.134 | -0.001 | 99.968 | 99.962 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 9 | 6 | 6.864 | 6.868 | -0.004 | 3.123 | 3.125 | -0.002 | 99.968 | 99.962 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 9 | 7 | 6.744 | 6.745 | -0.001 | 3.105 | 3.107 | -0.002 | 99.968 | 99.962 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 9 | 8 | 6.744 | 6.751 | -0.007 | 3.101 | 3.104 | -0.003 | 100.473 | 99.962 | 0.511 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 9 | 9 | 6.554 | 6.569 | -0.015 | 3.087 | 3.088 | -0.001 | 100.473 | 99.962 | 0.511 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 9 | 10 | 6.4 | 6.403 | -0.003 | 3.071 | 3.072 | -0.001 | 99.968 | 99.962 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 9 | 11 | 6.123 | 6.131 | -0.008 | 3.05 | 3.051 | -0.001 | 100.473 | 99.962 | 0.511 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 9 | 12 | 5.89 | 5.893 | -0.003 | 3.01 | 3.011 | -0.001 | 99.968 | 99.962 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 9 | 13 | 7.276 | 7.277 | -0.001 | 3.143 | 3.145 | -0.002 | 72.196 | 72.188 | 0.008 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 9 | 14 | 7.512 | 7.511 | 0.001 | 3.135 | 3.149 | -0.014 | 40.394 | 40.886 | -0.492 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 9 | 15 | 7.253 | 7.254 | -0.001 | 3.126 | 3.129 | -0.003 | 55.031 | 55.021 | 0.010 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 9 | 16 | 6.257 | 6.258 | -0.001 | 3.063 | 3.065 | -0.002 | 99.968 | 99.962 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 9 | 17 | 5.783 | 5.784 | -0.001 | 3.017 | 3.02 | -0.003 | 99.968 | 99.962 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 9 | 18 | 5.685 | 5.679 | 0.006 | 3.015 | 3.015 | 0.000 | 99.968 | 100.467 | -0.499 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 9 | 19 | 5.52 | 5.52 | 0.000 | 2.987 | 2.989 | -0.002 | 99.968 | 99.962 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 9 | 20 | 5.697 | 5.703 | -0.006 | 2.992 | 2.994 | -0.002 | 92.898 | 92.387 | 0.511 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 10 | 0 | 7.942 | 7.943 | -0.001 | 3.206 | 3.207 | -0.001 | 25.761 | 25.742 | 0.019 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 10 | 1 | 7.646 | 7.649 | -0.003 | 3.152 | 3.16 | -0.008 | 28.283 | 28.77 | -0.487 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 10 | 2 | 7.658 | 7.66 | -0.002 | 3.125 | 3.128 | -0.003 | 43.422 | 43.41 | 0.012 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 10 | 3 | 7.456 | 7.457 | -0.001 | 3.141 | 3.143 | -0.002 | 53.517 | 53.507 | 0.010 | | | 0.000 | | | 0.000 | | | 0.000 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1993 | 10 | 4 | 7.263 | 7.264 | -0.001 | 3.155 | 3.156 | -0.001 | 93.403 | 93.397 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 10 | 5 | 7.255 | 7.257 | -0.002 | 3.16 | 3.162 | -0.002 | 98.958 | 98.952 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 10 | 6 | 7.039 | 7.04 | -0.001 | 3.143 | 3.145 | -0.002 | 99.968 | 99.962 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 10 | 7 | 7.137 | 7.137 | 0.000 | 3.151 | 3.15 | 0.001 | 99.968 | 99.962 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 10 | 8 | 6.934 | 6.929 | 0.005 | 3.132 | 3.127 | 0.005 | 100.473 | 100.467 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 10 | 9 | 6.703 | 6.707 | -0.004 | 3.113 | 3.113 | 0.000 | 99.463 | 98.952 | 0.511 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 10 | 10 | 6.325 | 6.331 | -0.006 | 3.066 | 3.07 | -0.004 | 97.948 | 97.942 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 10 | 11 | 6.113 | 6.121 | -0.008 | 3.054 | 3.054 | 0.000 | 96.433 | 95.922 | 0.511 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 10 | 12 | 5.906 | 5.91 | -0.004 | 3.02 | 3.024 | -0.004 | 99.968 | 100.463 | -0.495 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 10 | 13 | 7.267 | 7.273 | -0.006 | 3.15 | 3.152 | -0.002 | 72.701 | 72.188 | 0.513 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 10 | 14 | 7.334 | 7.339 | -0.005 | 3.117 | 3.123 | -0.006 | 39.889 | 39.371 | 0.518 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 10 | 15 | 7.211 | 7.214 | -0.003 | 3.124 | 3.129 | -0.005 | 57.555 | 57.546 | 0.009 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 10 | 16 | 6.276 | 6.28 | -0.004 | 3.061 | 3.064 | -0.003 | 99.968 | 99.962 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 10 | 17 | 6.084 | 6.086 | -0.002 | 3.04 | 3.043 | -0.003 | 100.473 | 100.467 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 10 | 18 | 5.841 | 5.842 | -0.001 | 3.013 | 3.016 | -0.003 | 100.473 | 100.467 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 10 | 19 | 5.65 | 5.652 | -0.002 | 3.004 | 3.006 | -0.002 | 100.472 | 100.467 | 0.005 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 10 | 20 | 5.783 | 5.785 | -0.002 | 3.001 | 3.001 | 0.000 | 99.968 | 99.457 | 0.511 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 11 | 0 | 7.078 | 7.092 | -0.014 | 3.08 | 3.088 | -0.008 | 24.289 | 25.245 | -0.956 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 11 | 1 | 7.039 | 7.044 | -0.005 | 3.109 | 3.111 | -0.002 | 28.788 | 29.275 | -0.487 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 11 | 2 | 7.063 | 7.078 | -0.015 | 3.119 | 3.123 | -0.004 | 40.394 | 41.389 | -0.995 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 11 | 3 | 6.918 | 6.926 | -0.008 | 3.078 | 3.08 | -0.002 | 50.488 | 50.478 | 0.010 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 11 | 4 | 6.787 | 6.794 | -0.007 | 3.124 | 3.126 | -0.002 | 131.786 | 131.781 | 0.005 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 11 | 5 | 6.652 | 6.656 | -0.004 | 3.113 | 3.115 | -0.002 | 129.766 | 130.266 | -0.500 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 11 | 6 | 6.735 | 6.74 | -0.005 | 3.125 | 3.126 | -0.001 | 138.353 | 138.853 | -0.500 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 11 | 7 | 6.61 | 6.613 | -0.003 | 3.119 | 3.12 | -0.001 | 141.384 | 141.884 | -0.500 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 11 | 8 | 6.578 | 6.588 | -0.010 | 3.113 | 3.115 | -0.002 | 142.394 | 142.389 | 0.005 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 11 | 10 | 6.273 | 6.277 | -0.004 | 3.085 | 3.086 | -0.001 | 139.868 | 139.358 | 0.510 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 11 | 11 | 5.933 | 5.933 | 0.000 | 3.055 | 3.054 | 0.001 | 139.363 | 139.358 | 0.005 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 11 | 12 | 5.76 | 5.763 | -0.003 | 3.04 | 3.039 | 0.001 | 139.868 | 139.358 | 0.510 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 11 | 13 | 7.02 | 7.026 | -0.006 | 3.127 | 3.129 | -0.002 | 64.623 | 65.119 | -0.496 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 11 | 14 | 6.917 | 6.925 | -0.008 | 3.098 | 3.1 | -0.002 | 35.852 | 35.837 | 0.015 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 11 | 15 | 6.863 | 6.875 | -0.012 | 3.102 | 3.106 | -0.004 | 53.517 | 53.507 | 0.010 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 11 | 16 | 6.017 | 6.026 | -0.009 | 3.064 | 3.068 | -0.004 | 142.394 | 142.894 | -0.500 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 11 | 17 | 6.247 | 6.258 | -0.011 | 3.067 | 3.07 | -0.003 | 101.483 | 101.477 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1993 | 11 | 18 | 6 | 6.01 | -0.010 | 3.046 | 3.05 | -0.004 | 103.503 | 103.497 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 11 | 19 | 5.822 | 5.824 | -0.002 | 3.028 | 3.031 | -0.003 | 96.938 | 97.436 | -0.498 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 11 | 20 | 5.811 | 5.817 | -0.006 | 3.027 | 3.031 | -0.004 | 87.848 | 87.842 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 12 | 0 | 5.859 | 5.861 | -0.002 | 3.018 | 3.019 | -0.001 | 25.237 | 25.237 | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 12 | 1 | 5.966 | 5.968 | -0.002 | 3.055 | 3.055 | 0.000 | 30.301 | 30.285 | 0.016 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 12 | 2 | 5.946 | 5.947 | -0.001 | 3.051 | 3.051 | 0.000 | 39.384 | 38.866 | 0.518 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 12 | 3 | 5.941 | 5.943 | -0.002 | 3.041 | 3.041 | 0.000 | 47.964 | 47.449 | 0.515 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 12 | 4 | 6.106 | 6.108 | -0.002 | 3.063 | 3.063 | 0.000 | 114.108 | 114.103 | 0.005 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 12 | 5 | 6.173 | 6.175 | -0.002 | 3.072 | 3.072 | 0.000 | 131.281 | 130.771 | 0.510 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 12 | 6 | 6.426 | 6.433 | -0.007 | 3.098 | 3.099 | -0.001 | 126.735 | 127.235 | -0.500 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 12 | 7 | 6.426 | 6.428 | -0.002 | 3.102 | 3.102 | 0.000 | 137.848 | 137.843 | 0.005 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 12 | 8 | 6.329 | 6.329 | 0.000 | 3.091 | 3.091 | 0.000 | 139.868 | 139.863 | 0.005 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 12 | 9 | 6.309 | 6.311 | -0.002 | 3.09 | 3.091 | -0.001 | 142.39 | 142.389 | 0.001 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 12 | 10 | 5.961 | 5.959 | 0.002 | 3.057 | 3.058 | -0.001 | 139.363 | 139.358 | 0.005 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 12 | 11 | 5.847 | 5.847 | 0.000 | 3.048 | 3.048 | 0.000 | 140.373 | 140.368 | 0.005 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 12 | 12 | 5.709 | 5.712 | -0.003 | 3.032 | 3.032 | 0.000 | 131.786 | 131.276 | 0.510 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 12 | 14 | 6.3 | 6.302 | -0.002 | 3.065 | 3.065 | 0.000 | 38.375 | 37.857 | 0.518 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 12 | 15 | 6.243 | 6.245 | -0.002 | 3.051 | 3.051 | 0.000 | 53.517 | 53.507 | 0.010 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 12 | 16 | 5.947 | 5.951 | -0.004 | 3.054 | 3.054 | 0.000 | 129.261 | 128.75 | 0.511 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 12 | 17 | 6.131 | 6.136 | -0.005 | 3.06 | 3.061 | -0.001 | 97.948 | 97.437 | 0.511 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 12 | 18 | 6.041 | 6.042 | -0.001 | 3.054 | 3.054 | 0.000 | 95.423 | 95.417 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1993 | 12 | 19 | 5.691 | 5.691 | 0.000 | 3.028 | 3.027 | 0.001 | 118.149 | 118.143 | 0.006 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1994 | 1 | 0 | 5.308 | 5.312 | -0.004 | 3.013 | 3.014 | -0.001 | 23.744 | 24.227 | -0.483 | | | 0.000 | 0.627 | 0.543 | 0.084 | | | 0.000 |
| 1994 | 1 | 1 | 5.325 | 5.327 | -0.002 | 3.011 | 3.011 | 0.000 | 30.301 | 30.285 | 0.016 | | | 0.000 | 0.928 | 0.787 | 0.141 | | | 0.000 |
| 1994 | 1 | 2 | 5.209 | 5.209 | 0.000 | 2.984 | 2.981 | 0.003 | 43.926 | 43.915 | 0.011 | | | 0.000 | 2.876 | 2.97 | -0.094 | | | 0.000 |
| 1994 | 1 | 3 | 5.179 | 5.179 | 0.000 | 2.967 | 2.966 | 0.001 | 42.412 | 42.4 | 0.012 | | | 0.000 | 3.162 | 3.107 | 0.055 | | | 0.000 |
| 1994 | 1 | 4 | 5.516 | 5.516 | 0.000 | 3.016 | 3.016 | 0.000 | 115.623 | 115.113 | 0.510 | | | 0.000 | 1.299 | 1.279 | 0.020 | | | 0.000 |
| 1994 | 1 | 5 | 5.565 | 5.567 | -0.002 | 3.023 | 3.023 | 0.000 | 138.858 | 138.853 | 0.005 | | | 0.000 | 0.347 | 0.308 | 0.039 | | | 0.000 |
| 1994 | 4 | 0 | 4.821 | 4.823 | -0.002 | 3.043 | 3.043 | 0.000 | 20.718 | 20.694 | 0.024 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1994 | 4 | 1 | 4.881 | 4.884 | -0.003 | 3.024 | 3.025 | -0.001 | 25.257 | 25.237 | 0.020 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1994 | 4 | 2 | 4.666 | 4.66 | 0.006 | 2.986 | 2.986 | 0.000 | 41.403 | 40.886 | 0.517 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1994 | 4 | 3 | 4.538 | 4.544 | -0.006 | 2.973 | 2.974 | -0.001 | 49.479 | 49.468 | 0.011 | | | 0.000 | | | 0.000 | | | 0.000 |
| 1994 | 5 | 3 | 5.966 | 5.968 | -0.002 | 3.09 | 3.09 | 0.000 | 52.002 | 51.992 | 0.010 | | | 0.000 | 10.837 | 11.254 | -0.417 | | | 0.000 |
| 1994 | 5 | 4 | 4.893 | 4.896 | -0.003 | 3.008 | 3.008 | 0.000 | 140.373 | 140.369 | 0.004 | | | 0.000 | 4.066 | 4.004 | 0.062 | | | 0.000 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1994 | 5 | 5 | 4.8 | 4.801 | -0.001 | 2.998 | 2.999 | -0.001 | 147.951 | 147.946 | 0.005 | | | 0.000 | 3.389 | 3.327 | 0.062 | | | 0.000 |
| 1994 | 5 | 6 | 4.754 | 4.756 | -0.002 | 2.988 | 2.989 | -0.001 | 126.23 | 126.225 | 0.005 | | | 0.000 | 3.551 | 3.706 | -0.155 | | | 0.000 |
| 1994 | 5 | 8 | 4.402 | 4.403 | -0.001 | 2.959 | 2.96 | -0.001 | 135.827 | 135.317 | 0.510 | | | 0.000 | 5.414 | 5.361 | 0.053 | | | 0.000 |
| 1994 | 5 | 9 | 4.441 | 4.426 | 0.015 | 2.959 | 2.962 | -0.003 | 129.766 | 129.76 | 0.006 | | | 0.000 | 16.356 | 12.02 | 4.336 | | | 0.000 |
| 1994 | 5 | 10 | 4.114 | 4.098 | 0.016 | 2.931 | 2.935 | -0.004 | 147.951 | 147.946 | 0.005 | | | 0.000 | 7.783 | 5.145 | 2.638 | | | 0.000 |
| 1994 | 5 | 11 | 3.967 | 3.968 | -0.001 | 2.917 | 2.923 | -0.006 | 142.394 | 141.379 | 1.015 | | | 0.000 | 4.59 | 3.816 | 0.774 | | | 0.000 |
| 1994 | 5 | 12 | 3.912 | 3.912 | 0.000 | 2.912 | 2.914 | -0.002 | 132.796 | 132.791 | 0.005 | | | 0.000 | 3.467 | 3.354 | 0.113 | | | 0.000 |
| 1994 | 5 | 13 | 5.46 | 5.468 | -0.008 | 3.042 | 3.043 | -0.001 | 68.654 | 68.149 | 0.505 | | | 0.000 | 4.285 | 3.26 | 1.025 | | | 0.000 |
| 1994 | 5 | 14 | 5.912 | 5.927 | -0.015 | 3.019 | 3.021 | -0.002 | 33.329 | 32.809 | 0.520 | | | 0.000 | 13.862 | 15.23 | -1.368 | | | 0.000 |
| 1994 | 5 | 15 | 5.335 | 5.345 | -0.010 | 2.983 | 2.983 | 0.000 | 48.469 | 47.953 | 0.516 | | | 0.000 | 9.998 | 11.092 | -1.094 | | | 0.000 |
| 1994 | 5 | 16 | 4.556 | 4.557 | -0.001 | 2.965 | 2.966 | -0.001 | 140.373 | 139.863 | 0.510 | | | 0.000 | 3.393 | 3.817 | -0.424 | | | 0.000 |
| 1994 | 5 | 17 | 4.487 | 4.488 | -0.001 | 2.933 | 2.935 | -0.002 | 88.353 | 87.842 | 0.511 | | | 0.000 | 5.538 | 5.147 | 0.391 | | | 0.000 |
| 1994 | 5 | 18 | 4.293 | 4.294 | -0.001 | 2.922 | 2.924 | -0.002 | 88.858 | 88.347 | 0.511 | | | 0.000 | 6.041 | 6.189 | -0.148 | | | 0.000 |
| 1994 | 5 | 19 | 4.37 | 4.339 | 0.031 | 2.883 | 2.9 | -0.017 | 58.06 | 58.051 | 0.009 | | | 0.000 | 5.695 | 4.111 | 1.584 | | | 0.000 |
| 1994 | 7 | 0 | 8.213 | 8.217 | -0.004 | 3.167 | 3.173 | -0.006 | 22.231 | 22.208 | 0.023 | | | 0.000 | 7.857 | 8.002 | -0.145 | | | 0.000 |
| 1994 | 7 | 1 | 7.939 | 7.942 | -0.003 | 3.179 | 3.179 | 0.000 | 25.761 | 25.742 | 0.019 | | | 0.000 | 7.578 | 8.675 | -1.097 | | | 0.000 |
| 1994 | 7 | 2 | 7.988 | 7.995 | -0.007 | 3.182 | 3.181 | 0.001 | 39.889 | 39.371 | 0.518 | | | 0.000 | 8.631 | 9.097 | -0.466 | | | 0.000 |
| 1994 | 7 | 3 | 7.473 | 7.474 | -0.001 | 3.144 | 3.147 | -0.003 | 42.412 | 42.4 | 0.012 | | | 0.000 | 6.943 | 7.864 | -0.921 | | | 0.000 |
| 1994 | 7 | 4 | 5.968 | 5.972 | -0.004 | 3.069 | 3.068 | 0.001 | 132.796 | 132.791 | 0.005 | | | 0.000 | 1.145 | 1.323 | -0.178 | | | 0.000 |
| 1994 | 7 | 5 | 6.025 | 6.033 | -0.008 | 3.072 | 3.072 | 0.000 | 140.878 | 140.369 | 0.509 | | | 0.000 | 3.426 | 3.384 | 0.042 | | | 0.000 |
| 1994 | 7 | 6 | 6.034 | 6.042 | -0.008 | 3.069 | 3.071 | -0.002 | 121.684 | 121.174 | 0.510 | | | 0.000 | 1.218 | 1.612 | -0.394 | | | 0.000 |
| 1994 | 7 | 7 | 5.918 | 5.913 | 0.005 | 3.059 | 3.065 | -0.006 | 131.281 | 131.779 | -0.498 | | | 0.000 | 1.575 | 1.643 | -0.068 | | | 0.000 |
| 1994 | 7 | 8 | 5.706 | 5.704 | 0.002 | 3.039 | 3.037 | 0.002 | 134.817 | 134.307 | 0.510 | | | 0.000 | 1.667 | 2.146 | -0.479 | | | 0.000 |
| 1994 | 7 | 9 | 5.593 | 5.6 | -0.007 | 3.034 | 3.036 | -0.002 | 141.889 | 141.379 | 0.510 | | | 0.000 | 1.511 | 1.426 | 0.085 | | | 0.000 |
| 1994 | 7 | 10 | 5.324 | 5.33 | -0.006 | 3.003 | 3.005 | -0.002 | 143.909 | 143.399 | 0.510 | | | 0.000 | 1.425 | 1.63 | -0.205 | | | 0.000 |
| 1994 | 7 | 11 | 5.144 | 5.145 | -0.001 | 2.992 | 2.997 | -0.005 | 143.404 | 143.904 | -0.500 | | | 0.000 | 0.307 | 0.213 | 0.094 | | | 0.000 |
| 1994 | 7 | 12 | 4.969 | 4.971 | -0.002 | 2.961 | 2.962 | -0.001 | 135.322 | 135.317 | 0.005 | | | 0.000 | 0.1 | 0.318 | -0.218 | | | 0.000 |
| 1994 | 7 | 13 | 6.843 | 6.846 | -0.003 | 3.105 | 3.111 | -0.006 | 61.089 | 61.08 | 0.009 | | | 0.000 | 7.031 | 5.256 | 1.775 | | | 0.000 |
| 1994 | 7 | 14 | 7.093 | 7.106 | -0.013 | 3.12 | 3.112 | 0.008 | 34.338 | 33.818 | 0.520 | | | 0.000 | 7.724 | 8.594 | -0.870 | | | 0.000 |
| 1994 | 7 | 15 | 6.549 | 6.54 | 0.009 | 3.08 | 3.089 | -0.009 | 52.002 | 52.497 | -0.495 | | | 0.000 | 4.421 | 3.412 | 1.009 | | | 0.000 |
| 1994 | 7 | 16 | 5.443 | 5.452 | -0.009 | 3.015 | 3.016 | -0.001 | 125.725 | 125.72 | 0.005 | | | 0.000 | 2.083 | 2.8 | -0.717 | | | 0.000 |
| 1994 | 7 | 17 | 5.496 | 5.501 | -0.005 | 2.989 | 3.001 | -0.012 | 88.353 | 88.342 | 0.011 | | | 0.000 | 2.361 | 2.253 | 0.108 | | | 0.000 |
| 1994 | 7 | 18 | 5.351 | 5.349 | 0.002 | 2.982 | 2.981 | 0.001 | 86.333 | 86.327 | 0.006 | | | 0.000 | 2.25 | 3.283 | -1.033 | | | 0.000 |
| 1994 | 7 | 19 | 4.918 | 4.924 | -0.006 | 2.918 | 2.923 | -0.005 | 88.353 | 87.842 | 0.511 | | | 0.000 | 2.697 | 3.085 | -0.388 | | | 0.000 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1994 | 7 | 20 | 5.068 | 5.075 | -0.007 | 2.914 | 2.921 | -0.007 | 81.284 | 81.277 | 0.007 | | | 0.000 | 0.691 | 1.481 | -0.790 | | | 0.000 |
| 1994 | 8 | 0 | 7.109 | 7.129 | -0.020 | 3.212 | 3.215 | -0.003 | 22.208 | 21.703 | 0.505 | | | 0.000 | 13.145 | 13.78 | -0.635 | | | 0.000 |
| 1994 | 8 | 1 | 7.526 | 7.528 | -0.002 | 3.2 | 3.199 | 0.001 | 28.283 | 27.761 | 0.522 | | | 0.000 | 18.917 | 18.809 | 0.108 | | | 0.000 |
| 1994 | 8 | 2 | 7.622 | 7.637 | -0.015 | 3.174 | 3.173 | 0.001 | 39.384 | 38.866 | 0.518 | | | 0.000 | 34.185 | 36.137 | -1.952 | | | 0.000 |
| 1994 | 8 | 3 | 7.46 | 7.475 | -0.015 | 3.143 | 3.143 | 0.000 | 46.955 | 46.439 | 0.516 | | | 0.000 | 4.773 | 5.343 | -0.570 | | | 0.000 |
| 1994 | 8 | 4 | 6.461 | 6.46 | 0.001 | 3.099 | 3.098 | 0.001 | 118.654 | 118.649 | 0.005 | | | 0.000 | 4.803 | 10.381 | -5.578 | | | 0.000 |
| 1994 | 8 | 5 | 6.083 | 6.087 | -0.004 | 3.066 | 3.067 | -0.001 | 142.899 | 142.894 | 0.005 | | | 0.000 | 1.874 | 3.717 | -1.843 | | | 0.000 |
| 1994 | 8 | 6 | 5.91 | 5.921 | -0.011 | 3.054 | 3.054 | 0.000 | 141.889 | 141.379 | 0.510 | | | 0.000 | 2.183 | 3.184 | -1.001 | | | 0.000 |
| 1994 | 8 | 7 | 5.992 | 5.995 | -0.003 | 3.057 | 3.06 | -0.003 | 135.827 | 135.822 | 0.005 | | | 0.000 | 7.842 | 8.414 | -0.572 | | | 0.000 |
| 1994 | 8 | 8 | 5.751 | 5.756 | -0.005 | 3.037 | 3.039 | -0.002 | 146.94 | 146.936 | 0.004 | | | 0.000 | 2.09 | 2.124 | -0.034 | | | 0.000 |
| 1994 | 8 | 9 | 5.755 | 5.759 | -0.004 | 3.037 | 3.039 | -0.002 | 145.93 | 145.925 | 0.005 | | | 0.000 | 2.639 | 2.49 | 0.149 | | | 0.000 |
| 1994 | 8 | 10 | 5.553 | 5.556 | -0.003 | 3.014 | 3.017 | -0.003 | 148.456 | 148.451 | 0.005 | | | 0.000 | 3.364 | 2.319 | 1.045 | | | 0.000 |
| 1994 | 8 | 11 | 5.351 | 5.355 | -0.004 | 2.994 | 3.002 | -0.008 | 147.445 | 147.441 | 0.004 | | | 0.000 | 0.827 | 0.629 | 0.198 | | | 0.000 |
| 1994 | 8 | 12 | 5.324 | 5.331 | -0.007 | 2.975 | 2.977 | -0.002 | 130.271 | 129.761 | 0.510 | | | 0.000 | 0.339 | 0.575 | -0.236 | | | 0.000 |
| 1994 | 8 | 13 | 6.764 | 6.773 | -0.009 | 3.097 | 3.1 | -0.003 | 67.147 | 66.634 | 0.513 | | | 0.000 | 5.107 | 4.189 | 0.918 | | | 0.000 |
| 1994 | 8 | 14 | 7.022 | 7.024 | -0.002 | 3.087 | 3.092 | -0.005 | 32.32 | 32.304 | 0.016 | | | 0.000 | 10.908 | 23.274 | -12.366 | | | 0.000 |
| 1994 | 8 | 15 | 6.656 | 6.679 | -0.023 | 3.068 | 3.072 | -0.004 | 48.974 | 48.458 | 0.516 | | | 0.000 | 7.702 | 23.138 | -15.436 | | | 0.000 |
| 1994 | 8 | 16 | 5.449 | 5.454 | -0.005 | 3.014 | 3.016 | -0.002 | 139.868 | 139.863 | 0.005 | | | 0.000 | 8.153 | 7.989 | 0.164 | | | 0.000 |
| 1994 | 8 | 17 | 5.591 | 5.595 | -0.004 | 2.995 | 2.999 | -0.004 | 95.928 | 95.922 | 0.006 | | | 0.000 | 12.752 | 17.957 | -5.205 | | | 0.000 |
| 1994 | 8 | 18 | 5.632 | 5.65 | -0.018 | 2.981 | 2.988 | -0.007 | 78.759 | 78.247 | 0.512 | | | 0.000 | 6.36 | 11.362 | -5.002 | | | 0.000 |
| 1994 | 8 | 19 | 5.076 | 5.096 | -0.020 | 2.943 | 2.947 | -0.004 | 104.513 | 104.507 | 0.006 | | | 0.000 | 11.175 | 14.191 | -3.016 | | | 0.000 |
| 1994 | 8 | 20 | 5.394 | 5.397 | -0.003 | 2.941 | 2.947 | -0.006 | 83.304 | 83.297 | 0.007 | | | 0.000 | 1.695 | 8.439 | -6.744 | | | 0.000 |
| 1995 | 10 | 6 | 6.608 | 6.615 | -0.007 | | 5.071 | -5.071 | 124.22 | 124.196 | 0.024 | | | 0.000 | 0.037 | 0.038 | -0.001 | 0.397 | 0.372 | 0.025 |
| 1995 | 10 | 7 | 6.299 | 6.309 | -0.010 | | 5.076 | -5.076 | 149.971 | 149.459 | 0.512 | | | 0.000 | 1.081 | 1.19 | -0.109 | 0.357 | 0.341 | 0.016 |
| 1995 | 10 | 8 | 6.399 | 6.407 | -0.008 | | 5.068 | -5.068 | 131.291 | 131.774 | -0.483 | | | 0.000 | 0.144 | 0.124 | 0.020 | 0.357 | 0.325 | 0.032 |
| 1995 | 10 | 9 | 6.423 | 6.431 | -0.008 | | 5.07 | -5.070 | 129.27 | 129.254 | 0.016 | | | 0.000 | 0.377 | 0.352 | 0.025 | 0.398 | 0.364 | 0.034 |
| 1995 | 10 | 10 | 6.154 | 6.156 | -0.002 | | 5.061 | -5.061 | 143.415 | 143.903 | -0.488 | | | 0.000 | 1.782 | 1.712 | 0.070 | 0.427 | 0.383 | 0.044 |
| 1995 | 10 | 11 | 6.169 | 6.179 | -0.010 | | 5.041 | -5.041 | 131.283 | 131.273 | 0.010 | | | 0.000 | 1.544 | 1.32 | 0.224 | 0.44 | 0.404 | 0.036 |
| 1995 | 11 | 0 | 6.818 | 6.82 | -0.002 | | 5.019 | -5.019 | 27.33 | 27.755 | -0.425 | | | 0.000 | 2.535 | 2.449 | 0.086 | 0.817 | 0.797 | 0.020 |
| 1995 | 11 | 1 | 7.121 | 7.122 | -0.001 | | 5.15 | -5.150 | 29.842 | 29.774 | 0.068 | | | 0.000 | 6.867 | 6.412 | 0.455 | 0.645 | 0.639 | 0.006 |
| 1995 | 11 | 2 | 7.104 | 7.104 | 0.000 | | 5.121 | -5.121 | 43.446 | 43.385 | 0.061 | | | 0.000 | 4.705 | 4.586 | 0.119 | 0.651 | 0.643 | 0.008 |
| 1995 | 11 | 3 | 6.141 | 6.151 | -0.010 | | 4.901 | -4.901 | 43.443 | 43.894 | -0.451 | | | 0.000 | 1.01 | 0.888 | 0.122 | 0.466 | 0.457 | 0.009 |
| 1995 | 11 | 4 | 6.052 | 6.058 | -0.006 | | 4.956 | -4.956 | 140.373 | 140.366 | 0.007 | | | 0.000 | 0.169 | 0.153 | 0.016 | 0.385 | 0.383 | 0.002 |
| 1995 | 11 | 5 | 5.89 | 5.895 | -0.005 | | 4.958 | -4.958 | 166.643 | 166.637 | 0.006 | | | 0.000 | 0.014 | 0.014 | 0.000 | 0.332 | 0.331 | 0.001 |

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| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1995 | 11 | 17 | 6.012 | 6.013 | -0.001 | | 4.878 | -4.878 | 80.273 | 79.762 | 0.511 | | | 0.000 | 0.476 | 0.524 | -0.048 | 0.251 | 0.247 | 0.004 |
| 1995 | 11 | 18 | 5.736 | 5.733 | 0.003 | | 4.85 | -4.850 | 106.028 | 105.517 | 0.511 | | | 0.000 | 1.579 | 1.938 | -0.359 | 0.223 | 0.219 | 0.004 |
| 1995 | 11 | 19 | 5.594 | 5.594 | 0.000 | | 4.839 | -4.839 | 107.039 | 106.527 | 0.512 | | | 0.000 | 2.533 | 2.709 | -0.176 | 0.206 | 0.203 | 0.003 |
| 1995 | 11 | 19 | 5.594 | 5.595 | -0.001 | | 4.839 | -4.839 | 107.039 | 106.527 | 0.512 | | | 0.000 | 2.533 | 2.709 | -0.176 | 0.206 | 0.203 | 0.003 |
| 1996 | 3 | 0 | 3.687 | 3.717 | -0.030 | | 4.687 | -4.687 | 28.883 | 28.757 | 0.126 | | | 0.000 | 9.715 | 13.255 | -3.540 | 0.435 | 0.431 | 0.004 |
| 1996 | 3 | 1 | 4.01 | 3.952 | 0.058 | | 4.771 | -4.771 | 32.863 | 32.804 | 0.059 | | | 0.000 | 26.911 | 20.919 | 5.992 | 0.467 | 0.466 | 0.001 |
| 1996 | 3 | 2 | 4.001 | 3.973 | 0.028 | | 4.795 | -4.795 | 45.94 | 45.927 | 0.013 | | | 0.000 | 21.033 | 22.916 | -1.883 | 0.482 | 0.482 | 0.000 |
| 1996 | 3 | 3 | 3.828 | 3.756 | 0.072 | | 4.727 | -4.727 | 46.563 | 47.408 | -0.845 | | | 0.000 | 9.611 | 23.01 | -13.399 | 0.481 | 0.48 | 0.001 |
| 1996 | 3 | 4 | 3.516 | 3.506 | 0.010 | | 4.729 | -4.729 | 140.383 | 140.368 | 0.015 | | | 0.000 | 5.116 | 4.13 | 0.986 | 0.369 | 0.369 | 0.000 |
| 1996 | 3 | 5 | 3.453 | 3.453 | 0.000 | | 4.653 | -4.653 | 135.319 | 134.307 | 1.012 | | | 0.000 | 2.118 | 2.101 | 0.017 | 0.317 | 0.314 | 0.003 |
| 1996 | 3 | 6 | 3.474 | 3.465 | 0.009 | | 4.618 | -4.618 | 89.376 | 88.852 | 0.524 | | | 0.000 | 0.276 | 0.276 | 0.000 | 0.288 | 0.286 | 0.002 |
| 1996 | 3 | 7 | 3.677 | 3.682 | -0.005 | | 4.681 | -4.681 | 123.716 | 124.702 | -0.986 | | | 0.000 | 2.129 | 1.791 | 0.338 | 0.256 | 0.255 | 0.001 |
| 1996 | 3 | 8 | 3.67 | 3.671 | -0.001 | | 4.683 | -4.683 | 132.802 | 131.781 | 1.021 | | | 0.000 | 0.551 | 0.584 | -0.033 | 0.267 | 0.263 | 0.004 |
| 1996 | 3 | 9 | 3.656 | 3.658 | -0.002 | | 4.693 | -4.693 | 136.338 | 135.82 | 0.518 | | | 0.000 | 0.829 | 0.808 | 0.021 | 0.186 | 0.186 | 0.000 |
| 1996 | 3 | 10 | 3.565 | 3.565 | 0.000 | | 4.68 | -4.680 | 135.836 | 135.821 | 0.015 | | | 0.000 | 1.092 | 1.069 | 0.023 | 0.045 | 0.001 | 0.044 |
| 1996 | 3 | 13 | 3.546 | 3.494 | 0.052 | | 4.537 | -4.537 | 52.086 | 50.983 | 1.103 | | | 0.000 | 18.395 | 14.731 | 3.664 | 0.342 | 0.337 | 0.005 |
| 1996 | 3 | 14 | 3.416 | 3.315 | 0.101 | | 4.548 | -4.548 | 30.848 | 31.263 | -0.415 | | | 0.000 | 36.483 | 29.423 | 7.060 | 0.391 | 0.4 | -0.009 |
| 1996 | 3 | 15 | 3.514 | 3.483 | 0.031 | | 4.657 | -4.657 | 44.969 | 45.422 | -0.453 | | | 0.000 | 27.032 | 25.337 | 1.695 | 0.408 | 0.407 | 0.001 |
| 1996 | 3 | 16 | 3.658 | 3.644 | 0.014 | | 4.711 | -4.711 | 136.839 | 136.83 | 0.009 | | | 0.000 | 3.406 | 3.26 | 0.146 | 0.282 | 0.282 | 0.000 |
| 1996 | 3 | 17 | 3.653 | 3.625 | 0.028 | | 4.687 | -4.687 | 85.845 | 85.82 | 0.025 | | | 0.000 | 12.328 | 10.68 | 1.648 | 0.139 | 0.121 | 0.018 |
| 1996 | 3 | 18 | 3.69 | 3.673 | 0.017 | | 4.698 | -4.698 | 91.384 | 91.374 | 0.010 | | | 0.000 | 9.711 | 10.939 | -1.228 | 0.048 | 0.001 | 0.047 |
| 1996 | 3 | 19 | 3.754 | 3.729 | 0.025 | | 4.711 | -4.711 | 101.499 | 101.475 | 0.024 | | | 0.000 | 1.839 | 1.738 | 0.101 | 0.003 | 0.004 | -0.001 |
| 1996 | 3 | 20 | 3.718 | 3.704 | 0.014 | | 4.697 | -4.697 | 91.9 | 92.377 | -0.477 | | | 0.000 | 1.521 | 1.324 | 0.197 | 0.007 | 0.009 | -0.002 |
| 1996 | 6 | 0 | 7.376 | 7.367 | 0.009 | | 4.95 | -4.950 | 27.295 | 27.763 | -0.468 | | | 0.000 | 3.004 | 1.932 | 1.072 | 2.103 | 2.077 | 0.026 |
| 1996 | 6 | 1 | 7.214 | 7.226 | -0.012 | | 4.928 | -4.928 | 31.322 | 31.289 | 0.033 | | | 0.000 | 12.654 | 15.168 | -2.514 | 1.203 | 1.223 | -0.020 |
| 1996 | 6 | 2 | 7.217 | 7.219 | -0.002 | | 5.017 | -5.017 | 46.938 | 46.89 | 0.048 | | | 0.000 | 8.508 | 8.362 | 0.146 | 1.276 | 1.286 | -0.010 |
| 1996 | 6 | 3 | 7.115 | 7.137 | -0.022 | | 4.967 | -4.967 | 35.38 | 35.812 | -0.432 | | | 0.000 | 11.462 | 10.303 | 1.159 | 1.181 | 1.173 | 0.008 |
| 1996 | 6 | 4 | 5.181 | 5.13 | 0.051 | | 4.775 | -4.775 | 144.929 | 145.925 | -0.996 | | | 0.000 | 2.969 | 1.669 | 1.300 | 0.67 | 0.604 | 0.066 |
| 1996 | 6 | 5 | 5.062 | 5.051 | 0.011 | | 4.732 | -4.732 | 145.937 | 145.918 | 0.019 | | | 0.000 | 0.488 | 0.663 | -0.175 | 0.759 | 0.678 | 0.081 |
| 1996 | 6 | 5 | 5.062 | 5.051 | 0.011 | | 4.732 | -4.732 | 145.937 | 145.918 | 0.019 | | | 0.000 | 0.488 | 0.663 | -0.175 | 0.759 | 0.679 | 0.080 |
| 1996 | 6 | 7 | 4.864 | 4.794 | 0.070 | | 4.665 | -4.665 | 153.022 | 154.512 | -1.490 | | | 0.000 | 0.545 | 0.256 | 0.289 | 0.598 | 0.532 | 0.066 |
| 1996 | 6 | 8 | 4.859 | 4.837 | 0.022 | | 4.665 | -4.665 | 149.989 | 149.957 | 0.032 | | | 0.000 | 0.428 | 0.721 | -0.293 | 0.505 | 0.473 | 0.032 |
| 1996 | 6 | 9 | 4.705 | 4.702 | 0.003 | | 4.595 | -4.595 | 155.533 | 155.019 | 0.514 | | | 0.000 | 0.858 | 1.372 | -0.514 | 0.487 | 0.458 | 0.029 |
| 1996 | 6 | 11 | 4.356 | 4.317 | 0.039 | | 4.576 | -4.576 | 155.043 | 155.518 | -0.475 | | | 0.000 | 0.632 | 1.14 | -0.508 | 0.457 | 0.423 | 0.034 |

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| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1996 | 6 | 12 | 4.162 | 4.163 | -0.001 | | 4.505 | -4.505 | 143.919 | 143.897 | 0.022 | | | 0.000 | 0.847 | 1.387 | -0.540 | 0.669 | 0.667 | 0.002 |
| 1996 | 6 | 13 | 5.922 | 5.868 | 0.054 | | 4.79 | -4.790 | 71.184 | 71.169 | 0.015 | | | 0.000 | 5.325 | 5.304 | 0.021 | 1.264 | 1.262 | 0.002 |
| 1996 | 6 | 14 | 6.42 | 6.375 | 0.045 | | 4.731 | -4.731 | 38.405 | 38.338 | 0.067 | | | 0.000 | 6.328 | 8.353 | -2.025 | 1.126 | 1.156 | -0.030 |
