**Fixed (by Emily) and loaded:**

DUM7: Snow depth error for 2010

DBM5: Error in 2001 met file, Errors in 2007,2008

DBM6: Snow depth error 2010 met file

DUM2: 2011 on 2/14 at 4pm, error

DFM3: 5/16/2007 09:00-19:00 errors

**NOTE:**

DUM4: Loaded as ‘6999’ for 9/29/2009 at 15:00 and 16:00

DBM1: Missing WS value in 2008 met file

DBM2: Error in 2008 Soils data

DUM2: Need to load Soil

DUM3: Need to load Soil

DUS2: Need to load Soil

DUS1: Not found

DUM4: Need to load Soils

DUM5: Need to load Soils

DFM2: Confirm soils end date

DFM2: No Soils loaded past 2007

DBM3: Need to load Soils

# Betty Pingo Met and Radiation:

Betty Wetland Met:

* 1997: Deleted repeat day, 12/13/1997, first entry. Checked WERCOD and discovered they had done the same.
* 2005: Had 6999.0 for marker. Updated 873 rows in database to NULL and QualifierID to 14 where the DataValue was ‘6999’
* 2004: Had 6999.0 for marker. Updated 196 rows in database to NULL and QualifierID to 14 for DatastreamID = 1060
* 2006: Inserted missing marker ‘6999’ for data points in the date range: 2/16/06 13:00 to 4/15/06 18:00.

Betty Rad:

* 1996: Removed a blank line (line number 7831).  Removed duplicate decimal date 258.63
* 1997: Duplicate 347 decimal date.  Removed first occurrence.  Note:  This decimal date had a duplicate in 1997 BM Met.
* 2004: Missing  reflected shortwave radiation on 6/26/2004 13:00 and 6/26/2004 14:00.  I loaded into IARCOD with the missing marker ‘6999'.
* 2008: Missing Upland NetRad value for entire year.  I loaded into IARCOD with the ‘7777’ marker for the Upland Net Rad.  The reason I did so was that Wetland Net Rad was also missing this value for the entire year and the '7777' marker was used.

# Betty Pingo Wetland Soils

**Betty Pingo Soils Wetland (Greta Myerchin's noted changes):**

BPW1999:  Duplicate 281 decimal date.  I removed the decimal date for 281 that contained  ‘6999’.

BPW2006: No data points in range 2/16/2006 13:00 to 04/15/2006 18:00.  Inserted value ‘6999'.

BPW2007:  Replaced ‘69999.0’ with ‘6999’ for SoilTemp06.

**Betty Pingo Soils Wetland (New changes):**

BPW1999:  12/31/1999 is missing timestamps from 01:00-23:00.  1/1/2000 0:00 is also missing.  I put in the missing marker ‘6999’ for these timestamps.

BPW2006:  No data points in range 2/16/2006 13:00 to 4/15/2006 18:00.  Inserted value '6999'.

BPW2008:  Replaced ‘6999.0’ with ‘6999’ for SoilTemp06.

**Greta Myerchin's changes that have been fixed on website:**

BPW2001, BPW2002, BPW2004

# Betty Pingo Upland Soils

**Betty Pingo Soils Upland (Greta Myerchin’s noted changes):**

BPU1994: For 15cm, 35cm, and 60cm data points, inserted ‘6999’ in the range 5/24/1994 19:00 to 5/27/1994 23:00.

**Betty Pingo Soils Upland (New Changes)**

BPU2003:

* Decimal dates 287.58 and 287.63 are missing. Inserted missing marker data point value ‘6999’.
* Decimal dates 338.17,338.21,338.25,338.29,338.33,338.38 are missing. Inserted missing marker data point value ‘6999’.

BPU2006: Inserted missing marker ‘6999’ into data points for date range: 2/16/06 13:00 to 4/15/06 18:00.

**Greta Myerchin’s changes that have been fixed on website:**

BPU2005, BPU2006

# Imnavait Basin Met

IB1986m:

* Used the IB1986m.dat file from Greta Myerchin that was sent to her on 2/22/2010 by Rob Geick.
* Missing decimal date 286.75. Inserted missing marker value ‘6999’ for all variables.

IB1987m: Changed column name from rainfall (mm) to 1.5m wind speed. This is because WERCOD has loaded in 1.5m wind speed values that match the precip values from IB1987m.

IB1988m: Missing decimal date 107.46. Inserted missing marker value ‘6999’ for all variables.

IB1989m:

* Used the IB1989m.dat file from Greta Myerchin that was sent to her on 2/22/2010 by Rob Geick.
* Relative humidity is being shown as being collected at a height of 2m in one location and 1m in another. In WERCOD, the RH sensor height is given as 1m—so this is the RH sensor height that I used.
* What date did the 1.5m AT/RH/WS move to 1m? I used 4/21/1989 15:00.

