

| Required QC Tests | Fail or Suspect | QC Tests, Part II | True/False | General QC Measures | QC Flags |
|-------------------|-----------------|-------------------|------------|---------------------|----------|
| \$100             | \$100           | \$100             | \$100      | \$100               | \$100    |
| \$200             |                 |                   |            |                     | \$200    |
| \$300             |                 |                   |            |                     | \$300    |
| \$400             | \$400           | \$400             | \$400      | \$400               | \$400    |
| \$500             | \$500           | \$500             | \$500      | \$500               | \$500    |

**Quality Control**  
**JEOPARDY**

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**Required QC Tests \$100**

**Test which checks for the arrival of data.**

**Syntax   Timing/Gap   Gross Range   Location   Climatology**

**Required QC Tests \$200**

**Test which checks to ensure that the message is structured properly.**

**Syntax   Timing/Gap   Gross Range   Location   Climatology**

**Required QC Tests \$300**

**Test which checks for reasonable  
geographic location.**

**Syntax   Timing/Gap   Gross Range   Location   Climatology**

## **Required QC Tests \$400**

**Test which checks for when a data point exceeds sensor or operator-selected min or max.**

**Syntax   Timing/Gap   Gross Range   Location   Climatology**

## Required QC Tests **\$500**

**Test which checks if the data point falls within seasonal expectations.**

**Syntax   Timing/Gap   Gross Range   Location   Climatology**

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**Fail or Suspect \$100**

**Within a SYNTAX TEST: Data sentence can't be explained to provide a valid observation.**

**Fail or Suspect \$200**

**Within a LOCATION TEST: There is an unlikely platform displacement.**

**Fail or Suspect \$300**

**Within a GROSS RANGE TEST: Reported value is  
outside of sensor span.**

**Fail or Suspect \$400**

**Within a CLIMATOLOGY TEST: Reported value is  
outside of operator-identified  
climatology window.**

**Fail or Suspect \$500**

**Within a TIMING/GAP TEST: Data arrived  
outside of expected time window &  
has an incorrect time stamp.**

| <b>Required QC Tests</b> | <b>Fail or Suspect</b> | <b>QC Tests, Part II</b> | <b>True/False</b> | <b>General QC Measures</b> | <b>QC Flags</b> |
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**Variation of gross range test where seasonal extremes are adjusted monthly or at some other operator-selected time period.**

**Tests that all sensors have limited output range; no values less than the minimum or greater than the maximum are accepted.**

**Test checks for that the reported latitude & longitude is within operator-defined limits.**

**Tests data messages that are received to see if messages are complete & structured properly without any indications of flawed transmissions.**

**Test determines that the most recent data point has been measured & received within the expected time window & has the correct time stamp.**

| <b>Required QC Tests</b> | <b>Fail or Suspect</b> | <b>QC Tests, Part II</b> | <b>True/False</b> | <b>General QC Measures</b> | <b>QC Flags</b> |
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**True or False \$100**

**Real-time quality control, such as gradual calibration changes or system responses (e.g., sensor drift) can't be detected or corrected.**

**True or False \$200**

**Sensor drift is usually caused by bio-fouling, silt or sediment clogging. It affects different systems in different ways.**

**True or False \$300**

**Quality control flags set in real time should be changed, allowing historical documentation the option to be revised.**

**True or False \$400**

**Some required quality control tests can be completed by just using the sensor; some thresholds can be defined within the configuration files.**

**True or False \$500**

**Testing the timely arrival and integrity of the data transmission is the last step when applying quality control tests.**

| <b>Required QC Tests</b> | <b>Fail or Suspect</b> | <b>QC Tests, Part II</b> | <b>True/False</b> | <b>General QC Measures</b> | <b>QC Flags</b> |
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**Human involvement is important to ensure scientific principles are applied to data evaluation, so that good data aren't \_\_\_\_\_ & bad data aren't \_\_\_\_\_.**

**Real-time water level data should have two main attributes: accurate \_\_\_\_\_ & accurate \_\_\_\_\_ relative to a known reference.**

## **General QC Measures \$300**

**Data are evaluated using quality control tests.  
The results of those tests are recorded by  
inserting \_\_\_\_\_ in the data files.**

