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SAMPLING ACTIVITIES REPORT
2017 Sampling Events

Bonita Peak Mining District Site
San Juan / La Plata Counties, Colorado
Final

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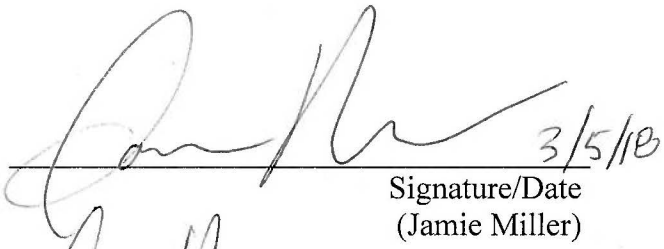

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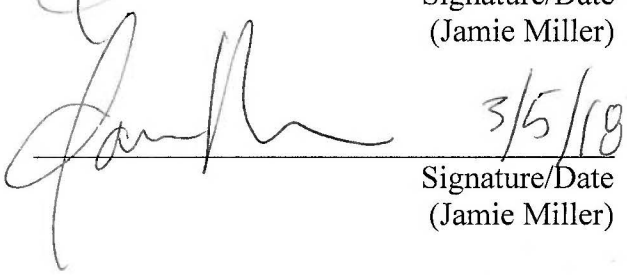

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Sampling Activities Report – Bonita Peak Mining District Site

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Acronym and Abbreviation List

ABS	Absolute Value
ATSDR	Agency for Toxic Substances and Disease Registry
BERA	Baseline Ecological Risk Assessment
BLM	Bureau of Land Management
BMI	Benthic Macroinvertebrate
BPMD	Bonita Peak Mining District
CDPHE	Colorado Department of Public Health and Environment
COC	Chain of Custody
CPW	Colorado Parks and Wildlife
CRQL	Contract Required Quantitation Limit
DO	Dissolved Oxygen
DRMS	Division of Reclamation, Mining and Safety
EDCD	Electronic Data Collection Device
EPA	United States Environmental Protection Agency
ESAT	Environmental Services Assistance Team
ESRI	Environmental Systems Research Institute
EU	Exposure Unit
GIS	Geographic Information System
GPS	Global Positioning System
HDPE	High Density Polyethylene
mL	Milliliter
ORP	Oxidation Reduction Potential
RPD	Relative Percent Difference
SAP/QAPP	Sampling Analysis Plan/Quality Assurance Project Plan
SAR	Sampling Activities Report
SOP	Standard Operating Procedure
SSCS	Site-Specific Calibration Standard
SUIT	Southern Ute Indian Tribe
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
XRF	X-Ray Fluorescence

1.0 INTRODUCTION

This document serves as the Sampling Activities Report (SAR) for fieldwork conducted in the Bonita Peak Mining District (BPMD) at select locations in and around the Animas River, Cement Creek, Mineral Creek, and tributaries in San Juan County and La Plata County, Colorado. This SAR summarizes the 2017 field activities and procedures defined in the following Sampling and Analysis Plan/Quality Assurance Project Plans (SAP/QAPP): *Final Sampling Analysis Plan/Quality Assurance Project Plan Bonita Peak Mining District - 2017 Sampling Events* (EPA, 2017), *Final Sampling Analysis Plan/Quality Assurance Project Plan Bonita Peak Mining District – 2017-2018 Combined Risk Assessment Sampling Events* (EPA, 2017) and *Bonita Peak Mining District Field Sampling Plan: 2017 Pre-Runoff Investigation* (CDM, 2017). This SAR includes data and activities for the following events: pre-runoff events that occurred on March 21, April 4, April 18, May 2, and May 15-17, 2017; high-flow sampling events conducted June 6-7 and July 11-12, 2017; Southern Ute Indian Tribe (SUIT) culturally important plant tissue sampling conducted July 11-12, 2017; mine halo characterization conducted August 22-23, 2017; low-flow sampling event conducted September 26-28, 2017; road dust sampling conducted October 12, 2017; and biota sampling conducted September 26-28 and October 14-15, 2017. Personnel from the United States Environmental Protection Agency (EPA), Environmental Services Assistance Team (ESAT), Bureau of Land Management (BLM), the United States Fish and Wildlife Service (USFWS), Colorado Division of Reclamation, Mining and Safety (DRMS), Agency for Toxic Substances and Disease Registry (ATSDR), and the United States Forest Service (USFS) sampled select locations from the headwaters of the Animas River downstream to Purple Cliffs, including several tributaries within BPMD, as part of the Remedial Investigation.

The following were sampled or assessed during the investigation: surface water, sediment, stream flow measurements, in-situ water quality, groundwater, soil/waste rock, campgrounds, road dust, willow bark, deer tissue, and grouse tissue. Sampling location maps were developed using Trimble Global Positioning System (GPS) and Environmental Systems Research Institute (ESRI) Arc Geographic Information Systems (GIS) software.

This summary report includes the following sections: Introduction (Section 1.0), Sampling Activities and Procedures (Section 2.0), Sample Quality Control (Section 3.0), Field Changes (Section 4.0), and References (Section 5.0).

1.1 Site Background and Description

The discovery of gold and silver brought miners to the Silverton area and Animas Mining District in the early 1870s. The discovery of silver in the base-metal ores was the major factor in establishing Silverton as a permanent settlement. Between 1870 and 1890, the richer ore deposits were discovered and mined to the extent possible. Not until 1890 was any serious attempt made to mine and concentrate the larger low-grade ore bodies in the

area. By 1900, there were twelve concentration mills in the valley sending products to the Kendrick and Gelder Smelter near the mouth of Cement Creek. Mining and milling operations slowed down circa 1905, and mines were consolidated into fewer and larger operations with facilities for milling large volumes of ore. After 1907, mining and milling continued throughout the basin whenever prices were relatively favorable.

Gladstone, located about eight miles upstream of Silverton on Cement Creek, is the site of an historic mining town developed in the 1880s commensurate with the onset of mining in the surrounding area. The town was the central location and railroad terminus for the milling and shipping of mine ores from the surrounding three-square-mile valley. The town declined in the 1920s and no remnants of the town currently remain. By the 1970s, only one year-round productive mine (Sunnyside Mine) remained in the county. This mine ceased production in 1991, and has since undergone extensive reclamation efforts. Numerous historic and now abandoned mines exist within a two-mile radius of Gladstone. These include: The Upper Gold King 7 Level, American Tunnel, Grand Mogul, Mogul, Red & Bonita, Evelyne, Henrietta, Joe and John, and Lark Mines.

Howardsville, located between Silverton and Eureka at the mouth of Cunningham Creek, was established in 1874 by the Bullion City Company. Howardsville became the base for many mines located in Cunningham Gulch including: Old Hundred Mine, Buffalo Boy Mine, Green Mountain Mine, Pride of the West Mine, Shenandoah-Dives Mine, Gary Owen Mine, and Emma Mine (Herron et al., 2000). The Pride of the West mill was built in 1940 as a 50-ton capacity mill. It was expanded in 1967 by the Dixilyn Corporation to a 400-ton capacity mill (Church et al., 2007).

The town of Eureka is located approximately eight miles northeast of Silverton at the confluence of the Upper Animas River and Eureka Gulch. Some of the mines located on Eureka Gulch include: Sunnyside Mine, Clipper Mine, Ben Franklin Mine, Bavarian Mine, Midway Mine, Moonbeam Mine, and Ransom Mine (Herron et al., 2000). The Sunnyside Flotation Mill in Eureka was built in 1917 with a 600 ton per day capacity. Two settling ponds were built in the Animas River Valley but after the mill was abandoned in 1949, the tailings dams were partially washed out and tailings were washed down the Animas River (Church et al., 2007).

Animas Forks, named for the three forks of the Animas River, is located twelve miles northeast of Silverton in San Juan County, Colorado, and was first established in 1874. There were numerous mines located upstream of Animas Forks. The town started to decline in 1910 when the Gold Prince Mill ceased operation and became a ghost town in the 1920s.

EPA, along with the ESAT, BLM, USFWS, DRMS, Colorado Parks and Wildlife (CPW), and the United States Geological Survey (USGS), performed five sampling events from 2012 through 2014 to add to previously collected data. Over the five events, surface water, sediment, pore water, macroinvertebrates, stream flows, fish, and real-time water quality measurements were collected in order to support a Remedial Investigation.

In 2015, additional sampling was conducted, which included collection of waste rock and floodplain soils, surface water, sediment, pore water, macroinvertebrates, and stream flows. On August 5, 2015, EPA was conducting an investigation of the Gold King Mine near Silverton, Colorado, to assess the ongoing water releases from the mine, treat mine water, and assess the feasibility of further mine remediation. While excavating above an old adit, pressurized water began leaking above the mine tunnel, spilling about three million gallons of water into Cement Creek, a tributary of the Animas River (EPA, 2016). Comprehensive surface water and sediment sampling was conducted before and after the release in response to the Gold King Mine spill. Samples were collected from Cement Creek and the Animas River at several locations from Silverton downstream to Durango (EPA, 2016).

The majority of the 2016 sampling data is being used to support the Baseline Ecological Risk Assessment (BERA) for the Bonita Peak Mining District. Surface water, sediment, and pore water samples were collected at each of 19 BPMD Exposure Units (EUs) in October 2016 to complement the existing analytical chemistry datasets. Qualitative fish surveys were conducted at each of the 19 EUs to determine whether fish were present. In addition, quantitative benthic macroinvertebrate (BMI) community surveys and toxicity testing were conducted in the Mineral Creek and Animas River watersheds. Due to concerns about the sustainability of fish populations in the smaller creeks of the BPMD, only a subset of locations (specifically EU-3, EU-5 and EU-9 and associated reference locations) were sampled for fish to generate tissue residue data for use in wildlife food chain modeling.

1.2 Objective

Multiple sampling events (pre-runoff, high-flow [low elevation], high-flow [high elevation], mine halo characterization, low-flow, road dust and biota) were conducted during March, April, May, June, July, August, September, and October 2017 to evaluate the extent of metals contamination. The following data were collected during these events:

- Real-time field water quality measurements – pH, specific conductance, dissolved oxygen (DO), and temperature;
- GPS data;
- Stream discharge estimates using SonTek™ flow meters, flumes, and USGS gaging stations;
- Surface water samples – dissolved and total recoverable metals, dissolved organic carbon (low-flow event only), stable isotopes, alkalinity, and anions;
- Groundwater samples – total recoverable metals, dissolved metals, alkalinity and anions;
- Sediment samples – total recoverable metals and mercury;
- Willow bark samples – total recoverable metals, mercury, and bioavailability;
- Soil samples – X-Ray Fluorescence (XRF) analysis and total recoverable metals and mercury confirmation analysis.

- Road dust air samples – total recoverable metals; and
- Deer and grouse tissue samples – total recoverable metals and mercury

2.0 SAMPLING ACTIVITIES AND PROCEDURES

Field activities conducted in the BPMD Site are detailed in the *Final Sampling Analysis Plan/Quality Assurance Project Plan Bonita Peak Mining District - 2017 Sampling Events* (SAP/QAPP) (EPA, 2017), *Final Sampling Analysis Plan/Quality Assurance Project Plan Bonita Peak Mining District – 2017-2018 Combined Risk Assessment Sampling Events* (EPA, 2017) and *Bonita Peak Mining District Field Sampling Plan: 2017 Pre-Runoff Investigation* (CDM, 2017). The following data were collected:

March 21, April 4, April 18, May 2, May 15-17, 2017 – Pre-runoff

- Real-time field water quality measurements
- Stream flow data
- Surface water samples
- Groundwater samples (May 15-17, 2017)
- Photo documentation
- GPS coordinates
- Logbook and Electronic Data Collection Device (EDCD) entries

June 6-7, 2017 – High Flow, Low Elevation

- Real-time field water quality measurements
- Surface water samples
- Stream flow data
- Photo documentation
- GPS coordinates
- Logbook and EDCD entries

July 11-12, 2017 – High Flow, High Elevation

- Real-time field water quality measurements
- Surface water samples
- Stream flow data
- Photo documentation
- GPS coordinates
- Willow bark samples
- Soil samples
- Logbook and EDCD entries

August 22-23, 2017 – Mine Halo Characterization

- Waste rock/soil from mine waste halo areas
- Photo documentation
- GPS coordinates
- Logbook and EDCD entries

September 26-28, 2017 – Low Flow

- Real-time field water quality measurements
- Stream flow data
- Surface water samples
- Sediment samples
- Photo documentation
- GPS coordinates
- Sediment samples for toxicity testing
- Logbook and EDCD entries

September 26-28 and October 14-15, 2017 – Biota sampling

- Deer and grouse tissue samples
- GPS coordinates

October 12, 2017 – Roadway dust sampling

- Road dust air samples
- GPS coordinates
- Photo documentation
- Logbook and EDCD entries

2.1 Sample Handling and Identification

Sample identification followed naming criteria that were presented in the *Final Revision 0, Sampling Analysis Plan/Quality Assurance Project Plan Bonita Peak Mining District - 2017 Sampling Events* (SAP/QAPP) (EPA, 2017) and *Final Sampling Analysis Plan/Quality Assurance Project Plan Bonita Peak Mining District – 2017-2018 Combined Risk Assessment Sampling Events* (EPA, 2017). Surface water and sediment samples collected during the events were identified by the stream name followed by the station number. For example, locations in Cement Creek were identified CC##, with the station number corresponding to its location along the stream. Likewise, locations along Animas River were identified as A##, while locations along Mineral Creek were identified as M##.

Willow bark samples were identified by the area of collection followed by TP (Tribal Plant) and a randomly assigned number. Soil samples were identified by the name of the mine area or willow collection area. Deer and grouse were identified by the type of animal followed by the part of the animal and a number based on the order of collection, for example DEER-LIV-02 (the liver from the second deer collected). Road dust samples were labeled with an abbreviation of the name of a nearby landmark followed by DST which stands for dust. For example, SMC-DST was a road dust sample located near the South Mineral Creek Campground. Duplicate samples were indicated by Dup-##. Sampling locations are shown on **Figures 1** through **17**.

At several sampling locations during the pre-runoff event in March as well as the high-flow event in July, split samples of surface water were collected by EPA/ESAT and split with Formation Environmental for Sunnyside Gold Corporation. Results for split samples are not presented in this report.

2.2 Surface Water Sampling

Surface water samples were collected at locations along the Animas River, Cement Creek, Mineral Creek, Eureka Gulch, several adits, and smaller tributaries. Surface water samples were collected in accordance with Standard Operating Procedure (SOP) FLD-01.00 *Surface Water Sampling* (EPA, 2012). Prior to sample collection, the 250-milliliter (mL) and 500-mL high density polyethylene (HDPE) bottles were triple rinsed with water from the sample location and then filled by holding the bottles at an approximate 45-degree angle facing upstream. The 250-mL triple-rinsed bottle was used to transfer water to a filter bottle for dissolved metals analysis and then refilled for total recoverable metals analysis. During the low-flow event, the 250-mL triple-rinsed bottle was also used to transfer water to a second filter bottle for dissolved organic carbon analysis and then refilled for total recoverable metals analysis. Surface water samples for dissolved metals and dissolved organic carbon were then filtered using a Nalgene 0.45-micron filter apparatus. The 500-mL triple-rinsed bottle was then filled for alkalinity and anions analysis. Samples for stable isotope analysis were collected in 40-mL glass vials.

Samples were preserved with nitric acid (for total and dissolved metals), phosphoric acid (for dissolved organic carbon), or placed on ice (for stable isotopes, anions and alkalinity) in accordance with SOP FLD-03.00 *Sample Preservation* (EPA, 2012). The date, time, and sampler's initials were written on the Chain of Custody (COC) tracking form and the pre-printed label in accordance with SOP FLD-11.00 *Sample Custody and Labeling* (EPA, 2012). All samples were placed in a cooler with ice for transport to the EPA Region 8 Laboratory for analysis. Samples were analyzed at the EPA Region 8 Laboratory for the following: total and dissolved metals (EPA Methods 200.7 and 200.8), hardness (EPA Method 2340B calculated from calcium and magnesium results), dissolved organic carbon (EPA Method 415.1), alkalinity (EPA Method 310.1), and anions (EPA Method 300.0). Stable isotopes were analyzed at the Department of Geosciences at the University of Arizona; results are pending further review. Analytical results for dissolved metals, total recoverable metals, alkalinity, anions, and dissolved organic carbon are included in **Tables 1** through **42.**

Water quality measurements were collected at each sampling location for pH, temperature, DO, specific conductance, and Oxidation Reduction Potential (ORP) (if meter had ORP probe) using multi-parameter water quality meters in accordance with the provisions outlined in the manufacturer's guidelines (YSI Incorporated, 2017; 2009). These measurements were recorded in an EDCD or project-dedicated field notebook. Water quality data is presented in **Tables 43** through **56** and EDCD entries are included in **Tables 66** through **73**. Scanned copies of the field notebooks are provided in **Attachment 3**.

2.3 Stream Flows

Stream discharge measurements were collected using Flow Tracker® flow meters, flumes, or USGS gaging stations. Stream discharge measurements were collected in accordance with SOP FLD-08.00 *Flow Tracker Operation* (EPA, 2012). Flow measurements including flume measurements were recorded in the EDCD or field notebooks. Stream discharge entries are included in **Tables 43** through **56** as well as in the EDCD tables (**Tables 66** through **73**) and scanned copies of the field notebooks are included in **Attachment 3**. Flow Tracker® summary sheets are included in **Appendix A**.

2.4 Groundwater Sampling

Groundwater samples were collected at four monitoring wells by the Kittimack area in accordance with SOP FLD-04.00 *Groundwater Sampling* (EPA, 2012). The groundwater samples were collected during the May 15-17, 2017 pre-runoff event. A peristaltic pump was used to purge and sample the wells. Samples were collected after water quality (pH, conductivity, temperature and DO) stabilized. Stabilization criteria is: pH +/- 0.1 standard units, Specific Conductance +/- 3% Siemens/cm, DO +/- 0.3 milligrams per liter, and Temperature +/- 10% degrees Celsius. All tubing for the pumps were station dedicated; therefore, decontamination was not required. Total recoverable metal samples were collected in 250-mL HDPE bottles, dissolved metal samples were collected in 250-mL Nalgene 0.45-micron filter bottles, and alkalinity and anions were collected in a 500-mL HDPE bottle.

After collection, samples were preserved in accordance with SOP FLD-03.00 *Sample Preservation* (EPA, 2012). A label was affixed to the sample bottle and pertinent information was recorded onto the COC and followed guidance described in SOP FLD-11.00 *Sample Custody and Labeling* (EPA, 2012). Tape was placed over the label to protect the integrity of the label. The samples were placed in a cooler with ice during transport to the Region 8 EPA Laboratory, then stored in the ESAT walk-in cooler until analysis. Groundwater samples were analyzed for dissolved metals and total recoverable metals (EPA methods 200.7 and 200.8), mercury (EPA method 245.1), hardness (EPA method 2340B calculated from calcium and magnesium results), alkalinity (EPA Method 310.1), and anions (EPA Method 300.0). Groundwater analytical results are included in **Tables 13** through **15**.

2.5 Sediment Sampling

Sediment samples were collected during the September event for total recoverable metals and mercury analysis and at select locations for use in the sediment toxicity test. Collection of sediment followed protocols outlined in SOP FLD-06.00 *Shallow Stream Sediment Sampling* (EPA, 2012). Samples were collected using station-dedicated Teflon™ scoops and placed in 4-ounce glass jars or one-liter HDPE bottles. A label was affixed to the sample container and pertinent information was recorded onto the COC. Tape was placed over the label to protect the integrity of the label. Sediment samples were preserved by placing them in a cooler on ice after collection and during transport to

the Region 8 EPA Laboratory for total recoverable metals analysis (EPA Methods 200.7 and 200.8) and mercury (EPA Method 7473A). Sediment analytical results are included in **Tables 57** through **59**.

2.6 Soil Sampling

Soil/waste rock samples were collected during the July, August, and September events from the willow collection areas, mine halo areas, and two campgrounds within the BPMD site in accordance with SOP FLD-05.00 *Soil Sampling* (EPA, 2012). Soil samples were collected using disposable Teflon™ scoops and placed in either Whirl-Pak™ bags, plastic sealable gallon bags, or 4-ounce glass jars.

Soil samples from the willow collection area were collected using a 5-point composite technique at a depth of zero to two inches for each location. These samples were placed in a 4-ounce glass jar using disposable Teflon™ scoops. Soil samples for campground locations, CMP-3 and CMP-8 were sampled in September 2017. Campground samples were collected using either a 30-point or 5-point composite depending on size of the campground from a depth of zero to two inches. Campground samples were collected using disposable Teflon™ scoops and placed in a plastic sealable gallon bag. All willow area and campground soil samples were analyzed for total recoverable metals and mercury. Data for soils from willow locations and campgrounds are presented in **Tables 60** and **63,** respectively**.**

Mine halo soil samples were collected along transects within the mine halo at a depth of one to three inches using disposable Teflon™ scoops. The mine halo area samples were analyzed using an XRF in accordance with SOP FLD-13.00 *Analytical Determination of Trace metals in Soil and Sediment by Field Portable X-Ray Fluorescence Spectrometry* (EPA, 2012). However, due to the moisture content of the soil, the XRF was not used to analyze the soil in-situ; therefore, each sample from each point along a transect was placed in a separate Whirl-Pak™ bag for drying, sieving, and XRF analysis at the EPA Region 8 Laboratory. Once at the laboratory, each soil sample was dried depending on moisture content, either by an oven set at a low temperature or by air. Once dried, samples were sieved using a #10 (2 mm) sieve. After initial XRF analysis, the first sample of each transect at a mine halo area was mixed to create one composite sample. This process was repeated for the second sample of each transect. These composite samples were screened using XRF as well as analyzed for total recoverable metals and mercury. A total of sixteen percent of the samples (composite and grab) were analyzed for total recoverable metals and mercury for XRF confirmation.

All soil samples were preserved by placing them in a cooler on ice after collection and during transport to the Region 8 EPA Laboratory for XRF, total recoverable metals, and mercury analysis. A label was affixed to the sample container and pertinent information was recorded onto the COC. Tape was placed over the label to protect the integrity of the label. XRF analytical results can be found in **Table 61**. XRF confirmation analytical results are in **Table 62**.

2.7 Biota Tissue Sampling

Two mule deer and three dusky grouse were collected in September and October in order to estimate human health exposure to metals through a hunting / dietary pathway. These specimens were collected under State of Colorado scientific collection license number 17TR2397. The mule deer were mature does and were both collected on September 27, 2017. The heart, liver, kidney, back strap, tenderloin, front roast, rump roast, and bone marrow were sampled from each deer for total recoverable metals and mercury analysis. The Mule Deer were collected in South Fork of Mineral Creek and Middle Fork of Mineral Creek, see **Figure 17**. The ammunition used for the Mule Deer, had no lead, and were copper-based bullets.

The dusky grouse were collected on October 14-15, 2017. The heart, liver, kidney, and breast tissue were sampled from each grouse for total recoverable metals and mercury analysis. Grouse were shot within the South Mineral Creek watershed, see **Figure 17**. The shells used for the grouse were nontoxic tungsten shot.

All tissue samples were preserved by placing them in a cooler on ice after collection and during transport to the Region 8 EPA Laboratory for total recoverable metals and mercury analysis. Analysis and procedures were done in accordance with SOP 16-LAB-02.02 *Digestion of Biota for Metals Analysis by ICP-OE and ICP-MS* (EPA, 2017). Total recoverable metals and mercury analytical results are included in **Table 64**.

2.8 Road Dust Sampling

Road dust samples were collected in October to estimate road worker exposure to airborne dust. Samples were collected using portable SKC (Eighty-Four, PA) GS-3 respirable nylon cyclone samplers with battery-operated AirChek XR5000 sample pumps. Nine air samplers were set up along roads in the Bonita Peak Site. Three samplers were placed along Forest Road 585, three along State Highway 110, and three along County Road 2. See **Figure 15** for locations described above.

The air samplers were first calibrated to 2.75 L/min and an initial flow was recorded on the data sheet. After calibration, the units were attached to a tree or post next to the road. Each pump was set to run 480 minutes. After the 480 minutes of run time, the samplers were removed from the tree or signpost and the final flow was recorded. The cartridges were sealed with the plugs provided and placed into plastic plugs then shipped to ALS Global for analysis. Sample location EKC-DST did not have a GS-3 cyclone attached and this sample represents total dust. Analytical results and pertinent information such as run time, flow rate and cartridge serial numbers are included in **Attachment 2**.

2.9 Willow Bark Sampling

Willow bark and collocated soil samples were collected at select locations within BPMD during the July high-flow event. Willow twigs were cut using stainless steel clippers, and placed in a paper bag in a cooler for transportation to the EPA Region 8 Laboratory.

Processing at the laboratory consisted of soaking the twigs in de-ionized water for an hour to loosen the bark and then stripping the bark off the twig to place in a new paper bag. Willow bark was analyzed for total recoverable metals and mercury at the EPA Region 8 Laboratory and samples were sent to Dr. Drexler at the University of Colorado for bioavailability analysis. Results for the willow bark are provided in **Table 65** and **Attachment 1**.

2.10 Sample Documentation

At the time of sampling, an EDCD or a site-dedicated field logbook was used to record information for each sampling location including the following: sampling date, time, sample location identification, weather conditions, personnel, photo log, sampling plan deviations, real-time stream measurements (pH, DO, specific conductance, and temperature), sample container lot numbers, instrument identification tags (Flow Tracker, flumes, and water quality meters) and other pertinent observations. EDCD entries can be found in **Tables 66** through **73** for all applicable sampling events. A COC was filled out in the field with the sample identification, analysis being performed, date, time and sampler's initials. Upon return to the Region 8 EPA Laboratory, the field-generated chain was logged and converted into the electronic COC system through Scribe. All analytical data and field water quality measurements collected during the event were uploaded into Scribe.

3.0 SAMPLE QUALITY CONTROL

This section details the quality control methods used in the field for activities performed during the sampling effort. These include decontamination methods, field instrument calibration, duplicate sample collection, and field blank collection.

3.1 Decontamination Methods

Sampling equipment (containers, personal protective equipment, and sediment scoops) used in field sampling activities were disposable or station-dedicated; therefore, decontamination of this equipment was not necessary. While processing the tissue samples, new knives and razor blades were used for each part of the specimen; therefore, decontamination was not needed. Sieves were decontaminated in the laboratory with an Alconox solution, a 10% nitric acid solution, and de-ionized water in accordance with SOP FLD-02.00 *Sample Equipment Decontamination* (EPA, 2012).

3.2 Field Instrument Calibration and Verification Check

Field instrumentation requiring calibration or routine function checks included the water quality meters and the Flow Tracker® flow meters. Water quality meters were calibrated daily for pH, conductivity, and DO in accordance with manufacturer instructions (YSI Incorporated, 2017; 2009). Conductivity and pH probes were calibrated with established pH buffers and conductivity standards and Lot numbers were recorded in the calibration logbook. The DO probe was calibrated using the saturated air approach. At the

completion of each sampling day, calibration checks were performed using pH buffers and conductivity standards to check for accuracy. All calibration procedures were recorded in the instruments calibration notebook (**Attachment 4**). The Flow Tracker® flow measurement device has internal routine function checks that are conducted prior to data collection.

3.3 Duplicate Sample Collection

Duplicate samples were collected at a ten percent frequency to determine sampling precision and correlation of analytical results between a sample and the duplicate. According to the EPA *National Functional Guidelines for Inorganic Superfund Methods Data Review* (EPA, 2017), a control limit of twenty percent for water and thirty-five percent for sediment for the Relative Percent Difference (RPD) shall be used for the original and duplicate sample values greater than or equal to five times the Contract Required Quantitation Limit (CRQL). These are laboratory guidelines and may not apply to all field situations. RPD values were calculated for total recoverable metals, dissolved metals, dissolved organic carbon, alkalinity, and anions for duplicate water and sediment samples. RPD values were calculated using the following equation and are included in the results tables.

RPD = 100[ABS(Sample Result – Duplicate Result)]/[(0.5 * (Sample Result + Duplicate Result)]

3.4 Blanks

Field blanks were collected daily by each team to evaluate the potential for sample contamination during collection, transport to the laboratory, and at the laboratory. Aqueous field blank samples were processed in the field using laboratory grade de-ionized water. Blank samples were analyzed for total recoverable metals, dissolved metals, dissolved organic carbon (low-flow), alkalinity, and anions. Field blank analytical results are included in **Tables 1** through **42.**

4.0 FIELD CHANGES

The following are changes, observations, and corrective actions that were made during the sampling events:

March 21, 2017 – Prerunoff

- Flow measurements not collected at A56, M14A, and M27 due to snow and ice covering the banks.
- Two A66 samples were collected. After collection of the first sample, it was discovered that the snowplow upstream was pushing snow and sediment into the Animas River. The sampling team returned later in the day when stream conditions returned to normal and collected an additional sample. Both samples were analyzed.
- CC48 was sampled 30 m downstream due to better access to the creek because of snow. GPS coordinates were not collected.

April 4, 2017 – Prerunoff

- Flow measurements were not collected at CC21, A58, A56, M27, and M14A due to ice shelfs covering banks.

April 18, 2017 – Prerunoff

- Flow measurements were not collected at locations A66 and A56 due to high flows causing unsafe conditions.

May 2, 2017 – Prerunoff

- No deviations from the SAP.

May 16, 2017 – Prerunoff

- Flow measurements were not collected at locations T4, A53AC, A66 and A56 due to high flows causing unsafe conditions.
- Field team inadvertently collected M10A instead of M10 due to a discrepancy in the sampling locations table and the sampling locations map. Upon inspection of site photographs it was determined there was a sampling location error. The tables, COC, and Scribe database were updated to reflect this change.

June 6-7 and July 11-12, 2017 – High Flow

- Flow measurements were not collected at many locations due to unsafe conditions. Refer to the remarks section in the EDCD Entries (**Tables 68** through **71**).
- During the July event, a water quality meter stopped functioning midday; therefore, water quality measurements were not recorded for the following locations: CC01F, CC01C1, CC01C2, CC01S, CC01T.
- The following opportunity samples were collected following a rain storm on July 12, 2017: M29, CC48, and A55 OPP.
- As requested by EPA an opportunistic sample was collected near Little Nation and labeled Little Nation OPP.
- CC14 was collected by Mountain Studies Institute and was not recollected by ESAT during the high-flow event.
- As per Ian Bowen, CC27 was not sampled due to redundancy of sample locations.
- Location A53AC was not collected due to high flows causing unsafe conditions. As per Dan Wall, this location was only to be collected if a DH-81 could be used.
- Due to access issues, locations A64, AM1, and AT1 were not sampled.
- The following locations were dry; therefore, surface water samples were not collected at locations BF3, DM32, M24E, and M16B.
- M30 was not collected due to high flows on Mineral Creek causing unsafe conditions.

August 22-24, 2017 – Mine Site Halo Characterization

- Mine site waste rock/tailings pile delineation did not occur at Brooklyn Mine, Lark Mine, Mogul Mine, and Bandora Mine. This part of the halo characterization survey was not conducted because the mine waste piles were very steep and could not be accessed safely.
- Heavy rain during the evening of August 21 and consistent rain during most of August 22 caused study site soils to be too wet to conduct in situ XRF

measurements. Instead, soil samples were collected for laboratory drying and subsequent XRF analysis.

- Electronic data collection devices were used to document waste rock pile boundaries, soil sampling locations and take photographs of each mine site transect. The mine site halo characterization study field data sheets were also used, but much of the cover page information was not filled out. This was primarily due to not conducting in situ XRF measurements and using the electronic data collection devices to collect all of the location data.
- Site-specific calibration standard (SSCS) samples were not collected in the field. One to two SSCS samples were prescribed to be taken at each mine site, near the toe of the mine waste pile. Samples were not taken to make more efficient use of field time and materials. SSCS samples were made in the laboratory from XRF analysis soil samples. For each mine site, the first and second samples collected from each transect were composited to make two SSCS samples per site. This procedure resulted in collecting, processing, and analyzing 16 SSCS samples instead of the 10 samples specified in the SAP/QAPP.

September 26-28, 2017 – Low Flow

- Soil Samples for CMP-3 and CMP-8 were sampled in September 2017. These were scheduled to be sampled in 2016, however, due to unforeseen circumstances, sampling was delayed until 2017.
- Flow measurements were not collected at several locations. Refer to **Tables 54** through **56** and **Tables 72** and **73**.
- The following locations were dry and therefore surface water samples were not collected: CC04, CC01C2, CC21D, A18, M29B, BB2, EG-Trib1, DM32, and BF2.
- Samples were not collected at location CC19 due to construction work on American Tunnel disturbing the water creating suspended solids.
- Access was denied; therefore, samples were not collected at the following locations: A55, A54, and DM56.
- Location M14B was labeled M16B in the EDCD and the COC was filled out correctly.
- As per Andrew Todd, M17 was not sampled due to redundancy in sample locations.
- Location AT1 was not collected due to a moose blocking access to location.
- Surface water samples were not collected at Bakers Bridge due to field team error and miscommunication.
- Field team inadvertently collected M10A instead of M10 due to a discrepancy in the sampling locations table and the sampling locations map. Upon inspection of site photographs it was determined there was a sampling location error. The tables, COC, and Scribe database were updated to reflect this change.
- The field team inadvertently collected A32 instead of A31. Upon inspection of site photographs, it was determined there was a sampling location error. The tables, COC, and Scribe database were updated to reflect this change.

October 12, 2017 – Road Dust

- All Road Dust samples were collected for 8 hours; however, they were not all run from 9am to 5pm as suggested in the SAP/QAPP.
- Sample site EKC-DST did not have a GS-3 cyclone attached to the sample pump.

September 27, 2017 and October 14-15, 2017 – Game Animal Sample Collection

- Three grouse were collected rather than the four specified in the SAP/QAPP.
- The SAP/QAPP suggested the deer be a mature buck and doe; however, both deer were mature does, CPW did not approve of harvesting a buck.

5.0 REFERENCES

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Tables

Table 1 Bonita Peak Mining District - Pre-runoff March 21, 2017
Surface Water Analytical Results - Dissolved Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A55	Dissolved Metals	Surface Water	3/21/2017	12:15	68.5	2.00 U	5.00 U	0.502	43000	3.76	3.32	119	180 J	0.623	2740	216	1.00 U	2.00 U	6660	1.00 U	423	2.00 U	230
A56	Dissolved Metals	Surface Water	3/21/2017	11:00	41.1 J	2.00 U	5.00 U	0.610	43200	3.43	2.97	119	250 U	0.315	2710	178	1.00 U	2.00 U	7130	1.00 U	418	2.00 U	237
A58	Dissolved Metals	Surface Water	3/21/2017	11:30	21.6 J	2.00 U	5.00 U	1.06	38400	5.21	6.62	104	250 U	0.157 J	1900	2.63 J	1.00 U	1.01 J	5860	1.00 U	524	2.00 U	141
A66	Dissolved Metals	Surface Water	3/21/2017	09:48	51.8	2.00 U	5.00 U	2.68	44200	3.13	6.05	122	250 U	0.254 J	2910	1290	1.00 U	2.00 U	7380	1.00 U	435	2.00 U	829
A66	Dissolved Metals	Surface Water	3/21/2017	12:55	87.3	2.00 U	5.00 U	2.76	45000	2.89	10.7	125	112 J	0.638	2950	1270	1.00 U	2.00 U	7340	1.00 U	439	2.00 U	860
A68	Dissolved Metals	Surface Water	3/21/2017	09:15	90.6	2.00 U	5.00 U	2.82	45700	4.02	10.5	127	250 U	0.259	3040	1970	1.00 U	2.00 U	7630	1.00 U	445	2.00 U	968
A72	Dissolved Metals	Surface Water	3/21/2017	09:45	837	2.00 U	5.00 U	2.13	59100	2.00 U	17.9	165	2220	4.49	4220	1350	0.568 J	2.00 U	13000	1.00 U	599	2.00 U	720
CC21	Dissolved Metals	Surface Water	3/21/2017	15:00	3750	10.0 U	5.00 U	11.5	187000	10.0 U	224	509	10800	22.5	10500	9160	4.54 J	10.0 U	18700	5.00 U	2150	10.0 U	4770
CC48	Dissolved Metals	Surface Water	3/21/2017	14:10	3990	2.00 U	5.00 U	3.23	95700	2.00 U	65.5	264	7390	12.2	6110	2490	3.44	2.00 U	21100	1.00 U	1110	2.00 U	1340
A66 Dup	Dissolved Metals	Surface Water	3/21/2017	09:48	45.1 J	2.00 U	5.00 U	2.57	44800	3.05	5.57	124	102 J	0.197 J	2940	1280	1.00 U	2.00 U	7330	1.00 U	440	2.00 U	819
CC21 Dup	Dissolved Metals	Surface Water	3/21/2017	15:00	3770	10.0 U	5.00 U	11.8	185000	10.0 U	225	504	10900	22.6	10500	9230	3.92 J	10.0 U	18800	5.00 U	2150	10.0 U	4840
FB-01	Dissolved Metals	Water	3/21/2017	15:45	50.0 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U
M14A	Dissolved Metals	Surface Water	3/21/2017	13:00	115	2.00 U	5.00 U	1.69	44300	2.00 U	8.68	120	250 U	8.01	2350	259	1.00 U	2.00 U	8230	1.00 U	668	2.00 U	503
M27	Dissolved Metals	Surface Water	3/21/2017	11:50	1750	2.00 U	5.00 U	1.27	52700	2.00 U	17.0	148	2400	8.62	4060	397	0.657 J	2.00 U	13100	1.00 U	618	2.00 U	344
M34	Dissolved Metals	Surface Water	3/21/2017	10:45	153	2.00 U	5.00 U	0.786	47000	2.00 U	4.93	133	1500	0.675	3810	251	0.824 J	2.00 U	12800	1.00 U	485	2.00 U	210

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A66	Dissolved Metals	Surface Water	3/21/2017	09:48	51.8	2.00 U	5.00 U	2.68	44200	3.13	6.05	122	250 U	0.254	2910	1290	1.00 U	2.00 U	7380	1.00 U	435	2.00 U	829
A66 Dup	Dissolved Metals	Surface Water	3/21/2017	09:48	45.1	2.00 U	5.00 U	2.57	44800	3.05	5.57	124	102	0.197	2940	1280	1.00 U	2.00 U	7330	1.00 U	440	2.00 U	819
				RPD	**13.83%**	N/A	N/A	**4.19%**	**1.35%**	**2.59%**	**8.26%**	**1.63%**	N/A	**25.28%**	**1.03%**	**0.78%**	N/A	N/A	**0.68%**	N/A	**1.14%**	N/A	**1.21%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC21	Dissolved Metals	Surface Water	3/21/2017	15:00	3750	10.0 U	5.00 U	11.5	187000	10.0 U	224	509	10800	22.5	10500	9160	4.54	10.0 U	18700	5.00 U	2150	10.0 U	4770
CC21 Dup	Dissolved Metals	Surface Water	3/21/2017	15:00	3770	10.0 U	5.00 U	11.8	185000	10.0 U	225	504	10900	22.6	10500	9230	3.92	10.0 U	18800	5.00 U	2150	10.0 U	4840
				RPD	**0.53%**	N/A	N/A	**2.58%**	**1.08%**	N/A	**0.45%**	**0.99%**	**0.92%**	**0.44%**	**0.00%**	**0.76%**	**14.66%**	N/A	**0.53%**	N/A	**0.00%**	N/A	**1.46%**

Note: Removed flags from values for RPD calculation
Note: Data Qualifier Definitions Listed Below:
U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample
J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample

Table 2 Bonita Peak Mining District - Pre-runoff March 21, 2017
Surface Water Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A55	Total Recoverable Metals	Surface Water	3/21/2017	12:15	95.5 J+	10.0 U	5.00 U	1.00 U	43700	10.0 U	2.58 J	250 U	1.86	2650	228	5.00 U	10.0 U	6650	5.00 U	423	10.0 U	232
A56	Total Recoverable Metals	Surface Water	3/21/2017	11:00	113 J+	10.0 U	5.00 U	0.622 J	43400	10.0 U	3.84 J	250 U	2.79	2720	193	5.00 U	10.0 U	7050	5.00 U	422	9.06 J	243
A58	Total Recoverable Metals	Surface Water	3/21/2017	11:30	208	10.0 U	5.00 U	1.18	38400	10.0 U	9.97	250 U	6.67	1900	6.54	5.00 U	10.0 U	6270	5.00 U	539	10.1	149
A66	Total Recoverable Metals	Surface Water	3/21/2017	09:48	2070	10.0 U	5.00 U	2.91	45700	10.0 U	37.5	3220	32.7	3770	1490	5.00 U	10.0 U	13400	5.00 U	446	10.0 U	949
A66	Total Recoverable Metals	Surface Water	3/21/2017	12:55	301	10.0 U	5.00 U	2.48	45400	10.0 U	24.2	360 J+	5.85	3010	1320	5.00 U	10.0 U	7590	5.00 U	448	10.0 U	879
A68	Total Recoverable Metals	Surface Water	3/21/2017	09:15	354	10.0 U	5.00 U	2.90	47900	10.0 U	23.8	326 J+	5.29	3130	2030	5.00 U	10.0 U	7740	5.00 U	467	10.0 U	969
A72	Total Recoverable Metals	Surface Water	3/21/2017	09:45	1660	10.0 U	5.00 U	2.07	59400	10.0 U	25.9	3080	9.40	4160	1380	5.00 U	10.0 U	13400	5.00 U	606	10.0 U	708
CC21	Total Recoverable Metals	Surface Water	3/21/2017	15:00	3910	10.0 U	5.00 U	11.5	183000	10.0 U	231	12500	26.3	10300	9240	6.69	10.0 U	18700	5.00 U	2130	10.0 U	4720
CC48	Total Recoverable Metals	Surface Water	3/21/2017	14:10	4280	10.0 U	5.00 U	3.09	98000	10.0 U	65.1	9090	14.6	6240	2500	4.94 J	10.0 U	21100	5.00 U	1160	10.0 U	1250
A66 Dup	Total Recoverable Metals	Surface Water	3/21/2017	09:48	2000	10.0 U	5.00 U	3.06	46200	10.0 U	38.0	3140	33.2	3800	1490	5.00 U	10.0 U	12800	5.00 U	457	10.0 U	939
CC21 Dup	Total Recoverable Metals	Surface Water	3/21/2017	15:00	3960	10.0 U	5.00 U	11.6	184000	10.0 U	232	12700	25.5	10400	9220	6.34	10.0 U	18700	5.00 U	2150	10.0 U	4690
FB-01	Total Recoverable Metals	Water	3/21/2017	15:45	50.0 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 U	250 U	3.03 J	5.00 U	10.0 U	1000 U	5.00 U	2.44 J	10.0 U	20.0 U
M14A	Total Recoverable Metals	Surface Water	3/21/2017	13:00	528	10.0 U	5.00 U	1.58	45000	10.0 U	15.1	306 J+	29.0	2330	268	5.00 U	10.0 U	8500	5.00 U	653	10.0 U	508
M27	Total Recoverable Metals	Surface Water	3/21/2017	11:50	3130	10.0 U	5.00 U	1.23	53600	10.0 U	18.0	4340	16.0	4030	405	5.00 U	10.0 U	13500	5.00 U	613	10.0 U	334
M34	Total Recoverable Metals	Surface Water	3/21/2017	10:45	2120	10.0 U	5.00 U	0.817 J	50800	10.0 U	9.82	2990	9.05	4000	262	5.00 U	10.0 U	13600	5.00 U	504	10.0 U	217

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A66	Total Recoverable Metals	Surface Water	3/21/2017	09:48	2070	10.0 U	5.00 U	2.91	45700	10.0 U	37.5	3220	32.7	3770	1490	5.00 U	10.0 U	13400	5.00 U	446	10.0 U	949
A66 Dup	Total Recoverable Metals	Surface Water	3/21/2017	09:48	2000	10.0 U	5.00 U	3.06	46200	10.0 U	38.0	3140	33.2	3800	1490	5.00 U	10.0 U	12800	5.00 U	457	10.0 U	939
				RPD	**3.44%**	N/A	N/A	**5.03%**	**1.09%**	N/A	**1.32%**	**2.52%**	**1.52%**	**0.79%**	**0.00%**	N/A	N/A	**4.58%**	N/A	**2.44%**	N/A	**1.06%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC21	Total Recoverable Metals	Surface Water	3/21/2017	15:00	3910	10.0 U	5.00 U	11.5	183000	10.0 U	231	12500	26.3	10300	9240	6.69	10.0 U	18700	5.00 U	2130	10.0 U	4720
CC21 Dup	Total Recoverable Metals	Surface Water	3/21/2017	15:00	3960	10.0 U	5.00 U	11.6	184000	10.0 U	232	12700	25.5	10400	9220	6.34	10.0 U	18700	5.00 U	2150	10.0 U	4690
				RPD	**1.27%**	N/A	N/A	**0.87%**	**0.54%**	N/A	**0.43%**	**1.59%**	**3.09%**	**0.97%**	**0.22%**	**5.37%**	N/A	**0.00%**	N/A	**0.93%**	N/A	**0.64%**

Note: Removed flags from values for RPD calculation
Note: Data Qualifier Definitions Listed Below:
U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 3 Bonita Peak Mining District - Pre-runoff March 21, 2017
Surface Water Analytical Results - Wet Chemistry

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A55	Wet Chemistry	Surface Water	3/21/2017	12:15	2.0 U	0.4	1.0 U	85.8	32.8
A56	Wet Chemistry	Surface Water	3/21/2017	11:00	1.0 J	0.4	1.0 U	83.8	33.0
A58	Wet Chemistry	Surface Water	3/21/2017	11:30	2.0 U	0.2	1.0 U	58.1	45.7
A66	Wet Chemistry	Surface Water	3/21/2017	09:48	1.0 J	0.5	1.0 U	95.3	31.3
A66	Wet Chemistry	Surface Water	3/21/2017	12:55	1.0 J	0.6	1.0 U	95.5	31.2
A68	Wet Chemistry	Surface Water	3/21/2017	09:15	1.4 J	0.6	1.0 U	104	29.5
A72	Wet Chemistry	Surface Water	3/21/2017	09:45	2.0	0.5	1.0 U	169	7.50 J
CC21	Wet Chemistry	Surface Water	3/21/2017	15:00	20.0 U	2.3	10.0 U	507	10.0 U
CC48	Wet Chemistry	Surface Water	3/21/2017	14:10	20.0 U	1.0 J	10.0 U	285	10.0 U
A66 Dup	Wet Chemistry	Surface Water	3/21/2017	09:48	1.0 J	0.5	1.0 U	95.6	31.2
CC21 Dup	Wet Chemistry	Surface Water	3/21/2017	15:00	20.0 U	2.0	10.0 U	514	10.0 U
FB-01	Wet Chemistry	Water	3/21/2017	15:45	2.0 U	0.2 U	1.0 U	5.0 U	10.0 U
M14A	Wet Chemistry	Surface Water	3/21/2017	13:00	6.7	0.2	1.0 U	117	11.5
M27	Wet Chemistry	Surface Water	3/21/2017	11:50	4.3	0.4	1.0 U	170	10.0 U
M34	Wet Chemistry	Surface Water	3/21/2017	10:45	2.6	0.2	1.0 U	139	6.31 J

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A66	Wet Chemistry	Surface Water	3/21/2017	09:48	1	0.5	1.0 U	95.3	31.3
A66 Dup	Wet Chemistry	Surface Water	3/21/2017	09:48	1	0.5	1.0 U	95.6	31.2
				RPD	**0.00%**	**0.00%**	N/A	**0.31%**	**0.32%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
CC21	Wet Chemistry	Surface Water	3/21/2017	15:00	20.0 U	2.3	10.0 U	507	10.0 U
CC21 Dup	Wet Chemistry	Surface Water	3/21/2017	15:00	20.0 U	2.0	10.0 U	514	10.0 U
				RPD	N/A	**13.95%**	N/A	**1.37%**	N/A

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below:

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 4 Bonita Peak Mining District - Pre-runoff April 4, 2017
Surface Water Analytical Results - Dissolved Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A55	Dissolved Metals	Surface Water	4/4/2017	14:15	50 U	2.00 U	5.00 U	0.546	47100	2.35 J+	3.25 J+	130	250 U	0.339	2880	247	1.00 U	2.00 U	6880	1.00 U	457	2.00 U	263
A56	Dissolved Metals	Surface Water	4/4/2017	13:45	50 U	2.00 U	5.00 U	0.566	47200	2.31 J+	3.52 J+	130	250 U	0.296	2970	210	0.563 U	2.00 U	7250	1.00 U	461	2.00 U	233
A58	Dissolved Metals	Surface Water	4/4/2017	13:30	50.0 U	2.00 U	5.00 U	0.963	38800	4.04 J+	5.99	105	250 U	0.178 J	1900	2.30 J	0.846 U	1.52 J	5800	1.00 U	532	2.00 U	126
A66	Dissolved Metals	Surface Water	4/4/2017	12:20	50 U	2.00 U	5.00 U	2.91	51500	2.29 J+	6.01	142	250 U	0.208	3290	2260	0.978 U	2.00 U	7610	1.00 U	498	2.00 U	916
A68	Dissolved Metals	Surface Water	4/4/2017	10:05	50 U	2.00 U	5.00 U	2.90	52200	2.06 J+	4.57	144	250 U	0.102 J	3410	2700	1.39 J+	2.00 U	7700	1.00 U	515	2.00 U	958
A72	Dissolved Metals	Surface Water	4/4/2017	08:35	649	0.579 J	5.00 U	2.12	74200	2.00 U	8.82	206	2170	1.38	5040	1850	1.75 J+	2.00 U	13800	1.00 U	767	2.00 U	799
CC21	Dissolved Metals	Surface Water	4/4/2017	11:15	2770	0.629 J	5.00 U	8.06	231000	2.00 U	89.5	626	10500	7.02 J	11700	9630	2.31 J+	2.00 U	20700	1.00 U	2730	2.00 U	4280
CC48	Dissolved Metals	Surface Water	4/4/2017	10:30	5760	0.681 J	5.00 U	3.25	154000	2.00 U	51.2	420	10100	10.5	8570	3520	4.89 J+	2.00 U	28200	1.00 U	1810	2.00 U	1620
CC21 Dup	Dissolved Metals	Surface Water	4/4/2017	11:15	2950	0.508 J	5.00 U	8.22	232000	2.00 U	90.5	628	11000	10.6 J	11900	9580	2.93 J+	2.00 U	21000	1.00 U	2780	2.00 U	4190
A58 Dup	Dissolved Metals	Surface Water	4/4/2017	13:30	50.0 U	2.00 U	5.00 U	0.974	39000	3.33 J+	6.20	105	250 U	0.204	1950	4.41 J	1.00 U	1.10 J	5820	1.00 U	556	2.00 U	128
FB-01	Dissolved Metals	Water	4/4/2017	16:00	50.0 U	2.00 U	5.00 U	0.200 U	250 U	1.42 J	0.780 J	2 U	250 U	0.200 U	250 U	5.00 U	0.935 J+	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U
M14A	Dissolved Metals	Surface Water	4/4/2017	12:00	55.9 J+	2.00 U	5.00 U	1.68	66200	2.00 U	8.39	177	250 U	3.90	2890	310	1.00 U	2.00 U	9790	1.00 U	932	2.00 U	514
M27	Dissolved Metals	Surface Water	4/4/2017	10:55	5560	0.697 J	5.00 U	1.42	90800	2.00 U	17.4	255	6690	7.70	6990	701	1.66 J+	2.00 U	18400	1.00 U	960	2.00 U	360
M34	Dissolved Metals	Surface Water	4/4/2017	09:00	126 J+	2.00 U	5.00 U	0.756	66300	2.00 U	3.09 J+	188	2860	0.173 J	5380	359	1.72 J+	2.00 U	14700	1.00 U	633	2.00 U	209

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC21	Dissolved Metals	Surface Water	4/4/2017	11:15	2770	0.629	5.00 U	8.06	231000	2.00 U	89.5	626	10500	7.02	11700	9630	2.31	2.00 U	20700	1.00 U	2730	2.00 U	4280
CC21 Dup	Dissolved Metals	Surface Water	4/4/2017	11:15	2950	0.508	5.00 U	8.22	232000	2.00 U	90.5	628	11000	10.6	11900	9580	2.93	2.00 U	21000	1.00 U	2780	2.00 U	4190
				RPD	**6.29%**	**21.28%**	N/A	**1.97%**	**0.43%**	N/A	**1.11%**	**0.32%**	**4.65%**	**40.64%**	**1.69%**	**0.52%**	**23.66%**	N/A	**1.44%**	N/A	**1.81%**	N/A	**2.13%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A58	Dissolved Metals	Surface Water	4/4/2017	13:30	50.0 U	2.00 U	5.00 U	0.963	38800	4.04	5.99	105	250 U	0.178	1900	2.3	0.846 U	1.52	5800	1.00 U	532	2.00 U	126
A58 Dup	Dissolved Metals	Surface Water	4/4/2017	13:30	50.0 U	2.00 U	5.00 U	0.974	39000	3.33	6.20	105	250 U	0.204	1950	4.41	1.00 U	1.1	5820	1.00 U	556	2.00 U	128
				RPD	N/A	N/A	N/A	**1.14%**	**0.51%**	**19.27%**	**3.45%**	**0.00%**	N/A	**13.61%**	**2.60%**	**62.89%**	N/A	**32.06%**	**0.34%**	N/A	**4.41%**	N/A	**1.57%**

Note: Data Qualifier Definitions Listed Below:
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J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 5 Bonita Peak Mining District - Pre-runoff April 4, 2017
Surface Water Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A55	Total Recoverable Metals	Surface Water	4/4/2017	14:15	52.8	10.0 U	5.00 U	1.00 U	48100	10.0 U	4.19 J	140 J	0.692 J	2990	251	5.00 U	10.0 U	6860	5.00 U	482	10.0 U	258
A56	Total Recoverable Metals	Surface Water	4/4/2017	13:45	60.5	10.0 U	5.00 U	0.606 J	47800	10.0 U	2.97 J	111 J	1.06	3070	215	5.00 U	10.0 U	7370	5.00 U	487	7.07 J	233
A58	Total Recoverable Metals	Surface Water	4/4/2017	13:30	60.4	10.0 U	5.00 U	0.929 J	40000	10.0 U	6.63	250 U	2.85	1980	5.00 U	5.00 U	10.0 U	6000	5.00 U	585	8.37 J	126
A66	Total Recoverable Metals	Surface Water	4/4/2017	12:20	341	10.0 U	5.00 U	2.78	51500	10.0 U	22.8	343	3.04	3420	2280	5.00 U	10.0 U	7800	5.00 U	529	10.0 U	895
A68	Total Recoverable Metals	Surface Water	4/4/2017	10:05	382	10.0 U	5.00 U	3.11	54100	10.0 U	22.7	264	2.87	3700	2780	5.00 U	10.0 U	8040	5.00 U	565	10.0 U	957
A72	Total Recoverable Metals	Surface Water	4/4/2017	08:35	2400	10.0 U	5.00 U	2.18	75000	10.0 U	20.3	3310	5.32	5160	1880	5.00 U	10.0 U	14600	5.00 U	817	10.0 U	772
CC21	Total Recoverable Metals	Surface Water	4/4/2017	11:15	3420	10.0 U	5.00 U	8.21	234000	10.0 U	100	12800	20.7	12300	9840	5.00 U	10.0 U	21500	5.00 U	2960	10.0 U	4140
CC48	Total Recoverable Metals	Surface Water	4/4/2017	10:30	6570	4.74 J	5.00 U	2.99	163000	10.0 U	45.4	13600	12.9	9520	3560	4.15 J	10.0 U	28500	5.00 U	2020	10.0 U	1540
CC21 Dup	Total Recoverable Metals	Surface Water	4/4/2017	11:15	3420	10.0 U	5.00 U	8.38	233000	10.0 U	101	12600	21.4	12200	9820	5.00 U	10.0 U	21300	5.00 U	2960	10.0 U	4130
A58 Dup	Total Recoverable Metals	Surface Water	4/4/2017	13:30	48.7 J	10.0 U	5.00 U	1.20	39000	10.0 U	6.58	250 U	2.65	1970	5.00 U	5.00 U	10.0 U	5930	5.00 U	575	10.0 U	123
FB-01	Total Recoverable Metals	Water	4/4/2017	16:00	50.0 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 U	250 U	5.00 U	5.00 U	10.0 U	1000 U	5.00 U	10.0 U	10.0 U	20.0 U
M14A	Total Recoverable Metals	Surface Water	4/4/2017	12:00	479	10.0 U	5.00 U	1.69	66300	10.0 U	13.7	225 J	25.9	2970	317	5.00 U	10.0 U	10000	5.00 U	973	10.0 U	492
M27	Total Recoverable Metals	Surface Water	4/4/2017	10:55	6570	10.0 U	5.00 U	1.47	91900	10.0 U	17.1	8810	11.0	7390	709	5.00 U	10.0 U	18600	5.00 U	1010	10.0 U	339
M34	Total Recoverable Metals	Surface Water	4/4/2017	09:00	3290	10.0 U	5.00 U	0.807 J	66800	10.0 U	9.17	5260	6.00	5500	360	5.00 U	10.0 U	16100	5.00 U	665	10.0 U	201

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC21	Total Recoverable Metals	Surface Water	4/4/2017	11:15	3420	10.0 U	5.00 U	8.21	234000	10.0 U	100	12800	20.7	12300	9840	5.00 U	10.0 U	21500	5.00 U	2960	10.0 U	4140
CC21 Dup	Total Recoverable Metals	Surface Water	4/4/2017	11:15	3420	10.0 U	5.00 U	8.38	233000	10.0 U	101	12600	21.4	12200	9820	5.00 U	10.0 U	21300	5.00 U	2960	10.0 U	4130
				RPD	**0.00%**	N/A	N/A	**2.05%**	**0.43%**	N/A	**1.00%**	**1.57%**	**3.33%**	**0.82%**	**0.20%**	N/A	N/A	**0.93%**	N/A	**0.00%**	N/A	**0.24%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A58	Total Recoverable Metals	Surface Water	4/4/2017	13:30	60.4	10.0 U	5.00 U	0.929	40000	10.0 U	6.63	250 U	2.85	1980	5.00 U	5.00 U	10.0 U	6000	5.00 U	585	8.37	126
A58 Dup	Total Recoverable Metals	Surface Water	4/4/2017	13:30	48.7	10.0 U	5.00 U	1.20	39000	10.0 U	6.58	250 U	2.65	1970	5.00 U	5.00 U	10.0 U	5930	5.00 U	575	10.0 U	123
				RPD	**21.45%**	N/A	N/A	**25.46%**	**2.53%**	N/A	**0.76%**	N/A	**7.27%**	**0.51%**	N/A	N/A	N/A	**1.17%**	N/A	**1.72%**	N/A	**2.41%**

Note: Removed flags from values for RPD calculation
Note: Data Qualifier Definitions Listed Below:
U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample

Table 6 Bonita Peak Mining District - Pre-runoff April 4, 2017
Surface Water Analytical Results - Wet Chemistry

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A55	Wet Chemistry	Surface Water	4/4/2017	14:15	2.0 U	0.4	2.0 U	103	31.5
A56	Wet Chemistry	Surface Water	4/4/2017	13:45	2.0 U	0.5	2.0 U	102	32.8
A58	Wet Chemistry	Surface Water	4/4/2017	13:30	2.0 U	0.2	2.0 U	62.7	49.2
A66	Wet Chemistry	Surface Water	4/4/2017	12:20	1.1 J	0.6	2.0 U	123	31.0
A68	Wet Chemistry	Surface Water	4/4/2017	10:05	1.2 J	0.7	2.0 U	128	29.9
A72	Wet Chemistry	Surface Water	4/4/2017	08:35	1.8 J	0.6	2.0 U	223	6.81 J
CC21	Wet Chemistry	Surface Water	4/4/2017	11:15	10.0 U	2.4	10.0 U	699	10.0 U
CC48	Wet Chemistry	Surface Water	4/4/2017	10:30	10.0 U	1.4	10.0 U	462	10.0 U
CC21 Dup	Wet Chemistry	Surface Water	4/4/2017	11:15	10.0 U	2.2	10.0 U	696	10.0 U
A58 Dup	Wet Chemistry	Surface Water	4/4/2017	13:30	2.0 U	0.2	2.0 U	62.5	48.8
FB-01	Wet Chemistry	Water	4/4/2017	16:00	2.0 U	0.2 U	2.0 U	4.6 J	10.0 U
M14A	Wet Chemistry	Surface Water	4/4/2017	12:00	6.4	0.3	2.0 U	180	11.8
M27	Wet Chemistry	Surface Water	4/4/2017	10:55	3.5 J	0.7	4.0 U	299	10.0 U
M34	Wet Chemistry	Surface Water	4/4/2017	09:00	2.1 J	0.3 J	4.0 U	189	10.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPDATE	SAMPLETIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
CC21	Wet Chemistry	Surface Water	4/4/2017	11:15	10.0 U	2.4	10.0 U	699	10.0 U
CC21 Dup	Wet Chemistry	Surface Water	4/4/2017	11:15	10.0 U	2.2	10.0 U	696	10.0 U
				RPD	N/A	**8.70%**	N/A	**0.43%**	N/A

STATION_ID	ANALYSIS	MATRIX	SAMPDATE	SAMPLETIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A58	Wet Chemistry	Surface Water	4/4/2017	13:30	2.0 U	0.2	2.0 U	62.7	49.2
A58 Dup	Wet Chemistry	Surface Water	4/4/2017	13:30	2.0 U	0.2	2.0 U	62.5	48.8
				RPD	N/A	**0.00%**	N/A	**0.32%**	**0.82%**

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below:

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J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 7 Bonita Peak Mining District - Pre-runoff April 18, 2017
Surface Water Analytical Results - Dissolved Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A55	Dissolved Metals	Surface Water	4/18/2017	17:05	47.9 J	2.00 U	5.00 U	1.14	34200	2.00 U	8.31	95	250 U	0.770	2340	383	1.00 U	2.00 U	6440	1.00 U	312	2.00 U	465
A56	Dissolved Metals	Surface Water	4/18/2017	16:40	49.0 J	2.00 U	5.00 U	1.06	33500	2.00 U	7.03	93	250 U	0.880	2260	316	1.00 U	2.00 U	6570	1.00 U	305	2.00 U	399
A58	Dissolved Metals	Surface Water	4/18/2017	16:00	56.4	2.00 U	5.00 U	0.991	28600	1.32 J	10.3	77	250 U	3.02	1460	2.61 J	1.00 U	2.00 U	6080	1.00 U	380	2.00 U	139
A66	Dissolved Metals	Surface Water	4/18/2017	15:20	89.8	2.00 U	5.00 U	1.48	36000	2.00 U	8.78	100	110 J	0.880	2430	1000	1.00 U	2.00 U	6700	1.00 U	332	2.00 U	507
A68	Dissolved Metals	Surface Water	4/18/2017	12:55	84.7	2.00 U	5.00 U	1.61	35900	2.00 U	8.35	100	250 U	0.522	2450	1170	1.00 U	2.00 U	6760	1.00 U	337	2.00 U	536
A72	Dissolved Metals	Surface Water	4/18/2017	08:45	73.3	2.00 U	5.00 U	1.59	42600	2.00 U	8.20	119	1210	0.210	3160	893	1.00 U	2.00 U	10300	1.00 U	416	2.00 U	523
CC21	Dissolved Metals	Surface Water	4/18/2017	14:10	2950	2.00 U	5.00 U	10.4	107000	2.00 U	192	295	7290	18.3	6770	6280	3.71	2.00 U	15800	1.00 U	1190	2.00 U	3820
CC48	Dissolved Metals	Surface Water	4/18/2017	13:20	2860	2.00 U	5.00 U	3.30	63300	2.00 U	65.5	176	5480	10.8	4440	1970	3.01	2.00 U	16700	1.00 U	709	2.00 U	1180
CC21 Dup	Dissolved Metals	Surface Water	4/18/2017	14:10	2940	2.00 U	5.00 U	10.2	108000	2.00 U	190	299	7360	17.7	6940	6140	3.52	2.00 U	15400	1.00 U	1230	2.00 U	3690
M34 Dup	Dissolved Metals	Surface Water	4/18/2017	09:10	35.6 J	2.00 U	5.00 U	0.606	35400	2.00 U	3.18	101	944	0.200 U	2990	197	1.00 U	2.00 U	10800	1.00 U	322	2.00 U	163
FB-01	Dissolved Metals	Surface Water	4/18/2017	09:30	50.0 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U
M14A	Dissolved Metals	Surface Water	4/18/2017	11:00	68.5	2.00 U	5.00 U	1.39	31100	2.00 U	8.61	85	250 U	1.79	1920	244	1.00 U	2.00 U	7510	1.00 U	446	2.00 U	418
M27	Dissolved Metals	Surface Water	4/18/2017	11:00	504	2.00 U	5.00 U	1.07	36800	2.00 U	10.5	104	1870	3.63	2880	309	1.00 U	2.00 U	11200	1.00 U	412	2.00 U	277
M34	Dissolved Metals	Surface Water	4/18/2017	09:10	34.8 J	2.00 U	5.00 U	0.645	35900	2.00 U	2.86	102	975	0.200 U	3000	197	1.00 U	2.00 U	10600	1.00 U	333	2.00 U	163

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC21	Dissolved Metals	Surface Water	4/18/2017	14:10	2950	2.00 U	5.00 U	10.4	107000	2.00 U	192	295	7290	18.3	6770	6280	3.71	2.00 U	15800	1.00 U	1190	2.00 U	3820
CC21 Dup	Dissolved Metals	Surface Water	4/18/2017	14:10	2940	2.00 U	5.00 U	10.2	108000	2.00 U	190	299	7360	17.7	6940	6140	3.52	2.00 U	15400	1.00 U	1230	2.00 U	3690
				RPD	**0.34%**	N/A	N/A	**1.94%**	**0.93%**	N/A	**1.05%**	**1.35%**	**0.96%**	**3.33%**	**2.48%**	**2.25%**	**5.26%**	N/A	**2.56%**	N/A	**3.31%**	N/A	**3.46%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M34	Dissolved Metals	Surface Water	4/18/2017	09:10	34.8	2.00 U	5.00 U	0.645	35900	2.00 U	2.86	102	975	0.200 U	3000	197	1.00 U	2.00 U	10600	1.00 U	333	2.00 U	163
M34 Dup	Dissolved Metals	Surface Water	4/18/2017	09:10	35.6	2.00 U	5.00 U	0.606	35400	2.00 U	3.18	101	944	0.200 U	2990	197	1.00 U	2.00 U	10800	1.00 U	322	2.00 U	163
				RPD	**2.27%**	N/A	N/A	**6.24%**	**1.40%**	N/A	**10.60%**	**0.99%**	**3.23%**	N/A	**0.33%**	**0.00%**	N/A	N/A	**1.87%**	N/A	**3.36%**	N/A	**0.00%**

Note: Removed flags from values for RPD calculation
Note: Data Qualifier Definitions Listed Below:
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J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 8 Bonita Peak Mining District - Pre-runoff April 18, 2017
Surface Water Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A55	Total Recoverable Metals	Surface Water	4/18/2017	17:05	524	10.0 U	5.00 U	1.47	35300	10.0 U	25.6	570	24.5	2490	551	5.00 U	10.0 U	7200	5.00 U	328	10.0 U	534
A56	Total Recoverable Metals	Surface Water	4/18/2017	16:40	545	10.0 U	5.00 U	1.39	35500	10.0 U	24.5	591	20.5	2520	524	5.00 U	10.0 U	7430	5.00 U	337	6.09 J	491
A58	Total Recoverable Metals	Surface Water	4/18/2017	16:00	298	10.0 U	5.00 U	0.954 J	29700	10.0 U	13.2	340	8.77	1590	10.3	5.00 U	10.0 U	6950	5.00 U	414	6.44 J	142
A66	Total Recoverable Metals	Surface Water	4/18/2017	15:20	392	10.0 U	5.00 U	1.53	37200	10.0 U	22.1	478	9.38	2580	1120	5.00 U	10.0 U	7160	5.00 U	355	10.0 U	565
A68	Total Recoverable Metals	Surface Water	4/18/2017	12:55	406	10.0 U	5.00 U	1.80	38400	10.0 U	22.6	435	7.70	2710	1320	5.00 U	10.0 U	7190	5.00 U	370	10.0 U	598
A72	Total Recoverable Metals	Surface Water	4/18/2017	08:45	1390	10.0 U	5.00 U	1.63	45000	10.0 U	27.0	3120	10.6	3420	987	5.00 U	10.0 U	11400	5.00 U	446	10.0 U	557
CC21	Total Recoverable Metals	Surface Water	4/18/2017	14:10	4100	10.0 U	5.00 U	10.6	112000	10.0 U	209	11400	44.0	7670	6410	4.97 J	10.0 U	17000	5.00 U	1290	10.0 U	3790
CC48	Total Recoverable Metals	Surface Water	4/18/2017	13:20	3560	10.0 U	5.00 U	3.24	66100	10.0 U	70.1	10000	18.0	4790	2020	3.59 J	10.0 U	18200	5.00 U	767	10.0 U	1160
CC21 Dup	Total Recoverable Metals	Surface Water	4/18/2017	14:10	4020	10.0 U	5.00 U	10.5	110000	10.0 U	212	11500	38.6	7530	6430	5.49	10.0 U	17300	5.00 U	1280	10.0 U	3860
M34 Dup	Total Recoverable Metals	Surface Water	4/18/2017	09:10	1550	10.0 U	5.00 U	0.664 J	37700	10.0 U	11.2	2490	8.21	3230	209	5.00 U	10.0 U	11800	5.00 U	355	10.0 U	179
FB-01	Total Recoverable Metals	Surface Water	4/18/2017	09:30	50.0 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 U	250 U	5.00 U	5.00 U	10.0 U	1000 U	5.00 U	10.0 U	10.0 U	20.0 U
M14A	Total Recoverable Metals	Surface Water	4/18/2017	11:00	580	10.0 U	5.00 U	1.39	32200	10.0 U	19.0	416	22.1	2060	267	5.00 U	10.0 U	8130	5.00 U	478	10.0 U	429
M27	Total Recoverable Metals	Surface Water	4/18/2017	11:00	2350	10.0 U	5.00 U	1.15	38400	10.0 U	18.5	3690	13.6	3120	327	5.00 U	10.0 U	12300	5.00 U	448	10.0 U	281
M34	Total Recoverable Metals	Surface Water	4/18/2017	09:10	1520	10.0 U	5.00 U	0.655 J	37200	10.0 U	11.4	2430	8.01	3210	209	5.00 U	10.0 U	11800	5.00 U	354	10.0 U	177

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC21	Total Recoverable Metals	Surface Water	4/18/2017	14:10	4100	10.0 U	5.00 U	10.6	112000	10.0 U	209	11400	44.0	7670	6410	4.97	10.0 U	17000	5.00 U	1290	10.0 U	3790
CC21 Dup	Total Recoverable Metals	Surface Water	4/18/2017	14:10	4020	10.0 U	5.00 U	10.5	110000	10.0 U	212	11500	38.6	7530	6430	5.49	10.0 U	17300	5.00 U	1280	10.0 U	3860
				RPD	**1.97%**	N/A	N/A	**0.95%**	**1.80%**	N/A	**1.43%**	**0.87%**	**13.08%**	**1.84%**	**0.31%**	**9.94%**	N/A	**1.75%**	N/A	**0.78%**	N/A	**1.83%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M34	Total Recoverable Metals	Surface Water	4/18/2017	09:10	1520	10.0 U	5.00 U	0.655	37200	10.0 U	11.4	2430	8.01	3210	209	5.00 U	10.0 U	11800	5.00 U	354	10.0 U	177
M34 Dup	Total Recoverable Metals	Surface Water	4/18/2017	09:10	1550	10.0 U	5.00 U	0.664	37700	10.0 U	11.2	2490	8.21	3230	209	5.00 U	10.0 U	11800	5.00 U	355	10.0 U	179
				RPD	**1.95%**	N/A	N/A	**1.36%**	**1.34%**	N/A	**1.77%**	**2.44%**	**2.47%**	**0.62%**	**0.00%**	N/A	N/A	**0.00%**	N/A	**0.28%**	N/A	**1.12%**

Note: Removed flags from values for RPD calculation
Note: Data Qualifier Definitions Listed Below:
U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample

Table 9 Bonita Peak Mining District - Pre-runoff April 18, 2017
Surface Water Analytical Results - Wet Chemistry

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A55	Wet Chemistry	Surface Water	4/18/2017	17:05	2.0 U	0.4	2.0 U	69.9	26.7
A56	Wet Chemistry	Surface Water	4/18/2017	16:40	2.0 U	0.4	2.0 U	68.4	28.2
A58	Wet Chemistry	Surface Water	4/18/2017	16:00	2.0 U	0.2	2.0 U	41.7	38.3
A66	Wet Chemistry	Surface Water	4/18/2017	15:20	2.0 U	0.4	2.0 U	74.7	27.9
A68	Wet Chemistry	Surface Water	4/18/2017	12:55	2.0 U	0.5	2.0 U	76.7	28.1
A72	Wet Chemistry	Surface Water	4/18/2017	08:45	1.4 J	0.4	2.0 U	116	11.5
CC21	Wet Chemistry	Surface Water	4/18/2017	14:10	20.0 U	1.6 J	20.0 U	322	10.0 U
CC48	Wet Chemistry	Surface Water	4/18/2017	13:20	1.1 J	0.8	2.0 U	220	10.0 U
CC21 Dup	Wet Chemistry	Surface Water	4/18/2017	14:10	20.0 U	1.4 J	20.0 U	325	10.0 U
M34 Dup	Wet Chemistry	Surface Water	4/18/2017	09:10	2.3	0.3	2.0 U	91.9	13.1
FB-01	Wet Chemistry	Surface Water	4/18/2017	09:30	2.0 U	0.2 U	2.0 U	4.6 J	10.0 U
M14A	Wet Chemistry	Surface Water	4/18/2017	11:00	3.1	0.2	2.0 U	77.8	11.4
M27	Wet Chemistry	Surface Water	4/18/2017	11:00	2.6	0.3	2.0 U	113	10.0 U
M34	Wet Chemistry	Surface Water	4/18/2017	09:10	2.2	0.3	2.0 U	92.4	12.7

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
CC21	Wet Chemistry	Surface Water	4/18/2017	14:10	20.0 U	1.6	20.0 U	322	10.0 U
CC21 Dup	Wet Chemistry	Surface Water	4/18/2017	14:10	20.0 U	1.4	20.0 U	325	10.0 U
				RPD	N/A	**13.33%**	N/A	**0.93%**	N/A

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
M34	Wet Chemistry	Surface Water	4/18/2017	09:10	2.2	0.3	2.0 U	92.4	12.7
M34 Dup	Wet Chemistry	Surface Water	4/18/2017	09:10	2.3	0.3	2.0 U	91.9	13.1
				RPD	**4.44%**	**0.00%**	N/A	**0.54%**	**3.10%**

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 10 Bonita Peak Mining District - Pre-runoff May 2, 2017
Surface Water Analytical Results - Dissolved Metals

STATION_ID	ANALYSIS	MATRIX	SAMPDATE	SAMPLETIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A55	Dissolved Metals	Surface Water	5/2/2017	16:30	36.7 J	2.00 U	5.00 U	0.700	40700	1.39 J	4.48	112	250 U	0.244	2640	245	1.00 U	2.00 U	6590	1.00 U	387	2.00 U	300
A56	Dissolved Metals	Surface Water	5/2/2017	15:35	46.0 J	2.00 U	5.00 U	0.715	40300	1.53 J	4.30	111	250 U	0.286	2610	220	1.00 U	2.00 U	6860	1.00 U	387	2.00 U	266
A58	Dissolved Metals	Surface Water	5/2/2017	14:40	27.8 J	2.00 U	5.00 U	0.989	33600	2.35	6.04	91	250 U	1.70	1680	5.00 U	1.00 U	1.02 J	6020	1.00 U	465	2.00 U	130
A66	Dissolved Metals	Surface Water	5/2/2017	09:40	64.4	2.00 U	5.00 U	1.45	42500	1.37 J	6.03	117	192 J	0.155 J	2760	1280	1.00 U	2.00 U	7020	1.00 U	413	2.00 U	514
A68	Dissolved Metals	Surface Water	5/2/2017	09:05	61.0	2.00 U	5.00 U	1.58	41900	1.23 J	5.42	116	250 U	0.200 U	2750	1380	1.00 U	2.00 U	6980	1.00 U	412	2.00 U	527
A72	Dissolved Metals	Surface Water	5/2/2017	07:45	93.2	2.00 U	5.00 U	1.65	60500	2.00 U	6.85	169	2050	0.219	4280	1210	1.00 U	2.00 U	12600	1.00 U	613	2.00 U	559
CC21	Dissolved Metals	Surface Water	5/2/2017	13:35	2630	2.00 U	5.00 U	8.44	184000	2.00 U	104	500	7840	17.2	9940	8010	1.42	2.00 U	19400	1.00 U	2200	2.00 U	3810
CC48	Dissolved Metals	Surface Water	5/2/2017	12:40	4830	2.00 U	5.00 U	3.40	122000	2.00 U	48.9	336	8560	11.0	7360	3170	3.14	2.00 U	25700	1.00 U	1450	2.00 U	1530
CC48 Dup	Dissolved Metals	Surface Water	5/2/2017	12:40	4810	2.00 U	5.00 U	3.36	122000	2.00 U	49.3	334	8530	11.1	7320	3090	3.51	2.00 U	25200	1.00 U	1460	2.00 U	1500
M34 Dup	Dissolved Metals	Surface Water	5/2/2017	08:25	35.8 J	2.00 U	5.00 U	0.686	52800	2.00 U	3.55	150	2220	0.200 U	4450	310	1.00 U	2.00 U	12800	1.00 U	501	2.00 U	186
FB-01	Dissolved Metals	Surface Water	5/2/2017	16:00	50.0 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U
M14A	Dissolved Metals	Surface Water	5/2/2017	11:00	53.3	2.00 U	5.00 U	1.56	49200	2.00 U	7.22	134	250 U	1.11	2680	326	1.00 U	2.00 U	9700	1.00 U	734	2.00 U	479
M27	Dissolved Metals	Surface Water	5/2/2017	10:20	2980	0.553 J	5.00 U	1.46	70700	2.00 U	14.7	200	5070	4.55	5700	601	1.00 U	2.00 U	16600	1.00 U	781	2.00 U	351
M34	Dissolved Metals	Surface Water	5/2/2017	08:25	38.2 J	2.00 U	5.00 U	0.667	53200	2.00 U	3.40	151	2210	0.155 J	4480	310	1.00 U	2.00 U	12900	1.00 U	506	2.00 U	184

STATION_ID	ANALYSIS	MATRIX	SAMPDATE	SAMPLETIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC48	Dissolved Metals	Surface Water	5/2/2017	12:40	4830	2.00 U	5.00 U	3.40	122000	2.00 U	48.9	336	8560	11.0	7360	3170	3.14	2.00 U	25700	1.00 U	1450	2.00 U	1530
CC48 Dup	Dissolved Metals	Surface Water	5/2/2017	12:40	4810	2.00 U	5.00 U	3.36	122000	2.00 U	49.3	334	8530	11.1	7320	3090	3.51	2.00 U	25200	1.00 U	1460	2.00 U	1500
				RPD	**0.41%**	N/A	N/A	**1.18%**	**0.00%**	N/A	**0.81%**	**0.60%**	**0.35%**	**0.90%**	**0.54%**	**2.56%**	**11.13%**	N/A	**1.96%**	N/A	**0.69%**	N/A	**1.98%**

STATION_ID	ANALYSIS	MATRIX	SAMPDATE	SAMPLETIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M34	Dissolved Metals	Surface Water	5/2/2017	08:25	38.2	2.00 U	5.00 U	0.667	53200	2.00 U	3.40	151	2210	0.155	4480	310	1.00 U	2.00 U	12900	1.00 U	506	2.00 U	184
M34 Dup	Dissolved Metals	Surface Water	5/2/2017	08:25	35.8	2.00 U	5.00 U	0.686	52800	2.00 U	3.55	150	2220	0.200 U	4450	310	1.00 U	2.00 U	12800	1.00 U	501	2.00 U	186
				RPD	**6.49%**	N/A	N/A	**2.81%**	**0.75%**	N/A	**4.32%**	**0.66%**	**0.45%**	N/A	**0.67%**	**0.00%**	N/A	N/A	**0.78%**	N/A	**0.99%**	N/A	**1.08%**

Note: Removed flags from values for RPD calculation
Note: Data Qualifier Definitions Listed Below:
U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 11 Bonita Peak Mining District - Pre-runoff May 2, 2017
Surface Water Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPDATE	SAMPLETIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead*	Magnesium	Manganese	Molybdenum	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A55	Total Recoverable Metals	Surface Water	5/2/2017	16:30	77.6	10.0 U	5.00 U	0.587 J	41600	10.0 U	7.26	111 J+	1.50D	2710	254	5.00 U	5.00 U	10.0 U	6750	5.00 U	396	10.0 U	291
A56	Total Recoverable Metals	Surface Water	5/2/2017	15:35	90.4	10.0 U	5.00 U	0.562 J	42700	10.0 U	6.86	119 J+	2.10D	2800	234	5.00 U	5.00 U	10.0 U	7050	5.00 U	411	6.35 J	269
A58	Total Recoverable Metals	Surface Water	5/2/2017	14:40	58.2	10.0 U	5.00 U	1.05	34400	10.0 U	6.79	250 U	2.92D	1720	5.00 U	6.44	5.00 U	10.0 U	6080	5.00 U	479	6.81 J	126
A66	Total Recoverable Metals	Surface Water	5/2/2017	09:40	199	10.0 U	5.00 U	1.38	44600	10.0 U	13.6	377 J+	2.80D	2950	1300	5.00 U	5.00 U	10.0 U	7130	5.00 U	439	10.0 U	510
A68	Total Recoverable Metals	Surface Water	5/2/2017	09:05	198	10.0 U	5.00 U	1.40	43100	10.0 U	13.4	273 J+	2.61D	2840	1420	5.00 U	5.00 U	10.0 U	7150	5.00 U	429	10.0 U	532
A72	Total Recoverable Metals	Surface Water	5/2/2017	07:45	1600	10.0 U	5.00 U	1.46	62600	10.0 U	18.1	3020	4.88D	4450	1230	5.00 U	5.00 U	10.0 U	13100	5.00 U	636	10.0 U	552
CC21	Total Recoverable Metals	Surface Water	5/2/2017	13:35	3390	10.0 U	5.00 U	8.54	189000	10.0 U	123	9790	21.6D	10300	8390	5.00 U	3.45 J	10.0 U	20300	5.00 U	2270	10.0 U	3890
CC48	Total Recoverable Metals	Surface Water	5/2/2017	12:40	5030	4.63 J	5.00 U	3.23	123000	10.0 U	52.3	10200	12.4D	7420	3130	5.00 U	3.97 J	10.0 U	25600	5.00 U	1480	10.0 U	1450
CC48 Dup	Total Recoverable Metals	Surface Water	5/2/2017	12:40	5150	3.31 J	5.00 U	3.01	125000	10.0 U	54.3	10300	12.4D	7680	3170	5.00 U	3.89 J	10.0 U	25900	5.00 U	1500	10.0 U	1470
M34 Dup	Total Recoverable Metals	Surface Water	5/2/2017	08:25	2170	10.0 U	5.00 U	0.728 J	53400	10.0 U	62.8 J	3280	7.16D	4560	310	5.00 U	5.00 U	10.0 U	13700	5.00 U	518	10.0 U	185
FB-01	Total Recoverable Metals	Surface Water	5/2/2017	16:00	50.0 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	<0.500U	250 U	5.00 U	5.00 U	5.00 U	10.0 U	1000 U	5.00 U	10.0 U	10.0 U	20.0 U
M14A	Total Recoverable Metals	Surface Water	5/2/2017	11:00	444	10.0 U	5.00 U	1.40	51000	10.0 U	17.5	230 J+	15.6D	2840	335	5.00 U	5.00 U	10.0 U	10000	5.00 U	768	10.0 U	481
M27	Total Recoverable Metals	Surface Water	5/2/2017	10:20	4570	10.0 U	5.00 U	1.22	72100	10.0 U	18.2	6760	8.70D	5810	610	5.00 U	5.00 U	10.0 U	17200	5.00 U	796	10.0 U	338
M34	Total Recoverable Metals	Surface Water	5/2/2017	08:25	2220	10.0 U	5.00 U	0.686 J	55600	10.0 U	11.5 J	3380	4.15D	4660	318	5.00 U	5.00 U	10.0 U	13900	5.00 U	530	10.0 U	191

STATION_ID	ANALYSIS	MATRIX	SAMPDATE	SAMPLETIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead*	Magnesium	Manganese	Molybdenum	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC48	Total Recoverable Metals	Surface Water	5/2/2017	12:40	5030	4.63	5.00 U	3.23	123000	10.0 U	52.3	10200	12.4	7420	3130	5.00 U	3.97	10.0 U	25600	5.00 U	1480	10.0 U	1450
CC48 Dup	Total Recoverable Metals	Surface Water	5/2/2017	12:40	5150	3.31	5.00 U	3.01	125000	10.0 U	54.3	10300	12.4	7680	3170	5.00 U	3.89	10.0 U	25900	5.00 U	1500	10.0 U	1470
				RPD	**2.36%**	**33.25%**	N/A	**7.05%**	**1.61%**	N/A	**3.75%**	**0.98%**	**0.00%**	**3.44%**	**1.27%**	N/A	**2.04%**	N/A	**1.17%**	N/A	**1.34%**	N/A	**1.37%**

STATION_ID	ANALYSIS	MATRIX	SAMPDATE	SAMPLETIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead*	Magnesium	Manganese	Molybdenum	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M34	Total Recoverable Metals	Surface Water	5/2/2017	08:25	2220	10.0 U	5.00 U	0.686	55600	10.0 U	11.5	3380	4.15	4660	318	5.00 U	5.00 U	10.0 U	13900	5.00 U	530	10.0 U	191
M34 Dup	Total Recoverable Metals	Surface Water	5/2/2017	08:25	2170	10.0 U	5.00 U	0.728	53400	10.0 U	62.8	3280	7.16	4560	310	5.00 U	5.00 U	10.0 U	13700	5.00 U	518	10.0 U	185
				RPD	**2.28%**	N/A	N/A	**5.94%**	**4.04%**	N/A	**138.09%**	**3.00%**	**53.23%**	**2.17%**	**2.55%**	N/A	N/A	N/A	**1.45%**	N/A	**2.29%**	N/A	**3.19%**

*The Lead data has not been validated
Note: Removed flags from values for RPD calculation
Note: Data Qualifier Definitions Listed Below:
U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample

Table 12
Bonita Peak Mining District - Pre-runoff May 2, 2017 Surface Water Analytical Results - Wet Chemistry

STATION_ID	ANALYSIS	MATRIX	SAMPDATE	SAMPLETIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A55	Wet Chemistry	Surface Water	5/2/2017	16:30	2.0 U	0.4	2.0 U	89.8	30.6
A56	Wet Chemistry	Surface Water	5/2/2017	15:35	2.0 U	0.4	2.0 U	90.9	31.3
A58	Wet Chemistry	Surface Water	5/2/2017	14:40	2.0 U	0.2	2.0 U	53.7	44.7
A66	Wet Chemistry	Surface Water	5/2/2017	09:40	2.0 U	0.5	2.0 U	98.5	30.6
A68	Wet Chemistry	Surface Water	5/2/2017	09:05	2.0 U	0.5	2.0 U	100	30.6
A72	Wet Chemistry	Surface Water	5/2/2017	07:45	1.5 J	0.5	2.0 U	176	11.0
CC21	Wet Chemistry	Surface Water	5/2/2017	13:35	10.0 U	2.1	10.0 U	563	10.0 U
CC48	Wet Chemistry	Surface Water	5/2/2017	12:40	4.0 U	1.2	4.0 U	404	10.0 U
CC48 Dup	Wet Chemistry	Surface Water	5/2/2017	12:40	4.0 U	1.3	4.0 U	405	10.0 U
M34 Dup	Wet Chemistry	Surface Water	5/2/2017	08:25	1.6 J	0.3	2.0 U	159	9.76 J
FB-01	Wet Chemistry	Surface Water	5/2/2017	16:00	2.0 U	0.2 U	2.0 U	5.0 U	10.0 U
M14A	Wet Chemistry	Surface Water	5/2/2017	11:00	3.9	0.2	2.0 U	140	11.9
M27	Wet Chemistry	Surface Water	5/2/2017	10:20	2.8	0.6	2.0 U	242	10.0 U
M34	Wet Chemistry	Surface Water	5/2/2017	08:25	1.7 J	0.3	2.0 U	160	9.97 J

STATION_ID	ANALYSIS	MATRIX	SAMPDATE	SAMPLETIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
CC48	Wet Chemistry	Surface Water	5/2/2017	12:40	4.0 U	1.2	4.0 U	404	10.0 U
CC48 Dup	Wet Chemistry	Surface Water	5/2/2017	12:40	4.0 U	1.3	4.0 U	405	10.0 U
				RPD	N/A	**8.00%**	N/A	**0.25%**	N/A

STATION_ID	ANALYSIS	MATRIX	SAMPDATE	SAMPLETIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
M34	Wet Chemistry	Surface Water	5/2/2017	08:25	1.7	0.3	2.0 U	160	9.97
M34 Dup	Wet Chemistry	Surface Water	5/2/2017	08:25	1.6	0.3	2.0 U	159	9.76
				RPD	**6.06%**	**0.00%**	N/A	**0.63%**	**2.13%**

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below:

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 13 Bonita Peak Mining District - Pre-runoff May 15-17, 2017
Surface Water Analytical Results - Dissolved Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
KMMW-1	Dissolved Metals	Ground Water	5/17/2017	14:35	22.1 J	2.00 U	5.00 U	2.15	57500	1.17 J	4.48	158	250 U	0.404	3530	5.00 U	1.00 U	2.00 U	9380	1.00 U	595	2.00 U	286
KMMW-2	Dissolved Metals	Ground Water	5/17/2017	12:10	50.0 U	2.00 U	5.00 U	0.298	38400	1.56 J	0.931 J	107	250 U	0.556 J	2620	7.38	1.00 U	2.00 U	7160	1.00 U	433	2.00 U	37.8
KMMW-2 Dup	Dissolved Metals	Ground Water	5/17/2017	12:10	50.0 U	2.00 U	5.00 U	0.294	38200	1.59 J	0.904 J	106	250 U	0.200 UJ	2600	7.11	1.00 U	2.00 U	7160	1.00 U	439	2.00 U	40.7
KMMW-3	Dissolved Metals	Ground Water	5/17/2017	11:40	50.0 U	2.00 U	5.00 U	0.445	38800	1.72 J	4.98	108	250 U	0.124 J	2620	8.91	1.00 U	2.00 U	7240	1.00 U	437	2.00 U	63.3
KMMW-4	Dissolved Metals	Ground Water	5/17/2017	15:05	50.0 U	2.00 U	5.00 U	0.802	55400	1.28 J	10.8	152	250 U	0.176 J	3410	5.00 U	1.00 U	2.00 U	9150	1.00 U	577	2.00 U	122
A33	Dissolved Metals	Surface Water	5/17/2017	10:15	55.5	2.00 U	5.00 U	1.76	13200	2.00 U	19.4	38	250 U	1.12	1180	435	1.00 U	2.00 U	3970	1.00 U	67.0	2.00 U	457
A34	Dissolved Metals	Surface Water	5/17/2017	09:15	138	2.00 U	5.00 U	1.31	25100	2.00 U	12.5	70	250 U	0.762	1680	357	1.00 U	2.00 U	5610	1.00 U	248	2.00 U	466
A34 Dup	Dissolved Metals	Surface Water	5/17/2017	09:15	137	2.00 U	5.00 U	1.29	25300	2.00 U	12.4	70	250 U	0.575	1680	355	1.00 U	2.00 U	5590	1.00 U	248	2.00 U	461
A35	Dissolved Metals	Surface Water	5/17/2017	08:00	80.3	2.00 U	5.00 U	1.53	16500	2.00 U	17.6	47	250 U	1.12	1310	403	1.00 U	2.00 U	4420	1.00 U	118	2.00 U	459
A53AC	Dissolved Metals	Surface Water	5/16/2017	16:20	61.2	2.00 U	5.00 U	1.04	23300	2.00 U	10.5	65	250 U	0.942	1710	245	1.00 U	2.00 U	5490	1.00 U	201	2.00 U	387
A55	Dissolved Metals	Surface Water	5/16/2017	16:00	59.7	2.00 U	5.00 U	0.942	23000	2.00 U	8.82	64	250 U	0.852	1670	219	1.00 U	2.00 U	5240	1.00 U	200	2.00 U	326
A56	Dissolved Metals	Surface Water	5/16/2017	15:25	61.6	2.00 U	5.00 U	0.834	22700	1.04 J	8.42	63	250 U	0.864	1650	192	1.00 U	2.00 U	5320	1.00 U	203	2.00 U	288
A58	Dissolved Metals	Surface Water	5/16/2017	14:45	25.3 J	2.00 U	5.00 U	0.904	21800	1.35 J	7.46	59	250 U	2.08	1050	2.55 J	1.00 U	2.00 U	4910	1.00 U	276	2.00 U	131
A66	Dissolved Metals	Surface Water	5/16/2017	13:50	74.9	2.00 U	5.00 U	0.932	23100	2.00 U	8.87	65	108 J	1.22	1660	418	1.00 U	2.00 U	5410	1.00 U	211	2.00 U	308
A68	Dissolved Metals	Surface Water	5/15/2017	17:15	70.2	2.00 U	5.00 U	0.834	23200	2.00 U	8.54	65	250 U	1.02	1620	334	1.00 U	2.00 U	5450	1.00 U	210	2.00 U	282
A72	Dissolved Metals	Surface Water	5/15/2017	16:30	53.8	2.00 U	5.00 U	0.848	27300	2.00 U	6.00	77	475	1.73 J	2110	440	1.00 U	2.00 U	7980	1.00 U	257	2.00 U	273
A72 Dup	Dissolved Metals	Surface Water	5/15/2017	16:30	53.7	2.00 U	5.00 U	0.933	27000	2.00 U	6.41	76	489	0.308 J	2100	442	1.00 U	2.00 U	8010	1.00 U	254	2.00 U	276
CC03	Dissolved Metals	Surface Water	5/16/2017	14:00	1250	2.00 U	5.00 U	6.02	31500	2.00 U	112	89	2740	8.60	2580	2040 J	2.46	2.00 U	9700	1.00 U	295	2.00 U	2090
CC03C	Dissolved Metals	Surface Water	5/16/2017	12:00	3630	20.0 U	6.25	16.5	449000	20.0 U	6.90 J-	1230	98100	75.4	26000	32800 J	35.6	20.0 U	40100	10.0 U	4800	20.0 U	14300
CC03-DUP	Dissolved Metals	Surface Water	5/16/2017	14:00	1230	2.00 U	5.00 U	6.03	31000	2.00 U	114	88	2670	8.88	2520	1940 J	2.78	2.00 U	9210	1.00 U	289	2.00 U	2010
CC06	Dissolved Metals	Surface Water	5/16/2017	17:00	23900	12.0 J	4.87 J	66.2	353000	20.0 U	4910	963	58700	15.0	20000	19600 J	23.7	20.0 U	21600	10.0 U	5360	20.0 U	17100
CC07	Dissolved Metals	Surface Water	5/16/2017	13:00	6450	1.33 J	5.00 U	10.4	29300	1.91 J	691	99	17000	8.17	6320	2290 J	7.93	2.00 U	15200	1.00 U	205	2.00 U	2300
CC17	Dissolved Metals	Surface Water	5/16/2017	15:30	287	2.00 U	5.00 U	1.33	59300	2.00 U	15.0	162	1220	0.200 U	3440	375 J	1.00 U	2.00 U	12300	1.00 U	708	2.00 U	272
CC19	Dissolved Metals	Surface Water	5/16/2017	17:15	3560	20.0 U	3.33 J	1.97 J	337000	20.0 U	24.3	939	97600	1.63 J	23400	32900 J	37.7	20.0 U	29400	10.0 U	3880	20.0 U	14700
FB-01	Dissolved Metals	Surface Water	5/15/2017	17:20	50.0 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U
FB-02	Dissolved Metals	Surface Water	5/16/2017	16:25	50.0 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U
FB-03	Dissolved Metals	Surface Water	5/17/2017	17:00	50.0 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U
M07	Dissolved Metals	Surface Water	5/16/2017	12:30	79.0	2.00 U	5.00 U	0.893	11100	2.00 U	21.1	33	250 U	8.52	1310	95.2	1.00 U	2.00 U	3970	1.00 U	232	2.00 U	268
M10A	Dissolved Metals	Surface Water	5/16/2017	10:55	72.9	0.578 J	5.00 U	0.888	11600	2.00 U	20.7	34	250 U	7.75	1310	91.4	1.00 U	2.00 U	4070	1.00 U	241	2.00 U	270
M11	Dissolved Metals	Surface Water	5/16/2017	11:50	76.9	2.00 U	5.00 U	0.620	17900	2.00 U	14.1	50	250 U	5.23	1280	63.7	1.00 U	2.00 U	4740	1.00 U	303	2.00 U	195
M14A	Dissolved Metals	Surface Water	5/16/2017	09:50	171	2.00 U	5.00 U	0.800	20800	2.00 U	12.0	59	250 U	3.38	1630	163	1.00 U	2.00 U	6380	1.00 U	312	2.00 U	230
M27	Dissolved Metals	Surface Water	5/16/2017	08:50	79.1	2.00 U	5.00 U	0.655	24600	2.00 U	6.11	70	1170	0.559	2150	203	1.00 U	2.00 U	9480	1.00 U	285	2.00 U	165
M28	Dissolved Metals	Surface Water	5/16/2017	08:00	113	2.00 U	5.00 U	0.200 U	24700	1.05 J	0.849 J	70	130 J	0.200 U	1960	24.6	1.00 U	2.00 U	6930	1.00 U	170	2.00 U	13.5 J
M34	Dissolved Metals	Surface Water	5/15/2017	17:00	75.7	2.00 U	5.00 U	0.419	26200	2.00 U	5.09	75	326	0.333	2380	213	1.00 U	2.00 U	8930	1.00 U	212	2.00 U	84.8
T4	Dissolved Metals	Surface Water	5/16/2017	14:10	71.1	2.00 U	5.00 U	0.932	22600	2.00 U	8.90	63	250 U	0.869	1620	275	1.00 U	2.00 U	5330	1.00 U	204	2.00 U	289

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A34	Dissolved Metals	Surface Water	5/17/2017	09:15	138	2.00 U	5.00 U	1.31	25100	2.00 U	12.5	70	250 U	0.762	1680	357	1.00 U	2.00 U	5610	1.00 U	248	2.00 U	466
A34 Dup	Dissolved Metals	Surface Water	5/17/2017	09:15	137	2.00 U	5.00 U	1.29	25300	2.00 U	12.4	70	250 U	0.575	1680	355	1.00 U	2.00 U	5590	1.00 U	248	2.00 U	461
				RPD	**0.73%**	N/A	N/A	**1.54%**	**0.79%**	N/A	**0.80%**	**0.00%**	N/A	**27.97%**	**0.00%**	**0.56%**	N/A	N/A	**0.36%**	N/A	**0.00%**	N/A	**1.08%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A72	Dissolved Metals	Surface Water	5/15/2017	16:30	53.8	2.00 U	5.00 U	0.848	27300	2.00 U	6.00	77	475	1.73	2110	440	1.00 U	2.00 U	7980	1.00 U	257	2.00 U	273
A72 Dup	Dissolved Metals	Surface Water	5/15/2017	16:30	53.7	2.00 U	5.00 U	0.933	27000	2.00 U	6.41	76	489	0.308	2100	442	1.00 U	2.00 U	8010	1.00 U	254	2.00 U	276
				RPD	**0.19%**	N/A	N/A	**9.55%**	**1.10%**	N/A	**6.61%**	**1.31%**	N/A	**139.55%**	**0.48%**	**0.45%**	N/A	N/A	**0.38%**	N/A	**1.17%**	N/A	**1.09%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
KMMW-2	Dissolved Metals	Ground Water	5/17/2017	12:10	50.0 U	2.00 U	5.00 U	0.298	38400	1.56	0.931	107	250 U	0.556	2620	7.38	1.00 U	2.00 U	7160	1.00 U	433	2.00 U	37.8
KMMW-2 Dup	Dissolved Metals	Ground Water	5/17/2017	12:10	50.0 U	2.00 U	5.00 U	0.294	38200	1.59	0.904	106	250 U	0.200 UJ	2600	7.11	1.00 U	2.00 U	7160	1.00 U	439	2.00 U	40.7
				RPD	N/A	N/A	N/A	**1.35%**	**0.52%**	**1.90%**	**2.94%**	**0.94%**	N/A	N/A	**0.77%**	**3.73%**	N/A	N/A	**0.00%**	N/A	**1.38%**	N/A	**7.39%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC03	Dissolved Metals	Surface Water	5/16/2017	14:00	1250	2.00 U	5.00 U	6.02	31500	2.00 U	112	89	2740	8.60	2580	2040	2.46	2.00 U	9700	1.00 U	295	2.00 U	2090
CC03-DUP	Dissolved Metals	Surface Water	5/16/2017	14:00	1230	2.00 U	5.00 U	6.03	31000	2.00 U	114	88	2670	8.88	2520	1940	2.78	2.00 U	9210	1.00 U	289	2.00 U	2010
				RPD	**1.61%**	N/A	N/A	**0.17%**	**1.60%**	N/A	**1.77%**	**1.13%**	**2.59%**	**3.20%**	**2.35%**	**5.03%**	**12.21%**	N/A	**5.18%**	N/A	**2.05%**	N/A	**3.90%**

Note: Removed flags from values for RPD calculation
Note: Data Qualifier Definitions Listed Below:
U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 14 Bonita Peak Mining District - Pre-runoff May 15-17, 2017
Surface Water Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
KMMW-1	Total Recoverable Metals	Ground Water	5/17/2017	14:35	62.7	10.0 U	5.00 U	1.98	60200	10.0 U	5.83	250 U	1.25	3760	5.00 U	5.00 U	10.0 U	9270	5.00 U	649	10.0 U	283
KMMW-2	Total Recoverable Metals	Ground Water	5/17/2017	12:10	49.3 J	10.0 U	5.00 U	1.00 U	39800	10.0 U	5.00 U	250 U	1.09	2730	12.8	5.00 U	10.0 U	7110	5.00 U	472	10.0 U	41.6
KMMW-2 Dup	Total Recoverable Metals	Ground Water	5/17/2017	12:10	37.6 J	10.0 U	5.00 U	1.00 U	39000	10.0 U	5.00 U	250 U	1.08	2670	11.7	5.00 U	10.0 U	7070	5.00 U	465	10.0 U	41.8
KMMW-3	Total Recoverable Metals	Ground Water	5/17/2017	11:40	149	10.0 U	5.00 U	0.584 J	40200	10.0 U	8.94	180 J	2.94	2780	23.4	5.00 U	10.0 U	7670	5.00 U	476	7.90 J	69.6
KMMW-4	Total Recoverable Metals	Ground Water	5/17/2017	15:05	31.7 J	10.0 U	5.00 U	0.538 J	57300	10.0 U	10.3	250 U	0.837 J	3520	5.00 U	5.00 U	10.0 U	8910	5.00 U	621	10.0 U	82.6
A33	Total Recoverable Metals	Surface Water	5/17/2017	10:15	359	10.0 U	5.00 U	1.81	13500	10.0 U	32.4	152 J	3.60	1230	470	5.00 U	10.0 U	4130	5.00 U	70.8	10.0 U	470
A34	Total Recoverable Metals	Surface Water	5/17/2017	09:15	243	10.0 U	5.00 U	1.31	26000	10.0 U	18.0	242 J	2.49	1770	377	5.00 U	10.0 U	5650	5.00 U	264	6.85 J	471
A34 Dup	Total Recoverable Metals	Surface Water	5/17/2017	09:15	234	10.0 U	5.00 U	1.50	25900	10.0 U	16.3	197 J	2.20	1730	371	5.00 U	10.0 U	5580	5.00 U	264	10.0 U	463
A35	Total Recoverable Metals	Surface Water	5/17/2017	08:00	312	10.0 U	5.00 U	1.65	17000	10.0 U	28.3	177 J	3.25	1350	430	5.00 U	10.0 U	4440	5.00 U	126	7.53 J	466
A53AC	Total Recoverable Metals	Surface Water	5/16/2017	16:20	169	10.0 U	5.00 U	1.31	15400	10.0 U	17.0	250 U	6.39	1240	224	5.00 U	10.0 U	4180	5.00 U	136	10.0 U	311
A55	Total Recoverable Metals	Surface Water	5/16/2017	16:00	237	10.0 U	5.00 U	0.948 J	23000	10.0 U	15.3	182 J	5.72	1710	273	5.00 U	10.0 U	5420	5.00 U	211	10.0 U	344
A56	Total Recoverable Metals	Surface Water	5/16/2017	15:25	229	10.0 U	5.00 U	0.845 J	24100	10.0 U	13.8	165 J	5.68	1760	254	5.00 U	10.0 U	5610	5.00 U	220	10.0 U	326
A58	Total Recoverable Metals	Surface Water	5/16/2017	14:45	53.0	10.0 U	5.00 U	0.912 J	22800	10.0 U	8.92	250 U	4.73	1110	4.31 J	5.00 U	10.0 U	5000	5.00 U	301	10.0 U	133
A66	Total Recoverable Metals	Surface Water	5/16/2017	13:50	242	10.0 U	5.00 U	1.12	23800	10.0 U	14.4	263	6.59	1730	484	5.00 U	10.0 U	5530	5.00 U	224	10.0 U	335
A68	Total Recoverable Metals	Surface Water	5/15/2017	17:15	273	10.0 U	5.00 U	1.02	23500	10.0 U	15.3	255	7.50	1700	431	5.00 U	10.0 U	5690	5.00 U	224	10.0 U	317
A72	Total Recoverable Metals	Surface Water	5/15/2017	16:30	958	10.0 U	5.00 U	0.995 J	28100	10.0 U	19.7	2690	10.6	2230	511	5.00 U	10.0 U	8890	5.00 U	272	10.0 U	312
A72 Dup	Total Recoverable Metals	Surface Water	5/15/2017	16:30	878	10.0 U	5.00 U	1.11	27300	10.0 U	21.1	2580	10.7	2180	494	5.00 U	10.0 U	8420	5.00 U	267	10.0 U	308
CC03	Total Recoverable Metals	Surface Water	5/16/2017	14:00	1410	10.0 U	5.00 U	5.71	32400	10.0 U	118	3700	12.5	2700	2050 J	2.62 J	10.0 U	9850	5.00 U	316	7.54 J	2020
CC03C	Total Recoverable Metals	Surface Water	5/16/2017	12:00	3690	20.0 U	6.30	16.1	456000	20.0 U	7.38 J-	100000	114	26300	33000 J	35.1	20.0 U	40300	10.0 U	5100	20.0 U	14300
CC03-DUP	Total Recoverable Metals	Surface Water	5/16/2017	14:00	1390	10.0 U	5.00 U	6.02	31900	10.0 U	118	3350	12.4	2650	2050 J	2.61 J	10.0 U	9840	5.00 U	311	10.0 U	2000
CC06	Total Recoverable Metals	Surface Water	5/16/2017	17:00	24400	58.5	4.98 J	64.3	355000	20.0 U	5030	97000	20.8	20300	19800 J	24.5	20.0 U	21700	10.0 U	5610	20.0 U	17100
CC07	Total Recoverable Metals	Surface Water	5/16/2017	13:00	6460	10.0 U	5.00 U	10.9	29100	10.0 U	706	16800	9.33	6290	2280 J	8.26	10.0 U	14800	5.00 U	212	10.0 U	2210
CC17	Total Recoverable Metals	Surface Water	5/16/2017	15:30	1160	10.0 U	5.00 U	1.20	60500	10.0 U	26.3	3340	2.46	3470	383 J	5.00 U	10.0 U	12400	5.00 U	748	10.0 U	272
CC19	Total Recoverable Metals	Surface Water	5/16/2017	17:15	3530	20.0 U	3.30 J	2.16	322000	20.0 U	23.3	94300	3.09	22600	32000 J	33.7	20.0 U	28000	10.0 U	3820	20.0 U	14100
FB-01	Total Recoverable Metals	Surface Water	5/15/2017	17:20	50.0 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 U	250 U	5.00 U	5.00 U	10.0 U	1000 U	5.00 U	10.0 U	10.0 U	20.0 U
FB-02	Total Recoverable Metals	Surface Water	5/16/2017	16:25	50.0 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 U	250 U	5.00 U	5.00 U	10.0 U	1000 U	5.00 U	10.0 U	10.0 U	20.0 U
FB-03	Total Recoverable Metals	Surface Water	5/17/2017	17:00	50.0 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 U	250 U	5.00 U	5.00 U	10.0 U	1000 U	5.00 U	10.0 U	10.0 U	20.0 U
M07	Total Recoverable Metals	Surface Water	5/16/2017	12:30	350	3.12 J	5.00 U	1.01	11400	10.0 U	30.7	601	26.5	1400	108	5.00 U	10.0 U	4680	5.00 U	253	10.0 U	284
M10A	Total Recoverable Metals	Surface Water	5/16/2017	10:55	315	10.0 U	5.00 U	0.880 J	12100	10.0 U	30.8	564	27.4	1400	104	5.00 U	10.0 U	4650	5.00 U	267	10.0 U	285
M11	Total Recoverable Metals	Surface Water	5/16/2017	11:50	270	10.0 U	5.00 U	0.696 J	18500	10.0 U	27.4	436	57.8	1320	83.3	5.00 U	10.0 U	5020	5.00 U	329	10.0 U	226
M14A	Total Recoverable Metals	Surface Water	5/16/2017	09:50	436	10.0 U	5.00 U	0.899 J	20600	10.0 U	18.7	418	15.1	1620	175	5.00 U	10.0 U	6560	5.00 U	323	10.0 U	239
M27	Total Recoverable Metals	Surface Water	5/16/2017	08:50	1530	10.0 U	5.00 U	0.692 J	25400	10.0 U	16.5	2950	11.3	2240	223	5.00 U	10.0 U	10200	5.00 U	309	10.0 U	174
M28	Total Recoverable Metals	Surface Water	5/16/2017	08:00	546	10.0 U	5.00 U	1.00 U	25900	10.0 U	5.00 U	364	0.867 J	2090	37.3	5.00 U	10.0 U	7260	5.00 U	186	10.0 U	22.6
M34	Total Recoverable Metals	Surface Water	5/15/2017	17:00	1040	10.0 U	5.00 U	0.524 J	26300	10.0 U	18.7	2070	6.13	2440	223	5.00 U	10.0 U	9360	5.00 U	225	10.0 U	107
T4	Total Recoverable Metals	Surface Water	5/16/2017	14:10	243	10.0 U	5.00 U	1.01	23300	10.0 U	13.6	183 J	5.93	1690	337	5.00 U	10.0 U	5510	5.00 U	219	10.0 U	320

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A34	Total Recoverable Metals	Surface Water	5/17/2017	09:15	243	10.0 U	5.00 U	1.31	26000	10.0 U	18.0	242	2.49	1770	377	5.00 U	10.0 U	5650	5.00 U	264	6.85	471
A34 Dup	Total Recoverable Metals	Surface Water	5/17/2017	09:15	234	10.0 U	5.00 U	1.50	25900	10.0 U	16.3	197	2.20	1730	371	5.00 U	10.0 U	5580	5.00 U	264	10.0 U	463
				RPD	**3.77%**	N/A	N/A	**13.52%**	**0.39%**	N/A	**9.91%**	**20.50%**	**12.37%**	**2.29%**	**1.60%**	N/A	N/A	**1.25%**	N/A	**0.00%**	N/A	**1.71%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A72	Total Recoverable Metals	Surface Water	5/15/2017	16:30	958	10.0 U	5.00 U	0.995	28100	10.0 U	19.7	2690	10.6	2230	511	5.00 U	10.0 U	8890	5.00 U	272	10.0 U	312
A72 Dup	Total Recoverable Metals	Surface Water	5/15/2017	16:30	878	10.0 U	5.00 U	1.11	27300	10.0 U	21.1	2580	10.7	2180	494	5.00 U	10.0 U	8420	5.00 U	267	10.0 U	308
				RPD	**8.71%**	N/A	N/A	**10.93%**	**2.89%**	N/A	**6.86%**	**4.17%**	**0.94%**	**2.27%**	**3.38%**	N/A	N/A	**5.43%**	N/A	**1.86%**	N/A	**1.29%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
KMMW-2	Total Recoverable Metals	Ground Water	5/17/2017	12:10	49.3	10.0 U	5.00 U	1.00 U	39800	10.0 U	5.00 U	250 U	1.09	2730	12.8	5.00 U	10.0 U	7110	5.00 U	472	10.0 U	41.6
KMMW-2 Dup	Total Recoverable Metals	Ground Water	5/17/2017	12:10	37.6	10.0 U	5.00 U	1.00 U	39000	10.0 U	5.00 U	250 U	1.08	2670	11.7	5.00 U	10.0 U	7070	5.00 U	465	10.0 U	41.8
				RPD	**26.93%**	N/A	N/A	N/A	**2.03%**	N/A	N/A	N/A	**0.92%**	**2.22%**	**8.98%**	N/A	N/A	**0.56%**	N/A	**1.49%**	N/A	**0.48%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC03	Total Recoverable Metals	Surface Water	5/16/2017	14:00	1410	10.0 U	5.00 U	5.71	32400	10.0 U	118	3700	12.5	2700	2050	2.62	10.0 U	9850	5.00 U	316	7.54	2020
CC03-DUP	Total Recoverable Metals	Surface Water	5/16/2017	14:00	1390	10.0 U	5.00 U	6.02	31900	10.0 U	118	3350	12.4	2650	2050	2.61	10.0 U	9840	5.00 U	311	10.0 U	2000
				RPD	**1.43%**	N/A	N/A	**5.29%**	**1.56%**	N/A	**0.00%**	**9.93%**	**0.80%**	**1.87%**	**0.00%**	**0.38%**	N/A	**0.10%**	N/A	**1.59%**	N/A	**1.00%**

Note: Removed flags from values for RPD calculation
Note: Data Qualifier Definitions Listed Below:
U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 15 Bonita Peak Mining District - Pre-runoff May 15-17, 2017
Surface Water Analytical Results - Wet Chemistry

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
KMMW-1	Wet Chemistry	Ground Water	5/17/2017	14:35	4.2	0.3	2.0 U	136	31.2
KMMW-2	Wet Chemistry	Ground Water	5/17/2017	12:10	1.1 J	0.2	2.0 U	72.9	42.0
KMMW-2 Dup	Wet Chemistry	Ground Water	5/17/2017	12:10	1.0 J	0.2	2.0 U	72.7	41.6
KMMW-3	Wet Chemistry	Ground Water	5/17/2017	11:40	1.0 J	0.2	2.0 U	74.5	42.6
KMMW-4	Wet Chemistry	Ground Water	5/17/2017	15:05	7.0	0.2	2.0 U	124	32.9
A33	Wet Chemistry	Surface Water	5/17/2017	10:15	2.0 U	0.2	2.0 U	26.7	14.2
A34	Wet Chemistry	Surface Water	5/17/2017	09:15	2.0 U	0.3	2.0 U	56.6	18.2
A34 Dup	Wet Chemistry	Surface Water	5/17/2017	09:15	2.0 U	0.3	2.0 U	56.8	17.7
A35	Wet Chemistry	Surface Water	5/17/2017	08:00	2.0 U	0.3	2.0 U	35.0	15.6
A53AC	Wet Chemistry	Surface Water	5/16/2017	16:20	2.0 U	0.4	2.0 U	48.0	21.1
A55	Wet Chemistry	Surface Water	5/16/2017	16:00	2.0 U	0.3	2.0 U	43.3	24.6
A56	Wet Chemistry	Surface Water	5/16/2017	15:25	2.0 U	0.3	2.0 U	42.4	26.2
A58	Wet Chemistry	Surface Water	5/16/2017	14:45	2.0 U	0.2	2.0 U	28.4	35.1
A66	Wet Chemistry	Surface Water	5/16/2017	13:50	2.0 U	0.3	2.0 U	43.1	24.9
A68	Wet Chemistry	Surface Water	5/15/2017	17:15	2.0 U	0.3	2.0 U	42.5	25.5
A72	Wet Chemistry	Surface Water	5/15/2017	16:30	1.1 J	0.3	2.0 U	65.7	15.2
A72 Dup	Wet Chemistry	Surface Water	5/15/2017	16:30	2.0 U	0.3	2.0 U	66.2	15.6
CC03	Wet Chemistry	Surface Water	5/16/2017	14:00	2.0 U	0.6	2.0 U	108	10.0 UJ
CC03C	Wet Chemistry	Surface Water	5/16/2017	12:00	20.0 U	5.7	20.0 U	1450	19.7 J
CC03-DUP	Wet Chemistry	Surface Water	5/16/2017	14:00	2.0 U	0.6	2.0 U	109	10.0 UJ
CC06	Wet Chemistry	Surface Water	5/16/2017	17:00	20.0 U	6.3	20.0 U	1320	10.0 UJ
CC07	Wet Chemistry	Surface Water	5/16/2017	13:00	2.0 U	0.8	2.0 U	219	10.0 UJ
CC17	Wet Chemistry	Surface Water	5/16/2017	15:30	2.0 U	0.7	2.0 U	170	10.0 UJ
CC19	Wet Chemistry	Surface Water	5/16/2017	17:15	20.0 U	2.7	20.0 U	1230	10.0 UJ
FB-01	Wet Chemistry	Surface Water	5/15/2017	17:20	2.0 U	0.2 U	2.0 U	5.0 U	10.0 U
FB-02	Wet Chemistry	Surface Water	5/16/2017	16:25	2.0 U	0.2 U	2.0 U	5.0 U	10.0 U
FB-03	Wet Chemistry	Surface Water	5/17/2017	17:00	2.0 U	0.2 U	2.0 U	5.0 U	10.0 U
M07	Wet Chemistry	Surface Water	5/16/2017	12:30	1.3 J	0.2 U	2.0 U	23.2	14.0
M10A	Wet Chemistry	Surface Water	5/16/2017	10:55	1.3 J	0.2 U	2.0 U	24.7	14.1
M11	Wet Chemistry	Surface Water	5/16/2017	11:50	1.3 J	0.1 J	2.0 U	39.3	15.2
M14A	Wet Chemistry	Surface Water	5/16/2017	09:50	1.4 J	0.1 J	2.0 U	51.9	12.2
M27	Wet Chemistry	Surface Water	5/16/2017	08:50	1.3 J	0.2	2.0 U	76.0	10.0 U
M28	Wet Chemistry	Surface Water	5/16/2017	08:00	2.0 U	0.1 J	2.0 U	41.4	34.1
M34	Wet Chemistry	Surface Water	5/15/2017	17:00	1.7 J	0.3	2.0 U	65.0	18.6
T4	Wet Chemistry	Surface Water	5/16/2017	14:10	2.0 U	0.3	2.0 U	41.5	26.2

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A34	Wet Chemistry	Surface Water	5/17/2017	09:15	2.0 U	0.3	2.0 U	56.6	18.2
A34 Dup	Wet Chemistry	Surface Water	5/17/2017	09:15	2.0 U	0.3	2.0 U	56.8	17.7
				RPD	N/A	**0.00%**	N/A	**0.35%**	**2.79%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A72	Wet Chemistry	Surface Water	5/15/2017	16:30	1.1 J	0.3	2.0 U	65.7	15.2
A72 Dup	Wet Chemistry	Surface Water	5/15/2017	16:30	2.0 U	0.3	2.0 U	66.2	15.6
				RPD	N/A	**0.00%**	N/A	**0.76%**	**2.60%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
KMMW-2	Wet Chemistry	Ground Water	5/17/2017	12:10	1.1	0.2	2.0 U	72.9	42.0
KMMW-2 Dup	Wet Chemistry	Ground Water	5/17/2017	12:10	1	0.2	2.0 U	72.7	41.6
				RPD	**9.52%**	**0.00%**	N/A	**0.27%**	**0.96%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
CC03	Wet Chemistry	Surface Water	5/16/2017	14:00	2.0 U	0.6	2.0 U	108	10.0 UJ
CC03-DUP	Wet Chemistry	Surface Water	5/16/2017	14:00	2.0 U	0.6	2.0 U	109	10.0 UJ
				RPD	N/A	**0.00%**	N/A	**0.92%**	N/A

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below:

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 16 Bonita Peak Mining District - High Flow June 6-7, 2017
Animas Surface Water Analytical Results - Dissolved Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A05	Dissolved Metals	Surface Water	6/7/2017	15:25	67.3	1.00 U	2.00 U	5.00 U	1.48	7700	2.00 U	2.13	23	250 U	0.586	922	64.6	1.00 U	2.00 U	2890	1.00 U	27.5	2.00 U	218
A09	Dissolved Metals	Surface Water	6/7/2017	14:45	26.0 J	1.00 U	2.00 U	5.00 U	2.47	6790	2.00 U	5.30	21	250 U	0.982	965	360	0.657 J	2.00 U	3030	1.00 U	21.6	2.00 U	417
A10	Dissolved Metals	Surface Water	6/7/2017	14:25	469	1.00 U	2.00 U	5.00 U	2.58	9840	2.00 U	13.1	31	250 U	2.66	1470	2490	1.50	2.00 U	3990	1.00 U	40.8	2.00 U	828
A11	Dissolved Metals	Surface Water	6/7/2017	16:05	517	1.00 U	2.00 U	5.00 U	2.30	9480	2.00 U	9.91	30	250 U	2.60	1410	2450	1.46	2.00 U	3830	1.00 U	38.8	2.00 U	743
A13	Dissolved Metals	Surface Water	6/7/2017	16:40	653	1.00 U	2.00 U	5.00 U	2.35	9520	2.00 U	10.5	30	250 U	2.53	1470	2650	1.56	2.00 U	3920	1.00 U	39.7	2.00 U	756
A14	Dissolved Metals	Surface Water	6/7/2017	14:00	250	1.00 U	2.00 U	5.00 U	2.72	8730	2.00 U	9.54	27	250 U	1.88	1270	1680	1.16	2.00 U	3670	1.00 U	33.8	2.00 U	682
A28	Dissolved Metals	Surface Water	6/7/2017	13:17	56.5	1.00 U	2.00 U	5.00 U	1.73	11200	2.00 U	5.39	33	250 U	0.824	1210	983	1.00 U	2.00 U	3410	1.00 U	52.1	2.00 U	420
A30	Dissolved Metals	Surface Water	6/7/2017	13:35	57.9	1.00 U	2.00 U	5.00 U	1.72	11300	2.00 U	8.35	33	250 U	0.549	1220	967	1.00 U	2.00 U	3370	1.00 U	52.4	2.00 U	420
A30A	Dissolved Metals	Surface Water	6/7/2017	13:15	60.0	1.00 U	2.00 U	5.00 U	1.63	11600	2.00 U	9.08	34	250 U	0.641	1300	934	1.00 U	2.00 U	3460	1.00 U	55.9	2.00 U	414
A30B	Dissolved Metals	Surface Water	6/7/2017	12:50	57.0	1.00 U	2.00 U	5.00 U	1.68	11800	2.00 U	8.34	35	250 U	0.623	1250	925	1.00 U	2.00 U	3490	1.00 U	56.8	2.00 U	412
A31	Dissolved Metals	Surface Water	6/7/2017	11:40	51.4	1.00 U	2.00 U	5.00 U	1.68	12100	2.00 U	8.19	35	250 U	0.684	1260	891	1.00 U	2.00 U	3500	1.00 U	59.3	2.00 U	412
A33	Dissolved Metals	Surface Water	6/7/2017	11:20	56.0	1.00 U	2.00 U	5.00 U	1.74	12200	2.00 U	8.10	36	250 U	0.798	1280	873	1.00 U	2.00 U	3500	1.00 U	59.2	2.00 U	413
A34	Dissolved Metals	Surface Water	6/7/2017	10:40	80.4	1.00 U	2.00 U	5.00 U	1.20	19500	2.00 U	7.45	54	250 U	0.357	1420	331	1.00 U	2.00 U	4380	1.00 U	184	2.00 U	386
A35	Dissolved Metals	Surface Water	6/7/2017	11:00	56.6	1.00 U	2.00 U	5.00 U	1.57	13800	2.00 U	7.85	40	250 U	0.571	1290	722	1.00 U	2.00 U	3710	1.00 U	89.1	2.00 U	401
A40	Dissolved Metals	Surface Water	6/7/2017	11:32	54.5	1.00 U	2.00 U	5.00 U	1.58	17100	2.00 U	8.65	49	250 U	1.33	1450	577	1.00 U	2.00 U	4540	1.00 U	120	2.00 U	456
A40A	Dissolved Metals	Surface Water	6/7/2017	12:05	51.9	1.00 U	2.00 U	5.00 U	1.49	15000	2.00 U	6.98	43	250 U	0.626	1350	620	1.00 U	2.00 U	3850	1.00 U	103	2.00 U	384
A41A	Dissolved Metals	Surface Water	6/7/2017	11:22	52.3	1.00 U	2.00 U	5.00 U	0.788	16200	1.09 J	5.10	46	250 U	0.728	1400	287	1.00 U	2.00 U	4920	1.00 U	163	2.00 U	241
A45	Dissolved Metals	Surface Water	6/7/2017	10:13	44.5 J	1.00 U	2.00 U	5.00 U	1.07	18700	2.00 U	5.90	53	250 U	0.691	1520	358	1.00 U	2.00 U	4800	1.00 U	155	2.00 U	364
A47	Dissolved Metals	Surface Water	6/6/2017	14:06	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	17200	1.28 J	0.929 J	46	250 U	0.200 U	832	5.00 U	1.00 U	2.00 U	3620	1.00 U	162	2.00 U	20.0 U
A48	Dissolved Metals	Surface Water	6/6/2017	15:50	29.4 J	1.00 U	2.00 U	5.00 U	0.200 U	15400	1.40 J	1.67	44	250 U	0.438	1270	3.30 J	1.00 U	2.00 U	3560	1.00 U	153	2.00 U	15.5 J
A54	Dissolved Metals	Surface Water	6/7/2017	08:31	107	1.00 U	2.00 U	5.00 U	2.12	90000	2.00 U	2.00	251	3580	0.145 J	6380	1320	0.887 J	2.00 U	21800	1.00 U	744	2.00 U	702
A55	Dissolved Metals	Surface Water	6/6/2017	13:46	44.8 J	1.00 U	2.00 U	5.00 U	0.967	18400	2.00 U	4.91	52	250 U	0.587	1470	299	1.00 U	2.00 U	4700	1.00 U	160	2.00 U	311
A55a	Dissolved Metals	Surface Water	6/6/2017	13:19	41.4 J	1.00 U	2.00 U	5.00 U	0.908	18200	1.05 J	4.52	51	250 U	0.599	1430	268	1.00 U	2.00 U	4670	1.00 U	160	2.00 U	279
A56	Dissolved Metals	Surface Water	6/6/2017	12:45	43.9 J	1.00 U	2.00 U	5.00 U	0.874	18100	2.00 U	4.38	51	250 U	0.624	1470	256	1.00 U	2.00 U	4640	1.00 U	161	2.00 U	271
A58	Dissolved Metals	Surface Water	6/6/2017	11:57	50.0 U	1.00 U	2.00 U	5.00 U	0.744	16900	1.41 J	6.75	46	250 U	1.55	831	2.21 J	1.00 U	2.00 U	3550	1.00 U	207	2.00 U	116
A60	Dissolved Metals	Surface Water	6/6/2017	11:32	43.9 J	1.00 U	2.00 U	5.00 U	0.852	18000	2.00 U	4.54	51	250 U	0.658	1450	248	1.00 U	2.00 U	4460	1.00 U	159	2.00 U	266
A61	Dissolved Metals	Surface Water	6/6/2017	11:10	72.6	1.00 U	2.00 U	5.00 U	1.19	18200	1.08 J	7.34	51	250 U	0.661	1440	525	1.00 U	2.00 U	4510	1.00 U	163	2.00 U	339
A65	Dissolved Metals	Surface Water	6/6/2017	10:19	45.0 J	1.00 U	2.00 U	5.00 U	0.899	18000	1.05 J	5.10	51	250 U	0.724	1390	284	1.00 U	2.00 U	4470	1.00 U	160	2.00 U	272
A66	Dissolved Metals	Surface Water	6/6/2017	09:56	48.2 J	1.00 U	2.00 U	5.00 U	0.842	18200	1.08 J	4.99	51	250 U	0.667	1420	337	1.00 U	2.00 U	4490	1.00 U	162	2.00 U	279
A68	Dissolved Metals	Surface Water	6/6/2017	09:28	44.4 J	1.00 U	2.00 U	5.00 U	0.813	17500	2.00 U	4.49	49	250 U	0.654	1340	276	1.00 U	2.00 U	4480	1.00 U	157	2.00 U	263
A72	Dissolved Metals	Surface Water	6/6/2017	08:41	96.0	1.00 U	2.00 U	5.00 U	0.768	23200	2.00 U	5.61	65	279	1.70	1840	294	1.00 U	2.00 U	6020	1.00 U	176	2.00 U	210
Bakers Bridge	Dissolved Metals	Surface Water	6/8/2017	09:00	85.5	1.00 U	2.00 U	5.00 U	0.241	16200	2.00 U	2.87	49	250 U	0.460	2080	120	1.00 U	2.00 U	4690	1.00 U	112	2.00 U	66.4
CG01	Dissolved Metals	Surface Water	6/6/2017	14:50	1340	1.00 U	2.00 U	5.00 U	17.5	97200	2.00 U	49.3	298	6830	38.5	13500	26100	6.58	1.07 J	16800	1.00 U	656	2.00 U	11400
CG02	Dissolved Metals	Surface Water	6/6/2017	14:35	1230	1.00 U	2.00 U	5.00 U	18.8	98700	2.00 U	51.9	301	7000	32.2	13200	24900	7.07	1.32 J	16200	1.00 U	686	2.00 U	11300
CG11	Dissolved Metals	Surface Water	6/7/2017	15:10	453	1.00 U	2.00 U	5.00 U	2.29	9790	2.00 U	9.38	30	250 U	2.16	1440	2490	1.57	2.00 U	4020	1.00 U	40.2	2.00 U	757
CG9	Dissolved Metals	Surface Water	6/7/2017	16:15	571	1.00 U	2.00 U	5.00 U	2.25	9920	2.00 U	9.71	31	250 U	2.58	1500	2600	1.61	2.00 U	4000	1.00 U	41.2	2.00 U	778
CU4	Dissolved Metals	Surface Water	6/6/2017	16:15	29.9 J	1.00 U	2.00 U	5.00 U	0.200 U	11700	1.12 J	0.809 J	34	250 U	0.253	1160	2.76 J	1.00 U	2.00 U	3090	1.00 U	122	2.00 U	20.0 U
CU4a	Dissolved Metals	Surface Water	6/6/2017	16:44	29.6 J	1.00 U	2.00 U	5.00 U	0.200 U	11900	1.13 J	1.46	35	250 U	0.422	1150	3.52 J	1.00 U	2.00 U	3120	1.00 U	124	2.00 U	16.3 J
DM56	Dissolved Metals	Surface Water	6/7/2017	09:11	2570	1.00 U	2.00 U	5.00 U	44.8	52300	2.00 U	1260	159	2260	122	6820	1220	5.44	1.05 J	24900	1.00 U	276	2.00 U	7770
LA3	Dissolved Metals	Surface Water	6/7/2017	10:41	46.2 J	1.00 U	2.00 U	5.00 U	0.926	16800	2.00 U	4.79 J+	48	250 U	0.603	1430	300	1.00 U	2.00 U	4480	1.00 U	140	2.00 U	280
T4	Dissolved Metals	Surface Water	6/6/2017	10:43	46.8 J	1.00 U	2.00 U	5.00 U	0.882	18100	2.00 U	4.94 J+	51	250 U	0.638	1390	277	1.00 U	2.00 U	4520	1.00 U	147	2.00 U	269
A68 Dup	Dissolved Metals	Surface Water	6/6/2017	09:28	42.9 J	1.00 U	2.00 U	5.00 U	0.850	17600	2.00 U	4.68 J+	50	250 U	0.651	1370	276	1.00 U	2.00 U	4440	1.00 U	153	2.00 U	259
LA3 Dup	Dissolved Metals	Surface Water	6/7/2017	10:41	43.1 J	1.00 U	2.00 U	5.00 U	0.928	16600	2.00 U	4.81 J+	47	250 U	0.600	1450	298	1.00 U	2.00 U	4450	1.00 U	141	2.00 U	281
CG9 Dup	Dissolved Metals	Surface Water	6/7/2017	16:50	548	1.00 U	2.00 U	5.00 U	2.29	9780	2.00 U	9.46	30	250 U	2.63	1460	2600	1.46	2.00 U	3990	1.00 U	40.1	2.00 U	772
FB-06	Dissolved Metals	Water	6/6/2017	18:05	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U
FB-07	Dissolved Metals	Water	6/7/2017	16:40	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U
FB-08	Dissolved Metals	Water	6/7/2017	16:35	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A68	Dissolved Metals	Surface Water	6/6/2017	09:28	44.4	1.00 U	2.00 U	5.00 U	0.813	17500	2.00 U	4.49	49	250 U	0.654	1340	276	1.00 U	2.00 U	4480	1.00 U	157	2.00 U	263
A68 Dup	Dissolved Metals	Surface Water	6/6/2017	09:28	42.9	1.00 U	2.00 U	5.00 U	0.850	17600	2.00 U	4.68	50	250 U	0.651	1370	276	1.00 U	2.00 U	4440	1.00 U	153	2.00 U	259
			RPD		**3.44%**	N/A	N/A	N/A	**4.45%**	**0.57%**	N/A	**4.14%**	**2.02%**	N/A	**0.46%**	**2.21%**	**0.00%**	N/A	N/A	**0.90%**	N/A	**2.58%**	N/A	**1.53%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
LA3	Dissolved Metals	Surface Water	6/7/2017	10:41	46.2	1.00 U	2.00 U	5.00 U	0.926	16800	2.00 U	4.79	48	250 U	0.603	1430	300	1.00 U	2.00 U	4480	1.00 U	140	2.00 U	280
LA3 Dup	Dissolved Metals	Surface Water	6/7/2017	10:41	43.1	1.00 U	2.00 U	5.00 U	0.928	16600	2.00 U	4.81	47	250 U	0.600	1450	298	1.00 U	2.00 U	4450	1.00 U	141	2.00 U	281
			RPD		**6.94%**	N/A	N/A	N/A	**0.22%**	**1.20%**	N/A	**0.42%**	**2.11%**	N/A	**0.50%**	**1.39%**	**0.67%**	N/A	N/A	**0.67%**	N/A	**0.71%**	N/A	**0.36%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CG9	Dissolved Metals	Surface Water	6/7/2017	16:15	571	1.00 U	2.00 U	5.00 U	2.25	9920	2.00 U	9.71	31	250 U	2.58	1500	2600	1.61	2.00 U	4000	1.00 U	41.2	2.00 U	778
CG9 Dup	Dissolved Metals	Surface Water	6/7/2017	16:50	548	1.00 U	2.00 U	5.00 U	2.29	9780	2.00 U	9.46	30	250 U	2.63	1460	2600	1.46	2.00 U	3990	1.00 U	40.1	2.00 U	772
			RPD		**4.11%**	N/A	N/A	N/A	**1.76%**	**1.42%**	N/A	**2.61%**	**3.28%**	N/A	**1.92%**	**2.70%**	**0.00%**	**9.77%**	N/A	**0.25%**	N/A	**2.71%**	N/A	**0.77%**

Note: Removed flags from values for RPD calculation
Note: Data Qualifier Definitions Listed Below:
U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 17 Bonita Peak Mining District - High Flow June 6-7, 2017
Cement Creek Surface Water Analytical Results - Dissolved Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC03	Dissolved Metals	Surface Water	6/6/2017	10:55	884	1.00 U	2.00 U	5.00 U	4.18	22100	2.00 U	73.6	64	1390	5.81	2200	1490	2.02	2.00 U	7580	1.00 U	188	2.00 U	1270
CC03B	Dissolved Metals	Surface Water	6/6/2017	10:00	757	1.00 U	2.00 U	5.00 U	3.95	14300	2.00 U	73.4	43	148 J	3.88	1770	817	1.37	2.00 U	6440	1.00 U	102	2.00 U	975
CC03C	Dissolved Metals	Surface Water	6/6/2017	09:20	3640	5.00 U	3.42 J	6.25	17.0	434000	10.0 U	7.30	1190	95600	83.9	25200	31800	35.7	10.0 U	40400	5.00 U	4680	10.0 U	14000
CC06	Dissolved Metals	Surface Water	6/6/2017	13:00	63200	2.98 J	184	6.52	136	327000	14.2	10000	958	270000	20.4	34300	22200	71.5	8.20 J	31800	5.00 U	5100	10.0 U	39200
CC07	Dissolved Metals	Surface Water	6/6/2017	10:20	2080	1.00 U	2.00 U	5.00 U	3.86	18000	2.00 U	199	56	2750	6.34	2690	795	2.62	2.00 U	11500	1.00 U	130	2.00 U	797
CC17	Dissolved Metals	Surface Water	6/6/2017	14:00	113	1.00 U	2.00 U	5.00 U	0.929	33900	2.00 U	9.22	94	851	0.141 J	2350	294	0.825 J	2.00 U	9370	1.00 U	370	2.00 U	210
CC18	Dissolved Metals	Surface Water	6/6/2017	12:05	1090	1.00 U	2.00 U	5.00 U	4.15	25100	2.00 U	87.6	73	2070	6.33	2460	1710	2.39	2.00 U	8440	1.00 U	219	2.00 U	1310
CC19	Dissolved Metals	Surface Water	6/6/2017	12:40	4210	5.00 U	10.0 U	4.23 J	2.02	433000	10.0 U	15.3	1200	128000	0.901 J	29400	41200	46.9	10.0 U	34400	5.00 U	5080	10.0 U	18800
CC20H	Dissolved Metals	Surface Water	6/6/2017	12:20	1110	1.00 U	2.00 U	5.00 U	4.20	25200	2.00 U	87.8	73	1970	6.71	2490	1700	2.45	2.00 U	8370	1.00 U	220	2.00 U	1310
CC21	Dissolved Metals	Surface Water	6/6/2017	13:45	823	1.00 U	2.00 U	5.00 U	3.36	36400	2.00 U	61.5	102	1430	7.70	2800	1360	1.61	2.00 U	8770	1.00 U	324	2.00 U	992
CC21D	Dissolved Metals	Surface Water	6/6/2017	14:50	397	1.00 U	2.00 U	5.00 U	0.166 J	1170	2.00 U	13.1	4	138 J	1.70	384	20.7	0.615 J	2.00 U	6050	1.00 U	8.01 J	2.00 U	33.6
CC26	Dissolved Metals	Surface Water	6/6/2017	15:30	1300	1.00 U	0.818 J	5.00 U	2.05	7060	2.00 U	143	23	2590	37.3	1380	140	2.31	2.00 U	7700	1.00 U	111	2.00 U	524
CC28C	Dissolved Metals	Surface Water	6/6/2017	16:30	1240	1.00 U	0.735 J	5.00 U	2.47	30600	2.00 U	61.9	87	2890	12.8	2510	940	2.13	2.00 U	9930	1.00 U	282	2.00 U	729
CC28D	Dissolved Metals	Surface Water	6/6/2017	16:40	1280	1.00 U	0.900 J	5.00 U	2.55	31500	2.00 U	61.4	89	2880	12.9	2550	958	2.11	2.00 U	10200	1.00 U	292	2.00 U	738
CC28E	Dissolved Metals	Surface Water	6/6/2017	16:10	1270	1.00 U	0.799 J	5.00 U	2.45	31100	2.00 U	61.1	88	3020	12.9	2510	946	2.06	2.00 U	10000	1.00 U	290	2.00 U	732
CC39	Dissolved Metals	Surface Water	6/6/2017	18:00	865	1.00 U	2.00 U	5.00 U	1.86	27400	2.00 U	42.9	78	1940	6.95	2330	774	1.58	2.00 U	9050	1.00 U	276	2.00 U	563
CC39B	Dissolved Metals	Surface Water	6/6/2017	17:05	989	1.00 U	2.00 U	5.00 U	2.05	28500	2.00 U	48.5	81	2150	8.59	2350	780	1.70	2.00 U	9340	1.00 U	267	2.00 U	608
CC39C	Dissolved Metals	Surface Water	6/6/2017	17:45	1030	1.00 U	2.00 U	5.00 U	2.01	29700	2.00 U	50.0	84	2160	8.38	2500	810	1.75	2.00 U	9450	1.00 U	287	2.00 U	622
CC39D	Dissolved Metals	Surface Water	6/7/2017	08:30	1080	1.00 U	0.504 J	5.00 U	2.15	31400	2.00 U	47.9	89	2500	7.31	2570	861	1.91	2.00 U	10100	1.00 U	297	2.00 U	635
CC41	Dissolved Metals	Surface Water	6/7/2017	08:45	1030	1.00 U	2.00 U	5.00 U	2.01	30400	2.00 U	45.8	86	2440	6.75	2520	829	1.97	2.00 U	9990	1.00 U	290	2.00 U	604
CC43E	Dissolved Metals	Surface Water	6/7/2017	09:05	885	1.00 U	2.00 U	5.00 U	1.94	32400	2.00 U	42.6	91	2310	5.50	2540	814	1.69	2.00 U	10100	1.00 U	332	2.00 U	590
CC48	Dissolved Metals	Surface Water	6/7/2017	09:30	570	1.00 U	2.00 U	5.00 U	1.66	30400	2.00 U	33.3	86	2030	2.72	2390	707	1.53	2.00 U	10400	1.00 U	304	2.00 U	499
CC28E Dup	Dissolved Metals	Surface Water	6/6/2017	16:10	1260	1.00 U	0.678 J	5.00 U	2.02	30500	2.00 U	49.9	86	2940	10.4	2480	953	1.07	2.00 U	10100	1.00 U	278	2.00 U	740
CC48 Dup	Dissolved Metals	Surface Water	6/7/2017	09:30	571	1.00 U	2.00 U	5.00 U	1.64	30700	2.00 U	32.4	87	2090	2.71	2410	706	0.855 J	2.00 U	10400	1.00 U	301	2.00 U	494
FB-11	Dissolved Metals	Water	6/6/2017	18:10	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC28E	Dissolved Metals	Surface Water	6/6/2017	16:10	1270	1.00 U	0.799	5.00 U	2.45	31100	2.00 U	61.1	88	3020	12.9	2510	946	2.06	2.00 U	10000	1.00 U	290	2.00 U	732
CC28E Dup	Dissolved Metals	Surface Water	6/6/2017	16:10	1260	1.00 U	0.678	5.00 U	2.02	30500	2.00 U	49.9	86	2940	10.4	2480	953	1.07	2.00 U	10100	1.00 U	278	2.00 U	740
				RPD	**0.79%**	N/A	**16.38%**	N/A	**19.24%**	**1.95%**	N/A	**20.18%**	**2.30%**	**2.68%**	**21.46%**	**1.20%**	**0.74%**	**63.26%**	N/A	**1.00%**	N/A	**4.23%**	N/A	**1.09%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC48	Dissolved Metals	Surface Water	6/7/2017	09:30	570	1.00 U	2.00 U	5.00 U	1.66	30400	2.00 U	33.3	86	2030	2.72	2390	707	1.53	2.00 U	10400	1.00 U	304	2.00 U	499
CC48 Dup	Dissolved Metals	Surface Water	6/7/2017	09:30	571	1.00 U	2.00 U	5.00 U	1.64	30700	2.00 U	32.4	87	2090	2.71	2410	706	0.855	2.00 U	10400	1.00 U	301	2.00 U	494
				RPD	**0.18%**	N/A	N/A	N/A	**1.21%**	**0.98%**	N/A	**2.74%**	**1.16%**	**2.91%**	**0.37%**	**0.83%**	**0.14%**	**56.60%**	N/A	**0.00%**	N/A	**0.99%**	N/A	**1.01%**

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below:

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 18 Bonita Peak Mining District - High Flow June 6-7, 2017
Mineral Creek Surface Water Analytical Results - Dissolved Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M06A	Dissolved Metals	Surface Water	6/7/2017	15:55	52.6	1.00 U	1.34 J	5.00 U	0.411	8650	2.00 U	23.2	25	145 J	1.13	836	92.9	1.00 U	2.00 U	3210	1.00 U	170	2.00 U	139
M06B	Dissolved Metals	Surface Water	6/7/2017	15:50	369	1.00 U	1.00 J	5.00 U	16.3	24500	2.00 U	80.1	70	1320	1310	2260	1680	1.52	2.00 U	5310	1.00 U	727	2.00 U	6080
M06C	Dissolved Metals	Surface Water	6/7/2017	16:00	50.5	1.00 U	1.25 J	5.00 U	0.510	8720	2.00 U	23.6	25	147 J	5.11	853	97.8	1.00 U	2.00 U	3210	1.00 U	172	2.00 U	160
M07	Dissolved Metals	Surface Water	6/7/2017	14:10	64.0	1.00 U	0.645 J	5.00 U	0.565	9530	2.00 U	13.6	29	120 J	6.84	1150	98.8	1.00 U	2.00 U	3240	1.00 U	182	2.00 U	146
M11	Dissolved Metals	Surface Water	6/7/2017	14:00	58.0	1.00 U	2.00 U	5.00 U	0.431	12400	2.00 U	10.5	36	250 U	5.17	1110	70.7	1.00 U	2.00 U	3640	1.00 U	211	2.00 U	116
M12	Dissolved Metals	Surface Water	6/6/2017	15:10	466	1.00 U	2.00 U	5.00 U	1.34	13900	2.00 U	11.9	44	152 J	0.433	2260	446	1.65	2.00 U	6780	1.00 U	156	2.00 U	288
M13A	Dissolved Metals	Surface Water	6/6/2017	13:40	61.0	1.00 U	2.00 U	5.00 U	0.419	14800	2.00 U	8.83	42	250 U	5.33	1180	79.1	1.00 U	2.00 U	4190	1.00 U	237	2.00 U	121
M13B	Dissolved Metals	Surface Water	6/6/2017	14:35	75.5	1.00 U	2.00 U	5.00 U	0.436	15100	2.00 U	8.60	43	250 U	4.97	1210	87.5	1.00 U	2.00 U	4540	1.00 U	234	2.00 U	127
M13D	Dissolved Metals	Surface Water	6/6/2017	14:20	114	1.00 U	2.00 U	5.00 U	0.552	15100	2.00 U	9.08	43	250 U	3.80	1380	143	1.00 U	2.00 U	4900	1.00 U	225	2.00 U	150
M14	Dissolved Metals	Surface Water	6/6/2017	13:15	1990	1.00 U	2.00 U	5.00 U	0.189 J	6230	2.00 U	38.8	20	1030	0.400	1170	108	1.89	2.00 U	16200	1.00 U	61.9	2.00 U	18.2 J
M14A	Dissolved Metals	Surface Water	6/6/2017	14:10	98.7	1.00 U	2.00 U	5.00 U	0.478	15200	2.00 U	7.48	43	250 U	3.60	1320	117	1.00 U	2.00 U	4910	1.00 U	228	2.00 U	136
M14B	Dissolved Metals	Surface Water	6/6/2017	12:45	169	1.00 U	2.00 U	5.00 U	0.528	15000	2.00 U	9.00	43	119 J	3.30	1330	117	1.00 U	2.00 U	5740	1.00 U	220	2.00 U	126
M16	Dissolved Metals	Surface Water	6/7/2017	10:30	22600	5.00 U	10.0 U	5.00 U	1.30	430000	10.0 U	4.02 J+	1260	69400	1.00 U	44300	6370	5.00 U	10.0 U	30300	5.00 U	2740	10.0 U	668
M16A	Dissolved Metals	Surface Water	6/7/2017	10:50	21100	5.00 U	10.0 U	5.00 U	1.27	432000	10.0 U	4.04 J+	1260	69200	1.00 U	44500	6390	5.00 U	10.0 U	30100	5.00 U	2770	10.0 U	666
M16C	Dissolved Metals	Surface Water	6/7/2017	11:00	57.1	1.00 U	0.782 J	5.00 U	0.338	71700	2.00 U	0.937 J+	193	635	0.722	3300	694	1.00 U	2.00 U	22000	1.00 U	363	2.00 U	115
M16D	Dissolved Metals	Surface Water	6/7/2017	11:15	75.1	1.00 U	0.550 J	5.00 U	0.301	73200	1.01 J	0.634 J+	206	5480	3.84	5590	1320	1.00 U	2.00 U	26700	1.00 U	316	2.00 U	313
M16E	Dissolved Metals	Surface Water	6/7/2017	10:30	62.3	1.00 U	2.00 U	5.00 U	0.135 J	40000	2.00 U	0.672 J+	112	144 J	0.200 U	2930	143	1.00 U	2.00 U	10900	1.00 U	366	2.00 U	28.9
M16F	Dissolved Metals	Surface Water	6/7/2017	10:00	119	1.00 U	2.00 U	5.00 U	0.200 U	10700	2.00 U	1.00 U	31	250 U	0.200 U	1060	33.8	1.00 U	2.00 U	6300	1.00 U	62.5	2.00 U	20.0 U
M16G	Dissolved Metals	Surface Water	6/7/2017	11:40	94.2	1.00 U	2.00 U	5.00 U	0.129 J	37800	2.00 U	0.624 J+	106	250 U	0.200 U	2880	114	1.00 U	2.00 U	10000	1.00 U	373	2.00 U	21.1
M16H	Dissolved Metals	Surface Water	6/7/2017	09:15	145	1.00 U	2.00 U	5.00 U	0.115 J	37800	2.00 U	1.14 J+	108	1720	0.200 U	3180	255	1.00 U	2.00 U	9500	1.00 U	304	2.00 U	37.0
M17	Dissolved Metals	Surface Water	6/7/2017	09:20	62.8	1.00 U	2.00 U	5.00 U	0.122 J	39300	2.00 U	0.584 J+	111	1640	0.200 U	3240	257	1.00 U	2.00 U	9610	1.00 U	317	2.00 U	37.6
M17A	Dissolved Metals	Surface Water	6/6/2017	15:45	50.6	1.00 U	2.00 U	5.00 U	0.200 U	37400	2.00 U	0.574 J+	105	1450	0.200 U	2860	217	1.00 U	2.00 U	9560	1.00 U	303	2.00 U	36.5
M18	Dissolved Metals	Surface Water	6/6/2017	15:50	6060	1.00 U	2.00 U	5.00 U	0.844	21000	2.00 U	6.04 J+	67	8220	0.200 U	3680	263	1.79	2.00 U	15100	1.00 U	156	2.00 U	47.9
M19	Dissolved Metals	Surface Water	6/6/2017	15:35	1220	1.00 U	2.00 U	5.00 U	0.273	33700	2.00 U	2.13	97	3320	0.200 U	3180	234	1.00 U	2.00 U	11300	1.00 U	267	2.00 U	35.7
M20	Dissolved Metals	Surface Water	6/6/2017	16:50	573	1.00 U	2.00 U	5.00 U	0.272	31400	2.00 U	1.77 J+	90	2850	0.200 U	2910	211	1.00 U	2.00 U	10700	1.00 U	246	2.00 U	32.9
M22	Dissolved Metals	Surface Water	6/6/2017	13:30	547	1.00 U	2.00 U	5.00 U	0.421	31800	2.00 U	2.41 J+	91	2750	0.150 J	2890	221	1.00 U	2.00 U	11100	1.00 U	247	2.00 U	59.5
M26B	Dissolved Metals	Surface Water	6/6/2017	11:30	53.1	1.00 U	2.00 U	5.00 U	0.200 U	15000	2.00 U	0.632 J+	44	250 U	0.200 U	1490	45.4	1.00 U	2.00 U	5060	1.00 U	86.1	2.00 U	14.9 J
M26D	Dissolved Metals	Surface Water	6/6/2017	11:20	51.1	1.00 U	2.00 U	5.00 U	0.200 U	19700	2.00 U	0.771 J+	56	250 U	0.200 U	1630	27.1	1.00 U	2.00 U	5710	1.00 U	116	2.00 U	20.0 U
M27	Dissolved Metals	Surface Water	6/6/2017	10:15	117	1.00 U	2.00 U	5.00 U	0.428	19200	2.00 U	4.58 J+	55	726	1.15	1730	151	1.00 U	2.00 U	7740	1.00 U	215	2.00 U	103
M27A	Dissolved Metals	Surface Water	6/6/2017	12:45	93.3	1.00 U	2.00 U	5.00 U	0.485	19700	2.00 U	5.17 J+	57	829	1.08	1760	150	1.00 U	2.00 U	7440	1.00 U	220	2.00 U	105
M27A2	Dissolved Metals	Surface Water	6/6/2017	10:55	131	1.00 U	2.00 U	5.00 U	0.467	19400	2.00 U	5.04 J+	56	779	1.25	1780	149	1.00 U	2.00 U	7650	1.00 U	218	2.00 U	103
M28	Dissolved Metals	Surface Water	6/6/2017	10:50	81.1	1.00 U	2.00 U	5.00 U	0.200 U	19500	2.00 U	0.775 J+	55	250 U	0.113 J	1620	30.9	1.00 U	2.00 U	5980	1.00 U	114	2.00 U	10.7 J
M29	Dissolved Metals	Surface Water	6/6/2017	09:50	98.1	1.00 U	2.00 U	5.00 U	0.251	19300	2.00 U	2.67 J+	55	281	0.680	1670	80.0	1.00 U	2.00 U	6830	1.00 U	158	2.00 U	51.3
M29A	Dissolved Metals	Surface Water	6/6/2017	10:10	113	1.00 U	2.00 U	5.00 U	0.209	19100	2.00 U	2.78 J+	55	315	0.770	1680	81.9	1.00 U	2.00 U	6700	1.00 U	157	2.00 U	47.5
M29B	Dissolved Metals	Surface Water	6/6/2017	09:50	464	1.00 U	2.00 U	5.00 U	0.200 U	1550	2.00 U	38.9	5	163 J	0.341	369	7.21	1.00 U	2.54	18400	1.00 U	13.4	2.00 U	21.2
M32	Dissolved Metals	Surface Water	6/6/2017	09:15	144	1.00 U	2.00 U	5.00 U	0.203	19400	2.00 U	2.58	55	461	0.687	1680	79.7	1.00 U	2.00 U	7080	1.00 U	149	2.00 U	43.8
M32B	Dissolved Metals	Surface Water	6/6/2017	18:00	21.8 J	0.540 J	2.00 U	5.00 U	0.300	13700	2.00 U	3.74 J+	43	250 U	3.08	2090	2.89 J	1.00 U	2.00 U	5250	1.00 U	43.7	2.00 U	78.9
M33	Dissolved Metals	Surface Water	6/6/2017	08:50	107	1.00 U	2.00 U	5.00 U	0.222	18600	2.00 U	2.41 J+	53	261	0.672	1620	77.9	1.00 U	2.00 U	6640	1.00 U	142	2.00 U	42.9
M33A	Dissolved Metals	Surface Water	6/6/2017	17:10	795	1.03	2.19	5.00 U	9.17	154000	2.00 U	138	495	5910	0.200 U	26700	8070	1.00 U	2.00 U	16800	1.00 U	1170	2.00 U	2010
M34	Dissolved Metals	Surface Water	6/6/2017	09:15	105	1.00 U	2.00 U	5.00 U	0.231	19500	2.00 U	3.83 J+	56	248 J	0.663	1760	100	1.00 U	2.00 U	6870	1.00 U	145	2.00 U	48.1
M38	Dissolved Metals	Surface Water	6/6/2017	08:45	111	1.00 U	2.00 U	5.00 U	0.198 J	18900	2.00 U	3.23 J+	54	228 J	0.675	1680	95.1	1.00 U	2.00 U	6700	1.00 U	143	2.00 U	47.0
SF Camp	Dissolved Metals	Groundwater	6/6/2017	11:45	50.0 U	1.00 U	0.705 J	5.00 U	0.200 U	44200	4.36	8.57 J+	127	250 U	0.123 J	3980	5.00 U	1.00 U	1.60 J	7240	1.00 U	369	2.00 U	102
M27 Dup	Dissolved Metals	Surface Water	6/6/2017	10:15	105	1.00 U	2.00 U	5.00 U	0.448	19200	2.00 U	4.76 J+	55	723	0.971	1740	151	1.00 U	2.00 U	7790	1.00 U	224	2.00 U	104
M14 Dup	Dissolved Metals	Surface Water	6/6/2017	13:15	1990	1.00 U	2.00 U	5.00 U	0.176 J	6290	2.00 U	38.8	21	1010	0.421	1180	107	1.93	2.00 U	16000	1.00 U	63.4	2.00 U	19.4 J
M20 Dup	Dissolved Metals	Surface Water	6/6/2017	16:50	559	1.00 U	2.00 U	5.00 U	0.243	31400	2.00 U	1.77	90	2910	0.200 U	2870	211	1.00 U	2.00 U	10600	1.00 U	251	2.00 U	32.7
M11 Dup	Dissolved Metals	Surface Water	6/7/2017	14:00	65.8	1.00 U	0.791 J	5.00 U	0.417	13700	2.00 U	10.6	39	250 U	5.68	1140	70.9	1.00 U	2.00 U	3640	1.00 U	214	2.00 U	117
M07 Dup	Dissolved Metals	Surface Water	6/7/2017	14:10	69.1	1.00 U	0.656 J	5.00 U	0.533	9480	2.00 U	13.8	28	123 J	7.06	1140	98.8	1.00 U	2.00 U	3280	1.00 U	183	2.00 U	149
FB-01	Dissolved Metals	Water	6/6/2017	12:00	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U
FB-02	Dissolved Metals	Water	6/7/2017	12:50	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U
FB-03	Dissolved Metals	Water	6/7/2017	17:40	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M27	Dissolved Metals	Surface Water	6/6/2017	10:15	117	1.00 U	2.00 U	5.00 U	0.428	19200	2.00 U	4.58	55	726	1.15	1730	151	1.00 U	2.00 U	7740	1.00 U	215	2.00 U	103
M27 Dup	Dissolved Metals	Surface Water	6/6/2017	10:15	105	1.00 U	2.00 U	5.00 U	0.448	19200	2.00 U	4.76	55	723	0.971	1740	151	1.00 U	2.00 U	7790	1.00 U	224	2.00 U	104
				RPD	**10.81%**	N/A	N/A	N/A	**4.57%**	**0.00%**	N/A	**3.85%**	**0.00%**	**0.41%**	**16.88%**	**0.58%**	**0.00%**	N/A	N/A	**0.64%**	N/A	**4.10%**	N/A	**0.97%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M14	Dissolved Metals	Surface Water	6/6/2017	13:15	1990	1.00 U	2.00 U	5.00 U	0.189	6230	2.00 U	38.8	20	1030	0.400	1170	108	1.89	2.00 U	16200	1.00 U	61.9	2.00 U	18.2
M14 Dup	Dissolved Metals	Surface Water	6/6/2017	13:15	1990	1.00 U	2.00 U	5.00 U	0.176	6290	2.00 U	38.8	21	1010	0.421	1180	107	1.93	2.00 U	16000	1.00 U	63.4	2.00 U	19.4
				RPD	**0.00%**	N/A	N/A	N/A	**7.12%**	**0.96%**	N/A	**0.00%**	**4.88%**	**1.96%**	**5.12%**	**0.85%**	**0.93%**	**2.09%**	N/A	**1.24%**	N/A	**2.39%**	N/A	**6.38%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M20	Dissolved Metals	Surface Water	6/6/2017	16:50	573	1.00 U	2.00 U	5.00 U	0.272	31400	2.00 U	1.77	90	2850	0.200 U	2910	211	1.00 U	2.00 U	10700	1.00 U	246	2.00 U	32.9
M20 Dup	Dissolved Metals	Surface Water	6/6/2017	16:50	559	1.00 U	2.00 U	5.00 U	0.243	31400	2.00 U	1.77	90	2910	0.200 U	2870	211	1.00 U	2.00 U	10600	1.00 U	251	2.00 U	32.7
				RPD	**2.47%**	N/A	N/A	N/A	**11.26%**	**0.00%**	N/A	**0.00%**	**0.00%**	**2.08%**	N/A	**1.38%**	**0.00%**	N/A	N/A	**0.94%**	N/A	**2.01%**	N/A	**0.61%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M11	Dissolved Metals	Surface Water	6/7/2017	14:00	58.0	1.00 U	2.00 U	5.00 U	0.431	12400	2.00 U	10.5	36	250 U	5.17	1110	70.7	1.00 U	2.00 U	3640	1.00 U	211	2.00 U	116
M11 Dup	Dissolved Metals	Surface Water	6/7/2017	14:00	65.8	1.00 U	0.791	5.00 U	0.417	13700	2.00 U	10.6	39	250 U	5.68	1140	70.9	1.00 U	2.00 U	3640	1.00 U	214	2.00 U	117
				RPD	**12.60%**	N/A	N/A	N/A	**3.30%**	**9.96%**	N/A	**0.95%**	**8.00%**	N/A	**9.40%**	**2.67%**	**0.28%**	N/A	N/A	**0.00%**	N/A	**1.41%**	N/A	**0.86%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M07	Dissolved Metals	Surface Water	6/7/2017	14:10	64.0	1.00 U	0.645	5.00 U	0.565	9530	2.00 U	13.6	29	120	6.84	1150	98.8	1.00 U	2.00 U	3240	1.00 U	182	2.00 U	146
M07 Dup	Dissolved Metals	Surface Water	6/7/2017	14:10	69.1	1.00 U	0.656	5.00 U	0.533	9480	2.00 U	13.8	28	123	7.06	1140	98.8	1.00 U	2.00 U	3280	1.00 U	183	2.00 U	149
				RPD	**7.66%**	N/A	**1.69%**	N/A	**5.83%**	**0.53%**	N/A	**1.46%**	**3.51%**	**2.47%**	**3.17%**	**0.87%**	**0.00%**	N/A	N/A	**1.23%**	N/A	**0.55%**	N/A	**2.03%**

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below:

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limi

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample

Table 19 Bonita Peak Mining District - High Flow June 6-7, 2017
Animas Surface Water Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A05	Total Recoverable Metals	Surface Water	6/7/2017	15:25	290	5.00 U	10.0 U	5.00 U	1.45	7600	10.0 U	5.00 U	274	2.80	945	77.3 J+	5.00 U	10.0 U	3300	5.00 U	27.8	10.0 U	206
A09	Total Recoverable Metals	Surface Water	6/7/2017	14:45	839	5.00 U	10.0 U	5.00 U	2.34	6780	10.0 U	9.75	247 J	5.41	948	371	5.00 U	10.0 U	3390	5.00 U	21.7	10.7	403
A10	Total Recoverable Metals	Surface Water	6/7/2017	14:25	1280	5.00 U	10.0 U	5.00 U	2.55	9900	10.0 U	17.7	330	14.4	1470	2530	5.00 U	10.0 U	4270	5.00 U	42.2	10.9	792
A11	Total Recoverable Metals	Surface Water	6/7/2017	16:05	1300	5.00 U	10.0 U	5.00 U	2.46	9610	10.0 U	17.7	357	22.3	1460	2550	5.00 U	10.0 U	4180	5.00 U	41.7	10.0 U	728
A13	Total Recoverable Metals	Surface Water	6/7/2017	16:40	1580	5.00 U	10.0 U	5.00 U	2.15	9460	10.0 U	20.6	497	37.4	1540	2710	5.00 U	10.0 U	4340	5.00 U	41.5	10.0 U	744
A14	Total Recoverable Metals	Surface Water	6/7/2017	14:00	1190	5.00 U	10.0 U	5.00 U	2.37	8830	10.0 U	16.2	350	13.2	1300	1720	5.00 U	10.0 U	4130	5.00 U	35.3	10.0 U	657
A28	Total Recoverable Metals	Surface Water	6/7/2017	13:17	714	5.00 U	10.0 U	5.00 U	1.73	11300	10.0 U	10.4	235 J	7.01	1270	1030	5.00 U	10.0 U	3840	5.00 U	54.7	10.0 U	422
A30	Total Recoverable Metals	Surface Water	6/7/2017	13:35	798	5.00 U	10.0 U	5.00 U	1.68	11200	10.0 U	19.7	312	9.11	1250	1050	5.00 U	10.0 U	3910	5.00 U	54.6	10.0 U	433
A30A	Total Recoverable Metals	Surface Water	6/7/2017	13:15	641	5.00 U	10.0 U	5.00 U	1.87	11400	10.0 U	22.2	220 J	5.25	1270	980	5.00 U	10.0 U	3780	5.00 U	58.1	10.0 U	408
A30B	Total Recoverable Metals	Surface Water	6/7/2017	12:50	686	5.00 U	10.0 U	5.00 U	1.68	11800	10.0 U	18.5	207 J	8.38	1280	1030	5.00 U	10.0 U	3850	5.00 U	59.7	10.0 U	429
A31	Total Recoverable Metals	Surface Water	6/7/2017	11:40	591	5.00 U	10.0 U	5.00 U	1.64	12300	10.0 U	16.1	210 J	5.90	1350	953	5.00 U	10.0 U	3910	5.00 U	63.5	10.0 U	423
A33	Total Recoverable Metals	Surface Water	6/7/2017	11:20	559	5.00 U	10.0 U	5.00 U	1.84	12100	10.0 U	17.7	177 J	6.38	1290	949	5.00 U	10.0 U	3860	5.00 U	62.2	10.0 U	425
A34	Total Recoverable Metals	Surface Water	6/7/2017	10:40	224	5.00 U	10.0 U	5.00 U	1.21	18900	10.0 U	9.87	215 J	2.36	1390	352	5.00 U	10.0 U	4520	5.00 U	186	10.0 U	378
A35	Total Recoverable Metals	Surface Water	6/7/2017	11:00	511	5.00 U	10.0 U	5.00 U	1.56	14000	10.0 U	17.0	328	7.68	1360	810	5.00 U	10.0 U	4100	5.00 U	94.0	10.0 U	419
A40	Total Recoverable Metals	Surface Water	6/7/2017	11:32	464	5.00 U	10.0 U	5.00 U	1.49	16800	10.0 U	16.2	311	17.9	1490	679	5.00 U	10.0 U	4920	5.00 U	125	10.0 U	471
A40A	Total Recoverable Metals	Surface Water	6/7/2017	12:05	588	5.00 U	10.0 U	5.00 U	1.59	15200	10.0 U	20.8	415	26.4	1400	831	5.00 U	10.0 U	4480	5.00 U	108	10.0 U	443
A41A	Total Recoverable Metals	Surface Water	6/7/2017	11:22	360	5.00 U	10.0 U	5.00 U	0.782 J	16300	10.0 U	9.23	279	7.82	1440	345	5.00 U	10.0 U	5390	5.00 U	174	10.0 U	252
A45	Total Recoverable Metals	Surface Water	6/7/2017	10:13	619	5.00 U	10.0 U	5.00 U	1.27	18900	10.0 U	15.6	578	17.3	1640	487	5.00 U	10.0 U	5800	5.00 U	162	10.0 U	404
A47	Total Recoverable Metals	Surface Water	6/6/2017	14:06	68.2	5.00 U	10.0 U	5.00 U	1.00 U	17200	10.0 U	5.00 U	250 U	0.658 J	842	7.61	5.00 U	10.0 U	3740	5.00 U	171	10.0 U	20.0 U
A48	Total Recoverable Metals	Surface Water	6/6/2017	15:50	217	5.00 U	10.0 U	5.00 U	1.00 U	15400	10.0 U	5.00 U	208 J	5.58	1300	19.0	5.00 U	10.0 U	4030	5.00 U	158	10.0 U	20.7
A54	Total Recoverable Metals	Surface Water	6/7/2017	08:31	222	5.00 U	10.0 U	5.00 U	2.31	90000	10.0 U	5.28	7840	2.50	6450	1470	5.00 U	10.0 U	22600	5.00 U	760	10.0 U	732
A55	Total Recoverable Metals	Surface Water	6/6/2017	13:46	523	5.00 U	10.0 U	5.00 U	1.19	18300	10.0 U	16.1	485	19.5	1550	461	5.00 U	10.0 U	5470	5.00 U	162	11.9	356
A55a	Total Recoverable Metals	Surface Water	6/6/2017	13:19	558	5.00 U	10.0 U	5.00 U	1.06	18800	10.0 U	13.3	532	21.4	1620	469	5.00 U	10.0 U	5600	5.00 U	168	13.0	333
A56	Total Recoverable Metals	Surface Water	6/6/2017	12:45	629	5.00 U	10.0 U	5.00 U	0.997 J	18100	10.0 U	14.2	667	26.5	1580	434	5.00 U	10.0 U	5660	5.00 U	162	10.0 U	336
A58	Total Recoverable Metals	Surface Water	6/6/2017	11:57	49.2 J	5.00 U	10.0 U	5.00 U	0.574 J	17000	10.0 U	11.7	250 U	9.35	874	7.52	5.00 U	10.0 U	3510	5.00 U	210	10.0 U	113
A60	Total Recoverable Metals	Surface Water	6/6/2017	11:32	636	5.00 U	10.0 U	5.00 U	1.20	18100	10.0 U	16.4	572	24.8	1580	477	5.00 U	10.0 U	5640	5.00 U	161	10.0 U	361
A61	Total Recoverable Metals	Surface Water	6/6/2017	11:10	682	5.00 U	10.0 U	5.00 U	1.29	18000	10.0 U	18.5	668	27.4	1570	691	5.00 U	10.0 U	5630	5.00 U	163	10.0 U	399
A65	Total Recoverable Metals	Surface Water	6/6/2017	10:19	656	5.00 U	10.0 U	5.00 U	1.10	18200	10.0 U	18.5	626	29.1	1530	507	5.00 U	10.0 U	5550	5.00 U	165	10.0 U	344
A66	Total Recoverable Metals	Surface Water	6/6/2017	09:56	642	5.00 U	10.0 U	5.00 U	1.10	17900	10.0 U	16.7	695	24.0	1520	583	5.00 U	10.0 U	5520	5.00 U	163	10.0 U	346
A68	Total Recoverable Metals	Surface Water	6/6/2017	09:28	624	5.00 U	10.0 U	5.00 U	0.987 J	17700	10.0 U	17.1	712	28.6	1490	547	5.00 U	10.0 U	5500	5.00 U	160	10.0 U	348
A72	Total Recoverable Metals	Surface Water	6/6/2017	08:41	1430	5.00 U	10.0 U	5.00 U	0.792 J	20000	10.0 U	19.4	3680	33.8	1920	486	5.00 U	10.0 U	8390	5.00 U	180	10.0 U	278
Bakers Bridge	Total Recoverable Metals	Surface Water	6/8/2017	09:00	1180	5.00 U	10.0 U	5.00 U	1.00 U	16600	10.0 U	8.73	1790	12.6	2400	274	5.00 U	10.0 U	7320	5.00 U	117	10.0 U	125
CG01	Total Recoverable Metals	Surface Water	6/6/2017	14:50	1350	5.00 U	10.0 U	5.00 U	17.1	98300	10.0 U	51.7	7550	37.8	13900	25900	5.93	10.0 U	16400	5.00 U	638	10.0 U	11200
CG02	Total Recoverable Metals	Surface Water	6/6/2017	14:35	1260	5.00 U	10.0 U	5.00 U	16.3	97400	10.0 U	51.8	7120	31.5	13300	24100	5.59	10.0 U	15600	5.00 U	647	10.0 U	10700
CG11	Total Recoverable Metals	Surface Water	6/7/2017	15:10	1280	5.00 U	10.0 U	5.00 U	2.12	9770	10.0 U	13.5 J	288	11.9 J	1500	2460	5.00 U	10.0 U	4180	5.00 U	39.0	10.0 U	723
CG9	Total Recoverable Metals	Surface Water	6/7/2017	16:15	1300	5.00 U	10.0 U	5.00 U	2.04	9670	10.0 U	15.9	296	20.9	1500	2610	5.00 U	10.0 U	4120	5.00 U	39.1	10.0 U	743
CU4	Total Recoverable Metals	Surface Water	6/6/2017	16:15	241	5.00 U	10.0 U	5.00 U	1.00 U	11600	10.0 U	5.00 U	228 J	2.07	1200	16.8	5.00 U	10.0 U	3640	5.00 U	118	10.0 U	20.0 U
CU4a	Total Recoverable Metals	Surface Water	6/6/2017	16:44	294	5.00 U	10.0 U	5.00 U	1.00 U	11800	10.0 U	5.00 U	249 J	4.43	1210	21.2	5.00 U	10.0 U	3700	5.00 U	119	10.0 U	16.2 J
DM56	Total Recoverable Metals	Surface Water	6/7/2017	09:11	2850	5.00 U	10.0 U	5.00 U	42.4	54800	10.0 U	1360	6340	167	7120	1240	6.21	10.0 U	25100	5.00 U	259	10.0 U	7560
LA3	Total Recoverable Metals	Surface Water	6/7/2017	10:41	345	5.00 U	10.0 U	5.00 U	0.858 J	17100	10.0 U	10.6	239 J	8.76 J	1480	366	5.00 U	10.0 U	4920	5.00 U	151	10.0 U	286
T4	Total Recoverable Metals	Surface Water	6/6/2017	10:43	474	5.00 U	10.0 U	5.00 U	1.12	17300	10.0 U	16.1	387	23.4 J	1360	491	5.00 U	10.0 U	5340 J+	5.00 U	151	10.0 U	326
CG9 Dup	Total Recoverable Metals	Surface Water	6/7/2017	16:50	1300	5.00 U	10.0 U	5.00 U	2.22	10100	10.0 U	27.4 J	343	26.9 J	1500	2660	5.00 U	10.0 U	4280 J+	5.00 U	37.2	10.0 U	741
CC28E Dup	Total Recoverable Metals	Surface Water	6/6/2017	16:10	1790	5.00 U	2.81 J	5.00 U	2.36	31200	10.0 U	65.3	5400	29.6 J	2610	986	5.00 U	10.0 U	10900 J+	5.00 U	257	10.0 U	718
CC48 Dup	Total Recoverable Metals	Surface Water	6/7/2017	09:30	1630	5.00 U	10.0 U	5.00 U	1.54	31700	10.0 U	41.6	6300	19.4 J	2630	742	5.00 U	10.0 U	11800 J+	5.00 U	280	10.0 U	483
FB-06	Total Recoverable Metals	Water	6/6/2017	18:05	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 UJ	250 U	5.00 U	5.00 U	10.0 U	1000 U	5.00 U	10.0 U	10.0 U	20.0 U
FB-07	Total Recoverable Metals	Water	6/7/2017	16:40	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 UJ	250 U	5.00 U	5.00 U	10.0 U	1000 U	5.00 U	10.0 U	10.0 U	20.0 U
FB-08	Total Recoverable Metals	Water	6/7/2017	16:35	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 UJ	250 U	26.5	5.00 U	10.0 U	1000 U	5.00 U	10.0 U	10.0 U	20.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A68	Total Recoverable Metals	Surface Water	6/6/2017	09:28	624	5.00 U	10.0 U	5.00 U	0.987	17700	10.0 U	17.1	712	28.6	1490	547	5.00 U	10.0 U	5500	5.00 U	160	10.0 U	348
A68 Dup	Total Recoverable Metals	Surface Water	6/6/2017	09:28	591	5.00 U	10.0 U	5.00 U	1.44	18200	10.0 U	18.1	643	40.4	1470	557	5.00 U	10.0 U	5560	5.00 U	143	10.0 U	351
				RPD	**5.43%**	N/A	N/A	N/A	**37.33%**	**2.79%**	N/A	**5.68%**	**10.18%**	**34.20%**	**1.35%**	**1.81%**	N/A	N/A	**1.08%**	N/A	**11.22%**	N/A	**0.86%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
LA3	Total Recoverable Metals	Surface Water	6/7/2017	10:41	345	5.00 U	10.0 U	5.00 U	0.858	17100	10.0 U	10.6	239	8.76	1480	366	5.00 U	10.0 U	4920	5.00 U	151	10.0 U	286
LA3 Dup	Total Recoverable Metals	Surface Water	6/7/2017	10:41	372	5.00 U	10.0 U	5.00 U	0.886	17400	10.0 U	12.7	296	8.72	1530	377	5.00 U	10.0 U	5000	5.00 U	133	10.0 U	294
				RPD	**7.53%**	N/A	N/A	N/A	**3.21%**	**1.74%**	N/A	**18.03%**	**21.31%**	**0.46%**	**3.32%**	**2.96%**	N/A	N/A	**1.61%**	N/A	**12.68%**	N/A	**2.76%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CG9	Total Recoverable Metals	Surface Water	6/7/2017	16:15	1300	5.00 U	10.0 U	5.00 U	2.04	9670	10.0 U	15.9	296	20.9	1500	2610	5.00 U	10.0 U	4120	5.00 U	39.1	10.0 U	743
CG9 Dup	Total Recoverable Metals	Surface Water	6/7/2017	16:50	1300	5.00 U	10.0 U	5.00 U	2.22	10100	10.0 U	27.4	343	26.9	1500	2660	5.00 U	10.0 U	4280	5.00 U	37.2	10.0 U	741
				RPD	**0.00%**	N/A	N/A	N/A	**8.45%**	**4.35%**	N/A	**53.12%**	**14.71%**	**25.10%**	**0.00%**	**1.90%**	N/A	N/A	**3.81%**	N/A	**4.98%**	N/A	**0.27%**

Note: Removed flags from values for RPD calculation
Note: Data Qualifier Definitions Listed Below:
U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 20 Bonita Peak Mining District - High Flow June 6-7, 2017
Cement Creek Surface Water Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC03	Total Recoverable Metals	Surface Water	6/6/2017	10:55	1120	5.00 U	10.0 U	5.00 U	3.65	22100	10.0 U	72.1	2120	12.3	2320	1470	5.00 U	10.0 U	7670	5.00 U	188	10.0 U	1190
CC03B	Total Recoverable Metals	Surface Water	6/6/2017	10:00	969	5.00 U	10.0 U	5.00 U	3.39	14400	10.0 U	73.7	698	9.66	1830	830	5.00 U	10.0 U	6750	5.00 U	103	10.0 U	943
CC03C	Total Recoverable Metals	Surface Water	6/6/2017	09:20	3700	5.00 U	2.74 J	6.32	16.3	432000	10.0 U	7.41	95600	102	25200	31200	26.7	10.0 U	39500	5.00 U	4660	10.0 U	13500
CC06	Total Recoverable Metals	Surface Water	6/6/2017	13:00	64300	2.88 J	171	6.41	127	321000	13.3	9370	267000	23.7	35300	21800	62.0	6.60 J	30800	5.00 U	4950	10.0 U	37900
CC07	Total Recoverable Metals	Surface Water	6/6/2017	10:20	2200	5.00 U	10.0 U	5.00 U	3.62	17100	10.0 U	194	3880	15.9	2710	783	5.00 U	10.0 U	11400	5.00 U	125	10.0 U	762
CC17	Total Recoverable Metals	Surface Water	6/6/2017	14:00	818	5.00 U	10.0 U	5.00 U	0.824 J	33500	10.0 U	20.7	1990	4.39	2400	322	5.00 U	10.0 U	9450	5.00 U	369	10.0 U	208
CC18	Total Recoverable Metals	Surface Water	6/6/2017	12:05	1430	5.00 U	10.0 U	5.00 U	3.62	25200	10.0 U	85.2	3650	18.3	2610	1700	5.00 U	10.0 U	8720	5.00 U	221	10.0 U	1230
CC19	Total Recoverable Metals	Surface Water	6/6/2017	12:40	4570	5.00 U	10.0 U	4.22 J	1.81	431000	10.0 U	9.24	129000	2.03	30900	39600	34.7	10.0 U	33000	5.00 U	5000	10.0 U	17900
CC20H	Total Recoverable Metals	Surface Water	6/6/2017	12:20	1400	5.00 U	10.0 U	5.00 U	3.62	25100	10.0 U	86.3	3460	18.6	2570	1700	9.77	10.0 U	8820	5.00 U	214	10.0 U	1240
CC21	Total Recoverable Metals	Surface Water	6/6/2017	13:45	1240	5.00 U	10.0 U	5.00 U	2.96	35900	10.0 U	62.6	2790	16.9	2900	1360	5.00 U	10.0 U	9060	5.00 U	315	13.1	943
CC21D	Total Recoverable Metals	Surface Water	6/6/2017	14:50	459	5.00 U	10.0 U	5.00 U	1.00 U	1080	10.0 U	12.3	285	2.79	389	20.9	5.00 U	10.0 U	5950	5.00 U	7.92 J	14.3	27.2
CC26	Total Recoverable Metals	Surface Water	6/6/2017	15:30	1750	5.00 U	3.55 J	5.00 U	1.92	6840	10.0 U	139	4480	56.7	1440	156	5.00 U	10.0 U	8440	5.00 U	107	10.0 U	495
CC28C	Total Recoverable Metals	Surface Water	6/6/2017	16:30	1840	5.00 U	10.0 U	5.00 U	1.98	30400	10.0 U	60.2	5550	34.6	2650	955	5.00 U	10.0 U	10700	5.00 U	276	10.0 U	691
CC28D	Total Recoverable Metals	Surface Water	6/6/2017	16:40	1900	5.00 U	10.0 U	5.00 U	2.19	31400	10.0 U	65.1	5820	31.9	2760	966	5.00 U	10.0 U	10800	5.00 U	284	10.0 U	698
CC28E	Total Recoverable Metals	Surface Water	6/6/2017	16:10	1840	5.00 U	10.0 U	5.00 U	2.30	30400	10.0 U	63.7	5680	30.0	2660	967	5.00 U	10.0 U	10900	5.00 U	276	10.0 U	706
CC39	Total Recoverable Metals	Surface Water	6/6/2017	18:00	1610	5.00 U	10.0 U	5.00 U	1.66	25700	10.0 U	43.1	6210	36.0	2490	779	5.00 U	10.0 U	10200	5.00 U	260	10.0 U	505
CC39B	Total Recoverable Metals	Surface Water	6/6/2017	17:05	1880	5.00 U	10.0 U	5.00 U	1.96	27900	10.0 U	51.1	7380	33.9	2610	815	5.00 U	10.0 U	10900	5.00 U	258	10.0 U	588
CC39C	Total Recoverable Metals	Surface Water	6/6/2017	17:45	1880	5.00 U	3.26 J	5.00 U	1.68	29200	10.0 U	52.4	8490	35.5	2660	841	5.00 U	10.0 U	11000	5.00 U	275	10.0 U	599
CC39D	Total Recoverable Metals	Surface Water	6/7/2017	08:30	1550	5.00 U	10.0 U	5.00 U	1.97	30600	10.0 U	47.1	5350	20.6	2640	862	5.00 U	10.0 U	10500	5.00 U	282	10.0 U	600
CC41	Total Recoverable Metals	Surface Water	6/7/2017	08:45	1530	5.00 U	10.0 U	5.00 U	1.61	30100	10.0 U	44.5	5200	19.3	2630	844	5.00 U	10.0 U	10700	5.00 U	278	10.0 U	580
CC43E	Total Recoverable Metals	Surface Water	6/7/2017	09:05	1540	5.00 U	10.0 U	5.00 U	1.69	32100	10.0 U	45.7	5580	18.7	2700	839	5.00 U	10.0 U	10800	5.00 U	318	10.0 U	582
CC48	Total Recoverable Metals	Surface Water	6/7/2017	09:30	1690	5.00 U	2.55 J	5.00 U	1.38	30700	10.0 U	40.9	6340	21.8	2670	731	5.00 U	10.0 U	11700	5.00 U	299	10.0 U	477
CC28E Dup	Total Recoverable Metals	Surface Water	6/6/2017	16:10	1790	5.00 U	2.81 J	5.00 U	2.36	31200	10.0 U	65.3	5400	29.6 J	2610	986	5.00 U	10.0 U	10900 J+	5.00 U	257	10.0 U	718
CC48 Dup	Total Recoverable Metals	Surface Water	6/7/2017	09:30	1630	5.00 U	10.0 U	5.00 U	1.54	31700	10.0 U	41.6	6300	19.4 J	2630	742	5.00 U	10.0 U	11800 J+	5.00 U	280	10.0 U	483
FB-11	Total Recoverable Metals	Water	6/6/2017	18:10	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 UJ	250 U	5.00 U	5.00 U	10.0 U	1000 U	5.00 U	10.0 U	10.0 U	20.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC28E	Total Recoverable Metals	Surface Water	6/6/2017	16:10	1840	5.00 U	10.0 U	5.00 U	2.30	30400	10.0 U	63.7	5680	30.0	2660	967	5.00 U	10.0 U	10900	5.00 U	276	10.0 U	706
CC28E Dup	Total Recoverable Metals	Surface Water	6/6/2017	16:10	1790	5.00 U	2.81	5.00 U	2.36	31200	10.0 U	65.3	5400	29.6	2610	986	5.00 U	10.0 U	10900	5.00 U	257	10.0 U	718
				RPD	**2.75%**	N/A	N/A	N/A	**2.58%**	**2.60%**	N/A	**2.48%**	**5.05%**	**1.34%**	**1.90%**	**1.95%**	N/A	N/A	**0.00%**	N/A	**7.13%**	**NA**	**1.69%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC48	Total Recoverable Metals	Surface Water	6/7/2017	09:30	1690	5.00 U	2.55	5.00 U	1.38	30700	10.0 U	40.9	6340	21.8	2670	731	5.00 U	10.0 U	11700	5.00 U	299	10.0 U	477
CC48 Dup	Total Recoverable Metals	Surface Water	6/7/2017	09:30	1630	5.00 U	10.0 U	5.00 U	1.54	31700	10.0 U	41.6	6300	19.4	2630	742	5.00 U	10.0 U	11800	5.00 U	280	10.0 U	483
				RPD	**3.61%**	N/A	N/A	N/A	**10.96%**	**3.21%**	N/A	**1.70%**	**0.63%**	**11.65%**	**1.51%**	**1.49%**	N/A	N/A	**0.85%**	N/A	**6.56%**	N/A	**1.25%**

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below:

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 21 Bonita Peak Mining District - High Flow June 6-7, 2017
Mineral Creek Surface Water Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M06A	Total Recoverable Metals	Surface Water	6/7/2017	15:55	792	5.00 U	15.0	5.00 U	1.00 U	8870	10.0 U	60.7	1420	30.8 J	946	137	5.00 U	10.0 U	5020 J+	5.00 U	186	12.8	158
M06B	Total Recoverable Metals	Surface Water	6/7/2017	15:50	443	5.00 U	2.60 J	5.00 U	15.5	25100	10.0 U	83.3	1680	1290 J	2310	1660	5.00 U	10.0 U	5310 J+	5.00 U	774	14.1	5770
M06C	Total Recoverable Metals	Surface Water	6/7/2017	16:00	810	5.00 U	15.7	5.00 U	1.00 U	9040	10.0 U	52.9	1390	52.0 J	961	131	5.00 U	10.0 U	5050 J+	5.00 U	188	10.0 U	174
M07	Total Recoverable Metals	Surface Water	6/7/2017	14:10	400	5.00 U	5.00 J	5.00 U	1.00 U	9680	10.0 U	26.6	650	36.1 J	1200	114	5.00 U	10.0 U	3900 J+	5.00 U	192	10.0 U	152
M11	Total Recoverable Metals	Surface Water	6/7/2017	14:00	302	5.00 U	5.34 J	5.00 U	1.00 U	12400	10.0 U	19.8	521	31.6 J	1130	86.4	5.00 U	10.0 U	4000 J+	5.00 U	224	10.0 U	120
M12	Total Recoverable Metals	Surface Water	6/6/2017	15:10	1640	5.00 U	10.0 U	5.00 U	1.27	14200	10.0 U	16.1	1540	3.76 J	2350	463	5.00 U	10.0 U	8290 J+	5.00 U	167	10.0 U	268
M13A	Total Recoverable Metals	Surface Water	6/6/2017	13:40	285	5.00 U	10.0 U	5.00 U	0.552 J	14900	10.0 U	13.9	415	19.1 J	1210	104	5.00 U	10.0 U	4590 J+	5.00 U	250	10.0 U	126
M13B	Total Recoverable Metals	Surface Water	6/6/2017	14:35	313	5.00 U	3.40 J	5.00 U	1.00 U	15300	10.0 U	13.1	414	16.7 J	1270	107	5.00 U	10.0 U	4970 J+	5.00 U	250	10.0 U	133
M13D	Total Recoverable Metals	Surface Water	6/6/2017	14:20	452	5.00 U	10.0 U	5.00 U	0.536 J	15000	10.0 U	12.4	494	13.6 J	1400	163	5.00 U	10.0 U	5350 J+	5.00 U	237	10.0 U	156
M14	Total Recoverable Metals	Surface Water	6/6/2017	13:15	2290	5.00 U	10.0 U	5.00 U	1.00 U	6180	10.0 U	40.5	1860	0.980 J	1190	110	5.00 U	10.0 U	16500 J+	5.00 U	66.5	10.0 UJ	16.6 J
M14A	Total Recoverable Metals	Surface Water	6/6/2017	14:10	385	5.00 U	10.0 U	5.00 U	1.00 U	15500	10.0 U	11.2	435	13.7 J	1360	141	5.00 U	10.0 U	5160 J+	5.00 U	243	10.0 U	142
M14B	Total Recoverable Metals	Surface Water	6/6/2017	12:45	555	5.00 U	2.68 J	5.00 U	1.00 U	15000	10.0 U	15.5	645	15.1 J	1370	144	5.00 U	10.0 U	6140 J+	5.00 U	232	10.0 U	132
M16	Total Recoverable Metals	Surface Water	6/7/2017	10:30	33600	5.00 U	10.0 U	2.42 J	1.40	441000	10.0 U	4.68 J+	70800	1.00 UJ	46000	6260	5.00 U	10.0 U	30600 J+	5.00 U	2950	10.0 U	650
M16A	Total Recoverable Metals	Surface Water	6/7/2017	10:50	31400	5.00 U	10.0 U	2.43 J	1.30	428000	10.0 U	4.16 J+	68700	1.00 UJ	43700	6270	5.00 U	10.0 U	30400 J+	5.00 U	2860	10.0 U	644
M16C	Total Recoverable Metals	Surface Water	6/7/2017	11:00	519	5.00 U	10.0 U	5.00 U	1.00 U	71300	10.0 U	5.00 U	783	5.60 J	3270	686	5.00 U	10.0 U	21800 J+	5.00 U	377	10.0 U	114
M16D	Total Recoverable Metals	Surface Water	6/7/2017	11:15	120	5.00 U	10.0 U	5.00 U	1.00 U	74800	10.0 U	5.00 U	6280	10.9 J	5700	1310	5.00 U	10.0 U	26300 J+	5.00 U	343	10.0 U	303
M16E	Total Recoverable Metals	Surface Water	6/7/2017	10:30	468	5.00 U	10.0 U	5.00 U	1.00 U	39100	10.0 U	5.00 U	360	0.531 J	2850	147	5.00 U	10.0 U	11100	5.00 U	377	10.0 U	29.2
M16F	Total Recoverable Metals	Surface Water	6/7/2017	10:00	266	5.00 U	10.0 U	5.00 U	1.00 U	10700	10.0 U	5.00 U	205 J	1.00 UJ	1050	36.7	5.00 U	10.0 U	6390	5.00 U	65.5	13.0	20.0 U
M16G	Total Recoverable Metals	Surface Water	6/7/2017	11:40	539	5.00 U	10.0 U	5.00 U	1.00 U	36800	10.0 U	5.00 U	237 J	1.00 UJ	2770	119	5.00 U	10.0 U	10200 J+	5.00 U	376	14.8	19.8 J
M16H	Total Recoverable Metals	Surface Water	6/7/2017	09:15	1090	5.00 U	10.0 U	5.00 U	1.00 U	36800	10.0 U	5.00 U	1900	0.511 J	3010	254	5.00 U	10.0 U	9580 J+	5.00 U	310	10.0 U	34.2
M17	Total Recoverable Metals	Surface Water	6/7/2017	09:20	1150	5.00 U	10.0 U	5.00 U	1.00 U	38100	10.0 U	5.00 U	2120	1.00 UJ	3020	266	5.00 U	10.0 U	9800 J+	5.00 U	319	10.0 U	36.9
M17A	Total Recoverable Metals	Surface Water	6/6/2017	15:45	1060	5.00 U	10.0 U	5.00 U	1.00 U	37100	10.0 U	5.00 U	2490	1.54 J	2760	234	5.00 U	10.0 U	10200 J+	5.00 U	307	10.0 U	32.4
M18	Total Recoverable Metals	Surface Water	6/6/2017	15:50	6180	5.00 U	10.0 U	5.00 U	0.801 J	20600	10.0 U	6.48 J+	10500	1.00 UJ	3650	264	5.00 U	10.0 U	15500 J+	5.00 U	160	10.0 U	46.1
M19	Total Recoverable Metals	Surface Water	6/6/2017	15:35	2440	5.00 U	10.0 U	5.00 U	1.00 U	32500	10.0 U	5.00 U	4770	0.901 J	3020	238	5.00 U	10.0 U	11500 J+	5.00 U	266	10.0 U	36.4
M20	Total Recoverable Metals	Surface Water	6/6/2017	16:50	2200	5.00 U	10.0 U	5.00 U	1.00 U	30100	10.0 U	5.00 U	5040	1.27 J	2730	219	5.00 U	10.0 U	11300 J+	5.00 U	245	10.0 U	33.6
M22	Total Recoverable Metals	Surface Water	6/6/2017	13:30	2150	5.00 U	10.0 U	5.00 U	1.00 U	31200	10.0 U	3.04 J+	4870	1.27 J	2760	224	5.00 U	10.0 U	11500 J+	5.00 U	251	10.0 U	59.4
M26B	Total Recoverable Metals	Surface Water	6/6/2017	11:30	460	5.00 U	10.0 U	5.00 U	1.00 U	14600	10.0 U	5.00 U	112 J	1.01 J	1470	55.3	5.00 U	10.0 U	5330 J+	5.00 U	86.0	10.0 U	17.3 J
M26D	Total Recoverable Metals	Surface Water	6/6/2017	11:20	491	5.00 U	10.0 U	5.00 U	1.00 U	19200	10.0 U	5.00 U	192 J	1.33 J	1630	48.4	5.00 U	10.0 U	6240 J+	5.00 U	118	10.0 U	18.7 J
M27	Total Recoverable Metals	Surface Water	6/6/2017	10:15	1010	5.00 U	10.0 U	5.00 U	1.00 U	18500	10.0 U	8.67 J+	2310	10.2 J	1690	176	5.00 U	10.0 U	8600 J+	5.00 U	214	10.0 UJ	107
M27A	Total Recoverable Metals	Surface Water	6/6/2017	12:45	1150	5.00 U	10.0 U	5.00 U	1.00 U	19100	10.0 U	13.3 J+	2180	13.1 J	1690	175	5.00 U	10.0 U	8050 J+	5.00 U	222	10.0 U	114
M27A2	Total Recoverable Metals	Surface Water	6/6/2017	10:55	1070	5.00 U	10.0 U	5.00 U	1.00 U	18800	10.0 U	11.1 J+	2850	14.9 J	1730	178	5.00 U	10.0 U	8410 J+	5.00 U	218	10.0 U	113
M28	Total Recoverable Metals	Surface Water	6/6/2017	10:50	513	5.00 U	10.0 U	5.00 U	1.00 U	19200	10.0 U	5.00 U	269	1.21 J	1620	51.8	5.00 U	10.0 U	6380 J+	5.00 U	117	10.0 U	19.2 J
M29	Total Recoverable Metals	Surface Water	6/6/2017	09:50	815	5.00 U	10.0 U	5.00 U	1.00 U	18900	10.0 U	5.13 J+	1330	7.41 J	1670	110	5.00 U	10.0 U	7740 J+	5.00 U	160	10.0 U	61.2
M29A	Total Recoverable Metals	Surface Water	6/6/2017	10:10	829	5.00 U	10.0 U	5.00 U	1.00 U	18400	10.0 U	5.31	1400	7.55	1620	109	5.00 U	10.0 U	7620	5.00 U	155	10.0 U	58.9
M29B	Total Recoverable Metals	Surface Water	6/6/2017	09:50	629	5.00 U	10.0 U	5.00 U	1.00 U	1430	10.0 U	39.3 J+	292	0.756 J	363	7.68	5.00 U	10.0 U	18300 J+	5.00 U	13.6	13.5	20.8
M32	Total Recoverable Metals	Surface Water	6/6/2017	09:15	887	5.00 U	10.0 U	5.00 U	1.00 U	18800	10.0 U	4.82 J	1560	6.94 J	1670	107	5.00 U	10.0 U	7930 J+	5.00 U	151	10.0 U	53.4
M32B	Total Recoverable Metals	Surface Water	6/6/2017	18:00	171	5.00 U	10.0 U	5.00 U	1.00 U	13300	10.0 U	6.69	218 J	24.7 J	2040	17.9	5.00 U	10.0 U	5730 J+	5.00 U	44.7	10.0 U	82.8
M33	Total Recoverable Metals	Surface Water	6/6/2017	08:50	783	5.00 U	10.0 U	5.00 U	1.00 U	17900	10.0 U	5.74	1370	6.93 J	1580	103	5.00 U	10.0 U	7490 J+	5.00 U	143	10.0 U	55.0
M33A	Total Recoverable Metals	Surface Water	6/6/2017	17:10	2250	5.00 U	61.2	5.00 U	9.05	146000	10.0 U	471	17600	25.5 J	25100	7860	5.00 U	10.0 U	17500 J+	5.00 U	1140	10.0 U	1970
M34	Total Recoverable Metals	Surface Water	6/6/2017	09:15	701	5.00 U	10.0 U	5.00 U	1.00 U	18900	10.0 U	7.77	1170	6.59 J	1690	123	5.00 U	10.0 U	7450 J+	5.00 U	146	10.0 U	58.4
M38	Total Recoverable Metals	Surface Water	6/6/2017	08:45	820	5.00 U	10.0 U	5.00 U	1.00 U	18300	10.0 U	7.62	1440	7.98 J	1640	124	5.00 U	10.0 U	7650 J+	5.00 U	145	10.0 U	62.6
SF Camp	Total Recoverable Metals	Groundwater	6/6/2017	11:45	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	42300	10.0 U	10.5 J+	250 U	1.00 UJ	3700	5.00 U	5.00 U	10.0 U	7090 J+	5.00 U	370	10.0 U	88.1
M27 Dup	Total Recoverable Metals	Surface Water	6/6/2017	10:15	1110	5.00 U	10.0 U	5.00 U	1.00 U	19600	10.0 U	10.6	2350	11.5 J	1840	177	5.00 U	10.0 U	8640	5.00 U	209	12.0 J	107
M14 Dup	Total Recoverable Metals	Surface Water	6/6/2017	13:15	2450	5.00 U	10.0 U	5.00 U	1.00 U	6390	10.0 U	42.6	2060	1.34 J	1270	112	5.00 U	10.0 U	16800 J+	5.00 U	61.2	12.8 J	15.3 J
M20 Dup	Total Recoverable Metals	Surface Water	6/6/2017	16:50	2390	5.00 U	10.0 U	5.00 U	1.00 U	32900	10.0 U	5.00 U	4870	1.08 J	3010	226	5.00 U	10.0 U	11200 J+	5.00 U	235	10.0 U	32.7
M11 Dup	Total Recoverable Metals	Surface Water	6/7/2017	14:00	383	5.00 U	4.41 J	5.00 U	1.00 U	13000	10.0 U	19.5	633	33.5 J	1150	91.1	5.00 U	10.0 U	4350 J+	5.00 U	198	10.0 U	123
M07 Dup	Total Recoverable Metals	Surface Water	6/7/2017	14:10	469	5.00 U	5.15 J	5.00 U	1.00 U	9640	10.0 U	25.8	742	36.1 J	1190	119	5.00 U	10.0 U	4160 J+	5.00 U	171	10.0 U	160
FB-01	Total Recoverable Metals	Water	6/6/2017	12:00	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 UJ	250 U	5.00 U	5.00 U	10.0 U	1000 U	5.00 U	10.0 U	10.0 U	20.0 U
FB-02	Total Recoverable Metals	Water	6/7/2017	12:50	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 UJ	250 U	5.00 U	5.00 U	10.0 U	1000 U	5.00 U	10.0 U	10.0 U	20.0 U
FB-03	Total Recoverable Metals	Water	6/7/2017	17:40	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 UJ	250 U	5.00 U	5.00 U	10.0 U	1000 U	5.00 U	10.0 U	10.0 U	20.0 U

Table 21 Bonita Peak Mining District - High Flow June 6-7, 2017
Mineral Creek Surface Water Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M27	Total Recoverable Metals	Surface Water	6/6/2017	10:15	1010	5.00 U	10.0 U	5.00 U	1.00 U	18500	10.0 U	8.67	2310	10.2	1690	176	5.00 U	10.0 U	8600	5.00 U	214	10.0 UJ	107
M27 Dup	Total Recoverable Metals	Surface Water	6/6/2017	10:15	1110	5.00 U	10.0 U	5.00 U	1.00 U	19600	10.0 U	10.6	2350	11.5	1840	177	5.00 U	10.0 U	8640	5.00 U	209	12	107
				RPD	**9.43%**	N/A	N/A	N/A	N/A	**5.77%**	N/A	**20.03%**	**1.72%**	**11.98%**	**8.50%**	**0.57%**	N/A	N/A	**0.46%**	N/A	**2.36%**	N/A	**0.00%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M14	Total Recoverable Metals	Surface Water	6/6/2017	13:15	2290	5.00 U	10.0 U	5.00 U	1.00 U	6180	10.0 U	40.5	1860	0.98	1190	110	5.00 U	10.0 U	16500	5.00 U	66.5	10.0 UJ	16.6
M14 Dup	Total Recoverable Metals	Surface Water	6/6/2017	13:15	2450	5.00 U	10.0 U	5.00 U	1.00 U	6390	10.0 U	42.6	2060	1.34	1270	112	5.00 U	10.0 U	16800	5.00 U	61.2	12.8	15.3
				RPD	**6.75%**	N/A	N/A	N/A	N/A	**3.34%**	N/A	**5.05%**	**10.20%**	**31.03%**	**6.50%**	**1.80%**	N/A	N/A	**1.80%**	N/A	**8.30%**	N/A	**8.15%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M20	Total Recoverable Metals	Surface Water	6/6/2017	16:50	2200	5.00 U	10.0 U	5.00 U	1.00 U	30100	10.0 U	5.00 U	5040	1.27	2730	219	5.00 U	10.0 U	11300	5.00 U	245	10.0 U	33.6
M20 Dup	Total Recoverable Metals	Surface Water	6/6/2017	16:50	2390	5.00 U	10.0 U	5.00 U	1.00 U	32900	10.0 U	5.00 U	4870	1.08	3010	226	5.00 U	10.0 U	11200	5.00 U	235	10.0 U	32.7
				RPD	**8.28%**	N/A	N/A	N/A	N/A	**8.89%**	N/A	N/A	**3.43%**	**16.17%**	**9.76%**	**3.15%**	N/A	N/A	**0.89%**	N/A	**4.17%**	N/A	**2.71%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M11	Total Recoverable Metals	Surface Water	6/7/2017	14:00	302	5.00 U	5.34	5.00 U	1.00 U	12400	10.0 U	19.8	521	31.6	1130	86.4	5.00 U	10.0 U	4000	5.00 U	224	10.0 U	120
M11 Dup	Total Recoverable Metals	Surface Water	6/7/2017	14:00	383	5.00 U	4.41	5.00 U	1.00 U	13000	10.0 U	19.5	633	33.5	1150	91.1	5.00 U	10.0 U	4350	5.00 U	198	10.0 U	123
				RPD	**23.65%**	N/A	**19.08%**	N/A	N/A	**4.72%**	N/A	**1.53%**	**19.41%**	**5.84%**	**1.75%**	**5.30%**	N/A	N/A	**8.38%**	N/A	**12.32%**	N/A	**2.47%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M07	Total Recoverable Metals	Surface Water	6/7/2017	14:10	400	5.00 U	5.0	5.00 U	1.00 U	9680	10.0 U	26.6	650	36.1	1200	114	5.00 U	10.0 U	3900	5.00 U	192	10.0 U	152
M07 Dup	Total Recoverable Metals	Surface Water	6/7/2017	14:10	469	5.00 U	5.15	5.00 U	1.00 U	9640	10.0 U	25.8	742	36.1	1190	119	5.00 U	10.0 U	4160	5.00 U	171	10.0 U	160
				RPD	**15.88%**	N/A	**2.96%**	N/A	N/A	**0.41%**	N/A	**3.05%**	**13.22%**	**0.00%**	**0.84%**	**4.29%**	N/A	N/A	**6.45%**	N/A	**11.57%**	N/A	**5.13%**

Note: Removed flags from values for RPD calculation
Note: Data Qualifier Definitions Listed Below:
U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 22 Bonita Peak Mining District - High Flow June 6-7, 2017
Animas Surface Water Analytical Results - Wet Chemistry

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A05	Wet Chemistry	Surface Water	6/7/2017	15:25	2.0 U	0.1 J	2.0 U	15.6	9.35 J
A09	Wet Chemistry	Surface Water	6/7/2017	14:45	2.0 U	0.2	2.0 U	19.6	10.0 U
A10	Wet Chemistry	Surface Water	6/7/2017	14:25	2.0 U	0.7	2.0 U	34.6	10.0 U
A11	Wet Chemistry	Surface Water	6/7/2017	16:05	2.0 U	0.6	2.0 U	34.3	10.0 U
A13	Wet Chemistry	Surface Water	6/7/2017	16:40	2.0 U	0.7	2.0 U	35.0	10.0 U
A14	Wet Chemistry	Surface Water	6/7/2017	14:00	2.0 U	0.5	2.0 U	29.1	10.0 U
A28	Wet Chemistry	Surface Water	6/7/2017	13:17	2.0 U	0.4	2.0 U	26.1	9.97 J
A30	Wet Chemistry	Surface Water	6/7/2017	13:35	2.0 U	0.3	2.0 U	25.9	9.75 J
A30A	Wet Chemistry	Surface Water	6/7/2017	13:15	2.0 U	0.4	2.0 U	26.4	10.2
A30B	Wet Chemistry	Surface Water	6/7/2017	12:50	2.0 U	0.4	2.0 U	26.8	10.4
A31	Wet Chemistry	Surface Water	6/7/2017	11:40	2.0 U	0.4	2.0 U	27.2	11.0
A33	Wet Chemistry	Surface Water	6/7/2017	11:20	2.0 U	0.4	2.0 U	27.2	10.8
A34	Wet Chemistry	Surface Water	6/7/2017	10:40	2.0 U	0.3	2.0 U	37.7	17.0
A35	Wet Chemistry	Surface Water	6/7/2017	11:00	2.0 U	0.3	2.0 U	29.6	12.5
A40	Wet Chemistry	Surface Water	6/7/2017	11:32	2.0 U	0.4	2.0 U	37.8	12.5
A40A	Wet Chemistry	Surface Water	6/7/2017	12:05	2.0 U	0.3	2.0 U	32.5	12.8
A41A	Wet Chemistry	Surface Water	6/7/2017	11:22	2.0 U	0.3	2.0 U	25.8	22.8
A45	Wet Chemistry	Surface Water	6/7/2017	10:13	2.0 U	0.4	2.0 U	37.5	17.9
A47	Wet Chemistry	Surface Water	6/6/2017	14:06	2.0 U	0.2	2.0 U	16.8	31.8
A48	Wet Chemistry	Surface Water	6/6/2017	15:50	2.0 U	0.1 J	2.0 U	13.3	33.2
A54	Wet Chemistry	Surface Water	6/7/2017	08:31	4.0 U	1.4	4.0 U	242	18.1
A55	Wet Chemistry	Surface Water	6/6/2017	13:46	2.0 U	0.4	2.0 U	33.7	20.1
A55a	Wet Chemistry	Surface Water	6/6/2017	13:19	2.0 U	0.3	2.0 U	32.2	21.4
A56	Wet Chemistry	Surface Water	6/6/2017	12:45	2.0 U	0.3	2.0 U	31.8	21.4
A58	Wet Chemistry	Surface Water	6/6/2017	11:57	2.0 U	0.2	2.0 U	19.0	29.2
A60	Wet Chemistry	Surface Water	6/6/2017	11:32	2.0 U	0.3	2.0 U	31.1	21.2
A61	Wet Chemistry	Surface Water	6/6/2017	11:10	2.0 U	0.3	2.0 U	31.5	21.4
A65	Wet Chemistry	Surface Water	6/6/2017	10:19	2.0 U	0.3	2.0 U	30.3	21.5
A66	Wet Chemistry	Surface Water	6/6/2017	09:56	2.0 U	0.3	2.0 U	30.9	21.7
A68	Wet Chemistry	Surface Water	6/6/2017	09:28	2.0 U	0.3	2.0 U	29.7	21.4
A72	Wet Chemistry	Surface Water	6/6/2017	08:41	2.0 U	0.3	2.0 U	44.7	15.6
Bakers Bridge	Wet Chemistry	Surface Water	6/8/2017	09:00	2.0 U	0.2	2.0 U	22.9	28.0
CG01	Wet Chemistry	Surface Water	6/6/2017	14:50	7.9 J	2.6	10.0 U	383	10.0 U
CG02	Wet Chemistry	Surface Water	6/6/2017	14:35	8.0 J	2.4	10.0 U	380	10.0 U
CG11	Wet Chemistry	Surface Water	6/7/2017	15:10	1.1 J	0.7	2.0 U	34.3	10.0 U
CG9	Wet Chemistry	Surface Water	6/7/2017	16:15	1.1 J	0.7	2.0 U	35.3	10.0 U
CU4	Wet Chemistry	Surface Water	6/6/2017	16:15	1.1 J	0.2 U	2.0 U	6.2	30.8
CU4a	Wet Chemistry	Surface Water	6/6/2017	16:44	1.1 J	0.2 U	2.0 U	6.8	30.7
DM56	Wet Chemistry	Surface Water	6/7/2017	09:11	2.0 U	2.2	2.0 U	202	10.0 U
LA3	Wet Chemistry	Surface Water	6/7/2017	10:41	2.0 U	0.3	2.0 U	28.3	21.7
T4	Wet Chemistry	Surface Water	6/6/2017	10:43	2.0 U	0.3	2.0 U	30.4	21.8
A68 Dup	Wet Chemistry	Surface Water	6/6/2017	09:28	2.0 U	0.3	2.0 U	29.9	21.8
LA3 Dup	Wet Chemistry	Surface Water	6/7/2017	10:41	2.0 U	0.3	2.0 U	28.5	21.7
CG9 Dup	Wet Chemistry	Surface Water	6/7/2017	16:50	2.0 U	0.7	2.0 U	35.4	10.0 U
FB-06	Wet Chemistry	Water	6/6/2017	18:05	2.0 U	0.2 U	2.0 U	5.0 U	10.0 U
FB-07	Wet Chemistry	Water	6/7/2017	16:40	2.0 U	0.2 U	2.0 U	5.0 U	10.0 U
FB-08	Wet Chemistry	Water	6/7/2017	16:35	2.0 U	0.2 U	2.0 U	5.0 U	10.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
LA3	Wet Chemistry	Surface Water	6/7/2017	10:41	2.0 U	0.3	2.0 U	28.3	21.7
LA3 Dup	Wet Chemistry	Surface Water	6/7/2017	10:41	2.0 U	0.3	2.0 U	28.5	21.7
				RPD	N/A	**0.00%**	N/A	**0.70%**	**0.00%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
CG9	Wet Chemistry	Surface Water	6/7/2017	16:15	1.1	0.7	2.0 U	35.3	10.0 U
CG9 Dup	Wet Chemistry	Surface Water	6/7/2017	16:50	2.0 U	0.7	2.0 U	35.4	10.0 U
				RPD	N/A	**0.00%**	N/A	**0.28%**	N/A

Note: Removed flags from values for RPD calculation
Note: Data Qualifier Definitions Listed Below:
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J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 23 Bonita Peak Mining District - High Flow June 6-7, 2017
Cement Creek Surface Water Analytical Results - Wet Chemistry

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
CC03	Wet Chemistry	Surface Water	6/6/2017	10:55	2.0 U	0.5	2.0 U	74.5	10.0 U
CC03B	Wet Chemistry	Surface Water	6/6/2017	10:00	2.0 U	0.4	2.0 U	48.3	10.0 U
CC03C	Wet Chemistry	Surface Water	6/6/2017	09:20	20.0 U	6.2	20.0 U	1430	26.4
CC06	Wet Chemistry	Surface Water	6/6/2017	13:00	20.0 U	8.5	20.0 U	2220	10.0 U
CC07	Wet Chemistry	Surface Water	6/6/2017	10:20	2.0 U	0.3	2.0 U	86.9	10.0 U
CC17	Wet Chemistry	Surface Water	6/6/2017	14:00	2.0 U	0.4	2.0 U	93.1	5.25 J
CC18	Wet Chemistry	Surface Water	6/6/2017	12:05	2.0 U	0.5	2.0 U	87.3	10.0 U
CC19	Wet Chemistry	Surface Water	6/6/2017	12:40	20.0 U	3.6	20.0 U	1540	10.0 U
CC20H	Wet Chemistry	Surface Water	6/6/2017	12:20	1.1 J	0.5	2.0 U	87.5	10.0 U
CC21	Wet Chemistry	Surface Water	6/6/2017	13:45	1.1 J	0.6	2.0 U	114	10.0 U
CC21D	Wet Chemistry	Surface Water	6/6/2017	14:50	1.1 J	0.2 U	2.0 U	9.8	10.0 U
CC26	Wet Chemistry	Surface Water	6/6/2017	15:30	1.1 J	0.2	2.0 U	40.0	10.0 U
CC28C	Wet Chemistry	Surface Water	6/6/2017	16:30	1.1 J	0.4	2.0 U	102	10.0 U
CC28D	Wet Chemistry	Surface Water	6/6/2017	16:40	1.1 J	0.4	2.0 U	105	10.0 U
CC28E	Wet Chemistry	Surface Water	6/6/2017	16:10	1.1 J	0.4	2.0 U	102	10.0 U
CC39	Wet Chemistry	Surface Water	6/6/2017	18:00	1.1 J	0.4	2.0 U	85.1	10.0 U
CC39B	Wet Chemistry	Surface Water	6/6/2017	17:05	1.1 J	0.4	2.0 U	92.0	10.0 U
CC39C	Wet Chemistry	Surface Water	6/6/2017	17:45	1.2 J	0.4	2.0 U	95.7	10.0 U
CC39D	Wet Chemistry	Surface Water	6/7/2017	08:30	1.1 J	0.4	2.0 U	100	10.0 U
CC41	Wet Chemistry	Surface Water	6/7/2017	08:45	1.2 J	0.5	2.0 U	97.4	10.0 U
CC43E	Wet Chemistry	Surface Water	6/7/2017	09:05	1.2 J	0.4	2.0 U	103	10.0 U
CC48	Wet Chemistry	Surface Water	6/7/2017	09:30	1.2 J	0.4	2.0 U	95.1	10.0 U
CC28E Dup	Wet Chemistry	Surface Water	6/6/2017	16:10	2.0 U	0.5	2.0 U	102	10.0 U
CC48 Dup	Wet Chemistry	Surface Water	6/7/2017	09:30	2.0 U	0.4	2.0 U	95.1	10.0 U
FB-11	Wet Chemistry	Water	6/6/2017	18:10	2.0 U	0.2 U	2.0 U	5.0 U	10.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
CC28E	Wet Chemistry	Surface Water	6/6/2017	16:10	1.1	0.4	2.0 U	102	10.0 U
CC28E Dup	Wet Chemistry	Surface Water	6/6/2017	16:10	2.0 U	0.5	2.0 U	102	10.0 U
				RPD	N/A	**22.22%**	N/A	**0.00%**	N/A

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
CC48	Wet Chemistry	Surface Water	6/7/2017	09:30	1.2	0.4	2.0 U	95.1	10.0 U
CC48 Dup	Wet Chemistry	Surface Water	6/7/2017	09:30	2.0 U	0.4	2.0 U	95.1	10.0 U
				RPD	N/A	**0.00%**	N/A	**0.00%**	N/A

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below:

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J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 24 Bonita Peak Mining District - High Flow June 6-7, 2017
Mineral Creek Surface Water Analytical Results - Wet Chemistry

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
M06A	Wet Chemistry	Surface Water	6/7/2017	15:55	2.0 U	0.2 U	2.0 U	16.6	11.2
M06B	Wet Chemistry	Surface Water	6/7/2017	15:50	5.1	0.2	2.0 U	97.8	10.0 U
M06C	Wet Chemistry	Surface Water	6/7/2017	16:00	2.0 U	0.1 J	2.0 U	17.0	11.1
M07	Wet Chemistry	Surface Water	6/7/2017	14:10	2.0 U	0.2 U	2.0 U	18.6	12.5
M11	Wet Chemistry	Surface Water	6/7/2017	14:00	2.0 U	0.1 J	2.0 U	24.6	13.6
M12	Wet Chemistry	Surface Water	6/6/2017	15:10	2.0 U	0.2	2.0 U	46.8	10.0 U
M13A	Wet Chemistry	Surface Water	6/6/2017	13:40	2.0 U	0.2	2.0 U	30.8	13.3
M13B	Wet Chemistry	Surface Water	6/6/2017	14:35	2.0 U	0.2	2.0 U	32.2	13.0
M13D	Wet Chemistry	Surface Water	6/6/2017	14:20	2.0 U	0.2	2.0 U	34.7	11.1
M14	Wet Chemistry	Surface Water	6/6/2017	13:15	2.0 U	0.2	2.0 U	37.4	10.0 U
M14A	Wet Chemistry	Surface Water	6/6/2017	14:10	2.0 U	0.2	2.0 U	34.0	11.8
M14B	Wet Chemistry	Surface Water	6/6/2017	12:45	2.0 U	0.2	2.0 U	35.2	10.0
M16	Wet Chemistry	Surface Water	6/7/2017	10:30	20.0 U	6.0	20.0 U	1510	5.76 J
M16A	Wet Chemistry	Surface Water	6/7/2017	10:50	20.0 U	6.2	20.0 U	1510	10.0 U
M16C	Wet Chemistry	Surface Water	6/7/2017	11:00	2.0 U	0.8	2.0 U	148	58.2
M16D	Wet Chemistry	Surface Water	6/7/2017	11:15	2.0 U	0.9	2.0 U	188	37.2
M16E	Wet Chemistry	Surface Water	6/7/2017	10:30	2.0 U	0.4	2.0 U	107	10.5
M16F	Wet Chemistry	Surface Water	6/7/2017	10:00	2.0 U	0.2	2.0 U	25.4	7.82 J
M16G	Wet Chemistry	Surface Water	6/7/2017	11:40	2.0 U	0.4	2.0 U	103	8.50 J
M16H	Wet Chemistry	Surface Water	6/7/2017	09:15	2.0 U	0.4	2.0 U	108	6.30 J
M17	Wet Chemistry	Surface Water	6/7/2017	09:20	2.0 U	0.4	2.0 U	111	5.40 J
M17A	Wet Chemistry	Surface Water	6/6/2017	15:45	2.0 U	0.4	2.0 U	105	7.26 J
M18	Wet Chemistry	Surface Water	6/6/2017	15:50	2.0 U	0.4	2.0 U	119	10.0 U
M19	Wet Chemistry	Surface Water	6/6/2017	15:35	2.0 U	0.4	2.0 U	109	10.0 U
M20	Wet Chemistry	Surface Water	6/6/2017	16:50	2.0 U	0.4	2.0 U	98.9	10.0 U
M22	Wet Chemistry	Surface Water	6/6/2017	13:30	2.0 U	0.4	2.0 U	99.8	10.0 U
M26B	Wet Chemistry	Surface Water	6/6/2017	11:30	2.0 U	0.2	2.0 U	25.7	19.8
M26D	Wet Chemistry	Surface Water	6/6/2017	11:20	2.0 U	0.2	2.0 U	30.1	27.8
M27	Wet Chemistry	Surface Water	6/6/2017	10:15	2.0 U	0.2	2.0 U	53.7	10.0 U
M27A	Wet Chemistry	Surface Water	6/6/2017	12:45	2.0 U	0.2	2.0 U	54.5	5.49 J
M27A2	Wet Chemistry	Surface Water	6/6/2017	10:55	2.0 U	0.2	2.0 U	53.7	5.10 J
M28	Wet Chemistry	Surface Water	6/6/2017	10:50	2.0 U	0.2	2.0 U	30.8	26.4
M29	Wet Chemistry	Surface Water	6/6/2017	09:50	2.0 U	0.2	2.0 U	40.9	16.5
M29A	Wet Chemistry	Surface Water	6/6/2017	10:10	2.0 U	0.2	2.0 U	39.9	16.9
M29B	Wet Chemistry	Surface Water	6/6/2017	09:50	2.0 U	0.2 U	2.0 U	10.4	10.0 U
M32	Wet Chemistry	Surface Water	6/6/2017	09:15	2.0 U	0.2	2.0 U	40.3	17.1
M32B	Wet Chemistry	Surface Water	6/6/2017	18:00	2.0 U	0.2	2.0 U	28.9	14.8
M33	Wet Chemistry	Surface Water	6/6/2017	08:50	2.0 U	0.2	2.0 U	37.8	17.9
M33A	Wet Chemistry	Surface Water	6/6/2017	17:10	20.0 U	2.3	20.0 U	474	22.1
M34	Wet Chemistry	Surface Water	6/6/2017	09:15	2.0 U	0.2	2.0 U	40.0	18.8
M38	Wet Chemistry	Surface Water	6/6/2017	08:45	2.0 U	0.2	2.0 U	38.5	18.0
M27 Dup	Wet Chemistry	Surface Water	6/6/2017	10:15	2.0 U	0.2	2.0 U	53.1	10.0 U
M14 Dup	Wet Chemistry	Surface Water	6/6/2017	13:15	2.0 U	0.2	2.0 U	37.6	10.0 U
M20 Dup	Wet Chemistry	Surface Water	6/6/2017	16:50	2.0 U	0.4	2.0 U	99.4	10.0 U
M11 Dup	Wet Chemistry	Surface Water	6/7/2017	14:00	2.0 U	0.1 J	2.0 U	24.5	13.6
M07 Dup	Wet Chemistry	Surface Water	6/7/2017	14:10	2.0 U	0.2 U	2.0 U	18.6	12.4
FB-01	Wet Chemistry	Water	6/6/2017	12:00	2.0 U	0.2 U	2.0 U	5.0 U	10.0 U
FB-02	Wet Chemistry	Water	6/7/2017	12:50	2.0 U	0.2 U	2.0 U	5.0 U	10.0 U
FB-03	Wet Chemistry	Water	6/7/2017	17:40	2.0 U	0.2 U	2.0 U	5.0 U	10.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
M27	Wet Chemistry	Surface Water	6/6/2017	10:15	2.0 U	0.2	2.0 U	53.7	10.0 U
M27 Dup	Wet Chemistry	Surface Water	6/6/2017	10:15	2.0 U	0.2	2.0 U	53.1	10.0 U
				RPD	N/A	**0.00%**	N/A	**1.12%**	N/A

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
M14	Wet Chemistry	Surface Water	6/6/2017	13:15	2.0 U	0.2	2.0 U	37.4	10.0 U
M14 Dup	Wet Chemistry	Surface Water	6/6/2017	13:15	2.0 U	0.2	2.0 U	37.6	10.0 U
				RPD	N/A	**0.00%**	N/A	**0.53%**	N/A

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
M20	Wet Chemistry	Surface Water	6/6/2017	16:50	2.0 U	0.4	2.0 U	98.9	10.0 U
M20 Dup	Wet Chemistry	Surface Water	6/6/2017	16:50	2.0 U	0.4	2.0 U	99.4	10.0 U
				RPD	N/A	**0.00%**	N/A	**0.50%**	N/A

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
M11	Wet Chemistry	Surface Water	6/7/2017	14:00	2.0 U	0.1	2.0 U	24.6	13.6
M11 Dup	Wet Chemistry	Surface Water	6/7/2017	14:00	2.0 U	0.1	2.0 U	24.5	13.6
				RPD	N/A	**0.00%**	N/A	**0.41%**	**0.00%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
M07	Wet Chemistry	Surface Water	6/7/2017	14:10	2.0 U	0.2 U	2.0 U	18.6	12.5
M07 Dup	Wet Chemistry	Surface Water	6/7/2017	14:10	2.0 U	0.2 U	2.0 U	18.6	12.4
				RPD	N/A	N/A	N/A	**0.00%**	**0.80%**

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below:

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample

Table 25 Bonita Peak Mining District - High Flow July 11-12, 2017
Animas Surface Water Analytical Results - Dissolved Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A05	Dissolved Metals	Surface Water	7/11/2017	12:10	50.0 U	1.00 U	2.00 U	5.00 U	0.340	9460	2.00 U	0.766 J	29	250 U	0.200 U	1220	5.00 UJ	1.00 U	2.00 U	1910	1.00 U	27.9	2.00 U	63.3
A07	Dissolved Metals	Surface Water	7/11/2017	11:10	4600	1.00 U	2.00 U	5.00 U	9.44	9680	2.00 U	43.0	32	250 U	10.8 J	1820	2190	4.97	2.00 U	5450	1.00 U	21.9	2.00 U	1310
A07A	Dissolved Metals	Surface Water	7/11/2017	13:10	5280	1.00 U	2.00 U	5.00 U	10.9	10500	2.00 U	49.9	34	116 J	7.07 J	2010	2600	5.80	2.00 U	5900	1.00 U	21.5	2.00 U	1510
A07B	Dissolved Metals	Surface Water	7/11/2017	14:05	5360	1.00 U	2.00 U	5.00 U	9.22	9500	2.00 U	33.4	29	113 J	10.4 J	1350	2080	4.53	2.00 U	4770	1.00 U	21.4	2.00 U	1540
A07B1	Dissolved Metals	Surface Water	7/12/2017	10:10	51.0	1.00 U	2.00 U	5.00 U	1.01	13400	2.00 U	2.22	38	250 U	0.200 UJ	1140	16.0	1.00 U	2.00 U	4170	1.00 U	28.5	2.00 U	119
A07B2	Dissolved Metals	Surface Water	7/12/2017	10:20	7350	1.00 U	2.00 U	2.92 J	21.7	12100	2.00 U	160	50	250 U	0.211 J	4680	5010	12.8	2.00 U	9970	1.00 U	13.9	2.00 U	1990
A07B3	Dissolved Metals	Surface Water	7/12/2017	10:30	5950	1.00 U	2.00 U	3.38 J	16.5	11400	2.00 U	69.5	46	250 U	0.432 J	4270	4840	10.1	2.00 U	10100	1.00 U	12.3	2.00 U	1640
A07C1	Dissolved Metals	Surface Water	7/12/2017	12:00	4780	1.00 U	2.00 U	5.00 U	6.51	7740	2.00 U	33.1	24	124 J	11.6 J	1180	1920	3.90	2.00 U	4310	1.00 U	12.0	2.00 U	1090
A07D	Dissolved Metals	Surface Water	7/12/2017	12:35	3900	1.00 U	2.00 U	5.00 U	4.61	7140	2.00 U	32.4	23	181 J	11.9 J	1160	1670	3.27	2.00 U	4040	1.00 U	11.5	2.00 U	696
A07D1	Dissolved Metals	Surface Water	7/12/2017	13:15	18200	1.00 U	2.00 U	5.00 U	14.5	9310	2.00 U	111	33	1250	9.27 J	2480	5240	12.1	2.00 U	7940	1.00 U	5.85 J	2.00 U	2010
A07E	Dissolved Metals	Surface Water	7/12/2017	13:20	3810	1.00 U	2.00 U	5.00 U	4.55	7220	2.00 U	32.7	23	166 J	12.1 J	1130	1640	3.01	2.00 U	3940	1.00 U	11.6	2.00 U	667
A07E1	Dissolved Metals	Surface Water	7/12/2017	14:00	18600	1.00 U	2.00 U	3.48 J	36.6	15900	2.00 U	53.2	51	250 U	0.863 J	2850	6620	15.7	2.00 U	8830	1.00 U	18.3	2.00 U	6610
A07F	Dissolved Metals	Surface Water	7/12/2017	13:10	3280	1.00 U	2.00 U	5.00 U	4.11	7000	2.00 U	29.4	22	151 J	11.8 J	1050	1500	2.83	2.00 U	3840	1.00 U	11.5 J-	2.00 U	592
A07G	Dissolved Metals	Surface Water	7/12/2017	13:00	1080	1.00 U	2.00 U	5.00 U	2.41	7940	2.00 U	15.1	24	250 U	14.3 J	995	1080	1.70	2.00 U	3220	1.00 U	14.1 J-	2.00 U	368
A08	Dissolved Metals	Surface Water	7/11/2017	10:30	1300	1.00 U	2.00 U	5.00 U	4.18	9770	2.00 U	18.0	31	250 U	4.42 J	1650	933	2.06	2.00 U	3400	1.00 U	24.7 J-	2.00 U	586
A15	Dissolved Metals	Surface Water	7/11/2017	10:25	2230	1.00 U	2.00 U	4.08 J	5.53	31700	2.00 U	15.1	103	250 U	1.69 J	5760	8980	4.25	2.00 U	6220	1.00 U	179 J-	2.00 U	1590
A18	Dissolved Metals	Surface Water	7/11/2017	15:40	76.5	1.00 U	2.00 U	5.00 U	1.79	25400	2.00 U	18.8	76	250 U	2.03 J	3040	313	1.73	2.00 U	2320	1.00 U	145 J-	2.00 U	359
A18A	Dissolved Metals	Surface Water	7/11/2017	15:15	50.0 U	1.00 U	2.00 U	5.00 U	0.629	42400	2.00 U	2.22	130	250 U	0.191 J	5830	136	1.00 U	2.00 U	2560	1.00 U	333 J-	2.00 U	125
A18B	Dissolved Metals	Surface Water	7/11/2017	14:00	201	1.00 U	2.00 U	5.00 U	1.07	35500	2.00 U	6.36	109	250 U	0.200 UJ	4890	900	1.00 U	2.00 U	3440	1.00 U	267 J-	2.00 U	202
A20	Dissolved Metals	Surface Water	7/12/2017	12:15	71.1	1.00 U	2.00 U	5.00 U	2.66	19800	2.00 U	19.5	60	250 U	4.17 J	2580	2240	3.35	2.00 U	4270	1.00 U	121 J-	2.00 U	1060
A21	Dissolved Metals	Surface Water	7/12/2017	13:15	113	1.00 U	2.00 U	5.00 U	3.32	20100	2.00 U	27.9	61	250 U	6.23 J	2550	2750	4.30	2.00 U	3920	1.00 U	143	2.00 U	1140
A22	Dissolved Metals	Surface Water	7/12/2017	14:00	110	1.00 U	2.00 U	5.00 U	3.15	19400	2.00 U	27.3	59	250 U	1.58 J	2470	2750	4.17	2.00 U	3650	1.00 U	145	2.00 U	1070
A23	Dissolved Metals	Surface Water	7/12/2017	14:45	114	1.00 U	2.00 U	5.00 U	1.77	16300	2.00 U	5.41	48	250 U	0.945 J	1780	1490	2.65	2.00 U	3360	1.00 U	152	2.00 U	597
A23A	Dissolved Metals	Surface Water	7/12/2017	15:10	1060	1.00 U	2.00 U	5.00 U	8.60	13400	2.00 U	106	40	250 U	1.50 J	1480	9330	3.57	2.00 U	6010	1.00 U	72.2	2.00 U	2210
A36	Dissolved Metals	Surface Water	7/11/2017	11:20	101	1.00 U	2.00 U	5.00 U	0.114 J	26900	2.00 U	2.57	75	250 U	0.200 UJ	1900	38.8	1.00 U	2.00 U	3660	1.00 U	235	2.00 U	29.4
A36A	Dissolved Metals	Surface Water	7/12/2017	10:25	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	19300	2.00 U	0.703 J	54	250 U	0.200 UJ	1420	2.44 J	1.00 U	2.00 U	2600	1.00 U	188	2.00 U	18.3 J
A37	Dissolved Metals	Surface Water	7/11/2017	11:00	58.6	1.00 U	2.00 U	5.00 U	0.753	20100	2.00 U	6.01	57	250 U	0.551 J	1560	113	1.00 U	2.00 U	3420	1.00 U	212	2.00 U	263
A38	Dissolved Metals	Surface Water	7/11/2017	13:45	57.2	5.00 U	10.0 U	5.00 U	1.00 U	204000	10.0 U	5.00 U	557	250 U	1.00 UJ	11300	9810	5.00 U	10.0 U	11900	5.00 U	3820	10.0 U	1130
A39	Dissolved Metals	Surface Water	7/11/2017	14:05	77.9	1.00 U	2.00 U	5.00 U	1.46	21300	2.00 U	11.2	61	250 U	1.85 J	1790	209	1.00 U	2.00 U	3320	1.00 U	177	2.00 U	496
A39A	Dissolved Metals	Surface Water	7/11/2017	14:54	53.9	1.00 U	2.00 U	5.00 U	1.57	20400	2.00 U	9.16	58	250 U	1.03 J	1710	255	1.00 U	2.00 U	3250	1.00 U	166	2.00 U	536
A55 OPP	Dissolved Metals	Surface Water	7/12/2017	08:25	40.8 J	1.00 U	2.00 U	5.00 U	0.888	21900	2.00 U	3.36	62	250 U	0.351 J	1810	455	1.00 U	2.00 U	4080	1.00 U	200	2.00 U	244
ARD1	Dissolved Metals	Surface Water	7/11/2017	15:45	2600	1.00 U	2.00 U	5.00 U	39.9	23400	2.00 U	1660	76	3170	778 J	4360	9960	6.57	2.00 U	11100	1.87	147	2.00 U	10400
BB2	Dissolved Metals	Surface Water	7/12/2017	11:00	21.4 J	1.00 U	2.00 U	5.00 U	5.21	9880	2.00 U	12.3	27	250 U	0.483 J	579	5.71	1.00 U	2.00 U	3700	1.00 U	41.3	2.00 U	1110
BF1	Dissolved Metals	Surface Water	7/11/2017	16:41	2240	1.00 U	2.00 U	5.00 U	43.1	28000	2.00 U	1950	88	587	1880 J	4490	8660	5.89	2.00 U	8120	0.934 J	179	2.00 U	10800
BF2	Dissolved Metals	Surface Water	7/11/2017	16:50	61.2	1.00 U	2.00 U	5.00 U	1.65	21000	2.00 U	8.23	60	250 U	1.45 J	1760	243	1.00 U	2.00 U	3250	1.00 U	158	2.00 U	628
BG1A	Dissolved Metals	Surface Water	7/12/2017	12:30	1200	1.00 U	2.00 U	5.00 U	2.85	8500	2.00 U	18.4	25	250 U	17.9 J	1000	1320	1.82	2.00 U	3140	1.00 U	16.2	2.00 U	409
BG1B	Dissolved Metals	Surface Water	7/11/2017	13:40	5490	1.00 U	2.00 U	5.00 U	12.1	9810	2.00 U	56.9	32	250 U	8.92 J	1940	2790	6.62	2.00 U	5860	1.00 U	20.6	2.00 U	1580
CG3	Dissolved Metals	Surface Water	7/11/2017	13:20	3310	1.00 U	2.00 U	5.62	6.68	32700	2.00 U	20.3	107	250 U	0.533 J	6180	10800	5.47	2.00 U	5890	1.00 U	214	2.00 U	1690
CG4	Dissolved Metals	Surface Water	7/11/2017	12:30	3090	1.00 U	2.00 U	5.20	6.04	32300	2.00 U	17.8	106	250 U	0.494 J	6140	10300	5.13	2.00 U	6170	1.00 U	206	2.00 U	1610
CG6	Dissolved Metals	Surface Water	7/11/2017	11:35	2410	1.00 U	2.00 U	4.19 J	5.80	30900	2.00 U	16.2	100	250 U	1.75 J	5540	8940	4.41	2.00 U	5950	1.00 U	201	2.00 U	1490
DM8A	Dissolved Metals	Surface Water	7/12/2017	09:55	50.0 U	1.00 U	2.00 U	5.00 U	1.59	9590	2.00 U	2.71	27	250 U	0.200 UJ	646	3.01 J	1.00 U	2.00 U	3300	1.00 U	123	2.00 U	372
EG1	Dissolved Metals	Surface Water	7/12/2017	16:45	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	15300	2.00 U	0.979 J	42	250 U	0.200 UJ	874	5.00 U	1.00 U	2.00 U	2320	1.00 U	134	2.00 U	20.0 U
EG2	Dissolved Metals	Surface Water	7/12/2017	15:40	25.6 J	1.00 U	2.00 U	5.00 U	1.00	12900	2.00 U	5.82	36	250 U	0.200 UJ	889	33.3	1.00 U	2.00 U	3450	1.00 U	104	2.00 U	435
EG2A	Dissolved Metals	Surface Water	7/12/2017	15:20	276	1.00 U	2.00 U	5.00 U	6.50	20900	2.00 U	27.3	59	250 U	1.41 J	1790	953	2.01	2.00 U	4220	1.00 U	138	2.00 U	2110
EG3	Dissolved Metals	Surface Water	7/12/2017	13:45	50.0 U	1.00 U	2.00 U	5.00 U	0.188 J	17100	2.00 U	1.56	48	250 U	0.200 UJ	1150	6.41	1.00 U	2.00 U	2630	1.00 U	149	2.00 U	78.2
EG3A	Dissolved Metals	Surface Water	7/12/2017	12:45	52.0	1.00 U	2.00 U	5.00 U	1.40	18800	2.00 U	6.39	54	250 U	0.481 J	1610	197	1.00 U	2.00 U	3030	1.00 U	152	2.00 U	471
EG4	Dissolved Metals	Surface Water	7/12/2017	14:20	159	1.00 U	2.00 U	5.00 U	5.92	20600	2.00 U	21.8	59	250 U	1.09 J	1730	866	1.91	2.00 U	4120	1.00 U	138	2.00 U	1970
EG5	Dissolved Metals	Surface Water	7/11/2017	15:35	61.6	1.00 U	2.00 U	5.00 U	1.59	19500	2.00 U	8.79	55	250 U	0.982 J	1640	217	1.00 U	2.00 U	3180	1.00 U	162	2.00 U	533
EG6	Dissolved Metals	Surface Water	7/11/2017	12:45	61.8	1.00 U	2.00 U	5.00 U	0.940	17600	2.00 U	7.74	50	250 U	0.916 J	1560	164	1.00 U	2.00 U	3170	1.00 U	154	2.00 U	314
EG9	Dissolved Metals	Surface Water	7/11/2017	10:05	72.6	1.00 U	2.00 U	5.00 U	0.388	22700	2.00 U	3.63	64	250 U	0.214 J	1690	61.9	1.00 U	2.00 U	3470	1.00 U	223	2.00 U	116
EG-Trib1	Dissolved Metals	Surface Water	7/11/2017	16:25	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	20700	2.00 U	0.696 J	57	250 U	0.200 UJ	1370	7.30	1.00 U	2.00 U	2800	1.00 U	296	2.00 U	20.0 U
EG-Trib2	Dissolved Metals	Surface Water	7/11/2017	15:55	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	24600	2.00 U	1.00 U	68	250 U	0.200 UJ	1640	5.00 U	1.00 U	2.00 U	2770	1.00 U	454	2.00 U	20.0 U
LittleNation	Dissolved Metals	Surface Water	7/12/2017	16:40	178	1.00 U	0.503 J	5.00 U	2.08	81300	2.00 U	5.05	227	6610	2.07 J	5780	1250	1.00 U	2.00 U	20900	1.00 U	711	2.00 U	622
LSS1	Dissolved Metals	Surface Water	7/12/2017	11:30	50.0 U	1.00 U	2.00 U	5.00 U	0.203	5250	2.00 U	2.25	15	250 U	1.88 J	370	5.00 U	1.00 U	2.00 U	2780	1.00 U	21.4	2.00 U	54.1
MC0	Dissolved Metals	Surface Water	7/11/2017	13:30	58.9	1.00 U	2.00 U	5.00 U	0.105 J	13900	2.00 U	4.36	41	250 U	0.200 UJ	1430	72.5	1.00 U	2.00 U	2870	1.00 U	107	2.00 U	39.1
CG4 Dup	Dissolved Metals	Surface Water	7/11/2017	12:30	3060	1.00 U	2.00 U	5.11	6.03	32400	2.00 U	17.8	106	250 U	0.543 J	6080	10100	5.05	2.00 U	6070	1.00 U	204	2.00 U	1610
A39 Dup	Dissolved Metals	Surface Water	7/11/2017	14:05	73.2	1.00 U	2.00 U	5.00 U	1.42	19300	2.00 U	11.1	55	250 U	1.83 J	1640	203	1.00 U	2.00 U	3210	1.00 U	166	2.00 U	474
EG3A Dup	Dissolved Metals	Surface Water	7/12/2017	12:45	54.0	1.00 U	2.00 U	5.00 U	1.40	19100	2.00 U	6.41	55	250 U	0.474 J	1650	198	1.00 U	2.00 U	3050	1.00 U	155	2.00 U	476
EG2A Dup	Dissolved Metals	Surface Water	7/12/2017	15:20	286	1.00 U	2.00 U	5.00 U	6.18	21200	2.00 U	27.0	60	250 U	1.41 J	1820	955	2.46	2.00 U	4250	1.00 U	139	2.00 U	2140
A07E1 Dup	Dissolved Metals	Surface Water	7/12/2017	14:00	17400	1.00 U	2.00 U	3.35 J	37.1	14500	2.00 U	53.1	47	250 U	0.895	2570	6240	15.5	2.00 U	8230	1.00 U	19.0	2.00 U	5770

Table 25 Bonita Peak Mining District - High Flow July 11-12, 2017
Animas Surface Water Analytical Results - Dissolved Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A07B2 Dup	Dissolved Metals	Surface Water	7/12/2017	10:20	6780	1.00 U	2.00 U	2.82 J	23.0	10800	2.00 U	169	44	250 U	0.233 J	4170	4740	13.1	2.00 U	9380	1.00 U	14.1	2.00 U	1780
FB-09	Dissolved Metals	Water	7/11/2017	17:50	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 UJ	250 U	5.00 U	1.00 U	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U
FB-10	Dissolved Metals	Water	7/11/2017	17:15	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 UJ	250 U	5.00 U	1.00 U	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U
FB-12	Dissolved Metals	Water	7/12/2017	14:10	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 UJ	250 U	5.00 U	1.00 U	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U
FB-13	Dissolved Metals	Water	7/12/2017	15:05	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 UJ	250 U	5.00 U	1.00 U	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U
FB-14	Dissolved Metals	Water	7/12/2017	13:45	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 UJ	250 U	5.00 U	1.00 U	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
CG4	Dissolved Metals	Surface Water	7/11/2017	12:30	3090	1.00 U	2.00 U	5.20	6.04	32300	2.00 U	17.8	106	250 U	0.494	6140	10300	5.13	2.00 U	6170	1.00 U	206	2.00 U	1610
CG4 Dup	Dissolved Metals	Surface Water	7/11/2017	12:30	3060	1.00 U	2.00 U	5.11	6.03	32400	2.00 U	17.8	106	250 U	0.543	6080	10100	5.05	2.00 U	6070	1.00 U	204	2.00 U	1610
				RPD	**0.98%**	N/A	N/A	**1.75%**	**0.17%**	**0.31%**	N/A	**0.00%**	**0.00%**	N/A	**9.45%**	**0.98%**	**1.96%**	**1.57%**	N/A	**1.63%**	N/A	**0.98%**	N/A	**0.00%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
A39	Dissolved Metals	Surface Water	7/11/2017	14:05	77.9	1.00 U	2.00 U	5.00 U	1.46	21300	2.00 U	11.2	61	250 U	1.85	1790	209	1.00 U	2.00 U	3320	1.00 U	177	2.00 U	496
A39 Dup	Dissolved Metals	Surface Water	7/11/2017	14:05	73.2	1.00 U	2.00 U	5.00 U	1.42	19300	2.00 U	11.1	55	250 U	1.83	1640	203	1.00 U	2.00 U	3210	1.00 U	166	2.00 U	474
				RPD	**6.22%**	N/A	N/A	N/A	**2.78%**	**9.85%**	N/A	**0.90%**	**10.34%**	N/A	**1.09%**	**8.75%**	**2.91%**	N/A	N/A	**3.37%**	N/A	**6.41%**	N/A	**4.54%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EG3A	Dissolved Metals	Surface Water	7/12/2017	12:45	52.0	1.00 U	2.00 U	5.00 U	1.40	18800	2.00 U	6.39	54	250 U	0.481	1610	197	1.00 U	2.00 U	3030	1.00 U	152	2.00 U	471
EG3A Dup	Dissolved Metals	Surface Water	7/12/2017	12:45	54.0	1.00 U	2.00 U	5.00 U	1.40	19100	2.00 U	6.41	55	250 U	0.474	1650	198	1.00 U	2.00 U	3050	1.00 U	155	2.00 U	476
				RPD	**3.77%**	N/A	N/A	N/A	**0.00%**	**1.58%**	N/A	**0.31%**	**1.83%**	N/A	**1.47%**	**2.45%**	**0.51%**	N/A	N/A	**0.66%**	N/A	**1.95%**	N/A	**1.06%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EG2A	Dissolved Metals	Surface Water	7/12/2017	15:20	276	1.00 U	2.00 U	5.00 U	6.50	20900	2.00 U	27.3	59	250 U	1.41	1790	953	2.01	2.00 U	4220	1.00 U	138	2.00 U	2110
EG2A Dup	Dissolved Metals	Surface Water	7/12/2017	15:20	286	1.00 U	2.00 U	5.00 U	6.18	21200	2.00 U	27.0	60	250 U	1.41	1820	955	2.46	2.00 U	4250	1.00 U	139	2.00 U	2140
				RPD	**3.56%**	N/A	N/A	N/A	**5.05%**	**1.43%**	N/A	**1.10%**	**1.68%**	N/A	**0.00%**	**1.66%**	**0.21%**	**20.13%**	N/A	**0.71%**	N/A	**0.72%**	N/A	**1.41%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
A07E1	Dissolved Metals	Surface Water	7/12/2017	14:00	18600	1.00 U	2.00 U	3.48	36.6	15900	2.00 U	53.2	51	250 U	0.863	2850	6620	15.7	2.00 U	8830	1.00 U	18.3	2.00 U	6610
A07E1 Dup	Dissolved Metals	Surface Water	7/12/2017	14:00	17400	1.00 U	2.00 U	3.35	37.1	14500	2.00 U	53.1	47	250 U	0.895	2570	6240	15.5	2.00 U	8230	1.00 U	19.0	2.00 U	5770
				RPD	**6.67%**	N/A	N/A	**3.81%**	**1.36%**	**9.21%**	N/A	**0.19%**	**8.16%**	N/A	**3.64%**	**10.33%**	**5.91%**	**1.28%**	N/A	**7.03%**	N/A	**3.75%**	N/A	**13.57%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
A07B2	Dissolved Metals	Surface Water	7/12/2017	10:20	7350	1.00 U	2.00 U	2.92	21.7	12100	2.00 U	160	50	250 U	0.211	4680	5010	12.8	2.00 U	9970	1.00 U	13.9	2.00 U	1990
A07B2 Dup	Dissolved Metals	Surface Water	7/12/2017	10:20	6780	1.00 U	2.00 U	2.82	23.0	10800	2.00 U	169	44	250 U	0.233	4170	4740	13.1	2.00 U	9380	1.00 U	14.1	2.00 U	1780
				RPD	**8.07%**	N/A	N/A	**3.48%**	**5.82%**	**11.35%**	N/A	**5.47%**	**12.77%**	N/A	**9.91%**	**11.53%**	**5.54%**	**2.32%**	N/A	**6.10%**	N/A	**1.43%**	N/A	**11.14%**

Note: Removed flags from values for RPD calculation
Note: Data Qualifier Definitions Listed Below:
U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 26 Bonita Peak Mining District - High Flow July 11-12, 2017
Cement Creek Surface Water Analytical Results - Dissolved Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC01C1	Dissolved Metals	Surface Water	7/11/2017	17:00	5260	1.00 U	6.95	5.00 U	48.5	14100	1.33 J	1960	55	17400	29.4 J	4810	4680	6.27	2.00 U	11900	1.00 U	33.0	2.00 U	11900
CC01C2	Dissolved Metals	Surface Water	7/11/2017	16:40	3630	1.00 U	0.728 J	5.00 U	32.1	13700	2.00 U	1100	47	3680	29.6 J	3190	2730	4.41	2.00 U	10700	1.00 U	50.4	2.00 U	6330
CC01F	Dissolved Metals	Surface Water	7/11/2017	17:30	92.9	1.00 U	2.00 U	5.00 U	1.18	29200	2.00 U	18.6	85	250 U	3.39	2870	67.2	1.00 U	2.00 U	3340	1.00 U	269	2.00 U	246
CC01S	Dissolved Metals	Surface Water	7/11/2017	15:45	956	1.00 U	2.00 U	5.00 U	4.79	31400	2.00 U	55.7	98	250 U	3.36 J	4790	2670	2.51	2.00 U	4600	1.00 U	197	2.00 U	773
CC01T	Dissolved Metals	Surface Water	7/11/2017	15:15	538	1.00 U	2.00 U	5.00 U	4.34	30700	2.00 U	45.1	95	250 U	1.20 J	4410	2140	2.01	2.00 U	4370	1.00 U	210	2.00 U	705
CC02C	Dissolved Metals	Surface Water	7/11/2017	13:20	45.6 J	1.00 U	2.00 U	5.00 U	3.84	30200	2.00 U	30.6	91	250 U	1.05 J	3880	1440	1.19	2.00 U	4310	1.00 U	230	2.00 U	657
CC02D	Dissolved Metals	Surface Water	7/11/2017	14:15	3110	5.00 U	10.0 U	3.59 J	43.0	177000	10.0 U	22.7	486	23700	208 J	10800	22000	3.06 J	10.0 U	29600	5.00 U	1560	10.0 U	26900
CC04	Dissolved Metals	Surface Water	7/12/2017	09:45	900	1.00 U	2.00 U	5.00 U	1.45	24900	2.00 U	70.3	75	118 J	1.12 J	3110	163	1.00 U	2.00 U	9510	1.00 U	182	2.00 U	322
CC15	Dissolved Metals	Surface Water	7/11/2017	11:15	66.9	1.00 U	2.00 U	5.00 U	0.273	26500	2.00 U	1.48	73	250 U	0.200 UJ	1720	49.6	1.00 U	2.00 U	5570	1.00 U	209	2.00 U	59.9
CC15A	Dissolved Metals	Surface Water	7/11/2017	10:40	79.0	1.00 U	2.00 U	5.00 U	1.03	53600	2.00 U	1.77	147	2920	0.200 UJ	3180	601	0.561 J	2.00 U	10300	1.00 U	559	2.00 U	254
CC16B	Dissolved Metals	Surface Water	7/11/2017	10:00	164	1.00 U	2.00 U	5.00 U	1.11	52400	2.00 U	4.14	144	2640	0.200 UJ	3250	599	0.907 J	2.00 U	11300	1.00 U	540	2.00 U	252
CC48	Dissolved Metals	Surface Water	7/12/2017	08:15	2350	1.00 U	0.591 J	5.00 U	2.34	69100	2.00 U	37.4	193	3090	8.80 J	5060	1620	2.42	2.00 U	14700	1.00 U	771	2.00 U	687
CC02D Dup	Dissolved Metals	Surface Water	7/11/2017	14:15	3050	5.00 U	10.0 U	3.45 J	46.2	172000	10.0 U	23.8	472	22900	213 J	10600	21700	5.00 U	10.0 U	29100	5.00 U	1560	10.0 U	26000
FB-15	Dissolved Metals	Water	7/11/2017	18:41	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 UJ	250 U	5.00 U	1.00 U	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U
FB-16	Dissolved Metals	Water	7/12/2017	17:45	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 UJ	250 U	5.00 U	1.00 U	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
CC02D	Dissolved Metals	Surface Water	7/11/2017	14:15	3110	5.00 U	10.0 U	3.59	43.0	177000	10.0 U	22.7	486	23700	208	10800	22000	3.06 J	10.0 U	29600	5.00 U	1560	10.0 U	26900
CC02D Dup	Dissolved Metals	Surface Water	7/11/2017	14:15	3050	5.00 U	10.0 U	3.45	46.2	172000	10.0 U	23.8	472	22900	213	10600	21700	5.00 U	10.0 U	29100	5.00 U	1560	10.0 U	26000
				RPD	**1.95%**	N/A	N/A	**3.98%**	**7.17%**	**2.87%**	N/A	**4.73%**	**2.92%**	**3.43%**	**2.38%**	**1.87%**	**1.37%**	N/A	N/A	**1.70%**	N/A	**0.00%**	N/A	**3.40%**

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below:

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 27 Bonita Peak Mining District - High Flow July 11-12, 2017
Mineral Creek Surface Water Analytical Results - Dissolved Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M01	Dissolved Metals	Surface Water	7/11/2017	09:55	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	7220	2.00 U	1.00 U	20	250 U	0.200 UJ	435	2.03 J	1.00 U	2.00 U	2020	1.00 U	125	2.00 U	20.0 U
M02	Dissolved Metals	Surface Water	7/11/2017	13:25	4120	5.00 U	21.6	5.00 U	30.6	124000	10.0 U	1500	389	19400	56.7 J	19500	9700	45.3	10.0 U	13400	5.00 U	4200	10.0 U	10900
M02B	Dissolved Metals	Surface Water	7/11/2017	14:30	1790	0.771 J	186	5.00 U	14.2	36200	2.00 U	556	129	33900	88.7 J	9290	644	7.22	2.00 U	7930	1.00 U	1620	2.00 U	2910
M02E	Dissolved Metals	Surface Water	7/11/2017	13:55	6230	5.00 U	46.0	5.00 U	46.3	169000	10.0 U	2270	533	36200	92.8 J	26700	14300	70.4	10.0 U	17000	5.00 U	5780	10.0 U	16200
M02K	Dissolved Metals	Surface Water	7/11/2017	14:10	1850	10.0 U	532	5.00 U	86.5	276000	20.0 U	3500	860	109000	5.91 J	41500	25400	133	20.0 U	17900	10.0 U	9930	20.0 U	28600
M02L	Dissolved Metals	Surface Water	7/11/2017	15:00	45.9 J	1.00 U	2.79	5.00 U	0.200 U	9990	2.00 U	7.11	36	250 U	0.200 UJ	2760	11.5	1.00 U	2.00 U	1280	1.00 U	281	2.00 U	20.0 U
M03	Dissolved Metals	Surface Water	7/11/2017	11:05	40.3 J	1.00 U	2.29	5.00 U	1.01	9860	2.00 U	50.5	31	102 J	1.16 J	1480	68.8	1.00 U	2.00 U	5450	1.00 U	246	2.00 U	186
M04	Dissolved Metals	Surface Water	7/11/2017	11:55	67.7	1.00 U	2.00 U	5.00 U	0.772	10700	2.00 U	26.8	31	209 J	0.779 J	1060	248	0.700 J	2.00 U	2470	1.00 U	244	2.00 U	259
M05	Dissolved Metals	Surface Water	7/11/2017	11:30	64.5	1.00 U	0.854 J	5.00 U	0.797	10700	2.00 U	26.7	31	215 J	0.820 J	1100	242	0.646 J	2.00 U	2630	1.00 U	248	2.00 U	255
M06D	Dissolved Metals	Surface Water	7/11/2017	15:45	44.5 J	1.00 U	2.00 U	5.00 U	0.482	7930	2.00 U	8.32	22	250 U	14.6 J	604	86.6	1.00 U	2.00 U	2080	1.00 U	134	2.00 U	142
M06E	Dissolved Metals	Surface Water	7/11/2017	16:35	91.7	1.00 U	2.00 U	5.00 U	0.166 J	18400	2.00 U	4.42	62	250 U	0.200 UJ	3790	38.3	1.00 U	2.00 U	3090	1.00 U	468	2.00 U	36.2
M10	Dissolved Metals	Surface Water	7/11/2017	17:45	27.6 J	1.00 U	2.00 U	5.00 U	0.200 U	15800	2.00 U	0.727 J	43	250 U	0.166 J	868	22.0	1.00 U	2.00 U	3240	1.00 U	239	2.00 U	16.2 J
M10B	Dissolved Metals	Surface Water	7/12/2017	08:45	30.7 J	1.00 U	2.00 U	5.00 U	0.432	28600	2.00 U	3.58	82	250 U	0.200 UJ	2600	274	1.00 U	2.00 U	5060	1.00 U	507	2.00 U	80.9
M23	Dissolved Metals	Surface Water	7/12/2017	11:50	41.3 J	1.00 U	2.00 U	5.00 U	0.200 U	12600	2.00 U	0.888 J	42	250 U	0.200 UJ	2520	72.4	2.60	2.00 U	5550	1.00 U	88.9	2.00 U	19.0 J
M24A	Dissolved Metals	Surface Water	7/12/2017	12:50	50.0 U	1.00 U	0.542 J	5.00 U	50.9	80600	2.00 U	8.43	229	856	0.200 UJ	6680	5250	8.31	2.00 U	11300	1.00 U	509	2.00 U	11300
M24B	Dissolved Metals	Surface Water	7/12/2017	13:05	59.2	1.00 U	0.819 J	5.00 U	59.0	84100	2.00 U	122	238	7850	0.455	6820	5710	8.47	2.00 U	13300	1.00 U	514	2.00 U	14200
M24C	Dissolved Metals	Surface Water	7/12/2017	11:25	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	126000	10.0 U	5.00 U	343	154 J	1.00 UJ	6860	1990	5.00 U	10.0 U	13200	5.00 U	728	10.0 U	523
M24D	Dissolved Metals	Surface Water	7/12/2017	11:00	137	1.00 U	2.00 U	5.00 U	37.5	75700	2.00 U	73.3	214	250 U	8.96 J	6030	1470	4.43	2.00 U	11200	1.00 U	493	2.00 U	8710
M25	Dissolved Metals	Surface Water	7/12/2017	10:25	26.1 J	1.00 U	2.00 U	5.00 U	0.155 J	14200	2.00 U	0.798 J	46	250 U	0.200 UJ	2470	87.0	2.66	2.00 U	5690	1.00 U	98.0	2.00 U	34.4
M29	Dissolved Metals	Surface Water	7/12/2017	17:10	21.7 J	1.00 U	2.00 U	5.00 U	0.300	22100	2.00 U	1.09	64	437	0.200 UJ	2090	157	1.00 U	2.00 U	6740	1.00 U	224	2.00 U	56.1
M10 Dup	Dissolved Metals	Surface Water	7/11/2017	17:45	26.5 J	1.00 U	2.00 U	5.00 U	0.200 U	15800	2.00 U	0.675 J	43	250 U	0.157 J	865	22.3	1.00 U	2.00 U	3300	1.00 U	240	2.00 U	16.6 J
M23 Dup	Dissolved Metals	Surface Water	7/12/2017	11:50	45.3 J	1.00 U	2.00 U	5.00 U	0.200 U	12800	2.00 U	0.838 J	42	250 U	0.200 UJ	2540	73.0	2.83	2.00 U	5630	1.00 U	90.4	2.00 U	18.5 J
FB-04	Dissolved Metals	Water	7/11/2017	17:15	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 UJ	250 U	5.00 U	1.00 U	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U
FB-05	Dissolved Metals	Water	7/12/2017	13:30	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 UJ	250 U	5.00 U	1.00 U	2.00 U	1000 U	1.00 U	10.0 U	2.00 U	20.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M10	Dissolved Metals	Surface Water	7/11/2017	17:45	27.6	1.00 U	2.00 U	5.00 U	0.200 U	15800	2.00 U	0.727	43	250 U	0.166	868	22.0	1.00 U	2.00 U	3240	1.00 U	239	2.00 U	16.2
M10 Dup	Dissolved Metals	Surface Water	7/11/2017	17:45	26.5	1.00 U	2.00 U	5.00 U	0.200 U	15800	2.00 U	0.675	43	250 U	0.157	865	22.3	1.00 U	2.00 U	3300	1.00 U	240	2.00 U	16.6
				RPD	**4.07%**	N/A	N/A	N/A	N/A	**0.00%**	N/A	**7.42%**	**0.00%**	N/A	**5.57%**	**0.35%**	**1.35%**	N/A	N/A	**1.83%**	N/A	**0.42%**	N/A	**2.44%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M23	Dissolved Metals	Surface Water	7/12/2017	11:50	41.3	1.00 U	2.00 U	5.00 U	0.200 U	12600	2.00 U	0.888	42	250 U	0.200 UJ	2520	72.4	2.60	2.00 U	5550	1.00 U	88.9	2.00 U	19
M23 Dup	Dissolved Metals	Surface Water	7/12/2017	11:50	45.3	1.00 U	2.00 U	5.00 U	0.200 U	12800	2.00 U	0.838	42	250 U	0.200 UJ	2540	73.0	2.83	2.00 U	5630	1.00 U	90.4	2.00 U	18.5
				RPD	**9.24%**	N/A	N/A	N/A	N/A	**1.57%**	N/A	**5.79%**	**0.00%**	N/A	N/A	**0.79%**	**0.83%**	**8.47%**	N/A	**1.43%**	N/A	**1.67%**	N/A	**2.67%**

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below:

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 28 Bonita Peak Mining District - High Flow July 11-12, 2017
Animas Surface Water Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A05	Total Recoverable Metals	Surface Water	7/11/2017	12:10	28.1 J	5.00 U	10.0 U	5.00 U	1.00 U	8750	10.0 U	5.00 U	250 U	1.00 U	1150	6.34	5.00 U	10.0 U	1860	5.00 U	28.9	10.0 U	62.2
A07	Total Recoverable Metals	Surface Water	7/11/2017	11:10	4400	5.00 U	10.0 U	5.00 U	8.87	9130	10.0 U	44.6	250 U	11.3 J	1680	2160 J	5.00	10.0 U	5100	5.00 U	22.7	7.01 J	1190
A07A	Total Recoverable Metals	Surface Water	7/11/2017	13:10	5050	5.00 U	10.0 U	5.00 U	10.5	9570	10.0 U	52.6	172 J	7.48 J	1850	2530 J	5.41	10.0 U	5480	5.00 U	22.3	7.95 J	1340
A07B	Total Recoverable Metals	Surface Water	7/11/2017	14:05	5110	5.00 U	10.0 U	5.00 U	8.73	8900	10.0 U	34.5	118 J	10.7 J	1240	2070 J	4.71 J	10.0 U	4490	5.00 U	22.5	10.0 U	1380
A07B1	Total Recoverable Metals	Surface Water	7/12/2017	10:10	71.3	5.00 U	10.0 U	5.00 U	0.899 J	12700	10.0 U	5.00 U	250 U	1.00 UJ	1010	22.0 J	5.00 U	10.0 U	4030	5.00 U	30.0	10.0 U	115
A07B2	Total Recoverable Metals	Surface Water	7/12/2017	10:20	6980	5.00 U	10.0 U	2.76 J	21.3	11400	10.0 U	172	250 U	0.675 J	4280	4870 J	12.8	10.0 U	9290	5.00 U	14.4	10.0 U	1800
A07B3	Total Recoverable Metals	Surface Water	7/12/2017	10:30	5640	5.00 U	10.0 U	3.24 J	16.2	10800	10.0 U	72.3	250 U	1.00 UJ	3900	4740 J	10.3	10.0 U	9370	5.00 U	12.8	10.0 U	1470
A07C1	Total Recoverable Metals	Surface Water	7/12/2017	12:00	4610	5.00 U	10.0 U	5.00 U	6.56	7310	10.0 U	35.0	142 J	12.1 J	1100	1950 J	3.90 J	10.0 U	4080	5.00 U	12.6	10.0 U	992
A07D	Total Recoverable Metals	Surface Water	7/12/2017	12:35	3760	5.00 U	10.0 U	5.00 U	4.32	6790	10.0 U	33.9	172 J	14.1 J	1010	1690 J	3.16 J	10.0 U	3800	5.00 U	12.1	10.0 U	634
A07D1	Total Recoverable Metals	Surface Water	7/12/2017	13:15	17700	5.00 U	10.0 U	5.00 U	14.0	9050	10.0 U	124	1100	17.5 J	2340	5140 J	12.6	10.0 U	7450	5.00 U	6.37 J	10.0 U	1830
A07E	Total Recoverable Metals	Surface Water	7/12/2017	13:20	3630	5.00 U	10.0 U	5.00 U	4.31	6730	10.0 U	32.8	155 J	12.1 J	981	1650 J	2.84 J	10.0 U	3760	5.00 U	12.0	10.0 U	613
A07E1	Total Recoverable Metals	Surface Water	7/12/2017	14:00	17600	5.00 U	10.0 U	3.35 J	35.2	14800	10.0 U	54.0	250 U	0.933 J	2610	6410 J	15.9	10.0 U	8270	5.00 U	19.5	10.0 U	5810
A07F	Total Recoverable Metals	Surface Water	7/12/2017	13:10	3150	5.00 U	10.0 U	5.00 U	3.92	6520	10.0 U	30.4	144 J	11.8 J	932	1520 J	5.00 U	10.0 U	3610	5.00 U	12.2	10.0 U	540
A07G	Total Recoverable Metals	Surface Water	7/12/2017	13:00	1080	5.00 U	10.0 U	5.00 U	2.65	7470	10.0 U	15.2	250 U	14.9 J	880	1080 J	5.00 U	10.0 U	3050	5.00 U	15.2	10.0 U	336
A08	Total Recoverable Metals	Surface Water	7/11/2017	10:30	1930	5.00 U	10.0 U	5.00 U	4.24	8730	10.0 U	19.9	250 U	5.04 J	1440	959 J	5.00 U	10.0 U	3340	5.00 U	25.4	10.0 U	553
A15	Total Recoverable Metals	Surface Water	7/11/2017	10:25	3500	5.00 U	10.0 U	5.11	5.34	29800	10.0 U	22.9	180 J	8.24 J	5340	8720 J	4.27 J	10.0 U	6090	5.00 U	195	10.0 U	1440
A18	Total Recoverable Metals	Surface Water	7/11/2017	15:40	2630	5.00 U	3.01 J	5.00 U	1.88	25200	10.0 U	36.7	3470	36.4 J	3600	443 J	5.00 U	10.0 U	7190	5.00 U	166	10.0 U	346
A18A	Total Recoverable Metals	Surface Water	7/11/2017	15:15	2980	5.00 U	3.43 J	5.00 U	0.744 J	41500	10.0 U	21.4	4770	40.2 J	6490	316 J	5.00 U	10.0 U	9180	5.00 U	372	10.0 U	152
A18B	Total Recoverable Metals	Surface Water	7/11/2017	14:00	2720	5.00 U	10.0 U	5.00 U	1.12	33200	10.0 U	50.6	3070	20.9 J	5030	1120 J	5.00 U	10.0 U	7530	5.00 U	288	10.0 U	245
A20	Total Recoverable Metals	Surface Water	7/12/2017	12:15	756	5.00 U	10.0 U	5.00 U	2.96	18000	10.0 U	32.6	250 U	13.5	2260	2240	3.18 J	10.0 U	4000	5.00 U	124	10.0 U	961
A21	Total Recoverable Metals	Surface Water	7/12/2017	13:15	928	5.00 U	10.0 U	5.00 U	3.06	19300	10.0 U	43.1	250 U	24.4 J	2420	2710 J	4.07 J	10.0 U	3800	5.00 U	141	6.82 J	1060
A22	Total Recoverable Metals	Surface Water	7/12/2017	14:00	982	5.00 U	10.0 U	5.00 U	2.93	18900	10.0 U	43.4	250 U	37.0 J	2370	2730 J	3.81 J	10.0 U	3660	5.00 U	143	7.77 J	1020
A23	Total Recoverable Metals	Surface Water	7/12/2017	14:45	741	5.00 U	10.0 U	5.00 U	1.63	15500	10.0 U	12.0	118 J	19.4 J	1690	1530 J	5.00 U	10.0 U	3500	5.00 U	147	10.0 U	600
A23A	Total Recoverable Metals	Surface Water	7/12/2017	15:10	1080	5.00 U	10.0 U	5.00 U	8.04	13100	10.0 U	105	250 U	4.23 J	1470	9100 J	3.06 J	10.0 U	5790	5.00 U	73.3	10.0 U	2040
A36	Total Recoverable Metals	Surface Water	7/11/2017	11:20	122	5.00 U	10.0 U	5.00 U	1.00 U	26300	10.0 U	2.96 J	102 J	1.00 UJ	1870	40.3 J	5.00 U	10.0 U	3560	5.00 U	238	10.0 U	30.5
A36A	Total Recoverable Metals	Surface Water	7/12/2017	10:25	24.9 J	5.00 U	10.0 U	5.00 U	1.00 U	18700	10.0 U	5.00 U	250 U	1.00 UJ	1370	2.90 J	5.00 U	10.0 U	2490	5.00 U	185	10.0 U	19.2 J
A37	Total Recoverable Metals	Surface Water	7/11/2017	11:00	72.2	5.00 U	10.0 U	5.00 U	0.751 J	19500	10.0 U	8.03	250 U	1.38 J	1510	117 J	5.00 U	10.0 U	3270	5.00 U	211	10.0 U	247
A38	Total Recoverable Metals	Surface Water	7/11/2017	13:45	57.8	5.00 U	10.0 U	5.00 U	1.00 U	200000	10.0 U	5.00 U	134 J	1.54 J	11000	9590 J	5.00 U	10.0 U	11400	5.00 U	3810	10.0 U	1070
A39	Total Recoverable Metals	Surface Water	7/11/2017	14:05	95.6	5.00 U	10.0 U	5.00 U	1.31	19800	10.0 U	12.9	250 U	3.17 J	1650	206 J	5.00 U	10.0 U	3180	5.00 U	166	10.0 U	459
A39A	Total Recoverable Metals	Surface Water	7/11/2017	14:54	295	5.00 U	10.0 U	5.00 U	1.63	19800	10.0 U	155	559	34.9 J	1700	330 J	5.00 U	10.0 U	3570	5.00 U	166	10.0 U	520
A55 OPP	Total Recoverable Metals	Surface Water	7/12/2017	08:25	509	5.00 U	2.71 J	5.00 U	0.848 J	21100	10.0 U	11.9	406	13.0 J	1790	504 J	5.00 U	10.0 U	4520	5.00 U	199	10.0 U	266
ARD1	Total Recoverable Metals	Surface Water	7/11/2017	15:45	2580	5.00 U	10.0 U	5.00 U	38.3	22200	10.0 U	1650	3390	757 J	4190	9640 J	6.14	10.0 U	10700	5.00 U	144	10.0 U	9370
BB2	Total Recoverable Metals	Surface Water	7/12/2017	11:00	25.0 J	5.00 U	10.0 U	5.00 U	4.71	9460	10.0 U	14.1	250 U	2.27 J	566	6.36 J	5.00 U	10.0 U	3640	5.00 U	41.2	10.0 U	1010
BF1	Total Recoverable Metals	Surface Water	7/11/2017	16:41	2140	5.00 U	10.0 U	5.00 U	39.4	26000	10.0 U	1880	603	1710 J	4220	8410 J	5.60	10.0 U	7770	5.00 U	173	10.0 U	9880
BF2	Total Recoverable Metals	Surface Water	7/11/2017	16:50	92.5	5.00 U	10.0 U	5.00 U	1.40	20000	10.0 U	11.4	250 U	2.20 J	1700	240 J	5.00 U	10.0 U	3150	5.00 U	157	10.0 U	581
BG1A	Total Recoverable Metals	Surface Water	7/12/2017	12:30	1210	5.00 U	10.0 U	5.00 U	2.76	8110	10.0 U	18.3	250 U	19.4 J	960	1270 J	5.00 U	10.0 U	2980	5.00 U	15.9	10.0 U	368
BG1B	Total Recoverable Metals	Surface Water	7/11/2017	13:40	5400	5.00 U	10.0 U	5.00 U	10.6	9280	10.0 U	54.9	109 J	9.35 J	1860	2650 J	5.98	10.0 U	5440	5.00 U	20.6	10.0 U	1420
CG3	Total Recoverable Metals	Surface Water	7/11/2017	13:20	5460	5.00 U	10.0 U	7.34	6.48	36400	10.0 U	28.1 J+	474	4.21 J	6780	11400 J	5.44	10.0 U	6720	5.00 U	235	10.0 U	1770
CG4	Total Recoverable Metals	Surface Water	7/11/2017	12:30	4880	5.00 U	10.0 U	6.67	5.41	36200	10.0 U	22.4 J+	321	1.93 J	6720	10700 J	4.97 J	10.0 U	6660	5.00 U	225	10.0 U	1690
CG6	Total Recoverable Metals	Surface Water	7/11/2017	11:35	4150	5.00 U	10.0 U	5.57	5.24	34600	10.0 U	20.5 J+	196 J	2.86 J	6160	9390 J	4.34 J	10.0 U	6310	5.00 U	225	10.0 U	1560
DM8A	Total Recoverable Metals	Surface Water	7/12/2017	09:55	84.1	5.00 U	10.0 U	5.00 U	1.73	10500	10.0 U	3.41 J	128 J	1.84 J	714	30.6 J	5.00 U	10.0 U	3680	5.00 U	137	10.0 U	421
EG1	Total Recoverable Metals	Surface Water	7/12/2017	16:45	25.4 J	5.00 U	10.0 U	5.00 U	1.00 U	17100	10.0 U	5.00 U	250 U	0.760 J	961	5.00 U	5.00 U	10.0 U	2410	5.00 U	149	10.0 U	20.0 U
EG2	Total Recoverable Metals	Surface Water	7/12/2017	15:40	31.0 J	5.00 U	10.0 U	5.00 U	0.852 J	14300	10.0 U	5.62	250 U	1.00 UJ	976	37.2 J	5.00 U	10.0 U	3550	5.00 U	114	6.72 J	454
EG2A	Total Recoverable Metals	Surface Water	7/12/2017	15:20	335	5.00 U	10.0 U	5.00 U	5.54	23400	10.0 U	32.8	250 U	9.99 J	1980	1010 J	5.00 U	10.0 U	4320	5.00 U	153	10.0 U	2190
EG3	Total Recoverable Metals	Surface Water	7/12/2017	13:45	28.0 J	5.00 U	10.0 U	5.00 U	1.00 U	19200	10.0 U	5.00 U	250 U	1.00 UJ	1280	8.34 J	5.00 U	10.0 U	2720	5.00 U	166	10.0 U	81.9
EG3A	Total Recoverable Metals	Surface Water	7/12/2017	12:45	82.9	5.00 U	10.0 U	5.00 U	1.24	20900	10.0 U	7.65	250 U	0.718 J	1760	201 J	5.00 U	10.0 U	3100	5.00 U	168	10.0 U	476
EG4	Total Recoverable Metals	Surface Water	7/12/2017	14:20	255	5.00 U	10.0 U	5.00 U	5.57	22900	10.0 U	26.5	250 U	5.82 J	1880	905 J	5.00 U	10.0 U	4220	5.00 U	152	10.0 U	2050
EG5	Total Recoverable Metals	Surface Water	7/11/2017	15:35	108	5.00 U	10.0 U	5.00 U	1.39	21400	10.0 U	11.2	250 U	1.72 J	1810	229 J	5.00 U	10.0 U	3260	5.00 U	181	10.0 U	556
EG6	Total Recoverable Metals	Surface Water	7/11/2017	12:45	86.6	5.00 U	10.0 U	5.00 U	0.808 J	19400	10.0 U	8.99	250 U	1.51 J	1690	174 J	5.00 U	10.0 U	3260	5.00 U	169	10.0 U	327
EG9	Total Recoverable Metals	Surface Water	7/11/2017	10:05	104	5.00 U	10.0 U	5.00 U	1.00 U	25400	10.0 U	4.73 J	250 U	1.59 J	1850	69.5 J	5.00 U	10.0 U	3650	5.00 U	247	10.0 U	126
EG-Trib1	Total Recoverable Metals	Surface Water	7/11/2017	16:25	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	22400	10.0 U	5.00 U	250 U	1.00 UJ	1480	13.4 J	5.00 U	10.0 U	2830	5.00 U	322	10.0 U	20.0 U
EG-Trib2	Total Recoverable Metals	Surface Water	7/11/2017	15:55	23.6 J	5.00 U	10.0 U	5.00 U	1.00 U	26500	10.0 U	5.00 U	250 U	1.00 UJ	1750	4.59 J	5.00 U	10.0 U	2850	5.00 U	491	10.0 U	20.0 U
LittleNation OPP	Total Recoverable Metals	Surface Water	7/12/2017	16:40	174	5.00 U	10.0 U	5.00 U	2.08	94900	10.0 U	5.50	7950	2.84 J+	6790	1340	5.00 U	10.0 U	23200	5.00 U	784	10.0 U	689
LSS1	Total Recoverable Metals	Surface Water	7/12/2017	11:30	45.0 J	5.00 U	10.0 U	5.00 U	1.00 U	5930	10.0 U	5.00 U	250 U	4.04 J+	432	2.68 J	5.00 U	10.0 U	3050	5.00 U	22.7	7.33 J	61.4 J+
MC0	Total Recoverable Metals	Surface Water	7/11/2017	13:30	109	5.00 U	10.0 U	5.00 U	1.00 U	14800	10.0 U	5.47	250 U	8.04 J	1550	77.8 J	5.00 U	10.0 U	2970	5.00 U	108	10.0 U	41.7
CG4 Dup	Total Recoverable Metals	Surface Water	7/11/2017	12:30	4840	5.00 U	10.0 U	6.57	5.64	35900	10.0 U	23.9 J+	323	2.06 J	6640	10700 J	4.88 J	10.0 U	6660	5.00 U	223	10.0 U	1690
A39 Dup	Total Recoverable Metals	Surface Water	7/11/2017	14:05	103	5.00 U	10.0 U	5.00 U	1.37	21700	10.0 U	15.0	250 U	2.53 J	1800	218 J	5.00 U	10.0 U	3350	5.00 U	183	10.0 U	497

Table 28 Bonita Peak Mining District - High Flow July 11-12, 2017
Animas Surface Water Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
EG3A Dup	Total Recoverable Metals	Surface Water	7/12/2017	12:45	82.8	5.00 U	10.0 U	5.00 U	1.04	20700	10.0 U	6.96	250 U	0.784 J	1760	202 J	5.00 U	10.0 U	3110	5.00 U	167	7.19 J	476
EG2A Dup	Total Recoverable Metals	Surface Water	7/12/2017	15:20	332	5.00 U	10.0 U	5.00 U	5.67	23400	10.0 U	33.7	250 U	29.0 J	1980	996 J	5.00 U	10.0 U	4270	5.00 U	154	10.0 U	2160
A07E1 Dup	Total Recoverable Metals	Surface Water	7/12/2017	14:00	19100	5.00 U	10.0 U	3.39 J	33.8	15900	10.0 U	51.9	250 U	1.35 J	2800	6530 J	15.3	10.0 U	8460	5.00 U	20.9	10.0 U	6030
A07B2 Dup	Total Recoverable Metals	Surface Water	7/12/2017	10:20	7550	5.00 U	10.0 U	2.82 J	20.0	12000	10.0 U	160	250 U	1.00 UJ	4600	4960 J	12.6	10.0 U	9540	5.00 U	15.6	10.0 U	1860
FB-09	Total Recoverable Metals	Water	7/11/2017	17:50	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	38.0	5.00 U	250 U	1.00 UJ	250 U	5.00 UJ	5.00 U	10.0 U	1000 U	5.00 U	10.0 U	10.0 U	20.0 U
FB-10	Total Recoverable Metals	Water	7/11/2017	17:15	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.89 U	250 U	5.00 UJ	5.00 U	10.0 U	1000 U	5.00 U	10.0 U	7.53 J	20.0 U
FB-12	Total Recoverable Metals	Water	7/12/2017	14:10	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	0.812 U	250 U	5.00 UJ	5.00 U	10.0 U	1000 U	5.00 U	10.0 U	10.0 U	20.0 U
FB-13	Total Recoverable Metals	Water	7/12/2017	15:05	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.49 U	250 U	5.00 UJ	5.00 U	10.0 U	1000 U	5.00 U	10.0 U	10.0 U	20.0 U
FB-14	Total Recoverable Metals	Water	7/12/2017	13:45	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	2.50 UJ	250 U	5.00 UJ	5.00 U	10.0 U	1000 U	5.00 U	10.0 U	10.0 U	20.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CG4	Total Recoverable Metals	Surface Water	7/11/2017	12:30	4880	5.00 U	10.0 U	6.67	5.41	36200	10.0 U	22.4	321	1.93	6720	10700	4.97	10.0 U	6660	5.00 U	225	10.0 U	1690
CG4 Dup	Total Recoverable Metals	Surface Water	7/11/2017	12:30	4840	5.00 U	10.0 U	6.57	5.64	35900	10.0 U	23.9	323	2.06	6640	10700	4.88	10.0 U	6660	5.00 U	223	10.0 U	1690
				RPD	**0.82%**	N/A	N/A	**1.51%**	**4.16%**	**0.83%**	N/A	**6.48%**	**0.62%**	**6.52%**	**1.20%**	**0.00%**	**1.83%**	N/A	**0.00%**	N/A	**0.89%**	N/A	**0.00%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A39	Total Recoverable Metals	Surface Water	7/11/2017	14:05	95.6	5.00 U	10.0 U	5.00 U	1.31	19800	10.0 U	12.9	250 U	3.17	1650	206	5.00 U	10.0 U	3180	5.00 U	166	10.0 U	459
A39 Dup	Total Recoverable Metals	Surface Water	7/11/2017	14:05	103	5.00 U	10.0 U	5.00 U	1.37	21700	10.0 U	15.0	250 U	2.53	1800	218	5.00 U	10.0 U	3350	5.00 U	183	10.0 U	497
				RPD	**7.45%**	N/A	N/A	N/A	**4.48%**	**9.16%**	N/A	**15.05%**	N/A	**22.46%**	**8.70%**	**5.66%**	N/A	N/A	**5.21%**	N/A	**9.74%**	N/A	**7.95%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
EG3A	Total Recoverable Metals	Surface Water	7/12/2017	12:45	82.9	5.00 U	10.0 U	5.00 U	1.24	20900	10.0 U	7.65	250 U	0.718	1760	201	5.00 U	10.0 U	3100	5.00 U	168	10.0 U	476
EG3A Dup	Total Recoverable Metals	Surface Water	7/12/2017	12:45	82.8	5.00 U	10.0 U	5.00 U	1.04	20700	10.0 U	6.96	250 U	0.784	1760	202	5.00 U	10.0 U	3110	5.00 U	167	7.19 J	476
				RPD	**0.12%**	N/A	N/A	N/A	**17.54%**	**0.96%**	N/A	**9.45%**	N/A	**8.79%**	**0.00%**	**0.50%**	N/A	N/A	**0.32%**	N/A	**0.60%**	N/A	**0.00%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
EG2A	Total Recoverable Metals	Surface Water	7/12/2017	15:20	335	5.00 U	10.0 U	5.00 U	5.54	23400	10.0 U	32.8	250 U	9.99	1980	1010	5.00 U	10.0 U	4320	5.00 U	153	10.0 U	2190
EG2A Dup	Total Recoverable Metals	Surface Water	7/12/2017	15:20	332	5.00 U	10.0 U	5.00 U	5.67	23400	10.0 U	33.7	250 U	29	1980	996	5.00 U	10.0 U	4270	5.00 U	154	10.0 U	2160
				RPD	**0.90%**	N/A	N/A	N/A	**2.32%**	**0.00%**	N/A	**2.71%**	N/A	**97.51%**	**0.00%**	**1.40%**	N/A	N/A	**1.16%**	N/A	**0.65%**	N/A	**1.38%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A07E1	Total Recoverable Metals	Surface Water	7/12/2017	14:00	17600	5.00 U	10.0 U	3.35	35.2	14800	10.0 U	54.0	250 U	0.933	2610	6410	15.9	10.0 U	8270	5.00 U	19.5	10.0 U	5810
A07E1 Dup	Total Recoverable Metals	Surface Water	7/12/2017	14:00	19100	5.00 U	10.0 U	3.39	33.8	15900	10.0 U	51.9	250 U	1.35	2800	6530	15.3	10.0 U	8460	5.00 U	20.9	10.0 U	6030
				RPD	**8.17%**	N/A	N/A	**1.19%**	**4.06%**	**7.17%**	N/A	**3.97%**	N/A	**36.53%**	**7.02%**	**1.85%**	**3.85%**	N/A	**2.27%**	N/A	**6.93%**	N/A	**3.72%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A07B2	Total Recoverable Metals	Surface Water	7/12/2017	10:20	6980	5.00 U	10.0 U	2.76	21.3	11400	10.0 U	172	250 U	0.675 J	4280	4870	12.8	10.0 U	9290	5.00 U	14.4	10.0 U	1800
A07B2 Dup	Total Recoverable Metals	Surface Water	7/12/2017	10:20	7550	5.00 U	10.0 U	2.82	20.0	12000	10.0 U	160	250 U	1.00 UJ	4600	4960	12.6	10.0 U	9540	5.00 U	15.6	10.0 U	1860
				RPD	**7.85%**	N/A	N/A	**2.15%**	**6.30%**	**5.13%**	N/A	**7.23%**	N/A	N/A	**7.21%**	**1.83%**	**1.57%**	N/A	**2.66%**	N/A	**8.00%**	N/A	**3.28%**

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below:

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 29 Bonita Peak Mining District - High Flow July 11-12, 2017
Cement Creek Surface Water Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC01C1	Total Recoverable Metals	Surface Water	7/11/2017	17:00	5110	5.00 U	6.92 J	5.00 U	53.1	13500	10.0 U	1900	16400	28.5 J	4670	4400 J	5.80	10.0 U	11100	5.00 U	33.0	10.0 U	10400
CC01C2	Total Recoverable Metals	Surface Water	7/11/2017	16:40	3840	5.00 U	10.0 U	5.00 U	30.1	14200	10.0 U	1010	3900	26.3	3350	2790	4.01 J	10.0 U	10800	5.00 U	54.5	10.0 U	6280
CC01F	Total Recoverable Metals	Surface Water	7/11/2017	17:30	190	5.00 U	10.0 U	5.00 U	1.25	32500	10.0 U	28.3 J+	250 U	7.14 J	3160	70.8 J	5.00 U	10.0 U	3420	5.00 U	300	6.07 J	256
CC01S	Total Recoverable Metals	Surface Water	7/11/2017	15:45	1890	5.00 U	10.0 U	5.00 U	4.39	34700	10.0 U	69.9	764	19.5 J	5290	2840 J	2.75 J	10.0 U	5640	5.00 U	215	6.44 J	790
CC01T	Total Recoverable Metals	Surface Water	7/11/2017	15:15	4770	5.00 U	7.74 J	5.00 U	4.10	34100	10.0 U	70.3	6090	67.6 J	5970	2700 J	3.19 J	10.0 U	13200	5.00 U	235	10.0 U	751
CC02C	Total Recoverable Metals	Surface Water	7/11/2017	13:20	851	5.00 U	10.0 U	5.00 U	3.70	33700	10.0 U	49.6	152 J	4.84 J	4270	1510 J	5.00 U	10.0 U	4590	5.00 U	253	10.0 U	681
CC02D	Total Recoverable Metals	Surface Water	7/11/2017	14:15	3350	5.00 U	3.29 J	3.54 J	43.3	191000	10.0 U	23.3 J+	27700	200 J	11500	22700 J	3.01 J	10.0 U	30000	5.00 U	1670	10.0 U	27800
CC04	Total Recoverable Metals	Surface Water	7/12/2017	09:45	949	5.00 U	10.0 U	5.00 U	1.33	24400	10.0 U	74.0	815	7.97 J	3020	172 J	5.00 U	10.0 U	9780	5.00 U	178	10.0 U	334
CC15	Total Recoverable Metals	Surface Water	7/11/2017	11:15	252	5.00 U	10.0 U	5.00 U	1.00 U	28900	10.0 U	8.60 J+	250 U	8.95 J	1850	51.3 J	5.00 U	10.0 U	5610	5.00 U	226	10.0 U	64.6
CC15A	Total Recoverable Metals	Surface Water	7/11/2017	10:40	611	5.00 U	10.0 U	5.00 U	0.926 J	59900	10.0 U	7.56 J+	5080	2.33 J	3430	632 J	5.00 U	10.0 U	11100	5.00 U	609	10.0 U	277
CC16B	Total Recoverable Metals	Surface Water	7/11/2017	10:00	919	5.00 U	10.0 U	5.00 U	1.04	58500	10.0 U	11.0 J+	4850	1.80 J	3530	627 J	5.00 U	10.0 U	12200	5.00 U	595	10.0 U	268
CC48	Total Recoverable Metals	Surface Water	7/12/2017	08:15	3880	5.00 U	4.26 J	5.00 U	2.33	77600	10.0 U	46.6	8770	56.0 J	5780	1720 J	2.61 J	10.0 U	17400	5.00 U	860	10.0 U	730
CC02D Dup	Total Recoverable Metals	Surface Water	7/11/2017	14:15	3380	5.00 U	3.31 J	3.61 J	42.8	191000	10.0 U	22.1 J+	27800	202 J	11600	22800 J	2.54 J	10.0 U	30100	5.00 U	1720	10.0 U	27700
FB-15	Total Recoverable Metals	Water	7/11/2017	18:41	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	2.50 UJ	250 U	5.00 UJ	5.00 U	10.0 U	1000 U	5.00 U	10.0 U	10.0 U	20.0 U
FB-16	Total Recoverable Metals	Water	7/12/2017	17:45	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	2.50 UJ	250 U	5.00 UJ	5.00 U	10.0 U	1000 U	5.00 U	10.0 U	10.0 U	20.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC02D	Total Recoverable Metals	Surface Water	7/11/2017	14:15	3350	5.00 U	3.29	3.54	43.3	191000	10.0 U	23.3	27700	200	11500	22700	3.01	10.0 U	30000	5.00 U	1670	10.0 U	27800
CC02D Dup	Total Recoverable Metals	Surface Water	7/11/2017	14:15	3380	5.00 U	3.31	3.61	42.8	191000	10.0 U	22.1	27800	202	11600	22800	2.54	10.0 U	30100	5.00 U	1720	10.0 U	27700
				RPD	**0.89%**	N/A	**0.61%**	**1.96%**	**1.16%**	**0.00%**	N/A	**5.29%**	**0.36%**	**1.00%**	**0.87%**	**0.44%**	**16.94%**	N/A	**0.33%**	N/A	**2.95%**	N/A	**0.36%**

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below:

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 30 Bonita Peak Mining District - High Flow July 11-12, 2017
Mineral Creek Surface Water Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M01	Total Recoverable Metals	Surface Water	7/11/2017	09:55	37.2 J	5.00 U	10.0 U	5.00 U	1.00 U	7970	10.0 U	5.00 U	250 U	2.50 UJ	490	7.92 J	5.00 U	10.0 U	2230	5.00 U	129	10.0 U	11.0 U
M02	Total Recoverable Metals	Surface Water	7/11/2017	13:25	4920	5.00 U	118	5.00 U	31.4	149000	10.0 U	1460	25300	64.4 J	23800	10800 J	46.2	10.0 U	14300	5.00 U	4900	10.0 U	12200
M02B	Total Recoverable Metals	Surface Water	7/11/2017	14:30	3670	5.00 U	343	5.00 U	13.6	41700	10.0 U	569	42100	237 J	10500	725 J	7.83	10.0 U	8640	5.00 U	1800	10.0 U	3260
M02E	Total Recoverable Metals	Surface Water	7/11/2017	13:55	7040	5.00 U	240	5.00 U	46.5	194000	10.0 U	2280	43700	105 J	31100	16400 J	71.7	10.0 U	18200	5.00 U	6260	10.0 U	18500
M02K	Total Recoverable Metals	Surface Water	7/11/2017	14:10	10500	2.99 J	2240	3.07 J	77.9	310000	5.02 J	4290	151000	183 J	46600	30000 J	125	10.0 U	21000	5.00 U	10900	10.0 U	33300
M02L	Total Recoverable Metals	Surface Water	7/11/2017	15:00	72.7	5.00 U	10.0 U	5.00 U	1.00 U	11200	10.0 U	7.92	169 J	2.50 UJ	3050	15.0 J	5.00 U	10.0 U	1470	5.00 U	300	10.0 U	14.0 U
M03	Total Recoverable Metals	Surface Water	7/11/2017	11:05	159	5.00 U	5.69 J	5.00 U	1.09	11300	10.0 U	103	512	8.49 J+	1660	74.2 J	5.00 U	10.0 U	5890	5.00 U	267	10.0 U	222
M04	Total Recoverable Metals	Surface Water	7/11/2017	11:55	142	5.00 U	10.0 U	5.00 U	0.700 J	12200	10.0 U	32.4	378	1.55 U	1170	271 J	5.00 U	10.0 U	2730	5.00 U	261	10.0 U	292
M05	Total Recoverable Metals	Surface Water	7/11/2017	11:30	137	5.00 U	10.0 U	5.00 U	0.799 J	12500	10.0 U	35.4	392	1.79 U	1240	264 J	5.00 U	10.0 U	2930	5.00 U	270	10.0 U	289
M06D	Total Recoverable Metals	Surface Water	7/11/2017	15:45	131	5.00 U	10.0 U	5.00 U	0.500 J	8890	10.0 U	12.1	207 J	28.0 J	704	98.0 J	5.00 U	10.0 U	2360	5.00 U	140	10.0 U	162
M06E	Total Recoverable Metals	Surface Water	7/11/2017	16:35	209	5.00 U	10.0 U	5.00 U	1.00 U	21100	10.0 U	6.07	279	2.50 UJ	4190	44.1 J	5.00 U	10.0 U	3420	5.00 U	500	10.0 U	45.9 J+
M10	Total Recoverable Metals	Surface Water	7/11/2017	17:45	103	5.00 U	10.0 U	5.00 U	1.00 U	17100	10.0 U	5.00 U	250 U	1.10 U	936	30.3 J	5.00 U	10.0 U	3450	5.00 U	243	10.0 U	19.2 J
M10B	Total Recoverable Metals	Surface Water	7/12/2017	08:45	449	5.00 U	10.0 U	5.00 U	1.00 U	31400	10.0 U	7.63 J+	679	1.69 U	2840	312 J	5.00 U	10.0 U	6140	5.00 U	526	7.96 J	103
M23	Total Recoverable Metals	Surface Water	7/12/2017	11:50	791	5.00 U	10.0 U	5.00 U	1.00 U	14600	10.0 U	5.00 U	250 U	2.84 J+	2860	131 J	2.91 J	10.0 U	6020	5.00 U	95.4	10.0 U	21.3
M24A	Total Recoverable Metals	Surface Water	7/12/2017	12:50	179	5.00 U	10.0 U	5.00 U	54.7	91700	10.0 U	217	8600	133 J	7530	5630 J	9.96	10.0 U	12900	5.00 U	538	10.0 U	13300
M24B	Total Recoverable Metals	Surface Water	7/12/2017	13:05	257	5.00 U	2.78 J	5.00 U	59.3	88300	10.0 U	346	14400	202 J	7210	5780 J	9.85	10.0 U	13900	5.00 U	518	10.0 U	13800
M24C	Total Recoverable Metals	Surface Water	7/12/2017	11:25	54.2	5.00 U	10.0 U	5.00 U	0.512 J	137000	10.0 U	5.00 U	2390	16.8 J	7420	2340 J	5.00 U	10.0 U	13900	5.00 U	764	10.0 U	628
M24D	Total Recoverable Metals	Surface Water	7/12/2017	11:00	161	5.00 U	10.0 U	5.00 U	36.3	81300	10.0 U	89.0	1600	30.2 J	6490	1910 J	6.12	10.0 U	11600	5.00 U	501	10.0 U	8210
M25	Total Recoverable Metals	Surface Water	7/12/2017	10:25	902	5.00 U	10.0 U	5.00 U	1.00 U	15100	10.0 U	5.00 U	111 J	4.02 J+	2660	90.0 J	2.80 J	10.0 U	5880	5.00 U	99.9	10.0 U	34.5
M29	Total Recoverable Metals	Surface Water	7/12/2017	17:10	7450	5.00 U	13.4	5.00 U	1.00 U	25200	10.0 U	25.3	14200	86.2 J	3070	358 J	5.00 U	10.0 U	16400	5.00 U	265	10.0 U	131
M10 Dup	Total Recoverable Metals	Surface Water	7/11/2017	17:45	102	5.00 U	10.0 U	5.00 U	1.00 U	17700	10.0 U	5.00 U	250 U	0.880 J	953	31.2 J	5.00 U	10.0 U	3460	5.00 U	264	10.0 U	18.4 J
M23 Dup	Total Recoverable Metals	Surface Water	7/12/2017	11:50	775	5.00 U	10.0 U	5.00 U	1.00 U	14300	10.0 U	5.00 U	250 U	1.00 UJ	2790	79.0 J	2.51 J	10.0 U	5980	5.00 U	99.7	10.0 U	19.8 J
FB-04	Total Recoverable Metals	Water	7/11/2017	17:15	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 UJ	250 U	5.00 UJ	5.00 U	10.0 U	1000 U	5.00 U	10.0 U	10.0 U	20.0 U
FB-05	Total Recoverable Metals	Water	7/12/2017	13:30	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	2.61 J	250 U	6.47 J	250 U	5.00 UJ	5.00 U	10.0 U	1000 U	5.00 U	10.0 U	10.0 U	20.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M10	Total Recoverable Metals	Surface Water	7/11/2017	17:45	103	5.00 U	10.0 U	5.00 U	1.00 U	17100	10.0 U	5.00 U	250 U	1.10 U	936	30.3	5.00 U	10.0 U	3450	5.00 U	243	10.0 U	19.2
M10 Dup	Total Recoverable Metals	Surface Water	7/11/2017	17:45	102	5.00 U	10.0 U	5.00 U	1.00 U	17700	10.0 U	5.00 U	250 U	0.880 J	953	31.2	5.00 U	10.0 U	3460	5.00 U	264	10.0 U	18.4
				RPD	**0.98%**	N/A	N/A	N/A	N/A	**3.45%**	N/A	N/A	N/A	N/A	**1.80%**	**2.93%**	N/A	N/A	**0.29%**	N/A	**8.28%**	N/A	**4.26%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M23	Total Recoverable Metals	Surface Water	7/12/2017	11:50	791	5.00 U	10.0 U	5.00 U	1.00 U	14600	10.0 U	5.00 U	250 U	2.84 J+	2860	131	2.91	10.0 U	6020	5.00 U	95.4	10.0 U	21.3
M23 Dup	Total Recoverable Metals	Surface Water	7/12/2017	11:50	775	5.00 U	10.0 U	5.00 U	1.00 U	14300	10.0 U	5.00 U	250 U	1.00 UJ	2790	79	2.51	10.0 U	5980	5.00 U	99.7	10.0 U	19.8
				RPD	**2.04%**	N/A	N/A	N/A	N/A	**2.08%**	N/A	N/A	N/A	N/A	**2.48%**	**49.52%**	**14.76%**	N/A	**0.67%**	N/A	**4.41%**	N/A	**7.30%**

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below:

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 31 Bonita Peak Mining District - High Flow July 11-12, 2017
Animas Surface Water Analytical Results - Wet Chemistry

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A05	Wet Chemistry	Surface Water	7/11/2017	12:10	2.0 U	0.2 U	2.0 U	18.6	11.0
A07	Wet Chemistry	Surface Water	7/11/2017	11:10	2.0 U	0.4	2.0 U	59.8	10.0 U
A07A	Wet Chemistry	Surface Water	7/11/2017	13:10	2.0 U	0.5	2.0 U	68.2	10.0 U
A07B	Wet Chemistry	Surface Water	7/11/2017	14:05	2.0 U	0.5	2.0 U	61.9	10.0 U
A07B1	Wet Chemistry	Surface Water	7/12/2017	10:10	2.0 U	0.2 U	2.0 U	32.3	7.11 J
A07B2	Wet Chemistry	Surface Water	7/12/2017	10:20	2.0 U	0.7	2.0 U	106	10.0 U
A07B3	Wet Chemistry	Surface Water	7/12/2017	10:30	2.0 U	0.7	2.0 U	95.5	10.0 U
A07C1	Wet Chemistry	Surface Water	7/12/2017	12:00	2.0 U	0.2	2.0 U	54.7	10.0 U
A07D	Wet Chemistry	Surface Water	7/12/2017	12:35	2.0 U	0.2	2.0 U	47.8	10.0 U
A07D1	Wet Chemistry	Surface Water	7/12/2017	13:15	2.0 U	0.7	2.0 U	169	10.0 U
A07E	Wet Chemistry	Surface Water	7/12/2017	13:20	2.0 U	0.2	2.0 U	47.0	10.0 U
A07E1	Wet Chemistry	Surface Water	7/12/2017	14:00	2.0 U	0.9 J	2.0 U	176	10.0 U
A07F	Wet Chemistry	Surface Water	7/12/2017	13:10	2.0 U	0.2	2.0 U	42.9	10.0 U
A07G	Wet Chemistry	Surface Water	7/12/2017	13:00	2.0 U	0.2	2.0 U	31.1	10.0 U
A08	Wet Chemistry	Surface Water	7/11/2017	10:30	2.0 U	0.2	2.0 U	36.4	10.0 U
A15	Wet Chemistry	Surface Water	7/11/2017	10:25	2.0 U	2.3	2.0 U	129	10.0 U
A18	Wet Chemistry	Surface Water	7/11/2017	15:40	2.0 U	0.2	2.0 U	75.1	10.0 U
A18A	Wet Chemistry	Surface Water	7/11/2017	15:15	2.0 U	0.5	2.0 U	116	17.7
A18B	Wet Chemistry	Surface Water	7/11/2017	14:00	2.0 U	0.9	2.0 U	101	11.3
A20	Wet Chemistry	Surface Water	7/12/2017	12:15	2.0 U	0.4	2.0 U	61.3	10.0 U
A21	Wet Chemistry	Surface Water	7/12/2017	13:15	2.0 U	0.5	2.0 U	65.7	10.0 U
A22	Wet Chemistry	Surface Water	7/12/2017	14:00	2.0 U	0.5	2.0 U	63.6	5.23 J
A23	Wet Chemistry	Surface Water	7/12/2017	14:45	2.0 U	0.6	2.0 U	45.0	8.37 J
A23A	Wet Chemistry	Surface Water	7/12/2017	15:10	2.0 U	0.2	2.0 U	67.0	10.0 U
A36	Wet Chemistry	Surface Water	7/11/2017	11:20	2.0 U	0.2 J+	2.0 U	59.3	20.8
A36A	Wet Chemistry	Surface Water	7/12/2017	10:25	2.0 U	0.2	2.0 U	37.1	20.6
A37	Wet Chemistry	Surface Water	7/11/2017	11:00	2.0 U	0.2 J+	2.0 U	42.1	19.6
A38	Wet Chemistry	Surface Water	7/11/2017	13:45	8.0 U	1.2	8.0 U	514	102
A39	Wet Chemistry	Surface Water	7/11/2017	14:05	2.0 U	0.2 J+	2.0 U	45.4	17.9
A39A	Wet Chemistry	Surface Water	7/11/2017	14:54	2.0 U	0.2 J+	2.0 U	45.3	17.8
A55 OPP	Wet Chemistry	Surface Water	7/12/2017	08:25	2.0 U	0.4	2.0 U	44.9	22.2
ARD1	Wet Chemistry	Surface Water	7/11/2017	15:45	2.0 U	0.8 J+	2.0 U	198	10.0 U
BB2	Wet Chemistry	Surface Water	7/12/2017	11:00	2.0 U	0.2 U	2.0 U	20.2	12.0
BF1	Wet Chemistry	Surface Water	7/11/2017	16:41	2.0 U	0.8 J+	2.0 U	148	10.0 U
BF2	Wet Chemistry	Surface Water	7/11/2017	16:50	2.0 U	0.2 J+	2.0 U	48.4	16.3
BG1A	Wet Chemistry	Surface Water	7/12/2017	12:30	2.0 U	0.2	2.0 U	34.9	10.0 U
BG1B	Wet Chemistry	Surface Water	7/11/2017	13:40	2.0 U	0.4	2.0 U	72.6	10.0 U
CG3	Wet Chemistry	Surface Water	7/11/2017	13:20	2.0 U	3.2	2.0 U	153	10.0 U
CG4	Wet Chemistry	Surface Water	7/11/2017	12:30	2.0 U	2.9	2.0 U	149	10.0 U
CG6	Wet Chemistry	Surface Water	7/11/2017	11:35	2.0 U	2.6	2.0 U	137	10.0 U
DM8A	Wet Chemistry	Surface Water	7/12/2017	09:55	2.0 U	0.2	2.0 U	17.8	14.2
EG1	Wet Chemistry	Surface Water	7/12/2017	16:45	2.0 U	0.2 U	2.0 U	22.4	26.2
EG2	Wet Chemistry	Surface Water	7/12/2017	15:40	2.0 U	0.3	2.0 U	33.2	8.62 J
EG2A	Wet Chemistry	Surface Water	7/12/2017	15:20	2.0 U	0.5	2.0 U	70.0	10.0 U
EG3	Wet Chemistry	Surface Water	7/12/2017	13:45	2.0 U	0.2	2.0 U	31.8	22.9
EG3A	Wet Chemistry	Surface Water	7/12/2017	12:45	2.0 U	0.2	2.0 U	44.2	17.3
EG4	Wet Chemistry	Surface Water	7/12/2017	14:20	2.0 U	0.6	2.0 U	66.9	10.0 U
EG5	Wet Chemistry	Surface Water	7/11/2017	15:35	2.0 U	0.2 J+	2.0 U	45.4	18.1
EG6	Wet Chemistry	Surface Water	7/11/2017	12:45	2.0 U	0.2 J+	2.0 U	41.5	16.3
EG9	Wet Chemistry	Surface Water	7/11/2017	10:05	2.0 U	0.2 J+	2.0 U	51.9	20.3
EG-Trib1	Wet Chemistry	Surface Water	7/11/2017	16:25	2.0 U	0.2 U	2.0 U	19.5	44.6
EG-Trib2	Wet Chemistry	Surface Water	7/11/2017	15:55	2.0 U	0.2 U	2.0 U	23.7	54.6
LittleNation OPP	Wet Chemistry	Surface Water	7/12/2017	16:40	2.0 U	1.4	2.0 U	242	25.8
LSS1	Wet Chemistry	Surface Water	7/12/2017	11:30	2.0 U	0.2 U	2.0 U	8.9	9.95 J
MC0	Wet Chemistry	Surface Water	7/11/2017	13:30	2.0 U	0.2 U	2.0 U	32.1	13.0
CG4 Dup	Wet Chemistry	Surface Water	7/11/2017	12:30	2.0 U	3.0	2.0 U	149	10.0 U
A39 Dup	Wet Chemistry	Surface Water	7/11/2017	14:05	2.0 U	0.2	2.0 U	45.3	18.1
EG3A Dup	Wet Chemistry	Surface Water	7/12/2017	12:45	2.0 U	0.2	2.0 U	44.3	17.4
EG2A Dup	Wet Chemistry	Surface Water	7/12/2017	15:20	2.0 U	0.5	2.0 U	70.1	10.0 U
A07E1 Dup	Wet Chemistry	Surface Water	7/12/2017	14:00	2.0 U	0.6 J	2.0 U	176	10.0 U
A07B2 Dup	Wet Chemistry	Surface Water	7/12/2017	10:20	2.0 U	0.7	2.0 U	105	10.0 U
FB-09	Wet Chemistry	Water	7/11/2017	17:50	2.0 U	0.2 U	2.0 U	5.0 U	10.0 U
FB-10	Wet Chemistry	Water	7/11/2017	17:15	2.0 U	0.2	2.0 U	5.0 U	10.0 U
FB-12	Wet Chemistry	Water	7/12/2017	14:10	2.0 U	0.2 U	2.0 U	5.0 U	10.0 U
FB-13	Wet Chemistry	Water	7/12/2017	15:05	2.0 U	0.2 U	2.0 U	5.0 U	10.0 U
FB-14	Wet Chemistry	Water	7/12/2017	13:45	2.0 U	0.2 U	2.0 U	5.0 U	10.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
CG4	Wet Chemistry	Surface Water	7/11/2017	12:30	2.0 U	2.9	2.0 U	149	10.0 U
CG4 Dup	Wet Chemistry	Surface Water	7/11/2017	12:30	2.0 U	3.0	2.0 U	149	10.0 U
				RPD	N/A	**3.39%**	N/A	**0.00%**	N/A

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A39	Wet Chemistry	Surface Water	7/11/2017	14:05	2.0 U	0.2	2.0 U	45.4	17.9
A39 Dup	Wet Chemistry	Surface Water	7/11/2017	14:05	2.0 U	0.2	2.0 U	45.3	18.1
				RPD	N/A	**0.00%**	N/A	**0.22%**	**1.11%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
EG3A	Wet Chemistry	Surface Water	7/12/2017	12:45	2.0 U	0.2	2.0 U	44.2	17.3
EG3A Dup	Wet Chemistry	Surface Water	7/12/2017	12:45	2.0 U	0.2	2.0 U	44.3	17.4
				RPD	N/A	**0.00%**	N/A	**0.23%**	**0.58%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
EG2A	Wet Chemistry	Surface Water	7/12/2017	15:20	2.0 U	0.5	2.0 U	70.0	10.0 U
EG2A Dup	Wet Chemistry	Surface Water	7/12/2017	15:20	2.0 U	0.5	2.0 U	70.1	10.0 U
				RPD	N/A	**0.00%**	N/A	**0.14%**	N/A

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A07E1	Wet Chemistry	Surface Water	7/12/2017	14:00	2.0 U	0.9	2.0 U	176	10.0 U
A07E1 Dup	Wet Chemistry	Surface Water	7/12/2017	14:00	2.0 U	0.6	2.0 U	176	10.0 U
				RPD	N/A	**40.00%**	N/A	**0.00%**	N/A

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A07B2	Wet Chemistry	Surface Water	7/12/2017	10:20	2.0 U	0.7	2.0 U	106	10.0 U
A07B2 Dup	Wet Chemistry	Surface Water	7/12/2017	10:20	2.0 U	0.7	2.0 U	105	10.0 U
				RPD	N/A	**0.00%**	N/A	**0.95%**	N/A

Note: Removed flags from values for RPD calculation
Note: Data Qualifier Definitions Listed Below:
U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 32 Bonita Peak Mining District - High Flow July 11-12, 2017
Cement Creek Surface Water Analytical Results - Wet Chemistry

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
CC01C1	Wet Chemistry	Surface Water	7/11/2017	17:00	2.0 U	1.3	2.0 U	197	10.0 U
CC01C2	Wet Chemistry	Surface Water	7/11/2017	16:40	2.0 U	0.9	2.0 U	111	10.0 U
CC01F	Wet Chemistry	Surface Water	7/11/2017	17:30	2.0 U	0.2	2.0 U	78.0	16.6
CC01S	Wet Chemistry	Surface Water	7/11/2017	15:45	2.0 U	0.6	2.0 U	117	10.0 U
CC01T	Wet Chemistry	Surface Water	7/11/2017	15:15	2.0 U	0.5	2.0 U	110	10.0 U
CC02C	Wet Chemistry	Surface Water	7/11/2017	13:20	2.0 U	0.5	2.0 U	102	5.16 J
CC02D	Wet Chemistry	Surface Water	7/11/2017	14:15	20.0 U	5.0	20.0 U	659	10.0 U
CC04	Wet Chemistry	Surface Water	7/12/2017	09:45	2.0 U	0.2	2.0 U	79.9	10.0 U
CC15	Wet Chemistry	Surface Water	7/11/2017	11:15	2.0 U	0.3	2.0 U	68.2	13.1
CC15A	Wet Chemistry	Surface Water	7/11/2017	10:40	2.0 U	0.8	2.0 U	163	5.89 J
CC16B	Wet Chemistry	Surface Water	7/11/2017	10:00	2.0 U	0.9	2.0 U	164	10.0 U
CC48	Wet Chemistry	Surface Water	7/12/2017	08:15	1.4 J	0.6	2.0 U	240	10.0 U
CC02D Dup	Wet Chemistry	Surface Water	7/11/2017	14:15	20.0 U	4.9	20.0 U	644	10.0 U
FB-15	Wet Chemistry	Water	7/11/2017	18:41	2.0 U	0.2 U	2.0 U	5.0 U	10.0 U
FB-16	Wet Chemistry	Water	7/12/2017	17:45	2.0 U	0.2 U	2.0 U	5.0 U	10.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
CC02D	Wet Chemistry	Surface Water	7/11/2017	14:15	20.0 U	5.0	20.0 U	659	10.0 U
CC02D Dup	Wet Chemistry	Surface Water	7/11/2017	14:15	20.0 U	4.9	20.0 U	644	10.0 U
				RPD	N/A	**2.02%**	N/A	**2.30%**	N/A

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below:

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 33 Bonita Peak Mining District - High Flow July 11-12, 2017
Mineral Surface Water Analytical Results - Wet Chemistry

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
M01	Wet Chemistry	Surface Water	7/11/2017	09:55	2.0 U	0.2 U	2.0 U	13.1	10.6
M02	Wet Chemistry	Surface Water	7/11/2017	13:25	20.0 U	1.7 J	20.0 U	544	10.0 U
M02B	Wet Chemistry	Surface Water	7/11/2017	14:30	20.0 U	1.7 J	20.0 U	213	10.0 U
M02E	Wet Chemistry	Surface Water	7/11/2017	13:55	20.0 U	2.1	20.0 U	797	10.0 U
M02K	Wet Chemistry	Surface Water	7/11/2017	14:10	20.0 U	2.7	20.0 U	1280	10.0 U
M02L	Wet Chemistry	Surface Water	7/11/2017	15:00	2.0 U	0.2 U	2.0 U	18.8	23.3
M03	Wet Chemistry	Surface Water	7/11/2017	11:05	2.0 U	0.2 U	2.0 U	32.4	7.79 J
M04	Wet Chemistry	Surface Water	7/11/2017	11:55	2.0 U	0.2 U	2.0 U	27.5	10.4
M05	Wet Chemistry	Surface Water	7/11/2017	11:30	2.0 U	0.2 U	2.0 U	28.1	10.2
M06D	Wet Chemistry	Surface Water	7/11/2017	15:45	2.0 U	0.2 U	2.0 U	20.0	7.17 J
M06E	Wet Chemistry	Surface Water	7/11/2017	16:35	2.0 U	0.2 U	2.0 U	53.6	18.6
M10	Wet Chemistry	Surface Water	7/11/2017	17:45	2.0 U	0.2 U	2.0 U	37.4	12.4
M10B	Wet Chemistry	Surface Water	7/12/2017	08:45	2.0 U	0.2	2.0 U	88.8	9.62 J
M23	Wet Chemistry	Surface Water	7/12/2017	11:50	2.0 U	0.2	2.0 U	44.5	10.0 U
M24A	Wet Chemistry	Surface Water	7/12/2017	12:50	4.0 U	0.8	4.0 U	264	26.0
M24B	Wet Chemistry	Surface Water	7/12/2017	13:05	20.0 U	2.0 U	20.0 U	255	29.6
M24C	Wet Chemistry	Surface Water	7/12/2017	11:25	4.0 U	0.7	4.0 U	281	105
M24D	Wet Chemistry	Surface Water	7/12/2017	11:00	2.0 U	0.7	2.0 U	226	11.9
M25	Wet Chemistry	Surface Water	7/12/2017	10:25	2.0 U	0.2	2.0 U	46.0	10.0 U
M29	Wet Chemistry	Surface Water	7/12/2017	17:10	20.0 U	2.0 U	20.0 U	70.2	5.97 J
M10 Dup	Wet Chemistry	Surface Water	7/11/2017	17:45	2.0 U	0.2 U	2.0 U	37.3	12.5
M23 Dup	Wet Chemistry	Surface Water	7/12/2017	11:50	2.0 U	0.2	2.0 U	44.4	10.0 U
FB-04	Wet Chemistry	Water	7/11/2017	17:15	2.0 U	0.2 U	2.0 U	5.0 U	10.0 U
FB-05	Wet Chemistry	Water	7/12/2017	13:30	2.0 U	0.2 U	2.0 U	5.0 U	10.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
M10	Wet Chemistry	Surface Water	7/11/2017	17:45	2.0 U	0.2 U	2.0 U	37.4	12.4
M10 Dup	Wet Chemistry	Surface Water	7/11/2017	17:45	2.0 U	0.2 U	2.0 U	37.3	12.5
				RPD	N/A	N/A	N/A	**0.27%**	**0.80%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
M23	Wet Chemistry	Surface Water	7/12/2017	11:50	2.0 U	0.2	2.0 U	44.5	10.0 U
M23 Dup	Wet Chemistry	Surface Water	7/12/2017	11:50	2.0 U	0.2	2.0 U	44.4	10.0 U
				RPD	N/A	**0.00%**	N/A	**0.22%**	N/A

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below:

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J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 34 Bonita Peak Mining District - Low Flow September 26-28, 2017
Animas Surface Water Analytical Results - Dissolved Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A05	Dissolved Metals	Surface Water	9/26/2017	16:30	242 J+	1.00 U	0.915 J	5.00 U	0.738	24300	2.00 U	1.27	72	250 U	0.171 J	2870	4.11 J	1.00 U	771 J	2.00 U	3890	1.00 U	3100 J+	76.5	2.00 U	125
A07	Dissolved Metals	Surface Water	9/26/2017	17:30	10400	1.00 U	0.683 J	3.60 J	18.1	23600	2.00 U	58.3	75	250 U	6.17	3960	5120	9.96	1060	2.00 U	10800	1.00 U	3320 J+	62.0	2.00 U	2970
A07A	Dissolved Metals	Surface Water	9/26/2017	9:15	14300	1.00 U	2.00 U	4.24 J	22.2	27100	2.00 U	62.1	88	158 J	5.00	4930	6430	12.1	971 J	1.09 J	10600	1.00 U	1740 J+	63.8	2.00 U	3650
A07B	Dissolved Metals	Surface Water	9/26/2017	10:40	14800	1.00 U	0.532 J	4.26 J	22.2	25400	2.00 U	41.1	80	167 J	6.64	3890	5510	11.2	831 J	2.00 U	10100	1.00 U	3570 J+	65.5	2.00 U	3830
A07B1	Dissolved Metals	Surface Water	9/26/2017	11:20	14900	1.00 U	0.805 J	6.06	28.7	27300	2.00 U	148	107	250 U	0.556	9570	10600	19.1	2730	2.00 U	19500	1.00 U	3370 J+	29.6	2.00 U	2820
A07B2	Dissolved Metals	Surface Water	9/26/2017	11:10	13000	1.00 U	0.505 J	6.38	27.4	25700	2.00 U	127	100	250 U	0.762	8850	9700	18.6	2590	2.00 U	19500	1.00 U	2970 J+	29.3	2.00 U	2780
A07B3	Dissolved Metals	Surface Water	9/26/2017	11:00	9470	1.00 U	0.627 J	5.34	22.0	22400	2.00 U	78.0	84	250 U	0.755	6890	6190	15.1	2100	2.00 U	17900	1.00 U	3720 J+	29.6	2.00 U	2240
A07C1	Dissolved Metals	Surface Water	9/26/2017	13:20	18900	1.00 U	2.00 U	2.19 J	25.9	19800	2.00 U	79.2	66	250 U	16.2	4000	5690	14.9	567 J	2.00 U	9090	1.00 U	1740 J+	25.7	2.00 U	4140
A07D	Dissolved Metals	Surface Water	9/26/2017	13:00	20900	1.00 U	0.827 J	2.02 J	24.2	18600	2.00 U	102	63	250 U	10.7	3970	6330	14.6	674 J	2.00 U	10400	1.00 U	2450 J+	21.1	2.00 U	3560
A07D Dup-08	Dissolved Metals	Surface Water	9/26/2017	13:00	21400	1.00 U	0.950 J	5.00 U	23.5	19000	1.24 J	98.6	64	250 U	12.0	4130	6430	15.6	750 J	2.00 U	11100	1.00 U	2570	21.7	2.00 U	3560
A07D1	Dissolved Metals	Surface Water	9/26/2017	13:50	22600	1.00 U	0.538 J	2.37 J	20.5	18800	2.00 U	107	63	357	27.0	3960	8100	14.8	721 J	2.00 U	10700	1.00 U	1830 J+	15.4	2.00 U	3400
A07E	Dissolved Metals	Surface Water	9/26/2017	14:35	23600	1.00 U	0.587 J	2.52 J	20.5	19600	2.00 U	114	66	439	28.2	4180	8740	14.8	781 J	2.00 U	11500	1.00 U	2020 J+	15.8	2.00 U	3530
A07E1	Dissolved Metals	Surface Water	9/26/2017	13:40	26100	1.00 U	2.00 U	2.32 J	22.9	20600	2.00 U	89.9	70	250 U	36.6	4400	8430	16.4	679 J	2.00 U	11200	1.00 U	1910 J+	17.7	2.00 U	3770
A07F	Dissolved Metals	Surface Water	9/26/2017	15:00	21400	1.00 U	0.638 J	2.19 J	16.9	18600	1.02 J	108	63	581	26.3	3900	7900	13.9	839 J	2.00 U	10900	1.00 U	2490 J+	15.2	2.00 U	2650
A07G	Dissolved Metals	Surface Water	9/26/2017	15:20	838	1.00 U	2.00 U	5.00 U	1.50	8700	2.00 U	8.02	25	250 U	3.87	838	199	1.19	464 J	2.00 U	4450	1.00 U	1830 J+	19.6	2.00 U	281
A08	Dissolved Metals	Surface Water	9/26/2017	17:15	2740	1.00 U	0.651 J	5.00 U	7.80	24200	2.00 U	23.7	75	250 U	2.44	3590	2030	3.49	893 J	2.00 U	6730	1.00 U	3000 J+	69.7	2.00 U	1230
A09	Dissolved Metals	Surface Water	9/26/2017	11:00	1450	1.00 U	2.00 U	5.00 U	6.59	23100	2.00 U	14.9	72	250 U	7.33	3410	1380	2.56	619 J	2.00 U	4750	1.00 U	862 J	66.3	2.00 U	1170
A09A	Dissolved Metals	Surface Water	9/26/2017	18:35	1120	1.00 U	0.640 J	5.00 U	6.65	23800	2.00 U	16.3	73	250 U	12.9	3430	1120	2.50	848 J	2.00 U	5490	1.00 U	3020	68.7	2.00 U	1130
A10	Dissolved Metals	Surface Water	9/26/2017	12:05	4290	1.00 U	2.00 U	6.17	9.41	51000	2.00 U	25.6	158	175 J	6.04	7420	15800	7.87	913 J	2.00 U	8950	1.00 U	1820	294	2.00 U	3230
A11	Dissolved Metals	Surface Water	9/26/2017	14:10	4680	1.00 U	2.00 U	6.95	9.13	51700	2.00 U	27.5	159	224 J	10.1	7370	15700	7.34	939 J	2.00 U	8720	1.00 U	1790	291	2.00 U	3200
A13	Dissolved Metals	Surface Water	9/27/2017	9:25	6040	1.00 U	2.00 U	8.07	9.72	50100	2.00 U	22.6	158	141 J	5.64	7930	17300	8.60	818 J	2.00 U	8990	1.00 U	1800	294	2.00 U	3080
A14	Dissolved Metals	Surface Water	9/26/2017	9:25	2290	1.00 U	2.00 U	3.54 J	10.7	51000	2.00 U	32.7	155	189 J	6.86	6600	12100	5.74	1010	2.00 U	8190	1.00 U	1760	260	2.00 U	3430
A15	Dissolved Metals	Surface Water	9/27/2017	10:10	10200	1.00 U	2.00 U	14.0	14.5	61700	2.00 U	28.0	200	168 J	0.593	11200	28800	14.2	958 J	1.03 J	11100	1.00 U	2240	332	2.00 U	4280
A18A	Dissolved Metals	Surface Water	9/27/2017	13:00	18700	1.00 U	2.00 U	43.0	4.34	85800	2.00 U	7.65	272	250 U	0.200 U	14100	42800	12.9	990 J	2.00 U	11400	1.00 U	2580	438	2.00 U	2200
A18B	Dissolved Metals	Surface Water	9/27/2017	12:05	25900	1.00 U	0.533 J	41.6	19.9	74200	2.00 U	59.1	252	250 U	0.461	16200	54700	23.4	1150	1.23 J	14900	1.00 U	2340	279	2.00 U	5230
A19A	Dissolved Metals	Surface Water	9/27/2017	13:45	3480	1.00 U	1.64 J	5.00 U	44.9	15800	2.00 U	1250	47	5760	186	1930	5370	4.44	758 J	2.00 U	11300	0.878 J	577 J	53.2	2.00 U	5870
A20	Dissolved Metals	Surface Water	9/27/2017	10:45	311	1.00 U	2.00 U	5.00 U	3.29	36600	2.00 U	17.8	106	201 J	16.7	3610	912	1.03	714 J	2.00 U	7190	1.00 U	971 J	236	2.00 U	1530
A21	Dissolved Metals	Surface Water	9/27/2017	12:00	656	1.00 U	2.00 U	5.00 U	4.23	43900	2.00 U	19.4	127	674	28.9	4320	1550	1.59	864 J	2.00 U	8010	1.00 U	1130	304	2.00 U	1810
A22	Dissolved Metals	Surface Water	9/27/2017	13:00	54.2	1.00 U	2.00 U	5.00 U	2.38	54000	2.00 U	5.72	154	250 U	4.78	4600	484	1.00 U	601 J	2.00 U	5970	1.00 U	1210	403	2.00 U	1350
A23	Dissolved Metals	Surface Water	9/27/2017	13:30	131	1.00 U	2.00 U	5.00 U	2.57	40500	2.00 U	5.30	114	250 U	0.611	3180	1270	0.770 J	650 J	2.00 U	6640	1.00 U	1290	319	2.00 U	1150
A23A	Dissolved Metals	Surface Water	9/27/2017	13:30	937	1.00 U	2.00 U	5.00 U	10.1	25100	2.00 U	113	73	250 U	1.47	2570	16100	4.47	1140	2.00 U	9450	1.00 U	545 J	126	2.00 U	2920
A28	Dissolved Metals	Surface Water	9/27/2017	11:32	74.6	1.00 U	2.00 U	5.00 U	4.05	47500	2.00 U	4.04	137	250 U	0.806	4580	3580	0.636 J	644 J	2.00 U	5030	1.00 U	1170	265	2.00 U	1110
A30	Dissolved Metals	Surface Water	9/27/2017	10:21	68.0	1.00 U	2.00 U	5.00 U	4.15	47600	2.00 U	15.7	137	250 U	0.278	4520	3540	0.551 J	648 J	2.00 U	5090	1.00 U	1180	272	2.00 U	1140
A30A	Dissolved Metals	Surface Water	9/27/2017	9:21	57.0	1.00 U	2.00 U	5.00 U	3.97	48100	2.00 U	16.1	139	250 U	0.312	4500	3280	0.516 J	655 J	2.00 U	5030	1.00 U	1170	273	2.00 U	1130
A30B	Dissolved Metals	Surface Water	9/27/2017	8:21	55.7	1.00 U	2.00 U	5.00 U	3.43	47000	2.00 U	13.2	135	250 U	0.301	4330	2840	1.00 U	625 J	2.00 U	5210	1.00 U	1160	270	2.00 U	1010
A32	Dissolved Metals	Surface Water	9/27/2017	13:25	50.0 U	1.00 U	0.520 J	5.00 U	0.200 U	52700	2.00 U	1.01	141	250 U	0.200 U	2370	5.00 U	1.00 U	375 J	2.00 U	4460	1.00 U	1850	345	2.00 U	12.0 J
A33	Dissolved Metals	Surface Water	9/28/2017	10:35	48.1 J	1.00 U	2.00 U	5.00 U	3.14	45500	2.00 U	10.0	130	250 U	0.227	4060	2450	1.00 U	627 J	2.00 U	5240	1.00 U	1240	271	2.00 U	938
A34	Dissolved Metals	Surface Water	9/28/2017	9:30	68.5	1.00 U	2.00 U	5.00 U	0.888	70700	2.00 U	5.31	194	250 U	0.200 U	4190	168	1.00 U	480 J	2.00 U	7690	1.00 U	1680	660	2.00 U	293
A35	Dissolved Metals	Surface Water	9/26/2017	9:45	48.0 J	1.00 U	2.00 U	5.00 U	2.16	58000	2.00 U	7.19	162	250 U	0.200 U	4140	1480	1.00 U	534 J	2.00 U	6520	1.00 U	1430	450	2.00 U	668
A36	Dissolved Metals	Surface Water	9/26/2017	14:31	57.4	1.00 U	2.00 U	5.00 U	0.369	80300	2.00 U	4.16	222	326	0.200 U	5250	233	1.00 U	576 J	2.00 U	8190	1.00 U	1450	615	2.00 U	88.3
A36A	Dissolved Metals	Surface Water	9/26/2017	15:49	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	40000	2.00 U	0.812 J	109	250 U	0.200 U	2120	2.76 J	21.4	310 J	2.00 U	3560	1.00 U	1150	403	2.00 U	18.7 J
A37	Dissolved Metals	Surface Water	9/26/2017	13:37	27.6 J	1.00 U	2.00 U	5.00 U	0.366	50900	2.00 U	2.36	138	250 U	0.200 U	2620	18.1	1.00 U	360 J	2.00 U	5690	1.00 U	1550	663	2.00 U	181
A38	Dissolved Metals	Surface Water	9/27/2017	17:51	52.9	5.00 U	10.0 U	5.00 U	1.00 U	206000	10.0 U	5.00 U	560	250 U	1.00 U	11100	10000	5.00 U	1070 J-	10.0 U	11700	5.00 U	5300	3660	10.0 U	1200
A39	Dissolved Metals	Surface Water	9/27/2017	18:19	57.1	1.00 U	2.00 U	5.00 U	2.14	28000	2.00 U	14.4	81	250 U	0.907	2550	537	1.00 U	326 J	2.00 U	3580	1.00 U	835 J	257	2.00 U	728
A39A	Dissolved Metals	Surface Water	9/27/2017	17:40	67.6	1.00 U	2.00 U	5.00 U	2.52	29900	2.00 U	28.2	86	250 U	2.26	2700	651	1.00 U	352 J	2.00 U	3640	1.00 U	870 J	262	2.00 U	857
A40	Dissolved Metals	Surface Water	9/28/2017	10:56	47.2 J	1.00 U	2.00 U	5.00 U	2.26	52800	2.00 U	7.67	148	250 U	0.140 J	3910	1490	1.00 U	566 J	2.00 U	5800	1.00 U	1310	387	2.00 U	654
A40A	Dissolved Metals	Surface Water	9/28/2017	8:25	49.8 J	1.00 U	2.00 U	5.00 U	2.52	52500	2.00 U	7.67	147	250 U	0.105 J	3940	1650	1.00 U	563 J	2.00 U	5830	1.00 U	1290	384	2.00 U	714
A40A Dup-14	Dissolved Metals	Surface Water	9/28/2017	8:25	57.3	1.00 U	2.00 U	5.00 U	2.59	54000	2.00 U	7.19	152	250 U	0.121 J	4100	1690	1.50	611 J	2.00 U	6090	1.00 U	1460	414	2.00 U	741
A41A	Dissolved Metals	Surface Water	9/28/2017	10:23	48.0 J	1.00 U	2.00 U	5.00 U	2.07	51400	2.00 U	6.51	144	250 U	0.200 U	3880	1240	1.00 U	573 J	2.00 U	5930	1.00 U	1530	414	2.00 U	553
A45	Dissolved Metals	Surface Water	9/28/2017	8:23	24.5 J	1.00 U	2.00 U	5.00 U	0.791	47400	2.00 U	2.60	132	250 U	0.200 U	3290	347	1.00 U	547 J	2.00 U	6740	1.00 U	1770	423	2.00 U	302
A47	Dissolved Metals	Surface Water	9/28/2017	8:40	50.0 U	1.00 U	2.00 U	5.00 U	0.168 J	53000	1.17 J	0.890 J	142	250 U	0.200 U	2340	5.00 U	1.00 U	368 J	2.00 U	6350	1.00 U	2390	688	2.00 U	21.9
A48	Dissolved Metals	Surface Water	9/28/2017	11:50	50.0 U	1.00 U	2.00 U	5.00 U	0.230	44500	1.01 J	1.08	121	250 U	0.150 J	2420	4.14 J	1.00 U	533 J	2.00 U	6050	1.00 U	1950	399	2.00 U	34.6
A53AC	Dissolved Metals	Surface Water	9/28/2017	9:20	42.0 J	1.00 U	2.00 U	5.00 U	1.09	48800	2.00 U	3.55	136	250 U	0.205	3410	800	1.00 U	544 J	2.00 U	6970	1.00 U	1840	432	2.00 U	482
A55a	Dissolved Metals	Surface Water	9/27/2017	16:39	34.2 J	1.00 U	2.00 U	5.00 U	0.716	47400	2.00 U	2.34	131	250 U	0.225	3010	449	1.00 U	563 J	2.00 U	6770	1.00 U	1900	432	2.00 U	287
A55a Dup-13	Dissolved Metals	Surface Water	9/27/2017	16:39	35.9 J	1.00 U	2.00 U	5.00 U	0.737	48700	2.00 U	1.95	134	250 U	0.221	3120	461	1.00 U	603 J	2.00 U	7070	1.00 U	2130	464	2.00 U	291
A56	Dissolved Metals	Surface Water	9/26/2017	16:20	51.7	1.00 U	2.00 U	5.00 U	0.667	49500	2.00 U	2.20 J+	136	250 U	0.181 J	3120	343	1.00 U	540 J	2.00 U	7220	1.00 U	1980	451	2.00 U	231
A58	Dissolved Metals	Surface Water	9/26/2017	17:09	50.0 U	1.00 U	2.00 U	5.00 U	1.51	36700	2.00 U	7.41	99	250 U	2.38	1840	5.00 U	1.00 U	500 J	1.11 J+	5120	1.00 U	2010	490	2.00 U	203
A60	Dissolved Metals	Surface Water	9/26/2017	15:48	52.7	1.00 U	2.00 U	5.00 U	0.737	47900	2.00 U	2.54 J+	133	250 UJ	0.233	3120	320	1.00 U	569 J	2.00 U	7230	1.00 U	2240	493	2.00 U	217
A61	Dissolved Metals	Surface Water	9/26/2017	14:50	75.4	1.00 U	2.00 U	5.00 U	0.935	46900	2.00 U	4.15 J+	130	250 UJ	0.299	3060	462	1.00 U	566 J	2.00 U	7350	1.00 U	2220	491	2.00 U	282
A61 Dup-12	Dissolved Metals	Surface Water	9/26/2017	14:50	64.4	1.00 U	2.00 U	5.00 U	0.975	49800	2.00 U	3.65	137	250 U	0.310	3100	452	1.00 U	575 J	2.00 U	7620	1.00 U	2220	495	2.00 U	300
A64	Dissolved Metals	Surface Water	9/26/2017	13:53	64.2	1.00 U	2.00 U	5.00 U	0.965	48200	2.00 U	3.56 J+	133	250 UJ	0.203	3070	690	1.00 U	565 J	1.02 J	7330	1.00 U	2250	500	2.00 U	282
A65	Dissolved Metals	Surface Water	9/26/2017	12:41	55.7	1.00 U	2.00 U	5.00 U	1.07	49300	2.00 U	3.35 J+	136	250 UJ	0.204	3070	818	1.00 U	570 J	2.00 U	7370	1.00 U	2240	504	2.00 U	315
A66	Dissolved Metals	Surface Water	9/26/2017	9:55	58.9	1.00 U	2.00 U	5.00 U	1.16	50100	2.00 U	2.99 J+	138	132 J-	0.182 J	3140	1070	1.00 U	578 J	2.00 U	7270	1.00 U	2230	509	2.00 U	361
A68	Dissolved Metals	Surface Water	9/26/2017	9:20	59.0	1.00 U	2.00 U	5.00 U	1.24	50000	2.00 U	4.11 J+	138	250 UJ	0.200 U	3240	1380	1.00 U	580 J	2.00 U	7320	1.00 U	2280	517	2.00 U	409
A72	Dissolved Metals	Surface Water	9/26/2017	8:35	94.6	1.00 U	2.00 U	5.00 U	1.36	74400	2.00 U	4.63 J+	207	1630	0.200 U	5130	1320	1.00 U	782 J	2.00 U	13100	1.00 U	3110	787	2.00 U	465
AM1	Dissolved Metals	Surface Water	9/28/2017	12:10	39.1 J	1.00 U	2.00 U	5.00 U	2.93	147000	2.00 U	8.24 J	376	250 UJ	0.200 U	2410	5.00 U	1.00 U	333 J	1.81 J	12300	1.00 U	3460	1340	2.00 U	542
ARD1	Dissolved Metals	Surface Water	9/27/2017	16:41	8360	1.00 U	0.915 J	5.00 U	64.3	33400	2.00 U	1810 J	123	2020	979	9680	22400	11.3	760 J	1.72 J	22700	1.32	1520	206	2.00 U	19300
BF1	Dissolved Metals	Surface Water	9/27/2017	15:55	3940	1.00 U	2.00 U	5.00 U	46.9	54600	2.00 U	2450 J	180	250 UJ	2000	10700	12800	6.01	507 J	1.43 J	11700	0.819 J	1580	346	2.00 U	11600
BF3	Dissolved Metals	Surface Water	9/27/2017	15:35	4630	1.00 U	2.00 U	5.00 U	51.8	48000	2.00 U	2240 J	158	250 UJ	1140	9320	13400	7.10	453 J	1.45 J	10900	1.00 U	1470	306	2.00 U	12700
BG1A	Dissolved Metals	Surface Water	9/26/2017	15:35	423 J+	1.00 U	0.544 J	5.00 U	1.54	9580	2.00 U	4.44 J+	27	250 UJ	3.60	863	47.3	1.19	479 J	2.00 U	4870	1.00 U	2370 J+	25.0	2.00 U	277
BG1B	Dissolved Metals	Surface Water	9/26/2017	10:10	15000	1.00 U	0.611 J	4.29 J	22.9	24800	2.00 U	53.5 J	81	116 J-	5.65	4530	6040	11.6	1060	2.00 U	11300	1.00 U	3840 J+	66.1	2.00 U	3630
CG01	Dissolved Metals	Surface Water	9/28/2017	10:30	2010	5.00 UJ	10.0 U	5.00 U	30.5	114000	10.0 U	139 J	364	6720	89.8	19300	37000	11.4	2570	10.0 U	17900	5.00 U	3710	785	10.0 U	15100
CG02	Dissolved Metals	Surface Water	9/28/2017	10:10	1930	5.00 UJ	10.0 U	5.00 U	29.7	113000	10.0 U	133 J	362	12600	67.9	19400	35200	11.6	2720	10.0 U	17400	5.00 U	3730	772	10.0 U	16000
CG11	Dissolved Metals	Surface Water	9/26/2017	16:30	4480	1.00 UJ	2.00 U	6.88	8.99	49700	2.00 U	29.2 J	153	112 J-	9.20	7110	15700	7.51	993 J	2.00 U	8590	1.00 U	1880	305	2.00 U	2910
CG11 Dup-10	Dissolved Metals	Surface Water	9/26/2017	16:30	4590	1.00 U	2.00 U	7.33	9.73	53800	2.00 U	27.4	166	163 J	10.2	7580	16700	9.15	1030	2.00 U	9090	1.00 U	1870	304	2.00 U	3240
CG3	Dissolved Metals	Surface Water	9/27/2017	11:20	21100	1.00 UJ	2.00 U	27.7	22.4	60600	2.00 U	55.7 J	213	250 UJ	0.509	15000	41700	23.6	1050	1.25 J+	13500	1.00 U	2340	242	2.00 U	6160
CG4	Dissolved Metals	Surface Water	9/27/2017	10:30	15900	1.00 UJ	2.00 U	20.6	16.3	50600	2.00 U	40.4 J	176	250 UJ	0.397	12000	33000	17.2	881 J	1.78 J+	11700	1.00 U	2050	199	2.00 U	4770
CG4 Dup-11	Dissolved Metals	Surface Water	9/27/2017	10:30	16200	1.00 U	0.576 J	22.2	17.6	54500	2.00 U	64.0 J	189	121 J	0.452	12700	34800	19.8	905 J	1.16 J	12400	1.00 U	2020	196	2.00 U	5290
CG6	Dissolved Metals	Surface Water	9/27/2017	9:30	16000	1.00 UJ	2.00 U	20.4	16.9	50400	2.00 U	41.6 J	175	250 UJ	0.401	12000	33000	17.8	857 J	2.00 U	11700	1.00 U	2050	199	2.00 U	4780
CG9	Dissolved Metals	Surface Water	9/26/2017	15:05	4970	1.00 UJ	2.00 U	7.21	8.90	50600	2.00 U	26.4 J	157	107 J-	8.08	7430	16300	7.35	1010	2.00 U	8730	1.00 U	1960	318	2.00 U	2850
CU4	Dissolved Metals	Surface Water	9/27/2017	14:43	50.0 U	1.00 UJ	2.00 U	5.00 U	0.200 U	20200	1.01 J	0.612 J+	57	250 UJ	0.200 U	1560	6.01	1.00 U	518 J	2.00 U	3250	1.00 U	1500	221	2.00 U	20.0 U
CU4a	Dissolved Metals	Surface Water	9/27/2017	15:47	50.0 U	1.00 UJ	2.00 U	5.00 U	0.295	23800	1.04 J	1.14 J+	67	250 UJ	0.536	1760	4.17 J	1.00 U	528 J	2.00 U	3380	1.00 U	1500	252	2.00 U	46.9
DM8A	Dissolved Metals	Surface Water	9/26/2017	12:25	148 J+	1.00 UJ	1.03 J	5.00 U	0.710	11600	1.25 J	1.60 J+	33	250 UJ	0.401	925	4.90 J	1.00 U	648 J	2.00 U	2320 J+	1.00 U	2490 J+	122	2.00 U	244

Table 34 Bonita Peak Mining District - Low Flow September 26-28, 2017
Animas Surface Water Analytical Results - Dissolved Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
EG1	Dissolved Metals	Surface Water	9/27/2017	11:10	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	27800	2.00 U	1.00 U	76	250 U	0.200 U	1690	9.98	1.00 U	1000 U	2.00 U	2580	1.00 U	924 J	256	2.00 U	20.0 U
EG1 Dup-17	Dissolved Metals	Surface Water	9/27/2017	11:10	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	28100	2.00 U	1.00 U	77	250 U	0.200 U	1680	9.66	1.00 U	1000 U	2.00 U	2580	1.00 U	911 J	252	2.00 U	20.0 U
EG2	Dissolved Metals	Surface Water	9/27/2017	9:10	50.0 U	1.00 U	2.00 U	5.00 U	0.427	21300	2.00 U	1.87	58	250 U	0.200 U	1210	10.0	1.00 U	1000 U	2.00 U	4650	1.00 U	944 J	169	2.00 U	382
EG2A	Dissolved Metals	Surface Water	9/27/2017	9:29	594	1.00 U	2.00 U	5.00 U	3.78	30900	2.00 U	15.0	87	250 U	0.766	2500	455	3.57	1000 U	2.00 U	5210	1.00 U	689 J	182	2.00 U	2670
EG3	Dissolved Metals	Surface Water	9/27/2017	12:20	50.0 U	1.00 U	2.00 U	5.00 U	0.201	32700	2.00 U	1.06	91	250 U	0.200 U	2350	4.26 J	1.00 U	1000 U	2.00 U	2990	1.00 U	978 J	268	2.00 U	73.8
EG3A	Dissolved Metals	Surface Water	9/27/2017	14:54	50.0 U	1.00 U	2.00 U	5.00 U	0.550	31900	2.00 U	2.29	92	250 U	0.345	2850	26.9	0.526 J	256 J	2.00 U	3450	1.00 U	895 J	243	2.00 U	349
EG4	Dissolved Metals	Surface Water	9/27/2017	17:50	45.6 J	1.00 U	2.00 U	5.00 U	2.42	28400	2.00 U	5.49	79	250 U	0.117 J	2100	250	2.25	301 J	2.00 U	4700	1.00 U	679 J	176	2.00 U	1660
EG5	Dissolved Metals	Surface Water	9/27/2017	17:00	57.7	1.00 U	2.00 U	5.00 U	0.765	31300	2.00 U	9.34	89	250 U	2.40	2690	122	0.537 J	366 J	2.00 U	3330	1.00 U	969 J	281	2.00 U	361
EG6	Dissolved Metals	Surface Water	9/27/2017	18:10	31.0 J	1.00 U	2.00 U	5.00 U	0.925	32800	2.00 U	5.15	92	250 U	0.609	2520	156	1.00 U	341 J	2.00 U	4170	1.00 U	1020	329	2.00 U	441
EG9	Dissolved Metals	Surface Water	9/26/2017	11:59	42.4 J	1.00 U	2.00 U	5.00 U	0.405	70700	2.00 U	4.68	195	102 J	0.200 U	4390	154	0.906 J	497 J	2.00 U	7280	1.00 U	1660	680	2.00 U	139
EG-Trib2	Dissolved Metals	Surface Water	9/27/2017	16:20	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	36100	2.00 U	1.00 U	100	250 U	0.200 U	2470	5.00 U	1.59	1090	2.00 U	3420	1.00 U	1230	651	2.00 U	20.0 U
LA3	Dissolved Metals	Surface Water	9/28/2017	9:21	34.0 J	1.00 U	2.00 U	5.00 U	1.19	47400	2.00 U	3.98	133	250 U	0.200 U	3570	695	0.613 J	614 J	2.00 U	6350	1.00 U	1810	420	2.00 U	409
LSS1	Dissolved Metals	Surface Water	9/26/2017	12:00	184 J+	1.00 U	1.08 J	5.00 U	0.327	9910	1.73 J	1.62	28	192 J	2.42	684	29.9	1.00 U	709 J	2.00 U	5550	1.00 U	2950 J+	39.1	2.00 U	83.8
MC0	Dissolved Metals	Surface Water	9/26/2017	18:15	21.0 J	1.00 U	2.00 U	5.00 U	0.200 U	18800	2.00 U	2.24 J	55	250 U	0.200 U	1880	16.0	1.00 U	1000 U	2.00 U	3400	1.00 U	578 J	127	2.00 U	37.6
MC0 Dup-16	Dissolved Metals	Surface Water	9/26/2017	18:15	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	18800	2.00 U	4.86 J	55	250 U	0.200 U	1890	16.1	1.00 U	1000 U	2.00 U	3380	1.00 U	597 J	128	2.00 U	37.5
T4	Dissolved Metals	Surface Water	9/26/2017	11:24	57.1	1.00 U	2.00 U	5.00 U	0.975	51500	2.00 U	3.05 J+	142	250 U	0.169 J	3200	768	1.00 U	574 J	2.00 U	7520	1.00 U	2210	505	2.00 U	339
FB-06	Dissolved Metals	Water	9/26/2017	17:50	89.5	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	1000 U	2.00 U	729 J	1.00 U	1280	10.0 U	2.00 U	20.0 U
FB-07	Dissolved Metals	Water	9/26/2017	17:10	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	1000 U	2.00 U	1000 U	1.00 U	1000 U	10.0 U	2.00 U	20.0 U
FB-08	Dissolved Metals	Water	9/26/2017	17:09	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.25	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	1000 U	2.00 U	1000 U	1.00 U	1000 U	10.0 U	2.00 U	20.0 U
FB-09	Dissolved Metals	Water	9/27/2017	16:39	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	153 J	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	1000 U	2.00 U	1000 U	1.00 U	1000 U	10.0 U	2.00 U	20.0 U
FB-10	Dissolved Metals	Water	9/26/2017	19:30	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	1000 U	2.00 U	1000 U	1.00 U	1000 U	10.0 U	2.00 U	20.0 U
FB-14	Dissolved Metals	Water	9/28/2017	16:25	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	1000 U	2.00 U	1000 U	1.00 U	1000 U	10.0 U	2.00 U	20.0 U
FB-16	Dissolved Metals	Water	9/28/2017	11:45	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	1000 U	2.00 U	1000 U	1.00 U	1000 U	10.0 U	2.00 U	20.0 U
FB-17	Dissolved Metals	Water	9/27/2017	16:40	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	187 J	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	1000 U	2.00 U	1000 U	1.00 U	1000 U	10.0 U	2.00 U	20.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A07D	Dissolved Metals	Surface Water	9/26/2017	13:00	20900	1.00U	0.827	2.02J	24.2	18600	2.00U	102	63	250U	10.7	3970	6330	14.6	674	2.00U	10400	1.00U	2450	21.1	2.00U	3560
A07D Dup-08	Dissolved Metals	Surface Water	9/26/2017	13:00	21400	1.00U	0.95	5.00U	23.5	19000	1.24J	98.6	64	250U	12.0	4130	6430	15.6	750	2.00U	11100	1.00U	2570	21.7	2.00U	3560
				RPD	**2.36%**	N/A	**13.84%**	N/A	**2.94%**	**2.13%**	N/A	**3.39%**	**1.57%**	N/A	**11.45%**	**3.95%**	**1.57%**	**6.62%**	**10.67%**	N/A	**6.51%**	N/A	**4.78%**	**2.80%**	N/A	**0.00%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A40A	Dissolved Metals	Surface Water	9/28/2017	8:25	49.8	1.00 U	2.00 U	5.00 U	2.52	52500	2.00 U	7.67	147	250 U	0.105	3940	1650	1.00 U	563	2.00 U	5830	1.00 U	1290	384	2.00 U	714
A40A Dup-14	Dissolved Metals	Surface Water	9/28/2017	8:25	57.3	1.00 U	2.00 U	5.00 U	2.59	54000	2.00 U	7.19	152	250 U	0.121	4100	1690	1.50	611	2.00 U	6090	1.00 U	1460	414	2.00 U	741
				RPD	**14.01%**	N/A	N/A	N/A	**2.74%**	**2.82%**	N/A	**6.46%**	**3.34%**	N/A	**14.16%**	**3.98%**	**2.40%**	N/A	**8.18%**	N/A	**4.36%**	N/A	**12.36%**	**7.52%**	N/A	**3.71%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A61	Dissolved Metals	Surface Water	9/26/2017	14:50	75.4	1.00 U	2.00 U	5.00 U	0.935	46900	2.00 U	4.15	130	250 UJ	0.299	3060	462	1.00 U	566	2.00 U	7350	1.00 U	2220	491	2.00 U	282
A61 Dup-12	Dissolved Metals	Surface Water	9/26/2017	14:50	64.4	1.00 U	2.00 U	5.00 U	0.975	49800	2.00 U	3.65	137	250 U	0.310	3100	452	1.00 U	575	2.00 U	7620	1.00 U	2220	495	2.00 U	300
				RPD	**15.74%**	N/A	N/A	N/A	**4.19%**	**6.00%**	N/A	**12.82%**	**5.24%**	N/A	**3.61%**	**1.30%**	**2.19%**	N/A	**1.58%**	N/A	**3.61%**	N/A	**0.00%**	**0.81%**	N/A	**6.19%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A55a	Dissolved Metals	Surface Water	9/27/2017	16:39	34.2	1.00 U	2.00 U	5.00 U	0.716	47400	2.00 U	2.34	131	250 U	0.225	3010	449	1.00 U	563	2.00 U	6770	1.00 U	1900	432	2.00 U	287
A55a Dup-13	Dissolved Metals	Surface Water	9/27/2017	16:39	35.9	1.00 U	2.00 U	5.00 U	0.737	48700	2.00 U	1.95	134	250 U	0.221	3120	461	1.00 U	603	2.00 U	7070	1.00 U	2130	464	2.00 U	291
				RPD	**4.85%**	N/A	N/A	N/A	**2.89%**	**2.71%**	N/A	**18.18%**	**2.26%**	N/A	**1.79%**	**3.59%**	**2.64%**	N/A	**6.86%**	N/A	**4.34%**	N/A	**11.41%**	**7.14%**	N/A	**1.38%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CG11	Dissolved Metals	Surface Water	9/26/2017	16:30	4480	1.00 UJ	2.00 U	6.88	8.99	49700	2.00 U	29.2	153	112	9.20	7110	15700	7.51	993	2.00 U	8590	1.00 U	1880	305	2.00 U	2910
CG11 Dup-10	Dissolved Metals	Surface Water	9/26/2017	16:30	4590	1.00 U	2.00 U	7.33	9.73	53800	2.00 U	27.4	166	163	10.2	7580	16700	9.15	1030	2.00 U	9090	1.00 U	1870	304	2.00 U	3240
				RPD	**2.43%**	N/A	N/A	**6.33%**	**7.91%**	**7.92%**	N/A	**6.36%**	**8.15%**	**37.09%**	**10.31%**	**6.40%**	**6.17%**	**19.69%**	**3.66%**	N/A	**5.66%**	N/A	**0.53%**	**0.33%**	N/A	**10.73%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CG4	Dissolved Metals	Surface Water	9/27/2017	10:30	15900	1.00 U J	2.00 U	20.6	16.3	50600	2.00 U	40.4	176	250 U J	0.397	12000	33000	17.2	881	1.78	11700	1.00 U	2050	199	2.00 U	4770
CG4 Dup-11	Dissolved Metals	Surface Water	9/27/2017	10:30	16200	1.00 U	0.576 J	22.2	17.6	54500	2.00 U	64	189	121 J	0.452	12700	34800	19.8	905	1.16	12400	1.00 U	2020	196	2.00 U	5290
				RPD	**1.87%**	N/A	N/A	**7.48%**	**7.67%**	**7.42%**	N/A	**45.21%**	**7.12%**	N/A	**12.96%**	**5.67%**	**5.31%**	**14.05%**	**2.69%**	**42.18%**	**5.81%**	N/A	**1.47%**	**1.52%**	N/A	**10.34%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
EG1	Dissolved Metals	Surface Water	9/27/2017	11:10	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	27800	2.00 U	1.00 U	76	250 U	0.200 U	1690	9.98	1.00 U	1000 U	2.00 U	2580	1.00 U	924	256	2.00 U	20.0 U
EG1 Dup-17	Dissolved Metals	Surface Water	9/27/2017	11:10	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	28100	2.00 U	1.00 U	77	250 U	0.200 U	1680	9.66	1.00 U	1000 U	2.00 U	2580	1.00 U	911	252	2.00 U	20.0 U
				RPD	N/A	N/A	N/A	N/A	N/A	**1.07%**	N/A	N/A	**1.31%**	N/A	N/A	**0.59%**	**3.26%**	N/A	N/A	N/A	**0.00%**	N/A	**1.42%**	**1.57%**	N/A	N/A

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MC0	Dissolved Metals	Surface Water	9/26/2017	18:15	21.0 J	1.00 U	2.00 U	5.00 U	0.200 U	18800	2.00 U	2.24	55	250 U	0.200 U	1880	16.0	1.00 U	1000 U	2.00 U	3400	1.00 U	578	127	2.00 U	37.6
MC0 Dup-16	Dissolved Metals	Surface Water	9/26/2017	18:15	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	18800	2.00 U	4.86	55	250 U	0.200 U	1890	16.1	1.00 U	1000 U	2.00 U	3380	1.00 U	597	128	2.00 U	37.5
				RPD	N/A	N/A	N/A	N/A	N/A	**0.00%**	N/A	**73.80%**	**0.00%**	N/A	N/A	**0.53%**	**0.62%**	N/A	N/A	N/A	**0.59%**	N/A	**3.23%**	**0.78%**	N/A	**0.27%**