| 1996 | 6 | 15 | 5.718 | 5.741 | -0.023 | | 4.686 | -4.686 | 53.54 | 53.488 | 0.052 | | | 0.000 | 4.848 | 5.208 | -0.360 | 1.002 | 0.904 | 0.098 |
| 1996 | 6 | 16 | 4.655 | 4.643 | 0.012 | | 4.658 | -4.658 | 153.525 | 152.493 | 1.032 | | | 0.000 | 1.241 | 3.257 | -2.016 | 0.615 | 0.575 | 0.040 |
| 1996 | 6 | 17 | 4.668 | 4.671 | -0.003 | | 4.57 | -4.570 | 105.531 | 105.508 | 0.023 | | | 0.000 | 0.918 | 1.964 | -1.046 | 0.658 | 0.609 | 0.049 |
| 1996 | 6 | 18 | 4.439 | 4.44 | -0.001 | | 4.542 | -4.542 | 100.978 | 99.96 | 1.018 | | | 0.000 | 0.459 | 0.88 | -0.421 | 0.42 | 0.41 | 0.010 |
| 1996 | 6 | 19 | 4.017 | 4.02 | -0.003 | | 4.525 | -4.525 | 115.627 | 116.122 | -0.495 | | | 0.000 | 0.1 | 0.031 | 0.069 | 0.414 | 0.404 | 0.010 |
| 1996 | 6 | 20 | 4.161 | 4.172 | -0.011 | | 4.606 | -4.606 | 87.354 | 87.832 | -0.478 | | | 0.000 | 0.007 | 0.366 | -0.359 | 1.21 | 1.188 | 0.022 |
| 1996 | 9 | 0 | 8.121 | 8.15 | -0.029 | 3.123 | 3.132 | -0.009 | 25.257 | 24.732 | 0.525 | | | 0.000 | 64.84 | 67.482 | -2.642 | 1.85 | 1.838 | 0.012 |
| 1996 | 9 | 1 | 8.143 | 8.13 | 0.013 | 3.215 | 3.219 | -0.004 | 27.815 | 27.723 | 0.092 | | | 0.000 | 60.064 | 31.165 | 28.899 | 1.595 | 1.52 | 0.075 |
| 1996 | 9 | 2 | 7.938 | 7.939 | -0.001 | 3.172 | 3.177 | -0.005 | 35.852 | 35.829 | 0.023 | | | 0.000 | 52.375 | 41.833 | 10.542 | 1.146 | 1.129 | 0.017 |
| 1996 | 9 | 3 | 7.546 | 7.547 | -0.001 | 3.135 | 3.141 | -0.006 | 46.472 | 46.434 | 0.038 | | | 0.000 | 31.811 | 28.979 | 2.832 | 0.873 | 0.868 | 0.005 |
| 1996 | 9 | 4 | 6.165 | 6.173 | -0.008 | 3.085 | 3.086 | -0.001 | 142.394 | 141.884 | 0.510 | | | 0.000 | 8.605 | 12.784 | -4.179 | 0.427 | 0.42 | 0.007 |
| 1996 | 9 | 5 | 6.033 | 6.035 | -0.002 | 3.079 | 3.08 | -0.001 | 165.127 | 165.123 | 0.004 | | | 0.000 | | | 0.000 | 0.637 | 0.629 | 0.008 |
| 1996 | 9 | 6 | 6.314 | 6.315 | -0.001 | 3.094 | 3.095 | -0.001 | 132.796 | 132.791 | 0.005 | | | 0.000 | | | 0.000 | 0.774 | 0.764 | 0.010 |
| 1996 | 9 | 7 | 5.893 | 5.896 | -0.003 | 3.072 | 3.073 | -0.001 | 165.633 | 165.628 | 0.005 | | | 0.000 | | | 0.000 | 0.584 | 0.578 | 0.006 |
| 1996 | 9 | 8 | 5.907 | 5.909 | -0.002 | 3.071 | 3.072 | -0.001 | 163.612 | 163.607 | 0.005 | | | 0.000 | | | 0.000 | 0.422 | 0.42 | 0.002 |
| 1996 | 9 | 9 | 5.898 | 5.912 | -0.014 | 3.072 | 3.071 | 0.001 | 156.555 | 157.03 | -0.475 | | | 0.000 | | | 0.000 | 0.621 | 0.602 | 0.019 |
| 1996 | 9 | 10 | 5.604 | 5.604 | 0.000 | 3.047 | 3.05 | -0.003 | 163.618 | 164.111 | -0.493 | | | 0.000 | | | 0.000 | 0.417 | 0.409 | 0.008 |
| 1996 | 9 | 11 | 5.395 | 5.403 | -0.008 | 3.03 | 3.031 | -0.001 | 161.591 | 161.081 | 0.510 | | | 0.000 | | | 0.000 | 0.485 | 0.484 | 0.001 |
| 1996 | 9 | 12 | 5.633 | 5.619 | 0.014 | 3.034 | 3.029 | 0.005 | 142.917 | 142.883 | 0.034 | | | 0.000 | | | 0.000 | 0.822 | 0.794 | 0.028 |
| 1996 | 9 | 13 | 7.122 | 7.126 | -0.004 | 3.131 | 3.136 | -0.005 | 68.157 | 68.144 | 0.013 | | | 0.000 | 16.314 | 13.108 | 3.206 | 0.576 | 0.574 | 0.002 |
| 1996 | 9 | 14 | 7.501 | 7.504 | -0.003 | 3.128 | 3.13 | -0.002 | 31.847 | 31.793 | 0.054 | | | 0.000 | 21.847 | 21.77 | 0.077 | 0.764 | 0.764 | 0.000 |
| 1996 | 9 | 14 | 7.501 | 7.504 | -0.003 | 3.128 | 3.13 | -0.002 | 31.847 | 31.793 | 0.054 | | | 0.000 | 21.847 | 21.77 | 0.077 | 0.764 | 0.765 | -0.001 |
| 1996 | 9 | 15 | 7.082 | 7.068 | 0.014 | 3.106 | 3.108 | -0.002 | 52.002 | 52.687 | -0.685 | | | 0.000 | 11.845 | 14.019 | -2.174 | 0.686 | 0.664 | 0.022 |
| 1996 | 9 | 16 | 5.275 | 5.159 | 0.116 | 3.024 | 3.013 | 0.011 | 154.525 | 162.018 | -7.493 | | | 0.000 | 1.266 | 2.463 | -1.197 | 0.324 | 0.303 | 0.021 |
| 1996 | 9 | 17 | 5.67 | 5.665 | 0.005 | 3.03 | 3.037 | -0.007 | 102.998 | 103.494 | -0.496 | | | 0.000 | | | 0.000 | 0.331 | 0.329 | 0.002 |
| 1996 | 9 | 18 | 5.59 | 5.593 | -0.003 | 3.012 | 3.014 | -0.002 | 103.503 | 103.497 | 0.006 | | | 0.000 | | | 0.000 | 0.293 | 0.29 | 0.003 |
| 1996 | 9 | 19 | 5.058 | 5.06 | -0.002 | 2.977 | 2.979 | -0.002 | 122.816 | 122.275 | 0.541 | | | 0.000 | | | 0.000 | 0.568 | 0.563 | 0.005 |
| 1996 | 9 | 20 | 5.484 | 5.492 | -0.008 | 2.993 | 2.994 | -0.001 | 86.333 | 85.822 | 0.511 | | | 0.000 | | | 0.000 | 0.734 | 0.725 | 0.009 |
| 1996 | 10 | 0 | 6.579 | 6.58 | -0.001 | 3.089 | 3.09 | -0.001 | 20.718 | 20.68 | 0.038 | | | 0.000 | | | 0.000 | 1.042 | 1.019 | 0.023 |
| 1996 | 10 | 1 | 6.571 | 6.573 | -0.002 | 3.104 | 3.104 | 0.000 | 25.257 | 25.732 | -0.475 | | | 0.000 | | | 0.000 | 0.831 | 0.816 | 0.015 |
| 1996 | 10 | 2 | 6.601 | 6.604 | -0.003 | 3.112 | 3.112 | 0.000 | 41.403 | 41.886 | -0.483 | | | 0.000 | | | 0.000 | 0.793 | 0.781 | 0.012 |

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| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1996 | 10 | 3 | 6.584 | 6.586 | -0.002 | 3.097 | 3.097 | 0.000 | 49.479 | 49.468 | 0.011 | | | 0.000 | | | 0.000 | 0.717 | 0.711 | 0.006 |
| 1996 | 10 | 4 | 6.226 | 6.231 | -0.005 | 3.087 | 3.087 | 0.000 | 141.889 | 141.379 | 0.510 | | | 0.000 | | | 0.000 | 0.557 | 0.554 | 0.003 |
| 1996 | 10 | 5 | 6.076 | 6.078 | -0.002 | 3.083 | 3.084 | -0.001 | 161.086 | 161.584 | -0.498 | | | 0.000 | | | 0.000 | 0.225 | 0.203 | 0.022 |
| 1996 | 10 | 6 | 6.486 | 6.487 | -0.001 | 3.113 | 3.113 | 0.000 | 142.394 | 142.389 | 0.005 | | | 0.000 | | | 0.000 | 0.098 | 0.094 | 0.004 |
| 1996 | 10 | 7 | 6.213 | 6.214 | -0.001 | 3.095 | 3.095 | 0.000 | 162.096 | 162.092 | 0.004 | | | 0.000 | | | 0.000 | 0.2 | 0.19 | 0.010 |
| 1996 | 10 | 8 | 6.252 | 6.262 | -0.010 | 3.097 | 3.098 | -0.001 | 163.106 | 163.099 | 0.007 | | | 0.000 | | | 0.000 | 0.311 | 0.303 | 0.008 |
| 1996 | 10 | 9 | 6.181 | 6.184 | -0.003 | 3.094 | 3.095 | -0.001 | 162.601 | 163.099 | -0.498 | | | 0.000 | | | 0.000 | 0.243 | 0.237 | 0.006 |
| 1996 | 10 | 10 | 5.824 | 5.834 | -0.010 | 3.064 | 3.065 | -0.001 | 162.096 | 162.089 | 0.007 | | | 0.000 | | | 0.000 | 0.231 | 0.226 | 0.005 |
| 1996 | 10 | 11 | 5.701 | 5.699 | 0.002 | 3.059 | 3.058 | 0.001 | 163.106 | 163.605 | -0.499 | | | 0.000 | | | 0.000 | 0.139 | 0.129 | 0.010 |
| 1996 | 10 | 12 | 6.052 | 6.063 | -0.011 | 3.075 | 3.076 | -0.001 | 137.848 | 137.84 | 0.008 | | | 0.000 | | | 0.000 | 0.079 | 0.078 | 0.001 |
| 1996 | 10 | 13 | 6.74 | 6.744 | -0.004 | 3.104 | 3.105 | -0.001 | 70.681 | 71.175 | -0.494 | | | 0.000 | | | 0.000 | 0.561 | 0.547 | 0.014 |
| 1996 | 10 | 14 | 6.484 | 6.481 | 0.003 | 3.049 | 3.048 | 0.001 | 36.356 | 35.837 | 0.519 | | | 0.000 | | | 0.000 | 0.61 | 0.602 | 0.008 |
| 1996 | 10 | 15 | 6.553 | 6.554 | -0.001 | 3.067 | 3.067 | 0.000 | 41.908 | 41.895 | 0.013 | | | 0.000 | | | 0.000 | 0.586 | 0.571 | 0.015 |
| 1996 | 10 | 16 | 5.603 | 5.604 | -0.001 | 3.041 | 3.041 | 0.000 | 154.013 | 154.008 | 0.005 | | | 0.000 | | | 0.000 | 0.271 | 0.268 | 0.003 |
| 1996 | 10 | 17 | 6.408 | 6.418 | -0.010 | 3.067 | 3.07 | -0.003 | 75.225 | 75.718 | -0.493 | | | 0.000 | | | 0.000 | 0.405 | 0.394 | 0.011 |
| 1996 | 10 | 18 | 5.704 | 5.711 | -0.007 | 3.037 | 3.038 | -0.001 | 104.513 | 104.505 | 0.008 | | | 0.000 | | | 0.000 | 0.302 | 0.291 | 0.011 |
| 1996 | 10 | 19 | 5.707 | 5.706 | 0.001 | 3.033 | 3.032 | 0.001 | 114.108 | 114.103 | 0.005 | | | 0.000 | | | 0.000 | 0.294 | 0.289 | 0.005 |
| 1996 | 10 | 20 | 5.969 | 5.976 | -0.007 | 3.041 | 3.041 | 0.000 | 92.898 | 92.387 | 0.511 | | | 0.000 | | | 0.000 | 0.365 | 0.359 | 0.006 |
| 1997 | 5 | 0 | 5.784 | 5.78 | 0.004 | 3.129 | 3.129 | 0.000 | 25.761 | 26.233 | -0.472 | | | 0.000 | | | 0.000 | 1.893 | 1.792 | 0.101 |
| 1997 | 5 | 1 | 5.979 | 5.977 | 0.002 | 3.133 | 3.133 | 0.000 | 24.752 | 25.222 | -0.470 | | | 0.000 | | | 0.000 | 1.424 | 1.408 | 0.016 |
| 1997 | 5 | 2 | 5.845 | 5.85 | -0.005 | 3.11 | 3.11 | 0.000 | 40.898 | 40.886 | 0.012 | | | 0.000 | | | 0.000 | 2.063 | 2.004 | 0.059 |
| 1997 | 5 | 3 | 5.452 | 5.459 | -0.007 | 3.074 | 3.075 | -0.001 | 50.488 | 49.973 | 0.515 | | | 0.000 | | | 0.000 | 1.943 | 1.875 | 0.068 |
| 1997 | 5 | 4 | 4.406 | 4.399 | 0.007 | 2.995 | 2.996 | -0.001 | 144.414 | 144.913 | -0.499 | | | 0.000 | | | 0.000 | 0.787 | 0.754 | 0.033 |
| 1997 | 5 | 5 | 4.496 | 4.487 | 0.009 | 3.002 | 3.003 | -0.001 | 156.539 | 157.037 | -0.498 | | | 0.000 | | | 0.000 | 0.754 | 0.737 | 0.017 |
| 1997 | 5 | 6 | 4.314 | 4.304 | 0.010 | 2.982 | 2.983 | -0.001 | 134.817 | 134.81 | 0.007 | | | 0.000 | | | 0.000 | 0.841 | 0.813 | 0.028 |
| 1997 | 5 | 7 | 4.216 | 4.202 | 0.014 | 2.972 | 2.973 | -0.001 | 156.034 | 156.532 | -0.498 | | | 0.000 | | | 0.000 | 0.689 | 0.675 | 0.014 |
| 1997 | 5 | 8 | 4.049 | 4.041 | 0.008 | 2.959 | 2.959 | 0.000 | 157.556 | 158.048 | -0.492 | | | 0.000 | | | 0.000 | 0.641 | 0.638 | 0.003 |
| 1997 | 5 | 9 | 4.05 | 4.052 | -0.002 | 2.959 | 2.958 | 0.001 | 156.545 | 156.029 | 0.516 | | | 0.000 | | | 0.000 | 0.491 | 0.484 | 0.007 |
| 1997 | 5 | 10 | 3.963 | 3.955 | 0.008 | 2.951 | 2.952 | -0.001 | 159.071 | 159.059 | 0.012 | | | 0.000 | | | 0.000 | 0.632 | 0.624 | 0.008 |
| 1997 | 5 | 11 | 3.96 | 3.951 | 0.009 | 2.95 | 2.951 | -0.001 | 155.03 | 155.522 | -0.492 | | | 0.000 | | | 0.000 | 0.66 | 0.65 | 0.010 |
| 1997 | 5 | 12 | 3.879 | 3.87 | 0.009 | 2.943 | 2.943 | 0.000 | 145.93 | 145.923 | 0.007 | | | 0.000 | | | 0.000 | 0.495 | 0.494 | 0.001 |
| 1997 | 5 | 13 | 5.103 | 5.079 | 0.024 | 3.037 | 3.037 | 0.000 | 62.603 | 63.094 | -0.491 | | | 0.000 | | | 0.000 | 1.612 | 1.596 | 0.016 |
| 1997 | 5 | 14 | 5.003 | 4.993 | 0.010 | 3.01 | 3.011 | -0.001 | 36.356 | 36.836 | -0.480 | | | 0.000 | | | 0.000 | 3.01 | 2.903 | 0.107 |
| 1997 | 5 | 15 | 4.711 | 4.73 | -0.019 | 2.988 | 2.989 | -0.001 | 45.945 | 45.429 | 0.516 | | | 0.000 | | | 0.000 | 1.983 | 1.989 | -0.006 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1997 | 5 | 16 | 4.107 | 4.102 | 0.005 | 2.962 | 2.961 | 0.001 | 153.002 | 153.5 | -0.498 | | | 0.000 | | | 0.000 | 0.814 | 0.775 | 0.039 |
| 1997 | 5 | 17 | 3.991 | 3.99 | 0.001 | 2.937 | 2.937 | 0.000 | 101.988 | 101.982 | 0.006 | | | 0.000 | | | 0.000 | 0.989 | 0.959 | 0.030 |
| 1997 | 5 | 18 | 3.94 | 3.934 | 0.006 | 2.934 | 2.935 | -0.001 | 102.493 | 102.483 | 0.010 | | | 0.000 | | | 0.000 | 0.952 | 0.94 | 0.012 |
| 1997 | 5 | 19 | 3.946 | 3.942 | 0.004 | 2.935 | 2.934 | 0.001 | 111.078 | 111.073 | 0.005 | | | 0.000 | | | 0.000 | 0.521 | 0.518 | 0.003 |
| 1997 | 5 | 20 | 3.971 | 3.971 | 0.000 | 2.933 | 2.932 | 0.001 | 83.809 | 83.802 | 0.007 | | | 0.000 | | | 0.000 | 0.564 | 0.559 | 0.005 |
| 1997 | 7 | 0 | 8.358 | 8.573 | -0.215 | 3.218 | 3.222 | -0.004 | 26.247 | 25.742 | 0.505 | | | 0.000 | | | 0.000 | 2.649 | 0.655 | 1.994 |
| 1997 | 7 | 1 | 7.724 | 7.732 | -0.008 | 3.248 | 3.25 | -0.002 | 29.292 | 29.275 | 0.017 | | | 0.000 | | | 0.000 | 1.653 | 1.638 | 0.015 |
| 1997 | 7 | 2 | 7.674 | 7.676 | -0.002 | 3.219 | 3.219 | 0.000 | 38.375 | 38.866 | -0.491 | | | 0.000 | | | 0.000 | 1.889 | 1.903 | -0.014 |
| 1997 | 7 | 3 | 7.011 | 7.021 | -0.010 | 3.139 | 3.14 | -0.001 | 46.955 | 46.944 | 0.011 | | | 0.000 | | | 0.000 | 1.982 | 1.95 | 0.032 |
| 1997 | 7 | 4 | 5.533 | 5.517 | 0.016 | 3.048 | 3.053 | -0.005 | 119.664 | 119.656 | 0.008 | | | 0.000 | | | 0.000 | 1.031 | 1.016 | 0.015 |
| 1997 | 7 | 5 | 5.213 | 5.015 | 0.198 | 3.031 | 2.996 | 0.035 | 146.937 | 173.144 | -26.207 | | | 0.000 | | | 0.000 | 0.456 | 0.24 | 0.216 |
| 1997 | 7 | 6 | 5.489 | 5.475 | 0.014 | 3.05 | 3.052 | -0.002 | 139.363 | 139.861 | -0.498 | | | 0.000 | | | 0.000 | 0.526 | 0.503 | 0.023 |
| 1997 | 7 | 7 | 5.348 | 5.353 | -0.005 | 3.035 | 3.037 | -0.002 | 151.487 | 150.977 | 0.510 | | | 0.000 | | | 0.000 | 0.538 | 0.546 | -0.008 |
| 1997 | 7 | 8 | 5.12 | 5.127 | -0.007 | 3.02 | 3.019 | 0.001 | 153.002 | 152.493 | 0.509 | | | 0.000 | | | 0.000 | 0.496 | 0.459 | 0.037 |
| 1997 | 7 | 9 | 5.084 | 5.089 | -0.005 | 3.019 | 3.02 | -0.001 | 155.528 | 155.019 | 0.509 | | | 0.000 | | | 0.000 | 0.502 | 0.472 | 0.030 |
| 1997 | 7 | 10 | 4.939 | 4.939 | 0.000 | 3.001 | 3.002 | -0.001 | 156.034 | 156.029 | 0.005 | | | 0.000 | | | 0.000 | 0.318 | 0.316 | 0.002 |
| 1997 | 7 | 11 | 4.753 | 4.761 | -0.008 | 2.982 | 2.992 | -0.010 | 156.034 | 157.039 | -1.005 | | | 0.000 | | | 0.000 | 0.42 | 0.418 | 0.002 |
| 1997 | 7 | 12 | 4.651 | 4.657 | -0.006 | 2.96 | 2.97 | -0.010 | 141.384 | 142.389 | -1.005 | | | 0.000 | | | 0.000 | 0.972 | 0.963 | 0.009 |
| 1997 | 7 | 13 | 6.427 | 6.43 | -0.003 | 3.101 | 3.104 | -0.003 | 63.613 | 63.605 | 0.008 | | | 0.000 | | | 0.000 | 1.265 | 1.258 | 0.007 |
| 1997 | 7 | 14 | 6.738 | 6.719 | 0.019 | 3.11 | 3.115 | -0.005 | 39.889 | 40.381 | -0.492 | | | 0.000 | | | 0.000 | 1.694 | 1.688 | 0.006 |
| 1997 | 7 | 15 | 6.747 | 6.668 | 0.079 | 3.12 | 3.124 | -0.004 | 49.478 | 49.974 | -0.496 | | | 0.000 | | | 0.000 | 1.39 | 1.368 | 0.022 |
| 1997 | 7 | 16 | 4.937 | 4.926 | 0.011 | 3.005 | 3.009 | -0.004 | 129.773 | 127.741 | 2.032 | | | 0.000 | | | 0.000 | 0.459 | 0.452 | 0.007 |
| 1997 | 7 | 17 | 4.867 | 4.864 | 0.003 | 2.983 | 2.986 | -0.003 | 106.028 | 106.022 | 0.006 | | | 0.000 | | | 0.000 | 0.554 | 0.555 | -0.001 |
| 1997 | 7 | 18 | 4.774 | 4.791 | -0.017 | 2.961 | 2.964 | -0.003 | 100.978 | 100.467 | 0.511 | | | 0.000 | | | 0.000 | 0.637 | 0.634 | 0.003 |
| 1997 | 7 | 19 | 4.427 | 4.44 | -0.013 | 2.916 | 2.924 | -0.008 | 114.613 | 114.103 | 0.510 | | | 0.000 | | | 0.000 | 0.452 | 0.431 | 0.021 |
| 1997 | 7 | 20 | 4.57 | 4.572 | -0.002 | 2.91 | 2.915 | -0.005 | 90.373 | 90.367 | 0.006 | | | 0.000 | | | 0.000 | 0.761 | 0.762 | -0.001 |
| 1997 | 11 | 0 | 6.833 | 6.834 | -0.001 | 3.115 | 3.116 | -0.001 | 24.248 | 23.722 | 0.526 | | | 0.000 | | | 0.000 | 0.609 | 0.618 | -0.009 |
| 1997 | 11 | 1 | 7.188 | 7.19 | -0.002 | 3.184 | 3.184 | 0.000 | 29.292 | 29.275 | 0.017 | | | 0.000 | | | 0.000 | 0.583 | 0.571 | 0.012 |
| 1997 | 11 | 2 | 6.984 | 6.984 | 0.000 | 3.128 | 3.128 | 0.000 | 40.898 | 40.885 | 0.013 | | | 0.000 | | | 0.000 | 0.625 | 0.626 | -0.001 |
| 1997 | 11 | 2 | 6.984 | 6.984 | 0.000 | 3.128 | 3.128 | 0.000 | 40.898 | 40.886 | 0.012 | | | 0.000 | | | 0.000 | 0.625 | 0.626 | -0.001 |
| 1997 | 11 | 3 | 6.865 | 6.867 | -0.002 | 3.095 | 3.096 | -0.001 | 47.964 | 47.953 | 0.011 | | | 0.000 | | | 0.000 | 0.664 | 0.662 | 0.002 |
| 1997 | 11 | 4 | 6.63 | 6.652 | -0.022 | 3.105 | 3.107 | -0.002 | 130.772 | 131.276 | -0.504 | | | 0.000 | | | 0.000 | 0.366 | 0.359 | 0.007 |
| 1997 | 11 | 5 | 6.438 | 6.445 | -0.007 | 3.101 | 3.102 | -0.001 | 166.643 | 166.638 | 0.005 | | | 0.000 | | | 0.000 | 0.303 | 0.302 | 0.001 |
| 1997 | 11 | 6 | 6.627 | 6.633 | -0.006 | 3.113 | 3.114 | -0.001 | 138.858 | 138.348 | 0.510 | | | 0.000 | | | 0.000 | 0.272 | 0.267 | 0.005 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1997 | 11 | 7 | 6.407 | 6.417 | -0.010 | 3.098 | 3.099 | -0.001 | 164.622 | 164.615 | 0.007 | | | 0.000 | | | 0.000 | 0.245 | 0.241 | 0.004 |
| 1997 | 11 | 8 | 6.461 | 6.474 | -0.013 | 3.102 | 3.103 | -0.001 | 162.06 | 163.102 | -1.042 | | | 0.000 | | | 0.000 | 0.207 | 0.208 | -0.001 |
| 1997 | 11 | 9 | 6.33 | 6.327 | 0.003 | 3.093 | 3.092 | 0.001 | 167.65 | 167.627 | 0.023 | | | 0.000 | | | 0.000 | 0.204 | 0.186 | 0.018 |
| 1997 | 11 | 10 | 6.051 | 6.056 | -0.005 | 3.069 | 3.07 | -0.001 | 167.653 | 167.144 | 0.509 | | | 0.000 | | | 0.000 | 0.212 | 0.213 | -0.001 |
| 1997 | 11 | 11 | 6.107 | 6.129 | -0.022 | 3.067 | 3.07 | -0.003 | 154.518 | 155.018 | -0.500 | | | 0.000 | | | 0.000 | 0.203 | 0.2 | 0.003 |
| 1997 | 11 | 12 | 6.053 | 6.055 | -0.002 | 3.055 | 3.054 | 0.001 | 141.889 | 141.884 | 0.005 | | | 0.000 | | | 0.000 | 0.186 | 0.184 | 0.002 |
| 1997 | 11 | 13 | 7.021 | 7.023 | -0.002 | 3.125 | 3.125 | 0.000 | 64.118 | 64.109 | 0.009 | | | 0.000 | | | 0.000 | 0.382 | 0.377 | 0.005 |
| 1997 | 11 | 14 | 6.994 | 6.992 | 0.002 | 3.111 | 3.11 | 0.001 | 33.818 | 34.328 | -0.510 | | | 0.000 | | | 0.000 | 0.362 | 0.39 | -0.028 |
| 1997 | 11 | 15 | 6.99 | 6.998 | -0.008 | 3.117 | 3.118 | -0.001 | 47.46 | 46.944 | 0.516 | | | 0.000 | | | 0.000 | 0.383 | 0.374 | 0.009 |
| 1997 | 11 | 16 | 6.196 | 6.199 | -0.003 | 3.073 | 3.074 | -0.001 | 147.445 | 147.441 | 0.004 | | | 0.000 | | | 0.000 | 0.254 | 0.25 | 0.004 |
| 1997 | 11 | 17 | 6.312 | 6.309 | 0.003 | 3.072 | 3.072 | 0.000 | 96.459 | 96.427 | 0.032 | | | 0.000 | | | 0.000 | 0.224 | 0.224 | 0.000 |
| 1997 | 11 | 18 | 6.187 | 6.195 | -0.008 | 3.054 | 3.059 | -0.005 | 107.038 | 107.537 | -0.499 | | | 0.000 | | | 0.000 | 0.256 | 0.256 | 0.000 |
| 1997 | 11 | 19 | 5.882 | 5.883 | -0.001 | 3.036 | 3.039 | -0.003 | 115.623 | 116.627 | -1.004 | | | 0.000 | | | 0.000 | 0.22 | 0.212 | 0.008 |
| 1997 | 11 | 20 | 6.068 | 6.074 | -0.006 | 3.04 | 3.04 | 0.000 | 90.878 | 90.367 | 0.511 | | | 0.000 | | | 0.000 | 0.242 | 0.237 | 0.005 |
| 1998 | 2 | 0 | 5.375 | 5.377 | -0.002 | 3.016 | 3.016 | 0.000 | 19.206 | 19.18 | 0.026 | | | 0.000 | | | 0.000 | 0.451 | 0.447 | 0.004 |
| 1998 | 2 | 1 | 5.331 | 5.33 | 0.001 | 3.01 | 3.008 | 0.002 | 23.786 | 23.218 | 0.568 | | | 0.000 | | | 0.000 | 0.444 | 0.429 | 0.015 |
| 1998 | 2 | 2 | 5.286 | 5.286 | 0.000 | 2.992 | 2.992 | 0.000 | 37.393 | 37.352 | 0.041 | | | 0.000 | | | 0.000 | 0.454 | 0.442 | 0.012 |
| 1998 | 2 | 3 | 5.238 | 5.24 | -0.002 | 2.982 | 2.981 | 0.001 | 46.45 | 46.439 | 0.011 | | | 0.000 | | | 0.000 | 0.344 | 0.339 | 0.005 |
| 1998 | 2 | 4 | 5.22 | 5.22 | 0.000 | 2.993 | 2.993 | 0.000 | 139.864 | 143.374 | -3.510 | | | 0.000 | | | 0.000 | 0.33 | 0.34 | -0.010 |
| 1998 | 2 | 5 | 5.249 | 5.252 | -0.003 | 2.995 | 2.995 | 0.000 | 165.633 | 166.131 | -0.498 | | | 0.000 | | | 0.000 | 0.361 | 0.359 | 0.002 |
| 1998 | 2 | 6 | 5.36 | 5.362 | -0.002 | 3.001 | 3.002 | -0.001 | 134.312 | 134.307 | 0.005 | | | 0.000 | | | 0.000 | 0.312 | 0.31 | 0.002 |
| 1998 | 2 | 7 | 5.283 | 5.287 | -0.004 | 3.001 | 3.002 | -0.001 | 161.591 | 162.089 | -0.498 | | | 0.000 | | | 0.000 | 0.33 | 0.328 | 0.002 |
| 1998 | 2 | 8 | 5.554 | 5.555 | -0.001 | 3.026 | 3.027 | -0.001 | 171.19 | 171.186 | 0.004 | | | 0.000 | | | 0.000 | 0.233 | 0.231 | 0.002 |
| 1998 | 2 | 9 | 5.488 | 5.491 | -0.003 | 3.021 | 3.021 | 0.000 | 168.159 | 168.152 | 0.007 | | | 0.000 | | | 0.000 | 0.258 | 0.256 | 0.002 |
| 1998 | 2 | 10 | 5.412 | 5.417 | -0.005 | 3.022 | 3.023 | -0.001 | 169.674 | 169.668 | 0.006 | | | 0.000 | | | 0.000 | 0.21 | 0.207 | 0.003 |
| 1998 | 2 | 11 | 5.645 | 5.647 | -0.002 | 3.042 | 3.042 | 0.000 | 165.633 | 165.123 | 0.510 | | | 0.000 | | | 0.000 | 0.175 | 0.174 | 0.001 |
| 1998 | 2 | 12 | 5.88 | 5.888 | -0.008 | 3.056 | 3.056 | 0.000 | 140.878 | 141.376 | -0.498 | | | 0.000 | | | 0.000 | 0.175 | 0.172 | 0.003 |
| 1998 | 2 | 13 | 5.14 | 5.142 | -0.002 | 2.98 | 2.98 | 0.000 | 80.471 | 80.461 | 0.010 | | | 0.000 | | | 0.000 | 0.345 | 0.343 | 0.002 |
| 1998 | 2 | 14 | 5.141 | 5.143 | -0.002 | 2.963 | 2.963 | 0.000 | 29.797 | 29.275 | 0.522 | | | 0.000 | | | 0.000 | 0.386 | 0.383 | 0.003 |
| 1998 | 2 | 16 | 5.559 | 5.56 | -0.001 | 3.014 | 3.014 | 0.000 | 151.487 | 151.482 | 0.005 | | | 0.000 | | | 0.000 | 0.276 | 0.274 | 0.002 |
| 1998 | 2 | 17 | 5.597 | 5.597 | 0.000 | 3.01 | 3.009 | 0.001 | 87.848 | 87.428 | 0.420 | | | 0.000 | | | 0.000 | 0.292 | 0.288 | 0.004 |
| 1998 | 2 | 18 | 5.836 | 5.825 | 0.011 | 3.036 | 3.034 | 0.002 | 100.988 | 101.467 | -0.479 | | | 0.000 | | | 0.000 | 0.239 | 0.232 | 0.007 |
| 1998 | 2 | 19 | 5.966 | 5.975 | -0.009 | 3.051 | 3.051 | 0.000 | 112.593 | 112.584 | 0.009 | | | 0.000 | | | 0.000 | 0.268 | 0.261 | 0.007 |
| 1998 | 2 | 20 | 6.084 | 6.095 | -0.011 | 3.059 | 3.06 | -0.001 | 91.888 | 91.877 | 0.011 | | | 0.000 | | | 0.000 | 0.273 | 0.265 | 0.008 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1998 | 6 | 0 | 7.889 | 7.896 | -0.007 | 3.255 | 3.25 | 0.005 | 20.214 | 20.675 | -0.461 | | | 0.000 | 55.398 | | 55.398 | 2.521 | 2.496 | 0.025 |
| 1998 | 6 | 1 | 7.925 | 7.919 | 0.006 | 3.281 | 3.281 | 0.000 | 25.257 | 25.73 | -0.473 | | | 0.000 | 74.965 | | 74.965 | 2.016 | 2.017 | -0.001 |
| 1998 | 6 | 2 | 7.841 | 7.849 | -0.008 | 3.252 | 3.254 | -0.002 | 35.347 | 34.828 | 0.519 | | | 0.000 | 7.511 | | 7.511 | 2.69 | 2.66 | 0.030 |
| 1998 | 6 | 3 | 7.603 | 7.595 | 0.008 | 3.22 | 3.224 | -0.004 | 49.983 | 49.967 | 0.016 | | | 0.000 | 2.608 | | 2.608 | 2.115 | 1.946 | 0.169 |
| 1998 | 6 | 4 | 6.831 | 6.828 | 0.003 | 3.161 | 3.162 | -0.001 | 137.848 | 138.345 | -0.497 | | | 0.000 | 2.842 | | 2.842 | 0.886 | 0.817 | 0.069 |
| 1998 | 6 | 5 | 6.646 | 6.636 | 0.010 | 3.135 | 3.139 | -0.004 | 149.971 | 149.965 | 0.006 | | | 0.000 | 2.946 | | 2.946 | 0.643 | 0.63 | 0.013 |
| 1998 | 6 | 6 | 6.271 | 6.259 | 0.012 | 3.1 | 3.102 | -0.002 | 130.279 | 130.77 | -0.491 | | | 0.000 | 4.707 | | 4.707 | 0.645 | 0.63 | 0.015 |
| 1998 | 6 | 7 | 6.357 | 6.349 | 0.008 | 3.112 | 3.112 | 0.000 | 151.206 | 151.707 | -0.501 | | | 0.000 | 2.905 | | 2.905 | 0.585 | 0.566 | 0.019 |
| 1998 | 6 | 8 | 6.254 | 6.225 | 0.029 | 3.092 | 3.097 | -0.005 | 148.961 | 149.459 | -0.498 | | | 0.000 | 0.257 | | 0.257 | 0.494 | 0.468 | 0.026 |
| 1998 | 6 | 9 | 6.161 | 6.14 | 0.021 | 3.081 | 3.087 | -0.006 | 140.373 | 140.366 | 0.007 | | | 0.000 | 4.152 | | 4.152 | 0.427 | 0.411 | 0.016 |
| 1998 | 6 | 10 | 5.907 | 5.893 | 0.014 | 3.058 | 3.065 | -0.007 | 149.466 | 149.459 | 0.007 | | | 0.000 | 6.06 | | 6.060 | 0.4 | 0.398 | 0.002 |
| 1998 | 6 | 11 | 5.95 | 5.945 | 0.005 | 3.065 | 3.071 | -0.006 | 147.951 | 148.449 | -0.498 | | | 0.000 | 2.94 | | 2.940 | 0.52 | 0.493 | 0.027 |
| 1998 | 6 | 12 | 5.582 | 5.595 | -0.013 | 3.027 | 3.032 | -0.005 | 136.837 | 137.335 | -0.498 | | | 0.000 | 0.457 | | 0.457 | 0.467 | 0.464 | 0.003 |
| 1998 | 6 | 13 | 6.67 | 6.672 | -0.002 | 3.108 | 3.111 | -0.003 | 70.176 | 69.663 | 0.513 | | | 0.000 | 5.619 | | 5.619 | 1.25 | 1.221 | 0.029 |
| 1998 | 6 | 14 | 6.922 | 7.003 | -0.081 | 3.079 | 3.081 | -0.002 | 35.14 | 36.342 | -1.202 | | | 0.000 | 3.935 | | 3.935 | 2.408 | 2.861 | -0.453 |
| 1998 | 6 | 15 | 6.793 | 6.727 | 0.066 | 3.092 | 3.1 | -0.008 | 47.459 | 47.441 | 0.018 | | | 0.000 | 5.095 | | 5.095 | 1.47 | 1.416 | 0.054 |
| 1998 | 6 | 16 | 6.186 | 6.167 | 0.019 | 3.079 | 3.084 | -0.005 | 148.456 | 148.448 | 0.008 | | | 0.000 | 6.563 | | 6.563 | 0.479 | 0.47 | 0.009 |
| 1998 | 6 | 17 | 5.975 | 5.953 | 0.022 | 3.029 | 3.039 | -0.010 | 91.383 | 91.879 | -0.496 | | | 0.000 | 2.42 | | 2.420 | 0.779 | 0.778 | 0.001 |
| 1998 | 6 | 18 | 5.798 | 5.803 | -0.005 | 3.008 | 3.017 | -0.009 | 100.978 | 101.475 | -0.497 | | | 0.000 | 0.811 | | 0.811 | 0.892 | 0.874 | 0.018 |
| 1998 | 6 | 19 | 5.746 | 5.747 | -0.001 | 3.021 | 3.027 | -0.006 | 100.988 | 100.97 | 0.018 | | | 0.000 | 0.177 | | 0.177 | 0.677 | 0.651 | 0.026 |
| 1998 | 6 | 20 | 5.692 | 5.683 | 0.009 | 2.997 | 3.01 | -0.013 | 85.828 | 85.818 | 0.010 | | | 0.000 | 0.004 | | 0.004 | 0.899 | 0.852 | 0.047 |
| 1998 | 10 | 0 | 7.458 | 7.483 | -0.025 | 3.102 | 3.108 | -0.006 | 19.206 | 19.664 | -0.458 | | | 0.000 | 4.416 | | 4.416 | 0.84 | 0.792 | 0.048 |
| 1998 | 10 | 1 | 7.421 | 7.421 | 0.000 | 3.136 | 3.136 | 0.000 | 23.239 | 23.201 | 0.038 | | | 0.000 | 3.493 | | 3.493 | 0.704 | 0.694 | 0.010 |
| 1998 | 10 | 2 | 7.337 | 7.353 | -0.016 | 3.1 | 3.107 | -0.007 | 34.843 | 34.819 | 0.024 | | | 0.000 | 2.21 | | 2.210 | 0.714 | 0.7 | 0.014 |
| 1998 | 10 | 3 | 7.306 | 7.311 | -0.005 | 3.11 | 3.113 | -0.003 | 48.974 | 48.458 | 0.516 | | | 0.000 | 1.612 | | 1.612 | 0.664 | 0.656 | 0.008 |
| 1998 | 10 | 5 | 7.406 | 7.408 | -0.002 | 3.151 | 3.152 | -0.001 | 104.513 | 104.002 | 0.511 | | | 0.000 | 0.495 | | 0.495 | 0.505 | 0.5 | 0.005 |
| 1998 | 10 | 6 | 7.405 | 7.407 | -0.002 | 3.151 | 3.153 | -0.002 | 104.513 | 104.002 | 0.511 | | | 0.000 | 0.495 | | 0.495 | 0.505 | 0.5 | 0.005 |
| 1998 | 10 | 7 | 7.095 | 7.095 | 0.000 | 3.152 | 3.151 | 0.001 | 157.044 | 157.039 | 0.005 | | | 0.000 | 0.034 | | 0.034 | 0.357 | 0.354 | 0.003 |
| 1998 | 10 | 8 | 7.138 | 7.144 | -0.006 | 3.154 | 3.155 | -0.001 | 151.999 | 151.986 | 0.013 | | | 0.000 | 0.437 | | 0.437 | 0.324 | 0.322 | 0.002 |
| 1998 | 10 | 9 | 7.102 | 7.112 | -0.010 | 3.151 | 3.154 | -0.003 | 151.999 | 152.493 | -0.494 | | | 0.000 | 0.543 | | 0.543 | 0.325 | 0.323 | 0.002 |
| 1998 | 10 | 10 | 6.922 | 6.924 | -0.002 | 3.137 | 3.138 | -0.001 | 153.508 | 153.502 | 0.006 | | | 0.000 | 0.418 | | 0.418 | 0.283 | 0.282 | 0.001 |
| 1998 | 10 | 11 | 6.823 | 6.826 | -0.003 | 3.128 | 3.129 | -0.001 | 153.009 | 152.996 | 0.013 | | | 0.000 | 0.28 | | 0.280 | 0.287 | 0.282 | 0.005 |
| 1998 | 10 | 12 | 6.812 | 6.82 | -0.008 | 3.121 | 3.122 | -0.001 | 142.899 | 142.891 | 0.008 | | | 0.000 | 0.067 | | 0.067 | 0.507 | 0.506 | 0.001 |
| 1998 | 10 | 13 | 7.432 | 7.451 | -0.019 | 3.13 | 3.141 | -0.011 | 64.134 | 64.6 | -0.466 | | | 0.000 | 2.437 | | 2.437 | 0.579 | 0.556 | 0.023 |

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| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1998 | 10 | 14 | 7.353 | 7.363 | -0.010 | 3.109 | 3.116 | -0.007 | 34.871 | 34.799 | 0.072 | | | 0.000 | 4.976 | | 4.976 | 0.613 | 0.601 | 0.012 |
| 1998 | 10 | 15 | 7.357 | 7.355 | 0.002 | 3.125 | 3.125 | 0.000 | 46.955 | 46.936 | 0.019 | | | 0.000 | 1.171 | | 1.171 | 0.553 | 0.55 | 0.003 |
| 1998 | 10 | 16 | 6.741 | 6.738 | 0.003 | 3.111 | 3.112 | -0.001 | 152.504 | 152.491 | 0.013 | | | 0.000 | 0.707 | | 0.707 | 0.363 | 0.361 | 0.002 |
| 1998 | 10 | 17 | 6.927 | 6.94 | -0.013 | 3.099 | 3.105 | -0.006 | 89.363 | 89.357 | 0.006 | | | 0.000 | 0.348 | | 0.348 | 0.59 | 0.588 | 0.002 |
| 1998 | 10 | 18 | 6.806 | 6.808 | -0.002 | 3.1 | 3.105 | -0.005 | 101.988 | 101.979 | 0.009 | | | 0.000 | 0.015 | | 0.015 | 0.71 | 0.708 | 0.002 |
| 1998 | 12 | 0 | 6.425 | 6.426 | -0.001 | 3.132 | 3.132 | 0.000 | 24.248 | 24.227 | 0.021 | | | 0.000 | 1.883 | | 1.883 | 0.435 | 0.427 | 0.008 |
| 1998 | 12 | 1 | 6.463 | 6.465 | -0.002 | 3.143 | 3.142 | 0.001 | 22.231 | 22.208 | 0.023 | | | 0.000 | 0.576 | | 0.576 | 0.461 | 0.455 | 0.006 |
| 1998 | 12 | 2 | 6.359 | 6.359 | 0.000 | 3.105 | 3.104 | 0.001 | 39.384 | 38.866 | 0.518 | | | 0.000 | 0.119 | | 0.119 | 0.438 | 0.433 | 0.005 |
| 1998 | 12 | 3 | 6.405 | 6.406 | -0.001 | 3.094 | 3.094 | 0.000 | 48.469 | 47.953 | 0.516 | | | 0.000 | 1.823 | D | 1.823 | 0.361 | 0.358 | 0.003 |
| 1998 | 12 | 4 | 6.417 | 6.417 | 0.000 | 3.105 | 3.105 | 0.000 | 138.353 | 137.843 | 0.510 | | | 0.000 | 0.095 | | 0.095 | 0.314 | 0.313 | 0.001 |
| 1998 | 12 | 5 | 6.533 | 6.535 | -0.002 | 3.115 | 3.115 | 0.000 | 151.989 | 151.482 | 0.507 | | | 0.000 | 0.06 | | 0.060 | 0.348 | 0.348 | 0.000 |
| 1998 | 12 | 6 | 6.627 | 6.629 | -0.002 | 3.121 | 3.121 | 0.000 | 124.715 | 124.205 | 0.510 | | | 0.000 | 0.313 | | 0.313 | 0.313 | 0.312 | 0.001 |
| 1998 | 12 | 7 | 6.665 | 6.668 | -0.003 | 3.127 | 3.128 | -0.001 | 130.271 | 130.77 | -0.499 | | | 0.000 | 0.222 | | 0.222 | 0.312 | 0.312 | 0.000 |
| 1998 | 12 | 8 | 6.628 | 6.63 | -0.002 | 3.124 | 3.125 | -0.001 | 145.425 | 145.42 | 0.005 | | | 0.000 | 0.007 | | 0.007 | 0.231 | 0.23 | 0.001 |
| 1998 | 12 | 13 | 6.417 | 6.421 | -0.004 | 3.095 | 3.096 | -0.001 | 71.691 | 72.185 | -0.494 | | | 0.000 | 0.329 | | 0.329 | 0.303 | 0.303 | 0.000 |
| 1998 | 12 | 14 | 6.151 | 6.15 | 0.001 | 3.044 | 3.043 | 0.001 | 33.329 | 32.809 | 0.520 | | | 0.000 | 0.984 | | 0.984 | 0.324 | 0.321 | 0.003 |
| 1998 | 12 | 15 | 6.381 | 6.385 | -0.004 | 3.078 | 3.079 | -0.001 | 50.993 | 51.481 | -0.488 | | | 0.000 | 0.767 | | 0.767 | 0.303 | 0.301 | 0.002 |
| 1998 | 12 | 16 | 6.558 | 6.559 | -0.001 | 3.107 | 3.107 | 0.000 | 153.002 | 152.493 | 0.509 | | | 0.000 | 0.155 | | 0.155 | 0.247 | 0.246 | 0.001 |
| 1998 | 12 | 17 | 6.581 | 6.607 | -0.026 | 3.094 | 3.099 | -0.005 | 75.238 | 75.71 | -0.472 | | | 0.000 | 0.49 | | 0.490 | 0.275 | 0.265 | 0.010 |
| 1998 | 12 | 18 | 6.551 | 6.564 | -0.013 | 3.095 | 3.097 | -0.002 | 101.988 | 102.484 | -0.496 | | | 0.000 | 0.535 | | 0.535 | 0.245 | 0.24 | 0.005 |
| 1998 | 12 | 19 | 6.45 | 6.448 | 0.002 | 3.086 | 3.086 | 0.000 | 112.593 | 112.083 | 0.510 | | | 0.000 | 0.512 | | 0.512 | 0.229 | 0.225 | 0.004 |