IB1989m fixes. These were wrong on the website, but were corrected in file from Greta M:

* Decimal date 41.88 changed the 10m wind speed data point value from ‘6999.4’ to ‘6999’.
* Decimal date 48.96 looks wrong. WERCOD shifted all data values to the left. However it is using the value ‘0.9’ for both 10m and 2m air temp. I put in ‘6999’ for 10m air temp.
* For decimal date range 111.42 to 111.58 changed the 10 meter wind speed data point value to ‘6999’ from ‘6999.4’.
* What date did the 1.5m AT/RH/WS move to 1m?
* Decimal date 138.58 changed the 10m wind speed data point value from ‘6999.4’ to ‘6999’.
* For decimal date range 153.54 to 153.83 changed the 10 meter wind speed data point value to ‘6999’ from 6999.4’

IB1990m:

* Used the IB1990m.dat file from Greta Myerchin that was sent to her on 2/22/2010 by Rob Geick.
* Relative humidity is being shown as being collected at a height of 2m in one location and 1m in another. In WERCOD, the RH sensor height is given as 1m—so this is the RH sensor height that I used.

IB1991m:

* Used the IB1991m.dat file from Greta Myerchin that was sent to her on 2/22/2010 by Rob Geick.
* Relative humidity is being shown as being collected at a height of 2m in one location and 1m in another. In WERCOD, the RH sensor height is given as 1m—so this is the RH sensor height that I used.
* In IB1991m.dat from Greta Myerchin, the column header at the top of the file indicates that the WS order is WS1, then WS10. However, the column headers right above the data say WS10, WS1. WERCOD entered it as WS10 appearing first, so that is what I did.
* Only two wind speeds are in IB1991m. In WERCOD, it was WS10 and WS1 that were loaded. WS3 is missing for IB1991.

IB1992m: Relative humidity is being shown as being collected at a height of 2m in one location and 1m in another. In WERCOD, the RH sensor height is given as 1m—so this is the RH sensor height that I used.

IB1993m:

* Used the IB1993m.dat file from Greta Myerchin that was sent to her on 2/22/2010 by Rob Geick.
* Deleted rows that came after decimal date 366.

IB1995:

* Used the IB1995m.dat file from Greta Myerchin that was sent to her on 2/22/2010 by Rob Geick.
* Put a comment that there is no 3mAT data between 4/21/1989 15:00 to 1/1/1995 0:00 in datastream for 3mAT in IARCOD. Precip has also started again, but there is a note that it is from Site A.

IB1999m: Duplicate decimal dates for 150.46 Deleted 2nd occurrence, since that is what WERCOD had done.

IB2000m: Removed character after precip at timestamp ‘9/14/2000 18:00’.

IB2001: Used the IB2001m.dat file from Greta Myerchin that was sent to her on 2/22/2010 by Rob Geick

IB2003: Used the IB2003m.dat file from Greta Myerchin that was sent to her on 2/22/2010 by Rob Geick

IB2004m: 2mAT starts on 1/1/2000 1:00. There was no 2mAT from 1/1/2000 1:00 to 1/1/2004 0:00. No 2mAT from 1/1/2005 01:00 to 1/1/2006 0:00. Made a note in Datastreams in IARCOD.

NOTE: WERCOD has values for 3mAT, even though it was changed to 2mAT in 1989.

IB2006:

* Used the IB2006m.dat file from Greta Myerchin that was sent to her on 2/22/2010 by Rob Geick. No 10m air temperature or 1m relative humidity.
* In WERCOD precipitation was not loaded for this year. It also appears that they loaded in a different data file than I received from Greta Myerchin, since the wind speeds have three decimal places. However, there are still no 10m air temperature and 1m relative humidity in WERCOD.

IB2007:

* Does not appear to have been loaded into WERCOD for all variables.
* Loading in IB2007\_old.csv until ‘9/8/2007 19:00’. After this time, will switch to IB2007\_new.csv.

IB2009: Received copy of file from Rob Geick on 6/21/2011. Rob and Greta Myerchin have reviewed this file. Does not include 3m wind speed.

# Imnavait Basin Radiation

IB1986r: Missing decimal date 286.75. Inserted missing marker value ‘6999’ for all variables.

IB1999r:

* Duplicate decimal dates for 150.46 Selected decimal date that included all values.
* Starting at decimal date 123.17 there are 759 missing values . I did a search and replace. Replaced all missing values with ‘6999’.