Note: Removed flags from values for RPD calculation
Note: Data Qualifier Definitions Listed Below:
U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 35 Bonita Peak Mining District - Low Flow September 26-28, 2017
Cement Creek Surface Water Analytical Results - Dissolved Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC01C1	Dissolved Metals	Surface Water	9/27/2017	10:45	8910	5.00 U	4.11 J	5.00 U	103	16300	10.0 U	3550 J	70	19200	1.84	7150	8690	8.12	284 J	10.0 U	21900	5.00 U	1050	46.3	10.0 U	21800
CC01F	Dissolved Metals	Surface Water	9/27/2017	11:10	78.8	1.00 U	2.00 U	5.00 U	1.19	67100	2.00 U	12.2 J	193	250 UJ	0.377	6090	36.8	1.00 U	272 J	2.00 U	3310	1.00 U	1610	686	2.00 U	208
CC01S	Dissolved Metals	Surface Water	9/27/2017	10:00	2480	1.00 U	2.00 U	5.00 U	15.8	60800	2.00 U	48.2 J	189	250 UJ	2.67	8990	1580	8.13	464 J	2.00 U	8290	1.00 U	1320	266	2.00 U	2690
CC01T	Dissolved Metals	Surface Water	9/27/2017	9:30	1080	1.00 U	2.00 U	5.00 U	9.87	50000	2.00 U	62.0 J	151	250 UJ	1.48	6350	717	3.08	435 J	2.00 U	6740	1.00 U	1330	321	2.00 U	1900
CC02C	Dissolved Metals	Surface Water	9/27/2017	12:15	894	1.00 U	2.00 U	5.00 U	8.30	48000	2.00 U	70.8 J	144	250 UJ	4.59	5970	558	2.82	428 J	1.00 J	6830	1.00 U	1320	324	2.00 U	1850
CC02D	Dissolved Metals	Surface Water	9/27/2017	11:45	3300	1.00 U	2.40	3.72 J	49.2	199000	2.00 U	13.3 J	548	25900	242	12400	25000	1.65	1980 J-	1.97 J	30300	1.00 U	5920	1780	2.00 U	31400
CC03	Dissolved Metals	Surface Water	9/27/2017	15:45	1940	1.00 U	2.00 U	5.00 U	12.0	193000	2.00 U	63.6 J	530	25400	8.42	11900	12500	8.88	877 J-	2.00 U	23900	1.00 U	4890	2170	2.00 U	6960
CC03B	Dissolved Metals	Surface Water	9/27/2017	14:15	1920	1.00 UJ	2.00 U	5.00 U	11.6	86000	2.00 U	108 J	239	465	6.82	5780	2630	0.900 J	507 J	2.00 U	15500	1.00 U	3040	889	2.00 U	3970
CC03C	Dissolved Metals	Surface Water	9/27/2017	13:30	3150	10.0 UJ	20.0 U	5.79	13.0	393000	20.0 U	8.38 J+	1080	84200	62.3	23100	28900	31.0	1520 J-	20.0 U	38300	10.0 U	8400	4700	20.0 U	12500
CC03C Dup-19	Dissolved Metals	Surface Water	9/27/2017	13:30	3200	10.0 U	20.0 U	6.09	13.7	406000	20.0 U	10.0 U	1110	88600	69.2	23200	30000	50.3	1500 J-	20.0 U	39100	10.0 U	8150	4490	20.0 U	13300
CC06	Dissolved Metals	Surface Water	9/28/2017	12:10	29600	10.0 UJ	5.49 J	9.98	88.6	330000	20.0 U	7020 J	920	77200	25.3	23300	26700	47.3	1770 J-	20.0 U	20800	10.0 U	4870	5450	20.0 U	24700
CC07	Dissolved Metals	Surface Water	9/27/2017	15:30	16500	10.0 UJ	20.0 U	5.00 U	30.9	201000	20.0 U	496 J	575	6400	13.5	17900	11500	12.5	838 J-	20.0 U	42000	10.0 UJ	6210	1540	20.0 U	4520
CC14	Dissolved Metals	Surface Water	9/28/2017	8:40	793	10.0 UJ	20.0 U	5.00 U	2.05	187000	20.0 U	5.21 J+	503	17000	2.00 U	8680	2390	10.0 U	864 J-	20.0 U	23600	10.0 UJ	3900	2180	20.0 U	664
CC15	Dissolved Metals	Surface Water	9/28/2017	10:30	211	1.00 UJ	2.00 U	5.00 U	0.281	34800	2.00 U	5.23 J+	96	250 UJ	0.200 U	2100	62.5	1.00 U	416 J	1.17 J	8400	1.00 UJ	1520	329	2.00 U	47.7
CC15A	Dissolved Metals	Surface Water	9/28/2017	9:45	312	5.00 UJ	10.0 U	5.00 U	1.75	136000	10.0 U	6.56 J+	365	10000	1.00 U	6540	1630	5.00 U	719 J	10.0 U	18900	5.00 UJ	3150	1570	10.0 U	469
CC16B	Dissolved Metals	Surface Water	9/28/2017	9:15	1100	5.00 UJ	10.0 U	5.00 U	1.73	119000	10.0 U	15.3 J+	323	7720	1.00 U	6480	1480	5.00 U	773 J	10.0 U	21000	5.00 UJ	3160	1370	10.0 U	447
CC17	Dissolved Metals	Surface Water	9/27/2017	17:30	361	5.00 UJ	10.0 U	5.00 U	2.12	145000	10.0 U	12.1 J+	393	1750	1.00 U	7570	2170	5.00 U	847 J	10.0 U	19100	5.00 UJ	3430	2020	10.0 U	588
CC18	Dissolved Metals	Surface Water	9/28/2017	12:30	3830	5.00 UJ	10.0 U	5.00 U	11.9	197000	10.0 U	98.5 J	544	20100	16.9	12600	12700	10.5 J	905 J-	10.0 U	26200	5.00 UJ	5390	2220	10.0 U	6680
CC18 Dup-20	Dissolved Metals	Surface Water	9/28/2017	12:30	3960	5.00 U	10.0 U	2.12 J	12.3	207000	10.0 U	99.6	570	21500	20.3	13000	13300	21.5 J	908 J-	10.0 U	27500	5.00 U	5190	2160	10.0 U	7160
CC20H	Dissolved Metals	Surface Water	9/27/2017	16:45	3950	5.00 UJ	10.0 U	5.00 U	12.4	195000	10.0 U	106 J	539	13300	19.8	12500	12600	10.6	897 J-	10.0 U	26600	5.00 UJ	5260	2180	10.0 U	6680
CC21	Dissolved Metals	Surface Water	9/26/2017	17:30	2060	10.0 UJ	20.0 U	5.00 U	7.97	246000	20.0 U	96.7 J	666	5870	8.04	12800	9580	10.0 U	1030 J-	20.0 U	18900	10.0 UJ	5770	2910	20.0 U	3180
CC26	Dissolved Metals	Surface Water	9/26/2017	16:45	19100	1.00 UJ	25.6	5.00 U	3.67	29700	2.00 U	41.3 J	106	41100	14.8	7680	754	14.7	2970	2.00 U	42300	1.00 UJ	1380	462	2.00 U	1150
CC27	Dissolved Metals	Surface Water	9/26/2017	16:10	4250	5.00 UJ	10.0 U	5.00 U	5.53	188000	10.0 U	69.3 J	515	8700	13.6	11000	6340	5.00 U	1420 J-	10.0 U	26600	5.00 UJ	5150	2240	10.0 U	2230
CC27 Dup-18	Dissolved Metals	Surface Water	9/26/2017	16:10	4240	5.00 U	10.0 U	5.00 U	5.50	202000	10.0 U	72.0	551	9440	15.0	11300	6760	10.8	1400 J-	10.0 U	27500	5.00 U	4940	2180	10.0 U	2460
CC28C	Dissolved Metals	Surface Water	9/26/2017	15:00	7330	5.00 UJ	4.70 J	5.00 U	4.83	189000	10.0 U	58.1 J	519	19700	12.0	11300	5600	6.03	1800 J-	10.0 U	31400	5.00 UJ	4920	2130	10.0 U	2110
CC28D	Dissolved Metals	Surface Water	9/26/2017	14:20	7320	5.00 UJ	4.19 J	5.00 U	4.92	190000	10.0 U	58.7 J	522	18600	12.1	11600	5870	6.43 J	1790 J-	10.0 U	32200	5.00 UJ	4980	2120	10.0 U	2080
CC28D Dup-09	Dissolved Metals	Surface Water	9/26/2017	14:20	7320	5.00 U	5.50 J	5.00 U	4.72	204000	10.0 U	54.0	558	20100	13.4	12000	6240	15.5 J	1790 J-	10.0 U	33300	5.00 U	4850	2070	10.0 U	2290
CC28E	Dissolved Metals	Surface Water	9/26/2017	15:30	7220	5.00 UJ	5.46 J	5.00 U	4.81	189000	10.0 U	58.1 J	519	18600	12.0	11300	5740	5.03	1800 J-	10.0 U	31200	5.00 UJ	4910	2160	10.0 U	2130
CC39	Dissolved Metals	Surface Water	9/26/2017	11:15	6630	5.00 UJ	10.0 U	5.00 U	4.12	193000	10.0 U	41.1 J	528	14000	11.2	11200	5300	5.02	1700 J-	10.0 U	30600	5.00 UJ	4870	2210	10.0 U	1830
CC39B	Dissolved Metals	Surface Water	9/26/2017	13:30	6930	5.00 UJ	10.0 U	5.00 U	4.40	190000	10.0 U	54.1 J	519	13100	12.6	11000	4890	5.62	1750 J-	10.0 U	31200	5.00 UJ	4800	2110	10.0 U	1930
CC39C	Dissolved Metals	Surface Water	9/26/2017	11:50	6390	1.00 UJ	2.00 U	5.00 U	0.870	193000	2.00 U	10.8 J	529	12900	2.28	11300	5610	0.967 J	1730 J-	2.00 U	30600	1.00 UJ	5030	2270	2.00 U	1890
CC39D	Dissolved Metals	Surface Water	9/26/2017	10:40	6720	5.00 UJ	10.0 U	5.00 U	3.83	188000	10.0 U	43.2	514	14000	11.2	10900	5020	6.07	1680 J-	10.0 U	30800	5.00 U	4720	2150	10.0 U	1790
CC41	Dissolved Metals	Surface Water	9/26/2017	9:50	6540	5.00 UJ	10.0 U	5.00 U	3.80	181000	10.0 U	41.1 J	495	12600	11.4	10700	5010	4.99 J	1680 J-	10.0 U	30500	5.00 U	4630	2070	10.0 U	1760
CC43E	Dissolved Metals	Surface Water	9/26/2017	9:00	5720	5.00 UJ	2.84 J	5.00 U	3.59	180000	10.0 U	41.7 J	491	9590	9.58	10000	4450	3.76 J	1550 J-	10.0 U	28500	5.00 U	4690	2280	10.0 U	1590
CC48	Dissolved Metals	Surface Water	9/26/2017	8:30	6020	5.00 UJ	10.0 U	5.00 U	3.28	177000	10.0 U	41.4 J	482	7260	9.44	9910	4050	4.21 J	1730	10.0 U	29800	5.00 U	4780	2180	10.0 U	1420
FB-11	Dissolved Metals	Water	9/26/2017	12:35	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	1000 U	2.00 U	1000 U	1.00 U	1000 U	10.0 U	2.00 U	20.0 U
FB-12	Dissolved Metals	Water	9/27/2017	10:30	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	1000 U	2.00 U	1000 U	1.00 U	1000 U	10.0 U	2.00 U	20.0 U
FB-13	Dissolved Metals	Water	9/28/2017	9:45	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	1000 U	2.00 U	1000 U	1.00 U	1000 U	10.0 U	2.00 U	20.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC03C	Dissolved Metals	Surface Water	9/27/2017	13:30	3150	10.0 U J	20.0 U	5.79	13.0	393000	20.0 U	8.38 J+	1080	84200	62.3	23100	28900	31.0	1520	20.0 U	38300	10.0 U	8400	4700	20.0 U	12500
CC03C Dup-19	Dissolved Metals	Surface Water	9/27/2017	13:30	3200	10.0 U	20.0 U	6.09	13.7	406000	20.0 U	10.0 U	1110	88600	69.2	23200	30000	50.3	1500	20.0 U	39100	10.0 U	8150	4490	20.0 U	13300
				RPD	**1.57%**	N/A	N/A	**5.05%**	**5.24%**	**3.25%**	N/A	N/A	**2.74%**	**5.09%**	**10.49%**	**0.43%**	**3.74%**	**47.48%**	**1.32%**	N/A	**2.07%**	N/A	**3.02%**	**4.57%**	N/A	**6.20%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC18	Dissolved Metals	Surface Water	9/28/2017	12:30	3830	5.00 U J	10.0 U	5.00 U	11.9	197000	10.0 U	98.5	544	20100	16.9	12600	12700	10.5	905	10.0 U	26200	5.00 U J	5390	2220	10.0 U	6680
CC18 Dup-20	Dissolved Metals	Surface Water	9/28/2017	12:30	3960	5.00 U	10.0 U	2.12 J	12.3	207000	10.0 U	99.6	570	21500	20.3	13000	13300	21.5	908	10.0 U	27500	5.00 U	5190	2160	10.0 U	7160
				RPD	**3.34%**	N/A	N/A	N/A	**3.31%**	**4.95%**	N/A	**1.11%**	**4.67%**	**6.73%**	**18.28%**	**3.13%**	**4.62%**	**68.75%**	**0.33%**	N/A	**4.84%**	N/A	**3.78%**	**2.74%**	N/A	**6.94%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC27	Dissolved Metals	Surface Water	9/26/2017	16:10	4250	5.00 U J	10.0 U	5.00 U	5.53	188000	10.0 U	69.3	515	8700	13.6	11000	6340	5.00 U	1420	10.0 U	26600	5.00 U J	5150	2240	10.0 U	2230
CC27 Dup-18	Dissolved Metals	Surface Water	9/26/2017	16:10	4240	5.00 U	10.0 U	5.00 U	5.50	202000	10.0 U	72.0	551	9440	15.0	11300	6760	10.8	1400	10.0 U	27500	5.00 U	4940	2180	10.0 U	2460
				RPD	**0.24%**	N/A	N/A	N/A	**0.54%**	**7.18%**	N/A	**3.82%**	**6.75%**	**8.16%**	**9.79%**	**2.69%**	**6.41%**	N/A	**1.42%**	N/A	**3.33%**	N/A	**4.16%**	**2.71%**	N/A	**9.81%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC28D	Dissolved Metals	Surface Water	9/26/2017	14:20	7320	5.00 U J	4.19	5.00 U	4.92	190000	10.0 U	58.7	522	18600	12.1	11600	5870	6.43	1790	10.0 U	32200	5.00 U J	4980	2120	10.0 U	2080
CC28D Dup-09	Dissolved Metals	Surface Water	9/26/2017	14:20	7320	5.00 U	5.5	5.00 U	4.72	204000	10.0 U	54.0	558	20100	13.4	12000	6240	15.5	1790	10.0 U	33300	5.00 U	4850	2070	10.0 U	2290
				RPD	**0.00%**	N/A	**27.04%**	N/A	**4.15%**	**7.11%**	N/A	**8.34%**	**6.67%**	**7.75%**	**10.20%**	**3.39%**	**6.11%**	**82.72%**	**0.00%**	N/A	**3.36%**	N/A	**2.64%**	**2.39%**	N/A	**9.61%**

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below:

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 36 Bonita Peak Mining District - Low Flow September 26-28, 2017
Mineral Creek Surface Water Analytical Results - Dissolved Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M01	Dissolved Metals	Surface Water	9/26/2017	17:49	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	18500	2.00 U	1.00 U	50	250 U	0.200 U	1000	5.00 U	1.00 U	295 J	2.00 U	2920	1.00 U	792 J	376	2.00 U	20.0 U
M01 Dup-01	Dissolved Metals	Surface Water	9/26/2017	17:49	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	18400	2.00 U	0.596 J	50	250 U	0.200 U	1010	5.00 U	1.00 U	286 J	2.00 U	2950	1.00 U	811 J	378	2.00 U	20.0 U
M02	Dissolved Metals	Surface Water	9/27/2017	11:00	7570	5.00 U	34.3	5.00 U	42.8	202000	10.0 U	1460	632	14200	47.1	30700	17400	85.0	1270 J-	10.0 U	24300	5.00 U	15300	5940	10.0 U	18400
M02 Dup-03	Dissolved Metals	Surface Water	9/27/2017	11:00	7560	5.00 U	33.2	5.00 U	42.5	203000	10.0 U	1440	635	14200	48.3	30800	17300	84.9	1270 J-	10.0 U	23800	5.00 U	15500	5980	10.0 U	18400
M02B	Dissolved Metals	Surface Water	9/27/2017	12:00	7670	0.638 J	578	5.00 U	31.4	55400	1.67 J	1170	188	80600	584	12100	1660	20.0	1440	1.44 J	15000	1.00 U	6510	2570	2.00 U	7780
M02E	Dissolved Metals	Surface Water	9/27/2017	11:45	9340	5.00 U	83.3	5.00 U	53.5	248000	10.0 U	1820	774	25900	75.7	37600	21800	109	1500 J-	10.0 U	28100	5.00 U	19000	7420	10.0 U	23200
M02K	Dissolved Metals	Surface Water	9/27/2017	12:15	2790	5.00 U	1570	5.00 U	93.1	380000	10.0 U	2260	1180	158000	4.71	55200	37600	191	3780	10.0 U	24100	5.00 U	32800	12200	6.59 J	40900
M02L	Dissolved Metals	Surface Water	9/27/2017	13:11	22.4 J	1.00 U	1.17 J	5.00 U	0.200 U	11800	2.00 U	4.24	43	250 U	0.200 U	3250	3.59 J	1.00 U	543 J	2.00 U	883 J	1.00 U	615 J	327	2.00 U	20.0 U
M03	Dissolved Metals	Surface Water	9/27/2017	9:35	35.5 J	1.00 U	4.31	5.00 U	1.36	15600	2.00 U	66.3	47	321	0.944	2000	108	1.09	472 J	2.00 U	6280	1.00 U	4390	409	2.00 U	347
M04	Dissolved Metals	Surface Water	9/27/2017	10:00	517	1.00 U	1.75 J	5.00 U	9.13	60400	2.00 U	276 J-	185	994	1.50	8190	3590	18.5	669 J	2.00 U	8420	1.00 U	9320	1710	2.00 U	4230
M05	Dissolved Metals	Surface Water	9/27/2017	8:35	291	1.00 U	1.76 J	5.00 U	7.90	52300	2.00 U	200	160	727	0.736	7070	2840	14.3	634 J	2.00 U	7860	1.00 U	8430	1470	2.00 U	3480
M06A	Dissolved Metals	Surface Water	9/26/2017	16:16	203	1.00 U	1.03 J	5.00 U	6.31	48200	2.00 U	116 J-	146	302	6.92	6280	2070	11.2	714 J	2.00 U	7720	1.00 U	8850	1310	2.00 U	2840
M06B	Dissolved Metals	Surface Water	9/26/2017	15:45	858	1.00 U	2.22	5.00 U	25.8	40800	2.00 U	125 J-	120	1530	3160	4540	1780	4.93	804 J	2.00 U	8200	1.00 U	8490	1130	2.00 U	12200
M06C	Dissolved Metals	Surface Water	9/26/2017	15:41	326	1.00 U	1.09 J	5.00 U	10.6	46500	2.00 U	125 J-	141	475	660	5920	2020	10.1	693 J	2.00 U	7600	1.00 U	8630	1260	2.00 U	4490
M06D	Dissolved Metals	Surface Water	9/26/2017	15:03	40.9 J	1.00 U	2.00 U	5.00 U	3.99	26500	2.00 U	36.3 J-	77	135 J	206	2640	702	2.95	412 J	2.00 U	4420	1.00 U	3590	557	2.00 U	1700
M06E	Dissolved Metals	Surface Water	9/26/2017	14:20	93.5	1.00 U	2.00 U	5.00 U	0.570	30100	2.00 U	12.0 J-	99	250 U	0.220	5750	32.4	1.00 U	436 J	2.00 U	3890	1.00 U	2180	792	2.00 U	132
M07	Dissolved Metals	Surface Water	9/28/2017	14:58	52.5	1.00 U	2.00 U	5.00 U	2.98	30500	2.00 U	18.9 J-	92	250 U	48.7	3810	525	2.12	500 J	2.00 U	4670	1.00 U	3980	710	2.00 U	1170
M10A	Dissolved Metals	Surface Water	9/28/2017	14:25	50.3	1.00 U	2.00 U	5.00 U	2.53	36200	2.00 U	16.3 J-	106	250 U	43.9	3650	346	0.951 J	535 J	2.00 U	4900	1.00 U	4270	773	2.00 U	987
M10B	Dissolved Metals	Surface Water	9/28/2017	14:35	41.6 J	1.00 U	2.00 U	5.00 U	0.231	64400	2.00 U	2.37 J-	181	250 U	0.200 U	4800	205	1.00 U	557 J	2.00 U	6690	1.00 U	3850	1240	2.00 U	60.2
M11	Dissolved Metals	Surface Water	9/28/2017	14:30	226	1.00 U	2.00 U	5.00 U	1.06	64100	2.00 U	5.93 J-	171	250 U	11.6	2630	130	1.00 U	487 J	2.00 U	7370	1.00 U	4840	996	2.00 U	375
M12	Dissolved Metals	Surface Water	9/28/2017	13:41	10200	1.00 U	2.00 U	5.00 U	6.87	59100	2.00 U	59.6 J-	190	893	5.27	10200	3000	12.5	812 J	2.00 U	15800	1.00 U	2790	713	2.00 U	1640
M13A	Dissolved Metals	Surface Water	9/28/2017	12:58	79.0	1.00 U	2.00 U	5.00 U	0.844	68400	2.00 U	4.35 J-	183	250 U	5.62	2940	233	1.00 U	496 J	2.00 U	9220	1.00 U	4900	995	2.00 U	331
M13A Dup-07	Dissolved Metals	Surface Water	9/28/2017	12:58	77.1	1.00 U	2.00 U	5.00 U	0.901	67600	2.00 U	4.27	181	250 U	5.46	2970	230	1.00 U	531 J	2.00 U	9180	1.00 U	4880	974	2.00 U	325
M13B	Dissolved Metals	Surface Water	9/27/2017	17:40	85.0	1.00 U	2.00 U	5.00 U	0.883	66400	2.00 U	4.38 J-	178	250 U	4.42	3000	202	1.00 U	543 J	2.00 U	9470	1.00 U	4820	954	2.00 U	356
M13D	Dissolved Metals	Surface Water	9/27/2017	16:45	68.9	1.00 U	2.00 U	5.00 U	1.02	66000	2.00 U	4.46 J-	178	250 U	1.62	3230	306	1.00 U	522 J	2.00 U	9990	1.00 U	4650	937	2.00 U	377
M14	Dissolved Metals	Surface Water	9/27/2017	14:12	33400	1.00 U	2.00 U	5.00 U	3.18	38700	3.03	446 J-	127	21400	0.200 U	7480	891	22.7	852 J-	2.00 U	37300	1.00 U	3750	352	2.00 U	167
M14A	Dissolved Metals	Surface Water	9/27/2017	16:13	60.4	1.00 U	2.00 U	5.00 U	1.03	66900	2.00 U	3.53 J-	180	250 U	0.725	3250	290	1.00 U	531 J	2.00 U	10400	1.00 U	4730	917	2.00 U	349
M14B	Dissolved Metals	Surface Water	9/27/2017	14:54	94.5	1.00 U	2.00 U	5.00 U	1.05	69000	2.00 U	11.7 J-	186	141 J	0.413	3410	294	1.00 U	536 J	2.00 U	11500	1.00 U	4850	924	2.00 U	319
M16	Dissolved Metals	Surface Water	9/26/2017	17:00	24300	10.0 U	20.0 U	2.36 J	1.70 J	387000	20.0 U	10.0 UJ	1150	75800	2.00 U	45600	6520	8.15 J	578 J-	20.0 U	30400	10.0 U	8550	2700	20.0 U	748
M16A	Dissolved Metals	Surface Water	9/26/2017	16:45	23500	10.0 U	20.0 U	2.30 J	1.43 J	389000	20.0 U	10.0 UJ	1160	76200	2.00 U	45400	6530	8.86 J	599 J-	20.0 U	30500	10.0 U	8490	2700	20.0 U	734
M16B	Dissolved Metals	Surface Water	9/26/2017	16:05	355	5.00 U	10.0 U	5.00 U	1.00 U	374000	10.0 U	5.00 U	968	5030	1.00 U	8520	1060	5.00 U	429 J-	10.0 U	10400	5.00 U	5950	2380	10.0 U	20.0 U
M16C	Dissolved Metals	Surface Water	9/26/2017	16:10	59.2	5.00 U	10.0 U	5.00 U	1.00 U	203000	10.0 U	5.00 U	526	788	1.00 U	4810	839	5.00 U	365 J-	10.0 U	24000	5.00 U	4290	1370	10.0 U	41.7
M16D	Dissolved Metals	Surface Water	9/26/2017	15:25	107	5.00 U	10.0 U	5.00 U	0.709 J	174000	10.0 U	5.00 UJ	487	16400	3.11	12700	2750	5.00 U	596 J-	10.0 U	31400	5.00 U	5480	861	10.0 U	720
M16D Dup-02	Dissolved Metals	Surface Water	9/26/2017	15:30	102	1.00 U	0.628 J	5.00 U	0.723	177000	1.00 J	0.951 J	495	16600	2.61	13100	2770	1.53	606 J-	2.00 U	31000	1.00 U	5570	858	2.00 U	730
M16E	Dissolved Metals	Surface Water	9/26/2017	14:14	128	5.00 U	10.0 U	5.00 U	1.00 U	129000	10.0 U	5.00 UJ	357	969	1.00 U	8480	495	5.00 U	371 J	10.0 U	18900	5.00 U	3900	1390	10.0 U	89.1
M16F	Dissolved Metals	Surface Water	9/26/2017	13:48	32.3 J	1.00 U	2.00 U	5.00 U	0.200 U	43300	2.00 U	1.00 UJ	120	250 U	0.200 U	2810	69.2	1.00 U	326 J	2.00 U	13300	1.00 U	2420	332	2.00 U	14.1 J
M16G	Dissolved Metals	Surface Water	9/26/2017	15:00	272	5.00 U	10.0 U	5.00 U	1.00 U	126000	10.0 U	5.00 UJ	349	250 U	1.00 U	8490	417	5.00 U	380 J	10.0 U	18400	5.00 U	3790	1490	10.0 U	44.0
M16H	Dissolved Metals	Surface Water	9/26/2017	13:21	3640	5.00 U	10.0 U	5.00 U	0.507 J	164000	10.0 U	5.00 UJ	471	16100	1.00 U	15000	1700	5.00 U	410 J-	10.0 U	19800	5.00 U	4510	1410	10.0 U	211
M17A	Dissolved Metals	Surface Water	9/26/2017	11:40	588	5.00 U	10.0 U	5.00 U	1.00 U	148000	10.0 U	5.47 J-	415	11600	1.00 U	11300	1200	5.00 U	451 J	10.0 U	20200	5.00 U	4510	1260	10.0 U	143
M18	Dissolved Metals	Surface Water	9/26/2017	11:18	47400	1.00 U	1.01 J	5.00 U	5.37	96000	2.00 U	23.3 J-	337	66100	0.200 U	23700	1850	17.2	864 J-	1.26 J	35900	1.00 U	6200	817	2.00 U	332
M19	Dissolved Metals	Surface Water	9/26/2017	10:50	13500	5.00 U	10.0 U	5.00 U	1.59	138000	10.0 U	8.21 J-	407	26300	1.00 U	15000	1400	3.97 J	579 J	10.0 U	25000	5.00 U	5060	1170	10.0 U	197
M20	Dissolved Metals	Surface Water	9/26/2017	9:37	11000	5.00 U	10.0 U	5.00 U	1.29	139000	10.0 U	6.00 J-	405	22100	1.00 U	14100	1340	3.64 J	551 J	10.0 U	24000	5.00 U	4940	1180	10.0 U	186
M20 Dup-04	Dissolved Metals	Surface Water	9/26/2017	9:45	11200	1.00 U	0.548 J	5.00 U	1.48	140000	2.00 U	5.41	409	21900	0.238	14600	1340	6.45	563 J-	2.00 U	24300	1.00 U	5130	1190	2.00 U	187
M22	Dissolved Metals	Surface Water	9/26/2017	8:51	10700	5.00 U	10.0 U	5.00 U	1.55	135000	10.0 U	6.45 J-	394	19600	1.00 U	13700	1320	2.59 J	551 J	10.0 U	24600	5.00 U	5000	1160	10.0 U	213
M23	Dissolved Metals	Surface Water	9/27/2017	12:00	1350	1.00 U	2.00 U	5.00 U	0.360	33600	2.00 U	17.8 J-	108	250 U	0.200 U	5830	286	7.27	405 J	2.00 U	8830	1.00 U	1520	197	2.00 U	51.3
M24A	Dissolved Metals	Surface Water	9/27/2017	9:20	27.9 J	1.00 U	2.00 U	5.00 U	34.9	87400	2.00 U	4.74 J-	245	1660	0.200 U	6610	4730	6.97	322 J	2.00 U	11600	1.00 U	3180	554	2.00 U	9840
M24B	Dissolved Metals	Surface Water	9/27/2017	8:40	44.1 J	0.531 J	0.975 J	5.00 U	41.5	85800	2.00 U	43.5 J-	241	9520	0.121 J	6400	4930	6.83	305 J	2.00 U	12900	1.00 U	3110	544	2.00 U	11300
M24B Dup-06	Dissolved Metals	Surface Water	9/27/2017	8:40	39.6 J	1.00 U	1.24 J	5.00 U	45.8	86200	2.00 U	44.3	242	9480	0.176 J	6530	4970	9.06	308 J	1.20 J	12800	1.00 U	3180	547	2.00 U	11500
M24C	Dissolved Metals	Surface Water	9/27/2017	9:45	35.1 J	5.00 U	10.0 U	5.00 U	1.00 U	131000	10.0 U	5.00 UJ	355	164 J	0.517 J	6970	2040	5.00 U	444 J	10.0 U	13400	5.00 U	3530	749	10.0 U	550
M24D	Dissolved Metals	Surface Water	9/27/2017	11:15	313	1.00 U	2.00 U	5.00 U	0.500	35500	2.00 U	1.14 J-	109	155 J	0.200 U	4920	444	4.68	511 J	2.00 U	8610	1.00 U	1620	230	2.00 U	105
M24E	Dissolved Metals	Surface Water	9/27/2017	12:30	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	20400	2.00 U	0.858 J-	57	250 U	0.200 U	1510	5.00 U	1.00 U	290 J	2.00 U	7870	1.00 U	2040	113	2.00 U	20.0 U
M25	Dissolved Metals	Surface Water	9/27/2017	10:30	487	1.00 U	2.00 U	5.00 U	0.636	34800	2.00 U	1.10 J-	108	250 U	0.200 U	5160	247	5.15	418 J	2.00 U	8580	1.00 U	1580	217	2.00 U	153
M26B	Dissolved Metals	Surface Water	9/27/2017	14:00	33.8 J	1.00 U	2.00 U	5.00 U	0.223	33500	2.00 U	0.738 J-	99	250 U	0.200 U	3840	111	1.80	371 J	2.00 U	6660	1.00 U	1650	231	2.00 U	47.0
M26D	Dissolved Metals	Surface Water	9/27/2017	15:00	97.2	1.00 U	2.00 U	5.00 U	0.106 J	45600	2.00 U	0.521 J+	129	266	0.200 U	3570	37.8	1.00 U	440 J	2.00 U	8580	1.00 U	1950	356	2.00 U	16.4 J
M27	Dissolved Metals	Surface Water	9/27/2017	16:30	5240	1.00 U	2.00 U	5.00 U	1.17	97100	2.00 U	14.5	274	5600	3.52	7800	767	1.19	619 J	2.00 U	19500	1.00 U	4830	997	2.00 U	269
M27A	Dissolved Metals	Surface Water	9/28/2017	11:54	4540	1.00 U	2.00 U	5.00 U	1.26	96500	2.00 U	10.8 J-	273	7220	1.61	7820	745	0.920 J	621 J	2.00 U	17400	1.00 U	4930	1000	2.00 U	285
M27A2	Dissolved Metals	Surface Water	9/28/2017	10:46	4480	1.00 U	2.00 U	5.00 U	1.35	96100	2.00 U	12.9 J-	272	7020	2.92	7690	762	0.942 J	594 J	2.00 U	18600	1.00 U	4880	996	2.00 U	305
M28	Dissolved Metals	Surface Water	9/27/2017	16:00	104	1.00 U	2.00 U	5.00 U	0.200 U	45800	2.00 U	0.572 J	129	932	0.200 U	3660	51.2	1.00 U	491 J	2.00 U	9850	1.00 U	2010	350	2.00 U	21.3
M29	Dissolved Metals	Surface Water	9/28/2017	8:00	187	1.00 U	2.00 U	5.00 U	0.710	66400	2.00 U	4.90 J	188	2700	0.295	5410	369	1.00 U	588 J	2.00 U	13600	1.00 U	3370	632	2.00 U	175
M29A	Dissolved Metals	Surface Water	9/28/2017	9:46	307	1.00 U	2.00 U	5.00 U	0.660	67800	2.00 U	5.58 J	192	3010	0.463	5570	391	1.00 U	564 J	2.00 U	13600	1.00 U	3370	648	2.00 U	158
M30	Dissolved Metals	Surface Water	9/28/2017	8:50	42.8 J	1.00 U	2.00 U	5.00 U	0.200 U	29100	2.00 U	0.542 J	85	250 U	0.200 U	2930	5.33	1.00 U	319 J	2.00 U	8110	1.00 U	1760	131	2.00 U	20.0 U

Table 36 Bonita Peak Mining District - Low Flow September 26-28, 2017
Mineral Creek Surface Water Analytical Results - Dissolved Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M32	Dissolved Metals	Surface Water	9/26/2017	11:33	176	1.00 U	2.00 U	5.00 U	0.559	65700	2.00 U	2.77 J	187	3630	0.115 J	5530	348	0.505 J	651 J	2.00 U	14500	1.00 U	3400	601	2.00 U	145
M32B	Dissolved Metals	Surface Water	9/26/2017	12:41	35.7 J	0.903 J	2.00 U	5.00 U	0.504	49300	2.00 U	1.99 J	145	1460	0.200 U	5280	178	1.00 U	599 J	2.00 U	12000	1.00 U	2760	375	2.00 U	144
M33	Dissolved Metals	Surface Water	9/26/2017	10:15	86.1	1.00 U	2.00 U	5.00 U	0.593	65400	2.00 U	2.86 J	186	3150	0.200 U	5580	385	1.00 U	614 J	2.00 U	13900	1.00 U	3250	588	2.00 U	157
M33A	Dissolved Metals	Surface Water	9/26/2017	11:05	149	0.731 J	1.21 J	5.00 U	3.22	144000	2.00 U	22.6 J-	447	3030	0.200 U	21300	3610	1.00 U	796 J	2.00 U	15800	1.00 U	5020	1240	2.00 U	857
M34	Dissolved Metals	Surface Water	9/26/2017	9:20	58.3	1.00 U	2.00 U	5.00 U	0.619	65800	2.00 U	2.66 J	188	3010	0.200 U	5640	384	1.00 UJ	617 J	2.00 U	13700	1.00 U	3260	588	2.00 U	158
M34 Dup-05	Dissolved Metals	Surface Water	9/26/2017	9:20	46.0 J	1.00 U	2.00 U	5.00 U	0.659	64900	2.00 U	2.46	185	2980	0.200 U	5660	379	2.11 J	616 J	2.00 U	13600	1.00 U	3380	591	2.00 U	160
M38	Dissolved Metals	Surface Water	9/26/2017	8:34	50.2	1.00 U	2.00 U	5.00 U	0.668	65300	2.00 U	2.60 J	186	2980	0.200 U	5540	386	1.00 U	616 J	2.00 U	13800	1.00 U	3180	582	2.00 U	163
FB-01	Dissolved Metals	Water	9/26/2017	16:50	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	1000 U	2.00 U	1000 U	1.00 U	1000 U	10.0 U	2.00 U	20.0 U
FB-02	Dissolved Metals	Water	9/26/2017	13:35	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	1000 U	2.00 U	1000 U	1.00 U	1000 U	10.0 U	2.00 U	20.0 U
FB-03	Dissolved Metals	Water	9/26/2017	16:25	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	1000 U	2.00 U	1000 U	1.00 U	1000 U	10.0 U	2.00 U	20.0 U
FB-04	Dissolved Metals	Water	9/27/2017	18:00	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	1000 U	2.00 U	1000 U	1.00 U	1000 U	10.0 U	2.00 U	20.0 U
FB-05	Dissolved Metals	Water	9/28/2017	10:05	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	250 U	2.00 U	1.00 U	2 U	250 U	0.200 U	250 U	5.00 U	1.00 U	1000 U	2.00 U	1000 U	1.00 U	1000 U	10.0 U	2.00 U	20.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M01	Dissolved Metals	Surface Water	9/26/2017	17:49	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	18500	2.00 U	1.00 U	50	250 U	0.200 U	1000	5.00 U	1.00 U	295	2.00 U	2920	1.00 U	792	376	2.00 U	20.0 U
M01 Dup-01	Dissolved Metals	Surface Water	9/26/2017	17:49	50.0 U	1.00 U	2.00 U	5.00 U	0.200 U	18400	2.00 U	0.596 J	50	250 U	0.200 U	1010	5.00 U	1.00 U	286	2.00 U	2950	1.00 U	811	378	2.00 U	20.0 U
				RPD	N/A	N/A	N/A	N/A	N/A	**0.54%**	N/A	N/A	**0.00%**	N/A	N/A	**1.00%**	N/A	N/A	**3.10%**	N/A	**1.02%**	N/A	**2.37%**	**0.53%**	N/A	N/A

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M02	Dissolved Metals	Surface Water	9/27/2017	11:00	7570	5.00 U	34.3	5.00 U	42.8	202000	10.0 U	1460	632	14200	47.1	30700	17400	85.0	1270	10.0 U	24300	5.00 U	15300	5940	10.0 U	18400
M02 Dup-03	Dissolved Metals	Surface Water	9/27/2017	11:00	7560	5.00 U	33.2	5.00 U	42.5	203000	10.0 U	1440	635	14200	48.3	30800	17300	84.9	1270	10.0 U	23800	5.00 U	15500	5980	10.0 U	18400
				RPD	**0.13%**	N/A	**3.26%**	N/A	**0.70%**	**0.49%**	N/A	**1.38%**	**0.47%**	**0.00%**	**2.52%**	**0.33%**	**0.58%**	**0.12%**	**0.00%**	N/A	**2.08%**	N/A	**1.30%**	**0.67%**	N/A	**0.00%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M13A	Dissolved Metals	Surface Water	9/28/2017	12:58	79.0	1.00 U	2.00 U	5.00 U	0.844	68400	2.00 U	4.35	183	250 U	5.62	2940	233	1.00 U	496	2.00 U	9220	1.00 U	4900	995	2.00 U	331
M13A Dup-07	Dissolved Metals	Surface Water	9/28/2017	12:58	77.1	1.00 U	2.00 U	5.00 U	0.901	67600	2.00 U	4.27	181	250 U	5.46	2970	230	1.00 U	531	2.00 U	9180	1.00 U	4880	974	2.00 U	325
				RPD	**2.43%**	N/A	N/A	N/A	**6.53%**	**1.18%**	N/A	**1.86%**	**1.10%**	N/A	**2.89%**	**1.02%**	**1.30%**	N/A	**6.82%**	N/A	**0.43%**	N/A	**0.41%**	**2.13%**	N/A	**1.83%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M16D	Dissolved Metals	Surface Water	9/26/2017	15:25	107	5.00 U	10.0 U	5.00 U	0.709	174000	10.0 U	5.00 U J	487	16400	3.11	12700	2750	5.00 U	596	10.0 U	31400	5.00 U	5480	861	10.0 U	720
M16D Dup-02	Dissolved Metals	Surface Water	9/26/2017	15:30	102	1.00 U	0.628 J	5.00 U	0.723	177000	1.00 J	0.951 J	495	16600	2.61	13100	2770	1.53	606	2.00 U	31000	1.00 U	5570	858	2.00 U	730
				RPD	**4.78%**	N/A	N/A	N/A	**1.96%**	**1.71%**	N/A	N/A	**1.63%**	**1.21%**	**17.48%**	**3.10%**	**0.72%**	N/A	**1.66%**	N/A	**1.28%**	N/A	**1.63%**	**0.35%**	N/A	**1.38%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M20	Dissolved Metals	Surface Water	9/26/2017	9:37	11000	5.00 U	10.0 U	5.00 U	1.29	139000	10.0 U	6	405	22100	1.00 U	14100	1340	3.64	551	10.0 U	24000	5.00 U	4940	1180	10.0 U	186
M20 Dup-04	Dissolved Metals	Surface Water	9/26/2017	9:45	11200	1.00 U	0.548 J	5.00 U	1.48	140000	2.00 U	5.41	409	21900	0.238	14600	1340	6.45	563	2.00 U	24300	1.00 U	5130	1190	2.00 U	187
				RPD	**1.80%**	N/A	N/A	N/A	**13.72%**	**0.72%**	N/A	**10.34%**	**0.98%**	**0.91%**	N/A	**3.48%**	**0.00%**	**55.70%**	**2.15%**	N/A	**1.24%**	N/A	**3.77%**	**0.84%**	N/A	**0.54%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M24B	Dissolved Metals	Surface Water	9/27/2017	8:40	44.1	0.531 J	0.975	5.00 U	41.5	85800	2.00 U	43.5	241	9520	0.121	6400	4930	6.83	305	2.00 U	12900	1.00 U	3110	544	2.00 U	11300
M24B Dup-06	Dissolved Metals	Surface Water	9/27/2017	8:40	39.6	1.00 U	1.24	5.00 U	45.8	86200	2.00 U	44.3	242	9480	0.176	6530	4970	9.06	308	1.20 J	12800	1.00 U	3180	547	2.00 U	11500
				RPD	**10.75%**	N/A	**23.93%**	N/A	**9.85%**	**0.47%**	N/A	**1.82%**	**0.41%**	**0.42%**	**37.04%**	**2.01%**	**0.81%**	**28.07%**	**0.98%**	N/A	**0.78%**	N/A	**2.23%**	**0.55%**	N/A	**1.75%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M34	Dissolved Metals	Surface Water	9/26/2017	9:20	58.3	1.00 U	2.00 U	5.00 U	0.619	65800	2.00 U	2.66	188	3010	0.200 U	5640	384	1.00 U J	617	2.00 U	13700	1.00 U	3260	588	2.00 U	158
M34 Dup-05	Dissolved Metals	Surface Water	9/26/2017	9:20	46	1.00 U	2.00 U	5.00 U	0.659	64900	2.00 U	2.46	185	2980	0.200 U	5660	379	2.11 J	616	2.00 U	13600	1.00 U	3380	591	2.00 U	160
				RPD	**23.59%**	N/A	N/A	N/A	**6.26%**	**1.38%**	N/A	**7.81%**	**1.61%**	**1.00%**	N/A	**0.35%**	**1.31%**	N/A	**0.16%**	N/A	**0.73%**	N/A	**3.61%**	**0.51%**	N/A	**1.26%**

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below:

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 37 Bonita Peak Mining District - Low Flow September 26-28, 2017
Animas Surface Water Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A05	Total Recoverable Metals	Surface Water	9/26/2017	16:30	45.5 J	5.00 U	10.0 U	5.00 U	0.697 J	25600	10.0 U	5.00 U	250 U	1.00 U	3030	8.45	5.00 U	608 J	10.0 U	2750	5.00 U	678 J	78.7	10.0 U	125
A07	Total Recoverable Metals	Surface Water	9/26/2017	17:30	10900	5.00 U	10.0 U	3.84 J	17.6	24500	10.0 U	62.3	104 J	6.23	4170	5290	10.6	927 J	10.0 U	9810	5.00 U	1370	63.3	7.24 J	2950
A07A	Total Recoverable Metals	Surface Water	9/26/2017	9:15	14900	5.00 U	10.0 U	4.45 J	22.1	27600	10.0 U	70.8	131 J	5.22	5110	6700	14.6	981 J	10.0 U	11300	5.00 U	1490 J-	63.8	10.0 U	3660
A07B	Total Recoverable Metals	Surface Water	9/26/2017	10:40	15500	5.00 U	10.0 U	4.45 J	21.6	26000	10.0 U	42.8	214 J	6.67	4110	5700	11.5	701 J	10.0 U	9460	5.00 U	1610 J	66.6	10.0 U	3820
A07B1	Total Recoverable Metals	Surface Water	9/26/2017	11:20	15700	5.00 U	10.0 U	6.63	28.4	29100	10.0 U	161	250 U	1.00 U	10100	11300	20.4	2650	10.0 U	20800	5.00 U	1420 J-	30.0	10.0 U	2980
A07B2	Total Recoverable Metals	Surface Water	9/26/2017	11:10	13400	5.00 U	10.0 U	6.74	26.1	26700	10.0 U	136	250 U	0.669 J	9090	10200	19.4	2470	10.0 U	19900	5.00 U	1450 J-	28.5	10.0 U	2870
A07B3	Total Recoverable Metals	Surface Water	9/26/2017	11:00	10200	5.00 U	10.0 U	5.74	21.6	24300	10.0 U	84.6	151 J	0.796 J	7450	6560	15.6	2050	10.0 U	17600	5.00 U	1630 J-	30.0	10.0 U	2280
A07C1	Total Recoverable Metals	Surface Water	9/26/2017	13:20	19900	5.00 U	10.0 U	2.43 J	26.1	21000	10.0 U	83.2	250 U	17.2	4190	6030	15.5	441 J	10.0 U	8910	5.00 U	385 J-	25.6	10.0 U	4290
A07D	Total Recoverable Metals	Surface Water	9/26/2017	13:00	22000	5.00 U	10.0 U	2.24 J	23.1	19800	10.0 U	107	250 U	11.0	4170	6660	15.7	515 J	10.0 U	9450	5.00 U	356 J-	21.1	10.0 U	3650
A07D Dup-08	Total Recoverable Metals	Surface Water	9/26/2017	13:00	21500	5.00 U	10.0 U	5.00 U	24.2	18500	10.0 U	118	250 U	12.5	4090	6500	17.0	529 J	10.0 U	9330	5.00 U	398 J	21.3	10.0 U	3460
A07D1	Total Recoverable Metals	Surface Water	9/26/2017	13:50	24300	5.00 U	10.0 U	2.57 J	19.6	20100	10.0 U	111	391	27.6	4240	8500	15.0	621 J	10.0 U	10500	5.00 U	360 J-	15.2	10.0 U	3460
A07E	Total Recoverable Metals	Surface Water	9/26/2017	14:35	24600	5.00 U	10.0 U	2.60 J	19.3	20600	10.0 U	120	469	28.9	4330	8660	16.7	623 J	10.0 U	10800	5.00 U	350 J-	15.1	10.0 U	3370
A07E1	Total Recoverable Metals	Surface Water	9/26/2017	13:40	27300	5.00 U	10.0 U	2.56 J	20.2	21700	10.0 U	92.4	250 U	36.1	4570	8840	16.3	542 J	10.0 U	11100	5.00 U	374 J-	17.1	10.0 U	3850
A07F	Total Recoverable Metals	Surface Water	9/26/2017	15:00	22500	5.00 U	10.0 U	2.40 J	16.4	19500	10.0 U	116	653	26.9	4080	8210	15.2	697 J	10.0 U	10400	5.00 U	341 J-	14.7	10.0 U	2660
A07G	Total Recoverable Metals	Surface Water	9/26/2017	15:20	752	5.00 U	10.0 U	5.00 U	1.38	9100	10.0 U	7.42	250 U	3.88	869	222	5.00 U	322 J	10.0 U	3830	5.00 U	1000 UJ	19.1	10.0 U	299
A08	Total Recoverable Metals	Surface Water	9/26/2017	17:15	4280	5.00 U	10.0 U	5.00 U	7.09	25700	10.0 U	24.4	250 U	2.54	3750	2150	3.63 J	741 J	10.0 U	5540	5.00 U	897 J-	68.3	10.0 U	1270
A09	Total Recoverable Metals	Surface Water	9/26/2017	11:00	5230	5.00 U	10.0 U	5.00 U	6.51	24300	10.0 U	18.4	152 J	11.2	3500	1480	2.81 J	646 J	10.0 U	5310	5.00 U	784 J-	65.0	10.0 U	1180
A09A	Total Recoverable Metals	Surface Water	9/26/2017	18:35	1590	5.00 U	10.0 U	5.00 U	6.12	25400	10.0 U	15.7	250 U	13.5	3620	1190	5.00 U	667 J	10.0 U	4930	5.00 U	794 J-	67.5	10.0 U	1170
A10	Total Recoverable Metals	Surface Water	9/26/2017	12:05	9050	5.00 U	10.0 U	10.7	9.16	53900	10.0 U	37.0	410	13.8	7630	16200	8.55	921 J	10.0 U	9660	5.00 U	1630 J-	289	10.0 U	3260
A11	Total Recoverable Metals	Surface Water	9/26/2017	14:10	7490	5.00 U	10.0 U	9.28	8.94	55100	10.0 U	34.0	414	15.0	7650	16500	8.05	967 J	10.0 U	9340	5.00 U	1590 J-	288	10.0 U	3240
A13	Total Recoverable Metals	Surface Water	9/27/2017	9:25	8080	5.00 U	10.0 U	10.0	9.63	50700	10.0 U	27.8	127 J	6.97	8300	18200	8.20 J-	847 J	10.0 U	9560	5.00 U	1800	297	10.0 U	2970
A14	Total Recoverable Metals	Surface Water	9/26/2017	9:25	5100	5.00 U	10.0 U	5.58	10.5	52700	10.0 U	41.2	265	10.2	6860	11900	4.61 J-	1030	10.0 U	8260	5.00 U	1850	274	7.61 J	3190
A15	Total Recoverable Metals	Surface Water	9/27/2017	10:10	13100	5.00 U	10.0 U	16.4	13.3	61000	10.0 U	34.4	150 J	1.32	11300	28300	12.6 J-	937 J	10.0 U	11100	5.00 U	2290	338	8.00 J	3970
A18A	Total Recoverable Metals	Surface Water	9/27/2017	13:00	20400	5.00 U	10.0 U	44.8	4.05	83800	10.0 U	7.55	250 U	1.00 U	14300	42200	11.8 J-	980 J	10.0 U	11400	5.00 U	2660	447	10.0 U	2020
A18B	Total Recoverable Metals	Surface Water	9/27/2017	12:05	27400	5.00 U	10.0 U	41.6	19.0	73800	10.0 U	61.1	250 U	0.517 J	16800	54400	22.9 J-	1140	10.0 U	14800	5.00 U	2490	294	10.0 U	4900
A19A	Total Recoverable Metals	Surface Water	9/27/2017	13:45	3620	5.00 U	10.0 U	5.00 U	48.1	15900	10.0 U	1290	5900	185	1970	5350	3.84 J	735 J	10.0 U	11200	5.00 U	594 J	55.1	10.0 U	5490
A20	Total Recoverable Metals	Surface Water	9/27/2017	10:45	722	5.00 U	10.0 U	5.00 U	3.09	36700	10.0 U	20.3	263	20.9	3710	904	5.00 UJ	694 J	10.0 U	7100	5.00 U	1000	245	10.0 U	1420
A21	Total Recoverable Metals	Surface Water	9/27/2017	12:00	1680	5.00 U	10.0 U	5.00 U	4.06	44000	10.0 U	21.0	772	32.5	4460	1530	5.00 UJ	861 J	10.0 U	7970	5.00 U	1150	312	10.0 U	1680
A22	Total Recoverable Metals	Surface Water	9/27/2017	13:00	321	5.00 U	10.0 U	5.00 U	2.27	55700	10.0 U	8.36	250 U	7.52	4820	489	5.00 UJ	583 J	10.0 U	6070	5.00 U	1310	430	10.0 U	1260
A23	Total Recoverable Metals	Surface Water	9/27/2017	13:30	1390	5.00 U	10.0 U	5.00 U	2.52	40100	10.0 U	8.60	250 U	1.88	3210	1260	5.00 UJ	644 J	10.0 U	6650	5.00 U	1360	327	10.0 U	1080
A23A	Total Recoverable Metals	Surface Water	9/27/2017	13:30	1260	5.00 U	10.0 U	5.00 U	9.56	25000	10.0 U	117	250 U	2.25	2610	15800	2.99 J	1130	10.0 U	9270	5.00 U	612 J	131	10.0 U	2640
A28	Total Recoverable Metals	Surface Water	9/27/2017	11:32	1550	5.00 U	10.0 U	5.00 U	3.81	48500	10.0 U	12.6	250 U	3.53	4810	3580	5.00 UJ	629 J	10.0 U	5270	5.00 U	1270	281	10.0 U	1100
A30	Total Recoverable Metals	Surface Water	9/27/2017	10:21	1740	5.00 U	10.0 U	5.00 U	4.16	48400	10.0 U	70.0	144 J	4.98	4660	3480	5.00 UJ	646 J	10.0 U	5260	5.00 U	1250	285	10.0 U	1110
A30A	Total Recoverable Metals	Surface Water	9/27/2017	9:21	1060	5.00 U	10.0 U	5.00 U	3.88	48300	10.0 U	58.5	250 U	2.86	4660	3220	5.00 UJ	630 J	10.0 U	5110	5.00 U	1260	284	10.0 U	1090
A30B	Total Recoverable Metals	Surface Water	9/27/2017	8:21	898	5.00 U	10.0 U	5.00 U	3.31	47600	10.0 U	47.8	250 U	2.50	4530	2770	5.00 UJ	621 J	10.0 U	5240	5.00 U	1250	286	10.0 U	960
A32	Total Recoverable Metals	Surface Water	9/27/2017	13:25	39.6 J	5.00 U	10.0 U	5.00 U	1.00 U	53900	10.0 U	5.00 U	250 U	0.673 J	2480	3.57 J	5.00 UJ	385 J	10.0 U	4450	5.00 U	1960	357	10.0 U	11.3 J
A33	Total Recoverable Metals	Surface Water	9/28/2017	10:35	816	5.00 U	10.0 U	5.00 U	3.28	45200	10.0 U	37.8	250 U	2.44	4180	2420	5.00 UJ	617 J	10.0 U	5320	5.00 U	1310	280	10.0 U	891
A34	Total Recoverable Metals	Surface Water	9/28/2017	9:30	266	5.00 U	10.0 U	5.00 U	0.727 J	70400	10.0 U	11.9	116 J	1.00 U	4230	165	5.00 UJ	455 J	10.0 U	7620	5.00 U	1720	683	10.0 U	273
A35	Total Recoverable Metals	Surface Water	9/26/2017	9:45	624	5.00 U	10.0 U	5.00 U	2.14	59900	10.0 U	27.3	250 U	1.71	4330	1410	5.00 UJ	544 J	10.0 U	6590	5.00 U	1550	477	10.0 U	633
A36	Total Recoverable Metals	Surface Water	9/26/2017	14:31	675	5.00 U	10.0 U	5.00 U	1.00 U	81800	10.0 U	12.4	575	1.00 U	5450	231	5.00 UJ	575 J	10.0 U	8220	5.00 U	1560	639	9.04 U	86.7
A36A	Total Recoverable Metals	Surface Water	9/26/2017	15:49	27.5 J	5.00 U	10.0 U	5.00 U	1.00 U	40800	10.0 U	5.00 U	250 U	1.00 U	2220	3.96 J	5.00 UJ	307 J	10.0 U	3550	5.00 U	1240	420	10.0 J+	15.6 J
A37	Total Recoverable Metals	Surface Water	9/26/2017	13:37	53.3	5.00 U	10.0 U	5.00 U	1.00 U	52200	10.0 U	2.50 J	250 U	1.00 U	2820	20.2	5.00 UJ	370 J	10.0 U	5790	5.00 U	1730	703	10.0 U	168
A38	Total Recoverable Metals	Surface Water	9/27/2017	17:51	85.2	5.00 U	10.0 U	5.00 U	1.00 U	212000	10.0 U	5.00 U	250 U	1.14	11900	10000	5.00 UJ	1140 J-	10.0 U	12000	5.00 U	5850	3870	10.0 U	1130
A39	Total Recoverable Metals	Surface Water	9/27/2017	18:19	311	5.00 U	10.0 U	5.00 U	1.88	29200	10.0 U	38.4	244 J	16.4	2780	555	5.00 UJ	354 J	10.0 U	3750	5.00 U	965 J	278	10.0 U	703
A39A	Total Recoverable Metals	Surface Water	9/27/2017	17:40	474	5.00 U	10.0 U	5.00 U	2.49	30300	10.0 U	60.0	464	26.0	2890	688	5.00 UJ	371 J	10.0 U	4000	5.00 U	968 J	279	10.0 U	833
A40	Total Recoverable Metals	Surface Water	9/28/2017	10:56	470	5.00 U	10.0 U	5.00 U	1.92	52600	10.0 U	20.9	250 U	1.26	4090	1490	5.00 UJ	569 J	10.0 U	5940	5.00 U	1440	404	10.0 U	627
A40A	Total Recoverable Metals	Surface Water	9/28/2017	8:25	584	5.00 U	10.0 U	5.00 U	2.29	53100	10.0 U	23.8	250 U	1.56	4160	1660	5.00 UJ	564 J	10.0 U	6080	5.00 U	1440	406	10.0 U	703
A40A Dup-14	Total Recoverable Metals	Surface Water	9/28/2017	8:25	569	5.00 U	10.0 U	5.00 U	2.45	53600	10.0 U	27.0	116 J	1.76	4150	1690	5.00 U	614 J	10.0 U	6190	5.00 U	1480	422	10.0 U	720
A41A	Total Recoverable Metals	Surface Water	9/28/2017	10:23	424	5.00 U	10.0 U	5.00 U	1.91	52400	10.0 U	18.0	250 U	1.10	4050	1290	5.00 UJ	554 J	10.0 U	6300	5.00 U	1670	436	10.0 U	556
A45	Total Recoverable Metals	Surface Water	9/28/2017	8:23	131	5.00 U	10.0 U	5.00 U	0.667 J	49300	10.0 U	5.13	250 U	1.10	3460	358	5.00 UJ	564 J	10.0 U	6880	5.00 U	1930	440	10.0 U	297
A47	Total Recoverable Metals	Surface Water	9/28/2017	8:40	38.9 J	5.00 U	10.0 U	5.00 U	1.00 U	55000	10.0 U	5.00 U	250 U	1.00 U	2510	2.12 J	5.00 UJ	369 J	10.0 U	6490	5.00 U	2630	722	10.0 U	20.7
A48	Total Recoverable Metals	Surface Water	9/28/2017	11:50	38.6 J	5.00 U	10.0 U	5.00 U	1.00 U	46100	10.0 U	5.00 U	250 U	0.725 J	2520	5.29	5.00 UJ	543 J	10.0 U	6150	5.00 U	2090	412	10.0 U	32.6
A53AC	Total Recoverable Metals	Surface Water	9/28/2017	9:20	178	5.00 U	10.0 U	5.00 U	1.15	51000	10.0 U	6.47	123 J	2.28	3610	873	5.00 UJ	575 J	10.0 U	7180	5.00 U	2010	454	10.0 U	489
A55a	Total Recoverable Metals	Surface Water	9/27/2017	16:39	90.2	5.00 U	10.0 U	5.00 U	0.689 J	49300	10.0 U	3.45 J	250 U	1.26	3170	467	5.00 UJ	546 J	10.0 U	6970	5.00 U	2040	451	10.0 U	279
A55a Dup-13	Total Recoverable Metals	Surface Water	9/27/2017	16:39	88.4	5.00 U	10.0 U	5.00 U	0.612 J	48700	10.0 U	3.88 J	250 U	1.43	3170	464	5.00 U	606 J	10.0 U	7110	5.00 U	2170	470	10.0 U	279
A56	Total Recoverable Metals	Surface Water	9/26/2017	16:20	124	5.00 U	10.0 U	5.00 U	0.546 J	51100	10.0 U	3.70 J	250 U	1.39	3300	361	5.00 UJ	548 J	10.0 U	7510	5.00 U	2170	466	10.0 U	235
A58	Total Recoverable Metals	Surface Water	9/26/2017	17:09	28.4 J	5.00 U	10.0 U	5.00 U	1.47	37900	10.0 U	5.61	250 U	2.73	1970	5.00 U	5.00 UJ	484 J	10.0 U	5120	5.00 U	2250	518	10.0 U	187
A60	Total Recoverable Metals	Surface Water	9/26/2017	15:48	106	5.00 U	10.0 U	5.00 U	0.823 J	51200	10.0 U	4.11 J+	250 U	1.70	3260	344	5.00 U	629 J	10.0 U	7510	5.00 U	2310	513	10.0 U	239
A61	Total Recoverable Metals	Surface Water	9/26/2017	14:50	140	5.00 U	10.0 U	5.00 U	0.989 J	51100	10.0 U	6.20 J+	250 U	2.01	3270	447	5.00 U	622 J	10.0 U	7450	5.00 U	2320	512	12.0	294
A61 Dup-12	Total Recoverable Metals	Surface Water	9/26/2017	14:50	117	5.00 U	10.0 U	5.00 U	0.844 J	49000	10.0 U	6.10	250 U	1.84	3210	413	5.00 U	593 J	10.0 U	7620	5.00 U	2290	500	10.0 U	284
A64	Total Recoverable Metals	Surface Water	9/26/2017	13:53	120	5.00 U	10.0 U	5.00 U	0.963 J	52600	10.0 U	5.15 J+	114 J	1.73	3250	728	5.00 U	601 J	10.0 U	7460	5.00 U	2320	520	13.1	302
A65	Total Recoverable Metals	Surface Water	9/26/2017	12:41	124	5.00 U	10.0 U	5.00 U	0.923 J	53400	10.0 U	7.60 J+	250 U	1.67	3270	867	5.00 U	602 J	10.0 U	7510	5.00 U	2350	528	10.0 U	334
A66	Total Recoverable Metals	Surface Water	9/26/2017	9:55	175	5.00 U	10.0 U	5.00 U	1.19	54100	10.0 U	6.55 J+	353	3.96	3340	1150	5.00 U	593 J	10.0 U	7480	5.00 U	2350	537	10.0 U	395
A68	Total Recoverable Metals	Surface Water	9/26/2017	9:20	159	5.00 U	10.0 U	5.00 U	1.42	54400	10.0 U	6.51 J+	243 J	2.84	3430	1470	5.00 U	605 J	10.0 U	7560	5.00 U	2360	543	10.0 U	443
A72	Total Recoverable Metals	Surface Water	9/26/2017	8:35	2040	5.00 U	10.0 U	5.00 U	1.28	80900	10.0 U	11.7 J+	3040	4.08	5490	1410	5.00 U	835 J	10.0 U	14100	5.00 U	3250	820	10.0 U	504
AM1	Total Recoverable Metals	Surface Water	9/28/2017	12:10	48.9 J	5.00 U	10.0 U	5.00 U	2.97	160000	10.0 U	8.64 J+	250 U	1.00 U	2550	2.43 J	5.00 U	329 J-	10.0 U	12700	5.00 U	3550	1390	10.0 U	565
ARD1	Total Recoverable Metals	Surface Water	9/27/2017	16:41	8960	5.00 U	10.0 U	5.00 U	65.4	35900	10.0 U	1920	3100	1080	10200	23700	13.1	843 J	10.0 U	24300	5.00 U	1540	213	10.0 U	20000
BF1	Total Recoverable Metals	Surface Water	9/27/2017	15:55	4130	5.00 U	10.0 U	5.00 U	40.9	58600	10.0 U	2150	138 J	1940	11300	13700	6.61	535 J	10.0 U	12200	5.00 U	1640	359	10.0 U	12100
BF3	Total Recoverable Metals	Surface Water	9/27/2017	15:35	4840	5.00 U	10.0 U	5.00 U	46.9	52100	10.0 U	2200	250 U	1220	9880	14100	8.13	462 J	10.0 U	11500	5.00 U	1520	318	10.0 U	13100
BG1A	Total Recoverable Metals	Surface Water	9/26/2017	15:35	350	5.00 U	10.0 U	5.00 U	1.64	10400	10.0 U	4.02 J	250 U	4.27	937	53.4	5.00 U	319 J	10.0 U	3400	5.00 U	250 J	25.4	10.0 U	297
BG1B	Total Recoverable Metals	Surface Water	9/26/2017	10:10	15700	5.00 U	10.0 U	4.54 J	23.2	26800	10.0 U	53.9	138 J	6.17	4800	6390	12.4	911 J	10.0 U	10500	5.00 U	1690	66.8	10.0 U	3790
CG01	Total Recoverable Metals	Surface Water	9/28/2017	10:30	2070	5.00 U	10.0 U	5.00 U	30.3	121000	10.0 U	136	7390	86.8	20300	38700	13.2	2620	10.0 U	18400	5.00 U	3820	814	10.0 U	15600
CG02	Total Recoverable Metals	Surface Water	9/28/2017	10:10	2010	5.00 U	10.0 U	5.00 U	27.1	120000	10.0 U	122	13700	65.0	20300	36900	12.5	2770	10.0 U	17600	5.00 U	3860	807	10.0 U	16200
CG11	Total Recoverable Metals	Surface Water	9/26/2017	16:30	6740	5.00 U	10.0 U	8.76	8.38	52000	10.0 U	30.9	215 J	12.1	7400	16000	7.40	1030	10.0 U	8860	5.00 U	1950	318	10.0 U	2910
CG11 Dup-10	Total Recoverable Metals	Surface Water	9/26/2017	16:30	7030	5.00 U	10.0 U	9.12	9.20	54200	10.0 U	36.0	312	13.7	7740	16600	9.36	1060	10.0 U	9370	5.00 U	1920	316	10.0 U	3030
CG3	Total Recoverable Metals	Surface Water	9/27/2017	11:20	21800	5.00 U	10.0 U	28.6	20.6	63600	10.0 U	54.5	250 U	0.548 J	15500	42900	23.2	1070	10.0 U	13700	5.00 U	2390	252	10.0 U	6190
CG4	Total Recoverable Metals	Surface Water	9/27/2017	10:30	16500	5.00 U	10.0 U	21.3	13.9	53200	10.0 U	38.0	250 U	1.00 U	12400	34000	16.9	878 J	10.0 U	11900	5.00 U	2120	206	10.0 U	4830
CG4 Dup-11	Total Recoverable Metals	Surface Water	9/27/2017	10:30	16600	5.00 U	10.0 U	22.0	17.0	54100	10.0 U	47.6	164 J	0.580 J	12800	34700	21.5	906 J	10.0 U	12400	5.00 U	2040	199	10.0 U	4970
CG6	Total Recoverable Metals	Surface Water	9/27/2017	9:30	16500	5.00 U	10.0 U	21.0	15.9	53400	10.0 U	43.1 J-	102 J	0.506 J	12400	34000	19.2 J-	907 J	10.0 U	11900	5.00 U	2110	207	10.0 U	4800
CG9	Total Recoverable Metals	Surface Water	9/26/2017	15:05	7040	5.00 U	10.0 U	9.06	7.99	53700	10.0 U	29.6 J	251	10.4	7680	16900	8.14 J-	1030	10.0 U	8950	5.00 U	2010	329	10.0 U	2910
CU4	Total Recoverable Metals	Surface Water	9/27/2017	14:43	21.0 J	5.00 U	10.0 U	5.00 U	1.00 U	21400	10.0 U	5.00 UJ	250 U	1.00 U	1640	7.02	5.00 UJ	538 J	10.0 U	3340	5.00 U	1580	230	10.0 U	20.0 U
CU4a	Total Recoverable Metals	Surface Water	9/27/2017	15:47	25.9 J	5.00 U	10.0 U	5.00 U	1.00 U	25300	10.0 U	5.00 UJ	250 U	2.76	1830	7.75	5.00 UJ	530 J	10.0 U	3440	5.00 U	1550	264	10.0 U	52.8
DM8A	Total Recoverable Metals	Surface Water	9/26/2017	12:25	32.3 J	5.00 U	10.0 U	5.00 U	0.760 J	12000	10.0 U	5.00 UJ	250 U	1.76	944	21.3	5.00 UJ	510 J	10.0 U	1460	5.00 U	947 J	126	10.0 U	245

Table 37 Bonita Peak Mining District - Low Flow September 26-28, 2017
Animas Surface Water Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
EG1	Total Recoverable Metals	Surface Water	9/27/2017	11:10	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	27500	10.0 U	5.00 U	250 U	1.00 U	1660	9.27	5.00 U	1000 U	10.0 U	2600	5.00 U	904 J	254	10.0 U	20.0 U
EG1 Dup-17	Total Recoverable Metals	Surface Water	9/27/2017	11:10	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	27500	10.0 U	5.00 U	250 U	1.00 U	1720	9.30	5.00 U	1000 U	10.0 U	2590	5.00 U	943 J	258	10.0 U	20.0 U
EG2	Total Recoverable Metals	Surface Water	9/27/2017	9:10	28.1 J	5.00 U	10.0 U	5.00 U	1.00 U	21000	10.0 U	2.55 J	250 U	1.00 U	1220	27.2	5.00 U	1000 U	10.0 U	4620	5.00 U	952 J	170	9.16 J	352
EG2A	Total Recoverable Metals	Surface Water	9/27/2017	9:29	611	5.00 U	10.0 U	5.00 U	3.74	29700	10.0 U	24.5	250 U	1.05	2490	446	2.82 J	1000 U	10.0 U	5110	5.00 U	694 J	186	9.40 J	2410
EG3	Total Recoverable Metals	Surface Water	9/27/2017	12:20	24.6 J	5.00 U	10.0 U	5.00 U	1.00 U	31700	10.0 U	5.00 U	250 U	1.00 U	2340	5.09	5.00 U	1000 U	10.0 U	2940	5.00 U	979 J	270	10.0 U	67.5
EG3A	Total Recoverable Metals	Surface Water	9/27/2017	14:54	57.0	5.00 U	10.0 U	5.00 U	0.503 J	31600	10.0 U	3.35 J	250 U	1.60	2920	28.6	5.00 U	1000 U	10.0 U	3480	5.00 U	960 J	251	10.0 U	313
EG4	Total Recoverable Metals	Surface Water	9/27/2017	17:50	98.9	5.00 U	10.0 U	5.00 U	2.39	27300	10.0 U	7.05	104 J	1.00 U	2070	241	5.00 U	274 J	10.0 U	4630	5.00 U	686 J	177	10.0 U	1500
EG5	Total Recoverable Metals	Surface Water	9/27/2017	17:00	94.7	5.00 U	10.0 U	5.00 U	0.686 J	30200	10.0 U	12.6	129 J	6.02	2650	123	5.00 U	363 J	10.0 U	3360	5.00 U	967 J	283	10.0 U	332
EG6	Total Recoverable Metals	Surface Water	9/27/2017	18:10	49.0 J	5.00 U	10.0 U	5.00 U	0.899 J	32100	10.0 U	6.77	250 U	1.49	2500	154	5.00 U	318 J	10.0 U	4100	5.00 U	1030	333	10.0 U	406
EG9	Total Recoverable Metals	Surface Water	9/26/2017	11:59	381	5.00 U	10.0 U	5.00 U	1.00 U	69700	10.0 U	7.96	291	1.00 U	4370	153	5.00 U	491 J	10.0 U	7430	5.00 U	1660	683	10.0 U	137
EG-Trib2	Total Recoverable Metals	Surface Water	9/27/2017	16:20	43.9 J	5.00 U	10.0 U	5.00 U	1.00 U	35200	10.0 U	5.00 U	104 J	1.00 U	2470	10.7	5.00 U	1090	10.0 U	3570	5.00 U	1240	654	10.0 U	20.0 U
LA3	Total Recoverable Metals	Surface Water	9/28/2017	9:21	222	5.00 U	10.0 U	5.00 U	1.06	46500	10.0 U	9.52	250 U	0.601 J	3550	703	5.00 U	575 J	10.0 U	6360	5.00 U	1860	430	10.0 U	402
LSS1	Total Recoverable Metals	Surface Water	9/26/2017	12:00	50.0	5.00 U	10.0 U	5.00 U	1.00 U	9640	10.0 U	2.65 J	333	4.46	685	31.0	5.00 U	514 J	10.0 U	3780	5.00 U	694 J	40.2	10.0 U	82.2
MC0	Total Recoverable Metals	Surface Water	9/26/2017	18:15	24.5 J	5.00 U	10.0 U	5.00 U	1.00 U	18600	10.0 U	5.00 U	250 U	1.00 U	1860	16.6	5.00 U	1000 U	10.0 U	3290	5.00 U	604 J	136	10.0 UJ	32.7
MC0 Dup-16	Total Recoverable Metals	Surface Water	9/26/2017	18:15	24.3 J	5.00 U	10.0 U	5.00 U	1.00 U	18800	10.0 U	5.00 U	250 U	1.00 U	1930	16.8	5.00 U	1000 U	10.0 U	3400	5.00 U	629 J	132	10.0 U	35.6
T4	Total Recoverable Metals	Surface Water	9/26/2017	11:24	222	5.00 U	10.0 U	5.00 U	1.08	52200	10.0 U	7.65	186 J+	5.35	3250	823	5.00 U	587 J	10.0 U	7730	5.00 U	2330	545	10.0 UJ	371
FB-06	Total Recoverable Metals	Water	9/26/2017	17:50	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 U	250 U	5.00 U	5.00 U	1000 U	10.0 U	1000 U	5.00 U	1000 U	10.0 U	10.0 U	20.0 U
FB-07	Total Recoverable Metals	Water	9/26/2017	17:10	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	436	10.0 U	5.00 U	250 U	1.00 U	250 U	5.00 U	5.00 U	1000 U	10.0 U	1000 U	5.00 U	1000 U	10.0 U	10.0 U	20.0 U
FB-08	Total Recoverable Metals	Water	9/26/2017	17:09	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 U	250 U	5.00 U	5.00 U	1000 U	10.0 U	1000 U	5.00 U	1000 U	10.0 U	10.0 U	20.0 U
FB-09	Total Recoverable Metals	Water	9/27/2017	16:39	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	267	10.0 U	5.00 U	250 U	1.00 U	250 U	5.00 U	5.00 U	1000 U	10.0 U	1000 U	5.00 U	1000 U	10.0 U	10.0 U	20.0 U
FB-10	Total Recoverable Metals	Water	9/26/2017	19:30	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 U	250 U	5.00 U	5.00 U	1000 U	10.0 U	1000 U	5.00 U	1000 U	10.0 U	7.88 J	20.0 U
FB-14	Total Recoverable Metals	Water	9/28/2017	16:25	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 U	250 U	5.00 U	5.00 U	1000 U	10.0 U	1000 U	5.00 U	1000 U	10.0 U	10.0 U	20.0 U
FB-16	Total Recoverable Metals	Water	9/28/2017	11:45	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 U	250 U	5.00 U	5.00 U	1000 U	10.0 U	1000 U	5.00 U	1000 U	10.0 U	10.0 U	20.0 U
FB-17	Total Recoverable Metals	Water	9/27/2017	16:40	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 U	250 U	5.00 U	5.00 U	1000 U	10.0 U	1000 U	5.00 U	1000 U	10.0 U	10.0 U	20.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A07D	Total Recoverable Metals	Surface Water	9/26/2017	13:00	22000	5.00 U	10.0 U	2.24 J	23.1	19800	10.0 U	107	250 U	11.0	4170	6660	15.7	515	10.0 U	9450	5.00 U	356	21.1	10.0 U	3650
A07D Dup-08	Total Recoverable Metals	Surface Water	9/26/2017	13:00	21500	5.00 U	10.0 U	5.00 U	24.2	18500	10.0 U	118	250 U	12.5	4090	6500	17.0	529	10.0 U	9330	5.00 U	398	21.3	10.0 U	3460
				RPD	**2.30%**	N/A	N/A	N/A	**4.65%**	**6.79%**	N/A	**9.78%**	N/A	**12.77%**	**1.94%**	**2.43%**	**7.95%**	**2.68%**	N/A	**1.28%**	N/A	**11.14%**	**0.94%**	N/A	**5.34%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A40A	Total Recoverable Metals	Surface Water	9/28/2017	8:25	584	5.00 U	10.0 U	5.00 U	2.29	53100	10.0 U	23.8	250 U	1.56	4160	1660	5.00 UJ	564	10.0 U	6080	5.00 U	1440	406	10.0 U	703
A40A Dup-14	Total Recoverable Metals	Surface Water	9/28/2017	8:25	569	5.00 U	10.0 U	5.00 U	2.45	53600	10.0 U	27.0	116 J	1.76	4150	1690	5.00 U	614	10.0 U	6190	5.00 U	1480	422	10.0 U	720
				RPD	**2.60%**	N/A	N/A	N/A	**6.75%**	**0.94%**	N/A	**12.60%**	N/A	**12.05%**	**0.24%**	**1.79%**	N/A	**8.49%**	N/A	**1.79%**	N/A	**2.74%**	**3.86%**	N/A	**2.39%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A55a	Total Recoverable Metals	Surface Water	9/27/2017	16:39	90.2	5.00 U	10.0 U	5.00 U	0.689	49300	10.0 U	3.45	250 U	1.26	3170	467	5.00 UJ	546	10.0 U	6970	5.00 U	2040	451	10.0 U	279
A55a Dup-13	Total Recoverable Metals	Surface Water	9/27/2017	16:39	88.4	5.00 U	10.0 U	5.00 U	0.612	48700	10.0 U	3.88	250 U	1.43	3170	464	5.00 U	606	10.0 U	7110	5.00 U	2170	470	10.0 U	279
				RPD	**2.02%**	N/A	N/A	N/A	**11.84%**	**1.22%**	N/A	**11.73%**	N/A	**12.64%**	**0.00%**	**0.64%**	N/A	**10.42%**	N/A	**1.99%**	N/A	**6.18%**	**4.13%**	N/A	**0.00%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A61	Total Recoverable Metals	Surface Water	9/26/2017	14:50	140	5.00 U	10.0 U	5.00 U	0.989	51100	10.0 U	6.2	250 U	2.01	3270	447	5.00 U	622	10.0 U	7450	5.00 U	2320	512	12.0	294
A61 Dup-12	Total Recoverable Metals	Surface Water	9/26/2017	14:50	117	5.00 U	10.0 U	5.00 U	0.844	49000	10.0 U	6.10	250 U	1.84	3210	413	5.00 U	593	10.0 U	7620	5.00 U	2290	500	10.0 U	284
				RPD	**17.90%**	N/A	N/A	N/A	**15.82%**	**4.20%**	N/A	**1.63%**	N/A	**8.83%**	**1.85%**	**7.91%**	N/A	**4.77%**	N/A	**2.26%**	N/A	**1.30%**	**2.37%**	N/A	**3.46%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CG11	Total Recoverable Metals	Surface Water	9/26/2017	16:30	6740	5.00 U	10.0 U	8.76	8.38	52000	10.0 U	30.9	215	12.1	7400	16000	7.40	1030	10.0 U	8860	5.00 U	1950	318	10.0 U	2910
CG11 Dup-10	Total Recoverable Metals	Surface Water	9/26/2017	16:30	7030	5.00 U	10.0 U	9.12	9.20	54200	10.0 U	36.0	312	13.7	7740	16600	9.36	1060	10.0 U	9370	5.00 U	1920	316	10.0 U	3030
				RPD	**4.21%**	N/A	N/A	**4.03%**	**9.33%**	**4.14%**	N/A	**15.25%**	**36.81%**	**12.40%**	**4.49%**	**3.68%**	**23.39%**	**2.87%**	N/A	**5.60%**	N/A	**1.55%**	**0.63%**	N/A	**4.04%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CG4	Total Recoverable Metals	Surface Water	9/27/2017	10:30	16500	5.00 U	10.0 U	21.3	13.9	53200	10.0 U	38.0	250 U	1.00 U	12400	34000	16.9	878	10.0 U	11900	5.00 U	2120	206	10.0 U	4830
CG4 Dup-11	Total Recoverable Metals	Surface Water	9/27/2017	10:30	16600	5.00 U	10.0 U	22.0	17.0	54100	10.0 U	47.6	164 J	0.580 J	12800	34700	21.5	906	10.0 U	12400	5.00 U	2040	199	10.0 U	4970
				RPD	**0.60%**	N/A	N/A	**3.23%**	**20.06%**	**1.68%**	N/A	**22.43%**	N/A	N/A	**3.17%**	**2.04%**	**23.96%**	**3.14%**	N/A	**4.12%**	N/A	**3.85%**	**3.46%**	N/A	**2.86%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
EG1	Total Recoverable Metals	Surface Water	9/27/2017	11:10	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	27500	10.0 U	5.00 U	250 U	1.00 U	1660	9.27	5.00 U	1000 U	10.0 U	2600	5.00 U	904	254	10.0 U	20.0 U
EG1 Dup-17	Total Recoverable Metals	Surface Water	9/27/2017	11:10	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	27500	10.0 U	5.00 U	250 U	1.00 U	1720	9.30	5.00 U	1000 U	10.0 U	2590	5.00 U	943	258	10.0 U	20.0 U
				RPD	N/A	N/A	N/A	N/A	N/A	**0.00%**	N/A	N/A	N/A	N/A	**3.55%**	**0.32%**	N/A	N/A	N/A	**0.39%**	N/A	**4.22%**	**1.56%**	N/A	N/A

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MC0	Total Recoverable Metals	Surface Water	9/26/2017	18:15	24.5	5.00 U	10.0 U	5.00 U	1.00 U	18600	10.0 U	5.00 U	250 U	1.00 U	1860	16.6	5.00 U	1000 U	10.0 U	3290	5.00 U	604	136	10.0 UJ	32.7
MC0 Dup-16	Total Recoverable Metals	Surface Water	9/26/2017	18:15	24.3	5.00 U	10.0 U	5.00 U	1.00 U	18800	10.0 U	5.00 U	250 U	1.00 U	1930	16.8	5.00 U	1000 U	10.0 U	3400	5.00 U	629	132	10.0 U	35.6
				RPD	**0.82%**	N/A	N/A	N/A	N/A	**1.07%**	N/A	N/A	N/A	N/A	**3.69%**	**1.20%**	N/A	N/A	N/A	**3.29%**	N/A	**4.06%**	**2.99%**	N/A	**8.49%**

Note: Removed flags from values for RPD calculation
Note: Data Qualifier Definitions Listed Below:
U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 38 Bonita Peak Mining District - Low Flow September 26-28, 2017
Cement Creek Surface Water Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC01C1	Total Recoverable Metals	Surface Water	9/27/2017	10:45	9350	5.00 U	3.03 J	5.00 U	103	17900	10.0 U	3470	21600	6.77	7540	9050	9.44	330 J	10.0 U	22300	5.00 U	1060	47.0	10.0 U	22400
CC01F	Total Recoverable Metals	Surface Water	9/27/2017	11:10	124	5.00 U	10.0 U	5.00 U	1.23	72300	10.0 U	15.8 J+	250 U	0.822 J	6480	42.7	5.00 U	280 J	10.0 U	3440	5.00 U	1640	692	10.0 U	215
CC01S	Total Recoverable Metals	Surface Water	9/27/2017	10:00	2640	5.00 U	10.0 U	5.00 U	15.2	66300	10.0 U	49.2	250 U	3.16	9510	1660	10.5	467 J	10.0 U	8570	5.00 U	1320	267	10.0 U	2810
CC01T	Total Recoverable Metals	Surface Water	9/27/2017	9:30	1610	5.00 U	10.0 U	5.00 U	9.74	54500	10.0 U	64.2	103 J	3.16	6670	762	3.97 J	433 J	10.0 U	6990	5.00 U	1340	324	10.0 U	1960
CC02C	Total Recoverable Metals	Surface Water	9/27/2017	12:15	1270	5.00 U	10.0 U	5.00 U	8.07	51300	10.0 U	69.2	250 U	5.77	6330	586	3.81 J	420 J	10.0 U	6970	5.00 U	1320	327	10.0 U	1880
CC02D	Total Recoverable Metals	Surface Water	9/27/2017	11:45	3530	5.00 U	3.16 J	3.87 J	49.2	215000	10.0 U	14.1 J+	33700	291	13000	26400	6.42	2040 J-	10.0 U	31100	5.00 U	5820	1790	10.0 U	32700
CC03	Total Recoverable Metals	Surface Water	9/27/2017	15:45	3150	5.00 U	10.0 U	2.35 J	12.2	204000	10.0 U	83.3	28400	25.7	12200	12900	14.7	878 J-	10.0 U	24600	5.00 U	4870	2190	10.0 U	7200
CC03B	Total Recoverable Metals	Surface Water	9/27/2017	14:15	2110	5.00 U	10.0 U	5.00 U	11.6	87200	10.0 U	119	696	9.26	5870	2690	3.05 J	486 J	10.0 U	15300	5.00 U	2930	884	8.03 J	4020
CC03C	Total Recoverable Metals	Surface Water	9/27/2017	13:30	3290	10.0 U	20.0 U	5.93	13.8	417000	20.0 U	10.0 U	91700	70.8	24000	29900	37.2	1530 J-	20.0 U	38900	10.0 U	8400	4800	18.9 J	12800
CC03C Dup-19	Total Recoverable Metals	Surface Water	9/27/2017	13:30	3200	10.0 U	20.0 U	5.94	14.1	398000	20.0 U	10.0 U	88200	75.4	23400	29900	37.7	1500 J-	20.0 U	39600	10.0 U	8230	4550	20.0 U	12800
CC06	Total Recoverable Metals	Surface Water	9/28/2017	12:10	30700	3.78 J	43.3	10.3	77.2	342000	10.0 U	6880	110000	36.0	23700	27500	44.6	1760 J-	10.0 U	21500	5.00 U	4760	5520	10.0 U	25000
CC07	Total Recoverable Metals	Surface Water	9/27/2017	15:30	16900	5.00 U	10.0 U	5.00 U	30.0	209000	10.0 U	493	7630	15.8	18300	11700	16.6	828 J-	10.0 U	42200	5.00 U	6170	1550	10.0 U	4490
CC14	Total Recoverable Metals	Surface Water	9/28/2017	8:40	1080	5.00 U	3.76 J	5.00 U	1.97	192000	10.0 U	8.60 J+	21300	5.92	8820	2450	2.50 J	831 J-	10.0 U	24600	5.00 U	3840	2180	10.0 U	663
CC15	Total Recoverable Metals	Surface Water	9/28/2017	10:30	529	5.00 U	10.0 U	5.00 U	1.00 U	36200	10.0 U	6.20 J+	257	1.00 U	2140	63.7	5.00 U	408 J	10.0 U	8430	5.00 U	1490	331	10.0 U	47.1
CC15A	Total Recoverable Metals	Surface Water	9/28/2017	9:45	1010	5.00 U	10.0 U	5.00 U	1.61	140000	10.0 U	10.5 J+	11300	2.92	6650	1660	5.00 U	688 J	10.0 U	19300	5.00 U	3090	1570	10.0 U	471
CC16B	Total Recoverable Metals	Surface Water	9/28/2017	9:15	2270	5.00 U	10.0 U	5.00 U	1.86	125000	10.0 U	19.7 J+	10100	2.96	6770	1540	4.05 J	781 J	10.0 U	22300	5.00 U	3170	1390	10.0 U	455
CC17	Total Recoverable Metals	Surface Water	9/27/2017	17:30	1850	5.00 U	10.0 U	5.00 U	2.20	151000	10.0 U	23.2 J+	3620	6.12	7740	2190	5.00 U	834 J-	10.0 U	19700	5.00 U	3380	2030	10.0 U	603
CC18	Total Recoverable Metals	Surface Water	9/28/2017	12:30	4290	5.00 U	10.0 U	2.10 J	11.3	204000	10.0 U	99.9	22400	23.9	12700	13100	15.8	896 J-	10.0 U	26800	5.00 U	5200	2190	10.0 U	6810
CC18 Dup-20	Total Recoverable Metals	Surface Water	9/28/2017	12:30	4450	5.00 U	10.0 U	2.13 J	12.2	209000	10.0 U	114	23100	25.8	13400	13300	16.5	928 J-	10.0 U	28100	5.00 U	5340	2210	10.0 U	6890
CC20H	Total Recoverable Metals	Surface Water	9/27/2017	16:45	4430	5.00 U	10.0 U	2.08 J	11.7	204000	10.0 U	104	21700	28.6	12800	12800	14.3	892 J-	10.0 U	27100	5.00 U	5310	2210	10.0 U	6660
CC21	Total Recoverable Metals	Surface Water	9/26/2017	17:30	2990	5.00 U	10.0 U	5.00 U	7.90	252000	10.0 U	109	8280	26.1	13000	9540	3.90 J	1020 J-	10.0 U	19400	5.00 U	5720	2930	10.0 U	3080
CC26	Total Recoverable Metals	Surface Water	9/26/2017	16:45	19800	5.00 U	31.0	5.00 U	4.19	31000	10.0 U	60.0	43600	17.8	7950	812	21.9	3060	10.0 U	42200	5.00 U	1450	472	10.0 U	1150
CC27	Total Recoverable Metals	Surface Water	9/26/2017	16:10	4700	5.00 U	10.0 U	5.00 U	5.12	196000	10.0 U	72.0	10900	18.8	11300	6520	5.81	1400 J-	10.0 U	26800	5.00 U	5130	2260	10.0 U	2260
CC27 Dup-18	Total Recoverable Metals	Surface Water	9/26/2017	16:10	4810	5.00 U	10.0 U	5.00 U	5.17	196000	10.0 U	80.3	11200	19.8	11500	6720	4.67 J	1440 J-	10.0 U	28400	5.00 U	5090	2200	10.0 U	2320
CC28C	Total Recoverable Metals	Surface Water	9/26/2017	15:00	7730	5.00 U	8.70 J	5.00 U	4.25	199000	10.0 U	56.9	22800	15.9	11700	5730	9.46	1780 J-	10.0 U	31500	5.00 U	4940	2170	10.0 U	2140
CC28D	Total Recoverable Metals	Surface Water	9/26/2017	14:20	7770	5.00 U	8.06 J	5.00 U	4.62	199000	10.0 U	59.7	21500	16.7	11900	5990	10.3	1790 J-	10.0 U	32800	5.00 U	5020	2160	10.0 U	2120
CC28D Dup-09	Total Recoverable Metals	Surface Water	9/26/2017	14:20	7760	5.00 U	8.85 J	5.00 U	4.97	197000	10.0 U	64.9	21700	17.8	12000	6140	10.0	1800 J-	10.0 U	34200	5.00 U	4880	2090	10.0 U	2150
CC28E	Total Recoverable Metals	Surface Water	9/26/2017	15:30	7590	5.00 U	9.42 J	5.00 U	4.82	196000	10.0 U	61.4	21400	16.7	11500	5880	8.85	1760 J-	10.0 U	31100	5.00 U	4840	2170	10.0 U	2170
CC39	Total Recoverable Metals	Surface Water	9/26/2017	11:15	6790	5.00 U	5.90 J	5.00 U	3.89	198000	10.0 U	42.4	15800	13.0	11400	5440	10.7	1690 J-	10.0 U	30600	5.00 U	4860	2200	10.0 U	1860
CC39B	Total Recoverable Metals	Surface Water	9/26/2017	13:30	7160	5.00 U	7.10 J	5.00 U	4.05	197000	10.0 U	52.2	15500	14.8	11200	4960	8.16	1730 J-	10.0 U	31300	5.00 U	4810	2160	8.76 J+	1940
CC39C	Total Recoverable Metals	Surface Water	9/26/2017	11:50	6750	10.0 U	12.7 J	5.00 U	8.69	202000	20.0 U	112	16600	32.1	11800	5780	18.2	1760 J-	20.0 U	31000	10.0 U	5160	2330	18.9 J+	1930
CC39D	Total Recoverable Metals	Surface Water	9/26/2017	10:40	7050	5.00 U	5.86 J	5.00 U	3.94	196000	10.0 U	41.5	16400	13.9	11200	5220	8.21	1750 J-	10.0 U	31100	5.00 U	4800	2190	10.0 U	1850
CC41	Total Recoverable Metals	Surface Water	9/26/2017	9:50	6860	5.00 U	4.48 J	5.00 U	3.93	192000	10.0 U	39.4	14700	13.3	11100	5210	7.86	1710 J-	10.0 U	30500	5.00 U	4740	2130	10.0 U	1800
CC43E	Total Recoverable Metals	Surface Water	9/26/2017	9:00	6100	5.00 U	3.17 J	5.00 U	3.43	192000	10.0 U	40.5	12600	11.7	10500	4620	6.79	1590 J-	10.0 U	29200	5.00 U	4820	2380	10.0 U	1630
CC48	Total Recoverable Metals	Surface Water	9/26/2017	8:30	6260	5.00 U	4.40 J	5.00 U	3.13	187000	10.0 U	36.4	10600	11.4	10300	4180	6.45	1760 J-	10.0 U	30200	5.00 U	4870	2250	10.0 U	1460
FB-11	Total Recoverable Metals	Water	9/26/2017	12:35	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 U	250 U	5.00 U	5.00 U	1000 U	10.0 U	1000 U	5.00 U	1000 U	10.0 U	8.39 J	20.0 U
FB-12	Total Recoverable Metals	Water	9/27/2017	10:30	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 U	250 U	5.00 U	5.00 U	1000 U	10.0 U	1000 U	5.00 U	1000 U	10.0 U	10.0 U	20.0 U
FB-13	Total Recoverable Metals	Water	9/28/2017	9:45	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 U	250 U	5.00 U	5.00 U	1000 U	10.0 U	1000 U	5.00 U	1000 U	10.0 U	10.0 U	20.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC03C	Total Recoverable Metals	Surface Water	9/27/2017	13:30	3290	10.0 U	20.0 U	5.93	13.8	417000	20.0 U	10.0 U	91700	70.8	24000	29900	37.2	1530	20.0 U	38900	10.0 U	8400	4800	18.9 J	12800
CC03C Dup-19	Total Recoverable Metals	Surface Water	9/27/2017	13:30	3200	10.0 U	20.0 U	5.94	14.1	398000	20.0 U	10.0 U	88200	75.4	23400	29900	37.7	1500	20.0 U	39600	10.0 U	8230	4550	20.0 U	12800
				RPD	**2.77%**	N/A	N/A	**0.17%**	**2.15%**	**4.66%**	N/A	N/A	**3.89%**	**6.29%**	**2.53%**	**0.00%**	**1.34%**	**1.98%**	N/A	**1.78%**	N/A	**2.04%**	**5.35%**	N/A	**0.00%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC18	Total Recoverable Metals	Surface Water	9/28/2017	12:30	4290	5.00 U	10.0 U	2.1	11.3	204000	10.0 U	99.9	22400	23.9	12700	13100	15.8	896	10.0 U	26800	5.00 U	5200	2190	10.0 U	6810
CC18 Dup-20	Total Recoverable Metals	Surface Water	9/28/2017	12:30	4450	5.00 U	10.0 U	2.13	12.2	209000	10.0 U	114	23100	25.8	13400	13300	16.5	928	10.0 U	28100	5.00 U	5340	2210	10.0 U	6890
				RPD	**3.66%**	N/A	N/A	**1.42%**	**7.66%**	**2.42%**	N/A	**13.18%**	**3.08%**	**7.65%**	**5.36%**	**1.52%**	**4.33%**	**3.51%**	N/A	**4.74%**	N/A	**2.66%**	**0.91%**	N/A	**1.17%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC27	Total Recoverable Metals	Surface Water	9/26/2017	16:10	4700	5.00 U	10.0 U	5.00 U	5.12	196000	10.0 U	72.0	10900	18.8	11300	6520	5.81	1400	10.0 U	26800	5.00 U	5130	2260	10.0 U	2260
CC27 Dup-18	Total Recoverable Metals	Surface Water	9/26/2017	16:10	4810	5.00 U	10.0 U	5.00 U	5.17	196000	10.0 U	80.3	11200	19.8	11500	6720	4.67	1440	10.0 U	28400	5.00 U	5090	2200	10.0 U	2320
				RPD	**2.31%**	N/A	N/A	N/A	**0.97%**	**0.00%**	N/A	**10.90%**	**2.71%**	**5.18%**	**1.75%**	**3.02%**	**21.76%**	**2.82%**	N/A	**5.80%**	N/A	**0.78%**	**2.69%**	N/A	**2.62%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CC28D	Total Recoverable Metals	Surface Water	9/26/2017	14:20	7770	5.00 U	8.06	5.00 U	4.62	199000	10.0 U	59.7	21500	16.7	11900	5990	10.3	1790	10.0 U	32800	5.00 U	5020	2160	10.0 U	2120
CC28D Dup-09	Total Recoverable Metals	Surface Water	9/26/2017	14:20	7760	5.00 U	8.85	5.00 U	4.97	197000	10.0 U	64.9	21700	17.8	12000	6140	10.0	1800	10.0 U	34200	5.00 U	4880	2090	10.0 U	2150
				RPD	**0.13%**	N/A	**9.34%**	N/A	**7.30%**	**1.01%**	N/A	**8.35%**	**0.93%**	**6.38%**	**0.84%**	**2.47%**	**2.96%**	**0.56%**	N/A	**4.18%**	N/A	**2.83%**	**3.29%**	N/A	**1.41%**

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below:

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 39 Bonita Peak Mining District - Low Flow September 26-28, 2017
Mineral Creek Surface Water Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M01	Total Recoverable Metals	Surface Water	9/26/2017	17:49	20.3 J	5.00 U	10.0 U	5.00 U	1.00 U	18400	10.0 U	5.00 U	250 U	1.00 U	995	5.00 U	5.00 U	275 J	10.0 U	2920	5.00 U	817 J	387	10.0 U	20.0 U
M01 Dup-01	Total Recoverable Metals	Surface Water	9/26/2017	17:49	20.7 J	5.00 U	10.0 U	5.00 U	1.00 U	18400	10.0 U	5.00 U	250 U	1.00 U	1020	5.00 U	5.00 U	303 J	10.0 U	2990	5.00 U	818 J	388	10.0 U	20.0 U
M02	Total Recoverable Metals	Surface Water	9/27/2017	11:00	7780	5.00 U	62.4	5.00 U	39.7 J	204000	10.0 U	1590	14900	50.2	31200	17400	86.2	1260 J-	10.0 U	24300	5.00 U	16100	6260	10.0 U	17800
M02 Dup-03	Total Recoverable Metals	Surface Water	9/27/2017	11:00	7890	5.00 U	60.9	5.00 U	42.3 J	204000	10.0 U	1540	14700	51.3	31700	17300	84.5	1320 J-	10.0 U	24400	5.00 U	16200	6220	11.2	17600
M02B	Total Recoverable Metals	Surface Water	9/27/2017	12:00	8540	5.00 U	302	5.00 U	30.6	57700	10.0 U	1350	56800	590	12600	1850	21.9	1480	10.0 U	14900	5.00 U	6960	2760	10.0 U	7800
M02E	Total Recoverable Metals	Surface Water	9/27/2017	11:45	9640	5.00 U	149	2.00 J	54.3	257000	10.0 U	2120	28100	81.4	38800	23000	119	1540 J-	10.0 U	27400	5.00 U	20200	7870	10.0 U	23800
M02K	Total Recoverable Metals	Surface Water	9/27/2017	12:15	13700	2.95 J	3520	3.76 J	103	388000	12.8	6530	169000	244	55900	38000	208	3820	10.0 U	26800	5.00 U	34200	12800	7.67 J	41100
M02L	Total Recoverable Metals	Surface Water	9/27/2017	13:11	188	5.00 U	2.54 J	5.00 U	1.00 U	11700	10.0 U	7.77	354	0.504 J	3280	28.7	5.00 U	584 J	10.0 U	1270	5.00 U	649 J	340	10.0 U	20.0 U
M03	Total Recoverable Metals	Surface Water	9/27/2017	9:35	68.4	5.00 U	5.69 J	5.00 U	1.17	15900	10.0 U	85.0	432	2.81	2020	111	5.00 U	482 J	10.0 U	6190	5.00 U	4510	421	10.0 U	341
M04	Total Recoverable Metals	Surface Water	9/27/2017	10:00	1180	5.00 U	4.48 J	5.00 U	8.99	62000	10.0 U	266	1540	4.09	8470	3610	17.0	691 J	10.0 U	8380	5.00 U	9560	1780	10.0 U	4060
M05	Total Recoverable Metals	Surface Water	9/27/2017	8:35	1490	5.00 U	9.57 J	5.00 U	7.09	53500	10.0 U	244	2380	9.37	7290	2870	13.6	763 J	10.0 U	8790	5.00 U	8600	1520	10.7	3330
M06A	Total Recoverable Metals	Surface Water	9/26/2017	16:16	422	5.00 U	3.21 J	5.00 U	5.86	49100	10.0 U	123	517 J+	9.45	6420	2080	10.4	723 J	10.0 U	7700	5.00 U	8870	1340	12.2	2710
M06B	Total Recoverable Metals	Surface Water	9/26/2017	15:45	895	5.00 UJ	10.0 U	5.00 U	29.6	41000	10.0 U	113 J-	1580 J+	2890	4650	1770	4.93 J	839 J	10.0 U	8050	5.00 U	8550	1150	10.0 U	11500
M06C	Total Recoverable Metals	Surface Water	9/26/2017	15:41	734	5.00 UJ	8.23 J	5.00 U	10.3	47300	10.0 U	162 J-	2280 J+	738	6060	2070	10.4	737 J	10.0 U	7780	5.00 U	8660	1290	10.0 U	4260
M06D	Total Recoverable Metals	Surface Water	9/26/2017	15:03	286	5.00 UJ	10.0 U	5.00 U	3.83	27700	10.0 U	50.4 J-	364 J+	262	2780	707	3.35 J	461 J	10.0 U	4580	5.00 U	3780	583	10.0 U	1610
M06E	Total Recoverable Metals	Surface Water	9/26/2017	14:20	187	5.00 UJ	10.0 U	5.00 U	0.603 J	30800	10.0 U	17.1 J	190 J+	0.750 J	5860	38.9	5.00 U	452 J	10.0 U	3950	5.00 U	2220	808	10.0 U	135
M07	Total Recoverable Metals	Surface Water	9/28/2017	14:58	368	5.00 UJ	10.0 U	5.00 U	2.72	30900	10.0 U	44.6 J-	357 J+	153	3930	524	5.00 U	503 J	10.0 U	4660	5.00 U	4090	732	10.0 U	1110
M10A	Total Recoverable Metals	Surface Water	9/28/2017	14:25	158	5.00 UJ	10.0 U	5.00 U	2.58	36400	10.0 U	25.1 J	148 J+	92.1	3670	352	5.00 U	533 J	10.0 U	4850	5.00 U	4250	789	10.0 U	947
M10B	Total Recoverable Metals	Surface Water	9/28/2017	14:35	199	5.00 UJ	10.0 U	5.00 U	1.00 U	66100	10.0 U	4.31 J	183 J+	0.779 J	4880	205	5.00 U	555 J	10.0 U	6680	5.00 U	3870	1250	10.0 U	60.4
M11	Total Recoverable Metals	Surface Water	9/28/2017	14:30	109	5.00 UJ	10.0 U	5.00 U	1.02	65100	10.0 U	9.32 J	106 J+	28.9	2690	131	5.00 U	490 J	10.0 U	7350	5.00 U	4890	1000	10.0 U	350
M12	Total Recoverable Metals	Surface Water	9/28/2017	13:41	10400	5.00 UJ	10.0 U	5.00 U	6.67	60100	10.0 U	61.9 J-	1040 J+	5.50	10400	2990	12.9	821 J	10.0 U	15600	5.00 U	2840	721	10.0 U	1570
M13A	Total Recoverable Metals	Surface Water	9/28/2017	12:58	139	5.00 UJ	10.0 U	5.00 U	0.818 J	67500	10.0 U	6.34 J	250 U	14.1	3000	231	5.00 U	516 J	10.0 U	8980	5.00 U	4990	999	10.0 U	305
M13A Dup-07	Total Recoverable Metals	Surface Water	9/28/2017	12:58	136	5.00 U	10.0 U	5.00 U	0.810 J	66100	10.0 U	7.52	250 U	15.2	2980	237	5.00 U	528 J	10.0 U	9320	5.00 U	5000	981	10.0 U	312
M13B	Total Recoverable Metals	Surface Water	9/27/2017	17:40	158	5.00 UJ	10.0 U	5.00 U	0.945 J	65200	10.0 U	10.2 J	250 U	13.9	3010	202	5.00 U	541 J	10.0 U	9360	5.00 U	4840	971	10.0 U	330
M13D	Total Recoverable Metals	Surface Water	9/27/2017	16:45	603	5.00 UJ	10.0 U	5.00 U	1.06	64800	10.0 U	8.77 J	136 J+	11.5	3290	305	5.00 U	529 J	10.0 U	9920	5.00 U	4750	948	10.0 U	352
M14	Total Recoverable Metals	Surface Water	9/27/2017	14:12	34000	5.00 UJ	10.0 U	5.00 U	3.19	38000	5.26 J	523 J-	21200 J+	1.00 U	7480	881	27.7	855 J-	10.0 U	37200	5.00 U	3780	360	10.0 U	154
M14A	Total Recoverable Metals	Surface Water	9/27/2017	16:13	558	5.00 UJ	10.0 U	5.00 U	0.980 J	65500	10.0 U	8.26 J	132 J+	8.58	3260	285	5.00 U	515 J	10.0 U	10200	5.00 U	4810	937	10.0 U	326
M14B	Total Recoverable Metals	Surface Water	9/27/2017	14:54	1560	5.00 UJ	10.0 U	5.00 U	1.05	67700	10.0 U	23.3 J	782 J+	7.44	3430	294	5.00 U	526 J	10.0 U	11900	5.00 U	4970	946	10.0 U	298
M16	Total Recoverable Metals	Surface Water	9/26/2017	17:00	35300	5.00 UJ	2.63 J	2.98 J	1.74	391000	10.0 U	6.80 J	69200 J+	1.00 U	46800	6430	7.71	600 J-	10.0 U	30400	5.00 U	8880	2830	10.0 U	694
M16A	Total Recoverable Metals	Surface Water	9/26/2017	16:45	35900	5.00 U	10.0 U	3.00 J	1.60	397000	10.0 U	2.90 J	68800	1.00 U	47900	6540	8.41	626 J-	10.0 U	31400	5.00 U	8700	2760	10.0 U	716
M16B	Total Recoverable Metals	Surface Water	9/26/2017	16:05	227	5.00 U	10.0 U	5.00 U	1.00 U	389000	10.0 U	2.69 J	5370 J+	1.00 U	8890	1190	5.00 U	413 J-	10.0 U	11400	5.00 U	6250	2530	7.40 J	20.0 U
M16C	Total Recoverable Metals	Surface Water	9/26/2017	16:10	336	5.00 U	10.0 U	5.00 U	1.00 U	211000	10.0 U	5.00 U	3980 J+	4.50	5110	577	5.00 U	414 J-	10.0 U	25200	5.00 U	4550	1470	7.38 J	49.7
M16D	Total Recoverable Metals	Surface Water	9/26/2017	15:25	133	5.00 U	10.0 U	5.00 U	0.599 J	177000	10.0 U	5.00 U	14400 J+	11.9	13100	2780	5.00 U	600 J-	10.0 U	29600	5.00 U	5700	905	10.0 U	681
M16D Dup-02	Total Recoverable Metals	Surface Water	9/26/2017	15:30	129	5.00 U	10.0 U	5.00 U	0.674 J	177000	10.0 U	5.00 U	14900	12.9	13100	2780	5.00 U	632 J-	10.0 U	30900	5.00 U	5640	883	8.80 J	693
M16E	Total Recoverable Metals	Surface Water	9/26/2017	14:14	295	5.00 U	10.0 U	5.00 U	1.00 U	130000	10.0 U	5.00 U	356 J+	1.00 U	8770	498	5.00 U	357 J	10.0 U	18100	5.00 U	4050	1450	10.0 U	82.9
M16F	Total Recoverable Metals	Surface Water	9/26/2017	13:48	49.8 J	5.00 U	10.0 U	5.00 U	1.00 U	44000	10.0 U	5.00 U	250 U	1.00 U	2880	69.6	5.00 U	308 J	10.0 U	12700	5.00 U	2500	351	10.0 U	11.2 J
M16G	Total Recoverable Metals	Surface Water	9/26/2017	15:00	506	5.00 U	10.0 U	5.00 U	1.00 U	128000	10.0 U	5.00 U	250 U	1.00 U	8710	423	5.00 U	354 J	10.0 U	17800	5.00 U	3900	1550	10.0 U	41.8
M16H	Total Recoverable Metals	Surface Water	9/26/2017	13:21	7420	5.00 U	10.0 U	5.00 U	1.00 U	170000	10.0 U	5.00 U	14100 J+	1.00 U	15600	1720	5.00 U	395 J-	10.0 U	20300	5.00 U	4740	1520	10.0 U	207
M17A	Total Recoverable Metals	Surface Water	9/26/2017	11:40	5550	5.00 U	10.0 U	5.00 U	1.00 U	152000	10.0 U	5.00 U	9450 J+	0.715 J	11700	1200	5.00 U	450 J-	10.0 U	20900	5.00 U	4720	1350	10.0 U	142
M18	Total Recoverable Metals	Surface Water	9/26/2017	11:18	50300	5.00 U	10.0 U	5.00 U	5.23	101000	10.0 U	27.2	28100 J+	1.00 U	25200	1880	19.8	894 J-	10.0 U	35400	5.00 U	6560	874	10.0 U	328
M19	Total Recoverable Metals	Surface Water	9/26/2017	10:50	16700	5.00 U	10.0 U	5.00 U	1.68	140000	10.0 U	7.96	20600 J+	0.628 J	15200	1390	3.78 J	566 J	10.0 U	25000	5.00 U	5270	1240	10.0 U	188
M20	Total Recoverable Metals	Surface Water	9/26/2017	9:37	15000	5.00 U	10.0 U	5.00 U	1.43	143000	10.0 U	6.04	20300 J+	0.539 J	14800	1360	5.00 U	553 J	10.0 U	24900	5.00 U	5220	1250	10.0 U	182
M20 Dup-04	Total Recoverable Metals	Surface Water	9/26/2017	9:45	15000	5.00 U	10.0 U	5.00 U	1.46	141000	10.0 U	6.73	20800	0.550 J	14800	1340	3.28 J	567 J-	10.0 U	24800	5.00 U	5200	1240	10.0 U	181
M22	Total Recoverable Metals	Surface Water	9/26/2017	8:51	14200	5.00 U	10.0 U	5.00 U	1.51	140000	10.0 U	7.21	18700 J+	0.726 J	14200	1330	5.00 U	549 J	10.0 U	24800	5.00 U	5190	1230	10.0 U	207
M23	Total Recoverable Metals	Surface Water	9/27/2017	12:00	2540	5.00 U	10.0 U	5.00 U	1.00 U	33800	10.0 U	5.00 U	150 J+	1.00 U	5940	289	7.73	396 J	10.0 U	8880	5.00 U	1560	206	10.0 U	47.4
M24A	Total Recoverable Metals	Surface Water	9/27/2017	9:20	403	5.00 U	4.16 J	5.00 U	45.2	86900	10.0 U	364	21400 J+	368	6570	4910	7.34	303 J	10.0 U	14200	5.00 U	3230	577	10.0 U	11000
M24B	Total Recoverable Metals	Surface Water	9/27/2017	8:40	196	5.00 U	2.61 J	5.00 U	43.7	87300	10.0 U	215	14600 J+	203	6620	4960	7.43	273 J	10.0 U	13000	5.00 U	3230	576	10.0 U	10900
M24B Dup-06	Total Recoverable Metals	Surface Water	9/27/2017	8:40	187	5.00 U	10.0 U	5.00 U	45.9	86000	10.0 U	227	14300	210	6600	4960	9.33	311 J	10.0 U	13200	5.00 U	3240	561	10.0 U	10900
M24C	Total Recoverable Metals	Surface Water	9/27/2017	9:45	46.2 J	5.00 U	10.0 U	5.00 U	1.00 U	136000	10.0 U	5.00 U	499 J+	3.62	7290	2200	5.00 U	438 J	10.0 U	12900	5.00 U	3800	819	10.0 U	542
M24D	Total Recoverable Metals	Surface Water	9/27/2017	11:15	1390	5.00 U	10.0 U	5.00 U	0.640 J	35100	10.0 U	2.80 J	270 J+	1.00 U	4960	404	5.45	443 J	10.0 U	8560	5.00 U	1620	236	10.0 U	80.2
M24E	Total Recoverable Metals	Surface Water	9/27/2017	12:30	21.8 J	5.00 U	10.0 U	5.00 U	1.00 U	20400	10.0 U	5.00 U	250 U	1.00 U	1510	5.00 U	5.00 U	260 J	10.0 U	7730	5.00 U	2090	119	10.0 UJ	20.0 U
M25	Total Recoverable Metals	Surface Water	9/27/2017	10:30	1690	5.00 U	10.0 U	5.00 U	0.674 J	34400	10.0 U	5.00 U	140 J+	1.00 U	5220	250	6.12	386 J	10.0 U	8530	5.00 U	1630	226	8.24 J-	131
M26B	Total Recoverable Metals	Surface Water	9/27/2017	14:00	1260	5.00 U	10.0 U	5.00 U	1.00 U	33500	10.0 U	5.00 U	185 J+	1.55	3890	128	5.00 U	367 J	10.0 U	7130	5.00 U	1740	245	8.53 J-	67.6
M26D	Total Recoverable Metals	Surface Water	9/27/2017	15:00	222	5.00 U	10.0 U	5.00 U	1.00 U	45900	10.0 U	5.00 U	286 J+	1.00 U	3630	38.5	5.00 U	431 J	10.0 U	8340	5.00 U	2080	384	10.0 UJ	17.0 J
M27	Total Recoverable Metals	Surface Water	9/27/2017	16:30	6830	5.00 U	10.0 U	5.00 U	1.28	97000	10.0 U	16.7	8210 J+	6.14	7990	758	5.00 U	626 J	10.0 U	19100	5.00 U	5280	1070	10.0 UJ	250
M27A	Total Recoverable Metals	Surface Water	9/28/2017	11:54	6540	5.00 U	10.0 U	5.00 U	1.22	96000	10.0 U	14.6	9200 J+	5.54	7760	738	5.00 U	597 J	10.0 U	17600	5.00 U	5210	1060	10.0 UJ	267
M27A2	Total Recoverable Metals	Surface Water	9/28/2017	10:46	6430	5.00 U	10.0 U	5.00 U	1.31	96800	10.0 U	16.1	8450 J+	5.88	7950	747	5.00 U	605 J	10.0 U	18100	5.00 U	5370	1090	10.0 UJ	283
M28	Total Recoverable Metals	Surface Water	9/27/2017	16:00	628	5.00 U	10.0 U	5.00 U	1.00 U	45000	10.0 U	5.00 U	1280 J+	1.00 U	3660	51.4	5.00 U	471 J	10.0 U	9890	5.00 U	2120	375	10.0 UJ	17.0 J
M29	Total Recoverable Metals	Surface Water	9/28/2017	8:00	2940	5.00 U	10.0 U	5.00 U	0.676 J	65800	10.0 U	8.54	3490 J+	3.44	5410	369	5.00 U	560 J	10.0 U	13900	5.00 U	3550	672	10.0 UJ	169
M29A	Total Recoverable Metals	Surface Water	9/28/2017	9:46	3160	5.00 U	10.0 U	5.00 U	0.705 J	67900	10.0 U	8.50	3820 J+	3.38	5560	393	5.00 U	554 J	10.0 U	13900	5.00 U	3600	700	10.0 UJ	164
M30	Total Recoverable Metals	Surface Water	9/28/2017	8:50	54.5	5.00 U	10.0 U	5.00 U	1.00 U	28800	10.0 U	5.00 U	250 U	1.00 U	2910	6.91	5.00 U	299 J	10.0 U	7930	5.00 U	1870	140	10.0 UJ	20.0 U
M32	Total Recoverable Metals	Surface Water	9/26/2017	11:33	2860	5.00 U	10.0 U	5.00 U	0.582 J	64500	10.0 U	6.19	4360 J+	2.26	5340	344	5.00 U	604 J	10.0 U	14800	5.00 U	3520	636	10.0 UJ	139

Table 39 Bonita Peak Mining District - Low Flow September 26-28, 2017
Mineral Creek Surface Water Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M32B	Total Recoverable Metals	Surface Water	9/26/2017	12:41	1400	5.00 U	10.0 U	5.00 U	0.512 J	48100	10.0 U	3.94 J	1830 J+	1.21	5180	175	5.00 U	582 J	10.0 U	11900	5.00 U	2930	402	10.0 UJ	134
M33	Total Recoverable Metals	Surface Water	9/26/2017	10:15	2610	5.00 U	10.0 U	5.00 U	0.526 J	63700	10.0 U	7.60	3870 J+	2.26	5550	375	5.00 U	593 J	10.0 U	14100	5.00 U	3480	634	10.0 UJ	149
M33A	Total Recoverable Metals	Surface Water	9/26/2017	11:05	1060	5.00 U	8.66 J	5.00 U	3.15	144000	10.0 U	149	9200 J+	7.43	21500	3500	5.00 U	806 J	10.0 U	16200	5.00 U	5550	1370	10.0 UJ	844
M34	Total Recoverable Metals	Surface Water	9/26/2017	9:20	2640	5.00 U	10.0 U	5.00 U	0.600 J	65000	10.0 U	8.12	3960 J+	2.34	5650	378	5.00 U	604 J	10.0 U	14300	5.00 U	3510	636	10.0 UJ	153
M34 Dup-05	Total Recoverable Metals	Surface Water	9/26/2017	9:20	2670	5.00 U	10.0 U	5.00 U	0.651 J	64800	10.0 U	9.24	3890	2.46	5690	380	5.00 U	625 J	10.0 U	14600	5.00 U	3410	605	10.0 U	159
M38	Total Recoverable Metals	Surface Water	9/26/2017	8:34	2680	5.00 U	10.0 U	5.00 U	0.581 J	65400	10.0 U	8.30	3830 J+	2.63	5700	381	5.00 U	616 J	10.0 U	14300	5.00 U	3510	632	10.0 UJ	159
FB-01	Total Recoverable Metals	Water	9/26/2017	16:50	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 U	250 U	4.17 J	5.00 U	1000 U	10.0 U	1000 U	5.00 U	1000 U	10.0 U	10.0 U	20.0 U
FB-02	Total Recoverable Metals	Water	9/26/2017	13:35	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 U	250 U	5.00 U	5.00 U	1000 U	10.0 U	1000 U	5.00 U	1000 U	10.0 U	10.0 U	20.0 U
FB-03	Total Recoverable Metals	Water	9/26/2017	16:25	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 U	250 U	5.00 U	5.00 U	1000 U	10.0 U	1000 U	5.00 U	1000 U	10.0 U	10.0 U	20.0 U
FB-04	Total Recoverable Metals	Water	9/27/2017	18:00	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 U	250 U	5.00 U	5.00 U	1000 U	10.0 U	1000 U	5.00 U	1000 U	10.0 U	10.0 U	20.0 U
FB-05	Total Recoverable Metals	Water	9/28/2017	10:05	50.0 U	5.00 U	10.0 U	5.00 U	1.00 U	250 U	10.0 U	5.00 U	250 U	1.00 U	250 U	5.00 U	5.00 U	1000 U	10.0 U	1000 U	5.00 U	1000 U	10.0 U	10.0 U	20.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M01	Total Recoverable Metals	Surface Water	9/26/2017	17:49	20.3	5.00 U	10.0 U	5.00 U	1.00 U	18400	10.0 U	5.00 U	250 U	1.00 U	995	5.00 U	5.00 U	275	10.0 U	2920	5.00 U	817	387	10.0 U	20.0 U
M01 Dup-01	Total Recoverable Metals	Surface Water	9/26/2017	17:49	20.7	5.00 U	10.0 U	5.00 U	1.00 U	18400	10.0 U	5.00 U	250 U	1.00 U	1020	5.00 U	5.00 U	303	10.0 U	2990	5.00 U	818	388	10.0 U	20.0 U
				RPD	**1.95%**	N/A	N/A	N/A	N/A	**0.00%**	N/A	N/A	N/A	N/A	**2.48%**	N/A	N/A	**9.69%**	N/A	**2.37%**	N/A	**0.12%**	**0.26%**	N/A	N/A

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M02	Total Recoverable Metals	Surface Water	9/27/2017	11:00	7780	5.00 U	62.4	5.00 U	39.7	204000	10.0 U	1590	14900	50.2	31200	17400	86.2	1260	10.0 U	24300	5.00 U	16100	6260	10.0 U	17800
M02 Dup-03	Total Recoverable Metals	Surface Water	9/27/2017	11:00	7890	5.00 U	60.9	5.00 U	42.3	204000	10.0 U	1540	14700	51.3	31700	17300	84.5	1320	10.0 U	24400	5.00 U	16200	6220	11.2	17600
				RPD	**1.40%**	N/A	**2.43%**	N/A	**6.34%**	**0.00%**	N/A	**3.19%**	**1.35%**	**2.17%**	**1.59%**	**0.58%**	**1.99%**	**4.65%**	N/A	**0.41%**	N/A	**0.62%**	**0.64%**	N/A	**1.13%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M13A	Total Recoverable Metals	Surface Water	9/28/2017	12:58	139	5.00 UJ	10.0 U	5.00 U	0.818	67500	10.0 U	6.34	250 U	14.1	3000	231	5.00 U	516	10.0 U	8980	5.00 U	4990	999	10.0 U	305
M13A Dup-07	Total Recoverable Metals	Surface Water	9/28/2017	12:58	136	5.00 U	10.0 U	5.00 U	0.81	66100	10.0 U	7.52	250 U	15.2	2980	237	5.00 U	528	10.0 U	9320	5.00 U	5000	981	10.0 U	312
				RPD	**2.18%**	N/A	N/A	N/A	**0.98%**	**2.10%**	N/A	**17.03%**	N/A	**7.51%**	**0.67%**	**2.56%**	N/A	**2.30%**	N/A	**3.72%**	N/A	**0.20%**	**1.82%**	N/A	**2.27%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M16D	Total Recoverable Metals	Surface Water	9/26/2017	15:25	133	5.00 U	10.0 U	5.00 U	0.599	177000	10.0 U	5.00 U	14400	11.9	13100	2780	5.00 U	600	10.0 U	29600	5.00 U	5700	905	10.0 U	681
M16D Dup-02	Total Recoverable Metals	Surface Water	9/26/2017	15:30	129	5.00 U	10.0 U	5.00 U	0.674	177000	10.0 U	5.00 U	14900	12.9	13100	2780	5.00 U	632	10.0 U	30900	5.00 U	5640	883	8.80 J	693
				RPD	**3.05%**	N/A	N/A	N/A	**11.78%**	**0.00%**	N/A	N/A	**3.41%**	**8.06%**	**0.00%**	**0.00%**	N/A	**5.19%**	N/A	**4.30%**	N/A	**1.06%**	**2.46%**	N/A	**1.75%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M20	Total Recoverable Metals	Surface Water	9/26/2017	9:37	15000	5.00 U	10.0 U	5.00 U	1.43	143000	10.0 U	6.04	20300	0.539	14800	1360	5.00 U	553	10.0 U	24900	5.00 U	5220	1250	10.0 U	182
M20 Dup-04	Total Recoverable Metals	Surface Water	9/26/2017	9:45	15000	5.00 U	10.0 U	5.00 U	1.46	141000	10.0 U	6.73	20800	0.55	14800	1340	3.28 J	567	10.0 U	24800	5.00 U	5200	1240	10.0 U	181
				RPD	**0.00%**	N/A	N/A	N/A	**2.08%**	**1.41%**	N/A	**10.81%**	**2.43%**	**2.02%**	**0.00%**	**1.48%**	N/A	**2.50%**	N/A	**0.40%**	N/A	**0.38%**	**0.80%**	N/A	**0.55%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M24B	Total Recoverable Metals	Surface Water	9/27/2017	8:40	196	5.00 U	2.61 J	5.00 U	43.7	87300	10.0 U	215	14600	203	6620	4960	7.43	273	10.0 U	13000	5.00 U	3230	576	10.0 U	10900
M24B Dup-06	Total Recoverable Metals	Surface Water	9/27/2017	8:40	187	5.00 U	10.0 U	5.00 U	45.9	86000	10.0 U	227	14300	210	6600	4960	9.33	311	10.0 U	13200	5.00 U	3240	561	10.0 U	10900
				RPD	**4.70%**	N/A	N/A	N/A	**4.91%**	**1.50%**	N/A	**5.43%**	**2.08%**	**3.39%**	**0.30%**	**0.00%**	**22.67%**	**13.01%**	N/A	**1.53%**	N/A	**0.31%**	**2.64%**	N/A	**0.00%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M34	Total Recoverable Metals	Surface Water	9/26/2017	9:20	2640	5.00 U	10.0 U	5.00 U	0.6	65000	10.0 U	8.12	3960	2.34	5650	378	5.00 U	604	10.0 U	14300	5.00 U	3510	636	10.0 UJ	153
M34 Dup-05	Total Recoverable Metals	Surface Water	9/26/2017	9:20	2670	5.00 U	10.0 U	5.00 U	0.651	64800	10.0 U	9.24	3890	2.46	5690	380	5.00 U	625	10.0 U	14600	5.00 U	3410	605	10.0 U	159
				RPD	**1.13%**	N/A	N/A	N/A	**8.15%**	**0.31%**	N/A	**12.90%**	**1.78%**	**5.00%**	**0.71%**	**0.53%**	N/A	**3.42%**	N/A	**2.08%**	N/A	**2.89%**	**5.00%**	N/A	**3.85%**

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limi

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample

Table 40 Bonita Peak Mining District - Low Flow September 26-28, 2017
Animas Surface Water Analytical Results - Wet Chemistry

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Dissolved Organic Carbon	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A05	Wet Chemistry	Surface Water	9/26/2017	16:30	2.0 U	0.2 U	2.0 U	60.6	0.8 J+	16.1
A07	Wet Chemistry	Surface Water	9/26/2017	17:30	2.0 U	1.3	2.0 U	149	0.7 J+	10.0 U
A07A	Wet Chemistry	Surface Water	9/26/2017	9:15	2.0 U	1.6	2.0 U	189	1.2 J+	10.0 U
A07B	Wet Chemistry	Surface Water	9/26/2017	10:40	2.0 U	1.7	2.0 U	184	0.6 J+	10.0 U
A07B1	Wet Chemistry	Surface Water	9/26/2017	11:20	2.0 U	1.8	2.0 U	232	0.3 U	10.0 U
A07B2	Wet Chemistry	Surface Water	9/26/2017	11:10	2.0 U	1.7	2.0 U	210	0.3 U	10.0 U
A07B3	Wet Chemistry	Surface Water	9/26/2017	11:00	2.0 U	1.5	2.0 U	163	0.4 U	10.0 U
A07C1	Wet Chemistry	Surface Water	9/26/2017	13:20	2.0 U	0.9	2.0 U	199	0.9 J+	10.0 U
A07D	Wet Chemistry	Surface Water	9/26/2017	13:00	2.0 U	0.9	2.0 U	209	0.6 J+	10.0 U
A07D Dup-08	Wet Chemistry	Surface Water	9/26/2017	13:00	4.0 U	0.9	4.0 U	196	0.9	10.0 U
A07D1	Wet Chemistry	Surface Water	9/26/2017	13:50	2.0 U	0.9	2.0 U	232	0.6 J+	10.0 U
A07E	Wet Chemistry	Surface Water	9/26/2017	14:35	1.0 J	1.1	2.0 U	239	0.7 J+	10.0 U
A07E1	Wet Chemistry	Surface Water	9/26/2017	13:40	1.0 J	1.0	2.0 U	254	0.8 J+	10.0 U
A07F	Wet Chemistry	Surface Water	9/26/2017	15:00	2.0 U	0.8	2.0 U	223	0.8 J+	10.0 U
A07G	Wet Chemistry	Surface Water	9/26/2017	15:20	2.0 U	0.2 U	2.0 U	29.9	1.0 J+	10.0 U
A08	Wet Chemistry	Surface Water	9/26/2017	17:15	2.0 U	0.5	2.0 U	95.9	0.8 J+	10.0 U
A09	Wet Chemistry	Surface Water	9/26/2017	11:00	2.0 U	0.3	2.0 U	85.4	1.0 J+	10.0 U
A09A	Wet Chemistry	Surface Water	9/26/2017	18:35	2.0 U	0.3	2.0 U	84.5	0.9	10.0 U
A10	Wet Chemistry	Surface Water	9/26/2017	12:05	2.0 U	5.0	2.0 U	217	1.1 J+	10.0 U
A11	Wet Chemistry	Surface Water	9/26/2017	14:10	2.0 U	5.1	2.0 U	226	1.0 J+	10.0 U
A13	Wet Chemistry	Surface Water	9/27/2017	9:25	2.0 U	6.0	2.0 U	233	0.5 J+	10.0 U
A14	Wet Chemistry	Surface Water	9/26/2017	9:25	2.0 U	3.0	2.0 U	204	1.1 J+	10.0 U
A15	Wet Chemistry	Surface Water	9/27/2017	10:10	4.0 U	9.8	4.0 U	300	0.6 J+	10.0 U
A18A	Wet Chemistry	Surface Water	9/27/2017	13:00	4.0 U	22.9	4.0 U	418	0.4 J	10.0 U
A18B	Wet Chemistry	Surface Water	9/27/2017	12:05	4.0 U	23.4	4.0 U	484	0.5	10.0 U
A19A	Wet Chemistry	Surface Water	9/27/2017	13:45	2.0 U	1.6	2.0 U	111	0.4 J	10.0 U
A20	Wet Chemistry	Surface Water	9/27/2017	10:45	2.0 U	0.3	2.0 U	116	0.4 U	10.0 U
A21	Wet Chemistry	Surface Water	9/27/2017	12:00	2.0 U	0.5	2.0 U	143	0.4 U	10.0 U
A22	Wet Chemistry	Surface Water	9/27/2017	13:00	2.0 U	0.7	2.0 U	154	0.4 U	13.2
A23	Wet Chemistry	Surface Water	9/27/2017	13:30	2.0 U	1.1	2.0 U	112	0.4 U	11.3
A23A	Wet Chemistry	Surface Water	9/27/2017	13:30	2.0 U	0.2	2.0 U	114	0.3 U	10.0 U
A28	Wet Chemistry	Surface Water	9/27/2017	11:32	2.0 U	1.3	2.0 U	132	0.5 J+	22.7
A30	Wet Chemistry	Surface Water	9/27/2017	10:21	2.0 U	1.3	2.0 U	133	0.5 J+	22.4
A30A	Wet Chemistry	Surface Water	9/27/2017	9:21	2.0 U	1.1	2.0 U	133	0.5 J+	22.2
A30B	Wet Chemistry	Surface Water	9/27/2017	8:21	2.0 U	1.1	2.0 U	127	0.4 U	24.1
A32	Wet Chemistry	Surface Water	9/27/2017	13:25	2.0 U	0.3	2.0 U	105	0.3 U	49.5
A33	Wet Chemistry	Surface Water	9/28/2017	10:35	2.0 U	1.0	2.0 U	121	0.5	22.9
A34	Wet Chemistry	Surface Water	9/28/2017	9:30	2.0 U	0.6	2.0 U	183	0.6	27.1
A35	Wet Chemistry	Surface Water	9/26/2017	9:45	2.0 U	0.8	2.0 U	155	0.5	25.6
A36	Wet Chemistry	Surface Water	9/26/2017	14:31	2.0 U	0.5	2.0 U	219	0.7	19.7
A36A	Wet Chemistry	Surface Water	9/26/2017	15:49	2.0 U	0.1 J	2.0 U	90.5	0.7	26.7
A37	Wet Chemistry	Surface Water	9/26/2017	13:37	2.0 U	0.3	2.0 U	119	0.7	33.7
A38	Wet Chemistry	Surface Water	9/27/2017	17:51	20.0 U	1.5 J	20.0 U	489	0.5 J+	106
A39	Wet Chemistry	Surface Water	9/27/2017	18:19	2.0 U	0.2	2.0 U	69.3	0.6	23.3
A39A	Wet Chemistry	Surface Water	9/27/2017	17:40	2.0 U	0.2	2.0 U	71.4	0.6	23.0
A40	Wet Chemistry	Surface Water	9/28/2017	10:56	2.0 U	0.9	2.0 U	139	0.5	23.6
A40A	Wet Chemistry	Surface Water	9/28/2017	8:25	2.0 U	0.9	2.0 U	140	0.4 J	24.1
A40A Dup-14	Wet Chemistry	Surface Water	9/28/2017	8:25	2.0 U	0.8	2.0 U	139	0.4 J	24.3
A41A	Wet Chemistry	Surface Water	9/28/2017	10:23	2.0 U	0.8	2.0 U	133	0.5	27.6
A45	Wet Chemistry	Surface Water	9/28/2017	8:23	2.0 U	0.5	2.0 U	116	0.4 J	29.9
A47	Wet Chemistry	Surface Water	9/28/2017	8:40	2.0 U	0.6	2.0 U	97.3	0.4 U	60.8
A48	Wet Chemistry	Surface Water	9/28/2017	11:50	1.0 J	0.3	2.0 U	78.6	0.8 J+	54.0
A53AC	Wet Chemistry	Surface Water	9/28/2017	9:20	1.1 J	0.6	2.0 U	123	0.6 J+	29.3
A55a	Wet Chemistry	Surface Water	9/27/2017	16:39	1.2 J	0.5	2.0 U	107	0.4 U	37.4
A55a Dup-13	Wet Chemistry	Surface Water	9/27/2017	16:39	1.2 J	0.5	2.0 U	106	0.4 J	37.5
A56	Wet Chemistry	Surface Water	9/26/2017	16:20	1.2 J	0.6	2.0 U	114	0.5 J+	37.0
A58	Wet Chemistry	Surface Water	9/26/2017	17:09	2.0 U	0.2	2.0 U	57.7	0.3 U	51.8
A60	Wet Chemistry	Surface Water	9/26/2017	15:48	1.1 J	0.4	2.0 U	107	0.4 U	37.7
A61	Wet Chemistry	Surface Water	9/26/2017	14:50	1.1 J	0.5	2.0 U	108	0.4 U	38.2
A61 Dup-12	Wet Chemistry	Surface Water	9/26/2017	14:50	1.1 J	0.5	2.0 U	108	0.4 J	38.4
A64	Wet Chemistry	Surface Water	9/26/2017	13:53	1.1 J	0.4	2.0 U	111	0.4 U	38.6
A65	Wet Chemistry	Surface Water	9/26/2017	12:41	1.1 J	0.4	2.0 U	114	0.4 U	38.6
A66	Wet Chemistry	Surface Water	9/26/2017	9:55	1.1 J	0.5	2.0 U	117	0.4 U	37.9
A68	Wet Chemistry	Surface Water	9/26/2017	9:20	1.1 J	0.6	2.0 U	120	0.4 U	37.5
A72	Wet Chemistry	Surface Water	9/26/2017	8:35	1.5 J	0.6	2.0 U	229	0.4 U	9.64 J
AM1	Wet Chemistry	Surface Water	9/28/2017	12:10	4.0 U	0.8	4.0 U	367	0.5 U	50.4
ARD1	Wet Chemistry	Surface Water	9/27/2017	16:41	4.0 U	1.4	4.0 U	293	0.7	10.0 U
BF1	Wet Chemistry	Surface Water	9/27/2017	15:55	4.0 U	1.4	4.0 U	262	0.5	10.0 U
BF3	Wet Chemistry	Surface Water	9/27/2017	15:35	4.0 U	1.3	4.0 U	245	0.6	10.0 U
BG1A	Wet Chemistry	Surface Water	9/26/2017	15:35	2.0 U	0.2 U	2.0 U	30.2	0.5 J+	10.0 U
BG1B	Wet Chemistry	Surface Water	9/26/2017	10:10	2.0 U	1.7	2.0 U	192	0.6 J+	10.0 U
CG01	Wet Chemistry	Surface Water	9/28/2017	10:30	15.4 J	2.8	20.0 U	530	0.9 J+	10.0 U
CG02	Wet Chemistry	Surface Water	9/28/2017	10:10	15.0 J	2.9	20.0 U	522	1.1 J+	10.0 U
CG11	Wet Chemistry	Surface Water	9/26/2017	16:30	4.0 U	5.3	4.0 U	220	0.7 J+	10.0 U
CG11 Dup-10	Wet Chemistry	Surface Water	9/26/2017	16:30	4.0 U	5.3	4.0 U	218	0.9	10.0 U
CG3	Wet Chemistry	Surface Water	9/27/2017	11:20	20.0 U	15.3	20.0 U	400	0.4 J	10.0 U
CG4	Wet Chemistry	Surface Water	9/27/2017	10:30	20.0 U	12.3 J	20.0 U	313 J	0.5	10.0 U
CG4 Dup-11	Wet Chemistry	Surface Water	9/27/2017	10:30	4.0 U	2.5 J	4.0 U	62.2 J	0.5	10.0 U
CG6	Wet Chemistry	Surface Water	9/27/2017	9:30	20.0 U	11.8	20.0 U	318	0.5	10.0 U
CG9	Wet Chemistry	Surface Water	9/26/2017	15:05	4.0 U	5.6	4.0 U	227	0.8 J+	10.0 U
CU4	Wet Chemistry	Surface Water	9/27/2017	14:43	2.0 U	0.1 J	2.0 U	16.8	0.6 J+	51.5
CU4a	Wet Chemistry	Surface Water	9/27/2017	15:47	2.0 U	0.2 U	2.0 U	25.0	0.6 J+	54.2
DM8A	Wet Chemistry	Surface Water	9/26/2017	12:25	2.0 U	0.2 U	2.0 U	23.0	1.2 J+	15.4
EG1	Wet Chemistry	Surface Water	9/27/2017	11:10	2.0 U	0.2 U	2.0 U	50.7	0.4 J	29.5
EG1 Dup-17	Wet Chemistry	Surface Water	9/27/2017	11:10	2.0 U	0.2 U	2.0 U	50.7	0.4 J	29.8
EG2	Wet Chemistry	Surface Water	9/27/2017	9:10	2.0 U	0.2	2.0 U	42.6	0.5	18.9
EG2A	Wet Chemistry	Surface Water	9/27/2017	9:29	2.0 U	0.8	2.0 U	92.7	0.5	10.0 U
EG3	Wet Chemistry	Surface Water	9/27/2017	12:20	2.0 U	0.1 J	2.0 U	67.5	0.5	27.4
EG3A	Wet Chemistry	Surface Water	9/27/2017	14:54	2.0 U	0.2	2.0 U	75.3	0.6	20.0
EG4	Wet Chemistry	Surface Water	9/27/2017	17:50	2.0 U	0.6	2.0 U	76.3	0.6	6.28 J
EG5	Wet Chemistry	Surface Water	9/27/2017	17:00	2.0 U	0.2	2.0 U	65.2	0.6 J+	26.0
EG6	Wet Chemistry	Surface Water	9/27/2017	18:10	2.0 U	0.2	2.0 U	73.5	0.5 J+	22.4
EG9	Wet Chemistry	Surface Water	9/26/2017	11:59	4.0 U	0.4	4.0 U	178	0.6	24.4
EG-Trib2	Wet Chemistry	Surface Water	9/27/2017	16:20	1.3 J	0.2 U	2.0 U	38.7	1.0 J+	65.8
LA3	Wet Chemistry	Surface Water	9/28/2017	9:21	2.0 U	0.6	2.0 U	108	0.6	30.3
LSS1	Wet Chemistry	Surface Water	9/26/2017	12:00	1.3 J	0.2 U	2.0 U	17.7	1.7	11.8

Table 40 Bonita Peak Mining District - Low Flow September 26-28, 2017
Animas Surface Water Analytical Results - Wet Chemistry

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Dissolved Organic Carbon	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
MC0	Wet Chemistry	Surface Water	9/26/2017	18:15	2.0 U	0.2 U	2.0 U	41.3	0.9	15.2
MC0 Dup-16	Wet Chemistry	Surface Water	9/26/2017	18:15	2.0 U	0.2 U	2.0 U	41.5	0.7	15.8
T4	Wet Chemistry	Surface Water	9/26/2017	11:24	4.0 U	0.5	4.0 U	109	0.6 J+	38.8
FB-06	Wet Chemistry	Water	9/26/2017	17:50	2.0 U	0.2 U	2.0 U	5.0 U	0.3 J	10.0 U
FB-07	Wet Chemistry	Water	9/26/2017	17:10	2.0 U	0.2 U	2.0 U	5.0 U	1.0	10.0 U
FB-08	Wet Chemistry	Water	9/26/2017	17:09	2.0 U	0.2 U	2.0 U	5.0 U	0.3 J	10.0 U
FB-09	Wet Chemistry	Water	9/27/2017	16:39	2.0 U	0.2 U	2.0 U	5.0 U	0.3 J	10.0 U
FB-10	Wet Chemistry	Water	9/26/2017	19:30	2.0 U	0.2 U	2.0 U	5.0 U	0.5 U	10.0 U
FB-14	Wet Chemistry	Water	9/28/2017	16:25	2.0 U	0.2 U	2.0 U	5.0 U	0.6	10.0 U
FB-16	Wet Chemistry	Water	9/28/2017	11:45	2.0 U	0.2 U	2.0 U	5.0 U	0.5 U	10.0 U
FB-17	Wet Chemistry	Water	9/27/2017	16:40	2.0 U	0.2 U	2.0 U	5.0 U	0.4 J	10.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Dissolved Organic Carbon	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A07D	Wet Chemistry	Surface Water	9/26/2017	13:00	2.0 U	0.9	2.0 U	209	0.6	10.0 U
A07D Dup-08	Wet Chemistry	Surface Water	9/26/2017	13:00	4.0 U	0.9	4.0 U	196	0.9	10.0 U
				RPD	N/A	**0.00%**	N/A	**6.42%**	**40.00%**	N/A

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Dissolved Organic Carbon	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A40A	Wet Chemistry	Surface Water	9/28/2017	8:25	2.0 U	0.9	2.0 U	140	0.4	24.1
A40A Dup-14	Wet Chemistry	Surface Water	9/28/2017	8:25	2.0 U	0.8	2.0 U	139	0.4	24.3
				RPD	N/A	**11.76%**	N/A	**0.72%**	**0.00%**	**0.83%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Dissolved Organic Carbon	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A55a	Wet Chemistry	Surface Water	9/27/2017	16:39	1.2	0.5	2.0 U	107	0.4 U	37.4
A55a Dup-13	Wet Chemistry	Surface Water	9/27/2017	16:39	1.2	0.5	2.0 U	106	0.4 J	37.5
				RPD	**0.00%**	**0.00%**	N/A	**0.94%**	N/A	**0.27%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Dissolved Organic Carbon	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A61	Wet Chemistry	Surface Water	9/26/2017	14:50	1.1	0.5	2.0 U	108	0.4 U	38.2
A61 Dup-12	Wet Chemistry	Surface Water	9/26/2017	14:50	1.1	0.5	2.0 U	108	0.4 J	38.4
				RPD	**0.00%**	**0.00%**	N/A	**0.00%**	N/A	**0.52%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Dissolved Organic Carbon	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
MC0	Wet Chemistry	Surface Water	9/26/2017	18:15	2.0 U	0.2 U	2.0 U	41.3	0.9	15.2
MC0 Dup-16	Wet Chemistry	Surface Water	9/26/2017	18:15	2.0 U	0.2 U	2.0 U	41.5	0.7	15.8
				RPD	N/A	N/A	N/A	**0.48%**	**25.00%**	**3.87%**

Note: Removed flags from values for RPD calculation
Note: Data Qualifier Definitions Listed Below:
U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample

Table 41 Bonita Peak Mining District - Low Flow September 26-28, 2017
Cement Creek Surface Water Analytical Results - Wet Chemistry

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/ Nitrite as N	Sulfate as SO4	Dissolved Organic Carbon	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
CC01C1	Wet Chemistry	Surface Water	9/27/2017	10:45	4.0 U	2.2	4.0 U	283	0.4 U	10.0 U
CC01F	Wet Chemistry	Surface Water	9/27/2017	11:10	2.0 U	0.2	2.0 U	186	0.4 U	31.1
CC01S	Wet Chemistry	Surface Water	9/27/2017	10:00	2.0 U	1.4	2.0 U	229	0.3 U	10.0 U
CC01T	Wet Chemistry	Surface Water	9/27/2017	9:30	2.0 U	0.8	2.0 U	174	0.3 U	10.0 U
CC02C	Wet Chemistry	Surface Water	9/27/2017	12:15	2.0 U	0.7	2.0 U	165	0.4 U	10.0 U
CC02D	Wet Chemistry	Surface Water	9/27/2017	11:45	20.0 U	5.8	20.0 U	744	0.6 J+	10.0 U
CC03	Wet Chemistry	Surface Water	9/27/2017	15:45	20.0 U	3.0	20.0 U	619	0.5 J+	10.0 U
CC03B	Wet Chemistry	Surface Water	9/27/2017	14:15	4.0 U	1.3	4.0 U	277	0.5 J+	10.0 U
CC03C	Wet Chemistry	Surface Water	9/27/2017	13:30	20.0 U	5.6	20.0 U	1450	0.4 U	34.4
CC03C Dup-19	Wet Chemistry	Surface Water	9/27/2017	13:30	20.0 U	5.2	20.0 U	1430	0.4 J	32.6
CC06	Wet Chemistry	Surface Water	9/28/2017	12:10	20.0 U	11.2	20.0 U	1440	0.4 U	10.0 U
CC07	Wet Chemistry	Surface Water	9/27/2017	15:30	20.0 U	2.5	20.0 U	787	0.9 J+	10.0 U
CC14	Wet Chemistry	Surface Water	9/28/2017	8:40	20.0 U	2.9	20.0 U	524	0.4 U	17.9
CC15	Wet Chemistry	Surface Water	9/28/2017	10:30	20.0 U	4.1	20.0 U	1010	0.4 U	5.35 J
CC15A	Wet Chemistry	Surface Water	9/28/2017	9:45	20.0 U	2.1	20.0 U	385	0.4 U	5.93 J
CC16B	Wet Chemistry	Surface Water	9/28/2017	9:15	20.0 U	2.3	20.0 U	356	0.4 U	10.0 U
CC17	Wet Chemistry	Surface Water	9/27/2017	17:30	20.0 U	1.8 J	20.0 U	413	0.6 J+	9.12 J
CC18	Wet Chemistry	Surface Water	9/28/2017	12:30	20.0 U	2.9	20.0 U	666	0.7 J+	10.0 U
CC18 Dup-20	Wet Chemistry	Surface Water	9/28/2017	12:30	20.0 U	2.4	20.0 U	668	0.6	10.0 U
CC20H	Wet Chemistry	Surface Water	9/27/2017	16:45	20.0 U	2.4	20.0 U	666	0.7 J+	10.0 U
CC21	Wet Chemistry	Surface Water	9/26/2017	17:30	20.0 U	3.2	20.0 U	768	0.5 J+	10.0 U
CC26	Wet Chemistry	Surface Water	9/26/2017	16:45	20.0 U	2.0 U	20.0 U	294	0.6 J+	10.0 U
CC27	Wet Chemistry	Surface Water	9/26/2017	16:10	20.0 U	2.5	20.0 U	606	0.5 J+	10.0 U
CC27 Dup-18	Wet Chemistry	Surface Water	9/26/2017	16:10	20.0 U	2.6	20.0 U	593	0.6	10.0 U
CC28C	Wet Chemistry	Surface Water	9/26/2017	15:00	20.0 U	3.0	20.0 U	654	0.5 J+	10.0 U
CC28D	Wet Chemistry	Surface Water	9/26/2017	14:20	20.0 U	2.6	20.0 U	655	0.6 J+	10.0 U
CC28D Dup-09	Wet Chemistry	Surface Water	9/26/2017	14:20	10.2 J	2.4	20.0 U	641	0.6	10.0 U
CC28E	Wet Chemistry	Surface Water	9/26/2017	15:30	20.0 U	2.8	20.0 U	658	0.6 J+	10.0 U
CC39	Wet Chemistry	Surface Water	9/26/2017	11:15	20.0 U	2.3	20.0 U	644	0.6 J+	10.0 U
CC39B	Wet Chemistry	Surface Water	9/26/2017	13:30	20.0 U	2.4	20.0 U	634	0.5 J+	10.0 U
CC39C	Wet Chemistry	Surface Water	9/26/2017	11:50	20.0 U	1.8 J	20.0 U	653	0.7 J+	10.0 U
CC39D	Wet Chemistry	Surface Water	9/26/2017	10:40	20.0 U	2.3	20.0 U	631	0.5 J+	10.0 U
CC41	Wet Chemistry	Surface Water	9/26/2017	9:50	20.0 U	2.5	20.0 U	610	0.6 J+	10.0 U
CC43E	Wet Chemistry	Surface Water	9/26/2017	9:00	20.0 U	1.7 J	20.0 U	602	0.6 J+	10.0 U
CC48	Wet Chemistry	Surface Water	9/26/2017	8:30	20.0 U	1.7 J	20.0 U	584	0.5 J+	10.0 U
FB-11	Wet Chemistry	Water	9/26/2017	12:35	2.0 U	0.2 U	2.0 U	5.0 U	0.4 J	10.0 U
FB-12	Wet Chemistry	Water	9/27/2017	10:30	2.0 U	0.2 U	2.0 U	5.0 U	0.3 J	10.0 U
FB-13	Wet Chemistry	Water	9/28/2017	9:45	2.0 U	0.2 U	2.0 U	5.0 U	0.3 J	10.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Dissolved Organic Carbon	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
CC03C	Wet Chemistry	Surface Water	9/27/2017	13:30	20.0 U	5.6	20.0 U	1450	0.4 U	34.4
CC03C Dup-19	Wet Chemistry	Surface Water	9/27/2017	13:30	20.0 U	5.2	20.0 U	1430	0.4 J	32.6
				RPD	N/A	**7.41%**	N/A	**1.39%**	N/A	**5.37%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Dissolved Organic Carbon	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
CC18	Wet Chemistry	Surface Water	9/28/2017	12:30	20.0 U	2.9	20.0 U	666	0.7	10.0 U
CC18 Dup-20	Wet Chemistry	Surface Water	9/28/2017	12:30	20.0 U	2.4	20.0 U	668	0.6	10.0 U
				RPD	N/A	**18.87%**	N/A	**0.30%**	**15.38%**	N/A

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Dissolved Organic Carbon	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
CC27	Wet Chemistry	Surface Water	9/26/2017	16:10	20.0 U	2.5	20.0 U	606	0.5	10.0 U
CC27 Dup-18	Wet Chemistry	Surface Water	9/26/2017	16:10	20.0 U	2.6	20.0 U	593	0.6	10.0 U
				RPD	N/A	**3.92%**	N/A	**2.17%**	**18.18%**	N/A

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Dissolved Organic Carbon	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
CC28D	Wet Chemistry	Surface Water	9/26/2017	14:20	20.0 U	2.6	20.0 U	655	0.6	10.0 U
CC28D Dup-09	Wet Chemistry	Surface Water	9/26/2017	14:20	10.2 J	2.4	20.0 U	641	0.6	10.0 U
				RPD	N/A	**8.00%**	N/A	**2.16%**	**0.00%**	N/A

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below:

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 42 Bonita Peak Mining District - Low Flow September 26-28, 2017
Mineral Creek Surface Water Analytical Results - Wet Chemistry

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Dissolved Organic Carbon	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
M01	Wet Chemistry	Surface Water	9/26/2017	17:49	2.0 U	0.2 U	2.0 U	28.4	0.8 J+	25.0
M01 Dup-01	Wet Chemistry	Surface Water	9/26/2017	17:49	2.0 U	0.2 U	2.0 U	28.1	0.6	25.2
M02	Wet Chemistry	Surface Water	9/27/2017	11:00	20.0 U	1.6 J	20.0 U	815	1.0	10.0 U
M02 Dup-03	Wet Chemistry	Surface Water	9/27/2017	11:00	20.0 U	1.8 J	20.0 U	820	0.8	10.0 U
M02B	Wet Chemistry	Surface Water	9/27/2017	12:00	20.0 U	2.5	20.0 U	399	1.7	10.0 U
M02E	Wet Chemistry	Surface Water	9/27/2017	11:45	20.0 U	2.8	20.0 U	1010	0.9	10.0 U
M02K	Wet Chemistry	Surface Water	9/27/2017	12:15	20.0 U	3.7	20.0 U	1630	1.4	10.0 U
M02L	Wet Chemistry	Surface Water	9/27/2017	13:11	2.0 U	0.2	2.0 U	19.6	3.2	26.5
M03	Wet Chemistry	Surface Water	9/27/2017	9:35	2.0 U	0.2 U	2.0 U	48.8	2.2	9.70 J
M04	Wet Chemistry	Surface Water	9/27/2017	10:00	6.4	0.3 J	4.0 U	216	1.2	10.0 U
M05	Wet Chemistry	Surface Water	9/27/2017	8:35	5.1	0.3 J	4.0 U	185	1.1	10.0 U
M06A	Wet Chemistry	Surface Water	9/26/2017	16:16	5.8	0.3 J	4.0 U	166	1.3 J+	10.0 U
M06B	Wet Chemistry	Surface Water	9/26/2017	15:45	5.5	0.3 J	4.0 U	170	0.9 J+	10.0 U
M06C	Wet Chemistry	Surface Water	9/26/2017	15:41	5.7	0.3 J	4.0 U	165	1.1 J+	10.0 U
M06D	Wet Chemistry	Surface Water	9/26/2017	15:03	2.5	0.1 J	2.0 U	84.5	0.9 J+	10.0 U
M06E	Wet Chemistry	Surface Water	9/26/2017	14:20	1.1 J	0.2 U	2.0 U	79.9	2.0 J+	26.9
M07	Wet Chemistry	Surface Water	9/28/2017	14:58	2.7	0.1 J	2.0 U	91.7	1.2 J+	11.1
M10A	Wet Chemistry	Surface Water	9/28/2017	14:25	2.9	0.1 J	2.0 U	103	1.4 J+	12.9
M10B	Wet Chemistry	Surface Water	9/28/2017	14:35	4.0 U	0.3 J	4.0 U	178	1.4	13.2
M11	Wet Chemistry	Surface Water	9/28/2017	14:30	2.5 J	0.2 J	4.0 U	166	1.0 J+	16.1
M12	Wet Chemistry	Surface Water	9/28/2017	13:41	4.0 U	0.7	4.0 U	265	1.5	10.0 U
M13A	Wet Chemistry	Surface Water	9/28/2017	12:58	2.4 J	0.2 J	4.0 U	176	0.8 J+	16.2
M13A Dup-07	Wet Chemistry	Surface Water	9/28/2017	12:58	2.4 J	0.2 J	4.0 U	178	0.6	16.7
M13B	Wet Chemistry	Surface Water	9/27/2017	17:40	2.3 J	0.3 J	4.0 U	171	0.8	15.8
M13D	Wet Chemistry	Surface Water	9/27/2017	16:45	2.3 J	0.2 J	4.0 U	176	0.8	12.4
M14	Wet Chemistry	Surface Water	9/27/2017	14:12	20.0 U	2.0 U	20.0 U	384	1.0	10.0 U
M14A	Wet Chemistry	Surface Water	9/27/2017	16:13	2.2 J	0.3 J	4.0 U	177	0.8	12.2
M14B	Wet Chemistry	Surface Water	9/27/2017	14:54	2.2 J	0.2 J	4.0 U	191	0.7	10.0 U
M16	Wet Chemistry	Surface Water	9/26/2017	17:00	20.0 U	6.7	20.0 U	1460	0.4 U	10.0 U
M16A	Wet Chemistry	Surface Water	9/26/2017	16:45	20.0 U	6.3	20.0 U	1430	0.4 U	10.0 U
M16B	Wet Chemistry	Surface Water	9/26/2017	16:05	20.0 U	2.0 U	20.0 U	990	0.5 J+	19.3
M16C	Wet Chemistry	Surface Water	9/26/2017	16:10	20.0 U	1.1 J	20.0 U	478	0.3 U	61.5
M16D	Wet Chemistry	Surface Water	9/26/2017	15:25	20.0 U	1.5 J	20.0 U	466	0.4 U	44.2
M16D Dup-02	Wet Chemistry	Surface Water	9/26/2017	15:30	20.0 U	1.2 J	20.0 U	468	0.5 U	44.5
M16E	Wet Chemistry	Surface Water	9/26/2017	14:14	20.0 U	1.2 J	20.0 U	358	0.4 U	8.08 J
M16F	Wet Chemistry	Surface Water	9/26/2017	13:48	2.0 U	0.2	2.0 U	125	0.6 J+	10.0 U
M16G	Wet Chemistry	Surface Water	9/26/2017	15:00	20.0 U	1.1 J	20.0 U	352	0.3 U	10.0 U
M16H	Wet Chemistry	Surface Water	9/26/2017	13:21	20.0 U	1.8 J	20.0 U	519	0.4 U	10.0 U
M17A	Wet Chemistry	Surface Water	9/26/2017	11:40	20.0 U	1.5 J	20.0 U	440	0.5 J+	10.0 U
M18	Wet Chemistry	Surface Water	9/26/2017	11:18	20.0 U	3.0	20.0 U	730	0.7 J+	10.0 U
M19	Wet Chemistry	Surface Water	9/26/2017	10:50	20.0 U	2.1	20.0 U	508	0.5 J+	10.0 U
M20	Wet Chemistry	Surface Water	9/26/2017	9:37	20.0 U	1.8 J	20.0 U	487	0.5 J+	10.0 U
M20 Dup-04	Wet Chemistry	Surface Water	9/26/2017	9:45	20.0 U	1.8 J	20.0 U	496	0.3 J	10.0 U
M22	Wet Chemistry	Surface Water	9/26/2017	8:51	20.0 U	1.8 J	20.0 U	480	0.6 J+	10.0 U
M23	Wet Chemistry	Surface Water	9/27/2017	12:00	2.0 U	0.3	2.0 U	118	0.6 J+	10.0 U
M24A	Wet Chemistry	Surface Water	9/27/2017	9:20	20.0 U	1.4 J	20.0 U	242	0.5 J+	30.8
M24B	Wet Chemistry	Surface Water	9/27/2017	8:40	20.0 U	2.0 U	20.0 U	238	0.4 U	32.9
M24B Dup-06	Wet Chemistry	Surface Water	9/27/2017	8:40	20.0 U	2.0 U	20.0 U	236	0.3 J	33.0
M24C	Wet Chemistry	Surface Water	9/27/2017	9:45	20.0 U	2.0 U	20.0 U	267	0.5 J+	104
M24D	Wet Chemistry	Surface Water	9/27/2017	11:15	2.0 U	0.2	2.0 U	112	0.7 J+	10.0 U
M24E	Wet Chemistry	Surface Water	9/27/2017	12:30	2.0 U	0.2	2.0 U	39.9	0.6 J+	22.7
M25	Wet Chemistry	Surface Water	9/27/2017	10:30	2.0 U	0.2	2.0 U	114	0.6 J+	10.0 U
M26B	Wet Chemistry	Surface Water	9/27/2017	14:00	2.0 U	0.2	2.0 U	84.5	0.7 J+	20.3
M26D	Wet Chemistry	Surface Water	9/27/2017	15:00	2.0 U	0.2	2.0 U	104	0.8 J+	32.6
M27	Wet Chemistry	Surface Water	9/27/2017	16:30	20.0 U	2.0 U	20.0 U	314	0.8 J+	10.0 U
M27A	Wet Chemistry	Surface Water	9/28/2017	11:54	20.0 U	2.0 U	20.0 U	311	0.7 J+	10.0 U
M27A2	Wet Chemistry	Surface Water	9/28/2017	10:46	20.0 U	2.0 U	20.0 U	305	0.6 J+	10.0 U
M28	Wet Chemistry	Surface Water	9/27/2017	16:00	2.0 U	0.2	2.0 U	110	0.7 J+	26.6
M29	Wet Chemistry	Surface Water	9/28/2017	8:00	4.0 U	0.4	4.0 U	200	0.6	10.0 U
M29A	Wet Chemistry	Surface Water	9/28/2017	9:46	4.0 U	0.3 J	4.0 U	206	0.5 J+	10.0 U
M30	Wet Chemistry	Surface Water	9/28/2017	8:50	2.0 U	0.2	2.0 U	52.7	0.8	37.6
M32	Wet Chemistry	Surface Water	9/26/2017	11:33	4.0 U	0.4	4.0 U	197	0.6 J+	10.0 U
M32B	Wet Chemistry	Surface Water	9/26/2017	12:41	4.0 U	0.3 J	4.0 U	144	0.5 J+	8.71 J
M33	Wet Chemistry	Surface Water	9/26/2017	10:15	4.0 U	0.4	4.0 U	199	0.5 J+	10.0 U
M33A	Wet Chemistry	Surface Water	9/26/2017	11:05	20.0 U	1.8 J	20.0 U	404	0.5 J+	57.2
M34	Wet Chemistry	Surface Water	9/26/2017	9:20	4.0 U	0.3 J	4.0 U	193	0.6 J+	10.0 U
M34 Dup-05	Wet Chemistry	Surface Water	9/26/2017	9:20	4.0 U	0.3 J	4.0 U	190	0.4 J	5.04 J
M38	Wet Chemistry	Surface Water	9/26/2017	8:34	2.1 J	0.4	4.0 U	193	0.5	10.0 U
FB-01	Wet Chemistry	Water	9/26/2017	16:50	2.0 U	0.2 U	2.0 U	5.0 U	0.4 J	10.0 U
FB-02	Wet Chemistry	Water	9/26/2017	13:35	2.0 U	0.2 U	2.0 U	5.0 U	0.5 U	10.0 U
FB-03	Wet Chemistry	Water	9/26/2017	16:25	2.0 U	0.2 U	2.0 U	5.0 U	0.4 J	10.0 U
FB-04	Wet Chemistry	Water	9/27/2017	18:00	2.0 U	0.2 U	2.0 U	5.0 U	0.5	10.0 U
FB-05	Wet Chemistry	Water	9/28/2017	10:05	2.0 U	0.2 U	2.0 U	5.0 U	0.3 J	10.0 U

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Dissolved Organic Carbon	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
M01	Wet Chemistry	Surface Water	9/26/2017	17:49	2.0 U	0.2 U	2.0 U	28.4	0.8	25.0
M01 Dup-01	Wet Chemistry	Surface Water	9/26/2017	17:49	2.0 U	0.2 U	2.0 U	28.1	0.6	25.2
				RPD	N/A	N/A	N/A	**1.06%**	**28.57%**	**0.80%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Dissolved Organic Carbon	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
M02	Wet Chemistry	Surface Water	9/27/2017	11:00	20.0 U	1.6	20.0 U	815	1.0	10.0 U
M02 Dup-03	Wet Chemistry	Surface Water	9/27/2017	11:00	20.0 U	1.8	20.0 U	820	0.8	10.0 U
				RPD	N/A	**11.76%**	N/A	**0.61%**	**22.22%**	N/A

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Dissolved Organic Carbon	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
M13A	Wet Chemistry	Surface Water	9/28/2017	12:58	2.4	0.2	4.0 U	176	0.8	16.2
M13A Dup-07	Wet Chemistry	Surface Water	9/28/2017	12:58	2.4	0.2	4.0 U	178	0.6	16.7
				RPD	**0.00%**	**0.00%**	N/A	**1.13%**	**28.57%**	**3.04%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Dissolved Organic Carbon	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
M16D	Wet Chemistry	Surface Water	9/26/2017	15:25	20.0 U	1.5	20.0 U	466	0.4 U	44.2
M16D Dup-02	Wet Chemistry	Surface Water	9/26/2017	15:30	20.0 U	1.2	20.0 U	468	0.5 U	44.5
				RPD	N/A	**22.22%**	N/A	**0.43%**	N/A	**0.68%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Dissolved Organic Carbon	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
M20	Wet Chemistry	Surface Water	9/26/2017	9:37	20.0 U	1.8	20.0 U	487	0.5	10.0 U
M20 Dup-04	Wet Chemistry	Surface Water	9/26/2017	9:45	20.0 U	1.8	20.0 U	496	0.3	10.0 U
				RPD	N/A	**0.00%**	N/A	**1.83%**	**50.00%**	N/A

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Dissolved Organic Carbon	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
M24B	Wet Chemistry	Surface Water	9/27/2017	8:40	20.0 U	2.0 U	20.0 U	238	0.4 U	32.9
M24B Dup-06	Wet Chemistry	Surface Water	9/27/2017	8:40	20.0 U	2.0 U	20.0 U	236	0.3 J	33.0
				RPD	N/A	N/A	N/A	**0.84%**	N/A	**0.30%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Dissolved Organic Carbon	Total Alkalinity
					mg/L	mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
M34	Wet Chemistry	Surface Water	9/26/2017	9:20	4.0 U	0.3	4.0 U	193	0.6	10.0 U
M34 Dup-05	Wet Chemistry	Surface Water	9/26/2017	9:20	4.0 U	0.3	4.0 U	190	0.4	5.04 J
				RPD	N/A	**0.00%**	N/A	**1.57%**	**40.00%**	N/A

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below:

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample

Table 43 Bonita Peak Mining District - Pre-runoff March 21, 2017
Water Quality and Flow Measurements

Location ID	Date	Time	pH (S.U.)	Temperature (°C)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	Flow Measurement (cfs)
A72	3/21/2017	09:45	6.14	2.168	381.5	9.8	205
M34	3/21/2017	10:45	6.3	3.08	329.2	9.82	80.2
M27	3/21/2017	11:50	4.8	3.533	381	9.49	No Flow
M14A	3/21/2017	13:00	6.57	4.348	310.6	9.25	No Flow
A68	3/21/2017	09:15	6.99	1.68	300.6	9.86	76.8
A66	3/21/2017	09:48	7.19	1.959	286.8	9.9	61.5238
A56	3/21/2017	11:00	7.54	2.718	265.4	9.73	No Flow
A58	3/21/2017	11:30	7.72	2.555	230.5	9.77	1.9984
A55	3/21/2017	12:15	7.53	5.758	268.8	9.02	53.9
A66[1]	3/21/2017	12:55	7.42	5.589	285.8	9.09	No Flow
CC48	3/21/2017	14:10	3.94	7.06	647	8.74	37.2
CC21	3/21/2017	15:00	3.93	4.699	1049	8.77	7.9679

[1]Returned after noticing that snowplow was adding road sediments into river; waited for plume to pass and resampled

Units: pH in Standard Units (s.u.); Temperature in degrees Celsius (˚C); Conductivity in microSiemens per centimeter (µS/cm); Dissolved Oxygen in milligrams per liter (mg/L); Flow in cubic feet per second (cfs)

Table 44 Bonita Peak Mining District - Pre-runoff April 4, 2017
Water Quality and Flow Measurements

Location ID	Date	Time	pH (S.U.)	Temperature (°C)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	Flow Measurement (cfs)
A72	4/4/2017	08:35	5.57	1.553	528	8.54	129
M34	4/4/2017	09:30	6.4	0.603	434.6	10.31	39
M27	4/4/2017	10:55	4.36	1.159	609	9.97	No Flow
M14A	4/4/2017	12:00	5.84	0.52	421.4	10.07	No Flow
A68	4/4/2017	10:05	6.85	1.607	537.4	10.03	52.1
A66	4/4/2017	12:20	6.72	4.401	328.8	9.39	48.0020
A56	4/4/2017	13:45	7.19	6.937	290.8	8.75	No Flow
A58	4/4/2017	13:30	7.25	2.935	238.5	9	No Flow
A55	4/4/2017	14:15	7.11	7.714	291.4	8.65	33.5
CC48	4/4/2017	10:30	3.7	2.032	932	9.98	19.9
CC21	4/4/2017	11:15	5.07	2.079	1198	9.33	No Flow

Units: pH in Standard Units (s.u.); Temperature in degrees Celsius (˚C); Conductivity in microSiemens per centimeter (µS/cm); Dissolved Oxygen in milligrams per liter (mg/L); Flow in cubic feet per second (cfs)

Table 45 Bonita Peak Mining District - Pre-runoff April 18, 2017
Water Quality and Flow Measurements

Location ID	Date	Time	pH (S.U.)	Temperature (°C)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	Flow Measurement (cfs)
A72	4/18/2017	08:45	5.98	2.373	341	8.46	355
M34	4/18/2017	09:10	6.47	1.902	251.9	9.73	169
M27	4/18/2017	11:00	5.18	3.512	273.4	9.49	60.6148
M14A	4/18/2017	11:00	6.86	4.738	219.2	9.24	32.8996
A68	4/18/2017	12:55	7.03	7.751	235	8.73	166
A66	4/18/2017	15:20	6.79	9.649	231.4	8.28	No Flow
A56	4/18/2017	16:40	7.18	7.812	218.6	8.62	No Flow
A58	4/18/2017	16:00	7.35	5.085	173.9	9.22	5.4255
A55	4/18/2017	17:05	7.12	6.829	219.9	8.73	160
CC48	4/18/2017	13:20	3.92	8.093	461.6	8.61	61.3
CC21	4/18/2017	14:10	3.72	6.112	719	8.59	14.4809

Units: pH in Standard Units (s.u.); Temperature in degrees Celsius (˚C); Conductivity in microSiemens per centimeter (µS/cm); Dissolved Oxygen in milligrams per liter (mg/L); Flow in cubic feet per second (cfs)

Table 46 Bonita Peak Mining District - Pre-runoff May 2, 2017
Water Quality and Flow Measurements

Location ID	Date	Time	pH (S.U.)	Temperature (°C)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	Flow Measurement (cfs)
A55	5/2/2017	16:30	7.6	7.319	258.3	8.57	61.8
A56	5/2/2017	15:35	7.76	7.832	260.2	8.52	68.2779
A58	5/2/2017	14:40	7.87	5.18	209.6	9.09	3.8975
A66	5/2/2017	09:40	7.44	2.647	276.9	9.77	71.3885
A68	5/2/2017	09:05	7.29	2.146	279.4	9.89	78.4
A72	5/2/2017	07:45	6.19	1.208	393.5	9.79	188
CC21	5/2/2017	13:35	4.38	5.756	991	8.51	7.2565
CC48	5/2/2017	12:40	4.02	6.198	774	8.86	25.7
M14A	5/2/2017	11:00	7.22	4.651	333.3	9.1	10.9059
M27	5/2/2017	10:20	4.65	1.838	496.6	9.85	22.2073
M34	5/2/2017	08:25	6.64	1.407	355.6	10.02	52.8

Units: pH in Standard Units (s.u.); Temperature in degrees Celsius (˚C); Conductivity in microSiemens per centimeter (µS/cm); Dissolved Oxygen in milligrams per liter (mg/L); Flow in cubic feet per second (cfs)

Table 47 Bonita Peak Mining District - Pre-runoff May 15-17, 2017
Water Quality and Flow Measurements

Location ID	Date	Time	pH (S.U.)	Temperature (°C)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	Flow Measurement (cfs)
A33	5/17/2017	10:15	7.09	1.614	99.8	9.87	85.6087
A34	5/17/2017	09:15	7.24	1.763	177.5	9.82	33.54
A35	5/17/2017	08:00	7.05	1.404	135.5	9.87	119.1781
A53AC	5/16/2017	16:20	7.43	5.54	159.2	8.85	No Flow
A55	5/16/2017	16:00	7.52	5.363	155	8.88	320
A56	5/16/2017	15:25	7.63	6.084	154.9	8.81	No Flow
A58	5/16/2017	14:45	7.71	4.941	140	9.04	14.0462
A66	5/16/2017	13:50	7.51	6.336	157.2	8.75	No Flow
A68	5/15/2017	17:15	7.31	7.461	155.9	8.5	399
A72	5/15/2017	16:30	6.86	8.656	192.9	8.17	804
M07	5/16/2017	12:30	7.34	2.198	88.9	9.48	28.5066
M10A	5/16/2017	11:50	7.03	2.457	93.6	9.4	33.3871
M11	5/16/2017	10:55	7.05	2.534	131.4	9.39	47.3260
M14A	5/16/2017	09:50	7.04	2.977	155.7	9.41	64.5233
M27	5/16/2017	08:50	5.93	2.043	192.6	9.76	114.7651
M28	5/16/2017	08:00	7.31	1.828	167.8	9.81	114.8308
M34	5/15/2017	17:00	7.25	7.54	195.3	8.38	312
T4	5/16/2017	14:10	7.59	6.654	153.8	8.77	No Flow

Units: pH in Standard Units (s.u.); Temperature in degrees Celsius (˚C); Conductivity in microSiemens per centimeter (µS/cm); Dissolved Oxygen in milligrams per liter (mg/L); Flow in cubic feet per second (cfs)

Table 48 Bonita Peak Mining District - High Flow June 6-7, 2017
Animas Water Quality and Flow Measurements

Location ID	Date	Time	pH (S.U.)	Temperature (°C)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Flow Measurement (cfs)
A05	6/7/2017	15:25	6.79	0.9	59	10.43	129.3	No Flow
A09	6/7/2017	14:33	7.03	1.89	56	12.16	171.8	No Flow
A10	6/7/2017	14:21	6.2	1.93	91	12.05	187.4	No Flow
A11	6/7/2017	16:01	6.22	1.3	92	12.17	181.8	No Flow
A13	6/7/2017	16:40	5.99	1.15	92	12.01	198.7	No Flow
A14	6/7/2017	14:02	6.34	2.36	79	12.14	179.1	No Flow
A28	6/7/2017	13:17	6.99	4.6	87.6	10.73	150.3	No Flow
A30	6/7/2017	13:39	6.83	4.3	87.1	10.82	157	No Flow
A30A	6/7/2017	13:09	7.37	4.95	85	11.36	163.5	No Flow
A30B	6/7/2017	12:46	7.38	4.85	86	11.57	168.4	No Flow
A31	6/7/2017	11:35	7.41	5.06	89	11.71	183.7	No Flow
A33	6/7/2017	11:16	7.41	5.19	90	11.67	193.5	No Flow
A34	6/7/2017	10:22	7.39	4.25	125	11.81	200.4	No Flow
A35	6/7/2017	10:53	7.39	4.81	99	11.62	198.7	No Flow
A40	6/7/2017	11:32	7.01	6.7	121.1	9.72	220.1	No Flow
A40A	6/7/2017	12:04	7.06	6.8	108.1	9.74	194.2	No Flow
A41A	6/7/2017	11:22	7.19	5.7	109.8	9.91	225.7	No Flow
A45	6/7/2017	10:13	6.77	5.1	129.7	0.9	285.1	No Flow
A47	6/6/2017	14:06	7.81	4.6	98.6	10.95	106.4	No Flow
A48	6/6/2017	15:50	7.58	6.1	95.5	11.52	176.4	No Flow
A54	6/7/2017	08:31	6.9	4.6	545.6	9.98	11.8	No Flow
A55	6/6/2017	13:46	7.37	7.1	122.8	10.4	120.7	No Flow
A55a	6/6/2017	13:19	7.51	6.9	121.1	10.15	105.4	No Flow
A56	6/6/2017	12:45	7.54	6.6	120.5	10.52	113.1	No Flow
A58	6/6/2017	11:57	7.78	3.9	103.7	11.27	106.1	38.3248
A60	6/6/2017	11:32	7.56	5.8	119.4	10.71	96.6	No Flow
A61	6/6/2017	11:10	7.53	5.7	120	10.81	97.1	No Flow
A65	6/6/2017	10:19	7.54	4.8	118.3	10.77	76.3	No Flow
A66	6/6/2017	09:56	7.49	4.2	118.8	12.16	-51.4	No Flow
A68	6/6/2017	09:28	7.46	3.8	116.2	12.24	80.6	804
A72	6/6/2017	08:41	7.07	3.4	141.4	11.78	46.1	1440
Bakers_Bridge	6/8/2017	09:00	7.43	5.2	111.8	11.48	N/C	No Flow
CG01	6/6/2017	14:50	3.74	15.8	802	6.02	14.5	0.407
CG02	6/6/2017	14:35	3.74	16.8	800	7.14	404	0.047
CG11	6/7/2017	15:04	6.27	1.57	91	12.04	36.1	No Flow
CG9	6/7/2017	16:13	6.18	1.29	96	12.08	186.4	No Flow
CU4	6/6/2017	16:15	7.62	4	72.2	11.84	163.4	No Flow
CU4a	6/6/2017	16:44	7.61	4.3	74.6	10.19	178.1	No Flow
DM56	6/7/2017	09:11	4.07	3.7	437.4	8.4	133.6	No Flow
LA3	6/7/2017	10:41	7.03	5	114	10.16	268	No Flow
T4	6/6/2017	10:43	7.59	5.2	117.4	10.89	81.3	No Flow

Units: pH in Standard Units (s.u.); Temperature in degrees Celsius (˚C); Conductivity in microSiemens per centimeter (µS/cm); Dissolved Oxygen in milligrams per liter (mg/L); Oxidation/reduction potential (ORP) in millivolts (mV); Flow in cubic feet per second (cfs)

N/C Not Collected. ORP was only collected when using a meter that provided an ORP reading

Table 49 Bonita Peak Mining District - High Flow June 6-7, 2017
Cement Creek Water Quality and Flow Measurements

Location ID	Date	Time	pH (S.U.)	Temperature (°C)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Flow Measurement (cfs)
CC03	6/6/2017	10:55	4.37	4.1	193	10.34	360.3	40.4409
CC03B	6/6/2017	09:55	4.5	2.9	127.6	10.76	371.2	No Flow
CC03C	6/6/2017	09:20	5.75	6.5	2168	4.33	80	0.851
CC06	6/6/2017	12:57	2.6	9.2	2949	10.43	527.1	1.45
CC07	6/6/2017	10:26	3.39	2.7	287.9	10.88	513.8	5.5880
CC17	6/6/2017	14:02	6.22	3.4	225.3	10.29	135.7	42.6779
CC18	6/6/2017	12:00	3.97	4.8	222.2	12.6	416	No Flow
CC19	6/6/2017	12:35	5.12	8	2265	5.87	185.9	0.421
CC20H	6/6/2017	12:15	3.94	4.5	222.2	11.21	415.8	No Flow
CC21	6/6/2017	13:45	4.33	4.6	268.6	10.44	387.9	No Flow
CC21D	6/6/2017	14:47	3.8	5	437.2	11.85	436.4	9.2357
CC26	6/6/2017	15:28	3.57	4.2	143.7	11.54	458.2	22.0862
CC28C	6/6/2017	16:20	4.24	4.8	248.1	10.11	376.5	No Flow
CC28D	6/6/2017	16:35	4.14	4.6	250.8	10.06	381.6	No Flow
CC28E	6/6/2017	16:05	4.12	4.9	245.7	10.77	382.6	No Flow
CC39	6/6/2017	17:52	5.16	4.4	187.8	10.36	257.2	No Flow
CC39B	6/6/2017	17:09	4.7	4.5	216.3	11.6	323.9	No Flow
CC39C	6/6/2017	17:43	4.6	4.4	130.1	10.03	333	No Flow
CC39D	6/7/2017	08:20	5.02	2.71	230	12.46	293.6	No Flow
CC41	6/7/2017	08:42	5.24	2.97	244	12.4	282.6	No Flow
CC43E	6/7/2017	09:01	5.45	3.53	236	12.06	266.6	No Flow
CC48	6/7/2017	09:30	5.64	4	220	11.97	254.4	189

Units: pH in Standard Units (s.u.); Temperature in degrees Celsius (˚C); Conductivity in microSiemens per centimeter (µS/cm); Dissolved Oxygen in milligrams per liter (mg/L); Oxidation/reduction potential (ORP) in millivolts (mV); Flow in cubic feet per second (cfs)

Table 50 Bonita Peak Mining District - High Flow June 6-7, 2017
Mineral Creek Water Quality and Flow Measurements

Location ID	Date	Time	pH (S.U.)	Temperature (°C)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Flow Measurement (cfs)
M06A	6/7/2017	15:55	7.22	2.8	64.4	11.38	107.4	27.9406
M06B	6/7/2017	15:51	4.11	3.4	253.4	7.18	224.6	No Flow
M06C	6/7/2017	15:57	7.01	3	62.1	11.15	144.9	19.7201
M07	6/7/2017	14:10	6.68	4	70.9	9.61	144.5	No Flow
M11	6/7/2017	13:55	7.26	4.8	87.9	9.54	131.1	No Flow
M12	6/6/2017	15:10	5.25	4.4	120.9	10.22	236.7	9.3619
M13A	6/6/2017	15:40	6.82	5.3	113.7	10.12	182	No Flow
M13B	6/6/2017	14:35	6.88	5.4	109.6	9.93	223.2	No Flow
M13D	6/6/2017	14:20	6.77	5.3	112.3	10.15	240.7	No Flow
M14	6/6/2017	13:15	3.43	4.5	134.8	11.07	457.2	9.0718
M14A	6/6/2017	14:08	7.48	5.4	108.1	9.51	86.8	No Flow
M14B	6/6/2017	12:45	6.92	5.2	111	10.26	36.7	No Flow
M16	6/7/2017	10:34	5.04	5	2166	4.97	164.7	No Flow
M16A	6/7/2017	10:54	5.02	8	2190	7.43	171.3	No Flow
M16C	6/7/2017	11:00	7.22	5.7	662.5	0.9	41	No Flow
M16D	6/7/2017	11:06	6.94	3.3	276.6	9.76	123.5	No Flow
M16E	6/7/2017	10:30	7.26	3.3	257.7	9.5	58.1	11.9668
M16F	6/7/2017	10:00	7.17	3.2	74.4	10.17	71	7.0131
M16G	6/7/2017	11:40	6.64	2.6	246.7	9.62	52.2	No Flow
M16H	6/7/2017	09:15	6.52	3.1	255.5	10.36	107.9	26.1429
M17	6/7/2017	09:15	6.75	3.6	262.7	11.29	90.5	22.0178
M17A	6/6/2017	15:55	6.9	4.9	246.2	8.98	99.3	No Flow
M18	6/6/2017	15:50	4.19	3.6	274.7	11.96	186.6	No Flow
M19	6/6/2017	15:33	5.49	4.7	248.5	10.66	129.9	No Flow
M20	6/6/2017	16:38	5.89	4.5	228.6	10.48	123.1	No Flow
M22	6/6/2017	13:29	5.68	4.9	229.6	9.38	114.6	No Flow
M26B	6/6/2017	11:33	7.71	4.3	101.9	9.54	96.7	No Flow
M26D	6/6/2017	11:20	7.23	5	131.7	0.62	12.1	No Flow
M27	6/6/2017	10:15	7.15	4.4	144.8	10.61	39.4	No Flow
M27A	6/6/2017	12:44	7.06	5.4	144.7	9.15	64.3	No Flow
M27A2	6/6/2017	10:52	7.16	5.4	142.2	10.54	41.9	No Flow
M28	6/6/2017	10:50	7.27	5.1	128.9	10.37	5.4	No Flow
M29	6/6/2017	09:50	7.3	4.2	136.6	10.54	30.7	No Flow
M29A	6/6/2017	10:11	7.58	4.5	131	10.57	57.4	No Flow
M29B	6/6/2017	09:50	4.32	4.8	44.8	9.85	201	No Flow
M32	6/6/2017	09:15	7.06	3.7	146.8	10.77	36.7	No Flow
M33	6/6/2017	08:45	7.09	3.2	131.5	11.12	34.5	No Flow
M33A	6/6/2017	17:10	6.21	7.8	983	8.66	138.8	0.747 J
M34	6/6/2017	09:15	7.63	3.9	140.3	9.93	54.4	472
M38	6/6/2017	08:45	7.38	3.3	129.2	10.89	55.2	No Flow

J Flow is estimated. The flume readings did not meet QC criteria

Units: pH in Standard Units (s.u.); Temperature in degrees Celsius (°C); Conductivity in microSiemens per centimeter (µS/cm); Dissolved Oxygen in milligrams per liter (mg/L); Oxidation/reduction potential (ORP) in millivolts (mV); Flow in cubic feet per second (cfs)

Table 51 Bonita Peak Mining District - High Flow July 11-12, 2017
Animas Water Quality and Flow Measurements

Location ID	Date	Time	pH (S.U.)	Temperature (°C)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Flow Measurement (cfs)
A05	7/11/2017	12:10	6.84	9.1	66.3	7.94	237.7	4.1313
A07	7/11/2017	11:10	4.58	10.4	144.5	7.54	275.6	3.9176
A07A	7/11/2017	13:10	4.36	9.8	165	7.96	312.2	4.7031
A07B	7/11/2017	14:05	4.37	10.7	152.1	7.65	368.6	2.7433
A07B1	7/12/2017	10:10	5.93	7.4	93.9	6.98	192.7	0.01
A07B2	7/12/2017	10:20	3.74	1.4	274.3	9.53	348.8	0.3
A07B3	7/12/2017	10:30	3.73	1.3	259.9	9.73	433.6	0.2 J
A07C1	7/12/2017	12:00	3.75	7.5	145.3	7.88	283.9	3.4524
A07D	7/12/2017	12:35	3.71	7.3	135.5	8.18	362.8	3.2053
A07D1	7/12/2017	13:15	3.4	4	369	8.69	500	No flow
A07E	7/12/2017	13:20	3.71	6.7	132.5	68.2	416.1	3.4240
A07E1	7/12/2017	14:00	3.99	8.1	332.4	7.59	413	0.104
A07F	7/12/2017	13:10	4.08	6.6	127.9	8.1	437.8	No Flow
A07G	7/12/2017	13:00	4.82	6.9	82.2	8.4	325.8	No Flow
A08	7/11/2017	10:30	5.27	9.3	94	7.9	236.3	10.3223
A15	7/11/2017	10:25	5.53	8.8	278.3	7.21	118.9	11.2225
A18B	7/11/2017	14:00	6.68	3.8	248	10.35	115.9	7.5491
A18A	7/11/2017	15:15	7.3	1.1	282.5	10.55	107.2	No Flow
A20	7/12/2017	12:14	6.34	9.4	290.1	11.09	N/C	18.9614
A21	7/12/2017	13:22	6.42	8.2	310.2	11.04	N/C	13.0872
A22	7/12/2017	13:59	6.48	8.8	305	10.64	N/C	11.2634
A23	7/12/2017	14:45	6.51	6.3	240.5	11.51	N/C	9.4821
A23A	7/12/2017	15:10	4.95	4.2	320.5	11.86	N/C	0.007
A36	7/11/2017	11:20	7.46	6.334	179.6	8.48	N/C	17.0298
A36A	7/12/2017	10:25	7.44	5.797	132.5	8.53	N/C	19.7641
A37	7/11/2017	11:00	7.52	8.994	138.5	7.95	N/C	No Flow
A38	7/11/2017	13:49	7.17	9.276	105.9	6.69	N/C	No Flow
A39	7/11/2017	13:56	7.64	9.71	132.5	7.5	N/C	No Flow
A39A	7/11/2017	14:55	7.17	8.19	136.6	7.8	N/C	No Flow
A54 Opp (Little Nation OPP)	7/12/2017	16:12	6.72	7.9	527.1	8.8	154	No Flow
A55 Opp	7/12/2017	08:25	7.19	7.3	150.8	9	155.4	No flow
ARD1	7/11/2017	15:45	3.24	13.253	679	6.67	N/C	No Flow
BB2	7/12/2017	11:00	6.09	9.1	74.3	7.51	316.3	No Flow
BF1	7/11/2017	16:41	3.64	3.573	372.9	7.81	N/C	No Flow
BF2	7/11/2017	16:50	6.49	7.129	146.4	7.87	N/C	No Flow
BG1A	7/12/2017	12:30	4.73	7	90.8	7.98	319	1.8839
BG1B	7/11/2017	13:40	4.24	9.7	176.9	1.4	345.4	3.2417
CG3	7/11/2017	13:20	5.52	7.1	318.4	9.74	121.9	10.0477
CG4	7/11/2017	12:30	5.51	7.9	312.2	8.4	121	10.2625
CG6	7/11/2017	11:35	5.57	8.5	2897	8.52	120.2	11.2942
DM8A	7/12/2017	09:51	7.24	12.9	61.3	6.01	N/C	0.0016
EG Trib 1	7/11/2017	16:25	7.46	9.157	132.2	7.16	N/C	No Flow
EG Trib 2	7/11/2017	15:55	7.64	7.109	142.8	7.93	N/C	0.035
EG1	7/12/2017	16:45	6.95	4.43	107.1	8.7	N/C	3.6410
EG2	7/12/2017	15:40	6.55	12.129	101.5	6.61	N/C	1.28
EG2A	7/12/2017	15:16	5.68	11.945	174.6	6.78	N/C	No Flow
EG3	7/12/2017	13:45	7.38	6.752	123.5	8	N/C	4.6482
EG3A	7/12/2017	12:45	7.25	7.89	144.2	7.79	N/C	6.9343
EG4	7/12/2017	14:20	6.27	11.889	170	7.04	N/C	1.1631
EG5	7/11/2017	15:35	7.39	8.057	128.8	7.77	N/C	5.7926
EG6	7/11/2017	12:45	7.5	9.415	131.8	7.64	N/C	11.3412
EG9	7/11/2017	09:50	7.36	6.593	162.1	8.43	N/C	29.9855
LSS1	7/12/2017	11:24	6.01	9.2	42	5.56	293.1	0.017
MC0	7/11/2017	13:30	7.17	9.044	101.1	7.65	N/C	No Flow
Mountain Queen Opp (A18)	7/11/2017	15:40	5.94	0.6	152.9	10.93	151.4	No Flow

J Flow is estimated. The flume readings did not meet QC criteria

N/C Not Collected. ORP was only collected when using a meter that provided an ORP reading

Units: pH in Standard Units (s.u.); Temperature in degrees Celsius (˚C); Conductivity in microSiemens per centimeter (µS/cm); Dissolved Oxygen in milligrams per liter (mg/L); Oxidation/reduction potential (ORP) in millivolts (mV); Flow in cubic feet per second (cfs)

Table 52 Bonita Peak Mining District - High Flow July 11-12, 2017
Cement Creek Water Quality and Flow Measurements

Location ID	Date	Time	pH (S.U.)	Temperature (°C)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Flow Measurement (cfs)
CC01C2	7/11/2017	16:40	N/C	N/C	N/C	N/C	N/C	0.053
CC01S	7/11/2017	15:45	N/C	N/C	N/C	N/C	N/C	3.7517
CC01T	7/11/2017	15:15	5.58	6.54	247	8.06	N/C	7.7328
CC02C	7/11/2017	13:36	6.67	9.54	234.7	7.62	509.8	10.5194
CC02D	7/11/2017	14:20	3.69	5.398	1220	4.92	N/C	0.123
CC04	7/12/2017	09:55	4.4	5.8	378	12.27	N/C	0.439 J
CC15	7/11/2017	11:17	7.03	5.89	184.4	8.43	515.8	6.3342
CC15A	7/11/2017	10:46	6.51	5.8	366.5	8.44	516.4	7.2064
CC16B	7/11/2017	09:26	6.33	5.48	363.4	8.54	517.4	8.0875
CC48	7/12/2017	08:15	4.39	7.8	930	14.05	N/C	63.4

J Flow is estimated. The flume readings did not meet QC criteria

N/C Not Collected. ORP was only collected when using a meter that provided an ORP reading

Units: pH in Standard Units (s.u.); Temperature in degrees Celsius (˚C); Conductivity in microSiemens per centimeter (µS/cm); Dissolved Oxygen in milligrams per liter (mg/L); Oxidation/reduction potential (ORP) in millivolts (mV); Flow in cubic feet per second (cfs)

Table 53 Bonita Peak Mining District - High Flow July 11-12, 2017
Mineral Creek Water Quality and Flow Measurements

Location ID	Date	Time	pH (S.U.)	Temperature (°C)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Flow Measurement (cfs)
M01	7/11/2017	09:55	7.47	7.4	51.8	10.84	209	1.7715
M02	7/11/2017	13:25	3.8	15.9	999	7.67	360.5	0.083
M02B	7/11/2017	14:31	4.75	4.3	465.3	10.26	204.9	0.013
M02E	7/11/2017	13:50	3.68	15.3	1411	5.43	345.5	No Flow
M02K	7/11/2017	14:09	5.26	4.5	2038	11.21	138.6	0.004
M02L	7/11/2017	15:00	6.76	16.4	89.3	9.12	13.9	No Flow
M03	7/11/2017	11:05	7.35	11	93.9	9.9	114.5	0.1217
M04	7/11/2017	11:55	7.49	10	88.2	9.62	88.4	3.2466
M05	7/11/2017	11:30	7.37	9.6	88.9	10.54	80.7	3.0960
M06D	7/11/2017	15:45	6.81	9.8	63.3	9.74	117.7	15.214
M06E	7/11/2017	16:35	6.82	10	160.2	11.2	81.7	No Flow
M10	7/11/2017	17:45	6.76	6.7	115.2	12.14	93.2	27.9053
M10B	7/12/2017	08:45	7	8.8	221.3	7.84	378.3	No Flow
M23	7/12/2017	11:50	6.58	6.6	116.8	8.11	240.1	51.9188
M24A	7/12/2017	12:50	7.17	14.5	560.5	6.83	126.1	0.047
M24B	7/12/2017	13:05	6.67	8.4	587.1	5.73	73.7	0.06
M24C	7/12/2017	11:25	7.53	8.8	708.6	5.41	295.9	0.005
M24D	7/12/2017	11:00	6.71	14.8	463.7	4.68	383	No Flow
M25	7/12/2017	10:25	6.99	6.6	123.7	8.4	380.2	54.235
M29 Opp	7/12/2017	17:10	6.96	11.8	173.2	7.5	185.8	No Flow

Units: pH in Standard Units (s.u.); Temperature in degrees Celsius (˚C); Conductivity in microSiemens per centimeter (µS/cm); Dissolved Oxygen in milligrams per liter (mg/L); Oxidation/reduction potential (ORP) in millivolts (mV); Flow in cubic feet per second (cfs)

Table 54 Bonita Peak Mining District - Low Flow September 26-28, 2017
Animas Water Quality and Flow Measurements

Location ID	Date	Time	pH (S.U.)	Temperature (°C)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Flow Measurement (cfs)
32nd St bridge	9/28/2017	11:45	7.34	10.96	645	8.77	250.4	No Flow
A05	9/26/2017	16:30	6.77	6.926	174.5	7.93	N/C	0.2
A07	9/26/2017	17:30	4.67	6.549	301.1	7.95	N/C	No Flow
A07A	9/26/2017	09:15	4.59	0.884	365.8	9.37	N/C	0.2578
A07B	9/26/2017	10:40	4.61	3.677	353.9	8.96	N/C	0.163 J
A07B1	9/26/2017	11:20	4.01	3.866	452.3	8.93	N/C	No Flow
A07B2	9/26/2017	11:10	4.05	3.59	392.8	8.33	N/C	No Flow
A07B3	9/26/2017	11:00	4.44	3.502	296.2	7.78	N/C	No Flow
A07C1	9/26/2017	13:20	4.22	8.834	366.2	8.66	N/C	0.0512
A07D	9/26/2017	13:00	4.27	8.679	363.2	7.21	N/C	No Flow
A07D1	9/26/2017	13:50	3.91	4.19	430.5	8.37	N/C	No Flow
A07E	9/26/2017	14:35	3.84	7.143	444.9	8.17	N/C	0.0338
A07E1	9/26/2017	13:40	4.21	3.235	449.1	8.42	N/C	No Flow
A07F	9/26/2017	15:00	3.74	5.387	441.6	8.24	N/C	No Flow
A07G	9/26/2017	15:20	4.78	5.759	82.4	8.02	N/C	No Flow
A08	9/26/2017	17:15	5.05	6.863	220.4	7.87	N/C	0.9656
A09	9/26/2017	11:00	5.02	0.65	203	11.67	263.2	1.9454
A10	9/26/2017	12:05	5.75	4.41	422	10.53	228.3	4.8305
A11	9/26/2017	14:10	5.78	7.24	454	12.15	233.4	2.1722
A13	9/27/2017	09:25	5.53	1.657	460.8	9.15	N/C	1.6452
A14	9/26/2017	09:25	3.48	0.05	436	11.83	330.7	3.3447
A15	9/27/2017	10:10	5.32	2.849	584	8.81	N/C	0.519 J
A18A	9/27/2017	13:00	5.57	4.5	756.4	7.35	272.9	0.17
A18B	9/27/2017	12:05	5.02	4.9	838	7.73	329	0.5506
A19A	9/27/2017	13:45	3.48	2.4	344.2	7.01	543.2	0.005
A20	9/27/2017	10:45	5.96	3.966	262.1	8.54	N/C	0.9603
A21	9/27/2017	12:00	5.6	5.443	310	8.13	N/C	0.421
A22	9/27/2017	13:00	6.73	5.206	349.4	8.18	N/C	0.254
A23	9/27/2017	13:10	6.7	6.319	269.9	7.86	N/C	0.163
A23A	9/27/2017	13:30	5.58	2.396	260.3	7.45	N/C	No Flow
A28	9/27/2017	11:32	7.45	3.66	323	9.59	147	5.0564
A30	9/27/2017	10:31	6.92	2.4	328	10.02	175.4	6.3252
A30A	9/27/2017	09:21	6.14	1.74	325	10.38	256.7	6.0848
A30B	9/27/2017	08:21	5.11	1.78	316	10.18	320.2	5.7938
A32	9/27/2017	13:25	7.6	1.57	315	10.16	153.6	0.03 J*
A33	9/28/2017	10:35	6.33	1.8	310.9	9.28	290.3	7.6523
A34	9/28/2017	09:30	7.2	3.1	427.7	8.65	171.4	4.0764
A35	9/26/2017	09:45	7.34	0.8	378.4	9.65	220.3	6.8892
A36	9/26/2017	14:31	7.14	7.3	476.4	8.07	18.1	2.0897
A36A	9/26/2017	15:49	7.46	6.6	254.4	8.07	54.6	1.3820
A37	9/26/2017	13:37	7.5	7.4	320.6	7.95	112.6	1.0624
A38	9/27/2017	17:51	7	5.222	1091	6.45	N/C	No Flow
A39	9/27/2017	18:19	7.38	1.55	203.2	9.11	N/C	No Flow
A39A	9/27/2017	17:40	7.11	2.4	216.2	8.52	443.4	1.6593
A40	9/28/2017	10:56	6.81	6.06	340	9.2	275.6	4.9269
A40A	9/28/2017	08:25	6.79	1.3	348.5	9.25	291.2	6.9771
A41A	9/28/2017	10:23	6.61	4.32	334	9.55	298.8	6.8967
A45	9/28/2017	08:23	5.78	4.7	307	8.69	343.6	24.2442
A47	9/28/2017	08:40	7.32	5.5	319.6	9.23	516.7	No Flow
A48	9/28/2017	11:50	7.58	7.3	272.3	8.59	291.3	9.2588
A53AC	9/28/2017	09:20	7.17	5.5	312.2	9.14	424.2	24.0777
A55a	9/27/2017	16:39	7.58	6.7	302	8.74	129.6	28.5123
A56	9/26/2017	16:20	7.54	10.24	310	9.63	144.5	35.9338
A58	9/26/2017	17:09	7.51	6.47	227	10.74	150.5	2.7390
A60	9/26/2017	15:48	7.59	10.15	303	9.6	138.1	32.2276
A61	9/26/2017	14:50	7.53	9.83	302	9.87	138.1	39.6839
A64	9/26/2017	13:53	7.51	8.46	310	10.29	133	37.9166
A65	9/26/2017	12:41	6.59	7.65	314	10.51	127.8	37.1479
A66	9/26/2017	09:55	6.76	3.06	324	11.32	103.4	32.0845
A68	9/26/2017	09:20	6.33	2.84	325	12.87	131.7	49.5
A72	9/26/2017	08:35	5.18	2.34	513	11.36	191.5	109
AM1	9/28/2017	12:10	5.59	5.7	775.4	5.67	315.4	0.254 J**
ARD1	9/27/2017	16:41	3.13	3.8	888	5.57	515.3	No Flow
Bakers Bridge	9/28/2017	09:20	6.74	6.48	322	11.31	297.3	No Flow
BF1	9/27/2017	15:55	3.96	3.1	540.2	6.13	428.9	No Flow
BF3	9/27/2017	15:35	4.09	3.3	517.3	5.62	285.4	No Flow
BG1A	9/26/2017	15:35	5.15	6.929	80.4	7.68	N/C	No Flow
BG1B	9/26/2017	10:10	4.51	1.892	369.1	8.99	N/C	0.213 J
CG01	9/28/2017	10:30	3.5	6.7	1101	6.1	446.3	0.1606
CG02	9/28/2017	10:10	3.66	6.7	1078	5.95	424.6	0.014
CG11	9/26/2017	16:30	5.49	7.28	456	9.78	246.1	3.6495
CG3	9/27/2017	11:20	5.04	4.7	756.5	7.94	336.3	0.4320
CG4	9/27/2017	10:30	5.15	2.8	626.9	8.39	335	1.0092
CG6	9/27/2017	09:30	4.99	1.8	629.3	8.61	365.4	0.7283
CG9	9/26/2017	15:05	5.6	7.96	465	9.7	241.3	2.4775
CU4	9/27/2017	14:43	7.7	5.77	136	9.12	150.3	4.0567
CU4a	9/27/2017	15:47	7.79	5.76	161	9.13	149.3	4.6882
DM8A	9/26/2017	12:25	6.2	6.54	89.3	8.23	N/C	No Flow
EG1	9/27/2017	11:10	7.41	4.2	179.4	8.54	304.2	0.067
EG2	9/27/2017	09:10	6.8	2.2	144.5	7	382.1	0.004
EG2A	9/27/2017	09:29	5.62	2.6	222.9	5.99	374.5	0.014
EG3	9/27/2017	12:20	7.12	4.9	210.3	7.24	289	0.120
EG3A	9/27/2017	14:54	6.89	3.2	213.8	7.7	93.8	0.205
EG4	9/27/2017	12:50	6.86	6.3	195.8	6.5	149.4	0.021
EG5	9/27/2017	17:00	7.8	2.5	454	8.03	453.2	0.169
EG6	9/27/2017	18:10	7.11	2.4	217	10.27	451.9	0.8067
EG9	9/26/2017	11:59	7.35	4.2	424.6	8.72	32.6	3.0380
EGTrib2	9/27/2017	16:20	6.62	3	211.1	9	500	No Flow
HC02	9/28/2017	10:26	7.87	7.25	404	11.08	245.2	No Flow
LA3	9/28/2017	09:21	6.16	4.15	298	5.91	325.4	14.6112
Lightner Creek	9/28/2017	13:50	7.97	12.6	644	10.85	N/C	No Flow
LSS1	9/26/2017	12:00	5.63	6.242	77.9	3.7	N/C	No Flow
MC0	9/26/2017	18:15	7.16	2.2	135.4	8.83	N/C	0.095
Oxbow Park	9/28/2017	11:16	7.46	11.07	633	8.62	235.5	No Flow
Purple Cliffs	9/28/2017	14:30	8.65	13.57	632	12.01	145	No Flow
Rotary Park	9/28/2017	12:30	7.84	11.42	639	10.87	200.3	No Flow
Rotary Park dupe	9/28/2017	12:30	7.83	11.5	639	10.81	202.2	No Flow
T4	9/26/2017	11:24	6.83	5.02	315	11.19	141.8	38.4993

J Flow is estimated. The flume readings did not meet QC criteria

J* Flow is estimated. The flume size was not recorded and flume readings do not meet QC criteria. A 4-inch flume was estimated based on the downstream photo

J** Flume size not recorded. Based on memory it was determed that a 4-inch flume was used.

N/C Not Collected. ORP was only collected when using a meter that provided an ORP reading

Units: pH in Standard Units (s.u.); Temperature in degrees Celsius (˚C); Conductivity in microSiemens per centimeter (µS/cm); Dissolved Oxygen in milligrams per liter (mg/L); Oxidation/reduction potential (ORP) in millivolts (mV); Flow in cubic feet per second (cfs)

Table 55 Bonita Peak Mining District - Low Flow September 26-28, 2017
Cement Creek Water Quality and Flow Measurements

Location ID	Date	Time	pH (S.U.)	Temperature (°C)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Flow Measurement (cfs)
CC01C1	9/27/2017	10:45	3.08	3.7	869	9.08	563.7	No Flow
CC01F	9/27/2017	11:14	7.07	1.4	436.3	10.4	225.1	0.069
CC01S	9/27/2017	10:00	5.06	2.7	456.6	9.35	316.7	No Flow
CC01T	9/27/2017	09:39	5.58	4	370.1	8.61	N/C	0.3729
CC02C	9/27/2017	12:20	5.43	4.6	353.6	8.84	258.6	0.3140
CC02D	9/27/2017	11:45	3.8	5.2	1344	7.03	411.4	0.059
CC03	9/27/2017	15:54	5.73	4.9	1158	8.7	107.3	1.9504
CC03B	9/27/2017	14:18	5.31	5.4	559.6	8.23	226.2	1.2715
CC03C	9/27/2017	13:39	5.96	6.5	2156	7.54	110.8	0.4542
CC06	9/28/2017	12:10	3.5	7.2	2111	7.77	347.9	1.45
CC07	9/27/2017	15:28	3.28	2.7	1506	9.38	624.8	0.045
CC14	9/28/2017	08:40	6.3	5.4	1034	4.38	64.1	1.1501
CC15	9/28/2017	10:27	6.25	3.5	241.3	9.12	196.3	0.2762
CC15A	9/28/2017	09:55	6.68	4.6	784.5	8.54	95.6	1.3139
CC16B	9/28/2017	09:15	6.14	3.6	722.6	9.22	141.2	1.7478
CC17	9/27/2017	17:35	6.51	3.8	825.9	9.21	154.9	4.0858
CC18	9/28/2017	12:30	4.21	4.5	1212	8.91	353.4	2.5368
CC20H	9/27/2017	16:45	4.13	4.8	1206	9	316.2	1.8610
CC21	9/26/2017	17:36	5.75	7.4	1277	12.37	N/C	6.8050
CC26	9/26/2017	16:45	3.2	5.2	651.1	12.34	N/C	0.4672
CC27	9/26/2017	16:24	3.92	8.9	1103	11.49	N/C	9.7105
CC28C	9/26/2017	15:08	3.67	10	1159	10.6	N/C	11.2011
CC28D	9/26/2017	14:37	3.62	10.3	1166	10.34	N/C	10.6775
CC28E	9/26/2017	15:34	3.71	9.5	1150	10.81	N/C	11.6777
CC39	9/26/2017	11:21	3.41	5.8	1183	12.83	N/C	14.0237
CC39B	9/26/2017	13:51	3.33	10.3	1173	11.37	N/C	14.2811
CC39C	9/26/2017	11:58	3.4	7.4	1195	12.232	N/C	13.2281
CC39D	9/26/2017	10:44	3.4	4.2	1187	13.58	N/C	13.1996
CC41	9/26/2017	10:02	3.35	2.8	1160	14.42	N/C	15.4306
CC43E	9/26/2017	09:18	3.7	3.3	1109	14.06	N/C	14.9679
CC48	9/26/2017	08:30	3.37	2.5	1123	15.26	423.1	13.6

N/C Not Collected. ORP was only collected when using a meter that provided an ORP reading

Units: pH in Standard Units (s.u.); Temperature in degrees Celsius (˚C); Conductivity in microSiemens per centimeter (µS/cm); Dissolved Oxygen in milligrams per liter (mg/L); Oxidation/reduction potential (ORP) in millivolts (mV); Flow in cubic feet per second (cfs)

Table 56 Bonita Peak Mining District - Low Flow September 26-28, 2017
Mineral Creek Water Quality and Flow Measurements

Location ID	Date	Time	pH (S.U.)	Temperature (°C)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Flow Measurement (cfs)
M01	9/26/2017	17:49	6.88	4.41	118	8.6	N/C	0.1504
M02	9/27/2017	11:00	3.21	4.826	1540	8.4	N/C	0.035
M02B	9/27/2017	12:00	3.05	4.735	1061	5.9	N/C	0.002
M02E	9/27/2017	11:45	3.21	5.65	1840	7.43	N/C	0.041
M02K	9/27/2017	12:15	5.67	5.022	2558	6.3	N/C	0.018
M02L	9/27/2017	13:11	6.74	5.86	97.8	8.74	N/C	No Flow
M03	9/27/2017	09:35	6.41	1.37	141.1	9.6	N/C	0.029
M04	9/27/2017	10:00	5.66	1.79	455.1	9.36	N/C	0.1781
M05	9/27/2017	08:35	5.88	0.98	424.6	9.6	N/C	0.2702
M06A	9/26/2017	16:16	5.61	8.29	517.2	8.07	N/C	0.2754
M06B	9/26/2017	15:45	3.67	6.98	454.3	4.92	N/C	No Flow
M06C	9/26/2017	15:41	4.53	7.5	392.4	7.9	N/C	0.3923
M06D	9/26/2017	15:03	6.62	5.14	211.2	8.74	N/C	1.0344
M06E	9/26/2017	14:20	7.25	1.59	234.7	9.67	N/C	No Flow
M07	9/28/2017	14:58	6.84	5.18	238.3	8.888	N/C	2.4318
M10A	9/28/2017	14:24	6.75	6.33	264.4	8.66	N/C	2.6773
M10B	9/28/2017	14:35	5.44	4.2	433.2	8.48	N/C	0.029
M11	9/28/2017	14:30	7.06	7.6	396.6	8.57	157.8	7.3038
M12	9/28/2017	13:41	3.8	3.829	551	9.22	N/C	0.421
M13A	9/28/2017	12:58	6.89	7.88	412.4	8.34	N/C	7.7072
M13B	9/27/2017	17:40	6.87	5.08	404.1	8.79	N/C	8.8150
M13D	9/27/2017	16:45	6.65	5.4	406.8	8.84	N/C	8.8544
M14	9/27/2017	14:12	3.07	4.25	919	9.09	N/C	0.240
M14A	9/27/2017	16:13	6.87	5.61	408.5	8.89	N/C	8.9901
M16B	9/26/2017	16:05	5.89	5	851	4.63	98.1	No Flow
M14B	9/27/2017	14:54	6.05	6.34	421	8.7	N/C	9.2063
M16	9/26/2017	17:00	4.73	4.8	2139	0.21	5.96	No Flow
M16A	9/26/2017	16:45	4.88	4.7	1991	10.06	151.1	No Flow
M16C	9/26/2017	16:10	7.02	6.8	992	8.64	-24.4	0.033
M16D	9/26/2017	15:25	6.81	4.9	976	10.21	-37.9	No Flow
M16E	9/26/2017	14:14	6.73	6.3	712.2	9.9	31.2	2.1387
M16F	9/26/2017	13:48	6.28	7.7	280	9.52	117.9	0.6322
M16G	9/26/2017	15:00	6.29	6.3	693	9.92	107.1	1.0841
M16H	9/26/2017	13:21	6.03	6.3	969	9.86	151.6	2.3435
M17A	9/26/2017	11:40	6.04	4.7	852	10.31	91.1	4.4500
M18	9/26/2017	11:18	3.26	0.6	1260	11.39	413.2	1.3080
M19	9/26/2017	10:50	4.04	2.7	972	10.82	357.9	6.7587
M20	9/26/2017	09:37	4.16	1.9	932	11.18	320.5	5.4894
M22	9/26/2017	08:51	4.07	1.3	908.5	11.37	323.8	5.1355
M23	9/27/2017	12:00	5.48	3.49	267	11.48	155.8	5.4036
M24A	9/27/2017	09:20	6.23	8.61	552	10	88.8	No Flow
M24B	9/27/2017	08:40	5.83	8	574	8.26	178.4	0.054
M24C	9/27/2017	09:45	6.67	7.7	709	6.49	104.3	0.0016
M24D	9/27/2017	11:15	6.39	6.01	388	3.27	40.5	No Flow
M24E	9/27/2017	12:30	6	4.73	140	10.65	163.3	0.5798
M25	9/27/2017	10:30	5.53	2.53	258	10.95	179.7	6.0293
M26B	9/27/2017	14:00	6.29	3.61	230	11.14	199.9	10.8667
M26D	9/27/2017	15:00	6.6	5.82	290	5.9	55.5	15.9403
M27	9/27/2017	16:30	4.41	5.64	643	10.4	240.9	15.9207
M27A	9/28/2017	11:54	4.78	4.89	639	9.1	N/C	15.4754
M27A2	9/28/2017	10:46	4.65	3.94	638	9.33	N/C	14.5762
M28	9/27/2017	16:00	6.67	6.05	291	10.56	105.9	17.4086
M29	9/28/2017	08:00	5.59	3.52	436.2	9.38	N/C	34.6507
M29A	9/28/2017	09:46	5.71	4.11	447.1	9.45	N/C	33.5000
M30	9/28/2017	08:50	7.14	3.418	195.9	9.65	N/C	2.8405
M32	9/26/2017	11:33	6.26	5.87	432.5	8.93	N/C	36.1845
M32B	9/26/2017	12:41	6.57	7.3	339.5	8.47	N/C	0.3930
M33	9/26/2017	10:15	6.19	3.37	434.2	9.61	N/C	42.7934
M33A	9/26/2017	11:05	6.69	7.991	878	8.11	N/C	0.851
M34	9/26/2017	09:20	6.3	2.36	431	9.93	N/C	38.6
M38	9/26/2017	08:34	6.34	1.23	431.5	10.13	N/C	44.3475

N/C Not Collected. ORP was only collected when using a meter that provided an ORP reading

Units: pH in Standard Units (s.u.); Temperature in degrees Celsius (˚C); Conductivity in microSiemens per centimeter (µS/cm); Dissolved Oxygen in milligrams per liter (mg/L); Oxidation/reduction potential (ORP) in millivolts (mV); Flow in cubic feet per second (cfs)

Table 57 Bonita Peak Mining District - Low Flow September 26-28, 2017
Animas Sediment Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt
A05	Total Recoverable Metals	Sediment	9/26/2017	16:30	7770	651 J-	61300	1.20 J	11000	3400	3390	37000 J	19400	259000 J-	3590	2690	0.028 J	4920	679	1000 U	5640	2020	500 U	13.2	602 J	1080
A07	Total Recoverable Metals	Sediment	9/26/2017	17:30	37900	1500 J-	51400	4.27 J	7120	852	4210	224000 J	37000	454000 J-	1960	9980	0.024 J	4820	475 J-	1970 U	8910	2130	985 U	4.66 J-	1750 J	643
A07A	Total Recoverable Metals	Sediment	9/26/2017	9:15	42600	1480 J-	29900	4.92 J	17400	540	5480	341000 J	44400	244000	1420	1930	0.064 J	6010	601 J-	1990 U	8630	6370	997 U	4.38 J-	2070	2020
A07B	Total Recoverable Metals	Sediment	9/26/2017	10:40	39900	2300 J-	54300	4.45 J	7650	585	4290	233000 J	66600	641000 J-	1270	13200	0.023 J	4870	376 J-	2000 U	9550	2290	999 U	5.42 J-	1190 J	829
A07C1	Total Recoverable Metals	Sediment	9/26/2017	13:20	12600	2030 J-	46500	5.05 U	3150	473	5660	99400 J	31000	550000 J-	2120	794	0.121 J	4400	1120	2020 U	7120	9780	1010 U	5.60 J	2020 U	568
A07D	Total Recoverable Metals	Sediment	9/26/2017	13:00	11000	1410 J-	56300	5.01 U	1930	443	6070	107000 J	27600	497000 J-	2050	3770	0.281 J	3980	926 J	2000 U	6250	16400	1000 U	7.53 J	2000 U	326
A07D Dup-08	Total Recoverable Metals	Sediment	9/26/2017	13:00	10800	1460 J-	47000 J	0.634 J	1640	405	6170	112000 J-	22900	453000	1840	2740	0.088 J+	3750	910	635 J	5500	16200	500 U	7.20	715 J	289
A07D1	Total Recoverable Metals	Sediment	9/26/2017	13:50	13400	2340 J-	51300	1.07 J	6200	373	6130	111000 J	45300	656000 J-	2070	11900	0.247 J	4980	971 J	1020 J	7170	8580	997 U	7.11 J	2010	731
A07E	Total Recoverable Metals	Sediment	9/26/2017	14:35	7770	931 J-	72900	4.93 U	1230	379	4770	72000 J	34900	556000 J-	1850	3890	0.038 J	2530	928 J	1970 U	5330	5310	985 U	8.12 J	1970 U	269
A07E1	Total Recoverable Metals	Sediment	9/26/2017	13:40	6780	7770 J-	111000	4.96 U	2890	423	3940	90500 J	23700	1680000 J-	1200	1730	0.607 J	2230	978 J	1390 J	4500	34500	993 U	7.39 J	1090 J	565
A07F	Total Recoverable Metals	Sediment	9/26/2017	15:00	7090	1560 J-	79000	4.95 U	968	444	5010	64400 J	35300	605000 J-	2050	1510	0.263 J	2830	1110	1980 U	5500	10400	990 U	10.9	1980 U	281
A07G	Total Recoverable Metals	Sediment	9/26/2017	15:20	17400	1420 J-	88700	1.24 J	3160	655	4670	199000 J	29000	1240000 J-	2190	8210	0.101 J	4750	934 J	1140 J	7290	7720	1000 U	9.39 J	1230 J	457
A08	Total Recoverable Metals	Sediment	9/26/2017	17:15	34100	356 J-	26400	4.05	1470	1320	2390	56600 J	11200	115000 J-	2580	1240	0.029 J	2180	580 J-	992 U	5050	1690	496 U	4.27 J-	992 U	288
A09	Total Recoverable Metals	Sediment	9/26/2017	11:00	19500	628 J-	36900	3.24	5360	2000	2710	106000 J	15700	479000 J-	3120	3260	0.029 J	3320	492 J-	985 U	5710	2110	492 U	7.03 J-	985 U	820
A09A	Total Recoverable Metals	Sediment	9/26/2017	18:35	17400	414 J-	27800	3.04	4100	1590	2630	84100 J	14700	319000 J-	3610	2490	0.024 J	2940	470 J-	1010 U	4980	957	504 U	5.27 J-	1010 U	729
A10	Total Recoverable Metals	Sediment	9/26/2017	12:05	19100	2340 J-	37400	11.5	10400	1130	4120	387000 J	25700	2320000 J-	3490	10400	0.191 J	4470	391 J-	987 U	6260	6190	493 U	23.1 J-	521 J	2770
A11	Total Recoverable Metals	Sediment	9/26/2017	14:10	12400	4440 J-	39900	5.81	14300	952	2890	402000 J	24400	3350000 J-	2520	14200	0.205 J	4210	324 J	618 J	4880	8580	492 U	33.1	625 J	4100
A13	Total Recoverable Metals	Sediment	9/27/2017	9:25	32400	1280 J-	30000	23.1	6040	1300	4320	255000 J	29700	909000 J-	4730	8160	0.099 J	5640	412 J-	990 U	8690	3980	495 U	13.8 J-	990 U	1790
A14	Total Recoverable Metals	Sediment	9/26/2017	9:25	18800	2950 J-	41400	9.93	12200	1270	3120	352000 J	22200	1880000 J-	3100	7390	0.135 J	3850	393 J-	612 J	6050	6090	493 U	23.1 J-	986 U	3540
A15	Total Recoverable Metals	Sediment	9/27/2017	10:10	33000	480 J-	27400	22.7	2190	1340	3860	143000 J	30700	286000 J-	5040	4870	0.031 J	5420	426 J-	985 U	9210	2160	493 U	14.0 J-	985 U	834
A18A	Total Recoverable Metals	Sediment	9/27/2017	13:00	22700	999 UJ	19100	17.7	1380	1960	4230 J-	192000 J-	33100	128000	7140	2460	0.040 J	9010 J-	481 J-	2000 U	7760	1140	500 U	19.1 J-	2000 U	655
A18B	Total Recoverable Metals	Sediment	9/27/2017	12:05	17600	1000 UJ	21800	8.07	936	1660	4150 J-	146000 J-	34800	143000	6510	2290	0.030	7650 J-	505 J-	2000 U	7210	1250	500 U	20.3 J-	1050 J	468
A20	Total Recoverable Metals	Sediment	9/27/2017	10:45	11600	13800 J-	40900	3.23	67200	936	3080 J-	1700000 J-	22900	6940000 J-	1160	15500	0.975 J	5120 J-	313 J	2070	4920	24700	499 U	50.8	1860 J	21500
A21	Total Recoverable Metals	Sediment	9/27/2017	12:00	8330	11700 J-	43800	1.99 J	59600	608	3230 J-	1400000 J-	22700	6870000 J-	1170	13700	1.061 J	4630 J-	291 J	1760 J	3920	25600	497 U	57.9	1990 U	19200
A22	Total Recoverable Metals	Sediment	9/27/2017	13:00	10500	18500 J-	31300	4.86	71600	1020	2120 J-	1560000 J-	15600	8620000 J-	915	15700	1.735 J	5380 J-	232 J	2010	4700	25100	500 U	73.5	2000 U	23300
A28	Total Recoverable Metals	Sediment	9/27/2017	11:32	25600	1550 J-	66500	20.8	13000	2650	3970 J-	316000 J-	24700	945000 J-	4640	12400	0.043 J	10000 J-	521 J-	945 J	8640	4310	499 U	20.9 J-	998 U	4140
A30	Total Recoverable Metals	Sediment	9/27/2017	10:21	16100	1800 J-	74400	9.35	12700	2780	4490 J-	603000 J-	27700	1110000 J-	4970	10800	0.044 J	10300 J-	495 J-	1990 U	6310	5440	498 U	19.8 J-	1990 U	3300
A30A	Total Recoverable Metals	Sediment	9/27/2017	9:21	25400	2300 J-	67300	21.1	12900	2630	3430 J-	777000 J-	24800	813000 J-	4190	11500	0.034 J	9800 J-	539 J-	784 J	8970	3490	497 U	22.7 J-	994 U	4580
A30B	Total Recoverable Metals	Sediment	9/27/2017	8:21	18000	2830 J-	67400	12.9	14900	2780	3540 J-	537000 J-	25400	1060000 J-	4300	12700	0.053 J	11100 J-	532 J-	642 J	7320	4530	501 U	23.2 J-	1000 U	4730
A32	Total Recoverable Metals	Sediment	9/27/2017	13:25	6340	261 J-	16400	0.624 J	1630	3430	2120 J-	74000 J-	17400	850000 J-	4490	1720	0.020 UJ	2690 J-	360 J	1000 U	4870	952	501 U	16.2	1000 U	334
A33	Total Recoverable Metals	Sediment	9/28/2017	10:35	15000	3110 J-	72800	8.25	15800	2800	3420 J-	431000 J-	25600	1050000 J-	4630	13600	0.042 J	10600 J-	551 J-	563 J	6250	5200	499 U	23.5 J-	998 U	4280
A34	Total Recoverable Metals	Sediment	9/28/2017	9:30	8120	986 J-	38200	1.18 J	7300	2420	5320 J-	221000 J-	46200	767000 J-	3750	2490	0.183 J	7850 J-	891	1580 J	6120	2750	498 U	67.9	1990 U	2140
A35	Total Recoverable Metals	Sediment	9/26/2017	9:45	8420	1220 J-	46400	2.62	6950	2030	4610 J-	202000 J-	41300	730000 J-	4060	5410	0.057 J	6740 J-	925	1380 J	5280	2710	500 U	52.3	2000 U	1670
A36	Total Recoverable Metals	Sediment	9/26/2017	14:31	6920	952 J-	40900	0.540 J	717	1410	4940 J-	88100 J-	49900	259000 J-	3670	861	0.020 UJ	4800 J-	991	2080	5190	1540	499 U	59.7	1990 U	235
A36A	Total Recoverable Metals	Sediment	9/26/2017	15:49	10700	998 UJ	15400	1.07 J	3200	3380	5360 J-	60100 J-	34100	224000 J-	6820	1760	0.013 J	9740 J-	453 J	2000 U	6320	818 J	499 U	48.5	2000 U	523
A37	Total Recoverable Metals	Sediment	9/26/2017	13:37	10900	996 UJ	27100	1.38 J	15100	3240	4930 J-	333000 J-	33000	732000 J-	5130	7400	0.026 J	11300 J-	553	1990 U	6260	4070	498 U	55.9	1990 U	4420
A38	Total Recoverable Metals	Sediment	9/27/2017	17:51	3200	1080 J-	9170	4.05	25500	18700	1490 J-	119000 J-	50200	529000 J-	2010	66600	0.117 J	30800 J-	850	1020 J	15700	1850	499 U	684	1850 J	15800
A39	Total Recoverable Metals	Sediment	9/27/2017	18:19	11700	1260 J-	26500	2.22 J	15100	2820	5040 J-	689000 J-	44500	1850000 J-	5020	4750	0.091 J	10300 J-	509	1320 J	6380	10300	498 U	34.0	1990 U	5390
A39A	Total Recoverable Metals	Sediment	9/27/2017	17:40	12000	1010 J-	24600	1.97 J	19100	2590	5750	677000	41300	1670000	5170	7970	0.079 J	12400	428 J	1020 J	6750	10300	499 U	33.6	2000 U	5650
A40	Total Recoverable Metals	Sediment	9/28/2017	10:56	26100	2320 J-	57200	15.4	51200	3270	4130	1420000 J	33100	1210000 J-	3830	26100	0.143 J	22000	769 J-	1740 J	10900	6630	500 U	66.8	1220 J	9650
A40A	Total Recoverable Metals	Sediment	9/28/2017	8:25	9940	1410 J-	45300	4.45	13600	2340	4490	327000 J	38000	966000 J-	3940	8470	0.055 J	9840	896	1330 J	5860	4190	499 U	70.8	2000 U	3230
A40A Dup-14	Total Recoverable Metals	Sediment	9/28/2017	8:25	9500	1890 J-	44300 J	4.30	10900	2210	4610	291000 J	41100	970000	4030	8270	0.043 J+	8250	880	1170	4910	3710	499 U	58.3	998 U	2910
A41A	Total Recoverable Metals	Sediment	9/28/2017	10:23	17900	2320 J-	48900	11.5	21000	2920	4050	682000 J	32000	1460000 J-	3770	13300	0.065	13900	796 J-	1360 J	8310	6890	499 U	57.3	2000 U	5790
A45	Total Recoverable Metals	Sediment	9/28/2017	8:23	7540	1850 J-	28700	2.04 J	10500	2870	3710	325000 J	23900	1920000 J-	3760	8920	0.183 J	5820	452 J	2000 U	4680	7300	500 U	33.2	2000 U	2120
A48	Total Recoverable Metals	Sediment	9/28/2017	11:50	6580	1000 UJ	7480	2.50 U	2870	3040	3590	64500 J	17600	306000 J-	4180	824	0.024 J	3400	530	2000 U	5270	1180	500 U	30.7	2000 U	446
A53AC	Total Recoverable Metals	Sediment	9/28/2017	9:20	7920	1880 J-	31500	2.35 J	9330	2580	3360	281000 J	21600	1660000 J-	4040	8220	0.047 J	5860	402 J	2000 U	5110	5550	500 U	41.4	2000 U	1980
A55a	Total Recoverable Metals	Sediment	9/27/2017	16:39	7360	1410 J-	20100	1.73 J	9010	2770	3360	259000 J	21400	1520000 J-	3820	7710	0.041 J	6060	403 J	2000 U	4930	4350 J	499 U	30.1	2000 U	1820
A55A Dup-13	Total Recoverable Metals	Sediment	9/27/2017	16:39	7850	1580 J-	23800 J	2.06 J	7810	3280	3620	240000 J-	24400	1420000	4020	6910	0.035 J+	5870	462 J	504 J	3930	6350 J	494 U	31.5	988 U	2030
A56	Total Recoverable Metals	Sediment	9/26/2017	16:20	12100	1030 J-	25900	5.85	9840	3960	5110	273000 J	29200	944000 J-	4600	5100	0.090 J	8910	692	1120 J	7840	4510	500 U	55.8	2000 U	3460
A58	Total Recoverable Metals	Sediment	9/26/2017	17:09	4870	2340 J-	8470	2.50 U	6760	2910	3710	658000 J	14400	2710000 J-	2540	4300	0.050 J	3190	398 J	2000 U	5070	9500	501 U	32.7	2000 U	1100
A60	Total Recoverable Metals	Sediment	9/26/2017	15:48	8240	1610 J-	19800 J	2.28 J	9670	3210	3230	245000 J	23900	1550000	4480	9230	0.021	6010 J	460 J	578 J	5260	5040	500 U	32.6	1000 U	2730
A61	Total Recoverable Metals	Sediment	9/26/2017	14:50	12400	1530 J-	23700 J	2.55	5840	2420	4060 J	432000 J	26200	1460000	4280	8680	0.031	6210	435 J	5020 UR	6000	4770	502 U	20.4	5400	1770
A61 Dup-12	Total Recoverable Metals	Sediment	9/26/2017	14:50	13700	1560 J-	22000 J	3.22	5060	2360	3630	420000 J-	24800	1400000	3950	7110	0.039 J+	5590	452 J	540 J	5850	5700	494 U	24.5	988 U	1890
A64	Total Recoverable Metals	Sediment	9/26/2017	13:53	10300	42500 J-	87800 J	4.92	22800	4430	37300	417000 J	30100	1490000	4340	10200	0.034	46700	549	174000	6920	10200	496 U	47.5	171000	4290
A65	Total Recoverable Metals	Sediment	9/26/2017	12:41	12300	1080 J-	21800 J	5.57	5900	3470	3880	375000 J	27700	1050000	4580	7170	0.048	7420	665	1160	7480	4070	495 U	43.2	990 U	3470
A66	Total Recoverable Metals	Sediment	9/26/2017	9:55	8660	1300 J-	22100 J	2.36 J	9410	3140	3460	246000 J	26700	1410000	4650	8930	0.032	6420	463 J	699 J	5750	4910	496 U	35.4	991 U	2730
A68	Total Recoverable Metals	Sediment	9/26/2017	9:20	10400	923 J-	16200 J	3.95	13600	3890	3700	230000 J	28700	720000	4240	13800	0.032	8650	583	1020	7630	3070	494 U	54.9	989 U	4880
A72	Total Recoverable Metals	Sediment	9/26/2017	8:35	10300	2490 UJ	27400 J	1.09 J	2440	1810	4000 J	131000 J	59400	448000	3520	3290	0.029	5260	422 J	4970 U	6910	1260 J	497 U	39.7	4970 U	693
AM1	Total Recoverable Metals	Sediment	9/28/2017	12:10	6050	493 UJ	4430 J	2.46 U	2350	2960	1710	165000 J	13100	327000	4280	674	0.020 U	2040	305 J	986 U	4550	1010	493 U	15.0	986 U	853
ARD1	Total Recoverable Metals	Sediment	9/27/2017	16:41	6900	2490 UJ	28400 J	2.49 U	2710	808	5490	202000 J	55100	1340000	4220	5050	0.022	3910	378 J	4980 U	4860	6200	498 U	6.19	4980 U	963
BF1	Total Recoverable Metals	Sediment	9/27/2017	15:55	9680	1640 J-	37200 J	5.02 U	4370	2190	6430	676000 J	87400	4460000	3560	3700	0.222	4620	825 J	1010 J	7910	42800	1000 U	25.6	2010 U	1770
BF3	Total Recoverable Metals	Sediment	9/27/2017	15:35	5960	15300 J-	49800 J	5.05 U	31800	2080	3190	1440000 J	55600	11900000	2670	2420	0.885	5230	562 J	3100	6000	40100	1010 U	60.0	2020 U	14000
BG1A	Total Recoverable Metals	Sediment	9/26/2017	15:35	42300	758 J-	51600 J	4.60 J	4780	772	6290	294000 J	18400	1250000	2190	7370	0.084	6740	811 J-	1100 J	9240	9130	999 U	7.34 J	2000 U	900
BG1B	Total Recoverable Metals	Sediment	9/26/2017	10:10	42400	3190 J-	68000 J	5.49	18600	413	6030 J	559000 J	83600	1340000	1120	36700	0.035	8210	466 J-	10100 U	8670	4170 J	1010 U	3.03 J-	10100 U	1130
CG11	Total Recoverable Metals	Sediment	9/26/2017	16:30	8530	678 J-	41400 J	1.79 J	2580	1570	3410	85600 J	20500	566000	3970	4220	0.070	3790	545	988 U	5010	1740	494 U	9.47	988 U	531
CG11 Dup-10	Total Recoverable Metals	Sediment	9/26/2017	16:30	7950	499 J-	41600 J	1.17 J	1990	1490	3340	57300 J-	18700	372000	3980	3110	0.029 J+	3590	524	996 U	4180	1360	498 U	8.89	996 U	350
CG3	Total Recoverable Metals	Sediment	9/27/2017	11:20	17700	303 J-	21000 J	5.86	955	2090	3970	131000 J	39400	149000	7070	2160	0.033	6890	580 J-	992 U	7560	1140	496 U	25.2	992 U	531
CG4	Total Recoverable Metals	Sediment	9/27/2017	10:30	28200	334 J-	21300 J	15.1	1070	1630	4680	133000 J	38100	131000	6680	2690	0.030	6380	480 J-	1010 U	8410	1210	504 U	16.0	1010 U	572
CG4 Dup-11	Total Recoverable Metals	Sediment	9/27/2017	10:30	26300	455 J-	23900 J	14.0	966	1500	4230	131000 J-	35800	132000	5910	2540	0.036 J+	6160	458 J	995 U	7490	1140	497 U	16.2	995 U	528
CG6	Total Recoverable Metals	Sediment	9/27/2017	9:30	22300	348 J-	16400 J	9.69	1490	1550	4150	111000 J	36600	111000	7030	4240	0.090	6350	373 J-	999 U	7630	825	499 U	11.1	999 U	591
CG9	Total Recoverable Metals	Sediment	9/26/2017	15:05	24700	3740 J-	35700 J	16.4	17200	1240	3860	552000 J	33700	2840000	3610	10500	0.508	5350	521 J-	881 J	7540	9870	498 U	36.1	503 J	6210
CU4	Total Recoverable Metals	Sediment	9/27/2017	14:43	7760	2460 UJ	7610 J	0.520 J	1320	5590	4930	25400 J	24000	257000	4150	871	0.014 J	3460	577	4920 U	5420	2900	492 U	33.6	4920 U	198
CU4a	Total Recoverable Metals	Sediment	9/27/2017	15:47	8610	372 J-	9170 J	0.675 J	3940	6450	3000	50600 J	18500	619000	5650	1370	0.025	3810	623	988 U	5700	1850	494 U	41.4	988 U	841
EG1	Total Recoverable Metals	Sediment	9/27/2017	11:10	12400	504 UJ	6080 J	2.52 U	715	3800	4910	22300 J-	30600	60400 J-	7790	731	0.012 J+	6800	393 J	1010 U	7200	316 J	504 U	36.6	1010 UJ	248
EG1 Dup-17	Total Recoverable Metals	Sediment	9/27/2017	11:10	11800	498 UJ	6010 J	2.49 U	714	3950	5020	21300 J-	30000	61000	7390	717	0.012 J+	6500	401 J	995 U	6990	355 J	498 U	38.2	857 J	237
EG2	Total Recoverable Metals	Sediment	9/27/2017	9:10	15800	502 UJ	7600 J	1.56 J	15900	4060	6160	220000 J-	18700	167000 J-	7020	9480	0.020 J+	11800	507 J-	764 J	6790	596	502 U	41.3	1000 UJ	2710
EG2A	Total Recoverable Metals	Sediment	9/27/2017	9:29	13800	2840 J-	37600 J	1.69 J	16900	2330	6020	650000 J-	42300	3250000 J-	5260	17100	2.923 J+	9580	631	5000 U	6350	20900	500 U	23.8	5000 UJ	2220
EG3	Total Recoverable Metals	Sediment	9/27/2017	12:20	16800	432 J-	19100 J	2.28 J	19800	3810	5080	356000 J-	42900	313000 J-	8690	10900	0.017 J+	18100	471 J-	984 J	6510	1420	500 U	40.5	1000 UJ	3340
EG3A	Total Recoverable Metals	Sediment	9/27/2017	14:54	13200	1200 J-	14200 J	0.964 J	3850	3160	4430	207000 J-	38000	1420000 J-	7610	1760	0.270 J+	7390	418 J	515 J	5460	12400	494 U	23.6	989 UJ	1820
EG4	Total Recoverable Metals	Sediment	9/27/2017	17:50	29100	2520 UJ	28300 J	5.67 J	201000	3640	4710 J	2710000 J-	41900	829000 J-	5020	112000	0.091 J+	80100	655 J	5040 U	9110	2760	2520 U	53.3	5040 UJ	20500
EG5	Total Recoverable Metals	Sediment	9/27/2017	17:00	15500	1120 J-	20200 J	2.67	10300	3530	4990	490000 J-	45200	1160000 J-	7940	4270	0.071 J+	12300	422 J-	1160	6920	15100	500 U	28.5 J-	1000 UJ	5110

Table 57 Bonita Peak Mining District - Low Flow September 26-28, 2017
Animas Sediment Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt
EG6	Total Recoverable Metals	Sediment	9/27/2017	18:10	14100	1710 J-	35500 J	2.10 J	19200	3490	5650	638000 J-	45800	1730000 J-	6650	11100	0.064 J+	13800	542	5010 U	6160	10000	501 U	47.3	5010 UJ	4940
EG9	Total Recoverable Metals	Sediment	9/26/2017	11:59	6260	1510 J-	57400 J	2.49 U	677	1800	6190	78600 J-	53700	299000 J-	3930	786	0.020 U	4500	1280	4980 U	4360	1820 J	498 U	81.5	4980 UJ	242
EG-Trib2	Total Recoverable Metals	Sediment	9/27/2017	16:20	11800	359 J-	13100 J	0.669 J	1320	6030	8140	56200 J-	33900	101000 J-	7510	1900	0.021 U	9230	824	1150	6480	342 J	502 U	105	1000 UJ	315
LA3	Total Recoverable Metals	Sediment	9/28/2017	9:21	10900	2280 J-	35600 J	4.03	14400	3220	4490	385000 J-	33400	1580000 J-	4640	11600	0.072 J+	10000	626	678 J	4980	6840	492 U	41.7	984 UJ	3490
LSS1	Total Recoverable Metals	Sediment	9/26/2017	12:00	9260	870 J-	32700 J	0.804 J	2930	4150	6030	73800 J-	17700	607000 J-	2450	216	0.094 J+	4210	1400	718 J	6620	2990	502 U	24.1	1000 UJ	418
MC0	Total Recoverable Metals	Sediment	9/26/2017	18:15	12200	261 J-	14600 J	1.15 J	4070	3470	4170	142000 J	34900	79500	5600	4490	0.014 J-	16100	615	970 J	6430	550 J-	501 U	47.6	1000 U	911
MC0 Dup-16	Total Recoverable Metals	Sediment	9/26/2017	18:15	12000	289 J-	16000 J	1.10 J	3870	3170	4470	128000 J	34200	66400	6130	3840	0.020 U	17000	572	994 J	6160	578	503 U	41.6	879 J	830
T4	Total Recoverable Metals	Sediment	9/26/2017	11:24	9090	1200 J-	18400 J	4.11	11300	3660	3670	304000 J	24200	1120000	3660	8000	0.028 J-	7610	448 J	961 J	6510	4140 J-	498 U	43.0	996 U	3600

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt
A07D	Total Recoverable Metals	Sediment	9/26/2017	13:00	11000	1410	56300	5.01 U	1930	443	6070	107000	27600	497000	2050	3770	0.281	3980	926	2000 U	6250	16400	1000 U	7.53	2000 U	326
A07D Dup-08	Total Recoverable Metals	Sediment	9/26/2017	13:00	10800	1460	47000	0.634 J	1640	405	6170	112000	22900	453000	1840	2740	0.088	3750	910	635 J	5500	16200	500 U	7.20	715 J	289
				RPD	**1.83%**	**3.48%**	**18.01%**	N/A	**16.25%**	**8.96%**	**1.63%**	**4.57%**	**18.61%**	**9.26%**	**10.80%**	**31.64%**	**104.61%**	**5.95%**	**1.74%**	N/A	**12.77%**	**1.23%**	N/A	**4.48%**	N/A	**12.03%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt
A40A	Total Recoverable Metals	Sediment	9/28/2017	8:25	9940	1410	45300	4.45	13600	2340	4490	327000	38000	966000	3940	8470	0.055	9840	896	1330	5860	4190	499 U	70.8	2000 U	3230
A40A Dup-14	Total Recoverable Metals	Sediment	9/28/2017	8:25	9500	1890	44300	4.30	10900	2210	4610	291000	41100	970000	4030	8270	0.043	8250	880	1170	4910	3710	499 U	58.3	998 U	2910
				RPD	**4.53%**	**29.09%**	**2.23%**	**3.43%**	**22.04%**	**5.71%**	**2.64%**	**11.65%**	**7.84%**	**0.41%**	**2.26%**	**2.39%**	**24.49%**	**17.58%**	**1.80%**	**12.80%**	**17.64%**	**12.15%**	N/A	**19.36%**	N/A	**10.42%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt
A55a	Total Recoverable Metals	Sediment	9/27/2017	16:39	7360	1410	20100	1.73	9010	2770	3360	259000	21400	1520000	3820	7710	0.041	6060	403	2000 U	4930	4350	499 U	30.1	2000 U	1820
A55a Dup-13	Total Recoverable Metals	Sediment	9/27/2017	16:39	7850	1580	23800	2.06	7810	3280	3620	240000	24400	1420000	4020	6910	0.035	5870	462	504 J	3930	6350	494 U	31.5	988 U	2030
				RPD	**6.44%**	**11.37%**	**16.86%**	**17.41%**	**14.27%**	**16.86%**	**7.45%**	**7.62%**	**13.10%**	**6.80%**	**5.10%**	**10.94%**	**15.79%**	**3.19%**	**13.64%**	N/A	**22.57%**	**37.38%**	N/A	**4.55%**	N/A	**10.91%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt
A61	Total Recoverable Metals	Sediment	9/26/2017	14:50	12400	1530	23700	2.55	5840	2420	4060	432000	26200	1460000	4280	8680	0.031	6210	435	5020 UR	6000	4770	502 U	20.4	5400	1770
A61 Dup-12	Total Recoverable Metals	Sediment	9/26/2017	14:50	13700	1560	22000	3.22	5060	2360	3630	420000	24800	1400000	3950	7110	0.039	5590	452	540 J	5850	5700	494 U	24.5	988 U	1890
				RPD	**9.96%**	**1.94%**	**7.44%**	**23.22%**	**14.31%**	**2.51%**	**11.18%**	**2.82%**	**5.49%**	**4.20%**	**8.02%**	**19.89%**	**22.86%**	**10.51%**	**3.83%**	N/A	**2.53%**	**17.77%**	N/A	**18.26%**	N/A	**6.56%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt
CG11	Total Recoverable Metals	Sediment	9/26/2017	16:30	8530	678	41400	1.79	2580	1570	3410	85600	20500	566000	3970	4220	0.070	3790	545	988 U	5010	1740	494 U	9.47	988 U	531
CG11 Dup-10	Total Recoverable Metals	Sediment	9/26/2017	16:30	7950	499	41600	1.17	1990	1490	3340	57300	18700	372000	3980	3110	0.029	3590	524	996 U	4180	1360	498 U	8.89	996 U	350
				RPD	**7.04%**	**30.42%**	**0.48%**	**41.89%**	**25.82%**	**5.23%**	**2.07%**	**39.61%**	**9.18%**	**41.36%**	**0.25%**	**30.29%**	**82.83%**	**5.42%**	**3.93%**	N/A	**18.06%**	**24.52%**	N/A	**6.32%**	N/A	**41.09%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt
CG4	Total Recoverable Metals	Sediment	9/27/2017	10:30	28200	334	21300	15.1	1070	1630	4680	133000	38100	131000	6680	2690	0.030	6380	480	1010 U	8410	1210	504 U	16.0	1010 U	572
CG4 Dup-11	Total Recoverable Metals	Sediment	9/27/2017	10:30	26300	455	23900	14.0	966	1500	4230	131000	35800	132000	5910	2540	0.036	6160	458	995 U	7490	1140	497 U	16.2	995 U	528
				RPD	**6.97%**	**30.67%**	**11.50%**	**7.56%**	**10.22%**	**8.31%**	**10.10%**	**1.52%**	**6.22%**	**0.76%**	**12.23%**	**5.74%**	**18.18%**	**3.51%**	**4.69%**	N/A	**11.57%**	**5.96%**	N/A	**1.24%**	N/A	**8.00%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt
EG1	Total Recoverable Metals	Sediment	9/27/2017	11:10	12400	504 UJ	6080	2.52 U	715	3800	4910	22300	30600	60400	7790	731	0.012	6800	393	1010 U	7200	316	504 U	36.6	1010 UJ	248
EG1 Dup-17	Total Recoverable Metals	Sediment	9/27/2017	11:10	11800	498 UJ	6010	2.49 U	714	3950	5020	21300	30000	61000	7390	717	0.012	6500	401	995 U	6990	355	498 U	38.2	857 J	237
				RPD	**4.96%**	N/A	**1.16%**	N/A	**0.14%**	**3.87%**	**2.22%**	**4.59%**	**1.98%**	**0.99%**	**5.27%**	**1.93%**	**0.00%**	**4.51%**	**2.02%**	N/A	**2.96%**	**11.62%**	N/A	**4.28%**	N/A	**4.54%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt
MC0	Total Recoverable Metals	Sediment	9/26/2017	18:15	12200	261	14600	1.15	4070	3470	4170	142000	34900	79500	5600	4490	0.014 J-	16100	615	970	6430	550	501 U	47.6	1000 U	911
MC0 Dup-16	Total Recoverable Metals	Sediment	9/26/2017	18:15	12000	289	16000	1.1	3870	3170	4470	128000	34200	66400	6130	3840	0.020 U	17000	572	994	6160	578	503 U	41.6	879 J	830
				RPD	**1.65%**	**10.18%**	**9.15%**	**4.44%**	**5.04%**	**9.04%**	**6.94%**	**10.37%**	**2.03%**	**17.96%**	**9.04%**	**15.61%**	N/A	**5.44%**	**7.25%**	**2.44%**	**4.29%**	**4.96%**	N/A	**13.45%**	N/A	**9.30%**

Note: Removed flags from values for RPD calculation

Note: Data Qualifier Definitions Listed Below:

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

R= The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be confirmed.

Table 58 Bonita Peak Mining District - Low Flow September 26-28, 2017
Cement Creek Sediment Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt
CC15A	Total Recoverable Metals	Sediment	9/28/2017	9:45	5760	2510 UJ	37700 J	1.82 J	725	1910	2680 J	90800 J	127000	199000	2790	431	0.026	5250	631 J-	5020 U	15600	2510 U	502 U	93.2	5020 U	218
CC16B	Total Recoverable Metals	Sediment	9/28/2017	9:15	6670	2510 UJ	42600 J	2.06 J	629	1870	2840 J	107000 J	165000	201000	3100	564	0.068	5490	595 J-	5020 U	21400	2510 U	502 U	103	5020 U	232
CC28C	Total Recoverable Metals	Sediment	9/26/2017	15:00	5340	2460 UJ	51100 J	2.46 U	2430	1030	3860 J	77200 J	165000	411000	2540	795	0.041	2350 J	499 J-	4920 U	5160	1920 J	492 U	33.8	4920 U	728
CC28D	Total Recoverable Metals	Sediment	9/26/2017	14:20	5210	2500 UJ	36600 J	2.50 U	2140	1060	3790 J	65900 J	144000	509000	2480	536	0.068 J	2330 J	602 J-	5000 U	4970	2010 J	500 U	37.2	5000 U	645
CC28D Dup-09	Total Recoverable Metals	Sediment	9/26/2017	14:20	4570	1290 J-	35000 J	2.52 U	1520	1110	3070 J	61100 J-	142000	404000 J-	1930	485	0.046 J+	1530 J	481 J-	5030 U	4280	2230 J	503 U	28.3 J-	5030 UJ	453
CC28E	Total Recoverable Metals	Sediment	9/26/2017	15:30	5230	2500 UJ	62200 J	2.50 U	3170	1020	3470 J	80400 J	209000	398000	2000	330	0.205	2240 J	443 J-	5010 U	4640	2030 J	501 U	23.3	5010 U	927
CC39	Total Recoverable Metals	Sediment	9/26/2017	11:15	5040	2500 UJ	47700 J	2.50 U	518	1020	5010 U	53600 J	183000	197000	2260	508	0.045	2590	405 J-	5010 U	5030	2500 U	501 U	25.4	5010 U	184
CC39B	Total Recoverable Metals	Sediment	9/26/2017	13:30	4060	4970 UJ	75600 J	2.49 U	1300	881	9940 U	108000 J	295000	271000	1450	196	0.025	4970 U	472 J-	9940 U	4890	4970 U	497 U	22.1	9940 U	399
CC39C	Total Recoverable Metals	Sediment	9/26/2017	11:50	6080	2500 UJ	42600 J	2.50 U	588	1430	3690 J	67300	153000	252000	2930	677	0.036	3400	506 J-	4990 U	5510	1280 J	499 U	50.2	4990 U	233
CC39D	Total Recoverable Metals	Sediment	9/26/2017	10:40	6860	2500 UJ	32900 J	2.50 U	487 J	1400	3160 J	48000 J	78200	203000	3670	556	0.028	3960	581 J-	4990 U	4960	2500 U	499 U	52.8	4990 U	190
CC41	Total Recoverable Metals	Sediment	9/26/2017	9:50	3740	5190 J-	59700 J	2.47 U	2130	844	2530 J	36000 J	48400	376000	2060	226	0.042	2170 J	981	4950 U	3440	3880	495 U	64.6	4950 U	643
CC43E	Total Recoverable Metals	Sediment	9/26/2017	9:00	3880	4900 J-	56400 J	2.47 U	1030	880	2670 J	43700 J	68500	342000	1950	242	0.047	1810 J	877 J-	4940 U	3840	4310	494 U	61.1	4940 U	338
CC48	Total Recoverable Metals	Sediment	9/26/2017	8:30	3810	3540 J-	53600 J	2.52 U	628	947	2590 J	33100 J	62600	333000	1750	236	0.060	1910 J	999	5030 U	3650	2930	503 U	70.6	5030 U	199

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt
CC28D	Total Recoverable Metals	Sediment	9/26/2017	14:20	5210	2500 UJ	36600	2.50 U	2140	1060	3790	65900	144000	509000	2480	536	0.068	2330	602	5000 U	4970	2010	500 U	37.2	5000 U	645
CC28D Dup-09	Total Recoverable Metals	Sediment	9/26/2017	14:20	4570	1290 J-	35000	2.52 U	1520	1110	3070	61100	142000	404000	1930	485	0.046	1530	481	5030 U	4280	2230	503 U	28.3	5030 UJ	453
				RPD	**13.09%**	N/A	**4.47%**	N/A	**33.88%**	**4.61%**	**20.99%**	**7.56%**	**1.40%**	**23.00%**	**24.94%**	**9.99%**	**38.60%**	**41.45%**	**22.35%**	N/A	**14.92%**	**10.38%**	N/A	**27.18%**	N/A	**34.97%**

Note: Removed flags from values for RPD calculation
Note: Data Qualifier Definitions Listed Below:
U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 59 Bonita Peak Mining District - Low Flow September 26-28, 2017
Mineral Creek Sediment Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt
M01	Total Recoverable Metals	Sediment	9/26/2017	17:49	9630	501 UJ	35100 J	1.36 J	1330	3340	3500	17500 J-	24900	120000 J-	3540	1540	0.019 J+	4090	707	1000 U	5200	361 J	501 U	57.5	1000 UJ	252
M01 Dup-01	Total Recoverable Metals	Sediment	9/26/2017	17:49	8450	500 UJ	42600	1.42 J	1780	3200	2850	20100 J-	26200	152000	3270	1740	0.016 J+	4250	551	1000 U	5150	486 J	500 U	54.7	1000 U	290
M02	Total Recoverable Metals	Sediment	9/27/2017	11:00	4890	3130 J-	1990000 J	2.52 U	1830	1330	6710	266000 J-	176000	298000 J-	2000	227	0.102 J+	2030 J	704 J-	5050 U	4090	1700 J	505 U	36.3	5050 UJ	512
M02 Dup-03	Total Recoverable Metals	Sediment	9/27/2017	11:00	5010	2510 J-	1890000 J	2.50 U	1050	1400	6490	237000 J-	159000	326000	1990	243	0.132 J	2020 J	684	5000 U	4290	1960 J	132 J	39.8	4640 J	357
M03	Total Recoverable Metals	Sediment	9/27/2017	9:35	6380	3510 J-	478000 J	0.534 J	1990	2750	1730	621000 J-	32100	474000 J-	1770	503	0.148 J+	3600	847	525 J	4170	1890	500 U	55.9	1000 UJ	539
M04	Total Recoverable Metals	Sediment	9/27/2017	10:00	11000	996 UJ	212000	0.918 J	1900	2630	4610	403000	55000	161000	3810	2260	0.043 J-	6650	584	1990 U	5650	996 U	498 U	43.8	1990 U	540
M05	Total Recoverable Metals	Sediment	9/27/2017	8:35	11500	2120 J-	344000 J	1.16 J	2310	2640	3630	830000 J	48700	343000	3120	1660	0.034 J-	7050	692	1980 U	5580	1310	494 U	59.0	1260 J	789
M06A	Total Recoverable Metals	Sediment	9/26/2017	16:16	7520	2250 J-	333000 J	0.775 J	2780	2880	3010	541000 J	40500	494000	2360	1380	0.422 J-	5490	793	736 J	5120	1790 J-	500 U	69.5	878 J	932
M06C	Total Recoverable Metals	Sediment	9/26/2017	15:41	3820	4040 J-	207000 J	2.51 U	4470	1310	1520 J	244000 J	29000	2900000	1180	627	0.378 J-	2200	727	1370 J	3260	8050 J-	501 U	71.2	2000 U	2170
M06D	Total Recoverable Metals	Sediment	9/26/2017	15:03	7990	1860 J-	209000 J	1.36 J	7590	2320	2660	643000 J	34800	4670000	2310	1600	0.478 J-	5820	657	1110 J	4640	4620 J-	500 U	44.5	2000 U	3180
M06E	Total Recoverable Metals	Sediment	9/26/2017	14:20	8520	261 J-	36600 J	0.839 J	4140	3390	2310	110000 J	39300	76700	3670	1790	0.050 J-	7970	539	987 U	4790	493 UJ	493 U	79.5	987 U	776
M07	Total Recoverable Metals	Sediment	9/28/2017	14:58	7070	999 J-	142000 J	1.05 J	6330	2740	2300	297000 J	35400	1520000	2560	2000	0.198 J-	7030	622	695 J	4510	1870 J-	498 U	59.3	996 U	2420
M10A	Total Recoverable Metals	Sediment	9/28/2017	14:25	7940	1360 J-	160000 J	1.17 J	12700	2910	2430	439000 J	40500	1890000	2720	2110	0.305 J-	8890	629	2020 U	5160	3550 J-	504 U	56.7	2020 U	5640
M10B	Total Recoverable Metals	Sediment	9/28/2017	14:35	8230	2800 J-	42500 J	1.38 J	2490	3030	4240	161000 J	74300	501000	2170	2150	0.045 J-	8500	749 J-	1220 J	6260	3700 J-	501 U	114	2000 U	813
M11	Total Recoverable Metals	Sediment	9/28/2017	14:30	8730	769 J-	55900 J	1.58 J	5560	3930	2970	196000 J	32800	786000	3310	2320	0.090 J-	5910	601	986 J	5950	1340 J-	500 U	76.8	1000 U	1620
M12	Total Recoverable Metals	Sediment	9/28/2017	13:41	5590	501 UJ	30900 J	2.50 U	158	713	1880	21700 J	33100	83500	1400	380	0.072 J-	2150	763	631 J	3420	661 J-	501 U	49.5	1000 U	57.3
M13A	Total Recoverable Metals	Sediment	9/28/2017	12:58	7210	771 J-	82500 J	0.928 J	5780	2850	3020	245000 J	36400	781000	3250	2430	0.086 J-	4990	501	760 J	4600	1420 J-	496 U	42.2	991 U	2220
M13A Dup-07	Total Recoverable Metals	Sediment	9/28/2017	12:58	6590	608 J-	63200 J	0.847 J	4030	2500	3220	173000 J-	32500	690000	3140	1950	0.089 J+	4520	463 J	569 J	4400	1030	495 U	38.6	990 U	1570
M13B	Total Recoverable Metals	Sediment	9/27/2017	17:40	9270	821 J-	69300 J	1.76 J	6120	2910	2660	214000 J	34000	888000	3030	3010	0.223 J-	6010	538	973 J	5360	1400 J-	503 U	49.0	1010 U	2680
M13D	Total Recoverable Metals	Sediment	9/27/2017	16:45	7070	584 J-	66700 J	0.996 J	4340	3110	2020	142000 J	32000	686000	2790	2190	0.159 J-	4820	468 J	626 J	4670	1090 J-	500 U	51.1	1000 U	1570
M14	Total Recoverable Metals	Sediment	9/27/2017	14:12	3320	2510 UJ	19500 J	2.51 U	501 U	217	4540 J	25800 J	124000	24900	807	76.2	0.099	2510 U	1380 J-	2690 J	3050	2510 UJ	201 J	46.9	5010 U	13.0
M14A	Total Recoverable Metals	Sediment	9/27/2017	16:13	10500	618 J-	65800 J	1.79 J	6360	3120	2590	181000 J	35300	735000	2920	3760	0.103 J-	7470	560	799 J	6370	1490 J-	499 U	58.9	998 U	2450
M14B	Total Recoverable Metals	Sediment	9/27/2017	14:54	8550	377 J-	34700 J	0.990 J	2750	2130	1050	115000 J	37300	301000	2710	1850	0.070 J-	2970	560	989 U	5000	485 J-	494 U	46.2	989 U	2160
M16A	Total Recoverable Metals	Sediment	9/26/2017	16:45	19200	5020 UJ	3180 J	0.933 J	1000 U	831	10000 U	5430 J	374000	1690	102 J	28.6	0.021 UJ	5020 U	502 U	10000 U	4440	5020 UJ	502 U	5.02 UJ	10000 U	41.1
M16E	Total Recoverable Metals	Sediment	9/26/2017	14:14	31700	2510 UJ	11200 J	2.55	5660	2810	5010 U	22700 J	95500	178000	2990	10200	0.018 J-	7350	600 J-	3760 J	29600	2510 UJ	129 J	82.7	5010 U	789
M16F	Total Recoverable Metals	Sediment	9/26/2017	13:48	19200	543 J-	13300 J	1.57 J	901	1850	2680	19800 J	67500	76800	2560	2260	0.014 J-	5590	633 J-	2210	14000	1010 UJ	503 U	73.3	2010 U	209
M16G	Total Recoverable Metals	Sediment	9/26/2017	15:00	42000	1000 UJ	9590	2.31 J	5080	2810	2310	23200	97300	67500	3160	10700	0.017 J-	8170	622 J-	3050	33300	1000 U	127 J	91.6	2000 U	506
M16H	Total Recoverable Metals	Sediment	9/26/2017	13:21	32700	5000 UJ	8830 J	1.94 J	1010	873	10000 U	12500 J	216000	102000	1250	2920	0.012 J-	2610 J	344 J	10000 U	14900	5000 U	500 U	18.9 J-	10000 U	184
M17A	Total Recoverable Metals	Sediment	9/26/2017	11:40	7780	2510 UJ	15500 J	2.51 U	502 U	859	5020 U	12800 J	124000	93600	2150	368	0.010 J-	1390 J	500 J	5020 U	4900	1490 J-	502 U	30.3	5020 U	91.9
M18	Total Recoverable Metals	Sediment	9/26/2017	11:18	3090	4980 UJ	3170 J	2.49 U	995 U	420	9950 U	9200 J	323000	2290	410	100	0.020 UJ	4980 U	173 J	9950 U	3270	4980 UJ	498 U	4.98 U	9950 U	7.01 J
M19	Total Recoverable Metals	Sediment	9/26/2017	10:50	7900	2490 UJ	9670 J	2.49 U	498 U	767	4980 U	15100 J	157000	72100	2260	350	0.019 UJ	2490 U	545 J-	4980 U	4870	2490 UJ	166 J	29.8 J-	4980 U	56.0
M20	Total Recoverable Metals	Sediment	9/26/2017	9:37	14300	2490 UJ	13500 J	0.561 J	602	2360	4990 U	24300 J	131000	100000	2280	1170	0.012 J-	1770 J	546 J-	4990 U	14700	2490 UJ	129 J	55.7	4990 U	130
M20 Dup-04	Total Recoverable Metals	Sediment	9/26/2017	9:45	12100	2510 UJ	11200 J	2.51 U	426 J	1530	5010 U	22500 J-	127000	83600	2030	990	0.020 U	2510 U	506	5010 U	9740	2510 U	501 U	37.4	5010 U	98.7
M22	Total Recoverable Metals	Sediment	9/26/2017	8:51	8280	2510 UJ	14400 J	2.51 U	503 U	1080	5030 U	17900 J	125000	86900	1880	621	0.019 UJ	2510 U	446 J-	5030 U	3980	2510 UJ	503 U	21.3 J-	5030 U	69.3
M23	Total Recoverable Metals	Sediment	9/27/2017	12:00	11200	497 UJ	5110 J	0.612 J	568	4570	4380	31900 J	15300	20100	4070	757	0.019 UJ	14600	987	1040	4130	497 UJ	497 U	21.7	994 U	136
M24D	Total Recoverable Metals	Sediment	9/27/2017	11:15	8500	5190 J-	40600 J	12.6	268000	4280	10100 U	5630000 J	250000	4130000	1230	42300	0.061 J-	30700	2520 UJ	10100 U	47600	3660 J-	2520 U	53.6	10100 U	37300
M24E	Total Recoverable Metals	Sediment	9/27/2017	12:30	13100	1410 J-	17100 J	1.44 J	3730	5080	4930	105000 J	17700	820000	3760	2550	0.039 J-	11500	794	2110	6770	5370 J-	128 J	44.1	989 U	676
M25	Total Recoverable Metals	Sediment	9/27/2017	10:30	40100	259 J-	5230 J	4.13	1880	3120	4280	84900 J	17000	38100	3750	1260	0.024 J-	12800	851 J-	1250	10900	318 J-	499 U	24.3 J-	999 U	370
M26B	Total Recoverable Metals	Sediment	9/27/2017	14:00	12000	573 J-	19700 J	1.86 J	3450	4050	2150	22000 J	13700	237000	3670	2460	0.021 J-	24400	416 J	924 J	7100	1170 J-	492 U	26.1	983 U	786
M26D	Total Recoverable Metals	Sediment	9/27/2017	15:00	7040	397 J-	12700 J	0.789 J	1500	3440	2780	17400 J	18100	87500	3560	1310	0.019 UJ	11000	424 J	774 J	4850	429 J-	504 U	32.5	1010 U	327
M27	Total Recoverable Metals	Sediment	9/27/2017	16:30	11500	2490 UJ	54500 J	0.525 J	1220	1310	4990 U	80700 J	81700	386000	2280	1560	0.084 J-	3430	666 J-	4990 U	5130	2490 UJ	499 U	34.0	4990 U	393
M27A	Total Recoverable Metals	Sediment	9/28/2017	11:54	8780	2490 UJ	37000 J	2.49 U	825	1070	4990 U	70700 J	57900	364000	2580	751	0.057 J-	2470 J	736	4990 U	4110	2490 UJ	139 J	40.8	4990 U	306
M27A2	Total Recoverable Metals	Sediment	9/28/2017	10:46	10100	2500 UJ	40000 J	0.593 J	779	995	5000 U	82500 J	71600	352000	2610	815	0.054 J-	2430 J	715 J-	5000 U	4280	2500 UJ	126 J	34.3	5000 U	310
M28	Total Recoverable Metals	Sediment	9/27/2017	16:00	5820	750 J-	10500 J	2.52 U	199	2160	3020	18700 J	30200	68500	3580	357	0.020 UJ	5300	386 J	734 J	3450	718 J-	505 U	19.9	644 J	124
M29	Total Recoverable Metals	Sediment	9/28/2017	8:00	8330	2500 UJ	27000 J	2.50 U	690	1670	5000 U	54100 J	51500	242000	2590	648	0.059 J-	3820	481 J	5000 U	4930	2500 UJ	500 U	25.5	5000 U	268
M29A	Total Recoverable Metals	Sediment	9/28/2017	9:46	11900	549 J-	32100 J	0.767 J	709	1910	2910	80800 J	48100	299000	2960	883	0.077 J-	4110	534	1170	5820	828 J-	501 U	32.4	1000 U	329
M30	Total Recoverable Metals	Sediment	9/28/2017	8:50	6220	365 J-	14600 J	0.779 J	950	4170	3830	25900 J	15000	65200	3600	1390	0.020 UJ	6660	403 J	1130	5610	494 UJ	494 U	27.5	600 J	263
M32	Total Recoverable Metals	Sediment	9/26/2017	11:33	8540	448 J-	28000 J	2.50 U	695	1850	3220	43800 J	54800	165000	2940	650	0.031 J-	3550	524	987 J	5050	480 J-	501 U	26.1	1000 U	320
M32B	Total Recoverable Metals	Sediment	9/26/2017	12:41	9940	1170 J-	24900 J	0.688 J	1220	1930	2480 J+	67200 J	43000	217000	2880	1020	0.039 J-	4640	505	933 J	6440	736 J-	499 U	29.7	997 U	493
M33	Total Recoverable Metals	Sediment	9/26/2017	10:15	54800	2300 J-	35200 J	2.78	3260	2010	5020 U	199000 J	144000	276000	1170	3180	0.056 J-	9110	506 J-	5020 U	54800	2510 UJ	502 U	29.3 J-	5020 U	652
M33A	Total Recoverable Metals	Sediment	9/26/2017	11:05	34400	15000 J-	56500 J	10.8	39100	9950	10100 U	4880000 J	273000	64000	543	36500	0.054 UJ	13200	589 J-	10100 U	89900	5040 UJ	504 U	200	10100 U	5820
M34	Total Recoverable Metals	Sediment	9/26/2017	9:20	33000	1770 J-	27800 J	1.90 J	1680	2170	4950 U	125000 J	103000	220000	1700	1710	0.511 J-	5350	444 J-	4950 U	31900	2480 UJ	495 U	30.7	4950 U	518
M34 Dup-05	Total Recoverable Metals	Sediment	9/26/2017	9:20	38400	1450 J-	33700 J	2.29 J	2040	1930	2550 J	154000 J-	112000	262000	1910	1510	0.047 J+	5610	480 J	5000 U	35400	2500 U	500 U	30.1	5000 U	557
M38	Total Recoverable Metals	Sediment	9/26/2017	8:34	16900	2490 UJ	27900 J	1.11 J	2270	2010	4980 U	109000 J	69900	204000	2300	1570	0.061 J-	6470	485 J-	4980 U	16300	2490 UJ	498 U	33.0	4980 U	675

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt
M01	Total Recoverable Metals	Sediment	9/26/2017	17:49	9630	501	35100	1.36	1330	3340	3500	17500	24900	120000	3540	1540	0.019	4090	707	1000 U	5200	361	501 U	57.5	1000 UJ	252
M01 Dup-01	Total Recoverable Metals	Sediment	9/26/2017	17:49	8450	500	42600	1.42	1780	3200	2850	20100	26200	152000	3270	1740	0.016	4250	551	1000 U	5150	486	500 U	54.7	1000 U	290
				RPD	**13.05%**	**0.20%**	**19.31%**	**4.32%**	**28.94%**	**4.28%**	**20.47%**	**13.83%**	**5.09%**	**23.53%**	**7.93%**	**12.20%**	**17.14%**	**3.84%**	**24.80%**	N/A	**0.97%**	**29.52%**	N/A	**4.99%**	N/A	**14.02%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt
M02	Total Recoverable Metals	Sediment	9/27/2017	11:00	4890	3130	1990000	2.52 U	1830	1330	6710	266000	176000	298000	2000	227	0.102	2030	704	5050 U	4090	1700	505 U	36.3	5050 UJ	512
M02 Dup-03	Total Recoverable Metals	Sediment	9/27/2017	11:00	5010	2510	1890000	2.50 U	1050	1400	6490	237000	159000	326000	1990	243	0.132	2020	684	5000 U	4290	1960	132 J	39.8	4640 J	357
				RPD	**2.42%**	**21.99%**	**5.15%**	N/A	**54.17%**	**5.13%**	**3.33%**	**11.53%**	**10.15%**	**8.97%**	**0.50%**	**6.81%**	**25.64%**	**0.49%**	**2.88%**	N/A	**4.77%**	**14.21%**	N/A	**9.20%**	N/A	**35.67%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt
M13A	Total Recoverable Metals	Sediment	9/28/2017	12:58	7210	771	82500	0.928	5780	2850	3020	245000	36400	781000	3250	2430	0.086	4990	501	760	4600	1420	496 U	42.2	991 U	2220
M13A Dup-07	Total Recoverable Metals	Sediment	9/28/2017	12:58	6590	608	63200	0.847	4030	2500	3220	173000	32500	690000	3140	1950	0.089	4520	463	569	4400	1030	495 U	38.6	990 U	1570
				RPD	**8.99%**	**23.64%**	**26.49%**	**9.13%**	**35.68%**	**13.08%**	**6.41%**	**34.45%**	**11.32%**	**12.37%**	**3.44%**	**21.92%**	**3.43%**	**9.88%**	**7.88%**	**28.74%**	**4.44%**	**31.84%**	N/A	**8.91%**	N/A	**34.30%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt
M20	Total Recoverable Metals	Sediment	9/26/2017	9:37	14300	2490 UJ	13500	0.561 J	602	2360	4990 U	24300	131000	100000	2280	1170	0.012 J-	1770 J	546	4990 U	14700	2490 UJ	129 J	55.7	4990 U	130
M20 Dup-04	Total Recoverable Metals	Sediment	9/26/2017	9:45	12100	2510 UJ	11200	2.51 U	426	1530	5010 U	22500	127000	83600	2030	990	0.020 U	2510 U	506	5010 U	9740	2510 U	501 U	37.4	5010 U	98.7
				RPD	**16.67%**	N/A	**18.62%**	N/A	**34.24%**	**42.67%**	N/A	**7.69%**	**3.10%**	**17.86%**	**11.60%**	**16.67%**	N/A	N/A	**7.60%**	N/A	**40.59%**	N/A	N/A	**39.31%**	N/A	**27.37%**

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt
M34	Total Recoverable Metals	Sediment	9/26/2017	9:20	33000	1770	27800	1.9	1680	2170	4950 U	125000	103000	220000	1700	1710	0.511	5350	444	4950 U	31900	2480 UJ	495 U	30.7	4950 U	518
M34 Dup-05	Total Recoverable Metals	Sediment	9/26/2017	9:20	38400	1450	33700	2.29	2040	1930	2550 J	154000	112000	262000	1910	1510	0.047	5610	480	5000 U	35400	2500 U	500 U	30.1	5000 U	557
				RPD	**15.13%**	**19.88%**	**19.19%**	**18.62%**	**19.35%**	**11.71%**	N/A	**20.79%**	**8.37%**	**17.43%**	**11.63%**	**12.42%**	**166.31%**	**4.74%**	**7.79%**	N/A	**10.40%**	N/A	N/A	**1.97%**	N/A	**7.26%**

Note: Removed flags from values for RPD calculation
Note: Data Qualifier Definitions Listed Below:
U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample
J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample

Table 60 Bonita Peak Mining District- High Flow July 11-12, 2017
Soils Near Willow Collection Analytical Results- Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt
CAG-TP	Total Recoverable Metals	Soil	7/11/2017	11:40	12600	992 UJ	25200	0.854 J	1100	4690	6780	14900 J+	15400	96500	3890	592	0.063	4520	1980 U	7760	1240	30.7	1980 U	208
MGR-TP	Total Recoverable Metals	Soil	7/12/2017	17:00	8000	993 UJ	8440	0.707 J	1390	7140	4820	25000 J+	16600	92100	3760	1570	0.046	4390	1990 U	6910	993 U	49.9	1990 U	176
OSL-TP	Total Recoverable Metals	Soil	7/12/2017	11:20	9000	1730 J-	30400	5.21 J	191000	1650	4790 J	3720000 J+	106000	1870000	2510	61800	0.066	46900	4990 U	14600	6170	30.4	4990 U	13200
OSL-TP	Total Recoverable Metals	Soil	7/12/2017	12:15	7500	4820 J-	76100	2.49 U	608	880	3430	75600 J+	20000	2440000	2320	811	0.070	2800	1230 J	5290	20800	11.8	1990 U	214
PLG-TP	Total Recoverable Metals	Soil	7/12/2017	13:15	11700	1110 J-	17900	2.51 J	6120	5090	6880	220000 J+	15700	1570000	3230	5120	0.334	6190 J+	1070 J	8260	4830	30.2	2010 U	967
SFC-TP	Total Recoverable Metals	Soil	7/12/2017	12:10	24000	998 UJ	15100	3.72	6260	5430	6260	236000 J+	17100	101000	4060	2670	0.065	23300	2690	8740	800 J	55.9	2000 U	1210
SFM-TP	Total Recoverable Metals	Soil	7/12/2017	15:25	7580	993 UJ	12500	2.48 U	552	5060	3330	13500 J+	13700	81100	4990	1010	0.028	4610 J+	1990 U	6220	763 J	27.5	1990 U	117
SFM-TP	Total Recoverable Metals	Soil	7/12/2017	15:40	7640	989 UJ	10800	2.47 U	866	5550	4740	24200 J+	14300	129000	4570	865	0.037	6170 J+	1980 U	6400	919 J	42.9	1980 U	156
UMC-TP	Total Recoverable Metals	Soil	7/12/2017	16:35	9000	1000 UJ	19000	2.50 U	164 J	1640	5430	37500 J+	22300	50900	2440	451	0.057	4580 J+	2000 U	6420	1000 U	56.5	2000 U	46.7

Note: Data Qualifier Definitions Listed Below:

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample

Table 61 Bonita Peak Mining District - Mine Halo Characterization, August 22-23, 2017
XRF Soil Results - Total Recoverable Metals

SAMPLE ID	Date	Ti	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Se	Br	Rb	Sr	Zr	Mo	Ag	Cd	Sn	Sb	Ba	Au	Hg	Pb	Bi
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
BDM-1s	9/5/2017	3325	<LOD	13007	46827	<LOD	<LOD	534	2736	71	<LOD	<LOD	92	135	350	<LOD	<LOD	<LOD	<LOD	<LOD	1019	<LOD	<LOD	2557	<LOD
BDM-1s DUP	9/5/2017	3307	<LOD	9713	41356	<LOD	<LOD	422	2887	<LOD	<LOD	<LOD	89	143	390	10	<LOD	<LOD	<LOD	<LOD	789	<LOD	<LOD	2847	<LOD
BDM-2s	9/5/2017	2239	<LOD	1555	24759	281	<LOD	82	620	<LOD	<LOD	8	86	149	327	14	<LOD	<LOD	<LOD	<LOD	696	<LOD	<LOD	956	<LOD
BDM-T1-1	8/30/2017	3646	<LOD	1894	28196	339	<LOD	190	1369	<LOD	<LOD	<LOD	99	134	409	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1085	<LOD
BDM-T1-2	8/30/2017	2710	<LOD	686	19840	244	<LOD	46	234	<LOD	<LOD	9	79	131	321	11	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	204	<LOD
BDM-T1-3	8/30/2017	2647	<LOD	945	20773	285	<LOD	51	264	<LOD	<LOD	7	96	123	366	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	209	<LOD
BDM-T1-4	8/30/2017	2816	<LOD	2898	23918	283	<LOD	120	770	<LOD	<LOD	6	93	116	346	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	115	<LOD
BDM-T1-5	8/30/2017	3578	<LOD	16284	52874	<LOD	<LOD	585	3889	<LOD	<LOD	<LOD	69	121	228	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1572	<LOD
BDM-T1-6	8/30/2017	3878	232	9479	47251	300	<LOD	362	3367	<LOD	<LOD	<LOD	89	289	323	<LOD	<LOD	<LOD	<LOD	<LOD	832	<LOD	<LOD	512	<LOD
BDM-T1-6 DUP	8/30/2017	3405	<LOD	10805	46699	387	<LOD	410	3887	<LOD	<LOD	<LOD	87	238	304	<LOD	<LOD	57	<LOD	80	717	<LOD	<LOD	582	<LOD
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BRM-T6-3	8/31/2017	3999	<LOD	1532	28041	376	<LOD	35	198	14	<LOD	6	114	137	385	18	<LOD	<LOD	<LOD	<LOD	671	<LOD	<LOD	59	8
BRM-T6-4	8/31/2017	4443	<LOD	803	23695	328	<LOD	31	99	<LOD	<LOD	<LOD	94	132	470	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	42	<LOD
BRM-T6-5	8/31/2017	4599	<LOD	599	45343	698	<LOD	54	91	24	<LOD	<LOD	77	268	336	<LOD	<LOD	<LOD	<LOD	<LOD	991	<LOD	<LOD	70	9
BRM-T7-1	8/31/2017	5464	<LOD	1682	53251	677	<LOD	77	202	27	<LOD	<LOD	105	214	353	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	148	<LOD
BRM-T7-2	8/31/2017	4403	<LOD	1319	34373	527	<LOD	80	559	<LOD	<LOD	7	108	177	348	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	326	<LOD
BRM-T7-3	8/31/2017	5208	<LOD	404	91239	1204	<LOD	62	170	125	<LOD	14	100	133	288	11	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	661	<LOD
BRM-T7-4	8/31/2017	2647	<LOD	609	67659	945	<LOD	136	173	74	<LOD	<LOD	89	125	226	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	623	<LOD
BRM-T7-5	8/31/2017	5486	<LOD	581	35867	506	<LOD	38	77	17	<LOD	<LOD	77	212	411	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	48	<LOD
BRM-T7-6	8/31/2017	5565	<LOD	1806	49904	608	<LOD	73	151	47	<LOD	<LOD	95	309	327	<LOD	<LOD	<LOD	<LOD	<LOD	975	<LOD	<LOD	97	7
BRM-T8-1	8/31/2017	5270	<LOD	2126	48997	613	<LOD	79	246	36	<LOD	<LOD	135	147	330	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	192	<LOD
BRM-T8-2	8/31/2017	4496	<LOD	1110	36609	377	<LOD	55	125	16	<LOD	5	105	270	341	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	64	<LOD
BRM-T8-3	8/31/2017	3961	<LOD	1257	28730	354	<LOD	47	189	19	<LOD	<LOD	86	272	323	<LOD	<LOD	<LOD	<LOD	<LOD	769	<LOD	<LOD	52	<LOD
BRM-T8-4	8/31/2017	5097	<LOD	1546	39972	557	<LOD	68	118	16	<LOD	<LOD	94	414	306	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	54	8
BRM-T8-5	8/31/2017	4098	<LOD	251	41241	587	<LOD	47	134	25	<LOD	<LOD	84	452	294	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	43	9
BRM-T9-1	8/31/2017	5888	<LOD	392	80909	946	<LOD	248	1684	<LOD	<LOD	<LOD	186	136	330	<LOD	<LOD	<LOD	<LOD	<LOD	1162	<LOD	<LOD	2438	<LOD
BRM-T9-2	8/31/2017	3994	<LOD	2768	29685	433	<LOD	40	226	16	<LOD	<LOD	112	114	357	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	87	<LOD
BRM-T9-3	8/31/2017	3293	<LOD	1254	33532	443	<LOD	116	188	25	<LOD	<LOD	93	144	371	9	<LOD	<LOD	<LOD	<LOD	594	<LOD	<LOD	107	6
BRM-T9-3 DUP	8/31/2017	3397	<LOD	1198	28728	209	<LOD	126	177	22	<LOD	<LOD	86	137	366	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	100	<LOD
BRM-T9-4	8/31/2017	4771	<LOD	951	107217	1121	<LOD	87	175	121	<LOD	<LOD	82	111	240	13	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	601	<LOD

Table 61 Bonita Peak Mining District - Mine Halo Characterization, August 22-23, 2017
XRF Soil Results - Total Recoverable Metals

SAMPLE ID	Date	Ti	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Se	Br	Rb	Sr	Zr	Mo	Ag	Cd	Sn	Sb	Ba	Au	Hg	Pb	Bi
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
CLM-1s	9/5/2017	6192	<LOD	1699	52819	659	<LOD	146	492	62	<LOD	<LOD	199	108	315	9	<LOD	<LOD	<LOD	<LOD	894	<LOD	<LOD	1835	<LOD
CLM-2s	9/5/2017	3654	<LOD	1238	38148	533	<LOD	109	344	56	<LOD	<LOD	141	140	289	<LOD	<LOD	<LOD	<LOD	<LOD	732	<LOD	<LOD	841	<LOD
CLM-T1-1	9/1/2017	5647	<LOD	786	81086	910	<LOD	249	547	254	<LOD	<LOD	213	107	268	11	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	5132	<LOD
CLM-T1-2	9/1/2017	2690	<LOD	1146	29903	408	<LOD	142	827	71	<LOD	9	118	118	214	13	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1591	<LOD
CLM-T1-3	9/1/2017	4671	<LOD	1575	46784	582	<LOD	104	378	<LOD	<LOD	<LOD	147	105	320	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	668	<LOD
CLM-T1-4	9/1/2017	4181	<LOD	1805	36596	577	<LOD	187	296	31	<LOD	7	139	91	301	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	387	<LOD
CLM-T1-5	9/5/2017	3765	<LOD	897	35042	597	<LOD	249	301	<LOD	<LOD	<LOD	138	100	383	<LOD	<LOD	<LOD	<LOD	<LOD	639	<LOD	<LOD	245	<LOD
CLM-T1-6	9/5/2017	4005	<LOD	1933	25858	274	<LOD	75	1016	17	<LOD	12	126	128	316	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	228	<LOD
CLM-T2-1	9/1/2017	4653	<LOD	1549	65994	817	<LOD	128	223	61	<LOD	<LOD	151	88	338	<LOD	<LOD	<LOD	<LOD	<LOD	998	<LOD	<LOD	632	<LOD
CLM-T2-1 DUP	9/1/2017	5350	<LOD	1393	68857	878	<LOD	133	200	66	<LOD	<LOD	151	89	366	9	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	668	<LOD
CLM-T2-2	9/1/2017	3217	<LOD	1445	35587	388	<LOD	60	231	21	<LOD	8	134	101	318	<LOD	<LOD	<LOD	<LOD	<LOD	637	<LOD	<LOD	265	<LOD
CLM-T2-3	9/1/2017	3844	<LOD	1137	27873	404	<LOD	26	239	15	<LOD	7	116	100	330	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	211	<LOD
CLM-T2-4	9/1/2017	3747	<LOD	3163	30280	287	<LOD	260	255	<LOD	<LOD	6	131	106	329	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	143	<LOD
CLM-T2-5	9/1/2017	3194	<LOD	1237	26722	263	<LOD	42	659	<LOD	<LOD	12	142	118	269	14	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	160	<LOD
CLM-T3-1	9/1/2017	5485	<LOD	1859	62588	682	<LOD	104	388	64	<LOD	<LOD	146	103	336	15	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1497	<LOD
CLM-T3-2	9/1/2017	2293	<LOD	989	18269	181	<LOD	40	266	<LOD	<LOD	12	107	113	261	18	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	212	<LOD
CLM-T3-3	9/1/2017	3108	<LOD	1394	24714	329	<LOD	76	270	24	<LOD	10	113	119	258	13	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	516	<LOD
CLM-T3-4	9/1/2017	2938	<LOD	1121	20705	278	<LOD	<LOD	259	<LOD	<LOD	10	108	110	285	11	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	203	<LOD
CLM-T3-5	9/1/2017	2427	<LOD	2299	18486	194	<LOD	<LOD	326	18	<LOD	8	97	125	263	28	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	192	<LOD
CLM-T4-1	9/1/2017	5018	<LOD	2205	58639	586	<LOD	192	397	57	<LOD	<LOD	156	105	333	10	<LOD	<LOD	<LOD	<LOD	799	<LOD	<LOD	1830	<LOD
CLM-T4-2	9/1/2017	3691	<LOD	1236	40934	459	<LOD	85	226	20	<LOD	10	139	127	298	<LOD	<LOD	<LOD	<LOD	<LOD	723	<LOD	<LOD	138	<LOD
CLM-T4-2 DUP	9/1/2017	4599	<LOD	1341	43227	571	<LOD	73	216	21	<LOD	6	145	122	308	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	134	<LOD
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CLM-T4-4	9/1/2017	3220	<LOD	818	30386	507	<LOD	33	167	20	<LOD	6	140	113	300	8	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	88	<LOD
CLM-T5-1	9/1/2017	6439	<LOD	2693	57265	783	<LOD	95	451	<LOD	<LOD	<LOD	169	130	422	<LOD	<LOD	<LOD	<LOD	<LOD	856	<LOD	<LOD	560	<LOD
CLM-T5-2	8/31/2017	5238	<LOD	2005	46193	556	<LOD	100	223	17	<LOD	7	136	118	338	<LOD	<LOD	44	<LOD	<LOD	<LOD	<LOD	<LOD	138	<LOD
CLM-T5-3	9/1/2017	4172	<LOD	1443	34268	507	<LOD	54	280	<LOD	<LOD	9	123	137	323	12	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	235	<LOD
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CLM-T6-2	9/5/2017	4400	<LOD	1317	36469	574	<LOD	53	265	19	<LOD	<LOD	136	137	330	<LOD	<LOD	<LOD	<LOD	<LOD	648	<LOD	<LOD	229	7
CLM-T6-3	9/5/2017	4306	<LOD	1100	42440	610	<LOD	47	243	25	<LOD	10	153	159	333	<LOD	<LOD	<LOD	<LOD	<LOD	872	<LOD	<LOD	113	6
CLM-T6-4	8/31/2017	5112	<LOD	1131	44242	612	<LOD	65	207	<LOD	<LOD	9	159	165	366	<LOD	<LOD	<LOD	<LOD	<LOD	1058	<LOD	<LOD	127	<LOD
CLM-T7-1	9/1/2017	3368	<LOD	1335	37162	486	<LOD	249	788	59	<LOD	15	121	163	235	13	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	2052	<LOD
CLM-T7-2	9/1/2017	4360	192	1523	34752	342	<LOD	1209	554	565	<LOD	<LOD	109	143	163	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	13400	<LOD
CLM-T7-3	8/31/2017	7538	<LOD	1624	60200	850	<LOD	87	163	26	<LOD	<LOD	168	159	352	<LOD	<LOD	<LOD	<LOD	<LOD	953	<LOD	<LOD	100	<LOD
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CLM-T7-4	9/1/2017	3980	<LOD	808	29226	480	<LOD	45	277	<LOD	<LOD	<LOD	127	149	341	<LOD	<LOD	<LOD	<LOD	<LOD	595	<LOD	<LOD	199	<LOD
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CLM-T8-2	9/5/2017	2712	<LOD	496	23537	322	<LOD	44	244	<LOD	<LOD	15	82	144	228	15	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	384	<LOD
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CLM-T8-4	8/31/2017	5443	<LOD	799	57708	672	<LOD	52	127	<LOD	<LOD	6	136	168	347	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	108	<LOD
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CLM-T9-2	8/31/2017	5949	<LOD	745	45554	641	<LOD	95	367	<LOD	<LOD	9	136	210	310	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	451	<LOD
CLM-T9-3	9/5/2017	8782	<LOD	1547	158483	1751	<LOD	139	439	87	<LOD	<LOD	172	167	259	11	<LOD	<LOD	<LOD	<LOD	1478	<LOD	<LOD	928	<LOD
CLM-T9-3 DUP	9/5/2017	8842	<LOD	1595	166391	1690	<LOD	162	445	93	<LOD	<LOD	183	164	282	10	<LOD	<LOD	<LOD	<LOD	1977	<LOD	<LOD	957	<LOD
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CLM-T9-6	9/1/2017	2664	<LOD	1088	25903	407	<LOD	41	396	15	<LOD	16	105	112	230	11	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	184	<LOD
LON-1s	9/5/2017	4216	<LOD	1492	53583	589	<LOD	131	1816	221	<LOD	<LOD	278	88	276	48	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	3369	<LOD
LON-2s	9/5/2017	3846	<LOD	1694	47899	579	<LOD	191	1523	100	<LOD	16	199	105	303	24	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	5208	<LOD
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LON-T1-3 DUP	8/29/2017	3462	<LOD	4709	33306	198	<LOD	127	2797	76	<LOD	19	175	105	279	28	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1224	<LOD
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LON-T2-3	8/29/2017	4006	<LOD	819	29965	395	<LOD	46	738	51	<LOD	9	213	114	384	11	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	529	<LOD
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LON-T3-5	8/30/2017	2888	<LOD	445	21087	171	<LOD	85	441	<LOD	<LOD	26	114	120	246	21	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1597	<LOD
LON-T4-1	8/29/2017	3553	<LOD	324	21054	<LOD	<LOD	118	669	187	<LOD	<LOD	240	41	239	39	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1894	<LOD
LON-T4-2	8/31/2017	3363	<LOD	993	41167	479	<LOD	292	466	95	<LOD	<LOD	176	64	254	20	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1517	<LOD
LON-T4-3	9/1/2017	2699	<LOD	<LOD	112596	741	<LOD	496	634	245	<LOD	22	91	58	171	63	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	2365	<LOD
LON-T4-4	9/5/2017	1912	<LOD	<LOD	165268	1812	<LOD	699	336	161	<LOD	45	47	40	105	47	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	2246	<LOD
LON-T4-4 DUP	9/5/2017	<LOD	<LOD	<LOD	172048	2027	<LOD	798	379	186	<LOD	43	40	38	88	48	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	2382	<LOD
LON-T4-5	9/5/2017	<LOD	<LOD	260	36400	<LOD	<LOD	1614	1800	302	15	32	50	74	132	56	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1691	<LOD
LON-T5-1	8/29/2017	3756	<LOD	3497	37848	365	<LOD	186	355	90	<LOD	<LOD	283	71	399	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1402	<LOD
LON-T5-1 DUP	8/29/2017	3956	<LOD	3387	41397	448	<LOD	241	396	81	<LOD	<LOD	263	78	394	11	<LOD	<LOD	<LOD	<LOD	764	<LOD	<LOD	1517	<LOD
LON-T5-2	8/29/2017	4064	<LOD	3681	33243	392	<LOD	139	942	107	<LOD	<LOD	245	94	321	9	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1233	<LOD
LON-T5-3	8/30/2017	2856	<LOD	3274	33659	384	<LOD	84	771	64	<LOD	9	257	87	323	9	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	444	<LOD
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LON-T5-4	8/29/2017	4076	<LOD	4465	39244	417	<LOD	63	247	94	<LOD	<LOD	310	94	450	<LOD	<LOD	<LOD	<LOD	<LOD	899	<LOD	<LOD	160	<LOD
LON-T5-5	9/5/2017	3205	1214	320245	254390	<LOD	708	374	10344	101	<LOD	45	82	73	61	<LOD	199	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	285	<LOD
LON-T6-1	8/30/2017	3569	<LOD	235	83113	594	<LOD	79	174	306	<LOD	<LOD	282	43	295	44	<LOD	<LOD	<LOD	<LOD	787	<LOD	<LOD	2347	<LOD
LON-T6-2	8/31/2017	2420	<LOD	<LOD	151710	1450	<LOD	287	270	386	<LOD	21	122	61	193	62	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	728	<LOD
LON-T6-3	8/31/2017	2926	<LOD	787	26307	260	<LOD	173	373	22	<LOD	19	177	95	303	14	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	123	<LOD
LON-T6-4	8/31/2017	2338	<LOD	675	17368	132	<LOD	127	697	16	<LOD	21	99	86	230	24	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	96	<LOD
LON-T7-1	8/29/2017	1595	138	<LOD	14051	<LOD	<LOD	72	11206	303	<LOD	<LOD	132	173	121	17	<LOD	51	<LOD	255	<LOD	<LOD	<LOD	4748	<LOD
LON-T7-2	8/29/2017	3745	367	287	102458	1038	<LOD	452	4782	789	<LOD	<LOD	210	93	252	61	<LOD	<LOD	<LOD	129	<LOD	<LOD	<LOD	23822	<LOD
LON-T7-3	8/29/2017	2918	<LOD	676	21753	326	<LOD	149	727	26	<LOD	11	177	97	317	9	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	548	<LOD
LON-T7-4	8/29/2017	4622	<LOD	1405	28309	251	<LOD	82	803	47	<LOD	<LOD	241	103	410	9	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	464	<LOD
LON-T7-5	8/29/2017	3480	<LOD	927	24339	351	<LOD	50	495	41	<LOD	6	175	101	331	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	309	<LOD
LON-T7-5 DUP	8/29/2017	2785	<LOD	951	25228	349	<LOD	45	497	41	<LOD	7	177	97	319	<LOD	<LOD	<LOD	<LOD	<LOD	605	<LOD	<LOD	291	<LOD
LON-T7-6	8/29/2017	3990	<LOD	690	28773	324	<LOD	136	663	38	<LOD	7	187	90	307	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	291	<LOD
LRKM-1s	9/5/2017	4207	<LOD	<LOD	26438	387	<LOD	71	199	68	<LOD	<LOD	91	512	339	<LOD	<LOD	<LOD	<LOD	<LOD	832	<LOD	<LOD	724	14
LRKM-2s	9/5/2017	4209	<LOD	534	23111	295	<LOD	72	729	152	<LOD	<LOD	88	372	356	12	<LOD	<LOD	<LOD	<LOD	586	<LOD	<LOD	2039	<LOD
LRKM-T10-1	9/1/2017	5484	<LOD	221	21512	276	<LOD	69	340	66	<LOD	<LOD	74	440	400	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	532	9
LRKM-T10-1 DUP	9/1/2017	5056	<LOD	113	19986	239	<LOD	54	343	59	<LOD	<LOD	73	460	410	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	471	10
LRKM-T10-10	9/1/2017	4987	<LOD	364	31149	422	<LOD	<LOD	52	30	<LOD	<LOD	83	299	306	<LOD	<LOD	<LOD	<LOD	<LOD	854	<LOD	<LOD	133	9
LRKM-T10-2	9/1/2017	3326	<LOD	294	13957	186	<LOD	34	86	14	<LOD	7	78	168	442	8	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	109	5
LRKM-T10-3	9/1/2017	3083	<LOD	709	13783	256	<LOD	33	113	30	<LOD	5	72	181	317	9	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	207	6
LRKM-T10-4	9/1/2017	3784	<LOD	727	21540	374	<LOD	36	173	20	<LOD	9	90	226	405	10	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	263	6
LRKM-T10-5	9/1/2017	5735	<LOD	237	30487	450	<LOD	84	724	72	<LOD	<LOD	95	547	395	<LOD	<LOD	<LOD	<LOD	<LOD	1038	<LOD	<LOD	1041	11
LRKM-T10-5 DUP	9/1/2017	5641	<LOD	187	28295	235	<LOD	76	510	58	<LOD	<LOD	95	525	368	<LOD	<LOD	<LOD	<LOD	<LOD	1039	<LOD	<LOD	1005	10
LRKM-T10-6	9/1/2017	3723	<LOD	615	20627	353	<LOD	89	150	29	<LOD	7	92	258	334	16	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	412	<LOD
LRKM-T10-7	9/1/2017	3763	<LOD	251	15635	265	<LOD	<LOD	34	<LOD	<LOD	<LOD	78	215	410	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	69	<LOD
LRKM-T10-8	9/1/2017	5026	<LOD	292	23924	351	<LOD	38	45	27	<LOD	<LOD	84	368	447	10	<LOD	<LOD	<LOD	<LOD	764	<LOD	<LOD	209	7
LRKM-T10-9	9/1/2017	5614	<LOD	292	27629	322	<LOD	33	54	26	<LOD	<LOD	86	355	379	<LOD	<LOD	<LOD	<LOD	<LOD	661	<LOD	<LOD	223	10
LRKM-T1-1	9/1/2017	3940	<LOD	<LOD	15054	317	<LOD	21	41	44	<LOD	<LOD	72	339	448	<LOD	<LOD	<LOD	<LOD	<LOD	876	<LOD	<LOD	279	10
LRKM-T11-1	9/1/2017	4896	<LOD	188	34261	475	<LOD	34	47	<LOD	<LOD	<LOD	107	344	335	<LOD	<LOD	<LOD	<LOD	<LOD	1258	<LOD	<LOD	558	7
LRKM-T11-2	9/1/2017	3317	<LOD	549	35717	426	<LOD	38	123	53	<LOD	7	73	296	271	11	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	572	9
LRKM-T11-3	9/1/2017	2986	<LOD	620	16931	236	<LOD	<LOD	71	<LOD	<LOD	<LOD	66	235	236	12	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	244	<LOD
LRKM-T1-2	9/1/2017	5330	<LOD	122	12178	206	<LOD	<LOD	27	28	<LOD	<LOD	66	395	474	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	139	7
LRKM-T1-2 DUP	9/1/2017	4975	<LOD	104	12308	227	<LOD	<LOD	19	26	<LOD	<LOD	66	424	440	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	149	9
LRKM-T1-3	9/1/2017	4980	<LOD	280	15286	273	<LOD	<LOD	39	34	<LOD	<LOD	72	398	358	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	207	7
LRKM-T1-3 DUP	9/1/2017	4264	<LOD	273	15352	226	<LOD	<LOD	42	26	<LOD	<LOD	77	372	395	<LOD	<LOD	<LOD	<LOD	<LOD	662	<LOD	<LOD	167	7
LRKM-T1-4	9/1/2017	5887	<LOD	153	13773	171	<LOD	22	26	30	<LOD	<LOD	81	289	391	10	<LOD	<LOD	<LOD	<LOD	724	<LOD	<LOD	153	10
LRKM-T1-5	9/1/2017	5016	<LOD	203	16692	201	<LOD	<LOD	28	29	<LOD	<LOD	78	391	433	<LOD	<LOD	<LOD	<LOD	<LOD	846	<LOD	<LOD	206	6
LRKM-T1-6	9/1/2017	6245	<LOD	581	58047	972	<LOD	36	115	91	<LOD	10	61	500	330	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	584	9
LRKM-T2-1	9/1/2017	5473	168	201	21813	206	<LOD	49	86	69	<LOD	<LOD	84	463	364	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	690	12
LRKM-T2-2	9/1/2017	14810	654	<LOD	34993	525	<LOD	573	15205	1254	<LOD	<LOD	43	1734	454	<LOD	<LOD	79	<LOD	503	<LOD	<LOD	<LOD	23421	<LOD
LRKM-T2-3	9/1/2017	2473	<LOD	1349	27764	270	<LOD	335	652	31	<LOD	<LOD	58	188	271	9	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	594	<LOD

Table 61 Bonita Peak Mining District - Mine Halo Characterization, August 22-23, 2017
XRF Soil Results - Total Recoverable Metals

SAMPLE ID	Date	Ti	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Se	Br	Rb	Sr	Zr	Mo	Ag	Cd	Sn	Sb	Ba	Au	Hg	Pb	Bi
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
LRKM-T2-3	9/1/2017	2923	<LOD	784	16956	198	<LOD	<LOD	111	24	<LOD	<LOD	78	266	308	<LOD	<LOD	<LOD	<LOD	<LOD	493	<LOD	<LOD	139	5
LRKM-T2-3*	9/1/2017	2686	<LOD	1940	23511	343	<LOD	266	606	36	<LOD	9	63	178	294	9	<LOD	<LOD	<LOD	<LOD	511	<LOD	<LOD	398	<LOD
LRKM-T2-4	9/1/2017	4236	<LOD	1198	15120	271	<LOD	53	133	17	<LOD	<LOD	79	323	383	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	187	<LOD
LRKM-T2-5	9/1/2017	12686	922	389	35682	474	<LOD	666	6283	2178	74	<LOD	50	1106	287	<LOD	<LOD	<LOD	<LOD	263	2223	<LOD	<LOD	38934	<LOD
LRKM-T2-6	9/1/2017	3296	<LOD	676	14434	138	<LOD	57	84	58	<LOD	<LOD	68	340	367	9	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	282	9
LRKM-T3-1	9/1/2017	5273	<LOD	249	27509	370	<LOD	121	92	34	<LOD	<LOD	95	339	430	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	386	<LOD
LRKM-T3-2	9/1/2017	4884	<LOD	402	19095	301	<LOD	<LOD	63	<LOD	<LOD	<LOD	93	342	426	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	315	9
LRKM-T3-3	9/1/2017	1059	<LOD	2829	10224	<LOD	<LOD	27	313	17	<LOD	14	36	112	142	43	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	205	6
LRKM-T3-4	9/1/2017	3185	<LOD	1274	15181	175	<LOD	22	186	<LOD	<LOD	5	82	191	321	13	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	166	<LOD
LRKM-T3-5	9/1/2017	4721	<LOD	384	17996	299	<LOD	41	120	59	<LOD	<LOD	79	398	326	10	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	502	8
LRKM-T3-6	9/1/2017	4905	<LOD	197	16069	286	<LOD	40	84	60	<LOD	<LOD	72	437	308	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	573	13
LRKM-T3-7	9/1/2017	3816	<LOD	588	13151	146	<LOD	<LOD	58	31	<LOD	<LOD	73	399	335	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	284	<LOD
LRKM-T4-1	9/1/2017	5069	174	199	34064	383	<LOD	58	70	96	<LOD	<LOD	94	675	330	<LOD	<LOD	<LOD	<LOD	<LOD	783	<LOD	<LOD	647	13
LRKM-T4-2	9/1/2017	1192	<LOD	102	13561	<LOD	<LOD	192	342	28	<LOD	17	46	89	151	59	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	190	6
LRKM-T4-3*	9/1/2017	3164	<LOD	841	15932	244	<LOD	<LOD	96	18	<LOD	5	82	290	308	9	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	133	<LOD
LRKM-T4-4	9/1/2017	2299	<LOD	1305	15568	203	<LOD	<LOD	199	18	<LOD	9	66	177	220	20	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	148	<LOD
LRKM-T4-5	9/1/2017	2969	<LOD	432	17233	278	<LOD	<LOD	38	34	<LOD	<LOD	67	574	273	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	207	7
LRKM-T4-6	9/1/2017	1644	<LOD	1290	12050	173	<LOD	<LOD	99	14	<LOD	7	51	149	216	12	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	120	5
LRKM-T5-1	9/1/2017	4598	<LOD	248	23311	384	<LOD	105	258	72	<LOD	<LOD	68	493	377	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	681	12
LRKM-T5-2	9/1/2017	3239	<LOD	223	20390	360	<LOD	<LOD	58	33	<LOD	<LOD	87	410	299	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	209	6
LRKM-T5-3	9/1/2017	3561	<LOD	318	27342	351	<LOD	<LOD	74	42	<LOD	9	94	280	300	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	221	8
LRKM-T5-4	9/1/2017	3757	<LOD	139	26061	411	<LOD	<LOD	67	32	<LOD	12	99	400	325	<LOD	<LOD	<LOD	<LOD	<LOD	559	<LOD	<LOD	338	<LOD
LRKM-T5-4 DUP	9/1/2017	4243	<LOD	188	28083	404	<LOD	<LOD	62	46	<LOD	8	94	385	336	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	339	8
LRKM-T5-5	9/1/2017	3425	<LOD	137	27218	430	<LOD	<LOD	47	38	<LOD	<LOD	87	399	301	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	319	10
LRKM-T6-1	9/1/2017	4796	<LOD	<LOD	28628	425	<LOD	92	143	65	<LOD	8	92	490	340	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	973	<LOD
LRKM-T6-2	9/1/2017	2549	<LOD	883	19009	264	<LOD	30	289	37	<LOD	9	69	276	259	18	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	488	<LOD
LRKM-T6-3	9/1/2017	3857	<LOD	328	27311	384	<LOD	102	136	43	<LOD	<LOD	88	429	300	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	428	<LOD
LRKM-T6-4	9/1/2017	2937	<LOD	155	33458	427	<LOD	<LOD	47	43	<LOD	7	102	263	299	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	236	10
LRKM-T7-1	9/1/2017	3725	<LOD	<LOD	43822	531	<LOD	123	68	104	9	<LOD	111	337	297	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	504	7
LRKM-T7-1 DUP	9/1/2017	3726	<LOD	<LOD	42540	660	<LOD	158	99	93	7	<LOD	122	327	312	<LOD	<LOD	<LOD	<LOD	<LOD	625	<LOD	18	459	9
LRKM-T7-2	9/1/2017	2266	<LOD	550	17038	193	<LOD	<LOD	96	15	<LOD	8	68	185	239	28	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	153	<LOD
LRKM-T7-3	9/1/2017	4877	<LOD	647	25924	492	<LOD	70	103	46	<LOD	<LOD	105	282	351	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	293	8
LRKM-T7-4	9/1/2017	5834	<LOD	223	49926	628	<LOD	69	253	124	<LOD	<LOD	121	442	326	<LOD	<LOD	<LOD	<LOD	<LOD	781	<LOD	<LOD	1779	<LOD
LRKM-T8-1	9/1/2017	5100	<LOD	170	30999	369	<LOD	56	469	114	<LOD	<LOD	78	528	299	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1789	12
LRKM-T8-2	9/1/2017	2557	<LOD	721	16301	284	<LOD	<LOD	160	20	<LOD	<LOD	73	176	261	8	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	152	<LOD
LRKM-T8-3	9/1/2017	6262	<LOD	219	48653	625	<LOD	102	345	87	<LOD	<LOD	107	433	343	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1741	<LOD
LRKM-T8-4	9/1/2017	4508	<LOD	442	30089	475	<LOD	53	90	38	<LOD	<LOD	105	273	372	<LOD	<LOD	<LOD	<LOD	<LOD	808	<LOD	<LOD	239	11
LRKM-T9-1	9/1/2017	6201	<LOD	274	32949	433	<LOD	149	866	162	<LOD	<LOD	100	489	379	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1096	9
LRKM-T9-2	9/1/2017	5483	<LOD	165	43395	576	<LOD	80	340	111	<LOD	<LOD	95	449	322	<LOD	<LOD	<LOD	76	<LOD	827	<LOD	<LOD	1569	<LOD
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LRKM-T9-4	9/1/2017	3357	<LOD	484	22400	266	<LOD	<LOD	68	27	<LOD	5	74	243	275	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	168	6
LRKM-T9-5	9/1/2017	3620	120	617	22875	258	<LOD	<LOD	69	20	<LOD	5	79	234	286	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	150	<LOD
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MGLM-T10-1	9/5/2017	4698	<LOD	621	40574	509	<LOD	87	119	55	<LOD	14	160	144	282	9	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1619	<LOD
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MGLM-T10-3	9/5/2017	1116	<LOD	135	16383	<LOD	<LOD	477	554	50	<LOD	45	51	119	166	48	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	296	7
MGLM-T10-4	9/5/2017	2040	<LOD	76037	97597	<LOD	<LOD	1358	3292	43	<LOD	62	42	261	120	18	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	150	<LOD
MGLM-T10-5	9/5/2017	2590	<LOD	671	30065	480	<LOD	589	267	<LOD	<LOD	15	142	112	278	9	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	406	<LOD
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MGLM-T10-8	9/5/2017	4770	<LOD	1813	49164	482	<LOD	78	348	37	<LOD	<LOD	151	217	335	<LOD	<LOD	<LOD	<LOD	<LOD	1231	<LOD	<LOD	768	<LOD
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MGLM-T2-1	9/5/2017	2242	<LOD	1734	23552	243	<LOD	39	343	30	<LOD	9	79	110	232	12	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	342	6
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MGLM-T2-5	9/5/2017	3894	<LOD	977	31487	532	<LOD	38	137	<LOD	<LOD	<LOD	132	174	372	10	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	248	<LOD
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MGLM-T3-2	9/5/2017	4471	<LOD	1109	38276	490	<LOD	33	225	26	<LOD	<LOD	129	178	307	9	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	351	<LOD
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MGLM-T4-1	9/5/2017	4810	<LOD	1114	39975	607	<LOD	199	836	65	<LOD	<LOD	144	168	342	<LOD	<LOD	<LOD	<LOD	<LOD	926	<LOD	<LOD	1101	35
MGLM-T4-2	9/5/2017	6838	<LOD	1132	49739	742	<LOD	72	144	47	<LOD	<LOD	159	213	326	9	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	539	<LOD
MGLM-T4-3	9/5/2017	4303	<LOD	758	34513	302	<LOD	30	139	35	<LOD	<LOD	146	166	342	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	284	9
MGLM-T4-3 DUP	9/5/2017	4556	<LOD	834	35800	488	<LOD	36	133	31	<LOD	<LOD	137	161	355	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	344	<LOD
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MGLM-T5-1 DUP	9/5/2017	4928	<LOD	1300	46933	475	<LOD	263	932	<LOD	<LOD	<LOD	142	164	312	<LOD	<LOD	<LOD	<LOD	<LOD	800	<LOD	<LOD	1676	<LOD
MGLM-T5-2	9/5/2017	5521	<LOD	1083	41188	478	<LOD	39	263	31	<LOD	<LOD	153	200	303	<LOD	<LOD	<LOD	<LOD	<LOD	709	<LOD	<LOD	423	<LOD
MGLM-T5-3	9/5/2017	5345	<LOD	1040	36812	421	<LOD	63	337	<LOD	<LOD	<LOD	147	181	432	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	437	8
MGLM-T5-4	9/5/2017	3385	<LOD	1783	30037	316	<LOD	30	185	26	<LOD	8	121	148	255	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	267	<LOD
MGLM-T5-5	9/5/2017	4448	<LOD	1137	34622	468	<LOD	30	181	36	<LOD	7	134	159	322	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	333	7
MGLM-T5-5 DUP	9/5/2017	4398	<LOD	1318	35891	578	<LOD	27	176	48	<LOD	7	146	150	323	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	363	<LOD
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MGLM-T6-2	9/5/2017	4398	<LOD	1235	40796	407	<LOD	77	308	48	<LOD	<LOD	149	191	294	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	648	<LOD
MGLM-T6-3	9/5/2017	3343	<LOD	1227	28086	360	<LOD	36	210	<LOD	<LOD	<LOD	122	155	286	<LOD	<LOD	<LOD	<LOD	<LOD	857	<LOD	<LOD	332	<LOD
MGLM-T6-4	9/5/2017	4834	<LOD	2219	34485	426	<LOD	391	502	32	<LOD	<LOD	116	152	335	9	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	565	7
MGLM-T6-5	9/5/2017	5911	240	1561	52140	679	<LOD	402	6877	111	<LOD	<LOD	137	178	330	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	5723	<LOD
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MGLM-T7-1	9/5/2017	5950	<LOD	3673	45934	532	<LOD	414	538	<LOD	<LOD	8	133	152	420	11	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1048	10
MGLM-T7-2	9/5/2017	3297	<LOD	2252	25833	221	<LOD	31	313	<LOD	<LOD	7	121	138	317	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	270	<LOD
MGLM-T7-3	9/5/2017	4778	<LOD	1580	77250	868	<LOD	95	206	68	<LOD	<LOD	136	168	265	<LOD	<LOD	<LOD	<LOD	<LOD	793	<LOD	<LOD	684	<LOD
MGLM-T7-3 DUP	9/5/2017	4281	<LOD	1515	83944	801	<LOD	96	239	59	<LOD	<LOD	137	169	298	<LOD	<LOD	<LOD	<LOD	<LOD	929	<LOD	<LOD	788	<LOD
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MGLM-T7-5	9/5/2017	5375	<LOD	1764	204264	2519	<LOD	435	448	78	<LOD	13	148	164	234	16	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1711	17
MGLM-T7-6	9/5/2017	1604	<LOD	1632	15131	137	<LOD	31	1303	<LOD	<LOD	23	68	233	230	27	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	131	<LOD
MGLM-T7-7	9/5/2017	1287	<LOD	846	17428	235	<LOD	142	886	<LOD	<LOD	27	56	213	186	24	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	119	<LOD
MGLM-T8-1	9/5/2017	3201	<LOD	1398	39177	401	<LOD	112	646	<LOD	<LOD	18	123	143	282	18	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	527	<LOD
MGLM-T8-2	9/5/2017	3814	<LOD	156785	335156	<LOD	456	84	7813	87	<LOD	16	62	140	110	<LOD	82	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	352	<LOD
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MGLM-T8-4	9/5/2017	5438	<LOD	1483	65978	902	<LOD	84	378	48	<LOD	<LOD	131	184	277	<LOD	<LOD	<LOD	149	<LOD	<LOD	<LOD	<LOD	510	8
MGLM-T8-5	9/5/2017	5031	<LOD	5400	64417	696	<LOD	137	380	91	<LOD	<LOD	161	181	268	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1139	<LOD
MGLM-T8-6	9/5/2017	3476	<LOD	3307	27774	351	<LOD	33	393	<LOD	<LOD	7	114	147	362	13	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	236	<LOD
MGLM-T8-7	9/5/2017	4092	<LOD	2329	39314	412	<LOD	229	901	58	<LOD	<LOD	117	118	353	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1159	<LOD
MGLM-T9-1	9/5/2017	2717	<LOD	455	40915	500	<LOD	77	353	34	<LOD	13	85	54	173	19	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	594	<LOD
MGLM-T9-2	9/5/2017	4325	<LOD	2899	57363	530	<LOD	82	334	32	<LOD	<LOD	195	145	344	<LOD	<LOD	<LOD	<LOD	<LOD	982	<LOD	<LOD	762	<LOD
MGLM-T9-3	9/5/2017	7220	<LOD	2575	132598	1278	<LOD	93	236	164	<LOD	<LOD	286	109	340	13	<LOD	<LOD	<LOD	<LOD	1037	<LOD	<LOD	2127	<LOD
MGLM-T9-4	9/5/2017	5591	<LOD	2832	87950	792	<LOD	92	668	70	<LOD	<LOD	208	134	285	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1851	<LOD
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MGLM-T9-6	9/5/2017	2582	<LOD	904	26826	345	<LOD	575	236	28	<LOD	21	94	142	250	15	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	261	<LOD
MGLM-T9-7	9/5/2017	3105	<LOD	721	30444	395	<LOD	38	205	<LOD	<LOD	10	116	127	273	13	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	430	7
MGLM-T9-7 DUP	9/5/2017	2612	<LOD	656	28607	278	<LOD	50	183	24	<LOD	9	117	121	268	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	377	<LOD
MGLM-T9-8	9/5/2017	2426	<LOD	1115	19943	210	<LOD	30	212	17	<LOD	12	93	101	259	20	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	148	<LOD
PC1	8/31/2017	1817	<LOD	159	11839	164	<LOD	<LOD	51	<LOD	<LOD	12	52	183	235	23	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	22	<LOD
PC2	8/31/2017	1308	<LOD	456	14259	196	<LOD	<LOD	104	<LOD	<LOD	21	59	170	196	39	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	52	<LOD
PC3	8/31/2017	<LOD	<LOD	130	5818	<LOD	<LOD	19	31	<LOD	<LOD	27	29	142	115	29	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	18	4
PC4	8/31/2017	881	<LOD	228	9216	119	<LOD	<LOD	61	<LOD	<LOD	14	38	177	139	24	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	17	4
PC5	8/31/2017	1250	<LOD	259	9543	96	<LOD	<LOD	58	<LOD	<LOD	19	46	161	143	21	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	23	<LOD
RCM-1s	9/5/2017	4126	263	555	48429	528	<LOD	151	1519	343	<LOD	<LOD	206	127	339	22	<LOD	<LOD	<LOD	201	<LOD	<LOD	<LOD	6645	<LOD
RCM-2s	9/5/2017	3092	<LOD	690	32049	474	<LOD	122	384	126	<LOD	<LOD	186	111	332	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1215	<LOD
RCM-T1-1	8/29/2017	4422	<LOD	413	49707	381	<LOD	90	747	209	<LOD	<LOD	255	142	361	17	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	2652	<LOD
RCM-T1-2	8/30/2017	3841	<LOD	512	21768	274	<LOD	<LOD	162	40	<LOD	7	199	122	370	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	199	<LOD
RCM-T1-2 DUP	8/30/2017	3239	<LOD	424	20185	336	<LOD	<LOD	152	28	<LOD	8	198	117	341	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	191	<LOD

Table 61 Bonita Peak Mining District - Mine Halo Characterization, August 22-23, 2017
XRF Soil Results - Total Recoverable Metals

SAMPLE ID	Date	Ti	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Se	Br	Rb	Sr	Zr	Mo	Ag	Cd	Sn	Sb	Ba	Au	Hg	Pb	Bi
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
RCM-T1-3	8/29/2017	3070	<LOD	384	19217	243	<LOD	<LOD	132	21	<LOD	12	161	109	332	17	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	165	7
RCM-T1-4	8/30/2017	4115	<LOD	374	26835	303	<LOD	64	119	78	<LOD	<LOD	271	140	359	11	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	537	<LOD
RCM-T1-5	8/29/2017	3145	<LOD	518	22079	371	<LOD	52	151	47	<LOD	10	188	104	302	14	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	453	<LOD
RCM-T2-1	8/29/2017	3548	<LOD	438	29902	385	<LOD	55	162	88	<LOD	<LOD	312	156	339	9	<LOD	<LOD	<LOD	<LOD	801	<LOD	<LOD	814	<LOD
RCM-T2-2	8/29/2017	3135	<LOD	470	31696	400	<LOD	<LOD	237	85	<LOD	<LOD	282	178	308	11	<LOD	<LOD	<LOD	<LOD	753	<LOD	<LOD	290	12
RCM-T2-3	8/30/2017	3522	<LOD	449	24509	350	<LOD	<LOD	121	72	<LOD	<LOD	226	131	320	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	354	<LOD
RCM-T2-4	8/29/2017	2948	<LOD	427	22645	286	<LOD	30	108	54	<LOD	10	224	120	345	9	<LOD	<LOD	<LOD	<LOD	717	<LOD	<LOD	257	<LOD
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2711	8/29/2017	3510	<LOD	11479	39939	339	<LOD	3154	6968	657	<LOD	<LOD	132	343	160	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	62	5866	<LOD
2711	8/29/2017	3130	<LOD	545	25676	361	<LOD	120	336	101	<LOD	8	113	253	390	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1191	<LOD
2711	8/29/2017	2925	<LOD	518	26638	333	<LOD	108	318	104	<LOD	<LOD	124	250	391	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1221	<LOD
2709a	8/29/2017	3045	<LOD	395	32525	421	<LOD	37	96	15	<LOD	<LOD	97	223	199	11	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	18	<LOD
2709b	8/30/2017	2914	<LOD	433	32327	396	78	44	79	21	<LOD	8	93	234	186	<LOD	<LOD	<LOD	<LOD	<LOD	629	<LOD	<LOD	15	6
2709c	8/30/2017	3298	<LOD	328	32799	366	<LOD	38	96	15	<LOD	7	93	233	194	10	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	21	8
2709d	8/30/2017	2762	<LOD	527	32567	461	<LOD	38	100	15	<LOD	6	103	235	190	<LOD	<LOD	<LOD	<LOD	<LOD	716	<LOD	<LOD	19	<LOD
2709e	8/30/2017	2754	<LOD	424	32175	392	<LOD	36	94	14	<LOD	8	92	223	191	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	21	<LOD
2709f	8/30/2017	2878	<LOD	442	31706	328	<LOD	<LOD	103	19	<LOD	<LOD	92	225	193	<LOD	<LOD	<LOD	<LOD	<LOD	586	<LOD	<LOD	16	<LOD
2709g	8/31/2017	2868	<LOD	420	31637	321	<LOD	30	91	12	<LOD	10	95	223	183	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	19	<LOD
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Table 61 Bonita Peak Mining District - Mine Halo Characterization, August 22-23, 2017
XRF Soil Results - Total Recoverable Metals

SAMPLE ID	Date	Ti	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Se	Br	Rb	Sr	Zr	Mo	Ag	Cd	Sn	Sb	Ba	Au	Hg	Pb	Bi
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
2709q	9/5/2017	3535	163	389	32710	410	<LOD	31	95	11	<LOD	<LOD	97	241	193	12	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	22	<LOD
2709r	9/5/2017	3147	<LOD	459	32124	446	61	26	90	17	<LOD	8	95	230	206	10	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	19	<LOD
2709s	9/5/2017	2766	148	477	31672	426	<LOD	28	87	13	<LOD	11	94	223	190	<LOD	<LOD	<LOD	<LOD	<LOD	758	<LOD	<LOD	20	<LOD
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2709u	9/5/2017	2992	<LOD	535	31853	434	<LOD	39	83	15	<LOD	<LOD	94	227	191	<LOD	<LOD	<LOD	<LOD	<LOD	621	<LOD	<LOD	18	<LOD
2710a	8/29/2017	3008	<LOD	11043	39426	277	<LOD	3013	6880	694	<LOD	<LOD	138	339	166	14	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	5636	<LOD
2710b	8/30/2017	3541	201	11300	39632	<LOD	<LOD	3050	6865	696	<LOD	<LOD	136	340	166	14	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	5749	<LOD
2710c	8/30/2017	3560	190	11198	39629	316	<LOD	3078	6871	712	<LOD	<LOD	143	340	166	11	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	83	5716	<LOD
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2710h	8/31/2017	3510	199	11430	39739	392	<LOD	3009	6974	744	<LOD	<LOD	138	338	167	12	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	80	5661	<LOD
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2711l	9/1/2017	2933	<LOD	513	26115	316	<LOD	113	301	109	<LOD	<LOD	120	259	382	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	1202	<LOD
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PREPBLANK1	8/30/2017	<LOD	<LOD	<LOD	233	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	11	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
PREPBLANK10	9/1/2017	<LOD	<LOD	<LOD	261	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	15	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
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PREPBLANK4	8/30/2017	<LOD	<LOD	<LOD	495	<LOD	<LOD	19	<LOD	<LOD	<LOD	<LOD	<LOD	5	16	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
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LOD Limit of Detection
ppm parts per million which is equivilant to mg/kg
Note: Sample ID's 2709 through 2711U are XRF standards that were run after every 20 samples

Table 62 Bonita Peak Mining District - Mine Halo Characterization, August 22-23, 2017
XRF Soil Confirmation Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Vanadium	Zinc
					mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt
BBP-UA-SOL-208	Total Recoverable Metals	Soil	8/23/2017	10:01	12200	1000 UJ	4320	351000	5.02 U	318	4750	5810	10600	20900	24800	26600	2950	1160	0.048 J-	1000 U	6880	1730	2010 U	4700	1000 U	1000 U	51.2	2010 U	23900	81.7
BBP-UA-SOL-209	Total Recoverable Metals	Soil	8/23/2017	10:14	10000	529 J-	21000	162000	4.94 U	240	2980	5290	8870	22800	27800	23700	2410	749	0.039 J-	2580	5020	1520	1980 U	4300 J	988 U	988 U	44.5	1700 J	19000	57.9 J+
BBP-UA-SOL-210	Total Recoverable Metals	Soil	8/23/2017	10:26	10200	972 UJ	8110 J-	211000	4.86 U	675	5940	7050	5990	17800 J-	16200	59300	2660	1150	0.092 J-	972 U	6100	1830 J-	1940 U	4490 J	972 U	972 U	54.0	1100 J	20000	72.6 J+
BBP-UA-SOL-211	Total Recoverable Metals	Soil	8/23/2017	10:36	9310	968 UJ	6020 J-	289000	4.84 U	276	5600	5800	5110	12900 J-	15800	27500	1960	784	0.059 J-	1600	3760	986 J-	1940 U	3690 J	968 U	968 U	188	1940 U	17400	52.0 J+
BBP-UA-SOL-212	Total Recoverable Metals	Soil	8/23/2017	10:45	9790	994 UJ	4610 J-	276000	4.97 U	572	6890	7310	5890	16500 J-	12900	29800	2720	1040	0.074 J-	994 U	5230	1780 J-	1990 U	3700 J	994 U	994 U	68.4	1990 U	20400	92.6 J+
BDM-1s	Total Recoverable Metals	Soil	8/22/2017	15:30	9590	4720 J-	19700 J-	143000	5.00 U	19200	2400	6760	12600	318000 J-	20400	2530000	3050	5700	0.111 J-	10600	8930	1070 J-	2000 U	4260 J	35700	999 U	18.0	2000 U	15100	2150 J+
BDM-2s	Total Recoverable Metals	Soil	8/22/2017	15:30	10500	1160 J-	8320 J-	149000	4.87 U	2730	4660	7640	6290	56500 J-	13800	775000	3490	1130	0.062 J-	3450	6960	1260 J-	1950 U	3120 J	4040	974 U	28.3	1950 U	17300	436 J+
BDM-T6-3	Total Recoverable Metals	Soil	8/22/2017	09:43	4680	802 J-	3220 J-	169000	4.92 U	2200	9600	4680	3240	28200 J-	6010	352000	2140	643	0.091 J-	1130	3850	1430 J-	1970 U	3560 J	2270	984 U	52.2	1970 U	9050	320 J+
BDM-T7-1	Total Recoverable Metals	Soil	8/22/2017	10:08	11100	1130 J-	7020 J-	151000	4.87 U	1870	3820	8200	6350	41100 J-	12300	1160000	3780	830	0.074 J-	1490	7110	1910 J-	1950 U	4460 J	25900	974 U	24.6	1950 U	17300	210 J+
BRM-1s	Total Recoverable Metals	Soil	8/22/2017	10:00	6880	5860 J-	71400 J-	145000	4.83 U	1080	1350	4980	7520	67600 J-	39300	1620000	3360	1150	0.116 J-	3020	4020	1440 J-	1930 U	3140 J	9590	965 U	22.8	1930 U	15100	285 J+
BRM-2s	Total Recoverable Metals	Soil	8/22/2017	10:00	10200	1010 UJ	29500 J-	244000	5.05 U	1190	4240	6900	8620	35500 J-	27300	282000	4490	1840	0.064 J-	1010 U	6500	1590 J-	2020 U	4820 J	1830	1010 U	31.3	2020 U	19500	236 J+
BRM-T2-3	Total Recoverable Metals	Soil	8/22/2017	10:19	5500	696 J-	9830 J-	405000	5.04 U	2510	7310	5290	4320	24400 J-	10300	171000	2110	2540	0.110 J-	1010 U	4780	1270 J-	2020 U	4430 J	1030	1010 U	40.0	2020 U	12500	393 J+
BRM-T3-2	Total Recoverable Metals	Soil	8/22/2017	10:46	9140	699 J-	29900 J-	436000	4.90 U	1840	4260	6610	10500	27100 J-	23200	387000	2640	4470	0.093 J-	979 U	7120	1850 J-	1960 U	4560 J	1970	979 U	29.1	1960 U	17900	304 J+
BRM-T4-3	Total Recoverable Metals	Soil	8/22/2017	11:13	10400	985 UJ	9140 J-	197000	4.93 U	684	2460	7680	6950	11600 J-	18000	49000	3030	1570	0.028 J-	985 U	6080	1240 J-	1970 U	4130 J	985 U	985 U	18.2	1970 U	21600	94.1 J+
BRM-T5-1	Total Recoverable Metals	Soil	8/22/2017	12:05	7270	2040 J-	81600 J-	175000	5.04 U	188 J	437	13400	5560	66500 J-	49300	2530000	5210	678	0.138 J-	3070	6070	1680 J-	2020 U	3170 J	20300	1010 U	22.2	2020 U	16900	175 J+
BRM-T5-2	Total Recoverable Metals	Soil	8/22/2017	12:09	14000	946 UJ	14500 J-	164000	4.73 U	680	3220	6000	11200	72100 J-	41000	73400	7480	1390	0.045 J-	1100	7270	984 J-	1890 U	3290 J	507 J	946 U	22.6	1890 U	18100	214 J+
CLM-1s	Total Recoverable Metals	Soil	8/23/2017	15:30	10600	3700 J-	30100 J-	51900	4.78 U	1790	1220	5860	9840	126000 J-	40000	1770000	5780	1790	0.133 J-	6990	4880	898 J-	1910 U	4230 J	5080	955 U	15.4	1910 U	26100	573 J+
CLM-2s	Total Recoverable Metals	Soil	8/23/2017	15:30	11500	999 UJ	12100 J-	83300	5.00 U	1150	2930	6550	9790	85900 J-	25500	675000	5100	1230	0.058 J-	1430	5890	928 J-	2000 U	5090 J	1100	999 U	27.1	2000 U	25000	249 J+
CLM-T2-4	Total Recoverable Metals	Soil	8/23/2017	15:32	10600	1000 UJ	11900 J-	56100	5.01 U	963	405	6570	15600	253000 J-	21600	173000	3090	3850	0.025 J-	1370	4720	928 J-	2010 U	4650 J	701 J	1000 U	5.81 J	2010 U	20400	238 J+
CLM-T5-1	Total Recoverable Metals	Soil	8/23/2017	16:06	14500	1000 UJ	36600 J-	67600	5.00 U	1280	1040	7150	15600	76900 J-	44500	528000	5850	3260	0.047 J-	4080	5560	865 J-	2000 U	4790 J	1330	1000 U	9.28 J	2000 U	30600	421 J+
CLM-T6-4	Total Recoverable Metals	Soil	8/23/2017	16:12	16700	1010 UJ	9370	87800	5.06 U	495	970	7590	11500	41100 J-	30500	104000	6390	1270	0.039 J-	1010 U	7010	1150 J-	2030 U	5350	1010 U	1010 U	10.8	2030 U	33500	164
CLM-T7-2	Total Recoverable Metals	Soil	8/23/2017	16:21	5990	2850 J-	4890	48100	5.05 U	1650	6130	4620	5420	932000	12400	11100000	2850	918	0.098 J-	1350	4820	707 J	1160 J	3510 J	10700	1010 U	62.2	1200 J	12500	405
CLM-T8-1	Total Recoverable Metals	Soil	8/23/2017	16:29	8600	2850 J-	9930 J-	25800	5.03 U	5940	953	6720	7250	338000 J-	46600	4480000	4620	623	0.697 J-	3770	4590	664 J-	2010 U	5180 J	12100	1010 U	7.47 J	2010 U	23700	2130 J+
LON-1s	Total Recoverable Metals	Soil	8/22/2017	12:30	2450	23100 J-	149000 J-	114000	4.86 U	7640	374	1540 J	1900	67200 J-	25900	2640000	465	670	0.123 J-	44200	841 J	1070 J-	1310 J	2630 J	13000	971 U	103	3380	5620	1530 J+
LON-2s	Total Recoverable Metals	Soil	8/22/2017	12:30	7230	14500 J-	173000 J-	171000	4.91 U	16000	2350	4360	6140	211000 J-	33500	6750000	1700	4310	0.270 J-	38300	4410	1650 J-	2010	4090 J	19700	982 U	32.9	1890 J	13900	1780 J+
LON-T2-2	Total Recoverable Metals	Soil	8/22/2017	12:49	9870	1040 J-	41000 J-	84600	4.94 U	2220	3460	6040	3430	32400 J-	18500	722000	2840	633	0.047 J-	3040	4400	1150 J-	1980 U	4960 J	1900	988 U	21.8	1980 U	18200	577 J+
LON-T3-4	Total Recoverable Metals	Soil	8/22/2017	13:53	8550	7710 J-	14500 J-	45800	5.04 U	3810	6150	5800	4870	160000 J-	13900	15900000	2460	1070	0.095 J-	3720	5500	706 J-	1930 J	4430 J	4530	1010 U	48.8	2010 U	16100	650 J+
LON-T4-1	Total Recoverable Metals	Soil	8/22/2017	14:01	1230	33800 J-	84800 J-	38500	4.98 U	8450	595	1990 U	472	91500 J-	13500	1880000	422	192	0.060 J-	61700	996 U	545 J-	1200 J	1480 J	9550	996 U	13.9	1990 U	3450	1790 J+
LON-T4-5	Total Recoverable Metals	Soil	8/22/2017	14:10	3320	4450 J-	10300 J-	27500	4.97 U	7370	3040	3610	1860	552000 J-	10500	966000	538	144	0.127 J-	4270	2120	322 J-	1500 J	2380 J	4040	994 U	21.6	1990 U	3740	656 J+
LON-T5-5	Total Recoverable Metals	Soil	8/22/2017	14:49	4080	3780 J-	53300 J-	754000	1.05 J	47700	3940	2650	52800	339000 J-	81100	295000	1110	72300	0.095 J-	7740	21600	576 J-	2000 U	3650 J	1970	998 U	79.6	2000 U	6520	8730 J+
LON-T7-3	Total Recoverable Metals	Soil	8/22/2017	15:13	8740	1260 J-	37400 J-	87200	5.06 U	4380	2520	5480	4110	115000 J-	14000	550000	2400	886	0.077 J-	3420	4520	953 J-	2020 U	4620 J	1910	1010 U	14.4	2020 U	16000	628 J+
LRKM-1s	Total Recoverable Metals	Soil	8/22/2017	15:00	3550	4020 J-	73300 J-	114000	5.04 U	1020	240 J	3170	1050	71600 J-	23000	582000	645	79.6	0.241 J-	1730	1140	737 J-	3360	3060 J	3130	1010 U	15.9	2020 U	14500	231 J+
LRKM-2s	Total Recoverable Metals	Soil	8/22/2017	15:00	3390	9930 J-	51900 J-	177000	4.89 U	3110	1480	3150	1850	41900 J-	17500	1460000	864	227	0.301 J-	1440	1590	908 J-	2210	3330 J	2850	978 U	19.1	1960 U	13400	694 J+
LRKM-T1-4	Total Recoverable Metals	Soil	8/22/2017	14:51	1820	2410 J-	34500 J-	144000	5.00 U	200 U	1200	1780 J	721	7820 J-	14700	123000	378	74.9	0.021 J-	2850	680 J	662 J-	2510	2170 J	1000 U	1000 U	9.90 J	2000 U	9420	26.9 J+
LRKM-T5-4	Total Recoverable Metals	Soil	8/22/2017	16:57	5550	3190 J-	31900 J-	134000	4.92 U	137 J	719	3920	2400	16100 J-	20000	165000	966	101	0.246 J-	1350	2850	1150 J-	2510	3920 J	1590	985 U	9.75 J	1970 U	14100	62.1 J+
LRKM-T6-1	Total Recoverable Metals	Soil	8/22/2017	17:26	3910	4860 J-	64900 J-	83500	5.01 U	585	121 J	3440	1060	84700 J-	21900	718000	654	66.8	0.387 J-	1450	1270	958 J-	3310	3570 J	4190	1000 U	8.34 J	2000 U	13800	146 J+
LRKM-T6-2	Total Recoverable Metals	Soil	8/22/2017	17:29	4500	1590 J-	17100 J-	258000	4.99 U	1620	5690	4460	3510	31200 J-	9620	512000	1540	813	0.119 J-	998 U	4320	1040 J-	1360 J	4170 J	4990	998 U	30.4	2000 U	11200	279 J+
LRKM-T8-3	Total Recoverable Metals	Soil	8/23/2017	18:04	4070	2780 J-	58500 J-	313000	4.95 U	5310	1400	3690	2350	73200 J-	35000	1500000	1520	146	0.107 J-	1690	1620	1080 J-	2780	3210 J	5110	990 U	46.6	1980 U	15800	1060 J+
LRKM-T8-4	Total Recoverable Metals	Soil	8/23/2017	18:06	5530	1260 J-	28400 J-	147000	4.97 U	219	154 J	4270	2500	37200 J-	22400	157000	1430	379	0.059 J-	1110	2080	920 J-	1290 J	3210 J	770 J	993 U	21.8	1990 U	15500	88.8 J+
LRKM-T9-2	Total Recoverable Metals	Soil	8/23/2017	08:35	3350	2440 J-	60500 J-	204000	4.94 U	1280	247 U	3120	1040	58100 J-	31500	1090000	1000	79.8	0.107 J-	1600	936 J	927 J-	2580	3150 J	3760	988 U	31.6	1980 U	14300	322 J+
LRKM-T9-3	Total Recoverable Metals	Soil	8/23/2017	08:36	4650	1090 J-	10500	237000	4.96 U	648	6030	4980	2690	17000	8790	65100	1780	997	0.114 J-	993 U	4070	1380	1990 U	3780 J	1310	993 U	40.7	1990 U	11700	109
LRKM-T9-4	Total Recoverable Metals	Soil	8/23/2017	08:38	4760	2050 J-	22600	207000	5.01 U	295	2790	4740	2010	16600	19100	124000	1620	402	0.040 J-	1040	2660	1230	2000 U	2660 J	1000 U	1000 U	37.1	2000 U	14900	75.5
MGLM-1s	Total Recoverable Metals	Soil	8/23/2017	11:00	9130	1590 J-	24600 J-	108000	4.91 U	3390	1630	6650	5980	133000 J-	25500	729000	3770	1260	0.129 J-	3440	4390	1290 J-	1970 U	3090 J	3330	983 U	31.3	1970 U	20000	400 J+
MGLM-2s	Total Recoverable Metals	Soil	8/23/2017	11:00	12300	1380 J-	33900 J-	171000	4.94 U	3920	2000	7330	16100	47900 J-	42800	456000	5080	8420	0.050 J-	7190	11300	1450 J-	1980 U	2760 J	1710	989 U	55.3	1980 U	24300	1160 J+
MGLM-T1-4	Total Recoverable Metals	Soil	8/23/2017	11:16	10700	489 J-	8910 J-	107000	4.89 U	244	1450	7300	3250	17100 J-	14100	262000	2700	316	0.065 J-	1540	4460	1270 J-	1960 U	3640 J	1220	978 U	20.9	1960 U	23100	104 J+
MGLM-T5-3	Total Recoverable Metals	Soil	8/23/2017	13:11	10300	719 J-	25600 J-	130000	4.82 U	1240	1590	6260	6400	57100 J-	26700	455000	4490	1050	0.102 J-	3380	4400	1340 J-	1930 U	3050 J	1650	964 U	34.4	1930 U	25300	349 J+
MGLM-T8-4	Total Recoverable Metals	Soil	8/23/2017	14:42	8060	1320 J-	40800 J-	99600	4.88 U	763	341	5980	5400	70800 J-	49100	412000	5400	1190	0.033 J-	4690	4070	1130 J-	1950 U	2520 J	1630	976 U	28.3	1950 U	25200	300 J+
MGLM-T8-6	Total Recoverable Metals	Soil	8/23/2017	14:49	8940	694 J-	13900 J-	272000	4.93 U	1200	4130	6960	5680	21400 J-	15900	180000	3110	2420	0.094 J-	1060	5770	1570 J-	1970 U	3280 J	675 J	985 U	33.2	1970 U	19300	276 J+
MGLM-T8-7	Total Recoverable Metals	Soil	8/23/2017	14:55	13800	1100 J-	21900 J-	119000	4.88 U	5540	502	8740	13000	194000 J-	25900	931000	3800	1980	0.065 J-	1850	5810	1270 J-	1950 U	3560 J	3220	976 U	15.9	1950 U	27700	971 J+
MGLM-T9-7	Total Recoverable Metals	Soil	8/23/2017	15:39	7790	1080 J-	19100 J-	156000	5.04 U	1340	2190	7360	5220	33400 J-	22200	412000	3120	716	0.053 J-	2470	4950	1430 J-	2010 U	3280 J	1060	1010 U	39.7	2010 U	22100	170 J+
PRC-UA1	Total Recoverable Metals	Soil	8/23/2017	12:25	7340	981 UJ	3240 J-	169000	4.90 U	544	10700	7000	2880	7810 J-	8080	17900	2170	163	0.071 J-	981 U	4190	1030 J-	1960 U	1900 J	981 U	981 U	88.3	1960 U	16400	39.8 J+
PRC-UA2	Total Recoverable Metals	Soil	8/23/2017	12:37	5200	1010 UJ	3430 J-	232000	5.03 U	697	13400	5980	2560	16300 J-	5060	25800	1970	342	0.253 J-	1010 U	3570	1270 J-	1320 J	1930 J	1010 U	1010 U	95.1	2010 U	9640	61.1 J+
PRC-UA3	Total Recoverable Metals	Soil	8/23/2017	12:43	4220	806 J-	2190 J-	148000	4.93 U	392	15800	5070	2010	23900 J-	3890	10600	1570	174	0.108 J-	986 U	3090	911 J-	1770 J	2260 J	986 U	986 U	131	1970 U	8570	48.7 J+
PRC-UA4	Total Recoverable Metals	Soil	8/23/2017	12:53	4930	496 J-	3180 J-	209000	4.95 U	401	20200	5860	2660	17200 J-	4790	15800	2040	282	0.129 J-	990 U	3970	1020 J-	1600 J	2820 J	990 U	990 U	170	1980 U	9660	64.8 J+
PRC-UA5	Total Recoverable Metals	Soil	8/23/2017	13:00	5280	533 J-	3430 J-	227000	4.89 U	579	21400	6000	2790	21400 J-	5200	19900	2280	305	0.171 J-	1320	4200	1160 J-	1260 J	1530 J	978 U	978 U	178	1960 U	11300	73.5 J+
RCM-1s	Total Recoverable Metals	Soil	8/22/2017	16:00	6110	54800 J-	195000 J-	349000	4.83 U	19600	384	4170	3170	130000 J-	29900	6040000	1500	654	1.193 J-	13900	2600	1570 J-	1550 J	2640 J	29700	966 U	24.0	1930 U	14100	2770 J+
RCM-2s	Total Recoverable Metals	Soil	8/22/2017	16:00	8630	6090 J-	82000 J-	106000	5.01 U	1430	946	5630	3790	78000 J-	21900	1080000	1940	661	0.162 J-	7390	3680	1550 J-	2000 U	2810 J	5250	1000 U	17.4	2000 U	15500	260 J+
RCM-T1-4	Total Recoverable Metals	Soil	8/22/2017	16:10	7100	894 J-	69500 J-	69100	4.88 U	337	219 J	3890	2650	42500 J-	19900	584000	1590	404	0.028 J-	8310	2020	1560 J-	1950 U	2830 J	2400	975 U	15.6	1950 U	15700	75.9 J+
RCM-T3-4	Total Recoverable Metals	Soil	8/22/2017	16:56	9730	1000 J-	43000 J-	141000	4.96 U	1150	1420	6590	6580	17800 J-	17500	296000	2270	3610	0.103 J-	11000	4580	1440 J-	1980 U	3210 J	1830	992 U	14.0	1980 U	17600	219 J+
RCM-T4-2	Total Recoverable Metals	Soil	8/22/2017	17:03	13100	1540 J-	8210 J-	51700	5.02 U	2630	712	6110	2680	107000 J-	7540	1750000	2000	294	0.106 J-	1070	4490	1120 J-	2010 U	3590 J	2430	1000 U	8.24 J	2010 U	10900	450 J+
RCM-T7-2	Total Recoverable Metals	Soil	8/22/2017	17:27	6560	2230 J-	28400	136000	4.98 U	2640	1610	4310	3390	19800	10800	690000	1130	556	0.076 J-	2840	2660	1030	1990 U	4750	2940	997 U	17.5	1990 U	16400	377
RCM-T8-1	Total Recoverable Metals	Soil	8/22/2017	17:35	9720	871 J-	60700 J-	93700	4.93 U	1720	664	5130	5570	45300 J-	21000	460000	1850	1230	0.056 J-	5030	2940	1770 J-	1970 U	4580 J	2010	986 U	16.0	1430 J	17900	294
TGL-1	Total Recoverable Metals	Soil	8/23/2017	17:43	8720	985 UJ	14400 J-	67700	4.93 U	289	1240	5430	2560	31400 J-	104000	99700	2080	472	0.164 J-	2160	2410	807 J-	1720 J	5860 J	1100	985 U	36.1	1190 J	22500	83.4 J+
TGL-2	Total Recoverable Metals	Soil	8/23/2017	17:42	7110	587 J-	10400 J-	168000	5.00 U	528	3870	6260	5170	21300 J-	18700	135000	2710	1410	0.084 J-	1780	4590	1270 J-	2000 U	5710 J	687 J	999 U	60.9	2000 U	21600	156 J+
TGL-3	Total Recoverable Metals	Soil	8/23/2017	18:11	4690	1040 J-	5740 J-	219000	4.91 U	1890	12900	5190	3360	34900 J-	8320	254000	2310	2180	0.277 J-	982 U	4570	1410 J-	1470 J	3870 J	1960	982 U	76.1	1960 U	12200	387 J+
TGL-4	Total Recoverable Metals	Soil	8/23/2017	17:36	3410	749 J-	3690 J-	263000	5.07 U	2260	14600	4390	2420	36400 J-	13700	277000	1860	2870	0.271 J-	1010 U	3260	1120 J-	2030 U	5680 J	970 J	1010 U	68.8	2030 U	9220	480 J+
TGL-5	Total Recoverable Metals	Soil	8/23/2017	17:33	6940	722 J-	9300 J-	277000	4.94 U	712	9580	5870	5310	20000 J-	37000	115000	2630	1750	0.170 J-	1210	4590	1540 J-	1980 U	5370 J	645 J	988 U	64.1	1980 U	15400	188 J+
UEG-UA-SOL-205	Total Recoverable Metals	Soil	8/23/2017	15:29	14600	1010 UJ	7340 J-	131000	5.06 U	605	2210	6920	8740	28900 J-	23500	84700	5560	712	0.085 J-	1010 U	6570	1080 J-	2030 U	5680 J	1010 U	1010 U	18.3	2030 U	29300	149 J+
UEG-UA-SOL-206	Total Recoverable Metals	Soil	8/23/2017	15:36	13400	987 UJ	14700 J-	93900	4.93 U	347	1620	7530	9710	27500 J-	24400	67500	5020	1600	0.045 J-	987 U	6750	1160 J-	1970 U	5530 J	987 U	987 U	14.4	1970 U	25700	127 J+
UEG-UA-SOL-207	Total Recoverable Metals	Soil	8/23/2017	15:43	13500	998 UJ	9160 J-	112000	4.99 U	443	2060	6850	10300	22000 J-	22800	66400	5340	1080	0.045 J-	998 U	6720	1110 J-	2000 U	5570 J	998 U	998 U	16.0	2000 U	27100	110 J+
VRM-1s	Total Recoverable Metals	Soil	8/23/2017	10:00	5410	4820 J-	95800 J-	87100	4.93 U	2770	1650	5090	2970	102000 J-	29400	2160000	1710	490	0.324 J-	15000	3620	1430 J-	1030 J	3840 J	12400	986 U	26.9	1970 U	13200	662 J+
VRM-2s	Total Recoverable Metals	Soil	8/23/2017	10:00	9640	517 J-	51400 J-	75000	4.91 U	1410	2000	5970	9320	128000 J-	27200	826000	2500	1390	0.068 J-	4370	4040	1050 J-	1970 U	5260 J	1800	983 U	13.8	1970 U	16300	341 J+
VRM-T2-3	Total Recoverable Metals	Soil	8/23/2017	10:05	9450	978 UJ	44300 J-	88900	4.89 U	647	2020	6250	5420	17800 J-	16300	106000	3110	1300	0.077 J-	2540	5290	1230 J-	1960 U	5480 J	1070	978 U	14.1	1960 U	17600	164 J+
VRM-T5-3	Total Recoverable Metals	Soil	8/23/2017	10:50	8070	989 UJ	18500 J-	43600	1.00 J	1970	2340	4890	9590	51000 J-	10900	2960000	2090	2150	0.052 J-	1790	4210	710 J-	1980 U	5560 J	1610	989 U	11.1	1980 U	12800	456 J+
VRM-T6-1	Total Recoverable Metals	Soil	8/23/2017	10:58	8460	1010 UJ	14800 J-	98700	5.06 U	2750	3810	6090	4640	18900 J-	12600	384000	2820	646	0.042 J-	1010 U	4920	1090 J-	2030 U	5700 J	1010 U	1010 U	21.7	2030 U	16200	450 J+
WFA-UA-SOL-201	Total Recoverable Metals	Soil	8/23/2017	13:31	9690	531 J-	25800 J-	140000	1.53 J	3240	5150	6570	8280	27700 J-	15800	157000	3060	2090	0.046 J-	4360	6270	1670 J-	1990 U	5480 J	1080	995 U	25.6	1990 U	17700	267 J+
WFA-UA-SOL-202	Total Recoverable Metals	Soil	8/23/2017	13:41	9260	968 UJ	13600 J-	180000	4.84 U	832	4240	6630	7610	17300 J-	15400	66600	3400	1460	0.055 J-	1780	5130	1950 J-	1940 U	4390 J	583 J	968 U	26.1	1940 U	21400	151 J+
WFA-UA-SOL-203	Total Recoverable Metals	Soil	8/23/2017	13:48	13800	985 UJ	24300 J-	146000	3.14 J	6520	5010	7000	7460	74000 J-	15400	219000	3040	3790	0.089 J-	7300	14800	1280 J-	1970 U	5160 J	1520	985 U	26.6	1970 U	17000	508 J+
WFA-UA-SOL-204	Total Recoverable Metals	Soil	8/23/2017	13:48	14100	979 UJ	25500 J-	122000	3.31 J	6020	4670	6970	6650	79000 J-	14900	199000	3000	3460	0.092 J-	7290	14600	1230 J-	1960 U	4160 J	1560	979 U	23.0	1960 U	16100	527 J+

Note: Data Qualifier Definitions Listed Below:
U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample
J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample

Table 63 Bonita Peak Mining District - September 27, 2019
Campground Soil Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Zinc
					mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt
CMP3	Total Recoverable Metals	Soil	9/27/2017	16:30	3640	17500	64500	2.50 U	855	518	2700 J	1140000	44800	7260000	1590	390	1.262	1610 J	764	3570 J	3540	53800	500 U	22.4	5000 U	315
CMP8	Total Recoverable Metals	Soil	9/27/2017	8:30	8990	1790	30300	0.600 J	6480	12000	7210	92300	19800	1320000	3940	1920	0.153	5530	1920	508 J	7120	3750	156 J	73.4	1000 U	940

Note: Data Qualifier Definitions Listed Below:

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 64 Bonita Peak Mining District - Fall 2017
Biological Tissue Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	SUBMATRIX	SAMPLE DATE	SAMPLE TIME	% Solids	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Vanadium	Zinc
					% by Weight	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt
DEER-BSP-01	Total Recoverable Metals	Tissue	27-Sep-17	13:00	26.5	25.8 U	516 U	1030 U	516 UJ	2.58 U	103 U	104 J	2910	103 U	8200	95.7 J	103 U	1030	2.58 U	0.177 UJ	516 U	516 U	14700	1030 U	516 U	516 U	1080	5.16 UJ	1030 UJ	1550 U	48.8
DEER-BSP-02	Total Recoverable Metals	Tissue	27-Sep-17	16:35	27.2	25.2 U	504 U	1010 U	504 UJ	2.52 U	101 U	142	2790	101 U	4820 J	92.8 J	101 U	964	2.52 U	0.132 UJ	504 U	504 U	14300	797 J	504 U	504 U	1240	5.04 UJ	1010 UJ	1510 U	78.3 J-
DEER-BSP-DUP	Total Recoverable Metals	Tissue	27-Sep-17	16:35	27.5	23.3 U	465 U	930 U	465 UJ	2.33 U	93.0 U	134 J-	2140	93.0 U	3230 J	96.3 J	93.0 U	908	2.33 U	0.102 UJ	465 U	465 U	13300	767 J	465 U	465 U	1050	4.65 UJ	930 UJ	1400 U	65.0 J-
DEER-FST-01	Total Recoverable Metals	Tissue	27-Sep-17	13:00	24.3	25.0 U	499 U	998 U	499 UJ	2.50 U	99.8 U	134 J-	2750	99.8 U	8270	77.0 J	77.9 J	948	1.42 J	0.104 UJ	499 U	499 U	13800	998 U	499 U	499 U	1660	4.99 UJ	998 UJ	1500 U	109 J-
DEER-FST-02	Total Recoverable Metals	Tissue	27-Sep-17	16:35	25.0	25.5 U	510 U	1020 U	510 UJ	2.55 U	102 U	127 J-	2970	102 U	4570	88.2 J	102 U	957	2.55 U	0.113 UJ	510 U	510 U	14500	805 J	510 U	510 U	1730	5.10 UJ	1020 UJ	1530 U	165 J-
DEER-FST-DUP	Total Recoverable Metals	Tissue	27-Sep-17	16:35	26.0	25.5 U	510 U	1020 U	510 UJ	2.55 U	102 U	135 J-	2620	102 U	4810	80.7 J	102 U	777	2.55 U	0.121 UJ	510 U	510 U	12200	924 J	510 U	510 U	1320	5.10 UJ	1020 UJ	1530 U	253 J-
DEER-HRT-01	Total Recoverable Metals	Tissue	27-Sep-17	13:00	23.5	25.7 U	515 U	1030 U	273 J-	2.57 U	103 U	156 J-	2720	103 U	17800	165	103 U	917	1.89 J	0.106 UJ	515 U	515 U	12700	1030 U	515 U	515 U	2720	5.15 UJ	1030 UJ	1540 U	68.3 J-
DEER-HRT-02	Total Recoverable Metals	Tissue	27-Sep-17	16:35	22.9	25.3 U	516 U	1030 U	516 UJ	2.53 U	103 U	156 J-	2630	103 U	17800	145	103 U	828	1.04 J	0.125 UJ	516 U	516 U	11300	782 J	505 U	516 U	2550	5.05 UJ	1030 UJ	1550 U	56.6 J-
DEER-HRT-DUP	Total Recoverable Metals	Tissue	27-Sep-17	16:35	22.7	25.3 U	506 U	1010 U	506 UJ	2.53 U	101 U	123 J-	3080	101 U	18800	233	101 U	951	1.19 J	0.110 UJ	506 U	506 U	12900	1130	506 U	506 U	2600	5.06 UJ	1010 UJ	1520 U	60.4 J-
DEER-KID-01	Total Recoverable Metals	Tissue	27-Sep-17	13:00	19.3	24.5 U	491 U	981 U	2040 J-	2.45 U	1570	287 J-	2850	104	24600	249	215	752	7.68	0.088 J-	584	491 U	12400	2160	491 U	491 U	6660	4.91 UJ	981 UJ	1470 U	84.9 J-
DEER-KID-02	Total Recoverable Metals	Tissue	27-Sep-17	16:35	16.7	24.9 U	498 U	996 U	1230 J-	2.49 U	11700	330 J-	2950	69.0 J	27500	168	151	700	8.03	0.294 J-	1650	498 U	10900	4260	498 U	498 U	7790	4.98 UJ	996 UJ	1490 U	101 J-
DEER-KID-DUP	Total Recoverable Metals	Tissue	27-Sep-17	16:35	17.5	24.4 U	488 U	977 U	1190 J-	2.44 U	10100	355 J-	2860	65.6 J	24700	174	139	699	7.63	0.323 J-	1440	488 U	11000	3610	488 U	488 U	8370	4.88 UJ	977 UJ	1460 U	98.1 J-
DEER-LIV-01	Total Recoverable Metals	Tissue	27-Sep-17	13:00	29.6	25.0 U	500 U	1000 U	500 UJ	2.50 U	204	116 J-	3020	172	33100	232	100 U	530	12.5	0.086 UJ	1250	500 U	10000	1000 U	500 U	500 U	2250	5.00 UJ	1000 UJ	1500 U	105 J-
DEER-LIV-02	Total Recoverable Metals	Tissue	27-Sep-17	16:35	30.4	23.2 U	464 U	928 U	464 UJ	2.32 U	445	90.9 J-	3180	133	99700	403	92.8 U	467	9.96	0.105 J-	3000	464 U	8810	1160	464 U	464 U	2160	4.64 UJ	928 UJ	1390 U	111 J-
DEER-LIV-DUP	Total Recoverable Metals	Tissue	27-Sep-17	16:35	30.3	22.9 U	458 U	916 U	458 UJ	2.29 U	421	122 J-	3120	131	98900	310	91.6 U	490	10.1	0.047 J-	2900	458 U	8780	958	458 U	458 U	2060	4.58 UJ	916 UJ	1370 U	107 J-
DEER-MAR-01	Total Recoverable Metals	Tissue	27-Sep-17	13:00	74.5	23.9 U	477 U	955 U	6480 J-	2.39 U	95.5 U	4890 J-	598 J	95.5 U	433 J	57.7 J	95.5 U	173	2.39 U	0.100 UJ	477 U	477 U	1390 J-	955 U	477 U	477 U	662	9.74 J-	955 UJ	1430 U	7.97 J-
DEER-MAR-02	Total Recoverable Metals	Tissue	27-Sep-17	16:35	91.1	22.9 U	459 U	917 U	459 UJ	2.29 U	91.7 U	115 UJ	917 U	91.7 U	459 U	115 U	91.7 U	115 U	2.29 U	0.080 UJ	459 U	459 U	459 U	917 U	459 U	459 U	206 J	4.59 UJ	917 UJ	1380 U	9.17R
DEER-RST-01	Total Recoverable Metals	Tissue	27-Sep-17	13:00	24.7	23.8 U	476 U	951 U	476 UJ	2.38 U	95.1 U	125 J-	2880	95.1 U	6150	58.9 J	95.1 U	968	2.38 U	0.163 UJ	476 U	476 U	15200	951 U	476 U	476 U	1160	4.76 UJ	951 UJ	1430 U	94.0 J-
DEER-RST-02	Total Recoverable Metals	Tissue	27-Sep-17	16:35	24.3	25.4 U	509 U	1020 U	509 UJ	2.54 U	102 U	162 J-	3070	102 U	3750 J	140	102 U	707 J	2.54 U	0.109 UJ	509 U	342 J	10800	611 J	509 U	509 U	1530	5.09 UJ	1020 U	1530 U	266 J
DEER-RST-DUP	Total Recoverable Metals	Tissue	27-Sep-17	16:35	25.9	24.9 U	499 U	997 U	499 UJ	2.49 U	99.7 U	110 J	2810	99.7 U	5930 J	112 J	99.7 U	985 J	2.49 U	0.094 UJ	499 U	499 U	14800	1010	499 U	499 U	1160	4.99 UJ	585 J-	1500 U	190 J
DEER-TND-01	Total Recoverable Metals	Tissue	27-Sep-17	13:00	25.4	24.8 U	497 U	993 U	497 UJ	2.48 U	99.3 U	112 J-	3100	99.3 U	7270	89.5 J	99.3 U	1050	1.12 J	0.118 UJ	497 U	497 U	15300	993 U	497 U	497 U	1040	4.97 UJ	993 UJ	1490 U	87.3 J-
DEER-TND-02	Total Recoverable Metals	Tissue	27-Sep-17	16:35	29.6	24.6 U	493 U	985 U	493 UJ	2.46 U	98.5 U	124 J-	2690	98.5 U	5250	119 J	98.5 U	944	2.46 U	0.086 UJ	493 U	493 U	13000	898 J	493 U	493 U	1200	4.93 UJ	985 UJ	1480 U	95.9 J-
DEER-TND-DUP	Total Recoverable Metals	Tissue	27-Sep-17	16:35	33.0	24.2 U	484 U	968 U	484 UJ	2.42 U	96.8 U	94.3 J-	2470	96.8 U	5470	115 J	96.8 U	816	2.42 U	0.107 UJ	484 U	484 U	11600	843 J	484 U	484 U	837	4.84 UJ	968 UJ	1450 U	96.3 J-
GROUSE-BST-01	Total Recoverable Metals	Tissue	14-Oct-17	08:40	26.8	26.2 U	524 U	1050 U	524 UJ	2.62 U	86.2 J	116 J	3250	105 U	1900	131 U	415 J+	1250	2.62 U	0.096 U	524 U	524 U	13500	1050 U	524 U	524 U	2400	5.24 UJ	1050 U	1570 U	18.0
GROUSE-BST-02	Total Recoverable Metals	Tissue	14-Oct-17	14:00	27.5	25.4 U	508 U	1020 U	508 UJ	2.54 U	102 U	109 J	2950	102 U	1790	127 U	102 U	1210	2.54 U	0.099 U	508 U	508 U	14500	1020 U	508 U	508 U	1250	5.08 UJ	1020 U	1520 U	17.8
GROUSE-BST-03	Total Recoverable Metals	Tissue	15-Oct-17	08:30	26.7	25.2 U	504 U	1010 U	504 UJ	2.52 U	101 U	112 J	3160	101 U	1750	126 U	101 U	1220	2.52 U	0.083 U	504 U	504 U	13600	1010 U	180 J	504 U	2170	5.04 UJ	1010 U	1510 U	18.2
GROUSE-HRT-01	Total Recoverable Metals	Tissue	14-Oct-17	08:40	24.6	25.1 U	503 U	1010 U	301 J-	2.51 U	87.5 J	254	2800	73.2 J	17900	361	101 U	904	3.52	0.137 U	503 U	503 U	11800	996 J	167 J	503 U	5580	5.03 UJ	1010 U	1510 U	95.6
GROUSE-HRT-02	Total Recoverable Metals	Tissue	14-Oct-17	14:00	22.4	22.8 U	456 U	912 U	456 UJ	2.28 U	91.2 U	254	2980	69.5 J	15600	258	91.2 U	938	1.96 J	0.851 U	456 U	456 U	13600	594 J	456 U	456 U	5200	4.56 UJ	912 U	1370 U	102
GROUSE-HRT-03	Total Recoverable Metals	Tissue	15-Oct-17	08:30	23.4	20.2 U	404 U	808 U	404 UJ	2.02 U	94.0	240	2670	66.6 J	15600	198	80.8 U	927	2.17	0.539 U	404 U	404 U	12700	814	198 J	404 U	4780	0.839 J-	808 U	1210 U	100
GROUSE-KID-01	Total Recoverable Metals	Tissue	14-Oct-17	08:40	23.9	25.0 U	500 U	999 U	9980 J-	2.50 U	19000	829	2750	81.1 J	13800	191	1030 J+	718	50.1	0.236 U	2490	500 U	9140	2550	257 J	500 U	6880	3.38 J-	999 U	1500 U	107
GROUSE-KID-02	Total Recoverable Metals	Tissue	14-Oct-17	14:00	21.7	25.5 U	510 U	1020 U	2930 J-	2.55 U	3500	881	2950	166	17000	247	666 J+	864	8.30	0.555 U	4510	510 U	12800	1730	510 U	510 U	6890	1.77 J-	1020 U	1530 U	124
GROUSE-KID-03	Total Recoverable Metals	Tissue	15-Oct-17	08:30	23.1	25.4 U	508 U	1020 U	5520 J-	2.54 U	22900	399	2790	64.7 J	13200	252	884 J+	744	13.5	0.153 U	2850	508 U	11200	2230	242 J	508 U	6000	1.68 J-	1020 U	1530 U	101
GROUSE-LIV-01	Total Recoverable Metals	Tissue	14-Oct-17	08:40	26.7	25.1 U	502 U	1000 U	2710 J-	2.51 U	4050	232	2840	153	11500	1410	328 J+	639	29.1	0.035 J	26600	502 U	10400	1330	206 J	502 U	3970	1.17 J-	1000 U	1510 U	112
GROUSE-LIV-02	Total Recoverable Metals	Tissue	14-Oct-17	14:00	28.8	25.3 U	505 U	1010 U	505 UJ	2.53 U	1240	179	2700	233	11700	1100	132 J+	688	12.0	0.080 U	28800	505 U	12400	1010 U	505 U	505 U	2440	5.05 UJ	1010 U	1520 U	116
GROUSE-LIV-03	Total Recoverable Metals	Tissue	15-Oct-17	08:30	26.7	24.1 U	481 U	963 U	361 J-	2.41 U	3320	251	2860	98.0	11000	1110	239 J+	654	14.3	0.113 U	11600	481 U	11200	915 J	242 J	481 U	4070	4.81 UJ	963 U	1440 U	117

STATION_ID	ANALYSIS	SUBMATRIX	SAMPLE DATE	SAMPLE TIME	% Solids	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Vanadium	Zinc
					% by Weight	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt
DEER-BSP-02	Total Recoverable Metals	Tissue	27-Sep-17	16:35	27.2	25.2 U	504 U	1010 U	504 UJ	2.52 U	101 U	142	2790	101 U	4820	92.8	101 U	964	2.52 U	0.132 UJ	504 U	504 U	14300	797	504 U	504 U	1240	5.04 UJ	1010 UJ	1510 U	78.3
DEER-BSP-DUP	Total Recoverable Metals	Tissue	27-Sep-17	16:35	27.5	23.3 U	465 U	930 U	465 UJ	2.33 U	93.0 U	134	2140	93.0 U	3230	96.3	93.0 U	908	2.33 U	0.102 UJ	465 U	465 U	13300	767	465 U	465 U	1050	4.65 UJ	930 UJ	1400 U	65
				RPD	**1.10%**	N/A	N/A	N/A	N/A	N/A	N/A	**5.80%**	**26.37%**	N/A	**39.50%**	**3.70%**	N/A	**5.98%**	N/A	N/A	N/A	N/A	**7.25%**	**3.84%**	N/A	N/A	**16.59%**	N/A	N/A	N/A	**18.56%**

STATION_ID	ANALYSIS	SUBMATRIX	SAMPLE DATE	SAMPLE TIME	% Solids	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Vanadium	Zinc
					% by Weight	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt
DEER-FST-02	Total Recoverable Metals	Tissue	27-Sep-17	16:35	25.0	25.5 U	510 U	1020 U	510 UJ	2.55 U	102 U	127	2970	102 U	4570	88.2	102 U	957	2.55 U	0.113 UJ	510 U	510 U	14500	805	510 U	510 U	1730	5.10 UJ	1020 UJ	1530 U	165
DEER-FST-DUP	Total Recoverable Metals	Tissue	27-Sep-17	16:35	26.0	25.5 U	510 U	1020 U	510 UJ	2.55 U	102 U	135	2620	102 U	4810	80.7	102 U	777	2.55 U	0.121 UJ	510 U	510 U	12200	924	510 U	510 U	1320	5.10 UJ	1020 UJ	1530 U	253
				RPD	**3.92%**	N/A	N/A	N/A	N/A	N/A	N/A	**6.11%**	**12.52%**	N/A	**5.12%**	**8.88%**	N/A	**20.76%**	N/A	N/A	N/A	N/A	**17.23%**	**13.77%**	N/A	N/A	**26.89%**	N/A	N/A	N/A	**42.11%**

STATION_ID	ANALYSIS	SUBMATRIX	SAMPLE DATE	SAMPLE TIME	% Solids	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Vanadium	Zinc
					% by Weight	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt
DEER-HRT-02	Total Recoverable Metals	Tissue	27-Sep-17	16:35	22.9	25.3 U	516 U	1030 U	516 UJ	2.53 U	103 U	156	2630	103 U	17800	145	103 U	828	1.04	0.125 UJ	516 U	516 U	11300	782	505 U	516 U	2550	5.05 UJ	1030 UJ	1550 U	56.6
DEER-HRT-DUP	Total Recoverable Metals	Tissue	27-Sep-17	16:35	22.7	25.3 U	506 U	1010 U	506 UJ	2.53 U	101 U	123	3080	101 U	18800	233	101 U	951	1.19	0.110 UJ	506 U	506 U	12900	1130	506 U	506 U	2600	5.06 UJ	1010 UJ	1520 U	60.4
				RPD	**0.88%**	N/A	N/A	N/A	N/A	N/A	N/A	**23.66%**	**15.76%**	N/A	**5.46%**	**46.56%**	N/A	**13.83%**	**13.45%**	N/A	N/A	N/A	**13.22%**	**36.40%**	N/A	N/A	**1.94%**	N/A	N/A	N/A	**6.50%**

STATION_ID	ANALYSIS	SUBMATRIX	SAMPLE DATE	SAMPLE TIME	% Solids	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Vanadium	Zinc
					% by Weight	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt
DEER-KID-02	Total Recoverable Metals	Tissue	27-Sep-17	16:35	16.7	24.9 U	498 U	996 U	1230	2.49 U	11700	330	2950	69	27500	168	151	700	8.03	0.294	1650	498 U	10900	4260	498 U	498 U	7790	4.98 UJ	996 UJ	1490 U	101
DEER-KID-DUP	Total Recoverable Metals	Tissue	27-Sep-17	16:35	17.5	24.4 U	488 U	977 U	1190	2.44 U	10100	355	2860	65.6	24700	174	139	699	7.63	0.323	1440	488 U	11000	3610	488 U	488 U	8370	4.88 UJ	977 UJ	1460 U	98.1
				RPD	**4.68%**	N/A	N/A	N/A	**3.31%**	N/A	**14.68%**	**7.30%**	**3.10%**	**5.05%**	**10.73%**	**3.51%**	**8.28%**	**0.14%**	**5.11%**	**9.40%**	**13.59%**	N/A	**0.91%**	**16.52%**	N/A	N/A	**7.18%**	N/A	N/A	N/A	**2.91%**

STATION_ID	ANALYSIS	SUBMATRIX	SAMPLE DATE	SAMPLE TIME	% Solids	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Vanadium	Zinc
					% by Weight	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt
DEER-LIV-02	Total Recoverable Metals	Tissue	27-Sep-17	16:35	30.4	23.2 U	464 U	928 U	464 UJ	2.32 U	445	90.9	3180	133	99700	403	92.8 U	467	9.96	0.105	3000	464 U	8810	1160	464 U	464 U	2160	4.64 UJ	928 UJ	1390 U	111
DEER-LIV-DUP	Total Recoverable Metals	Tissue	27-Sep-17	16:35	30.3	22.9 U	458 U	916 U	458 UJ	2.29 U	421	122	3120	131	98900	310	91.6 U	490	10.1	0.047	2900	458 U	8780	958	458 U	458 U	2060	4.58 UJ	916 UJ	1370 U	107
				RPD	**0.33%**	N/A	N/A	N/A	N/A	N/A	**5.54%**	**29.22%**	**1.90%**	**1.52%**	**0.81%**	**26.09%**	N/A	**4.81%**	**1.40%**	**76.32%**	**3.39%**	N/A	**0.34%**	**19.07%**	N/A	N/A	**4.74%**	N/A	N/A	N/A	**3.67%**

STATION_ID	ANALYSIS	SUBMATRIX	SAMPLE DATE	SAMPLE TIME	% Solids	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Vanadium	Zinc
					% by Weight	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt
DEER-RST-02	Total Recoverable Metals	Tissue	27-Sep-17	16:35	24.3	25.4 U	509 U	1020 U	509 UJ	2.54 U	102 U	162	3070	102 U	3750	140	102 U	707	2.54 U	0.109 UJ	509 U	342	10800	611	509 U	509 U	1530	5.09 UJ	1020 U	1530 U	266
DEER-RST-DUP	Total Recoverable Metals	Tissue	27-Sep-17	16:35	25.9	24.9 U	499 U	997 U	499 UJ	2.49 U	99.7 U	110	2810	99.7 U	5930	112	99.7 U	985	2.49 U	0.094 UJ	499 U	499 U	14800	1010	499 U	499 U	1160	4.99 UJ	585 J-	1500 U	190
				RPD	**6.37%**	N/A	N/A	N/A	N/A	N/A	N/A	**38.24%**	**8.84%**	N/A	**45.04%**	**22.22%**	N/A	**32.86%**	N/A	N/A	N/A	N/A	**31.25%**	**49.23%**	N/A	N/A	**27.51%**	N/A	N/A	N/A	**33.33%**

STATION_ID	ANALYSIS	SUBMATRIX	SAMPLE DATE	SAMPLE TIME	% Solids	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silica (SiO2)	Silver	Sodium	Strontium	Thallium	Vanadium	Zinc
					% by Weight	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt
DEER-TND-02	Total Recoverable Metals	Tissue	27-Sep-17	16:35	29.6	24.6 U	493 U	985 U	493 UJ	2.46 U	98.5 U	124	2690	98.5 U	5250	119	98.5 U	944	2.46 U	0.086 UJ	493 U	493 U	13000	898	493 U	493 U	1200	4.93 UJ	985 UJ	1480 U	95.9
DEER-TND-DUP	Total Recoverable Metals	Tissue	27-Sep-17	16:35	33.0	24.2 U	484 U	968 U	484 UJ	2.42 U	96.8 U	94.3	2470	96.8 U	5470	115	96.8 U	816	2.42 U	0.107 UJ	484 U	484 U	11600	843	484 U	484 U	837	4.84 UJ	968 UJ	1450 U	96.3
				RPD	**10.86%**	N/A	N/A	N/A	N/A	N/A	N/A	**27.21%**	**8.53%**	N/A	**4.10%**	**3.42%**	N/A	**14.55%**	N/A	N/A	N/A	N/A	**11.38%**	**6.32%**	N/A	N/A	**35.64%**	N/A	N/A	N/A	**0.42%**

Note: Removed flags from values for RPD calculation
Note: Data Qualifier Definitions Listed Below:
U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit.
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 65 Bonita Peak Mining District - High Flow July 11-12, 2017
Willow Collection Analytical Results - Total Recoverable Metals

STATION_ID	ANALYSIS	MATRIX	SAMPLE DATE	SAMPLE TIME	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Selenium	Silica (SiO2)	Silver	Strontium	Thallium	Zinc
					mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	ug/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt	ug/kg dry wt	mg/kg dry wt
CAG-TP	Total Recoverable Metals	Vegetation	7/11/2017	11:40	16.6 J	506 UJ	1010 U	2.53 U	5020	5490	3020 J-	2750 J-	126 U	794	864	109	0.198 UJ	437 J-	1010 U	506 U	506 U	35.1	1010 U	186
MGR-TP	Total Recoverable Metals	Vegetation	7/12/2017	17:00	14.3 J	491 UJ	983 U	2.46 U	3940	7290	2610 J-	3710 J-	123 U	357	1250	116	0.198 UJ	491 UJ	983 U	491 U	491 U	64.4	983 U	317
OSL-TP	Total Recoverable Metals	Vegetation	7/12/2017	11:20	41.3	504 UJ	1010 U	2.52 U	15300	10700	3090 J-	11700 J-	194	3240	793	81.1	0.198 UJ	549 J-	1010 U	504 U	504 U	70.8	1010 U	952
OSL-TP	Total Recoverable Metals	Vegetation	7/12/2017	12:15	31.9	492 UJ	985 U	2.46 U	13200	3630	2980 J-	3750 J-	123 U	36900	705	425	0.197 UJ	722 J-	985 U	492 U	492 U	26.1	985 U	512
PLG-TP	Total Recoverable Metals	Vegetation	7/12/2017	13:15	14.5 J	492 UJ	983 U	2.46 U	17400	7150	3190 J-	3180 J-	123 U	2130	940	175	0.200 UJ	492 UJ	983 U	492 U	492 U	29.8	983 U	580
SFC-TP	Total Recoverable Metals	Vegetation	7/12/2017	12:10	22.5 J	504 UJ	1010 U	2.52 U	27400	5260	2890 J-	3250 J-	126 U	235	813	269	0.199 UJ	567 J-	1010 U	504 U	504 U	45.7	1010 U	570
SFM-TP	Total Recoverable Metals	Vegetation	7/12/2017	15:25	29.7	497 UJ	995 U	2.49 U	1650	12000	2750 J-	3060 J-	124 U	926	920	31.3	0.200 UJ	497 UJ	995 U	497 U	497 U	59.5	995 U	259
SFM-TP	Total Recoverable Metals	Vegetation	7/12/2017	15:40	27.2	507 UJ	1010 U	2.54 U	506	10200	2670 J-	1490 J-	127 U	204	610	125	0.198 UJ	507 UJ	1010 U	507 U	507 U	73.0	1010 U	80.1
UMC-TP	Total Recoverable Metals	Vegetation	7/11/2017	16:35	23.3 J	500 UJ	999 U	2.50 U	1340	6130	2940 J-	2620 J-	68.3 J	253	659	280	0.199 UJ	721 J-	999 U	500 U	500 U	193	999 U	113

Note: Data Qualifier Definitions Listed Below:

U = The analyte was analyzed for, but was not detected above the level of the reported sample Quantitation limit. Reported values represent the method detection limit

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample

J- = The result is an estimated quantity and likely to have a low bias. The associated numerical value is the approximate concentration of the analyte in the sample

J+ =The result is an estimated quantity and likely to have a high bias. The associated numerical value is the approximate concentration of the analyte in the sample

Table 66 Bonita Peak Mining District - Pre-runoff May 2, 2017
Electronic Data Collection Field Notes

Location ID	Sample Collection Type	Date	Time	Form Author's Name	Field Sampler's Name	Water Quality Probe Barcode	Flow Measurement Barcode	TRM Bottle Lot Number	DM Bottle Lot Number	Alk/Anion Bottle Lot Number	Stable Isotope Bottle Lot Number
A58	Field Sample	5/2/2017	14:40	Emily Yadacus	Emily Yadacus	16D101839	Flowtracker Unit 6	0109172BQJ	1193170	0215162BQL	
A55	Field Sample	5/2/2017	16:30	Emily Yadacus	Emily Yadacus	16D101839	NA	0109172BQJ	1193170	0215162BQL	
A56	Field Sample	5/2/2017	15:35	Ryan Monahan	Ryan Monahan	16D101839	Flowtracker Unit 6	0109172BQJ	1193170	0215162BQL	
A66	Field Sample	5/2/2017	09:40	Emily Yadacus	Emily Yadacus	16D101839	Flowtracker Unit 6	0109172BQJ	1193170	0215162BQL	
A68	Field Sample	5/2/2017	09:05	Ryan Monahan	Emily Yadacus	16D101839	NA	0109172BQJ	1193170	0215162BQL	
A72	Field Sample	5/2/2017	07:45	Ryan Monahan	Emily Yadacus	16D101839	NA	0109172BQJ	1193170	0215162BQL	
CC48	Field Sample	5/2/2017	12:40	Ryan Monahan	Ryan Monahan	16D101839	NA	0109172BQJ	1193170	0215162BQL	B425901VB
CC21	Field Sample	5/2/2017	13:35	Emily Yadacus	Emily Yadacus	16D101839	Flowtracker Unit 6	0109172BQJ	1193170	0215162BQL	B425901VB
M14A	Field Sample	5/2/2017	11:00	Lisa Richardson	Lisa Richardson	16D101839	Flowtracker Unit 6	0109172BQL	1193170	0215162BQL	
M34	Field Sample	5/2/2017	08:25	Ryan Monahan	Emily Yadacus	16D101839	NA	0109172BQJ	1193170	0215162BQL	
M27	Field Sample	5/2/2017	10:20	Emily Yadacus	Emily Yadacus	16D101839	Flowtracker Unit 6	0109172BQJ	1193170	0215162BQL	

Location ID	Environmental Conditions	Remarks
A58	Weather is cloudy with snow/rain. Temps in the upper 30s.	Water appears to be flowing clearly with no visible staining on the substrate below.
A55	Weather is cloudy with rain snow precipitation and temps in the low 30s.	Substrate is stained orange and water appears to be cloudy but flowing clearly.
A56	Light snow temps in the 30s overcast. Water is clear substrate appears green	RM collected surface water grab samples for total recoverable metals dissolved metals and alkalinity and anions. EY collected flow with flowtracker unit 6.
A66	Weather is partly cloudy with temps in the 40s.	Water appears to be flowing clearly and no staining on substrate below.
A68	Partly cloudy. Temps in the 30s. Water is flowing clear with some orange staining on rocks. More orange staining on rocks on banks outside of channel.	EY collected surface water grab samples for total recoverable metals, dissolved metals, and alkalinity and anions. Flow is measured by USGS gauging station.
A72	Site is shady. Water is flowing slightly cloudy. Substrate is stained orange. Weather is mostly sunny temps in the low 30s.	EY collected surface water grab samples for total recoverable metals, dissolved metals and alkalinity and anions. Water quality was measured with EPA EXO.
CC48	Sunny with temps in the high 40s. Water is clear at shallow depths and cloudy at deeper depths. Substrate is stained orange.	RM collected surface water grab samples for total recoverable metals dissolved metals alkalinity and anions and stable isotopes. USGS gauging station recorded flow. Dup-01 collected here. Tag line was left here from previous visitor to site, left tag line.
CC21	Weather is snowing and overcast with temps in the low 20s.	EY collected surface water grab samples from middle of channel for total recoverable metals, dissolved metals, and alkalinity anions. Water appears to be flowing cloudy yet clear with a visible orange staining on substrate below.
M14A	Cool, partly sunny, clear water, clean substrate, snow completely melted from banks.	LR collected surface water samples for total, dissolved, alk/anions. Emily Yadacus collected flows.
M34	Site is in the sun. Seep on the river right is going in Mineral Creek at sample location. Water is cloudy but clear and substrate is stained orange. Mostly sunny, temps in the 30s.	EY collected surface water grab samples for total recoverable metals, dissolved metals, and alkalinity and anions. Dup-02 collected here. Took extra picture of seep at sample location.
M27	Weather is partly cloudy with a slight breeze and temperatures in the low 40s.	Water appears to be flowing cloudy but clear and substrate has an orange below.