| 1998 | 12 | 20 | 6.436 | 6.443 | -0.007 | 3.076 | 3.078 | -0.002 | 81.789 | 81.779 | 0.010 | | | 0.000 | 0.334 | | 0.334 | 0.254 | 0.247 | 0.007 |
| 1999 | 3 | 0 | 4.083 | 4.084 | -0.001 | 2.984 | 2.984 | 0.000 | 23.239 | 23.201 | 0.038 | | | 0.000 | 19.539 | 18.11 | 1.429 | 0.517 | 0.514 | 0.003 |
| 1999 | 3 | 1 | 3.857 | 3.859 | -0.002 | 2.933 | 2.933 | 0.000 | 23.786 | 24.221 | -0.435 | | | 0.000 | 17.268 | 15.979 | 1.289 | 0.483 | 0.481 | 0.002 |
| 1999 | 3 | 2 | 3.888 | 3.888 | 0.000 | 2.932 | 2.932 | 0.000 | 38.867 | 38.361 | 0.506 | | | 0.000 | 3.406 | 3.816 | -0.410 | 0.514 | 0.51 | 0.004 |
| 1999 | 3 | 3 | 3.896 | 3.897 | -0.001 | 2.936 | 2.937 | -0.001 | 49.983 | 49.973 | 0.010 | | | 0.000 | 0.551 | 0.565 | -0.014 | 0.493 | 0.487 | 0.006 |
| 1999 | 3 | 4 | 4.013 | 4.014 | -0.001 | 2.941 | 2.941 | 0.000 | 144.414 | 143.905 | 0.509 | | | 0.000 | 0.305 | 0.3 | 0.005 | 0.426 | 0.424 | 0.002 |
| 1999 | 3 | 5 | 4.071 | 4.073 | -0.002 | 2.947 | 2.948 | -0.001 | 152.497 | 152.491 | 0.006 | | | 0.000 | 0.452 | 0.414 | 0.038 | 0.394 | 0.392 | 0.002 |
| 1999 | 3 | 6 | 4.182 | 4.183 | -0.001 | 2.955 | 2.956 | -0.001 | 138.858 | 138.853 | 0.005 | | | 0.000 | 0.624 | 0.632 | -0.008 | 0.384 | 0.381 | 0.003 |
| 1999 | 3 | 7 | 4.207 | 4.208 | -0.001 | 2.959 | 2.959 | 0.000 | 153.508 | 153.503 | 0.005 | | | 0.000 | 0.552 | 0.581 | -0.029 | 0.353 | 0.351 | 0.002 |
| 1999 | 3 | 8 | 4.24 | 4.241 | -0.001 | 2.963 | 2.963 | 0.000 | 154.525 | 154.512 | 0.013 | | | 0.000 | 0.763 | 0.694 | 0.069 | 0.287 | 0.286 | 0.001 |
| 1999 | 3 | 9 | 4.272 | 4.273 | -0.001 | 2.965 | 2.965 | 0.000 | 150.978 | 150.472 | 0.506 | | | 0.000 | 0.874 | 0.875 | -0.001 | 0.272 | 0.272 | 0.000 |
| 1999 | 3 | 10 | 4.259 | 4.26 | -0.001 | 2.964 | 2.964 | 0.000 | 151.487 | 151.482 | 0.005 | | | 0.000 | 0.832 | 0.83 | 0.002 | 0.251 | 0.251 | 0.000 |
| 1999 | 3 | 11 | 4.238 | 4.239 | -0.001 | 2.961 | 2.962 | -0.001 | 151.992 | 153.615 | -1.623 | | | 0.000 | 0.811 | 0.843 | -0.032 | 0.253 | 0.253 | 0.000 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1999 | 3 | 12 | 4.154 | 4.155 | -0.001 | 2.952 | 2.952 | 0.000 | 135.827 | 135.822 | 0.005 | | | 0.000 | 0.786 | 0.813 | -0.027 | 0.269 | 0.269 | 0.000 |
| 1999 | 3 | 13 | 4.081 | 4.082 | -0.001 | 2.941 | 2.942 | -0.001 | 71.691 | 71.683 | 0.008 | | | 0.000 | 4.182 | 4.423 | -0.241 | 0.423 | 0.42 | 0.003 |
| 1999 | 3 | 14 | 4.189 | 4.191 | -0.002 | 2.935 | 2.935 | 0.000 | 34.842 | 34.323 | 0.519 | | | 0.000 | 15.399 | 16.068 | -0.669 | 0.499 | 0.498 | 0.001 |
| 1999 | 3 | 15 | 4.162 | 4.162 | 0.000 | 2.935 | 2.935 | 0.000 | 51.498 | 50.982 | 0.516 | | | 0.000 | 7.234 | 7.624 | -0.390 | 0.473 | 0.471 | 0.002 |
| 1999 | 3 | 16 | 4.34 | 4.342 | -0.002 | 2.959 | 2.959 | 0.000 | 154.013 | 153.5 | 0.513 | | | 0.000 | 4.272 | 3.722 | 0.550 | 0.364 | 0.363 | 0.001 |
| 1999 | 3 | 17 | 4.357 | 4.362 | -0.005 | 2.955 | 2.956 | -0.001 | 91.888 | 92.383 | -0.495 | | | 0.000 | 3.019 | 2.642 | 0.377 | 0.329 | 0.327 | 0.002 |
| 1999 | 3 | 18 | 4.419 | 4.426 | -0.007 | 2.959 | 2.96 | -0.001 | 106.028 | 106.524 | -0.496 | | | 0.000 | 0.425 | 0.378 | 0.047 | 0.281 | 0.28 | 0.001 |
| 1999 | 3 | 19 | 4.449 | 4.452 | -0.003 | 2.964 | 2.964 | 0.000 | 114.108 | 113.594 | 0.514 | | | 0.000 | 1.175 | 1.047 | 0.128 | 0.269 | 0.267 | 0.002 |
| 1999 | 3 | 20 | 4.429 | 4.429 | 0.000 | 2.96 | 2.96 | 0.000 | 87.848 | 87.337 | 0.511 | | | 0.000 | 2.198 | 2.266 | -0.068 | 0.284 | 0.283 | 0.001 |
| 1999 | 6 | 0 | 7.618 | 7.62 | -0.002 | 2.932 | 3.199 | -0.267 | 24.752 | 24.732 | 0.020 | | | 0.000 | 10.416 | 14.77 | -4.354 | 2 | 3.124 | -1.124 |
| 1999 | 6 | 0 | 7.618 | 7.62 | -0.002 | 2.932 | 3.199 | -0.267 | 24.752 | 24.732 | 0.020 | | | 0.000 | 10.416 | 14.771 | -4.355 | 2 | 3.124 | -1.124 |
| 1999 | 6 | 1 | 7.066 | 7.071 | -0.005 | 3.222 | 3.221 | 0.001 | 25.267 | 24.503 | 0.764 | | | 0.000 | 20.452 | 21.436 | -0.984 | 2.114 | 2.124 | -0.010 |
| 1999 | 6 | 2 | 6.778 | 6.79 | -0.012 | 3.155 | 3.154 | 0.001 | 40.898 | 40.381 | 0.517 | | | 0.000 | 15.789 | 17.336 | -1.547 | 2.91 | 2.925 | -0.015 |
| 1999 | 6 | 3 | 6.363 | 6.378 | -0.015 | 3.129 | 3.129 | 0.000 | 49.478 | 48.963 | 0.515 | | | 0.000 | 11.165 | 11.671 | -0.506 | 2.125 | 2.112 | 0.013 |
| 1999 | 6 | 4 | 5.209 | 5.197 | 0.012 | 3.039 | 3.039 | 0.000 | 143.404 | 143.397 | 0.007 | | | 0.000 | 3.405 | 3.093 | 0.312 | 0.807 | 0.791 | 0.016 |
| 1999 | 6 | 5 | 5.295 | 5.309 | -0.014 | 3.04 | 3.041 | -0.001 | 153.508 | 151.482 | 2.026 | | | 0.000 | 2.998 | 3.495 | -0.497 | 0.884 | 0.894 | -0.010 |
| 1999 | 6 | 6 | 5.205 | 5.21 | -0.005 | 3.035 | 3.036 | -0.001 | 140.878 | 140.368 | 0.510 | | | 0.000 | 0.938 | 1.086 | -0.148 | 0.792 | 0.757 | 0.035 |
| 1999 | 6 | 7 | 5.084 | 5.082 | 0.002 | 3.03 | 3.032 | -0.002 | 153.508 | 153.501 | 0.007 | | | 0.000 | 0.023 | 0.02 | 0.003 | 0.643 | 0.586 | 0.057 |
| 1999 | 6 | 8 | 4.836 | 4.828 | 0.008 | 3.01 | 3.008 | 0.002 | 153.508 | 153.501 | 0.007 | | | 0.000 | 0.075 | 0.07 | 0.005 | 0.63 | 0.617 | 0.013 |
| 1999 | 6 | 9 | 4.931 | 4.932 | -0.001 | 3.017 | 3.017 | 0.000 | 156.545 | 156.037 | 0.508 | | | 0.000 | 0.093 | 0.097 | -0.004 | 0.602 | 0.562 | 0.040 |
| 1999 | 6 | 10 | 4.711 | 4.707 | 0.004 | 2.991 | 2.994 | -0.003 | 154.518 | 154.511 | 0.007 | | | 0.000 | 0.141 | 0.132 | 0.009 | 0.399 | 0.401 | -0.002 |
| 1999 | 6 | 11 | 4.525 | 4.522 | 0.003 | 2.978 | 2.977 | 0.001 | 153.508 | 152.493 | 1.015 | | | 0.000 | 0.155 | 0.312 | -0.157 | 0.391 | 0.383 | 0.008 |
| 1999 | 6 | 12 | 4.402 | 4.401 | 0.001 | 2.957 | 2.956 | 0.001 | 141.391 | 141.882 | -0.491 | | | 0.000 | 0.037 | 0.175 | -0.138 | 0.496 | 0.488 | 0.008 |
| 1999 | 6 | 13 | 5.786 | 5.852 | -0.066 | 3.081 | 3.083 | -0.002 | 70.674 | 69.659 | 1.015 | | | 0.000 | 9.538 | 7.074 | 2.464 | 1.175 | 1.223 | -0.048 |
| 1999 | 6 | 14 | 6.113 | 6.112 | 0.001 | 3.073 | 3.079 | -0.006 | 34.842 | 34.842 | 0.000 | | | 0.000 | 9.219 | 4.928 | 4.291 | 1.607 | 1.675 | -0.068 |
| 1999 | 6 | 15 | 5.856 | 5.863 | -0.007 | 3.043 | 3.045 | -0.002 | 47.964 | 47.953 | 0.011 | | | 0.000 | 4.975 | 5.506 | -0.531 | 1.283 | 1.272 | 0.011 |
| 1999 | 6 | 17 | 4.908 | 4.908 | 0.000 | 2.99 | 2.991 | -0.001 | 92.909 | 92.889 | 0.020 | | | 0.000 | 1.891 | 2.179 | -0.288 | 0.902 | 0.825 | 0.077 |
| 1999 | 6 | 18 | 4.577 | 4.583 | -0.006 | 2.966 | 2.968 | -0.002 | 107.038 | 107.534 | -0.496 | | | 0.000 | 1.4 | 1.63 | -0.230 | 0.559 | 0.535 | 0.024 |
| 1999 | 6 | 19 | 4.463 | 4.47 | -0.007 | 2.946 | 2.947 | -0.001 | 116.128 | 115.618 | 0.510 | | | 0.000 | 1.139 | 1.485 | -0.346 | 0.603 | 0.547 | 0.056 |
| 1999 | 6 | 20 | 4.518 | 4.521 | -0.003 | 2.924 | 2.929 | -0.005 | 87.343 | 86.832 | 0.511 | | | 0.000 | 0.01 | 0.824 | -0.814 | 0.529 | 0.533 | -0.004 |
| 1999 | 6 | 21 | 4.467 | 4.477 | -0.010 | 2.94 | 2.947 | -0.007 | 93.403 | 93.396 | 0.007 | | | 0.000 | 0.07 | 0.035 | 0.035 | 0.865 | 0.858 | 0.007 |
| 1999 | 6 | 22 | 5.385 | 5.387 | -0.002 | 3.012 | 3.007 | 0.005 | 70.681 | 70.168 | 0.513 | | | 0.000 | 1.319 | 1.385 | -0.066 | 1.075 | 1.052 | 0.023 |
| 1999 | 6 | 23 | 5.538 | 5.433 | 0.105 | 2.965 | 2.953 | 0.012 | 31.342 | 31.288 | 0.054 | | | 0.000 | 0.023 | 0.885 | -0.862 | 2.765 | 2.671 | 0.094 |
| 1999 | 7 | 0 | 7.732 | 7.684 | 0.048 | 3.212 | 3.215 | -0.003 | 24.752 | 25.223 | -0.471 | | | 0.000 | 10.508 | 10.744 | -0.236 | 1.744 | 1.621 | 0.123 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1999 | 7 | 1 | 7.642 | 7.647 | -0.005 | 3.258 | 3.259 | -0.001 | 27.274 | 26.751 | 0.523 | | | 0.000 | 8.88 | 9.303 | -0.423 | 1.216 | 1.202 | 0.014 |
| 1999 | 7 | 2 | 7.644 | 7.653 | -0.009 | 3.23 | 3.229 | 0.001 | 38.88 | 37.921 | 0.959 | | | 0.000 | 5.518 | 5.838 | -0.320 | 1.279 | 1.269 | 0.010 |
| 1999 | 7 | 3 | 7.454 | 7.361 | 0.093 | 3.166 | 3.171 | -0.005 | 46.45 | 47.926 | -1.476 | | | 0.000 | 7.923 | 7.838 | 0.085 | 1.368 | 1.314 | 0.054 |
| 1999 | 7 | 4 | 5.671 | 5.639 | 0.032 | 3.064 | 3.066 | -0.002 | 141.384 | 142.389 | -1.005 | | | 0.000 | 2.145 | 1.6 | 0.545 | 0.555 | 0.548 | 0.007 |
| 1999 | 7 | 5 | 5.463 | 5.437 | 0.026 | 3.047 | 3.049 | -0.002 | 151.999 | 152.992 | -0.993 | | | 0.000 | 4.893 | 3.95 | 0.943 | 0.52 | 0.502 | 0.018 |
| 1999 | 7 | 6 | 5.553 | 5.543 | 0.010 | 3.048 | 3.049 | -0.001 | 131.289 | 131.779 | -0.490 | | | 0.000 | 2.101 | 2.026 | 0.075 | 0.521 | 0.518 | 0.003 |
| 1999 | 7 | 7 | 5.401 | 5.395 | 0.006 | 3.04 | 3.043 | -0.003 | 152.497 | 152.996 | -0.499 | | | 0.000 | 1.385 | 1.364 | 0.021 | 0.485 | 0.481 | 0.004 |
| 1999 | 7 | 8 | 5.229 | 5.221 | 0.008 | 3.023 | 3.024 | -0.001 | 151.999 | 151.986 | 0.013 | | | 0.000 | 0.596 | 0.646 | -0.050 | 0.575 | 0.539 | 0.036 |
| 1999 | 7 | 9 | 5.231 | 5.223 | 0.008 | 3.022 | 3.024 | -0.002 | 153.508 | 153.501 | 0.007 | | | 0.000 | 1.309 | 1.395 | -0.086 | 0.576 | 0.543 | 0.033 |
| 1999 | 7 | 10 | 5.07 | 5.083 | -0.013 | 3.009 | 3.013 | -0.004 | 153.009 | 154.002 | -0.993 | | | 0.000 | 0.991 | 0.862 | 0.129 | 0.356 | 0.347 | 0.009 |
| 1999 | 7 | 11 | 4.888 | 4.882 | 0.006 | 2.987 | 2.997 | -0.010 | 155.023 | 156.028 | -1.005 | | | 0.000 | 2.091 | 1.105 | 0.986 | 0.329 | 0.33 | -0.001 |
| 1999 | 7 | 12 | 4.868 | 4.865 | 0.003 | 2.979 | 2.98 | -0.001 | 141.896 | 141.882 | 0.014 | | | 0.000 | 0.004 | 0.833 | -0.829 | 0.878 | 0.823 | 0.055 |
| 1999 | 7 | 13 | 6.305 | 6.297 | 0.008 | 3.087 | 3.091 | -0.004 | 71.186 | 71.173 | 0.013 | | | 0.000 | 14.111 | 12.257 | 1.854 | 0.899 | 0.896 | 0.003 |
| 1999 | 7 | 14 | 6.899 | 6.903 | -0.004 | 3.111 | 3.117 | -0.006 | 34.842 | 34.817 | 0.025 | | | 0.000 | 12.551 | 14.473 | -1.922 | 1.12 | 1.131 | -0.011 |
| 1999 | 7 | 15 | 6.254 | 6.239 | 0.015 | 3.078 | 3.081 | -0.003 | 54.021 | 54.513 | -0.492 | | | 0.000 | 7.449 | 10.962 | -3.513 | 0.749 | 0.746 | 0.003 |
| 1999 | 7 | 16 | 5.105 | 5.089 | 0.016 | 3.006 | 3.011 | -0.005 | 151.992 | 152.49 | -0.498 | | | 0.000 | 5.394 | 4.536 | 0.858 | 0.378 | 0.378 | 0.000 |
| 1999 | 7 | 17 | 5.41 | 5.395 | 0.015 | 3.004 | 3.008 | -0.004 | 82.811 | 83.293 | -0.482 | | | 0.000 | 8.041 | 8.098 | -0.057 | 0.456 | 0.459 | -0.003 |
| 1999 | 7 | 18 | 5.036 | 5.037 | -0.001 | 2.978 | 2.98 | -0.002 | 101.483 | 100.972 | 0.511 | | | 0.000 | 2.529 | 5.088 | -2.559 | 0.558 | 0.552 | 0.006 |
| 1999 | 7 | 19 | 4.683 | 4.688 | -0.005 | 2.939 | 2.948 | -0.009 | 111.087 | 111.576 | -0.489 | | | 0.000 | 1.339 | 2.501 | -1.162 | 0.424 | 0.422 | 0.002 |
| 1999 | 7 | 19 | 4.683 | 4.688 | -0.005 | 2.939 | 2.949 | -0.010 | 111.087 | 111.576 | -0.489 | | | 0.000 | 1.339 | 2.501 | -1.162 | 0.424 | 0.422 | 0.002 |
| 1999 | 7 | 20 | 4.877 | 4.895 | -0.018 | 2.918 | 2.936 | -0.018 | 85.323 | 85.818 | -0.495 | | | 0.000 | 0.005 | 0.096 | -0.091 | 1.677 | 1.629 | 0.048 |
| 1999 | 7 | 21 | 5.164 | 5.17 | -0.006 | 2.962 | 2.969 | -0.007 | 97.948 | 97.938 | 0.010 | | | 0.000 | 0.004 | 0.808 | -0.804 | 1.477 | 1.421 | 0.056 |
| 1999 | 7 | 22 | 6.098 | 6.107 | -0.009 | 3.041 | 3.044 | -0.003 | 70.176 | 69.663 | 0.513 | | | 0.000 | 7.467 | 8.535 | -1.068 | 0.591 | 0.588 | 0.003 |
| 1999 | 7 | 23 | 6.073 | 5.982 | 0.091 | 2.97 | 2.958 | 0.012 | 30.301 | 30.285 | 0.016 | | | 0.000 | 1.358 | 6.319 | -4.961 | 1.297 | 1.247 | 0.050 |
| 1999 | 8 | 0 | 9.458 | 9.422 | 0.036 | 3.101 | 3.109 | -0.008 | 17.19 | 17.655 | -0.465 | 11.028 | 10.739 | 0.289 | 2.667 | 2.472 | 0.195 | 7.173 | 6.895 | 0.278 |
| 1999 | 8 | 1 | 7.811 | 7.808 | 0.003 | 3.191 | 3.193 | -0.002 | 24.248 | 24.216 | 0.032 | 11.605 | 11.354 | 0.251 | 8.006 | 6.884 | 1.122 | 2.552 | 2.508 | 0.044 |
| 1999 | 8 | 2 | 7.849 | 7.849 | 0.000 | 3.206 | 3.207 | -0.001 | 40.394 | 40.88 | -0.486 | 14.141 | 13.977 | 0.164 | 5.683 | 5.928 | -0.245 | 2.435 | 2.409 | 0.026 |
| 1999 | 8 | 3 | 7.701 | 7.712 | -0.011 | 3.155 | 3.156 | -0.001 | 52.002 | 51.487 | 0.515 | 14.065 | 13.844 | 0.221 | 12.515 | 13.073 | -0.558 | 2.859 | 2.774 | 0.085 |
| 1999 | 8 | 4 | 6.387 | 6.368 | 0.019 | 3.1 | 3.103 | -0.003 | 137.855 | 138.349 | -0.494 | 17.333 | 17.315 | 0.018 | 0.86 | 0.586 | 0.274 | 2.276 | 2.144 | 0.132 |
| 1999 | 8 | 5 | 6.176 | 6.174 | 0.002 | 3.081 | 3.085 | -0.004 | 153.508 | 153.501 | 0.007 | 18.037 | 17.912 | 0.125 | 2.979 | 3.341 | -0.362 | 2.089 | 1.988 | 0.101 |
| 1999 | 8 | 6 | 6.213 | 6.206 | 0.007 | 3.082 | 3.089 | -0.007 | 138.36 | 138.854 | -0.494 | 19.123 | 19.078 | 0.045 | 0.66 | 0.411 | 0.249 | 1.898 | 1.773 | 0.125 |
| 1999 | 8 | 7 | 6.129 | 6.13 | -0.001 | 3.071 | 3.077 | -0.006 | 146.94 | 146.933 | 0.007 | 24.386 | 24.331 | 0.055 | 0.911 | 0.616 | 0.295 | 2.446 | 2.374 | 0.072 |
| 1999 | 8 | 8 | 6.051 | 6.075 | -0.024 | 3.069 | 3.067 | 0.002 | 135.322 | 133.297 | 2.025 | 19.5 | 19.398 | 0.102 | 0.9 | 0.986 | -0.086 | 1.526 | 1.526 | 0.000 |
| 1999 | 8 | 9 | 5.936 | 5.931 | 0.005 | 3.055 | 3.06 | -0.005 | 139.868 | 140.366 | -0.498 | 20.57 | 20.466 | 0.104 | 0.738 | 0.712 | 0.026 | 1.128 | 1.077 | 0.051 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1999 | 8 | 10 | 5.774 | 5.788 | -0.014 | 3.043 | 3.043 | 0.000 | 137.848 | 137.338 | 0.510 | 59.414 | 59.016 | 0.398 | 1.809 | 2.2 | -0.391 | 0.842 | 0.817 | 0.025 |
| 1999 | 8 | 11 | 5.558 | 5.563 | -0.005 | 3.03 | 3.035 | -0.005 | 153.002 | 152.49 | 0.512 | 82.645 | 82.299 | 0.346 | 0.635 | 0.775 | -0.140 | 1.179 | 1.159 | 0.020 |
| 1999 | 8 | 12 | 5.546 | 5.551 | -0.005 | 3.007 | 3.011 | -0.004 | 141.889 | 142.386 | -0.497 | 60.295 | 60.095 | 0.200 | 2.095 | 2.035 | 0.060 | 0.888 | 0.891 | -0.003 |
| 1999 | 8 | 13 | 7.213 | 7.195 | 0.018 | 3.129 | 3.139 | -0.010 | 66.642 | 67.643 | -1.001 | 24.472 | 24.316 | 0.156 | 0.094 | 0.042 | 0.052 | 5.657 | 5.164 | 0.493 |
| 1999 | 8 | 14 | 7.604 | 7.598 | 0.006 | 3.117 | 3.099 | 0.018 | 32.824 | 32.809 | 0.015 | 24.558 | 24.017 | 0.541 | 0.3 | 0.386 | -0.086 | 8.542 | 7.942 | 0.600 |
| 1999 | 8 | 15 | 7.162 | 7.149 | 0.013 | 3.114 | 3.107 | 0.007 | 51.013 | 51.332 | -0.319 | 24.596 | 24.307 | 0.289 | 0.196 | 0.273 | -0.077 | 6.451 | 5.792 | 0.659 |
| 1999 | 8 | 16 | 5.46 | 5.46 | 0.000 | 3.024 | 3.029 | -0.005 | 151.992 | 152.49 | -0.498 | 32.736 | 32.637 | 0.099 | 0.424 | 0.388 | 0.036 | 2.143 | 2.083 | 0.060 |
| 1999 | 8 | 17 | 6.13 | 6.142 | -0.012 | 3.022 | 3.04 | -0.018 | 77.75 | 77.739 | 0.011 | 30.71 | 30.377 | 0.333 | 4.376 | 3.6 | 0.776 | 3.758 | 3.823 | -0.065 |
| 1999 | 8 | 18 | 5.643 | 5.637 | 0.006 | 3.022 | 3.022 | 0.000 | 91.899 | 91.879 | 0.020 | 32.326 | 32.124 | 0.202 | 0.424 | 1.037 | -0.613 | 1.603 | 1.506 | 0.097 |
| 1999 | 8 | 19 | 5.358 | 5.364 | -0.006 | 2.98 | 2.989 | -0.009 | 113.098 | 113.595 | -0.497 | 46.421 | 46.23 | 0.191 | 0.411 | 0.414 | -0.003 | 0.795 | 0.798 | -0.003 |
| 1999 | 8 | 20 | 5.958 | 5.971 | -0.013 | 2.953 | 2.978 | -0.025 | 65.128 | 64.609 | 0.519 | 91.498 | 91.12 | 0.378 | 1.185 | 1.02 | 0.165 | 0.884 | 0.894 | -0.010 |
| 1999 | 8 | 22 | 6.811 | 6.771 | 0.040 | 3.072 | 3.098 | -0.026 | 70.176 | 70.674 | -0.498 | 23.283 | 23.185 | 0.098 | 4.907 | 3.088 | 1.819 | 1.71 | 1.596 | 0.114 |
| 1999 | 10 | 1 | 7.365 | 7.366 | -0.001 | 3.134 | 3.134 | 0.000 | 29.292 | 29.264 | 0.028 | 13.984 | 13.771 | 0.213 | 0.148 | 0.136 | 0.012 | 2.193 | 2.19 | 0.003 |
| 1999 | 10 | 2 | 7.276 | 7.277 | -0.001 | 3.133 | 3.133 | 0.000 | 40.394 | 39.876 | 0.518 | 15.849 | 15.521 | 0.328 | 0.803 | 0.817 | -0.014 | 1.906 | 1.873 | 0.033 |
| 1999 | 10 | 3 | 7.168 | 7.176 | -0.008 | 3.111 | 3.112 | -0.001 | 48.974 | 48.458 | 0.516 | 18.221 | 17.931 | 0.290 | 1.535 | 1.507 | 0.028 | 1.796 | 1.767 | 0.029 |
| 1999 | 10 | 4 | 6.517 | 6.523 | -0.006 | 3.088 | 3.089 | -0.001 | 137.848 | 137.338 | 0.510 | 21.446 | 21.312 | 0.134 | 0.585 | 0.612 | -0.027 | 1.072 | 1.048 | 0.024 |
| 1999 | 10 | 5 | 6.463 | 6.464 | -0.001 | 3.085 | 3.085 | 0.000 | 151.487 | 151.482 | 0.005 | 19.804 | 19.672 | 0.132 | 0.685 | 0.666 | 0.019 | 0.974 | 0.951 | 0.023 |
| 1999 | 10 | 6 | 6.76 | 6.775 | -0.015 | 3.097 | 3.1 | -0.003 | 133.807 | 132.789 | 1.018 | 13.199 | 13.176 | 0.023 | 0.678 | 0.565 | 0.113 | 0.901 | 0.877 | 0.024 |
| 1999 | 10 | 7 | 6.472 | 6.472 | 0.000 | 3.083 | 3.09 | -0.007 | 150.476 | 151.482 | -1.006 | 10.569 | 10.536 | 0.033 | 0.104 | 0.071 | 0.033 | 0.726 | 0.685 | 0.041 |
| 1999 | 10 | 8 | 6.444 | 6.452 | -0.008 | 3.073 | 3.081 | -0.008 | 154.013 | 154.513 | -0.500 | 10.606 | 10.568 | 0.038 | 0.275 | 0.153 | 0.122 | 0.704 | 0.673 | 0.031 |
| 1999 | 10 | 9 | 6.269 | 6.274 | -0.005 | 3.058 | 3.066 | -0.008 | 152.497 | 152.997 | -0.500 | 11.381 | 11.349 | 0.032 | 0.967 | 0.552 | 0.415 | 0.771 | 0.73 | 0.041 |
| 1999 | 10 | 10 | 6.213 | 6.217 | -0.004 | 3.055 | 3.061 | -0.006 | 153.508 | 154.006 | -0.498 | 12.678 | 12.602 | 0.076 | 2.03 | 1.7 | 0.330 | 0.705 | 0.689 | 0.016 |
| 1999 | 10 | 11 | 6.125 | 6.125 | 0.000 | 3.044 | 3.048 | -0.004 | 152.497 | 152.995 | -0.498 | 11.351 | 11.274 | 0.077 | 1.197 | 1.052 | 0.145 | 0.765 | 0.738 | 0.027 |
| 1999 | 10 | 12 | 5.992 | 5.997 | -0.005 | 3.021 | 3.03 | -0.009 | 142.394 | 142.387 | 0.007 | 12.427 | 11.91 | 0.517 | 0.741 | 0.801 | -0.060 | 0.401 | 0.401 | 0.000 |
| 1999 | 10 | 13 | 7.132 | 7.14 | -0.008 | 3.109 | 3.114 | -0.005 | 68.157 | 68.654 | -0.497 | 19.907 | 19.842 | 0.065 | 2.587 | 1.655 | 0.932 | 0.89 | 0.87 | 0.020 |
| 1999 | 10 | 14 | 7.277 | 7.285 | -0.008 | 3.037 | 3.044 | -0.007 | 27.779 | 27.753 | 0.026 | 21.934 | 21.376 | 0.558 | 8.056 | 6.592 | 1.464 | 1.356 | 1.327 | 0.029 |
| 1999 | 10 | 15 | 7.23 | 7.248 | -0.018 | 3.039 | 3.058 | -0.019 | 30.334 | 31.301 | -0.967 | 26.238 | 26.138 | 0.100 | 4.347 | 2.379 | 1.968 | 1.215 | 1.166 | 0.049 |
| 1999 | 10 | 16 | 5.825 | 5.827 | -0.002 | 3.035 | 3.041 | -0.006 | 151.494 | 151.988 | -0.494 | 20.379 | 20.341 | 0.038 | 0.741 | 0.518 | 0.223 | 0.634 | 0.608 | 0.026 |
| 1999 | 10 | 17 | 6.462 | 6.471 | -0.009 | 3.048 | 3.053 | -0.005 | 91.888 | 91.878 | 0.010 | 23.196 | 23.002 | 0.194 | 1.078 | 0.924 | 0.154 | 0.727 | 0.705 | 0.022 |
| 1999 | 10 | 18 | 6.094 | 6.102 | -0.008 | 3.019 | 3.03 | -0.011 | 104.017 | 105.013 | -0.996 | 12.458 | 12.4 | 0.058 | 0.455 | 0.224 | 0.231 | 0.558 | 0.529 | 0.029 |
| 1999 | 10 | 19 | 5.814 | 5.815 | -0.001 | 3.009 | 3.019 | -0.010 | 110.582 | 111.578 | -0.996 | 18.102 | 18.262 | -0.160 | 0.123 | 0.074 | 0.049 | 0.474 | 0.487 | -0.013 |
| 1999 | 10 | 20 | 6.116 | 6.121 | -0.005 | 3.014 | 3.019 | -0.005 | 82.294 | 82.284 | 0.010 | 28.644 | 28.613 | 0.031 | 0.093 | 0.072 | 0.021 | 0.599 | 0.564 | 0.035 |
| 1999 | 10 | 21 | 6.63 | 6.636 | -0.006 | 3.036 | 3.043 | -0.007 | 91.888 | 92.383 | -0.495 | 16.545 | 16.435 | 0.110 | 0.458 | 0.404 | 0.054 | 0.663 | 0.623 | 0.040 |
| 1999 | 10 | 22 | 7.172 | 7.188 | -0.016 | 3.089 | 3.102 | -0.013 | 69.159 | 68.165 | 0.994 | 14.802 | 14.749 | 0.053 | 1.278 | 1.139 | 0.139 | 1.084 | 1.052 | 0.032 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1999 | 10 | 23 | 7.296 | 7.284 | 0.012 | 3.048 | 3.047 | 0.001 | 30.301 | 30.285 | 0.016 | 15.512 | 15.515 | -0.003 | 1.42 | 1.739 | -0.319 | 1.044 | 1.098 | -0.054 |
| 2000 | 1 | 0 | 5.334 | 5.333 | 0.001 | 3 | 3.002 | -0.002 | 25.761 | 25.237 | 0.524 | 19.966 | 19.406 | 0.560 | 1.053 | 0.87 | 0.183 | 0.757 | 0.748 | 0.009 |
| 2000 | 1 | 1 | 5.424 | 5.428 | -0.004 | 3.015 | 3.016 | -0.001 | 25.257 | 25.223 | 0.034 | 26.208 | 26.237 | -0.029 | 0.959 | 0.901 | 0.058 | 0.841 | 0.856 | -0.015 |
| 2000 | 1 | 2 | 5.312 | 5.315 | -0.003 | 2.991 | 2.991 | 0.000 | 40.647 | 40.88 | -0.233 | 16.59 | 16.482 | 0.108 | 0.565 | 0.454 | 0.111 | 0.874 | 0.87 | 0.004 |
| 2000 | 1 | 3 | 5.111 | 5.114 | -0.003 | 2.944 | 2.945 | -0.001 | 47.964 | 47.953 | 0.011 | 15.574 | 15.575 | -0.001 | 1.579 | 1.287 | 0.292 | 0.883 | 0.883 | 0.000 |
| 2000 | 1 | 4 | 5.567 | 5.568 | -0.001 | 2.999 | 2.999 | 0.000 | 145.425 | 144.915 | 0.510 | 17.076 | 17.018 | 0.058 | 0.311 | 0.32 | -0.009 | 0.588 | 0.591 | -0.003 |
| 2000 | 1 | 5 | 5.644 | 5.645 | -0.001 | 3.009 | 3.01 | -0.001 | 153.002 | 152.998 | 0.004 | 18.635 | 18.559 | 0.076 | 0.272 | 0.288 | -0.016 | 0.552 | 0.553 | -0.001 |
| 2000 | 1 | 6 | 5.709 | 5.71 | -0.001 | 3.006 | 3.007 | -0.001 | 125.725 | 125.72 | 0.005 | 14.299 | 14.207 | 0.092 | 0.008 | 0.007 | 0.001 | 0.629 | 0.625 | 0.004 |
| 2000 | 1 | 7 | 5.778 | 5.781 | -0.003 | 3.023 | 3.023 | 0.000 | 152.497 | 151.482 | 1.015 | 13.18 | 13.117 | 0.063 | 0.007 | 0.006 | 0.001 | 0.491 | 0.488 | 0.003 |
| 2000 | 1 | 8 | 5.806 | 5.808 | -0.002 | 3.024 | 3.025 | -0.001 | 151.989 | 151.482 | 0.507 | 15.565 | 15.498 | 0.067 | 0.009 | 0.009 | 0.000 | 0.548 | 0.546 | 0.002 |
| 2000 | 1 | 9 | 5.859 | 5.858 | 0.001 | 3.033 | 3.033 | 0.000 | 153.002 | 152.493 | 0.509 | 13.255 | 13.193 | 0.062 | 0.095 | 0.096 | -0.001 | 0.446 | 0.442 | 0.004 |
| 2000 | 1 | 10 | 5.762 | 5.764 | -0.002 | 3.029 | 3.029 | 0.000 | 151.992 | 151.482 | 0.510 | 11.238 | 11.163 | 0.075 | 0.151 | 0.155 | -0.004 | 0.363 | 0.36 | 0.003 |
| 2000 | 1 | 11 | 5.695 | 5.702 | -0.007 | 3.026 | 3.027 | -0.001 | 151.992 | 152.49 | -0.498 | 11.673 | 11.623 | 0.050 | 0.42 | 0.339 | 0.081 | 0.316 | 0.313 | 0.003 |
| 2000 | 1 | 12 | 5.706 | 5.71 | -0.004 | 3.015 | 3.015 | 0.000 | 136.837 | 136.327 | 0.510 | 13.783 | 13.601 | 0.182 | 0.565 | 0.594 | -0.029 | 0.295 | 0.294 | 0.001 |
| 2000 | 1 | 13 | 5.572 | 5.572 | 0.000 | 2.973 | 2.974 | -0.001 | 66.137 | 65.624 | 0.513 | 15.374 | 15.197 | 0.177 | 0.027 | 0.025 | 0.002 | 0.702 | 0.695 | 0.007 |
| 2000 | 1 | 14 | 5.494 | 5.502 | -0.008 | 2.952 | 2.955 | -0.003 | 32.824 | 32.809 | 0.015 | 15.584 | 15.583 | 0.001 | 0.016 | 0.013 | 0.003 | 0.752 | 0.751 | 0.001 |
| 2000 | 1 | 21 | 5.821 | 5.82 | 0.001 | 3.009 | 3.009 | 0.000 | 96.433 | 96.427 | 0.006 | 11.471 | 11.347 | 0.124 | 0.746 | 0.825 | -0.079 | 0.259 | 0.257 | 0.002 |
| 2000 | 1 | 22 | 5.744 | 5.762 | -0.018 | 2.989 | 2.993 | -0.004 | 76.235 | 76.732 | -0.497 | 15.895 | 15.89 | 0.005 | 0.173 | 0.142 | 0.031 | 0.627 | 0.62 | 0.007 |
| 2000 | 1 | 23 | 5.889 | 5.915 | -0.026 | 2.98 | 2.985 | -0.005 | 45.945 | 45.934 | 0.011 | 14.89 | 14.886 | 0.004 | 0.058 | 0.049 | 0.009 | 0.639 | 0.629 | 0.010 |
| 2000 | 3 | 0 | 4.881 | 4.881 | 0.000 | 3.006 | 3.006 | 0.000 | 20.214 | 20.677 | -0.463 | 15.626 | 15.315 | 0.311 | 17.268 | 13.941 | 3.327 | 3.667 | 3.722 | -0.055 |
| 2000 | 3 | 1 | 4.866 | 4.866 | 0.000 | 3.015 | 3.015 | 0.000 | 25.027 | 24.742 | 0.285 | 12.029 | 11.571 | 0.458 | 23.229 | 23.533 | -0.304 | 4.092 | 3.971 | 0.121 |
| 2000 | 3 | 2 | 4.696 | 4.696 | 0.000 | 2.972 | 2.972 | 0.000 | 40.904 | 40.387 | 0.517 | 8.313 | 8.158 | 0.155 | 5.018 | 4.967 | 0.051 | 7.653 | 7.535 | 0.118 |
| 2000 | 3 | 3 | 4.69 | 4.691 | -0.001 | 2.964 | 2.964 | 0.000 | 46.45 | 46.439 | 0.011 | 8.403 | 8.249 | 0.154 | 0.891 | 0.898 | -0.007 | 7.447 | 7.201 | 0.246 |
| 2000 | 3 | 4 | 4.705 | 4.706 | -0.001 | 2.973 | 2.973 | 0.000 | 136.332 | 136.325 | 0.007 | 8.823 | 8.785 | 0.038 | 1.726 | 1.36 | 0.366 | 5.088 | 4.967 | 0.121 |
| 2000 | 3 | 5 | 4.77 | 4.772 | -0.002 | 2.982 | 2.983 | -0.001 | 152.497 | 152.998 | -0.501 | 13.652 | 13.654 | -0.002 | 2.682 | 1.633 | 1.049 | 3.191 | 3.088 | 0.103 |
| 2000 | 3 | 6 | 4.755 | 4.756 | -0.001 | 2.978 | 2.977 | 0.001 | 132.291 | 131.781 | 0.510 | 12.783 | 12.701 | 0.082 | 1.028 | 1.17 | -0.142 | 2.734 | 2.625 | 0.109 |
| 2000 | 3 | 7 | 4.76 | 4.76 | 0.000 | 2.978 | 2.978 | 0.000 | 154.518 | 153.503 | 1.015 | 12.827 | 12.754 | 0.073 | 0.516 | 0.566 | -0.050 | 3.578 | 3.317 | 0.261 |
| 2000 | 3 | 8 | 4.754 | 4.757 | -0.003 | 2.977 | 2.977 | 0.000 | 151.992 | 151.986 | 0.006 | 13.058 | 13.025 | 0.033 | 0.181 | 0.14 | 0.041 | 3.924 | 3.675 | 0.249 |
| 2000 | 3 | 9 | 4.752 | 4.753 | -0.001 | 2.977 | 2.977 | 0.000 | 150.476 | 150.472 | 0.004 | 12.693 | 12.625 | 0.068 | 0.856 | 0.829 | 0.027 | 4.055 | 3.87 | 0.185 |
| 2000 | 3 | 10 | 4.798 | 4.804 | -0.006 | 2.98 | 2.981 | -0.001 | 153.002 | 153.501 | -0.499 | 10.84 | 10.795 | 0.045 | 1.859 | 1.645 | 0.214 | 1.408 | 1.357 | 0.051 |
| 2000 | 3 | 11 | 4.765 | 4.768 | -0.003 | 2.976 | 2.977 | -0.001 | 151.992 | 152.492 | -0.500 | 11.052 | 11.05 | 0.002 | 3.541 | 2.836 | 0.705 | 2.039 | 2.02 | 0.019 |
| 2000 | 3 | 12 | 4.774 | 4.774 | 0.000 | 2.977 | 2.977 | 0.000 | 137.848 | 137.843 | 0.005 | 10.511 | 10.44 | 0.071 | 5.014 | 4.831 | 0.183 | 1.421 | 1.399 | 0.022 |
| 2000 | 3 | 13 | 4.768 | 4.769 | -0.001 | 2.968 | 2.968 | 0.000 | 65.143 | 65.117 | 0.026 | 8.754 | 8.678 | 0.076 | 1.539 | 1.618 | -0.079 | 5.024 | 4.849 | 0.175 |
| 2000 | 3 | 14 | 4.818 | 4.819 | -0.001 | 2.955 | 2.955 | 0.000 | 33.359 | 33.31 | 0.049 | 9.251 | 9.131 | 0.120 | 1.707 | 1.663 | 0.044 | 9.172 | 9.086 | 0.086 |

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| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2000 | 3 | 15 | 4.812 | 4.813 | -0.001 | 2.962 | 2.962 | 0.000 | 45.441 | 46.44 | -0.999 | 9.475 | 9.472 | 0.003 | 2.718 | 1.613 | 1.105 | 4.572 | 4.482 | 0.090 |
| 2000 | 3 | 16 | 4.823 | 4.824 | -0.001 | 2.97 | 2.97 | 0.000 | 141.896 | 142.39 | -0.494 | 11.364 | 11.363 | 0.001 | 0.008 | 0.006 | 0.002 | 2.672 | 2.329 | 0.343 |
| 2000 | 3 | 17 | 4.841 | 4.842 | -0.001 | 2.965 | 2.966 | -0.001 | 92.393 | 93.397 | -1.004 | 10.504 | 10.503 | 0.001 | 0.093 | 0.041 | 0.052 | 4.638 | 3.751 | 0.887 |
| 2000 | 3 | 18 | 4.838 | 4.839 | -0.001 | 2.962 | 2.963 | -0.001 | 96.433 | 96.426 | 0.007 | 10.423 | 10.416 | 0.007 | 0.184 | 0.122 | 0.062 | 4.752 | 4.503 | 0.249 |
| 2000 | 3 | 21 | 4.764 | 4.766 | -0.002 | 2.972 | 2.972 | 0.000 | 107.543 | 106.527 | 1.016 | 10.71 | 10.57 | 0.140 | 5.922 | 6.219 | -0.297 | 1.388 | 1.41 | -0.022 |
| 2000 | 3 | 22 | 4.715 | 4.716 | -0.001 | 2.962 | 2.962 | 0.000 | 72.196 | 71.683 | 0.513 | 14.665 | 14.482 | 0.183 | 3.78 | 3.901 | -0.121 | 3.087 | 2.933 | 0.154 |
| 2000 | 3 | 23 | 4.773 | 4.775 | -0.002 | 2.961 | 2.961 | 0.000 | 35.852 | 36.333 | -0.481 | 14.237 | 14.046 | 0.191 | 15.057 | 12.99 | 2.067 | 3.313 | 2.726 | 0.587 |
| 2000 | 5 | 0 | 6.147 | 6.095 | 0.052 | 3.13 | 3.121 | 0.009 | 24.124 | 25.001 | -0.877 | 11.862 | 10.795 | 1.067 | 58.995 | 52.907 | 6.088 | 5.751 | 5.903 | -0.152 |
| 2000 | 5 | 1 | 6.328 | 6.251 | 0.077 | 3.161 | 3.152 | 0.009 | 27.44 | 28.238 | -0.798 | 11.545 | 10.685 | 0.860 | 27.616 | 27.552 | 0.064 | 4.376 | 3.954 | 0.422 |
| 2000 | 5 | 2 | 6.399 | 6.337 | 0.062 | 3.136 | 3.122 | 0.014 | 39.065 | 40.905 | -1.840 | 11.557 | 10.983 | 0.574 | 16.464 | 11.589 | 4.875 | 6.47 | 6.72 | -0.250 |
| 2000 | 5 | 3 | 6.248 | 6.248 | 0.000 | 3.099 | 3.1 | -0.001 | 49.248 | 49.727 | -0.479 | 11.14 | 11.044 | 0.096 | 8.008 | 5.754 | 2.254 | 9.902 | 9.814 | 0.088 |
| 2000 | 5 | 4 | 5.665 | 5.648 | 0.017 | 3.066 | 3.067 | -0.001 | 134.319 | 135.822 | -1.503 | 13.566 | 13.569 | -0.003 | 1.349 | 0.597 | 0.752 | 3.992 | 3.575 | 0.417 |
| 2000 | 5 | 5 | 5.477 | 5.478 | -0.001 | 3.051 | 3.051 | 0.000 | 151.487 | 150.977 | 0.510 | 9.57 | 9.525 | 0.045 | 0.896 | 0.865 | 0.031 | 2.171 | 2.075 | 0.096 |
| 2000 | 5 | 6 | 5.037 | 5.041 | -0.004 | 3.013 | 3.013 | 0.000 | 137.342 | 137.338 | 0.004 | 10.386 | 10.367 | 0.019 | 15.421 | 13.519 | 1.902 | 0.942 | 0.944 | -0.002 |
| 2000 | 5 | 7 | 5.053 | 5.049 | 0.004 | 3.014 | 3.012 | 0.002 | 148.456 | 148.954 | -0.498 | 9.696 | 9.73 | -0.034 | 6.184 | 6.628 | -0.444 | 1.61 | 1.621 | -0.011 |
| 2000 | 5 | 8 | 4.918 | 4.918 | 0.000 | 3.002 | 3.002 | 0.000 | 150.982 | 151.479 | -0.497 | 9.738 | 9.693 | 0.045 | 7.343 | 7.43 | -0.087 | 1.118 | 1.081 | 0.037 |
| 2000 | 5 | 9 | 4.866 | 4.867 | -0.001 | 2.995 | 2.994 | 0.001 | 148.961 | 148.956 | 0.005 | 9.363 | 9.304 | 0.059 | 5.877 | 6.431 | -0.554 | 1.427 | 1.38 | 0.047 |
| 2000 | 5 | 10 | 4.875 | 4.878 | -0.003 | 3 | 3 | 0.000 | 153.002 | 152.493 | 0.509 | 9.21 | 9.161 | 0.049 | 7.261 | 6.876 | 0.385 | 0.541 | 0.541 | 0.000 |
| 2000 | 5 | 11 | 4.84 | 4.845 | -0.005 | 2.994 | 2.995 | -0.001 | 141.889 | 141.884 | 0.005 | 9.585 | 9.401 | 0.184 | 0.945 | 1.294 | -0.349 | 0.431 | 0.429 | 0.002 |
| 2000 | 5 | 13 | 5.387 | 5.39 | -0.003 | 3.033 | 3.033 | 0.000 | 69.671 | 69.663 | 0.008 | 12.328 | 12.194 | 0.134 | 1.572 | 2.331 | -0.759 | 4.41 | 4.064 | 0.346 |