IB2000r: Missing values for decimal date 257.83. Inserted ‘7777’

IB2003r:

* Decimal date 118.63: Inserted ‘7777’ for net radiation.
* Missing values starting at decimal date ‘331.08’ to ‘331.46’. Inserted ‘7777’.

IB2002-2008: Loaded in this column order: terrestrial longwave, atmospheric longwave, reflected shortwave, incident shortwave, net radiation. Emailed Rob Geick about order on 6/28/2011.

# Imnavait Basin Snow

Precipitation in cm until 1994, where it switches to mm.

Rob Geick said not to load this data, as it was really not WERC.

# Imnavait Basin Soils

IB1986t: Column header descriptions do not match. Used the column headers from the top of the file, which said ‘10cm Snow Temp, Surface Temp, 05cm Soil Temp and 10cm Soil Temp’. Checked Greta Myerchin’s standardized soils and this is what she had done.

IB1989t: Decimal date ‘138.58’ was missing. Inserted ‘6999’ for all values.

IB1991t: Column headers did not match. Went with the first version in the file, since that is what Greta Myerchin had done with standardized soils.

IB1996t: Duplicate decimal dates 121-126. Deleted those with missing marker.

IB1997t: Used the 1/1/1997 data value from IB1997t, not IB1996t. These files contain different values for the same date.

IB1998t: There was no 10cm snow temp, only two surface temps. One of the surface temps contained ‘6999’ for the entire year, so I only loaded the surface temp that contained values. Greta Myerchin did the same thing with the standardized soils file.

IB1999t:

* Confirmed with Rob Geick that the file from web was correct (since he sent me the IB1999t.dat file on 6/30/2011). The standardized soils file from Greta Myerchin has totally different values.
* One of the surface temps contained ‘6999’ for the entire year, so I only loaded the surface temp that contained values.

IB2000-2003t: One of the surface temps contained ‘6999’ for the entire year, so I only loaded the surface temp that contained values. Greta Myerchin did the same thing with the standardized soils file.

IB2004t:

* One of the surface temps contained ‘6999’ for the entire year, so I only loaded the surface temp that contained values. Greta Myerchin added a new column ‘Surf Temp 1cm’ for the ‘6999’ values.
* Deleted duplicate row for ‘10/27/04’.

There is not a soils file for 2005.

IB2006h:

* Replaced ‘#NUM!’ with ‘6999’ marker
* Did not load last column of ‘6999’ values.

2008: Loaded from IB2008th until decimal date ‘254.54’. After that loaded in from file IB2008t2h, starting with decimal date ‘254.58’.

IB2008t2h:

* Replaced missing values with ‘6999’
* Used headers right above data column, so did not load 15cm soil temp.

# Imnavait Basin Site A Met

IA1985m: Inserted multiple missing decimal dates and used ‘6999’ for the missing values.

IA1987m: Inserted missing decimal date ’75.54’ and used ‘6999’ for missing values.

IA1988m:

* Inserted missing values on the midnight hour on 7/28/1988 and 8/1/1988 to 8/28/1988. Used missing value marker ‘6999’
* Inserted missing decimal date from ‘303.5’ to ‘303.87’ and used ‘6999’ for missing values.

IA1989m:

* Inserted missing marker ‘6999’ for wind speed for decimal dates in range ’42.46’ to ’42.58’.
* Inserted missing marker ‘6999’ for wind speed for decimal dates in range ‘109.88’ to ’110.67’.
* Inserted missing marker ‘6999’ for wind speed for decimal dates in range ‘226.46’ to ’228.54’.

IA1991m:

* Inserted missing decimal date ‘122.41’ and used ‘6999’ for missing values.
* On decimal date ‘122.458’, changed a value to ‘6999’ from ‘6999.007’ and inserted missing values at end of row.
* Inserted missing decimal date ‘132.5’ with missing marker ‘6999’.
* Inserted missing decimal dates ‘205.33’ to ‘206.37’ with missing marker ‘6999’.
* Inserted missing decimal dates ‘242.58’ to ‘243.33’ with missing marker ‘6999’.
* Inserted missing decimal dates ‘309.62’ to ‘309.66’ with missing marker ‘6999’.
* For decimal date range ‘235.62’ to ‘236.25’. Moved data values over to the right one column. Inserted missing marker ‘6999’ into 2m relative humidity and updated 1m relative humidity to value before ‘6999’. It appears that the 2m relative humidity ‘6999’ values were appended to 1m relative humidity and messed up column order.
* For decimal date ‘236.792’ moved values over to the left one column and inserted ‘6999’ for 2m relative humidity. Also updated 1m relative humidity to 96.

IA1992m:

* Inserted decimal date ‘119.83’ with missing marker ‘6999’.
* Ends at decimal date ‘244.958’.