Table 67 Bonita Peak Mining District - Pre-runoff May 15-17, 2017
Electronic Data Collection Field Notes

Location ID	Sample Collection Type	Date	Time	Form Author's Name	Field Sampler's Name	Water Quality Probe Barcode	Flow Measurement Barcode	TRM Bottle Lot Number	DM Bottle Lot Number	Alk/Anion Bottle Lot Number	Stable Isotope Bottle Lot Number
A35	Field Sample	5/17/2017	08:00	Emily Yadacus	Emily Yadacus	16D101838		010907-2BQJ	1186799	000895	
A34	Field Sample	5/17/2017	09:15	Emily Yadacus	Emily Yadacus	16D101838	Unit 6	010917-2BQJ	1186799	000877	
A33	Field Sample	5/17/2017	10:15	Ryan Monahan	Ryan Monahan	16D101838	Unit 6	010917-2BQJ	1186799	000917	
A53AC	Field Sample	5/16/2017	16:20	Emily Yadacus	Ryan Monahan	16D101839		010917-2BQJ	1186799	000887	
A55	Field Sample	5/16/2017	16:00	Emily Yadacus	Ryan Monahan	16D101839		010917-2BQJ	1186799	000912	
A56	Field Sample	5/16/2017	15:25	Ryan Monahan	Emily Yadacus	16D101839		010917-2BQJ	1186799	00068090	
T4	Field Sample	5/16/2017	14:10	Emily Yadacus	Ryan Monahan	16D101839		010917-2BQJ	1193170	021516-2BQL	
A58	Field Sample	5/16/2017	14:45	Emily Yadacus	Emily Yadacus	16D101839	Unit 6	010917-2BQJ	1193170	021516-2BQL	
A66	Field Sample	5/16/2017	13:50	Emily Yadacus	Ryan Monahan	16D101839		010917-2BQJ	1193170	021516-2BQL	
M07	Field Sample	5/16/2017	12:30	Ryan Monahan	Ryan Monahan	16D101839	Unit 6	010917-2BQJ	1186799	021516-2BQL	
M10A	Field Sample	5/16/2017	11:50	Ryan Monahan	Ryan Monahan	16D101839	Unit 6	010917-2BQJ	119370	021516-2BQL	
M11	Field Sample	5/16/2017	10:55	Ryan Monahan	Ryan Monahan	16D101839	Unit 6	010917-2BQJ	1193170	021516-2BQL	
M14A	Field Sample	5/16/2017	09:50	Emily Yadacus	Emily Yadacus	16D101839	Unit 6	010917-2BQJ	1193170	021516-2BQL	
M27	Field Sample	5/16/2017	08:50	Emily Yadacus	Emily Yadacus	16D101839	Unit 6	010917-2BQJ	1193170	021516-2BQL	
M28	Field Sample	5/16/2017	08:00	Emily Yadacus	Emily Yadacus	16D101839	Unit 6	010917-2BQJ	1193170	021516-2BQL	
A68	Field Sample	5/15/2017	17:15	Emily Yadacus	Ryan Monahan	16D101839		010917-2BQJ	1193170	021516-2BQL	
M34	Field Sample	5/15/2017	17:00	Emily Yadacus	Ryan Monahan	16D101839		010917-2BQJ	1193170	021516-2BQL	
A72	Field Sample	5/15/2017	16:30	Emily Yadacus	Ryan Monahan	16D101839		010917-2BQJ	1193170	021516-2BQL	

Location ID	Environmental Conditions	Remarks
A35	Weather is snowing and cloudy with a 20 mph breeze present.	Water appears to be flowing clearly and swiftly. There is no visible staining on substrate below. Surface water grab samples for total recoverable metals dissolved metals and alkalinity and anions were collected by EY. Flow was measured by RM.
A34	Weather is snowing and cloudy with temperatures in the low 30s and a10-15mph breeze present.	Water is flowing clearly and no staining on substrate below. Surface water grab samples for total recoverable metals, dissolved metals and alkalinity and anions were collected by EY. Flow was measured by RM.
A33	Temperatures in the 30s. Overcast and lightly snowing slight breeze. Water is clear no visual staining on substrate	RM collected surface water grab samples for total recoverable metals, dissolved metals and alkalinity and anions. EY collected flow using flow tracker unit 6.
A53AC	Weather is partly cloudy with temps in the low 30s and a 10-15mph wind present. Field blank was collected here.	Surface water grab samples collected by RM for total recoverable metals, dissolved metals and alkalinity and anions. Water appears to be flowing rapidly and cloudy but no staining on substrate below. No flow collected due to unsafe conditions.
A55	Weather is cloudy with temps in the low 30s and a 10-15mph wind present.	Water is flowing rapidly with a cloudy haze to swift water. Substrate is no visible below. Surface water grab samples collected for total recoverable metals dissolved metals and alkalinity and anions by RM. Unsafe Conditions for flow.
A56	Overcast with light snow. Temps in the 30s. Water is clear along banks and a cloudy blue green in the thalweg.	EY collected surface water grab samples for total recoverable metals, dissolved metals and alkalinity and anions. No flow collected, water level is to high causing unsafe conditions
T4	Weather is partly cloudy with some snow and temps in the low 40s or upper 30s with a slight breeze present.	Water is flowing rapidly and is unsafe for measuring flow. Water appears to be cloudy due to velocity. Surface water grab samples for total recoverable metals, dissolved metals and alkalinity and anions were collected by RM.
A58	Weather is cloudy and snowing with temps in the low 30s. Slight breeze is present.	Water appears to be flowing swiftly and clearly with no visible staining on substrate below. Surface water grab samples collected for total recoverable metals, dissolved metals and alkalinity and anions by EY. RM measured flow.
A66	Weather is partly cloudy with temperatures in the low 40s or high 30s. A 10-15mph breeze is present.	Water is flowing rapidly and appears to be flowing cloudy. There is an orange staining to the substrate below. Surface water grab samples were collected by RM for total recoverable metals, dissolved metals and alkalinity and anions. No flow measured unsafe
M07	Partly cloudy temps in the 40s. Water is cloudy, only clear in shallow areas. Substrate is stained orange	RM collected surface water grab samples for total recoverable metals, dissolved metals and alkalinity and anions. EY collected flow on unit 6
M10A	Mostly cloudy temps in the 30s. Water is flowing clear substrate is stained orange	RM collected surface water grab samples for total recoverable metals, dissolved metals and alkalinity and anions. EY collected flow on unit 6
M11	Overcast and cloudy. Light snow. Temps in the mid 30s. Water is flowing clear substrate has some stained cobble.	RM collected surface water grab samples for total recoverable metals, dissolved metals and alkalinity and anions. EY collected flow
M14A	Weather is cloudy with rain/snow mixture present and a 10-mph wind.	Water is flowing swiftly but mostly clear only murky in strong flow areas. Surface water grab samples were collected by EY for total recoverable metals, dissolved metals and alkalinity anions. Ryan Monahan measured flow. No staining on substrate below.
M27	Weather is mostly sunny partly cloudy with temperatures in the low 40s and a mild breeze.	Water is cloudy and flowing rapidly substrate is not visible below water surface water grab samples collected by EY for total recoverable metals, alkalinity and Anion and dissolved metals. Ryan Monahan measured flow.
M28	Weather is partly cloudy with a slight breeze present and temperatures in the low 40s.	Water appears to be flowing swiftly but is flowing clear. There is an orange staining on substrate below. Surface water grab samples were collected by EY for total recoverable metals, dissolved metals and alkalinity and anions. Ryan Monahan measured flow.
A68	Weather is mostly cloudy with temperatures in the mid 40s and a slight breeze is present.	Water appears to be flowing with high velocity and water is murky. Substrate is not visible.
M34	Weather is mostly cloudy with a slight breeze in temperatures in the mid 40s.	Water is flowing quickly and appears cloudy cannot see substrate below surface. Seep is entering Mineral Creek directly above sample site
A72	Weather is mostly cloudy. Temps in the mid 40s and a slight breeze.	Water appears to be flowing very high rapidly with murky water. Cannot see substrate below.

Table 68 Bonita Peak Mining District - High Flow June 6-7, 2017
Electronic Data Collection Field Notes Part 1

Location ID	Date	Time	Form Author's Name	Field Sampler's Name	Water Quality Probe Barcode	Flow Measurement Barcode	TRM Bottle Lot Number	DM Bottle Lot Number	Alk/Anion Bottle Lot Number	Stable Isotope Bottle Lot Number
M33	6/6/2017	08:45	Dave Christenson	Kelsey Bartling	4085 rental unit	NA	010917-2BQJ	1193170	00068090	
M32	6/6/2017	09:15	Dave Christenson	Kelsey Bartling	4085 rental unit	NA	010917-2BQJ	1193170	00068090	
M29	6/6/2017	09:50	Dave Christenson	Kelsey Bartling	4085 rental unit	NA	010917-2BQJ	1193170	00068090	
M27	6/6/2017	10:15	Dave Christenson	Kelsey Bartling	4085 rental unit	NA	010917-2BQJ	1193170	00068090	
M28	6/6/2017	10:50	Dave Christenson	Kelsey Bartling	4085 rental unit	NA	010917-2BQJ	1193170	00068090	
M26D	6/6/2017	11:20	Dave Christenson	Kelsey Bartling	4085 rental unit	NA	010917-2BQJ	1193170	00068090	
Bakers_Bridge	6/8/2017	09:00	Leslie Christner	Leslie Christner	5435 rental unit	NA	010917-2BQJ	1193170	000930	
A13	6/7/2017	16:40	Ian Bowen	Brian Sanchez	YSI 4507	NA	010917-2BQJ	1197430	000862	
CG9	6/7/2017	16:13	Ian Bowen	Brian Sanchez	YSI 4507	NA	010917-2BQJ	1197430	000859	
A11	6/7/2017	16:01	Ian Bowen	Brian Sanchez	YSI 4507	NA	010917-2BQJ	1197430	000857	
CG11	6/7/2017	15:04	Ian Bowen	Brian Sanchez	YSI 4507	NA	010917-2BQJ	1193170	001085	
A09	6/7/2017	14:33	Ian Bowen	Brian Sanchez	YSI 4507	NA	010917-2BQJ	1193170	000982	
A10	6/7/2017	14:21	Ian Bowen	Brian Sanchez	YSI 4507	NA	010917-2BQJ	1193170	000856	
A14	6/7/2017	14:02	Ian Bowen	Brian Sanchez	YSI 4507	NA	010917-2BQJ	1193170	000868	
A30A	6/7/2017	13:09	Ian Bowen	Brian Sanchez	YSI 4507	NA	010917-2BQJ	1193170	000864	
A30B	6/7/2017	12:46	Ian Bowen	Brian Sanchez	YSI 4507	NA	010917-2BQJ	1193170	000873	
A31	6/7/2017	11:35	Ian Bowen	Brian Sanchez	YSI 4507	NA	010917-2BQJ	1193170	001111	
A33	6/7/2017	11:16	Ian Bowen	Brian Sanchez	YSI 4507	NA	010917-2BQJ	1193170	000872	
A35	6/7/2017	10:53	Ian Bowen	Brian Sanchez	YSI 4507	NA	010917-2BQJ	1193170	000870	
A34	6/7/2017	10:22	Ian Bowen	Brian Sanchez	YSI 4507	NA	010917-2BQJ	1193170	001115	
CC48	6/7/2017	09:30	Ian Bowen	Brian Sanchez	YSI 4507	NA	010917-2BQJ	1193170	000871	
CC43E	6/7/2017	09:01	Ian Bowen	Brian Sanchez	YSI 4507	NA	121216-2BQJ	1193170	000952	
CC41	6/7/2017	08:42	Ian Bowen	Brian Sanchez	YSI 4507	NA	121216-2BQJ	1193170	000957	
CC39D	6/7/2017	08:20	Ian Bowen	Brian Sanchez	YSI 4507	NA	121216-2BQJ	1193170	001127	
CC39	6/6/2017	17:52	Ian Bowen	Brian Sanchez	YSI 4507	NA	121216-2BQJ	1193170	001016	
CC39C	6/6/2017	17:43	Ian Bowen	Brian Sanchez	YSI 4507	NA	121216-2BQJ	1193170	000898	
CC39B	6/6/2017	17:09	Ian Bowen	Brian Sanchez	YSI 4507	NA	121216-2BQJ	1193170	001041	
CC28D	6/6/2017	16:35	Ian Bowen	Brian Sanchez	YSI 4507	NA	121216-2BQJ	1193170	000972	
CC28C	6/6/2017	16:20	Ian Bowen	Brian Sanchez	YSI 4507	NA	121216-2BQJ	1193170	000970	
CC28E	6/6/2017	16:05	Ian Bowen	Brian Sanchez	YSI 4507	NA	121216-2BQJ	1193170	000988	
CC26	6/6/2017	15:28	Ian Bowen	Brian Sanchez	YSI 4507	Flowtracker unit 6	121216-2BQJ	1193170	000932	
CC21D	6/6/2017	14:47	Ian Bowen	Brian Sanchez	YSI 4507	Flow tracker unit 6	121216-2BQJ	1193170	000974	
CC17	6/6/2017	14:02	Ian Bowen	Brian Sanchez	YSI 4507	Flow tracker unit 6	121216-2BQJ	1193170	001040	
CC21	6/6/2017	13:45	Leslie Christner	Brian Sanchez	YSI 4507	NA	121216-2BQJ	1193170	00068090	B-1-187-01VB
CC06	6/6/2017	12:57	Leslie Christner	Ian Bowen	YSI 4507	NA	121216-2BQJ	1193170	00068090	B-1-187-01VB
CC19	6/6/2017	12:35	Leslie Christner	Brian Sanchez	YSI 4507	NA	121216-2BQJ	1193170	00068090	B-1-187-01VB
CC20H	6/6/2017	12:15	Leslie Christner	Brian Sanchez	YSI 4507	NA	121216-2BQJ	1193170	00068090	B-1-187-01VB
CC18	6/6/2017	12:00	Leslie Christner	Brian Sanchez	YSI 4507	NA	121216-2BQJ	1193170	00068090	
CC03	6/6/2017	10:55	Ian Bowen	Brian Sanchez	YSI 4507	Unit 6	121216-2BQJ	1193170	001130	
CC03B	6/6/2017	09:55	Ian Bowen	Brian Sanchez	YSI 4507	NA	121216-2BQJ	1193170	00068090	
CC03C	6/6/2017	09:20	Leslie Christner	Brian Sanchez	YSI 4507	MSI 4" Baski	121216-2BQJ	1193170	000977	B-1-187-01VB
CC07	6/6/2017	10:26	Ian Bowen	Brian Sanchez	YSI 4507	Flowtracker unit 6	121216-2BQJ	1193170	001038	
M06C	6/7/2017	15:57	Susan Griffin	Emily Yadacus	5435 rental unit	1193970	010907-2BQJ		000776	
M06B	6/7/2017	15:51	Susan Griffin	Emily Yadacus	5435 rental unit	NA	010917-2BQJ	1193170	000786	
M11	6/7/2017	13:55	Susan Griffin	Emily Yadacus	5435 rental unit	NA	010917-2BQJ	1193170	000766	
M18	6/6/2017	15:50	Emily Yadacus	Emily Yadacus	5435 rental unit	No flow collected cascading swift moving water.	010917-2BQJ	1193170	000766	
M17	6/7/2017	09:15	Susan Griffin	Susan Griffin and Emily Yadacu	5435 rental unit	NA	010917-2BQJ	1193170	000766	
M16D	6/7/2017	11:06	Susan Griffin	Emily Yadacus	5435 rental unit	NA	010917-2BQJ	1193170	000766	
M16A	6/7/2017	10:54	Susan Griffin	Susan Griffin	5435 rental unit	NA	010917-2BQJ	1193170	000766	
M16	6/7/2017	10:34	Susan Griffin	Susan Griffin	5435 rental unit	NA	010917-2BQJ	1193170	000766	
M20	6/6/2017	16:38	Susan Griffin	Emily Yadacus	5435 rental unit	NA	010917-2BQJ	1193170	000766	
M17A	6/6/2017	15:55	Susan Griffin	Susan Griffin	5435 rental unit	NA	010917-2BQJ	1193170	000766	
M19	6/6/2017	15:33	Susan Griffin	Emily Yadacus	5435 rental unit	NA	010917-2BQJ	1193170	000166	
M14A	6/6/2017	14:08	Susan Griffin	Emily Yadacus	5435 rental unit	NA	010917-2BQJ	1193170	000766	
M22	6/6/2017	13:29	Susan Griffin	Emily Yadacus	5435 rental unit	NA	010917-2BQJ	1193170	00765	
M27A	6/6/2017	12:44	Susan Griffin	Emily Yadacus	5435 rental unit	NA	010917-2BQJ	1193170	000792	
M26B	6/6/2017	11:33	Susan Griffin	Emily Yadacus	5435 rental unit	NA	010917-2BQJ	126-0045	000775	
M27A2	6/6/2017	10:52	Susan Griffin	Emily Yadacus	5435 rental unit	NA				
M29A	6/6/2017	10:11	Susan Griffin	Emily Yadacus	5435 rental unit	NA	010917-2BQJ	1193170	000794	
M29B	6/6/2017	09:50	Susan Griffin	Emily Yadacus	5435 rental unit	NA	010917-2BQJ	1193170	000793	
M34	6/6/2017	09:15	Susan Griffin	Emily Yadacus	5435 rental unit	NO FLOW	010917-2BQJ	1193107	000774	
M38	6/6/2017	08:45	Emily Yadacus	Emily Yadacus	5435 rental unit	No flow	010917-2BQJ	1193170	000773	
M06A	6/7/2017	15:55	Dave Christenson	Dave Christenson	3338 rental unit	965843	010917-2BQJ	1193170	00068090	
M07	6/7/2017	14:10	Dave Christenson	Kelsey Bartling	3338 rental unit	NA	010917-2BQJ	1193170	00068090	
M16C	6/7/2017	11:00	Dave Christenson	Kelsey Bartling	3338 rental unit	NA	010917-2BQJ	1193170	00068090	
M16G	6/7/2017	11:40	Emily Yadacus	Kelsey Bartling	3338 rental unit	No flow	010917-2BQJ	1193170	00079	
M16E	6/7/2017	10:30	Dave Christenson	Dave Christenson	3338 rental unit	965841	010917-2BQJ	1193170	00068090	
M16H	6/7/2017	09:15	Dave Christenson	Dave Christenson	3338 rental unit	965843	010917-2BQJ	1193170	00068090	
M13A	6/6/2017	15:40	Dave Christenson	Kelsey Bartling	4085 rental unit	NA	010917-2BQJ	1193170	00068090	
M12	6/6/2017	15:10	Dave Christenson	Dave Christenson	4085 rental unit	NA	010917-2BQJ	1193170	00068090	
M13B	6/6/2017	14:35	Dave Christenson	Kelsey Bartling	4085 rental unit	NA	010917-2BQJ	1193170	00068090	
M13D	6/6/2017	14:20	Dave Christenson	Kelsey Bartling	4085 rental unit	NA	010917-2BQJ	1193170	00068090	
M14	6/6/2017	13:15	Dave Christenson	Dave Christenson	4085 rental unit	965841	010917-2BQJ	1193170	00068090	
M14B	6/6/2017	12:45	Dave Christenson	Kelsey Bartling	4085 rental unit	NA	010917-2BQJ	1193170	00068090	
A05	6/7/2017	15:25	Steve Auer	Ryan Monahan	4085 rental unit	N/A	010917-2BQJ	1193170	00068090	N/A
A30	6/7/2017	13:39	Steve Auer	Ryan Monahan	4085 rental unit	N/A	010917-2BQJ	1193170	00068090	N/A
A28	6/7/2017	13:17	Steve Auer	Ryan Monahan	4085 rental unit	N/A	121216-2BQJ	1193170	00068090	N/A
A40A	6/7/2017	12:04	Steve Auer	Ryan Monahan	4085 rental unit	N/A	121216-2BQJ	1193170	00068090	N/A
A40	6/7/2017	11:32	Steve Auer	Ryan Monahan	4085 rental unit	N/A	121216-2BQJ	1193170	00068090	N/A
A41A	6/7/2017	11:22	Steve Auer	Ryan Monahan	4085 rental unit	N/A	121216-2BQJ	1193170	00068090	N/A
LA3	6/7/2017	10:41	Steve Auer	Ryan Monahan	4085 rental unit	N/A	121216-2BQJ	1193170	00068090	N/A
A45	6/7/2017	10:13	Steve Auer	Ryan Monahan	4085 rental unit	N/A	121216-2BQJ	1193170	00068090	N/A
DM56	6/7/2017	09:11	Steve Auer	Ryan Monahan	4085 rental unit	N/A	010917-2BQJ	1193170	00068090	N/A
A54	6/7/2017	08:31	Steve Auer	Ryan Monahan	4085 rental unit	N/A	010917-2BQJ	1193170	00068090	N/A
CU4a	6/6/2017	16:44	Steve Auer	Ryan Monahan	3338 rental unit	N/A	121216-2BQJ	1193170	00068090	
CU4	6/6/2017	16:15	Steve Auer	Ryan Monahan	3338 rental unit	N/A	121216-2BQJ	1193170	00068090	N/A
A48	6/6/2017	15:50	Steve Auer	Ryan Monahan	3338 rental unit	N/A	121216-2BQJ	1193170	00068090	N/A
CG01	6/6/2017	14:50	Steve Auer	Ryan Monahan	3338 rental unit	N/A	121216-2BQJ	1193170	00068090	N/A
CG02	6/6/2017	14:35	Steve Auer	Ryan Monahan	3338 rental unit	N/A	121216-2BQJ	1193170	00068090	N/A
A47	6/6/2017	14:06	Steve Auer	Ryan Monahan	3338 rental unit	N/A	121216-2BQJ	1193170	00068090	N/A
A55	6/6/2017	13:46	Steve Auer	Ryan Monahan	3338 rental unit	N/A	121216-2BQJ	1193170	00068090	N/A
A55a	6/6/2017	13:19	Steve Auer	Ryan Monahan	3338 rental unit	N/A	121216-2BQJ	1186799	00068090	N/A
A56	6/6/2017	12:45	Steve Auer	Ryan Monahan	3338 rental unit	N/A	121216-2BQJ	1186799	00068090	N/A
A58	6/6/2017	11:57	Steve Auer	Steve Auer Sampler. Ryan Monahan flow	3338 rental unit	N/A	121216-2BQJ	1186799	00068090	N/A
A60	6/6/2017	11:32	Steve Auer	Ryan Monahan	3338 rental unit	N/A	121216-2BQJ	1186799	00068090	N/A
A61	6/6/2017	11:10	Steve Auer	Ryan Monahan	3338 rental unit	N/A	121216-2BQJ	1186799	00068090	N/A
A72	6/6/2017	08:41	Steve Auer	Ryan Monahan	3338 rental unit	Gauging station	121216-2BQJ	1186799		B-2-164-01VB
T4	6/6/2017	10:43	Steve Auer	Ryan Monahan	3338 rental unit	N/A	121216-2BQJ	1186799	00068090	N/A
A65	6/6/2017	10:19	Steve Auer	Ryan Monahan	3338 rental unit	N/A	121216-2BQJ	1186799	00068090	N/A
A66	6/6/2017	09:56	Steve Auer	Ryan Monahan	3338 rental unit	N/A	121216-2BQJ	1186799	00068090	N/A
A68	6/6/2017	09:28	Steve Auer	Ryan Monahan	3338 rental unit	N/A	121216-2BQJ	1186799	00068090	B-4-259-01VB
M16F	6/7/2017	10:00	Dave Christenson	Dave Christenson	3338 rental unit	965843	010917-2BQJ	1193170	00068090	
M33A	6/6/2017	17:10	Dave Christenson	Dave Christenson	4085 rental unit	#11 8" flume	010917-2BQJ	1193170	00068090	

Table 69 Bonita Peak Mining District - High Flow June 6-7, 2017
Electronic Data Collection Field Notes Part 2

Location ID	Environmental Conditions	Remarks
M33	Clear, calm, sunny	Flow too high for wading
M32	Slightly cloudy, light breeze	Flow to high to wade / measure
M29	Partly cloudy, calm	Flow too high to wade or measure
M27	Partly cloudy, slight breeze	Duplicate collected, Flow too high to measure
M28	Mostly cloudy, calm	No flow taken, water too high
M26D	Mostly cloudy, calm	No flow taken, too high for wading
Bakers_Bridge	Sunny and calm with temps in the 50's. Water is turbid.	2 photos on EDCD. Flow too high to measure.
A13	Overcast and breezy. Periodic rain. Temps in the 50s. Water is turbid and green. White precipitate on substrate.	2 photos on EDCD. No flows due to unsafe conditions.
CG9	Overcast with periodic rain. Temps in 50s. Water is turbid and there is white precipitation on the substrate.	2 EDCD photos. No flows due to unsafe conditions. Duplicate sample collected here.
A11	Rain. Breezy. Temps in 50s. Water is turbid and green. White staining on substrate.	2 photos on EDCD. No flows due to unsafe conditions.
CG11	Overcast and raining. Windy. Temps in 50s. Water is turbid and green. No staining of substrate.	2 photos on EDCD. No flows due to unsafe conditions.
A09	Overcast and periodic rain. Temps in 50s. Water is slightly turbid and green. No staining on substrate.	2 photos on EDCD. No flows due to unsafe conditions.
A10	Overcast and breezy. Periodic rain. Temps in 50s. Water is slightly turbid and green. No obvious staining on substrate but water very rapid and difficult to tell.	2 photos on EDCD. No flows due to unsafe conditions.
A14	Overcast. Periodic rain. Temps in 50s. Water is turbid and green. Substrate is not stained.	2 photos on EDCD. No flows due to unsafe conditions.
A30A	Overcast and windy. Temps in the 50s. Water is slightly turbid and green. Substrate is not stained.	2 photos on EDCD. No flows due to unsafe conditions.
A30B	Sunny. Calm. Temps in 60s. Water is slightly turbid and greenish. Substrate is not stained.	2 photos on EDCD. No flows due to unsafe conditions.
A31	Sunny. Calm. Temps in 60s. Water is slightly turbid and greenish. Substrate is not stained.	2 photos on EDCD. No flows due to unsafe conditions.
A33	Sunny. Breezy. Temps in 60s. Water is turbid and greenish. Substrate is slightly iron stained.	2 photos on EDCD. No flows due to unsafe conditions.
A35	Sunny. Calm. Temps in 60s. Water is slightly turbid and greenish. Substrate has minor iron staining.	2 photos on EDCD. No flows due to unsafe conditions. Stream is becoming braided. Sample taken in main channel.
A34	Sunny and breezy. Temps in 60s. Water is clear. Substrate is not stained.	2 photos on EDCD. No flows due to unsafe conditions.
CC48	Sunny. Calm. Temps in 60s. Water is turbid and orange/ brown. Substrate is orange.	2 photos on EDCD. No flows as there is a USGS gauge at this location. Duplicate collected here.
CC43E	Sunny. Calm. Temps in 50s. Water is turbid and brown. Substrate is orange.	2 photos on EDCD. No flows due to unsafe conditions.
CC41	Sunny. Calm. Temps in 50s. Water is turbid and brown. Substrate is deep orange.	2 photos on EDCD. No flows due to unsafe conditions.
CC39D	Sunny and calm. Temps in 50s. Water is turbid and brown. Substrate is orange.	2 photos on EDCD. No flows due to unsafe conditions.
CC39	Partly cloudy. Calm. Temps in 50s. Water is turbid and brown. Substrate is orange. This location is downgradient of Porcupine Gulch.	2 photos on EDCD. No flows due to unsafe conditions. Porcupine gulch inflow can be seen in upstream photo.
CC39C	Overcast. Calm. Temps in 50s. Water is turbid and sediment is orange. Note: Anglo Saxon drainage has been re-routed. This location is now down gradient of diffuse mine drainage in wetland. It is also up gradient of Porcupine Gulch.	No flows due to unsafe conditions. Also note that an attempt was made to get up gradient of Anglo Saxon but we determined cc39b would be the best up gradient location due to the widely dispersed mine drainage.
CC39B	Overcast. Cool. Temps in 50s. Water is turbid and brown. Substrate is orange.	2 photos on EDCD. No flows due to unsafe conditions.
CC28D	Overcast, breezy. Temps in 50s. Water is turbid and brownish. Substrate is deep orange. Moss on banks near location.	2 EDCD photos. No flows due to unsafe conditions.
CC28C	Windy and starting to rain. Temps in 50s. Water is turbid and brownish. Substrate is deep orange.	2 photos on EDCD. No flows due to unsafe conditions. Bank near this location is mossy but this is down stream of staining ne mammoth tunnel.
CC28E	Cloudy, breezy, temps in 50s. Water is turbid and brownish. Substrate is deep orange.	2 photos on EDCD. No flows due to unsafe conditions. Duplicate sample collected here.
CC26	Partly cloudy. Breezy. Temps in 60s. Water is turbid and orange/ brown. Substrate is slightly iron stained.	2 photos on EDCD
CC21D	Sunny, breezy, temps in 60s. Water is clear. Substrate slightly orange stained.	2 photos on EDCD.
CC17	Overcast with light rain. Temps in 50s. Water is slightly turbid and substrate is orange.	2 photos on ipad
CC21	Raining and windy, temps in the 50's	Could not get flow measurements due to high flows causing unsafe conditions.
CC06	Sunny, temps in the 50s, water is orange. Collected sample from pipe entering settling pond.	2 photos on EDCD 6. Collected sample from pipe entering settling pond. Collected flow measurement from water treatment plant.
CC19	Partly cloudy, raining, temps in the 50's. Water is clear, substrate is stained orange.	Collected at adit. 2 photos on ipadn 6. Ha 0.575 3" parshall flume. Flume scraped at 12:50
CC20H	Windy and raining. Temps in the 50's. Water is slightly turbid substrate stained orange. No flow measurements collected due to high flows causing unsafe conditions.	2 photos on EDCD 6. Flow measurements not collected due to high flows causing unsafe conditions.
CC18	Windy and raining. Temps in the 50's. Water is slightly turbid, substrate stained orange. No flow measurement collected due to unsa conditions	2 photos on EDCD 6
CC03	Sunny. Temps in 60s. Water is clear. Substrate is orange.	Flow collected at road crossing. 2 photos on EDCD.
CC03B	Sunny. Temps in 60s. Cement Creek above R&B and fen. Water is clear. Substrate is orange. Flow is turbulent.	2 photos on EDCD. No flow collected due to unsafe conditions.
CC03C	Weather is sunny and calm, temps in the 50's. Water is clear and substrate is thick orange precipitate.	3 photos on I pad. Flow recorded was by road. Flume measurement at adit is Ha0.34 Hb 0.12 4" flume. Flume at top of Ha 0.35 Hb0.1 4" flume. Flow splits at top of dump.
CC07	Sunny. Temps in 60s. Water is clear. Substrate is orange.	2 photos on EDCD.
M06C	Overcast and cloudy Mineral Creek at Silver Ledge discharge	Water samples collected for total and dissolved metals and alkalinity. Flow measurements collected by ey.
M06B	Overcast and cloudy. Discharge from Silver Ledge mine.	Water samples collected for total and dissolved metals and alkalinity. No flow measurements collected
M11	Rainy and overcast. Mineral Creek below Mill Creek.	Water samples taken for total metals, dissolved metals, alkalinity. No flow measurements taken.
M18	Weather is cloudy with temps in the low 60s and breeze present.	Water is flowing clearly with an orange staining on substrate below. Surface water grab samples collected for total and dissolved meta and alkalinity and anions by ey. No flow was collected as instructed by Susan griffin.
M17	Sunny and warm. Clear skies, Middle Fork of Mineral Creek below Paradise Mine	Water samples collected for total and dissolved metals and alkalinity. Flows collected by EY about 50yds downstream of sampling site due to braided flow and log obstructions.
M16D	Warm and sunny weather. Middle Fork of Mineral Creek above Paradise adit.	Samples collected for total recoverable metals, dissolved metals and alkalinity anions. Site is unflumable.
M16A	Sunny and warm weather. Lower Paradise adit before enters Middle Fork of Mineral Creek.	Water samples collected for total and dissolved metals and alkalinity. No flow measurements collected.
M16	Sunny and warm weather. Paradise mine adit above Middle Fork of Mineral Creek. White aluminum precipitate.	Water samples collected for total and dissolved metals and alkalinity. No flow measurements collected.
M20	Overcast cloudy about to rain. Middle fork mineral above Bonner mine.	Water samples collected for total and dissolved metals and alkalinity. No flow measurements collected.
M17A	Overcast and cloudy. Middle fork above red tributary.	Water samples collected for total and dissolved metals and alkalinity. No flow measurements collected.
M19	Sunny and warm. Middle fork mineral below red tributary. Steep climb to get down to.	Water samples collected for total and dissolved metals and alkalinity. No flow measurements collected.
M14A	Sunny weather and warm.	Water samples collected for total and dissolved metals and alkalinity. No flow measurements collected.
M22	Overcast, lightly raining. Middle fork mineral above confluence	Water samples collected for total and dissolved metals and alkalinity. No flow measurements collected.
M27A	Sunny warm weather. Mineral below Middle Fork of Mineral. Steep hike down to.	Water samples collected for total and dissolved metals and alkalinity. No flow measurements collected. Stream running too fast.
M26B	Overcast. Mineral below south mineral campground	Water samples collected for total and dissolved metals and alkalinity. No flow measurements collected. Stream running too fast.
M27A2	Overcast. Steep climb down to sampling point.	Water samples collected for total and dissolved metals and alkalinity. No flow measurements taken,
M29A	Weather is sunny. Mineral creek above Zuni creek	Surface water samples collected for total, dissolved metals and alkalinity. Water flow is fast. No flow collected.
M29B	Sunny, warm weather. Zuni creek. Clear water.	Surface water grab samples collected for total recoverable metals dissolved metals and alkalinity and anions by EY. No flow was collected cascading falls. Water flowing clearly. Little orange staining.
M34	Weather is sunny. Mineral below silver ton before animas confluence. Water running fast.	Water is flowing out of Adit at a steady pace. Surface water grab samples collected for total recoverable metals dissolved metals ar alkalinity and anions by EY. No flow was taken due to unsafe condition
M38	Weather is sunny with temps in the low 50s and a slight breeze present.	Water is flowing at a high velocity with turbidity to the water. Substrate below not visible. Water is flowing too swiftly to take flow. Surface water grab samples collected for total recoverable metals dissolved metals and alkalinity and anions.
M06A	Overcast, calm 40s	Flow measurements by Kelsey Bartling, flow in cfs
M07	Rain temps 50s, calm	Rain, Duplicate 5 collected
M16C	Slightly cloudy, slight. Breeze, temps in the 60s	No flow taken, braided, problem with vacuum pump- slow
M16G	Weather is sunny with some clouds present and temps in the mid 60s and a slight breeze is present. Sample was taken but no flow due to snow covering banks.	Samples collected for total recoverable, dissolved metal and alkalinity and anions by KB. water appears to be flowing clearly with a wh staining on substrate below.
M16E	Few clouds, slight breeze temps in the 60s	Flow measurements by Emily Yadacus. Flow in cfs.
M16H	Calm, few clouds, temps in the 50s	Flow measurements by Kelsey Bartling
M13A	Partly cloudy	Flow too high for wading
M12	Overcast, calm	None
M13B	Partly cloudy, light breezes	Flow too high for wading
M13D	Partly cloudy, calm	Flow too high for wading
M14	Drizzle, slight breeze	Flow by Kelsey Bartling
M14B	Partly cloudy, calm	Flow to high to wade/ measure
A05	Light showers passing through, temperature at 45F. A lot of snow in the entire basin.	Too much snow on LEW and REW to get accurate measurement.
A30	Cloudy with passing showers temps mid 60's. snow fields and old avalanches present covering the river.	The river was flowing too fast to collect safely
A28	Rain showers and temps near 60. Avalanche across river at burns gulch.	Flows measurements not collected due to unsafe conditions (see photos)
A40A	Sunny to partly cloudy and warm with temperature per 60's. showers nearby to the north and east.	The Animas River flowing very swift and braided throughout the floodplain
A40	Sunny, breezy, and warm with temperature mid 60's	Flows too fast for collection due to unsafe conditions
A41A	Sunny, breezy, warm with temperature mid 60's	Flowing too fast for flow measurements
LA3	Sunny, warm and temperature mid 60's	The Animas River flowing too fast and deep to safely collect flow measurements. Duplicate sample collected
A45	Sunny, warm and temperature in lower 60's	Flows could not be collected due to unsafe conditions, deep and fast moving water
DM56	Sunny and warm in the mid to upper 50's	Flows coming out of the adit too much for an 8" flume and the flow is fanned out across the adit and then spread out over a big area. Maybe a good spot for a permanent flume
A54	Sunny, cool, temperature in the low 50's	Water cascading down hill and immediately fans out into wetland
CU4a	Cloudy, breezy, and light rain showers in the area	Flow too dangerous to collect
CU4	Cloudy, breezy and warm	Flows not collected due to unsafe conditions
A48	Overcast, warm temperature mid 70s, some showers in the area but very light and brief showers	No flow due to unsafe conditions/ high stream velocity
CG01	Cloudy, warm with temperature near 70, stray showers in the area but very light showers	Flow measurements were collected from pond outfall. The Animas River was reaching the LEW bank and caused pooling in the area of where CG01 enters the Animas River. See extra picture # 4.Used 8" baski cutthroat flume at pond outfall
CG02	Sunny,warm, breezy with light showers in the area	Used 4" basks flume Ha = 0.15 Hb = 0.06
A47	Cloudy and temperature near 70 and occasional showers but very light (dust control type)	Water cascade down steep gradient then pools before falling into the Animas River (see pictures)
A55	Sunny, breezy, temperature near 70 and a few light showers in the area	Unsafe conditions for flow measurements
A55a	Weather was sunny and warm temperatures upper 60's an occasional shower in the area.	Unsafe conditions for flow measurements
A56	Rain showers occurring in the area, temperature in the mid 60's and breezy.	Too unsafe to collect
A58	Weather was partly cloudy and thunderstorms in the area. Collected flow measurements on ESAT flow tracker unit #1. Water was clear but flowing swiftly	Flows collected using ESAT unit # 1
A60	Raining lightly and thunderstorms building. The Animas River running swift and conditions are unsafe to collect flow measurements	Too unsafe to collect flow measurements.
A61	Weather was cloudy and thunderstorms developing to the north and west. Water flowing swiftly and unsafe.	Flow measurements not collected due to unsafe conditions
A72	Weather sunny and warm, temperature in the upper 50's. The Animas River running swift and very turbid.	N/A
T4	Weather partially cloudy with storm clouds developing to the west. The Animas River flowing very swift and water clarity improved from downstream location A66.	Flow measurements too unsafe to collect
A65	Weather was sunny and warm with ambient temperature near 60. The Animas River flowing very fast and water was turbid. Collected samples from REW as a grab sample.	Flows were too unsafe to collect.
A66	Weather warm and sunny ambient temperature near 60. The Animas River flowing very swift and turbid and flowing too fast for safe flow measurement.	Flow measurements were not collected due to unsafe conditions.
A68	Weather sunny and , ambient temperature in the upper 50's. The Animas River running very swift and turbid.	Collected duplicate sample for DM,TR,Alk/Anions, Stable Isotopes
M16F	Few clouds, breeze, 50s	Flow measurements by Kelsey Bartling. Marginal .cascading, flow in cfs
M33A	Overcast, calm	8 inch flume

Table 70 Bonita Peak Mining District - High Flow July 11-12, 2017
Electronic Data Collection Field Notes Part 1

Location ID	Date	Time	Form Author's Name	Field Sampler's Name	Water Quality Probe Barcode	Flow Measurement Barcode	TRM Bottle Lot Number	DM Bottle Lot Number	Alk/Anion Bottle Lot Number	Stable Isotope Bottle Lot Number
A07B1	7/12/2017	10:10	Nate Delhierro	Steve Auer flow. Emily Yadacus water quality and sampling.	4440	Flume #6	050617-2BQJ	1193170	000270	
A07B2	7/12/2017	10:20	Nate Delhierro	Steve Auer flow. Emily Yadacus water quality and sampling.	4440	Flume #7	052717-2BQJ	1193170	000275	
A07B3	7/12/2017	10:30	Nate Delhierro	Steve Auer flow. Emily Yadacus water quality and sampling.	4440	Flume #7.	010917-2BQJ	1193170	000265	
A07C1	7/12/2017	12:00	Brian Sanchez	Brian Sanchez	YSI 3665	Flowtracker unit 2	050617-2BQJ	1186799	00068090	NA
A07D	7/12/2017	12:35	Brian Sanchez	Brian Sanchez	YSI 3665	Flowtracker unit 2	050617-2BQJ	1186799	00068090	NA
A07D1	7/12/2017	13:15	Emily Yadacus	Emily Yadacus	4440	No flow cascading falls	050617-2BQJ	1193170	000280	
A07E	7/12/2017	13:20	Brian Sanchez	Brian Sanchez	YSI unit 3665	Flowtracker unit 2	050617-2BQJ	1186799	00068090	NA
A07E1	7/12/2017	14:00	Brian Sanchez	Brian Sanchez	YSI 3665	Baski 2 inch flume, EPA no. 6	050617-2BQJ	1186799	00068090	NA
A07F	7/12/2017	13:10	Emily Yadacus	Emily Yadacus	4440	No flow	050617-2BQJ	1193170	000272	
A07G	7/12/2017	13:00	Emily Yadacus	Steve Auer	4440	No flow				
A08	7/11/2017	10:30	Brian Sanchez	Brian Sanchez	YSI 5435	Flow tracker unit 2	050617-2BQJ	1186799	000667	
A15	7/11/2017	10:25	Emily yadacus	Emily yadacus	4440	Flow tracker unit 6	010917-2BQJ	1185799	000295	
A18B	7/11/2017	14:00	Emily yadacus	Emily yadacus	4440	Unit 6	052717-2BQJ	1197430	000317	
A19A	7/11/2017	15:15	Emily yadacus	Emily yadacus	4440		010917-2BQJ	1186799	000311	
A20	7/12/2017	12:14	Susan Griffin	Leslie Christner flows Susan Griffin water quality parameters	4143		052717-2BQJ	1193170	00068090	
A21	7/12/2017	13:22	Susan Griffin	Leslie Christner flows Susan Griffin water quality parameters	4143		052717-2BQJ	1193170	00068090	
A22	7/12/2017	13:59	Susan Griffin	Leslie Christner flows Susan Griffin water quality parameters	4143		052717-2BQJ	1193170	00068090	
A23	7/12/2017	14:45	Susan Griffin	Leslie Christner flows Susan Griffin water quality parameters	5143		052717-2BQJ	1193170	00068090	
A23A	7/12/2017	15:10	Leslie Christner	Susan Griffin	YSI4143		052717-2BQJ	1193170	00068090	
A36	7/11/2017	11:20	Ryan Monahan	Landon bailey sampler and flow	YSI EXO unit 2	Unit 5 flowtracker	050617-2BQJ	1188780	00068090	
A36A	7/12/2017	10:25	Ryan Monahan	Ryan Monahan sampler. Landon bailey flow	YSI EXO unit 2	Flowtracker unit 5	050617-2BQJ	1193170	000251	B-4-259-01VB
A37	7/11/2017	11:00	Ryan Monahan	Landon bailey	YSI EXO unit 2		050617-2BQJ	1188780	000257	
A38	7/11/2017	13:49	Landon Bailey	Landon Bailey	YSI EXO unit 2		050617-2BQJ	118878	00068090	
A39	7/11/2017	13:56	Landon Bailey	Ryan Monahan	YSI EXO unit 2		050617-2BQJ	1188780		
A39A	7/11/2017	14:55	Landon Bailey	Ryan Monahan	YSI EXO unit 2		050617-2BQJ	1188780	00068090	
A54 Opp (Little Nation OPP)	7/12/2017	16:12	Emily Yadacus	Emily Yadacus	4440	None				
A55 Opp	7/12/2017	08:25	Emily Yadacus	Emily Yadacus	4440	No flow gauging station	010917-2BQJ	1193170	000267	
ARD1	7/11/2017	15:45	Landon Bailey	Ryan Monahan	YSI EXO unit 2		050617-2BQJ	1188780	00068090	
BB2	7/12/2017	11:00	Nate Delhierro	Emily Yadacus	4440		050617-2BQJ	1193170	000335	
BF1	7/11/2017	16:41	Landon Bailey	Ryan Monahan	YSI EXO unit 2		050617-2BQJ	1193170	00068090	
BF2	7/11/2017	16:50	Landon Bailey	Ryan Monahan	YSI EXO unit 2		050617-2BQJ	1193170	00068090	
BG1A	7/12/2017	12:30	Emily Yadacus	Emily Yadacus	4440	Unit 6	050617-2BQJ	1193170	000289	
CC02C	7/11/2017	13:36	Susan Griffin	Leslie Christner flows Susan Griffin water quality parameters	16d101838		050617-2BQJ		00068090	
CC02D	7/11/2017	14:20	Susan Griffin	Leslie Christner flows Susan Griffin water quality parameters	16d101838		050617-2BQJ		0006809	
CC04	7/12/2017	09:55	Susan Griffin	Leslie Christner flows Susan Griffin water quality parameters	4143		052717-2BQJ	1193170	00068090	
CC15	7/11/2017	11:17	Susan Griffin	Leslie Christner flows Susan Griffin water quality parameters	16d101838		050617-2BQJ		00068090	
CC15A	7/11/2017	10:46	Susan Griffin	Leslie Christner flows Susan Griffin water quality parameters	16d101838		050617-2BQJ		00068090	
CC16B	7/11/2017	09:26	Susan Griffin	Leslie Christner flows Susan Griffin water quality parameters	16d101838		050617-2BQJ		00068090	
CC48	7/12/2017	08:15	Leslie Christner	Susan Griffin	YSI 4143		052717-2BQJ	1193170	00068090	
CG3	7/11/2017	13:20	Emily yadacus	Emily yadacus	4440	Unit6	010917-2BQJ	1186799	000321	
CG4	7/11/2017	12:30	Emily yadacus	Emily yadacus	4440	Unit 6	010917-2BQJ	1197430	000260	
CG6	7/11/2017	11:35	Emily yadacus	Emily yadacus	4440	Flow tracker unit 6	010917-2BQJ	1186799	000264	
DM8A	7/12/2017	09:51	Nate Delhierro	Steve Auer flow. Emily Yadacus water quality and sampling.	YSI 4440	Flume #6	050617-2BQJ	1193170	000287	
EG Trib 1	7/11/2017	16:25	Landon Bailey	Ryan Monahan	YSI EXO unit 2		050617-2BQJ	1193170	00068090	
EG Trib 2	7/11/2017	15:55	Landon Bailey	Ryan Monahan	YSI EXO unit 2					
EG1	7/12/2017	16:45	Ryan Monahan	Ryan Monahan sampler Landon Bailey flow	YSI EXO unit 2	Flowtracker unit 5	052717-2BQJ	1186799	001047	
EG2	7/12/2017	15:40	Landon Bailey	Ryan Monahan	YSI EXO unit 2		052717-2BQJ	1186799	00068090	
EG2A	7/12/2017	15:16	Landon Bailey	Ryan Monahan	YSI EXO unit 2		050617-2BQJ	1193170	00068090	
EG3	7/12/2017	13:45	Ryan Monahan	Ryan Monahan	YSI EXO unit 2	Flowtracker unit 5	050617-2BQJ	1193170	000253	
EG3A	7/12/2017	12:45	Ryan Monahan	Ryan Monahan sampler. Landon Bailey flow	YSI EXO unit 2	Flow tracker unit 5	050617-2BQJ	1193170	000244	
EG4	7/12/2017	14:20	Ryan Monahan	Ryan Monahan sampler. Landon Bailey flow	YSI EXO unit 2	Flowtracker unit 5	050617-2BQJ	1193170	000235	
EG5	7/11/2017	15:35	Landon Bailey	Ryan Monahan	YSI EXO unit 2		050617-2BQJ	1188780	00068090	
EG6	7/11/2017	12:45	Landon Bailey	Ryan Monahan	YSI EXO unit 2	Flowtracker unit 5	050617-2BQJ	1188780	00068090	
EG9	7/11/2017	09:50	Ryan Monahan	Ryan monahan sampler Landon B flow	YSI EXO unit 2	Flowtracker unit 5	050617-2BQJ	1188780	000247	
LSS1	7/12/2017	11:24	Emily Yadacus	Emily Yadacus	4440	Unit 7 4"	050617-2BQJ	1193170	000305	
M01	7/11/2017	09:55	Jonathan Bernard	Scott Sudweeks	4143	965844	050617-2BQJ	1193170	000347	
M02	7/11/2017	13:25	Kelsey Bartling	Scott Sudweeks	4143	4 inch #9	050617-2BQJ	1193170	000668090	
M02B	7/11/2017	14:31	Jonathan Bernard	Scott Sudweeks	4143	1 inch flume #1	050617-2BQJ	1193170	00068090	
M02E	7/11/2017	13:50	Jonathan Bernard	Scott Sudweeks	4143		050617-2BQJ	1193170	00068090	
M02K	7/11/2017	14:09	Jonathan Bernard	Scott Sudweeks	4143	1 inch flume #1	050617-2BQJ	1193170	00068090	
M02L	7/11/2017	15:00	Kelsey Bartling	Scott Sudweeks	4143		050616-2BQJ	1193170	00068090	
M03	7/11/2017	11:05	Jonathan Bernard	Scott Sudweeks	4143	965844	050617-2BQJ	1193170	00068090	
M04	7/11/2017	11:55	Jonathan Bernard	Scott Sudweeks	4143	965488	050617-2BQJ	1193170	00068090	
M05	7/11/2017	11:30	Jonathan Bernard	Scott Sudweeks	4143	965844	050617-2BQJ	1193170	00068090	
M06D	7/11/2017	15:45	Jonathan Bernard	Scott Sudweeks	4143	965844	050617-2BQJ	1193170	00068090	
M06E	7/11/2017	16:35	Kelsey Bartling	Scott Sudweeks	4143		050617-2BQJ	1193170	00068090	
M10	7/11/2017	17:45	Jonathan Bernard	Jonathan Bernard	4143	965844	050617-2BQJ	1186799	00068090	
M10B	7/12/2017	08:45	Scott Sudweeks	Jonathan Bernard	5435		052717-2BQJ	1193170	000363	
M23	7/12/2017	11:50	Jonathan Bernard	Jonathan Bernard	5435	965844	052717-2BQJ	1186799	00068090	
M24A	7/12/2017	12:50	Kelsey Bartling	Scott Sudweeks	5435					
M24B	7/12/2017	13:05	Scott Sudweeks	Jonathan Bartling	5435		052717-2BQJ	1186799	000362	
M24C	7/12/2017	11:25	Jonathan Bernard	Jonathan Bernard	5435	1 inch flume #1	052717-2BQJ	1193170	00068090	
M24D	7/12/2017	11:00	Kelsey Bartling	Jonathan Bernard	5435		052717-2BQJ	1186799	00068090	
M25	7/12/2017	10:25	Scott Sudweeks	Jonathan Bartling	5435	965844	052717-2BQJ	1186799	00068090	
M29 Opp	7/12/2017	17:10	Kelsey Bartling	Jonathan Bernard	5435					
MC0	7/11/2017	13:30	Landon Bailey	Ryan Monahan	YSI EXO unit 2	N/A	050617-2BQJ	118878	00068090	
Mountain Queen Opp (A18)	7/11/2017	15:40	Emily yadacus	Emily yadacus	4440	None				

Table 71 Bonita Peak Mining District - High Flow July 11-12, 2017
Electronic Data Collection Field Notes Part 2

Location ID	Environmental Conditions	Remarks
A07B1	Sunny with a slight breeze. Temperatures in the 60.	2 photos taken on iPad #7
A07B2	Sunny and slight breeze. Temperatures in the 60s.	2 photos taken on iPad #7
A07B3	Sunny with temperatures in the 70s.	2 photos taken on iPad # 7.
A07C1	Breezy, cool, light rain. Mid 50s.	Photos on iPad unit 2
A07D	Mostly cloudy, some sun, mid 50s	Photos on iPad unit 2 Supplemental photo is of Boston mine from A07D
A07D1	Weather is partly cloudy with temperatures in the mid 50s.	Water appears to be flowing clearly with no visible staining on substrate below.
A07E	Breezy, mostly cloudy. Cool	Photos on iPad unit 2
A07E1	Breezy, cool, cloudy	Photos on iPad unit 2
A07F	Weather is partly cloudy with temperatures in the mid 60s and a slight breeze is present.	Water appears to be flowing clearly with no visible staining on substrate below.
A07G	Weather is partly cloudy with a light drizzle of rain and a slight bree present.	Water appears to be flowing clearly with no visible staining on substrate below. No flow taken due to cascading falls. Surface water grab samples collected for total recoverable metals,dissolved metals and alkalinity and anions by Steve Auer.
A08	Approx 55 degrees overcast breezy. Rain yesterday.	None, photos in iPad 9 folder
A15	Weather is partly cloudy with temperatures in the mid 60s and a slight breeze present.	Water appears to be flowing clearly with a white precipitation present on substrate below. Flow was collected by Steve Auer. Surface water grab samples were collected for total recoverable metals, dissolved metals and alkalinity anions by EY.
A18B	Weather is partly cloudy with thunderstorms approaching and temperatures in the mid 50s.	Water appears to be flowing cloudy with a visible white precipitation on substrate below. Flow was measured by Steve Auer. Surface water grab samples collected for total recoverable metals dissolved metals and alkalinity and anions by EY.
A19A	Weather is cloudy. Thunderstorms came and delayed sampling for an hour. Sample collected above Indian cheif	Water is turbid from rain with white cloudiness and a white precipitation present on substrate below. No flow. Surface water grab samples collected for total recoverable metals dissolved metals and alkalinity and anions by EY.
A20	Calm and cloudy	Animas above animas fork in placer gulch
A21	Calm and cloudy	Placer gulch
A22	Sunny and calm	Placer gulch
A23	Rain hail overcast	Placer gulch below gold prince
A23A	Partly cloudy. Temps in the low 60's. Water flowing out of adit which is covered in snow.	Water is flowing out of adit which is covered in snow
A36	Overcast rained yesterday. Water is clear substrate is stained orange. Temps in the 50s	Collected surface water samples for TM DM and alkalinity and anions
A36A	Partly cloudy storm clouds on ridge. Rained previous night. Temps in the 60s. Water is clear and no visual staining on substrate	Found trail on south side of stream that lead close to sample site. Collected TM DM and alkalinity and anions.
A37	Overcast. Rained yesterday temps in the 50s. Water is clear. No staining on substrate. Flow is cascading in drop pool fashion	No flow measured. Channel is cascading and drop pool. Collected SW samples for TM DM and all anion. Recent avalanche changed stream characteristics and banks.
A38	Overcast. Clear, slow water. Temps in the 50s	Too low for flume.
A39	Rainy, hail. Clear water. Lightning. Temps in the 50s	No flows collected, braided stream.
A39A	Rainy. Temps in 50s. Muddy water.	No flows, cascading.
A54 Opp	Weather is partly cloudy with temperatures in the mid 60s.	Water quality taken
A55 Opp	Weather is partly cloudy with temperatures in the mid 40s and a slight breeze present.	Water appears to be flowing swiftly and is turbid due to rain activity cannot see substrate below. Surface water grab samples collected for total recoverable metals dissolved metals and alkalinity and anions by ND.
ARD1	Overcast. Temps in 50s	Had to disturb substrate for YSI
ARD1	Overcast. Temps in 50s	Had to disturb substrate for YSI
BB2	Cloudy with temperatures in the 60.	2 photos taken on iPad #7. No flow collected.
BF1	Overcast. Breezy. Temps in 50s.	No flows. Substrate staining.
BF2	Overcast. Breezy.	No flows.
BG1A	Weather is partly cloudy with temperatures in the mid 50s.	Water appears to be flowing clearly with no visible staining on substrate below. Flow was measured by Steve Auer. Surface water grab samples were collected for total recoverable metals, dissolved metals , and alkalinity anions by EY.
BG1A	Weather is partly cloudy with temperatures in the mid 50s.	Water appears to be flowing clearly with no visible staining on substrate below. Flow was measured by Steve Auer. Surface water grab samples were collected for total recoverable metals, dissolved metals , and alkalinity anions by EY.
CC02C	Cloudy and calm	Cement creek above mogul minedrainage
CC02D	Rainy	Mogul at flume
CC04	Sunny and calm	Cement creek below gold king
CC15	Cloudy and calm	South fork cement creek above silver ledge mine drainage
CC15A	Cloudy and calm	Cement creek below Natalie occidental and above big colorado
CC16B	Cloudy, clear. Cement Creek below Natalie occidental and big Colorado. Flows taken by Leslie Christner.	Upstream and downstream in supplemental photos 1 and 2 respectively
CC48	Sunny calm temps in the 60's. Opportunistic storm sample. Water is very turbid	Opportunistic storm sample. Rained all night.
CG3	Weather is partly cloudy with thunderstorms approaching and temps in the mid 60s. Emily yadacus	Water appears to be flowing with a cloudy appearanc and with a visible white precipitation on the substrate below. Flow was measured by Steve Auer. Surface water grab samp collected for total recoverable metals, dissolved metals, and alkalinity.
CG4	Weather is partly cloudy with temperatures in mid 60s and a slight breeze present.	Water appears to be flowing with a cloudiness and with a white precipitation present on substrate below. Flow was measured by Steve Auer. Surface water grab samples collected for TRM dissolved metals and alkalinity and anions by EY.
CG6	Weather is partly sunny slight breeze present and temperatures in the mid 60s.	Water appears to be flowing clearly with a white precipitation accumulation on substrate below. Flow was measured by Steve Auer. Surface water grab samples collected for Total recoverable metal, dissolved metals and alkalinity and anions by EY.
DM8A	Sunny with a slight breeze. Temperatures in the 60.	2 photos taken on iPad #7.
DM8A	Sunny with a slight breeze. Temperatures in the 60.	2 photos taken on iPad #7.
EG Trib 1	Overcast. Temps in 50s.	No flows. Water running over moss
EG Trib 2	Overcast. Breezy. Temps in 50s	Flume base 4"
EG1	Overcast slight drizzle. Temps in the low 50s. Rained previous night.	Collected TM DM and alkalinity and anions. Rain picked up
EG2	Rainy. Breezy. Temps in 50s.	8" flume.
EG2A	Overcast. Breezy. Temps in 50s.	Field blank. No flows. Channel flowing over banks. Too much water for flume. Grass covering everything.
EG3	Overcast light sprinkle. Rained previous night. Temps in the 50s.	Collected TM DM and alkalinity and anions.
EG3A	Light rain. Rained previous night. Water is clear substrate is stained orange. Temps in the 50s	Collected TM DM and alkalinity and anions samples. Collected a dup here.
EG4	Partly cloudy. Looks like its raining hard on ouray side of mountain can hear thunder. Rained previous night. Temps in the 50s	Collected TM DM and alkalinity and anions
EG5	Overcast. Temps in 50s.	Sampled upstream of culvert.
EG6	Overcast. Rained yesterday. Water clear. Some substrate staining. Temps in the 50s	Collected a split sample with Formations
EG9	Overcast rained yesterday temps in the 50s water is clear some substrate is stained orange.	Collected SW sample for TM DM and alkalinity and anions.
LSS1	Weather is partly cloudy with temps in the mid 50s and a slight breeze is present.	Water is flowing clearly with no staining on substrate below. Flow was measured by Steve Auer with a 4"flume below the road. Surface water grab samples we collected by EY.
M01	Sunny light breeze 60 degrees	2 photos on ipad 5
M02	Cloudy, calm with temperatures in the 70s.	Flow measured with 4 inch flume number 9
M02B	Light rain, overcast windy 50 degrees	Flow measured on 1 inch flume number 1
M02E	Light rain, 50 degrees	2 photos taken on iPad 5
M02K	Overcast, 60 degrees	2 photos taken on iPad 5
M02L	Cloudy, temps in the 70s. Sample location is a pond.	No flow measurement collected because the location is a pond.
M03	Cloudy overcast light breeze 60 degrees	2 photos taken from iPad 5
M04	Overcast light breeze 60 degrees	2 photos taken on iPad 5
M05	Overcast light breeze	2 photos taken photos iPad 5
M06D	Overcast light breeze 60 degrees	2 photos taken on iPad 5 flow file name: M06D1
M06E	Cloudy, sprinkling rain, temperatures in the 70s.	No flow measurement collected due to cascading nature of gulch.
M10	Sunny light breeze 60 degrees	2 photos taken on iPad 5
M10B	Partly Cloudy. Dry.	3 photos ipad5
M23	Cloudy light breeze 70 degrees	2 photos taken on iPad 5
M24A	Cody, sprinkling rain with temperatures in the 60s.	Flow measured on 4 inch flume #9.
M24B	Cloudy. Dry	2 photos on Ipad5
M24C	Sunny no wind 70 degrees	2 photos taken on iPad 5. 1 inch flume number 1
M24D	Sunny and partly cloudy with temperatures in the 70s. Sampling location is in a marshy area.	No flow measurement collected because water is not flowing. It is in a marshy area and disperses throughout.
M25	Sunny clear	2 photos iPad 5
M29 Opp	Following large rain event, water is very turbid. Brown to orange in color. Cloudy with temperatures in the 60s.	Opportunity sample collected upstream of bear creek following a large rain event. Sample collected at M29. Additional upstream photo of mineral and bear creek confluence after rain storm.
MC0	Overcast. Rained yesterday. Clear water. Temps in the 50s	Braided stream
Mountain Queen Opp	Weather is partly cloudy with temperatures in the mid 40s. pH 5.76 temp 0.5 condo 211.1 do 10.37 orp 132.5	Water appears to be flowing turbid due to rain and white precipitation present on substrate below. No flow taken. Surface water grab samples collected for total recoverable metals dissolved metals and alkalinity and anions by EY.

Table 72 Bonita Peak Mining District - Low Flow September 26-28, 2017
Electronic Data Collection Field Notes Part 1

Location ID	Date	Time	Form Author's Name	Field Sampler's Name	Water Quality Probe Barcode	Flow Measurement Barcode	TRM Bottle Lot Number	DM Bottle Lot Number	Alk/Anion Bottle Lot Number
32nd St bridge	9/28/2017	11:45	Dave Christenson	Mike Carney	1958				
A09	9/26/2017	11:00	Lisa Richardson	Lisa Richardson	600336-4M	965844	052717-2BQJ	1207053	0068090
A10	9/26/2017	12:05	Lisa Richardson	Lisa Richardson	600336-4M	965844	052717-2BQJ	1207053	00068090
A11	9/26/2017	14:10	Lisa Richardson	Lisa Richardson	600336-4M	965844	052717-2BQJ	1207053	00068090
A14	9/26/2017	09:25	Lisa Richardson	Lisa Richardson	600336-4M	965844	052717-2BQJ	1207053	00068090
A18	9/27/2017	13:30	Jonathan Bernard	Jonathan Bernard					
A18A	9/27/2017	13:00	Andrew Todd	Mark Rudolph	5110	965844	050617-2BQJ	1207053	00068090
A18B	9/27/2017	12:05	Andrew Todd	Mark Rudolph	5110	965844	010917-2BQJ	1207053	00068090
A19A	9/27/2017	13:45	Andrew Todd	Mark Rudolph	5110	#2 2 inch	050617-2BQJ	1207053	00068090
A28	9/27/2017	11:32	Laura Archuleta	Laura Archuleta and Emily Yadacus	1958				
A30	9/27/2017	10:31	Laura Archuleta	Laura Archuleta and Emily Yadacus	1958				
A30A	9/27/2017	09:21	Laura Archuleta	Laura Archuleta and Emily Yadacus	1958		050617-2BQJ	1207053	000492
A30B	9/27/2017	08:21	Laura Archuleta	Laura Archuleta and Emily Yadacus	1958		050617-2BQJ	1207053	000519
A32	9/27/2017	13:25	Laura Archuleta	Laura Archuleta and Emily Yadacus	1958				
A35	9/26/2017	09:45	Mike Carney	Mike Carney sampler; Ryan Monahan flow	Rental unit 4464	Flow tracker 2	052717-2BQJ	1207053	000701
A36	9/26/2017	14:31	Mike Carney	Mike Carney sampler; Ryan Monahan flow	Rental unit 4464	Flowtracker 2	052717-2BQJ	1197430	00068090
A36A	9/26/2017	15:49	Mike Carney	Mike Carney sampler; Ryan Monahan flow	Rental unit 2	Flowtracker 2	052717-2BQJ	1197430	00068090
A37	9/26/2017	13:37	Mike Carney	Mike Carney sampler; Ryan Monahan flow	Rental unit 4464	Flowtracker 2	05271-2BQJ	1197430	00068090
A38	9/27/2017	17:51	Mike Carney	Brian Sanchez	EXO unit 2	Not taken			
A39	9/27/2017	18:19	Mike Carney	Brian Sanchez	EXO 1				
A40	9/28/2017	10:56	Laura Archuleta	Laura Archuleta and Emily Yadacus	2085		052717-2BQJ	1207053	000704
A41A	9/28/2017	10:23	Laura Archuleta	Laura Archuleta and Emily Yadacus	2085		052717-2BQJ	1207053	000756
A45	9/28/2017	08:23	Laura Archuleta	Laura Archuleta and Emily Yadacus	2085		050617-2BQJ	1207053	000496
A47	9/28/2017	08:40	Jonathan Bernard	Ryan Monahan	5110		052717-2BQJ	1197430	00068090
A48	9/28/2017	11:50	Jonathan Bernard	Jonathan Bernard	5110	Flowtracker 2	052717-2BQJ	1197430	00068090
A53AC	9/28/2017	09:20	Jonathan Bernard	Jonathan Bernard	5110	Flowtracker 2	052717-2BQJ	1197430	00068090
A55a	9/27/2017	16:39	Laura Archuleta and Emily Yadacus	Laura Archuleta and Emily Yadacus	1958				
A56	9/26/2017	16:20	Laura Archuleta	Laura Archuleta - sampler, Emily Yadacus - Flow	2085		050617-2BQJ	1207053	000504
A58	9/26/2017	17:09	Laura Archuleta	Laura Archuleta - sampler, Emily Yadacus - Flow	2085		050617-2BQJ	1207053	000498
A60	9/26/2017	15:48	Laura Archuleta	Laura Archuleta - sampler, Emily Yadacus - Flow	2085		050617-2BQJ	1207053	000489
A61	9/26/2017	14:50	Laura Archuleta	Laura Archuleta - sampler, Emily Yadacus - Flow	2085		050617-2BQJ	1207053	000516
A64	9/26/2017	13:53	Laura Archuleta	Laura Archuleta - sampler, Emily Yadacus - Flow	2085		050617-2BQJ	1207053	00502
A65	9/26/2017	12:41	Laura Archuleta	Laura Archuleta - sampler, Emily Yadacus - Flow	2085		050617-2BQJ	1707053	000522
A66	9/26/2017	09:55	Laura Archuleta	Laura Archuleta - sampler, Emily Yadacus - Flow	2805	965842	050617-2BQJ	1207053	00546
A68	9/26/2017	09:20	Laura Archuleta	Emily Yadacus	2085		050617-2BQJ	1207053	000542
A72	9/26/2017	08:35	Laura Archuleta	Emily Yadacus	2085		050617-2BQJ	1207053	000501
ARD1	9/27/2017	16:41	Mike Carney	Ryan Monahan	Rental unit 2	N/A			
Bakers Bridge	9/28/2017	09:20	Dave Christenson	Mike Carney	1958				
BF1	9/27/2017	15:55	Ryan Monahan	Mike Carney	Rental unit 4464				
BF3	9/27/2017	15:35	Mike Carney	Mike Carney	Rental unit 4464	N/A			
CC01C1	9/27/2017	10:45	Leslie Christner	Susan Griffin	YSI 4231		052717-2BQJ	1207053	00068090
CC01C2	9/27/2017	10:16	Leslie Christner	N/A					
CC01F	9/27/2017	11:14	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231	2in baski	052717-2BQJ	1207053	0006809
CC01S	9/27/2017	10:00	Leslie Christner	Susan Griffin	YSI 4231		052717-2BQJ	1207053	00068090
CC01T	9/27/2017	09:39	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231		052717-2BQJ	546-6083fl	000849
CC02C	9/27/2017	12:20	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231		052717-2BQJ	1207053	00068090
CC02D	9/27/2017	11:45	Leslie Christner	Susan Griffin - Sampler, Leslie Christner - Flow	YSI 4231	2"Baski unit #5	052717-2BQJ	1207053	00068090
CC03	9/27/2017	15:54	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231		052717-2BQJ	1207053	0068090
CC03B	9/27/2017	14:18	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231		052717-2BQJ	1207053	
CC03C	9/27/2017	13:39	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231		052717-2BQJ	1207053	00068090
CC04	9/27/2017	15:02	Leslie Christner	Susan Griffin					
CC06	9/28/2017	12:10	Leslie Christner	Leslie Christner and Susan Griffin	YSI 4231		052717-2BQJ	1207053	00068090
CC07	9/27/2017	15:28	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231	2" Baski unit # 5	052717-2BQJ	1207053	00068090
CC14	9/28/2017	08:40	Leslie Christner	Susan Griffin	YSI 4231		052717-2BQJ	1207053	00068090
CC15	9/28/2017	10:27	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231		052717-2BQJ	1207053	00068090
CC15A	9/28/2017	09:55	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231		052717-2BQJ	1207053	00068090
CC16B	9/28/2017	09:15	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231		052717-2BQJ	1207053	00068090
CC17	9/27/2017	17:35	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231		052717-2BQJ	1207053	00068090
CC18	9/28/2017	12:30	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231		052717-2BQJ	1207053	00068090
CC19	9/28/2017	11:58	Leslie Christner	Susan Griffin					
CC20H	9/27/2017	16:45	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231		052717-2BQJ	1207053	00068090
CC21	9/26/2017	17:36	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231		052717-2BQJ	546-6083fl	000849
CC27	9/26/2017	16:24	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231		052717-2BQJ	546-6083fl	000849
CC28C	9/26/2017	15:08	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231		052717-2BQJ	546-6083fl	000849
CC28D	9/26/2017	14:37	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231		052717-2BQJ	546-6083fl	000849
CC28E	9/26/2017	15:34	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231		052717-2BQJ	546-6083fl	000849
CC39	9/26/2017	11:21	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231		052717-2BQJ	546-6083fl	000849
CC39B	9/26/2017	13:51	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231		052717-2BQJ	546-6083fl	000849
CC39C	9/26/2017	11:58	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231		052717-2BQJ	546-6083-fl	000849
CC39D	9/26/2017	10:44	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231		052717-2BQJ	546-6083fl	000849
CC41	9/26/2017	10:02	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231		052717-2BQJ	546-6083fl	0008492p
CC43E	9/26/2017	09:18	Susan Griffin	Susan Griffin - Sampler, Leslie Christner - Flow	4231		052717-2BQJ	546-6083fl	000849
CC48	9/26/2017	08:30	Leslie Christner	Susan Griffin	YSI 4231	Gaging station	052717-2BQJ	1197430	000849
CG01	9/28/2017	10:30	Jonathan Bernard	Jonathan Bernard	5110	1inch baski unit 1	052717-2BQJ	1197430	00068090
CG02	9/28/2017	10:10	Jonathan Bernard	Jonathan Bernard	5110	1inch baski unit 1	052717-2BQJ	1197430	00068090
CG11	9/26/2017	16:30	Lisa Richardson	Lisa Richardson	600336-4M	965844	052717-2BQJ	1207053	00068090
CG3	9/27/2017	11:20	Andrew Todd	Mark Rudolph	5110	965844	010917-2BQJ	1207053	00068090
CG4	9/27/2017	10:30	Andrew Todd	Mark Rudolph	5110	865844	052717-2BQJ	1207053	00068090
CG6	9/27/2017	09:30	Andrew Todd	Andrew Todd	5110	965844	052717-2BQJ	1207053	00068090
CG9	9/26/2017	15:05	Lisa Richardson	Lisa Richardson	600336-4M	965844	052717-2BQJ	1207053	00068090
CU4	9/27/2017	14:43	Laura Archuleta	Laura Archuleta and Emily Yadacus	1958				
CU4a	9/27/2017	15:47	Laura Archuleta	Laura Archuleta and Emily Yadacus	1958				
EG1	9/27/2017	11:10	Ryan Monahan	Mike Carney sampler; Ryan Monahan flow	Rental unit 4464	4" baski unit #10	052717-2BQJ	1207053	000156
EG2	9/27/2017	09:10	Ryan Monahan	Mike Carney sampler; Ryan Monahan flow	Rental unit 4464	1" baski unit #1	052717-2BQJ	1207053	000161
EG2A	9/27/2017	09:29	Mike Carney	Mike Carney sampler; Ryan Monahan flow	Rental unit 4464	1" baski unit 1	052717-2BQJ	1207053	00068090
EG3	9/27/2017	12:20	Ryan Monahan	Mike Carney sampler; Ryan Monahan flow	Rental unit 4464	4" baski unit #10	052717-2BQJ	1197430	000122
EG3A	9/27/2017	14:54	Mike Carney	Mike Carney sampler; Ryan Monahan flow	Rental unit 4464		052717-2BQJ	1197430	0001238
EG4	9/27/2017	12:50	Ryan Monahan	Mike Carney sampler; Ryan Monahan flow	Rental unit 4464	4" baski flume unit #10	052717-2BQJ	1197430	
EG5	9/27/2017	17:00	Mike Carney	Brian Sanchez sample collection; RM flows	Rental unit 4464	Baski flume unit 12 8"			
EG9	9/26/2017	11:59	Mike Carney	Mike Carney sampler; Ryan Monahan flow	Rental unit 4464	Flowtracker 2	052717-2BQJ	1197430	00068090
HC02	9/28/2017	10:26	Mike Carney	Mike Carney	Rental unit 1958				
LA3	9/28/2017	09:21	Laura Archuleta	Laura Archuleta and Emily Yadacus	2085		050617-2BQJ	1207053	000497
Lightner Creek	9/28/2017	13:50	Dave Christenson	Mike Carney	1958				
M01	9/26/2017	17:49	Scott Sudweeks	Mark Rudolph	16D101838	Unit 5	052717-2BQJ	1207053	000598
M02	9/27/2017	11:00	Kelsey Bartling	Scott sudweeks	16D101838		052717-2BQJ	1207053	000554
M02B	9/27/2017	12:00	Scott Sudweeks	Scott Sudweeks	16D101838		052727-2BQJ	1207053	000553
M02E	9/27/2017	11:45	Scott Sudweeks	Kelsey Bartling	16D101838		052717-2BQJ	1207053	000566
M02K	9/27/2017	12:15	Kelsey Bartling	Scott Sudweeks	16D101838		052717-2BQJ	1207053	000567
M02L	9/27/2017	13:11	Scott Sudweeks	Scott Sudweeks	16D101838		052717-2BQJ	1207053	000557
M03	9/27/2017	09:35	Scott Sudweeks	Scott Sudweeks	16D101838				
M04	9/27/2017	10:00	Scott Sudweeks	Scott Sudweeks	16D101838	Unit 5			
M05	9/27/2017	08:35	Scott Sudweeks	Scott Sudweeks	16D101838	Unit 5	052717-2BQJ	1207053	000628
M06A	9/26/2017	16:16	Scott Sudweeks	Scott Sudweeks	16D101838	Unit 5	052717-2BQJ	1207053	000564

Table 72 Bonita Peak Mining District - Low Flow September 26-28, 2017
Electronic Data Collection Field Notes Part 1

Location ID	Date	Time	Form Author's Name	Field Sampler's Name	Water Quality Probe Barcode	Flow Measurement Barcode	TRM Bottle Lot Number	DM Bottle Lot Number	Alk/Anion Bottle Lot Number
M06B	9/26/2017	15:45	Scott Sudweeks	Scott Sudweeks	16D101838		052717-2BQJ	1207053	000559
M06C	9/26/2017	15:41	Scott Sudweeks	Mark Rudolph	16D101838	Unit 5	052717-2BQJ	1207053	000568
M06D	9/26/2017	15:03	Scott Sudweeks	Mark Rudolph	16D101838	Unit 5			
M06E	9/26/2017	14:20	Kelsey Bartling	Scott Sudweeks	16D101838		052717-2BQJ	1207053	00549
M07	9/28/2017	14:58	Sudweeks	Kelsey Bartling	16D101838	Unit 5	052717-2BQJ	1207053	000582
M10A	9/28/2017	14:24	Sudweeks	Ryan Bahnfleth	16D101838	Unit 5.	052717-2BQJ	1207053	000617
M11	9/28/2017	14:30	Emily Yadacus	Emily Yadacus	5110	Flowtracker 2	052717-2BQJ	1197430	000663
M12	9/28/2017	13:41	Ryan Bahnfleth	Ryan Bahnfleth	16D101838	4inch Baski flume #9	89094-088	120705	00068090
M13A	9/28/2017	12:58	Sudweeks	Kelsey Bartling	16D101838	Unit 5		1207053	00068090
M13B	9/27/2017	17:40	Scott Sudweeks	Scott Sudweeks	16D101838	Unit 5	052717-2BQJ	P,	000622
M13D	9/27/2017	16:45	Scott Sudweeks	Scott Sudweeks	16D101838	Unit 5	052717-2BQJ	127053	000562
M14	9/27/2017	14:12	Scott Sudweeks	Scott Sudweeks	16D101838				
M14A	9/27/2017	16:13	Scott Sudweeks	Scott Sudweeks	16D101838	Unit 5	052717-2BQJ	1207053	000607
M14B	9/26/2017	16:05	Ryan Bahnfleth	Ryan Bahnfleth	5110	N/A	050617-2BQJ	1207053	00068090
M14B	9/27/2017	14:54	Scott Sudweeks	Scott Sudweeks	16D101838	Unit 5	052717-2BQJ	1207053	000555
M16	9/26/2017	17:00	Dave Christenson	Ryan Bahnfleth	5110		050617-2BQJ	1207053	00068090
M16A	9/26/2017	16:45	Dave Christenson	Andrew Todd	5110		050617-2BQJ	1207053	00068090
M16C	9/26/2017	16:10	Dave Christenson	Andrew Todd	5110	2" flume #6	050617-2BQJ	1207053	00068090
M16D	9/26/2017	15:25	Dave Christenson	Andrew Todd	5110	Na	050617-2BQJ	1207053	00068090
M16D	9/26/2017	15:30	Dave Christenson	Andrew Todd	5110	Na	050617-2BQJ	1207053	00068090
M16E	9/26/2017	14:14	Dave Christenson	Andrew Todd	5110	6	050617-2BQJ	1207053	00068090
M16F	9/26/2017	13:48	Dave Christenson	Andrew Todd	5110	6	050617-2BQJ	1207053	00068090
M16G	9/26/2017	15:00	Dave Christenson	Andrew Todd	5110	6	050617-2BQJ	1207053	00068090
M16H	9/26/2017	13:21	Dave Christenson	Andrew Todd	5110	6	050617-2BQJ	1207053	000068090
M17	9/26/2017	13:21	Dave Christenson	Andrew Todd	5110	6	050617-2BQJ	1207053	000068090
M17A	9/26/2017	11:40	Dave Christenson	Andrew Todd	5110	6	050617-2BQJ	1207053	00068090
M18	9/26/2017	11:18	Dave Christenson	Andrew Todd	5110	6	050617-2BQJ	1207053	00068090
M19	9/26/2017	10:50	Dave Christenson	Andrew Todd	5110	6	050617-2BQJ	1207053	00068090
M20	9/26/2017	09:37	Dave Christenson	Andrew Todd	5110	6	050617-2BQJ	1207053	00068090
M20	9/26/2017	09:45	Dave christenson	Andrew Todd	5110		050617-2BQJ	1207053	00068090
M22	9/26/2017	08:51	Dave christenson	Andrew Todd	5110	6	050617-2BQJ	1207053	00068090
M23	9/27/2017	12:00	Ryan Bahnfleth	Ryan Bahnfleth	2085	Unit#6	050617-2BQJ	1207053	00068090
M24A	9/27/2017	09:20	Ryan Bahnfleth	Dave Christenson	2085	N/A	050617-2BQJ	1207053	00068090
M24B	9/27/2017	08:40	Ryan Bahnfleth	Dave Christenson	2085	2 inch Baski Flume #6	050617-2BJQ	1207053	00068090
M24C	9/27/2017	09:45	Dave Christenson	Dave Christenson	2085	Baski 2" flume #6	050617-2BQJ	1207053	00068090
M24D	9/27/2017	11:15	Dave Christenson	Dave Christenson	2085		050617-2BQJ	1207053	00068090
M24E	9/27/2017	12:30	Dave Christenson	Ryan Bahnfleth	2085	6	052717-2BQJ	1197430	00068090
M25	9/27/2017	10:30	Dave Christenson	Dave Christenson	2085		050617-2BQJ	1207053	00068090
M26B	9/27/2017	14:00	Ryan Bahnfleth	Ryan Bahnfleth	2085	#6	050617-2BQJ	1206453	00068090
M26D	9/27/2017	15:00	Dave Christenson	Dave Christenson	2085	6	052717-2BQJ	1197430	00068090
M27	9/27/2017	16:30	Dave Christenson	Dave Christenson	2085	6	052717-2BQJ	1197430	00068090
M27A	9/28/2017	11:54	Sudweeks	Ryan Bahnfleth	16D101838	Unit 5	052717-2BQJ	1207053	000573
M27A2	9/28/2017	10:46	Scott Sudweeks	Kelsey Bartling	16D101838	Unit 5	052717-2BQJ	1207053	000558
M28	9/27/2017	16:00	Dave Christenson	Dave Christenson	2085	6	052717-2BQJ	1197430	00068090
M29	9/28/2017	08:00	Ryan Bahnfleth	Ryan Bahnfleth	16D101838	Unit 5	052717-2BQJ		000608
M29A	9/28/2017	09:46	Sudweeks	Kelsey Bartling	16D101838	Unit 5	052717-2BQJ	1207053	000548
M29B	9/28/2017	09:30	Kelsey Bartling	Kelsey Bartling					
M30	9/28/2017	08:50	Ryan Bahnfleth	Ryan Bahnfleth	16d101838	Unit #5	052717-2BQJ	1207053	00068090
M32	9/26/2017	11:33	Scott Sudweeks	Mark Rudolph	16D0838	unit5	052717-2BQJ	1207053	000570
M32B	9/26/2017	12:41	Scott Sudweeks	Scott Sudweeks	16D101838	Unit5			
M33	9/26/2017	10:15	Scott Sudweeks	Mark Rudolph	16D101838	Unit5	052717-2BQJ	1207053	000552
M33A	9/26/2017	11:05	Kelsey Bartling	Scott Sudweeks	16D101838	4" flume #9	052717-2BQJ	1207053	000560
M34	9/26/2017	09:20	Scott Sudweeks	Mark Rudolph	16D101838		052717-2BQJ	1207053	000585
M38	9/26/2017	08:34	Scott Sudweeks	Mark Rudolph	16D101838	Unit 5	052717-2BQJ	1207053	000563
MC0	9/26/2017	18:15	Ryan Monahan	Mike Carney sampler; Ryan Monahan flow	Rental unit 4464	8" baski flume unit #12	052717-2BQJ	1197430	001017
Oxbow Park	9/28/2017	11:16	Mike Carney	Mike Carney	Rental unit 1958				
Purple Cliffs	9/28/2017	14:30	Dave Christenson	Mike Carney	1958				
Rotary Park	9/28/2017	12:30	Dave Christenson	Mike Carney	1958				
Rotary Park dupe	9/28/2017	12:30	Dave Christenson	Mike Carney	1958				
T4	9/26/2017	11:24	Laura Archuleta	Laura Archuleta - sampler, Emily Yadacus - Flow	2085		050617-2BQJ	1207053	000527

Table 73 Bonita Peak Mining District - Low Flow September 26-28, 2017
Electronic Data Collection Field Notes Part 2

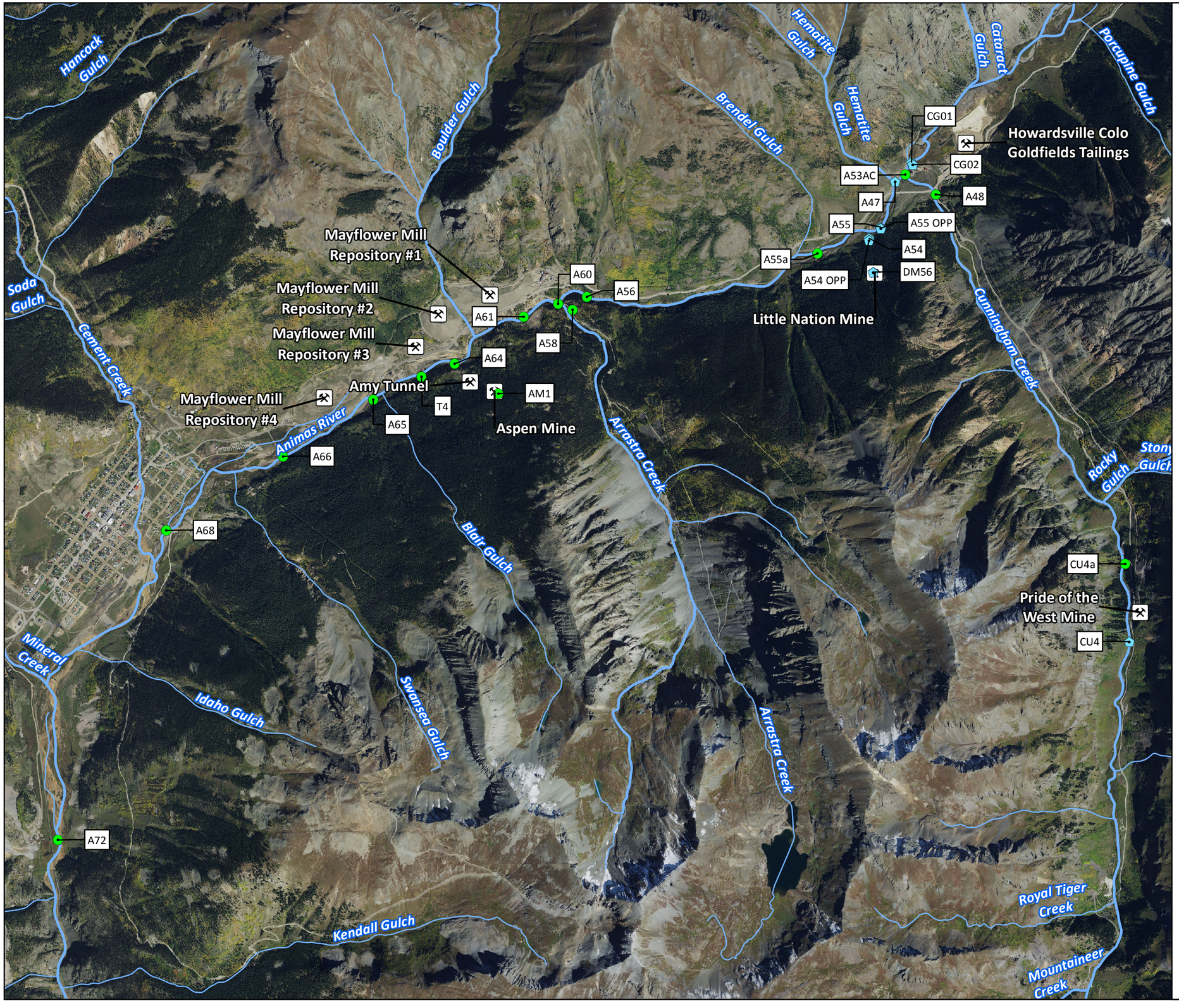
Location ID	Environmental Conditions	Remarks
32nd St bridge	Partly cloudy, 60s	Sandy, clear greenish water, put in N of bridge
A09	Sunny, breezy, ice/slush in water, warming up.	Flow taken by Jonathan Bernard. Broke ice dams to make good area to capture flow. Flow file name A09JB, disregard file A09.
A10	Warming up 10+ degrees. No ice left in river. Flow taken by Jonathan Bernard.	2 pics taken
A11	Warm, sunny, perfect sampling weather.	Flow taken by Jonathan Bernard.
A14	Sunny, still morning. Slushy ice across most of cross section needed to be sent downstream in order to obtain flows. Still some slush lingering so could effect flow accuracy.	Slush is melting quickly and moving as we take flow measurement. Flow taken by Jonathan Bernard
A18	Very cold, hard snow	Location dry no water. Photos taken.
A18A	Starting to snow, dry trib appears to come in right at the gps point. Not sure whether A21A is above or below that. Sampled above it, reasoning that since it is currently dry, it shouldn't matter.	Jonathan did flow with flow tracker.
A18B	Cloudy, meadow	Jonathan took flow.
A19A	Snowing, adit is flowing under snow	Flow with 2 inch flume taken by Jonathan. Ha=.07, Hb=.02.
A28	90% cloud cover, no breeze. Water flowing clear with gray-white hue. Whitish staining on substrate.	5 composite sediment sample collected. Pipe flow (extra photo): 6.80; Temp 11.0; Cond 725; DO 7.47; ORP 99.9
A30	Mostly cloudy (75%), some blue sky. Water flowing clear with gray-white hue. Gray-white and some orange staining on substrate.	5 composite sediment sample collected.
A30A	Partly cloudy, no breeze. Water flowing clear with gray-whitish hue. Whitish staying on substrate.	5 composite sediment sample collected
A30B	Mostly clear with high scattered clouds. Slight breeze. Water flowing clear with gray-white hue. Whitish staining on substrate.	5 composite sediment sample collected.
A32	Overcast, light occasional rain squalls. Water running clear. Orangish-brown staining on substrate.	5 composite sediment sample collected. Water leaking under rock to right (looking u/s) of flume.
A35	Sunny and cold - ice on river banks	None
A36	Sunny with a few clouds; water a little murky; orange film on substrate	None
A36A	Cloudy some graupel/snow; water very clear; substrate with diverse alge/biofilm - not stained; mosquitoe larvae in sediment sample	None
A37	Sunny and clear sky; water very clear; sampling site was within a high gradient reach with small falls and plunge pools/runs; observed amphipods under flipped over rocks	N/A
A38	Snowing and cold; adit channel is averages about 4 to 5 inches deep; clear water; fluffy green algae; very little to no flow	Flow too low to be measured
A39	Heavy snow; sampling site at flag above Terry Tunnel; water clear; high gradient	Flow not taken because channel is too braided
A40	Mostly sunny, ~25% cloud cover. Water flowing clear, whitish blue hue. Whitish-gray staining on substrate. Algae growth present.	5 composite sediment sample collected.
A41A	Clear, sunny, slight breeze. Water running clear. Whitish-gray staining on the substrate. Algae growth.	5 composite sediment sample collected.
A45	Clearing fog, no breeze. Light snow overnight. Cold. Water flowing clear. Sample taken in shade.	5 composite sediment sample collected.
A47	Light fog 35 to 40 degrees	No flow taken. Small side flow below sampling location, see extra picture.
A48	Overcast light breeze 45-50 degrees light rain	2 photos taken
A53AC	Sunny, light breeze.	Surface water collected using DH81 for 5 separate points across stream. Flow measurement collected by Ryan Monahan.
A55a	Raining. Water flowing clear with whitish blue hue.	5 composite sediment sample collected.Did field blank at truck after sampling at site.
A56	50% cloud cover. Light breeze. No staining on rocks. Samples were collected up stream from arias training and down stream from original sampling location. Flow was taken at actual sample location called A56A.	5 composite sediment sample collected
A58	35% cloud cover. No breeze. Water running clear. No visible staining.	5 composite sediment sample collected. Sediment jar lot #
A60	75% cloud cover, light breeze. Occasional rain/ snow but not much. Deep pool upstream of sample site. Water flowing clear.	5 composite sediment sample collected.
A61	50% cloud cover, light breeze. Visible whitish staining on rocks. Evidence of American dippers (whitewash on rocks in stream) using area.	Whitish staining on rocks. 5 composite sediment sample collected. Sediment jar lot #. Dupe collected.
A64	50% cloud cover, no breeze. Water flowing clear. No staining on substrate.	5 composite sediment sample collected. Sed jar lot # American dipper foraging up/downstream.
A65	Clear sunny, light breeze. Water flowing clear. No staining on substrate. American dipper feeding up and downstream of sample location.	Flowtracker sample: A65A. 5 composite sediment sample collected. Sed jar lot #
A66	Clear sunny. Water appears to be flowing clear. No staining on substrate. Samples taken in shade.	Sediment sample jar lot #1608000294. 5 composite sediment sample collected. Sample collected using DH81
A68	Clear, sunny. Temp taken in shade.	No flow measured due to gauging station. 5 composite sediment sample taken. Stream appears to be flowing clearly. No visible staining on substrate.Sediment jar lot# 1608000294
A72	In shadow, no sun. Clear skies, no breeze. Sediment jar lot#1608000294	5 point sediment composite collected. No flow measured due to gauging station. Visible orange stains on substrate below. Water appears to be flowing clearly with white-gray hue.
ARD1	Snowing; very little water and flow; pulled water out of small depressions	Pulled water from depressions with syringe and took WQ from cup
Bakers Bridge	Partly cloudy, calm, 50s	Flow not taken. Durango Riverside RV Park - Bakers Bridge. Lower pH near West Bank.
BF1	Snowing, temps in the 30s; water is clear, orange staining on substrate.	No flow collected not enough water for 1" flume. A syringe was used to sample.
BF3	Snowing; just left of BF Mine drainage on other side of berm	WQ taken in cup - water too shallow so used syringe to collect water for WQ and SW samples
CC01C1	Partly cloudy and calm with temps in the 30's. Water is clear substrate stained red/orange. Iced over in most places.	Location has very low flow, could not get flow measurements. Flow too low for 1" flume.
CC01C2	Partly cloudy and breezy temps in the 30's. Location is dry, no samples collected	Location is dry, no samples collected
CC01F	Cold and cloudy. Stream starting to ice over.	2 photos taken on iPad
CC01S	Partly cloudy and breezy. Temps in the 30's. Water is clear substrate appears natural in color.	Could not collect flow measurement. Flow is too low and shallow for the flow tracker but too much for the 2" flume that we have.
CC01T	Cold, cloudy,calm. Water is cloudy and stained white	2 photos taken on iPad
CC02C	Cold, cloudy, ominous	2 photos taken on iPad
CC02D	Cloudy and calm. Temps in the 30's. Water is clear, substrate is covered in orange precipitate.	Parshall flume no longer at this location. Took sample outside of portal.
CC03	Cold and snowing	2 photos taken on iPad
CC03B	Snowy and cold	2 photos taken on iPad
CC03C	Cold and overcast	2 photos taken on iPad . No water flowing from adit anymore. Water taken from outfall of pipes from adit.
CC04	Snowing temps in the 20's. Location is dry	Location is dry
CC06	Cloudy and snowing. Temps in the 20's	Sample collected from pipe flowing into the setting pond. Water is very turbid and orange in color.
CC07	Cold and snowing	2 photos taken on iPad
CC14	Clear sky and calm temps in the 20's. Water is clear substrate is deep orange precipitate.	Snowed yesterday, snow lining banks
CC15	Snow on ground, cloudy, overcast	2 photos taken on iPad
CC15A	Snow on ground, sunny and calm	2 photos taken on iPad
CC16B	Snow on ground. Sunny and calm	2 photos taken on iPad
CC17	Snowy, cold, overcast	2 photos taken on iPad
CC18	Overcast and rainy	2 photos taken on iPad
CC19	Cloudy and snowing.	No sample taken because they are doing work on American Tunnel which is mucking up the water. Kerry said to not take a sample.
CC20H	Cold and rainy	2 photos taken on iPad
CC21	Cloudy and calm	2 photos taken with iPad
CC27	Cloudy and calm	2 photos taken on iPad
CC28C	Clear, calm and sunny	2 photos taken from iPad
CC28D	Clear,calm and sunny	2 photos taken from iPad
CC28E	Cloudy calm	2 photos taken on iPad
CC39	Cold, clear and sunny	2 photos taken from iPad
CC39B	Clear, calm and sunny	2 photos taken on iPad
CC39C	Clear and calm. Sunny	2 photos taken from iPad
CC39D	Cold, clear and sunny	2 photos taken from iPad
CC41	Cold, clear and sunny	2 photos taken from the iPad
CC43E	Cold clear and sunny	2photos on iPad
CC48	Sunny and calm temps in the 40's. Water is slightly turbid substrate stained orange.	2 photos on iPad
CG01	Sunny 50 degrees light breeze	2 photos taken.
CG02	Sunny light breeze 50 degrees	2 photos taken
CG11	Cooling down with occasional graupel.	Flow taken by Jonathan Bernard.
CG3	Getting cloudier, lots of bedrock	Jonathan took flow.
CG4	Warming up, single thread channel	Jonathan took flow.
CG6	Cold, clouds building, single thread channel	Weather holding. Jonathan Bernard took flow.
CG9	Warm, partly cloudy. Noticing at this site and last site that DO is not stabilizing.	Flow taken by Jonathan Bernard.
CU4	Rain/snow mix. Water flowing clear. Orange/brown staining on substrate.	5 composite sediment sample collected.
CU4a	Rain snow mix. Water flowing clear. Orangish -yellow staining on substrate	5 composite sediment sample collected. Extra photo is upstream

Table 73 Bonita Peak Mining District - Low Flow September 26-28, 2017
Electronic Data Collection Field Notes Part 2

Location ID	Environmental Conditions	Remarks
EG1	Overcast, temps in the 50s. Water is clear with no visual staining of substrate	Supplemental picture taken of flume.
EG2	Water is flowing clear. No visible staining on substrate. Weather is overcast and breezy temps in the 40s	Supplemental picture taken of flume
EG2A	Cloudy and cold, temps in the 40's; green stringy algae on substrate; some orange stained seep along right bank; grassy marshy area above sampling area	Supplement picture of flume taken
EG3	Overcast temps in the 30s. Water is flowing clear with moss along banks and on some substrate.	Supplemental picture taken of flume
EG3A	Snow, about 30F; samples taken about 100 feet down from confluence; substrate stained red/orange	Supplemental picture taken of flume
EG4	Currently snowing. Temps in the 20. Slightly breezy. Water is clear. Substrate is stained white, and has brownish white organic film. Sediment is cemented in substrate pores.	Supplemental picture taken of flume
EG5	Snow and beginning to freeze; sampling reach is steep gradient just above road culvert; substrate has slight reddish staining	Supplemental picture taken of flume
EG9	Sunny sky; water clear; substrate partial orange staining; orange biofilm; very little fine grained sediments	None
HC02	Sunny	Taken from center of sampling area; most of the substrate was impacted by red clay/mud; found larger grained sediments under rocks near center of channel
LA3	Clear, mostly sunny. No breeze. Water flowing clear. Lots of brownish algae on substrate.	5 composite sediment sample collected
Lightner Creek	Partly cloudy, calm, 60s	Clear water, sediment collected mid-channel
M01	Partly cloudy. Dry. 42F	2 pics ipad2, Background Field duplicate 1
M02	Partly sunny with temperatures in the 40s. Water is clear, orange precipitate covers substrate.	4" flume #9
M02B	Cloudy dry 33F. Water is clear, substrate covered in orange precipitate.	2 pics iPad 9. 1" flume # 4.
M02E	Cloudy, temperatures in the 40s. Pond substrate covered in orange precipitate. Water is clear, green algae.	4" flume#9
M02K	Cloudy. Dry. 35F. water is turbid, orange precipitate covers substrate.	2 pics iPad 9, 1" flume # 4. Samples collected with a syringe. Water quality measured in the meter cup.
M02L	Snowing. 33F	Pond, no flow measurement
M03	Clear dry 37F	1" flume #4, 2 pics ipad9
M04	Clear dry sunny 38F	2 pics iPad 9
M05	Partly cloudy dry 34F	2pics iPad 9. 150ft upstream of GPS coordinate, 50 ft up from waterfall. Flow reading on tracker M05 2 since had to redo flow measurement.
M06A	Clear sunny 46F dry	2 pics iPad 2
M06B	Sunny, dry, clear, 49F	2 photos iPad 2
M06C	Clear sunny 49F dry	2 photos iPad 2
M06D	Partly cloudy. Dry. 45F	2 photos iPad 2
M06E	Sunny with temperatures in the 50s. Water is clear, substrate appears natural in color.	No flow measurement collected, stream is cascading in nature, rocks and large boulders present.
M07	Cloudy, snow	2 pics ipad 9
M10A	Cloudy, windy, light snow	2 pics ipad 9
M11	Weather is cloudy with rain on and off. Temperatures in the high 50s and a slight breeze present.	There appears to be no visible staining on substrate below but there is a presence of brown algae. Water appears to be flowing clearly.
M12	Cloudy and light rain	4 inch Baski flume used for flow. Stream is steep in gradient
M13A	Partly cloudy, no precipitation.	2 pics ipad 9
M13B	Rain 36F	2 pics iPad 9
M13D	Rain. 37F.	2 pics iPad 9
M14	Sleet. Wet. 33F	4" flume #9
M14A	Cloudy light rain 33F	2 pics iPad 9
M14B	Sunny with some cloud cover	Collected from a small puddle of water on top of the waste rock pile
M14B	Rain/snow 33F	2 pics iPad 9
M16	Calm few clouds 50s	No flow measurement taken
M16A	Partly cloudy, calm 50s	No flow taken
M16C	Partly cloudy	Flow 2" Baski flume
M16D	Mostly cloudy, calm 50s	No flow measurement. WQ probe only partially submerged.
M16D	Partly cloudy	Field Dup
M16E	Partly cloudy	Flow in cfs
M16F	Partly cloudy	Flow in cfs
M16G	Partly cloudy slightly breezy	Flow in cfs
M16H	Breezy, 50s	Flow in cfs
M17	Breezy, 50s	Flow in cfs
M17A	Calm, sunny 60s	Flow in cfs
M18	Calm, clear 50s	Flow in cfs
M19	Calm, clear 40s	Good, flow in cfs
M20	Clear, sunny	Good
M20	Clear sunny 40s	Good
M22	Cool, sunny, 30s	Good cross section
M23	Overcast and cooling off. Feels like snow is on the way	Getting cold!
M24A	Weather is mostly clear and sunny. Clouds are building.	No flow recorded due to extremely braided stream.
M24B	Clear and cold day. No wind. No rain or snow overnight.	2-inch Baski Flume for flow. The GPS location should be moved and made note of in the SAR. Duplicate taken here.
M24C	Calm overcast 50s	Good
M24D	Overcast calm 50s	Marked location is flooded by a beaver pond. Sample from beaver pond. No flow
M24E	Overcast, calm 50s	Flow by flow tracker gaging in difficult stream. Very steep and braided. Sediment was difficult to collect given how steep the stream is.
M25	Overcast, calm 50s	Flow in cfs. Beaver pond immediately upstream
M26B	Cold and rainy. Snow turned to rain and has settled in	Cold and rainy!
M26D	Rain 30s	Rain
M27	Light rain 30s	Rain, flow in cfs
M27A	Partly cloudy. Light rain	2 pics ipad 9
M27A2	Cloudy w/intermittent rain/snow	4 pics iPad 9, 2:Upstream and downstream, 2: Water turbid with extensive orange sediment accumulation on rocks and banks
M28	Overcast, calm	Good
M29	Cold with low hanging clouds. Very little wind. Rain and snow overnight but no precipitation now.	2 pics iPad 9. Supplemental picture of spring coming into Mineral creek at sample station.
M29A	Partly cloudy. Dry	2 pics ipad9
M29B	Sunny temperatures in the 30s.	Location is dry.
M30	Clouds are beginning to clear and the sun is peaking thru. Still cold	Braided stream, with lots of large rock and cobble. Pipe running across the creek perpendicular. This pipe may exit where we observed the spring at M30
M32	Clear sunny 49F	2 photos on ipad 2
M32B	Sunny clear 49F	2 photos iPad 2. Samples taken approx 200 feet downstream from GPS point due to inadequate flow
M33	Clear sunny 39F	2 photos on ipad 2
M33A	Sunny with temperatures in the 40s. Water is turbid, substrate has a lot of orange precipitate.	Large amount of flow from adit, used 4" flume.
M34	Clear sunny. 35F	USGS gauge, no flow measurement taken, 2photos ipad2,Field duplicate sample 5
M38	Clear 35 degrees F. Dry	2 photos ipad 2
MC0	Partly cloudy temps in the 60s. Water is flowing clear. With black staining on substrate.	None
Oxbow Park	Sunny and hot	Sampling site along river right for a 50 meter reach; sediment was very sandy and homogeneous; trout/fish observed
Purple Cliffs	Partly cloudy, calm, 60s	Clear greenish water. Suspect DO value is inaccurate (too high). Riffles, diverse substrate
Rotary Park	Partly cloudy, 60s, calm	Clear greenish water, sandy, pebbly sediment
Rotary Park dup	Partly cloudy, calm, 60s	Clear, greenish water. Sediment sandy to pebbly
T4	Clear sunny. Water flowing clear. No substrate staining. Flow labeled A65.	5composite sediment sample collected. Sed sample jar lot #

Figures

Figure 1
Bonita Peak Mining District
Animas River - (Middle)
Surface Water and Sediment
Sampling Locations - 2017



Surface Water Sample Locations

Surface Water and Sediment Sample Locations

Mines

Minor Streams

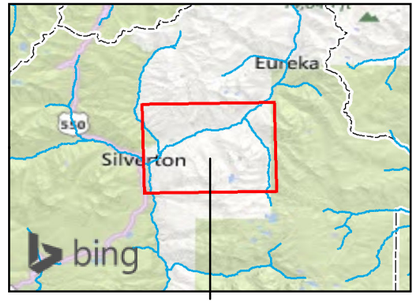
Major Streams

Map Date: February 09, 2018

Data Sources:
Sample Locations: U.S. EPA (2017).
Mines: USGS (2016).
Streams: CDOW (2004).
Imagery: USDA NAIP (2017).

Map Projection: UTM Zone 13N, WGS84, Meters

0 0.5 1
Miles



Area of Interest

Figure 2
Bonita Peak Mining District
Animas River
Surface Water and Sediment
Sampling Locations - 2017

Sunnyside Mine
Sunnyside Mine Pool Study Area
Clipper Mine
Ben Franklin Mine
Terry Tunnel
Parson Gulch
Minnehaha Creek
Eureka Gulch
Eureka Gulch
A37
A36
EG9
Senator Mine
A36A
South Fork Animas River
South Fork Animas River
A28
A30
Silver Wing Mine
Burns Gulch
Burns Gulch
A30A
A30B
Tom Moore Mine
Animas River
A31
Niagara Gulch
Niagara Gulch
A33
A34
A35
Eureka Fluvial Tailings
Edith Gulch
A40A
Forest Queen Mine
A40
A41A
Otto Gulch
Kittimack Tailings
Cataract Gulch
Cataract Gulch
LA3
Maggie Gulch
Minnie Gulch
Minnie Gulch
Porcupine Gulch
Porcupine Gulch
Hematite Gulch
Hematite Gulch
Brendel Gulch
A45

Surface Water and Sediment Sample Locations

Mines

Minor Streams

Major Streams

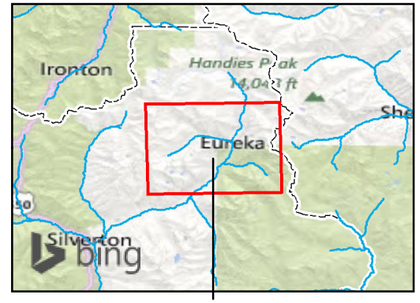
Map Date: February 09, 2018

Data Sources:
Sample Locations: U.S. EPA (2017).
Mines: USGS (2016).
Streams: CDOW (2004).
Imagery: USDA NAIP (2017).

Map Projection: UTM Zone 13N, WGS84, Meters

N
W E
S

0 0.5 1
Miles



Area of Interest

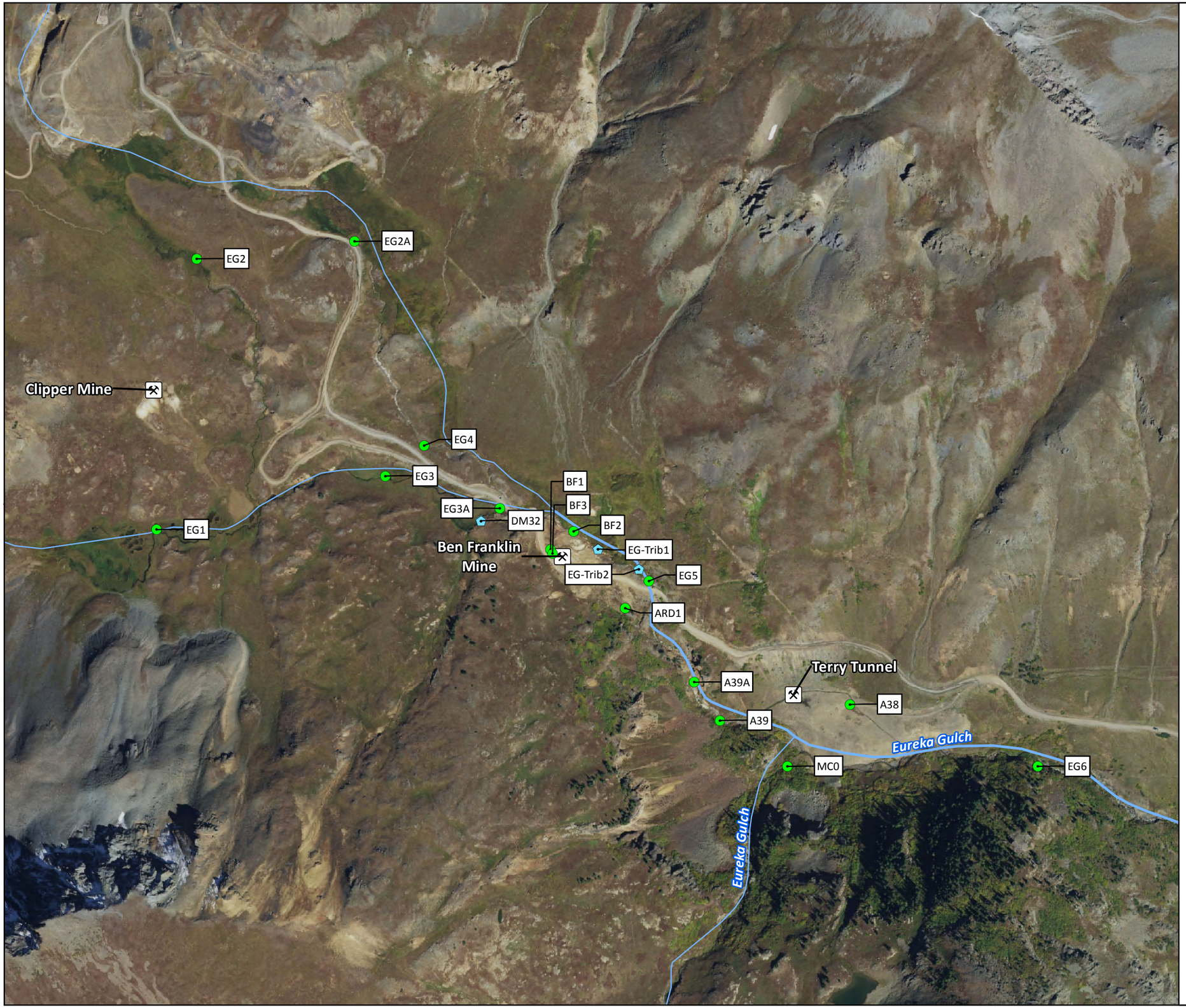


Figure 3
Bonita Peak Mining District
Animas River - (Upper)
Eureka Gulch
Surface Water and Sediment
Sampling Locations - 2017

Surface Water Sample Locations

Surface Water and Sediment Sample Locations

Mines

Minor Streams

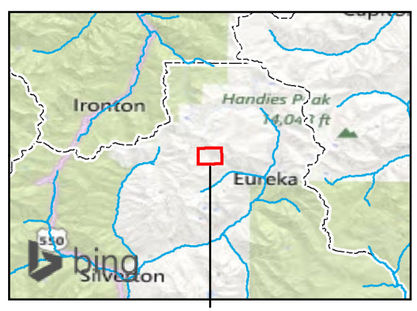
Major Streams

Map Date: February 09, 2018

Data Sources:
Sample Locations: U.S. EPA (2017).
Mines: USGS (2016).
Streams: CDOW (2004).
Imagery: USDA NAIP (2017).

Map Projection: UTM Zone 13N, WGS84, Meters

0 500 1,000
Feet



Area of Interest

Figure 4
Bonita Peak Mining District
Animas River - (Upper)
Headwater South
Surface Water and Sediment
Sampling Locations - 2017

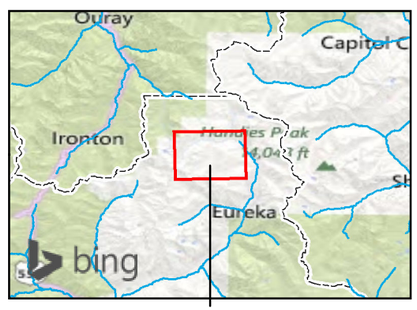
- Surface Water Sample Locations
- Surface Water and Sediment Sample Locations
- Mines
- Minor Streams
- Major Streams

Map Date: February 09, 2018

Data Sources:
Sample Locations: U.S. EPA (2017).
Mines: USGS (2016).
Streams: CDOW (2004).
Imagery: USDA NAIP (2017).

Map Projection: UTM Zone 13N, WGS84, Meters

0 0.25 0.5
Miles



Area of Interest

Figure 5
Bonita Peak Mining District
Animas River - (Upper)
Headwater North
Surface Water and Sediment
Sampling Locations - 2017

Ben Butler Mine
BB2
London Mine
LSS1
DM8A
A07C1
Dewitt Mine
A07B2
A07B1
A07B3
A07D
A07D1
A07E1
Boston Mine
A07E
Red Cloud Mine
A07F
A07G
Burrows Creek
BG1A
North Fork Animas River
Horseshoe Creek
A05
A08
North Fork Animas River

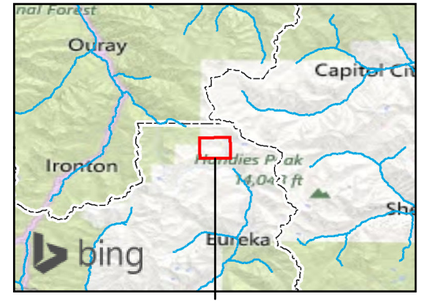
- Surface Water Sample Locations
- Surface Water and Sediment Sample Locations
- Mines
- Minor Streams
- Major Streams

Map Date: February 09, 2018

Data Sources:
Sample Locations: U.S. EPA (2017).
Mines: USGS (2016).
Streams: CDOW (2004).
Imagery: USDA NAIP (2017).

Map Projection: UTM Zone 13N, WGS84, Meters

0 500 1,000
Feet



Area of Interest

Figure 6
Bonita Peak Mining District
Cement Creek - (Lower)
Surface Water and Sediment
Sampling Locations - 2017

Anglo Saxon Mine
Porcupine Gulch
Grassy Gulch
CC39B
CC39C
CC39
CC39D
Ohio Gulch
Illinois Gulch
CC41
Yukon Tunnel (Gold Hub)
CC43E
Topeka Gulch
Hancock Gulch
Niagara Gulch
Niagara Gulch
Henrietta Gulch
Boulder Gulch
Cement Creek
Soda Gulch
Mayflower Mill Repository #3
Animas River
Mayflower Mill Repository #4
CC48
Blair Gulch
Mineral Creek

Surface Water and Sediment Sample Locations

Mines

Minor Streams

Major Streams

Map Date: February 09, 2018

Data Sources:
Sample Locations: U.S. EPA (2017).
Mines: USGS (2016).
Streams: CDOW (2004).
Imagery: USDA NAIP (2017).

Map Projection: UTM Zone 13N, WGS84, Meters

N
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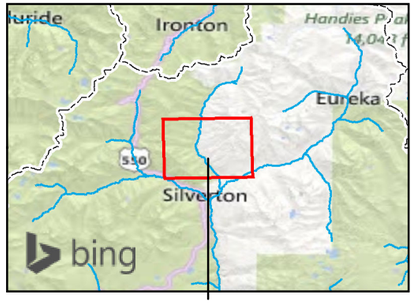
0 0.5 1
Miles



Area of Interest

Figure 7
Bonita Peak Mining District
Cement Creek - (Middle)
Surface Water and Sediment
Sampling Locations - 2017

- Surface Water Sample Locations
- Surface Water and Sediment Sample Locations
- Mines
- Minor Streams
- Major Streams

Map Date: February 09, 2018

Data Sources:
Sample Locations: U.S. EPA (2017).
Mines: USGS (2016).
Streams: CDOW (2004).
Imagery: USDA NAIP (2017).

Map Projection: UTM Zone 13N, WGS84, Meters

TechLaw

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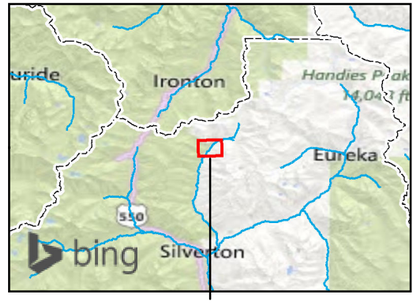
0 500 1,000
Feet



Area of Interest

Figure 8
Bonita Peak Mining District
Cement Creek - (Upper)
Surface Water and Sediment
Sampling Locations - 2017

CC01T
CC01C2
Grand Mogul Mine
CC02D
CC02C
CC01S
CC01F
CC01C1
Mogul Mine
Cement Creek
Sunnyside Mine
Pool Study Area
CC03B
CC03C
Red and
Bonita Mine
CC07
CC03
Gold King
Mine
North Fork
Cement Creek
CC06
CC04
Dry Gulch
CC18
CC20H
American
Tunnel
CC21
CC19
CC17
Wynona Mine
South Fork
Cement Creek
Minnehaha Creek
Minnehaha
Creek
Middle Fork
Cement Creek
Prospect
Gulch
South Fork
Cement Creek
CC16B
CC15A
Natalie/Occidental Mine
Tiger Gulch
CC15
CC14

- Surface Water Sample Locations
- Surface Water and Sediment Sample Locations
- Mines
- Minor Streams
- Major Streams

Map Date: February 09, 2018

Data Sources:
Sample Locations: U.S. EPA (2017).
Mines: USGS (2016).
Streams: CDOW (2004).
Imagery: USDA NAIP (2017).

Map Projection: UTM Zone 13N, WGS84, Meters

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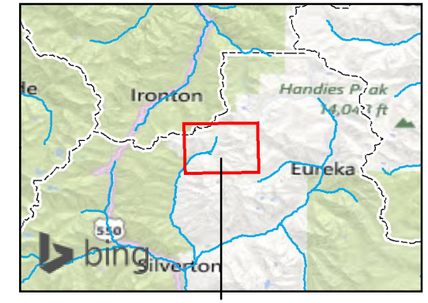
0 0.25 0.5
Miles



Area of Interest

Figure 9
Bonita Peak Mining District
South Fork Mineral Creek - (Bandora) Surface Water and Sediment Sampling Locations - 2017

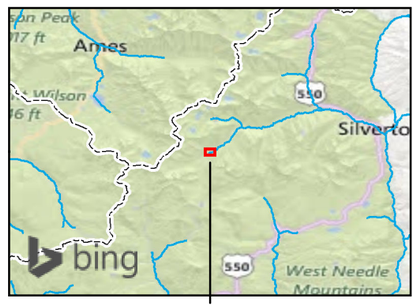
- Surface Water Sample Locations
- Surface Water and Sediment Sample Locations
- Mines
- Minor Streams
- Major Streams

Map Date: February 09, 2018

Data Sources:
Sample Locations: U.S. EPA (2017).
Mines: USGS (2016).
Streams: CDOW (2004).
Imagery: USDA NAIP (2017).

Map Projection: UTM Zone 13N, WGS84, Meters

0 250 500
Feet



Area of Interest

Figure 10
Bonita Peak Mining District
Mineral Creek - (Lower)
Surface Water and Sediment
Sampling Locations - 2017

Paradise Mine
Middle Fork Mineral Creek
Middle Fork Mineral Creek
Mineral Creek
Topeka Gulch
Niagara Gulch
Niagara Gulch
Hancock Gulch
Henrietta Gulch
Cement Creek
Zuni Gulch
Soda Gulch
Clear Creek
M27
M28
M29B
M29A
M29
M26D
M29 Opp
M30
South Fork Mineral Creek
Snowslide Gulch
Copper Gulch
M32B
M32
M33
M33A
M34
M38
M26B
Cataract Creek
Animas River
Bear Creek
Porcupine Creek
Deadwood Gulch
Cataract Gulch
Kendall Gulch
Lime Creek
Bear Creek

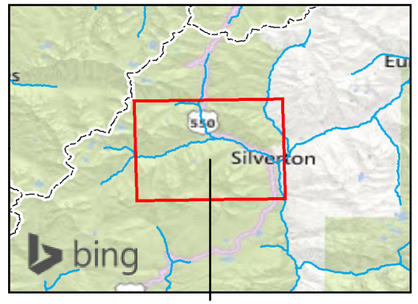
- Surface Water Sample Locations
- Surface Water and Sediment Sample Locations
- Mines
- Minor Streams
- Major Streams

Map Date: February 09, 2018

Data Sources:
Sample Locations: U.S. EPA (2017).
Mines: USGS (2016).
Streams: CDOW (2004).
Imagery: USDA NAIP (2017).

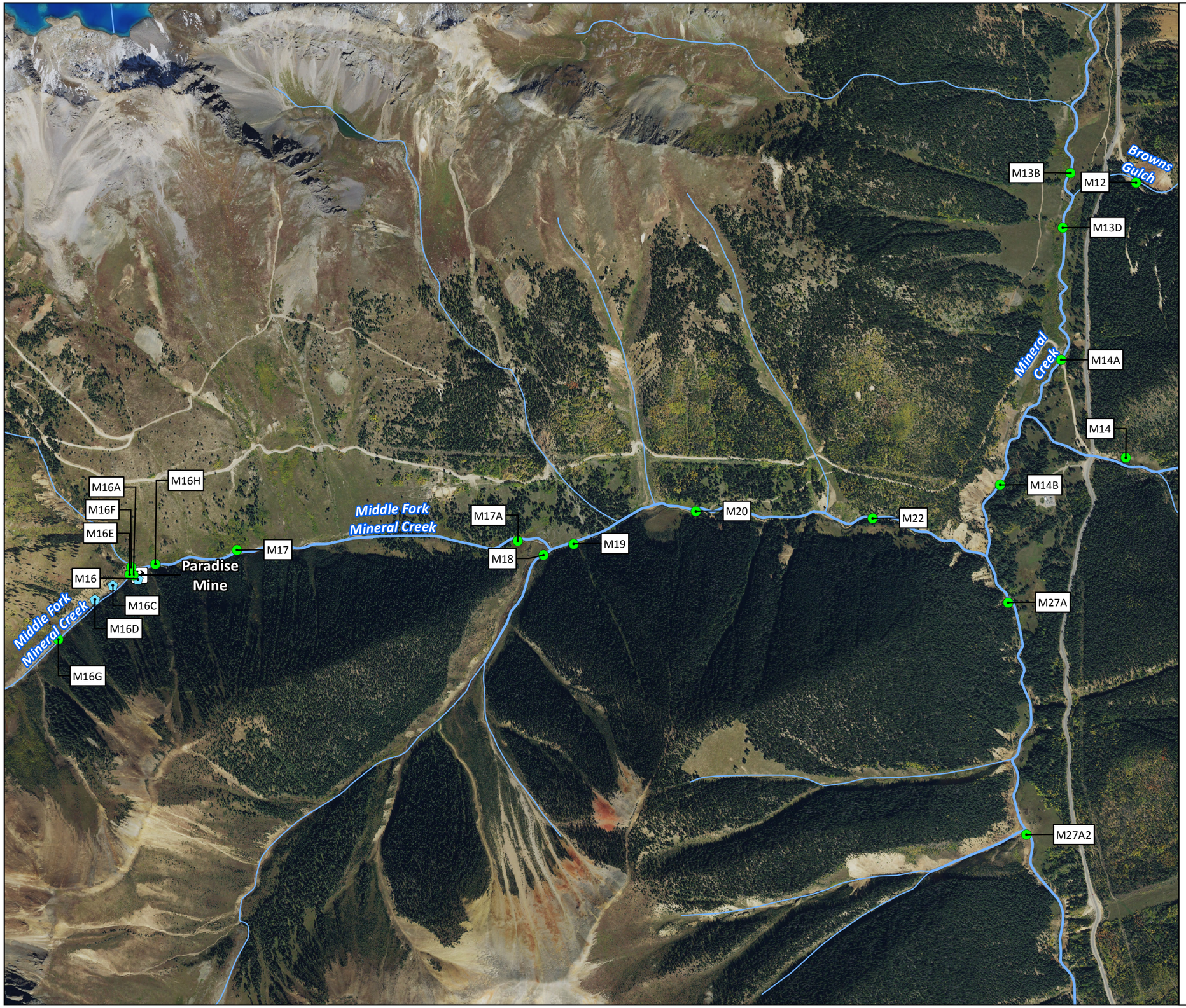
Map Projection: UTM Zone 13N, WGS84, Meters

0 0.5 1
Miles



Area of Interest

Figure 11
Bonita Peak Mining District
Mineral Creek - (Middle)
Surface Water and Sediment
Sampling Locations - 2017



Surface Water Sample Locations

Surface Water and Sediment Sample Locations

Mines

Minor Streams

Major Streams

Map Date: February 09, 2018

Data Sources:
Sample Locations: U.S. EPA (2017).
Mines: USGS (2016).
Streams: CDOW (2004).
Imagery: USDA NAIP (2017).

Map Projection: UTM Zone 13N, WGS84, Meters

TechLaw

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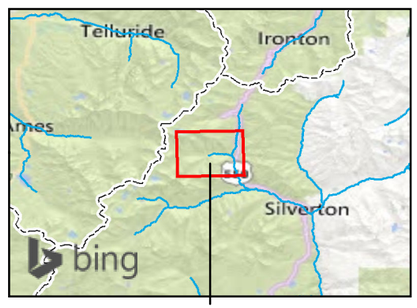
0 0.25 0.5
Miles



Area of Interest

Figure 12
Bonita Peak Mining District
Mineral Creek - (Upper)
Surface Water and Sediment
Sampling Locations - 2017

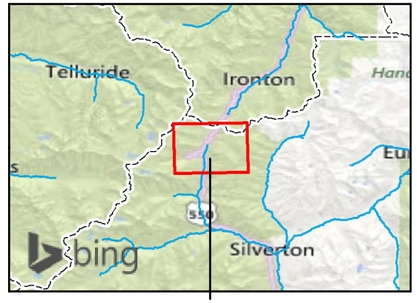
- Surface Water Sample Locations
- Surface Water and Sediment Sample Locations
- Mines
- Minor Streams
- Major Streams

Map Date: February 09, 2018

Data Sources:
Sample Locations: U.S. EPA (2017).
Mines: USGS (2016).
Streams: CDOW (2004).
Imagery: USDA NAIP (2017).

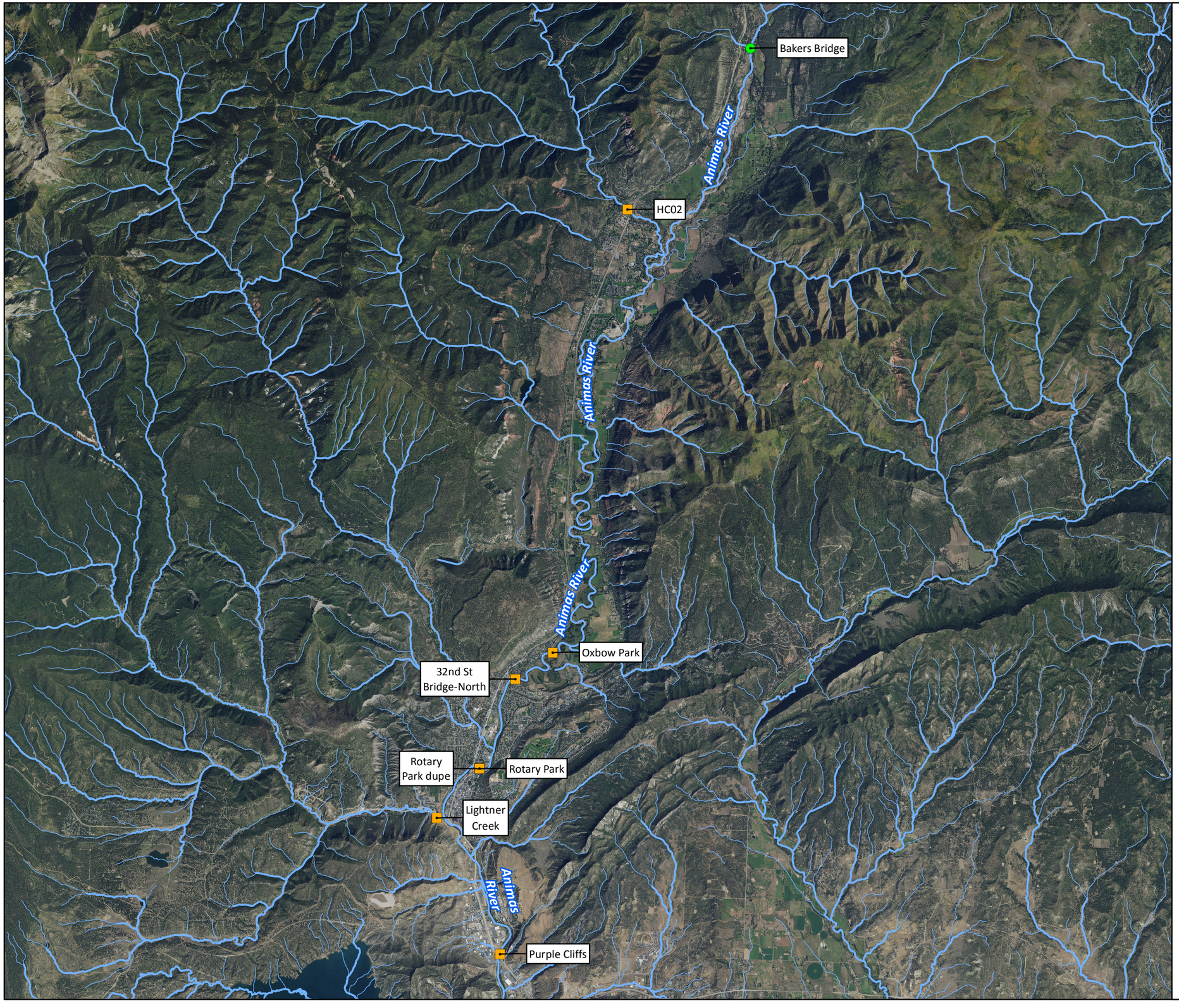
Map Projection: UTM Zone 13N, WGS84, Meters

0 0.25 0.5
Miles



Area of Interest

Figure 13
Bonita Peak Mining District
Animas River - (Lower)
Surface Water and Sediment
Sampling Locations - 2017



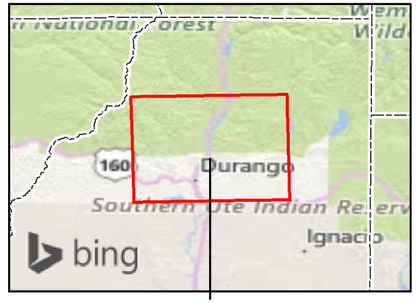
- Sediment Sample Locations
- Surface Water and Sediment Sample Locations
- Minor Streams
- Major Streams

Map Date: February 09, 2018

Data Sources:
Sample Locations: U.S. EPA (2017).
Streams: CDOW (2004).
Imagery: USDA NAIP (2017).

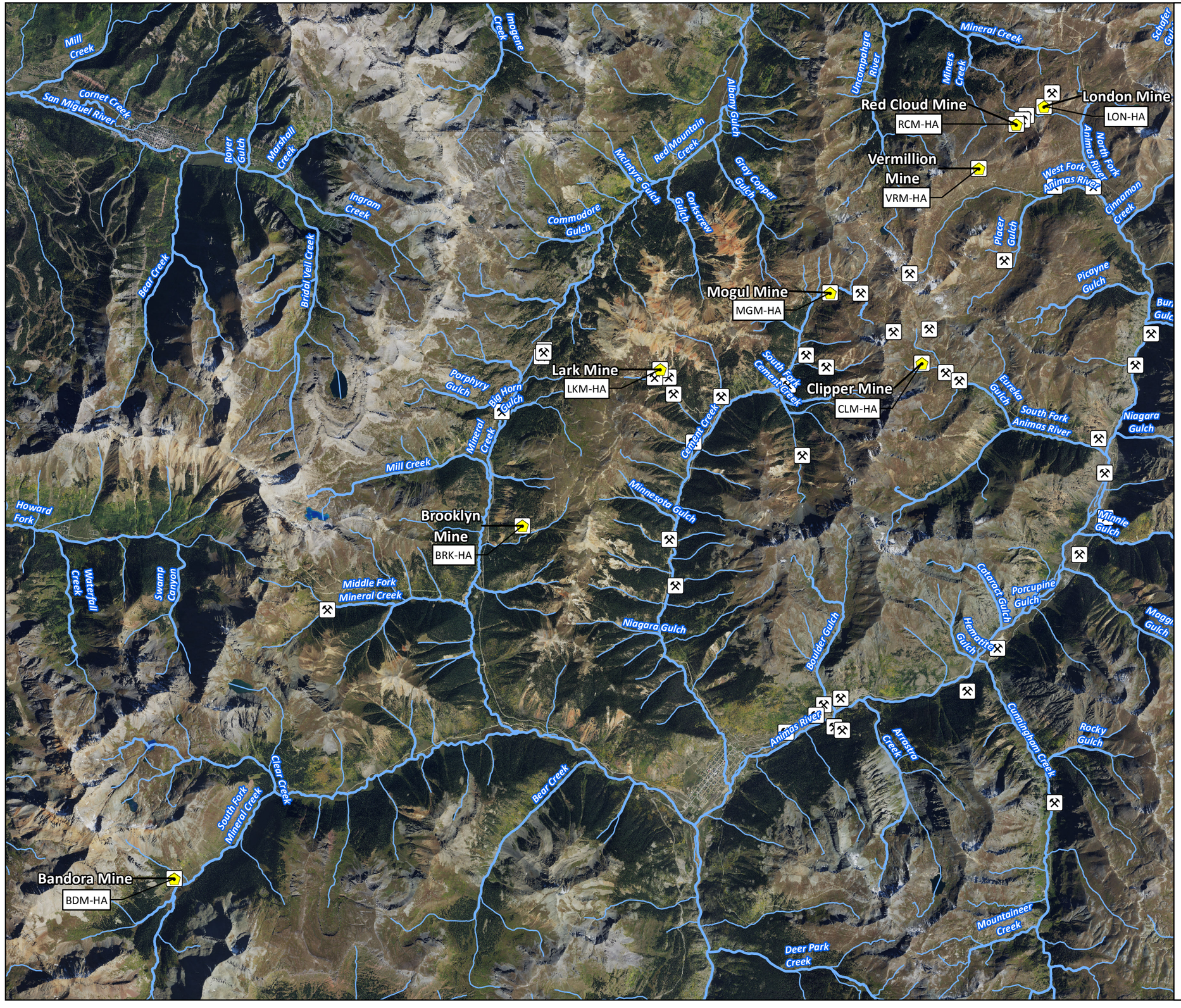
Map Projection: UTM Zone 13N, WGS84, Meters

0 2.5 5
Miles



Area of Interest

Figure 14
Bonita Peak Mining District
Halo Sampling Locations - 2017



Halo Sample Locations

Mines

Minor Streams

Major Streams

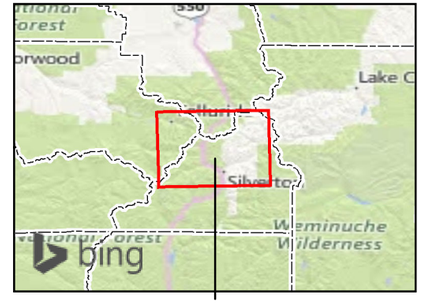
Map Date: February 09, 2018

Data Sources:
Sample Locations: U.S. EPA (2017).
Mines: USGS (2016).
Streams: CDOW (2004).
Imagery: USDA NAIP (2017).

Map Projection: UTM Zone 13N, WGS84, Meters

N
W E
S

0 1 2
Miles



Area of Interest

Figure 15
Bonita Peak Mining District
Road Dust Sampling Locations - 2017

Road Dust Sample Locations

Roads of Interest

Major Streams

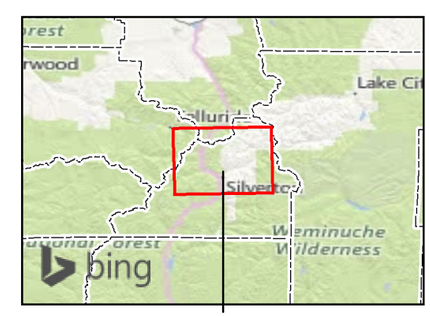
Map Date: February 09, 2018

Data Sources:
Sample Locations: U.S. EPA (2017).
Roads of Interest: NAVTEQ (2016).
Imagery: USDA NAIP (2017).

Map Projection: UTM Zone 13N, WGS84, Meters

N
W E
S

0 1 2
Miles



Area of Interest

Figure 16
Bonita Peak Mining District
Willow Sampling Locations - 2017

Willow Sample Locations

Minor Streams

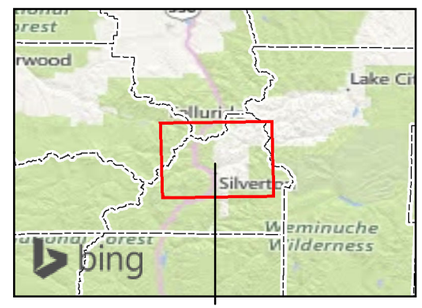
Major Streams

Map Date: February 09, 2018

Data Sources:
Sample Locations: U.S. EPA (2017).
Streams: CDOW (2004).
Imagery: USDA NAIP (2017).

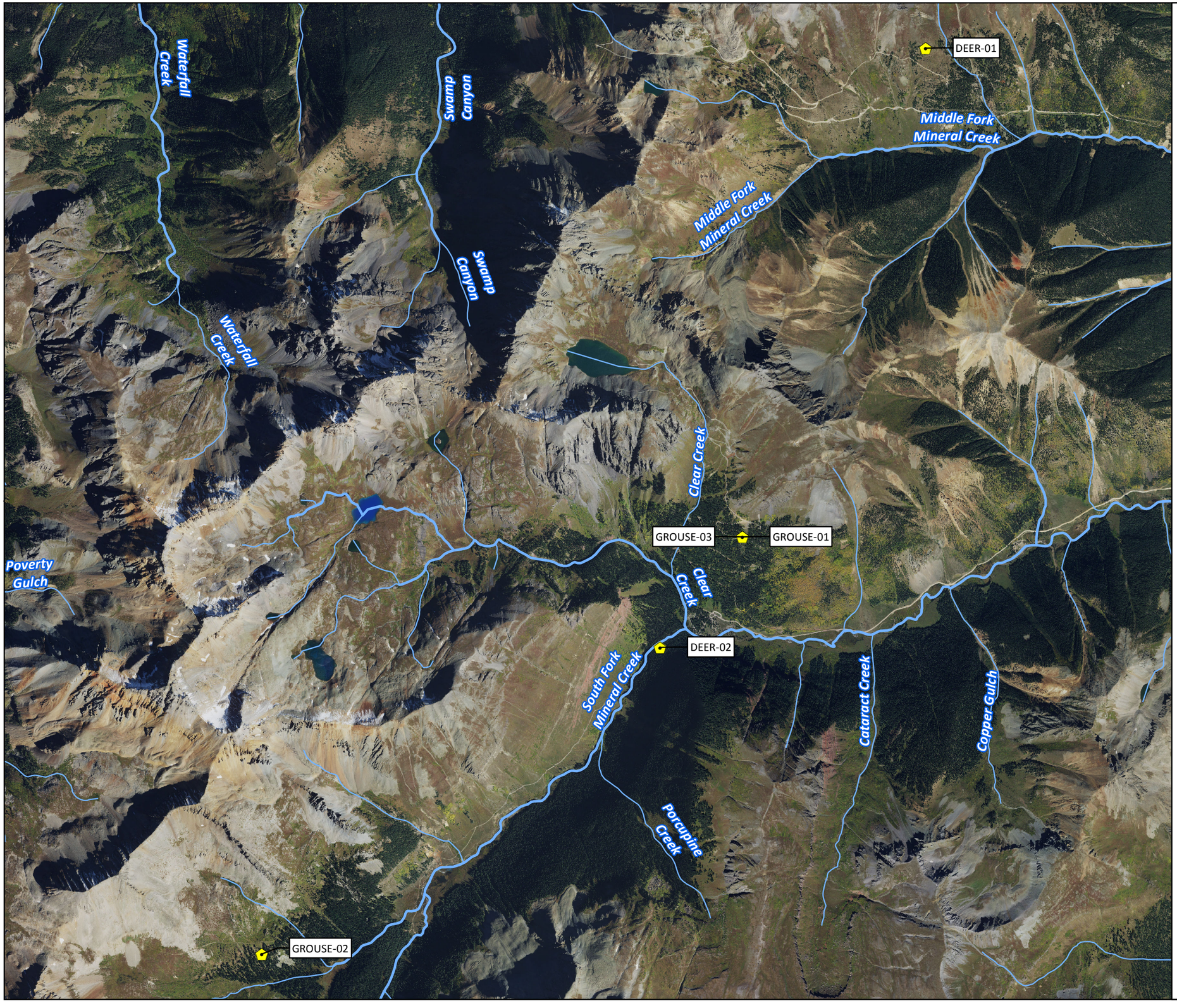
Map Projection: UTM Zone 13N, WGS84, Meters

0 1 2
Miles



Area of Interest

Figure 17
Bonita Peak Mining District
Deer and Grouse Sampling Locations - 2017



Deer and Grouse Sample Locations

Minor Streams

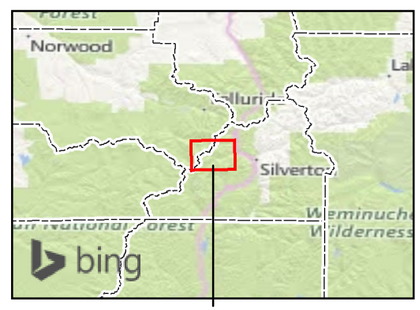
Major Streams

Map Date: February 09, 2018

Data Sources:
Sample Locations: U.S. EPA (2017).
Streams: CDOW (2004).
Imagery: USDA NAIP (2017).

Map Projection: UTM Zone 13N, WGS84, Meters

0 0.5 1
Miles



Area of Interest

Appendix A
Flow Summary Sheets

Discharge Measurement Summary

Date Generated: Tue Mar 28 2017

File Information

File Name	A66.WAD
Start Date and Time	2017/03/21 08:32:49

Site Details

Site Name	A66
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.1%	1.6%
Velocity	1.0%	9.6%
Width	0.1%	0.1%
Method	1.7%	-
# Stations	2.0%	-
Overall	**3.0%**	**9.8%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	REW	Total Width	32.700
Mean SNR	40.2 dB	Total Area	47.688
Mean Temp	35.47 °F	Mean Depth	1.458
Disch. Equation	Mid-Section	Mean Velocity	1.2901
		Total Discharge	**61.5238**

Measurement Results

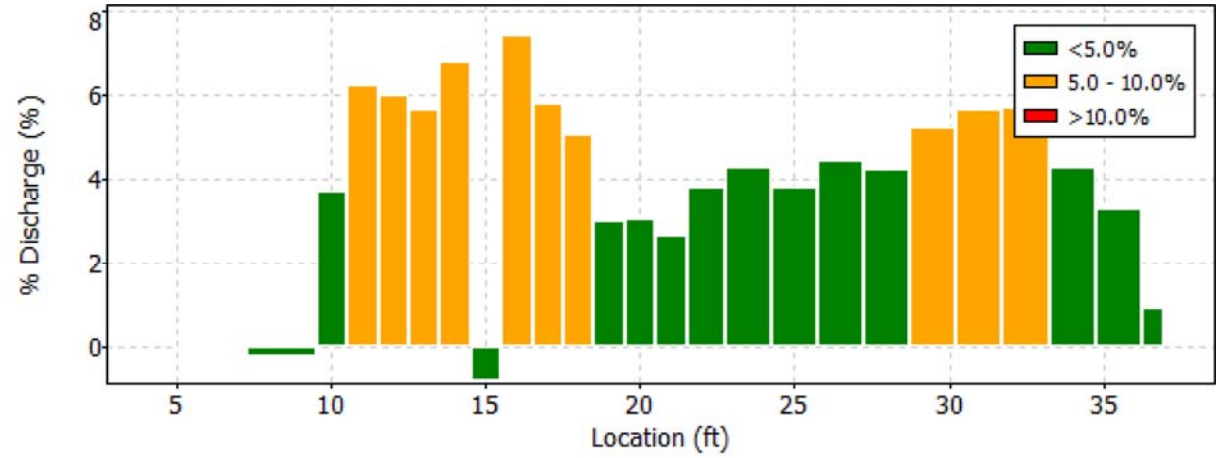
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:32	4.30	None	1.150	0.0	0.0	0.0000	1.00	-0.0246	0.690	-0.0170	0.0
1	*08:32*	*5.50*	*0.6*	*1.090*	*0.6*	*0.436*	*-0.0246*	*1.00*	*-0.0246*	*2.561*	*-0.0630*	*-0.1*
2	*08:34*	*9.00*	*0.6*	*1.550*	*0.6*	*0.620*	*-0.0443*	*1.00*	*-0.0443*	*3.487*	*-0.1545*	*-0.3*
3	*08:35*	*10.00*	*0.6*	*1.700*	*0.6*	*0.680*	*1.3491*	*1.00*	*1.3491*	*1.700*	*2.2936*	*3.7*
4	*08:36*	*11.00*	*0.6*	*1.600*	*0.6*	*0.640*	*2.4058*	*1.00*	*2.4058*	*1.600*	*3.8495*	*6.3*
5	08:38	12.00	0.6	1.750	0.6	0.700	2.1165	1.00	2.1165	1.750	3.7038	6.0
6	*08:39*	*13.00*	*0.6*	*1.950*	*0.6*	*0.780*	*1.7904*	*1.00*	*1.7904*	*1.950*	*3.4914*	*5.7*
7	08:40	14.00	0.6	2.000	0.6	0.800	2.0978	1.00	2.0978	2.000	4.1955	6.8
8	*08:41*	*15.00*	*0.6*	*1.900*	*0.6*	*0.760*	*-0.2612*	*1.00*	*-0.2612*	*1.900*	*-0.4962*	*-0.8*
9	08:42	16.00	0.6	2.000	0.6	0.800	2.2858	1.00	2.2858	2.000	4.5715	7.4
10	08:43	17.00	0.6	1.650	0.6	0.660	2.1611	1.00	2.1611	1.650	3.5657	5.8
11	08:44	18.00	0.6	1.400	0.6	0.560	2.2133	1.00	2.2133	1.400	3.0984	5.0
12	08:45	19.00	0.6	1.450	0.6	0.580	1.2808	1.00	1.2808	1.450	1.8574	3.0
13	08:46	20.00	0.6	1.300	0.6	0.520	1.4373	1.00	1.4373	1.300	1.8683	3.0
14	08:47	21.00	0.6	1.300	0.6	0.520	1.2562	1.00	1.2562	1.300	1.6329	2.7
15	*08:48*	*22.00*	*0.6*	*1.400*	*0.6*	*0.560*	*1.3468*	*1.00*	*1.3468*	*1.750*	*2.3568*	*3.8*
16	*08:49*	*23.50*	*0.6*	*1.300*	*0.6*	*0.520*	*1.3484*	*1.00*	*1.3484*	*1.950*	*2.6292*	*4.3*
17	08:50	25.00	0.6	1.300	0.6	0.520	1.1959	1.00	1.1959	1.950	2.3317	3.8
18	*08:51*	*26.50*	*0.6*	*1.450*	*0.6*	*0.580*	*1.2526*	*1.00*	*1.2526*	*2.175*	*2.7247*	*4.4*
19	*08:52*	*28.00*	*0.6*	*1.400*	*0.6*	*0.560*	*1.2434*	*1.00*	*1.2434*	*2.100*	*2.6111*	*4.2*
20	*08:53*	*29.50*	*0.6*	*1.500*	*0.6*	*0.600*	*1.4377*	*1.00*	*1.4377*	*2.250*	*3.2347*	*5.3*
21	*08:54*	*31.00*	*0.6*	*1.650*	*0.6*	*0.660*	*1.4091*	*1.00*	*1.4091*	*2.475*	*3.4874*	*5.7*
22	*08:55*	*32.50*	*0.6*	*1.400*	*0.6*	*0.560*	*1.6781*	*1.00*	*1.6781*	*2.100*	*3.5239*	*5.7*
23	*08:56*	*34.00*	*0.6*	*1.000*	*0.6*	*0.400*	*1.7602*	*1.00*	*1.7602*	*1.500*	*2.6403*	*4.3*
24	*08:57*	*35.50*	*0.6*	*1.400*	*0.6*	*0.560*	*0.9580*	*1.00*	*0.9580*	*2.100*	*2.0117*	*3.3*
25	08:57	37.00	None	0.800	0.0	0.0	0.0000	1.00	0.9580	0.600	0.5747	0.9

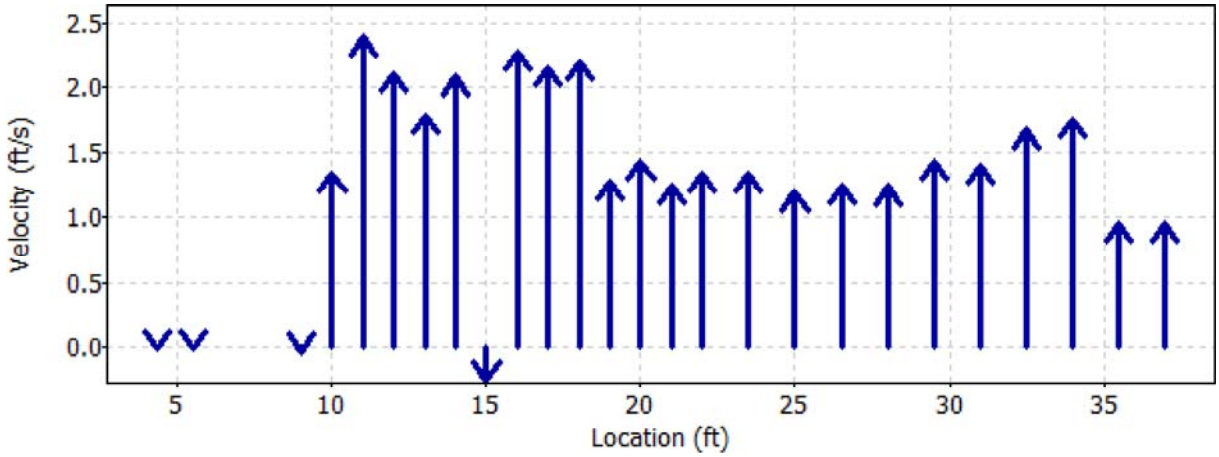
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

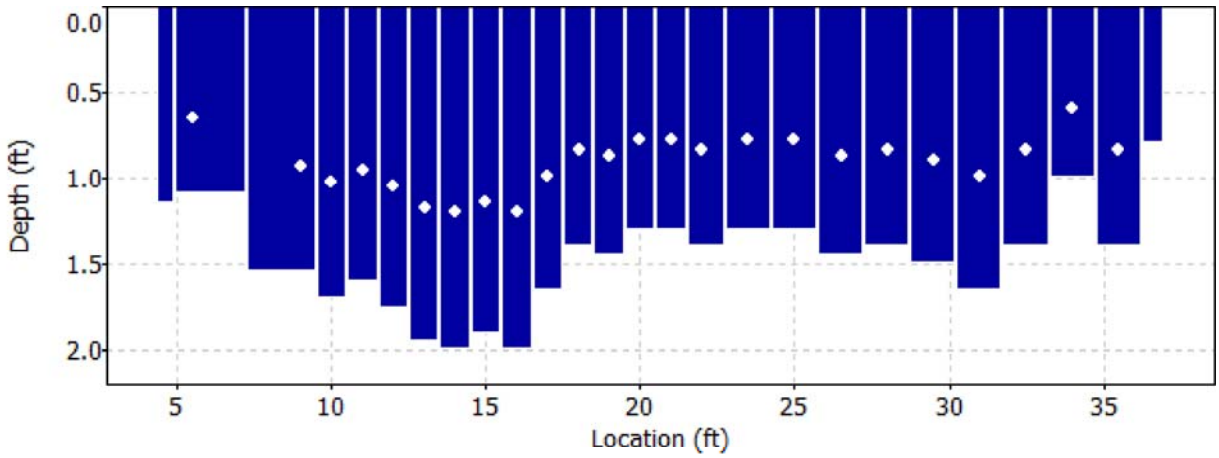
Discharge Measurement Summary

Date Generated: Tue Mar 28 2017

File Information		Site Details	
File Name	A66.WAD	Site Name	A66
Start Date and Time	2017/03/21 08:32:49	Operator(s)	RM







Discharge Measurement Summary

Date Generated: Tue Mar 28 2017

File Information		Site Details	
File Name	A66.WAD	Site Name	A66
Start Date and Time	2017/03/21 08:32:49	Operator(s)	RM

Quality Control

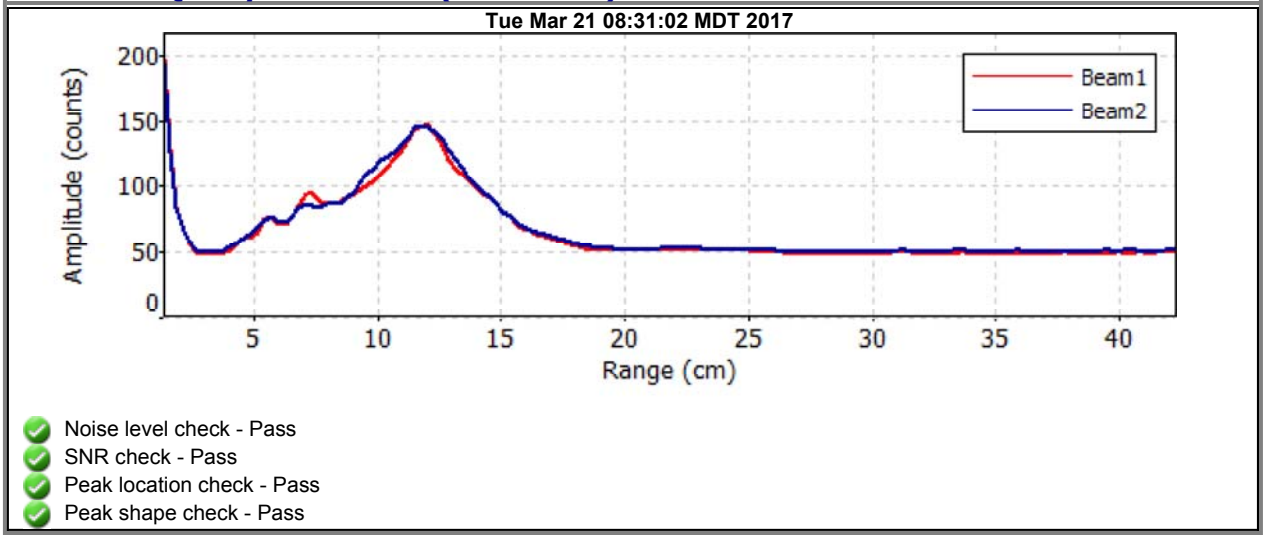
St	Loc	%Dep	Message
1	5.50	0.6	High angle: 132
2	9.00	0.6	High angle: 100
3	10.00	0.6	High angle: -27
		0.6	High standard error: 0.112
4	11.00	0.6	High angle: -20
6	13.00	0.6	High standard error: 0.110
8	15.00	0.6	High angle: 135
15	22.00	0.6	High angle: -20
16	23.50	0.6	High angle: -21
18	26.50	0.6	High angle: -24
19	28.00	0.6	High angle: -22
20	29.50	0.6	High angle: -25
21	31.00	0.6	High angle: -34
22	32.50	0.6	High angle: -25
23	34.00	0.6	High angle: -29
24	35.50	0.6	High angle: -38

Discharge Measurement Summary

Date Generated: Tue Mar 28 2017

File Information		Site Details	
File Name	A66.WAD	Site Name	A66
Start Date and Time	2017/03/21 08:32:49	Operator(s)	RM

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Mar 28 2017

File Information

File Name	A58.WAD
Start Date and Time	2017/03/21 09:57:56

Site Details

Site Name	A58
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	3.6%
Velocity	1.6%	8.6%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.0%	-
Overall	**3.4%**	**9.4%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	LEW	Total Width	9.100
Mean SNR	39.0 dB	Total Area	3.195
Mean Temp	36.35 °F	Mean Depth	0.351
Disch. Equation	Mid-Section	Mean Velocity	0.6255
		Total Discharge	**1.9984**

Measurement Results

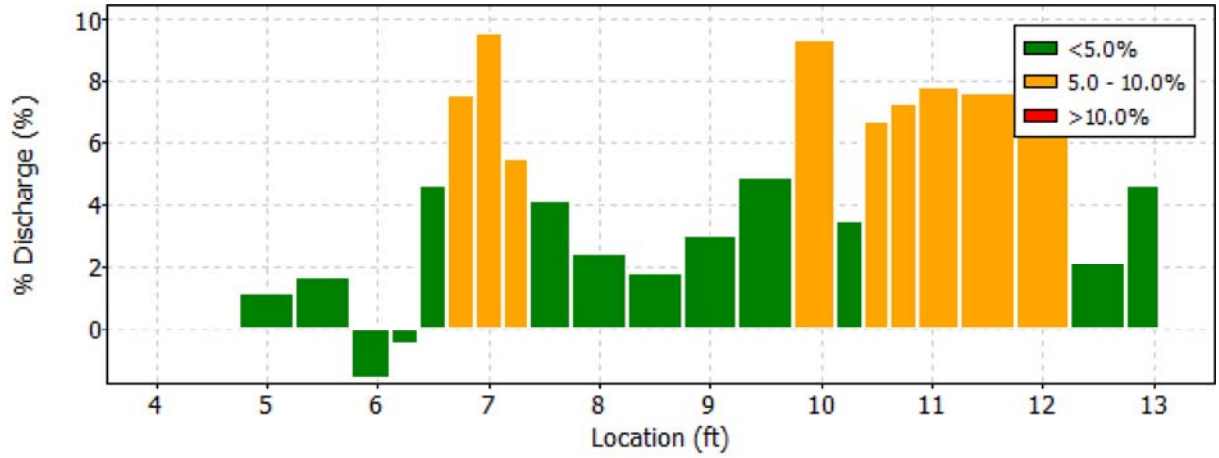
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:57	4.00	None	0.100	0.0	0.0	0.0000	1.00	0.0328	0.025	0.0008	0.0
1	*09:57*	*4.50*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0328*	*1.00*	*0.0328*	*0.100*	*0.0033*	*0.2*
2	*09:58*	*5.00*	*0.6*	*0.300*	*0.6*	*0.120*	*0.1542*	*1.00*	*0.1542*	*0.150*	*0.0231*	*1.2*
3	*09:59*	*5.50*	*0.6*	*0.350*	*0.6*	*0.140*	*0.1909*	*1.00*	*0.1909*	*0.175*	*0.0334*	*1.7*
4	*10:02*	*6.00*	*0.6*	*0.400*	*0.6*	*0.160*	*-0.2103*	*1.00*	*-0.2103*	*0.150*	*-0.0315*	*-1.6*
5	*10:18*	*6.25*	*0.6*	*0.400*	*0.6*	*0.160*	*-0.1030*	*1.00*	*-0.1030*	*0.100*	*-0.0103*	*-0.5*
6	*10:03*	*6.50*	*0.6*	*0.500*	*0.6*	*0.200*	*0.7385*	*1.00*	*0.7385*	*0.125*	*0.0923*	*4.6*
7	*10:17*	*6.75*	*0.6*	*0.550*	*0.6*	*0.220*	*1.0935*	*1.00*	*1.0935*	*0.137*	*0.1503*	*7.5*
8	*10:04*	*7.00*	*0.6*	*0.600*	*0.6*	*0.240*	*1.2657*	*1.00*	*1.2657*	*0.150*	*0.1899*	*9.5*
9	10:19	7.25	0.6	0.500	0.6	0.200	0.8757	1.00	0.8757	0.125	0.1095	5.5
10	10:05	7.50	0.6	0.350	0.6	0.140	0.6247	1.00	0.6247	0.131	0.0820	4.1
11	*10:06*	*8.00*	*0.6*	*0.500*	*0.6*	*0.200*	*0.1952*	*1.00*	*0.1952*	*0.250*	*0.0488*	*2.4*
12	10:07	8.50	0.6	0.350	0.6	0.140	0.2064	1.00	0.2064	0.175	0.0361	1.8
13	*10:08*	*9.00*	*0.6*	*0.250*	*0.6*	*0.100*	*0.4898*	*1.00*	*0.4898*	*0.125*	*0.0612*	*3.1*
14	*10:09*	*9.50*	*0.6*	*0.400*	*0.6*	*0.160*	*0.4898*	*1.00*	*0.4898*	*0.200*	*0.0979*	*4.9*
15	10:10	10.00	0.6	0.400	0.6	0.160	1.2461	1.00	1.2461	0.150	0.1869	9.4
16	*10:20*	*10.25*	*0.6*	*0.350*	*0.6*	*0.140*	*0.7904*	*1.00*	*0.7904*	*0.088*	*0.0692*	*3.5*
17	10:11	10.50	0.6	0.400	0.6	0.160	1.3402	1.00	1.3402	0.100	0.1340	6.7
18	*10:22*	*10.75*	*0.6*	*0.350*	*0.6*	*0.140*	*1.6555*	*1.00*	*1.6555*	*0.088*	*0.1449*	*7.2*
19	10:12	11.00	0.6	0.350	0.6	0.140	1.1886	1.00	1.1886	0.131	0.1560	7.8
20	10:13	11.50	0.6	0.380	0.6	0.152	0.7969	1.00	0.7969	0.190	0.1514	7.6
21	10:14	12.00	0.6	0.330	0.6	0.132	0.7559	1.00	0.7559	0.165	0.1247	6.2
22	10:15	12.50	0.6	0.200	0.6	0.080	0.4324	1.00	0.4324	0.100	0.0433	2.2
23	10:16	13.00	0.6	0.200	0.6	0.080	1.5554	1.00	1.5554	0.060	0.0934	4.7
24	10:16	13.10	None	0.100	0.0	0.0	0.0000	1.00	1.5554	0.005	0.0078	0.4

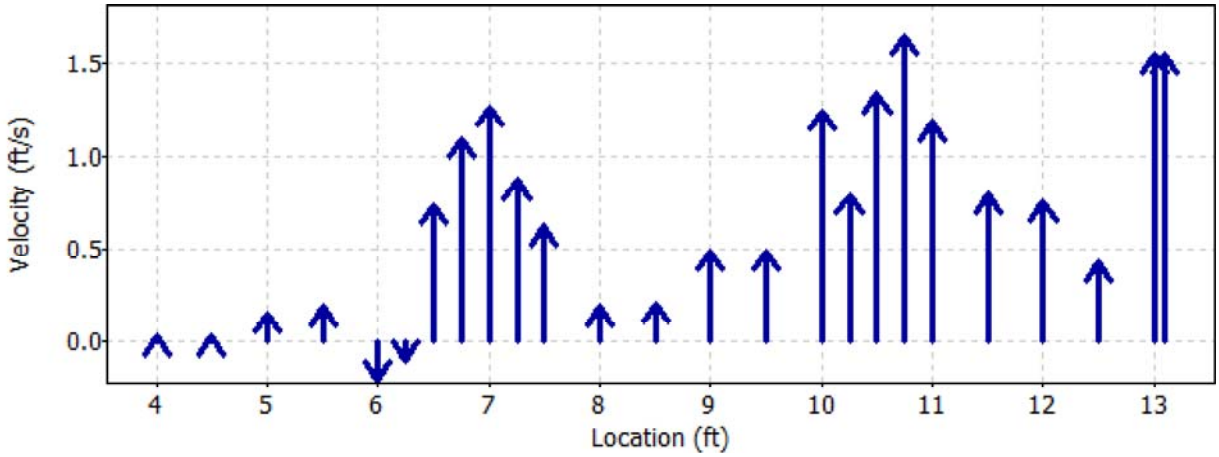
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

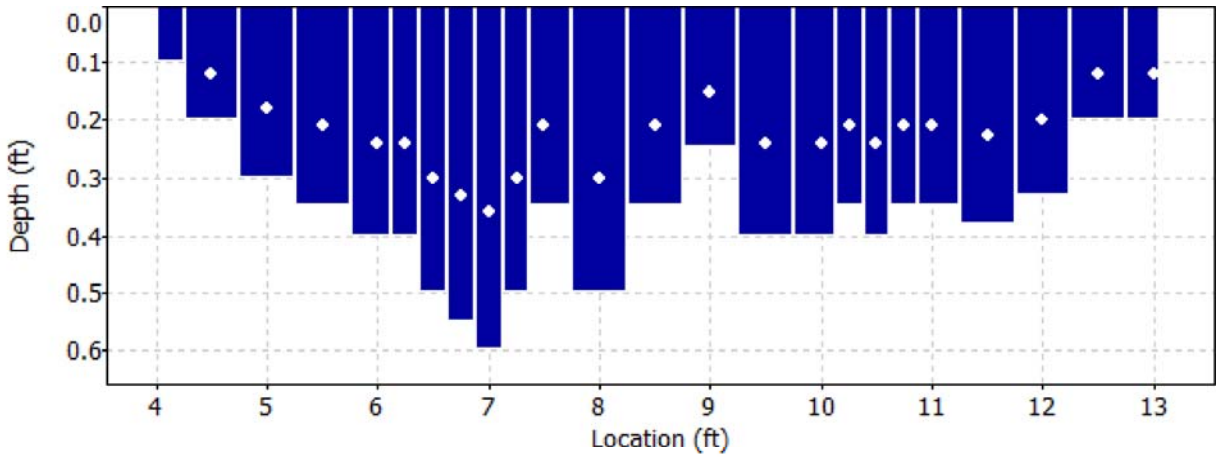
Discharge Measurement Summary

Date Generated: Tue Mar 28 2017

File Information		Site Details	
File Name	A58.WAD	Site Name	A58
Start Date and Time	2017/03/21 09:57:56	Operator(s)	RM







Discharge Measurement Summary

Date Generated: Tue Mar 28 2017

File Information		Site Details	
File Name	A58.WAD	Site Name	A58
Start Date and Time	2017/03/21 09:57:56	Operator(s)	RM

Quality Control

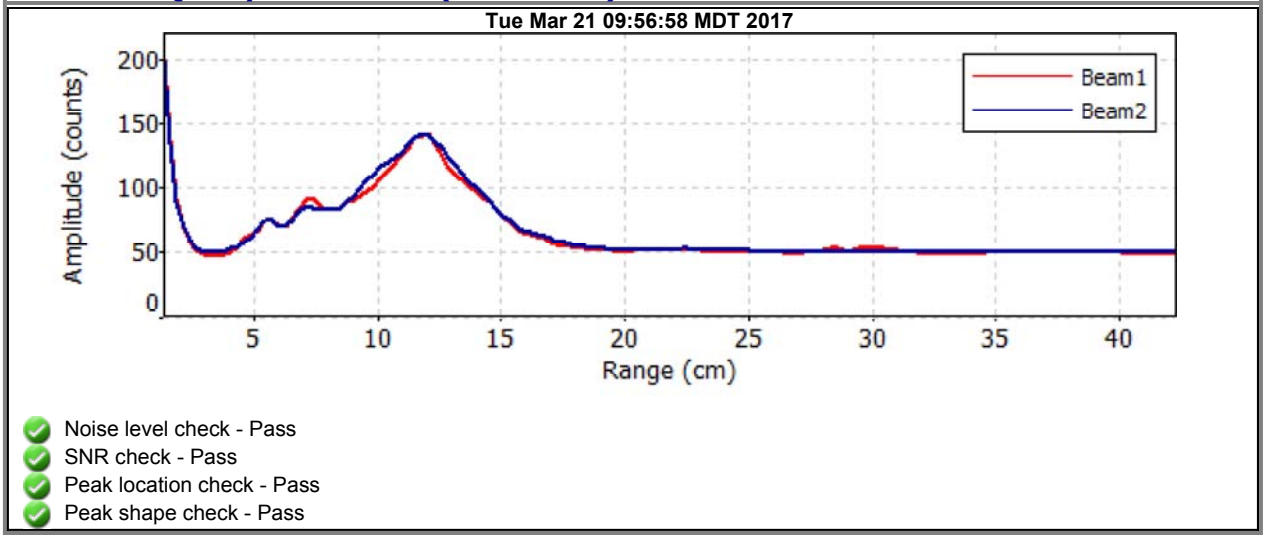
St	Loc	%Dep	Message
1	4.50	0.6	SNR (26.0) is different from typical SNR (39.0)
		0.6	Boundary QC is Fair; possible boundary interference
2	5.00	0.6	High angle: -79
3	5.50	0.6	High angle: -25
4	6.00	0.6	High angle: -172
5	6.25	0.6	High angle: -127
6	6.50	0.6	High angle: -31
7	6.75	0.6	High standard error: 0.099
8	7.00	0.6	High angle: -22
11	8.00	0.6	High angle: -45
13	9.00	0.6	High angle: -23
		0.6	High SNR variation during measurement: 7.7,7.7
		0.6	Boundary QC is Fair; possible boundary interference
14	9.50	0.6	High angle: 25
16	10.25	0.6	High standard error: 0.129
18	10.75	0.6	High number of spikes: 5

Discharge Measurement Summary

Date Generated: Tue Mar 28 2017

File Information		Site Details	
File Name	A58.WAD	Site Name	A58
Start Date and Time	2017/03/21 09:57:56	Operator(s)	RM

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Mar 28 2017

File Information

File Name	CC21.WAD
Start Date and Time	2017/03/21 13:42:47

Site Details

Site Name	CC21
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.8%
Velocity	1.5%	3.9%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**3.5%**	**4.4%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	9.900
Mean SNR	48.0 dB	Total Area	5.839
Mean Temp	40.43 °F	Mean Depth	0.590
Disch. Equation	Mid-Section	Mean Velocity	1.3646
		Total Discharge	**7.9679**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:42	3.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*13:42*	*4.00*	*0.6*	*0.390*	*0.6*	*0.156*	*0.0633*	*1.00*	*0.0633*	*0.195*	*0.0124*	*0.2*
2	*13:43*	*4.50*	*0.6*	*0.580*	*0.6*	*0.232*	*0.1191*	*1.00*	*0.1191*	*0.290*	*0.0345*	*0.4*
3	*13:45*	*5.00*	*0.6*	*0.750*	*0.6*	*0.300*	*1.2234*	*1.00*	*1.2234*	*0.375*	*0.4588*	*5.8*
4	13:46	5.50	0.6	0.900	0.6	0.360	1.3376	1.00	1.3376	0.450	0.6019	7.6
5	*13:46*	*6.00*	*0.6*	*0.900*	*0.6*	*0.360*	*1.7418*	*1.00*	*1.7418*	*0.450*	*0.7838*	*9.8*
6	13:47	6.50	0.6	0.770	0.6	0.308	1.7746	1.00	1.7746	0.289	0.5124	6.4
7	14:03	6.75	0.6	0.750	0.6	0.300	2.0154	1.00	2.0154	0.188	0.3779	4.7
8	*13:48*	*7.00*	*0.6*	*0.800*	*0.6*	*0.320*	*1.7228*	*1.00*	*1.7228*	*0.300*	*0.5167*	*6.5*
9	13:50	7.50	0.6	0.870	0.6	0.348	1.3041	1.00	1.3041	0.326	0.4255	5.3
10	*14:01*	*7.75*	*0.6*	*0.730*	*0.6*	*0.292*	*1.4413*	*1.00*	*1.4413*	*0.182*	*0.2630*	*3.3*
11	*13:50*	*8.00*	*0.6*	*0.750*	*0.6*	*0.300*	*1.2887*	*1.00*	*1.2887*	*0.281*	*0.3625*	*4.5*
12	13:52	8.50	0.6	0.650	0.6	0.260	1.8173	1.00	1.8173	0.325	0.5905	7.4
13	13:53	9.00	0.6	0.650	0.6	0.260	2.1759	1.00	2.1759	0.325	0.7071	8.9
14	13:54	9.50	0.6	0.600	0.6	0.240	2.2175	1.00	2.2175	0.300	0.6653	8.4
15	13:55	10.00	0.6	0.550	0.6	0.220	1.5157	1.00	1.5157	0.275	0.4167	5.2
16	13:56	10.50	0.6	0.500	0.6	0.200	1.2231	1.00	1.2231	0.250	0.3058	3.8
17	13:57	11.00	0.6	0.400	0.6	0.160	1.2149	1.00	1.2149	0.200	0.2429	3.0
18	13:58	11.50	0.6	0.500	0.6	0.200	0.7379	1.00	0.7379	0.250	0.1845	2.3
19	13:59	12.00	0.6	0.400	0.6	0.160	1.1191	1.00	1.1191	0.200	0.2238	2.8
20	14:00	12.50	0.6	0.490	0.6	0.196	0.7264	1.00	0.7264	0.343	0.2492	3.1
21	14:00	13.40	None	0.100	0.0	0.0	0.0000	1.00	0.7264	0.045	0.0327	0.4

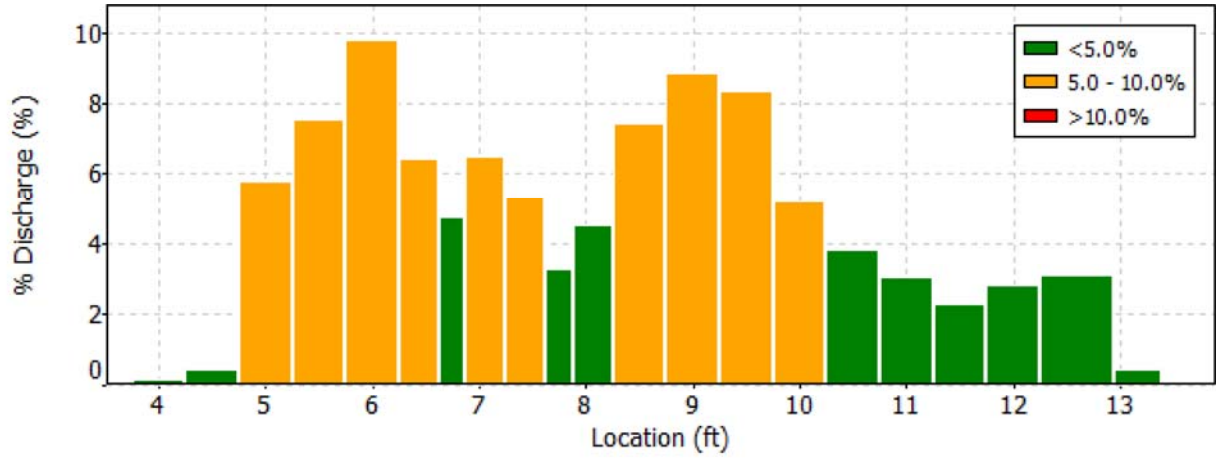
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

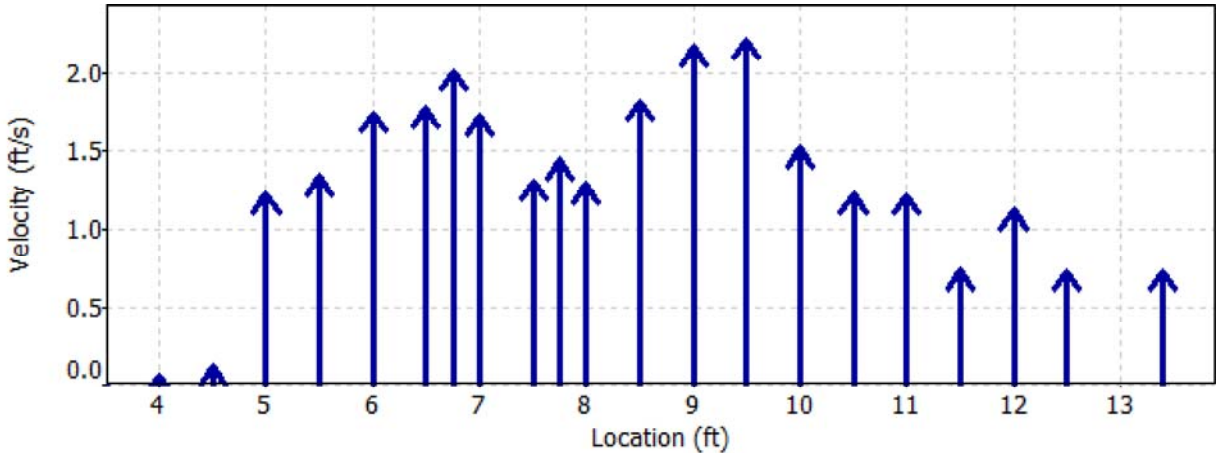
Discharge Measurement Summary

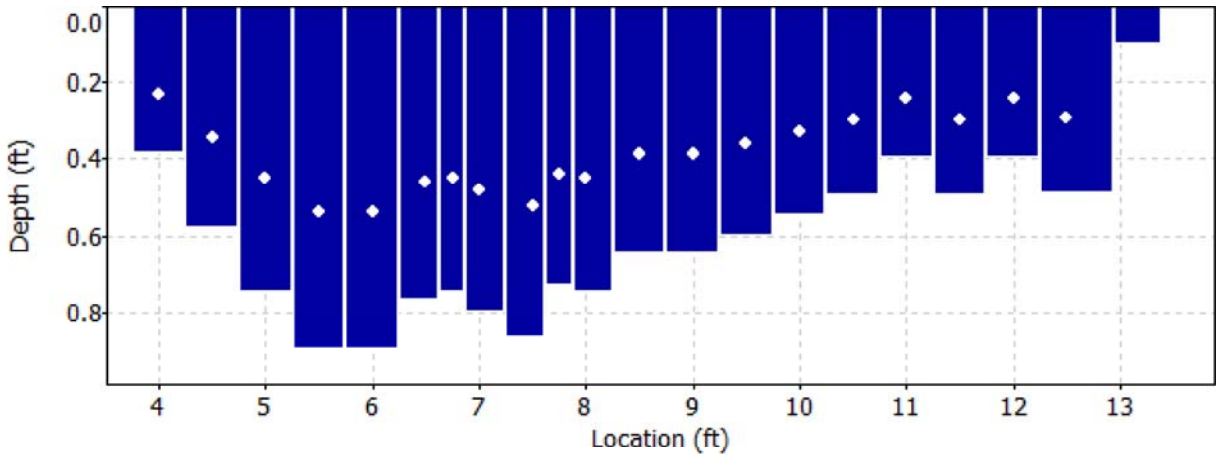
Date Generated: Tue Mar 28 2017

File Information	
File Name	CC21.WAD
Start Date and Time	2017/03/21 13:42:47

Site Details	
Site Name	CC21
Operator(s)	RM







Discharge Measurement Summary

Date Generated: Tue Mar 28 2017

File Information	
File Name	CC21.WAD
Start Date and Time	2017/03/21 13:42:47

Site Details	
Site Name	CC21
Operator(s)	RM

Quality Control

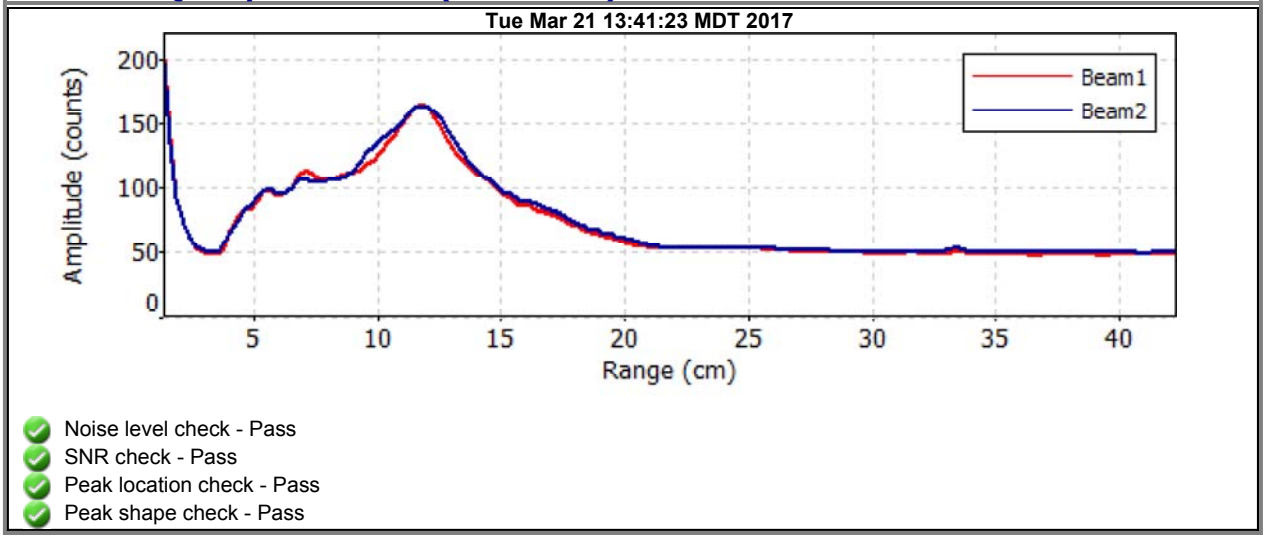
St	Loc	%Dep	Message
1	4.00	0.6	High angle: 58
2	4.50	0.6	High angle: -39
3	5.00	0.6	High standard error: 0.115
5	6.00	0.6	High standard error: 0.112
8	7.00	0.6	High angle: -21
		0.6	High standard error: 0.113
10	7.75	0.6	High standard error: 0.123
11	8.00	0.6	High standard error: 0.145

Discharge Measurement Summary

Date Generated: Tue Mar 28 2017

File Information		Site Details	
File Name	CC21.WAD	Site Name	CC21
Start Date and Time	2017/03/21 13:42:47	Operator(s)	RM

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Thu Apr 6 2017

File Information

File Name	A66.WAD
Start Date and Time	2017/04/04 12:06:21

Site Details

Site Name	A66
Operator(s)	ND

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.1%	1.5%
Velocity	0.8%	2.7%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.2%	-
Overall	**3.1%**	**3.2%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	43.000
Mean SNR	30.4 dB	Total Area	51.383
Mean Temp	39.35 °F	Mean Depth	1.195
Disch. Equation	Mid-Section	Mean Velocity	0.9342
		Total Discharge	**48.0020**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	12:06	3.00	None	0.100	0.0	0.0	0.0000	1.00	-0.0033	0.108	-0.0004	0.0
1	12:06	5.15	0.6	0.200	0.6	0.080	-0.0033	1.00	-0.0033	0.430	-0.0014	0.0
2	*12:07*	*7.30*	*0.6*	*0.650*	*0.6*	*0.260*	*0.1617*	*1.00*	*0.1617*	*1.397*	*0.2260*	*0.5*
3	12:09	9.45	0.6	0.850	0.6	0.340	0.4364	1.00	0.4364	1.828	0.7975	1.7
4	*12:11*	*11.60*	*0.6*	*1.300*	*0.6*	*0.520*	*0.6982*	*1.00*	*0.6982*	*2.795*	*1.9511*	*4.1*
5	12:12	13.75	0.6	1.300	0.6	0.520	1.0712	1.00	1.0712	2.795	2.9936	6.2
6	12:13	15.90	0.6	1.300	0.6	0.520	0.9951	1.00	0.9951	2.795	2.7809	5.8
7	12:14	18.05	0.6	1.300	0.6	0.520	1.2671	1.00	1.2671	2.795	3.5410	7.4
8	12:15	20.20	0.6	1.300	0.6	0.520	1.3192	1.00	1.3192	2.795	3.6868	7.7
9	12:17	22.35	0.6	1.500	0.6	0.600	1.6020	1.00	1.6020	2.100	3.3649	7.0
10	12:34	23.00	0.6	1.500	0.6	0.600	1.6194	1.00	1.6194	1.612	2.6112	5.4
11	12:18	24.50	0.6	1.500	0.6	0.600	1.2142	1.00	1.2142	2.737	3.3233	6.9
12	12:19	26.65	0.6	1.500	0.6	0.600	1.1535	1.00	1.1535	3.225	3.7201	7.7
13	12:20	28.80	0.6	1.400	0.6	0.560	1.0820	1.00	1.0820	3.010	3.2566	6.8
14	12:21	30.95	0.6	1.550	0.6	0.620	0.8907	1.00	0.8907	3.332	2.9681	6.2
15	12:23	33.10	0.6	1.400	0.6	0.560	0.6847	1.00	0.6847	3.010	2.0608	4.3
16	12:24	35.25	0.6	1.300	0.6	0.520	0.9528	1.00	0.9528	2.795	2.6626	5.5
17	12:25	37.40	0.6	1.400	0.6	0.560	0.8068	1.00	0.8068	3.010	2.4282	5.1
18	12:26	39.55	0.6	1.300	0.6	0.520	0.9006	1.00	0.9006	2.795	2.5168	5.2
19	12:28	41.70	0.6	1.200	0.6	0.480	0.6109	1.00	0.6109	2.580	1.5762	3.3
20	12:29	43.85	0.6	1.200	0.6	0.480	0.4885	1.00	0.4885	2.580	1.2605	2.6
21	12:30	46.00	0.6	0.800	0.6	0.320	0.3225	1.00	0.3225	0.860	0.2775	0.6
22	12:30	46.00	None	0.800	0.0	0.0	0.0000	1.00	0.3225	0.001	0.0002	0.0

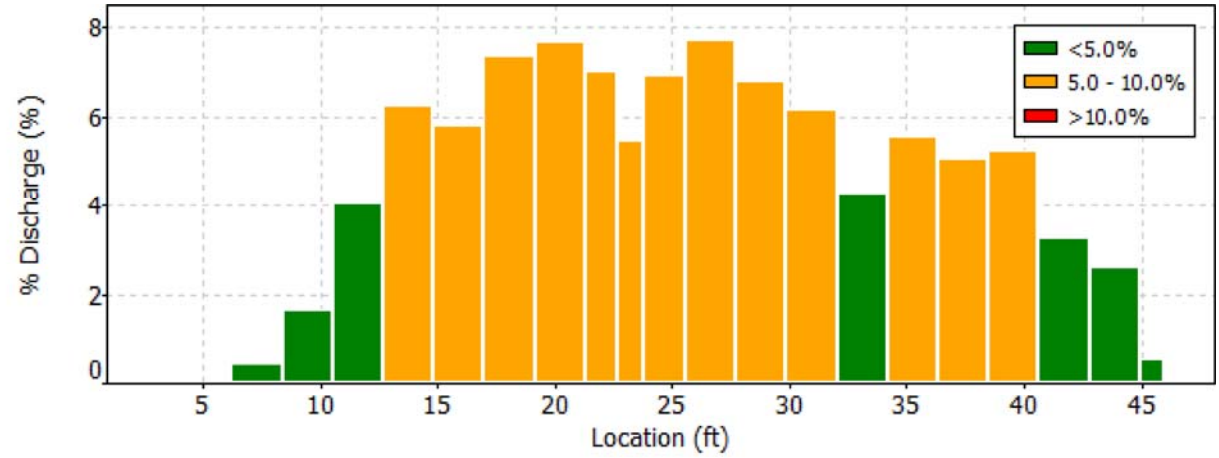
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

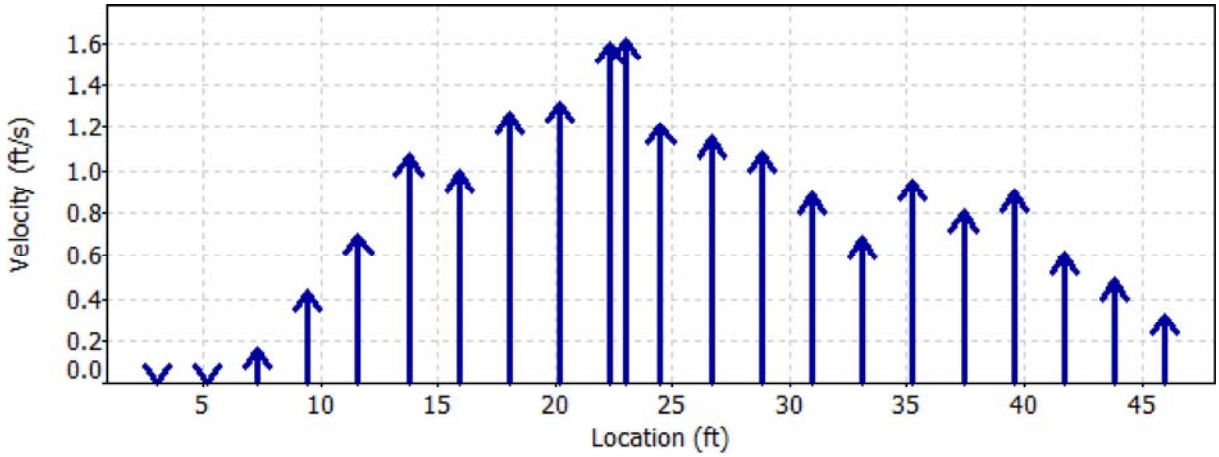
Discharge Measurement Summary

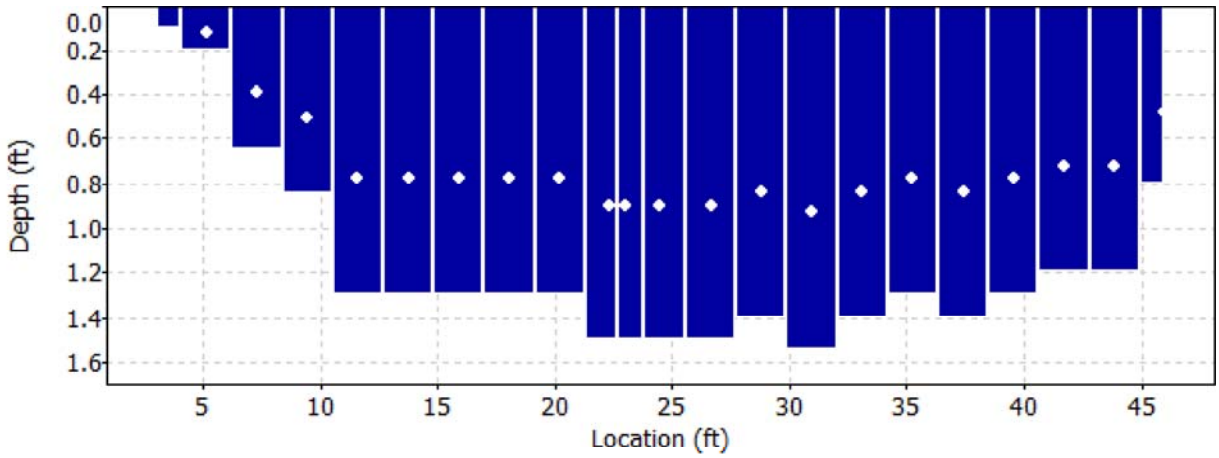
Date Generated: Thu Apr 6 2017

File Information	
File Name	A66.WAD
Start Date and Time	2017/04/04 12:06:21

Site Details	
Site Name	A66
Operator(s)	ND







Discharge Measurement Summary

Date Generated: Thu Apr 6 2017

File Information		Site Details	
File Name	A66.WAD	Site Name	A66
Start Date and Time	2017/04/04 12:06:21	Operator(s)	ND

Quality Control

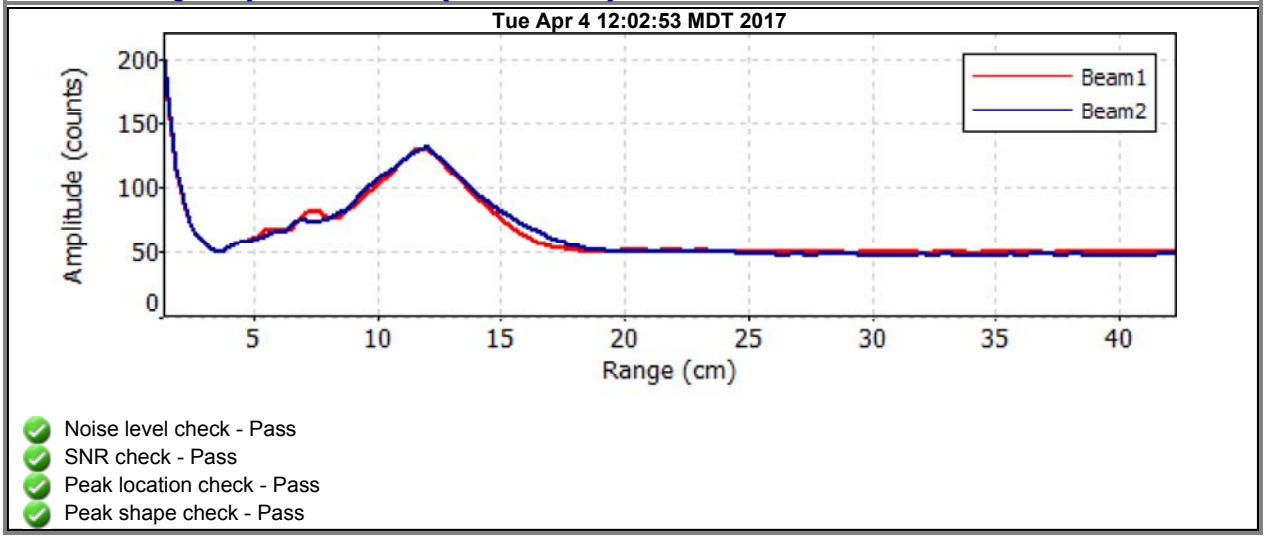
St	Loc	%Dep	Message
2	7.30	0.6	High angle: -22
4	11.60	0.6	High standard error: 0.035

Discharge Measurement Summary

Date Generated: Thu Apr 6 2017

File Information		Site Details	
File Name	A66.WAD	Site Name	A66
Start Date and Time	2017/04/04 12:06:21	Operator(s)	ND

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 17 2017

File Information

File Name	A58.WAD
Start Date and Time	2017/04/18 15:40:42

Site Details

Site Name	A58
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.6%
Velocity	1.1%	19.6%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.0%	-
Overall	**3.1%**	**19.8%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	LEW	Total Width	14.300
Mean SNR	50.5 dB	Total Area	6.020
Mean Temp	40.63 °F	Mean Depth	0.421
Disch. Equation	Mid-Section	Mean Velocity	0.9012
		Total Discharge	**5.4255**

Measurement Results

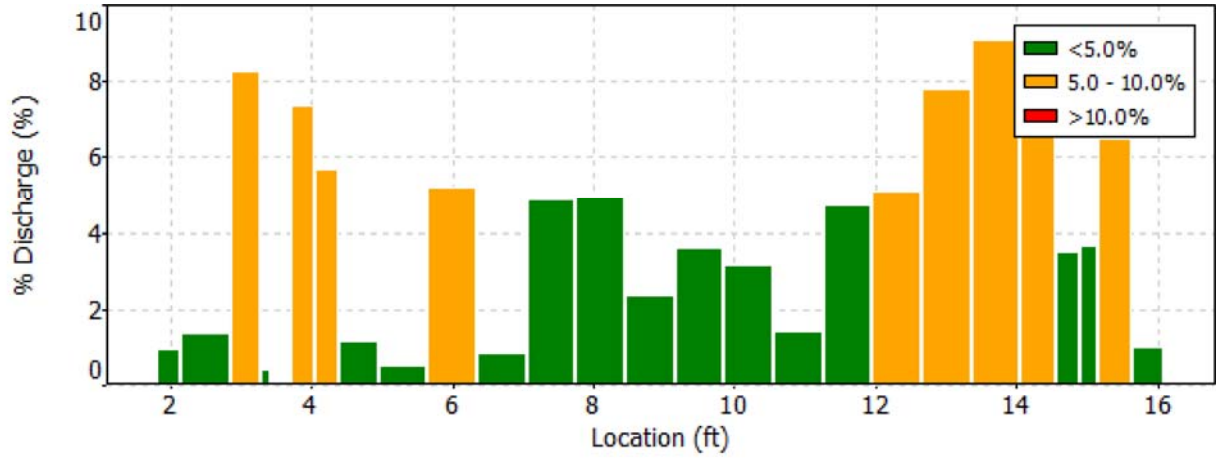
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:40	1.80	None	0.700	0.0	0.0	0.0000	1.00	0.2057	0.245	0.0504	0.9
1	15:40	2.50	0.6	0.500	0.6	0.200	0.2057	1.00	0.2057	0.350	0.0720	1.3
2	*15:41*	*3.20*	*0.6*	*0.400*	*0.6*	*0.160*	*2.6296*	*1.00*	*2.6296*	*0.170*	*0.4470*	*8.2*
3	*16:07*	*3.35*	*0.6*	*0.500*	*0.6*	*0.200*	*0.2841*	*1.00*	*0.2841*	*0.075*	*0.0213*	*0.4*
4	*16:02*	*3.50*	*0.6*	*0.500*	*0.6*	*0.200*	*0.0246*	*1.00*	*0.0246*	*0.138*	*0.0034*	*0.1*
5	15:43	3.90	0.6	0.450	0.6	0.180	2.5249	1.00	2.5249	0.158	0.3979	7.3
6	16:03	4.20	0.6	0.500	0.6	0.200	1.7503	1.00	1.7503	0.175	0.3064	5.6
7	*15:44*	*4.60*	*0.6*	*0.400*	*0.6*	*0.160*	*0.2812*	*1.00*	*0.2812*	*0.220*	*0.0619*	*1.1*
8	*15:45*	*5.30*	*0.6*	*0.250*	*0.6*	*0.100*	*0.1542*	*1.00*	*0.1542*	*0.175*	*0.0270*	*0.5*
9	15:46	6.00	0.6	0.200	0.6	0.080	2.0194	1.00	2.0194	0.140	0.2829	5.2
10	*15:47*	*6.70*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3212*	*1.00*	*0.3212*	*0.140*	*0.0450*	*0.8*
11	*15:48*	*7.40*	*0.6*	*0.200*	*0.6*	*0.080*	*1.8953*	*1.00*	*1.8953*	*0.140*	*0.2656*	*4.9*
12	*15:50*	*8.10*	*0.6*	*0.200*	*0.6*	*0.080*	*1.9163*	*1.00*	*1.9163*	*0.140*	*0.2685*	*4.9*
13	15:51	8.80	0.6	0.200	0.6	0.080	0.9088	1.00	0.9088	0.140	0.1273	2.3
14	*15:52*	*9.50*	*0.6*	*0.200*	*0.6*	*0.080*	*1.3911*	*1.00*	*1.3911*	*0.140*	*0.1949*	*3.6*
15	15:53	10.20	0.6	0.200	0.6	0.080	1.2070	1.00	1.2070	0.140	0.1691	3.1
16	*15:54*	*10.90*	*0.6*	*0.200*	*0.6*	*0.080*	*0.5367*	*1.00*	*0.5367*	*0.140*	*0.0752*	*1.4*
17	*15:55*	*11.60*	*0.6*	*0.400*	*0.6*	*0.160*	*0.9117*	*1.00*	*0.9117*	*0.280*	*0.2553*	*4.7*
18	*15:56*	*12.30*	*0.6*	*0.700*	*0.6*	*0.280*	*0.5640*	*1.00*	*0.5640*	*0.490*	*0.2765*	*5.1*
19	*15:57*	*13.00*	*0.6*	*0.850*	*0.6*	*0.340*	*0.7110*	*1.00*	*0.7110*	*0.595*	*0.4231*	*7.8*
20	15:58	13.70	0.6	0.900	0.6	0.360	0.7841	1.00	0.7841	0.630	0.4941	9.1
21	15:59	14.40	0.6	0.800	0.6	0.320	0.9304	1.00	0.9304	0.399	0.3714	6.8
22	*16:09*	*14.70*	*0.6*	*0.800*	*0.6*	*0.320*	*0.6745*	*1.00*	*0.6745*	*0.280*	*0.1889*	*3.5*
23	16:00	15.10	0.6	0.700	0.6	0.280	1.1358	1.00	1.1358	0.175	0.1988	3.7
24	16:05	15.20	0.6	0.600	0.6	0.240	1.1663	1.00	1.1663	0.299	0.3491	6.4
25	16:05	16.10	None	0.100	0.0	0.0	0.0000	1.00	1.1663	0.045	0.0525	1.0

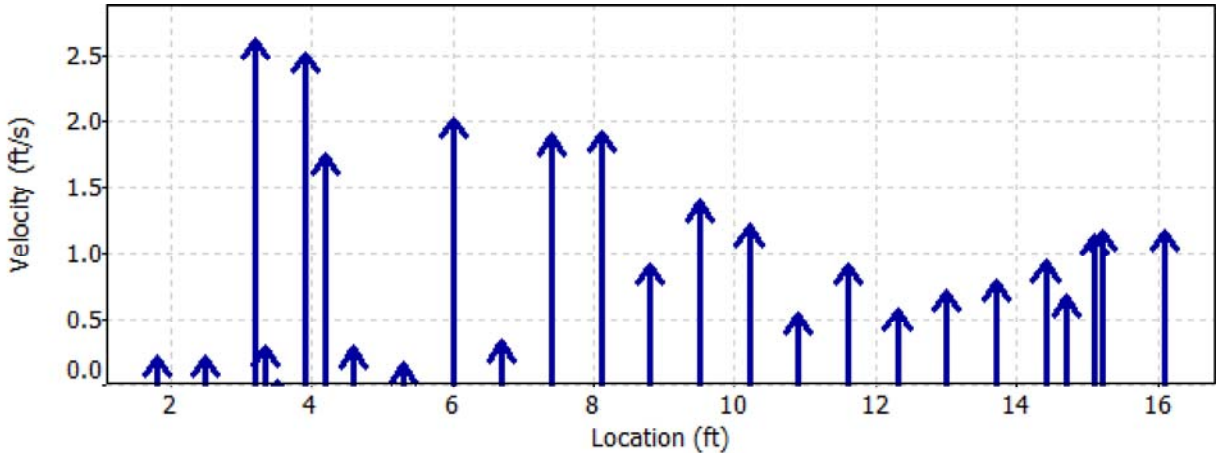
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

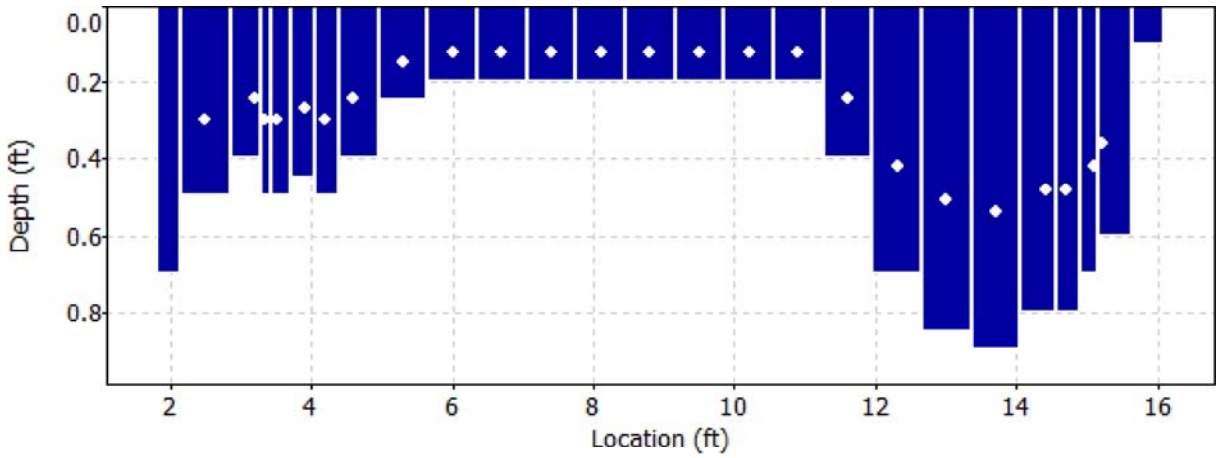
Discharge Measurement Summary

Date Generated: Tue Oct 17 2017

File Information		Site Details	
File Name	A58.WAD	Site Name	A58
Start Date and Time	2017/04/18 15:40:42	Operator(s)	LC







Discharge Measurement Summary

Date Generated: Tue Oct 17 2017

File Information		Site Details	
File Name	A58.WAD	Site Name	A58
Start Date and Time	2017/04/18 15:40:42	Operator(s)	LC

Quality Control

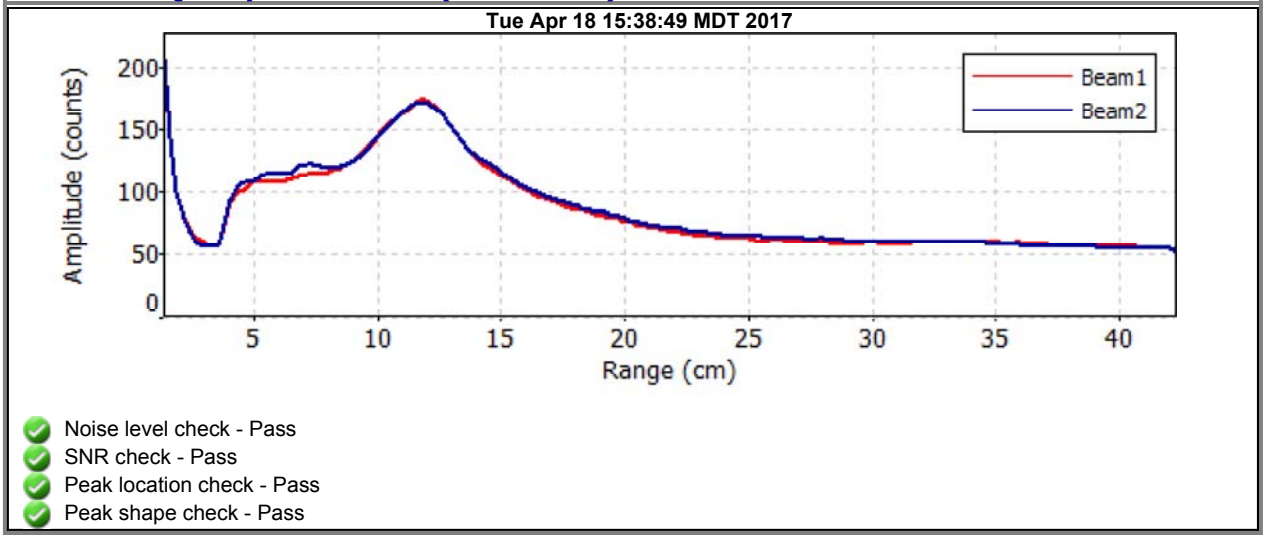
St	Loc	%Dep	Message
2	3.20	0.6	High number of spikes: 8
3	3.35	0.6	High angle: 40
		0.6	High standard error: 0.094
4	3.50	0.6	High angle: -83
7	4.60	0.6	High angle: 39
8	5.30	0.6	High angle: 29
10	6.70	0.6	High angle: 35
		0.6	High differences in beam SNR: 50.3,35.6
		0.6	High SNR variation during measurement: 1.7,12.9
11	7.40	0.6	High angle: 25
12	8.10	0.6	High angle: 27
14	9.50	0.6	High number of spikes: 6
16	10.90	0.6	High angle: 34
17	11.60	0.6	High angle: 20
18	12.30	0.6	High angle: 37
19	13.00	0.6	High angle: 26
22	14.70	0.6	High angle: 26

Discharge Measurement Summary

Date Generated: Tue Oct 17 2017

File Information		Site Details	
File Name	A58.WAD	Site Name	A58
Start Date and Time	2017/04/18 15:40:42	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 17 2017

File Information

File Name	CC21.WAD
Start Date and Time	2017/04/18 13:52:42

Site Details

Site Name	CC21
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	3.9%
Velocity	1.0%	4.1%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.1%	-
Overall	**3.1%**	**5.7%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	LEW	Total Width	10.000
Mean SNR	52.5 dB	Total Area	6.665
Mean Temp	42.43 °F	Mean Depth	0.667
Disch. Equation	Mid-Section	Mean Velocity	2.1726
		Total Discharge	**14.4809**

Measurement Results

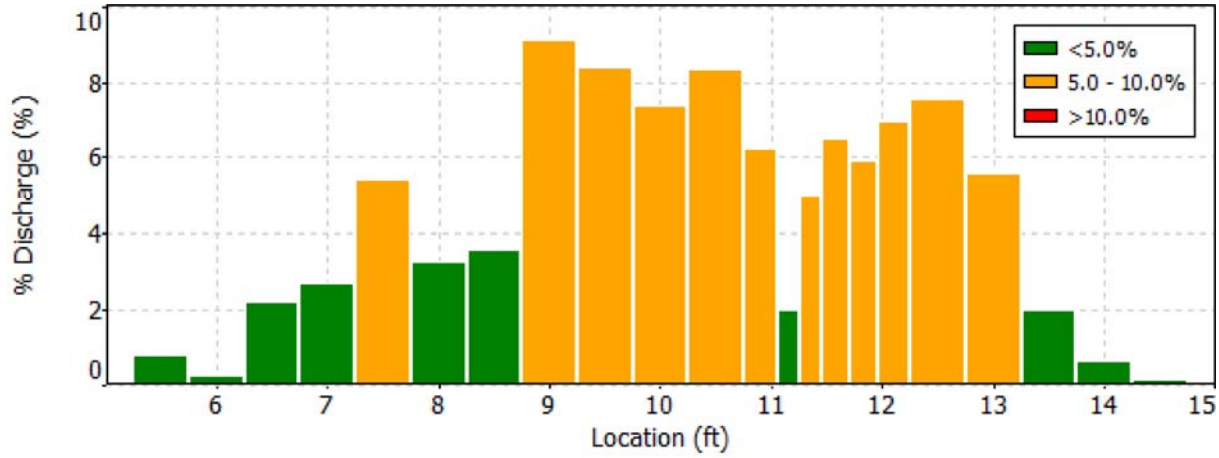
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:52	5.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	13:52	5.50	0.6	0.300	0.6	0.120	0.7441	1.00	0.7441	0.150	0.1116	0.8
2	*13:53*	*6.00*	*0.6*	*0.400*	*0.6*	*0.160*	*0.1873*	*1.00*	*0.1873*	*0.200*	*0.0375*	*0.3*
3	*13:54*	*6.50*	*0.6*	*0.500*	*0.6*	*0.200*	*1.2730*	*1.00*	*1.2730*	*0.250*	*0.3182*	*2.2*
4	13:55	7.00	0.6	0.500	0.6	0.200	1.5509	1.00	1.5509	0.250	0.3877	2.7
5	13:56	7.50	0.6	0.750	0.6	0.300	2.0958	1.00	2.0958	0.375	0.7859	5.4
6	*13:57*	*8.00*	*0.6*	*0.900*	*0.6*	*0.360*	*1.0476*	*1.00*	*1.0476*	*0.450*	*0.4714*	*3.3*
7	*13:58*	*8.50*	*0.6*	*0.950*	*0.6*	*0.380*	*1.0902*	*1.00*	*1.0902*	*0.475*	*0.5179*	*3.6*
8	13:59	9.00	0.6	0.900	0.6	0.360	2.9482	1.00	2.9482	0.450	1.3266	9.2
9	14:00	9.50	0.6	0.900	0.6	0.360	2.6982	1.00	2.6982	0.450	1.2141	8.4
10	14:01	10.00	0.6	1.000	0.6	0.400	2.1480	1.00	2.1480	0.500	1.0740	7.4
11	14:02	10.50	0.6	1.050	0.6	0.420	2.3077	1.00	2.3077	0.525	1.2114	8.4
12	14:03	11.00	0.6	1.100	0.6	0.440	2.7320	1.00	2.7320	0.330	0.9017	6.2
13	*14:21*	*11.10*	*0.6*	*0.600*	*0.6*	*0.240*	*2.3937*	*1.00*	*2.3937*	*0.120*	*0.2872*	*2.0*
14	14:26	11.40	0.8/0.2	1.100	0.2	0.880	3.2221	1.00	3.2915	0.220	0.7241	5.0
14	14:25	11.40	0.8/0.2	1.100	0.8	0.220	3.3609					
15	14:04	11.50	0.6	1.100	0.6	0.440	3.4324	1.00	3.4324	0.275	0.9440	6.5
16	14:23	11.90	0.8/0.2	0.900	0.2	0.720	4.0548	1.00	3.8041	0.225	0.8559	5.9
16	14:22	11.90	0.8/0.2	0.900	0.8	0.180	3.5535					
17	14:05	12.00	0.6	0.900	0.6	0.360	3.7303	1.00	3.7303	0.270	1.0072	7.0
18	14:06	12.50	0.6	0.700	0.6	0.280	3.1355	1.00	3.1355	0.350	1.0976	7.6
19	14:07	13.00	0.6	0.700	0.6	0.280	2.3084	1.00	2.3084	0.350	0.8081	5.6
20	*14:09*	*13.50*	*0.2/0.8*	*0.450*	*0.2*	*0.360*	*1.6909*	*1.00*	*1.2735*	*0.225*	*0.2866*	*2.0*
20	*14:11*	*13.50*	*0.2/0.8*	*0.450*	*0.8*	*0.090*	*0.8560*					
21	14:13	14.00	0.8/0.2	0.200	0.2	0.160	0.5633	1.00	0.8940	0.100	0.0895	0.6
21	14:12	14.00	0.8/0.2	0.200	0.8	0.040	1.2247					
22	*14:14*	*14.50*	*0.2/0.8*	*0.250*	*0.2*	*0.200*	*0.2362*	*1.00*	*0.1826*	*0.125*	*0.0228*	*0.2*
22	*14:19*	*14.50*	*0.2/0.8*	*0.250*	*0.8*	*0.050*	*0.1289*					
23	14:19	15.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

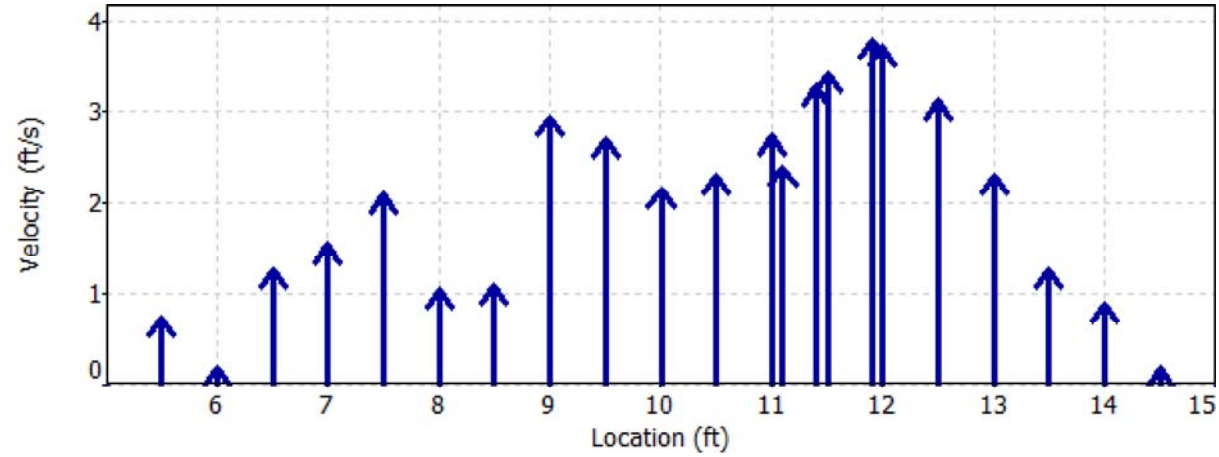
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

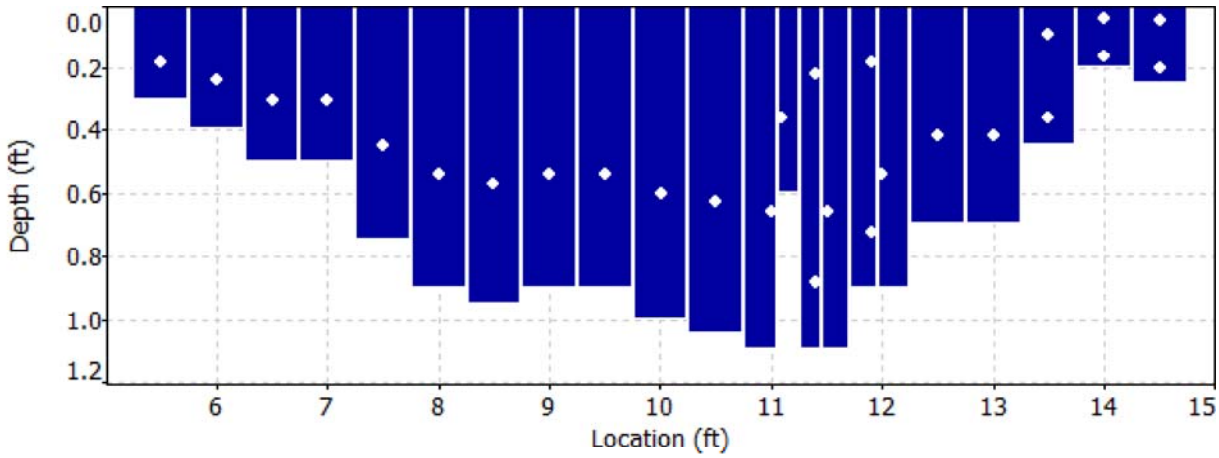
Discharge Measurement Summary

Date Generated: Tue Oct 17 2017

File Information		Site Details	
File Name	CC21.WAD	Site Name	CC21
Start Date and Time	2017/04/18 13:52:42	Operator(s)	KB







Discharge Measurement Summary

Date Generated: Tue Oct 17 2017

File Information

File Name	CC21.WAD
Start Date and Time	2017/04/18 13:52:42

Site Details

Site Name	CC21
Operator(s)	KB

Quality Control

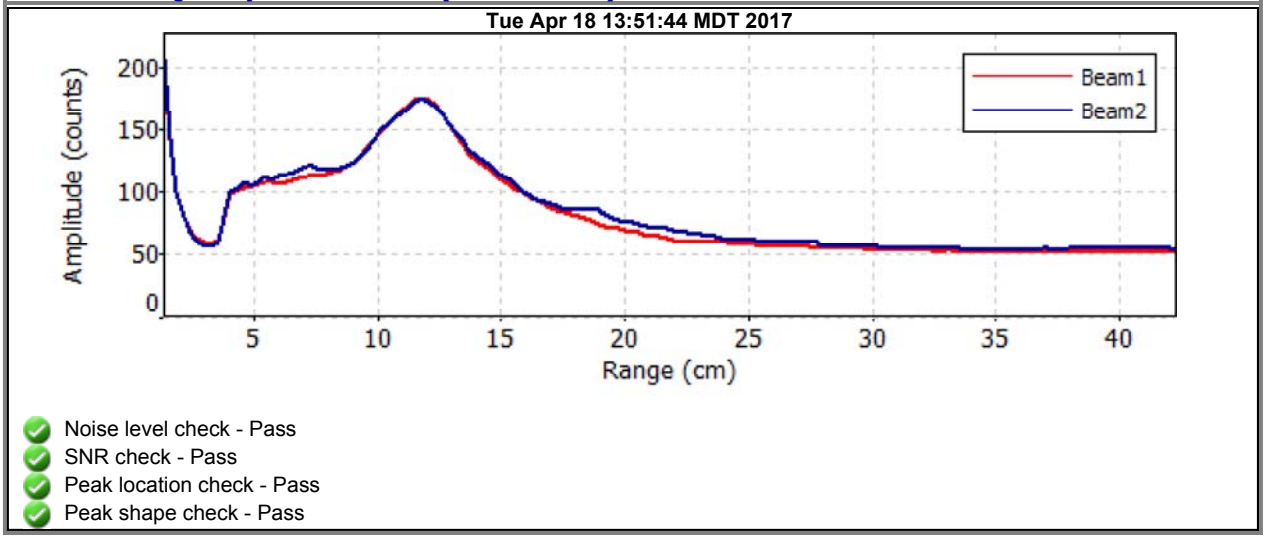
St	Loc	%Dep	Message
2	6.00	0.6	High number of spikes: 6
3	6.50	0.6	High number of spikes: 5
6	8.00	0.6	Boundary QC is Poor; possible boundary interference
7	8.50	0.6	High standard error: 0.126
13	11.10	0.6	High standard error: 0.132
20	13.50	0.8	SNR (25.1) is different from typical SNR (52.5)
		0.8	Boundary QC is Good; possible boundary interference
22	14.50	0.8	High differences in beam SNR: 53.7,29.6
		0.8	SNR (41.7) is different from typical SNR (52.5)
		0.8	High SNR variation during measurement: 9.9,3.0

Discharge Measurement Summary

Date Generated: Tue Oct 17 2017

File Information		Site Details	
File Name	CC21.WAD	Site Name	CC21
Start Date and Time	2017/04/18 13:52:42	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 17 2017

File Information

File Name	M14A.WAD
Start Date and Time	2017/04/18 10:43:14

Site Details

Site Name	M14A
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	2.6%
Velocity	1.2%	5.4%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.0%	-
Overall	**3.2%**	**6.1%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	REW	Total Width	18.996
Mean SNR	42.8 dB	Total Area	17.595
Mean Temp	39.54 °F	Mean Depth	0.926
Disch. Equation	Mid-Section	Mean Velocity	1.8698
		Total Discharge	**32.8996**

Measurement Results

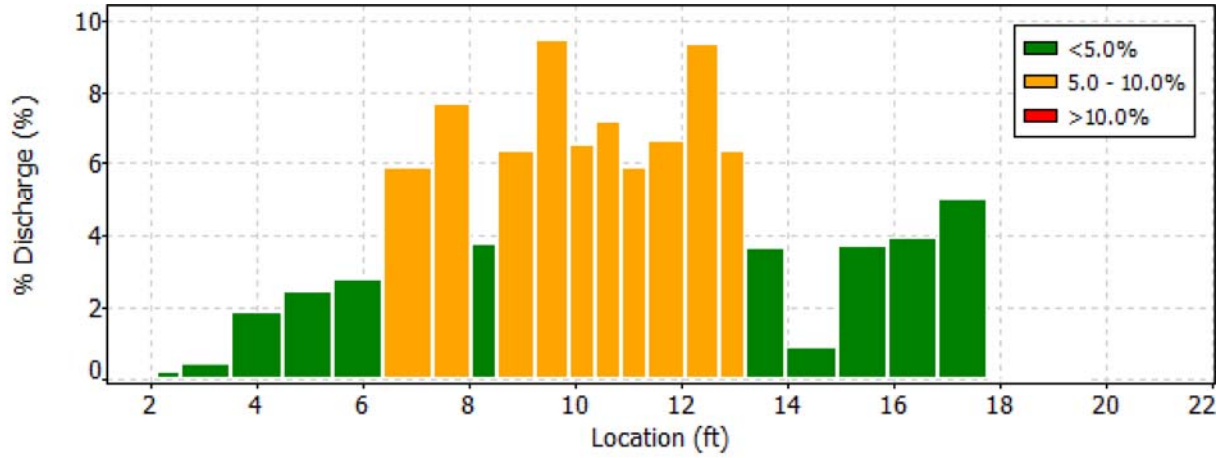
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:43	2.10	None	0.250	0.0	0.0	0.0000	1.00	0.5922	0.119	0.0703	0.2
1	*10:43*	*3.05*	*0.6*	*0.250*	*0.6*	*0.100*	*0.5922*	*1.00*	*0.5922*	*0.237*	*0.1406*	*0.4*
2	10:44	4.00	0.6	0.500	0.6	0.200	1.2851	1.00	1.2851	0.475	0.6103	1.9
3	*10:45*	*4.95*	*0.6*	*0.600*	*0.6*	*0.240*	*1.4039*	*1.00*	*1.4039*	*0.570*	*0.8001*	*2.4*
4	*10:46*	*5.90*	*0.6*	*0.700*	*0.6*	*0.280*	*1.3747*	*1.00*	*1.3747*	*0.665*	*0.9141*	*2.8*
5	10:48	6.85	0.6	0.650	0.6	0.260	3.1608	1.00	3.1608	0.617	1.9512	5.9
6	10:49	7.80	0.6	1.050	0.6	0.420	3.3228	1.00	3.3228	0.762	2.5306	7.7
7	*11:06*	*8.30*	*0.6*	*0.900*	*0.6*	*0.360*	*2.9108*	*1.00*	*2.9108*	*0.427*	*1.2440*	*3.8*
8	10:50	8.75	0.6	1.000	0.6	0.400	2.9934	1.00	2.9934	0.699	2.0933	6.4
9	10:52	9.70	0.6	1.300	0.6	0.520	3.5673	1.00	3.5673	0.878	3.1331	9.5
10	11:08	10.10	0.6	1.300	0.6	0.520	3.4826	1.00	3.4826	0.617	2.1499	6.5
11	10:53	10.65	0.6	1.400	0.6	0.560	3.3924	1.00	3.3924	0.700	2.3746	7.2
12	11:09	11.10	0.6	1.350	0.6	0.540	3.0381	1.00	3.0381	0.641	1.9478	5.9
13	*10:54*	*11.60*	*0.6*	*1.500*	*0.6*	*0.600*	*2.0154*	*1.00*	*2.0154*	*1.086*	*2.1885*	*6.7*
14	10:55	12.55	0.6	1.500	0.6	0.600	3.1529	1.00	3.1529	0.976	3.0784	9.4
15	11:11	12.90	0.6	1.500	0.6	0.600	2.9423	1.00	2.9423	0.712	2.0959	6.4
16	*10:56*	*13.50*	*0.6*	*1.600*	*0.6*	*0.640*	*0.9820*	*1.00*	*0.9820*	*1.238*	*1.2158*	*3.7*
17	10:57	14.45	0.6	1.350	0.6	0.540	0.2251	1.00	0.2251	1.282	0.2886	0.9
18	10:58	15.40	0.6	1.000	0.6	0.400	1.2907	1.00	1.2907	0.950	1.2259	3.7
19	10:59	16.35	0.6	0.700	0.6	0.280	1.9469	1.00	1.9469	0.665	1.2946	3.9
20	11:00	17.30	0.6	1.000	0.6	0.400	1.7283	1.00	1.7283	0.950	1.6416	5.0
21	*11:01*	*18.25*	*0.6*	*1.050*	*0.6*	*0.420*	*-0.0217*	*1.00*	*-0.0217*	*0.997*	*-0.0216*	*-0.1*
22	*11:02*	*19.20*	*0.6*	*0.600*	*0.6*	*0.240*	*-0.0879*	*1.00*	*-0.0879*	*0.570*	*-0.0501*	*-0.2*
23	*11:03*	*20.15*	*0.6*	*0.600*	*0.6*	*0.240*	*-0.0236*	*1.00*	*-0.0236*	*0.570*	*-0.0135*	*0.0*
24	11:03	21.10	None	0.400	0.0	0.0	0.0000	1.00	-0.0236	0.190	-0.0045	0.0

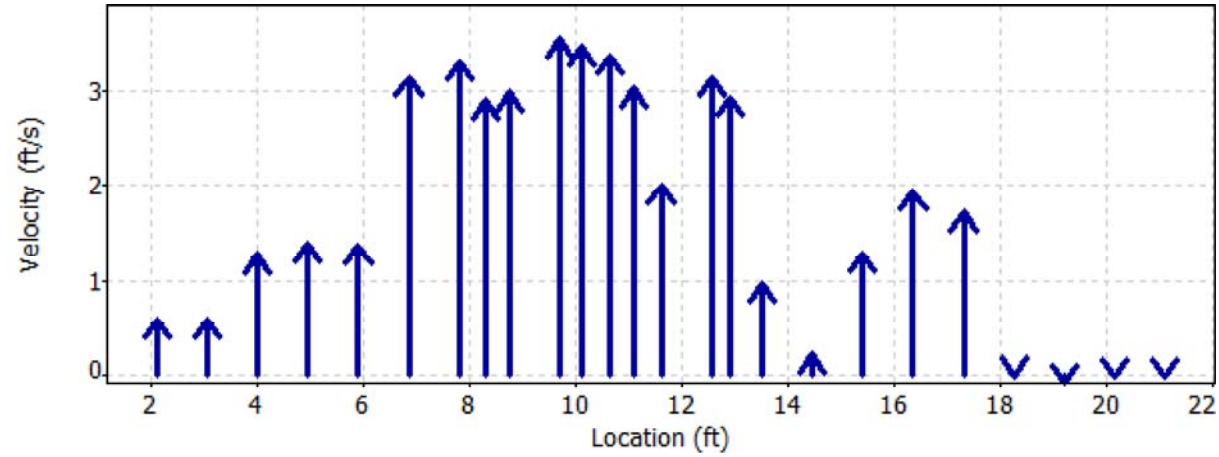
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

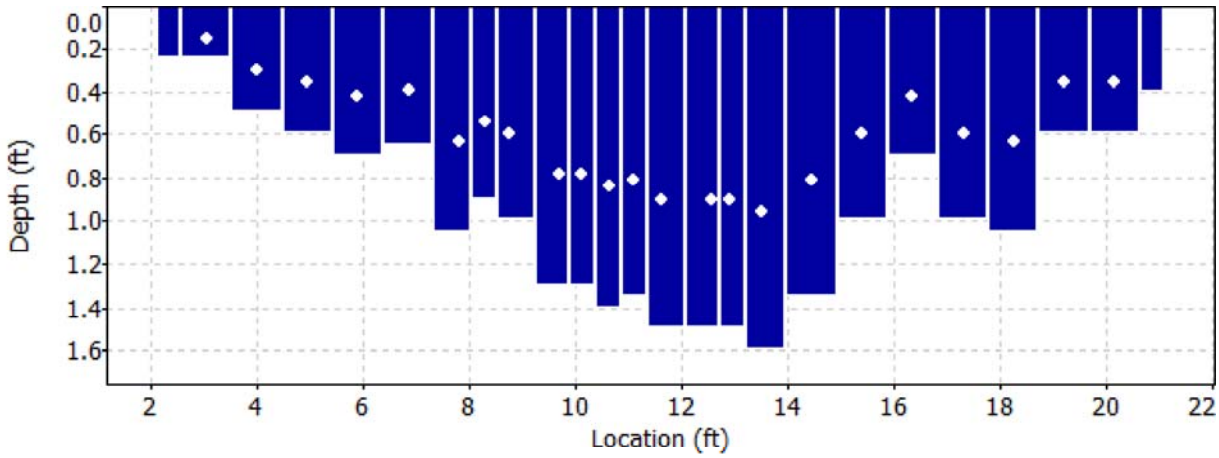
Discharge Measurement Summary

Date Generated: Tue Oct 17 2017

File Information		Site Details	
File Name	M14A.WAD	Site Name	M14A
Start Date and Time	2017/04/18 10:43:14	Operator(s)	LC







Discharge Measurement Summary

Date Generated: Tue Oct 17 2017

File Information		Site Details	
File Name	M14A.WAD	Site Name	M14A
Start Date and Time	2017/04/18 10:43:14	Operator(s)	LC

Quality Control

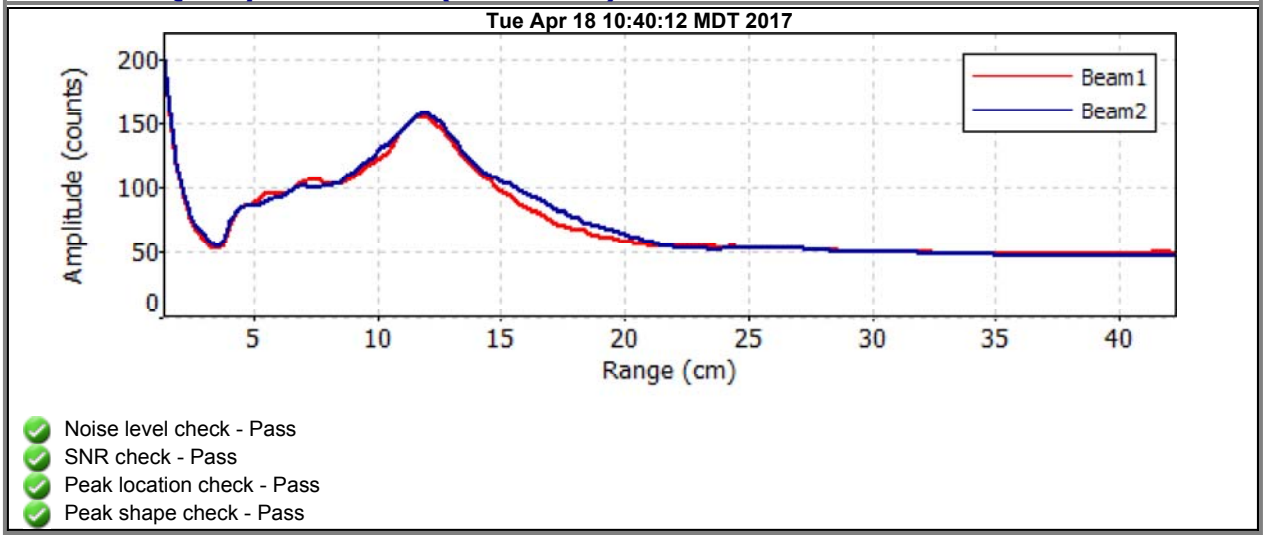
St	Loc	%Dep	Message
1	3.05	0.6	High angle: -25
3	4.95	0.6	High angle: -30
4	5.90	0.6	High angle: -42
7	8.30	0.6	High angle: -20
13	11.60	0.6	High standard error: 0.151
16	13.50	0.6	High angle: 31
		0.6	High standard error: 0.129
21	18.25	0.6	High angle: -110
22	19.20	0.6	High angle: -180
23	20.15	0.6	High angle: 128

Discharge Measurement Summary

Date Generated: Tue Oct 17 2017

File Information		Site Details	
File Name	M14A.WAD	Site Name	M14A
Start Date and Time	2017/04/18 10:43:14	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 17 2017

File Information

File Name	M27.WAD
Start Date and Time	2017/04/18 10:05:41

Site Details

Site Name	M27
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	1.6%
Velocity	1.0%	5.4%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.0%	-
Overall	**3.1%**	**5.7%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	LEW	Total Width	26.349
Mean SNR	49.4 dB	Total Area	22.252
Mean Temp	36.88 °F	Mean Depth	0.845
Disch. Equation	Mid-Section	Mean Velocity	2.7241
		Total Discharge	**60.6148**

Measurement Results

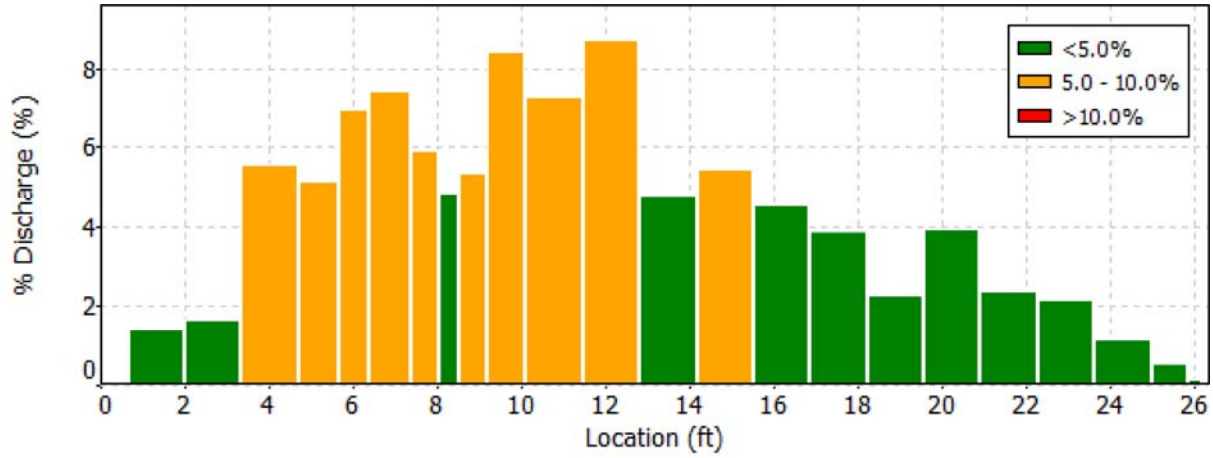
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:05	0.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	10:05	1.35	0.6	0.500	0.6	0.200	1.2516	1.00	1.2516	0.675	0.8449	1.4
2	10:06	2.70	0.6	0.700	0.6	0.280	1.0440	1.00	1.0440	0.945	0.9868	1.6
3	10:07	4.05	0.6	0.900	0.6	0.360	2.7648	1.00	2.7648	1.215	3.3591	5.5
4	10:09	5.40	0.6	1.200	0.6	0.480	2.6759	1.00	2.6759	1.170	3.1308	5.2
5	10:31	6.00	0.6	1.400	0.6	0.560	4.4774	1.00	4.4774	0.945	4.2311	7.0
6	10:10	6.75	0.6	1.200	0.6	0.480	3.7664	1.00	3.7664	1.200	4.5202	7.5
7	10:30	8.00	0.6	1.300	0.6	0.520	4.0951	1.00	4.0951	0.877	3.5933	5.9
8	10:11	8.10	0.6	1.400	0.6	0.560	4.1785	1.00	4.1785	0.700	2.9248	4.8
9	10:28	9.00	0.6	1.250	0.6	0.500	3.8520	1.00	3.8520	0.844	3.2503	5.4
10	10:12	9.45	0.6	1.300	0.6	0.520	4.3835	1.00	4.3835	1.170	5.1297	8.5
11	*10:13*	*10.80*	*0.6*	*1.350*	*0.6*	*0.540*	*2.4275*	*1.00*	*2.4275*	*1.823*	*4.4245*	*7.3*
12	10:15	12.15	0.6	1.150	0.6	0.460	3.4229	1.00	3.4229	1.552	5.3140	8.8
13	10:16	13.50	0.6	1.050	0.6	0.420	2.0568	1.00	2.0568	1.417	2.9152	4.8
14	10:17	14.85	0.6	0.850	0.6	0.340	2.8822	1.00	2.8822	1.148	3.3078	5.5
15	10:18	16.20	0.6	0.850	0.6	0.340	2.3927	1.00	2.3927	1.148	2.7460	4.5
16	*10:19*	*17.55*	*0.6*	*0.750*	*0.6*	*0.300*	*2.3159*	*1.00*	*2.3159*	*1.013*	*2.3450*	*3.9*
17	*10:20*	*18.90*	*0.6*	*0.700*	*0.6*	*0.280*	*1.4547*	*1.00*	*1.4547*	*0.945*	*1.3750*	*2.3*
18	10:21	20.25	0.6	0.800	0.6	0.320	2.2060	1.00	2.2060	1.080	2.3822	3.9
19	10:22	21.60	0.6	0.600	0.6	0.240	1.7769	1.00	1.7769	0.810	1.4395	2.4
20	10:23	22.95	0.6	0.500	0.6	0.200	1.9416	1.00	1.9416	0.675	1.3106	2.2
21	10:24	24.30	0.6	0.400	0.6	0.160	1.2779	1.00	1.2779	0.540	0.6900	1.1
22	10:25	25.65	0.6	0.300	0.6	0.120	1.2726	1.00	1.2726	0.255	0.3242	0.5
23	*10:26*	*26.00*	*0.6*	*0.300*	*0.6*	*0.120*	*0.6670*	*1.00*	*0.6670*	*0.105*	*0.0698*	*0.1*
24	10:26	26.35	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

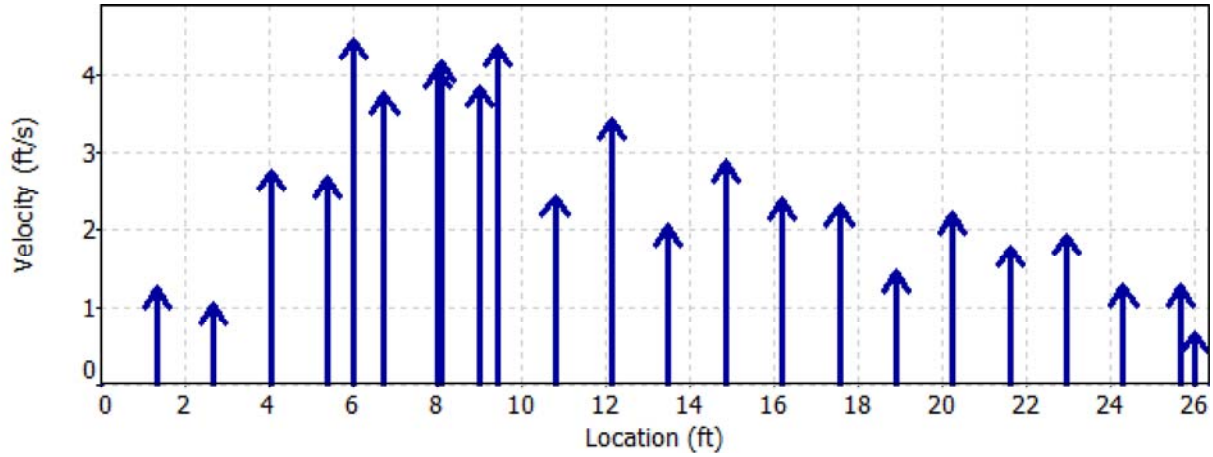
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

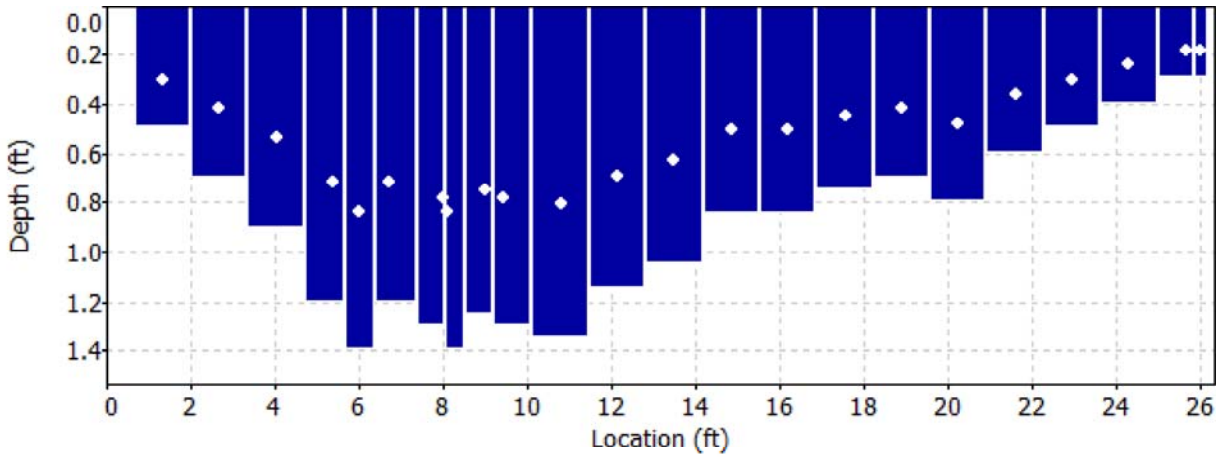
Discharge Measurement Summary

Date Generated: Tue Oct 17 2017

File Information		Site Details	
File Name	M27.WAD	Site Name	M27
Start Date and Time	2017/04/18 10:05:41	Operator(s)	KB







Discharge Measurement Summary

Date Generated: Tue Oct 17 2017

File Information	
File Name	M27.WAD
Start Date and Time	2017/04/18 10:05:41

Site Details	
Site Name	M27
Operator(s)	KB

Quality Control

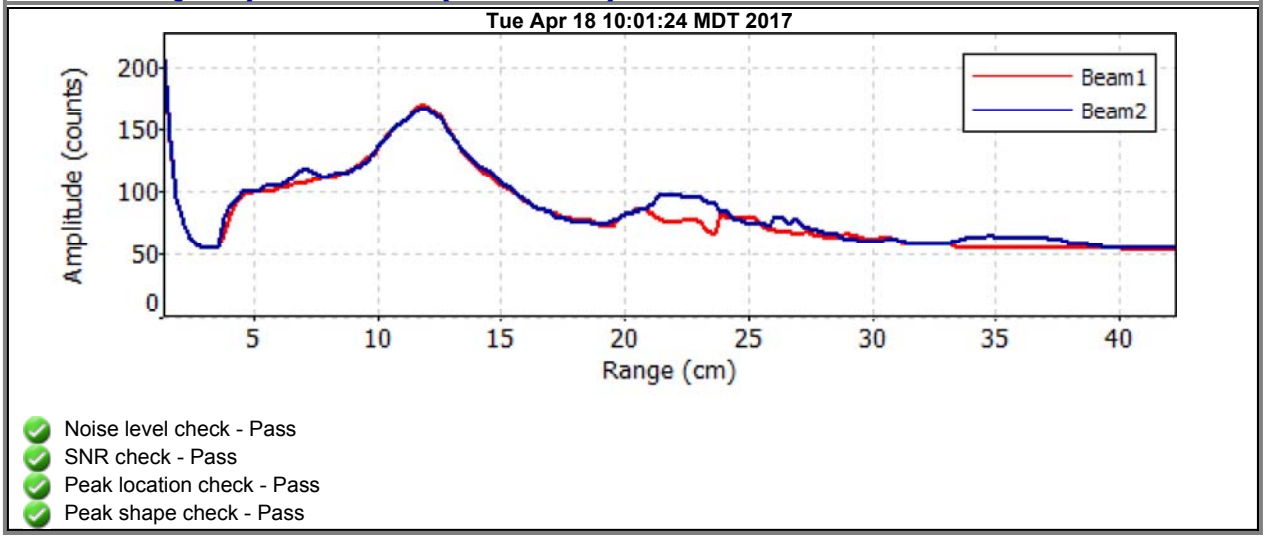
St	Loc	%Dep	Message
11	10.80	0.6	High standard error: 0.161
16	17.55	0.6	High angle: -20
17	18.90	0.6	High angle: -24
23	26.00	0.6	High angle: -26

Discharge Measurement Summary

Date Generated: Tue Oct 17 2017

File Information		Site Details	
File Name	M27.WAD	Site Name	M27
Start Date and Time	2017/04/18 10:05:41	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Thu May 4 2017

File Information

File Name	A56.WAD
Start Date and Time	2017/05/02 15:19:55

Site Details

Site Name	A56
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	4.1%
Velocity	0.5%	1.4%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.3%	-
Overall	**3.2%**	**4.5%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	27.999
Mean SNR	34.6 dB	Total Area	35.674
Mean Temp	45.61 °F	Mean Depth	1.274
Disch. Equation	Mid-Section	Mean Velocity	1.9139
		Total Discharge	**68.2779**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:19	6.00	None	0.350	0.0	0.0	0.0000	1.00	1.8671	0.245	0.4575	0.7
1	*15:19*	*7.40*	*0.6*	*0.700*	*0.6*	*0.280*	*1.8671*	*1.00*	*1.8671*	*0.980*	*1.8300*	*2.7*
2	15:21	8.80	0.6	1.600	0.6	0.640	2.4045	1.00	2.4045	2.080	5.0017	7.3
3	15:45	10.00	0.6	1.200	0.6	0.480	2.1617	1.00	2.1617	0.840	1.8160	2.7
4	15:22	10.20	0.6	1.700	0.6	0.680	2.1496	1.00	2.1496	1.360	2.9232	4.3
5	15:23	11.60	0.6	1.700	0.6	0.680	2.0197	1.00	2.0197	2.380	4.8070	7.0
6	15:25	13.00	0.6	0.900	0.6	0.360	1.9465	1.00	1.9465	1.260	2.4523	3.6
7	15:26	14.40	0.6	0.900	0.6	0.360	1.7999	1.00	1.7999	1.260	2.2676	3.3
8	15:27	15.80	0.6	1.700	0.6	0.680	1.7536	1.00	1.7536	2.380	4.1737	6.1
9	15:28	17.20	0.6	1.700	0.6	0.680	2.1562	1.00	2.1562	2.380	5.1318	7.5
10	15:31	18.60	0.6	1.500	0.6	0.600	2.0879	1.00	2.0879	2.100	4.3844	6.4
11	15:33	20.00	0.6	2.000	0.6	0.800	2.1332	1.00	2.1332	2.800	5.9727	8.7
12	15:34	21.40	0.6	2.000	0.6	0.800	2.0121	1.00	2.0121	2.800	5.6337	8.3
13	15:35	22.80	0.6	1.700	0.6	0.680	2.0974	1.00	2.0974	2.380	4.9921	7.3
14	15:36	24.20	0.6	1.700	0.6	0.680	1.9167	1.00	1.9167	2.380	4.5618	6.7
15	15:37	25.60	0.6	1.500	0.6	0.600	1.7467	1.00	1.7467	2.100	3.6679	5.4
16	15:38	27.00	0.6	1.300	0.6	0.520	1.7119	1.00	1.7119	1.820	3.1153	4.6
17	15:39	28.40	0.6	1.000	0.6	0.400	1.5397	1.00	1.5397	1.400	2.1555	3.2
18	15:40	29.80	0.6	0.800	0.6	0.320	1.3337	1.00	1.3337	1.120	1.4934	2.2
19	15:42	31.20	0.6	0.500	0.6	0.200	0.9505	1.00	0.9505	0.700	0.6653	1.0
20	15:43	32.60	0.6	0.450	0.6	0.180	0.8514	1.00	0.8514	0.630	0.5365	0.8
21	15:43	34.00	None	0.400	0.0	0.0	0.0000	1.00	0.8514	0.280	0.2383	0.3

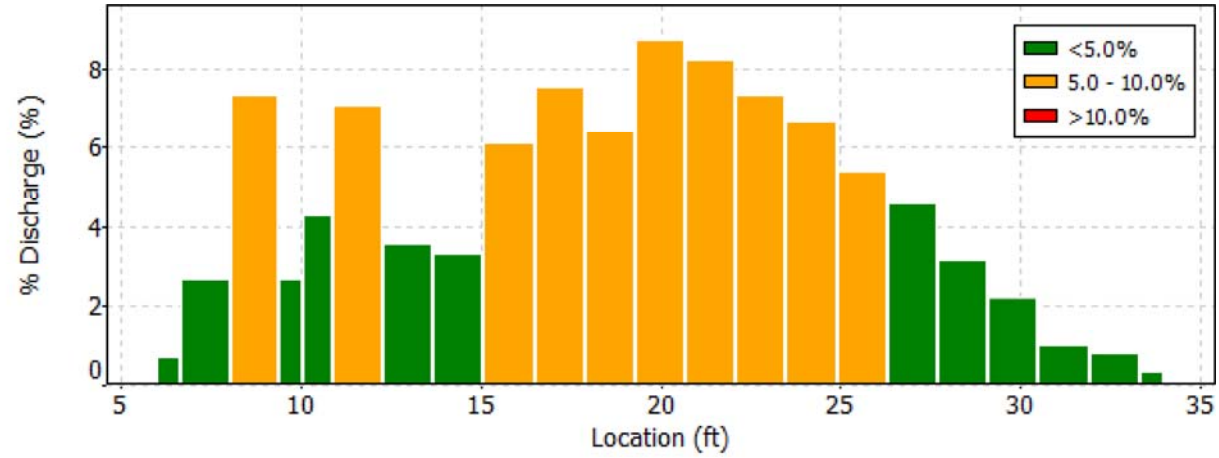
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

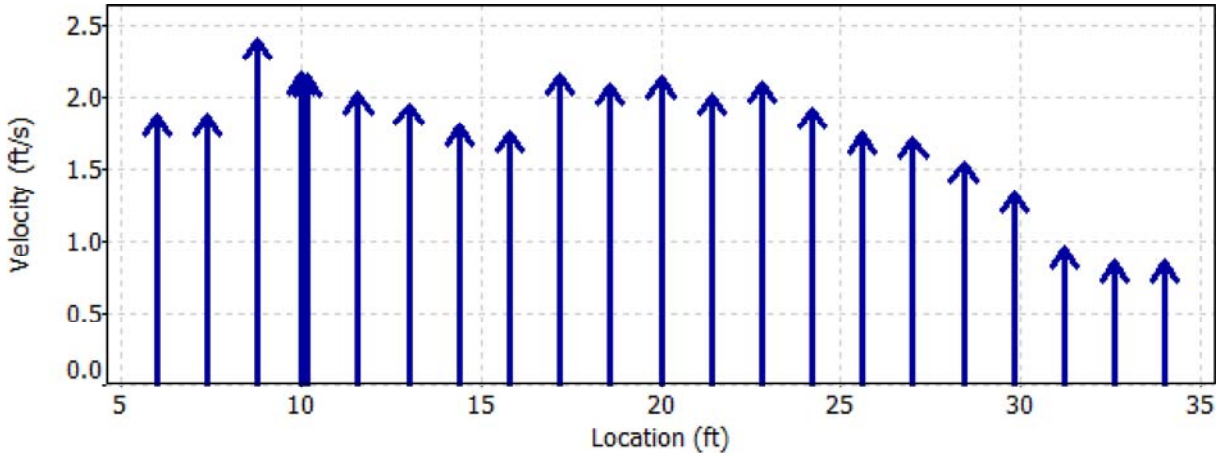
Discharge Measurement Summary

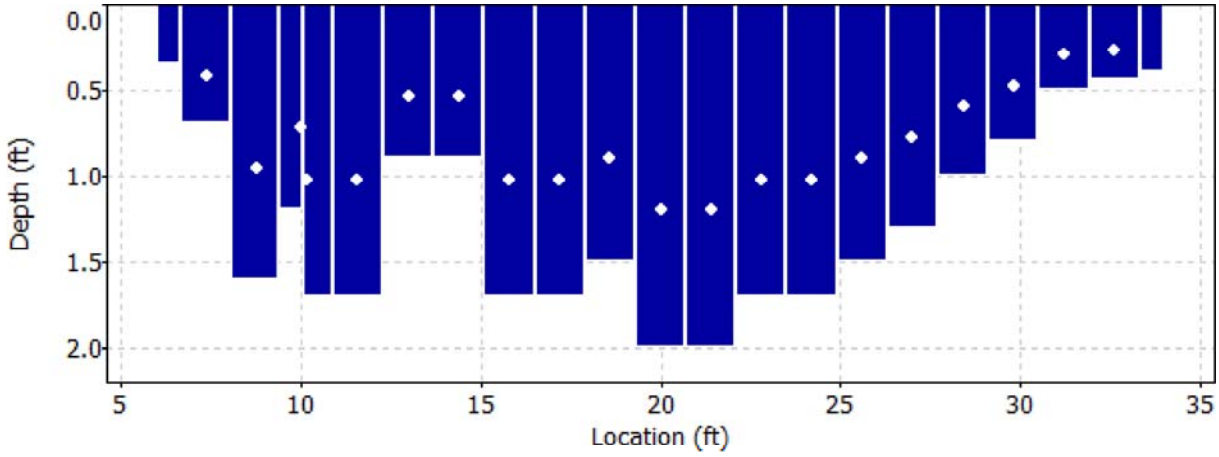
Date Generated: Thu May 4 2017

File Information	
File Name	A56.WAD
Start Date and Time	2017/05/02 15:19:55

Site Details	
Site Name	A56
Operator(s)	EY







Discharge Measurement Summary

Date Generated: Thu May 4 2017

File Information	
File Name	A56.WAD
Start Date and Time	2017/05/02 15:19:55

Site Details	
Site Name	A56
Operator(s)	EY

Quality Control

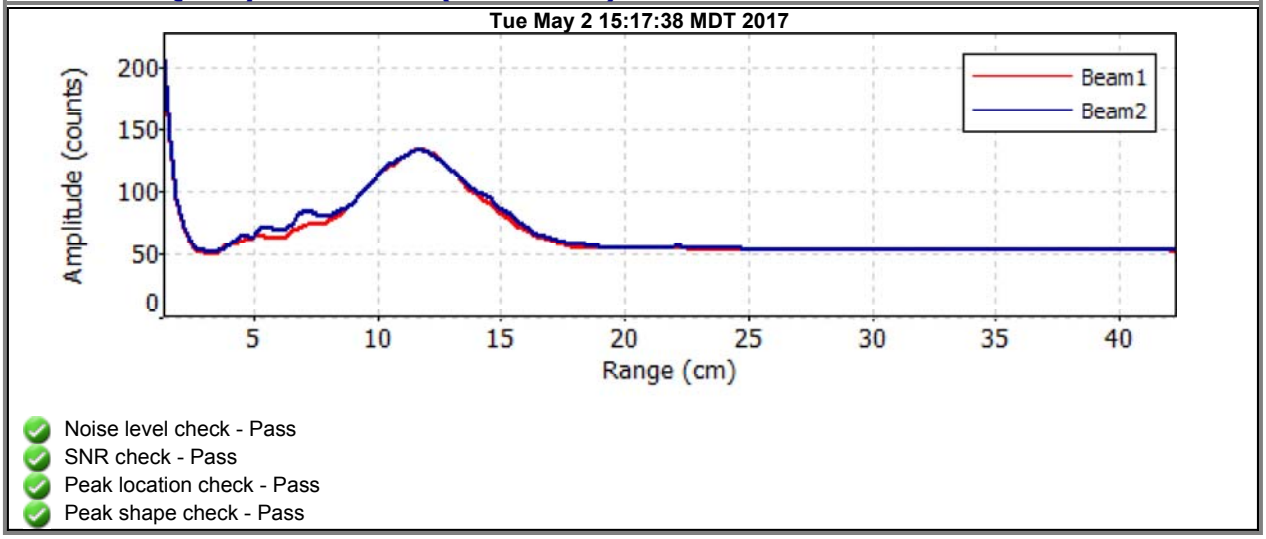
St	Loc	%Dep	Message
1	7.40	0.6	High angle: 22

Discharge Measurement Summary

Date Generated: Thu May 4 2017

File Information		Site Details	
File Name	A56.WAD	Site Name	A56
Start Date and Time	2017/05/02 15:19:55	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Thu May 4 2017

File Information

File Name	A585217.WAD
Start Date and Time	2017/05/02 14:30:41

Site Details

Site Name	A58
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	3.6%
Velocity	1.3%	7.5%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.0%	-
Overall	**3.2%**	**8.4%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	REW	Total Width	10.000
Mean SNR	46.6 dB	Total Area	3.513
Mean Temp	40.88 °F	Mean Depth	0.351
Disch. Equation	Mid-Section	Mean Velocity	1.1095
		Total Discharge	**3.8975**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:30	5.00	None	0.200	0.0	0.0	0.0000	1.00	-0.0636	0.050	-0.0032	-0.1
1	*14:30*	*5.50*	*0.6*	*0.290*	*0.6*	*0.116*	*-0.0636*	*1.00*	*-0.0636*	*0.145*	*-0.0092*	*-0.2*
2	14:32	6.00	0.6	0.250	0.6	0.100	0.0495	1.00	0.0495	0.125	0.0062	0.2
3	14:33	6.50	0.6	0.200	0.6	0.080	0.4669	1.00	0.4669	0.100	0.0467	1.2
4	14:34	7.00	0.6	0.200	0.6	0.080	1.9882	1.00	1.9882	0.100	0.1989	5.1
5	*14:35*	*7.50*	*0.6*	*0.200*	*0.6*	*0.080*	*0.5249*	*1.00*	*0.5249*	*0.100*	*0.0525*	*1.3*
6	14:36	8.00	0.6	0.200	0.6	0.080	0.2887	1.00	0.2887	0.100	0.0289	0.7
7	14:37	8.50	0.6	0.250	0.6	0.100	0.9354	1.00	0.9354	0.125	0.1169	3.0
8	14:38	9.00	0.6	0.250	0.6	0.100	1.7992	1.00	1.7992	0.125	0.2249	5.8
9	*14:39*	*9.50*	*0.6*	*0.280*	*0.6*	*0.112*	*2.0761*	*1.00*	*2.0761*	*0.140*	*0.2905*	*7.5*
10	14:40	10.00	0.6	0.300	0.6	0.120	1.5535	1.00	1.5535	0.150	0.2329	6.0
11	14:42	10.50	0.6	0.500	0.6	0.200	0.4409	1.00	0.4409	0.250	0.1102	2.8
12	14:43	11.00	0.6	0.350	0.6	0.140	-0.0115	1.00	-0.0115	0.175	-0.0020	-0.1
13	14:44	11.50	0.6	0.520	0.6	0.208	0.4337	1.00	0.4337	0.260	0.1128	2.9
14	*14:45*	*12.00*	*0.6*	*0.520*	*0.6*	*0.208*	*1.7520*	*1.00*	*1.7520*	*0.195*	*0.3416*	*8.8*
15	*14:54*	*12.25*	*0.6*	*0.500*	*0.6*	*0.200*	*1.7238*	*1.00*	*1.7238*	*0.125*	*0.2155*	*5.5*
16	*14:46*	*12.50*	*0.6*	*0.500*	*0.6*	*0.200*	*1.2831*	*1.00*	*1.2831*	*0.125*	*0.1604*	*4.1*
17	*14:52*	*12.75*	*0.6*	*0.560*	*0.6*	*0.224*	*2.1109*	*1.00*	*2.1109*	*0.140*	*0.2955*	*7.6*
18	14:47	13.00	0.6	0.450	0.6	0.180	2.7510	1.00	2.7510	0.113	0.3096	7.9
19	14:51	13.25	0.6	0.500	0.6	0.200	3.1749	1.00	3.1749	0.088	0.2779	7.1
20	14:53	13.35	0.6	0.600	0.6	0.240	2.6650	1.00	2.6650	0.075	0.1999	5.1
21	*14:48*	*13.50*	*0.6*	*0.600*	*0.6*	*0.240*	*2.0886*	*1.00*	*2.0886*	*0.120*	*0.2506*	*6.4*
22	*14:56*	*13.75*	*0.6*	*0.500*	*0.6*	*0.200*	*1.2372*	*1.00*	*1.2372*	*0.125*	*0.1547*	*4.0*
23	14:49	14.00	0.6	0.500	0.6	0.200	0.6158	1.00	0.6158	0.313	0.1924	4.9
24	14:49	15.00	None	0.300	0.0	0.0	0.0000	1.00	0.6158	0.150	0.0923	2.4

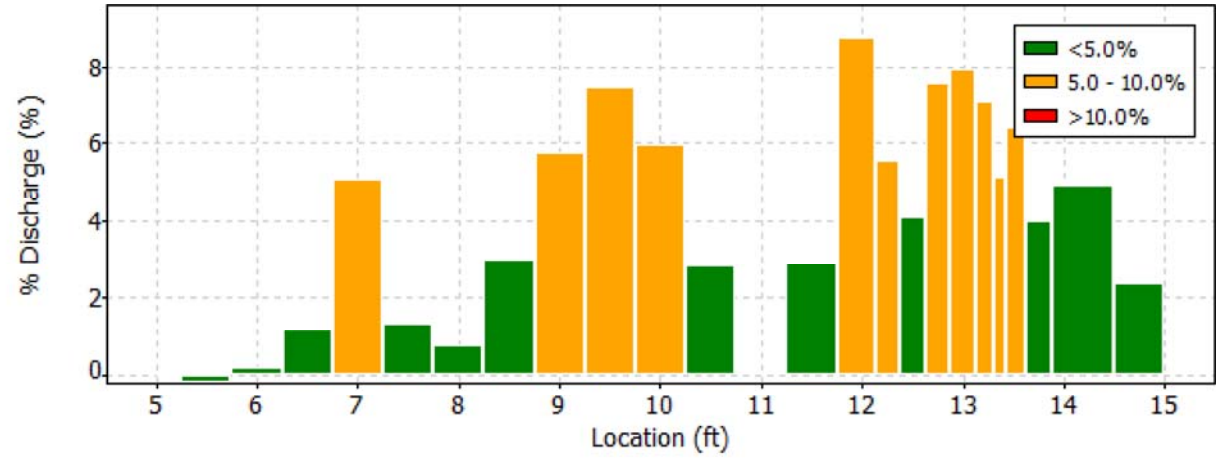
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

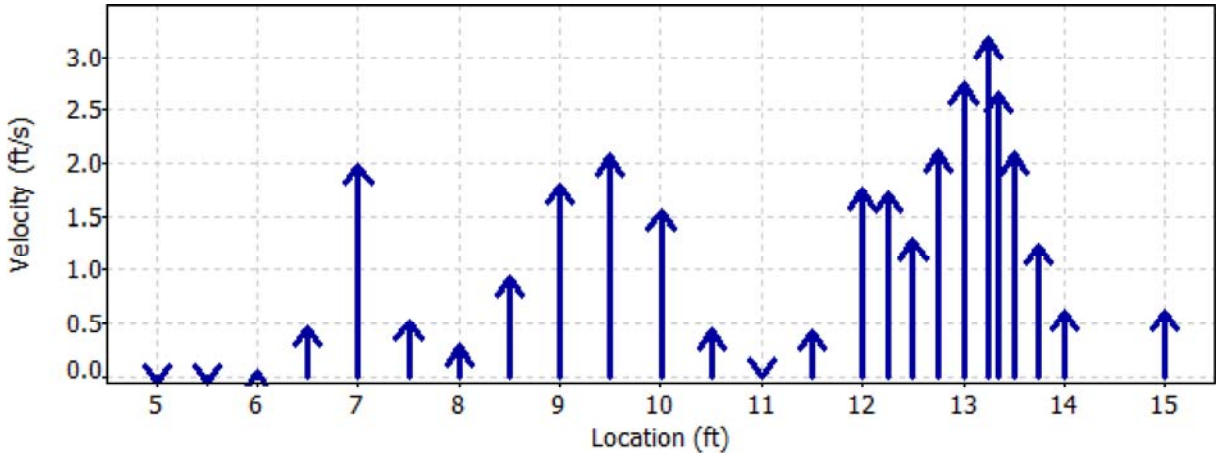
Discharge Measurement Summary

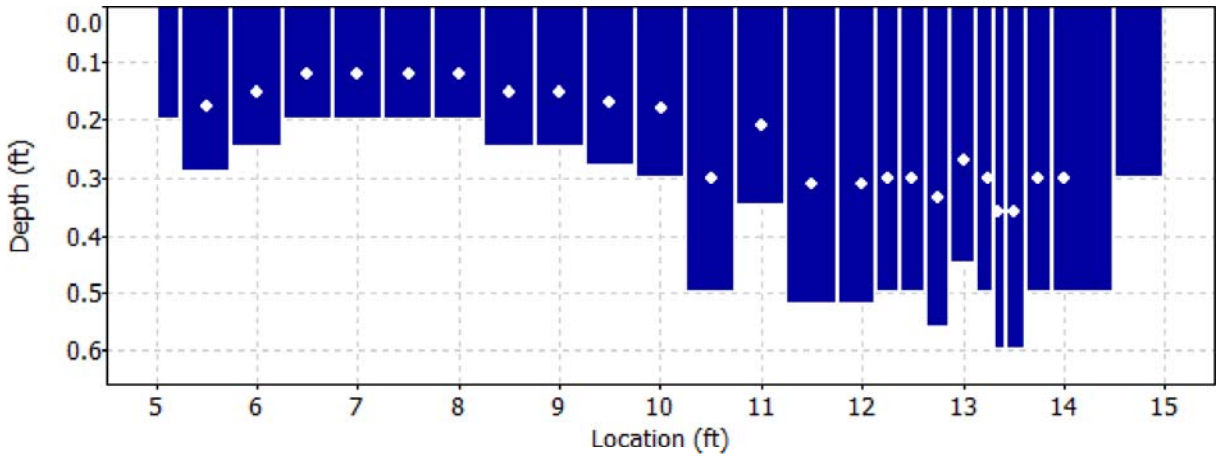
Date Generated: Thu May 4 2017

File Information	
File Name	A585217.WAD
Start Date and Time	2017/05/02 14:30:41

Site Details	
Site Name	A58
Operator(s)	RM







Discharge Measurement Summary

Date Generated: Thu May 4 2017

File Information		Site Details	
File Name	A585217.WAD	Site Name	A58
Start Date and Time	2017/05/02 14:30:41	Operator(s)	RM

Quality Control

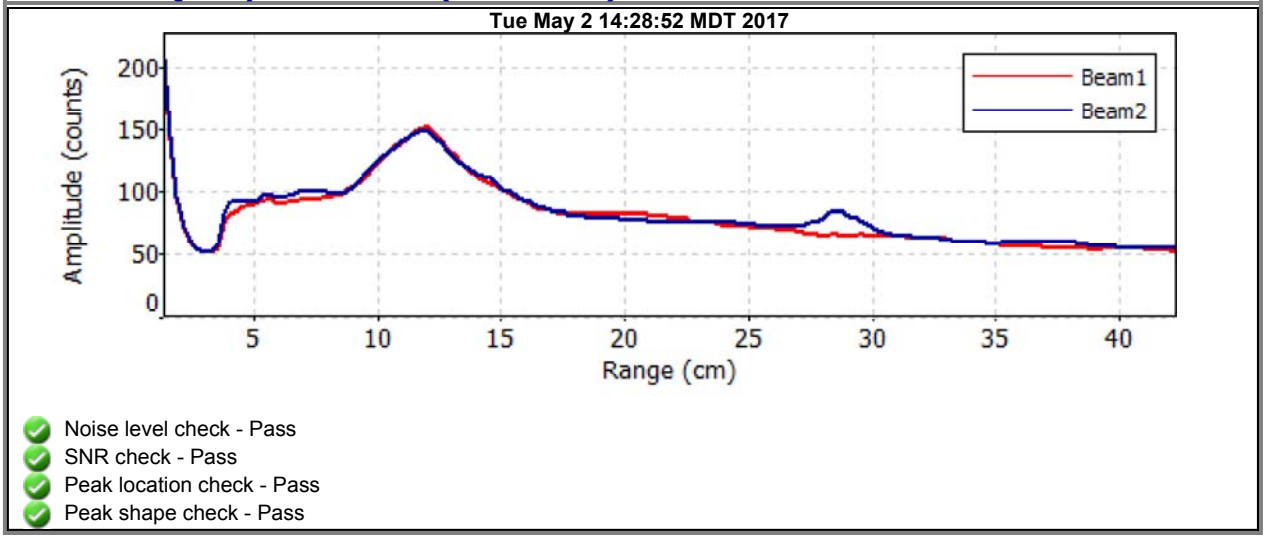
St	Loc	%Dep	Message
1	5.50	0.6	High angle: 132
		0.6	SNR (36.5) is different from typical SNR (46.6)
5	7.50	0.6	High standard error: 0.096
		0.6	Boundary QC is Poor; possible boundary interference
9	9.50	0.6	High number of spikes: 6
14	12.00	0.6	High angle: -31
15	12.25	0.6	High angle: -24
16	12.50	0.6	High angle: -41
17	12.75	0.6	High standard error: 0.109
21	13.50	0.6	High standard error: 0.124
22	13.75	0.6	High standard error: 0.107

Discharge Measurement Summary

Date Generated: Thu May 4 2017

File Information		Site Details	
File Name	A585217.WAD	Site Name	A58
Start Date and Time	2017/05/02 14:30:41	Operator(s)	RM

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Thu May 4 2017

File Information

File Name	A66.WAD
Start Date and Time	2017/05/02 09:21:30

Site Details

Site Name	A66
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.1%	2.0%
Velocity	0.9%	2.7%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**3.3%**	**3.5%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	44.000
Mean SNR	38.1 dB	Total Area	61.924
Mean Temp	36.42 °F	Mean Depth	1.407
Disch. Equation	Mid-Section	Mean Velocity	1.1528
		Total Discharge	**71.3885**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:21	6.00	None	0.300	0.0	0.0	0.0000	1.00	0.0312	0.330	0.0103	0.0
1	*09:21*	*8.20*	*0.6*	*0.550*	*0.6*	*0.220*	*0.0312*	*1.00*	*0.0312*	*1.210*	*0.0377*	*0.1*
2	*09:22*	*10.40*	*0.6*	*1.150*	*0.6*	*0.460*	*0.1155*	*1.00*	*0.1155*	*2.530*	*0.2922*	*0.4*
3	09:23	12.60	0.6	1.500	0.6	0.600	0.3287	1.00	0.3287	3.300	1.0849	1.5
4	09:25	14.80	0.6	1.650	0.6	0.660	0.7201	1.00	0.7201	3.630	2.6142	3.7
5	09:26	17.00	0.6	1.500	0.6	0.600	1.3566	1.00	1.3566	3.300	4.4771	6.3
6	09:27	19.20	0.6	1.600	0.6	0.640	1.4396	1.00	1.4396	3.520	5.0680	7.1
7	09:28	21.40	0.6	1.400	0.6	0.560	1.7188	1.00	1.7188	3.080	5.2941	7.4
8	09:29	23.60	0.6	1.650	0.6	0.660	1.8543	1.00	1.8543	3.630	6.7314	9.4
9	09:30	25.80	0.6	1.800	0.6	0.720	1.6932	1.00	1.6932	3.960	6.7051	9.4
10	09:32	28.00	0.6	1.680	0.6	0.672	1.4091	1.00	1.4091	3.696	5.2088	7.3
11	09:33	30.20	0.6	1.720	0.6	0.688	1.4685	1.00	1.4685	3.785	5.5576	7.8
12	09:34	32.40	0.6	1.550	0.6	0.620	1.1496	1.00	1.1496	3.410	3.9201	5.5
13	09:35	34.60	0.6	1.790	0.6	0.716	1.1178	1.00	1.1178	3.938	4.4022	6.2
14	09:36	36.80	0.6	1.500	0.6	0.600	1.3455	1.00	1.3455	3.300	4.4403	6.2
15	09:37	39.00	0.6	1.600	0.6	0.640	1.2467	1.00	1.2467	3.520	4.3889	6.1
16	09:38	41.20	0.6	1.500	0.6	0.600	1.0774	1.00	1.0774	3.300	3.5557	5.0
17	09:39	43.40	0.6	1.500	0.6	0.600	1.3209	1.00	1.3209	3.300	4.3591	6.1
18	09:40	45.60	0.6	1.400	0.6	0.560	0.7749	1.00	0.7749	3.080	2.3868	3.3
19	09:41	47.80	0.6	0.950	0.6	0.380	0.4511	1.00	0.4511	1.614	0.7281	1.0
20	09:42	49.00	0.6	0.400	0.6	0.160	0.2572	1.00	0.2572	0.439	0.1130	0.2
21	09:42	50.00	None	0.100	0.0	0.0	0.0000	1.00	0.2572	0.050	0.0129	0.0

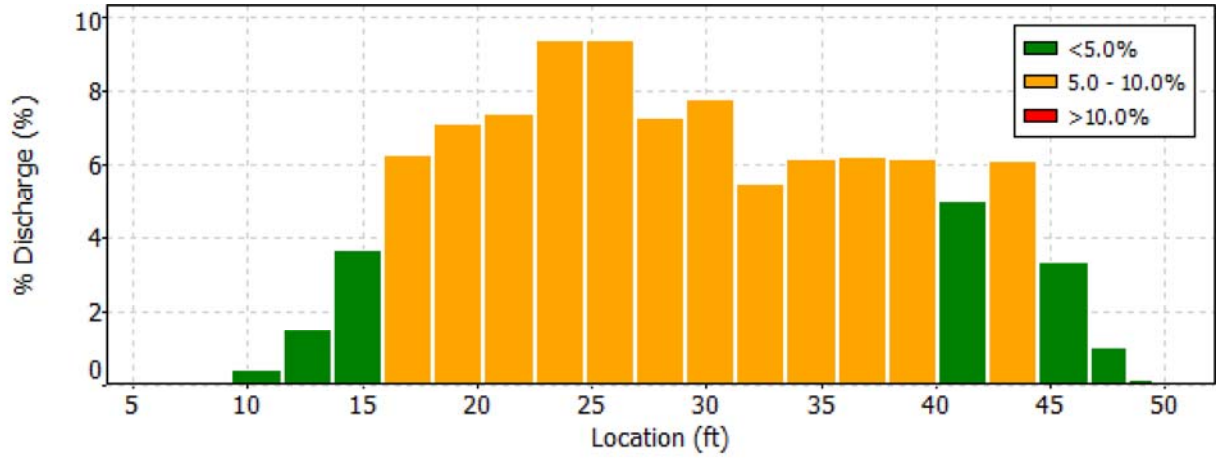
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

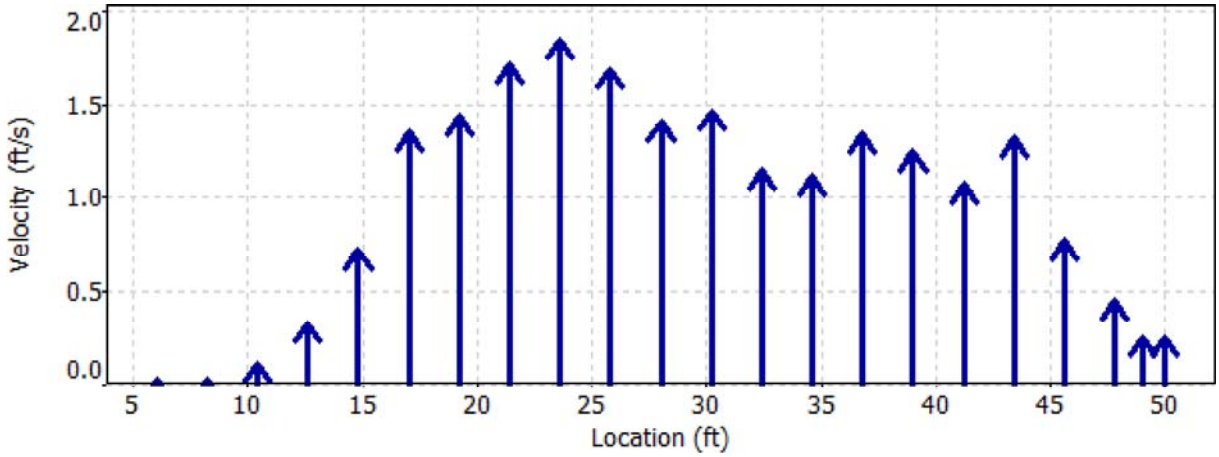
Discharge Measurement Summary

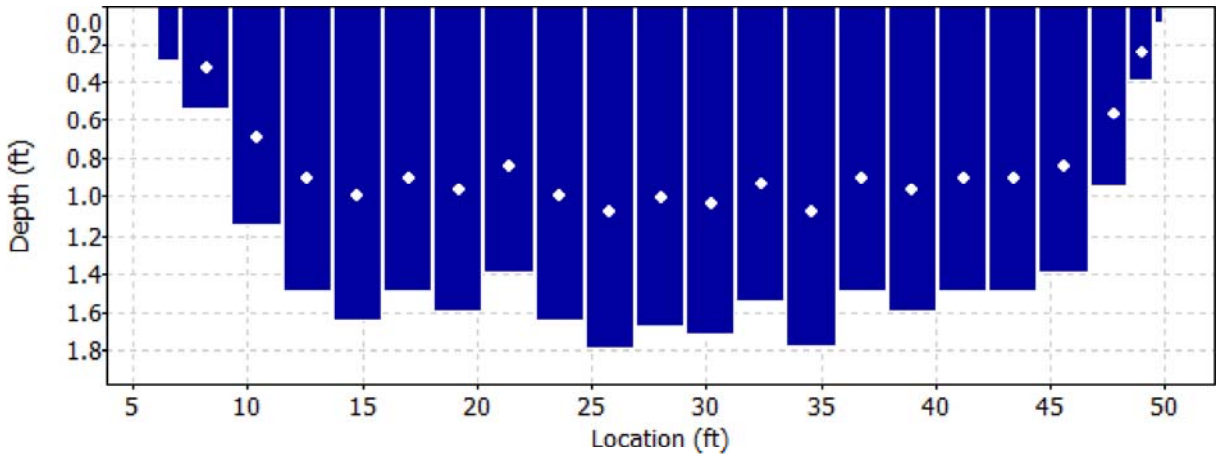
Date Generated: Thu May 4 2017

File Information	
File Name	A66.WAD
Start Date and Time	2017/05/02 09:21:30

Site Details	
Site Name	A66
Operator(s)	RM







Discharge Measurement Summary

Date Generated: Thu May 4 2017

File Information		Site Details	
File Name	A66.WAD	Site Name	A66
Start Date and Time	2017/05/02 09:21:30	Operator(s)	RM

Quality Control

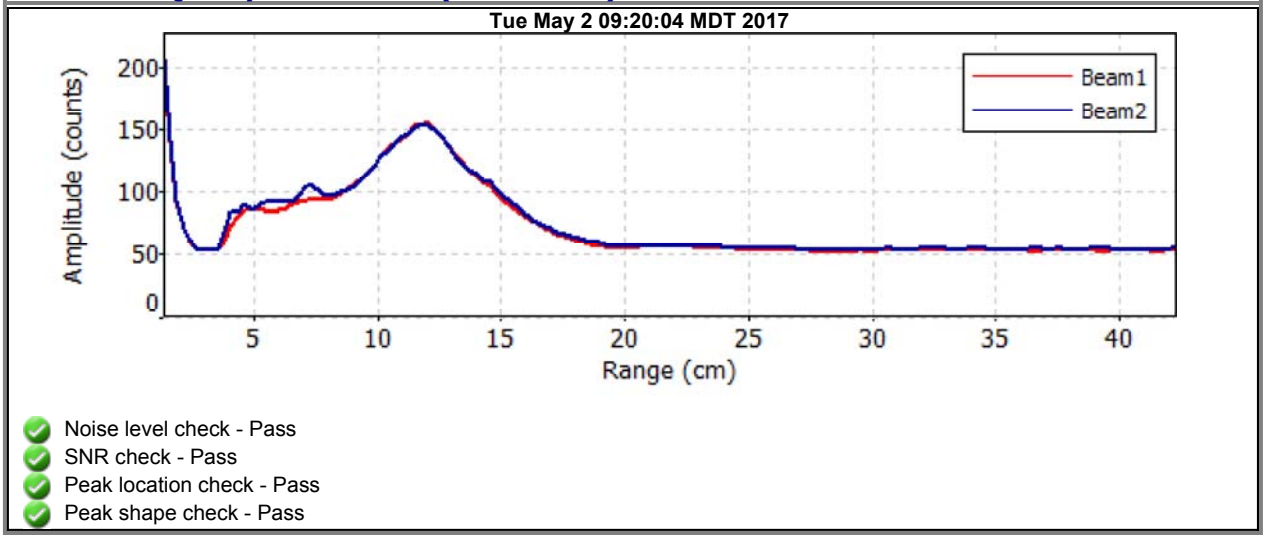
St	Loc	%Dep	Message
1	8.20	0.6	High angle: 67
		0.6	SNR (56.1) is different from typical SNR (38.1)
2	10.40	0.6	High angle: 21
		0.6	High SNR variation during measurement: 5.2,5.2

Discharge Measurement Summary

Date Generated: Thu May 4 2017

File Information		Site Details	
File Name	A66.WAD	Site Name	A66
Start Date and Time	2017/05/02 09:21:30	Operator(s)	RM

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Thu May 4 2017

File Information

File Name	CC215217.WAD
Start Date and Time	2017/05/02 13:23:52

Site Details

Site Name	CC21
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.1%
Velocity	1.4%	3.9%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**3.4%**	**4.6%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	10.000
Mean SNR	47.6 dB	Total Area	5.575
Mean Temp	42.06 °F	Mean Depth	0.558
Disch. Equation	Mid-Section	Mean Velocity	1.3016
		Total Discharge	**7.2565**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:23	3.00	None	0.400	0.0	0.0	0.0000	1.00	-0.1175	0.100	-0.0117	-0.2
1	*13:23*	*3.50*	*0.6*	*0.450*	*0.6*	*0.180*	*-0.1175*	*1.00*	*-0.1175*	*0.225*	*-0.0264*	*-0.4*
2	*13:24*	*4.00*	*0.6*	*0.500*	*0.6*	*0.200*	*0.1152*	*1.00*	*0.1152*	*0.250*	*0.0288*	*0.4*
3	13:25	4.50	0.6	0.520	0.6	0.208	0.6818	1.00	0.6818	0.260	0.1773	2.4
4	13:27	5.00	0.6	0.590	0.6	0.236	0.6850	1.00	0.6850	0.295	0.2021	2.8
5	13:28	5.50	0.6	0.800	0.6	0.320	1.3842	1.00	1.3842	0.400	0.5536	7.6
6	13:29	6.00	0.6	0.700	0.6	0.280	1.9957	1.00	1.9957	0.350	0.6986	9.6
7	*13:30*	*6.50*	*0.6*	*0.750*	*0.6*	*0.300*	*1.7677*	*1.00*	*1.7677*	*0.375*	*0.6629*	*9.1*
8	*13:31*	*7.00*	*0.6*	*0.800*	*0.6*	*0.320*	*1.8829*	*1.00*	*1.8829*	*0.300*	*0.5648*	*7.8*
9	*13:45*	*7.25*	*0.6*	*0.730*	*0.6*	*0.292*	*2.0702*	*1.00*	*2.0702*	*0.182*	*0.3778*	*5.2*
10	*13:32*	*7.50*	*0.6*	*0.700*	*0.6*	*0.280*	*1.4432*	*1.00*	*1.4432*	*0.175*	*0.2526*	*3.5*
11	*13:43*	*7.75*	*0.6*	*0.720*	*0.6*	*0.288*	*1.7001*	*1.00*	*1.7001*	*0.180*	*0.3061*	*4.2*
12	13:33	8.00	0.6	0.550	0.6	0.220	1.6047	1.00	1.6047	0.206	0.3309	4.6
13	13:35	8.50	0.6	0.600	0.6	0.240	1.8428	1.00	1.8428	0.225	0.4147	5.7
14	*13:44*	*8.75*	*0.6*	*0.600*	*0.6*	*0.240*	*1.6749*	*1.00*	*1.6749*	*0.150*	*0.2513*	*3.5*
15	13:36	9.00	0.6	0.650	0.6	0.260	2.2057	1.00	2.2057	0.244	0.5376	7.4
16	13:36	9.50	0.6	0.490	0.6	0.196	2.1818	1.00	2.1818	0.245	0.5347	7.4
17	13:37	10.00	0.6	0.450	0.6	0.180	1.5787	1.00	1.5787	0.225	0.3553	4.9
18	13:38	10.50	0.6	0.490	0.6	0.196	1.2149	1.00	1.2149	0.245	0.2977	4.1
19	13:39	11.00	0.6	0.500	0.6	0.200	0.5469	1.00	0.5469	0.250	0.1367	1.9
20	13:40	11.50	0.6	0.510	0.6	0.204	0.9324	1.00	0.9324	0.255	0.2377	3.3
21	13:41	12.00	0.6	0.450	0.6	0.180	0.8537	1.00	0.8537	0.338	0.2882	4.0
22	13:41	13.00	None	0.200	0.0	0.0	0.0000	1.00	0.8537	0.100	0.0854	1.2

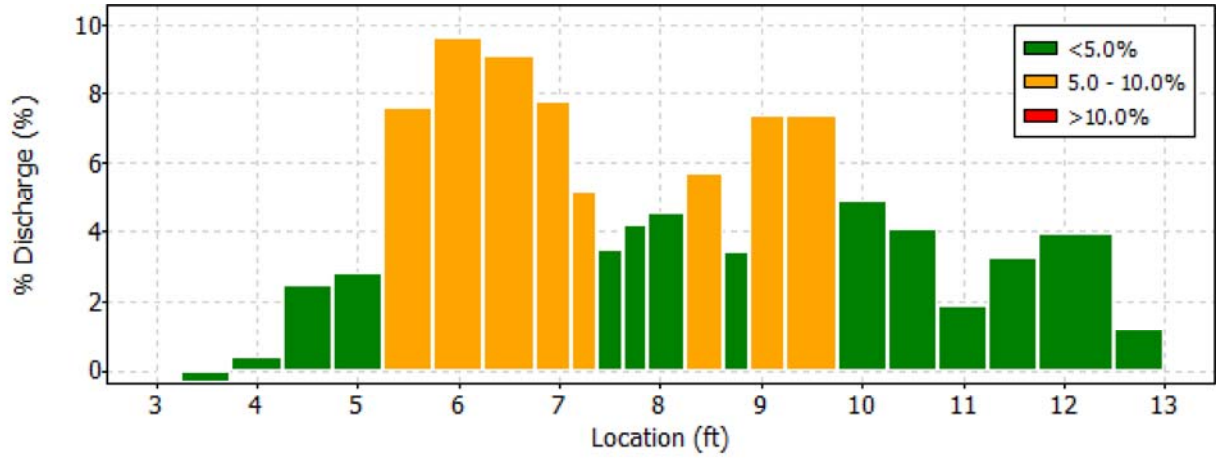
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

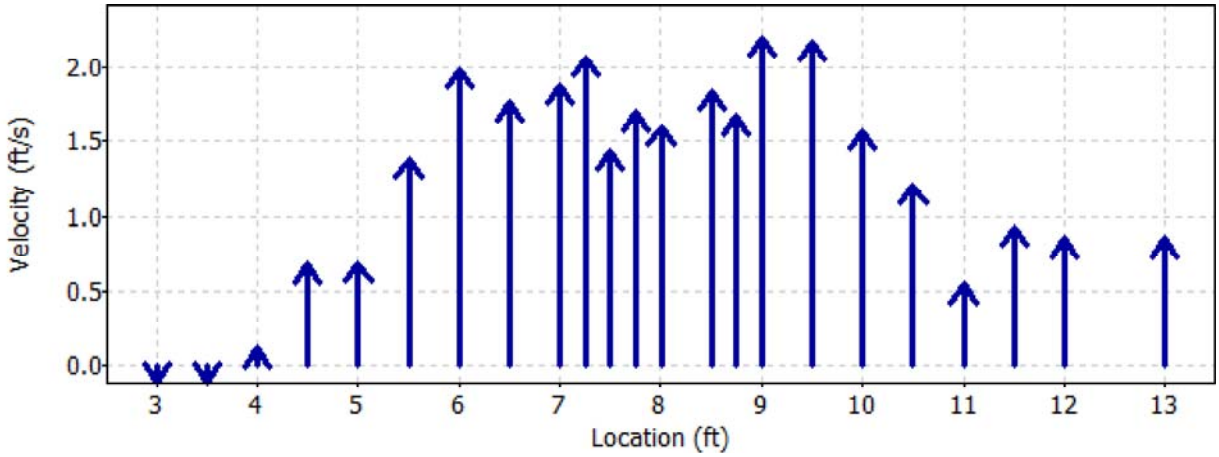
Discharge Measurement Summary

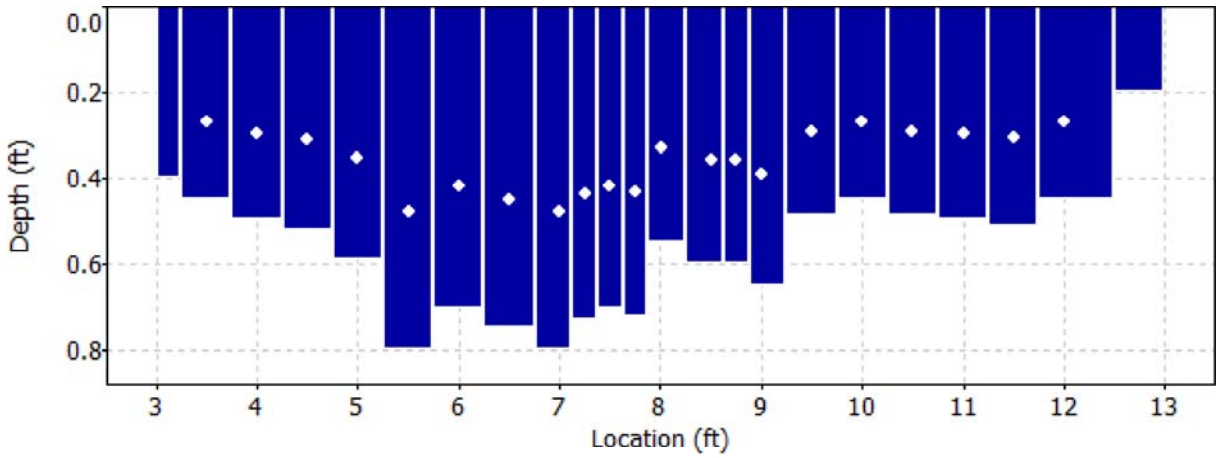
Date Generated: Thu May 4 2017

File Information	
File Name	CC215217.WAD
Start Date and Time	2017/05/02 13:23:52

Site Details	
Site Name	CC21
Operator(s)	RM







Discharge Measurement Summary

Date Generated: Thu May 4 2017

File Information

File Name	CC215217.WAD
Start Date and Time	2017/05/02 13:23:52

Site Details

Site Name	CC21
Operator(s)	RM

Quality Control

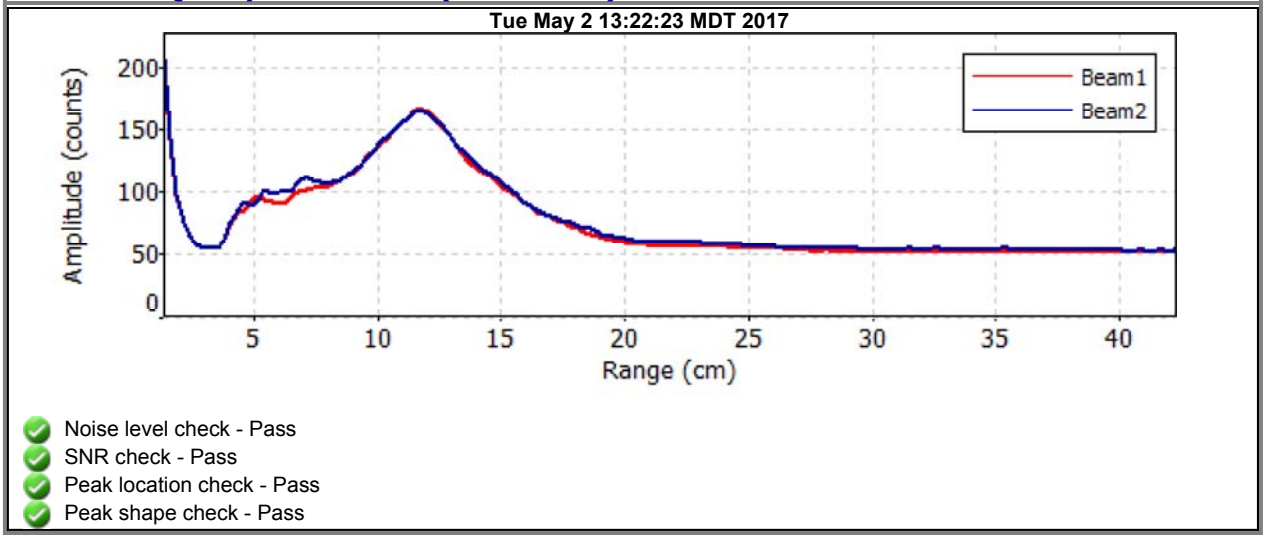
St	Loc	%Dep	Message
1	3.50	0.6	High angle: 156
2	4.00	0.6	High angle: 47
7	6.50	0.6	High standard error: 0.127
8	7.00	0.6	High standard error: 0.119
9	7.25	0.6	High standard error: 0.125
10	7.50	0.6	High standard error: 0.112
11	7.75	0.6	High standard error: 0.116
14	8.75	0.6	High standard error: 0.115

Discharge Measurement Summary

Date Generated: Thu May 4 2017

File Information		Site Details	
File Name	CC215217.WAD	Site Name	CC21
Start Date and Time	2017/05/02 13:23:52	Operator(s)	RM

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Thu May 4 2017

File Information

File Name	M14A517.WAD
Start Date and Time	2017/05/02 10:56:28

Site Details

Site Name	
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.9%
Velocity	1.4%	6.1%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.0%	-
Overall	**3.2%**	**6.8%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	LEW	Total Width	15.198
Mean SNR	46.6 dB	Total Area	8.233
Mean Temp	39.87 °F	Mean Depth	0.542
Disch. Equation	Mid-Section	Mean Velocity	1.3247
		Total Discharge	**10.9059**

Measurement Results

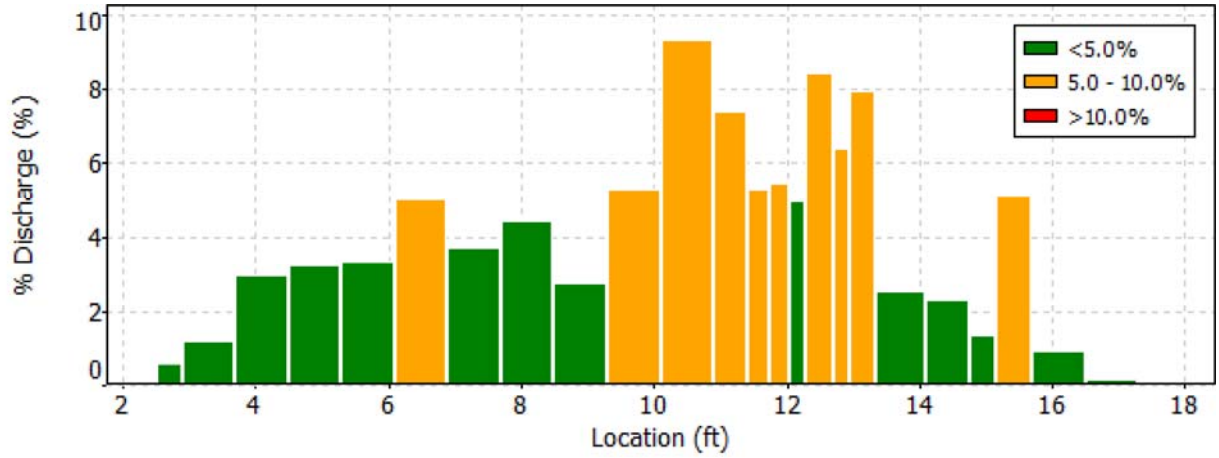
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:56	2.50	None	0.200	0.0	0.0	0.0000	1.00	0.7782	0.080	0.0623	0.6
1	10:56	3.30	0.6	0.200	0.6	0.080	0.7782	1.00	0.7782	0.160	0.1246	1.1
2	10:57	4.10	0.6	0.400	0.6	0.160	1.0167	1.00	1.0167	0.320	0.3252	3.0
3	11:00	4.90	0.6	0.450	0.6	0.180	0.9757	1.00	0.9757	0.360	0.3513	3.2
4	*11:01*	*5.70*	*0.6*	*0.400*	*0.6*	*0.160*	*1.1450*	*1.00*	*1.1450*	*0.320*	*0.3663*	*3.4*
5	11:02	6.50	0.6	0.550	0.6	0.220	1.2500	1.00	1.2500	0.440	0.5498	5.0
6	11:04	7.30	0.6	0.500	0.6	0.200	1.0092	1.00	1.0092	0.400	0.4036	3.7
7	11:05	8.10	0.6	0.550	0.6	0.220	1.0981	1.00	1.0981	0.440	0.4830	4.4
8	11:06	8.90	0.6	0.400	0.6	0.160	0.9357	1.00	0.9357	0.320	0.2993	2.7
9	11:08	9.70	0.6	0.500	0.6	0.200	1.4373	1.00	1.4373	0.400	0.5748	5.3
10	11:10	10.50	0.6	0.800	0.6	0.320	1.5968	1.00	1.5968	0.640	1.0216	9.4
11	*11:11*	*11.30*	*0.6*	*0.800*	*0.6*	*0.320*	*2.0115*	*1.00*	*2.0115*	*0.400*	*0.8055*	*7.4*
12	11:26	11.50	0.6	0.800	0.6	0.320	2.0469	1.00	2.0469	0.281	0.5742	5.3
13	11:23	12.00	0.6	0.800	0.6	0.320	2.4957	1.00	2.4957	0.239	0.5973	5.5
14	11:13	12.10	0.6	0.800	0.6	0.320	2.7064	1.00	2.7064	0.200	0.5412	5.0
15	11:24	12.50	0.6	0.800	0.6	0.320	2.8688	1.00	2.8688	0.320	0.9177	8.4
16	11:14	12.90	0.6	0.900	0.6	0.360	3.0866	1.00	3.0866	0.225	0.6944	6.4
17	11:25	13.00	0.6	0.800	0.6	0.320	2.7100	1.00	2.7100	0.320	0.8669	7.9
18	*11:15*	*13.70*	*0.6*	*0.900*	*0.6*	*0.360*	*0.4068*	*1.00*	*0.4068*	*0.674*	*0.2742*	*2.5*
19	*11:16*	*14.50*	*0.6*	*0.500*	*0.6*	*0.200*	*0.7713*	*1.00*	*0.7713*	*0.325*	*0.2510*	*2.3*
20	*11:21*	*15.00*	*0.6*	*0.500*	*0.6*	*0.200*	*0.7146*	*1.00*	*0.7146*	*0.200*	*0.1429*	*1.3*
21	*11:17*	*15.30*	*0.6*	*0.600*	*0.6*	*0.240*	*1.6906*	*1.00*	*1.6906*	*0.329*	*0.5568*	*5.1*
22	11:18	16.10	0.6	0.500	0.6	0.200	0.2454	1.00	0.2454	0.400	0.0981	0.9
23	*11:19*	*16.90*	*0.6*	*0.400*	*0.6*	*0.160*	*0.0538*	*1.00*	*0.0538*	*0.320*	*0.0172*	*0.2*
24	11:19	17.70	None	0.300	0.0	0.0	0.0000	1.00	0.0538	0.120	0.0065	0.1

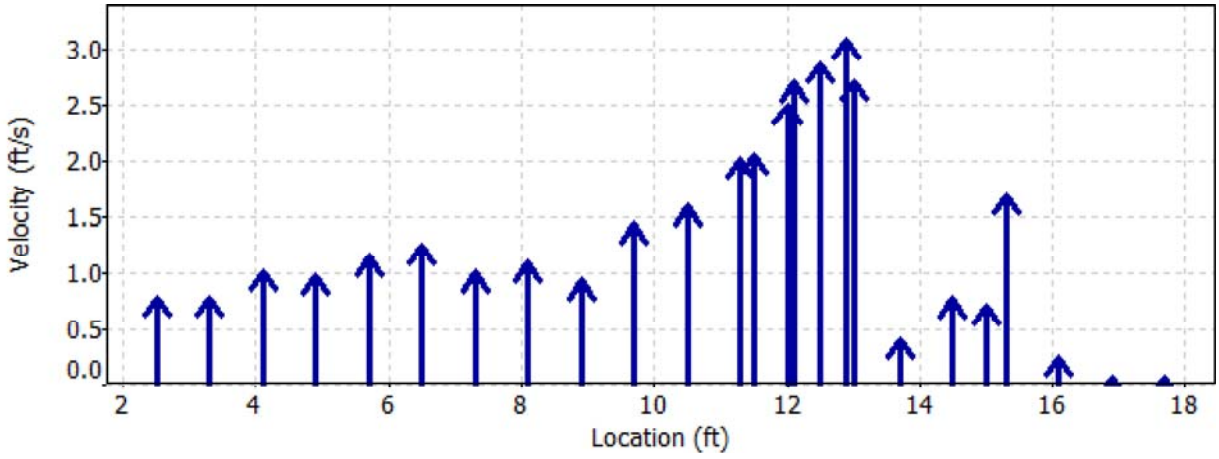
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

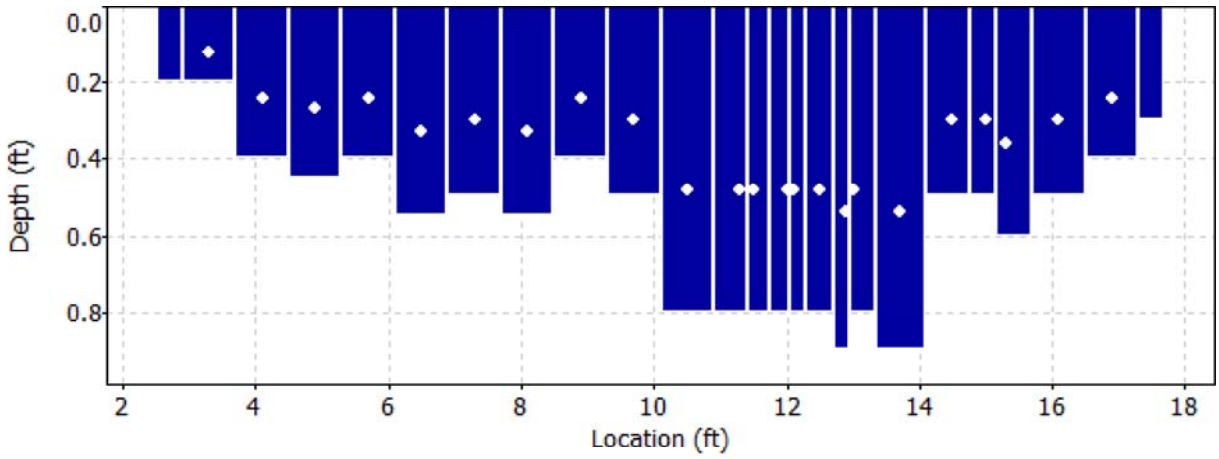
Discharge Measurement Summary

Date Generated: Thu May 4 2017

File Information		Site Details	
File Name	M14A517.WAD	Site Name	
Start Date and Time	2017/05/02 10:56:28	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Thu May 4 2017

File Information

File Name	M14A517.WAD
Start Date and Time	2017/05/02 10:56:28

Site Details

Site Name	
Operator(s)	EY

Quality Control

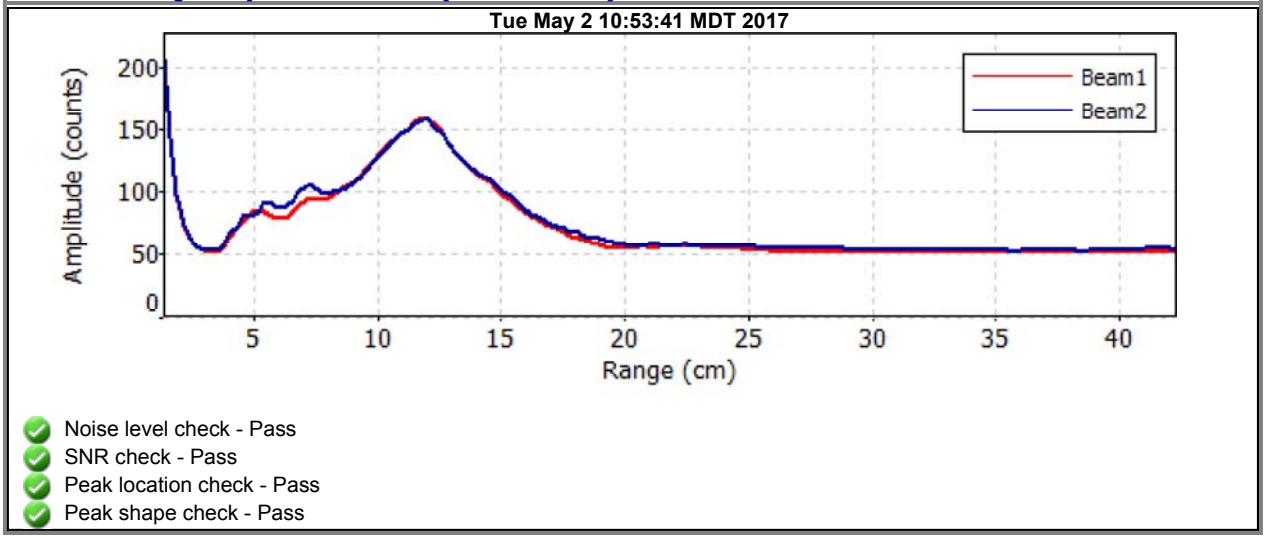
St	Loc	%Dep	Message
4	5.70	0.6	High angle: 22
11	11.30	0.6	High standard error: 0.120
18	13.70	0.6	High angle: -64
		0.6	High standard error: 0.137
19	14.50	0.6	High standard error: 0.108
20	15.00	0.6	High angle: 33
		0.6	High standard error: 0.116
21	15.30	0.6	High standard error: 0.103
23	16.90	0.6	High angle: 20

Discharge Measurement Summary

Date Generated: Thu May 4 2017

File Information		Site Details	
File Name	M14A517.WAD	Site Name	
Start Date and Time	2017/05/02 10:56:28	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Thu May 4 2017

File Information

File Name	M275217.WAD
Start Date and Time	2017/05/02 10:09:13

Site Details

Site Name	M27
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	3.5%
Velocity	1.2%	2.4%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.0%	-
Overall	**3.2%**	**4.4%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	REW	Total Width	19.500
Mean SNR	44.2 dB	Total Area	14.790
Mean Temp	35.29 °F	Mean Depth	0.758
Disch. Equation	Mid-Section	Mean Velocity	1.5015
		Total Discharge	**22.2073**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:09	8.00	None	0.300	0.0	0.0	0.0000	1.00	0.0010	0.150	0.0001	0.0
1	10:09	9.00	0.6	0.300	0.6	0.120	0.0010	1.00	0.0010	0.300	0.0003	0.0
2	10:10	10.00	0.6	0.500	0.6	0.200	0.1283	1.00	0.1283	0.500	0.0641	0.3
3	10:11	11.00	0.6	0.500	0.6	0.200	0.1768	1.00	0.1768	0.500	0.0884	0.4
4	10:11	12.00	0.6	0.400	0.6	0.160	0.1719	1.00	0.1719	0.400	0.0688	0.3
5	10:13	13.00	0.6	0.550	0.6	0.220	0.1736	1.00	0.1736	0.550	0.0954	0.4
6	10:13	14.00	0.6	0.600	0.6	0.240	0.3428	1.00	0.3428	0.600	0.2057	0.9
7	10:15	15.00	0.6	0.700	0.6	0.280	0.5203	1.00	0.5203	0.700	0.3643	1.6
8	10:16	16.00	0.6	0.890	0.6	0.356	0.7497	1.00	0.7497	0.890	0.6673	3.0
9	10:17	17.00	0.6	0.700	0.6	0.280	1.3307	1.00	1.3307	0.700	0.9317	4.2
10	10:18	18.00	0.6	1.100	0.6	0.440	1.7382	1.00	1.7382	1.100	1.9121	8.6
11	*10:19*	*19.00*	*0.6*	*0.900*	*0.6*	*0.360*	*2.4882*	*1.00*	*2.4882*	*0.675*	*1.6794*	*7.6*
12	10:28	19.50	0.6	0.900	0.6	0.360	2.2254	1.00	2.2254	0.450	1.0014	4.5
13	*10:20*	*20.00*	*0.6*	*0.850*	*0.6*	*0.340*	*2.4147*	*1.00*	*2.4147*	*0.425*	*1.0263*	*4.6*
14	10:33	20.50	0.6	1.200	0.6	0.480	2.8376	1.00	2.8376	0.600	1.7027	7.7
15	10:21	21.00	0.6	1.050	0.6	0.420	2.7851	1.00	2.7851	0.525	1.4620	6.6
16	10:29	21.50	0.6	1.200	0.6	0.480	2.7129	1.00	2.7129	0.600	1.6279	7.3
17	*10:22*	*22.00*	*0.6*	*1.200*	*0.6*	*0.480*	*1.9173*	*1.00*	*1.9173*	*0.600*	*1.1505*	*5.2*
18	*10:30*	*22.50*	*0.6*	*1.200*	*0.6*	*0.480*	*2.0764*	*1.00*	*2.0764*	*0.600*	*1.2460*	*5.6*
19	*10:23*	*23.00*	*0.6*	*1.200*	*0.6*	*0.480*	*2.6306*	*1.00*	*2.6306*	*0.600*	*1.5785*	*7.1*
20	*10:31*	*23.50*	*0.6*	*1.100*	*0.6*	*0.440*	*2.8832*	*1.00*	*2.8832*	*0.550*	*1.5859*	*7.1*
21	10:24	24.00	0.6	1.000	0.6	0.400	2.5853	1.00	2.5853	0.750	1.9390	8.7
22	10:25	25.00	0.6	1.250	0.6	0.500	1.3612	1.00	1.3612	1.250	1.7015	7.7
23	*10:26*	*26.00*	*0.6*	*0.500*	*0.6*	*0.200*	*0.1391*	*1.00*	*0.1391*	*0.625*	*0.0869*	*0.4*
24	10:26	27.50	None	0.200	0.0	0.0	0.0000	1.00	0.1391	0.150	0.0209	0.1

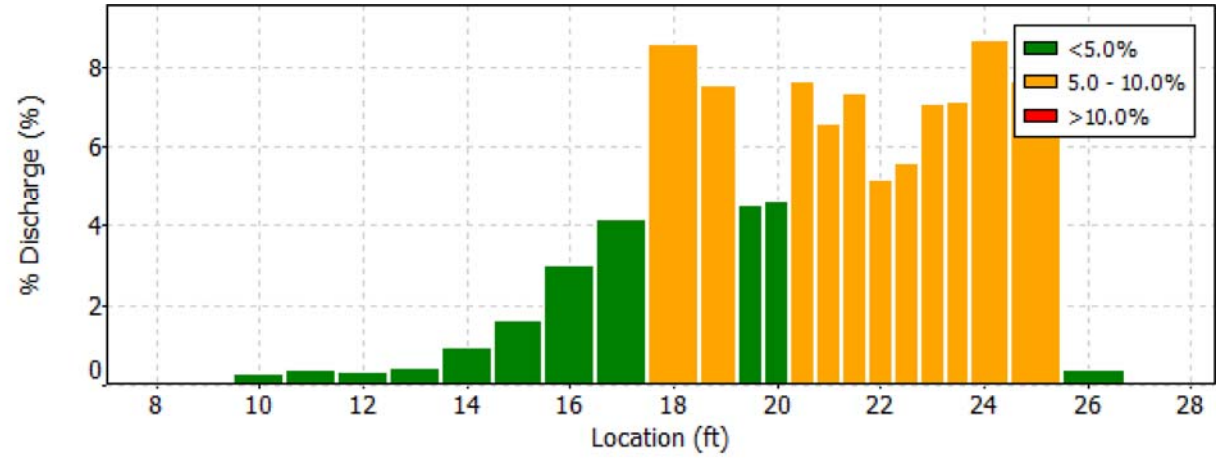
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

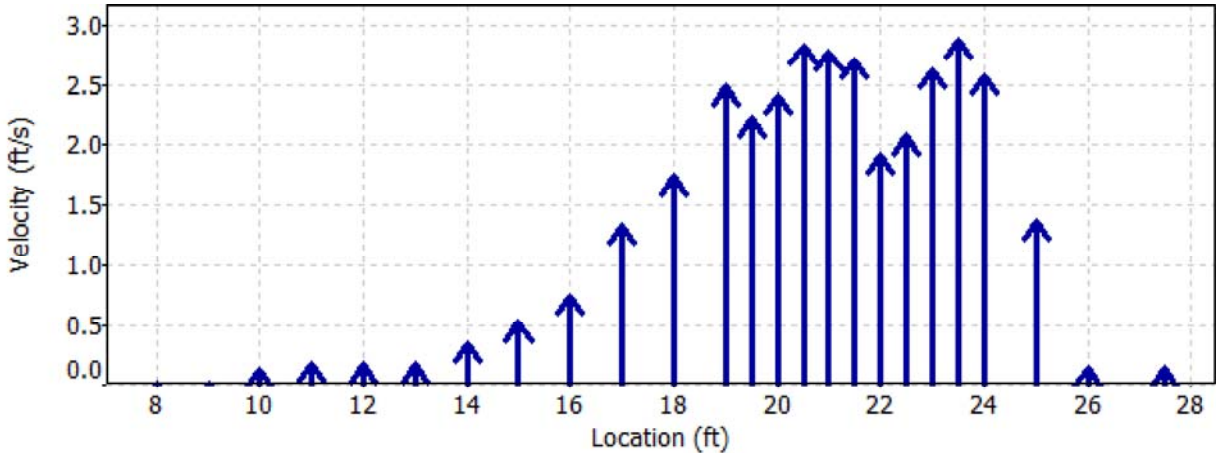
Discharge Measurement Summary

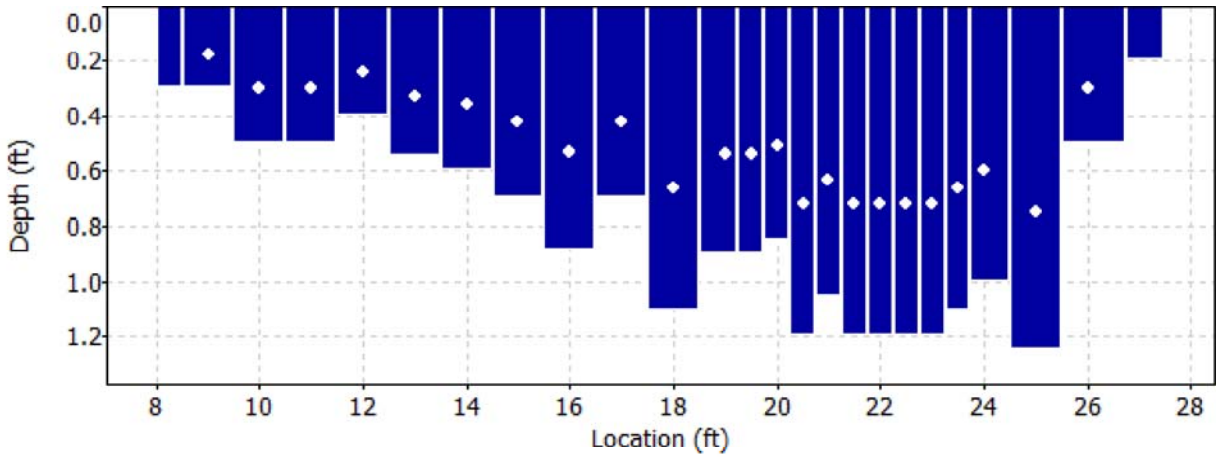
Date Generated: Thu May 4 2017

File Information	
File Name	M275217.WAD
Start Date and Time	2017/05/02 10:09:13

Site Details	
Site Name	M27
Operator(s)	RM







Discharge Measurement Summary

Date Generated: Thu May 4 2017

File Information		Site Details	
File Name	M275217.WAD	Site Name	M27
Start Date and Time	2017/05/02 10:09:13	Operator(s)	RM

Quality Control

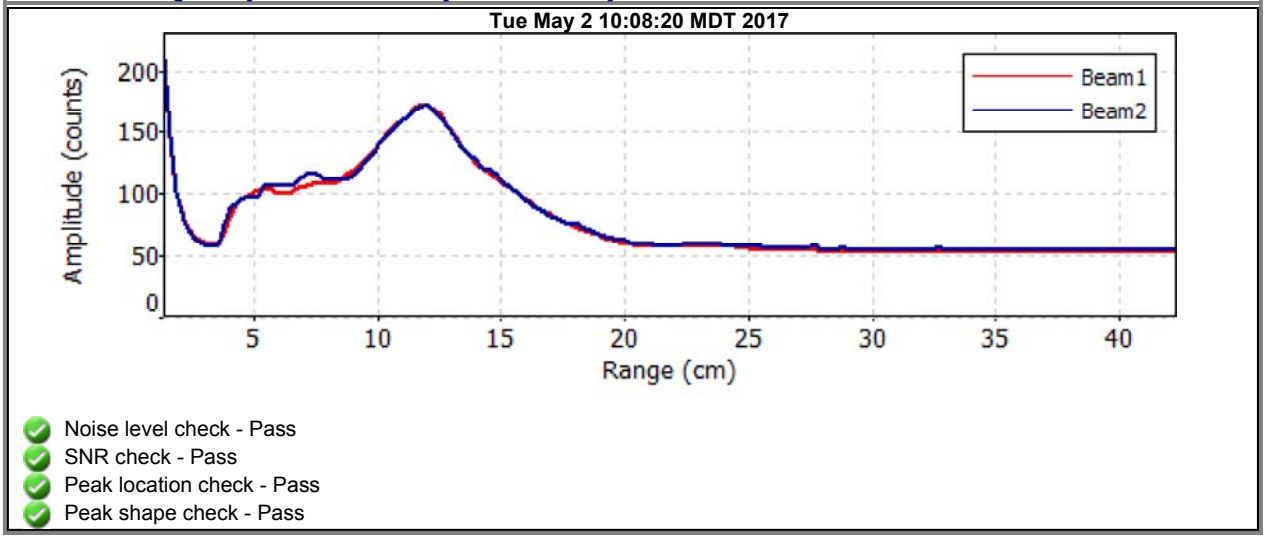
St	Loc	%Dep	Message
11	19.00	0.6	High number of spikes: 5
13	20.00	0.6	High standard error: 0.126
17	22.00	0.6	High standard error: 0.119
18	22.50	0.6	High standard error: 0.140
19	23.00	0.6	High standard error: 0.138
20	23.50	0.6	High standard error: 0.151
23	26.00	0.6	High angle: 56

Discharge Measurement Summary

Date Generated: Thu May 4 2017

File Information		Site Details	
File Name	M275217.WAD	Site Name	M27
Start Date and Time	2017/05/02 10:09:13	Operator(s)	RM

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information

File Name	A3351717.WAD
Start Date and Time	2017/05/17 09:58:59

Site Details

Site Name	A33
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.8%
Velocity	0.9%	3.9%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.4%	-
Overall	**3.3%**	**4.9%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	REW	Total Width	69.003
Mean SNR	45.9 dB	Total Area	34.850
Mean Temp	34.55 °F	Mean Depth	0.505
Disch. Equation	Mid-Section	Mean Velocity	2.4565
		Total Discharge	**85.6087**

Measurement Results

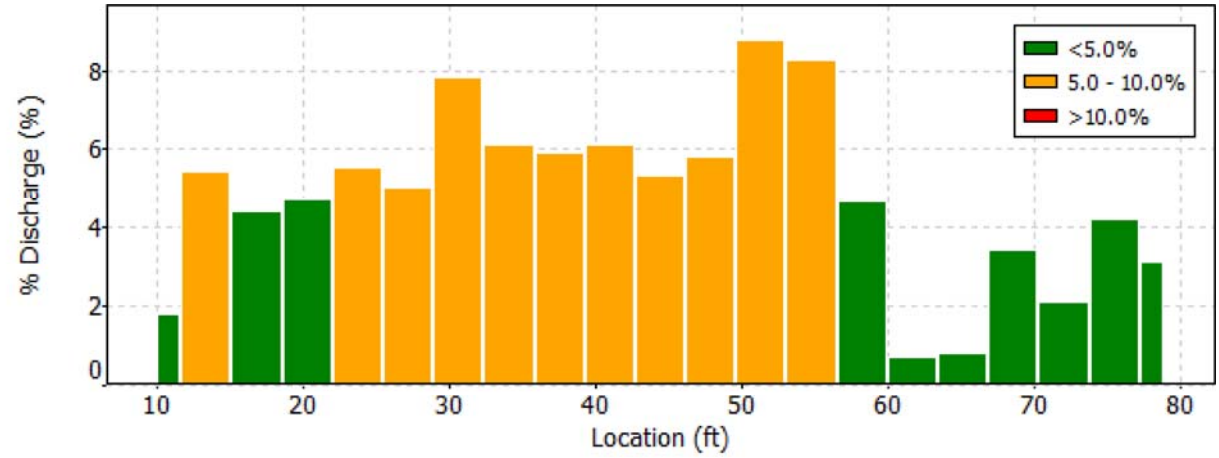
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:58	10.00	None	0.400	0.0	0.0	0.0000	1.00	2.2385	0.690	1.5444	1.8
1	09:58	13.45	0.6	0.600	0.6	0.240	2.2385	1.00	2.2385	2.070	4.6344	5.4
2	10:00	16.90	0.6	0.500	0.6	0.200	2.1791	1.00	2.1791	1.725	3.7591	4.4
3	10:01	20.35	0.6	0.600	0.6	0.240	1.9596	1.00	1.9596	2.070	4.0571	4.7
4	*10:02*	*23.80*	*0.6*	*0.600*	*0.6*	*0.240*	*2.2795*	*1.00*	*2.2795*	*2.070*	*4.7193*	*5.5*
5	10:03	27.25	0.6	0.500	0.6	0.200	2.4931	1.00	2.4931	1.725	4.3008	5.0
6	10:04	30.70	0.6	0.700	0.6	0.280	2.7802	1.00	2.7802	2.416	6.7157	7.8
7	10:05	34.15	0.6	0.600	0.6	0.240	2.5154	1.00	2.5154	2.070	5.2077	6.1
8	10:06	37.60	0.6	0.500	0.6	0.200	2.9193	1.00	2.9193	1.725	5.0360	5.9
9	10:07	41.05	0.6	0.500	0.6	0.200	3.0338	1.00	3.0338	1.725	5.2335	6.1
10	10:08	44.50	0.6	0.500	0.6	0.200	2.6316	1.00	2.6316	1.725	4.5396	5.3
11	*10:09*	*47.95*	*0.6*	*0.600*	*0.6*	*0.240*	*2.3898*	*1.00*	*2.3898*	*2.070*	*4.9475*	*5.8*
12	10:11	51.40	0.6	0.700	0.6	0.280	3.1211	1.00	3.1211	2.416	7.5391	8.8
13	10:12	54.85	0.6	0.700	0.6	0.280	2.9291	1.00	2.9291	2.416	7.0755	8.3
14	10:13	58.30	0.6	0.500	0.6	0.200	2.3071	1.00	2.3071	1.725	3.9799	4.6
15	*10:14*	*61.75*	*0.6*	*0.200*	*0.6*	*0.080*	*0.8845*	*1.00*	*0.8845*	*0.690*	*0.6107*	*0.7*
16	10:15	65.20	0.6	0.200	0.6	0.080	0.9997	1.00	0.9997	0.690	0.6903	0.8
17	10:16	68.65	0.6	0.350	0.6	0.140	2.4239	1.00	2.4239	1.208	2.9275	3.4
18	10:17	72.10	0.6	0.350	0.6	0.140	1.5026	1.00	1.5026	1.208	1.8148	2.1
19	10:18	75.55	0.6	0.400	0.6	0.160	2.5988	1.00	2.5988	1.380	3.5858	4.2
20	10:18	79.00	None	0.600	0.0	0.0	0.0000	1.00	2.5988	1.035	2.6901	3.1

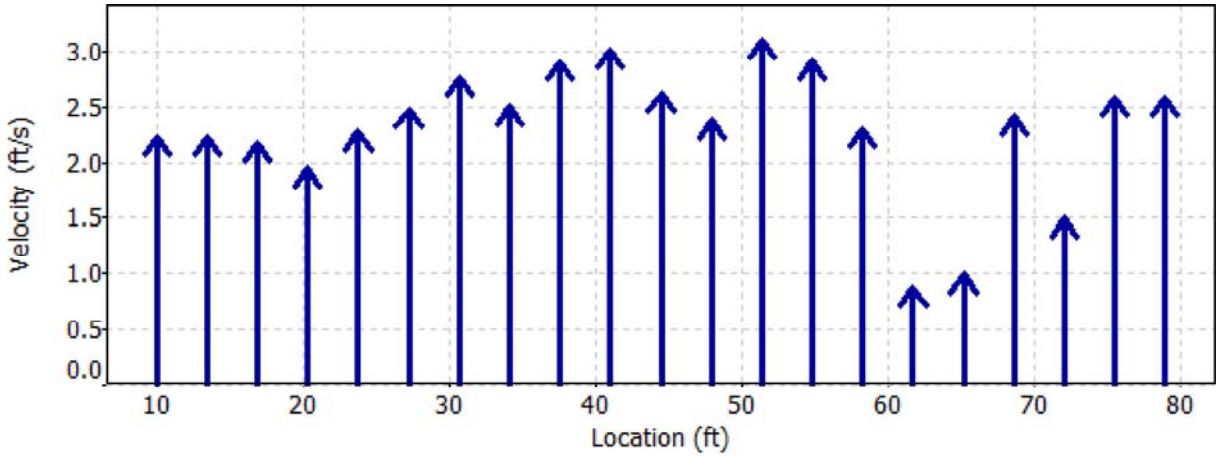
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

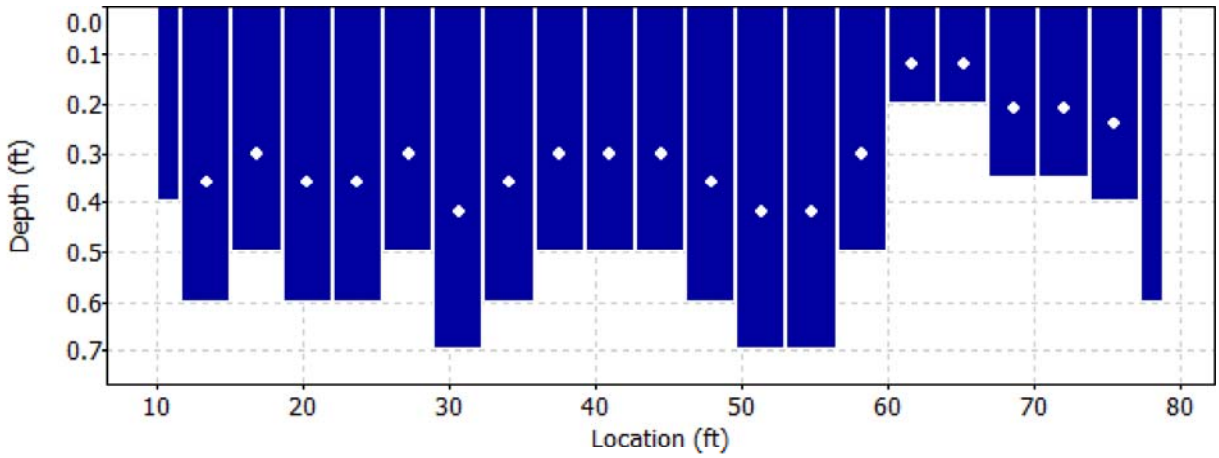
Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information		Site Details	
File Name	A3351717.WAD	Site Name	A33
Start Date and Time	2017/05/17 09:58:59	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information		Site Details	
File Name	A3351717.WAD	Site Name	A33
Start Date and Time	2017/05/17 09:58:59	Operator(s)	EY

Quality Control

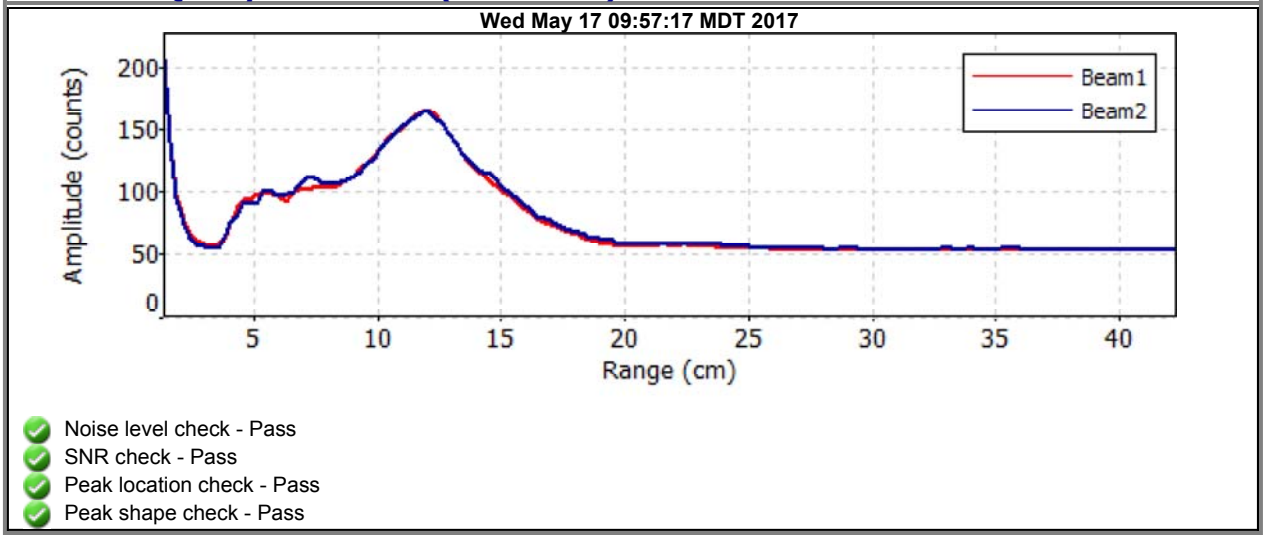
St	Loc	%Dep	Message
4	23.80	0.6	High standard error: 0.167
11	47.95	0.6	High angle: 20
15	61.75	0.6	High angle: 25

Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information		Site Details	
File Name	A3351717.WAD	Site Name	A33
Start Date and Time	2017/05/17 09:58:59	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information

File Name	A3451717.WAD
Start Date and Time	2017/05/17 08:56:17

Site Details

Site Name	A34
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	2.2%
Velocity	1.6%	6.8%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**3.5%**	**7.3%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	14.000
Mean SNR	48.2 dB	Total Area	13.216
Mean Temp	34.69 °F	Mean Depth	0.944
Disch. Equation	Mid-Section	Mean Velocity	2.5378
		Total Discharge	**33.5400**

Measurement Results

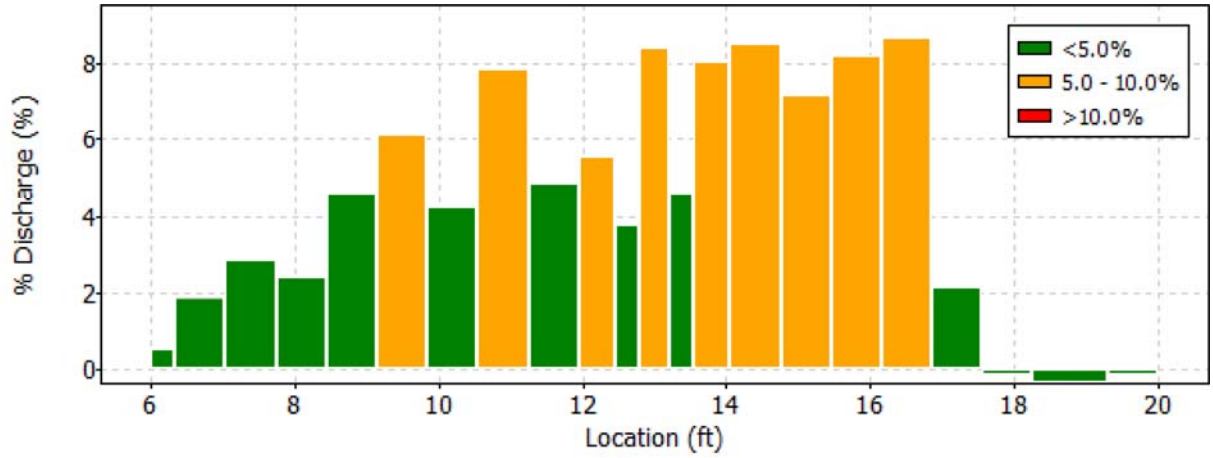
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:56	6.00	None	0.300	0.0	0.0	0.0000	1.00	1.6703	0.105	0.1753	0.5
1	08:56	6.70	0.6	0.550	0.6	0.220	1.6703	1.00	1.6703	0.385	0.6430	1.9
2	08:57	7.40	0.6	0.700	0.6	0.280	1.9747	1.00	1.9747	0.490	0.9680	2.9
3	*08:58*	*8.10*	*0.6*	*0.650*	*0.6*	*0.260*	*1.7976*	*1.00*	*1.7976*	*0.455*	*0.8180*	*2.4*
4	*08:59*	*8.80*	*0.6*	*0.850*	*0.6*	*0.340*	*2.5922*	*1.00*	*2.5922*	*0.595*	*1.5428*	*4.6*
5	09:00	9.50	0.6	0.950	0.6	0.380	3.0965	1.00	3.0965	0.665	2.0598	6.1
6	09:01	10.20	0.6	1.000	0.6	0.400	2.0374	1.00	2.0374	0.700	1.4264	4.3
7	09:02	10.90	0.6	1.100	0.6	0.440	3.4150	1.00	3.4150	0.770	2.6302	7.8
8	*09:03*	*11.60*	*0.6*	*1.100*	*0.6*	*0.440*	*2.1135*	*1.00*	*2.1135*	*0.770*	*1.6278*	*4.9*
9	*09:04*	*12.30*	*0.6*	*1.200*	*0.6*	*0.480*	*3.1014*	*1.00*	*3.1014*	*0.599*	*1.8592*	*5.5*
10	*09:17*	*12.60*	*0.6*	*1.300*	*0.6*	*0.520*	*2.7802*	*1.00*	*2.7802*	*0.455*	*1.2651*	*3.8*
11	09:06	13.00	0.6	1.300	0.6	0.520	5.4413	1.00	5.4413	0.520	2.8287	8.4
12	09:15	13.40	0.6	1.200	0.6	0.480	3.6916	1.00	3.6916	0.420	1.5509	4.6
13	09:07	13.70	0.6	1.300	0.6	0.520	4.1427	1.00	4.1427	0.651	2.6969	8.0
14	09:08	14.40	0.6	1.300	0.6	0.520	3.1503	1.00	3.1503	0.910	2.8670	8.5
15	09:09	15.10	0.6	1.100	0.6	0.440	3.1188	1.00	3.1188	0.770	2.4020	7.2
16	09:10	15.80	0.6	1.000	0.6	0.400	3.9449	1.00	3.9449	0.700	2.7619	8.2
17	09:11	16.50	0.6	1.300	0.6	0.520	3.1991	1.00	3.1991	0.910	2.9115	8.7
18	09:12	17.20	0.6	1.300	0.6	0.520	0.7917	1.00	0.7917	0.910	0.7205	2.1
19	*09:13*	*17.90*	*0.6*	*0.750*	*0.6*	*0.300*	*-0.0922*	*1.00*	*-0.0922*	*0.525*	*-0.0484*	*-0.1*
20	*09:14*	*18.60*	*0.6*	*0.600*	*0.6*	*0.240*	*-0.1834*	*1.00*	*-0.1834*	*0.629*	*-0.1154*	*-0.3*
21	09:14	20.00	None	0.400	0.0	0.0	0.0000	1.00	-0.1834	0.279	-0.0513	-0.2