| 2000 | 5 | 15 | 5.253 | 5.215 | 0.038 | 3.004 | 3.005 | -0.001 | 45.945 | 46.439 | -0.494 | 12.359 | 12.35 | 0.009 | 0.166 | 0.127 | 0.039 | 3.642 | 3.407 | 0.235 |
| 2000 | 5 | 16 | 4.968 | 4.959 | 0.009 | 2.995 | 2.995 | 0.000 | 148.961 | 149.461 | -0.500 | 11.3 | 11.292 | 0.008 | 0.012 | 0.01 | 0.002 | 1.943 | 1.832 | 0.111 |
| 2000 | 5 | 17 | 4.968 | 4.965 | 0.003 | 2.983 | 2.984 | -0.001 | 90.878 | 90.367 | 0.511 | 10.907 | 10.817 | 0.090 | 0.712 | 0.836 | -0.124 | 1.758 | 1.7 | 0.058 |
| 2000 | 5 | 18 | 4.922 | 4.925 | -0.003 | 2.983 | 2.983 | 0.000 | 101.003 | 100.467 | 0.536 | 10.133 | 10.139 | -0.006 | 0.411 | 0.954 | -0.543 | 1.562 | 1.617 | -0.055 |
| 2000 | 5 | 19 | 4.855 | 4.859 | -0.004 | 2.983 | 2.983 | 0.000 | 112.088 | 111.578 | 0.510 | 10.422 | 10.315 | 0.107 | 1.028 | 1.07 | -0.042 | 1.293 | 1.261 | 0.032 |
| 2000 | 5 | 19 | 4.855 | 4.859 | -0.004 | 2.983 | 2.984 | -0.001 | 112.088 | 111.578 | 0.510 | 10.422 | 10.315 | 0.107 | 1.028 | 1.07 | -0.042 | 1.293 | 1.261 | 0.032 |
| 2000 | 5 | 20 | 4.842 | 4.843 | -0.001 | 2.98 | 2.981 | -0.001 | 91.383 | 91.372 | 0.011 | 10.211 | 9.995 | 0.216 | 0.585 | 0.705 | -0.120 | 2.027 | 1.671 | 0.356 |
| 2000 | 5 | 22 | 5.27 | 5.268 | 0.002 | 3.002 | 3 | 0.002 | 68.661 | 68.654 | 0.007 | 9.743 | 9.647 | 0.096 | 1.493 | 1.569 | -0.076 | 3.854 | 3.801 | 0.053 |
| 2000 | 5 | 23 | 5.57 | 5.564 | 0.006 | 2.99 | 2.984 | 0.006 | 30.301 | 30.285 | 0.016 | 10.061 | 9.827 | 0.234 | 0.896 | 0.889 | 0.007 | 2.452 | 2.381 | 0.071 |
| 2000 | 6 | 0 | 7.621 | 7.63 | -0.009 | 3.248 | 3.249 | -0.001 | 25.007 | 24.987 | 0.020 | 9.23 | 8.917 | 0.313 | 54.167 | 53.004 | 1.163 | 11.926 | 11.89 | 0.036 |
| 2000 | 6 | 1 | 7.499 | 7.502 | -0.003 | 3.238 | 3.238 | 0.000 | 24.752 | 24.732 | 0.020 | 8.693 | 8.367 | 0.326 | 9.928 | 9.541 | 0.387 | 7.455 | 7.423 | 0.032 |
| 2000 | 6 | 2 | 7.585 | 7.593 | -0.008 | 3.227 | 3.228 | -0.001 | 37.753 | 37.52 | 0.233 | 8.392 | 8.231 | 0.161 | 38.872 | 36.515 | 2.357 | 7.065 | 7.094 | -0.029 |
| 2000 | 6 | 3 | 7.29 | 7.297 | -0.007 | 3.192 | 3.193 | -0.001 | 50.493 | 50.226 | 0.267 | 8.241 | 8.086 | 0.155 | 22.722 | 22.801 | -0.079 | 5.875 | 5.827 | 0.048 |
| 2000 | 6 | 4 | 6.399 | 6.408 | -0.009 | 3.128 | 3.129 | -0.001 | 130.878 | 130.37 | 0.508 | 7.876 | 7.812 | 0.064 | 7.178 | 7.433 | -0.255 | 2.486 | 2.469 | 0.017 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2000 | 6 | 5 | 5.541 | 5.549 | -0.008 | 3.049 | 3.05 | -0.001 | 136.332 | 136.327 | 0.005 | 8.378 | 8.316 | 0.062 | 6.107 | 6.891 | -0.784 | 2.046 | 2.023 | 0.023 |
| 2000 | 6 | 6 | 5.674 | 5.634 | 0.040 | 3.051 | 3.056 | -0.005 | 114.613 | 115.112 | -0.499 | 8.945 | 8.934 | 0.011 | 1.646 | 0.834 | 0.812 | 2.687 | 2.784 | -0.097 |
| 2000 | 6 | 7 | 5.678 | 5.68 | -0.002 | 3.054 | 3.055 | -0.001 | 134.312 | 134.307 | 0.005 | 7.941 | 7.942 | -0.001 | 0.697 | 0.715 | -0.018 | 2.06 | 2.369 | -0.309 |
| 2000 | 6 | 8 | 5.319 | 5.319 | 0.000 | 3.008 | 3.011 | -0.003 | 113.098 | 112.588 | 0.510 | 8.514 | 8.42 | 0.094 | 2.226 | 2.783 | -0.557 | 7.266 | 7.363 | -0.097 |
| 2000 | 6 | 9 | 5.284 | 5.294 | -0.010 | 3.014 | 3.014 | 0.000 | 114.613 | 114.608 | 0.005 | 8.021 | 7.958 | 0.063 | 3.682 | 4.333 | -0.651 | 7.29 | 7.392 | -0.102 |
| 2000 | 6 | 10 | 4.968 | 4.965 | 0.003 | 2.982 | 2.988 | -0.006 | 113.603 | 113.598 | 0.005 | 7.361 | 7.348 | 0.013 | 2.969 | 2.252 | 0.717 | 1.154 | 1.488 | -0.334 |
| 2000 | 6 | 11 | 4.898 | 4.892 | 0.006 | 2.98 | 2.976 | 0.004 | 114.613 | 114.103 | 0.510 | 7.761 | 7.652 | 0.109 | 1.776 | 2.27 | -0.494 | 9.062 | 8.641 | 0.421 |
| 2000 | 6 | 12 | 4.856 | 4.853 | 0.003 | 2.979 | 2.976 | 0.003 | 114.613 | 114.103 | 0.510 | 10.513 | 10.334 | 0.179 | 0.991 | 1.692 | -0.701 | 0.907 | 1.215 | -0.308 |
| 2000 | 6 | 13 | 6.502 | 6.511 | -0.009 | 3.13 | 3.132 | -0.002 | 66.137 | 65.624 | 0.513 | 8.327 | 8.205 | 0.122 | 13.714 | 18.448 | -4.734 | 4.057 | 4.041 | 0.016 |
| 2000 | 6 | 14 | 6.509 | 6.516 | -0.007 | 3.099 | 3.1 | -0.001 | 32.32 | 32.304 | 0.016 | 7.943 | 7.683 | 0.260 | 34.729 | 38.542 | -3.813 | 6.88 | 6.863 | 0.017 |
| 2000 | 6 | 15 | 6.39 | 6.407 | -0.017 | 3.104 | 3.103 | 0.001 | 57.05 | 56.536 | 0.514 | 9.365 | 9.175 | 0.190 | 16.338 | 19.089 | -2.751 | 5.351 | 5.346 | 0.005 |
| 2000 | 6 | 16 | 5.277 | 5.259 | 0.018 | 3.01 | 3.013 | -0.003 | 137.848 | 137.84 | 0.008 | 8.394 | 8.355 | 0.039 | 6.611 | 4.75 | 1.861 | 1.554 | 1.531 | 0.023 |
| 2000 | 6 | 17 | 5.186 | 5.157 | 0.029 | 2.978 | 2.984 | -0.006 | 75.73 | 76.223 | -0.493 | 8.222 | 8.147 | 0.075 | 1.335 | 1.201 | 0.134 | 2.953 | 2.809 | 0.144 |
| 2000 | 6 | 18 | 5.038 | 5.017 | 0.021 | 2.975 | 2.982 | -0.007 | 106.533 | 107.032 | -0.499 | 8.411 | 8.386 | 0.025 | 2.275 | 1.687 | 0.588 | 1.421 | 1.416 | 0.005 |
| 2000 | 6 | 19 | 4.996 | 4.98 | 0.016 | 2.983 | 2.98 | 0.003 | 100.483 | 100.97 | -0.487 | 9.017 | 8.904 | 0.113 | 0.567 | 1.872 | -1.305 | 1.73 | 1.554 | 0.176 |
| 2000 | 6 | 20 | 5.015 | 5.007 | 0.008 | 2.957 | 2.971 | -0.014 | 83.809 | 83.802 | 0.007 | 12.704 | 12.295 | 0.409 | 0.456 | 0.282 | 0.174 | 1.911 | 1.894 | 0.017 |
| 2000 | 6 | 21 | 4.887 | 4.895 | -0.008 | 2.97 | 2.978 | -0.008 | 88.353 | 88.85 | -0.497 | 23.841 | 23.661 | 0.180 | 0.487 | 0.148 | 0.339 | 0.908 | 1.222 | -0.314 |
| 2000 | 7 | 0 | 7.423 | 7.426 | -0.003 | 3.209 | 3.213 | -0.004 | 23.744 | 23.705 | 0.039 | 10.513 | 10.23 | 0.283 | 9.976 | 9.769 | 0.207 | 4.519 | 4.387 | 0.132 |
| 2000 | 7 | 2 | 7.646 | 7.648 | -0.002 | 3.25 | 3.25 | 0.000 | 35.852 | 36.342 | -0.490 | 10.126 | 10.198 | -0.072 | 9.902 | 8.013 | 1.889 | 3.76 | 3.782 | -0.022 |
| 2000 | 7 | 4 | 6.351 | 6.352 | -0.001 | 3.099 | 3.1 | -0.001 | 125.22 | 125.215 | 0.005 | 9.768 | 9.692 | 0.076 | 1.138 | 1.453 | -0.315 | 2.813 | 2.731 | 0.082 |
| 2000 | 7 | 6 | 6.181 | 6.168 | 0.013 | 3.087 | 3.09 | -0.003 | 125.22 | 125.717 | -0.497 | 10.124 | 10.077 | 0.047 | 1.673 | 1.536 | 0.137 | 2.193 | 2.081 | 0.112 |
| 2000 | 7 | 8 | 5.825 | 5.826 | -0.001 | 3.049 | 3.05 | -0.001 | 139.363 | 139.358 | 0.005 | 9.195 | 9.119 | 0.076 | 2.741 | 2.738 | 0.003 | 0.895 | 0.885 | 0.010 |
| 2000 | 7 | 10 | 5.656 | 5.661 | -0.005 | 3.034 | 3.035 | -0.001 | 139.363 | 139.358 | 0.005 | 8.565 | 8.449 | 0.116 | 0.957 | 1.056 | -0.099 | 0.617 | 0.607 | 0.010 |
| 2000 | 7 | 14 | | 7.012 | -7.012 | F | 3.112 | -3.112 | | 34.828 | -34.828 | | 8.15 | -8.150 | | 3.433 | -3.433 | | 2.773 | -2.773 |
| 2000 | 7 | 16 | | 5.901 | -5.901 | | 3.051 | -3.051 | | 135.317 | -135.317 | | 7.661 | -7.661 | | 1.829 | -1.829 | | 1.282 | -1.282 |
| 2000 | 7 | 18 | 5.554 | 5.557 | -0.003 | 2.991 | 2.995 | -0.004 | 106.533 | 106.527 | 0.006 | 8.82 | 8.708 | 0.112 | 3.142 | 4.552 | -1.410 | 1.124 | 1.12 | 0.004 |
| 2000 | 7 | 20 | 5.726 | 5.786 | -0.060 | 2.922 | 2.971 | -0.049 | 54.021 | 55.02 | -0.999 | 72.261 | 67.972 | 4.289 | 0.005 | 0.005 | 0.000 | 0.797 | 0.791 | 0.006 |
| 2000 | 7 | 21 | 5.537 | 5.539 | -0.002 | 2.968 | 2.972 | -0.004 | 71.186 | 71.178 | 0.008 | 42.11 | 42.063 | 0.047 | 0.44 | 0.547 | -0.107 | 0.822 | 0.818 | 0.004 |
| 2000 | 8 | 0 | 9.049 | 9.074 | -0.025 | 3.221 | 3.221 | 0.000 | 22.41 | 22.095 | 0.315 | 8.772 | 8.54 | 0.232 | 10.922 | 11.679 | -0.757 | 5.479 | 5.699 | -0.220 |
| 2000 | 8 | 1 | 8.041 | 8.057 | -0.016 | 3.241 | 3.242 | -0.001 | 23.807 | 23.494 | 0.313 | 8.696 | 8.53 | 0.166 | 27.473 | 40.075 | -12.602 | 3.025 | 3.231 | -0.206 |
| 2000 | 8 | 2 | 8.08 | 8.087 | -0.007 | 3.221 | 3.22 | 0.001 | 35.741 | 35.412 | 0.329 | 8.878 | 8.76 | 0.118 | 19.673 | 20.906 | -1.233 | 3.751 | 3.826 | -0.075 |
| 2000 | 8 | 3 | 7.922 | 7.925 | -0.003 | 3.154 | 3.157 | -0.003 | 44.576 | 44.391 | 0.185 | 8.824 | 8.62 | 0.204 | 9.726 | 10.034 | -0.308 | 3.683 | 3.659 | 0.024 |
| 2000 | 8 | 4 | 6.553 | 6.561 | -0.008 | 3.112 | 3.114 | -0.002 | 137.342 | 136.832 | 0.510 | 7.298 | 7.231 | 0.067 | 4.869 | 4.805 | 0.064 | 1.835 | 1.819 | 0.016 |
| 2000 | 8 | 5 | 6.333 | 6.325 | 0.008 | 3.084 | 3.096 | -0.012 | 145.93 | 146.935 | -1.005 | 7.768 | 7.738 | 0.030 | 0.399 | 0.235 | 0.164 | 0.918 | 0.86 | 0.058 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2000 | 8 | 7 | 6.277 | 6.278 | -0.001 | 3.077 | 3.083 | -0.006 | 148.456 | 148.451 | 0.005 | 7.12 | 7.105 | 0.015 | 1.198 | 0.849 | 0.349 | 1.205 | 1.187 | 0.018 |
| 2000 | 8 | 8 | 6.177 | 6.169 | 0.008 | 3.067 | 3.078 | -0.011 | 153.002 | 154.007 | -1.005 | 7.515 | 7.467 | 0.048 | 0.52 | 0.261 | 0.259 | 1.425 | 1.309 | 0.116 |
| 2000 | 8 | 9 | 6.049 | 6.044 | 0.005 | 3.055 | 3.062 | -0.007 | 153.255 | 154.008 | -0.753 | 7.397 | 7.341 | 0.056 | 0.556 | 0.324 | 0.232 | 1.191 | 1.138 | 0.053 |
| 2000 | 8 | 10 | 5.973 | 5.976 | -0.003 | 3.045 | 3.053 | -0.008 | 153.002 | 153.503 | -0.501 | 8.175 | 8.142 | 0.033 | 0.988 | 0.697 | 0.291 | 0.873 | 0.85 | 0.023 |
| 2000 | 8 | 11 | 5.894 | 5.903 | -0.009 | 3.038 | 3.046 | -0.008 | 150.982 | 150.472 | 0.510 | 8.073 | 8.054 | 0.019 | 1.289 | 0.926 | 0.363 | 0.922 | 0.923 | -0.001 |
| 2000 | 8 | 12 | 5.762 | 5.771 | -0.009 | 3.009 | 3.018 | -0.009 | 136.332 | 136.327 | 0.005 | 38.124 | 38.132 | -0.008 | 0.558 | 0.363 | 0.195 | 1.134 | 1.109 | 0.025 |
| 2000 | 8 | 13 | 7.204 | 7.207 | -0.003 | 3.122 | 3.127 | -0.005 | 64.118 | 64.109 | 0.009 | 8.444 | 8.29 | 0.154 | 2.164 | 2.4 | -0.236 | 1.952 | 1.808 | 0.144 |
| 2000 | 8 | 14 | 7.221 | 7.48 | -0.259 | 3.107 | 3.104 | 0.003 | 34.85 | 33.818 | 1.032 | 8.595 | 8.446 | 0.149 | 3.05 | 4.258 | -1.208 | 2.592 | 2.235 | 0.357 |
| 2000 | 8 | 15 | 7.263 | 7.265 | -0.002 | 3.105 | 3.123 | -0.018 | 51.498 | 51.992 | -0.494 | 8.357 | 8.326 | 0.031 | 1.821 | 1.369 | 0.452 | 1.726 | 1.618 | 0.108 |
| 2000 | 8 | 16 | 5.87 | 5.835 | 0.035 | 3.043 | 3.048 | -0.005 | 144.139 | 151.987 | -7.848 | 7.721 | 7.758 | -0.037 | 1.323 | 0.281 | 1.042 | 1.411 | 1.485 | -0.074 |
| 2000 | 8 | 17 | 5.978 | 5.986 | -0.008 | 3.036 | 3.044 | -0.008 | 98.958 | 98.951 | 0.007 | 8.525 | 8.57 | -0.045 | 0.297 | 0.216 | 0.081 | 1.832 | 1.853 | -0.021 |
| 2000 | 8 | 18 | 5.75 | 5.763 | -0.013 | 3.004 | 3.017 | -0.013 | 107.038 | 107.032 | 0.006 | 9.435 | 9.393 | 0.042 | 0.13 | 0.087 | 0.043 | 1.465 | 1.472 | -0.007 |
| 2000 | 8 | 19 | 5.644 | 5.646 | -0.002 | 2.998 | 2.999 | -0.001 | 112.593 | 112.083 | 0.510 | 44.149 | 43.684 | 0.465 | 0.096 | 0.134 | -0.038 | 0.892 | 0.886 | 0.006 |
| 2000 | 8 | 20 | 5.949 | 5.956 | -0.007 | 3.007 | 3.015 | -0.008 | 85.828 | 85.822 | 0.006 | 93.83 | 93.898 | -0.068 | 0.006 | 0.005 | 0.001 | 1.088 | 1.1 | -0.012 |
| 2000 | 8 | 21 | 6.042 | 6.054 | -0.012 | 3.006 | 3.018 | -0.012 | 94.918 | 94.911 | 0.007 | 44.267 | 44.157 | 0.110 | 0.659 | 0.497 | 0.162 | 1.501 | 1.476 | 0.025 |
| 2000 | 8 | 23 | 6.993 | 6.965 | 0.028 | 2.989 | 3.016 | -0.027 | 30.301 | 30.789 | -0.488 | 10.479 | 10.365 | 0.114 | 1.53 | 1.118 | 0.412 | 2.685 | 2.626 | 0.059 |
| 2000 | 9 | 0 | 8.25 | 8.263 | -0.013 | 3.131 | 3.13 | 0.001 | 23.744 | 23.218 | 0.526 | 10.408 | 10.031 | 0.377 | 5.608 | 5.683 | -0.075 | 4.553 | 4.521 | 0.032 |
| 2000 | 9 | 1 | 7.686 | 7.688 | -0.002 | 3.202 | 3.202 | 0.000 | 25.257 | 25.237 | 0.020 | 10.347 | 9.964 | 0.383 | 10.194 | 10.736 | -0.542 | 3.621 | 3.596 | 0.025 |
| 2000 | 9 | 2 | 7.641 | 7.643 | -0.002 | 3.177 | 3.177 | 0.000 | 36.861 | 36.342 | 0.519 | 9.591 | 9.365 | 0.226 | 6.334 | 6.164 | 0.170 | 4.484 | 4.41 | 0.074 |
| 2000 | 9 | 3 | 7.512 | 7.515 | -0.003 | 3.173 | 3.173 | 0.000 | 50.488 | 49.973 | 0.515 | 9.092 | 8.918 | 0.174 | 5.25 | 5.415 | -0.165 | 2.633 | 2.54 | 0.093 |
| 2000 | 9 | 4 | 6.924 | 6.947 | -0.023 | 3.135 | 3.137 | -0.002 | 136.336 | 136.327 | 0.009 | 9.413 | 9.974 | -0.561 | 1.555 | 2.091 | -0.536 | 1.96 | 1.828 | 0.132 |
| 2000 | 9 | 5 | 6.6 | 6.604 | -0.004 | 3.1 | 3.103 | -0.003 | 148.961 | 148.954 | 0.007 | 8.447 | 8.404 | 0.043 | 0.943 | 0.709 | 0.234 | 2.619 | 2.404 | 0.215 |
| 2000 | 9 | 6 | 6.959 | 6.964 | -0.005 | 3.121 | 3.124 | -0.003 | 120.177 | 120.162 | 0.015 | 7.967 | 7.916 | 0.051 | 0.84 | 1.553 | -0.713 | 2.217 | 2.031 | 0.186 |
| 2000 | 9 | 7 | 6.817 | 6.823 | -0.006 | 3.115 | 3.117 | -0.002 | 128.25 | 127.74 | 0.510 | 8.275 | 8.205 | 0.070 | 2.124 | 2.038 | 0.086 | 1.457 | 1.432 | 0.025 |
| 2000 | 9 | 8 | 6.681 | 6.685 | -0.004 | 3.092 | 3.094 | -0.002 | 135.827 | 135.822 | 0.005 | 8.862 | 8.785 | 0.077 | 0.011 | 0.01 | 0.001 | 1.933 | 1.867 | 0.066 |
| 2000 | 9 | 9 | 6.515 | 6.516 | -0.001 | 3.091 | 3.092 | -0.001 | 146.94 | 146.936 | 0.004 | 8.399 | 8.337 | 0.062 | 0.079 | 0.085 | -0.006 | 2.188 | 2.04 | 0.148 |
| 2000 | 9 | 10 | 6.333 | 6.339 | -0.006 | 3.067 | 3.068 | -0.001 | 139.363 | 138.853 | 0.510 | 8.369 | 8.295 | 0.074 | 0.451 | 0.448 | 0.003 | 1.399 | 1.361 | 0.038 |
| 2000 | 9 | 11 | 6.422 | 6.424 | -0.002 | 3.081 | 3.083 | -0.002 | 130.776 | 131.273 | -0.497 | 8.88 | 8.748 | 0.132 | 0.266 | 0.26 | 0.006 | 0.951 | 0.932 | 0.019 |
| 2000 | 9 | 12 | 6.602 | 6.609 | -0.007 | 3.087 | 3.088 | -0.001 | 96.938 | 96.427 | 0.511 | 14.616 | 14.159 | 0.457 | 0.317 | 0.801 | -0.484 | 0.972 | 0.96 | 0.012 |
| 2000 | 9 | 13 | 7.211 | 7.213 | -0.002 | 3.126 | 3.128 | -0.002 | 68.662 | 68.654 | 0.008 | 10.502 | 10.354 | 0.148 | 4.263 | 4.096 | 0.167 | 3.42 | 3.11 | 0.310 |
| 2000 | 9 | 14 | 7.436 | 7.438 | -0.002 | 3.028 | 3.031 | -0.003 | 31.815 | 31.799 | 0.016 | 12.216 | 11.691 | 0.525 | 11.598 | 12.825 | -1.227 | 3.899 | 3.909 | -0.010 |
| 2000 | 9 | 15 | 7.33 | 7.331 | -0.001 | 3.093 | 3.095 | -0.002 | 44.936 | 44.924 | 0.012 | 11.172 | 10.897 | 0.275 | 3.126 | 3.213 | -0.087 | 1.938 | 1.878 | 0.060 |
| 2000 | 9 | 16 | 6.123 | 6.125 | -0.002 | 3.052 | 3.053 | -0.001 | 153.002 | 152.998 | 0.004 | 9.423 | 9.352 | 0.071 | 3.794 | 2.704 | 1.090 | 1.145 | 1.136 | 0.009 |
| 2000 | 9 | 17 | 6.402 | 6.404 | -0.002 | 3.047 | 3.048 | -0.001 | 83.304 | 83.297 | 0.007 | 9.804 | 9.598 | 0.206 | 1.369 | 1.368 | 0.001 | 1.438 | 1.408 | 0.030 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2000 | 9 | 18 | 6.25 | 6.258 | -0.008 | 3.027 | 3.031 | -0.004 | 100.978 | 100.467 | 0.511 | 15.946 | 13.946 | 2.000 | 0.006 | 0.016 | -0.010 | 1.188 | 1.172 | 0.016 |
| 2000 | 9 | 19 | 6.027 | 6.03 | -0.003 | 3.002 | 3.006 | -0.004 | 111.078 | 111.072 | 0.006 | 25.197 | 25.016 | 0.181 | 0.215 | 0.21 | 0.005 | 1.219 | 1.2 | 0.019 |
| 2000 | 9 | 20 | 6.223 | 6.224 | -0.001 | 2.982 | 2.987 | -0.005 | 85.323 | 85.317 | 0.006 | 62.821 | 56.775 | 6.046 | 0.005 | 0.005 | 0.000 | 1.242 | 1.224 | 0.018 |
| 2000 | 9 | 21 | 6.729 | 6.734 | -0.005 | 3.086 | 3.088 | -0.002 | 91.383 | 90.872 | 0.511 | 39.712 | 38.111 | 1.601 | 0.009 | 0.391 | -0.382 | 1.052 | 1.046 | 0.006 |
| 2000 | 9 | 22 | 7.198 | 7.203 | -0.005 | 3.084 | 3.086 | -0.002 | 72.196 | 71.683 | 0.513 | 8.184 | 8.055 | 0.129 | 1.151 | 1.212 | -0.061 | 5.931 | 5.791 | 0.140 |
| 2000 | 9 | 23 | | 7.381 | -7.381 | | H | -2.974 | | 26.246 | -26.246 | | 9.308 | -9.308 | | 1.361 | -1.361 | | 16.121 | -16.121 |
| 2000 | 10 | 0 | 7.502 | 7.513 | -0.011 | 3.167 | 3.166 | 0.001 | 24.248 | 23.722 | 0.526 | 9.953 | 9.572 | 0.381 | 0.05 | 0.035 | 0.015 | 4.822 | 4.776 | 0.046 |
| 2000 | 10 | 1 | 7.718 | 7.718 | 0.000 | 3.216 | 3.215 | 0.001 | 25.761 | 25.742 | 0.019 | 9.774 | 9.467 | 0.307 | 0.04 | 0.034 | 0.006 | 5.532 | 5.452 | 0.080 |
| 2000 | 10 | 2 | 7.645 | 7.646 | -0.001 | 3.179 | 3.178 | 0.001 | 36.356 | 36.342 | 0.014 | 9.78 | 9.542 | 0.238 | 0.033 | 0.035 | -0.002 | 5.549 | 5.514 | 0.035 |
| 2000 | 10 | 3 | 7.525 | 7.523 | 0.002 | 3.07 | 3.072 | -0.002 | 24.248 | 23.722 | 0.526 | 10.28 | 9.912 | 0.368 | 0.036 | 0.05 | -0.014 | 16.303 | 15.4 | 0.903 |
| 2000 | 10 | 23 | 7.372 | | 7.372 | 2.945 | I | 2.945 | 25.761 | | 25.761 | 9.358 | | 9.358 | 1.935 | | 1.935 | 16.537 | | 16.537 |
| 2000 | 12 | 0 | 5.475 | 5.472 | 0.003 | 3.008 | 3.007 | 0.001 | 24.248 | 24.219 | 0.029 | 23.893 | 23.192 | 0.701 | 3.746 | 3.69 | 0.056 | 1.293 | 1.257 | 0.036 |
| 2000 | 12 | 1 | 5.933 | 5.934 | -0.001 | 3.073 | 3.072 | 0.001 | 23.239 | 23.21 | 0.029 | 27.466 | 26.668 | 0.798 | 3.031 | 2.997 | 0.034 | 1.09 | 1.079 | 0.011 |
| 2000 | 12 | 2 | 5.786 | 5.787 | -0.001 | 3.046 | 3.044 | 0.002 | 37.534 | 37.767 | -0.233 | 27.478 | 27.027 | 0.451 | 1.503 | 1.393 | 0.110 | 1.099 | 1.072 | 0.027 |
| 2000 | 12 | 3 | 5.834 | 5.835 | -0.001 | 3.028 | 3.028 | 0.000 | 46.715 | 46.708 | 0.007 | 29.437 | 29.043 | 0.394 | 0.64 | 0.571 | 0.069 | 1.139 | 1.128 | 0.011 |
| 2000 | 12 | 4 | 6.127 | 6.127 | 0.000 | 3.061 | 3.061 | 0.000 | 130.271 | 130.768 | -0.497 | 29.173 | 29.09 | 0.083 | 0.427 | 0.324 | 0.103 | 1.034 | 1.041 | -0.007 |
| 2000 | 12 | 13 | 6.29 | 6.29 | 0.000 | 3.071 | 3.07 | 0.001 | 62.603 | 62.09 | 0.513 | 32.246 | 31.821 | 0.425 | 0.155 | 0.16 | -0.005 | 0.943 | 0.937 | 0.006 |
| 2000 | 12 | 15 | 6.219 | 6.211 | 0.008 | 3.052 | 3.052 | 0.000 | 39.889 | 39.371 | 0.518 | 32.4 | 31.745 | 0.655 | 0.253 | 0.28 | -0.027 | 0.813 | 0.792 | 0.021 |
| 2000 | 12 | 16 | 6.206 | 6.208 | -0.002 | 3.069 | 3.07 | -0.001 | 140.373 | 140.871 | -0.498 | 28.884 | 28.783 | 0.101 | 0.356 | 0.324 | 0.032 | 0.624 | 0.616 | 0.008 |
| 2000 | 12 | 17 | 6.373 | 6.376 | -0.003 | 3.07 | 3.07 | 0.000 | 75.73 | 75.218 | 0.512 | 24.168 | 23.836 | 0.332 | 1.03 | 1.126 | -0.096 | 0.685 | 0.669 | 0.016 |
| 2001 | 2 | 0 | 5.112 | 5.105 | 0.007 | 3.002 | 3 | 0.002 | 23.744 | 24.732 | -0.988 | 8.772 | 8.515 | 0.257 | 3.275 | 2.86 | 0.415 | 1.373 | 1.377 | -0.004 |
| 2001 | 2 | 1 | 5.215 | 5.204 | 0.011 | 3.01 | 3.01 | 0.000 | 25.257 | 25.237 | 0.020 | 9.559 | 9.269 | 0.290 | 4.383 | 2.878 | 1.505 | 1.263 | 1.268 | -0.005 |
| 2001 | 2 | 2 | 5.044 | 5.048 | -0.004 | 2.97 | 2.971 | -0.001 | 39.384 | 40.381 | -0.997 | 8.547 | 8.402 | 0.145 | 14.308 | 15.551 | -1.243 | 1.43 | 1.436 | -0.006 |
| 2001 | 2 | 3 | 5.337 | 5.338 | -0.001 | 2.996 | 2.997 | -0.001 | 44.431 | 44.924 | -0.493 | 8.126 | 7.997 | 0.129 | 24.739 | 20.955 | 3.784 | 1.016 | 1.012 | 0.004 |
| 2001 | 2 | 4 | 5.385 | 5.385 | 0.000 | 3.013 | 3.013 | 0.000 | 134.817 | 135.822 | -1.005 | 8.595 | 8.566 | 0.029 | 5.619 | 6.406 | -0.787 | 0.995 | 0.997 | -0.002 |
| 2001 | 2 | 5 | 5.455 | 5.458 | -0.003 | 3.019 | 3.019 | 0.000 | 150.982 | 151.482 | -0.500 | 8.688 | 8.66 | 0.028 | 2.259 | 2.323 | -0.064 | 1.021 | 1.023 | -0.002 |
| 2001 | 2 | 6 | 5.643 | 5.644 | -0.001 | 3.036 | 3.036 | 0.000 | 133.301 | 133.297 | 0.004 | 8.601 | 8.558 | 0.043 | 1.819 | 1.739 | 0.080 | 0.815 | 0.81 | 0.005 |
| 2001 | 3 | 1 | 5.119 | 5.12 | -0.001 | 3.037 | 3.037 | 0.000 | 22.735 | 22.208 | 0.527 | 0.996 | 7.749 | -6.753 | 0.056 | 0.059 | -0.003 | 1.302 | 1.29 | 0.012 |
| 2001 | 3 | 2 | 5.149 | 5.151 | -0.002 | 3.006 | 3.006 | 0.000 | 36.343 | 35.837 | 0.506 | 0.932 | 7.446 | -6.514 | 14.55 | 14.751 | -0.201 | 2.264 | 2.279 | -0.015 |
| 2001 | 3 | 2 | 5.149 | 5.151 | -0.002 | 3.006 | 3.006 | 0.000 | 36.343 | 35.837 | 0.506 | 0.932 | 7.446 | -6.514 | 14.55 | 14.751 | -0.201 | 2.264 | 2.278 | -0.014 |
| 2001 | 3 | 3 | 5.269 | 5.202 | 0.067 | 2.996 | 2.989 | 0.007 | 43.433 | 42.4 | 1.033 | 0.892 | 7.077 | -6.185 | 7.289 | 0.059 | 7.230 | 1.649 | 1.171 | 0.478 |
| 2001 | 3 | 4 | 5.219 | 5.221 | -0.002 | 3.001 | 3.001 | 0.000 | 137.339 | 136.832 | 0.507 | 0.93 | J .415 | -6.485 | 0.083 | 0.084 | -0.001 | 1.418 | 1.402 | 0.016 |
| 2001 | 4 | 0 | 5.108 | 5.105 | 0.003 | 3.051 | 3.048 | 0.003 | 25.257 | 24.227 | 1.030 | 12.012 | 11.506 | 0.506 | 0.081 | 0.062 | 0.019 | 1.678 | 1.658 | 0.020 |
| 2001 | 4 | 1 | 5.029 | 5.054 | -0.025 | 3.017 | 3.032 | -0.015 | 24.759 | 24.732 | 0.027 | 6.705 | 9.191 | -2.486 | 0.063 | 0.072 | -0.009 | 1.581 | 1.735 | -0.154 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2001 | 4 | 2 | 5.005 | 5.036 | -0.031 | 3.018 | 3.029 | -0.011 | 38.893 | 38.11 | 0.783 | 6.784 | 9.683 | -2.899 | 0.549 | 0.342 | 0.207 | 1.529 | 1.797 | -0.268 |
| 2001 | 4 | 3 | 5.017 | 5.044 | -0.027 | 3.01 | 3.02 | -0.010 | 46.767 | 46.096 | 0.671 | 6.991 | 10.046 | -3.055 | 1.319 | 0.982 | 0.337 | 1.208 | 1.426 | -0.218 |
| 2001 | 4 | 4 | 4.957 | 4.953 | 0.004 | 2.997 | 2.999 | -0.002 | 130.273 | 129.758 | 0.515 | 4.762 | 8.643 | -3.881 | 1.835 | 1.594 | 0.241 | 0.853 | 1.114 | -0.261 |
| 2001 | 4 | 5 | 5.008 | 5.004 | 0.004 | 3.007 | 3.009 | -0.002 | 152.499 | 151.482 | 1.017 | 5.956 | 10.976 | -5.020 | 8.008 | 12.295 | -4.287 | 0.857 | 0.968 | -0.111 |
| 2001 | 4 | 6 | 5.025 | 5.022 | 0.003 | 3.005 | 3.007 | -0.002 | 132.037 | 131.276 | 0.761 | 5.374 | 9.784 | -4.410 | 1.099 | 1.207 | -0.108 | 0.806 | 0.905 | -0.099 |
| 2001 | 4 | 7 | 4.988 | 4.986 | 0.002 | 3.003 | 3.005 | -0.002 | 146.942 | 146.428 | 0.514 | 5.489 | 10.061 | -4.572 | 0.11 | 0.079 | 0.031 | 0.914 | [illegible] | -0.108 |
| 2001 | 4 | 8 | 4.972 | 4.968 | 0.004 | 3.002 | 2.999 | 0.003 | 153.255 | 153.499 | -0.244 | 5.94 | 10.885 | -4.945 | 0.11 | 0.157 | -0.047 | 0.899 | [illegible] | -0.105 |
| 2001 | 4 | 9 | 4.939 | 4.938 | 0.001 | 2.999 | 3.002 | -0.003 | 154.013 | 154.511 | -0.498 | 5.953 | 10.931 | -4.978 | 0.7 | 0.568 | 0.132 | 0.849 | 0.957 | -0.108 |
| 2001 | 4 | 10 | 4.949 | 4.943 | 0.006 | 2.997 | 2.998 | -0.001 | 138.858 | 138.853 | 0.005 | 5.864 | 10.647 | -4.783 | 2.247 | 2.549 | -0.302 | 0.796 | 0.895 | -0.099 |
| 2001 | 4 | 13 | 4.975 | 4.977 | -0.002 | 2.99 | 2.991 | -0.001 | 69.682 | 69.663 | 0.019 | 4.784 | 8.499 | -3.715 | 8.316 | 10.306 | -1.990 | 1.189 | 1.486 | -0.297 |
| 2001 | 4 | 14 | 5.069 | 5.072 | -0.003 | 2.973 | 2.974 | -0.001 | 33.078 | 32.809 | 0.269 | 4.724 | 8.384 | -3.660 | 12.326 | 13.118 | -0.792 | 2.871 | 3.757 | -0.886 |
| 2001 | 4 | 16 | 5.1 | 5.098 | 0.002 | 2.996 | 2.999 | -0.003 | 152.496 | 151.987 | 0.509 | 5.028 | 9.075 | -4.047 | 2.358 | 2.575 | -0.217 | 1.076 | 1.343 | -0.267 |
| 2001 | 4 | 17 | 5.151 | 5.145 | 0.006 | 2.992 | 2.994 | -0.002 | 70.173 | 70.168 | 0.005 | 4.936 | 8.855 | -3.919 | 3.064 | 2.826 | 0.238 | 2.032 | 2.362 | -0.330 |
| 2001 | 4 | 18 | 5.178 | 5.179 | -0.001 | 2.998 | 3 | -0.002 | 101.985 | 101.982 | 0.003 | 5.052 | 9.099 | -4.047 | 5.323 | 5.704 | -0.381 | 1.365 | 1.634 | -0.269 |
| 2001 | 4 | 19 | 5.228 | 5.223 | 0.005 | 3 | 3.002 | -0.002 | 96.433 | 95.921 | 0.512 | 5.131 | 9.223 | -4.092 | 7.107 | 7.386 | -0.279 | 1.66 | 1.912 | -0.252 |
| 2001 | 4 | 22 | 5.048 | 5.046 | 0.002 | 2.996 | 2.997 | -0.001 | 76.235 | 75.218 | 1.017 | 5.889 | 10.728 | -4.839 | 17.345 | 18.679 | -1.334 | 0.99 | 1.058 | -0.068 |
| 2001 | 4 | 23 | 5.185 | 5.183 | 0.002 | 2.999 | 3 | -0.001 | 30.043 | 29.78 | 0.263 | 6.213 | 10.938 | -4.725 | 38.029 | 36.806 | 1.223 | 0.985 | 1.076 | -0.091 |
| 2001 | 5 | 4 | 5.461 | | 5.461 | 3.058 | | 3.058 | 127.327 | | 127.327 | 2.166 | | 2.166 | 3.656 | | 3.656 | 2.772 | | 2.772 |
| 2001 | 7 | 0 | 8.381 | 8.387 | -0.006 | 3.244 | 3.243 | 0.001 | 23.998 | 23.977 | 0.021 | 44.124 | 42.642 | 1.482 | 76.225 | 65.657 | 10.568 | 6.968 | 6.919 | 0.049 |
| 2001 | 7 | 1 | 7.861 | 7.893 | -0.032 | 3.222 | 3.224 | -0.002 | 21.981 | 21.959 | 0.022 | 44.359 | 42.665 | 1.694 | 104.621 | 115.501 | -10.880 | 3.927 | 3.908 | 0.019 |
| 2001 | 7 | 2 | 7.785 | 7.776 | 0.009 | 3.198 | 3.203 | -0.005 | 34.019 | 34.044 | -0.025 | 45.058 | 44.51 | 0.548 | 34.686 | 43.816 | -9.130 | 3.38 | 3.381 | -0.001 |
| 2001 | 7 | 3 | 7.5 | 7.518 | -0.018 | 3.143 | 3.148 | -0.005 | 48.491 | 48.152 | 0.339 | 45.481 | 44.63 | 0.851 | 27.942 | 30.788 | -2.846 | 2.958 | 2.953 | 0.005 |
| 2001 | 7 | 4 | 6.294 | 6.302 | -0.008 | 3.105 | 3.107 | -0.002 | 144.92 | 144.41 | 0.510 | 45.354 | 45.088 | 0.266 | 1.878 | 2.795 | -0.917 | 1.691 | 1.673 | 0.018 |
| 2001 | 7 | 5 | 6.215 | 6.218 | -0.003 | 3.104 | 3.105 | -0.001 | 154.518 | 154.513 | 0.005 | 63.687 | 63.382 | 0.305 | 1.117 | 1.157 | -0.040 | 1.547 | 1.522 | 0.025 |
| 2001 | 7 | 6 | 6.384 | 6.392 | -0.008 | 3.101 | 3.104 | -0.003 | 123.705 | 123.194 | 0.511 | 49.48 | 49.197 | 0.283 | 2.879 | 3.193 | -0.314 | 2.092 | 2.109 | -0.017 |
| 2001 | 7 | 7 | 6.106 | 6.111 | -0.005 | 3.089 | 3.091 | -0.002 | 153.508 | 152.998 | 0.510 | 46.16 | 45.942 | 0.218 | 2.172 | 2.559 | -0.387 | 1.729 | 1.692 | 0.037 |
| 2001 | 7 | 8 | 5.948 | 5.954 | -0.006 | 3.075 | 3.076 | -0.001 | 155.023 | 155.019 | 0.004 | 46.52 | 46.542 | -0.022 | 0.524 | 0.581 | -0.057 | 1.519 | 1.531 | -0.012 |
| 2001 | 7 | 9 | 5.895 | 5.9 | -0.005 | 3.068 | 3.07 | -0.002 | 151.487 | 151.482 | 0.005 | 46.297 | 45.999 | 0.298 | 0.304 | 0.347 | -0.043 | 1.504 | 1.481 | 0.023 |
| 2001 | 7 | 10 | 5.76 | 5.77 | -0.010 | 3.056 | 3.058 | -0.002 | 153.508 | 152.998 | 0.510 | 46.199 | 45.903 | 0.296 | 9.56 | 11.1 | -1.540 | 1.519 | 1.491 | 0.028 |
| 2001 | 7 | 11 | 5.575 | 5.577 | -0.002 | 3.043 | 3.044 | -0.001 | 155.528 | 155.019 | 0.509 | 49.259 | 48.997 | 0.262 | 4.025 | 4.257 | -0.232 | 1.307 | 1.302 | 0.005 |
| 2001 | 7 | 12 | 5.424 | 5.426 | -0.002 | 3.014 | 3.018 | -0.004 | 131.786 | 131.781 | 0.005 | 68.068 | 67.712 | 0.356 | 3.738 | 3.549 | 0.189 | 1.849 | 1.8 | 0.049 |
| 2001 | 7 | 13 | 7.066 | 7.069 | -0.003 | 3.134 | 3.137 | -0.003 | 70.681 | 70.673 | 0.008 | 121.725 | 120.516 | 1.209 | 0.018 | 0.027 | -0.009 | 3.503 | 3.465 | 0.038 |
| 2001 | 7 | 15 | 7.215 | 7.234 | -0.019 | 3.131 | 3.132 | -0.001 | 43.422 | 42.905 | 0.517 | 110.086 | 110.569 | -0.483 | 0.025 | 0.04 | -0.015 | 4.36 | 4.467 | -0.107 |
| 2001 | 7 | 16 | 5.816 | 5.819 | -0.003 | 3.061 | 3.062 | -0.001 | 147.951 | 147.946 | 0.005 | 84.089 | 83.659 | 0.430 | 1.28 | 1.478 | -0.198 | 1.246 | 1.224 | 0.022 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2001 | 7 | 17 | 5.98 | 5.996 | -0.016 | 3.047 | 3.05 | -0.003 | 92.898 | 92.387 | 0.511 | 68.584 | 68.111 | 0.473 | 14.63 | 13.754 | 0.876 | 1.632 | 1.655 | -0.023 |
| 2001 | 7 | 18 | 5.754 | 5.758 | -0.004 | 3.02 | 3.024 | -0.004 | 102.493 | 102.487 | 0.006 | 59.329 | 58.843 | 0.486 | 10.873 | 11.825 | -0.952 | 1.229 | 1.219 | 0.010 |
| 2001 | 7 | 19 | 5.449 | 5.444 | 0.005 | 2.998 | 3.001 | -0.003 | 111.583 | 111.072 | 0.511 | 66.079 | 65.454 | 0.625 | 4.09 | 4.771 | -0.681 | 0.962 | 0.958 | 0.004 |
| 2001 | 7 | 20 | 5.586 | 5.581 | 0.005 | 2.991 | 2.99 | 0.001 | 82.294 | 81.782 | 0.512 | 89.694 | 87.778 | 1.916 | 0.238 | 0.692 | -0.454 | 1.382 | 1.362 | 0.020 |
| 2001 | 7 | 21 | 5.419 | 5.423 | -0.004 | 3.01 | 3.01 | 0.000 | 122.189 | 121.679 | 0.510 | 82.838 | 81.77 | 1.068 | 0.343 | 1.064 | -0.721 | 2.127 | 2.056 | 0.071 |
| 2001 | 7 | 22 | 6.459 | 6.463 | -0.004 | 3.069 | 3.074 | -0.005 | 75.73 | 75.723 | 0.007 | 269.243 | 266.794 | 2.449 | 0.831 | 0.932 | -0.101 | 2.092 | 2.04 | 0.052 |
| 2001 | 7 | 23 | 6.538 | 6.502 | 0.036 | 2.931 | 2.992 | -0.061 | 30.301 | 30.285 | 0.016 | 205.712 | 204.627 | 1.085 | 0.284 | 0.171 | 0.113 | 2.323 | 2.376 | -0.053 |
| 2001 | 10 | 0 | 6.768 | 6.776 | -0.008 | 3.105 | 3.105 | 0.000 | 24.752 | 24.227 | 0.525 | 2.528 | 2.466 | 0.062 | 14.673 | 14.922 | -0.249 | 0.546 | 0.543 | 0.003 |
| 2001 | 10 | 1 | 7.12 | 7.124 | -0.004 | 3.146 | 3.145 | 0.001 | 24.513 | 24.238 | 0.275 | 3.345 | 3.284 | 0.061 | 11.778 | 11.935 | -0.157 | 0.413 | 0.415 | -0.002 |
| 2001 | 10 | 2 | 7.376 | 7.123 | 0.253 | 3.13 | 3.118 | 0.012 | 35.331 | 34.835 | 0.496 | 3.639 | 2.443 | 1.196 | 6.528 | 16.274 | -9.746 | 0.474 | 0.395 | 0.079 |
| 2001 | 10 | 3 | 7.32 | 7.069 | 0.251 | 3.101 | 3.086 | 0.015 | 42.566 | 45.983 | -3.417 | 3.579 | 2.325 | 1.254 | 4.341 | 12.007 | -7.666 | 0.506 | 0.407 | 0.099 |
| 2001 | 10 | 4 | 6.897 | 6.902 | -0.005 | 3.115 | 3.116 | -0.001 | 131.786 | 131.276 | 0.510 | 1.933 | 1.921 | 0.012 | 1.02 | 1.009 | 0.011 | 0.106 | 0.138 | -0.032 |
| 2001 | 10 | 5 | 6.877 | 6.878 | -0.001 | 3.113 | 3.113 | 0.000 | 148.456 | 148.451 | 0.005 | 1.409 | 1.398 | 0.011 | 0.029 | 0.028 | 0.001 | 0.298 | 0.294 | 0.004 |
| 2001 | 10 | 6 | 7.191 | 7.193 | -0.002 | 3.124 | 3.125 | -0.001 | 108.048 | 108.042 | 0.006 | 1.143 | 1.132 | 0.011 | 0.331 | 0.319 | 0.012 | 0.41 | 0.404 | 0.006 |