# Imnavait Basin Site A Radiation

IA1985R:

* Inserted missing decimal dates in range ‘213.75’ to ‘213.96with the missing value marker ‘6999’.
* Inserted missing decimal dates in range ‘216 to ‘216.37’ with the missing value marker ‘6999’.

IA1987R: Inserted missing decimal date ‘75.54’ with the missing marker ‘6999’

IA1990R: Deleted last two columns. Appear to be terrestrial longwave and atmospheric longwave data values have been inserted twice.

# Imnavait Flume Discharge

Formula for converting decimal dates to dates:

1. Reference Cell: =INT(87\*365.255)-1
2. Formula for daily and hourly data: =DATE(YEAR($A$13+B14),MONTH($A$13+B14),DAY($A$13+B14)) + IF(MINUTE($A$13+B14)>29,TIME(HOUR($A$13+B14)+1,0,0),TIME(HOUR($A$13+B14),0,0))
3. Formula for minute data is reference cell plus decimal date.
4. To check for duplicates: =IF(COUNTIF($B$2:$B$190258,B2)>1,"DUPLICATE","UNIQUE")
5. To go by Minutes, add decimal date to Reference cell. Example: $A$3+B9

IH1986q: Removed duplicate decimal date ‘206.792’.

IH1987q:

* Removed duplicate decimal date ‘179.25’.

IH1990q:

* Removed second decimal date ‘140.583’, since it appeared twice.

IH1991q:

* Removed second decimal date ‘129.6’, since it appeared twice.
* Removed second decimal date ‘129.67’, since it appeared twice.
* Removed second decimal date ‘129.71’, since it appeared twice.

IH1993q:

* Did not load the daily values, since they all had the missing marker value of ‘7777’.
* Removed second decimal date ‘146.88’, since it appeared twice.

IH1995q:

* Removed second decimal date ‘133.75’, since it appeared twice.
* Removed second decimal date ‘137.63’, since it appeared twice.
* Removed second decimal date ‘143.46’, since it appeared twice.
* Removed second decimal date ‘146.38’, since it appeared twice.

IH1997q:

* Removed second decimal date ‘146.71’, since it appeared twice.
* Removed second and third decimal date ‘154.38’, since it appeared three times.

IH1998q:

* Removed second decimal date ‘141.38’, since it appeared twice.

IH1999q:

* Removed second decimal date ‘150.54’, since it appeared twice.
* Starting at decimal date ‘219.21’ to decimal date ‘262.5’, there are duplicates for each decimal date. Removed second set of duplicate values.

IH2001q:

* Removed second and third decimal date ‘177.88’ rows, since it appeared three times.

General Processing notes for Imnavait Flume Discharge:

* Processed years 1985-2001 as minute data, since it was not exactly hourly data. At various times, there were data points that did not occur on the hour. I tried to process hourly, but could not get one value for the hour. Thought it best to enter it as minute and at a later date create an hourly file.
* Processed 2004 as hourly data.
* Processed 2002-2003, 2005-2008 as minute data, occurring every 15 minutes.

To process the actual discharge, used a grep command: ‘grep -E '^[^,]\*,[^,]\*,[^,]\*,[0-9]' ih2006q.csv > ih2006q\_actual.csv’ for 2005, 2006 and 2008.

# North Slope Lake Chemistry

No timestamps for data values. I copied them over from the original formatted data tables.

If there were no timestamps for each depth, I used the timestamp for the original formatted data table ONLY when the depths were unique.

**NSL 05\_12 WChem**

Kuparuk Dead Arm Lake 2 - Shore, KDA2-2:

* Missing Turbidity values from ‘12/15/05 12:46’ to ‘12/15/05 13:04’
* Time is recorded in original formatted data tables as 12:36, 12:34, 12:31, 12:39, 12:42, etc. This is the way I entered the values also.

**NSL 06-01 WChem**

Lake 9817 – Shore:

* LDO data value 12.9 is assigned to LDO Depth 7, should be LDO Depth 8 at 14:48. LDO Depth 7 at 14:44 should be ‘9999’.

Lake 9312 - Raft B:

* Stable RDO not entered.

Lake 9817 - Hole 2

* WaterTemp (variableid=101) is entered twice. Second time is pH values. Deleted 2nd occurrence.

Mine Site B North - North East:

* First data value (VariableID=101 at 3.5 depth) is given as SiteID=1 and not as SiteID=2. Updated this data value to SiteID=2.