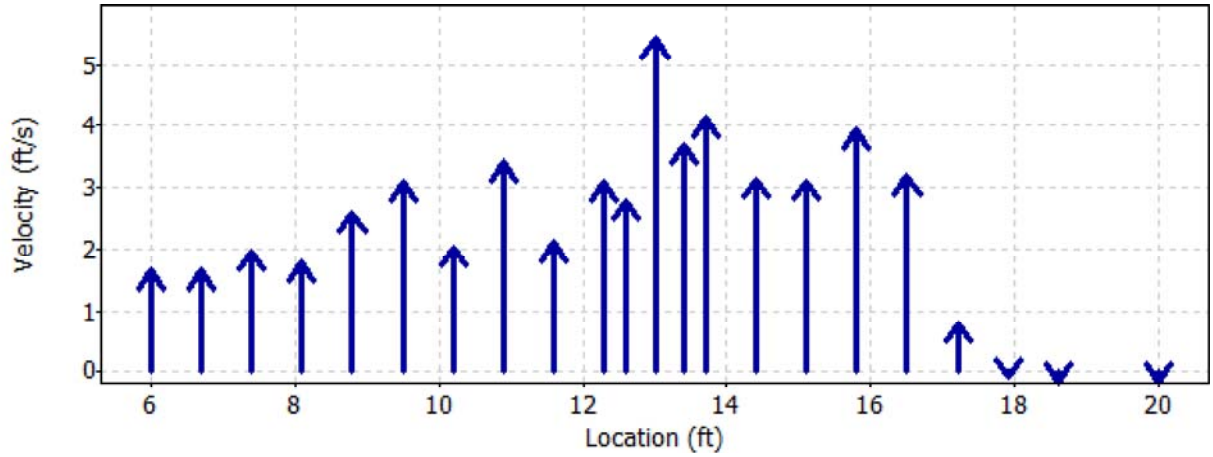
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

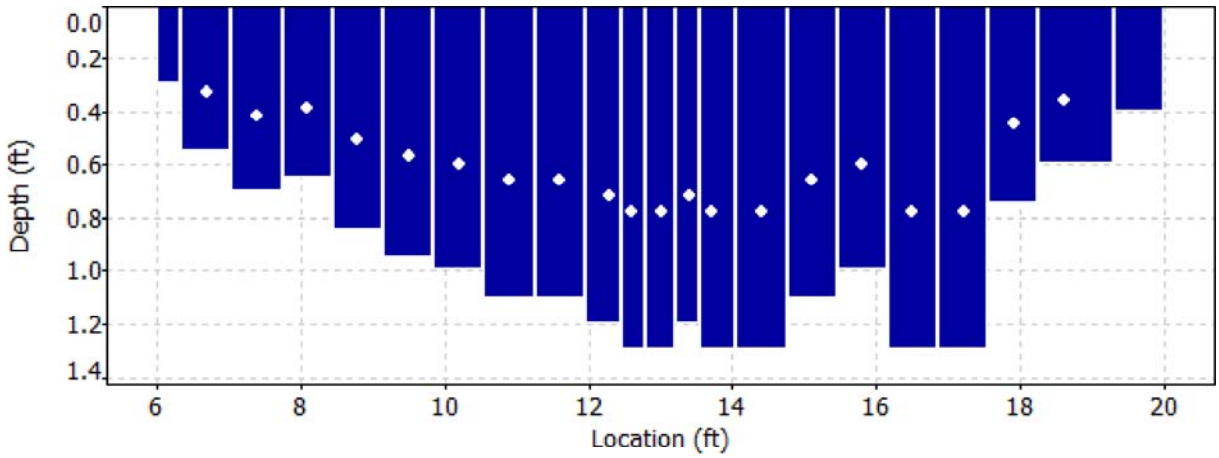
Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information		Site Details	
File Name	A3451717.WAD	Site Name	A34
Start Date and Time	2017/05/17 08:56:17	Operator(s)	RM







Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information

File Name	A3451717.WAD
Start Date and Time	2017/05/17 08:56:17

Site Details

Site Name	A34
Operator(s)	RM

Quality Control

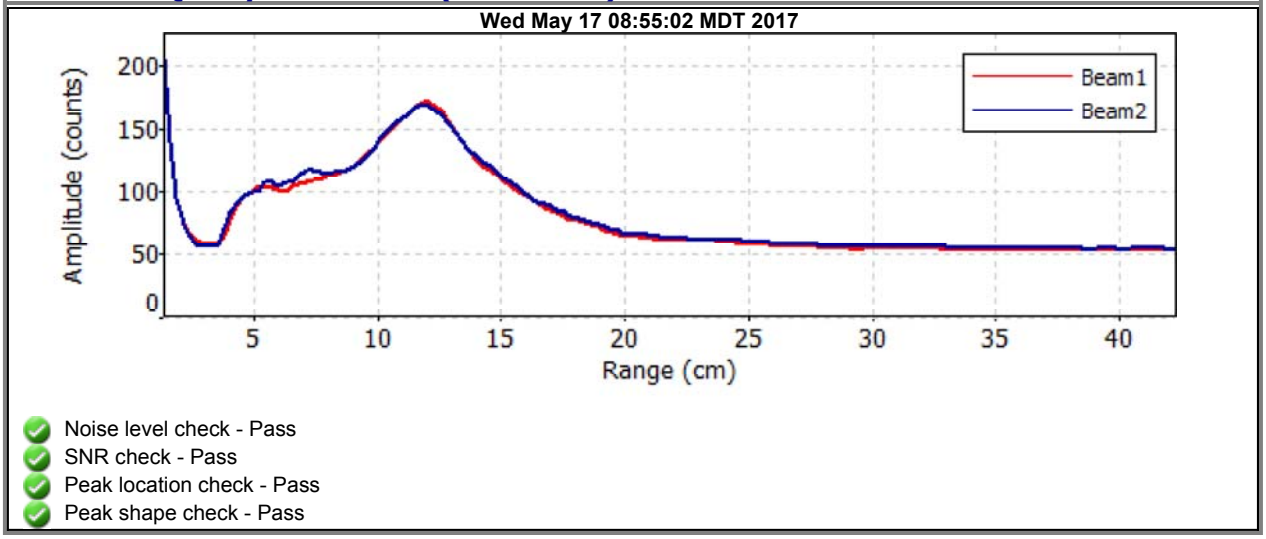
St	Loc	%Dep	Message
3	8.10	0.6	High angle: -27
4	8.80	0.6	SNR (30.5) is different from typical SNR (48.2)
		0.6	High standard error: 0.384
8	11.60	0.6	High standard error: 0.214
9	12.30	0.6	High standard error: 0.230
10	12.60	0.6	High standard error: 0.224
19	17.90	0.6	High angle: -110
20	18.60	0.6	High angle: -154

Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information		Site Details	
File Name	A3451717.WAD	Site Name	A34
Start Date and Time	2017/05/17 08:56:17	Operator(s)	RM

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information

File Name	A35.WAD
Start Date and Time	2017/05/17 08:17:22

Site Details

Site Name	A35
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	1.8%
Velocity	1.0%	3.0%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**3.2%**	**3.6%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	35.000
Mean SNR	44.6 dB	Total Area	36.111
Mean Temp	33.99 °F	Mean Depth	1.032
Disch. Equation	Mid-Section	Mean Velocity	3.3003
		Total Discharge	**119.1781**

Measurement Results

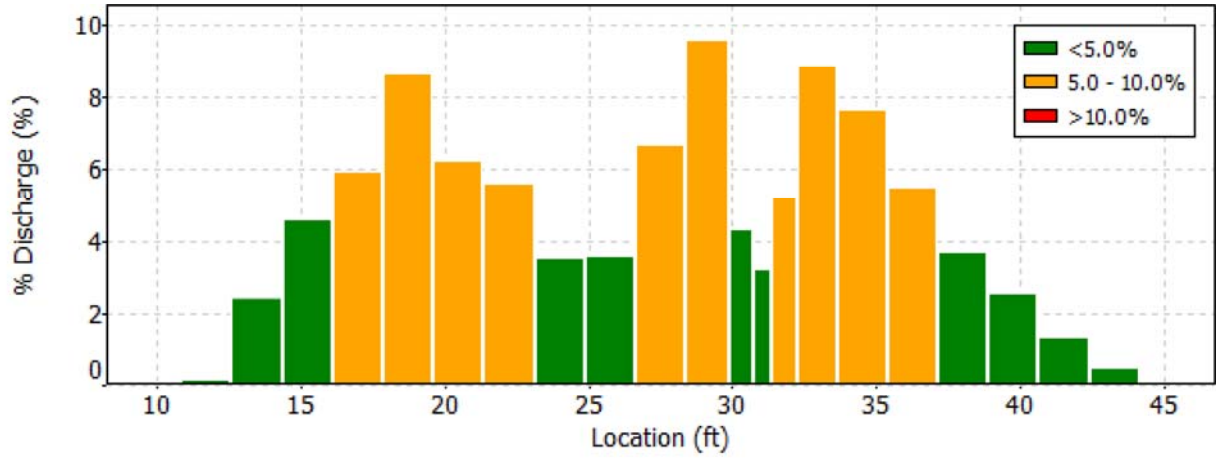
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:17	10.00	None	0.300	0.0	0.0	0.0000	1.00	0.3488	0.262	0.0915	0.1
1	08:17	11.75	0.6	0.300	0.6	0.120	0.3488	1.00	0.3488	0.525	0.1830	0.2
2	*08:18*	*13.50*	*0.6*	*0.900*	*0.6*	*0.360*	*1.8163*	*1.00*	*1.8163*	*1.575*	*2.8604*	*2.4*
3	08:19	15.25	0.6	1.100	0.6	0.440	2.8609	1.00	2.8609	1.925	5.5075	4.6
4	08:20	17.00	0.6	1.300	0.6	0.520	3.1152	1.00	3.1152	2.275	7.0863	5.9
5	08:21	18.75	0.6	1.300	0.6	0.520	4.5525	1.00	4.5525	2.275	10.3559	8.7
6	08:22	20.50	0.6	1.200	0.6	0.480	3.5240	1.00	3.5240	2.100	7.4011	6.2
7	08:24	22.25	0.6	1.000	0.6	0.400	3.8291	1.00	3.8291	1.750	6.7009	5.6
8	08:25	24.00	0.6	0.800	0.6	0.320	3.0210	1.00	3.0210	1.400	4.2287	3.5
9	08:26	25.75	0.6	1.000	0.6	0.400	2.4619	1.00	2.4619	1.750	4.3084	3.6
10	08:27	27.50	0.6	1.500	0.6	0.600	3.0325	1.00	3.0325	2.625	7.9603	6.7
11	*08:28*	*29.25*	*0.6*	*1.850*	*0.6*	*0.740*	*4.1322*	*1.00*	*4.1322*	*2.775*	*11.4673*	*9.6*
12	*08:39*	*30.50*	*0.6*	*1.800*	*0.6*	*0.720*	*3.2654*	*1.00*	*3.2654*	*1.575*	*5.1427*	*4.3*
13	*08:29*	*31.00*	*0.6*	*1.600*	*0.6*	*0.640*	*3.8317*	*1.00*	*3.8317*	*1.000*	*3.8319*	*3.2*
14	08:40	31.75	0.6	1.500	0.6	0.600	4.7270	1.00	4.7270	1.313	6.2042	5.2
15	08:30	32.75	0.6	1.500	0.6	0.600	5.1214	1.00	5.1214	2.063	10.5629	8.9
16	08:32	34.50	0.6	1.300	0.6	0.520	4.0180	1.00	4.0180	2.275	9.1401	7.7
17	08:33	36.25	0.6	1.050	0.6	0.420	3.5554	1.00	3.5554	1.837	6.5323	5.5
18	08:34	38.00	0.6	0.850	0.6	0.340	2.9793	1.00	2.9793	1.488	4.4321	3.7
19	*08:35*	*39.75*	*0.6*	*0.800*	*0.6*	*0.320*	*2.1362*	*1.00*	*2.1362*	*1.400*	*2.9901*	*2.5*
20	08:36	41.50	0.6	0.500	0.6	0.200	1.7467	1.00	1.7467	0.875	1.5284	1.3
21	*08:37*	*43.25*	*0.6*	*0.500*	*0.6*	*0.200*	*0.6306*	*1.00*	*0.6306*	*0.875*	*0.5518*	*0.5*
22	08:37	45.00	None	0.200	0.0	0.0	0.0000	1.00	0.6306	0.175	0.1104	0.1

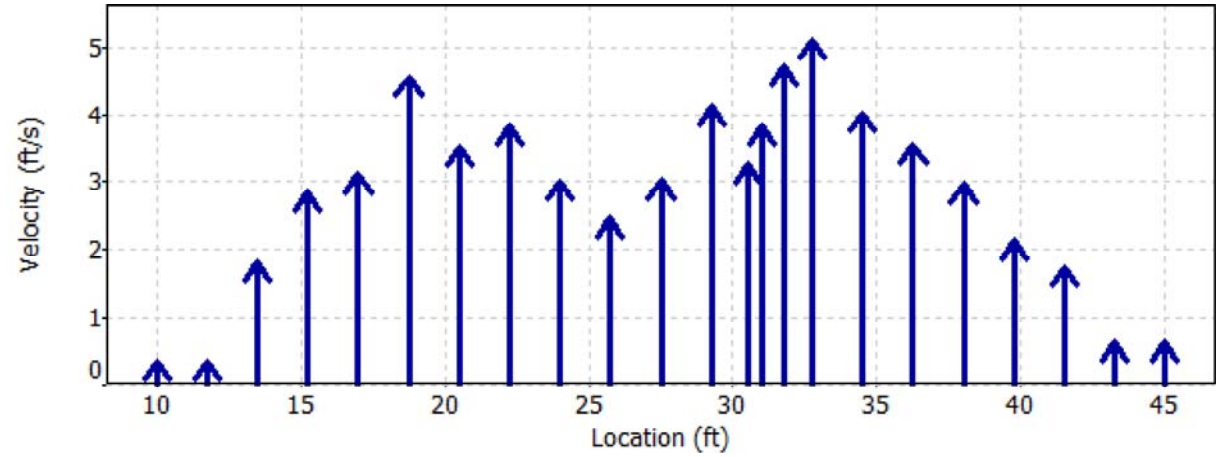
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

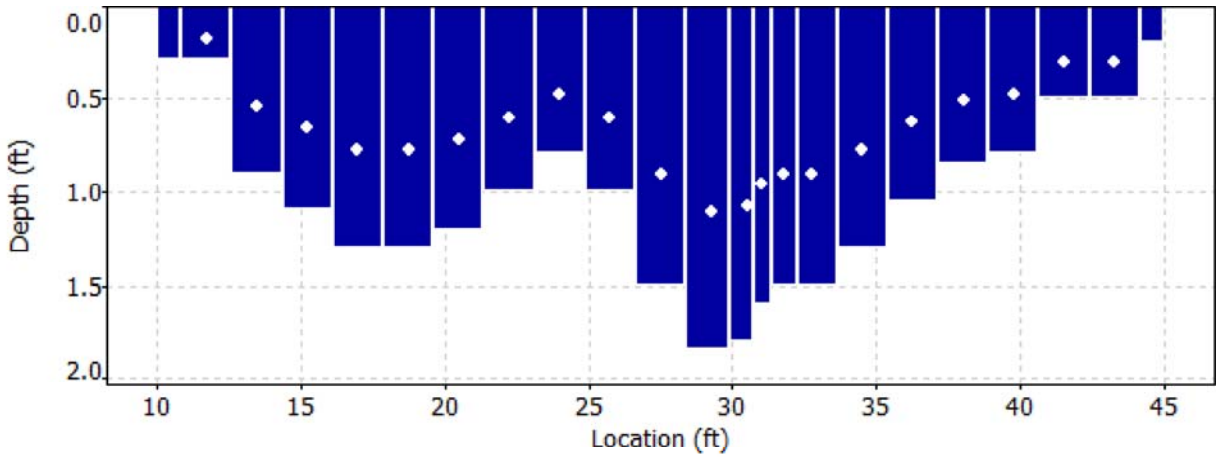
Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information		Site Details	
File Name	A35.WAD	Site Name	A35
Start Date and Time	2017/05/17 08:17:22	Operator(s)	RM







Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information		Site Details	
File Name	A35.WAD	Site Name	A35
Start Date and Time	2017/05/17 08:17:22	Operator(s)	RM

Quality Control

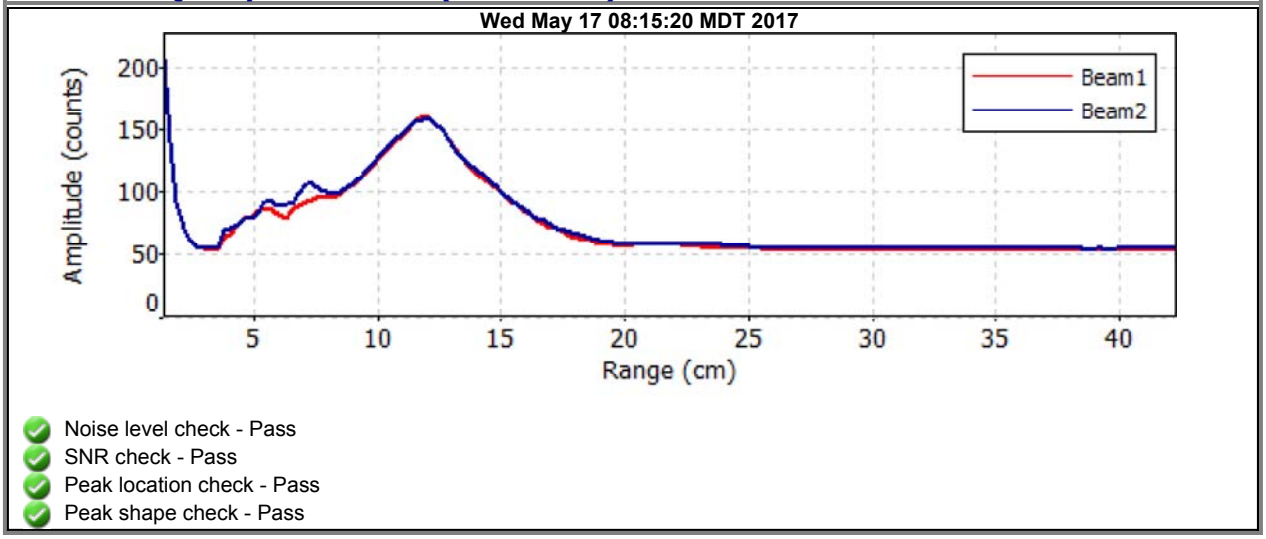
St	Loc	%Dep	Message
2	13.50	0.6	High angle: -28
11	29.25	0.6	High angle: -21
12	30.50	0.6	High standard error: 0.200
13	31.00	0.6	High standard error: 0.227
19	39.75	0.6	High angle: -25
21	43.25	0.6	High angle: 28

Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information		Site Details	
File Name	A35.WAD	Site Name	A35
Start Date and Time	2017/05/17 08:17:22	Operator(s)	RM

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information

File Name	A5851617.WAD
Start Date and Time	2017/05/16 14:30:24

Site Details

Site Name	A58
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	3.4%
Velocity	1.1%	3.6%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**3.3%**	**5.1%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	7.000
Mean SNR	49.2 dB	Total Area	5.065
Mean Temp	40.19 °F	Mean Depth	0.724
Disch. Equation	Mid-Section	Mean Velocity	2.7734
		Total Discharge	**14.0462**

Measurement Results

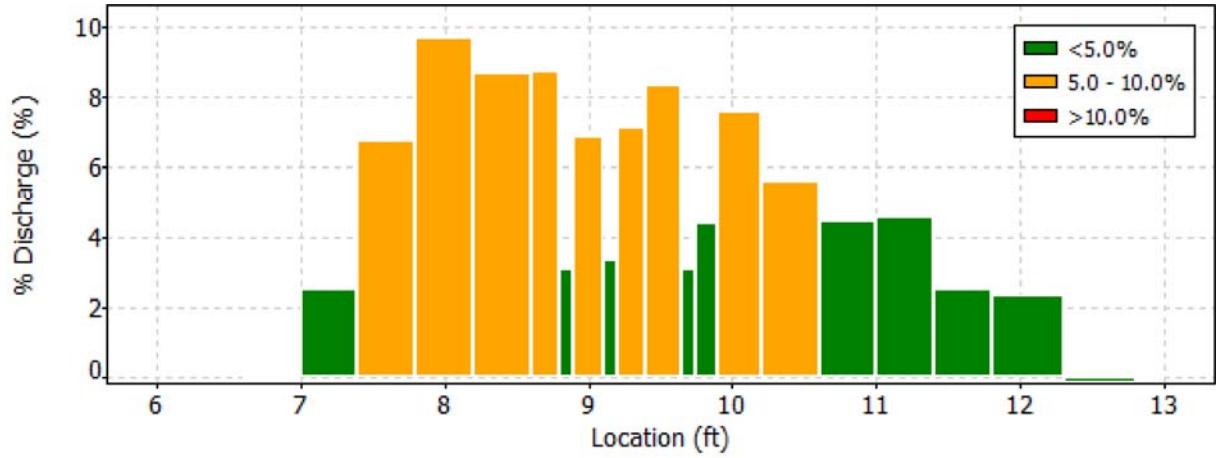
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:30	6.00	None	0.250	0.0	0.0	0.0000	1.00	0.1302	0.050	0.0065	0.0
1	*14:30*	*6.40*	*0.6*	*0.400*	*0.6*	*0.160*	*0.1302*	*1.00*	*0.1302*	*0.160*	*0.0208*	*0.1*
2	*14:31*	*6.80*	*0.6*	*0.400*	*0.6*	*0.160*	*-0.1007*	*1.00*	*-0.1007*	*0.160*	*-0.0161*	*-0.1*
3	*14:32*	*7.20*	*0.6*	*0.900*	*0.6*	*0.360*	*0.9908*	*1.00*	*0.9908*	*0.360*	*0.3566*	*2.5*
4	*14:34*	*7.60*	*0.6*	*0.800*	*0.6*	*0.320*	*2.9603*	*1.00*	*2.9603*	*0.320*	*0.9470*	*6.7*
5	14:35	8.00	0.6	1.100	0.6	0.440	3.1017	1.00	3.1017	0.440	1.3646	9.7
6	14:36	8.40	0.6	0.900	0.6	0.360	3.4049	1.00	3.4049	0.360	1.2255	8.7
7	14:37	8.80	0.6	1.100	0.6	0.440	5.5873	1.00	5.5873	0.220	1.2301	8.8
8	*14:51*	*8.80*	*0.6*	*0.900*	*0.6*	*0.360*	*4.8005*	*1.00*	*4.8005*	*0.090*	*0.4330*	*3.1*
9	*14:47*	*9.00*	*0.6*	*0.800*	*0.6*	*0.320*	*6.0246*	*1.00*	*6.0246*	*0.160*	*0.9628*	*6.9*
10	*14:38*	*9.20*	*0.6*	*0.900*	*0.6*	*0.360*	*5.3271*	*1.00*	*5.3271*	*0.090*	*0.4797*	*3.4*
11	*14:49*	*9.20*	*0.6*	*0.900*	*0.6*	*0.360*	*5.5984*	*1.00*	*5.5984*	*0.180*	*1.0075*	*7.2*
12	14:39	9.60	0.6	1.000	0.6	0.400	4.7152	1.00	4.7152	0.250	1.1788	8.4
13	14:54	9.70	0.6	0.900	0.6	0.360	4.8714	1.00	4.8714	0.090	0.4394	3.1
14	14:50	9.80	0.6	0.900	0.6	0.360	4.6184	1.00	4.6184	0.135	0.6218	4.4
15	14:40	10.00	0.6	0.950	0.6	0.380	3.7598	1.00	3.7598	0.285	1.0706	7.6
16	*14:41*	*10.40*	*0.6*	*0.800*	*0.6*	*0.320*	*2.4738*	*1.00*	*2.4738*	*0.320*	*0.7913*	*5.6*
17	*14:42*	*10.80*	*0.6*	*0.750*	*0.6*	*0.300*	*2.0974*	*1.00*	*2.0974*	*0.300*	*0.6291*	*4.5*
18	*14:43*	*11.20*	*0.6*	*0.750*	*0.6*	*0.300*	*2.1371*	*1.00*	*2.1371*	*0.300*	*0.6410*	*4.6*
19	*14:44*	*11.60*	*0.6*	*0.600*	*0.6*	*0.240*	*1.4823*	*1.00*	*1.4823*	*0.240*	*0.3557*	*2.5*
20	*14:46*	*12.00*	*0.6*	*0.500*	*0.6*	*0.200*	*1.3323*	*1.00*	*1.3323*	*0.250*	*0.3334*	*2.4*
21	*14:53*	*12.60*	*0.6*	*0.450*	*0.6*	*0.180*	*-0.1086*	*1.00*	*-0.1086*	*0.225*	*-0.0245*	*-0.2*
22	14:53	13.00	None	0.400	0.0	0.0	0.0000	1.00	-0.1086	0.080	-0.0087	-0.1

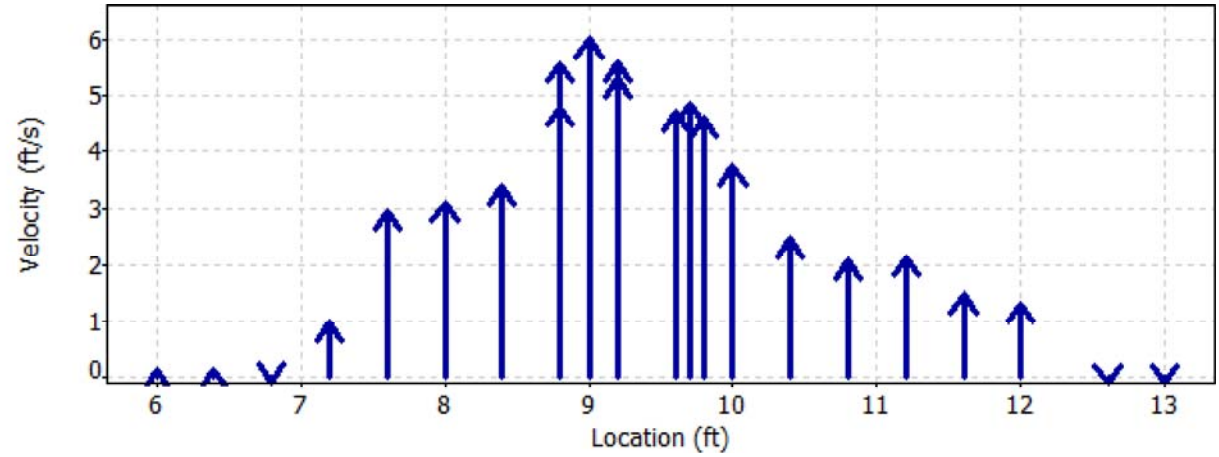
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

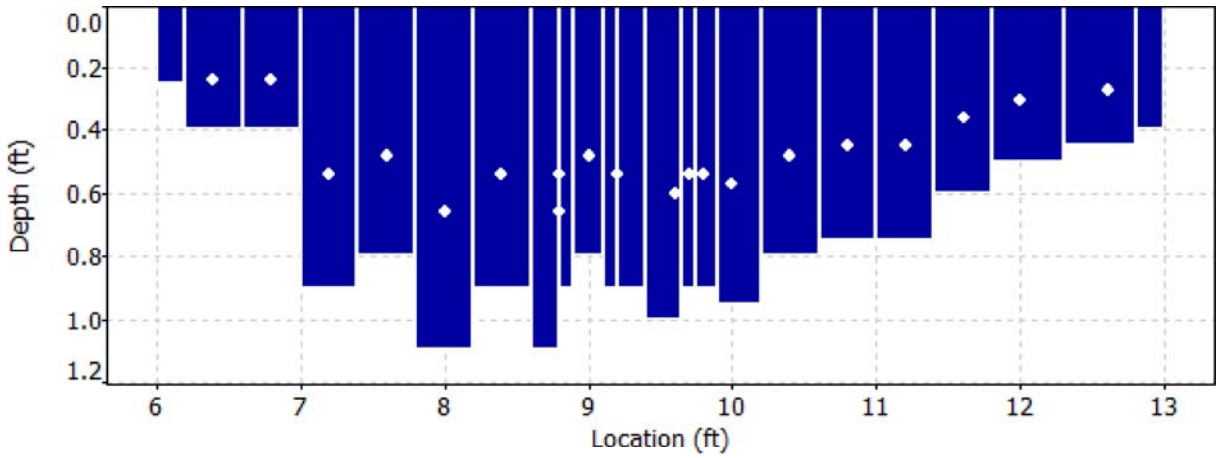
Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information		Site Details	
File Name	A5851617.WAD	Site Name	A58
Start Date and Time	2017/05/16 14:30:24	Operator(s)	RM







Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information		Site Details	
File Name	A5851617.WAD	Site Name	A58
Start Date and Time	2017/05/16 14:30:24	Operator(s)	RM

Quality Control

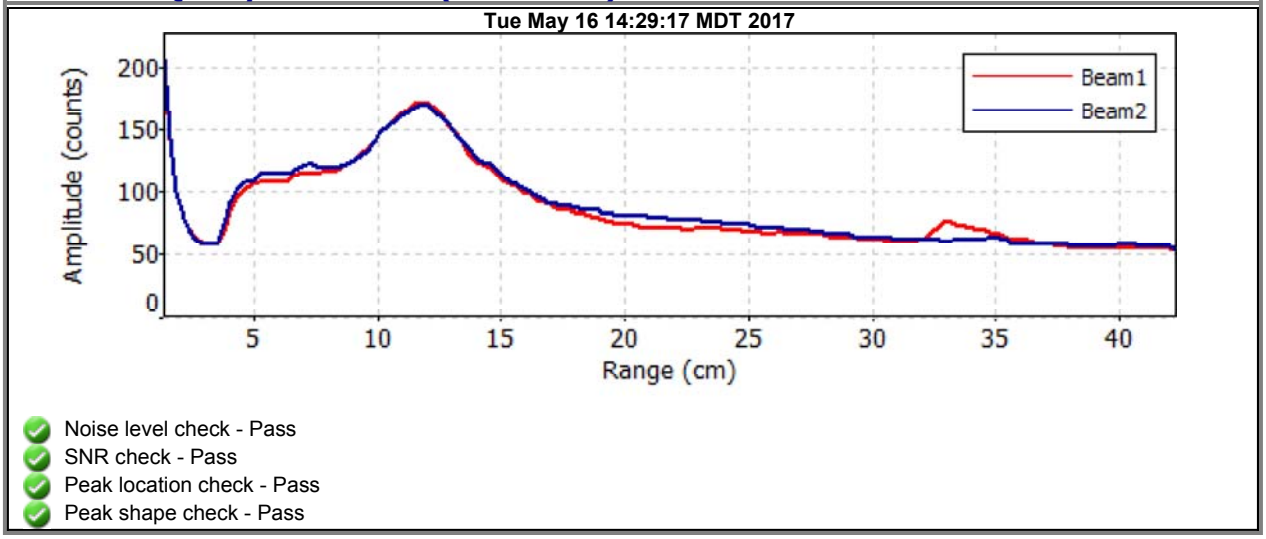
St	Loc	%Dep	Message
1	6.40	0.6	High angle: -56
2	6.80	0.6	High angle: -165
		0.6	SNR (27.9) is different from typical SNR (49.2)
		0.6	Boundary QC is Fair; possible boundary interference
3	7.20	0.6	High standard error: 0.206
4	7.60	0.6	High number of spikes: 6
8	8.80	0.6	High SNR variation during measurement: 3.0,7.3
		0.6	High standard error: 0.248
9	9.00	0.6	High SNR variation during measurement: 3.0,10.3
		0.6	High standard error: 0.306
10	9.20	0.6	High number of spikes: 6
11	9.20	0.6	High number of spikes: 7
16	10.40	0.6	High angle: -22
17	10.80	0.6	High angle: -36
18	11.20	0.6	High angle: -38
19	11.60	0.6	High angle: -44
20	12.00	0.6	High angle: -33
21	12.60	0.6	High number of spikes: 5
		0.6	High angle: 100

Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information		Site Details	
File Name	A5851617.WAD	Site Name	A58
Start Date and Time	2017/05/16 14:30:24	Operator(s)	RM

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information

File Name	M0751617.WAD
Start Date and Time	2017/05/16 12:20:36

Site Details

Site Name	M07
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	2.8%
Velocity	0.8%	2.4%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.1%	-
Overall	**3.1%**	**3.9%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	REW	Total Width	15.000
Mean SNR	50.9 dB	Total Area	13.750
Mean Temp	35.71 °F	Mean Depth	0.917
Disch. Equation	Mid-Section	Mean Velocity	2.0732
		Total Discharge	**28.5066**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	12:20	5.00	None	0.400	0.0	0.0	0.0000	1.00	1.1781	0.150	0.1767	0.6
1	*12:20*	*5.75*	*0.6*	*0.700*	*0.6*	*0.280*	*1.1781*	*1.00*	*1.1781*	*0.525*	*0.6186*	*2.2*
2	12:22	6.50	0.6	0.700	0.6	0.280	1.4216	1.00	1.4216	0.525	0.7465	2.6
3	12:23	7.25	0.6	1.300	0.6	0.520	2.5282	1.00	2.5282	0.975	2.4648	8.6
4	12:24	8.00	0.6	1.500	0.6	0.600	2.6699	1.00	2.6699	0.862	2.3027	8.1
5	12:46	8.40	0.6	1.100	0.6	0.440	2.5906	1.00	2.5906	0.413	1.0687	3.7
6	12:26	8.75	0.6	1.500	0.6	0.600	2.9416	1.00	2.9416	0.450	1.3239	4.6
7	12:43	9.00	0.6	1.400	0.6	0.560	2.9478	1.00	2.9478	0.525	1.5475	5.4
8	12:27	9.50	0.6	1.400	0.6	0.560	2.9186	1.00	2.9186	0.700	2.0429	7.2
9	12:44	10.00	0.6	1.400	0.6	0.560	3.0344	1.00	3.0344	0.525	1.5930	5.6
10	12:28	10.25	0.6	1.500	0.6	0.600	2.8294	1.00	2.8294	0.750	2.1220	7.4
11	12:29	11.00	0.6	1.500	0.6	0.600	2.4429	1.00	2.4429	1.125	2.7483	9.6
12	*12:30*	*11.75*	*0.6*	*1.100*	*0.6*	*0.440*	*2.4800*	*1.00*	*2.4800*	*0.825*	*2.0461*	*7.2*
13	*12:32*	*12.50*	*0.6*	*1.100*	*0.6*	*0.440*	*1.6391*	*1.00*	*1.6391*	*0.825*	*1.3523*	*4.7*
14	*12:33*	*13.25*	*0.6*	*1.000*	*0.6*	*0.400*	*1.8501*	*1.00*	*1.8501*	*0.750*	*1.3875*	*4.9*
15	*12:34*	*14.00*	*0.6*	*0.800*	*0.6*	*0.320*	*1.2520*	*1.00*	*1.2520*	*0.600*	*0.7511*	*2.6*
16	*12:35*	*14.75*	*0.6*	*0.800*	*0.6*	*0.320*	*1.7008*	*1.00*	*1.7008*	*0.600*	*1.0203*	*3.6*
17	*12:36*	*15.50*	*0.6*	*0.700*	*0.6*	*0.280*	*1.6539*	*1.00*	*1.6539*	*0.525*	*0.8684*	*3.0*
18	*12:37*	*16.25*	*0.6*	*0.600*	*0.6*	*0.240*	*1.3809*	*1.00*	*1.3809*	*0.450*	*0.6215*	*2.2*
19	*12:38*	*17.00*	*0.6*	*0.500*	*0.6*	*0.200*	*1.2484*	*1.00*	*1.2484*	*0.375*	*0.4681*	*1.6*
20	*12:40*	*17.75*	*0.6*	*0.500*	*0.6*	*0.200*	*1.2326*	*1.00*	*1.2326*	*0.375*	*0.4622*	*1.6*
21	12:41	18.50	0.6	0.500	0.6	0.200	1.0656	1.00	1.0656	0.375	0.3996	1.4
22	*12:42*	*19.25*	*0.6*	*0.500*	*0.6*	*0.200*	*0.7119*	*1.00*	*0.7119*	*0.375*	*0.2670*	*0.9*
23	12:42	20.00	None	0.400	0.0	0.0	0.0000	1.00	0.7119	0.150	0.1068	0.4

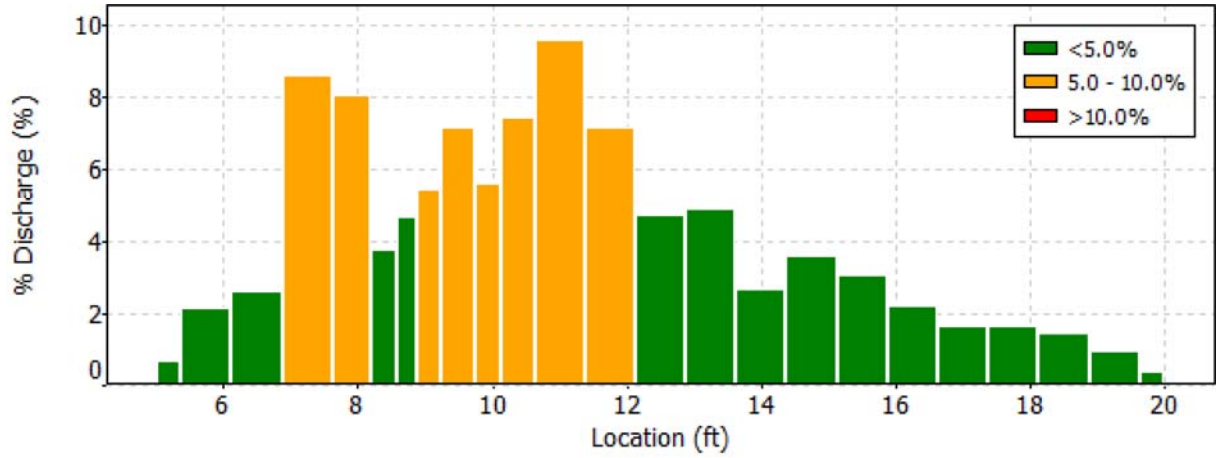
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

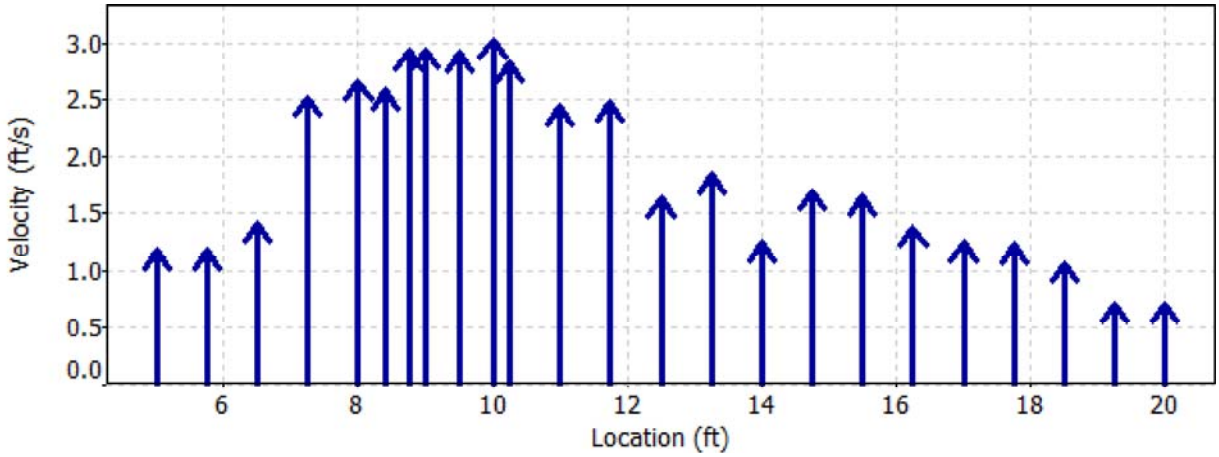
Discharge Measurement Summary

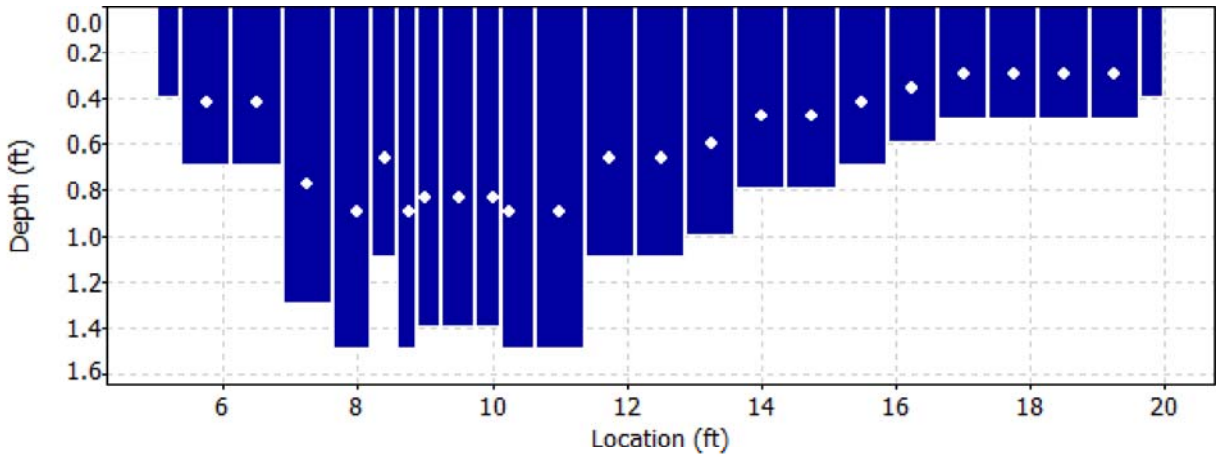
Date Generated: Wed May 24 2017

File Information	
File Name	M0751617.WAD
Start Date and Time	2017/05/16 12:20:36

Site Details	
Site Name	M07
Operator(s)	EY







Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information

File Name	M0751617.WAD
Start Date and Time	2017/05/16 12:20:36

Site Details

Site Name	M07
Operator(s)	EY

Quality Control

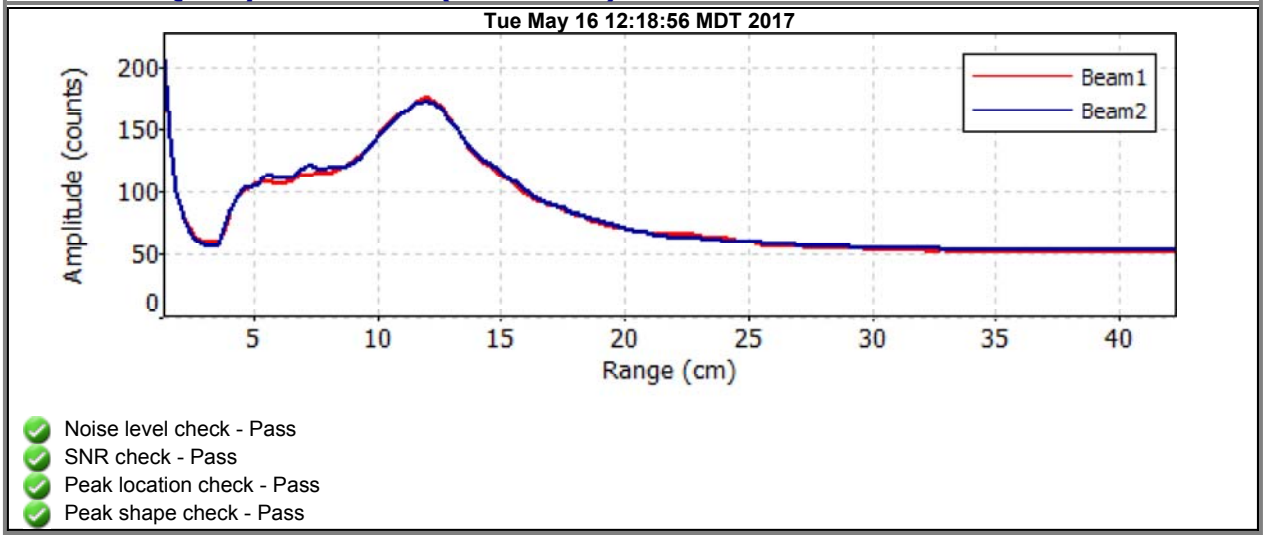
St	Loc	%Dep	Message
1	5.75	0.6	High angle: 40
12	11.75	0.6	High angle: 24
13	12.50	0.6	High angle: 36
14	13.25	0.6	High angle: 34
15	14.00	0.6	High angle: 49
16	14.75	0.6	High angle: 36
17	15.50	0.6	High angle: 43
18	16.25	0.6	High angle: 48
19	17.00	0.6	High angle: 49
20	17.75	0.6	High angle: 39
22	19.25	0.6	High angle: 20

Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information		Site Details	
File Name	M0751617.WAD	Site Name	M07
Start Date and Time	2017/05/16 12:20:36	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information

File Name	M1051617.WAD
Start Date and Time	2017/05/16 11:41:09

Site Details

Site Name	
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	2.9%
Velocity	1.1%	8.4%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.3%	-
Overall	**3.3%**	**9.0%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	17.999
Mean SNR	49.8 dB	Total Area	12.553
Mean Temp	35.99 °F	Mean Depth	0.697
Disch. Equation	Mid-Section	Mean Velocity	2.6597
		Total Discharge	**33.3871**

Measurement Results

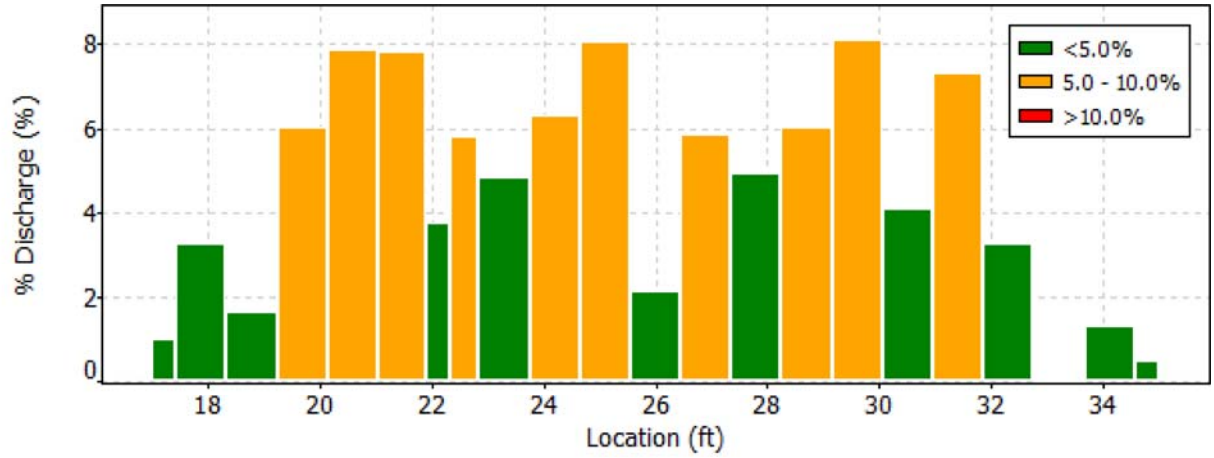
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:41	17.00	None	0.300	0.0	0.0	0.0000	1.00	2.4432	0.135	0.3297	1.0
1	11:41	17.90	0.6	0.500	0.6	0.200	2.4432	1.00	2.4432	0.450	1.0994	3.3
2	*11:42*	*18.80*	*0.6*	*0.500*	*0.6*	*0.200*	*1.2464*	*1.00*	*1.2464*	*0.450*	*0.5608*	*1.7*
3	11:43	19.70	0.6	0.800	0.6	0.320	2.7854	1.00	2.7854	0.720	2.0050	6.0
4	11:44	20.60	0.6	1.000	0.6	0.400	2.9278	1.00	2.9278	0.900	2.6348	7.9
5	11:45	21.50	0.6	1.000	0.6	0.400	3.0679	1.00	3.0679	0.850	2.6079	7.8
6	12:02	22.30	0.6	0.900	0.6	0.360	3.1093	1.00	3.1093	0.405	1.2591	3.8
7	11:46	22.40	0.6	1.000	0.6	0.400	3.8599	1.00	3.8599	0.500	1.9293	5.8
8	11:47	23.30	0.6	0.900	0.6	0.360	1.9879	1.00	1.9879	0.810	1.6099	4.8
9	*11:48*	*24.20*	*0.6*	*0.900*	*0.6*	*0.360*	*2.6079*	*1.00*	*2.6079*	*0.810*	*2.1121*	*6.3*
10	11:49	25.10	0.6	0.800	0.6	0.320	3.7461	1.00	3.7461	0.720	2.6965	8.1
11	11:51	26.00	0.6	0.500	0.6	0.200	1.6056	1.00	1.6056	0.450	0.7225	2.2
12	11:52	26.90	0.6	0.500	0.6	0.200	4.3343	1.00	4.3343	0.450	1.9503	5.8
13	11:53	27.80	0.6	0.500	0.6	0.200	3.6788	1.00	3.6788	0.450	1.6553	5.0
14	11:54	28.70	0.6	0.500	0.6	0.200	4.4856	1.00	4.4856	0.450	2.0184	6.0
15	11:55	29.60	0.6	0.900	0.6	0.360	3.3494	1.00	3.3494	0.810	2.7126	8.1
16	11:56	30.50	0.6	0.900	0.6	0.360	1.6831	1.00	1.6831	0.810	1.3631	4.1
17	11:57	31.40	0.6	0.800	0.6	0.320	3.3816	1.00	3.3816	0.720	2.4341	7.3
18	11:58	32.30	0.6	0.800	0.6	0.320	1.5135	1.00	1.5135	0.720	1.0894	3.3
19	*11:59*	*33.20*	*0.6*	*0.500*	*0.6*	*0.200*	*-0.0367*	*1.00*	*-0.0367*	*0.450*	*-0.0165*	*0.0*
20	12:00	34.10	0.6	0.400	0.6	0.160	1.2392	1.00	1.2392	0.360	0.4460	1.3
21	12:00	35.00	None	0.300	0.0	0.0	0.0000	1.00	1.2392	0.135	0.1672	0.5

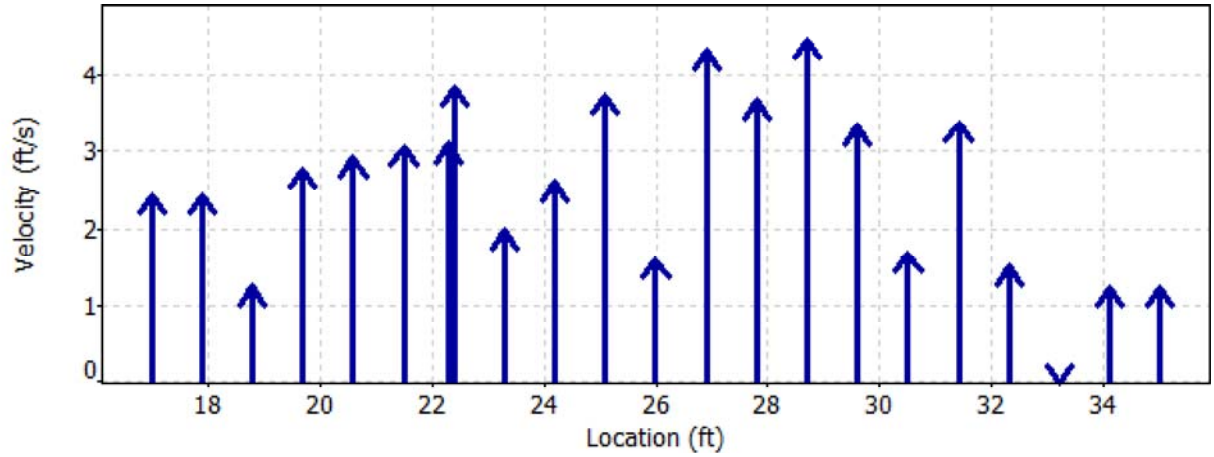
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

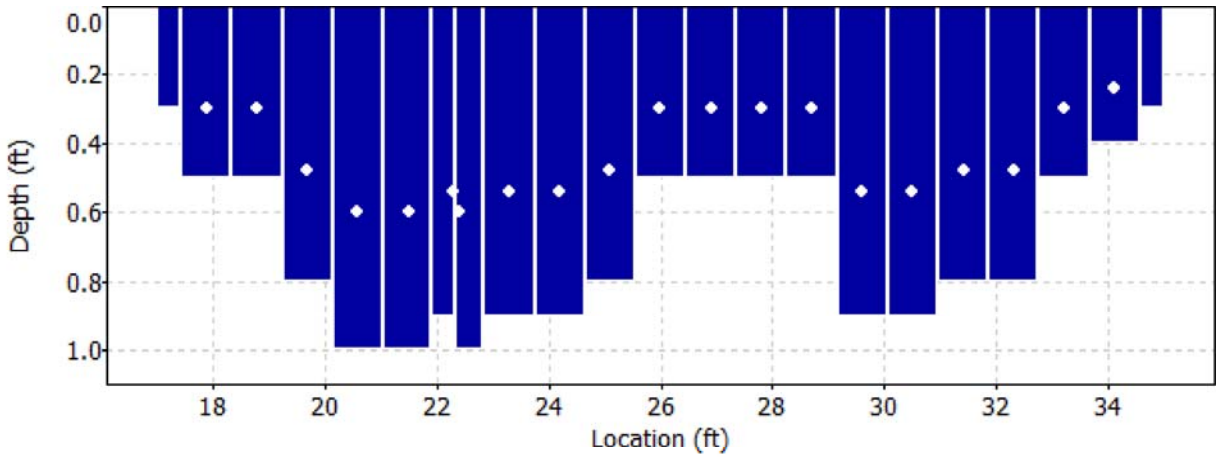
Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information		Site Details	
File Name	M1051617.WAD	Site Name	
Start Date and Time	2017/05/16 11:41:09	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information

File Name	M1051617.WAD
Start Date and Time	2017/05/16 11:41:09

Site Details

Site Name	
Operator(s)	EY

Quality Control

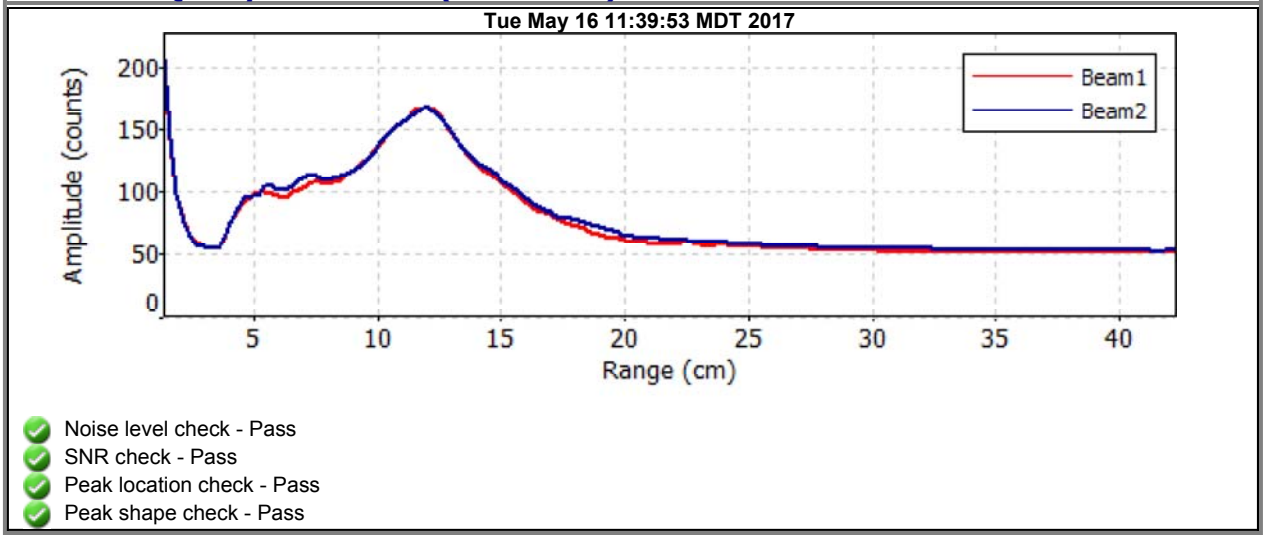
St	Loc	%Dep	Message
2	18.80	0.6	High angle: -22
9	24.20	0.6	High standard error: 0.168
19	33.20	0.6	High angle: 180

Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information		Site Details	
File Name	M1051617.WAD	Site Name	
Start Date and Time	2017/05/16 11:41:09	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information

File Name	M1151517.WAD
Start Date and Time	2017/05/16 10:37:49

Site Details

Site Name	M11
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	3.6%
Velocity	0.9%	4.3%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.2%	-
Overall	**3.2%**	**5.7%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	20.802
Mean SNR	47.8 dB	Total Area	16.651
Mean Temp	36.27 °F	Mean Depth	0.800
Disch. Equation	Mid-Section	Mean Velocity	2.8422
		Total Discharge	**47.3260**

Measurement Results

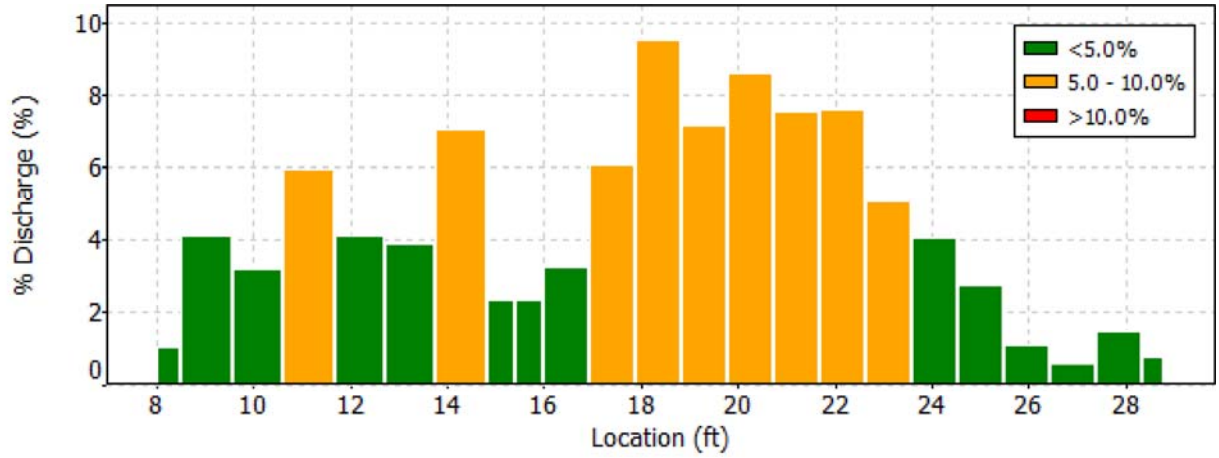
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:37	8.00	None	0.400	0.0	0.0	0.0000	1.00	2.3468	0.210	0.4927	1.0
1	10:37	9.05	0.6	0.800	0.6	0.320	2.3468	1.00	2.3468	0.840	1.9707	4.2
2	10:38	10.10	0.6	0.600	0.6	0.240	2.3953	1.00	2.3953	0.630	1.5090	3.2
3	10:40	11.15	0.6	0.900	0.6	0.360	2.9941	1.00	2.9941	0.945	2.8289	6.0
4	10:41	12.20	0.6	1.000	0.6	0.400	1.8576	1.00	1.8576	1.050	1.9502	4.1
5	*10:42*	*13.25*	*0.6*	*0.700*	*0.6*	*0.280*	*2.5272*	*1.00*	*2.5272*	*0.735*	*1.8576*	*3.9*
6	10:43	14.30	0.6	0.900	0.6	0.360	3.5538	1.00	3.5538	0.945	3.3577	7.1
7	*10:45*	*15.35*	*0.6*	*0.900*	*0.6*	*0.360*	*2.0518*	*1.00*	*2.0518*	*0.540*	*1.1086*	*2.3*
8	10:46	15.50	0.6	0.900	0.6	0.360	2.2536	1.00	2.2536	0.495	1.1165	2.4
9	*10:47*	*16.45*	*0.6*	*1.000*	*0.6*	*0.400*	*1.6184*	*1.00*	*1.6184*	*0.950*	*1.5377*	*3.2*
10	*10:49*	*17.40*	*0.6*	*1.100*	*0.6*	*0.440*	*2.7526*	*1.00*	*2.7526*	*1.045*	*2.8771*	*6.1*
11	10:50	18.35	0.6	1.200	0.6	0.480	3.9810	1.00	3.9810	1.140	4.5394	9.6
12	10:51	19.30	0.6	0.900	0.6	0.360	3.9843	1.00	3.9843	0.855	3.4068	7.2
13	10:53	20.25	0.6	1.200	0.6	0.480	3.5951	1.00	3.5951	1.140	4.0995	8.7
14	10:54	21.20	0.6	1.000	0.6	0.400	3.7808	1.00	3.7808	0.950	3.5923	7.6
15	10:56	22.15	0.6	1.000	0.6	0.400	3.7989	1.00	3.7989	0.950	3.6094	7.6
16	10:57	23.10	0.6	0.800	0.6	0.320	3.1788	1.00	3.1788	0.760	2.4158	5.1
17	11:00	24.05	0.6	0.800	0.6	0.320	2.5407	1.00	2.5407	0.760	1.9309	4.1
18	11:01	25.00	0.6	0.600	0.6	0.240	2.3022	1.00	2.3022	0.570	1.3126	2.8
19	11:02	25.95	0.6	0.200	0.6	0.080	2.6591	1.00	2.6591	0.190	0.5056	1.1
20	11:03	26.90	0.6	0.400	0.6	0.160	0.7277	1.00	0.7277	0.380	0.2765	0.6
21	11:04	27.85	0.6	0.400	0.6	0.160	1.8077	1.00	1.8077	0.380	0.6869	1.5
22	11:04	28.80	None	0.400	0.0	0.0	0.0000	1.00	1.8077	0.190	0.3435	0.7

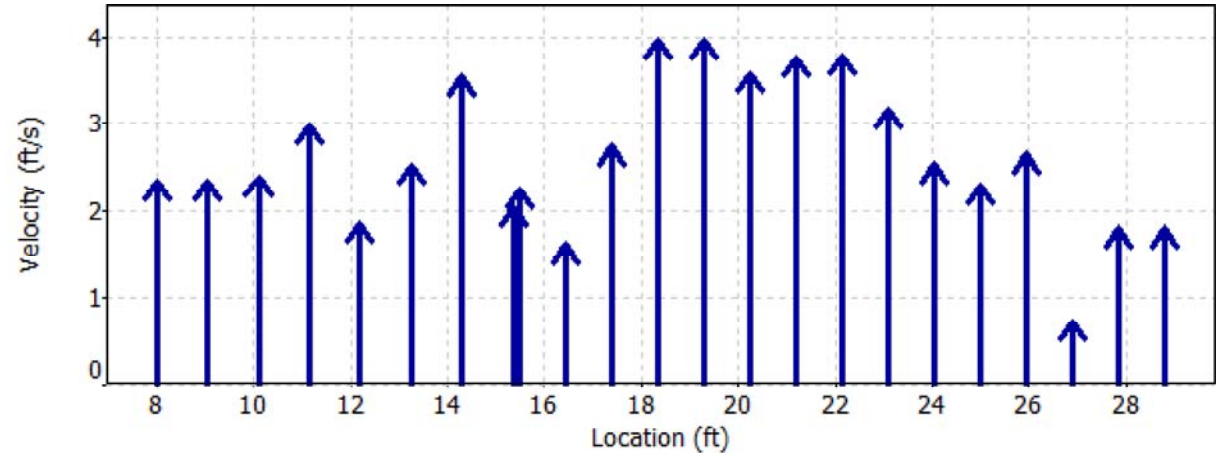
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

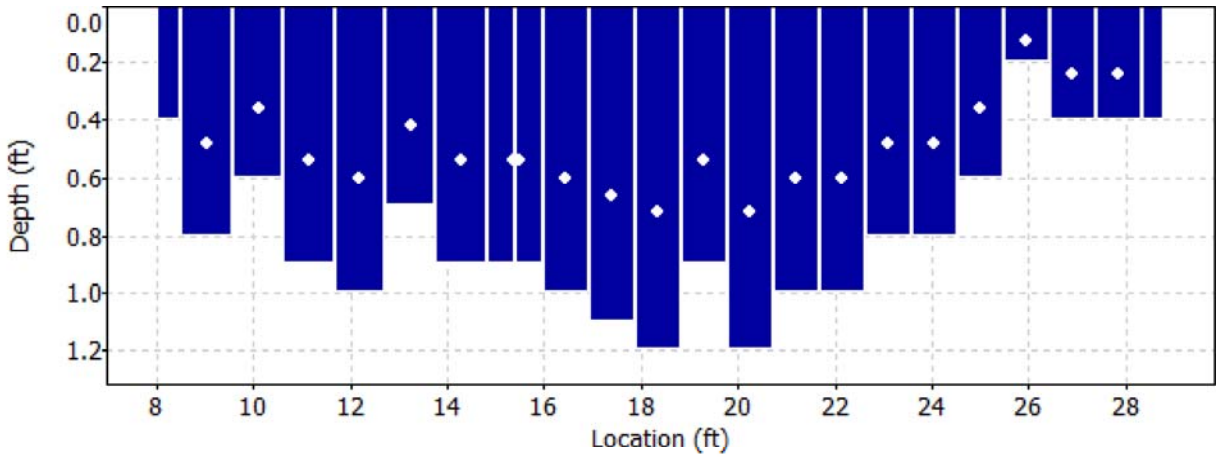
Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information		Site Details	
File Name	M1151517.WAD	Site Name	M11
Start Date and Time	2017/05/16 10:37:49	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information	
File Name	M1151517.WAD
Start Date and Time	2017/05/16 10:37:49

Site Details	
Site Name	M11
Operator(s)	EY

Quality Control

St	Loc	%Dep	Message
5	13.25	0.6	High standard error: 0.133
7	15.35	0.6	High angle: 23
9	16.45	0.6	High standard error: 0.144
10	17.40	0.6	High angle: -21

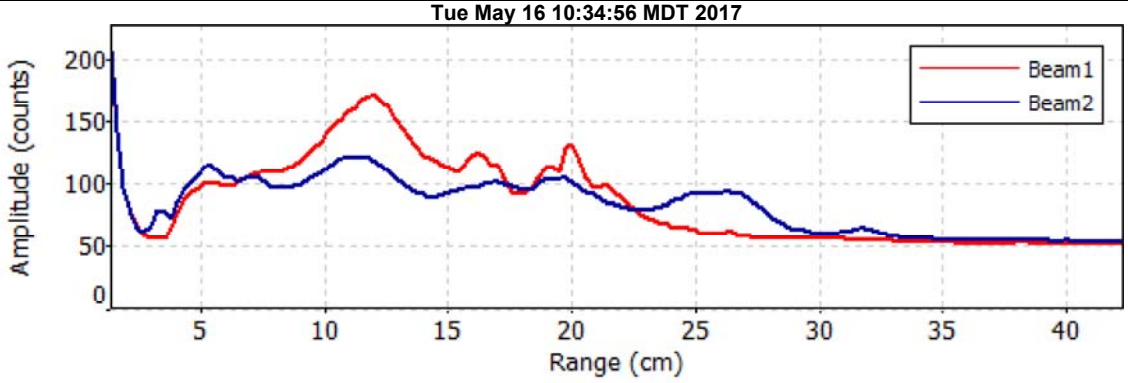
Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information		Site Details	
File Name	M1151517.WAD	Site Name	M11
Start Date and Time	2017/05/16 10:37:49	Operator(s)	EY

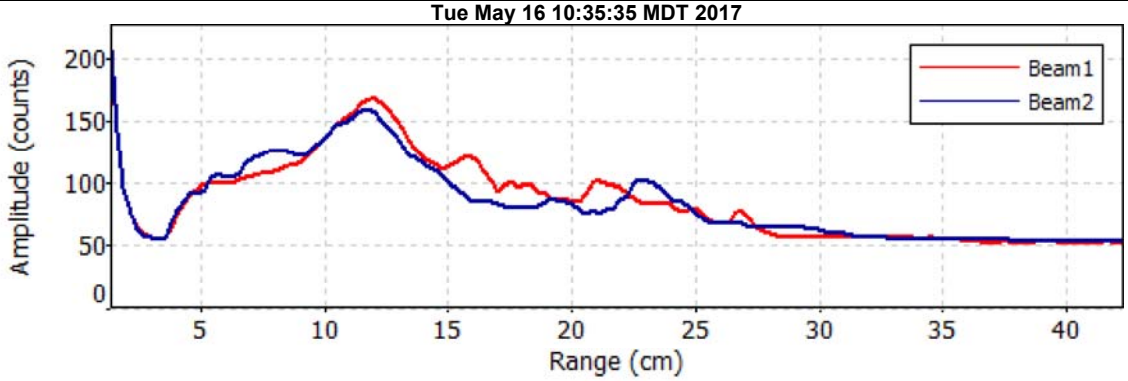
Automatic Quality Control Test (BeamCheck)

Tue May 16 10:34:56 MDT 2017



- Noise level check - Pass
- SNR check - Fail
  - High differences in beam SNR: 45.0,29.2
- Peak location check - Pass
- Peak shape check - Pass

Tue May 16 10:35:35 MDT 2017



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information

File Name	M14A516.WAD
Start Date and Time	2017/05/16 09:44:08

Site Details

Site Name	M14A
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.1%	2.3%
Velocity	1.0%	6.9%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.1%	-
Overall	**3.2%**	**7.3%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	REW	Total Width	20.000
Mean SNR	51.9 dB	Total Area	23.038
Mean Temp	36.97 °F	Mean Depth	1.152
Disch. Equation	Mid-Section	Mean Velocity	2.8008
		Total Discharge	**64.5233**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:44	5.00	None	0.100	0.0	0.0	0.0000	1.00	0.7008	0.050	0.0351	0.1
1	09:44	6.00	0.6	0.250	0.6	0.100	0.7008	1.00	0.7008	0.250	0.1752	0.3
2	09:45	7.00	0.6	0.400	0.6	0.160	0.3366	1.00	0.3366	0.400	0.1346	0.2
3	*09:46*	*8.00*	*0.6*	*0.600*	*0.6*	*0.240*	*1.0381*	*1.00*	*1.0381*	*0.600*	*0.6229*	*1.0*
4	09:47	9.00	0.6	0.800	0.6	0.320	1.5817	1.00	1.5817	0.800	1.2651	2.0
5	09:48	10.00	0.6	0.900	0.6	0.360	3.1414	1.00	3.1414	0.900	2.8271	4.4
6	*09:49*	*11.00*	*0.6*	*1.050*	*0.6*	*0.420*	*1.0384*	*1.00*	*1.0384*	*1.050*	*1.0902*	*1.7*
7	09:50	12.00	0.6	1.200	0.6	0.480	4.5036	1.00	4.5036	1.200	5.4049	8.4
8	09:51	13.00	0.6	1.200	0.6	0.480	4.4216	1.00	4.4216	1.200	5.3065	8.2
9	09:52	14.00	0.6	1.400	0.6	0.560	4.4528	1.00	4.4528	1.400	6.2336	9.7
10	09:53	15.00	0.6	1.550	0.6	0.620	4.3182	1.00	4.3182	1.162	5.0195	7.8
11	10:08	15.50	0.6	1.850	0.6	0.740	3.8953	1.00	3.8953	0.925	3.6033	5.6
12	09:55	16.00	0.6	2.000	0.6	0.800	2.5748	1.00	2.5748	1.000	2.5748	4.0
13	10:06	16.50	0.6	2.000	0.6	0.800	4.4823	1.00	4.4823	1.000	4.4823	6.9
14	09:56	17.00	0.6	1.600	0.6	0.640	4.4728	1.00	4.4728	0.800	3.5784	5.5
15	10:07	17.50	0.6	1.850	0.6	0.740	5.1785	1.00	5.1785	0.925	4.7903	7.4
16	09:57	18.00	0.6	1.600	0.6	0.640	4.1870	1.00	4.1870	1.200	5.0246	7.8
17	*09:58*	*19.00*	*0.6*	*1.800*	*0.6*	*0.720*	*1.4216*	*1.00*	*1.4216*	*1.800*	*2.5587*	*4.0*
18	09:59	20.00	0.6	1.300	0.6	0.520	1.9288	1.00	1.9288	1.300	2.5072	3.9
19	10:00	21.00	0.6	1.200	0.6	0.480	2.0079	1.00	2.0079	1.200	2.4097	3.7
20	10:01	22.00	0.6	1.200	0.6	0.480	2.5656	1.00	2.5656	1.200	3.0791	4.8
21	10:03	23.00	0.6	1.100	0.6	0.440	1.0860	1.00	1.0860	1.100	1.1946	1.9
22	*10:04*	*24.00*	*0.6*	*1.100*	*0.6*	*0.440*	*0.3845*	*1.00*	*0.3845*	*1.100*	*0.4230*	*0.7*
23	10:04	25.00	None	0.950	0.0	0.0	0.0000	1.00	0.3845	0.475	0.1827	0.3

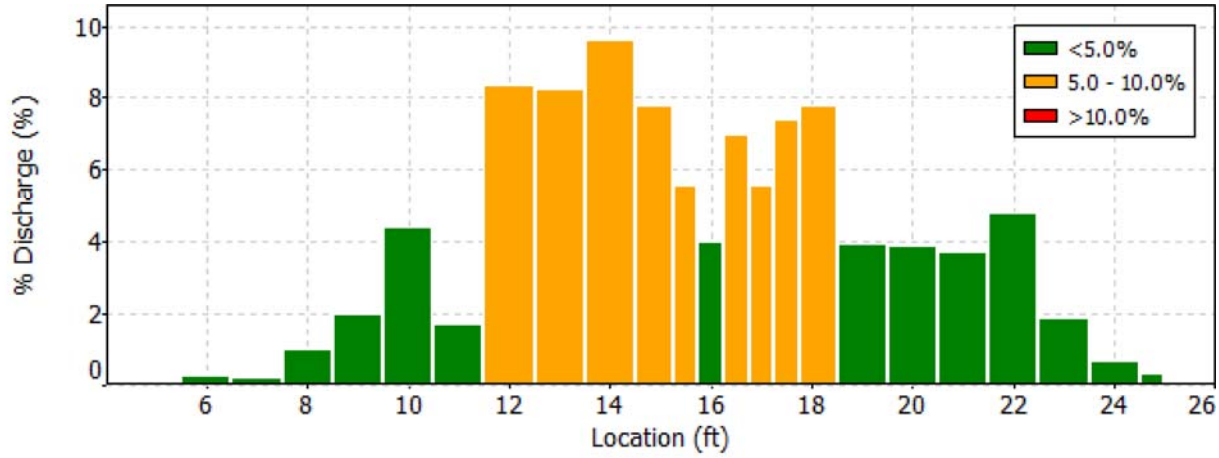
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

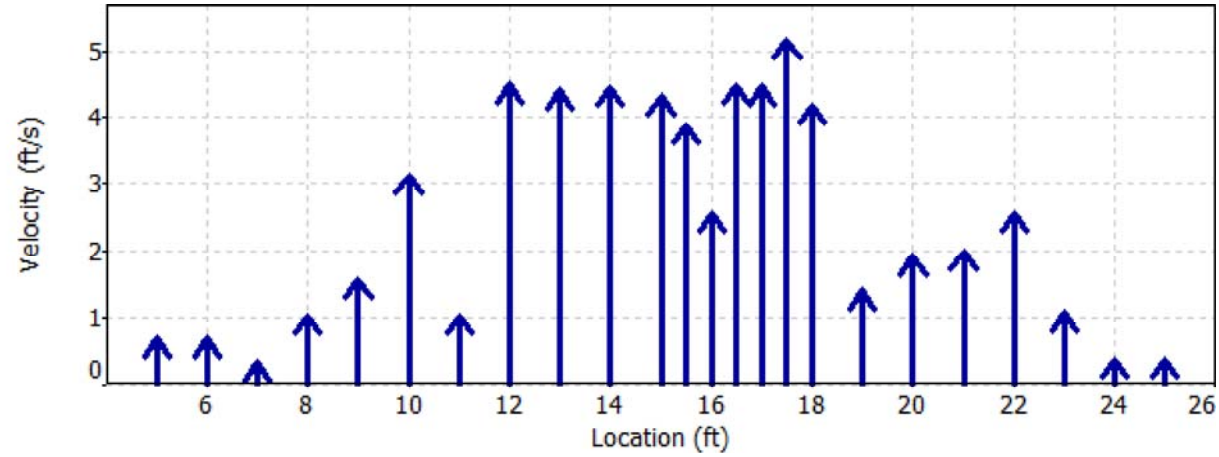
Discharge Measurement Summary

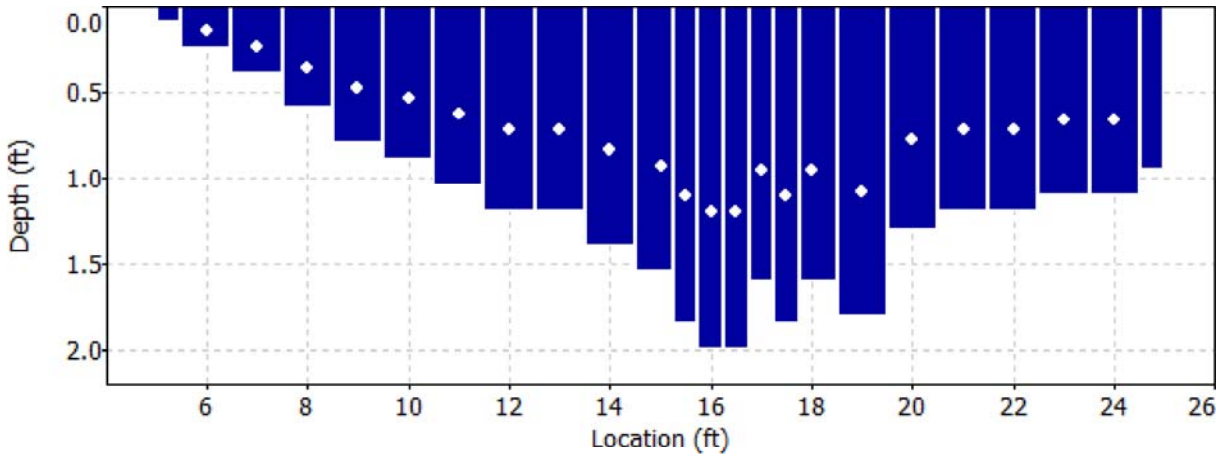
Date Generated: Wed May 24 2017

File Information	
File Name	M14A516.WAD
Start Date and Time	2017/05/16 09:44:08

Site Details	
Site Name	M14A
Operator(s)	RM







Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information	
File Name	M14A516.WAD
Start Date and Time	2017/05/16 09:44:08

Site Details	
Site Name	M14A
Operator(s)	RM

Quality Control

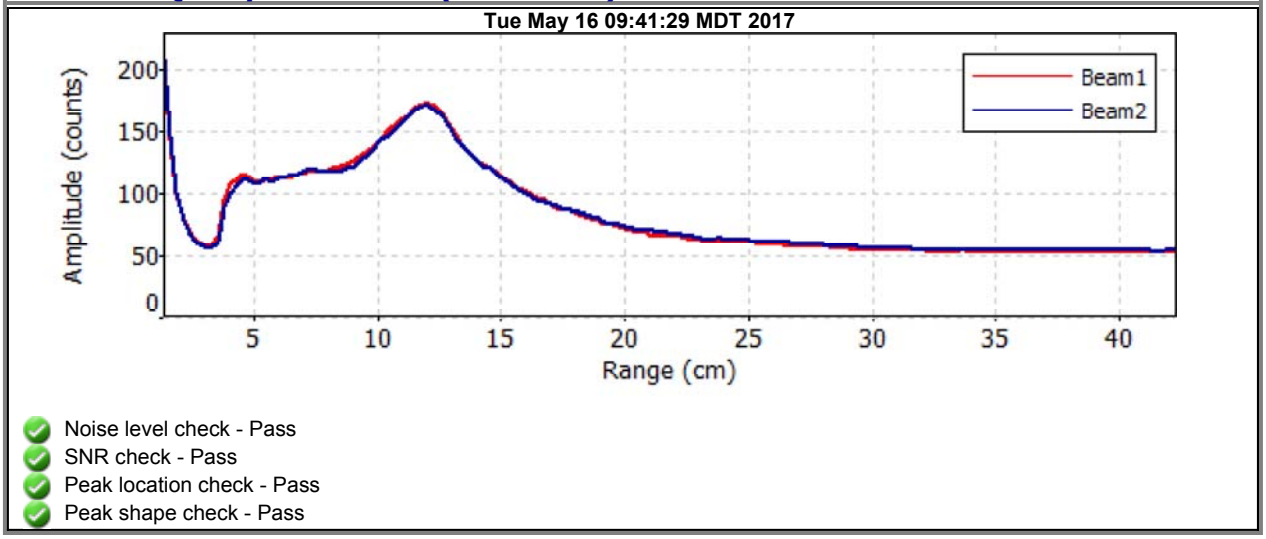
St	Loc	%Dep	Message
3	8.00	0.6	High angle: -24
6	11.00	0.6	High standard error: 0.157
17	19.00	0.6	High standard error: 0.159
22	24.00	0.6	High angle: 26

Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information		Site Details	
File Name	M14A516.WAD	Site Name	M14A
Start Date and Time	2017/05/16 09:44:08	Operator(s)	RM

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information

File Name	M2751617.WAD
Start Date and Time	2017/05/16 08:44:19

Site Details

Site Name	M27
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.1%	1.6%
Velocity	1.0%	2.7%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.1%	-
Overall	**3.2%**	**3.3%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	REW	Total Width	30.000
Mean SNR	50.3 dB	Total Area	35.061
Mean Temp	35.14 °F	Mean Depth	1.169
Disch. Equation	Mid-Section	Mean Velocity	3.2733
		Total Discharge	**114.7651**

Measurement Results

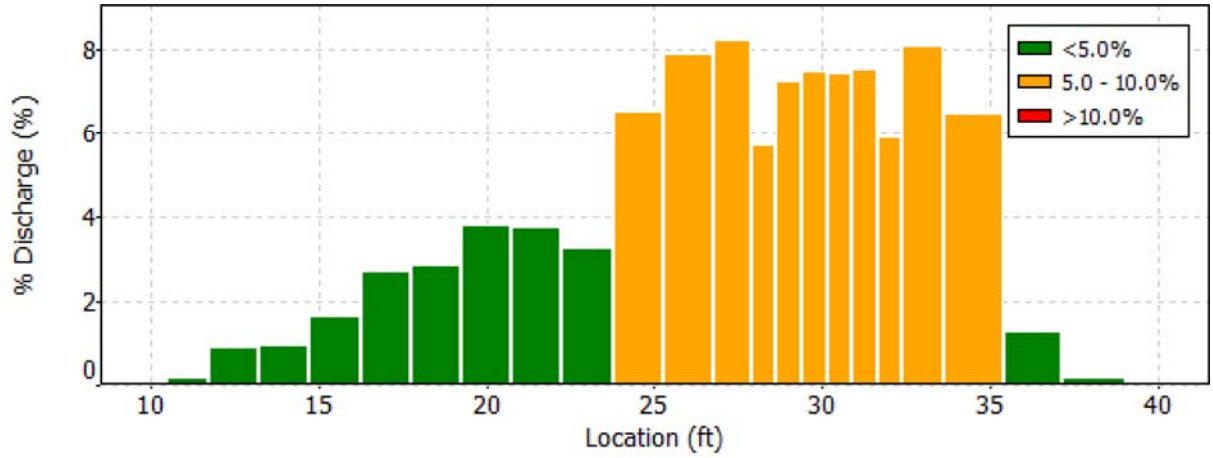
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:44	10.00	None	0.100	0.0	0.0	0.0000	1.00	0.7543	0.050	0.0377	0.0
1	08:44	11.00	0.6	0.200	0.6	0.080	0.7543	1.00	0.7543	0.250	0.1887	0.2
2	08:45	12.50	0.6	0.450	0.6	0.180	1.5151	1.00	1.5151	0.675	1.0230	0.9
3	*08:46*	*14.00*	*0.6*	*0.590*	*0.6*	*0.236*	*1.1982*	*1.00*	*1.1982*	*0.885*	*1.0602*	*0.9*
4	*08:47*	*15.50*	*0.6*	*0.700*	*0.6*	*0.280*	*1.8048*	*1.00*	*1.8048*	*1.050*	*1.8954*	*1.7*
5	08:48	17.00	0.6	0.800	0.6	0.320	2.5830	1.00	2.5830	1.200	3.0991	2.7
6	*08:49*	*18.50*	*0.6*	*1.200*	*0.6*	*0.480*	*1.8143*	*1.00*	*1.8143*	*1.800*	*3.2661*	*2.8*
7	08:50	20.00	0.6	1.200	0.6	0.480	2.4209	1.00	2.4209	1.800	4.3582	3.8
8	08:52	21.50	0.6	1.300	0.6	0.520	2.1946	1.00	2.1946	1.950	4.2789	3.7
9	08:53	23.00	0.6	1.200	0.6	0.480	2.0974	1.00	2.0974	1.800	3.7758	3.3
10	08:54	24.50	0.6	1.400	0.6	0.560	3.5686	1.00	3.5686	2.100	7.4936	6.5
11	08:55	26.00	0.6	1.650	0.6	0.660	3.6624	1.00	3.6624	2.475	9.0641	7.9
12	08:56	27.50	0.6	1.800	0.6	0.720	4.6759	1.00	4.6759	2.025	9.4679	8.2
13	09:10	28.25	0.6	1.700	0.6	0.680	5.1509	1.00	5.1509	1.275	6.5679	5.7
14	08:57	29.00	0.6	2.000	0.6	0.800	5.5272	1.00	5.5272	1.500	8.2908	7.2
15	08:59	29.75	0.6	2.000	0.6	0.800	5.7247	1.00	5.7247	1.500	8.5871	7.5
16	08:58	30.50	0.6	2.000	0.6	0.800	5.6982	1.00	5.6982	1.500	8.5472	7.4
17	09:01	31.25	0.6	1.900	0.6	0.760	6.0463	1.00	6.0463	1.425	8.6156	7.5
18	09:02	32.00	0.6	2.000	0.6	0.800	4.5072	1.00	4.5072	1.500	6.7608	5.9
19	*09:03*	*32.75*	*0.6*	*1.800*	*0.6*	*0.720*	*4.1368*	*1.00*	*4.1368*	*2.250*	*9.3071*	*8.1*
20	*09:05*	*34.50*	*0.6*	*1.700*	*0.6*	*0.680*	*2.4931*	*1.00*	*2.4931*	*2.975*	*7.4176*	*6.5*
21	09:06	36.25	0.6	1.000	0.6	0.400	0.8186	1.00	0.8186	1.750	1.4325	1.2
22	*09:07*	*38.00*	*0.6*	*0.600*	*0.6*	*0.240*	*0.1732*	*1.00*	*0.1732*	*1.125*	*0.1949*	*0.2*
23	09:07	40.00	None	0.200	0.0	0.0	0.0000	1.00	0.1732	0.200	0.0347	0.0

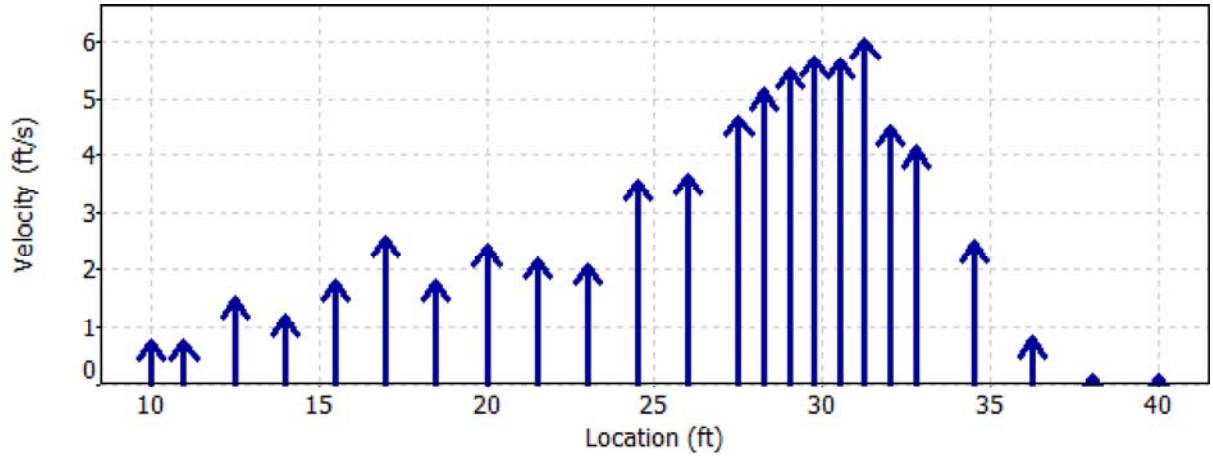
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

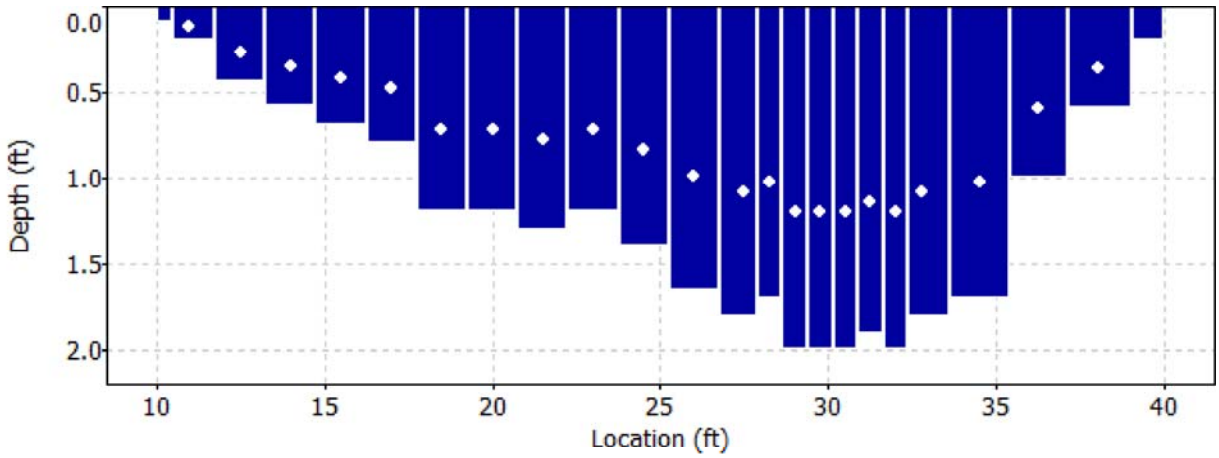
Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information		Site Details	
File Name	M2751617.WAD	Site Name	M27
Start Date and Time	2017/05/16 08:44:19	Operator(s)	RM







Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information		Site Details	
File Name	M2751617.WAD	Site Name	M27
Start Date and Time	2017/05/16 08:44:19	Operator(s)	RM

Quality Control

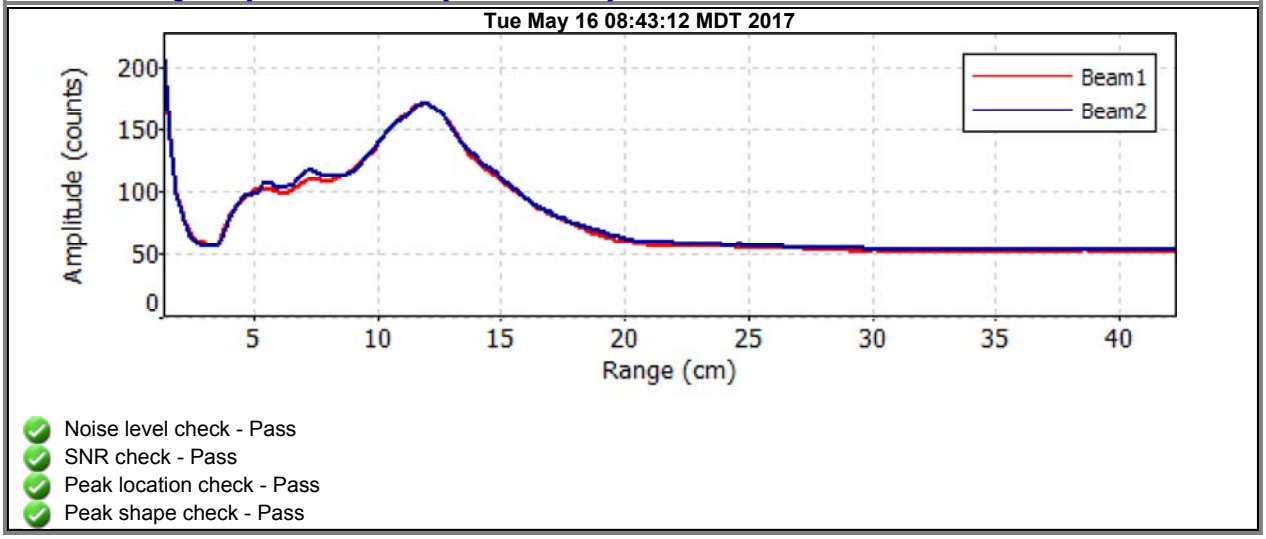
St	Loc	%Dep	Message
3	14.00	0.6	High angle: -29
4	15.50	0.6	High angle: -24
6	18.50	0.6	High angle: -20
19	32.75	0.6	High standard error: 0.222
20	34.50	0.6	High standard error: 0.193
22	38.00	0.6	High angle: 38

Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information		Site Details	
File Name	M2751617.WAD	Site Name	M27
Start Date and Time	2017/05/16 08:44:19	Operator(s)	RM

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information

File Name	M28.WAD
Start Date and Time	2017/05/16 07:51:33

Site Details

Site Name	M28
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	2.2%
Velocity	1.0%	4.8%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.1%	-
Overall	**3.1%**	**5.4%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	LEW	Total Width	33.901
Mean SNR	42.6 dB	Total Area	38.339
Mean Temp	35.01 °F	Mean Depth	1.131
Disch. Equation	Mid-Section	Mean Velocity	2.9951
		Total Discharge	**114.8308**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	07:51	10.70	None	0.300	0.0	0.0	0.0000	1.00	1.8645	0.045	0.0838	0.1
1	07:51	11.00	0.6	0.400	0.6	0.160	1.8645	1.00	1.8645	0.380	0.7084	0.6
2	*07:52*	*12.60*	*0.6*	*0.520*	*0.6*	*0.208*	*0.0397*	*1.00*	*0.0397*	*0.832*	*0.0330*	*0.0*
3	*07:54*	*14.20*	*0.6*	*0.780*	*0.6*	*0.312*	*1.5787*	*1.00*	*1.5787*	*1.248*	*1.9700*	*1.7*
4	07:55	15.80	0.6	0.590	0.6	0.236	3.4544	1.00	3.4544	0.944	3.2605	2.8
5	07:56	17.40	0.6	0.600	0.6	0.240	3.0958	1.00	3.0958	0.960	2.9724	2.6
6	*07:58*	*19.00*	*0.6*	*0.700*	*0.6*	*0.280*	*2.9767*	*1.00*	*2.9767*	*1.120*	*3.3347*	*2.9*
7	*07:59*	*20.60*	*0.6*	*0.650*	*0.6*	*0.260*	*1.7648*	*1.00*	*1.7648*	*1.040*	*1.8352*	*1.6*
8	08:00	22.20	0.6	0.890	0.6	0.356	2.2625	1.00	2.2625	1.424	3.2222	2.8
9	*08:01*	*23.80*	*0.6*	*0.900*	*0.6*	*0.360*	*3.3573*	*1.00*	*3.3573*	*1.440*	*4.8343*	*4.2*
10	*08:03*	*25.40*	*0.6*	*1.100*	*0.6*	*0.440*	*2.3947*	*1.00*	*2.3947*	*1.760*	*4.2151*	*3.7*
11	08:04	27.00	0.6	1.200	0.6	0.480	3.2375	1.00	3.2375	1.920	6.2170	5.4
12	*08:06*	*28.60*	*0.6*	*1.450*	*0.6*	*0.580*	*2.7667*	*1.00*	*2.7667*	*2.320*	*6.4197*	*5.6*
13	*08:07*	*30.20*	*0.6*	*1.650*	*0.6*	*0.660*	*2.5715*	*1.00*	*2.5715*	*2.640*	*6.7888*	*5.9*
14	08:08	31.80	0.6	1.650	0.6	0.660	3.1276	1.00	3.1276	2.640	8.2569	7.2
15	08:09	33.40	0.6	1.700	0.6	0.680	3.5892	1.00	3.5892	2.720	9.7639	8.5
16	08:11	35.00	0.6	1.500	0.6	0.600	3.9744	1.00	3.9744	2.400	9.5390	8.3
17	*08:12*	*36.60*	*0.6*	*1.750*	*0.6*	*0.700*	*3.4911*	*1.00*	*3.4911*	*2.800*	*9.7756*	*8.5*
18	08:14	38.20	0.6	1.800	0.6	0.720	3.9508	1.00	3.9508	2.069	8.1736	7.1
19	08:20	38.90	0.6	1.700	0.6	0.680	3.7753	1.00	3.7753	1.360	5.1350	4.5
20	*08:15*	*39.80*	*0.6*	*1.500*	*0.6*	*0.600*	*2.6913*	*1.00*	*2.6913*	*1.876*	*5.0488*	*4.4*
21	08:16	41.40	0.6	1.050	0.6	0.420	4.0292	1.00	4.0292	1.680	6.7685	5.9
22	08:17	43.00	0.6	1.500	0.6	0.600	2.3802	1.00	2.3802	2.400	5.7128	5.0
23	08:17	44.60	None	0.400	0.0	0.0	0.0000	1.00	2.3802	0.320	0.7616	0.7

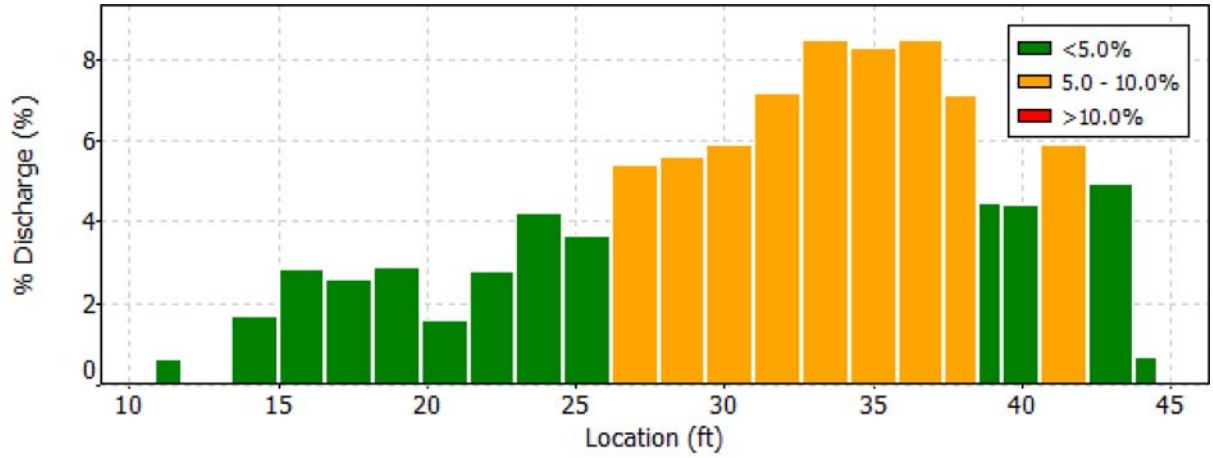
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

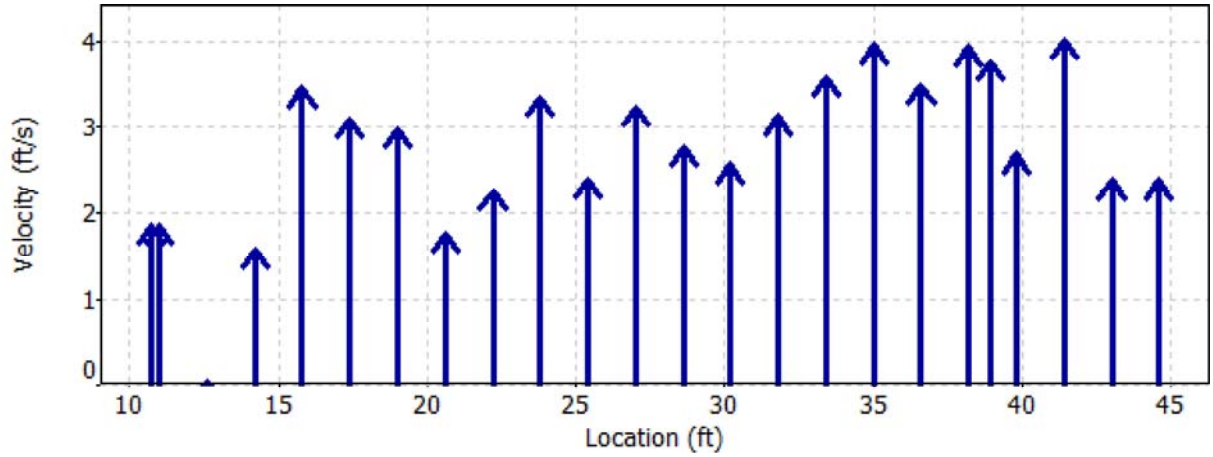
Discharge Measurement Summary

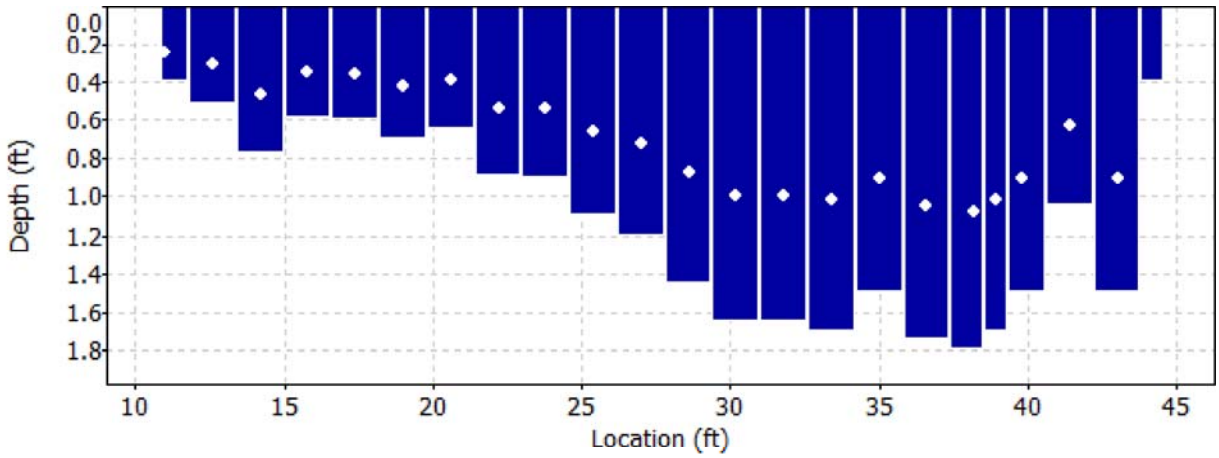
Date Generated: Wed May 24 2017

File Information	
File Name	M28.WAD
Start Date and Time	2017/05/16 07:51:33

Site Details	
Site Name	M28
Operator(s)	RM







Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information

File Name	M28.WAD
Start Date and Time	2017/05/16 07:51:33

Site Details

Site Name	M28
Operator(s)	RM

Quality Control

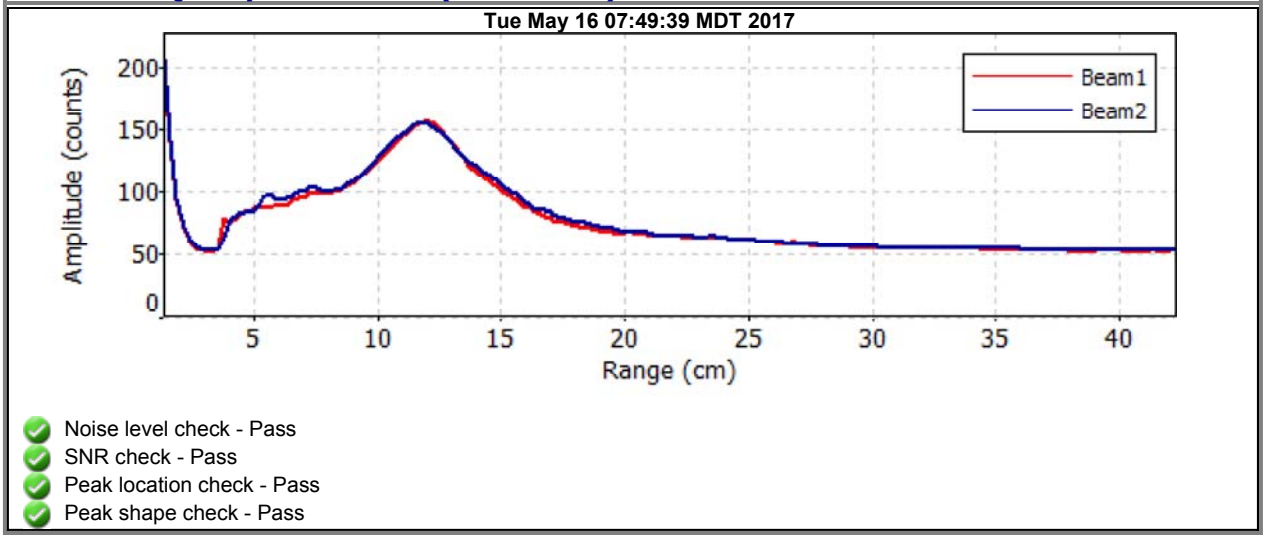
St	Loc	%Dep	Message
2	12.60	0.6	High angle: 49
3	14.20	0.6	High angle: -22
6	19.00	0.6	High angle: -20
7	20.60	0.6	High angle: -22
9	23.80	0.6	High angle: -21
10	25.40	0.6	High standard error: 0.201
12	28.60	0.6	High angle: -22
13	30.20	0.6	High angle: -24
17	36.60	0.6	High SNR variation during measurement: 11.2,11.6
20	39.80	0.6	High angle: 28
		0.6	High standard error: 0.156

Discharge Measurement Summary

Date Generated: Wed May 24 2017

File Information		Site Details	
File Name	M28.WAD	Site Name	M28
Start Date and Time	2017/05/16 07:51:33	Operator(s)	RM

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A586617.WAD
Start Date and Time	2017/06/06 11:37:33

Site Details

Site Name	A58
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	2.9%
Velocity	1.3%	10.3%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.1%	-
Overall	**3.3%**	**10.7%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	REW	Total Width	15.000
Mean SNR	42.9 dB	Total Area	12.509
Mean Temp	39.17 °F	Mean Depth	0.834
Disch. Equation	Mid-Section	Mean Velocity	3.0638
		Total Discharge	**38.3248**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:37	2.00	None	0.200	0.0	0.0	0.0000	1.00	1.3907	0.080	0.1113	0.3
1	*11:37*	*2.80*	*0.6*	*0.300*	*0.6*	*0.120*	*1.3907*	*1.00*	*1.3907*	*0.240*	*0.3336*	*0.9*
2	11:38	3.60	0.6	0.400	0.6	0.160	2.1991	1.00	2.1991	0.320	0.7035	1.8
3	*11:40*	*4.40*	*0.6*	*0.500*	*0.6*	*0.200*	*0.4606*	*1.00*	*0.4606*	*0.400*	*0.1842*	*0.5*
4	11:41	5.20	0.6	0.400	0.6	0.160	2.5554	1.00	2.5554	0.320	0.8175	2.1
5	11:43	6.00	0.6	0.700	0.6	0.280	2.2858	1.00	2.2858	0.560	1.2801	3.3
6	*11:44*	*6.80*	*0.6*	*0.800*	*0.6*	*0.320*	*3.2451*	*1.00*	*3.2451*	*0.640*	*2.0762*	*5.4*
7	11:45	7.60	0.6	1.200	0.6	0.480	5.2621	1.00	5.2621	0.721	3.7916	9.9
8	*12:02*	*8.00*	*0.6*	*1.100*	*0.6*	*0.440*	*3.3491*	*1.00*	*3.3491*	*0.440*	*1.4734*	*3.8*
9	11:46	8.40	0.6	0.950	0.6	0.380	1.0482	1.00	1.0482	0.570	0.5970	1.6
10	*11:47*	*9.20*	*0.6*	*1.100*	*0.6*	*0.440*	*4.6335*	*1.00*	*4.6335*	*0.661*	*3.0612*	*8.0*
11	12:03	9.60	0.6	0.900	0.6	0.360	4.9488	1.00	4.9488	0.360	1.7812	4.6
12	11:48	10.00	0.6	1.000	0.6	0.400	3.0827	1.00	3.0827	0.599	1.8473	4.8
13	11:49	10.80	0.6	0.900	0.6	0.360	6.1765	1.00	6.1765	0.541	3.3391	8.7
14	*12:05*	*11.20*	*0.6*	*1.100*	*0.6*	*0.440*	*1.6539*	*1.00*	*1.6539*	*0.440*	*0.7276*	*1.9*
15	*11:51*	*11.60*	*0.6*	*0.900*	*0.6*	*0.360*	*2.0351*	*1.00*	*2.0351*	*0.539*	*1.0972*	*2.9*
16	11:52	12.40	0.6	1.100	0.6	0.440	4.7936	1.00	4.7936	0.661	3.1678	8.3
17	12:06	12.80	0.6	1.250	0.6	0.500	4.5548	1.00	4.5548	0.500	2.2770	5.9
18	11:53	13.20	0.6	1.200	0.6	0.480	4.3619	1.00	4.3619	0.719	3.1361	8.2
19	*11:54*	*14.00*	*0.6*	*1.300*	*0.6*	*0.520*	*2.9111*	*1.00*	*2.9111*	*1.040*	*3.0267*	*7.9*
20	11:56	14.80	0.6	1.300	0.6	0.520	1.3547	1.00	1.3547	1.040	1.4085	3.7
21	11:58	15.60	0.6	0.850	0.6	0.340	3.1942	1.00	3.1942	0.680	2.1719	5.7
22	*11:59*	*16.40*	*0.6*	*0.500*	*0.6*	*0.200*	*-0.1929*	*1.00*	*-0.1929*	*0.351*	*-0.0676*	*-0.2*
23	11:59	17.00	None	0.300	0.0	0.0	0.0000	1.00	-0.1929	0.090	-0.0174	0.0

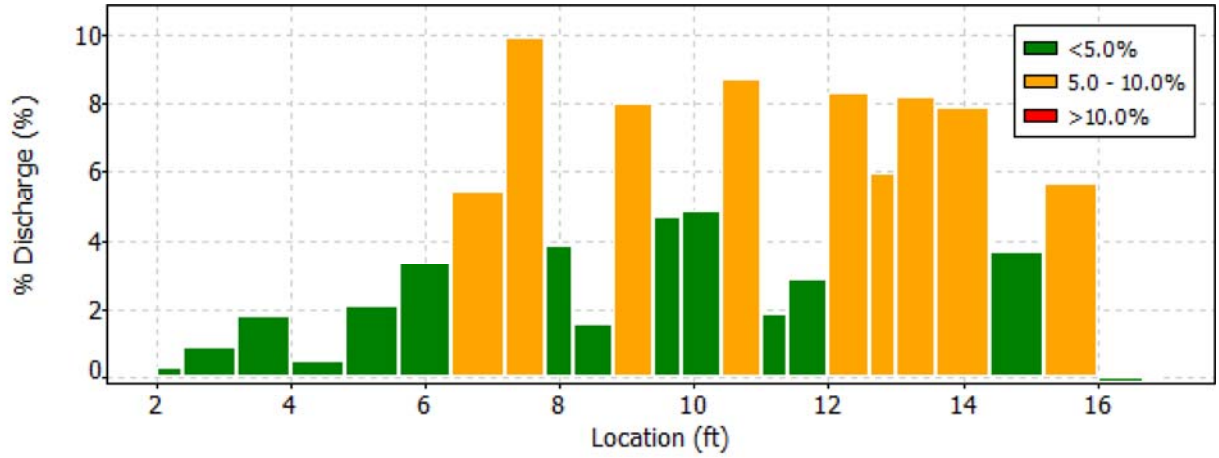
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

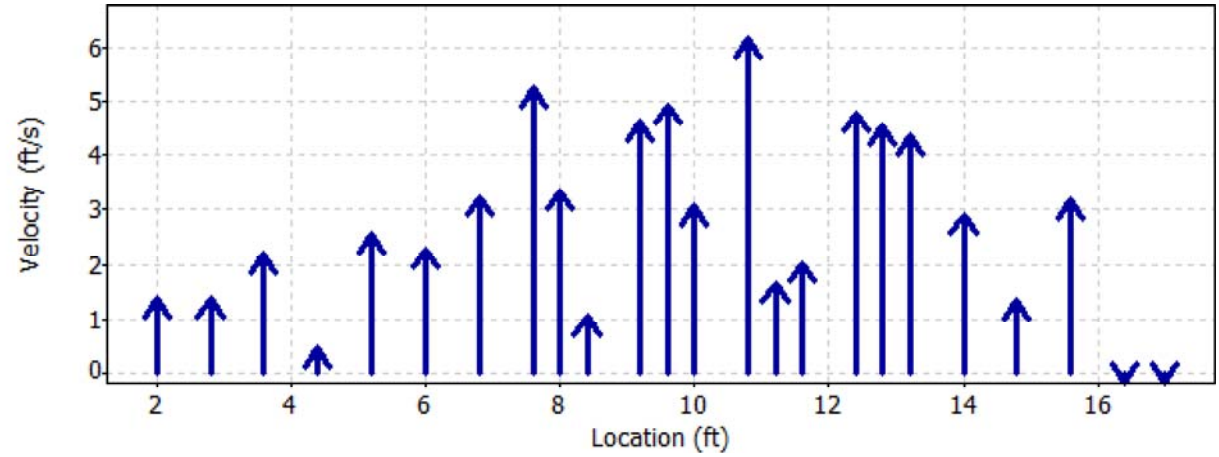
Discharge Measurement Summary

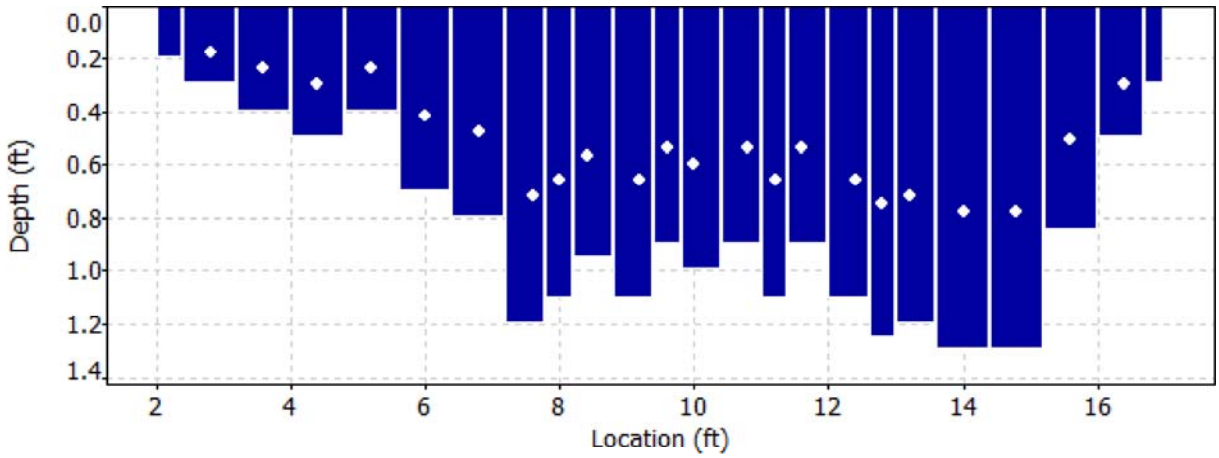
Date Generated: Mon Jul 17 2017

File Information	
File Name	A586617.WAD
Start Date and Time	2017/06/06 11:37:33

Site Details	
Site Name	A58
Operator(s)	RM







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A586617.WAD	Site Name	A58
Start Date and Time	2017/06/06 11:37:33	Operator(s)	RM

Quality Control

St	Loc	%Dep	Message
1	2.80	0.6	High angle: 22
3	4.40	0.6	High angle: 54
6	6.80	0.6	High standard error: 0.217
		0.6	Boundary QC is Good; possible boundary interference
8	8.00	0.6	High standard error: 0.223
10	9.20	0.6	High standard error: 0.246
14	11.20	0.6	High standard error: 0.276
15	11.60	0.6	High standard error: 0.255
19	14.00	0.6	High SNR variation during measurement: 3.9,6.0
		0.6	Boundary QC is Good; possible boundary interference
22	16.40	0.6	High angle: -132
		0.6	Boundary QC is Good; possible boundary interference

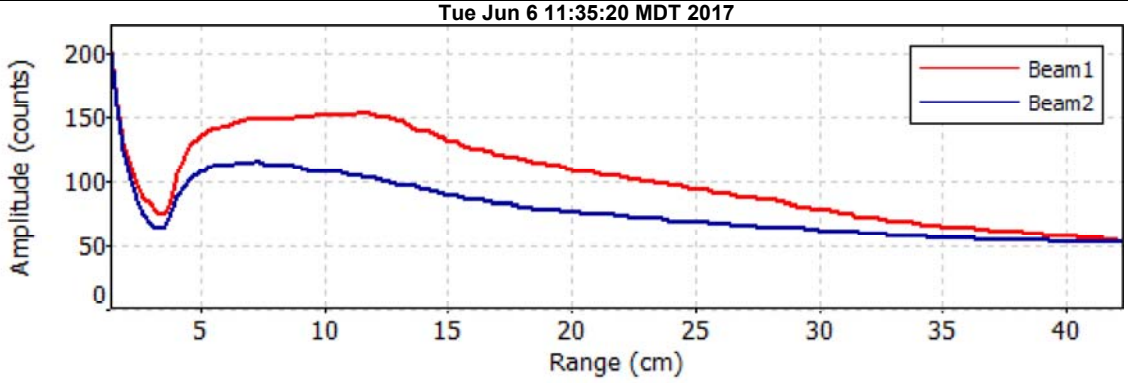
Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A586617.WAD	Site Name	A58
Start Date and Time	2017/06/06 11:37:33	Operator(s)	RM

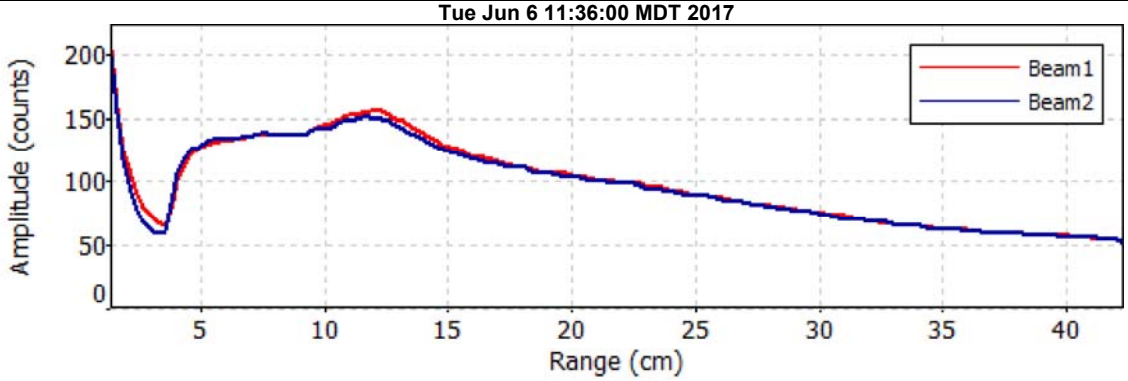
Automatic Quality Control Test (BeamCheck)

Tue Jun 6 11:35:20 MDT 2017



- Noise level check - Pass
- SNR check - Fail
  - High differences in beam SNR: 42.7,21.2
- Peak location check - Fail
- Peak shape check - Pass

Tue Jun 6 11:36:00 MDT 2017



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information

File Name	M06A.WAD
Start Date and Time	2017/06/07 15:35:00

Site Details

Site Name	M06A
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	1.4%
Velocity	0.9%	3.5%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.1%	-
Overall	**3.1%**	**3.9%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	REW	Total Width	10.997
Mean SNR	44.0 dB	Total Area	7.991
Mean Temp	37.24 °F	Mean Depth	0.727
Disch. Equation	Mid-Section	Mean Velocity	3.4965
		Total Discharge	**27.9406**

Measurement Results

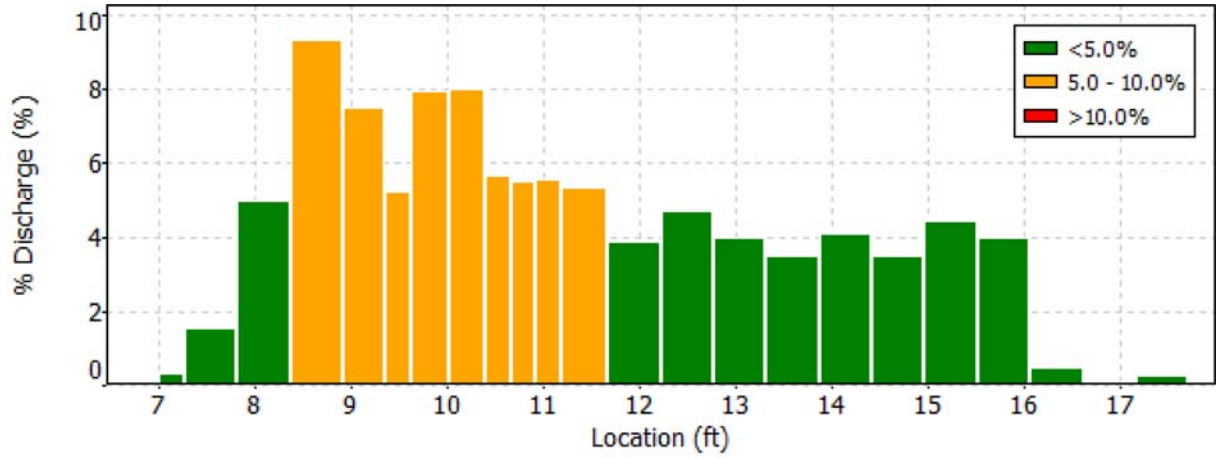
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:34	7.00	None	0.200	0.0	0.0	0.0000	1.00	1.4193	0.055	0.0781	0.3
1	*15:35*	*7.55*	*0.6*	*0.550*	*0.6*	*0.220*	*1.4193*	*1.00*	*1.4193*	*0.302*	*0.4291*	*1.5*
2	15:36	8.10	0.6	0.800	0.6	0.320	3.1568	1.00	3.1568	0.440	1.3884	5.0
3	15:37	8.65	0.6	0.900	0.6	0.360	5.2999	1.00	5.2999	0.495	2.6226	9.4
4	15:38	9.20	0.6	1.100	0.6	0.440	4.4879	1.00	4.4879	0.468	2.0992	7.5
5	15:54	9.50	0.6	1.100	0.6	0.440	4.8533	1.00	4.8533	0.302	1.4679	5.3
6	15:39	9.75	0.6	1.100	0.6	0.440	5.0627	1.00	5.0627	0.440	2.2255	8.0
7	15:40	10.30	0.6	1.100	0.6	0.440	5.4400	1.00	5.4400	0.413	2.2461	8.0
8	15:55	10.50	0.6	1.000	0.6	0.400	5.7651	1.00	5.7651	0.275	1.5850	5.7
9	*15:41*	*10.85*	*0.6*	*1.000*	*0.6*	*0.400*	*6.1654*	*1.00*	*6.1654*	*0.250*	*1.5413*	*5.5*
10	15:57	11.00	0.6	1.100	0.6	0.440	5.1503	1.00	5.1503	0.302	1.5577	5.6
11	*15:42*	*11.40*	*0.6*	*0.900*	*0.6*	*0.360*	*3.5098*	*1.00*	*3.5098*	*0.427*	*1.4985*	*5.4*
12	*15:43*	*11.95*	*0.6*	*0.900*	*0.6*	*0.360*	*2.2008*	*1.00*	*2.2008*	*0.495*	*1.0891*	*3.9*
13	15:44	12.50	0.6	0.700	0.6	0.280	3.4134	1.00	3.4134	0.385	1.3141	4.7
14	15:45	13.05	0.6	0.700	0.6	0.280	2.8911	1.00	2.8911	0.385	1.1130	4.0
15	15:46	13.60	0.6	0.700	0.6	0.280	2.5243	1.00	2.5243	0.385	0.9718	3.5
16	15:47	14.15	0.6	0.700	0.6	0.280	2.9728	1.00	2.9728	0.385	1.1445	4.1
17	15:47	14.70	0.6	0.700	0.6	0.280	2.5315	1.00	2.5315	0.385	0.9746	3.5
18	*15:48*	*15.25*	*0.6*	*0.700*	*0.6*	*0.280*	*3.2280*	*1.00*	*3.2280*	*0.385*	*1.2427*	*4.4*
19	*15:49*	*15.80*	*0.6*	*0.700*	*0.6*	*0.280*	*2.9137*	*1.00*	*2.9137*	*0.385*	*1.1217*	*4.0*
20	*15:50*	*16.35*	*0.6*	*0.550*	*0.6*	*0.220*	*0.4488*	*1.00*	*0.4488*	*0.302*	*0.1357*	*0.5*
21	*15:52*	*16.90*	*0.6*	*0.400*	*0.6*	*0.160*	*0.1004*	*1.00*	*0.1004*	*0.220*	*0.0221*	*0.1*
22	*15:53*	*17.45*	*0.6*	*0.200*	*0.6*	*0.080*	*0.6535*	*1.00*	*0.6535*	*0.110*	*0.0719*	*0.3*
23	15:53	18.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

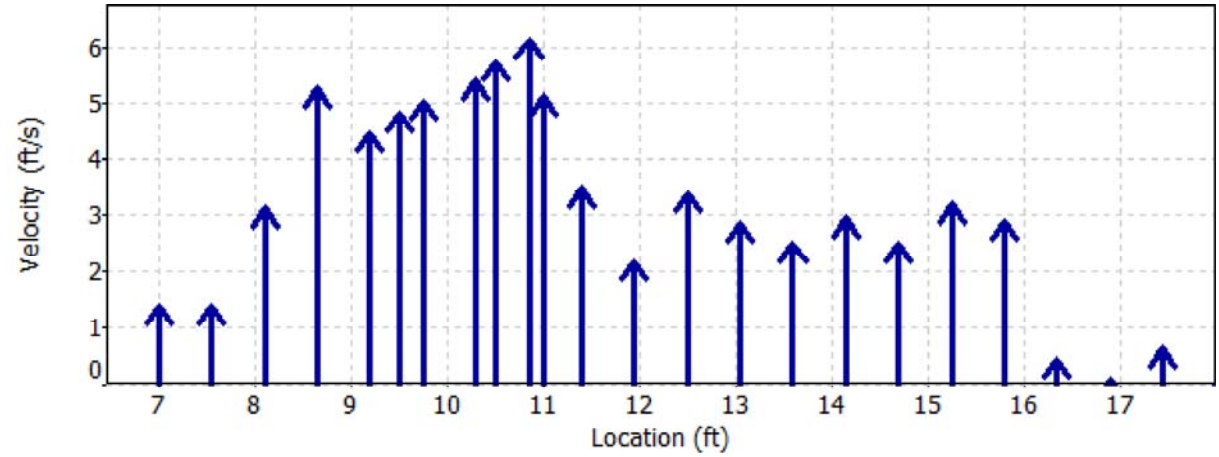
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

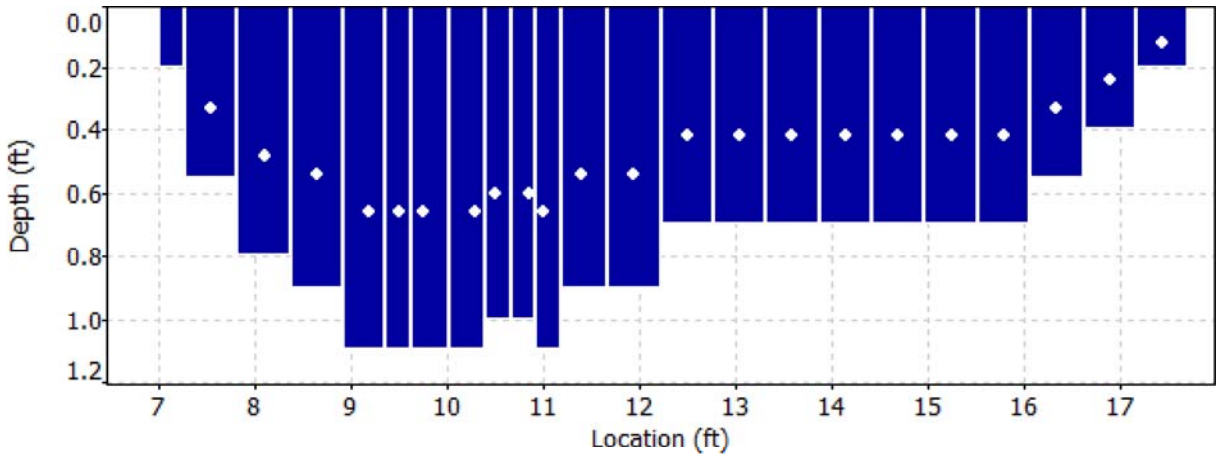
Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information		Site Details	
File Name	M06A.WAD	Site Name	M06A
Start Date and Time	2017/06/07 15:35:00	Operator(s)	KB







Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information		Site Details	
File Name	M06A.WAD	Site Name	M06A
Start Date and Time	2017/06/07 15:35:00	Operator(s)	KB

Quality Control

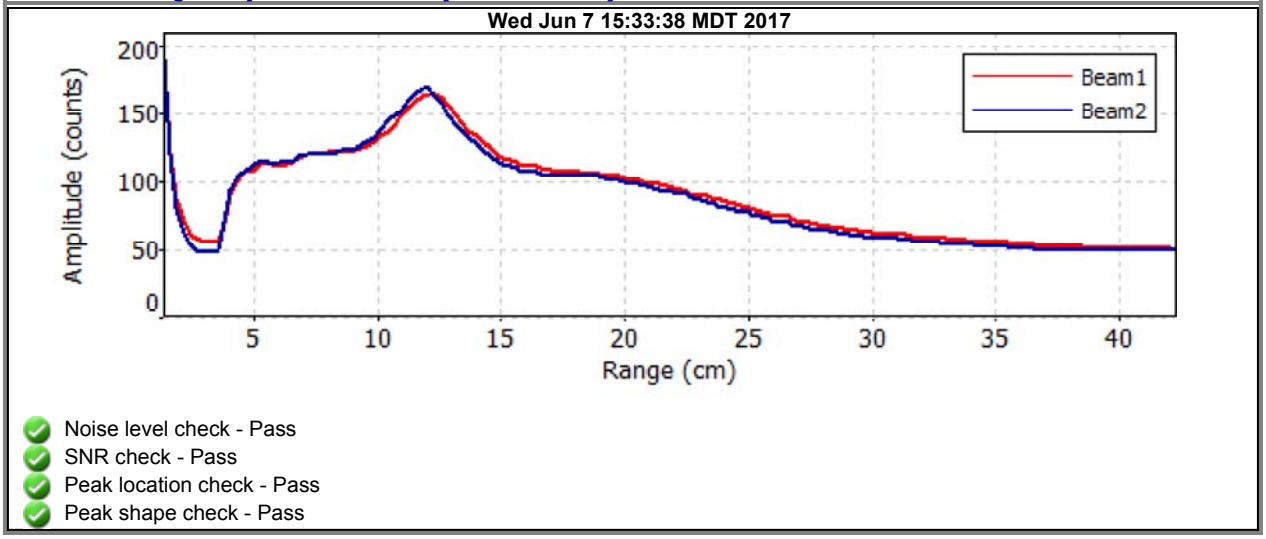
St	Loc	%Dep	Message
1	7.55	0.6	High number of spikes: 5
		0.6	High angle: 29
9	10.85	0.6	High number of spikes: 5
11	11.40	0.6	High standard error: 0.318
12	11.95	0.6	High standard error: 0.194
18	15.25	0.6	High angle: 21
19	15.80	0.6	High angle: 24
20	16.35	0.6	High angle: 32
21	16.90	0.6	High angle: 79
22	17.45	0.6	High angle: 32
		0.6	Boundary QC is Good; possible boundary interference

Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information		Site Details	
File Name	M06A.WAD	Site Name	M06A
Start Date and Time	2017/06/07 15:35:00	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information

File Name	M16F.WAD
Start Date and Time	2017/06/07 09:28:41

Site Details

Site Name	M16F
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.4%
Velocity	5.0%	13.3%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.0%	-
Overall	**5.9%**	**13.5%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	LEW	Total Width	5.997
Mean SNR	40.2 dB	Total Area	3.653
Mean Temp	37.79 °F	Mean Depth	0.609
Disch. Equation	Mid-Section	Mean Velocity	1.9197
		Total Discharge	**7.0131**

Measurement Results

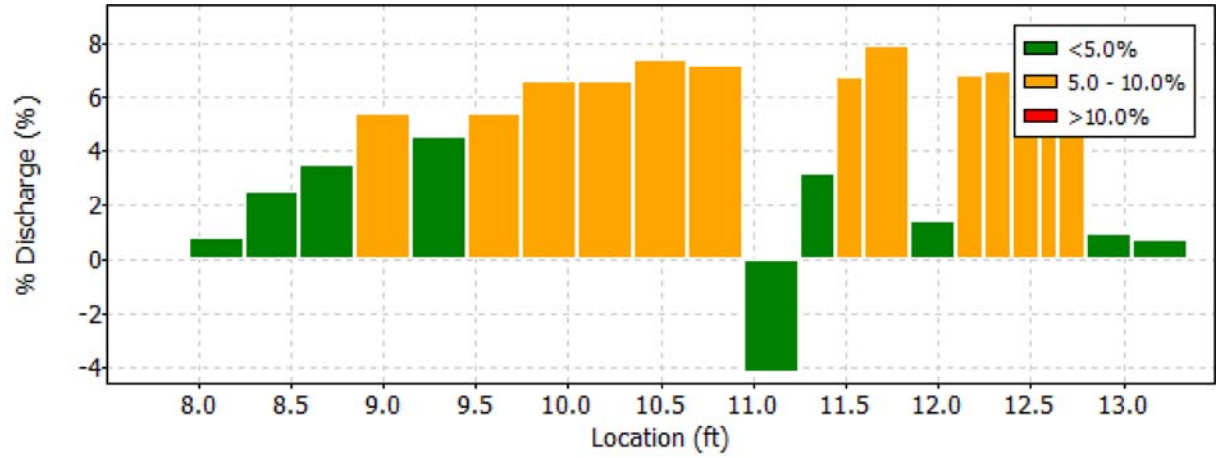
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:28	7.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*09:28*	*7.80*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0551*	*1.00*	*0.0551*	*0.060*	*0.0033*	*0.0*
2	*09:29*	*8.10*	*0.6*	*0.400*	*0.6*	*0.160*	*0.4882*	*1.00*	*0.4882*	*0.120*	*0.0585*	*0.8*
3	09:30	8.40	0.6	0.550	0.6	0.220	1.0850	1.00	1.0850	0.165	0.1789	2.6
4	09:31	8.70	0.6	0.550	0.6	0.220	1.4764	1.00	1.4764	0.165	0.2434	3.5
5	*09:32*	*9.00*	*0.6*	*0.500*	*0.6*	*0.200*	*2.5164*	*1.00*	*2.5164*	*0.150*	*0.3773*	*5.4*
6	*09:33*	*9.30*	*0.6*	*0.500*	*0.6*	*0.200*	*2.1243*	*1.00*	*2.1243*	*0.150*	*0.3185*	*4.5*
7	*09:34*	*9.60*	*0.6*	*0.500*	*0.6*	*0.200*	*2.5338*	*1.00*	*2.5338*	*0.150*	*0.3799*	*5.4*
8	*09:35*	*9.90*	*0.6*	*0.500*	*0.6*	*0.200*	*3.0843*	*1.00*	*3.0843*	*0.150*	*0.4624*	*6.6*
9	*09:36*	*10.20*	*0.6*	*0.550*	*0.6*	*0.220*	*2.7995*	*1.00*	*2.7995*	*0.165*	*0.4616*	*6.6*
10	*09:37*	*10.50*	*0.6*	*0.600*	*0.6*	*0.240*	*2.8986*	*1.00*	*2.8986*	*0.180*	*0.5216*	*7.4*
11	*09:38*	*10.80*	*0.6*	*0.600*	*0.6*	*0.240*	*2.8038*	*1.00*	*2.8038*	*0.180*	*0.5045*	*7.2*
12	*09:40*	*11.10*	*0.6*	*0.750*	*0.6*	*0.300*	*-1.3117*	*1.00*	*-1.3117*	*0.225*	*-0.2950*	*-4.2*
13	*09:41*	*11.40*	*0.6*	*0.850*	*0.6*	*0.340*	*1.3107*	*1.00*	*1.3107*	*0.171*	*0.2237*	*3.2*
14	*09:50*	*11.50*	*0.6*	*1.000*	*0.6*	*0.400*	*3.1673*	*1.00*	*3.1673*	*0.150*	*0.4749*	*6.8*
15	*09:42*	*11.70*	*0.6*	*1.000*	*0.6*	*0.400*	*2.2405*	*1.00*	*2.2405*	*0.249*	*0.5579*	*8.0*
16	*09:43*	*12.00*	*0.6*	*0.900*	*0.6*	*0.360*	*0.4446*	*1.00*	*0.4446*	*0.226*	*0.1004*	*1.4*
17	*09:53*	*12.20*	*0.6*	*0.850*	*0.6*	*0.340*	*3.7520*	*1.00*	*3.7520*	*0.127*	*0.4782*	*6.8*
18	*09:45*	*12.30*	*0.6*	*0.800*	*0.6*	*0.320*	*4.0528*	*1.00*	*4.0528*	*0.120*	*0.4860*	*6.9*
19	*09:51*	*12.50*	*0.6*	*0.800*	*0.6*	*0.320*	*3.0085*	*1.00*	*3.0085*	*0.120*	*0.3608*	*5.1*
20	*09:46*	*12.60*	*0.6*	*0.800*	*0.6*	*0.320*	*4.9350*	*1.00*	*4.9350*	*0.080*	*0.3950*	*5.6*
21	09:55	12.70	0.6	0.750	0.6	0.300	5.3547	1.00	5.3547	0.112	0.6021	8.6
22	*09:47*	*12.90*	*0.6*	*0.800*	*0.6*	*0.320*	*0.3399*	*1.00*	*0.3399*	*0.199*	*0.0676*	*1.0*
23	*09:48*	*13.20*	*0.6*	*0.800*	*0.6*	*0.320*	*0.2139*	*1.00*	*0.2139*	*0.240*	*0.0513*	*0.7*
24	09:48	13.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

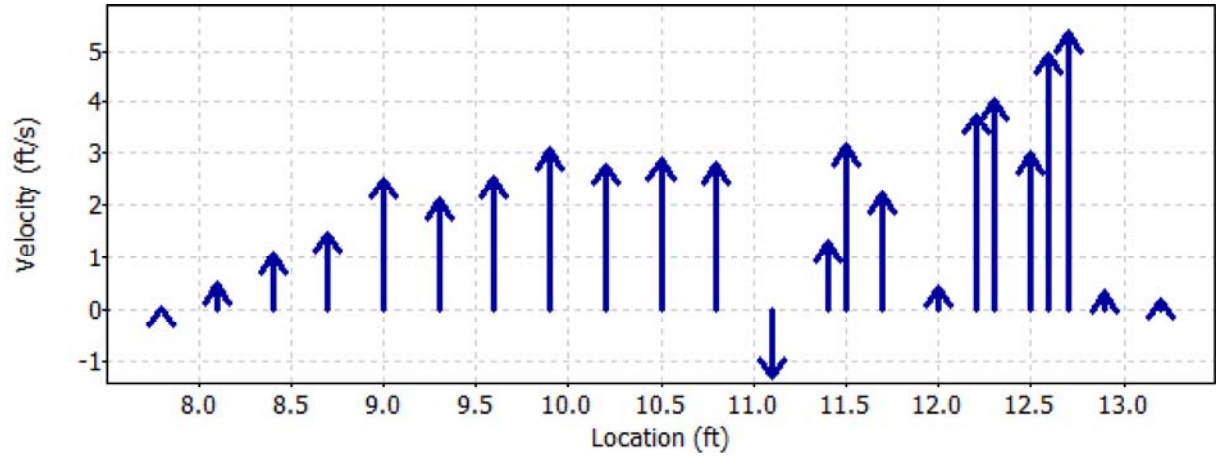
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

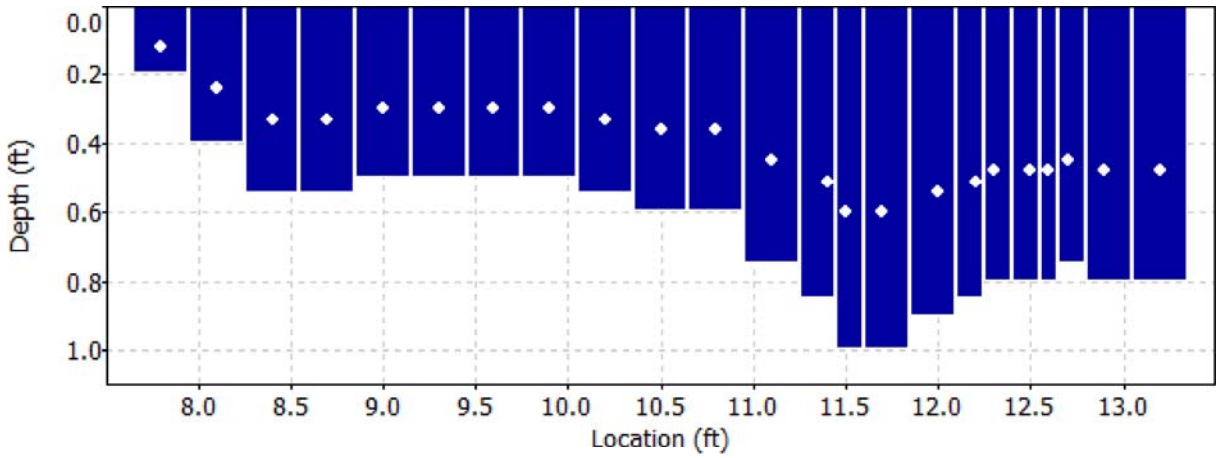
Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information		Site Details	
File Name	M16F.WAD	Site Name	M16F
Start Date and Time	2017/06/07 09:28:41	Operator(s)	KB







Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information		Site Details	
File Name	M16F.WAD	Site Name	M16F
Start Date and Time	2017/06/07 09:28:41	Operator(s)	KB

Quality Control

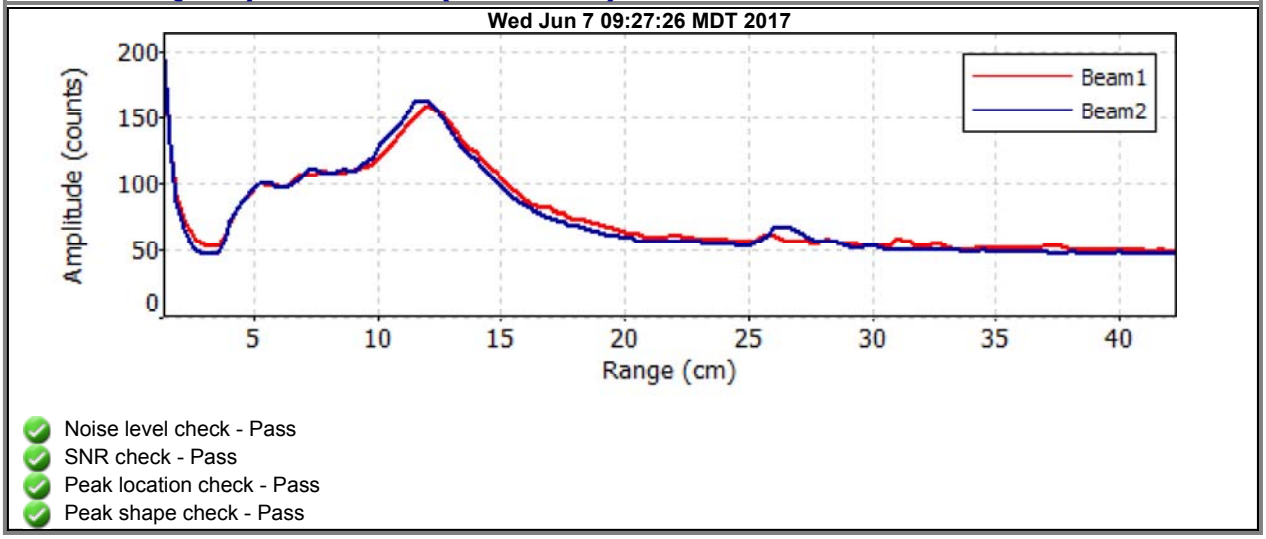
St	Loc	%Dep	Message
1	7.80	0.6	High number of spikes: 8
		0.6	Boundary QC is Good; possible boundary interference
2	8.10	0.6	High angle: 22
5	9.00	0.6	High angle: 39
6	9.30	0.6	High angle: 21
		0.6	High standard error: 0.275
		0.6	Boundary QC is Good; possible boundary interference
7	9.60	0.6	High angle: 44
8	9.90	0.6	High angle: 32
9	10.20	0.6	High angle: 32
10	10.50	0.6	High angle: 25
11	10.80	0.6	High angle: 28
12	11.10	0.6	High angle: 138
		0.6	High standard error: 1.047
13	11.40	0.6	High angle: 41
		0.6	High standard error: 0.716
14	11.50	0.6	High SNR variation during measurement: 3.4,6.5
15	11.70	0.6	High angle: 25
		0.6	High SNR variation during measurement: 3.4,5.2
		0.6	High standard error: 0.619
16	12.00	0.6	High SNR variation during measurement: 4.7,7.3
		0.6	High standard error: 0.508
		0.6	Boundary QC is Good; possible boundary interference
17	12.20	0.6	High SNR variation during measurement: 3.4,6.5
		0.6	High standard error: 0.456
18	12.30	0.6	High standard error: 0.436
19	12.50	0.6	High angle: 21
		0.6	High SNR variation during measurement: 3.9,6.9
		0.6	High standard error: 0.715
20	12.60	0.6	High number of spikes: 6
22	12.90	0.6	High number of spikes: 5
		0.6	High angle: 47
23	13.20	0.6	High angle: 40

Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information		Site Details	
File Name	M16F.WAD	Site Name	M16F
Start Date and Time	2017/06/07 09:28:41	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information

File Name	M16H.WAD
Start Date and Time	2017/06/07 08:51:37

Site Details

Site Name	M16H
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	5.7%
Velocity	1.3%	7.2%
Width	0.1%	0.1%
Method	1.7%	-
# Stations	2.0%	-
Overall	**3.1%**	**9.3%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	LEW	Total Width	14.003
Mean SNR	41.5 dB	Total Area	7.716
Mean Temp	37.56 °F	Mean Depth	0.551
Disch. Equation	Mid-Section	Mean Velocity	3.3880
		Total Discharge	**26.1429**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:51	4.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	08:51	4.70	0.6	0.600	0.6	0.240	2.6093	1.00	2.6093	0.420	1.0962	4.2
2	08:52	5.40	0.6	0.600	0.6	0.240	1.7037	1.00	1.7037	0.420	0.7158	2.7
3	08:53	6.10	0.6	0.450	0.6	0.180	1.8753	1.00	1.8753	0.315	0.5910	2.3
4	08:54	6.80	0.6	0.400	0.6	0.160	1.2749	1.00	1.2749	0.280	0.3570	1.4
5	08:55	7.50	0.6	0.500	0.6	0.200	2.0154	1.00	2.0154	0.350	0.7055	2.7
6	*08:56*	*8.20*	*0.6*	*0.600*	*0.6*	*0.240*	*2.6280*	*1.00*	*2.6280*	*0.420*	*1.1041*	*4.2*
7	*08:57*	*8.90*	*0.6*	*0.600*	*0.6*	*0.240*	*4.0581*	*1.00*	*4.0581*	*0.390*	*1.5819*	*6.1*
8	*09:16*	*9.50*	*0.6*	*0.700*	*0.6*	*0.280*	*4.2438*	*1.00*	*4.2438*	*0.245*	*1.0401*	*4.0*
9	08:58	9.60	0.6	0.650	0.6	0.260	5.8215	1.00	5.8215	0.260	1.5157	5.8
10	08:59	10.30	0.6	0.800	0.6	0.320	5.3005	1.00	5.3005	0.360	1.9057	7.3
11	09:12	10.50	0.6	0.700	0.6	0.280	5.2359	1.00	5.2359	0.245	1.2833	4.9
12	09:00	11.00	0.6	0.800	0.6	0.320	4.6841	1.00	4.6841	0.400	1.8733	7.2
13	09:13	11.50	0.6	0.800	0.6	0.320	5.2575	1.00	5.2575	0.280	1.4721	5.6
14	*09:01*	*11.70*	*0.6*	*0.900*	*0.6*	*0.360*	*4.6024*	*1.00*	*4.6024*	*0.406*	*1.8671*	*7.1*
15	09:02	12.40	0.6	0.900	0.6	0.360	5.5384	1.00	5.5384	0.359	1.9901	7.6
16	09:14	12.50	0.6	0.850	0.6	0.340	5.2326	1.00	5.2326	0.254	1.3309	5.1
17	*09:15*	*13.00*	*0.6*	*0.200*	*0.6*	*0.080*	*2.5066*	*1.00*	*2.5066*	*0.060*	*0.1509*	*0.6*
18	*09:03*	*13.10*	*0.6*	*0.900*	*0.6*	*0.360*	*4.4547*	*1.00*	*4.4547*	*0.361*	*1.6073*	*6.1*
19	*09:04*	*13.80*	*0.6*	*0.800*	*0.6*	*0.320*	*2.2162*	*1.00*	*2.2162*	*0.560*	*1.2411*	*4.7*
20	*09:05*	*14.50*	*0.6*	*0.800*	*0.6*	*0.320*	*1.2103*	*1.00*	*1.2103*	*0.560*	*0.6778*	*2.6*
21	09:06	15.20	0.6	0.500	0.6	0.200	4.2995	1.00	4.2995	0.350	1.5051	5.8
22	*09:08*	*15.90*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3802*	*1.00*	*0.3802*	*0.140*	*0.0533*	*0.2*
23	*09:09*	*16.60*	*0.6*	*0.200*	*0.6*	*0.080*	*2.1132*	*1.00*	*2.1132*	*0.140*	*0.2961*	*1.1*
24	*09:10*	*17.30*	*0.6*	*0.200*	*0.6*	*0.080*	*1.2959*	*1.00*	*1.2959*	*0.140*	*0.1816*	*0.7*
25	09:10	18.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

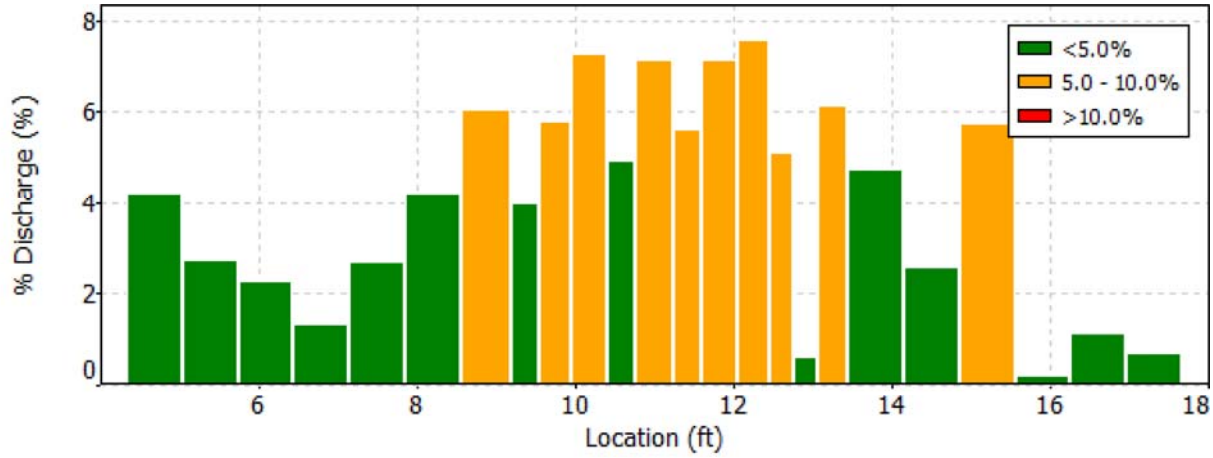
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

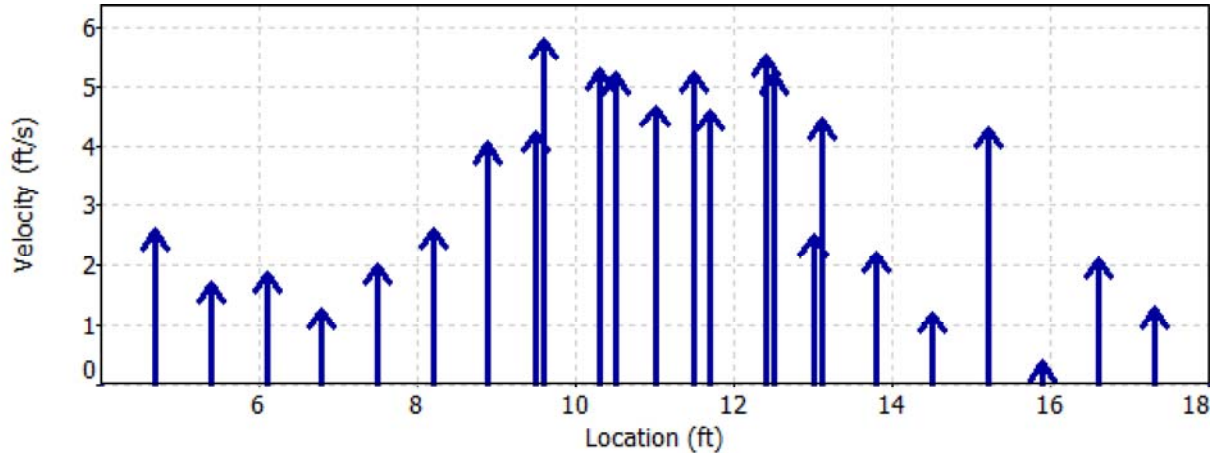
Discharge Measurement Summary

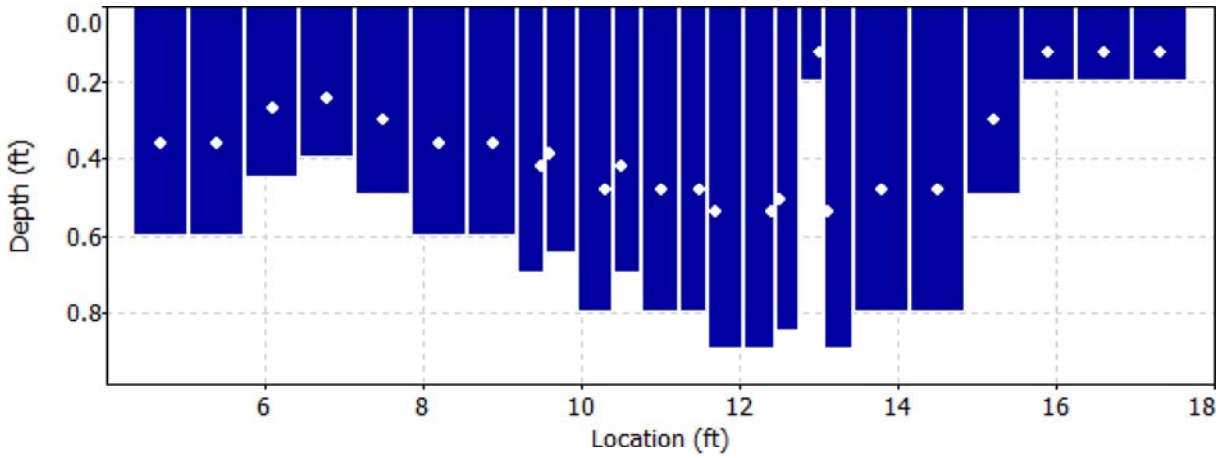
Date Generated: Thu Jan 25 2018

File Information	
File Name	M16H.WAD
Start Date and Time	2017/06/07 08:51:37

Site Details	
Site Name	M16H
Operator(s)	KB







Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information		Site Details	
File Name	M16H.WAD	Site Name	M16H
Start Date and Time	2017/06/07 08:51:37	Operator(s)	KB

Quality Control

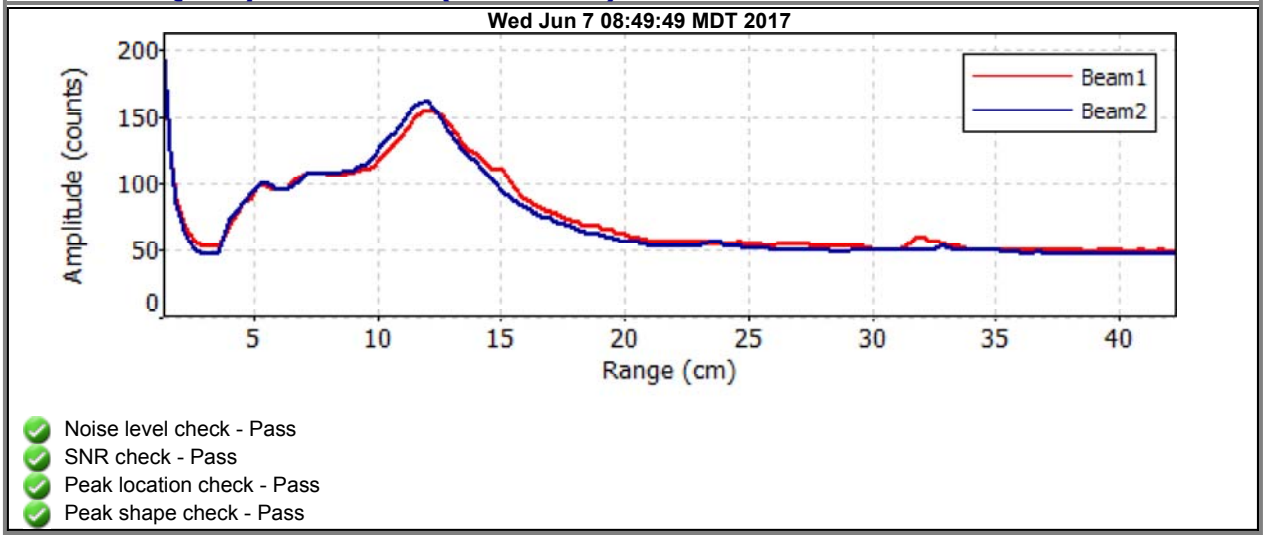
St	Loc	%Dep	Message
6	8.20	0.6	High angle: 28
		0.6	High standard error: 0.212
7	8.90	0.6	High standard error: 0.215
8	9.50	0.6	High angle: 23
14	11.70	0.6	High angle: 21
17	13.00	0.6	High angle: 25
		0.6	High standard error: 0.280
18	13.10	0.6	High standard error: 0.281
19	13.80	0.6	High standard error: 0.318
20	14.50	0.6	High angle: 31
		0.6	High standard error: 0.281
22	15.90	0.6	High angle: 50
		0.6	High SNR variation during measurement: 7.7,7.3
		0.6	Boundary QC is Fair; possible boundary interference
23	16.60	0.6	High angle: 21
24	17.30	0.6	Boundary QC is Good; possible boundary interference

Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information		Site Details	
File Name	M16H.WAD	Site Name	M16H
Start Date and Time	2017/06/07 08:51:37	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jun 19 2017

File Information

File Name	M06C.WAD
Start Date and Time	2017/06/07 15:58:55

Site Details

Site Name	M06C
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	4.1%
Velocity	2.4%	8.3%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.1%	-
Overall	**3.9%**	**9.3%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	REW	Total Width	12.001
Mean SNR	41.4 dB	Total Area	8.004
Mean Temp	37.61 °F	Mean Depth	0.667
Disch. Equation	Mid-Section	Mean Velocity	2.4639
		Total Discharge	**19.7201**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:58	5.00	None	0.200	0.0	0.0	0.0000	1.00	2.2280	0.060	0.1338	0.7
1	15:58	5.60	0.6	0.400	0.6	0.160	2.2280	1.00	2.2280	0.240	0.5347	2.7
2	16:01	6.20	0.6	0.500	0.6	0.200	2.4396	1.00	2.4396	0.300	0.7320	3.7
3	16:03	6.80	0.6	0.600	0.6	0.240	3.2890	1.00	3.2890	0.360	1.1843	6.0
4	16:04	7.40	0.6	0.500	0.6	0.200	3.2579	1.00	3.2579	0.300	0.9775	5.0
5	16:05	8.00	0.6	0.500	0.6	0.200	1.2047	1.00	1.2047	0.300	0.3615	1.8
6	*16:06*	*8.60*	*0.6*	*0.500*	*0.6*	*0.200*	*1.6020*	*1.00*	*1.6020*	*0.300*	*0.4807*	*2.4*
7	16:07	9.20	0.6	0.600	0.6	0.240	1.4941	1.00	1.4941	0.360	0.5380	2.7
8	*16:08*	*9.80*	*0.6*	*0.800*	*0.6*	*0.320*	*2.4941*	*1.00*	*2.4941*	*0.480*	*1.1971*	*6.1*
9	16:10	10.40	0.6	0.900	0.6	0.360	5.0745	1.00	5.0745	0.315	1.5971	8.1
10	16:33	10.50	0.6	0.700	0.6	0.280	5.0302	1.00	5.0302	0.210	1.0567	5.4
11	*16:12*	*11.00*	*0.6*	*1.200*	*0.6*	*0.480*	*1.5476*	*1.00*	*1.5476*	*0.661*	*1.0222*	*5.2*
12	*16:13*	*11.60*	*0.6*	*1.200*	*0.6*	*0.480*	*-1.0312*	*1.00*	*-1.0312*	*0.720*	*-0.7426*	*-3.8*
13	*16:16*	*12.20*	*0.6*	*0.850*	*0.6*	*0.340*	*3.4977*	*1.00*	*3.4977*	*0.467*	*1.6344*	*8.3*
14	*16:28*	*12.70*	*0.6*	*1.100*	*0.6*	*0.440*	*5.4429*	*1.00*	*5.4429*	*0.330*	*1.7965*	*9.1*
15	16:17	12.80	0.6	1.000	0.6	0.400	4.0912	1.00	4.0912	0.350	1.4335	7.3
16	*16:18*	*13.40*	*0.6*	*0.700*	*0.6*	*0.280*	*5.5092*	*1.00*	*5.5092*	*0.245*	*1.3484*	*6.8*
17	*16:35*	*13.50*	*0.6*	*0.800*	*0.6*	*0.320*	*4.4327*	*1.00*	*4.4327*	*0.240*	*1.0638*	*5.4*
18	*16:20*	*14.00*	*0.6*	*0.700*	*0.6*	*0.280*	*2.6745*	*1.00*	*2.6745*	*0.385*	*1.0309*	*5.2*
19	*16:21*	*14.60*	*0.6*	*0.800*	*0.6*	*0.320*	*1.8599*	*1.00*	*1.8599*	*0.480*	*0.8927*	*4.5*
20	*16:22*	*15.20*	*0.6*	*0.750*	*0.6*	*0.300*	*2.0371*	*1.00*	*2.0371*	*0.450*	*0.9168*	*4.6*
21	16:24	15.80	0.6	0.300	0.6	0.120	1.9656	1.00	1.9656	0.180	0.3537	1.8
22	*16:26*	*16.40*	*0.6*	*0.300*	*0.6*	*0.120*	*0.6545*	*1.00*	*0.6545*	*0.180*	*0.1178*	*0.6*
23	16:26	17.00	None	0.300	0.0	0.0	0.0000	1.00	0.6545	0.090	0.0589	0.3

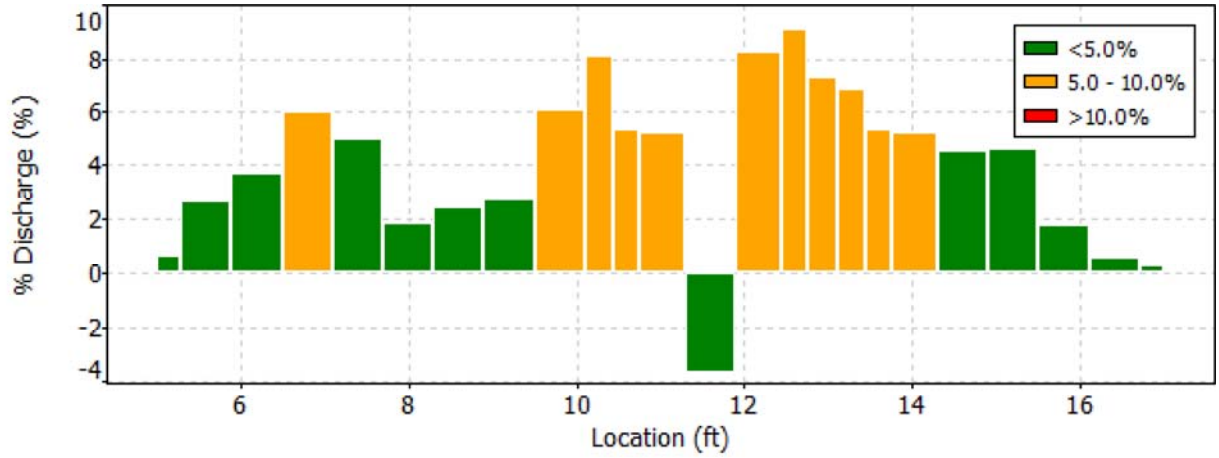
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

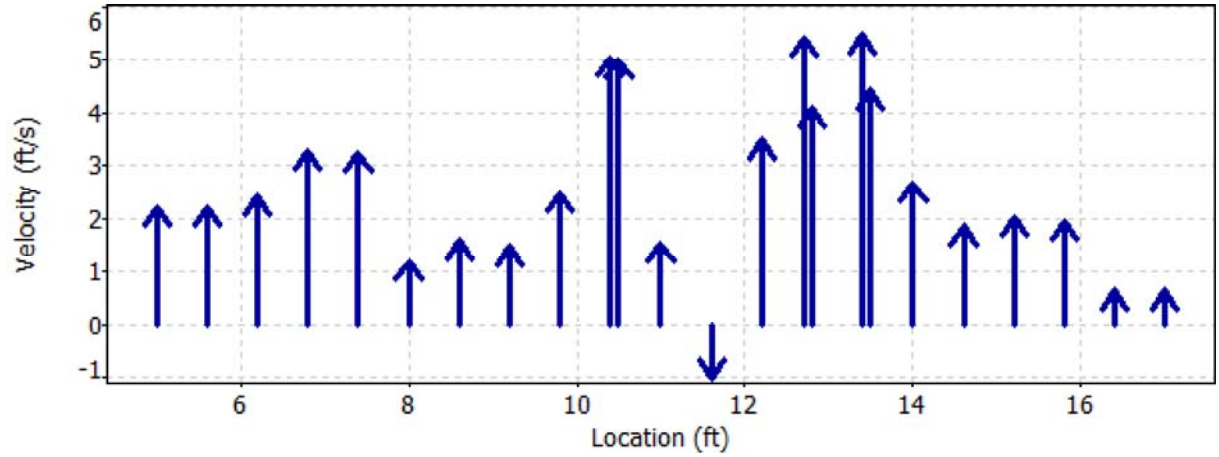
Discharge Measurement Summary

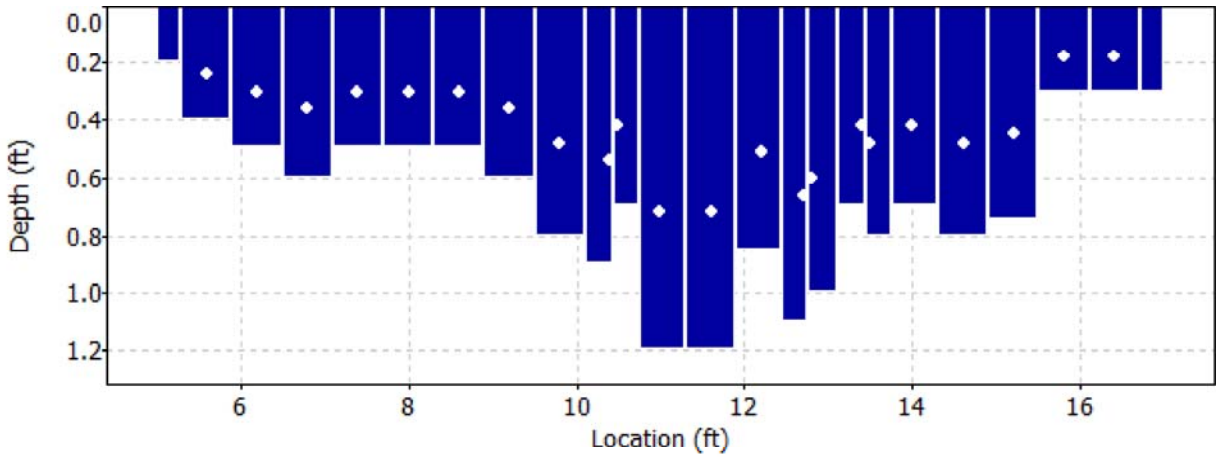
Date Generated: Mon Jun 19 2017

File Information	
File Name	M06C.WAD
Start Date and Time	2017/06/07 15:58:55

Site Details	
Site Name	M06C
Operator(s)	EY







Discharge Measurement Summary

Date Generated: Mon Jun 19 2017

File Information		Site Details	
File Name	M06C.WAD	Site Name	M06C
Start Date and Time	2017/06/07 15:58:55	Operator(s)	EY

Quality Control

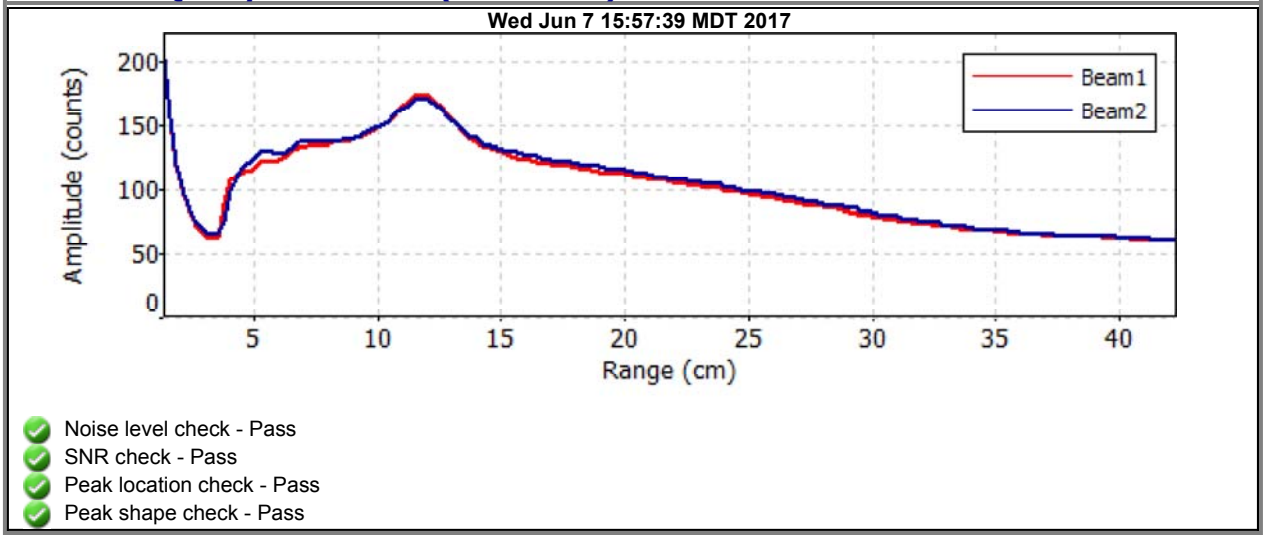
St	Loc	%Dep	Message
6	8.60	0.6	High angle: 21
8	9.80	0.6	High angle: -22
11	11.00	0.6	High angle: -28
12	11.60	0.6	High angle: -168
		0.6	High SNR variation during measurement: 4.7,7.3
		0.6	High standard error: 0.247
13	12.20	0.6	High SNR variation during measurement: 3.9,5.2
		0.6	High standard error: 0.677
14	12.70	0.6	High SNR variation during measurement: 3.9,6.9
		0.6	High standard error: 0.314
16	13.40	0.6	High SNR variation during measurement: 3.4,6.9
17	13.50	0.6	High standard error: 0.318
18	14.00	0.6	High angle: 23
		0.6	High standard error: 0.355
19	14.60	0.6	High angle: 24
20	15.20	0.6	High angle: 27
22	16.40	0.6	High angle: 56
		0.6	High SNR variation during measurement: 8.2,4.7
		0.6	High standard error: 0.348

Discharge Measurement Summary

Date Generated: Mon Jun 19 2017

File Information		Site Details	
File Name	M06C.WAD	Site Name	M06C
Start Date and Time	2017/06/07 15:58:55	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jun 19 2017

File Information

File Name	M12.WAD
Start Date and Time	2017/06/06 14:48:18

Site Details

Site Name	M12
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	1.8%
Velocity	1.5%	10.0%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.4%	-
Overall	**3.5%**	**10.2%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	LEW	Total Width	4.003
Mean SNR	40.6 dB	Total Area	3.663
Mean Temp	39.99 °F	Mean Depth	0.915
Disch. Equation	Mid-Section	Mean Velocity	2.5561
		Total Discharge	**9.3619**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:48	6.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	14:48	6.20	0.6	1.200	0.6	0.480	1.0719	1.00	1.0719	0.240	0.2574	2.7
2	14:49	6.40	0.6	1.200	0.6	0.480	1.5761	1.00	1.5761	0.240	0.3786	4.0
3	*14:50*	*6.60*	*0.6*	*1.200*	*0.6*	*0.480*	*1.7090*	*1.00*	*1.7090*	*0.240*	*0.4105*	*4.4*
4	*14:51*	*6.80*	*0.6*	*1.400*	*0.6*	*0.560*	*1.7480*	*1.00*	*1.7480*	*0.280*	*0.4897*	*5.2*
5	*14:52*	*7.00*	*0.6*	*1.400*	*0.6*	*0.560*	*1.9872*	*1.00*	*1.9872*	*0.280*	*0.5568*	*5.9*
6	*14:53*	*7.20*	*0.6*	*1.350*	*0.6*	*0.540*	*2.0095*	*1.00*	*2.0095*	*0.270*	*0.5430*	*5.8*
7	*14:54*	*7.40*	*0.6*	*1.300*	*0.6*	*0.520*	*2.0463*	*1.00*	*2.0463*	*0.260*	*0.5323*	*5.7*
8	*14:56*	*7.60*	*0.6*	*1.200*	*0.6*	*0.480*	*2.6713*	*1.00*	*2.6713*	*0.240*	*0.6416*	*6.9*
9	*14:58*	*7.80*	*0.6*	*1.200*	*0.6*	*0.480*	*2.2703*	*1.00*	*2.2703*	*0.240*	*0.5453*	*5.8*
10	*14:59*	*8.00*	*0.6*	*1.000*	*0.6*	*0.400*	*4.1309*	*1.00*	*4.1309*	*0.200*	*0.8267*	*8.8*
11	*15:00*	*8.20*	*0.6*	*1.000*	*0.6*	*0.400*	*3.7441*	*1.00*	*3.7441*	*0.200*	*0.7493*	*8.0*
12	15:03	8.40	0.6	0.700	0.6	0.280	4.9416	1.00	4.9416	0.140	0.6924	7.4
13	*15:04*	*8.60*	*0.6*	*0.700*	*0.6*	*0.280*	*0.5771*	*1.00*	*0.5771*	*0.140*	*0.0809*	*0.9*
14	*15:05*	*8.80*	*0.6*	*0.650*	*0.6*	*0.260*	*2.0748*	*1.00*	*2.0748*	*0.130*	*0.2699*	*2.9*
15	15:07	9.00	0.6	0.600	0.6	0.240	4.7526	1.00	4.7526	0.120	0.5708	6.1
16	*15:07*	*9.20*	*0.6*	*0.600*	*0.6*	*0.240*	*3.4209*	*1.00*	*3.4209*	*0.120*	*0.4108*	*4.4*
17	15:08	9.40	0.6	0.600	0.6	0.240	5.0656	1.00	5.0656	0.120	0.6083	6.5
18	15:09	9.60	0.6	0.600	0.6	0.240	4.0676	1.00	4.0676	0.120	0.4885	5.2
19	15:11	9.80	0.6	0.400	0.6	0.160	3.8625	1.00	3.8625	0.080	0.3092	3.3
20	15:11	10.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

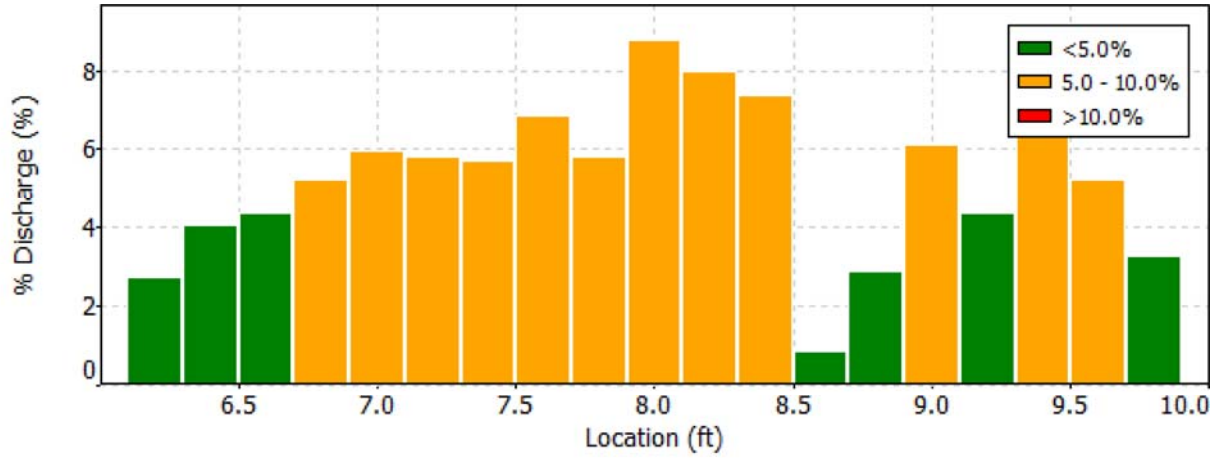
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

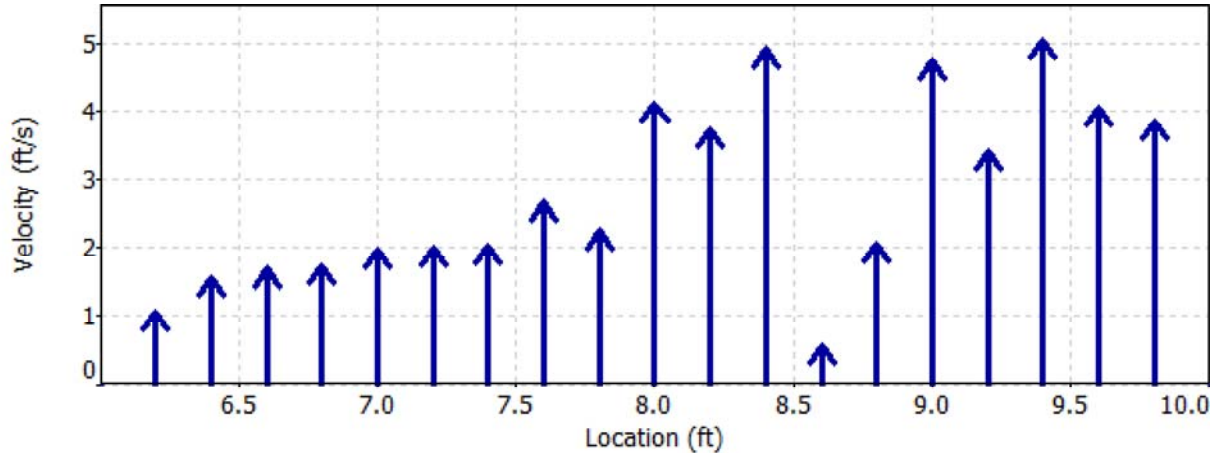
Discharge Measurement Summary

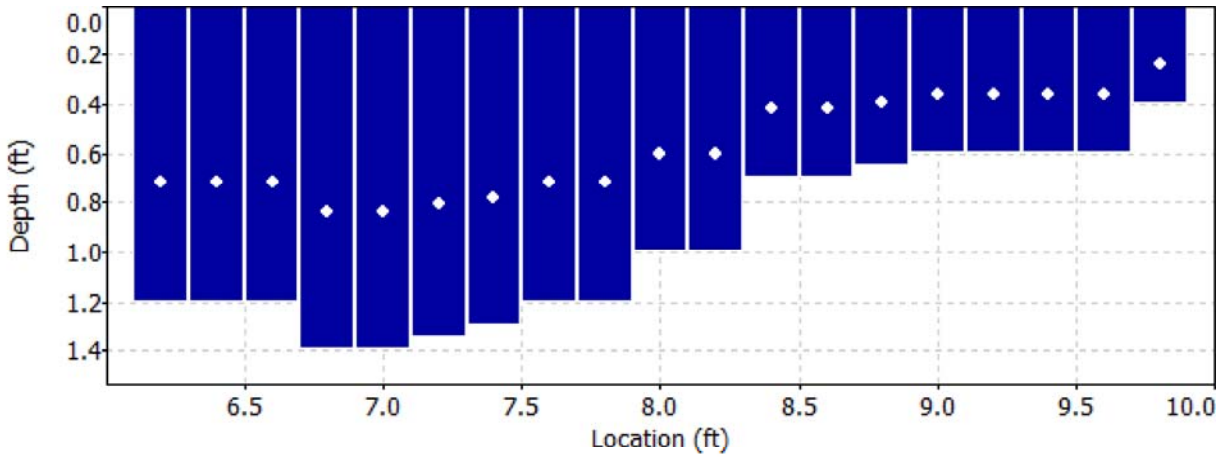
Date Generated: Mon Jun 19 2017

File Information	
File Name	M12.WAD
Start Date and Time	2017/06/06 14:48:18

Site Details	
Site Name	M12
Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Jun 19 2017

File Information		Site Details	
File Name	M12.WAD	Site Name	M12
Start Date and Time	2017/06/06 14:48:18	Operator(s)	KB

Quality Control

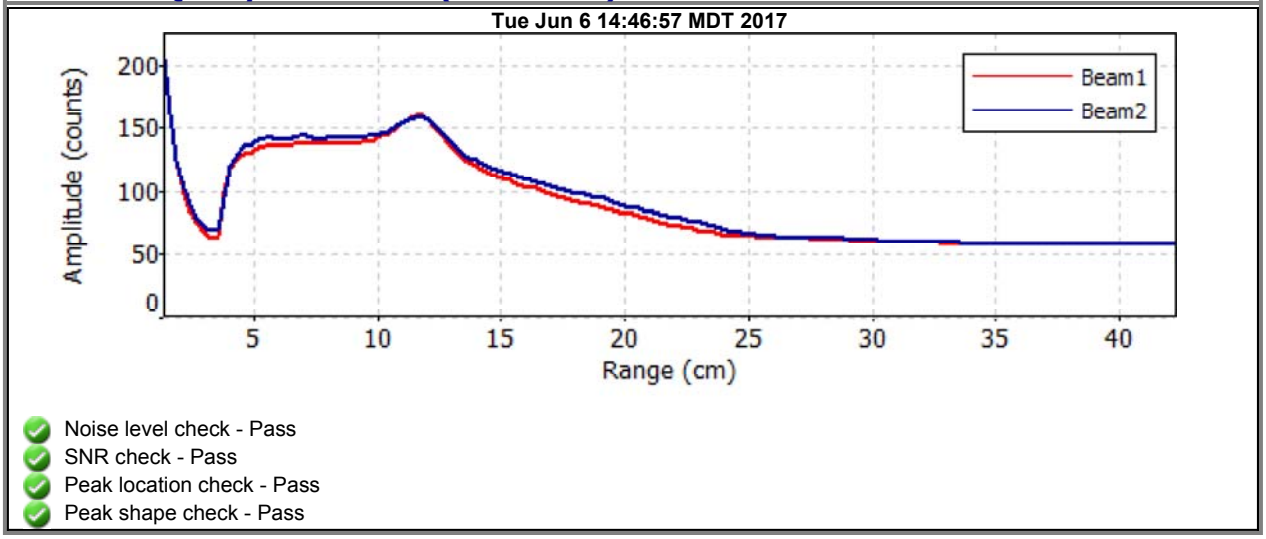
St	Loc	%Dep	Message
3	6.60	0.6	High angle: -24
4	6.80	0.6	High angle: -39
5	7.00	0.6	High angle: -38
6	7.20	0.6	High angle: -41
7	7.40	0.6	High angle: -38
8	7.60	0.6	High angle: -23
9	7.80	0.6	High angle: -21
10	8.00	0.6	High SNR variation during measurement: 2.1,5.2
11	8.20	0.6	Boundary QC is Good; possible boundary interference
13	8.60	0.6	High angle: -64
		0.6	High differences in beam SNR: 40.8,30.1
		0.6	High standard error: 0.224
		0.6	Boundary QC is Good; possible boundary interference
14	8.80	0.6	High standard error: 0.574
16	9.20	0.6	High standard error: 0.211

Discharge Measurement Summary

Date Generated: Mon Jun 19 2017

File Information		Site Details	
File Name	M12.WAD	Site Name	M12
Start Date and Time	2017/06/06 14:48:18	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jun 19 2017

File Information

File Name	M14.WAD
Start Date and Time	2017/06/06 13:03:30

Site Details

Site Name	
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	1.9%
Velocity	0.9%	3.3%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.1%	-
Overall	**3.2%**	**4.0%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	REW	Total Width	5.250
Mean SNR	45.0 dB	Total Area	3.397
Mean Temp	40.31 °F	Mean Depth	0.647
Disch. Equation	Mid-Section	Mean Velocity	2.6702
		Total Discharge	**9.0718**

Measurement Results

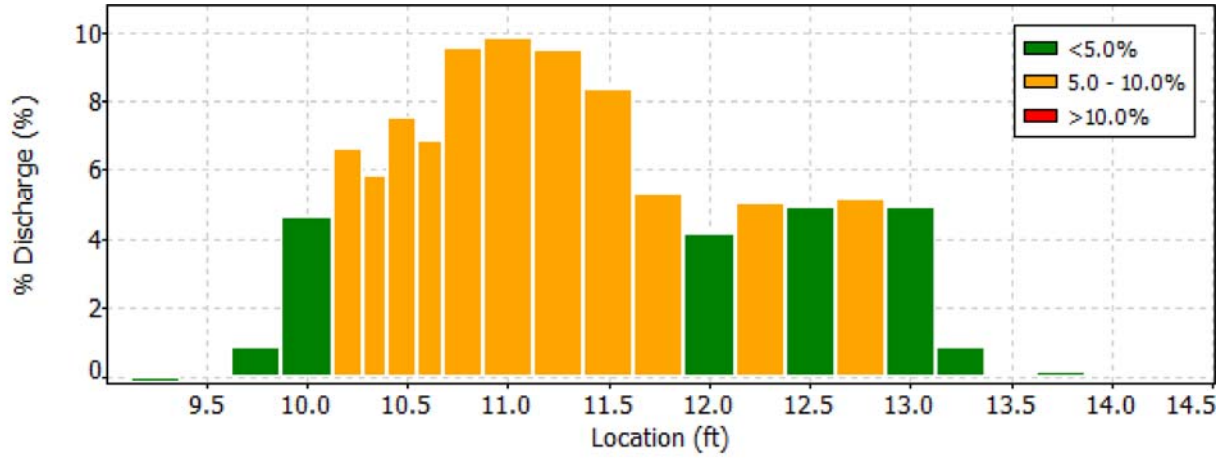
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:03	9.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*13:03*	*9.25*	*0.6*	*0.250*	*0.6*	*0.100*	*-0.2956*	*1.00*	*-0.2956*	*0.063*	*-0.0185*	*-0.2*
2	*13:04*	*9.50*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0417*	*1.00*	*0.0417*	*0.075*	*0.0031*	*0.0*
3	*13:05*	*9.75*	*0.6*	*0.600*	*0.6*	*0.240*	*0.5121*	*1.00*	*0.5121*	*0.150*	*0.0768*	*0.8*
4	*13:06*	*10.00*	*0.6*	*0.800*	*0.6*	*0.320*	*2.0886*	*1.00*	*2.0886*	*0.200*	*0.4176*	*4.6*
5	13:07	10.25	0.6	0.900	0.6	0.360	4.4475	1.00	4.4475	0.135	0.6001	6.6
6	13:24	10.30	0.6	0.900	0.6	0.360	4.7133	1.00	4.7133	0.112	0.5302	5.8
7	13:08	10.50	0.6	0.950	0.6	0.380	4.7976	1.00	4.7976	0.143	0.6842	7.5
8	13:25	10.60	0.6	1.000	0.6	0.400	4.9764	1.00	4.9764	0.125	0.6220	6.9
9	*13:09*	*10.75*	*0.6*	*1.100*	*0.6*	*0.440*	*3.9436*	*1.00*	*3.9436*	*0.220*	*0.8675*	*9.6*
10	13:11	11.00	0.6	1.000	0.6	0.400	3.5699	1.00	3.5699	0.250	0.8925	9.8
11	13:11	11.25	0.6	1.000	0.6	0.400	3.4475	1.00	3.4475	0.250	0.8619	9.5
12	13:12	11.50	0.6	1.000	0.6	0.400	3.0217	1.00	3.0217	0.250	0.7554	8.3
13	13:13	11.75	0.6	0.700	0.6	0.280	2.7644	1.00	2.7644	0.175	0.4839	5.3
14	13:14	12.00	0.6	0.750	0.6	0.300	2.0262	1.00	2.0262	0.188	0.3799	4.2
15	*13:16*	*12.25*	*0.6*	*0.800*	*0.6*	*0.320*	*2.2881*	*1.00*	*2.2881*	*0.200*	*0.4575*	*5.0*
16	13:17	12.50	0.6	0.600	0.6	0.240	2.9721	1.00	2.9721	0.150	0.4459	4.9
17	13:18	12.75	0.6	0.550	0.6	0.220	3.4180	1.00	3.4180	0.137	0.4699	5.2
18	13:18	13.00	0.6	0.550	0.6	0.220	3.2618	1.00	3.2618	0.137	0.4484	4.9
19	*13:19*	*13.25*	*0.6*	*0.600*	*0.6*	*0.240*	*0.5184*	*1.00*	*0.5184*	*0.150*	*0.0778*	*0.9*
20	*13:20*	*13.50*	*0.6*	*0.500*	*0.6*	*0.200*	*0.0315*	*1.00*	*0.0315*	*0.125*	*0.0039*	*0.0*
21	13:22	13.75	0.6	0.400	0.6	0.160	0.1542	1.00	0.1542	0.100	0.0154	0.2
22	*13:23*	*14.00*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0594*	*1.00*	*-0.0594*	*0.050*	*-0.0030*	*0.0*
23	13:23	14.25	None	0.100	0.0	0.0	0.0000	1.00	-0.0594	0.013	-0.0007	0.0

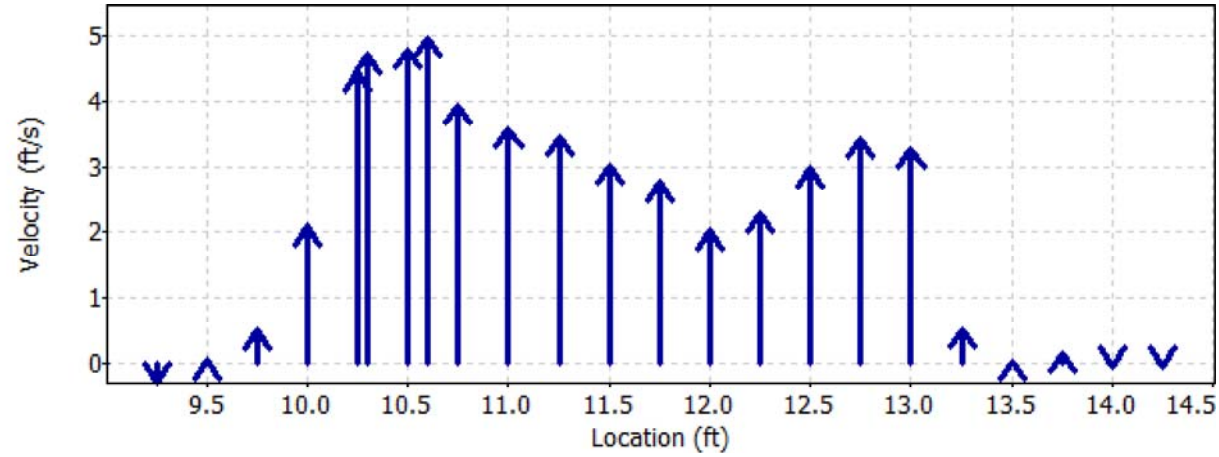
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

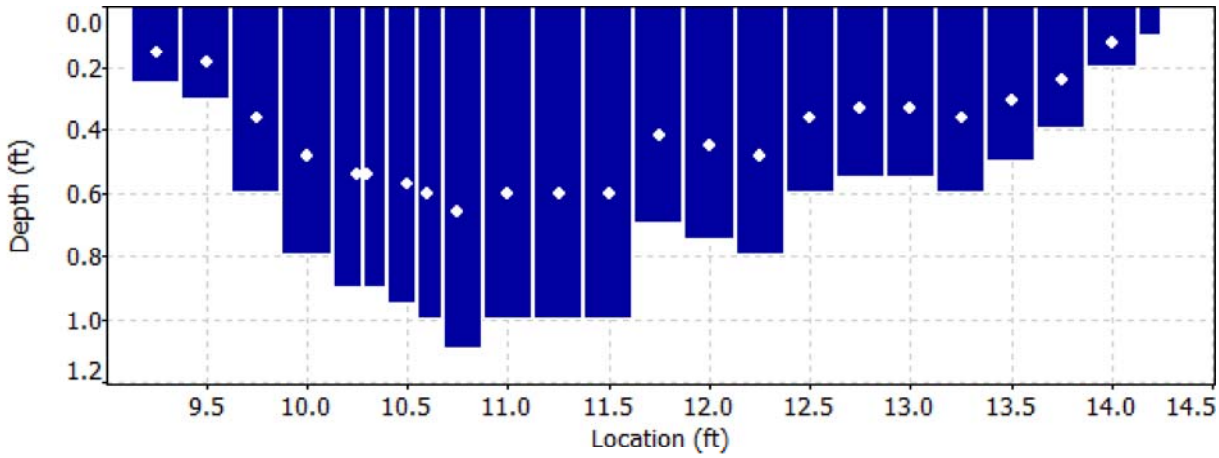
Discharge Measurement Summary

Date Generated: Mon Jun 19 2017

File Information		Site Details	
File Name	M14.WAD	Site Name	
Start Date and Time	2017/06/06 13:03:30	Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Jun 19 2017

File Information		Site Details	
File Name	M14.WAD	Site Name	
Start Date and Time	2017/06/06 13:03:30	Operator(s)	KB

Quality Control

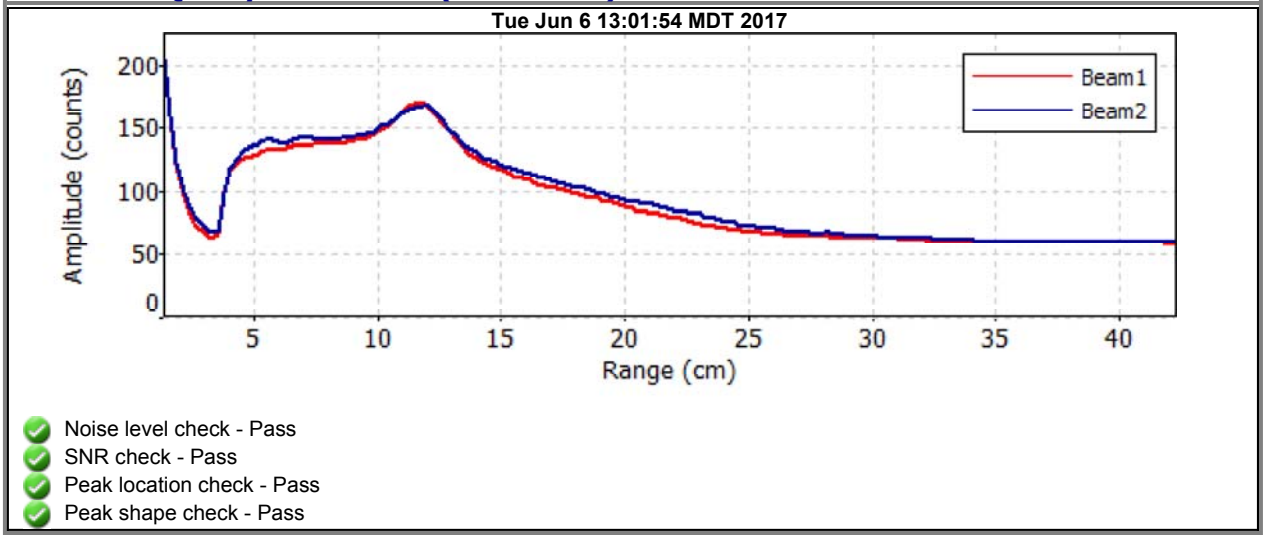
St	Loc	%Dep	Message
1	9.25	0.6	High angle: 159
2	9.50	0.6	High angle: 80
3	9.75	0.6	High angle: 58
4	10.00	0.6	High standard error: 0.182
9	10.75	0.6	High angle: 25
15	12.25	0.6	High standard error: 0.132
19	13.25	0.6	High angle: -48
		0.6	High standard error: 0.144
20	13.50	0.6	High number of spikes: 6
		0.6	High angle: 21
		0.6	High differences in beam SNR: 58.4,35.2
		0.6	High SNR variation during measurement: 5.2,4.7
22	14.00	0.6	High angle: -122

Discharge Measurement Summary

Date Generated: Mon Jun 19 2017

File Information		Site Details	
File Name	M14.WAD	Site Name	
Start Date and Time	2017/06/06 13:03:30	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jun 19 2017

File Information

File Name	M16E.WAD
Start Date and Time	2017/06/07 10:10:56

Site Details

Site Name	M16E
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.1%
Velocity	1.0%	5.7%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**3.3%**	**6.2%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	10.000
Mean SNR	39.2 dB	Total Area	5.118
Mean Temp	37.75 °F	Mean Depth	0.512
Disch. Equation	Mid-Section	Mean Velocity	2.3382
		Total Discharge	**11.9668**

Measurement Results

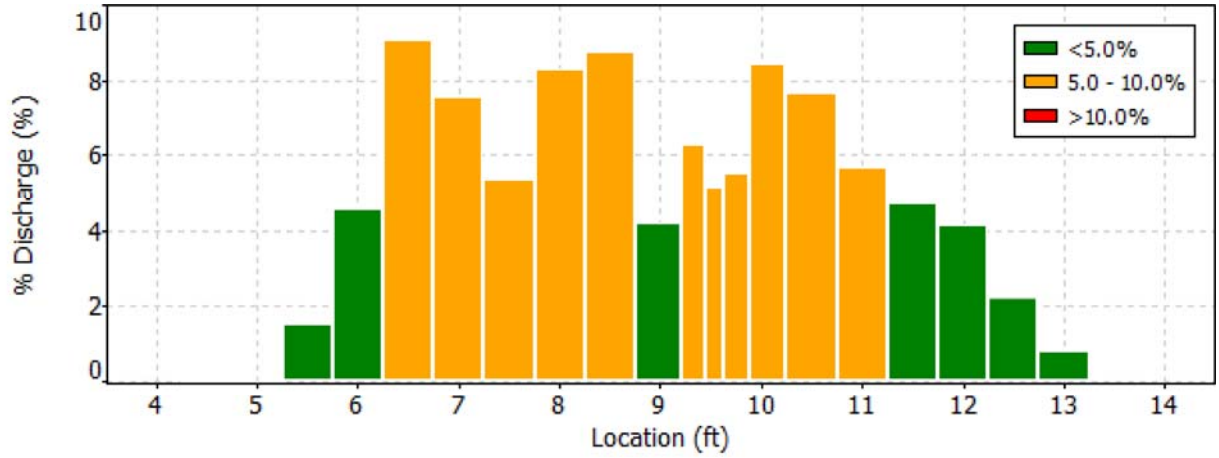
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:10	4.00	None	0.200	0.0	0.0	0.0000	1.00	-0.0518	0.050	-0.0026	0.0
1	*10:10*	*4.50*	*0.6*	*0.350*	*0.6*	*0.140*	*-0.0518*	*1.00*	*-0.0518*	*0.175*	*-0.0091*	*-0.1*
2	*10:13*	*5.00*	*0.6*	*0.400*	*0.6*	*0.160*	*-0.0417*	*1.00*	*-0.0417*	*0.200*	*-0.0083*	*-0.1*
3	10:14	5.50	0.6	0.450	0.6	0.180	0.8068	1.00	0.8068	0.225	0.1816	1.5
4	10:15	6.00	0.6	0.600	0.6	0.240	1.8196	1.00	1.8196	0.300	0.5459	4.6
5	10:16	6.50	0.6	0.600	0.6	0.240	3.6381	1.00	3.6381	0.300	1.0916	9.1
6	*10:17*	*7.00*	*0.6*	*0.600*	*0.6*	*0.240*	*3.0075*	*1.00*	*3.0075*	*0.300*	*0.9024*	*7.5*
7	*10:19*	*7.50*	*0.6*	*0.750*	*0.6*	*0.300*	*1.7116*	*1.00*	*1.7116*	*0.375*	*0.6419*	*5.4*
8	10:21	8.00	0.6	0.700	0.6	0.280	2.8402	1.00	2.8402	0.350	0.9943	8.3
9	*10:22*	*8.50*	*0.6*	*0.700*	*0.6*	*0.280*	*3.0059*	*1.00*	*3.0059*	*0.350*	*1.0523*	*8.8*
10	*10:23*	*9.00*	*0.6*	*0.700*	*0.6*	*0.280*	*1.5915*	*1.00*	*1.5915*	*0.315*	*0.5014*	*4.2*
11	*10:35*	*9.40*	*0.6*	*0.700*	*0.6*	*0.280*	*4.2992*	*1.00*	*4.2992*	*0.175*	*0.7525*	*6.3*
12	10:24	9.50	0.6	0.800	0.6	0.320	4.4311	1.00	4.4311	0.140	0.6204	5.2
13	*10:34*	*9.75*	*0.6*	*0.700*	*0.6*	*0.280*	*3.7923*	*1.00*	*3.7923*	*0.175*	*0.6638*	*5.5*
14	10:25	10.00	0.6	0.700	0.6	0.280	3.8570	1.00	3.8570	0.263	1.0126	8.5
15	10:26	10.50	0.6	0.550	0.6	0.220	3.3415	1.00	3.3415	0.275	0.9187	7.7
16	10:27	11.00	0.6	0.500	0.6	0.200	2.7159	1.00	2.7159	0.250	0.6790	5.7
17	10:28	11.50	0.6	0.500	0.6	0.200	2.2661	1.00	2.2661	0.250	0.5665	4.7
18	10:29	12.00	0.6	0.400	0.6	0.160	2.4915	1.00	2.4915	0.200	0.4982	4.2
19	10:31	12.50	0.6	0.400	0.6	0.160	1.3330	1.00	1.3330	0.200	0.2666	2.2
20	10:32	13.00	0.6	0.200	0.6	0.080	0.9777	1.00	0.9777	0.100	0.0978	0.8
21	10:33	13.50	0.6	0.200	0.6	0.080	-0.0033	1.00	-0.0033	0.100	-0.0003	0.0
22	10:33	14.00	None	0.200	0.0	0.0	0.0000	1.00	-0.0033	0.050	-0.0002	0.0

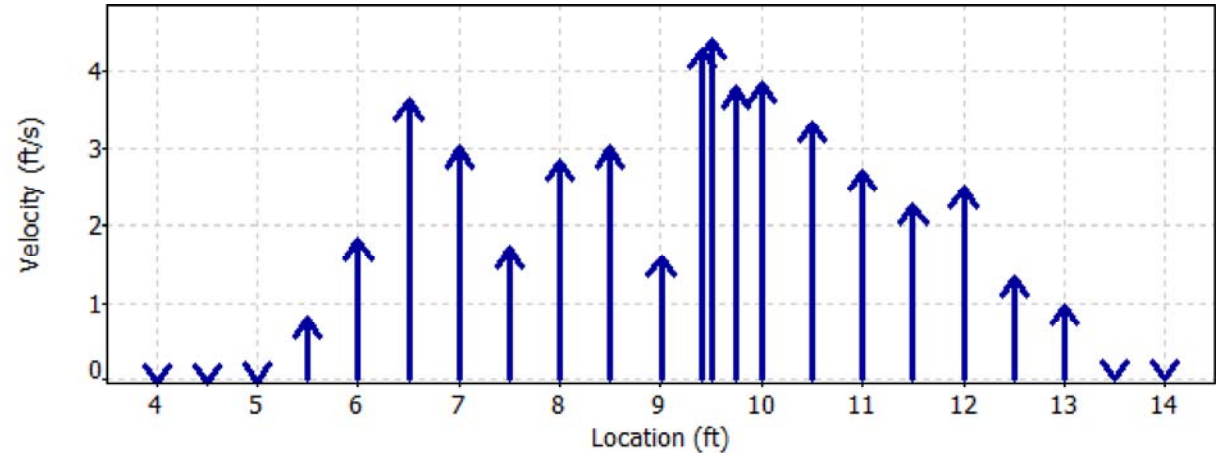
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

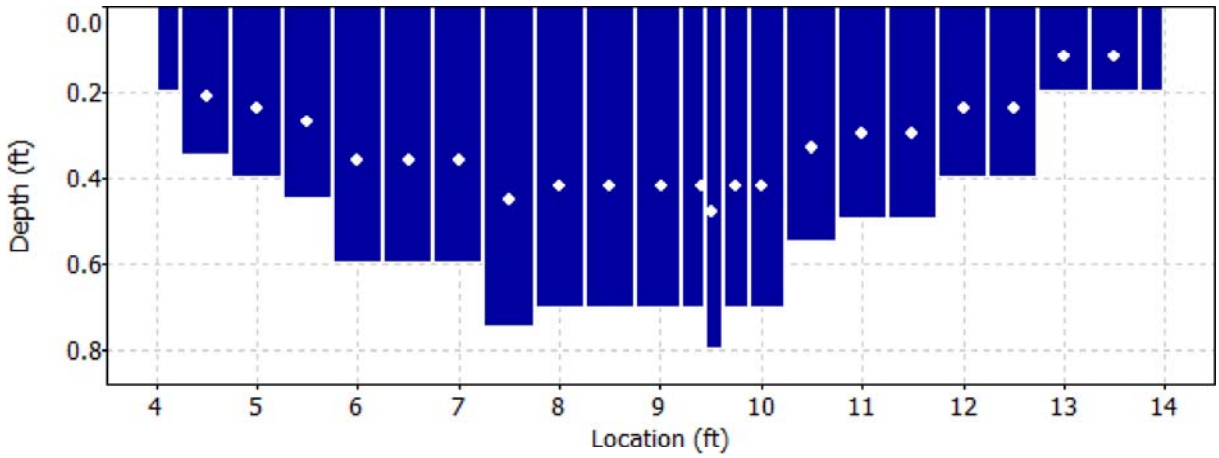
Discharge Measurement Summary

Date Generated: Mon Jun 19 2017

File Information		Site Details	
File Name	M16E.WAD	Site Name	M16E
Start Date and Time	2017/06/07 10:10:56	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Mon Jun 19 2017

File Information

File Name	M16E.WAD
Start Date and Time	2017/06/07 10:10:56

Site Details

Site Name	M16E
Operator(s)	EY

Quality Control

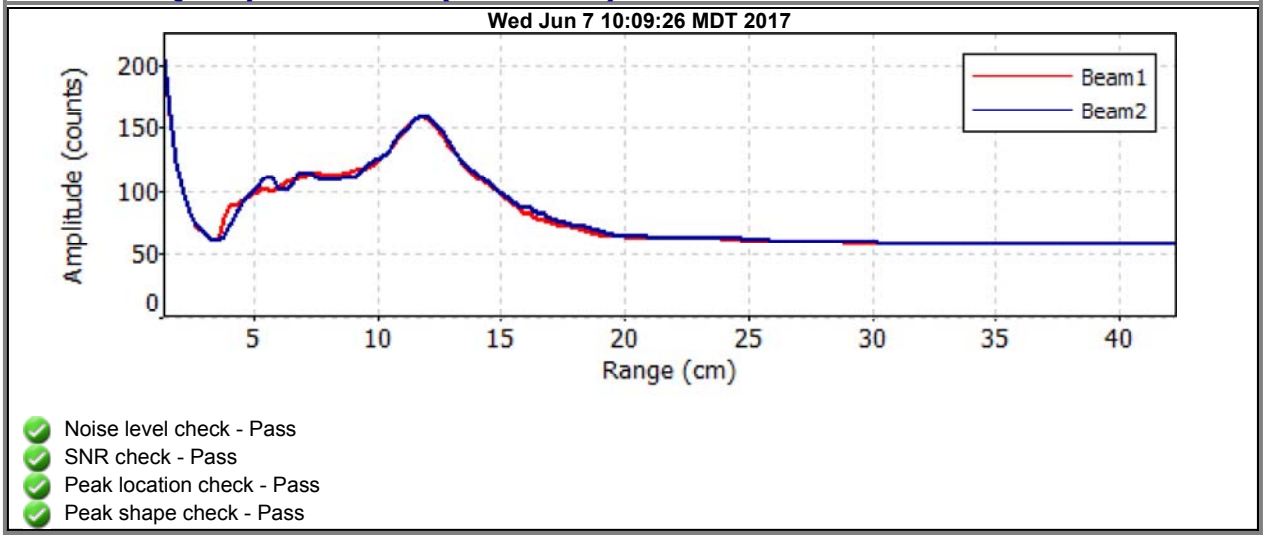
St	Loc	%Dep	Message
1	4.50	0.6	High angle: -105
2	5.00	0.6	High angle: -99
6	7.00	0.6	High angle: 24
7	7.50	0.6	High angle: 21
		0.6	High standard error: 0.123
9	8.50	0.6	High angle: 27
10	9.00	0.6	High standard error: 0.179
11	9.40	0.6	High angle: 23
13	9.75	0.6	High angle: 28

Discharge Measurement Summary

Date Generated: Mon Jun 19 2017

File Information		Site Details	
File Name	M16E.WAD	Site Name	M16E
Start Date and Time	2017/06/07 10:10:56	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jun 19 2017

File Information

File Name	M17.WAD
Start Date and Time	2017/06/07 09:10:42

Site Details

Site Name	M17
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	1.2%
Velocity	0.6%	2.0%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.4%	-
Overall	**3.3%**	**2.6%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	REW	Total Width	5.997
Mean SNR	39.7 dB	Total Area	6.027
Mean Temp	38.89 °F	Mean Depth	1.005
Disch. Equation	Mid-Section	Mean Velocity	3.6530
		Total Discharge	**22.0178**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:10	8.50	None	0.200	0.0	0.0	0.0000	1.00	0.9508	0.030	0.0285	0.1
1	09:12	8.80	0.6	0.300	0.6	0.120	0.9508	1.00	0.9508	0.090	0.0855	0.4
2	09:13	9.10	0.6	0.350	0.6	0.140	1.1736	1.00	1.1736	0.105	0.1232	0.6
3	09:14	9.40	0.6	0.400	0.6	0.160	1.6339	1.00	1.6339	0.120	0.1959	0.9
4	09:16	9.70	0.6	0.650	0.6	0.260	2.7913	1.00	2.7913	0.195	0.5440	2.5
5	09:17	10.00	0.6	0.800	0.6	0.320	4.5325	1.00	4.5325	0.240	1.0871	4.9
6	09:18	10.30	0.6	1.000	0.6	0.400	3.9259	1.00	3.9259	0.300	1.1772	5.3
7	09:19	10.60	0.6	1.350	0.6	0.540	4.2110	1.00	4.2110	0.405	1.7048	7.7
8	09:21	10.90	0.6	1.300	0.6	0.520	4.4718	1.00	4.4718	0.390	1.7431	7.9
9	09:22	11.20	0.6	1.300	0.6	0.520	4.6460	1.00	4.6460	0.390	1.8110	8.2
10	09:25	11.50	0.6	1.400	0.6	0.560	4.3645	1.00	4.3645	0.420	1.8322	8.3
11	09:26	11.80	0.6	1.400	0.6	0.560	4.5610	1.00	4.5610	0.420	1.9147	8.7
12	09:28	12.10	0.6	1.300	0.6	0.520	4.0102	1.00	4.0102	0.390	1.5631	7.1
13	09:29	12.40	0.6	1.300	0.6	0.520	4.1480	1.00	4.1480	0.390	1.6168	7.3
14	*09:30*	*12.70*	*0.6*	*1.200*	*0.6*	*0.480*	*3.5991*	*1.00*	*3.5991*	*0.360*	*1.2952*	*5.9*
15	09:31	13.00	0.6	1.200	0.6	0.480	3.0272	1.00	3.0272	0.360	1.0894	4.9
16	09:32	13.30	0.6	1.200	0.6	0.480	2.8678	1.00	2.8678	0.360	1.0321	4.7
17	09:33	13.60	0.6	1.100	0.6	0.440	3.2411	1.00	3.2411	0.330	1.0692	4.9
18	09:34	13.90	0.6	1.100	0.6	0.440	3.0466	1.00	3.0466	0.330	1.0050	4.6
19	*09:35*	*14.20*	*0.6*	*0.900*	*0.6*	*0.360*	*2.7165*	*1.00*	*2.7165*	*0.270*	*0.7331*	*3.3*
20	09:35	14.50	None	0.900	0.0	0.0	0.0000	1.00	2.7165	0.135	0.3665	1.7

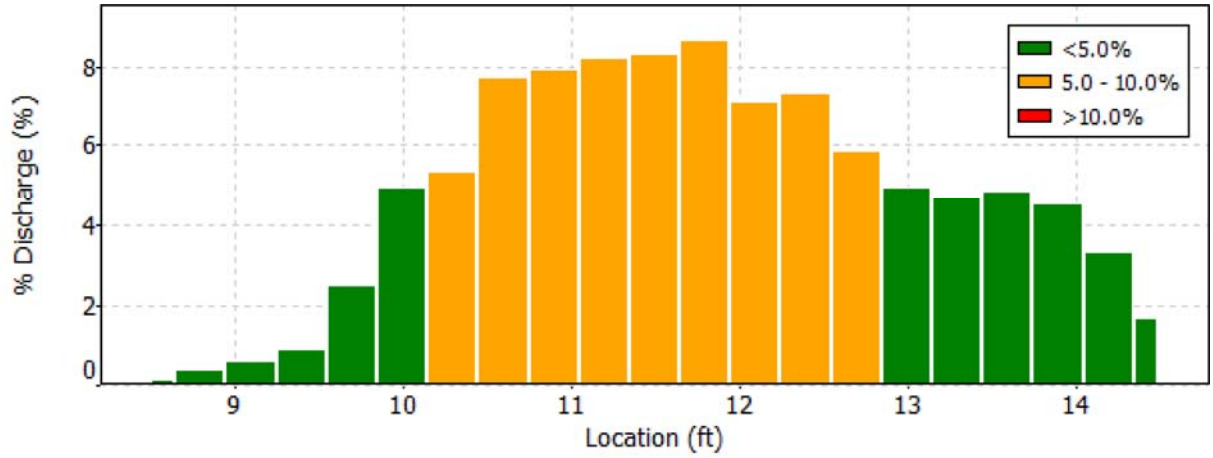
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

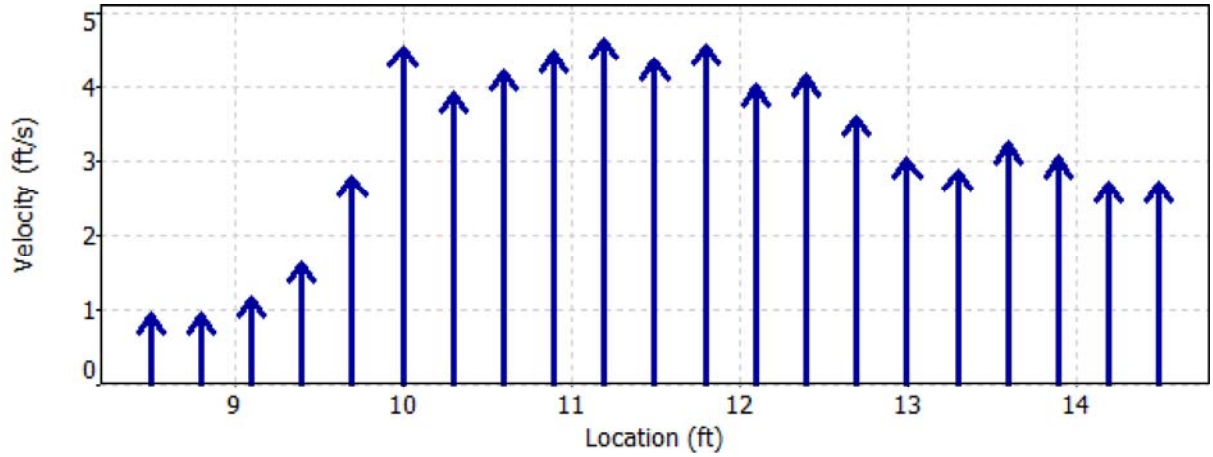
Discharge Measurement Summary

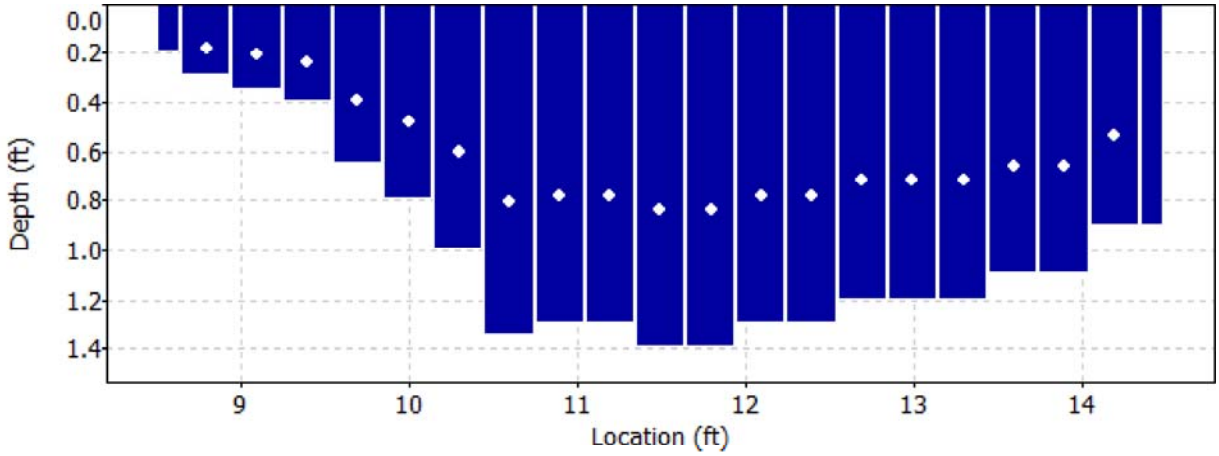
Date Generated: Mon Jun 19 2017

File Information	
File Name	M17.WAD
Start Date and Time	2017/06/07 09:10:42

Site Details	
Site Name	M17
Operator(s)	EY







Discharge Measurement Summary

Date Generated: Mon Jun 19 2017

File Information	
File Name	M17.WAD
Start Date and Time	2017/06/07 09:10:42

Site Details	
Site Name	M17
Operator(s)	EY

Quality Control

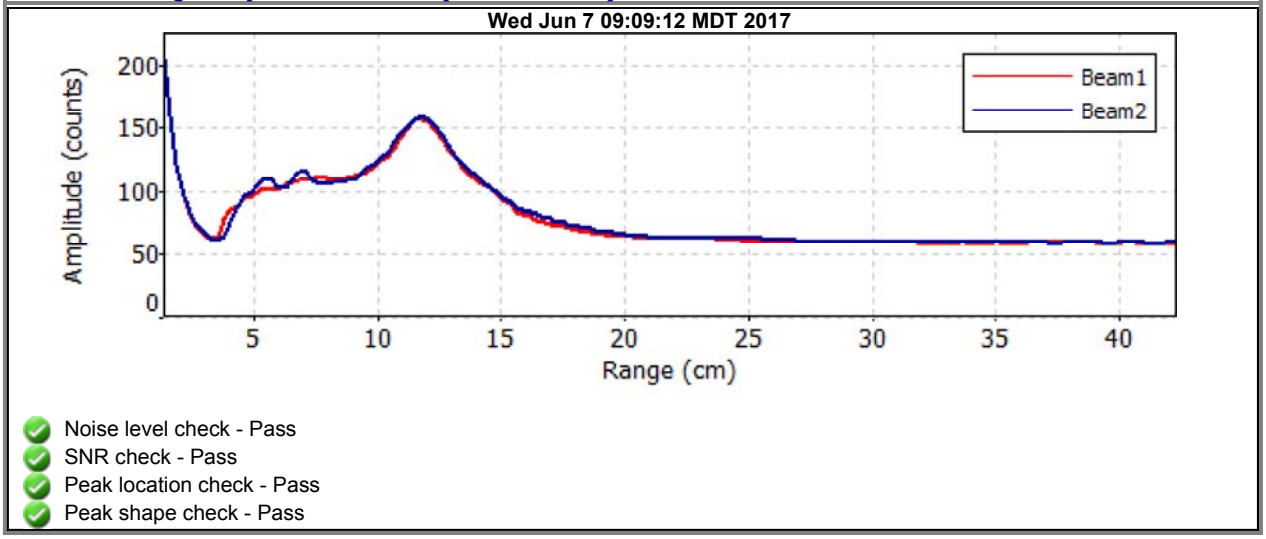
St	Loc	%Dep	Message
14	12.70	0.6	High angle: -22
19	14.20	0.6	High angle: -21

Discharge Measurement Summary

Date Generated: Mon Jun 19 2017

File Information		Site Details	
File Name	M17.WAD	Site Name	M17
Start Date and Time	2017/06/07 09:10:42	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information

File Name	CC03.WAD
Start Date and Time	2017/06/06 10:51:59

Site Details

Site Name	CC03
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.1%
Velocity	1.0%	6.7%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.0%	-
Overall	**3.1%**	**7.1%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	LEW	Total Width	24.600
Mean SNR	53.4 dB	Total Area	13.598
Mean Temp	39.51 °F	Mean Depth	0.553
Disch. Equation	Mid-Section	Mean Velocity	2.9740
		Total Discharge	**40.4409**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:51	7.50	None	0.100	0.0	0.0	0.0000	1.00	0.7434	0.060	0.0446	0.1
1	10:51	8.70	0.6	0.200	0.6	0.080	0.7434	1.00	0.7434	0.240	0.1786	0.4
2	10:53	9.90	0.6	0.300	0.6	0.120	1.6542	1.00	1.6542	0.360	0.5953	1.5
3	10:54	11.10	0.6	0.400	0.6	0.160	1.7421	1.00	1.7421	0.480	0.8362	2.1
4	*10:55*	*12.30*	*0.6*	*0.500*	*0.6*	*0.200*	*0.7631*	*1.00*	*0.7631*	*0.600*	*0.4579*	*1.1*
5	10:56	13.50	0.6	0.400	0.6	0.160	0.9915	1.00	0.9915	0.480	0.4759	1.2
6	*10:57*	*14.70*	*0.6*	*0.400*	*0.6*	*0.160*	*1.4495*	*1.00*	*1.4495*	*0.480*	*0.6957*	*1.7*
7	10:59	15.90	0.6	0.550	0.6	0.220	0.9124	1.00	0.9124	0.660	0.6021	1.5
8	11:00	17.10	0.6	0.550	0.6	0.220	3.9892	1.00	3.9892	0.660	2.6325	6.5
9	11:01	18.30	0.6	0.600	0.6	0.240	4.8015	1.00	4.8015	0.720	3.4578	8.6
10	11:03	19.50	0.6	0.700	0.6	0.280	2.9649	1.00	2.9649	0.840	2.4913	6.2
11	*11:04*	*20.70*	*0.6*	*0.800*	*0.6*	*0.320*	*0.7940*	*1.00*	*0.7940*	*0.960*	*0.7622*	*1.9*
12	11:05	21.90	0.6	0.800	0.6	0.320	4.5502	1.00	4.5502	0.719	3.2730	8.1
13	*11:16*	*22.50*	*0.6*	*0.800*	*0.6*	*0.320*	*5.2530*	*1.00*	*5.2530*	*0.480*	*2.5213*	*6.2*
14	11:06	23.10	0.6	0.800	0.6	0.320	6.0922	1.00	6.0922	0.480	2.9241	7.2
15	11:17	23.70	0.6	0.800	0.6	0.320	5.8540	1.00	5.8540	0.480	2.8098	6.9
16	*11:08*	*24.30*	*0.6*	*1.000*	*0.6*	*0.400*	*3.4396*	*1.00*	*3.4396*	*0.600*	*2.0634*	*5.1*
17	*11:18*	*24.90*	*0.6*	*0.800*	*0.6*	*0.320*	*3.4285*	*1.00*	*3.4285*	*0.480*	*1.6456*	*4.1*
18	11:09	25.50	0.6	0.800	0.6	0.320	5.2871	1.00	5.2871	0.480	2.5377	6.3
19	*11:19*	*26.10*	*0.6*	*0.700*	*0.6*	*0.280*	*4.3258*	*1.00*	*4.3258*	*0.420*	*1.8174*	*4.5*
20	11:10	26.70	0.6	0.600	0.6	0.240	3.5725	1.00	3.5725	0.600	2.1437	5.3
21	11:11	28.10	0.6	0.600	0.6	0.240	1.7795	1.00	1.7795	0.839	1.4928	3.7
22	11:12	29.50	0.6	0.600	0.6	0.240	3.3087	1.00	3.3087	0.839	2.7756	6.9
23	11:13	30.90	0.6	0.400	0.6	0.160	1.8829	1.00	1.8829	0.520	0.9797	2.4
24	11:13	32.10	None	0.200	0.0	0.0	0.0000	1.00	1.8829	0.120	0.2269	0.6

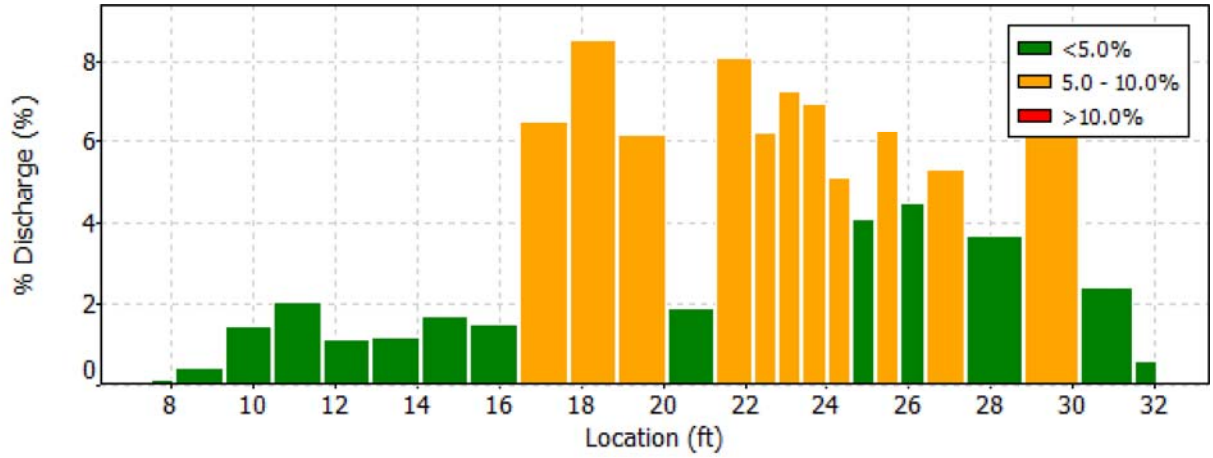
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

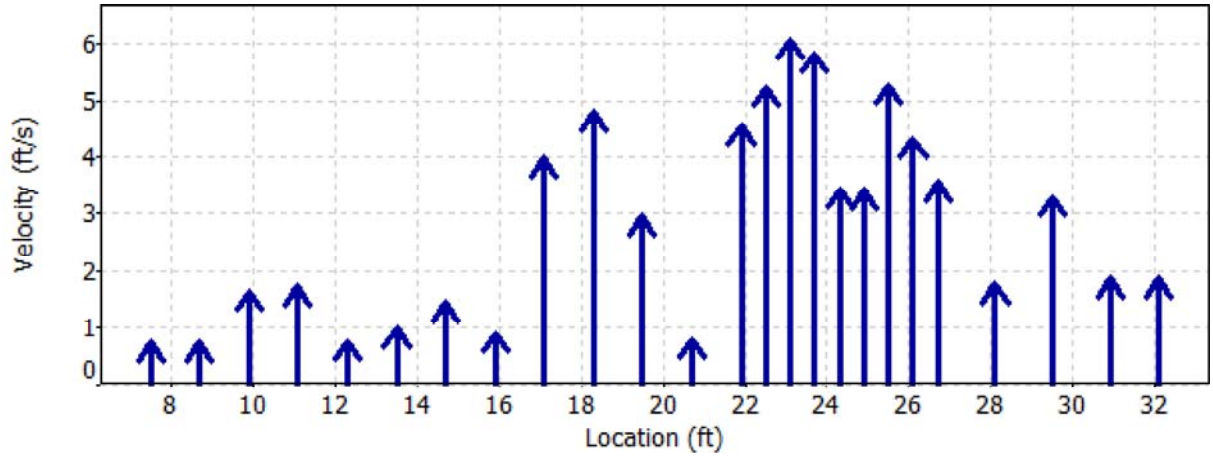
Discharge Measurement Summary

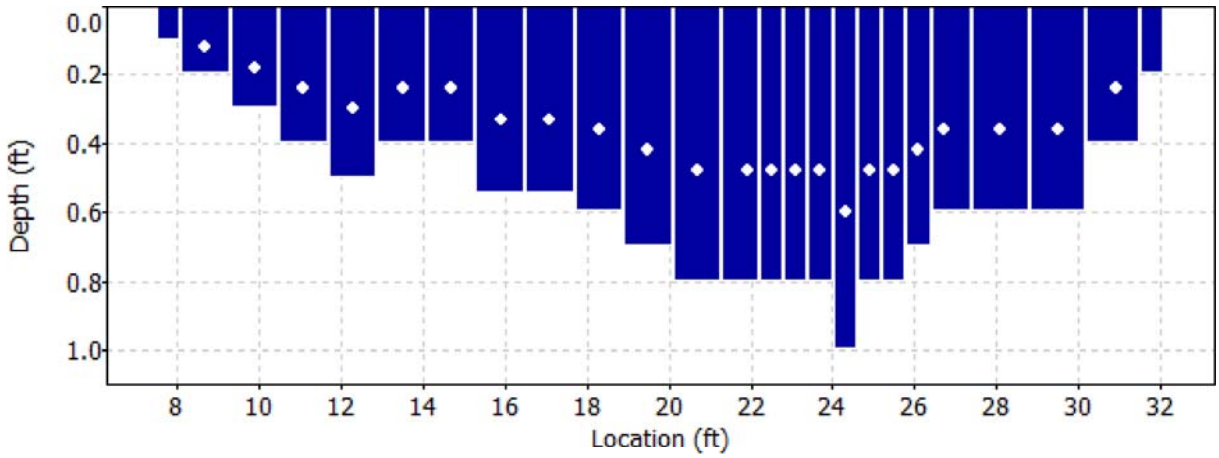
Date Generated: Thu Jan 25 2018

File Information	
File Name	CC03.WAD
Start Date and Time	2017/06/06 10:51:59

Site Details	
Site Name	CC03
Operator(s)	LC







Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information		Site Details	
File Name	CC03.WAD	Site Name	CC03
Start Date and Time	2017/06/06 10:51:59	Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
4	12.30	0.6	High angle: -30
		0.6	High standard error: 0.161
6	14.70	0.6	High angle: -29
11	20.70	0.6	High angle: -34
13	22.50	0.6	High number of spikes: 8
16	24.30	0.6	High standard error: 0.225
17	24.90	0.6	High standard error: 0.287
19	26.10	0.6	High standard error: 0.218

Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information

File Name	CC07.WAD
Start Date and Time	2017/06/06 10:11:22

Site Details

Site Name	CC07
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.7%
Velocity	1.1%	10.0%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.0%	-
Overall	**3.0%**	**10.4%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	LEW	Total Width	21.500
Mean SNR	51.5 dB	Total Area	5.293
Mean Temp	37.71 °F	Mean Depth	0.246
Disch. Equation	Mid-Section	Mean Velocity	1.0557
		Total Discharge	**5.5880**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:11	5.90	None	0.100	0.0	0.0	0.0000	1.00	0.6178	0.050	0.0309	0.6
1	*10:11*	*6.90*	*0.6*	*0.300*	*0.6*	*0.120*	*0.6178*	*1.00*	*0.6178*	*0.300*	*0.1853*	*3.3*
2	*10:12*	*7.90*	*0.6*	*0.300*	*0.6*	*0.120*	*1.2300*	*1.00*	*1.2300*	*0.300*	*0.3688*	*6.6*
3	*10:13*	*8.90*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3940*	*1.00*	*0.3940*	*0.200*	*0.0789*	*1.4*
4	10:14	9.90	0.6	0.200	0.6	0.080	1.7697	1.00	1.7697	0.200	0.3542	6.3
5	*10:16*	*10.90*	*0.6*	*0.200*	*0.6*	*0.080*	*0.2178*	*1.00*	*0.2178*	*0.200*	*0.0436*	*0.8*
6	*10:17*	*11.90*	*0.6*	*0.200*	*0.6*	*0.080*	*0.4724*	*1.00*	*0.4724*	*0.200*	*0.0946*	*1.7*
7	*10:18*	*12.90*	*0.6*	*0.200*	*0.6*	*0.080*	*0.8871*	*1.00*	*0.8871*	*0.200*	*0.1775*	*3.2*
8	*10:20*	*13.90*	*0.6*	*0.200*	*0.6*	*0.080*	*0.1978*	*1.00*	*0.1978*	*0.200*	*0.0396*	*0.7*
9	10:21	14.90	0.6	0.400	0.6	0.160	1.8360	1.00	1.8360	0.300	0.5507	9.9
10	10:36	15.40	0.6	0.400	0.6	0.160	2.2221	1.00	2.2221	0.200	0.4443	8.0
11	*10:22*	*15.90*	*0.6*	*0.400*	*0.6*	*0.160*	*1.4984*	*1.00*	*1.4984*	*0.200*	*0.2996*	*5.4*
12	*10:37*	*16.40*	*0.6*	*0.300*	*0.6*	*0.120*	*1.7841*	*1.00*	*1.7841*	*0.150*	*0.2675*	*4.8*
13	*10:23*	*16.90*	*0.6*	*0.300*	*0.6*	*0.120*	*1.6775*	*1.00*	*1.6775*	*0.225*	*0.3773*	*6.8*
14	*10:24*	*17.90*	*0.6*	*0.200*	*0.6*	*0.080*	*0.8937*	*1.00*	*0.8937*	*0.200*	*0.1789*	*3.2*
15	*10:25*	*18.90*	*0.6*	*0.200*	*0.6*	*0.080*	*0.5082*	*1.00*	*0.5082*	*0.200*	*0.1017*	*1.8*
16	*10:26*	*19.90*	*0.6*	*0.200*	*0.6*	*0.080*	*0.7333*	*1.00*	*0.7333*	*0.200*	*0.1467*	*2.6*
17	*10:27*	*20.90*	*0.6*	*0.250*	*0.6*	*0.100*	*1.0915*	*1.00*	*1.0915*	*0.250*	*0.2729*	*4.9*
18	10:29	21.90	0.6	0.300	0.6	0.120	1.9249	1.00	1.9249	0.225	0.4329	7.7
19	10:39	22.40	0.6	0.300	0.6	0.120	1.3566	1.00	1.3566	0.150	0.2034	3.6
20	*10:30*	*22.90*	*0.6*	*0.250*	*0.6*	*0.100*	*1.9777*	*1.00*	*1.9777*	*0.125*	*0.2472*	*4.4*
21	*10:40*	*23.40*	*0.6*	*0.300*	*0.6*	*0.120*	*1.4593*	*1.00*	*1.4593*	*0.210*	*0.3063*	*5.5*
22	*10:31*	*24.30*	*0.6*	*0.250*	*0.6*	*0.100*	*0.7034*	*1.00*	*0.7034*	*0.287*	*0.2022*	*3.6*
23	10:32	25.70	0.6	0.250	0.6	0.100	0.4780	1.00	0.4780	0.350	0.1673	3.0
24	*10:33*	*27.10*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0925*	*1.00*	*0.0925*	*0.170*	*0.0157*	*0.3*
25	10:33	27.40	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

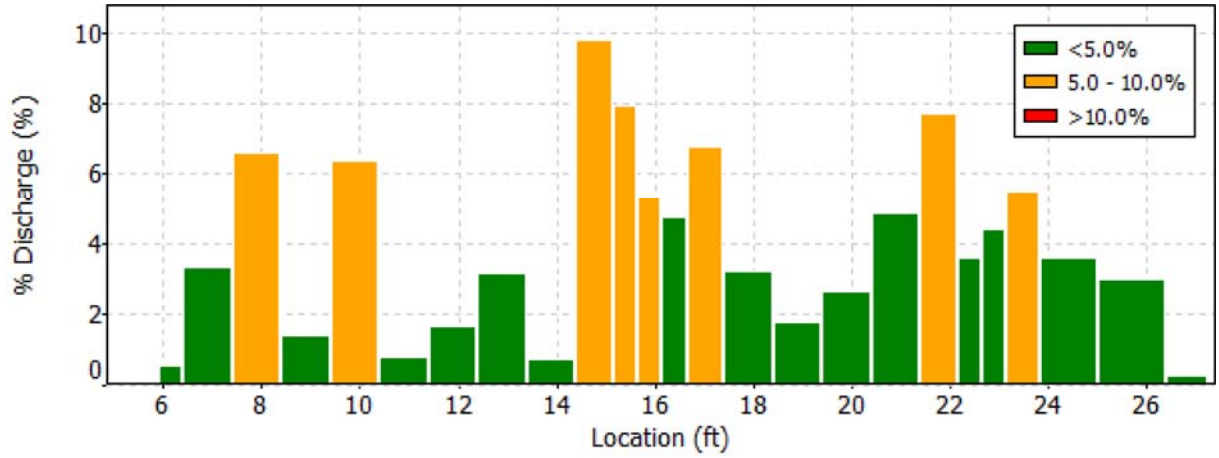
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

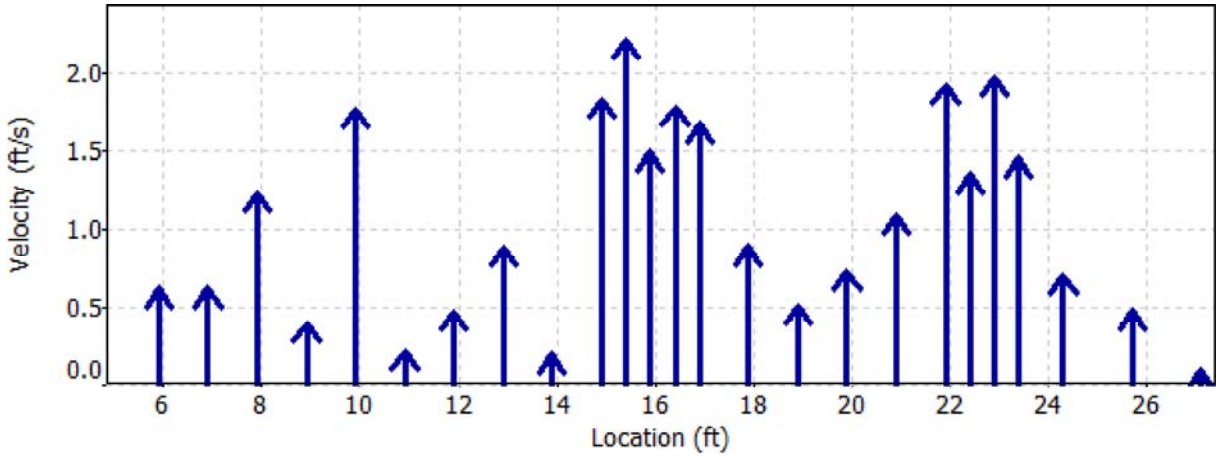
Discharge Measurement Summary

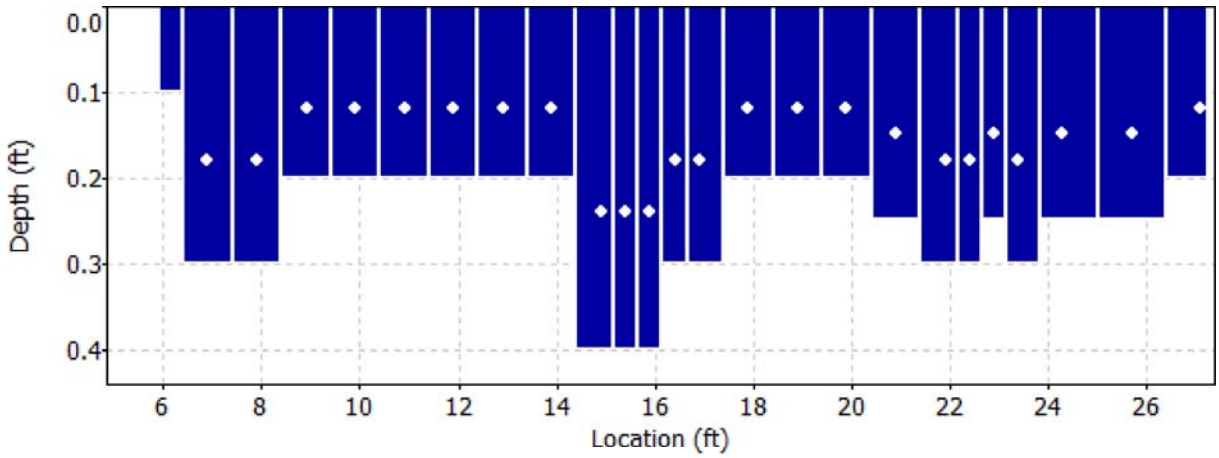
Date Generated: Thu Jan 25 2018

File Information	
File Name	CC07.WAD
Start Date and Time	2017/06/06 10:11:22

Site Details	
Site Name	CC07
Operator(s)	LC







Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information		Site Details	
File Name	CC07.WAD	Site Name	CC07
Start Date and Time	2017/06/06 10:11:22	Operator(s)	LC

Quality Control

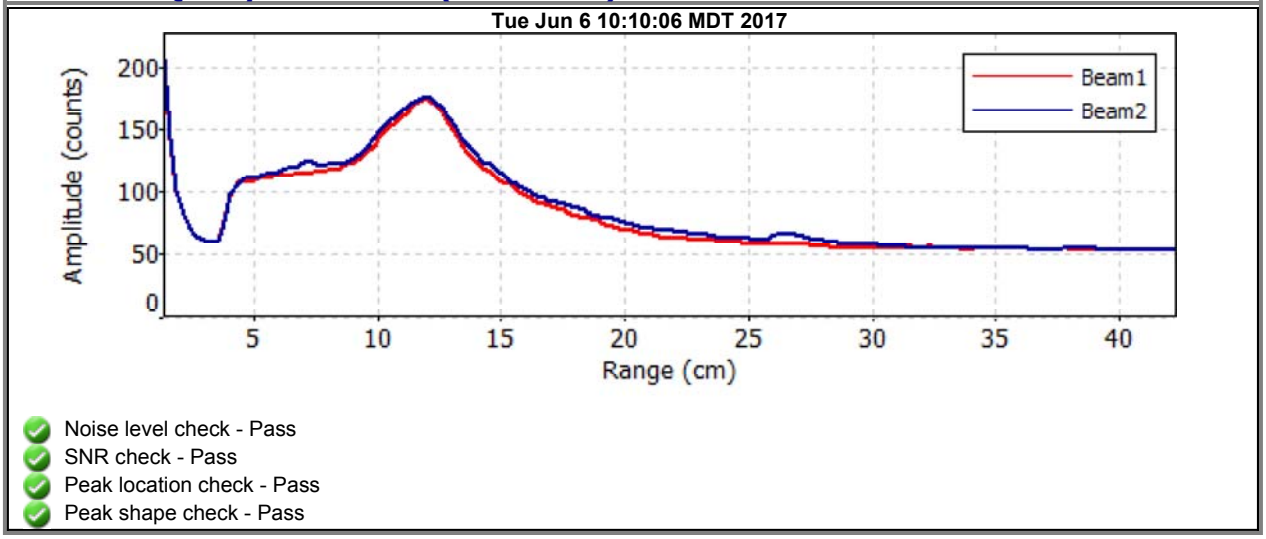
St	Loc	%Dep	Message
1	6.90	0.6	High number of spikes: 6
2	7.90	0.6	High standard error: 0.089
3	8.90	0.6	High angle: 37
5	10.90	0.6	High angle: -41
6	11.90	0.6	High angle: -40
7	12.90	0.6	High angle: -28
		0.6	High standard error: 0.081
8	13.90	0.6	High angle: -60
11	15.90	0.6	High angle: -22
		0.6	High standard error: 0.100
12	16.40	0.6	High angle: -36
13	16.90	0.6	High angle: -41
14	17.90	0.6	High angle: -49
		0.6	SNR (30.7) is different from typical SNR (51.5)
15	18.90	0.6	High angle: -51
16	19.90	0.6	High angle: -35
17	20.90	0.6	High number of spikes: 6
20	22.90	0.6	High angle: -31
21	23.40	0.6	High angle: -30
22	24.30	0.6	High angle: -34
24	27.10	0.6	High angle: -33

Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information		Site Details	
File Name	CC07.WAD	Site Name	CC07
Start Date and Time	2017/06/06 10:11:22	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information

File Name	CC17.WAD
Start Date and Time	2017/06/06 13:43:47

Site Details

Site Name	CC17
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	1.3%
Velocity	1.0%	6.8%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.2%	-
Overall	**3.2%**	**7.0%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	12.300
Mean SNR	50.3 dB	Total Area	10.681
Mean Temp	37.75 °F	Mean Depth	0.868
Disch. Equation	Mid-Section	Mean Velocity	3.9957
		Total Discharge	**42.6779**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:43	6.80	None	0.100	0.0	0.0	0.0000	1.00	1.1906	0.030	0.0357	0.1
1	13:43	7.40	0.6	0.600	0.6	0.240	1.1906	1.00	1.1906	0.360	0.4287	1.0
2	13:44	8.00	0.6	0.600	0.6	0.240	2.4728	1.00	2.4728	0.360	0.8904	2.1
3	*13:46*	*8.60*	*0.6*	*0.900*	*0.6*	*0.360*	*0.5607*	*1.00*	*0.5607*	*0.540*	*0.3028*	*0.7*
4	*13:47*	*9.20*	*0.6*	*1.200*	*0.6*	*0.480*	*4.1375*	*1.00*	*4.1375*	*0.720*	*2.9796*	*7.0*
5	13:48	9.80	0.6	1.200	0.6	0.480	3.2552	1.00	3.2552	0.720	2.3443	5.5
6	13:49	10.40	0.6	1.300	0.6	0.520	6.4560	1.00	6.4560	0.455	2.9364	6.9
7	*14:07*	*10.50*	*0.6*	*1.200*	*0.6*	*0.480*	*5.5692*	*1.00*	*5.5692*	*0.360*	*2.0054*	*4.7*
8	*13:50*	*11.00*	*0.6*	*1.300*	*0.6*	*0.520*	*3.5922*	*1.00*	*3.5922*	*0.715*	*2.5691*	*6.0*
9	13:51	11.60	0.6	1.400	0.6	0.560	4.1417	1.00	4.1417	0.840	3.4793	8.2
10	13:53	12.20	0.6	1.400	0.6	0.560	5.5896	1.00	5.5896	0.630	3.5197	8.2
11	14:09	12.50	0.6	1.300	0.6	0.520	6.2464	1.00	6.2464	0.390	2.4361	5.7
12	*13:54*	*12.80*	*0.6*	*1.200*	*0.6*	*0.480*	*3.9724*	*1.00*	*3.9724*	*0.540*	*2.1468*	*5.0*
13	13:55	13.40	0.6	1.000	0.6	0.400	5.6588	1.00	5.6588	0.600	3.3956	8.0
14	13:57	14.00	0.6	0.850	0.6	0.340	4.6955	1.00	4.6955	0.510	2.3952	5.6
15	13:58	14.60	0.6	0.800	0.6	0.320	3.9416	1.00	3.9416	0.480	1.8919	4.4
16	13:59	15.20	0.6	0.700	0.6	0.280	4.1946	1.00	4.1946	0.420	1.7622	4.1
17	14:00	15.80	0.6	0.650	0.6	0.260	1.6562	1.00	1.6562	0.390	0.6459	1.5
18	14:01	16.40	0.6	0.600	0.6	0.240	4.1598	1.00	4.1598	0.360	1.4978	3.5
19	14:02	17.00	0.6	0.600	0.6	0.240	4.0377	1.00	4.0377	0.360	1.4539	3.4
20	14:03	17.60	0.6	0.600	0.6	0.240	3.5062	1.00	3.5062	0.360	1.2625	3.0
21	14:04	18.20	0.6	0.600	0.6	0.240	4.2589	1.00	4.2589	0.450	1.9154	4.5
22	14:04	19.10	None	0.200	0.0	0.0	0.0000	1.00	4.2589	0.090	0.3831	0.9

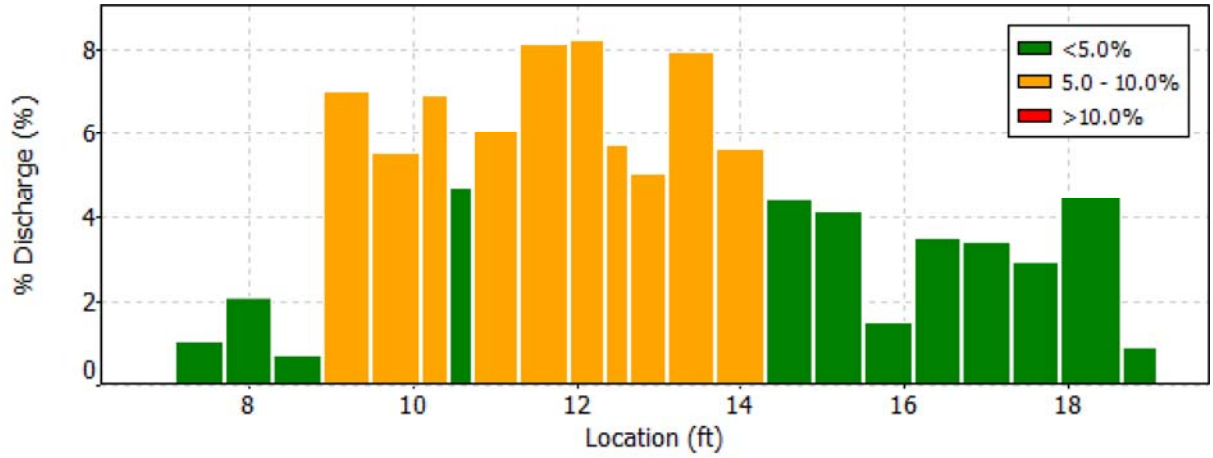
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

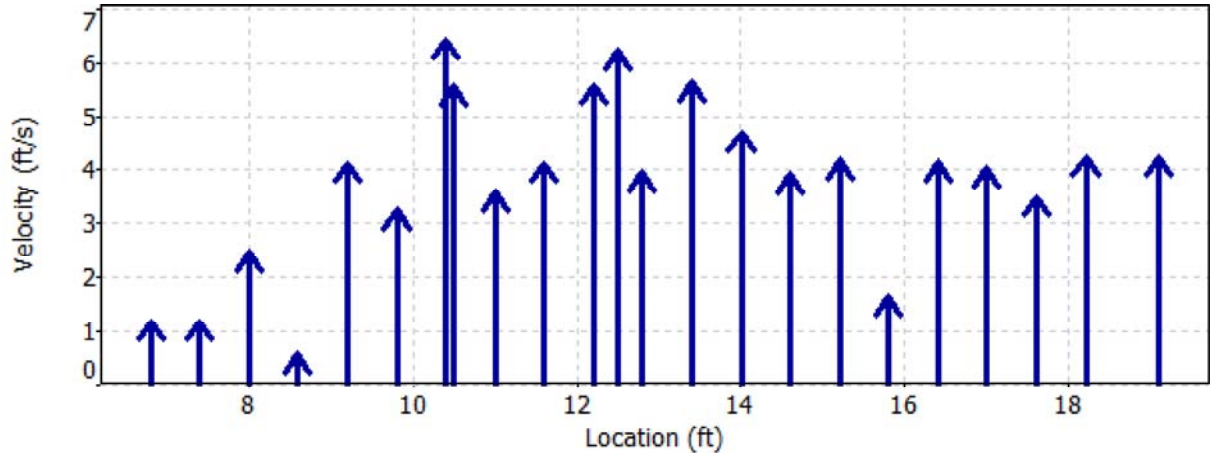
Discharge Measurement Summary

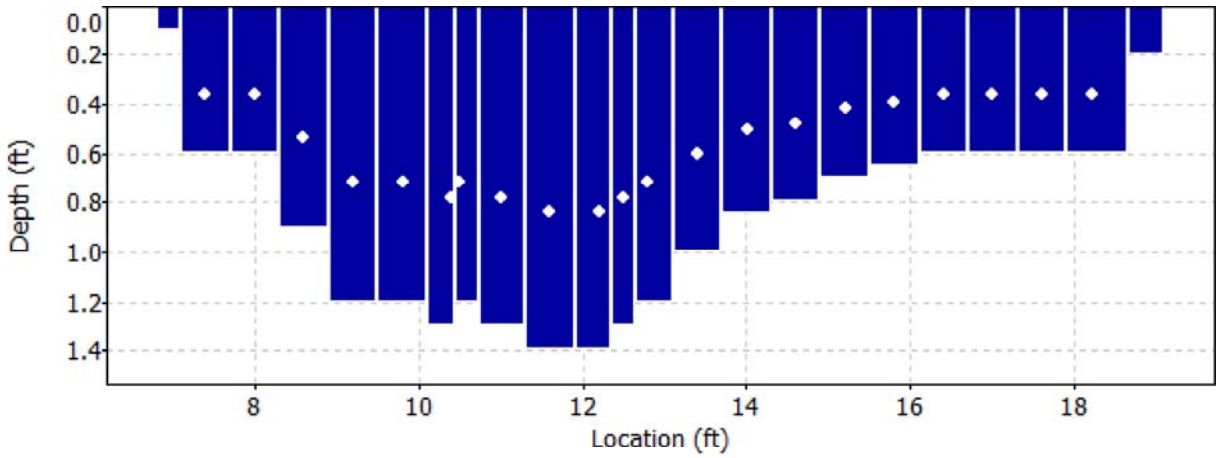
Date Generated: Thu Jan 25 2018

File Information	
File Name	CC17.WAD
Start Date and Time	2017/06/06 13:43:47

Site Details	
Site Name	CC17
Operator(s)	LC







Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information	
File Name	CC17.WAD
Start Date and Time	2017/06/06 13:43:47

Site Details	
Site Name	CC17
Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
3	8.60	0.6	High angle: -35
4	9.20	0.6	High standard error: 0.215
7	10.50	0.6	High SNR variation during measurement: 2.6,9.0
8	11.00	0.6	High standard error: 0.214
12	12.80	0.6	High standard error: 0.349

Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information

File Name	CC21D.WAD
Start Date and Time	2017/06/06 14:35:26

Site Details

Site Name	CC21D
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.9%
Velocity	0.9%	9.2%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.0%	-
Overall	**3.0%**	**9.4%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	LEW	Total Width	9.100
Mean SNR	56.7 dB	Total Area	3.825
Mean Temp	40.28 °F	Mean Depth	0.420
Disch. Equation	Mid-Section	Mean Velocity	2.4147
		Total Discharge	**9.2357**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:35	6.80	None	0.100	0.0	0.0	0.0000	1.00	-0.0538	0.018	-0.0009	0.0
1	*14:35*	*7.15*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0538*	*1.00*	*-0.0538*	*0.110*	*-0.0059*	*-0.1*
2	*14:36*	*7.90*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0945*	*1.00*	*0.0945*	*0.150*	*0.0142*	*0.2*
3	*14:37*	*8.65*	*0.6*	*0.400*	*0.6*	*0.160*	*0.0016*	*1.00*	*0.0016*	*0.230*	*0.0004*	*0.0*
4	*14:38*	*9.05*	*0.6*	*0.500*	*0.6*	*0.200*	*1.2044*	*1.00*	*1.2044*	*0.200*	*0.2408*	*2.6*
5	14:39	9.45	0.6	0.550	0.6	0.220	2.8363	1.00	2.8363	0.220	0.6237	6.8
6	14:41	9.85	0.6	0.600	0.6	0.240	4.8632	1.00	4.8632	0.165	0.8028	8.7
7	14:58	10.00	0.6	0.650	0.6	0.260	5.2159	1.00	5.2159	0.081	0.4243	4.6
8	14:42	10.10	0.6	0.700	0.6	0.280	4.9193	1.00	4.9193	0.105	0.5164	5.6
9	14:43	10.30	0.6	0.650	0.6	0.260	5.0026	1.00	5.0026	0.114	0.5691	6.2
10	14:59	10.45	0.6	0.650	0.6	0.260	4.6115	1.00	4.6115	0.146	0.6746	7.3
11	*14:45*	*10.75*	*0.6*	*0.650*	*0.6*	*0.260*	*2.0571*	*1.00*	*2.0571*	*0.244*	*0.5014*	*5.4*
12	14:46	11.20	0.6	0.600	0.6	0.240	5.5666	1.00	5.5666	0.150	0.8351	9.0
13	15:02	11.25	0.6	0.600	0.6	0.240	5.4659	1.00	5.4659	0.045	0.2459	2.7
14	15:00	11.35	0.6	0.550	0.6	0.220	5.5732	1.00	5.5732	0.110	0.6133	6.6
15	*14:47*	*11.65*	*0.6*	*0.550*	*0.6*	*0.220*	*1.1375*	*1.00*	*1.1375*	*0.234*	*0.2658*	*2.9*
16	14:48	12.20	0.6	0.500	0.6	0.200	4.0551	1.00	4.0551	0.162	0.6586	7.1
17	15:03	12.30	0.6	0.500	0.6	0.200	3.2165	1.00	3.2165	0.137	0.4422	4.8
18	14:49	12.75	0.6	0.300	0.6	0.120	2.1634	1.00	2.1634	0.150	0.3244	3.5
19	*14:50*	*13.30*	*0.6*	*0.400*	*0.6*	*0.160*	*0.0863*	*1.00*	*0.0863*	*0.220*	*0.0190*	*0.2*
20	14:51	13.85	0.6	0.300	0.6	0.120	2.0699	1.00	2.0699	0.165	0.3413	3.7
21	*14:52*	*14.40*	*0.6*	*0.350*	*0.6*	*0.140*	*0.6644*	*1.00*	*0.6644*	*0.149*	*0.0989*	*1.1*
22	*14:53*	*14.70*	*0.6*	*0.400*	*0.6*	*0.160*	*1.6713*	*1.00*	*1.6713*	*0.140*	*0.2341*	*2.5*
23	*14:54*	*15.10*	*0.6*	*0.400*	*0.6*	*0.160*	*2.0138*	*1.00*	*2.0138*	*0.160*	*0.3221*	*3.5*
24	14:55	15.50	0.6	0.400	0.6	0.160	2.1572	1.00	2.1572	0.160	0.3450	3.7
25	14:55	15.90	None	0.300	0.0	0.0	0.0000	1.00	2.1572	0.060	0.1294	1.4

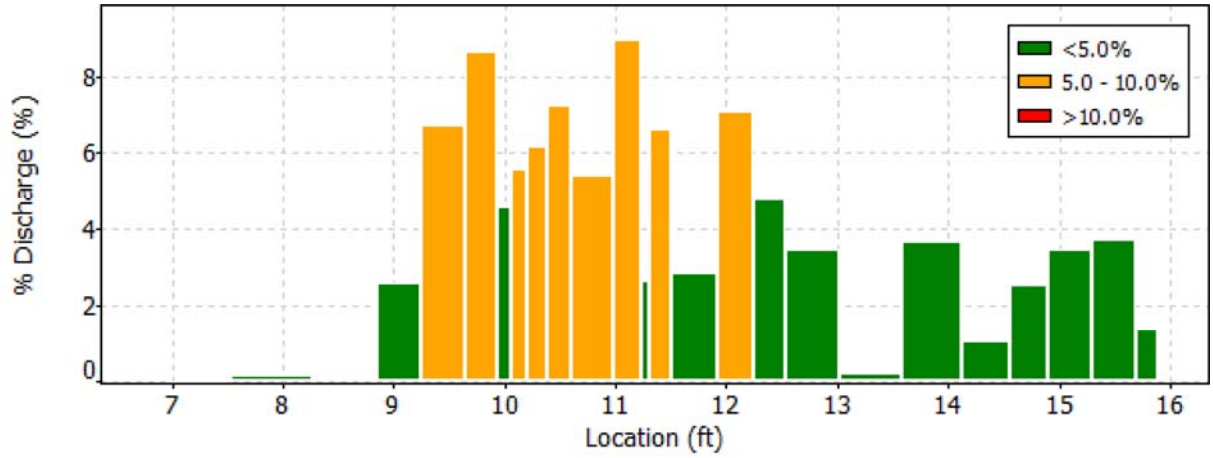
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

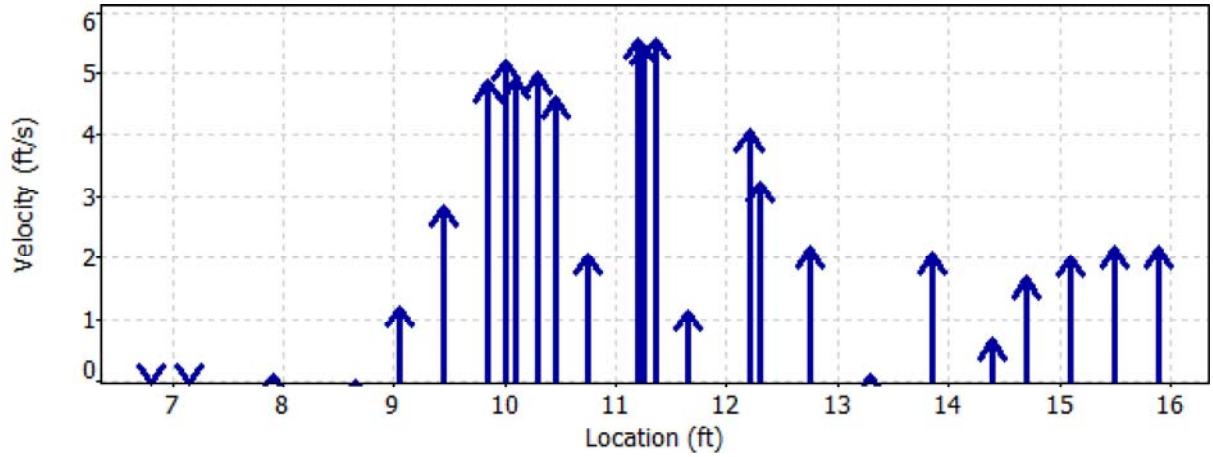
Discharge Measurement Summary

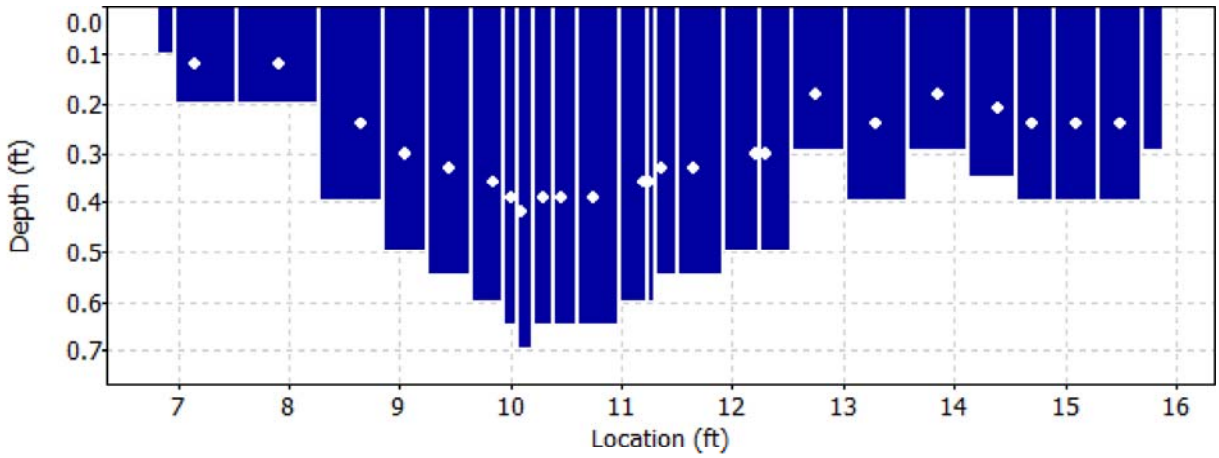
Date Generated: Thu Jan 25 2018

File Information	
File Name	CC21D.WAD
Start Date and Time	2017/06/06 14:35:26

Site Details	
Site Name	CC21D
Operator(s)	LC







Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information

File Name	CC21D.WAD
Start Date and Time	2017/06/06 14:35:26

Site Details

Site Name	CC21D
Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
1	7.15	0.6	High angle: -130
2	7.90	0.6	High angle: 57
3	8.65	0.6	SNR (66.8) is different from typical SNR (56.7)
4	9.05	0.6	High standard error: 0.166
11	10.75	0.6	High standard error: 0.143
15	11.65	0.6	High angle: 31
		0.6	High standard error: 0.190
19	13.30	0.6	High angle: 60
		0.6	High differences in beam SNR: 54.6,33.9
		0.6	SNR (44.3) is different from typical SNR (56.7)
21	14.40	0.6	High angle: 53
22	14.70	0.6	High angle: 40
23	15.10	0.6	High angle: 22

Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information

File Name	CC26.WAD
Start Date and Time	2017/06/06 15:16:01

Site Details

Site Name	CC26
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	1.2%
Velocity	0.8%	4.0%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.5%	-
Overall	**3.5%**	**4.3%**

Summary

Averaging Int.	40	# Stations	20
Start Edge	LEW	Total Width	9.600
Mean SNR	55.2 dB	Total Area	6.870
Mean Temp	39.21 °F	Mean Depth	0.716
Disch. Equation	Mid-Section	Mean Velocity	3.2150
		Total Discharge	**22.0862**

Measurement Results

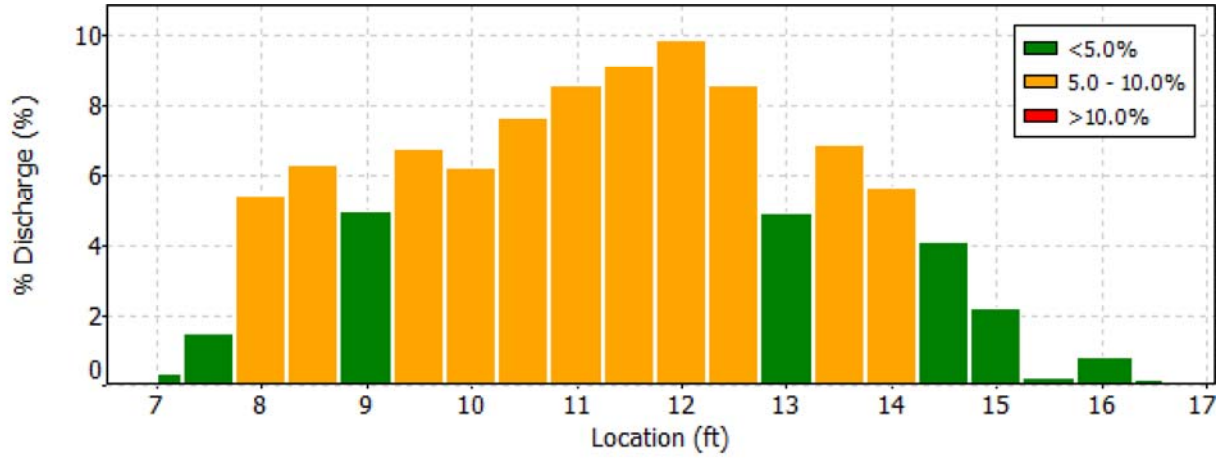
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:16	7.00	None	0.300	0.0	0.0	0.0000	1.00	0.8740	0.075	0.0655	0.3
1	*15:16*	*7.50*	*0.6*	*0.750*	*0.6*	*0.300*	*0.8740*	*1.00*	*0.8740*	*0.375*	*0.3278*	*1.5*
2	15:17	8.00	0.6	0.850	0.6	0.340	2.8009	1.00	2.8009	0.425	1.1905	5.4
3	15:18	8.50	0.6	0.800	0.6	0.320	3.4780	1.00	3.4780	0.400	1.3910	6.3
4	15:18	9.00	0.6	0.800	0.6	0.320	2.7379	1.00	2.7379	0.400	1.0950	5.0
5	15:19	9.50	0.6	0.900	0.6	0.360	3.3146	1.00	3.3146	0.450	1.4915	6.8
6	15:20	10.00	0.6	0.900	0.6	0.360	3.0594	1.00	3.0594	0.450	1.3766	6.2
7	*15:21*	*10.50*	*0.6*	*1.000*	*0.6*	*0.400*	*3.3832*	*1.00*	*3.3832*	*0.500*	*1.6916*	*7.7*
8	*15:22*	*11.00*	*0.6*	*1.000*	*0.6*	*0.400*	*3.7743*	*1.00*	*3.7743*	*0.500*	*1.8871*	*8.5*
9	*15:23*	*11.50*	*0.6*	*1.000*	*0.6*	*0.400*	*4.0387*	*1.00*	*4.0387*	*0.500*	*2.0194*	*9.1*
10	15:24	12.00	0.6	0.950	0.6	0.380	4.5991	1.00	4.5991	0.475	2.1849	9.9
11	15:25	12.50	0.6	0.800	0.6	0.320	4.7146	1.00	4.7146	0.400	1.8855	8.5
12	*15:26*	*13.00*	*0.6*	*0.700*	*0.6*	*0.280*	*3.0837*	*1.00*	*3.0837*	*0.350*	*1.0795*	*4.9*
13	15:27	13.50	0.6	0.700	0.6	0.280	4.3169	1.00	4.3169	0.350	1.5112	6.8
14	15:28	14.00	0.6	0.650	0.6	0.260	3.8369	1.00	3.8369	0.325	1.2469	5.6
15	15:29	14.50	0.6	0.600	0.6	0.240	3.0203	1.00	3.0203	0.300	0.9062	4.1
16	15:30	15.00	0.6	0.500	0.6	0.200	1.9383	1.00	1.9383	0.250	0.4846	2.2
17	*15:31*	*15.50*	*0.6*	*0.300*	*0.6*	*0.120*	*0.2854*	*1.00*	*0.2854*	*0.150*	*0.0428*	*0.2*
18	*15:32*	*16.00*	*0.6*	*0.300*	*0.6*	*0.120*	*1.0712*	*1.00*	*1.0712*	*0.165*	*0.1767*	*0.8*
19	15:32	16.60	None	0.100	0.0	0.0	0.0000	1.00	1.0712	0.030	0.0322	0.1

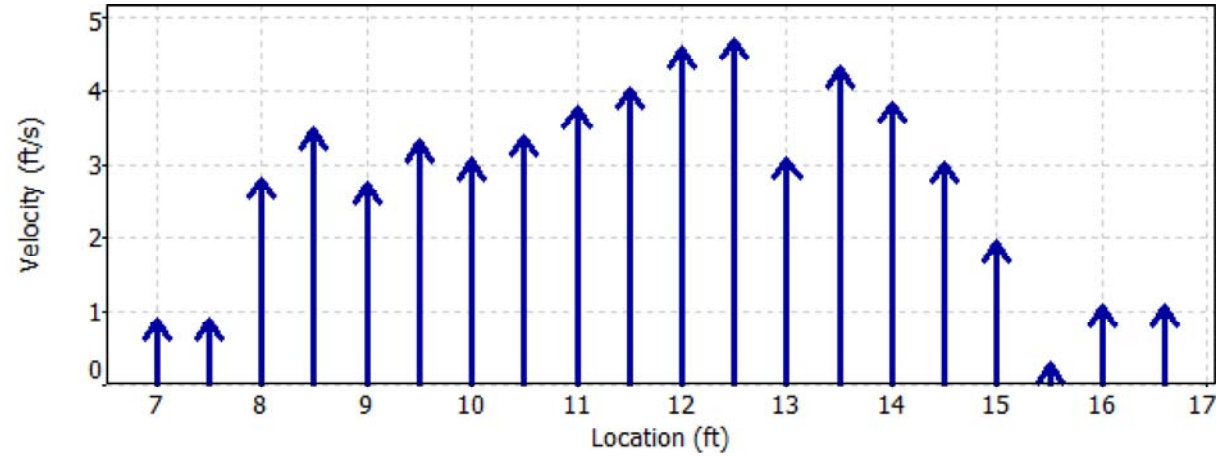
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

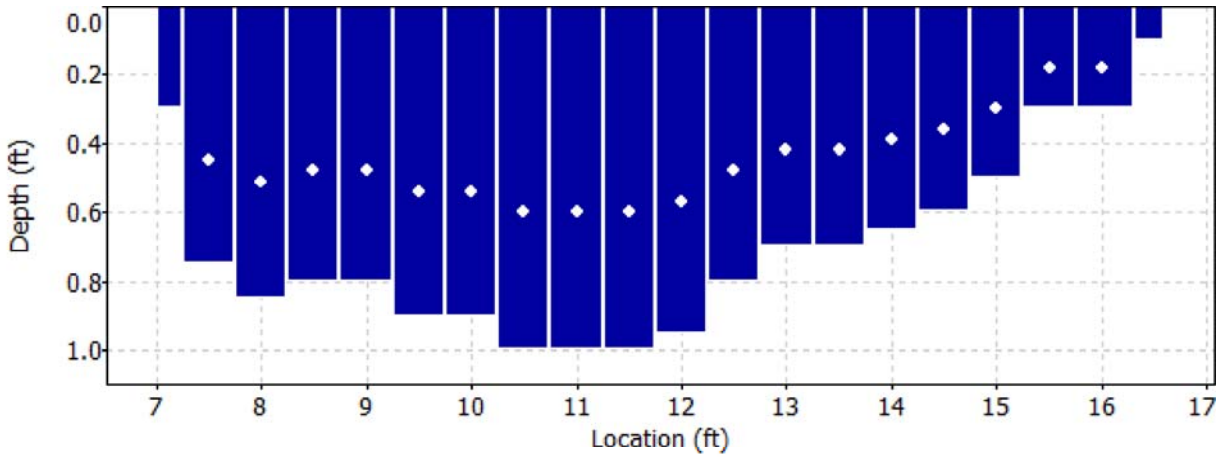
Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information		Site Details	
File Name	CC26.WAD	Site Name	CC26
Start Date and Time	2017/06/06 15:16:01	Operator(s)	LC







Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information

File Name	CC26.WAD
Start Date and Time	2017/06/06 15:16:01

Site Details

Site Name	CC26
Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
1	7.50	0.6	High angle: -29
		0.6	High standard error: 0.137
7	10.50	0.6	High angle: -26
8	11.00	0.6	High SNR variation during measurement: 3.4,9.5
9	11.50	0.6	High angle: -22
12	13.00	0.6	High standard error: 0.211
17	15.50	0.6	High angle: 38
18	16.00	0.6	High angle: 25

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	M01.WAD
Start Date and Time	2017/07/11 09:41:10

Site Details

Site Name	M01
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	3.3%
Velocity	1.6%	11.7%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.1%	-
Overall	**3.4%**	**12.1%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	REW	Total Width	4.003
Mean SNR	44.9 dB	Total Area	1.043
Mean Temp	44.95 °F	Mean Depth	0.261
Disch. Equation	Mid-Section	Mean Velocity	1.6984
		Total Discharge	**1.7715**

Measurement Results

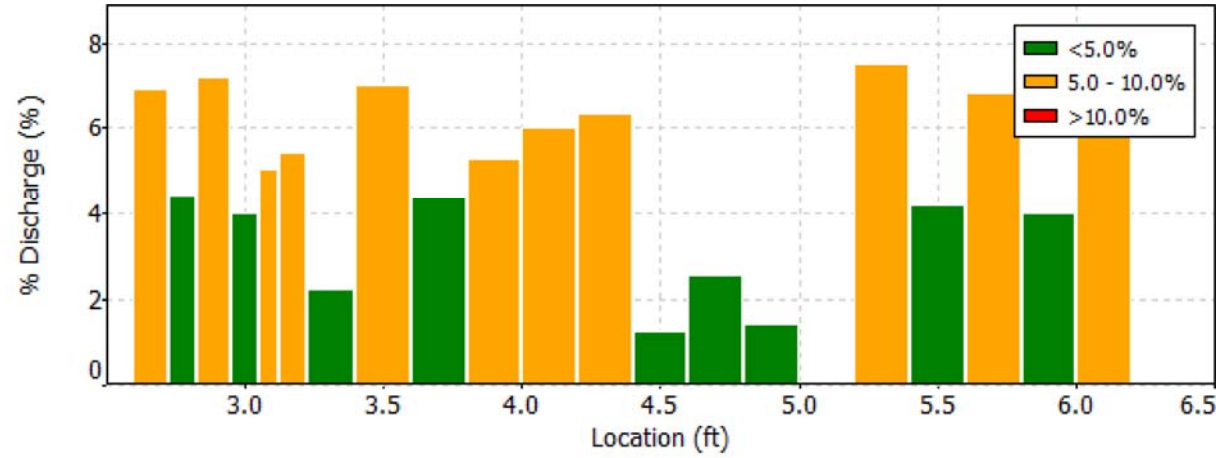
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:41	2.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*09:41*	*2.70*	*0.6*	*0.400*	*0.6*	*0.160*	*2.4426*	*1.00*	*2.4426*	*0.050*	*0.1221*	*6.9*
2	*10:02*	*2.75*	*0.6*	*0.300*	*0.6*	*0.120*	*2.6096*	*1.00*	*2.6096*	*0.030*	*0.0783*	*4.4*
3	*09:42*	*2.90*	*0.6*	*0.350*	*0.6*	*0.140*	*2.9094*	*1.00*	*2.9094*	*0.044*	*0.1273*	*7.2*
4	*10:03*	*3.00*	*0.6*	*0.300*	*0.6*	*0.120*	*2.3524*	*1.00*	*2.3524*	*0.030*	*0.0706*	*4.0*
5	*09:43*	*3.10*	*0.6*	*0.350*	*0.6*	*0.140*	*3.3970*	*1.00*	*3.3970*	*0.026*	*0.0891*	*5.0*
6	10:04	3.15	0.6	0.300	0.6	0.120	3.1834	1.00	3.1834	0.030	0.0955	5.4
7	*09:44*	*3.30*	*0.6*	*0.300*	*0.6*	*0.120*	*0.7477*	*1.00*	*0.7477*	*0.053*	*0.0393*	*2.2*
8	09:45	3.50	0.6	0.300	0.6	0.120	2.0689	1.00	2.0689	0.060	0.1242	7.0
9	09:46	3.70	0.6	0.300	0.6	0.120	1.2897	1.00	1.2897	0.060	0.0774	4.4
10	09:46	3.90	0.6	0.300	0.6	0.120	1.5515	1.00	1.5515	0.060	0.0931	5.3
11	*09:47*	*4.10*	*0.6*	*0.300*	*0.6*	*0.120*	*1.7700*	*1.00*	*1.7700*	*0.060*	*0.1062*	*6.0*
12	09:48	4.30	0.6	0.250	0.6	0.100	2.2536	1.00	2.2536	0.050	0.1128	6.4
13	*09:49*	*4.50*	*0.6*	*0.250*	*0.6*	*0.100*	*0.4386*	*1.00*	*0.4386*	*0.050*	*0.0219*	*1.2*
14	*09:52*	*4.70*	*0.6*	*0.300*	*0.6*	*0.120*	*0.7559*	*1.00*	*0.7559*	*0.060*	*0.0454*	*2.6*
15	*09:53*	*4.90*	*0.6*	*0.250*	*0.6*	*0.100*	*0.5000*	*1.00*	*0.5000*	*0.050*	*0.0250*	*1.4*
16	*09:55*	*5.10*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0207*	*1.00*	*0.0207*	*0.060*	*0.0012*	*0.1*
17	09:56	5.30	0.6	0.200	0.6	0.080	3.3163	1.00	3.3163	0.040	0.1328	7.5
18	09:57	5.50	0.6	0.200	0.6	0.080	1.8530	1.00	1.8530	0.040	0.0742	4.2
19	*09:58*	*5.70*	*0.6*	*0.200*	*0.6*	*0.080*	*3.0059*	*1.00*	*3.0059*	*0.040*	*0.1204*	*6.8*
20	09:58	5.90	0.6	0.200	0.6	0.080	1.7766	1.00	1.7766	0.040	0.0712	4.0
21	09:59	6.10	0.6	0.300	0.6	0.120	2.3865	1.00	2.3865	0.060	0.1432	8.1
22	*10:00*	*6.30*	*0.6*	*0.250*	*0.6*	*0.100*	*0.0030*	*1.00*	*0.0030*	*0.050*	*0.0001*	*0.0*
23	10:00	6.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

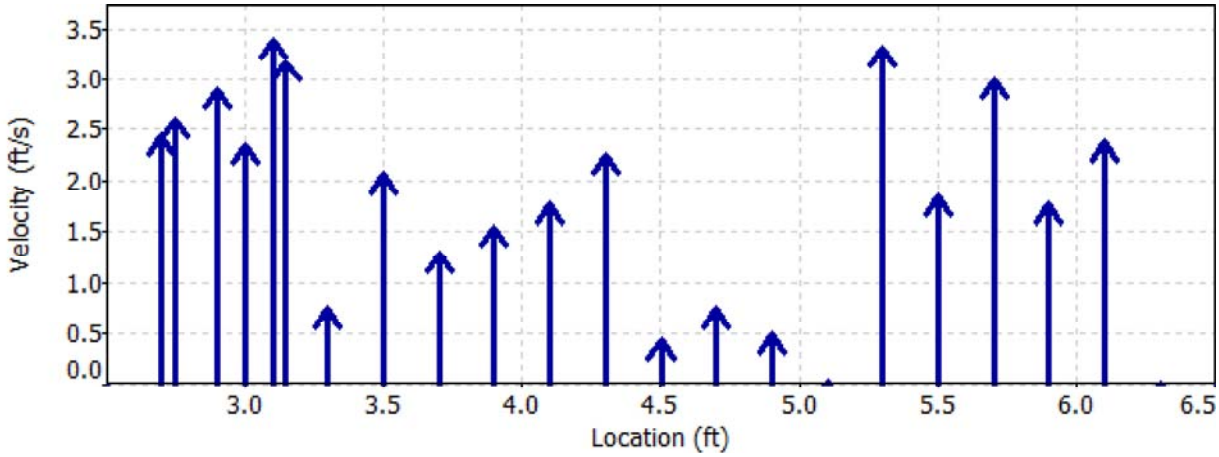
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

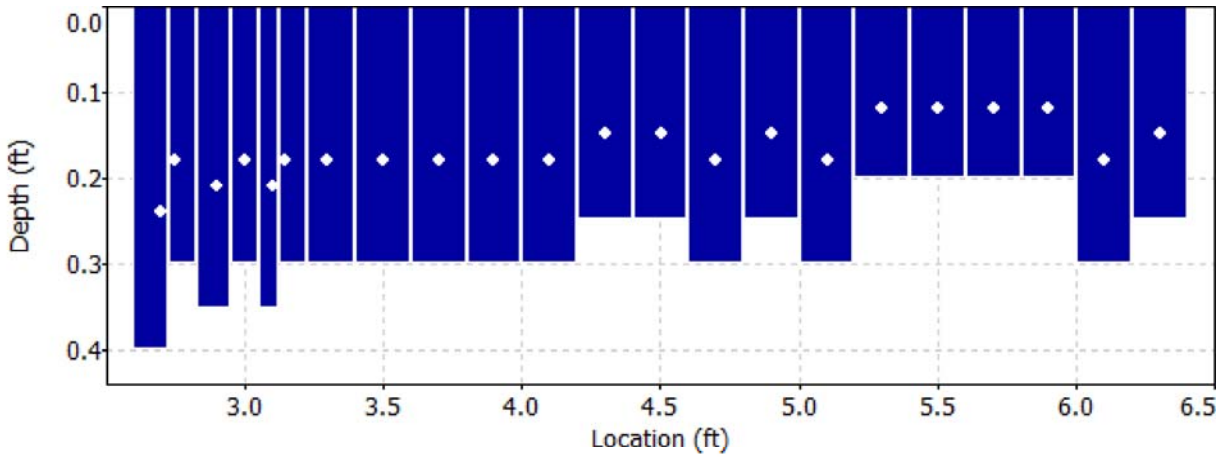
Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	M01.WAD	Site Name	M01
Start Date and Time	2017/07/11 09:41:10	Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	M01.WAD	Site Name	M01
Start Date and Time	2017/07/11 09:41:10	Operator(s)	KB

Quality Control

St	Loc	%Dep	Message
1	2.70	0.6	High angle: 26
2	2.75	0.6	High angle: 22
3	2.90	0.6	High angle: 23
4	3.00	0.6	High angle: 29
5	3.10	0.6	High number of spikes: 5
7	3.30	0.6	High SNR variation during measurement: 4.3,5.2
		0.6	High standard error: 0.365
		0.6	Boundary QC is Fair; possible boundary interference
11	4.10	0.6	High differences in beam SNR: 44.2,31.3
		0.6	High standard error: 0.154
		0.6	Boundary QC is Good; possible boundary interference
13	4.50	0.6	High SNR variation during measurement: 6.5,2.1
14	4.70	0.6	SNR (61.3) is different from typical SNR (44.9)
		0.6	High standard error: 0.148
15	4.90	0.6	High angle: -43
		0.6	Boundary QC is Fair; possible boundary interference
16	5.10	0.6	High number of spikes: 10
		0.6	Boundary QC is Good; possible boundary interference
19	5.70	0.6	High SNR variation during measurement: 3.0,6.9
22	6.30	0.6	SNR (64.7) is different from typical SNR (44.9)
		0.6	High SNR variation during measurement: 3.9,5.2
		0.6	Boundary QC is Fair; possible boundary interference

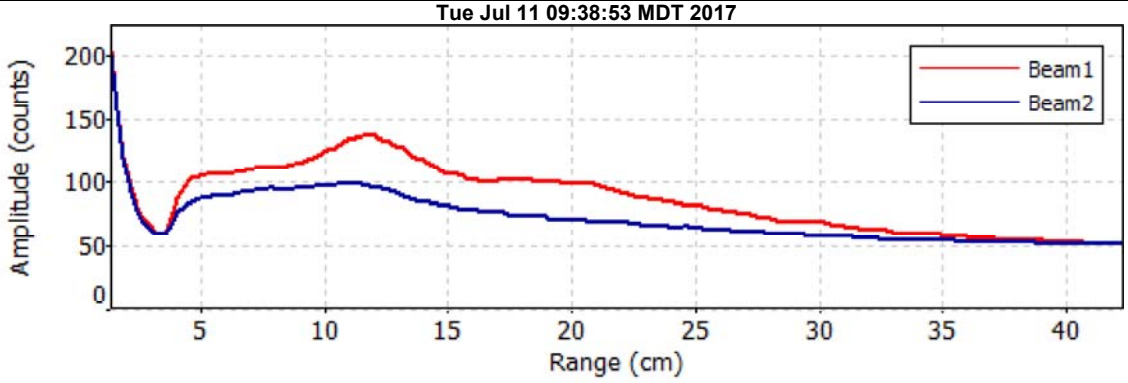
Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	M01.WAD	Site Name	M01
Start Date and Time	2017/07/11 09:41:10	Operator(s)	KB

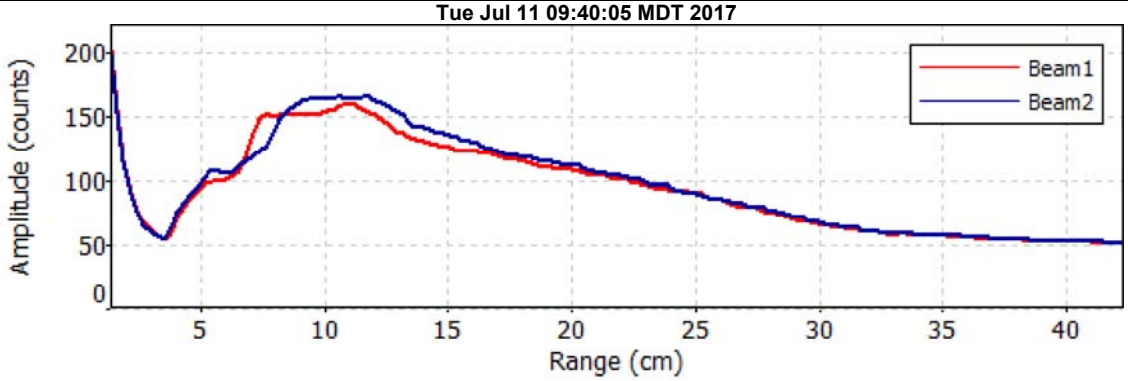
Automatic Quality Control Test (BeamCheck)

Tue Jul 11 09:38:53 MDT 2017



- Noise level check - Pass
- SNR check - Fail
  - High differences in beam SNR: 36.4,19.5
- Peak location check - Pass
- Peak shape check - Pass

Tue Jul 11 09:40:05 MDT 2017



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	M03.WAD
Start Date and Time	2017/07/11 10:45:01

Site Details

Site Name	M03
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.1%
Velocity	2.1%	13.7%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.0%	-
Overall	**3.6%**	**13.9%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	REW	Total Width	1.901
Mean SNR	45.7 dB	Total Area	0.410
Mean Temp	51.89 °F	Mean Depth	0.216
Disch. Equation	Mid-Section	Mean Velocity	0.2964
		Total Discharge	**0.1217**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:45	3.30	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*10:45*	*3.40*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0003*	*1.00*	*0.0003*	*0.030*	*0.0000*	*0.0*
2	*10:46*	*3.50*	*0.6*	*0.350*	*0.6*	*0.140*	*0.0026*	*1.00*	*0.0026*	*0.035*	*0.0001*	*0.1*
3	*10:47*	*3.60*	*0.6*	*0.350*	*0.6*	*0.140*	*0.0240*	*1.00*	*0.0240*	*0.035*	*0.0008*	*0.7*
4	*10:48*	*3.70*	*0.6*	*0.200*	*0.6*	*0.080*	*0.6719*	*1.00*	*0.6719*	*0.015*	*0.0101*	*8.3*
5	11:05	3.75	0.6	0.200	0.6	0.080	0.6496	1.00	0.6496	0.010	0.0065	5.3
6	*10:48*	*3.80*	*0.6*	*0.200*	*0.6*	*0.080*	*0.6762*	*1.00*	*0.6762*	*0.010*	*0.0068*	*5.6*
7	11:06	3.85	0.6	0.200	0.6	0.080	0.7297	1.00	0.7297	0.010	0.0073	6.0
8	10:51	3.90	0.6	0.200	0.6	0.080	0.6529	1.00	0.6529	0.010	0.0065	5.4
9	11:07	3.95	0.6	0.200	0.6	0.080	0.5686	1.00	0.5686	0.010	0.0057	4.7
10	10:52	4.00	0.6	0.200	0.6	0.080	0.6680	1.00	0.6680	0.010	0.0067	5.5
11	*11:08*	*4.05*	*0.6*	*0.200*	*0.6*	*0.080*	*0.2021*	*1.00*	*0.2021*	*0.010*	*0.0020*	*1.7*
12	10:52	4.10	0.6	0.200	0.6	0.080	0.7385	1.00	0.7385	0.010	0.0074	6.1
13	*11:09*	*4.15*	*0.6*	*0.200*	*0.6*	*0.080*	*0.4209*	*1.00*	*0.4209*	*0.010*	*0.0042*	*3.5*
14	10:53	4.20	0.6	0.200	0.6	0.080	0.7743	1.00	0.7743	0.010	0.0078	6.4
15	*11:10*	*4.25*	*0.6*	*0.200*	*0.6*	*0.080*	*0.6329*	*1.00*	*0.6329*	*0.010*	*0.0063*	*5.2*
16	10:54	4.30	0.6	0.200	0.6	0.080	0.6142	1.00	0.6142	0.015	0.0093	7.6
17	*10:55*	*4.40*	*0.6*	*0.200*	*0.6*	*0.080*	*0.1473*	*1.00*	*0.1473*	*0.020*	*0.0030*	*2.4*
18	*10:56*	*4.50*	*0.6*	*0.250*	*0.6*	*0.100*	*0.2451*	*1.00*	*0.2451*	*0.025*	*0.0061*	*5.0*
19	*10:57*	*4.60*	*0.6*	*0.250*	*0.6*	*0.100*	*0.3402*	*1.00*	*0.3402*	*0.025*	*0.0085*	*7.0*
20	*10:59*	*4.70*	*0.6*	*0.200*	*0.6*	*0.080*	*0.2559*	*1.00*	*0.2559*	*0.020*	*0.0051*	*4.2*
21	*11:00*	*4.80*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3766*	*1.00*	*0.3766*	*0.020*	*0.0075*	*6.2*
22	*11:00*	*4.90*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0213*	*1.00*	*0.0213*	*0.020*	*0.0004*	*0.4*
23	*11:01*	*5.00*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0659*	*1.00*	*0.0659*	*0.020*	*0.0013*	*1.1*
24	*11:03*	*5.10*	*0.6*	*0.200*	*0.6*	*0.080*	*0.1086*	*1.00*	*0.1086*	*0.020*	*0.0022*	*1.8*
25	11:03	5.20	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

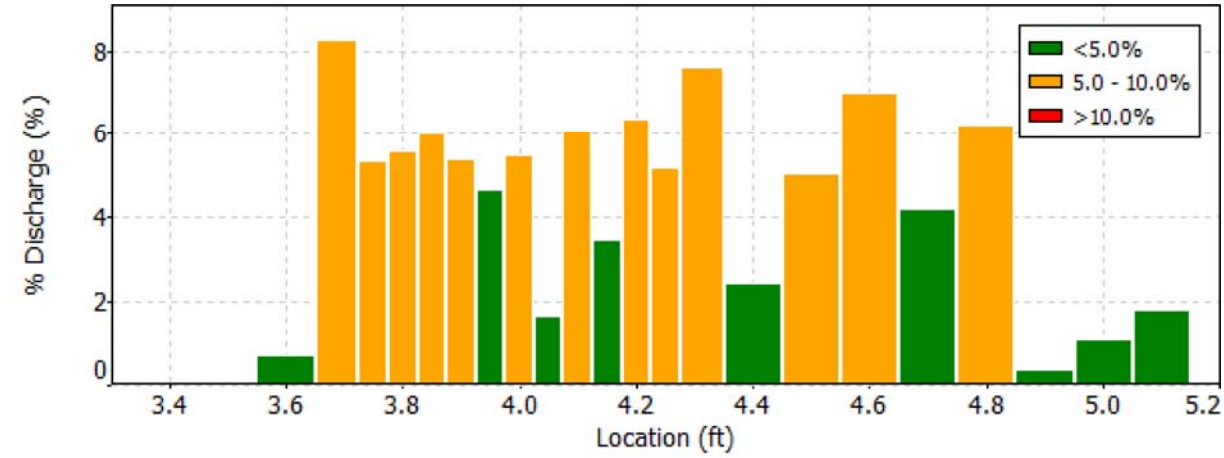
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

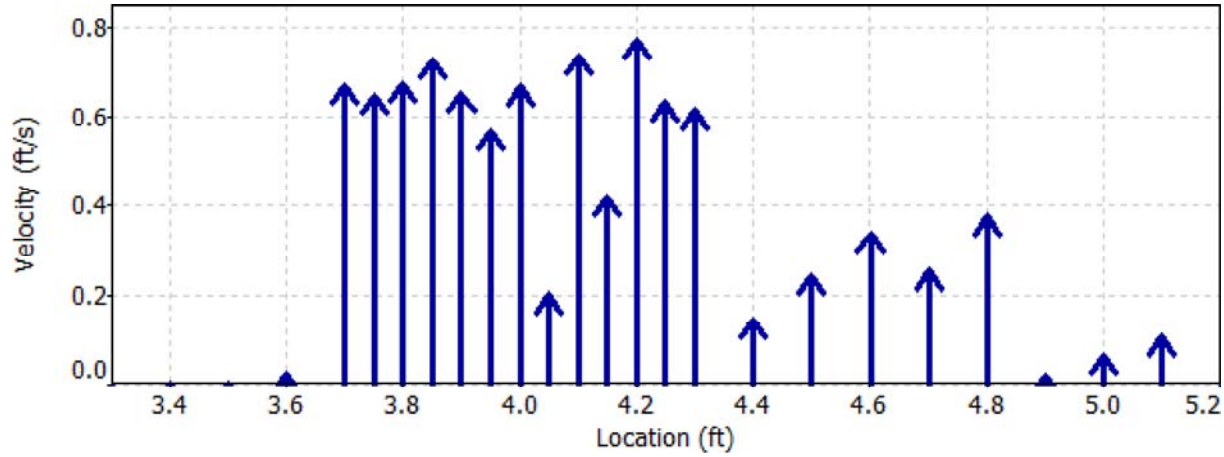
Discharge Measurement Summary

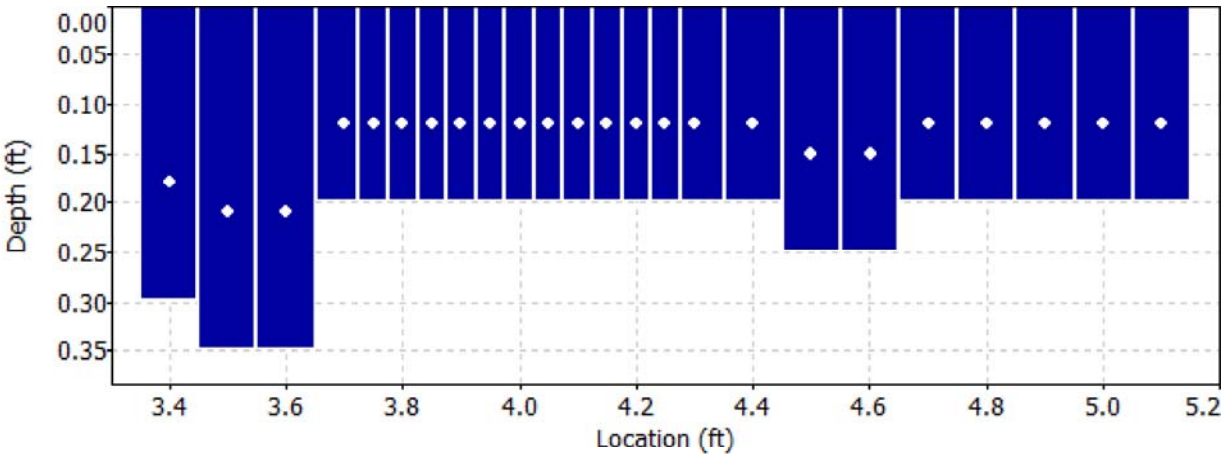
Date Generated: Mon Jul 17 2017

File Information	
File Name	M03.WAD
Start Date and Time	2017/07/11 10:45:01

Site Details	
Site Name	M03
Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	M03.WAD	Site Name	M03
Start Date and Time	2017/07/11 10:45:01	Operator(s)	KB

Quality Control

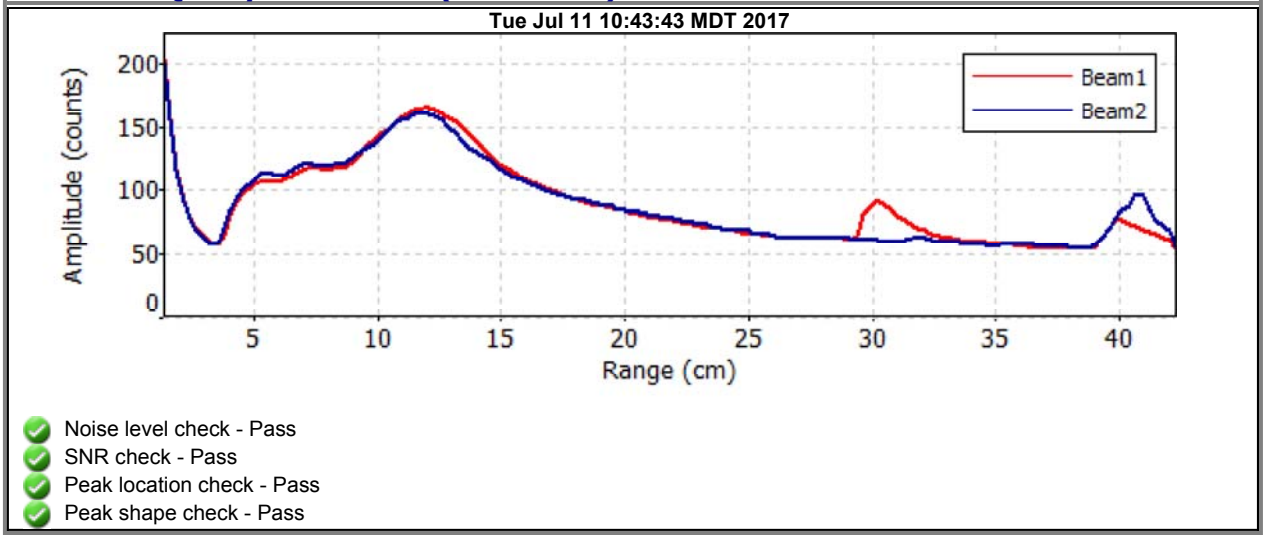
St	Loc	%Dep	Message
1	3.40	0.6	SNR (66.8) is different from typical SNR (45.7)
2	3.50	0.6	High number of spikes: 6
		0.6	Boundary QC is Good; possible boundary interference
3	3.60	0.6	High number of spikes: 11
		0.6	High angle: 40
		0.6	SNR (33.3) is different from typical SNR (45.7)
		0.6	High SNR variation during measurement: 5.6,4.7
4	3.70	0.6	High angle: -21
6	3.80	0.6	High angle: -22
11	4.05	0.6	High standard error: 0.031
13	4.15	0.6	High standard error: 0.051
15	4.25	0.6	High standard error: 0.048
		0.6	Boundary QC is Fair; possible boundary interference
17	4.40	0.6	High angle: 41
		0.6	High standard error: 0.038
18	4.50	0.6	High standard error: 0.051
19	4.60	0.6	High standard error: 0.041
		0.6	Boundary QC is Poor; possible boundary interference
20	4.70	0.6	High standard error: 0.041
		0.6	Boundary QC is Fair; possible boundary interference
21	4.80	0.6	High standard error: 0.041
		0.6	Boundary QC is Good; possible boundary interference
22	4.90	0.6	High SNR variation during measurement: 5.2,6.0
23	5.00	0.6	SNR (28.6) is different from typical SNR (45.7)
		0.6	Boundary QC is Fair; possible boundary interference
24	5.10	0.6	High angle: -24
		0.6	High SNR variation during measurement: 5.2,5.2
		0.6	Boundary QC is Good; possible boundary interference

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	M03.WAD	Site Name	M03
Start Date and Time	2017/07/11 10:45:01	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	M04.WAD
Start Date and Time	2017/07/11 11:55:37

Site Details

Site Name	M04
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.9%
Velocity	1.8%	7.1%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.1%	-
Overall	**3.5%**	**7.5%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	LEW	Total Width	5.997
Mean SNR	40.7 dB	Total Area	2.702
Mean Temp	51.56 °F	Mean Depth	0.450
Disch. Equation	Mid-Section	Mean Velocity	1.2017
		Total Discharge	**3.2466**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:55	7.00	None	0.100	0.0	0.0	0.0000	1.00	0.8757	0.015	0.0131	0.4
1	*11:55*	*7.30*	*0.6*	*0.300*	*0.6*	*0.120*	*0.8757*	*1.00*	*0.8757*	*0.090*	*0.0787*	*2.4*
2	11:56	7.60	0.6	0.350	0.6	0.140	0.4993	1.00	0.4993	0.105	0.0524	1.6
3	*11:57*	*7.90*	*0.6*	*0.350*	*0.6*	*0.140*	*0.5722*	*1.00*	*0.5722*	*0.105*	*0.0601*	*1.9*
4	*11:58*	*8.20*	*0.6*	*0.500*	*0.6*	*0.200*	*0.5856*	*1.00*	*0.5856*	*0.150*	*0.0878*	*2.7*
5	11:59	8.50	0.6	0.500	0.6	0.200	1.3471	1.00	1.3471	0.150	0.2020	6.2
6	12:00	8.80	0.6	0.500	0.6	0.200	2.5381	1.00	2.5381	0.100	0.2542	7.8
7	12:13	8.90	0.6	0.500	0.6	0.200	2.3622	1.00	2.3622	0.075	0.1771	5.5
8	*12:01*	*9.10*	*0.6*	*0.550*	*0.6*	*0.220*	*2.4993*	*1.00*	*2.4993*	*0.083*	*0.2063*	*6.4*
9	12:15	9.20	0.6	0.500	0.6	0.200	2.6030	1.00	2.6030	0.075	0.1951	6.0
10	12:02	9.40	0.6	0.500	0.6	0.200	1.7405	1.00	1.7405	0.125	0.2170	6.7
11	*12:03*	*9.70*	*0.6*	*0.450*	*0.6*	*0.180*	*0.1585*	*1.00*	*0.1585*	*0.135*	*0.0214*	*0.7*
12	*12:04*	*10.00*	*0.6*	*0.500*	*0.6*	*0.200*	*0.7602*	*1.00*	*0.7602*	*0.150*	*0.1140*	*3.5*
13	*12:05*	*10.30*	*0.6*	*0.500*	*0.6*	*0.200*	*0.2044*	*1.00*	*0.2044*	*0.150*	*0.0306*	*0.9*
14	*12:05*	*10.60*	*0.6*	*0.500*	*0.6*	*0.200*	*0.1762*	*1.00*	*0.1762*	*0.150*	*0.0264*	*0.8*
15	*12:06*	*10.90*	*0.6*	*0.500*	*0.6*	*0.200*	*0.1312*	*1.00*	*0.1312*	*0.150*	*0.0197*	*0.6*
16	*12:07*	*11.20*	*0.6*	*0.500*	*0.6*	*0.200*	*0.5843*	*1.00*	*0.5843*	*0.150*	*0.0876*	*2.7*
17	*12:08*	*11.50*	*0.6*	*0.450*	*0.6*	*0.180*	*1.0325*	*1.00*	*1.0325*	*0.135*	*0.1394*	*4.3*
18	*12:09*	*11.80*	*0.6*	*0.600*	*0.6*	*0.240*	*1.4495*	*1.00*	*1.4495*	*0.151*	*0.2183*	*6.7*
19	12:15	12.00	0.6	0.600	0.6	0.240	3.1276	1.00	3.1276	0.090	0.2814	8.7
20	*12:10*	*12.10*	*0.6*	*0.500*	*0.6*	*0.200*	*2.2956*	*1.00*	*2.2956*	*0.099*	*0.2282*	*7.0*
21	12:11	12.40	0.6	0.450	0.6	0.180	2.3081	1.00	2.3081	0.135	0.3115	9.6
22	12:12	12.70	0.6	0.450	0.6	0.180	1.6611	1.00	1.6611	0.135	0.2242	6.9
23	12:12	13.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

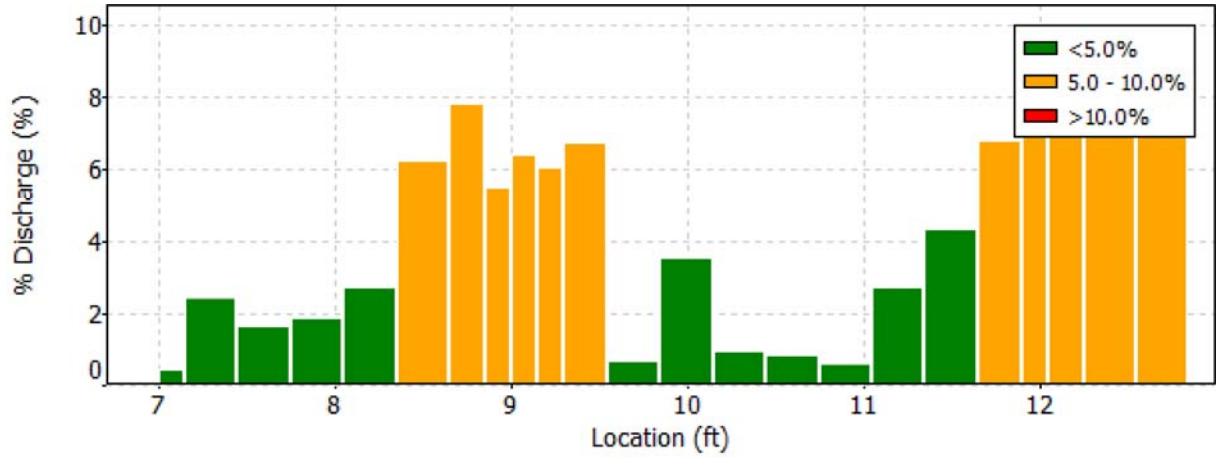
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

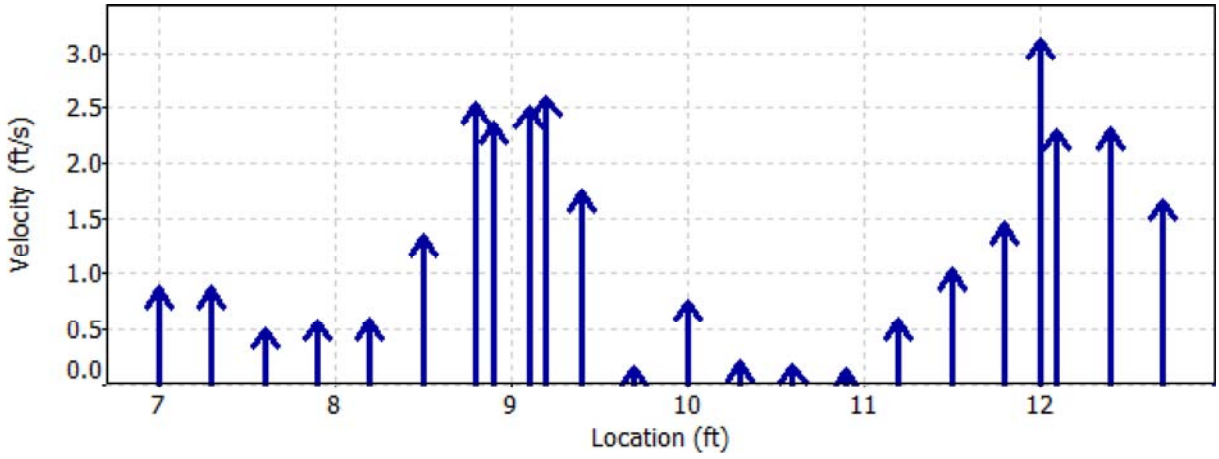
Discharge Measurement Summary

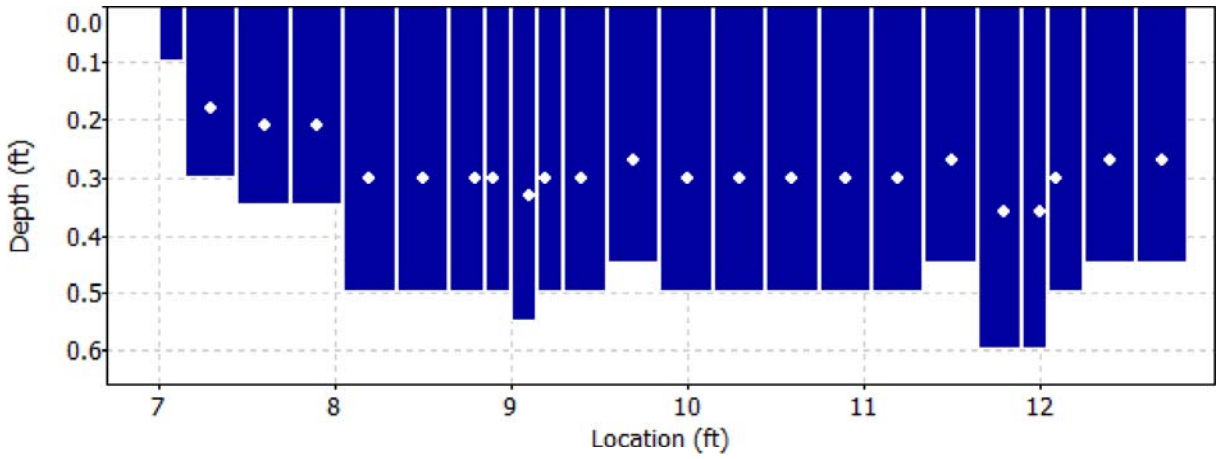
Date Generated: Mon Jul 17 2017

File Information	
File Name	M04.WAD
Start Date and Time	2017/07/11 11:55:37

Site Details	
Site Name	M04
Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	M04.WAD	Site Name	M04
Start Date and Time	2017/07/11 11:55:37	Operator(s)	KB

Quality Control

St	Loc	%Dep	Message
1	7.30	0.6	High angle: -20
		0.6	Boundary QC is Poor; possible boundary interference
3	7.90	0.6	High angle: 35
4	8.20	0.6	High angle: 26
8	9.10	0.6	High standard error: 0.130
11	9.70	0.6	SNR (23.4) is different from typical SNR (40.7)
		0.6	High standard error: 0.202
		0.6	Boundary QC is Fair; possible boundary interference
12	10.00	0.6	High angle: 24
		0.6	High standard error: 0.138
13	10.30	0.6	High angle: 42
14	10.60	0.6	High angle: 41
15	10.90	0.6	High angle: 67
16	11.20	0.6	High angle: 37
17	11.50	0.6	High angle: 23
18	11.80	0.6	High standard error: 0.124
20	12.10	0.6	High standard error: 0.183

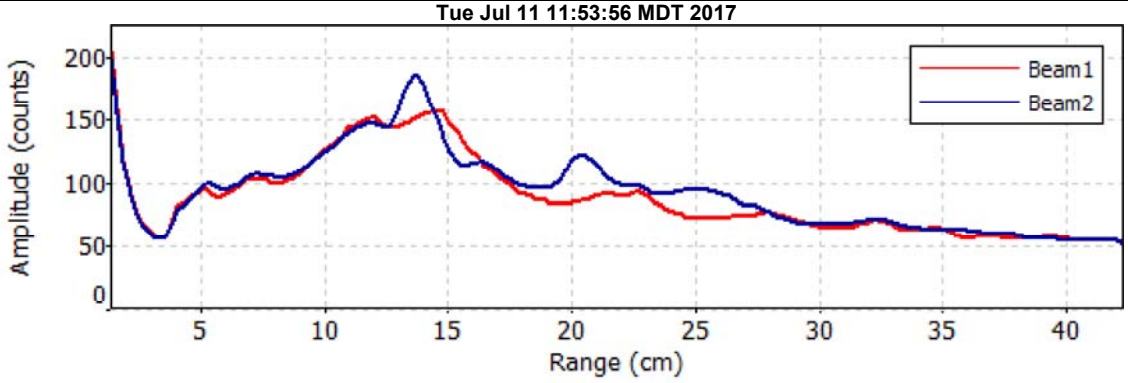
Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	M04.WAD	Site Name	M04
Start Date and Time	2017/07/11 11:55:37	Operator(s)	KB

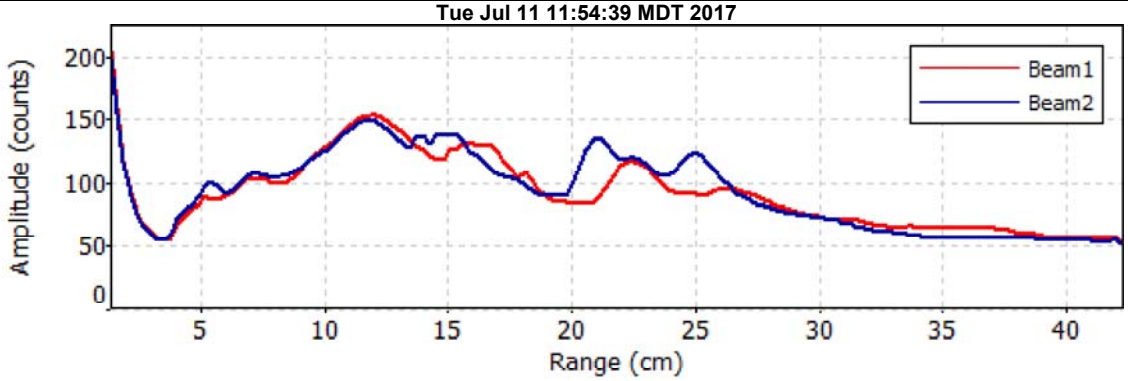
Automatic Quality Control Test (BeamCheck)

Tue Jul 11 11:53:56 MDT 2017



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Fail
- Peak shape check - Fail

Tue Jul 11 11:54:39 MDT 2017



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	M05.WAD
Start Date and Time	2017/07/11 11:18:32

Site Details

Site Name	M05
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.4%
Velocity	2.5%	5.5%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.0%	-
Overall	**3.9%**	**6.1%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	LEW	Total Width	5.997
Mean SNR	44.8 dB	Total Area	3.154
Mean Temp	50.01 °F	Mean Depth	0.526
Disch. Equation	Mid-Section	Mean Velocity	0.9817
		Total Discharge	**3.0960**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:18	4.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*11:18*	*4.30*	*0.6*	*0.250*	*0.6*	*0.100*	*0.0003*	*1.00*	*0.0003*	*0.075*	*0.0000*	*0.0*
2	*11:19*	*4.60*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.3012*	*1.00*	*-0.3012*	*0.090*	*-0.0271*	*-0.9*
3	*11:20*	*4.90*	*0.6*	*0.350*	*0.6*	*0.140*	*-0.0144*	*1.00*	*-0.0144*	*0.105*	*-0.0015*	*0.0*
4	*11:21*	*5.20*	*0.6*	*0.600*	*0.6*	*0.240*	*-0.0213*	*1.00*	*-0.0213*	*0.180*	*-0.0038*	*-0.1*
5	*11:22*	*5.50*	*0.6*	*0.700*	*0.6*	*0.280*	*0.2556*	*1.00*	*0.2556*	*0.210*	*0.0537*	*1.7*
6	*11:23*	*5.80*	*0.6*	*0.800*	*0.6*	*0.320*	*1.2060*	*1.00*	*1.2060*	*0.200*	*0.2415*	*7.8*
7	*11:37*	*6.00*	*0.6*	*0.800*	*0.6*	*0.320*	*1.4311*	*1.00*	*1.4311*	*0.120*	*0.1716*	*5.5*
8	11:24	6.10	0.6	0.800	0.6	0.320	1.8031	1.00	1.8031	0.120	0.2162	7.0
9	11:38	6.30	0.6	0.800	0.6	0.320	1.7897	1.00	1.7897	0.120	0.2146	6.9
10	11:25	6.40	0.6	0.850	0.6	0.340	1.9990	1.00	1.9990	0.085	0.1700	5.5
11	11:39	6.50	0.6	0.900	0.6	0.360	1.8510	1.00	1.8510	0.135	0.2498	8.1
12	11:26	6.70	0.6	0.900	0.6	0.360	2.1768	1.00	2.1768	0.112	0.2449	7.9
13	11:42	6.75	0.6	0.900	0.6	0.360	2.1115	1.00	2.1115	0.090	0.1911	6.2
14	11:40	6.90	0.6	0.900	0.6	0.360	2.0679	1.00	2.0679	0.112	0.2314	7.5
15	11:27	7.00	0.6	0.700	0.6	0.280	1.7851	1.00	1.7851	0.140	0.2491	8.0
16	*11:28*	*7.30*	*0.6*	*0.600*	*0.6*	*0.240*	*0.9872*	*1.00*	*0.9872*	*0.180*	*0.1776*	*5.7*
17	*11:29*	*7.60*	*0.6*	*0.600*	*0.6*	*0.240*	*0.6663*	*1.00*	*0.6663*	*0.180*	*0.1199*	*3.9*
18	*11:30*	*7.90*	*0.6*	*0.700*	*0.6*	*0.280*	*0.4006*	*1.00*	*0.4006*	*0.210*	*0.0841*	*2.7*
19	*11:31*	*8.20*	*0.6*	*0.500*	*0.6*	*0.200*	*0.2740*	*1.00*	*0.2740*	*0.150*	*0.0411*	*1.3*
20	11:32	8.50	0.6	0.500	0.6	0.200	0.4370	1.00	0.4370	0.150	0.0655	2.1
21	11:33	8.80	0.6	0.500	0.6	0.200	0.3471	1.00	0.3471	0.150	0.0520	1.7
22	*11:34*	*9.10*	*0.6*	*0.400*	*0.6*	*0.160*	*0.7533*	*1.00*	*0.7533*	*0.120*	*0.0903*	*2.9*
23	11:35	9.40	0.6	0.200	0.6	0.080	2.3894	1.00	2.3894	0.060	0.1434	4.6
24	11:36	9.70	0.6	0.200	0.6	0.080	2.0075	1.00	2.0075	0.060	0.1205	3.9
25	11:36	10.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

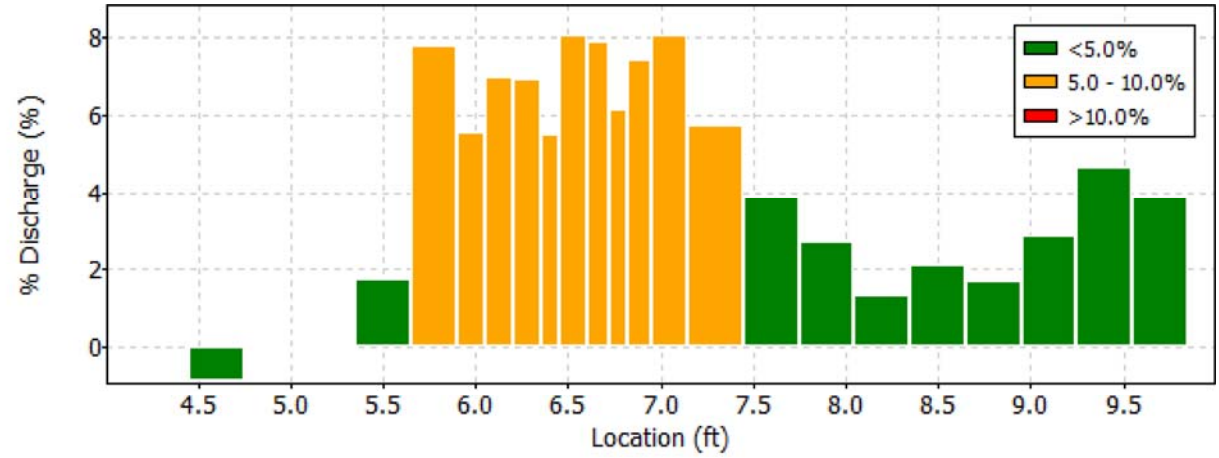
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

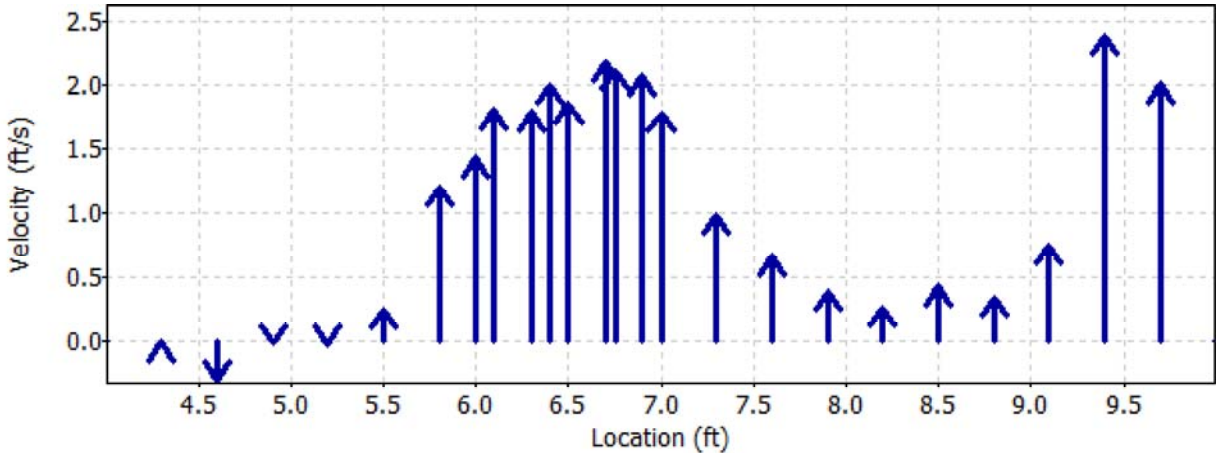
Discharge Measurement Summary

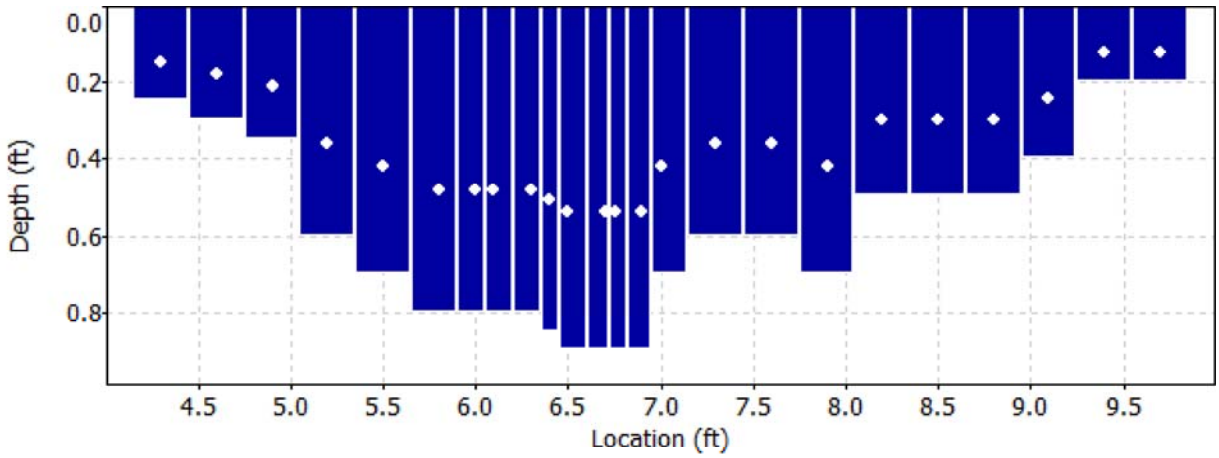
Date Generated: Mon Jul 17 2017

File Information	
File Name	M05.WAD
Start Date and Time	2017/07/11 11:18:32

Site Details	
Site Name	M05
Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	M05.WAD	Site Name	M05
Start Date and Time	2017/07/11 11:18:32	Operator(s)	KB

Quality Control

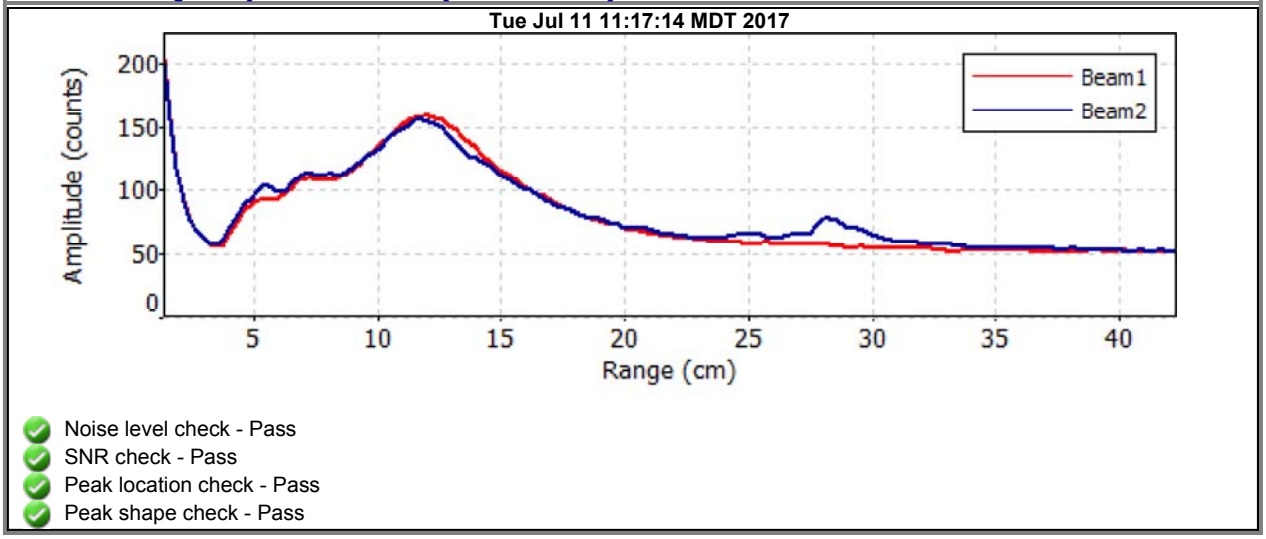
St	Loc	%Dep	Message
1	4.30	0.6	SNR (63.2) is different from typical SNR (44.8)
2	4.60	0.6	High angle: -136
3	4.90	0.6	High number of spikes: 12
4	5.20	0.6	High number of spikes: 9
		0.6	High angle: -111
5	5.50	0.6	Boundary QC is Fair; possible boundary interference
6	5.80	0.6	High standard error: 0.138
7	6.00	0.6	High standard error: 0.136
16	7.30	0.6	High angle: 27
		0.6	High standard error: 0.137
17	7.60	0.6	High standard error: 0.147
18	7.90	0.6	High angle: 25
		0.6	High standard error: 0.135
19	8.20	0.6	High angle: 24
22	9.10	0.6	High standard error: 0.177

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	M05.WAD	Site Name	M05
Start Date and Time	2017/07/11 11:18:32	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	M06D1.WAD
Start Date and Time	2017/07/11 15:38:03

Site Details

Site Name	M06D1
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	4.3%
Velocity	1.8%	6.1%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.1%	-
Overall	**3.5%**	**7.5%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	REW	Total Width	11.004
Mean SNR	42.9 dB	Total Area	7.293
Mean Temp	49.26 °F	Mean Depth	0.663
Disch. Equation	Mid-Section	Mean Velocity	2.0862
		Total Discharge	**15.2140**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:38	9.30	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	15:38	9.85	0.6	0.500	0.6	0.200	1.6293	1.00	1.6293	0.275	0.4482	2.9
2	*15:38*	*10.40*	*0.6*	*0.400*	*0.6*	*0.160*	*2.0226*	*1.00*	*2.0226*	*0.220*	*0.4451*	*2.9*
3	15:39	10.95	0.6	0.400	0.6	0.160	1.7890	1.00	1.7890	0.220	0.3937	2.6
4	15:40	11.50	0.6	0.400	0.6	0.160	2.0249	1.00	2.0249	0.220	0.4456	2.9
5	15:41	12.05	0.6	0.700	0.6	0.280	1.4039	1.00	1.4039	0.385	0.5408	3.6
6	15:42	12.60	0.6	0.800	0.6	0.320	1.2516	1.00	1.2516	0.440	0.5508	3.6
7	15:43	13.15	0.6	0.900	0.6	0.360	2.3947	1.00	2.3947	0.495	1.1857	7.8
8	15:44	13.70	0.6	0.800	0.6	0.320	2.9528	1.00	2.9528	0.419	1.2386	8.1
9	15:56	14.20	0.6	0.800	0.6	0.320	3.9085	1.00	3.9085	0.220	0.8600	5.7
10	15:45	14.25	0.6	0.850	0.6	0.340	3.8970	1.00	3.8970	0.256	0.9966	6.6
11	*15:46*	*14.80*	*0.6*	*1.100*	*0.6*	*0.440*	*4.4216*	*1.00*	*4.4216*	*0.329*	*1.4554*	*9.6*
12	15:59	14.85	0.6	0.600	0.6	0.240	2.8100	1.00	2.8100	0.089	0.2514	1.7
13	*15:57*	*15.10*	*0.6*	*0.900*	*0.6*	*0.360*	*3.8327*	*1.00*	*3.8327*	*0.226*	*0.8657*	*5.7*
14	*15:47*	*15.35*	*0.6*	*0.900*	*0.6*	*0.360*	*4.1421*	*1.00*	*4.1421*	*0.361*	*1.4951*	*9.8*
15	15:48	15.90	0.6	0.950	0.6	0.380	2.1125	1.00	2.1125	0.523	1.1043	7.3
16	15:49	16.45	0.6	1.000	0.6	0.400	0.5377	1.00	0.5377	0.550	0.2959	1.9
17	15:50	17.00	0.6	0.900	0.6	0.360	1.7218	1.00	1.7218	0.495	0.8525	5.6
18	15:51	17.55	0.6	0.700	0.6	0.280	2.5164	1.00	2.5164	0.385	0.9693	6.4
19	15:52	18.10	0.6	0.650	0.6	0.260	1.7172	1.00	1.7172	0.358	0.6141	4.0
20	15:53	18.65	0.6	0.500	0.6	0.200	1.3422	1.00	1.3422	0.275	0.3692	2.4
21	*15:54*	*19.20*	*0.6*	*0.500*	*0.6*	*0.200*	*0.6191*	*1.00*	*0.6191*	*0.275*	*0.1703*	*1.1*
22	*15:55*	*19.75*	*0.6*	*0.500*	*0.6*	*0.200*	*-1.2156*	*1.00*	*-1.2156*	*0.275*	*-0.3344*	*-2.2*
23	15:55	20.30	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

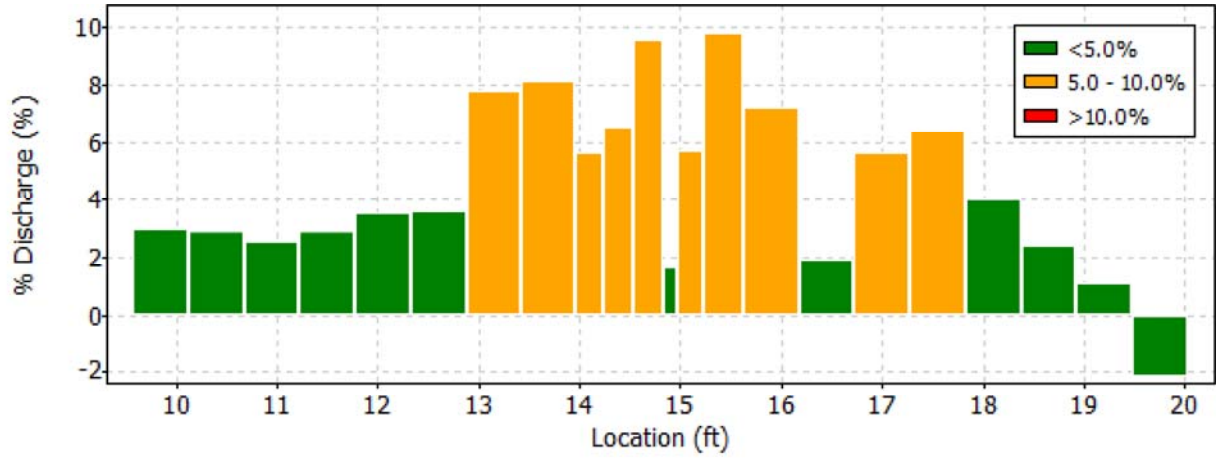
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

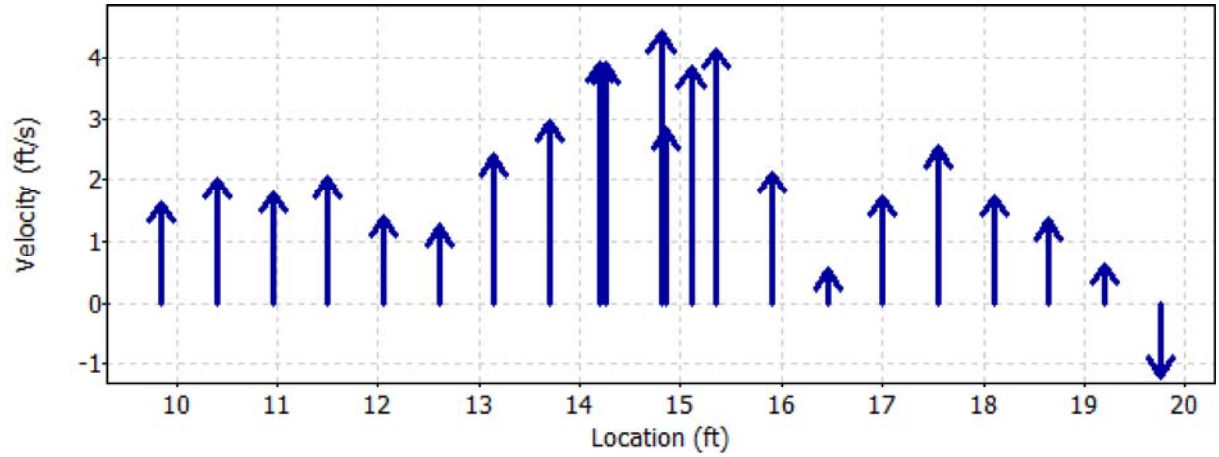
Discharge Measurement Summary

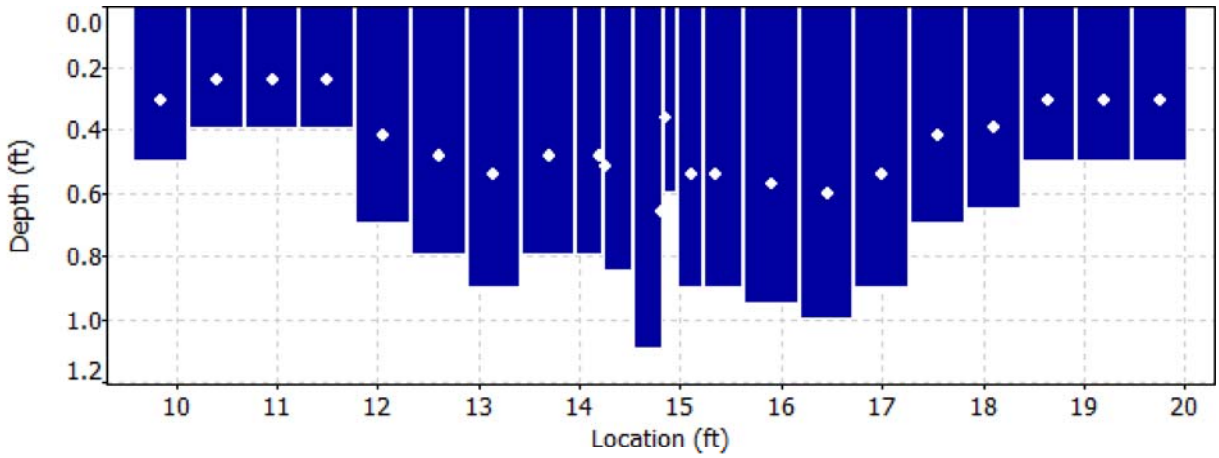
Date Generated: Mon Jul 17 2017

File Information	
File Name	M06D1.WAD
Start Date and Time	2017/07/11 15:38:03

Site Details	
Site Name	M06D1
Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	M06D1.WAD	Site Name	M06D1
Start Date and Time	2017/07/11 15:38:03	Operator(s)	KB

Quality Control

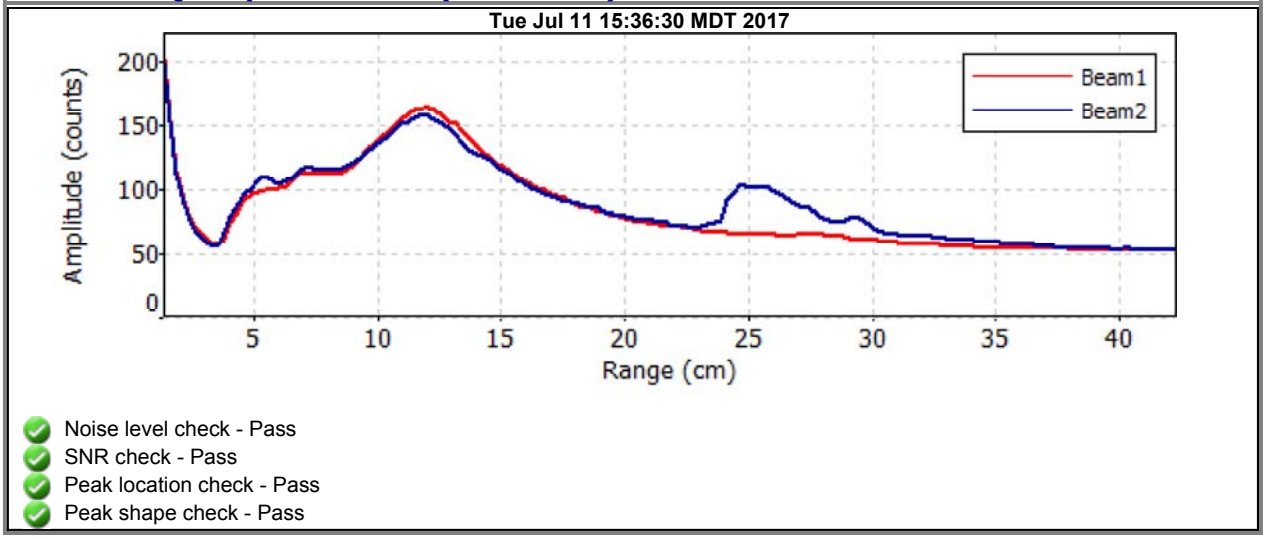
St	Loc	%Dep	Message
2	10.40	0.6	Boundary QC is Good; possible boundary interference
11	14.80	0.6	High SNR variation during measurement: 3.4,5.6
13	15.10	0.6	High SNR variation during measurement: 3.0,6.5
		0.6	High standard error: 0.240
		0.6	Boundary QC is Good; possible boundary interference
14	15.35	0.6	High number of spikes: 5
21	19.20	0.6	High angle: 37
22	19.75	0.6	High angle: -174
		0.6	High standard error: 0.721

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	M06D1.WAD	Site Name	M06D1
Start Date and Time	2017/07/11 15:38:03	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	M10.WAD
Start Date and Time	2017/07/11 17:22:32

Site Details

Site Name	M10
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	1.6%
Velocity	2.0%	3.8%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**3.8%**	**4.3%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	10.000
Mean SNR	38.2 dB	Total Area	8.490
Mean Temp	44.17 °F	Mean Depth	0.849
Disch. Equation	Mid-Section	Mean Velocity	3.2869
		Total Discharge	**27.9053**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	17:22	2.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	17:22	2.50	0.6	0.300	0.6	0.120	2.0774	1.00	2.0774	0.150	0.3115	1.1
2	17:23	3.00	0.6	0.400	0.6	0.160	2.7254	1.00	2.7254	0.200	0.5450	2.0
3	17:24	3.50	0.6	0.500	0.6	0.200	2.7730	1.00	2.7730	0.250	0.6932	2.5
4	17:25	4.00	0.6	0.550	0.6	0.220	3.7096	1.00	3.7096	0.275	1.0199	3.7
5	17:26	4.50	0.6	0.850	0.6	0.340	2.3077	1.00	2.3077	0.425	0.9809	3.5
6	*17:27*	*5.00*	*0.6*	*0.900*	*0.6*	*0.360*	*0.7818*	*1.00*	*0.7818*	*0.450*	*0.3518*	*1.3*
7	*17:28*	*5.50*	*0.6*	*0.700*	*0.6*	*0.280*	*1.1811*	*1.00*	*1.1811*	*0.350*	*0.4135*	*1.5*
8	*17:29*	*6.00*	*0.6*	*0.800*	*0.6*	*0.320*	*3.7664*	*1.00*	*3.7664*	*0.400*	*1.5063*	*5.4*
9	17:30	6.50	0.6	0.800	0.6	0.320	3.7388	1.00	3.7388	0.400	1.4953	5.4
10	17:31	7.00	0.6	0.900	0.6	0.360	3.8681	1.00	3.8681	0.450	1.7405	6.2
11	*17:32*	*7.50*	*0.6*	*1.100*	*0.6*	*0.440*	*3.8917*	*1.00*	*3.8917*	*0.550*	*2.1406*	*7.7*
12	17:33	8.00	0.6	1.100	0.6	0.440	4.3255	1.00	4.3255	0.550	2.3791	8.5
13	17:34	8.50	0.6	1.200	0.6	0.480	3.3711	1.00	3.3711	0.600	2.0229	7.2
14	17:35	9.00	0.6	1.200	0.6	0.480	3.2329	1.00	3.2329	0.600	1.9400	7.0
15	17:36	9.50	0.6	1.300	0.6	0.520	3.4757	1.00	3.4757	0.650	2.2590	8.1
16	17:37	10.00	0.6	1.300	0.6	0.520	5.1801	1.00	5.1801	0.520	2.6929	9.7
17	17:41	10.30	0.6	1.200	0.6	0.480	6.2073	1.00	6.2073	0.300	1.8624	6.7
18	17:38	10.50	0.6	1.200	0.6	0.480	5.5689	1.00	5.5689	0.420	2.3396	8.4
19	17:39	11.00	0.6	1.000	0.6	0.400	2.4268	1.00	2.4268	0.500	1.2134	4.3
20	*17:40*	*11.50*	*0.6*	*0.900*	*0.6*	*0.360*	*-0.0056*	*1.00*	*-0.0056*	*0.450*	*-0.0025*	*0.0*
21	17:40	12.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

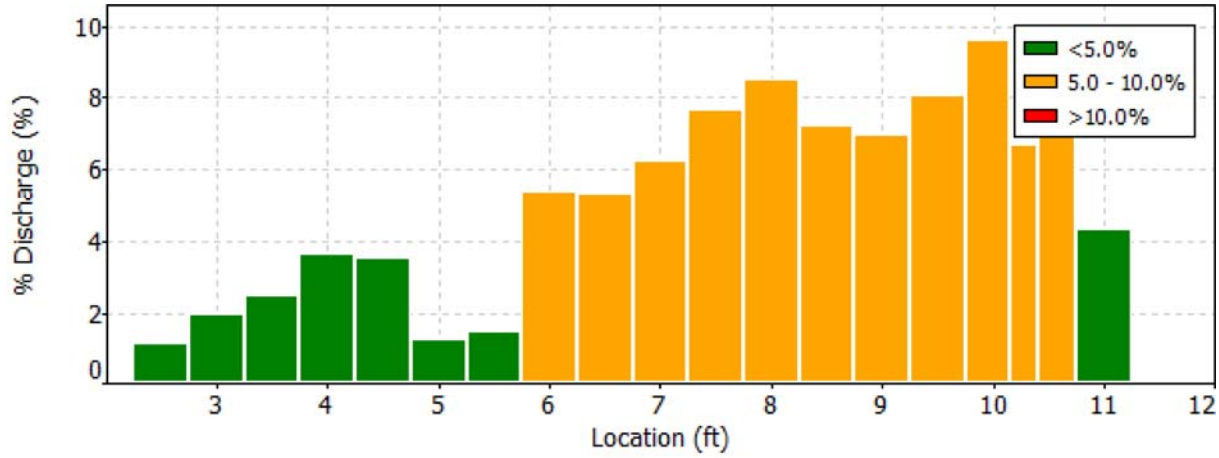
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

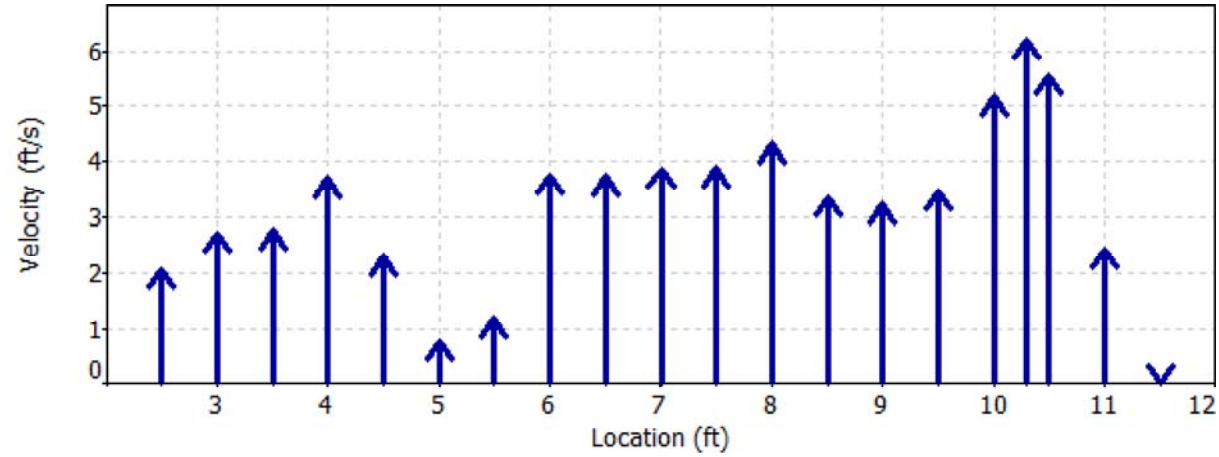
Discharge Measurement Summary

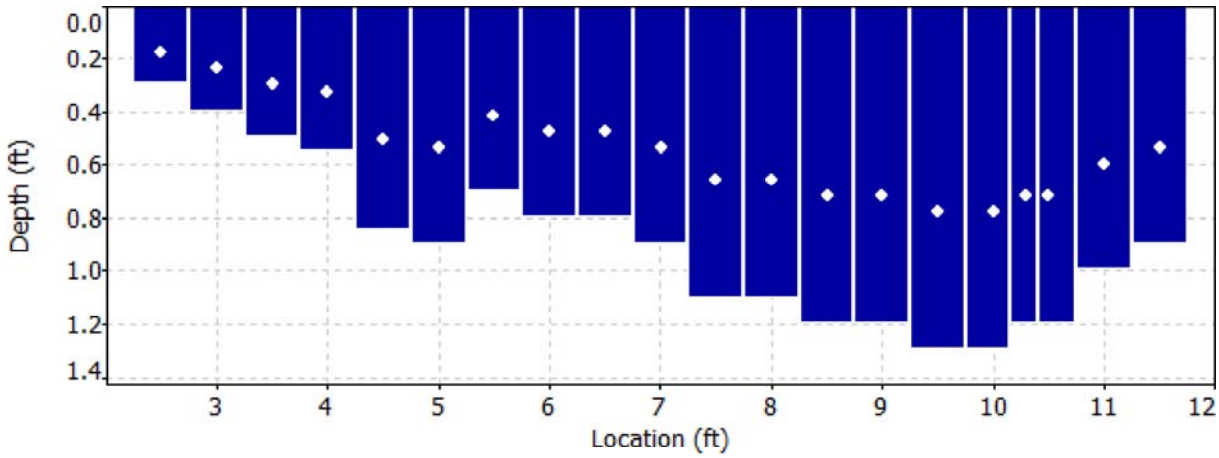
Date Generated: Mon Jul 17 2017

File Information	
File Name	M10.WAD
Start Date and Time	2017/07/11 17:22:32

Site Details	
Site Name	M10
Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	M10.WAD	Site Name	M10
Start Date and Time	2017/07/11 17:22:32	Operator(s)	KB

Quality Control

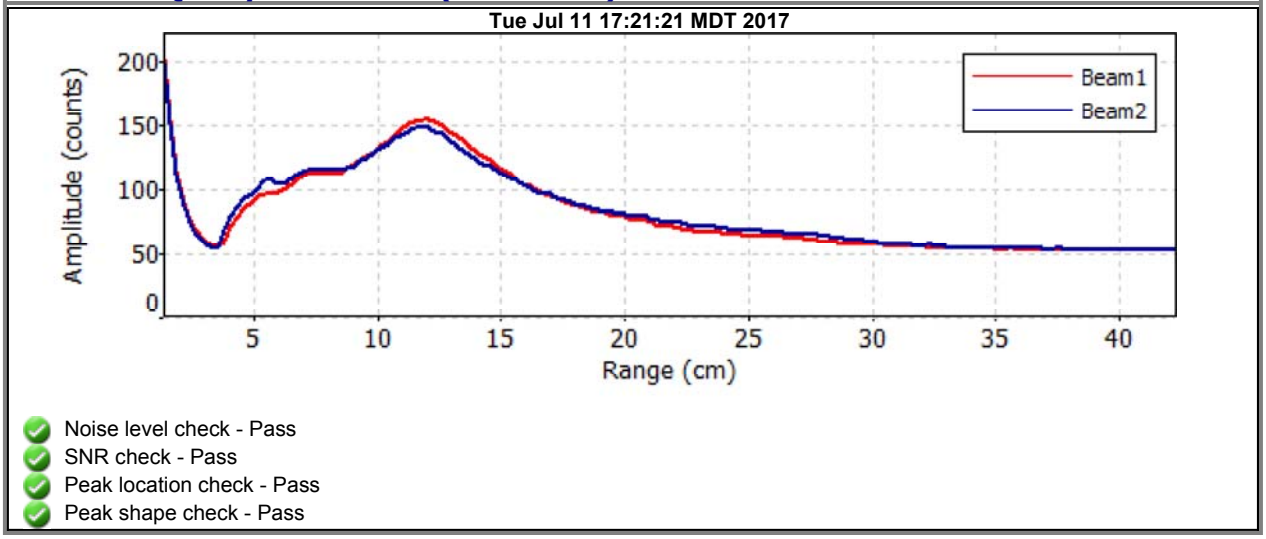
St	Loc	%Dep	Message
6	5.00	0.6	High angle: 57
		0.6	High standard error: 0.933
7	5.50	0.6	High angle: 40
		0.6	High SNR variation during measurement: 3.4,5.2
		0.6	High standard error: 0.832
8	6.00	0.6	High angle: 21
11	7.50	0.6	High angle: 21
20	11.50	0.6	High number of spikes: 8
		0.6	SNR (21.3) is different from typical SNR (38.2)
		0.6	High SNR variation during measurement: 9.0,8.2

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	M10.WAD	Site Name	M10
Start Date and Time	2017/07/11 17:22:32	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	M23.WAD
Start Date and Time	2017/07/12 11:32:40