| 2001 | 10 | 7 | 7.161 | 7.162 | -0.001 | 3.122 | 3.122 | 0.000 | 123.725 | 123.699 | 0.026 | 1.064 | 1.043 | 0.021 | 0.555 | 0.689 | -0.134 | 0.246 | 0.235 | 0.011 |
| 2001 | 10 | 8 | 6.984 | 6.99 | -0.006 | 3.114 | 3.114 | 0.000 | 148.456 | 147.946 | 0.510 | 1.236 | 1.226 | 0.010 | 0.473 | 0.581 | -0.108 | 0.283 | 0.278 | 0.005 |
| 2001 | 10 | 9 | 6.883 | 6.884 | -0.001 | 3.101 | 3.102 | -0.001 | 154.009 | 154.008 | 0.001 | 1.254 | 1.233 | 0.021 | 0.849 | 0.812 | 0.037 | 0.278 | 0.274 | 0.004 |
| 2001 | 10 | 10 | 6.661 | 6.666 | -0.005 | 3.087 | 3.087 | 0.000 | 156.535 | 156.029 | 0.506 | 1.184 | 1.177 | 0.007 | 0.849 | 0.844 | 0.005 | 0.284 | 0.28 | 0.004 |
| 2001 | 10 | 11 | 6.708 | 6.71 | -0.002 | 3.089 | 3.089 | 0.000 | 155.023 | 155.019 | 0.004 | 1.205 | 1.197 | 0.008 | 0.795 | 0.808 | -0.013 | 0.267 | 0.259 | 0.008 |
| 2001 | 10 | 12 | 6.632 | 6.638 | -0.006 | 3.077 | 3.077 | 0.000 | 139.359 | 138.853 | 0.506 | 1.781 | 1.723 | 0.058 | 0.463 | 0.491 | -0.028 | 0.23 | 0.22 | 0.010 |
| 2001 | 10 | 13 | 7.255 | 7.26 | -0.005 | 3.108 | 3.108 | 0.000 | 67.147 | 66.634 | 0.513 | 1.437 | 1.418 | 0.019 | 4.183 | 4.233 | -0.050 | 0.129 | 0.148 | -0.019 |
| 2001 | 10 | 14 | 7.279 | 7.281 | -0.002 | 3.037 | 3.038 | -0.001 | 27.779 | 27.761 | 0.018 | 1.712 | 1.674 | 0.038 | 6.793 | 7.084 | -0.291 | 0.366 | 0.358 | 0.008 |
| 2001 | 10 | 16 | 6.723 | 6.728 | -0.005 | 3.068 | 3.068 | 0.000 | 102.998 | 102.487 | 0.511 | 1.544 | 1.543 | 0.001 | 1.847 | 1.915 | -0.068 | 0.081 | 0.173 | -0.092 |
| 2001 | 10 | 17 | 6.625 | 6.626 | -0.001 | 3.064 | 3.065 | -0.001 | 101.983 | 101.982 | 0.001 | 1.598 | 1.58 | 0.018 | 0.397 | 0.396 | 0.001 | 0.081 | 0.349 | -0.268 |
| 2001 | 10 | 18 | 6.617 | 6.623 | -0.006 | 3.053 | 3.055 | -0.002 | 103.503 | 102.992 | 0.511 | 1.845 | 1.841 | 0.004 | 0.362 | 0.377 | -0.015 | 0.086 | 0.112 | -0.026 |
| 2001 | 10 | 19 | 6.5 | 6.501 | -0.001 | 3.029 | 3.031 | -0.002 | 108.548 | 108.547 | 0.001 | 2.273 | 2.273 | 0.000 | 0.077 | 0.077 | 0.000 | 0.158 | 0.158 | 0.000 |
| 2001 | 10 | 20 | 6.744 | 6.745 | -0.001 | 3.02 | 3.023 | -0.003 | 86.327 | 86.327 | 0.000 | 2.864 | 2.778 | 0.086 | 0.036 | 0.035 | 0.001 | 0.222 | 0.219 | 0.003 |
| 2001 | 10 | 21 | 6.909 | 6.909 | 0.000 | 3.083 | 3.082 | 0.001 | 108.553 | 108.547 | 0.006 | 2.86 | 2.772 | 0.088 | 0.265 | 0.302 | -0.037 | 0.264 | 0.255 | 0.009 |
| 2001 | 10 | 22 | 7.485 | 7.487 | -0.002 | 3.127 | 3.128 | -0.001 | 68.149 | 68.149 | 0.000 | 1.357 | 1.358 | -0.001 | 0.034 | 0.035 | -0.001 | 0.284 | 0.284 | 0.000 |
| 2001 | 10 | 23 | 7.637 | 7.626 | 0.011 | 3.099 | 3.095 | 0.004 | 24.793 | 24.732 | 0.061 | 1.792 | 1.783 | 0.009 | 0.041 | 0.053 | -0.012 | 0.278 | 0.299 | -0.021 |
| 2002 | 1 | 0 | 5.127 | 5.13 | -0.003 | 3.004 | 3.004 | 0.000 | 22.987 | 22.796 | 0.191 | 1.348 | 1.334 | 0.014 | 2.382 | 2.417 | -0.035 | 0.085 | 0.084 | 0.001 |
| 2002 | 1 | 1 | 5.42 | 5.423 | -0.003 | 3.029 | 3.029 | 0.000 | 27.495 | 27.284 | 0.211 | 1.719 | 1.675 | 0.044 | 1.776 | 1.724 | 0.052 | 0.065 | 0.065 | 0.000 |
| 2002 | 1 | 2 | 5.311 | 5.312 | -0.001 | 3.006 | 3.006 | 0.000 | 40.898 | 40.892 | 0.006 | 1.595 | 1.574 | 0.021 | 0.854 | 0.873 | -0.019 | 0.065 | 0.123 | -0.058 |
| 2002 | 1 | 3 | 5.303 | 5.304 | -0.001 | 2.997 | 2.996 | 0.001 | 48.469 | 47.953 | 0.516 | 1.511 | 1.487 | 0.024 | 0.408 | 0.425 | -0.017 | 0.058 | 0.089 | -0.031 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2002 | 1 | 4 | 5.333 | 5.335 | -0.002 | 2.998 | 2.998 | 0.000 | 143.401 | 142.894 | 0.507 | 1.35 | 1.349 | 0.001 | 0.031 | 0.032 | -0.001 | 0.099 | 0.099 | 0.000 |
| 2002 | 1 | 5 | 5.327 | 5.33 | -0.003 | 3.001 | 3.002 | -0.001 | 149.466 | 149.964 | -0.498 | 1.272 | 1.247 | 0.025 | 0.329 | 0.321 | 0.008 | 0.003 | 0.017 | -0.014 |
| 2002 | 1 | 6 | 5.413 | 5.414 | -0.001 | 3.004 | 3.005 | -0.001 | 132.796 | 132.286 | 0.510 | 1.113 | 1.106 | 0.007 | 0.501 | 0.508 | -0.007 | 0.257 | 0.255 | 0.002 |
| 2002 | 1 | 7 | 5.424 | 5.426 | -0.002 | 3.008 | 3.008 | 0.000 | 143.404 | 143.399 | 0.005 | 1.131 | 1.126 | 0.005 | 0.316 | 0.318 | -0.002 | 0.128 | 0.128 | 0.000 |
| 2002 | 1 | 8 | 5.504 | 5.505 | -0.001 | 3.016 | 3.016 | 0.000 | 142.394 | 142.389 | 0.005 | 1.111 | 1.106 | 0.005 | 1.051 | 1.081 | -0.030 | 0.001 | 0.009 | -0.008 |
| 2002 | 1 | 13 | 5.329 | 5.33 | -0.001 | 2.984 | 2.984 | 0.000 | 61.585 | 61.08 | 0.505 | 1.254 | 1.243 | 0.011 | 0.036 | 0.034 | 0.002 | 0.072 | 0.071 | 0.001 |
| 2002 | 1 | 14 | 5.312 | 5.312 | 0.000 | 2.959 | 2.959 | 0.000 | 34.323 | 33.818 | 0.505 | 1.28 | 1.279 | 0.001 | 0.251 | 0.254 | -0.003 | 0.118 | 0.119 | -0.001 |
| 2002 | 1 | 16 | 5.559 | 5.56 | -0.001 | 3.006 | 3.006 | 0.000 | 154.515 | 154.008 | 0.507 | 1.363 | 1.358 | 0.005 | 0.106 | 0.107 | -0.001 | 0.03 | 0.031 | -0.001 |
| 2002 | 1 | 17 | 5.658 | 5.659 | -0.001 | 3.005 | 3.005 | 0.000 | 92.387 | 92.387 | 0.000 | 1.347 | 1.344 | 0.003 | 0.31 | 0.311 | -0.001 | 0.064 | 0.064 | 0.000 |
| 2002 | 1 | 18 | 5.809 | 5.81 | -0.001 | 3.017 | 3.018 | -0.001 | 102.493 | 101.982 | 0.511 | 1.404 | 1.372 | 0.032 | 0.358 | 0.36 | -0.002 | 0.041 | 0.049 | -0.008 |
| 2002 | 1 | 19 | 5.926 | 5.928 | -0.002 | 3.03 | 3.03 | 0.000 | 110.568 | 110.567 | 0.001 | 1.642 | 1.641 | 0.001 | 0.339 | 0.338 | 0.001 | 0.119 | 0.119 | 0.000 |
| 2002 | 1 | 20 | 5.913 | 5.915 | -0.002 | 3.024 | 3.025 | -0.001 | 86.832 | 86.832 | 0.000 | 1.577 | 1.551 | 0.026 | 0.408 | 0.403 | 0.005 | 0.149 | 0.146 | 0.003 |
| 2002 | 1 | 22 | 5.357 | 5.358 | -0.001 | 2.992 | 2.992 | 0.000 | 65.128 | 64.614 | 0.514 | 1.261 | 1.244 | 0.017 | 0.073 | 0.076 | -0.003 | 0 | | 0.000 |
| 2002 | 1 | 23 | 5.578 | 5.578 | 0.000 | 3.003 | 3.002 | 0.001 | 24.732 | 24.732 | 0.000 | 1.663 | 1.626 | 0.037 | 0.025 | 0.025 | 0.000 | 0 | 0.001 | -0.001 |
| 2002 | 3 | 0 | 4.134 | 4.136 | -0.002 | 2.944 | 2.942 | 0.002 | 23.239 | 22.713 | 0.526 | 1.658 | 1.596 | 0.062 | 9.173 | 9.259 | -0.086 | 0.426 | 0.43 | -0.004 |
| 2002 | 3 | 1 | 4.116 | 4.117 | -0.001 | 2.922 | 2.921 | 0.001 | 28.266 | 28.265 | 0.001 | 1.751 | 1.718 | 0.033 | 8.367 | 7.954 | 0.413 | 0.425 | 0.424 | 0.001 |
| 2002 | 3 | 2 | 4.113 | 4.114 | -0.001 | 2.908 | 2.907 | 0.001 | 32.824 | 33.303 | -0.479 | 1.436 | 1.393 | 0.043 | 16.851 | 13.637 | 3.214 | 0.455 | 0.46 | -0.005 |
| 2002 | 3 | 4 | 3.991 | 4 | -0.009 | 2.921 | 2.916 | 0.005 | 134.063 | 134.307 | -0.244 | 3.388 | 1.289 | 2.099 | 6.222 | 5.604 | 0.618 | 0.709 | 0.254 | 0.455 |
| 2002 | 3 | 5 | 4.03 | 4.039 | -0.009 | 2.926 | 2.921 | 0.005 | 153.509 | 152.493 | 1.016 | 3.411 | 1.26 | 2.151 | 7.77 | 7.607 | 0.163 | 0.808 | 0.402 | 0.406 |
| 2002 | 3 | 7 | 4.108 | 4.12 | -0.012 | 2.935 | 2.93 | 0.005 | 150.983 | 150.472 | 0.511 | 3.428 | 1.286 | 2.142 | 2.837 | 2.518 | 0.319 | 0.534 | 0.284 | 0.250 |
| 2002 | 3 | 8 | 4.201 | 4.213 | -0.012 | 2.942 | 2.937 | 0.005 | 151.233 | 150.472 | 0.761 | 3.437 | 1.335 | 2.102 | 13.256 | 8.587 | 4.669 | 0.523 | 0.391 | 0.132 |
| 2002 | 3 | 15 | 4.196 | 4.209 | -0.013 | 2.921 | 2.917 | 0.004 | 50.247 | 50.982 | -0.735 | 3.295 | 1.238 | 2.057 | 4.999 | 3.9 | 1.099 | 0.787 | 0.334 | 0.453 |
| 2002 | 3 | 16 | 4.255 | 4.267 | -0.012 | 2.932 | 2.927 | 0.005 | 153.255 | 152.493 | 0.762 | 3.402 | 1.263 | 2.139 | 7.464 | 4.85 | 2.614 | 0.556 | 0.32 | 0.236 |
| 2002 | 3 | 17 | 4.286 | 4.301 | -0.015 | 2.93 | 2.926 | 0.004 | 87.343 | 87.337 | 0.006 | 3.39 | 1.304 | 2.086 | 10.277 | 4.341 | 5.936 | 0.473 | 0.228 | 0.245 |
| 2002 | 3 | 18 | 4.348 | 4.355 | -0.007 | 2.936 | 2.931 | 0.005 | 107.543 | 107.537 | 0.006 | 3.419 | 1.342 | 2.077 | 11.152 | 11.003 | 0.149 | 0.516 | 0.213 | 0.303 |
| 2002 | 4 | 0 | 4.73 | 4.738 | -0.008 | 3.015 | 3.02 | -0.005 | 23.61 | 22.54 | 1.070 | 3.652 | 3.398 | 0.254 | 13.994 | 17.275 | -3.281 | 3.068 | 3.055 | 0.013 |
| 2002 | 4 | 1 | 4.797 | 4.796 | 0.001 | 3.033 | 3.032 | 0.001 | 24.554 | 24.32 | 0.234 | 2.632 | 2.552 | 0.080 | 22.897 | 19.772 | 3.125 | 2.652 | 2.652 | 0.000 |
| 2002 | 4 | 2 | 4.717 | 4.717 | 0.000 | 3.022 | 3.022 | 0.000 | 39.146 | 39.133 | 0.013 | 2.659 | 2.614 | 0.045 | 8.465 | 8.806 | -0.341 | 2.887 | 2.844 | 0.043 |
| 2002 | 4 | 3 | 4.236 | 4.236 | 0.000 | 2.94 | 2.939 | 0.001 | 50.993 | 50.478 | 0.515 | 1.652 | 1.618 | 0.034 | 4.375 | 4.642 | -0.267 | 1.985 | 1.969 | 0.016 |
| 2002 | 4 | 4 | 4.328 | 4.329 | -0.001 | 2.962 | 2.962 | 0.000 | 143.404 | 143.399 | 0.005 | 1.897 | 1.89 | 0.007 | 1.691 | 1.671 | 0.020 | 1.329 | 1.324 | 0.005 |
| 2002 | 4 | 5 | 4.325 | 4.325 | 0.000 | 2.963 | 2.963 | 0.000 | 151.487 | 150.977 | 0.510 | 1.775 | 1.761 | 0.014 | 1.503 | 2.105 | -0.602 | 1.718 | 1.69 | 0.028 |
| 2002 | 4 | 22 | 4.214 | 4.218 | -0.004 | 2.933 | 2.933 | 0.000 | 76.235 | 75.723 | 0.512 | 1.665 | 1.642 | 0.023 | 4.129 | 4.201 | -0.072 | 3.05 | 3.07 | -0.020 |
| 2002 | 4 | 23 | 4.514 | 4.518 | -0.004 | 2.924 | 2.923 | 0.001 | 24.248 | 24.227 | 0.021 | 2.651 | 2.608 | 0.043 | 36.49 | 38.623 | -2.133 | 8.124 | 8.263 | -0.139 |
| 2002 | 5 | 6 | 4.499 | 4.499 | 0.000 | 2.987 | 2.987 | 0.000 | 133.807 | 132.791 | 1.016 | 2.732 | 2.711 | 0.021 | 1.733 | 1.758 | -0.025 | 1.542 | 1.543 | -0.001 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2002 | 5 | 7 | 4.525 | 4.526 | -0.001 | 2.993 | 2.993 | 0.000 | 154.518 | 154.008 | 0.510 | 3.271 | 3.251 | 0.020 | 6.534 | 6.092 | 0.442 | 1.595 | 1.593 | 0.002 |
| 2002 | 5 | 8 | 4.438 | 4.444 | -0.006 | 2.986 | 2.987 | -0.001 | 154.518 | 154.513 | 0.005 | 2.8 | 2.781 | 0.019 | 6.768 | 7.433 | -0.665 | 0.938 | 0.934 | 0.004 |
| 2002 | 5 | 10 | 4.373 | 4.369 | 0.004 | 2.98 | 2.979 | 0.001 | 154.518 | 154.513 | 0.005 | 2.922 | 2.876 | 0.046 | 1.204 | 1.056 | 0.148 | 1.001 | 0.972 | 0.029 |
| 2002 | 5 | 13 | 4.39 | 4.39 | 0.000 | 2.963 | 2.963 | 0.000 | 67.147 | 66.634 | 0.513 | 3.612 | 3.559 | 0.053 | 14.131 | 16.059 | -1.928 | 2.059 | 2.037 | 0.022 |
| 2002 | 5 | 14 | 4.277 | 4.31 | -0.033 | 2.944 | 2.944 | 0.000 | 35.418 | 35.333 | 0.085 | 3.724 | 3.559 | 0.165 | 9.056 | 20.468 | -11.412 | 2.208 | 2.08 | 0.128 |
| 2002 | 5 | 16 | 4.318 | 4.319 | -0.001 | 2.958 | 2.959 | -0.001 | 154.518 | 154.008 | 0.510 | 3.494 | 3.471 | 0.023 | 1.178 | 1.158 | 0.020 | 0.925 | 0.923 | 0.002 |
| 2002 | 5 | 17 | 4.248 | 4.252 | -0.004 | 2.948 | 2.949 | -0.001 | 90.373 | 90.367 | 0.006 | 3.624 | 3.581 | 0.043 | 2.203 | 6.107 | -3.904 | 0.813 | 0.78 | 0.033 |
| 2002 | 5 | 18 | 4.217 | 4.218 | -0.001 | 2.945 | 2.945 | 0.000 | 99.968 | 99.962 | 0.006 | 3.591 | 3.564 | 0.027 | 18.806 | 21.025 | -2.219 | 0.287 | 0.283 | 0.004 |
| 2002 | 5 | 19 | 4.189 | 4.191 | -0.002 | 2.943 | 2.943 | 0.000 | 113.098 | 113.093 | 0.005 | 3.552 | 3.532 | 0.020 | 19.991 | 20.221 | -0.230 | 0.218 | 0.216 | 0.002 |
| 2002 | 5 | 20 | 4.184 | 4.189 | -0.005 | 2.94 | 2.939 | 0.001 | 86.333 | 86.327 | 0.006 | 3.568 | 3.53 | 0.038 | 21.402 | 19.215 | 2.187 | 0.119 | 0.124 | -0.005 |
| 2002 | 7 | 0 | 7.496 | 7.455 | 0.041 | 3.197 | 3.198 | -0.001 | 23.744 | 23.218 | 0.526 | 2.789 | 2.719 | 0.070 | 3.938 | 4.235 | -0.297 | 4.348 | 4.244 | 0.104 |
| 2002 | 7 | 1 | 7.257 | 7.264 | -0.007 | 3.224 | 3.223 | 0.001 | 24.752 | 24.918 | -0.166 | 2.361 | 2.306 | 0.055 | 13.862 | 13.229 | 0.633 | 3.795 | 3.769 | 0.026 |
| 2002 | 7 | 2 | 7.399 | 7.409 | -0.010 | 3.204 | 3.205 | -0.001 | 34.696 | 34.485 | 0.211 | 2.532 | 2.492 | 0.040 | 10.748 | 11.627 | -0.879 | 4.498 | 4.44 | 0.058 |
| 2002 | 7 | 3 | 6.547 | 6.545 | 0.002 | 3.108 | 3.109 | -0.001 | 47.218 | 47.244 | -0.026 | 2.154 | 2.121 | 0.033 | 4.769 | 5.277 | -0.508 | 3.857 | 3.618 | 0.239 |
| 2002 | 7 | 4 | 5.636 | 5.638 | -0.002 | 3.058 | 3.059 | -0.001 | 120.674 | 120.669 | 0.005 | 1.13 | 1.123 | 0.007 | 1.732 | 1.727 | 0.005 | 0.828 | 0.765 | 0.063 |
| 2002 | 7 | 5 | 5.432 | 5.436 | -0.004 | 3.054 | 3.055 | -0.001 | 155.528 | 155.019 | 0.509 | 1.728 | 1.705 | 0.023 | 2.706 | 3.071 | -0.365 | 2.037 | 2.011 | 0.026 |
| 2002 | 7 | 6 | 5.25 | 5.253 | -0.003 | 3.034 | 3.035 | -0.001 | 135.823 | 135.317 | 0.506 | 1.032 | 1.022 | 0.010 | 1.265 | 1.207 | 0.058 | 0.707 | 0.689 | 0.018 |
| 2002 | 7 | 7 | 5.247 | 5.248 | -0.001 | 3.034 | 3.035 | -0.001 | 151.992 | 151.987 | 0.005 | 1.035 | 1.013 | 0.022 | 1.237 | 1.25 | -0.013 | 0.684 | 0.672 | 0.012 |
| 2002 | 7 | 8 | 5.12 | 5.121 | -0.001 | 3.018 | 3.021 | -0.003 | 152.494 | 152.493 | 0.001 | 1.171 | 1.142 | 0.029 | 3.346 | 3.195 | 0.151 | 0.512 | 0.501 | 0.011 |
| 2002 | 7 | 9 | 5.084 | 5.086 | -0.002 | 3.013 | 3.016 | -0.003 | 141.885 | 141.379 | 0.506 | 1.364 | 1.33 | 0.034 | 1.516 | 1.456 | 0.060 | 0.44 | 0.436 | 0.004 |
| 2002 | 7 | 10 | 4.952 | 4.954 | -0.002 | 3.004 | 3.006 | -0.002 | 152.494 | 152.493 | 0.001 | 1.619 | 1.557 | 0.062 | 2.914 | 2.882 | 0.032 | 0.277 | 0.276 | 0.001 |
| 2002 | 7 | 11 | 4.672 | 4.673 | -0.001 | 2.978 | 2.98 | -0.002 | 155.02 | 155.019 | 0.001 | 1.527 | 1.508 | 0.019 | 2.232 | 2.213 | 0.019 | 0.379 | 0.379 | 0.000 |
| 2002 | 7 | 12 | 4.52 | 4.521 | -0.001 | 2.955 | 2.957 | -0.002 | 135.823 | 135.317 | 0.506 | 30.208 | 29.94 | 0.268 | 1.902 | 1.691 | 0.211 | 0.333 | 0.33 | 0.003 |
| 2002 | 7 | 13 | 6.221 | 6.222 | -0.001 | 3.087 | 3.088 | -0.001 | 61.585 | 61.585 | 0.000 | 1.271 | 1.272 | -0.001 | 9.676 | 9.851 | -0.175 | 1.088 | 1.087 | 0.001 |
| 2002 | 7 | 14 | 6.799 | 6.801 | -0.002 | 3.08 | 3.083 | -0.003 | 28.283 | 28.265 | 0.018 | 1.526 | 1.45 | 0.076 | 23.606 | 23.643 | -0.037 | 1.795 | 1.798 | -0.003 |
| 2002 | 7 | 16 | 5.158 | 5.158 | 0.000 | 3.01 | 3.013 | -0.003 | 132.287 | 132.286 | 0.001 | 1.072 | 1.057 | 0.015 | 0.803 | 0.797 | 0.006 | 0.617 | 0.6 | 0.017 |
| 2002 | 7 | 17 | 5.359 | 5.362 | -0.003 | 2.986 | 2.992 | -0.006 | 68.654 | 68.654 | 0.000 | 1.495 | 1.384 | 0.111 | 1.392 | 1.287 | 0.105 | 0.819 | 0.807 | 0.012 |
| 2002 | 7 | 18 | 4.975 | 4.979 | -0.004 | 2.977 | 2.98 | -0.003 | 92.387 | 91.882 | 0.505 | 1.883 | 1.765 | 0.118 | 0.6 | 0.622 | -0.022 | 0.586 | 0.575 | 0.011 |
| 2002 | 7 | 19 | 4.648 | 4.647 | 0.001 | 2.938 | 2.939 | -0.001 | 96.433 | 95.922 | 0.511 | 8.221 | 8.075 | 0.146 | 0.216 | 0.251 | -0.035 | 0.35 | 0.346 | 0.004 |
| 2002 | 7 | 20 | 4.724 | 4.728 | -0.004 | 2.92 | 2.926 | -0.006 | 74.713 | 74.713 | 0.000 | 32.755 | 31.974 | 0.781 | 0.051 | 0.05 | 0.001 | 0.296 | 0.293 | 0.003 |
| 2002 | 7 | 21 | 4.521 | 4.523 | -0.002 | 2.929 | 2.932 | -0.003 | 107.538 | 107.032 | 0.506 | 87.39 | 87.07 | 0.320 | 1.363 | 1.19 | 0.173 | 0.326 | 0.317 | 0.009 |
| 2002 | 7 | 22 | 5.664 | 5.634 | 0.030 | 3.017 | 3.029 | -0.012 | 72.701 | 72.693 | 0.008 | 1.694 | 1.687 | 0.007 | 4.947 | 3.933 | 1.014 | 1.757 | 1.751 | 0.006 |
| 2002 | 7 | 23 | 5.795 | 5.837 | -0.042 | 2.921 | 2.923 | -0.002 | 25.257 | 25.237 | 0.020 | 5.459 | 3.464 | 1.995 | 5.166 | 8.245 | -3.079 | 2.419 | 2.296 | 0.123 |
| 2002 | 8 | 0 | 7.917 | 7.921 | -0.004 | 3.181 | 3.182 | -0.001 | 19.722 | 19.461 | 0.261 | 3.887 | 3.751 | 0.136 | 24.588 | 25.647 | -1.059 | 1.063 | 1.051 | 0.012 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2002 | 8 | 1 | 7.634 | 7.636 | -0.002 | 3.216 | 3.217 | -0.001 | 25.027 | 24.772 | 0.255 | 4.497 | 4.456 | 0.041 | 16.617 | 17.92 | -1.303 | 0.971 | 0.955 | 0.016 |
| 2002 | 8 | 2 | 7.878 | 7.883 | -0.005 | 3.16 | 3.16 | 0.000 | 35.347 | 34.828 | 0.519 | 3.508 | 3.443 | 0.065 | 11.838 | 11.284 | 0.554 | 1.515 | 1.505 | 0.010 |
| 2002 | 8 | 3 | 7.518 | 7.527 | -0.009 | 3.124 | 3.126 | -0.002 | 43.128 | 42.831 | 0.297 | 2.992 | 2.967 | 0.025 | 7.947 | 8.164 | -0.217 | 1.273 | 1.239 | 0.034 |
| 2002 | 8 | 4 | 6.249 | 6.253 | -0.004 | 3.083 | 3.085 | -0.002 | 125.986 | 125.683 | 0.303 | 1.572 | 1.562 | 0.010 | 2.571 | 2.394 | 0.177 | 0.739 | 0.736 | 0.003 |
| 2002 | 8 | 5 | 5.954 | 5.955 | -0.001 | 3.065 | 3.067 | -0.002 | 156.033 | 156.029 | 0.004 | 1.372 | 1.363 | 0.009 | 1.074 | 1.088 | -0.014 | 0.658 | 0.645 | 0.013 |
| 2002 | 10 | 0 | 7.734 | 7.731 | 0.003 | 3.097 | 3.099 | -0.002 | 21.726 | 21.951 | -0.225 | 1.451 | 1.435 | 0.016 | 5.703 | 4.944 | 0.759 | 2.163 | 2.191 | -0.028 |
| 2002 | 10 | 1 | 7.426 | 7.43 | -0.004 | 3.196 | 3.195 | 0.001 | 24.503 | 23.977 | 0.526 | 2.409 | 2.336 | 0.073 | 5.585 | 5.374 | 0.211 | 1.527 | 1.492 | 0.035 |
| 2002 | 10 | 2 | 7.384 | 7.389 | -0.005 | 3.167 | 3.167 | 0.000 | 39.384 | 39.624 | -0.240 | 2.474 | 2.454 | 0.020 | 5.469 | 5.328 | 0.141 | 1.933 | 1.87 | 0.063 |
| 2002 | 10 | 3 | 7.314 | 7.317 | -0.003 | 3.13 | 3.131 | -0.001 | 48.096 | 48.333 | -0.237 | 1.963 | 1.944 | 0.019 | 2.758 | 2.693 | 0.065 | 2.111 | 2.051 | 0.060 |
| 2002 | 10 | 4 | 6.655 | 6.658 | -0.003 | 3.114 | 3.115 | -0.001 | 135.072 | 135.065 | 0.007 | 1.583 | 1.573 | 0.010 | 0.61 | 0.642 | -0.032 | 1.31 | 1.123 | 0.187 |
| 2002 | 10 | 5 | 6.276 | 6.275 | 0.001 | 3.094 | 3.095 | -0.001 | 154.013 | 154.511 | -0.498 | 1.117 | 1.112 | 0.005 | 0.337 | 0.304 | 0.033 | 2.31 | 1.894 | 0.416 |
| 2002 | 10 | 6 | 6.389 | 6.391 | -0.002 | 3.096 | 3.097 | -0.001 | 139.868 | 139.863 | 0.005 | 0.994 | 0.985 | 0.009 | 0.759 | 0.898 | -0.139 | 2.366 | 1.951 | 0.415 |
| 2002 | 10 | 7 | 6.276 | 6.277 | -0.001 | 3.086 | 3.087 | -0.001 | 155.528 | 155.524 | 0.004 | 0.991 | 0.978 | 0.013 | 0.698 | 0.737 | -0.039 | 2.775 | 2.328 | 0.447 |
| 2002 | 10 | 8 | 6.205 | 6.205 | 0.000 | 3.083 | 3.084 | -0.001 | 155.528 | 156.027 | -0.499 | 0.966 | 0.958 | 0.008 | 0.574 | 0.506 | 0.068 | 2.839 | 2.32 | 0.519 |
| 2002 | 10 | 9 | 6.057 | 6.059 | -0.002 | 3.074 | 3.075 | -0.001 | 155.023 | 155.019 | 0.004 | 0.938 | 0.93 | 0.008 | 0.79 | 0.855 | -0.065 | 1.583 | 1.397 | 0.186 |
| 2002 | 10 | 10 | 5.973 | 5.975 | -0.002 | 3.061 | 3.064 | -0.003 | 154.518 | 155.018 | -0.500 | 0.986 | 0.98 | 0.006 | 0.803 | 0.591 | 0.212 | 1.635 | 1.555 | 0.080 |
| 2002 | 10 | 11 | 5.869 | 5.873 | -0.004 | 3.048 | 3.052 | -0.004 | 153.508 | 153.503 | 0.005 | 0.998 | 0.978 | 0.020 | 0.371 | 0.29 | 0.081 | 1.538 | 1.449 | 0.089 |
| 2002 | 10 | 12 | 5.622 | 5.624 | -0.002 | 3.021 | 3.023 | -0.002 | 139.363 | 139.355 | 0.008 | 2.387 | 2.302 | 0.085 | 0.177 | 0.154 | 0.023 | 1.834 | 1.438 | 0.396 |
| 2002 | 10 | 13 | 7.044 | 7.046 | -0.002 | 3.104 | 3.106 | -0.002 | 71.691 | 71.683 | 0.008 | 1.612 | 1.6 | 0.012 | 0.44 | 0.452 | -0.012 | 1.015 | 0.921 | 0.094 |
| 2002 | 10 | 14 | 7.067 | 7.069 | -0.002 | 3.057 | 3.057 | 0.000 | 34.843 | 34.828 | 0.015 | 1.491 | 1.448 | 0.043 | 0.781 | 0.834 | -0.053 | 1.83 | 1.656 | 0.174 |
| 2002 | 10 | 16 | 5.766 | 5.767 | -0.001 | 3.037 | 3.037 | 0.000 | 150.476 | 150.472 | 0.004 | 1.469 | 1.451 | 0.018 | 0.337 | 0.363 | -0.026 | 0.421 | 0.416 | 0.005 |
| 2002 | 10 | 17 | 6.209 | 6.21 | -0.001 | 3.046 | 3.043 | 0.003 | 89.868 | 89.357 | 0.511 | 1.478 | 1.442 | 0.036 | 1.074 | 1.175 | -0.101 | 0.433 | 0.423 | 0.010 |
| 2002 | 10 | 18 | 5.97 | 5.968 | 0.002 | 3.02 | 3.021 | -0.001 | 102.998 | 102.992 | 0.006 | 2.028 | 2.009 | 0.019 | 0.412 | 0.54 | -0.128 | 0.373 | 0.376 | -0.003 |
| 2002 | 10 | 19 | 5.818 | 5.815 | 0.003 | 3.013 | 3.011 | 0.002 | 108.553 | 108.042 | 0.511 | 4.535 | 4.486 | 0.049 | 0.8 | 0.936 | -0.136 | 0.285 | 0.279 | 0.006 |
| 2002 | 10 | 20 | 5.975 | 5.977 | -0.002 | 3.019 | 3.021 | -0.002 | 87.848 | 87.842 | 0.006 | 7.905 | 7.755 | 0.150 | 0.175 | 0.362 | -0.187 | 0.278 | 0.265 | 0.013 |
| 2002 | 10 | 21 | 5.905 | 5.903 | 0.002 | 3.024 | 3.021 | 0.003 | 93.403 | 92.892 | 0.511 | 3.079 | 2.907 | 0.172 | 0.215 | 0.354 | -0.139 | 2.039 | 1.547 | 0.492 |
| 2002 | 10 | 22 | 6.895 | 6.899 | -0.004 | 3.105 | 3.114 | -0.009 | 77.258 | 77.741 | -0.483 | 0.969 | 0.976 | -0.007 | 0.92 | 0.532 | 0.388 | 2.799 | 2.766 | 0.033 |
| 2002 | 10 | 23 | 7.026 | 7.033 | -0.007 | 2.974 | 2.99 | -0.016 | 29.797 | 29.78 | 0.017 | 4.251 | 4.068 | 0.183 | 2.211 | 3.022 | -0.811 | 6.396 | 6.46 | -0.064 |
| 2003 | 2 | 1 | 5.688 | 5.689 | -0.001 | 3.052 | 3.052 | 0.000 | 23.723 | 23.722 | 0.001 | 3.986 | 3.987 | -0.001 | 1.467 | 1.467 | 0.000 | 1.391 | 1.391 | 0.000 |
| 2003 | 2 | 2 | 5.575 | 5.576 | -0.001 | 3.01 | 3.01 | 0.000 | 39.371 | 39.371 | 0.000 | 2.99 | 2.958 | 0.032 | 5.967 | 5.819 | 0.148 | 1.486 | 1.48 | 0.006 |
| 2003 | 2 | 3 | 5.652 | 5.653 | -0.001 | 3.014 | 3.014 | 0.000 | 50.983 | 50.982 | 0.001 | 2.915 | 2.881 | 0.034 | 1.949 | 1.969 | -0.020 | 1.199 | 1.177 | 0.022 |
| 2003 | 2 | 4 | 5.678 | 5.679 | -0.001 | 3.034 | 3.034 | 0.000 | 142.895 | 142.894 | 0.001 | 3.059 | 3.059 | 0.000 | 0.284 | 0.284 | 0.000 | 0.857 | 0.857 | 0.000 |
| 2003 | 2 | 13 | 5.778 | 5.78 | -0.002 | 3.028 | 3.029 | -0.001 | 66.13 | 66.129 | 0.001 | 2.913 | 2.913 | 0.000 | 0.027 | 0.027 | 0.000 | 0.831 | 0.83 | 0.001 |
| 2003 | 2 | 16 | 5.794 | 5.795 | -0.001 | 3.046 | 3.046 | 0.000 | 153.504 | 153.503 | 0.001 | 2.855 | 2.855 | 0.000 | 1.092 | 1.092 | 0.000 | 0.841 | 0.84 | 0.001 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2003 | 2 | 17 | 5.799 | 5.8 | -0.001 | 3.031 | 3.032 | -0.001 | 85.822 | 85.822 | 0.000 | 2.882 | 2.882 | 0.000 | 1.906 | 1.906 | 0.000 | 0.808 | 0.808 | 0.000 |
| 2003 | 2 | 18 | 5.857 | 5.859 | -0.002 | 3.045 | 3.045 | 0.000 | 106.023 | 106.022 | 0.001 | 2.805 | 2.805 | 0.000 | 2.735 | 2.735 | 0.000 | 0.709 | 0.708 | 0.001 |
| 2003 | 3 | 0 | 5.228 | 5.229 | -0.001 | 3.033 | 3.033 | 0.000 | 24.248 | 23.722 | 0.526 | 3.99 | 3.884 | 0.106 | 38.967 | 40.802 | -1.835 | 1.687 | 1.693 | -0.006 |
| 2003 | 3 | 1 | 5.251 | 5.252 | -0.001 | 3.051 | 3.051 | 0.000 | 29.78 | 29.275 | 0.505 | 3.848 | 3.84 | 0.008 | 43.275 | 42.973 | 0.302 | 1.714 | 1.713 | 0.001 |
| 2003 | 3 | 2 | 5.186 | 5.187 | -0.001 | 3.031 | 3.031 | 0.000 | 37.352 | 37.352 | 0.000 | 3.974 | 3.975 | -0.001 | 48.034 | 49.08 | -1.046 | 1.667 | 1.666 | 0.001 |
| 2003 | 3 | 3 | 5.111 | 5.113 | -0.002 | 3.004 | 3.004 | 0.000 | 52.497 | 52.497 | 0.000 | 3.051 | 3.05 | 0.001 | 32.558 | 32.558 | 0.000 | 1.561 | 1.561 | 0.000 |
| 2003 | 3 | 4 | 5.043 | 5.045 | -0.002 | 3.003 | 3.003 | 0.000 | 127.741 | 127.235 | 0.506 | 3.035 | 3.02 | 0.015 | 2.804 | 2.673 | 0.131 | 1.451 | 1.446 | 0.005 |
| 2003 | 3 | 13 | 5.008 | 5.009 | -0.001 | 2.991 | 2.99 | 0.001 | 60.584 | 60.575 | 0.009 | 2.972 | 2.931 | 0.041 | 6.499 | 6.332 | 0.167 | 2.367 | 2.323 | 0.044 |
| 2003 | 3 | 14 | 5.063 | 5.065 | -0.002 | 2.979 | 2.979 | 0.000 | 30.285 | 29.78 | 0.505 | 3.076 | 3.023 | 0.053 | 32.059 | 32.652 | -0.593 | 3.094 | 3.116 | -0.022 |
| 2003 | 3 | 16 | 5.003 | 5.004 | -0.001 | 2.987 | 2.987 | 0.000 | 146.432 | 146.43 | 0.002 | 3.161 | 3.161 | 0.000 | 3.78 | 3.78 | 0.000 | 1.093 | 1.093 | 0.000 |
| 2003 | 3 | 17 | | 5.081 | -5.081 | | 2.984 | -2.984 | | 73.198 | -73.198 | | 3.049 | -3.049 | | 5.336 | -5.336 | | 1.546 | -1.546 |
| 2003 | 3 | 18 | | 5.119 | -5.119 | | 2.983 | -2.983 | | 79.257 | -79.257 | | 3.243 | -3.243 | | 1.99 | -1.990 | | 1.878 | -1.878 |
| 2003 | 4 | 0 | 5.132 | 5.134 | -0.002 | 3.045 | 3.044 | 0.001 | 25.237 | 24.732 | 0.505 | 4.168 | 3.99 | 0.178 | 35.823 | 39.71 | -3.887 | 2.007 | 2.031 | -0.024 |
| 2003 | 4 | 1 | 5.301 | 5.301 | 0.000 | 3.075 | 3.075 | 0.000 | 24.752 | 24.227 | 0.525 | 3.609 | 3.512 | 0.097 | 50.423 | 48.19 | 2.233 | 1.835 | 1.844 | -0.009 |
| 2003 | 4 | 2 | 5.282 | 5.283 | -0.001 | 3.074 | 3.073 | 0.001 | 38.375 | 38.362 | 0.013 | 4.114 | 4.026 | 0.088 | 35.696 | 28.123 | 7.573 | 1.851 | 1.856 | -0.005 |
| 2003 | 4 | 3 | 5.069 | 5.07 | -0.001 | 3.034 | 3.034 | 0.000 | 47.964 | 47.953 | 0.011 | 4.139 | 4.138 | 0.001 | 6.978 | 6.221 | 0.757 | 1.953 | 1.961 | -0.008 |
| 2003 | 4 | 4 | 4.975 | 4.976 | -0.001 | 2.997 | 2.997 | 0.000 | 124.206 | 123.699 | 0.507 | 3.144 | 3.131 | 0.013 | 5.378 | 5.343 | 0.035 | 1.494 | 1.493 | 0.001 |
| 2003 | 4 | 5 | 4.99 | 4.991 | -0.001 | 3.005 | 3.006 | -0.001 | 146.94 | 146.936 | 0.004 | 3.131 | 3.12 | 0.011 | 1.183 | 1.263 | -0.080 | 1.619 | 1.611 | 0.008 |
| 2003 | 4 | 6 | 5.009 | 5.01 | -0.001 | 3.005 | 3.005 | 0.000 | 128.25 | 128.245 | 0.005 | 3.033 | 3.013 | 0.020 | 1.845 | 1.832 | 0.013 | 1.005 | 0.999 | 0.006 |
| 2003 | 4 | 7 | 4.985 | 4.986 | -0.001 | 3.006 | 3.006 | 0.000 | 140.878 | 140.874 | 0.004 | 3.07 | 3.061 | 0.009 | 6.303 | 6.603 | -0.300 | 1.014 | 1.011 | 0.003 |
| 2003 | 4 | 8 | 4.956 | 4.957 | -0.001 | 3.003 | 3.003 | 0.000 | 151.487 | 151.482 | 0.005 | 3.087 | 3.071 | 0.016 | 7.904 | 8.616 | -0.712 | 0.894 | 0.889 | 0.005 |
| 2003 | 4 | 9 | 4.924 | 4.925 | -0.001 | 2.999 | 3 | -0.001 | 147.442 | 147.441 | 0.001 | 3.121 | 3.112 | 0.009 | 3.536 | 3.569 | -0.033 | 0.842 | 0.841 | 0.001 |
| 2003 | 4 | 10 | 4.922 | 4.923 | -0.001 | 2.996 | 2.996 | 0.000 | 145.421 | 145.42 | 0.001 | 3.119 | 3.116 | 0.003 | 3.407 | 3.365 | 0.042 | 1.017 | 1.017 | 0.000 |
| 2003 | 4 | 11 | 4.894 | 4.895 | -0.001 | 2.997 | 2.997 | 0.000 | 138.353 | 138.348 | 0.005 | 3.085 | 3.085 | 0.000 | 12.732 | 13.625 | -0.893 | 0.728 | 0.736 | -0.008 |
| 2003 | 4 | 12 | 4.916 | 4.917 | -0.001 | 3.001 | 3.001 | 0.000 | 131.277 | 131.276 | 0.001 | 3.251 | 3.252 | -0.001 | 4.368 | 4.343 | 0.025 | 0.606 | 0.606 | 0.000 |
| 2003 | 4 | 17 | 5.079 | | 5.079 | 2.984 | | 2.984 | 73.703 | | 73.703 | 3.05 | | 3.050 | 5.322 | | 5.322 | 1.541 | | 1.541 |
| 2003 | 4 | 18 | 5.116 | | 5.116 | 2.983 | | 2.983 | 79.763 | | 79.763 | 3.28 | | 3.280 | 2.114 | | 2.114 | 1.93 | | 1.930 |
| 2003 | 4 | 21 | 4.943 | 4.944 | -0.001 | 3 | 3 | 0.000 | 85.317 | 85.317 | 0.000 | 3.364 | 3.364 | 0.000 | 6.222 | 6.275 | -0.053 | 0.562 | 0.562 | 0.000 |
| 2003 | 4 | 22 | 4.805 | 4.805 | 0.000 | 2.969 | 2.969 | 0.000 | 71.221 | 70.673 | 0.548 | 3.118 | 3.113 | 0.005 | 0.064 | 0.071 | -0.007 | 1.574 | 1.634 | -0.060 |
| 2003 | 4 | 23 | 4.794 | 4.793 | 0.001 | 2.947 | 2.948 | -0.001 | 30.31 | 29.275 | 1.035 | 3.116 | 3.137 | -0.021 | 9.359 | 8.558 | 0.801 | 2.311 | 2.598 | -0.287 |
| 2003 | 6 | 0 | 7.701 | 7.701 | 0.000 | 3.254 | 3.25 | 0.004 | 20.214 | 20.173 | 0.041 | 3.168 | 3.105 | 0.063 | 34.341 | 33.152 | 1.189 | 4.888 | 5.206 | -0.318 |
| 2003 | 6 | 1 | 7.599 | 7.601 | -0.002 | 3.25 | 3.248 | 0.002 | 24.752 | 24.718 | 0.034 | 3.225 | 3.154 | 0.071 | 23.57 | 23.528 | 0.042 | 6.383 | 6.739 | -0.356 |
| 2003 | 6 | 2 | 7.672 | 7.674 | -0.002 | 3.28 | 3.28 | 0.000 | 41.403 | 42.396 | -0.993 | 3.473 | 3.468 | 0.005 | 12.831 | 8.458 | 4.373 | 3.205 | 3.268 | -0.063 |
| 2003 | 6 | 3 | 7.657 | 7.66 | -0.003 | 3.245 | 3.245 | 0.000 | 46.45 | 45.934 | 0.516 | 3.644 | 3.579 | 0.065 | 8.004 | 10.021 | -2.017 | 6.17 | 5.881 | 0.289 |

NO

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2003 | 6 | 4 | 5.962 | 5.964 | -0.002 | 3.1 | 3.1 | 0.000 | 143.404 | 143.399 | 0.005 | 2.899 | 2.879 | 0.020 | 1.978 | 2.452 | -0.474 | 2.878 | 2.754 | 0.124 |
| 2003 | 7 | 0 | 9.49 | 9.52 | -0.030 | 3.288 | 3.284 | 0.004 | 19.71 | 19.674 | 0.036 | 2.632 | 2.604 | 0.028 | 48.048 | 55.429 | -7.381 | 12.473 | 14.953 | -2.480 |
| 2003 | 7 | 1 | 8.037 | 8.055 | -0.018 | 3.232 | 3.232 | 0.000 | 23.12 | 23.385 | -0.265 | 3.399 | 3.34 | 0.059 | 85.711 | 69.33 | 16.381 | 5.316 | 5.398 | -0.082 |
| 2003 | 7 | 2 | 8.226 | 8.197 | 0.029 | 3.198 | 3.204 | -0.006 | 30.301 | 30.273 | 0.028 | 3.516 | 3.447 | 0.069 | 13.313 | 13.349 | -0.036 | 5.922 | 5.897 | 0.025 |
| 2003 | 7 | 3 | 8.089 | 8.095 | -0.006 | 3.141 | 3.147 | -0.006 | 34.338 | 34.323 | 0.015 | 3.067 | 3.028 | 0.039 | 8.178 | 13.735 | -5.557 | 6.256 | 6.298 | -0.042 |
| 2003 | 7 | 4 | 6.991 | 6.977 | 0.014 | 3.142 | 3.145 | -0.003 | 85.757 | 86.014 | -0.257 | 3.134 | 3.13 | 0.004 | 20.226 | 16.332 | 3.894 | 2.537 | 2.594 | -0.057 |
| 2003 | 7 | 5 | 6.46 | 6.468 | -0.008 | 3.117 | 3.116 | 0.001 | 132.796 | 132.791 | 0.005 | 3.036 | 3.002 | 0.034 | 9.044 | 11.335 | -2.291 | 1.525 | 1.515 | 0.010 |
| 2003 | 7 | 6 | 6.43 | 6.432 | -0.002 | 3.118 | 3.115 | 0.003 | 117.139 | 116.628 | 0.511 | 2.896 | 2.872 | 0.024 | 10.371 | 11.159 | -0.788 | 1.13 | 1.116 | 0.014 |
| 2003 | 7 | 8 | 6.008 | 6.03 | -0.022 | 3.07 | 3.072 | -0.002 | 140.373 | 139.358 | 1.015 | 2.838 | 2.798 | 0.040 | 13.607 | 13.267 | 0.340 | 1.199 | 1.205 | -0.006 |