Lake 9312 - Raft A:

* LDO at depth of 5 was entered as ‘15..3’. Updated to ’15.3’

Mine Site B South - Center

* Second 14 depth has a timestamp of ‘1533’ and not ‘1646’

**NSL 06-02 WChem**

Kuparuk Dead Arm Lake 2 - Center, KDA2-1: Updated timestamp for 2nd occurrence of depth 15 and depth 18 to 10:33 and 10:59 (from 10:00).

Lake 9312 - Raft A: All timestamps are now at 12:56, since I created separate datastreams for Depths 10.5a and 10.5b.

Lake 9817 - Hole 3: Updated duplicate depth 5 timestamp to ’12:50’ for 2nd occurrence.

MS13-NC-CT:

* Update timestamp for second reading of Depth 9 to ‘2/14/06 10:17’.
* Updated the MethodID for LDO and LDO Temp to the Hatch method id.

MSB-SC-CT: Updated timestamp for 2nd occurrence of depth 8 to ’15:18’.

**NSL 06-03 WChem**

MSB-NC-CT: Updated duplicate depth of 13 timestamp to ’14:20’ for 2nd occurrence.

# Imnavait Flume Snow Depth

ih2006-2007snow.csv: Deleted 734 rows that were from 2008 from data file. These values all contained the ‘6999’ missing value marker.

# North Headwater Met

NH2003m: Decimal dates ‘235.92’ to ‘236.88’ have the incorrect Date timestamps. Should be one day later.

# Putuligayuk River Gage Discharge

PR1999q: Removed February 29th timestamps, since 1999 is not a leap year.

PR2000q:

* Duplicate date at ‘6/9/00 12:00’. Removed 2nd occurrence.
* Duplicate date at ‘6/10/00 12:00’. Removed 2nd occurrence.
* Duplicate date at ‘6/11/00 12:00’. Removed 2nd occurrence.
* Duplicate date at ‘6/12/00 12:00’. Removed 2nd occurrence.
* Duplicate date at ‘6/13/00 12:00’. Removed 2nd occurrence.
* Duplicate date at ‘6/14/00 12:00’. Removed 2nd occurrence.
* Duplicate date at ‘6/15/00 22:00’. Removed 2nd occurrence.

# Sagwon Bluffs Met

SH1988m:

* Duplicate date at ‘5.67’. Removed 2nd occurrence.
* Duplicate decimal date at ‘129.54’. Removed 2nd occurrence.

SH1994m: For decimal date ‘161.25’, inserted ‘6999’ for precipitation, since it was missing the value.

SH1996m: Duplicate decimal date ‘91’. Changed to decimal date ‘90’, since that decimal date was missing. This row contained all ‘6999’ values.

SH2004m:

* Column headers do not appear to match column data. E-mailed Rob Geick about this on 7/20/ 2011. Rob sent a revised 2004 met file on 7/20/11.
* Inserted missing marker ‘6999’ for missing wind direction values for decimal date ‘161.67’ to ‘246.38’.

SH2008m:

Inserted missing marker ‘6999’ for missing values for 794 instances.

# Sagwon Bluffs Radiation:

SH1996r: Changed first occurrence of decimal date ‘91’ to ‘90’.

SH2004R:

* Inserted missing marker ‘7777’ for decimal date ‘119.54’ for all data values.
* Inserted missing marker ‘6999’ for decimal date ‘119.54’ for atmospheric longwave radiation.
* Inserted missing marker ‘6999’ starting at decimal date ‘122.17’ for missing atmospheric longwave radiation data values.
* Inserted missing marker ‘7777’ for decimal date ‘245.79’ for all data values.
* Starting on decimal date ‘119.58’ to ‘143.50’ net radiation value is missing. Inserted missing marker value ‘6999’.

SH2006R: Inserted missing marker ‘6999’ for atmospheric longwave on decimal date ‘117.5’.

# Sagwon Bluffs Snow:

SW1992M: Removed decimal dates ‘275’ to ‘366’, since they appear in the 1993 file. All of these values were ‘6999’ in 1992, but had actual values in 1993.

# Sagwon Bluffs Soils:

SH2004h: Added in missing marker ‘6999’ for missing values.

SH2005h: Inserted ‘6999’ for ‘#NUM!’ values.

SH2006h: Inserted ‘6999’ for missing values.

SH2007h: Inserted ‘6999’ for missing values.

SH2008h1: Inserted ‘6999’ for missing values.

# Lower Kuparuk Met

LK1994m:

* Decimal date ‘50’ occurred twice. Set 2nd occurrence of decimal date ‘50’ to decimal date ‘51’.
* Set 2nd occurrence of decimal date ‘52’ to ‘53’, since it was incorrect.

# Green Cabin Lake Met

GL1997m: Removed duplicate entries for 21:00 and 22:00 hour, starting at 227.88.