Site Details

Site Name	M23
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	1.5%
Velocity	0.8%	1.7%
Width	0.1%	0.1%
Method	1.7%	-
# Stations	2.4%	-
Overall	**3.2%**	**2.5%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	REW	Total Width	22.001
Mean SNR	39.0 dB	Total Area	17.876
Mean Temp	43.85 °F	Mean Depth	0.812
Disch. Equation	Mid-Section	Mean Velocity	2.9044
		Total Discharge	**51.9188**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:32	8.00	None	0.100	0.0	0.0	0.0000	1.00	3.1033	0.055	0.1708	0.3
1	11:32	9.10	0.6	0.500	0.6	0.200	3.1033	1.00	3.1033	0.550	1.7069	3.3
2	11:33	10.20	0.6	0.700	0.6	0.280	3.9826	1.00	3.9826	0.770	3.0674	5.9
3	11:34	11.30	0.6	0.800	0.6	0.320	3.9751	1.00	3.9751	0.880	3.4977	6.7
4	*11:35*	*12.40*	*0.6*	*1.000*	*0.6*	*0.400*	*3.3465*	*1.00*	*3.3465*	*1.100*	*3.6813*	*7.1*
5	11:36	13.50	0.6	1.100	0.6	0.440	3.1188	1.00	3.1188	1.210	3.7742	7.3
6	11:37	14.60	0.6	0.900	0.6	0.360	2.8632	1.00	2.8632	0.990	2.8345	5.5
7	*11:38*	*15.70*	*0.6*	*0.900*	*0.6*	*0.360*	*3.3720*	*1.00*	*3.3720*	*0.990*	*3.3383*	*6.4*
8	11:39	16.80	0.6	0.900	0.6	0.360	3.4846	1.00	3.4846	0.990	3.4497	6.6
9	11:40	17.90	0.6	0.900	0.6	0.360	2.8625	1.00	2.8625	0.990	2.8339	5.5
10	11:41	19.00	0.6	0.950	0.6	0.380	2.8921	1.00	2.8921	1.045	3.0228	5.8
11	11:42	20.10	0.6	0.800	0.6	0.320	2.8159	1.00	2.8159	0.880	2.4778	4.8
12	11:43	21.20	0.6	0.800	0.6	0.320	3.1926	1.00	3.1926	0.880	2.8092	5.4
13	*11:44*	*22.30*	*0.6*	*0.700*	*0.6*	*0.280*	*2.8291*	*1.00*	*2.8291*	*0.770*	*2.1789*	*4.2*
14	11:45	23.40	0.6	0.750	0.6	0.300	1.9895	1.00	1.9895	0.825	1.6414	3.2
15	11:46	24.50	0.6	0.800	0.6	0.320	1.7060	1.00	1.7060	0.880	1.5012	2.9
16	11:47	25.60	0.6	0.850	0.6	0.340	2.0758	1.00	2.0758	0.935	1.9411	3.7
17	11:47	26.70	0.6	0.950	0.6	0.380	2.6266	1.00	2.6266	1.045	2.7454	5.3
18	11:48	27.80	0.6	0.800	0.6	0.320	2.6604	1.00	2.6604	0.880	2.3409	4.5
19	11:49	28.90	0.6	0.700	0.6	0.280	2.4009	1.00	2.4009	0.770	1.8492	3.6
20	11:49	30.00	None	0.800	0.0	0.0	0.0000	1.00	2.4009	0.440	1.0563	2.0

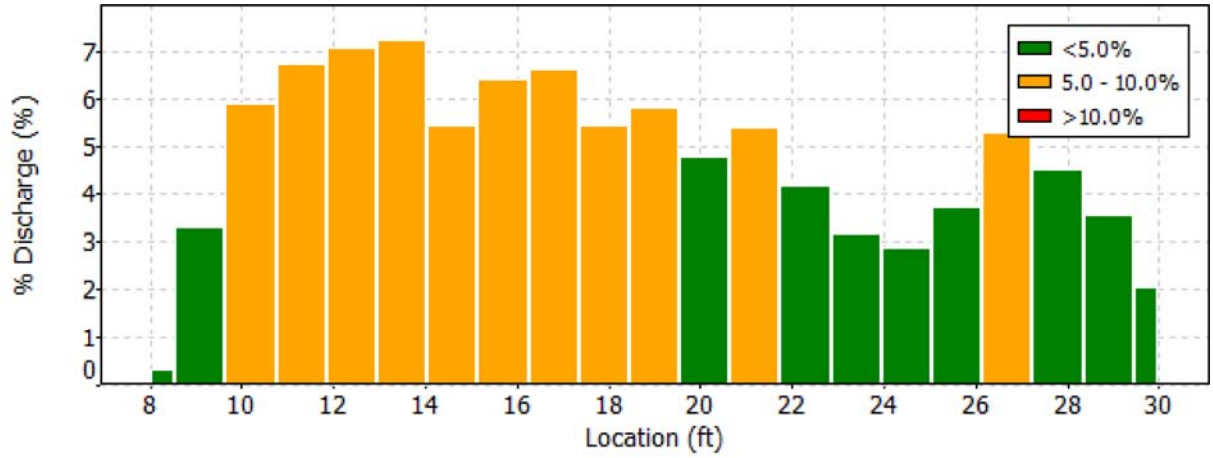
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

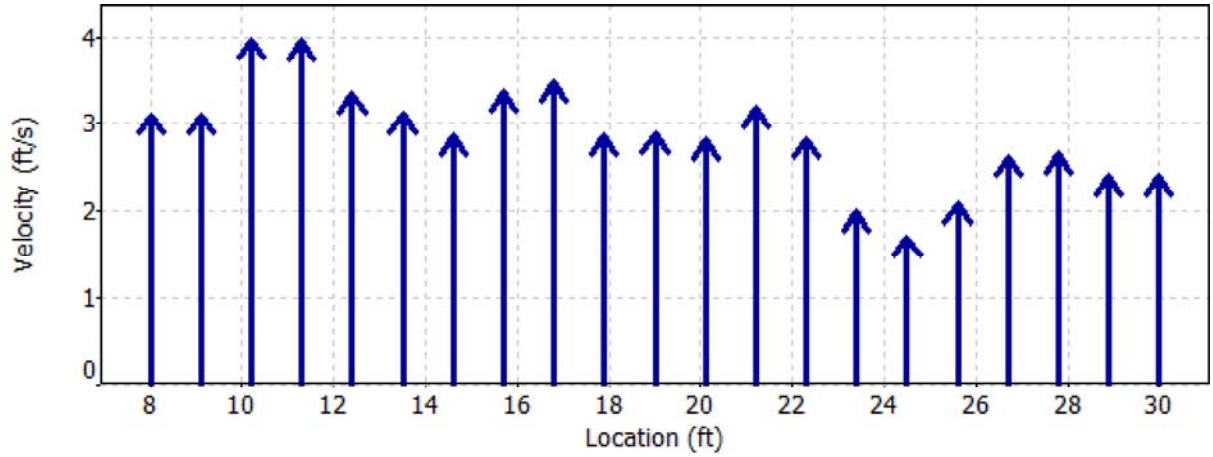
Discharge Measurement Summary

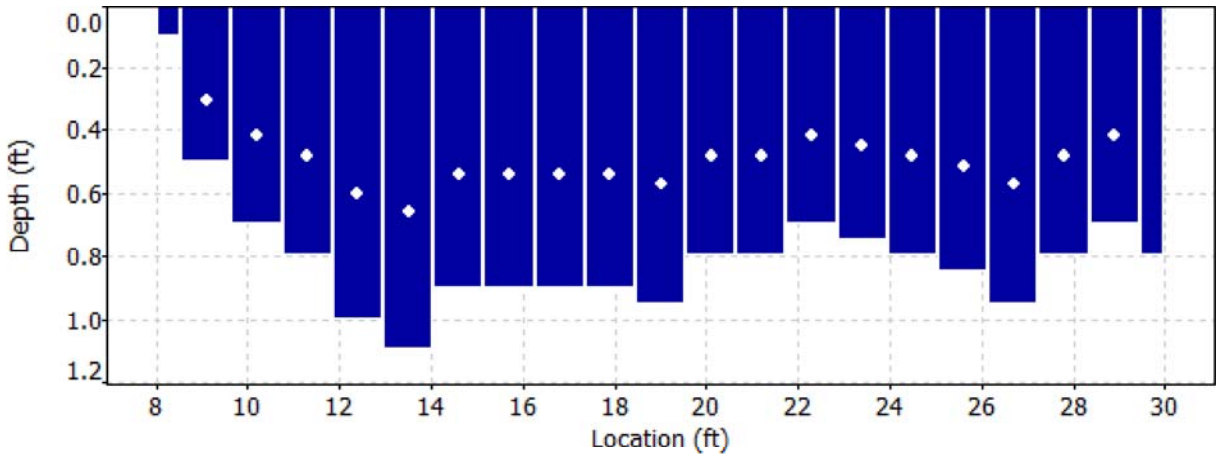
Date Generated: Mon Jul 17 2017

File Information	
File Name	M23.WAD
Start Date and Time	2017/07/12 11:32:40

Site Details	
Site Name	M23
Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	M23.WAD
Start Date and Time	2017/07/12 11:32:40

Site Details

Site Name	M23
Operator(s)	KB

Quality Control

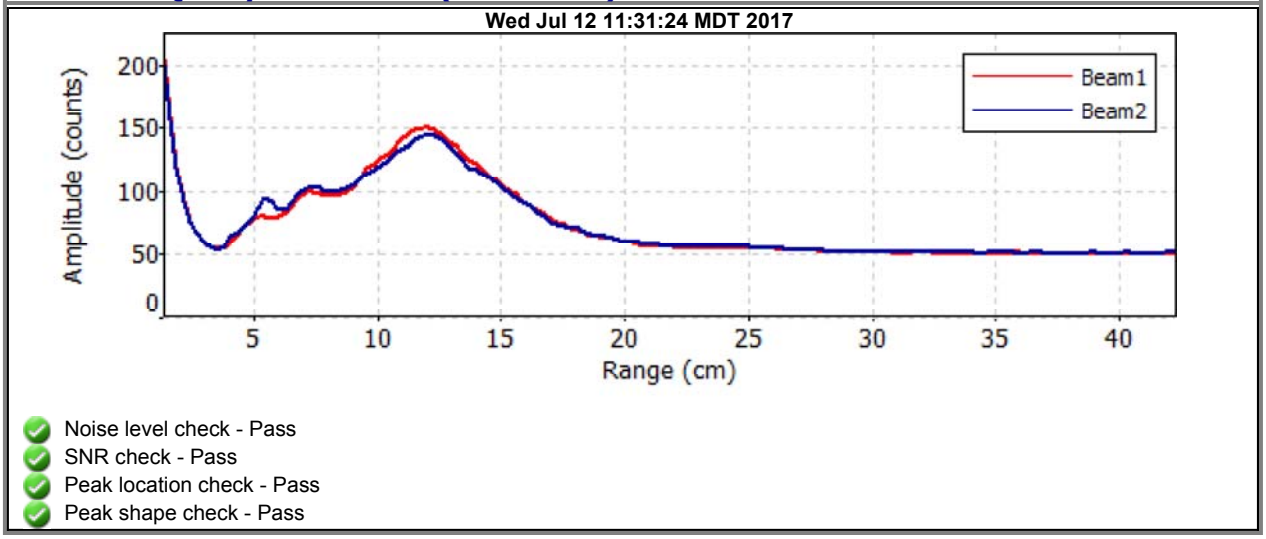
St	Loc	%Dep	Message
4	12.40	0.6	High angle: 21
7	15.70	0.6	High number of spikes: 5
13	22.30	0.6	High angle: 26

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	M23.WAD	Site Name	M23
Start Date and Time	2017/07/12 11:32:40	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	M25.WAD
Start Date and Time	2017/07/12 10:06:38

Site Details

Site Name	M25
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	2.7%
Velocity	0.9%	4.7%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.2%	-
Overall	**3.2%**	**5.5%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	32.001
Mean SNR	38.2 dB	Total Area	20.326
Mean Temp	43.87 °F	Mean Depth	0.635
Disch. Equation	Mid-Section	Mean Velocity	2.6683
		Total Discharge	**54.2350**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:06	5.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	10:06	6.60	0.6	0.900	0.6	0.360	2.6732	1.00	2.6732	1.440	3.8493	7.1
2	10:07	8.20	0.6	1.000	0.6	0.400	3.8930	1.00	3.8930	0.825	3.2116	5.9
3	10:25	8.25	0.6	0.950	0.6	0.380	3.3002	1.00	3.3002	0.760	2.5086	4.6
4	10:08	9.80	0.6	1.000	0.6	0.400	3.6896	1.00	3.6896	0.875	3.2284	6.0
5	10:27	10.00	0.6	0.950	0.6	0.380	3.6362	1.00	3.6362	0.760	2.7640	5.1
6	10:09	11.40	0.6	0.950	0.6	0.380	1.5633	1.00	1.5633	1.425	2.2283	4.1
7	10:10	13.00	0.6	0.500	0.6	0.200	1.4544	1.00	1.4544	0.800	1.1636	2.1
8	*10:11*	*14.60*	*0.6*	*0.350*	*0.6*	*0.140*	*1.0377*	*1.00*	*1.0377*	*0.560*	*0.5813*	*1.1*
9	*10:12*	*16.20*	*0.6*	*0.300*	*0.6*	*0.120*	*0.8091*	*1.00*	*0.8091*	*0.480*	*0.3882*	*0.7*
10	*10:13*	*17.80*	*0.6*	*0.300*	*0.6*	*0.120*	*0.7684*	*1.00*	*0.7684*	*0.480*	*0.3687*	*0.7*
11	10:14	19.40	0.6	0.450	0.6	0.180	2.2562	1.00	2.2562	0.720	1.6250	3.0
12	10:15	21.00	0.6	0.450	0.6	0.180	1.7238	1.00	1.7238	0.720	1.2415	2.3
13	10:16	22.60	0.6	0.700	0.6	0.280	2.9452	1.00	2.9452	1.120	3.2994	6.1
14	10:17	24.20	0.6	0.650	0.6	0.260	4.1247	1.00	4.1247	1.040	4.2894	7.9
15	10:18	25.80	0.6	0.800	0.6	0.320	2.9806	1.00	2.9806	1.280	3.8148	7.0
16	10:19	27.40	0.6	0.650	0.6	0.260	3.4829	1.00	3.4829	1.040	3.6220	6.7
17	10:20	29.00	0.6	0.650	0.6	0.260	4.2838	1.00	4.2838	1.040	4.4549	8.2
18	10:21	30.60	0.6	0.700	0.6	0.280	3.0187	1.00	3.0187	1.120	3.3817	6.2
19	*10:22*	*32.20*	*0.6*	*0.600*	*0.6*	*0.240*	*2.2838*	*1.00*	*2.2838*	*0.960*	*2.1928*	*4.0*
20	*10:23*	*33.80*	*0.6*	*0.800*	*0.6*	*0.320*	*1.4416*	*1.00*	*1.4416*	*1.280*	*1.8450*	*3.4*
21	10:24	35.40	0.6	1.000	0.6	0.400	2.6102	1.00	2.6102	1.600	4.1765	7.7
22	10:24	37.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

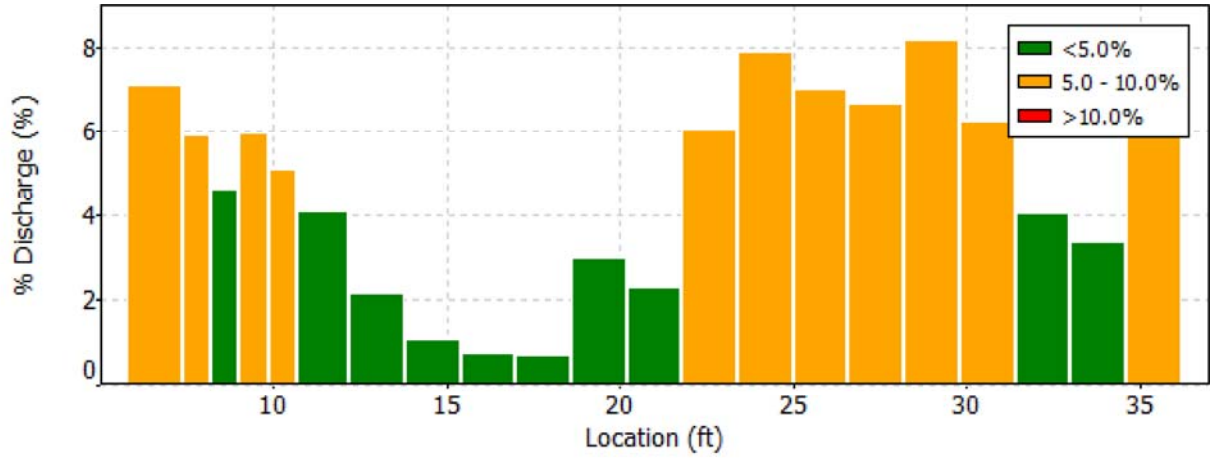
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

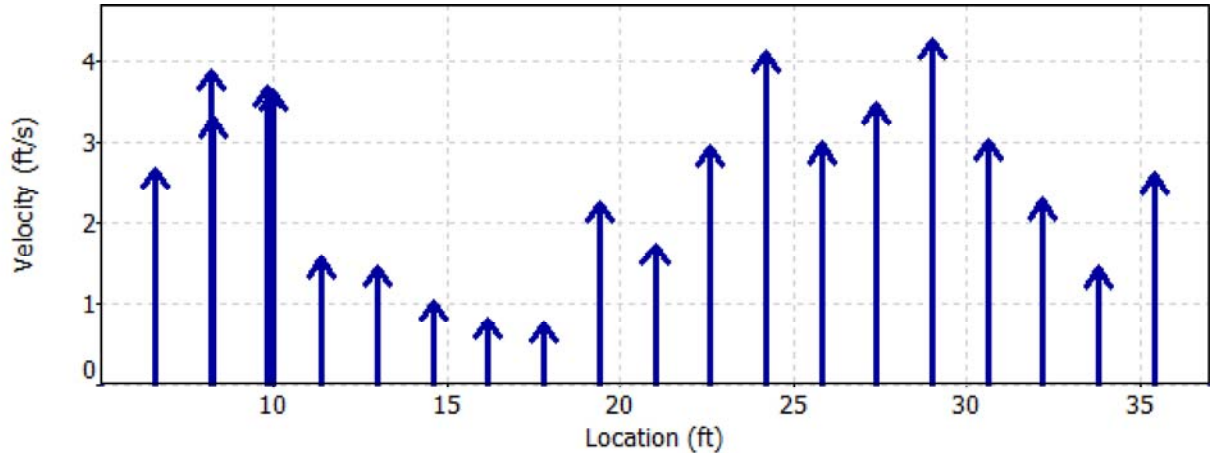
Discharge Measurement Summary

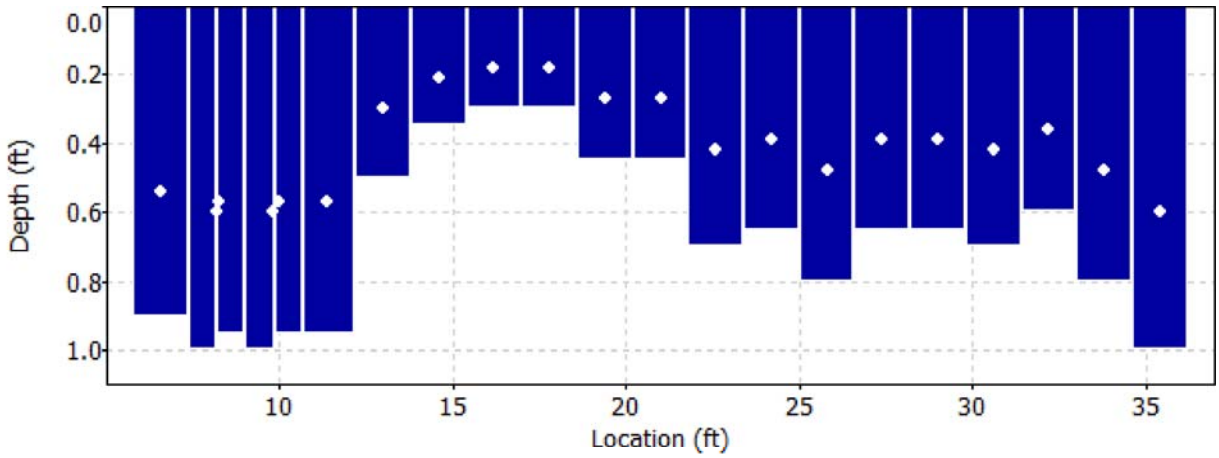
Date Generated: Mon Jul 17 2017

File Information	
File Name	M25.WAD
Start Date and Time	2017/07/12 10:06:38

Site Details	
Site Name	M25
Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	M25.WAD	Site Name	M25
Start Date and Time	2017/07/12 10:06:38	Operator(s)	KB

Quality Control

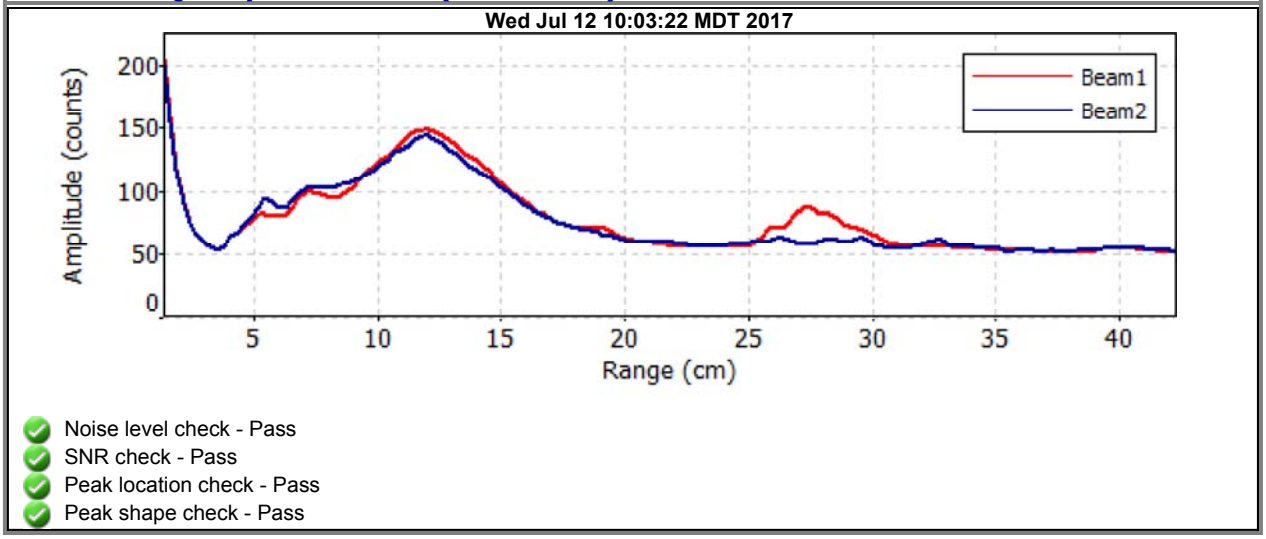
St	Loc	%Dep	Message
8	14.60	0.6	High angle: -23
		0.6	Boundary QC is Good; possible boundary interference
9	16.20	0.6	High angle: -21
		0.6	Boundary QC is Good; possible boundary interference
10	17.80	0.6	High angle: -52
19	32.20	0.6	High standard error: 0.194
20	33.80	0.6	High standard error: 0.140

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	M25.WAD	Site Name	M25
Start Date and Time	2017/07/12 10:06:38	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A05.WAD
Start Date and Time	2017/07/11 12:03:52

Site Details

Site Name	A05
Operator(s)	ND

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	9.5%
Velocity	1.1%	5.1%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.1%	-
Overall	**3.3%**	**10.8%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	REW	Total Width	8.197
Mean SNR	42.9 dB	Total Area	2.840
Mean Temp	48.04 °F	Mean Depth	0.346
Disch. Equation	Mid-Section	Mean Velocity	1.4548
		Total Discharge	**4.1313**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	12:03	14.80	None	0.100	0.0	0.0	0.0000	1.00	1.5364	0.010	0.0154	0.4
1	*12:03*	*14.60*	*0.6*	*0.400*	*0.6*	*0.160*	*1.5364*	*1.00*	*1.5364*	*0.120*	*0.1843*	*4.5*
2	*12:05*	*14.20*	*0.6*	*0.600*	*0.6*	*0.240*	*0.6893*	*1.00*	*0.6893*	*0.240*	*0.1654*	*4.0*
3	*12:06*	*13.80*	*0.6*	*0.600*	*0.6*	*0.240*	*1.9974*	*1.00*	*1.9974*	*0.180*	*0.3596*	*8.7*
4	12:28	13.60	0.6	0.000	0.6	0.080	3.1549	1.00	0.0000	0.000	0.0000	0.0
5	*12:07*	*13.40*	*0.6*	*0.500*	*0.6*	*0.200*	*2.6325*	*1.00*	*2.6325*	*0.125*	*0.3291*	*8.0*
6	12:30	13.10	0.6	0.200	0.6	0.080	2.6677	1.00	2.6677	0.040	0.1068	2.6
7	12:08	13.00	0.6	0.500	0.6	0.200	2.1640	1.00	2.1640	0.125	0.2703	6.5
8	12:09	12.60	0.6	0.600	0.6	0.240	1.7756	1.00	1.7756	0.240	0.4261	10.3
9	*12:10*	*12.20*	*0.6*	*0.450*	*0.6*	*0.180*	*1.7621*	*1.00*	*1.7621*	*0.180*	*0.3172*	*7.7*
10	12:11	11.80	0.6	0.500	0.6	0.200	1.6680	1.00	1.6680	0.200	0.3335	8.1
11	12:12	11.40	0.6	0.450	0.6	0.180	1.8596	1.00	1.8596	0.180	0.3348	8.1
12	12:13	11.00	0.6	0.450	0.6	0.180	1.8560	1.00	1.8560	0.180	0.3341	8.1
13	12:14	10.60	0.6	0.400	0.6	0.160	1.7267	1.00	1.7267	0.160	0.2762	6.7
14	12:15	10.20	0.6	0.400	0.6	0.160	1.4944	1.00	1.4944	0.160	0.2390	5.8
15	12:16	9.80	0.6	0.300	0.6	0.120	0.9180	1.00	0.9180	0.120	0.1101	2.7
16	12:17	9.40	0.6	0.250	0.6	0.100	0.9009	1.00	0.9009	0.100	0.0901	2.2
17	*12:18*	*9.00*	*0.6*	*0.200*	*0.6*	*0.080*	*0.5043*	*1.00*	*0.5043*	*0.080*	*0.0404*	*1.0*
18	*12:20*	*8.60*	*0.6*	*0.200*	*0.6*	*0.080*	*0.6512*	*1.00*	*0.6512*	*0.080*	*0.0521*	*1.3*
19	*12:21*	*8.20*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3556*	*1.00*	*0.3556*	*0.080*	*0.0285*	*0.7*
20	*12:22*	*7.80*	*0.6*	*0.200*	*0.6*	*0.080*	*0.7113*	*1.00*	*0.7113*	*0.080*	*0.0569*	*1.4*
21	*12:23*	*7.40*	*0.6*	*0.200*	*0.6*	*0.080*	*0.7621*	*1.00*	*0.7621*	*0.080*	*0.0610*	*1.5*
22	*12:24*	*7.00*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0056*	*1.00*	*0.0056*	*0.040*	*0.0002*	*0.0*
23	12:24	7.80	None	0.100	0.0	0.0	0.0000	1.00	0.0056	0.040	0.0002	0.0

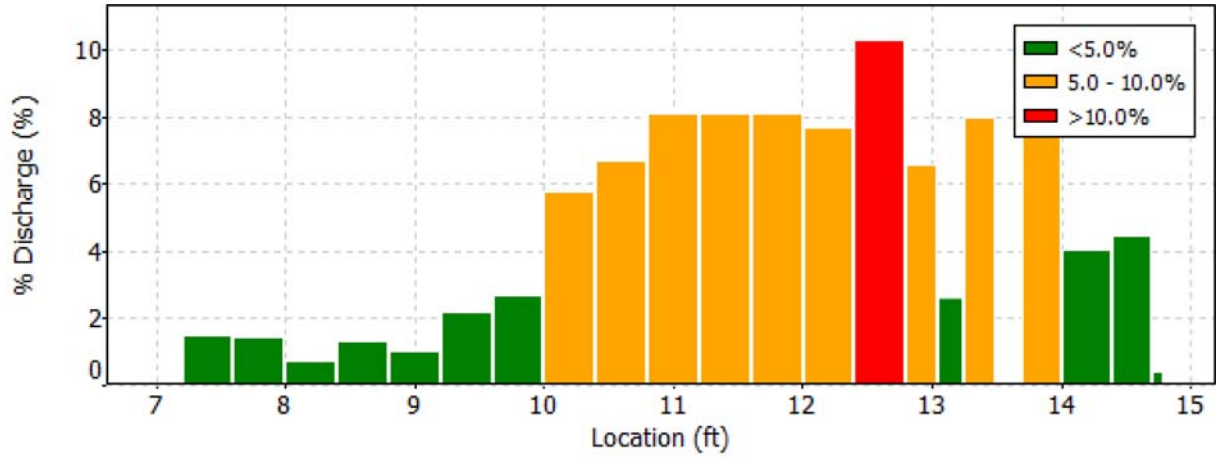
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

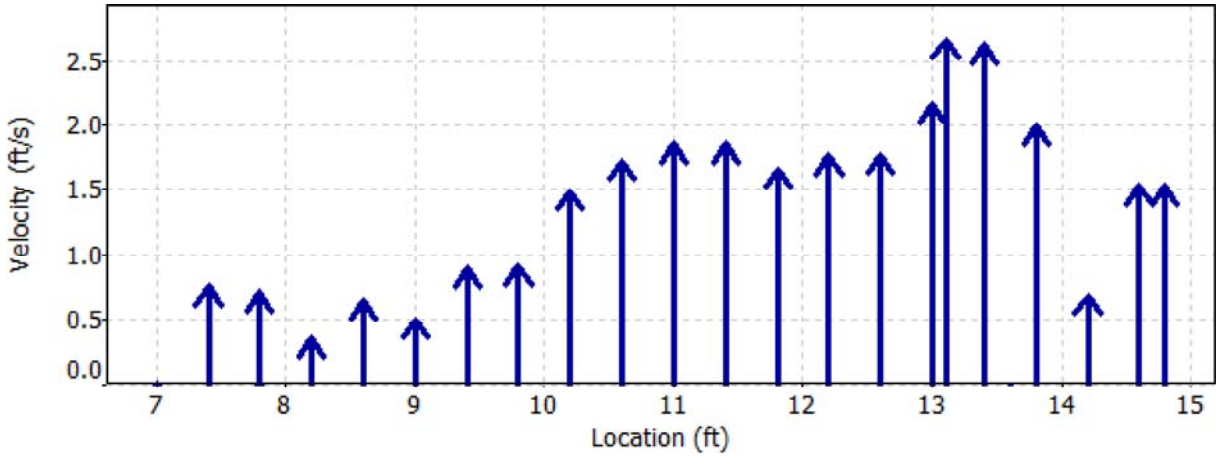
Discharge Measurement Summary

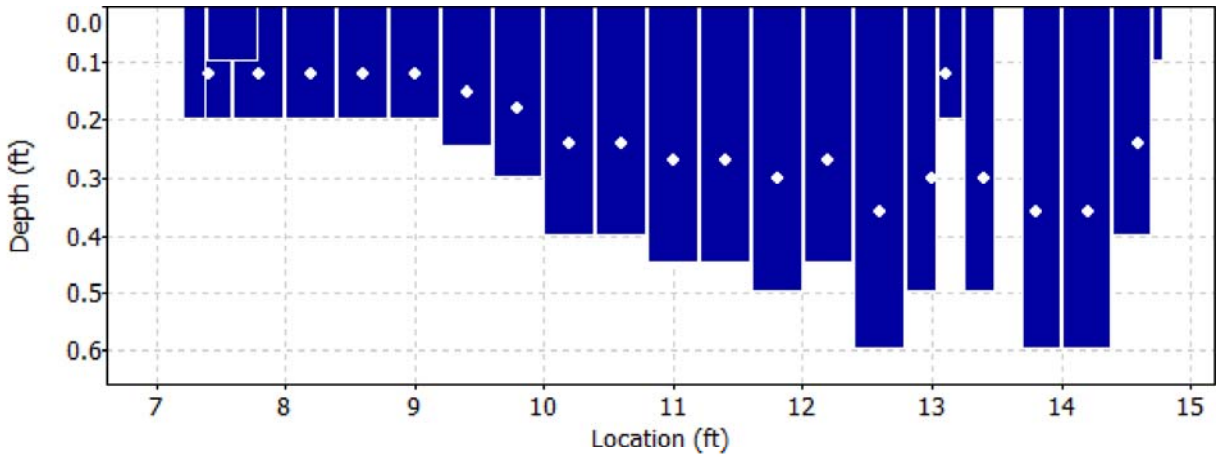
Date Generated: Mon Jul 17 2017

File Information	
File Name	A05.WAD
Start Date and Time	2017/07/11 12:03:52

Site Details	
Site Name	A05
Operator(s)	ND







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A05.WAD	Site Name	A05
Start Date and Time	2017/07/11 12:03:52	Operator(s)	ND

Quality Control

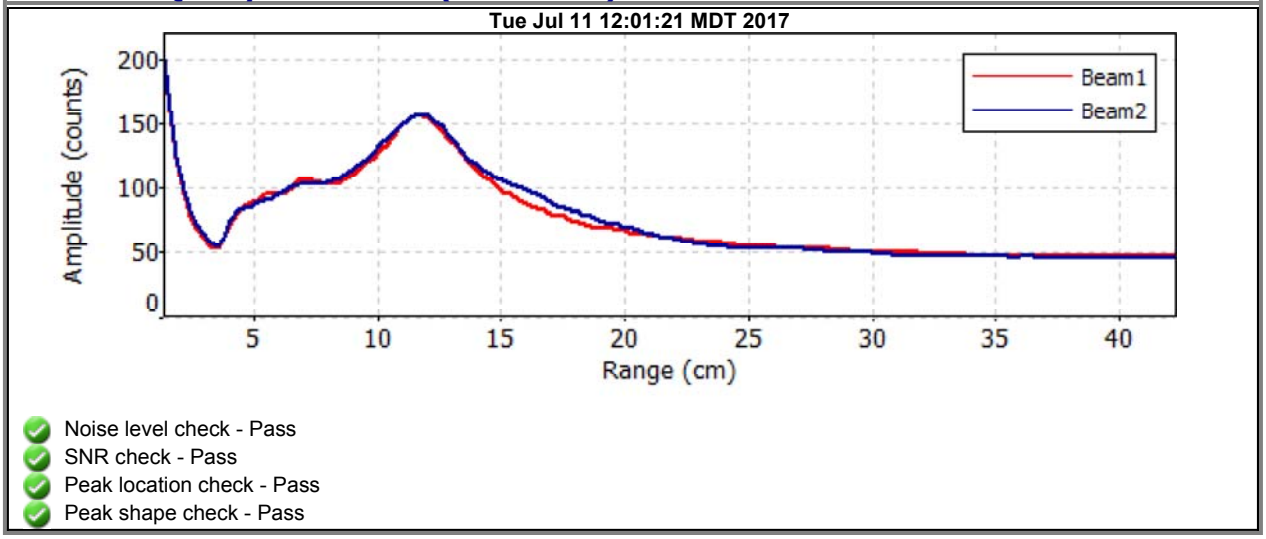
St	Loc	%Dep	Message
1	14.60	0.6	High standard error: 0.103
2	14.20	0.6	High angle: 27
		0.6	High standard error: 0.087
3	13.80	0.6	High standard error: 0.122
5	13.40	0.6	High number of spikes: 5
9	12.20	0.6	High number of spikes: 6
17	9.00	0.6	High angle: 21
18	8.60	0.6	High angle: 20
		0.6	High SNR variation during measurement: 12.5,9.0
19	8.20	0.6	High differences in beam SNR: 31.8,48.6
		0.6	High SNR variation during measurement: 6.0,3.4
20	7.80	0.6	High differences in beam SNR: 29.7,43.0
21	7.40	0.6	High angle: 24
22	7.00	0.6	SNR (57.2) is different from typical SNR (42.9)
		0.6	High SNR variation during measurement: 6.9,9.5

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A05.WAD	Site Name	A05
Start Date and Time	2017/07/11 12:03:52	Operator(s)	ND

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A07.WAD
Start Date and Time	2017/07/11 11:05:40

Site Details

Site Name	A07
Operator(s)	ND

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	4.0%
Velocity	1.9%	8.9%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**3.6%**	**9.8%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	8.399
Mean SNR	48.2 dB	Total Area	3.035
Mean Temp	50.16 °F	Mean Depth	0.361
Disch. Equation	Mid-Section	Mean Velocity	1.2909
		Total Discharge	**3.9176**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:05	5.00	None	0.200	0.0	0.0	0.0000	1.00	1.2930	0.040	0.0517	1.3
1	11:05	5.40	0.6	0.200	0.6	0.080	1.2930	1.00	1.2930	0.080	0.1035	2.6
2	*11:06*	*5.80*	*0.6*	*0.400*	*0.6*	*0.160*	*0.8343*	*1.00*	*0.8343*	*0.160*	*0.1334*	*3.4*
3	11:07	6.20	0.6	0.400	0.6	0.160	0.1572	1.00	0.1572	0.160	0.0251	0.6
4	11:09	6.60	0.6	0.350	0.6	0.140	1.2195	1.00	1.2195	0.140	0.1707	4.4
5	*11:10*	*7.00*	*0.6*	*0.350*	*0.6*	*0.140*	*1.0981*	*1.00*	*1.0981*	*0.140*	*0.1537*	*3.9*
6	*11:11*	*7.40*	*0.6*	*0.500*	*0.6*	*0.200*	*1.2234*	*1.00*	*1.2234*	*0.200*	*0.2446*	*6.2*
7	11:12	7.80	0.6	0.400	0.6	0.160	2.1778	1.00	2.1778	0.160	0.3483	8.9
8	11:14	8.20	0.6	0.700	0.6	0.280	1.3468	1.00	1.3468	0.280	0.3771	9.6
9	11:15	8.60	0.6	0.650	0.6	0.260	2.1512	1.00	2.1512	0.195	0.4197	10.7
10	11:34	8.80	0.6	0.650	0.6	0.260	1.6181	1.00	1.6181	0.130	0.2103	5.4
11	11:16	9.00	0.6	0.500	0.6	0.200	1.8245	1.00	1.8245	0.150	0.2734	7.0
12	11:17	9.40	0.6	0.500	0.6	0.200	1.0436	1.00	1.0436	0.200	0.2087	5.3
13	11:18	9.80	0.6	0.400	0.6	0.160	1.2549	1.00	1.2549	0.160	0.2007	5.1
14	*11:19*	*10.20*	*0.6*	*0.400*	*0.6*	*0.160*	*1.8179*	*1.00*	*1.8179*	*0.160*	*0.2908*	*7.4*
15	11:21	10.60	0.6	0.400	0.6	0.160	1.6575	1.00	1.6575	0.160	0.2651	6.8
16	*11:23*	*11.00*	*0.6*	*0.300*	*0.6*	*0.120*	*2.2126*	*1.00*	*2.2126*	*0.120*	*0.2654*	*6.8*
17	*11:25*	*11.40*	*0.6*	*0.200*	*0.6*	*0.080*	*0.1522*	*1.00*	*0.1522*	*0.080*	*0.0122*	*0.3*
18	*11:26*	*11.80*	*0.6*	*0.200*	*0.6*	*0.080*	*0.2740*	*1.00*	*0.2740*	*0.080*	*0.0219*	*0.6*
19	11:27	12.20	0.6	0.200	0.6	0.080	0.0843	1.00	0.0843	0.080	0.0067	0.2
20	*11:29*	*12.60*	*0.6*	*0.200*	*0.6*	*0.080*	*0.7684*	*1.00*	*0.7684*	*0.080*	*0.0615*	*1.6*
21	11:30	13.00	0.6	0.200	0.6	0.080	0.9098	1.00	0.9098	0.080	0.0728	1.9
22	11:30	13.40	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

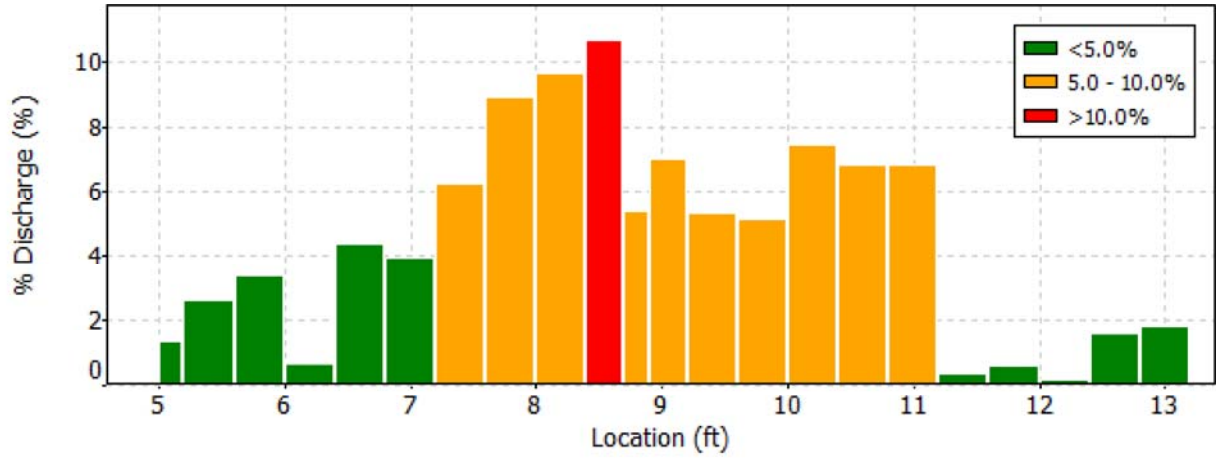
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

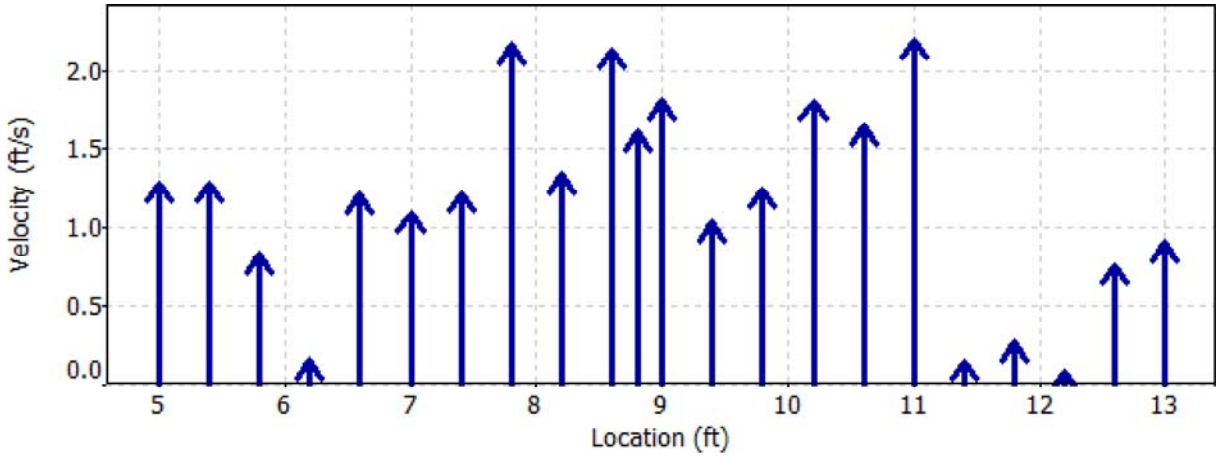
Discharge Measurement Summary

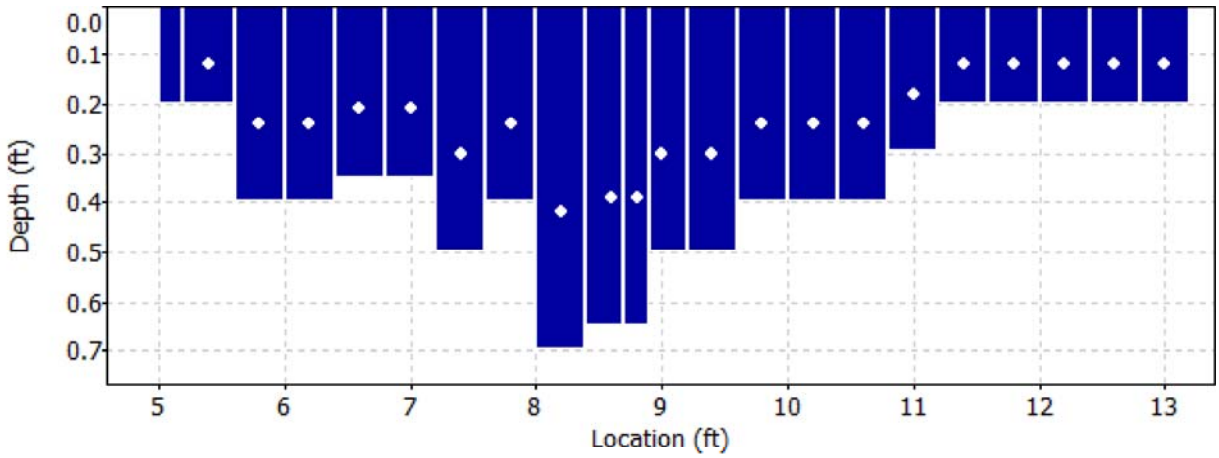
Date Generated: Mon Jul 17 2017

File Information	
File Name	A07.WAD
Start Date and Time	2017/07/11 11:05:40

Site Details	
Site Name	A07
Operator(s)	ND







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A07.WAD	Site Name	A07
Start Date and Time	2017/07/11 11:05:40	Operator(s)	ND

Quality Control

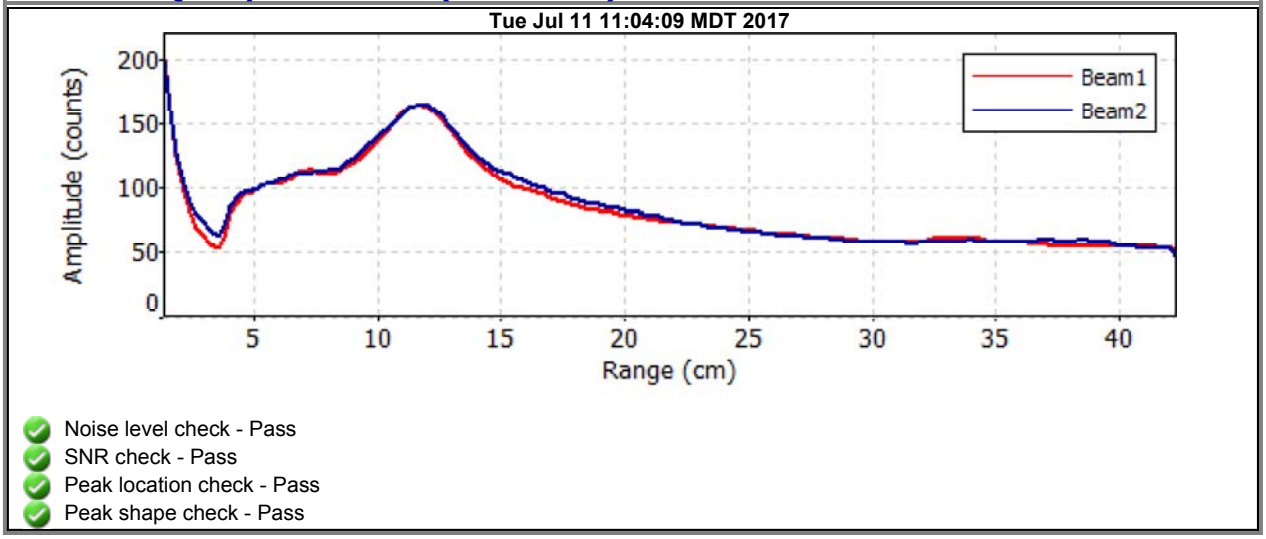
St	Loc	%Dep	Message
2	5.80	0.6	High standard error: 0.143
5	7.00	0.6	High angle: -31
		0.6	High standard error: 0.134
6	7.40	0.6	High angle: -27
14	10.20	0.6	High standard error: 0.144
16	11.00	0.6	High angle: -22
17	11.40	0.6	High angle: 26
18	11.80	0.6	High angle: 58
		0.6	High SNR variation during measurement: 2.6,6.5
20	12.60	0.6	High number of spikes: 5
		0.6	High angle: 28
		0.6	High differences in beam SNR: 46.4,34.4

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A07.WAD	Site Name	A07
Start Date and Time	2017/07/11 11:05:40	Operator(s)	ND

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A07A.WAD
Start Date and Time	2017/07/11 13:02:06

Site Details

Site Name	A07A
Operator(s)	ND

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	0.6%
Velocity	0.7%	4.2%
Width	0.1%	0.1%
Method	1.7%	-
# Stations	2.3%	-
Overall	**3.1%**	**4.4%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	9.453
Mean SNR	22.5 dB	Total Area	3.421
Mean Temp	49.47 °F	Mean Depth	0.362
Disch. Equation	Mid-Section	Mean Velocity	1.3748
		Total Discharge	**4.7031**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:02	5.50	None	0.400	0.0	0.0	0.0000	1.00	1.7789	0.090	0.1601	3.4
1	13:02	5.95	0.6	0.400	0.6	0.160	1.7789	1.00	1.7789	0.180	0.3202	6.8
2	13:03	6.40	0.6	0.400	0.6	0.160	1.1401	1.00	1.1401	0.180	0.2052	4.4
3	13:04	6.85	0.6	0.400	0.6	0.160	1.7913	1.00	1.7913	0.180	0.3225	6.9
4	13:04	7.30	0.6	0.400	0.6	0.160	1.5781	1.00	1.5781	0.180	0.2841	6.0
5	13:05	7.75	0.6	0.400	0.6	0.160	2.0686	1.00	2.0686	0.180	0.3724	7.9
6	*13:06*	*8.20*	*0.6*	*0.400*	*0.6*	*0.160*	*1.1959*	*1.00*	*1.1959*	*0.180*	*0.2153*	*4.6*
7	13:07	8.65	0.6	0.400	0.6	0.160	1.6752	1.00	1.6752	0.180	0.3016	6.4
8	13:08	9.10	0.6	0.400	0.6	0.160	1.5656	1.00	1.5656	0.180	0.2818	6.0
9	13:09	9.55	0.6	0.400	0.6	0.160	1.5997	1.00	1.5997	0.180	0.2880	6.1
10	13:10	10.00	0.6	0.400	0.6	0.160	1.4846	1.00	1.4846	0.180	0.2673	5.7
11	*13:10*	*10.45*	*0.6*	*0.350*	*0.6*	*0.140*	*1.1713*	*1.00*	*1.1713*	*0.158*	*0.1846*	*3.9*
12	*13:11*	*10.90*	*0.6*	*0.350*	*0.6*	*0.140*	*1.0892*	*1.00*	*1.0892*	*0.158*	*0.1716*	*3.6*
13	*13:12*	*11.35*	*0.6*	*0.350*	*0.6*	*0.140*	*1.2146*	*1.00*	*1.2146*	*0.158*	*0.1914*	*4.1*
14	*13:13*	*11.80*	*0.6*	*0.350*	*0.6*	*0.140*	*1.3996*	*1.00*	*1.3996*	*0.158*	*0.2205*	*4.7*
15	13:14	12.25	0.6	0.350	0.6	0.140	1.1837	1.00	1.1837	0.158	0.1865	4.0
16	13:15	12.70	0.6	0.350	0.6	0.140	1.2149	1.00	1.2149	0.158	0.1914	4.1
17	13:15	13.15	0.6	0.350	0.6	0.140	0.9137	1.00	0.9137	0.158	0.1440	3.1
18	13:17	13.60	0.6	0.350	0.6	0.140	0.8186	1.00	0.8186	0.158	0.1290	2.7
19	13:18	14.05	0.6	0.300	0.6	0.120	0.8973	1.00	0.8973	0.135	0.1211	2.6
20	13:19	14.50	0.6	0.300	0.6	0.120	1.0696	1.00	1.0696	0.135	0.1444	3.1
21	13:19	14.95	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

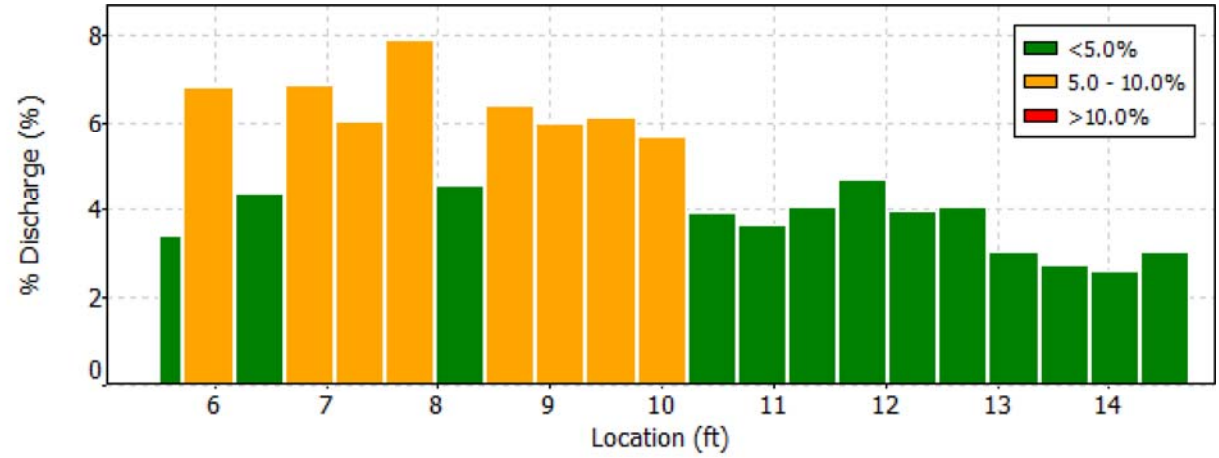
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

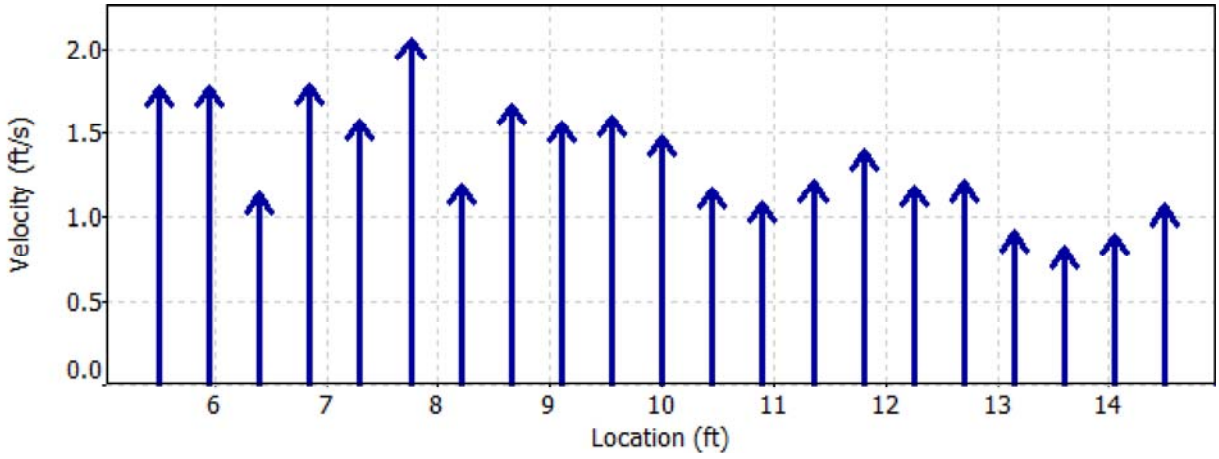
Discharge Measurement Summary

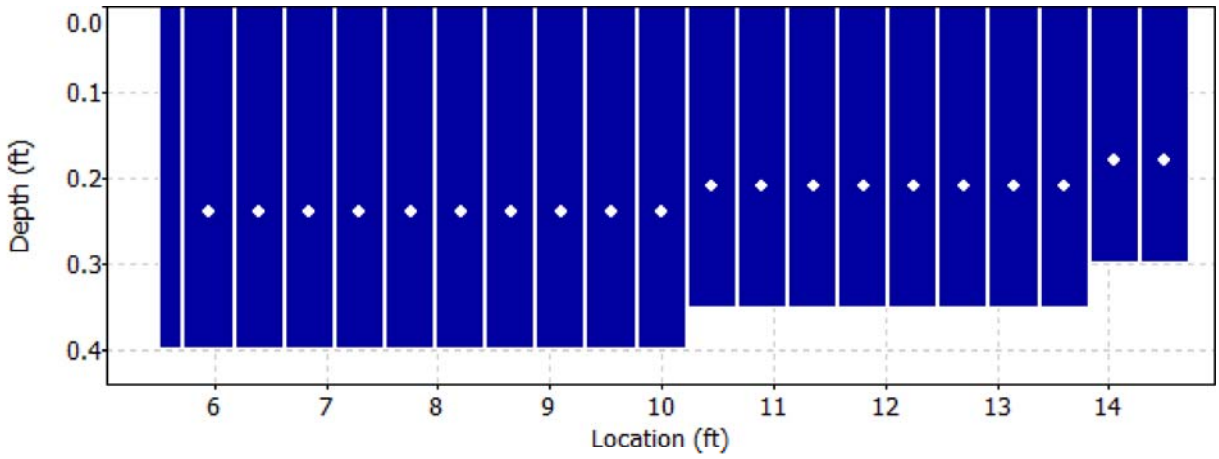
Date Generated: Mon Jul 17 2017

File Information	
File Name	A07A.WAD
Start Date and Time	2017/07/11 13:02:06

Site Details	
Site Name	A07A
Operator(s)	ND







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A07A.WAD	Site Name	A07A
Start Date and Time	2017/07/11 13:02:06	Operator(s)	ND

Quality Control

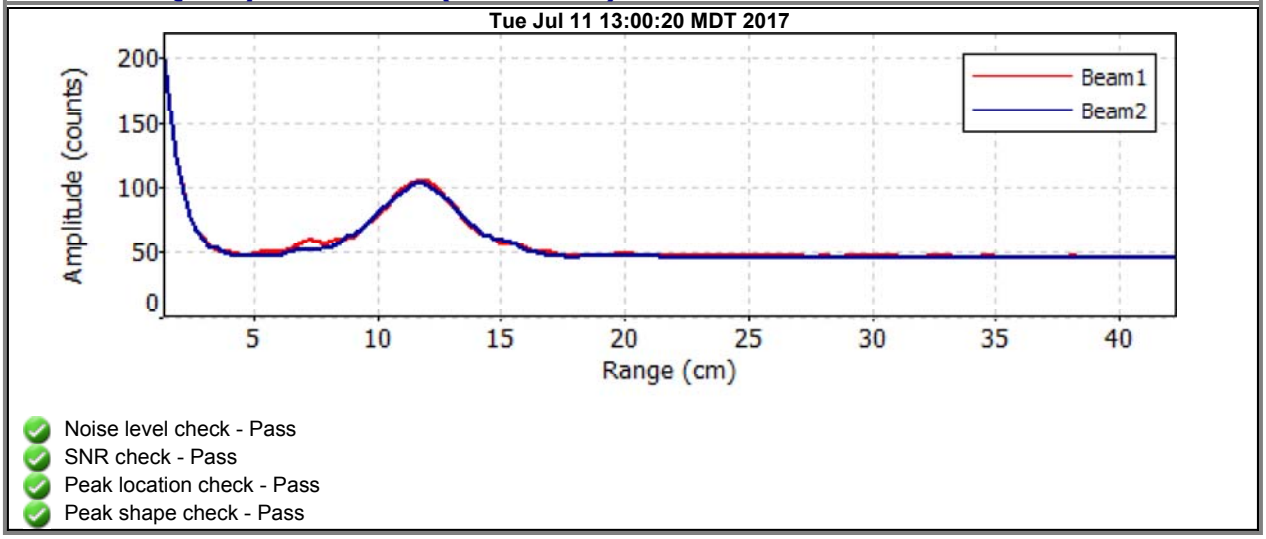
St	Loc	%Dep	Message
6	8.20	0.6	High standard error: 0.094
11	10.45	0.6	High angle: -28
12	10.90	0.6	High angle: -22
13	11.35	0.6	High angle: -26
14	11.80	0.6	High angle: -24

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A07A.WAD	Site Name	A07A
Start Date and Time	2017/07/11 13:02:06	Operator(s)	ND

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A07B.WAD
Start Date and Time	2017/07/11 13:59:03

Site Details

Site Name	A07B
Operator(s)	ND

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	1.6%
Velocity	1.4%	8.3%
Width	0.1%	0.1%
Method	1.7%	-
# Stations	2.0%	-
Overall	**3.2%**	**8.5%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	LEW	Total Width	8.400
Mean SNR	30.0 dB	Total Area	2.525
Mean Temp	49.46 °F	Mean Depth	0.301
Disch. Equation	Mid-Section	Mean Velocity	1.0866
		Total Discharge	**2.7433**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:59	6.00	None	0.100	0.0	0.0	0.0000	1.00	0.5036	0.020	0.0101	0.4
1	*13:59*	*6.40*	*0.6*	*0.300*	*0.6*	*0.120*	*0.5036*	*1.00*	*0.5036*	*0.120*	*0.0604*	*2.2*
2	14:00	6.80	0.6	0.300	0.6	0.120	0.4678	1.00	0.4678	0.120	0.0561	2.0
3	14:01	7.20	0.6	0.250	0.6	0.100	0.5866	1.00	0.5866	0.100	0.0587	2.1
4	14:02	7.60	0.6	0.250	0.6	0.100	1.1437	1.00	1.1437	0.100	0.1144	4.2
5	14:03	8.00	0.6	0.250	0.6	0.100	1.0079	1.00	1.0079	0.100	0.1008	3.7
6	14:04	8.40	0.6	0.250	0.6	0.100	0.0413	1.00	0.0413	0.100	0.0041	0.2
7	15:03	8.80	0.6	0.250	0.6	0.100	1.0003	1.00	1.0003	0.100	0.1000	3.6
8	15:04	9.20	0.6	0.250	0.6	0.100	1.6844	1.00	1.6844	0.100	0.1684	6.1
9	15:05	9.60	0.6	0.250	0.6	0.100	0.9859	1.00	0.9859	0.100	0.0986	3.6
10	15:06	10.00	0.6	0.250	0.6	0.100	1.0079	1.00	1.0079	0.100	0.1008	3.7
11	15:07	10.40	0.6	0.250	0.6	0.100	1.5026	1.00	1.5026	0.100	0.1502	5.5
12	*15:08*	*10.80*	*0.6*	*0.250*	*0.6*	*0.100*	*1.6923*	*1.00*	*1.6923*	*0.100*	*0.1692*	*6.2*
13	*15:09*	*11.20*	*0.6*	*0.300*	*0.6*	*0.120*	*0.7726*	*1.00*	*0.7726*	*0.120*	*0.0927*	*3.4*
14	15:10	11.60	0.6	0.350	0.6	0.140	2.2323	1.00	2.2323	0.105	0.2347	8.6
15	15:19	11.80	0.6	0.400	0.6	0.160	1.7992	1.00	1.7992	0.080	0.1439	5.2
16	15:11	12.00	0.6	0.350	0.6	0.140	2.1555	1.00	2.1555	0.070	0.1510	5.5
17	*15:20*	*12.20*	*0.6*	*0.400*	*0.6*	*0.160*	*1.7110*	*1.00*	*1.7110*	*0.080*	*0.1368*	*5.0*
18	*15:12*	*12.40*	*0.6*	*0.400*	*0.6*	*0.160*	*1.6043*	*1.00*	*1.6043*	*0.100*	*0.1604*	*5.8*
19	15:22	12.70	0.6	0.450	0.6	0.180	1.5157	1.00	1.5157	0.090	0.1364	5.0
20	*15:13*	*12.80*	*0.6*	*0.400*	*0.6*	*0.160*	*2.1873*	*1.00*	*2.1873*	*0.100*	*0.2181*	*8.0*
21	15:14	13.20	0.6	0.450	0.6	0.180	0.8602	1.00	0.8602	0.180	0.1549	5.6
22	*15:15*	*13.60*	*0.6*	*0.400*	*0.6*	*0.160*	*0.4265*	*1.00*	*0.4265*	*0.160*	*0.0682*	*2.5*
23	*15:16*	*14.00*	*0.6*	*0.400*	*0.6*	*0.160*	*0.3018*	*1.00*	*0.3018*	*0.160*	*0.0484*	*1.8*
24	15:16	14.40	None	0.100	0.0	0.0	0.0000	1.00	0.3018	0.020	0.0061	0.2

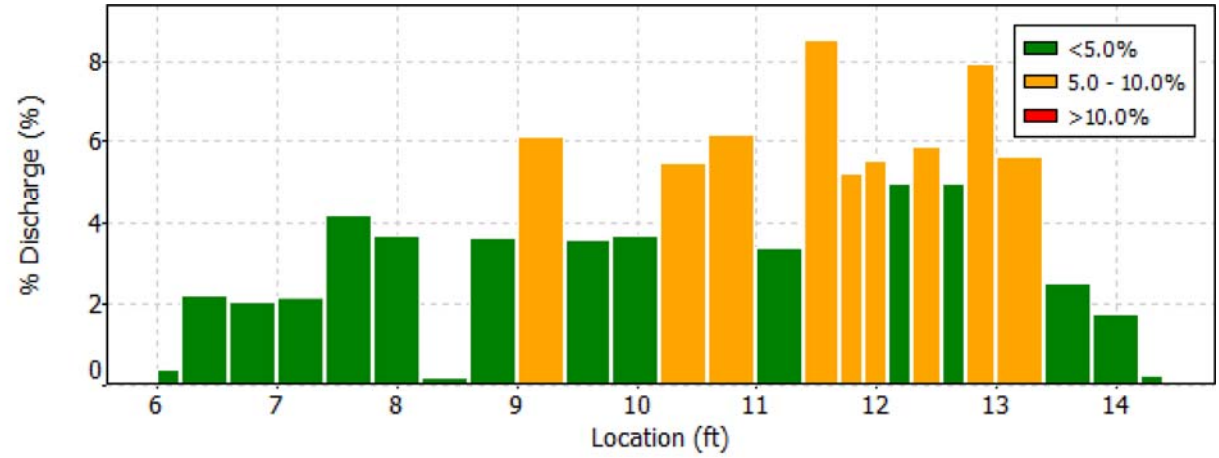
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

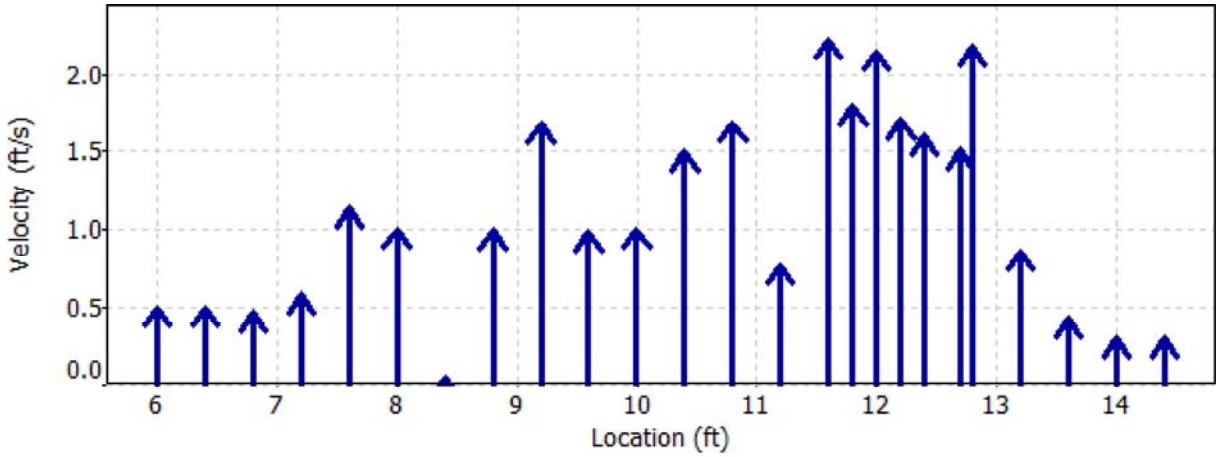
Discharge Measurement Summary

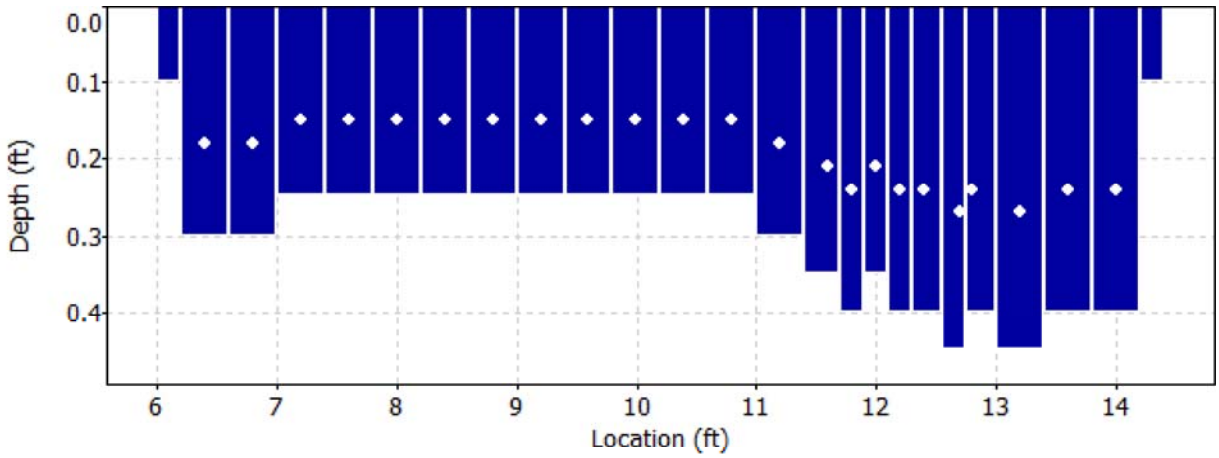
Date Generated: Mon Jul 17 2017

File Information	
File Name	A07B.WAD
Start Date and Time	2017/07/11 13:59:03

Site Details	
Site Name	A07B
Operator(s)	ND







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A07B.WAD	Site Name	A07B
Start Date and Time	2017/07/11 13:59:03	Operator(s)	ND

Quality Control

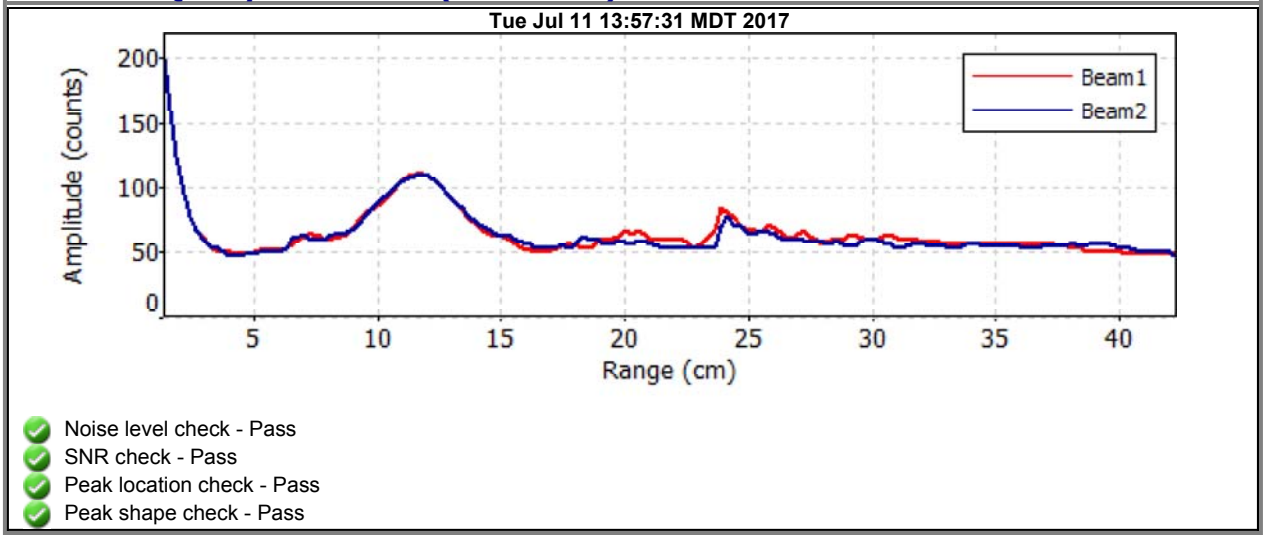
St	Loc	%Dep	Message
1	6.40	0.6	High differences in beam SNR: 12.5,24.5
		0.6	SNR (18.5) is different from typical SNR (30.0)
12	10.80	0.6	High angle: 24
13	11.20	0.6	High SNR variation during measurement: 12.9,6.5
		0.6	High standard error: 0.128
17	12.20	0.6	High standard error: 0.123
18	12.40	0.6	High standard error: 0.117
20	12.80	0.6	High standard error: 0.114
22	13.60	0.6	High SNR variation during measurement: 8.2,6.9
23	14.00	0.6	High angle: -26
		0.6	High SNR variation during measurement: 10.3,9.9

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A07B.WAD	Site Name	A07B
Start Date and Time	2017/07/11 13:59:03	Operator(s)	ND

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A07C1.WAD
Start Date and Time	2017/07/12 11:51:44

Site Details

Site Name	A07C1
Operator(s)	ND

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.1%	0.3%
Velocity	1.6%	4.7%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**3.5%**	**4.8%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	2.002
Mean SNR	41.2 dB	Total Area	2.786
Mean Temp	45.23 °F	Mean Depth	1.391
Disch. Equation	Mid-Section	Mean Velocity	1.2393
		Total Discharge	**3.4524**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:51	9.60	None	1.400	0.0	0.0	0.0000	1.00	0.6581	0.070	0.0461	1.3
1	11:51	9.50	0.6	1.400	0.6	0.560	0.6581	1.00	0.6581	0.140	0.0922	2.7
2	11:52	9.40	0.6	1.400	0.6	0.560	0.8258	1.00	0.8258	0.140	0.1157	3.4
3	*11:53*	*9.30*	*0.6*	*1.400*	*0.6*	*0.560*	*0.9491*	*1.00*	*0.9491*	*0.140*	*0.1330*	*3.9*
4	11:54	9.20	0.6	1.400	0.6	0.560	1.5135	1.00	1.5135	0.140	0.2120	6.1
5	11:55	9.10	0.6	1.400	0.6	0.560	1.4685	1.00	1.4685	0.140	0.2057	6.0
6	11:55	9.00	0.6	1.400	0.6	0.560	1.7195	1.00	1.7195	0.140	0.2409	7.0
7	11:56	8.90	0.6	1.450	0.6	0.580	1.9426	1.00	1.9426	0.145	0.2819	8.2
8	11:57	8.80	0.6	1.450	0.6	0.580	1.9993	1.00	1.9993	0.145	0.2901	8.4
9	11:58	8.70	0.6	1.450	0.6	0.580	2.0154	1.00	2.0154	0.145	0.2925	8.5
10	11:59	8.60	0.6	1.450	0.6	0.580	1.9984	1.00	1.9984	0.145	0.2900	8.4
11	12:00	8.50	0.6	1.450	0.6	0.580	1.7234	1.00	1.7234	0.145	0.2501	7.2
12	12:01	8.40	0.6	1.350	0.6	0.540	1.6860	1.00	1.6860	0.135	0.2278	6.6
13	*12:02*	*8.30*	*0.6*	*1.350*	*0.6*	*0.540*	*1.5305*	*1.00*	*1.5305*	*0.135*	*0.2068*	*6.0*
14	*12:03*	*8.20*	*0.6*	*1.350*	*0.6*	*0.540*	*0.3281*	*1.00*	*0.3281*	*0.135*	*0.0443*	*1.3*
15	12:04	8.10	0.6	1.350	0.6	0.540	0.6158	1.00	0.6158	0.135	0.0832	2.4
16	*12:04*	*8.00*	*0.6*	*1.350*	*0.6*	*0.540*	*0.4934*	*1.00*	*0.4934*	*0.135*	*0.0667*	*1.9*
17	*12:05*	*7.90*	*0.6*	*1.350*	*0.6*	*0.540*	*0.0607*	*1.00*	*0.0607*	*0.135*	*0.0082*	*0.2*
18	*12:06*	*7.80*	*0.6*	*1.350*	*0.6*	*0.540*	*0.2293*	*1.00*	*0.2293*	*0.135*	*0.0310*	*0.9*
19	*12:07*	*7.70*	*0.6*	*1.350*	*0.6*	*0.540*	*1.6027*	*1.00*	*1.6027*	*0.135*	*0.2165*	*6.3*
20	*12:08*	*7.60*	*0.6*	*1.350*	*0.6*	*0.540*	*1.7070*	*1.00*	*1.7070*	*0.001*	*0.0014*	*0.0*
21	12:08	7.70	None	1.350	0.0	0.0	0.0000	1.00	1.7070	0.068	0.1167	3.4

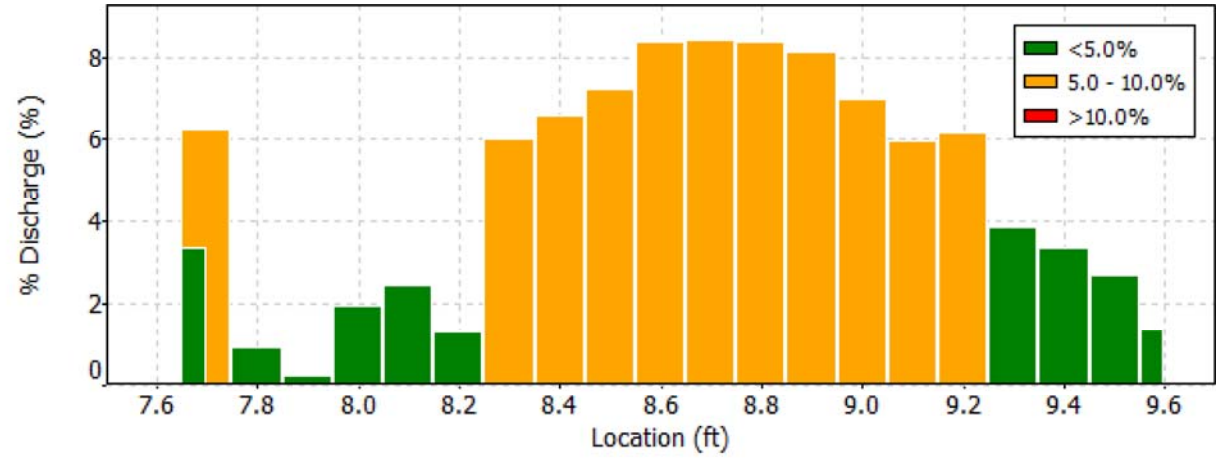
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

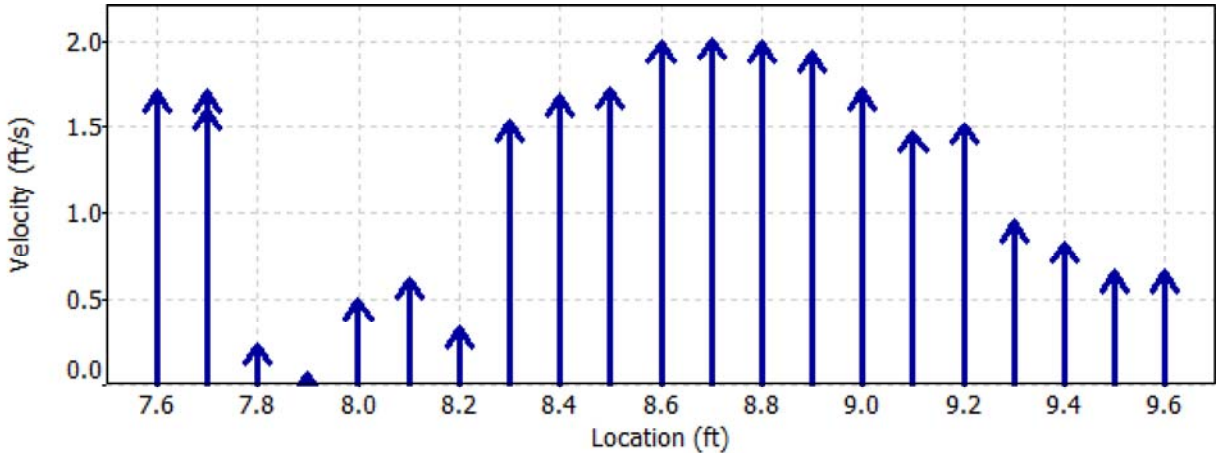
Discharge Measurement Summary

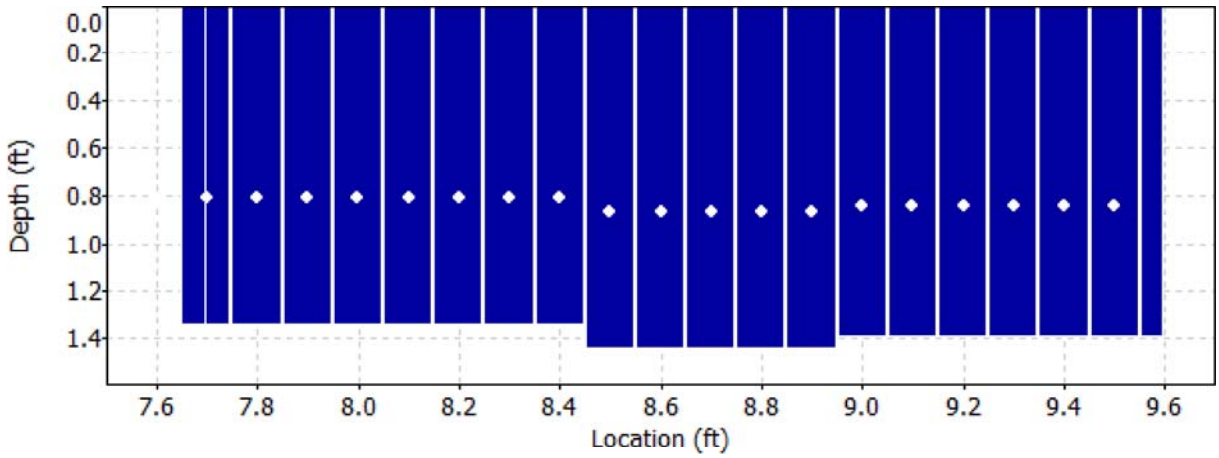
Date Generated: Mon Jul 17 2017

File Information	
File Name	A07C1.WAD
Start Date and Time	2017/07/12 11:51:44

Site Details	
Site Name	A07C1
Operator(s)	ND







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A07C1.WAD	Site Name	A07C1
Start Date and Time	2017/07/12 11:51:44	Operator(s)	ND

Quality Control

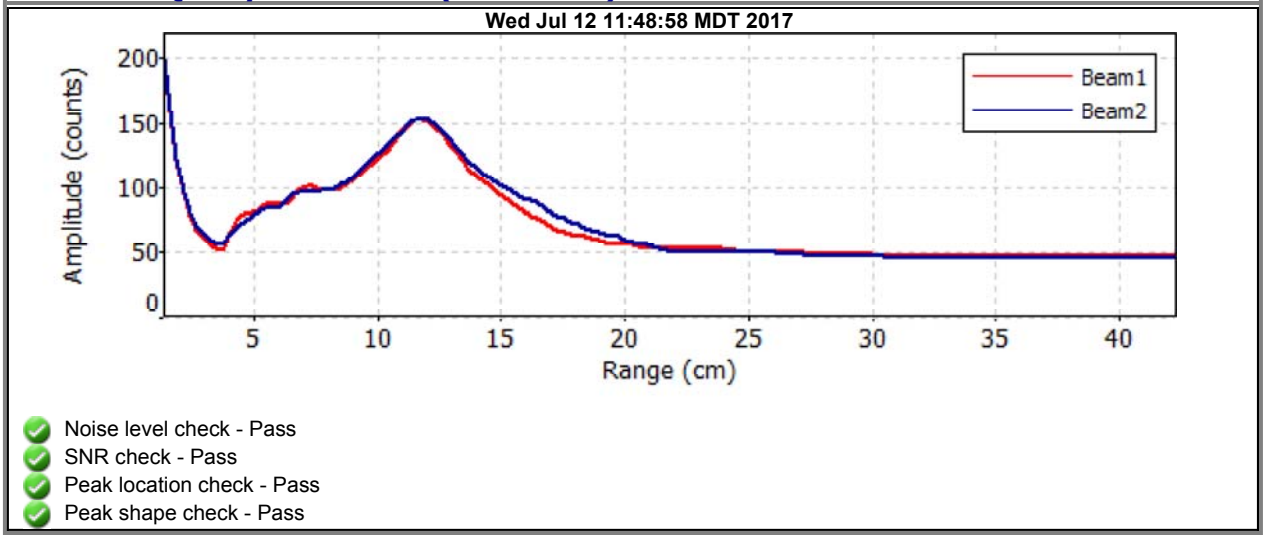
St	Loc	%Dep	Message
3	9.30	0.6	High angle: -23
13	8.30	0.6	High standard error: 0.126
14	8.20	0.6	High angle: -29
		0.6	High standard error: 0.128
16	8.00	0.6	High angle: -28
17	7.90	0.6	High angle: -71
18	7.80	0.6	High angle: -42
		0.6	High standard error: 0.134
19	7.70	0.6	High angle: -24
20	7.60	0.6	High angle: -22

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A07C1.WAD	Site Name	A07C1
Start Date and Time	2017/07/12 11:51:44	Operator(s)	ND

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A07D.WAD
Start Date and Time	2017/07/12 12:30:27

Site Details

Site Name	A07D
Operator(s)	ND

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.5%	4.0%
Velocity	1.8%	14.3%
Width	0.2%	0.2%
Method	2.3%	-
# Stations	2.0%	-
Overall	**3.7%**	**14.9%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	LEW	Total Width	5.250
Mean SNR	48.8 dB	Total Area	2.252
Mean Temp	44.92 °F	Mean Depth	0.429
Disch. Equation	Mid-Section	Mean Velocity	1.4232
		Total Discharge	**3.2053**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	12:30	6.00	None	0.400	0.0	0.0	0.0000	1.00	0.0830	0.050	0.0042	0.1
1	*12:30*	*6.25*	*0.6*	*0.400*	*0.6*	*0.160*	*0.0830*	*1.00*	*0.0830*	*0.100*	*0.0083*	*0.3*
2	12:31	6.50	0.6	0.400	0.6	0.160	0.2369	1.00	0.2369	0.100	0.0237	0.7
3	12:32	6.75	0.6	0.400	0.6	0.160	0.8406	1.00	0.8406	0.100	0.0840	2.6
4	12:33	7.00	0.6	0.400	0.6	0.160	0.6148	1.00	0.6148	0.100	0.0615	1.9
5	12:34	7.25	0.6	0.500	0.6	0.200	0.7231	1.00	0.7231	0.125	0.0904	2.8
6	*12:35*	*7.50*	*0.6*	*0.500*	*0.6*	*0.200*	*0.7349*	*1.00*	*0.7349*	*0.125*	*0.0919*	*2.9*
7	*12:36*	*7.75*	*0.6*	*0.550*	*0.6*	*0.220*	*0.8156*	*1.00*	*0.8156*	*0.137*	*0.1121*	*3.5*
8	12:37	8.00	0.6	0.550	0.6	0.220	2.5846	1.00	2.5846	0.137	0.3553	11.1
9	12:38	8.25	0.6	0.600	0.6	0.240	2.5361	1.00	2.5361	0.150	0.3805	11.9
10	12:39	8.50	0.6	0.600	0.6	0.240	2.5686	1.00	2.5686	0.105	0.2698	8.4
11	12:53	8.60	0.6	0.600	0.6	0.240	4.7461	1.00	4.7461	0.075	0.3560	11.1
12	12:40	8.75	0.6	0.600	0.6	0.240	4.1808	1.00	4.1808	0.060	0.2506	7.8
13	*12:54*	*8.80*	*0.6*	*0.300*	*0.6*	*0.120*	*2.6490*	*1.00*	*2.6490*	*0.037*	*0.0993*	*3.1*
14	12:41	9.00	0.6	0.500	0.6	0.200	5.2477	1.00	5.2477	0.100	0.5251	16.4
15	12:56	9.20	0.6	0.500	0.6	0.200	1.9705	1.00	1.9705	0.063	0.1232	3.8
16	*12:42*	*9.25*	*0.6*	*0.500*	*0.6*	*0.200*	*3.6798*	*1.00*	*3.6798*	*0.075*	*0.2759*	*8.6*
17	12:43	9.50	0.6	0.400	0.6	0.160	0.2369	1.00	0.2369	0.100	0.0237	0.7
18	*12:44*	*9.75*	*0.6*	*0.400*	*0.6*	*0.160*	*0.1119*	*1.00*	*0.1119*	*0.100*	*0.0112*	*0.3*
19	*12:47*	*10.00*	*0.6*	*0.300*	*0.6*	*0.120*	*0.2398*	*1.00*	*0.2398*	*0.075*	*0.0180*	*0.6*
20	*12:48*	*10.25*	*0.6*	*0.300*	*0.6*	*0.120*	*0.2323*	*1.00*	*0.2323*	*0.075*	*0.0174*	*0.5*
21	*12:49*	*10.50*	*0.6*	*0.300*	*0.6*	*0.120*	*0.1893*	*1.00*	*0.1893*	*0.075*	*0.0142*	*0.4*
22	12:50	10.75	0.6	0.300	0.6	0.120	0.0075	1.00	0.0075	0.075	0.0006	0.0
23	*12:51*	*11.00*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0774*	*1.00*	*0.0774*	*0.075*	*0.0058*	*0.2*
24	12:51	11.25	None	0.300	0.0	0.0	0.0000	1.00	0.0774	0.037	0.0029	0.1

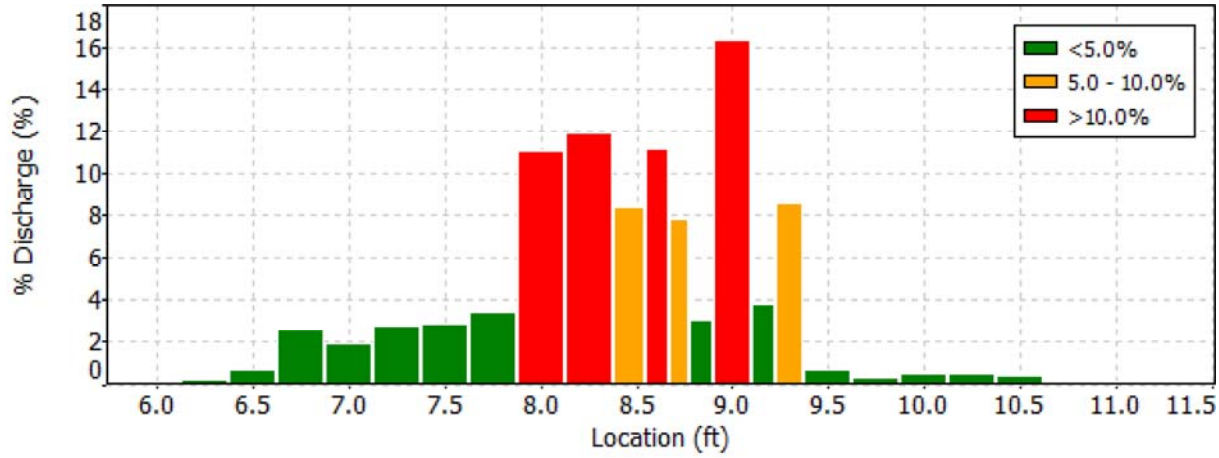
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

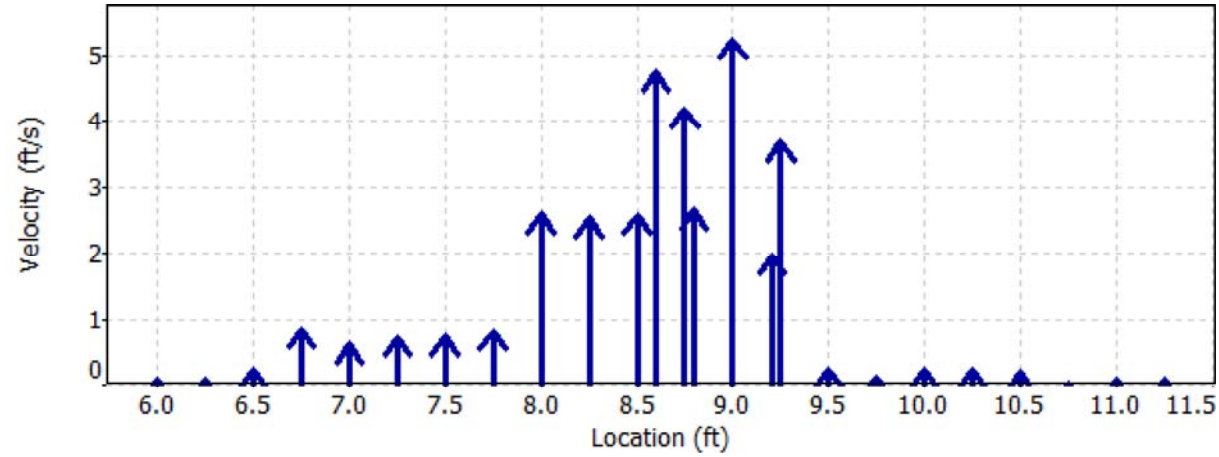
Discharge Measurement Summary

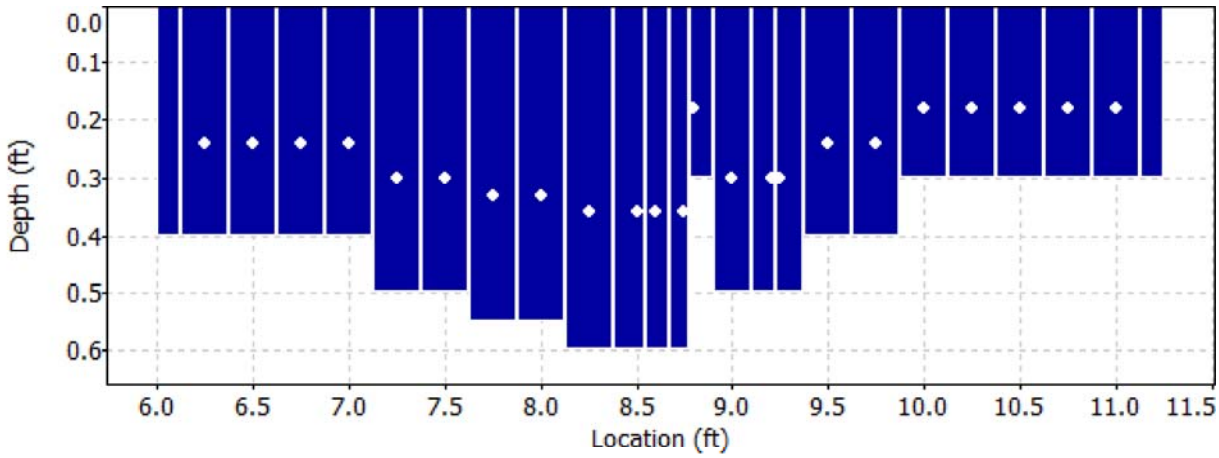
Date Generated: Mon Jul 17 2017

File Information	
File Name	A07D.WAD
Start Date and Time	2017/07/12 12:30:27

Site Details	
Site Name	A07D
Operator(s)	ND







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A07D.WAD	Site Name	A07D
Start Date and Time	2017/07/12 12:30:27	Operator(s)	ND

Quality Control

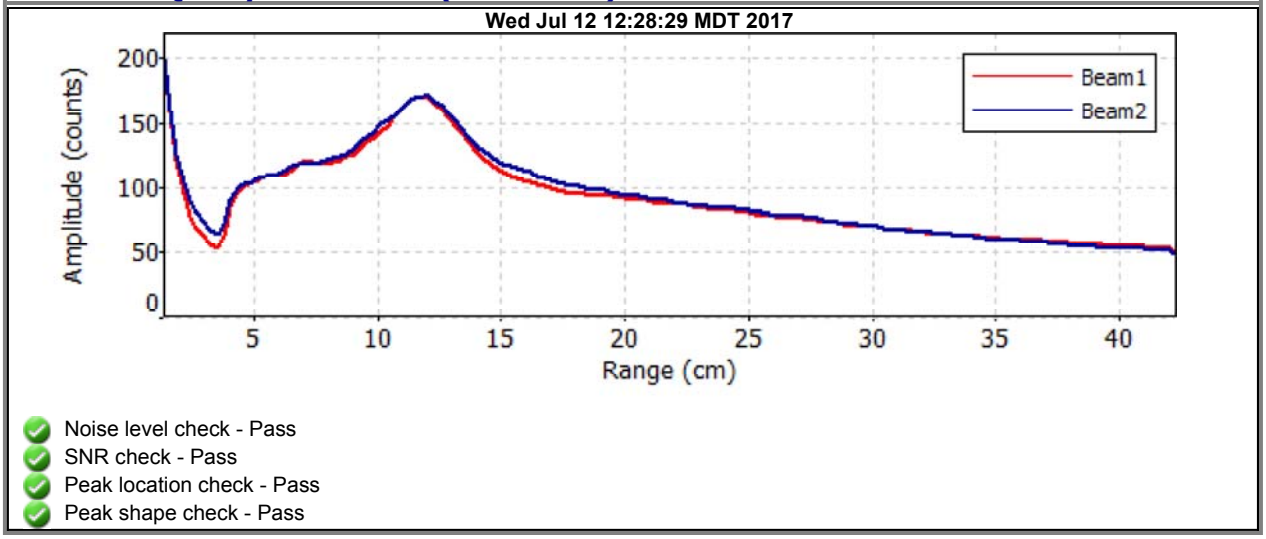
St	Loc	%Dep	Message
1	6.25	0.6	High angle: 51
6	7.50	0.6	High angle: 21
7	7.75	0.6	High standard error: 0.154
13	8.80	0.6	High SNR variation during measurement: 3.0,6.0
		0.6	High standard error: 0.198
16	9.25	0.6	High standard error: 0.184
18	9.75	0.6	High angle: 57
19	10.00	0.6	High angle: 30
20	10.25	0.6	High angle: 23
21	10.50	0.6	High angle: 22
23	11.00	0.6	High angle: 60

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A07D.WAD	Site Name	A07D
Start Date and Time	2017/07/12 12:30:27	Operator(s)	ND

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A07F.WAD
Start Date and Time	2017/07/12 13:14:10

Site Details

Site Name	A07E
Operator(s)	ND

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.5%	2.8%
Velocity	1.2%	5.8%
Width	0.2%	0.2%
Method	2.5%	-
# Stations	2.3%	-
Overall	**3.7%**	**6.5%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	6.700
Mean SNR	48.2 dB	Total Area	2.115
Mean Temp	44.10 °F	Mean Depth	0.316
Disch. Equation	Mid-Section	Mean Velocity	1.6192
		Total Discharge	**3.4240**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:14	5.00	None	0.200	0.0	0.0	0.0000	1.00	0.9386	0.030	0.0281	0.8
1	13:14	5.30	0.6	0.200	0.6	0.080	0.9386	1.00	0.9386	0.060	0.0563	1.6
2	*13:15*	*5.60*	*0.6*	*0.200*	*0.6*	*0.080*	*0.8714*	*1.00*	*0.8714*	*0.060*	*0.0523*	*1.5*
3	13:16	5.90	0.6	0.200	0.6	0.080	0.0315	1.00	0.0315	0.060	0.0019	0.1
4	*13:16*	*6.20*	*0.6*	*0.200*	*0.6*	*0.080*	*0.1900*	*1.00*	*0.1900*	*0.060*	*0.0114*	*0.3*
5	*13:17*	*6.50*	*0.6*	*0.200*	*0.6*	*0.080*	*0.1056*	*1.00*	*0.1056*	*0.060*	*0.0063*	*0.2*
6	*13:18*	*6.80*	*0.6*	*0.200*	*0.6*	*0.080*	*1.7260*	*1.00*	*1.7260*	*0.060*	*0.1036*	*3.0*
7	*13:19*	*7.10*	*0.6*	*0.300*	*0.6*	*0.120*	*1.4747*	*1.00*	*1.4747*	*0.090*	*0.1326*	*3.9*
8	*13:20*	*7.40*	*0.6*	*0.300*	*0.6*	*0.120*	*1.8510*	*1.00*	*1.8510*	*0.090*	*0.1664*	*4.9*
9	13:22	7.70	0.6	0.400	0.6	0.160	2.2159	1.00	2.2159	0.120	0.2657	7.8
10	13:22	8.00	0.6	0.400	0.6	0.160	2.3461	1.00	2.3461	0.120	0.2814	8.2
11	13:23	8.30	0.6	0.400	0.6	0.160	2.5810	1.00	2.5810	0.120	0.3095	9.0
12	13:24	8.60	0.6	0.400	0.6	0.160	2.4865	1.00	2.4865	0.120	0.2982	8.7
13	13:25	8.90	0.6	0.500	0.6	0.200	3.8914	1.00	3.8914	0.150	0.5835	17.0
14	13:26	9.20	0.6	0.500	0.6	0.200	4.1316	1.00	4.1316	0.150	0.6195	18.1
15	*13:27*	*9.50*	*0.6*	*0.500*	*0.6*	*0.200*	*2.2388*	*1.00*	*2.2388*	*0.150*	*0.3357*	*9.8*
16	*13:28*	*9.80*	*0.6*	*0.500*	*0.6*	*0.200*	*0.8865*	*1.00*	*0.8865*	*0.150*	*0.1329*	*3.9*
17	13:29	10.10	0.6	0.500	0.6	0.200	0.0702	1.00	0.0702	0.150	0.0105	0.3
18	*13:30*	*10.40*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0289*	*1.00*	*0.0289*	*0.090*	*0.0026*	*0.1*
19	*13:32*	*10.70*	*0.6*	*0.300*	*0.6*	*0.120*	*0.1529*	*1.00*	*0.1529*	*0.090*	*0.0137*	*0.4*
20	13:33	11.00	0.6	0.200	0.6	0.080	0.0863	1.00	0.0863	0.100	0.0087	0.3
21	13:33	11.70	None	0.100	0.0	0.0	0.0000	1.00	0.0863	0.035	0.0030	0.1

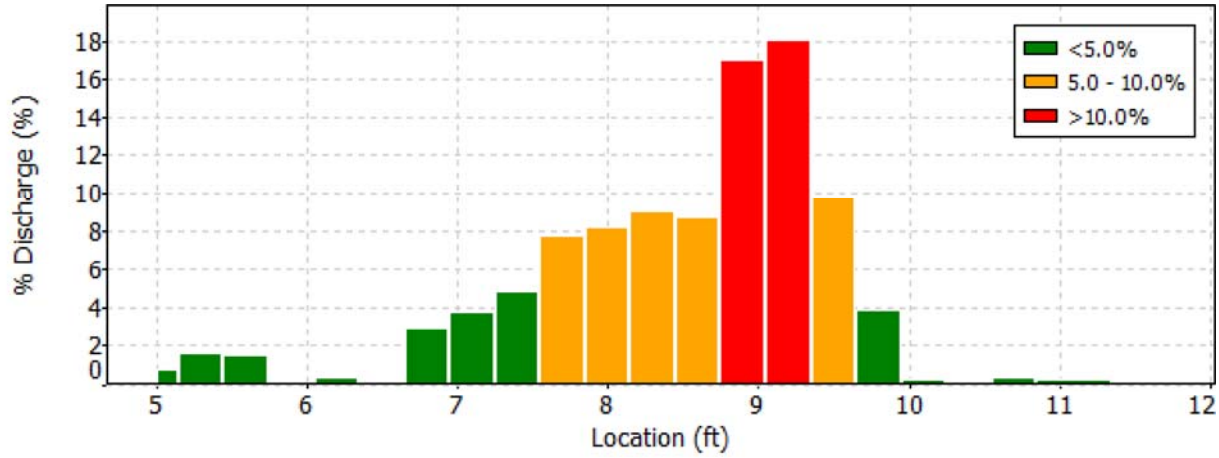
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

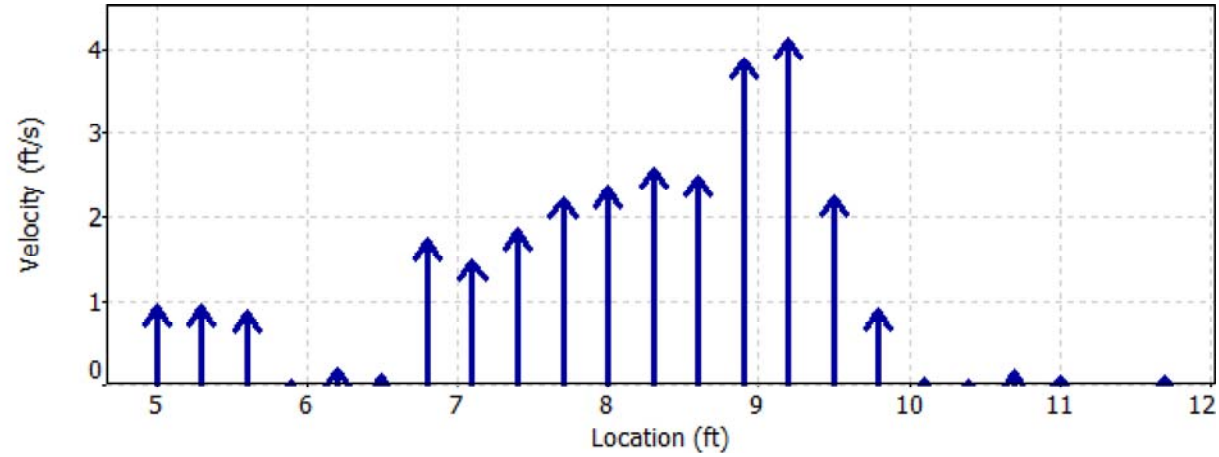
Discharge Measurement Summary

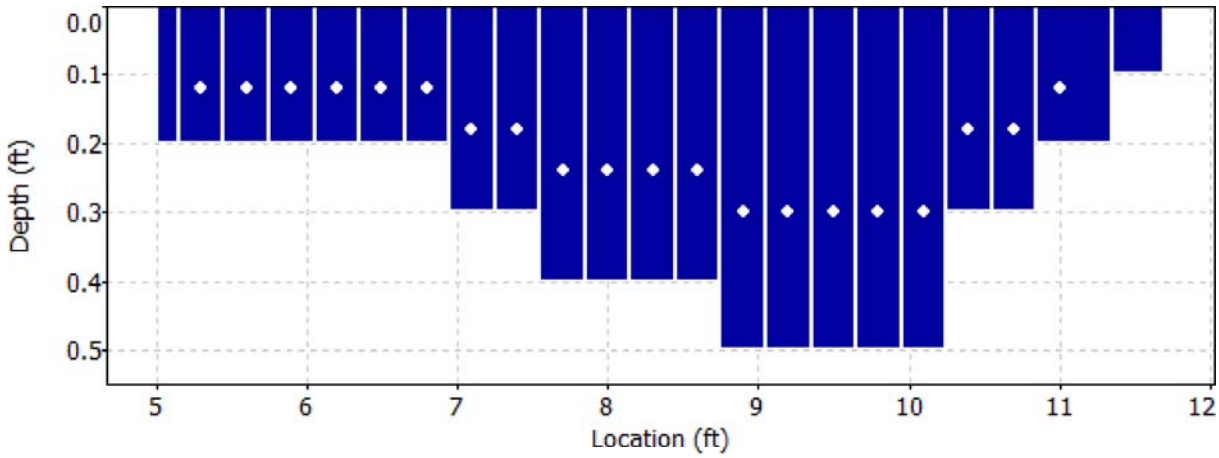
Date Generated: Mon Jul 17 2017

File Information	
File Name	A07F.WAD
Start Date and Time	2017/07/12 13:14:10

Site Details	
Site Name	A07E
Operator(s)	ND







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A07F.WAD
Start Date and Time	2017/07/12 13:14:10

Site Details

Site Name	A07E
Operator(s)	ND

Quality Control

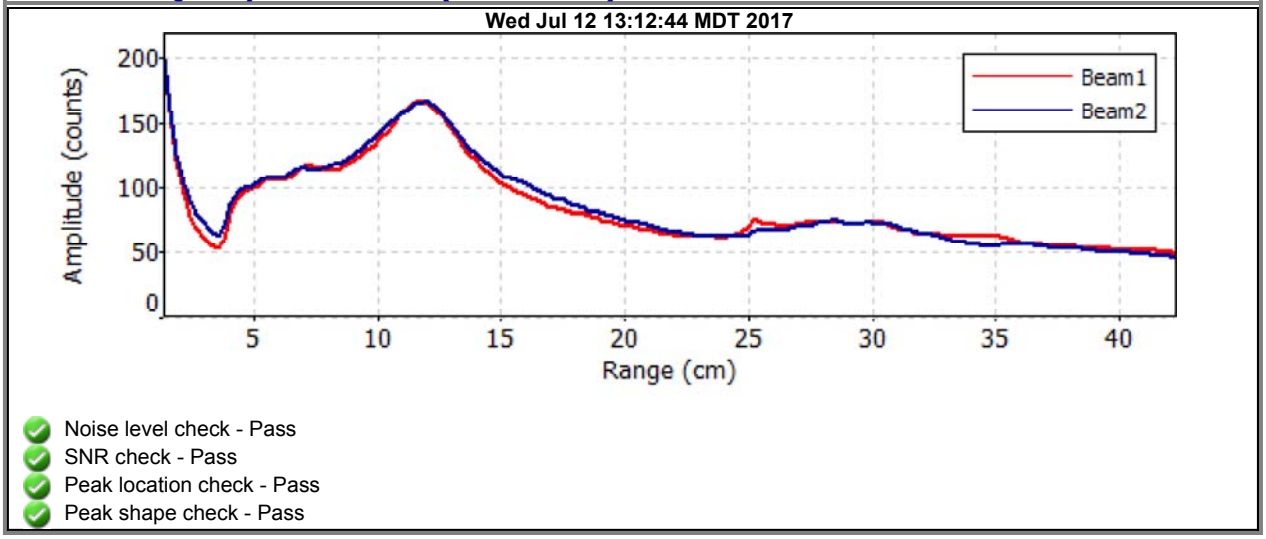
St	Loc	%Dep	Message
2	5.60	0.6	High angle: -42
4	6.20	0.6	High angle: -50
5	6.50	0.6	High angle: -65
6	6.80	0.6	High angle: -35
7	7.10	0.6	High angle: -39
8	7.40	0.6	High number of spikes: 5
15	9.50	0.6	High standard error: 0.135
16	9.80	0.6	High standard error: 0.110
18	10.40	0.6	High angle: -62
		0.6	High SNR variation during measurement: 7.3,3.9
19	10.70	0.6	High SNR variation during measurement: 5.2,2.6

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A07F.WAD	Site Name	A07E
Start Date and Time	2017/07/12 13:14:10	Operator(s)	ND

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A08.WAD
Start Date and Time	2017/07/11 10:27:12

Site Details

Site Name	A08
Operator(s)	ND

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.6%
Velocity	1.1%	5.9%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**3.3%**	**6.5%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	7.351
Mean SNR	46.4 dB	Total Area	3.693
Mean Temp	48.59 °F	Mean Depth	0.502
Disch. Equation	Mid-Section	Mean Velocity	2.7952
		Total Discharge	**10.3223**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:27	7.00	None	0.500	0.0	0.0	0.0000	1.00	2.6936	0.088	0.2357	2.3
1	10:27	7.35	0.6	0.500	0.6	0.200	2.6936	1.00	2.6936	0.175	0.4715	4.6
2	10:28	7.70	0.6	0.500	0.6	0.200	2.1250	1.00	2.1250	0.175	0.3719	3.6
3	*10:29*	*8.05*	*0.6*	*0.600*	*0.6*	*0.240*	*0.4432*	*1.00*	*0.4432*	*0.210*	*0.0931*	*0.9*
4	*10:30*	*8.40*	*0.6*	*0.600*	*0.6*	*0.240*	*3.1138*	*1.00*	*3.1138*	*0.210*	*0.6541*	*6.3*
5	*10:31*	*8.75*	*0.6*	*0.600*	*0.6*	*0.240*	*3.3419*	*1.00*	*3.3419*	*0.210*	*0.7020*	*6.8*
6	10:32	9.10	0.6	0.800	0.6	0.320	2.7287	1.00	2.7287	0.280	0.7640	7.4
7	*10:34*	*9.45*	*0.6*	*0.900*	*0.6*	*0.360*	*2.5883*	*1.00*	*2.5883*	*0.315*	*0.8154*	*7.9*
8	10:37	9.80	0.6	0.800	0.6	0.320	2.9167	1.00	2.9167	0.280	0.8167	7.9
9	10:38	10.15	0.6	0.800	0.6	0.320	3.4108	1.00	3.4108	0.280	0.9550	9.3
10	10:39	10.50	0.6	0.700	0.6	0.280	3.6969	1.00	3.6969	0.245	0.9061	8.8
11	10:40	10.85	0.6	0.600	0.6	0.240	3.9373	1.00	3.9373	0.210	0.8271	8.0
12	*10:41*	*11.20*	*0.6*	*0.400*	*0.6*	*0.160*	*1.8471*	*1.00*	*1.8471*	*0.140*	*0.2586*	*2.5*
13	10:43	11.55	0.6	0.500	0.6	0.200	3.7841	1.00	3.7841	0.175	0.6623	6.4
14	*10:45*	*11.90*	*0.6*	*0.300*	*0.6*	*0.120*	*4.0663*	*1.00*	*4.0663*	*0.105*	*0.4269*	*4.1*
15	10:46	12.25	0.6	0.300	0.6	0.120	4.1781	1.00	4.1781	0.105	0.4386	4.2
16	10:47	12.60	0.6	0.300	0.6	0.120	3.5079	1.00	3.5079	0.105	0.3682	3.6
17	10:48	12.95	0.6	0.300	0.6	0.120	2.7382	1.00	2.7382	0.105	0.2874	2.8
18	*10:49*	*13.30*	*0.6*	*0.300*	*0.6*	*0.120*	*1.5338*	*1.00*	*1.5338*	*0.105*	*0.1610*	*1.6*
19	10:50	13.65	0.6	0.300	0.6	0.120	0.7743	1.00	0.7743	0.105	0.0813	0.8
20	*10:52*	*14.00*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3606*	*1.00*	*0.3606*	*0.070*	*0.0253*	*0.2*
21	10:52	14.35	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

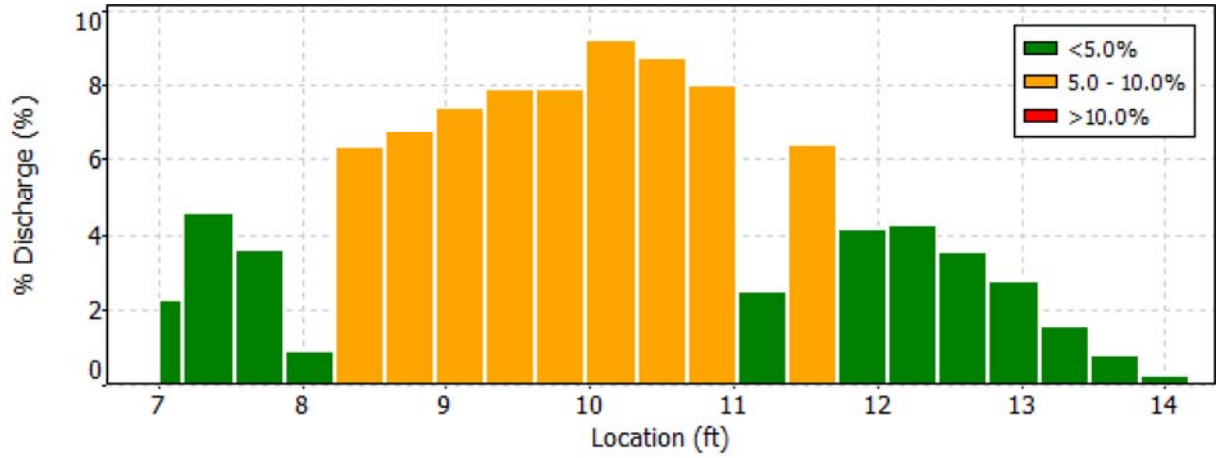
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

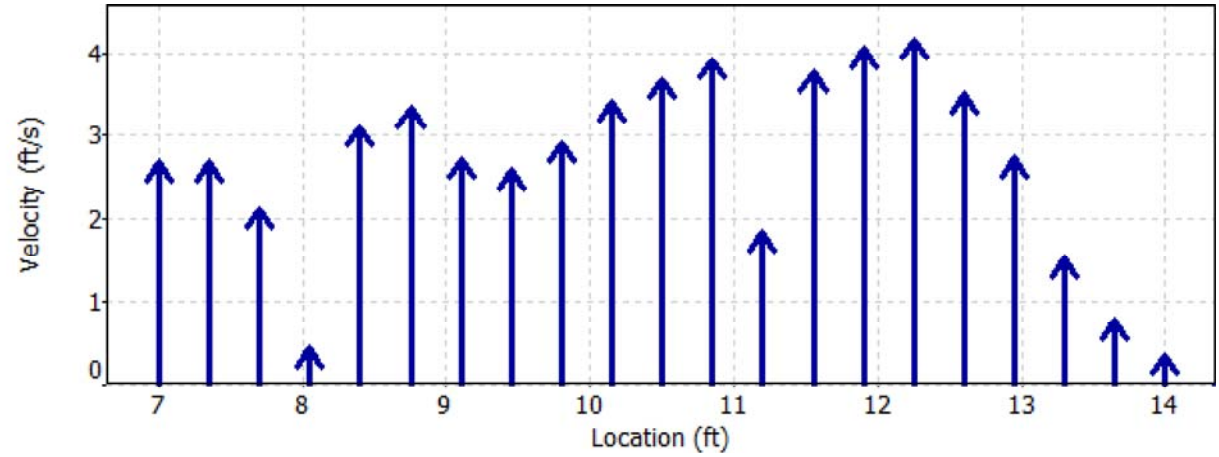
Discharge Measurement Summary

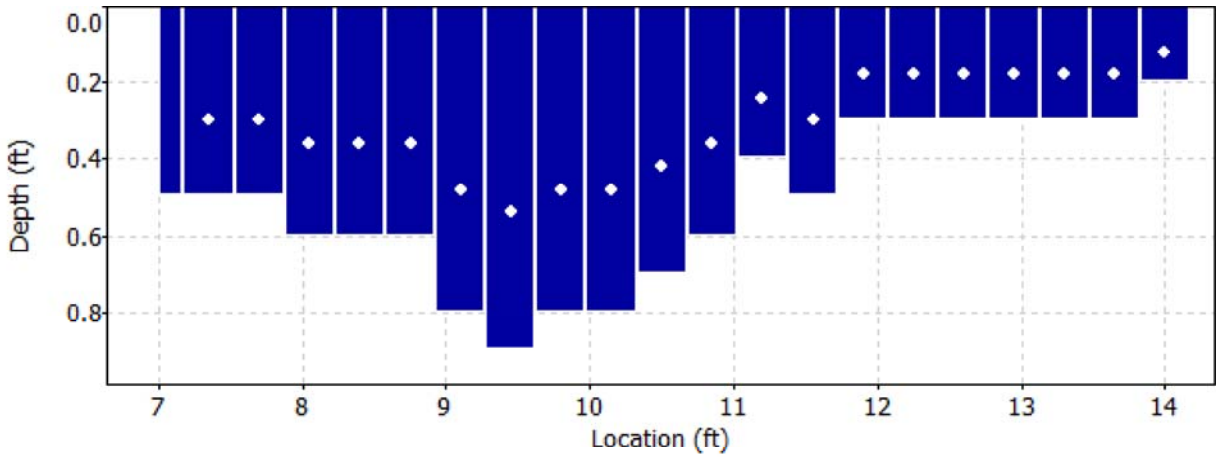
Date Generated: Mon Jul 17 2017

File Information	
File Name	A08.WAD
Start Date and Time	2017/07/11 10:27:12

Site Details	
Site Name	A08
Operator(s)	ND







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A08.WAD
Start Date and Time	2017/07/11 10:27:12

Site Details

Site Name	A08
Operator(s)	ND

Quality Control

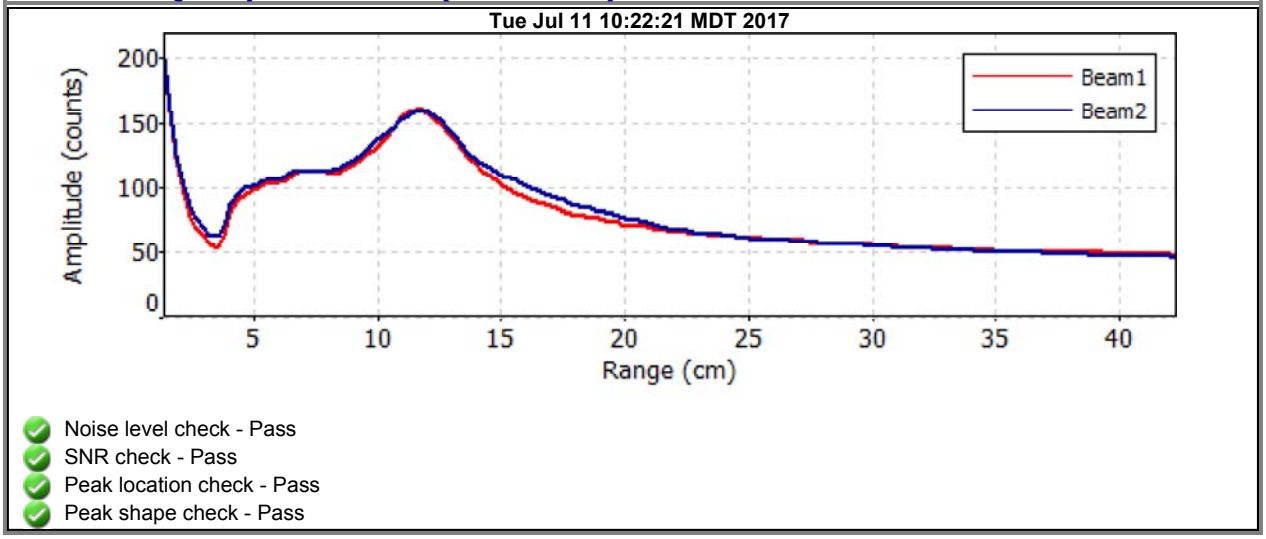
St	Loc	%Dep	Message
3	8.05	0.6	High angle: -31
4	8.40	0.6	High angle: -21
5	8.75	0.6	High angle: -21
7	9.45	0.6	High SNR variation during measurement: 1.7,5.6
		0.6	High standard error: 0.152
12	11.20	0.6	High SNR variation during measurement: 6.5,16.8
		0.6	High standard error: 0.479
14	11.90	0.6	High SNR variation during measurement: 1.3,8.2
18	13.30	0.6	High angle: -24
		0.6	High standard error: 0.142
20	14.00	0.6	High angle: 27

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A08.WAD	Site Name	A08
Start Date and Time	2017/07/11 10:27:12	Operator(s)	ND

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information

File Name	BG1B.WAD
Start Date and Time	2017/07/11 13:31:29

Site Details

Site Name	BG1B
Operator(s)	ND

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	0.4%
Velocity	1.1%	4.7%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.3%	-
Overall	**3.3%**	**4.8%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	5.250
Mean SNR	27.5 dB	Total Area	2.519
Mean Temp	49.07 °F	Mean Depth	0.480
Disch. Equation	Mid-Section	Mean Velocity	1.2870
		Total Discharge	**3.2417**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:31	11.00	None	0.550	0.0	0.0	0.0000	1.00	1.5719	0.069	0.1080	3.3
1	13:31	10.75	0.6	0.550	0.6	0.220	1.5719	1.00	1.5719	0.137	0.2161	6.7
2	13:32	10.50	0.6	0.550	0.6	0.220	1.5486	1.00	1.5486	0.137	0.2129	6.6
3	*13:33*	*10.25*	*0.6*	*0.550*	*0.6*	*0.220*	*1.3533*	*1.00*	*1.3533*	*0.137*	*0.1860*	*5.7*
4	13:34	10.00	0.6	0.550	0.6	0.220	1.5833	1.00	1.5833	0.137	0.2177	6.7
5	13:34	9.75	0.6	0.550	0.6	0.220	1.5574	1.00	1.5574	0.137	0.2141	6.6
6	13:35	9.50	0.6	0.500	0.6	0.200	1.2648	1.00	1.2648	0.125	0.1581	4.9
7	13:36	9.25	0.6	0.500	0.6	0.200	1.3219	1.00	1.3219	0.125	0.1652	5.1
8	*13:37*	*9.00*	*0.6*	*0.500*	*0.6*	*0.200*	*1.3589*	*1.00*	*1.3589*	*0.125*	*0.1699*	*5.2*
9	13:38	8.75	0.6	0.500	0.6	0.200	1.3307	1.00	1.3307	0.125	0.1663	5.1
10	13:39	8.50	0.6	0.500	0.6	0.200	1.8865	1.00	1.8865	0.125	0.2358	7.3
11	13:40	8.25	0.6	0.500	0.6	0.200	1.5850	1.00	1.5850	0.125	0.1981	6.1
12	13:40	8.00	0.6	0.450	0.6	0.180	1.1266	1.00	1.1266	0.113	0.1268	3.9
13	13:41	7.75	0.6	0.450	0.6	0.180	0.9308	1.00	0.9308	0.113	0.1047	3.2
14	13:42	7.50	0.6	0.450	0.6	0.180	0.5531	1.00	0.5531	0.113	0.0622	1.9
15	13:44	7.25	0.6	0.450	0.6	0.180	1.5965	1.00	1.5965	0.113	0.1797	5.5
16	*13:45*	*7.00*	*0.6*	*0.450*	*0.6*	*0.180*	*1.7976*	*1.00*	*1.7976*	*0.113*	*0.2023*	*6.2*
17	13:46	6.75	0.6	0.450	0.6	0.180	0.7572	1.00	0.7572	0.113	0.0852	2.6
18	*13:47*	*6.50*	*0.6*	*0.450*	*0.6*	*0.180*	*-0.0463*	*1.00*	*-0.0463*	*0.113*	*-0.0052*	*-0.2*
19	13:48	6.25	0.6	0.450	0.6	0.180	0.4505	1.00	0.4505	0.113	0.0507	1.6
20	13:49	6.00	0.6	0.450	0.6	0.180	1.6617	1.00	1.6617	0.113	0.1870	5.8
21	13:49	5.75	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

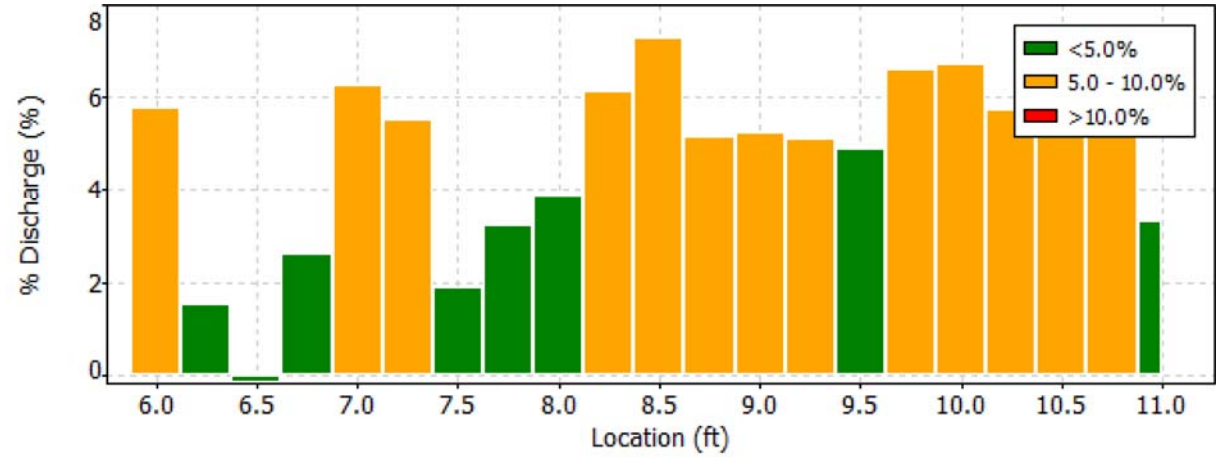
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

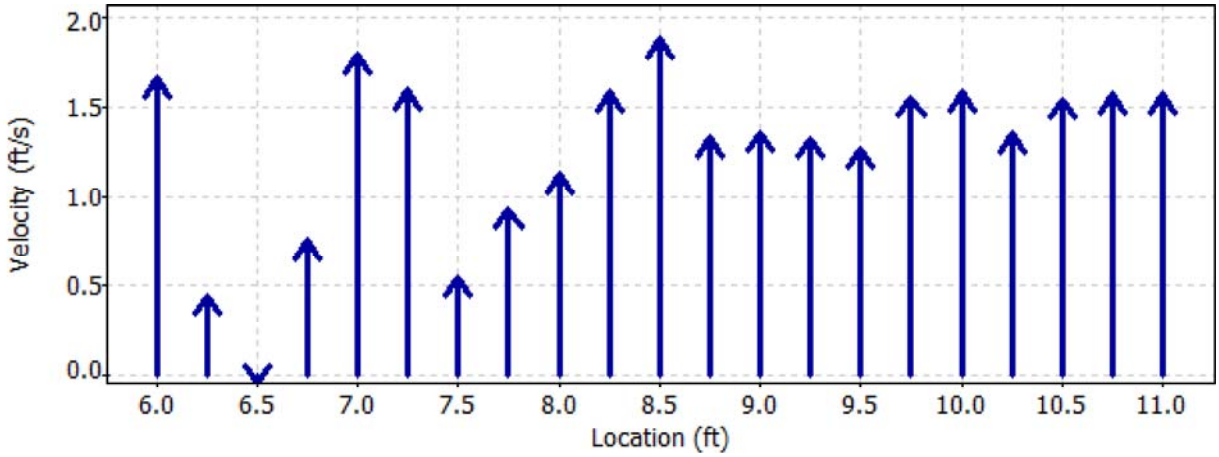
Discharge Measurement Summary

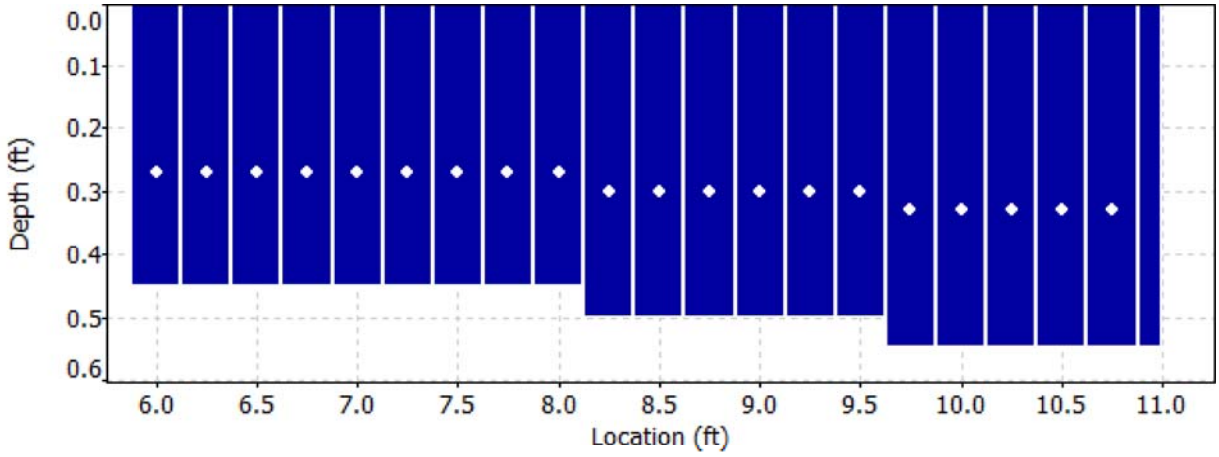
Date Generated: Thu Jan 25 2018

File Information	
File Name	BG1B.WAD
Start Date and Time	2017/07/11 13:31:29

Site Details	
Site Name	BG1B
Operator(s)	ND







Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information		Site Details	
File Name	BG1B.WAD	Site Name	BG1B
Start Date and Time	2017/07/11 13:31:29	Operator(s)	ND

Quality Control

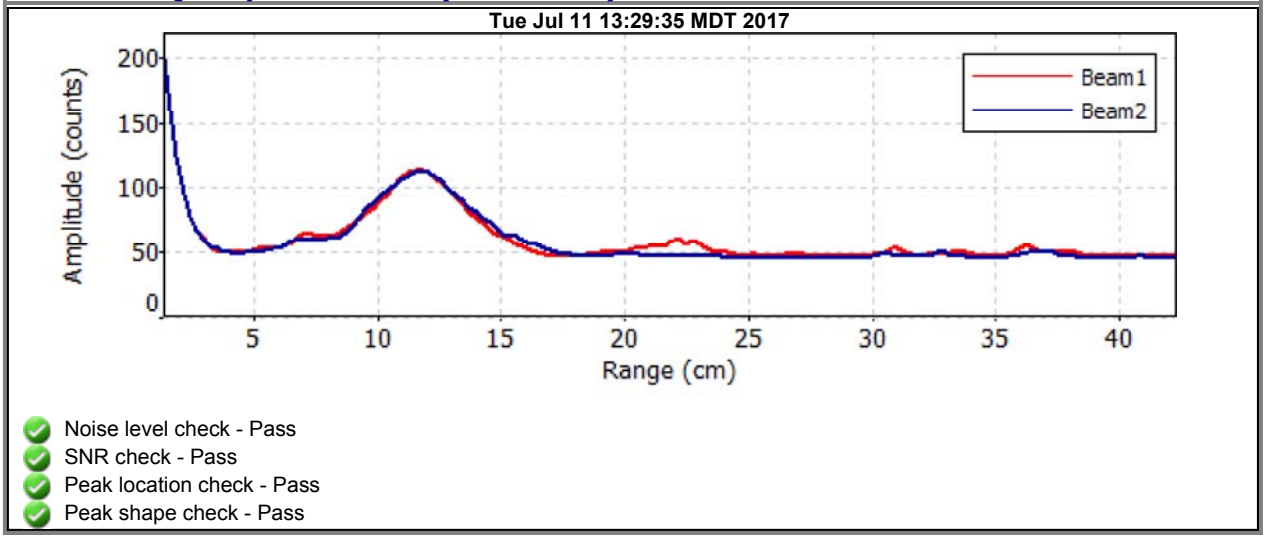
St	Loc	%Dep	Message
3	10.25	0.6	High angle: 24
8	9.00	0.6	High standard error: 0.104
16	7.00	0.6	High number of spikes: 7
18	6.50	0.6	High number of spikes: 6
		0.6	High angle: -160
		0.6	SNR (37.8) is different from typical SNR (27.5)
		0.6	High SNR variation during measurement: 14.2,13.8

Discharge Measurement Summary

Date Generated: Thu Jan 25 2018

File Information		Site Details	
File Name	BG1B.WAD	Site Name	BG1B
Start Date and Time	2017/07/11 13:31:29	Operator(s)	ND

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A20.WAD
Start Date and Time	2017/07/12 11:47:40

Site Details

Site Name	A20
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.9%
Velocity	1.2%	6.5%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**3.4%**	**7.2%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	20.500
Mean SNR	41.0 dB	Total Area	9.750
Mean Temp	49.32 °F	Mean Depth	0.476
Disch. Equation	Mid-Section	Mean Velocity	1.9449
		Total Discharge	**18.9614**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:47	1.90	None	0.400	0.0	0.0	0.0000	1.00	0.0138	0.200	0.0028	0.0
1	*11:47*	*2.90*	*0.6*	*0.500*	*0.6*	*0.200*	*0.0138*	*1.00*	*0.0138*	*0.500*	*0.0069*	*0.0*
2	11:48	3.90	0.6	0.600	0.6	0.240	2.6657	1.00	2.6657	0.600	1.5996	8.4
3	*11:49*	*4.90*	*0.6*	*0.700*	*0.6*	*0.280*	*2.0164*	*1.00*	*2.0164*	*0.700*	*1.4117*	*7.4*
4	*11:50*	*5.90*	*0.6*	*0.500*	*0.6*	*0.200*	*1.7657*	*1.00*	*1.7657*	*0.500*	*0.8829*	*4.7*
5	11:51	6.90	0.6	0.500	0.6	0.200	1.9127	1.00	1.9127	0.500	0.9564	5.0
6	*11:52*	*7.90*	*0.6*	*0.400*	*0.6*	*0.160*	*2.1224*	*1.00*	*2.1224*	*0.400*	*0.8488*	*4.5*
7	11:53	8.90	0.6	0.350	0.6	0.140	2.1040	1.00	2.1040	0.350	0.7365	3.9
8	*11:55*	*9.90*	*0.6*	*0.350*	*0.6*	*0.140*	*1.9478*	*1.00*	*1.9478*	*0.350*	*0.6819*	*3.6*
9	11:56	10.90	0.6	0.300	0.6	0.120	2.6939	1.00	2.6939	0.300	0.8078	4.3
10	11:57	11.90	0.6	0.300	0.6	0.120	2.9127	1.00	2.9127	0.300	0.8734	4.6
11	11:58	12.90	0.6	0.300	0.6	0.120	1.8337	1.00	1.8337	0.300	0.5499	2.9
12	11:59	13.90	0.6	0.300	0.6	0.120	1.7713	1.00	1.7713	0.300	0.5312	2.8
13	*12:00*	*14.90*	*0.6*	*0.300*	*0.6*	*0.120*	*1.1644*	*1.00*	*1.1644*	*0.300*	*0.3492*	*1.8*
14	*12:01*	*15.90*	*0.6*	*0.550*	*0.6*	*0.220*	*2.7149*	*1.00*	*2.7149*	*0.550*	*1.4928*	*7.9*
15	*12:02*	*16.90*	*0.6*	*0.600*	*0.6*	*0.240*	*1.6778*	*1.00*	*1.6778*	*0.600*	*1.0068*	*5.3*
16	*12:04*	*17.90*	*0.6*	*0.650*	*0.6*	*0.260*	*2.0197*	*1.00*	*2.0197*	*0.650*	*1.3127*	*6.9*
17	*12:05*	*18.90*	*0.6*	*0.850*	*0.6*	*0.340*	*1.9875*	*1.00*	*1.9875*	*0.850*	*1.6895*	*8.9*
18	*12:06*	*19.90*	*0.6*	*0.750*	*0.6*	*0.300*	*1.8543*	*1.00*	*1.8543*	*0.750*	*1.3907*	*7.3*
19	*12:07*	*20.90*	*0.6*	*0.550*	*0.6*	*0.220*	*2.6243*	*1.00*	*2.6243*	*0.550*	*1.4430*	*7.6*
20	12:08	21.90	0.6	0.200	0.6	0.080	1.9331	1.00	1.9331	0.150	0.2902	1.5
21	12:08	22.40	None	0.200	0.0	0.0	0.0000	1.00	1.9331	0.050	0.0967	0.5

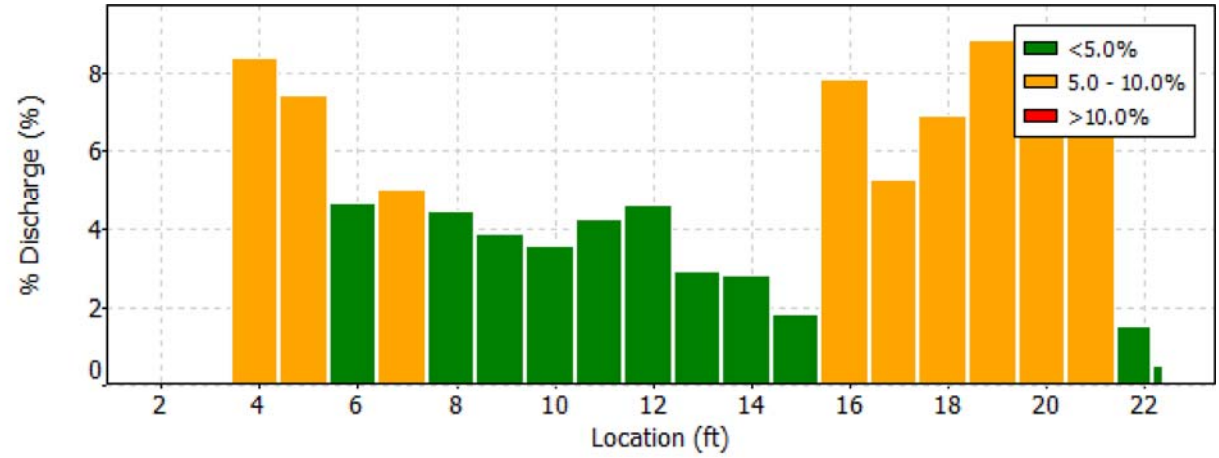
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

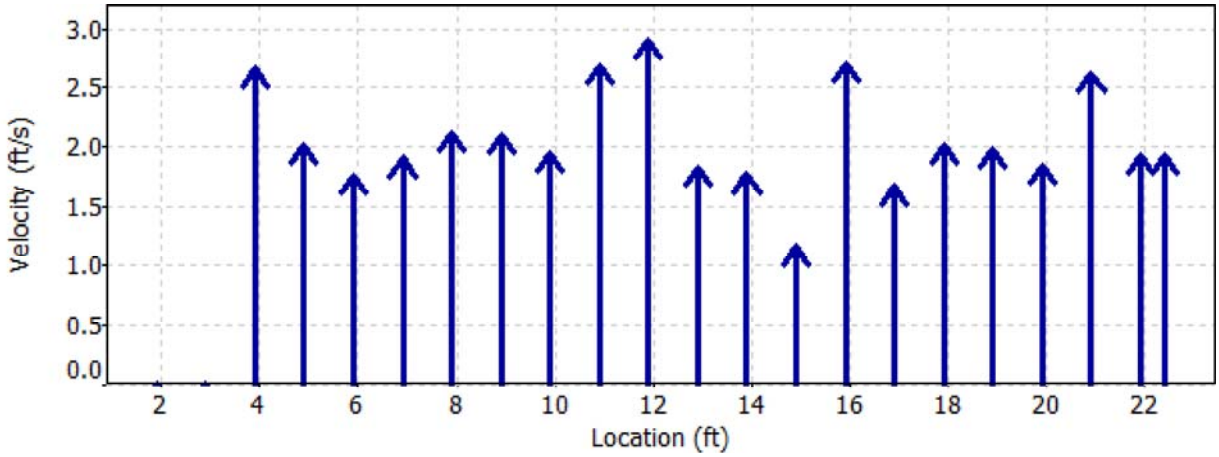
Discharge Measurement Summary

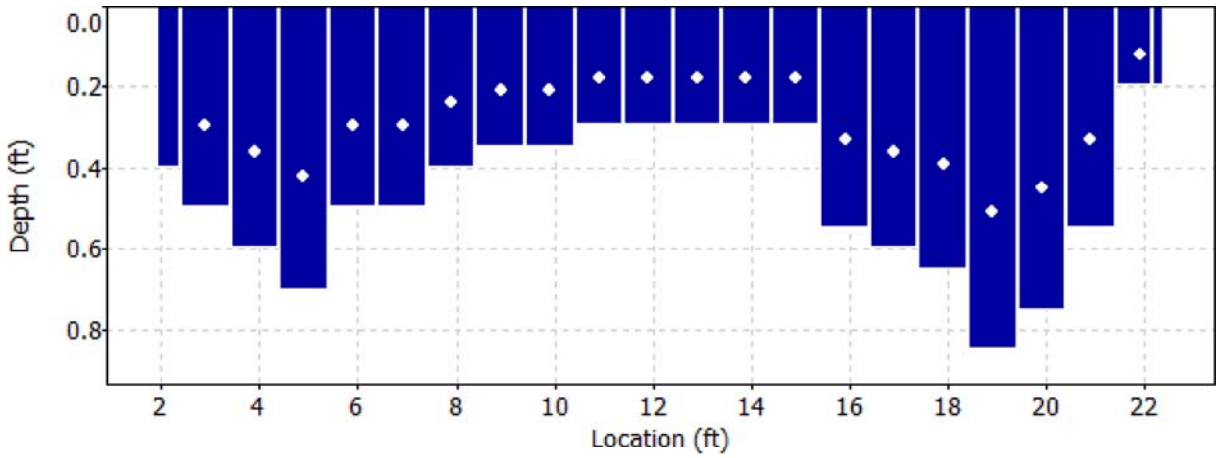
Date Generated: Mon Jul 17 2017

File Information	
File Name	A20.WAD
Start Date and Time	2017/07/12 11:47:40

Site Details	
Site Name	A20
Operator(s)	LC







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A20.WAD
Start Date and Time	2017/07/12 11:47:40

Site Details

Site Name	A20
Operator(s)	LC

Quality Control

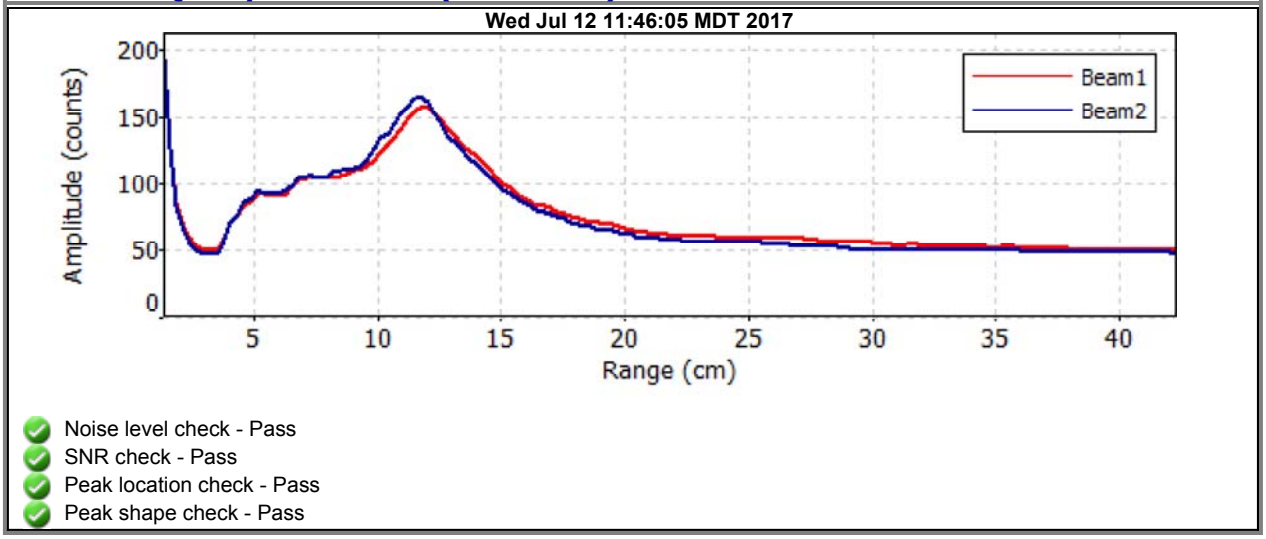
St	Loc	%Dep	Message
1	2.90	0.6	High differences in beam SNR: 22.7,33.9
		0.6	SNR (28.3) is different from typical SNR (41.0)
3	4.90	0.6	High standard error: 0.120
4	5.90	0.6	High number of spikes: 5
6	7.90	0.6	High number of spikes: 5
		0.6	High angle: -22
8	9.90	0.6	High standard error: 0.177
13	14.90	0.6	High standard error: 0.118
14	15.90	0.6	High angle: 35
15	16.90	0.6	High angle: 48
16	17.90	0.6	High angle: 44
17	18.90	0.6	High angle: 38
		0.6	High standard error: 0.129
18	19.90	0.6	High angle: 37
19	20.90	0.6	High standard error: 0.135

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A20.WAD	Site Name	A20
Start Date and Time	2017/07/12 11:47:40	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A21.WAD
Start Date and Time	2017/07/12 12:57:46

Site Details

Site Name	A21
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.3%
Velocity	0.9%	4.2%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.2%	-
Overall	**3.2%**	**4.5%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	10.700
Mean SNR	38.4 dB	Total Area	5.695
Mean Temp	47.04 °F	Mean Depth	0.532
Disch. Equation	Mid-Section	Mean Velocity	2.2978
		Total Discharge	**13.0872**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	12:57	3.90	None	0.200	0.0	0.0	0.0000	1.00	0.5013	0.050	0.0251	0.2
1	12:57	4.40	0.6	0.300	0.6	0.120	0.5013	1.00	0.5013	0.150	0.0752	0.6
2	*12:58*	*4.90*	*0.6*	*0.300*	*0.6*	*0.120*	*1.2635*	*1.00*	*1.2635*	*0.150*	*0.1894*	*1.4*
3	12:59	5.40	0.6	0.300	0.6	0.120	0.5620	1.00	0.5620	0.150	0.0843	0.6
4	13:00	5.90	0.6	0.400	0.6	0.160	1.4967	1.00	1.4967	0.200	0.2993	2.3
5	13:01	6.40	0.6	0.450	0.6	0.180	1.7526	1.00	1.7526	0.225	0.3945	3.0
6	13:02	6.90	0.6	0.500	0.6	0.200	2.7356	1.00	2.7356	0.250	0.6839	5.2
7	13:03	7.40	0.6	0.550	0.6	0.220	2.1611	1.00	2.1611	0.275	0.5942	4.5
8	13:04	7.90	0.6	0.700	0.6	0.280	2.9275	1.00	2.9275	0.350	1.0248	7.8
9	13:05	8.40	0.6	0.700	0.6	0.280	2.9045	1.00	2.9045	0.350	1.0168	7.8
10	13:06	8.90	0.6	0.700	0.6	0.280	3.8504	1.00	3.8504	0.245	0.9437	7.2
11	13:17	9.10	0.6	0.700	0.6	0.280	4.0479	1.00	4.0479	0.175	0.7085	5.4
12	13:07	9.40	0.6	0.700	0.6	0.280	3.7156	1.00	3.7156	0.280	1.0404	7.9
13	13:08	9.90	0.6	0.700	0.6	0.280	3.2408	1.00	3.2408	0.350	1.1345	8.7
14	13:09	10.40	0.6	0.600	0.6	0.240	2.5981	1.00	2.5981	0.300	0.7795	6.0
15	13:10	10.90	0.6	0.450	0.6	0.180	2.9777	1.00	2.9777	0.225	0.6702	5.1
16	13:11	11.40	0.6	0.500	0.6	0.200	1.7487	1.00	1.7487	0.250	0.4372	3.3
17	13:12	11.90	0.6	0.500	0.6	0.200	2.2615	1.00	2.2615	0.250	0.5654	4.3
18	13:13	12.40	0.6	0.600	0.6	0.240	1.2323	1.00	1.2323	0.300	0.3697	2.8
19	13:14	12.90	0.6	0.600	0.6	0.240	1.4140	1.00	1.4140	0.300	0.4243	3.2
20	13:15	13.40	0.6	0.600	0.6	0.240	1.5630	1.00	1.5630	0.390	0.6097	4.7
21	13:16	14.20	0.6	0.600	0.6	0.240	2.1181	1.00	2.1181	0.360	0.7627	5.8
22	13:16	14.60	None	0.600	0.0	0.0	0.0000	1.00	2.1181	0.120	0.2542	1.9

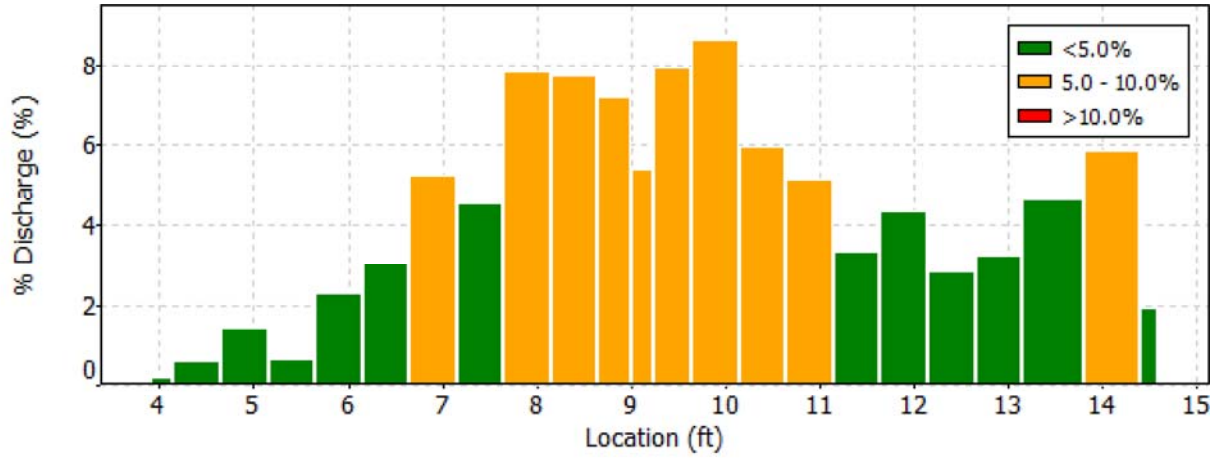
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

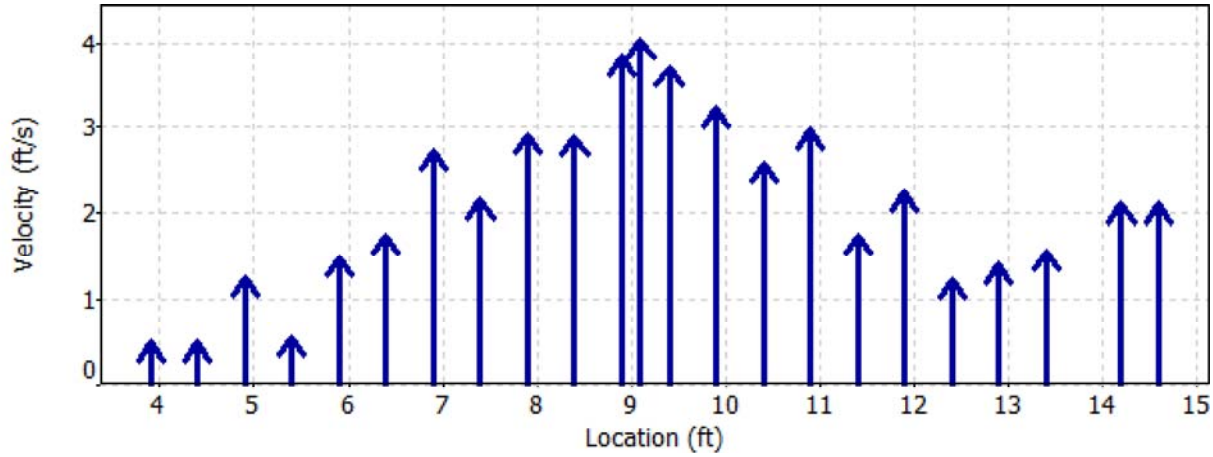
Discharge Measurement Summary

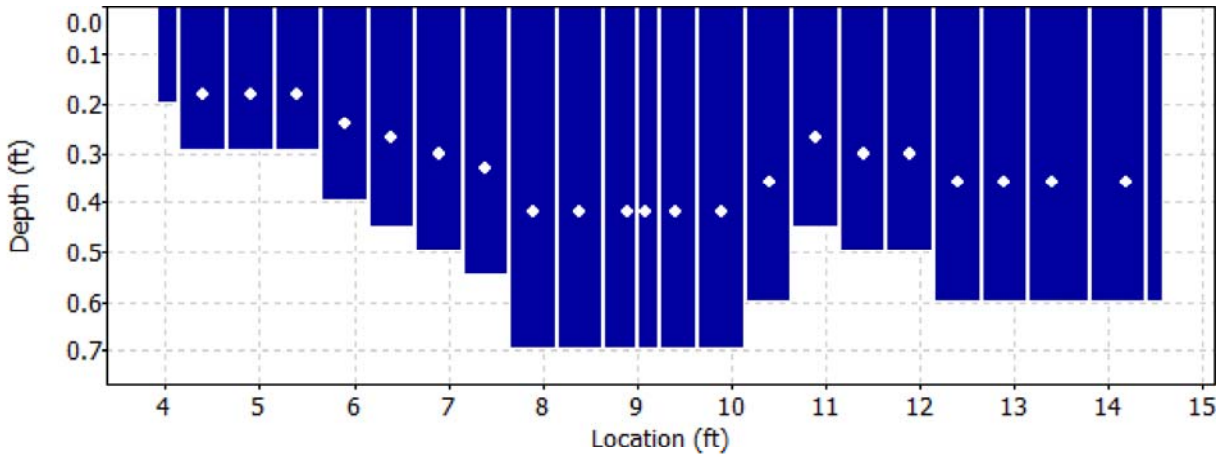
Date Generated: Mon Jul 17 2017

File Information	
File Name	A21.WAD
Start Date and Time	2017/07/12 12:57:46

Site Details	
Site Name	A21
Operator(s)	LC







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A21.WAD
Start Date and Time	2017/07/12 12:57:46

Site Details

Site Name	A21
Operator(s)	LC

Quality Control

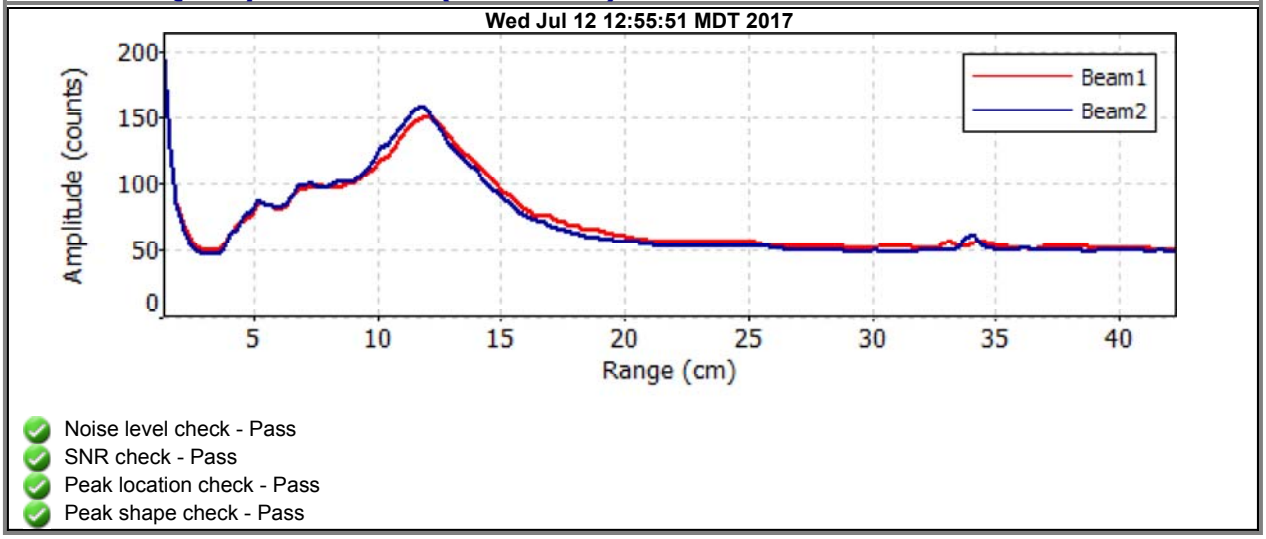
St	Loc	%Dep	Message
2	4.90	0.6	High number of spikes: 5

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A21.WAD	Site Name	A21
Start Date and Time	2017/07/12 12:57:46	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A22.WAD
Start Date and Time	2017/07/12 13:36:02

Site Details

Site Name	A22
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.3%
Velocity	1.2%	2.8%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.4%	-
Overall	**3.4%**	**3.7%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	LEW	Total Width	13.900
Mean SNR	40.0 dB	Total Area	6.260
Mean Temp	47.74 °F	Mean Depth	0.450
Disch. Equation	Mid-Section	Mean Velocity	1.7994
		Total Discharge	**11.2634**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:36	4.60	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*13:36*	*5.30*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.0778*	*1.00*	*-0.0778*	*0.210*	*-0.0163*	*-0.1*
2	13:37	6.00	0.6	0.400	0.6	0.160	1.5174	1.00	1.5174	0.280	0.4247	3.8
3	13:38	6.70	0.6	0.500	0.6	0.200	1.7723	1.00	1.7723	0.350	0.6201	5.5
4	13:39	7.40	0.6	0.400	0.6	0.160	1.8232	1.00	1.8232	0.280	0.5103	4.5
5	13:40	8.10	0.6	0.350	0.6	0.140	1.8002	1.00	1.8002	0.245	0.4410	3.9
6	*13:41*	*8.80*	*0.6*	*0.450*	*0.6*	*0.180*	*1.9318*	*1.00*	*1.9318*	*0.315*	*0.6085*	*5.4*
7	*13:42*	*9.50*	*0.6*	*0.500*	*0.6*	*0.200*	*1.7608*	*1.00*	*1.7608*	*0.350*	*0.6161*	*5.5*
8	13:43	10.20	0.6	0.500	0.6	0.200	1.5971	1.00	1.5971	0.350	0.5588	5.0
9	13:44	10.90	0.6	0.500	0.6	0.200	1.4836	1.00	1.4836	0.350	0.5191	4.6
10	*13:45*	*11.60*	*0.6*	*0.500*	*0.6*	*0.200*	*1.3517*	*1.00*	*1.3517*	*0.350*	*0.4730*	*4.2*
11	13:46	12.30	0.6	0.600	0.6	0.240	1.5735	1.00	1.5735	0.420	0.6608	5.9
12	*13:47*	*13.00*	*0.6*	*0.650*	*0.6*	*0.260*	*2.1509*	*1.00*	*2.1509*	*0.455*	*0.9783*	*8.7*
13	13:48	13.70	0.6	0.500	0.6	0.200	2.7644	1.00	2.7644	0.350	0.9673	8.6
14	13:49	14.40	0.6	0.500	0.6	0.200	2.4446	1.00	2.4446	0.350	0.8554	7.6
15	13:50	15.10	0.6	0.600	0.6	0.240	2.3547	1.00	2.3547	0.420	0.9888	8.8
16	13:51	15.80	0.6	0.500	0.6	0.200	2.0472	1.00	2.0472	0.350	0.7163	6.4
17	13:51	16.50	0.6	0.400	0.6	0.160	2.4268	1.00	2.4268	0.280	0.6792	6.0
18	*13:52*	*17.20*	*0.6*	*0.300*	*0.6*	*0.120*	*1.7126*	*1.00*	*1.7126*	*0.210*	*0.3594*	*3.2*
19	*13:53*	*17.90*	*0.6*	*0.300*	*0.6*	*0.120*	*0.8740*	*1.00*	*0.8740*	*0.195*	*0.1708*	*1.5*
20	13:53	18.50	None	0.500	0.0	0.0	0.0000	1.00	0.8740	0.151	0.1319	1.2

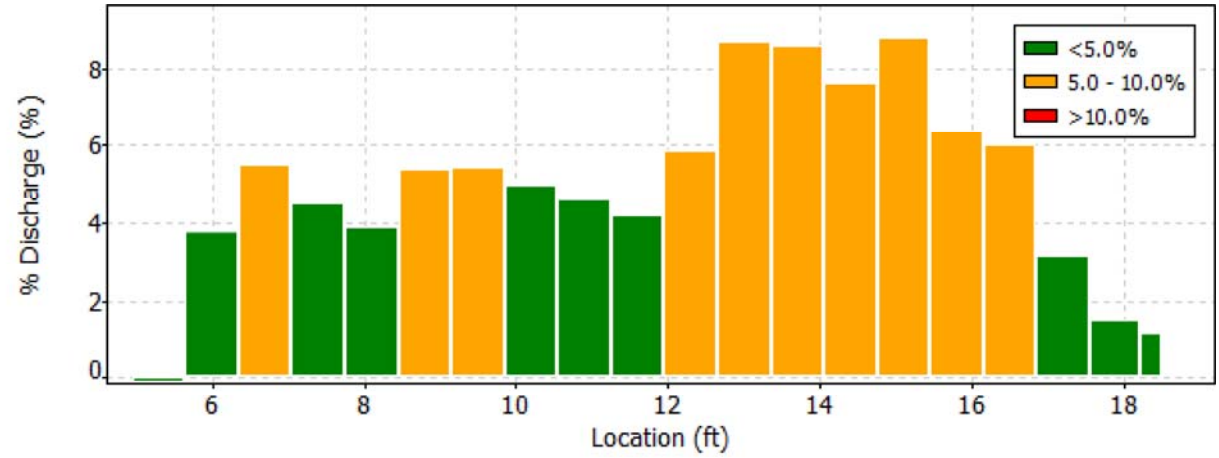
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

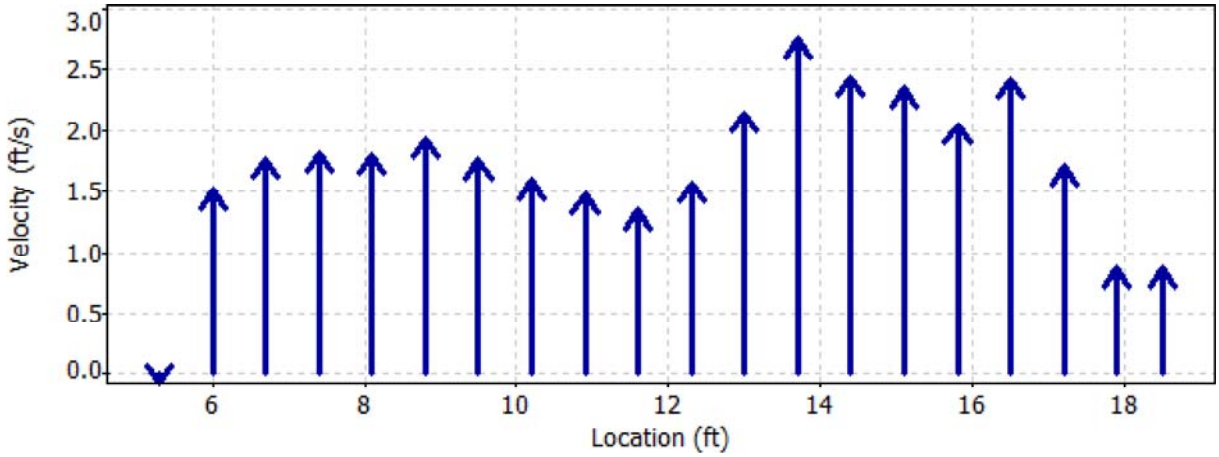
Discharge Measurement Summary

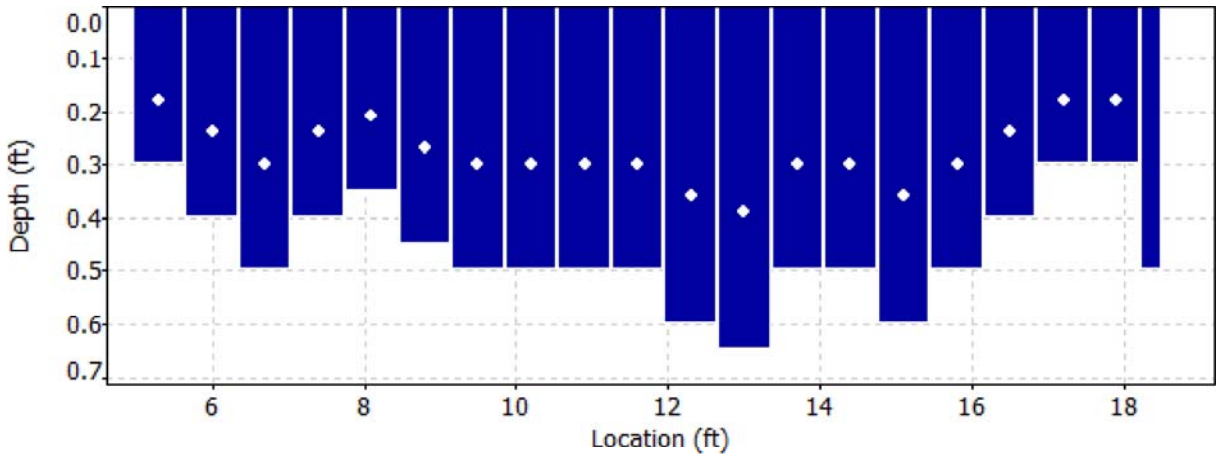
Date Generated: Mon Jul 17 2017

File Information	
File Name	A22.WAD
Start Date and Time	2017/07/12 13:36:02

Site Details	
Site Name	A22
Operator(s)	LC







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A22.WAD	Site Name	A22
Start Date and Time	2017/07/12 13:36:02	Operator(s)	LC

Quality Control

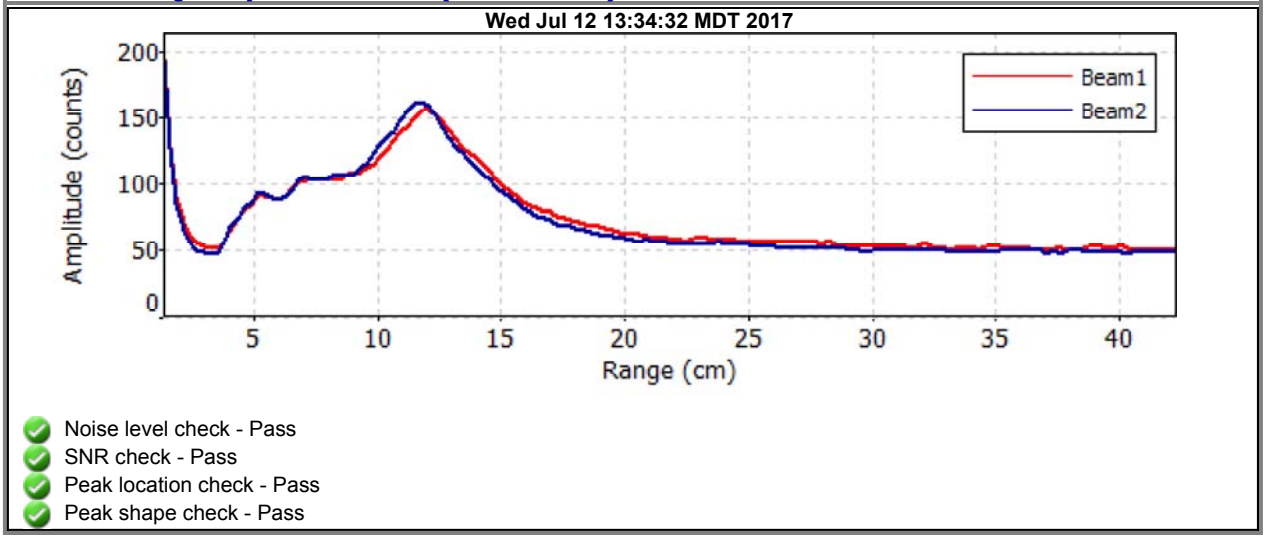
St	Loc	%Dep	Message
1	5.30	0.6	High angle: -126
		0.6	High differences in beam SNR: 15.9,40.4
		0.6	SNR (28.2) is different from typical SNR (40.0)
		0.6	High standard error: 0.136
6	8.80	0.6	High angle: 22
7	9.50	0.6	High angle: 26
10	11.60	0.6	High angle: 29
		0.6	High standard error: 0.134
12	13.00	0.6	High standard error: 0.128
18	17.20	0.6	High angle: -21
19	17.90	0.6	High angle: -30

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A22.WAD	Site Name	A22
Start Date and Time	2017/07/12 13:36:02	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A23.WAD
Start Date and Time	2017/07/12 14:21:26

Site Details

Site Name	
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.7%
Velocity	1.1%	6.5%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.4%	-
Overall	**3.4%**	**6.8%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	LEW	Total Width	7.200
Mean SNR	43.1 dB	Total Area	4.013
Mean Temp	43.88 °F	Mean Depth	0.557
Disch. Equation	Mid-Section	Mean Velocity	2.3630
		Total Discharge	**9.4821**

Measurement Results

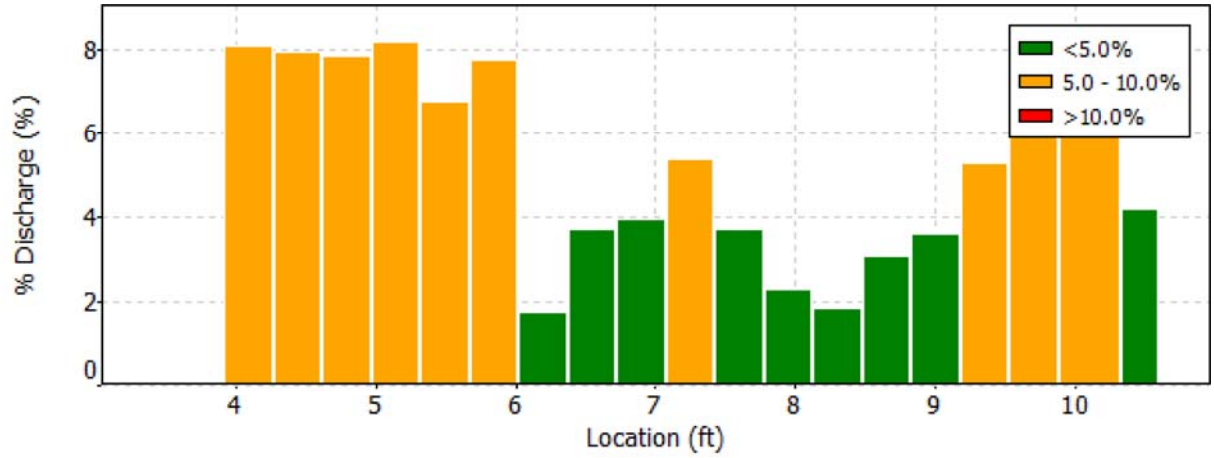
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:21	3.40	None	0.300	0.0	0.0	0.0000	1.00	0.0049	0.052	0.0003	0.0
1	*14:21*	*3.75*	*0.6*	*0.400*	*0.6*	*0.160*	*0.0049*	*1.00*	*0.0049*	*0.140*	*0.0007*	*0.0*
2	14:22	4.10	0.6	0.500	0.6	0.200	4.3727	1.00	4.3727	0.175	0.7654	8.1
3	14:23	4.45	0.6	0.500	0.6	0.200	4.3009	1.00	4.3009	0.175	0.7528	7.9
4	14:24	4.80	0.6	0.500	0.6	0.200	4.2405	1.00	4.2405	0.175	0.7422	7.8
5	*14:25*	*5.15*	*0.6*	*0.600*	*0.6*	*0.240*	*3.6847*	*1.00*	*3.6847*	*0.210*	*0.7740*	*8.2*
6	*14:26*	*5.50*	*0.6*	*0.600*	*0.6*	*0.240*	*3.0440*	*1.00*	*3.0440*	*0.210*	*0.6394*	*6.7*
7	*14:27*	*5.85*	*0.6*	*0.600*	*0.6*	*0.240*	*3.4885*	*1.00*	*3.4885*	*0.210*	*0.7328*	*7.7*
8	*14:28*	*6.20*	*0.6*	*0.600*	*0.6*	*0.240*	*0.7795*	*1.00*	*0.7795*	*0.210*	*0.1637*	*1.7*
9	*14:29*	*6.55*	*0.6*	*0.550*	*0.6*	*0.220*	*1.8255*	*1.00*	*1.8255*	*0.192*	*0.3514*	*3.7*
10	14:30	6.90	0.6	0.500	0.6	0.200	2.1355	1.00	2.1355	0.175	0.3738	3.9
11	14:31	7.25	0.6	0.600	0.6	0.240	2.4229	1.00	2.4229	0.210	0.5090	5.4
12	14:32	7.60	0.6	0.500	0.6	0.200	2.0128	1.00	2.0128	0.175	0.3523	3.7
13	14:33	7.95	0.6	0.600	0.6	0.240	1.0236	1.00	1.0236	0.210	0.2150	2.3
14	14:34	8.30	0.6	0.600	0.6	0.240	0.8222	1.00	0.8222	0.210	0.1727	1.8
15	14:35	8.65	0.6	0.600	0.6	0.240	1.3940	1.00	1.3940	0.210	0.2928	3.1
16	14:36	9.00	0.6	0.650	0.6	0.260	1.4948	1.00	1.4948	0.228	0.3401	3.6
17	14:37	9.35	0.6	0.650	0.6	0.260	2.1949	1.00	2.1949	0.228	0.4994	5.3
18	14:38	9.70	0.6	0.600	0.6	0.240	2.9810	1.00	2.9810	0.210	0.6262	6.6
19	14:39	10.05	0.6	0.600	0.6	0.240	2.8950	1.00	2.8950	0.270	0.7808	8.2
20	14:39	10.60	None	0.500	0.0	0.0	0.0000	1.00	2.8950	0.137	0.3973	4.2

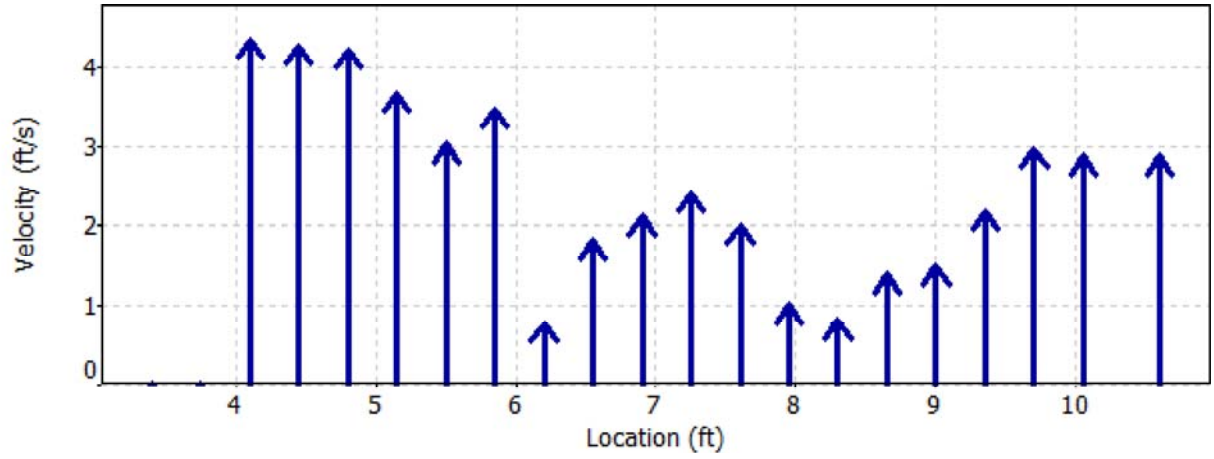
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

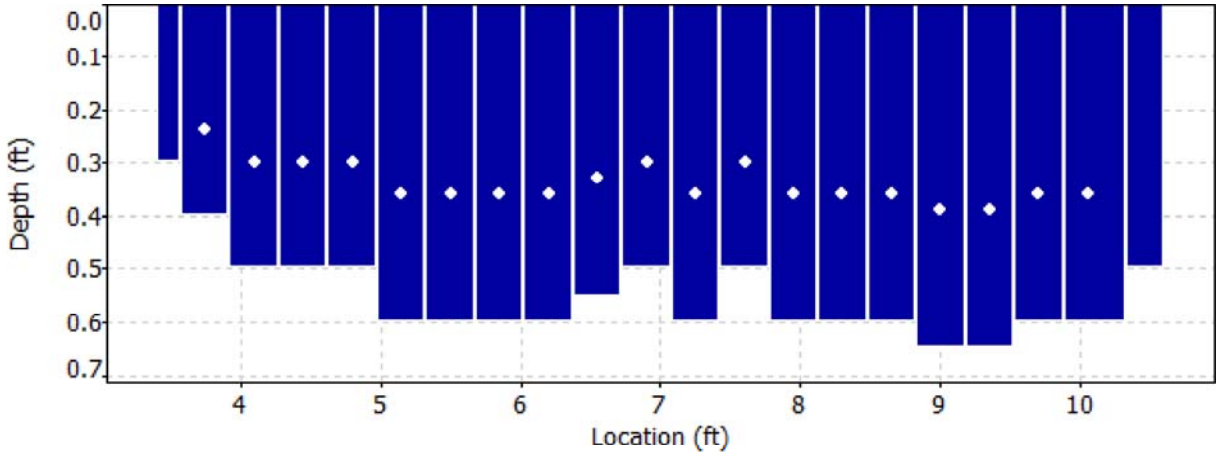
Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A23.WAD	Site Name	
Start Date and Time	2017/07/12 14:21:26	Operator(s)	LC







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information	
File Name	A23.WAD
Start Date and Time	2017/07/12 14:21:26

Site Details	
Site Name	
Operator(s)	LC

Quality Control

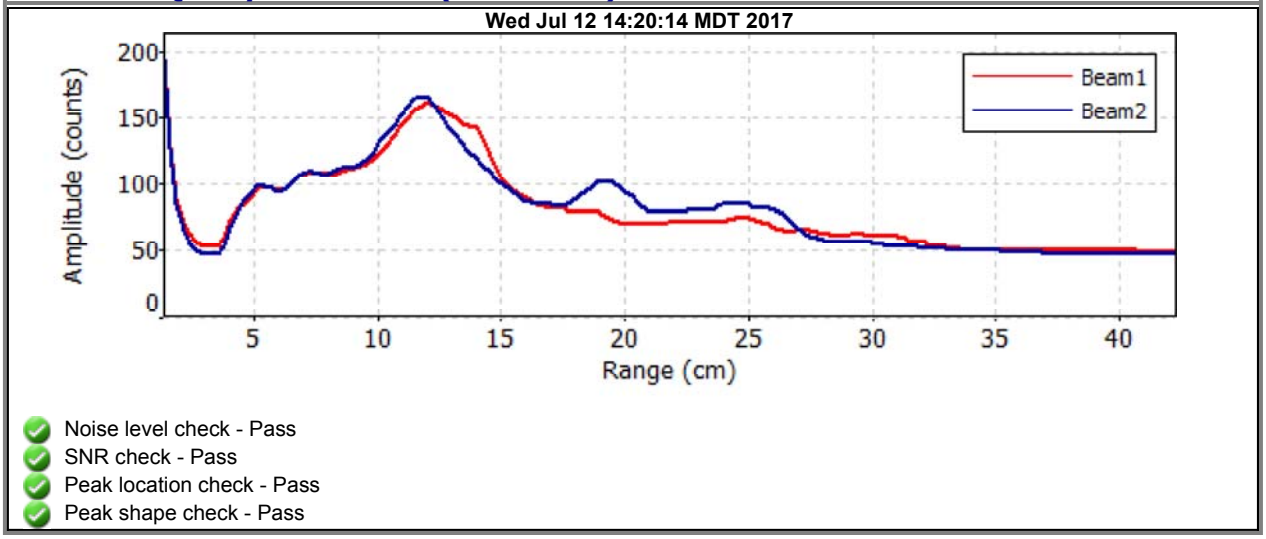
St	Loc	%Dep	Message
1	3.75	0.6	SNR (53.3) is different from typical SNR (43.1)
		0.6	High SNR variation during measurement: 11.6,13.3
5	5.15	0.6	High SNR variation during measurement: 1.7,12.9
6	5.50	0.6	High angle: -20
		0.6	High standard error: 0.193
7	5.85	0.6	High angle: -24
		0.6	High standard error: 0.175
8	6.20	0.6	High standard error: 0.166
9	6.55	0.6	High angle: -20
		0.6	High standard error: 0.216

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A23.WAD	Site Name	
Start Date and Time	2017/07/12 14:21:26	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	CC01S.WAD
Start Date and Time	2017/07/11 15:30:18

Site Details

Site Name	
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	3.0%
Velocity	2.2%	9.6%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.1%	-
Overall	**3.8%**	**10.1%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	LEW	Total Width	2.900
Mean SNR	40.3 dB	Total Area	2.075
Mean Temp	42.97 °F	Mean Depth	0.715
Disch. Equation	Mid-Section	Mean Velocity	1.8083
		Total Discharge	**3.7517**

Measurement Results

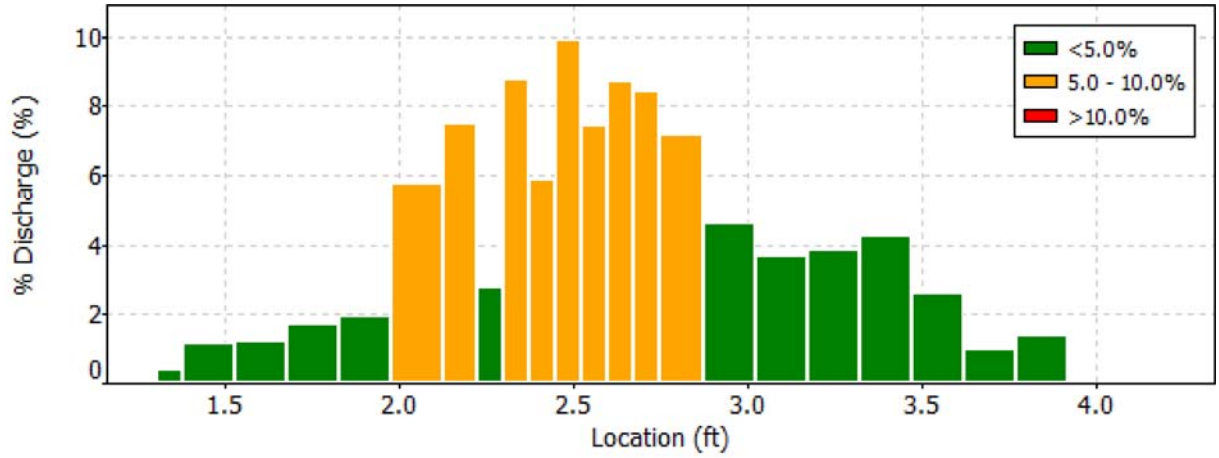
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:30	1.30	None	0.200	0.0	0.0	0.0000	1.00	0.9308	0.015	0.0140	0.4
1	*15:30*	*1.45*	*0.6*	*0.300*	*0.6*	*0.120*	*0.9308*	*1.00*	*0.9308*	*0.045*	*0.0419*	*1.1*
2	15:32	1.60	0.6	0.400	0.6	0.160	0.7621	1.00	0.7621	0.060	0.0457	1.2
3	15:33	1.75	0.6	0.400	0.6	0.160	1.0725	1.00	1.0725	0.060	0.0643	1.7
4	15:34	1.90	0.6	0.600	0.6	0.240	0.8045	1.00	0.8045	0.090	0.0724	1.9
5	*15:35*	*2.05*	*0.6*	*0.600*	*0.6*	*0.240*	*2.4062*	*1.00*	*2.4062*	*0.090*	*0.2165*	*5.8*
6	15:37	2.20	0.6	0.600	0.6	0.240	4.6768	1.00	4.6768	0.060	0.2808	7.5
7	*15:53*	*2.25*	*0.6*	*0.600*	*0.6*	*0.240*	*2.2982*	*1.00*	*2.2982*	*0.045*	*0.1034*	*2.8*
8	*15:37*	*2.35*	*0.6*	*1.000*	*0.6*	*0.400*	*4.3829*	*1.00*	*4.3829*	*0.075*	*0.3286*	*8.8*
9	*15:54*	*2.40*	*0.6*	*0.700*	*0.6*	*0.280*	*4.1867*	*1.00*	*4.1867*	*0.052*	*0.2197*	*5.9*
10	*15:38*	*2.50*	*0.6*	*0.950*	*0.6*	*0.380*	*5.2372*	*1.00*	*5.2372*	*0.071*	*0.3730*	*9.9*
11	*15:56*	*2.55*	*0.6*	*1.000*	*0.6*	*0.400*	*3.7257*	*1.00*	*3.7257*	*0.075*	*0.2793*	*7.4*
12	*15:39*	*2.65*	*0.6*	*1.050*	*0.6*	*0.420*	*4.1348*	*1.00*	*4.1348*	*0.079*	*0.3261*	*8.7*
13	*15:57*	*2.70*	*0.6*	*0.950*	*0.6*	*0.380*	*4.4462*	*1.00*	*4.4462*	*0.071*	*0.3167*	*8.4*
14	*15:40*	*2.80*	*0.6*	*1.050*	*0.6*	*0.420*	*2.0466*	*1.00*	*2.0466*	*0.131*	*0.2679*	*7.1*
15	*15:41*	*2.95*	*0.6*	*0.950*	*0.6*	*0.380*	*1.2103*	*1.00*	*1.2103*	*0.142*	*0.1724*	*4.6*
16	15:42	3.10	0.6	0.900	0.6	0.360	1.0200	1.00	1.0200	0.135	0.1376	3.7
17	*15:43*	*3.25*	*0.6*	*0.900*	*0.6*	*0.360*	*1.0797*	*1.00*	*1.0797*	*0.135*	*0.1457*	*3.9*
18	*15:45*	*3.40*	*0.6*	*0.850*	*0.6*	*0.340*	*1.2592*	*1.00*	*1.2592*	*0.127*	*0.1605*	*4.3*
19	15:46	3.55	0.6	0.700	0.6	0.280	0.9331	1.00	0.9331	0.105	0.0979	2.6
20	*15:47*	*3.70*	*0.6*	*0.800*	*0.6*	*0.320*	*0.3117*	*1.00*	*0.3117*	*0.120*	*0.0374*	*1.0*
21	*15:50*	*3.85*	*0.6*	*0.800*	*0.6*	*0.320*	*0.4288*	*1.00*	*0.4288*	*0.120*	*0.0514*	*1.4*
22	*15:51*	*4.00*	*0.6*	*0.800*	*0.6*	*0.320*	*-0.0095*	*1.00*	*-0.0095*	*0.140*	*-0.0013*	*0.0*
23	15:51	4.20	None	0.300	0.0	0.0	0.0000	1.00	-0.0095	0.030	-0.0003	0.0

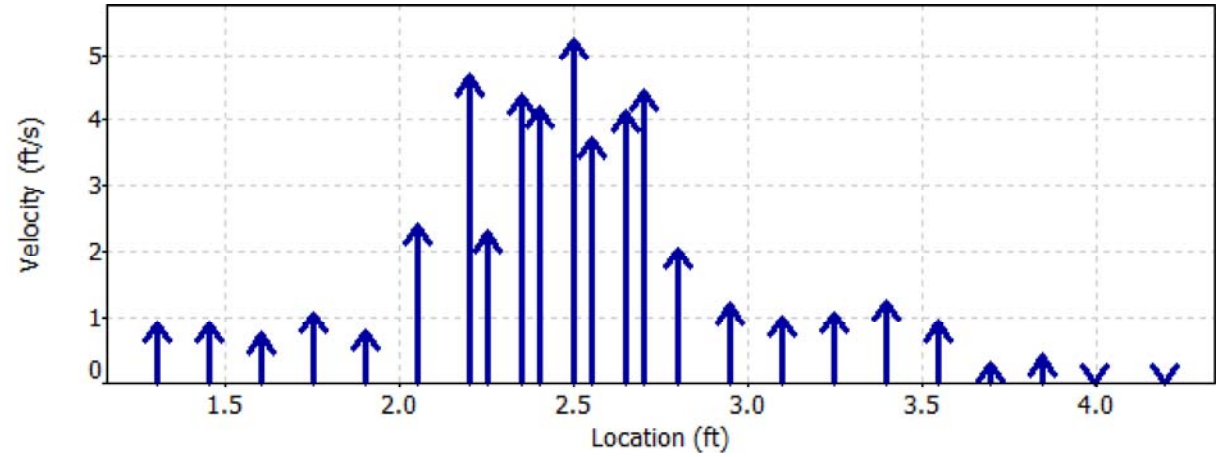
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

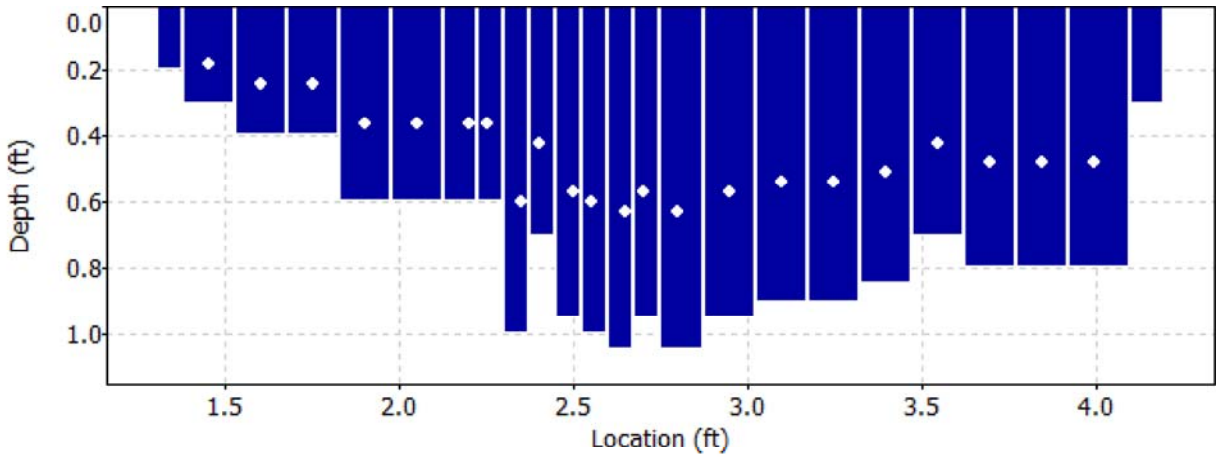
Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	CC01S.WAD	Site Name	
Start Date and Time	2017/07/11 15:30:18	Operator(s)	LC







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	CC01S.WAD	Site Name	
Start Date and Time	2017/07/11 15:30:18	Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
1	1.45	0.6	High angle: -23
		0.6	High differences in beam SNR: 44.2,28.8
5	2.05	0.6	High SNR variation during measurement: 5.2,5.2
		0.6	High standard error: 0.240
7	2.25	0.6	High standard error: 0.264
8	2.35	0.6	High standard error: 0.348
9	2.40	0.6	High standard error: 0.283
10	2.50	0.6	High SNR variation during measurement: 3.4,6.0
11	2.55	0.6	High SNR variation during measurement: 3.4,5.2
		0.6	High standard error: 0.370
12	2.65	0.6	High SNR variation during measurement: 3.4,7.3
		0.6	High standard error: 0.339
13	2.70	0.6	High standard error: 0.313
14	2.80	0.6	High SNR variation during measurement: 2.6,6.0
		0.6	High standard error: 0.338
15	2.95	0.6	High SNR variation during measurement: 3.9,6.0
17	3.25	0.6	High angle: 24
18	3.40	0.6	High angle: 31
20	3.70	0.6	High angle: -27
21	3.85	0.6	High angle: -24
22	4.00	0.6	High number of spikes: 5
		0.6	High SNR variation during measurement: 13.8,14.6

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	CC01T.WAD
Start Date and Time	2017/07/11 14:57:22

Site Details

Site Name	CC01T
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	3.0%
Velocity	1.2%	7.0%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.0%	-
Overall	**3.2%**	**7.7%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	LEW	Total Width	7.000
Mean SNR	42.8 dB	Total Area	3.841
Mean Temp	43.92 °F	Mean Depth	0.549
Disch. Equation	Mid-Section	Mean Velocity	2.0133
		Total Discharge	**7.7328**

Measurement Results

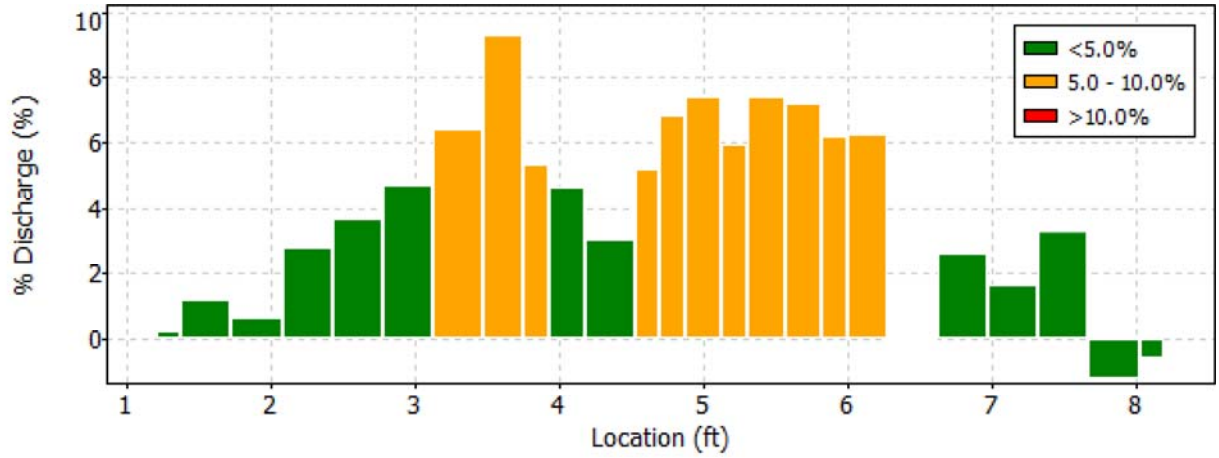
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:57	1.20	None	0.100	0.0	0.0	0.0000	1.00	1.0646	0.017	0.0186	0.2
1	14:57	1.55	0.6	0.250	0.6	0.100	1.0646	1.00	1.0646	0.087	0.0931	1.2
2	14:58	1.90	0.6	0.300	0.6	0.120	0.5036	1.00	0.5036	0.105	0.0528	0.7
3	14:59	2.25	0.6	0.400	0.6	0.160	1.5568	1.00	1.5568	0.140	0.2177	2.8
4	15:00	2.60	0.6	0.500	0.6	0.200	1.6260	1.00	1.6260	0.175	0.2843	3.7
5	15:01	2.95	0.6	0.600	0.6	0.240	1.7359	1.00	1.7359	0.210	0.3643	4.7
6	15:02	3.30	0.6	0.500	0.6	0.200	2.8402	1.00	2.8402	0.175	0.4967	6.4
7	15:03	3.65	0.6	0.800	0.6	0.320	3.2687	1.00	3.2687	0.221	0.7210	9.3
8	15:17	3.85	0.6	0.750	0.6	0.300	3.1470	1.00	3.1470	0.131	0.4127	5.3
9	*15:04*	*4.00*	*0.6*	*0.800*	*0.6*	*0.320*	*1.8117*	*1.00*	*1.8117*	*0.199*	*0.3606*	*4.7*
10	*15:05*	*4.35*	*0.6*	*0.700*	*0.6*	*0.280*	*0.9547*	*1.00*	*0.9547*	*0.245*	*0.2338*	*3.0*
11	15:06	4.70	0.6	0.550	0.6	0.220	4.1302	1.00	4.1302	0.097	0.4001	5.2
12	15:18	4.70	0.6	0.700	0.6	0.280	4.3235	1.00	4.3235	0.122	0.5293	6.8
13	15:07	5.05	0.6	0.600	0.6	0.240	3.8215	1.00	3.8215	0.150	0.5733	7.4
14	15:20	5.20	0.6	0.700	0.6	0.280	3.7615	1.00	3.7615	0.122	0.4605	6.0
15	15:08	5.40	0.6	0.600	0.6	0.240	3.4777	1.00	3.4777	0.164	0.5703	7.4
16	15:09	5.75	0.6	0.550	0.6	0.220	4.0246	1.00	4.0246	0.138	0.5565	7.2
17	15:21	5.90	0.6	0.600	0.6	0.240	4.5531	1.00	4.5531	0.105	0.4778	6.2
18	*15:10*	*6.10*	*0.6*	*0.550*	*0.6*	*0.220*	*3.2060*	*1.00*	*3.2060*	*0.150*	*0.4815*	*6.2*
19	*15:11*	*6.45*	*0.6*	*0.700*	*0.6*	*0.280*	*-0.0279*	*1.00*	*-0.0279*	*0.245*	*-0.0068*	*-0.1*
20	*15:12*	*6.80*	*0.6*	*0.650*	*0.6*	*0.260*	*0.8835*	*1.00*	*0.8835*	*0.227*	*0.2008*	*2.6*
21	15:13	7.15	0.6	0.500	0.6	0.200	0.7224	1.00	0.7224	0.175	0.1263	1.6
22	15:14	7.50	0.6	0.500	0.6	0.200	1.4564	1.00	1.4564	0.175	0.2547	3.3
23	*15:15*	*7.85*	*0.6*	*0.500*	*0.6*	*0.200*	*-0.5558*	*1.00*	*-0.5558*	*0.176*	*-0.0979*	*-1.3*
24	15:15	8.20	None	0.500	0.0	0.0	0.0000	1.00	-0.5558	0.089	-0.0493	-0.6

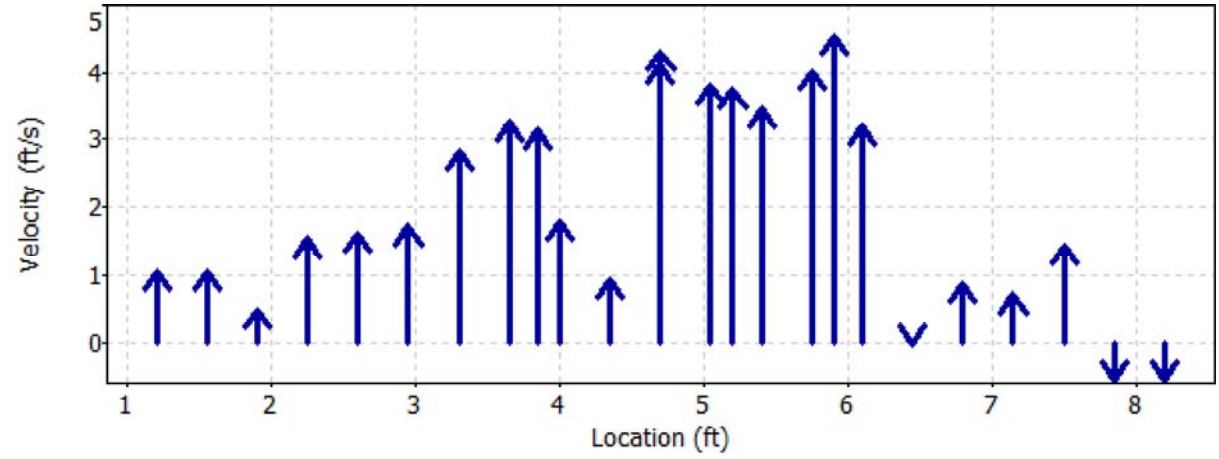
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

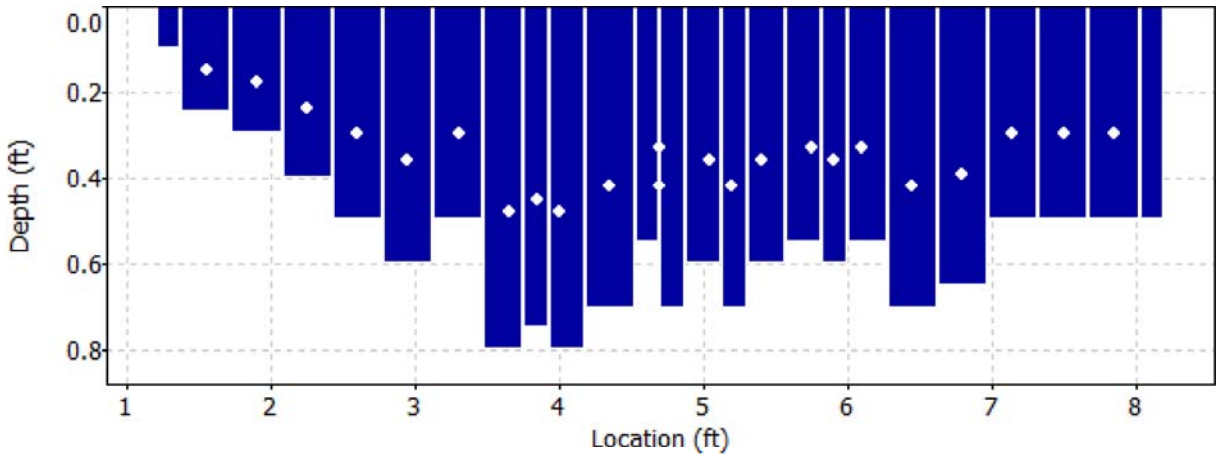
Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	CC01T.WAD	Site Name	CC01T
Start Date and Time	2017/07/11 14:57:22	Operator(s)	LC







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	CC01T.WAD
Start Date and Time	2017/07/11 14:57:22

Site Details

Site Name	CC01T
Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
9	4.00	0.6	High standard error: 0.153
10	4.35	0.6	High standard error: 0.143
18	6.10	0.6	High standard error: 0.163
19	6.45	0.6	High angle: 92
20	6.80	0.6	High angle: 25
		0.6	High standard error: 0.156
23	7.85	0.6	High number of spikes: 6
		0.6	High angle: -157

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	CC02C.WAD
Start Date and Time	2017/07/11 13:10:48

Site Details

Site Name	
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	3.8%
Velocity	1.5%	9.7%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.4%	-
Overall	**3.5%**	**10.4%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	LEW	Total Width	18.750
Mean SNR	43.4 dB	Total Area	5.585
Mean Temp	48.95 °F	Mean Depth	0.298
Disch. Equation	Mid-Section	Mean Velocity	1.8835
		Total Discharge	**10.5194**

Measurement Results

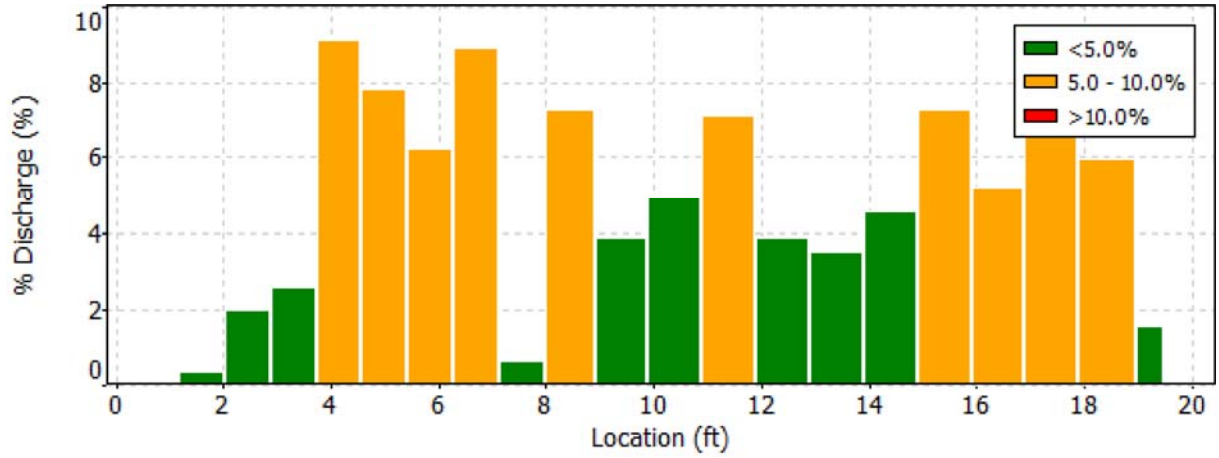
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:10	0.75	None	0.100	0.0	0.0	0.0000	1.00	0.2182	0.043	0.0093	0.1
1	*13:10*	*1.60*	*0.6*	*0.200*	*0.6*	*0.080*	*0.2182*	*1.00*	*0.2182*	*0.170*	*0.0371*	*0.4*
2	13:12	2.45	0.6	0.300	0.6	0.120	0.8097	1.00	0.8097	0.255	0.2064	2.0
3	*13:13*	*3.30*	*0.6*	*0.500*	*0.6*	*0.200*	*0.6325*	*1.00*	*0.6325*	*0.425*	*0.2689*	*2.6*
4	*13:15*	*4.15*	*0.6*	*0.400*	*0.6*	*0.160*	*2.8337*	*1.00*	*2.8337*	*0.340*	*0.9634*	*9.2*
5	13:16	5.00	0.6	0.400	0.6	0.160	2.4249	1.00	2.4249	0.340	0.8244	7.8
6	13:17	5.85	0.6	0.350	0.6	0.140	2.2037	1.00	2.2037	0.298	0.6558	6.2
7	13:18	6.70	0.6	0.400	0.6	0.160	2.7710	1.00	2.7710	0.340	0.9421	9.0
8	13:19	7.55	0.6	0.400	0.6	0.160	0.1909	1.00	0.1909	0.340	0.0649	0.6
9	13:20	8.40	0.6	0.400	0.6	0.160	2.0728	1.00	2.0728	0.370	0.7666	7.3
10	*13:22*	*9.40*	*0.6*	*0.300*	*0.6*	*0.120*	*1.3740*	*1.00*	*1.3740*	*0.300*	*0.4118*	*3.9*
11	*13:23*	*10.40*	*0.6*	*0.300*	*0.6*	*0.120*	*1.7362*	*1.00*	*1.7362*	*0.300*	*0.5203*	*4.9*
12	*13:24*	*11.40*	*0.6*	*0.300*	*0.6*	*0.120*	*2.5023*	*1.00*	*2.5023*	*0.300*	*0.7499*	*7.1*
13	*13:25*	*12.40*	*0.6*	*0.200*	*0.6*	*0.080*	*2.0446*	*1.00*	*2.0446*	*0.200*	*0.4089*	*3.9*
14	*13:26*	*13.40*	*0.6*	*0.200*	*0.6*	*0.080*	*1.8507*	*1.00*	*1.8507*	*0.200*	*0.3701*	*3.5*
15	13:27	14.40	0.6	0.300	0.6	0.120	1.6053	1.00	1.6053	0.300	0.4811	4.6
16	13:28	15.40	0.6	0.250	0.6	0.100	3.0758	1.00	3.0758	0.250	0.7684	7.3
17	13:29	16.40	0.6	0.250	0.6	0.100	2.1926	1.00	2.1926	0.250	0.5492	5.2
18	*13:31*	*17.40*	*0.6*	*0.300*	*0.6*	*0.120*	*2.4199*	*1.00*	*2.4199*	*0.301*	*0.7290*	*6.9*
19	13:32	18.40	0.6	0.200	0.6	0.080	2.9888	1.00	2.9888	0.210	0.6281	6.0
20	13:32	19.50	None	0.100	0.0	0.0	0.0000	1.00	2.9888	0.055	0.1638	1.6

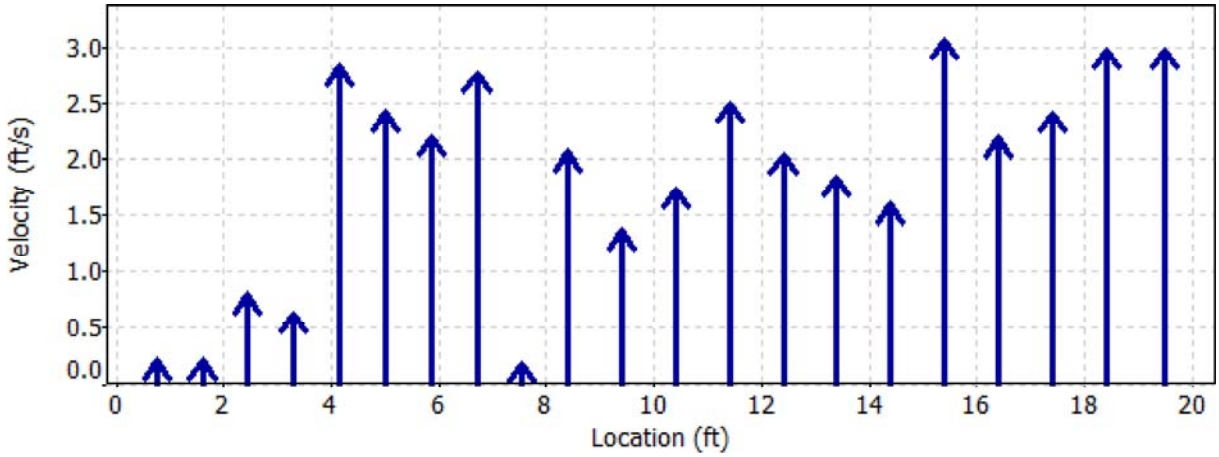
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

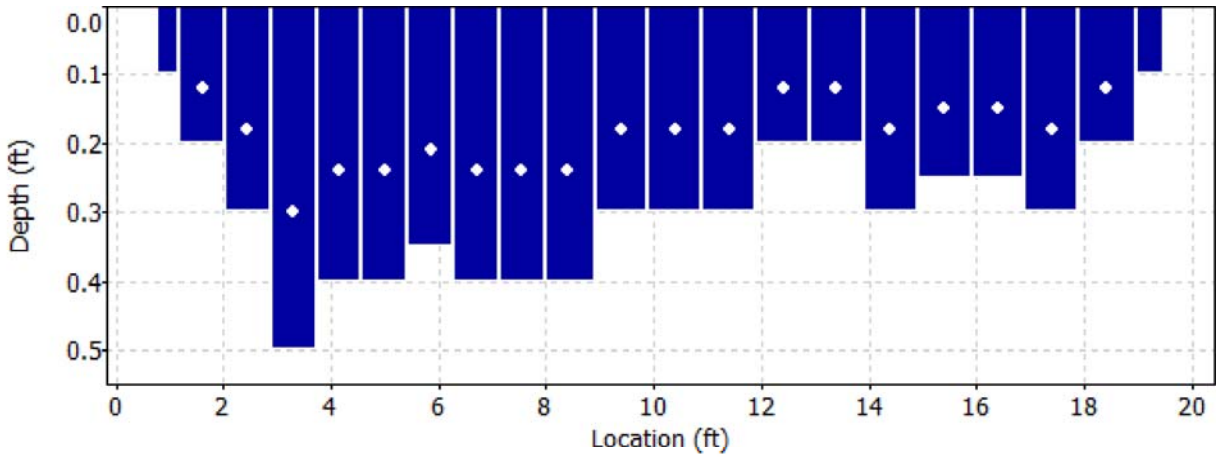
Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	CC02C.WAD	Site Name	
Start Date and Time	2017/07/11 13:10:48	Operator(s)	LC







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	CC02C.WAD
Start Date and Time	2017/07/11 13:10:48

Site Details

Site Name	
Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
1	1.60	0.6	High angle: 58
3	3.30	0.6	High angle: 21
4	4.15	0.6	High SNR variation during measurement: 4.3,8.6
		0.6	High standard error: 0.155
10	9.40	0.6	High angle: 30
11	10.40	0.6	High angle: 31
		0.6	High SNR variation during measurement: 3.0,6.9
		0.6	High standard error: 0.322
12	11.40	0.6	High angle: 21
13	12.40	0.6	High angle: 25
		0.6	SNR (56.3) is different from typical SNR (43.4)
14	13.40	0.6	High differences in beam SNR: 42.5,29.6
		0.6	High SNR variation during measurement: 3.0,9.9
		0.6	High standard error: 0.281
18	17.40	0.6	High angle: 23

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	CC15.WAD
Start Date and Time	2017/07/11 10:55:35

Site Details

Site Name	CC15
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.8%
Velocity	1.1%	6.2%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.3%	-
Overall	**3.3%**	**6.9%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	6.100
Mean SNR	39.6 dB	Total Area	2.489
Mean Temp	42.46 °F	Mean Depth	0.408
Disch. Equation	Mid-Section	Mean Velocity	2.5445
		Total Discharge	**6.3342**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:55	1.00	None	0.200	0.0	0.0	0.0000	1.00	1.9213	0.035	0.0673	1.1
1	10:55	1.35	0.6	0.200	0.6	0.080	1.9213	1.00	1.9213	0.070	0.1346	2.1
2	10:56	1.70	0.6	0.300	0.6	0.120	2.1716	1.00	2.1716	0.105	0.2280	3.6
3	10:57	2.05	0.6	0.500	0.6	0.200	2.5771	1.00	2.5771	0.175	0.4511	7.1
4	10:58	2.40	0.6	0.500	0.6	0.200	2.5679	1.00	2.5679	0.175	0.4495	7.1
5	*10:59*	*2.75*	*0.6*	*0.600*	*0.6*	*0.240*	*1.5531*	*1.00*	*1.5531*	*0.210*	*0.3263*	*5.2*
6	*11:00*	*3.10*	*0.6*	*0.600*	*0.6*	*0.240*	*1.5430*	*1.00*	*1.5430*	*0.210*	*0.3241*	*5.1*
7	11:01	3.45	0.6	0.600	0.6	0.240	1.7037	1.00	1.7037	0.210	0.3579	5.7
8	11:02	3.80	0.6	0.500	0.6	0.200	3.7976	1.00	3.7976	0.125	0.4744	7.5
9	*11:14*	*3.95*	*0.6*	*0.500*	*0.6*	*0.200*	*3.3888*	*1.00*	*3.3888*	*0.088*	*0.2966*	*4.7*
10	11:03	4.15	0.6	0.500	0.6	0.200	4.2651	1.00	4.2651	0.087	0.3729	5.9
11	*11:15*	*4.30*	*0.6*	*0.600*	*0.6*	*0.240*	*3.1991*	*1.00*	*3.1991*	*0.105*	*0.3360*	*5.3*
12	*11:05*	*4.50*	*0.6*	*0.600*	*0.6*	*0.240*	*4.9751*	*1.00*	*4.9751*	*0.105*	*0.5225*	*8.2*
13	*11:16*	*4.65*	*0.6*	*0.450*	*0.6*	*0.180*	*5.2198*	*1.00*	*5.2198*	*0.079*	*0.4113*	*6.5*
14	*11:06*	*4.85*	*0.6*	*0.600*	*0.6*	*0.240*	*4.5568*	*1.00*	*4.5568*	*0.090*	*0.4104*	*6.5*
15	*11:18*	*4.95*	*0.6*	*0.500*	*0.6*	*0.200*	*4.0299*	*1.00*	*4.0299*	*0.088*	*0.3527*	*5.6*
16	11:07	5.20	0.6	0.500	0.6	0.200	2.5269	1.00	2.5269	0.150	0.3795	6.0
17	*11:08*	*5.55*	*0.6*	*0.350*	*0.6*	*0.140*	*0.4692*	*1.00*	*0.4692*	*0.123*	*0.0575*	*0.9*
18	*11:09*	*5.90*	*0.6*	*0.300*	*0.6*	*0.120*	*2.0804*	*1.00*	*2.0804*	*0.105*	*0.2184*	*3.4*
19	*11:10*	*6.25*	*0.6*	*0.200*	*0.6*	*0.080*	*2.4990*	*1.00*	*2.4990*	*0.070*	*0.1751*	*2.8*
20	*11:12*	*6.60*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.1378*	*1.00*	*-0.1378*	*0.085*	*-0.0117*	*-0.2*
21	11:12	7.10	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

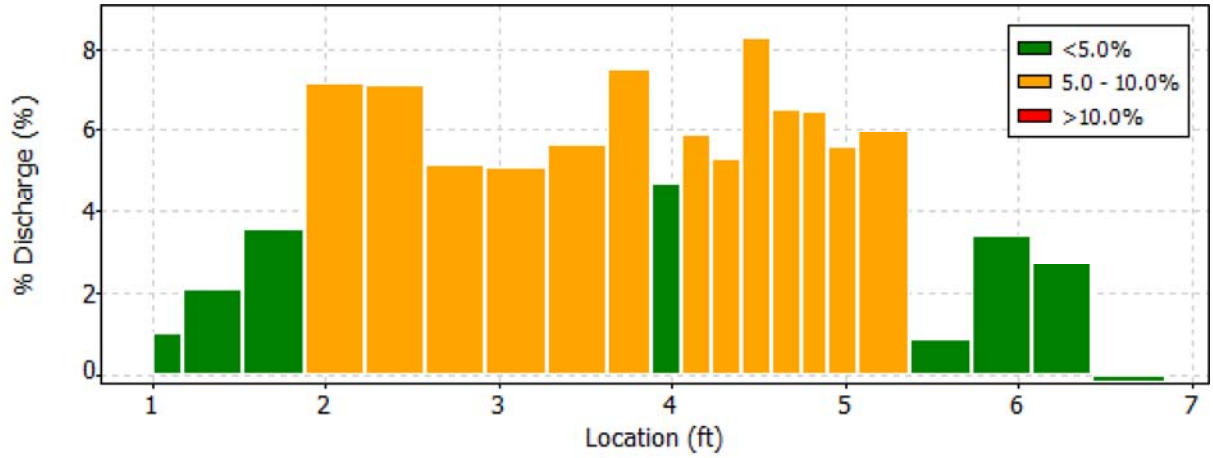
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

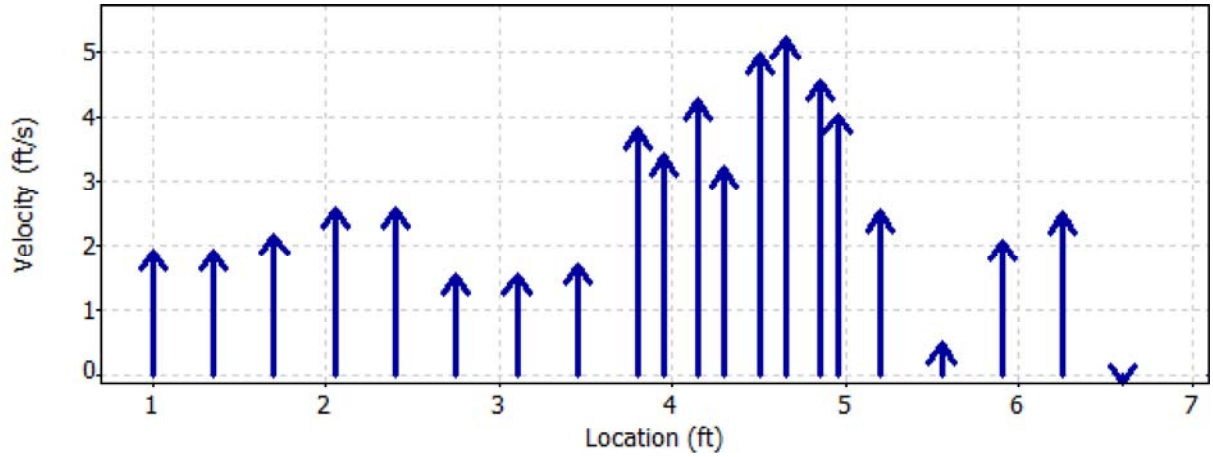
Discharge Measurement Summary

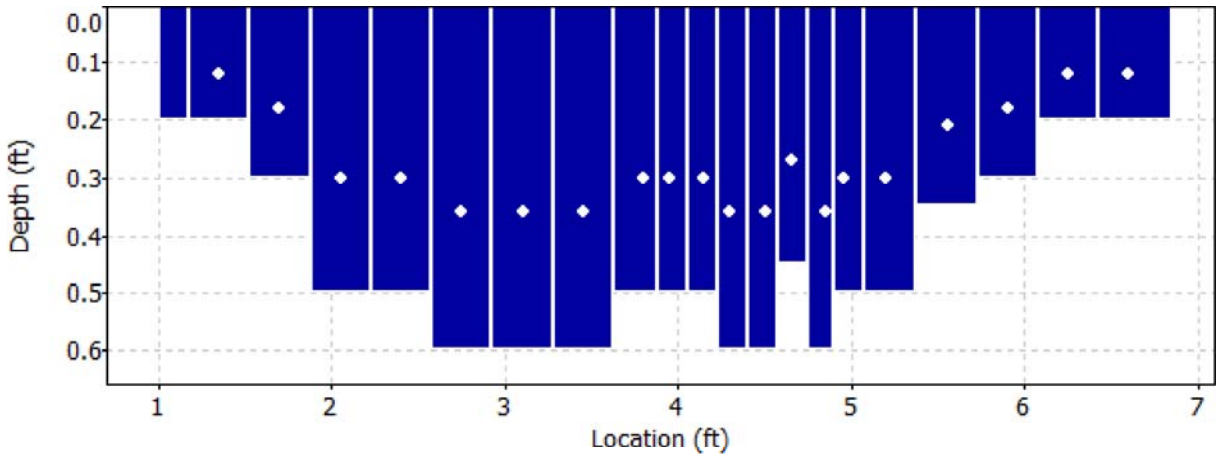
Date Generated: Mon Jul 17 2017

File Information	
File Name	CC15.WAD
Start Date and Time	2017/07/11 10:55:35

Site Details	
Site Name	CC15
Operator(s)	LC







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	CC15.WAD
Start Date and Time	2017/07/11 10:55:35

Site Details

Site Name	CC15
Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
5	2.75	0.6	High angle: -22
6	3.10	0.6	High standard error: 0.139
9	3.95	0.6	High angle: -25
11	4.30	0.6	High standard error: 0.164
12	4.50	0.6	High SNR variation during measurement: 3.0,8.2
13	4.65	0.6	High SNR variation during measurement: 3.9,9.5
14	4.85	0.6	High SNR variation during measurement: 2.1,5.2
15	4.95	0.6	High SNR variation during measurement: 1.7,5.2
17	5.55	0.6	High SNR variation during measurement: 4.3,5.2
18	5.90	0.6	High angle: -21
19	6.25	0.6	High angle: -22
20	6.60	0.6	High angle: -142

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	CC15A.WAD
Start Date and Time	2017/07/11 10:22:01

Site Details

Site Name	CC15A
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.4%
Velocity	1.3%	10.4%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.4%	-
Overall	**3.5%**	**10.7%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	REW	Total Width	5.800
Mean SNR	40.8 dB	Total Area	2.846
Mean Temp	42.28 °F	Mean Depth	0.491
Disch. Equation	Mid-Section	Mean Velocity	2.5317
		Total Discharge	**7.2064**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:22	0.90	None	0.100	0.0	0.0	0.0000	1.00	1.0374	0.015	0.0156	0.2
1	*10:22*	*1.20*	*0.6*	*0.450*	*0.6*	*0.180*	*1.0374*	*1.00*	*1.0374*	*0.135*	*0.1402*	*1.9*
2	10:23	1.50	0.6	0.400	0.6	0.160	0.5285	1.00	0.5285	0.120	0.0635	0.9
3	*10:24*	*1.80*	*0.6*	*0.600*	*0.6*	*0.240*	*3.1808*	*1.00*	*3.1808*	*0.180*	*0.5730*	*8.0*
4	10:24	2.10	0.6	0.600	0.6	0.240	3.3573	1.00	3.3573	0.180	0.6048	8.4
5	*10:25*	*2.40*	*0.6*	*0.650*	*0.6*	*0.260*	*2.2162*	*1.00*	*2.2162*	*0.195*	*0.4324*	*6.0*
6	10:27	2.70	0.6	0.600	0.6	0.240	2.8917	1.00	2.8917	0.180	0.5209	7.2
7	10:28	3.00	0.6	0.600	0.6	0.240	3.0085	1.00	3.0085	0.180	0.5420	7.5
8	10:29	3.30	0.6	0.600	0.6	0.240	3.3278	1.00	3.3278	0.180	0.5995	8.3
9	10:30	3.60	0.6	0.650	0.6	0.260	4.0591	1.00	4.0591	0.130	0.5258	7.3
10	*10:42*	*3.70*	*0.6*	*0.600*	*0.6*	*0.240*	*-0.0056*	*1.00*	*-0.0056*	*0.090*	*-0.0005*	*0.0*
11	*10:31*	*3.90*	*0.6*	*0.600*	*0.6*	*0.240*	*2.5377*	*1.00*	*2.5377*	*0.151*	*0.3822*	*5.3*
12	*10:33*	*4.20*	*0.6*	*0.400*	*0.6*	*0.160*	*1.9642*	*1.00*	*1.9642*	*0.120*	*0.2358*	*3.3*
13	*10:33*	*4.50*	*0.6*	*0.400*	*0.6*	*0.160*	*2.6686*	*1.00*	*2.6686*	*0.120*	*0.3204*	*4.4*
14	10:35	4.80	0.6	0.400	0.6	0.160	3.2411	1.00	3.2411	0.120	0.3891	5.4
15	10:36	5.10	0.6	0.500	0.6	0.200	3.7940	1.00	3.7940	0.150	0.5695	7.9
16	*10:38*	*5.40*	*0.6*	*0.600*	*0.6*	*0.240*	*3.7106*	*1.00*	*3.7106*	*0.180*	*0.6684*	*9.3*
17	*10:39*	*5.70*	*0.6*	*0.600*	*0.6*	*0.240*	*2.3392*	*1.00*	*2.3392*	*0.180*	*0.4214*	*5.8*
18	10:40	6.00	0.6	0.500	0.6	0.200	1.3356	1.00	1.3356	0.150	0.2005	2.8
19	*10:41*	*6.30*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0236*	*1.00*	*0.0236*	*0.070*	*0.0016*	*0.0*
20	10:41	6.70	None	0.100	0.0	0.0	0.0000	1.00	0.0236	0.020	0.0005	0.0

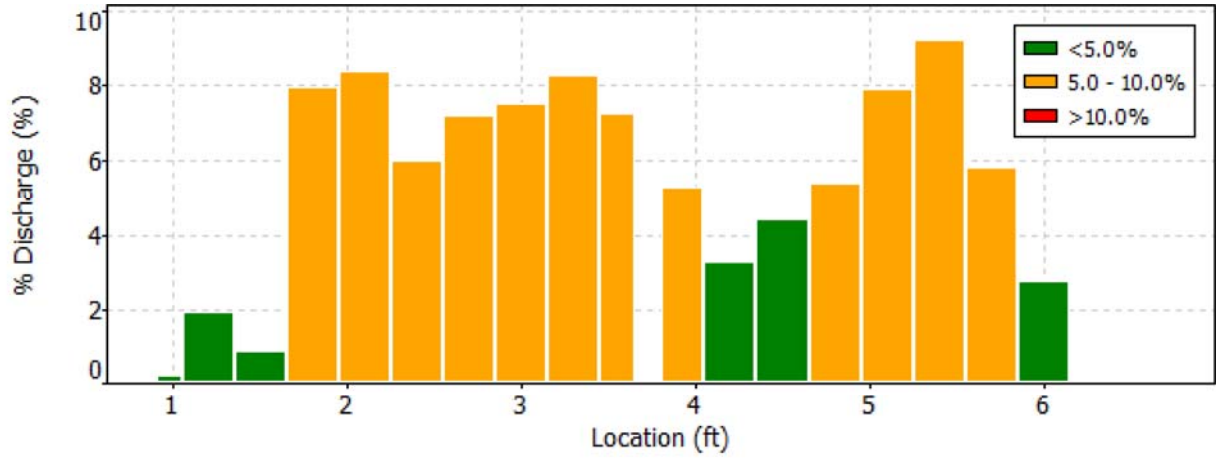
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

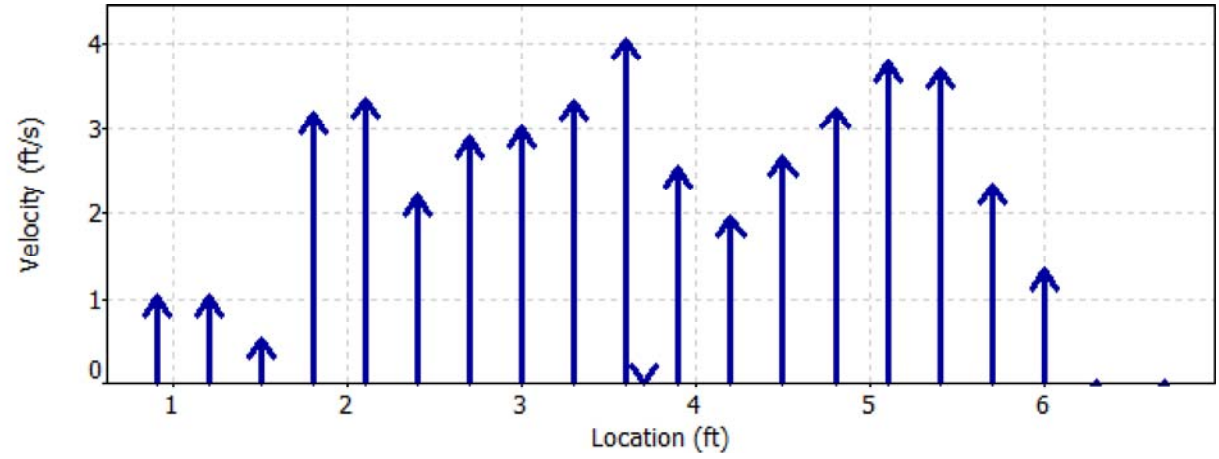
Discharge Measurement Summary

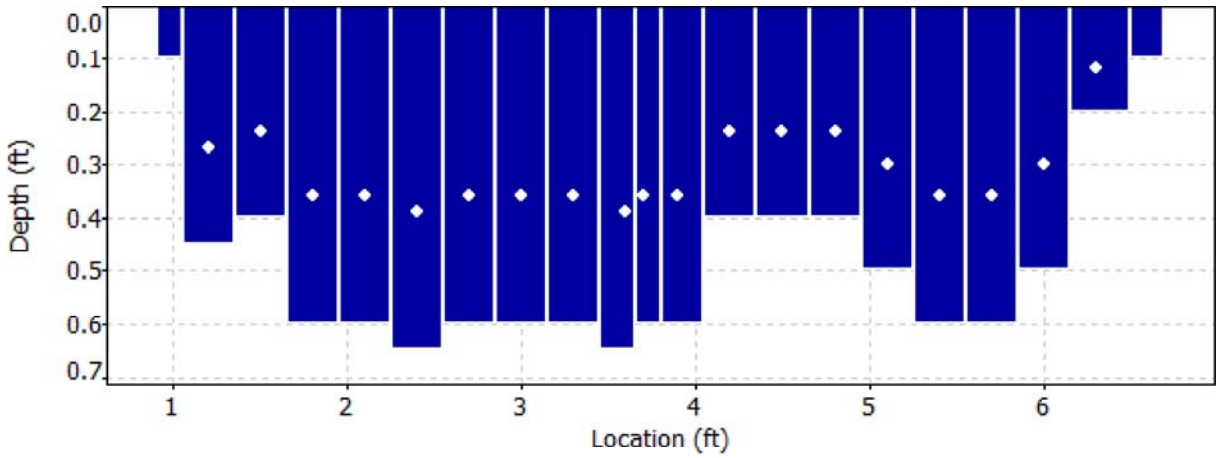
Date Generated: Mon Jul 17 2017

File Information	
File Name	CC15A.WAD
Start Date and Time	2017/07/11 10:22:01

Site Details	
Site Name	CC15A
Operator(s)	LC







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	CC15A.WAD
Start Date and Time	2017/07/11 10:22:01

Site Details

Site Name	CC15A
Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
1	1.20	0.6	High angle: -21
3	1.80	0.6	High standard error: 0.176
5	2.40	0.6	High standard error: 0.166
10	3.70	0.6	High number of spikes: 10
		0.6	High SNR variation during measurement: 6.9,2.6
11	3.90	0.6	High angle: -25
12	4.20	0.6	High angle: -30
13	4.50	0.6	High angle: -24
16	5.40	0.6	High SNR variation during measurement: 2.6,6.0
17	5.70	0.6	High SNR variation during measurement: 3.0,6.0
		0.6	High standard error: 0.261
19	6.30	0.6	High number of spikes: 7
		0.6	High differences in beam SNR: 63.6,47.2
		0.6	SNR (55.4) is different from typical SNR (40.8)
		0.6	High SNR variation during measurement: 3.4,10.8

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	CC16B.WAD
Start Date and Time	2017/07/11 09:47:01

Site Details

Site Name	CC16B
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.3%
Velocity	1.1%	8.7%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.4%	-
Overall	**3.5%**	**9.0%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	REW	Total Width	7.300
Mean SNR	37.9 dB	Total Area	3.395
Mean Temp	41.90 °F	Mean Depth	0.465
Disch. Equation	Mid-Section	Mean Velocity	2.3819
		Total Discharge	**8.0875**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:47	1.00	None	0.100	0.0	0.0	0.0000	1.00	0.6270	0.020	0.0125	0.2
1	09:47	1.40	0.6	0.200	0.6	0.080	0.6270	1.00	0.6270	0.080	0.0502	0.6
2	09:48	1.80	0.6	0.200	0.6	0.080	2.3438	1.00	2.3438	0.080	0.1876	2.3
3	*09:49*	*2.20*	*0.6*	*0.250*	*0.6*	*0.100*	*1.6752*	*1.00*	*1.6752*	*0.100*	*0.1675*	*2.1*
4	09:50	2.60	0.6	0.200	0.6	0.080	1.5269	1.00	1.5269	0.080	0.1222	1.5
5	09:51	3.00	0.6	0.250	0.6	0.100	1.2720	1.00	1.2720	0.100	0.1272	1.6
6	09:52	3.40	0.6	0.350	0.6	0.140	2.7792	1.00	2.7792	0.140	0.3891	4.8
7	*09:53*	*3.80*	*0.6*	*0.450*	*0.6*	*0.180*	*1.1699*	*1.00*	*1.1699*	*0.180*	*0.2106*	*2.6*
8	09:54	4.20	0.6	0.550	0.6	0.220	3.4780	1.00	3.4780	0.220	0.7649	9.5
9	09:56	4.60	0.6	0.650	0.6	0.260	3.0597	1.00	3.0597	0.260	0.7953	9.8
10	09:56	5.00	0.6	0.600	0.6	0.240	2.0410	1.00	2.0410	0.240	0.4898	6.1
11	*09:59*	*5.40*	*0.6*	*0.600*	*0.6*	*0.240*	*0.5948*	*1.00*	*0.5948*	*0.240*	*0.1427*	*1.8*
12	10:00	5.80	0.6	0.500	0.6	0.200	3.4419	1.00	3.4419	0.200	0.6883	8.5
13	10:01	6.20	0.6	0.500	0.6	0.200	3.0446	1.00	3.0446	0.200	0.6088	7.5
14	*10:02*	*6.60*	*0.6*	*0.400*	*0.6*	*0.160*	*2.3107*	*1.00*	*2.3107*	*0.160*	*0.3696*	*4.6*
15	10:03	7.00	0.6	0.650	0.6	0.260	3.4534	1.00	3.4534	0.195	0.6745	8.3
16	10:08	7.20	0.6	0.700	0.6	0.280	3.4659	1.00	3.4659	0.140	0.4852	6.0
17	10:04	7.40	0.6	0.750	0.6	0.300	3.3445	1.00	3.3445	0.225	0.7509	9.3
18	10:05	7.80	0.6	0.750	0.6	0.300	2.4980	1.00	2.4980	0.300	0.7493	9.3
19	10:06	8.20	0.6	0.800	0.6	0.320	1.2776	1.00	1.2776	0.200	0.2560	3.2
20	10:06	8.30	None	0.700	0.0	0.0	0.0000	1.00	1.2776	0.035	0.0452	0.6

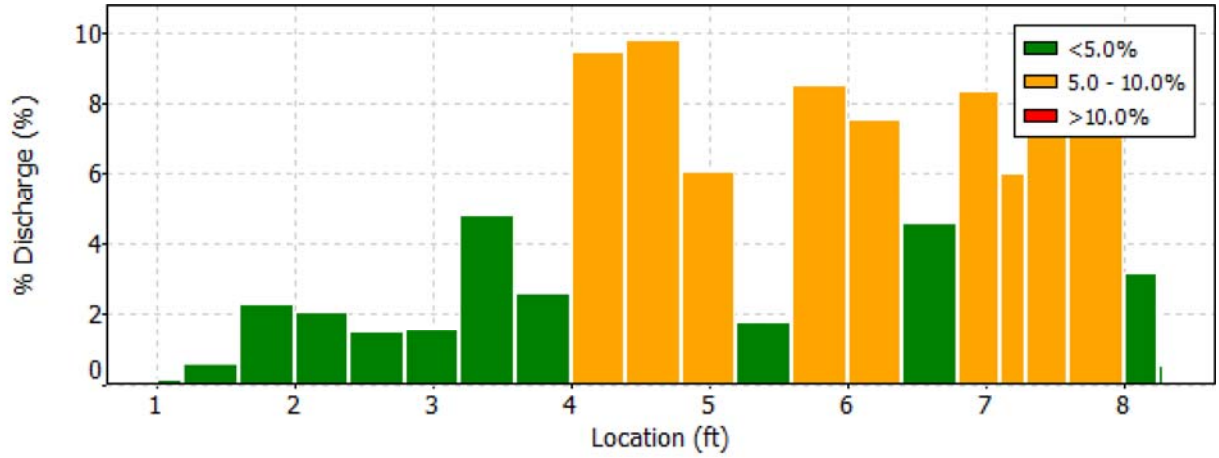
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

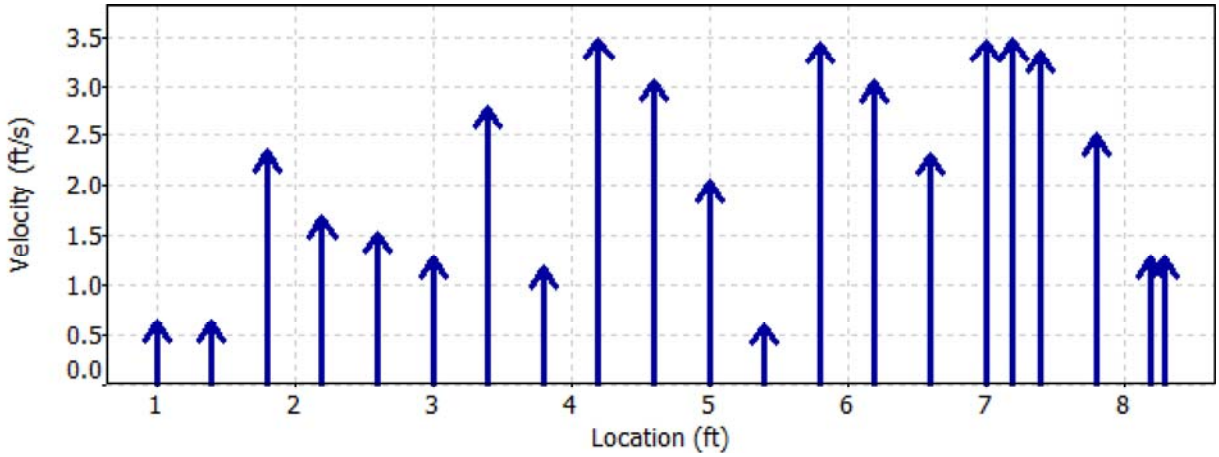
Discharge Measurement Summary

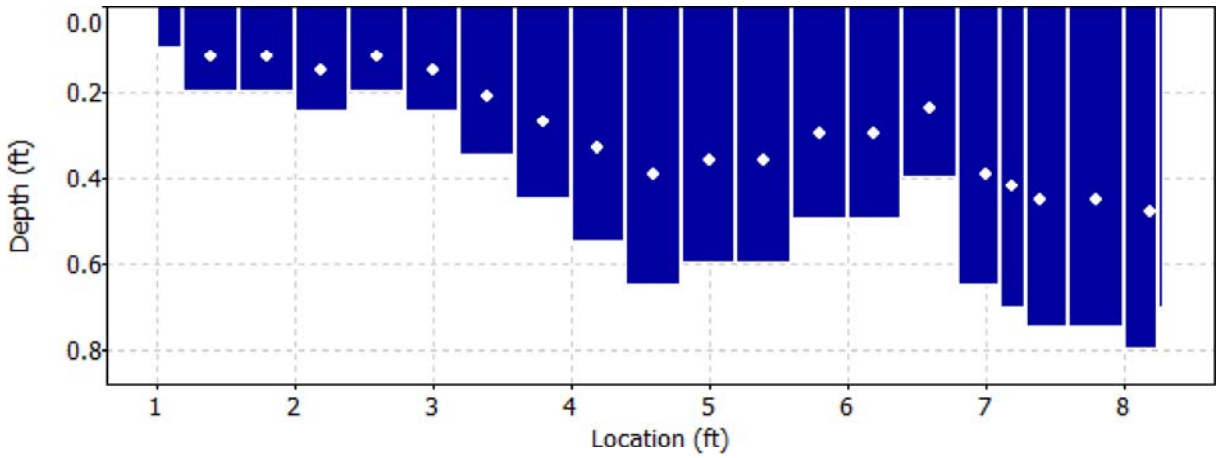
Date Generated: Mon Jul 17 2017

File Information	
File Name	CC16B.WAD
Start Date and Time	2017/07/11 09:47:01

Site Details	
Site Name	CC16B
Operator(s)	LC







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information	
File Name	CC16B.WAD
Start Date and Time	2017/07/11 09:47:01

Site Details	
Site Name	CC16B
Operator(s)	LC

Quality Control

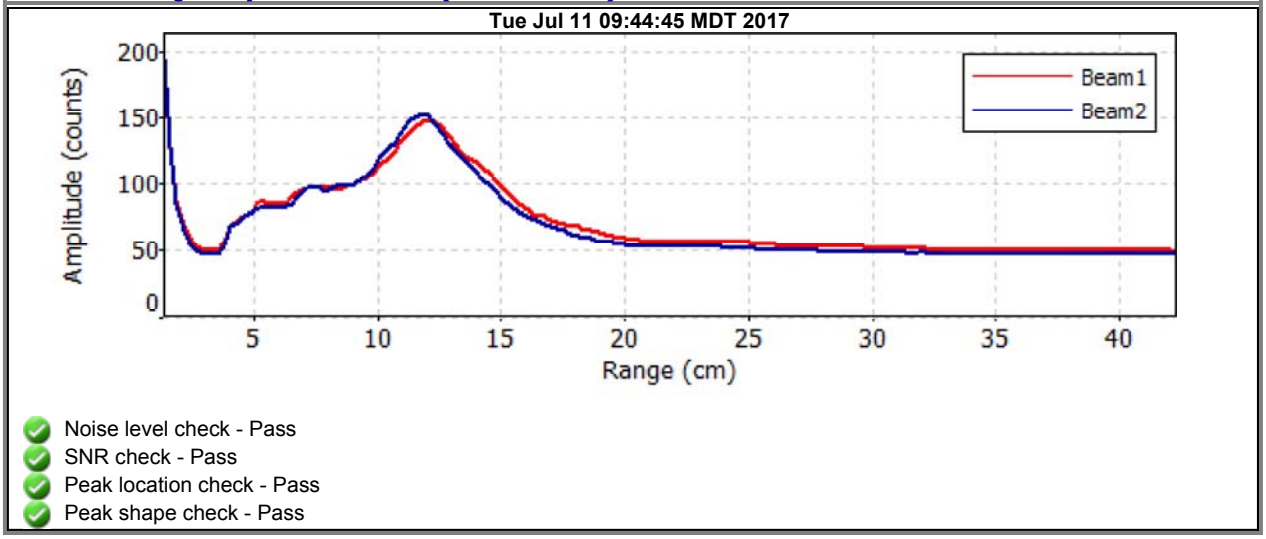
St	Loc	%Dep	Message
3	2.20	0.6	High angle: 22
7	3.80	0.6	High standard error: 0.174
11	5.40	0.6	High angle: -31
14	6.60	0.6	High standard error: 0.141

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	CC16B.WAD	Site Name	CC16B
Start Date and Time	2017/07/11 09:47:01	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A36.WAD
Start Date and Time	2017/07/11 10:02:57

Site Details

Site Name	A36
Operator(s)	LB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	4.2%
Velocity	3.1%	10.2%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.0%	-
Overall	**4.2%**	**11.1%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	LEW	Total Width	11.600
Mean SNR	46.2 dB	Total Area	7.036
Mean Temp	43.25 °F	Mean Depth	0.607
Disch. Equation	Mid-Section	Mean Velocity	2.4203
		Total Discharge	**17.0298**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:02	3.00	None	0.400	0.0	0.0	0.0000	1.00	0.1325	0.110	0.0146	0.1
1	10:02	3.55	0.6	0.400	0.6	0.160	0.1325	1.00	0.1325	0.220	0.0291	0.2
2	*10:04*	*4.10*	*0.6*	*0.500*	*0.6*	*0.200*	*1.2156*	*1.00*	*1.2156*	*0.275*	*0.3342*	*2.0*
3	*10:05*	*4.65*	*0.6*	*0.350*	*0.6*	*0.140*	*2.0784*	*1.00*	*2.0784*	*0.192*	*0.4001*	*2.3*
4	*10:06*	*5.20*	*0.6*	*0.400*	*0.6*	*0.160*	*2.5180*	*1.00*	*2.5180*	*0.220*	*0.5537*	*3.3*
5	*10:07*	*5.75*	*0.6*	*0.400*	*0.6*	*0.160*	*2.6024*	*1.00*	*2.6024*	*0.220*	*0.5723*	*3.4*
6	*10:09*	*6.30*	*0.6*	*0.400*	*0.6*	*0.160*	*2.0039*	*1.00*	*2.0039*	*0.220*	*0.4407*	*2.6*
7	*10:10*	*6.85*	*0.6*	*0.400*	*0.6*	*0.160*	*0.6558*	*1.00*	*0.6558*	*0.220*	*0.1442*	*0.8*
8	10:13	7.40	0.6	0.900	0.6	0.360	1.6962	1.00	1.6962	0.495	0.8394	4.9
9	10:14	7.95	0.6	0.900	0.6	0.360	1.3038	1.00	1.3038	0.495	0.6452	3.8
10	10:15	8.50	0.6	1.000	0.6	0.400	2.7825	1.00	2.7825	0.476	1.3232	7.8
11	10:34	8.90	0.6	1.100	0.6	0.440	3.1568	1.00	3.1568	0.302	0.9548	5.6
12	*10:16*	*9.05*	*0.6*	*1.100*	*0.6*	*0.440*	*4.8504*	*1.00*	*4.8504*	*0.220*	*1.0670*	*6.3*
13	10:31	9.30	0.6	1.100	0.6	0.440	5.7247	1.00	5.7247	0.248	1.4215	8.3
14	10:37	9.50	0.6	1.100	0.6	0.440	5.7500	1.00	5.7500	0.164	0.9442	5.5
15	10:17	9.60	0.6	0.900	0.6	0.360	5.8691	1.00	5.8691	0.135	0.7919	4.7
16	*10:33*	*9.80*	*0.6*	*1.000*	*0.6*	*0.400*	*2.6942*	*1.00*	*2.6942*	*0.275*	*0.7407*	*4.3*
17	10:19	10.15	0.6	1.000	0.6	0.400	1.2313	1.00	1.2313	0.449	0.5530	3.2
18	*10:20*	*10.70*	*0.6*	*0.800*	*0.6*	*0.320*	*-0.5564*	*1.00*	*-0.5564*	*0.440*	*-0.2447*	*-1.4*
19	*10:21*	*11.25*	*0.6*	*0.500*	*0.6*	*0.200*	*5.6463*	*1.00*	*5.6463*	*0.275*	*1.5524*	*9.1*
20	*10:22*	*11.80*	*0.6*	*0.800*	*0.6*	*0.320*	*3.8730*	*1.00*	*3.8730*	*0.440*	*1.7034*	*10.0*
21	10:24	12.35	0.6	0.600	0.6	0.240	3.5781	1.00	3.5781	0.330	1.1806	6.9
22	10:25	12.90	0.6	0.600	0.6	0.240	2.0659	1.00	2.0659	0.330	0.6817	4.0
23	10:27	13.45	0.6	0.200	0.6	0.080	2.3396	1.00	2.3396	0.110	0.2575	1.5
24	*10:28*	*14.00*	*0.6*	*0.200*	*0.6*	*0.080*	*0.7349*	*1.00*	*0.7349*	*0.115*	*0.0848*	*0.5*
25	10:28	14.60	None	0.200	0.0	0.0	0.0000	1.00	0.7349	0.060	0.0443	0.3

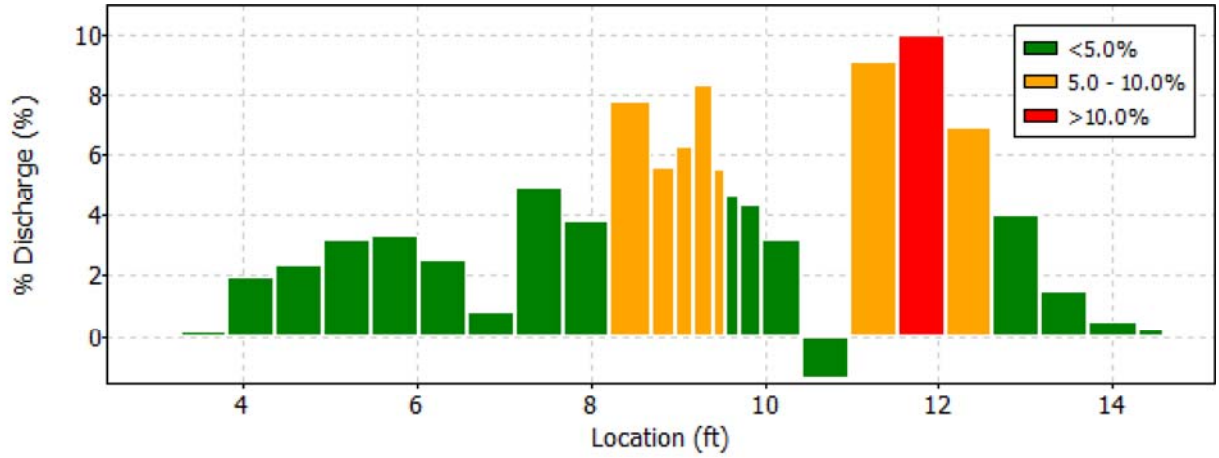
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

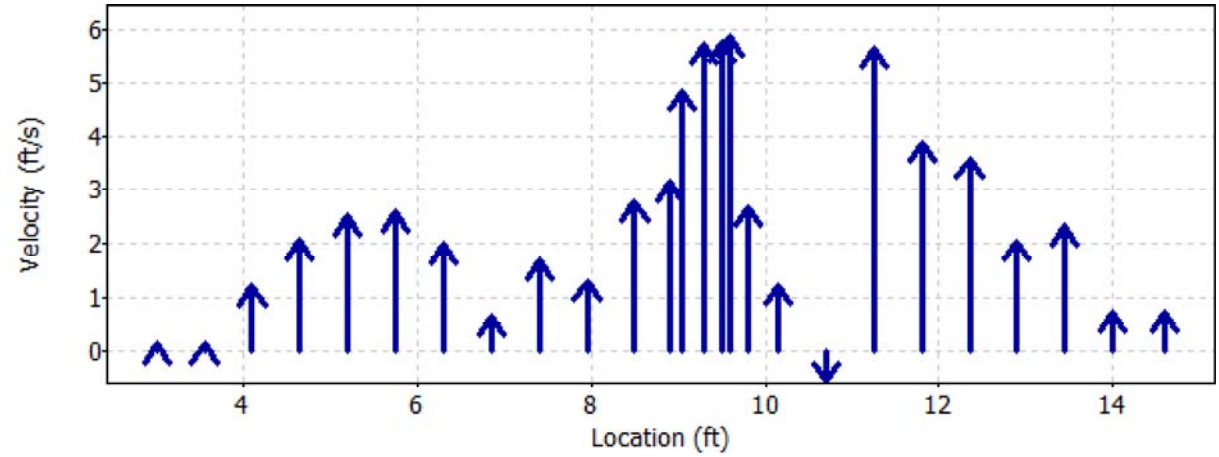
Discharge Measurement Summary

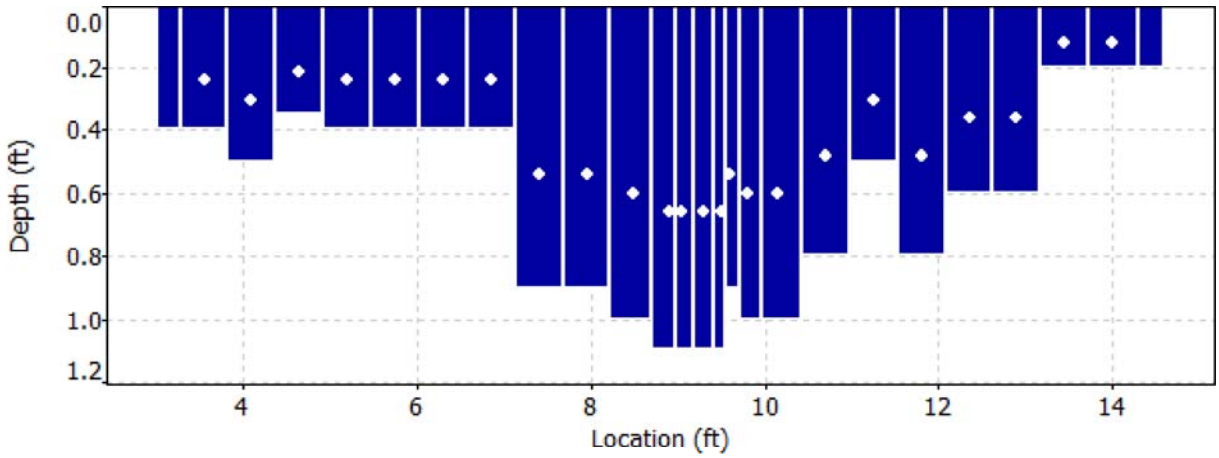
Date Generated: Mon Jul 17 2017

File Information	
File Name	A36.WAD
Start Date and Time	2017/07/11 10:02:57

Site Details	
Site Name	A36
Operator(s)	LB







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A36.WAD	Site Name	A36
Start Date and Time	2017/07/11 10:02:57	Operator(s)	LB

Quality Control

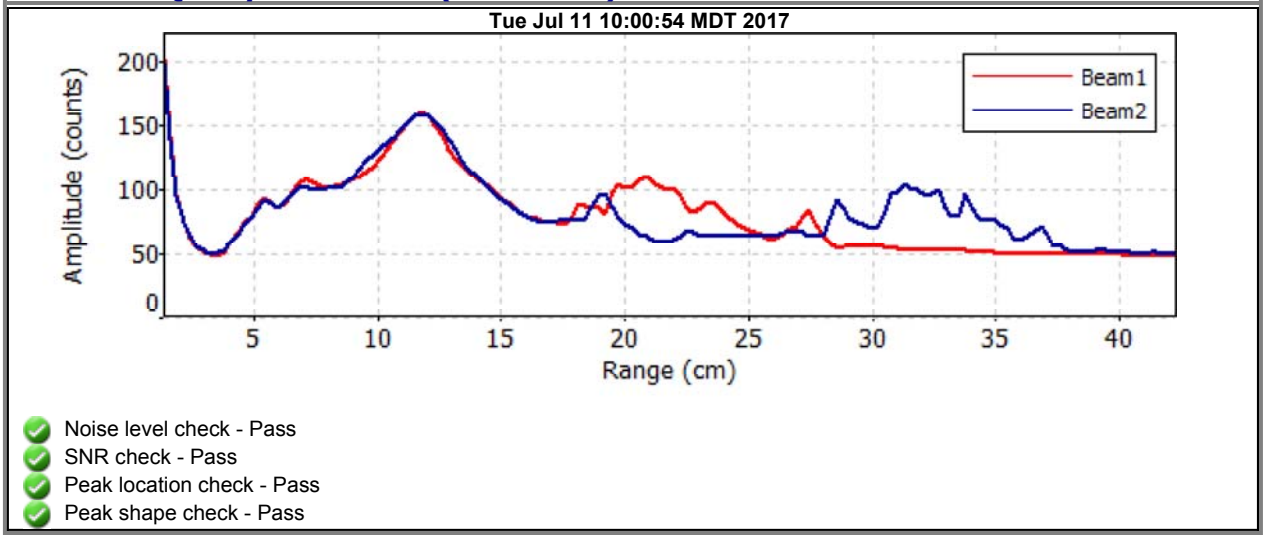
St	Loc	%Dep	Message
2	4.10	0.6	High angle: 33
3	4.65	0.6	High angle: 31
4	5.20	0.6	High angle: 29
5	5.75	0.6	High angle: 27
6	6.30	0.6	High angle: 37
		0.6	High differences in beam SNR: 45.1,23.6
		0.6	SNR (34.4) is different from typical SNR (46.2)
		0.6	High SNR variation during measurement: 3.4,18.1
		0.6	High standard error: 0.281
7	6.85	0.6	High SNR variation during measurement: 1.7,12.0
12	9.05	0.6	High number of spikes: 5
16	9.80	0.6	High standard error: 0.291
18	10.70	0.6	High angle: -153
		0.6	High standard error: 0.956
19	11.25	0.6	High SNR variation during measurement: 3.4,6.0
		0.6	Boundary QC is Good; possible boundary interference
20	11.80	0.6	High SNR variation during measurement: 3.9,10.3
		0.6	High standard error: 0.419
24	14.00	0.6	High angle: 23

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A36.WAD	Site Name	A36
Start Date and Time	2017/07/11 10:02:57	Operator(s)	LB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A36A.WAD
Start Date and Time	2017/07/12 09:02:42

Site Details

Site Name	A36A
Operator(s)	LB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	3.7%
Velocity	1.2%	7.2%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.1%	-
Overall	**3.2%**	**8.2%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	LEW	Total Width	12.601
Mean SNR	46.4 dB	Total Area	7.351
Mean Temp	42.30 °F	Mean Depth	0.583
Disch. Equation	Mid-Section	Mean Velocity	2.6887
		Total Discharge	**19.7641**

Measurement Results

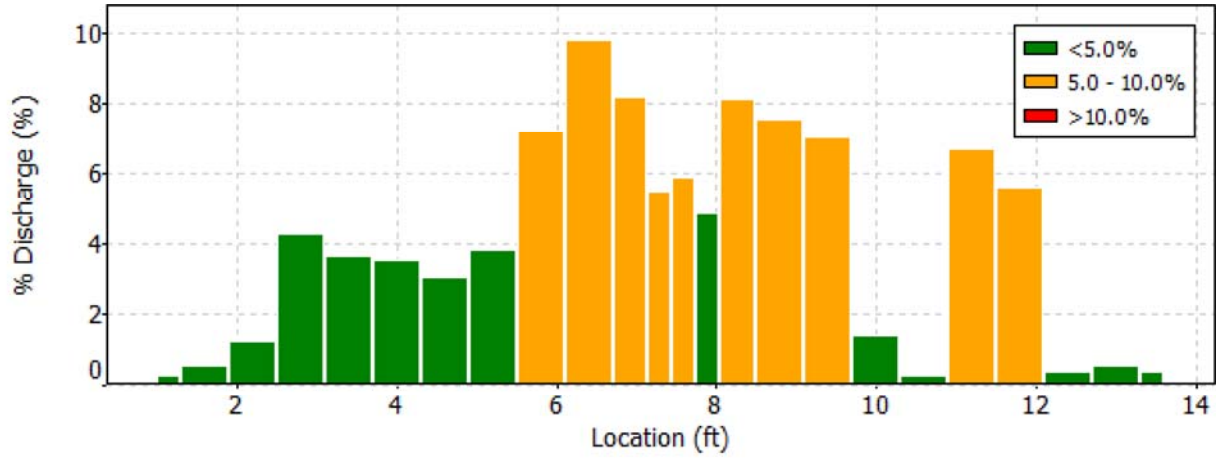
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:02	1.00	None	0.400	0.0	0.0	0.0000	1.00	0.4232	0.120	0.0508	0.3
1	09:02	1.60	0.6	0.400	0.6	0.160	0.4232	1.00	0.4232	0.240	0.1016	0.5
2	09:03	2.20	0.6	0.200	0.6	0.080	2.0528	1.00	2.0528	0.120	0.2465	1.2
3	09:05	2.80	0.6	0.600	0.6	0.240	2.3743	1.00	2.3743	0.360	0.8550	4.3
4	*09:07*	*3.40*	*0.6*	*0.700*	*0.6*	*0.280*	*1.7359*	*1.00*	*1.7359*	*0.420*	*0.7293*	*3.7*
5	09:08	4.00	0.6	0.700	0.6	0.280	1.6900	1.00	1.6900	0.420	0.7100	3.6
6	*09:09*	*4.60*	*0.6*	*0.600*	*0.6*	*0.240*	*1.6650*	*1.00*	*1.6650*	*0.360*	*0.5995*	*3.0*
7	09:11	5.20	0.6	0.700	0.6	0.280	1.8205	1.00	1.8205	0.420	0.7649	3.9
8	*09:12*	*5.80*	*0.6*	*1.000*	*0.6*	*0.400*	*2.3832*	*1.00*	*2.3832*	*0.600*	*1.4301*	*7.2*
9	*09:13*	*6.40*	*0.6*	*0.800*	*0.6*	*0.320*	*4.0571*	*1.00*	*4.0571*	*0.480*	*1.9473*	*9.9*
10	09:15	7.00	0.6	0.800	0.6	0.320	4.4925	1.00	4.4925	0.360	1.6157	8.2
11	09:29	7.30	0.6	0.800	0.6	0.320	4.5509	1.00	4.5509	0.240	1.0921	5.5
12	09:16	7.60	0.6	0.800	0.6	0.320	4.8412	1.00	4.8412	0.240	1.1618	5.9
13	09:31	7.90	0.6	0.700	0.6	0.280	4.5715	1.00	4.5715	0.210	0.9603	4.9
14	09:17	8.20	0.6	0.800	0.6	0.320	4.4541	1.00	4.4541	0.360	1.6048	8.1
15	09:18	8.80	0.6	0.700	0.6	0.280	3.5620	1.00	3.5620	0.420	1.4965	7.6
16	09:19	9.40	0.6	0.700	0.6	0.280	3.3071	1.00	3.3071	0.420	1.3894	7.0
17	*09:20*	*10.00*	*0.6*	*0.400*	*0.6*	*0.160*	*1.1726*	*1.00*	*1.1726*	*0.240*	*0.2814*	*1.4*
18	*09:22*	*10.60*	*0.6*	*0.400*	*0.6*	*0.160*	*0.2165*	*1.00*	*0.2165*	*0.240*	*0.0520*	*0.3*
19	*09:23*	*11.20*	*0.6*	*0.500*	*0.6*	*0.200*	*4.4006*	*1.00*	*4.4006*	*0.300*	*1.3203*	*6.7*
20	*09:25*	*11.80*	*0.6*	*0.400*	*0.6*	*0.160*	*4.6253*	*1.00*	*4.6253*	*0.240*	*1.1100*	*5.6*
21	*09:26*	*12.40*	*0.6*	*0.400*	*0.6*	*0.160*	*0.3143*	*1.00*	*0.3143*	*0.240*	*0.0754*	*0.4*
22	*09:27*	*13.00*	*0.6*	*0.300*	*0.6*	*0.120*	*0.5646*	*1.00*	*0.5646*	*0.180*	*0.1016*	*0.5*
23	09:27	13.60	None	0.400	0.0	0.0	0.0000	1.00	0.5646	0.120	0.0678	0.3

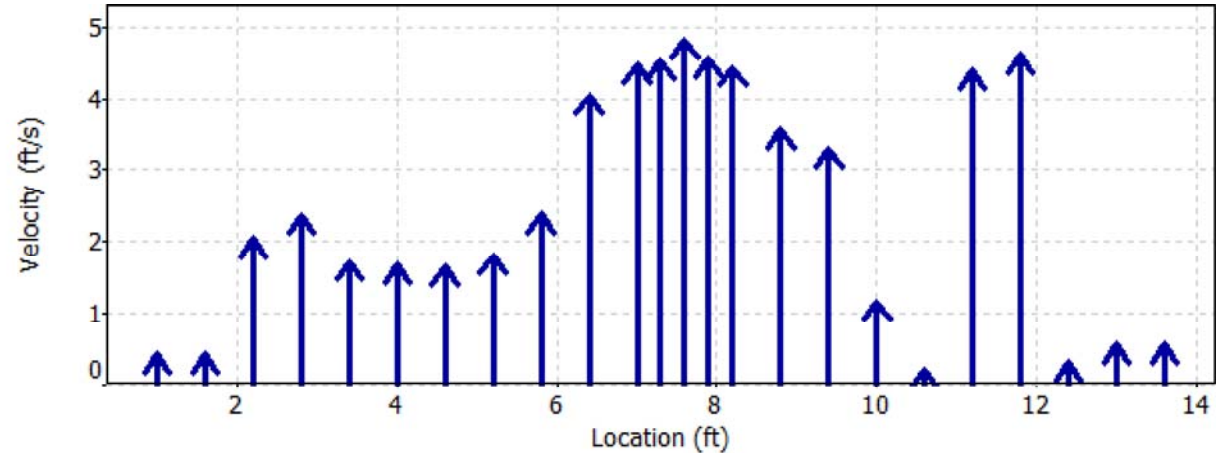
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

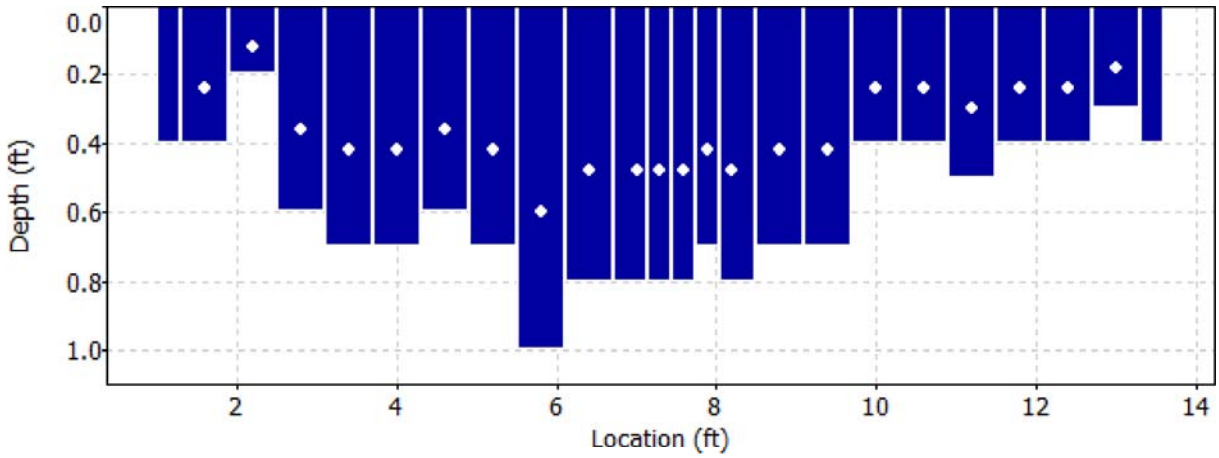
Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A36A.WAD	Site Name	A36A
Start Date and Time	2017/07/12 09:02:42	Operator(s)	LB







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A36A.WAD
Start Date and Time	2017/07/12 09:02:42

Site Details

Site Name	A36A
Operator(s)	LB

Quality Control

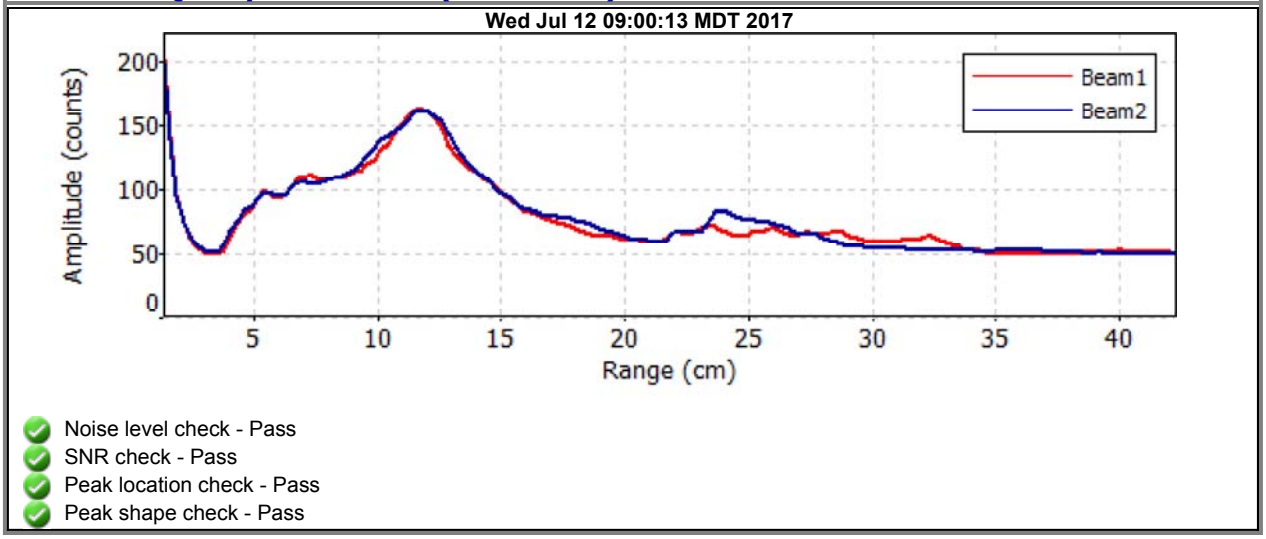
St	Loc	%Dep	Message
4	3.40	0.6	High angle: -25
6	4.60	0.6	High angle: 24
8	5.80	0.6	High angle: 34
9	6.40	0.6	High angle: 22
17	10.00	0.6	High SNR variation during measurement: 3.9,8.2
		0.6	High standard error: 0.270
18	10.60	0.6	High angle: -29
		0.6	High standard error: 0.351
		0.6	Boundary QC is Good; possible boundary interference
19	11.20	0.6	High number of spikes: 5
		0.6	High SNR variation during measurement: 5.6,13.3
20	11.80	0.6	High SNR variation during measurement: 3.0,6.9
21	12.40	0.6	High angle: 33
		0.6	High standard error: 0.189
22	13.00	0.6	High angle: 73

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A36A.WAD	Site Name	A36A
Start Date and Time	2017/07/12 09:02:42	Operator(s)	LB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	EG1.WAD
Start Date and Time	2017/07/12 15:19:59

Site Details

Site Name	EG1
Operator(s)	LB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	0.8%
Velocity	0.8%	2.4%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.3%	-
Overall	**3.2%**	**2.7%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	5.250
Mean SNR	30.6 dB	Total Area	4.262
Mean Temp	39.46 °F	Mean Depth	0.812
Disch. Equation	Mid-Section	Mean Velocity	0.8542
		Total Discharge	**3.6410**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:19	5.80	None	0.700	0.0	0.0	0.0000	1.00	0.6765	0.088	0.0592	1.6
1	*15:19*	*6.05*	*0.6*	*0.700*	*0.6*	*0.280*	*0.6765*	*1.00*	*0.6765*	*0.175*	*0.1184*	*3.3*
2	*15:20*	*6.30*	*0.6*	*0.700*	*0.6*	*0.280*	*0.8343*	*1.00*	*0.8343*	*0.175*	*0.1460*	*4.0*
3	*15:21*	*6.55*	*0.6*	*0.700*	*0.6*	*0.280*	*0.8714*	*1.00*	*0.8714*	*0.175*	*0.1525*	*4.2*
4	*15:23*	*6.80*	*0.6*	*0.700*	*0.6*	*0.280*	*1.1155*	*1.00*	*1.1155*	*0.175*	*0.1952*	*5.4*
5	*15:24*	*7.05*	*0.6*	*0.700*	*0.6*	*0.280*	*1.0994*	*1.00*	*1.0994*	*0.175*	*0.1924*	*5.3*
6	*15:25*	*7.30*	*0.6*	*0.800*	*0.6*	*0.320*	*1.2346*	*1.00*	*1.2346*	*0.200*	*0.2469*	*6.8*
7	*15:26*	*7.55*	*0.6*	*0.900*	*0.6*	*0.360*	*1.0948*	*1.00*	*1.0948*	*0.225*	*0.2463*	*6.8*
8	*15:27*	*7.80*	*0.6*	*0.900*	*0.6*	*0.360*	*1.0696*	*1.00*	*1.0696*	*0.225*	*0.2406*	*6.6*
9	*15:28*	*8.05*	*0.6*	*0.900*	*0.6*	*0.360*	*0.9022*	*1.00*	*0.9022*	*0.225*	*0.2030*	*5.6*
10	15:29	8.30	0.6	1.000	0.6	0.400	1.1335	1.00	1.1335	0.250	0.2834	7.8
11	15:30	8.55	0.6	1.000	0.6	0.400	1.2221	1.00	1.2221	0.250	0.3055	8.4
12	15:31	8.80	0.6	1.000	0.6	0.400	1.1923	1.00	1.1923	0.250	0.2981	8.2
13	*15:32*	*9.05*	*0.6*	*0.900*	*0.6*	*0.360*	*1.0719*	*1.00*	*1.0719*	*0.225*	*0.2411*	*6.6*
14	*15:33*	*9.30*	*0.6*	*0.900*	*0.6*	*0.360*	*1.0394*	*1.00*	*1.0394*	*0.225*	*0.2338*	*6.4*
15	*15:34*	*9.55*	*0.6*	*0.900*	*0.6*	*0.360*	*0.9026*	*1.00*	*0.9026*	*0.225*	*0.2031*	*5.6*
16	*15:35*	*9.80*	*0.6*	*0.800*	*0.6*	*0.320*	*0.6919*	*1.00*	*0.6919*	*0.200*	*0.1384*	*3.8*
17	*15:36*	*10.05*	*0.6*	*0.800*	*0.6*	*0.320*	*0.4537*	*1.00*	*0.4537*	*0.200*	*0.0907*	*2.5*
18	*15:37*	*10.30*	*0.6*	*0.800*	*0.6*	*0.320*	*0.1900*	*1.00*	*0.1900*	*0.200*	*0.0380*	*1.0*
19	*15:38*	*10.55*	*0.6*	*0.800*	*0.6*	*0.320*	*-0.1388*	*1.00*	*-0.1388*	*0.200*	*-0.0278*	*-0.8*
20	*15:39*	*10.80*	*0.6*	*0.800*	*0.6*	*0.320*	*0.1798*	*1.00*	*0.1798*	*0.200*	*0.0360*	*1.0*
21	15:39	11.05	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

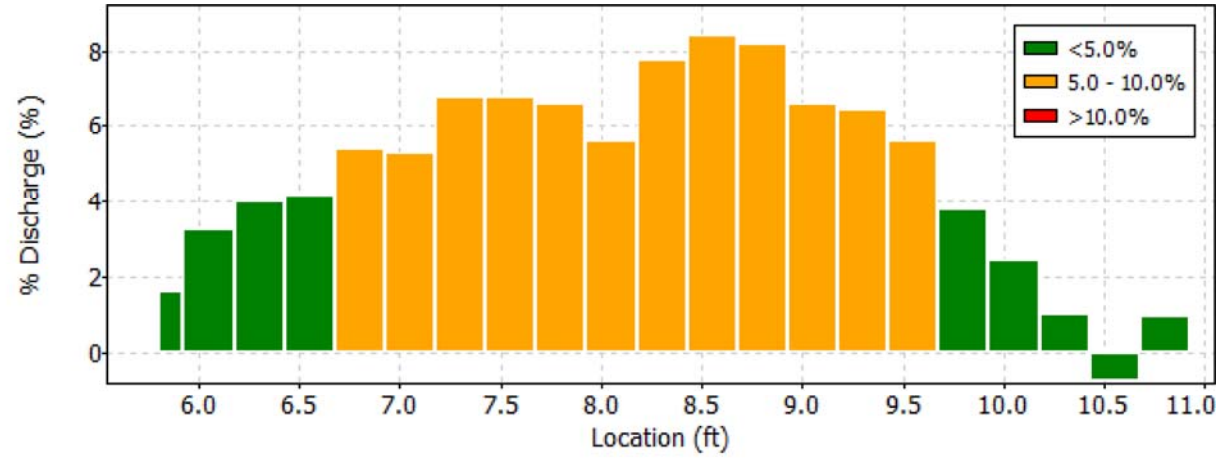
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

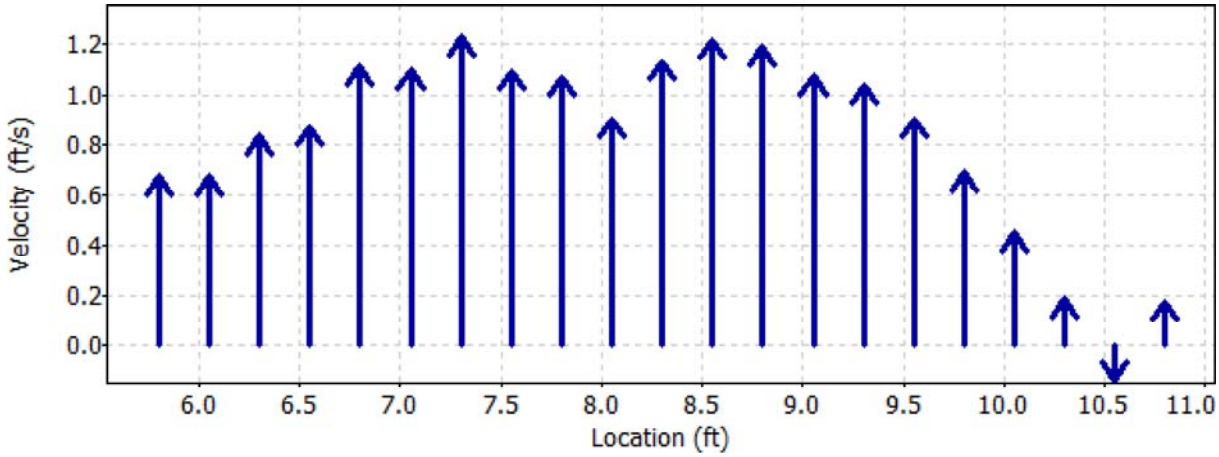
Discharge Measurement Summary

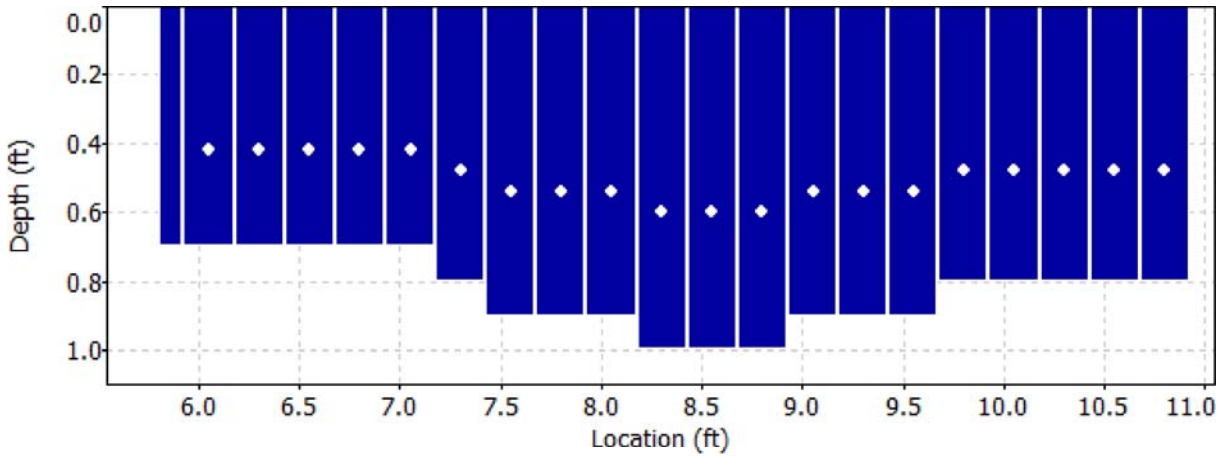
Date Generated: Mon Jul 17 2017

File Information	
File Name	EG1.WAD
Start Date and Time	2017/07/12 15:19:59

Site Details	
Site Name	EG1
Operator(s)	LB







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	EG1.WAD	Site Name	EG1
Start Date and Time	2017/07/12 15:19:59	Operator(s)	LB

Quality Control

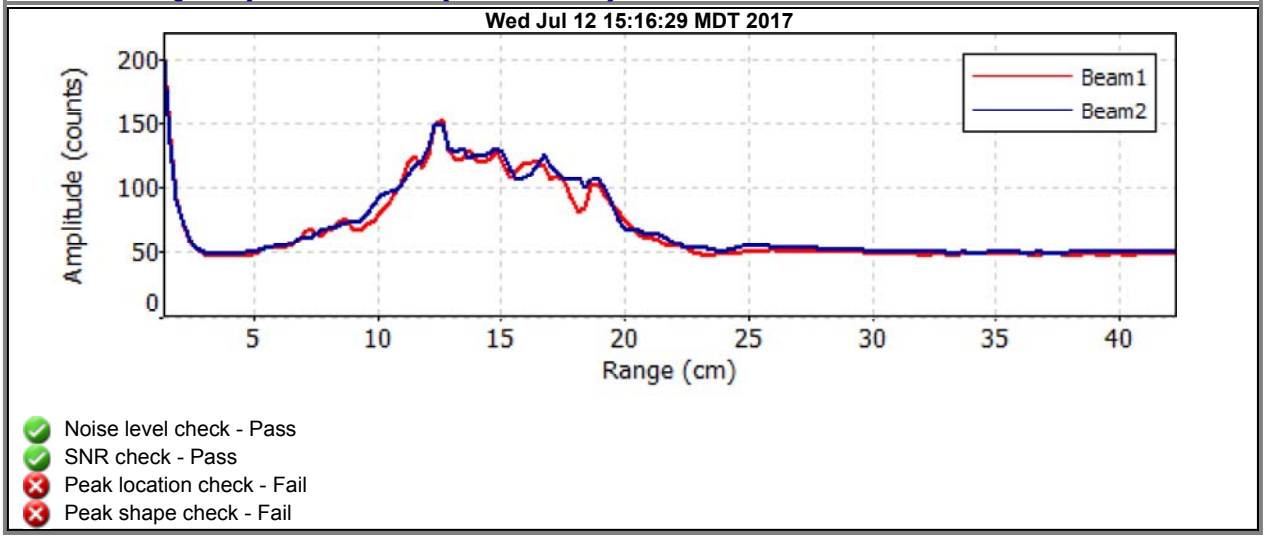
St	Loc	%Dep	Message
1	6.05	0.6	High angle: 21
2	6.30	0.6	High angle: 26
3	6.55	0.6	High angle: 33
4	6.80	0.6	High angle: 27
5	7.05	0.6	High angle: 21
6	7.30	0.6	High angle: 31
7	7.55	0.6	High angle: 24
8	7.80	0.6	High angle: 26
9	8.05	0.6	High angle: 27
13	9.05	0.6	High angle: 25
14	9.30	0.6	High angle: 25
15	9.55	0.6	High angle: 29
16	9.80	0.6	High angle: 40
17	10.05	0.6	High angle: 38
18	10.30	0.6	High angle: 26
19	10.55	0.6	High angle: 176
		0.6	Boundary QC is Fair; possible boundary interference
20	10.80	0.6	Boundary QC is Fair; possible boundary interference

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	EG1.WAD	Site Name	EG1
Start Date and Time	2017/07/12 15:19:59	Operator(s)	LB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Fail
- Peak shape check - Fail

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	EG3.WAD
Start Date and Time	2017/07/12 12:17:33

Site Details

Site Name	EG3
Operator(s)	LB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.4%
Velocity	1.1%	7.9%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.4%	-
Overall	**3.4%**	**8.3%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	LEW	Total Width	3.600
Mean SNR	44.3 dB	Total Area	2.080
Mean Temp	44.29 °F	Mean Depth	0.578
Disch. Equation	Mid-Section	Mean Velocity	2.2348
		Total Discharge	**4.6482**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	12:17	2.00	None	0.600	0.0	0.0	0.0000	1.00	-0.0020	0.060	-0.0001	0.0
1	*12:17*	*2.20*	*0.6*	*0.600*	*0.6*	*0.240*	*-0.0020*	*1.00*	*-0.0020*	*0.120*	*-0.0002*	*0.0*
2	12:20	2.40	0.6	0.600	0.6	0.240	1.1362	1.00	1.1362	0.120	0.1362	2.9
3	12:22	2.60	0.6	0.600	0.6	0.240	3.0207	1.00	3.0207	0.120	0.3622	7.8
4	12:23	2.80	0.6	0.700	0.6	0.280	3.5912	1.00	3.5912	0.105	0.3774	8.1
5	12:40	2.90	0.6	0.600	0.6	0.240	2.5276	1.00	2.5276	0.060	0.1515	3.3
6	12:24	3.00	0.6	0.700	0.6	0.280	2.5784	1.00	2.5784	0.105	0.2701	5.8
7	12:25	3.20	0.6	0.600	0.6	0.240	3.4268	1.00	3.4268	0.090	0.3090	6.6
8	*12:42*	*3.30*	*0.6*	*0.600*	*0.6*	*0.240*	*3.2595*	*1.00*	*3.2595*	*0.060*	*0.1954*	*4.2*
9	12:26	3.40	0.6	0.600	0.6	0.240	3.6880	1.00	3.6880	0.090	0.3307	7.1
10	12:27	3.60	0.6	0.600	0.6	0.240	3.4744	1.00	3.4744	0.120	0.4166	9.0
11	*12:28*	*3.80*	*0.6*	*0.400*	*0.6*	*0.160*	*3.8533*	*1.00*	*3.8533*	*0.080*	*0.3079*	*6.6*
12	*12:29*	*4.00*	*0.6*	*0.400*	*0.6*	*0.160*	*2.9068*	*1.00*	*2.9068*	*0.080*	*0.2323*	*5.0*
13	*12:31*	*4.20*	*0.6*	*0.600*	*0.6*	*0.240*	*-0.0010*	*1.00*	*-0.0010*	*0.120*	*-0.0001*	*0.0*
14	12:33	4.40	0.6	0.600	0.6	0.240	2.9974	1.00	2.9974	0.120	0.3594	7.7
15	12:34	4.60	0.6	0.600	0.6	0.240	3.1870	1.00	3.1870	0.120	0.3821	8.2
16	12:35	4.80	0.6	0.600	0.6	0.240	1.4692	1.00	1.4692	0.120	0.1761	3.8
17	12:36	5.00	0.6	0.600	0.6	0.240	1.6056	1.00	1.6056	0.120	0.1925	4.1
18	*12:37*	*5.20*	*0.6*	*0.600*	*0.6*	*0.240*	*1.8944*	*1.00*	*1.8944*	*0.120*	*0.2271*	*4.9*
19	*12:38*	*5.40*	*0.6*	*0.500*	*0.6*	*0.200*	*1.4669*	*1.00*	*1.4669*	*0.101*	*0.1477*	*3.2*
20	12:38	5.60	None	0.500	0.0	0.0	0.0000	1.00	1.4669	0.051	0.0745	1.6

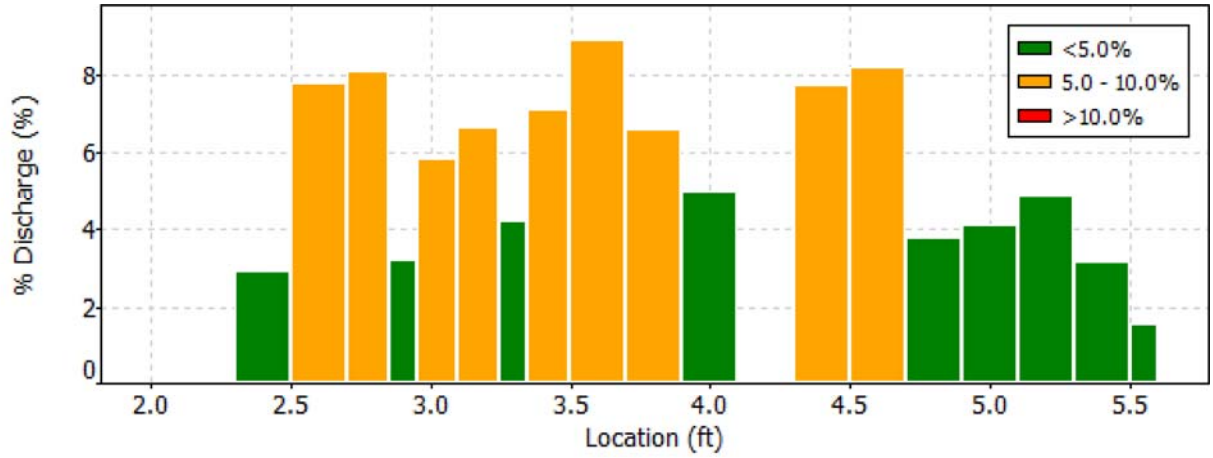
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

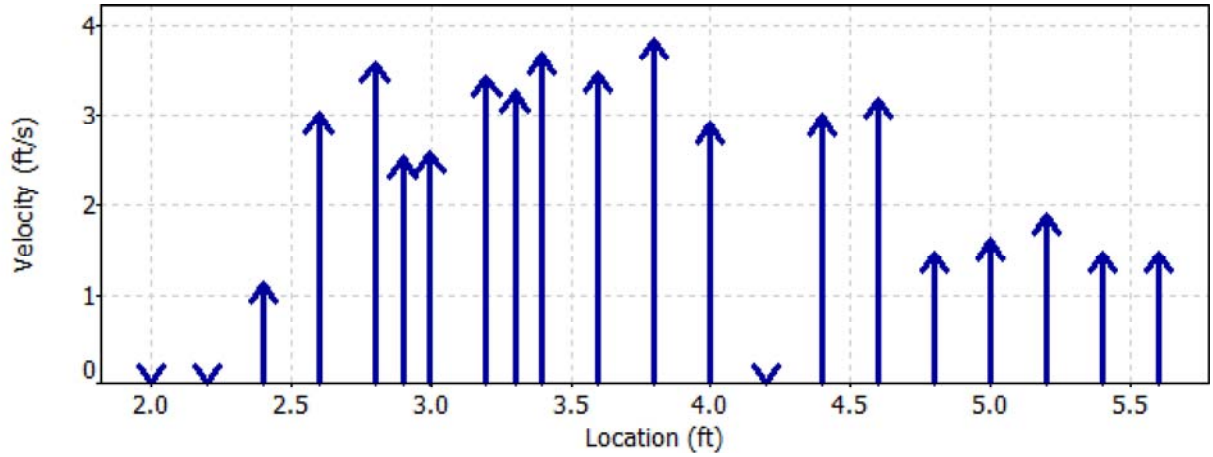
Discharge Measurement Summary

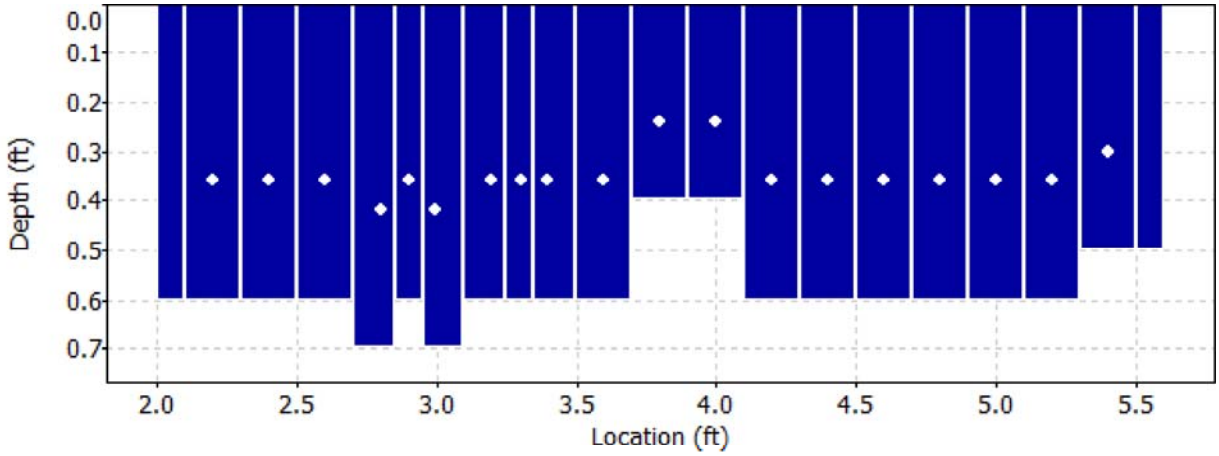
Date Generated: Mon Jul 17 2017

File Information	
File Name	EG3.WAD
Start Date and Time	2017/07/12 12:17:33

Site Details	
Site Name	EG3
Operator(s)	LB







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	EG3.WAD	Site Name	EG3
Start Date and Time	2017/07/12 12:17:33	Operator(s)	LB

Quality Control

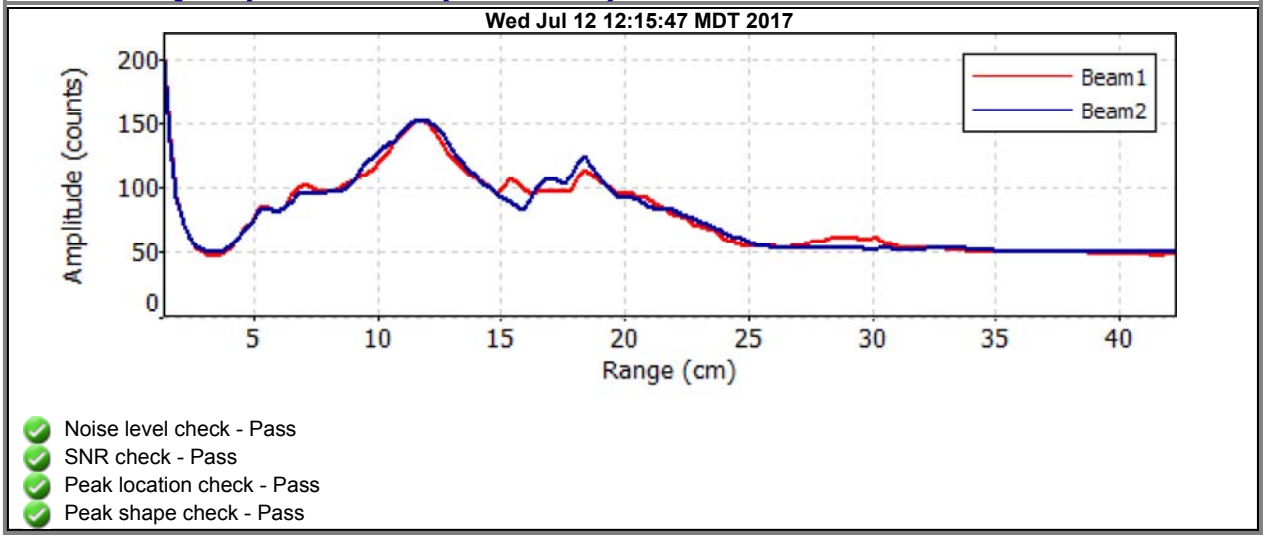
St	Loc	%Dep	Message
1	2.20	0.6	SNR (54.4) is different from typical SNR (44.3)
		0.6	High SNR variation during measurement: 15.5,10.3
8	3.30	0.6	High angle: 21
11	3.80	0.6	High number of spikes: 8
12	4.00	0.6	High number of spikes: 7
		0.6	High angle: 30
		0.6	High SNR variation during measurement: 6.0,6.5
		0.6	High standard error: 0.339
13	4.20	0.6	SNR (57.8) is different from typical SNR (44.3)
		0.6	High SNR variation during measurement: 9.0,12.0
		0.6	Boundary QC is Poor; possible boundary interference
18	5.20	0.6	High angle: 44
19	5.40	0.6	High angle: 39

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	EG3.WAD	Site Name	EG3
Start Date and Time	2017/07/12 12:17:33	Operator(s)	LB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	EG3A.WAD
Start Date and Time	2017/07/12 11:23:16

Site Details

Site Name	EG3A
Operator(s)	LB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	5.6%
Velocity	1.4%	9.2%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.1%	-
Overall	**3.3%**	**10.8%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	LEW	Total Width	8.399
Mean SNR	45.2 dB	Total Area	3.129
Mean Temp	46.00 °F	Mean Depth	0.373
Disch. Equation	Mid-Section	Mean Velocity	2.2159
		Total Discharge	**6.9343**

Measurement Results

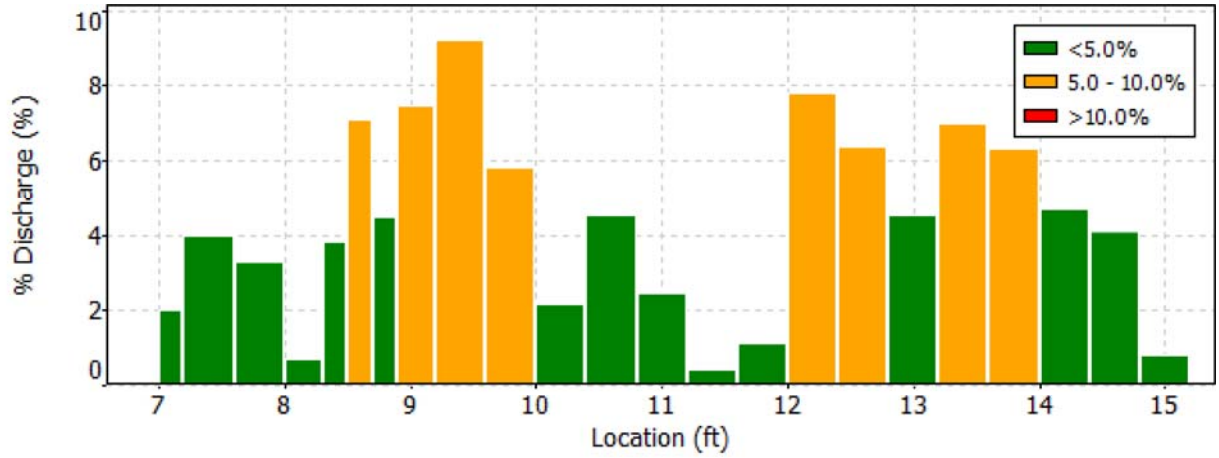
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:23	7.00	None	0.400	0.0	0.0	0.0000	1.00	1.7283	0.080	0.1382	2.0
1	11:23	7.40	0.6	0.400	0.6	0.160	1.7283	1.00	1.7283	0.160	0.2764	4.0
2	*11:24*	*7.80*	*0.6*	*0.400*	*0.6*	*0.160*	*1.4367*	*1.00*	*1.4367*	*0.160*	*0.2298*	*3.3*
3	11:25	8.20	0.6	0.500	0.6	0.200	0.3009	1.00	0.3009	0.150	0.0451	0.7
4	11:46	8.40	0.6	0.500	0.6	0.200	2.6690	1.00	2.6690	0.100	0.2669	3.8
5	11:26	8.60	0.6	0.500	0.6	0.200	4.9131	1.00	4.9131	0.100	0.4912	7.1
6	*11:45*	*8.80*	*0.6*	*0.500*	*0.6*	*0.200*	*3.0991*	*1.00*	*3.0991*	*0.100*	*0.3099*	*4.5*
7	11:27	9.00	0.6	0.400	0.6	0.160	4.3068	1.00	4.3068	0.120	0.5165	7.4
8	11:28	9.40	0.6	0.400	0.6	0.160	4.0121	1.00	4.0121	0.160	0.6417	9.3
9	11:29	9.80	0.6	0.200	0.6	0.080	5.0164	1.00	5.0164	0.080	0.4015	5.8
10	*11:30*	*10.20*	*0.6*	*0.200*	*0.6*	*0.080*	*1.8701*	*1.00*	*1.8701*	*0.080*	*0.1497*	*2.2*
11	*11:32*	*10.60*	*0.6*	*0.300*	*0.6*	*0.120*	*2.6230*	*1.00*	*2.6230*	*0.120*	*0.3146*	*4.5*
12	*11:33*	*11.00*	*0.6*	*0.200*	*0.6*	*0.080*	*2.1112*	*1.00*	*2.1112*	*0.080*	*0.1690*	*2.4*
13	*11:34*	*11.40*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3419*	*1.00*	*0.3419*	*0.080*	*0.0274*	*0.4*
14	*11:35*	*11.80*	*0.6*	*0.700*	*0.6*	*0.280*	*0.2707*	*1.00*	*0.2707*	*0.280*	*0.0758*	*1.1*
15	11:36	12.20	0.6	0.700	0.6	0.280	1.9334	1.00	1.9334	0.280	0.5414	7.8
16	11:37	12.60	0.6	0.400	0.6	0.160	2.7595	1.00	2.7595	0.160	0.4414	6.4
17	11:38	13.00	0.6	0.400	0.6	0.160	1.9606	1.00	1.9606	0.160	0.3136	4.5
18	11:39	13.40	0.6	0.400	0.6	0.160	3.0256	1.00	3.0256	0.160	0.4839	7.0
19	11:39	13.80	0.6	0.400	0.6	0.160	2.7231	1.00	2.7231	0.160	0.4356	6.3
20	11:41	14.20	0.6	0.300	0.6	0.120	2.7103	1.00	2.7103	0.120	0.3250	4.7
21	11:42	14.60	0.6	0.300	0.6	0.120	2.3802	1.00	2.3802	0.120	0.2855	4.1
22	11:43	15.00	0.6	0.300	0.6	0.120	0.4528	1.00	0.4528	0.120	0.0543	0.8
23	11:43	15.40	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

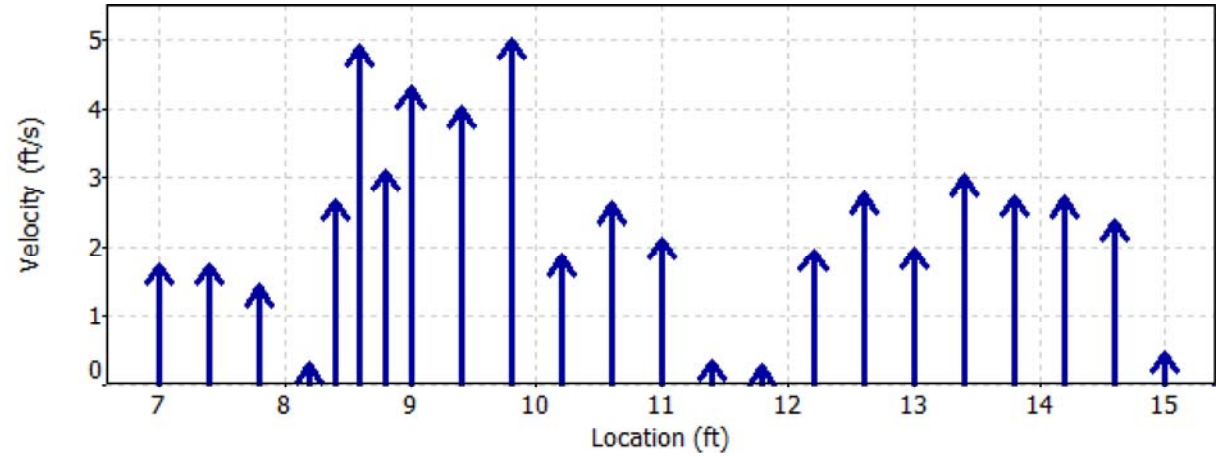
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

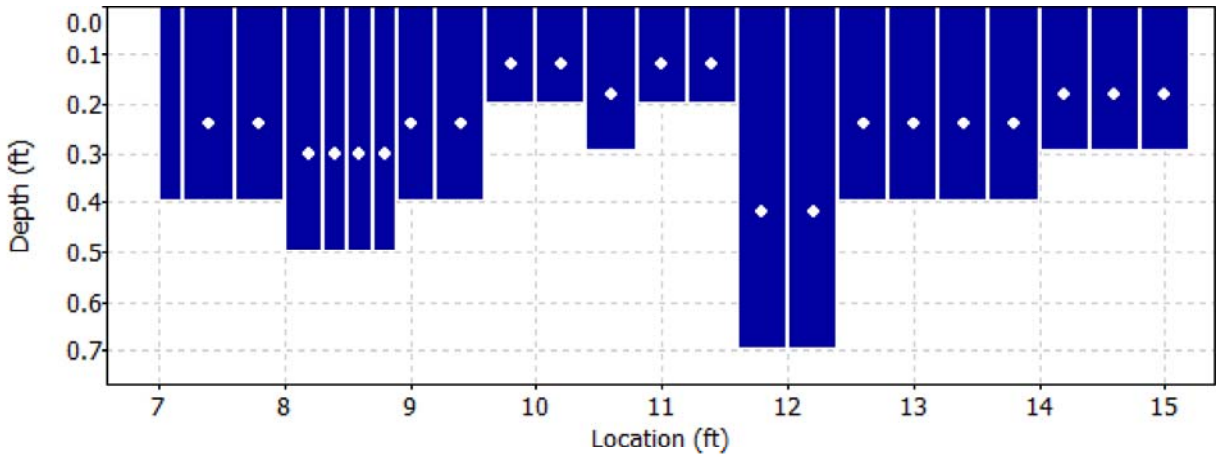
Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	EG3A.WAD	Site Name	EG3A
Start Date and Time	2017/07/12 11:23:16	Operator(s)	LB







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	EG3A.WAD	Site Name	EG3A
Start Date and Time	2017/07/12 11:23:16	Operator(s)	LB

Quality Control

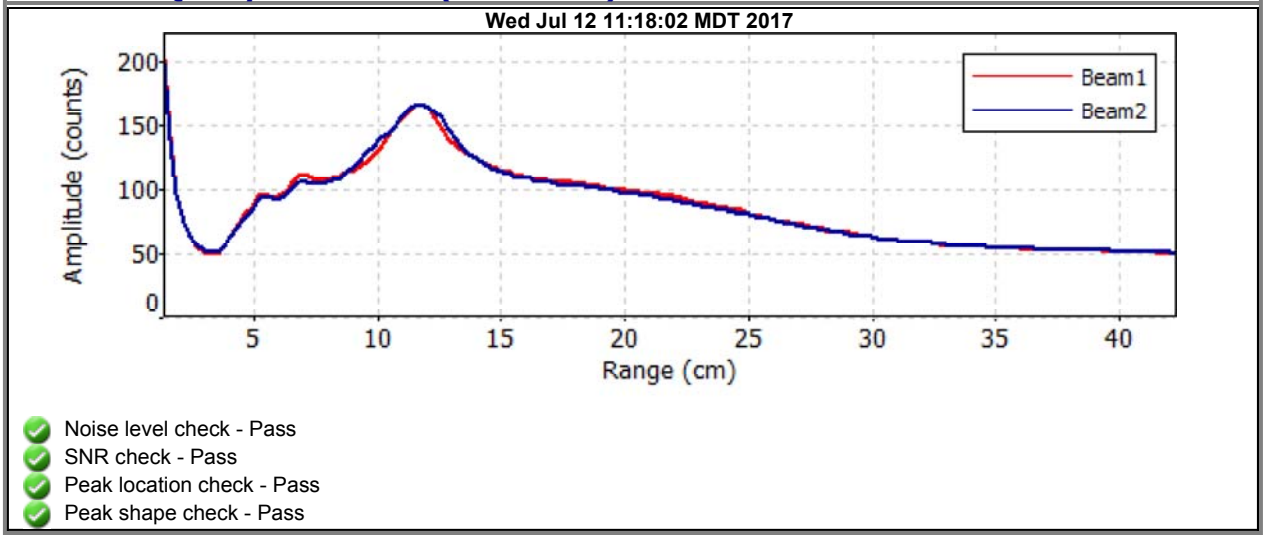
St	Loc	%Dep	Message
2	7.80	0.6	Boundary QC is Good; possible boundary interference
6	8.80	0.6	High standard error: 0.218
10	10.20	0.6	SNR (20.0) is different from typical SNR (45.2)
		0.6	High SNR variation during measurement: 11.2,15.9
		0.6	High standard error: 0.737
11	10.60	0.6	High standard error: 0.211
12	11.00	0.6	High standard error: 0.198
13	11.40	0.6	High angle: 35
14	11.80	0.6	High angle: -25

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	EG3A.WAD	Site Name	EG3A
Start Date and Time	2017/07/12 11:23:16	Operator(s)	LB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	EG4.WAD
Start Date and Time	2017/07/12 12:53:12

Site Details

Site Name	EG4
Operator(s)	LB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	0.0%
Velocity	0.6%	7.0%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.3%	-
Overall	**3.2%**	**7.0%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	1.396
Mean SNR	50.3 dB	Total Area	0.538
Mean Temp	52.83 °F	Mean Depth	0.386
Disch. Equation	Mid-Section	Mean Velocity	2.1599
		Total Discharge	**1.1631**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	12:53	1.20	None	0.400	0.0	0.0	0.0000	1.00	3.1644	0.020	0.0631	5.4
1	12:53	1.30	0.6	0.400	0.6	0.160	3.1644	1.00	3.1644	0.030	0.0949	8.2
2	13:08	1.35	0.6	0.400	0.6	0.160	3.1207	1.00	3.1207	0.020	0.0622	5.4
3	12:54	1.40	0.6	0.400	0.6	0.160	2.8937	1.00	2.8937	0.030	0.0864	7.4
4	12:55	1.50	0.6	0.400	0.6	0.160	2.8740	1.00	2.8740	0.030	0.0864	7.4
5	13:09	1.55	0.6	0.400	0.6	0.160	1.7090	1.00	1.7090	0.020	0.0341	2.9
6	12:56	1.60	0.6	0.400	0.6	0.160	2.5696	1.00	2.5696	0.030	0.0765	6.6
7	12:57	1.70	0.6	0.400	0.6	0.160	2.8573	1.00	2.8573	0.030	0.0862	7.4
8	13:10	1.75	0.6	0.400	0.6	0.160	2.7116	1.00	2.7116	0.020	0.0541	4.6
9	12:58	1.80	0.6	0.400	0.6	0.160	2.8786	1.00	2.8786	0.020	0.0576	5.0
10	13:11	1.85	0.6	0.400	0.6	0.160	2.6545	1.00	2.6545	0.020	0.0529	4.6
11	12:59	1.90	0.6	0.400	0.6	0.160	2.7277	1.00	2.7277	0.030	0.0807	6.9
12	13:00	2.00	0.6	0.400	0.6	0.160	2.5105	1.00	2.5105	0.030	0.0761	6.5
13	*13:12*	*2.05*	*0.6*	*0.400*	*0.6*	*0.160*	*2.1319*	*1.00*	*2.1319*	*0.020*	*0.0425*	*3.7*
14	13:00	2.10	0.6	0.400	0.6	0.160	2.5699	1.00	2.5699	0.020	0.0514	4.4
15	13:13	2.15	0.6	0.400	0.6	0.160	2.2349	1.00	2.2349	0.020	0.0446	3.8
16	13:01	2.20	0.6	0.400	0.6	0.160	2.4977	1.00	2.4977	0.029	0.0736	6.3
17	*13:02*	*2.30*	*0.6*	*0.400*	*0.6*	*0.160*	*0.0066*	*1.00*	*0.0066*	*0.020*	*0.0001*	*0.0*
18	*13:14*	*2.30*	*0.6*	*0.400*	*0.6*	*0.160*	*1.9895*	*1.00*	*1.9895*	*0.020*	*0.0397*	*3.4*
19	13:04	2.40	0.6	0.400	0.6	0.160	-0.0059	1.00	-0.0059	0.039	-0.0002	0.0
20	*13:05*	*2.50*	*0.6*	*0.400*	*0.6*	*0.160*	*0.0043*	*1.00*	*0.0043*	*0.040*	*0.0002*	*0.0*
21	13:05	2.60	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

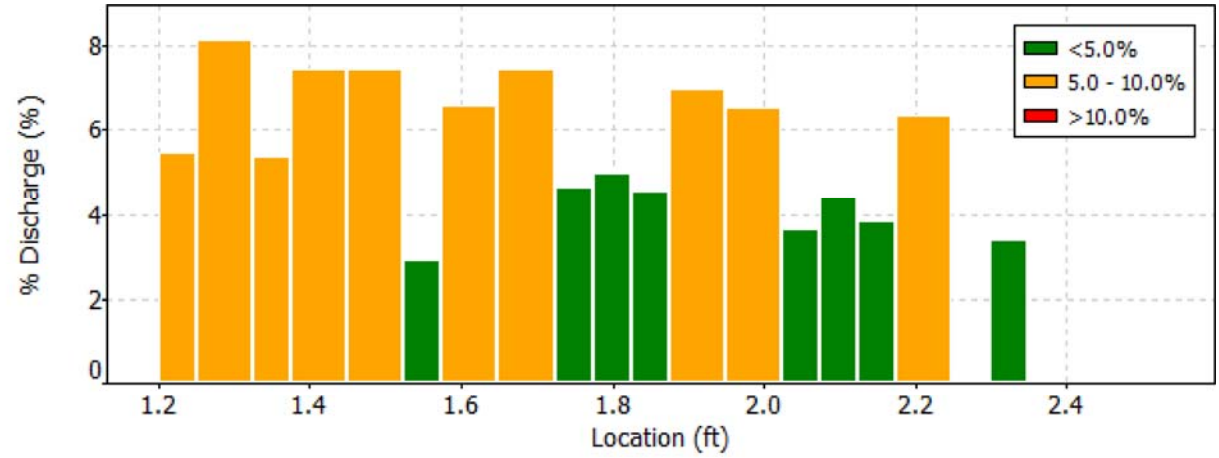
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

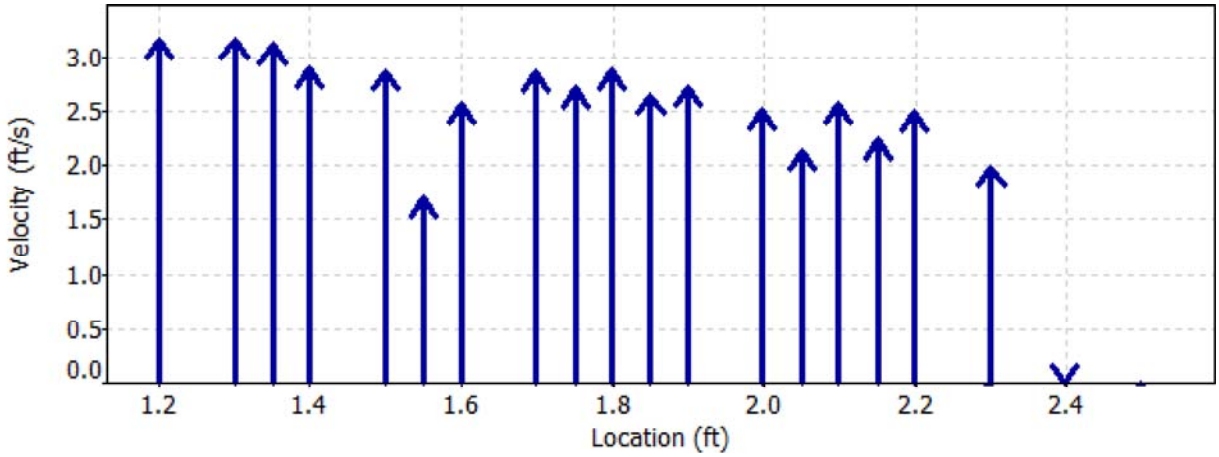
Discharge Measurement Summary

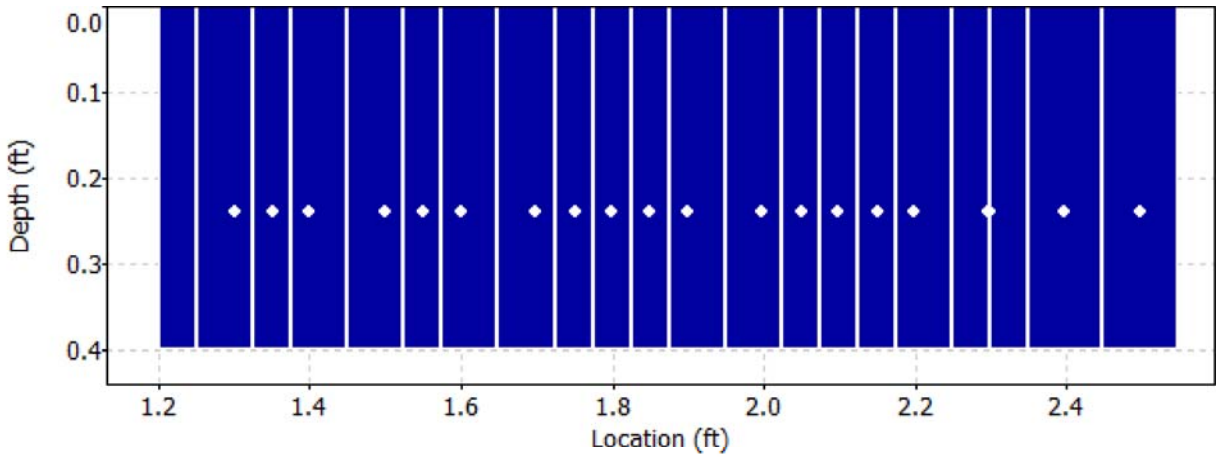
Date Generated: Mon Jul 17 2017

File Information	
File Name	EG4.WAD
Start Date and Time	2017/07/12 12:53:12

Site Details	
Site Name	EG4
Operator(s)	LB







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	EG4.WAD	Site Name	EG4
Start Date and Time	2017/07/12 12:53:12	Operator(s)	LB

Quality Control

St	Loc	%Dep	Message
13	2.05	0.6	High angle: 21
17	2.30	0.6	High SNR variation during measurement: 13.3,14.6
		0.6	Boundary QC is Good; possible boundary interference
18	2.30	0.6	Boundary QC is Good; possible boundary interference
20	2.50	0.6	High number of spikes: 6
		0.6	High SNR variation during measurement: 17.2,18.5
		0.6	Boundary QC is Fair; possible boundary interference

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	EG5.WAD
Start Date and Time	2017/07/11 14:11:11

Site Details

Site Name	EG5
Operator(s)	LB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	5.1%
Velocity	2.8%	38.9%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	1.7%	-
Overall	**4.0%**	**39.3%**

Summary

Averaging Int.	40	# Stations	30
Start Edge	REW	Total Width	7.199
Mean SNR	48.9 dB	Total Area	3.587
Mean Temp	46.17 °F	Mean Depth	0.498
Disch. Equation	Mid-Section	Mean Velocity	1.6148
		Total Discharge	**5.7926**

Measurement Results

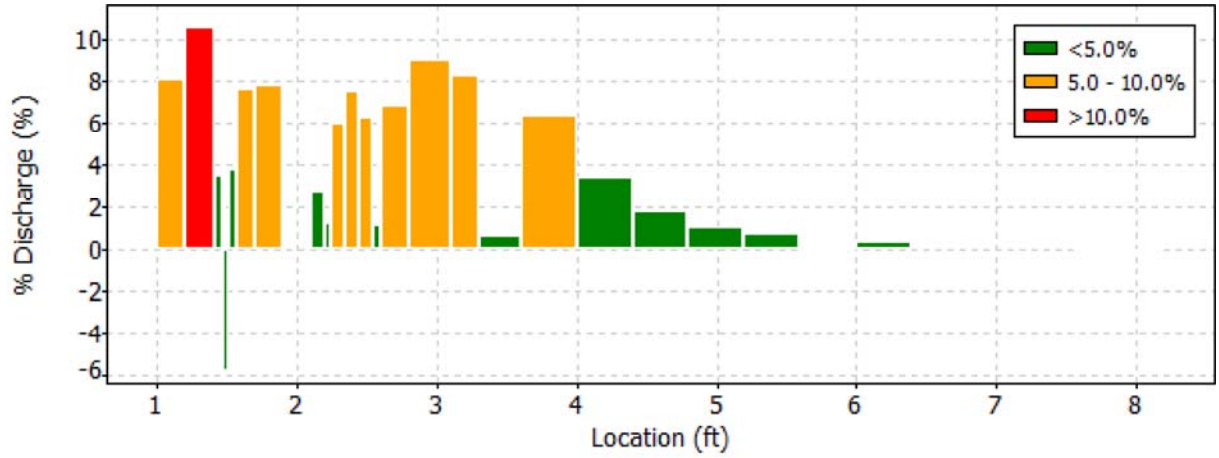
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:11	1.00	None	0.600	0.0	0.0	0.0000	1.00	3.9098	0.120	0.4691	8.1
1	*14:11*	*1.40*	*0.6*	*0.700*	*0.6*	*0.280*	*3.9098*	*1.00*	*3.9098*	*0.158*	*0.6161*	*10.6*
2	*14:48*	*1.45*	*0.6*	*0.800*	*0.6*	*0.320*	*5.1490*	*1.00*	*5.1490*	*0.040*	*0.2061*	*3.6*
3	*14:37*	*1.50*	*0.6*	*0.700*	*0.6*	*0.280*	*-9.6496*	*1.00*	*-9.6496*	*0.035*	*-0.3369*	*-5.8*
4	14:49	1.55	0.6	0.900	0.6	0.360	4.9531	1.00	4.9531	0.045	0.2230	3.9
5	*14:35*	*1.60*	*0.6*	*0.800*	*0.6*	*0.320*	*4.4573*	*1.00*	*4.4573*	*0.100*	*0.4457*	*7.7*
6	14:12	1.80	0.6	0.600	0.6	0.240	3.7661	1.00	3.7661	0.120	0.4519	7.8
7	*14:43*	*2.00*	*0.6*	*0.000*	*0.6*	*0.080*	*0.1900*	*1.00*	*0.0000*	*0.000*	*0.0000*	*0.0*
8	*14:13*	*2.20*	*0.6*	*0.700*	*0.6*	*0.280*	*2.3130*	*1.00*	*2.3130*	*0.070*	*0.1620*	*2.8*
9	*14:53*	*2.20*	*0.6*	*0.500*	*0.6*	*0.200*	*2.8970*	*1.00*	*2.8970*	*0.025*	*0.0725*	*1.3*
10	*14:55*	*2.30*	*0.6*	*0.800*	*0.6*	*0.320*	*4.3816*	*1.00*	*4.3816*	*0.080*	*0.3501*	*6.0*
11	*14:39*	*2.40*	*0.6*	*0.900*	*0.6*	*0.360*	*4.8383*	*1.00*	*4.8383*	*0.090*	*0.4357*	*7.5*
12	*14:57*	*2.50*	*0.6*	*0.800*	*0.6*	*0.320*	*4.6056*	*1.00*	*4.6056*	*0.080*	*0.3680*	*6.4*
13	*14:15*	*2.60*	*0.6*	*0.700*	*0.6*	*0.280*	*1.9941*	*1.00*	*1.9941*	*0.035*	*0.0699*	*1.2*
14	*14:54*	*2.60*	*0.6*	*0.700*	*0.6*	*0.280*	*2.8547*	*1.00*	*2.8547*	*0.140*	*0.3997*	*6.9*
15	*14:16*	*3.00*	*0.6*	*0.800*	*0.6*	*0.320*	*2.1864*	*1.00*	*2.1864*	*0.240*	*0.5247*	*9.1*
16	*14:41*	*3.20*	*0.6*	*0.700*	*0.6*	*0.280*	*3.4521*	*1.00*	*3.4521*	*0.140*	*0.4833*	*8.3*
17	*14:17*	*3.40*	*0.6*	*0.500*	*0.6*	*0.200*	*0.2851*	*1.00*	*0.2851*	*0.150*	*0.0427*	*0.7*
18	*14:19*	*3.80*	*0.6*	*0.500*	*0.6*	*0.200*	*1.8530*	*1.00*	*1.8530*	*0.200*	*0.3705*	*6.4*
19	*14:20*	*4.20*	*0.6*	*0.500*	*0.6*	*0.200*	*0.9925*	*1.00*	*0.9925*	*0.200*	*0.1985*	*3.4*
20	*14:22*	*4.60*	*0.6*	*0.600*	*0.6*	*0.240*	*0.4409*	*1.00*	*0.4409*	*0.240*	*0.1058*	*1.8*
21	*14:24*	*5.00*	*0.6*	*0.500*	*0.6*	*0.200*	*0.3205*	*1.00*	*0.3205*	*0.200*	*0.0641*	*1.1*
22	*14:25*	*5.40*	*0.6*	*0.600*	*0.6*	*0.240*	*0.1952*	*1.00*	*0.1952*	*0.240*	*0.0468*	*0.8*
23	*14:26*	*5.80*	*0.6*	*0.500*	*0.6*	*0.200*	*-0.0446*	*1.00*	*-0.0446*	*0.200*	*-0.0089*	*-0.2*
24	*14:27*	*6.20*	*0.6*	*0.400*	*0.6*	*0.160*	*0.1545*	*1.00*	*0.1545*	*0.160*	*0.0247*	*0.4*
25	*14:28*	*6.60*	*0.6*	*0.400*	*0.6*	*0.160*	*0.0404*	*1.00*	*0.0404*	*0.160*	*0.0065*	*0.1*
26	*14:30*	*7.00*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0472*	*1.00*	*0.0472*	*0.080*	*0.0038*	*0.1*
27	14:31	7.40	0.6	0.200	0.6	0.080	0.0000	1.00	0.0000	0.080	0.0000	0.0
28	14:32	7.80	0.6	0.200	0.6	0.080	-0.0174	1.00	-0.0174	0.080	-0.0014	0.0
29	14:32	8.20	None	0.400	0.0	0.0	0.0000	1.00	-0.0174	0.080	-0.0014	0.0

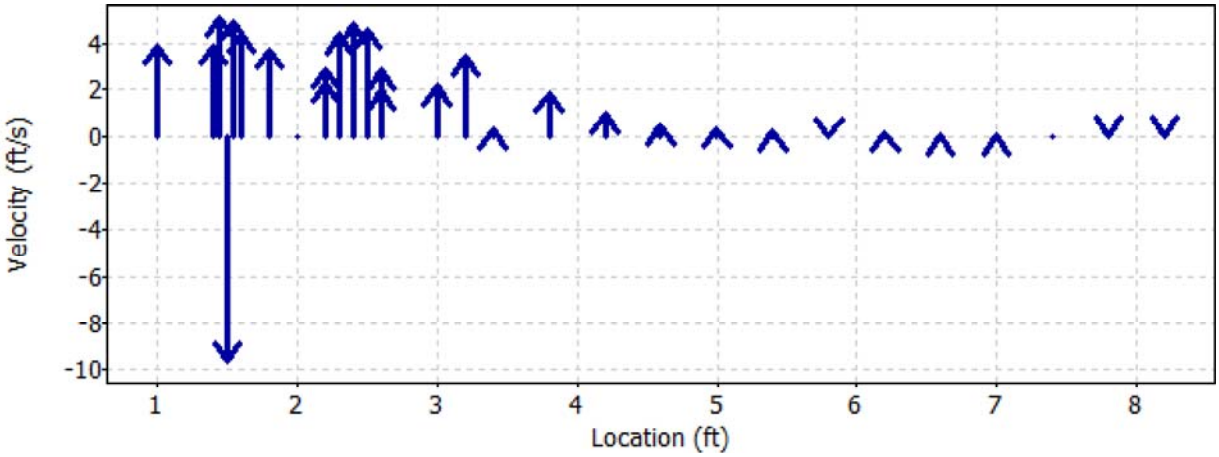
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

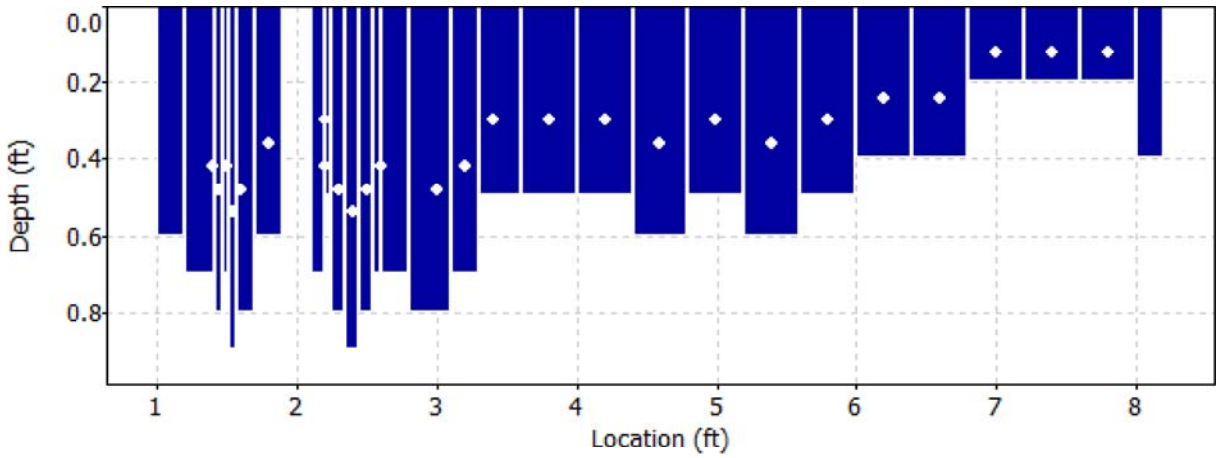
Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	EG5.WAD	Site Name	EG5
Start Date and Time	2017/07/11 14:11:11	Operator(s)	LB







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	EG5.WAD	Site Name	EG5
Start Date and Time	2017/07/11 14:11:11	Operator(s)	LB

Quality Control

St	Loc	%Dep	Message
1	1.40	0.6	High number of spikes: 5
		0.6	High angle: 22
2	1.45	0.6	High SNR variation during measurement: 2.6,5.2
3	1.50	0.6	High number of spikes: 9
		0.6	High angle: -176
5	1.60	0.6	High standard error: 0.250
7	2.00	0.6	High angle: 30
		0.6	SNR (37.4) is different from typical SNR (48.9)
		0.6	High SNR variation during measurement: 6.5,4.7
		0.6	High standard error: 0.356
		0.6	Boundary QC is Fair; possible boundary interference
8	2.20	0.6	High angle: 28
9	2.20	0.6	High standard error: 0.298
10	2.30	0.6	High standard error: 0.363
11	2.40	0.6	High SNR variation during measurement: 3.0,6.0
		0.6	High standard error: 0.262
12	2.50	0.6	High standard error: 0.251
13	2.60	0.6	High standard error: 0.214
14	2.60	0.6	High standard error: 0.389
15	3.00	0.6	High SNR variation during measurement: 5.2,4.7
		0.6	High standard error: 0.235
		0.6	Boundary QC is Good; possible boundary interference
16	3.20	0.6	Boundary QC is Good; possible boundary interference
17	3.40	0.6	High angle: 78
		0.6	High standard error: 0.718
18	3.80	0.6	High angle: 26
		0.6	High standard error: 0.298
		0.6	Boundary QC is Good; possible boundary interference
19	4.20	0.6	High angle: 45
		0.6	High SNR variation during measurement: 2.6,6.0
		0.6	Boundary QC is Good; possible boundary interference
20	4.60	0.6	SNR (33.7) is different from typical SNR (48.9)
		0.6	Boundary QC is Fair; possible boundary interference
21	5.00	0.6	High angle: 63
22	5.40	0.6	High angle: 47
23	5.80	0.6	High angle: 123
24	6.20	0.6	High SNR variation during measurement: 9.9,5.2
25	6.60	0.6	High angle: -55
		0.6	Boundary QC is Good; possible boundary interference
26	7.00	0.6	High angle: -63

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	EG6.WAD
Start Date and Time	2017/07/11 11:23:14

Site Details

Site Name	EG6
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.4%
Velocity	1.4%	7.9%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.4%	-
Overall	**3.5%**	**8.3%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	LEW	Total Width	9.600
Mean SNR	47.9 dB	Total Area	5.006
Mean Temp	48.81 °F	Mean Depth	0.521
Disch. Equation	Mid-Section	Mean Velocity	2.2654
		Total Discharge	**11.3412**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:23	1.40	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	11:23	2.05	0.6	0.700	0.6	0.280	1.1955	1.00	1.1955	0.420	0.5023	4.4
2	*11:25*	*2.60*	*0.6*	*0.600*	*0.6*	*0.240*	*1.7618*	*1.00*	*1.7618*	*0.330*	*0.5817*	*5.1*
3	*11:26*	*3.15*	*0.6*	*0.600*	*0.6*	*0.240*	*4.0764*	*1.00*	*4.0764*	*0.240*	*0.9783*	*8.6*
4	*11:43*	*3.40*	*0.6*	*0.600*	*0.6*	*0.240*	*3.2031*	*1.00*	*3.2031*	*0.165*	*0.5288*	*4.7*
5	*11:27*	*3.70*	*0.6*	*0.700*	*0.6*	*0.280*	*2.1460*	*1.00*	*2.1460*	*0.210*	*0.4508*	*4.0*
6	*11:44*	*4.00*	*0.6*	*0.700*	*0.6*	*0.280*	*3.5564*	*1.00*	*3.5564*	*0.193*	*0.6850*	*6.0*
7	*11:28*	*4.25*	*0.6*	*0.600*	*0.6*	*0.240*	*3.6033*	*1.00*	*3.6033*	*0.240*	*0.8658*	*7.6*
8	11:29	4.80	0.6	0.500	0.6	0.200	3.0341	1.00	3.0341	0.275	0.8347	7.4
9	11:30	5.35	0.6	0.450	0.6	0.180	2.3773	1.00	2.3773	0.248	0.5888	5.2
10	*11:31*	*5.90*	*0.6*	*0.450*	*0.6*	*0.180*	*4.2428*	*1.00*	*4.2428*	*0.248*	*1.0508*	*9.3*
11	11:32	6.45	0.6	0.400	0.6	0.160	2.9344	1.00	2.9344	0.220	0.6457	5.7
12	*11:33*	*7.00*	*0.6*	*0.300*	*0.6*	*0.120*	*1.9167*	*1.00*	*1.9167*	*0.165*	*0.3162*	*2.8*
13	11:35	7.55	0.6	0.600	0.6	0.240	0.2726	1.00	0.2726	0.270	0.0735	0.6
14	*11:45*	*7.90*	*0.6*	*0.750*	*0.6*	*0.300*	*2.8573*	*1.00*	*2.8573*	*0.206*	*0.5895*	*5.2*
15	*11:37*	*8.10*	*0.6*	*0.700*	*0.6*	*0.280*	*2.9987*	*1.00*	*2.9987*	*0.263*	*0.7897*	*7.0*
16	*11:38*	*8.65*	*0.6*	*0.700*	*0.6*	*0.280*	*2.8215*	*1.00*	*2.8215*	*0.385*	*1.0869*	*9.6*
17	11:39	9.20	0.6	0.600	0.6	0.240	1.6631	1.00	1.6631	0.330	0.5491	4.8
18	*11:40*	*9.75*	*0.6*	*0.500*	*0.6*	*0.200*	*0.2306*	*1.00*	*0.2306*	*0.275*	*0.0634*	*0.6*
19	*11:41*	*10.30*	*0.6*	*0.350*	*0.6*	*0.140*	*0.4967*	*1.00*	*0.4967*	*0.218*	*0.1084*	*1.0*
20	11:41	11.00	None	0.300	0.0	0.0	0.0000	1.00	0.4967	0.105	0.0519	0.5

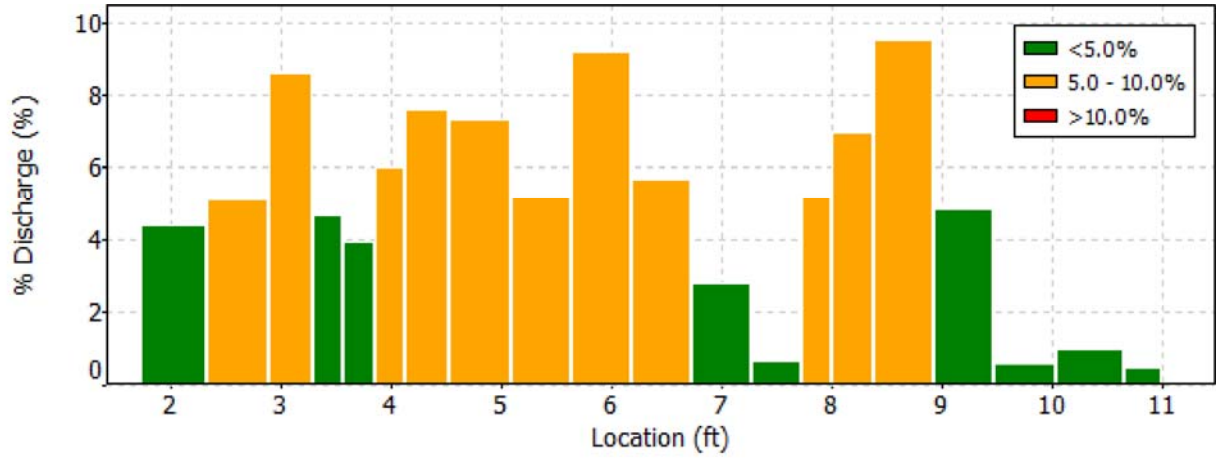
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

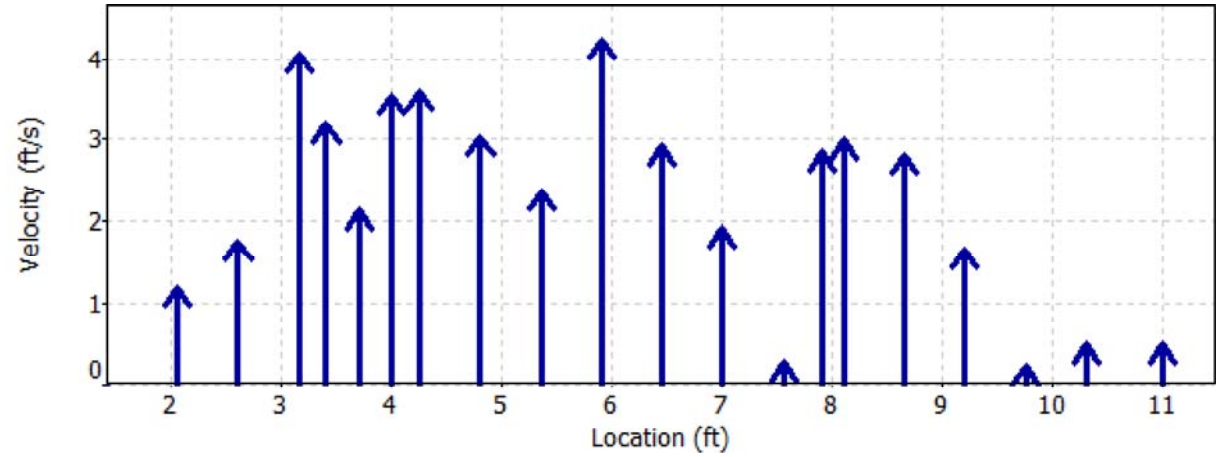
Discharge Measurement Summary

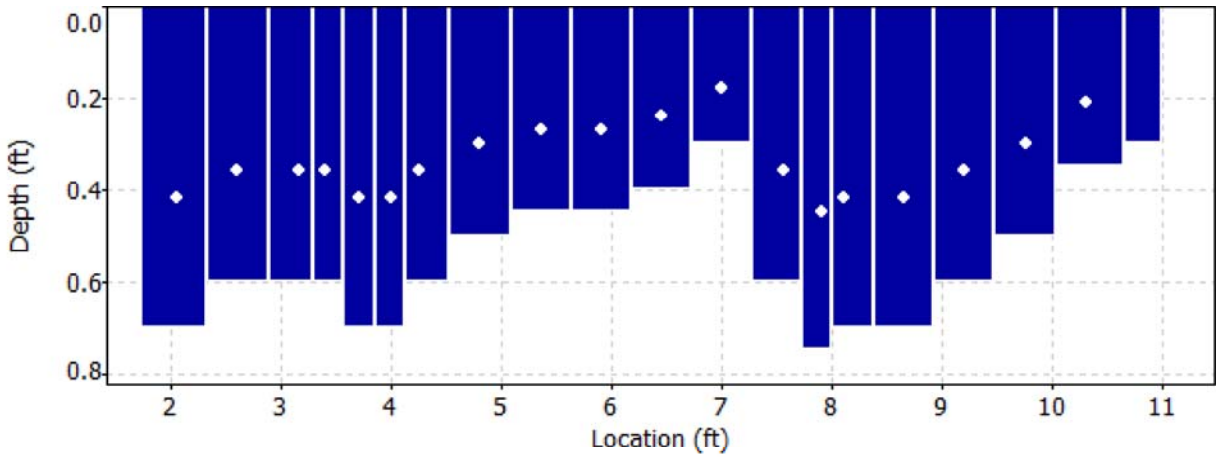
Date Generated: Mon Jul 17 2017

File Information	
File Name	EG6.WAD
Start Date and Time	2017/07/11 11:23:14

Site Details	
Site Name	EG6
Operator(s)	RM







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	EG6.WAD
Start Date and Time	2017/07/11 11:23:14

Site Details

Site Name	EG6
Operator(s)	RM

Quality Control

St	Loc	%Dep	Message
2	2.60	0.6	High angle: 28
3	3.15	0.6	High angle: -21
4	3.40	0.6	High standard error: 0.172
5	3.70	0.6	High standard error: 0.202
6	4.00	0.6	High standard error: 0.209
7	4.25	0.6	High standard error: 0.197
10	5.90	0.6	High SNR variation during measurement: 3.9,5.2
12	7.00	0.6	High angle: -25
14	7.90	0.6	High angle: -27
15	8.10	0.6	High angle: -23
16	8.65	0.6	High angle: -22
18	9.75	0.6	High angle: -50
19	10.30	0.6	High angle: -33

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	EG9.WAD
Start Date and Time	2017/07/11 08:41:31

Site Details

Site Name	EG9
Operator(s)	LB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	4.3%
Velocity	0.8%	4.1%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.0%	-
Overall	**3.1%**	**6.0%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	LEW	Total Width	12.300
Mean SNR	43.0 dB	Total Area	10.117
Mean Temp	43.81 °F	Mean Depth	0.823
Disch. Equation	Mid-Section	Mean Velocity	2.9640
		Total Discharge	**29.9855**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:41	4.00	None	0.100	0.0	0.0	0.0000	1.00	-0.0059	0.030	-0.0002	0.0
1	*08:41*	*4.60*	*0.6*	*0.290*	*0.6*	*0.116*	*-0.0059*	*1.00*	*-0.0059*	*0.174*	*-0.0010*	*0.0*
2	*08:43*	*5.20*	*0.6*	*0.290*	*0.6*	*0.116*	*-0.0837*	*1.00*	*-0.0837*	*0.174*	*-0.0146*	*0.0*
3	*08:45*	*5.80*	*0.6*	*0.450*	*0.6*	*0.180*	*-0.2103*	*1.00*	*-0.2103*	*0.270*	*-0.0568*	*-0.2*
4	08:48	6.40	0.6	0.650	0.6	0.260	1.2159	1.00	1.2159	0.390	0.4742	1.6
5	*08:50*	*7.00*	*0.6*	*0.700*	*0.6*	*0.280*	*1.0889*	*1.00*	*1.0889*	*0.420*	*0.4575*	*1.5*
6	08:51	7.60	0.6	0.700	0.6	0.280	3.9078	1.00	3.9078	0.420	1.6418	5.5
7	08:52	8.20	0.6	0.900	0.6	0.360	3.1427	1.00	3.1427	0.540	1.6971	5.7
8	08:54	8.80	0.6	1.100	0.6	0.440	3.4390	1.00	3.4390	0.660	2.2701	7.6
9	08:55	9.40	0.6	1.100	0.6	0.440	3.7897	1.00	3.7897	0.660	2.5016	8.3
10	08:57	10.00	0.6	0.800	0.6	0.320	3.8100	1.00	3.8100	0.480	1.8287	6.1
11	08:58	10.60	0.6	0.800	0.6	0.320	4.6099	1.00	4.6099	0.480	2.2126	7.4
12	*09:00*	*11.20*	*0.6*	*1.100*	*0.6*	*0.440*	*4.6355*	*1.00*	*4.6355*	*0.550*	*2.5480*	*8.5*
13	09:18	11.60	0.6	1.100	0.6	0.440	4.7730	1.00	4.7730	0.330	1.5753	5.3
14	*09:01*	*11.80*	*0.6*	*0.900*	*0.6*	*0.360*	*4.3301*	*1.00*	*4.3301*	*0.180*	*0.7792*	*2.6*
15	09:16	12.00	0.6	1.000	0.6	0.400	5.1562	1.00	5.1562	0.300	1.5470	5.2
16	09:03	12.40	0.6	1.350	0.6	0.540	5.2208	1.00	5.2208	0.473	2.4674	8.2
17	09:14	12.70	0.6	0.800	0.6	0.320	4.6040	1.00	4.6040	0.240	1.1049	3.7
18	09:04	13.00	0.6	1.350	0.6	0.540	4.4006	1.00	4.4006	0.608	2.6762	8.9
19	09:05	13.60	0.6	1.300	0.6	0.520	2.9413	1.00	2.9413	0.780	2.2942	7.7
20	09:06	14.20	0.6	1.200	0.6	0.480	1.8389	1.00	1.8389	0.720	1.3243	4.4
21	*09:08*	*14.80*	*0.6*	*1.200*	*0.6*	*0.480*	*0.4567*	*1.00*	*0.4567*	*0.720*	*0.3289*	*1.1*
22	09:10	15.40	0.6	0.650	0.6	0.260	0.6539	1.00	0.6539	0.390	0.2550	0.9
23	09:11	16.00	0.6	0.250	0.6	0.100	0.5804	1.00	0.5804	0.112	0.0652	0.2
24	09:11	16.30	None	0.100	0.0	0.0	0.0000	1.00	0.5804	0.015	0.0087	0.0

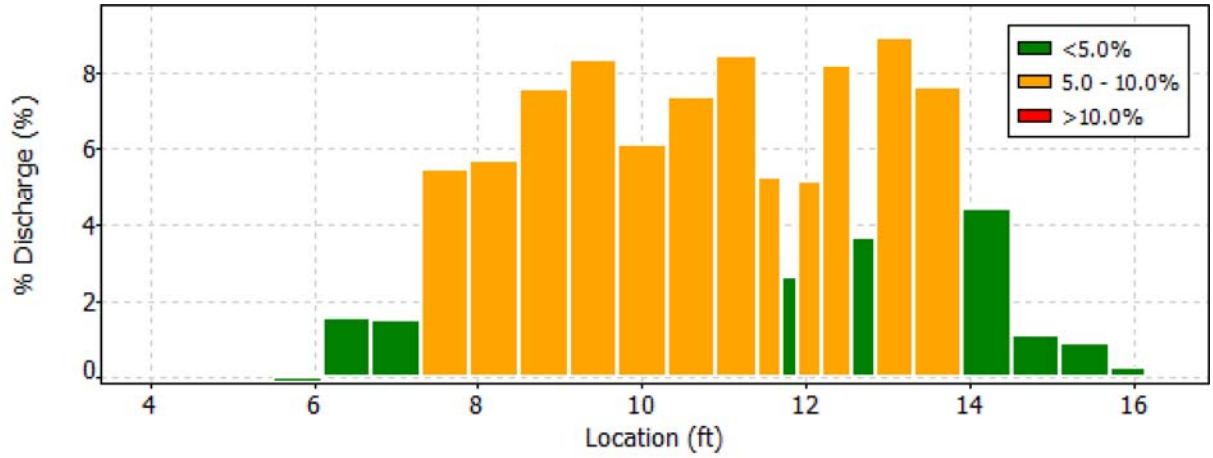
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

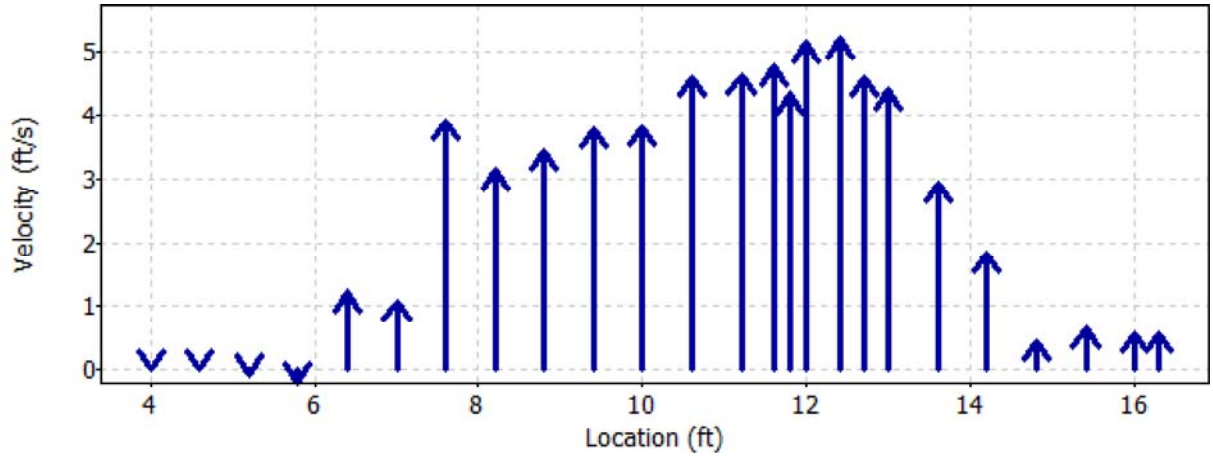
Discharge Measurement Summary

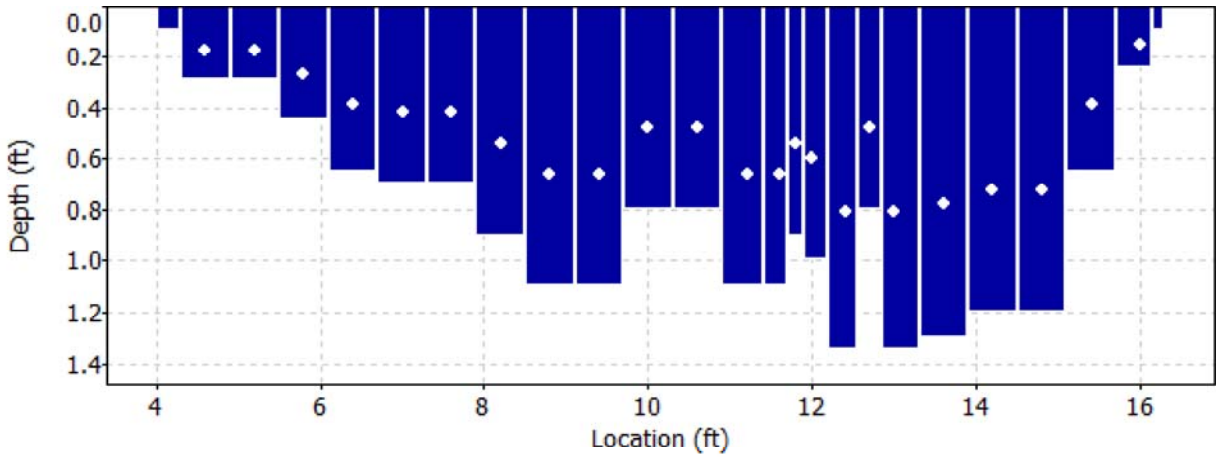
Date Generated: Mon Jul 17 2017

File Information	
File Name	EG9.WAD
Start Date and Time	2017/07/11 08:41:31

Site Details	
Site Name	EG9
Operator(s)	LB







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	EG9.WAD	Site Name	EG9
Start Date and Time	2017/07/11 08:41:31	Operator(s)	LB

Quality Control

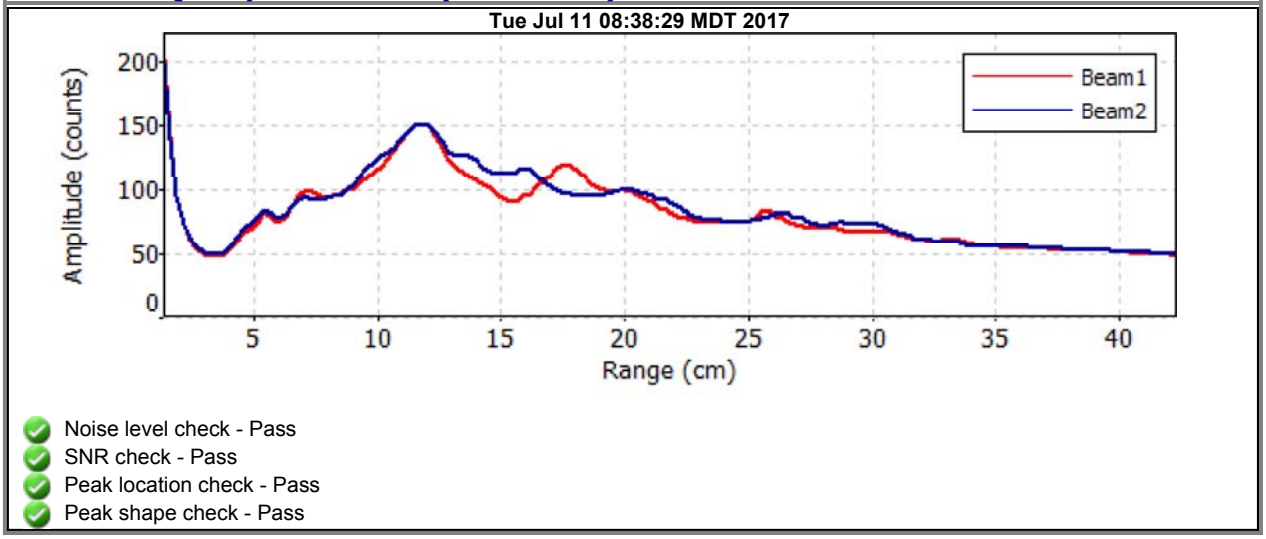
St	Loc	%Dep	Message
1	4.60	0.6	SNR (54.8) is different from typical SNR (43.0)
2	5.20	0.6	High angle: 167
3	5.80	0.6	High number of spikes: 7
		0.6	High angle: 177
		0.6	SNR (18.3) is different from typical SNR (43.0)
		0.6	Boundary QC is Good; possible boundary interference
5	7.00	0.6	High standard error: 0.143
12	11.20	0.6	High number of spikes: 5
14	11.80	0.6	High number of spikes: 8
21	14.80	0.6	High differences in beam SNR: 65.3,24.9
		0.6	High SNR variation during measurement: 7.7,9.9
		0.6	Boundary QC is Good; possible boundary interference

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	EG9.WAD	Site Name	EG9
Start Date and Time	2017/07/11 08:41:31	Operator(s)	LB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A15.WAD
Start Date and Time	2017/07/11 10:22:45