| 2003 | 7 | 9 | 6.046 | 6.051 | -0.005 | 3.072 | 3.075 | -0.003 | 116.629 | 116.123 | 0.506 | 2.872 | 2.856 | 0.016 | 14.452 | 12.26 | 2.192 | 0.733 | 0.737 | -0.004 |
| 2003 | 7 | 13 | 7.298 | 7.299 | -0.001 | 3.156 | 3.156 | 0.000 | 62.098 | 62.09 | 0.008 | 3.072 | 3.025 | 0.047 | 8.242 | 8.741 | -0.499 | 3.778 | 3.759 | 0.019 |
| 2003 | 7 | 14 | 7.235 | 7.269 | -0.034 | 3.137 | 3.135 | 0.002 | 37.87 | 37.352 | 0.518 | 3.156 | 3.044 | 0.112 | 15.248 | 18.909 | -3.661 | 3.404 | 3.351 | 0.053 |
| 2003 | 7 | 16 | 5.875 | 5.875 | 0.000 | 3.051 | 3.05 | 0.001 | 140.878 | 140.368 | 0.510 | 1.28 | 1.278 | 0.002 | 2.888 | 3.22 | -0.332 | 1.342 | 1.333 | 0.009 |
| 2003 | 7 | 17 | 6.019 | 6.021 | -0.002 | 3.057 | 3.06 | -0.003 | 90.367 | 90.367 | 0.000 | 1.374 | 1.334 | 0.040 | 3.114 | 3.075 | 0.039 | 1.903 | 1.882 | 0.021 |
| 2003 | 7 | 18 | 5.849 | 5.854 | -0.005 | 3.017 | 3.02 | -0.003 | 86.838 | 86.327 | 0.511 | 2.094 | 2.036 | 0.058 | 2.836 | 2.829 | 0.007 | 1.239 | 1.244 | -0.005 |
| 2003 | 7 | 19 | 5.39 | 5.394 | -0.004 | 2.983 | 2.988 | -0.005 | 106.533 | 106.527 | 0.006 | 28.12 | 28.006 | 0.114 | 3.217 | 2.977 | 0.240 | 0.686 | 0.684 | 0.002 |
| 2003 | 7 | 20 | 5.53 | 5.53 | 0.000 | 2.964 | 2.971 | -0.007 | 81.284 | 81.277 | 0.007 | 85.357 | 84.452 | 0.905 | 0.218 | 0.374 | -0.156 | 0.845 | 0.839 | 0.006 |
| 2003 | 7 | 22 | 6.866 | 6.825 | 0.041 | 3.105 | 3.117 | -0.012 | 68.661 | 68.648 | 0.013 | 2.984 | 2.949 | 0.035 | 9.063 | 9.03 | 0.033 | 1.772 | 1.778 | -0.006 |
| 2003 | 7 | 23 | 6.839 | 6.853 | -0.014 | 2.948 | 2.946 | 0.002 | 24.752 | 24.227 | 0.525 | 3.917 | 3.895 | 0.022 | 20.116 | 27.487 | -7.371 | 2.906 | 3.082 | -0.176 |
| 2003 | 8 | 0 | 9.929 | 9.936 | -0.007 | 3.311 | 3.313 | -0.002 | 24.248 | 23.998 | 0.250 | 1.525 | 1.491 | 0.034 | 42.127 | 43.339 | -1.212 | 6.848 | 6.837 | 0.011 |
| 2003 | 8 | 1 | 8.937 | 8.943 | -0.006 | 3.251 | 3.255 | -0.004 | 29.327 | 29.042 | 0.285 | 2.151 | 2.116 | 0.035 | 36.859 | 37.651 | -0.792 | 4.236 | 4.224 | 0.012 |
| 2003 | 8 | 2 | 8.496 | 8.499 | -0.003 | 3.204 | 3.207 | -0.003 | 44.209 | 43.938 | 0.271 | 1.912 | 1.89 | 0.022 | 29.269 | 29.462 | -0.193 | 3.643 | 3.629 | 0.014 |
| 2003 | 8 | 3 | 8.206 | 8.214 | -0.008 | 3.181 | 3.185 | -0.004 | 49.742 | 49.473 | 0.269 | 1.799 | 1.768 | 0.031 | 35.217 | 34.899 | 0.318 | 3.179 | 3.187 | -0.008 |
| 2003 | 8 | 4 | 6.844 | 6.845 | -0.001 | 3.138 | 3.14 | -0.002 | 144.414 | 144.41 | 0.004 | 1.582 | 1.564 | 0.018 | 13.158 | 13.193 | -0.035 | 1.302 | 1.272 | 0.030 |
| 2003 | 8 | 5 | 6.719 | 6.724 | -0.005 | 3.121 | 3.122 | -0.001 | 138.858 | 138.348 | 0.510 | 1.368 | 1.358 | 0.010 | 9.937 | 9.975 | -0.038 | 1.504 | 1.488 | 0.016 |
| 2003 | 8 | 6 | 6.671 | 6.678 | -0.007 | 3.123 | 3.123 | 0.000 | 138.858 | 138.348 | 0.510 | 1.341 | 1.329 | 0.012 | 11.838 | 11.954 | -0.116 | 1.233 | 1.229 | 0.004 |
| 2003 | 8 | 7 | 6.707 | 6.71 | -0.003 | 3.115 | 3.118 | -0.003 | 128.752 | 128.75 | 0.002 | 1.528 | 1.512 | 0.016 | 16.572 | 16.299 | 0.273 | 1.076 | 1.074 | 0.002 |
| 2003 | 8 | 8 | 6.424 | 6.422 | 0.002 | 3.1 | 3.101 | -0.001 | 155.528 | 155.524 | 0.004 | 5.473 | 5.459 | 0.014 | 13.527 | 13.667 | -0.140 | 0.968 | 0.967 | 0.001 |
| 2003 | 8 | 9 | 6.378 | 6.379 | -0.001 | 3.093 | 3.095 | -0.002 | 151.487 | 151.482 | 0.005 | 3.047 | 3.035 | 0.012 | 15.068 | 15.184 | -0.116 | 1.007 | 1.004 | 0.003 |
| 2003 | 8 | 10 | 6.325 | 6.326 | -0.001 | 3.089 | 3.091 | -0.002 | 149.971 | 149.967 | 0.004 | 1.724 | 1.713 | 0.011 | 20.008 | 17.728 | 2.280 | 0.715 | 0.716 | -0.001 |
| 2003 | 8 | 11 | 6.106 | 6.108 | -0.002 | 3.068 | 3.069 | -0.001 | 151.992 | 151.482 | 0.510 | 2.94 | 2.872 | 0.068 | 17.289 | 17.617 | -0.328 | 0.902 | 0.901 | 0.001 |
| 2003 | 8 | 12 | 6.149 | 6.151 | -0.002 | 3.048 | 3.051 | -0.003 | 138.349 | 138.348 | 0.001 | 90.03 | 90.086 | -0.056 | 12.779 | 12.308 | 0.471 | 1.114 | 1.114 | 0.000 |
| 2003 | 8 | 13 | 7.301 | 7.301 | 0.000 | 3.134 | 3.136 | -0.002 | 68.157 | 68.149 | 0.008 | 1.942 | 1.886 | 0.056 | 18.627 | 24.052 | -5.425 | 1.65 | 1.637 | 0.013 |
| 2003 | 8 | 14 | 7.508 | 7.521 | -0.013 | 3.108 | 3.114 | -0.006 | 28.77 | 28.265 | 0.505 | 3.678 | 3.63 | 0.048 | 54.22 | 57.416 | -3.196 | 2.348 | 2.4 | -0.052 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2003 | 8 | 16 | 6.06 | 6.061 | -0.001 | 3.069 | 3.069 | 0.000 | 151.992 | 151.987 | 0.005 | 1.512 | 1.497 | 0.015 | 22.09 | 22.597 | -0.507 | 1.03 | 1.03 | 0.000 |
| 2003 | 8 | 17 | 6.065 | 6.071 | -0.006 | 3.038 | 3.041 | -0.003 | 102.993 | 102.487 | 0.506 | 2.063 | 2.065 | -0.002 | 18.879 | 18.932 | -0.053 | 1.012 | 1.014 | -0.002 |
| 2003 | 8 | 18 | 6.406 | 6.41 | -0.004 | 3.05 | 3.055 | -0.005 | 85.822 | 85.822 | 0.000 | 39.883 | 39.792 | 0.091 | 23.86 | 23.939 | -0.079 | 1.13 | 1.133 | -0.003 |
| 2003 | 8 | 20 | 6.418 | 6.421 | -0.003 | 2.975 | 2.98 | -0.005 | 82.799 | 82.287 | 0.512 | 247.932 | 246.735 | 1.197 | 23.134 | 23.725 | -0.591 | 1.886 | 1.891 | -0.005 |
| 2003 | 8 | 21 | 6.445 | 6.45 | -0.005 | 3.043 | 3.046 | -0.003 | 94.413 | 94.407 | 0.006 | 120.436 | 120.041 | 0.395 | 11.808 | 12.248 | -0.440 | 1.312 | 1.304 | 0.008 |
| 2003 | 8 | 22 | 7.21 | 7.218 | -0.008 | 3.106 | 3.112 | -0.006 | 75.225 | 74.713 | 0.512 | 1.378 | 1.352 | 0.026 | 21.784 | 22.023 | -0.239 | 1.458 | 1.466 | -0.008 |
| 2003 | 8 | 23 | 7.419 | 7.437 | -0.018 | 2.962 | 2.979 | -0.017 | 28.77 | 28.77 | 0.000 | 3.509 | 2.986 | 0.523 | 24.838 | 24.755 | 0.083 | 3.165 | 3.197 | -0.032 |
| 2003 | 10 | 1 | 7.528 | 7.529 | -0.001 | 3.172 | 3.174 | -0.002 | 25.257 | 25.237 | 0.020 | 2.885 | 2.815 | 0.070 | 21.804 | 20.198 | 1.606 | 1.614 | 1.604 | 0.010 |
| 2003 | 10 | 2 | 7.528 | 7.529 | -0.001 | 3.179 | 3.179 | 0.000 | 32.824 | 32.304 | 0.520 | 2.662 | 2.598 | 0.064 | 22.931 | 24.526 | -1.595 | 1.531 | 1.533 | -0.002 |
| 2003 | 10 | 3 | 7.401 | 7.403 | -0.002 | 3.132 | 3.132 | 0.000 | 50.993 | 50.982 | 0.011 | 2.681 | 2.648 | 0.033 | 12.468 | 12.478 | -0.010 | 1.659 | 1.653 | 0.006 |
| 2003 | 10 | 4 | 6.956 | 6.961 | -0.005 | 3.132 | 3.133 | -0.001 | 144.92 | 144.41 | 0.510 | 1.716 | 1.704 | 0.012 | 6.721 | 6.726 | -0.005 | 0.798 | 0.793 | 0.005 |
| 2003 | 10 | 5 | 6.808 | 6.812 | -0.004 | 3.118 | 3.119 | -0.001 | 156.034 | 155.724 | 0.310 | 1.463 | 1.452 | 0.011 | 3.44 | 3.474 | -0.034 | 0.832 | 0.82 | 0.012 |
| 2003 | 10 | 13 | 7.388 | 7.389 | -0.001 | 3.146 | 3.147 | -0.001 | 64.623 | 64.614 | 0.009 | 1.599 | 1.572 | 0.027 | 8.285 | 8.437 | -0.152 | 1.018 | 0.998 | 0.020 |
| 2003 | 10 | 14 | 7.385 | 7.387 | -0.002 | 3.109 | 3.11 | -0.001 | 34.828 | 34.828 | 0.000 | 2.106 | 2.07 | 0.036 | 11.579 | 11.516 | 0.063 | 1.222 | 1.219 | 0.003 |
| 2003 | 10 | 16 | 6.462 | 6.466 | -0.004 | 3.09 | 3.091 | -0.001 | 155.02 | 154.513 | 0.507 | 1.438 | 1.43 | 0.008 | 5.773 | 5.817 | -0.044 | 0.754 | 0.745 | 0.009 |
| 2003 | 10 | 17 | 6.729 | 6.73 | -0.001 | 3.1 | 3.1 | 0.000 | 99.968 | 99.962 | 0.006 | 1.49 | 1.468 | 0.022 | 9.876 | 9.968 | -0.092 | 0.788 | 0.776 | 0.012 |
| 2003 | 10 | 18 | 6.564 | 6.569 | -0.005 | 3.061 | 3.061 | 0.000 | 101.988 | 101.477 | 0.511 | 3.068 | 2.996 | 0.072 | 7.773 | 8.251 | -0.478 | 0.827 | 0.823 | 0.004 |
| 2003 | 10 | 19 | 6.406 | 6.41 | -0.004 | 3.058 | 3.06 | -0.002 | 101.988 | 101.477 | 0.511 | 4.266 | 4.146 | 0.120 | 8.705 | 8.827 | -0.122 | 0.704 | 0.702 | 0.002 |
| 2003 | 10 | 20 | 6.528 | 6.533 | -0.005 | 3.062 | 3.063 | -0.001 | 90.373 | 89.862 | 0.511 | 9.182 | 8.857 | 0.325 | 6.293 | 6.469 | -0.176 | 0.763 | 0.746 | 0.017 |
| 2003 | 10 | 22 | 7.463 | 7.467 | -0.004 | 3.137 | 3.138 | -0.001 | 77.75 | 77.237 | 0.513 | 1.551 | 1.524 | 0.027 | 10.243 | 10.328 | -0.085 | 0.88 | 0.87 | 0.010 |
| 2003 | 10 | 23 | 7.504 | 7.504 | 0.000 | 3.083 | 3.084 | -0.001 | 30.301 | 29.78 | 0.521 | 2.04 | 1.946 | 0.094 | 7.675 | 7.676 | -0.001 | 1.338 | 1.304 | 0.034 |
| 2003 | 11 | 0 | 7.075 | 7.076 | -0.001 | 3.119 | 3.119 | 0.000 | 19.206 | 19.179 | 0.027 | 1.7 | 1.702 | -0.002 | 34.723 | 33.743 | 0.980 | 1.98 | 1.993 | -0.013 |
| 2003 | 11 | 1 | 7.098 | 7.099 | -0.001 | 3.182 | 3.182 | 0.000 | 24.752 | 24.732 | 0.020 | 2.239 | 2.197 | 0.042 | 35.6 | 36.022 | -0.422 | 1.601 | 1.587 | 0.014 |
| 2003 | 11 | 2 | 7.093 | 7.094 | -0.001 | 3.164 | 3.163 | 0.001 | 39.889 | 39.371 | 0.518 | 2.189 | 2.152 | 0.037 | 32.256 | 33.076 | -0.820 | 1.656 | 1.65 | 0.006 |
| 2003 | 11 | 3 | 6.987 | 6.99 | -0.003 | 3.11 | 3.111 | -0.001 | 49.983 | 49.973 | 0.010 | 2.359 | 2.363 | -0.004 | 25.688 | 25.297 | 0.391 | 1.955 | 1.951 | 0.004 |
| 2003 | 11 | 4 | 6.945 | 6.947 | -0.002 | 3.129 | 3.129 | 0.000 | 138.858 | 138.853 | 0.005 | 1.679 | 1.67 | 0.009 | 18.485 | 18.664 | -0.179 | 1.1 | 1.088 | 0.012 |
| 2003 | 11 | 6 | 6.951 | 6.953 | -0.002 | 3.133 | 3.134 | -0.001 | 135.827 | 135.822 | 0.005 | 1.429 | 1.423 | 0.006 | 14.415 | 14.597 | -0.182 | 0.909 | 0.9 | 0.009 |
| 2003 | 11 | 7 | 6.879 | 6.884 | -0.005 | 3.132 | 3.133 | -0.001 | 156.034 | 155.524 | 0.510 | 1.378 | 1.369 | 0.009 | 13.113 | 13.649 | -0.536 | 0.754 | 0.748 | 0.006 |
| 2003 | 11 | 8 | 6.955 | 6.961 | -0.006 | 3.138 | 3.139 | -0.001 | 155.525 | 155.019 | 0.506 | 1.412 | 1.404 | 0.008 | 13.762 | 13.854 | -0.092 | 0.679 | 0.676 | 0.003 |
| 2003 | 11 | 9 | 6.901 | 6.904 | -0.003 | 3.135 | 3.135 | 0.000 | 155.023 | 154.513 | 0.510 | 1.288 | 1.275 | 0.013 | 11.055 | 11.135 | -0.080 | 0.681 | 0.676 | 0.005 |
| 2003 | 11 | 10 | 6.76 | 6.767 | -0.007 | 3.124 | 3.125 | -0.001 | 155.02 | 154.513 | 0.507 | 1.329 | 1.314 | 0.015 | 13.538 | 12.957 | 0.581 | 0.611 | 0.61 | 0.001 |
| 2003 | 11 | 11 | 6.786 | 6.795 | -0.009 | 3.125 | 3.126 | -0.001 | 156.539 | 156.534 | 0.005 | 1.429 | 1.425 | 0.004 | 16.454 | 15.151 | 1.303 | 0.573 | 0.572 | 0.001 |
| 2003 | 11 | 12 | 6.71 | 6.713 | -0.003 | 3.104 | 3.108 | -0.004 | 139.363 | 138.853 | 0.510 | 2.393 | 2.497 | -0.104 | 14.318 | 14.389 | -0.071 | 0.549 | 0.547 | 0.002 |
| 2003 | 11 | 21 | 6.912 | 6.912 | 0.000 | 3.12 | 3.12 | 0.000 | 118.144 | 118.143 | 0.001 | 1.953 | 1.918 | 0.035 | 23.342 | 23.229 | 0.113 | 0.556 | 0.555 | 0.001 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2003 | 12 | 1 | 5.767 | 5.768 | -0.001 | 3.047 | 3.048 | -0.001 | 25.237 | 25.237 | 0.000 | 1.609 | 1.586 | 0.023 | 9.359 | 9.385 | -0.026 | 1.012 | 1.01 | 0.002 |
| 2003 | 12 | 2 | 5.747 | 5.747 | 0.000 | 3.036 | 3.036 | 0.000 | 36.847 | 36.342 | 0.505 | 1.592 | 1.59 | 0.002 | 5.698 | 5.715 | -0.017 | 1.024 | 1.025 | -0.001 |
| 2003 | 12 | 3 | 5.872 | 5.874 | -0.002 | 3.037 | 3.037 | 0.000 | 44.42 | 44.419 | 0.001 | 1.413 | 1.394 | 0.019 | 3.261 | 3.242 | 0.019 | 0.961 | 0.958 | 0.003 |
| 2003 | 12 | 4 | 5.961 | 5.962 | -0.001 | 3.055 | 3.055 | 0.000 | 127.24 | 126.73 | 0.510 | 1.489 | 1.485 | 0.004 | 1.538 | 1.541 | -0.003 | 0.91 | 0.906 | 0.004 |
| 2003 | 12 | 5 | 5.974 | 5.975 | -0.001 | 3.06 | 3.06 | 0.000 | 137.844 | 137.338 | 0.506 | 1.435 | 1.431 | 0.004 | 1.058 | 1.057 | 0.001 | 0.797 | 0.795 | 0.002 |
| 2003 | 12 | 6 | 6.131 | 6.133 | -0.002 | 3.074 | 3.074 | 0.000 | 136.332 | 136.327 | 0.005 | 1.411 | 1.402 | 0.009 | 1.199 | 1.196 | 0.003 | 0.739 | 0.735 | 0.004 |
| 2003 | 12 | 7 | 6.113 | 6.114 | -0.001 | 3.075 | 3.076 | -0.001 | 150.982 | 150.977 | 0.005 | 1.423 | 1.419 | 0.004 | 1.211 | 1.211 | 0.000 | 0.796 | 0.794 | 0.002 |
| 2003 | 12 | 8 | 6.192 | 6.194 | -0.002 | 3.082 | 3.082 | 0.000 | 153.504 | 151.987 | 1.517 | 1.374 | 1.37 | 0.004 | 1.37 | 1.376 | -0.006 | 0.752 | 0.752 | 0.000 |
| 2003 | 12 | 9 | 6.298 | 6.3 | -0.002 | 3.09 | 3.09 | 0.000 | 152.999 | 152.998 | 0.001 | 1.414 | 1.414 | 0.000 | 1.316 | 1.315 | 0.001 | 0.691 | 0.691 | 0.000 |
| 2003 | 12 | 10 | 6.244 | 6.248 | -0.004 | 3.089 | 3.09 | -0.001 | 156.535 | 156.029 | 0.506 | 1.363 | 1.363 | 0.000 | 1.384 | 1.386 | -0.002 | 0.646 | 0.647 | -0.001 |
| 2003 | 12 | 11 | 6.138 | 6.141 | -0.003 | 3.071 | 3.072 | -0.001 | 137.339 | 136.832 | 0.507 | 1.412 | 1.412 | 0.000 | 1.389 | 1.391 | -0.002 | 0.705 | 0.706 | -0.001 |
| 2003 | 12 | 12 | 6.033 | 6.036 | -0.003 | 3.058 | 3.059 | -0.001 | 135.318 | 134.812 | 0.506 | 1.614 | 1.61 | 0.004 | 1.14 | 1.142 | -0.002 | 0.738 | 0.738 | 0.000 |
| 2003 | 12 | 13 | 6.013 | 6.015 | -0.002 | 3.046 | 3.046 | 0.000 | 53.012 | 52.497 | 0.515 | 1.364 | 1.341 | 0.023 | 1.255 | 1.236 | 0.019 | 0.896 | 0.888 | 0.008 |
| 2003 | 12 | 14 | 5.961 | 5.963 | -0.002 | 3.034 | 3.033 | 0.001 | 28.283 | 28.266 | 0.017 | 1.449 | 1.407 | 0.042 | 4.068 | 4.398 | -0.330 | 0.953 | 0.938 | 0.015 |
| 2003 | 12 | 16 | 6.241 | 6.242 | -0.001 | 3.08 | 3.081 | -0.001 | 149.968 | 149.967 | 0.001 | 1.391 | 1.385 | 0.006 | 2.519 | 2.481 | 0.038 | 0.686 | 0.682 | 0.004 |
| 2003 | 12 | 17 | 6.386 | 6.387 | -0.001 | 3.081 | 3.082 | -0.001 | 87.842 | 87.842 | 0.000 | 1.401 | 1.401 | 0.000 | 2.736 | 2.734 | 0.002 | 0.731 | 0.731 | 0.000 |
| 2003 | 12 | 18 | 6.353 | 6.357 | -0.004 | 3.084 | 3.085 | -0.001 | 103.498 | 102.992 | 0.506 | 1.46 | 1.458 | 0.002 | 1.953 | 1.959 | -0.006 | 0.715 | 0.716 | -0.001 |
| 2003 | 12 | 19 | 6.394 | 6.398 | -0.004 | 3.083 | 3.084 | -0.001 | 86.333 | 85.822 | 0.511 | 1.44 | 1.422 | 0.018 | 2.108 | 2.131 | -0.023 | 0.768 | 0.749 | 0.019 |
| 2003 | 12 | 20 | 6.35 | 6.352 | -0.002 | 3.069 | 3.07 | -0.001 | 72.196 | 71.683 | 0.513 | 1.546 | 1.508 | 0.038 | 2.116 | 2.128 | -0.012 | 0.94 | 0.915 | 0.025 |
| 2003 | 12 | 22 | 6.167 | 6.169 | -0.002 | 3.065 | 3.066 | -0.001 | 69.159 | 68.654 | 0.505 | 1.511 | 1.507 | 0.004 | 4.088 | 4.101 | -0.013 | 0.746 | 0.745 | 0.001 |
| 2003 | 12 | 23 | 6.389 | 6.392 | -0.003 | 3.082 | 3.083 | -0.001 | 50.983 | 50.478 | 0.505 | 1.546 | 1.543 | 0.003 | 3.138 | 3.153 | -0.015 | 0.704 | 0.704 | 0.000 |
| 2004 | 3 | 0 | 4.761 | 4.763 | -0.002 | 2.961 | 2.959 | 0.002 | 24.752 | 24.227 | 0.525 | 2.701 | 2.649 | 0.052 | 19.434 | 20.32 | -0.886 | 2.193 | 2.183 | 0.010 |
| 2004 | 3 | 1 | 4.75 | 4.751 | -0.001 | 2.971 | 2.971 | 0.000 | 21.703 | 21.703 | 0.000 | 2.411 | 2.405 | 0.006 | 8.347 | 8.348 | -0.001 | 2.426 | 2.424 | 0.002 |
| 2004 | 3 | 2 | 4.782 | 4.783 | -0.001 | 2.981 | 2.981 | 0.000 | 33.314 | 33.313 | 0.001 | 3.219 | 3.219 | 0.000 | 4.593 | 4.593 | 0.000 | 2.073 | 2.073 | 0.000 |
| 2004 | 3 | 3 | 4.664 | 4.664 | 0.000 | 2.95 | 2.95 | 0.000 | 40.381 | 39.876 | 0.505 | 1.654 | 1.651 | 0.003 | 6.466 | 6.547 | -0.081 | 1.915 | 1.921 | -0.006 |
| 2004 | 3 | 4 | 4.723 | 4.724 | -0.001 | 2.962 | 2.962 | 0.000 | 143.404 | 143.399 | 0.005 | 1.561 | 1.555 | 0.006 | 0.528 | 0.536 | -0.008 | 1.147 | 1.137 | 0.010 |
| 2004 | 3 | 5 | 4.698 | 4.699 | -0.001 | 2.966 | 2.966 | 0.000 | 153.508 | 153.503 | 0.005 | 1.595 | 1.591 | 0.004 | 2.371 | 2.432 | -0.061 | 1.292 | 1.284 | 0.008 |
| 2004 | 3 | 6 | 4.657 | 4.658 | -0.001 | 2.959 | 2.959 | 0.000 | 123.195 | 123.194 | 0.001 | 1.408 | 1.401 | 0.007 | 5.701 | 5.905 | -0.204 | 0.984 | 0.976 | 0.008 |
| 2004 | 3 | 7 | 4.643 | 4.644 | -0.001 | 2.959 | 2.959 | 0.000 | 154.515 | 154.008 | 0.507 | 1.415 | 1.41 | 0.005 | 4.738 | 4.534 | 0.204 | 0.947 | 0.942 | 0.005 |
| 2004 | 3 | 8 | 4.652 | 4.653 | -0.001 | 2.959 | 2.958 | 0.001 | 156.03 | 156.029 | 0.001 | 1.415 | 1.412 | 0.003 | 5.824 | 5.704 | 0.120 | 0.979 | 0.972 | 0.007 |
| 2004 | 3 | 9 | 4.634 | 4.635 | -0.001 | 2.953 | 2.952 | 0.001 | 156.539 | 156.534 | 0.005 | 1.407 | 1.403 | 0.004 | 0.705 | 0.717 | -0.012 | 1.04 | 1.033 | 0.007 |
| 2004 | 3 | 10 | 4.694 | 4.695 | -0.001 | 2.958 | 2.957 | 0.001 | 154.518 | 154.513 | 0.005 | 1.37 | 1.366 | 0.004 | 2.272 | 2.311 | -0.039 | 1.085 | 1.078 | 0.007 |
| 2004 | 3 | 11 | 4.632 | 4.633 | -0.001 | 2.952 | 2.951 | 0.001 | 156.535 | 156.029 | 0.506 | 1.417 | 1.412 | 0.005 | 2.994 | 2.97 | 0.024 | 1.083 | 1.078 | 0.005 |
| 2004 | 3 | 12 | 4.623 | 4.625 | -0.002 | 2.95 | 2.949 | 0.001 | 140.875 | 140.874 | 0.001 | 1.527 | 1.518 | 0.009 | 2.433 | 2.49 | -0.057 | 1.125 | 1.115 | 0.010 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2004 | 3 | 13 | 4.634 | 4.635 | -0.001 | 2.948 | 2.948 | 0.000 | 70.681 | 70.673 | 0.008 | 1.548 | 1.542 | 0.006 | 6.739 | 7.023 | -0.284 | 1.428 | 1.411 | 0.017 |
| 2004 | 3 | 14 | 4.398 | 4.398 | 0.000 | 2.903 | 2.9 | 0.003 | 30.806 | 30.789 | 0.017 | 1.417 | 1.383 | 0.034 | 24.656 | 25.428 | -0.772 | 2.505 | 2.48 | 0.025 |
| 2004 | 3 | 16 | 4.708 | 4.709 | -0.001 | 2.953 | 2.953 | 0.000 | 145.93 | 145.925 | 0.005 | 1.518 | 1.513 | 0.005 | 2.662 | 2.744 | -0.082 | 1.144 | 1.137 | 0.007 |
| 2004 | 3 | 17 | 4.709 | 4.709 | 0.000 | 2.941 | 2.94 | 0.001 | 85.317 | 84.812 | 0.505 | 1.58 | 1.571 | 0.009 | 5.395 | 5.399 | -0.004 | 1.422 | 1.416 | 0.006 |
| 2004 | 3 | 18 | 4.731 | 4.732 | -0.001 | 2.941 | 2.941 | 0.000 | 99.463 | 99.457 | 0.006 | 1.616 | 1.607 | 0.009 | 2.846 | 2.862 | -0.016 | 1.796 | 1.78 | 0.016 |
| 2004 | 3 | 19 | 4.762 | 4.764 | -0.002 | 2.941 | 2.937 | 0.004 | 104.003 | 104.002 | 0.001 | 1.597 | 1.582 | 0.015 | 4.163 | 3.677 | 0.486 | 2.034 | 2.029 | 0.005 |
| 2004 | 3 | 22 | 4.672 | 4.673 | -0.001 | 2.949 | 2.947 | 0.002 | 70.681 | 70.673 | 0.008 | 1.421 | 1.411 | 0.010 | 1.889 | 1.886 | 0.003 | 1.327 | 1.312 | 0.015 |
| 2004 | 3 | 23 | 4.71 | 4.711 | -0.001 | 2.954 | 2.95 | 0.004 | 45.945 | 45.429 | 0.516 | 1.91 | 1.882 | 0.028 | 0.925 | 0.969 | -0.044 | 1.356 | 1.343 | 0.013 |
| 2004 | 6 | 0 | 7.565 | 7.571 | -0.006 | 3.243 | 3.242 | 0.001 | 20.214 | 19.684 | 0.530 | 1.941 | 1.854 | 0.087 | 69.017 | 79.252 | -10.235 | 4.031 | 4.059 | -0.028 |
| 2004 | 6 | 1 | 7.505 | 7.515 | -0.010 | 3.233 | 3.233 | 0.000 | 26.016 | 25.492 | 0.524 | 1.864 | 1.803 | 0.061 | 22.133 | 21.915 | 0.218 | 4.311 | 4.343 | -0.032 |
| 2004 | 6 | 2 | 7.709 | 7.714 | -0.005 | 3.219 | 3.22 | -0.001 | 37.87 | 37.352 | 0.518 | 1.983 | 1.939 | 0.044 | 12.328 | 12.687 | -0.359 | 5.468 | 5.508 | -0.040 |
| 2004 | 6 | 3 | 7.354 | 7.359 | -0.005 | 3.179 | 3.18 | -0.001 | 50.267 | 50.257 | 0.010 | 1.828 | 1.823 | 0.005 | 7.914 | 8.046 | -0.132 | 4.151 | 4.182 | -0.031 |
| 2004 | 6 | 4 | 5.791 | 5.794 | -0.003 | 3.057 | 3.058 | -0.001 | 136.839 | 136.834 | 0.005 | 1.244 | 1.228 | 0.016 | 9.125 | 8.789 | 0.336 | 1.26 | 1.226 | 0.034 |
| 2004 | 6 | 5 | 5.671 | 5.672 | -0.001 | 3.051 | 3.052 | -0.001 | 156.034 | 156.029 | 0.005 | 1.143 | 1.135 | 0.008 | 2.282 | 2.411 | -0.129 | 1.113 | 1.091 | 0.022 |
| 2004 | 6 | 6 | 5.501 | 5.502 | -0.001 | 3.03 | 3.031 | -0.001 | 130.776 | 130.771 | 0.005 | 1.14 | 1.131 | 0.009 | 2.714 | 2.887 | -0.173 | 1.406 | 1.382 | 0.024 |
| 2004 | 6 | 7 | 5.604 | 5.605 | -0.001 | 3.042 | 3.043 | -0.001 | 152.497 | 152.493 | 0.004 | 1.063 | 1.059 | 0.004 | 4.889 | 4.942 | -0.053 | 1.105 | 1.111 | -0.006 |
| 2004 | 6 | 8 | 5.083 | 5.094 | -0.011 | 2.993 | 2.988 | 0.005 | 149.988 | 149.461 | 0.527 | 0.944 | 0.944 | 0.000 | 4.519 | 7.325 | -2.806 | 0.572 | 0.594 | -0.022 |
| 2004 | 6 | 13 | 6.544 | 6.549 | -0.005 | 3.109 | 3.11 | -0.001 | 67.147 | 66.634 | 0.513 | 1.369 | 1.33 | 0.039 | 7.375 | 10.441 | -3.066 | 2.633 | 2.574 | 0.059 |
| 2004 | 6 | 14 | 7 | 7.017 | -0.017 | 3.118 | 3.113 | 0.005 | 29.797 | 29.78 | 0.017 | 1.577 | 1.429 | 0.148 | 31.629 | 37.578 | -5.949 | 3.483 | 3.459 | 0.024 |
| 2004 | 6 | 16 | 5.354 | 5.356 | -0.002 | 3.01 | 3.01 | 0.000 | 152.497 | 151.987 | 0.510 | 1.244 | 1.209 | 0.035 | 3.37 | 3.647 | -0.277 | 1.407 | 1.401 | 0.006 |
| 2004 | 6 | 17 | 5.04 | 5.05 | -0.010 | 2.96 | 2.962 | -0.002 | 88.858 | 88.347 | 0.511 | 1.506 | 1.415 | 0.091 | 3.777 | 6.604 | -2.827 | 1.584 | 1.591 | -0.007 |
| 2004 | 6 | 19 | 4.867 | 4.867 | 0.000 | 2.953 | 2.94 | 0.013 | 109.053 | 109.052 | 0.001 | 11.054 | 10.711 | 0.343 | 7.106 | 5.363 | 1.743 | 0.754 | 0.585 | 0.169 |
| 2004 | 6 | 20 | 4.902 | 4.915 | -0.013 | 2.942 | 2.938 | 0.004 | 82.811 | 82.792 | 0.019 | 31.605 | 31.616 | -0.011 | 0.047 | 12.288 | -12.241 | 0.726 | 0.754 | -0.028 |
| 2004 | 6 | 22 | 5.475 | 5.483 | -0.008 | 2.981 | 2.983 | -0.002 | 71.691 | 71.178 | 0.513 | 1.265 | 1.261 | 0.004 | 9.741 | 9.877 | -0.136 | 1.042 | 1.076 | -0.034 |
| 2004 | 6 | 23 | 5.463 | 5.469 | -0.006 | 2.898 | 2.895 | 0.003 | 25.761 | 25.237 | 0.524 | 2.855 | 2.202 | 0.653 | 12.89 | 14.966 | -2.076 | 1.926 | 1.969 | -0.043 |
| 2004 | 7 | 0 | 8.959 | 8.948 | 0.011 | 3.222 | 3.226 | -0.004 | 17.665 | 17.665 | 0.000 | 1.857 | 1.829 | 0.028 | 35.186 | 27.961 | 7.225 | 9.823 | 10.017 | -0.194 |
| 2004 | 7 | 1 | 7.646 | 7.649 | -0.003 | 3.164 | 3.166 | -0.002 | 23.744 | 23.722 | 0.022 | 2.33 | 2.265 | 0.065 | 12.832 | 13.594 | -0.762 | 7.353 | 7.19 | 0.163 |
| 2004 | 7 | 2 | 8.236 | 8.239 | -0.003 | 3.22 | 3.221 | -0.001 | 38.88 | 38.866 | 0.014 | 2.042 | 2.014 | 0.028 | 29.292 | 29.347 | -0.055 | 10.94 | 10.991 | -0.051 |
| 2004 | 7 | 3 | 7.48 | 7.498 | -0.018 | 3.083 | 3.089 | -0.006 | 48.469 | 47.953 | 0.516 | 1.787 | 1.754 | 0.033 | 15.415 | 15.79 | -0.375 | 8.956 | 9.082 | -0.126 |
| 2004 | 7 | 4 | 6.159 | 6.165 | -0.006 | 3.071 | 3.071 | 0.000 | 127.745 | 127.235 | 0.510 | 1.41 | 1.398 | 0.012 | 3.114 | 3.238 | -0.124 | 2.04 | 2.023 | 0.017 |
| 2004 | 7 | 5 | 6.099 | 6.1 | -0.001 | 3.069 | 3.07 | -0.001 | 149.466 | 149.461 | 0.005 | 1.345 | 1.32 | 0.025 | 2.371 | 2.664 | -0.293 | 2.293 | 2.251 | 0.042 |
| 2004 | 7 | 6 | 6.013 | 6.021 | -0.008 | 3.06 | 3.062 | -0.002 | 129.766 | 129.256 | 0.510 | 1.277 | 1.257 | 0.020 | 11.394 | 10.231 | 1.163 | 1.696 | 1.694 | 0.002 |
| 2004 | 7 | 7 | 5.868 | 5.871 | -0.003 | 3.047 | 3.049 | -0.002 | 153.508 | 152.998 | 0.510 | 1.295 | 1.27 | 0.025 | 7.673 | 8.635 | -0.962 | 2.367 | 2.376 | -0.009 |
| 2004 | 7 | 8 | 5.708 | 5.71 | -0.002 | 3.027 | 3.03 | -0.003 | 152.497 | 152.493 | 0.004 | 1.465 | 1.434 | 0.031 | 9.91 | 10.034 | -0.124 | 1.034 | 1.035 | -0.001 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2004 | 7 | 9 | 5.661 | 5.662 | -0.001 | 3.028 | 3.03 | -0.002 | 151.487 | 151.482 | 0.005 | 1.417 | 1.375 | 0.042 | 10.525 | 13.323 | -2.798 | 0.952 | 0.948 | 0.004 |
| 2004 | 7 | 10 | 5.535 | 5.54 | -0.005 | 3.017 | 3.019 | -0.002 | 151.992 | 151.482 | 0.510 | 1.466 | 1.438 | 0.028 | 11.822 | 6.643 | 5.179 | 0.874 | 0.875 | -0.001 |
| 2004 | 7 | 11 | 5.31 | 5.315 | -0.005 | 2.996 | 2.998 | -0.002 | 155.023 | 155.313 | -0.290 | 1.492 | 1.458 | 0.034 | 10.849 | 5.603 | 5.246 | 1.11 | 1.112 | -0.002 |
| 2004 | 7 | 12 | 5.156 | 5.158 | -0.002 | 2.971 | 2.973 | -0.002 | 132.796 | 132.791 | 0.005 | 33.179 | 32.625 | 0.554 | 4.275 | 4.338 | -0.063 | 0.719 | 0.715 | 0.004 |
| 2004 | 7 | 13 | 7.087 | 7.09 | -0.003 | 3.113 | 3.115 | -0.002 | 59.574 | 59.565 | 0.009 | 1.384 | 1.336 | 0.048 | 5.008 | 5.516 | -0.508 | 4.209 | 4.177 | 0.032 |
| 2004 | 7 | 14 | 7.401 | 7.406 | -0.005 | 3.124 | 3.126 | -0.002 | 29.292 | 29.275 | 0.017 | 1.238 | 1.24 | -0.002 | 15.521 | 16.698 | -1.177 | 2.711 | 2.857 | -0.146 |
| 2004 | 7 | 16 | 5.598 | 5.601 | -0.003 | 3.021 | 3.021 | 0.000 | 152.497 | 151.987 | 0.510 | 1.198 | 1.182 | 0.016 | 3.069 | 3.406 | -0.337 | 1.697 | 1.704 | -0.007 |
| 2004 | 7 | 17 | 5.655 | 5.653 | 0.002 | 2.995 | 2.998 | -0.003 | 97.443 | 97.437 | 0.006 | 1.438 | 1.396 | 0.042 | 3.389 | 3.674 | -0.285 | 3.005 | 3.013 | -0.008 |
| 2004 | 7 | 18 | 5.627 | 5.629 | -0.002 | 2.987 | 2.991 | -0.004 | 95.928 | 95.922 | 0.006 | 1.745 | 1.748 | -0.003 | 2.643 | 2.618 | 0.025 | 1.971 | 2.07 | -0.099 |
| 2004 | 7 | 19 | 5.288 | 5.291 | -0.003 | 2.96 | 2.963 | -0.003 | 109.058 | 108.547 | 0.511 | 17.84 | 17.387 | 0.453 | 1.405 | 1.513 | -0.108 | 0.922 | 0.912 | 0.010 |
| 2004 | 7 | 20 | 5.493 | 5.496 | -0.003 | 2.957 | 2.961 | -0.004 | 87.343 | 87.337 | 0.006 | 59.49 | 59.159 | 0.331 | 1.047 | 1.146 | -0.099 | 1.099 | 1.086 | 0.013 |
| 2004 | 7 | 21 | 5.455 | 5.458 | -0.003 | 2.966 | 2.971 | -0.005 | 87.343 | 87.337 | 0.006 | 56.51 | 55.156 | 1.354 | 2.077 | 1.559 | 0.518 | 0.881 | 0.874 | 0.007 |
| 2004 | 7 | 22 | 6.546 | 6.545 | 0.001 | 3.037 | 3.045 | -0.008 | 66.642 | 66.634 | 0.008 | 1.396 | 1.378 | 0.018 | 9.505 | 10.941 | -1.436 | 2.268 | 2.267 | 0.001 |
| 2004 | 10 | 0 | 8.673 | 8.681 | -0.008 | 3.213 | 3.214 | -0.001 | 24.227 | 23.722 | 0.505 | 1.192 | 1.162 | 0.030 | 11.592 | 12.435 | -0.843 | 2.27 | 2.274 | -0.004 |
| 2004 | 10 | 1 | 8.165 | 8.168 | -0.003 | 3.233 | 3.234 | -0.001 | 23.723 | 23.722 | 0.001 | 2.923 | 2.861 | 0.062 | 5.334 | 5.505 | -0.171 | 1.759 | 1.749 | 0.010 |
| 2004 | 10 | 2 | 8.144 | 8.147 | -0.003 | 3.218 | 3.218 | 0.000 | 39.889 | 39.371 | 0.518 | 2.462 | 2.415 | 0.047 | 2.696 | 2.517 | 0.179 | 1.991 | 1.95 | 0.041 |
| 2004 | 10 | 3 | 8.133 | 8.135 | -0.002 | 3.22 | 3.221 | -0.001 | 51.488 | 50.982 | 0.506 | 2.308 | 2.298 | 0.010 | 1.61 | 1.54 | 0.070 | 1.987 | 1.992 | -0.005 |
| 2004 | 10 | 4 | 7.42 | 7.428 | -0.008 | 3.172 | 3.173 | -0.001 | 132.792 | 132.286 | 0.506 | 1.754 | 1.743 | 0.011 | 0.295 | 0.312 | -0.017 | 1.306 | 1.291 | 0.015 |
| 2004 | 10 | 5 | 6.868 | 6.87 | -0.002 | 3.127 | 3.128 | -0.001 | 153.002 | 152.998 | 0.004 | 1.379 | 1.374 | 0.005 | 0.323 | 0.337 | -0.014 | 0.984 | 0.956 | 0.028 |
| 2004 | 10 | 6 | 7.084 | 7.091 | -0.007 | 3.136 | 3.138 | -0.002 | 126.226 | 125.72 | 0.506 | 1.373 | 1.35 | 0.023 | 0.101 | 0.096 | 0.005 | 0.842 | 0.825 | 0.017 |
| 2004 | 10 | 7 | 7.162 | 7.169 | -0.007 | 3.137 | 3.138 | -0.001 | 110.568 | 110.062 | 0.506 | 1.231 | 1.231 | 0.000 | 0.29 | 0.291 | -0.001 | 0.887 | 0.889 | -0.002 |
| 2004 | 10 | 8 | 6.648 | 6.65 | -0.002 | 3.096 | 3.098 | -0.002 | 147.947 | 147.946 | 0.001 | 1.276 | 1.276 | 0.000 | 0.311 | 0.311 | 0.000 | 0.781 | 0.781 | 0.000 |
| 2004 | 10 | 9 | 6.41 | 6.415 | -0.005 | 3.079 | 3.081 | -0.002 | 155.02 | 154.513 | 0.507 | 1.311 | 1.311 | 0.000 | 0.309 | 0.31 | -0.001 | 0.754 | 0.755 | -0.001 |
| 2004 | 10 | 10 | 6.22 | 6.222 | -0.002 | 3.06 | 3.062 | -0.002 | 155.02 | 155.019 | 0.001 | 1.372 | 1.346 | 0.026 | 0.584 | 0.616 | -0.032 | 0.765 | 0.745 | 0.020 |
| 2004 | 10 | 11 | 6.303 | 6.304 | -0.001 | 3.056 | 3.058 | -0.002 | 127.741 | 127.74 | 0.001 | 1.44 | 1.44 | 0.000 | 0.953 | 0.953 | 0.000 | 0.788 | 0.788 | 0.000 |
| 2004 | 10 | 12 | 6.084 | 6.086 | -0.002 | 3.037 | 3.039 | -0.002 | 133.803 | 133.802 | 0.001 | 10.312 | 10.315 | -0.003 | 0.135 | 0.153 | -0.018 | 0.737 | 0.737 | 0.000 |
| 2004 | 10 | 13 | 7.65 | 7.655 | -0.005 | 3.173 | 3.175 | -0.002 | 71.179 | 70.673 | 0.506 | 1.562 | 1.561 | 0.001 | 1.455 | 1.465 | -0.010 | 1.055 | 1.058 | -0.003 |
| 2004 | 10 | 14 | 7.609 | 7.614 | -0.005 | 3.113 | 3.12 | -0.007 | 34.828 | 34.323 | 0.505 | 1.781 | 1.78 | 0.001 | 2.95 | 2.993 | -0.043 | 1.324 | 1.334 | -0.010 |
| 2004 | 10 | 16 | 6.039 | 6.044 | -0.005 | 3.048 | 3.05 | -0.002 | 153.504 | 152.998 | 0.506 | 1.355 | 1.353 | 0.002 | 0.076 | 0.076 | 0.000 | 0.625 | 0.625 | 0.000 |
| 2004 | 10 | 17 | 6.187 | 6.194 | -0.007 | 3.041 | 3.045 | -0.004 | 97.437 | 96.932 | 0.505 | 1.702 | 1.703 | -0.001 | 1.39 | 1.397 | -0.007 | 0.602 | 0.603 | -0.001 |
| 2004 | 10 | 18 | 6.222 | 6.222 | 0.000 | 3.046 | 3.045 | 0.001 | 96.433 | 96.427 | 0.006 | 5.692 | 5.571 | 0.121 | 0.803 | 0.963 | -0.160 | 0.611 | 0.597 | 0.014 |
| 2004 | 10 | 19 | 6.064 | 6.067 | -0.003 | 3.023 | 3.026 | -0.003 | 102.488 | 102.487 | 0.001 | 24.888 | 24.888 | 0.000 | 1.686 | 1.687 | -0.001 | 0.615 | 0.616 | -0.001 |
| 2004 | 10 | 20 | 6.348 | 6.35 | -0.002 | 3.021 | 3.025 | -0.004 | 79.258 | 79.257 | 0.001 | 84.191 | 84.191 | 0.000 | 1.121 | 1.121 | 0.000 | 0.828 | 0.828 | 0.000 |
| 2004 | 10 | 22 | 7.226 | 7.229 | -0.003 | 3.119 | 3.122 | -0.003 | 72.196 | 72.188 | 0.008 | 1.462 | 1.436 | 0.026 | 0.24 | 0.25 | -0.010 | 1.632 | 1.559 | 0.073 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2004 | 10 | 23 | 7.305 | 7.319 | -0.014 | 3.03 | 3.033 | -0.003 | 24.732 | 24.227 | 0.505 | 8.712 | 8.776 | -0.064 | 0.048 | 0.05 | -0.002 | 2.37 | 2.403 | -0.033 |
| 2005 | 1 | 0 | 5.046 | 5.048 | -0.002 | 3.03 | 3.03 | 0.000 | 25.257 | 25.237 | 0.020 | 4.366 | 4.223 | 0.143 | 36.536 | 35.472 | 1.064 | 0.646 | 0.627 | 0.019 |
| 2005 | 1 | 1 | 5.032 | 5.033 | -0.001 | 3.042 | 3.042 | 0.000 | 28.283 | 28.265 | 0.018 | 4.462 | 4.373 | 0.089 | 2.219 | 2.25 | -0.031 | 0.72 | 0.705 | 0.015 |