## **General QC Measures \$400**

**Quality control is dependent on proper thresholds, based on historical \_\_\_\_\_ derived from recently acquired data.**

## **General QC Measures \$500**

**Quality control tests are required, but it is the \_\_\_\_\_ who is responsible for deciding which tests are appropriate.**

| <b>Required QC Tests</b> | <b>Fail or Suspect</b> | <b>QC Tests, Part II</b> | <b>True/False</b> | <b>General QC Measures</b> | <b>QC Flags</b> |
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## QC Flags \$100

**Data have not been QC tested, or the information on quality is not available.**

**Flag = Code**

---

**Pass = 1**

**Not evaluated = 2**

**Suspect or of high interest = 3**

**Fail = 4**

**Missing data = 9**

## QC Flags \$200

**Data are absent; use as a placeholder.**

**Flag = Code**

---

**Pass = 1**

**Not evaluated = 2**

**Suspect or of high interest = 3**

**Fail = 4**

**Missing data = 9**

## **QC Flags \$300**

**Data were unsuccessful at one or more quality control checks. If data is disseminated, it should be apparent they aren't of acceptable quality.**

### **Flag = Code**

---

**Pass = 1**

**Not evaluated = 2**

**Suspect or of high interest = 3**

**Fail = 4**

**Missing data = 9**

## QC Flags \$400

**Data were successful in quality control tests & are adequate for use as preliminary data.**

**Flag = Code**

---

**Pass = 1**

**Not evaluated = 2**

**Suspect or of high interest = 3**

**Fail = 4**

**Missing data = 9**

## **QC Flags \$500**

**Data are skeptical to data providers & users;  
they are flagged to draw further attention  
to them by operators.**

**Flag = Code**

---

**Pass = 1**

**Not evaluated = 2**

**Suspect or of high interest = 3**

**Fail = 4**

**Missing data = 9**

| <b>Required QC Tests</b> | <b>Fail or Suspect</b> | <b>QC Tests, Part II</b> | <b>True/False</b> | <b>General QC Measures</b> | <b>QC Flags</b> |
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**Required QC Tests \$100**

**Test which checks for the arrival of data.**

**Timing/Gap**

**Required QC Tests \$100**

**Test which checks to ensure that the message is structured properly.**

**Syntax**

**Required QC Tests \$100**

**Test which checks for reasonable  
geographic location.**

**Location**

**Required QC Tests \$100**

**Test which checks for when a data point  
exceeds sensor or operator-selected  
min or max.**

**Gross Range**

**Required QC Tests \$100**

**Test which checks if the data point falls within seasonal expectations.**

**Climatology**

| <b>Required QC Tests</b> | <b>Fail or Suspect</b> | <b>QC Tests, Part II</b> | <b>True/False</b> | <b>General QC Measures</b> | <b>QC Flags</b> |
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**Fail or Suspect \$100**

**Within a SYNTAX TEST: Data sentence can't be explained to provide a valid observation.**

**FAIL**

**Fail or Suspect \$200**

**Within a LOCATION TEST: There is an unlikely  
platform displacement.**

**SUSPECT**

**Fail or Suspect \$300**

**Within a GROSS RANGE TEST: Reported value is  
outside of sensor span.**

**FAIL**

**Fail or Suspect \$400**

**Within a CLIMATOLOGY TEST: Reported value is  
outside of operator-identified  
climatology window.**

**SUSPECT**

**Fail or Suspect \$500**

**Within a TIMING/GAP TEST: Data arrived  
outside of expected time window &  
has an incorrect time stamp.**

**FAIL**

| <b>Required QC Tests</b> | <b>Fail or Suspect</b> | <b>QC Tests, Part II</b> | <b>True/False</b> | <b>General QC Measures</b> | <b>QC Flags</b> |
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**Test checks for that the reported latitude & longitude is within operator-defined limits.**

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**True or False \$100**

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**TRUE**

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**Quality control flags set in real time should be changed, allowing historical documentation the option to be revised.**

**FALSE**

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**TRUE**

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**FALSE**

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**QC Flags \$400**

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**Pass = 1**

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**Data are skeptical to data providers & users;  
they are flagged to draw further attention  
to them by operators.**

**Flag = Code**

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**Suspect or of high interest = 3**

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# **Quality Control**

## **JEOPARDY**