Site Details

Site Name	A15
Operator(s)	SA

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	3.2%
Velocity	1.0%	4.7%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.0%	-
Overall	**3.1%**	**5.8%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	LEW	Total Width	16.804
Mean SNR	54.1 dB	Total Area	6.381
Mean Temp	48.33 °F	Mean Depth	0.380
Disch. Equation	Mid-Section	Mean Velocity	1.7586
		Total Discharge	**11.2225**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:22	8.00	None	0.300	0.0	0.0	0.0000	1.00	0.2162	0.030	0.0065	0.1
1	10:22	8.20	0.6	0.300	0.6	0.120	0.2162	1.00	0.2162	0.120	0.0259	0.2
2	10:23	8.80	0.6	0.300	0.6	0.120	1.3140	1.00	1.3140	0.210	0.2758	2.5
3	10:24	9.60	0.6	0.300	0.6	0.120	1.6565	1.00	1.6565	0.240	0.3975	3.5
4	*10:26*	*10.40*	*0.6*	*0.400*	*0.6*	*0.160*	*0.0741*	*1.00*	*0.0741*	*0.320*	*0.0237*	*0.2*
5	10:27	11.20	0.6	0.400	0.6	0.160	0.6093	1.00	0.6093	0.320	0.1950	1.7
6	10:28	12.00	0.6	0.500	0.6	0.200	1.9364	1.00	1.9364	0.400	0.7747	6.9
7	10:29	12.80	0.6	0.400	0.6	0.160	2.3986	1.00	2.3986	0.320	0.7676	6.8
8	10:30	13.60	0.6	0.400	0.6	0.160	1.7953	1.00	1.7953	0.320	0.5745	5.1
9	10:31	14.40	0.6	0.200	0.6	0.080	1.6129	1.00	1.6129	0.160	0.2583	2.3
10	10:32	15.20	0.6	0.200	0.6	0.080	1.6995	1.00	1.6995	0.160	0.2722	2.4
11	*10:33*	*16.00*	*0.6*	*0.200*	*0.6*	*0.080*	*1.0584*	*1.00*	*1.0584*	*0.160*	*0.1695*	*1.5*
12	10:34	16.80	0.6	0.400	0.6	0.160	2.0541	1.00	2.0541	0.320	0.6574	5.9
13	10:35	17.60	0.6	0.500	0.6	0.200	2.1532	1.00	2.1532	0.400	0.8615	7.7
14	10:36	18.40	0.6	0.400	0.6	0.160	1.9482	1.00	1.9482	0.320	0.6235	5.6
15	10:37	19.20	0.6	0.400	0.6	0.160	2.2789	1.00	2.2789	0.320	0.7293	6.5
16	*10:38*	*20.00*	*0.6*	*0.400*	*0.6*	*0.160*	*1.7090*	*1.00*	*1.7090*	*0.320*	*0.5469*	*4.9*
17	10:39	20.80	0.6	0.300	0.6	0.120	1.7894	1.00	1.7894	0.240	0.4294	3.8
18	10:40	21.60	0.6	0.500	0.6	0.200	1.9678	1.00	1.9678	0.399	0.7857	7.0
19	*10:45*	*22.40*	*0.6*	*0.500*	*0.6*	*0.200*	*1.8176*	*1.00*	*1.8176*	*0.200*	*0.3636*	*3.2*
20	*10:41*	*22.40*	*0.6*	*0.500*	*0.6*	*0.200*	*1.9951*	*1.00*	*1.9951*	*0.150*	*0.2993*	*2.7*
21	10:46	23.00	0.6	0.700	0.6	0.280	2.5889	1.00	2.5889	0.280	0.7252	6.5
22	*10:42*	*23.20*	*0.6*	*0.700*	*0.6*	*0.280*	*2.5420*	*1.00*	*2.5420*	*0.351*	*0.8931*	*8.0*
23	10:43	24.00	0.6	0.400	0.6	0.160	1.7700	1.00	1.7700	0.320	0.5665	5.0
24	10:43	24.80	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

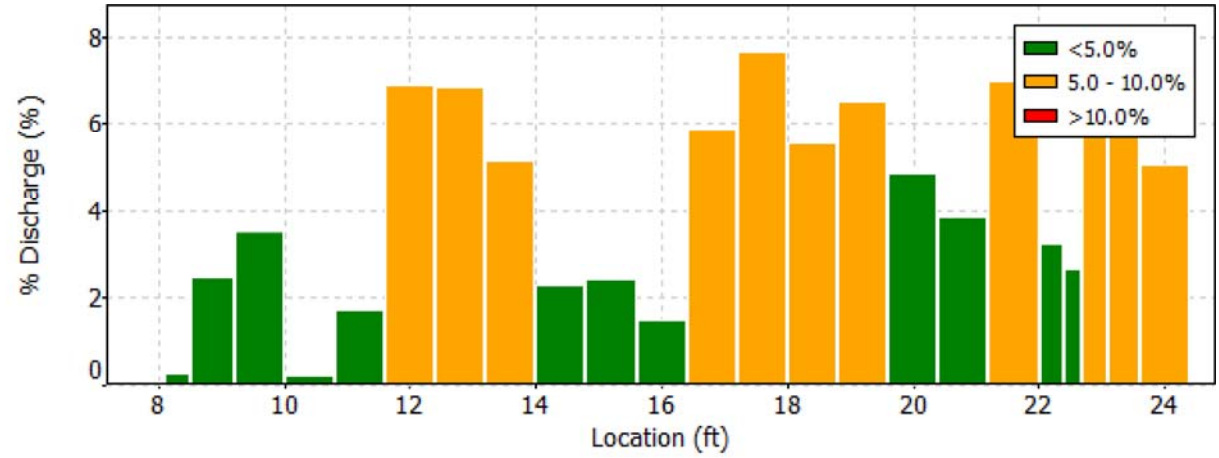
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

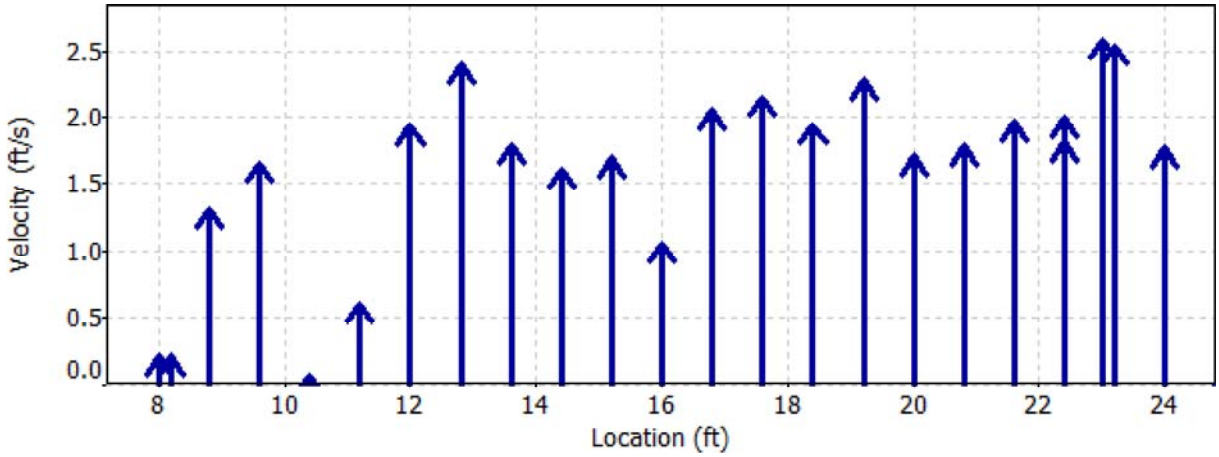
Discharge Measurement Summary

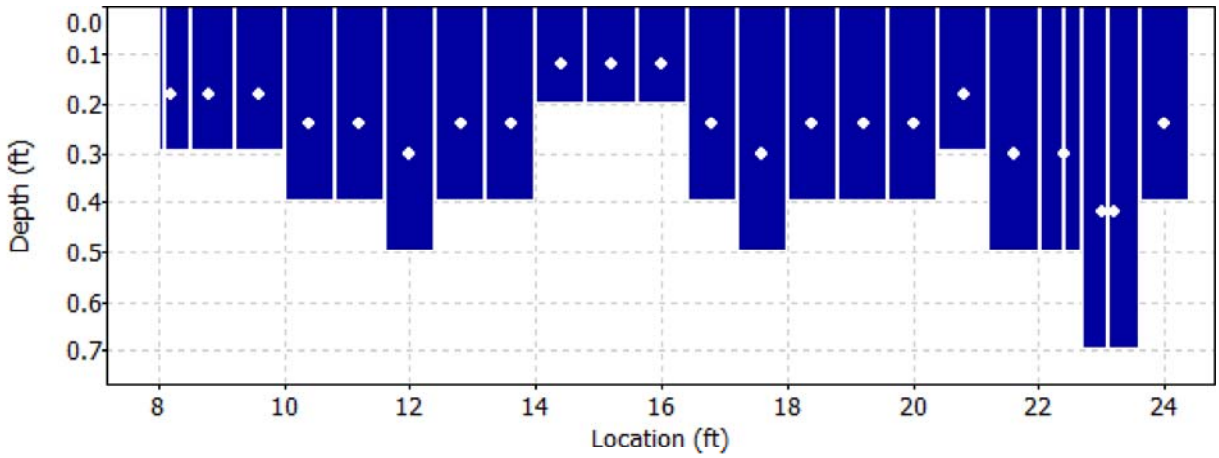
Date Generated: Mon Jul 17 2017

File Information	
File Name	A15.WAD
Start Date and Time	2017/07/11 10:22:45

Site Details	
Site Name	A15
Operator(s)	SA







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information	
File Name	A15.WAD
Start Date and Time	2017/07/11 10:22:45

Site Details	
Site Name	A15
Operator(s)	SA

Quality Control

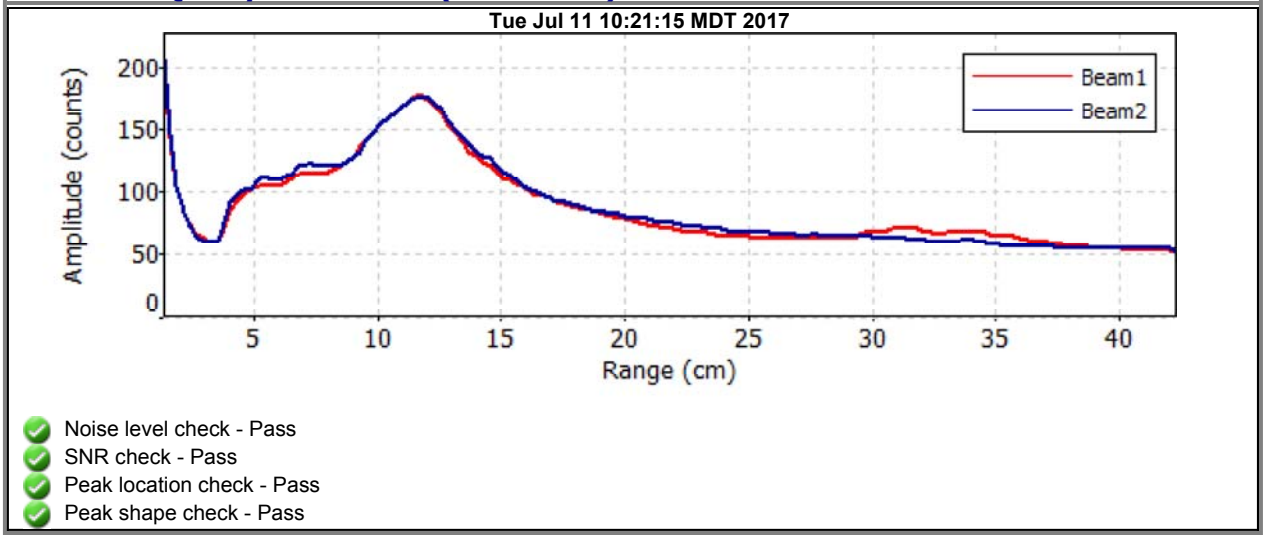
St	Loc	%Dep	Message
4	10.40	0.6	High angle: -55
11	16.00	0.6	High angle: -22
16	20.00	0.6	High angle: -23
19	22.40	0.6	High standard error: 0.164
20	22.40	0.6	High standard error: 0.157
22	23.20	0.6	High angle: -24

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A15.WAD	Site Name	A15
Start Date and Time	2017/07/11 10:22:45	Operator(s)	SA

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A18B.WAD
Start Date and Time	2017/07/11 13:41:28

Site Details

Site Name	
Operator(s)	SA

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	4.0%
Velocity	0.9%	3.0%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**3.3%**	**5.1%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	5.200
Mean SNR	54.8 dB	Total Area	2.655
Mean Temp	37.31 °F	Mean Depth	0.511
Disch. Equation	Mid-Section	Mean Velocity	2.8430
		Total Discharge	**7.5491**

Measurement Results

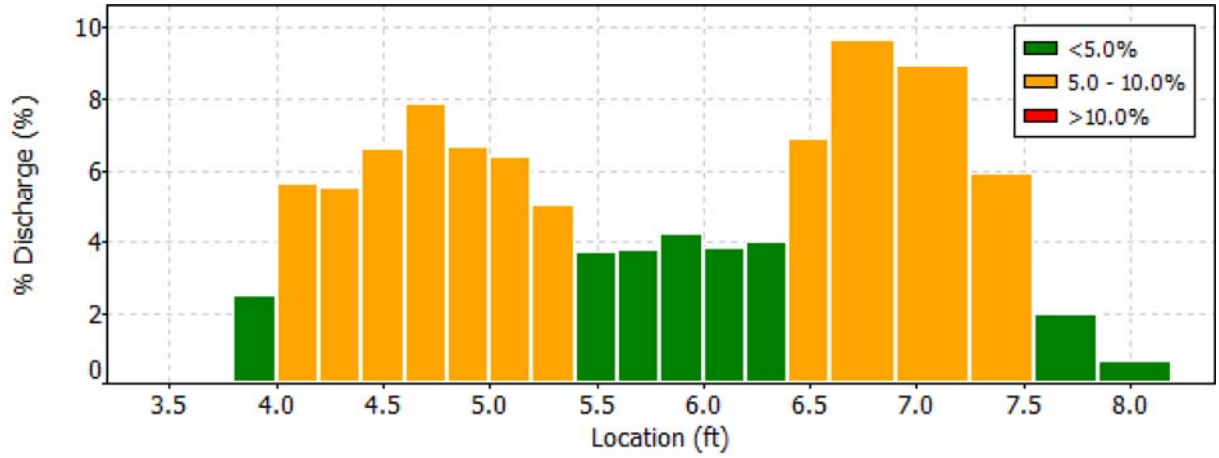
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:41	3.20	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*13:41*	*3.70*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.0016*	*1.00*	*-0.0016*	*0.105*	*-0.0002*	*0.0*
2	13:42	3.90	0.6	0.300	0.6	0.120	3.1729	1.00	3.1729	0.060	0.1901	2.5
3	13:43	4.10	0.6	0.500	0.6	0.200	4.2546	1.00	4.2546	0.100	0.4250	5.6
4	13:44	4.30	0.6	0.500	0.6	0.200	4.1991	1.00	4.1991	0.100	0.4195	5.6
5	13:45	4.50	0.6	0.600	0.6	0.240	4.1644	1.00	4.1644	0.120	0.4993	6.6
6	13:46	4.70	0.6	0.600	0.6	0.240	4.9537	1.00	4.9537	0.120	0.5939	7.9
7	*13:47*	*4.90*	*0.6*	*0.500*	*0.6*	*0.200*	*5.0495*	*1.00*	*5.0495*	*0.100*	*0.5045*	*6.7*
8	13:48	5.10	0.6	0.500	0.6	0.200	4.8383	1.00	4.8383	0.100	0.4833	6.4
9	*13:48*	*5.30*	*0.6*	*0.500*	*0.6*	*0.200*	*3.8038*	*1.00*	*3.8038*	*0.100*	*0.3800*	*5.0*
10	*13:49*	*5.50*	*0.6*	*0.500*	*0.6*	*0.200*	*2.8209*	*1.00*	*2.8209*	*0.100*	*0.2818*	*3.7*
11	*13:52*	*5.70*	*0.6*	*0.700*	*0.6*	*0.280*	*2.0571*	*1.00*	*2.0571*	*0.140*	*0.2878*	*3.8*
12	*13:53*	*5.90*	*0.6*	*0.700*	*0.6*	*0.280*	*2.2907*	*1.00*	*2.2907*	*0.140*	*0.3204*	*4.2*
13	*13:54*	*6.10*	*0.6*	*0.800*	*0.6*	*0.320*	*1.8255*	*1.00*	*1.8255*	*0.160*	*0.2917*	*3.9*
14	*13:55*	*6.30*	*0.6*	*0.500*	*0.6*	*0.200*	*3.0466*	*1.00*	*3.0466*	*0.100*	*0.3044*	*4.0*
15	*14:37*	*6.50*	*0.6*	*0.800*	*0.6*	*0.320*	*3.2411*	*1.00*	*3.2411*	*0.160*	*0.5180*	*6.9*
16	*14:38*	*6.70*	*0.6*	*0.800*	*0.6*	*0.320*	*3.0390*	*1.00*	*3.0390*	*0.241*	*0.7325*	*9.7*
17	14:39	7.10	0.6	0.800	0.6	0.320	2.3993	1.00	2.3993	0.281	0.6743	8.9
18	*14:40*	*7.40*	*0.6*	*0.800*	*0.6*	*0.320*	*1.8638*	*1.00*	*1.8638*	*0.240*	*0.4471*	*5.9*
19	*14:41*	*7.70*	*0.6*	*0.400*	*0.6*	*0.160*	*1.2375*	*1.00*	*1.2375*	*0.120*	*0.1484*	*2.0*
20	*14:42*	*8.00*	*0.6*	*0.200*	*0.6*	*0.080*	*0.6732*	*1.00*	*0.6732*	*0.070*	*0.0472*	*0.6*
21	14:42	8.40	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

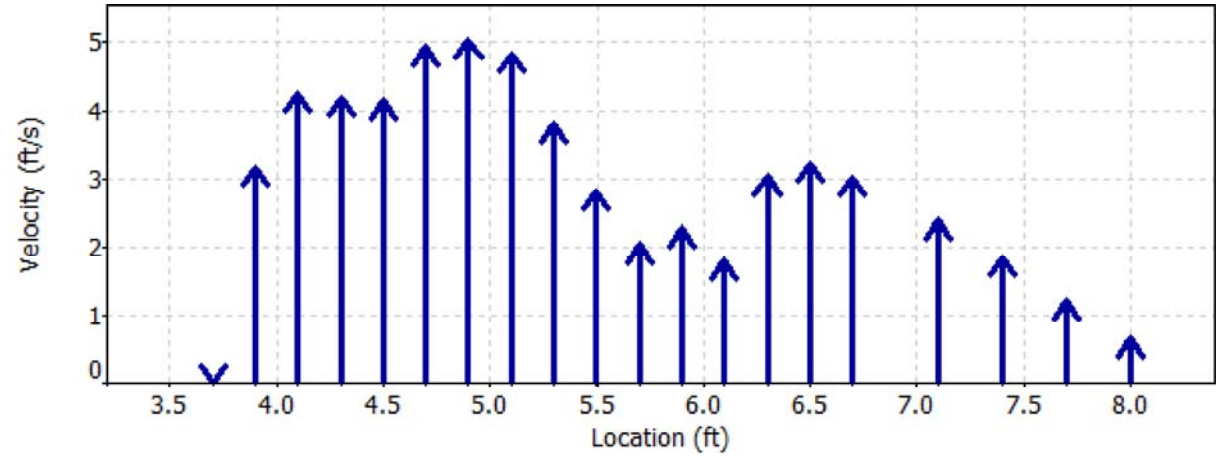
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

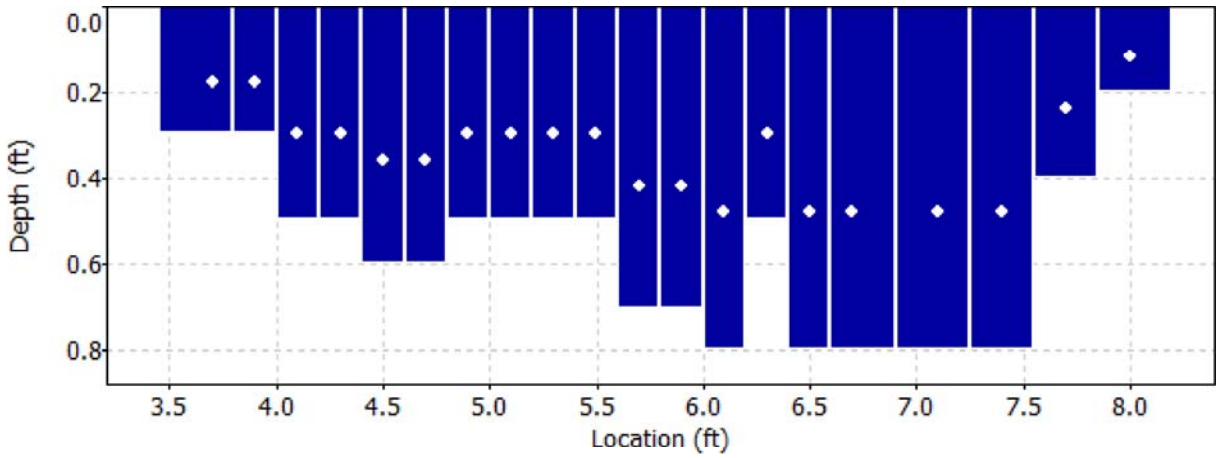
Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	A18B.WAD	Site Name	
Start Date and Time	2017/07/11 13:41:28	Operator(s)	SA







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	A18B.WAD
Start Date and Time	2017/07/11 13:41:28

Site Details

Site Name	
Operator(s)	SA

Quality Control

St	Loc	%Dep	Message
1	3.70	0.6	High SNR variation during measurement: 6.5,8.2
7	4.90	0.6	High angle: -21
9	5.30	0.6	High standard error: 0.230
10	5.50	0.6	High standard error: 0.180
11	5.70	0.6	High angle: -21
		0.6	High standard error: 0.209
12	5.90	0.6	High standard error: 0.166
13	6.10	0.6	High angle: -32
		0.6	High standard error: 0.163
14	6.30	0.6	High angle: -23
		0.6	High SNR variation during measurement: 6.5,5.2
15	6.50	0.6	High angle: -35
16	6.70	0.6	High angle: -34
18	7.40	0.6	High angle: -21
19	7.70	0.6	High number of spikes: 5
		0.6	High angle: -21
20	8.00	0.6	High angle: -21

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	BG1A.WAD
Start Date and Time	2017/07/12 12:11:11

Site Details

Site Name	BG1A
Operator(s)	SA

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.1%
Velocity	0.8%	1.7%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.0%	-
Overall	**3.0%**	**2.2%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	LEW	Total Width	1.950
Mean SNR	53.4 dB	Total Area	0.700
Mean Temp	44.79 °F	Mean Depth	0.359
Disch. Equation	Mid-Section	Mean Velocity	2.6917
		Total Discharge	**1.8839**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	12:11	3.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*12:33*	*3.35*	*0.6*	*0.400*	*0.6*	*0.160*	*3.6490*	*1.00*	*3.6490*	*0.080*	*0.2918*	*15.5*
2	12:11	3.40	0.6	0.400	0.6	0.160	3.8763	1.00	3.8763	0.020	0.0776	4.1
3	12:31	3.45	0.6	0.400	0.6	0.160	3.5623	1.00	3.5623	0.020	0.0713	3.8
4	12:12	3.50	0.6	0.400	0.6	0.160	2.8845	1.00	2.8845	0.020	0.0575	3.1
5	12:13	3.55	0.6	0.400	0.6	0.160	3.5997	1.00	3.5997	0.020	0.0718	3.8
6	12:13	3.60	0.6	0.400	0.6	0.160	3.8346	1.00	3.8346	0.020	0.0765	4.1
7	12:14	3.65	0.6	0.400	0.6	0.160	3.8432	1.00	3.8432	0.020	0.0766	4.1
8	12:15	3.70	0.6	0.400	0.6	0.160	3.2559	1.00	3.2559	0.020	0.0649	3.4
9	12:16	3.75	0.6	0.400	0.6	0.160	2.8166	1.00	2.8166	0.020	0.0562	3.0
10	12:17	3.80	0.6	0.400	0.6	0.160	2.8819	1.00	2.8819	0.020	0.0575	3.1
11	12:18	3.85	0.6	0.500	0.6	0.200	2.4833	1.00	2.4833	0.025	0.0619	3.3
12	12:19	3.90	0.6	0.500	0.6	0.200	2.5463	1.00	2.5463	0.025	0.0635	3.4
13	12:20	3.95	0.6	0.400	0.6	0.160	2.4849	1.00	2.4849	0.020	0.0496	2.6
14	12:21	4.00	0.6	0.400	0.6	0.160	2.5915	1.00	2.5915	0.020	0.0517	2.7
15	12:21	4.05	0.6	0.400	0.6	0.160	2.7241	1.00	2.7241	0.020	0.0543	2.9
16	12:22	4.10	0.6	0.400	0.6	0.160	2.6860	1.00	2.6860	0.020	0.0536	2.8
17	12:23	4.15	0.6	0.400	0.6	0.160	2.5712	1.00	2.5712	0.020	0.0513	2.7
18	12:24	4.20	0.6	0.400	0.6	0.160	1.9560	1.00	1.9560	0.020	0.0390	2.1
19	12:25	4.25	0.6	0.400	0.6	0.160	1.6673	1.00	1.6673	0.030	0.0506	2.7
20	12:26	4.35	0.6	0.400	0.6	0.160	1.1529	1.00	1.1529	0.041	0.0470	2.5
21	12:27	4.45	0.6	0.400	0.6	0.160	1.5213	1.00	1.5213	0.041	0.0621	3.3
22	12:28	4.55	0.6	0.400	0.6	0.160	1.8556	1.00	1.8556	0.060	0.1105	5.9
23	12:29	4.75	0.6	0.400	0.6	0.160	2.6358	1.00	2.6358	0.059	0.1560	8.3
24	12:30	4.85	0.6	0.400	0.6	0.160	3.2753	1.00	3.2753	0.040	0.1311	7.0
25	12:30	4.95	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

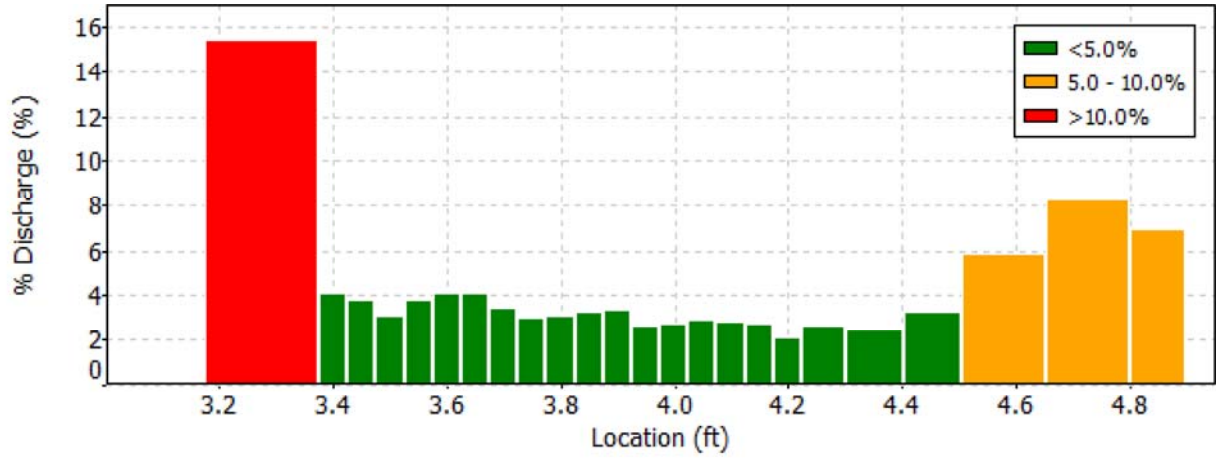
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

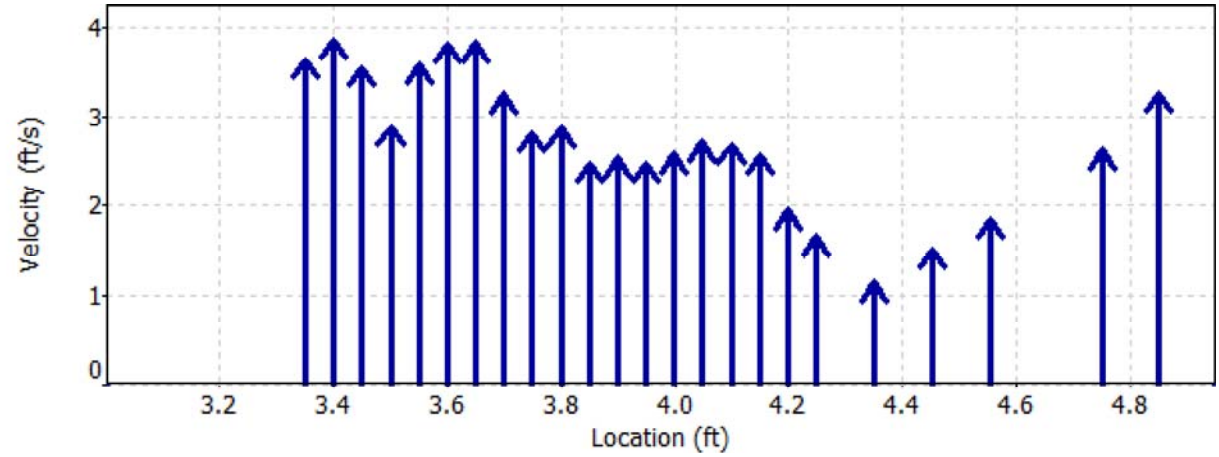
Discharge Measurement Summary

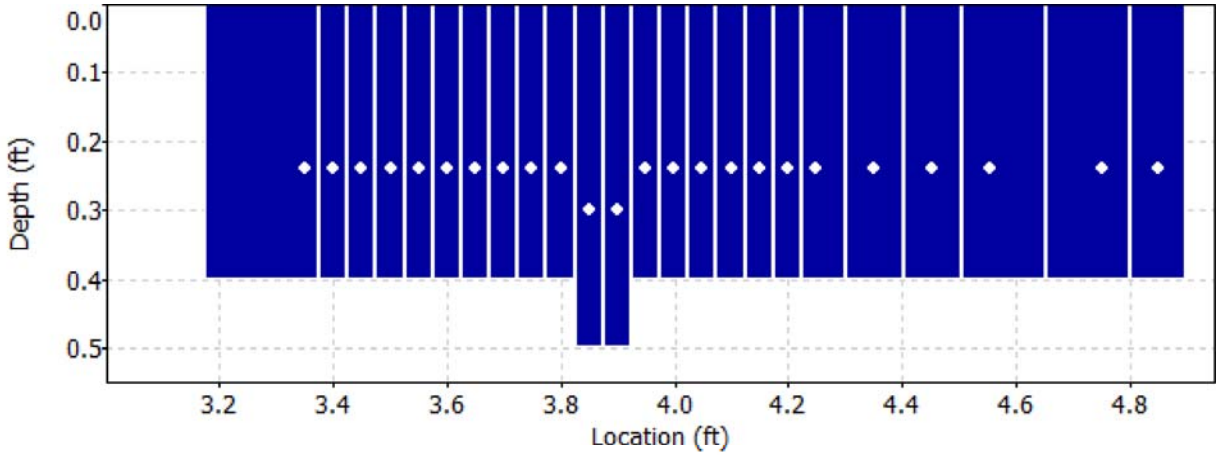
Date Generated: Mon Jul 17 2017

File Information	
File Name	BG1A.WAD
Start Date and Time	2017/07/12 12:11:11

Site Details	
Site Name	BG1A
Operator(s)	SA







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	BG1A.WAD	Site Name	BG1A
Start Date and Time	2017/07/12 12:11:11	Operator(s)	SA

Quality Control

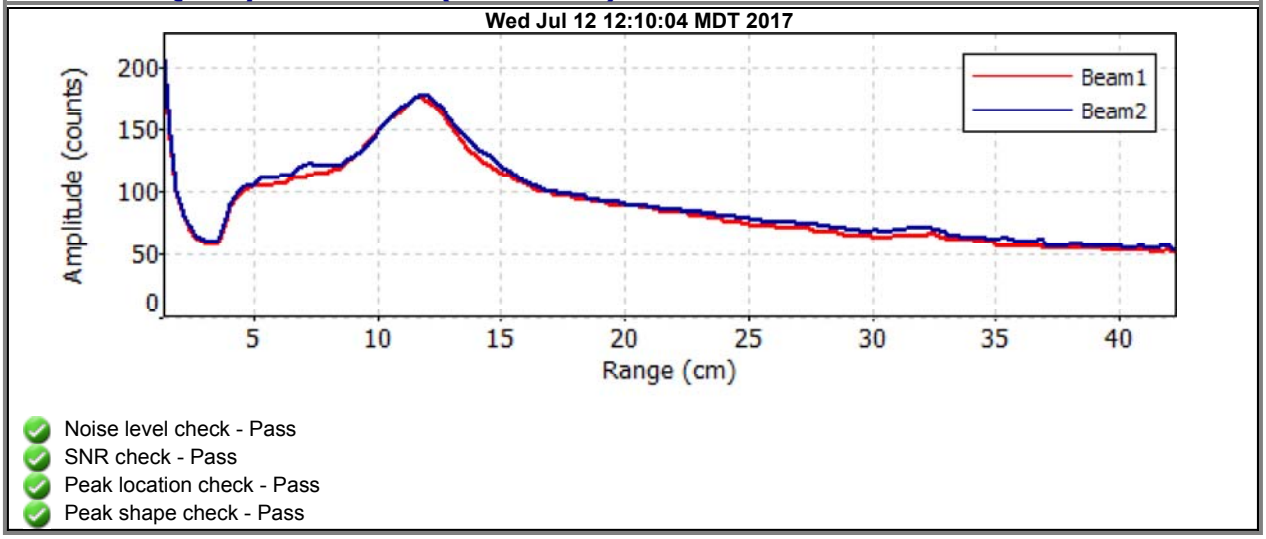
St	Loc	%Dep	Message
1	3.35	0.6	Boundary QC is Good; possible boundary interference

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information		Site Details	
File Name	BG1A.WAD	Site Name	BG1A
Start Date and Time	2017/07/12 12:11:11	Operator(s)	SA

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	CG3.WAD
Start Date and Time	2017/07/11 13:00:23

Site Details

Site Name	CG3
Operator(s)	SA

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.0%
Velocity	0.9%	2.9%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**3.3%**	**3.7%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	5.600
Mean SNR	53.1 dB	Total Area	3.510
Mean Temp	45.12 °F	Mean Depth	0.627
Disch. Equation	Mid-Section	Mean Velocity	2.8626
		Total Discharge	**10.0477**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:00	2.80	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*13:00*	*3.20*	*0.6*	*0.500*	*0.6*	*0.200*	*-0.0010*	*1.00*	*-0.0010*	*0.150*	*-0.0001*	*0.0*
2	13:01	3.40	0.6	0.800	0.6	0.320	1.6283	1.00	1.6283	0.160	0.2602	2.6
3	13:02	3.60	0.6	0.800	0.6	0.320	1.6611	1.00	1.6611	0.160	0.2655	2.6
4	13:03	3.80	0.6	0.800	0.6	0.320	3.3963	1.00	3.3963	0.160	0.5428	5.4
5	13:04	4.00	0.6	0.800	0.6	0.320	3.4291	1.00	3.4291	0.240	0.8234	8.2
6	13:05	4.40	0.6	0.800	0.6	0.320	2.9501	1.00	2.9501	0.280	0.8268	8.2
7	13:06	4.70	0.6	0.800	0.6	0.320	3.0062	1.00	3.0062	0.240	0.7219	7.2
8	13:07	5.00	0.6	0.800	0.6	0.320	3.5069	1.00	3.5069	0.240	0.8421	8.4
9	13:08	5.30	0.6	0.800	0.6	0.320	3.9865	1.00	3.9865	0.240	0.9572	9.5
10	13:09	5.60	0.6	0.800	0.6	0.320	3.4820	1.00	3.4820	0.240	0.8361	8.3
11	13:10	5.90	0.6	0.700	0.6	0.280	3.4659	1.00	3.4659	0.210	0.7284	7.2
12	13:11	6.20	0.6	0.700	0.6	0.280	3.5873	1.00	3.5873	0.210	0.7540	7.5
13	13:12	6.50	0.6	0.600	0.6	0.240	3.0039	1.00	3.0039	0.180	0.5411	5.4
14	13:12	6.80	0.6	0.600	0.6	0.240	2.5098	1.00	2.5098	0.180	0.4521	4.5
15	13:14	7.10	0.6	0.600	0.6	0.240	2.7772	1.00	2.7772	0.150	0.4153	4.1
16	13:15	7.30	0.6	0.500	0.6	0.200	2.4491	1.00	2.4491	0.150	0.3664	3.6
17	13:16	7.70	0.6	0.500	0.6	0.200	2.2080	1.00	2.2080	0.150	0.3312	3.3
18	13:17	7.90	0.6	0.500	0.6	0.200	2.5289	1.00	2.5289	0.100	0.2526	2.5
19	13:17	8.10	0.6	0.200	0.6	0.080	1.9426	1.00	1.9426	0.040	0.0777	0.8
20	13:18	8.30	0.6	0.200	0.6	0.080	1.7664	1.00	1.7664	0.030	0.0531	0.5
21	13:18	8.40	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

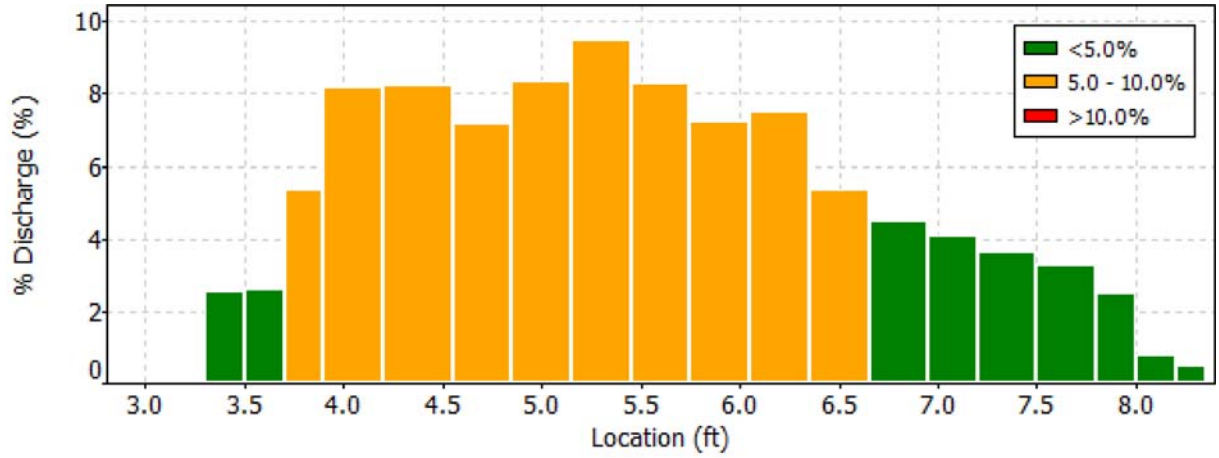
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

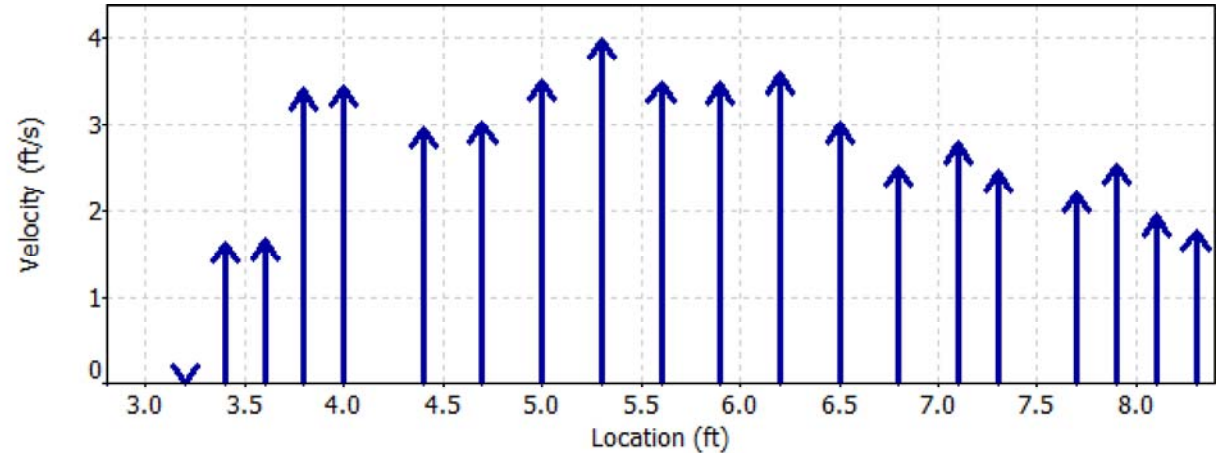
Discharge Measurement Summary

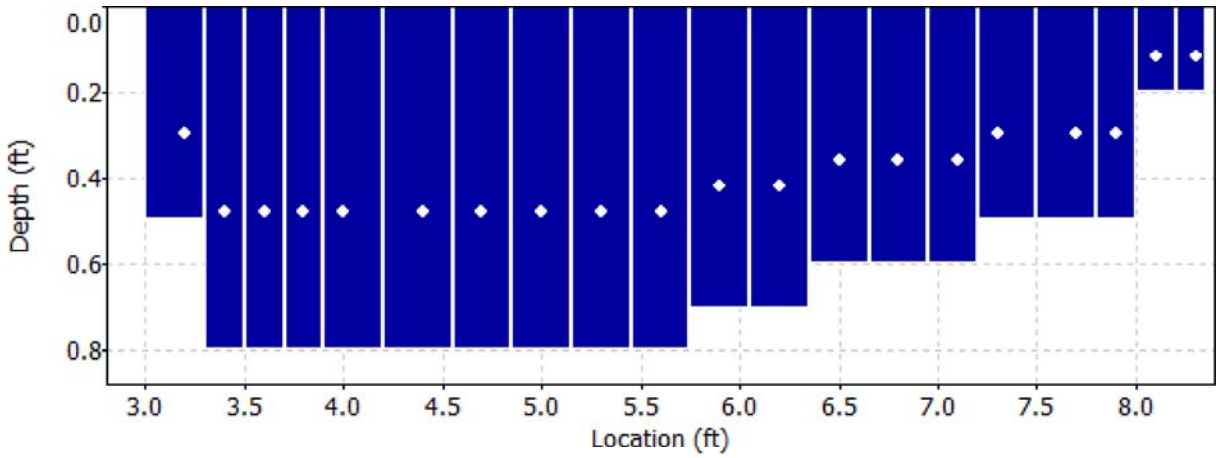
Date Generated: Mon Jul 17 2017

File Information	
File Name	CG3.WAD
Start Date and Time	2017/07/11 13:00:23

Site Details	
Site Name	CG3
Operator(s)	SA







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information	
File Name	CG3.WAD
Start Date and Time	2017/07/11 13:00:23

Site Details	
Site Name	CG3
Operator(s)	SA

Quality Control

St	Loc	%Dep	Message
1	3.20	0.6	High SNR variation during measurement: 5.6,6.0

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	CG4.WAD
Start Date and Time	2017/07/11 12:14:08

Site Details

Site Name	CG4
Operator(s)	SA

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.1%
Velocity	0.9%	4.0%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.2%	-
Overall	**3.2%**	**4.3%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	7.002
Mean SNR	52.9 dB	Total Area	4.380
Mean Temp	46.40 °F	Mean Depth	0.625
Disch. Equation	Mid-Section	Mean Velocity	2.3433
		Total Discharge	**10.2625**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	12:14	4.20	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	12:14	4.80	0.6	0.800	0.6	0.320	1.0548	1.00	1.0548	0.320	0.3374	3.3
2	12:15	5.00	0.6	0.800	0.6	0.320	1.4783	1.00	1.4783	0.160	0.2367	2.3
3	12:15	5.20	0.6	0.800	0.6	0.320	2.1270	1.00	2.1270	0.160	0.3405	3.3
4	12:16	5.40	0.6	0.800	0.6	0.320	2.9590	1.00	2.9590	0.160	0.4737	4.6
5	12:17	5.60	0.6	0.800	0.6	0.320	2.7841	1.00	2.7841	0.240	0.6678	6.5
6	12:19	6.00	0.6	0.800	0.6	0.320	2.7969	1.00	2.7969	0.280	0.7824	7.6
7	12:20	6.30	0.6	0.800	0.6	0.320	2.6237	1.00	2.6237	0.240	0.6293	6.1
8	12:21	6.60	0.6	0.800	0.6	0.320	3.2674	1.00	3.2674	0.240	0.7837	7.6
9	12:21	6.90	0.6	0.800	0.6	0.320	3.1988	1.00	3.1988	0.240	0.7673	7.5
10	12:23	7.20	0.6	0.800	0.6	0.320	2.4186	1.00	2.4186	0.240	0.5801	5.7
11	*12:24*	*7.50*	*0.6*	*0.800*	*0.6*	*0.320*	*1.7995*	*1.00*	*1.7995*	*0.240*	*0.4316*	*4.2*
12	*12:24*	*7.80*	*0.6*	*0.800*	*0.6*	*0.320*	*1.0515*	*1.00*	*1.0515*	*0.240*	*0.2522*	*2.5*
13	12:25	8.10	0.6	0.700	0.6	0.280	3.3615	1.00	3.3615	0.210	0.7057	6.9
14	12:26	8.40	0.6	0.700	0.6	0.280	3.2713	1.00	3.2713	0.210	0.6868	6.7
15	12:27	8.70	0.6	0.700	0.6	0.280	3.8881	1.00	3.8881	0.210	0.8163	8.0
16	12:28	9.00	0.6	0.700	0.6	0.280	3.4646	1.00	3.4646	0.210	0.7274	7.1
17	12:29	9.30	0.6	0.500	0.6	0.200	2.5367	1.00	2.5367	0.150	0.3803	3.7
18	*12:30*	*9.60*	*0.6*	*0.500*	*0.6*	*0.200*	*1.7346*	*1.00*	*1.7346*	*0.150*	*0.2601*	*2.5*
19	12:31	9.90	0.6	0.400	0.6	0.160	1.3786	1.00	1.3786	0.120	0.1653	1.6
20	12:33	10.20	0.6	0.400	0.6	0.160	0.8694	1.00	0.8694	0.160	0.1394	1.4
21	12:34	10.70	0.6	0.400	0.6	0.160	0.4902	1.00	0.4902	0.201	0.0984	1.0
22	12:34	11.20	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

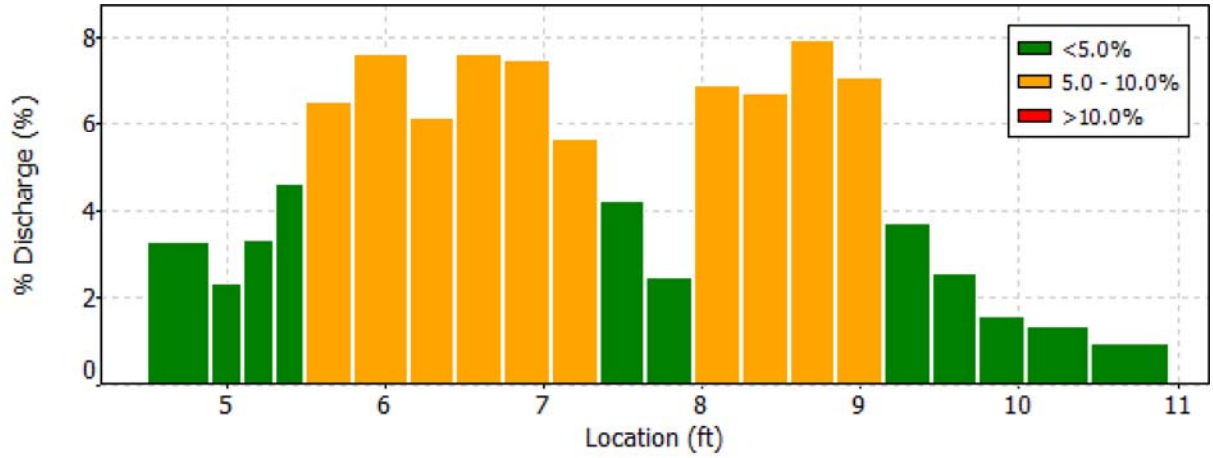
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

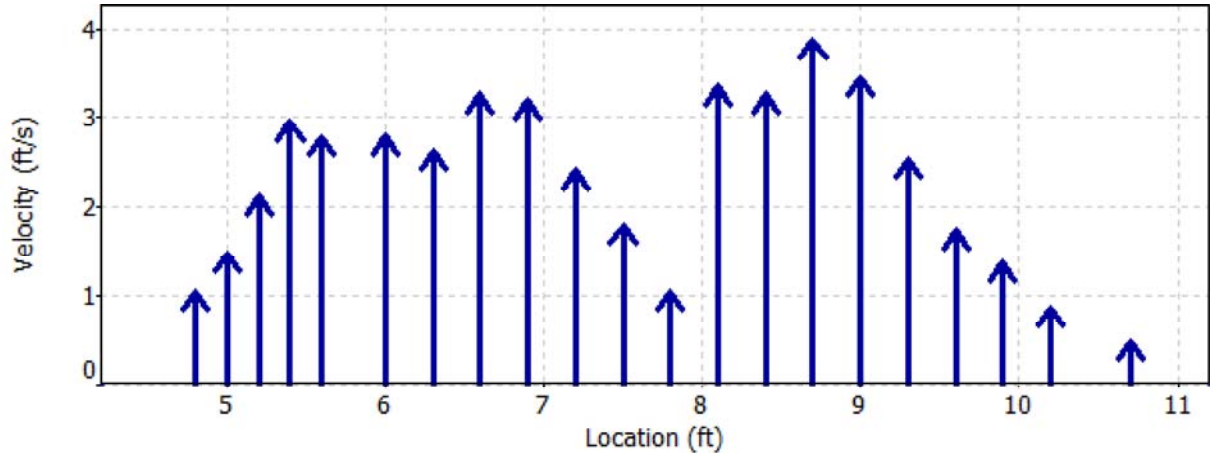
Discharge Measurement Summary

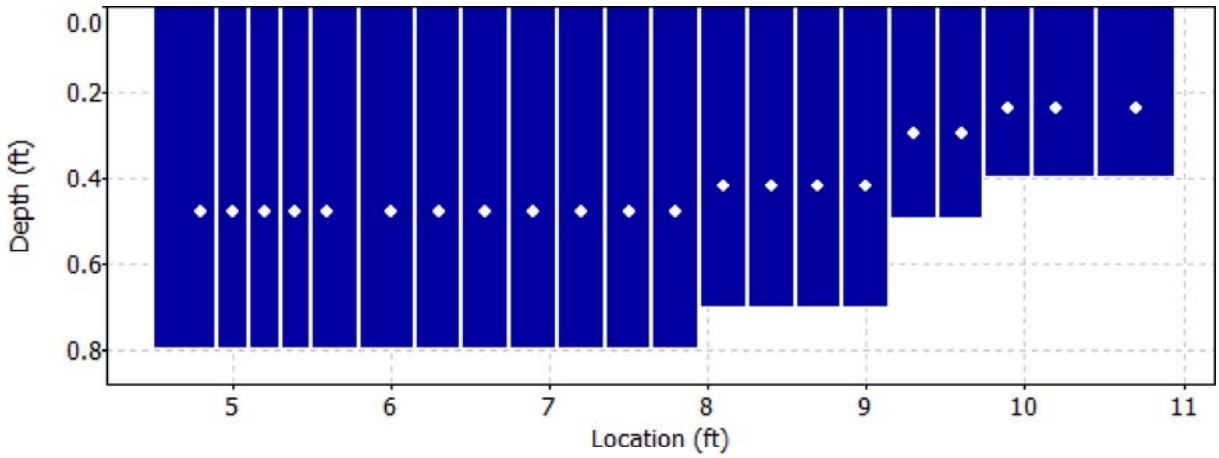
Date Generated: Mon Jul 17 2017

File Information	
File Name	CG4.WAD
Start Date and Time	2017/07/11 12:14:08

Site Details	
Site Name	CG4
Operator(s)	SA







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information	
File Name	CG4.WAD
Start Date and Time	2017/07/11 12:14:08

Site Details	
Site Name	CG4
Operator(s)	SA

Quality Control

St	Loc	%Dep	Message
11	7.50	0.6	High standard error: 0.120
12	7.80	0.6	High standard error: 0.119
18	9.60	0.6	High standard error: 0.143

Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	CG6.WAD
Start Date and Time	2017/07/11 11:19:01

Site Details

Site Name	CG6
Operator(s)	SA

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	1.1%
Velocity	0.7%	2.2%
Width	0.1%	0.1%
Method	1.7%	-
# Stations	2.2%	-
Overall	**3.1%**	**2.7%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	5.495
Mean SNR	53.9 dB	Total Area	3.893
Mean Temp	46.91 °F	Mean Depth	0.708
Disch. Equation	Mid-Section	Mean Velocity	2.9011
		Total Discharge	**11.2942**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:19	2.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	11:19	2.70	0.6	0.600	0.6	0.240	3.6276	1.00	3.6276	0.120	0.4356	3.9
2	11:20	2.90	0.6	0.600	0.6	0.240	3.2644	1.00	3.2644	0.120	0.3920	3.5
3	11:21	3.10	0.6	0.600	0.6	0.240	3.4514	1.00	3.4514	0.120	0.4145	3.7
4	11:21	3.30	0.6	0.600	0.6	0.240	3.2671	1.00	3.2671	0.120	0.3923	3.5
5	11:22	3.50	0.6	0.700	0.6	0.280	2.9311	1.00	2.9311	0.140	0.4107	3.6
6	11:23	3.70	0.6	0.700	0.6	0.280	3.4862	1.00	3.4862	0.140	0.4885	4.3
7	11:24	3.90	0.6	0.700	0.6	0.280	4.1499	1.00	4.1499	0.175	0.7254	6.4
8	11:25	4.20	0.6	0.700	0.6	0.280	3.8245	1.00	3.8245	0.209	0.8012	7.1
9	11:26	4.50	0.6	0.700	0.6	0.280	3.7746	1.00	3.7746	0.209	0.7907	7.0
10	11:27	4.80	0.6	0.700	0.6	0.280	2.9311	1.00	2.9311	0.209	0.6140	5.4
11	11:28	5.10	0.6	0.700	0.6	0.280	3.8202	1.00	3.8202	0.209	0.8003	7.1
12	11:29	5.40	0.6	0.700	0.6	0.280	3.6316	1.00	3.6316	0.209	0.7608	6.7
13	11:30	5.70	0.6	0.800	0.6	0.320	3.1726	1.00	3.1726	0.239	0.7593	6.7
14	11:31	6.00	0.6	0.800	0.6	0.320	2.3763	1.00	2.3763	0.202	0.4789	4.2
15	11:32	6.20	0.6	0.800	0.6	0.320	2.7103	1.00	2.7103	0.164	0.4438	3.9
16	11:33	6.40	0.6	0.800	0.6	0.320	2.8888	1.00	2.8888	0.160	0.4621	4.1
17	11:34	6.60	0.6	0.900	0.6	0.360	2.4304	1.00	2.4304	0.176	0.4270	3.8
18	11:35	6.80	0.6	0.800	0.6	0.320	2.1509	1.00	2.1509	0.160	0.3440	3.0
19	11:36	7.00	0.6	0.900	0.6	0.360	1.7241	1.00	1.7241	0.184	0.3176	2.8
20	*11:37*	*7.20*	*0.6*	*0.900*	*0.6*	*0.360*	*1.7874*	*1.00*	*1.7874*	*0.270*	*0.4826*	*4.3*
21	*11:38*	*7.60*	*0.6*	*0.900*	*0.6*	*0.360*	*1.5535*	*1.00*	*1.5535*	*0.356*	*0.5527*	*4.9*
22	11:38	8.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

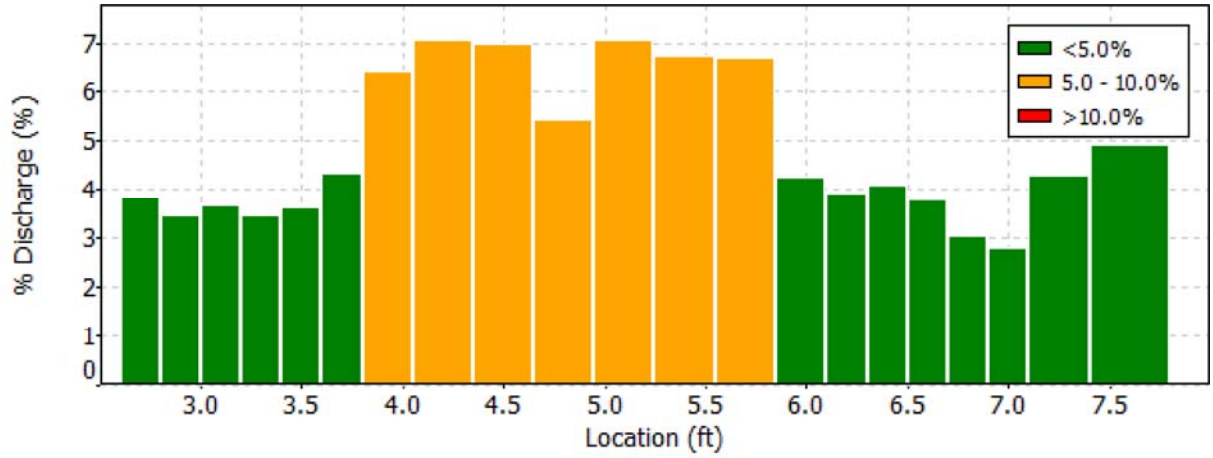
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

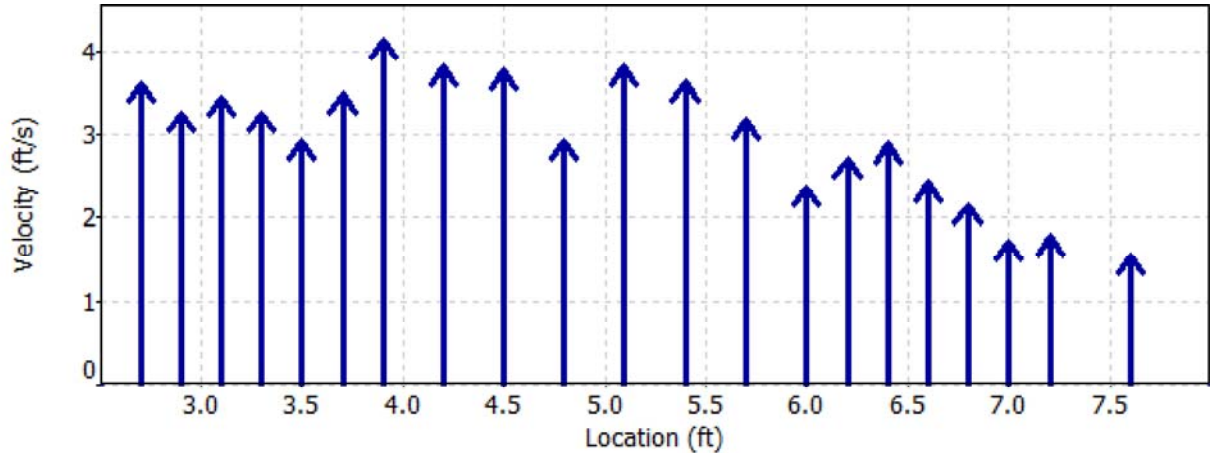
Discharge Measurement Summary

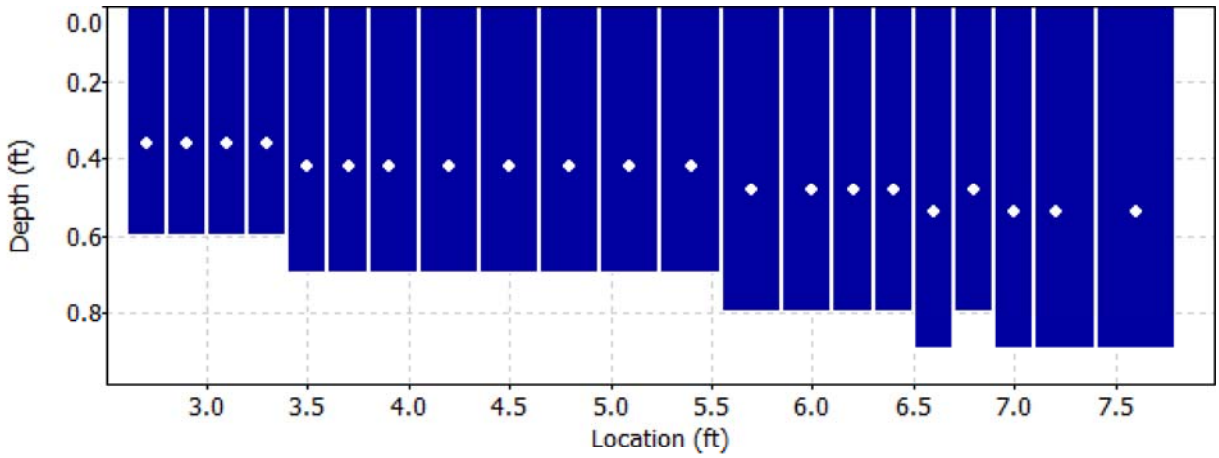
Date Generated: Mon Jul 17 2017

File Information	
File Name	CG6.WAD
Start Date and Time	2017/07/11 11:19:01

Site Details	
Site Name	CG6
Operator(s)	SA







Discharge Measurement Summary

Date Generated: Mon Jul 17 2017

File Information

File Name	CG6.WAD
Start Date and Time	2017/07/11 11:19:01

Site Details

Site Name	CG6
Operator(s)	SA

Quality Control

St	Loc	%Dep	Message
20	7.20	0.6	High angle: 23
21	7.60	0.6	High angle: 38

Discharge Measurement Summary

File Information

File name	A35_20170926-093909.ft
Start date and time	9/26/2017 8:53 AM
Calculations engine	FlowTracker2
Data collection mode	Discharge

Discharge Summary

Start time	9/26/2017 8:56:02 AM	End time	9/26/2017 9:37:17 AM
# Stations	24	Avg interval	40
Mean depth	0.891 ft		
Mean velocity	0.4548 ft/s	Total width	17.000 ft
Mean SNR	39 dB	Total area	15.1490 ft²
Mean temp	32.144 °F	Total discharge	6.8892 ft³/s

System Information

Sensor type	Top Setting
Handheld serial number	FT2H1733001
Probe serial number	FT2P1733022
Probe firmware	1.23
Handheld software	1.4

Site Details

Site name	A35
Site number	A35
Operator(s)	RM
Comment	

Discharge Uncertainty

Category	ISO	IVE
Accuracy	1.0 %	1.0 %
Depth	0.2 %	2.2 %
Velocity	0.9 %	4.7 %
Width	0.1 %	0.1 %
Method	2.0 %	
# Stations	2.1 %	
Overall	3.2 %	5.3 %

Discharge Settings

Discharge equation	Mid Section
Discharge uncertainty	IVE
Discharge reference	Rated

Station Warning Settings

Station discharge caution		%
Station discharge warning	10.00	%
Maximum depth change	50.00	%
Maximum spacing change	100.00	%

Summary overview

No changes were made to this file
Quality control warnings

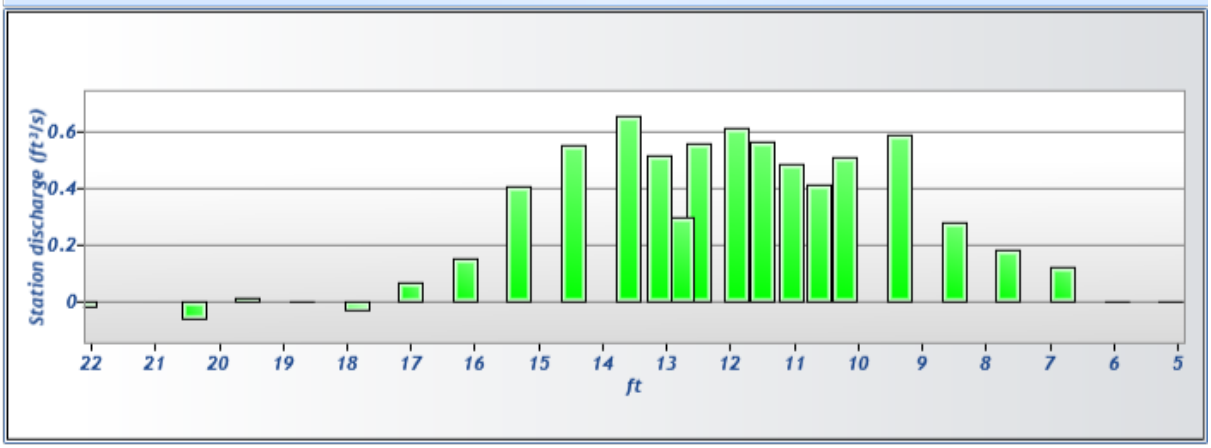
Data Collection Settings

Salinity	0.000	PSS-78
Temperature		°F
Sound speed		ft/s
Mounting correction	0.00	%

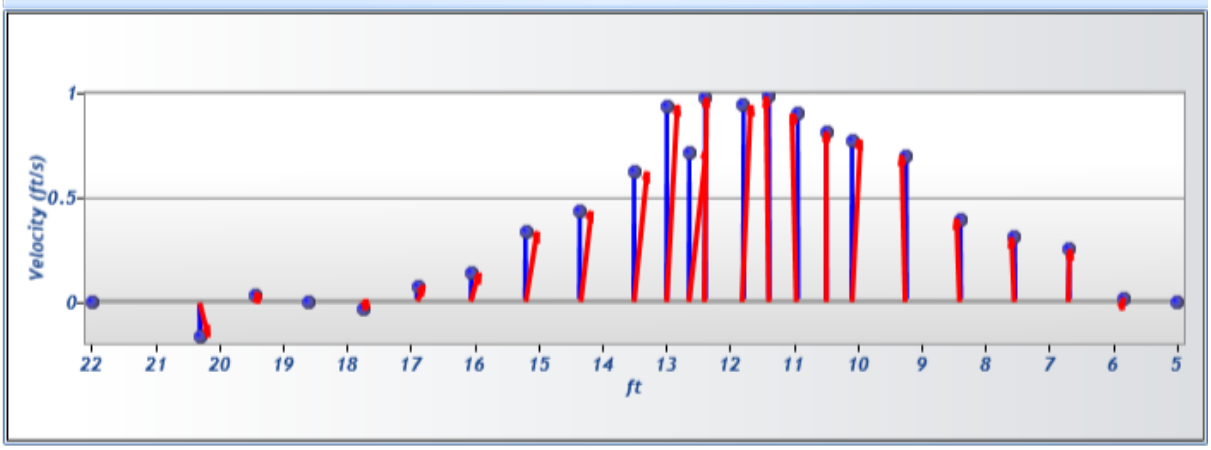
Quality Control Settings

SNR threshold	10	dB
Standard error threshold	0.0328	ft/s
Spike threshold	10.00	%
Maximum velocity angle	20.0	deg
Maximum tilt angle	5.0	deg

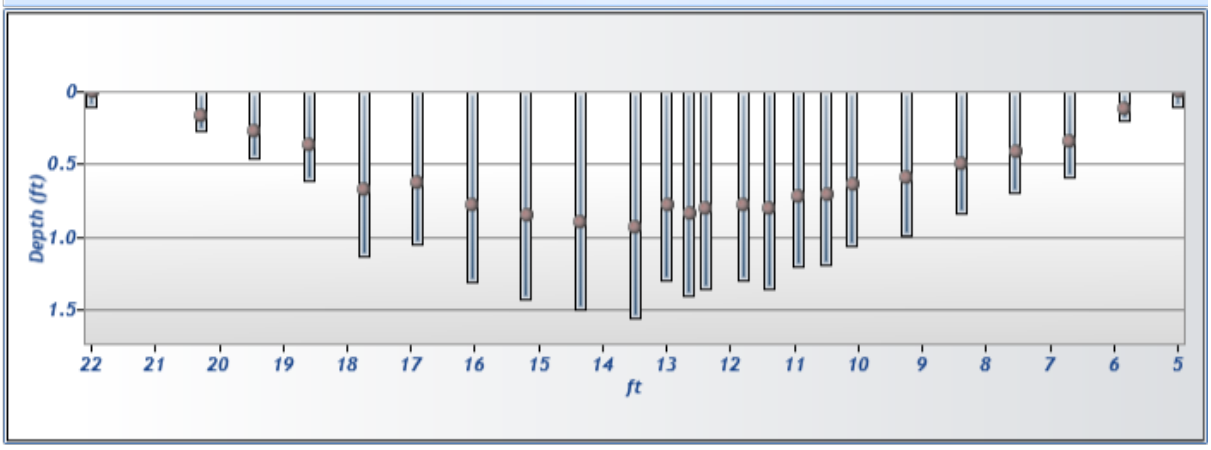
Discharge chart



Velocity chart



Depth chart



Measurement results

St#	Time	Location (ft)	Method	Depth (ft)	%Depth	Measured Depth (ft)	Samples	Velocity (ft/s)	Correction	Mean Velocity (ft/s)	Area (ft^2)	Flow (ft^3/s)	%Q	
0	8:56 AM	5.000	None	0.100	0.0000	0.000	0	0.0000	1.0000	0.0163	0.0425	0.0007	0.01	✓
1	8:57 AM	5.850	0.6	0.200	0.6000	0.120	80	0.0163	1.0000	0.0163	0.1700	0.0028	0.04	✓
2	9:00 AM	6.700	0.6	0.580	0.6000	0.348	80	0.2527	1.0000	0.2527	0.4930	0.1246	1.81	✓
3	9:02 AM	7.550	0.6	0.690	0.6000	0.414	80	0.3077	1.0000	0.3077	0.5865	0.1805	2.62	✓
4	9:05 AM	8.400	0.6	0.830	0.6000	0.498	80	0.3944	1.0000	0.3944	0.7055	0.2782	4.04	✓
5	9:07 AM	9.250	0.6	0.990	0.6000	0.594	80	0.6990	1.0000	0.6990	0.8415	0.5882	8.54	✓
6	9:09 AM	10.100	0.6	1.060	0.6000	0.636	80	0.7742	1.0000	0.7742	0.6625	0.5129	7.45	✓
7	9:32 AM	10.500	0.6	1.190	0.6000	0.714	80	0.8115	1.0000	0.8115	0.5058	0.4104	5.96	✓
8	9:11 AM	10.950	0.6	1.200	0.6000	0.720	80	0.9005	1.0000	0.9005	0.5400	0.4863	7.06	✓
9	9:34 AM	11.400	0.6	1.350	0.6000	0.810	80	0.9810	1.0000	0.9810	0.5738	0.5628	8.17	✓
10	9:12 AM	11.800	0.6	1.300	0.6000	0.780	80	0.9411	1.0000	0.9411	0.6500	0.6117	8.88	✓
11	9:28 AM	12.400	0.6	1.350	0.6000	0.810	80	0.9759	1.0000	0.9759	0.5738	0.5599	8.13	✓
12	9:14 AM	12.650	0.6	1.400	0.6000	0.840	80	0.7168	1.0000	0.7168	0.4200	0.3011	4.37	✓
13	9:30 AM	13.000	0.6	1.300	0.6000	0.780	80	0.9378	1.0000	0.9378	0.5525	0.5181	7.52	✓
14	9:15 AM	13.500	0.6	1.560	0.6000	0.936	80	0.6241	1.0000	0.6241	1.0530	0.6572	9.54	✓
15	9:17 AM	14.350	0.6	1.500	0.6000	0.900	80	0.4343	1.0000	0.4343	1.2750	0.5537	8.04	✓
16	9:18 AM	15.200	0.6	1.420	0.6000	0.852	80	0.3358	1.0000	0.3358	1.2070	0.4054	5.88	✓
17	9:19 AM	16.050	0.6	1.310	0.6000	0.786	80	0.1374	1.0000	0.1374	1.1135	0.1530	2.22	✓
18	9:21 AM	16.900	0.6	1.050	0.6000	0.630	80	0.0770	1.0000	0.0770	0.8925	0.0687	1.00	✓
19	9:22 AM	17.750	0.6	1.130	0.6000	0.678	80	-0.0297	1.0000	-0.0297	0.9605	-0.0285	-0.41	✓
20	9:24 AM	18.600	0.6	0.610	0.6000	0.366	80	-0.0006	1.0000	-0.0006	0.5185	-0.0003	0.00	✓
21	9:25 AM	19.450	0.6	0.450	0.6000	0.270	80	0.0352	1.0000	0.0352	0.3825	0.0135	0.20	✓
22	9:27 AM	20.300	0.6	0.270	0.6000	0.162	80	-0.1666	1.0000	-0.1666	0.3443	-0.0574	-0.83	✓
23	9:37 AM	22.000	None	0.100	0.0000	0.000	0	0.0000	1.0000	-0.1666	0.0850	-0.0142	-0.21	✓

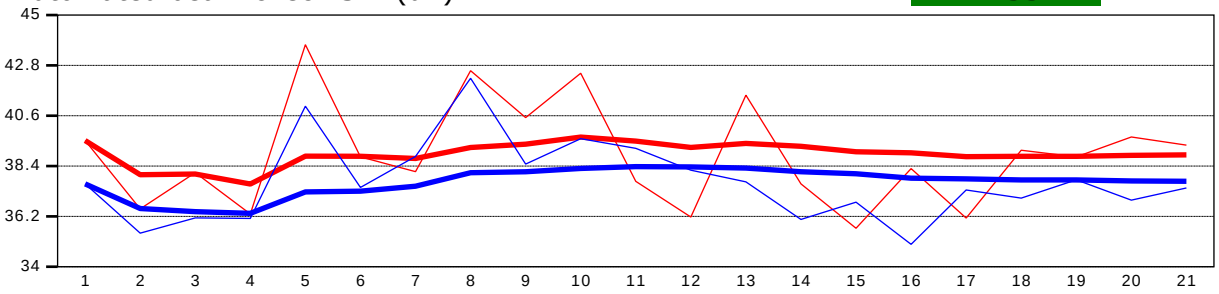
Quality control warnings

St#	Time	Location (ft)	Method	Depth (ft)	%Depth	Measured Depth (ft)	Warnings
1	8:57 AM	5.850	0.6	0.200	0.6000	0.120	Large SNR Variation
8	9:11 AM	10.950	0.6	1.200	0.6000	0.720	Stn Spacing > QC
12	9:14 AM	12.650	0.6	1.400	0.6000	0.840	Velocity Angle > QC
13	9:30 AM	13.000	0.6	1.300	0.6000	0.780	Stn Spacing > QC
15	9:17 AM	14.350	0.6	1.500	0.6000	0.900	Velocity Angle > QC
16	9:18 AM	15.200	0.6	1.420	0.6000	0.852	Velocity Angle > QC
17	9:19 AM	16.050	0.6	1.310	0.6000	0.786	Velocity Angle > QC
18	9:21 AM	16.900	0.6	1.050	0.6000	0.630	Velocity Angle > QC
22	9:27 AM	20.300	0.6	0.270	0.6000	0.162	Velocity Angle > QC

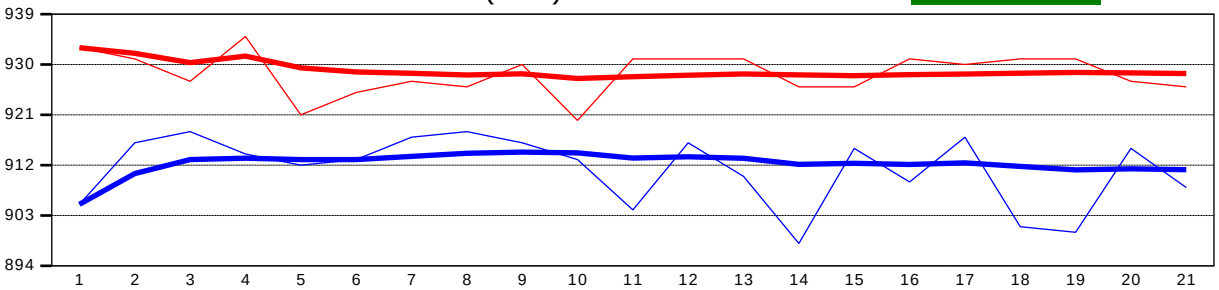
10/4/2017 2:09:07 PM

Automated beam check Start time 9/26/2017 8:54:58 AM

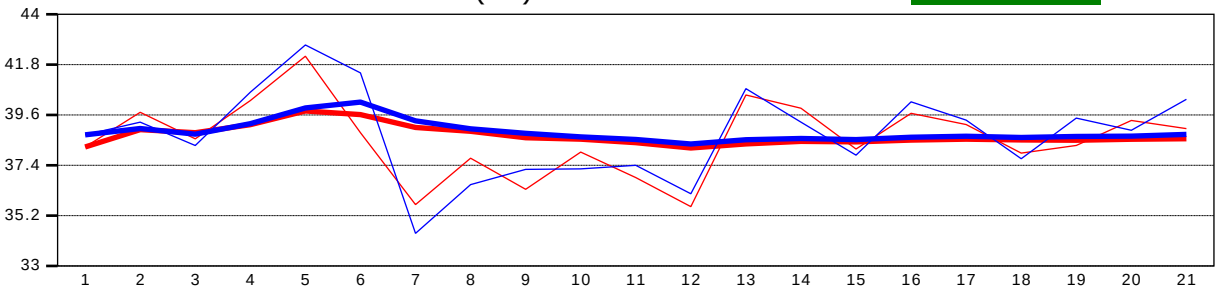
Automated beam check SNR(dB) PASS



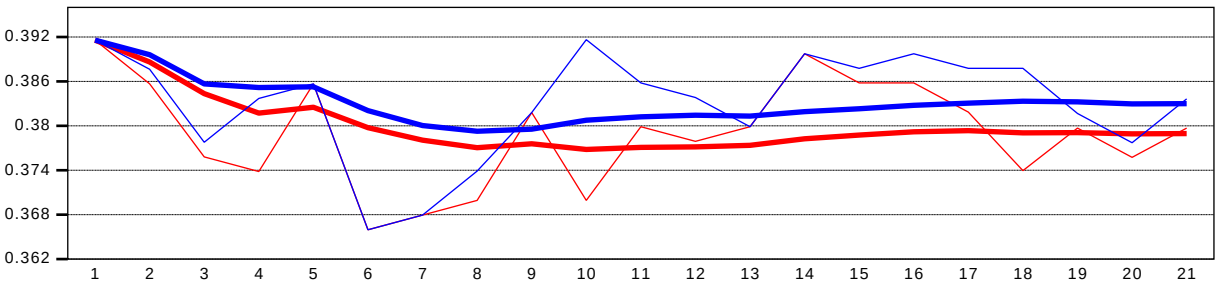
Automated beam check Noise level(cnts) PASS



Automated beam check Peak level(dB) PASS



Automated beam check Peak position(ft) PASS



Automated beam check Quality control warnings

No quality control warnings

Discharge Measurement Summary

File Information

File name	A36_20170926-143121.ft
Start date and time	9/26/2017 2:00 PM
Calculations engine	FlowTracker2
Data collection mode	Discharge

Discharge Summary

Start time	9/26/2017 2:02:15 PM	End time	9/26/2017 2:30:13 PM
# Stations	20	Avg interval	40
Mean depth	0.357 ft		
Mean velocity	1.1051 ft/s	Total width	5.300 ft
Mean SNR	51 dB	Total area	1.8910 ft²
Mean temp	44.722 °F	Total discharge	2.0897 ft³/s

System Information

Sensor type	Top Setting
Handheld serial number	FT2H1733001
Probe serial number	FT2P1733022
Probe firmware	1.23
Handheld software	1.4

Site Details

Site name	A36
Site number	A36
Operator(s)	RM
Comment	

Discharge Uncertainty

Category	ISO	IVE
Accuracy	1.0 %	1.0 %
Depth	0.4 %	6.3 %
Velocity	0.8 %	2.5 %
Width	0.1 %	0.1 %
Method	2.0 %	
# Stations	2.5 %	
Overall	3.5 %	6.8 %

Discharge Settings

Discharge equation	Mid Section
Discharge uncertainty	IVE
Discharge reference	Rated

Station Warning Settings

Station discharge caution		%
Station discharge warning	10.00	%
Maximum depth change	50.00	%
Maximum spacing change	100.00	%

Summary overview

No changes were made to this file
Quality control warnings

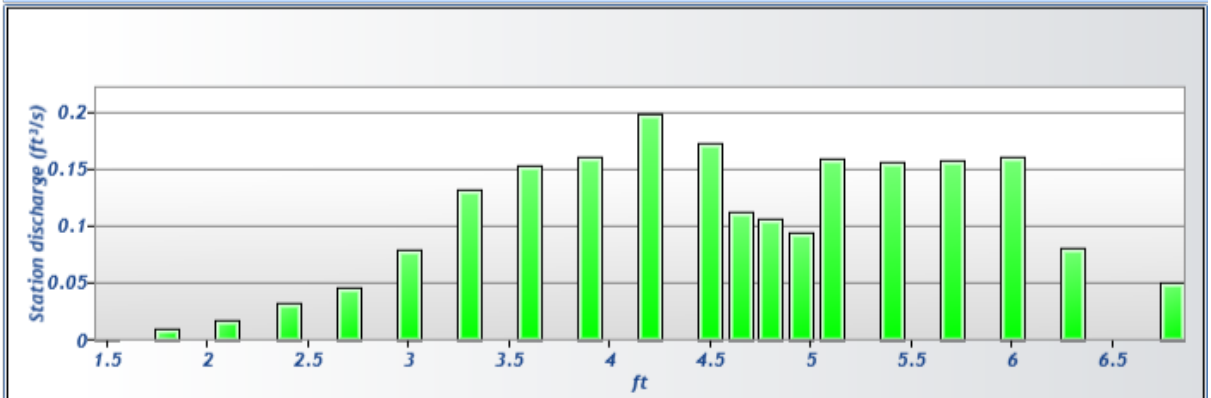
Data Collection Settings

Salinity	0.000	PSS-78
Temperature		°F
Sound speed		ft/s
Mounting correction	0.00	%

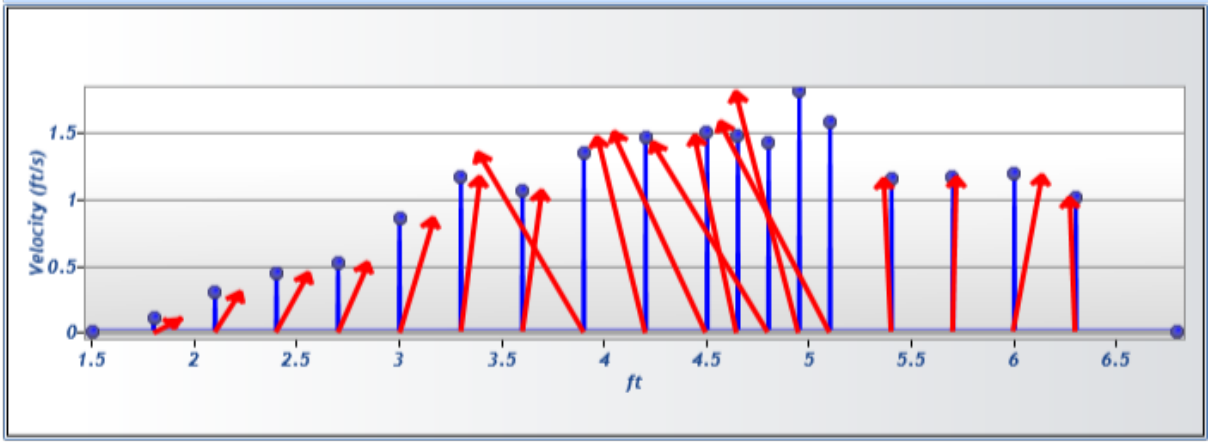
Quality Control Settings

SNR threshold	10	dB
Standard error threshold	0.0328	ft/s
Spike threshold	10.00	%
Maximum velocity angle	20.0	deg
Maximum tilt angle	5.0	deg

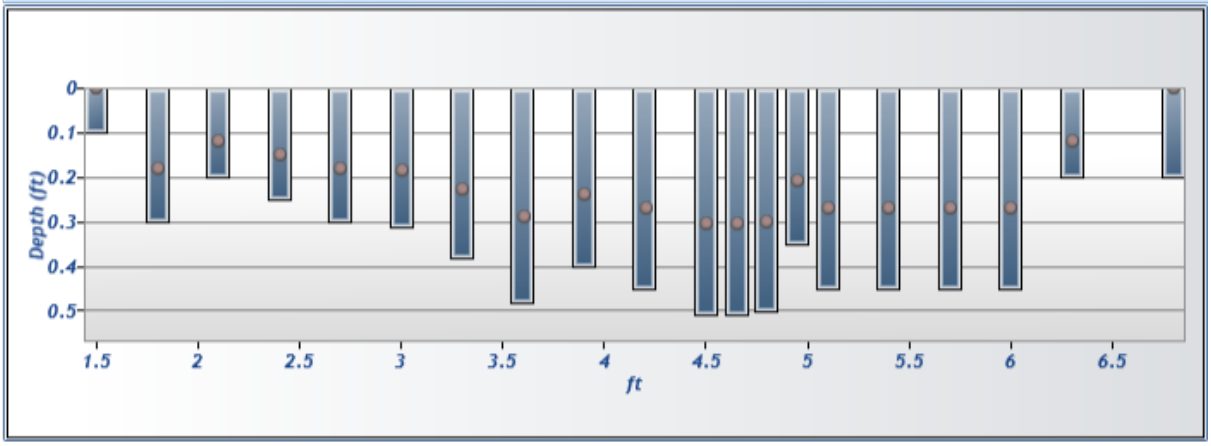
Discharge chart



Velocity chart



Depth chart



Measurement results

St#	Time	Location (ft)	Method	Depth (ft)	%Depth	Measured Depth (ft)	Samples	Velocity (ft/s)	Correction	Mean Velocity (ft/s)	Area (ft^2)	Flow (ft^3/s)	%Q	
0	2:02 PM	1.500	None	0.100	0.0000	0.000	0	0.0000	1.0000	0.1119	0.0150	0.0017	0.08	✓
1	2:02 PM	1.800	0.6	0.300	0.6000	0.180	80	0.1119	1.0000	0.1119	0.0900	0.0101	0.48	✓
2	2:04 PM	2.100	0.6	0.200	0.6000	0.120	80	0.2972	1.0000	0.2972	0.0600	0.0178	0.85	✓
3	2:06 PM	2.400	0.6	0.250	0.6000	0.150	80	0.4458	1.0000	0.4458	0.0750	0.0334	1.60	✓
4	2:07 PM	2.700	0.6	0.300	0.6000	0.180	80	0.5240	1.0000	0.5240	0.0900	0.0472	2.26	✓
5	2:08 PM	3.000	0.6	0.310	0.6000	0.186	80	0.8553	1.0000	0.8553	0.0930	0.0795	3.81	✓
6	2:09 PM	3.300	0.6	0.380	0.6000	0.228	80	1.1661	1.0000	1.1661	0.1140	0.1329	6.36	✓
7	2:11 PM	3.600	0.6	0.480	0.6000	0.288	80	1.0699	1.0000	1.0699	0.1440	0.1541	7.37	✓
8	2:12 PM	3.900	0.6	0.400	0.6000	0.240	80	1.3469	1.0000	1.3469	0.1200	0.1616	7.73	✓
9	2:14 PM	4.200	0.6	0.450	0.6000	0.270	80	1.4681	1.0000	1.4681	0.1350	0.1982	9.48	✓
10	2:15 PM	4.500	0.6	0.510	0.6000	0.306	80	1.5037	1.0000	1.5037	0.1148	0.1725	8.26	✓
11	2:27 PM	4.650	0.6	0.510	0.6000	0.306	80	1.4807	1.0000	1.4807	0.0765	0.1133	5.42	✓
12	2:17 PM	4.800	0.6	0.500	0.6000	0.300	80	1.4253	1.0000	1.4253	0.0750	0.1069	5.12	✓
13	2:28 PM	4.950	0.6	0.350	0.6000	0.210	80	1.8106	1.0000	1.8106	0.0525	0.0951	4.55	✓
14	2:19 PM	5.100	0.6	0.450	0.6000	0.270	80	1.5793	1.0000	1.5793	0.1013	0.1599	7.65	✓
15	2:20 PM	5.400	0.6	0.450	0.6000	0.270	80	1.1593	1.0000	1.1593	0.1350	0.1565	7.49	✓
16	2:22 PM	5.700	0.6	0.450	0.6000	0.270	80	1.1652	1.0000	1.1652	0.1350	0.1573	7.53	✓
17	2:24 PM	6.000	0.6	0.450	0.6000	0.270	80	1.1870	1.0000	1.1870	0.1350	0.1602	7.67	✓
18	2:25 PM	6.300	0.6	0.200	0.6000	0.120	80	1.0109	1.0000	1.0109	0.0800	0.0809	3.87	✓
19	2:30 PM	6.800	None	0.200	0.0000	0.000	0	0.0000	1.0000	1.0109	0.0500	0.0505	2.42	✓

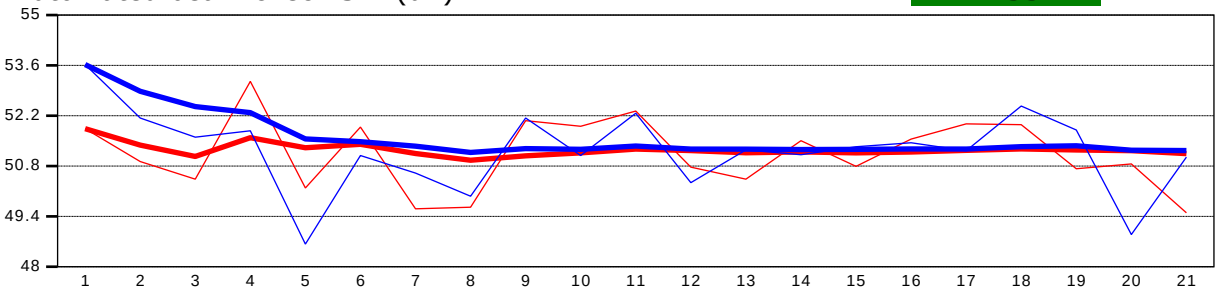
Quality control warnings

St#	Time	Location (ft)	Method	Depth (ft)	%Depth	Measured Depth (ft)	Warnings	
1	2:02 PM	1.800	0.6	0.300	0.6000	0.180	Velocity Angle > QC	
2	2:04 PM	2.100	0.6	0.200	0.6000	0.120	Velocity Angle > QC	
8	2:12 PM	3.900	0.6	0.400	0.6000	0.240	Standard Error > QC,Velocity Angle > QC	
10	2:15 PM	4.500	0.6	0.510	0.6000	0.306	Standard Error > QC	
11	2:27 PM	4.650	0.6	0.510	0.6000	0.306	Standard Error > QC	
12	2:17 PM	4.800	0.6	0.500	0.6000	0.300	Standard Error > QC,Velocity Angle > QC	
15	2:20 PM	5.400	0.6	0.450	0.6000	0.270	Standard Error > QC	
16	2:22 PM	5.700	0.6	0.450	0.6000	0.270	Boundary Interference,Standard Error > QC	
17	2:24 PM	6.000	0.6	0.450	0.6000	0.270	Boundary Interference,Standard Error > QC	

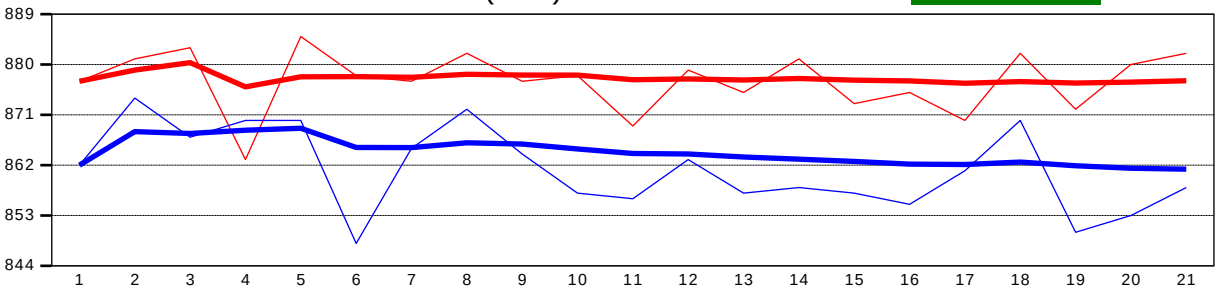
10/4/2017 2:12:51 PM

Automated beam check Start time 9/26/2017 2:01:54 PM

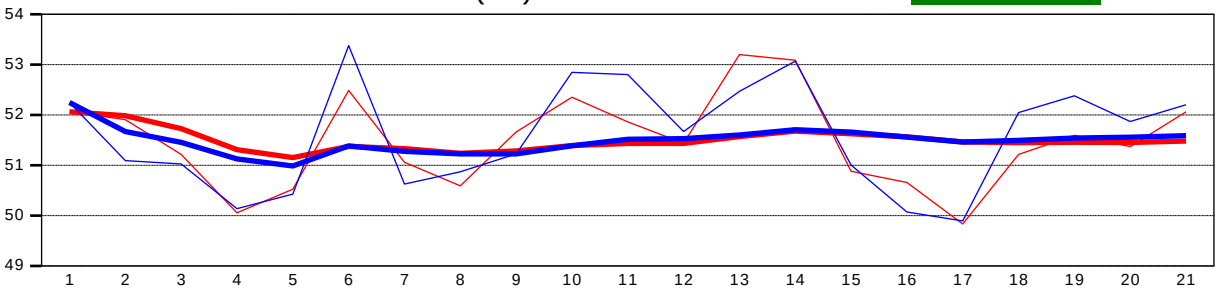
Automated beam check SNR(dB) PASS



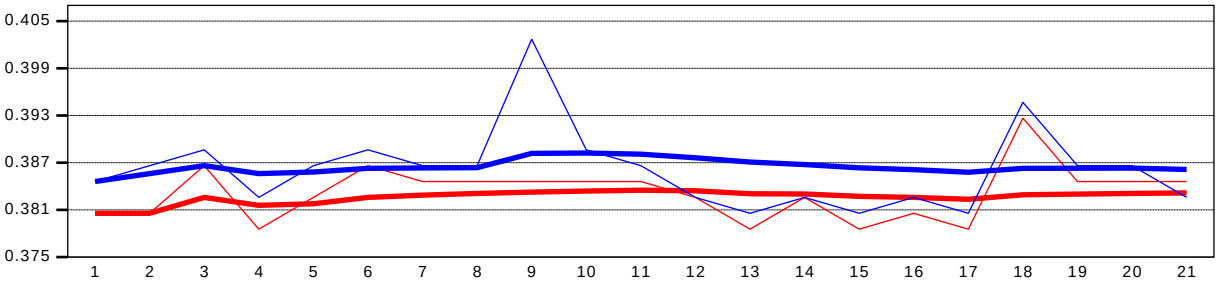
Automated beam check Noise level(cnts) PASS



Automated beam check Peak level(dB) PASS



Automated beam check Peak position(ft) PASS



Automated beam check Quality control warnings

No quality control warnings

Discharge Measurement Summary

File Information

File name	A36A_20170926-155202.ft
Start date and time	9/26/2017 3:19 PM
Calculations engine	FlowTracker2
Data collection mode	Discharge

Discharge Summary

Start time	9/26/2017 3:21:35 PM	End time	9/26/2017 3:51:05 PM
# Stations	21	Avg interval	40
Mean depth	0.348 ft		
Mean velocity	0.9921 ft/s	Total width	4.000 ft
Mean SNR	46 dB	Total area	1.3930 ft²
Mean temp	44.016 °F	Total discharge	1.3820 ft³/s

System Information

Sensor type	Top Setting
Handheld serial number	FT2H1733001
Probe serial number	FT2P1733022
Probe firmware	1.23
Handheld software	1.4

Site Details

Site name	A36A
Site number	A36A
Operator(s)	RM
Comment	

Discharge Uncertainty

Category	ISO	IVE
Accuracy	1.0 %	1.0 %
Depth	0.4 %	6.5 %
Velocity	0.9 %	5.2 %
Width	0.1 %	0.1 %
Method	1.8 %	
# Stations	2.4 %	
Overall	3.3 %	8.4 %

Discharge Settings

Discharge equation	Mid Section
Discharge uncertainty	IVE
Discharge reference	Rated

Station Warning Settings

Station discharge caution		%
Station discharge warning	10.00	%
Maximum depth change	50.00	%
Maximum spacing change	100.00	%

Summary overview

No changes were made to this file
Quality control warnings

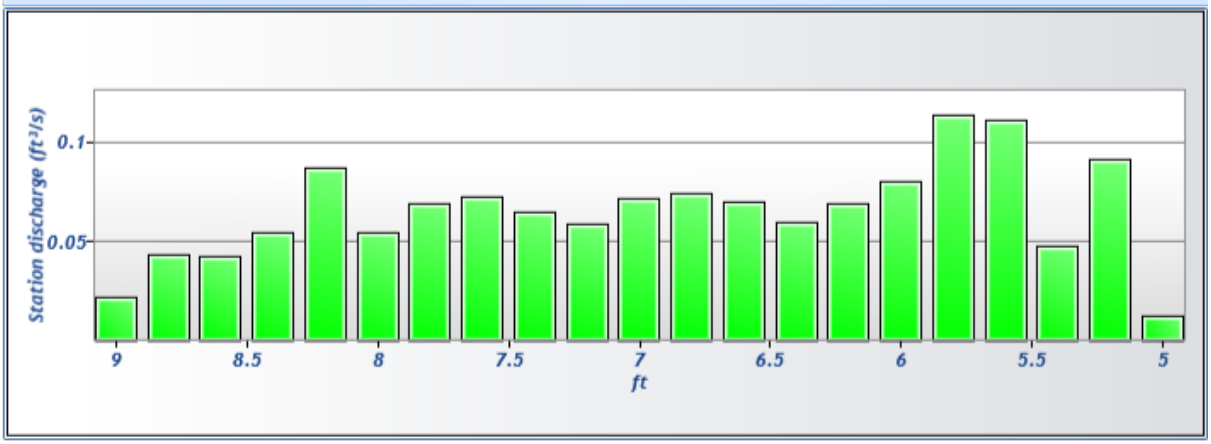
Data Collection Settings

Salinity	0.000	PSS-78
Temperature		°F
Sound speed		ft/s
Mounting correction	0.00	%

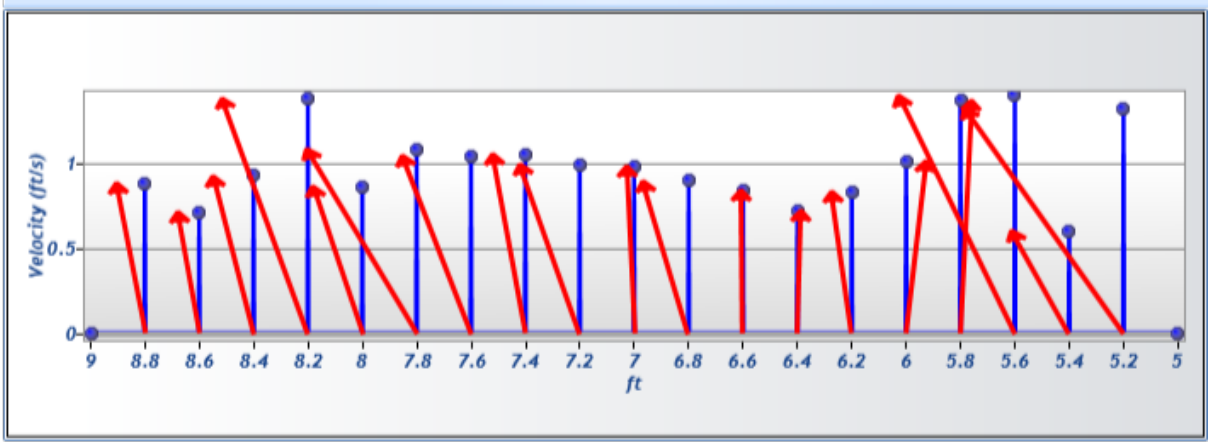
Quality Control Settings

SNR threshold	10	dB
Standard error threshold	0.0328	ft/s
Spike threshold	10.00	%
Maximum velocity angle	20.0	deg
Maximum tilt angle	5.0	deg

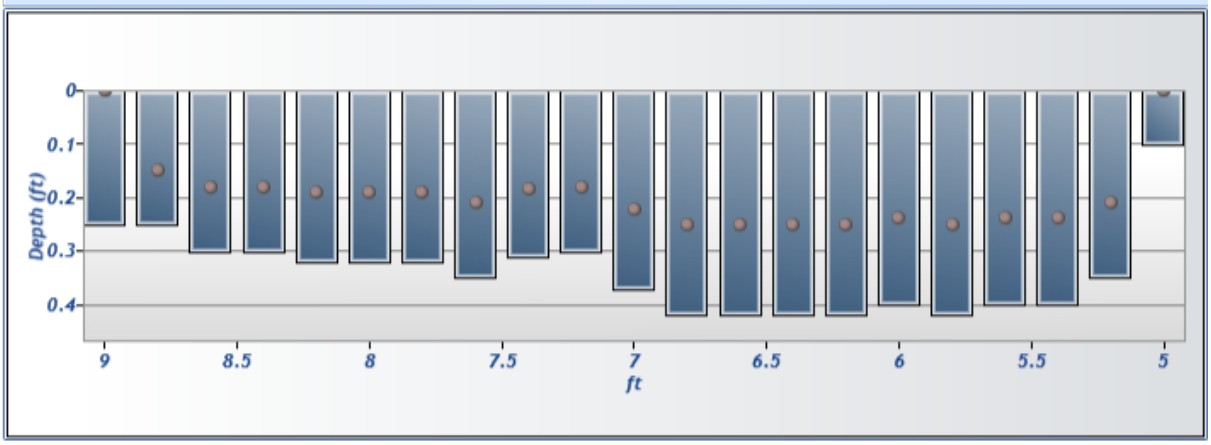
Discharge chart



Velocity chart



Depth chart



Measurement results

St#	Time	Location (ft)	Method	Depth (ft)	%Depth	Measured Depth (ft)	Samples	Velocity (ft/s)	Correction	Mean Velocity (ft/s)	Area (ft^2)	Flow (ft^3/s)	%Q	
0	3:21 PM	5.000	None	0.100	0.0000	0.000	0	0.0000	1.0000	1.3157	0.0100	0.0132	0.95	✓
1	3:22 PM	5.200	0.6	0.350	0.6000	0.210	80	1.3157	1.0000	1.3157	0.0700	0.0921	6.66	✓
2	3:27 PM	5.400	0.6	0.400	0.6000	0.240	80	0.6026	1.0000	0.6026	0.0800	0.0482	3.49	✓
3	3:28 PM	5.600	0.6	0.400	0.6000	0.240	80	1.3934	1.0000	1.3934	0.0800	0.1115	8.07	✓
4	3:29 PM	5.800	0.6	0.420	0.6000	0.252	80	1.3640	1.0000	1.3640	0.0840	0.1146	8.29	✓
5	3:30 PM	6.000	0.6	0.400	0.6000	0.240	80	1.0086	1.0000	1.0086	0.0800	0.0807	5.84	✓
6	3:31 PM	6.200	0.6	0.420	0.6000	0.252	80	0.8266	1.0000	0.8266	0.0840	0.0694	5.02	✓
7	3:33 PM	6.400	0.6	0.420	0.6000	0.252	80	0.7178	1.0000	0.7178	0.0840	0.0603	4.36	✓
8	3:35 PM	6.600	0.6	0.420	0.6000	0.252	80	0.8354	1.0000	0.8354	0.0840	0.0702	5.08	✓
9	3:37 PM	6.800	0.6	0.420	0.6000	0.252	80	0.8957	1.0000	0.8957	0.0840	0.0752	5.44	✓
10	3:38 PM	7.000	0.6	0.370	0.6000	0.222	80	0.9815	1.0000	0.9815	0.0740	0.0726	5.26	✓
11	3:39 PM	7.200	0.6	0.300	0.6000	0.180	80	0.9882	1.0000	0.9882	0.0600	0.0593	4.29	✓
12	3:40 PM	7.400	0.6	0.310	0.6000	0.186	80	1.0518	1.0000	1.0518	0.0620	0.0652	4.72	✓
13	3:42 PM	7.600	0.6	0.350	0.6000	0.210	80	1.0417	1.0000	1.0417	0.0700	0.0729	5.28	✓
14	3:43 PM	7.800	0.6	0.320	0.6000	0.192	80	1.0821	1.0000	1.0821	0.0640	0.0693	5.01	✓
15	3:44 PM	8.000	0.6	0.320	0.6000	0.192	80	0.8592	1.0000	0.8592	0.0640	0.0550	3.98	✓
16	3:45 PM	8.200	0.6	0.320	0.6000	0.192	80	1.3756	1.0000	1.3756	0.0640	0.0880	6.37	✓
17	3:47 PM	8.400	0.6	0.300	0.6000	0.180	80	0.9244	1.0000	0.9244	0.0600	0.0555	4.01	✓
18	3:48 PM	8.600	0.6	0.300	0.6000	0.180	80	0.7111	1.0000	0.7111	0.0600	0.0427	3.09	✓
19	3:49 PM	8.800	0.6	0.250	0.6000	0.150	80	0.8824	1.0000	0.8824	0.0500	0.0441	3.19	✓
20	3:51 PM	9.000	None	0.250	0.0000	0.000	0	0.0000	1.0000	0.8824	0.0250	0.0221	1.60	✓

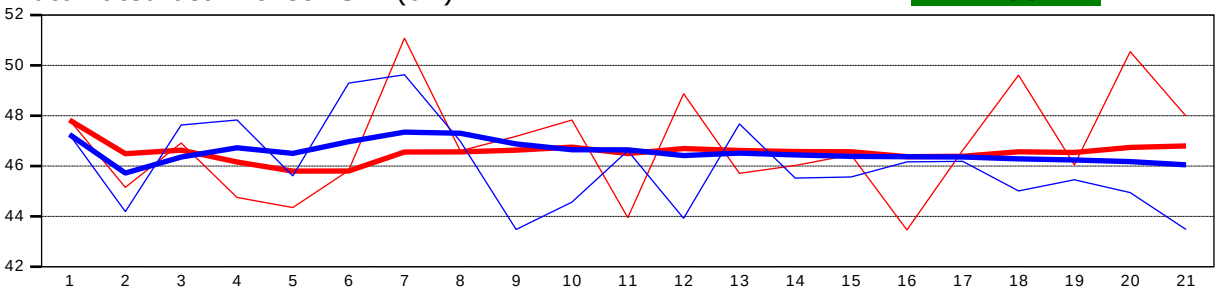
Quality control warnings

St#	Time	Location (ft)	Method	Depth (ft)	%Depth	Measured Depth (ft)	Warnings
1	3:22 PM	5.200	0.6	0.350	0.6000	0.210	Boundary Interference,Standard Error > QC,Velocity Angle > QC
2	3:27 PM	5.400	0.6	0.400	0.6000	0.240	Boundary Interference,Large SNR Variation,Standard Error > QC
3	3:28 PM	5.600	0.6	0.400	0.6000	0.240	Standard Error > QC
4	3:29 PM	5.800	0.6	0.420	0.6000	0.252	Standard Error > QC
5	3:30 PM	6.000	0.6	0.400	0.6000	0.240	Standard Error > QC
6	3:31 PM	6.200	0.6	0.420	0.6000	0.252	Standard Error > QC
7	3:33 PM	6.400	0.6	0.420	0.6000	0.252	Standard Error > QC
8	3:35 PM	6.600	0.6	0.420	0.6000	0.252	Standard Error > QC
9	3:37 PM	6.800	0.6	0.420	0.6000	0.252	Standard Error > QC
10	3:38 PM	7.000	0.6	0.370	0.6000	0.222	Standard Error > QC
14	3:43 PM	7.800	0.6	0.320	0.6000	0.192	Velocity Angle > QC

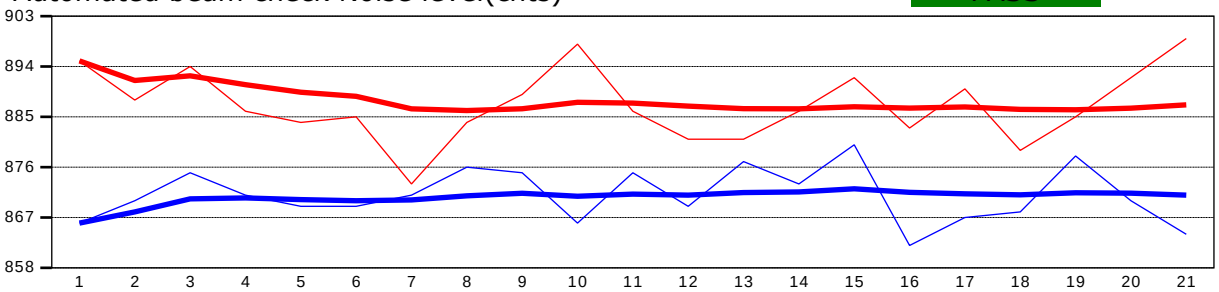
10/4/2017 2:13:43 PM

Automated beam check Start time 9/26/2017 3:20:29 PM

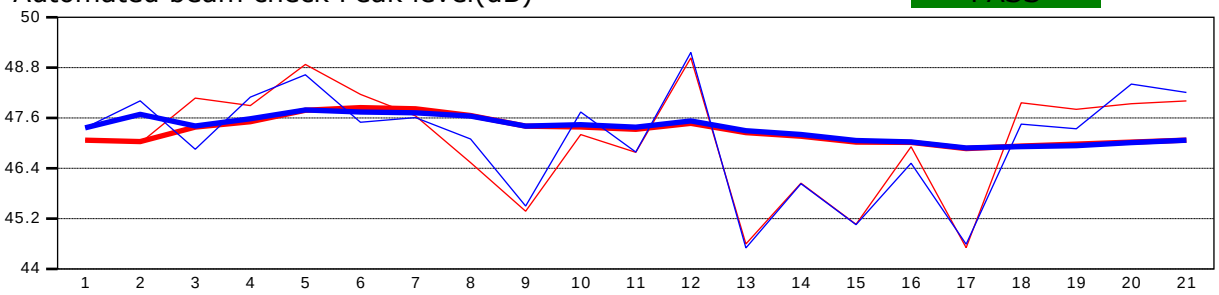
Automated beam check SNR(dB) PASS



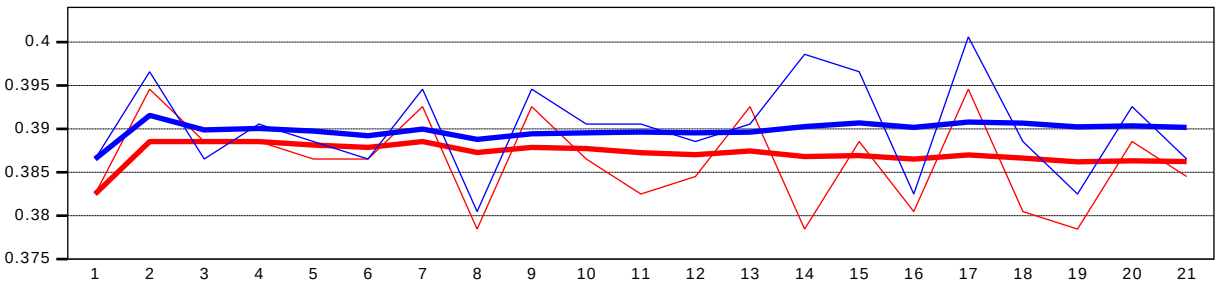
Automated beam check Noise level(cnts) PASS



Automated beam check Peak level(dB) PASS



Automated beam check Peak position(ft) PASS



Automated beam check Quality control warnings

No quality control warnings

Discharge Measurement Summary

File Information

File name	A37_20170926-134644.ft
Start date and time	9/26/2017 1:07 PM
Calculations engine	FlowTracker2
Data collection mode	Discharge

Discharge Summary

Start time	9/26/2017 1:08:41 PM	End time	9/26/2017 1:45:52 PM
# Stations	23	Avg interval	40
Mean depth	0.343 ft		
Mean velocity	0.4071 ft/s	Total width	7.600 ft
Mean SNR	46 dB	Total area	2.6095 ft²
Mean temp	45.122 °F	Total discharge	1.0624 ft³/s

System Information

Sensor type	Top Setting
Handheld serial number	FT2H1733001
Probe serial number	FT2P1733022
Probe firmware	1.23
Handheld software	1.4

Site Details

Site name	A37
Site number	A37
Operator(s)	RM
Comment	

Discharge Uncertainty

Category	ISO	IVE
Accuracy	1.0 %	1.0 %
Depth	0.4 %	7.2 %
Velocity	1.2 %	11.8 %
Width	0.1 %	0.1 %
Method	1.8 %	
# Stations	2.2 %	
Overall	3.3 %	13.8 %

Discharge Settings

Discharge equation	Mid Section
Discharge uncertainty	IVE
Discharge reference	Rated

Station Warning Settings

Station discharge caution		%
Station discharge warning	10.00	%
Maximum depth change	50.00	%
Maximum spacing change	100.00	%

Summary overview

No changes were made to this file
Quality control warnings

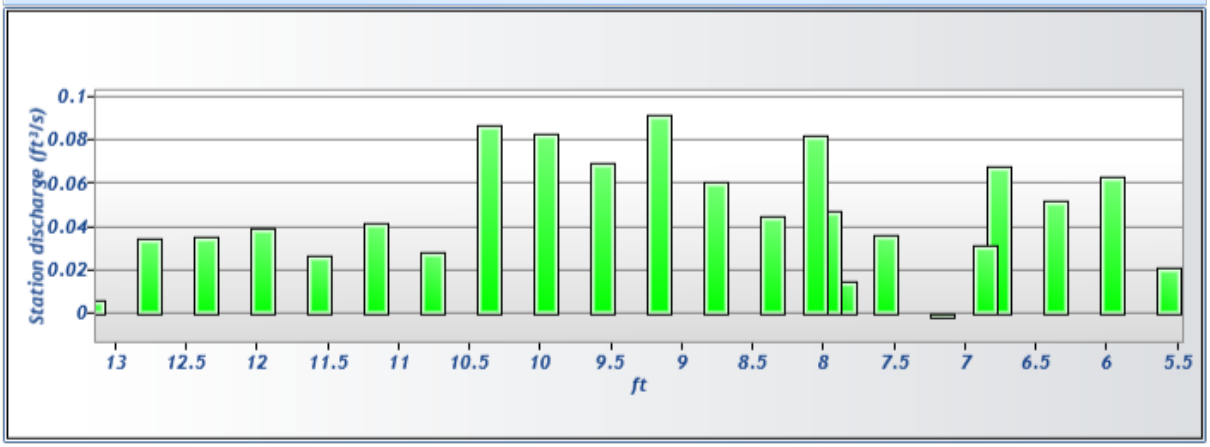
Data Collection Settings

Salinity	0.000	PSS-78
Temperature		°F
Sound speed		ft/s
Mounting correction	0.00	%

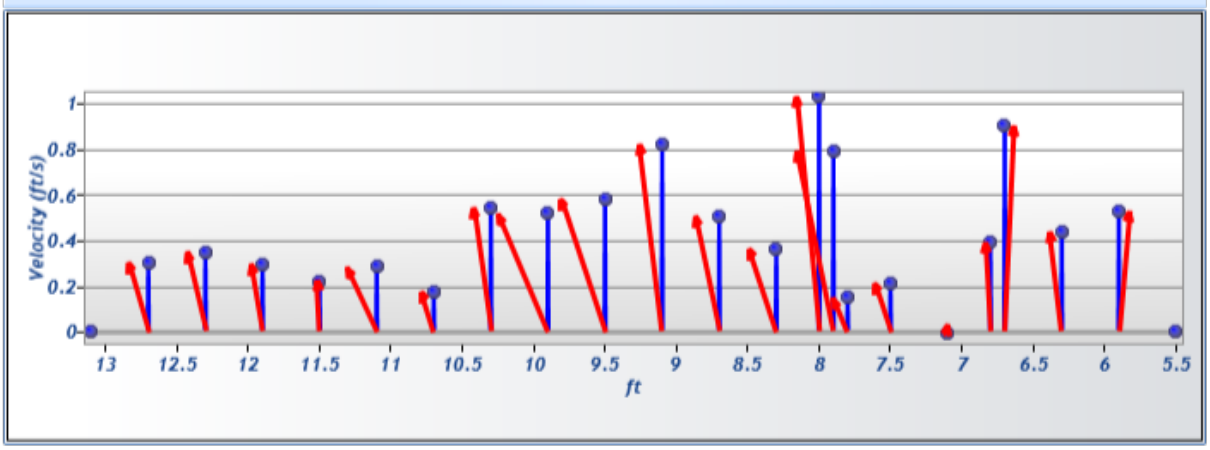
Quality Control Settings

SNR threshold	10	dB
Standard error threshold	0.0328	ft/s
Spike threshold	10.00	%
Maximum velocity angle	20.0	deg
Maximum tilt angle	5.0	deg

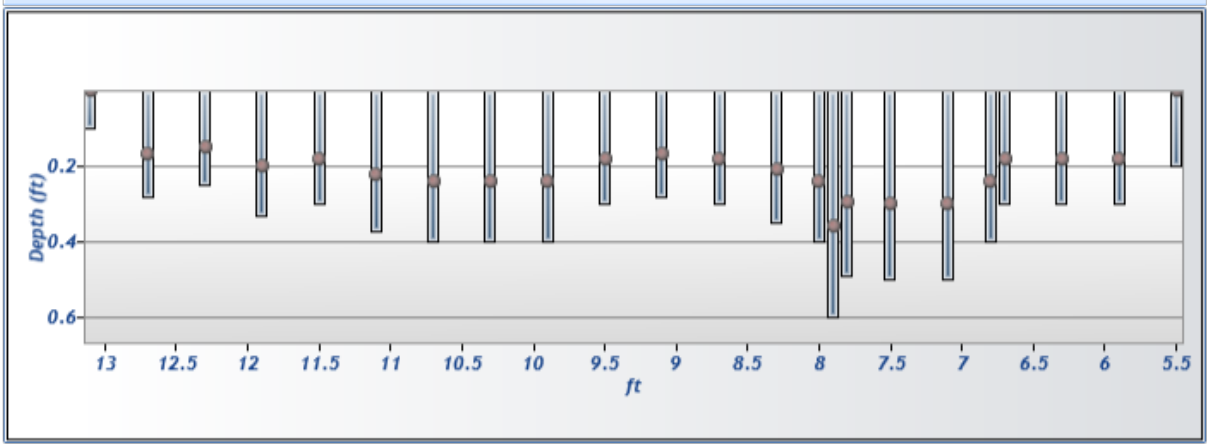
Discharge chart



Velocity chart



Depth chart



Measurement results

St#	Time	Location (ft)	Method	Depth (ft)	%Depth	Measured Depth (ft)	Samples	Velocity (ft/s)	Correction	Mean Velocity (ft/s)	Area (ft^2)	Flow (ft^3/s)	%Q	
0	1:08 PM	5.500	None	0.200	0.0000	0.000	0	0.0000	1.0000	0.5274	0.0400	0.0211	1.99	✓
1	1:11 PM	5.900	0.6	0.300	0.6000	0.180	80	0.5274	1.0000	0.5274	0.1200	0.0633	5.96	✓
2	1:12 PM	6.300	0.6	0.300	0.6000	0.180	80	0.4352	1.0000	0.4352	0.1200	0.0522	4.92	✓
3	1:15 PM	6.700	0.6	0.300	0.6000	0.180	80	0.9015	1.0000	0.9015	0.0750	0.0676	6.36	✓
4	1:44 PM	6.800	0.6	0.400	0.6000	0.240	80	0.3918	1.0000	0.3918	0.0800	0.0313	2.95	✓
5	1:16 PM	7.100	0.6	0.500	0.6000	0.300	80	-0.0098	1.0000	-0.0098	0.1750	-0.0017	-0.16	✓
6	1:17 PM	7.500	0.6	0.500	0.6000	0.300	80	0.2080	1.0000	0.2080	0.1750	0.0364	3.43	✓
7	1:42 PM	7.800	0.6	0.490	0.6000	0.294	80	0.1530	1.0000	0.1530	0.0980	0.0150	1.41	✓
8	1:19 PM	7.900	0.6	0.600	0.6000	0.360	80	0.7901	1.0000	0.7901	0.0600	0.0474	4.46	✓
9	1:37 PM	8.000	0.6	0.400	0.6000	0.240	80	1.0294	1.0000	1.0294	0.0800	0.0823	7.75	✓
10	1:20 PM	8.300	0.6	0.350	0.6000	0.210	80	0.3651	1.0000	0.3651	0.1225	0.0447	4.21	✓
11	1:21 PM	8.700	0.6	0.300	0.6000	0.180	80	0.5052	1.0000	0.5052	0.1200	0.0606	5.71	✓
12	1:22 PM	9.100	0.6	0.280	0.6000	0.168	80	0.8197	1.0000	0.8197	0.1120	0.0918	8.64	✓
13	1:24 PM	9.500	0.6	0.300	0.6000	0.180	80	0.5789	1.0000	0.5789	0.1200	0.0695	6.54	✓
14	1:25 PM	9.900	0.6	0.400	0.6000	0.240	80	0.5179	1.0000	0.5179	0.1600	0.0829	7.80	✓
15	1:27 PM	10.300	0.6	0.400	0.6000	0.240	80	0.5449	1.0000	0.5449	0.1600	0.0872	8.21	✓
16	1:28 PM	10.700	0.6	0.400	0.6000	0.240	80	0.1749	1.0000	0.1749	0.1600	0.0280	2.63	✓
17	1:30 PM	11.100	0.6	0.370	0.6000	0.222	80	0.2831	1.0000	0.2831	0.1480	0.0419	3.94	✓
18	1:31 PM	11.500	0.6	0.300	0.6000	0.180	80	0.2219	1.0000	0.2219	0.1200	0.0266	2.51	✓
19	1:33 PM	11.900	0.6	0.330	0.6000	0.198	80	0.2958	1.0000	0.2958	0.1320	0.0390	3.68	✓
20	1:34 PM	12.300	0.6	0.250	0.6000	0.150	80	0.3494	1.0000	0.3494	0.1000	0.0349	3.29	✓
21	1:35 PM	12.700	0.6	0.280	0.6000	0.168	80	0.3048	1.0000	0.3048	0.1120	0.0341	3.21	✓
22	1:45 PM	13.100	None	0.100	0.0000	0.000	0	0.0000	1.0000	0.3048	0.0200	0.0061	0.57	✓

Quality control warnings

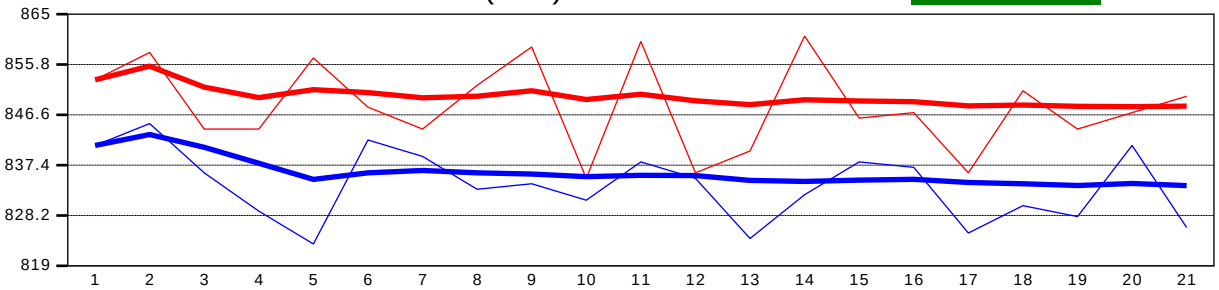
St#	Time	Location (ft)	Method	Depth (ft)	%Depth	Measured Depth (ft)	Warnings
4	1:44 PM	6.800	0.6	0.400	0.6000	0.240	Boundary Interference,Beam SNRs Not Similar,Standard Error > QC
5	1:16 PM	7.100	0.6	0.500	0.6000	0.300	Stn Spacing > QC
6	1:17 PM	7.500	0.6	0.500	0.6000	0.300	Velocity Angle > QC
7	1:42 PM	7.800	0.6	0.490	0.6000	0.294	Velocity Angle > QC
9	1:37 PM	8.000	0.6	0.400	0.6000	0.240	Stn Spacing > QC
10	1:20 PM	8.300	0.6	0.350	0.6000	0.210	Velocity Angle > QC
13	1:24 PM	9.500	0.6	0.300	0.6000	0.180	Velocity Angle > QC
14	1:25 PM	9.900	0.6	0.400	0.6000	0.240	Velocity Angle > QC
16	1:28 PM	10.700	0.6	0.400	0.6000	0.240	Velocity Angle > QC
17	1:30 PM	11.100	0.6	0.370	0.6000	0.222	Velocity Angle > QC
20	1:34 PM	12.300	0.6	0.250	0.6000	0.150	Velocity Angle > QC
21	1:35 PM	12.700	0.6	0.280	0.6000	0.168	Velocity Angle > QC

10/4/2017 2:14:31 PM

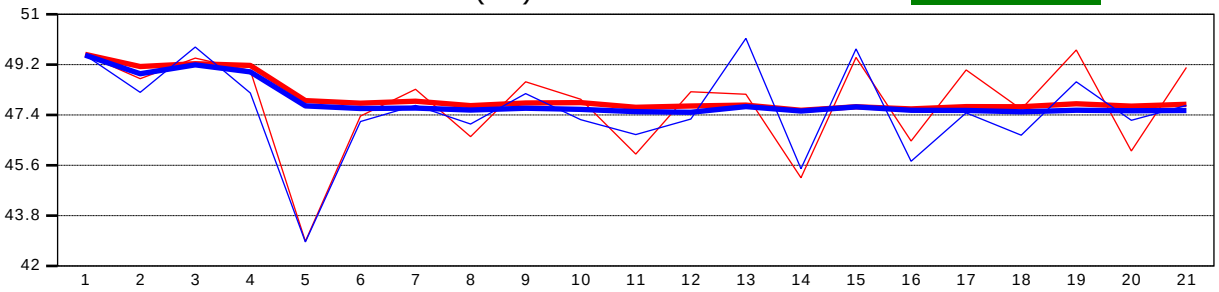
Automated beam check Start time 9/26/2017 1:08:10 PM

Automated beam check SNR(dB) PASS

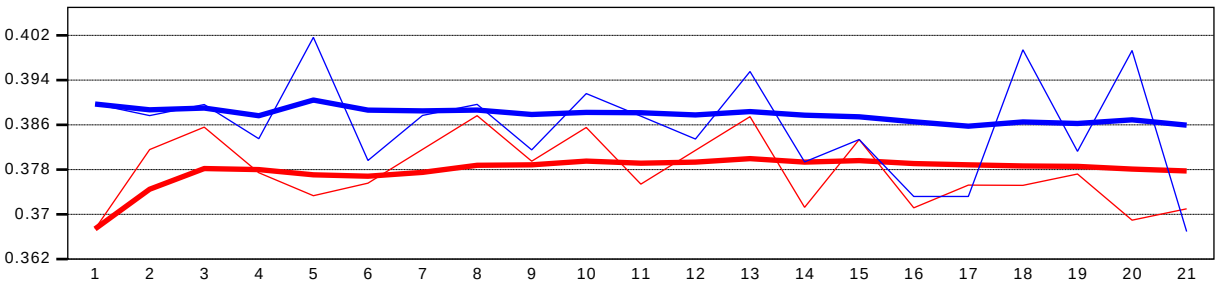
Automated beam check Noise level(cnts) PASS



Automated beam check Peak level(dB) PASS



Automated beam check Peak position(ft) PASS



Automated beam check Quality control warnings

No quality control warnings

Discharge Measurement Summary

File Information

File name	A48_20170928-122512.ft
Start date and time	9/28/2017 11:50 AM
Calculations engine	FlowTracker2
Data collection mode	Discharge

Discharge Summary

Start time	9/28/2017 11:52:23 AM		End time	9/28/2017 12:24:16 PM
# Stations	23		Avg interval	40
Mean depth	0.709	ft		
Mean velocity	0.9671	ft/s	Total width	13.500 ft
Mean SNR	45	dB	Total area	9.5735 ft²
Mean temp	45.002	°F	Total discharge	9.2588 ft³/s

System Information

Sensor type	Top Setting
Handheld serial number	FT2H1733001
Probe serial number	FT2P1733022
Probe firmware	1.23
Handheld software	1.4

Site Details

Site name	A48
Site number	A48
Operator(s)	RM
Comment	

Discharge Uncertainty

Category	ISO	IVE
Accuracy	1.0 %	1.0 %
Depth	0.3 %	3.2 %
Velocity	0.9 %	6.1 %
Width	0.1 %	0.1 %
Method	1.9 %	
# Stations	2.2 %	
Overall	3.2 %	7.0 %

Discharge Settings

Discharge equation	Mid Section
Discharge uncertainty	IVE
Discharge reference	Rated

Station Warning Settings

Station discharge caution		%
Station discharge warning	10.00	%
Maximum depth change	50.00	%
Maximum spacing change	100.00	%

Summary overview

No changes were made to this file
Quality control warnings

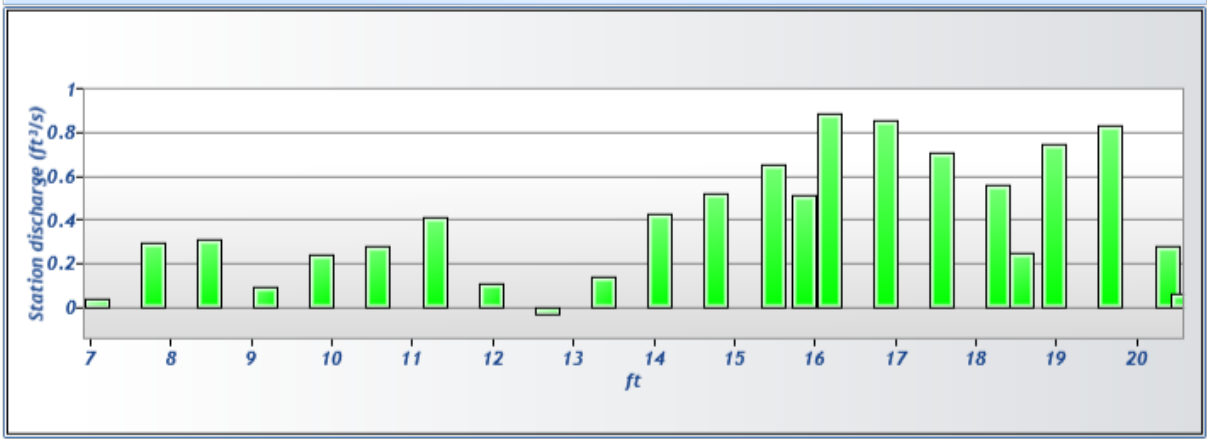
Data Collection Settings

Salinity	0.000	PSS-78
Temperature		°F
Sound speed		ft/s
Mounting correction	0.00	%

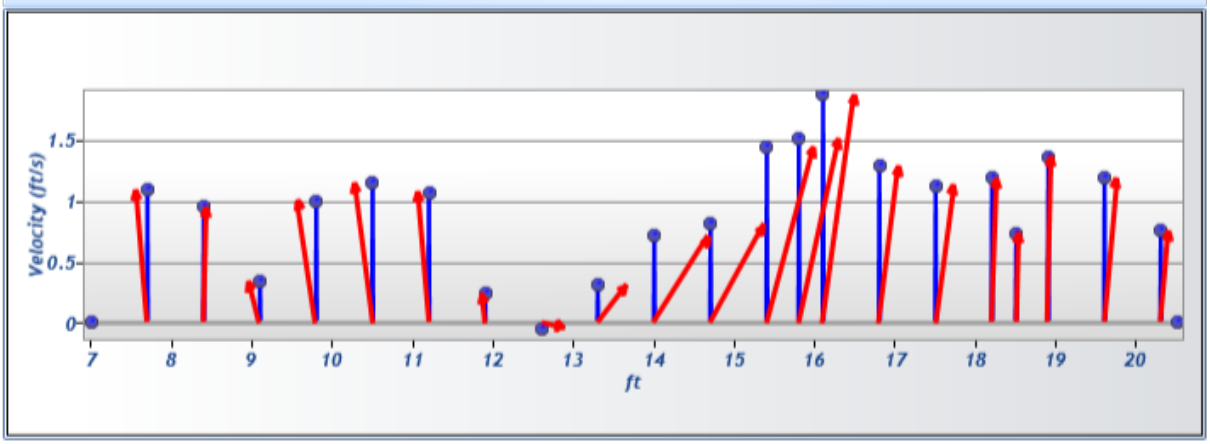
Quality Control Settings

SNR threshold	10	dB
Standard error threshold	0.0328	ft/s
Spike threshold	10.00	%
Maximum velocity angle	20.0	deg
Maximum tilt angle	5.0	deg

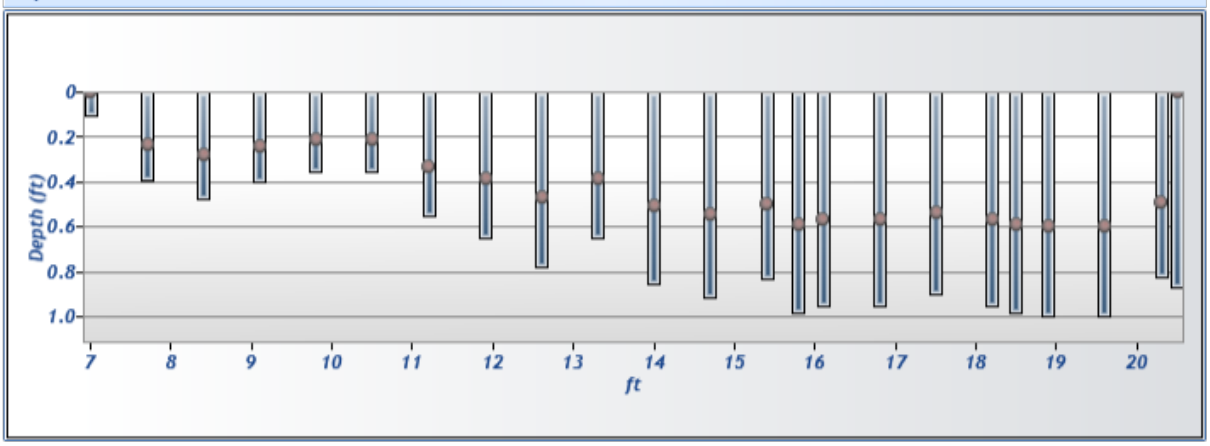
Discharge chart



Velocity chart



Depth chart



Measurement results

St#	Time	Location (ft)	Method	Depth (ft)	%Depth	Measured Depth (ft)	Samples	Velocity (ft/s)	Correction	Mean Velocity (ft/s)	Area (ft²)	Flow (ft³/s)	%Q	
0	11:52 AM	7.000	None	0.100	0.0000	0.000	0	0.0000	1.0000	1.0993	0.0350	0.0385	0.42	✓
1	11:52 AM	7.700	0.6	0.390	0.6000	0.234	80	1.0993	1.0000	1.0993	0.2730	0.3001	3.24	✓
2	11:55 AM	8.400	0.6	0.470	0.6000	0.282	80	0.9542	1.0000	0.9542	0.3290	0.3139	3.39	✓
3	11:56 AM	9.100	0.6	0.400	0.6000	0.240	80	0.3428	1.0000	0.3428	0.2800	0.0960	1.04	✓
4	11:57 AM	9.800	0.6	0.350	0.6000	0.210	80	1.0056	1.0000	1.0056	0.2450	0.2464	2.66	✓
5	11:59 AM	10.500	0.6	0.350	0.6000	0.210	80	1.1553	1.0000	1.1553	0.2450	0.2831	3.06	✓
6	12:00 PM	11.200	0.6	0.550	0.6000	0.330	80	1.0735	1.0000	1.0735	0.3850	0.4133	4.46	✓
7	12:02 PM	11.900	0.6	0.650	0.6000	0.390	80	0.2406	1.0000	0.2406	0.4550	0.1095	1.18	✓
8	12:04 PM	12.600	0.6	0.780	0.6000	0.468	80	-0.0483	1.0000	-0.0483	0.5460	-0.0264	-0.28	✓
9	12:05 PM	13.300	0.6	0.650	0.6000	0.390	80	0.3138	1.0000	0.3138	0.4550	0.1428	1.54	✓
10	12:07 PM	14.000	0.6	0.850	0.6000	0.510	80	0.7200	1.0000	0.7200	0.5950	0.4284	4.63	✓
11	12:09 PM	14.700	0.6	0.910	0.6000	0.546	80	0.8195	1.0000	0.8195	0.6370	0.5220	5.64	✓
12	12:10 PM	15.400	0.6	0.830	0.6000	0.498	80	1.4422	1.0000	1.4422	0.4565	0.6584	7.11	✓
13	12:22 PM	15.800	0.6	0.980	0.6000	0.588	80	1.5149	1.0000	1.5149	0.3430	0.5196	5.61	✓
14	12:12 PM	16.100	0.6	0.950	0.6000	0.570	80	1.8781	1.0000	1.8781	0.4750	0.8921	9.64	✓
15	12:13 PM	16.800	0.6	0.950	0.6000	0.570	80	1.2903	1.0000	1.2903	0.6650	0.8580	9.27	✓
16	12:14 PM	17.500	0.6	0.900	0.6000	0.540	80	1.1318	1.0000	1.1318	0.6300	0.7131	7.70	✓
17	12:16 PM	18.200	0.6	0.950	0.6000	0.570	80	1.1898	1.0000	1.1898	0.4750	0.5652	6.10	✓
18	12:21 PM	18.500	0.6	0.980	0.6000	0.588	80	0.7391	1.0000	0.7391	0.3430	0.2535	2.74	✓
19	12:17 PM	18.900	0.6	1.000	0.6000	0.600	80	1.3703	1.0000	1.3703	0.5500	0.7537	8.14	✓
20	12:18 PM	19.600	0.6	1.000	0.6000	0.600	80	1.1897	1.0000	1.1897	0.7000	0.8328	8.99	✓
21	12:20 PM	20.300	0.6	0.820	0.6000	0.492	80	0.7566	1.0000	0.7566	0.3690	0.2792	3.02	✓
22	12:24 PM	20.500	None	0.870	0.0000	0.000	0	0.0000	1.0000	0.7566	0.0870	0.0658	0.71	✓

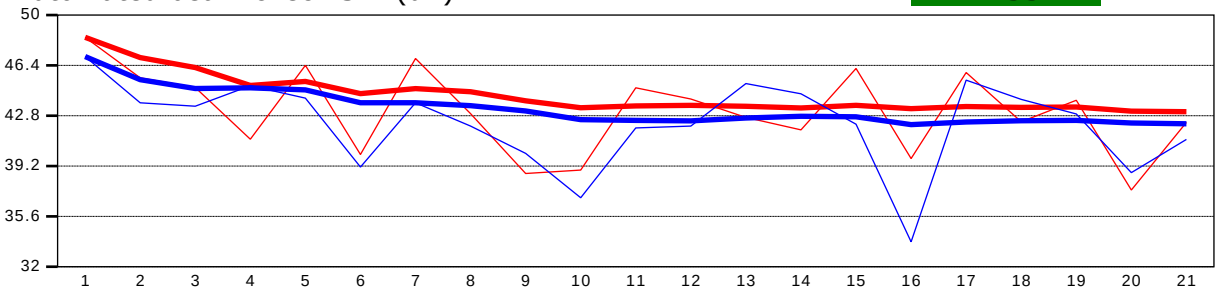
Quality control warnings

St#	Time	Location (ft)	Method	Depth (ft)	%Depth	Measured Depth (ft)	Warnings	
1	11:52 AM	7.700	0.6	0.390	0.6000	0.234	Standard Error > QC	
3	11:56 AM	9.100	0.6	0.400	0.6000	0.240	Standard Error > QC,Velocity Angle > QC	
6	12:00 PM	11.200	0.6	0.550	0.6000	0.330	Standard Error > QC	
9	12:05 PM	13.300	0.6	0.650	0.6000	0.390	Velocity Angle > QC	
10	12:07 PM	14.000	0.6	0.850	0.6000	0.510	Velocity Angle > QC	
11	12:09 PM	14.700	0.6	0.910	0.6000	0.546	Velocity Angle > QC	
12	12:10 PM	15.400	0.6	0.830	0.6000	0.498	Standard Error > QC,Velocity Angle > QC	
13	12:22 PM	15.800	0.6	0.980	0.6000	0.588	Standard Error > QC	
14	12:12 PM	16.100	0.6	0.950	0.6000	0.570	Standard Error > QC	
15	12:13 PM	16.800	0.6	0.950	0.6000	0.570	Standard Error > QC	
17	12:16 PM	18.200	0.6	0.950	0.6000	0.570	Standard Error > QC	
18	12:21 PM	18.500	0.6	0.980	0.6000	0.588	Standard Error > QC	
19	12:17 PM	18.900	0.6	1.000	0.6000	0.600	Stn Spacing > QC,Standard Error > QC	
20	12:18 PM	19.600	0.6	1.000	0.6000	0.600	Standard Error > QC	
21	12:20 PM	20.300	0.6	0.820	0.6000	0.492	Boundary Interference,Standard Error > QC	

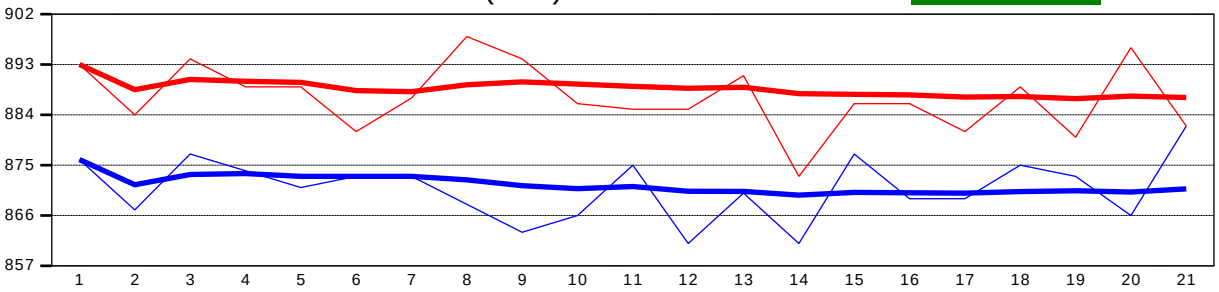
10/4/2017 2:15:37 PM

Automated beam check Start time 9/28/2017 11:51:56 AM

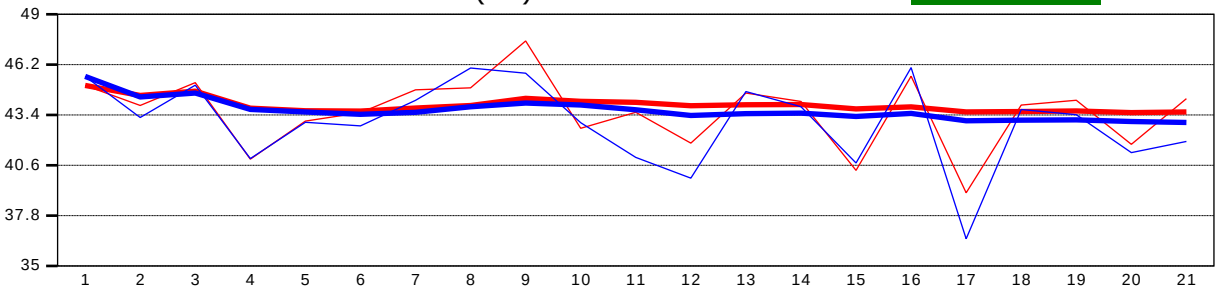
Automated beam check SNR(dB) PASS



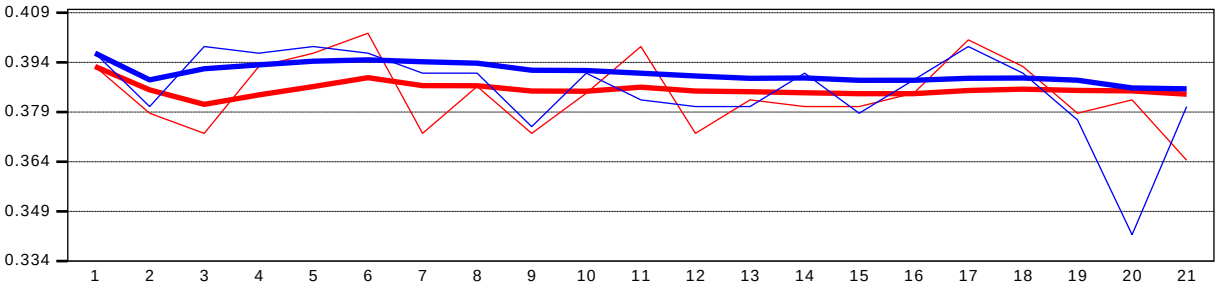
Automated beam check Noise level(cnts) PASS



Automated beam check Peak level(dB) PASS



Automated beam check Peak position(ft) PASS



Automated beam check Quality control warnings

No quality control warnings

Discharge Measurement Summary

File Information

File name	A53AC_20170928-095621.ft
Start date and time	9/28/2017 9:16 AM
Calculations engine	FlowTracker2
Data collection mode	Discharge

Discharge Summary

Start time	9/28/2017 9:24:43 AM	End time	9/28/2017 9:55:09 AM
# Stations	22	Avg interval	40
Mean depth	0.973 ft		
Mean velocity	1.6490 ft/s	Total width	15.000 ft
Mean SNR	39 dB	Total area	14.6010 ft²
Mean temp	41.703 °F	Total discharge	24.0777 ft³/s

System Information

Sensor type	Top Setting
Handheld serial number	FT2H1733001
Probe serial number	FT2P1733022
Probe firmware	1.23
Handheld software	1.4

Site Details

Site name	A53AC
Site number	A53AC
Operator(s)	RM
Comment	

Discharge Uncertainty

Category	ISO	IVE
Accuracy	1.0 %	1.0 %
Depth	0.2 %	2.4 %
Velocity	0.8 %	6.4 %
Width	0.1 %	0.1 %
Method	1.9 %	
# Stations	2.3 %	
Overall	3.3 %	6.9 %

Discharge Settings

Discharge equation	Mid Section
Discharge uncertainty	IVE
Discharge reference	Rated

Station Warning Settings

Station discharge caution		%
Station discharge warning	10.00	%
Maximum depth change	50.00	%
Maximum spacing change	100.00	%

Summary overview

No changes were made to this file
Quality control warnings

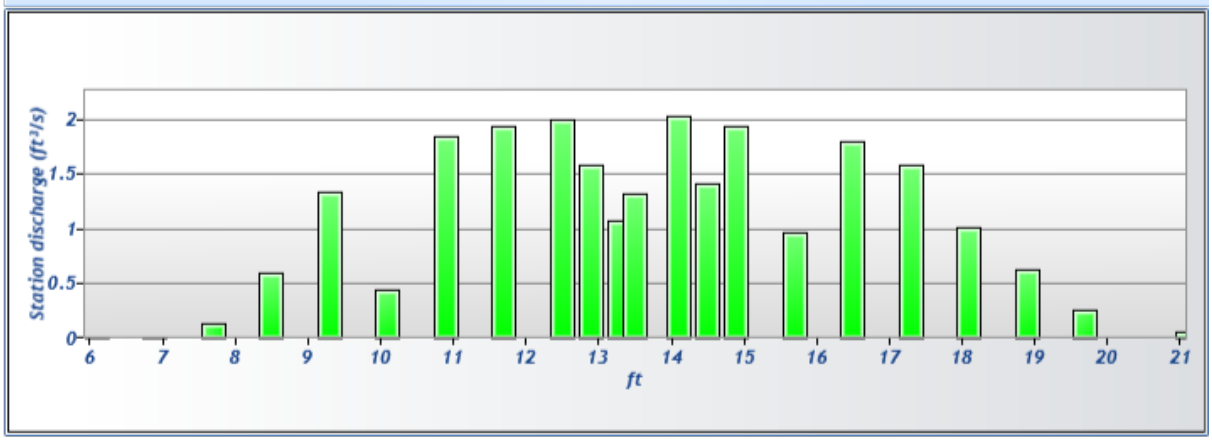
Data Collection Settings

Salinity	0.000	PSS-78
Temperature		°F
Sound speed		ft/s
Mounting correction	0.00	%

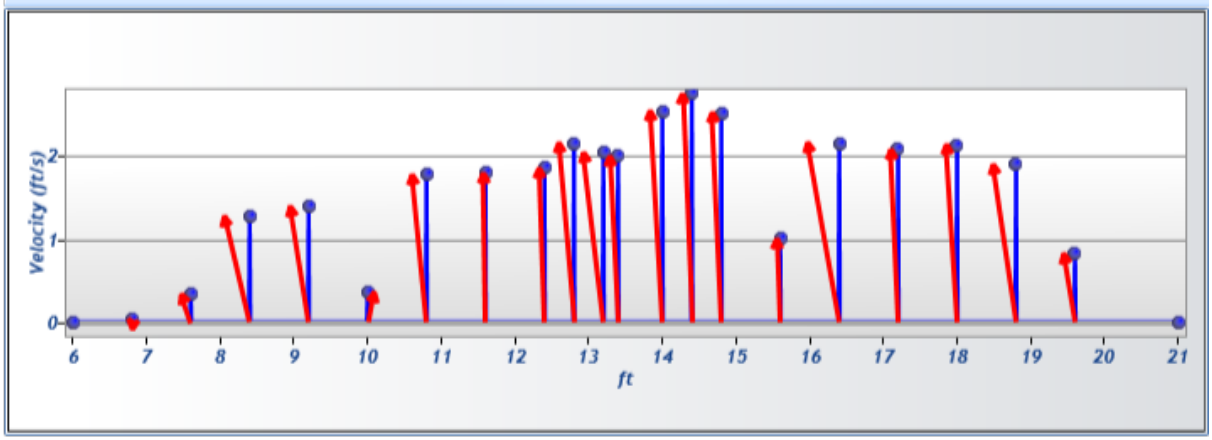
Quality Control Settings

SNR threshold	10	dB
Standard error threshold	0.0328	ft/s
Spike threshold	10.00	%
Maximum velocity angle	20.0	deg
Maximum tilt angle	5.0	deg

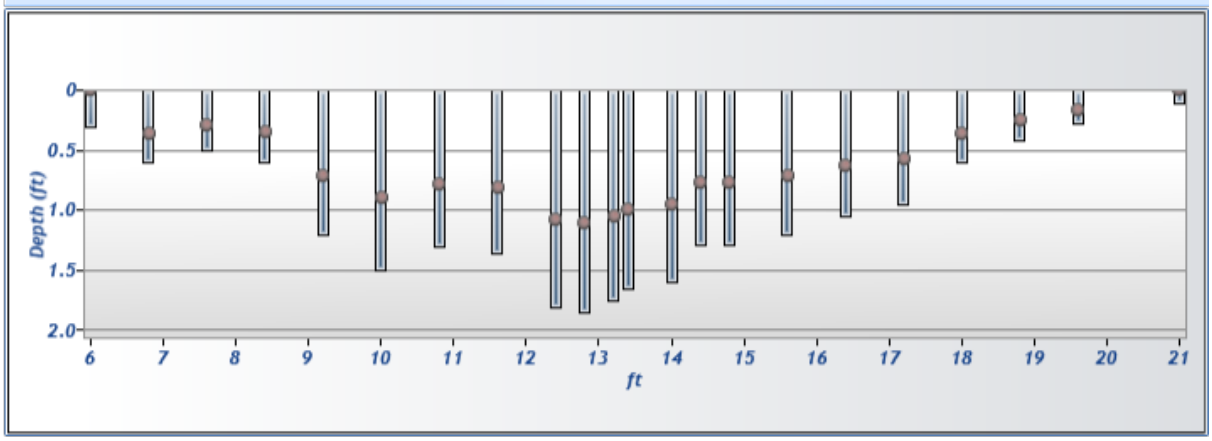
Discharge chart



Velocity chart



Depth chart



Measurement results

St#	Time	Location (ft)	Method	Depth (ft)	%Depth	Measured Depth (ft)	Samples	Velocity (ft/s)	Correction	Mean Velocity (ft/s)	Area (ft²)	Flow (ft³/s)	%Q		
0	9:24 AM	6.000	None	0.300	0.0000	0.000	0	0.0000	1.0000	0.0448	0.1200	0.0054	0.02	✓	
1	9:25 AM	6.800	0.6	0.600	0.6000	0.360	80	0.0448	1.0000	0.0448	0.4800	0.0215	0.09	✓	
2	9:27 AM	7.600	0.6	0.500	0.6000	0.300	80	0.3386	1.0000	0.3386	0.4000	0.1354	0.56	✓	
3	9:28 AM	8.400	0.6	0.590	0.6000	0.354	80	1.2793	1.0000	1.2793	0.4720	0.6038	2.51	✓	
4	9:29 AM	9.200	0.6	1.200	0.6000	0.720	80	1.4014	1.0000	1.4014	0.9600	1.3453	5.59	✓	
5	9:31 AM	10.000	0.6	1.500	0.6000	0.900	80	0.3721	1.0000	0.3721	1.2000	0.4465	1.85	✓	
6	9:32 AM	10.800	0.6	1.300	0.6000	0.780	80	1.7808	1.0000	1.7808	1.0400	1.8521	7.69	✓	
7	9:34 AM	11.600	0.6	1.350	0.6000	0.810	80	1.8020	1.0000	1.8020	1.0800	1.9461	8.08	✓	
8	9:35 AM	12.400	0.6	1.800	0.6000	1.080	80	1.8593	1.0000	1.8593	1.0800	2.0080	8.34	✓	
9	9:48 AM	12.800	0.6	1.850	0.6000	1.110	80	2.1527	1.0000	2.1527	0.7400	1.5930	6.62	✓	
10	9:36 AM	13.200	0.6	1.750	0.6000	1.050	80	2.0456	1.0000	2.0456	0.5250	1.0740	4.46	✓	
11	9:53 AM	13.400	0.6	1.650	0.6000	0.990	80	1.9980	1.0000	1.9980	0.6600	1.3187	5.48	✓	
12	9:37 AM	14.000	0.6	1.600	0.6000	0.960	80	2.5366	1.0000	2.5366	0.8000	2.0293	8.43	✓	
13	9:50 AM	14.400	0.6	1.290	0.6000	0.774	80	2.7429	1.0000	2.7429	0.5160	1.4153	5.88	✓	
14	9:39 AM	14.800	0.6	1.290	0.6000	0.774	80	2.5126	1.0000	2.5126	0.7740	1.9448	8.08	✓	
15	9:40 AM	15.600	0.6	1.200	0.6000	0.720	80	1.0133	1.0000	1.0133	0.9600	0.9728	4.04	✓	
16	9:41 AM	16.400	0.6	1.050	0.6000	0.630	80	2.1530	1.0000	2.1530	0.8400	1.8085	7.51	✓	
17	9:43 AM	17.200	0.6	0.950	0.6000	0.570	80	2.0817	1.0000	2.0817	0.7600	1.5821	6.57	✓	
18	9:44 AM	18.000	0.6	0.600	0.6000	0.360	80	2.1292	1.0000	2.1292	0.4800	1.0220	4.24	✓	
19	9:45 AM	18.800	0.6	0.420	0.6000	0.252	80	1.9007	1.0000	1.9007	0.3360	0.6386	2.65	✓	
20	9:47 AM	19.600	0.6	0.280	0.6000	0.168	80	0.8318	1.0000	0.8318	0.3080	0.2562	1.06	✓	
21	9:55 AM	21.000	None	0.100	0.0000	0.000	0	0.0000	1.0000	0.8318	0.0700	0.0582	0.24	✓	

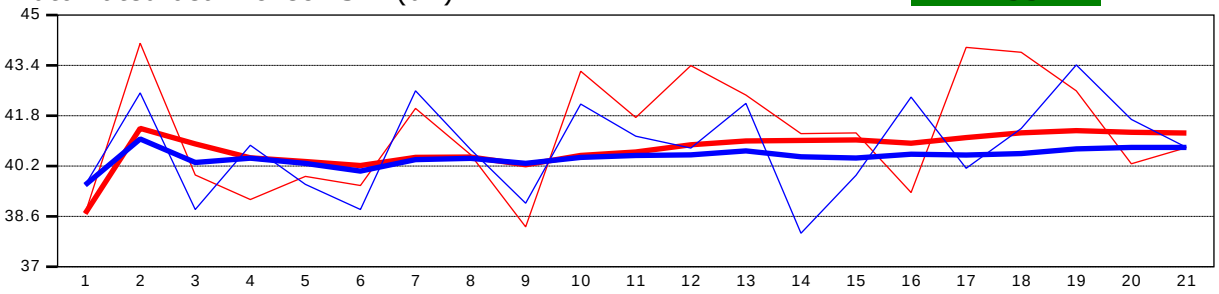
Quality control warnings

St#	Time	Location (ft)	Method	Depth (ft)	%Depth	Measured Depth (ft)	Warnings	
1	9:25 AM	6.800	0.6	0.600	0.6000	0.360	Boundary Interference	
2	9:27 AM	7.600	0.6	0.500	0.6000	0.300	Velocity Angle > QC	
3	9:28 AM	8.400	0.6	0.590	0.6000	0.354	Standard Error > QC	
4	9:29 AM	9.200	0.6	1.200	0.6000	0.720	Standard Error > QC	
5	9:31 AM	10.000	0.6	1.500	0.6000	0.900	Standard Error > QC	
6	9:32 AM	10.800	0.6	1.300	0.6000	0.780	Standard Error > QC	
7	9:34 AM	11.600	0.6	1.350	0.6000	0.810	Standard Error > QC	
8	9:35 AM	12.400	0.6	1.800	0.6000	1.080	Standard Error > QC	
9	9:48 AM	12.800	0.6	1.850	0.6000	1.110	Standard Error > QC	
10	9:36 AM	13.200	0.6	1.750	0.6000	1.050	Standard Error > QC	
11	9:53 AM	13.400	0.6	1.650	0.6000	0.990	Standard Error > QC	
12	9:37 AM	14.000	0.6	1.600	0.6000	0.960	Standard Error > QC	
13	9:50 AM	14.400	0.6	1.290	0.6000	0.774	Standard Error > QC	
14	9:39 AM	14.800	0.6	1.290	0.6000	0.774	Standard Error > QC	
15	9:40 AM	15.600	0.6	1.200	0.6000	0.720	Standard Error > QC	
16	9:41 AM	16.400	0.6	1.050	0.6000	0.630	Standard Error > QC	
17	9:43 AM	17.200	0.6	0.950	0.6000	0.570	Standard Error > QC	
18	9:44 AM	18.000	0.6	0.600	0.6000	0.360	Standard Error > QC	
19	9:45 AM	18.800	0.6	0.420	0.6000	0.252	Standard Error > QC	
20	9:47 AM	19.600	0.6	0.280	0.6000	0.168	Standard Error > QC	

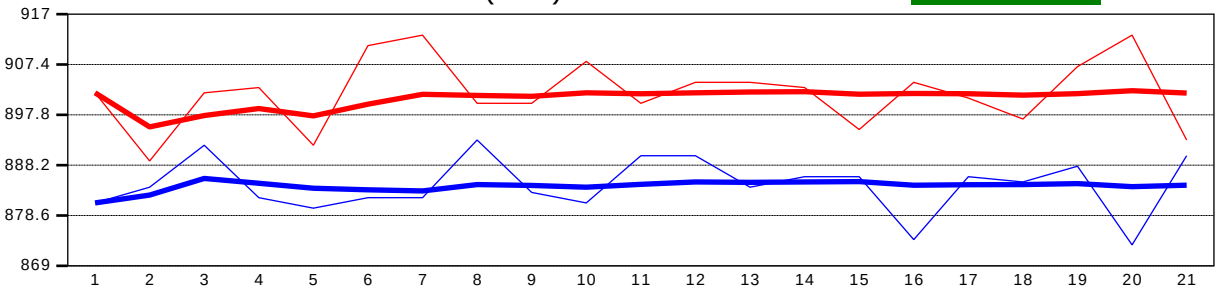
10/4/2017 2:21:10 PM

Automated beam check Start time 9/28/2017 9:24:04 AM

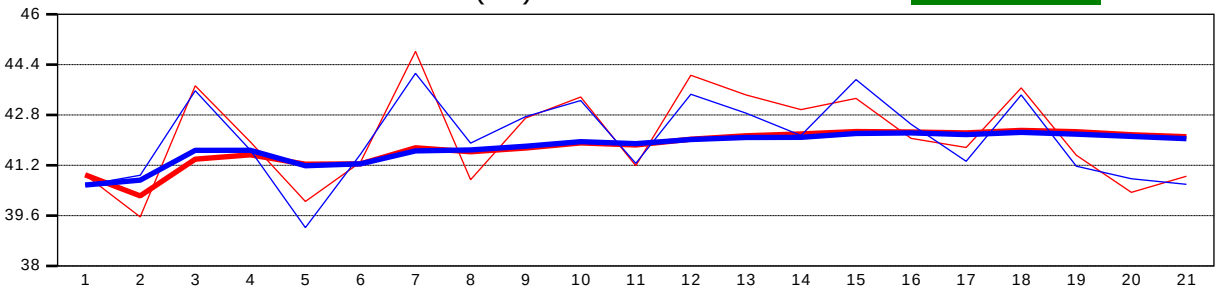
Automated beam check SNR(dB) PASS



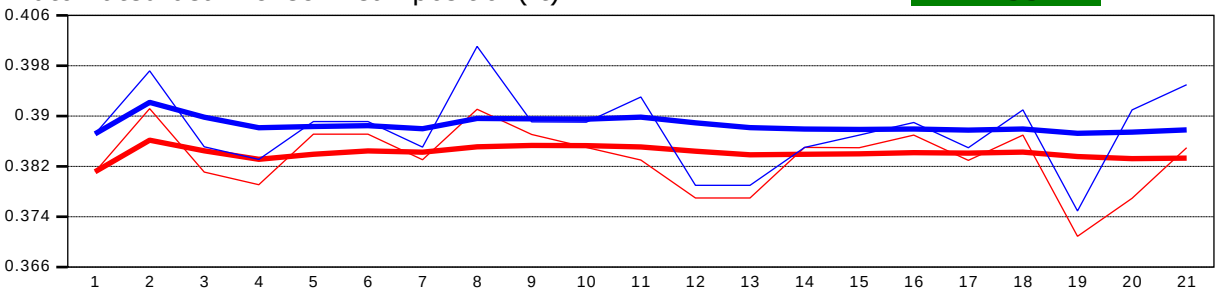
Automated beam check Noise level(cnts) PASS



Automated beam check Peak level(dB) PASS



Automated beam check Peak position(ft) PASS



Automated beam check Quality control warnings

No quality control warnings

Discharge Measurement Summary

File Information

File name	EG6_20170927-184256.ft
Start date and time	9/27/2017 6:12 PM
Calculations engine	FlowTracker2
Data collection mode	Discharge

Discharge Summary

Start time	9/27/2017 6:13:07 PM	End time	9/27/2017 6:42:13 PM
# Stations	24	Avg interval	40
Mean depth	0.323 ft		
Mean velocity	1.0843 ft/s	Total width	2.300 ft
Mean SNR	50 dB	Total area	0.7440 ft²
Mean temp	36.528 °F	Total discharge	0.8067 ft³/s

System Information

Sensor type	Top Setting
Handheld serial number	FT2H1733001
Probe serial number	FT2P1733022
Probe firmware	1.23
Handheld software	1.4

Site Details

Site name	EG6
Site number	EG6
Operator(s)	RM
Comment	

Discharge Uncertainty

Category	ISO	IVE
Accuracy	1.0 %	1.0 %
Depth	0.4 %	7.6 %
Velocity	1.0 %	4.5 %
Width	0.1 %	0.1 %
Method	1.9 %	
# Stations	2.1 %	
Overall	3.2 %	8.9 %

Discharge Settings

Discharge equation	Mid Section
Discharge uncertainty	IVE
Discharge reference	Rated

Station Warning Settings

Station discharge caution		%
Station discharge warning	10.00	%
Maximum depth change	50.00	%
Maximum spacing change	100.00	%

Summary overview

No changes were made to this file
Quality control warnings

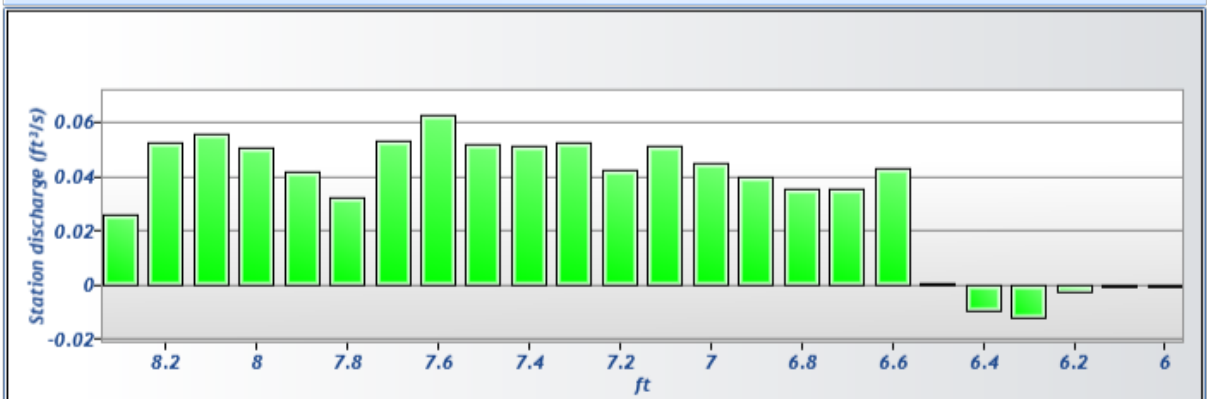
Data Collection Settings

Salinity	0.000	PSS-78
Temperature		°F
Sound speed		ft/s
Mounting correction	0.00	%

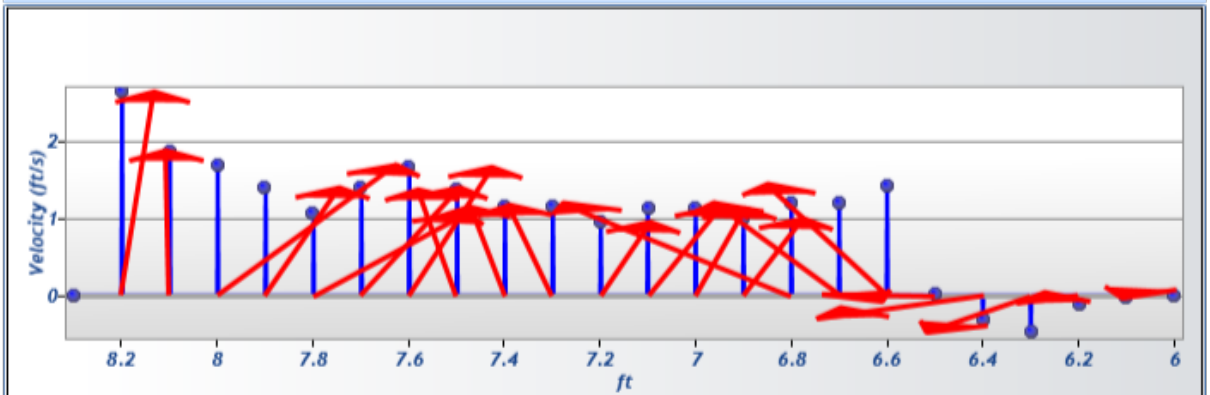
Quality Control Settings

SNR threshold	10	dB
Standard error threshold	0.0328	ft/s
Spike threshold	10.00	%
Maximum velocity angle	20.0	deg
Maximum tilt angle	5.0	deg

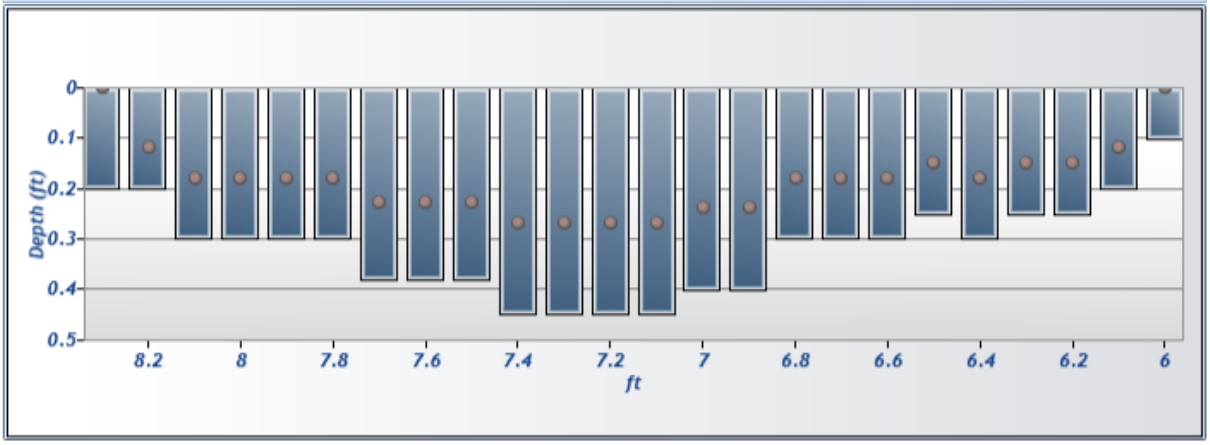
Discharge chart



Velocity chart



Depth chart



Measurement results

St#	Time	Location (ft)	Method	Depth (ft)	%Depth	Measured Depth (ft)	Samples	Velocity (ft/s)	Correction	Mean Velocity (ft/s)	Area (ft^2)	Flow (ft^3/s)	%Q	
0	6:13 PM	6.000	None	0.100	0.0000	0.000	0	0.0000	1.0000	-0.0280	0.0050	-0.0001	-0.02	✓
1	6:14 PM	6.100	0.6	0.200	0.6000	0.120	80	-0.0280	1.0000	-0.0280	0.0200	-0.0006	-0.07	✓
2	6:15 PM	6.200	0.6	0.250	0.6000	0.150	80	-0.1006	1.0000	-0.1006	0.0250	-0.0025	-0.31	✓
3	6:17 PM	6.300	0.6	0.250	0.6000	0.150	80	-0.4663	1.0000	-0.4663	0.0250	-0.0117	-1.44	✓
4	6:18 PM	6.400	0.6	0.300	0.6000	0.180	80	-0.2998	1.0000	-0.2998	0.0300	-0.0090	-1.11	✓
5	6:19 PM	6.500	0.6	0.250	0.6000	0.150	80	0.0259	1.0000	0.0259	0.0250	0.0006	0.08	✓
6	6:21 PM	6.600	0.6	0.300	0.6000	0.180	80	1.4362	1.0000	1.4362	0.0300	0.0431	5.34	✓
7	6:22 PM	6.700	0.6	0.300	0.6000	0.180	80	1.2005	1.0000	1.2005	0.0300	0.0360	4.46	✓
8	6:23 PM	6.800	0.6	0.300	0.6000	0.180	80	1.2001	1.0000	1.2001	0.0300	0.0360	4.46	✓
9	6:24 PM	6.900	0.6	0.400	0.6000	0.240	80	1.0037	1.0000	1.0037	0.0400	0.0401	4.98	✓
10	6:25 PM	7.000	0.6	0.400	0.6000	0.240	80	1.1340	1.0000	1.1340	0.0400	0.0454	5.62	✓
11	6:26 PM	7.100	0.6	0.450	0.6000	0.270	80	1.1475	1.0000	1.1475	0.0450	0.0516	6.40	✓
12	6:28 PM	7.200	0.6	0.450	0.6000	0.270	80	0.9535	1.0000	0.9535	0.0450	0.0429	5.32	✓
13	6:29 PM	7.300	0.6	0.450	0.6000	0.270	80	1.1693	1.0000	1.1693	0.0450	0.0526	6.52	✓
14	6:30 PM	7.400	0.6	0.450	0.6000	0.270	80	1.1517	1.0000	1.1517	0.0450	0.0518	6.42	✓
15	6:31 PM	7.500	0.6	0.380	0.6000	0.228	80	1.3770	1.0000	1.3770	0.0380	0.0523	6.49	✓
16	6:32 PM	7.600	0.6	0.380	0.6000	0.228	80	1.6638	1.0000	1.6638	0.0380	0.0632	7.84	✓
17	6:33 PM	7.700	0.6	0.380	0.6000	0.228	80	1.4094	1.0000	1.4094	0.0380	0.0536	6.64	✓
18	6:35 PM	7.800	0.6	0.300	0.6000	0.180	80	1.0786	1.0000	1.0786	0.0300	0.0324	4.01	✓
19	6:36 PM	7.900	0.6	0.300	0.6000	0.180	80	1.4090	1.0000	1.4090	0.0300	0.0423	5.24	✓
20	6:38 PM	8.000	0.6	0.300	0.6000	0.180	80	1.7038	1.0000	1.7038	0.0300	0.0511	6.34	✓
21	6:39 PM	8.100	0.6	0.300	0.6000	0.180	80	1.8752	1.0000	1.8752	0.0300	0.0563	6.97	✓
22	6:40 PM	8.200	0.6	0.200	0.6000	0.120	80	2.6413	1.0000	2.6413	0.0200	0.0528	6.55	✓
23	6:42 PM	8.300	None	0.200	0.0000	0.000	0	0.0000	1.0000	2.6413	0.0100	0.0264	3.27	✓

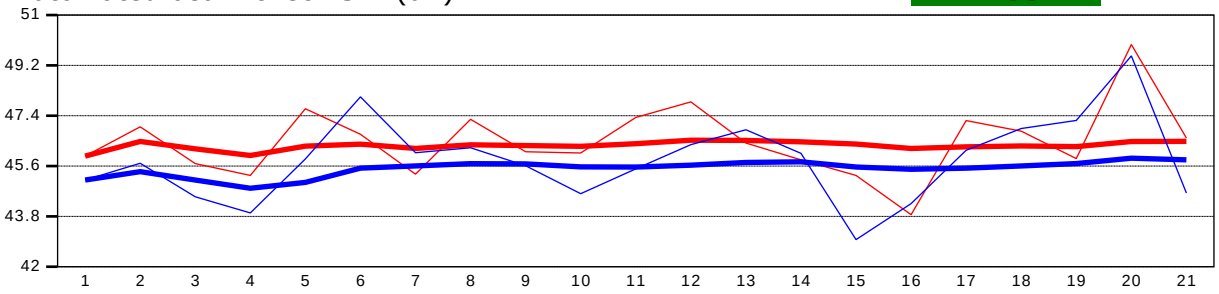
Quality control warnings

St#	Time	Location (ft)	Method	Depth (ft)	%Depth	Measured Depth (ft)	Warnings	
1	6:14 PM	6.100	0.6	0.200	0.6000	0.120	Large SNR Variation	
2	6:15 PM	6.200	0.6	0.250	0.6000	0.150	Velocity Angle > QC	
3	6:17 PM	6.300	0.6	0.250	0.6000	0.150	Velocity Angle > QC	
4	6:18 PM	6.400	0.6	0.300	0.6000	0.180	Velocity Angle > QC	
6	6:21 PM	6.600	0.6	0.300	0.6000	0.180	Standard Error > QC	
7	6:22 PM	6.700	0.6	0.300	0.6000	0.180	Standard Error > QC	
8	6:23 PM	6.800	0.6	0.300	0.6000	0.180	Standard Error > QC,Velocity Angle > QC	
9	6:24 PM	6.900	0.6	0.400	0.6000	0.240	Standard Error > QC	
10	6:25 PM	7.000	0.6	0.400	0.6000	0.240	Standard Error > QC	
11	6:26 PM	7.100	0.6	0.450	0.6000	0.270	Standard Error > QC	
12	6:28 PM	7.200	0.6	0.450	0.6000	0.270	Standard Error > QC	
13	6:29 PM	7.300	0.6	0.450	0.6000	0.270	Standard Error > QC	
14	6:30 PM	7.400	0.6	0.450	0.6000	0.270	Standard Error > QC	
15	6:31 PM	7.500	0.6	0.380	0.6000	0.228	Standard Error > QC	
16	6:32 PM	7.600	0.6	0.380	0.6000	0.228	Standard Error > QC	
17	6:33 PM	7.700	0.6	0.380	0.6000	0.228	Standard Error > QC	
18	6:35 PM	7.800	0.6	0.300	0.6000	0.180	Standard Error > QC	
19	6:36 PM	7.900	0.6	0.300	0.6000	0.180	Standard Error > QC	
20	6:38 PM	8.000	0.6	0.300	0.6000	0.180	Standard Error > QC	
21	6:39 PM	8.100	0.6	0.300	0.6000	0.180	Standard Error > QC	
22	6:40 PM	8.200	0.6	0.200	0.6000	0.120	Standard Error > QC	

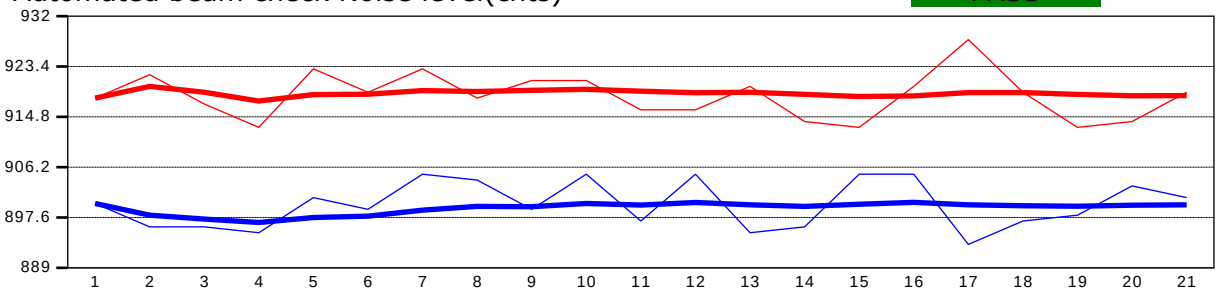
10/4/2017 2:23:37 PM

Automated beam check Start time 9/27/2017 6:12:32 PM

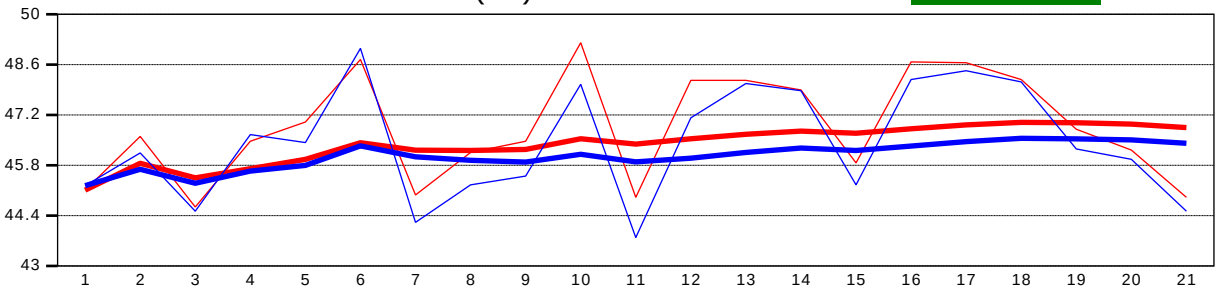
Automated beam check SNR(dB) PASS



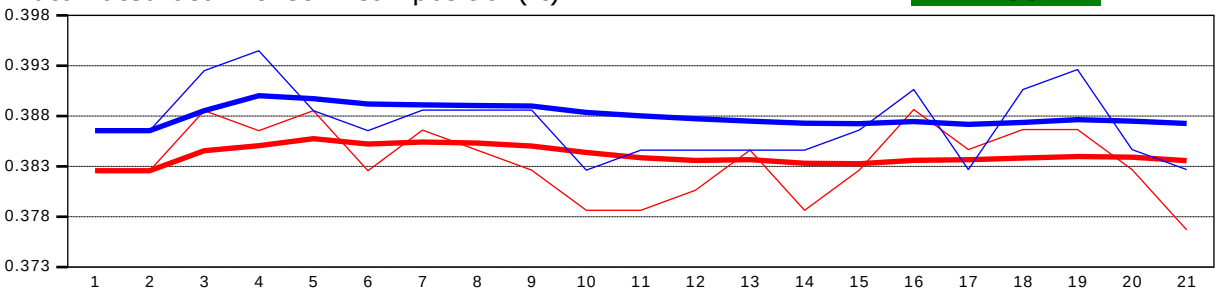
Automated beam check Noise level(cnts) PASS



Automated beam check Peak level(dB) PASS



Automated beam check Peak position(ft) PASS



Automated beam check Quality control warnings

No quality control warnings

Discharge Measurement Summary

File Information

File name	EG9_20170926-120301.ft
Start date and time	9/26/2017 11:25 AM
Calculations engine	FlowTracker2
Data collection mode	Discharge

Discharge Summary

Start time	9/26/2017 11:26:26 AM	End time	9/26/2017 12:02:06 PM
# Stations	24	Avg interval	40
Mean depth	0.390 ft		
Mean velocity	1.4171 ft/s	Total width	5.500 ft
Mean SNR	46 dB	Total area	2.1438 ft²
Mean temp	38.935 °F	Total discharge	3.0380 ft³/s

System Information

Sensor type	Top Setting
Handheld serial number	FT2H1733001
Probe serial number	FT2P1733022
Probe firmware	1.23
Handheld software	1.4

Site Details

Site name	EG9
Site number	EG9
Operator(s)	Rm
Comment	

Discharge Uncertainty

Category	ISO	IVE
Accuracy	1.0 %	1.0 %
Depth	0.4 %	5.4 %
Velocity	0.8 %	3.8 %
Width	0.1 %	0.1 %
Method	1.8 %	
# Stations	2.1 %	
Overall	3.1 %	6.7 %

Discharge Settings

Discharge equation	Mid Section
Discharge uncertainty	IVE
Discharge reference	Rated

Station Warning Settings

Station discharge caution		%
Station discharge warning	10.00	%
Maximum depth change	50.00	%
Maximum spacing change	100.00	%

Summary overview

No changes were made to this file
Quality control warnings

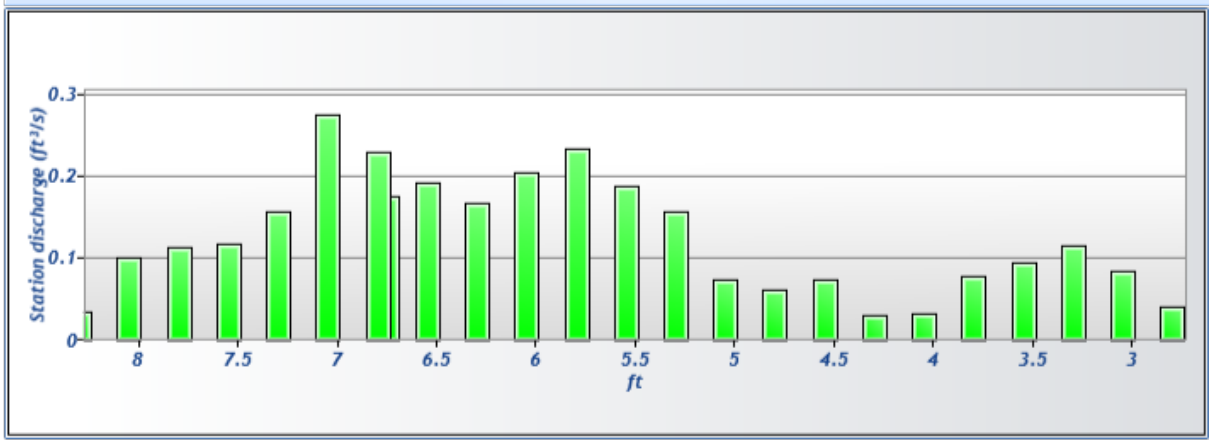
Data Collection Settings

Salinity	0.000	PSS-78
Temperature		°F
Sound speed		ft/s
Mounting correction	0.00	%

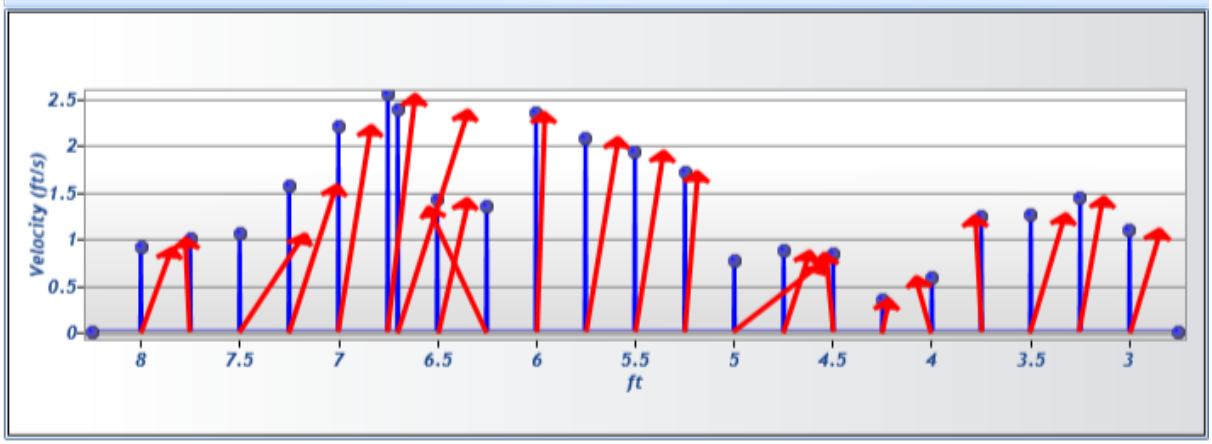
Quality Control Settings

SNR threshold	10	dB
Standard error threshold	0.0328	ft/s
Spike threshold	10.00	%
Maximum velocity angle	20.0	deg
Maximum tilt angle	5.0	deg

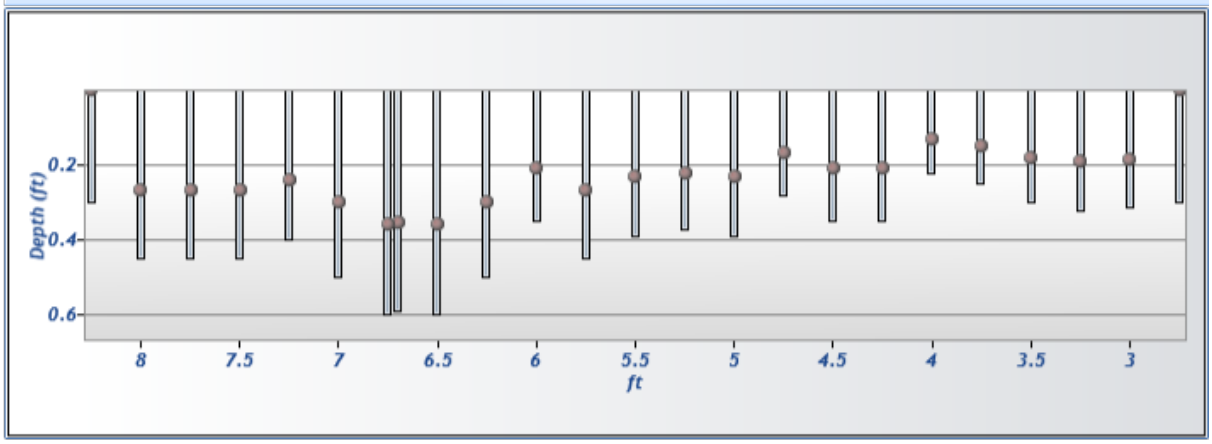
Discharge chart



Velocity chart



Depth chart



Measurement results

St#	Time	Location (ft)	Method	Depth (ft)	%Depth	Measured Depth (ft)	Samples	Velocity (ft/s)	Correction	Mean Velocity (ft/s)	Area (ft^2)	Flow (ft^3/s)	%Q	
0	11:26 AM	2.750	None	0.300	0.0000	0.000	0	0.0000	1.0000	1.1014	0.0375	0.0413	1.36	✓
1	11:27 AM	3.000	0.6	0.310	0.6000	0.186	80	1.1014	1.0000	1.1014	0.0775	0.0854	2.81	✓
2	11:29 AM	3.250	0.6	0.320	0.6000	0.192	80	1.4427	1.0000	1.4427	0.0800	0.1154	3.80	✓
3	11:30 AM	3.500	0.6	0.300	0.6000	0.180	80	1.2630	1.0000	1.2630	0.0750	0.0947	3.12	✓
4	11:32 AM	3.750	0.6	0.250	0.6000	0.150	80	1.2423	1.0000	1.2423	0.0625	0.0776	2.56	✓
5	11:34 AM	4.000	0.6	0.220	0.6000	0.132	80	0.5849	1.0000	0.5849	0.0550	0.0322	1.06	✓
6	11:35 AM	4.250	0.6	0.350	0.6000	0.210	80	0.3493	1.0000	0.3493	0.0875	0.0306	1.01	✓
7	11:36 AM	4.500	0.6	0.350	0.6000	0.210	80	0.8445	1.0000	0.8445	0.0875	0.0739	2.43	✓
8	11:38 AM	4.750	0.6	0.280	0.6000	0.168	80	0.8728	1.0000	0.8728	0.0700	0.0611	2.01	✓
9	11:40 AM	5.000	0.6	0.390	0.6000	0.234	80	0.7630	1.0000	0.7630	0.0975	0.0744	2.45	✓
10	11:42 AM	5.250	0.6	0.370	0.6000	0.222	80	1.7112	1.0000	1.7112	0.0925	0.1583	5.21	✓
11	11:43 AM	5.500	0.6	0.390	0.6000	0.234	80	1.9295	1.0000	1.9295	0.0975	0.1881	6.19	✓
12	11:45 AM	5.750	0.6	0.450	0.6000	0.270	80	2.0782	1.0000	2.0782	0.1125	0.2338	7.70	✓
13	11:46 AM	6.000	0.6	0.350	0.6000	0.210	80	2.3475	1.0000	2.3475	0.0875	0.2054	6.76	✓
14	11:48 AM	6.250	0.6	0.500	0.6000	0.300	80	1.3479	1.0000	1.3479	0.1250	0.1685	5.55	✓
15	11:50 AM	6.500	0.6	0.600	0.6000	0.360	80	1.4261	1.0000	1.4261	0.1350	0.1925	6.34	✓
16	12:00 PM	6.700	0.6	0.590	0.6000	0.354	80	2.3752	1.0000	2.3752	0.0738	0.1752	5.77	✓
17	11:52 AM	6.750	0.6	0.600	0.6000	0.360	80	2.5416	1.0000	2.5416	0.0900	0.2287	7.53	✓
18	11:53 AM	7.000	0.6	0.500	0.6000	0.300	80	2.2057	1.0000	2.2057	0.1250	0.2757	9.08	✓
19	11:55 AM	7.250	0.6	0.400	0.6000	0.240	80	1.5704	1.0000	1.5704	0.1000	0.1570	5.17	✓
20	11:56 AM	7.500	0.6	0.450	0.6000	0.270	80	1.0547	1.0000	1.0547	0.1125	0.1187	3.91	✓
21	11:57 AM	7.750	0.6	0.450	0.6000	0.270	80	1.0047	1.0000	1.0047	0.1125	0.1130	3.72	✓
22	11:59 AM	8.000	0.6	0.450	0.6000	0.270	80	0.9099	1.0000	0.9099	0.1125	0.1024	3.37	✓
23	12:02 PM	8.250	None	0.300	0.0000	0.000	0	0.0000	1.0000	0.9099	0.0375	0.0341	1.12	✓

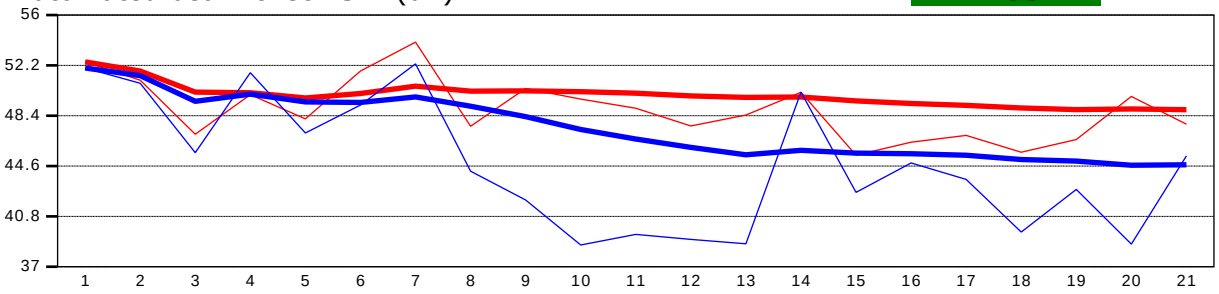
Quality control warnings

St#	Time	Location (ft)	Method	Depth (ft)	%Depth	Measured Depth (ft)	Warnings
1	11:27 AM	3.000	0.6	0.310	0.6000	0.186	Standard Error > QC
2	11:29 AM	3.250	0.6	0.320	0.6000	0.192	Boundary Interference,Standard Error > QC
3	11:30 AM	3.500	0.6	0.300	0.6000	0.180	Standard Error > QC
4	11:32 AM	3.750	0.6	0.250	0.6000	0.150	Standard Error > QC
6	11:35 AM	4.250	0.6	0.350	0.6000	0.210	Boundary Interference,SNR Threshold Variation,Standard Error > QC
7	11:36 AM	4.500	0.6	0.350	0.6000	0.210	Standard Error > QC
8	11:38 AM	4.750	0.6	0.280	0.6000	0.168	Standard Error > QC
9	11:40 AM	5.000	0.6	0.390	0.6000	0.234	Standard Error > QC,Velocity Angle > QC
10	11:42 AM	5.250	0.6	0.370	0.6000	0.222	Standard Error > QC
11	11:43 AM	5.500	0.6	0.390	0.6000	0.234	Standard Error > QC
12	11:45 AM	5.750	0.6	0.450	0.6000	0.270	Standard Error > QC
13	11:46 AM	6.000	0.6	0.350	0.6000	0.210	Standard Error > QC
14	11:48 AM	6.250	0.6	0.500	0.6000	0.300	Standard Error > QC
15	11:50 AM	6.500	0.6	0.600	0.6000	0.360	Boundary Interference,Standard Error > QC
16	12:00 PM	6.700	0.6	0.590	0.6000	0.354	Standard Error > QC
17	11:52 AM	6.750	0.6	0.600	0.6000	0.360	Standard Error > QC
18	11:53 AM	7.000	0.6	0.500	0.6000	0.300	Stn Spacing > QC,Standard Error > QC
19	11:55 AM	7.250	0.6	0.400	0.6000	0.240	Standard Error > QC
20	11:56 AM	7.500	0.6	0.450	0.6000	0.270	Standard Error > QC
21	11:57 AM	7.750	0.6	0.450	0.6000	0.270	Standard Error > QC
22	11:59 AM	8.000	0.6	0.450	0.6000	0.270	Standard Error > QC

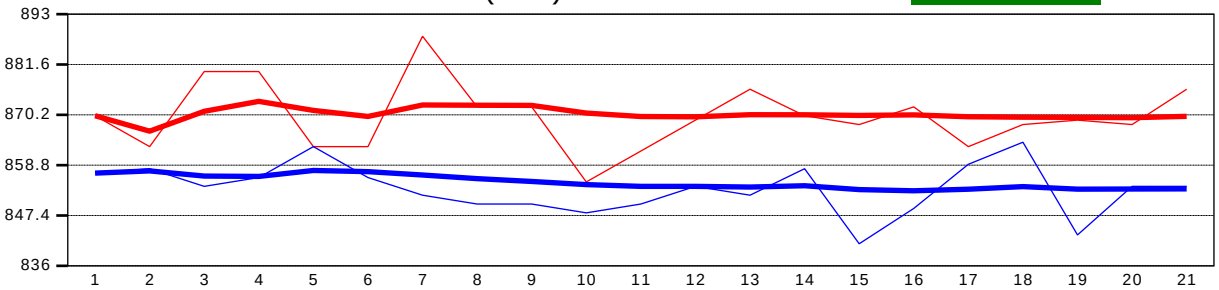
10/4/2017 2:24:24 PM

Automated beam check Start time 9/26/2017 11:25:47 AM

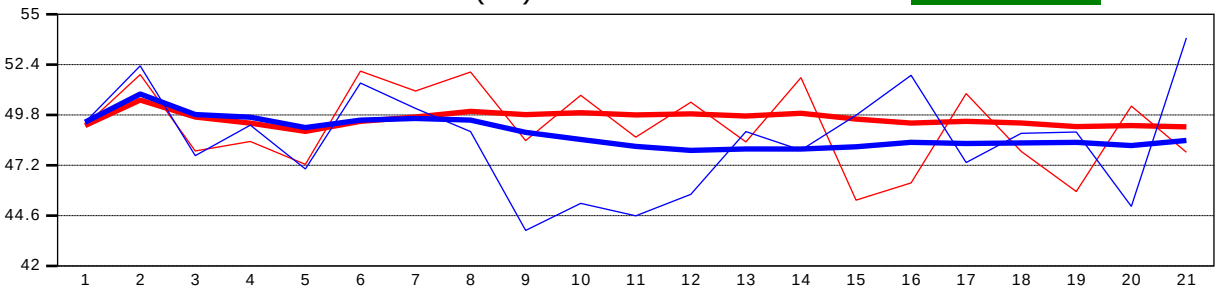
Automated beam check SNR(dB) PASS



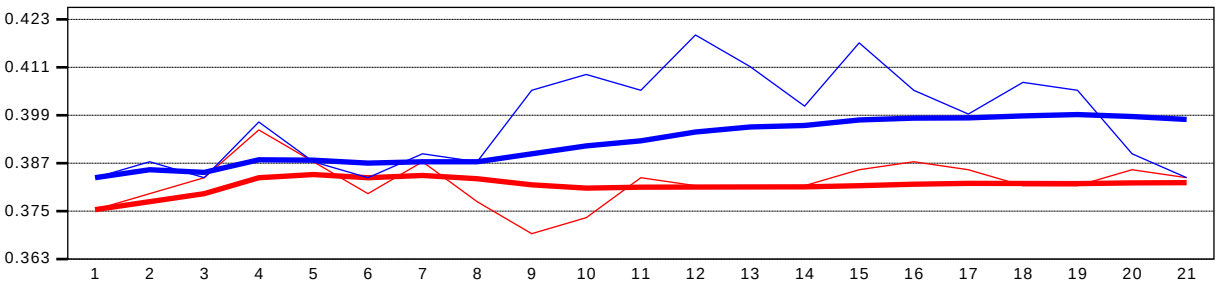
Automated beam check Noise level(cnts) PASS



Automated beam check Peak level(dB) PASS



Automated beam check Peak position(ft) PASS



Automated beam check Quality control warnings

No quality control warnings

Discharge Measurement Summary

File Information

File name	M11_20170928-150655.ft
Start date and time	9/28/2017 2:34 PM
Calculations engine	FlowTracker2
Data collection mode	Discharge

Discharge Summary

Start time	9/28/2017 2:35:30 PM	End time	9/28/2017 3:06:14 PM
# Stations	22	Avg interval	40
Mean depth	0.418 ft		
Mean velocity	1.4561 ft/s	Total width	12.000 ft
Mean SNR	44 dB	Total area	5.0160 ft²
Mean temp	44.998 °F	Total discharge	7.3038 ft³/s

System Information

Sensor type	Top Setting
Handheld serial number	FT2H1733001
Probe serial number	FT2P1733022
Probe firmware	1.23
Handheld software	1.4

Site Details

Site name	M11
Site number	M11
Operator(s)	RM
Comment	

Discharge Uncertainty

Category	ISO	IVE
Accuracy	1.0 %	1.0 %
Depth	0.4 %	5.7 %
Velocity	0.7 %	9.1 %
Width	0.1 %	0.1 %
Method	1.9 %	
# Stations	2.3 %	
Overall	3.2 %	10.7 %

Discharge Settings

Discharge equation	Mid Section
Discharge uncertainty	IVE
Discharge reference	Rated

Station Warning Settings

Station discharge caution		%
Station discharge warning	10.00	%
Maximum depth change	50.00	%
Maximum spacing change	100.00	%

Summary overview

No changes were made to this file
Quality control warnings

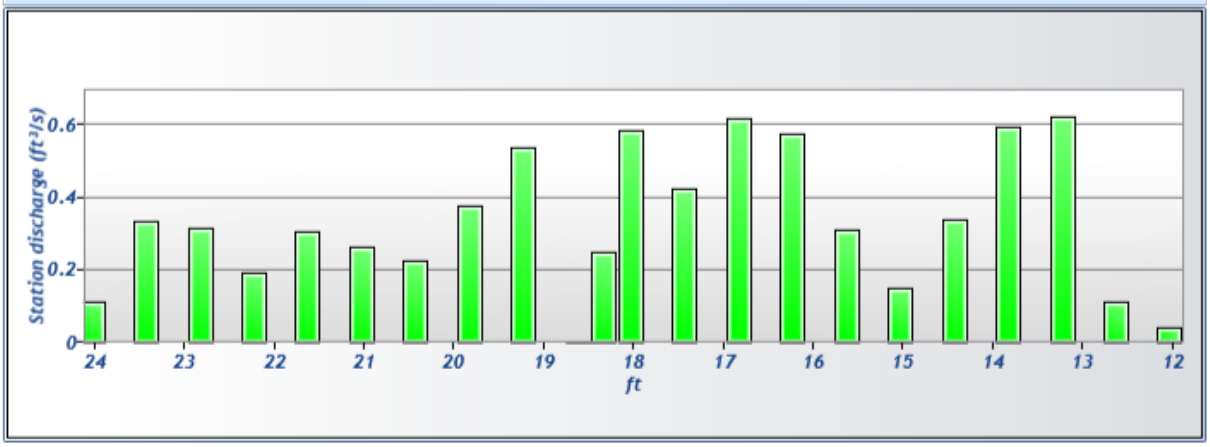
Data Collection Settings

Salinity	0.000	PSS-78
Temperature		°F
Sound speed		ft/s
Mounting correction	0.00	%

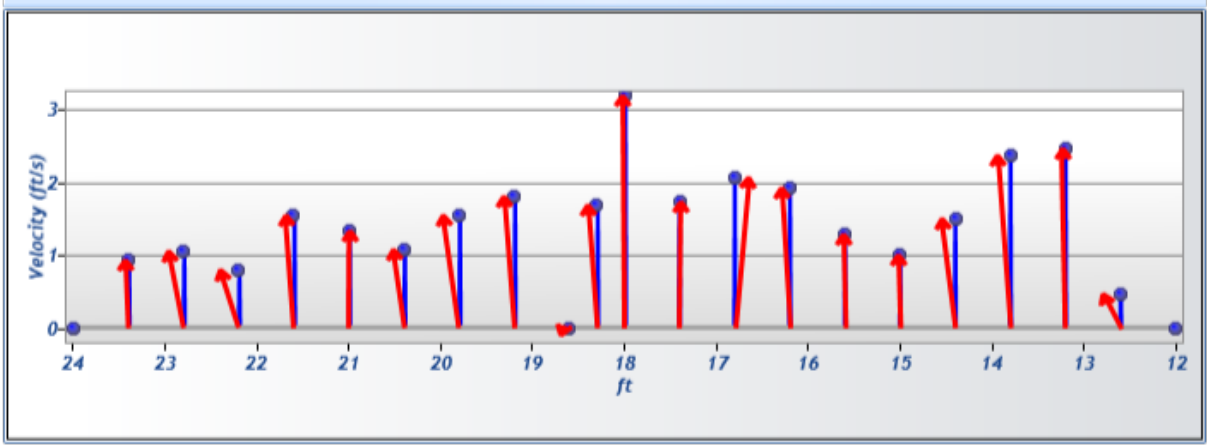
Quality Control Settings

SNR threshold	10	dB
Standard error threshold	0.0328	ft/s
Spike threshold	10.00	%
Maximum velocity angle	20.0	deg
Maximum tilt angle	5.0	deg

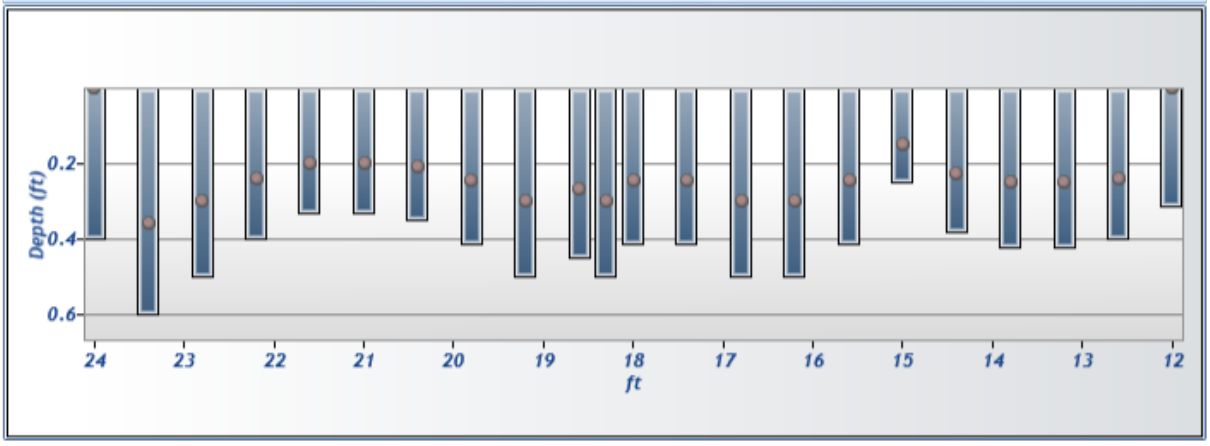
Discharge chart



Velocity chart



Depth chart



Measurement results

St#	Time	Location (ft)	Method	Depth (ft)	%Depth	Measured Depth (ft)	Samples	Velocity (ft/s)	Correction	Mean Velocity (ft/s)	Area (ft^2)	Flow (ft^3/s)	%Q	
0	2:35 PM	12.000	None	0.310	0.0000	0.000	0	0.0000	1.0000	0.4708	0.0930	0.0438	0.60	✓
1	2:35 PM	12.600	0.6	0.400	0.6000	0.240	80	0.4708	1.0000	0.4708	0.2400	0.1130	1.55	✓
2	2:37 PM	13.200	0.6	0.420	0.6000	0.252	80	2.4669	1.0000	2.4669	0.2520	0.6217	8.51	✓
3	2:40 PM	13.800	0.6	0.420	0.6000	0.252	80	2.3669	1.0000	2.3669	0.2520	0.5965	8.17	✓
4	2:41 PM	14.400	0.6	0.380	0.6000	0.228	80	1.4873	1.0000	1.4873	0.2280	0.3391	4.64	✓
5	2:43 PM	15.000	0.6	0.250	0.6000	0.150	80	0.9953	1.0000	0.9953	0.1500	0.1493	2.04	✓
6	2:45 PM	15.600	0.6	0.410	0.6000	0.246	80	1.2761	1.0000	1.2761	0.2460	0.3139	4.30	✓
7	2:47 PM	16.200	0.6	0.500	0.6000	0.300	80	1.9136	1.0000	1.9136	0.3000	0.5741	7.86	✓
8	2:48 PM	16.800	0.6	0.500	0.6000	0.300	80	2.0645	1.0000	2.0645	0.3000	0.6193	8.48	✓
9	2:49 PM	17.400	0.6	0.410	0.6000	0.246	80	1.7237	1.0000	1.7237	0.2460	0.4240	5.81	✓
10	2:51 PM	18.000	0.6	0.410	0.6000	0.246	80	3.1823	1.0000	3.1823	0.1845	0.5871	8.04	✓
11	3:04 PM	18.300	0.6	0.500	0.6000	0.300	80	1.6824	1.0000	1.6824	0.1500	0.2524	3.46	✓
12	2:52 PM	18.600	0.6	0.450	0.6000	0.270	80	0.0059	1.0000	0.0059	0.2025	0.0012	0.02	✓
13	2:54 PM	19.200	0.6	0.500	0.6000	0.300	80	1.7996	1.0000	1.7996	0.3000	0.5399	7.39	✓
14	2:55 PM	19.800	0.6	0.410	0.6000	0.246	80	1.5432	1.0000	1.5432	0.2460	0.3796	5.20	✓
15	2:57 PM	20.400	0.6	0.350	0.6000	0.210	80	1.0713	1.0000	1.0713	0.2100	0.2250	3.08	✓
16	2:58 PM	21.000	0.6	0.330	0.6000	0.198	80	1.3322	1.0000	1.3322	0.1980	0.2638	3.61	✓
17	2:59 PM	21.600	0.6	0.330	0.6000	0.198	80	1.5416	1.0000	1.5416	0.1980	0.3052	4.18	✓
18	3:00 PM	22.200	0.6	0.400	0.6000	0.240	80	0.8004	1.0000	0.8004	0.2400	0.1921	2.63	✓
19	3:02 PM	22.800	0.6	0.500	0.6000	0.300	80	1.0562	1.0000	1.0562	0.3000	0.3169	4.34	✓
20	3:03 PM	23.400	0.6	0.600	0.6000	0.360	80	0.9292	1.0000	0.9292	0.3600	0.3345	4.58	✓
21	3:06 PM	24.000	None	0.400	0.0000	0.000	0	0.0000	1.0000	0.9292	0.1200	0.1115	1.53	✓

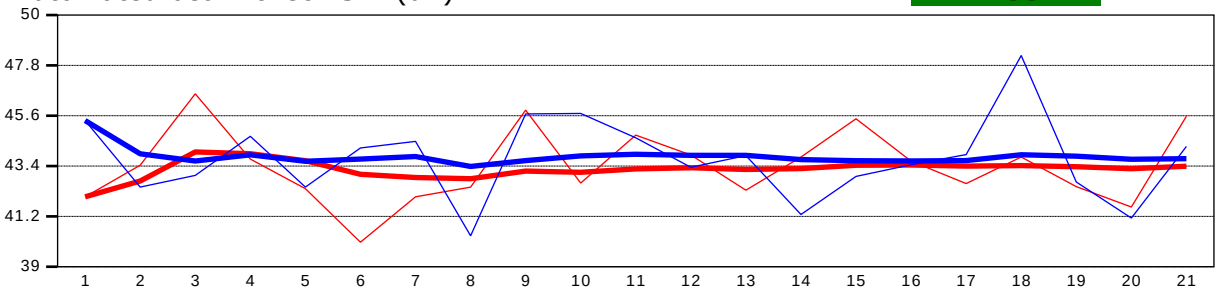
Quality control warnings

St#	Time	Location (ft)	Method	Depth (ft)	%Depth	Measured Depth (ft)	Warnings	
1	2:35 PM	12.600	0.6	0.400	0.6000	0.240	Boundary Interference,Velocity Angle > QC	
2	2:37 PM	13.200	0.6	0.420	0.6000	0.252	Standard Error > QC	
3	2:40 PM	13.800	0.6	0.420	0.6000	0.252	Standard Error > QC	
5	2:43 PM	15.000	0.6	0.250	0.6000	0.150	Standard Error > QC	
6	2:45 PM	15.600	0.6	0.410	0.6000	0.246	Standard Error > QC	
7	2:47 PM	16.200	0.6	0.500	0.6000	0.300	Standard Error > QC	
8	2:48 PM	16.800	0.6	0.500	0.6000	0.300	Standard Error > QC	
9	2:49 PM	17.400	0.6	0.410	0.6000	0.246	Standard Error > QC	
10	2:51 PM	18.000	0.6	0.410	0.6000	0.246	Standard Error > QC	
11	3:04 PM	18.300	0.6	0.500	0.6000	0.300	Standard Error > QC	
12	2:52 PM	18.600	0.6	0.450	0.6000	0.270	Standard Error > QC,High % Spikes	
13	2:54 PM	19.200	0.6	0.500	0.6000	0.300	Standard Error > QC	
15	2:57 PM	20.400	0.6	0.350	0.6000	0.210	Standard Error > QC	
18	3:00 PM	22.200	0.6	0.400	0.6000	0.240	Standard Error > QC	
20	3:03 PM	23.400	0.6	0.600	0.6000	0.360	Standard Error > QC	

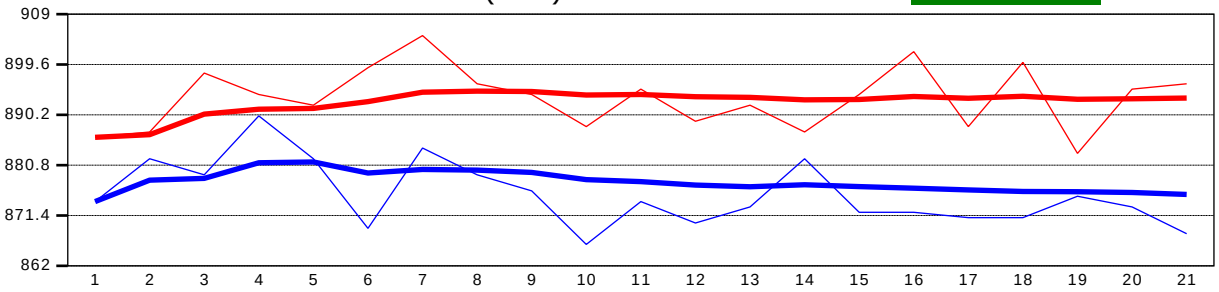
10/4/2017 2:25:18 PM

Automated beam check Start time 9/28/2017 2:35:02 PM

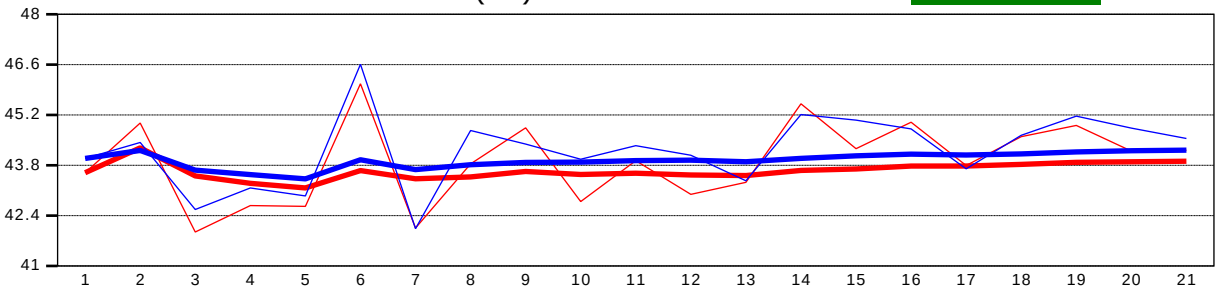
Automated beam check SNR(dB) PASS



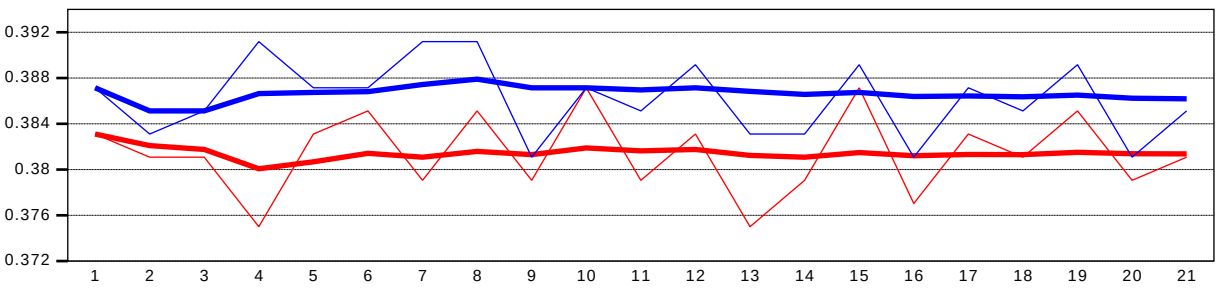
Automated beam check Noise level(cnts) PASS



Automated beam check Peak level(dB) PASS



Automated beam check Peak position(ft) PASS



Automated beam check Quality control warnings

No quality control warnings

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A09JB.A09.WAD
Start Date and Time	2017/09/26 10:51:29

Site Details

Site Name	A09JB
Operator(s)	JB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	4.6%
Velocity	1.7%	6.8%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.1%	-
Overall	**3.5%**	**8.3%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	LEW	Total Width	12.001
Mean SNR	42.2 dB	Total Area	4.036
Mean Temp	33.62 °F	Mean Depth	0.336
Disch. Equation	Mid-Section	Mean Velocity	0.4821
		Total Discharge	**1.9454**

Measurement Results

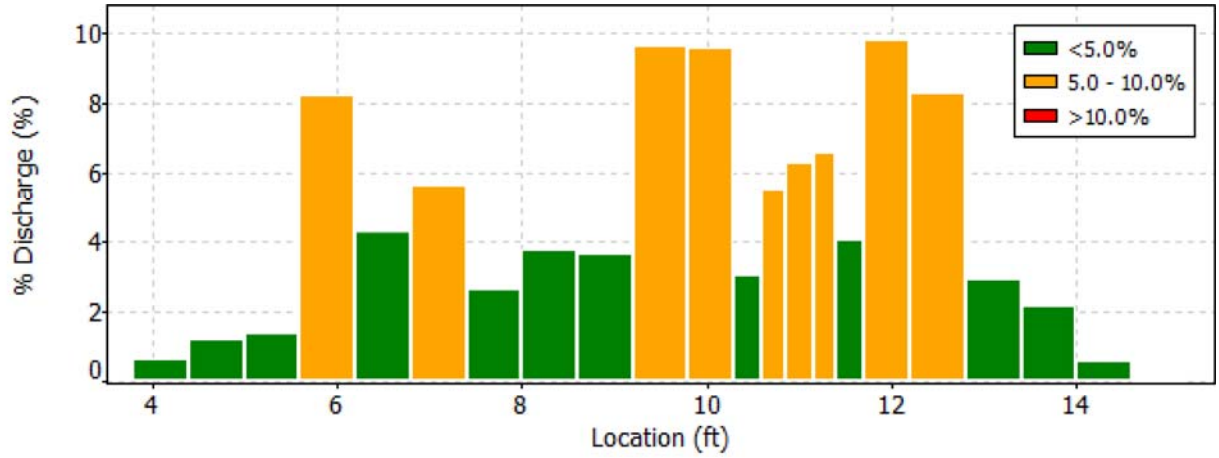
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:51	3.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	10:51	4.10	0.6	0.200	0.6	0.080	0.1060	1.00	0.1060	0.120	0.0127	0.7
2	*10:52*	*4.70*	*0.6*	*0.300*	*0.6*	*0.120*	*0.1319*	*1.00*	*0.1319*	*0.180*	*0.0237*	*1.2*
3	10:53	5.30	0.6	0.300	0.6	0.120	0.1493	1.00	0.1493	0.180	0.0269	1.4
4	*10:54*	*5.90*	*0.6*	*0.500*	*0.6*	*0.200*	*0.5338*	*1.00*	*0.5338*	*0.300*	*0.1602*	*8.2*
5	*10:56*	*6.50*	*0.6*	*0.300*	*0.6*	*0.120*	*0.4665*	*1.00*	*0.4665*	*0.180*	*0.0839*	*4.3*
6	*10:57*	*7.10*	*0.6*	*0.450*	*0.6*	*0.180*	*0.4062*	*1.00*	*0.4062*	*0.270*	*0.1097*	*5.6*
7	*10:58*	*7.70*	*0.6*	*0.500*	*0.6*	*0.200*	*0.1709*	*1.00*	*0.1709*	*0.300*	*0.0513*	*2.6*
8	*10:59*	*8.30*	*0.6*	*0.500*	*0.6*	*0.200*	*0.2448*	*1.00*	*0.2448*	*0.300*	*0.0734*	*3.8*
9	*11:00*	*8.90*	*0.6*	*0.550*	*0.6*	*0.220*	*0.2175*	*1.00*	*0.2175*	*0.330*	*0.0718*	*3.7*
10	*11:01*	*9.50*	*0.6*	*0.550*	*0.6*	*0.220*	*0.5682*	*1.00*	*0.5682*	*0.330*	*0.1875*	*9.6*
11	*11:02*	*10.10*	*0.6*	*0.450*	*0.6*	*0.180*	*0.8314*	*1.00*	*0.8314*	*0.225*	*0.1870*	*9.6*
12	*11:12*	*10.50*	*0.6*	*0.350*	*0.6*	*0.140*	*0.5673*	*1.00*	*0.5673*	*0.105*	*0.0596*	*3.1*
13	11:03	10.70	0.6	0.400	0.6	0.160	1.0751	1.00	1.0751	0.100	0.1075	5.5
14	*11:14*	*11.00*	*0.6*	*0.350*	*0.6*	*0.140*	*1.1575*	*1.00*	*1.1575*	*0.105*	*0.1216*	*6.2*
15	11:04	11.30	0.6	0.400	0.6	0.160	1.2733	1.00	1.2733	0.100	0.1273	6.5
16	*11:15*	*11.50*	*0.6*	*0.250*	*0.6*	*0.100*	*1.0577*	*1.00*	*1.0577*	*0.075*	*0.0793*	*4.1*
17	11:05	11.90	0.6	0.350	0.6	0.140	1.0932	1.00	1.0932	0.175	0.1915	9.8
18	11:06	12.50	0.6	0.300	0.6	0.120	0.8970	1.00	0.8970	0.180	0.1614	8.3
19	*11:07*	*13.10*	*0.6*	*0.200*	*0.6*	*0.080*	*0.4721*	*1.00*	*0.4721*	*0.120*	*0.0567*	*2.9*
20	*11:08*	*13.70*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3520*	*1.00*	*0.3520*	*0.120*	*0.0423*	*2.2*
21	*11:09*	*14.30*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0968*	*1.00*	*0.0968*	*0.120*	*0.0116*	*0.6*
22	11:10	14.90	0.6	0.200	0.6	0.080	-0.0131	1.00	-0.0131	0.120	-0.0016	-0.1
23	11:10	15.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

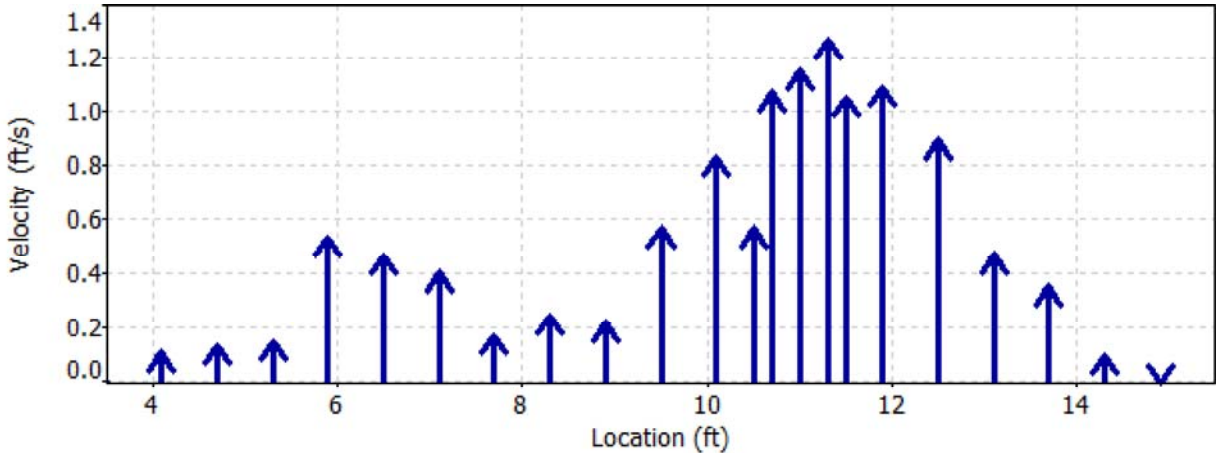
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

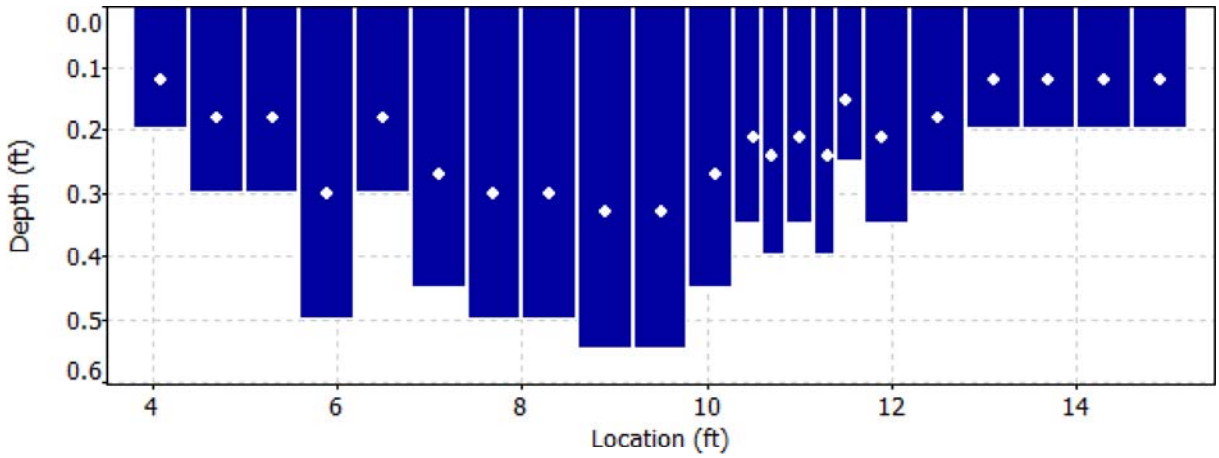
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A09JB.A09.WAD	Site Name	A09JB
Start Date and Time	2017/09/26 10:51:29	Operator(s)	JB







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A09JB.A09.WAD	Site Name	A09JB
Start Date and Time	2017/09/26 10:51:29	Operator(s)	JB

Quality Control

St	Loc	%Dep	Message
2	4.70	0.6	Boundary QC is Fair; possible boundary interference
4	5.90	0.6	High angle: 21
		0.6	Boundary QC is Good; possible boundary interference
5	6.50	0.6	High angle: 42
6	7.10	0.6	High angle: 44
7	7.70	0.6	High angle: 62
8	8.30	0.6	High angle: 42
9	8.90	0.6	High angle: 63
10	9.50	0.6	High angle: 39
11	10.10	0.6	High angle: 23
12	10.50	0.6	High angle: 40
		0.6	High standard error: 0.085
14	11.00	0.6	High angle: 21
16	11.50	0.6	High angle: 29
19	13.10	0.6	High angle: -34
20	13.70	0.6	High angle: -45
21	14.30	0.6	High angle: -71

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A10.A10.WAD
Start Date and Time	2017/09/26 11:54:48

Site Details

Site Name	A10
Operator(s)	JB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	3.6%
Velocity	3.8%	9.2%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.0%	-
Overall	**4.7%**	**9.9%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	LEW	Total Width	12.999
Mean SNR	39.8 dB	Total Area	4.357
Mean Temp	38.99 °F	Mean Depth	0.335
Disch. Equation	Mid-Section	Mean Velocity	1.1087
		Total Discharge	**4.8305**

Measurement Results

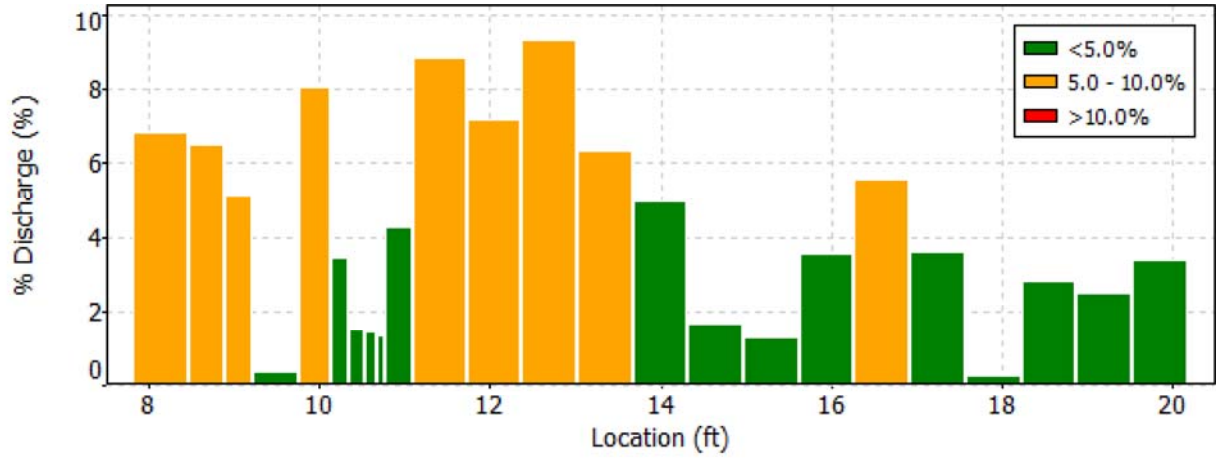
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:54	7.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*11:55*	*8.15*	*0.6*	*0.600*	*0.6*	*0.240*	*0.8435*	*1.00*	*0.8435*	*0.390*	*0.3290*	*6.8*
2	11:57	8.80	0.6	0.500	0.6	0.200	1.4764	1.00	1.4764	0.213	0.3138	6.5
3	12:23	9.00	0.6	0.500	0.6	0.200	1.5194	1.00	1.5194	0.162	0.2469	5.1
4	*11:58*	*9.45*	*0.6*	*0.500*	*0.6*	*0.200*	*0.0607*	*1.00*	*0.0607*	*0.275*	*0.0167*	*0.3*
5	11:59	10.10	0.6	0.400	0.6	0.160	2.5984	1.00	2.5984	0.150	0.3899	8.1
6	12:26	10.20	0.6	0.400	0.6	0.160	2.0741	1.00	2.0741	0.080	0.1660	3.4
7	*12:21*	*10.50*	*0.6*	*0.500*	*0.6*	*0.200*	*0.7096*	*1.00*	*0.7096*	*0.100*	*0.0710*	*1.5*
8	12:19	10.60	0.6	0.500	0.6	0.200	1.1089	1.00	1.1089	0.062	0.0692	1.4
9	*12:00*	*10.75*	*0.6*	*0.450*	*0.6*	*0.180*	*1.4518*	*1.00*	*1.4518*	*0.045*	*0.0653*	*1.4*
10	*12:24*	*10.80*	*0.6*	*0.400*	*0.6*	*0.160*	*1.5741*	*1.00*	*1.5741*	*0.130*	*0.2046*	*4.2*
11	*12:01*	*11.40*	*0.6*	*0.500*	*0.6*	*0.200*	*1.3714*	*1.00*	*1.3714*	*0.312*	*0.4284*	*8.9*
12	*12:02*	*12.05*	*0.6*	*0.400*	*0.6*	*0.160*	*1.3333*	*1.00*	*1.3333*	*0.260*	*0.3466*	*7.2*
13	*12:04*	*12.70*	*0.6*	*0.500*	*0.6*	*0.200*	*1.3924*	*1.00*	*1.3924*	*0.325*	*0.4525*	*9.4*
14	12:05	13.35	0.6	0.300	0.6	0.120	1.5702	1.00	1.5702	0.195	0.3060	6.3
15	*12:06*	*14.00*	*0.6*	*0.200*	*0.6*	*0.080*	*1.8396*	*1.00*	*1.8396*	*0.130*	*0.2393*	*5.0*
16	*12:08*	*14.65*	*0.6*	*0.200*	*0.6*	*0.080*	*0.6237*	*1.00*	*0.6237*	*0.130*	*0.0811*	*1.7*
17	12:09	15.30	0.6	0.250	0.6	0.100	0.3743	1.00	0.3743	0.162	0.0608	1.3
18	*12:10*	*15.95*	*0.6*	*0.400*	*0.6*	*0.160*	*0.6594*	*1.00*	*0.6594*	*0.260*	*0.1714*	*3.5*
19	12:11	16.60	0.6	0.300	0.6	0.120	1.3819	1.00	1.3819	0.195	0.2693	5.6
20	*12:12*	*17.25*	*0.6*	*0.300*	*0.6*	*0.120*	*0.8907*	*1.00*	*0.8907*	*0.195*	*0.1736*	*3.6*
21	*12:13*	*17.90*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0909*	*1.00*	*0.0909*	*0.130*	*0.0118*	*0.2*
22	*12:15*	*18.55*	*0.6*	*0.300*	*0.6*	*0.120*	*0.6959*	*1.00*	*0.6959*	*0.195*	*0.1356*	*2.8*
23	*12:16*	*19.20*	*0.6*	*0.200*	*0.6*	*0.080*	*0.9091*	*1.00*	*0.9091*	*0.130*	*0.1183*	*2.4*
24	12:17	19.85	0.6	0.200	0.6	0.080	1.2572	1.00	1.2572	0.130	0.1635	3.4
25	12:17	20.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

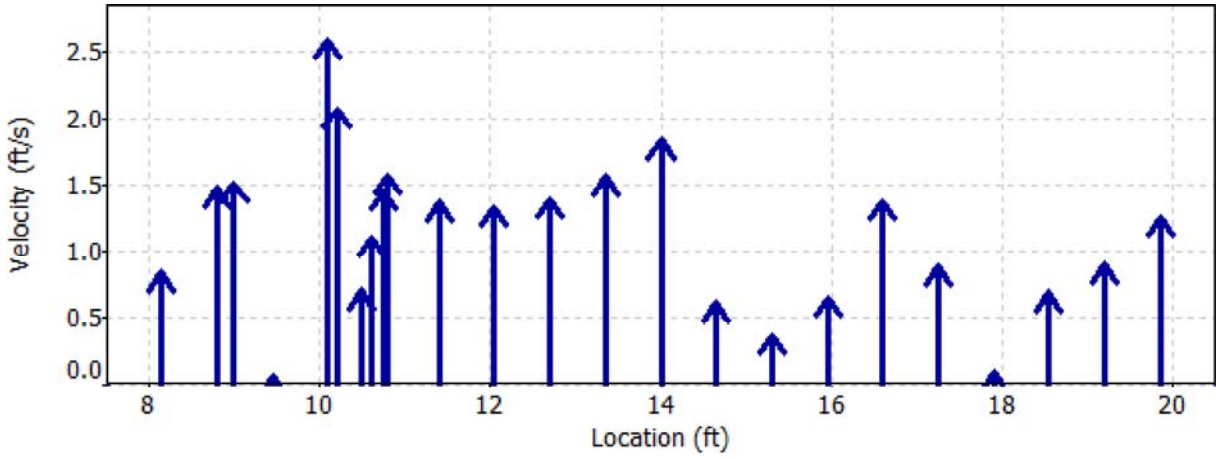
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

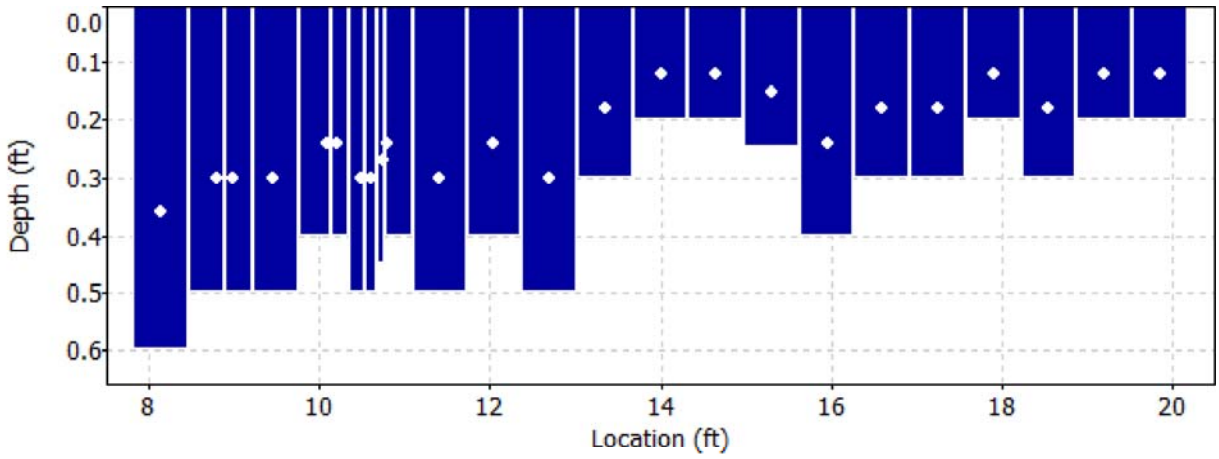
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A10.A10.WAD	Site Name	A10
Start Date and Time	2017/09/26 11:54:48	Operator(s)	JB







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A10.A10.WAD	Site Name	A10
Start Date and Time	2017/09/26 11:54:48	Operator(s)	JB

Quality Control

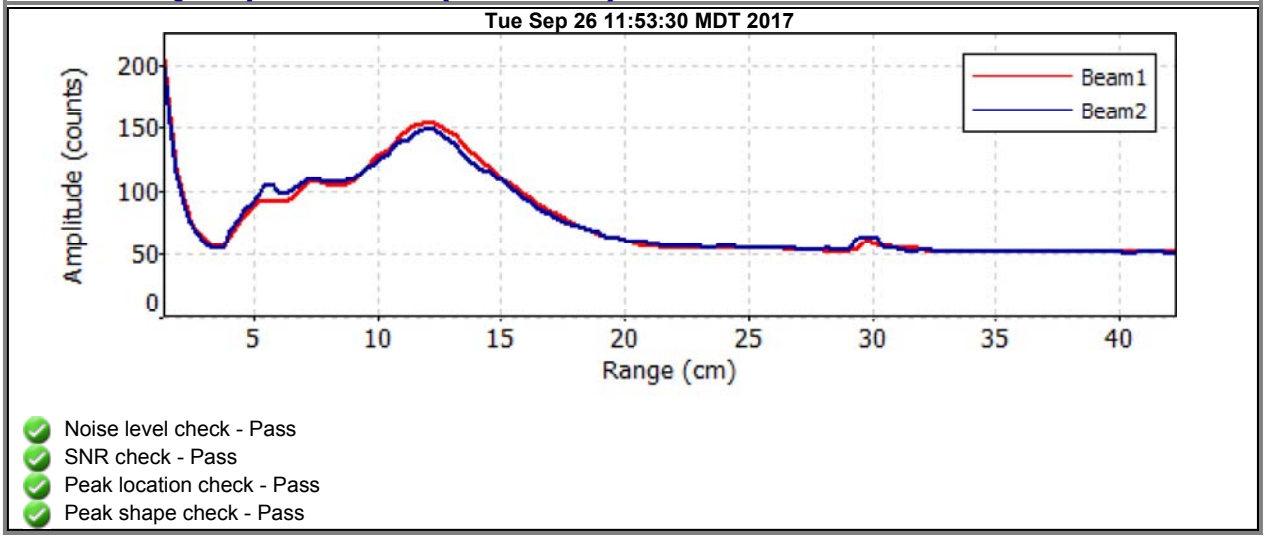
St	Loc	%Dep	Message
1	8.15	0.6	High angle: -26
		0.6	SNR (26.6) is different from typical SNR (39.8)
		0.6	High SNR variation during measurement: 6.9,2.6
		0.6	High standard error: 0.428
		0.6	Boundary QC is Poor; possible boundary interference
4	9.45	0.6	High angle: -84
7	10.50	0.6	High SNR variation during measurement: 0.9,6.0
9	10.75	0.6	High angle: -57
10	10.80	0.6	High differences in beam SNR: 43.0,28.8
		0.6	High SNR variation during measurement: 0.9,8.2
		0.6	High standard error: 0.143
11	11.40	0.6	High angle: -28
12	12.05	0.6	High number of spikes: 5
13	12.70	0.6	High angle: -41
15	14.00	0.6	High differences in beam SNR: 42.1,54.1
16	14.65	0.6	High angle: -40
18	15.95	0.6	High angle: 27
20	17.25	0.6	High angle: 24
21	17.90	0.6	High angle: 62
22	18.55	0.6	Boundary QC is Good; possible boundary interference
23	19.20	0.6	High standard error: 0.148
		0.6	Boundary QC is Fair; possible boundary interference

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A10.A10.WAD	Site Name	A10
Start Date and Time	2017/09/26 11:54:48	Operator(s)	JB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A11.A11.WAD
Start Date and Time	2017/09/26 13:46:40

Site Details

Site Name	A11
Operator(s)	JB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	4.5%
Velocity	1.8%	3.9%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.0%	-
Overall	**3.4%**	**6.0%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	REW	Total Width	15.000
Mean SNR	39.3 dB	Total Area	7.393
Mean Temp	44.40 °F	Mean Depth	0.493
Disch. Equation	Mid-Section	Mean Velocity	0.2938
		Total Discharge	**2.1722**

Measurement Results

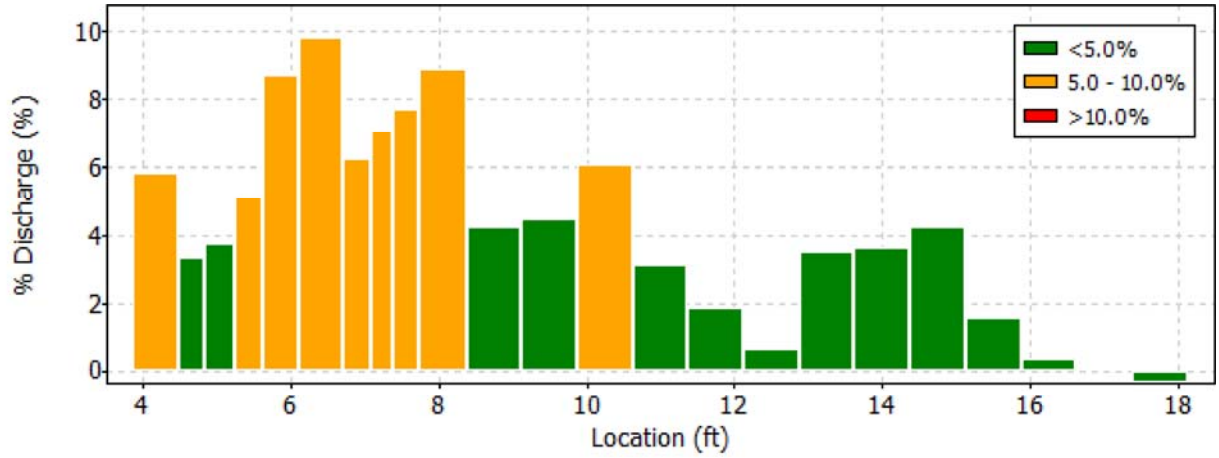
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:46	3.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*13:46*	*4.25*	*0.6*	*0.700*	*0.6*	*0.280*	*0.3022*	*1.00*	*0.3022*	*0.420*	*0.1269*	*5.8*
2	*14:07*	*4.70*	*0.6*	*0.600*	*0.6*	*0.240*	*0.3222*	*1.00*	*0.3222*	*0.225*	*0.0725*	*3.3*
3	*13:47*	*5.00*	*0.6*	*0.700*	*0.6*	*0.280*	*0.2930*	*1.00*	*0.2930*	*0.280*	*0.0820*	*3.8*
4	*14:11*	*5.50*	*0.6*	*0.800*	*0.6*	*0.320*	*0.3694*	*1.00*	*0.3694*	*0.300*	*0.1108*	*5.1*
5	*13:48*	*5.75*	*0.6*	*1.100*	*0.6*	*0.440*	*0.3448*	*1.00*	*0.3448*	*0.550*	*0.1897*	*8.7*
6	*13:49*	*6.50*	*0.6*	*1.100*	*0.6*	*0.440*	*0.3376*	*1.00*	*0.3376*	*0.633*	*0.2135*	*9.8*
7	*14:08*	*6.90*	*0.6*	*1.100*	*0.6*	*0.440*	*0.3297*	*1.00*	*0.3297*	*0.413*	*0.1360*	*6.3*
8	13:51	7.25	0.6	1.200	0.6	0.480	0.4265	1.00	0.4265	0.360	0.1536	7.1
9	14:10	7.50	0.6	1.000	0.6	0.400	0.4485	1.00	0.4485	0.375	0.1682	7.7
10	*13:52*	*8.00*	*0.6*	*0.800*	*0.6*	*0.320*	*0.3855*	*1.00*	*0.3855*	*0.500*	*0.1927*	*8.9*
11	*13:53*	*8.75*	*0.6*	*0.200*	*0.6*	*0.080*	*0.6129*	*1.00*	*0.6129*	*0.150*	*0.0920*	*4.2*
12	*13:54*	*9.50*	*0.6*	*0.200*	*0.6*	*0.080*	*0.6483*	*1.00*	*0.6483*	*0.150*	*0.0973*	*4.5*
13	*13:55*	*10.25*	*0.6*	*0.300*	*0.6*	*0.120*	*0.5840*	*1.00*	*0.5840*	*0.225*	*0.1313*	*6.0*
14	*13:56*	*11.00*	*0.6*	*0.200*	*0.6*	*0.080*	*0.4534*	*1.00*	*0.4534*	*0.150*	*0.0681*	*3.1*
15	*13:57*	*11.75*	*0.6*	*0.300*	*0.6*	*0.120*	*0.1801*	*1.00*	*0.1801*	*0.225*	*0.0405*	*1.9*
16	*13:58*	*12.50*	*0.6*	*0.500*	*0.6*	*0.200*	*0.0364*	*1.00*	*0.0364*	*0.375*	*0.0137*	*0.6*
17	*13:59*	*13.25*	*0.6*	*0.600*	*0.6*	*0.240*	*0.1722*	*1.00*	*0.1722*	*0.450*	*0.0775*	*3.6*
18	14:00	14.00	0.6	0.600	0.6	0.240	0.1752	1.00	0.1752	0.450	0.0788	3.6
19	14:01	14.75	0.6	0.550	0.6	0.220	0.2244	1.00	0.2244	0.412	0.0925	4.3
20	14:03	15.50	0.6	0.400	0.6	0.160	0.1148	1.00	0.1148	0.300	0.0344	1.6
21	*14:03*	*16.25*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0528*	*1.00*	*0.0528*	*0.150*	*0.0079*	*0.4*
22	14:04	17.00	0.6	0.200	0.6	0.080	-0.0030	1.00	-0.0030	0.150	-0.0004	0.0
23	*14:05*	*17.75*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0495*	*1.00*	*-0.0495*	*0.150*	*-0.0074*	*-0.3*
24	14:05	18.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

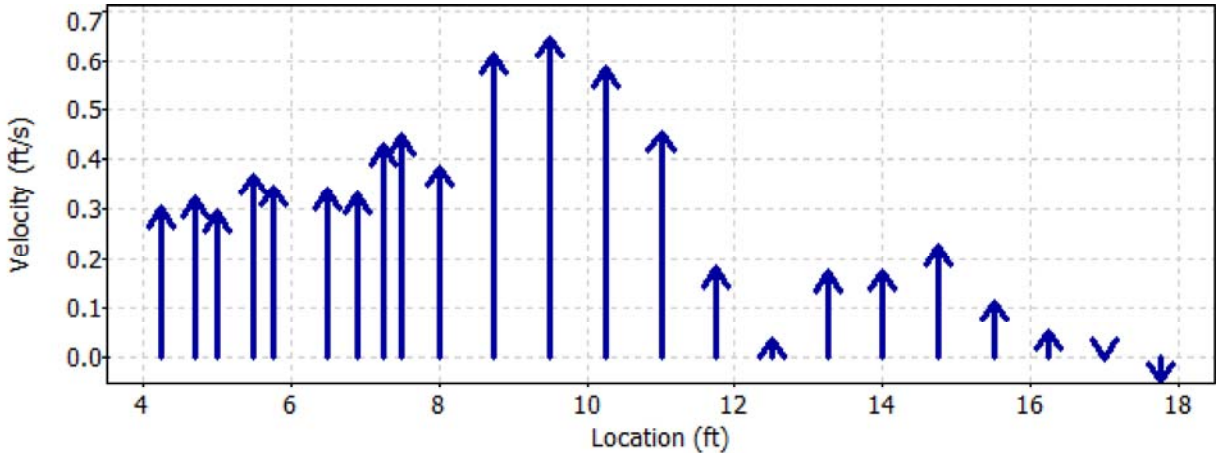
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

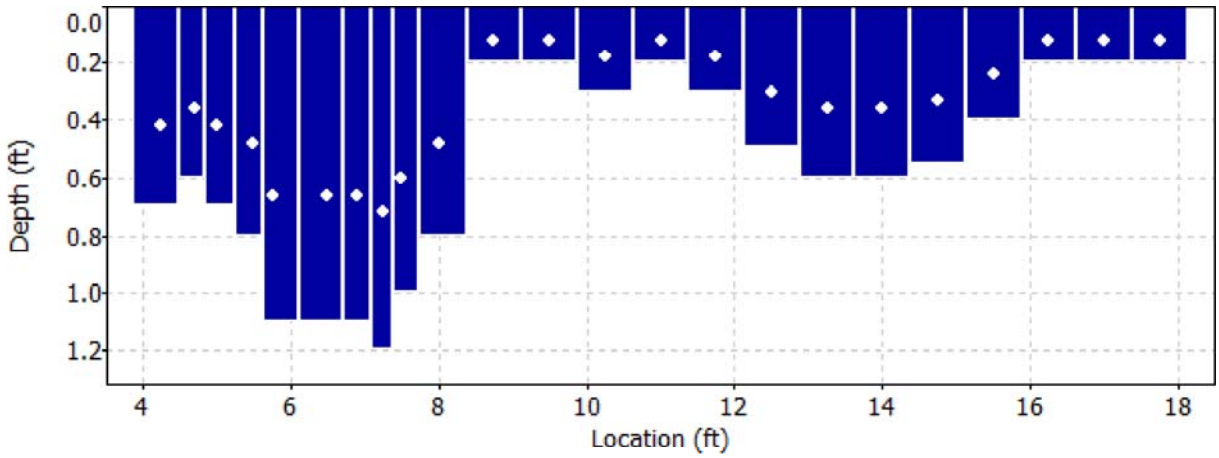
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A11.A11.WAD	Site Name	A11
Start Date and Time	2017/09/26 13:46:40	Operator(s)	JB







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A11.A11.WAD	Site Name	A11
Start Date and Time	2017/09/26 13:46:40	Operator(s)	JB

Quality Control

St	Loc	%Dep	Message
1	4.25	0.6	High angle: 36
		0.6	High standard error: 0.033
2	4.70	0.6	High angle: 28
3	5.00	0.6	High angle: 34
		0.6	High SNR variation during measurement: 7.7,6.0
		0.6	High standard error: 0.031
4	5.50	0.6	High SNR variation during measurement: 5.6,4.7
		0.6	High standard error: 0.044
5	5.75	0.6	High number of spikes: 8
		0.6	High angle: 36
6	6.50	0.6	High angle: 38
7	6.90	0.6	High angle: 38
10	8.00	0.6	High SNR variation during measurement: 6.5,8.2
		0.6	High standard error: 0.037
11	8.75	0.6	High angle: 45
12	9.50	0.6	High angle: 42
13	10.25	0.6	SNR (28.6) is different from typical SNR (39.3)
		0.6	High standard error: 0.036
		0.6	Boundary QC is Fair; possible boundary interference
14	11.00	0.6	High angle: 39
15	11.75	0.6	High angle: 27
		0.6	High standard error: 0.032
16	12.50	0.6	High number of spikes: 5
		0.6	High differences in beam SNR: 48.5,32.6
		0.6	Boundary QC is Good; possible boundary interference
17	13.25	0.6	High angle: 22
21	16.25	0.6	High angle: 42
23	17.75	0.6	High angle: 155

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A14.A14.WAD
Start Date and Time	2017/09/26 09:26:17

Site Details

Site Name	A14
Operator(s)	JB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	7.2%
Velocity	2.1%	10.9%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.1%	-
Overall	**3.7%**	**13.1%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	LEW	Total Width	15.997
Mean SNR	32.0 dB	Total Area	6.079
Mean Temp	31.97 °F	Mean Depth	0.380
Disch. Equation	Mid-Section	Mean Velocity	0.5502
		Total Discharge	**3.3447**

Measurement Results

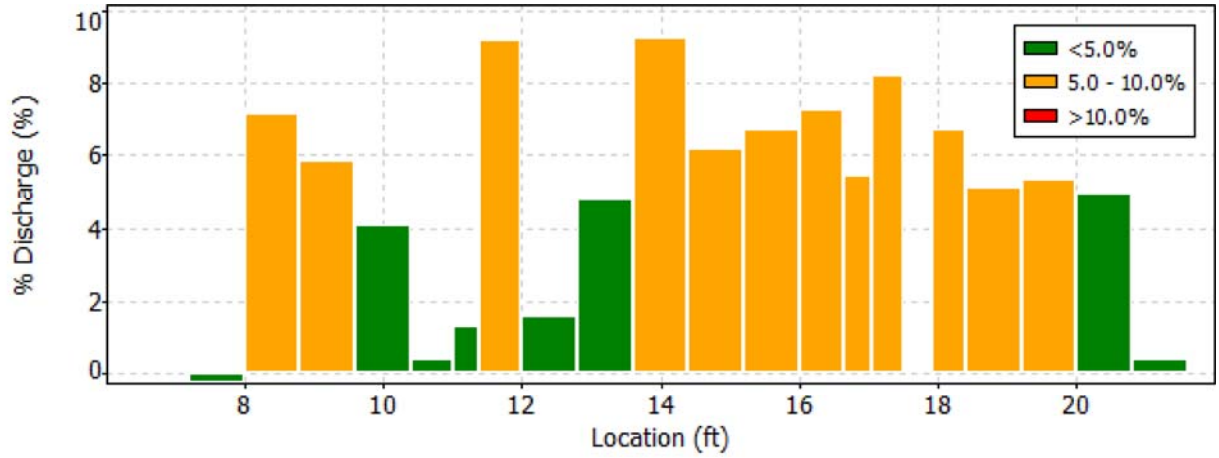
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:26	6.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*09:26*	*6.80*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0016*	*1.00*	*-0.0016*	*0.160*	*-0.0003*	*0.0*
2	*09:27*	*7.60*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.0361*	*1.00*	*-0.0361*	*0.240*	*-0.0087*	*-0.3*
3	*09:28*	*8.40*	*0.6*	*0.400*	*0.6*	*0.160*	*0.7516*	*1.00*	*0.7516*	*0.320*	*0.2404*	*7.2*
4	09:29	9.20	0.6	0.400	0.6	0.160	0.6106	1.00	0.6106	0.320	0.1953	5.8
5	09:30	10.00	0.6	0.400	0.6	0.160	0.4295	1.00	0.4295	0.320	0.1374	4.1
6	*09:31*	*10.80*	*0.6*	*0.400*	*0.6*	*0.160*	*0.0541*	*1.00*	*0.0541*	*0.240*	*0.0130*	*0.4*
7	*09:51*	*11.20*	*0.6*	*0.450*	*0.6*	*0.180*	*0.2457*	*1.00*	*0.2457*	*0.180*	*0.0442*	*1.3*
8	*09:32*	*11.60*	*0.6*	*0.500*	*0.6*	*0.200*	*1.0292*	*1.00*	*1.0292*	*0.300*	*0.3085*	*9.2*
9	*09:34*	*12.40*	*0.6*	*0.500*	*0.6*	*0.200*	*0.1358*	*1.00*	*0.1358*	*0.400*	*0.0543*	*1.6*
10	*09:35*	*13.20*	*0.6*	*0.500*	*0.6*	*0.200*	*0.4016*	*1.00*	*0.4016*	*0.400*	*0.1606*	*4.8*
11	*09:36*	*14.00*	*0.6*	*0.500*	*0.6*	*0.200*	*0.7740*	*1.00*	*0.7740*	*0.400*	*0.3095*	*9.3*
12	09:37	14.80	0.6	0.500	0.6	0.200	0.5177	1.00	0.5177	0.400	0.2071	6.2
13	*09:38*	*15.60*	*0.6*	*0.500*	*0.6*	*0.200*	*0.5643*	*1.00*	*0.5643*	*0.400*	*0.2257*	*6.7*
14	09:40	16.40	0.6	0.500	0.6	0.200	0.7487	1.00	0.7487	0.325	0.2436	7.3
15	09:50	16.90	0.6	0.500	0.6	0.200	0.9157	1.00	0.9157	0.200	0.1831	5.5
16	09:41	17.20	0.6	0.500	0.6	0.200	1.2254	1.00	1.2254	0.225	0.2757	8.2
17	09:52	17.80	0.6	0.000	0.6	0.080	1.1125	1.00	0.0000	0.000	0.0000	0.0
18	09:42	18.00	0.6	0.500	0.6	0.200	0.9052	1.00	0.9052	0.250	0.2259	6.8
19	09:44	18.80	0.6	0.400	0.6	0.160	0.5358	1.00	0.5358	0.320	0.1714	5.1
20	09:45	19.60	0.6	0.400	0.6	0.160	0.5587	1.00	0.5587	0.320	0.1787	5.3
21	09:46	20.40	0.6	0.250	0.6	0.100	0.8281	1.00	0.8281	0.200	0.1656	5.0
22	09:47	21.20	0.6	0.200	0.6	0.080	0.0850	1.00	0.0850	0.160	0.0136	0.4
23	09:47	22.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

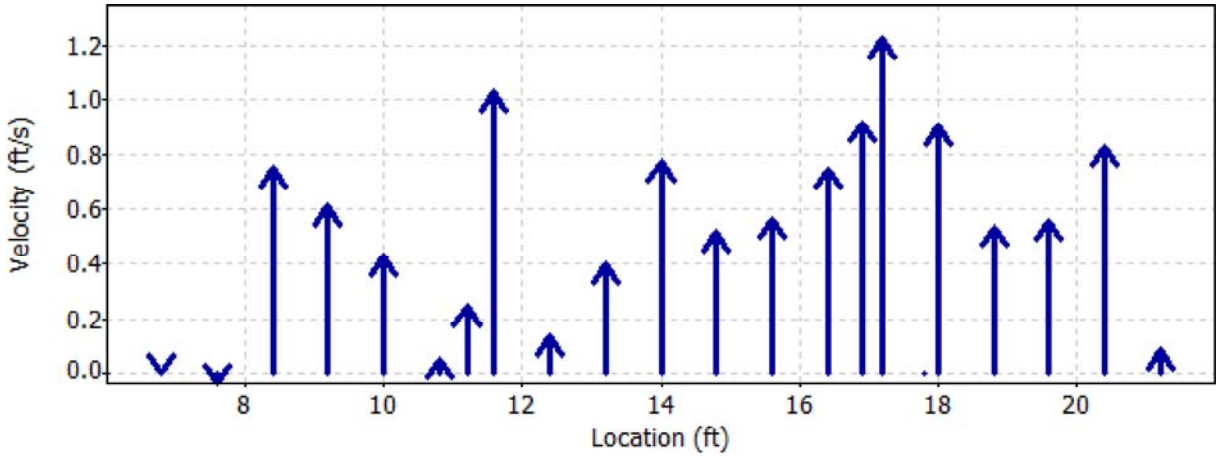
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

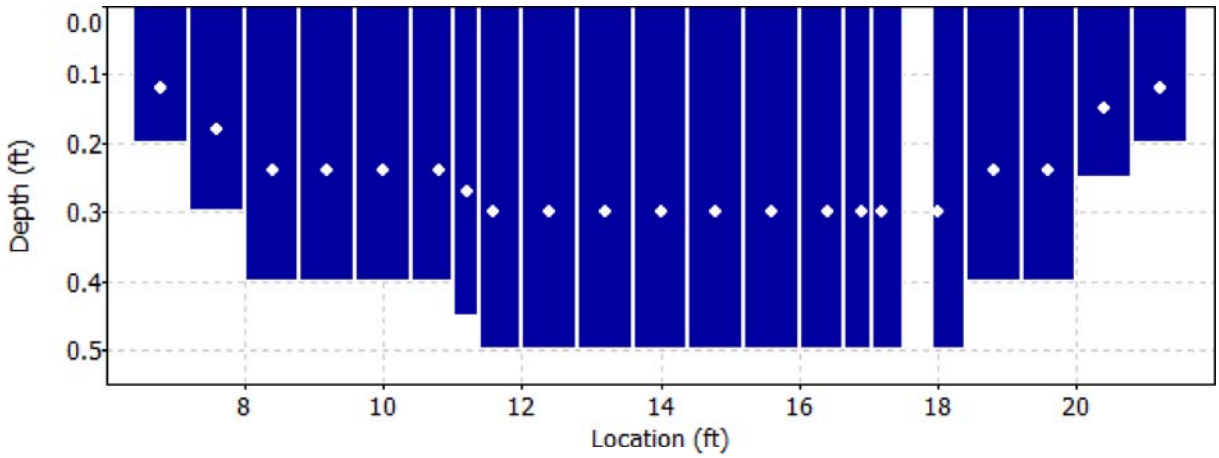
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A14.A14.WAD	Site Name	A14
Start Date and Time	2017/09/26 09:26:17	Operator(s)	JB







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A14.A14.WAD	Site Name	A14
Start Date and Time	2017/09/26 09:26:17	Operator(s)	JB

Quality Control

St	Loc	%Dep	Message
1	6.80	0.6	High differences in beam SNR: 23.2,35.6
		0.6	High SNR variation during measurement: 3.9,6.5
2	7.60	0.6	High angle: -114
3	8.40	0.6	High angle: -46
6	10.80	0.6	High angle: 70
7	11.20	0.6	High standard error: 0.071
8	11.60	0.6	High angle: 36
9	12.40	0.6	High angle: -42
10	13.20	0.6	Boundary QC is Good; possible boundary interference
11	14.00	0.6	High standard error: 0.102
13	15.60	0.6	High angle: 29

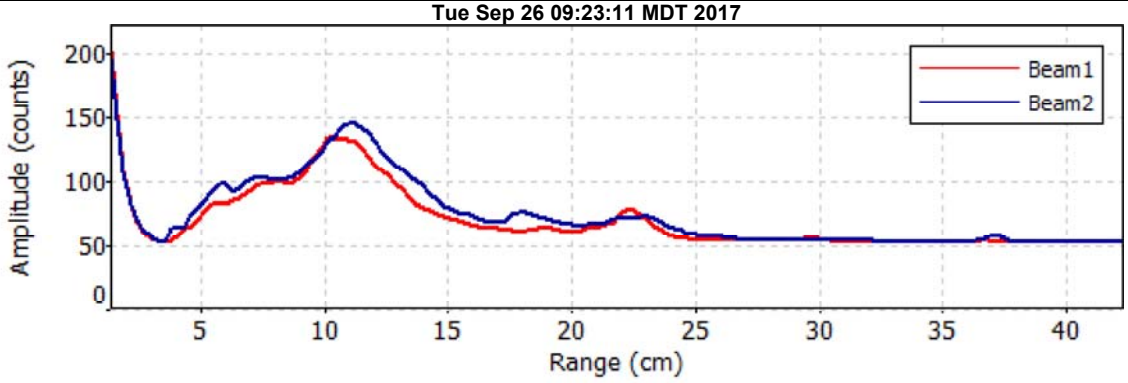
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A14.A14.WAD	Site Name	A14
Start Date and Time	2017/09/26 09:26:17	Operator(s)	JB

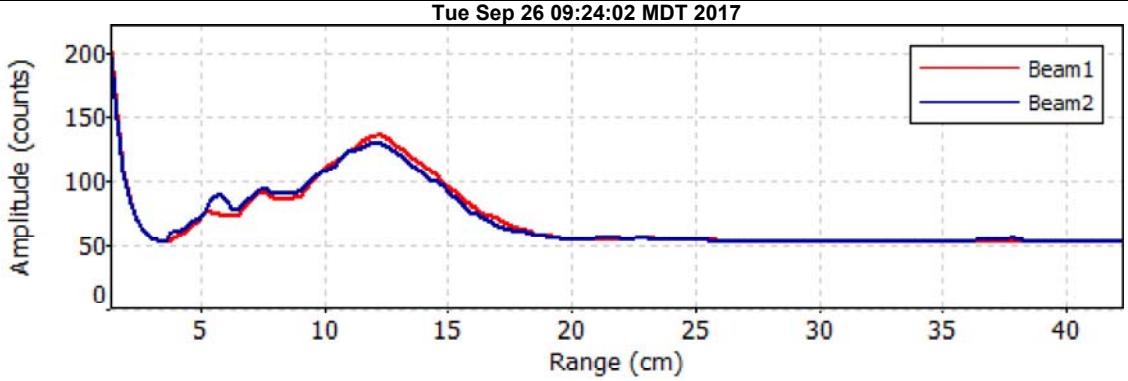
Automatic Quality Control Test (BeamCheck)

Tue Sep 26 09:23:11 MDT 2017



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Fail
- Peak shape check - Pass

Tue Sep 26 09:24:02 MDT 2017



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A18B.A18.WAD
Start Date and Time	2017/09/27 11:45:54

Site Details

Site Name	A18B
Operator(s)	JB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	4.0%
Velocity	2.1%	19.2%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.2%	-
Overall	**3.8%**	**19.7%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	5.997
Mean SNR	34.1 dB	Total Area	1.302
Mean Temp	40.93 °F	Mean Depth	0.217
Disch. Equation	Mid-Section	Mean Velocity	0.4228
		Total Discharge	**0.5506**

Measurement Results

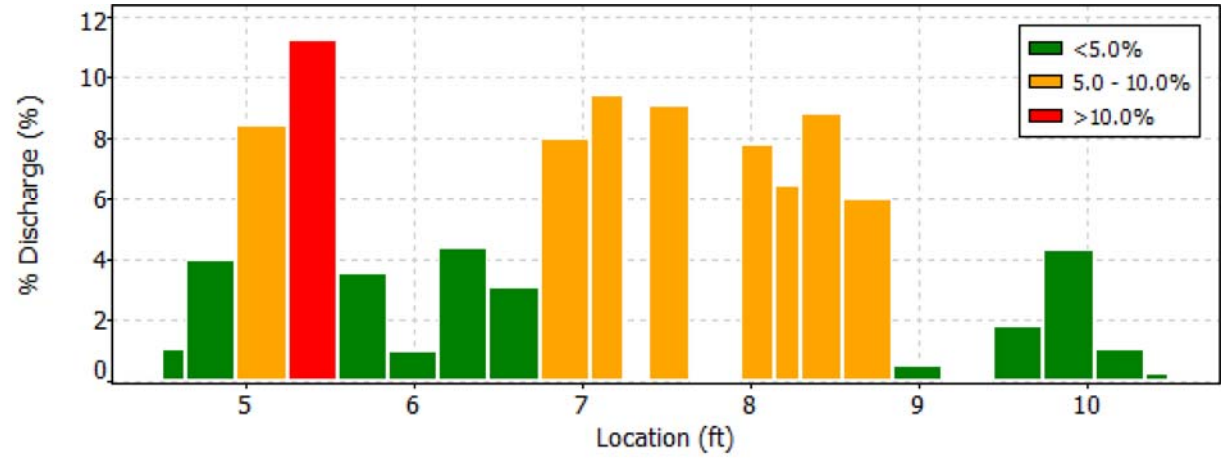
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:45	4.50	None	0.100	0.0	0.0	0.0000	1.00	0.3678	0.015	0.0055	1.0
1	11:45	4.80	0.6	0.200	0.6	0.080	0.3678	1.00	0.3678	0.060	0.0221	4.0
2	11:46	5.10	0.6	0.200	0.6	0.080	0.7717	1.00	0.7717	0.060	0.0463	8.4
3	11:47	5.40	0.6	0.200	0.6	0.080	1.0377	1.00	1.0377	0.060	0.0623	11.3
4	11:48	5.70	0.6	0.200	0.6	0.080	0.3251	1.00	0.3251	0.060	0.0195	3.5
5	*11:49*	*6.00*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0886*	*1.00*	*0.0886*	*0.060*	*0.0053*	*1.0*
6	11:50	6.30	0.6	0.200	0.6	0.080	0.4052	1.00	0.4052	0.060	0.0243	4.4
7	*11:51*	*6.60*	*0.6*	*0.300*	*0.6*	*0.120*	*0.1873*	*1.00*	*0.1873*	*0.090*	*0.0168*	*3.1*
8	11:52	6.90	0.6	0.250	0.6	0.100	0.5869	1.00	0.5869	0.075	0.0440	8.0
9	11:53	7.20	0.6	0.250	0.6	0.100	1.0367	1.00	1.0367	0.050	0.0520	9.4
10	*12:06*	*7.30*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0043*	*1.00*	*-0.0043*	*0.030*	*-0.0001*	*0.0*
11	11:54	7.50	0.6	0.250	0.6	0.100	0.8028	1.00	0.8028	0.062	0.0500	9.1
12	*11:56*	*7.80*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0098*	*1.00*	*-0.0098*	*0.060*	*-0.0006*	*-0.1*
13	*11:58*	*8.10*	*0.6*	*0.250*	*0.6*	*0.100*	*0.8507*	*1.00*	*0.8507*	*0.050*	*0.0427*	*7.8*
14	12:08	8.20	0.6	0.200	0.6	0.080	1.1867	1.00	1.1867	0.030	0.0356	6.5
15	11:59	8.40	0.6	0.300	0.6	0.120	0.6522	1.00	0.6522	0.075	0.0487	8.8
16	*12:00*	*8.70*	*0.6*	*0.300*	*0.6*	*0.120*	*0.3652*	*1.00*	*0.3652*	*0.090*	*0.0328*	*6.0*
17	12:01	9.00	0.6	0.200	0.6	0.080	0.0482	1.00	0.0482	0.060	0.0029	0.5
18	12:02	9.30	0.6	0.200	0.6	0.080	-0.0108	1.00	-0.0108	0.060	-0.0006	-0.1
19	*12:03*	*9.60*	*0.6*	*0.200*	*0.6*	*0.080*	*0.1670*	*1.00*	*0.1670*	*0.060*	*0.0100*	*1.8*
20	12:04	9.90	0.6	0.200	0.6	0.080	0.3993	1.00	0.3993	0.060	0.0240	4.4
21	*12:05*	*10.20*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0948*	*1.00*	*0.0948*	*0.060*	*0.0057*	*1.0*
22	12:05	10.50	None	0.100	0.0	0.0	0.0000	1.00	0.0948	0.015	0.0014	0.3

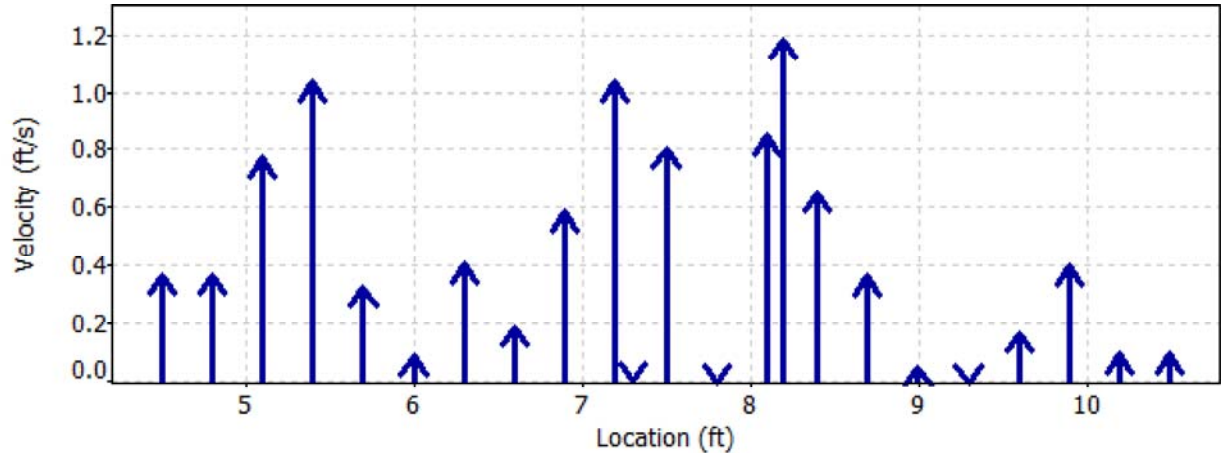
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

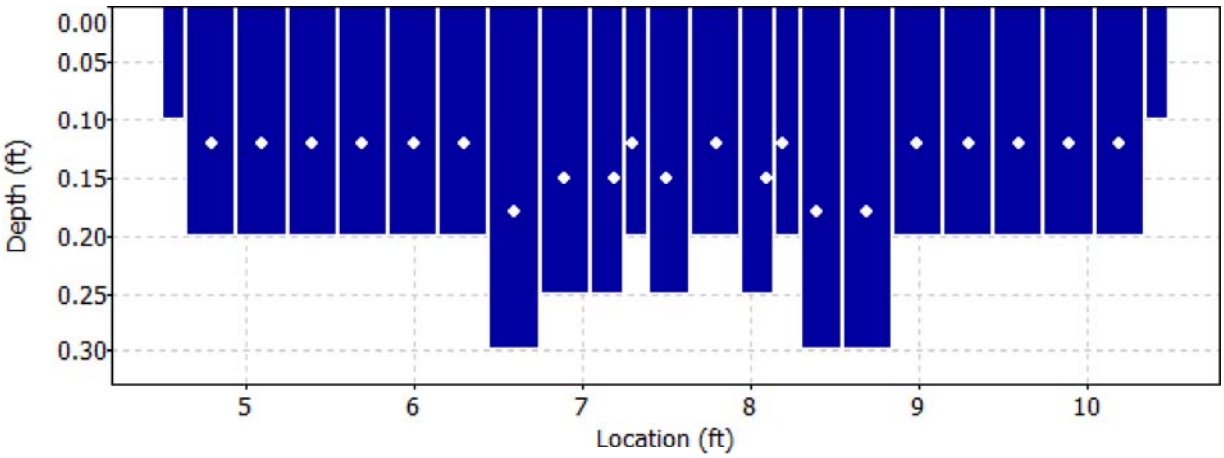
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A18B.A18.WAD	Site Name	A18B
Start Date and Time	2017/09/27 11:45:54	Operator(s)	JB







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A18B.A18.WAD	Site Name	A18B
Start Date and Time	2017/09/27 11:45:54	Operator(s)	JB

Quality Control

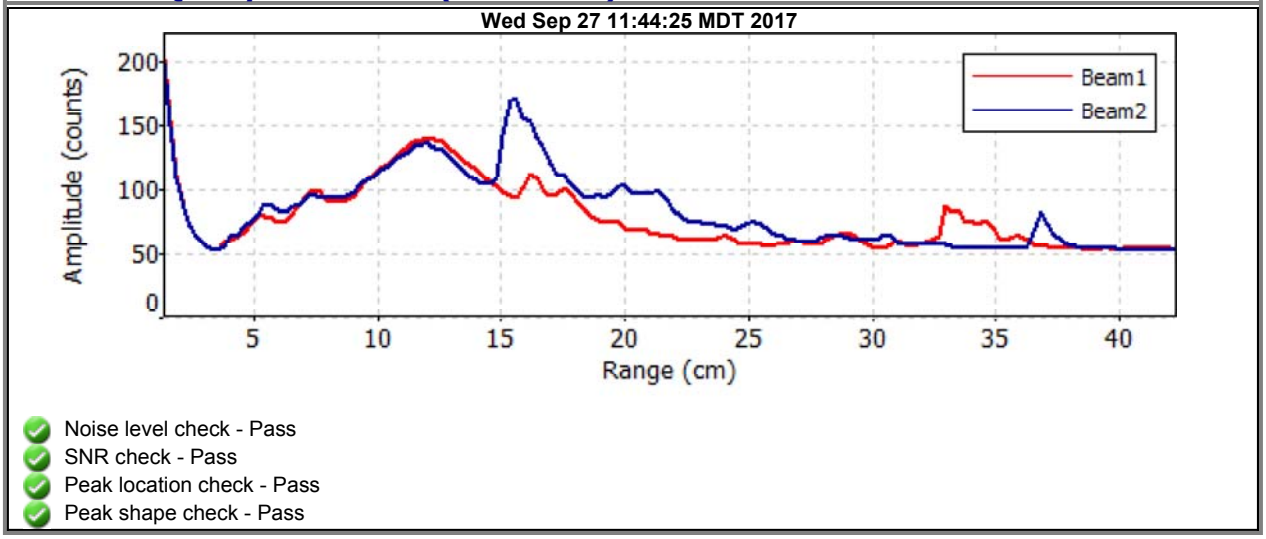
St	Loc	%Dep	Message
5	6.00	0.6	High angle: 62
7	6.60	0.6	High angle: 32
10	7.30	0.6	High number of spikes: 8
		0.6	SNR (47.3) is different from typical SNR (34.1)
		0.6	High SNR variation during measurement: 9.0,12.0
12	7.80	0.6	High SNR variation during measurement: 7.3,9.5
13	8.10	0.6	SNR (47.9) is different from typical SNR (34.1)
		0.6	High SNR variation during measurement: 5.2,12.5
		0.6	High standard error: 0.119
16	8.70	0.6	Boundary QC is Good; possible boundary interference
19	9.60	0.6	High angle: -30
21	10.20	0.6	Boundary QC is Fair; possible boundary interference

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A18B.A18.WAD	Site Name	A18B
Start Date and Time	2017/09/27 11:45:54	Operator(s)	JB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A19A.A19.WAD
Start Date and Time	2017/09/27 12:40:54

Site Details

Site Name	A19A
Operator(s)	JB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.5%	3.7%
Velocity	2.3%	11.3%
Width	0.2%	0.2%
Method	2.3%	-
# Stations	2.3%	-
Overall	**4.1%**	**12.0%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	2.999
Mean SNR	40.1 dB	Total Area	0.399
Mean Temp	39.50 °F	Mean Depth	0.133
Disch. Equation	Mid-Section	Mean Velocity	0.4253
		Total Discharge	**0.1696**

Measurement Results

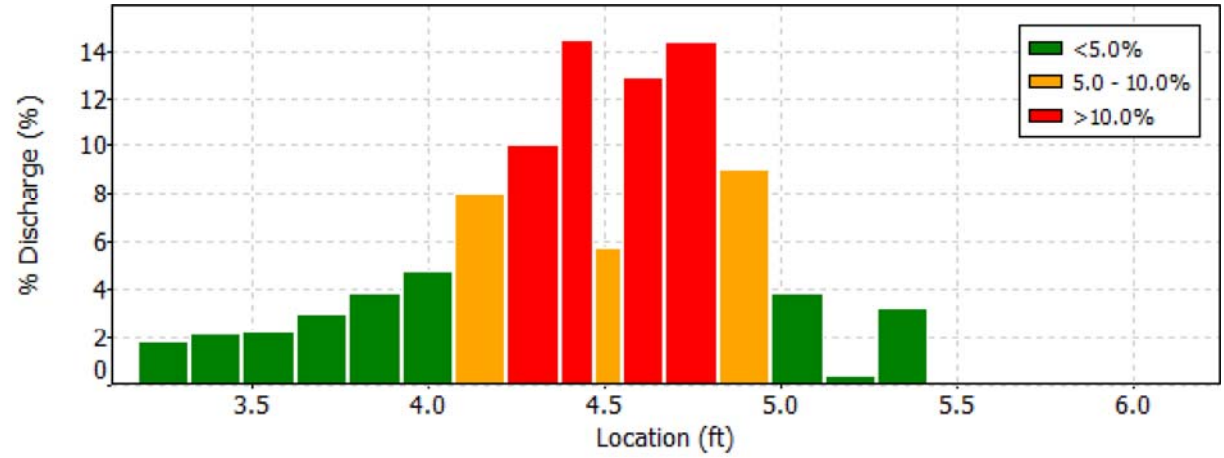
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	12:40	3.10	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*12:40*	*3.25*	*0.6*	*0.100*	*0.6*	*0.040*	*0.2044*	*1.00*	*0.2044*	*0.015*	*0.0031*	*1.8*
2	12:41	3.40	0.6	0.100	0.6	0.040	0.2395	1.00	0.2395	0.015	0.0036	2.1
3	*12:42*	*3.55*	*0.6*	*0.100*	*0.6*	*0.040*	*0.2513*	*1.00*	*0.2513*	*0.015*	*0.0038*	*2.2*
4	*12:43*	*3.70*	*0.6*	*0.100*	*0.6*	*0.040*	*0.3323*	*1.00*	*0.3323*	*0.015*	*0.0050*	*2.9*
5	*12:44*	*3.85*	*0.6*	*0.150*	*0.6*	*0.060*	*0.2877*	*1.00*	*0.2877*	*0.022*	*0.0065*	*3.8*
6	12:45	4.00	0.6	0.150	0.6	0.060	0.3553	1.00	0.3553	0.022	0.0080	4.7
7	12:46	4.15	0.6	0.150	0.6	0.060	0.6063	1.00	0.6063	0.022	0.0136	8.0
8	12:47	4.30	0.6	0.200	0.6	0.080	0.5679	1.00	0.5679	0.030	0.0170	10.0
9	12:48	4.45	0.6	0.200	0.6	0.080	1.2260	1.00	1.2260	0.020	0.0246	14.5
10	*12:59*	*4.50*	*0.6*	*0.200*	*0.6*	*0.080*	*0.6519*	*1.00*	*0.6519*	*0.015*	*0.0098*	*5.8*
11	*12:49*	*4.60*	*0.6*	*0.150*	*0.6*	*0.060*	*1.1667*	*1.00*	*1.1667*	*0.019*	*0.0218*	*12.9*
12	*12:50*	*4.75*	*0.6*	*0.150*	*0.6*	*0.060*	*1.0850*	*1.00*	*1.0850*	*0.022*	*0.0244*	*14.4*
13	12:51	4.90	0.6	0.150	0.6	0.060	0.6824	1.00	0.6824	0.022	0.0153	9.0
14	*12:52*	*5.05*	*0.6*	*0.200*	*0.6*	*0.080*	*0.2165*	*1.00*	*0.2165*	*0.030*	*0.0065*	*3.8*
15	*12:53*	*5.20*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0226*	*1.00*	*0.0226*	*0.030*	*0.0007*	*0.4*
16	*12:54*	*5.35*	*0.6*	*0.100*	*0.6*	*0.040*	*0.3638*	*1.00*	*0.3638*	*0.015*	*0.0055*	*3.2*
17	*12:55*	*5.50*	*0.6*	*0.100*	*0.6*	*0.040*	*0.0007*	*1.00*	*0.0007*	*0.015*	*0.0000*	*0.0*
18	*12:56*	*5.65*	*0.6*	*0.100*	*0.6*	*0.040*	*0.0020*	*1.00*	*0.0020*	*0.015*	*0.0000*	*0.0*
19	*12:57*	*5.80*	*0.6*	*0.100*	*0.6*	*0.040*	*0.0128*	*1.00*	*0.0128*	*0.015*	*0.0002*	*0.1*
20	*12:58*	*5.95*	*0.6*	*0.100*	*0.6*	*0.040*	*0.0108*	*1.00*	*0.0108*	*0.015*	*0.0002*	*0.1*
21	12:58	6.10	None	0.100	0.0	0.0	0.0000	1.00	0.0108	0.008	0.0001	0.0

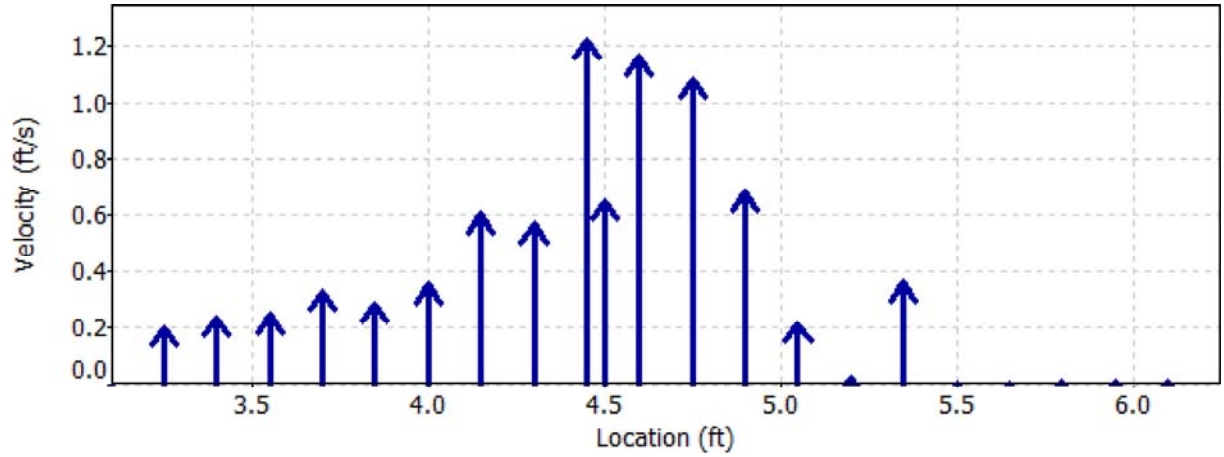
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

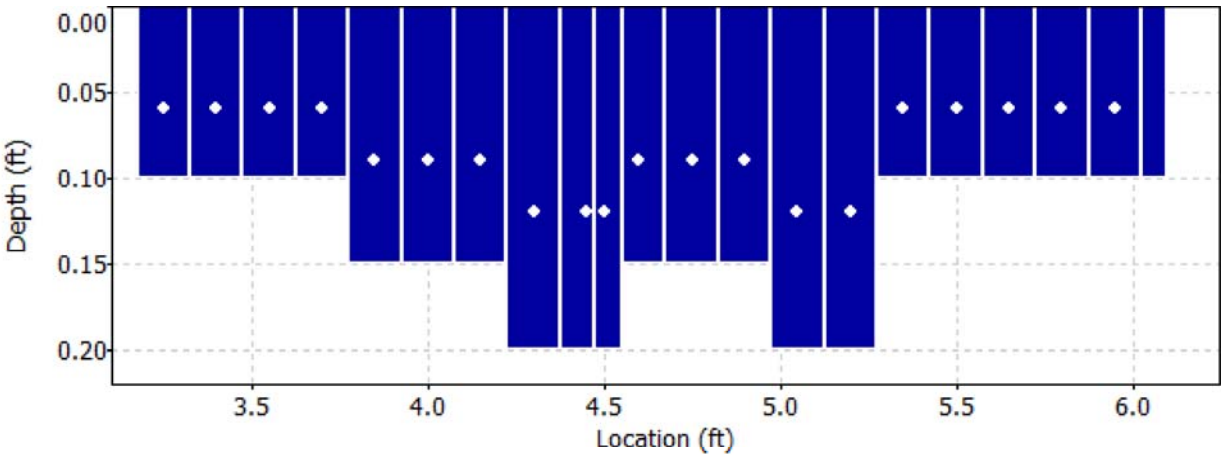
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A19A.A19.WAD	Site Name	A19A
Start Date and Time	2017/09/27 12:40:54	Operator(s)	JB







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A19A.A19.WAD	Site Name	A19A
Start Date and Time	2017/09/27 12:40:54	Operator(s)	JB

Quality Control

St	Loc	%Dep	Message
1	3.25	0.6	High angle: -28
3	3.55	0.6	High angle: -29
4	3.70	0.6	High angle: -25
5	3.85	0.6	High angle: -24
10	4.50	0.6	Boundary QC is Good; possible boundary interference
11	4.60	0.6	High standard error: 0.078
12	4.75	0.6	High standard error: 0.084
14	5.05	0.6	High SNR variation during measurement: 4.3,5.6
15	5.20	0.6	High angle: -56
		0.6	High SNR variation during measurement: 6.9,6.0
16	5.35	0.6	Boundary QC is Fair; possible boundary interference
17	5.50	0.6	SNR (53.1) is different from typical SNR (40.1)
		0.6	Boundary QC is Good; possible boundary interference
18	5.65	0.6	High differences in beam SNR: 42.1,30.9
		0.6	Boundary QC is Fair; possible boundary interference
19	5.80	0.6	High differences in beam SNR: 43.8,30.5
		0.6	Boundary QC is Fair; possible boundary interference
20	5.95	0.6	Boundary QC is Good; possible boundary interference

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	CG3.CG3.WAD
Start Date and Time	2017/09/27 11:01:05

Site Details

Site Name	CG3
Operator(s)	JB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.6%
Velocity	1.0%	2.8%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.1%	-
Overall	**3.2%**	**3.9%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	REW	Total Width	2.999
Mean SNR	30.8 dB	Total Area	1.081
Mean Temp	40.98 °F	Mean Depth	0.360
Disch. Equation	Mid-Section	Mean Velocity	0.3997
		Total Discharge	**0.4320**

Measurement Results

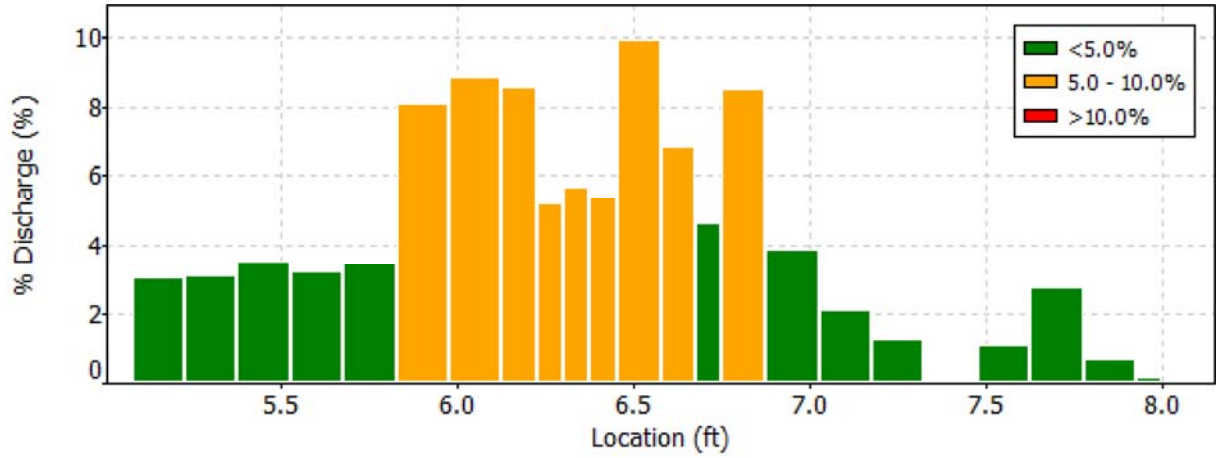
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:01	5.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*11:01*	*5.15*	*0.6*	*0.200*	*0.6*	*0.080*	*0.4377*	*1.00*	*0.4377*	*0.030*	*0.0131*	*3.0*
2	*11:01*	*5.30*	*0.6*	*0.200*	*0.6*	*0.080*	*0.4462*	*1.00*	*0.4462*	*0.030*	*0.0134*	*3.1*
3	11:03	5.45	0.6	0.200	0.6	0.080	0.5056	1.00	0.5056	0.030	0.0152	3.5
4	11:04	5.60	0.6	0.200	0.6	0.080	0.4659	1.00	0.4659	0.030	0.0140	3.2
5	11:05	5.75	0.6	0.200	0.6	0.080	0.4967	1.00	0.4967	0.030	0.0149	3.5
6	*11:06*	*5.90*	*0.6*	*0.400*	*0.6*	*0.160*	*0.5837*	*1.00*	*0.5837*	*0.060*	*0.0350*	*8.1*
7	*11:07*	*6.05*	*0.6*	*0.400*	*0.6*	*0.160*	*0.6371*	*1.00*	*0.6371*	*0.060*	*0.0382*	*8.8*
8	*11:08*	*6.20*	*0.6*	*0.550*	*0.6*	*0.220*	*0.6703*	*1.00*	*0.6703*	*0.055*	*0.0369*	*8.6*
9	11:23	6.25	0.6	0.450	0.6	0.180	0.6647	1.00	0.6647	0.034	0.0224	5.2
10	*11:09*	*6.35*	*0.6*	*0.500*	*0.6*	*0.200*	*0.6552*	*1.00*	*0.6552*	*0.037*	*0.0246*	*5.7*
11	*11:20*	*6.40*	*0.6*	*0.500*	*0.6*	*0.200*	*0.6234*	*1.00*	*0.6234*	*0.037*	*0.0234*	*5.4*
12	11:10	6.50	0.6	0.500	0.6	0.200	0.6919	1.00	0.6919	0.062	0.0431	10.0
13	*11:11*	*6.65*	*0.6*	*0.500*	*0.6*	*0.200*	*0.5879*	*1.00*	*0.5879*	*0.050*	*0.0295*	*6.8*
14	*11:22*	*6.70*	*0.6*	*0.500*	*0.6*	*0.200*	*0.5305*	*1.00*	*0.5305*	*0.037*	*0.0199*	*4.6*
15	*11:12*	*6.80*	*0.6*	*0.500*	*0.6*	*0.200*	*0.5919*	*1.00*	*0.5919*	*0.062*	*0.0368*	*8.5*
16	*11:13*	*6.95*	*0.6*	*0.400*	*0.6*	*0.160*	*0.2789*	*1.00*	*0.2789*	*0.060*	*0.0167*	*3.9*
17	*11:14*	*7.10*	*0.6*	*0.400*	*0.6*	*0.160*	*0.1522*	*1.00*	*0.1522*	*0.060*	*0.0091*	*2.1*
18	11:15	7.25	0.6	0.400	0.6	0.160	0.0909	1.00	0.0909	0.060	0.0054	1.3
19	11:15	7.40	0.6	0.400	0.6	0.160	-0.0030	1.00	-0.0030	0.060	-0.0002	0.0
20	11:16	7.55	0.6	0.400	0.6	0.160	0.0787	1.00	0.0787	0.060	0.0047	1.1
21	11:17	7.70	0.6	0.400	0.6	0.160	0.1985	1.00	0.1985	0.060	0.0119	2.8
22	11:18	7.85	0.6	0.400	0.6	0.160	0.0505	1.00	0.0505	0.060	0.0030	0.7
23	11:18	8.00	None	0.200	0.0	0.0	0.0000	1.00	0.0505	0.015	0.0008	0.2

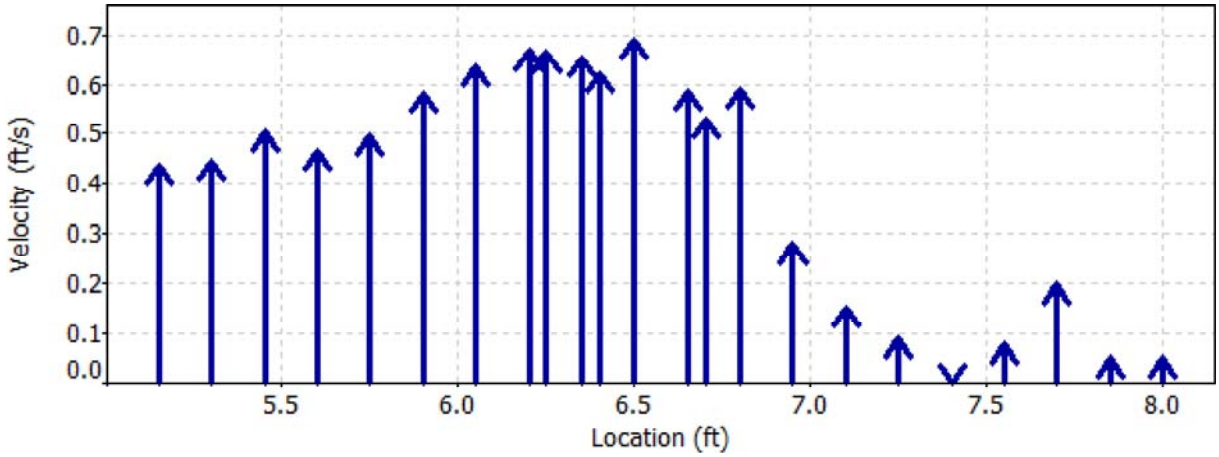
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

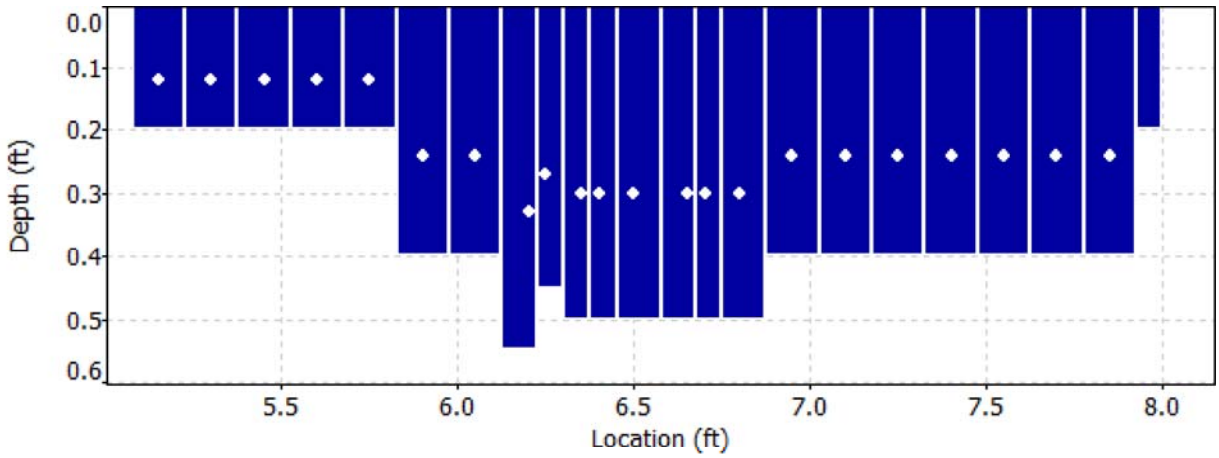
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CG3.CG3.WAD	Site Name	CG3
Start Date and Time	2017/09/27 11:01:05	Operator(s)	JB







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information	
File Name	CG3.CG3.WAD
Start Date and Time	2017/09/27 11:01:05

Site Details	
Site Name	CG3
Operator(s)	JB

Quality Control

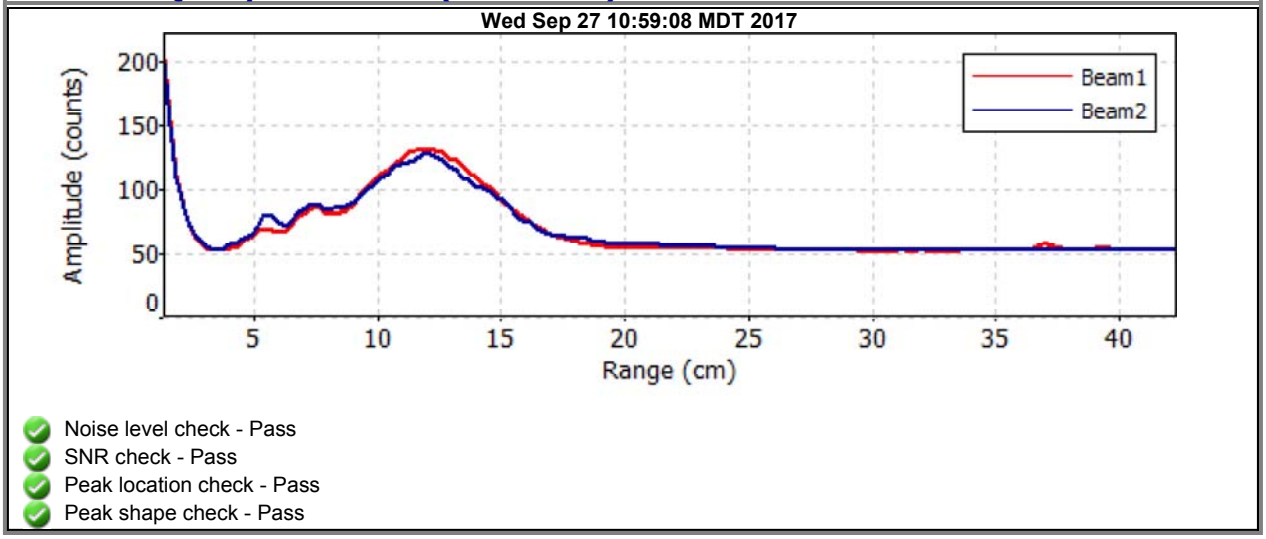
St	Loc	%Dep	Message
1	5.15	0.6	High angle: 27
2	5.30	0.6	High angle: 24
6	5.90	0.6	High angle: 22
7	6.05	0.6	High angle: 21
8	6.20	0.6	High angle: 24
10	6.35	0.6	High angle: 20
11	6.40	0.6	High angle: 26
13	6.65	0.6	High angle: 27
14	6.70	0.6	High angle: 20
15	6.80	0.6	High angle: 25
16	6.95	0.6	High angle: 33
17	7.10	0.6	High angle: 27

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CG3.CG3.WAD	Site Name	CG3
Start Date and Time	2017/09/27 11:01:05	Operator(s)	JB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	CG4.CG4.WAD
Start Date and Time	2017/09/27 10:08:48

Site Details

Site Name	CG4
Operator(s)	JB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.3%
Velocity	1.9%	5.2%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.2%	-
Overall	**3.7%**	**5.5%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	4.003
Mean SNR	32.6 dB	Total Area	1.644
Mean Temp	37.30 °F	Mean Depth	0.411
Disch. Equation	Mid-Section	Mean Velocity	0.6140
		Total Discharge	**1.0092**

Measurement Results

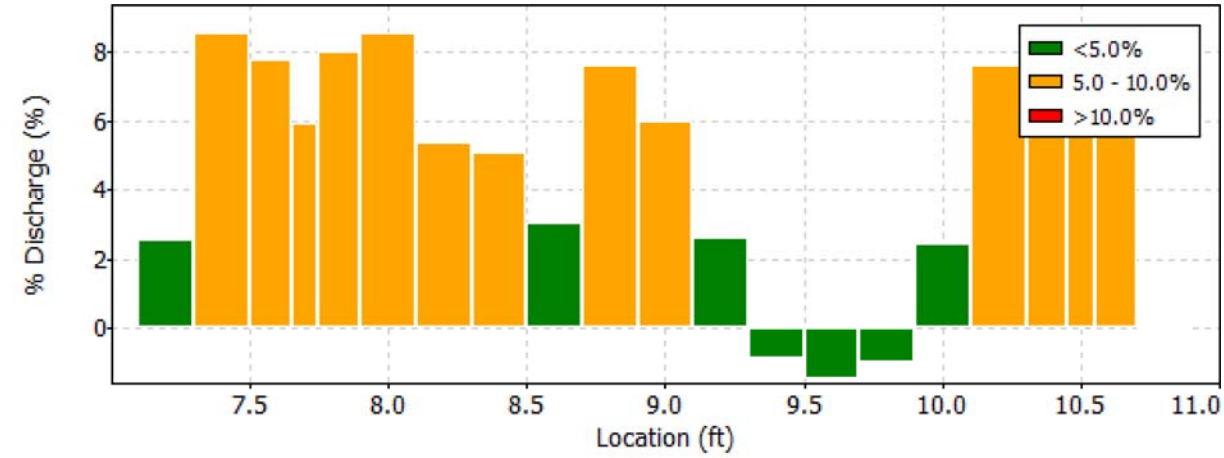
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:08	7.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*10:08*	*7.20*	*0.6*	*0.500*	*0.6*	*0.200*	*0.2589*	*1.00*	*0.2589*	*0.100*	*0.0259*	*2.6*
2	*10:09*	*7.40*	*0.6*	*0.550*	*0.6*	*0.220*	*0.7799*	*1.00*	*0.7799*	*0.110*	*0.0858*	*8.5*
3	*10:10*	*7.60*	*0.6*	*0.500*	*0.6*	*0.200*	*1.0479*	*1.00*	*1.0479*	*0.075*	*0.0786*	*7.8*
4	10:30	7.70	0.6	0.500	0.6	0.200	1.1890	1.00	1.1890	0.050	0.0595	5.9
5	10:11	7.80	0.6	0.500	0.6	0.200	1.0771	1.00	1.0771	0.075	0.0809	8.0
6	10:12	8.00	0.6	0.500	0.6	0.200	0.8573	1.00	0.8573	0.100	0.0858	8.5
7	10:13	8.20	0.6	0.450	0.6	0.180	0.5968	1.00	0.5968	0.090	0.0538	5.3
8	10:14	8.40	0.6	0.450	0.6	0.180	0.5640	1.00	0.5640	0.090	0.0508	5.0
9	10:15	8.60	0.6	0.450	0.6	0.180	0.3366	1.00	0.3366	0.090	0.0303	3.0
10	10:16	8.80	0.6	0.450	0.6	0.180	0.8510	1.00	0.8510	0.090	0.0767	7.6
11	10:17	9.00	0.6	0.400	0.6	0.160	0.7497	1.00	0.7497	0.080	0.0600	5.9
12	10:18	9.20	0.6	0.400	0.6	0.160	0.3327	1.00	0.3327	0.080	0.0266	2.6
13	*10:19*	*9.40*	*0.6*	*0.450*	*0.6*	*0.180*	*-0.1007*	*1.00*	*-0.1007*	*0.090*	*-0.0091*	*-0.9*
14	*10:20*	*9.60*	*0.6*	*0.400*	*0.6*	*0.160*	*-0.1873*	*1.00*	*-0.1873*	*0.080*	*-0.0150*	*-1.5*
15	*10:21*	*9.80*	*0.6*	*0.400*	*0.6*	*0.160*	*-0.1325*	*1.00*	*-0.1325*	*0.080*	*-0.0106*	*-1.1*
16	10:22	10.00	0.6	0.400	0.6	0.160	0.3107	1.00	0.3107	0.080	0.0249	2.5
17	10:23	10.20	0.6	0.350	0.6	0.140	1.0965	1.00	1.0965	0.070	0.0768	7.6
18	10:24	10.40	0.6	0.350	0.6	0.140	1.5167	1.00	1.5167	0.052	0.0791	7.8
19	10:28	10.50	0.6	0.400	0.6	0.160	1.6168	1.00	1.6168	0.040	0.0647	6.4
20	10:25	10.60	0.6	0.400	0.6	0.160	1.3862	1.00	1.3862	0.060	0.0838	8.3
21	*10:27*	*10.80*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.0026*	*1.00*	*-0.0026*	*0.060*	*-0.0002*	*0.0*
22	10:27	11.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

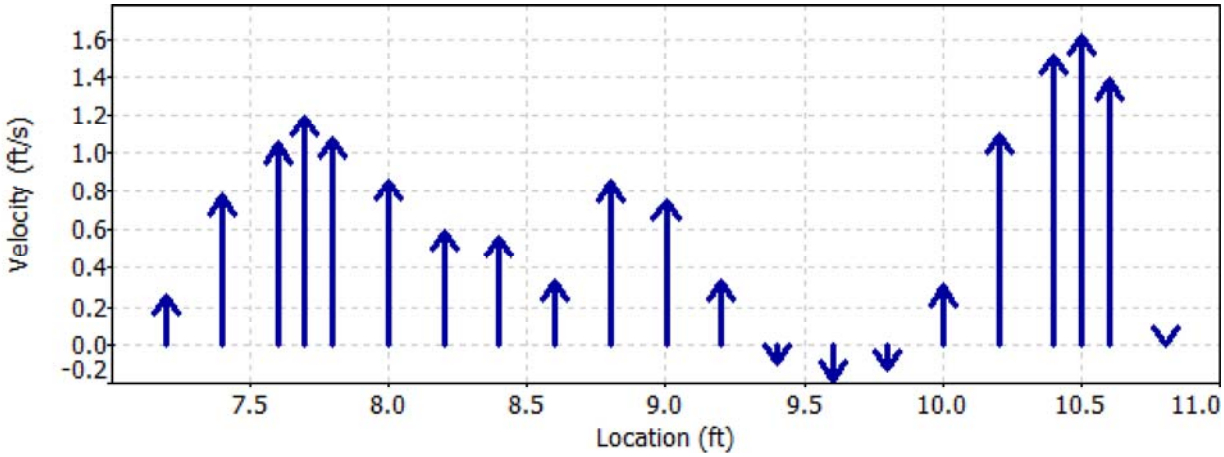
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

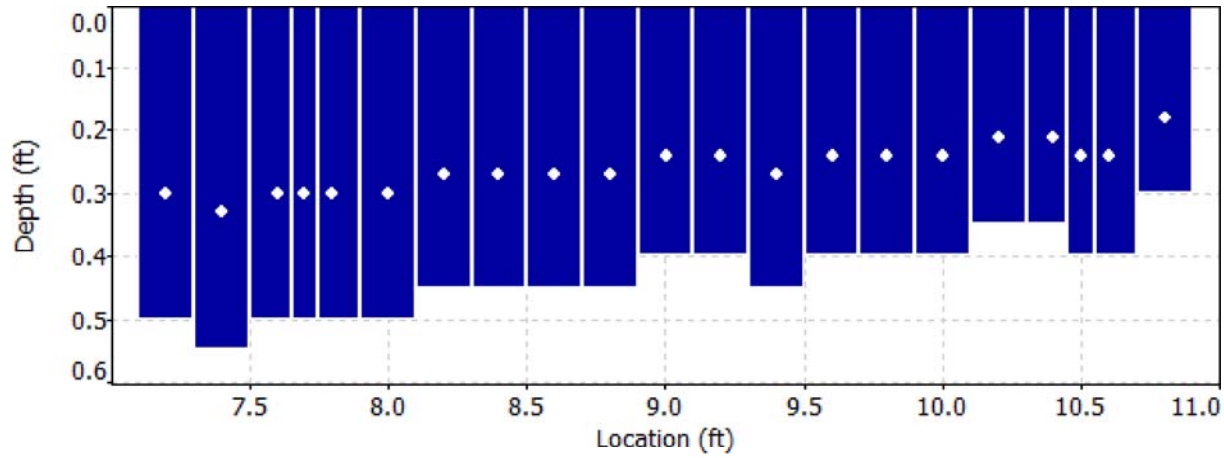
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CG4.CG4.WAD	Site Name	CG4
Start Date and Time	2017/09/27 10:08:48	Operator(s)	JB







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information	
File Name	CG4.CG4.WAD
Start Date and Time	2017/09/27 10:08:48

Site Details	
Site Name	CG4
Operator(s)	JB

Quality Control

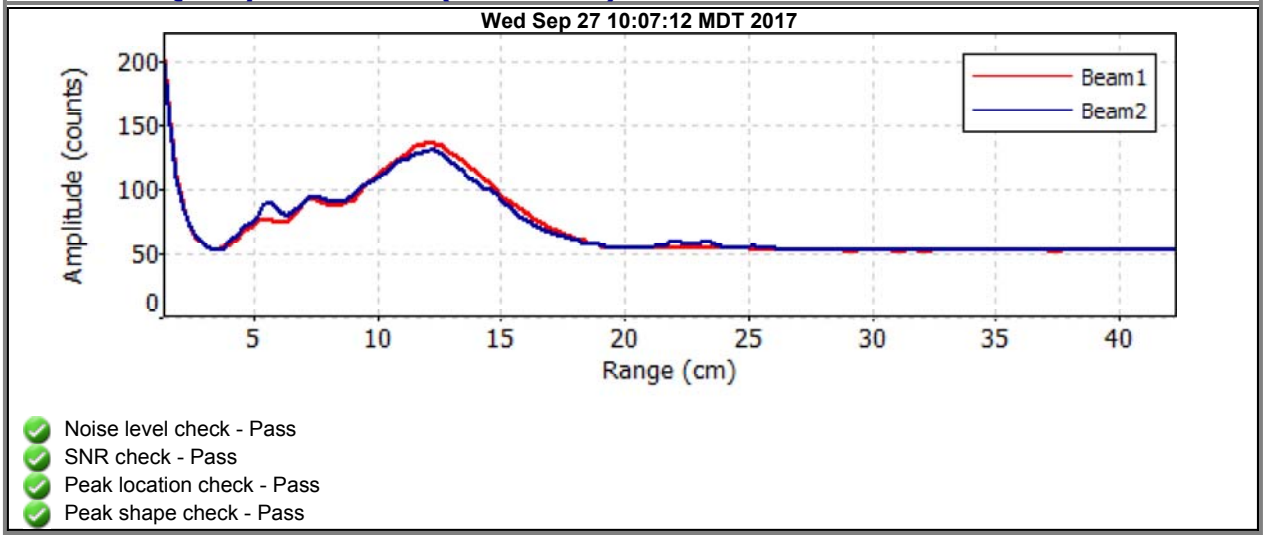
St	Loc	%Dep	Message
1	7.20	0.6	High angle: -30
		0.6	Boundary QC is Good; possible boundary interference
2	7.40	0.6	High differences in beam SNR: 11.6,37.8
3	7.60	0.6	High differences in beam SNR: 14.6,30.9
13	9.40	0.6	High angle: 150
14	9.60	0.6	High number of spikes: 5
		0.6	High angle: 180
15	9.80	0.6	High angle: 164
21	10.80	0.6	SNR (49.9) is different from typical SNR (32.6)
		0.6	High SNR variation during measurement: 8.2,7.3

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CG4.CG4.WAD	Site Name	CG4
Start Date and Time	2017/09/27 10:08:48	Operator(s)	JB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	CG6.CG6.WAD
Start Date and Time	2017/09/27 09:13:53

Site Details

Site Name	CG6
Operator(s)	JB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.5%
Velocity	1.0%	3.4%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.2%	-
Overall	**3.3%**	**4.3%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	5.000
Mean SNR	32.3 dB	Total Area	2.125
Mean Temp	34.82 °F	Mean Depth	0.425
Disch. Equation	Mid-Section	Mean Velocity	0.3428
		Total Discharge	**0.7283**

Measurement Results

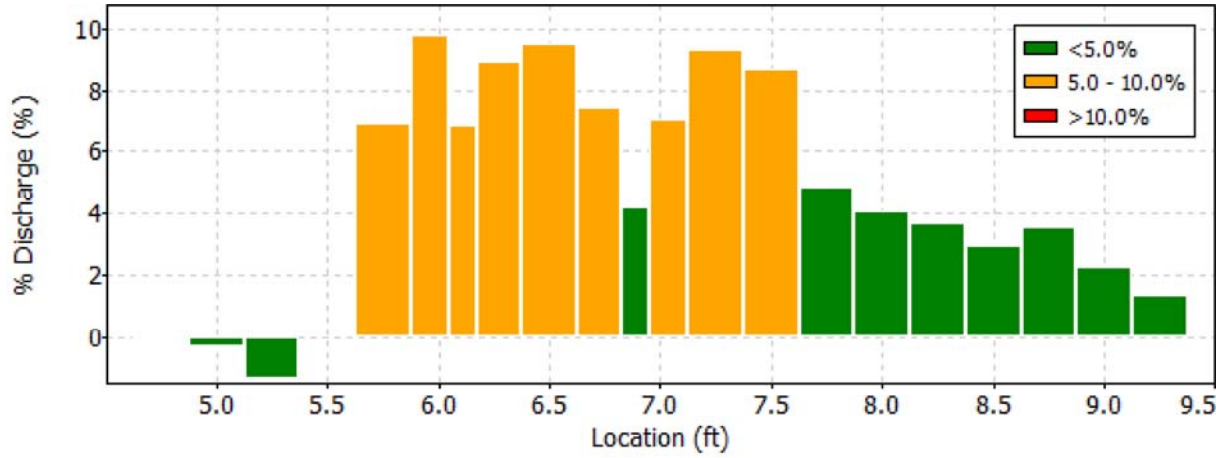
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:13	4.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*09:13*	*4.75*	*0.6*	*0.250*	*0.6*	*0.100*	*-0.0138*	*1.00*	*-0.0138*	*0.063*	*-0.0009*	*-0.1*
2	*09:14*	*5.00*	*0.6*	*0.500*	*0.6*	*0.200*	*-0.0177*	*1.00*	*-0.0177*	*0.125*	*-0.0022*	*-0.3*
3	*09:16*	*5.25*	*0.6*	*0.500*	*0.6*	*0.200*	*-0.0807*	*1.00*	*-0.0807*	*0.125*	*-0.0101*	*-1.4*
4	*09:17*	*5.50*	*0.6*	*0.700*	*0.6*	*0.280*	*0.0030*	*1.00*	*0.0030*	*0.175*	*0.0005*	*0.1*
5	*09:18*	*5.75*	*0.6*	*0.700*	*0.6*	*0.280*	*0.2887*	*1.00*	*0.2887*	*0.175*	*0.0505*	*6.9*
6	09:19	6.00	0.6	0.600	0.6	0.240	0.6801	1.00	0.6801	0.105	0.0714	9.8
7	09:34	6.10	0.6	0.600	0.6	0.240	0.6696	1.00	0.6696	0.075	0.0502	6.9
8	09:20	6.25	0.6	0.600	0.6	0.240	0.5446	1.00	0.5446	0.120	0.0654	9.0
9	*09:21*	*6.50*	*0.6*	*0.500*	*0.6*	*0.200*	*0.5568*	*1.00*	*0.5568*	*0.125*	*0.0696*	*9.6*
10	09:22	6.75	0.6	0.500	0.6	0.200	0.5423	1.00	0.5423	0.100	0.0542	7.4
11	09:35	6.90	0.6	0.500	0.6	0.200	0.4941	1.00	0.4941	0.063	0.0309	4.2
12	09:23	7.00	0.6	0.500	0.6	0.200	0.5889	1.00	0.5889	0.088	0.0515	7.1
13	09:24	7.25	0.6	0.500	0.6	0.200	0.5440	1.00	0.5440	0.125	0.0680	9.3
14	09:25	7.50	0.6	0.500	0.6	0.200	0.5049	1.00	0.5049	0.125	0.0631	8.7
15	09:26	7.75	0.6	0.400	0.6	0.160	0.3547	1.00	0.3547	0.100	0.0355	4.9
16	*09:26*	*8.00*	*0.6*	*0.400*	*0.6*	*0.160*	*0.2959*	*1.00*	*0.2959*	*0.100*	*0.0296*	*4.1*
17	*09:28*	*8.25*	*0.6*	*0.300*	*0.6*	*0.120*	*0.3593*	*1.00*	*0.3593*	*0.075*	*0.0269*	*3.7*
18	*09:29*	*8.50*	*0.6*	*0.250*	*0.6*	*0.100*	*0.3445*	*1.00*	*0.3445*	*0.063*	*0.0215*	*3.0*
19	09:30	8.75	0.6	0.300	0.6	0.120	0.3491	1.00	0.3491	0.075	0.0262	3.6
20	09:31	9.00	0.6	0.300	0.6	0.120	0.2208	1.00	0.2208	0.075	0.0166	2.3
21	09:32	9.25	0.6	0.200	0.6	0.080	0.1972	1.00	0.1972	0.050	0.0099	1.4
22	09:32	9.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

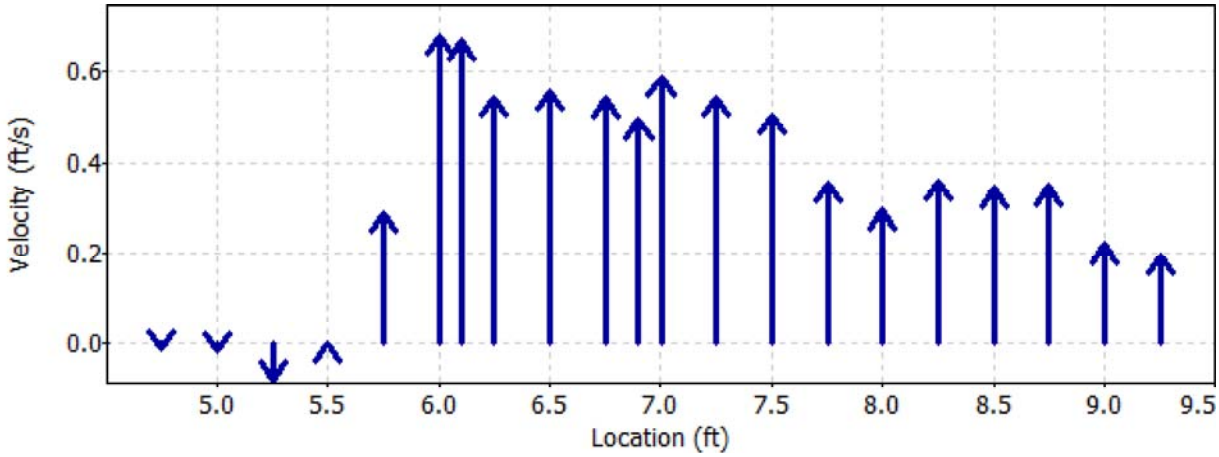
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

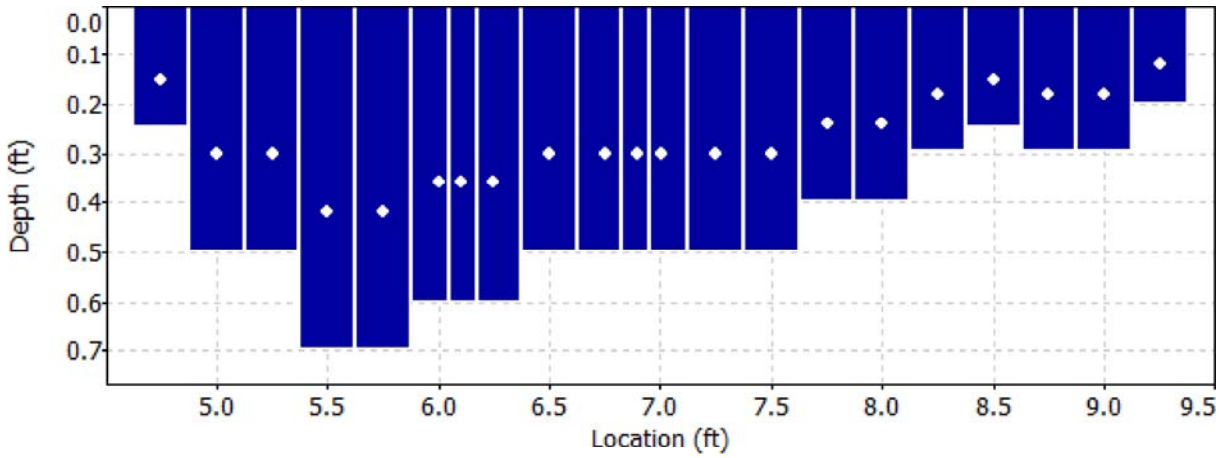
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CG6.CG6.WAD	Site Name	CG6
Start Date and Time	2017/09/27 09:13:53	Operator(s)	JB







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information	
File Name	CG6.CG6.WAD
Start Date and Time	2017/09/27 09:13:53

Site Details	
Site Name	CG6
Operator(s)	JB

Quality Control

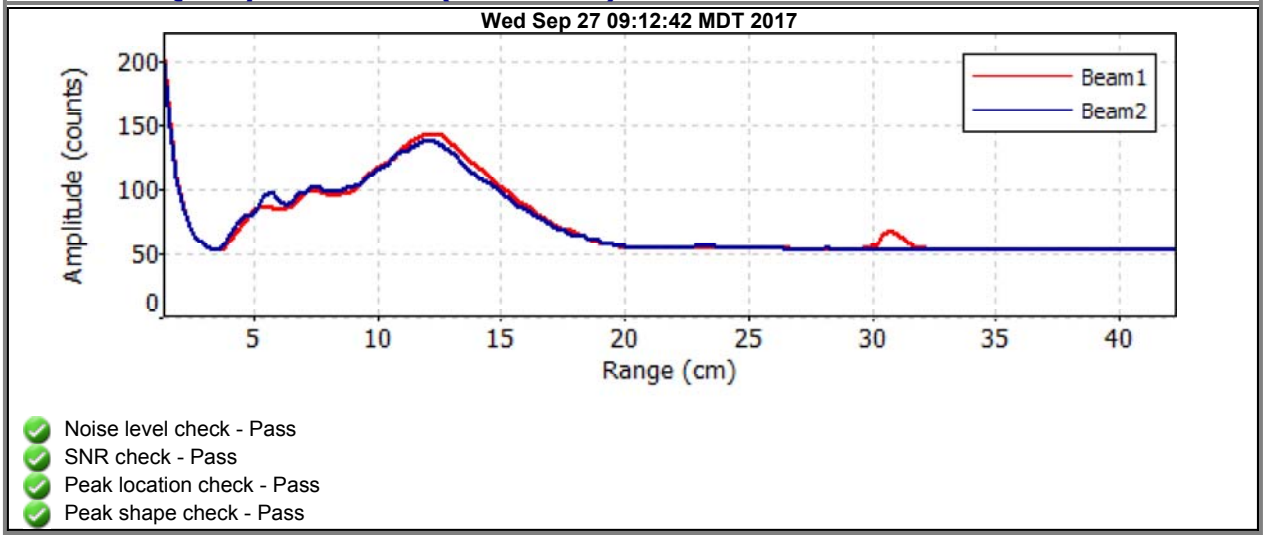
St	Loc	%Dep	Message
1	4.75	0.6	SNR (44.3) is different from typical SNR (32.3)
2	5.00	0.6	High number of spikes: 16
3	5.25	0.6	High angle: -173
		0.6	Boundary QC is Fair; possible boundary interference
4	5.50	0.6	SNR (50.7) is different from typical SNR (32.3)
		0.6	High SNR variation during measurement: 6.9,7.7
5	5.75	0.6	High angle: 41
9	6.50	0.6	High angle: 21
16	8.00	0.6	High angle: 38
17	8.25	0.6	High angle: 27
18	8.50	0.6	High angle: 22

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CG6.CG6.WAD	Site Name	CG6
Start Date and Time	2017/09/27 09:13:53	Operator(s)	JB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	CG9.CG9.WAD
Start Date and Time	2017/09/26 14:47:14

Site Details

Site Name	CG9
Operator(s)	JB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	7.6%
Velocity	2.3%	18.6%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.3%	-
Overall	**4.0%**	**20.1%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	15.000
Mean SNR	37.0 dB	Total Area	5.563
Mean Temp	46.27 °F	Mean Depth	0.371
Disch. Equation	Mid-Section	Mean Velocity	0.4454
		Total Discharge	**2.4775**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:47	3.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*14:47*	*3.75*	*0.6*	*0.500*	*0.6*	*0.200*	*0.0850*	*1.00*	*0.0850*	*0.375*	*0.0319*	*1.3*
2	*14:48*	*4.50*	*0.6*	*0.500*	*0.6*	*0.200*	*-0.0367*	*1.00*	*-0.0367*	*0.375*	*-0.0138*	*-0.6*
3	*14:49*	*5.25*	*0.6*	*0.450*	*0.6*	*0.180*	*0.2136*	*1.00*	*0.2136*	*0.338*	*0.0721*	*2.9*
4	14:51	6.00	0.6	0.450	0.6	0.180	0.7054	1.00	0.7054	0.338	0.2381	9.6
5	14:52	6.75	0.6	0.300	0.6	0.120	1.2336	1.00	1.2336	0.150	0.1850	7.5
6	*15:11*	*7.00*	*0.6*	*0.400*	*0.6*	*0.160*	*0.9692*	*1.00*	*0.9692*	*0.150*	*0.1454*	*5.9*
7	*14:53*	*7.50*	*0.6*	*0.500*	*0.6*	*0.200*	*-0.1217*	*1.00*	*-0.1217*	*0.313*	*-0.0380*	*-1.5*
8	*14:54*	*8.25*	*0.6*	*0.500*	*0.6*	*0.200*	*0.5951*	*1.00*	*0.5951*	*0.375*	*0.2232*	*9.0*
9	14:56	9.00	0.6	0.600	0.6	0.240	0.1142	1.00	0.1142	0.450	0.0514	2.1
10	14:57	9.75	0.6	0.600	0.6	0.240	0.2080	1.00	0.2080	0.450	0.0936	3.8
11	*14:59*	*10.50*	*0.6*	*0.500*	*0.6*	*0.200*	*0.3153*	*1.00*	*0.3153*	*0.375*	*0.1182*	*4.8*
12	15:00	11.25	0.6	0.400	0.6	0.160	0.6529	1.00	0.6529	0.300	0.1958	7.9
13	15:01	12.00	0.6	0.200	0.6	0.080	0.7300	1.00	0.7300	0.150	0.1096	4.4
14	*15:02*	*12.75*	*0.6*	*0.500*	*0.6*	*0.200*	*-0.0079*	*1.00*	*-0.0079*	*0.375*	*-0.0030*	*-0.1*
15	*15:04*	*13.50*	*0.6*	*0.300*	*0.6*	*0.120*	*1.0233*	*1.00*	*1.0233*	*0.225*	*0.2301*	*9.3*
16	*15:05*	*14.25*	*0.6*	*0.300*	*0.6*	*0.120*	*0.9606*	*1.00*	*0.9606*	*0.225*	*0.2160*	*8.7*
17	*15:06*	*15.00*	*0.6*	*0.200*	*0.6*	*0.080*	*1.5571*	*1.00*	*1.5571*	*0.150*	*0.2337*	*9.4*
18	15:07	15.75	0.6	0.200	0.6	0.080	1.0971	1.00	1.0971	0.150	0.1647	6.6
19	*15:08*	*16.50*	*0.6*	*0.200*	*0.6*	*0.080*	*0.7671*	*1.00*	*0.7671*	*0.150*	*0.1151*	*4.6*
20	*15:09*	*17.25*	*0.6*	*0.200*	*0.6*	*0.080*	*0.7218*	*1.00*	*0.7218*	*0.150*	*0.1083*	*4.4*
21	15:09	18.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

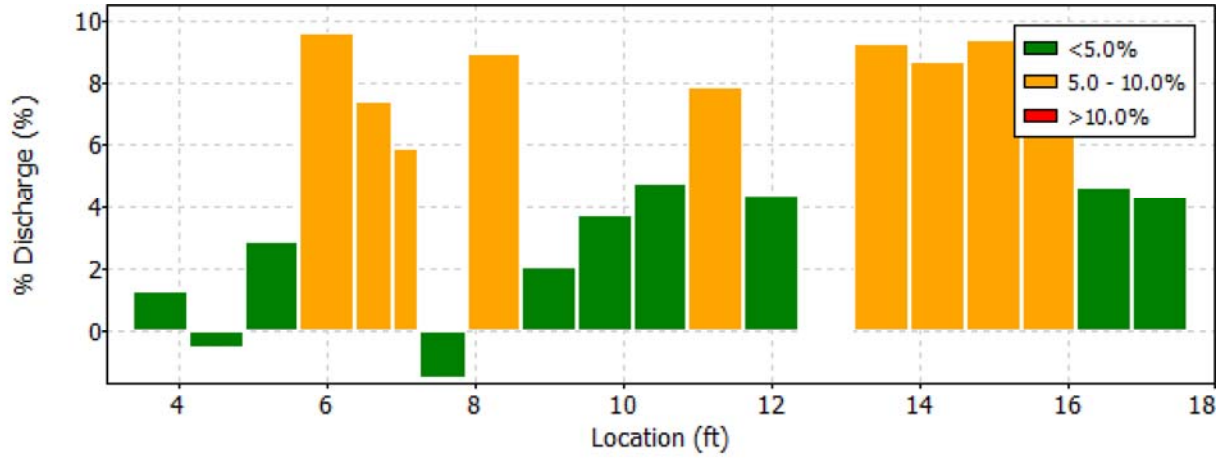
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

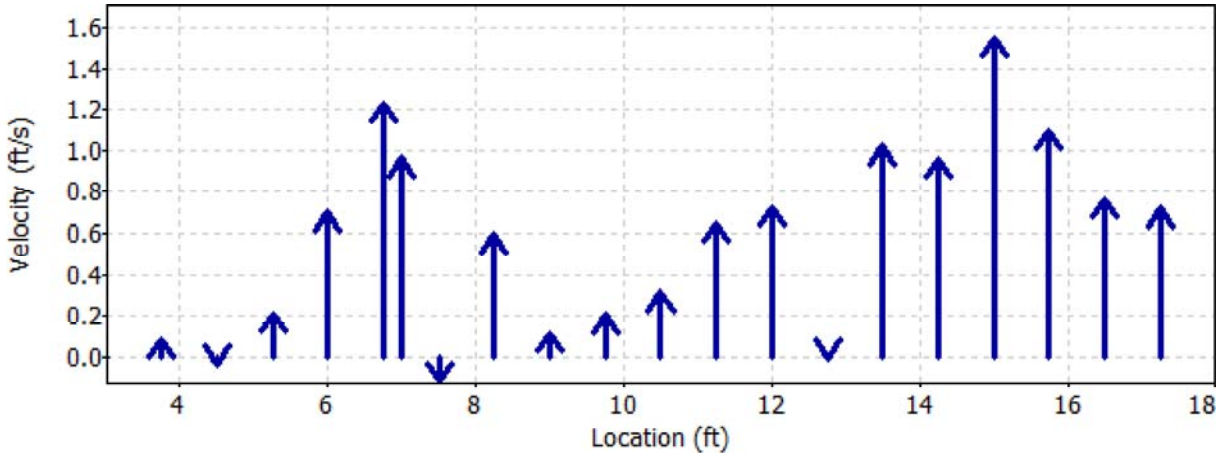
Discharge Measurement Summary

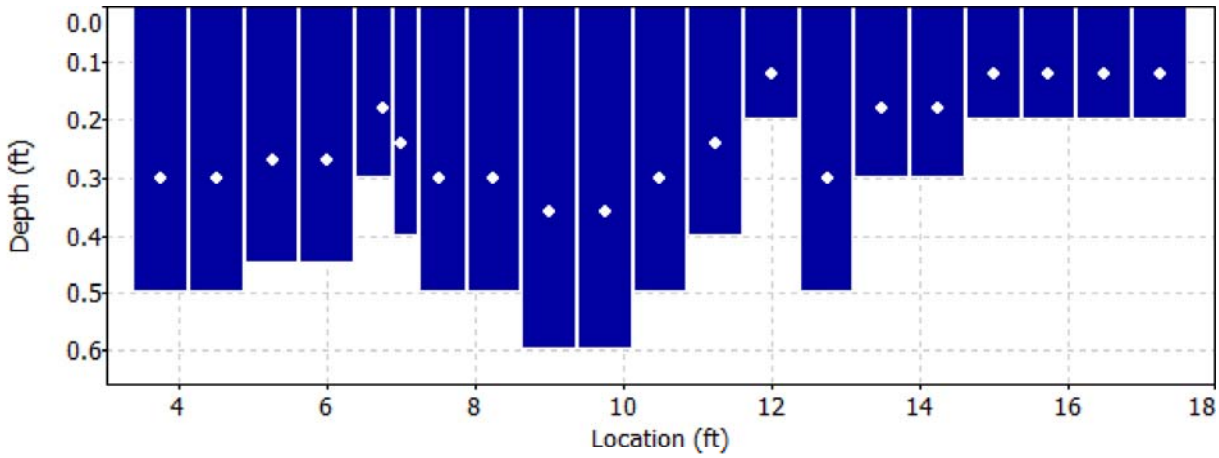
Date Generated: Tue Oct 3 2017

File Information	
File Name	CG9.CG9.WAD
Start Date and Time	2017/09/26 14:47:14

Site Details	
Site Name	CG9
Operator(s)	JB







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CG9.CG9.WAD	Site Name	CG9
Start Date and Time	2017/09/26 14:47:14	Operator(s)	JB

Quality Control

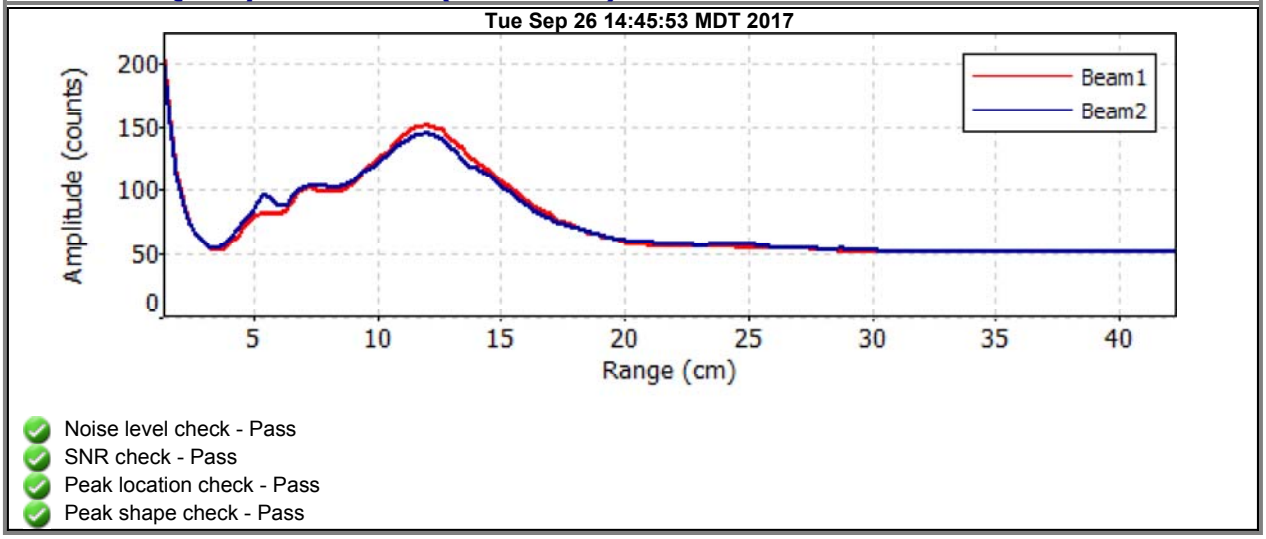
St	Loc	%Dep	Message
1	3.75	0.6	High angle: -28
		0.6	High differences in beam SNR: 39.5,18.0
		0.6	Boundary QC is Good; possible boundary interference
2	4.50	0.6	High angle: -109
3	5.25	0.6	High angle: -21
6	7.00	0.6	High standard error: 0.104
7	7.50	0.6	High angle: -159
8	8.25	0.6	High angle: -26
11	10.50	0.6	High angle: 32
14	12.75	0.6	Boundary QC is Fair; possible boundary interference
15	13.50	0.6	High angle: 41
16	14.25	0.6	High standard error: 0.110
17	15.00	0.6	High angle: -25
		0.6	Boundary QC is Fair; possible boundary interference
19	16.50	0.6	Boundary QC is Good; possible boundary interference
20	17.25	0.6	High standard error: 0.085

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CG9.CG9.WAD	Site Name	CG9
Start Date and Time	2017/09/26 14:47:14	Operator(s)	JB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	CG11.CG1.WAD
Start Date and Time	2017/09/26 16:21:05

Site Details

Site Name	CG11
Operator(s)	JB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	5.4%
Velocity	2.1%	8.4%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.2%	-
Overall	**3.8%**	**10.1%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	10.997
Mean SNR	38.9 dB	Total Area	4.791
Mean Temp	45.00 °F	Mean Depth	0.436
Disch. Equation	Mid-Section	Mean Velocity	0.7617
		Total Discharge	**3.6495**

Measurement Results

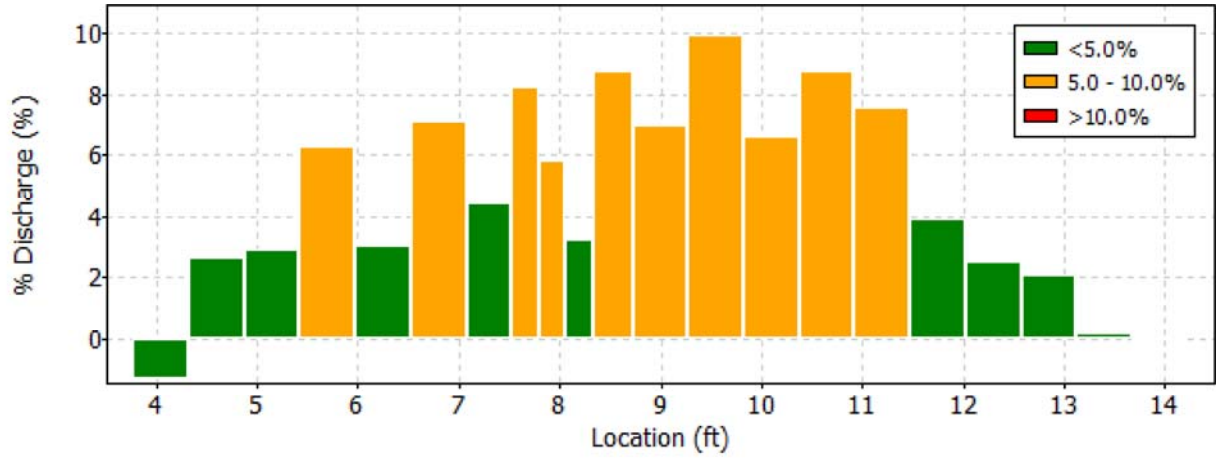
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	16:21	3.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*16:21*	*4.05*	*0.6*	*0.500*	*0.6*	*0.200*	*-0.1775*	*1.00*	*-0.1775*	*0.275*	*-0.0488*	*-1.3*
2	*16:22*	*4.60*	*0.6*	*0.500*	*0.6*	*0.200*	*0.3593*	*1.00*	*0.3593*	*0.275*	*0.0988*	*2.7*
3	16:23	5.15	0.6	0.300	0.6	0.120	0.6522	1.00	0.6522	0.165	0.1075	2.9
4	16:24	5.70	0.6	0.300	0.6	0.120	1.3930	1.00	1.3930	0.165	0.2297	6.3
5	*16:25*	*6.25*	*0.6*	*0.250*	*0.6*	*0.100*	*0.8143*	*1.00*	*0.8143*	*0.137*	*0.1119*	*3.1*
6	*16:26*	*6.80*	*0.6*	*0.350*	*0.6*	*0.140*	*1.3524*	*1.00*	*1.3524*	*0.192*	*0.2603*	*7.1*
7	*16:27*	*7.35*	*0.6*	*0.200*	*0.6*	*0.080*	*1.8091*	*1.00*	*1.8091*	*0.090*	*0.1631*	*4.5*
8	16:44	7.70	0.6	0.500	0.6	0.200	2.1841	1.00	2.1841	0.137	0.3002	8.2
9	*16:28*	*7.90*	*0.6*	*0.500*	*0.6*	*0.200*	*1.7014*	*1.00*	*1.7014*	*0.125*	*0.2127*	*5.8*
10	*16:42*	*8.20*	*0.6*	*0.400*	*0.6*	*0.160*	*1.0817*	*1.00*	*1.0817*	*0.110*	*0.1189*	*3.3*
11	*16:30*	*8.45*	*0.6*	*0.650*	*0.6*	*0.260*	*1.2310*	*1.00*	*1.2310*	*0.260*	*0.3194*	*8.8*
12	*16:31*	*9.00*	*0.6*	*0.700*	*0.6*	*0.280*	*0.6660*	*1.00*	*0.6660*	*0.385*	*0.2564*	*7.0*
13	16:32	9.55	0.6	0.500	0.6	0.200	1.3228	1.00	1.3228	0.275	0.3637	10.0
14	16:33	10.10	0.6	0.500	0.6	0.200	0.8776	1.00	0.8776	0.275	0.2413	6.6
15	16:34	10.65	0.6	0.600	0.6	0.240	0.9695	1.00	0.9695	0.330	0.3199	8.8
16	16:35	11.20	0.6	0.700	0.6	0.280	0.7218	1.00	0.7218	0.385	0.2779	7.6
17	*16:37*	*11.75*	*0.6*	*0.800*	*0.6*	*0.320*	*0.3268*	*1.00*	*0.3268*	*0.440*	*0.1437*	*3.9*
18	16:38	12.30	0.6	0.500	0.6	0.200	0.3412	1.00	0.3412	0.275	0.0938	2.6
19	16:39	12.85	0.6	0.400	0.6	0.160	0.3458	1.00	0.3458	0.220	0.0760	2.1
20	*16:40*	*13.40*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0377*	*1.00*	*0.0377*	*0.165*	*0.0062*	*0.2*
21	*16:41*	*13.95*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0302*	*1.00*	*-0.0302*	*0.110*	*-0.0033*	*-0.1*
22	16:41	14.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

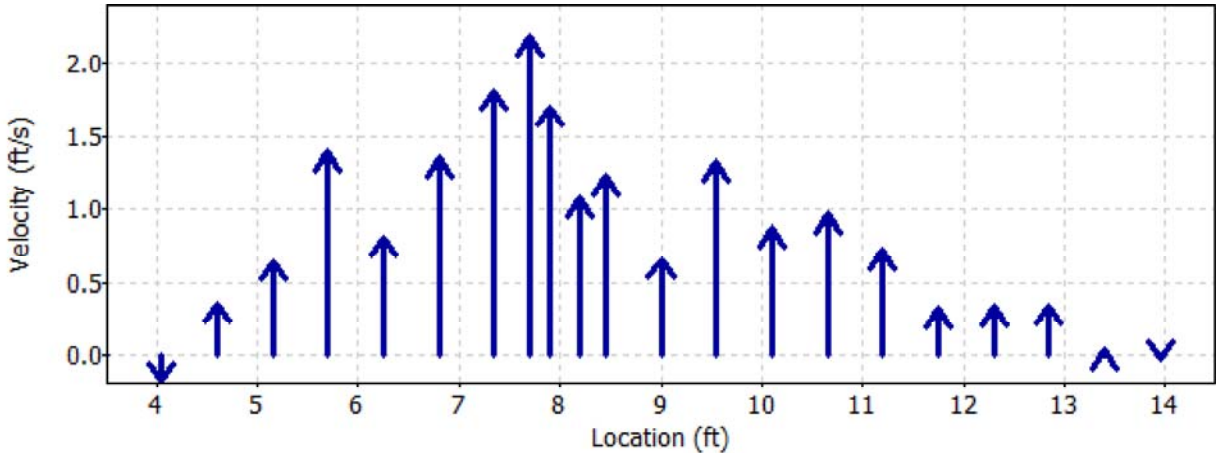
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

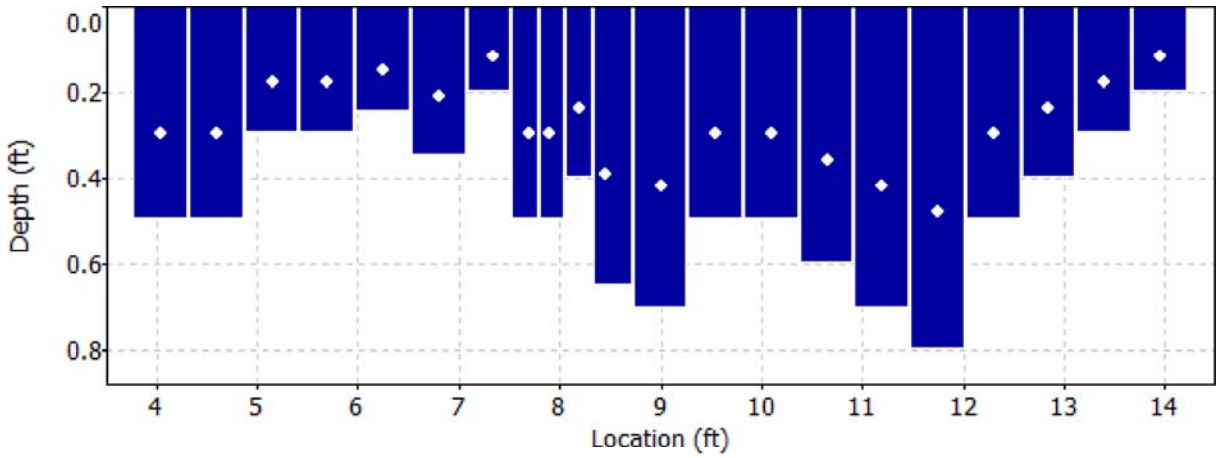
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CG11.CG1.WAD	Site Name	CG11
Start Date and Time	2017/09/26 16:21:05	Operator(s)	JB







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information	
File Name	CG11.CG1.WAD
Start Date and Time	2017/09/26 16:21:05

Site Details	
Site Name	CG11
Operator(s)	JB

Quality Control

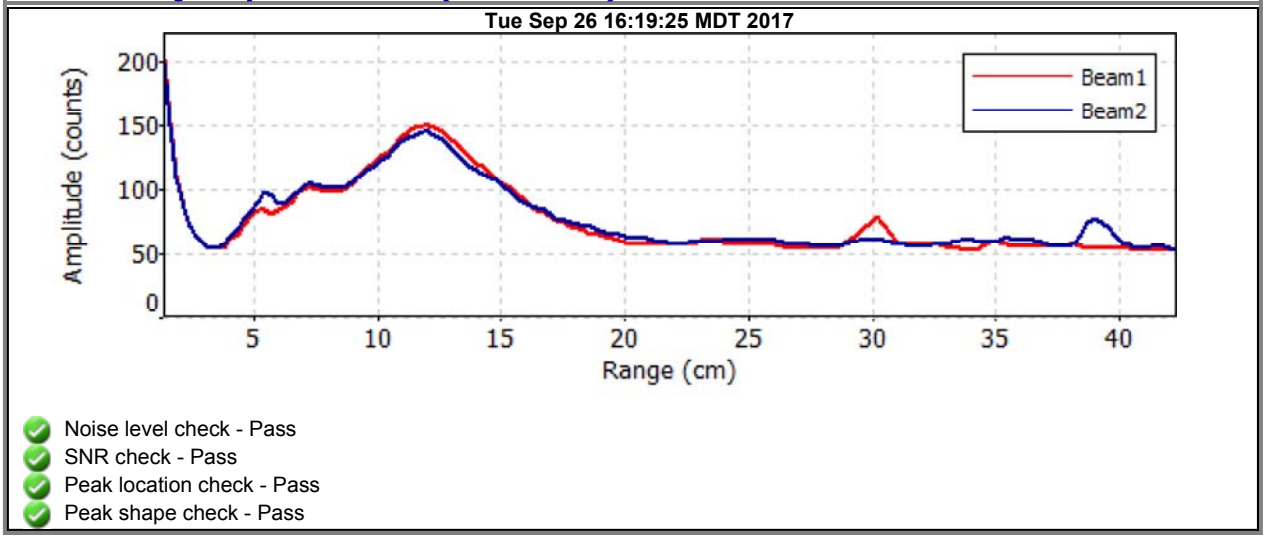
St	Loc	%Dep	Message
1	4.05	0.6	High angle: -148
2	4.60	0.6	High angle: -23
5	6.25	0.6	High standard error: 0.121
6	6.80	0.6	High standard error: 0.148
7	7.35	0.6	High standard error: 0.102
9	7.90	0.6	High standard error: 0.130
10	8.20	0.6	High standard error: 0.129
11	8.45	0.6	High angle: -42
12	9.00	0.6	High angle: -47
17	11.75	0.6	High angle: 39
20	13.40	0.6	High angle: 57
21	13.95	0.6	High angle: -103

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CG11.CG1.WAD	Site Name	CG11
Start Date and Time	2017/09/26 16:21:05	Operator(s)	JB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A28.WAD
Start Date and Time	2017/09/27 11:36:02

Site Details

Site Name	A28
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	4.6%
Velocity	1.4%	3.8%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**3.4%**	**6.0%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	10.997
Mean SNR	31.5 dB	Total Area	4.853
Mean Temp	38.50 °F	Mean Depth	0.441
Disch. Equation	Mid-Section	Mean Velocity	1.0420
		Total Discharge	**5.0564**

Measurement Results

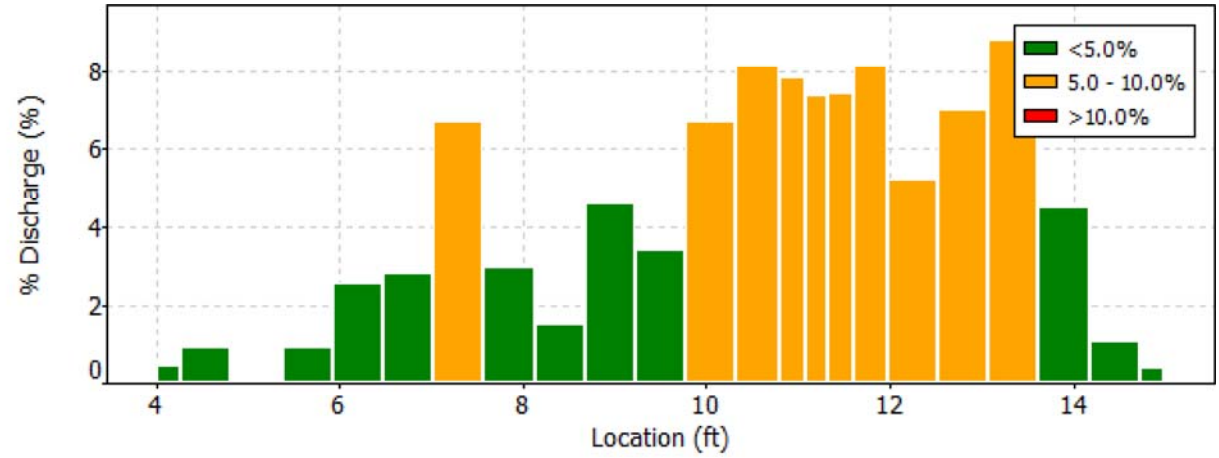
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:36	4.00	None	0.200	0.0	0.0	0.0000	1.00	0.4265	0.055	0.0235	0.5
1	*11:36*	*4.55*	*0.6*	*0.200*	*0.6*	*0.080*	*0.4265*	*1.00*	*0.4265*	*0.110*	*0.0469*	*0.9*
2	11:37	5.10	0.6	0.350	0.6	0.140	-0.0007	1.00	-0.0007	0.192	-0.0001	0.0
3	*11:38*	*5.65*	*0.6*	*0.450*	*0.6*	*0.180*	*0.1962*	*1.00*	*0.1962*	*0.248*	*0.0486*	*1.0*
4	11:39	6.20	0.6	0.400	0.6	0.160	0.5961	1.00	0.5961	0.220	0.1311	2.6
5	11:41	6.75	0.6	0.250	0.6	0.100	1.0400	1.00	1.0400	0.137	0.1430	2.8
6	11:43	7.30	0.6	0.500	0.6	0.200	1.2369	1.00	1.2369	0.275	0.3401	6.7
7	11:44	7.85	0.6	0.400	0.6	0.160	0.6900	1.00	0.6900	0.220	0.1517	3.0
8	11:46	8.40	0.6	0.250	0.6	0.100	0.5814	1.00	0.5814	0.137	0.0799	1.6
9	11:47	8.95	0.6	0.500	0.6	0.200	0.8520	1.00	0.8520	0.275	0.2343	4.6
10	11:48	9.50	0.6	0.500	0.6	0.200	0.6319	1.00	0.6319	0.275	0.1737	3.4
11	11:49	10.05	0.6	0.800	0.6	0.320	0.7723	1.00	0.7723	0.440	0.3397	6.7
12	*11:51*	*10.60*	*0.6*	*0.700*	*0.6*	*0.280*	*1.2411*	*1.00*	*1.2411*	*0.333*	*0.4134*	*8.2*
13	12:03	11.00	0.6	0.700	0.6	0.280	2.0561	1.00	2.0561	0.192	0.3958	7.8
14	11:52	11.15	0.6	0.700	0.6	0.280	2.1355	1.00	2.1355	0.175	0.3738	7.4
15	12:01	11.50	0.6	0.700	0.6	0.280	1.9600	1.00	1.9600	0.192	0.3773	7.5
16	*11:53*	*11.70*	*0.6*	*0.700*	*0.6*	*0.280*	*1.5741*	*1.00*	*1.5741*	*0.262*	*0.4122*	*8.2*
17	*11:54*	*12.25*	*0.6*	*0.400*	*0.6*	*0.160*	*1.1991*	*1.00*	*1.1991*	*0.220*	*0.2637*	*5.2*
18	*11:56*	*12.80*	*0.6*	*0.500*	*0.6*	*0.200*	*1.2959*	*1.00*	*1.2959*	*0.275*	*0.3563*	*7.0*
19	11:57	13.35	0.6	0.550	0.6	0.220	1.4767	1.00	1.4767	0.302	0.4465	8.8
20	*11:58*	*13.90*	*0.6*	*0.300*	*0.6*	*0.120*	*1.3835*	*1.00*	*1.3835*	*0.165*	*0.2281*	*4.5*
21	11:59	14.45	0.6	0.200	0.6	0.080	0.5098	1.00	0.5098	0.110	0.0561	1.1
22	11:59	15.00	None	0.150	0.0	0.0	0.0000	1.00	0.5098	0.041	0.0210	0.4

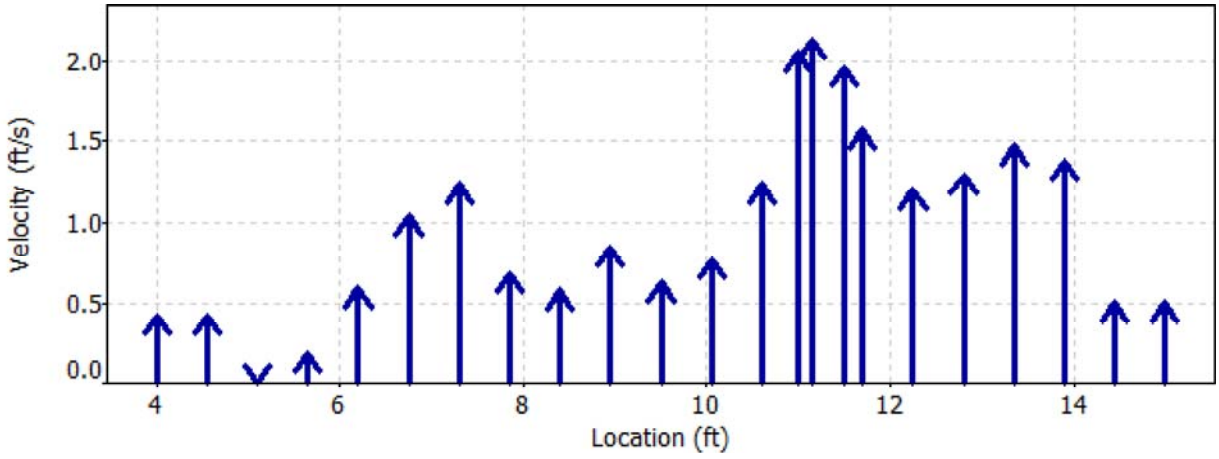
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