| 2005 | 1 | 2 | 4.963 | 4.962 | 0.001 | 3.007 | 3.006 | 0.001 | 42.412 | 42.4 | 0.012 | 9.001 | 8.979 | 0.022 | 2.689 | 2.729 | -0.040 | 0.7 | 0.687 | 0.013 |
| 2005 | 1 | 3 | | 5 | -5.000 | | 2.986 | -2.986 | | 48.458 | -48.458 | | 43.202 | -43.202 | | 3.219 | -3.219 | | 0.679 | -0.679 |
| 2005 | 1 | 4 | | 5.008 | -5.008 | | 2.988 | -2.988 | | 130.771 | -130.771 | | 11.201 | -11.201 | | 19.579 | -19.579 | | 0.596 | -0.596 |
| 2005 | 1 | 5 | | 5.003 | -5.003 | | 2.992 | -2.992 | | 151.482 | -151.482 | | 12.821 | -12.821 | | 41.547 | -41.547 | | 0.673 | -0.673 |
| 2005 | 1 | 22 | | 5.014 | -5.014 | | 2.98 | -2.980 | | 73.703 | -73.703 | | 13.056 | -13.056 | | 0.007 | -0.007 | | 0.653 | -0.653 |
| 2005 | 1 | 23 | | 5.157 | -5.157 | | 2.984 | -2.984 | | 45.429 | -45.429 | | 10.698 | -10.698 | | 0.012 | -0.012 | | 0.66 | -0.660 |
| 2005 | 2 | 3 | 4.999 | | 4.999 | 2.986 | | 2.986 | 48.974 | | 48.974 | 42.893 | | 42.893 | 3.168 | | 3.168 | 0.68 | | 0.680 |
| 2005 | 2 | 4 | 5.003 | | 5.003 | 2.988 | | 2.988 | 131.277 | | 131.277 | 11.327 | | 11.327 | 317.626 | | 317.626 | 0.663 | | 0.663 |
| 2005 | 2 | 5 | 5.002 | | 5.002 | 2.992 | | 2.992 | 151.992 | | 151.992 | 12.765 | | 12.765 | 41.434 | | 41.434 | 0.678 | | 0.678 |
| 2005 | 2 | 6 | 5.003 | 5.004 | -0.001 | 2.989 | 2.989 | 0.000 | 135.823 | 135.822 | 0.001 | 9.608 | 9.609 | -0.001 | 114.656 | 114.649 | 0.007 | 0.566 | 0.566 | 0.000 |
| 2005 | 2 | 7 | 4.967 | 4.968 | -0.001 | 2.988 | 2.986 | 0.002 | 146.937 | 146.936 | 0.001 | 5.046 | 5.888 | -0.842 | 89.857 | 0.916 | 88.941 | 0.697 | 0.563 | 0.134 |
| 2005 | 2 | 13 | 4.993 | 4.994 | -0.001 | 2.982 | 2.982 | 0.000 | 70.191 | 70.67 | -0.479 | 8.548 | 8.495 | 0.053 | 52.167 | 52.44 | -0.273 | 0.665 | 0.658 | 0.007 |
| 2005 | 2 | 14 | 5.101 | 5.103 | -0.002 | 2.967 | 2.968 | -0.001 | 39.384 | 39.869 | -0.485 | 5.753 | 5.694 | 0.059 | 2.506 | 2.118 | 0.388 | 0.686 | 0.675 | 0.011 |
| 2005 | 2 | 16 | 5.203 | 5.205 | -0.002 | 2.99 | 2.99 | 0.000 | 140.878 | 140.871 | 0.007 | 5.703 | 5.678 | 0.025 | 10.313 | 8.795 | 1.518 | 0.605 | 0.594 | 0.011 |
| 2005 | 2 | 17 | 5.29 | 5.29 | 0.000 | 2.99 | 2.989 | 0.001 | 86.838 | 86.832 | 0.006 | 5.164 | 5.103 | 0.061 | 0.013 | 0.013 | 0.000 | 0.686 | 0.665 | 0.021 |
| 2005 | 2 | 18 | 5.319 | 5.321 | -0.002 | 2.992 | 2.992 | 0.000 | 94.918 | 94.912 | 0.006 | 5.086 | 5.03 | 0.056 | 0.004 | 0.004 | 0.000 | 0.694 | 0.677 | 0.017 |
| 2005 | 2 | 19 | 5.37 | 5.371 | -0.001 | 2.998 | 2.998 | 0.000 | 108.553 | 108.042 | 0.511 | 5.664 | 5.661 | 0.003 | 0.008 | 0.007 | 0.001 | 0.614 | 0.615 | -0.001 |
| 2005 | 2 | 22 | 5.013 | | 5.013 | 2.98 | | 2.980 | 74.215 | | 74.215 | 13.056 | | 13.056 | 0.008 | | 0.008 | 0.653 | | 0.653 |
| 2005 | 2 | 23 | 5.156 | | 5.156 | 2.985 | | 2.985 | 45.441 | | 45.441 | 10.875 | | 10.875 | 0.012 | | 0.012 | 0.675 | | 0.675 |
| 2005 | 3 | 0 | 4.678 | 4.679 | -0.001 | 3.005 | 3.005 | 0.000 | 26.751 | 26.751 | 0.000 | 1.68 | 1.678 | 0.002 | 31.236 | 31.188 | 0.048 | 1.639 | 1.638 | 0.001 |
| 2005 | 3 | 1 | 4.976 | 4.977 | -0.001 | 3.044 | 3.044 | 0.000 | 31.815 | 31.294 | 0.521 | 1.986 | 1.968 | 0.018 | 12.914 | 13.34 | -0.426 | 1.518 | 1.5 | 0.018 |
| 2005 | 4 | 2 | 4.79 | 4.79 | 0.000 | 2.998 | 2.998 | 0.000 | 40.886 | 40.381 | 0.505 | 1.328 | 1.304 | 0.024 | 6.813 | 6.7 | 0.113 | 2.065 | 2.038 | 0.027 |
| 2005 | 4 | 3 | 4.77 | 4.769 | 0.001 | 2.984 | 2.984 | 0.000 | 49.57 | 49.468 | 0.102 | 1.183 | 1.185 | -0.002 | 1.258 | 1.422 | -0.164 | 1.836 | 1.863 | -0.027 |
| 2005 | 4 | 4 | 4.764 | 4.765 | -0.001 | 2.988 | 2.988 | 0.000 | 125.725 | 125.215 | 0.510 | 1.257 | 1.248 | 0.009 | 0.999 | 1.003 | -0.004 | 2.245 | 2.166 | 0.079 |
| 2005 | 4 | 6 | 4.734 | 4.736 | -0.002 | 2.988 | 2.989 | -0.001 | 124.23 | 124.709 | -0.479 | 6.927 | 6.957 | -0.030 | 0.049 | 0.049 | 0.000 | 1.639 | 1.666 | -0.027 |
| 2005 | 4 | 7 | 4.737 | 4.738 | -0.001 | 2.987 | 2.987 | 0.000 | 133.301 | 133.297 | 0.004 | 9.287 | 9.273 | 0.014 | 0.144 | 0.151 | -0.007 | 2.067 | 1.927 | 0.140 |
| 2005 | 4 | 8 | 4.725 | 4.726 | -0.001 | 2.984 | 2.984 | 0.000 | 130.776 | 130.771 | 0.005 | 3.81 | 3.801 | 0.009 | 0.724 | 0.732 | -0.008 | 1.802 | 1.711 | 0.091 |
| 2005 | 4 | 9 | 4.736 | 4.737 | -0.001 | 2.985 | 2.985 | 0.000 | 150.476 | 150.472 | 0.004 | 1.273 | 1.268 | 0.005 | 1.834 | 1.853 | -0.019 | 1.597 | 1.557 | 0.040 |
| 2005 | 4 | 10 | 4.706 | 4.707 | -0.001 | 2.982 | 2.982 | 0.000 | 153.508 | 152.998 | 0.510 | 1.211 | 1.203 | 0.008 | 3.431 | 3.292 | 0.139 | 0.817 | 0.81 | 0.007 |
| 2005 | 4 | 11 | 4.699 | 4.701 | -0.002 | 2.982 | 2.982 | 0.000 | 152.497 | 152.493 | 0.004 | 1.296 | 1.286 | 0.010 | 2.126 | 2.157 | -0.031 | 0.887 | 0.882 | 0.005 |
| 2005 | 4 | 12 | 4.668 | 4.668 | 0.000 | 2.977 | 2.977 | 0.000 | 137.848 | 137.843 | 0.005 | 1.374 | 1.374 | 0.000 | 1.229 | 1.276 | -0.047 | 0.787 | 0.787 | 0.000 |

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| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2005 | 4 | 13 | 4.761 | 4.762 | -0.001 | 2.98 | 2.98 | 0.000 | 61.585 | 61.08 | 0.505 | 1.465 | 1.466 | -0.001 | 0.026 | 0.027 | -0.001 | 1.585 | 1.592 | -0.007 |
| 2005 | 4 | 14 | 4.76 | 4.761 | -0.001 | 2.96 | 2.96 | 0.000 | 31.294 | 30.789 | 0.505 | 1.64 | 1.633 | 0.007 | 0.027 | 0.027 | 0.000 | 2.421 | 2.436 | -0.015 |
| 2005 | 4 | 16 | 4.79 | 4.79 | 0.000 | 2.983 | 2.983 | 0.000 | 153.504 | 152.998 | 0.506 | 1.806 | 1.801 | 0.005 | 0.025 | 0.024 | 0.001 | 0.924 | 0.921 | 0.003 |
| 2005 | 4 | 17 | 4.795 | 4.789 | 0.006 | 2.966 | 2.977 | -0.011 | 102.488 | 101.982 | 0.506 | 1.681 | 1.741 | -0.060 | 0.056 | 0.07 | -0.014 | 0.937 | 0.733 | 0.204 |
| 2005 | 4 | 18 | 4.771 | 4.772 | -0.001 | 2.976 | 2.976 | 0.000 | 101.983 | 101.477 | 0.506 | 1.876 | 1.866 | 0.010 | 1.291 | 1.341 | -0.050 | 1.101 | 1.074 | 0.027 |
| 2005 | 4 | 19 | 4.763 | 4.764 | -0.001 | 2.973 | 2.973 | 0.000 | 102.488 | 101.982 | 0.506 | 1.875 | 1.875 | 0.000 | 2.562 | 2.549 | 0.013 | 0.884 | 0.886 | -0.002 |
| 2005 | 4 | 20 | 4.757 | 4.762 | -0.005 | 2.969 | 2.969 | 0.000 | 77.245 | 76.732 | 0.513 | 2.345 | 1.933 | 0.412 | 4.172 | 4.376 | -0.204 | 1.12 | 1.112 | 0.008 |
| 2005 | 6 | 0 | 9.095 | 9.12 | -0.025 | 3.251 | 3.253 | -0.002 | 20.214 | 19.684 | 0.530 | 1.778 | 1.717 | 0.061 | 8.299 | 8.787 | -0.488 | 5.241 | 5.036 | 0.205 |
| 2005 | 6 | 1 | 8.155 | 8.161 | -0.006 | 3.279 | 3.281 | -0.002 | 24.752 | 24.227 | 0.525 | 1.957 | 1.896 | 0.061 | 8.205 | 8.514 | -0.309 | 4.449 | 4.285 | 0.164 |
| 2005 | 6 | 2 | 8.128 | 8.135 | -0.007 | 3.236 | 3.236 | 0.000 | 40.394 | 40.381 | 0.013 | 2.091 | 2.053 | 0.038 | 9.133 | 11.05 | -1.917 | 5.006 | 4.876 | 0.130 |
| 2005 | 6 | 3 | 7.931 | 7.95 | -0.019 | 3.171 | 3.172 | -0.001 | 48.469 | 47.953 | 0.516 | 1.822 | 1.819 | 0.003 | 9.606 | 10.749 | -1.143 | 6.663 | 6.723 | -0.060 |
| 2005 | 6 | 4 | 6.217 | | 6.217 | 3.083 | R | 3.083 | 125.22 | | 125.220 | 1.511 | | 1.511 | 6.729 | | 6.729 | 1.854 | | 1.854 |
| 2005 | 6 | 5 | 5.813 | | 5.813 | 3.057 | | 3.057 | 153.002 | | 153.002 | 1.438 | | 1.438 | 6.826 | | 6.826 | 1.51 | | 1.510 |
| 2005 | 6 | 6 | 5.991 | 5.996 | -0.005 | 3.07 | 3.07 | 0.000 | 119.664 | 119.154 | 0.510 | 1.301 | 1.279 | 0.022 | 1.142 | 1.258 | -0.116 | 2.214 | 2.047 | 0.167 |
| 2005 | 6 | 7 | 5.894 | 5.895 | -0.001 | 3.051 | 3.052 | -0.001 | 135.322 | 135.317 | 0.005 | 1.324 | 1.289 | 0.035 | 0.843 | 0.758 | 0.085 | 1.701 | 1.621 | 0.080 |
| 2005 | 6 | 8 | 5.802 | 5.787 | 0.015 | 3.043 | 3.049 | -0.006 | 122.694 | 123.191 | -0.497 | 1.356 | 1.311 | 0.045 | 1.367 | 1.218 | 0.149 | 1.392 | 1.261 | 0.131 |
| 2005 | 6 | 9 | 5.564 | 5.568 | -0.004 | 3.032 | 3.032 | 0.000 | 139.868 | 139.358 | 0.510 | 1.44 | 1.409 | 0.031 | 1.254 | 1.366 | -0.112 | 1.203 | 1.181 | 0.022 |
| 2005 | 6 | 10 | 5.422 | 5.423 | -0.001 | 3.013 | 3.016 | -0.003 | 137.342 | 136.832 | 0.510 | 1.407 | 1.407 | 0.000 | 1.265 | 1.274 | -0.009 | 0.736 | 0.737 | -0.001 |
| 2005 | 6 | 11 | 5.279 | 5.282 | -0.003 | 3.011 | 3.011 | 0.000 | 152.497 | 152.479 | 0.018 | 1.721 | 1.675 | 0.046 | 1.051 | 0.892 | 0.159 | 0.957 | 0.784 | 0.173 |
| 2005 | 6 | 13 | 6.866 | 6.869 | -0.003 | 3.132 | 3.133 | -0.001 | 63.613 | 63.605 | 0.008 | 1.572 | 1.545 | 0.027 | 6.217 | 6.571 | -0.354 | 1.895 | 1.844 | 0.051 |
| 2005 | 6 | 14 | 7.278 | 6.4 | 0.878 | 3.126 | S | 0.036 | 24.227 | 108.333 | -84.106 | 1.677 | 1.514 | 0.163 | 14.858 | 9.276 | 5.582 | 3.247 | 2.065 | 1.182 |
| 2005 | 6 | 15 | | 5.821 | -5.821 | | | -3.058 | | 151.987 | -151.987 | | 1.417 | -1.417 | | 8.027 | -8.027 | | 1.505 | -1.505 |
| 2005 | 6 | 16 | 5.513 | 5.517 | -0.004 | 3.029 | 3.03 | -0.001 | 146.94 | 146.43 | 0.510 | 1.461 | 1.412 | 0.049 | 1.758 | 1.931 | -0.173 | 1.47 | 1.445 | 0.025 |
| 2005 | 6 | 17 | 5.501 | 5.503 | -0.002 | 3.01 | 3.012 | -0.002 | 99.463 | 99.265 | 0.198 | 1.539 | 1.488 | 0.051 | 3.78 | 3.985 | -0.205 | 1.652 | 1.653 | -0.001 |
| 2005 | 6 | 18 | 5.326 | 5.331 | -0.005 | 2.991 | 2.993 | -0.002 | 103.503 | 103.497 | 0.006 | 2.075 | 2.004 | 0.071 | 2.626 | 2.767 | -0.141 | 1.1 | 1.088 | 0.012 |
| 2005 | 6 | 19 | 5.066 | 5.067 | -0.001 | 2.966 | 2.966 | 0.000 | 108.553 | 108.547 | 0.006 | 11.131 | 11.007 | 0.124 | 2.169 | 3.178 | -1.009 | 0.879 | 0.869 | 0.010 |
| 2005 | 6 | 20 | 5.199 | 5.198 | 0.001 | 2.951 | 2.955 | -0.004 | 86.838 | 86.832 | 0.006 | 44.009 | 43.647 | 0.362 | 5.227 | 6.188 | -0.961 | 0.982 | 0.971 | 0.011 |
| 2005 | 6 | 22 | 6.291 | 6.3 | -0.009 | 3.04 | 3.043 | -0.003 | 68.662 | 68.149 | 0.513 | 1.512 | 1.458 | 0.054 | 4.671 | 4.72 | -0.049 | 1.346 | 1.337 | 0.009 |
| 2005 | 6 | 23 | 6.653 | 6.579 | 0.074 | 2.945 | 2.946 | -0.001 | 25.257 | 24.732 | 0.525 | 2.12 | 2.113 | 0.007 | 11.44 | 10.357 | 1.083 | 2.877 | 2.921 | -0.044 |
| 2005 | 7 | 0 | 8.17 | 8.179 | -0.009 | 3.256 | 3.248 | 0.008 | 19.206 | 19.18 | 0.026 | 4.594 | 4.422 | 0.172 | 19.784 | 23.727 | -3.943 | 3.298 | 3.234 | 0.064 |
| 2005 | 7 | 1 | 8.071 | 8.075 | -0.004 | 3.279 | 3.279 | 0.000 | 23.239 | 23.16 | 0.079 | 5.486 | 5.321 | 0.165 | 26.267 | 29.202 | -2.935 | 3.413 | 3.36 | 0.053 |
| 2005 | 7 | 2 | 8.153 | 8.155 | -0.002 | 3.252 | 3.252 | 0.000 | 40.394 | 40.381 | 0.013 | 7.265 | 7.115 | 0.150 | 12.17 | 21.142 | -8.972 | 3.929 | 3.882 | 0.047 |
| 2005 | 7 | 3 | 8.125 | 8.133 | -0.008 | 3.205 | 3.207 | -0.002 | 38.88 | 38.361 | 0.519 | 3.648 | 3.588 | 0.060 | 13.366 | 13.98 | -0.614 | 6.045 | 5.885 | 0.160 |
| 2005 | 7 | 4 | 6.537 | 6.546 | -0.009 | 3.111 | 3.112 | -0.001 | 124.21 | 124.205 | 0.005 | 1.9 | 1.886 | 0.014 | 2.929 | 3.894 | -0.965 | 1.833 | 1.801 | 0.032 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2005 | 7 | 5 | 6.203 | 6.209 | -0.006 | 3.078 | 3.078 | 0.000 | 154.013 | 154.008 | 0.005 | 1.585 | 1.57 | 0.015 | 1.291 | 1.778 | -0.487 | 1.461 | 1.42 | 0.041 |
| 2005 | 7 | 6 | 6.509 | 6.513 | -0.004 | 3.097 | 3.098 | -0.001 | 124.218 | 124.202 | 0.016 | 1.443 | 1.42 | 0.023 | 1.972 | 2.089 | -0.117 | 1.696 | 1.528 | 0.168 |
| 2005 | 7 | 7 | 6.283 | 6.284 | -0.001 | 3.077 | 3.078 | -0.001 | 149.971 | 149.967 | 0.004 | 1.416 | 1.394 | 0.022 | 2.355 | 2.729 | -0.374 | 1.493 | 1.466 | 0.027 |
| 2005 | 7 | 8 | 6.117 | 6.106 | 0.011 | 3.06 | 3.061 | -0.001 | 156.034 | 156.029 | 0.005 | 1.49 | 1.457 | 0.033 | 2.058 | 2.627 | -0.569 | 0.859 | 0.843 | 0.016 |
| 2005 | 7 | 9 | 6.051 | 6.05 | 0.001 | 3.06 | 3.059 | 0.001 | 149.466 | 149.555 | -0.089 | 1.503 | 1.477 | 0.026 | 1.766 | 1.879 | -0.113 | 0.944 | 0.921 | 0.023 |
| 2005 | 7 | 10 | 5.969 | 5.969 | 0.000 | 3.047 | 3.05 | -0.003 | 156.034 | 156.029 | 0.005 | 1.632 | 1.598 | 0.034 | 1.93 | 2.257 | -0.327 | 0.753 | 0.745 | 0.008 |
| 2005 | 7 | 11 | 5.888 | 5.894 | -0.006 | 3.044 | 3.045 | -0.001 | 155.528 | 155.019 | 0.509 | 1.678 | 1.639 | 0.039 | 2.731 | 3.028 | -0.297 | 1.093 | 1.091 | 0.002 |
| 2005 | 7 | 12 | 6.062 | 6.065 | -0.003 | 3.017 | 3.019 | -0.002 | 92.393 | 91.882 | 0.511 | 26.685 | 26.495 | 0.190 | 4.365 | 8.664 | -4.299 | 0.991 | 0.983 | 0.008 |
| 2005 | 7 | 13 | 7.303 | 7.305 | -0.002 | 3.121 | 3.122 | -0.001 | 63.613 | 63.604 | 0.009 | 1.769 | 1.713 | 0.056 | 3.336 | 3.708 | -0.372 | 3.927 | 3.78 | 0.147 |
| 2005 | 7 | 14 | 7.643 | 7.643 | 0.000 | 3.138 | 3.132 | 0.006 | 35.347 | 35.333 | 0.014 | 1.784 | 1.701 | 0.083 | 8.101 | 10.243 | -2.142 | 5.076 | 4.793 | 0.283 |
| 2005 | 7 | 16 | 5.811 | 5.815 | -0.004 | 3.041 | 3.042 | -0.001 | 149.971 | 149.461 | 0.510 | 1.527 | 1.501 | 0.026 | 2.444 | 3.67 | -1.226 | 1.646 | 1.624 | 0.022 |
| 2005 | 7 | 17 | 5.993 | 5.994 | -0.001 | 3.028 | 3.03 | -0.002 | 92.898 | 92.892 | 0.006 | 1.7 | 1.633 | 0.067 | 3.503 | 3.591 | -0.088 | 1.501 | 1.492 | 0.009 |
| 2005 | 7 | 18 | 5.924 | 5.923 | 0.001 | 3.035 | 3.035 | 0.000 | 100.978 | 100.972 | 0.006 | 2.126 | 2.03 | 0.096 | 2.284 | 2.58 | -0.296 | 1.029 | 1.005 | 0.024 |
| 2005 | 7 | 19 | 5.537 | 5.537 | 0.000 | 2.985 | 2.987 | -0.002 | 106.533 | 106.527 | 0.006 | 8.098 | 7.678 | 0.420 | 1.755 | 3.368 | -1.613 | 0.693 | 0.68 | 0.013 |
| 2005 | 7 | 20 | 5.639 | 5.639 | 0.000 | 2.976 | 2.979 | -0.003 | 87.848 | 87.842 | 0.006 | 20.533 | 19.46 | 1.073 | 0.498 | 1.907 | -1.409 | 0.795 | 0.771 | 0.024 |
| 2005 | 7 | 21 | 6.051 | 6.06 | -0.009 | 3.014 | 3.016 | -0.002 | 91.383 | 90.872 | 0.511 | 39.677 | 39.447 | 0.230 | 3.651 | 5.721 | -2.070 | 0.906 | 0.897 | 0.009 |
| 2005 | 7 | 22 | 7.016 | 7.017 | -0.001 | 3.094 | 3.097 | -0.003 | 71.691 | 71.683 | 0.008 | 1.587 | 1.549 | 0.038 | 2.345 | 2.454 | -0.109 | 1.786 | 1.743 | 0.043 |
| 2005 | 7 | 23 | 7.452 | 7.431 | 0.021 | 2.979 | 2.982 | -0.003 | 25.257 | 24.732 | 0.525 | 3.846 | 3.328 | 0.518 | 1.521 | 2.698 | -1.177 | 4.568 | 4.522 | 0.046 |
| 2005 | 10 | 0 | 8.246 | 8.254 | -0.008 | 3.005 | 3.008 | -0.003 | 17.666 | 17.161 | 0.505 | 1.68 | 1.619 | 0.061 | 17.516 | 17.599 | -0.083 | 4.095 | 3.915 | 0.180 |
| 2005 | 10 | 1 | 7.786 | 7.788 | -0.002 | 3.126 | 3.128 | -0.002 | 24.227 | 24.227 | 0.000 | 2.485 | 2.484 | 0.001 | 1.487 | 1.48 | 0.007 | 2.034 | 2.033 | 0.001 |
| 2005 | 10 | 2 | 7.757 | 7.759 | -0.002 | 3.088 | 3.089 | -0.001 | 41.403 | 41.39 | 0.013 | 2.183 | 2.145 | 0.038 | 0.075 | 0.077 | -0.002 | 2.5 | 2.42 | 0.080 |
| 2005 | 10 | 3 | 7.642 | 7.644 | -0.002 | 3.107 | 3.108 | -0.001 | 50.488 | 50.478 | 0.010 | 2.022 | 2.005 | 0.017 | 0.033 | 0.033 | 0.000 | 1.874 | 1.806 | 0.068 |
| 2005 | 10 | 4 | 6.959 | 6.961 | -0.002 | 3.113 | 3.113 | 0.000 | 140.875 | 140.874 | 0.001 | 1.821 | 1.816 | 0.005 | 0.033 | 0.032 | 0.001 | 1.103 | 1.076 | 0.027 |
| 2005 | 10 | 5 | 6.946 | 6.948 | -0.002 | 3.113 | 3.114 | -0.001 | 151.989 | 151.987 | 0.002 | 1.491 | 1.489 | 0.002 | 5.515 | 4.744 | 0.771 | 0.912 | 0.9 | 0.012 |
| 2005 | 10 | 6 | 7.071 | 7.073 | -0.002 | 3.116 | 3.117 | -0.001 | 124.711 | 124.71 | 0.001 | 1.539 | 1.533 | 0.006 | 2.262 | 2.233 | 0.029 | 0.927 | 0.918 | 0.009 |
| 2005 | 10 | 7 | 6.902 | 6.908 | -0.006 | 3.109 | 3.11 | -0.001 | 142.899 | 142.389 | 0.510 | 1.34 | 1.324 | 0.016 | 0.874 | 0.89 | -0.016 | 0.805 | 0.774 | 0.031 |
| 2005 | 10 | 8 | 6.921 | 6.922 | -0.001 | 3.112 | 3.113 | -0.001 | 152.497 | 152.493 | 0.004 | 1.373 | 1.361 | 0.012 | 0.564 | 0.632 | -0.068 | 0.982 | 0.939 | 0.043 |
| 2005 | 10 | 9 | 6.863 | 6.87 | -0.007 | 3.101 | 3.103 | -0.002 | 155.023 | 154.513 | 0.510 | 1.436 | 1.428 | 0.008 | 0.087 | 0.088 | -0.001 | 1.044 | 1.019 | 0.025 |
| 2005 | 10 | 10 | 6.606 | 6.612 | -0.006 | 3.081 | 3.081 | 0.000 | 155.023 | 154.513 | 0.510 | 1.538 | 1.515 | 0.023 | 0.073 | 0.073 | 0.000 | 0.946 | 0.915 | 0.031 |
| 2005 | 10 | 11 | 6.516 | 6.515 | 0.001 | 3.07 | 3.07 | 0.000 | 156.034 | 156.029 | 0.005 | 1.651 | 1.643 | 0.008 | 0.246 | 0.251 | -0.005 | 1.58 | 1.553 | 0.027 |
| 2005 | 10 | 12 | 6.608 | 6.607 | 0.001 | 3.073 | 3.072 | 0.001 | 133.301 | 133.297 | 0.004 | 2.818 | 2.765 | 0.053 | 0.603 | 0.58 | 0.023 | 1.046 | 1.03 | 0.016 |
| 2005 | 10 | 13 | 7.559 | 7.561 | -0.002 | 3.122 | 3.123 | -0.001 | 70.674 | 70.673 | 0.001 | 1.666 | 1.654 | 0.012 | 0.034 | 0.034 | 0.000 | 1.612 | 1.548 | 0.064 |
| 2005 | 10 | 14 | 7.733 | 7.735 | -0.002 | 3.068 | 3.073 | -0.005 | 34.323 | 34.323 | 0.000 | 1.937 | 1.886 | 0.051 | 0.034 | 0.034 | 0.000 | 1.841 | 1.8 | 0.041 |
| 2005 | 10 | 16 | 6.427 | 6.432 | -0.005 | 3.065 | 3.066 | -0.001 | 149.968 | 149.461 | 0.507 | 1.737 | 1.708 | 0.029 | 0.983 | 0.789 | 0.194 | 0.685 | 0.676 | 0.009 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2005 | 10 | 17 | 6.604 | 6.605 | -0.001 | 3.047 | 3.049 | -0.002 | 90.872 | 90.872 | 0.000 | 1.866 | 1.866 | 0.000 | 1.51 | 1.507 | 0.003 | 0.77 | 0.77 | 0.000 |
| 2005 | 10 | 18 | 6.591 | 6.598 | -0.007 | 3.06 | 3.062 | -0.002 | 102.488 | 101.982 | 0.506 | 1.921 | 1.901 | 0.020 | 0.995 | 1 | -0.005 | 0.692 | 0.678 | 0.014 |
| 2005 | 10 | 19 | 6.307 | 6.313 | -0.006 | 3.033 | 3.034 | -0.001 | 108.548 | 108.042 | 0.506 | 2.667 | 2.562 | 0.105 | 0.458 | 0.432 | 0.026 | 0.63 | 0.621 | 0.009 |
| 2005 | 10 | 20 | 6.502 | 6.505 | -0.003 | 3.025 | 3.029 | -0.004 | 81.783 | 81.782 | 0.001 | 3.85 | 3.657 | 0.193 | 0.409 | 0.308 | 0.101 | 0.736 | 0.729 | 0.007 |
| 2005 | 10 | 21 | 6.915 | 6.927 | -0.012 | 3.078 | 3.081 | -0.003 | 103.503 | 102.992 | 0.511 | 4.148 | 4.105 | 0.043 | 1.13 | 1.198 | -0.068 | 1.2 | 1.192 | 0.008 |
| 2005 | 10 | 22 | 7.487 | 7.492 | -0.005 | 3.11 | 3.112 | -0.002 | 75.218 | 74.713 | 0.505 | 1.664 | 1.657 | 0.007 | 8.565 | 8.531 | 0.034 | 1.209 | 1.213 | -0.004 |
| 2005 | 10 | 23 | 7.804 | 7.81 | -0.006 | 3.047 | 3.051 | -0.004 | 25.237 | 24.732 | 0.505 | 2.402 | 2.382 | 0.020 | 2.825 | 2.862 | -0.037 | 1.448 | 1.464 | -0.016 |
| 2005 | 11 | 0 | 6.453 | 6.453 | 0.000 | 3.032 | 3.033 | -0.001 | 24.248 | 24 | 0.248 | 4.667 | 4.623 | 0.044 | 0.061 | 0.062 | -0.001 | 0.874 | 0.851 | 0.023 |
| 2005 | 11 | 1 | 6.618 | 6.619 | -0.001 | 3.09 | 3.089 | 0.001 | 29.292 | 29 | 0.292 | 6.16 | 5.986 | 0.174 | 0.545 | 0.608 | -0.063 | 0.822 | 0.799 | 0.023 |
| 2005 | 11 | 2 | 6.227 | 6.228 | -0.001 | 2.985 | 2.986 | -0.001 | 35.347 | 35.486 | -0.139 | 4.417 | 4.366 | 0.051 | 0.963 | 0.884 | 0.079 | 0.858 | 0.845 | 0.013 |
| 2005 | 11 | 3 | 5.989 | 6.009 | -0.020 | 2.929 | 2.935 | -0.006 | 40.898 | 41.5 | -0.602 | 4.376 | 4.391 | -0.015 | 1.3 | 0.996 | 0.304 | 0.905 | 0.904 | 0.001 |
| 2005 | 11 | 4 | 6.397 | 6.399 | -0.002 | 3.051 | 3.051 | 0.000 | 131.786 | 131.5 | 0.286 | 2.125 | 2.103 | 0.022 | 0.583 | 0.606 | -0.023 | 0.697 | 0.691 | 0.006 |
| 2005 | 11 | 5 | 6.352 | 6.355 | -0.003 | 3.054 | 3.055 | -0.001 | 147.445 | 147 | 0.445 | 1.888 | 1.867 | 0.021 | 0.708 | 0.7 | 0.008 | 0.632 | 0.627 | 0.005 |
| 2005 | 11 | 6 | | 6.514 | -6.514 | | 3.072 | -3.072 | | 130.5 | -130.500 | | 1.705 | -1.705 | | 0.05 | -0.050 | | 0.653 | -0.653 |
| 2005 | 11 | 7 | | 6.455 | -6.455 | | 3.07 | -3.070 | | 152 | -152.000 | | 1.65 | -1.650 | | 0.042 | -0.042 | | 0.627 | -0.627 |
| 2005 | 11 | 8 | | 6.524 | -6.524 | | 3.08 | -3.080 | | 151.5 | -151.500 | | 2.017 | -2.017 | | 0.038 | -0.038 | | 0.592 | -0.592 |
| 2005 | 11 | 9 | | 6.661 | -6.661 | | 3.088 | -3.088 | | 137.5 | -137.500 | | 2.049 | -2.049 | | 0.033 | -0.033 | | 0.583 | -0.583 |
| 2005 | 11 | 22 | 6.649 | 6.654 | -0.005 | 3.045 | 3.047 | -0.002 | 75.723 | 75.5 | 0.223 | 2.067 | 2.039 | 0.028 | 1.07 | 1.199 | -0.129 | 0.596 | 0.587 | 0.009 |
| 2005 | 11 | 23 | 6.631 | 6.636 | -0.005 | 2.98 | 2.984 | -0.004 | 30.79 | 31 | -0.210 | 3.174 | 3.035 | 0.139 | 1.672 | 1.573 | 0.099 | 0.623 | 0.596 | 0.027 |
| 2005 | 12 | 6 | 6.512 | | 6.512 | 3.072 | | 3.072 | 130.776 | | 130.776 | 1.728 | | 1.728 | 0.05 | | 0.050 | 0.658 | | 0.658 |
| 2005 | 12 | 7 | 6.453 | | 6.453 | 3.069 | | 3.069 | 151.992 | | 151.992 | 1.665 | | 1.665 | 0.042 | | 0.042 | 0.632 | | 0.632 |
| 2005 | 12 | 8 | 6.52 | | 6.520 | 3.079 | | 3.079 | 151.992 | | 151.992 | 2.057 | | 2.057 | 0.037 | | 0.037 | 0.597 | | 0.597 |
| 2005 | 12 | 9 | 6.662 | | 6.662 | 3.089 | | 3.089 | 137.848 | | 137.848 | 2.074 | | 2.074 | 0.033 | | 0.033 | 0.589 | | 0.589 |
| 2005 | 12 | 10 | 6.52 | 6.521 | -0.001 | 3.08 | 3.081 | -0.001 | 143.909 | 144 | -0.091 | 2.504 | 2.47 | 0.034 | 0.067 | 0.065 | 0.002 | 0.629 | 0.622 | 0.007 |
| 2005 | 12 | 13 | 6.369 | 6.36 | 0.009 | 3.001 | 3.002 | -0.001 | 36.861 | 36.5 | 0.361 | 2.075 | 2.005 | 0.070 | 0.037 | 0.035 | 0.002 | 0.766 | 0.744 | 0.022 |
| 2005 | 12 | 14 | 6.485 | 6.486 | -0.001 | 3.026 | 3.027 | -0.001 | 23.239 | 23 | 0.239 | 2.145 | 2.016 | 0.129 | 0.041 | 0.04 | 0.001 | 0.684 | 0.65 | 0.034 |
| 2005 | 12 | 16 | 6.28 | 6.283 | -0.003 | 3.05 | 3.05 | 0.000 | 148.961 | 149 | -0.039 | 2.022 | 2.001 | 0.021 | 0.04 | 0.04 | 0.000 | 0.583 | 0.578 | 0.005 |
| 2005 | 12 | 17 | 6.547 | 6.551 | -0.004 | 3.033 | 3.036 | -0.003 | 83.304 | 83 | 0.304 | 3.549 | 3.493 | 0.056 | 0.043 | 0.043 | 0.000 | 0.606 | 0.598 | 0.008 |
| 2005 | 12 | 18 | 6.478 | 6.483 | -0.005 | 3.045 | 3.047 | -0.002 | 100.978 | 100.5 | 0.478 | 6.998 | 6.937 | 0.061 | 0.074 | 0.074 | 0.000 | 0.733 | 0.728 | 0.005 |
| 2006 | 3 | 0 | 4.849 | 4.851 | -0.002 | 2.985 | 2.985 | 0.000 | 18.197 | 18.17 | 0.027 | 3.635 | 3.571 | 0.064 | 0.051 | 0.051 | 0.000 | 1.936 | 1.874 | 0.062 |
| 2006 | 3 | 1 | 4.997 | 4.998 | -0.001 | 3.019 | 3.018 | 0.001 | 29.797 | 29.275 | 0.522 | 5.011 | 4.908 | 0.103 | 0.021 | 0.022 | -0.001 | 1.496 | 1.464 | 0.032 |
| 2006 | 3 | 2 | 4.924 | 4.924 | 0.000 | 2.993 | 2.992 | 0.001 | 43.422 | 43.41 | 0.012 | 3.901 | 3.869 | 0.032 | 0.02 | 0.019 | 0.001 | 1.477 | 1.458 | 0.019 |
| 2006 | 3 | 3 | 4.979 | 4.981 | -0.002 | 2.963 | 2.963 | 0.000 | 47.459 | 46.944 | 0.515 | 1.922 | 1.891 | 0.031 | 5.077 | 5.231 | -0.154 | 1.206 | 1.191 | 0.015 |
| 2006 | 3 | 4 | 4.966 | 4.967 | -0.001 | 2.974 | 2.974 | 0.000 | 135.318 | 135.317 | 0.001 | 2.174 | 2.169 | 0.005 | 1.998 | 2.016 | -0.018 | 1.261 | 1.256 | 0.005 |

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| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2006 | 3 | 5 | 5.045 | 5.046 | -0.001 | 2.974 | 2.974 | 0.000 | 144.414 | 144.41 | 0.004 | 1.851 | 1.846 | 0.005 | 2.965 | 3.02 | -0.055 | 1.086 | 1.083 | 0.003 |
| 2006 | 3 | 6 | 5.053 | 5.054 | -0.001 | 2.983 | 2.983 | 0.000 | 137.339 | 136.832 | 0.507 | 1.919 | 1.909 | 0.010 | 0.269 | 0.27 | -0.001 | 1.046 | 1.04 | 0.006 |
| 2006 | 3 | 7 | 5.135 | 5.137 | -0.002 | 2.992 | 2.992 | 0.000 | 141.889 | 141.379 | 0.510 | 1.751 | 1.746 | 0.005 | 0.746 | 0.755 | -0.009 | 0.893 | 0.894 | -0.001 |
| 2006 | 3 | 8 | 5.177 | 5.178 | -0.001 | 2.997 | 2.997 | 0.000 | 149.466 | 148.956 | 0.510 | 1.807 | 1.8 | 0.007 | 1.116 | 1.131 | -0.015 | 0.798 | 0.793 | 0.005 |
| 2006 | 3 | 9 | 5.129 | 5.13 | -0.001 | 2.994 | 2.993 | 0.001 | 151.992 | 151.482 | 0.510 | 1.912 | 1.903 | 0.009 | 1.847 | 1.835 | 0.012 | 0.777 | 0.773 | 0.004 |
| 2006 | 3 | 10 | 5.33 | 5.331 | -0.001 | 3.008 | 3.008 | 0.000 | 160.081 | 160.071 | 0.010 | 1.77 | 1.77 | 0.000 | 1.762 | 1.907 | -0.145 | 0.624 | 0.624 | 0.000 |
| 2006 | 3 | 11 | 5.264 | 5.266 | -0.002 | 3.004 | 3.004 | 0.000 | 150.978 | 150.472 | 0.506 | 1.88 | 1.875 | 0.005 | 1.686 | 1.676 | 0.010 | 0.594 | 0.591 | 0.003 |
| 2006 | 3 | 12 | 5.312 | 5.313 | -0.001 | 3.006 | 3.006 | 0.000 | 127.741 | 127.235 | 0.506 | 1.945 | 1.946 | -0.001 | 1.596 | 1.602 | -0.006 | 0.54 | 0.54 | 0.000 |
| 2006 | 3 | 13 | 5.056 | 5.058 | -0.002 | 2.973 | 2.973 | 0.000 | 66.634 | 66.129 | 0.505 | 1.752 | 1.75 | 0.002 | 1.78 | 1.823 | -0.043 | 1.079 | 1.079 | 0.000 |
| 2006 | 3 | 14 | 5.057 | 5.058 | -0.001 | 2.965 | 2.964 | 0.001 | 31.799 | 31.294 | 0.505 | 1.88 | 1.859 | 0.021 | 2.255 | 2.305 | -0.050 | 1.231 | 1.211 | 0.020 |
| 2006 | 3 | 16 | 5.242 | 5.244 | -0.002 | 2.981 | 2.981 | 0.000 | 149.968 | 149.967 | 0.001 | 1.712 | 1.713 | -0.001 | 0.021 | 0.021 | 0.000 | 0.939 | 0.939 | 0.000 |
| 2006 | 3 | 17 | 5.445 | 5.446 | -0.001 | 2.989 | 2.989 | 0.000 | 84.812 | 84.812 | 0.000 | 1.714 | 1.715 | -0.001 | 0.022 | 0.022 | 0.000 | 0.863 | 0.863 | 0.000 |
| 2006 | 3 | 18 | 5.503 | 5.504 | -0.001 | 2.998 | 2.998 | 0.000 | 99.457 | 99.457 | 0.000 | 1.714 | 1.705 | 0.009 | 0.022 | 0.022 | 0.000 | 0.957 | 0.919 | 0.038 |
| 2006 | 3 | 19 | 5.705 | 5.707 | -0.002 | 3.02 | 3.021 | -0.001 | 105.013 | 105.012 | 0.001 | 1.949 | 1.949 | 0.000 | 0.022 | 0.022 | 0.000 | 0.9 | 0.9 | 0.000 |
| 2006 | 3 | 20 | 5.679 | 5.68 | -0.001 | 3.016 | 3.016 | 0.000 | 70.169 | 69.663 | 0.506 | 1.777 | 1.776 | 0.001 | 0.025 | 0.025 | 0.000 | 1.596 | 1.607 | -0.011 |
| 2006 | 3 | 21 | 5.364 | 5.366 | -0.002 | 3.007 | 3.008 | -0.001 | 104.003 | 104.002 | 0.001 | 2.42 | 2.402 | 0.018 | 1.244 | 1.251 | -0.007 | 0.481 | 0.479 | 0.002 |
| 2006 | 3 | 22 | 4.999 | 5.002 | -0.003 | 2.953 | 2.954 | -0.001 | 73.703 | 73.703 | 0.000 | 1.636 | 1.628 | 0.008 | 9.836 | 9.819 | 0.017 | 1.069 | 1.061 | 0.008 |
| 2006 | 3 | 23 | 5.112 | 5.11 | 0.002 | 2.951 | 2.95 | 0.001 | 29.275 | 28.77 | 0.505 | 1.797 | 1.747 | 0.050 | 16.034 | 16.251 | -0.217 | 1.163 | 1.158 | 0.005 |
| 2006 | 7 | 0 | 7.756 | 7.761 | -0.005 | 3.283 | 3.284 | -0.001 | 25.761 | 25.728 | 0.033 | 0.783 | 0.772 | 0.011 | 43.123 | 37.699 | 5.424 | 3.038 | 3.004 | 0.034 |
| 2006 | 7 | 1 | 7.834 | 7.844 | -0.010 | 3.279 | 3.274 | 0.005 | 30.806 | 30.285 | 0.521 | 0.737 | 0.715 | 0.022 | 39.929 | 41.997 | -2.068 | 3.88 | 3.831 | 0.049 |
| 2006 | 7 | 2 | 7.937 | 7.94 | -0.003 | 3.245 | 3.245 | 0.000 | 41.403 | 41.39 | 0.013 | 0.697 | 0.685 | 0.012 | 51.242 | 60.062 | -8.820 | 3.253 | 3.208 | 0.045 |
| 2006 | 7 | 3 | 7.432 | 7.427 | 0.005 | 3.178 | 3.179 | -0.001 | 47.46 | 47.44 | 0.020 | 0.798 | 0.785 | 0.013 | 7.424 | 7.073 | 0.351 | 3.538 | 3.477 | 0.061 |
| 2006 | 7 | 4 | 6.065 | 6.045 | 0.020 | 3.077 | 3.077 | 0.000 | 110.582 | 111.071 | -0.489 | 2.027 | 2.027 | 0.000 | 15.174 | 13.822 | 1.352 | 2.376 | 2.351 | 0.025 |
| 2006 | 7 | 5 | 5.791 | 5.795 | -0.004 | 3.059 | 3.06 | -0.001 | 150.982 | 150.472 | 0.510 | 0.726 | 0.724 | 0.002 | 4.167 | 4.349 | -0.182 | 1.728 | 1.726 | 0.002 |
| 2006 | 7 | 6 | 5.745 | 5.749 | -0.004 | 3.051 | 3.05 | 0.001 | 141.384 | 141.379 | 0.005 | 0.716 | 0.707 | 0.009 | 10.759 | 10.999 | -0.240 | 1.46 | 1.445 | 0.015 |
| 2006 | 7 | 7 | 5.76 | 5.774 | -0.014 | 3.048 | 3.05 | -0.002 | 141.384 | 139.521 | 1.863 | 0.719 | 0.709 | 0.010 | 7.424 | 7.56 | -0.136 | 1.714 | 1.725 | -0.011 |
| 2006 | 7 | 8 | 5.283 | 5.283 | 0.000 | 3.007 | 3.008 | -0.001 | 151.992 | 151.482 | 0.510 | 0.585 | 0.565 | 0.020 | 2.46 | 2.128 | 0.332 | 1.344 | 1.34 | 0.004 |
| 2006 | 7 | 9 | 5.325 | 5.331 | -0.006 | 3.009 | 3.011 | -0.002 | 147.963 | 146.936 | 1.027 | 0.692 | 0.685 | 0.007 | 1.427 | 1.436 | -0.009 | 1.398 | 1.398 | 0.000 |
| 2006 | 7 | 10 | 5.191 | 5.181 | 0.010 | 2.997 | 3.004 | -0.007 | 150.476 | 150.472 | 0.004 | 0.805 | 0.789 | 0.016 | 1.14 | 0.87 | 0.270 | 1.142 | 1.138 | 0.004 |
| 2006 | 7 | 11 | 5.039 | 5.04 | -0.001 | 2.984 | 2.985 | -0.001 | 142.899 | 142.389 | 0.510 | 0.895 | 0.879 | 0.016 | 1.735 | 1.869 | -0.134 | 0.861 | 0.859 | 0.002 |
| 2006 | 7 | 12 | 4.903 | 4.904 | -0.001 | 2.965 | 2.966 | -0.001 | 132.291 | 131.781 | 0.510 | 33.183 | 32.834 | 0.349 | 1.31 | 1.175 | 0.135 | 0.859 | 0.841 | 0.018 |
| 2006 | 7 | 13 | 6.697 | 6.65 | 0.047 | 3.102 | 3.111 | -0.009 | 70.176 | 70.673 | -0.497 | 0.821 | 0.803 | 0.018 | 29.029 | 21.258 | 7.771 | 2.43 | 2.437 | -0.007 |
| 2006 | 7 | 14 | 7.049 | 7.051 | -0.002 | 3.091 | 3.089 | 0.002 | 39.889 | 39.876 | 0.013 | 0.905 | 0.858 | 0.047 | 50.913 | 34.889 | 16.024 | 2.801 | 2.76 | 0.041 |
| 2006 | 7 | 16 | 5.383 | 5.382 | 0.001 | 3.007 | 3.01 | -0.003 | 144.411 | 144.41 | 0.001 | 0.785 | 0.769 | 0.016 | 2.153 | 2.114 | 0.039 | 1.431 | 1.423 | 0.008 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2006 | 7 | 17 | 5.597 | 5.604 | -0.007 | 2.982 | 2.988 | -0.006 | 75.225 | 74.713 | 0.512 | 0.944 | 0.931 | 0.013 | 19.018 | 17.197 | 1.821 | 1.944 | 1.946 | -0.002 |