GL1998m: Removed duplicate decimal date ‘261.5’, second occurrence.

GL1999m: Removed duplicate decimal date ‘228.96’, second occurrence.

GL2000m: Removed duplicate decimal date ‘109.63’, second occurrence.

# East Headwater Met

EH1997m: Changed second occurrence of decimal date ’33.95’ to ‘337.25’.

EH1998m: Deleted decimal date ‘0’ that occurred after decimal date ‘106.42’ and after ‘107.42’,

EH2001m: Inserted missing marker value of ‘6999’ for decimal date range ‘114.67’ to ‘119.21’.

EH2005m: Inserted missing marker value of ‘6999’, starting at decimal date ‘9.04’ for missing values. Inserted missing marker value of ‘6999’ and ‘7777’ for decimal dates ‘137.92’ to ‘140.54’.

# Upper Headwater Met

UH1999m:

* Deleted duplicate decimal dates for ‘201.88’.
* Deleted duplicate decimal dates for ‘203.21’.
* Deleted duplicate decimal dates for ‘203.92’.
* Deleted duplicate decimal dates for ‘204.04’
* Deleted duplicate decimal dates for ‘204.13’
* Deleted duplicate decimal dates for ‘204.21’
* Deleted duplicate decimal dates for ‘238.33’
* Deleted duplicate decimal dates for ‘239.46’
* Deleted duplicate decimal dates for ‘239.88’
* Deleted duplicate decimal dates for ‘240.04’
* Deleted duplicate decimal dates for ‘204.29’
* Deleted duplicate decimal dates for ‘240.42’

UH2001m: Added missing marker ‘7777’ for decimal dates ‘145’ and ‘279.04’

UH2007m: Removed extra ‘0s’ at end of the rows.

# West Headwater Met

WH1999m: Inserted missing marker value ‘6999’ for decimal date range ‘175.63’ to ‘175.71’.

# Upper Kuparuk River Discharge

UK1994q: Deleted duplicate decimal date ‘160.875’, that contained ‘6999’

UK1996q:

* Deleted duplicate decimal date ‘175.58’, second occurrence.
* Deleted duplicate decimal dates for range ‘260’ to ‘261’

UK2002q: Decimal date ‘216.083’: timestamp not in correct format. Changed to ‘08/04/02 2:00’ from its Excel date number format.

# Upper Kuparuk Met

UK1995m: Deleted duplicate decimal dates ‘191.75’ and ‘191.79’ that contained ‘7777’ markers. Started loading in AT1, RH1, WS1 values at decimal date ‘191.75’.

UK2004m: Duplicate timestamp ‘12/13/04 17:00’. Deleted second occurrence.

UK2005m:

* Rob Geick sent a revised UK2005.csv file on 8/29/2011. He also said to understand that the precip data values that contained a ‘0’ when the air temperature was below freezing, should be updated to ‘7777’.
* Inserted missing marker ‘6999’ for decimal dates ‘245.54’ to ‘245.63’ in the UK2005m\_revised file. And for decimal dates ‘245.79’, ‘245.83’

# Upper Kuparuk Radiation

UK1997r: Inserted missing marker ‘6999’ for decimal date ‘212.54’.

UK2001r: Inserted missing marker ‘6999’ starting at decimal date ‘116’, 3151 times.

UK2004r: Deleted duplicate row with timestamp of ‘12/13/2004 17:00’.

UK2005r: Inserted missing marker ‘6999’ for timestamps in range ‘6/1/2005 1:00’ to ‘6/1/2005 9:00’. Inserted missing marker ‘6999’ an additional 83 times.

UK2006r: Inserted missing marker ‘7777’ for ‘--‘ for decimal date range: ‘193.667’ to ‘234.417’.

# Upper Kuparuk Snow

UK2006-2007snow: Deleted 2nd occurrence of timestamp ’07/15/07 19:00’.

# Upper Kuparuk Soils

UK1999t: Inserted missing marker ‘6999’ for decimal dates ‘217’ to ‘229’.

UK2000t: Inserted missing marker ‘6999’ starting at decimal date ’60 to ‘176’ for missing values.

UK2004h: Inserted missing marker ‘6999’ for date range ‘6/13/2004 19:00’ to

‘6/23/2004 19:00’.

UK2007h: Deleted 2nd occurrence of decimal date ‘196.79’

UK2008h: Inserted missing marker ‘6999’ 3,408 times, starting at decimal date ‘136.17’.

# West Kuparuk Met

WK1997m:

* Inserted missing marker ‘6999’, starting at decimal date ‘144.17’, 350 times.
* Changed timestamp for 2nd occurrence of decimal date ‘274.04’ to ‘274.38’ to 10/2/1997 from 10/1/1997, since it appeared that it should have the decimal date ‘275.04’ to ‘275.38’. This pattern occurred for the rest of the year, so I updated all of the remaining timestamps in the same manner.