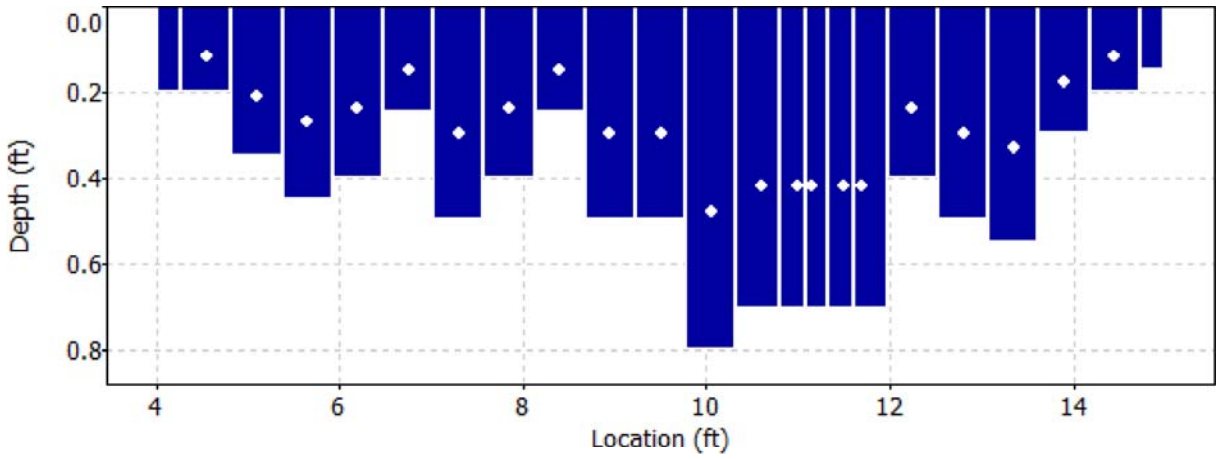
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A28.WAD	Site Name	A28
Start Date and Time	2017/09/27 11:36:02	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A28.WAD	Site Name	A28
Start Date and Time	2017/09/27 11:36:02	Operator(s)	EY

Quality Control

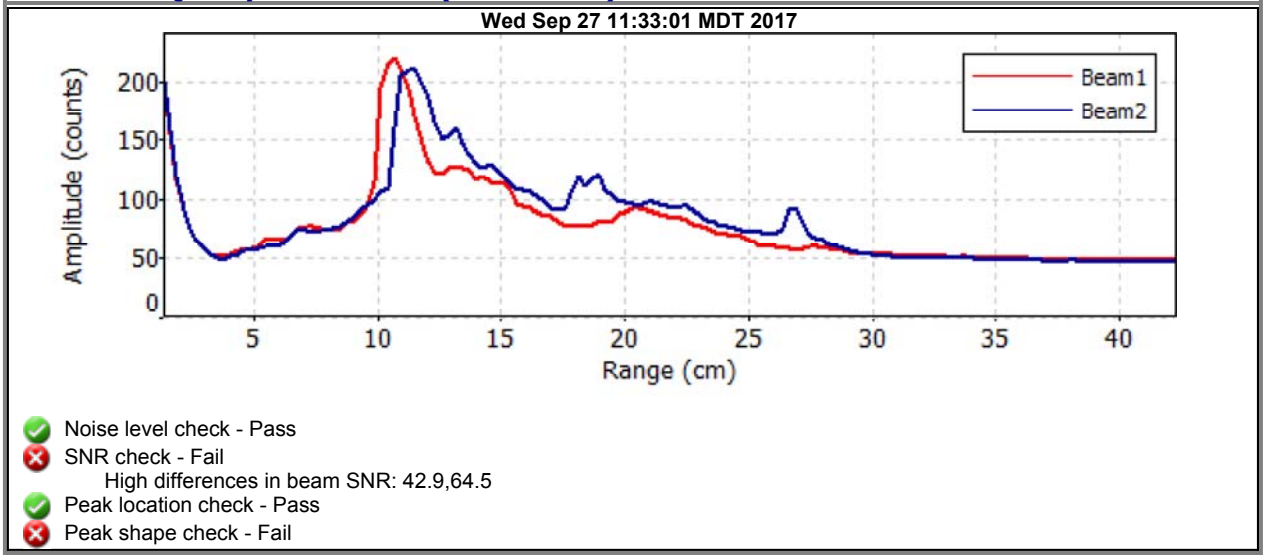
St	Loc	%Dep	Message
1	4.55	0.6	Boundary QC is Fair; possible boundary interference
3	5.65	0.6	High angle: 34
12	10.60	0.6	High standard error: 0.094
16	11.70	0.6	High standard error: 0.104
17	12.25	0.6	High standard error: 0.119
18	12.80	0.6	High standard error: 0.097
20	13.90	0.6	High standard error: 0.089

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A28.WAD	Site Name	A28
Start Date and Time	2017/09/27 11:36:02	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Fail
  - High differences in beam SNR: 42.9,64.5
- Peak location check - Pass
- Peak shape check - Fail

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A30.WAD
Start Date and Time	2017/09/27 10:25:28

Site Details

Site Name	A30
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	6.5%
Velocity	2.2%	20.1%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.0%	-
Overall	**3.7%**	**21.1%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	LEW	Total Width	17.001
Mean SNR	33.4 dB	Total Area	11.640
Mean Temp	36.29 °F	Mean Depth	0.685
Disch. Equation	Mid-Section	Mean Velocity	0.5434
		Total Discharge	**6.3252**

Measurement Results

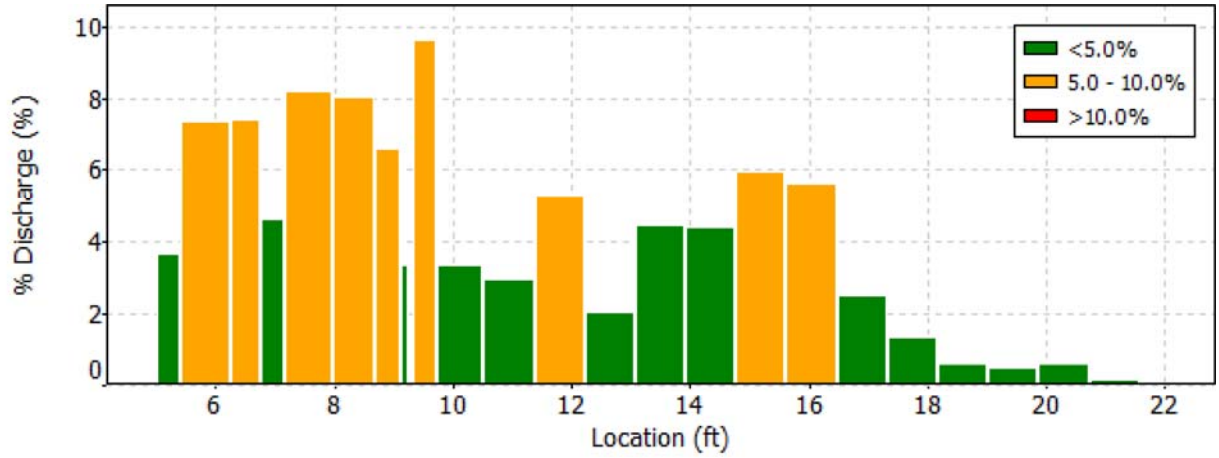
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:25	5.00	None	0.800	0.0	0.0	0.0000	1.00	0.6873	0.340	0.2337	3.7
1	10:25	5.85	0.6	0.800	0.6	0.320	0.6873	1.00	0.6873	0.680	0.4673	7.4
2	*10:26*	*6.70*	*0.6*	*0.700*	*0.6*	*0.280*	*1.4127*	*1.00*	*1.4127*	*0.332*	*0.4697*	*7.4*
3	*10:53*	*6.80*	*0.6*	*0.600*	*0.6*	*0.240*	*1.1532*	*1.00*	*1.1532*	*0.255*	*0.2941*	*4.7*
4	*10:27*	*7.55*	*0.6*	*0.600*	*0.6*	*0.240*	*1.0787*	*1.00*	*1.0787*	*0.480*	*0.5180*	*8.2*
5	*10:29*	*8.40*	*0.6*	*0.600*	*0.6*	*0.240*	*1.1663*	*1.00*	*1.1663*	*0.435*	*0.5073*	*8.0*
6	10:52	9.00	0.6	0.350	0.6	0.140	2.7933	1.00	2.7933	0.149	0.4156	6.6
7	*10:30*	*9.25*	*0.6*	*0.700*	*0.6*	*0.280*	*2.0102*	*1.00*	*2.0102*	*0.105*	*0.2110*	*3.3*
8	10:54	9.30	0.6	0.500	0.6	0.200	2.9987	1.00	2.9987	0.025	0.0748	1.2
9	10:56	9.35	0.6	0.500	0.6	0.200	3.0597	1.00	3.0597	0.200	0.6123	9.7
10	*10:32*	*10.10*	*0.6*	*0.650*	*0.6*	*0.260*	*0.4045*	*1.00*	*0.4045*	*0.520*	*0.2104*	*3.3*
11	*10:33*	*10.95*	*0.6*	*0.400*	*0.6*	*0.160*	*0.5515*	*1.00*	*0.5515*	*0.340*	*0.1875*	*3.0*
12	10:34	11.80	0.6	0.250	0.6	0.100	1.5817	1.00	1.5817	0.213	0.3361	5.3
13	*10:37*	*12.65*	*0.6*	*0.200*	*0.6*	*0.080*	*0.7592*	*1.00*	*0.7592*	*0.170*	*0.1292*	*2.0*
14	*10:38*	*13.50*	*0.6*	*1.000*	*0.6*	*0.400*	*0.3323*	*1.00*	*0.3323*	*0.850*	*0.2825*	*4.5*
15	*10:40*	*14.35*	*0.6*	*1.500*	*0.6*	*0.600*	*0.2175*	*1.00*	*0.2175*	*1.275*	*0.2774*	*4.4*
16	*10:41*	*15.20*	*0.6*	*1.300*	*0.6*	*0.520*	*0.3432*	*1.00*	*0.3432*	*1.105*	*0.3792*	*6.0*
17	*10:43*	*16.05*	*0.6*	*0.950*	*0.6*	*0.380*	*0.4416*	*1.00*	*0.4416*	*0.808*	*0.3567*	*5.6*
18	*10:44*	*16.90*	*0.6*	*0.800*	*0.6*	*0.320*	*0.2329*	*1.00*	*0.2329*	*0.680*	*0.1584*	*2.5*
19	*10:45*	*17.75*	*0.6*	*0.700*	*0.6*	*0.280*	*0.1414*	*1.00*	*0.1414*	*0.595*	*0.0842*	*1.3*
20	*10:46*	*18.60*	*0.6*	*0.700*	*0.6*	*0.280*	*0.0607*	*1.00*	*0.0607*	*0.595*	*0.0361*	*0.6*
21	*10:47*	*19.45*	*0.6*	*0.800*	*0.6*	*0.320*	*0.0469*	*1.00*	*0.0469*	*0.680*	*0.0319*	*0.5*
22	*10:49*	*20.30*	*0.6*	*0.550*	*0.6*	*0.220*	*0.0814*	*1.00*	*0.0814*	*0.467*	*0.0380*	*0.6*
23	*10:50*	*21.15*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0404*	*1.00*	*0.0404*	*0.255*	*0.0103*	*0.2*
24	10:50	22.00	None	0.200	0.0	0.0	0.0000	1.00	0.0404	0.085	0.0034	0.1

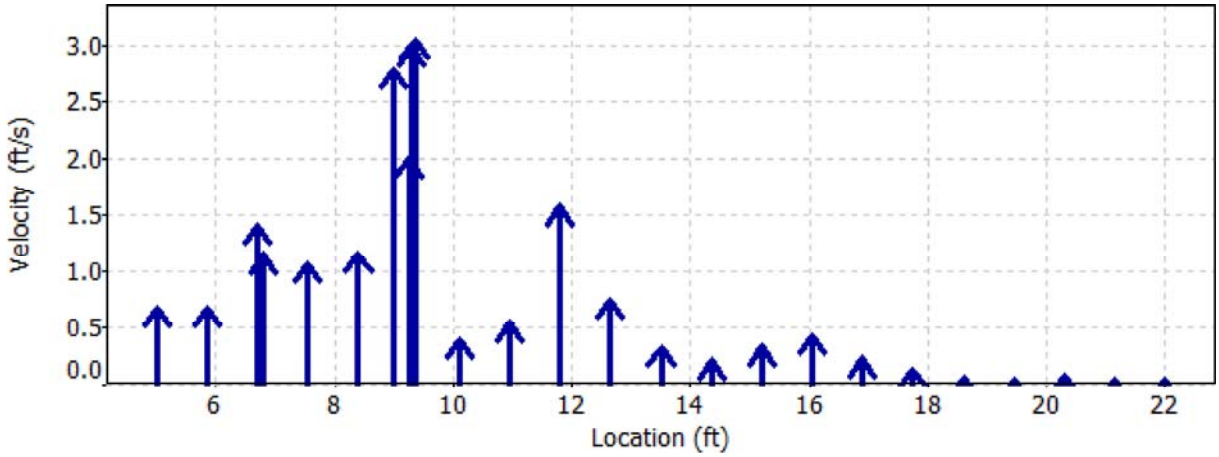
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

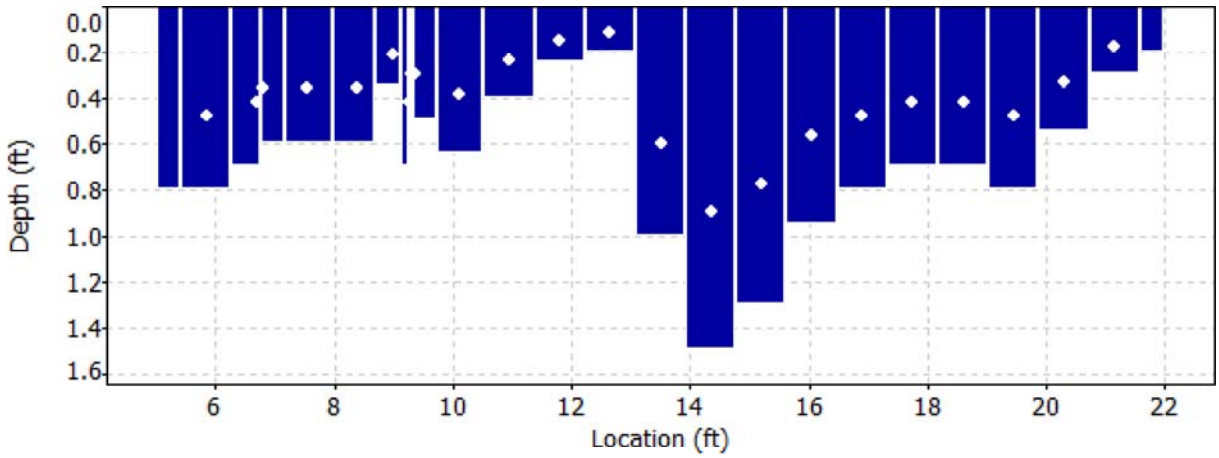
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A30.WAD	Site Name	A30
Start Date and Time	2017/09/27 10:25:28	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A30.WAD	Site Name	A30
Start Date and Time	2017/09/27 10:25:28	Operator(s)	EY

Quality Control

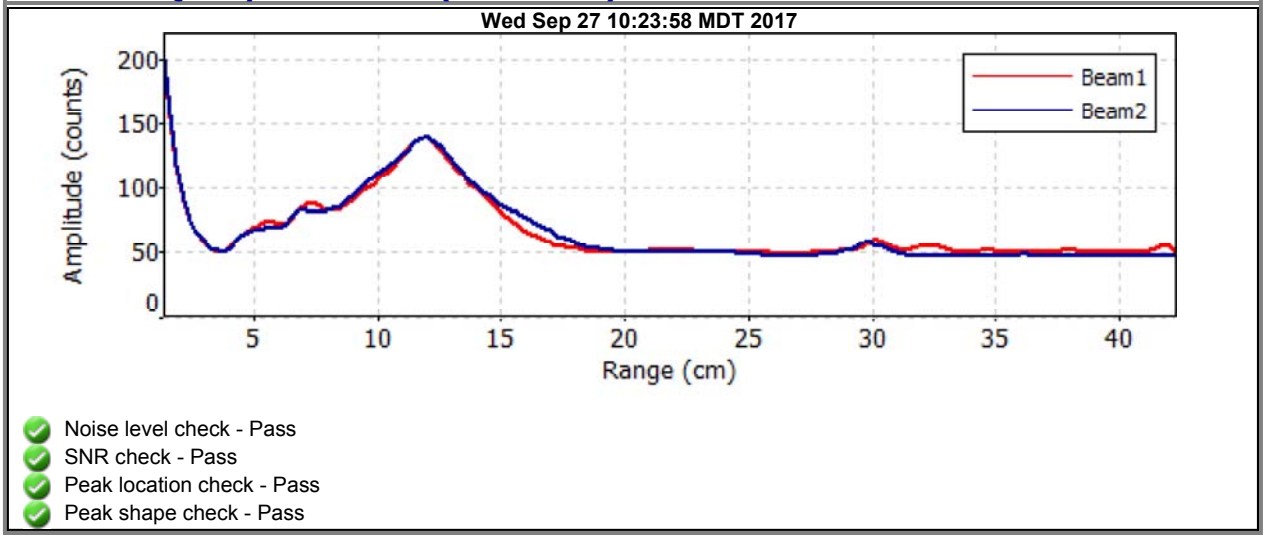
St	Loc	%Dep	Message
2	6.70	0.6	High standard error: 0.103
3	6.80	0.6	High angle: 33
		0.6	High standard error: 0.108
4	7.55	0.6	High angle: 21
		0.6	High standard error: 0.107
5	8.40	0.6	High standard error: 0.091
7	9.25	0.6	High standard error: 0.137
10	10.10	0.6	High angle: 46
11	10.95	0.6	High standard error: 0.088
13	12.65	0.6	High angle: -35
14	13.50	0.6	High angle: -40
		0.6	High SNR variation during measurement: 4.3,7.3
15	14.35	0.6	High angle: -38
16	15.20	0.6	High angle: -23
17	16.05	0.6	High angle: -34
18	16.90	0.6	High angle: -26
19	17.75	0.6	High angle: -33
20	18.60	0.6	High angle: -52
21	19.45	0.6	High angle: -21
22	20.30	0.6	High angle: -47
23	21.15	0.6	High angle: -56

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A30.WAD	Site Name	A30
Start Date and Time	2017/09/27 10:25:28	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A30A.WAD
Start Date and Time	2017/09/27 09:16:38

Site Details

Site Name	A30A
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	4.3%
Velocity	0.9%	4.2%
Width	0.1%	0.1%
Method	1.7%	-
# Stations	2.1%	-
Overall	**3.0%**	**6.1%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	REW	Total Width	11.300
Mean SNR	34.7 dB	Total Area	3.883
Mean Temp	35.02 °F	Mean Depth	0.344
Disch. Equation	Mid-Section	Mean Velocity	1.5672
		Total Discharge	**6.0848**

Measurement Results

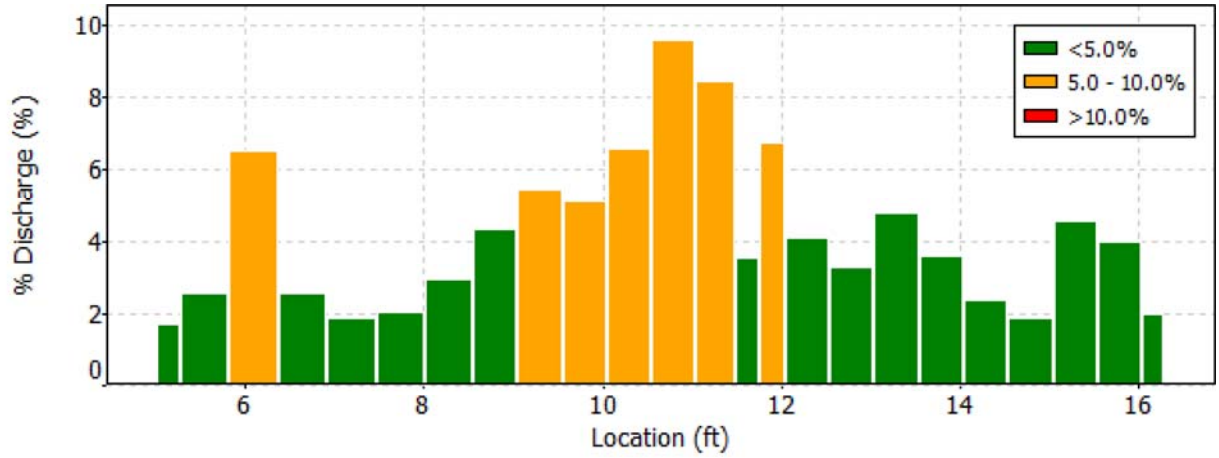
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:16	5.00	None	0.400	0.0	0.0	0.0000	1.00	0.9406	0.110	0.1034	1.7
1	09:16	5.55	0.6	0.300	0.6	0.120	0.9406	1.00	0.9406	0.165	0.1551	2.5
2	09:17	6.10	0.6	0.500	0.6	0.200	1.4350	1.00	1.4350	0.275	0.3945	6.5
3	09:18	6.65	0.6	0.300	0.6	0.120	0.9393	1.00	0.9393	0.165	0.1549	2.5
4	09:20	7.20	0.6	0.200	0.6	0.080	1.0226	1.00	1.0226	0.110	0.1125	1.8
5	09:21	7.75	0.6	0.200	0.6	0.080	1.1096	1.00	1.1096	0.110	0.1221	2.0
6	09:22	8.30	0.6	0.300	0.6	0.120	1.1312	1.00	1.1312	0.158	0.1782	2.9
7	*09:24*	*8.80*	*0.6*	*0.400*	*0.6*	*0.160*	*1.3074*	*1.00*	*1.3074*	*0.200*	*0.2618*	*4.3*
8	09:25	9.30	0.6	0.500	0.6	0.200	1.3202	1.00	1.3202	0.250	0.3305	5.4
9	09:26	9.80	0.6	0.400	0.6	0.160	1.5390	1.00	1.5390	0.200	0.3082	5.1
10	*09:27*	*10.30*	*0.6*	*0.400*	*0.6*	*0.160*	*1.9780*	*1.00*	*1.9780*	*0.200*	*0.3961*	*6.5*
11	*09:28*	*10.80*	*0.6*	*0.600*	*0.6*	*0.240*	*1.9452*	*1.00*	*1.9452*	*0.300*	*0.5844*	*9.6*
12	*09:30*	*11.30*	*0.6*	*0.550*	*0.6*	*0.220*	*2.0774*	*1.00*	*2.0774*	*0.247*	*0.5127*	*8.4*
13	*09:44*	*11.70*	*0.6*	*0.450*	*0.6*	*0.180*	*1.9045*	*1.00*	*1.9045*	*0.113*	*0.2146*	*3.5*
14	*09:31*	*11.80*	*0.6*	*0.600*	*0.6*	*0.240*	*2.2657*	*1.00*	*2.2657*	*0.180*	*0.4077*	*6.7*
15	*09:32*	*12.30*	*0.6*	*0.350*	*0.6*	*0.140*	*1.4252*	*1.00*	*1.4252*	*0.174*	*0.2485*	*4.1*
16	*09:34*	*12.80*	*0.6*	*0.200*	*0.6*	*0.080*	*1.9777*	*1.00*	*1.9777*	*0.100*	*0.1979*	*3.3*
17	*09:36*	*13.30*	*0.6*	*0.200*	*0.6*	*0.080*	*2.8839*	*1.00*	*2.8839*	*0.100*	*0.2886*	*4.7*
18	*09:38*	*13.80*	*0.6*	*0.250*	*0.6*	*0.100*	*1.7575*	*1.00*	*1.7575*	*0.125*	*0.2197*	*3.6*
19	*09:39*	*14.30*	*0.6*	*0.250*	*0.6*	*0.100*	*1.1470*	*1.00*	*1.1470*	*0.125*	*0.1434*	*2.4*
20	*09:41*	*14.80*	*0.6*	*0.200*	*0.6*	*0.080*	*1.1237*	*1.00*	*1.1237*	*0.100*	*0.1124*	*1.8*
21	09:42	15.30	0.6	0.300	0.6	0.120	1.8386	1.00	1.8386	0.150	0.2757	4.5
22	09:43	15.80	0.6	0.300	0.6	0.120	1.6099	1.00	1.6099	0.150	0.2414	4.0
23	09:43	16.30	None	0.300	0.0	0.0	0.0000	1.00	1.6099	0.075	0.1207	2.0

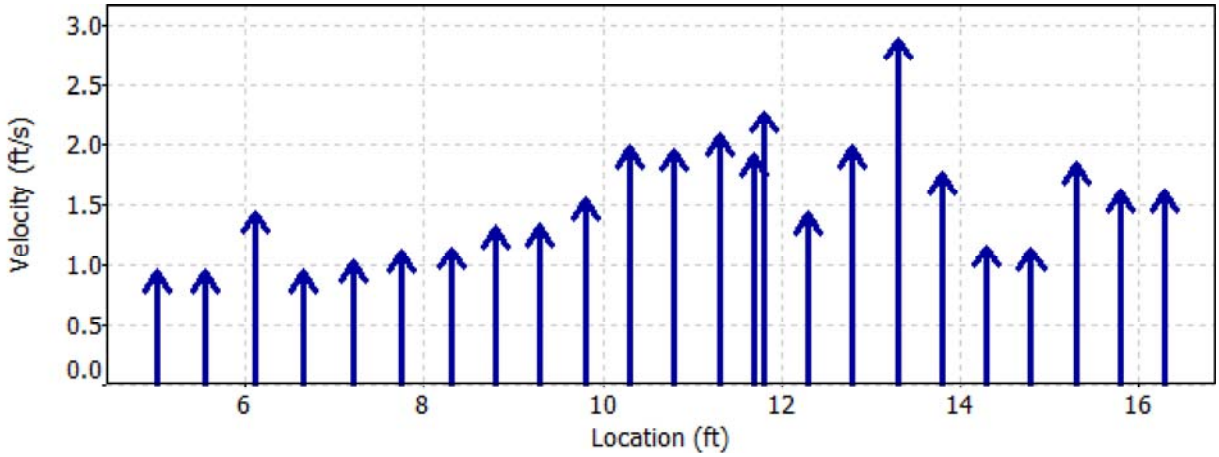
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

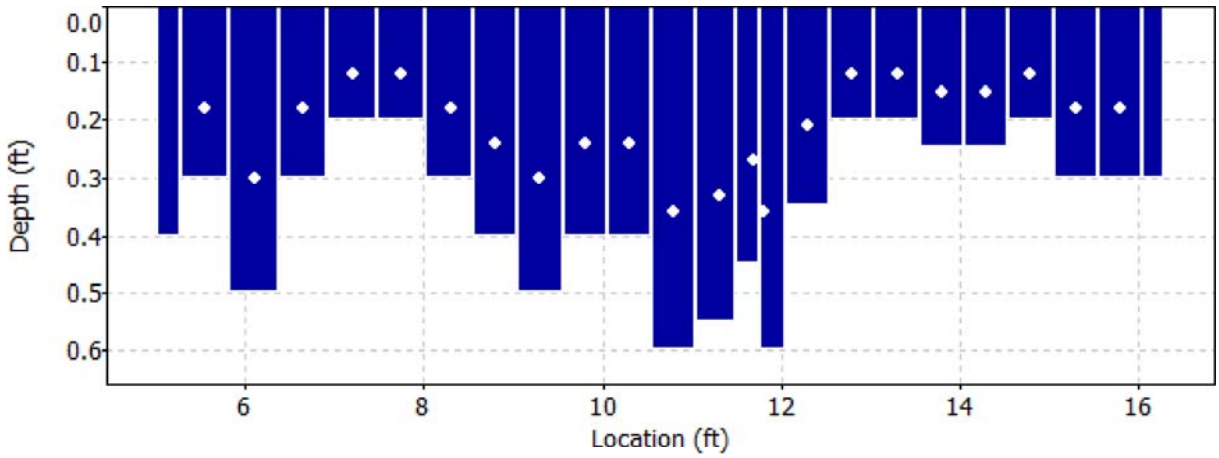
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A30A.WAD	Site Name	A30A
Start Date and Time	2017/09/27 09:16:38	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A30A.WAD	Site Name	A30A
Start Date and Time	2017/09/27 09:16:38	Operator(s)	EY

Quality Control

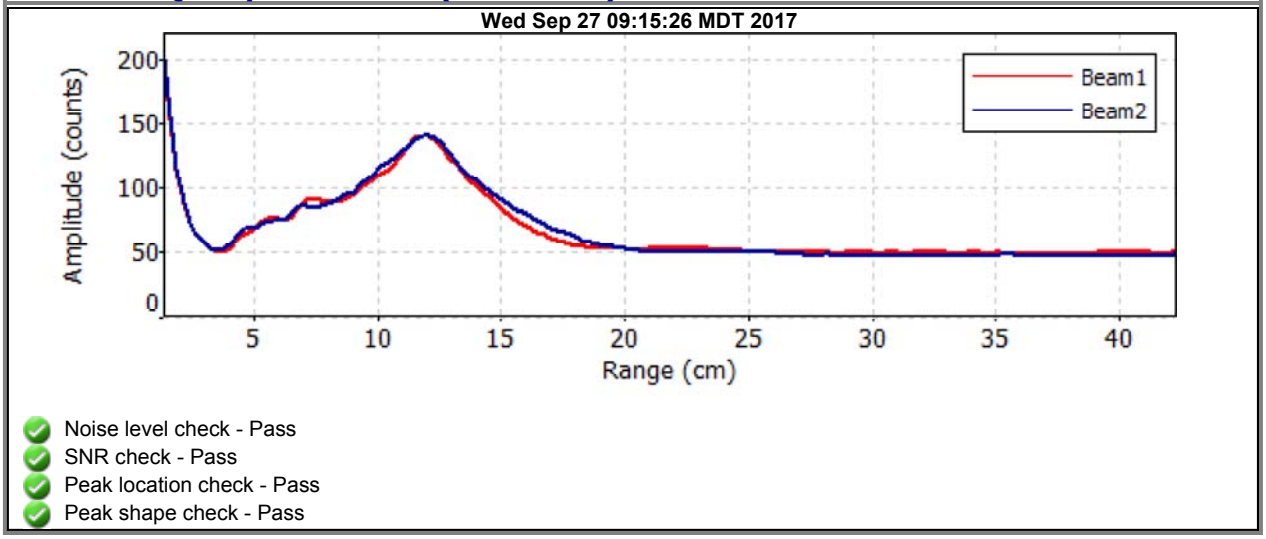
St	Loc	%Dep	Message
7	8.80	0.6	High standard error: 0.091
10	10.30	0.6	High angle: 22
11	10.80	0.6	High angle: 32
12	11.30	0.6	High angle: 33
13	11.70	0.6	High angle: 31
14	11.80	0.6	High angle: 26
15	12.30	0.6	High angle: 53
16	12.80	0.6	High angle: 44
17	13.30	0.6	High angle: 21
		0.6	High SNR variation during measurement: 5.2,1.7
18	13.80	0.6	High angle: 40
19	14.30	0.6	High angle: 20
		0.6	High standard error: 0.104
		0.6	Boundary QC is Fair; possible boundary interference
20	14.80	0.6	High angle: 32

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A30A.WAD	Site Name	A30A
Start Date and Time	2017/09/27 09:16:38	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A30B.WAD
Start Date and Time	2017/09/27 08:22:35

Site Details

Site Name	A30B
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	5.5%
Velocity	1.1%	6.4%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.1%	-
Overall	**3.2%**	**8.4%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	LEW	Total Width	9.003
Mean SNR	35.5 dB	Total Area	3.903
Mean Temp	34.88 °F	Mean Depth	0.434
Disch. Equation	Mid-Section	Mean Velocity	1.4846
		Total Discharge	**5.7938**

Measurement Results

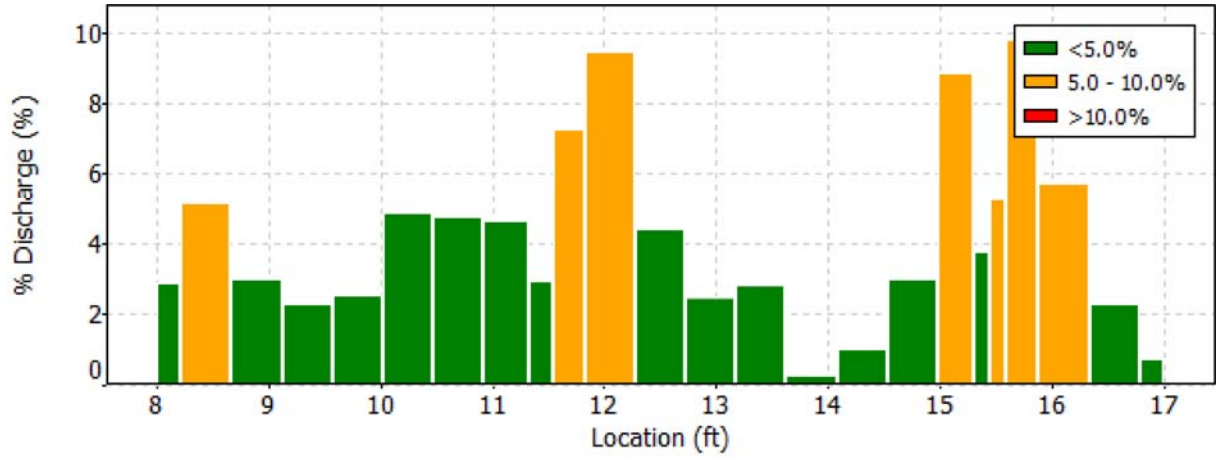
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:22	8.00	None	0.450	0.0	0.0	0.0000	1.00	1.6470	0.101	0.1669	2.9
1	08:22	8.45	0.6	0.400	0.6	0.160	1.6470	1.00	1.6470	0.180	0.2965	5.1
2	08:23	8.90	0.6	0.300	0.6	0.120	1.2782	1.00	1.2782	0.135	0.1725	3.0
3	*08:26*	*9.35*	*0.6*	*0.200*	*0.6*	*0.080*	*1.4682*	*1.00*	*1.4682*	*0.090*	*0.1323*	*2.3*
4	*08:27*	*9.80*	*0.6*	*0.200*	*0.6*	*0.080*	*1.6201*	*1.00*	*1.6201*	*0.090*	*0.1459*	*2.5*
5	08:29	10.25	0.6	0.300	0.6	0.120	2.0774	1.00	2.0774	0.135	0.2804	4.8
6	08:30	10.70	0.6	0.300	0.6	0.120	2.0305	1.00	2.0305	0.135	0.2741	4.7
7	08:31	11.15	0.6	0.300	0.6	0.120	2.2346	1.00	2.2346	0.120	0.2678	4.6
8	08:49	11.50	0.6	0.300	0.6	0.120	2.5203	1.00	2.5203	0.067	0.1701	2.9
9	08:32	11.60	0.6	0.500	0.6	0.200	3.0577	1.00	3.0577	0.138	0.4213	7.3
10	*08:33*	*12.05*	*0.6*	*0.300*	*0.6*	*0.120*	*4.0676*	*1.00*	*4.0676*	*0.135*	*0.5490*	*9.5*
11	08:34	12.50	0.6	0.200	0.6	0.080	2.8415	1.00	2.8415	0.090	0.2560	4.4
12	*08:35*	*12.95*	*0.6*	*0.200*	*0.6*	*0.080*	*1.6010*	*1.00*	*1.6010*	*0.090*	*0.1442*	*2.5*
13	*08:37*	*13.40*	*0.6*	*0.200*	*0.6*	*0.080*	*1.7963*	*1.00*	*1.7963*	*0.090*	*0.1618*	*2.8*
14	08:39	13.85	0.6	0.300	0.6	0.120	0.1214	1.00	0.1214	0.135	0.0164	0.3
15	08:40	14.30	0.6	0.300	0.6	0.120	0.4245	1.00	0.4245	0.135	0.0573	1.0
16	08:42	14.75	0.6	0.400	0.6	0.160	0.9521	1.00	0.9521	0.180	0.1714	3.0
17	08:43	15.20	0.6	0.800	0.6	0.320	1.9747	1.00	1.9747	0.259	0.5117	8.8
18	*08:48*	*15.40*	*0.6*	*0.750*	*0.6*	*0.300*	*1.9488*	*1.00*	*1.9488*	*0.112*	*0.2177*	*3.8*
19	08:51	15.50	0.6	1.000	0.6	0.400	2.4177	1.00	2.4177	0.126	0.3050	5.3
20	08:44	15.65	0.6	0.850	0.6	0.340	2.2224	1.00	2.2224	0.256	0.5690	9.8
21	*08:45*	*16.10*	*0.6*	*1.000*	*0.6*	*0.400*	*0.7339*	*1.00*	*0.7339*	*0.450*	*0.3304*	*5.7*
22	*08:46*	*16.55*	*0.6*	*1.100*	*0.6*	*0.440*	*0.2697*	*1.00*	*0.2697*	*0.495*	*0.1335*	*2.3*
23	08:46	17.00	None	0.700	0.0	0.0	0.0000	1.00	0.2697	0.158	0.0425	0.7

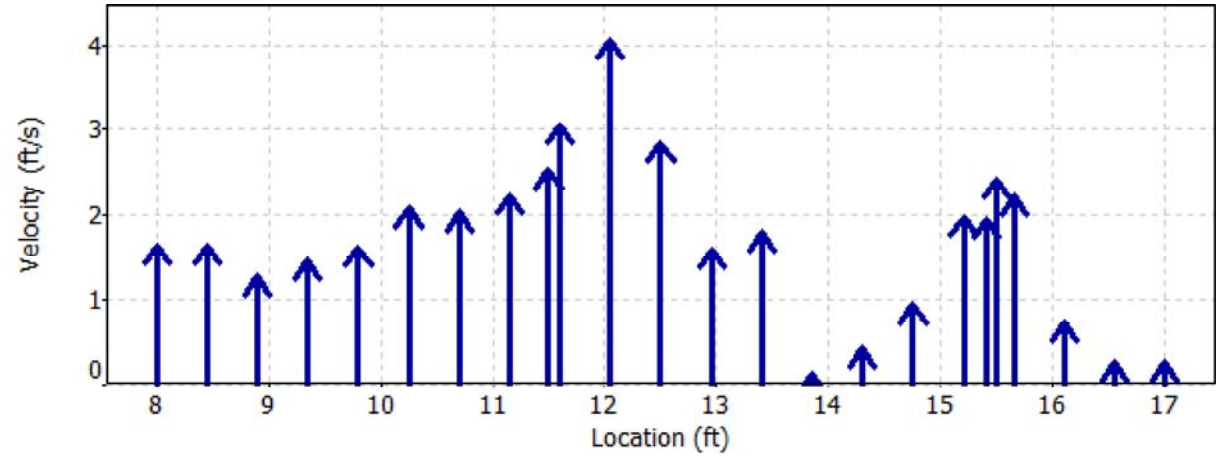
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

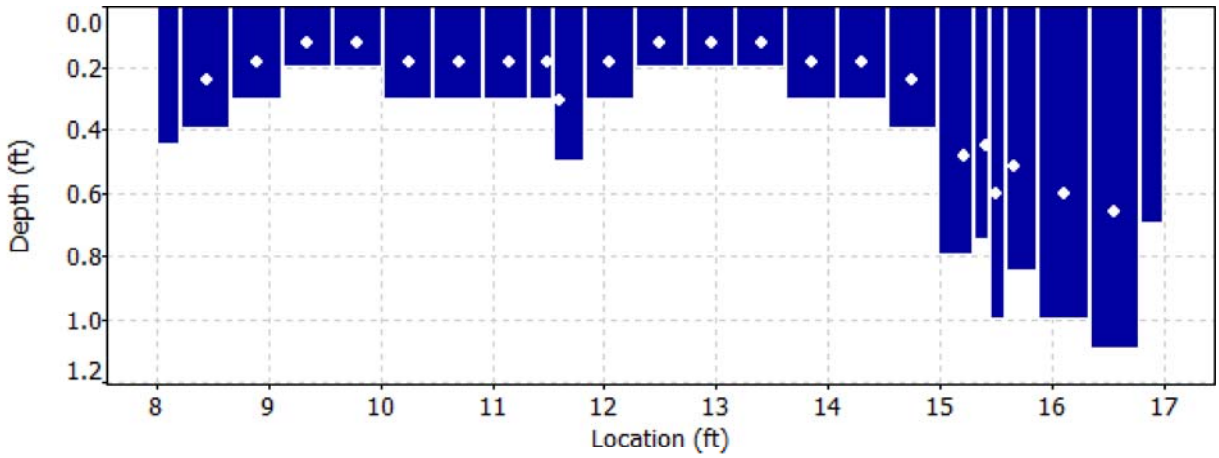
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A30B.WAD	Site Name	A30B
Start Date and Time	2017/09/27 08:22:35	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A30B.WAD	Site Name	A30B
Start Date and Time	2017/09/27 08:22:35	Operator(s)	EY

Quality Control

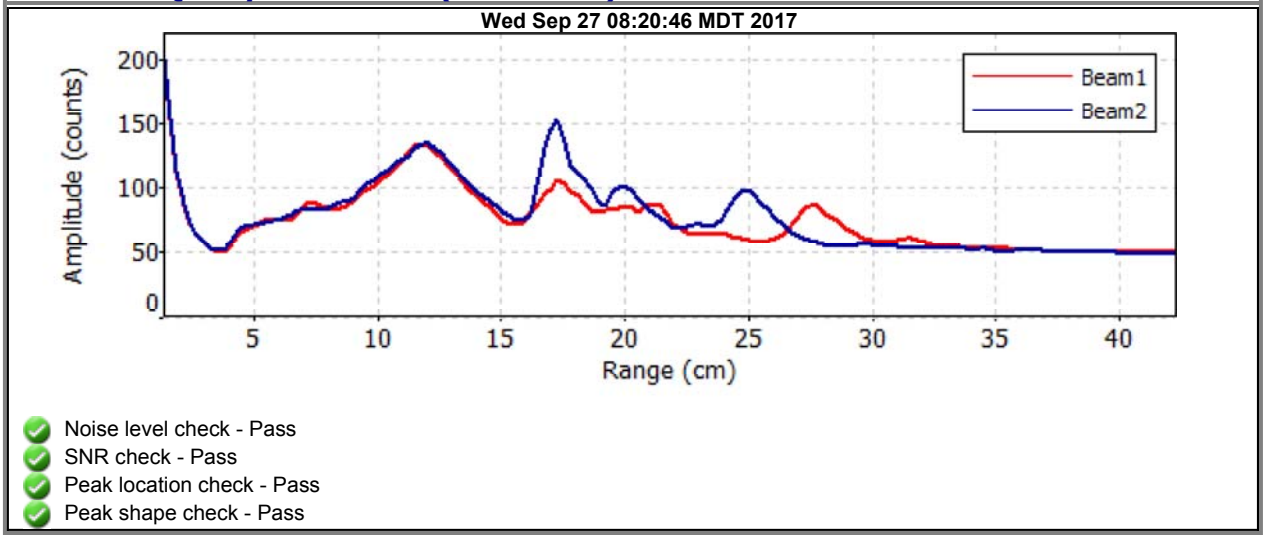
St	Loc	%Dep	Message
3	9.35	0.6	High angle: 31
4	9.80	0.6	High angle: 25
		0.6	High standard error: 0.112
10	12.05	0.6	High SNR variation during measurement: 3.0,9.5
12	12.95	0.6	High SNR variation during measurement: 5.2,5.2
		0.6	High standard error: 0.169
13	13.40	0.6	High standard error: 0.120
18	15.40	0.6	High angle: 22
21	16.10	0.6	High angle: 27
22	16.55	0.6	High angle: 65

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A30B.WAD	Site Name	A30B
Start Date and Time	2017/09/27 08:22:35	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A40.WAD
Start Date and Time	2017/09/28 11:03:27

Site Details

Site Name	A40
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	6.0%
Velocity	0.7%	3.6%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.1%	-
Overall	**3.0%**	**7.1%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	LEW	Total Width	17.999
Mean SNR	30.7 dB	Total Area	5.905
Mean Temp	43.56 °F	Mean Depth	0.328
Disch. Equation	Mid-Section	Mean Velocity	0.8343
		Total Discharge	**4.9269**

Measurement Results

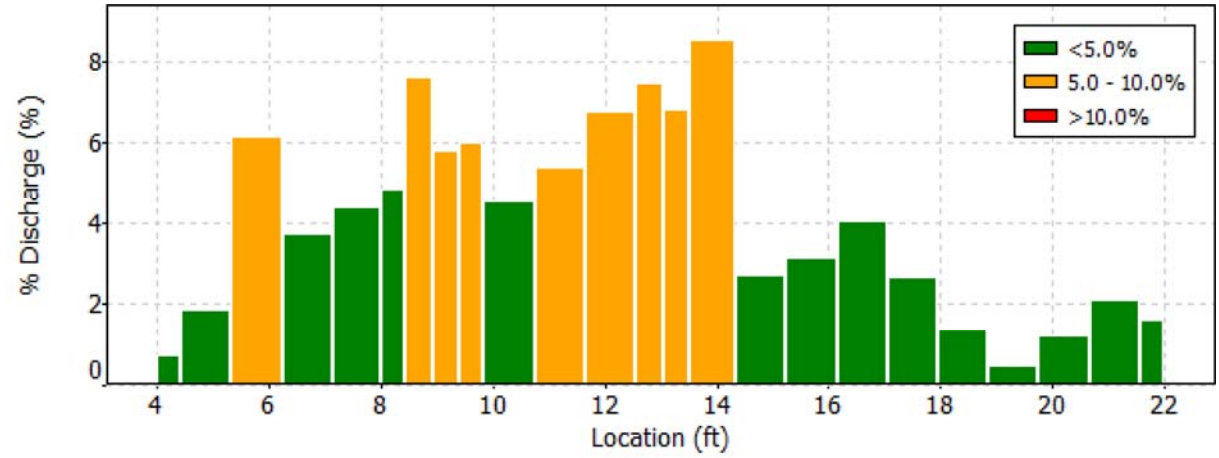
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:03	4.00	None	0.150	0.0	0.0	0.0000	1.00	0.5098	0.067	0.0344	0.7
1	11:03	4.90	0.6	0.200	0.6	0.080	0.5098	1.00	0.5098	0.180	0.0918	1.9
2	11:04	5.80	0.6	0.450	0.6	0.180	0.7484	1.00	0.7484	0.405	0.3032	6.2
3	11:05	6.70	0.6	0.300	0.6	0.120	0.6804	1.00	0.6804	0.270	0.1836	3.7
4	11:06	7.60	0.6	0.250	0.6	0.100	1.0171	1.00	1.0171	0.213	0.2161	4.4
5	11:27	8.40	0.6	0.600	0.6	0.240	0.8845	1.00	0.8845	0.270	0.2388	4.8
6	11:07	8.50	0.6	0.800	0.6	0.320	0.9403	1.00	0.9403	0.400	0.3759	7.6
7	11:08	9.40	0.6	0.600	0.6	0.240	1.0587	1.00	1.0587	0.270	0.2860	5.8
8	11:26	9.40	0.6	0.600	0.6	0.240	1.0879	1.00	1.0879	0.270	0.2938	6.0
9	11:09	10.30	0.6	0.200	0.6	0.080	1.2405	1.00	1.2405	0.180	0.2234	4.5
10	11:11	11.20	0.6	0.200	0.6	0.080	1.4678	1.00	1.4678	0.180	0.2644	5.4
11	11:12	12.10	0.6	0.400	0.6	0.160	0.9298	1.00	0.9298	0.360	0.3346	6.8
12	11:12	13.00	0.6	0.600	0.6	0.240	1.2238	1.00	1.2238	0.300	0.3674	7.5
13	11:25	13.10	0.6	0.600	0.6	0.240	1.2467	1.00	1.2467	0.270	0.3366	6.8
14	11:14	13.90	0.6	0.500	0.6	0.200	0.9944	1.00	0.9944	0.425	0.4224	8.6
15	11:15	14.80	0.6	0.200	0.6	0.080	0.7405	1.00	0.7405	0.180	0.1334	2.7
16	11:16	15.70	0.6	0.300	0.6	0.120	0.5712	1.00	0.5712	0.270	0.1541	3.1
17	11:17	16.60	0.6	0.300	0.6	0.120	0.7428	1.00	0.7428	0.270	0.2004	4.1
18	11:18	17.50	0.6	0.200	0.6	0.080	0.7326	1.00	0.7326	0.180	0.1319	2.7
19	*11:19*	*18.40*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3740*	*1.00*	*0.3740*	*0.180*	*0.0674*	*1.4*
20	*11:20*	*19.30*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0863*	*1.00*	*0.0863*	*0.270*	*0.0233*	*0.5*
21	*11:22*	*20.20*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3356*	*1.00*	*0.3356*	*0.180*	*0.0604*	*1.2*
22	*11:23*	*21.10*	*0.6*	*0.200*	*0.6*	*0.080*	*0.5823*	*1.00*	*0.5823*	*0.180*	*0.1049*	*2.1*
23	11:23	22.00	None	0.300	0.0	0.0	0.0000	1.00	0.5823	0.135	0.0786	1.6

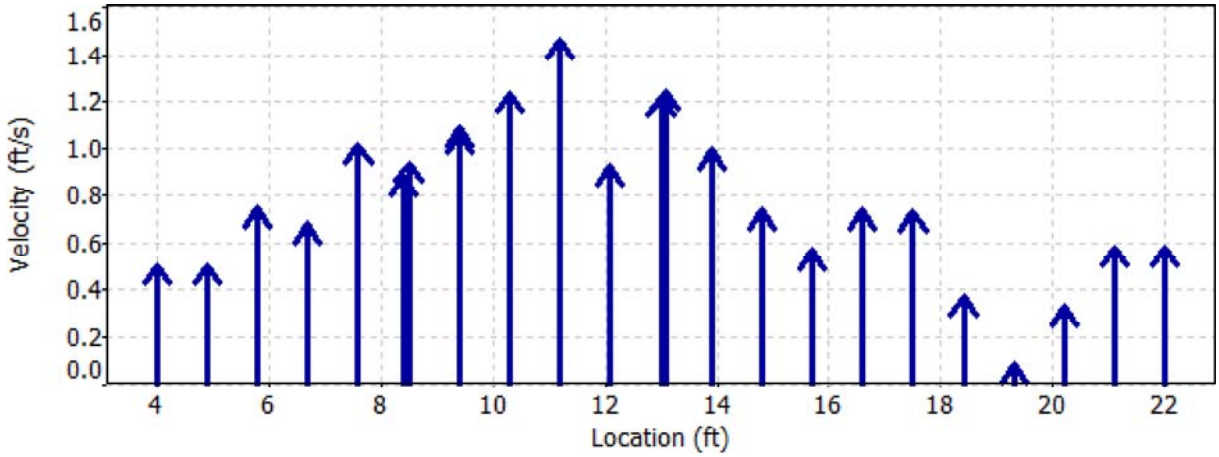
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

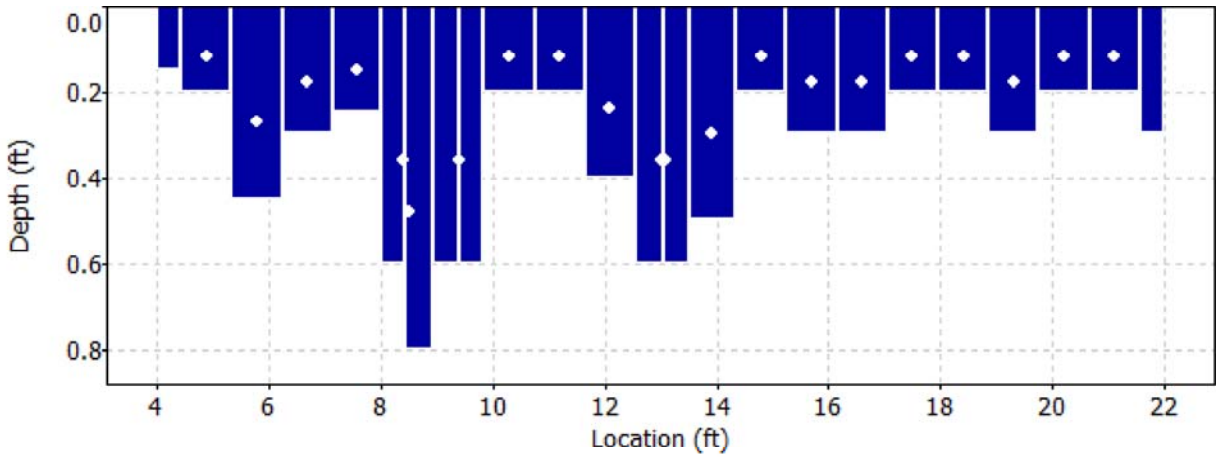
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A40.WAD	Site Name	A40
Start Date and Time	2017/09/28 11:03:27	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A40.WAD	Site Name	A40
Start Date and Time	2017/09/28 11:03:27	Operator(s)	EY

Quality Control

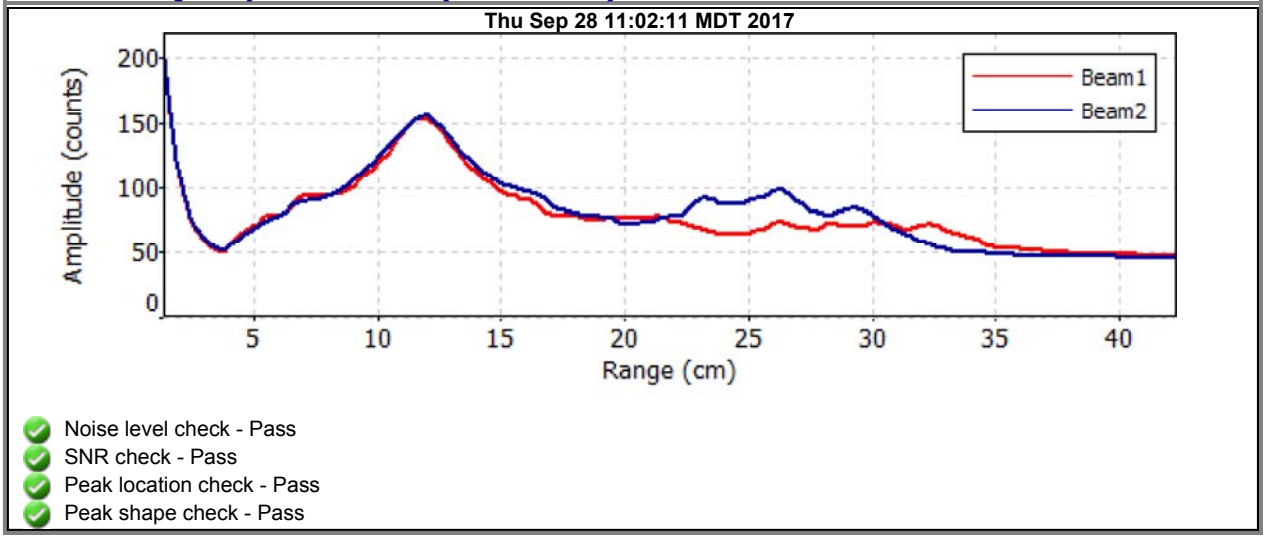
St	Loc	%Dep	Message
19	18.40	0.6	High angle: 22
20	19.30	0.6	High angle: 71
21	20.20	0.6	High angle: 22
22	21.10	0.6	High angle: 22

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A40.WAD	Site Name	A40
Start Date and Time	2017/09/28 11:03:27	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A41A.WAD
Start Date and Time	2017/09/28 10:25:41

Site Details

Site Name	A41A
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	9.9%
Velocity	1.1%	9.4%
Width	0.1%	0.1%
Method	1.7%	-
# Stations	2.1%	-
Overall	**3.1%**	**13.7%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	REW	Total Width	17.999
Mean SNR	33.9 dB	Total Area	5.226
Mean Temp	40.02 °F	Mean Depth	0.290
Disch. Equation	Mid-Section	Mean Velocity	1.3198
		Total Discharge	**6.8967**

Measurement Results

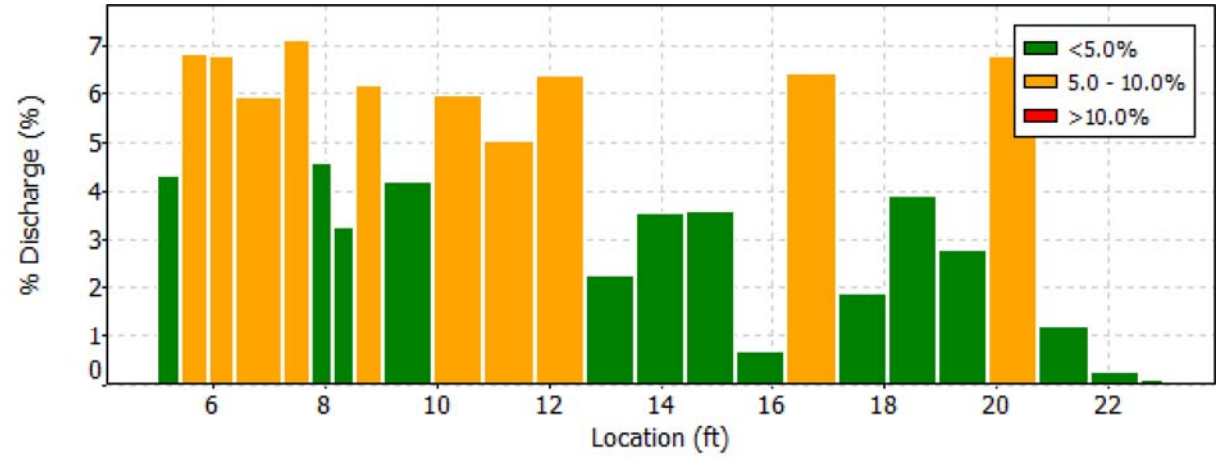
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:25	5.00	None	0.350	0.0	0.0	0.0000	1.00	1.8842	0.158	0.2968	4.3
1	*10:25*	*5.90*	*0.6*	*0.500*	*0.6*	*0.200*	*1.8842*	*1.00*	*1.8842*	*0.250*	*0.4710*	*6.8*
2	*10:50*	*6.00*	*0.6*	*0.500*	*0.6*	*0.200*	*2.0830*	*1.00*	*2.0830*	*0.225*	*0.4686*	*6.8*
3	*10:26*	*6.80*	*0.6*	*0.200*	*0.6*	*0.080*	*2.4127*	*1.00*	*2.4127*	*0.170*	*0.4104*	*6.0*
4	*10:27*	*7.70*	*0.6*	*0.500*	*0.6*	*0.200*	*1.9695*	*1.00*	*1.9695*	*0.250*	*0.4924*	*7.1*
5	*10:49*	*7.80*	*0.6*	*0.500*	*0.6*	*0.200*	*1.5807*	*1.00*	*1.5807*	*0.200*	*0.3162*	*4.6*
6	10:48	8.50	0.6	0.350	0.6	0.140	1.5889	1.00	1.5889	0.140	0.2225	3.2
7	10:28	8.60	0.6	0.600	0.6	0.240	1.4173	1.00	1.4173	0.300	0.4251	6.2
8	10:29	9.50	0.6	0.300	0.6	0.120	1.0768	1.00	1.0768	0.270	0.2906	4.2
9	10:30	10.40	0.6	0.200	0.6	0.080	2.2825	1.00	2.2825	0.180	0.4111	6.0
10	10:31	11.30	0.6	0.200	0.6	0.080	1.9219	1.00	1.9219	0.180	0.3461	5.0
11	10:32	12.20	0.6	0.250	0.6	0.100	1.9567	1.00	1.9567	0.225	0.4402	6.4
12	*10:34*	*13.10*	*0.6*	*0.200*	*0.6*	*0.080*	*0.8661*	*1.00*	*0.8661*	*0.180*	*0.1560*	*2.3*
13	10:35	14.00	0.6	0.350	0.6	0.140	0.7753	1.00	0.7753	0.315	0.2442	3.5
14	*10:36*	*14.90*	*0.6*	*0.250*	*0.6*	*0.100*	*1.1020*	*1.00*	*1.1020*	*0.225*	*0.2479*	*3.6*
15	*10:37*	*15.80*	*0.6*	*0.200*	*0.6*	*0.080*	*0.2575*	*1.00*	*0.2575*	*0.180*	*0.0464*	*0.7*
16	*10:38*	*16.70*	*0.6*	*0.500*	*0.6*	*0.200*	*0.9843*	*1.00*	*0.9843*	*0.450*	*0.4429*	*6.4*
17	*10:40*	*17.60*	*0.6*	*0.200*	*0.6*	*0.080*	*0.7182*	*1.00*	*0.7182*	*0.180*	*0.1293*	*1.9*
18	10:41	18.50	0.6	0.200	0.6	0.080	1.4921	1.00	1.4921	0.180	0.2687	3.9
19	*10:42*	*19.40*	*0.6*	*0.200*	*0.6*	*0.080*	*1.0633*	*1.00*	*1.0633*	*0.180*	*0.1915*	*2.8*
20	*10:43*	*20.30*	*0.6*	*0.200*	*0.6*	*0.080*	*2.5971*	*1.00*	*2.5971*	*0.180*	*0.4678*	*6.8*
21	10:45	21.20	0.6	0.400	0.6	0.160	0.2352	1.00	0.2352	0.360	0.0847	1.2
22	*10:46*	*22.10*	*0.6*	*0.200*	*0.6*	*0.080*	*0.1060*	*1.00*	*0.1060*	*0.180*	*0.0191*	*0.3*
23	10:46	23.00	None	0.150	0.0	0.0	0.0000	1.00	0.1060	0.067	0.0071	0.1

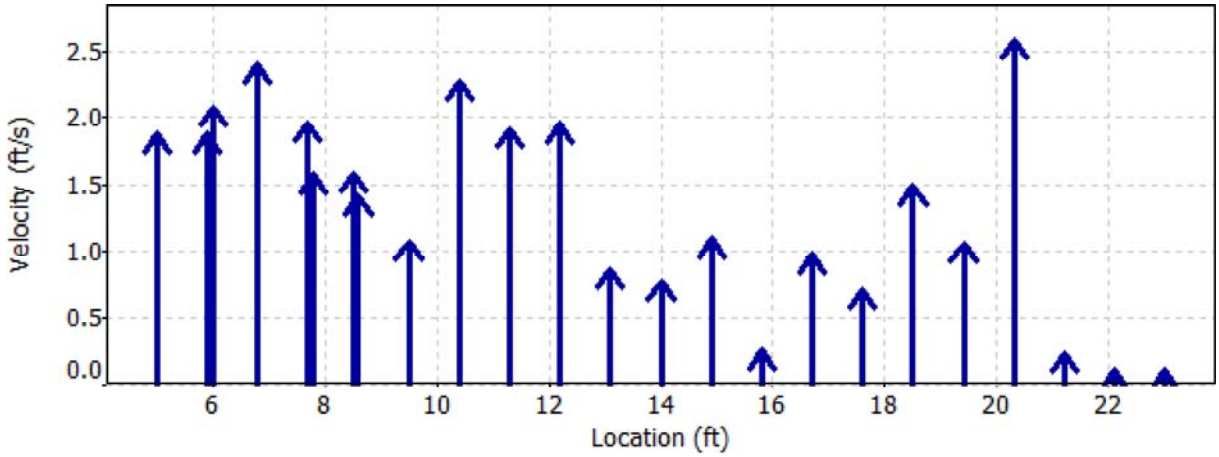
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

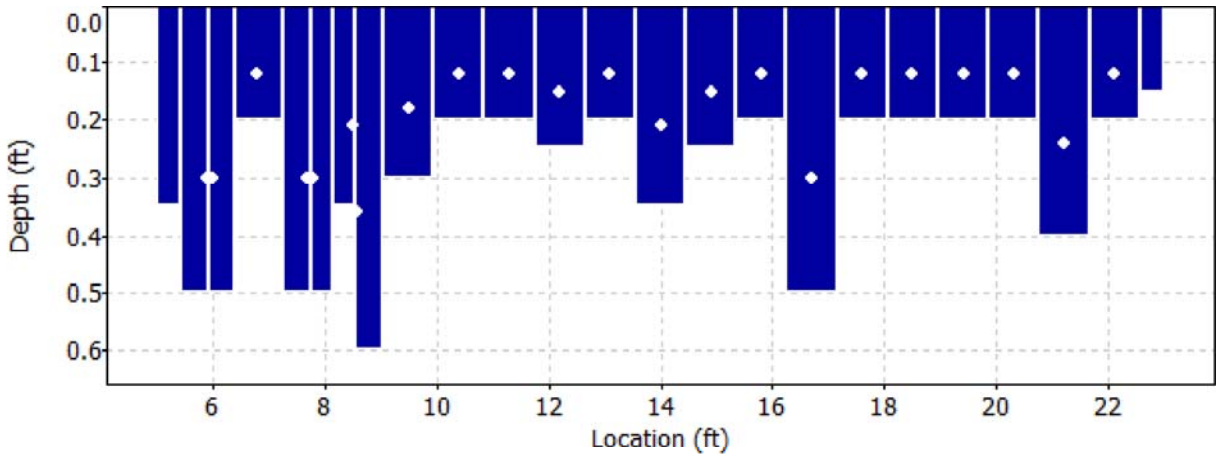
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A41A.WAD	Site Name	A41A
Start Date and Time	2017/09/28 10:25:41	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information	
File Name	A41A.WAD
Start Date and Time	2017/09/28 10:25:41

Site Details	
Site Name	A41A
Operator(s)	EY

Quality Control

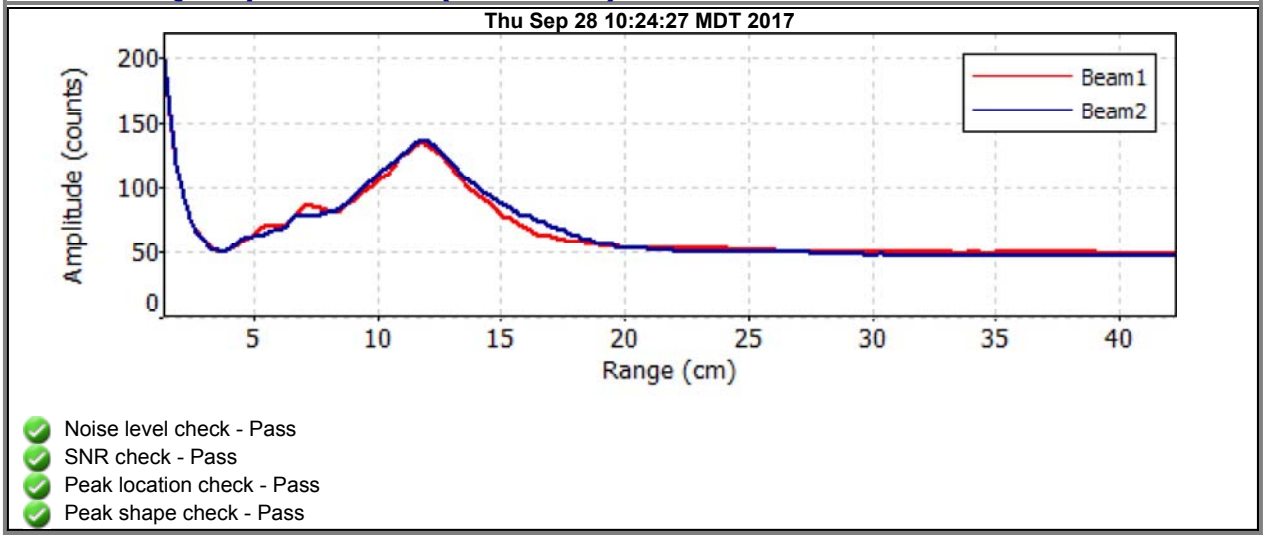
St	Loc	%Dep	Message
1	5.90	0.6	High standard error: 0.106
2	6.00	0.6	High standard error: 0.114
3	6.80	0.6	High SNR variation during measurement: 6.5,6.0
4	7.70	0.6	High angle: 24
5	7.80	0.6	High angle: 29
12	13.10	0.6	High angle: -27
14	14.90	0.6	High angle: -48
		0.6	High standard error: 0.098
15	15.80	0.6	High angle: -41
16	16.70	0.6	High angle: -24
17	17.60	0.6	High angle: -48
19	19.40	0.6	High standard error: 0.115
20	20.30	0.6	Boundary QC is Good; possible boundary interference
22	22.10	0.6	High angle: 50
		0.6	Boundary QC is Fair; possible boundary interference

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A41A.WAD	Site Name	A41A
Start Date and Time	2017/09/28 10:25:41	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A45.WAD
Start Date and Time	2017/09/28 08:23:09

Site Details

Site Name	A45
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	7.9%
Velocity	0.8%	1.9%
Width	0.1%	0.1%
Method	1.7%	-
# Stations	2.0%	-
Overall	**2.9%**	**8.2%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	LEW	Total Width	35.000
Mean SNR	20.8 dB	Total Area	16.199
Mean Temp	39.99 °F	Mean Depth	0.463
Disch. Equation	Mid-Section	Mean Velocity	1.4966
		Total Discharge	**24.2442**

Measurement Results

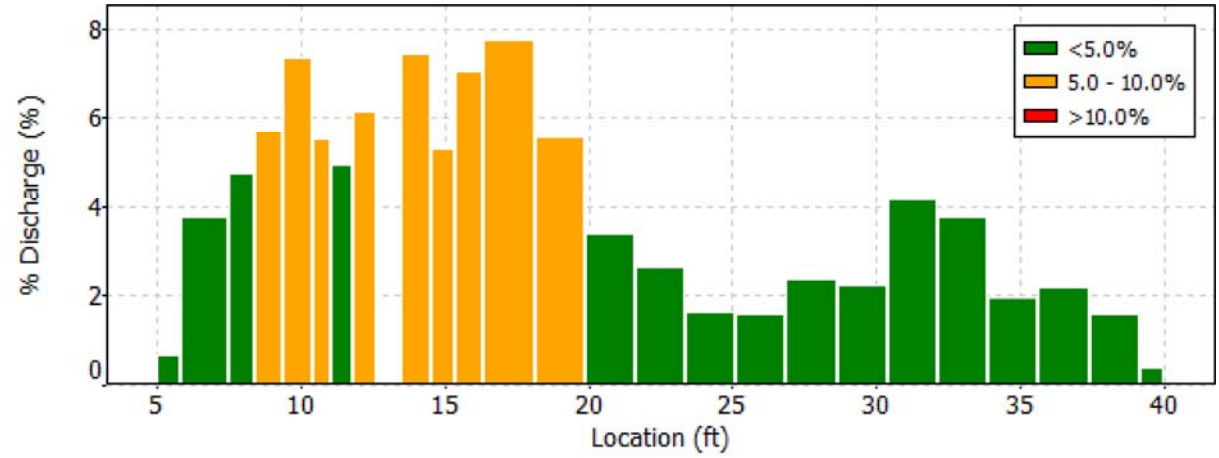
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:23	5.00	None	0.200	0.0	0.0	0.0000	1.00	0.9199	0.175	0.1611	0.7
1	*08:23*	*6.75*	*0.6*	*0.600*	*0.6*	*0.240*	*0.9199*	*1.00*	*0.9199*	*0.990*	*0.9108*	*3.8*
2	*08:53*	*8.30*	*0.6*	*0.750*	*0.6*	*0.300*	*1.7480*	*1.00*	*1.7480*	*0.656*	*1.1471*	*4.7*
3	08:24	8.50	0.6	0.800	0.6	0.320	1.7717	1.00	1.7717	0.780	1.3818	5.7
4	08:25	10.25	0.6	0.800	0.6	0.320	2.1316	1.00	2.1316	0.840	1.7903	7.4
5	08:52	10.60	0.6	0.850	0.6	0.340	2.3294	1.00	2.3294	0.574	1.3367	5.5
6	08:49	11.60	0.6	0.900	0.6	0.360	1.9065	1.00	1.9065	0.630	1.2009	5.0
7	08:27	12.00	0.6	0.900	0.6	0.360	1.9485	1.00	1.9485	0.765	1.4903	6.1
8	08:48	13.30	0.6	0.000	0.6	0.000	2.0994	1.00	0.0000	0.000	0.0000	0.0
9	08:28	13.75	0.6	0.900	0.6	0.360	2.0066	1.00	2.0066	0.900	1.8058	7.4
10	08:47	15.30	0.6	0.800	0.6	0.320	1.8396	1.00	1.8396	0.700	1.2875	5.3
11	08:29	15.50	0.6	0.900	0.6	0.360	1.9491	1.00	1.9491	0.877	1.7104	7.1
12	08:30	17.25	0.6	0.700	0.6	0.280	1.5397	1.00	1.5397	1.225	1.8865	7.8
13	08:31	19.00	0.6	0.600	0.6	0.240	1.2894	1.00	1.2894	1.050	1.3540	5.6
14	08:32	20.75	0.6	0.400	0.6	0.160	1.1778	1.00	1.1778	0.700	0.8243	3.4
15	*08:34*	*22.50*	*0.6*	*0.300*	*0.6*	*0.120*	*1.2103*	*1.00*	*1.2103*	*0.525*	*0.6351*	*2.6*
16	*08:35*	*24.25*	*0.6*	*0.200*	*0.6*	*0.080*	*1.1365*	*1.00*	*1.1365*	*0.350*	*0.3980*	*1.6*
17	*08:37*	*26.00*	*0.6*	*0.200*	*0.6*	*0.080*	*1.1047*	*1.00*	*1.1047*	*0.350*	*0.3869*	*1.6*
18	*08:38*	*27.75*	*0.6*	*0.300*	*0.6*	*0.120*	*1.0823*	*1.00*	*1.0823*	*0.525*	*0.5680*	*2.3*
19	*08:40*	*29.50*	*0.6*	*0.300*	*0.6*	*0.120*	*1.0374*	*1.00*	*1.0374*	*0.525*	*0.5444*	*2.2*
20	*08:41*	*31.25*	*0.6*	*0.400*	*0.6*	*0.160*	*1.4478*	*1.00*	*1.4478*	*0.700*	*1.0133*	*4.2*
21	*08:42*	*33.00*	*0.6*	*0.400*	*0.6*	*0.160*	*1.3035*	*1.00*	*1.3035*	*0.700*	*0.9123*	*3.8*
22	*08:43*	*34.75*	*0.6*	*0.400*	*0.6*	*0.160*	*0.6841*	*1.00*	*0.6841*	*0.700*	*0.4788*	*2.0*
23	08:45	36.50	0.6	0.300	0.6	0.120	1.0121	1.00	1.0121	0.525	0.5311	2.2
24	08:46	38.25	0.6	0.200	0.6	0.080	1.1165	1.00	1.1165	0.350	0.3910	1.6
25	08:46	40.00	None	0.100	0.0	0.0	0.0000	1.00	1.1165	0.088	0.0978	0.4

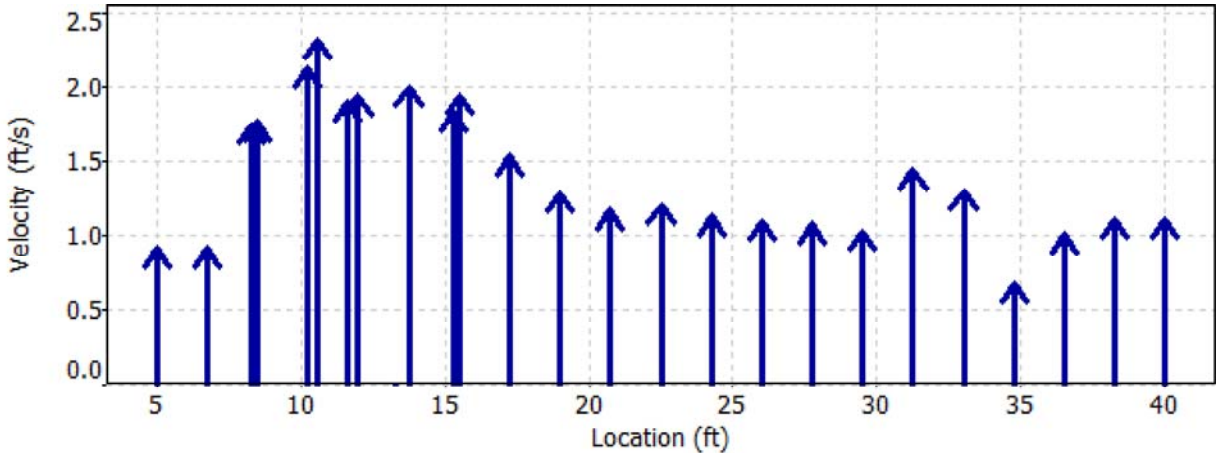
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

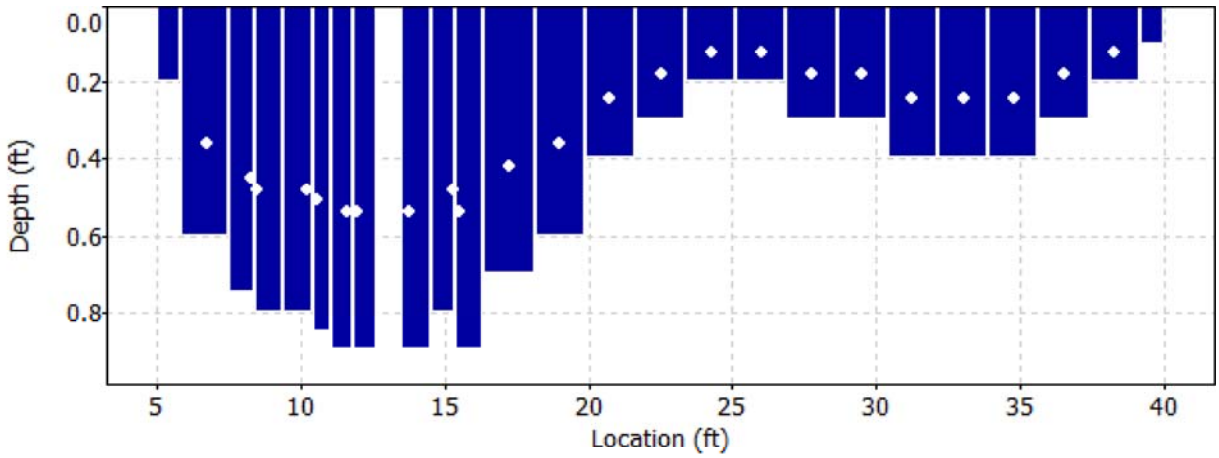
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A45.WAD	Site Name	A45
Start Date and Time	2017/09/28 08:23:09	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A45.WAD	Site Name	A45
Start Date and Time	2017/09/28 08:23:09	Operator(s)	EY

Quality Control

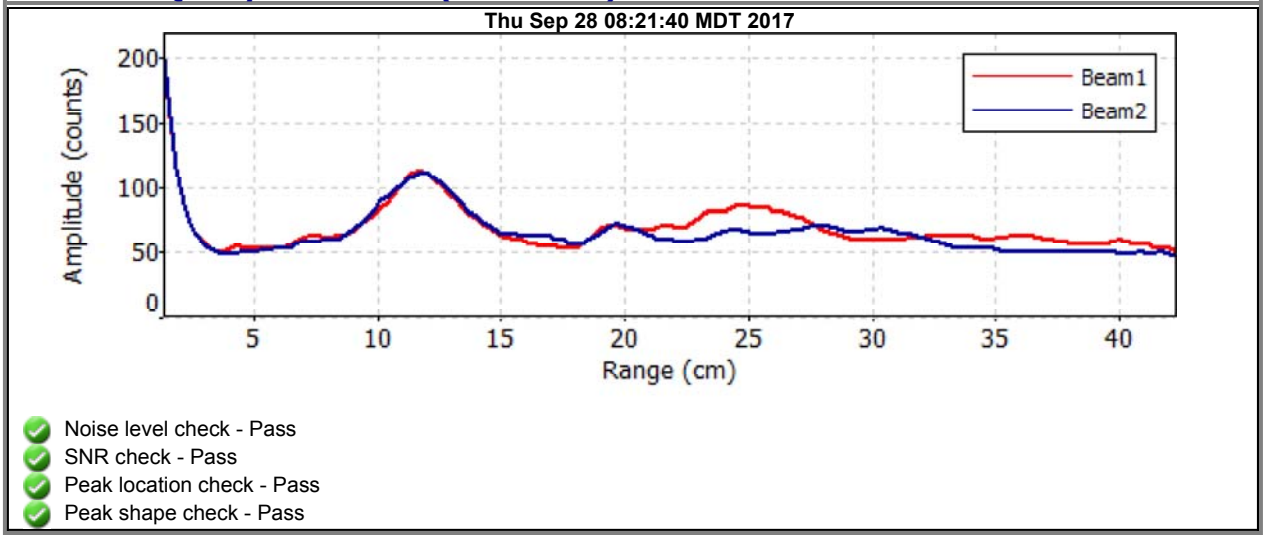
St	Loc	%Dep	Message
1	6.75	0.6	High standard error: 0.082
2	8.30	0.6	High standard error: 0.089
15	22.50	0.6	High angle: 23
16	24.25	0.6	High angle: 23
17	26.00	0.6	High angle: 29
18	27.75	0.6	High angle: 25
19	29.50	0.6	High angle: 23
20	31.25	0.6	High angle: 28
21	33.00	0.6	High angle: 23
22	34.75	0.6	High angle: 22

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A45.WAD	Site Name	A45
Start Date and Time	2017/09/28 08:23:09	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A55A.WAD
Start Date and Time	2017/09/27 16:58:53

Site Details

Site Name	A55A
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	9.8%
Velocity	1.2%	8.1%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.2%	-
Overall	**3.3%**	**12.7%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	30.997
Mean SNR	31.8 dB	Total Area	14.806
Mean Temp	43.76 °F	Mean Depth	0.478
Disch. Equation	Mid-Section	Mean Velocity	1.9258
		Total Discharge	**28.5123**

Measurement Results

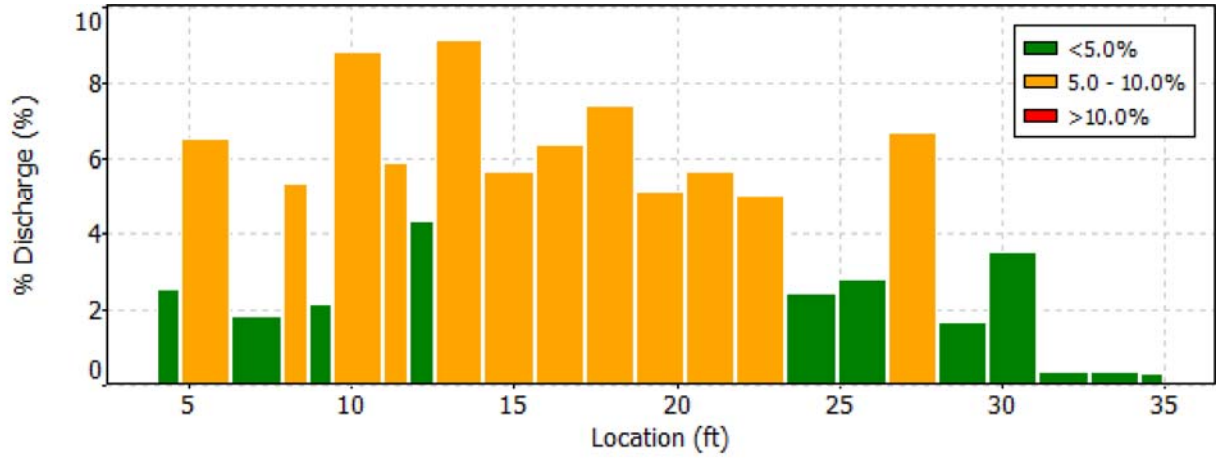
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	16:58	4.00	None	0.500	0.0	0.0	0.0000	1.00	1.8445	0.387	0.7147	2.5
1	16:58	5.55	0.6	0.650	0.6	0.260	1.8445	1.00	1.8445	1.007	1.8580	6.5
2	*17:00*	*7.10*	*0.6*	*0.600*	*0.6*	*0.240*	*0.5656*	*1.00*	*0.5656*	*0.930*	*0.5260*	*1.8*
3	17:01	8.65	0.6	0.700	0.6	0.280	2.7208	1.00	2.7208	0.560	1.5243	5.3
4	17:23	8.70	0.6	0.300	0.6	0.120	2.6453	1.00	2.6453	0.232	0.6147	2.2
5	17:02	10.20	0.6	0.600	0.6	0.240	2.7664	1.00	2.7664	0.915	2.5309	8.9
6	17:03	11.75	0.6	0.750	0.6	0.300	2.7953	1.00	2.7953	0.600	1.6776	5.9
7	17:21	11.80	0.6	0.600	0.6	0.240	2.6617	1.00	2.6617	0.465	1.2377	4.3
8	17:04	13.30	0.6	0.650	0.6	0.260	2.6434	1.00	2.6434	0.991	2.6193	9.2
9	17:06	14.85	0.6	0.500	0.6	0.200	2.0833	1.00	2.0833	0.775	1.6144	5.7
10	17:07	16.40	0.6	0.500	0.6	0.200	2.3461	1.00	2.3461	0.775	1.8181	6.4
11	17:08	17.95	0.6	0.500	0.6	0.200	2.7231	1.00	2.7231	0.775	2.1102	7.4
12	17:09	19.50	0.6	0.500	0.6	0.200	1.8917	1.00	1.8917	0.775	1.4660	5.1
13	*17:10*	*21.05*	*0.6*	*0.300*	*0.6*	*0.120*	*3.4731*	*1.00*	*3.4731*	*0.465*	*1.6141*	*5.7*
14	17:11	22.60	0.6	0.300	0.6	0.120	3.0682	1.00	3.0682	0.465	1.4260	5.0
15	17:12	24.15	0.6	0.400	0.6	0.160	1.1240	1.00	1.1240	0.620	0.6967	2.4
16	*17:13*	*25.70*	*0.6*	*0.250*	*0.6*	*0.100*	*2.0643*	*1.00*	*2.0643*	*0.387*	*0.7999*	*2.8*
17	17:15	27.25	0.6	0.900	0.6	0.360	1.3629	1.00	1.3629	1.395	1.9009	6.7
18	17:16	28.80	0.6	0.300	0.6	0.120	1.0407	1.00	1.0407	0.465	0.4837	1.7
19	17:17	30.35	0.6	0.300	0.6	0.120	2.1562	1.00	2.1562	0.465	1.0021	3.5
20	17:18	31.90	0.6	0.500	0.6	0.200	0.1184	1.00	0.1184	0.775	0.0918	0.3
21	17:19	33.45	0.6	0.200	0.6	0.080	0.3186	1.00	0.3186	0.310	0.0988	0.3
22	17:19	35.00	None	0.350	0.0	0.0	0.0000	1.00	0.3186	0.271	0.0864	0.3

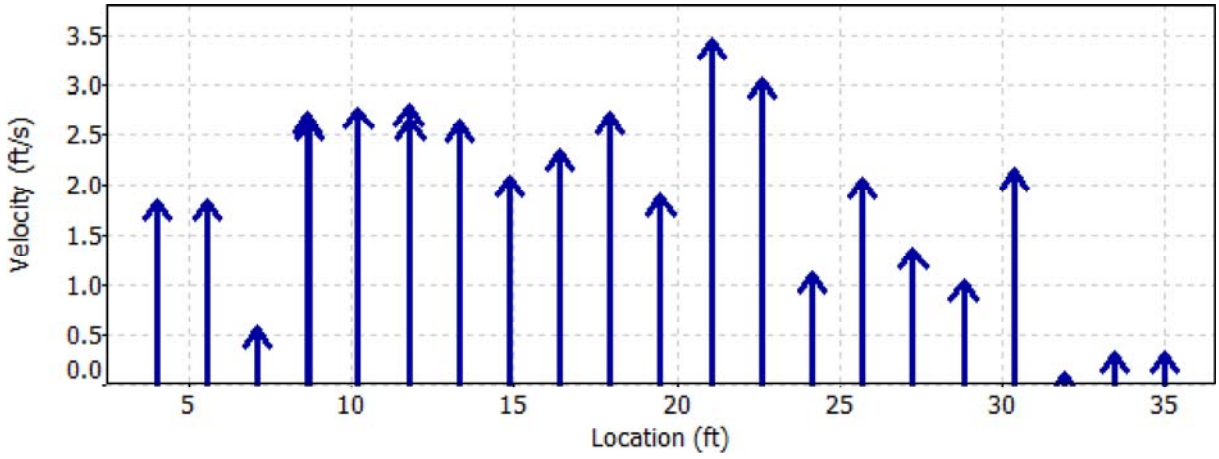
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

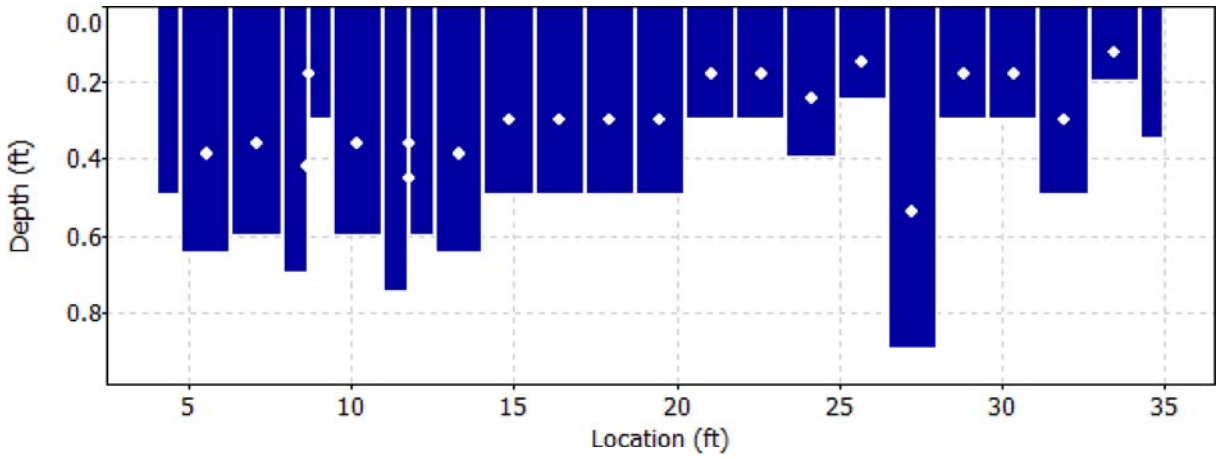
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A55A.WAD	Site Name	A55A
Start Date and Time	2017/09/27 16:58:53	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A55A.WAD	Site Name	A55A
Start Date and Time	2017/09/27 16:58:53	Operator(s)	EY

Quality Control

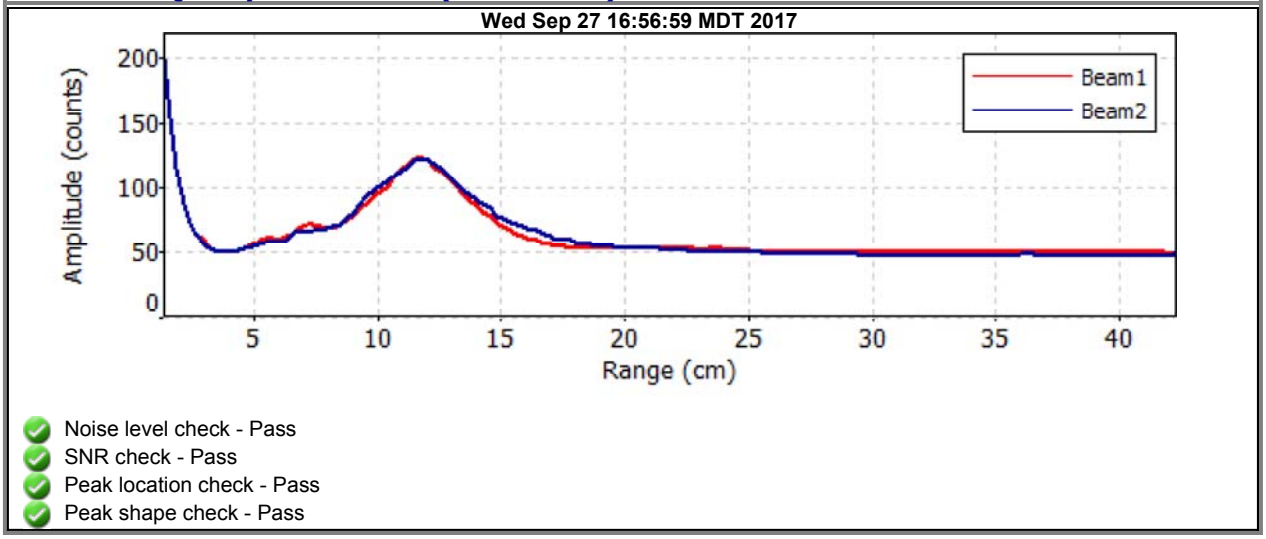
St	Loc	%Dep	Message
2	7.10	0.6	High angle: -25
		0.6	High standard error: 0.148
13	21.05	0.6	High SNR variation during measurement: 3.4,9.9
16	25.70	0.6	High standard error: 0.126

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A55A.WAD	Site Name	A55A
Start Date and Time	2017/09/27 16:58:53	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A56A.WAD
Start Date and Time	2017/09/26 17:54:36

Site Details

Site Name	A56
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	3.2%
Velocity	1.4%	3.4%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.2%	-
Overall	**3.3%**	**4.8%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	25.000
Mean SNR	34.1 dB	Total Area	23.549
Mean Temp	47.97 °F	Mean Depth	0.942
Disch. Equation	Mid-Section	Mean Velocity	1.5259
		Total Discharge	**35.9338**

Measurement Results

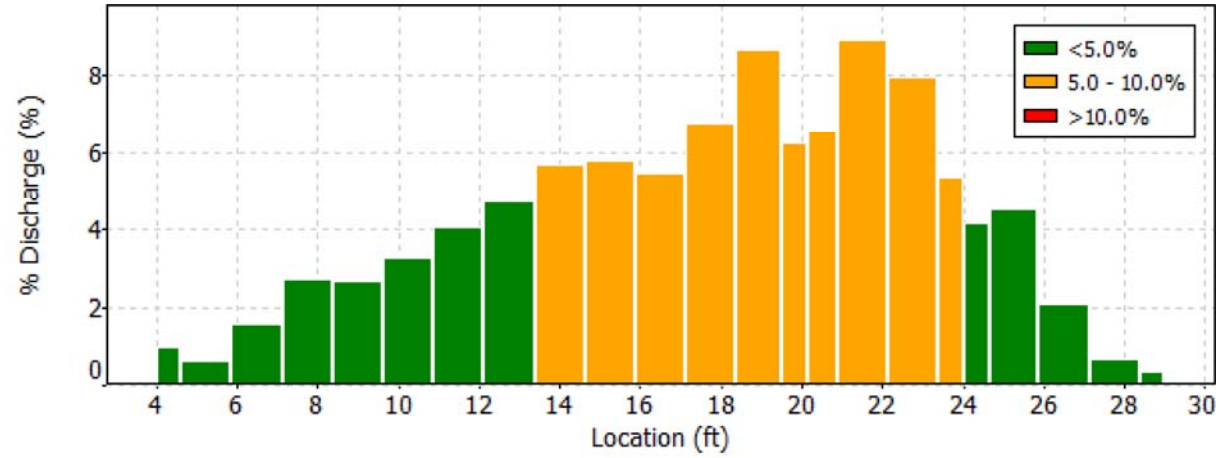
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	17:54	4.00	None	0.800	0.0	0.0	0.0000	1.00	0.6982	0.500	0.3490	1.0
1	17:55	5.25	0.6	0.250	0.6	0.100	0.6982	1.00	0.6982	0.313	0.2182	0.6
2	17:58	6.50	0.6	0.700	0.6	0.280	0.6509	1.00	0.6509	0.875	0.5697	1.6
3	*17:59*	*7.75*	*0.6*	*0.700*	*0.6*	*0.280*	*1.1250*	*1.00*	*1.1250*	*0.875*	*0.9846*	*2.7*
4	18:00	9.00	0.6	1.000	0.6	0.400	0.7608	1.00	0.7608	1.250	0.9510	2.6
5	18:01	10.25	0.6	1.000	0.6	0.400	0.9495	1.00	0.9495	1.250	1.1868	3.3
6	18:03	11.50	0.6	0.900	0.6	0.360	1.3048	1.00	1.3048	1.125	1.4678	4.1
7	*18:04*	*12.75*	*0.6*	*0.900*	*0.6*	*0.360*	*1.5138*	*1.00*	*1.5138*	*1.125*	*1.7029*	*4.7*
8	*18:05*	*14.00*	*0.6*	*1.200*	*0.6*	*0.480*	*1.3661*	*1.00*	*1.3661*	*1.500*	*2.0494*	*5.7*
9	18:06	15.25	0.6	0.800	0.6	0.320	2.0820	1.00	2.0820	1.000	2.0817	5.8
10	18:08	16.50	0.6	0.800	0.6	0.320	1.9603	1.00	1.9603	1.000	1.9600	5.5
11	18:09	17.75	0.6	0.900	0.6	0.360	2.1677	1.00	2.1677	1.125	2.4384	6.8
12	18:10	19.00	0.6	1.600	0.6	0.640	1.7343	1.00	1.7343	1.800	3.1218	8.7
13	18:20	20.00	0.6	1.700	0.6	0.680	2.1135	1.00	2.1135	1.063	2.2458	6.2
14	18:11	20.25	0.6	1.400	0.6	0.560	2.2454	1.00	2.2454	1.050	2.3576	6.6
15	*18:12*	*21.50*	*0.6*	*1.400*	*0.6*	*0.560*	*1.8406*	*1.00*	*1.8406*	*1.750*	*3.2208*	*9.0*
16	*18:13*	*22.75*	*0.6*	*1.300*	*0.6*	*0.520*	*1.7664*	*1.00*	*1.7664*	*1.625*	*2.8701*	*8.0*
17	*18:14*	*24.00*	*0.6*	*1.300*	*0.6*	*0.520*	*2.2756*	*1.00*	*2.2756*	*0.845*	*1.9225*	*5.4*
18	*18:19*	*24.05*	*0.6*	*1.300*	*0.6*	*0.520*	*1.8451*	*1.00*	*1.8451*	*0.812*	*1.4990*	*4.2*
19	18:15	25.25	0.6	0.800	0.6	0.320	1.6591	1.00	1.6591	0.980	1.6258	4.5
20	18:16	26.50	0.6	0.600	0.6	0.240	1.0026	1.00	1.0026	0.750	0.7521	2.1
21	*18:17*	*27.75*	*0.6*	*0.500*	*0.6*	*0.200*	*0.3829*	*1.00*	*0.3829*	*0.625*	*0.2393*	*0.7*
22	18:17	29.00	None	0.500	0.0	0.0	0.0000	1.00	0.3829	0.313	0.1196	0.3

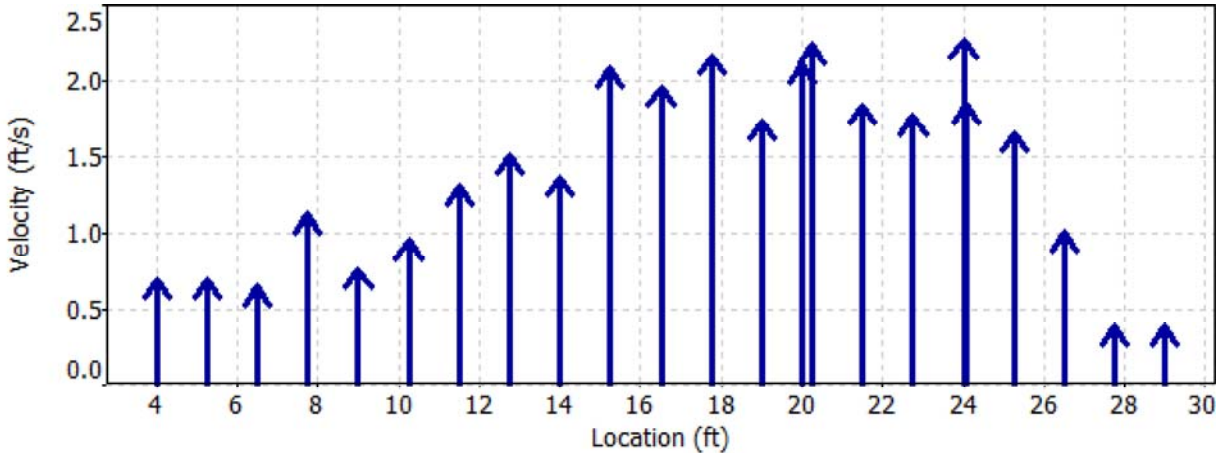
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

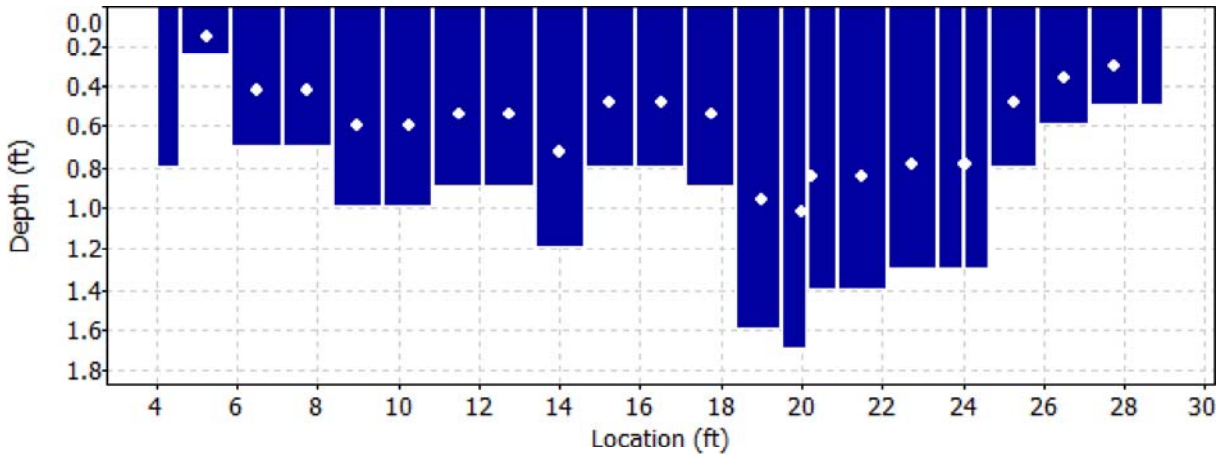
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A56A.WAD	Site Name	A56
Start Date and Time	2017/09/26 17:54:36	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A56A.WAD	Site Name	A56
Start Date and Time	2017/09/26 17:54:36	Operator(s)	EY

Quality Control

St	Loc	%Dep	Message
3	7.75	0.6	High angle: -22
7	12.75	0.6	High angle: -29
8	14.00	0.6	High angle: -26
15	21.50	0.6	High standard error: 0.166
16	22.75	0.6	High standard error: 0.126
17	24.00	0.6	High standard error: 0.121
18	24.05	0.6	High standard error: 0.159
21	27.75	0.6	High angle: 22

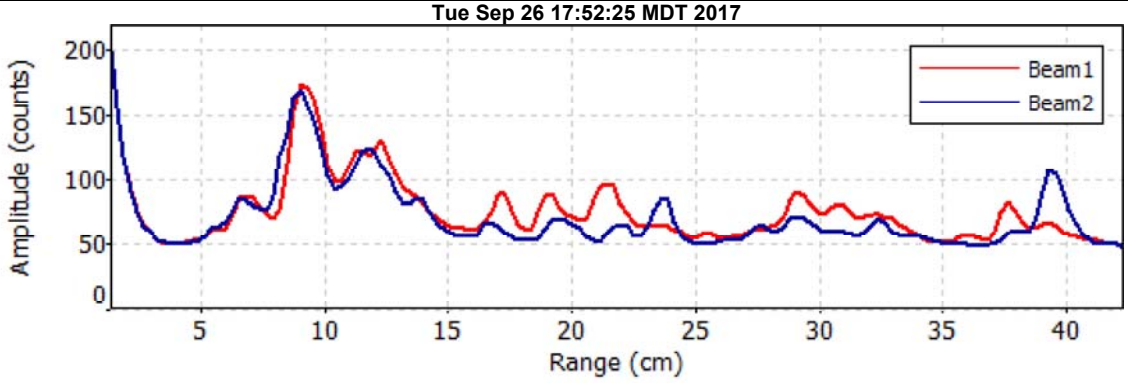
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A56A.WAD	Site Name	A56
Start Date and Time	2017/09/26 17:54:36	Operator(s)	EY

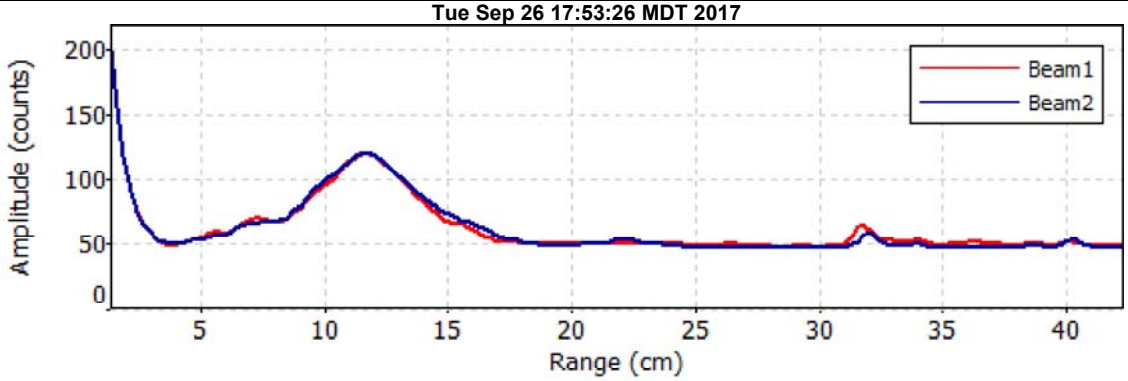
Automatic Quality Control Test (BeamCheck)

Tue Sep 26 17:52:25 MDT 2017



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Fail
- Peak shape check - Fail

Tue Sep 26 17:53:26 MDT 2017



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A58.WAD
Start Date and Time	2017/09/26 17:03:28

Site Details

Site Name	A58
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	5.7%
Velocity	2.3%	8.5%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	1.8%	-
Overall	**3.6%**	**10.2%**

Summary

Averaging Int.	40	# Stations	28
Start Edge	LEW	Total Width	15.598
Mean SNR	34.4 dB	Total Area	5.335
Mean Temp	43.26 °F	Mean Depth	0.342
Disch. Equation	Mid-Section	Mean Velocity	0.5134
		Total Discharge	**2.7390**

Measurement Results

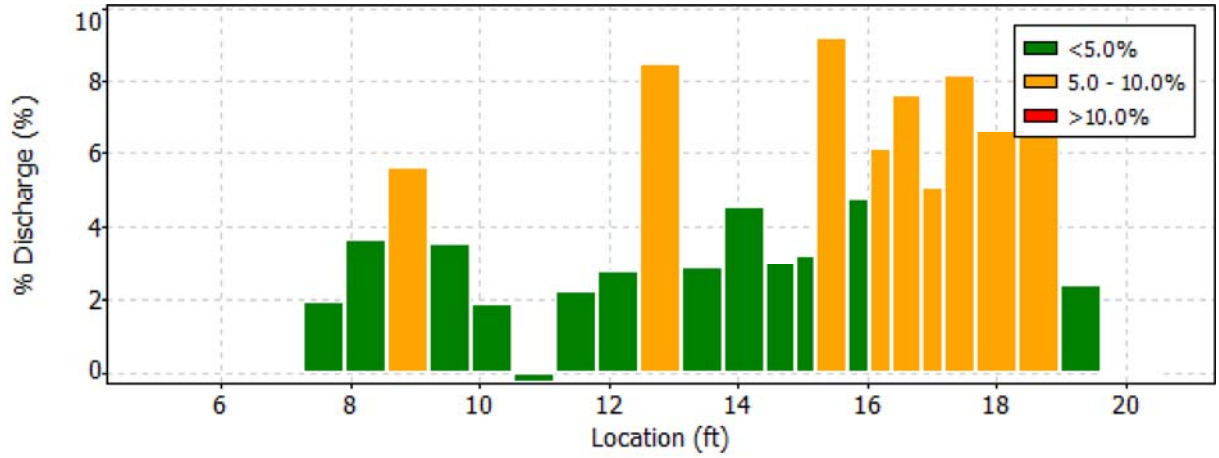
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	17:03	5.00	None	0.150	0.0	0.0	0.0000	1.00	-0.0020	0.049	-0.0001	0.0
1	*17:03*	*5.65*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0020*	*1.00*	*-0.0020*	*0.130*	*-0.0003*	*0.0*
2	*17:04*	*6.30*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.0003*	*1.00*	*-0.0003*	*0.195*	*-0.0001*	*0.0*
3	*17:06*	*6.95*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0030*	*1.00*	*0.0030*	*0.195*	*0.0006*	*0.0*
4	*17:07*	*7.60*	*0.6*	*0.300*	*0.6*	*0.120*	*0.2726*	*1.00*	*0.2726*	*0.195*	*0.0531*	*1.9*
5	*17:08*	*8.25*	*0.6*	*0.350*	*0.6*	*0.140*	*0.4429*	*1.00*	*0.4429*	*0.228*	*0.1008*	*3.7*
6	*17:09*	*8.90*	*0.6*	*0.500*	*0.6*	*0.200*	*0.4757*	*1.00*	*0.4757*	*0.325*	*0.1546*	*5.6*
7	*17:10*	*9.55*	*0.6*	*0.500*	*0.6*	*0.200*	*0.2982*	*1.00*	*0.2982*	*0.325*	*0.0969*	*3.5*
8	*17:11*	*10.20*	*0.6*	*0.250*	*0.6*	*0.100*	*0.3205*	*1.00*	*0.3205*	*0.162*	*0.0521*	*1.9*
9	*17:13*	*10.85*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.0407*	*1.00*	*-0.0407*	*0.195*	*-0.0079*	*-0.3*
10	*17:16*	*11.50*	*0.6*	*0.350*	*0.6*	*0.140*	*0.2707*	*1.00*	*0.2707*	*0.228*	*0.0616*	*2.2*
11	17:20	12.15	0.6	0.200	0.6	0.080	0.5919	1.00	0.5919	0.130	0.0770	2.8
12	*17:21*	*12.80*	*0.6*	*0.500*	*0.6*	*0.200*	*0.7136*	*1.00*	*0.7136*	*0.325*	*0.2319*	*8.5*
13	*17:22*	*13.45*	*0.6*	*0.400*	*0.6*	*0.160*	*0.3045*	*1.00*	*0.3045*	*0.260*	*0.0791*	*2.9*
14	17:24	14.10	0.6	0.200	0.6	0.080	0.9610	1.00	0.9610	0.130	0.1250	4.6
15	*17:25*	*14.75*	*0.6*	*0.400*	*0.6*	*0.160*	*0.4534*	*1.00*	*0.4534*	*0.180*	*0.0817*	*3.0*
16	*17:37*	*15.00*	*0.6*	*0.250*	*0.6*	*0.100*	*1.0823*	*1.00*	*1.0823*	*0.081*	*0.0879*	*3.2*
17	*17:26*	*15.40*	*0.6*	*0.300*	*0.6*	*0.120*	*1.6795*	*1.00*	*1.6795*	*0.150*	*0.2518*	*9.2*
18	*17:36*	*16.00*	*0.6*	*0.300*	*0.6*	*0.120*	*1.3448*	*1.00*	*1.3448*	*0.097*	*0.1310*	*4.8*
19	17:27	16.05	0.6	0.350	0.6	0.140	1.3747	1.00	1.3747	0.122	0.1681	6.1
20	17:28	16.70	0.6	0.350	0.6	0.140	1.2500	1.00	1.2500	0.166	0.2081	7.6
21	17:35	17.00	0.6	0.400	0.6	0.160	1.0722	1.00	1.0722	0.130	0.1393	5.1
22	17:29	17.35	0.6	0.400	0.6	0.160	1.1214	1.00	1.1214	0.200	0.2239	8.2
23	17:30	18.00	0.6	0.400	0.6	0.160	0.6972	1.00	0.6972	0.260	0.1812	6.6
24	17:31	18.65	0.6	0.400	0.6	0.160	0.6939	1.00	0.6939	0.260	0.1804	6.6
25	*17:32*	*19.30*	*0.6*	*0.400*	*0.6*	*0.160*	*0.2539*	*1.00*	*0.2539*	*0.260*	*0.0660*	*2.4*
26	*17:33*	*19.95*	*0.6*	*0.400*	*0.6*	*0.160*	*-0.0138*	*1.00*	*-0.0138*	*0.260*	*-0.0036*	*-0.1*
27	17:33	20.60	None	0.300	0.0	0.0	0.0000	1.00	-0.0138	0.097	-0.0013	0.0

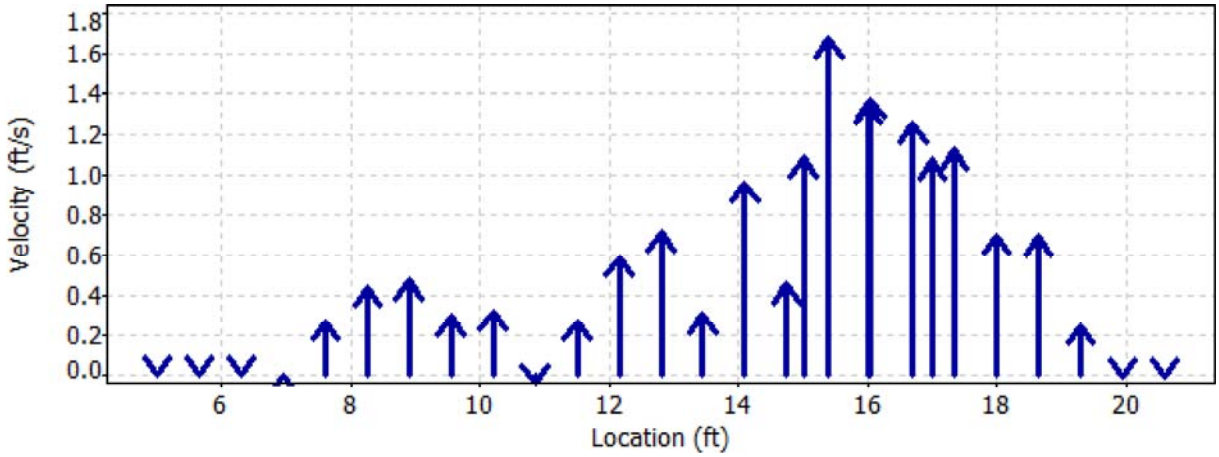
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

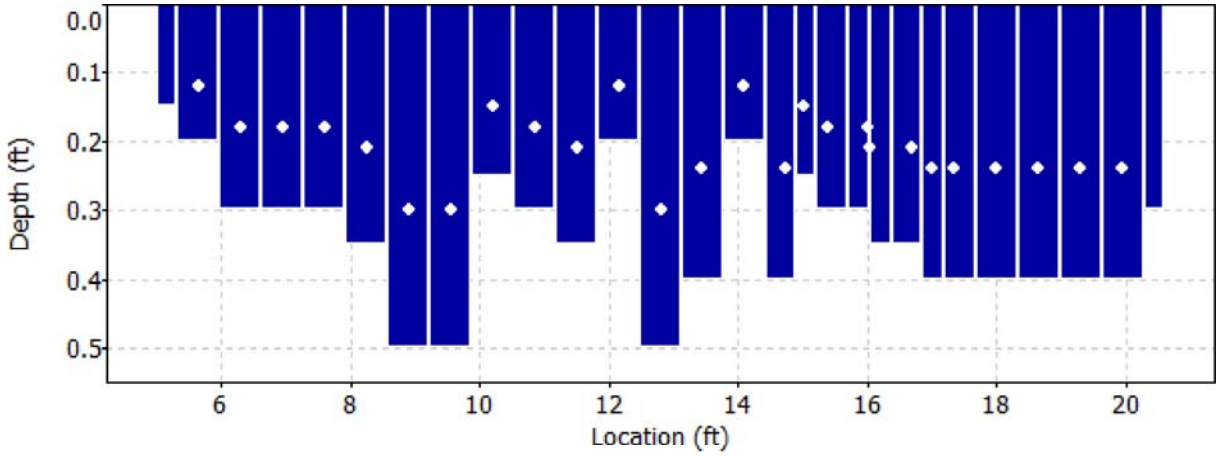
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A58.WAD	Site Name	A58
Start Date and Time	2017/09/26 17:03:28	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A58.WAD	Site Name	A58
Start Date and Time	2017/09/26 17:03:28	Operator(s)	EY

Quality Control

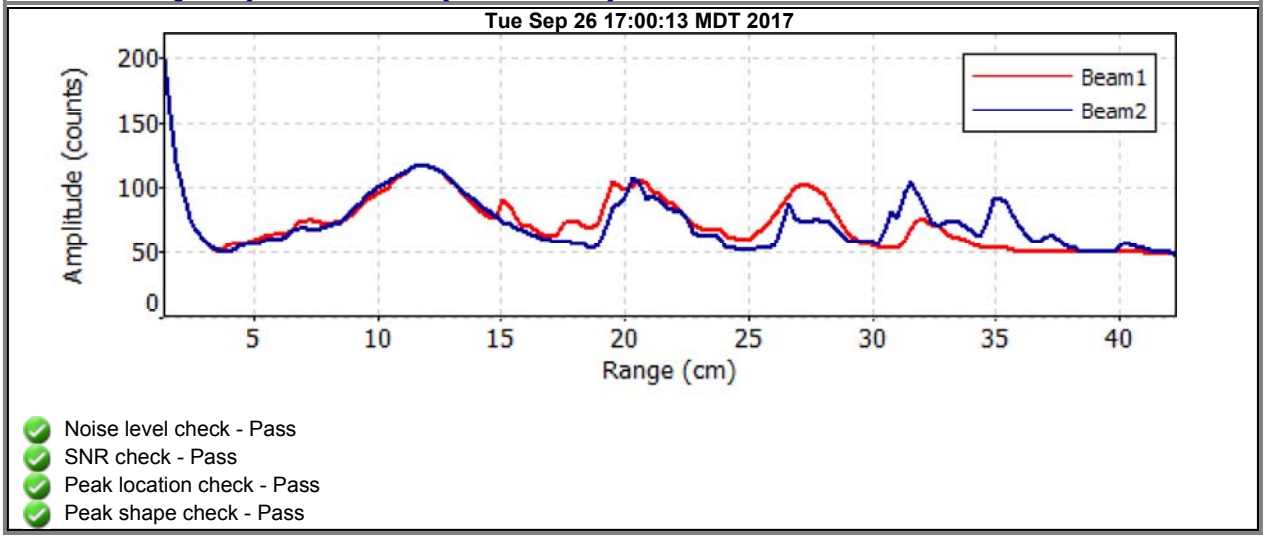
St	Loc	%Dep	Message
1	5.65	0.6	High SNR variation during measurement: 9.5,13.8
		0.6	Boundary QC is Poor; possible boundary interference
2	6.30	0.6	High SNR variation during measurement: 6.5,8.2
		0.6	Boundary QC is Good; possible boundary interference
3	6.95	0.6	SNR (23.6) is different from typical SNR (34.4)
		0.6	High SNR variation during measurement: 5.6,5.6
4	7.60	0.6	High angle: 23
5	8.25	0.6	High angle: 31
6	8.90	0.6	High standard error: 0.115
7	9.55	0.6	High angle: 38
8	10.20	0.6	High angle: 24
9	10.85	0.6	High angle: 110
10	11.50	0.6	High angle: 43
12	12.80	0.6	High angle: 22
13	13.45	0.6	High angle: 20
15	14.75	0.6	High angle: 26
16	15.00	0.6	High angle: 29
17	15.40	0.6	High angle: 25
18	16.00	0.6	High angle: 23
25	19.30	0.6	High standard error: 0.088
		0.6	Boundary QC is Poor; possible boundary interference
26	19.95	0.6	High SNR variation during measurement: 4.7,5.6

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A58.WAD	Site Name	A58
Start Date and Time	2017/09/26 17:03:28	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A60.WAD
Start Date and Time	2017/09/26 15:51:59

Site Details

Site Name	A60
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	6.9%
Velocity	1.1%	6.2%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.0%	-
Overall	**3.1%**	**9.3%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	REW	Total Width	35.000
Mean SNR	28.5 dB	Total Area	29.118
Mean Temp	49.85 °F	Mean Depth	0.832
Disch. Equation	Mid-Section	Mean Velocity	1.1068
		Total Discharge	**32.2276**

Measurement Results

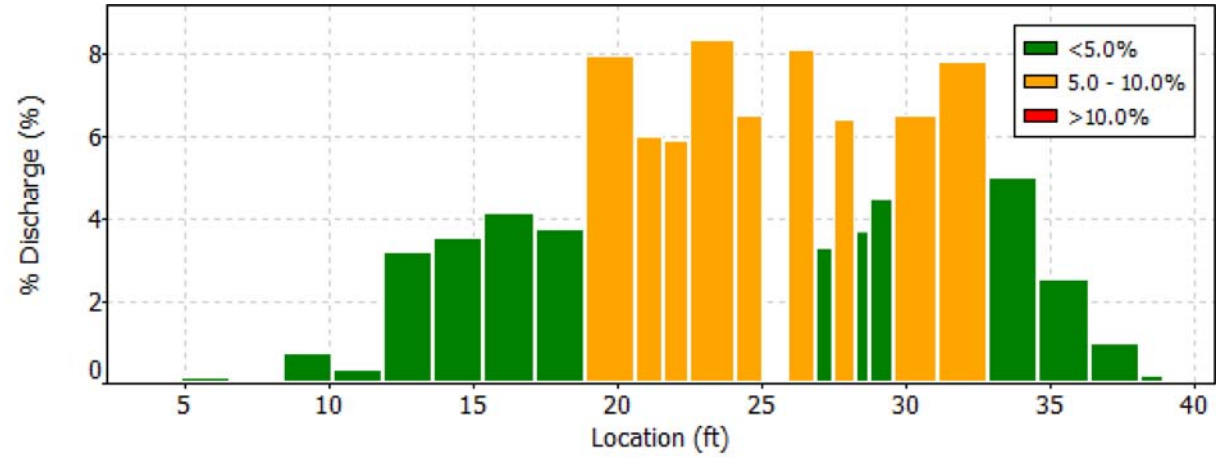
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:51	4.00	None	0.350	0.0	0.0	0.0000	1.00	0.0896	0.306	0.0274	0.1
1	*15:53*	*5.75*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0896*	*1.00*	*0.0896*	*0.525*	*0.0470*	*0.1*
2	*15:55*	*7.50*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0003*	*1.00*	*-0.0003*	*0.350*	*-0.0001*	*0.0*
3	15:56	9.25	0.6	0.250	0.6	0.100	0.5433	1.00	0.5433	0.438	0.2377	0.7
4	*15:57*	*11.00*	*0.6*	*0.400*	*0.6*	*0.160*	*0.1772*	*1.00*	*0.1772*	*0.700*	*0.1240*	*0.4*
5	15:58	12.75	0.6	0.500	0.6	0.200	1.1814	1.00	1.1814	0.875	1.0338	3.2
6	16:00	14.50	0.6	0.600	0.6	0.240	1.1001	1.00	1.1001	1.050	1.1552	3.6
7	16:01	16.25	0.6	0.600	0.6	0.240	1.2723	1.00	1.2723	1.050	1.3361	4.1
8	*16:02*	*18.00*	*0.6*	*0.500*	*0.6*	*0.200*	*1.3894*	*1.00*	*1.3894*	*0.875*	*1.2158*	*3.8*
9	*16:03*	*19.75*	*0.6*	*1.050*	*0.6*	*0.420*	*1.4003*	*1.00*	*1.4003*	*1.837*	*2.5727*	*8.0*
10	*16:04*	*21.50*	*0.6*	*1.100*	*0.6*	*0.440*	*1.7986*	*1.00*	*1.7986*	*1.073*	*1.9292*	*6.0*
11	*16:23*	*21.70*	*0.6*	*1.100*	*0.6*	*0.440*	*1.9672*	*1.00*	*1.9672*	*0.963*	*1.8935*	*5.9*
12	*16:05*	*23.25*	*0.6*	*1.300*	*0.6*	*0.520*	*1.2582*	*1.00*	*1.2582*	*2.145*	*2.6985*	*8.4*
13	*16:07*	*25.00*	*0.6*	*1.200*	*0.6*	*0.480*	*1.8865*	*1.00*	*1.8865*	*1.110*	*2.0943*	*6.5*
14	*16:22*	*25.10*	*0.6*	*0.000*	*0.6*	*0.140*	*1.5489*	*1.00*	*0.0000*	*0.000*	*0.0000*	*0.0*
15	*16:08*	*26.75*	*0.6*	*1.700*	*0.6*	*0.680*	*1.6237*	*1.00*	*1.6237*	*1.615*	*2.6224*	*8.1*
16	*16:20*	*27.00*	*0.6*	*1.900*	*0.6*	*0.760*	*0.9058*	*1.00*	*0.9058*	*1.187*	*1.0756*	*3.3*
17	*16:18*	*28.00*	*0.6*	*1.900*	*0.6*	*0.760*	*1.4580*	*1.00*	*1.4580*	*1.425*	*2.0776*	*6.4*
18	*16:09*	*28.50*	*0.6*	*1.850*	*0.6*	*0.740*	*1.2953*	*1.00*	*1.2953*	*0.925*	*1.1982*	*3.7*
19	*16:17*	*29.00*	*0.6*	*1.900*	*0.6*	*0.760*	*0.8675*	*1.00*	*0.8675*	*1.662*	*1.4421*	*4.5*
20	*16:10*	*30.25*	*0.6*	*1.600*	*0.6*	*0.640*	*0.8763*	*1.00*	*0.8763*	*2.400*	*2.1032*	*6.5*
21	*16:11*	*32.00*	*0.6*	*1.450*	*0.6*	*0.580*	*0.9967*	*1.00*	*0.9967*	*2.538*	*2.5294*	*7.8*
22	16:12	33.75	0.6	1.200	0.6	0.480	0.7664	1.00	0.7664	2.100	1.6096	5.0
23	*16:14*	*35.50*	*0.6*	*0.700*	*0.6*	*0.280*	*0.6631*	*1.00*	*0.6631*	*1.225*	*0.8124*	*2.5*
24	16:15	37.25	0.6	0.350	0.6	0.140	0.5272	1.00	0.5272	0.613	0.3230	1.0
25	16:15	39.00	None	0.150	0.0	0.0	0.0000	1.00	0.5272	0.131	0.0692	0.2

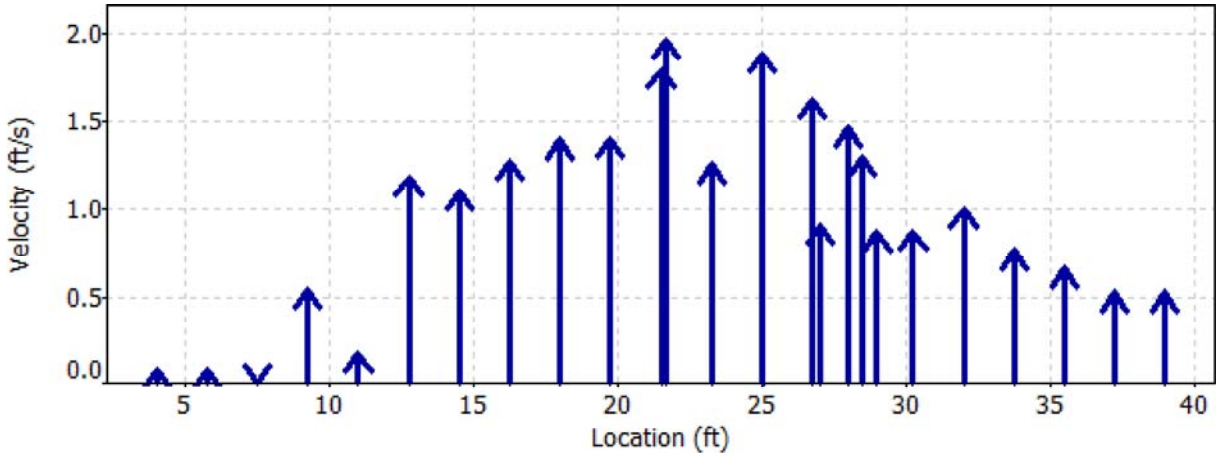
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

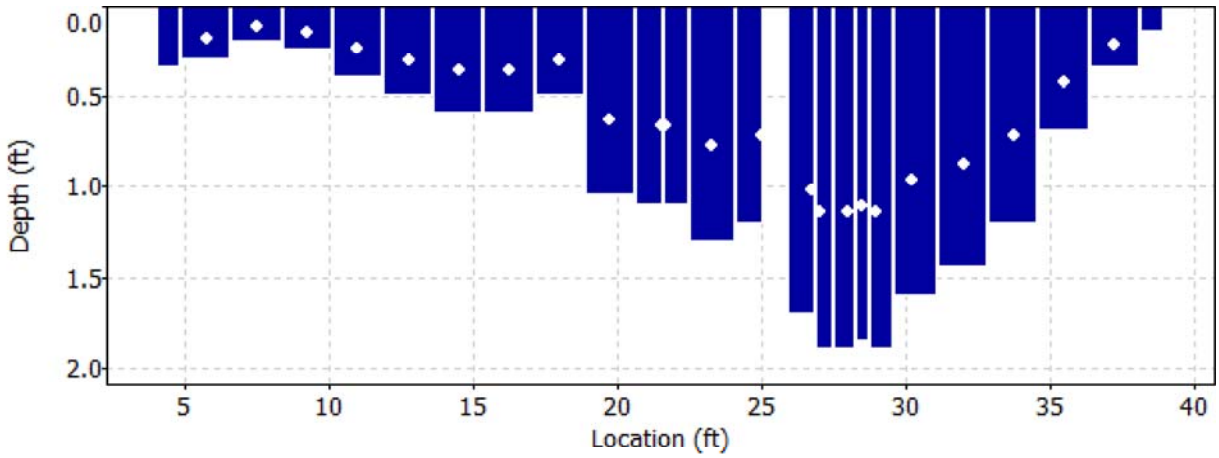
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A60.WAD	Site Name	A60
Start Date and Time	2017/09/26 15:51:59	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A60.WAD	Site Name	A60
Start Date and Time	2017/09/26 15:51:59	Operator(s)	EY

Quality Control

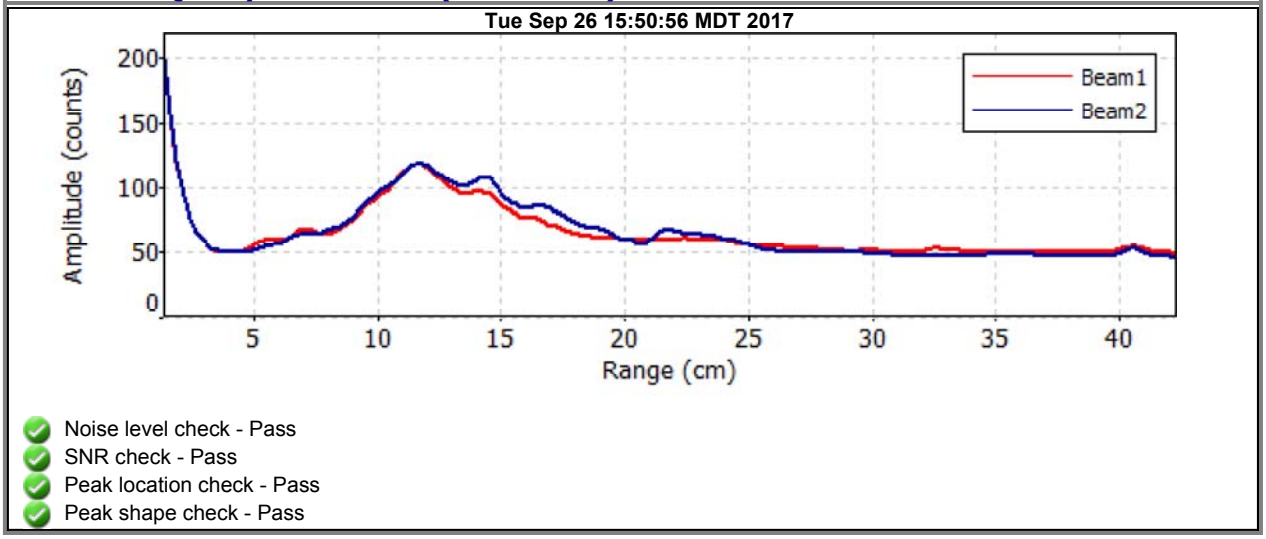
St	Loc	%Dep	Message
1	5.75	0.6	SNR (13.3) is different from typical SNR (28.5)
		0.6	Boundary QC is Poor; possible boundary interference
2	7.50	0.6	SNR (58.9) is different from typical SNR (28.5)
		0.6	High SNR variation during measurement: 6.0,5.2
4	11.00	0.6	High angle: -21
8	18.00	0.6	High angle: 29
9	19.75	0.6	High angle: 26
10	21.50	0.6	High angle: 34
11	21.70	0.6	High angle: 32
12	23.25	0.6	High standard error: 0.093
13	25.00	0.6	High angle: 37
14	25.10	0.6	High angle: 22
		0.6	High standard error: 0.112
15	26.75	0.6	High angle: 31
16	27.00	0.6	High angle: 32
17	28.00	0.6	High angle: 31
18	28.50	0.6	High angle: 38
19	29.00	0.6	High angle: 48
20	30.25	0.6	High angle: 50
21	32.00	0.6	High angle: 31
23	35.50	0.6	High angle: 22

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A60.WAD	Site Name	A60
Start Date and Time	2017/09/26 15:51:59	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A61.WAD
Start Date and Time	2017/09/26 14:53:17

Site Details

Site Name	A61
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	5.3%
Velocity	1.1%	6.5%
Width	0.1%	0.1%
Method	1.7%	-
# Stations	2.1%	-
Overall	**3.1%**	**8.4%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	REW	Total Width	24.003
Mean SNR	34.0 dB	Total Area	20.511
Mean Temp	49.78 °F	Mean Depth	0.855
Disch. Equation	Mid-Section	Mean Velocity	1.9348
		Total Discharge	**39.6839**

Measurement Results

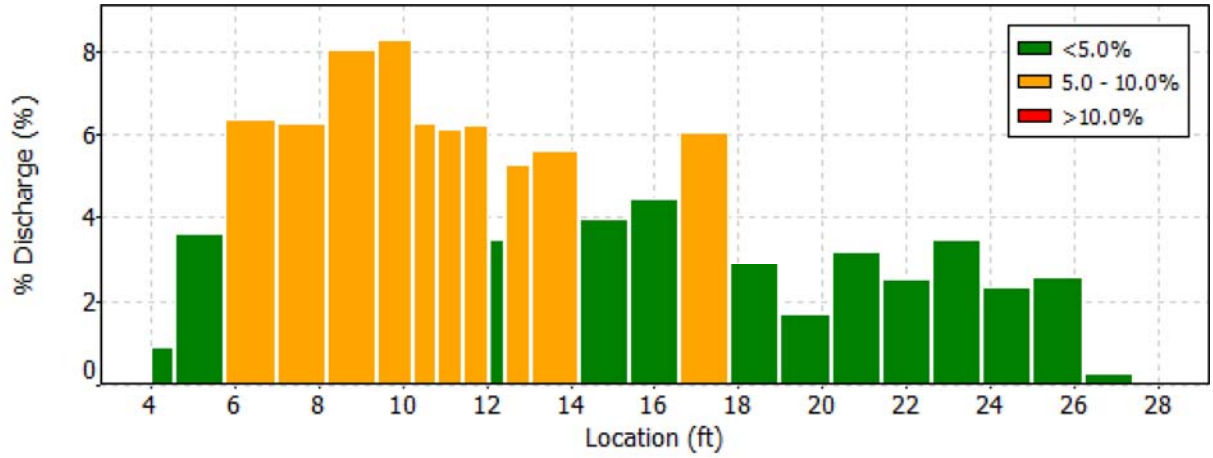
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:53	4.00	None	0.500	0.0	0.0	0.0000	1.00	1.2011	0.300	0.3604	0.9
1	14:53	5.20	0.6	1.000	0.6	0.400	1.2011	1.00	1.2011	1.200	1.4415	3.6
2	14:55	6.40	0.6	1.200	0.6	0.480	1.7533	1.00	1.7533	1.440	2.5253	6.4
3	*14:56*	*7.60*	*0.6*	*0.700*	*0.6*	*0.280*	*2.9623*	*1.00*	*2.9623*	*0.840*	*2.4890*	*6.3*
4	14:58	8.80	0.6	1.100	0.6	0.440	2.4236	1.00	2.4236	1.320	3.1996	8.1
5	14:59	10.00	0.6	1.600	0.6	0.640	2.4213	1.00	2.4213	1.360	3.2920	8.3
6	15:21	10.50	0.6	1.100	0.6	0.440	3.7782	1.00	3.7782	0.660	2.4940	6.3
7	15:00	11.20	0.6	1.300	0.6	0.520	3.1076	1.00	3.1076	0.780	2.4240	6.1
8	15:20	11.70	0.6	1.250	0.6	0.500	3.2904	1.00	3.2904	0.750	2.4680	6.2
9	15:01	12.40	0.6	1.300	0.6	0.520	2.6434	1.00	2.6434	0.520	1.3742	3.5
10	15:18	12.50	0.6	1.300	0.6	0.520	2.6640	1.00	2.6640	0.780	2.0780	5.2
11	15:02	13.60	0.6	1.250	0.6	0.500	1.5463	1.00	1.5463	1.438	2.2239	5.6
12	15:04	14.80	0.6	1.000	0.6	0.400	1.3150	1.00	1.3150	1.200	1.5781	4.0
13	15:05	16.00	0.6	0.700	0.6	0.280	2.0909	1.00	2.0909	0.840	1.7569	4.4
14	*15:06*	*17.20*	*0.6*	*0.950*	*0.6*	*0.380*	*2.1043*	*1.00*	*2.1043*	*1.140*	*2.3995*	*6.0*
15	*15:07*	*18.40*	*0.6*	*0.500*	*0.6*	*0.200*	*1.9255*	*1.00*	*1.9255*	*0.600*	*1.1554*	*2.9*
16	15:08	19.60	0.6	0.900	0.6	0.360	0.6345	1.00	0.6345	1.080	0.6853	1.7
17	15:10	20.80	0.6	0.500	0.6	0.200	2.1224	1.00	2.1224	0.600	1.2736	3.2
18	*15:12*	*22.00*	*0.6*	*0.500*	*0.6*	*0.200*	*1.6831*	*1.00*	*1.6831*	*0.600*	*1.0100*	*2.5*
19	15:13	23.20	0.6	0.450	0.6	0.180	2.5472	1.00	2.5472	0.540	1.3761	3.5
20	15:14	24.40	0.6	0.700	0.6	0.280	1.0958	1.00	1.0958	0.840	0.9207	2.3
21	*15:15*	*25.60*	*0.6*	*0.700*	*0.6*	*0.280*	*1.2201*	*1.00*	*1.2201*	*0.840*	*1.0252*	*2.6*
22	15:16	26.80	0.6	0.600	0.6	0.240	0.1585	1.00	0.1585	0.720	0.1141	0.3
23	15:16	28.00	None	0.200	0.0	0.0	0.0000	1.00	0.1585	0.120	0.0190	0.0

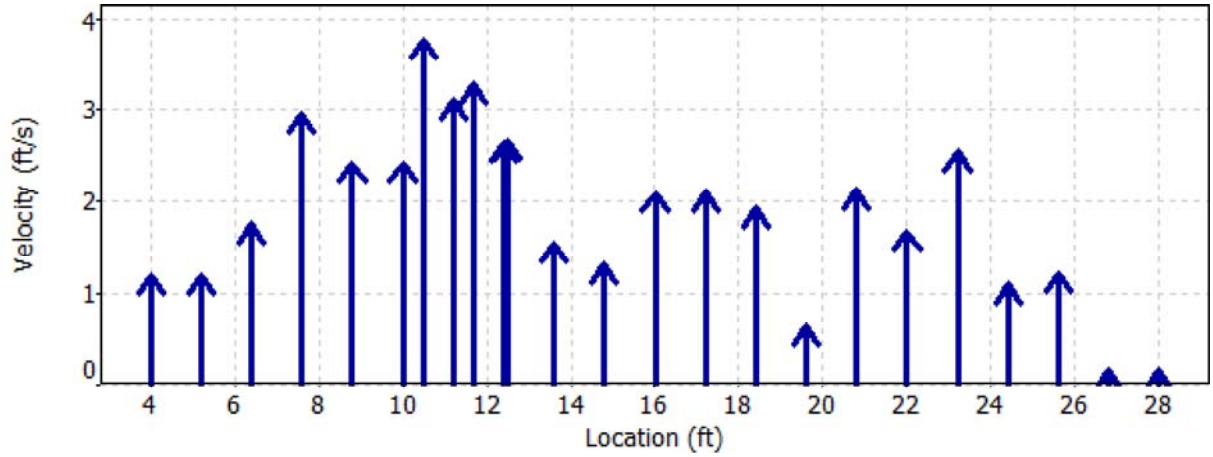
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

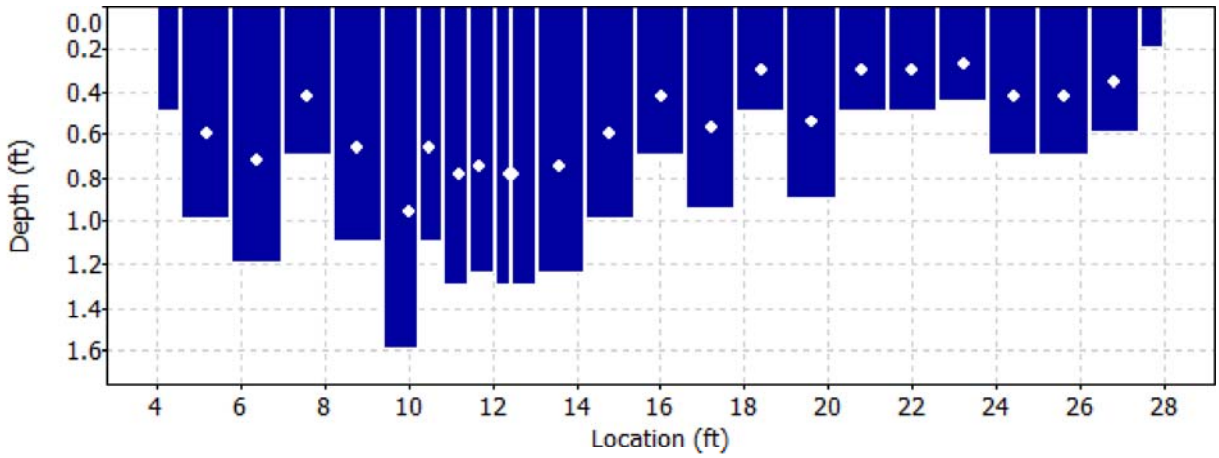
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A61.WAD	Site Name	A61
Start Date and Time	2017/09/26 14:53:17	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information	
File Name	A61.WAD
Start Date and Time	2017/09/26 14:53:17

Site Details	
Site Name	A61
Operator(s)	EY

Quality Control

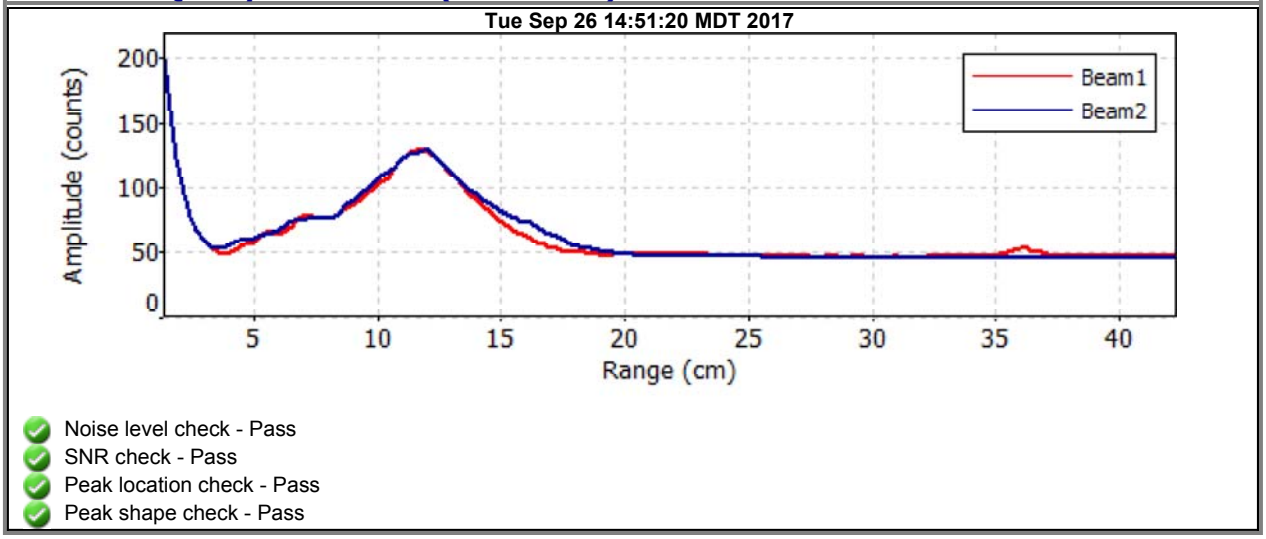
St	Loc	%Dep	Message
3	7.60	0.6	High angle: 28
14	17.20	0.6	High standard error: 0.118
15	18.40	0.6	High angle: -30
18	22.00	0.6	High standard error: 0.150
21	25.60	0.6	High angle: 21

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A61.WAD	Site Name	A61
Start Date and Time	2017/09/26 14:53:17	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A64.WAD
Start Date and Time	2017/09/26 13:51:02

Site Details

Site Name	A64
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	4.4%
Velocity	1.1%	4.0%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.4%	-
Overall	**3.4%**	**6.1%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	REW	Total Width	30.997
Mean SNR	28.1 dB	Total Area	28.867
Mean Temp	47.66 °F	Mean Depth	0.931
Disch. Equation	Mid-Section	Mean Velocity	1.3135
		Total Discharge	**37.9166**

Measurement Results

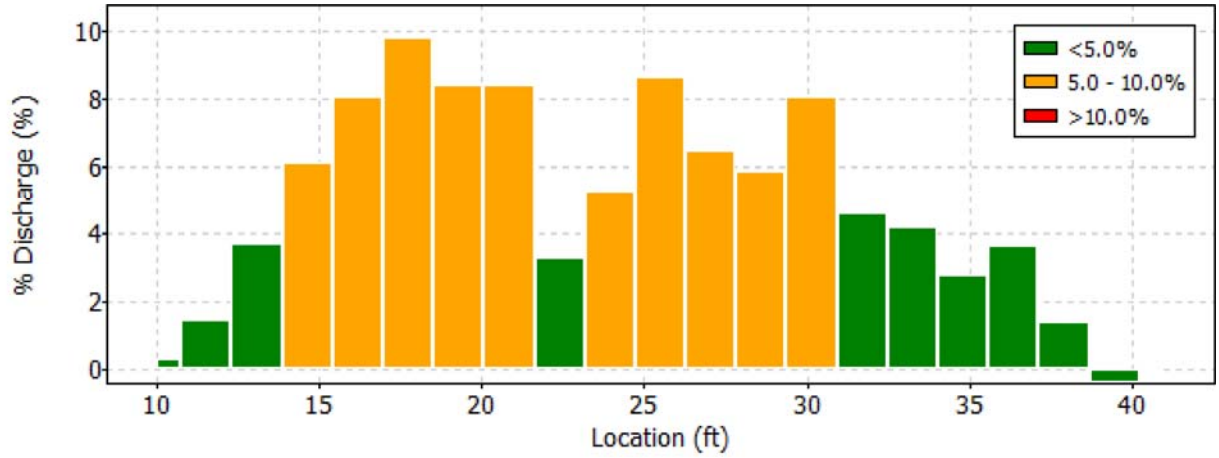
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:51	10.00	None	0.200	0.0	0.0	0.0000	1.00	0.7992	0.155	0.1239	0.3
1	13:51	11.55	0.6	0.450	0.6	0.180	0.7992	1.00	0.7992	0.698	0.5576	1.5
2	13:53	13.10	0.6	1.000	0.6	0.400	0.9150	1.00	0.9150	1.550	1.4182	3.7
3	13:55	14.65	0.6	1.200	0.6	0.480	1.2382	1.00	1.2382	1.860	2.3031	6.1
4	13:56	16.20	0.6	1.350	0.6	0.540	1.4596	1.00	1.4596	2.092	3.0542	8.1
5	13:58	17.75	0.6	1.350	0.6	0.540	1.7785	1.00	1.7785	2.092	3.7215	9.8
6	13:59	19.30	0.6	1.500	0.6	0.600	1.3737	1.00	1.3737	2.325	3.1936	8.4
7	14:00	20.85	0.6	1.100	0.6	0.440	1.8648	1.00	1.8648	1.705	3.1795	8.4
8	14:02	22.40	0.6	0.500	0.6	0.200	1.6266	1.00	1.6266	0.775	1.2605	3.3
9	*14:03*	*23.95*	*0.6*	*1.100*	*0.6*	*0.440*	*1.1693*	*1.00*	*1.1693*	*1.705*	*1.9936*	*5.3*
10	14:04	25.50	0.6	1.300	0.6	0.520	1.6243	1.00	1.6243	2.015	3.2724	8.6
11	14:05	27.05	0.6	1.000	0.6	0.400	1.5768	1.00	1.5768	1.550	2.4438	6.4
12	*14:07*	*28.60*	*0.6*	*1.050*	*0.6*	*0.420*	*1.3681*	*1.00*	*1.3681*	*1.627*	*2.2261*	*5.9*
13	14:08	30.15	0.6	1.100	0.6	0.440	1.7831	1.00	1.7831	1.705	3.0402	8.0
14	14:10	31.70	0.6	0.800	0.6	0.320	1.4209	1.00	1.4209	1.240	1.7615	4.6
15	14:11	33.25	0.6	0.800	0.6	0.320	1.2769	1.00	1.2769	1.240	1.5830	4.2
16	*14:12*	*34.80*	*0.6*	*0.500*	*0.6*	*0.200*	*1.3688*	*1.00*	*1.3688*	*0.775*	*1.0607*	*2.8*
17	*14:13*	*36.35*	*0.6*	*0.700*	*0.6*	*0.280*	*1.2736*	*1.00*	*1.2736*	*1.085*	*1.3820*	*3.6*
18	*14:15*	*37.90*	*0.6*	*0.950*	*0.6*	*0.380*	*0.3645*	*1.00*	*0.3645*	*1.473*	*0.5368*	*1.4*
19	*14:16*	*39.45*	*0.6*	*0.600*	*0.6*	*0.240*	*-0.1627*	*1.00*	*-0.1627*	*0.930*	*-0.1513*	*-0.4*
20	14:16	41.00	None	0.350	0.0	0.0	0.0000	1.00	-0.1627	0.271	-0.0441	-0.1

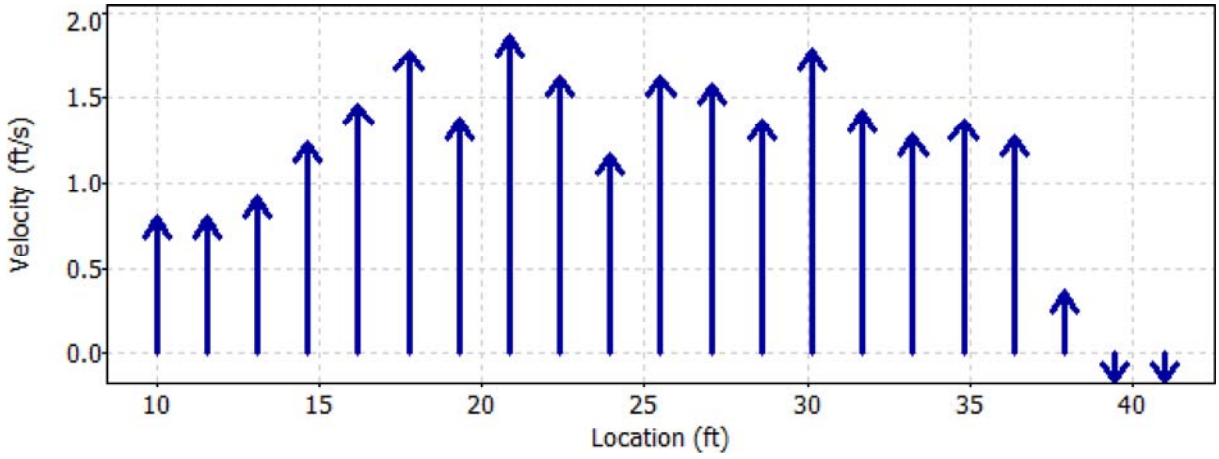
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

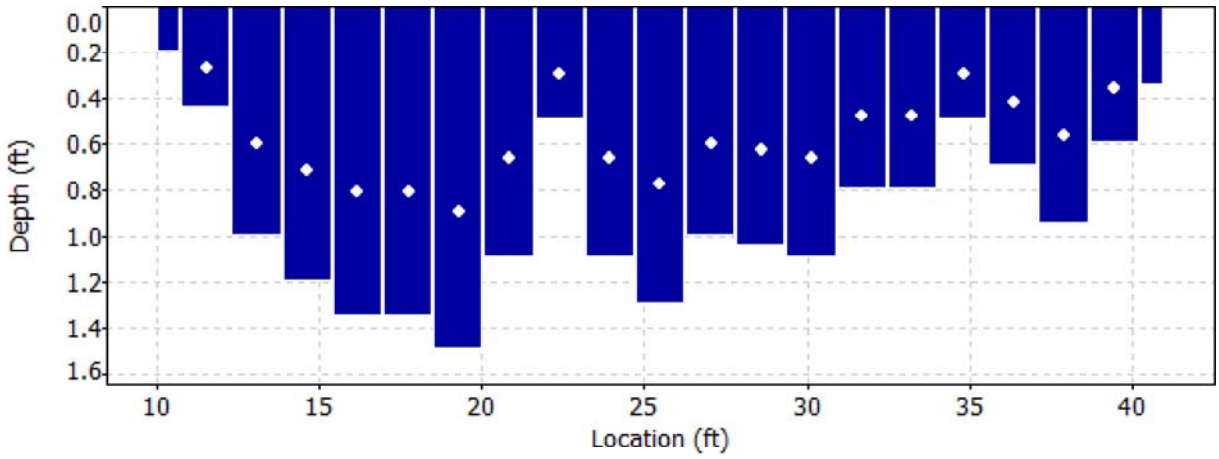
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A64.WAD	Site Name	A64
Start Date and Time	2017/09/26 13:51:02	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A64.WAD	Site Name	A64
Start Date and Time	2017/09/26 13:51:02	Operator(s)	EY

Quality Control

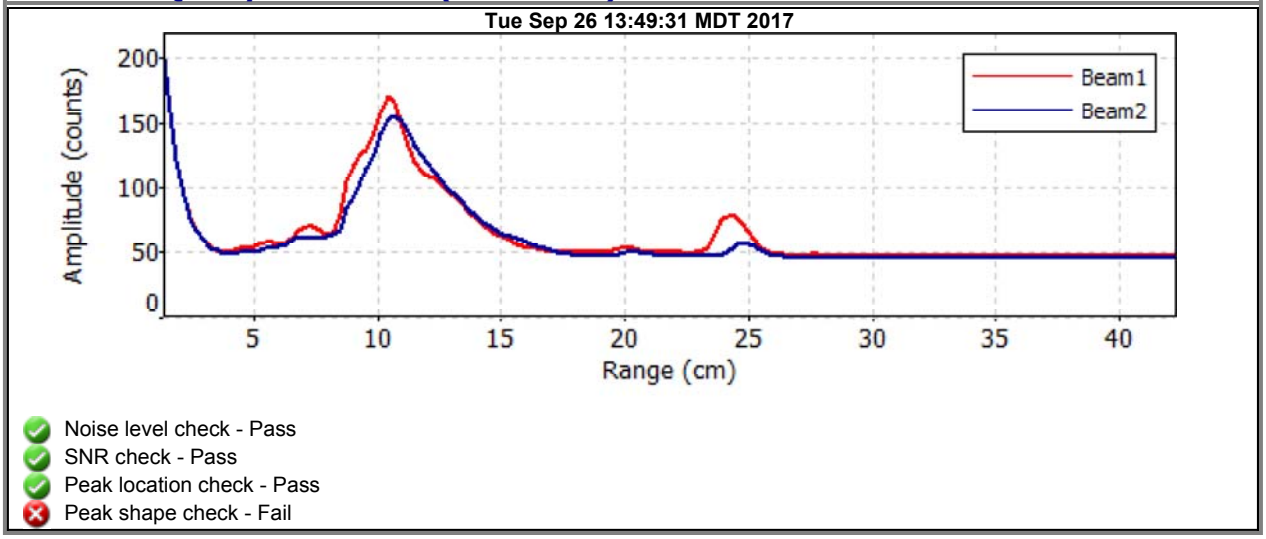
St	Loc	%Dep	Message
9	23.95	0.6	High standard error: 0.090
12	28.60	0.6	High standard error: 0.113
16	34.80	0.6	High angle: 25
17	36.35	0.6	High angle: 29
18	37.90	0.6	High angle: 49
19	39.45	0.6	High angle: 135

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A64.WAD	Site Name	A64
Start Date and Time	2017/09/26 13:51:02	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Fail

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A65A.WAD
Start Date and Time	2017/09/26 12:39:54

Site Details

Site Name	A65
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	12.2%
Velocity	1.3%	11.1%
Width	0.1%	0.1%
Method	1.7%	-
# Stations	2.2%	-
Overall	**3.2%**	**16.5%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	42.001
Mean SNR	35.6 dB	Total Area	24.637
Mean Temp	44.99 °F	Mean Depth	0.587
Disch. Equation	Mid-Section	Mean Velocity	1.5078
		Total Discharge	**37.1479**

Measurement Results

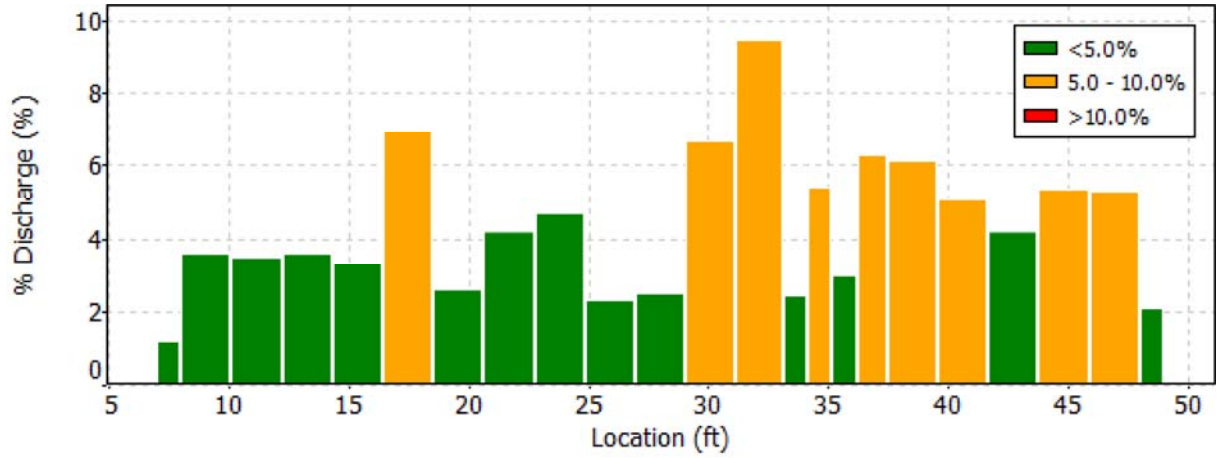
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	12:39	7.00	None	0.200	0.0	0.0	0.0000	1.00	2.1145	0.210	0.4444	1.2
1	*12:39*	*9.10*	*0.6*	*0.300*	*0.6*	*0.120*	*2.1145*	*1.00*	*2.1145*	*0.630*	*1.3316*	*3.6*
2	12:40	11.20	0.6	0.500	0.6	0.200	1.2402	1.00	1.2402	1.050	1.3022	3.5
3	12:43	13.30	0.6	0.600	0.6	0.240	1.0538	1.00	1.0538	1.260	1.3280	3.6
4	*12:44*	*15.40*	*0.6*	*0.700*	*0.6*	*0.280*	*0.8465*	*1.00*	*0.8465*	*1.470*	*1.2446*	*3.4*
5	*12:46*	*17.50*	*0.6*	*0.600*	*0.6*	*0.240*	*2.0571*	*1.00*	*2.0571*	*1.260*	*2.5923*	*7.0*
6	*12:47*	*19.60*	*0.6*	*0.700*	*0.6*	*0.280*	*0.6552*	*1.00*	*0.6552*	*1.470*	*0.9633*	*2.6*
7	*12:49*	*21.70*	*0.6*	*0.750*	*0.6*	*0.300*	*0.9892*	*1.00*	*0.9892*	*1.575*	*1.5580*	*4.2*
8	*12:51*	*23.80*	*0.6*	*0.600*	*0.6*	*0.240*	*1.3891*	*1.00*	*1.3891*	*1.260*	*1.7505*	*4.7*
9	*12:52*	*25.90*	*0.6*	*0.200*	*0.6*	*0.080*	*2.0420*	*1.00*	*2.0420*	*0.420*	*0.8582*	*2.3*
10	*12:54*	*28.00*	*0.6*	*0.800*	*0.6*	*0.320*	*0.5581*	*1.00*	*0.5581*	*1.680*	*0.9374*	*2.5*
11	*12:55*	*30.10*	*0.6*	*0.500*	*0.6*	*0.200*	*2.3645*	*1.00*	*2.3645*	*1.050*	*2.4828*	*6.7*
12	12:56	32.20	0.6	1.000	0.6	0.400	1.8084	1.00	1.8084	1.950	3.5257	9.5
13	13:07	34.00	0.6	0.300	0.6	0.120	2.9016	1.00	2.9016	0.315	0.9136	2.5
14	*12:57*	*34.30*	*0.6*	*1.000*	*0.6*	*0.400*	*2.0039*	*1.00*	*2.0039*	*1.000*	*2.0039*	*5.4*
15	*13:06*	*36.00*	*0.6*	*0.300*	*0.6*	*0.120*	*3.5463*	*1.00*	*3.5463*	*0.315*	*1.1166*	*3.0*
16	*12:58*	*36.40*	*0.6*	*0.800*	*0.6*	*0.320*	*2.3327*	*1.00*	*2.3327*	*1.000*	*2.3332*	*6.3*
17	12:59	38.50	0.6	0.700	0.6	0.280	1.5430	1.00	1.5430	1.470	2.2687	6.1
18	13:00	40.60	0.6	0.400	0.6	0.160	2.2602	1.00	2.2602	0.840	1.8983	5.1
19	13:01	42.70	0.6	0.700	0.6	0.280	1.0653	1.00	1.0653	1.470	1.5663	4.2
20	*13:02*	*44.80*	*0.6*	*0.700*	*0.6*	*0.280*	*1.3474*	*1.00*	*1.3474*	*1.470*	*1.9812*	*5.3*
21	*13:04*	*46.90*	*0.6*	*0.500*	*0.6*	*0.200*	*1.8688*	*1.00*	*1.8688*	*1.050*	*1.9623*	*5.3*
22	13:04	49.00	None	0.400	0.0	0.0	0.0000	1.00	1.8688	0.420	0.7848	2.1

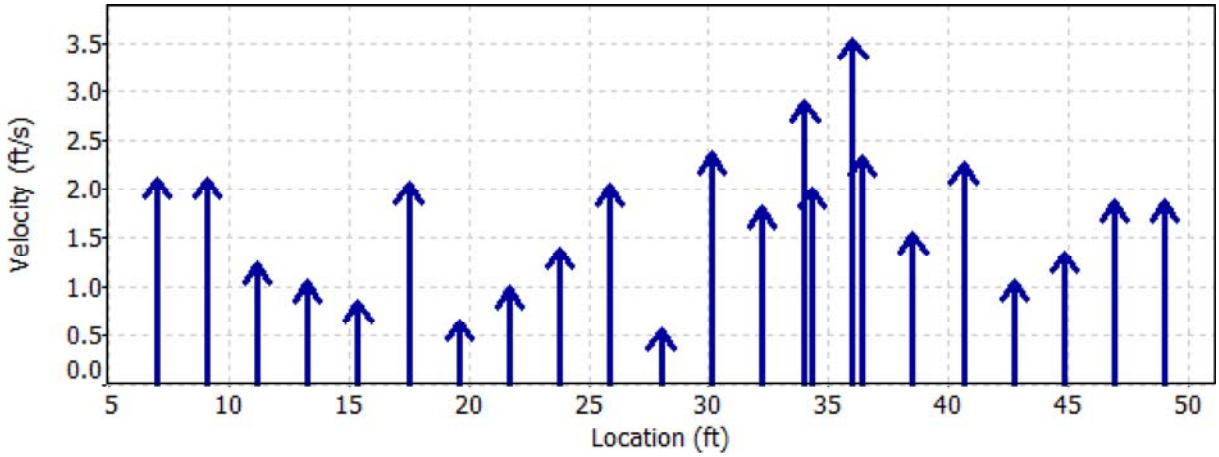
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

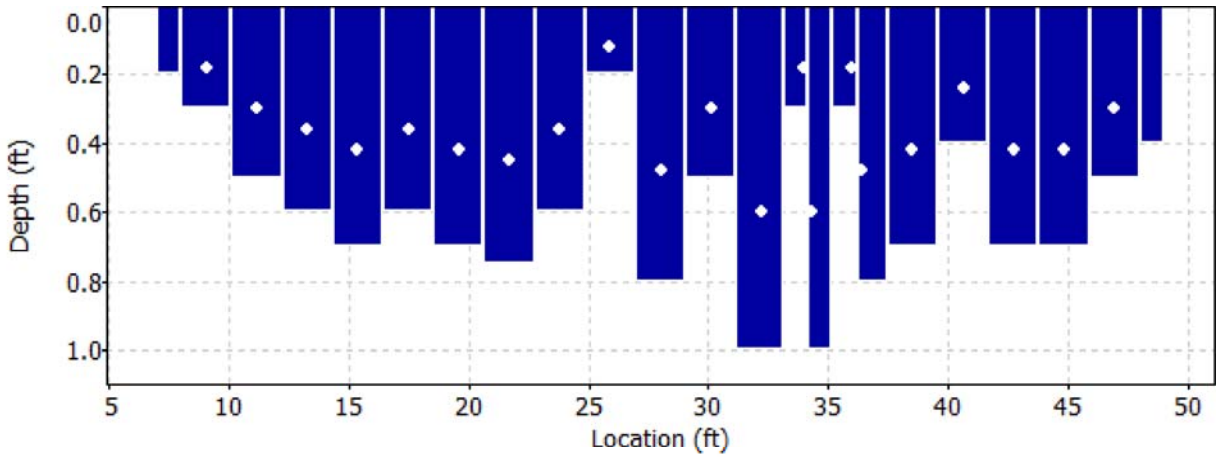
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A65A.WAD	Site Name	A65
Start Date and Time	2017/09/26 12:39:54	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A65A.WAD
Start Date and Time	2017/09/26 12:39:54

Site Details

Site Name	A65
Operator(s)	EY

Quality Control

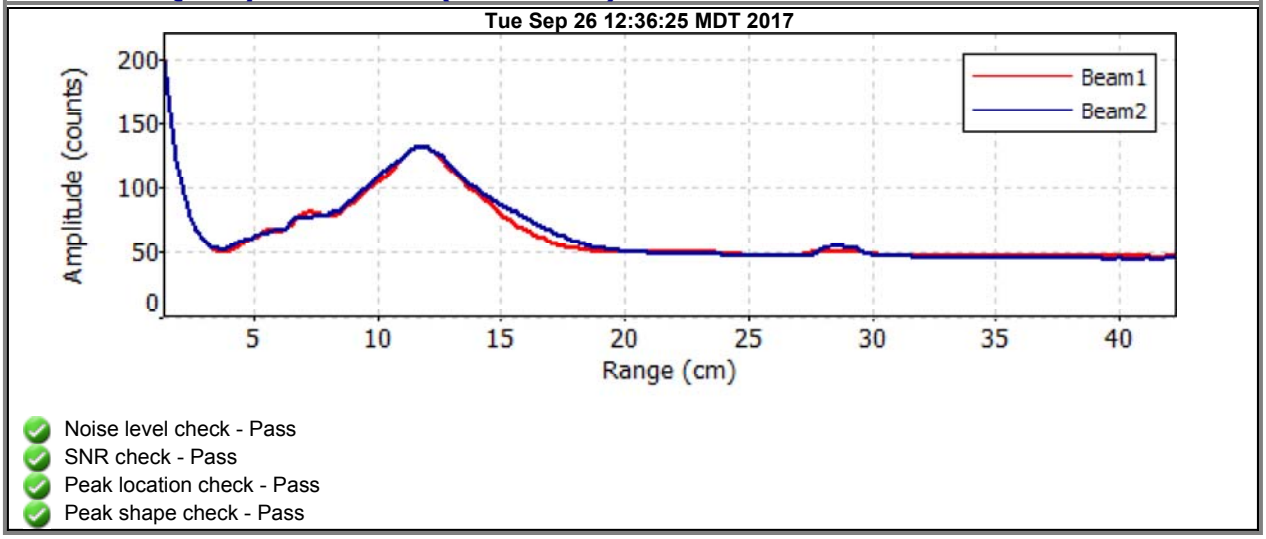
St	Loc	%Dep	Message
1	9.10	0.6	High angle: 27
4	15.40	0.6	High standard error: 0.115
5	17.50	0.6	High angle: 29
6	19.60	0.6	High angle: 47
7	21.70	0.6	High angle: 42
8	23.80	0.6	High angle: 31
9	25.90	0.6	High angle: 26
10	28.00	0.6	High angle: 35
11	30.10	0.6	High angle: 20
14	34.30	0.6	High standard error: 0.125
15	36.00	0.6	High angle: 23
16	36.40	0.6	High standard error: 0.146
20	44.80	0.6	High standard error: 0.132
21	46.90	0.6	High standard error: 0.110

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A65A.WAD	Site Name	A65
Start Date and Time	2017/09/26 12:39:54	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A65.WAD
Start Date and Time	2017/09/26 11:31:20

Site Details

Site Name	A65
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	3.8%
Velocity	1.3%	9.8%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.2%	-
Overall	**3.3%**	**10.6%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	35.997
Mean SNR	30.3 dB	Total Area	22.531
Mean Temp	41.14 °F	Mean Depth	0.626
Disch. Equation	Mid-Section	Mean Velocity	1.7087
		Total Discharge	**38.4993**

Measurement Results

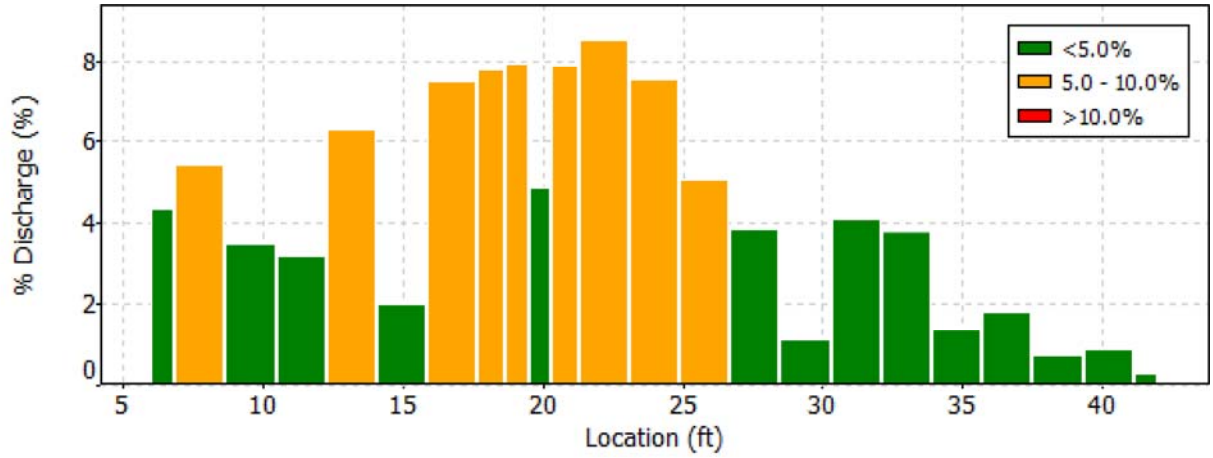
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:31	6.00	None	0.800	0.0	0.0	0.0000	1.00	2.3117	0.720	1.6640	4.3
1	11:31	7.80	0.6	0.500	0.6	0.200	2.3117	1.00	2.3117	0.900	2.0804	5.4
2	11:32	9.60	0.6	0.200	0.6	0.080	3.7388	1.00	3.7388	0.360	1.3468	3.5
3	*11:34*	*11.40*	*0.6*	*0.400*	*0.6*	*0.160*	*1.6969*	*1.00*	*1.6969*	*0.720*	*1.2214*	*3.2*
4	11:36	13.20	0.6	0.500	0.6	0.200	2.7103	1.00	2.7103	0.900	2.4391	6.3
5	11:37	15.00	0.6	0.500	0.6	0.200	0.8609	1.00	0.8609	0.900	0.7747	2.0
6	11:38	16.80	0.6	0.500	0.6	0.200	3.2142	1.00	3.2142	0.900	2.8926	7.5
7	11:39	18.60	0.6	1.000	0.6	0.400	3.0112	1.00	3.0112	1.000	3.0121	7.8
8	12:00	18.80	0.6	1.100	0.6	0.440	3.3750	1.00	3.3750	0.908	3.0647	8.0
9	*11:58*	*20.25*	*0.6*	*1.200*	*0.6*	*0.480*	*1.9675*	*1.00*	*1.9675*	*0.960*	*1.8879*	*4.9*
10	11:41	20.40	0.6	1.200	0.6	0.480	2.6076	1.00	2.6076	1.169	3.0494	7.9
11	*11:43*	*22.20*	*0.6*	*0.900*	*0.6*	*0.360*	*2.0344*	*1.00*	*2.0344*	*1.620*	*3.2953*	*8.6*
12	*11:44*	*24.00*	*0.6*	*1.000*	*0.6*	*0.400*	*1.6181*	*1.00*	*1.6181*	*1.800*	*2.9124*	*7.6*
13	*11:45*	*25.80*	*0.6*	*1.000*	*0.6*	*0.400*	*1.0853*	*1.00*	*1.0853*	*1.800*	*1.9534*	*5.1*
14	*11:46*	*27.60*	*0.6*	*0.800*	*0.6*	*0.320*	*1.0322*	*1.00*	*1.0322*	*1.440*	*1.4859*	*3.9*
15	11:47	29.40	0.6	0.700	0.6	0.280	0.3468	1.00	0.3468	1.260	0.4370	1.1
16	11:48	31.20	0.6	0.800	0.6	0.320	1.0981	1.00	1.0981	1.440	1.5809	4.1
17	*11:49*	*33.00*	*0.6*	*0.700*	*0.6*	*0.280*	*1.1604*	*1.00*	*1.1604*	*1.260*	*1.4623*	*3.8*
18	11:51	34.80	0.6	0.400	0.6	0.160	0.7234	1.00	0.7234	0.720	0.5207	1.4
19	*11:53*	*36.60*	*0.6*	*0.450*	*0.6*	*0.180*	*0.8698*	*1.00*	*0.8698*	*0.810*	*0.7047*	*1.8*
20	*11:54*	*38.40*	*0.6*	*0.200*	*0.6*	*0.080*	*0.7861*	*1.00*	*0.7861*	*0.360*	*0.2832*	*0.7*
21	11:56	40.20	0.6	0.250	0.6	0.100	0.7356	1.00	0.7356	0.450	0.3310	0.9
22	11:56	42.00	None	0.150	0.0	0.0	0.0000	1.00	0.7356	0.135	0.0993	0.3

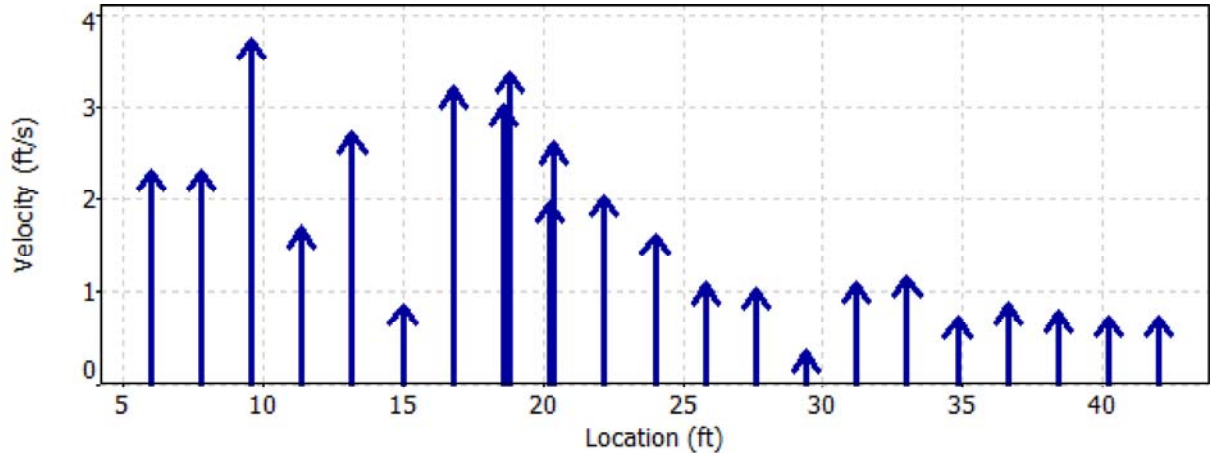
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

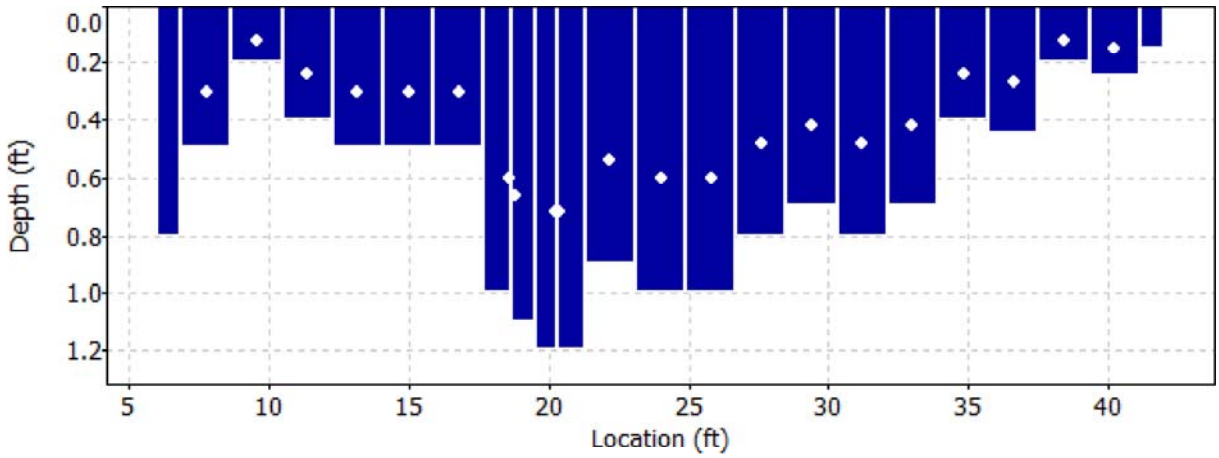
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A65.WAD	Site Name	A65
Start Date and Time	2017/09/26 11:31:20	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A65.WAD	Site Name	A65
Start Date and Time	2017/09/26 11:31:20	Operator(s)	EY

Quality Control

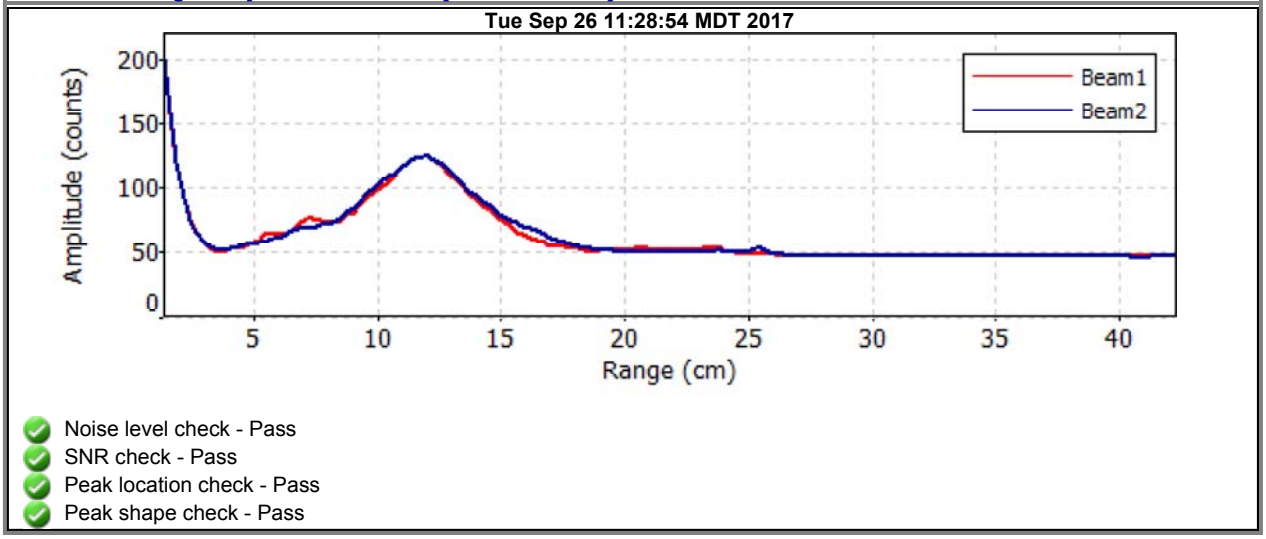
St	Loc	%Dep	Message
3	11.40	0.6	High angle: 31
		0.6	High SNR variation during measurement: 3.9,5.6
9	20.25	0.6	High angle: -24
		0.6	High standard error: 0.154
11	22.20	0.6	High standard error: 0.114
12	24.00	0.6	High standard error: 0.127
13	25.80	0.6	High standard error: 0.118
14	27.60	0.6	High standard error: 0.110
17	33.00	0.6	Boundary QC is Fair; possible boundary interference
19	36.60	0.6	High angle: -33
20	38.40	0.6	High angle: 22

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A65.WAD	Site Name	A65
Start Date and Time	2017/09/26 11:31:20	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A66.WAD
Start Date and Time	2017/09/26 10:09:38

Site Details

Site Name	A66
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.1%	2.4%
Velocity	1.2%	6.6%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.3%	-
Overall	**3.3%**	**7.1%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	42.999
Mean SNR	27.3 dB	Total Area	50.525
Mean Temp	37.18 °F	Mean Depth	1.175
Disch. Equation	Mid-Section	Mean Velocity	0.6350
		Total Discharge	**32.0845**

Measurement Results

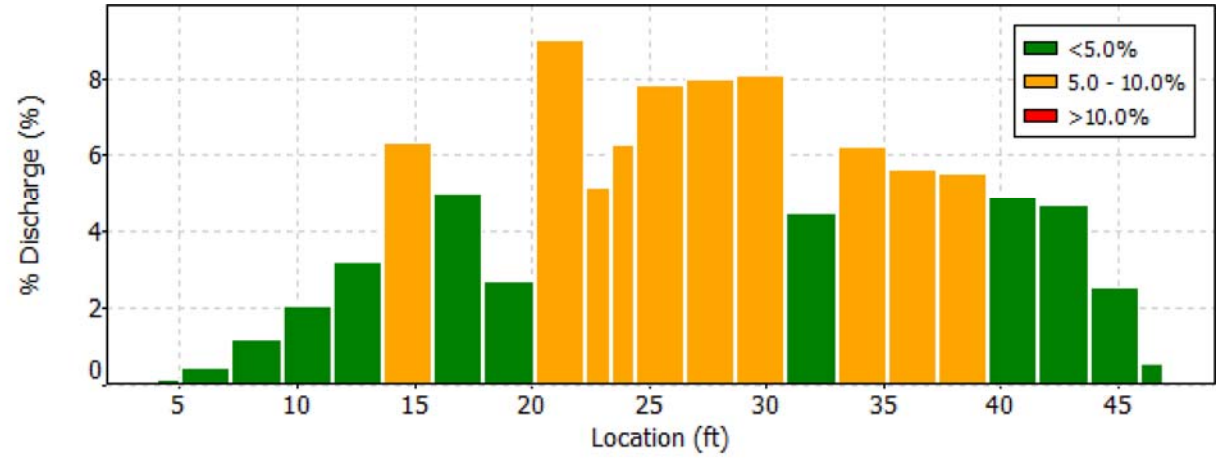
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:09	4.00	None	0.200	0.0	0.0	0.0000	1.00	0.1870	0.215	0.0402	0.1
1	10:09	6.15	0.6	0.350	0.6	0.140	0.1870	1.00	0.1870	0.753	0.1407	0.4
2	10:10	8.30	0.6	0.800	0.6	0.320	0.2211	1.00	0.2211	1.720	0.3803	1.2
3	10:11	10.45	0.6	1.250	0.6	0.500	0.2484	1.00	0.2484	2.687	0.6674	2.1
4	10:13	12.60	0.6	1.300	0.6	0.520	0.3671	1.00	0.3671	2.795	1.0260	3.2
5	10:14	14.75	0.6	1.300	0.6	0.520	0.7274	1.00	0.7274	2.795	2.0327	6.3
6	*10:16*	*16.90*	*0.6*	*0.850*	*0.6*	*0.340*	*0.8747*	*1.00*	*0.8747*	*1.828*	*1.5985*	*5.0*
7	*10:17*	*19.05*	*0.6*	*1.400*	*0.6*	*0.560*	*0.2874*	*1.00*	*0.2874*	*3.010*	*0.8650*	*2.7*
8	*10:19*	*21.20*	*0.6*	*1.500*	*0.6*	*0.600*	*0.9006*	*1.00*	*0.9006*	*3.225*	*2.9043*	*9.1*
9	10:20	23.35	0.6	1.600	0.6	0.640	0.9393	1.00	0.9393	1.760	1.6536	5.2
10	10:37	23.40	0.6	1.600	0.6	0.640	1.1713	1.00	1.1713	1.720	2.0146	6.3
11	*10:21*	*25.50*	*0.6*	*1.500*	*0.6*	*0.600*	*0.7867*	*1.00*	*0.7867*	*3.187*	*2.5074*	*7.8*
12	10:22	27.65	0.6	1.500	0.6	0.600	0.7976	1.00	0.7976	3.225	2.5721	8.0
13	10:23	29.80	0.6	1.400	0.6	0.560	0.8632	1.00	0.8632	3.010	2.5980	8.1
14	*10:24*	*31.95*	*0.6*	*1.400*	*0.6*	*0.560*	*0.4760*	*1.00*	*0.4760*	*3.010*	*1.4328*	*4.5*
15	10:25	34.10	0.6	1.400	0.6	0.560	0.6640	1.00	0.6640	3.010	1.9986	6.2
16	10:26	36.25	0.6	1.300	0.6	0.520	0.6490	1.00	0.6490	2.795	1.8136	5.7
17	10:27	38.40	0.6	1.300	0.6	0.520	0.6368	1.00	0.6368	2.795	1.7797	5.5
18	10:28	40.55	0.6	1.200	0.6	0.480	0.6086	1.00	0.6086	2.580	1.5703	4.9
19	10:31	42.70	0.6	1.200	0.6	0.480	0.5837	1.00	0.5837	2.580	1.5060	4.7
20	10:35	44.85	0.6	0.700	0.6	0.280	0.5377	1.00	0.5377	1.505	0.8094	2.5
21	10:35	47.00	None	0.300	0.0	0.0	0.0000	1.00	0.5377	0.322	0.1733	0.5

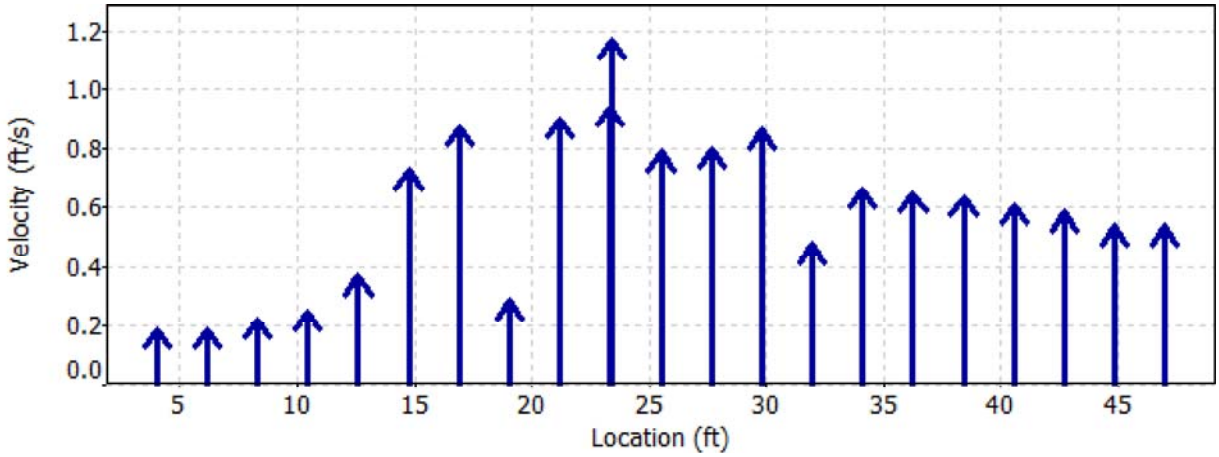
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

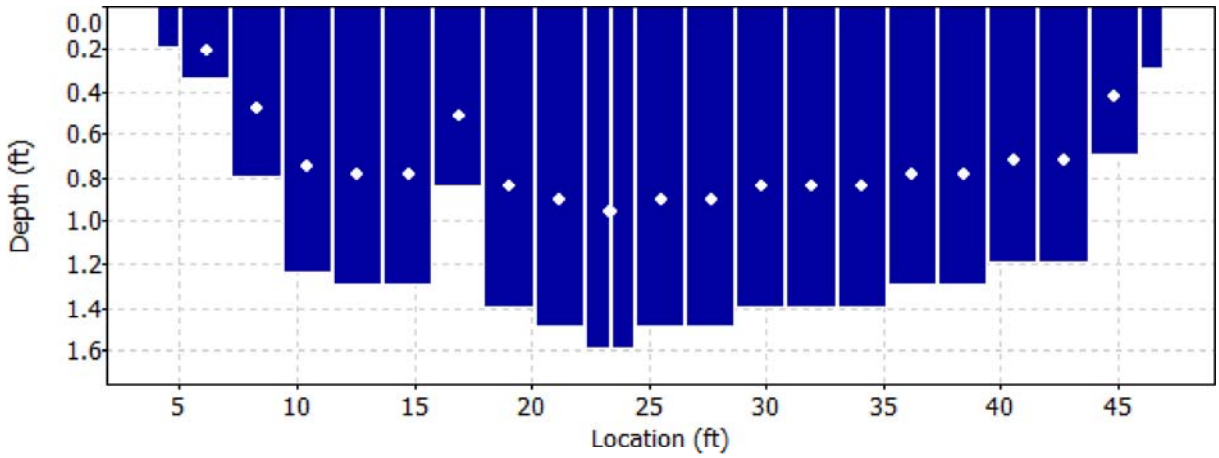
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A66.WAD	Site Name	A66
Start Date and Time	2017/09/26 10:09:38	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information	
File Name	A66.WAD
Start Date and Time	2017/09/26 10:09:38

Site Details	
Site Name	A66
Operator(s)	EY

Quality Control

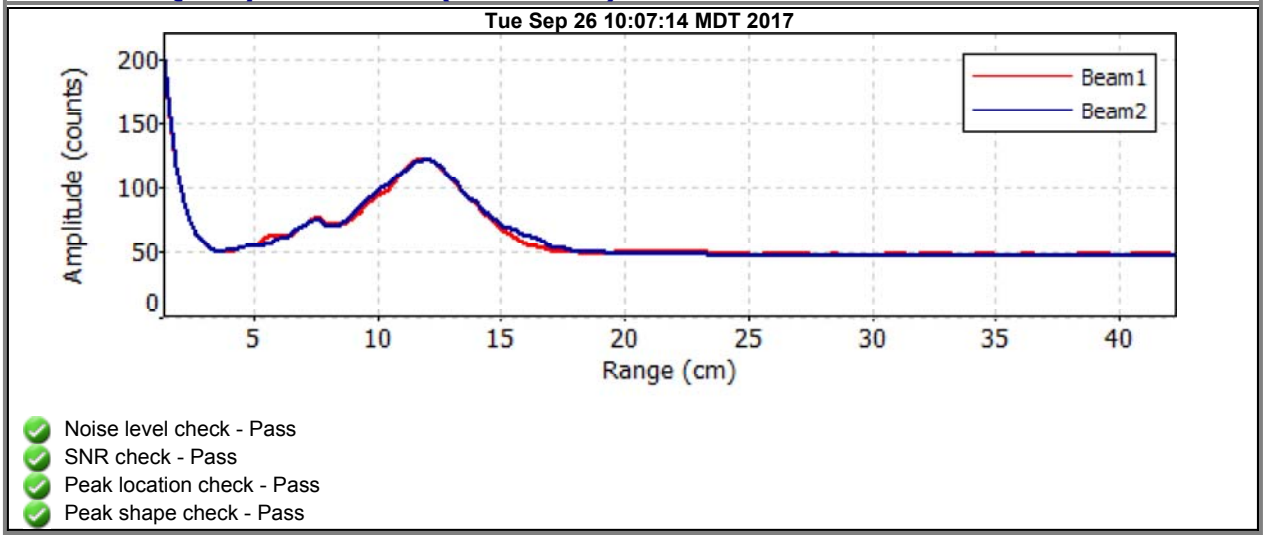
St	Loc	%Dep	Message
6	16.90	0.6	High standard error: 0.045
7	19.05	0.6	High standard error: 0.055
8	21.20	0.6	High standard error: 0.046
11	25.50	0.6	High angle: 26
		0.6	High standard error: 0.042
14	31.95	0.6	High angle: 21

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A66.WAD	Site Name	A66
Start Date and Time	2017/09/26 10:09:38	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	CU4.WAD
Start Date and Time	2017/09/27 14:40:21

Site Details

Site Name	CU4
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	4.6%
Velocity	1.4%	4.1%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.2%	-
Overall	**3.4%**	**6.3%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	10.997
Mean SNR	34.4 dB	Total Area	4.976
Mean Temp	41.99 °F	Mean Depth	0.452
Disch. Equation	Mid-Section	Mean Velocity	0.8153
		Total Discharge	**4.0567**

Measurement Results

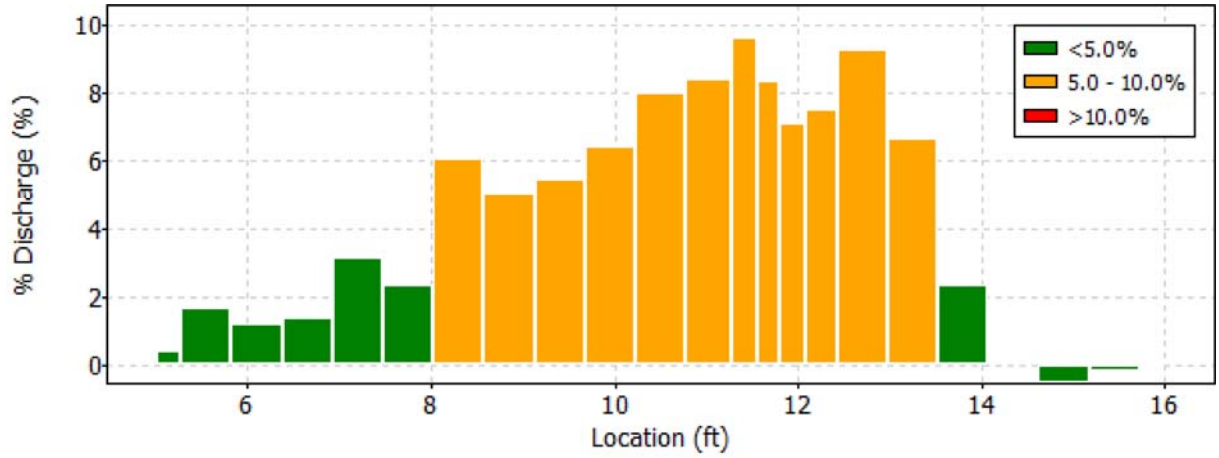
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:40	5.00	None	0.100	0.0	0.0	0.0000	1.00	0.6224	0.028	0.0171	0.4
1	14:40	5.55	0.6	0.200	0.6	0.080	0.6224	1.00	0.6224	0.110	0.0685	1.7
2	14:42	6.10	0.6	0.200	0.6	0.080	0.4623	1.00	0.4623	0.110	0.0509	1.3
3	14:43	6.65	0.6	0.350	0.6	0.140	0.3038	1.00	0.3038	0.192	0.0585	1.4
4	14:44	7.20	0.6	0.300	0.6	0.120	0.7874	1.00	0.7874	0.165	0.1298	3.2
5	14:45	7.75	0.6	0.200	0.6	0.080	0.8638	1.00	0.8638	0.110	0.0951	2.3
6	14:46	8.30	0.6	0.700	0.6	0.280	0.6371	1.00	0.6371	0.385	0.2453	6.0
7	14:48	8.85	0.6	0.600	0.6	0.240	0.6181	1.00	0.6181	0.330	0.2040	5.0
8	14:49	9.40	0.6	0.750	0.6	0.300	0.5397	1.00	0.5397	0.412	0.2226	5.5
9	14:50	9.95	0.6	0.700	0.6	0.280	0.6772	1.00	0.6772	0.385	0.2607	6.4
10	14:51	10.50	0.6	0.600	0.6	0.240	0.9820	1.00	0.9820	0.330	0.3240	8.0
11	14:52	11.05	0.6	0.700	0.6	0.280	0.9741	1.00	0.9741	0.351	0.3414	8.4
12	*15:05*	*11.50*	*0.6*	*1.000*	*0.6*	*0.400*	*1.4203*	*1.00*	*1.4203*	*0.275*	*0.3905*	*9.6*
13	*14:54*	*11.60*	*0.6*	*1.000*	*0.6*	*0.400*	*1.3530*	*1.00*	*1.3530*	*0.250*	*0.3383*	*8.3*
14	15:04	12.00	0.6	0.700	0.6	0.280	1.4961	1.00	1.4961	0.192	0.2880	7.1
15	14:55	12.15	0.6	0.600	0.6	0.240	1.4596	1.00	1.4596	0.209	0.3058	7.5
16	*14:56*	*12.70*	*0.6*	*0.600*	*0.6*	*0.240*	*1.1385*	*1.00*	*1.1385*	*0.330*	*0.3756*	*9.3*
17	*14:58*	*13.25*	*0.6*	*0.500*	*0.6*	*0.200*	*0.9806*	*1.00*	*0.9806*	*0.275*	*0.2696*	*6.6*
18	*14:59*	*13.80*	*0.6*	*0.200*	*0.6*	*0.080*	*0.8629*	*1.00*	*0.8629*	*0.110*	*0.0950*	*2.3*
19	*15:00*	*14.35*	*0.6*	*0.250*	*0.6*	*0.100*	*0.0230*	*1.00*	*0.0230*	*0.137*	*0.0032*	*0.1*
20	*15:02*	*14.90*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.1201*	*1.00*	*-0.1201*	*0.165*	*-0.0198*	*-0.5*
21	*15:03*	*15.45*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0577*	*1.00*	*-0.0577*	*0.110*	*-0.0064*	*-0.2*
22	15:03	16.00	None	0.050	0.0	0.0	0.0000	1.00	-0.0577	0.014	-0.0008	0.0

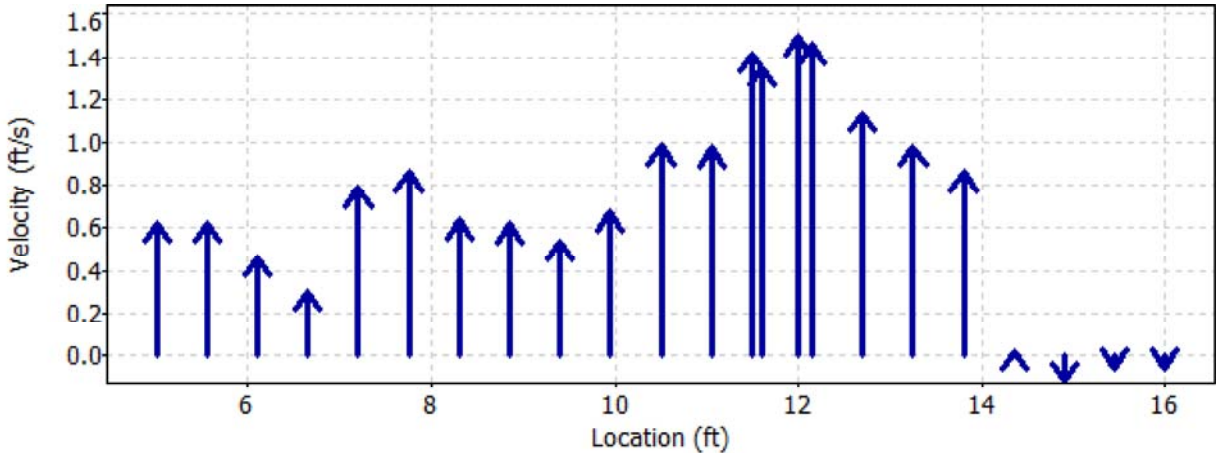
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

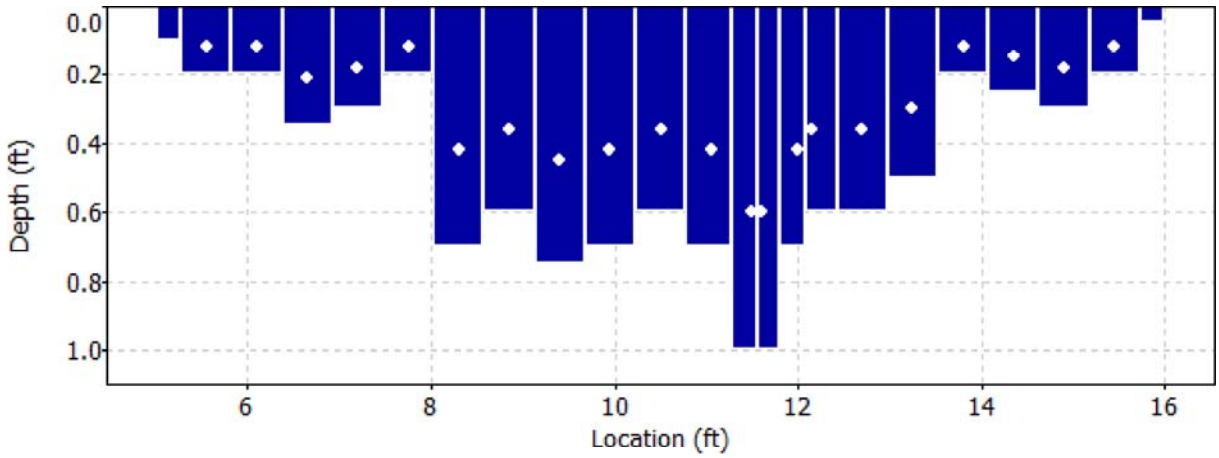
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CU4.WAD	Site Name	CU4
Start Date and Time	2017/09/27 14:40:21	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information	
File Name	CU4.WAD
Start Date and Time	2017/09/27 14:40:21

Site Details	
Site Name	CU4
Operator(s)	EY

Quality Control

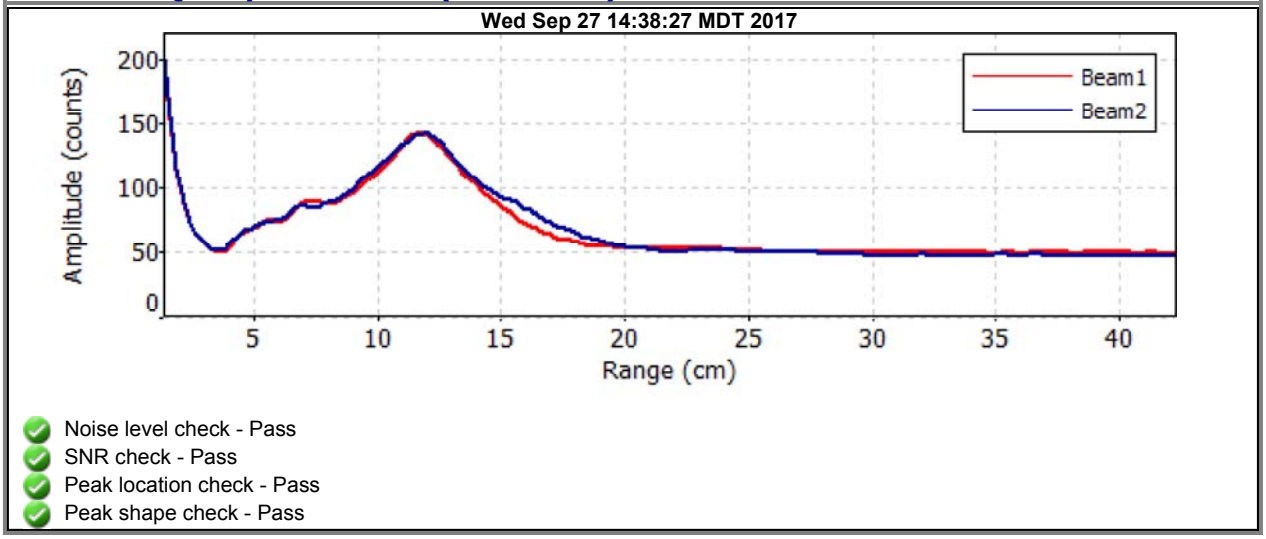
St	Loc	%Dep	Message
12	11.50	0.6	High standard error: 0.100
13	11.60	0.6	High standard error: 0.081
16	12.70	0.6	High standard error: 0.070
17	13.25	0.6	High standard error: 0.083
18	13.80	0.6	High angle: -26
19	14.35	0.6	High angle: -63
20	14.90	0.6	High angle: -174
21	15.45	0.6	High angle: 168

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CU4.WAD	Site Name	CU4
Start Date and Time	2017/09/27 14:40:21	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	CU4A.WAD
Start Date and Time	2017/09/27 15:42:31

Site Details

Site Name	CU4A
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	4.4%
Velocity	1.7%	10.2%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	1.9%	-
Overall	**3.4%**	**11.2%**

Summary

Averaging Int.	40	# Stations	27
Start Edge	LEW	Total Width	12.001
Mean SNR	36.9 dB	Total Area	4.144
Mean Temp	42.11 °F	Mean Depth	0.345
Disch. Equation	Mid-Section	Mean Velocity	1.1314
		Total Discharge	**4.6882**

Measurement Results

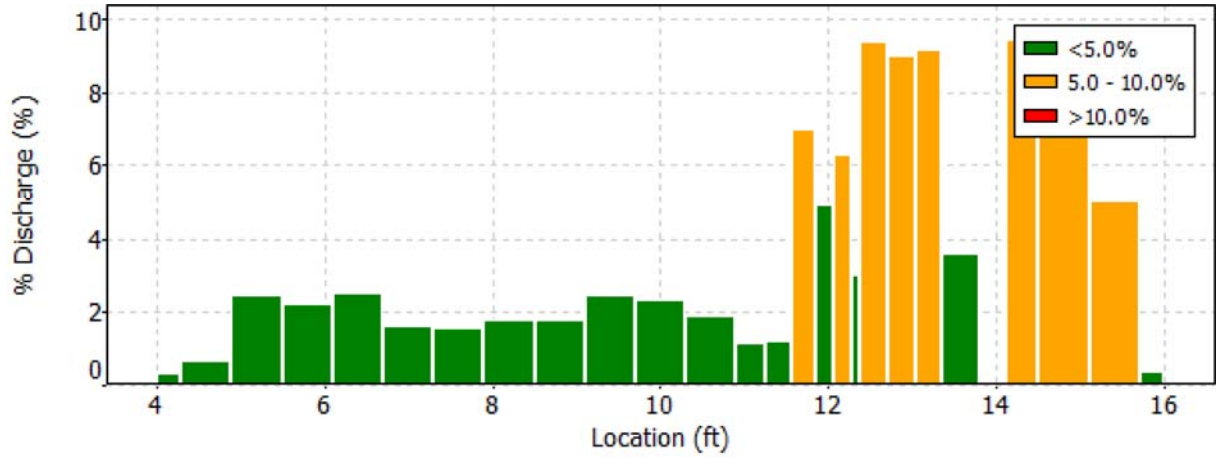
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:42	4.00	None	0.200	0.0	0.0	0.0000	1.00	0.2520	0.060	0.0151	0.3
1	*15:42*	*4.60*	*0.6*	*0.200*	*0.6*	*0.080*	*0.2520*	*1.00*	*0.2520*	*0.120*	*0.0303*	*0.6*
2	*15:43*	*5.20*	*0.6*	*0.200*	*0.6*	*0.080*	*0.9531*	*1.00*	*0.9531*	*0.120*	*0.1145*	*2.4*
3	*15:44*	*5.80*	*0.6*	*0.250*	*0.6*	*0.100*	*0.6916*	*1.00*	*0.6916*	*0.150*	*0.1038*	*2.2*
4	*15:45*	*6.40*	*0.6*	*0.250*	*0.6*	*0.100*	*0.7851*	*1.00*	*0.7851*	*0.150*	*0.1178*	*2.5*
5	15:46	7.00	0.6	0.250	0.6	0.100	0.5115	1.00	0.5115	0.150	0.0767	1.6
6	15:47	7.60	0.6	0.250	0.6	0.100	0.4915	1.00	0.4915	0.150	0.0737	1.6
7	*15:48*	*8.20*	*0.6*	*0.250*	*0.6*	*0.100*	*0.5604*	*1.00*	*0.5604*	*0.150*	*0.0841*	*1.8*
8	*15:50*	*8.80*	*0.6*	*0.200*	*0.6*	*0.080*	*0.7060*	*1.00*	*0.7060*	*0.120*	*0.0848*	*1.8*
9	15:51	9.40	0.6	0.500	0.6	0.200	0.3819	1.00	0.3819	0.300	0.1146	2.4
10	15:52	10.00	0.6	0.300	0.6	0.120	0.6138	1.00	0.6138	0.180	0.1105	2.4
11	*15:53*	*10.60*	*0.6*	*0.200*	*0.6*	*0.080*	*0.7477*	*1.00*	*0.7477*	*0.120*	*0.0898*	*1.9*
12	*15:54*	*11.20*	*0.6*	*0.200*	*0.6*	*0.080*	*0.7520*	*1.00*	*0.7520*	*0.070*	*0.0526*	*1.1*
13	16:07	11.30	0.6	0.200	0.6	0.080	0.9262	1.00	0.9262	0.060	0.0556	1.2
14	15:55	11.80	0.6	0.600	0.6	0.240	1.8192	1.00	1.8192	0.180	0.3275	7.0
15	16:09	11.90	0.6	0.600	0.6	0.240	1.9288	1.00	1.9288	0.120	0.2311	4.9
16	16:06	12.20	0.6	0.500	0.6	0.200	2.6043	1.00	2.6043	0.113	0.2931	6.3
17	16:10	12.35	0.6	0.600	0.6	0.240	2.3091	1.00	2.3091	0.060	0.1391	3.0
18	15:56	12.40	0.6	0.600	0.6	0.240	2.2549	1.00	2.2549	0.195	0.4404	9.4
19	15:58	13.00	0.6	0.500	0.6	0.200	2.4206	1.00	2.4206	0.175	0.4231	9.0
20	16:05	13.10	0.6	0.500	0.6	0.200	2.8691	1.00	2.8691	0.150	0.4304	9.2
21	15:59	13.60	0.6	0.200	0.6	0.080	1.8632	1.00	1.8632	0.090	0.1678	3.6
22	16:04	14.00	0.6	0.500	0.6	0.200	0.0138	1.00	0.0138	0.150	0.0021	0.0
23	*16:00*	*14.20*	*0.6*	*0.500*	*0.6*	*0.200*	*2.2162*	*1.00*	*2.2162*	*0.200*	*0.4439*	*9.5*
24	*16:01*	*14.80*	*0.6*	*0.600*	*0.6*	*0.240*	*1.1506*	*1.00*	*1.1506*	*0.360*	*0.4143*	*8.8*
25	*16:02*	*15.40*	*0.6*	*0.700*	*0.6*	*0.280*	*0.5594*	*1.00*	*0.5594*	*0.420*	*0.2350*	*5.0*
26	16:02	16.00	None	0.100	0.0	0.0	0.0000	1.00	0.5594	0.030	0.0168	0.4

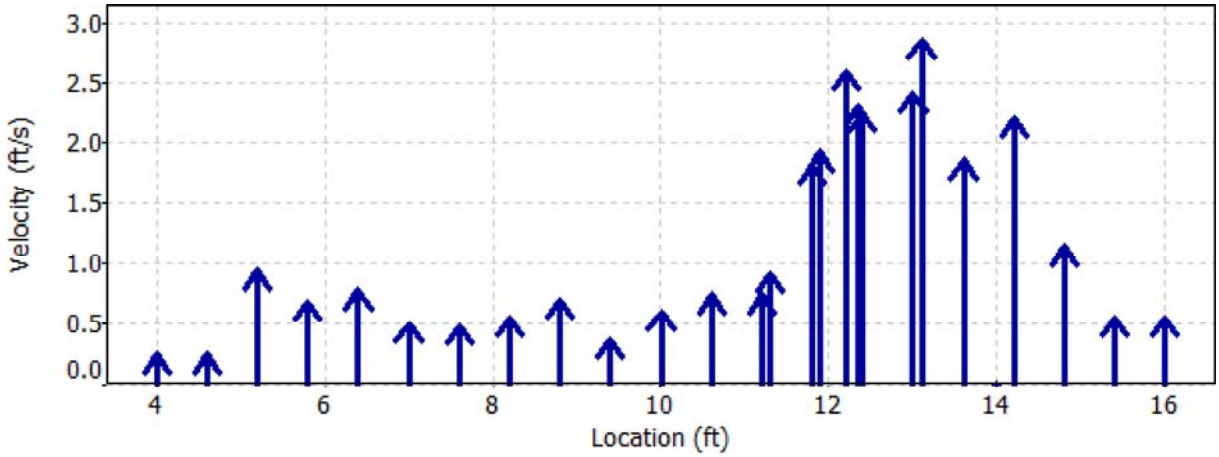
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

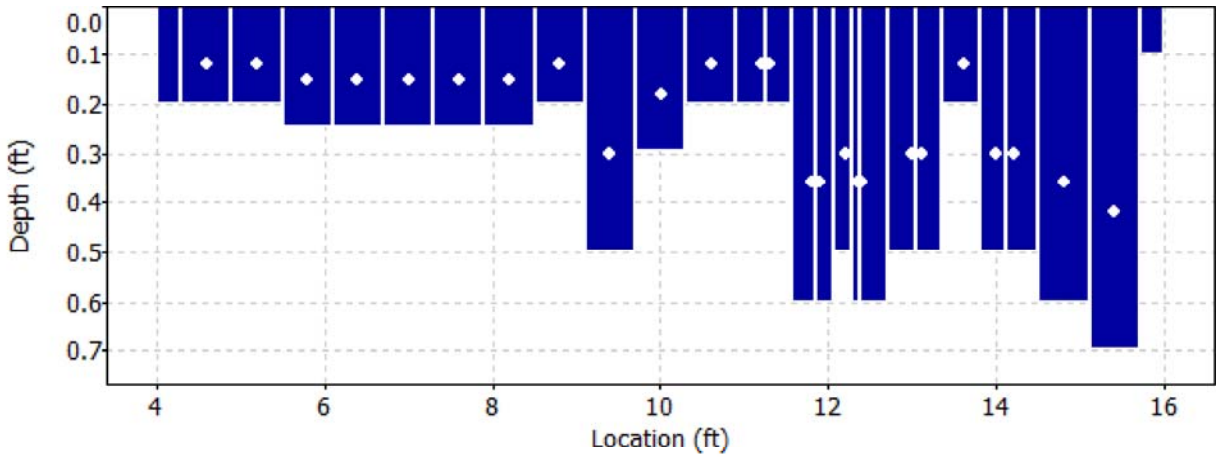
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CU4A.WAD	Site Name	CU4A
Start Date and Time	2017/09/27 15:42:31	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CU4A.WAD	Site Name	CU4A
Start Date and Time	2017/09/27 15:42:31	Operator(s)	EY

Quality Control

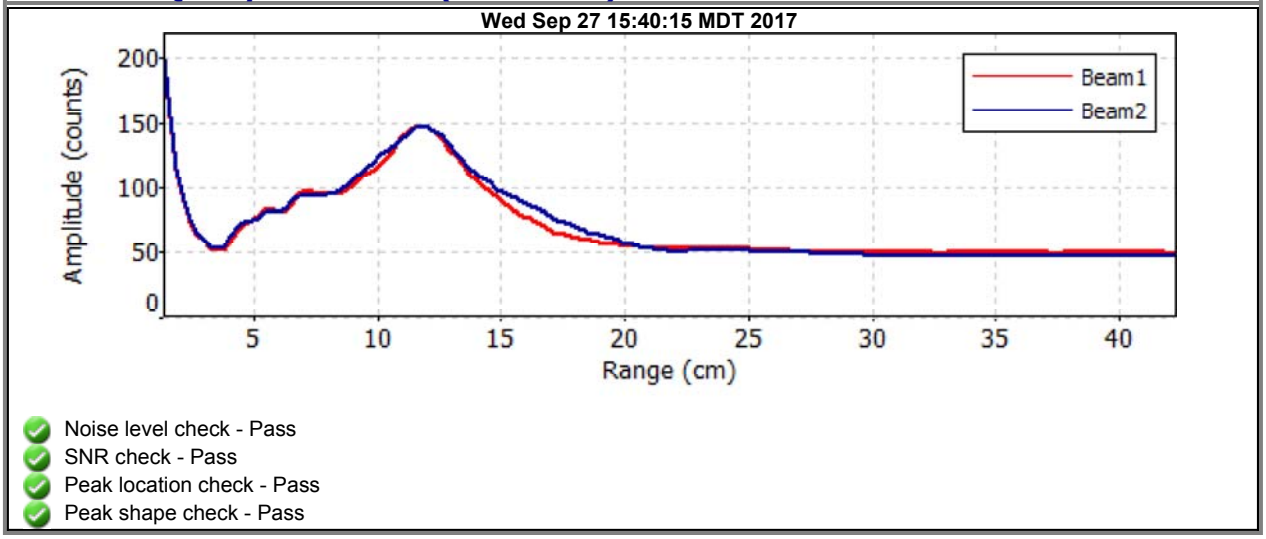
St	Loc	%Dep	Message
1	4.60	0.6	Boundary QC is Good; possible boundary interference
2	5.20	0.6	High SNR variation during measurement: 8.6,8.6
		0.6	High standard error: 0.133
		0.6	Boundary QC is Good; possible boundary interference
3	5.80	0.6	High angle: -40
		0.6	High standard error: 0.101
4	6.40	0.6	High angle: -33
7	8.20	0.6	High angle: -20
8	8.80	0.6	High angle: 29
11	10.60	0.6	High angle: 33
12	11.20	0.6	High angle: 28
23	14.20	0.6	High standard error: 0.171
24	14.80	0.6	High standard error: 0.107
25	15.40	0.6	High standard error: 0.109

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CU4A.WAD	Site Name	CU4A
Start Date and Time	2017/09/27 15:42:31	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	LA3.WAD
Start Date and Time	2017/09/28 09:20:31

Site Details

Site Name	LA3
Operator(s)	EY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	1.5%
Velocity	0.6%	2.3%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.4%	-
Overall	**3.3%**	**2.9%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	LEW	Total Width	25.997
Mean SNR	22.5 dB	Total Area	23.528
Mean Temp	39.31 °F	Mean Depth	0.905
Disch. Equation	Mid-Section	Mean Velocity	0.6210
		Total Discharge	**14.6112**

Measurement Results

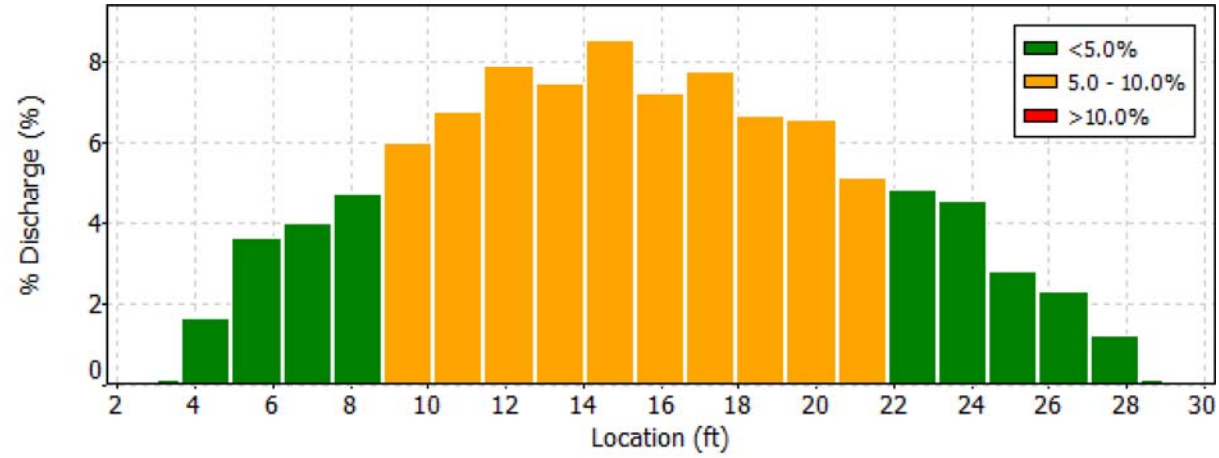
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:20	3.00	None	0.100	0.0	0.0	0.0000	1.00	0.2648	0.065	0.0172	0.1
1	09:20	4.30	0.6	0.700	0.6	0.280	0.2648	1.00	0.2648	0.910	0.2410	1.6
2	09:21	5.60	0.6	0.700	0.6	0.280	0.5846	1.00	0.5846	0.910	0.5321	3.6
3	09:22	6.90	0.6	0.900	0.6	0.360	0.4993	1.00	0.4993	1.170	0.5841	4.0
4	09:23	8.20	0.6	1.000	0.6	0.400	0.5331	1.00	0.5331	1.300	0.6930	4.7
5	09:24	9.50	0.6	1.100	0.6	0.440	0.6086	1.00	0.6086	1.430	0.8703	6.0
6	09:25	10.80	0.6	1.100	0.6	0.440	0.6926	1.00	0.6926	1.430	0.9904	6.8
7	09:26	12.10	0.6	1.200	0.6	0.480	0.7405	1.00	0.7405	1.560	1.1552	7.9
8	09:27	13.40	0.6	1.200	0.6	0.480	0.6982	1.00	0.6982	1.560	1.0891	7.5
9	09:28	14.70	0.6	1.100	0.6	0.440	0.8753	1.00	0.8753	1.430	1.2517	8.6
10	09:29	16.00	0.6	1.050	0.6	0.420	0.7700	1.00	0.7700	1.365	1.0508	7.2
11	09:30	17.30	0.6	1.100	0.6	0.440	0.7956	1.00	0.7956	1.430	1.1377	7.8
12	09:31	18.60	0.6	1.050	0.6	0.420	0.7159	1.00	0.7159	1.365	0.9770	6.7
13	09:33	19.90	0.6	1.050	0.6	0.420	0.7014	1.00	0.7014	1.365	0.9573	6.6
14	09:33	21.20	0.6	0.800	0.6	0.320	0.7221	1.00	0.7221	1.040	0.7508	5.1
15	09:35	22.50	0.6	0.850	0.6	0.340	0.6371	1.00	0.6371	1.105	0.7040	4.8
16	09:36	23.80	0.6	1.000	0.6	0.400	0.5128	1.00	0.5128	1.300	0.6666	4.6
17	09:37	25.10	0.6	0.800	0.6	0.320	0.3957	1.00	0.3957	1.040	0.4114	2.8
18	09:38	26.40	0.6	0.700	0.6	0.280	0.3704	1.00	0.3704	0.910	0.3371	2.3
19	09:39	27.70	0.6	0.600	0.6	0.240	0.2303	1.00	0.2303	0.780	0.1796	1.2
20	09:39	29.00	None	0.100	0.0	0.0	0.0000	1.00	0.2303	0.065	0.0150	0.1

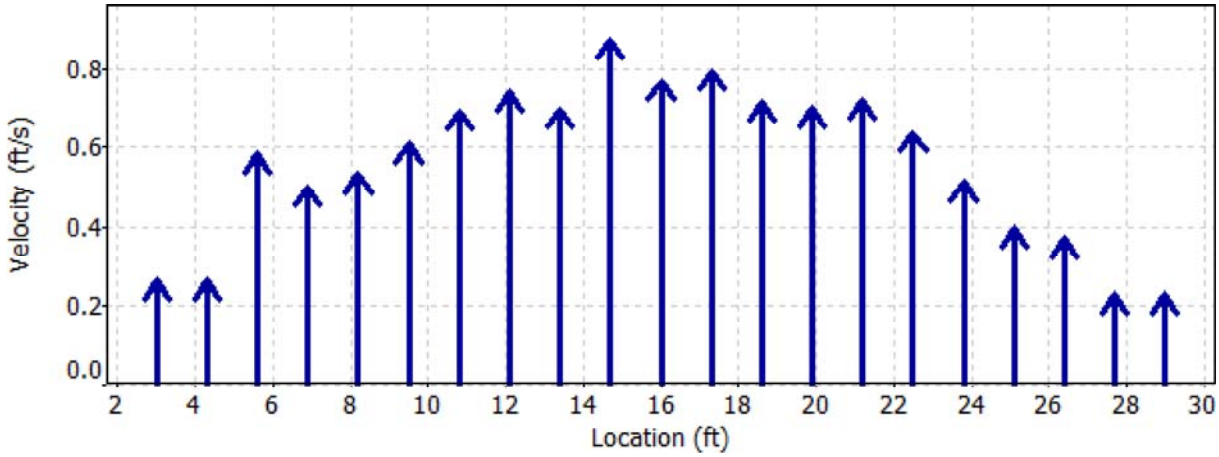
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

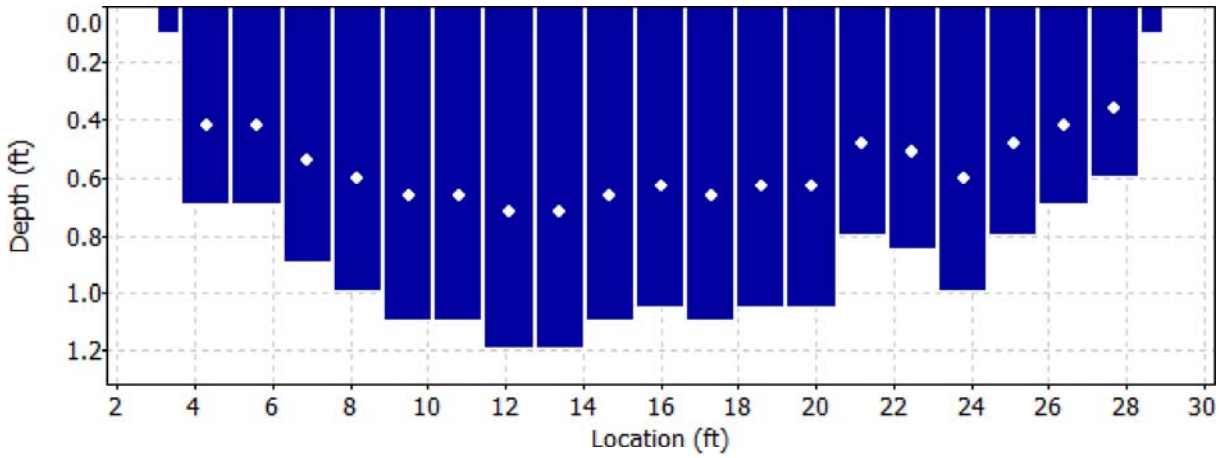
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	LA3.WAD	Site Name	LA3
Start Date and Time	2017/09/28 09:20:31	Operator(s)	EY







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information	
File Name	LA3.WAD
Start Date and Time	2017/09/28 09:20:31

Site Details	
Site Name	LA3
Operator(s)	EY

Quality Control

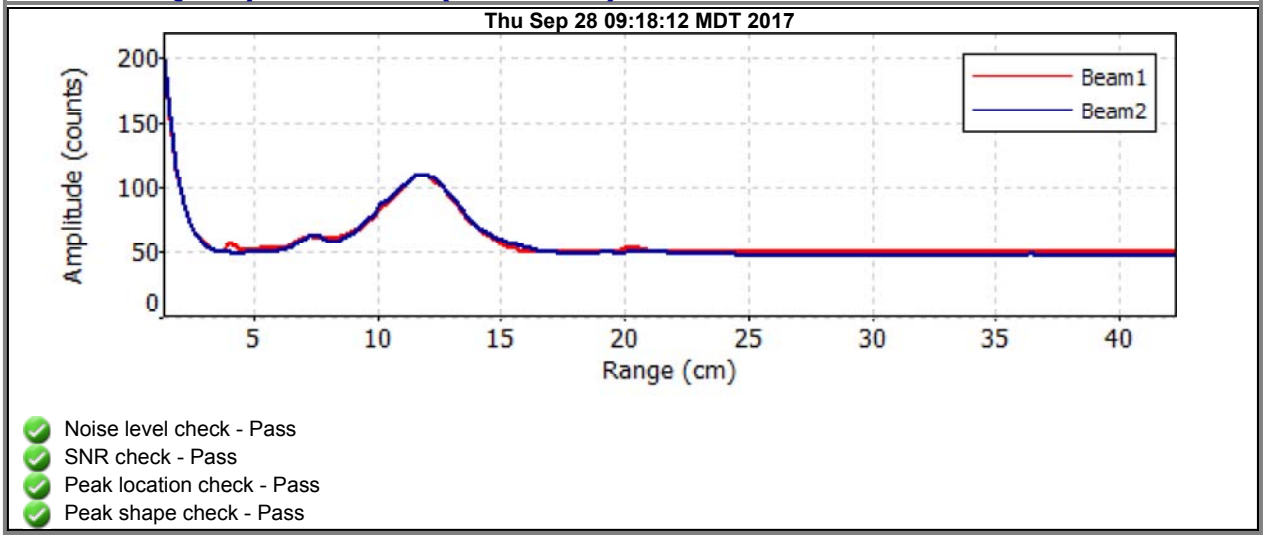
St	Loc	%Dep	Message
No Quality Control warnings			

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	LA3.WAD	Site Name	LA3
Start Date and Time	2017/09/28 09:20:31	Operator(s)	EY

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	CC01T.WAD
Start Date and Time	2017/09/27 09:14:06

Site Details

Site Name	CC01T
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.8%
Velocity	1.3%	8.2%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.0%	-
Overall	**3.2%**	**8.4%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	LEW	Total Width	3.100
Mean SNR	27.5 dB	Total Area	0.664
Mean Temp	39.40 °F	Mean Depth	0.214
Disch. Equation	Mid-Section	Mean Velocity	0.5617
		Total Discharge	**0.3729**

Measurement Results

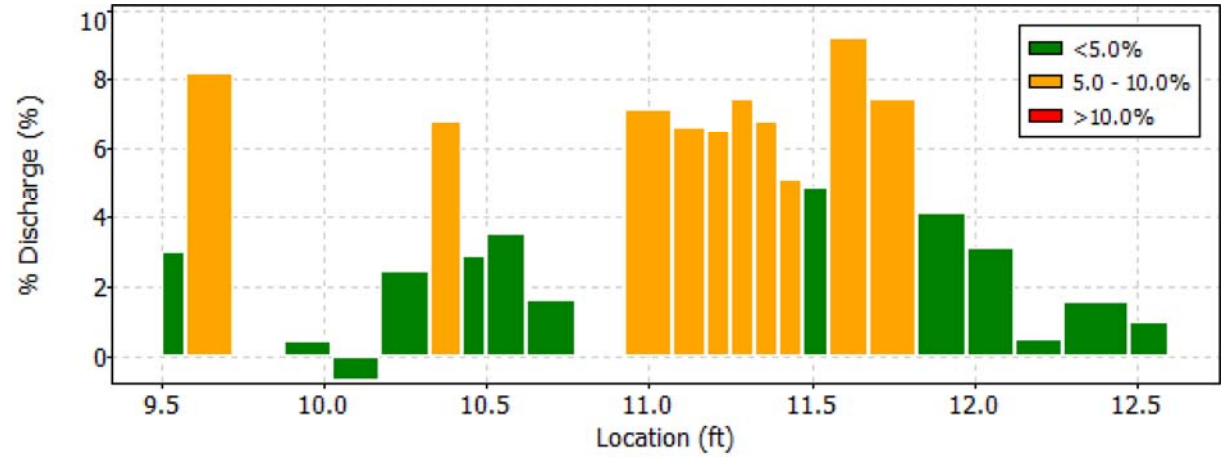
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:14	9.50	None	0.150	0.0	0.0	0.0000	1.00	1.0144	0.011	0.0114	3.1
1	09:14	9.65	0.6	0.200	0.6	0.080	1.0144	1.00	1.0144	0.030	0.0304	8.2
2	09:15	9.80	0.6	0.200	0.6	0.080	0.0059	1.00	0.0059	0.030	0.0002	0.0
3	*09:16*	*9.95*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0551*	*1.00*	*0.0551*	*0.030*	*0.0017*	*0.4*
4	*09:17*	*10.10*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0909*	*1.00*	*-0.0909*	*0.030*	*-0.0027*	*-0.7*
5	*09:17*	*10.25*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3084*	*1.00*	*0.3084*	*0.030*	*0.0093*	*2.5*
6	09:18	10.40	0.6	0.200	0.6	0.080	1.2635	1.00	1.2635	0.020	0.0253	6.8
7	09:33	10.45	0.6	0.200	0.6	0.080	0.7316	1.00	0.7316	0.015	0.0110	2.9
8	09:19	10.55	0.6	0.200	0.6	0.080	0.5338	1.00	0.5338	0.025	0.0133	3.6
9	09:20	10.70	0.6	0.200	0.6	0.080	0.2018	1.00	0.2018	0.030	0.0061	1.6
10	09:21	10.85	0.6	0.200	0.6	0.080	-0.0023	1.00	-0.0023	0.030	-0.0001	0.0
11	09:22	11.00	0.6	0.200	0.6	0.080	0.8825	1.00	0.8825	0.030	0.0265	7.1
12	09:23	11.15	0.6	0.250	0.6	0.100	0.9823	1.00	0.9823	0.025	0.0247	6.6
13	09:38	11.20	0.6	0.250	0.6	0.100	1.3045	1.00	1.3045	0.019	0.0243	6.5
14	09:24	11.30	0.6	0.250	0.6	0.100	1.4836	1.00	1.4836	0.019	0.0278	7.5
15	09:34	11.35	0.6	0.250	0.6	0.100	1.3530	1.00	1.3530	0.019	0.0254	6.8
16	09:25	11.45	0.6	0.300	0.6	0.120	0.8524	1.00	0.8524	0.022	0.0192	5.1
17	09:36	11.50	0.6	0.250	0.6	0.100	0.9721	1.00	0.9721	0.019	0.0182	4.9
18	09:26	11.60	0.6	0.300	0.6	0.120	0.9242	1.00	0.9242	0.037	0.0345	9.3
19	09:27	11.75	0.6	0.250	0.6	0.100	0.7408	1.00	0.7408	0.037	0.0278	7.4
20	09:29	11.90	0.6	0.200	0.6	0.080	0.5112	1.00	0.5112	0.030	0.0153	4.1
21	09:30	12.05	0.6	0.200	0.6	0.080	0.3934	1.00	0.3934	0.030	0.0118	3.2
22	*09:30*	*12.20*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0604*	*1.00*	*0.0604*	*0.030*	*0.0018*	*0.5*
23	09:31	12.35	0.6	0.200	0.6	0.080	0.1503	1.00	0.1503	0.040	0.0060	1.6
24	09:31	12.60	None	0.200	0.0	0.0	0.0000	1.00	0.1503	0.025	0.0038	1.0

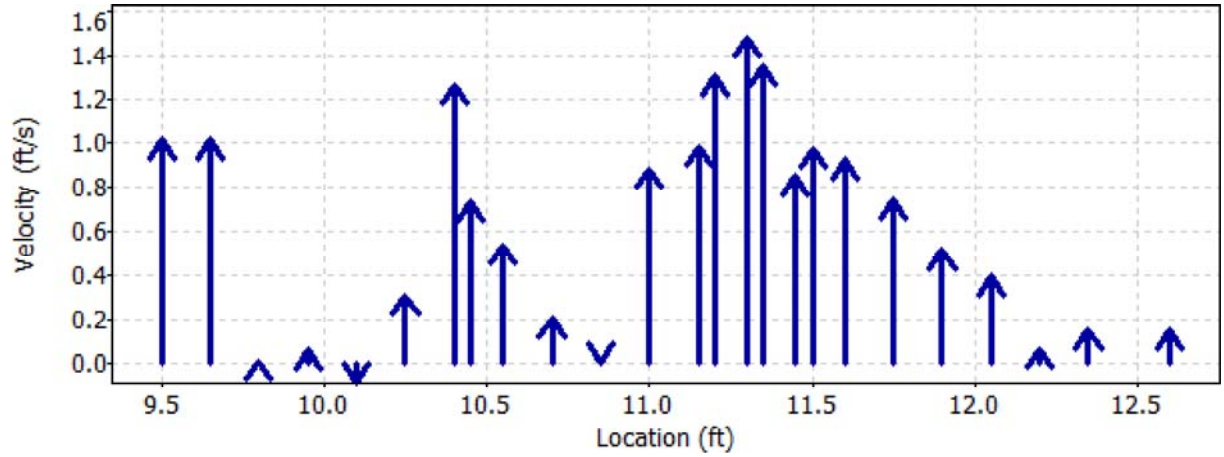
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

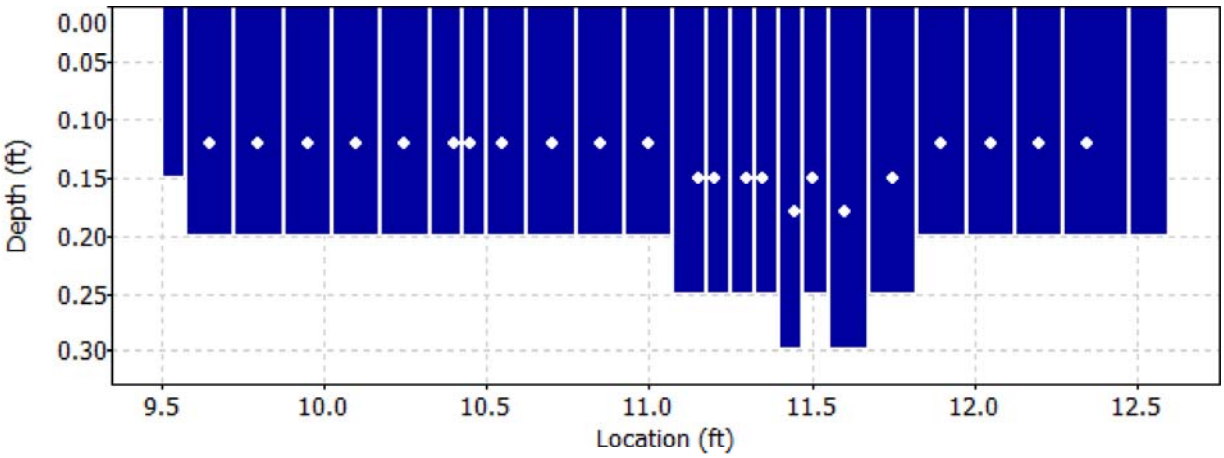
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CC01T.WAD	Site Name	CC01T
Start Date and Time	2017/09/27 09:14:06	Operator(s)	LC







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CC01T.WAD	Site Name	CC01T
Start Date and Time	2017/09/27 09:14:06	Operator(s)	LC

Quality Control

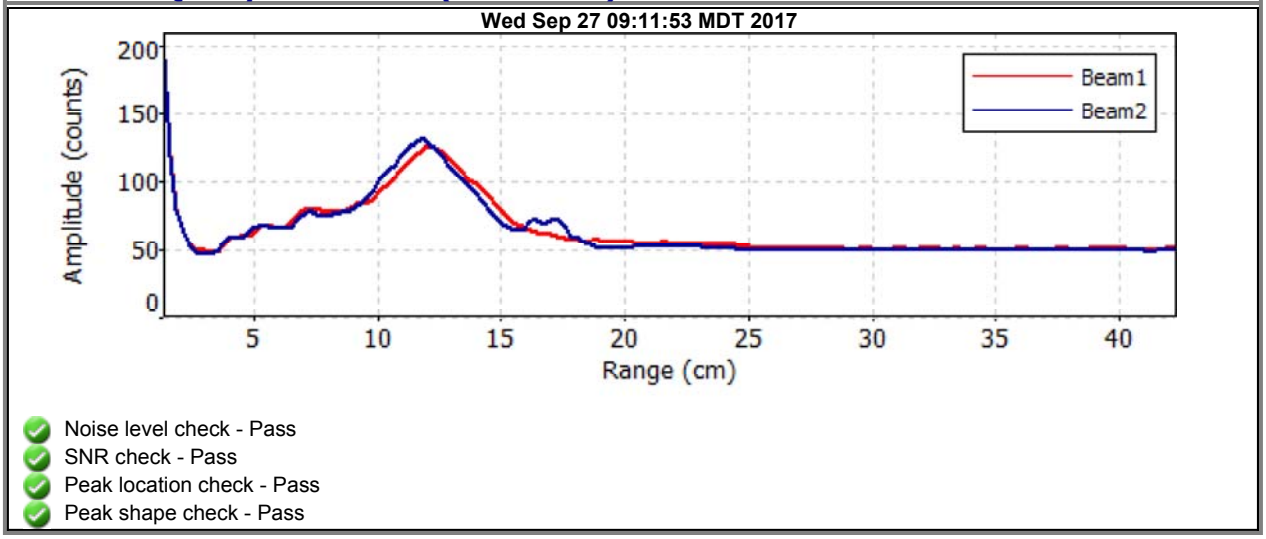
St	Loc	%Dep	Message
3	9.95	0.6	High angle: -23
4	10.10	0.6	High angle: 179
5	10.25	0.6	High standard error: 0.076
22	12.20	0.6	High SNR variation during measurement: 6.0,3.0

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CC01T.WAD	Site Name	CC01T
Start Date and Time	2017/09/27 09:14:06	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	CC02C.WAD
Start Date and Time	2017/09/27 11:53:48

Site Details

Site Name	CC02C
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.6%
Velocity	1.4%	10.4%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.3%	-
Overall	**3.5%**	**10.6%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	2.348
Mean SNR	36.6 dB	Total Area	0.575
Mean Temp	40.49 °F	Mean Depth	0.245
Disch. Equation	Mid-Section	Mean Velocity	0.5464
		Total Discharge	**0.3140**

Measurement Results

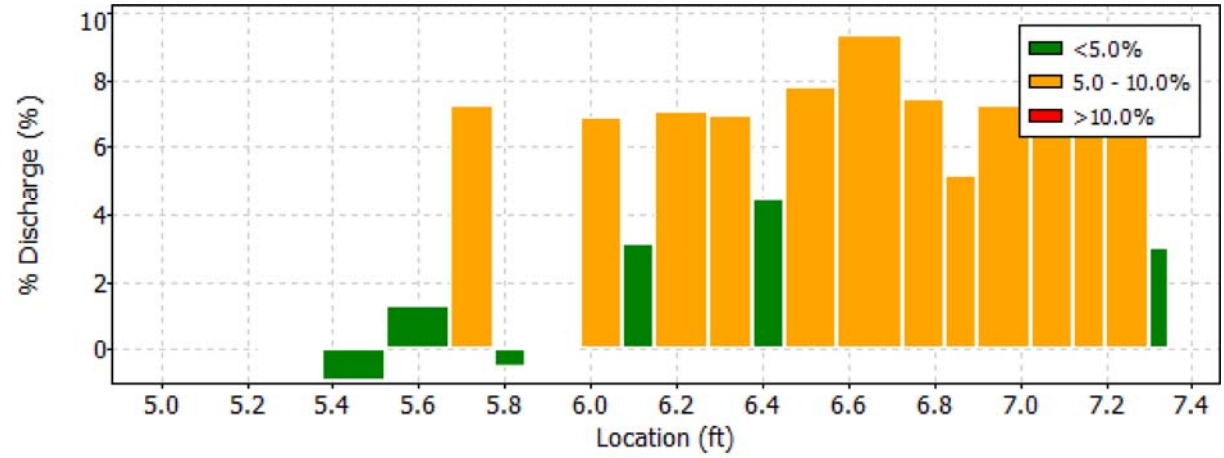
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:53	5.00	None	0.200	0.0	0.0	0.0000	1.00	0.0062	0.015	0.0001	0.0
1	*11:53*	*5.15*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0062*	*1.00*	*0.0062*	*0.030*	*0.0002*	*0.1*
2	*11:54*	*5.30*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0010*	*1.00*	*-0.0010*	*0.030*	*0.0000*	*0.0*
3	*11:55*	*5.45*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0961*	*1.00*	*-0.0961*	*0.030*	*-0.0029*	*-0.9*
4	11:57	5.60	0.6	0.200	0.6	0.080	0.1398	1.00	0.1398	0.030	0.0042	1.3
5	*11:58*	*5.75*	*0.6*	*0.250*	*0.6*	*0.100*	*0.9114*	*1.00*	*0.9114*	*0.025*	*0.0228*	*7.3*
6	*12:09*	*5.80*	*0.6*	*0.250*	*0.6*	*0.100*	*-0.0814*	*1.00*	*-0.0814*	*0.019*	*-0.0015*	*-0.5*
7	*11:59*	*5.90*	*0.6*	*0.250*	*0.6*	*0.100*	*-0.0049*	*1.00*	*-0.0049*	*0.031*	*-0.0002*	*0.0*
8	12:00	6.05	0.6	0.300	0.6	0.120	0.7205	1.00	0.7205	0.030	0.0217	6.9
9	12:14	6.10	0.6	0.300	0.6	0.120	0.4429	1.00	0.4429	0.022	0.0100	3.2
10	12:01	6.20	0.6	0.300	0.6	0.120	0.5958	1.00	0.5958	0.037	0.0223	7.1
11	12:01	6.35	0.6	0.300	0.6	0.120	0.7264	1.00	0.7264	0.030	0.0218	7.0
12	12:16	6.40	0.6	0.300	0.6	0.120	0.6270	1.00	0.6270	0.022	0.0141	4.5
13	12:02	6.50	0.6	0.300	0.6	0.120	0.6535	1.00	0.6535	0.037	0.0244	7.8
14	12:03	6.65	0.6	0.300	0.6	0.120	0.6509	1.00	0.6509	0.045	0.0293	9.3
15	12:04	6.80	0.6	0.300	0.6	0.120	0.7772	1.00	0.7772	0.030	0.0234	7.5
16	12:11	6.85	0.6	0.300	0.6	0.120	0.7247	1.00	0.7247	0.022	0.0163	5.2
17	*12:05*	*6.95*	*0.6*	*0.200*	*0.6*	*0.080*	*0.9163*	*1.00*	*0.9163*	*0.025*	*0.0228*	*7.3*
18	12:07	7.10	0.6	0.200	0.6	0.080	1.4229	1.00	1.4229	0.020	0.0286	9.1
19	12:13	7.15	0.6	0.200	0.6	0.080	1.4150	1.00	1.4150	0.015	0.0212	6.8
20	12:08	7.25	0.6	0.200	0.6	0.080	1.2999	1.00	1.2999	0.020	0.0258	8.2
21	12:08	7.35	None	0.150	0.0	0.0	0.0000	1.00	1.2999	0.007	0.0097	3.1

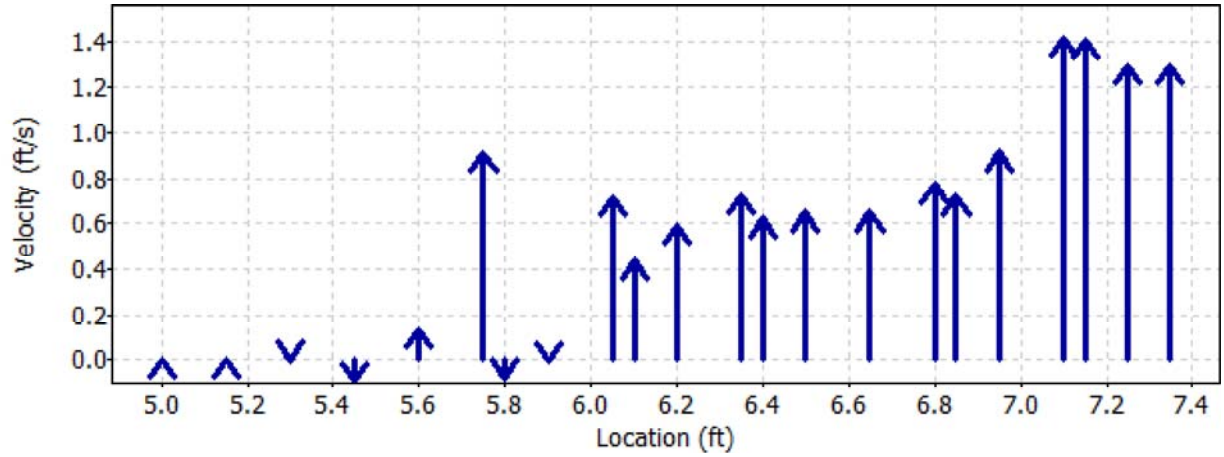
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

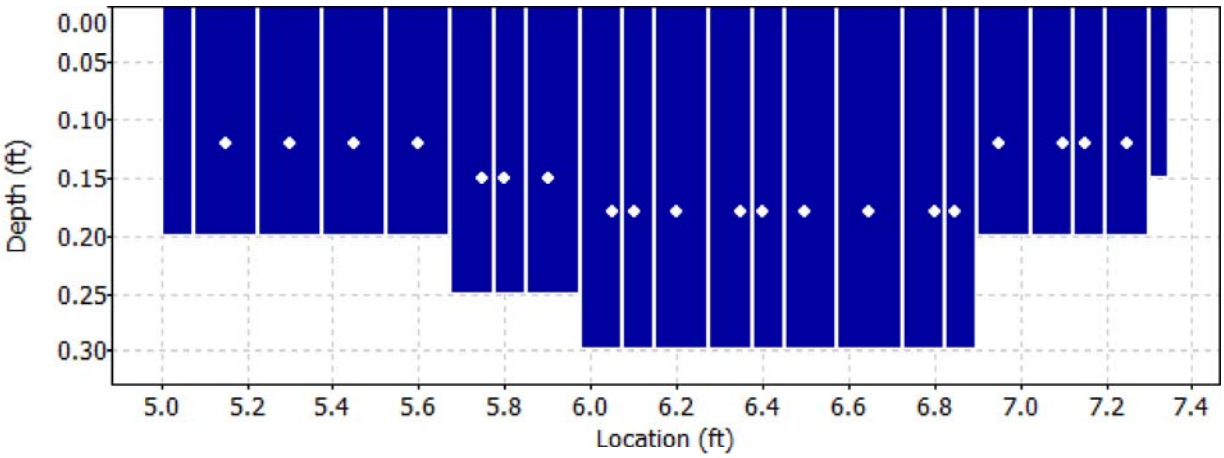
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CC02C.WAD	Site Name	CC02C
Start Date and Time	2017/09/27 11:53:48	Operator(s)	LC







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CC02C.WAD	Site Name	CC02C
Start Date and Time	2017/09/27 11:53:48	Operator(s)	LC

Quality Control

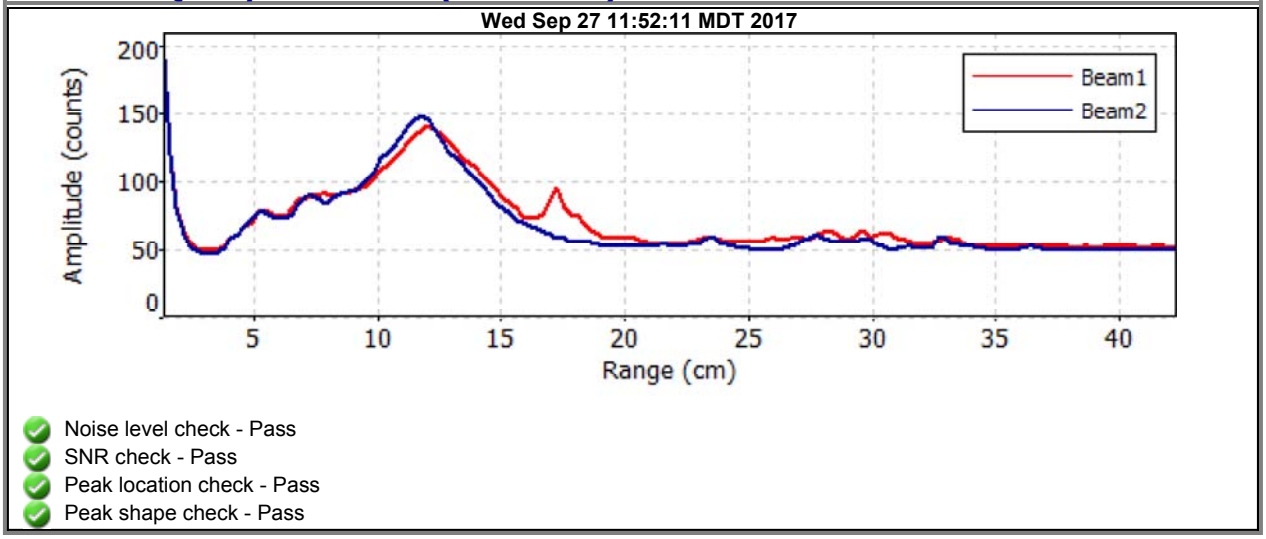
St	Loc	%Dep	Message
1	5.15	0.6	High SNR variation during measurement: 6.5,6.5
2	5.30	0.6	High differences in beam SNR: 67.9,55.0
		0.6	SNR (61.5) is different from typical SNR (36.6)
3	5.45	0.6	High angle: -143
5	5.75	0.6	High standard error: 0.083
6	5.80	0.6	High number of spikes: 5
		0.6	High angle: -166
		0.6	High differences in beam SNR: 49.4,33.1
7	5.90	0.6	High number of spikes: 6
		0.6	SNR (55.0) is different from typical SNR (36.6)
		0.6	High SNR variation during measurement: 12.5,9.9
17	6.95	0.6	High angle: -21

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CC02C.WAD	Site Name	CC02C
Start Date and Time	2017/09/27 11:53:48	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	CC03.WAD
Start Date and Time	2017/09/27 15:22:15

Site Details

Site Name	CC03
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.5%
Velocity	1.4%	4.3%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.5%	-
Overall	**3.6%**	**4.6%**

Summary

Averaging Int.	40	# Stations	20
Start Edge	LEW	Total Width	3.000
Mean SNR	34.5 dB	Total Area	1.463
Mean Temp	40.74 °F	Mean Depth	0.488
Disch. Equation	Mid-Section	Mean Velocity	1.3331
		Total Discharge	**1.9504**

Measurement Results

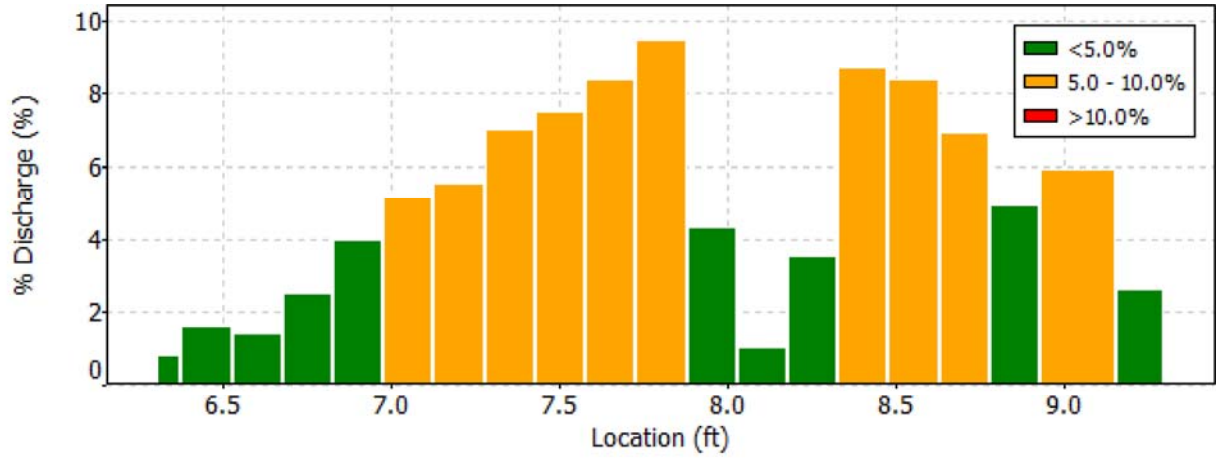
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:22	6.30	None	0.250	0.0	0.0	0.0000	1.00	0.8333	0.019	0.0157	0.8
1	*15:22*	*6.45*	*0.6*	*0.250*	*0.6*	*0.100*	*0.8333*	*1.00*	*0.8333*	*0.038*	*0.0313*	*1.6*
2	15:23	6.60	0.6	0.300	0.6	0.120	0.6175	1.00	0.6175	0.045	0.0278	1.4
3	15:24	6.75	0.6	0.350	0.6	0.140	0.9400	1.00	0.9400	0.053	0.0494	2.5
4	15:25	6.90	0.6	0.400	0.6	0.160	1.3058	1.00	1.3058	0.060	0.0785	4.0
5	15:26	7.05	0.6	0.400	0.6	0.160	1.6673	1.00	1.6673	0.060	0.1002	5.1
6	15:27	7.20	0.6	0.500	0.6	0.200	1.4367	1.00	1.4367	0.075	0.1079	5.5
7	15:28	7.35	0.6	0.500	0.6	0.200	1.8317	1.00	1.8317	0.075	0.1376	7.1
8	15:29	7.50	0.6	0.500	0.6	0.200	1.9488	1.00	1.9488	0.075	0.1464	7.5
9	15:30	7.65	0.6	0.550	0.6	0.220	1.9803	1.00	1.9803	0.083	0.1636	8.4
10	15:31	7.80	0.6	0.600	0.6	0.240	2.0604	1.00	2.0604	0.090	0.1858	9.5
11	*15:32*	*7.95*	*0.6*	*0.550*	*0.6*	*0.220*	*1.0154*	*1.00*	*1.0154*	*0.083*	*0.0839*	*4.3*
12	15:33	8.10	0.6	0.650	0.6	0.260	0.2028	1.00	0.2028	0.098	0.0198	1.0
13	*15:34*	*8.25*	*0.6*	*0.650*	*0.6*	*0.260*	*0.7152*	*1.00*	*0.7152*	*0.098*	*0.0698*	*3.6*
14	15:35	8.40	0.6	0.650	0.6	0.260	1.7434	1.00	1.7434	0.098	0.1703	8.7
15	15:36	8.55	0.6	0.650	0.6	0.260	1.6775	1.00	1.6775	0.098	0.1638	8.4
16	15:37	8.70	0.6	0.650	0.6	0.260	1.3789	1.00	1.3789	0.098	0.1347	6.9
17	15:38	8.85	0.6	0.500	0.6	0.200	1.2854	1.00	1.2854	0.075	0.0966	5.0
18	15:39	9.00	0.6	0.450	0.6	0.180	1.1568	1.00	1.1568	0.100	0.1160	5.9
19	15:39	9.30	None	0.300	0.0	0.0	0.0000	1.00	1.1568	0.044	0.0512	2.6

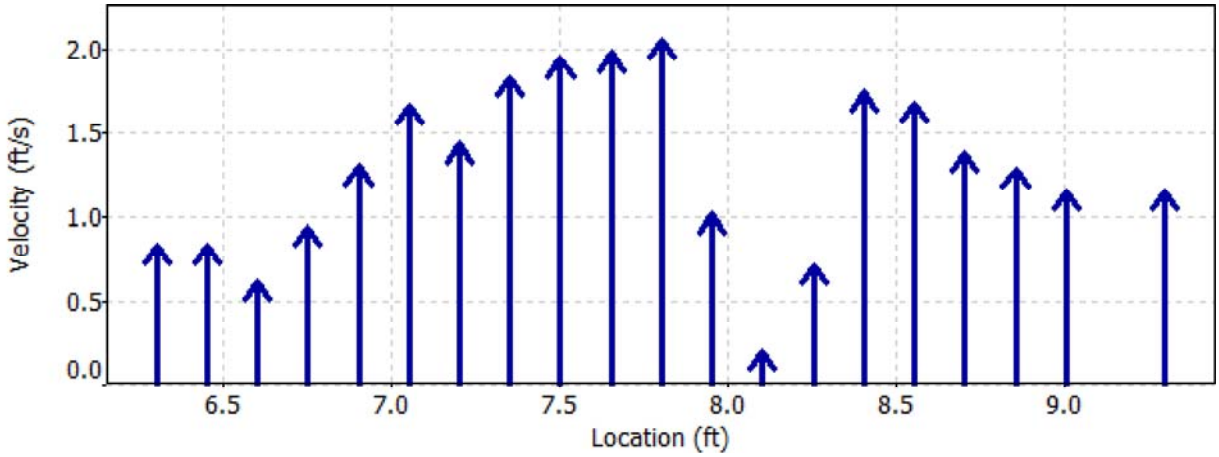
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

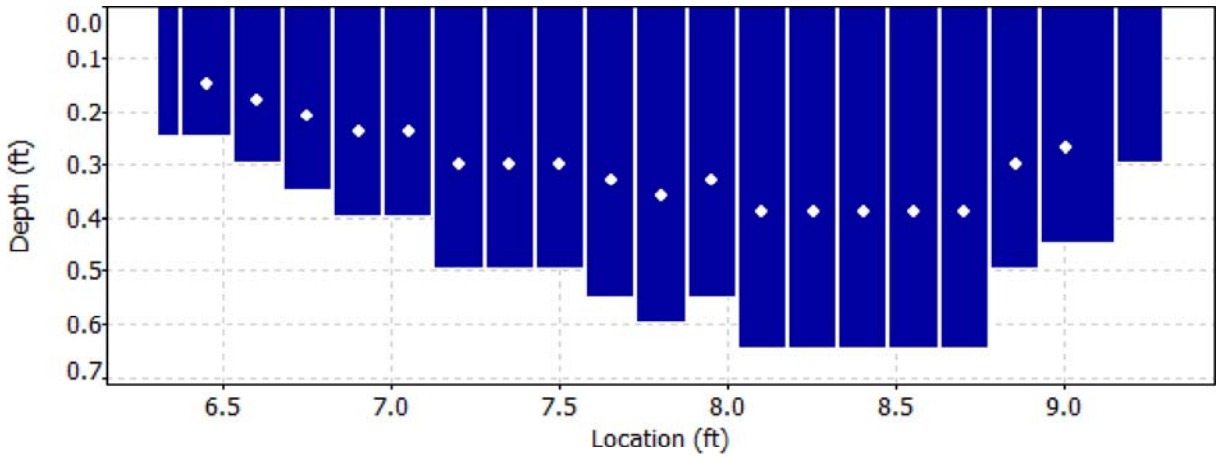
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CC03.WAD	Site Name	CC03
Start Date and Time	2017/09/27 15:22:15	Operator(s)	LC







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information	
File Name	CC03.WAD
Start Date and Time	2017/09/27 15:22:15

Site Details	
Site Name	CC03
Operator(s)	LC

Quality Control

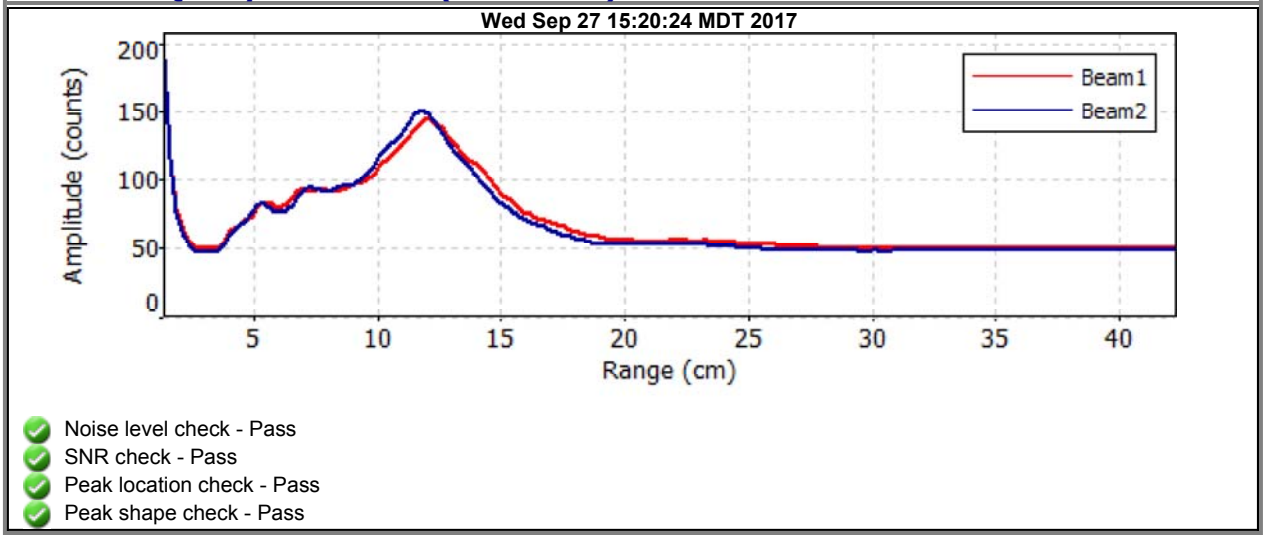
St	Loc	%Dep	Message
1	6.45	0.6	High number of spikes: 5
11	7.95	0.6	High standard error: 0.107
13	8.25	0.6	High standard error: 0.136

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CC03.WAD	Site Name	CC03
Start Date and Time	2017/09/27 15:22:15	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	CC03B.WAD
Start Date and Time	2017/09/27 13:50:47

Site Details

Site Name	CC03B
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.4%
Velocity	1.6%	7.7%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.1%	-
Overall	**3.4%**	**7.9%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	LEW	Total Width	6.200
Mean SNR	30.9 dB	Total Area	1.890
Mean Temp	41.87 °F	Mean Depth	0.305
Disch. Equation	Mid-Section	Mean Velocity	0.6729
		Total Discharge	**1.2715**

Measurement Results

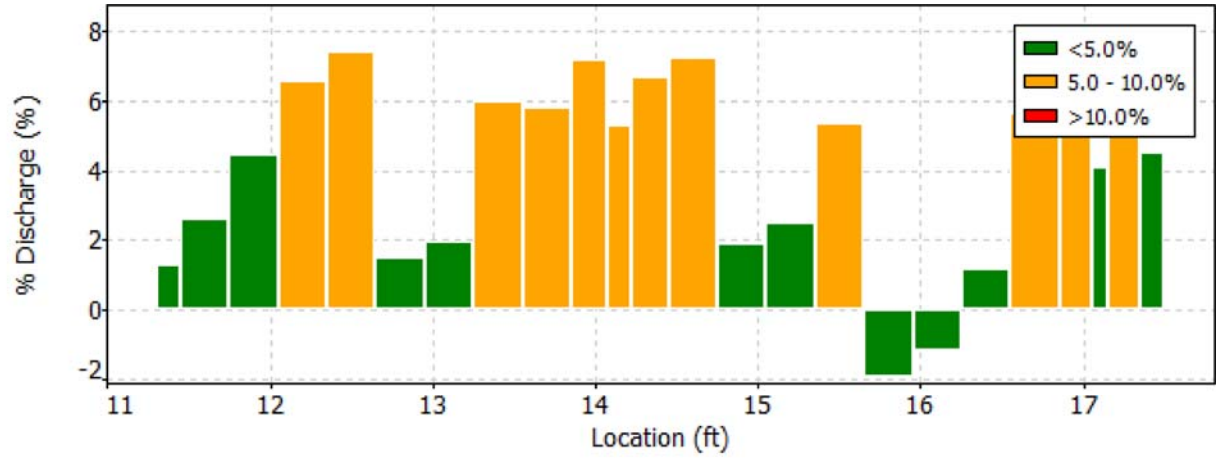
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:50	11.30	None	0.200	0.0	0.0	0.0000	1.00	0.5518	0.030	0.0166	1.3
1	*13:50*	*11.60*	*0.6*	*0.200*	*0.6*	*0.080*	*0.5518*	*1.00*	*0.5518*	*0.060*	*0.0332*	*2.6*
2	13:51	11.90	0.6	0.200	0.6	0.080	0.9403	1.00	0.9403	0.060	0.0565	4.4
3	13:52	12.20	0.6	0.300	0.6	0.120	0.9291	1.00	0.9291	0.090	0.0836	6.6
4	13:53	12.50	0.6	0.300	0.6	0.120	1.0479	1.00	1.0479	0.090	0.0943	7.4
5	*13:54*	*12.80*	*0.6*	*0.300*	*0.6*	*0.120*	*0.2152*	*1.00*	*0.2152*	*0.090*	*0.0194*	*1.5*
6	*13:55*	*13.10*	*0.6*	*0.300*	*0.6*	*0.120*	*0.2743*	*1.00*	*0.2743*	*0.090*	*0.0247*	*1.9*
7	13:56	13.40	0.6	0.300	0.6	0.120	0.8471	1.00	0.8471	0.090	0.0763	6.0
8	13:57	13.70	0.6	0.300	0.6	0.120	0.8222	1.00	0.8222	0.090	0.0740	5.8
9	13:58	14.00	0.6	0.400	0.6	0.160	1.0190	1.00	1.0190	0.090	0.0914	7.2
10	14:11	14.15	0.6	0.400	0.6	0.160	1.1198	1.00	1.1198	0.060	0.0672	5.3
11	*14:00*	*14.30*	*0.6*	*0.400*	*0.6*	*0.160*	*0.9416*	*1.00*	*0.9416*	*0.090*	*0.0851*	*6.7*
12	*14:01*	*14.60*	*0.6*	*0.400*	*0.6*	*0.160*	*0.7661*	*1.00*	*0.7661*	*0.120*	*0.0920*	*7.2*
13	*14:02*	*14.90*	*0.6*	*0.350*	*0.6*	*0.140*	*0.2297*	*1.00*	*0.2297*	*0.105*	*0.0241*	*1.9*
14	14:02	15.20	0.6	0.300	0.6	0.120	0.3504	1.00	0.3504	0.090	0.0315	2.5
15	14:03	15.50	0.6	0.300	0.6	0.120	0.7536	1.00	0.7536	0.090	0.0678	5.3
16	*14:04*	*15.80*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.2753*	*1.00*	*-0.2753*	*0.090*	*-0.0248*	*-1.9*
17	*14:05*	*16.10*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.1660*	*1.00*	*-0.1660*	*0.090*	*-0.0149*	*-1.2*
18	*14:06*	*16.40*	*0.6*	*0.300*	*0.6*	*0.120*	*0.1667*	*1.00*	*0.1667*	*0.090*	*0.0150*	*1.2*
19	*14:07*	*16.70*	*0.6*	*0.300*	*0.6*	*0.120*	*0.7969*	*1.00*	*0.7969*	*0.090*	*0.0717*	*5.6*
20	14:08	17.00	0.6	0.300	0.6	0.120	1.7054	1.00	1.7054	0.059	0.1014	8.0
21	14:12	17.10	0.6	0.300	0.6	0.120	1.7612	1.00	1.7612	0.029	0.0519	4.1
22	*14:09*	*17.20*	*0.6*	*0.300*	*0.6*	*0.120*	*1.2717*	*1.00*	*1.2717*	*0.060*	*0.0763*	*6.0*
23	14:09	17.50	None	0.300	0.0	0.0	0.0000	1.00	1.2717	0.045	0.0572	4.5

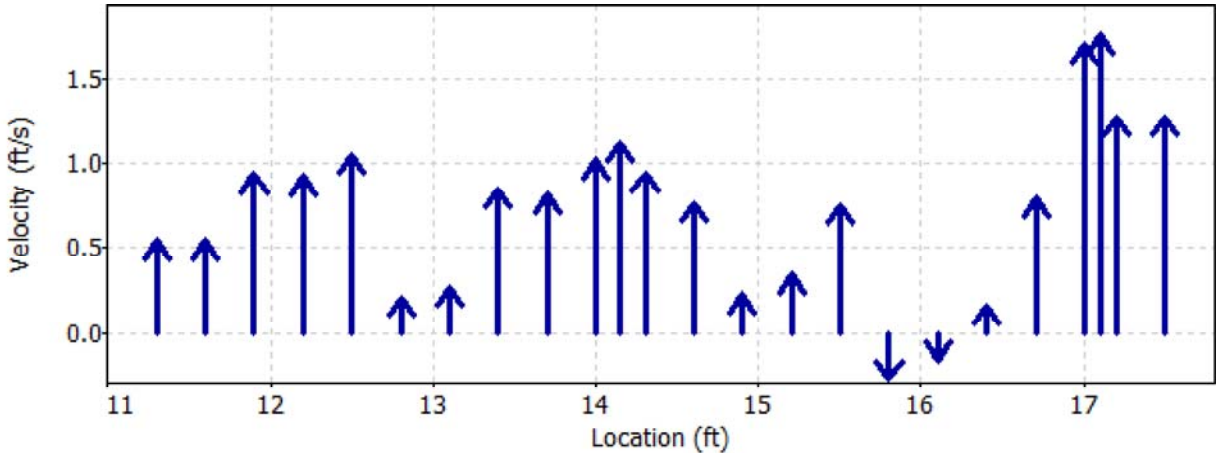
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

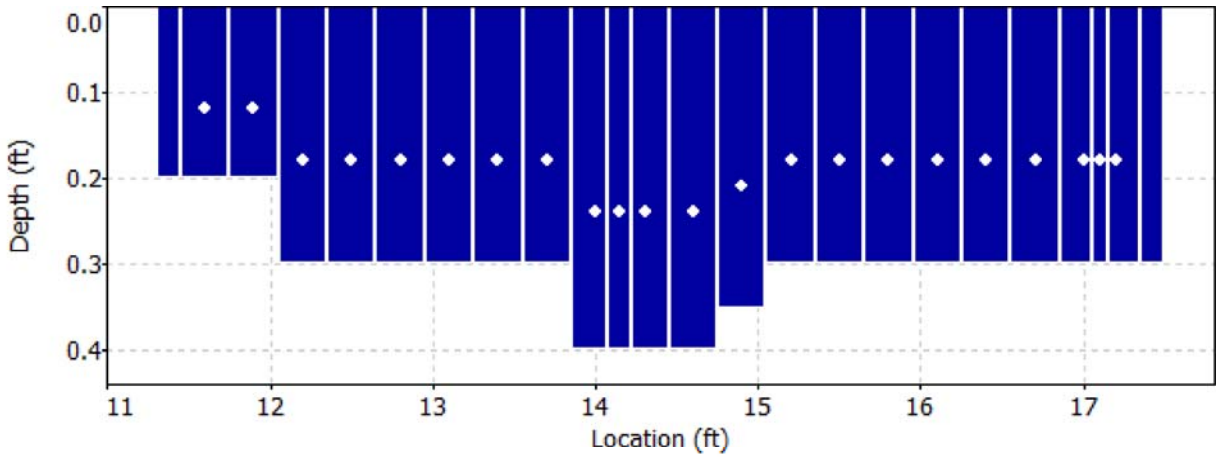
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	CC03B.WAD	Site Name	CC03B
Start Date and Time	2017/09/27 13:50:47	Operator(s)	LC







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information	
File Name	CC03B.WAD
Start Date and Time	2017/09/27 13:50:47

Site Details	
Site Name	CC03B
Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
1	11.60	0.6	High standard error: 0.095
5	12.80	0.6	High angle: -33
6	13.10	0.6	High SNR variation during measurement: 7.3,8.2
11	14.30	0.6	High angle: 25
		0.6	High standard error: 0.086
12	14.60	0.6	High angle: 21
13	14.90	0.6	High angle: 36
16	15.80	0.6	High angle: 178
17	16.10	0.6	High angle: 147
18	16.40	0.6	High angle: -34
19	16.70	0.6	High angle: 25
		0.6	High standard error: 0.083
22	17.20	0.6	High number of spikes: 5
		0.6	High standard error: 0.083

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC03C.WAD
Start Date and Time	2017/09/27 13:18:16

Site Details

Site Name	CC03C
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.1%
Velocity	1.2%	8.6%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**3.4%**	**8.7%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	2.200
Mean SNR	28.4 dB	Total Area	0.555
Mean Temp	43.70 °F	Mean Depth	0.252
Disch. Equation	Mid-Section	Mean Velocity	0.8186
		Total Discharge	**0.4542**

Measurement Results

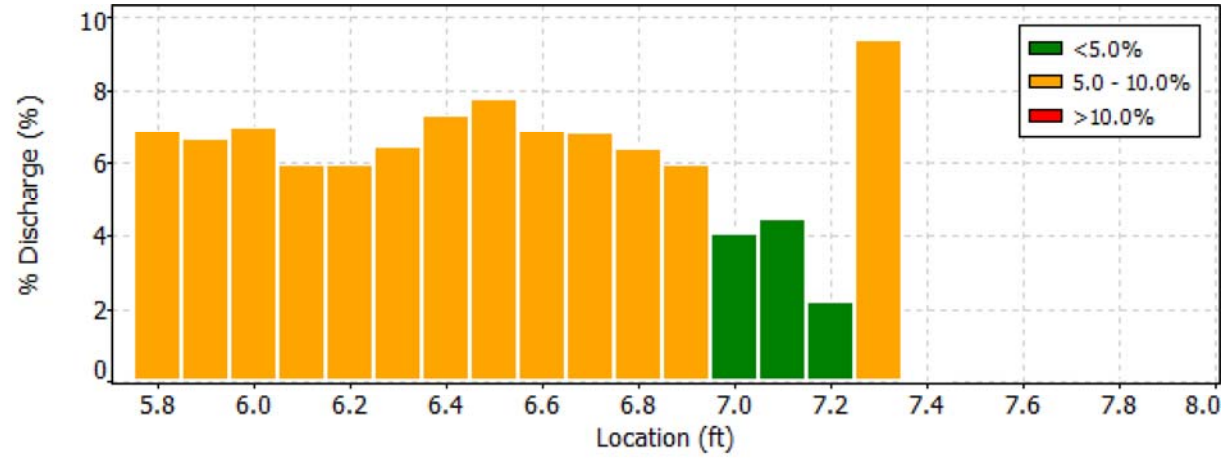
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:18	5.70	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*13:18*	*5.80*	*0.6*	*0.200*	*0.6*	*0.080*	*1.5587*	*1.00*	*1.5587*	*0.020*	*0.0312*	*6.9*
2	*13:19*	*5.90*	*0.6*	*0.200*	*0.6*	*0.080*	*1.5072*	*1.00*	*1.5072*	*0.020*	*0.0302*	*6.6*
3	13:20	6.00	0.6	0.200	0.6	0.080	1.5830	1.00	1.5830	0.020	0.0317	7.0
4	13:21	6.10	0.6	0.200	0.6	0.080	1.3481	1.00	1.3481	0.020	0.0270	5.9
5	13:22	6.20	0.6	0.200	0.6	0.080	1.3527	1.00	1.3527	0.020	0.0271	6.0
6	13:23	6.30	0.6	0.200	0.6	0.080	1.4587	1.00	1.4587	0.020	0.0292	6.4
7	*13:23*	*6.40*	*0.6*	*0.200*	*0.6*	*0.080*	*1.6542*	*1.00*	*1.6542*	*0.020*	*0.0331*	*7.3*
8	13:24	6.50	0.6	0.250	0.6	0.100	1.4088	1.00	1.4088	0.025	0.0352	7.8
9	*13:25*	*6.60*	*0.6*	*0.250*	*0.6*	*0.100*	*1.2520*	*1.00*	*1.2520*	*0.025*	*0.0313*	*6.9*
10	*13:26*	*6.70*	*0.6*	*0.250*	*0.6*	*0.100*	*1.2329*	*1.00*	*1.2329*	*0.025*	*0.0308*	*6.8*
11	13:27	6.80	0.6	0.250	0.6	0.100	1.1545	1.00	1.1545	0.025	0.0289	6.4
12	13:28	6.90	0.6	0.300	0.6	0.120	0.8967	1.00	0.8967	0.030	0.0269	5.9
13	13:30	7.00	0.6	0.300	0.6	0.120	0.6138	1.00	0.6138	0.030	0.0184	4.1
14	*13:31*	*7.10*	*0.6*	*0.300*	*0.6*	*0.120*	*0.6745*	*1.00*	*0.6745*	*0.030*	*0.0202*	*4.5*
15	*13:31*	*7.20*	*0.6*	*0.300*	*0.6*	*0.120*	*0.3346*	*1.00*	*0.3346*	*0.030*	*0.0100*	*2.2*
16	*13:32*	*7.30*	*0.6*	*0.300*	*0.6*	*0.120*	*1.4265*	*1.00*	*1.4265*	*0.030*	*0.0428*	*9.4*
17	*13:33*	*7.40*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.0121*	*1.00*	*-0.0121*	*0.030*	*-0.0004*	*-0.1*
18	*13:34*	*7.50*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.0043*	*1.00*	*-0.0043*	*0.030*	*-0.0001*	*0.0*
19	*13:36*	*7.60*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.0010*	*1.00*	*-0.0010*	*0.030*	*0.0000*	*0.0*
20	*13:36*	*7.70*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0075*	*1.00*	*0.0075*	*0.045*	*0.0003*	*0.1*
21	13:36	7.90	None	0.300	0.0	0.0	0.0000	1.00	0.0075	0.030	0.0002	0.0

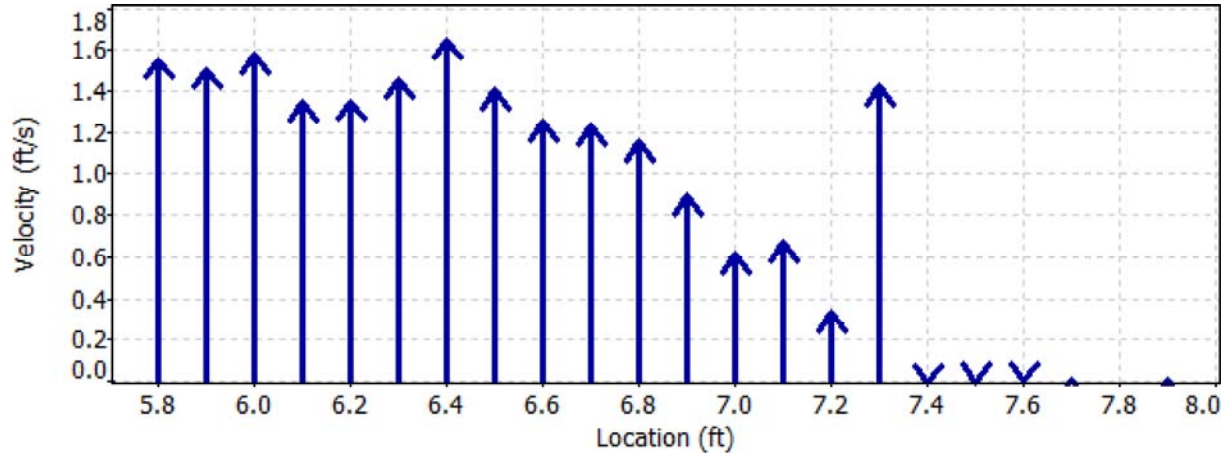
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

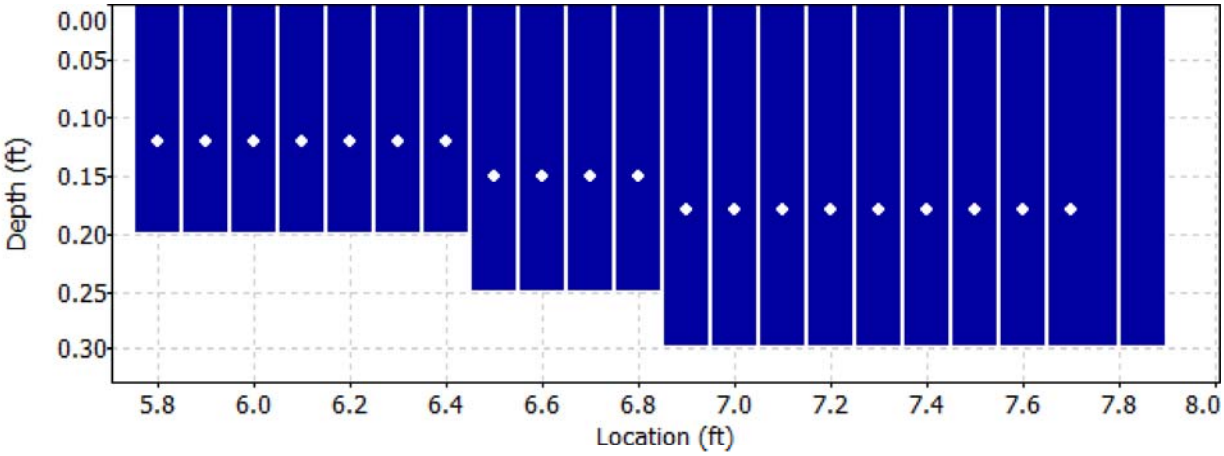
Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC03C.WAD	Site Name	CC03C
Start Date and Time	2017/09/27 13:18:16	Operator(s)	LC







Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC03C.WAD	Site Name	CC03C
Start Date and Time	2017/09/27 13:18:16	Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
1	5.80	0.6	High number of spikes: 5
2	5.90	0.6	High standard error: 0.080
7	6.40	0.6	High number of spikes: 5
9	6.60	0.6	High angle: 20
10	6.70	0.6	High number of spikes: 7
14	7.10	0.6	High angle: -21
15	7.20	0.6	High angle: -20
16	7.30	0.6	High angle: -26
17	7.40	0.6	High number of spikes: 6
18	7.50	0.6	High SNR variation during measurement: 5.2,3.9
19	7.60	0.6	High number of spikes: 7
		0.6	High differences in beam SNR: 27.5,13.7
		0.6	High SNR variation during measurement: 2.6,7.7
20	7.70	0.6	High number of spikes: 5
		0.6	High SNR variation during measurement: 4.3,7.3

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC14.WAD
Start Date and Time	2017/09/28 10:30:36

Site Details

Site Name	CC14
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	0.8%
Velocity	1.9%	7.5%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**3.7%**	**7.6%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	2.100
Mean SNR	37.4 dB	Total Area	0.555
Mean Temp	41.95 °F	Mean Depth	0.264
Disch. Equation	Mid-Section	Mean Velocity	2.0725
		Total Discharge	**1.1501**

Measurement Results

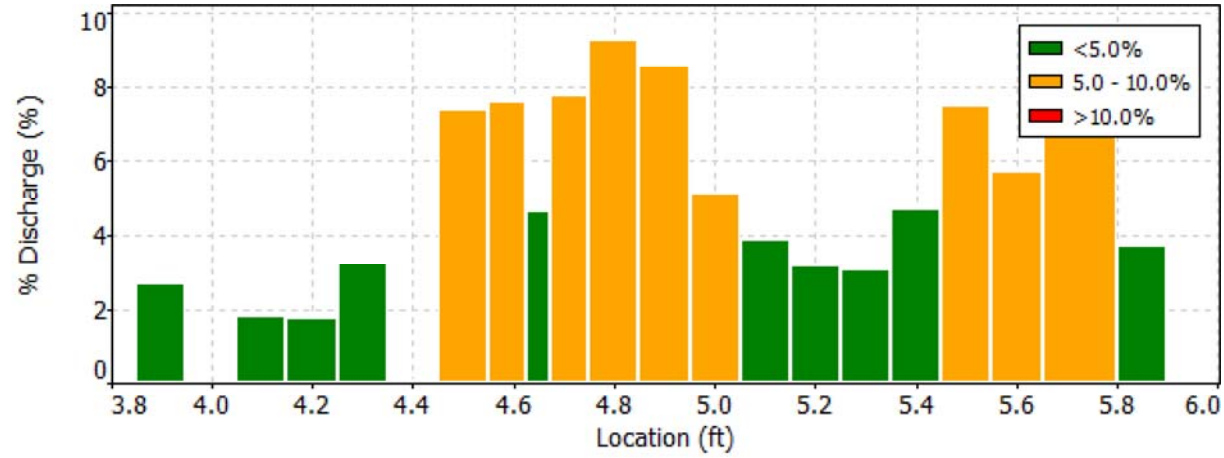
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:30	3.80	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*10:30*	*3.90*	*0.6*	*0.200*	*0.6*	*0.080*	*1.5420*	*1.00*	*1.5420*	*0.020*	*0.0309*	*2.7*
2	*10:31*	*4.00*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0217*	*1.00*	*-0.0217*	*0.020*	*-0.0004*	*0.0*
3	10:32	4.10	0.6	0.200	0.6	0.080	1.0509	1.00	1.0509	0.020	0.0210	1.8
4	*10:34*	*4.20*	*0.6*	*0.250*	*0.6*	*0.100*	*0.8077*	*1.00*	*0.8077*	*0.025*	*0.0202*	*1.8*
5	*10:35*	*4.30*	*0.6*	*0.250*	*0.6*	*0.100*	*1.4718*	*1.00*	*1.4718*	*0.025*	*0.0368*	*3.2*
6	*10:36*	*4.40*	*0.6*	*0.250*	*0.6*	*0.100*	*0.0472*	*1.00*	*0.0472*	*0.025*	*0.0012*	*0.1*
7	*10:37*	*4.50*	*0.6*	*0.250*	*0.6*	*0.100*	*3.3901*	*1.00*	*3.3901*	*0.025*	*0.0848*	*7.4*
8	10:39	4.60	0.6	0.300	0.6	0.120	3.8862	1.00	3.8862	0.022	0.0872	7.6
9	*10:52*	*4.65*	*0.6*	*0.300*	*0.6*	*0.120*	*3.5331*	*1.00*	*3.5331*	*0.015*	*0.0530*	*4.6*
10	10:40	4.70	0.6	0.300	0.6	0.120	3.9482	1.00	3.9482	0.023	0.0891	7.8
11	10:41	4.80	0.6	0.300	0.6	0.120	3.5617	1.00	3.5617	0.030	0.1069	9.3
12	*10:42*	*4.90*	*0.6*	*0.300*	*0.6*	*0.120*	*3.2943*	*1.00*	*3.2943*	*0.030*	*0.0989*	*8.6*
13	10:43	5.00	0.6	0.300	0.6	0.120	1.9692	1.00	1.9692	0.030	0.0591	5.1
14	*10:44*	*5.10*	*0.6*	*0.300*	*0.6*	*0.120*	*1.4954*	*1.00*	*1.4954*	*0.030*	*0.0449*	*3.9*
15	*10:45*	*5.20*	*0.6*	*0.300*	*0.6*	*0.120*	*1.2142*	*1.00*	*1.2142*	*0.030*	*0.0364*	*3.2*
16	*10:46*	*5.30*	*0.6*	*0.300*	*0.6*	*0.120*	*1.1742*	*1.00*	*1.1742*	*0.030*	*0.0352*	*3.1*
17	*10:47*	*5.40*	*0.6*	*0.300*	*0.6*	*0.120*	*1.8022*	*1.00*	*1.8022*	*0.030*	*0.0541*	*4.7*
18	10:48	5.50	0.6	0.300	0.6	0.120	2.8734	1.00	2.8734	0.030	0.0862	7.5
19	10:50	5.60	0.6	0.300	0.6	0.120	2.1877	1.00	2.1877	0.030	0.0656	5.7
20	10:50	5.70	0.6	0.300	0.6	0.120	2.1476	1.00	2.1476	0.045	0.0962	8.4
21	10:50	5.90	None	0.200	0.0	0.0	0.0000	1.00	2.1476	0.020	0.0427	3.7

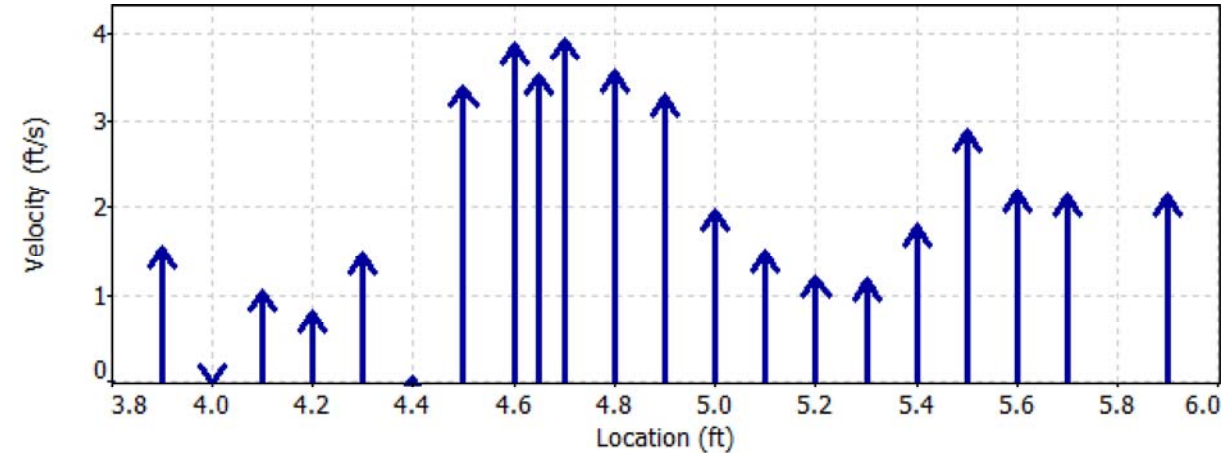
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

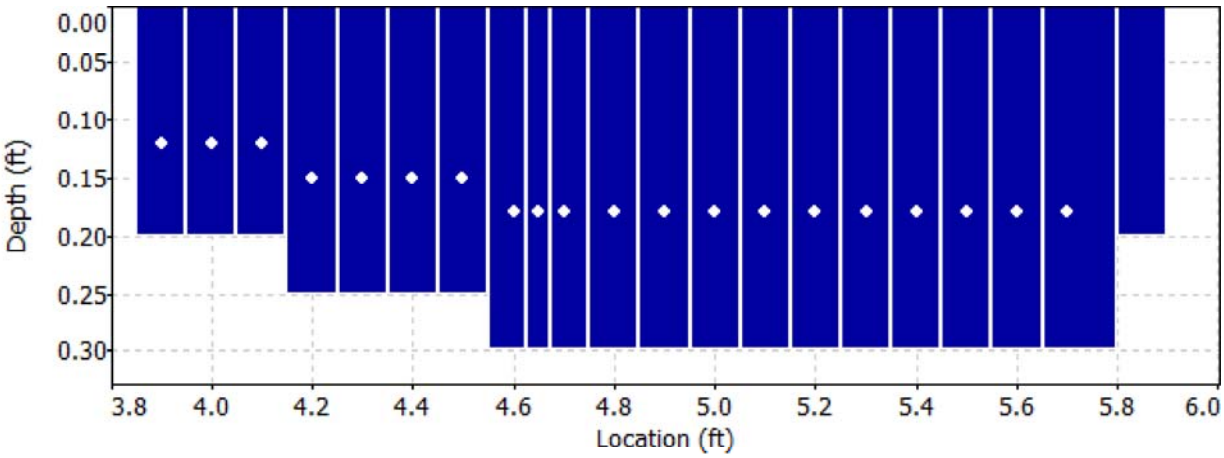
Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC14.WAD	Site Name	CC14
Start Date and Time	2017/09/28 10:30:36	Operator(s)	LC







Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC14.WAD	Site Name	CC14
Start Date and Time	2017/09/28 10:30:36	Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
1	3.90	0.6	SNR (15.0) is different from typical SNR (37.4)
		0.6	High standard error: 0.596
2	4.00	0.6	High angle: 179
		0.6	High SNR variation during measurement: 4.3,5.2
4	4.20	0.6	High standard error: 0.193
5	4.30	0.6	High standard error: 0.251
6	4.40	0.6	High differences in beam SNR: 53.7,41.7
		0.6	SNR (47.7) is different from typical SNR (37.4)
7	4.50	0.6	SNR (47.9) is different from typical SNR (37.4)
9	4.65	0.6	High standard error: 0.214
12	4.90	0.6	High angle: -22
14	5.10	0.6	High standard error: 0.188
15	5.20	0.6	High SNR variation during measurement: 4.3,5.2
16	5.30	0.6	High SNR variation during measurement: 6.0,6.9
17	5.40	0.6	High SNR variation during measurement: 3.4,7.7
		0.6	High standard error: 0.274

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC15.WAD
Start Date and Time	2017/09/28 09:59:22

Site Details

Site Name	CC15
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	5.6%
Velocity	1.1%	7.8%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**3.3%**	**9.7%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	1.200
Mean SNR	33.0 dB	Total Area	0.277
Mean Temp	38.23 °F	Mean Depth	0.231
Disch. Equation	Mid-Section	Mean Velocity	0.9984
		Total Discharge	**0.2762**

Measurement Results

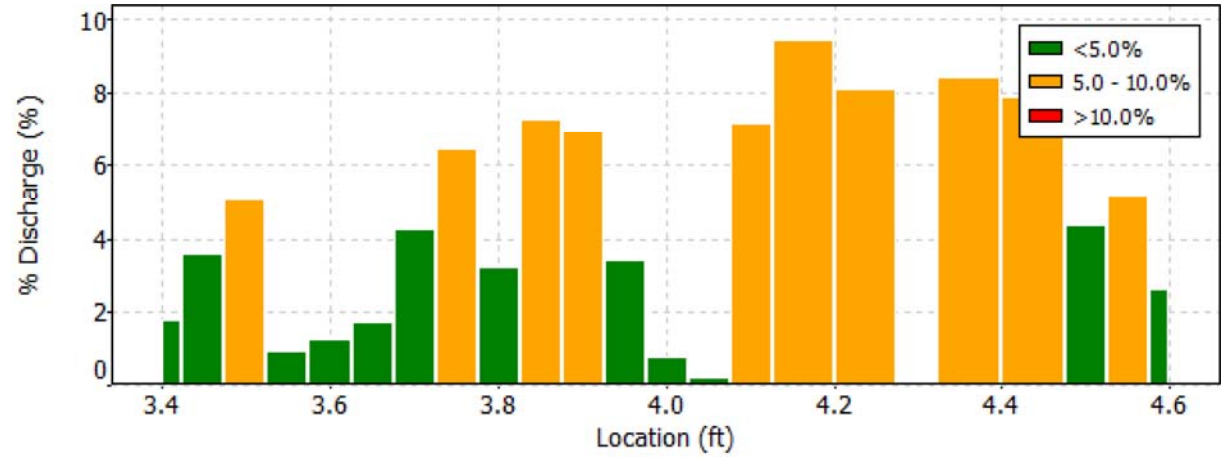
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:59	3.40	None	0.200	0.0	0.0	0.0000	1.00	0.9882	0.005	0.0050	1.8
1	*09:59*	*3.45*	*0.6*	*0.200*	*0.6*	*0.080*	*0.9882*	*1.00*	*0.9882*	*0.010*	*0.0099*	*3.6*
2	10:00	3.50	0.6	0.200	0.6	0.080	1.3957	1.00	1.3957	0.010	0.0140	5.1
3	*10:01*	*3.55*	*0.6*	*0.250*	*0.6*	*0.100*	*0.1959*	*1.00*	*0.1959*	*0.013*	*0.0025*	*0.9*
4	*10:03*	*3.60*	*0.6*	*0.250*	*0.6*	*0.100*	*0.2720*	*1.00*	*0.2720*	*0.013*	*0.0034*	*1.2*
5	*10:04*	*3.65*	*0.6*	*0.250*	*0.6*	*0.100*	*0.3825*	*1.00*	*0.3825*	*0.013*	*0.0048*	*1.7*
6	*10:05*	*3.70*	*0.6*	*0.250*	*0.6*	*0.100*	*0.9341*	*1.00*	*0.9341*	*0.013*	*0.0117*	*4.2*
7	*10:06*	*3.75*	*0.6*	*0.250*	*0.6*	*0.100*	*1.4232*	*1.00*	*1.4232*	*0.013*	*0.0179*	*6.5*
8	10:07	3.80	0.6	0.250	0.6	0.100	0.7028	1.00	0.7028	0.013	0.0088	3.2
9	*10:09*	*3.85*	*0.6*	*0.300*	*0.6*	*0.120*	*1.3310*	*1.00*	*1.3310*	*0.015*	*0.0200*	*7.3*
10	10:10	3.90	0.6	0.300	0.6	0.120	1.2710	1.00	1.2710	0.015	0.0191	6.9
11	*10:11*	*3.95*	*0.6*	*0.300*	*0.6*	*0.120*	*0.6329*	*1.00*	*0.6329*	*0.015*	*0.0095*	*3.4*
12	10:12	4.00	0.6	0.300	0.6	0.120	0.1368	1.00	0.1368	0.015	0.0021	0.7
13	*10:12*	*4.05*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0381*	*1.00*	*0.0381*	*0.015*	*0.0006*	*0.2*
14	10:14	4.10	0.6	0.250	0.6	0.100	1.5719	1.00	1.5719	0.013	0.0197	7.1
15	10:15	4.15	0.6	0.250	0.6	0.100	1.4232	1.00	1.4232	0.018	0.0262	9.5
16	10:16	4.25	0.6	0.200	0.6	0.080	1.5233	1.00	1.5233	0.015	0.0224	8.1
17	10:21	4.30	0.6	0.000	0.6	0.100	1.5889	1.00	0.0000	0.000	0.0000	0.0
18	10:17	4.35	0.6	0.200	0.6	0.080	1.5446	1.00	1.5446	0.015	0.0232	8.4
19	10:17	4.45	0.6	0.200	0.6	0.080	1.4262	1.00	1.4262	0.015	0.0218	7.9
20	10:22	4.50	0.6	0.200	0.6	0.080	1.2037	1.00	1.2037	0.010	0.0120	4.4
21	10:19	4.55	0.6	0.200	0.6	0.080	1.4341	1.00	1.4341	0.010	0.0143	5.2
22	10:19	4.60	None	0.200	0.0	0.0	0.0000	1.00	1.4341	0.005	0.0072	2.6

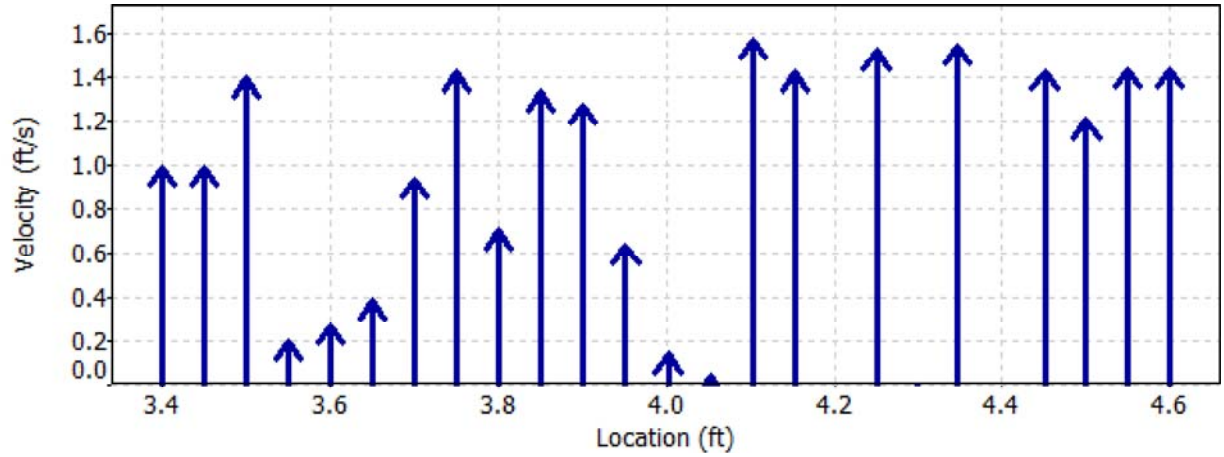
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

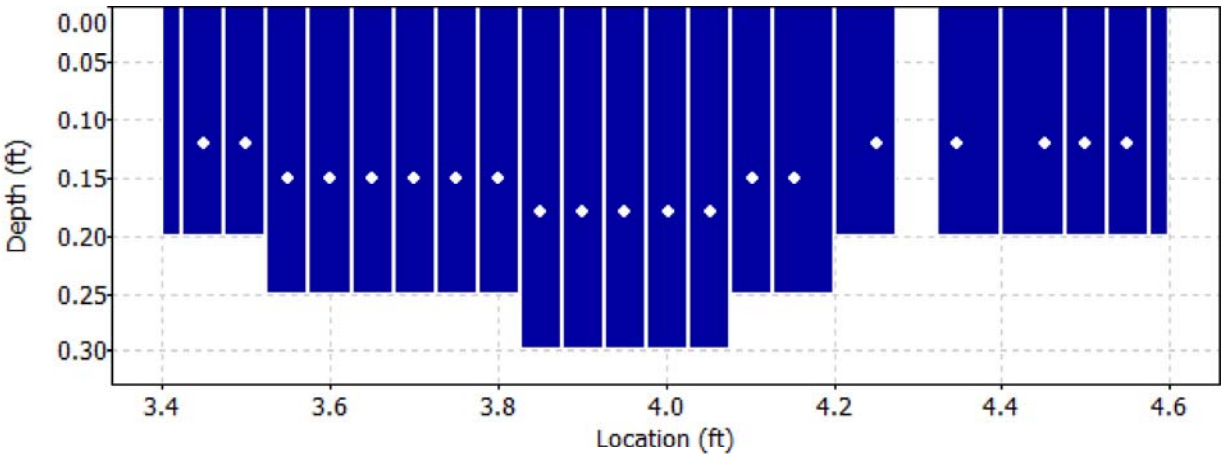
Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC15.WAD	Site Name	CC15
Start Date and Time	2017/09/28 09:59:22	Operator(s)	LC







Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC15.WAD	Site Name	CC15
Start Date and Time	2017/09/28 09:59:22	Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
1	3.45	0.6	High standard error: 0.081
3	3.55	0.6	High angle: 29
4	3.60	0.6	High standard error: 0.090
5	3.65	0.6	High standard error: 0.076
6	3.70	0.6	High standard error: 0.085
7	3.75	0.6	High differences in beam SNR: 20.6,31.8
9	3.85	0.6	High number of spikes: 6
11	3.95	0.6	High standard error: 0.091
13	4.05	0.6	High angle: 53

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC15A.WAD
Start Date and Time	2017/09/28 09:27:31

Site Details

Site Name	CC15A
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.5%
Velocity	1.3%	12.1%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.3%	-
Overall	**3.4%**	**12.4%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	2.800
Mean SNR	38.0 dB	Total Area	0.933
Mean Temp	40.19 °F	Mean Depth	0.333
Disch. Equation	Mid-Section	Mean Velocity	1.4075
		Total Discharge	**1.3139**

Measurement Results

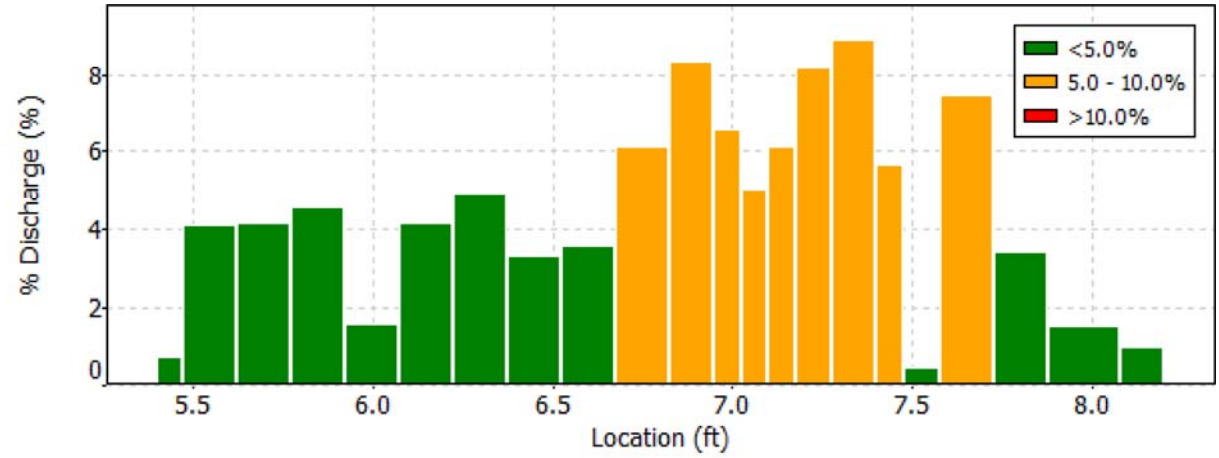
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:27	5.40	None	0.100	0.0	0.0	0.0000	1.00	1.2001	0.008	0.0090	0.7
1	09:27	5.55	0.6	0.300	0.6	0.120	1.2001	1.00	1.2001	0.045	0.0540	4.1
2	09:28	5.70	0.6	0.300	0.6	0.120	1.2165	1.00	1.2165	0.045	0.0547	4.2
3	09:29	5.85	0.6	0.400	0.6	0.160	1.0010	1.00	1.0010	0.060	0.0600	4.6
4	*09:30*	*6.00*	*0.6*	*0.400*	*0.6*	*0.160*	*0.3422*	*1.00*	*0.3422*	*0.060*	*0.0205*	*1.6*
5	09:31	6.15	0.6	0.400	0.6	0.160	0.9111	1.00	0.9111	0.060	0.0546	4.2
6	09:32	6.30	0.6	0.400	0.6	0.160	1.0784	1.00	1.0784	0.060	0.0647	4.9
7	09:33	6.45	0.6	0.300	0.6	0.120	0.9790	1.00	0.9790	0.045	0.0440	3.4
8	09:34	6.60	0.6	0.300	0.6	0.120	1.0571	1.00	1.0571	0.045	0.0475	3.6
9	*09:35*	*6.75*	*0.6*	*0.400*	*0.6*	*0.160*	*1.3474*	*1.00*	*1.3474*	*0.060*	*0.0808*	*6.1*
10	09:36	6.90	0.6	0.400	0.6	0.160	2.1821	1.00	2.1821	0.050	0.1094	8.3
11	09:46	7.00	0.6	0.400	0.6	0.160	2.8819	1.00	2.8819	0.030	0.0864	6.6
12	09:37	7.05	0.6	0.300	0.6	0.120	2.9518	1.00	2.9518	0.022	0.0664	5.1
13	09:47	7.15	0.6	0.350	0.6	0.140	3.0745	1.00	3.0745	0.026	0.0807	6.1
14	09:38	7.20	0.6	0.400	0.6	0.160	2.6959	1.00	2.6959	0.040	0.1074	8.2
15	09:39	7.35	0.6	0.300	0.6	0.120	3.1175	1.00	3.1175	0.038	0.1173	8.9
16	09:49	7.45	0.6	0.300	0.6	0.120	3.3133	1.00	3.3133	0.022	0.0745	5.7
17	*09:40*	*7.50*	*0.6*	*0.300*	*0.6*	*0.120*	*0.2041*	*1.00*	*0.2041*	*0.030*	*0.0061*	*0.5*
18	09:41	7.65	0.6	0.300	0.6	0.120	2.1814	1.00	2.1814	0.045	0.0981	7.5
19	09:42	7.80	0.6	0.300	0.6	0.120	1.0036	1.00	1.0036	0.045	0.0451	3.4
20	*09:44*	*7.95*	*0.6*	*0.300*	*0.6*	*0.120*	*0.3350*	*1.00*	*0.3350*	*0.060*	*0.0202*	*1.5*
21	09:44	8.20	None	0.300	0.0	0.0	0.0000	1.00	0.3350	0.038	0.0126	1.0

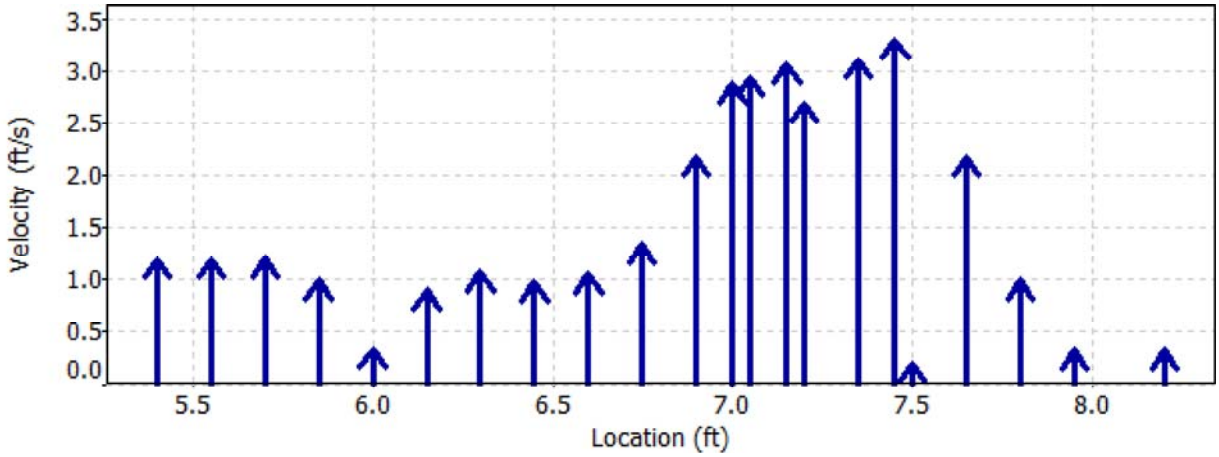
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

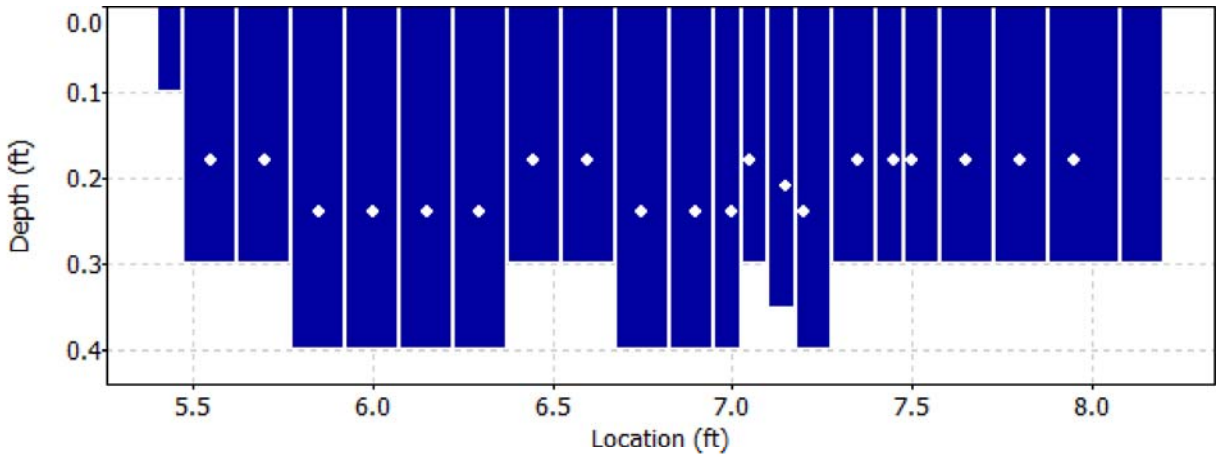
Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC15A.WAD	Site Name	CC15A
Start Date and Time	2017/09/28 09:27:31	Operator(s)	LC







Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC15A.WAD	Site Name	CC15A
Start Date and Time	2017/09/28 09:27:31	Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
4	6.00	0.6	High angle: -33
9	6.75	0.6	High angle: -21
17	7.50	0.6	High angle: 47
		0.6	High SNR variation during measurement: 8.6,3.4
20	7.95	0.6	High angle: 22

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC16B.WAD
Start Date and Time	2017/09/28 08:50:14

Site Details

Site Name	CC16B
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.3%
Velocity	2.2%	7.9%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**3.8%**	**8.1%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	5.997
Mean SNR	31.9 dB	Total Area	2.144
Mean Temp	38.47 °F	Mean Depth	0.357
Disch. Equation	Mid-Section	Mean Velocity	0.8153
		Total Discharge	**1.7478**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:50	10.10	None	0.100	0.0	0.0	0.0000	1.00	0.1906	0.015	0.0029	0.2
1	08:50	10.40	0.6	0.200	0.6	0.080	0.1906	1.00	0.1906	0.060	0.0114	0.7
2	08:51	10.70	0.6	0.200	0.6	0.080	0.1722	1.00	0.1722	0.060	0.0103	0.6
3	*08:52*	*11.00*	*0.6*	*0.300*	*0.6*	*0.120*	*0.9491*	*1.00*	*0.9491*	*0.090*	*0.0853*	*4.9*
4	*08:53*	*11.30*	*0.6*	*0.300*	*0.6*	*0.120*	*0.3698*	*1.00*	*0.3698*	*0.090*	*0.0332*	*1.9*
5	08:54	11.60	0.6	0.300	0.6	0.120	1.3150	1.00	1.3150	0.090	0.1182	6.8
6	08:56	11.90	0.6	0.400	0.6	0.160	1.6381	1.00	1.6381	0.090	0.1476	8.4
7	09:10	12.05	0.6	0.400	0.6	0.160	1.4882	1.00	1.4882	0.060	0.0892	5.1
8	08:57	12.20	0.6	0.400	0.6	0.160	1.5043	1.00	1.5043	0.090	0.1351	7.7
9	08:58	12.50	0.6	0.400	0.6	0.160	1.2346	1.00	1.2346	0.120	0.1481	8.5
10	*08:59*	*12.80*	*0.6*	*0.400*	*0.6*	*0.160*	*0.9541*	*1.00*	*0.9541*	*0.120*	*0.1144*	*6.5*
11	09:00	13.10	0.6	0.400	0.6	0.160	0.5095	1.00	0.5095	0.120	0.0611	3.5
12	*09:01*	*13.40*	*0.6*	*0.400*	*0.6*	*0.160*	*-0.0889*	*1.00*	*-0.0889*	*0.120*	*-0.0107*	*-0.6*
13	09:02	13.70	0.6	0.400	0.6	0.160	0.7625	1.00	0.7625	0.120	0.0914	5.2
14	*09:02*	*14.00*	*0.6*	*0.400*	*0.6*	*0.160*	*0.7513*	*1.00*	*0.7513*	*0.120*	*0.0901*	*5.2*
15	*09:03*	*14.30*	*0.6*	*0.400*	*0.6*	*0.160*	*0.9521*	*1.00*	*0.9521*	*0.120*	*0.1142*	*6.5*
16	09:04	14.60	0.6	0.400	0.6	0.160	1.6368	1.00	1.6368	0.090	0.1479	8.5
17	09:11	14.75	0.6	0.400	0.6	0.160	1.6778	1.00	1.6778	0.060	0.1006	5.8
18	09:05	14.90	0.6	0.400	0.6	0.160	1.0997	1.00	1.0997	0.090	0.0985	5.6
19	09:06	15.20	0.6	0.400	0.6	0.160	0.3465	1.00	0.3465	0.120	0.0415	2.4
20	09:07	15.50	0.6	0.450	0.6	0.180	0.1401	1.00	0.1401	0.135	0.0189	1.1
21	09:08	15.80	0.6	0.400	0.6	0.160	0.5968	1.00	0.5968	0.120	0.0716	4.1
22	09:08	16.10	None	0.300	0.0	0.0	0.0000	1.00	0.5968	0.045	0.0268	1.5

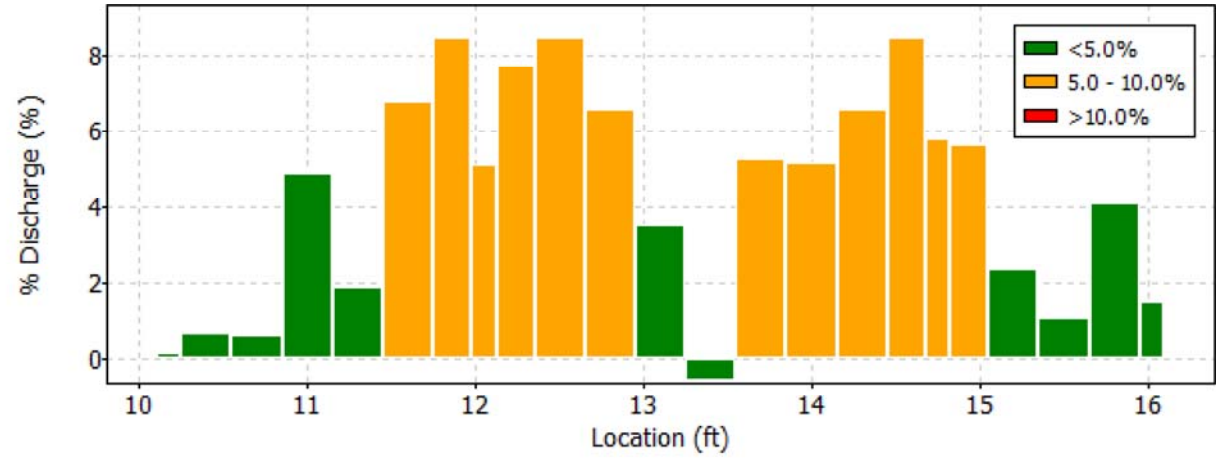
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

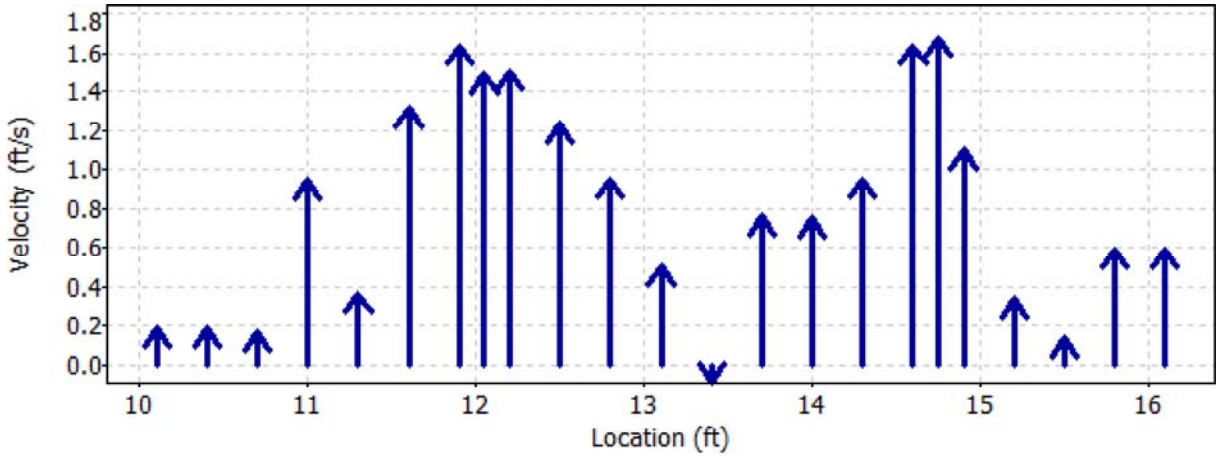
Discharge Measurement Summary

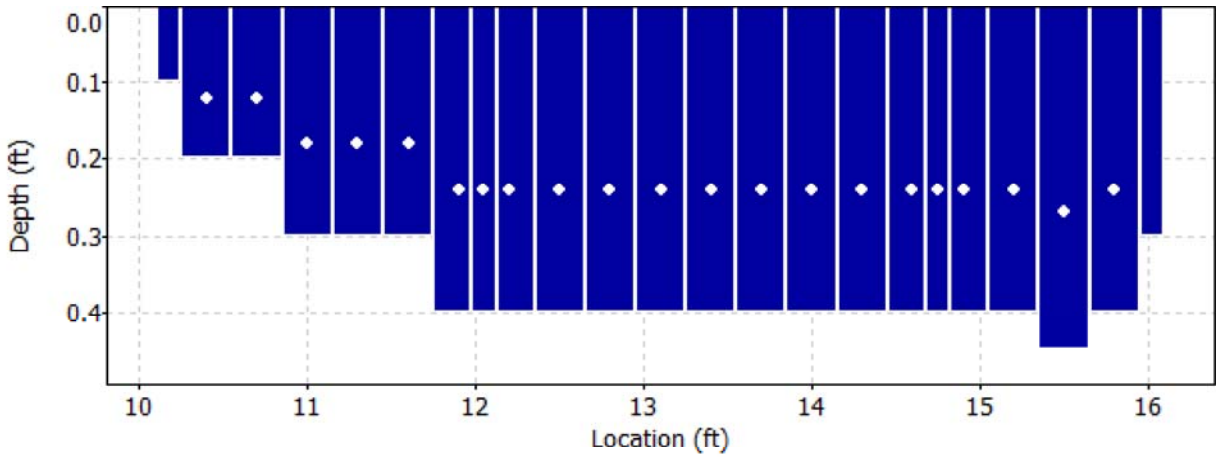
Date Generated: Wed Oct 4 2017

File Information	
File Name	CC16B.WAD
Start Date and Time	2017/09/28 08:50:14

Site Details	
Site Name	CC16B
Operator(s)	LC







Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information	
File Name	CC16B.WAD
Start Date and Time	2017/09/28 08:50:14

Site Details	
Site Name	CC16B
Operator(s)	LC

Quality Control

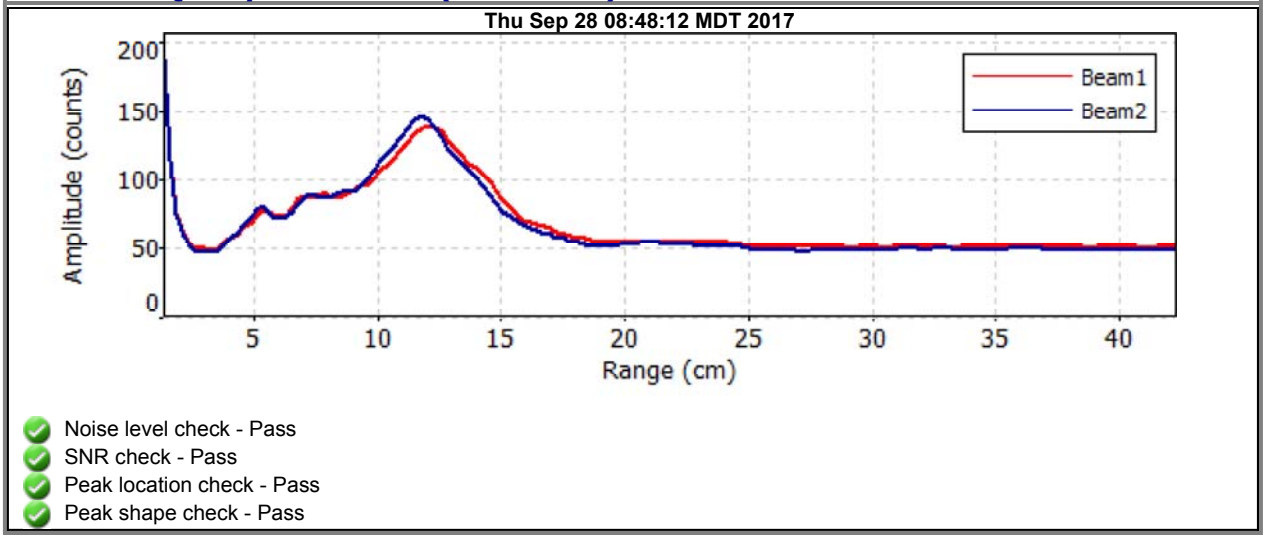
St	Loc	%Dep	Message
3	11.00	0.6	High standard error: 0.142
4	11.30	0.6	High angle: -23
		0.6	High standard error: 0.110
10	12.80	0.6	High standard error: 0.129
12	13.40	0.6	High angle: -126
14	14.00	0.6	High standard error: 0.141
15	14.30	0.6	High standard error: 0.126

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC16B.WAD	Site Name	CC16B
Start Date and Time	2017/09/28 08:50:14	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC17.WAD
Start Date and Time	2017/09/27 17:10:10

Site Details

Site Name	CC17
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.9%
Velocity	1.2%	4.9%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**3.4%**	**5.4%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	6.100
Mean SNR	37.3 dB	Total Area	2.940
Mean Temp	38.92 °F	Mean Depth	0.482
Disch. Equation	Mid-Section	Mean Velocity	1.3899
		Total Discharge	**4.0858**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	17:10	5.70	None	0.250	0.0	0.0	0.0000	1.00	-0.0131	0.037	-0.0005	0.0
1	*17:10*	*6.00*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.0131*	*1.00*	*-0.0131*	*0.090*	*-0.0012*	*0.0*
2	17:11	6.30	0.6	0.400	0.6	0.160	-0.0167	1.00	-0.0167	0.120	-0.0020	0.0
3	*17:12*	*6.60*	*0.6*	*0.400*	*0.6*	*0.160*	*0.1129*	*1.00*	*0.1129*	*0.120*	*0.0135*	*0.3*
4	17:13	6.90	0.6	0.500	0.6	0.200	0.8625	1.00	0.8625	0.150	0.1293	3.2
5	17:14	7.20	0.6	0.500	0.6	0.200	1.1752	1.00	1.1752	0.150	0.1762	4.3
6	17:15	7.50	0.6	0.500	0.6	0.200	2.5971	1.00	2.5971	0.150	0.3894	9.5
7	17:15	7.80	0.6	0.500	0.6	0.200	2.7106	1.00	2.7106	0.113	0.3055	7.5
8	17:29	7.95	0.6	0.500	0.6	0.200	2.6335	1.00	2.6335	0.075	0.1974	4.8
9	17:16	8.10	0.6	0.600	0.6	0.240	2.3540	1.00	2.3540	0.135	0.3170	7.8
10	17:17	8.40	0.6	0.600	0.6	0.240	1.3317	1.00	1.3317	0.180	0.2396	5.9
11	17:18	8.70	0.6	0.600	0.6	0.240	1.2231	1.00	1.2231	0.180	0.2201	5.4
12	17:19	9.00	0.6	0.600	0.6	0.240	1.1752	1.00	1.1752	0.180	0.2115	5.2
13	*17:20*	*9.30*	*0.6*	*0.500*	*0.6*	*0.200*	*1.3996*	*1.00*	*1.3996*	*0.150*	*0.2098*	*5.1*
14	17:22	9.60	0.6	0.500	0.6	0.200	1.3205	1.00	1.3205	0.150	0.1980	4.8
15	17:23	9.90	0.6	0.500	0.6	0.200	1.5515	1.00	1.5515	0.150	0.2326	5.7
16	17:24	10.20	0.6	0.550	0.6	0.220	1.4577	1.00	1.4577	0.165	0.2404	5.9
17	17:25	10.50	0.6	0.400	0.6	0.160	2.7287	1.00	2.7287	0.120	0.3272	8.0
18	17:26	10.80	0.6	0.400	0.6	0.160	2.3281	1.00	2.3281	0.120	0.2792	6.8
19	17:27	11.10	0.6	0.500	0.6	0.200	1.2425	1.00	1.2425	0.150	0.1863	4.6
20	17:28	11.40	0.6	0.500	0.6	0.200	0.8455	1.00	0.8455	0.176	0.1484	3.6
21	17:28	11.80	None	0.400	0.0	0.0	0.0000	1.00	0.8455	0.080	0.0680	1.7

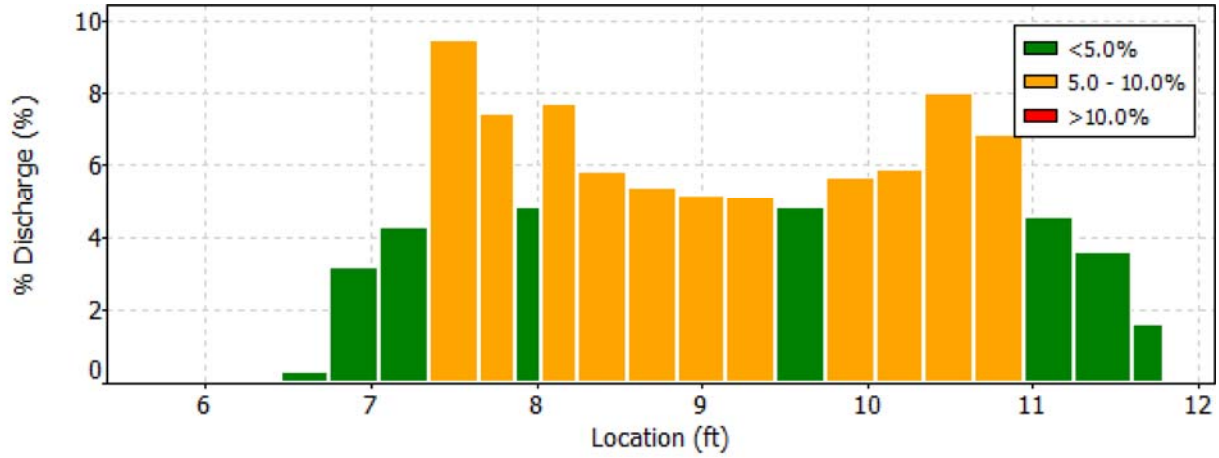
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

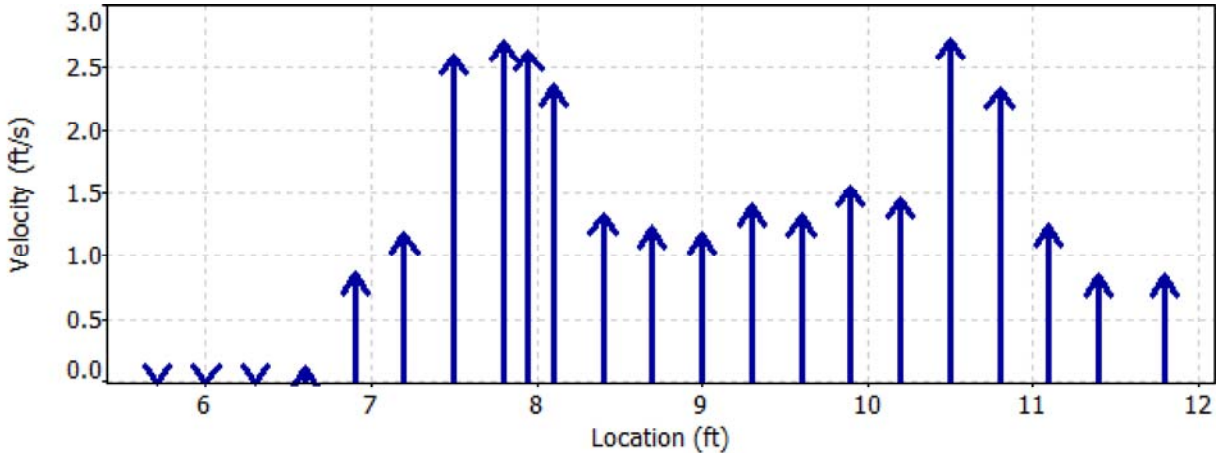
Discharge Measurement Summary

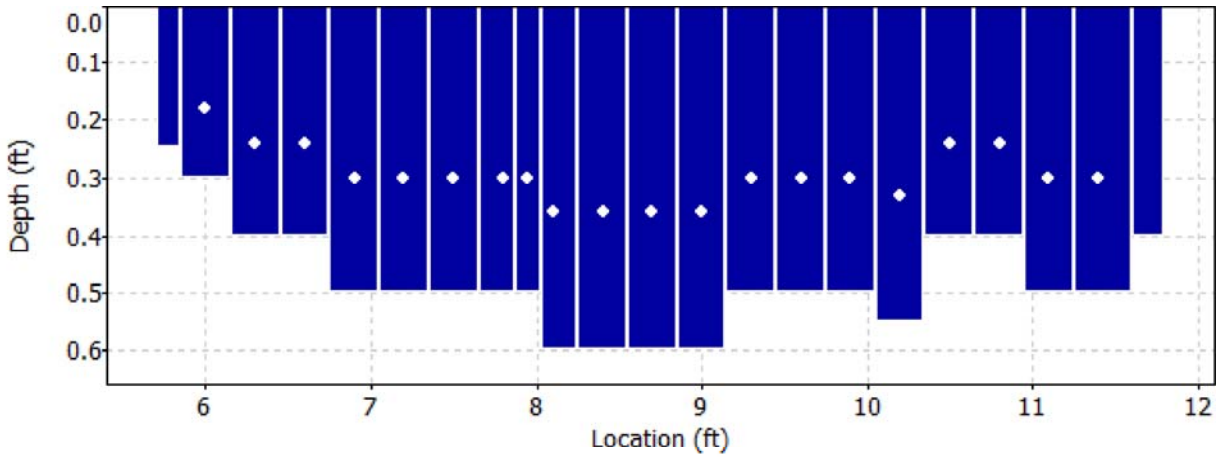
Date Generated: Wed Oct 4 2017

File Information	
File Name	CC17.WAD
Start Date and Time	2017/09/27 17:10:10

Site Details	
Site Name	CC17
Operator(s)	LC







Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC17.WAD	Site Name	CC17
Start Date and Time	2017/09/27 17:10:10	Operator(s)	LC

Quality Control

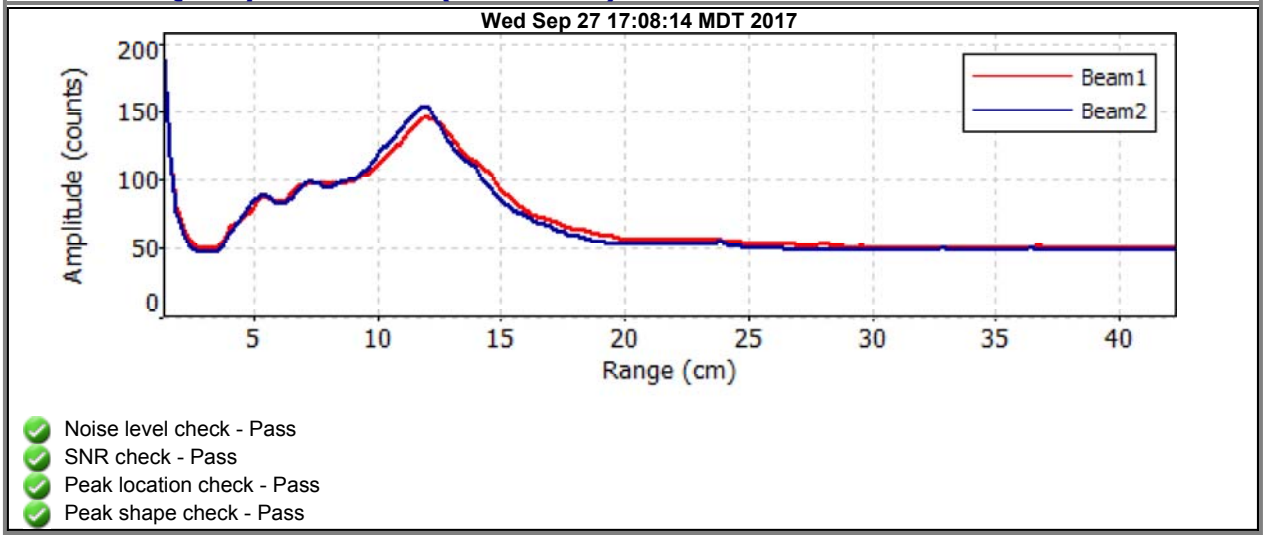
St	Loc	%Dep	Message
1	6.00	0.6	High number of spikes: 9
		0.6	High SNR variation during measurement: 9.9,4.7
3	6.60	0.6	High angle: 64
13	9.30	0.6	High number of spikes: 5

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC17.WAD	Site Name	CC17
Start Date and Time	2017/09/27 17:10:10	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC18.WAD
Start Date and Time	2017/09/28 12:11:46

Site Details

Site Name	CC18
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.1%
Velocity	1.3%	4.4%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.2%	-
Overall	**3.3%**	**5.0%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	5.900
Mean SNR	35.8 dB	Total Area	2.381
Mean Temp	39.91 °F	Mean Depth	0.404
Disch. Equation	Mid-Section	Mean Velocity	1.0653
		Total Discharge	**2.5368**

Measurement Results

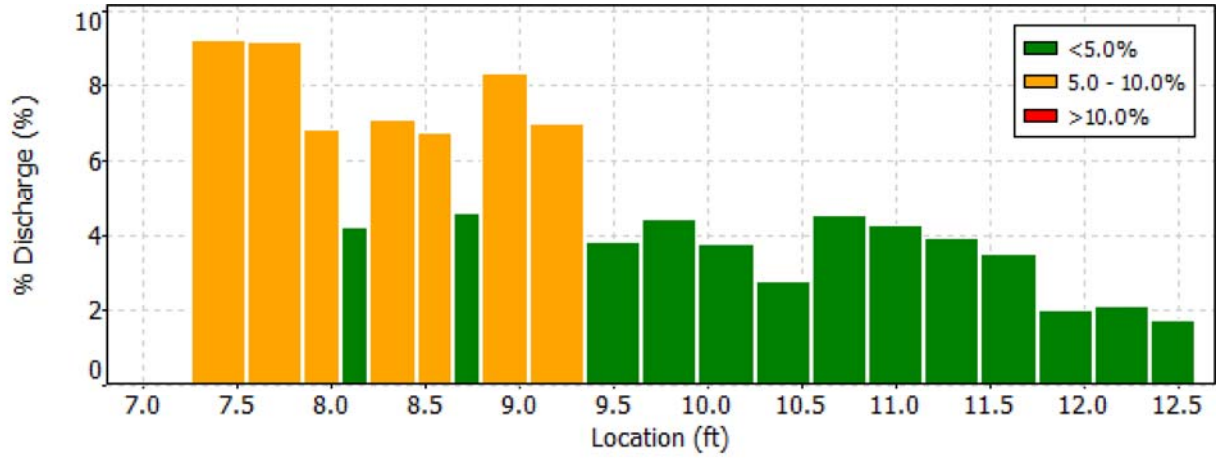
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	12:11	6.80	None	0.300	0.0	0.0	0.0000	1.00	0.0000	0.045	0.0000	0.0
1	*12:11*	*7.10*	*0.6*	*0.350*	*0.6*	*0.140*	*0.0000*	*1.00*	*0.0000*	*0.105*	*0.0000*	*0.0*
2	12:12	7.40	0.6	0.450	0.6	0.180	1.7379	1.00	1.7379	0.135	0.2348	9.3
3	12:13	7.70	0.6	0.450	0.6	0.180	1.7215	1.00	1.7215	0.135	0.2326	9.2
4	12:14	8.00	0.6	0.450	0.6	0.180	1.9199	1.00	1.9199	0.090	0.1727	6.8
5	12:31	8.10	0.6	0.400	0.6	0.160	1.7710	1.00	1.7710	0.060	0.1063	4.2
6	*12:15*	*8.30*	*0.6*	*0.500*	*0.6*	*0.200*	*1.4390*	*1.00*	*1.4390*	*0.125*	*0.1802*	*7.1*
7	*12:16*	*8.60*	*0.6*	*0.600*	*0.6*	*0.240*	*1.4213*	*1.00*	*1.4213*	*0.120*	*0.1703*	*6.7*
8	12:32	8.70	0.6	0.600	0.6	0.240	1.2844	1.00	1.2844	0.090	0.1157	4.6
9	*12:17*	*8.90*	*0.6*	*0.600*	*0.6*	*0.240*	*1.4058*	*1.00*	*1.4058*	*0.150*	*0.2115*	*8.3*
10	12:18	9.20	0.6	0.500	0.6	0.200	1.1827	1.00	1.1827	0.150	0.1775	7.0
11	12:19	9.50	0.6	0.550	0.6	0.220	0.5863	1.00	0.5863	0.165	0.0968	3.8
12	12:20	9.80	0.6	0.500	0.6	0.200	0.7434	1.00	0.7434	0.150	0.1116	4.4
13	*12:21*	*10.10*	*0.6*	*0.500*	*0.6*	*0.200*	*0.6352*	*1.00*	*0.6352*	*0.150*	*0.0953*	*3.8*
14	*12:22*	*10.40*	*0.6*	*0.350*	*0.6*	*0.140*	*0.6657*	*1.00*	*0.6657*	*0.105*	*0.0700*	*2.8*
15	12:23	10.70	0.6	0.400	0.6	0.160	0.9577	1.00	0.9577	0.120	0.1150	4.5
16	12:24	11.00	0.6	0.400	0.6	0.160	0.8990	1.00	0.8990	0.120	0.1079	4.3
17	12:25	11.30	0.6	0.300	0.6	0.120	1.1165	1.00	1.1165	0.090	0.1005	4.0
18	12:26	11.60	0.6	0.250	0.6	0.100	1.1814	1.00	1.1814	0.075	0.0887	3.5
19	*12:27*	*11.90*	*0.6*	*0.250*	*0.6*	*0.100*	*0.6857*	*1.00*	*0.6857*	*0.075*	*0.0515*	*2.0*
20	*12:28*	*12.20*	*0.6*	*0.250*	*0.6*	*0.100*	*0.7228*	*1.00*	*0.7228*	*0.075*	*0.0542*	*2.1*
21	12:29	12.50	0.6	0.200	0.6	0.080	0.8802	1.00	0.8802	0.050	0.0438	1.7
22	12:29	12.70	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

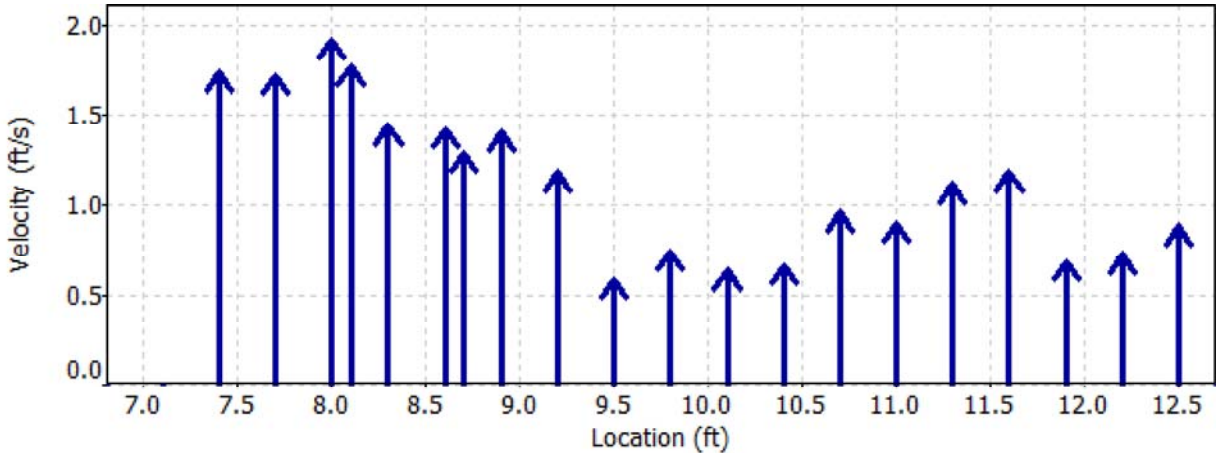
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

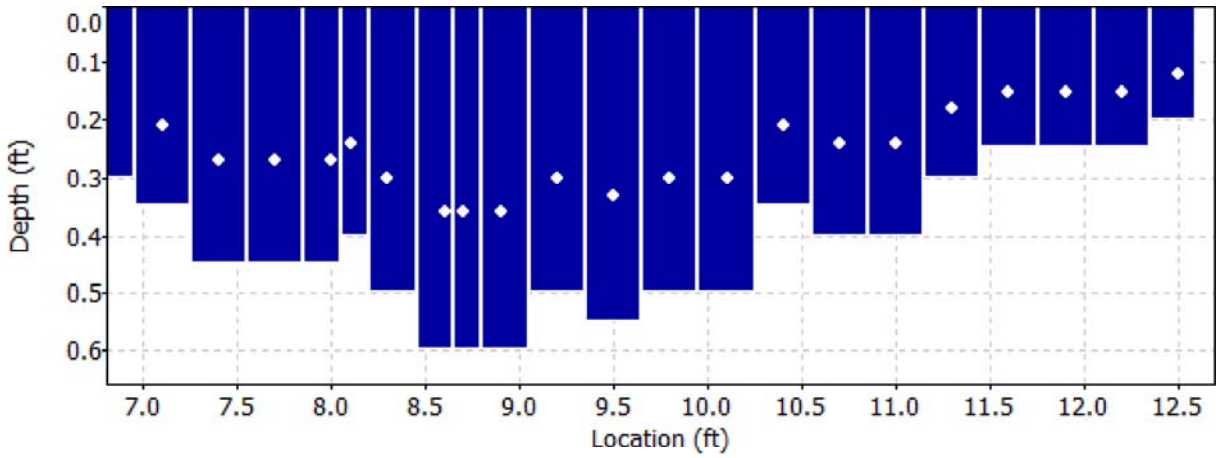
Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC18.WAD	Site Name	CC18
Start Date and Time	2017/09/28 12:11:46	Operator(s)	LC







Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC18.WAD	Site Name	CC18
Start Date and Time	2017/09/28 12:11:46	Operator(s)	LC

Quality Control

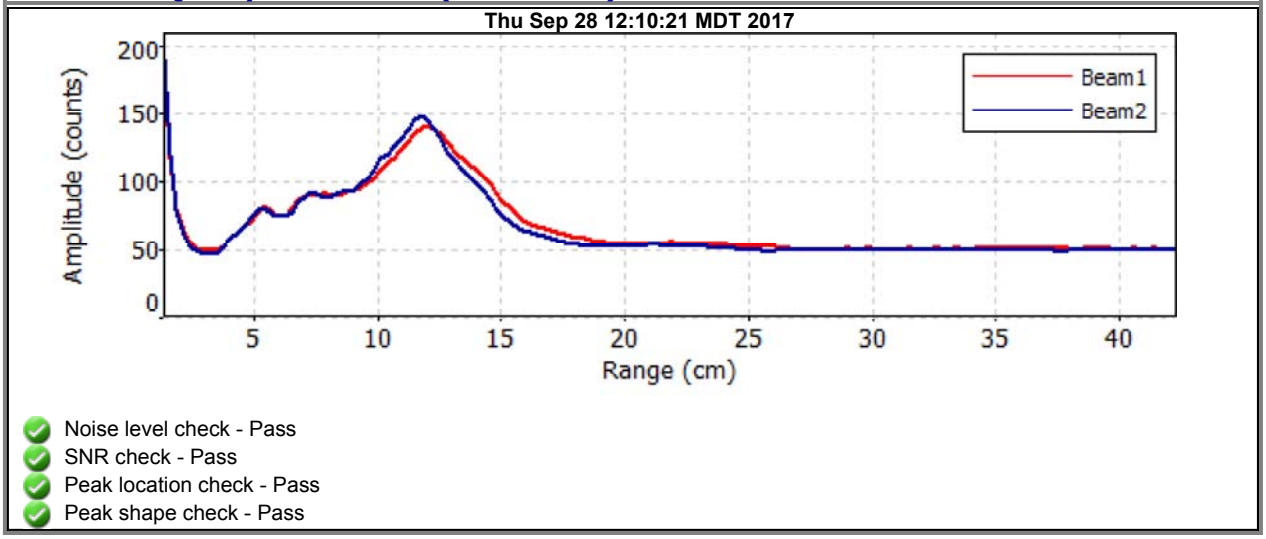
St	Loc	%Dep	Message
1	7.10	0.6	High differences in beam SNR: 57.1,46.0
		0.6	SNR (51.6) is different from typical SNR (35.8)
6	8.30	0.6	High differences in beam SNR: 51.1,35.6
		0.6	High standard error: 0.184
7	8.60	0.6	High angle: 24
9	8.90	0.6	High angle: 22
13	10.10	0.6	High angle: 28
14	10.40	0.6	High angle: 21
19	11.90	0.6	High standard error: 0.088
20	12.20	0.6	High differences in beam SNR: 53.7,33.5

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC18.WAD	Site Name	CC18
Start Date and Time	2017/09/28 12:11:46	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC20H.WAD
Start Date and Time	2017/09/27 16:21:08

Site Details

Site Name	CC20H
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.2%
Velocity	1.9%	10.3%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.4%	-
Overall	**3.7%**	**10.6%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	LEW	Total Width	5.201
Mean SNR	37.1 dB	Total Area	2.106
Mean Temp	40.53 °F	Mean Depth	0.405
Disch. Equation	Mid-Section	Mean Velocity	0.8836
		Total Discharge	**1.8610**

Measurement Results

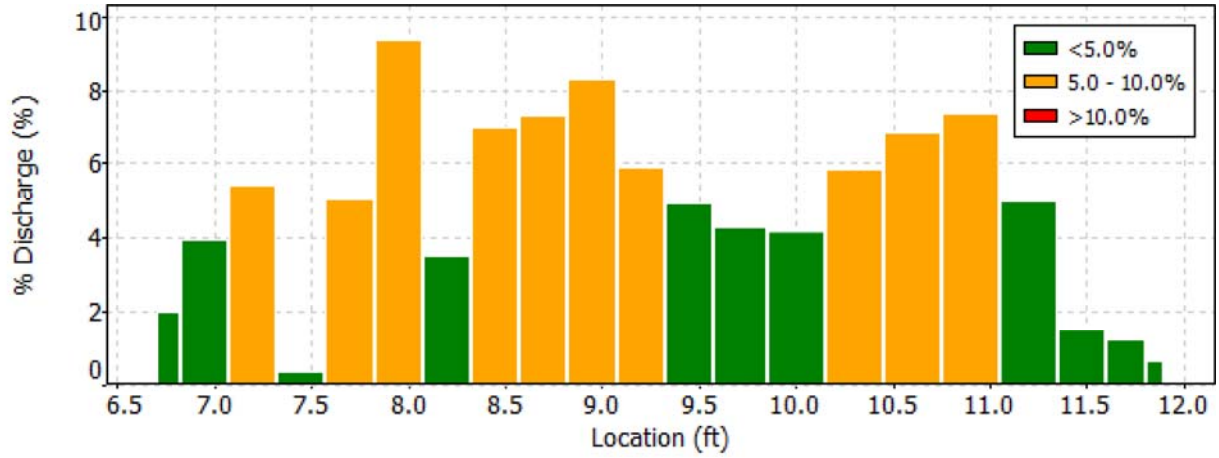
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	16:21	6.70	None	0.300	0.0	0.0	0.0000	1.00	0.9797	0.037	0.0367	2.0
1	*16:21*	*6.95*	*0.6*	*0.300*	*0.6*	*0.120*	*0.9797*	*1.00*	*0.9797*	*0.075*	*0.0734*	*3.9*
2	*16:22*	*7.20*	*0.6*	*0.300*	*0.6*	*0.120*	*1.3514*	*1.00*	*1.3514*	*0.075*	*0.1013*	*5.4*
3	*16:23*	*7.45*	*0.6*	*0.400*	*0.6*	*0.160*	*0.0666*	*1.00*	*0.0666*	*0.100*	*0.0067*	*0.4*
4	*16:25*	*7.70*	*0.6*	*0.400*	*0.6*	*0.160*	*0.9426*	*1.00*	*0.9426*	*0.100*	*0.0942*	*5.1*
5	16:26	7.95	0.6	0.400	0.6	0.160	1.7507	1.00	1.7507	0.100	0.1750	9.4
6	*16:27*	*8.20*	*0.6*	*0.450*	*0.6*	*0.180*	*0.5781*	*1.00*	*0.5781*	*0.113*	*0.0651*	*3.5*
7	*16:28*	*8.45*	*0.6*	*0.450*	*0.6*	*0.180*	*1.1585*	*1.00*	*1.1585*	*0.113*	*0.1304*	*7.0*
8	*16:29*	*8.70*	*0.6*	*0.500*	*0.6*	*0.200*	*1.0883*	*1.00*	*1.0883*	*0.125*	*0.1360*	*7.3*
9	16:30	8.95	0.6	0.500	0.6	0.200	1.2385	1.00	1.2385	0.125	0.1548	8.3
10	16:30	9.20	0.6	0.500	0.6	0.200	0.8825	1.00	0.8825	0.125	0.1103	5.9
11	16:31	9.45	0.6	0.500	0.6	0.200	0.7375	1.00	0.7375	0.125	0.0922	5.0
12	16:32	9.70	0.6	0.450	0.6	0.180	0.6388	1.00	0.6388	0.124	0.0791	4.2
13	16:34	10.00	0.6	0.400	0.6	0.160	0.6440	1.00	0.6440	0.120	0.0772	4.2
14	*16:34*	*10.30*	*0.6*	*0.500*	*0.6*	*0.200*	*0.7260*	*1.00*	*0.7260*	*0.150*	*0.1089*	*5.8*
15	*16:35*	*10.60*	*0.6*	*0.500*	*0.6*	*0.200*	*0.8501*	*1.00*	*0.8501*	*0.150*	*0.1275*	*6.8*
16	*16:36*	*10.90*	*0.6*	*0.400*	*0.6*	*0.160*	*1.1480*	*1.00*	*1.1480*	*0.120*	*0.1377*	*7.4*
17	16:37	11.20	0.6	0.400	0.6	0.160	0.7746	1.00	0.7746	0.120	0.0929	5.0
18	*16:39*	*11.50*	*0.6*	*0.200*	*0.6*	*0.080*	*0.5463*	*1.00*	*0.5463*	*0.050*	*0.0274*	*1.5*
19	16:40	11.70	0.6	0.200	0.6	0.080	0.5682	1.00	0.5682	0.040	0.0228	1.2
20	16:40	11.90	None	0.200	0.0	0.0	0.0000	1.00	0.5682	0.020	0.0114	0.6