| 2006 | 7 | 18 | 5.136 | 5.137 | -0.001 | 2.955 | 2.96 | -0.005 | 94.407 | 93.902 | 0.505 | 1.806 | 1.621 | 0.185 | 3.004 | 2.882 | 0.122 | 0.986 | 0.983 | 0.003 |
| 2006 | 7 | 19 | 4.896 | 4.895 | 0.001 | 2.923 | 2.941 | -0.018 | 92.393 | 91.881 | 0.512 | 3.636 | 3.558 | 0.078 | 11.501 | 7.796 | 3.705 | 1.122 | 1.13 | -0.008 |
| 2006 | 7 | 20 | 4.901 | 4.915 | -0.014 | 2.901 | 2.908 | -0.007 | 72.701 | 72.693 | 0.008 | 31.783 | 29.517 | 2.266 | 0.148 | 0.601 | -0.453 | 1.709 | 1.666 | 0.043 |
| 2006 | 7 | 21 | 5.001 | 5.005 | -0.004 | 2.951 | 2.954 | -0.003 | 95.922 | 95.417 | 0.505 | 68.117 | 67.156 | 0.961 | 1.462 | 1.024 | 0.438 | 1.079 | 1.072 | 0.007 |
| 2006 | 7 | 22 | 6.06 | 6.059 | 0.001 | 3.036 | 3.039 | -0.003 | 75.73 | 75.723 | 0.007 | 0.879 | 0.84 | 0.039 | 9.578 | 19.751 | -10.173 | 1.676 | 1.66 | 0.016 |
| 2006 | 7 | 23 | 6.092 | 6.098 | -0.006 | 2.949 | 2.954 | -0.005 | 30.301 | 29.78 | 0.521 | 1.989 | 1.681 | 0.308 | 35.023 | 37.093 | -2.070 | 4.02 | 4.02 | 0.000 |
| 2006 | 10 | 0 | 7.587 | | 7.587 | 3.169 | | 3.169 | 24.752 | | 24.752 | 2.326 | | 2.326 | 6.895 | | 6.895 | 1.387 | | 1.387 |
| 2006 | 10 | 1 | 7.847 | | 7.847 | 3.162 | | 3.162 | 19.206 | | 19.206 | 2.169 | | 2.169 | 16.67 | | 16.670 | 1.518 | | 1.518 |
| 2006 | 10 | 2 | 7.617 | | 7.617 | 3.172 | | 3.172 | 36.356 | | 36.356 | 2.972 | | 2.972 | 4.923 | | 4.923 | 1.37 | | 1.370 |
| 2006 | 10 | 3 | 7.198 | 7.199 | -0.001 | 3.134 | 3.134 | 0.000 | 48.974 | 48.963 | 0.011 | 2.398 | 2.377 | 0.021 | 3.755 | 3.865 | -0.110 | 1.118 | 1.09 | 0.028 |
| 2006 | 10 | 4 | 6.948 | 6.954 | -0.006 | 3.116 | 3.116 | 0.000 | 123.7 | 123.194 | 0.506 | 1.249 | 1.24 | 0.009 | 1.654 | 3.005 | -1.351 | 1.014 | 1.001 | 0.013 |
| 2006 | 10 | 5 | 6.868 | 6.87 | -0.002 | 3.1 | 3.104 | -0.004 | 130.776 | 130.771 | 0.005 | 0.892 | 0.888 | 0.004 | 0.417 | 0.329 | 0.088 | 1.124 | 1.095 | 0.029 |
| 2006 | 10 | 6 | 6.673 | 6.68 | -0.007 | 3.088 | 3.09 | -0.002 | 132.796 | 132.286 | 0.510 | 0.846 | 0.837 | 0.009 | 0.797 | 0.964 | -0.167 | 1.103 | 1.076 | 0.027 |
| 2006 | 10 | 7 | 6.779 | 6.787 | -0.008 | 3.084 | 3.087 | -0.003 | 117.644 | 117.133 | 0.511 | 0.902 | 0.851 | 0.051 | 0.777 | 1.053 | -0.276 | 1.111 | 1.056 | 0.055 |
| 2006 | 10 | 8 | 6.413 | 6.419 | -0.006 | 3.061 | 3.063 | -0.002 | 149.466 | 148.956 | 0.510 | 1.242 | 1.214 | 0.028 | 0.742 | 0.761 | -0.019 | 0.912 | 0.889 | 0.023 |
| 2006 | 10 | 9 | 6.449 | 6.453 | -0.004 | 3.063 | 3.067 | -0.004 | 149.466 | 149.461 | 0.005 | 0.867 | 0.859 | 0.008 | 1.018 | 0.791 | 0.227 | 0.942 | 0.93 | 0.012 |
| 2006 | 10 | 10 | 6.533 | 6.531 | 0.002 | 3.058 | 3.057 | 0.001 | 141.889 | 141.884 | 0.005 | 1.034 | 1.001 | 0.033 | 0.819 | 1.05 | -0.231 | 0.956 | 0.94 | 0.016 |
| 2006 | 10 | 11 | 6.382 | 6.383 | -0.001 | 3.042 | 3.043 | -0.001 | 135.827 | 135.822 | 0.005 | 1.388 | 1.357 | 0.031 | 1.299 | 1.568 | -0.269 | 0.983 | 0.962 | 0.021 |
| 2006 | 10 | 12 | 6.339 | 6.339 | 0.000 | 3.038 | 3.039 | -0.001 | 134.817 | 134.812 | 0.005 | 30.691 | 30.555 | 0.136 | 1.029 | 0.987 | 0.042 | 0.889 | 0.881 | 0.008 |
| 2006 | 10 | 13 | 7.183 | 7.183 | 0.000 | 3.082 | 3.091 | -0.009 | 60.584 | 61.08 | -0.496 | 1.448 | 1.425 | 0.023 | 0.105 | 0.105 | 0.000 | 1.431 | 1.41 | 0.021 |
| 2006 | 10 | 14 | 7.324 | 7.335 | -0.011 | 3.027 | 3.046 | -0.019 | 27.779 | 27.761 | 0.018 | 1.774 | 1.727 | 0.047 | 4.951 | 4.154 | 0.797 | 1.368 | 1.371 | -0.003 |
| 2006 | 10 | 16 | 5.926 | 5.927 | -0.001 | 3.028 | 3.03 | -0.002 | 149.971 | 149.967 | 0.004 | 0.958 | 0.932 | 0.026 | 0.401 | 0.53 | -0.129 | 0.841 | 0.823 | 0.018 |
| 2006 | 10 | 17 | 6.612 | 6.624 | -0.012 | 3.039 | 3.048 | -0.009 | 87.343 | 87.333 | 0.010 | 1.378 | 1.306 | 0.072 | 1.112 | 1.275 | -0.163 | 0.949 | 0.925 | 0.024 |
| 2006 | 10 | 18 | 6.047 | 6.053 | -0.006 | 2.996 | 2.998 | -0.002 | 99.462 | 98.952 | 0.510 | 6.501 | 6.293 | 0.208 | 1.126 | 1.35 | -0.224 | 0.77 | 0.757 | 0.013 |
| 2006 | 10 | 19 | 6.115 | 6.118 | -0.003 | 3.01 | 3.019 | -0.009 | 102.998 | 103.497 | -0.499 | 35.889 | 36.034 | -0.145 | 1.538 | 1.093 | 0.445 | 0.86 | 0.854 | 0.006 |
| 2006 | 10 | 20 | 6.269 | 6.264 | 0.005 | 3.027 | 3.025 | 0.002 | 85.323 | 85.317 | 0.006 | 63.702 | 63.338 | 0.364 | 0.901 | 1.04 | -0.139 | 0.808 | 0.791 | 0.017 |
| 2006 | 10 | 21 | 7.078 | 7.075 | 0.003 | 3.035 | 3.031 | 0.004 | 65.128 | 64.614 | 0.514 | 29.49 | 29.237 | 0.253 | 3.014 | 3.924 | -0.910 | 1.243 | 1.187 | 0.056 |
| 2006 | 10 | 22 | 7.26 | 7.262 | -0.002 | 3.079 | 3.08 | -0.001 | 66.642 | 66.634 | 0.008 | 1.085 | 1.01 | 0.075 | 0.164 | 0.157 | 0.007 | 1.444 | 1.374 | 0.070 |
| 2006 | 10 | 23 | 7.545 | 7.545 | 0.000 | 3.036 | 3.04 | -0.004 | 24.248 | 24.227 | 0.021 | 3.722 | 3.51 | 0.212 | 0.035 | 0.035 | 0.000 | 1.774 | 1.676 | 0.098 |
| 2007 | 4 | 0 | 3.349 | 3.35 | -0.001 | 2.897 | 2.889 | 0.008 | 24.752 | 24.732 | 0.020 | 1.574 | 1.523 | 0.051 | 55.56 | 62.739 | -7.179 | 2.943 | 2.868 | 0.075 |
| 2007 | 4 | 1 | 3.54 | 3.54 | 0.000 | 2.933 | 2.92 | 0.013 | 23.744 | 23.218 | 0.526 | 2.029 | 1.899 | 0.130 | 62.357 | 61.195 | 1.162 | 2.165 | 2.094 | 0.071 |
| 2007 | 4 | 2 | 3.384 | 3.384 | 0.000 | 2.904 | 2.896 | 0.008 | 39.384 | 39.371 | 0.013 | 1.662 | 1.633 | 0.029 | 12.749 | 12.813 | -0.064 | 2.174 | 2.122 | 0.052 |
| 2007 | 4 | 3 | 3.253 | 3.253 | 0.000 | 2.873 | 2.836 | 0.037 | 50.488 | 50.478 | 0.010 | 0.945 | 0.926 | 0.019 | 30.747 | 20.127 | 10.620 | 3.579 | 3.54 | 0.039 |

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| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 | 4 | 4 | 3.297 | 3.298 | -0.001 | 2.886 | 2.884 | 0.002 | 133.301 | 132.791 | 0.510 | 0.977 | 0.97 | 0.007 | 12.826 | 13.525 | -0.699 | 1.743 | 1.731 | 0.012 |
| 2007 | 4 | 5 | 3.258 | 3.258 | 0.000 | 2.88 | 2.88 | 0.000 | 148.961 | 148.451 | 0.510 | 0.97 | 0.965 | 0.005 | 13.432 | 13.55 | -0.118 | 1.892 | 1.881 | 0.011 |
| 2007 | 4 | 6 | 3.277 | 3.279 | -0.002 | 2.884 | 2.884 | 0.000 | 129.261 | 129.255 | 0.006 | 0.89 | 0.882 | 0.008 | 11.568 | 9.639 | 1.929 | 1.328 | 1.324 | 0.004 |
| 2007 | 4 | 7 | 3.342 | 3.343 | -0.001 | 2.892 | 2.892 | 0.000 | 147.445 | 147.946 | -0.501 | 0.772 | 0.773 | -0.001 | 4.816 | 4.5 | 0.316 | 1.226 | 1.224 | 0.002 |
| 2007 | 4 | 8 | 3.343 | 3.343 | 0.000 | 2.894 | 2.894 | 0.000 | 149.466 | 148.451 | 1.015 | 0.752 | 0.75 | 0.002 | 4.873 | 4.859 | 0.014 | 0.785 | 0.782 | 0.003 |
| 2007 | 4 | 9 | 3.348 | 3.351 | -0.003 | 2.894 | 2.894 | 0.000 | 144.414 | 144.41 | 0.004 | 0.848 | 0.867 | -0.019 | 6.751 | 5.692 | 1.059 | 0.753 | 0.753 | 0.000 |
| 2007 | 4 | 10 | 3.357 | 3.357 | 0.000 | 2.896 | 2.895 | 0.001 | 145.425 | 145.42 | 0.005 | 0.782 | 0.778 | 0.004 | 2.103 | 2.147 | -0.044 | 0.764 | 0.761 | 0.003 |
| 2007 | 4 | 13 | 3.287 | 3.287 | 0.000 | 2.88 | 2.876 | 0.004 | 69.166 | 68.654 | 0.512 | 1.05 | 0.817 | 0.233 | 26.107 | 29.692 | -3.585 | 3.076 | 3.048 | 0.028 |
| 2007 | 4 | 14 | 3.347 | 3.347 | 0.000 | 2.869 | 2.864 | 0.005 | 35.852 | 35.837 | 0.015 | 0.808 | 0.784 | 0.024 | 46.135 | 42.35 | 3.785 | 9.432 | 9.337 | 0.095 |
| 2007 | 4 | 16 | 3.364 | 3.365 | -0.001 | 2.883 | 2.881 | 0.002 | 147.951 | 147.441 | 0.510 | 0.87 | 0.865 | 0.005 | 2.335 | 2.348 | -0.013 | 2.709 | 2.698 | 0.011 |
| 2007 | 4 | 17 | 3.382 | 3.382 | 0.000 | 2.88 | 2.88 | 0.000 | 93.403 | 93.396 | 0.007 | 0.885 | 0.874 | 0.011 | 13.126 | 10.838 | 2.288 | 2.221 | 2.219 | 0.002 |
| 2007 | 4 | 18 | 3.382 | 3.382 | 0.000 | 2.88 | 2.88 | 0.000 | 104.513 | 105.012 | -0.499 | 0.807 | 0.808 | -0.001 | 7.177 | 6.582 | 0.595 | 1.022 | 1.019 | 0.003 |
| 2007 | 4 | 22 | 3.12 | 3.127 | -0.007 | 2.855 | 2.856 | -0.001 | 75.225 | 75.218 | 0.007 | 0.886 | 0.885 | 0.001 | 7.27 | 6.575 | 0.695 | 2.559 | 2.568 | -0.009 |
| 2007 | 4 | 22 | 3.12 | 3.127 | -0.007 | 2.855 | 2.856 | -0.001 | 75.225 | 75.218 | 0.007 | 0.886 | 0.886 | 0.000 | 7.27 | 6.575 | 0.695 | 2.559 | 2.568 | -0.009 |
| 2007 | 4 | 23 | 3.033 | 3.026 | 0.007 | 2.832 | 2.827 | 0.005 | 44.431 | 44.419 | 0.012 | 0.859 | 0.846 | 0.013 | 19.357 | 25.198 | -5.841 | 2.115 | 2.066 | 0.049 |
| 2007 | 7 | 0 | 8.57 | 8.498 | 0.072 | 3.111 | 3.124 | -0.013 | 24.248 | 24.715 | -0.467 | 1.391 | 1.398 | -0.007 | 20.729 | 20.337 | 0.392 | 4.236 | 4.201 | 0.035 |
| 2007 | 7 | 1 | 7.185 | 7.186 | -0.001 | 3.128 | 3.128 | 0.000 | 24.732 | 24.227 | 0.505 | 1.988 | 1.964 | 0.024 | 66.146 | 75.965 | -9.819 | 2.864 | 2.837 | 0.027 |
| 2007 | 7 | 2 | 6.925 | 6.929 | -0.004 | 3.08 | 3.081 | -0.001 | 38.88 | 38.866 | 0.014 | 1.566 | 1.55 | 0.016 | 48.589 | 45.6 | 2.989 | 3.19 | 3.155 | 0.035 |
| 2007 | 7 | 3 | 6.363 | 6.363 | 0.000 | 3.053 | 3.057 | -0.004 | 44.925 | 44.924 | 0.001 | 1.359 | 1.337 | 0.022 | 23.392 | 19.628 | 3.764 | 2.205 | 2.181 | 0.024 |
| 2007 | 7 | 4 | 5.034 | 5.035 | -0.001 | 3 | 3.001 | -0.001 | 139.868 | 139.863 | 0.005 | 1.236 | 1.224 | 0.012 | 5.445 | 8.06 | -2.615 | 1.26 | 1.253 | 0.007 |
| 2007 | 7 | 5 | 5.163 | 5.169 | -0.006 | 3.002 | 3.003 | -0.001 | 149.466 | 148.956 | 0.510 | 1.06 | 1.054 | 0.006 | 10.372 | 10.668 | -0.296 | 1.252 | 1.247 | 0.005 |
| 2007 | 7 | 6 | 5.533 | 5.534 | -0.001 | 3.014 | 3.017 | -0.003 | 107.543 | 107.537 | 0.006 | 0.851 | 0.831 | 0.020 | 10.321 | 11.756 | -1.435 | 1.533 | 1.526 | 0.007 |
| 2007 | 7 | 7 | 4.998 | 5.005 | -0.007 | 2.991 | 2.993 | -0.002 | 143.906 | 143.399 | 0.507 | 0.759 | 0.743 | 0.016 | 6.526 | 6.71 | -0.184 | 1.36 | 1.357 | 0.003 |
| 2007 | 7 | 8 | 5.158 | 5.167 | -0.009 | 2.99 | 2.992 | -0.002 | 115.623 | 115.113 | 0.510 | 1.002 | 0.969 | 0.033 | 2.727 | 3.055 | -0.328 | 1.272 | 1.258 | 0.014 |
| 2007 | 7 | 9 | 4.814 | 4.821 | -0.007 | 2.974 | 2.976 | -0.002 | 135.827 | 135.317 | 0.510 | 0.914 | 0.901 | 0.013 | 5.689 | 5.701 | -0.012 | 0.921 | 0.913 | 0.008 |
| 2007 | 7 | 10 | 4.577 | 4.582 | -0.005 | 2.949 | 2.951 | -0.002 | 147.445 | 146.936 | 0.509 | 1.022 | 1.002 | 0.020 | 1.857 | 3.903 | -2.046 | 0.842 | 0.84 | 0.002 |
| 2007 | 7 | 11 | 4.554 | 4.552 | 0.002 | 2.95 | 2.95 | 0.000 | 149.971 | 149.967 | 0.004 | 0.954 | 0.93 | 0.024 | 2.491 | 2.395 | 0.096 | 1.124 | 1.121 | 0.003 |
| 2007 | 7 | 12 | 4.427 | 4.429 | -0.002 | 2.93 | 2.932 | -0.002 | 138.349 | 138.348 | 0.001 | 49.379 | 49.242 | 0.137 | 0.349 | 0.405 | -0.056 | 0.922 | 0.917 | 0.005 |
| 2007 | 7 | 13 | 6.066 | 6.067 | -0.001 | 3.05 | 3.05 | 0.000 | 70.176 | 70.168 | 0.008 | 1.256 | 1.231 | 0.025 | 18.84 | 21.81 | -2.970 | 1.798 | 1.783 | 0.015 |
| 2007 | 7 | 14 | 6.357 | 6.372 | -0.015 | 3.037 | 3.036 | 0.001 | 37.87 | 37.352 | 0.518 | 2.185 | 1.981 | 0.204 | 37.075 | 30.147 | 6.928 | 1.821 | 1.813 | 0.008 |
| 2007 | 7 | 16 | 4.329 | 4.331 | -0.002 | 2.937 | 2.939 | -0.002 | 149.466 | 149.462 | 0.004 | 0.902 | 0.895 | 0.007 | 5.653 | 5.701 | -0.048 | 1.025 | 1.021 | 0.004 |
| 2007 | 7 | 17 | 5.121 | 5.121 | 0.000 | 2.968 | 2.968 | 0.000 | 78.759 | 78.752 | 0.007 | 1.077 | 1.036 | 0.041 | 6.301 | 6.943 | -0.642 | 1.418 | 1.411 | 0.007 |
| 2007 | 7 | 18 | 4.534 | 4.54 | -0.006 | 2.903 | 2.907 | -0.004 | 92.393 | 92.009 | 0.384 | 5.831 | 5.823 | 0.008 | 4.471 | 4.966 | -0.495 | 0.913 | 0.912 | 0.001 |
| 2007 | 7 | 19 | 4.254 | 4.256 | -0.002 | 2.907 | 2.906 | 0.001 | 111.583 | 110.572 | 1.011 | 44.847 | 43.758 | 1.089 | 3.21 | 6.045 | -2.835 | 0.829 | 0.814 | 0.015 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 | 7 | 20 | 4.719 | 4.735 | -0.016 | 2.905 | 2.905 | 0.000 | 79.769 | 79.257 | 0.512 | 148.564 | 148.45 | 0.114 | 1.159 | 8.772 | -7.613 | 1.238 | 1.217 | 0.021 |
| 2007 | 7 | 21 | 4.835 | 4.836 | -0.001 | 2.942 | 2.945 | -0.003 | 96.427 | 96.427 | 0.000 | 89.686 | 89.677 | 0.009 | 0.355 | 0.354 | 0.001 | 1.013 | 1.013 | 0.000 |
| 2007 | 7 | 22 | 5.596 | 5.609 | -0.013 | 2.982 | 2.986 | -0.004 | 75.225 | 74.713 | 0.512 | 1.122 | 1.102 | 0.020 | 19.464 | 18.142 | 1.322 | 1.407 | 1.401 | 0.006 |
| 2007 | 7 | 23 | 5.978 | 5.981 | -0.003 | 2.917 | 2.922 | -0.005 | 30.301 | 30.285 | 0.016 | 2.048 | 1.933 | 0.115 | 27.945 | 29.295 | -1.350 | 2.312 | 2.283 | 0.029 |
| 2007 | 10 | 1 | 7.364 | 7.364 | 0.000 | 3.143 | 3.143 | 0.000 | 28.788 | 28.265 | 0.523 | 1.67 | 1.635 | 0.035 | 3.678 | 3.754 | -0.076 | 1.834 | 1.799 | 0.035 |
| 2007 | 10 | 2 | 7.335 | 7.337 | -0.002 | 3.128 | 3.128 | 0.000 | 39.371 | 39.371 | 0.000 | 1.962 | 1.962 | 0.000 | 5.818 | 5.78 | 0.038 | 1.835 | 1.836 | -0.001 |
| 2007 | 10 | 3 | 6.998 | 7.001 | -0.003 | 3.113 | 3.114 | -0.001 | 54.021 | 53.995 | 0.026 | 2.162 | 2.149 | 0.013 | 5.948 | 4.528 | 1.420 | 1.47 | 1.461 | 0.009 |
| 2007 | 10 | 4 | 6.319 | 6.327 | -0.008 | 3.082 | 3.082 | 0.000 | 132.796 | 132.286 | 0.510 | 1.284 | 1.281 | 0.003 | 0.9 | 0.972 | -0.072 | 1.186 | 1.179 | 0.007 |
| 2007 | 10 | 5 | 6.452 | 6.454 | -0.002 | 3.088 | 3.088 | 0.000 | 132.291 | 132.286 | 0.005 | 1.099 | 1.093 | 0.006 | 2.658 | 2.677 | -0.019 | 1.058 | 1.028 | 0.030 |
| 2007 | 10 | 6 | 6.346 | 6.344 | 0.002 | 3.075 | 3.076 | -0.001 | 121.684 | 122.184 | -0.500 | 0.956 | 0.956 | 0.000 | 0.95 | 0.771 | 0.179 | 1.26 | 1.217 | 0.043 |
| 2007 | 10 | 8 | 6.526 | 6.536 | -0.010 | 3.057 | 3.058 | -0.001 | 95.922 | 95.417 | 0.505 | 0.912 | 0.89 | 0.022 | 0.083 | 0.079 | 0.004 | 2.31 | 2.175 | 0.135 |
| 2007 | 10 | 10 | 5.58 | 5.582 | -0.002 | 2.992 | 2.993 | -0.001 | 148.452 | 148.451 | 0.001 | 0.878 | 0.878 | 0.000 | 0.523 | 0.523 | 0.000 | 2.388 | 2.388 | 0.000 |
| 2007 | 10 | 11 | 6.483 | 6.491 | -0.008 | 2.996 | 2.998 | -0.002 | 70.176 | 69.663 | 0.513 | 1.33 | 1.304 | 0.026 | 0.446 | 0.465 | -0.019 | 4.556 | 4.487 | 0.069 |
| 2007 | 10 | 12 | 6.31 | 6.311 | -0.001 | 3.002 | 3.003 | -0.001 | 73.71 | 73.703 | 0.007 | 1.709 | 1.704 | 0.005 | 0.205 | 0.235 | -0.030 | 3.1 | 3.078 | 0.022 |
| 2007 | 10 | 13 | 6.904 | 6.911 | -0.007 | 3.08 | 3.082 | -0.002 | 68.662 | 68.149 | 0.513 | 1.059 | 1.043 | 0.016 | 1.563 | 1.584 | -0.021 | 2.523 | 2.447 | 0.076 |
| 2007 | 10 | 14 | 7.051 | 7.055 | -0.004 | 3.033 | 3.034 | -0.001 | 34.338 | 33.818 | 0.520 | 1.193 | 1.173 | 0.020 | 3.106 | 3.292 | -0.186 | 4.434 | 4.352 | 0.082 |
| 2007 | 10 | 16 | 5.433 | 5.438 | -0.005 | 2.992 | 2.992 | 0.000 | 145.425 | 144.915 | 0.510 | 0.819 | 0.813 | 0.006 | 1.265 | 1.326 | -0.061 | 1.43 | 1.421 | 0.009 |
| 2007 | 10 | 17 | 5.6 | 5.601 | -0.001 | 2.975 | 2.977 | -0.002 | 92.898 | 92.892 | 0.006 | 0.977 | 0.953 | 0.024 | 2.485 | 2.53 | -0.045 | 1.543 | 1.529 | 0.014 |
| 2007 | 10 | 18 | 5.445 | 5.446 | -0.001 | 2.971 | 2.974 | -0.003 | 106.023 | 105.517 | 0.506 | 1.356 | 1.353 | 0.003 | 2.564 | 2.576 | -0.012 | 1.244 | 1.248 | -0.004 |
| 2007 | 10 | 19 | 5.387 | 5.388 | -0.001 | 2.949 | 2.951 | -0.002 | 105.518 | 105.517 | 0.001 | 2.563 | 2.562 | 0.001 | 2.399 | 2.399 | 0.000 | 1.33 | 1.33 | 0.000 |
| 2007 | 10 | 20 | 5.732 | 5.744 | -0.012 | 2.947 | 2.951 | -0.004 | 85.317 | 84.812 | 0.505 | 3.675 | 3.588 | 0.087 | 2.724 | 2.723 | 0.001 | 1.334 | 1.325 | 0.009 |
| 2007 | 10 | 21 | 6.242 | 6.244 | -0.002 | 3.004 | 3.006 | -0.002 | 81.278 | 81.277 | 0.001 | 1.977 | 1.978 | -0.001 | 0.185 | 0.185 | 0.000 | 2.877 | 2.877 | 0.000 |
| 2007 | 10 | 22 | 6.752 | 6.756 | -0.004 | 3.086 | 3.084 | 0.002 | 76.235 | 75.88 | 0.355 | 1.044 | 1.019 | 0.025 | 1.077 | 1.077 | 0.000 | 1.199 | 1.147 | 0.052 |
| 2007 | 10 | 23 | 6.803 | 6.777 | 0.026 | 3.044 | 3.03 | 0.014 | 26.77 | 26.751 | 0.019 | 1.296 | 1.197 | 0.099 | 1.179 | 1.451 | -0.272 | 2.038 | 1.772 | 0.266 |
| 2008 | 1 | 0 | 4.885 | 4.887 | -0.002 | 2.99 | 2.99 | 0.000 | 29.292 | 29.78 | -0.488 | 1.567 | 1.569 | -0.002 | 5.785 | 5.031 | 0.754 | 0.634 | 0.635 | -0.001 |
| 2008 | 1 | 1 | 4.878 | 4.878 | 0.000 | 2.998 | 2.993 | 0.005 | 25.761 | 25.742 | 0.019 | 1.862 | 1.797 | 0.065 | 6.107 | 5.612 | 0.495 | 0.639 | 0.618 | 0.021 |
| 2008 | 1 | 2 | 4.868 | 4.87 | -0.002 | 2.986 | 2.986 | 0.000 | 33.329 | 33.818 | -0.489 | 1.722 | 1.726 | -0.004 | 7.969 | 6.639 | 1.330 | 0.623 | 0.624 | -0.001 |
| 2008 | 1 | 3 | 4.784 | 4.783 | 0.001 | 2.947 | 2.944 | 0.003 | 46.45 | 45.934 | 0.516 | 0.758 | 0.741 | 0.017 | 6.791 | 6.467 | 0.324 | 0.626 | 0.615 | 0.011 |
| 2008 | 1 | 4 | 4.896 | 4.897 | -0.001 | 2.966 | 2.965 | 0.001 | 116.676 | 116.531 | 0.145 | 0.959 | 0.957 | 0.002 | 1.709 | 1.811 | -0.102 | 0.578 | 0.573 | 0.005 |
| 2008 | 1 | 5 | 4.894 | 4.897 | -0.003 | 2.967 | 2.968 | -0.001 | 125.22 | 125.72 | -0.500 | 0.909 | 0.911 | -0.002 | 2.559 | 2.134 | 0.425 | 0.557 | 0.557 | 0.000 |
| 2008 | 1 | 7 | 5.171 | 5.172 | -0.001 | 2.994 | 2.994 | 0.000 | 138.349 | 138.348 | 0.001 | 0.592 | 0.591 | 0.001 | 0.887 | 1.002 | -0.115 | 0.469 | 0.466 | 0.003 |
| 2008 | 1 | 13 | 4.977 | 4.979 | -0.002 | 2.969 | 2.969 | 0.000 | 59.07 | 58.556 | 0.514 | 0.612 | 0.606 | 0.006 | 8.067 | 8.783 | -0.716 | 0.533 | 0.527 | 0.006 |
| 2008 | 1 | 14 | 4.965 | 4.963 | 0.002 | 2.956 | 2.956 | 0.000 | 27.275 | 26.751 | 0.524 | 0.644 | 0.634 | 0.010 | 15.02 | 16.206 | -1.186 | 0.565 | 0.556 | 0.009 |
| 2008 | 1 | 16 | 5.237 | 5.24 | -0.003 | 2.996 | 2.996 | 0.000 | 147.951 | 146.556 | 1.395 | 0.599 | 0.595 | 0.004 | 2.329 | 2.706 | -0.377 | 0.431 | 0.427 | 0.004 |

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2008 | 1 | 22 | 5.132 | 5.134 | -0.002 | 2.973 | 2.973 | 0.000 | 69.664 | 69.663 | 0.001 | 0.653 | 0.65 | 0.003 | 0.768 | 0.755 | 0.013 | 0.525 | 0.518 | 0.007 |
| 2008 | 1 | 23 | 5.661 | 5.663 | -0.002 | 3.013 | 3.013 | 0.000 | 31.815 | 31.799 | 0.016 | 1.234 | 1.134 | 0.100 | 2.488 | 2.524 | -0.036 | 0.475 | 0.464 | 0.011 |
| 2008 | 3 | 1 | 3.861 | 3.861 | 0.000 | 2.925 | 2.924 | 0.001 | 23.744 | 23.707 | 0.037 | 1.195 | 1.178 | 0.017 | 2.925 | 2.774 | 0.151 | 2.292 | 2.234 | 0.058 |
| 2008 | 3 | 2 | 3.861 | 3.862 | -0.001 | 2.924 | 2.925 | -0.001 | 35.347 | 35.837 | -0.490 | 1.148 | 1.154 | -0.006 | 3.338 | 2.929 | 0.409 | 2.413 | 2.406 | 0.007 |
| 2008 | 3 | 3 | 3.762 | 3.766 | -0.004 | 2.903 | 2.903 | 0.000 | 43.422 | 43.906 | -0.484 | 0.723 | 0.717 | 0.006 | 3.82 | 3.562 | 0.258 | 2.496 | 2.361 | 0.135 |
| 2008 | 3 | 4 | 3.808 | 3.813 | -0.005 | 2.908 | 2.909 | -0.001 | 106.028 | 106.527 | -0.499 | 0.779 | 0.781 | -0.002 | 1.674 | 1.292 | 0.382 | 2.282 | 2.222 | 0.060 |
| 2008 | 3 | 5 | 3.814 | 3.82 | -0.006 | 2.909 | 2.91 | -0.001 | 109.563 | 110.062 | -0.499 | 0.758 | 0.761 | -0.003 | 2.219 | 1.627 | 0.592 | 2.387 | 2.308 | 0.079 |
| 2008 | 3 | 6 | 3.815 | 3.819 | -0.004 | 2.91 | 2.911 | -0.001 | 106.533 | 107.032 | -0.499 | 0.866 | 0.867 | -0.001 | 3.664 | 3.209 | 0.455 | 1.536 | 1.514 | 0.022 |
| 2008 | 3 | 7 | 3.791 | 3.791 | 0.000 | 2.908 | 2.908 | 0.000 | 88.858 | 88.347 | 0.511 | 0.825 | 0.818 | 0.007 | 4.693 | 4.598 | 0.095 | 1.533 | 1.485 | 0.048 |
| 2008 | 3 | 13 | 3.756 | 3.757 | -0.001 | 2.899 | 2.899 | 0.000 | 72.694 | 72.693 | 0.001 | 0.995 | 0.992 | 0.003 | 7.755 | 7.381 | 0.374 | 2.136 | 2.086 | 0.050 |
| 2008 | 3 | 14 | 3.731 | 3.727 | 0.004 | 2.884 | 2.884 | 0.000 | 30.301 | 29.78 | 0.521 | 0.856 | 0.829 | 0.027 | 7.774 | 8.519 | -0.745 | 1.542 | 1.507 | 0.035 |
| 2008 | 3 | 16 | 3.872 | 3.872 | 0.000 | 2.907 | 2.907 | 0.000 | 138.858 | 138.853 | 0.005 | 0.988 | 0.981 | 0.007 | 1.904 | 1.912 | -0.008 | 0.716 | 0.705 | 0.011 |
| 2008 | 3 | 17 | 3.873 | 3.872 | 0.001 | 2.901 | 2.901 | 0.000 | 89.868 | 89.862 | 0.006 | 1.13 | 1.121 | 0.009 | 1.669 | 1.653 | 0.016 | 0.69 | 0.67 | 0.020 |
| 2008 | 3 | 18 | 3.871 | 3.882 | -0.011 | 2.901 | 2.903 | -0.002 | 104.513 | 105.517 | -1.004 | 1.168 | 1.167 | 0.001 | 2.812 | 2.055 | 0.757 | 0.566 | 0.553 | 0.013 |
| 2008 | 3 | 22 | 3.802 | 3.802 | 0.000 | 2.902 | 2.902 | 0.000 | 60.071 | 59.565 | 0.506 | 0.741 | 0.74 | 0.001 | 13.686 | 13.545 | 0.141 | 2.226 | 2.241 | -0.015 |
| 2008 | 3 | 23 | 3.791 | 3.79 | 0.001 | 2.89 | 2.889 | 0.001 | 29.292 | 28.77 | 0.522 | 0.975 | 0.95 | 0.025 | 58.595 | 63.271 | -4.676 | 1.703 | 1.646 | 0.057 |
| 2008 | 6 | 1 | 6.917 | | 6.917 | 3.169 | | 3.169 | 22.231 | | 22.231 | 2.054 | | 2.054 | 26.029 | | 26.029 | 4.659 | | 4.659 |
| 2008 | 6 | 2 | 6.912 | | 6.912 | 3.155 | | 3.155 | 36.356 | | 36.356 | 1.931 | | 1.931 | 13.983 | | 13.983 | 5.457 | | 5.457 |
| 2008 | 6 | 3 | 6.293 | | 6.293 | 3.109 | | 3.109 | 49.479 | | 49.479 | 1.729 | | 1.729 | 14.926 | | 14.926 | 4.345 | | 4.345 |
| 2008 | 6 | 4 | 5.114 | | 5.114 | 3.018 | | 3.018 | 124.21 | | 124.210 | 1.614 | | 1.614 | 3.072 | | 3.072 | 1.663 | | 1.663 |
| 2008 | 6 | 5 | 4.976 | | 4.976 | 3.009 | | 3.009 | 148.456 | | 148.456 | 1.532 | | 1.532 | 4.565 | | 4.565 | 1.135 | | 1.135 |
| 2008 | 6 | 6 | 4.958 | 4.963 | -0.005 | 3.005 | 3.005 | 0.000 | 134.817 | 134.307 | 0.510 | 1.46 | 1.44 | 0.020 | 0.52 | 0.524 | -0.004 | 1.53 | 1.514 | 0.016 |
| 2008 | 6 | 7 | 4.842 | | 4.842 | 2.999 | | 2.999 | 135.827 | | 135.827 | 1.396 | | 1.396 | 1.93 | | 1.930 | 1.231 | | 1.231 |
| 2008 | 6 | 8 | 4.455 | 4.462 | -0.007 | 2.963 | 2.962 | 0.001 | 151.487 | 150.977 | 0.510 | 1.306 | 1.28 | 0.026 | 3.19 | 3.629 | -0.439 | 1.141 | 1.132 | 0.009 |
| 2008 | 6 | 9 | 4.478 | 4.486 | -0.008 | 2.962 | 2.962 | 0.000 | 136.332 | [illegible] | 0.510 | 1.321 | 1.292 | 0.029 | 4.893 | 5.426 | -0.533 | 1.169 | 1.163 | 0.006 |
| 2008 | 6 | 10 | 4.265 | 4.267 | -0.002 | 2.944 | 2.945 | -0.001 | 150.982 | [illegible] | 0.005 | 1.3 | 1.28 | 0.020 | 2.357 | 2.638 | -0.281 | 1.141 | 1.132 | 0.009 |
| 2008 | 6 | 11 | 4.118 | 4.121 | -0.003 | 2.931 | 2.931 | 0.000 | 146.94 | 146.43 | 0.510 | 1.425 | 1.418 | 0.007 | 1.57 | 1.957 | -0.387 | 1.402 | 1.398 | 0.004 |
| 2008 | 6 | 12 | 4.033 | 4.033 | 0.000 | 2.912 | 2.918 | -0.006 | 138.858 | 138.348 | 0.510 | 7.431 | 7.38 | 0.051 | 1.405 | 1.634 | -0.229 | 1.449 | 1.449 | 0.000 |
| 2008 | 6 | 13 | 5.835 | | 5.835 | 3.07 | | 3.070 | 68.157 | | 68.157 | 1.667 | | 1.667 | 7.741 | | 7.741 | 2.248 | | 2.248 |
| 2008 | 6 | 14 | 6.291 | 6.303 | -0.012 | 3.073 | 3.072 | 0.001 | 33.329 | 32.809 | 0.520 | 2.058 | 1.983 | 0.075 | 3.456 | 4.205 | -0.749 | 4.199 | 3.918 | 0.281 |
| 2008 | 6 | 16 | 4.571 | 4.574 | -0.003 | 2.965 | 2.966 | -0.001 | 135.322 | 135.317 | 0.005 | 1.512 | 1.485 | 0.027 | 1.589 | 1.758 | -0.169 | 0.803 | 0.789 | 0.014 |
| 2008 | 6 | 17 | 4.505 | 4.507 | -0.002 | 2.941 | 2.944 | -0.003 | 88.858 | 88.852 | 0.006 | 1.645 | 1.621 | 0.024 | 2.167 | 2.362 | -0.195 | 1.146 | 1.137 | 0.009 |
| 2008 | 6 | 18 | 4.21 | 4.23 | -0.020 | 2.922 | 2.916 | 0.006 | 88.353 | 88.347 | 0.006 | 2.481 | 2.154 | 0.327 | 1.649 | 2.376 | -0.727 | 0.851 | 0.8 | 0.051 |
| 2008 | 6 | 21 | 4.03 | 4.032 | -0.002 | 2.901 | 2.902 | -0.001 | 111.078 | 110.567 | 0.511 | 65.799 | 65.475 | 0.324 | 4.228 | 5.799 | -1.571 | 1.458 | 1.454 | 0.004 |

W

| Year | Mon-th | Sta-tion | OC-2010.1 Mean Temp | USGS Mean Temp | Delta Temp | OC-2010.1 Mean Cond | USGS Mean Cond | Delta Cond | OC-2010.1 Mean Press | USGS Mean Press | Delta Press | OC-2010.1 Mean OBS | USGS Mean OBS | Delta OBS | OC-2010.1 Mean PAR | USGS Mean PAR | Delta PAR | OC-2010.1 Mean Fluor | USGS Mean Fluor | Delta Fluor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2008 | 6 | 22 | 4.93 | | 4.930 | 2.973 | | 2.973 | 72.701 | | 72.701 | 1.784 | | 1.784 | 8.588 | | 8.588 | 1.613 | | 1.613 |
| 2008 | 6 | 23 | 5.175 | | 5.175 | 2.927 | | 2.927 | 30.301 | | 30.301 | 2.222 | | 2.222 | 4.49 | | 4.490 | 3.404 | | 3.404 |
| 2008 | 8 | 1 | | 6.922 | -6.922 | | 3.17 | -3.170 | | 22.208 | -22.208 | | 1.977 | -1.977 | | 29.498 | -29.498 | | 4.575 | -4.575 |
| 2008 | 8 | 2 | | 6.931 | -6.931 | | 3.155 | -3.155 | | 36.342 | -36.342 | | 1.878 | -1.878 | | 15.301 | -15.301 | | 5.248 | -5.248 |
| 2008 | 8 | 3 | | 6.299 | -6.299 | | 3.109 | -3.109 | | 49.468 | -49.468 | | 1.715 | -1.715 | | 11.661 | -11.661 | | 4.33 | -4.330 |
| 2008 | 8 | 4 | | 5.143 | -5.143 | | 3.017 | -3.017 | | 123.199 | -123.199 | | 1.585 | -1.585 | | 5.354 | -5.354 | | 1.622 | -1.622 |
| 2008 | 8 | 5 | | 4.954 | -4.954 | | 3.01 | -3.010 | | 148.954 | -148.954 | | 1.517 | -1.517 | | 4.92 | -4.920 | | 1.126 | -1.126 |
| 2008 | 8 | 7 | | 4.841 | -4.841 | | 2.996 | -2.996 | | 135.822 | -135.822 | | 1.361 | -1.361 | | 2.762 | -2.762 | | 1.222 | -1.222 |
| 2008 | 8 | 13 | | 5.851 | -5.851 | | 3.071 | -3.071 | | 67.644 | -67.644 | | 1.621 | -1.621 | | 12.548 | -12.548 | | 2.226 | -2.226 |
| 2008 | 8 | 22 | | 4.933 | -4.933 | | 2.972 | -2.972 | | 72.188 | -72.188 | | 1.749 | -1.749 | | 14.26 | -14.260 | | 1.596 | -1.596 |
| 2008 | 8 | 23 | | 5.045 | -5.045 | | 2.943 | -2.943 | | 30.789 | -30.789 | | 2.199 | -2.199 | | 3.437 | -3.437 | | 3.405 | -3.405 |
| 2008 | 10 | 0 | 7.259 | 0 | 7.259 | 3.114 | 3.114 | 0.000 | 23.723 | 23.218 | 0.505 | 4.033 | 3.999 | 0.034 | 7.559 | 7.213 | 0.346 | 1.348 | 1.331 | 0.017 |
| 2008 | 10 | 1 | 7.238 | 0 | 7.238 | 3.091 | 3.092 | -0.001 | 21.222 | 20.694 | 0.528 | 4.341 | 4.273 | 0.068 | 23.968 | 27.45 | -3.482 | 1.445 | 1.415 | 0.030 |
| 2008 | 10 | 2 | 7.223 | 0 | 7.223 | 3.097 | 3.098 | -0.001 | 37.87 | 37.857 | 0.013 | 4.803 | 4.771 | 0.032 | 10.067 | 10.577 | -0.510 | 1.452 | 1.427 | 0.025 |
| 2008 | 10 | 3 | 6.956 | 0 | 6.956 | 2.979 | 2.981 | -0.002 | 41.403 | 40.886 | 0.517 | 2.893 | 2.86 | 0.033 | 9.213 | 9.707 | -0.494 | 2.145 | 2.126 | 0.019 |
| 2008 | 10 | 4 | 6.264 | 0 | 6.264 | 3.058 | 3.058 | 0.000 | 132.796 | 132.286 | 0.510 | 1.798 | 1.785 | 0.013 | 5.463 | 7.708 | -2.245 | 0.879 | 0.86 | 0.019 |
| 2008 | 10 | 5 | 5.891 | 0 | 5.891 | 3.038 | 3.044 | -0.006 | 147.957 | 148.451 | -0.494 | 1.513 | 1.509 | 0.004 | 5.374 | 3.519 | 1.855 | 0.86 | 0.833 | 0.027 |
| 2008 | 10 | 6 | 6.876 | 0 | 6.876 | 3.036 | 3.043 | -0.007 | 72.196 | 72.689 | -0.493 | 1.675 | 1.596 | 0.079 | 1.502 | 1.451 | 0.051 | 1.347 | 1.265 | 0.082 |
| 2008 | 10 | 7 | 6.796 | 0 | 6.796 | 3.031 | 3.032 | -0.001 | 75.73 | 74.713 | 1.017 | 1.581 | 1.519 | 0.062 | 1.525 | 1.499 | 0.026 | 1.239 | 1.201 | 0.038 |
| 2008 | 10 | 8 | 6.303 | 0 | 6.303 | 3.028 | 3.031 | -0.003 | 118.149 | 118.143 | 0.006 | 1.493 | 1.477 | 0.016 | 1.582 | 1.746 | -0.164 | 1.008 | 0.981 | 0.027 |
| 2008 | 10 | 9 | 6.562 | 0 | 6.562 | 3.013 | 3.015 | -0.002 | 91.383 | 91.377 | 0.006 | 1.808 | 1.762 | 0.046 | 0.461 | 0.541 | -0.080 | 1.435 | 1.348 | 0.087 |
| 2008 | 10 | 10 | 6.162 | 0 | 6.162 | 2.995 | 2.998 | -0.003 | 120.169 | 120.164 | 0.005 | 1.66 | 1.645 | 0.015 | 0.65 | 0.697 | -0.047 | 1.263 | 1.234 | 0.029 |
| 2008 | 10 | 11 | 5.671 | 0 | 5.671 | 2.966 | 2.969 | -0.003 | 141.384 | 141.379 | 0.005 | 1.945 | 1.927 | 0.018 | 0.502 | 0.473 | 0.029 | 1.072 | 1.051 | 0.021 |
| 2008 | 10 | 12 | 5.805 | 0 | 5.805 | 2.977 | 2.98 | -0.003 | 134.817 | 134.812 | 0.005 | 29.698 | 29.672 | 0.026 | 0.27 | 0.314 | -0.044 | 0.81 | 0.795 | 0.015 |
| 2008 | 10 | 13 | 6.945 | 0 | 6.945 | 3.032 | 3.048 | -0.016 | 51.498 | 52.497 | -0.999 | 1.589 | 1.576 | 0.013 | 6.928 | 3.895 | 3.033 | 1.696 | 1.615 | 0.081 |
| 2008 | 10 | 14 | 6.864 | 0 | 6.864 | 2.936 | 2.964 | -0.028 | 33.833 | 34.828 | -0.995 | 2.027 | 1.996 | 0.031 | 5.313 | 2.912 | 2.401 | 2.89 | 2.688 | 0.202 |
| 2008 | 10 | 16 | 5.646 | 0 | 5.646 | 2.99 | 2.995 | -0.005 | 126.23 | 125.72 | 0.510 | 1.875 | 1.861 | 0.014 | 0.876 | 0.619 | 0.257 | 0.836 | 0.819 | 0.017 |
| 2008 | 10 | 17 | 5.903 | 0 | 5.903 | 2.963 | 2.967 | -0.004 | 78.759 | 76.732 | 2.027 | 1.894 | 1.841 | 0.053 | 2.446 | 2.541 | -0.095 | 0.918 | 0.896 | 0.022 |
| 2008 | 10 | 18 | 5.723 | 0 | 5.723 | 2.978 | 2.986 | -0.008 | 94.413 | 94.403 | 0.010 | 4.522 | 4.339 | 0.183 | 1.235 | 1.387 | -0.152 | 0.689 | 0.66 | 0.029 |
| 2008 | 10 | 19 | 5.422 | 0 | 5.422 | 2.93 | 2.942 | -0.012 | 106.028 | 106.022 | 0.006 | 50.082 | 49.611 | 0.471 | 0.662 | 0.391 | 0.271 | 0.509 | 0.502 | 0.007 |
| 2008 | 10 | 20 | 5.565 | 0 | 5.565 | 2.905 | 2.921 | -0.016 | 80.274 | 80.772 | -0.498 | 50.67 | 50.633 | 0.037 | 0.162 | 0.115 | 0.047 | 0.533 | 0.527 | 0.006 |
| 2008 | 10 | 21 | 6.194 | 0 | 6.194 | 2.972 | 2.982 | -0.010 | 94.413 | 94.907 | -0.494 | 22.36 | 22.279 | 0.081 | 0.129 | 0.186 | -0.057 | 0.972 | 0.943 | 0.029 |