WK1998m:

* Inserted missing marker ‘6999’, starting at decimal date ‘109.5’. Missing markers were missing for multiple rows. There should have been 10 ‘6999’ missing markers per row and there were only 9.
* Used this column order to load in variables: 1m air temp, 3m air temp, 10m air temp, 1m relative humidity, 10m relative humidity, pressure, 1m wind speed, 10m wind speed, wind direction, precipitation.

WK1999m: Inserted missing marker ‘6999’ for 10m relative humidity for the entire year.

WK2000m: Inserted missing marker ‘6999’, starting at decimal date ‘126.5’, 3909 times.

WK2001m: Deleted 1st occurrence of decimal date ‘257.62’, since it contained all missing marker values ‘6999’ and was a repeat of a timestamp that had values.

WK2004m: Inserted missing marker ‘6999’, starting at decimal date ‘248.21’ numerous times.

# West Kuparuk Radiation

There was no 2001 radiation file for West Kuparuk on the website.

Read in WK1994 and WK1995 in this column order: atmospheric longwave, terrestrial longwave, incident shortwave, reflected shortwave and net radiation.

WK1997r: Updated the timestamps, starting at 2nd occurrence of 10/1/1997. It appears that the decimal date was incorrect for the rest of the year, causing repeat timestamps to occur.

WK2002r:

* Inserted missing marker ‘7777’ for decimal date ‘113.63’.
* Inserted missing marker ‘6999’, starting at decimal date ‘117.21’, numerous times.

WK2004r: The values all look off. I loaded them anyways, but perhaps this file should be reviewed.

WK2008r:

* Inserted missing marker ‘7777’ for decimal date ‘120.58’
* Inserted missing marker ‘6999’ for decimal date ‘217.29’
* Inserted missing marker ‘6999’ for decimal date ‘224.04’

# West Kuparuk Soils

Only loaded daily values for West Kupark, since the hourly values did not contain all of the depths.

WK1996t:

* Inserted missing marker ‘6999’ for decimal date range ‘272’ to ‘278’ for missing data values.
* Inserted missing marker ‘6999’ for decimal date range ‘232’ to ‘239’ for missing data values.
* Updated timestamp for the 2nd occurrence of timestamp ‘6/5/1997 0:00’ to ‘6/6/1997 0:00’, since 6/6/1997 contained the missing data values and not 6/5 (which had data values).
* Updated 2nd occurrence of decimal date ‘157’ to ‘158’, since it appeared that the decimal dates where copied from the previous year and included duplicate decimal dates for ‘157’.

WK1999t: Updated the missing marker ‘6999’ from 14 values per row to 12 values per row. The entire year is missing.

WK2004t:

* Inserted missing marker ‘6999’ for 75cm Soil temp for entire year
* Inserted missing marker ‘6999’ for decimal dates in range ‘248’ to ‘250’

# West Dock Met

WD1997m: Deleted 2nd occurrence of decimal date range ‘325.38’ to ‘326.33’.

WD1999m: Updated timestamps, starting at ‘11/2/99 23:00’ to ‘11/2/99 00:00’ to ‘11/2/99 11:00’. Before the timestamp was incrementing the day and not the hour.

WD2002m: Inserted missing marker ‘6999’ for numerous data values, starting at decimal date ’18.96’

WD2003m: Inserted missing marker ‘6999’ for numerous data values, starting at decimal date ‘205.5’

WD2005m: Insert missing marker ‘6999’ for numerous data values, starting at decimal date ‘224.71’

WD2007m:

* Deleted 2nd occurrence of decimal date range ‘322.625’ to ‘328.458’
* For decimal date ‘313.875’, updated to the correct timestamp of ‘11/9/07 21:00’

# West Dock Radiation

WD1997r: Deleted 2nd occurrence of decimal date range ‘325.38’ to ‘326.33’.

WD1999r: Updated timestamps, starting at ‘11/2/99 23:00’ to ‘11/2/99 00:00’ to ‘11/2/99 11:00’. Before the timestamp was incrementing the day and not the hour.

WD2002r:

* Inserted missing marker ‘7777’ for decimal date ‘115.42’
* Inserted missing marker ‘7777’ for decimal date ‘251.42’

WD2005r: Inserted missing marker ‘6999’ for decimal dates ‘183.29’ and ‘183.33’

WD2007r:

* Deleted 2nd occurrence of decimal date range ‘249.79’ to ‘250.33’
* Deleted 2nd occurrence of decimal date range ‘263.42’ to ‘263.71’
* Deleted 2nd occurrence of decimal date range ‘270.63’ to ‘270.88’
* Deleted 2nd occurrence of decimal date range ‘273.5’ to ‘273.75’
* Deleted 2nd occurrence of decimal date range ‘274.75’ to ‘275.75’
* Deleted 2nd occurrence of decimal date range ‘278.63’ to ‘279.17’
* Deleted 2nd occurrence of decimal date range ‘283.00’ to ‘283.21’
* Deleted 2nd occurrence of decimal date range ‘283.46’ to ‘283.67’
* Deleted 2nd occurrence of decimal date range ‘286.33’ to ‘286.50’

# Upper May Creek Soils

DUM2\_MayCreek\_Soil\_2009: Inserted missing markers ‘6999’ and ‘7777’ for decimal date ‘254.54’

# Itikmalakpak Soils

DUM1\_Itikmalakpak\_Soil\_2009.csv:

* Inserted missing marker ‘6999’ for ‘NAN’
* Deleted 2nd occurrence of timestamp range ‘7/31/2009 11:00’ to ‘7/31/2009 12:00’

# Ribdon Soils

DBM2\_Ribdon\_ Soil\_ 2006.csv:

* Deleted 2nd=4th occurrence of decimal date ‘239.54’.
* Deleted 2nd occurrence of decimal date range ‘246.5 to 246.58’

DBM2\_Ribdon\_Soil\_2008.csv: Starting at decimal date ‘295.38’, inserted missing marker ‘6999’ for all values except for 135cm soil temp, 150cm soil temp, 10cm soil water and 20 cm soil water. For those four variables, I used the missing marker ‘7777’, which is what was used for the rest of the data file.

# Anaktuvuk Soils

DUS2\_Anaktuvuk\_Soil\_2009:

* Inserted missing marker ‘7777’ at decimal date ‘160.5’
* Inserted missing marker value ‘7777’ at decimal date ‘161.33’
* Inserted missing marker value ‘7777’ for decimal date range ‘218.38’ to ‘218.46’
* Deleted 2nd occurrence of timestamp range ‘7/7/2009 12:00’ to ‘8/6/2009 11:00’.

# Juniper Soils

DBM3\_Juniper\_Soil\_ 2006.csv: Inserted missing markers ‘6999’ and ‘7777’ for decimal date range: ‘1’ to ‘184.46’.

DBM3\_Juniper\_Soil\_ 2008.csv: Deleted 2nd occurrence of decimal date range ‘250.5’ to ‘250.83’.

# Sag-Ivishak Soil

DBM4\_Sag-Ivishak\_Soil\_2008:

* Inserted missing marker ‘6999’ for decimal date ‘169.38’ for value that was ‘NAN’.
* Inserted missing marker ‘6999’ for decimal date ‘225.17’ for value that was ‘NAN’
* Inserted missing marker ‘6999’ for decimal date ‘243.33’ for value that was ‘NAN’

# Upper Kadleroshilik Met Soils

DBM5\_Upper\_Kad\_Soil\_2007:

* Inserted missing markers ‘6999’ and ‘7777’ for decimal date range ‘240.63’ to ‘240.75’.
* Deleted 2nd occurrence of decimal date ‘287’

# Bullen Met Soils

DBM8\_Bullen\_Soil\_2008: Deleted 2nd occurrence of decimal date ‘166.63’

# Kadleroshilik Soils

DBS1\_Kadleroshilik\_Soil\_2009: For decimal date ‘247.42’, inserted missing marker value ‘6999’ for the ‘NAN’ value

# Shaviovik Soils

DBS2\_Shaviovik\_Soil\_2009:

* Inserted missing marker value ‘6999’ for decimal date ‘247.63’
* Inserted missing marker value ‘6999’ for decimal date range ‘255.04’ to ‘255.38’

UPPER HEADWATER PRECIP update datavalues

Updated datavalues from 77770 for precip for DatastreamID=4145, Upper\_Headwater\_precip, SiteID=956, VariableID=84

Updated DatastreamID= 5822, West\_Kuparuk\_(WK)\_Met\_precipitation, from ‘6669’ to NULL for the precip values (VariableID = 84) and SiteID=960

# ARM Barrow:

I did a sort on the file ‘sort –u’ to only have unique rows of data.

Formula used to compute timestamp:

=DATE(YEAR($O$1+B2),MONTH($O$1+B2),DAY($O$1+B2)) + IF(SECOND($O$1+B2)>29,TIME(HOUR($O$1+B2),MINUTE($O$1+B2)+1,0),TIME(HOUR($O$1+B2),MINUTE($O$1+B2),0))