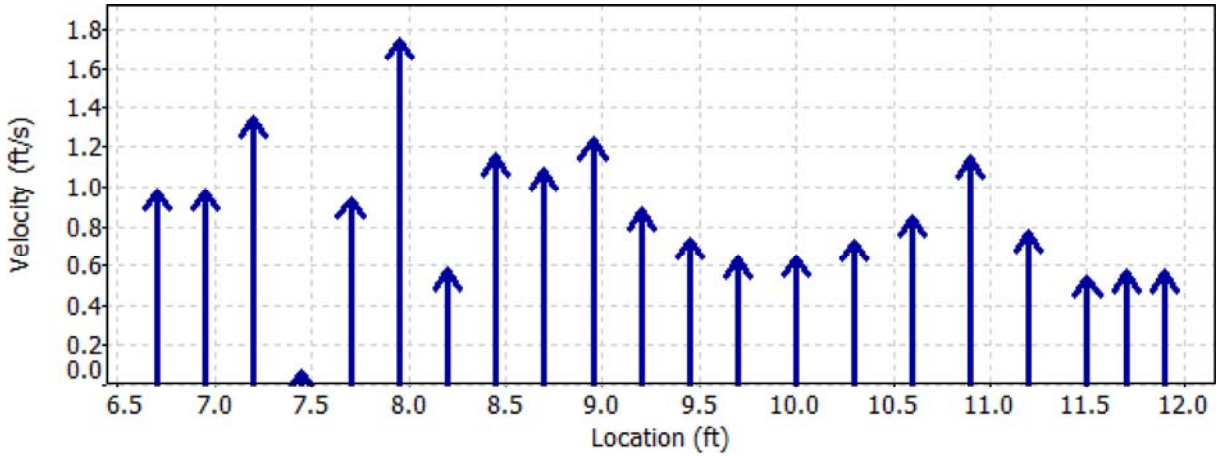
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

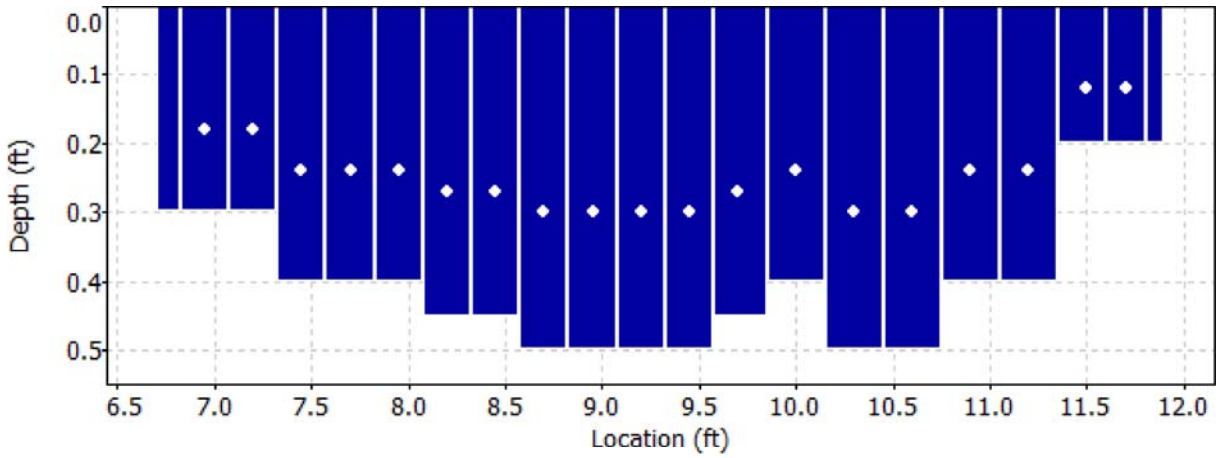
Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC20H.WAD	Site Name	CC20H
Start Date and Time	2017/09/27 16:21:08	Operator(s)	LC







Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC20H.WAD	Site Name	CC20H
Start Date and Time	2017/09/27 16:21:08	Operator(s)	LC

Quality Control

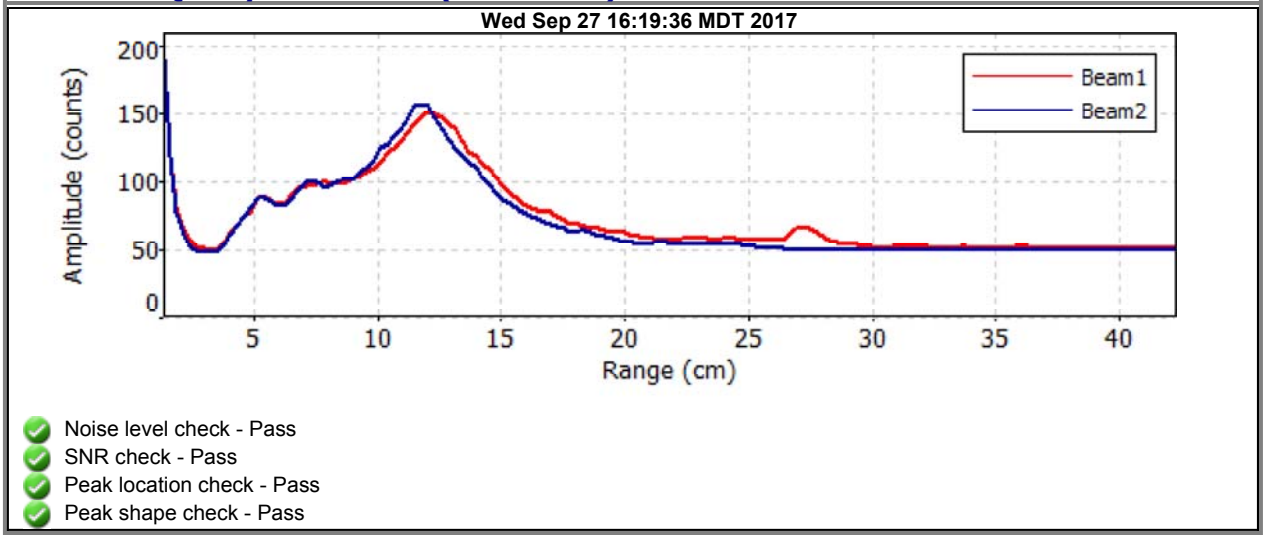
St	Loc	%Dep	Message
1	6.95	0.6	High angle: 27
2	7.20	0.6	High standard error: 0.099
3	7.45	0.6	High angle: 46
4	7.70	0.6	High standard error: 0.135
6	8.20	0.6	High standard error: 0.107
7	8.45	0.6	High standard error: 0.135
8	8.70	0.6	High standard error: 0.121
14	10.30	0.6	High angle: -25
15	10.60	0.6	High angle: -29
16	10.90	0.6	High angle: -22
18	11.50	0.6	High angle: -21

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC20H.WAD	Site Name	CC20H
Start Date and Time	2017/09/27 16:21:08	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC21.WAD
Start Date and Time	2017/09/26 17:09:04

Site Details

Site Name	CC21
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.8%
Velocity	1.2%	3.3%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**3.3%**	**4.5%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	9.500
Mean SNR	34.5 dB	Total Area	5.490
Mean Temp	45.21 °F	Mean Depth	0.578
Disch. Equation	Mid-Section	Mean Velocity	1.2396
		Total Discharge	**6.8050**

Measurement Results

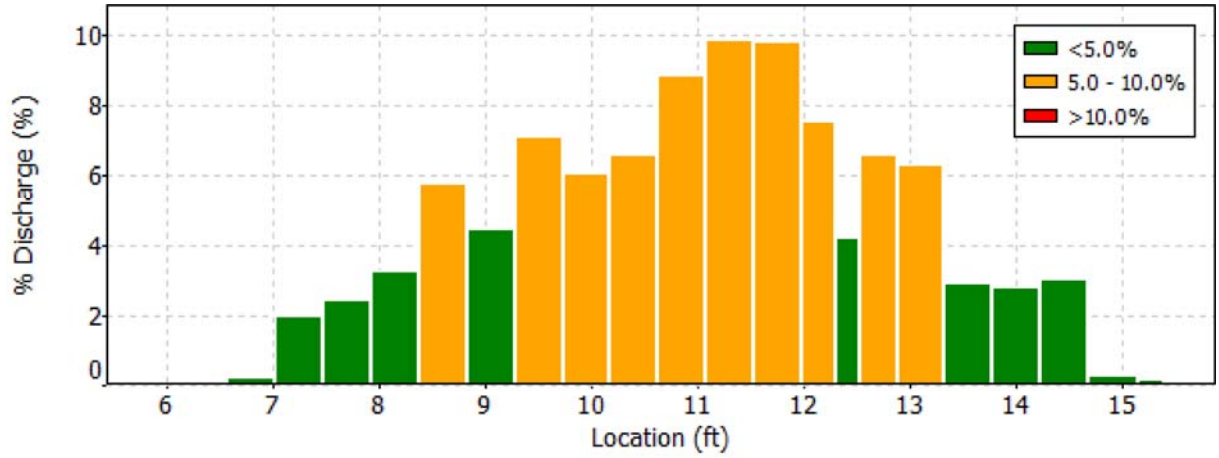
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	17:09	5.90	None	0.200	0.0	0.0	0.0000	1.00	0.0358	0.045	0.0016	0.0
1	17:09	6.35	0.6	0.200	0.6	0.080	0.0358	1.00	0.0358	0.090	0.0032	0.0
2	*17:10*	*6.80*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0879*	*1.00*	*0.0879*	*0.135*	*0.0119*	*0.2*
3	17:11	7.25	0.6	0.500	0.6	0.200	0.5981	1.00	0.5981	0.225	0.1346	2.0
4	17:12	7.70	0.6	0.400	0.6	0.160	0.9180	1.00	0.9180	0.180	0.1653	2.4
5	*17:13*	*8.15*	*0.6*	*0.500*	*0.6*	*0.200*	*0.9833*	*1.00*	*0.9833*	*0.225*	*0.2213*	*3.3*
6	17:14	8.60	0.6	0.500	0.6	0.200	1.7451	1.00	1.7451	0.225	0.3928	5.8
7	*17:14*	*9.05*	*0.6*	*0.500*	*0.6*	*0.200*	*1.3428*	*1.00*	*1.3428*	*0.225*	*0.3022*	*4.4*
8	*17:16*	*9.50*	*0.6*	*0.800*	*0.6*	*0.320*	*1.3356*	*1.00*	*1.3356*	*0.360*	*0.4809*	*7.1*
9	17:17	9.95	0.6	0.700	0.6	0.280	1.3009	1.00	1.3009	0.315	0.4100	6.0
10	17:18	10.40	0.6	0.650	0.6	0.260	1.5299	1.00	1.5299	0.293	0.4476	6.6
11	17:19	10.85	0.6	0.800	0.6	0.320	1.6736	1.00	1.6736	0.360	0.6026	8.9
12	17:20	11.30	0.6	0.900	0.6	0.360	1.6631	1.00	1.6631	0.405	0.6737	9.9
13	*17:21*	*11.75*	*0.6*	*0.850*	*0.6*	*0.340*	*1.7431*	*1.00*	*1.7431*	*0.383*	*0.6670*	*9.8*
14	17:22	12.20	0.6	0.850	0.6	0.340	1.8553	1.00	1.8553	0.276	0.5112	7.5
15	17:29	12.40	0.6	0.700	0.6	0.280	1.8278	1.00	1.8278	0.158	0.2880	4.2
16	17:22	12.65	0.6	0.850	0.6	0.340	1.4977	1.00	1.4977	0.298	0.4469	6.6
17	17:23	13.10	0.6	0.800	0.6	0.320	1.1893	1.00	1.1893	0.360	0.4282	6.3
18	17:25	13.55	0.6	0.650	0.6	0.260	0.6677	1.00	0.6677	0.293	0.1953	2.9
19	17:25	14.00	0.6	0.600	0.6	0.240	0.6955	1.00	0.6955	0.270	0.1879	2.8
20	*17:26*	*14.45*	*0.6*	*0.500*	*0.6*	*0.200*	*0.9032*	*1.00*	*0.9032*	*0.225*	*0.2033*	*3.0*
21	*17:27*	*14.90*	*0.6*	*0.200*	*0.6*	*0.080*	*0.2051*	*1.00*	*0.2051*	*0.095*	*0.0194*	*0.3*
22	17:27	15.40	None	0.200	0.0	0.0	0.0000	1.00	0.2051	0.050	0.0102	0.1

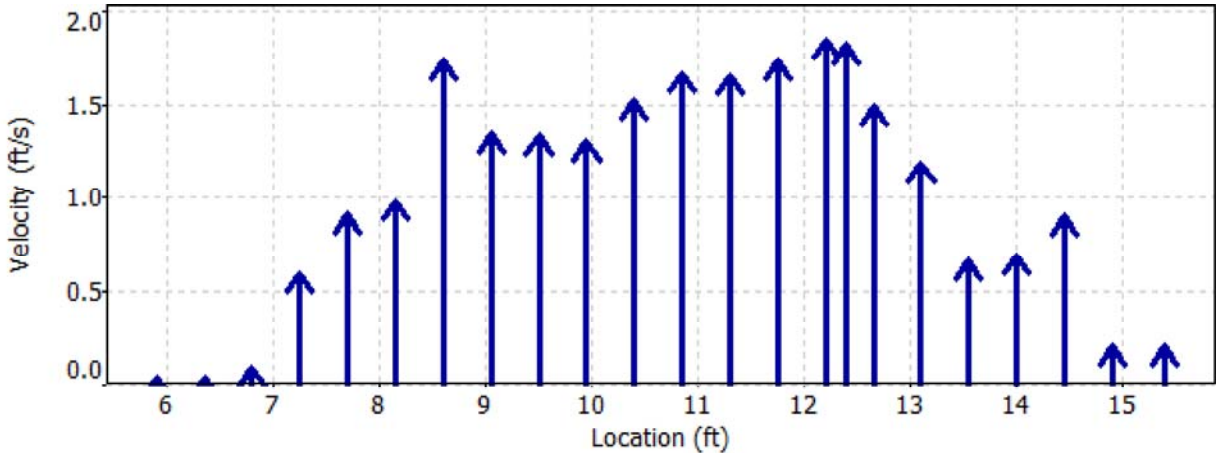
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

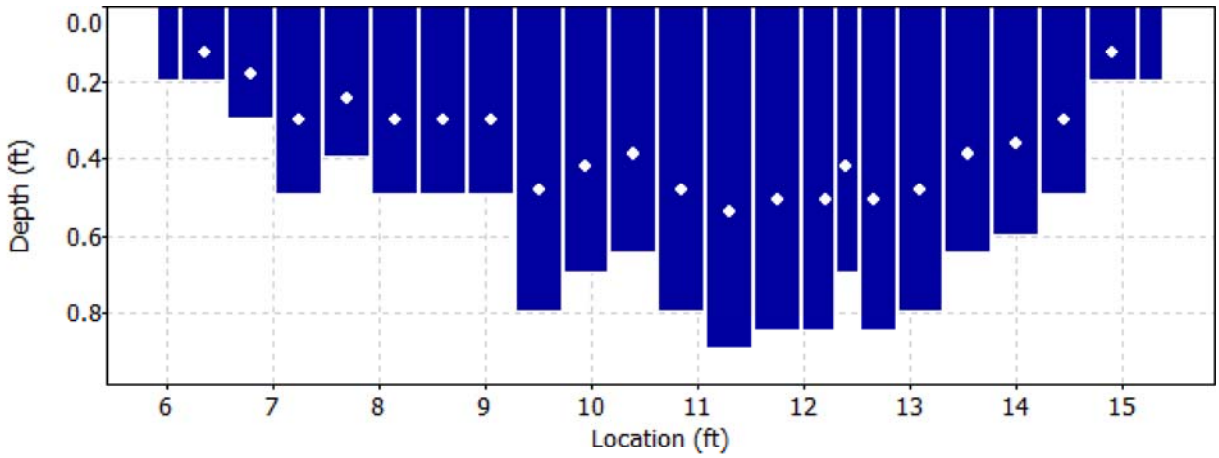
Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC21.WAD	Site Name	CC21
Start Date and Time	2017/09/26 17:09:04	Operator(s)	LC







Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC21.WAD
Start Date and Time	2017/09/26 17:09:04

Site Details

Site Name	CC21
Operator(s)	LC

Quality Control

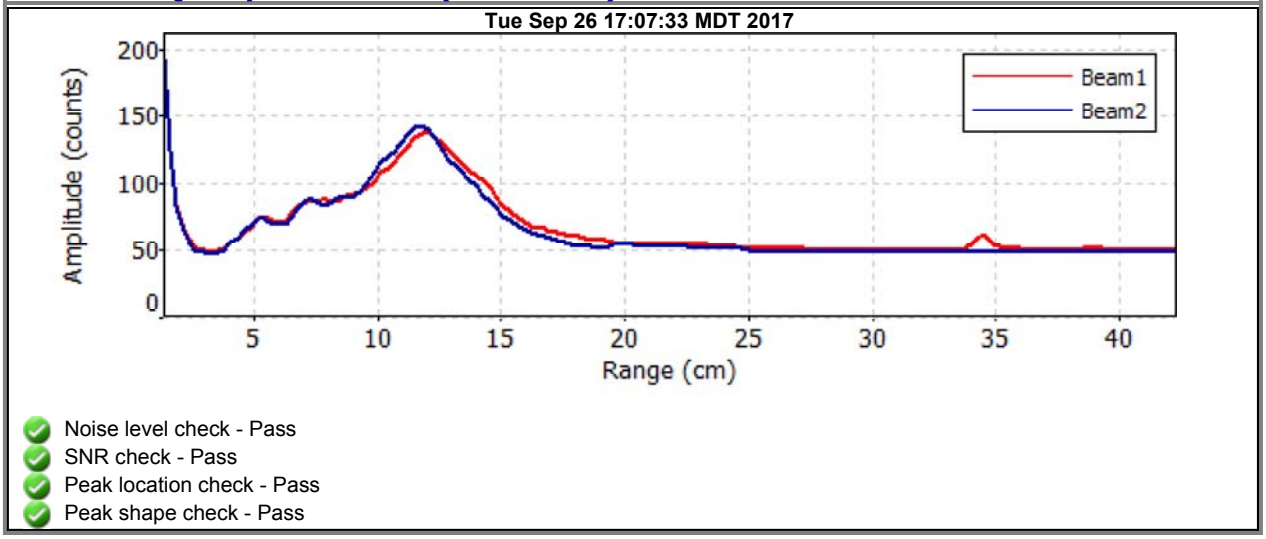
St	Loc	%Dep	Message
2	6.80	0.6	High angle: 44
5	8.15	0.6	High standard error: 0.106
7	9.05	0.6	High standard error: 0.089
8	9.50	0.6	High number of spikes: 5
13	11.75	0.6	High standard error: 0.094
20	14.45	0.6	High angle: 26
21	14.90	0.6	High angle: 38

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC21.WAD	Site Name	CC21
Start Date and Time	2017/09/26 17:09:04	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC26.WAD
Start Date and Time	2017/09/26 16:26:35

Site Details

Site Name	CC26
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.1%
Velocity	1.4%	9.4%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**3.4%**	**9.6%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	4.796
Mean SNR	33.0 dB	Total Area	0.990
Mean Temp	41.59 °F	Mean Depth	0.206
Disch. Equation	Mid-Section	Mean Velocity	0.4721
		Total Discharge	**0.4672**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	16:26	9.60	None	0.100	0.0	0.0	0.0000	1.00	0.7940	0.010	0.0079	1.7
1	16:26	9.80	0.6	0.200	0.6	0.080	0.7940	1.00	0.7940	0.040	0.0318	6.8
2	16:28	10.00	0.6	0.200	0.6	0.080	0.5922	1.00	0.5922	0.040	0.0237	5.1
3	16:29	10.20	0.6	0.200	0.6	0.080	0.7680	1.00	0.7680	0.040	0.0308	6.6
4	16:30	10.40	0.6	0.200	0.6	0.080	1.0696	1.00	1.0696	0.040	0.0428	9.2
5	16:31	10.60	0.6	0.250	0.6	0.100	0.6024	1.00	0.6024	0.050	0.0301	6.5
6	16:32	10.80	0.6	0.250	0.6	0.100	0.6775	1.00	0.6775	0.050	0.0339	7.3
7	16:33	11.00	0.6	0.250	0.6	0.100	0.4859	1.00	0.4859	0.050	0.0243	5.2
8	*16:34*	*11.20*	*0.6*	*0.250*	*0.6*	*0.100*	*0.2956*	*1.00*	*0.2956*	*0.050*	*0.0148*	*3.2*
9	*16:35*	*11.40*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3465*	*1.00*	*0.3465*	*0.040*	*0.0139*	*3.0*
10	16:37	11.60	0.6	0.200	0.6	0.080	0.9692	1.00	0.9692	0.040	0.0388	8.3
11	16:37	11.80	0.6	0.200	0.6	0.080	0.9593	1.00	0.9593	0.040	0.0384	8.2
12	*16:38*	*12.00*	*0.6*	*0.200*	*0.6*	*0.080*	*0.1217*	*1.00*	*0.1217*	*0.040*	*0.0049*	*1.0*
13	*16:39*	*12.20*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0919*	*1.00*	*-0.0919*	*0.040*	*-0.0037*	*-0.8*
14	*16:40*	*12.40*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.2011*	*1.00*	*-0.2011*	*0.040*	*-0.0081*	*-1.7*
15	16:41	12.60	0.6	0.200	0.6	0.080	-0.0164	1.00	-0.0164	0.040	-0.0007	-0.1
16	*16:43*	*12.80*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0604*	*1.00*	*0.0604*	*0.040*	*0.0024*	*0.5*
17	16:44	13.00	0.6	0.200	0.6	0.080	0.8573	1.00	0.8573	0.040	0.0343	7.3
18	*16:45*	*13.20*	*0.6*	*0.200*	*0.6*	*0.080*	*0.7562*	*1.00*	*0.7562*	*0.030*	*0.0225*	*4.8*
19	*16:49*	*13.30*	*0.6*	*0.200*	*0.6*	*0.080*	*0.6542*	*1.00*	*0.6542*	*0.040*	*0.0261*	*5.6*
20	16:46	13.60	0.6	0.200	0.6	0.080	0.1696	1.00	0.1696	0.070	0.0118	2.5
21	*16:48*	*14.00*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3871*	*1.00*	*0.3871*	*0.080*	*0.0308*	*6.6*
22	16:48	14.40	None	0.200	0.0	0.0	0.0000	1.00	0.3871	0.040	0.0154	3.3

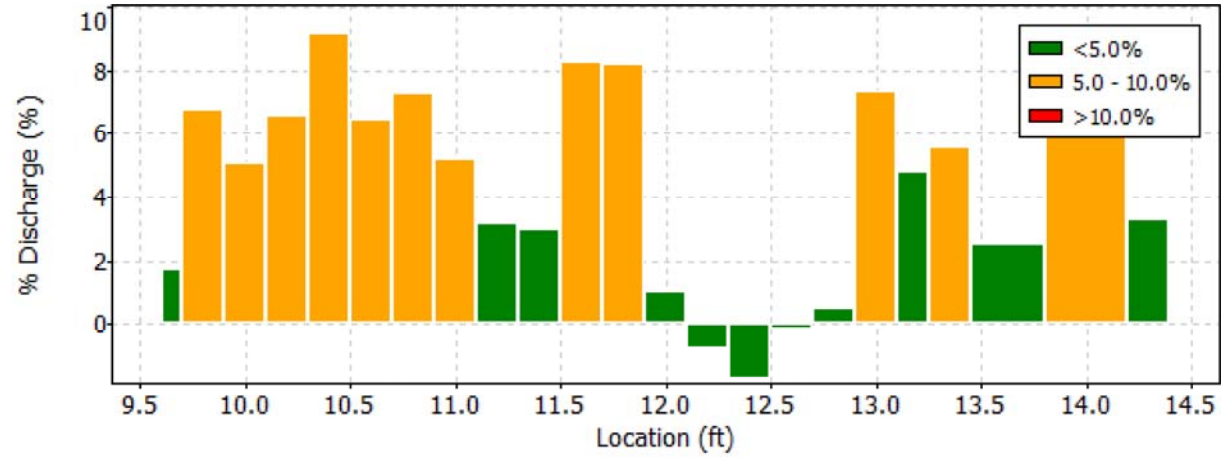
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

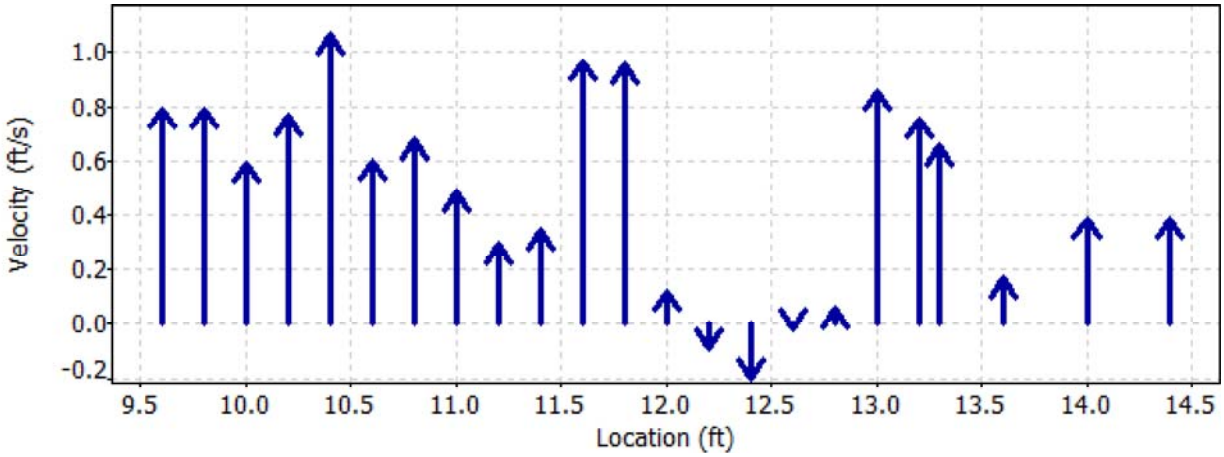
Discharge Measurement Summary

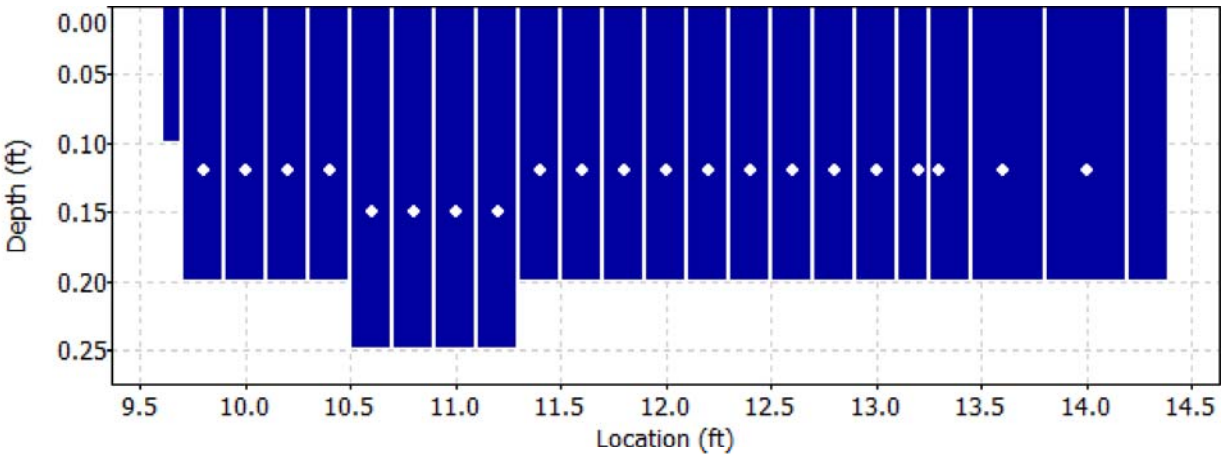
Date Generated: Wed Oct 4 2017

File Information	
File Name	CC26.WAD
Start Date and Time	2017/09/26 16:26:35

Site Details	
Site Name	CC26
Operator(s)	LC







Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC26.WAD
Start Date and Time	2017/09/26 16:26:35

Site Details

Site Name	CC26
Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
8	11.20	0.6	High standard error: 0.051
9	11.40	0.6	High standard error: 0.055
12	12.00	0.6	High angle: 55
13	12.20	0.6	High angle: 147
14	12.40	0.6	High angle: 168
16	12.80	0.6	High angle: -64
18	13.20	0.6	High angle: -31
		0.6	High standard error: 0.043
19	13.30	0.6	High angle: -27
		0.6	High standard error: 0.046
21	14.00	0.6	High standard error: 0.040

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC27.WAD
Start Date and Time	2017/09/26 15:47:48

Site Details

Site Name	CC27
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	1.2%
Velocity	1.6%	5.2%
Width	0.1%	0.1%
Method	1.7%	-
# Stations	2.2%	-
Overall	**3.4%**	**5.5%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	11.300
Mean SNR	33.5 dB	Total Area	6.750
Mean Temp	47.92 °F	Mean Depth	0.597
Disch. Equation	Mid-Section	Mean Velocity	1.4385
		Total Discharge	**9.7105**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:47	3.60	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	15:47	4.50	0.6	0.700	0.6	0.280	1.2575	1.00	1.2575	0.473	0.5943	6.1
2	15:48	4.95	0.6	0.600	0.6	0.240	1.0046	1.00	1.0046	0.270	0.2713	2.8
3	15:49	5.40	0.6	0.600	0.6	0.240	1.0535	1.00	1.0535	0.270	0.2846	2.9
4	15:50	5.85	0.6	0.500	0.6	0.200	1.8914	1.00	1.8914	0.225	0.4257	4.4
5	15:52	6.30	0.6	0.550	0.6	0.220	1.1250	1.00	1.1250	0.248	0.2785	2.9
6	*15:53*	*6.75*	*0.6*	*0.600*	*0.6*	*0.240*	*0.4961*	*1.00*	*0.4961*	*0.270*	*0.1340*	*1.4*
7	15:53	7.20	0.6	0.600	0.6	0.240	0.8491	1.00	0.8491	0.270	0.2293	2.4
8	15:54	7.65	0.6	0.650	0.6	0.260	1.3435	1.00	1.3435	0.293	0.3930	4.0
9	*15:55*	*8.10*	*0.6*	*0.750*	*0.6*	*0.300*	*0.8835*	*1.00*	*0.8835*	*0.338*	*0.2983*	*3.1*
10	15:56	8.55	0.6	0.750	0.6	0.300	2.0308	1.00	2.0308	0.338	0.6856	7.1
11	*15:57*	*9.00*	*0.6*	*0.700*	*0.6*	*0.280*	*1.9183*	*1.00*	*1.9183*	*0.315*	*0.6046*	*6.2*
12	15:59	9.45	0.6	0.750	0.6	0.300	1.9045	1.00	1.9045	0.338	0.6430	6.6
13	*16:00*	*9.90*	*0.6*	*0.750*	*0.6*	*0.300*	*1.4531*	*1.00*	*1.4531*	*0.338*	*0.4906*	*5.1*
14	16:00	10.35	0.6	0.700	0.6	0.280	2.1125	1.00	2.1125	0.315	0.6658	6.9
15	16:02	10.80	0.6	0.600	0.6	0.240	1.5981	1.00	1.5981	0.270	0.4317	4.4
16	*16:03*	*11.25*	*0.6*	*0.700*	*0.6*	*0.280*	*1.4770*	*1.00*	*1.4770*	*0.315*	*0.4655*	*4.8*
17	16:04	11.70	0.6	0.700	0.6	0.280	1.9304	1.00	1.9304	0.315	0.6084	6.3
18	16:04	12.15	0.6	0.650	0.6	0.260	1.8215	1.00	1.8215	0.293	0.5329	5.5
19	16:05	12.60	0.6	0.550	0.6	0.220	1.4665	1.00	1.4665	0.248	0.3630	3.7
20	16:06	13.05	0.6	0.550	0.6	0.220	1.7073	1.00	1.7073	0.329	0.5621	5.8
21	*16:08*	*13.80*	*0.6*	*0.500*	*0.6*	*0.200*	*1.0978*	*1.00*	*1.0978*	*0.462*	*0.5070*	*5.2*
22	16:08	14.90	None	0.400	0.0	0.0	0.0000	1.00	1.0978	0.220	0.2415	2.5

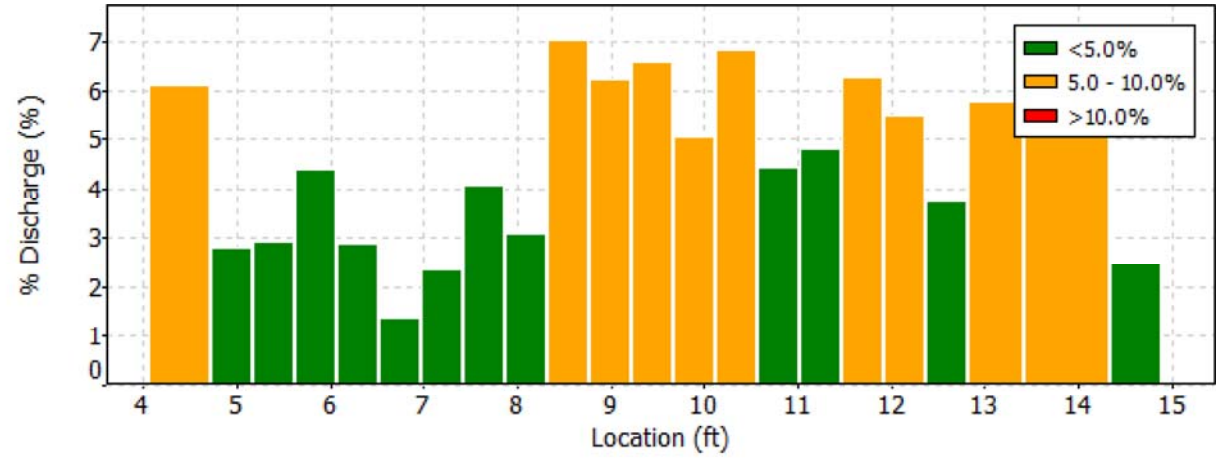
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

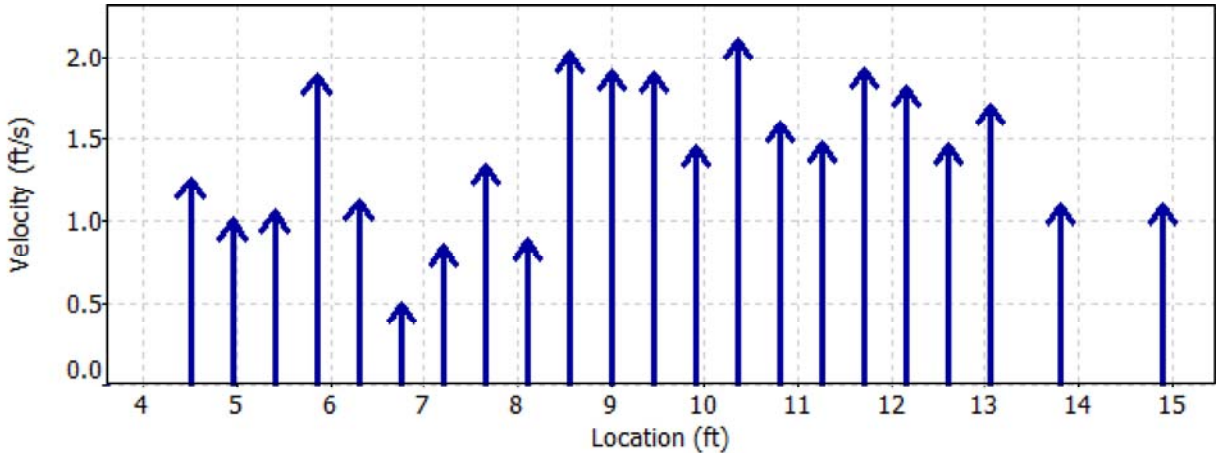
Discharge Measurement Summary

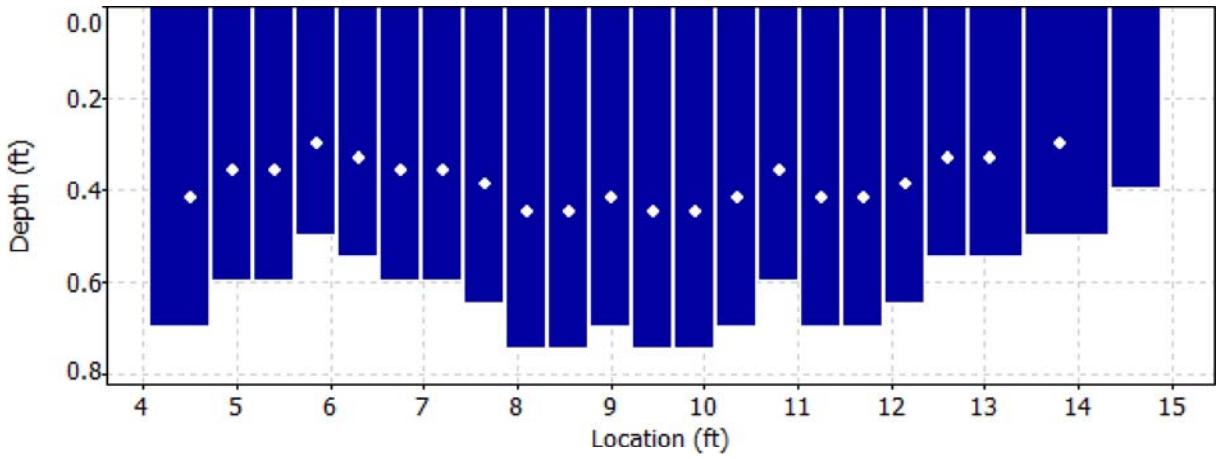
Date Generated: Wed Oct 4 2017

File Information	
File Name	CC27.WAD
Start Date and Time	2017/09/26 15:47:48

Site Details	
Site Name	CC27
Operator(s)	LC







Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC27.WAD	Site Name	CC27
Start Date and Time	2017/09/26 15:47:48	Operator(s)	LC

Quality Control

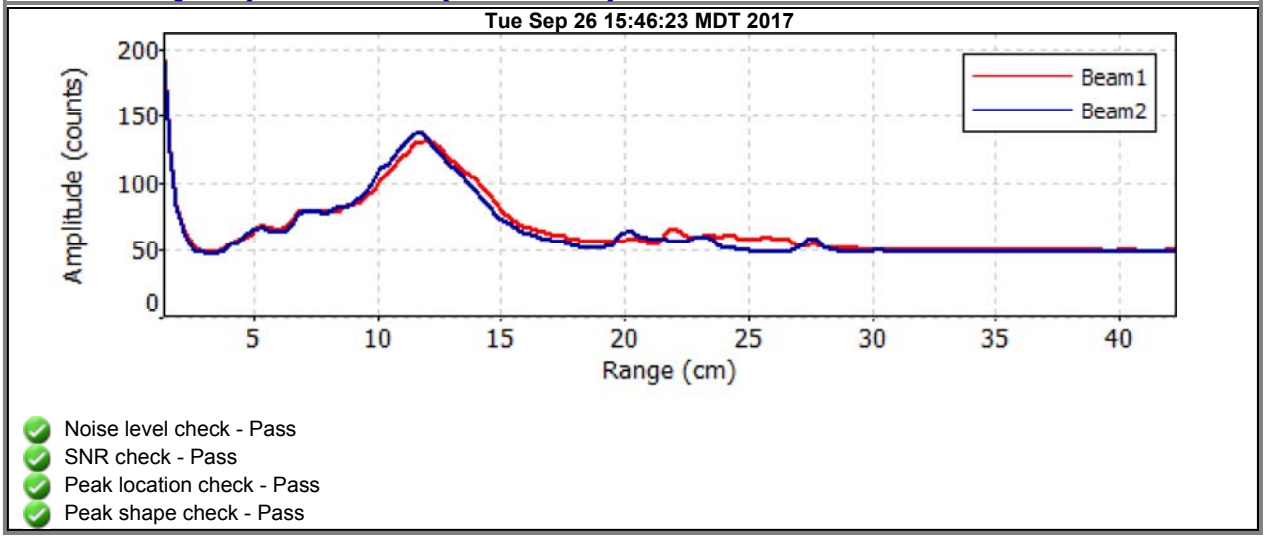
St	Loc	%Dep	Message
6	6.75	0.6	High angle: 24
9	8.10	0.6	High standard error: 0.145
11	9.00	0.6	High standard error: 0.163
13	9.90	0.6	High standard error: 0.153
16	11.25	0.6	High standard error: 0.138
21	13.80	0.6	High angle: 23

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC27.WAD	Site Name	CC27
Start Date and Time	2017/09/26 15:47:48	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC28C.WAD
Start Date and Time	2017/09/26 14:34:27

Site Details

Site Name	CC28C
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.4%
Velocity	1.4%	4.7%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.4%	-
Overall	**3.6%**	**5.3%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	LEW	Total Width	13.146
Mean SNR	29.7 dB	Total Area	7.138
Mean Temp	50.04 °F	Mean Depth	0.543
Disch. Equation	Mid-Section	Mean Velocity	1.5693
		Total Discharge	**11.2011**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:34	12.30	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*14:34*	*12.95*	*0.6*	*0.300*	*0.6*	*0.120*	*0.4626*	*1.00*	*0.4626*	*0.195*	*0.0902*	*0.8*
2	14:35	13.60	0.6	0.500	0.6	0.200	0.5171	1.00	0.5171	0.325	0.1681	1.5
3	14:36	14.25	0.6	0.400	0.6	0.160	1.2933	1.00	1.2933	0.260	0.3363	3.0
4	14:37	14.90	0.6	0.550	0.6	0.220	1.9721	1.00	1.9721	0.358	0.7051	6.3
5	14:38	15.55	0.6	0.700	0.6	0.280	2.3760	1.00	2.3760	0.455	1.0817	9.7
6	14:39	16.20	0.6	0.600	0.6	0.240	2.3501	1.00	2.3501	0.390	0.9170	8.2
7	14:40	16.85	0.6	0.650	0.6	0.260	2.4199	1.00	2.4199	0.423	1.0227	9.1
8	*14:41*	*17.50*	*0.6*	*0.650*	*0.6*	*0.260*	*1.6785*	*1.00*	*1.6785*	*0.423*	*0.7094*	*6.3*
9	14:42	18.15	0.6	0.650	0.6	0.260	2.2822	1.00	2.2822	0.423	0.9645	8.6
10	14:44	18.80	0.6	0.850	0.6	0.340	2.3120	1.00	2.3120	0.403	0.9314	8.3
11	14:54	19.10	0.6	0.750	0.6	0.300	1.9820	1.00	1.9820	0.244	0.4833	4.3
12	14:45	19.45	0.6	0.750	0.6	0.300	1.8957	1.00	1.8957	0.376	0.7130	6.4
13	*14:46*	*20.10*	*0.6*	*0.800*	*0.6*	*0.320*	*1.4639*	*1.00*	*1.4639*	*0.520*	*0.7614*	*6.8*
14	*14:47*	*20.75*	*0.6*	*0.750*	*0.6*	*0.300*	*1.3665*	*1.00*	*1.3665*	*0.488*	*0.6664*	*5.9*
15	14:48	21.40	0.6	0.700	0.6	0.280	1.8327	1.00	1.8327	0.455	0.8344	7.4
16	14:49	22.05	0.6	0.650	0.6	0.260	0.8862	1.00	0.8862	0.423	0.3745	3.3
17	14:50	22.70	0.6	0.500	0.6	0.200	0.9902	1.00	0.9902	0.325	0.3219	2.9
18	*14:51*	*23.35*	*0.6*	*0.400*	*0.6*	*0.160*	*0.0912*	*1.00*	*0.0912*	*0.339*	*0.0309*	*0.3*
19	*14:52*	*24.40*	*0.6*	*0.200*	*0.6*	*0.080*	*0.2825*	*1.00*	*0.2825*	*0.209*	*0.0591*	*0.5*
20	14:52	25.45	None	0.200	0.0	0.0	0.0000	1.00	0.2825	0.105	0.0296	0.3

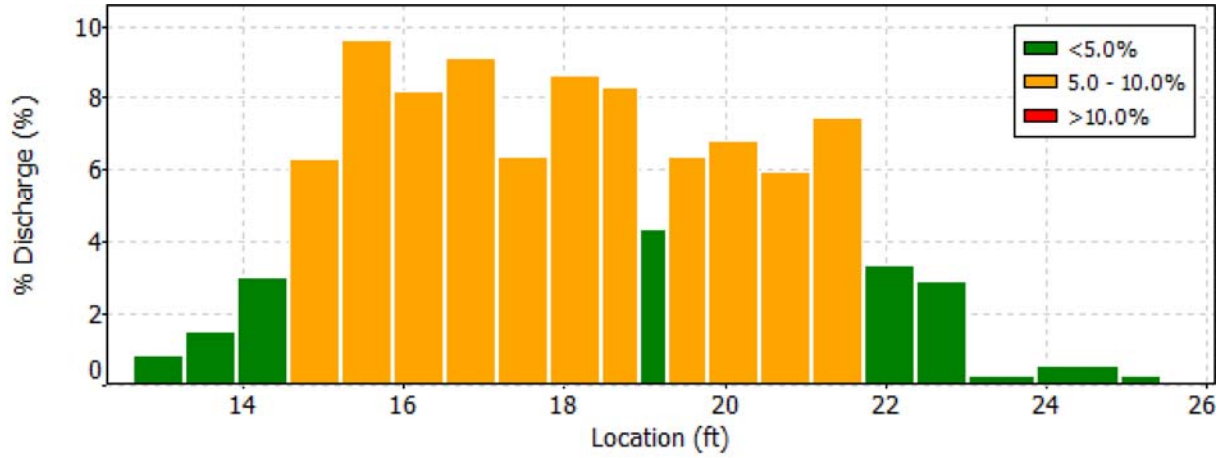
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

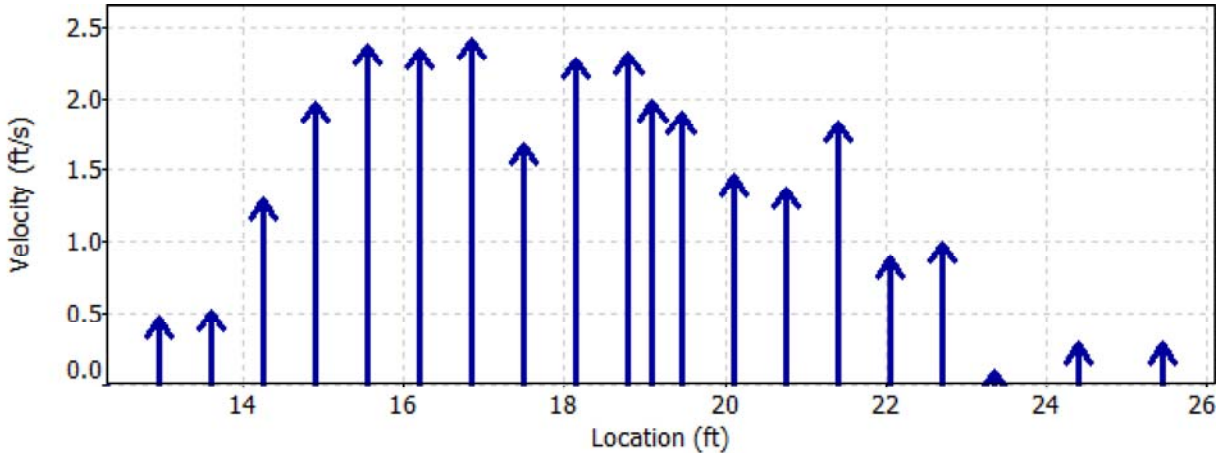
Discharge Measurement Summary

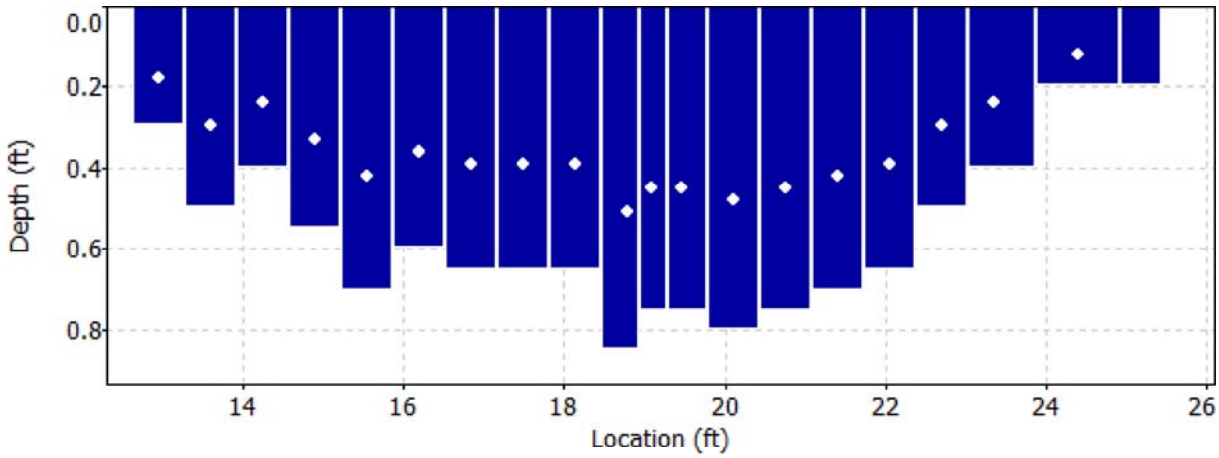
Date Generated: Wed Oct 4 2017

File Information	
File Name	CC28C.WAD
Start Date and Time	2017/09/26 14:34:27

Site Details	
Site Name	CC28C
Operator(s)	LC







Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC28C.WAD
Start Date and Time	2017/09/26 14:34:27

Site Details

Site Name	CC28C
Operator(s)	LC

Quality Control

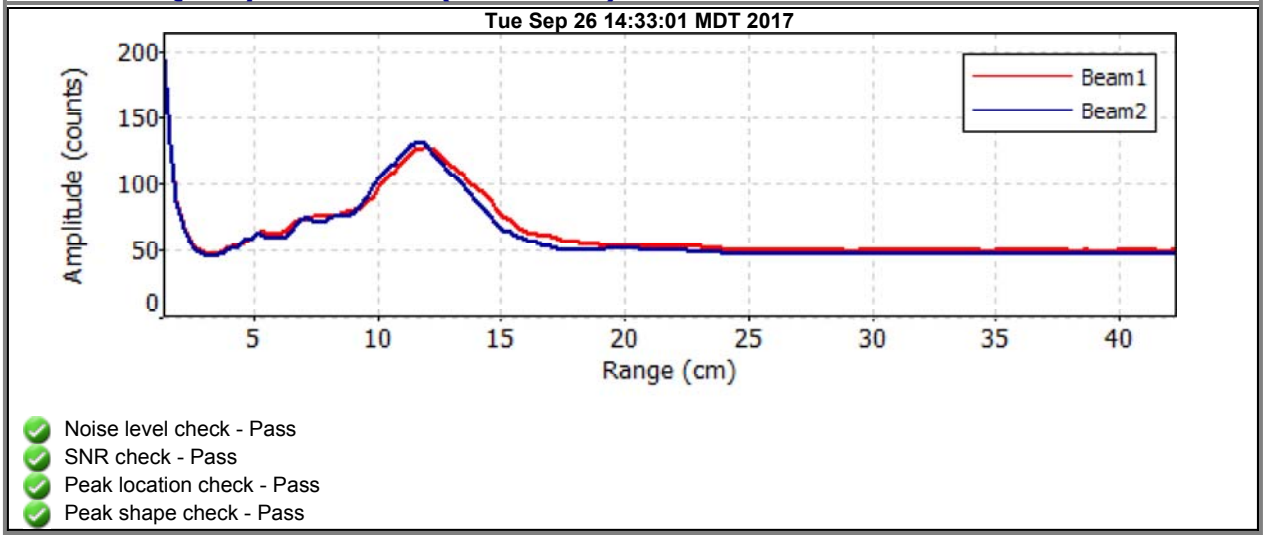
St	Loc	%Dep	Message
1	12.95	0.6	High standard error: 0.114
8	17.50	0.6	High standard error: 0.115
13	20.10	0.6	High standard error: 0.173
14	20.75	0.6	High standard error: 0.120
18	23.35	0.6	High angle: -44
		0.6	High SNR variation during measurement: 5.2,4.7
19	24.40	0.6	High angle: 35

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC28C.WAD	Site Name	CC28C
Start Date and Time	2017/09/26 14:34:27	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC28D.WAD
Start Date and Time	2017/09/26 14:02:30

Site Details

Site Name	CC28D
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	3.6%
Velocity	1.5%	6.6%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**3.4%**	**7.5%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	12.700
Mean SNR	30.9 dB	Total Area	7.323
Mean Temp	50.08 °F	Mean Depth	0.577
Disch. Equation	Mid-Section	Mean Velocity	1.4580
		Total Discharge	**10.6775**

Measurement Results

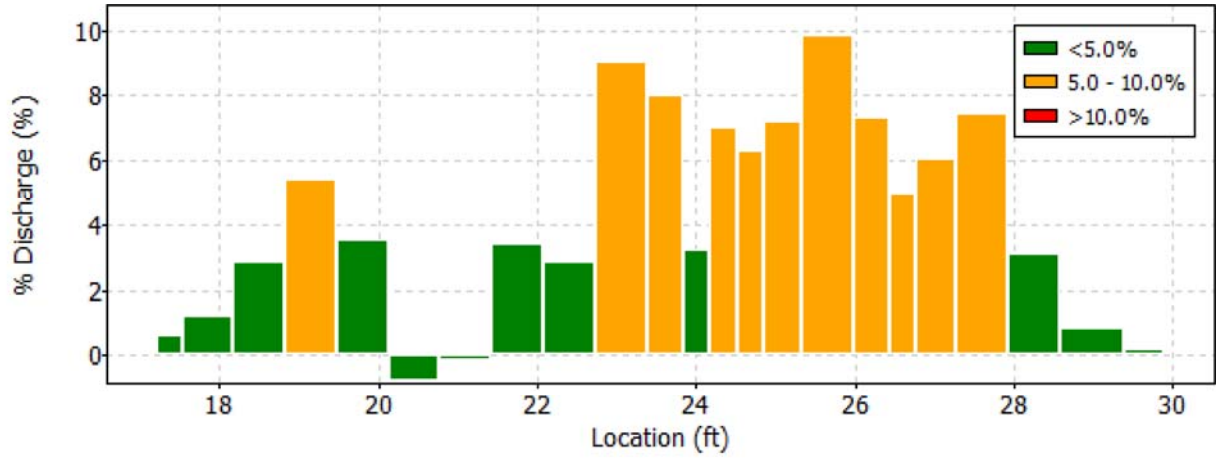
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:02	17.20	None	0.200	0.0	0.0	0.0000	1.00	1.0095	0.065	0.0657	0.6
1	14:02	17.85	0.6	0.200	0.6	0.080	1.0095	1.00	1.0095	0.130	0.1313	1.2
2	*14:03*	*18.50*	*0.6*	*0.300*	*0.6*	*0.120*	*1.6079*	*1.00*	*1.6079*	*0.195*	*0.3134*	*2.9*
3	14:04	19.15	0.6	0.400	0.6	0.160	2.2418	1.00	2.2418	0.260	0.5827	5.5
4	14:05	19.80	0.6	0.600	0.6	0.240	0.9852	1.00	0.9852	0.390	0.3842	3.6
5	*14:06*	*20.45*	*0.6*	*0.600*	*0.6*	*0.240*	*-0.2185*	*1.00*	*-0.2185*	*0.390*	*-0.0852*	*-0.8*
6	*14:07*	*21.10*	*0.6*	*0.700*	*0.6*	*0.280*	*-0.0394*	*1.00*	*-0.0394*	*0.455*	*-0.0179*	*-0.2*
7	14:08	21.75	0.6	0.700	0.6	0.280	0.8068	1.00	0.8068	0.455	0.3671	3.4
8	*14:09*	*22.40*	*0.6*	*0.750*	*0.6*	*0.300*	*0.6371*	*1.00*	*0.6371*	*0.487*	*0.3106*	*2.9*
9	*14:10*	*23.05*	*0.6*	*0.700*	*0.6*	*0.280*	*2.1237*	*1.00*	*2.1237*	*0.455*	*0.9664*	*9.1*
10	14:11	23.70	0.6	0.800	0.6	0.320	2.2605	1.00	2.2605	0.380	0.8593	8.0
11	*14:21*	*24.00*	*0.6*	*0.600*	*0.6*	*0.240*	*1.7785*	*1.00*	*1.7785*	*0.195*	*0.3468*	*3.2*
12	14:12	24.35	0.6	0.800	0.6	0.320	2.6762	1.00	2.6762	0.280	0.7493	7.0
13	14:23	24.70	0.6	0.800	0.6	0.320	2.5896	1.00	2.5896	0.260	0.6731	6.3
14	14:13	25.00	0.6	0.850	0.6	0.340	1.9111	1.00	1.9111	0.403	0.7710	7.2
15	14:14	25.65	0.6	0.800	0.6	0.320	2.0200	1.00	2.0200	0.520	1.0501	9.8
16	14:15	26.30	0.6	0.700	0.6	0.280	2.3619	1.00	2.3619	0.333	0.7861	7.4
17	14:24	26.60	0.6	0.800	0.6	0.320	2.0561	1.00	2.0561	0.260	0.5344	5.0
18	14:16	26.95	0.6	0.600	0.6	0.240	2.1434	1.00	2.1434	0.300	0.6424	6.0
19	14:17	27.60	0.6	0.550	0.6	0.220	2.2247	1.00	2.2247	0.357	0.7951	7.4
20	14:18	28.25	0.6	0.700	0.6	0.280	0.7431	1.00	0.7431	0.455	0.3381	3.2
21	14:19	28.90	0.6	0.300	0.6	0.120	0.3812	1.00	0.3812	0.248	0.0944	0.9
22	14:19	29.90	None	0.100	0.0	0.0	0.0000	1.00	0.3812	0.050	0.0191	0.2

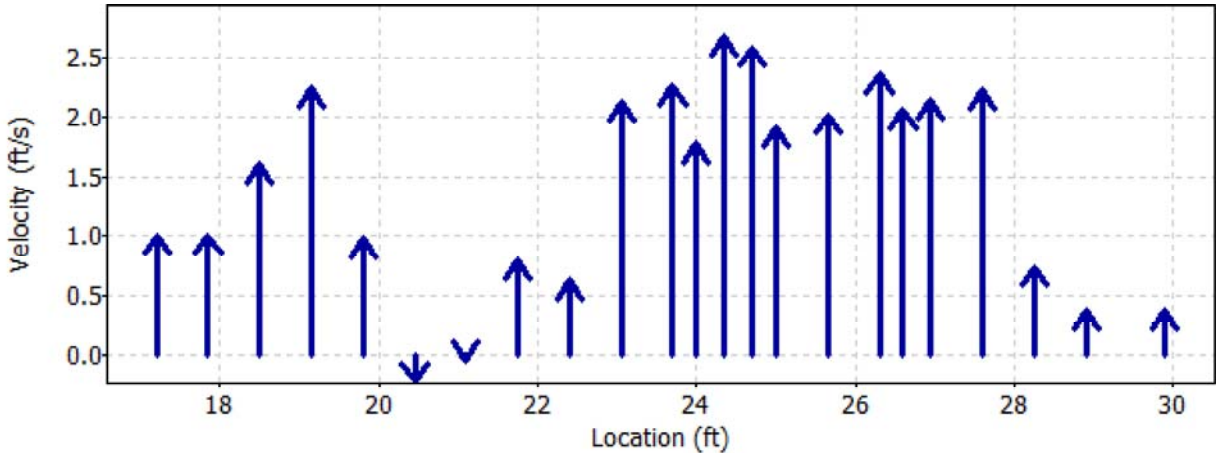
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

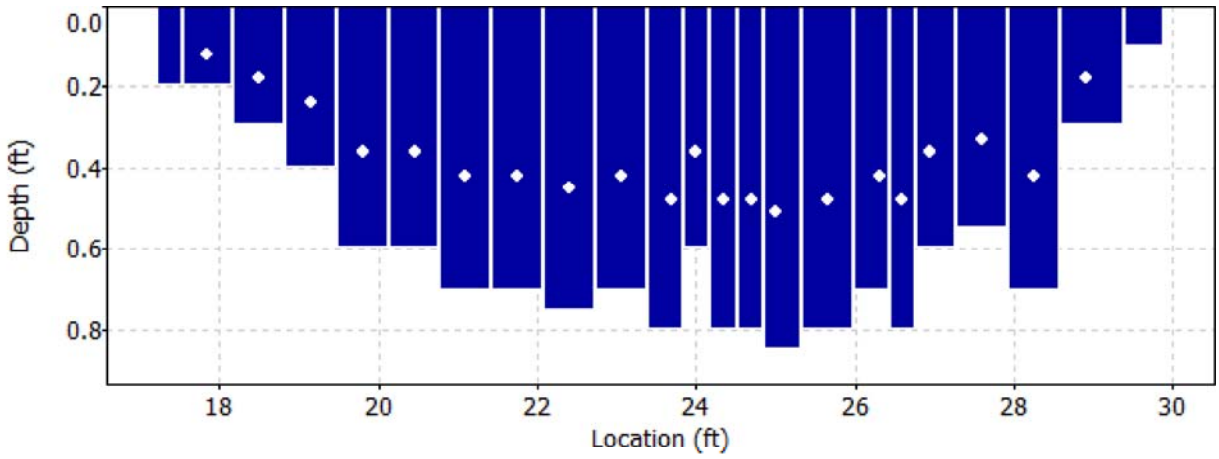
Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC28D.WAD	Site Name	CC28D
Start Date and Time	2017/09/26 14:02:30	Operator(s)	LC







Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC28D.WAD	Site Name	CC28D
Start Date and Time	2017/09/26 14:02:30	Operator(s)	LC

Quality Control

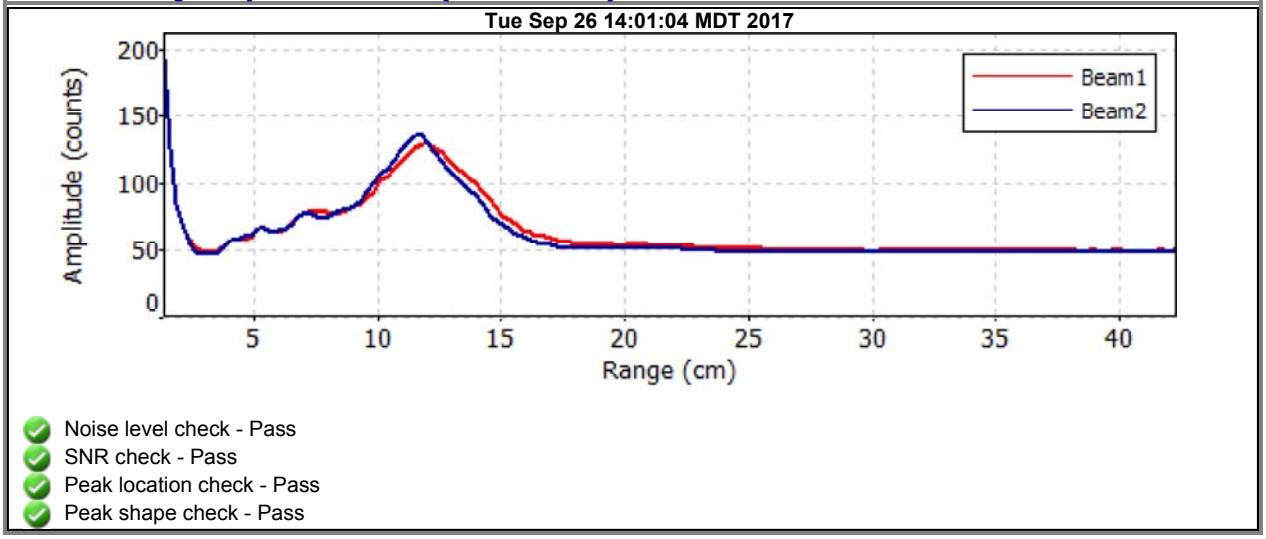
St	Loc	%Dep	Message
2	18.50	0.6	High number of spikes: 6
5	20.45	0.6	High angle: 171
6	21.10	0.6	High angle: 122
8	22.40	0.6	High angle: 21
		0.6	High standard error: 0.145
9	23.05	0.6	High standard error: 0.147
11	24.00	0.6	High standard error: 0.157

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC28D.WAD	Site Name	CC28D
Start Date and Time	2017/09/26 14:02:30	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC28E.WAD
Start Date and Time	2017/09/26 15:06:00

Site Details

Site Name	CC28E
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.4%
Velocity	1.1%	6.5%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.3%	-
Overall	**3.3%**	**6.7%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	9.453
Mean SNR	34.8 dB	Total Area	5.379
Mean Temp	49.16 °F	Mean Depth	0.569
Disch. Equation	Mid-Section	Mean Velocity	2.1709
		Total Discharge	**11.6777**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:05	9.30	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*15:05*	*9.75*	*0.6*	*0.200*	*0.6*	*0.080*	*0.2365*	*1.00*	*0.2365*	*0.090*	*0.0213*	*0.2*
2	15:07	10.20	0.6	0.300	0.6	0.120	2.2103	1.00	2.2103	0.135	0.2983	2.6
3	15:08	10.65	0.6	0.400	0.6	0.160	3.0758	1.00	3.0758	0.180	0.5537	4.7
4	15:09	11.10	0.6	0.500	0.6	0.200	2.7238	1.00	2.7238	0.225	0.6130	5.2
5	15:10	11.55	0.6	0.600	0.6	0.240	2.1847	1.00	2.1847	0.270	0.5901	5.1
6	15:11	12.00	0.6	0.600	0.6	0.240	2.1988	1.00	2.1988	0.270	0.5939	5.1
7	15:12	12.45	0.6	0.650	0.6	0.260	2.5518	1.00	2.5518	0.293	0.7466	6.4
8	15:13	12.90	0.6	0.700	0.6	0.280	3.1985	1.00	3.1985	0.315	1.0080	8.6
9	15:14	13.35	0.6	0.650	0.6	0.260	3.0440	1.00	3.0440	0.293	0.8905	7.6
10	*15:15*	*13.80*	*0.6*	*0.650*	*0.6*	*0.260*	*1.9852*	*1.00*	*1.9852*	*0.293*	*0.5808*	*5.0*
11	15:16	14.25	0.6	0.550	0.6	0.220	3.4767	1.00	3.4767	0.248	0.8605	7.4
12	*15:17*	*14.70*	*0.6*	*0.600*	*0.6*	*0.240*	*2.0016*	*1.00*	*2.0016*	*0.270*	*0.5407*	*4.6*
13	15:18	15.15	0.6	0.650	0.6	0.260	1.8517	1.00	1.8517	0.293	0.5417	4.6
14	15:19	15.60	0.6	0.650	0.6	0.260	2.4314	1.00	2.4314	0.293	0.7113	6.1
15	*15:20*	*16.05*	*0.6*	*0.650*	*0.6*	*0.260*	*2.1270*	*1.00*	*2.1270*	*0.293*	*0.6223*	*5.3*
16	15:21	16.50	0.6	0.700	0.6	0.280	1.9465	1.00	1.9465	0.315	0.6134	5.3
17	15:21	16.95	0.6	0.700	0.6	0.280	0.9170	1.00	0.9170	0.315	0.2890	2.5
18	15:22	17.40	0.6	0.700	0.6	0.280	2.9012	1.00	2.9012	0.315	0.9143	7.8
19	15:23	17.85	0.6	0.600	0.6	0.240	2.1706	1.00	2.1706	0.270	0.5863	5.0
20	*15:24*	*18.30*	*0.6*	*0.750*	*0.6*	*0.300*	*0.2513*	*1.00*	*0.2513*	*0.338*	*0.0848*	*0.7*
21	15:24	18.75	None	0.300	0.0	0.0	0.0000	1.00	0.2513	0.067	0.0170	0.1

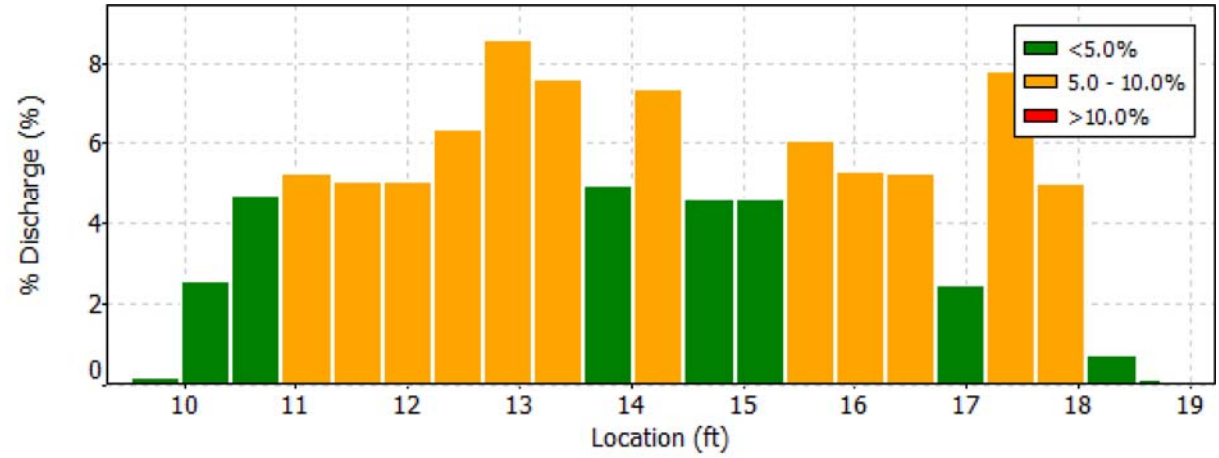
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

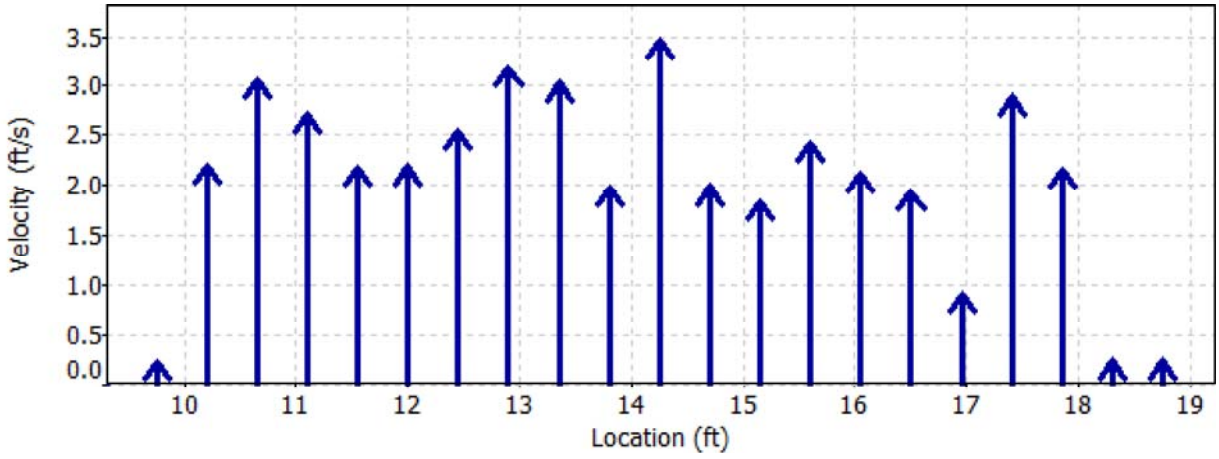
Discharge Measurement Summary

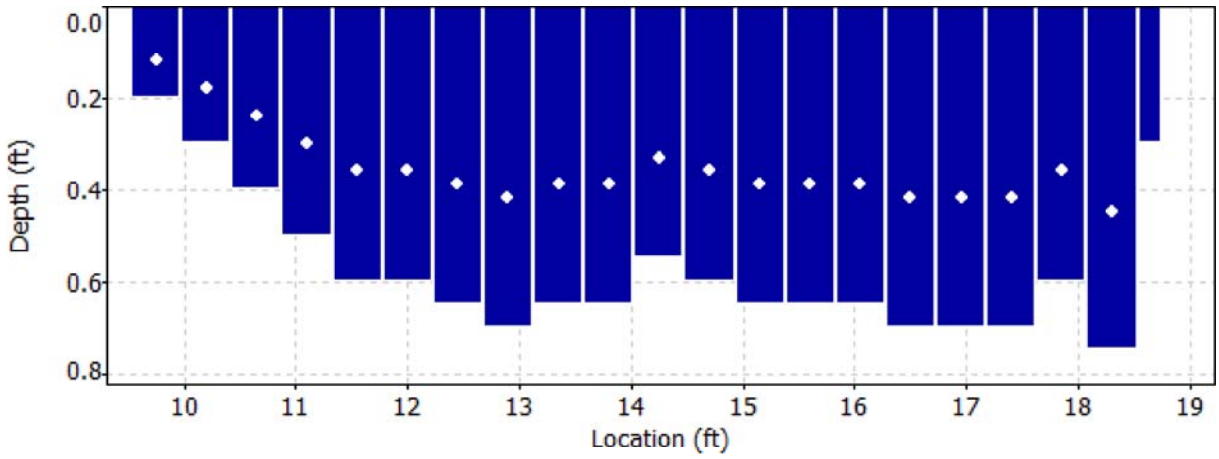
Date Generated: Wed Oct 4 2017

File Information	
File Name	CC28E.WAD
Start Date and Time	2017/09/26 15:06:00

Site Details	
Site Name	CC28E
Operator(s)	LC







Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information	
File Name	CC28E.WAD
Start Date and Time	2017/09/26 15:06:00

Site Details	
Site Name	CC28E
Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
1	9.75	0.6	High angle: -21
10	13.80	0.6	High standard error: 0.139
12	14.70	0.6	High standard error: 0.126
15	16.05	0.6	High standard error: 0.145
20	18.30	0.6	High angle: 57

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC39.WAD
Start Date and Time	2017/09/26 10:51:52

Site Details

Site Name	CC39
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	2.9%
Velocity	1.6%	7.1%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.0%	-
Overall	**3.4%**	**7.8%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	LEW	Total Width	18.000
Mean SNR	30.0 dB	Total Area	11.137
Mean Temp	42.47 °F	Mean Depth	0.619
Disch. Equation	Mid-Section	Mean Velocity	1.2592
		Total Discharge	**14.0237**

Measurement Results

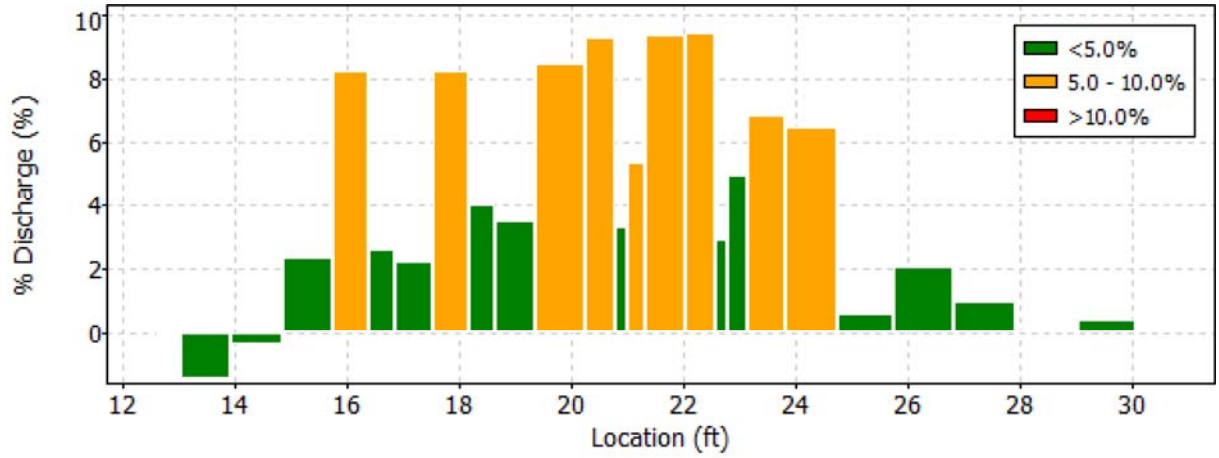
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:51	12.60	None	0.100	0.0	0.0	0.0000	1.00	-0.3819	0.045	-0.0172	-0.1
1	*10:51*	*13.50*	*0.6*	*0.600*	*0.6*	*0.240*	*-0.3819*	*1.00*	*-0.3819*	*0.540*	*-0.2062*	*-1.5*
2	*10:52*	*14.40*	*0.6*	*0.750*	*0.6*	*0.300*	*-0.0797*	*1.00*	*-0.0797*	*0.675*	*-0.0538*	*-0.4*
3	*10:53*	*15.30*	*0.6*	*0.800*	*0.6*	*0.320*	*0.4590*	*1.00*	*0.4590*	*0.720*	*0.3304*	*2.4*
4	*10:55*	*16.20*	*0.6*	*1.000*	*0.6*	*0.400*	*1.7844*	*1.00*	*1.7844*	*0.650*	*1.1601*	*8.3*
5	*11:15*	*16.60*	*0.6*	*1.000*	*0.6*	*0.400*	*0.8130*	*1.00*	*0.8130*	*0.450*	*0.3658*	*2.6*
6	*10:56*	*17.10*	*0.2/0.8*	*0.600*	*0.2*	*0.480*	*0.7825*	*1.00*	*0.7466*	*0.420*	*0.3135*	*2.2*
6	*10:57*	*17.10*	*0.2/0.8*	*0.600*	*0.8*	*0.120*	*0.7106*					
7	*10:59*	*18.00*	*0.6*	*0.700*	*0.6*	*0.280*	*2.5453*	*1.00*	*2.5453*	*0.455*	*1.1585*	*8.3*
8	*11:16*	*18.40*	*0.6*	*0.800*	*0.6*	*0.320*	*1.5620*	*1.00*	*1.5620*	*0.360*	*0.5622*	*4.0*
9	*11:00*	*18.90*	*0.6*	*0.700*	*0.6*	*0.280*	*1.0049*	*1.00*	*1.0049*	*0.490*	*0.4924*	*3.5*
10	11:01	19.80	0.6	0.650	0.6	0.260	2.0315	1.00	2.0315	0.585	1.1882	8.5
11	*11:02*	*20.70*	*0.6*	*0.700*	*0.6*	*0.280*	*3.3927*	*1.00*	*3.3927*	*0.385*	*1.3069*	*9.3*
12	11:20	20.90	0.6	0.750	0.6	0.300	3.0909	1.00	3.0909	0.150	0.4643	3.3
13	11:17	21.10	0.6	0.700	0.6	0.280	3.0617	1.00	3.0617	0.245	0.7497	5.3
14	*11:03*	*21.60*	*0.6*	*0.800*	*0.6*	*0.320*	*2.3445*	*1.00*	*2.3445*	*0.560*	*1.3120*	*9.4*
15	11:04	22.50	0.6	1.050	0.6	0.420	2.2861	1.00	2.2861	0.578	1.3209	9.4
16	11:22	22.70	0.6	1.000	0.6	0.400	2.0541	1.00	2.0541	0.200	0.4114	2.9
17	*11:19*	*22.90*	*0.6*	*1.000*	*0.6*	*0.400*	*1.9948*	*1.00*	*1.9948*	*0.350*	*0.6973*	*5.0*
18	11:05	23.40	0.6	0.700	0.6	0.280	1.9705	1.00	1.9705	0.490	0.9652	6.9
19	*11:06*	*24.30*	*0.6*	*0.750*	*0.6*	*0.300*	*1.3465*	*1.00*	*1.3465*	*0.675*	*0.9088*	*6.5*
20	*11:08*	*25.20*	*0.6*	*0.600*	*0.6*	*0.240*	*0.1427*	*1.00*	*0.1427*	*0.600*	*0.0857*	*0.6*
21	*11:09*	*26.30*	*0.6*	*0.400*	*0.6*	*0.160*	*0.6496*	*1.00*	*0.6496*	*0.440*	*0.2860*	*2.0*
22	*11:11*	*27.40*	*0.6*	*0.300*	*0.6*	*0.120*	*0.4285*	*1.00*	*0.4285*	*0.330*	*0.1414*	*1.0*
23	11:11	28.50	0.6	0.300	0.6	0.120	0.0148	1.00	0.0148	0.330	0.0049	0.0
24	11:12	29.60	0.6	0.300	0.6	0.120	0.1818	1.00	0.1818	0.315	0.0572	0.4
25	11:12	30.60	None	0.200	0.0	0.0	0.0000	1.00	0.1818	0.100	0.0182	0.1

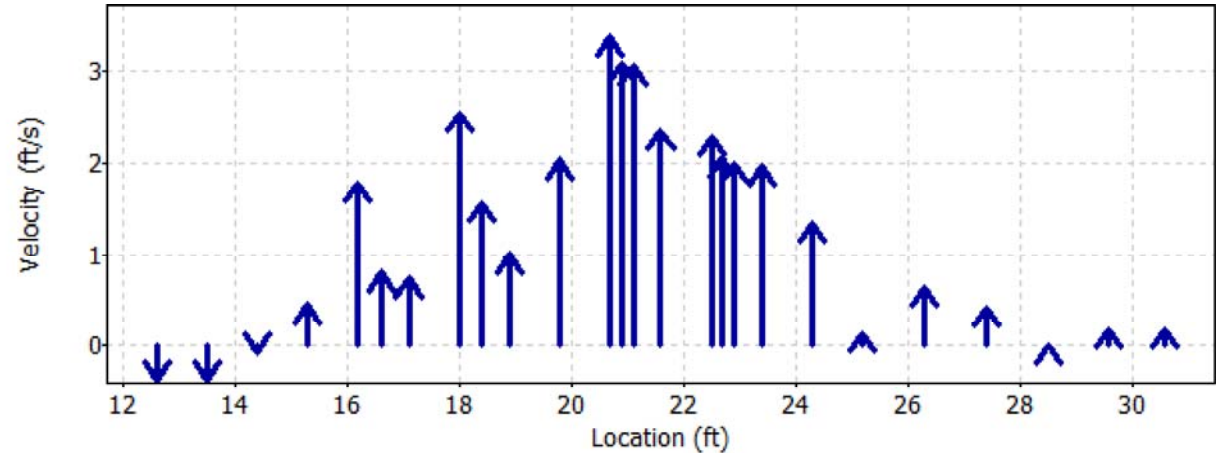
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

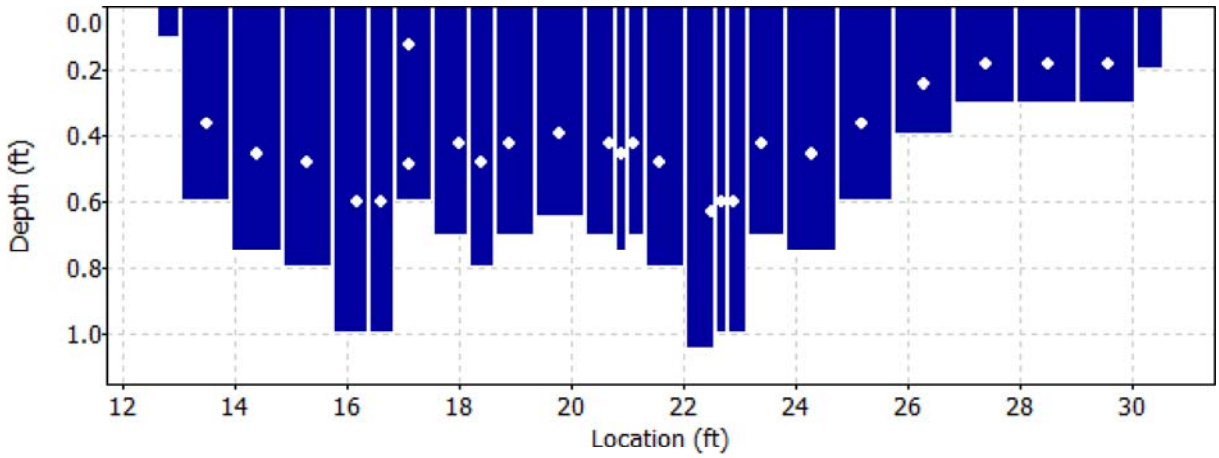
Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC39.WAD	Site Name	CC39
Start Date and Time	2017/09/26 10:51:52	Operator(s)	LC







Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC39.WAD
Start Date and Time	2017/09/26 10:51:52

Site Details

Site Name	CC39
Operator(s)	LC

Quality Control

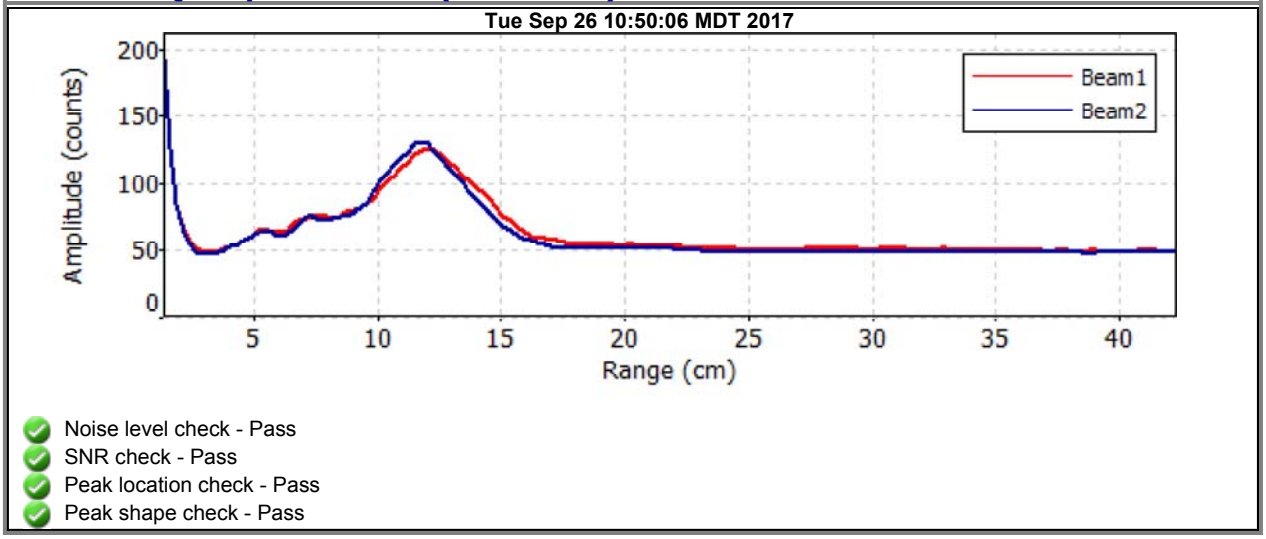
St	Loc	%Dep	Message
1	13.50	0.6	High angle: -172
2	14.40	0.6	High angle: 139
3	15.30	0.6	High number of spikes: 5
		0.6	High angle: 25
4	16.20	0.6	High standard error: 0.148
5	16.60	0.6	High angle: -21
6	17.10	0.8	High angle: -23
7	18.00	0.6	High standard error: 0.140
8	18.40	0.6	High differences in beam SNR: 32.6,46.0
		0.6	High standard error: 0.188
9	18.90	0.6	High standard error: 0.168
11	20.70	0.6	High number of spikes: 5
14	21.60	0.6	High standard error: 0.134
17	22.90	0.6	High angle: 20
19	24.30	0.6	High angle: 39
20	25.20	0.6	High angle: -40
21	26.30	0.6	High angle: 33
22	27.40	0.6	High angle: 56

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC39.WAD	Site Name	CC39
Start Date and Time	2017/09/26 10:51:52	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC39B.WAD
Start Date and Time	2017/09/26 13:16:11

Site Details

Site Name	CC39B
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.7%
Velocity	1.1%	4.8%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.2%	-
Overall	**3.2%**	**5.1%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	13.300
Mean SNR	29.9 dB	Total Area	8.049
Mean Temp	50.13 °F	Mean Depth	0.605
Disch. Equation	Mid-Section	Mean Velocity	1.7742
		Total Discharge	**14.2811**

Measurement Results

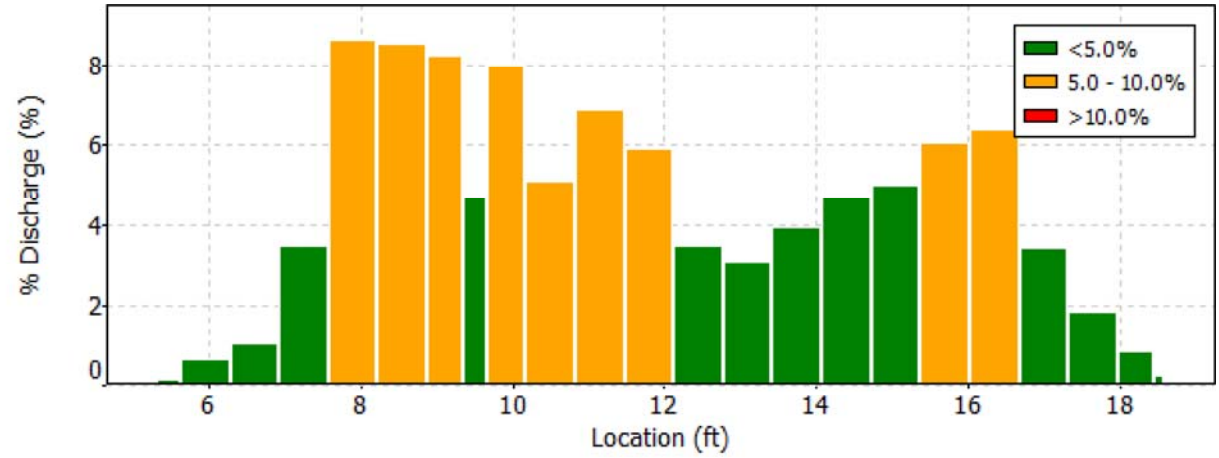
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:16	5.30	None	0.100	0.0	0.0	0.0000	1.00	0.4708	0.033	0.0153	0.1
1	13:16	5.95	0.6	0.300	0.6	0.120	0.4708	1.00	0.4708	0.195	0.0918	0.6
2	*13:17*	*6.60*	*0.6*	*0.300*	*0.6*	*0.120*	*0.7346*	*1.00*	*0.7346*	*0.195*	*0.1432*	*1.0*
3	*13:18*	*7.25*	*0.6*	*0.550*	*0.6*	*0.220*	*1.3937*	*1.00*	*1.3937*	*0.358*	*0.4983*	*3.5*
4	13:19	7.90	0.6	0.700	0.6	0.280	2.7126	1.00	2.7126	0.455	1.2350	8.6
5	13:20	8.55	0.6	0.700	0.6	0.280	2.6814	1.00	2.6814	0.455	1.2208	8.5
6	13:21	9.20	0.6	0.700	0.6	0.280	3.5433	1.00	3.5433	0.332	1.1769	8.2
7	13:39	9.50	0.6	0.650	0.6	0.260	3.1627	1.00	3.1627	0.211	0.6683	4.7
8	13:22	9.85	0.6	0.700	0.6	0.280	3.2516	1.00	3.2516	0.351	1.1405	8.0
9	*13:23*	*10.50*	*0.6*	*0.700*	*0.6*	*0.280*	*1.5928*	*1.00*	*1.5928*	*0.455*	*0.7252*	*5.1*
10	13:24	11.15	0.6	0.650	0.6	0.260	2.3202	1.00	2.3202	0.423	0.9806	6.9
11	13:25	11.80	0.6	0.650	0.6	0.260	1.9885	1.00	1.9885	0.423	0.8404	5.9
12	13:26	12.45	0.6	0.600	0.6	0.240	1.2759	1.00	1.2759	0.390	0.4979	3.5
13	13:27	13.10	0.6	0.650	0.6	0.260	1.0338	1.00	1.0338	0.423	0.4369	3.1
14	13:28	13.75	0.6	0.700	0.6	0.280	1.2316	1.00	1.2316	0.455	0.5607	3.9
15	13:31	14.40	0.6	0.600	0.6	0.240	1.7073	1.00	1.7073	0.390	0.6662	4.7
16	13:32	15.05	0.6	0.700	0.6	0.280	1.5584	1.00	1.5584	0.455	0.7095	5.0
17	13:33	15.70	0.6	0.700	0.6	0.280	1.8862	1.00	1.8862	0.455	0.8587	6.0
18	13:34	16.35	0.6	0.650	0.6	0.260	2.1552	1.00	2.1552	0.423	0.9108	6.4
19	13:35	17.00	0.6	0.700	0.6	0.280	1.0830	1.00	1.0830	0.455	0.4931	3.5
20	13:36	17.65	0.6	0.650	0.6	0.260	0.6276	1.00	0.6276	0.421	0.2642	1.8
21	13:37	18.30	0.6	0.500	0.6	0.200	0.4954	1.00	0.4954	0.236	0.1171	0.8
22	13:37	18.60	None	0.400	0.0	0.0	0.0000	1.00	0.4954	0.060	0.0297	0.2

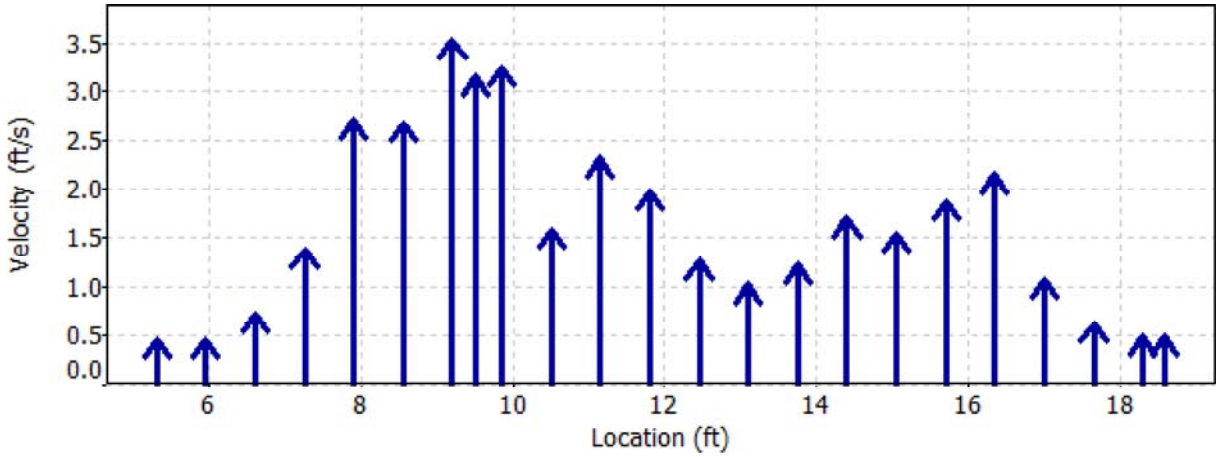
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

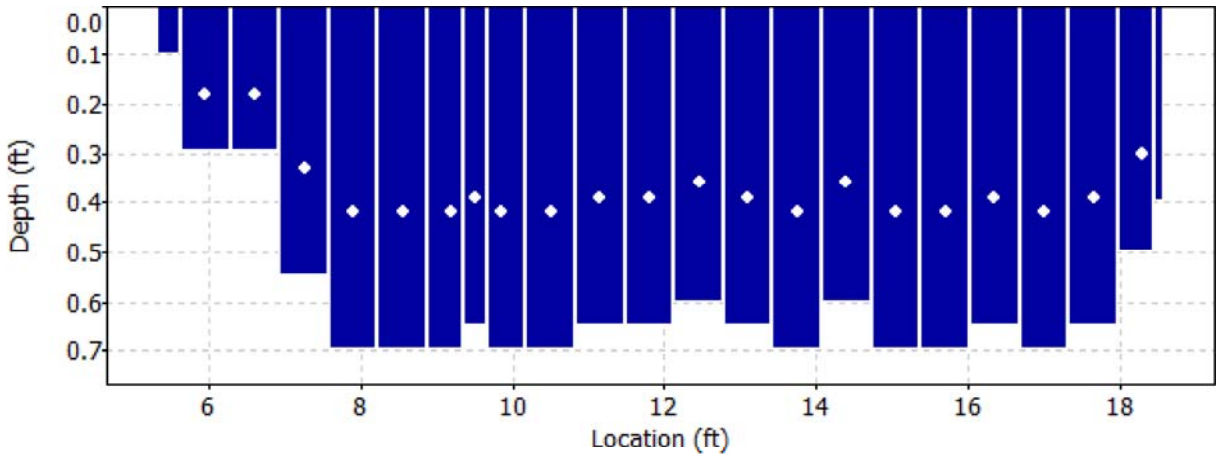
Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC39B.WAD	Site Name	CC39B
Start Date and Time	2017/09/26 13:16:11	Operator(s)	LC







Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information	
File Name	CC39B.WAD
Start Date and Time	2017/09/26 13:16:11

Site Details	
Site Name	CC39B
Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
2	6.60	0.6	High angle: 26
		0.6	High standard error: 0.125
3	7.25	0.6	High standard error: 0.141
9	10.50	0.6	High standard error: 0.128

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC39D.WAD
Start Date and Time	2017/09/26 10:19:27

Site Details

Site Name	CC39D
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	1.7%
Velocity	1.0%	1.3%
Width	0.1%	0.1%
Method	1.7%	-
# Stations	2.3%	-
Overall	**3.2%**	**2.4%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	8.500
Mean SNR	29.5 dB	Total Area	8.295
Mean Temp	39.63 °F	Mean Depth	0.976
Disch. Equation	Mid-Section	Mean Velocity	1.5913
		Total Discharge	**13.1996**

Measurement Results

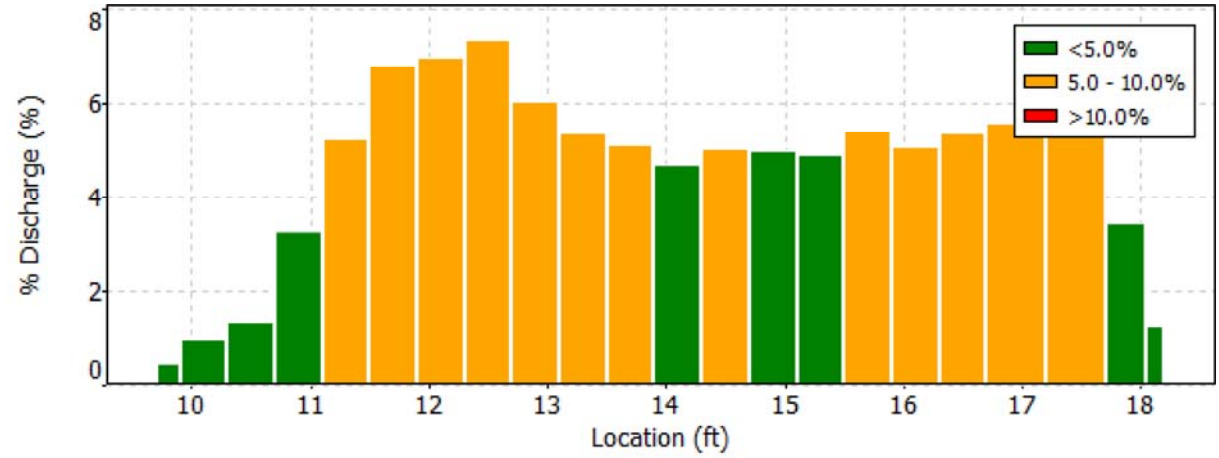
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:19	9.70	None	0.450	0.0	0.0	0.0000	1.00	0.6480	0.090	0.0583	0.4
1	*10:19*	*10.10*	*0.6*	*0.500*	*0.6*	*0.200*	*0.6480*	*1.00*	*0.6480*	*0.200*	*0.1296*	*1.0*
2	10:20	10.50	0.6	0.500	0.6	0.200	0.8862	1.00	0.8862	0.200	0.1772	1.3
3	10:21	10.90	0.6	0.900	0.6	0.360	1.1972	1.00	1.1972	0.360	0.4309	3.3
4	10:22	11.30	0.6	1.000	0.6	0.400	1.7264	1.00	1.7264	0.400	0.6904	5.2
5	10:23	11.70	0.6	1.000	0.6	0.400	2.2411	1.00	2.2411	0.400	0.8963	6.8
6	10:24	12.10	0.6	1.100	0.6	0.440	2.0958	1.00	2.0958	0.440	0.9221	7.0
7	10:25	12.50	0.6	1.100	0.6	0.440	2.2126	1.00	2.2126	0.440	0.9734	7.4
8	*10:26*	*12.90*	*0.6*	*1.100*	*0.6*	*0.440*	*1.8104*	*1.00*	*1.8104*	*0.440*	*0.7965*	*6.0*
9	10:27	13.30	0.6	1.100	0.6	0.440	1.6109	1.00	1.6109	0.440	0.7087	5.4
10	10:28	13.70	0.6	1.100	0.6	0.440	1.5262	1.00	1.5262	0.440	0.6715	5.1
11	10:29	14.10	0.6	1.100	0.6	0.440	1.3999	1.00	1.3999	0.440	0.6159	4.7
12	10:30	14.50	0.6	1.200	0.6	0.480	1.3760	1.00	1.3760	0.480	0.6604	5.0
13	10:31	14.90	0.6	1.200	0.6	0.480	1.3668	1.00	1.3668	0.480	0.6560	5.0
14	10:32	15.30	0.6	1.150	0.6	0.460	1.4075	1.00	1.4075	0.460	0.6473	4.9
15	10:33	15.70	0.6	1.200	0.6	0.480	1.4797	1.00	1.4797	0.480	0.7102	5.4
16	10:34	16.10	0.6	1.100	0.6	0.440	1.5157	1.00	1.5157	0.440	0.6669	5.1
17	10:35	16.50	0.6	1.200	0.6	0.480	1.4774	1.00	1.4774	0.480	0.7091	5.4
18	10:36	16.90	0.6	0.900	0.6	0.360	1.6309	1.00	1.6309	0.450	0.7346	5.6
19	10:37	17.50	0.6	0.800	0.6	0.320	1.8028	1.00	1.8028	0.400	0.7217	5.5
20	10:39	17.90	0.6	0.700	0.6	0.280	1.8576	1.00	1.8576	0.245	0.4553	3.4
21	10:39	18.20	None	0.600	0.0	0.0	0.0000	1.00	1.8576	0.090	0.1673	1.3

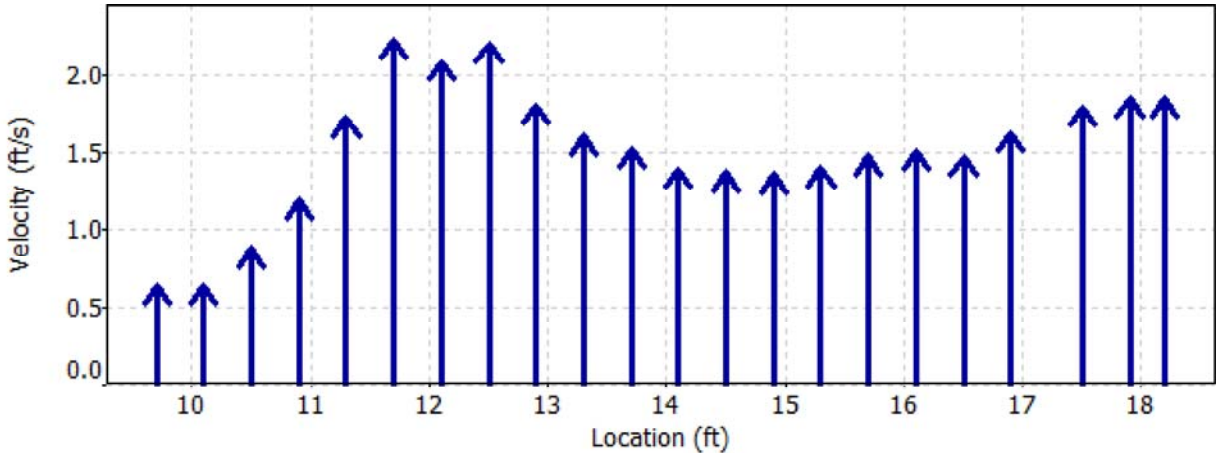
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

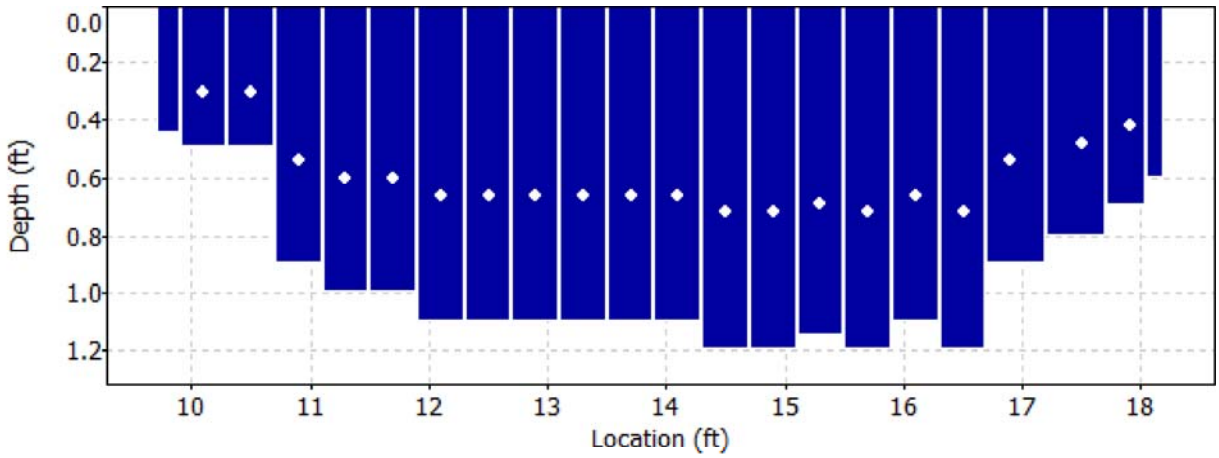
Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC39D.WAD	Site Name	CC39D
Start Date and Time	2017/09/26 10:19:27	Operator(s)	LC







Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC39D.WAD
Start Date and Time	2017/09/26 10:19:27

Site Details

Site Name	CC39D
Operator(s)	LC

Quality Control

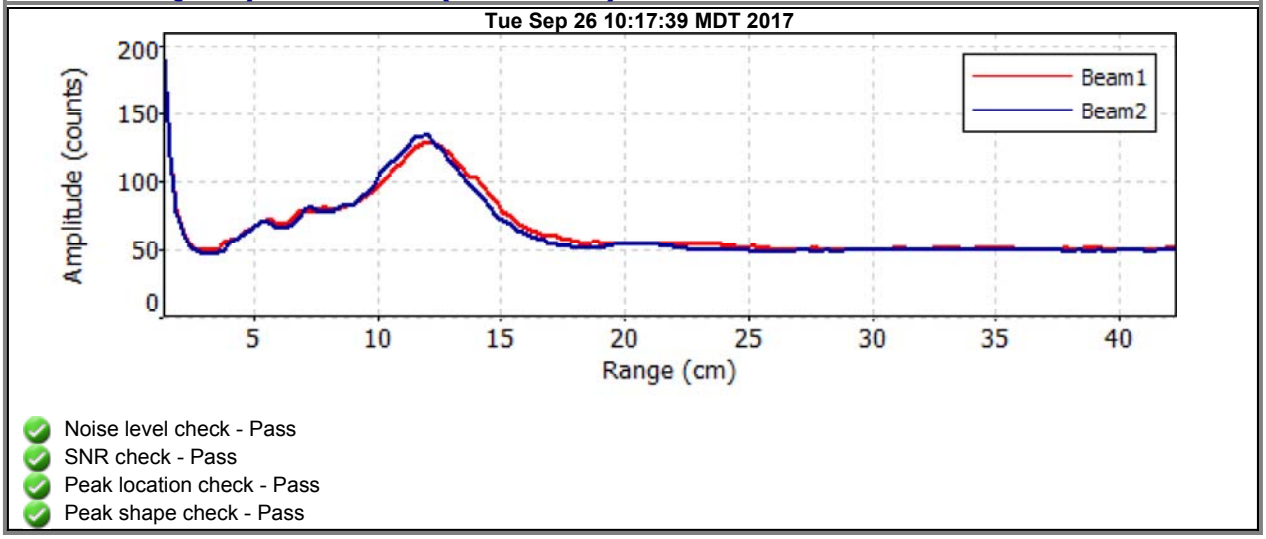
St	Loc	%Dep	Message
1	10.10	0.6	High angle: -31
8	12.90	0.6	High standard error: 0.109

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC39D.WAD	Site Name	CC39D
Start Date and Time	2017/09/26 10:19:27	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC41.WAD
Start Date and Time	2017/09/26 09:33:45

Site Details

Site Name	CC41
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.6%
Velocity	0.6%	4.4%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.3%	-
Overall	**3.3%**	**4.8%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	14.703
Mean SNR	33.1 dB	Total Area	6.371
Mean Temp	37.06 °F	Mean Depth	0.433
Disch. Equation	Mid-Section	Mean Velocity	2.4219
		Total Discharge	**15.4306**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:33	6.40	None	0.100	0.0	0.0	0.0000	1.00	1.5951	0.035	0.0559	0.4
1	09:33	7.10	0.6	0.200	0.6	0.080	1.5951	1.00	1.5951	0.140	0.2235	1.4
2	09:34	7.80	0.6	0.200	0.6	0.080	0.4344	1.00	0.4344	0.140	0.0609	0.4
3	09:35	8.50	0.6	0.300	0.6	0.120	1.4278	1.00	1.4278	0.210	0.2998	1.9
4	09:36	9.20	0.6	0.500	0.6	0.200	2.1378	1.00	2.1378	0.350	0.7484	4.8
5	09:37	9.90	0.6	0.500	0.6	0.200	2.6122	1.00	2.6122	0.350	0.9144	5.9
6	09:38	10.60	0.6	0.500	0.6	0.200	2.8264	1.00	2.8264	0.350	0.9894	6.4
7	09:39	11.30	0.6	0.500	0.6	0.200	2.9885	1.00	2.9885	0.350	1.0462	6.8
8	09:40	12.00	0.6	0.600	0.6	0.240	3.3422	1.00	3.3422	0.420	1.4041	9.1
9	09:41	12.70	0.6	0.650	0.6	0.260	3.1959	1.00	3.1959	0.455	1.4542	9.4
10	*09:43*	*13.40*	*0.6*	*0.650*	*0.6*	*0.260*	*3.3169*	*1.00*	*3.3169*	*0.455*	*1.5093*	*9.8*
11	09:43	14.10	0.6	0.650	0.6	0.260	3.1972	1.00	3.1972	0.455	1.4548	9.4
12	09:44	14.80	0.6	0.650	0.6	0.260	2.8773	1.00	2.8773	0.455	1.3093	8.5
13	09:45	15.50	0.6	0.650	0.6	0.260	2.5659	1.00	2.5659	0.455	1.1676	7.6
14	09:46	16.20	0.6	0.650	0.6	0.260	1.4446	1.00	1.4446	0.455	0.6573	4.3
15	09:47	16.90	0.6	0.500	0.6	0.200	2.0479	1.00	2.0479	0.350	0.7169	4.6
16	09:48	17.60	0.6	0.350	0.6	0.140	2.5305	1.00	2.5305	0.245	0.6202	4.0
17	09:50	18.30	0.6	0.300	0.6	0.120	1.0446	1.00	1.0446	0.210	0.2193	1.4
18	*09:51*	*19.00*	*0.6*	*0.200*	*0.6*	*0.080*	*1.2244*	*1.00*	*1.2244*	*0.140*	*0.1716*	*1.1*
19	*09:52*	*19.70*	*0.6*	*0.200*	*0.6*	*0.080*	*2.0741*	*1.00*	*2.0741*	*0.140*	*0.2906*	*1.9*
20	09:53	20.40	0.6	0.200	0.6	0.080	0.5554	1.00	0.5554	0.140	0.0778	0.5
21	09:53	21.10	None	0.200	0.0	0.0	0.0000	1.00	0.5554	0.070	0.0389	0.3

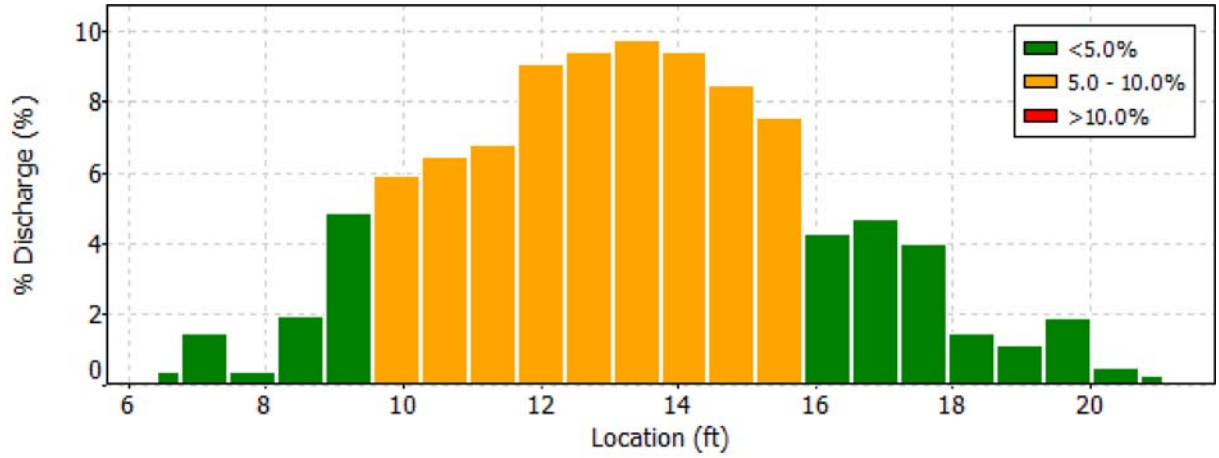
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

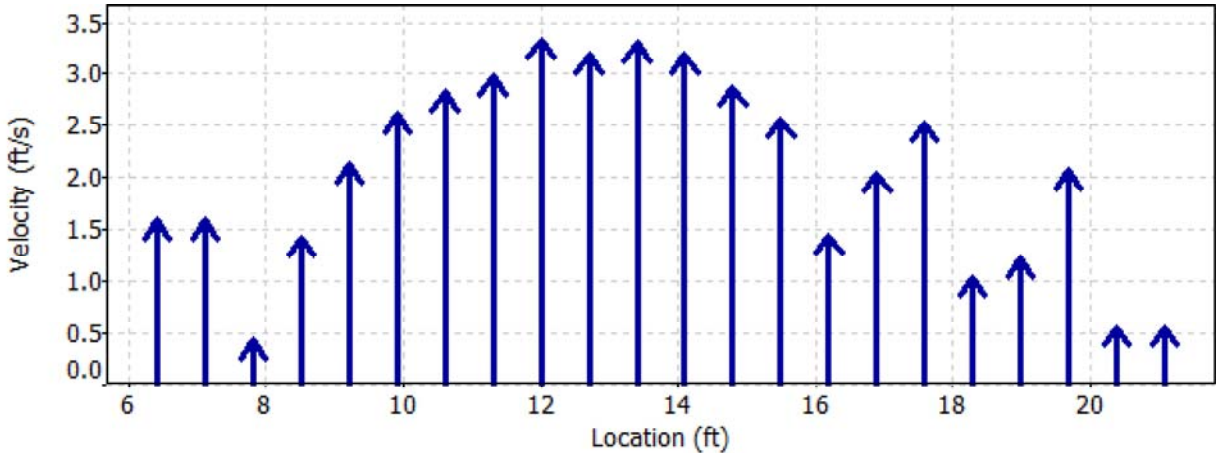
Discharge Measurement Summary

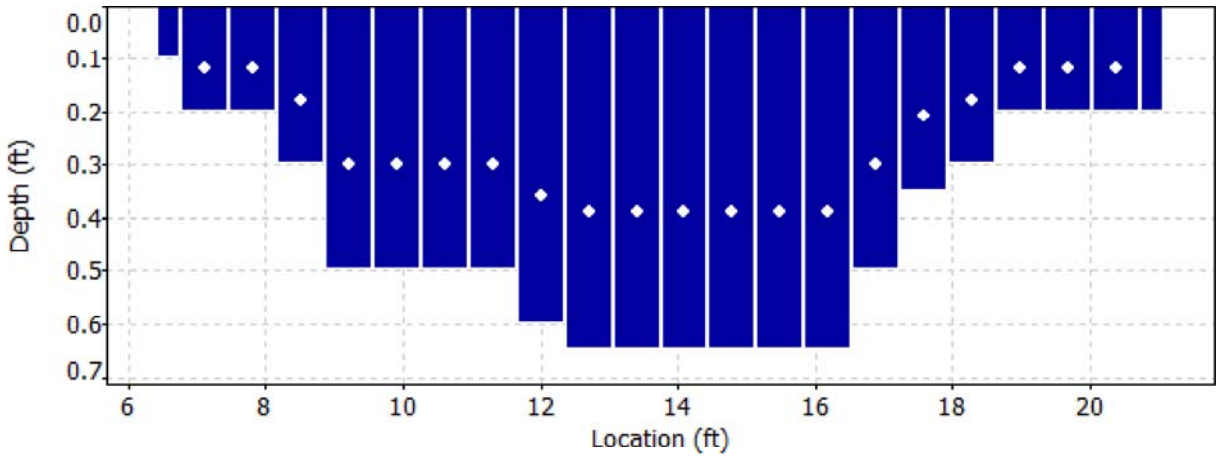
Date Generated: Wed Oct 4 2017

File Information	
File Name	CC41.WAD
Start Date and Time	2017/09/26 09:33:45

Site Details	
Site Name	CC41
Operator(s)	LC







Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC41.WAD	Site Name	CC41
Start Date and Time	2017/09/26 09:33:45	Operator(s)	LC

Quality Control

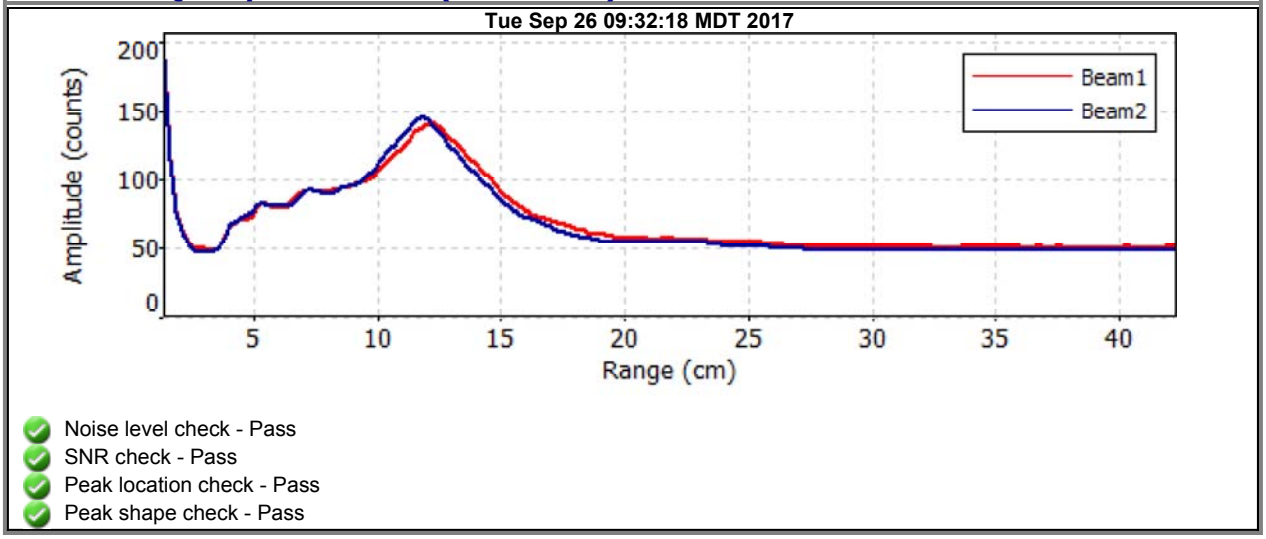
St	Loc	%Dep	Message
10	13.40	0.6	High SNR variation during measurement: 1.3,6.0
18	19.00	0.6	High angle: -23
19	19.70	0.6	High standard error: 0.140

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC41.WAD	Site Name	CC41
Start Date and Time	2017/09/26 09:33:45	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information

File Name	CC43E.WAD
Start Date and Time	2017/09/26 08:46:06

Site Details

Site Name	CC43E
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	1.5%
Velocity	1.1%	7.0%
Width	0.1%	0.1%
Method	1.7%	-
# Stations	2.1%	-
Overall	**3.1%**	**7.3%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	REW	Total Width	13.600
Mean SNR	33.5 dB	Total Area	9.817
Mean Temp	37.90 °F	Mean Depth	0.722
Disch. Equation	Mid-Section	Mean Velocity	1.5248
		Total Discharge	**14.9679**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:46	3.90	None	0.500	0.0	0.0	0.0000	1.00	0.7408	0.162	0.1204	0.8
1	08:46	4.55	0.6	0.600	0.6	0.240	0.7408	1.00	0.7408	0.390	0.2889	1.9
2	08:47	5.20	0.6	0.700	0.6	0.280	0.7887	1.00	0.7887	0.455	0.3589	2.4
3	*08:48*	*5.85*	*0.6*	*0.800*	*0.6*	*0.320*	*1.1335*	*1.00*	*1.1335*	*0.520*	*0.5893*	*3.9*
4	*08:49*	*6.50*	*0.6*	*0.950*	*0.6*	*0.380*	*1.1588*	*1.00*	*1.1588*	*0.618*	*0.7156*	*4.8*
5	08:50	7.15	0.6	0.900	0.6	0.360	1.2664	1.00	1.2664	0.585	0.7407	4.9
6	08:51	7.80	0.6	1.000	0.6	0.400	1.5863	1.00	1.5863	0.650	1.0310	6.9
7	08:52	8.45	0.6	1.050	0.6	0.420	1.4902	1.00	1.4902	0.682	1.0168	6.8
8	*08:53*	*9.10*	*0.6*	*1.050*	*0.6*	*0.420*	*0.9747*	*1.00*	*0.9747*	*0.682*	*0.6651*	*4.4*
9	08:54	9.75	0.6	0.900	0.6	0.360	1.7218	1.00	1.7218	0.585	1.0071	6.7
10	08:55	10.40	0.6	1.000	0.6	0.400	2.2172	1.00	2.2172	0.475	1.0540	7.0
11	09:07	10.70	0.6	1.050	0.6	0.420	2.2654	1.00	2.2654	0.341	0.7729	5.2
12	*08:56*	*11.05*	*0.6*	*1.050*	*0.6*	*0.420*	*0.2159*	*1.00*	*0.2159*	*0.524*	*0.1132*	*0.8*
13	*08:58*	*11.70*	*0.6*	*0.800*	*0.6*	*0.320*	*2.7740*	*1.00*	*2.7740*	*0.380*	*1.0548*	*7.0*
14	09:08	12.00	0.6	0.800	0.6	0.320	3.1480	1.00	3.1480	0.260	0.8183	5.5
15	08:59	12.35	0.6	0.750	0.6	0.300	3.3120	1.00	3.3120	0.244	0.8072	5.4
16	09:09	12.65	0.6	0.700	0.6	0.280	3.2215	1.00	3.2215	0.228	0.7329	4.9
17	09:00	13.00	0.6	0.650	0.6	0.260	3.1037	1.00	3.1037	0.325	1.0076	6.7
18	09:01	13.65	0.6	0.500	0.6	0.200	2.1880	1.00	2.1880	0.325	0.7110	4.8
19	09:02	14.30	0.6	0.600	0.6	0.240	1.1155	1.00	1.1155	0.390	0.4350	2.9
20	09:03	14.95	0.6	0.500	0.6	0.200	1.1522	1.00	1.1522	0.325	0.3744	2.5
21	*09:04*	*15.60*	*0.6*	*0.400*	*0.6*	*0.160*	*0.8570*	*1.00*	*0.8570*	*0.260*	*0.2227*	*1.5*
22	09:05	16.25	0.6	0.300	0.6	0.120	0.8041	1.00	0.8041	0.285	0.2292	1.5
23	09:05	17.50	None	0.200	0.0	0.0	0.0000	1.00	0.8041	0.125	0.1007	0.7

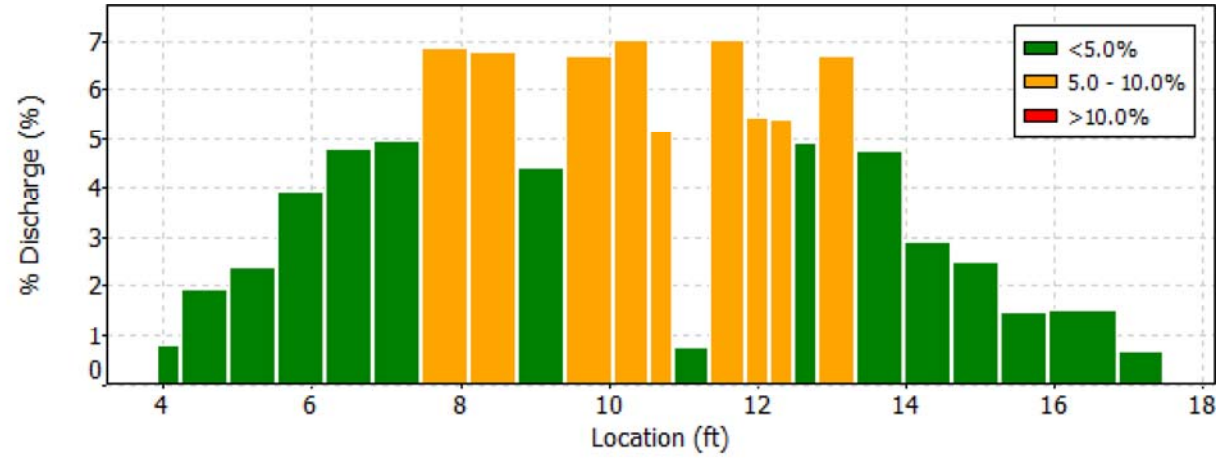
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

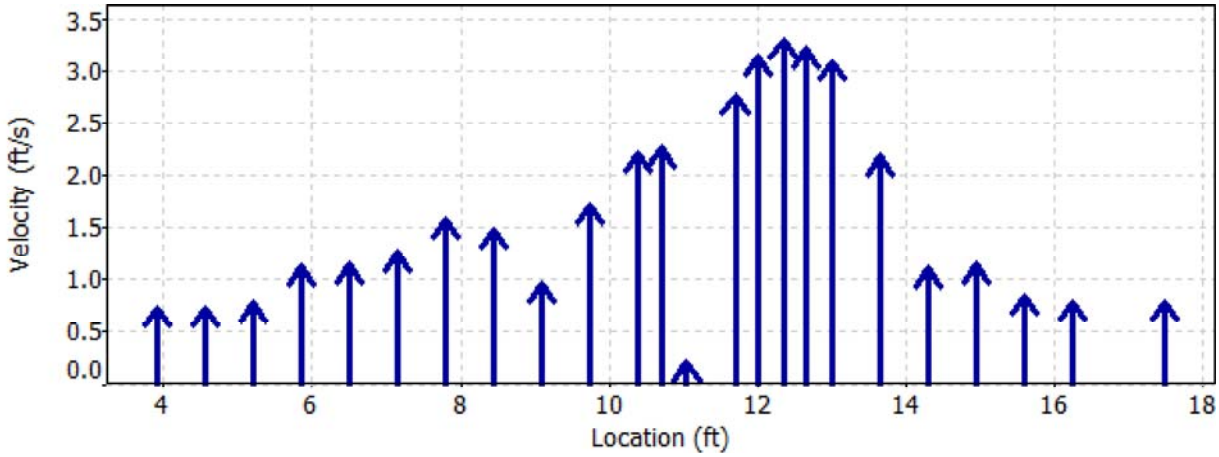
Discharge Measurement Summary

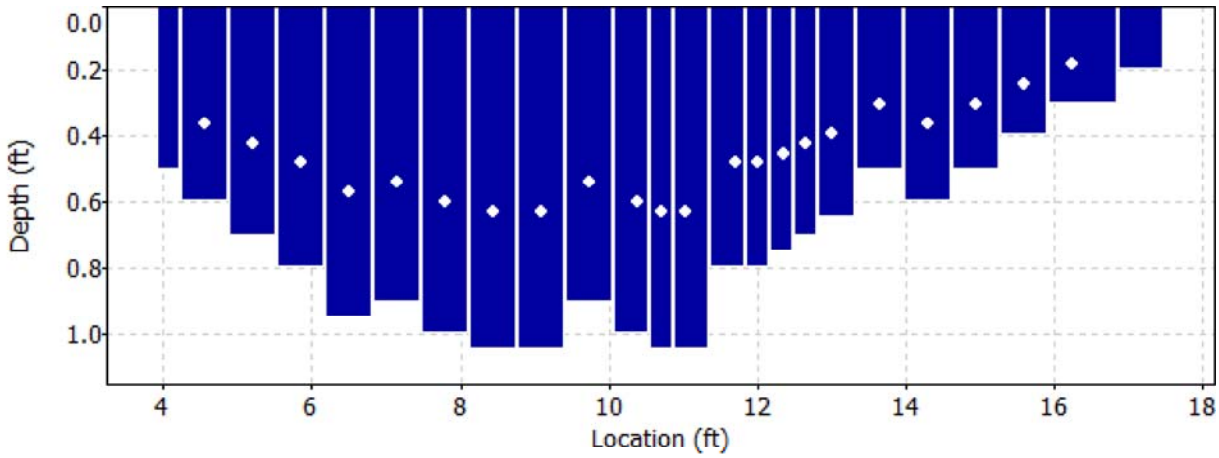
Date Generated: Wed Oct 4 2017

File Information	
File Name	CC43E.WAD
Start Date and Time	2017/09/26 08:46:06

Site Details	
Site Name	CC43E
Operator(s)	LC







Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC43E.WAD	Site Name	CC43E
Start Date and Time	2017/09/26 08:46:06	Operator(s)	LC

Quality Control

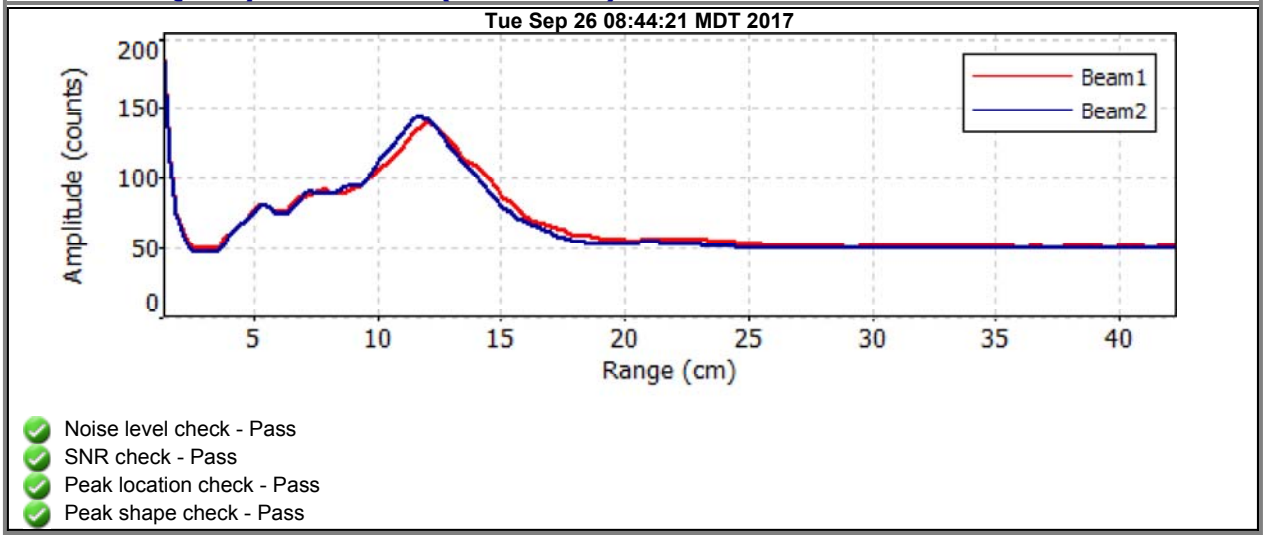
St	Loc	%Dep	Message
3	5.85	0.6	High angle: 20
4	6.50	0.6	High number of spikes: 5
8	9.10	0.6	High standard error: 0.115
12	11.05	0.6	High number of spikes: 7
		0.6	SNR (45.8) is different from typical SNR (33.5)
		0.6	High SNR variation during measurement: 7.3,9.0
13	11.70	0.6	High standard error: 0.151
21	15.60	0.6	High number of spikes: 5

Discharge Measurement Summary

Date Generated: Wed Oct 4 2017

File Information		Site Details	
File Name	CC43E.WAD	Site Name	CC43E
Start Date and Time	2017/09/26 08:46:06	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A07A.WAD
Start Date and Time	2017/09/26 09:01:23

Site Details

Site Name	A07A
Operator(s)	ND

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	0.5%
Velocity	12.9%	10.3%
Width	0.1%	0.1%
Method	1.7%	-
# Stations	2.3%	-
Overall	**13.3%**	**10.4%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	6.297
Mean SNR	5.8 dB	Total Area	3.104
Mean Temp	33.34 °F	Mean Depth	0.493
Disch. Equation	Mid-Section	Mean Velocity	0.0831
		Total Discharge	**0.2578**

Measurement Results

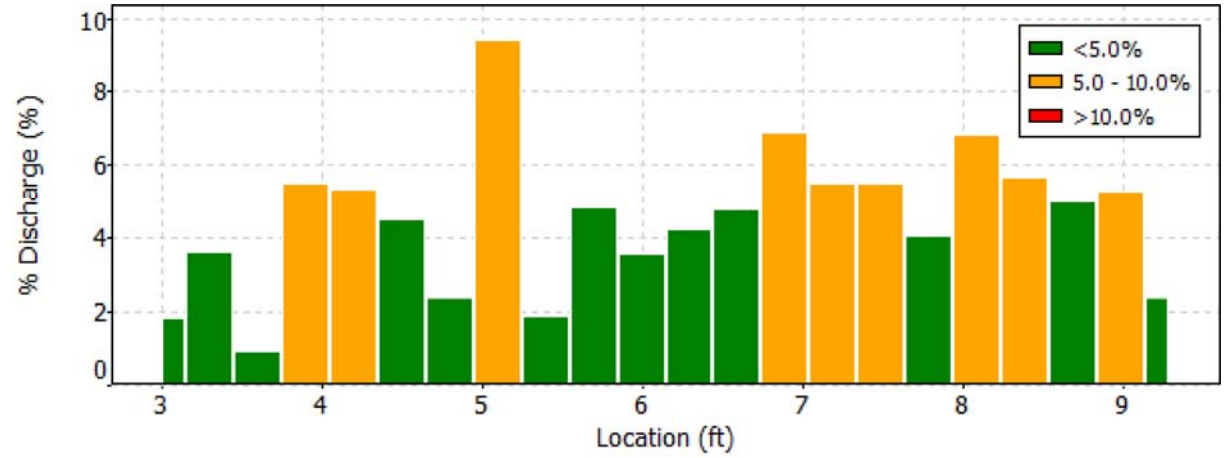
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:01	3.00	None	0.400	0.0	0.0	0.0000	1.00	0.0787	0.060	0.0047	1.8
1	*09:01*	*3.30*	*0.6*	*0.400*	*0.6*	*0.160*	*0.0787*	*1.00*	*0.0787*	*0.120*	*0.0094*	*3.7*
2	*09:02*	*3.60*	*0.6*	*0.450*	*0.6*	*0.180*	*0.0171*	*1.00*	*0.0171*	*0.135*	*0.0023*	*0.9*
3	*09:04*	*3.90*	*0.6*	*0.450*	*0.6*	*0.180*	*0.1050*	*1.00*	*0.1050*	*0.135*	*0.0142*	*5.5*
4	*09:05*	*4.20*	*0.6*	*0.450*	*0.6*	*0.180*	*0.1017*	*1.00*	*0.1017*	*0.135*	*0.0137*	*5.3*
5	*09:06*	*4.50*	*0.6*	*0.450*	*0.6*	*0.180*	*0.0863*	*1.00*	*0.0863*	*0.135*	*0.0116*	*4.5*
6	*09:08*	*4.80*	*0.6*	*0.450*	*0.6*	*0.180*	*0.0453*	*1.00*	*0.0453*	*0.135*	*0.0061*	*2.4*
7	*09:09*	*5.10*	*0.6*	*0.500*	*0.6*	*0.200*	*0.1624*	*1.00*	*0.1624*	*0.150*	*0.0243*	*9.4*
8	*09:10*	*5.40*	*0.6*	*0.500*	*0.6*	*0.200*	*0.0325*	*1.00*	*0.0325*	*0.150*	*0.0049*	*1.9*
9	*09:11*	*5.70*	*0.6*	*0.500*	*0.6*	*0.200*	*0.0833*	*1.00*	*0.0833*	*0.150*	*0.0125*	*4.8*
10	*09:12*	*6.00*	*0.6*	*0.500*	*0.6*	*0.200*	*0.0620*	*1.00*	*0.0620*	*0.150*	*0.0093*	*3.6*
11	09:13	6.30	0.6	0.500	0.6	0.200	0.0725	1.00	0.0725	0.150	0.0109	4.2
12	09:14	6.60	0.6	0.500	0.6	0.200	0.0820	1.00	0.0820	0.150	0.0123	4.8
13	09:14	6.90	0.6	0.500	0.6	0.200	0.1184	1.00	0.1184	0.150	0.0178	6.9
14	09:15	7.20	0.6	0.500	0.6	0.200	0.0948	1.00	0.0948	0.150	0.0142	5.5
15	09:16	7.50	0.6	0.500	0.6	0.200	0.0945	1.00	0.0945	0.150	0.0142	5.5
16	09:18	7.80	0.6	0.550	0.6	0.220	0.0640	1.00	0.0640	0.165	0.0105	4.1
17	09:19	8.10	0.6	0.550	0.6	0.220	0.1063	1.00	0.1063	0.165	0.0175	6.8
18	09:20	8.40	0.6	0.550	0.6	0.220	0.0883	1.00	0.0883	0.165	0.0146	5.6
19	09:20	8.70	0.6	0.550	0.6	0.220	0.0781	1.00	0.0781	0.165	0.0129	5.0
20	09:21	9.00	0.6	0.550	0.6	0.220	0.0827	1.00	0.0827	0.165	0.0136	5.3
21	09:21	9.30	None	0.500	0.0	0.0	0.0000	1.00	0.0827	0.075	0.0062	2.4

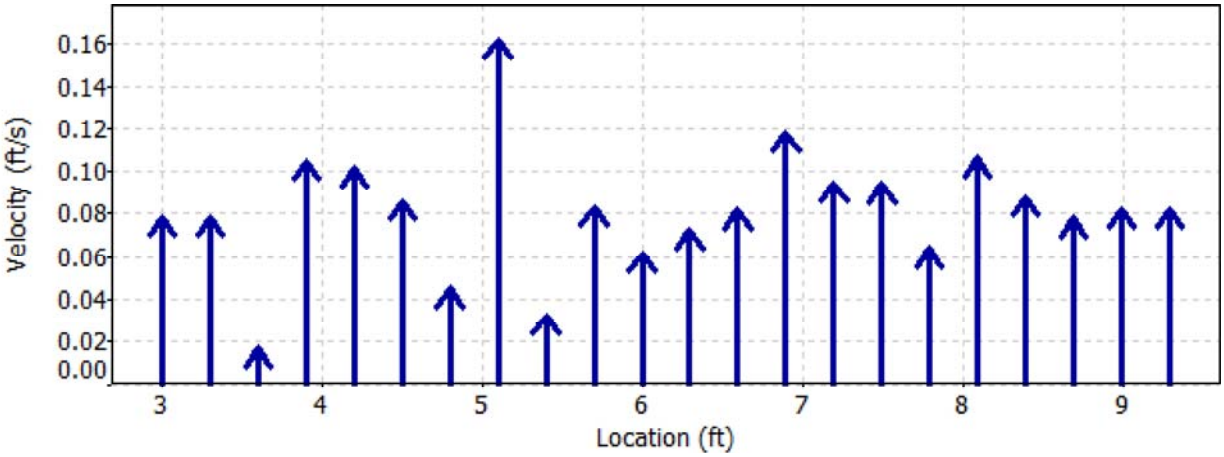
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

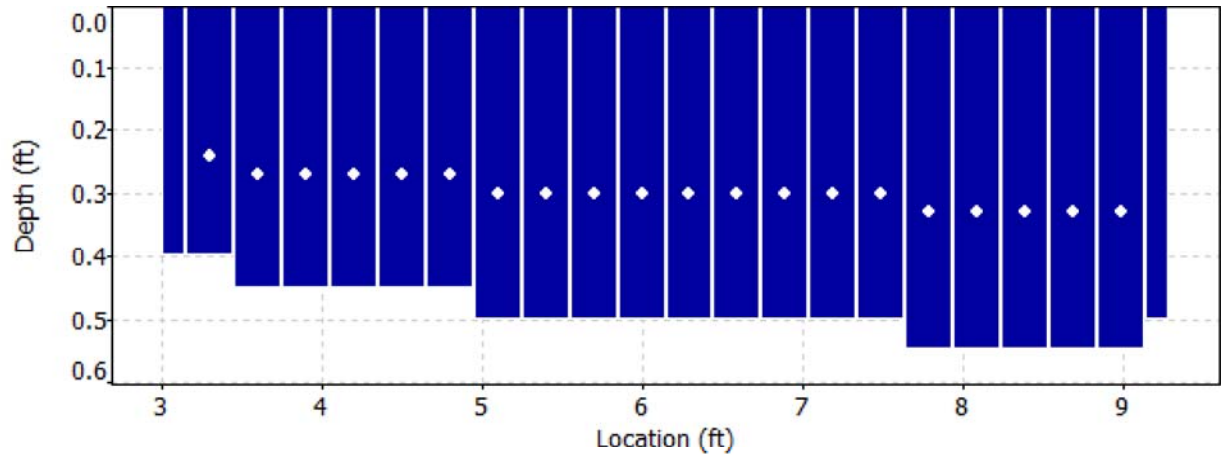
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A07A.WAD	Site Name	A07A
Start Date and Time	2017/09/26 09:01:23	Operator(s)	ND







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A07A.WAD	Site Name	A07A
Start Date and Time	2017/09/26 09:01:23	Operator(s)	ND

Quality Control

St	Loc	%Dep	Message
1	3.30	0.6	High number of spikes: 10
		0.6	Low SNR: 3.4,3.8
2	3.60	0.6	SNR (20.2) is different from typical SNR (5.8)
		0.6	High SNR variation during measurement: 15.5,9.0
3	3.90	0.6	High number of spikes: 11
		0.6	Low SNR: 2.5,3.4
4	4.20	0.6	High number of spikes: 13
		0.6	Low SNR: 1.2,2.1
		0.6	High standard error: 0.080
5	4.50	0.6	High number of spikes: 10
		0.6	Low SNR: 2.5,1.2
		0.6	High standard error: 0.055
6	4.80	0.6	High number of spikes: 5
		0.6	High angle: -59
		0.6	Low SNR: 1.7,1.2
		0.6	High standard error: 0.211
7	5.10	0.6	High number of spikes: 10
		0.6	Low SNR: 2.1,3.0
		0.6	High standard error: 0.071
8	5.40	0.6	High number of spikes: 9
		0.6	Low SNR: 3.4,6.0
9	5.70	0.6	High number of spikes: 7
		0.6	Low SNR: 3.0,3.8
10	6.00	0.6	High number of spikes: 9
		0.6	Low SNR: 4.7,3.4

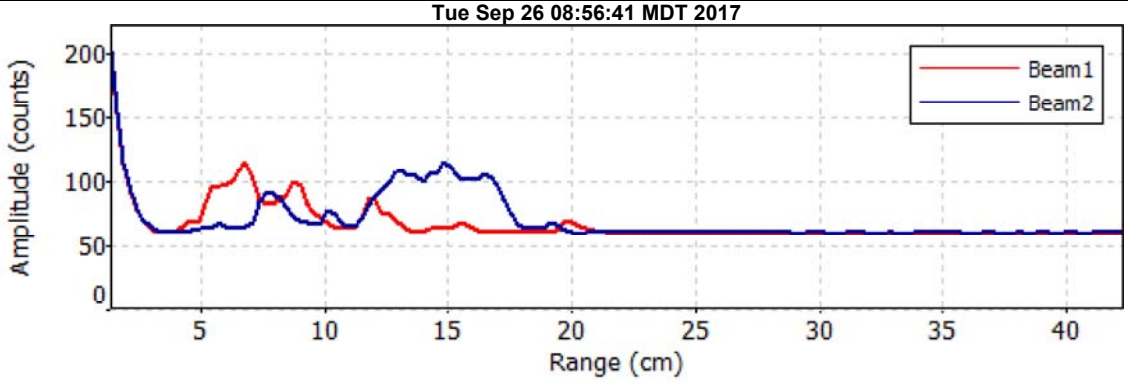
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A07A.WAD	Site Name	A07A
Start Date and Time	2017/09/26 09:01:23	Operator(s)	ND

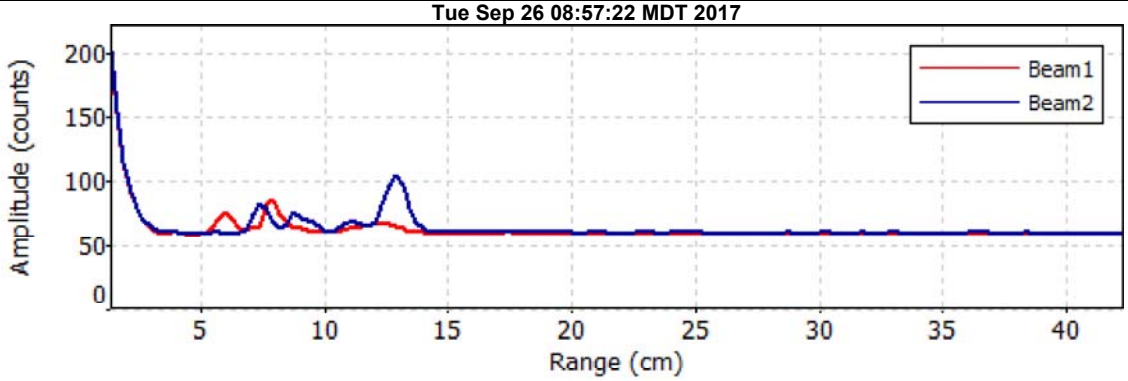
Automatic Quality Control Test (BeamCheck)

Tue Sep 26 08:56:41 MDT 2017



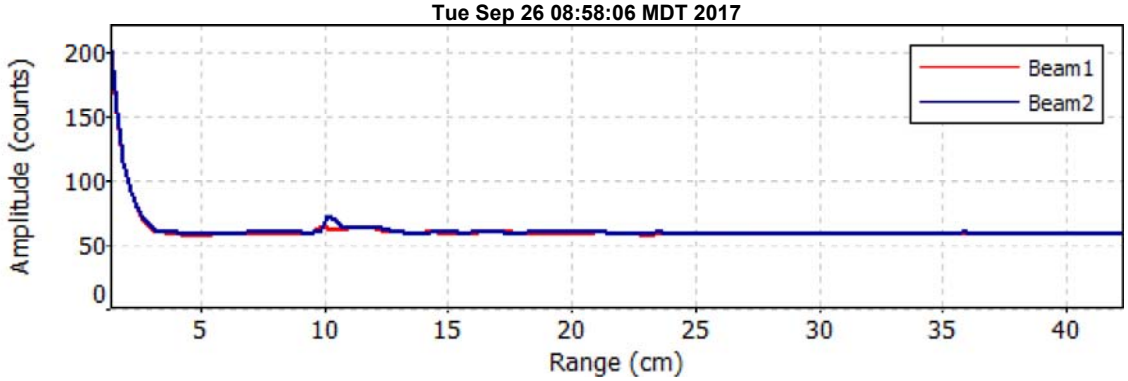
- Noise level check - Pass
- SNR check - Pass
- Peak location check - Fail
- Peak shape check - Fail

Tue Sep 26 08:57:22 MDT 2017



- Noise level check - Pass
- SNR check - Fail
  - Low SNR: 2.9,3.0
- Peak location check - Fail
  - SNR too low for test
- Peak shape check - Fail
  - SNR too low for test

Tue Sep 26 08:58:06 MDT 2017



- Noise level check - Pass
- SNR check - Fail

Low SNR: 1.9,1.7
Peak location check - Fail
SNR too low for test
Peak shape check - Fail
SNR too low for test

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A08.WAD
Start Date and Time	2017/09/26 16:57:22

Site Details

Site Name	A08
Operator(s)	ND

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.0%
Velocity	1.6%	4.8%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.3%	-
Overall	**3.5%**	**5.0%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	4.203
Mean SNR	36.7 dB	Total Area	1.941
Mean Temp	43.35 °F	Mean Depth	0.462
Disch. Equation	Mid-Section	Mean Velocity	0.4973
		Total Discharge	**0.9656**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	16:57	4.00	None	0.450	0.0	0.0	0.0000	1.00	0.3425	0.045	0.0154	1.6
1	16:57	4.20	0.6	0.450	0.6	0.180	0.3425	1.00	0.3425	0.090	0.0309	3.2
2	16:58	4.40	0.6	0.450	0.6	0.180	0.7044	1.00	0.7044	0.090	0.0635	6.6
3	16:59	4.60	0.6	0.450	0.6	0.180	0.7579	1.00	0.7579	0.090	0.0683	7.1
4	17:00	4.80	0.6	0.450	0.6	0.180	0.8133	1.00	0.8133	0.090	0.0733	7.6
5	17:01	5.00	0.6	0.450	0.6	0.180	0.8212	1.00	0.8212	0.090	0.0740	7.7
6	17:01	5.20	0.6	0.450	0.6	0.180	0.7280	1.00	0.7280	0.090	0.0656	6.8
7	17:02	5.40	0.6	0.450	0.6	0.180	0.7382	1.00	0.7382	0.090	0.0665	6.9
8	17:03	5.60	0.6	0.500	0.6	0.200	0.5194	1.00	0.5194	0.100	0.0520	5.4
9	*17:04*	*5.80*	*0.6*	*0.500*	*0.6*	*0.200*	*0.3117*	*1.00*	*0.3117*	*0.100*	*0.0312*	*3.2*
10	*17:05*	*6.00*	*0.6*	*0.500*	*0.6*	*0.200*	*0.3041*	*1.00*	*0.3041*	*0.100*	*0.0304*	*3.2*
11	*17:06*	*6.20*	*0.6*	*0.450*	*0.6*	*0.180*	*0.1670*	*1.00*	*0.1670*	*0.090*	*0.0150*	*1.6*
12	*17:08*	*6.40*	*0.6*	*0.500*	*0.6*	*0.200*	*0.1388*	*1.00*	*0.1388*	*0.100*	*0.0139*	*1.4*
13	17:09	6.60	0.6	0.500	0.6	0.200	0.3786	1.00	0.3786	0.100	0.0379	3.9
14	17:10	6.80	0.6	0.500	0.6	0.200	0.5292	1.00	0.5292	0.100	0.0530	5.5
15	17:11	7.00	0.6	0.500	0.6	0.200	0.4918	1.00	0.4918	0.100	0.0492	5.1
16	17:12	7.20	0.6	0.500	0.6	0.200	0.9081	1.00	0.9081	0.100	0.0909	9.4
17	17:13	7.40	0.6	0.500	0.6	0.200	0.7228	1.00	0.7228	0.100	0.0723	7.5
18	17:14	7.60	0.6	0.400	0.6	0.160	0.2103	1.00	0.2103	0.080	0.0168	1.7
19	17:16	7.80	0.6	0.400	0.6	0.160	0.2526	1.00	0.2526	0.080	0.0202	2.1
20	17:17	8.00	0.6	0.400	0.6	0.160	0.2208	1.00	0.2208	0.080	0.0177	1.8
21	17:17	8.20	None	0.350	0.0	0.0	0.0000	1.00	0.2208	0.035	0.0077	0.8

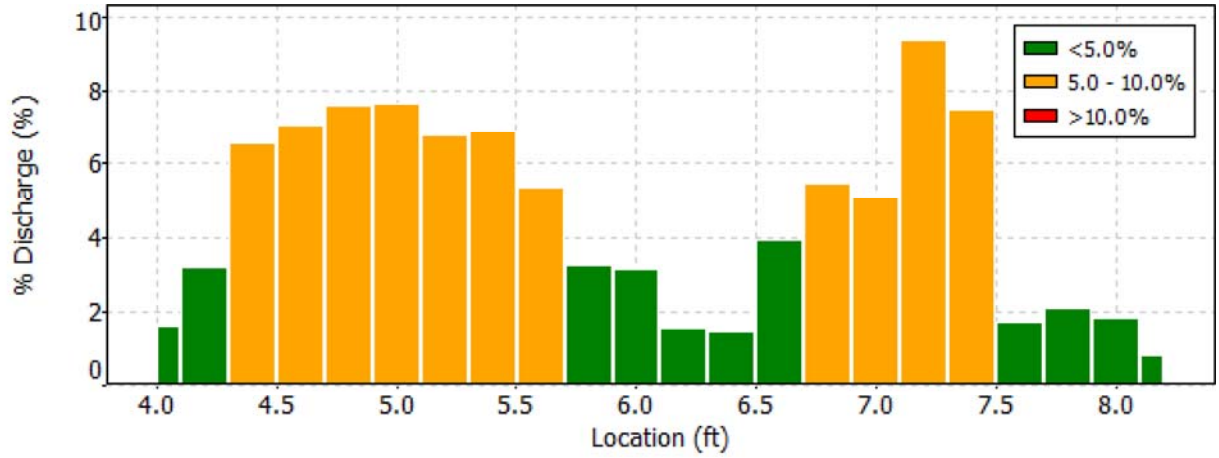
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

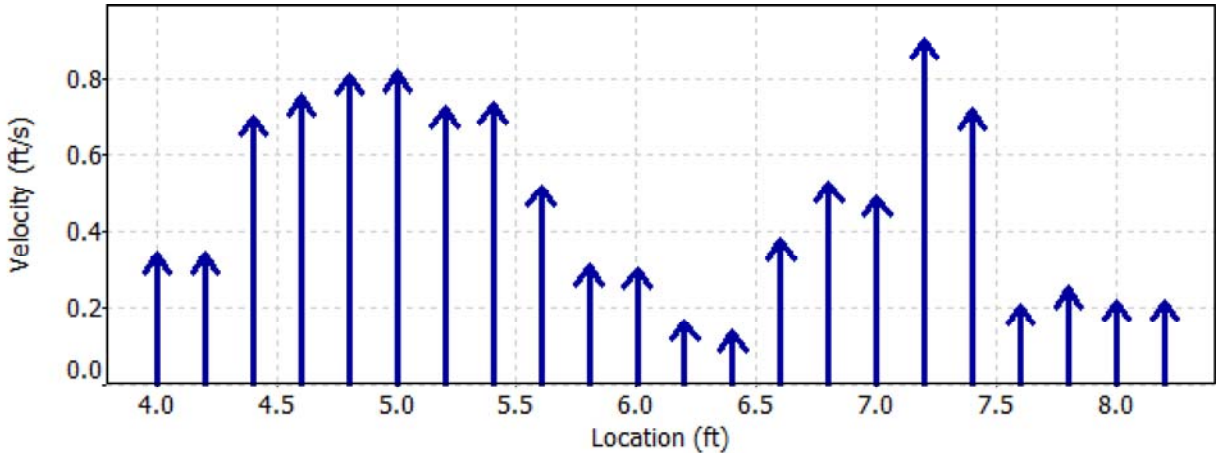
Discharge Measurement Summary

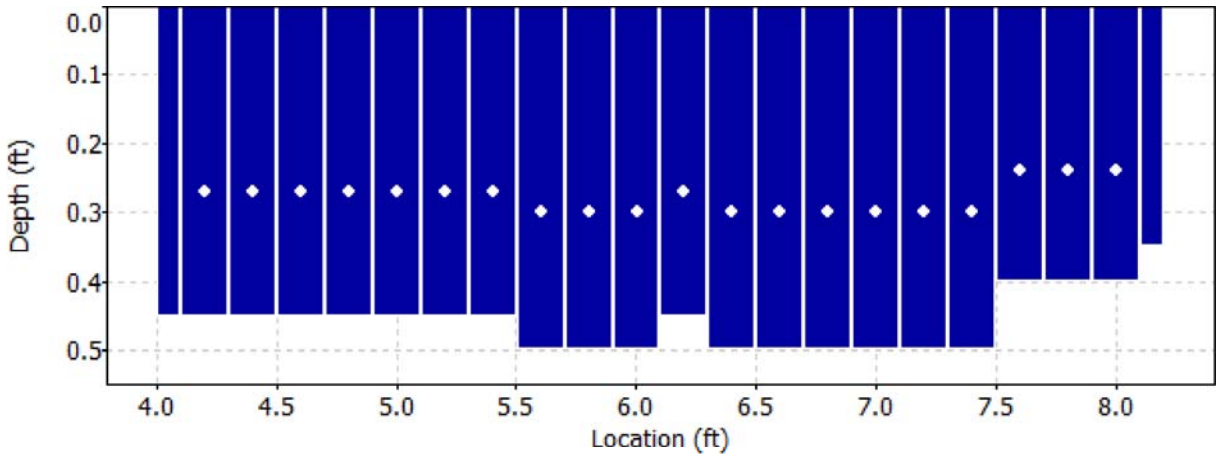
Date Generated: Tue Oct 3 2017

File Information	
File Name	A08.WAD
Start Date and Time	2017/09/26 16:57:22

Site Details	
Site Name	A08
Operator(s)	ND







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A08.WAD	Site Name	A08
Start Date and Time	2017/09/26 16:57:22	Operator(s)	ND

Quality Control

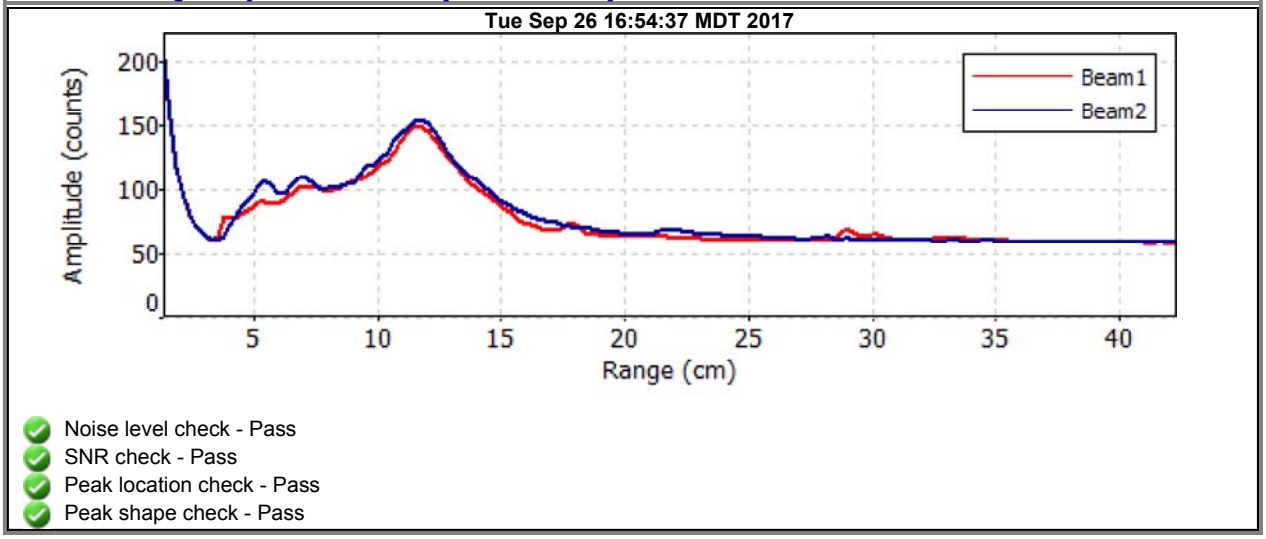
St	Loc	%Dep	Message
9	5.80	0.6	High angle: 43
10	6.00	0.6	High angle: 37
11	6.20	0.6	High angle: 38
12	6.40	0.6	High angle: 39

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A08.WAD	Site Name	A08
Start Date and Time	2017/09/26 16:57:22	Operator(s)	ND

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A13.WAD
Start Date and Time	2017/09/27 08:57:32

Site Details

Site Name	A13
Operator(s)	ND

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	2.0%
Velocity	2.0%	4.4%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.1%	-
Overall	**3.6%**	**5.0%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	LEW	Total Width	8.399
Mean SNR	31.0 dB	Total Area	7.574
Mean Temp	34.44 °F	Mean Depth	0.902
Disch. Equation	Mid-Section	Mean Velocity	0.2172
		Total Discharge	**1.6452**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:57	2.00	None	0.500	0.0	0.0	0.0000	1.00	0.2621	0.100	0.0262	1.6
1	*08:58*	*2.40*	*0.6*	*0.500*	*0.6*	*0.200*	*0.2621*	*1.00*	*0.2621*	*0.200*	*0.0524*	*3.2*
2	*08:59*	*2.80*	*0.6*	*0.500*	*0.6*	*0.200*	*0.2431*	*1.00*	*0.2431*	*0.200*	*0.0486*	*3.0*
3	*09:00*	*3.20*	*0.6*	*0.700*	*0.6*	*0.280*	*0.1450*	*1.00*	*0.1450*	*0.280*	*0.0406*	*2.5*
4	*09:01*	*3.60*	*0.6*	*0.700*	*0.6*	*0.280*	*0.1752*	*1.00*	*0.1752*	*0.280*	*0.0491*	*3.0*
5	*09:02*	*4.00*	*0.6*	*0.500*	*0.6*	*0.200*	*0.3169*	*1.00*	*0.3169*	*0.150*	*0.0476*	*2.9*
6	*09:20*	*4.20*	*0.6*	*0.800*	*0.6*	*0.320*	*0.4731*	*1.00*	*0.4731*	*0.160*	*0.0757*	*4.6*
7	09:03	4.40	0.6	0.950	0.6	0.380	0.4554	1.00	0.4554	0.285	0.1297	7.9
8	*09:04*	*4.80*	*0.6*	*0.800*	*0.6*	*0.320*	*0.4560*	*1.00*	*0.4560*	*0.320*	*0.1459*	*8.9*
9	*09:05*	*5.20*	*0.6*	*0.800*	*0.6*	*0.320*	*0.5151*	*1.00*	*0.5151*	*0.240*	*0.1237*	*7.5*
10	*09:22*	*5.40*	*0.6*	*0.900*	*0.6*	*0.360*	*0.5043*	*1.00*	*0.5043*	*0.180*	*0.0907*	*5.5*
11	*09:06*	*5.60*	*0.6*	*1.000*	*0.6*	*0.400*	*0.3219*	*1.00*	*0.3219*	*0.300*	*0.0965*	*5.9*
12	09:07	6.00	0.6	1.000	0.6	0.400	0.1844	1.00	0.1844	0.400	0.0737	4.5
13	09:09	6.40	0.6	1.100	0.6	0.440	0.1329	1.00	0.1329	0.440	0.0585	3.6
14	*09:10*	*6.80*	*0.6*	*1.200*	*0.6*	*0.480*	*0.0505*	*1.00*	*0.0505*	*0.480*	*0.0243*	*1.5*
15	*09:11*	*7.20*	*0.6*	*1.100*	*0.6*	*0.440*	*0.2021*	*1.00*	*0.2021*	*0.440*	*0.0889*	*5.4*
16	*09:12*	*7.60*	*0.6*	*1.100*	*0.6*	*0.440*	*0.2579*	*1.00*	*0.2579*	*0.440*	*0.1135*	*6.9*
17	09:13	8.00	0.6	1.100	0.6	0.440	0.2756	1.00	0.2756	0.440	0.1212	7.4
18	09:13	8.40	0.6	1.100	0.6	0.440	0.2539	1.00	0.2539	0.440	0.1117	6.8
19	09:14	8.80	0.6	1.100	0.6	0.440	0.1230	1.00	0.1230	0.440	0.0541	3.3
20	09:15	9.20	0.6	1.100	0.6	0.440	0.0377	1.00	0.0377	0.440	0.0166	1.0
21	09:16	9.60	0.6	0.950	0.6	0.380	0.0600	1.00	0.0600	0.380	0.0228	1.4
22	09:17	10.00	0.6	0.950	0.6	0.380	0.0617	1.00	0.0617	0.380	0.0234	1.4
23	09:17	10.40	None	0.800	0.0	0.0	0.0000	1.00	0.0617	0.160	0.0099	0.6

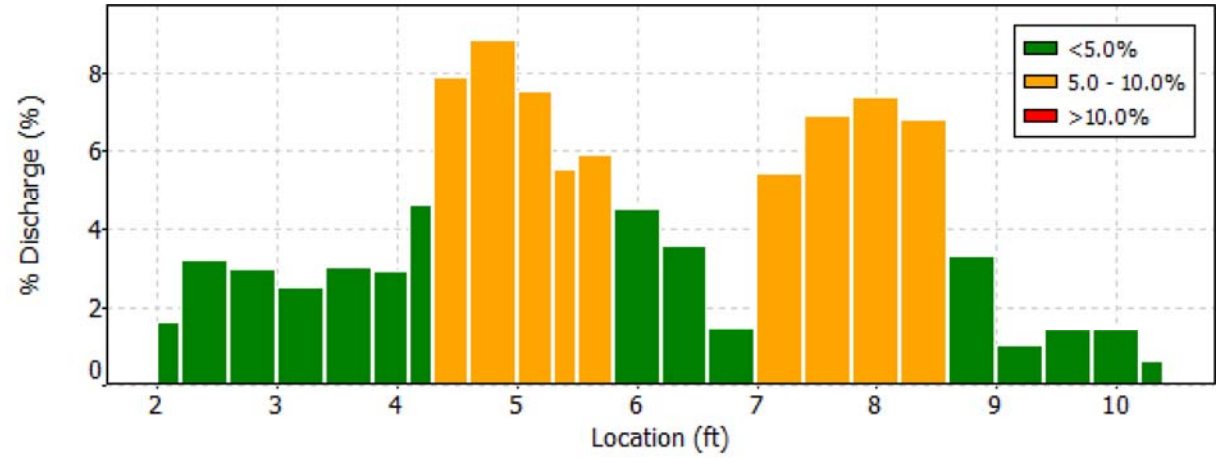
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

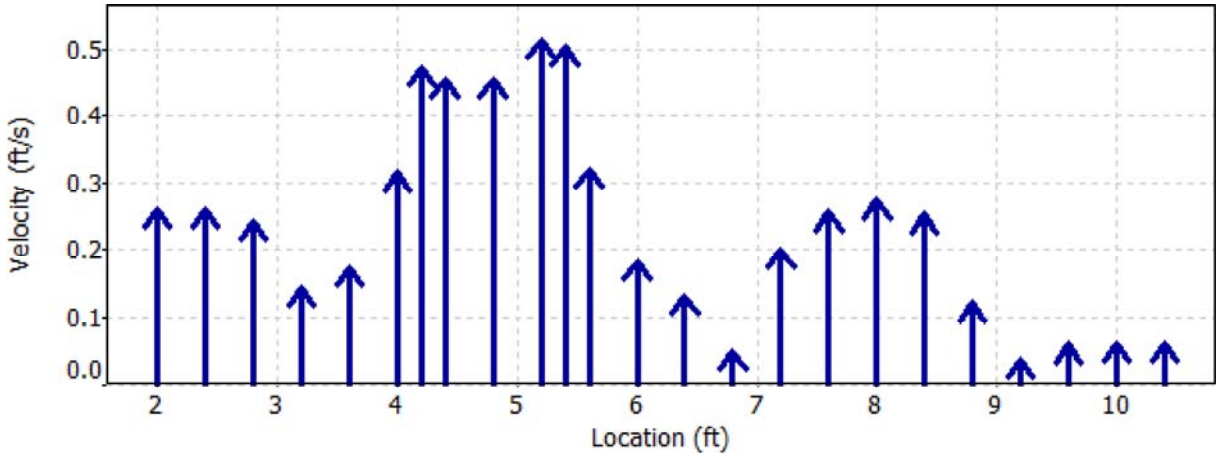
Discharge Measurement Summary

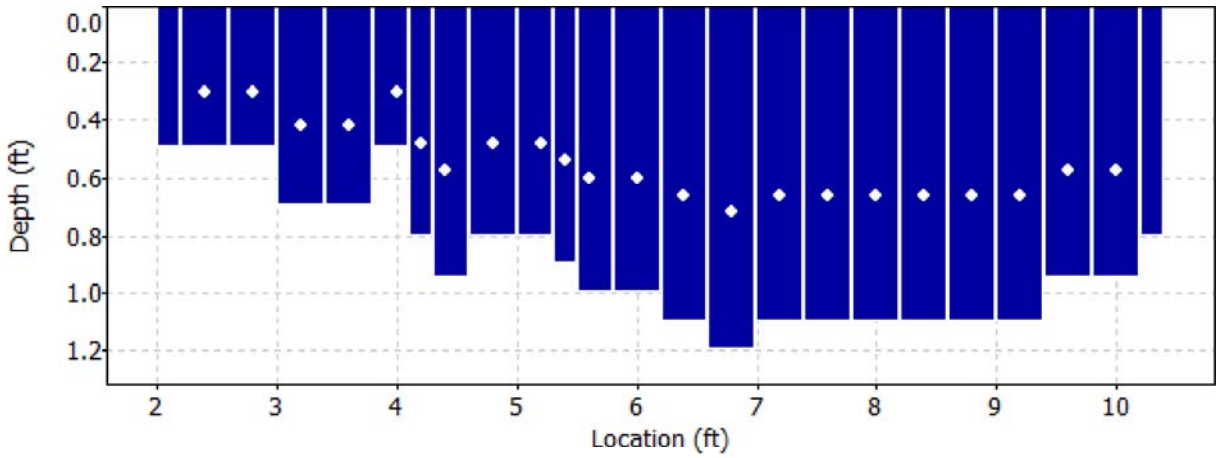
Date Generated: Tue Oct 3 2017

File Information	
File Name	A13.WAD
Start Date and Time	2017/09/27 08:57:32

Site Details	
Site Name	A13
Operator(s)	ND







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A13.WAD	Site Name	A13
Start Date and Time	2017/09/27 08:57:32	Operator(s)	ND

Quality Control

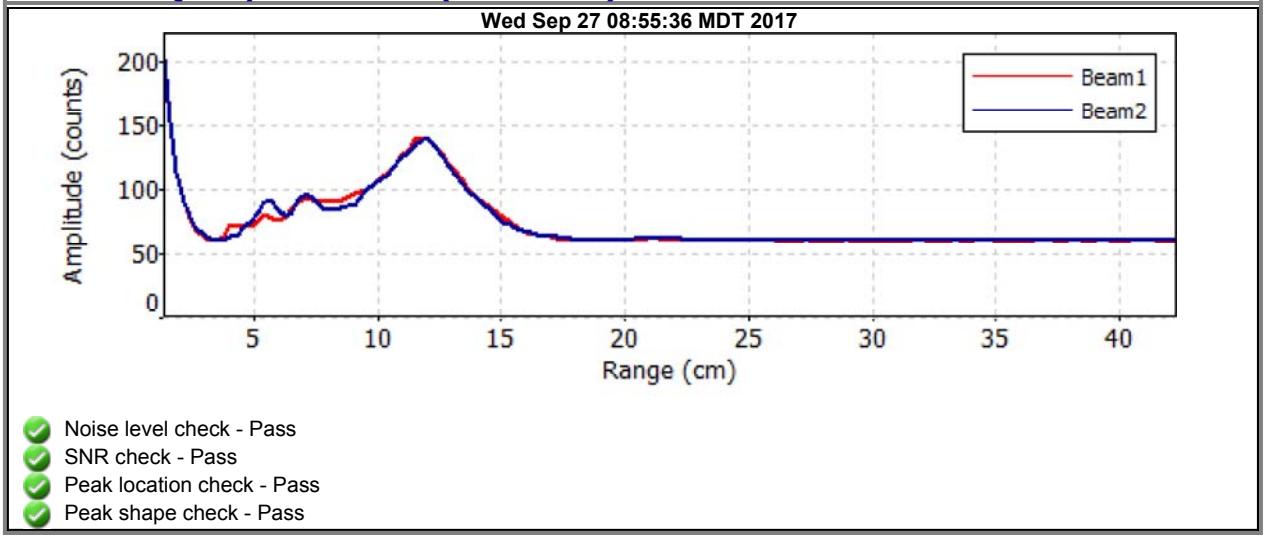
St	Loc	%Dep	Message
1	2.40	0.6	High angle: -23
		0.6	High standard error: 0.034
2	2.80	0.6	High angle: -33
		0.6	High standard error: 0.031
3	3.20	0.6	High angle: -36
		0.6	High standard error: 0.033
4	3.60	0.6	High angle: -30
		0.6	High standard error: 0.034
5	4.00	0.6	High angle: -29
		0.6	High standard error: 0.034
6	4.20	0.6	High standard error: 0.033
8	4.80	0.6	High angle: -21
		0.6	High standard error: 0.031
9	5.20	0.6	High standard error: 0.030
10	5.40	0.6	High standard error: 0.033
11	5.60	0.6	High angle: -21
		0.6	High standard error: 0.031
14	6.80	0.6	High angle: 54
15	7.20	0.6	High angle: 20
16	7.60	0.6	High angle: 20

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A13.WAD	Site Name	A13
Start Date and Time	2017/09/27 08:57:32	Operator(s)	ND

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A20.WAD
Start Date and Time	2017/09/27 10:28:02

Site Details

Site Name	A20
Operator(s)	ND

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.6%
Velocity	1.2%	4.3%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.0%	-
Overall	**3.1%**	**5.1%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	REW	Total Width	5.250
Mean SNR	32.2 dB	Total Area	1.525
Mean Temp	38.12 °F	Mean Depth	0.290
Disch. Equation	Mid-Section	Mean Velocity	0.6299
		Total Discharge	**0.9603**

Measurement Results

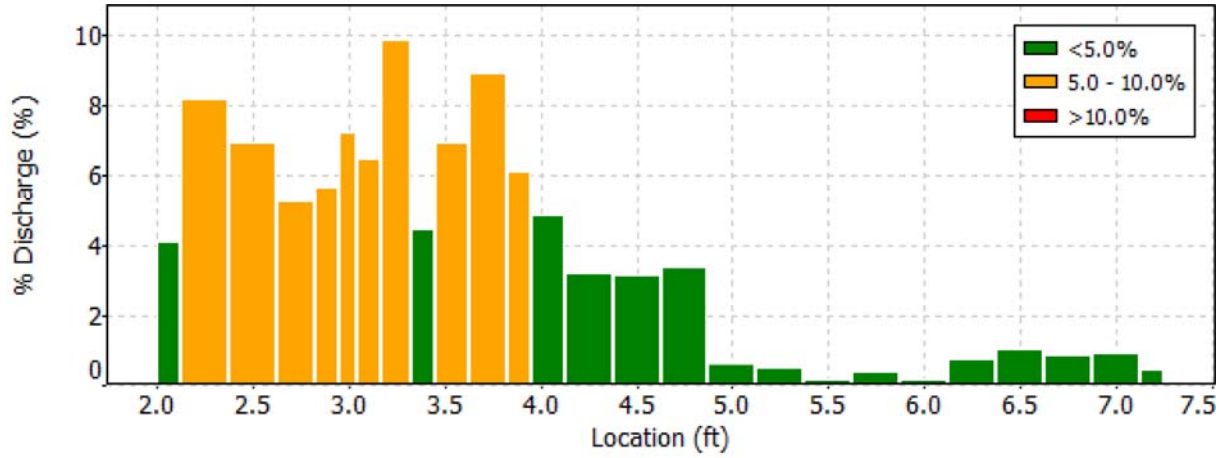
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:28	2.00	None	0.300	0.0	0.0	0.0000	1.00	1.0476	0.037	0.0393	4.1
1	10:28	2.25	0.6	0.300	0.6	0.120	1.0476	1.00	1.0476	0.075	0.0785	8.2
2	10:28	2.50	0.6	0.300	0.6	0.120	0.8875	1.00	0.8875	0.075	0.0665	6.9
3	10:29	2.75	0.6	0.300	0.6	0.120	0.8383	1.00	0.8383	0.060	0.0503	5.2
4	10:56	2.90	0.6	0.300	0.6	0.120	1.4406	1.00	1.4406	0.037	0.0540	5.6
5	*10:31*	*3.00*	*0.6*	*0.400*	*0.6*	*0.160*	*1.7310*	*1.00*	*1.7310*	*0.040*	*0.0693*	*7.2*
6	10:52	3.10	0.6	0.350	0.6	0.140	1.4108	1.00	1.4108	0.044	0.0617	6.4
7	10:31	3.25	0.6	0.400	0.6	0.160	1.5853	1.00	1.5853	0.060	0.0951	9.9
8	10:53	3.40	0.6	0.250	0.6	0.100	1.3645	1.00	1.3645	0.031	0.0426	4.4
9	10:33	3.50	0.6	0.300	0.6	0.120	1.2618	1.00	1.2618	0.052	0.0662	6.9
10	10:34	3.75	0.6	0.300	0.6	0.120	1.4295	1.00	1.4295	0.060	0.0857	8.9
11	10:54	3.90	0.6	0.350	0.6	0.140	1.3369	1.00	1.3369	0.044	0.0585	6.1
12	10:35	4.00	0.6	0.300	0.6	0.120	0.8845	1.00	0.8845	0.052	0.0464	4.8
13	*10:36*	*4.25*	*0.6*	*0.300*	*0.6*	*0.120*	*0.4068*	*1.00*	*0.4068*	*0.075*	*0.0305*	*3.2*
14	*10:37*	*4.50*	*0.6*	*0.300*	*0.6*	*0.120*	*0.3970*	*1.00*	*0.3970*	*0.075*	*0.0298*	*3.1*
15	10:37	4.75	0.6	0.300	0.6	0.120	0.4262	1.00	0.4262	0.075	0.0319	3.3
16	*10:39*	*5.00*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0738*	*1.00*	*0.0738*	*0.075*	*0.0055*	*0.6*
17	*10:40*	*5.25*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0597*	*1.00*	*0.0597*	*0.075*	*0.0045*	*0.5*
18	*10:41*	*5.50*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0203*	*1.00*	*0.0203*	*0.075*	*0.0015*	*0.2*
19	*10:45*	*5.75*	*0.6*	*0.250*	*0.6*	*0.100*	*0.0600*	*1.00*	*0.0600*	*0.063*	*0.0038*	*0.4*
20	*10:46*	*6.00*	*0.6*	*0.250*	*0.6*	*0.100*	*0.0236*	*1.00*	*0.0236*	*0.063*	*0.0015*	*0.2*
21	*10:47*	*6.25*	*0.6*	*0.250*	*0.6*	*0.100*	*0.1079*	*1.00*	*0.1079*	*0.063*	*0.0067*	*0.7*
22	*10:48*	*6.50*	*0.6*	*0.250*	*0.6*	*0.100*	*0.1565*	*1.00*	*0.1565*	*0.063*	*0.0098*	*1.0*
23	*10:48*	*6.75*	*0.6*	*0.250*	*0.6*	*0.100*	*0.1306*	*1.00*	*0.1306*	*0.063*	*0.0082*	*0.8*
24	*10:49*	*7.00*	*0.6*	*0.250*	*0.6*	*0.100*	*0.1332*	*1.00*	*0.1332*	*0.063*	*0.0083*	*0.9*
25	10:49	7.25	None	0.250	0.0	0.0	0.0000	1.00	0.1332	0.031	0.0042	0.4

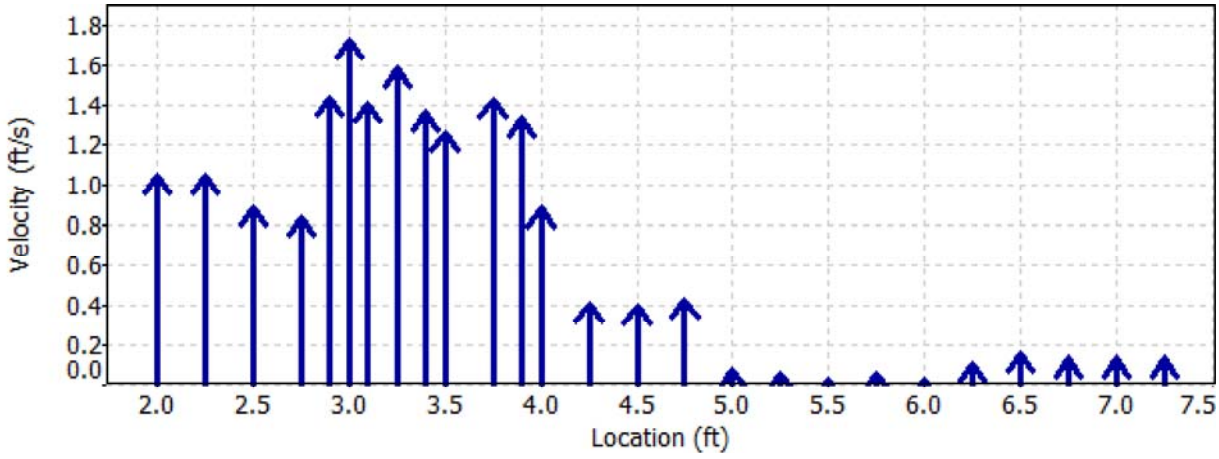
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

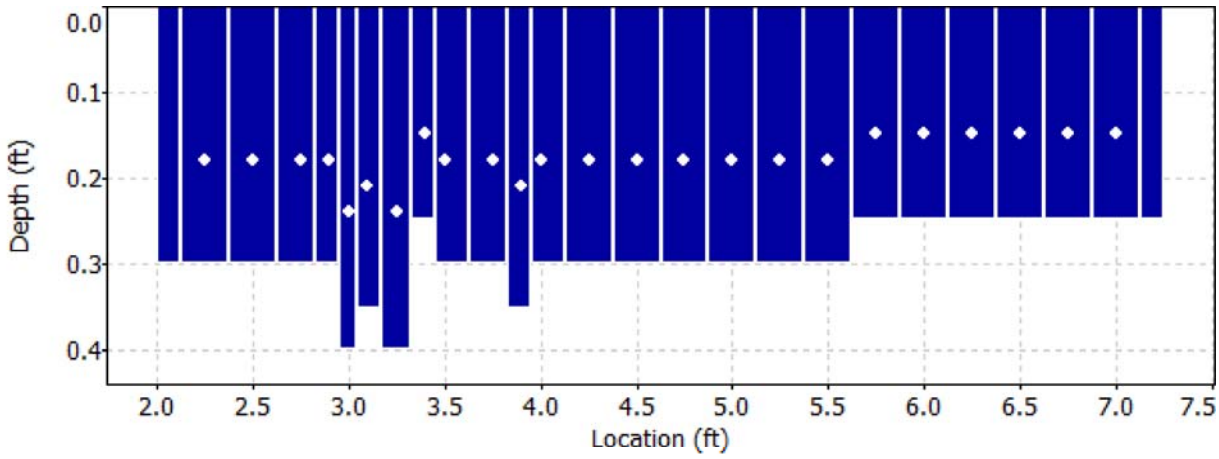
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A20.WAD	Site Name	A20
Start Date and Time	2017/09/27 10:28:02	Operator(s)	ND







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A20.WAD	Site Name	A20
Start Date and Time	2017/09/27 10:28:02	Operator(s)	ND

Quality Control

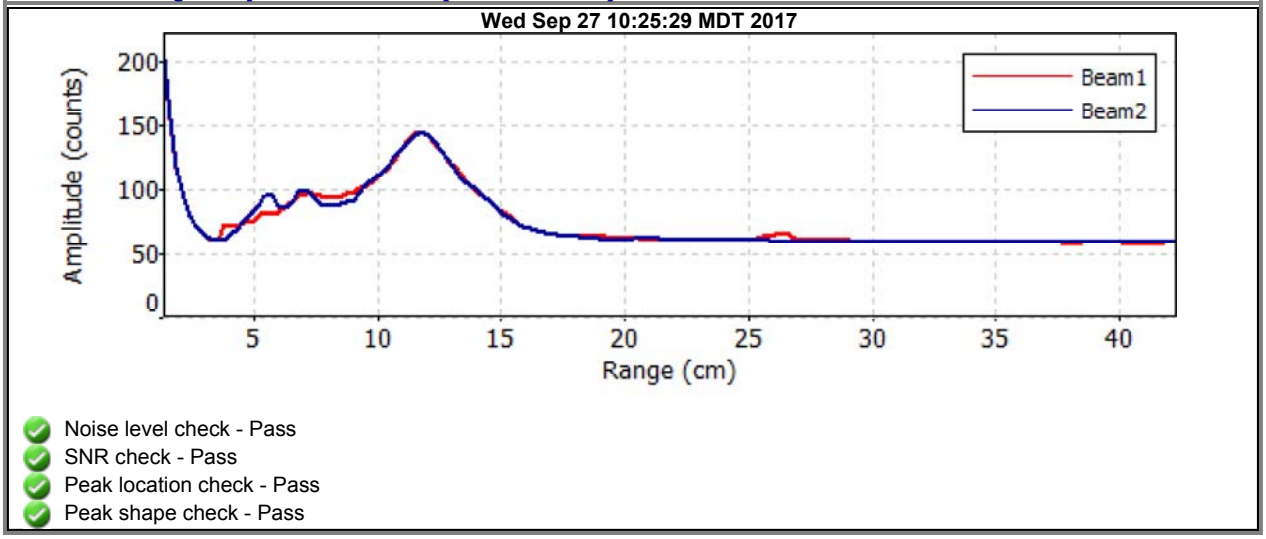
St	Loc	%Dep	Message
5	3.00	0.6	High number of spikes: 5
13	4.25	0.6	High angle: 28
14	4.50	0.6	High angle: 27
16	5.00	0.6	High angle: 40
17	5.25	0.6	High angle: 22
18	5.50	0.6	High angle: -74
19	5.75	0.6	High angle: 77
20	6.00	0.6	High angle: 84
21	6.25	0.6	High angle: 59
22	6.50	0.6	High angle: 48
23	6.75	0.6	High angle: 53
24	7.00	0.6	High angle: 57

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A20.WAD	Site Name	A20
Start Date and Time	2017/09/27 10:28:02	Operator(s)	ND

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A33.WAD
Start Date and Time	2017/09/28 09:58:56

Site Details

Site Name	A33
Operator(s)	ND

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.6%
Velocity	1.0%	8.0%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.3%	-
Overall	**3.3%**	**8.2%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	18.899
Mean SNR	24.3 dB	Total Area	13.904
Mean Temp	35.06 °F	Mean Depth	0.736
Disch. Equation	Mid-Section	Mean Velocity	0.5504
		Total Discharge	**7.6523**

Measurement Results

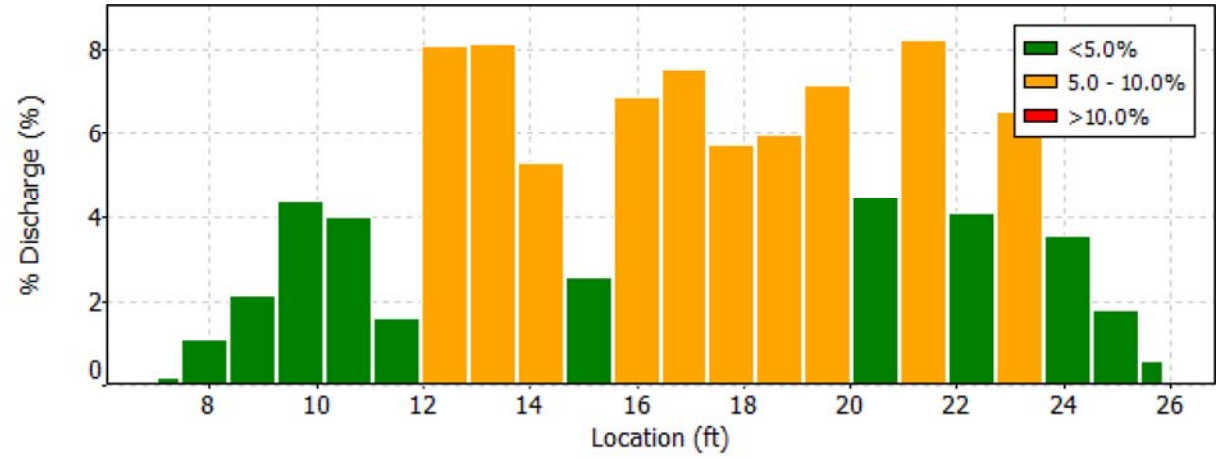
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:58	7.00	None	0.200	0.0	0.0	0.0000	1.00	0.1539	0.090	0.0139	0.2
1	*09:59*	*7.90*	*0.6*	*0.600*	*0.6*	*0.240*	*0.1539*	*1.00*	*0.1539*	*0.540*	*0.0831*	*1.1*
2	10:00	8.80	0.6	0.750	0.6	0.300	0.2388	1.00	0.2388	0.675	0.1612	2.1
3	10:01	9.70	0.6	0.750	0.6	0.300	0.4964	1.00	0.4964	0.675	0.3350	4.4
4	10:02	10.60	0.6	0.750	0.6	0.300	0.4554	1.00	0.4554	0.675	0.3074	4.0
5	10:03	11.50	0.6	0.800	0.6	0.320	0.1690	1.00	0.1690	0.720	0.1216	1.6
6	*10:04*	*12.40*	*0.6*	*0.800*	*0.6*	*0.320*	*0.8609*	*1.00*	*0.8609*	*0.720*	*0.6197*	*8.1*
7	10:06	13.30	0.6	0.750	0.6	0.300	0.9229	1.00	0.9229	0.675	0.6229	8.1
8	10:07	14.20	0.6	0.750	0.6	0.300	0.6017	1.00	0.6017	0.675	0.4061	5.3
9	10:08	15.10	0.6	0.850	0.6	0.340	0.2569	1.00	0.2569	0.765	0.1965	2.6
10	10:09	16.00	0.6	0.800	0.6	0.320	0.7290	1.00	0.7290	0.720	0.5248	6.9
11	10:10	16.90	0.6	0.800	0.6	0.320	0.8025	1.00	0.8025	0.720	0.5777	7.5
12	10:11	17.80	0.6	0.800	0.6	0.320	0.6086	1.00	0.6086	0.720	0.4381	5.7
13	10:11	18.70	0.6	0.800	0.6	0.320	0.6348	1.00	0.6348	0.720	0.4570	6.0
14	10:13	19.60	0.6	0.700	0.6	0.280	0.8707	1.00	0.8707	0.630	0.5486	7.2
15	10:13	20.50	0.6	0.700	0.6	0.280	0.5413	1.00	0.5413	0.630	0.3411	4.5
16	10:15	21.40	0.6	0.950	0.6	0.380	0.7398	1.00	0.7398	0.855	0.6326	8.3
17	*10:16*	*22.30*	*0.6*	*0.850*	*0.6*	*0.340*	*0.4108*	*1.00*	*0.4108*	*0.765*	*0.3142*	*4.1*
18	10:17	23.20	0.6	0.800	0.6	0.320	0.6936	1.00	0.6936	0.720	0.4993	6.5
19	10:18	24.10	0.6	0.700	0.6	0.280	0.4344	1.00	0.4344	0.630	0.2737	3.6
20	10:19	25.00	0.6	0.500	0.6	0.200	0.3041	1.00	0.3041	0.450	0.1369	1.8
21	10:19	25.90	None	0.300	0.0	0.0	0.0000	1.00	0.3041	0.135	0.0410	0.5

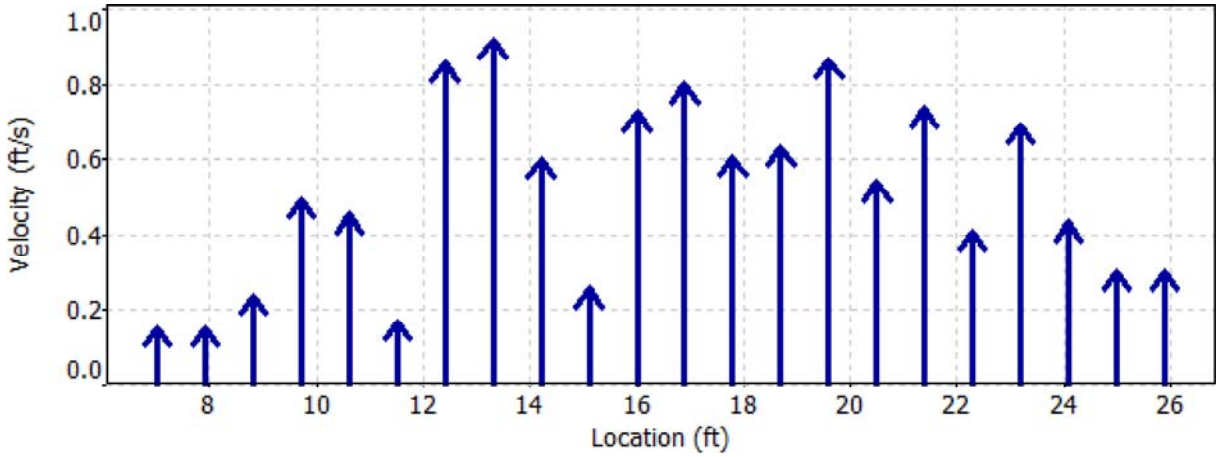
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

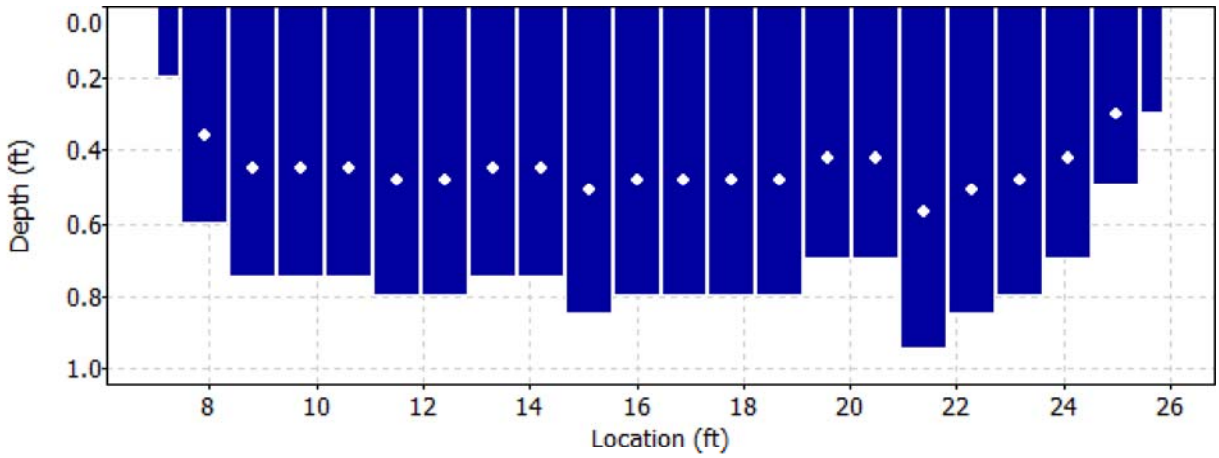
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A33.WAD	Site Name	A33
Start Date and Time	2017/09/28 09:58:56	Operator(s)	ND







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information	
File Name	A33.WAD
Start Date and Time	2017/09/28 09:58:56

Site Details	
Site Name	A33
Operator(s)	ND

Quality Control

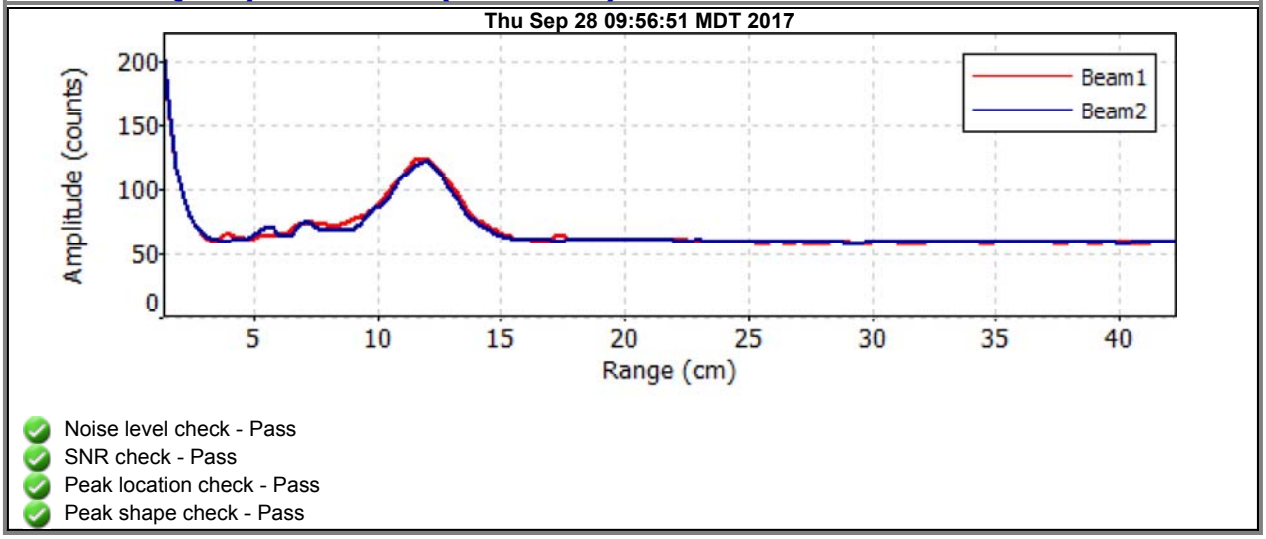
St	Loc	%Dep	Message
1	7.90	0.6	High angle: 25
6	12.40	0.6	High standard error: 0.044
17	22.30	0.6	High standard error: 0.031

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A33.WAD	Site Name	A33
Start Date and Time	2017/09/28 09:58:56	Operator(s)	ND

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A34.WAD
Start Date and Time	2017/09/28 09:11:44

Site Details

Site Name	A34
Operator(s)	ND

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.3%
Velocity	1.5%	9.3%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**3.4%**	**9.6%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	12.601
Mean SNR	30.3 dB	Total Area	5.630
Mean Temp	37.25 °F	Mean Depth	0.447
Disch. Equation	Mid-Section	Mean Velocity	0.7240
		Total Discharge	**4.0764**

Measurement Results

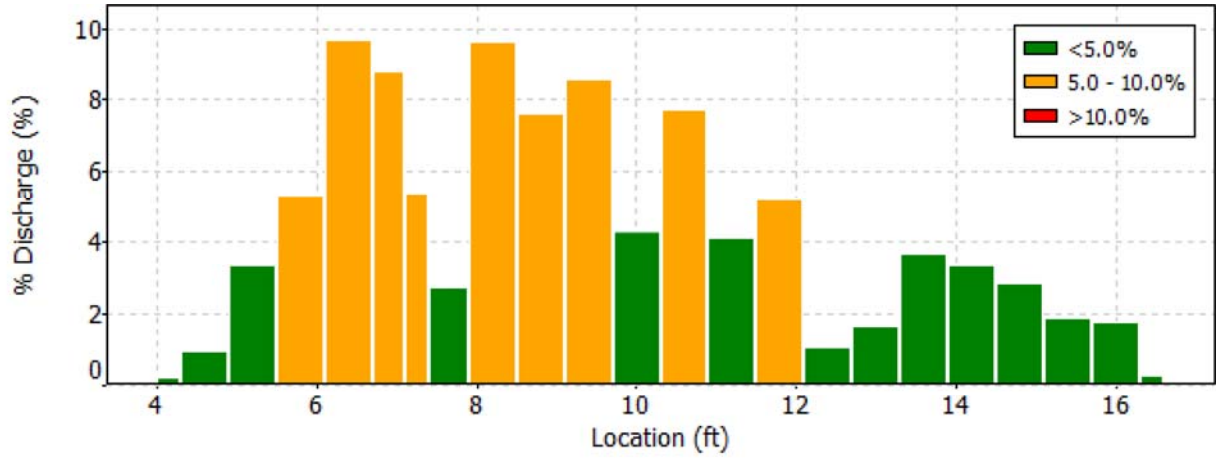
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:11	4.00	None	0.200	0.0	0.0	0.0000	1.00	0.1296	0.060	0.0078	0.2
1	09:11	4.60	0.6	0.500	0.6	0.200	0.1296	1.00	0.1296	0.300	0.0389	1.0
2	09:13	5.20	0.6	0.600	0.6	0.240	0.3766	1.00	0.3766	0.360	0.1356	3.3
3	09:14	5.80	0.6	0.600	0.6	0.240	0.6014	1.00	0.6014	0.360	0.2165	5.3
4	09:15	6.40	0.6	0.650	0.6	0.260	1.0144	1.00	1.0144	0.390	0.3956	9.7
5	09:16	7.00	0.6	0.650	0.6	0.260	1.3806	1.00	1.3806	0.260	0.3589	8.8
6	09:34	7.20	0.6	0.600	0.6	0.240	1.2119	1.00	1.2119	0.180	0.2182	5.4
7	*09:17*	*7.60*	*0.6*	*0.600*	*0.6*	*0.240*	*0.3730*	*1.00*	*0.3730*	*0.300*	*0.1120*	*2.7*
8	09:18	8.20	0.6	0.600	0.6	0.240	1.0935	1.00	1.0935	0.360	0.3937	9.7
9	09:19	8.80	0.6	0.400	0.6	0.160	1.2966	1.00	1.2966	0.240	0.3112	7.6
10	09:20	9.40	0.6	0.400	0.6	0.160	1.4560	1.00	1.4560	0.240	0.3494	8.6
11	*09:22*	*10.00*	*0.6*	*0.500*	*0.6*	*0.200*	*0.5863*	*1.00*	*0.5863*	*0.300*	*0.1759*	*4.3*
12	*09:23*	*10.60*	*0.6*	*0.400*	*0.6*	*0.160*	*1.3143*	*1.00*	*1.3143*	*0.240*	*0.3154*	*7.7*
13	*09:24*	*11.20*	*0.6*	*0.400*	*0.6*	*0.160*	*0.7031*	*1.00*	*0.7031*	*0.240*	*0.1687*	*4.1*
14	*09:25*	*11.80*	*0.6*	*0.400*	*0.6*	*0.160*	*0.8783*	*1.00*	*0.8783*	*0.240*	*0.2108*	*5.2*
15	*09:26*	*12.40*	*0.6*	*0.300*	*0.6*	*0.120*	*0.2313*	*1.00*	*0.2313*	*0.180*	*0.0416*	*1.0*
16	*09:27*	*13.00*	*0.6*	*0.400*	*0.6*	*0.160*	*0.2795*	*1.00*	*0.2795*	*0.240*	*0.0671*	*1.6*
17	*09:28*	*13.60*	*0.6*	*0.400*	*0.6*	*0.160*	*0.6211*	*1.00*	*0.6211*	*0.240*	*0.1490*	*3.7*
18	*09:29*	*14.20*	*0.6*	*0.400*	*0.6*	*0.160*	*0.5633*	*1.00*	*0.5633*	*0.240*	*0.1352*	*3.3*
19	*09:30*	*14.80*	*0.6*	*0.350*	*0.6*	*0.140*	*0.5453*	*1.00*	*0.5453*	*0.210*	*0.1145*	*2.8*
20	*09:31*	*15.40*	*0.6*	*0.350*	*0.6*	*0.140*	*0.3688*	*1.00*	*0.3688*	*0.210*	*0.0775*	*1.9*
21	*09:32*	*16.00*	*0.6*	*0.350*	*0.6*	*0.140*	*0.3448*	*1.00*	*0.3448*	*0.210*	*0.0724*	*1.8*
22	09:32	16.60	None	0.100	0.0	0.0	0.0000	1.00	0.3448	0.030	0.0104	0.3

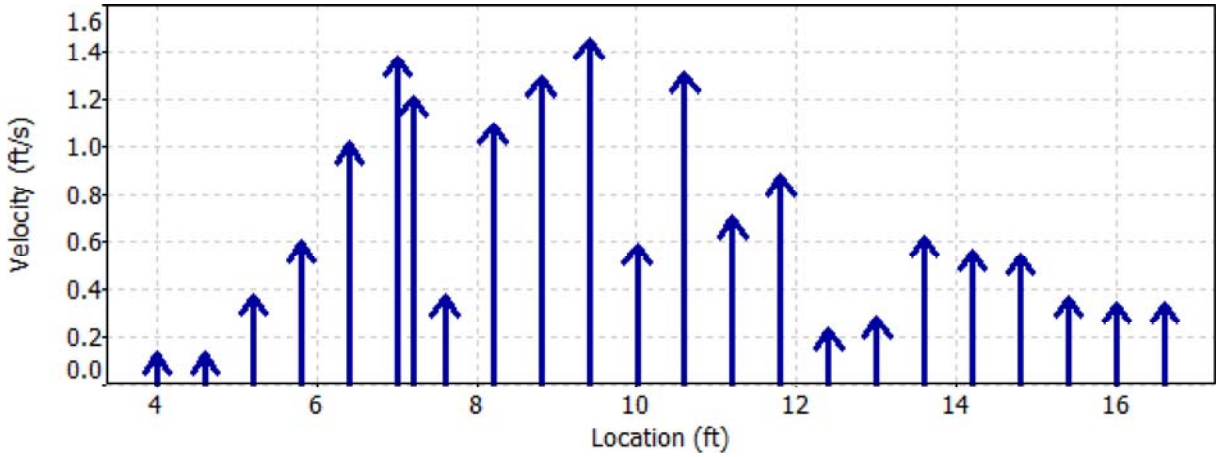
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

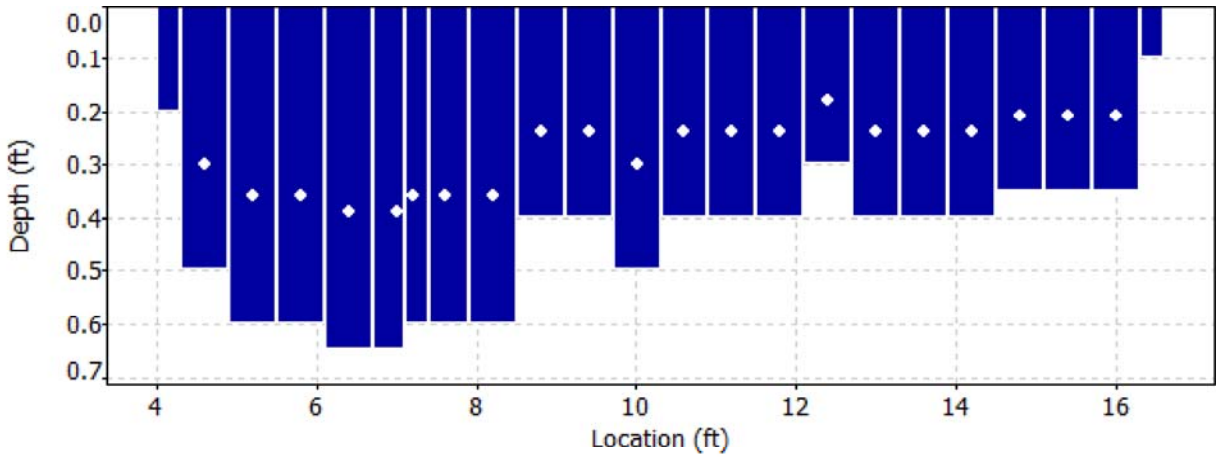
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A34.WAD	Site Name	A34
Start Date and Time	2017/09/28 09:11:44	Operator(s)	ND







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information	
File Name	A34.WAD
Start Date and Time	2017/09/28 09:11:44

Site Details	
Site Name	A34
Operator(s)	ND

Quality Control

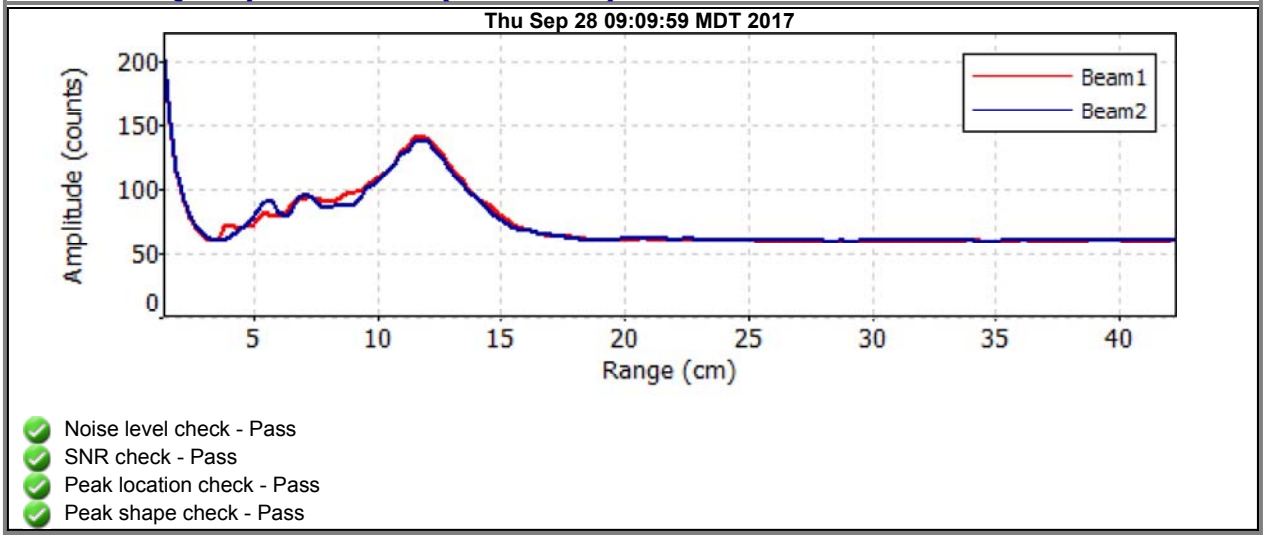
St	Loc	%Dep	Message
7	7.60	0.6	High angle: -22
11	10.00	0.6	High angle: -24
12	10.60	0.6	High angle: -26
13	11.20	0.6	High angle: -23
14	11.80	0.6	High angle: -38
15	12.40	0.6	High angle: -62
16	13.00	0.6	High angle: -44
17	13.60	0.6	High angle: -22
18	14.20	0.6	High angle: -53
19	14.80	0.6	High angle: -29
20	15.40	0.6	High angle: 23
21	16.00	0.6	High angle: 23

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A34.WAD	Site Name	A34
Start Date and Time	2017/09/28 09:11:44	Operator(s)	ND

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A039A.WAD
Start Date and Time	2017/09/26 18:14:24

Site Details

Site Name	A039A
Operator(s)	ND

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	2.0%
Velocity	2.7%	5.5%
Width	0.2%	0.2%
Method	2.3%	-
# Stations	2.4%	-
Overall	**4.4%**	**5.9%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	LEW	Total Width	10.000
Mean SNR	32.8 dB	Total Area	13.687
Mean Temp	40.55 °F	Mean Depth	1.369
Disch. Equation	Mid-Section	Mean Velocity	0.1212
		Total Discharge	**1.6593**

Measurement Results

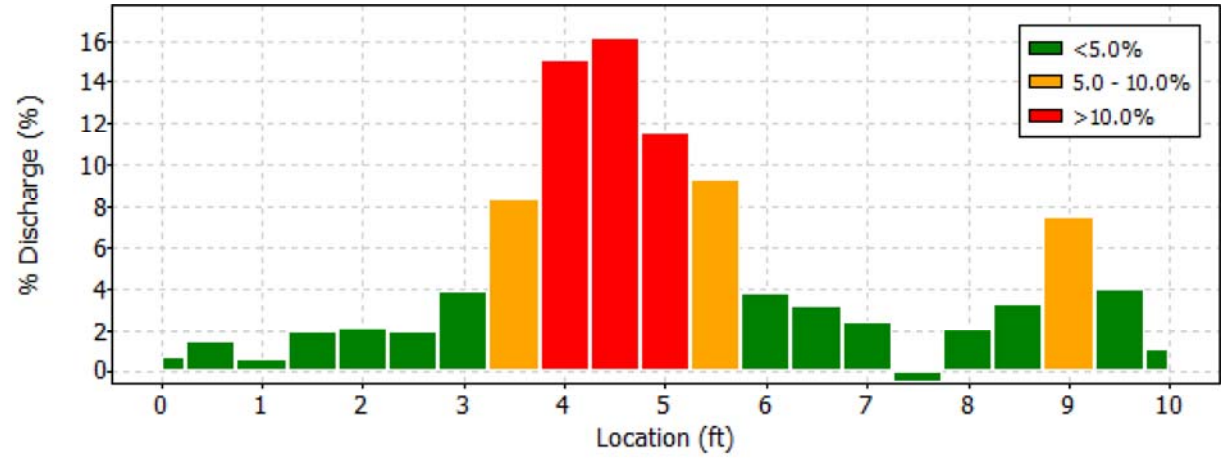
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	18:14	0.00	None	0.550	0.0	0.0	0.0000	1.00	0.0873	0.137	0.0120	0.7
1	18:14	0.50	0.6	0.550	0.6	0.220	0.0873	1.00	0.0873	0.275	0.0240	1.4
2	18:15	1.00	0.6	0.550	0.6	0.220	0.0367	1.00	0.0367	0.275	0.0101	0.6
3	18:17	1.50	0.6	0.900	0.6	0.360	0.0728	1.00	0.0728	0.450	0.0328	2.0
4	18:18	2.00	0.6	0.900	0.6	0.360	0.0797	1.00	0.0797	0.450	0.0359	2.2
5	*18:20*	*2.50*	*0.6*	*1.100*	*0.6*	*0.440*	*0.0584*	*1.00*	*0.0584*	*0.550*	*0.0321*	*1.9*
6	*18:21*	*3.00*	*0.6*	*1.400*	*0.6*	*0.560*	*0.0935*	*1.00*	*0.0935*	*0.700*	*0.0654*	*3.9*
7	18:22	3.50	0.6	1.400	0.6	0.560	0.1975	1.00	0.1975	0.700	0.1382	8.3
8	18:23	4.00	0.6	1.800	0.6	0.720	0.2779	1.00	0.2779	0.900	0.2501	15.1
9	18:24	4.50	0.6	1.950	0.6	0.780	0.2746	1.00	0.2746	0.975	0.2678	16.1
10	18:25	5.00	0.6	1.900	0.6	0.760	0.2021	1.00	0.2021	0.950	0.1920	11.6
11	18:26	5.50	0.6	1.900	0.6	0.760	0.1624	1.00	0.1624	0.950	0.1543	9.3
12	*18:27*	*6.00*	*0.6*	*1.600*	*0.6*	*0.640*	*0.0787*	*1.00*	*0.0787*	*0.800*	*0.0630*	*3.8*
13	*18:28*	*6.50*	*0.6*	*1.600*	*0.6*	*0.640*	*0.0666*	*1.00*	*0.0666*	*0.800*	*0.0533*	*3.2*
14	*18:30*	*7.00*	*0.6*	*1.600*	*0.6*	*0.640*	*0.0502*	*1.00*	*0.0502*	*0.800*	*0.0402*	*2.4*
15	18:32	7.50	0.6	1.800	0.6	0.720	-0.0098	1.00	-0.0098	0.900	-0.0089	-0.5
16	18:37	8.00	0.6	1.500	0.6	0.600	0.0459	1.00	0.0459	0.750	0.0344	2.1
17	*18:38*	*8.50*	*0.6*	*1.500*	*0.6*	*0.600*	*0.0728*	*1.00*	*0.0728*	*0.750*	*0.0546*	*3.3*
18	18:39	9.00	0.6	1.500	0.6	0.600	0.1650	1.00	0.1650	0.750	0.1238	7.5
19	18:41	9.50	0.6	1.300	0.6	0.520	0.1020	1.00	0.1020	0.650	0.0663	4.0
20	18:41	10.00	None	0.700	0.0	0.0	0.0000	1.00	0.1020	0.175	0.0179	1.1

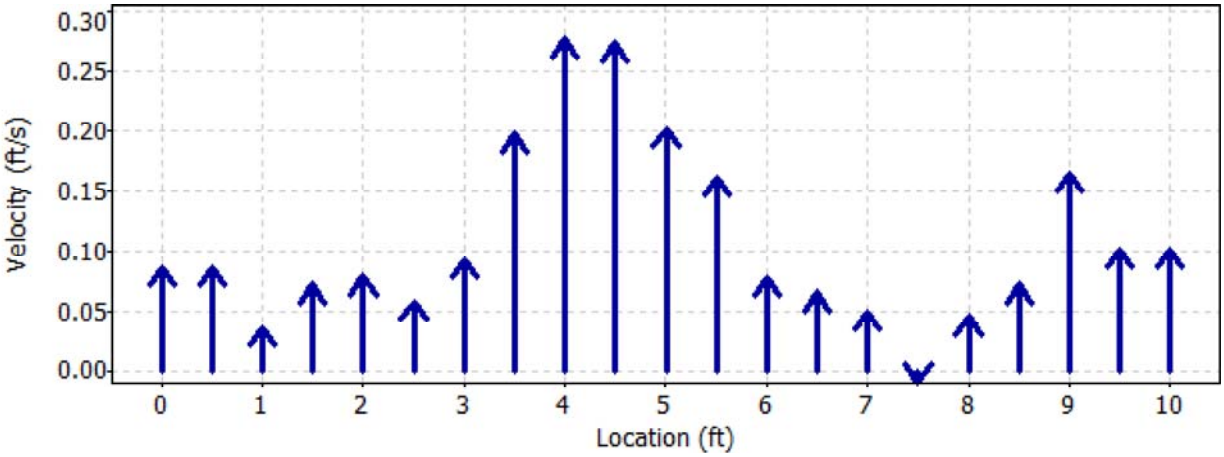
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

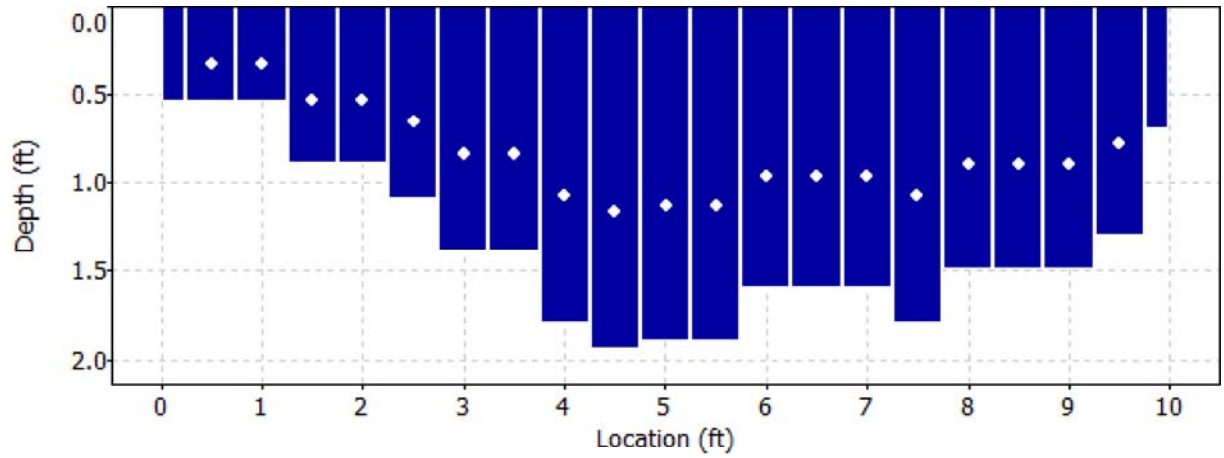
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A039A.WAD	Site Name	A039A
Start Date and Time	2017/09/26 18:14:24	Operator(s)	ND







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A039A.WAD
Start Date and Time	2017/09/26 18:14:24

Site Details

Site Name	A039A
Operator(s)	ND

Quality Control

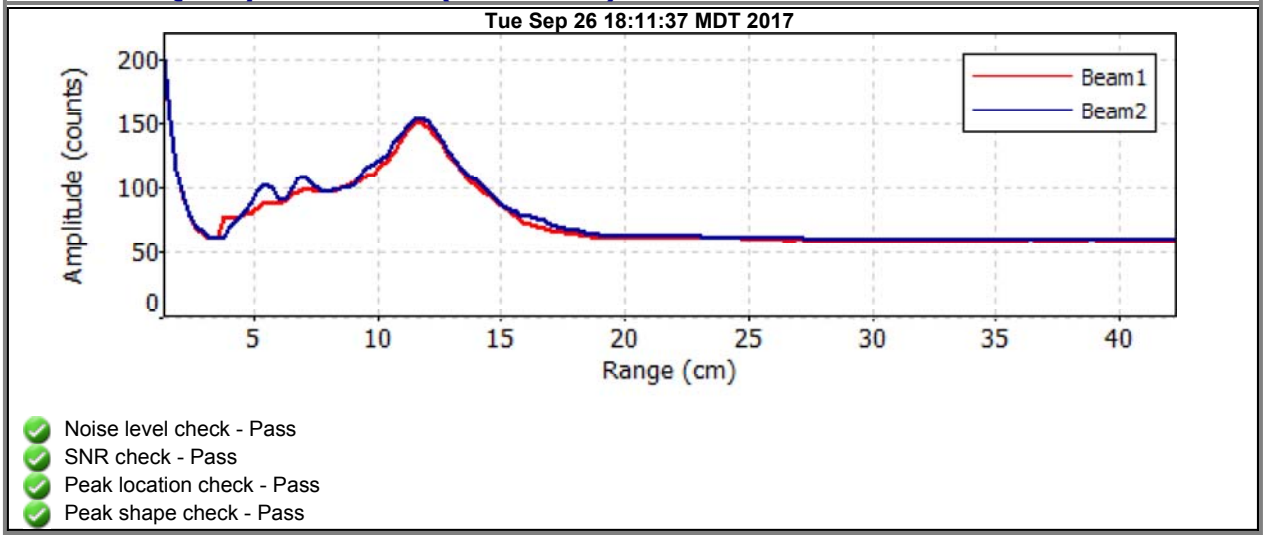
St	Loc	%Dep	Message
5	2.50	0.6	High angle: 47
6	3.00	0.6	High angle: 20
12	6.00	0.6	High angle: 34
13	6.50	0.6	High angle: -21
14	7.00	0.6	High angle: 32
17	8.50	0.6	High angle: -29

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A039A.WAD	Site Name	A039A
Start Date and Time	2017/09/26 18:14:24	Operator(s)	ND

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information

File Name	A40A.WAD
Start Date and Time	2017/09/28 08:06:23

Site Details

Site Name	A40A
Operator(s)	ND

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.6%
Velocity	1.3%	3.1%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.1%	-
Overall	**3.3%**	**4.2%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	LEW	Total Width	11.547
Mean SNR	26.6 dB	Total Area	4.822
Mean Temp	34.33 °F	Mean Depth	0.418
Disch. Equation	Mid-Section	Mean Velocity	1.4470
		Total Discharge	**6.9771**

Measurement Results

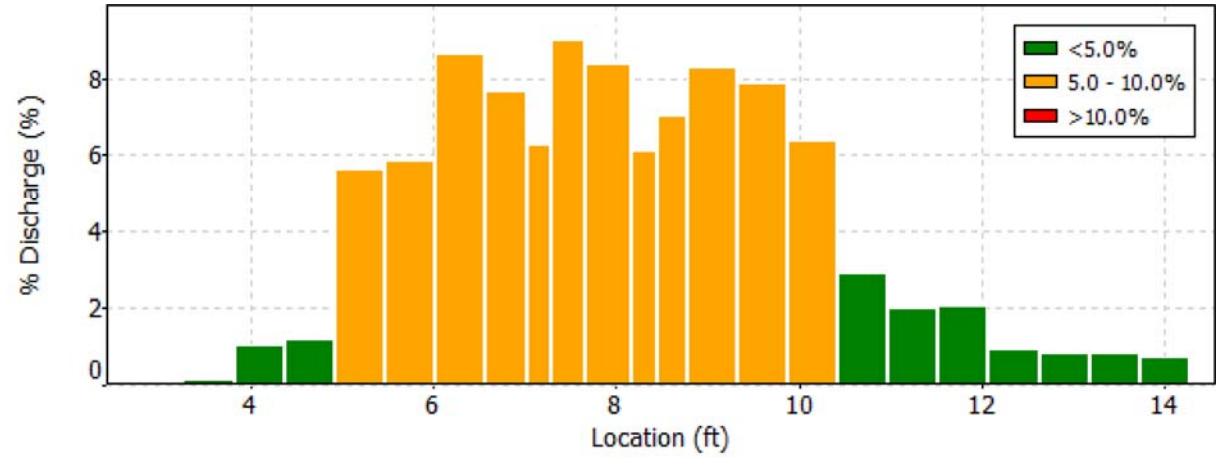
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:06	3.00	None	0.200	0.0	0.0	0.0000	1.00	0.0958	0.055	0.0053	0.1
1	*08:06*	*3.55*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0958*	*1.00*	*0.0958*	*0.110*	*0.0105*	*0.2*
2	08:10	4.10	0.6	0.200	0.6	0.080	0.6411	1.00	0.6411	0.110	0.0705	1.0
3	08:11	4.65	0.6	0.200	0.6	0.080	0.7333	1.00	0.7333	0.110	0.0807	1.2
4	08:12	5.20	0.6	0.600	0.6	0.240	1.1952	1.00	1.1952	0.330	0.3944	5.7
5	08:13	5.75	0.6	0.600	0.6	0.240	1.2382	1.00	1.2382	0.330	0.4085	5.9
6	08:15	6.30	0.6	0.600	0.6	0.240	1.8396	1.00	1.8396	0.330	0.6070	8.7
7	08:15	6.85	0.6	0.600	0.6	0.240	1.9826	1.00	1.9826	0.270	0.5359	7.7
8	08:31	7.20	0.6	0.600	0.6	0.240	2.6496	1.00	2.6496	0.165	0.4371	6.3
9	08:16	7.40	0.6	0.700	0.6	0.280	2.4127	1.00	2.4127	0.262	0.6324	9.1
10	*08:17*	*7.95*	*0.6*	*0.650*	*0.6*	*0.260*	*1.8018*	*1.00*	*1.8018*	*0.325*	*0.5861*	*8.4*
11	08:32	8.40	0.6	0.650	0.6	0.260	2.3855	1.00	2.3855	0.179	0.4263	6.1
12	08:18	8.50	0.6	0.650	0.6	0.260	2.3363	1.00	2.3363	0.211	0.4924	7.1
13	*08:19*	*9.05*	*0.6*	*0.600*	*0.6*	*0.240*	*1.7536*	*1.00*	*1.7536*	*0.330*	*0.5786*	*8.3*
14	08:21	9.60	0.6	0.550	0.6	0.220	1.8255	1.00	1.8255	0.302	0.5519	7.9
15	08:22	10.15	0.6	0.500	0.6	0.200	1.6194	1.00	1.6194	0.275	0.4452	6.4
16	08:23	10.70	0.6	0.400	0.6	0.160	0.9160	1.00	0.9160	0.220	0.2014	2.9
17	08:24	11.25	0.6	0.350	0.6	0.140	0.7369	1.00	0.7369	0.192	0.1418	2.0
18	08:25	11.80	0.6	0.350	0.6	0.140	0.7434	1.00	0.7434	0.192	0.1431	2.1
19	08:26	12.35	0.6	0.250	0.6	0.100	0.4613	1.00	0.4613	0.137	0.0634	0.9
20	08:27	12.90	0.6	0.250	0.6	0.100	0.4114	1.00	0.4114	0.137	0.0566	0.8
21	08:27	13.45	0.6	0.250	0.6	0.100	0.4229	1.00	0.4229	0.137	0.0581	0.8
22	08:29	14.00	0.6	0.200	0.6	0.080	0.4508	1.00	0.4508	0.110	0.0496	0.7
23	08:29	14.55	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

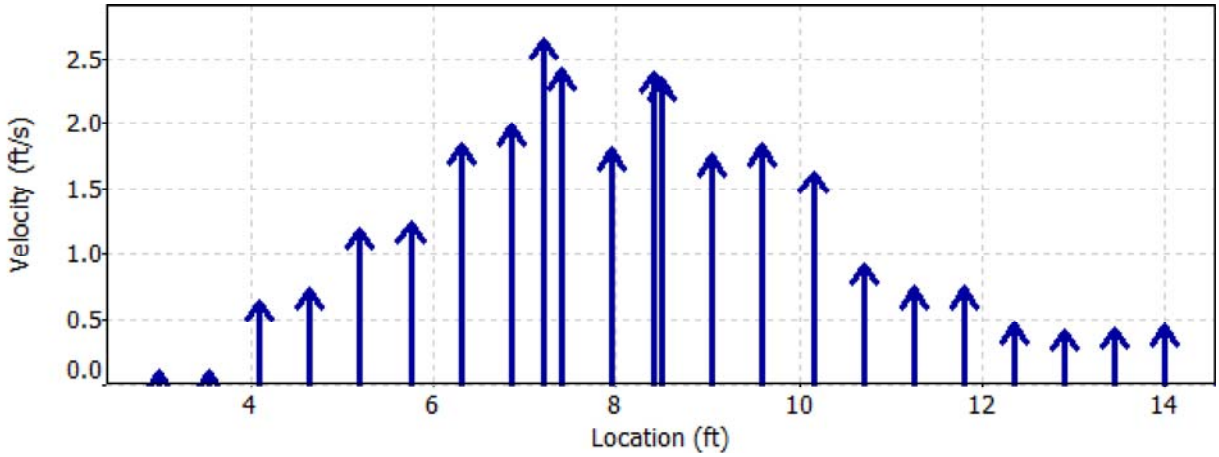
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

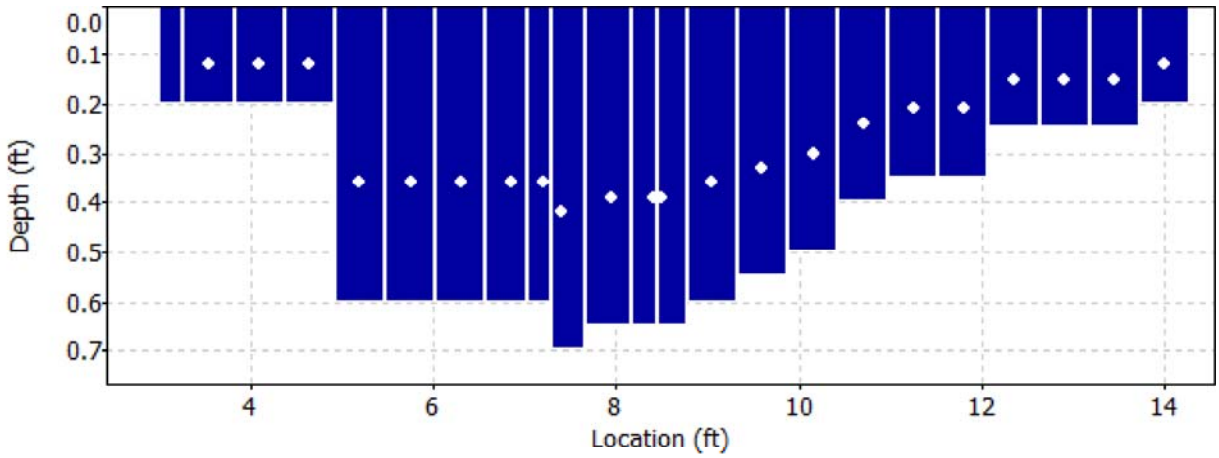
Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A40A.WAD	Site Name	A40A
Start Date and Time	2017/09/28 08:06:23	Operator(s)	ND







Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information	
File Name	A40A.WAD
Start Date and Time	2017/09/28 08:06:23

Site Details	
Site Name	A40A
Operator(s)	ND

Quality Control

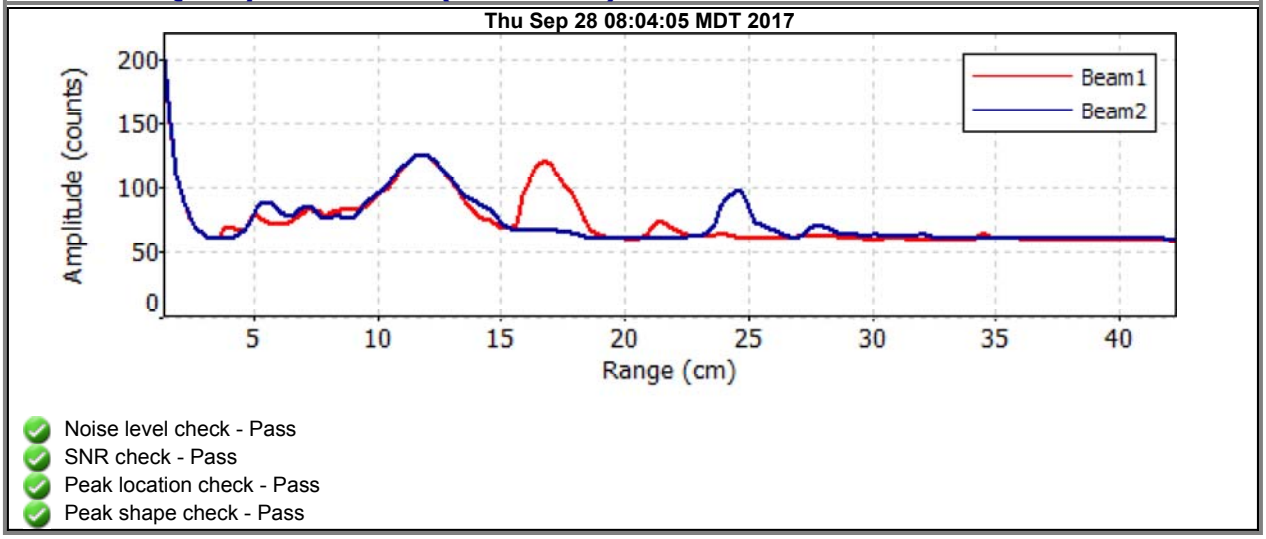
St	Loc	%Dep	Message
1	3.55	0.6	High SNR variation during measurement: 10.8,16.8
10	7.95	0.6	High standard error: 0.162
13	9.05	0.6	High standard error: 0.097

Discharge Measurement Summary

Date Generated: Tue Oct 3 2017

File Information		Site Details	
File Name	A40A.WAD	Site Name	A40A
Start Date and Time	2017/09/28 08:06:23	Operator(s)	ND

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M01.WAD
Start Date and Time	2017/09/26 16:19:35

Site Details

Site Name	M01
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.4%
Velocity	1.0%	3.0%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.4%	-
Overall	**3.3%**	**3.5%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	REW	Total Width	1.503
Mean SNR	43.3 dB	Total Area	0.304
Mean Temp	39.76 °F	Mean Depth	0.203
Disch. Equation	Mid-Section	Mean Velocity	0.4941
		Total Discharge	**0.1504**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	16:19	7.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	16:19	7.08	0.6	0.200	0.6	0.080	0.3537	1.00	0.3537	0.015	0.0053	3.5
2	*16:20*	*7.15*	*0.6*	*0.300*	*0.6*	*0.120*	*0.1660*	*1.00*	*0.1660*	*0.023*	*0.0037*	*2.5*
3	16:21	7.23	0.6	0.300	0.6	0.120	0.3002	1.00	0.3002	0.023	0.0068	4.5
4	*16:22*	*7.30*	*0.6*	*0.250*	*0.6*	*0.100*	*0.3150*	*1.00*	*0.3150*	*0.019*	*0.0059*	*3.9*
5	16:23	7.38	0.6	0.200	0.6	0.080	0.5807	1.00	0.5807	0.015	0.0087	5.8
6	16:24	7.45	0.6	0.200	0.6	0.080	0.4715	1.00	0.4715	0.015	0.0071	4.7
7	16:25	7.53	0.6	0.200	0.6	0.080	0.4580	1.00	0.4580	0.015	0.0069	4.6
8	*16:26*	*7.60*	*0.6*	*0.200*	*0.6*	*0.080*	*0.4767*	*1.00*	*0.4767*	*0.015*	*0.0072*	*4.8*
9	16:27	7.68	0.6	0.200	0.6	0.080	0.6024	1.00	0.6024	0.015	0.0091	6.0
10	16:27	7.75	0.6	0.200	0.6	0.080	0.6844	1.00	0.6844	0.015	0.0103	6.8
11	16:28	7.83	0.6	0.200	0.6	0.080	0.6181	1.00	0.6181	0.015	0.0093	6.2
12	16:29	7.90	0.6	0.200	0.6	0.080	0.6975	1.00	0.6975	0.015	0.0105	7.0
13	16:30	7.98	0.6	0.200	0.6	0.080	0.6926	1.00	0.6926	0.015	0.0104	6.9
14	16:31	8.05	0.6	0.200	0.6	0.080	0.7165	1.00	0.7165	0.015	0.0108	7.2
15	*16:31*	*8.13*	*0.6*	*0.200*	*0.6*	*0.080*	*0.6831*	*1.00*	*0.6831*	*0.015*	*0.0103*	*6.8*
16	*16:32*	*8.20*	*0.6*	*0.200*	*0.6*	*0.080*	*0.5928*	*1.00*	*0.5928*	*0.015*	*0.0089*	*5.9*
17	16:33	8.28	0.6	0.200	0.6	0.080	0.5741	1.00	0.5741	0.015	0.0086	5.7
18	*16:34*	*8.35*	*0.6*	*0.200*	*0.6*	*0.080*	*0.4400*	*1.00*	*0.4400*	*0.015*	*0.0066*	*4.4*
19	16:35	8.43	0.6	0.200	0.6	0.080	0.2697	1.00	0.2697	0.015	0.0041	2.7
20	16:35	8.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

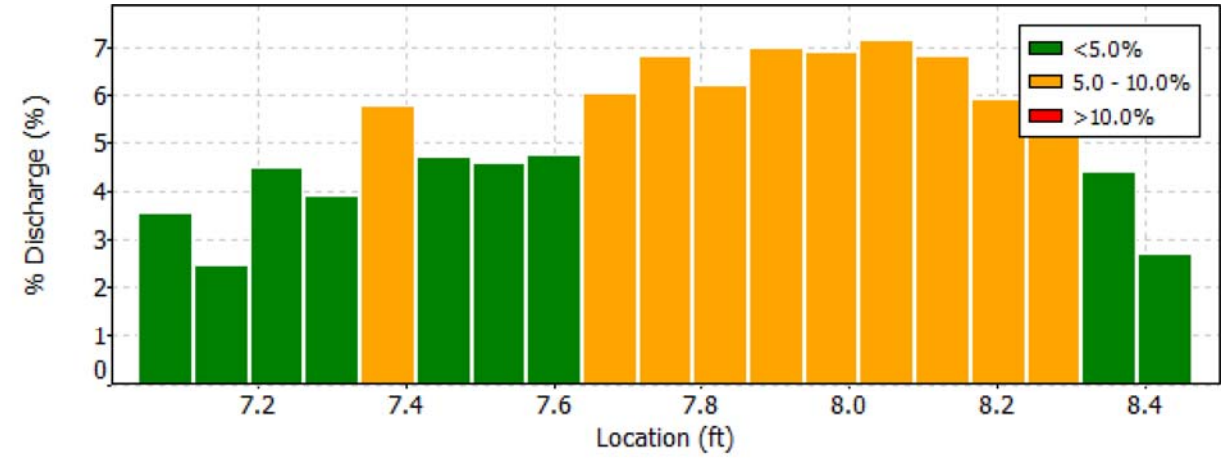
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

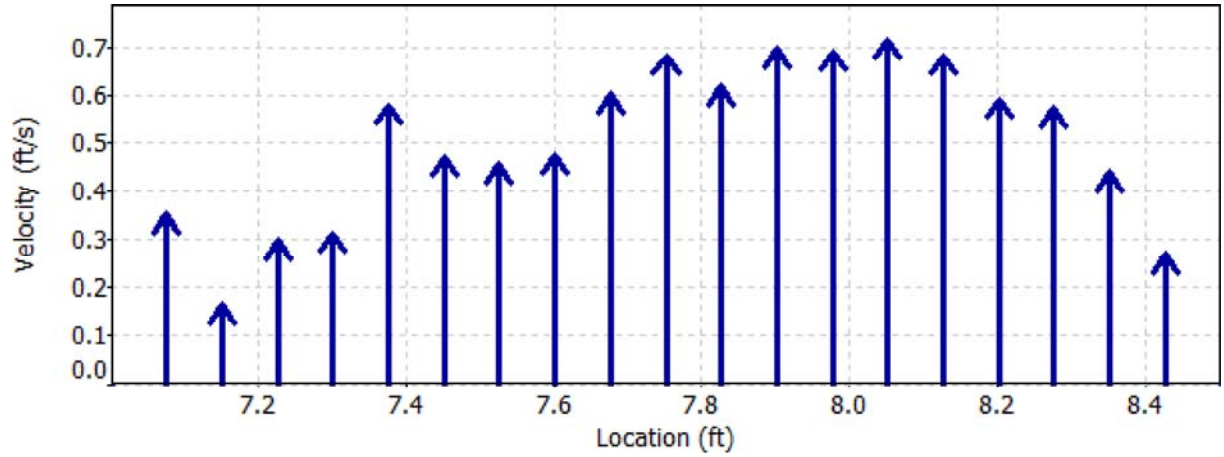
Discharge Measurement Summary

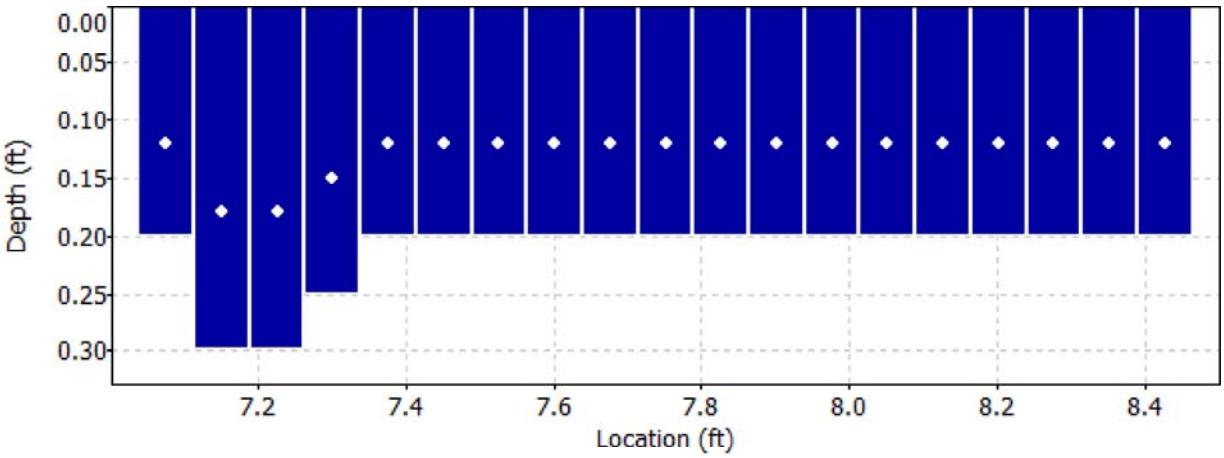
Date Generated: Mon Oct 2 2017

File Information	
File Name	M01.WAD
Start Date and Time	2017/09/26 16:19:35

Site Details	
Site Name	M01
Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M01.WAD
Start Date and Time	2017/09/26 16:19:35

Site Details

Site Name	M01
Operator(s)	KB

Quality Control

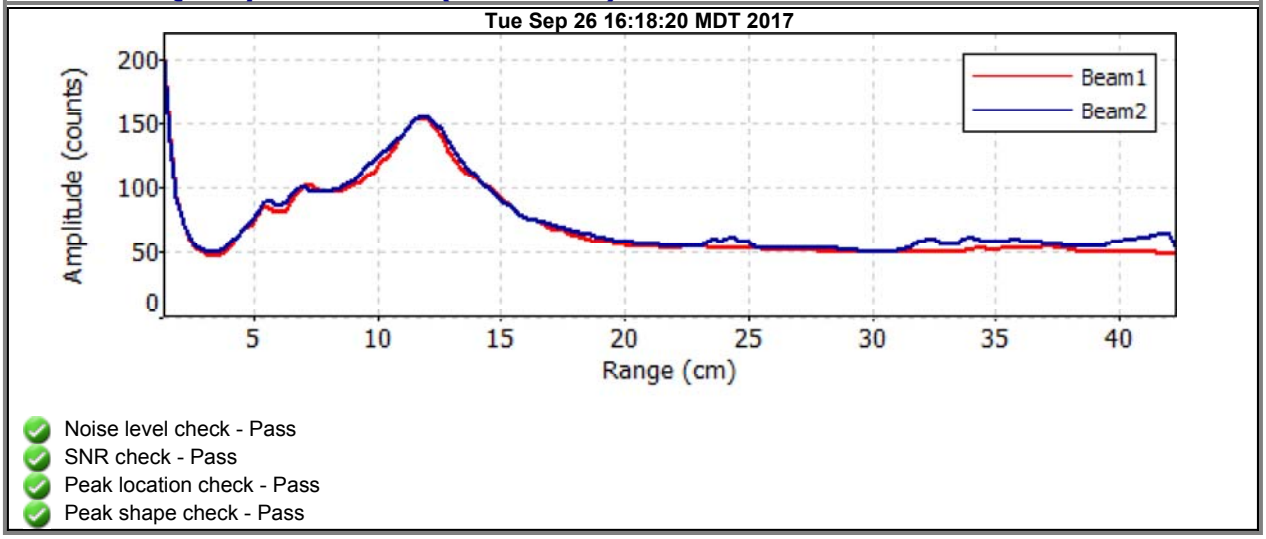
St	Loc	%Dep	Message
2	7.15	0.6	Boundary QC is Good; possible boundary interference
4	7.30	0.6	High standard error: 0.030
8	7.60	0.6	High angle: -26
15	8.13	0.6	High angle: -22
16	8.20	0.6	High angle: -21
18	8.35	0.6	High angle: -22

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M01.WAD	Site Name	M01
Start Date and Time	2017/09/26 16:19:35	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M04.WAD
Start Date and Time	2017/09/27 08:28:05

Site Details

Site Name	M04
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.4%
Velocity	2.2%	16.6%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	1.9%	-
Overall	**3.6%**	**16.8%**

Summary

Averaging Int.	40	# Stations	27
Start Edge	REW	Total Width	2.500
Mean SNR	42.6 dB	Total Area	0.548
Mean Temp	34.90 °F	Mean Depth	0.219
Disch. Equation	Mid-Section	Mean Velocity	0.3248
		Total Discharge	**0.1781**

Measurement Results

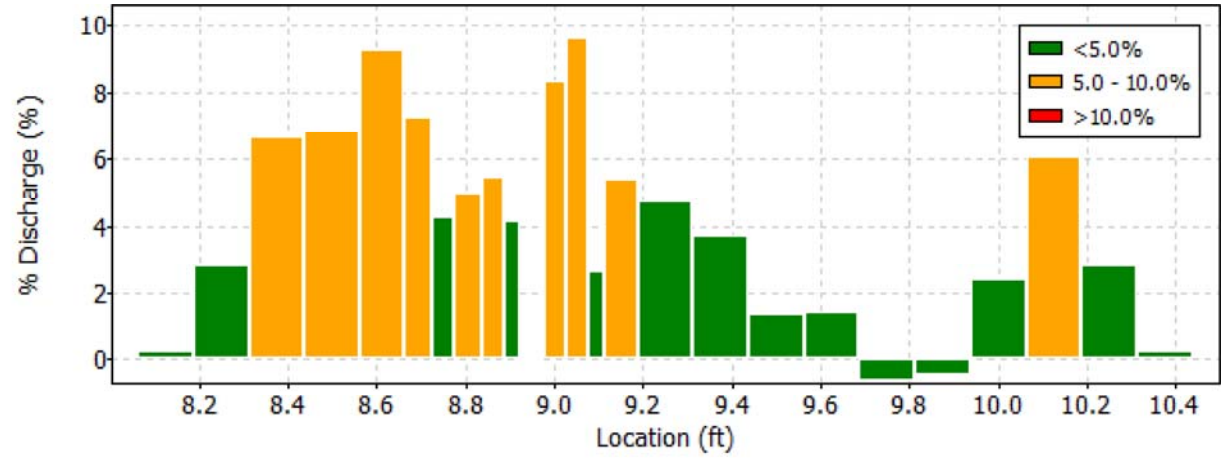
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:28	8.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	08:28	8.13	0.6	0.200	0.6	0.080	0.0180	1.00	0.0180	0.025	0.0005	0.3
2	*08:28*	*8.25*	*0.6*	*0.200*	*0.6*	*0.080*	*0.2031*	*1.00*	*0.2031*	*0.025*	*0.0051*	*2.9*
3	08:29	8.38	0.6	0.300	0.6	0.120	0.3156	1.00	0.3156	0.037	0.0118	6.6
4	08:30	8.50	0.6	0.300	0.6	0.120	0.3241	1.00	0.3241	0.037	0.0122	6.8
5	08:31	8.63	0.6	0.300	0.6	0.120	0.5509	1.00	0.5509	0.030	0.0165	9.3
6	08:46	8.70	0.6	0.300	0.6	0.120	0.6896	1.00	0.6896	0.019	0.0129	7.3
7	08:32	8.75	0.6	0.300	0.6	0.120	0.5121	1.00	0.5121	0.015	0.0077	4.3
8	08:47	8.80	0.6	0.300	0.6	0.120	0.4770	1.00	0.4770	0.019	0.0089	5.0
9	08:33	8.88	0.6	0.300	0.6	0.120	0.6526	1.00	0.6526	0.015	0.0098	5.5
10	08:48	8.90	0.6	0.200	0.6	0.080	0.9885	1.00	0.9885	0.008	0.0074	4.2
11	*08:51*	*8.95*	*0.6*	*0.250*	*0.6*	*0.100*	*-0.0095*	*1.00*	*-0.0095*	*0.013*	*-0.0001*	*-0.1*
12	*08:34*	*9.00*	*0.6*	*0.250*	*0.6*	*0.100*	*1.1939*	*1.00*	*1.1939*	*0.012*	*0.0149*	*8.4*
13	*08:52*	*9.05*	*0.6*	*0.300*	*0.6*	*0.120*	*1.1493*	*1.00*	*1.1493*	*0.015*	*0.0172*	*9.7*
14	*08:49*	*9.10*	*0.6*	*0.250*	*0.6*	*0.100*	*0.5000*	*1.00*	*0.5000*	*0.009*	*0.0047*	*2.6*
15	*08:35*	*9.13*	*0.6*	*0.250*	*0.6*	*0.100*	*0.5148*	*1.00*	*0.5148*	*0.019*	*0.0096*	*5.4*
16	*08:36*	*9.25*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3379*	*1.00*	*0.3379*	*0.025*	*0.0085*	*4.7*
17	08:37	9.38	0.6	0.200	0.6	0.080	0.2644	1.00	0.2644	0.025	0.0066	3.7
18	*08:38*	*9.50*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0988*	*1.00*	*0.0988*	*0.025*	*0.0025*	*1.4*
19	*08:38*	*9.63*	*0.6*	*0.200*	*0.6*	*0.080*	*0.1053*	*1.00*	*0.1053*	*0.025*	*0.0026*	*1.5*
20	*08:39*	*9.75*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0466*	*1.00*	*-0.0466*	*0.025*	*-0.0012*	*-0.7*
21	*08:40*	*9.88*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0331*	*1.00*	*-0.0331*	*0.025*	*-0.0008*	*-0.5*
22	08:41	10.00	0.6	0.200	0.6	0.080	0.1736	1.00	0.1736	0.025	0.0043	2.4
23	08:42	10.13	0.6	0.200	0.6	0.080	0.4344	1.00	0.4344	0.025	0.0109	6.1
24	*08:43*	*10.25*	*0.6*	*0.200*	*0.6*	*0.080*	*0.2024*	*1.00*	*0.2024*	*0.025*	*0.0051*	*2.8*
25	*08:44*	*10.38*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0184*	*1.00*	*0.0184*	*0.025*	*0.0005*	*0.3*
26	08:44	10.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

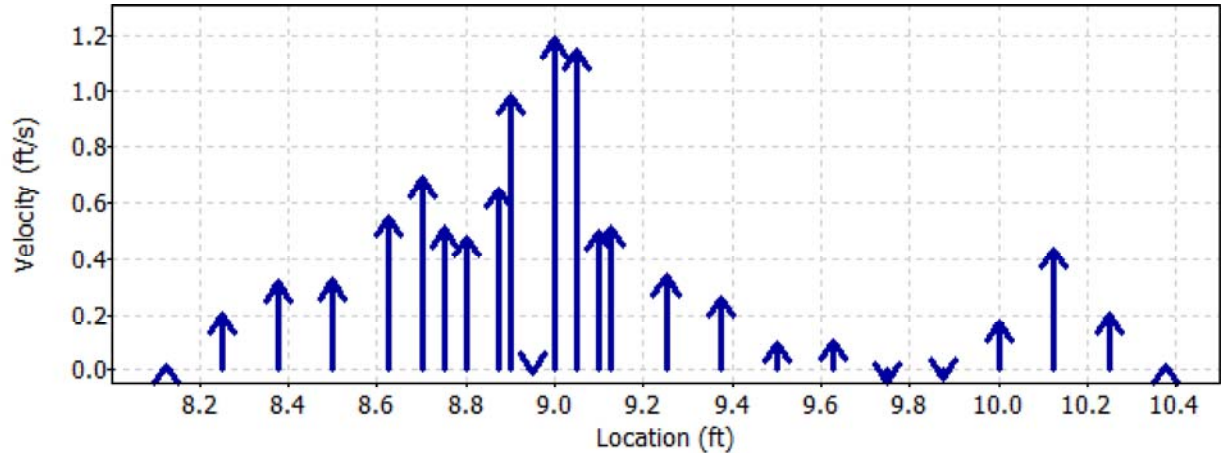
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

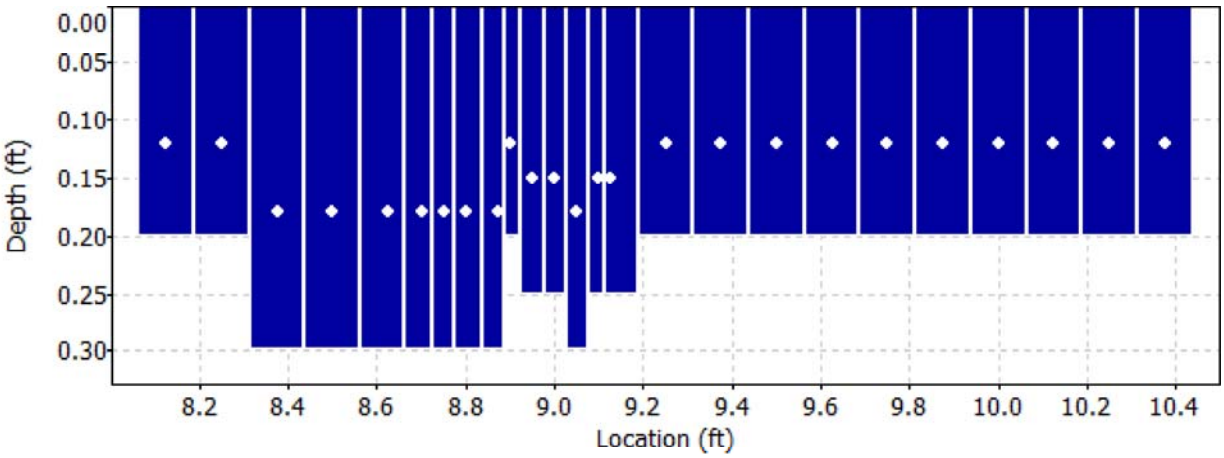
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M04.WAD	Site Name	M04
Start Date and Time	2017/09/27 08:28:05	Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M04.WAD	Site Name	M04
Start Date and Time	2017/09/27 08:28:05	Operator(s)	KB

Quality Control

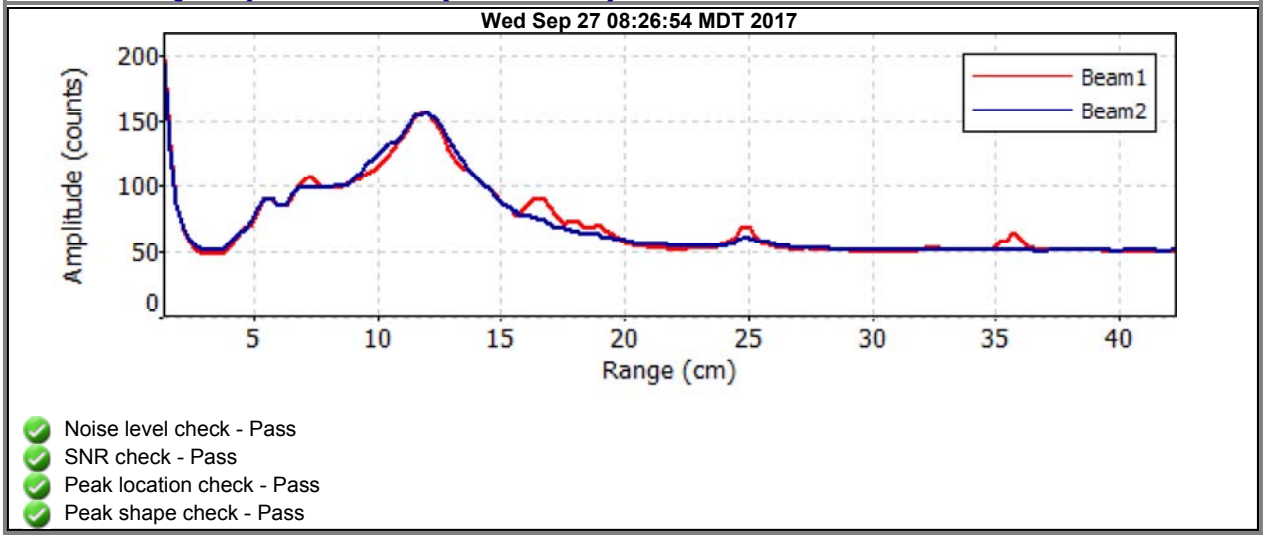
St	Loc	%Dep	Message
2	8.25	0.6	High angle: 26
11	8.95	0.6	High number of spikes: 7
		0.6	High SNR variation during measurement: 15.5,15.5
12	9.00	0.6	High standard error: 0.089
13	9.05	0.6	High standard error: 0.084
		0.6	Boundary QC is Good; possible boundary interference
14	9.10	0.6	SNR (30.7) is different from typical SNR (42.6)
15	9.13	0.6	High standard error: 0.114
16	9.25	0.6	High angle: -22
18	9.50	0.6	SNR (30.5) is different from typical SNR (42.6)
19	9.63	0.6	High angle: -27
20	9.75	0.6	High angle: 165
21	9.88	0.6	High angle: -175
		0.6	High differences in beam SNR: 49.8,36.1
24	10.25	0.6	Boundary QC is Good; possible boundary interference
25	10.38	0.6	High differences in beam SNR: 37.8,50.3

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M04.WAD	Site Name	M04
Start Date and Time	2017/09/27 08:28:05	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M05.WAD
Start Date and Time	2017/09/27 07:13:38

Site Details

Site Name	M05
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.8%	6.0%
Velocity	10.2%	34.6%
Width	0.3%	0.3%
Method	4.1%	-
# Stations	2.1%	-
Overall	**11.3%**	**35.2%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	REW	Total Width	2.849
Mean SNR	46.1 dB	Total Area	1.007
Mean Temp	33.17 °F	Mean Depth	0.353
Disch. Equation	Mid-Section	Mean Velocity	0.1185
		Total Discharge	**0.1193**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	07:13	7.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	07:13	7.65	0.6	0.350	0.6	0.140	0.4416	1.00	0.4416	0.035	0.0155	13.0
2	07:33	7.70	0.6	0.350	0.6	0.140	0.6430	1.00	0.6430	0.018	0.0113	9.4
3	07:35	7.75	0.6	0.350	0.6	0.140	0.5522	1.00	0.5522	0.017	0.0096	8.1
4	07:14	7.80	0.6	0.350	0.6	0.140	0.4006	1.00	0.4006	0.026	0.0105	8.8
5	07:34	7.90	0.6	0.350	0.6	0.140	0.2398	1.00	0.2398	0.026	0.0063	5.3
6	*07:15*	*7.95*	*0.6*	*0.300*	*0.6*	*0.120*	*0.2142*	*1.00*	*0.2142*	*0.030*	*0.0064*	*5.4*
7	*07:16*	*8.10*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0420*	*1.00*	*0.0420*	*0.045*	*0.0019*	*1.6*
8	*07:17*	*8.25*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.0472*	*1.00*	*-0.0472*	*0.045*	*-0.0021*	*-1.8*
9	*07:18*	*8.40*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.0919*	*1.00*	*-0.0919*	*0.045*	*-0.0041*	*-3.5*
10	07:19	8.55	0.6	0.400	0.6	0.160	-0.0046	1.00	-0.0046	0.060	-0.0003	-0.2
11	*07:20*	*8.70*	*0.6*	*0.500*	*0.6*	*0.200*	*-0.1086*	*1.00*	*-0.1086*	*0.075*	*-0.0081*	*-6.8*
12	07:21	8.85	0.6	0.400	0.6	0.160	0.2087	1.00	0.2087	0.060	0.0125	10.5
13	*07:22*	*9.00*	*0.6*	*0.400*	*0.6*	*0.160*	*0.6070*	*1.00*	*0.6070*	*0.050*	*0.0304*	*25.5*
14	*07:36*	*9.10*	*0.6*	*0.400*	*0.6*	*0.160*	*-0.1365*	*1.00*	*-0.1365*	*0.030*	*-0.0041*	*-3.4*
15	07:23	9.15	0.6	0.400	0.6	0.160	0.1211	1.00	0.1211	0.040	0.0048	4.0
16	*07:24*	*9.30*	*0.6*	*0.500*	*0.6*	*0.200*	*0.3727*	*1.00*	*0.3727*	*0.075*	*0.0279*	*23.4*
17	*07:25*	*9.45*	*0.6*	*0.500*	*0.6*	*0.200*	*0.1644*	*1.00*	*0.1644*	*0.075*	*0.0123*	*10.3*
18	*07:26*	*9.60*	*0.6*	*0.500*	*0.6*	*0.200*	*0.3812*	*1.00*	*0.3812*	*0.075*	*0.0286*	*24.0*
19	*07:27*	*9.75*	*0.6*	*0.500*	*0.6*	*0.200*	*-0.0827*	*1.00*	*-0.0827*	*0.075*	*-0.0062*	*-5.2*
20	*07:29*	*9.90*	*0.6*	*0.250*	*0.6*	*0.100*	*-0.4865*	*1.00*	*-0.4865*	*0.037*	*-0.0182*	*-15.3*
21	*07:30*	*10.05*	*0.6*	*0.250*	*0.6*	*0.100*	*-0.4170*	*1.00*	*-0.4170*	*0.037*	*-0.0156*	*-13.1*
22	*07:31*	*10.20*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0023*	*1.00*	*0.0023*	*0.030*	*0.0001*	*0.1*
23	07:31	10.35	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

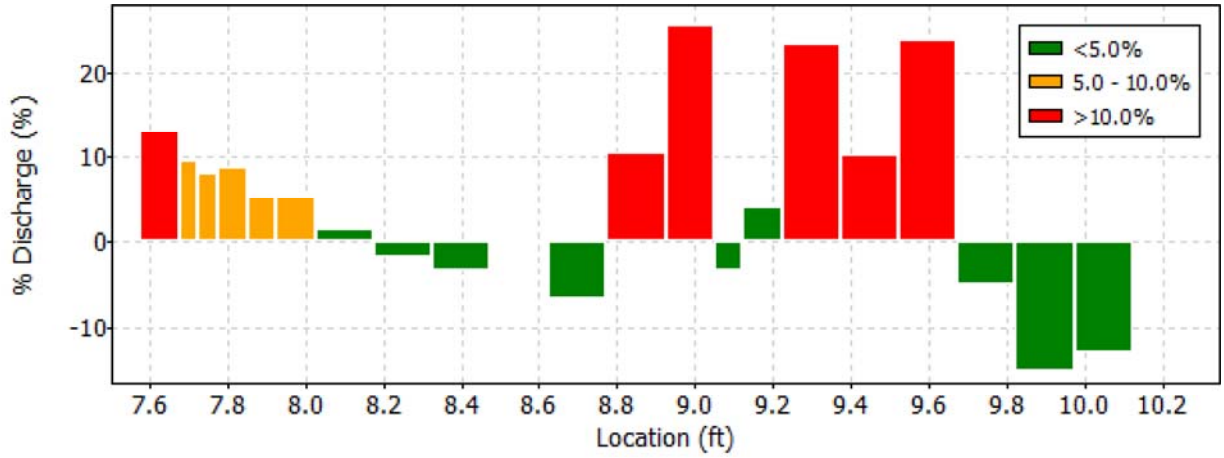
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

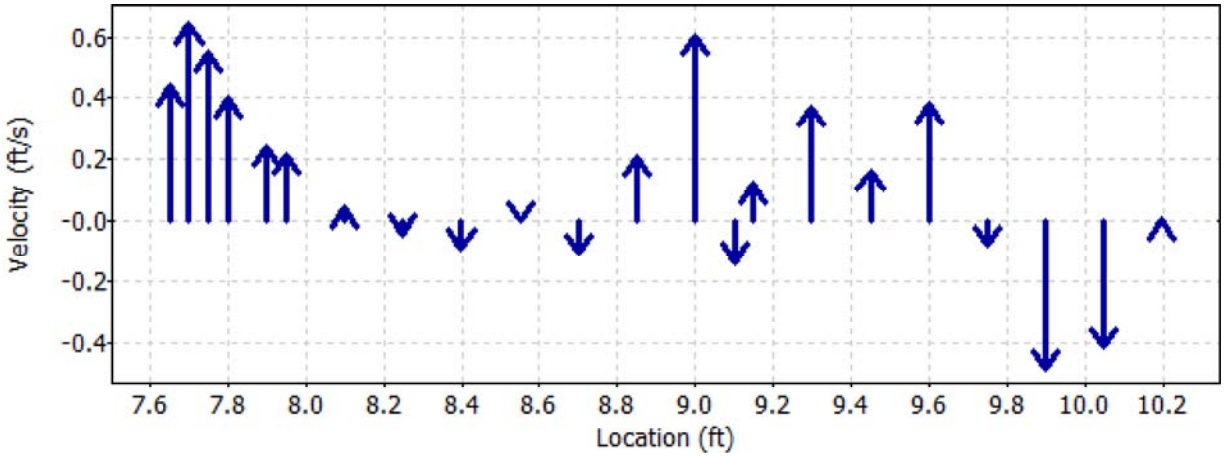
Discharge Measurement Summary

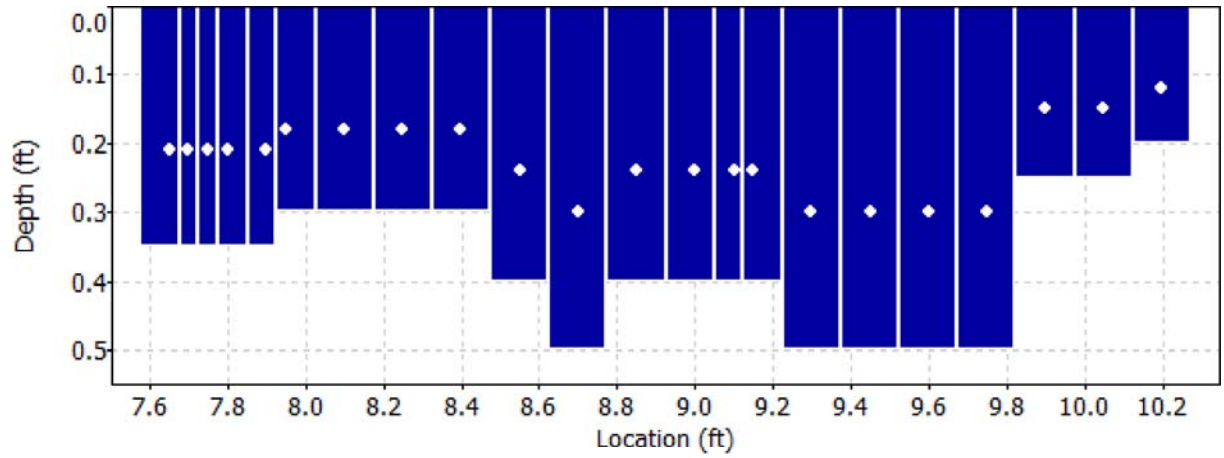
Date Generated: Mon Oct 2 2017

File Information	
File Name	M05.WAD
Start Date and Time	2017/09/27 07:13:38

Site Details	
Site Name	M05
Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M05.WAD	Site Name	M05
Start Date and Time	2017/09/27 07:13:38	Operator(s)	KB

Quality Control

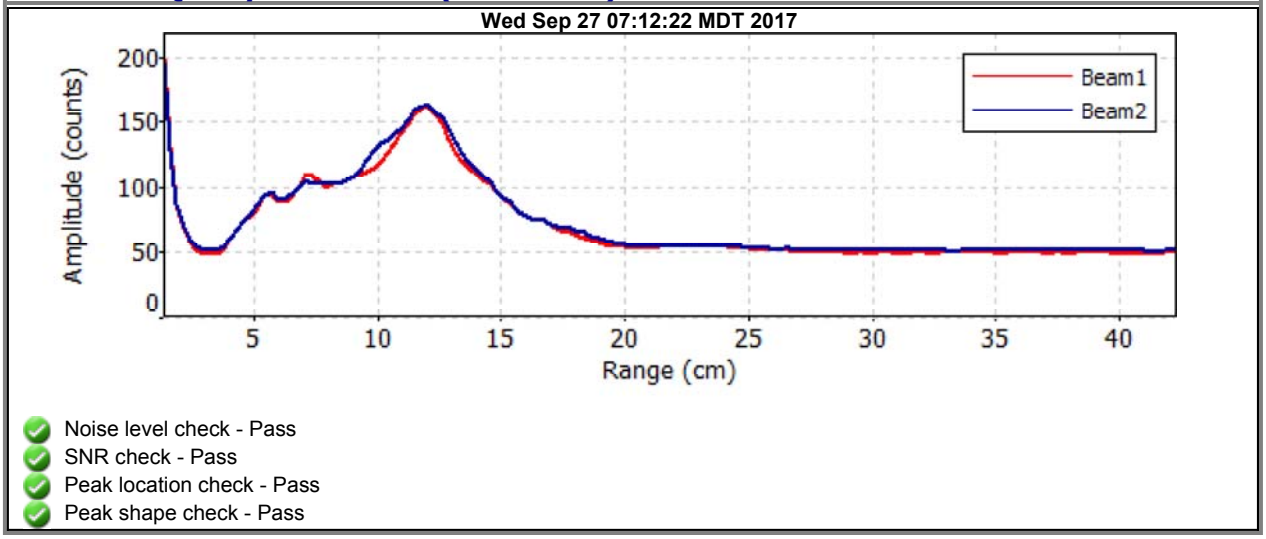
St	Loc	%Dep	Message
6	7.95	0.6	Boundary QC is Good; possible boundary interference
7	8.10	0.6	High angle: 65
8	8.25	0.6	High angle: 114
9	8.40	0.6	High angle: 178
11	8.70	0.6	High angle: 142
13	9.00	0.6	High standard error: 0.107
14	9.10	0.6	High angle: 149
16	9.30	0.6	High standard error: 0.077
17	9.45	0.6	High number of spikes: 5
		0.6	High angle: 27
18	9.60	0.6	High angle: 32
19	9.75	0.6	High number of spikes: 7
		0.6	High angle: 156
		0.6	Boundary QC is Good; possible boundary interference
20	9.90	0.6	High angle: -178
		0.6	High SNR variation during measurement: 5.2,4.7
21	10.05	0.6	High angle: 178
22	10.20	0.6	SNR (61.0) is different from typical SNR (46.1)
		0.6	Boundary QC is Good; possible boundary interference

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M05.WAD	Site Name	M05
Start Date and Time	2017/09/27 07:13:38	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M05-2.WAD
Start Date and Time	2017/09/27 07:42:34

Site Details

Site Name	M052
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.4%
Velocity	1.2%	4.6%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.0%	-
Overall	**3.2%**	**4.9%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	REW	Total Width	4.003
Mean SNR	44.5 dB	Total Area	1.003
Mean Temp	33.47 °F	Mean Depth	0.251
Disch. Equation	Mid-Section	Mean Velocity	0.2693
		Total Discharge	**0.2702**

Measurement Results

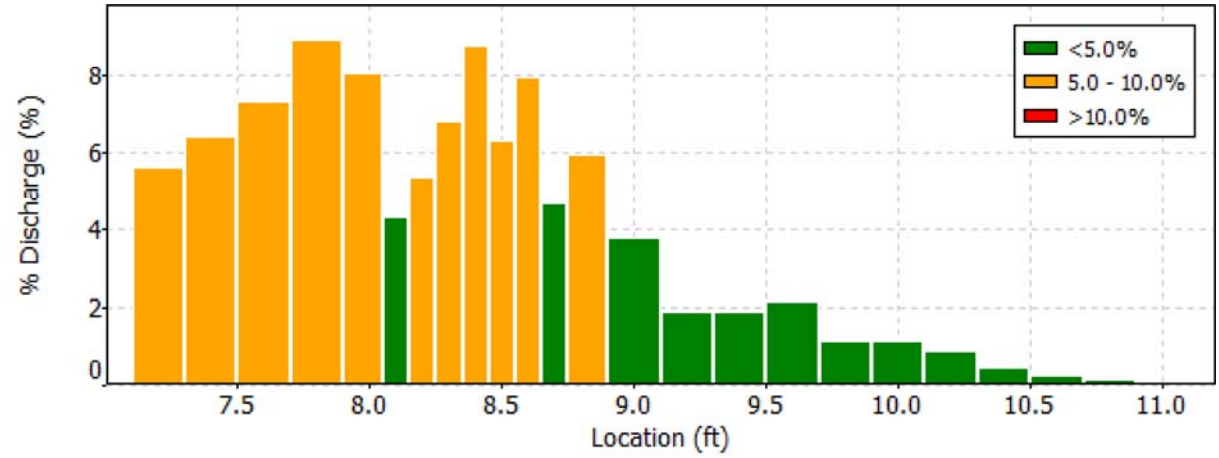
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	07:42	7.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	07:42	7.20	0.6	0.200	0.6	0.080	0.3796	1.00	0.3796	0.040	0.0152	5.6
2	07:43	7.40	0.6	0.200	0.6	0.080	0.4324	1.00	0.4324	0.040	0.0173	6.4
3	07:44	7.60	0.6	0.200	0.6	0.080	0.4944	1.00	0.4944	0.040	0.0198	7.3
4	07:45	7.80	0.6	0.250	0.6	0.100	0.4826	1.00	0.4826	0.050	0.0241	8.9
5	07:46	8.00	0.6	0.250	0.6	0.100	0.5801	1.00	0.5801	0.037	0.0217	8.0
6	*07:59*	*8.10*	*0.6*	*0.250*	*0.6*	*0.100*	*0.4678*	*1.00*	*0.4678*	*0.025*	*0.0117*	*4.3*
7	07:46	8.20	0.6	0.300	0.6	0.120	0.4843	1.00	0.4843	0.030	0.0145	5.4
8	08:00	8.30	0.6	0.400	0.6	0.160	0.4593	1.00	0.4593	0.040	0.0184	6.8
9	07:47	8.40	0.6	0.400	0.6	0.160	0.5915	1.00	0.5915	0.040	0.0237	8.8
10	*08:01*	*8.50*	*0.6*	*0.400*	*0.6*	*0.160*	*0.4229*	*1.00*	*0.4229*	*0.040*	*0.0169*	*6.3*
11	*07:48*	*8.60*	*0.6*	*0.400*	*0.6*	*0.160*	*0.5351*	*1.00*	*0.5351*	*0.040*	*0.0214*	*7.9*
12	*08:03*	*8.70*	*0.6*	*0.400*	*0.6*	*0.160*	*0.3163*	*1.00*	*0.3163*	*0.040*	*0.0127*	*4.7*
13	*07:49*	*8.80*	*0.6*	*0.400*	*0.6*	*0.160*	*0.2661*	*1.00*	*0.2661*	*0.060*	*0.0160*	*5.9*
14	*07:50*	*9.00*	*0.6*	*0.350*	*0.6*	*0.140*	*0.1473*	*1.00*	*0.1473*	*0.070*	*0.0103*	*3.8*
15	*07:51*	*9.20*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0840*	*1.00*	*0.0840*	*0.060*	*0.0050*	*1.9*
16	*07:52*	*9.40*	*0.6*	*0.250*	*0.6*	*0.100*	*0.1014*	*1.00*	*0.1014*	*0.050*	*0.0051*	*1.9*
17	*07:53*	*9.60*	*0.6*	*0.250*	*0.6*	*0.100*	*0.1171*	*1.00*	*0.1171*	*0.050*	*0.0059*	*2.2*
18	*07:54*	*9.80*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0738*	*1.00*	*0.0738*	*0.040*	*0.0030*	*1.1*
19	*07:54*	*10.00*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0764*	*1.00*	*0.0764*	*0.040*	*0.0031*	*1.1*
20	*07:55*	*10.20*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0564*	*1.00*	*0.0564*	*0.040*	*0.0023*	*0.8*
21	*07:56*	*10.40*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0285*	*1.00*	*0.0285*	*0.040*	*0.0011*	*0.4*
22	07:57	10.60	0.6	0.200	0.6	0.080	0.0157	1.00	0.0157	0.040	0.0006	0.2
23	07:58	10.80	0.6	0.200	0.6	0.080	0.0075	1.00	0.0075	0.040	0.0003	0.1
24	07:58	11.00	None	0.100	0.0	0.0	0.0000	1.00	0.0075	0.010	0.0001	0.0

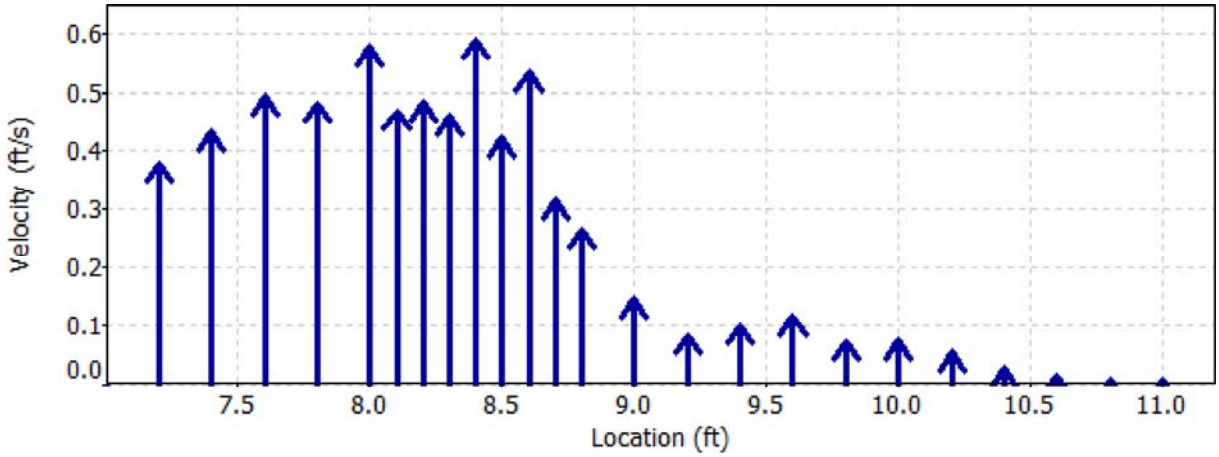
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

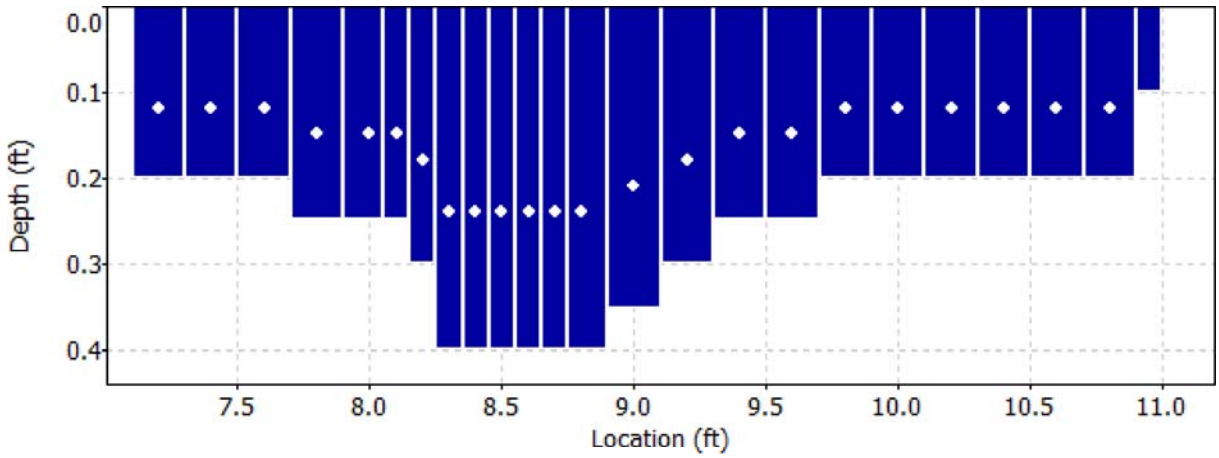
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M05-2.WAD	Site Name	M052
Start Date and Time	2017/09/27 07:42:34	Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M05-2.WAD	Site Name	M052
Start Date and Time	2017/09/27 07:42:34	Operator(s)	KB

Quality Control

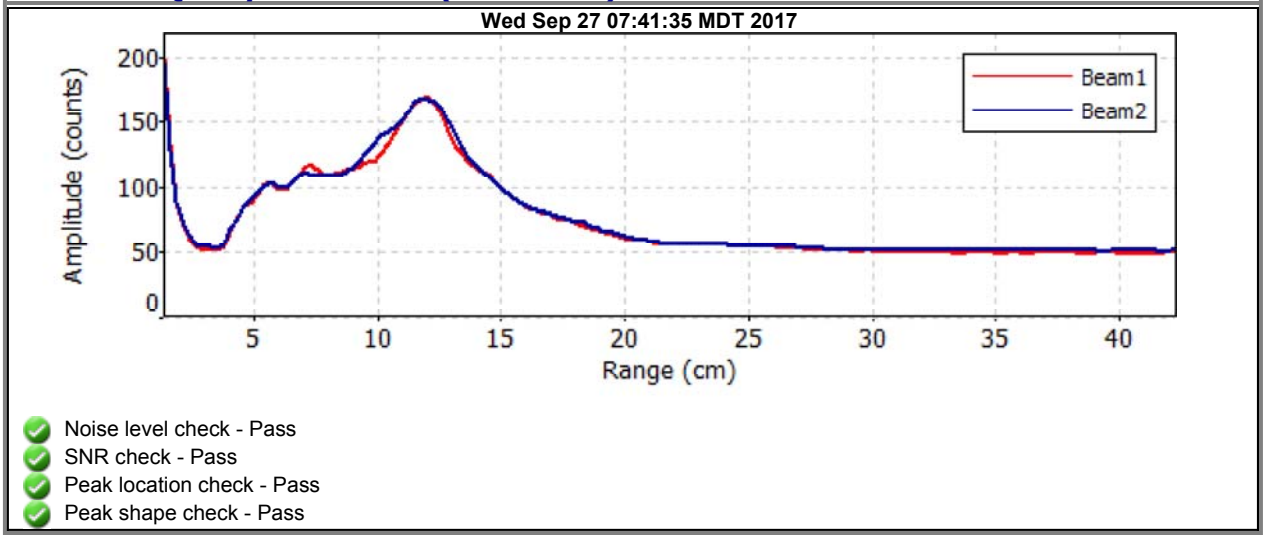
St	Loc	%Dep	Message
6	8.10	0.6	High standard error: 0.035
10	8.50	0.6	High angle: 24
11	8.60	0.6	High angle: 20
12	8.70	0.6	High angle: 30
13	8.80	0.6	High angle: 39
14	9.00	0.6	High angle: 46
15	9.20	0.6	High angle: 59
16	9.40	0.6	High angle: 51
17	9.60	0.6	High angle: 44
18	9.80	0.6	High angle: 52
19	10.00	0.6	High angle: 52
20	10.20	0.6	High angle: 61
21	10.40	0.6	High angle: 70

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M05-2.WAD	Site Name	M052
Start Date and Time	2017/09/27 07:42:34	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M06A.WAD
Start Date and Time	2017/09/26 14:44:25

Site Details

Site Name	M06A
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	3.1%
Velocity	1.5%	9.5%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**3.4%**	**10.1%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	3.497
Mean SNR	46.2 dB	Total Area	1.017
Mean Temp	46.93 °F	Mean Depth	0.291
Disch. Equation	Mid-Section	Mean Velocity	0.2707
		Total Discharge	**0.2754**

Measurement Results

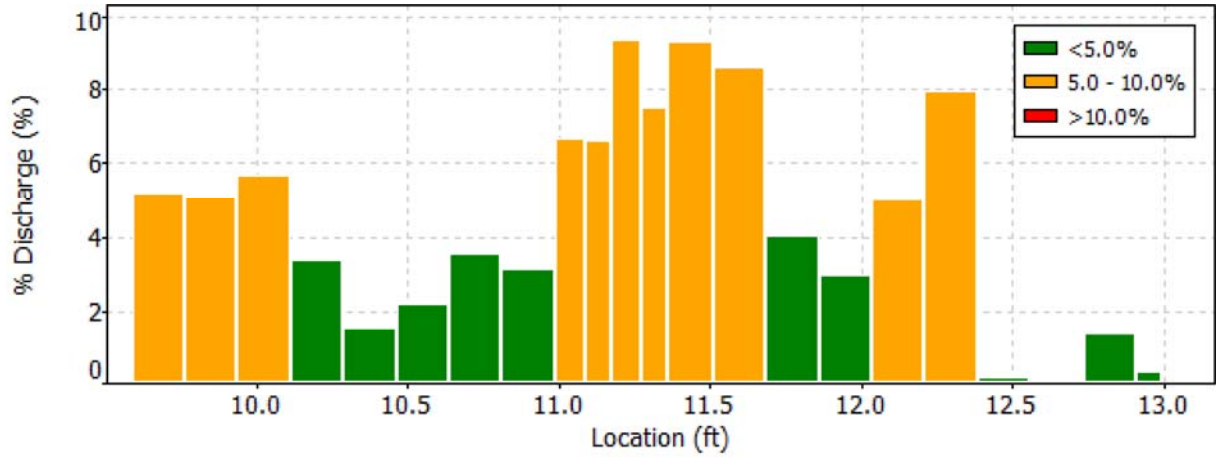
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:44	9.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*14:44*	*9.67*	*0.6*	*0.300*	*0.6*	*0.120*	*0.2740*	*1.00*	*0.2740*	*0.052*	*0.0144*	*5.2*
2	*14:45*	*9.85*	*0.6*	*0.300*	*0.6*	*0.120*	*0.2671*	*1.00*	*0.2671*	*0.052*	*0.0140*	*5.1*
3	*14:46*	*10.02*	*0.6*	*0.450*	*0.6*	*0.180*	*0.1995*	*1.00*	*0.1995*	*0.079*	*0.0157*	*5.7*
4	*14:47*	*10.20*	*0.6*	*0.500*	*0.6*	*0.200*	*0.1073*	*1.00*	*0.1073*	*0.087*	*0.0094*	*3.4*
5	*14:48*	*10.37*	*0.6*	*0.400*	*0.6*	*0.160*	*0.0610*	*1.00*	*0.0610*	*0.070*	*0.0043*	*1.5*
6	*14:49*	*10.55*	*0.6*	*0.300*	*0.6*	*0.120*	*0.1142*	*1.00*	*0.1142*	*0.052*	*0.0060*	*2.2*
7	*14:50*	*10.72*	*0.6*	*0.400*	*0.6*	*0.160*	*0.1394*	*1.00*	*0.1394*	*0.070*	*0.0098*	*3.5*
8	*14:51*	*10.90*	*0.6*	*0.400*	*0.6*	*0.160*	*0.1240*	*1.00*	*0.1240*	*0.070*	*0.0087*	*3.1*
9	*14:52*	*11.07*	*0.6*	*0.400*	*0.6*	*0.160*	*0.4551*	*1.00*	*0.4551*	*0.040*	*0.0183*	*6.6*
10	*15:03*	*11.10*	*0.6*	*0.350*	*0.6*	*0.140*	*0.5971*	*1.00*	*0.5971*	*0.031*	*0.0183*	*6.6*
11	*14:53*	*11.25*	*0.6*	*0.350*	*0.6*	*0.140*	*0.7402*	*1.00*	*0.7402*	*0.035*	*0.0259*	*9.4*
12	*15:04*	*11.30*	*0.6*	*0.300*	*0.6*	*0.120*	*0.7897*	*1.00*	*0.7897*	*0.026*	*0.0207*	*7.5*
13	14:54	11.42	0.6	0.250	0.6	0.100	0.6893	1.00	0.6893	0.037	0.0257	9.3
14	14:55	11.60	0.6	0.250	0.6	0.100	0.5440	1.00	0.5440	0.044	0.0238	8.6
15	*14:56*	*11.77*	*0.6*	*0.250*	*0.6*	*0.100*	*0.2566*	*1.00*	*0.2566*	*0.044*	*0.0112*	*4.1*
16	14:57	11.95	0.6	0.250	0.6	0.100	0.1880	1.00	0.1880	0.044	0.0082	3.0
17	14:58	12.12	0.6	0.200	0.6	0.080	0.3980	1.00	0.3980	0.035	0.0139	5.1
18	*14:59*	*12.30*	*0.6*	*0.200*	*0.6*	*0.080*	*0.6266*	*1.00*	*0.6266*	*0.035*	*0.0219*	*8.0*
19	*15:00*	*12.47*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0151*	*1.00*	*0.0151*	*0.035*	*0.0005*	*0.2*
20	15:01	12.65	0.6	0.200	0.6	0.080	-0.0003	1.00	-0.0003	0.035	0.0000	0.0
21	*15:02*	*12.82*	*0.6*	*0.200*	*0.6*	*0.080*	*0.1093*	*1.00*	*0.1093*	*0.035*	*0.0038*	*1.4*
22	15:02	13.00	None	0.100	0.0	0.0	0.0000	1.00	0.1093	0.009	0.0010	0.3

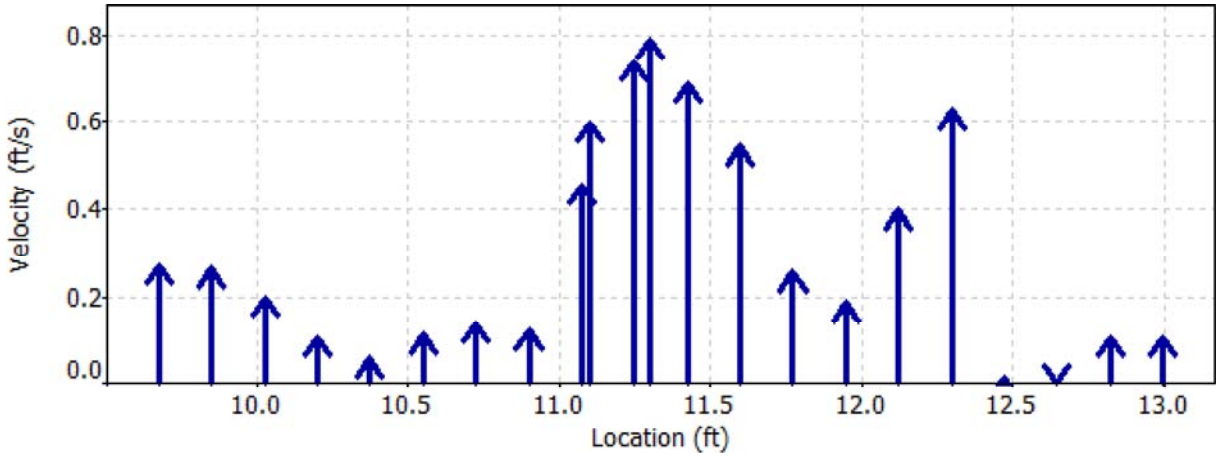
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

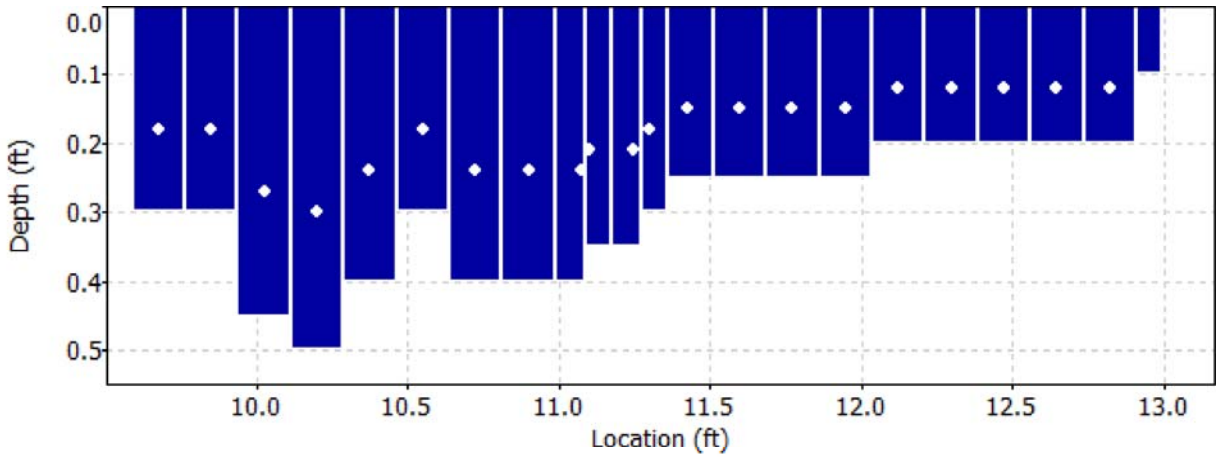
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M06A.WAD	Site Name	M06A
Start Date and Time	2017/09/26 14:44:25	Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M06A.WAD	Site Name	M06A
Start Date and Time	2017/09/26 14:44:25	Operator(s)	KB

Quality Control

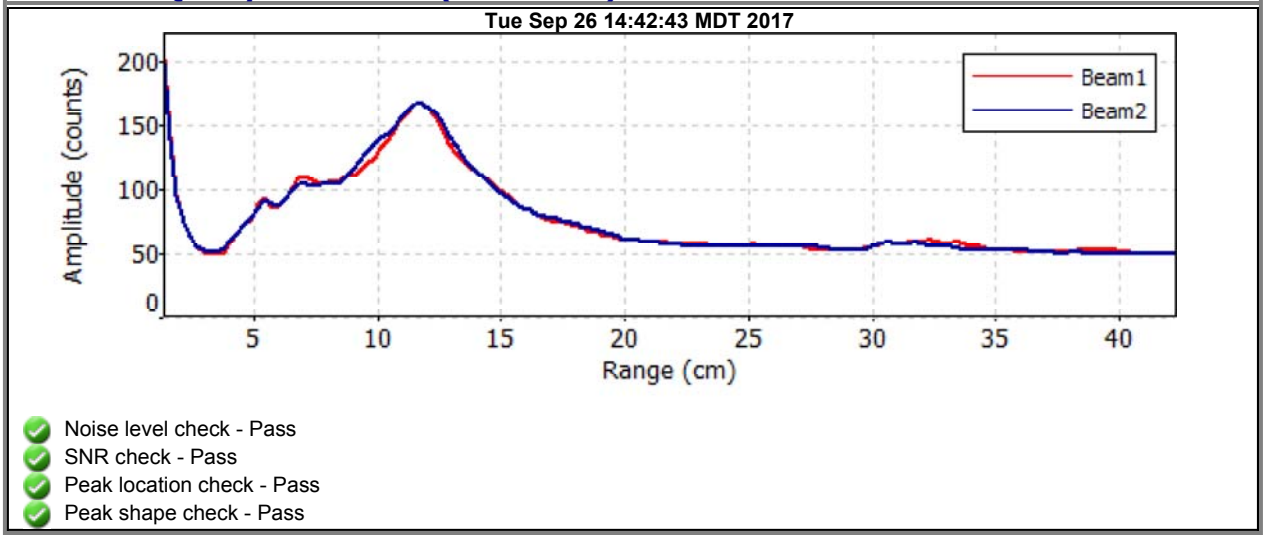
St	Loc	%Dep	Message
1	9.67	0.6	High angle: 21
2	9.85	0.6	High angle: 26
3	10.02	0.6	High angle: 40
4	10.20	0.6	High angle: 62
5	10.37	0.6	High angle: 73
6	10.55	0.6	High angle: 64
7	10.72	0.6	High angle: 45
8	10.90	0.6	High angle: 41
9	11.07	0.6	High standard error: 0.035
10	11.10	0.6	High standard error: 0.038
11	11.25	0.6	High standard error: 0.045
12	11.30	0.6	High standard error: 0.041
15	11.77	0.6	Boundary QC is Good; possible boundary interference
18	12.30	0.6	High differences in beam SNR: 47.2,34.8
		0.6	High standard error: 0.038
		0.6	Boundary QC is Fair; possible boundary interference
19	12.47	0.6	High SNR variation during measurement: 3.9,5.6
21	12.82	0.6	Boundary QC is Good; possible boundary interference

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M06A.WAD	Site Name	M06A
Start Date and Time	2017/09/26 14:44:25	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M06C.WAD
Start Date and Time	2017/09/26 14:11:33

Site Details

Site Name	M06C
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.8%
Velocity	1.2%	12.9%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.1%	-
Overall	**3.3%**	**13.3%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	REW	Total Width	2.500
Mean SNR	48.7 dB	Total Area	0.644
Mean Temp	45.38 °F	Mean Depth	0.257
Disch. Equation	Mid-Section	Mean Velocity	0.6094
		Total Discharge	**0.3923**

Measurement Results

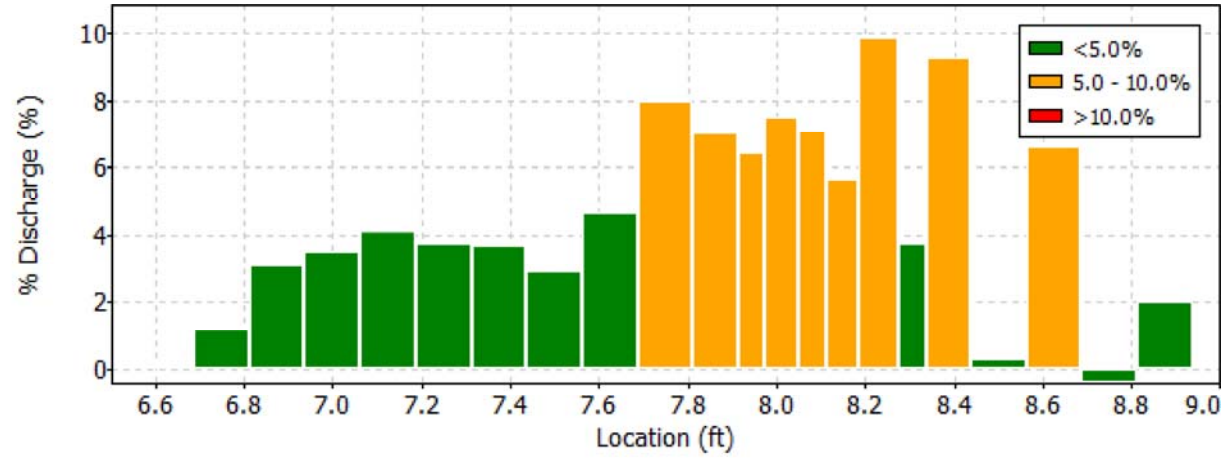
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:11	6.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	14:11	6.63	0.6	0.200	0.6	0.080	0.0194	1.00	0.0194	0.025	0.0005	0.1
2	14:12	6.75	0.6	0.200	0.6	0.080	0.1844	1.00	0.1844	0.025	0.0046	1.2
3	14:13	6.88	0.6	0.300	0.6	0.120	0.3255	1.00	0.3255	0.037	0.0122	3.1
4	14:14	7.00	0.6	0.300	0.6	0.120	0.3694	1.00	0.3694	0.037	0.0138	3.5
5	14:15	7.13	0.6	0.300	0.6	0.120	0.4265	1.00	0.4265	0.037	0.0160	4.1
6	14:15	7.25	0.6	0.300	0.6	0.120	0.3898	1.00	0.3898	0.037	0.0146	3.7
7	14:16	7.38	0.6	0.300	0.6	0.120	0.3839	1.00	0.3839	0.037	0.0144	3.7
8	14:17	7.50	0.6	0.300	0.6	0.120	0.3038	1.00	0.3038	0.037	0.0114	2.9
9	14:18	7.63	0.6	0.300	0.6	0.120	0.4859	1.00	0.4859	0.037	0.0182	4.6
10	14:19	7.75	0.6	0.300	0.6	0.120	0.8363	1.00	0.8363	0.037	0.0313	8.0
11	14:20	7.88	0.6	0.300	0.6	0.120	0.9157	1.00	0.9157	0.030	0.0275	7.0
12	14:31	7.95	0.6	0.300	0.6	0.120	1.3497	1.00	1.3497	0.019	0.0253	6.4
13	14:21	8.00	0.6	0.300	0.6	0.120	1.3084	1.00	1.3084	0.022	0.0294	7.5
14	*14:29*	*8.10*	*0.6*	*0.300*	*0.6*	*0.120*	*1.4856*	*1.00*	*1.4856*	*0.019*	*0.0278*	*7.1*
15	*14:21*	*8.13*	*0.6*	*0.300*	*0.6*	*0.120*	*0.9816*	*1.00*	*0.9816*	*0.022*	*0.0221*	*5.6*
16	*14:22*	*8.25*	*0.6*	*0.300*	*0.6*	*0.120*	*1.4783*	*1.00*	*1.4783*	*0.026*	*0.0388*	*9.9*
17	*14:30*	*8.30*	*0.6*	*0.200*	*0.6*	*0.080*	*1.1696*	*1.00*	*1.1696*	*0.013*	*0.0146*	*3.7*
18	*14:23*	*8.38*	*0.6*	*0.300*	*0.6*	*0.120*	*1.2129*	*1.00*	*1.2129*	*0.030*	*0.0364*	*9.3*
19	*14:24*	*8.50*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0318*	*1.00*	*0.0318*	*0.037*	*0.0012*	*0.3*
20	*14:25*	*8.63*	*0.6*	*0.200*	*0.6*	*0.080*	*1.0354*	*1.00*	*1.0354*	*0.025*	*0.0259*	*6.6*
21	*14:26*	*8.75*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0659*	*1.00*	*-0.0659*	*0.025*	*-0.0016*	*-0.4*
22	*14:27*	*8.88*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3136*	*1.00*	*0.3136*	*0.025*	*0.0078*	*2.0*
23	14:27	9.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

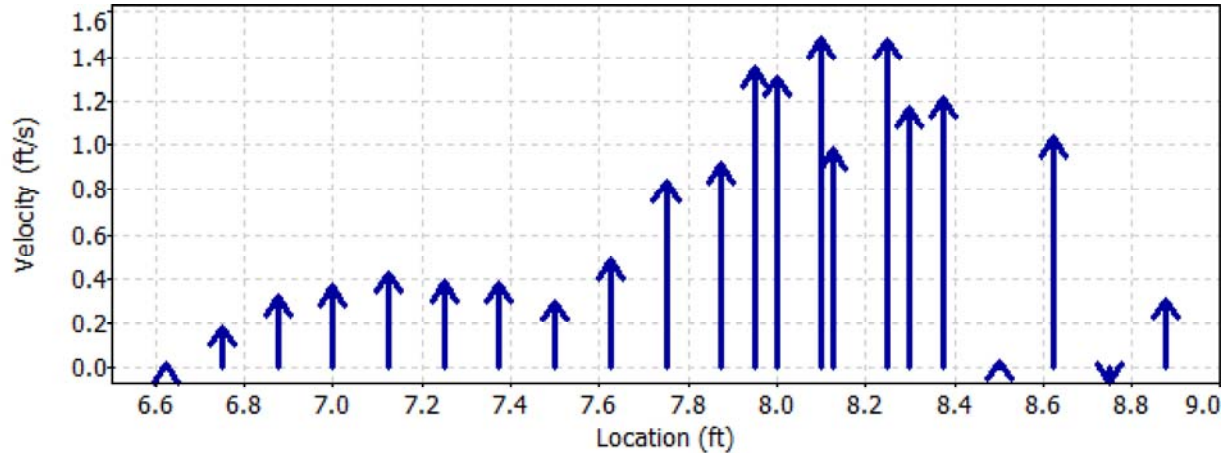
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

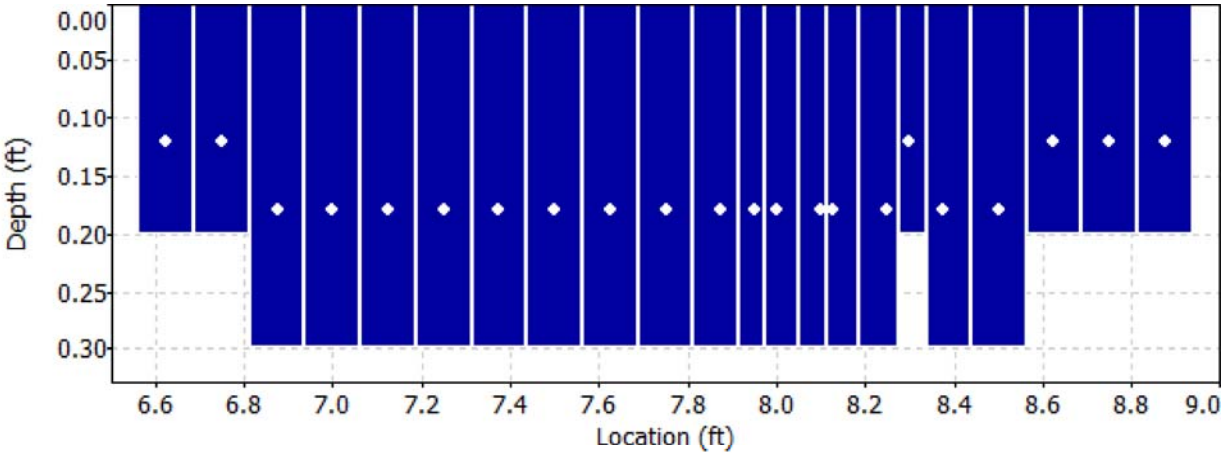
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M06C.WAD	Site Name	M06C
Start Date and Time	2017/09/26 14:11:33	Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M06C.WAD	Site Name	M06C
Start Date and Time	2017/09/26 14:11:33	Operator(s)	KB

Quality Control

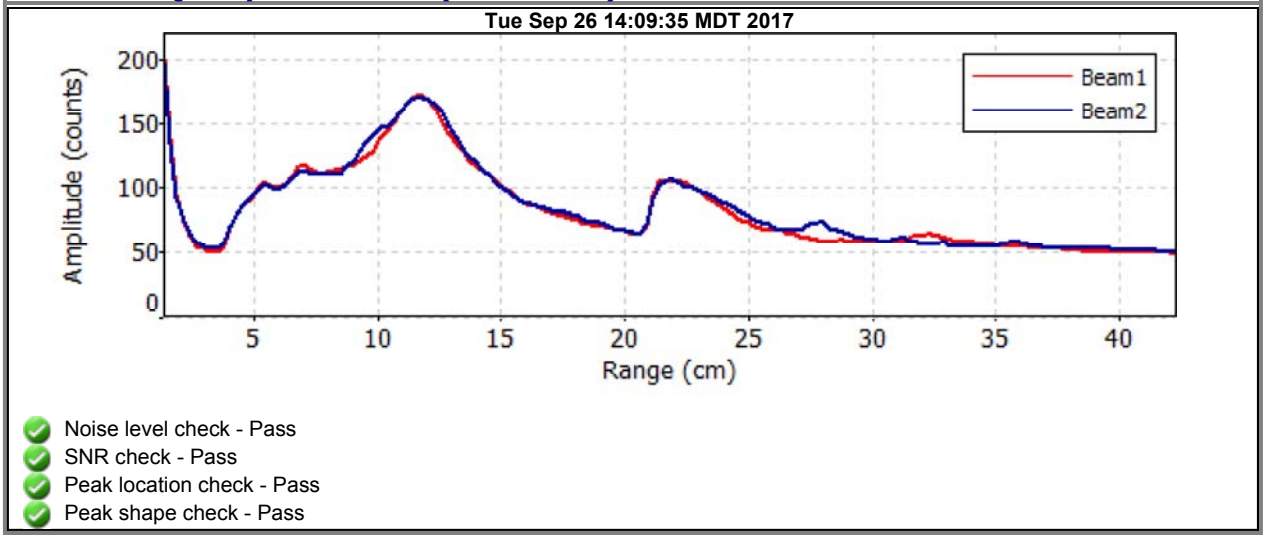
St	Loc	%Dep	Message
14	8.10	0.6	High standard error: 0.082
15	8.13	0.6	High number of spikes: 6
16	8.25	0.6	High number of spikes: 5
17	8.30	0.6	Boundary QC is Good; possible boundary interference
18	8.38	0.6	High number of spikes: 5
		0.6	Boundary QC is Good; possible boundary interference
19	8.50	0.6	High SNR variation during measurement: 7.7,9.0
		0.6	Boundary QC is Fair; possible boundary interference
20	8.63	0.6	Boundary QC is Good; possible boundary interference
21	8.75	0.6	High angle: -149
		0.6	High differences in beam SNR: 33.1,45.5
		0.6	Boundary QC is Good; possible boundary interference
22	8.88	0.6	High differences in beam SNR: 24.9,49.0
		0.6	SNR (37.0) is different from typical SNR (48.7)
		0.6	Boundary QC is Fair; possible boundary interference

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M06C.WAD	Site Name	M06C
Start Date and Time	2017/09/26 14:11:33	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M06D.WAD
Start Date and Time	2017/09/26 13:42:10

Site Details

Site Name	M06D
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.7%
Velocity	0.9%	6.4%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.2%	-
Overall	**3.3%**	**6.7%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	5.000
Mean SNR	44.4 dB	Total Area	2.666
Mean Temp	41.32 °F	Mean Depth	0.533
Disch. Equation	Mid-Section	Mean Velocity	0.3879
		Total Discharge	**1.0344**

Measurement Results

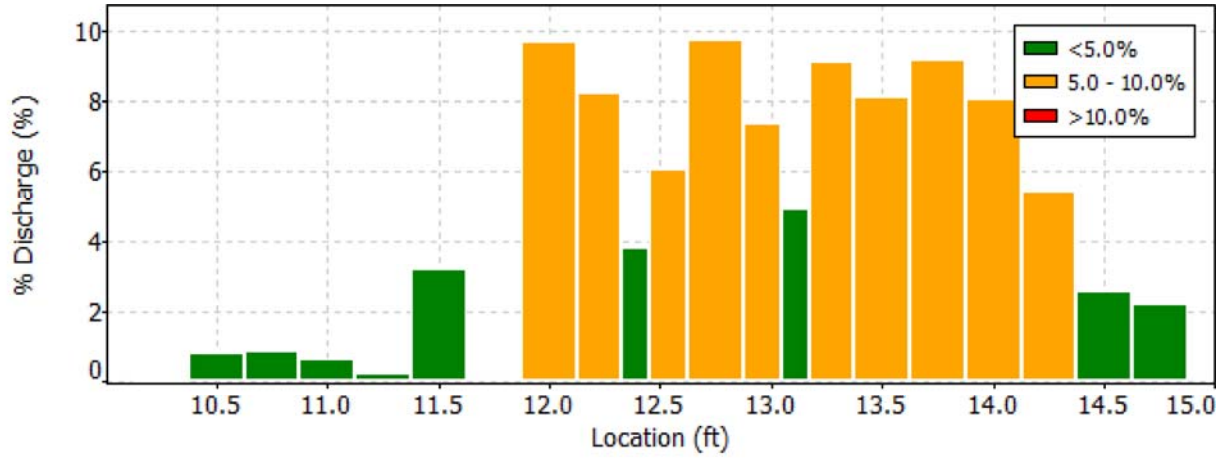
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:42	10.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	13:42	10.25	0.6	0.350	0.6	0.140	-0.0082	1.00	-0.0082	0.088	-0.0007	-0.1
2	13:43	10.50	0.6	0.400	0.6	0.160	0.0817	1.00	0.0817	0.100	0.0082	0.8
3	13:44	10.75	0.6	0.450	0.6	0.180	0.0794	1.00	0.0794	0.113	0.0089	0.9
4	13:44	11.00	0.6	0.400	0.6	0.160	0.0633	1.00	0.0633	0.100	0.0063	0.6
5	13:45	11.25	0.6	0.500	0.6	0.200	0.0197	1.00	0.0197	0.125	0.0025	0.2
6	*13:46*	*11.50*	*0.6*	*0.550*	*0.6*	*0.220*	*0.2385*	*1.00*	*0.2385*	*0.137*	*0.0328*	*3.2*
7	*13:47*	*11.75*	*0.6*	*0.650*	*0.6*	*0.260*	*-0.0007*	*1.00*	*-0.0007*	*0.162*	*-0.0001*	*0.0*
8	13:48	12.00	0.6	0.750	0.6	0.300	0.5358	1.00	0.5358	0.188	0.1005	9.7
9	13:49	12.25	0.6	0.750	0.6	0.300	0.5656	1.00	0.5656	0.150	0.0848	8.2
10	14:01	12.40	0.6	0.700	0.6	0.280	0.4488	1.00	0.4488	0.088	0.0393	3.8
11	13:51	12.50	0.6	0.700	0.6	0.280	0.5108	1.00	0.5108	0.123	0.0626	6.1
12	13:52	12.75	0.6	0.700	0.6	0.280	0.5771	1.00	0.5771	0.175	0.1010	9.8
13	13:53	13.00	0.6	0.800	0.6	0.320	0.5413	1.00	0.5413	0.140	0.0758	7.3
14	14:02	13.10	0.6	0.750	0.6	0.300	0.5436	1.00	0.5436	0.094	0.0510	4.9
15	13:54	13.25	0.6	0.800	0.6	0.320	0.5902	1.00	0.5902	0.160	0.0944	9.1
16	13:55	13.50	0.6	0.750	0.6	0.300	0.4475	1.00	0.4475	0.188	0.0839	8.1
17	13:56	13.75	0.6	0.700	0.6	0.280	0.5407	1.00	0.5407	0.175	0.0946	9.1
18	13:57	14.00	0.6	0.650	0.6	0.260	0.5108	1.00	0.5108	0.162	0.0830	8.0
19	13:58	14.25	0.6	0.400	0.6	0.160	0.5604	1.00	0.5604	0.100	0.0560	5.4
20	13:59	14.50	0.6	0.200	0.6	0.080	0.5315	1.00	0.5315	0.050	0.0266	2.6
21	13:59	14.75	0.6	0.200	0.6	0.080	0.4603	1.00	0.4603	0.050	0.0230	2.2
22	13:59	15.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

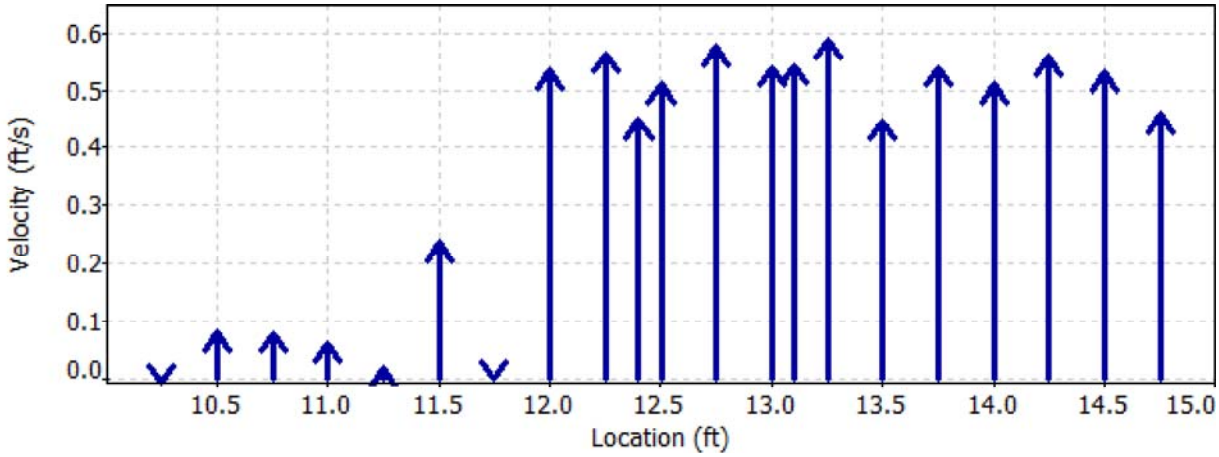
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

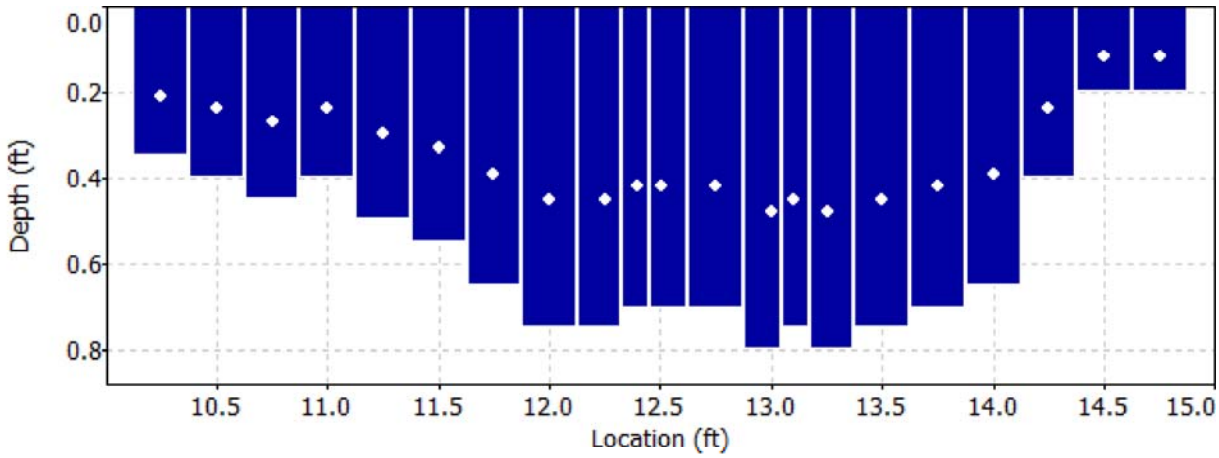
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M06D.WAD	Site Name	M06D
Start Date and Time	2017/09/26 13:42:10	Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M06D.WAD	Site Name	M06D
Start Date and Time	2017/09/26 13:42:10	Operator(s)	KB

Quality Control

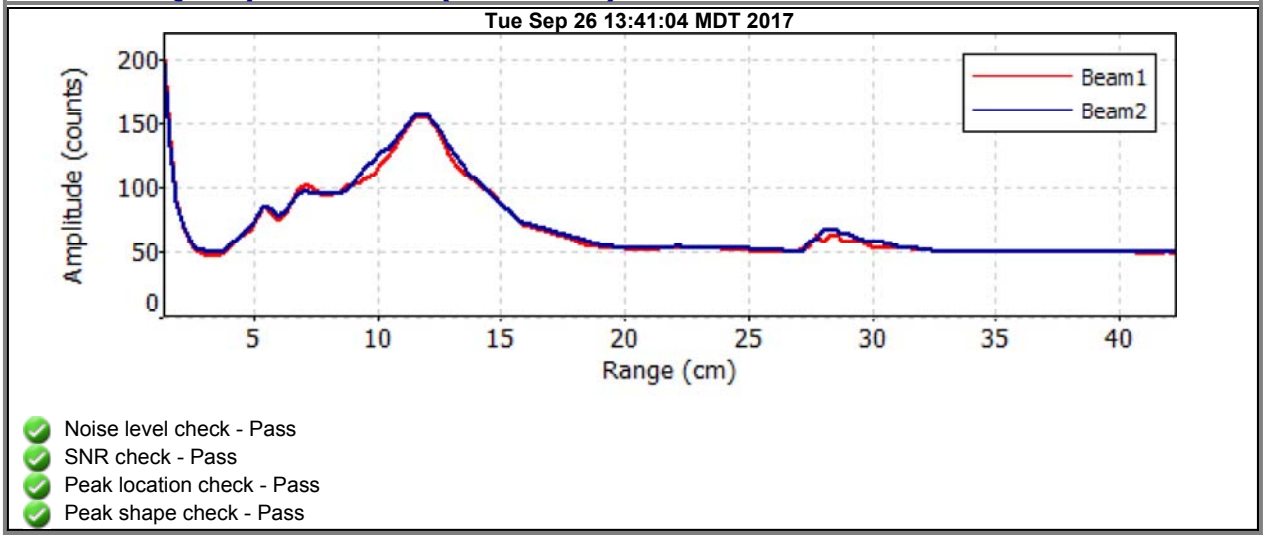
St	Loc	%Dep	Message
6	11.50	0.6	High differences in beam SNR: 43.4,16.7
		0.6	SNR (30.1) is different from typical SNR (44.4)
7	11.75	0.6	SNR (68.4) is different from typical SNR (44.4)
		0.6	High SNR variation during measurement: 5.6,4.3

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M06D.WAD	Site Name	M06D
Start Date and Time	2017/09/26 13:42:10	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M07.WAD
Start Date and Time	2017/09/28 13:38:39

Site Details

Site Name	M07
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	3.3%
Velocity	1.3%	8.4%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.3%	-
Overall	**3.4%**	**9.1%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	10.000
Mean SNR	42.5 dB	Total Area	2.932
Mean Temp	41.00 °F	Mean Depth	0.293
Disch. Equation	Mid-Section	Mean Velocity	0.8294
		Total Discharge	**2.4318**

Measurement Results

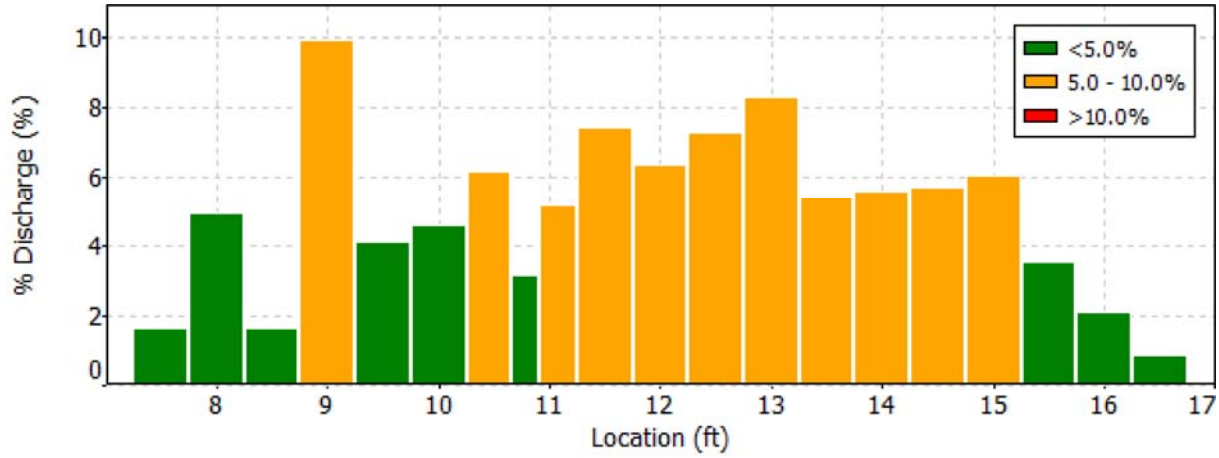
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:38	7.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	13:38	7.50	0.6	0.250	0.6	0.100	0.3212	1.00	0.3212	0.125	0.0401	1.7
2	13:39	8.00	0.6	0.300	0.6	0.120	0.8022	1.00	0.8022	0.150	0.1203	4.9
3	13:41	8.50	0.6	0.350	0.6	0.140	0.2277	1.00	0.2277	0.175	0.0399	1.6
4	13:42	9.00	0.6	0.350	0.6	0.140	1.3858	1.00	1.3858	0.175	0.2426	10.0
5	13:43	9.50	0.6	0.250	0.6	0.100	0.8025	1.00	0.8025	0.125	0.1003	4.1
6	13:44	10.00	0.6	0.350	0.6	0.140	0.6398	1.00	0.6398	0.175	0.1120	4.6
7	13:45	10.50	0.6	0.350	0.6	0.140	1.0725	1.00	1.0725	0.140	0.1502	6.2
8	13:58	10.80	0.6	0.350	0.6	0.140	0.8707	1.00	0.8707	0.088	0.0762	3.1
9	13:46	11.00	0.6	0.300	0.6	0.120	1.2037	1.00	1.2037	0.105	0.1264	5.2
10	13:47	11.50	0.6	0.300	0.6	0.120	1.2051	1.00	1.2051	0.150	0.1807	7.4
11	*13:48*	*12.00*	*0.6*	*0.250*	*0.6*	*0.100*	*1.2283*	*1.00*	*1.2283*	*0.125*	*0.1535*	*6.3*
12	13:48	12.50	0.6	0.250	0.6	0.100	1.4150	1.00	1.4150	0.125	0.1769	7.3
13	*13:50*	*13.00*	*0.6*	*0.400*	*0.6*	*0.160*	*1.0052*	*1.00*	*1.0052*	*0.200*	*0.2010*	*8.3*
14	*13:51*	*13.50*	*0.6*	*0.400*	*0.6*	*0.160*	*0.6601*	*1.00*	*0.6601*	*0.200*	*0.1320*	*5.4*
15	13:52	14.00	0.6	0.250	0.6	0.100	1.0889	1.00	1.0889	0.125	0.1361	5.6
16	13:53	14.50	0.6	0.300	0.6	0.120	0.9186	1.00	0.9186	0.150	0.1377	5.7
17	13:54	15.00	0.6	0.300	0.6	0.120	0.9806	1.00	0.9806	0.150	0.1470	6.0
18	*13:55*	*15.50*	*0.6*	*0.300*	*0.6*	*0.120*	*0.5801*	*1.00*	*0.5801*	*0.150*	*0.0870*	*3.6*
19	13:56	16.00	0.6	0.300	0.6	0.120	0.3458	1.00	0.3458	0.150	0.0518	2.1
20	*13:57*	*16.50*	*0.6*	*0.300*	*0.6*	*0.120*	*0.1342*	*1.00*	*0.1342*	*0.150*	*0.0201*	*0.8*
21	13:57	17.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

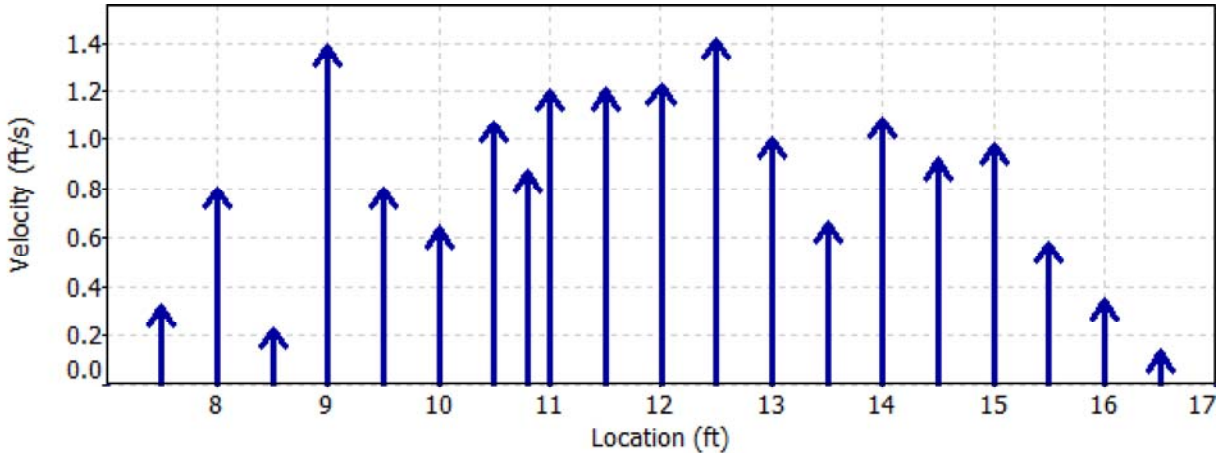
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

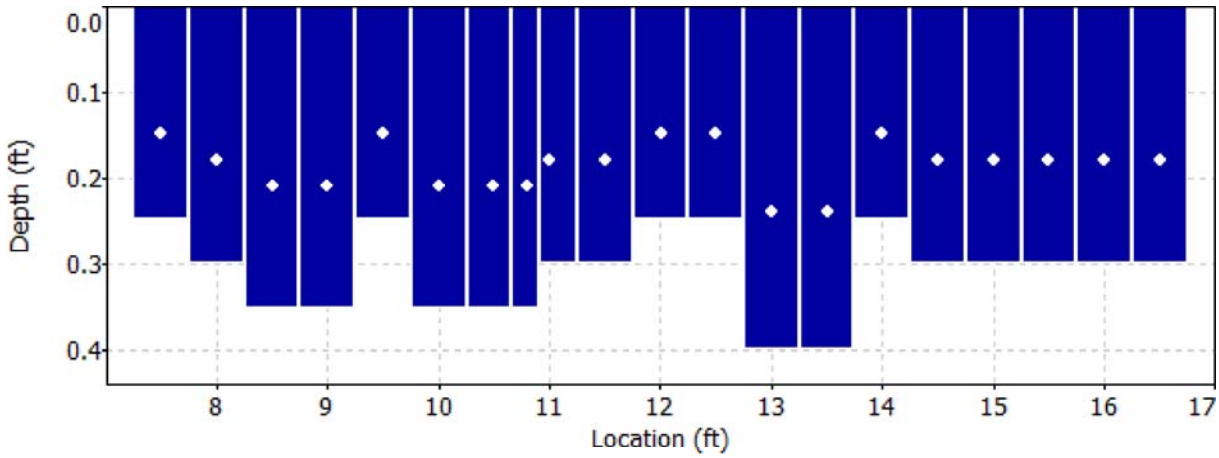
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M07.WAD	Site Name	M07
Start Date and Time	2017/09/28 13:38:39	Operator(s)	RB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information	
File Name	M07.WAD
Start Date and Time	2017/09/28 13:38:39

Site Details	
Site Name	M07
Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
11	12.00	0.6	High angle: 22
13	13.00	0.6	High standard error: 0.088
14	13.50	0.6	High angle: -22
18	15.50	0.6	High standard error: 0.099
20	16.50	0.6	High angle: 48

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M10A.WAD
Start Date and Time	2017/09/28 13:04:25

Site Details

Site Name	M10A
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	3.7%
Velocity	1.5%	6.1%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**3.5%**	**7.2%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	9.003
Mean SNR	39.5 dB	Total Area	3.228
Mean Temp	43.08 °F	Mean Depth	0.359
Disch. Equation	Mid-Section	Mean Velocity	0.8294
		Total Discharge	**2.6773**

Measurement Results

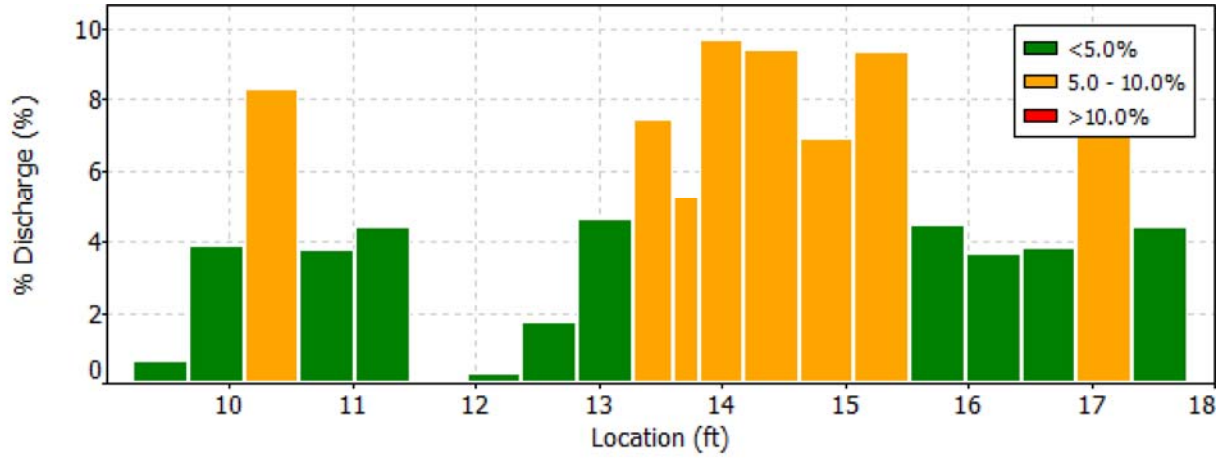
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:04	9.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*13:04*	*9.45*	*0.6*	*0.300*	*0.6*	*0.120*	*0.1227*	*1.00*	*0.1227*	*0.135*	*0.0166*	*0.6*
2	*13:05*	*9.90*	*0.6*	*0.400*	*0.6*	*0.160*	*0.5784*	*1.00*	*0.5784*	*0.180*	*0.1041*	*3.9*
3	*13:06*	*10.35*	*0.6*	*0.400*	*0.6*	*0.160*	*1.2293*	*1.00*	*1.2293*	*0.180*	*0.2213*	*8.3*
4	13:07	10.80	0.6	0.350	0.6	0.140	0.6450	1.00	0.6450	0.158	0.1016	3.8
5	13:08	11.25	0.6	0.450	0.6	0.180	0.5830	1.00	0.5830	0.203	0.1181	4.4
6	13:09	11.70	0.6	0.500	0.6	0.200	-0.0016	1.00	-0.0016	0.225	-0.0004	0.0
7	*13:09*	*12.15*	*0.6*	*0.400*	*0.6*	*0.160*	*0.0479*	*1.00*	*0.0479*	*0.180*	*0.0086*	*0.3*
8	*13:10*	*12.60*	*0.6*	*0.400*	*0.6*	*0.160*	*0.2651*	*1.00*	*0.2651*	*0.180*	*0.0477*	*1.8*
9	13:11	13.05	0.6	0.450	0.6	0.180	0.6089	1.00	0.6089	0.203	0.1234	4.6
10	13:12	13.50	0.6	0.500	0.6	0.200	1.2280	1.00	1.2280	0.162	0.1992	7.4
11	*13:22*	*13.70*	*0.6*	*0.500*	*0.6*	*0.200*	*1.2530*	*1.00*	*1.2530*	*0.113*	*0.1410*	*5.3*
12	13:13	13.95	0.6	0.400	0.6	0.160	1.8540	1.00	1.8540	0.140	0.2601	9.7
13	*13:14*	*14.40*	*0.6*	*0.400*	*0.6*	*0.160*	*1.4029*	*1.00*	*1.4029*	*0.180*	*0.2526*	*9.4*
14	*13:15*	*14.85*	*0.6*	*0.350*	*0.6*	*0.140*	*1.1690*	*1.00*	*1.1690*	*0.158*	*0.1842*	*6.9*
15	*13:16*	*15.30*	*0.6*	*0.400*	*0.6*	*0.160*	*1.3914*	*1.00*	*1.3914*	*0.180*	*0.2505*	*9.4*
16	*13:17*	*15.75*	*0.6*	*0.300*	*0.6*	*0.120*	*0.8891*	*1.00*	*0.8891*	*0.135*	*0.1200*	*4.5*
17	*13:18*	*16.20*	*0.6*	*0.300*	*0.6*	*0.120*	*0.7241*	*1.00*	*0.7241*	*0.135*	*0.0977*	*3.7*
18	*13:19*	*16.65*	*0.6*	*0.250*	*0.6*	*0.100*	*0.9199*	*1.00*	*0.9199*	*0.113*	*0.1035*	*3.9*
19	*13:20*	*17.10*	*0.6*	*0.400*	*0.6*	*0.160*	*1.1601*	*1.00*	*1.1601*	*0.180*	*0.2088*	*7.8*
20	13:21	17.55	0.6	0.200	0.6	0.080	1.3163	1.00	1.3163	0.090	0.1186	4.4
21	13:21	18.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

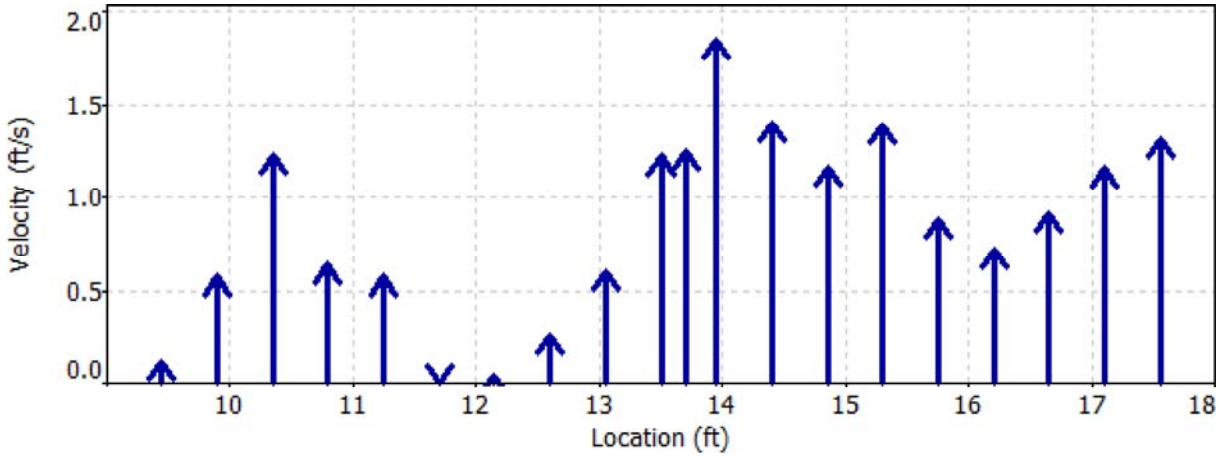
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

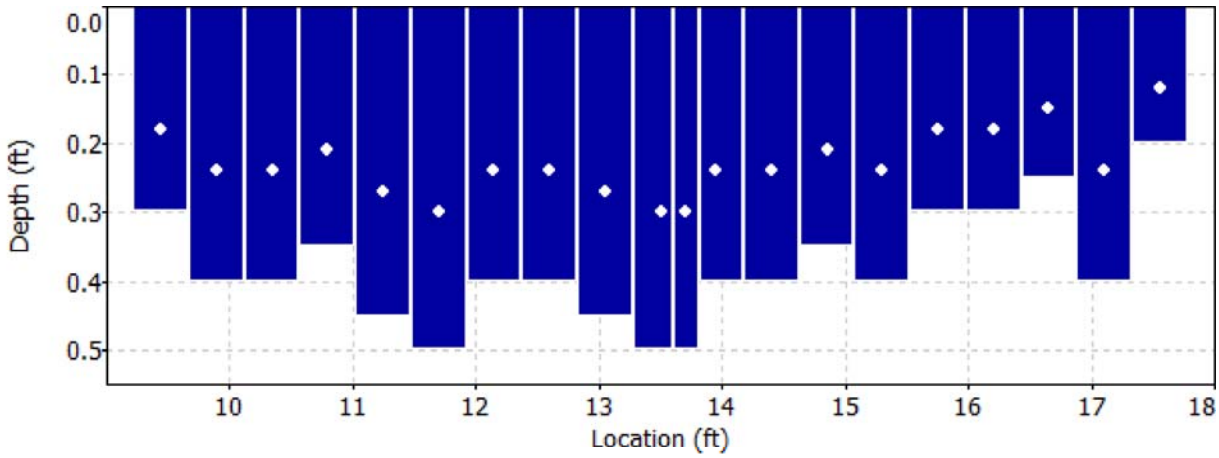
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M10A.WAD	Site Name	M10A
Start Date and Time	2017/09/28 13:04:25	Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M10A.WAD	Site Name	M10A
Start Date and Time	2017/09/28 13:04:25	Operator(s)	KB

Quality Control

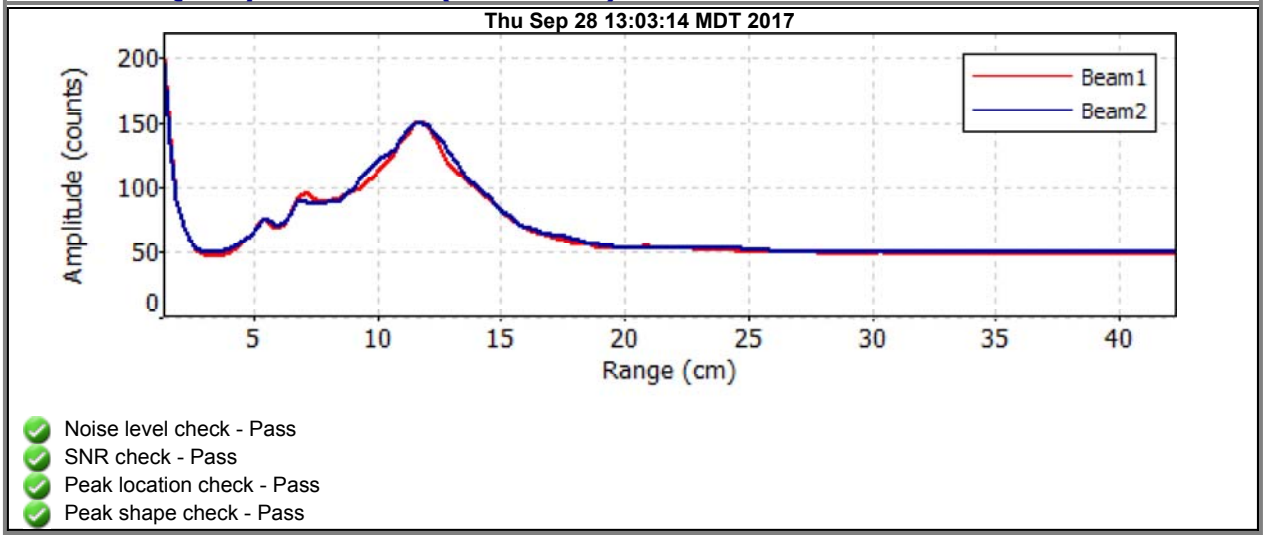
St	Loc	%Dep	Message
1	9.45	0.6	High angle: 46
2	9.90	0.6	High standard error: 0.095
3	10.35	0.6	High standard error: 0.088
7	12.15	0.6	High angle: -55
8	12.60	0.6	High angle: -21
11	13.70	0.6	High standard error: 0.093
13	14.40	0.6	Boundary QC is Fair; possible boundary interference
14	14.85	0.6	High standard error: 0.096
15	15.30	0.6	High angle: 43
		0.6	Boundary QC is Fair; possible boundary interference
16	15.75	0.6	High angle: 45
17	16.20	0.6	High angle: 30
18	16.65	0.6	High angle: 28
19	17.10	0.6	Boundary QC is Fair; possible boundary interference

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M10A.WAD	Site Name	M10A
Start Date and Time	2017/09/28 13:04:25	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M13A.WAD
Start Date and Time	2017/09/28 11:33:29

Site Details

Site Name	M13A
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.6%
Velocity	1.2%	9.0%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**3.4%**	**9.2%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	9.000
Mean SNR	41.3 dB	Total Area	4.870
Mean Temp	45.84 °F	Mean Depth	0.541
Disch. Equation	Mid-Section	Mean Velocity	1.5826
		Total Discharge	**7.7072**

Measurement Results

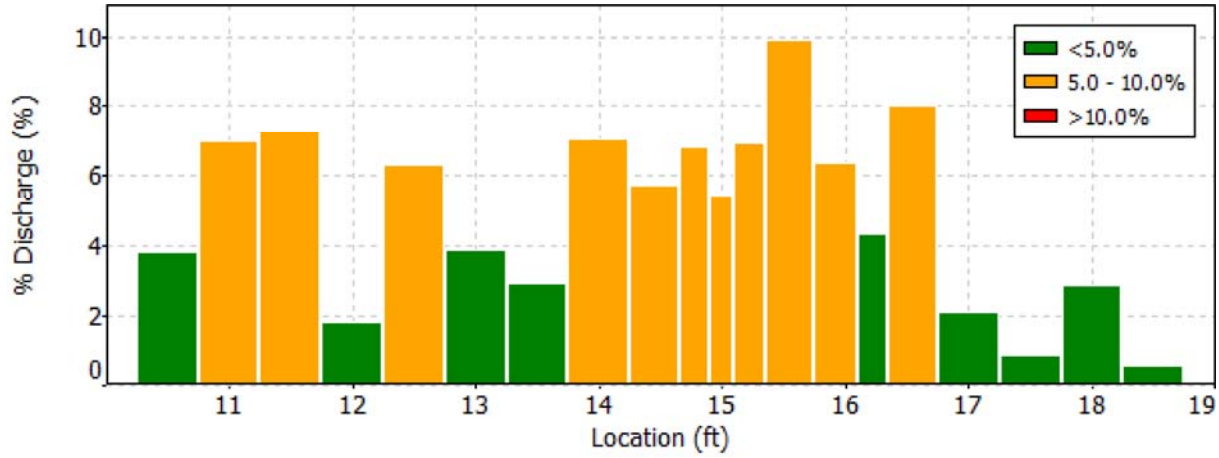
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:33	10.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	11:33	10.50	0.6	0.450	0.6	0.180	1.3117	1.00	1.3117	0.225	0.2952	3.8
2	11:34	11.00	0.6	0.500	0.6	0.200	2.1562	1.00	2.1562	0.250	0.5390	7.0
3	*11:35*	*11.50*	*0.6*	*0.500*	*0.6*	*0.200*	*2.2388*	*1.00*	*2.2388*	*0.250*	*0.5597*	*7.3*
4	11:36	12.00	0.6	0.500	0.6	0.200	0.5620	1.00	0.5620	0.250	0.1405	1.8
5	11:37	12.50	0.6	0.400	0.6	0.160	2.4236	1.00	2.4236	0.200	0.4846	6.3
6	11:38	13.00	0.6	0.450	0.6	0.180	1.3369	1.00	1.3369	0.225	0.3009	3.9
7	11:39	13.50	0.6	0.500	0.6	0.200	0.9035	1.00	0.9035	0.250	0.2259	2.9
8	*11:40*	*14.00*	*0.6*	*0.700*	*0.6*	*0.280*	*1.5456*	*1.00*	*1.5456*	*0.350*	*0.5411*	*7.0*
9	*11:41*	*14.50*	*0.6*	*0.800*	*0.6*	*0.320*	*1.3802*	*1.00*	*1.3802*	*0.320*	*0.4415*	*5.7*
10	11:54	14.80	0.6	0.750	0.6	0.300	2.8104	1.00	2.8104	0.188	0.5269	6.8
11	11:42	15.00	0.6	0.800	0.6	0.320	2.6306	1.00	2.6306	0.160	0.4211	5.5
12	11:52	15.20	0.6	0.800	0.6	0.320	2.6762	1.00	2.6762	0.200	0.5351	6.9
13	11:44	15.50	0.6	0.850	0.6	0.340	2.2526	1.00	2.2526	0.340	0.7658	9.9
14	11:45	16.00	0.6	0.700	0.6	0.280	1.9905	1.00	1.9905	0.245	0.4879	6.3
15	11:53	16.20	0.6	0.650	0.6	0.260	2.0738	1.00	2.0738	0.162	0.3370	4.4
16	11:46	16.50	0.6	0.700	0.6	0.280	2.2018	1.00	2.2018	0.280	0.6165	8.0
17	*11:47*	*17.00*	*0.6*	*0.650*	*0.6*	*0.260*	*0.4921*	*1.00*	*0.4921*	*0.325*	*0.1599*	*2.1*
18	*11:48*	*17.50*	*0.6*	*0.550*	*0.6*	*0.220*	*0.2415*	*1.00*	*0.2415*	*0.275*	*0.0664*	*0.9*
19	11:49	18.00	0.6	0.400	0.6	0.160	1.0928	1.00	1.0928	0.200	0.2185	2.8
20	11:50	18.50	0.6	0.350	0.6	0.140	0.2487	1.00	0.2487	0.175	0.0435	0.6
21	11:50	19.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

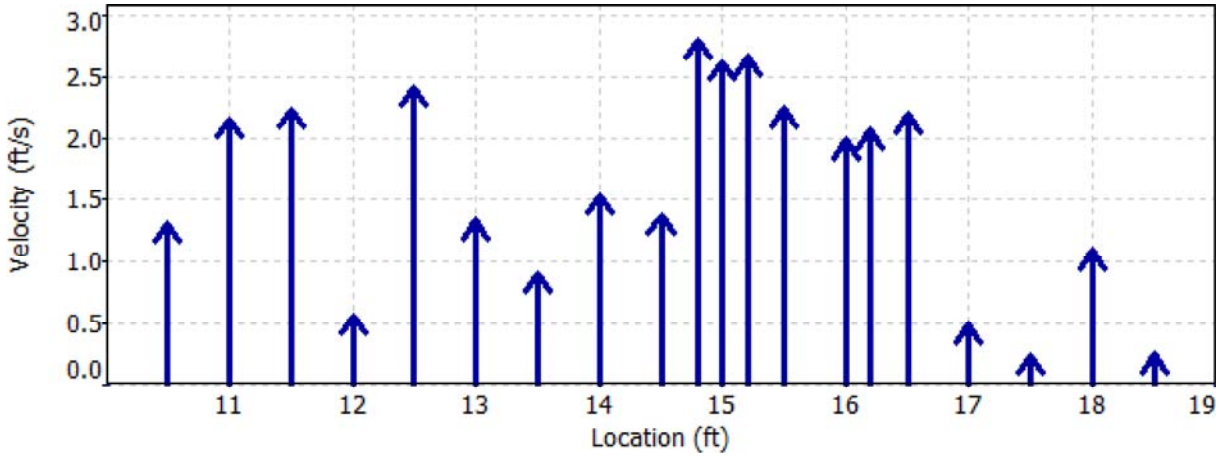
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

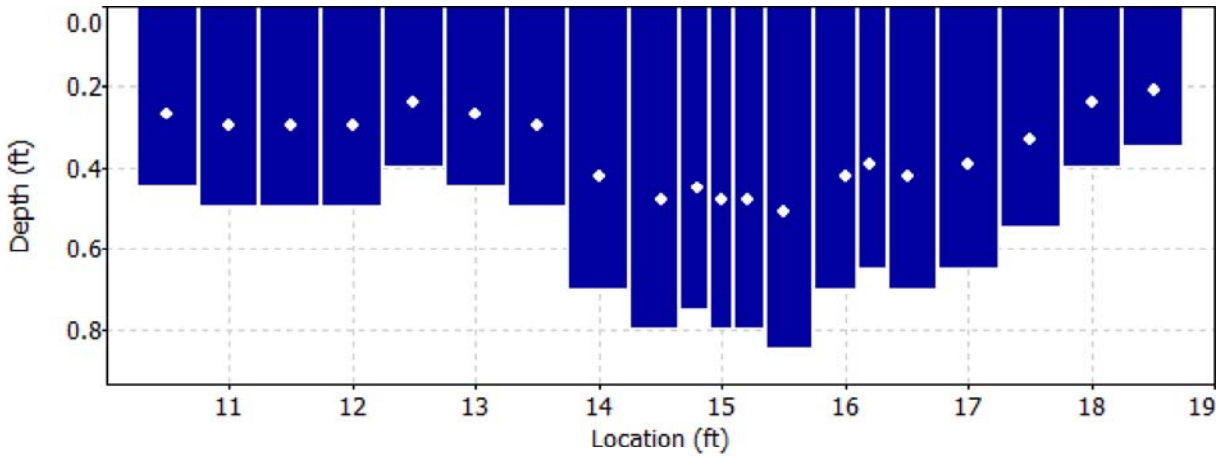
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M13A.WAD	Site Name	M13A
Start Date and Time	2017/09/28 11:33:29	Operator(s)	RB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M13A.WAD	Site Name	M13A
Start Date and Time	2017/09/28 11:33:29	Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
3	11.50	0.6	High angle: -22
8	14.00	0.6	High number of spikes: 6
9	14.50	0.6	High standard error: 0.110
17	17.00	0.6	High angle: -22
18	17.50	0.6	High number of spikes: 5

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M13B.WAD
Start Date and Time	2017/09/27 16:24:38

Site Details

Site Name	M13B
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.2%
Velocity	1.4%	9.8%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.4%	-
Overall	**3.6%**	**10.1%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	REW	Total Width	15.997
Mean SNR	39.2 dB	Total Area	8.159
Mean Temp	40.75 °F	Mean Depth	0.510
Disch. Equation	Mid-Section	Mean Velocity	1.0804
		Total Discharge	**8.8150**

Measurement Results

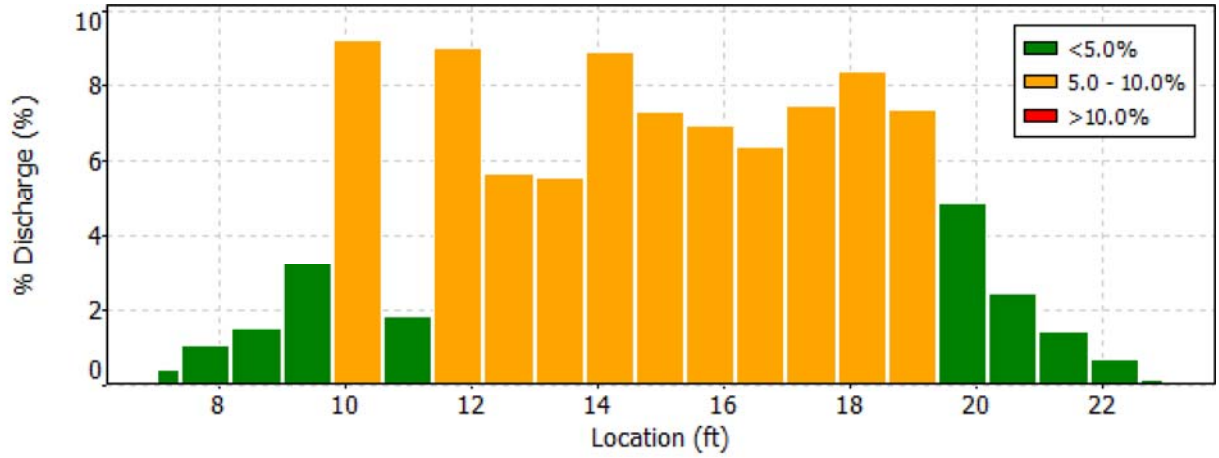
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	16:24	7.00	None	0.200	0.0	0.0	0.0000	1.00	0.4652	0.080	0.0372	0.4
1	*16:24*	*7.80*	*0.6*	*0.250*	*0.6*	*0.100*	*0.4652*	*1.00*	*0.4652*	*0.200*	*0.0930*	*1.1*
2	*16:25*	*8.60*	*0.6*	*0.300*	*0.6*	*0.120*	*0.5597*	*1.00*	*0.5597*	*0.240*	*0.1342*	*1.5*
3	*16:26*	*9.40*	*0.6*	*0.500*	*0.6*	*0.200*	*0.7211*	*1.00*	*0.7211*	*0.400*	*0.2884*	*3.3*
4	*16:27*	*10.20*	*0.6*	*0.550*	*0.6*	*0.220*	*1.8573*	*1.00*	*1.8573*	*0.440*	*0.8169*	*9.3*
5	16:28	11.00	0.6	0.600	0.6	0.240	0.3445	1.00	0.3445	0.480	0.1653	1.9
6	*16:29*	*11.80*	*0.6*	*0.600*	*0.6*	*0.240*	*1.6624*	*1.00*	*1.6624*	*0.480*	*0.7979*	*9.1*
7	16:30	12.60	0.6	0.500	0.6	0.200	1.2434	1.00	1.2434	0.400	0.4973	5.6
8	16:31	13.40	0.6	0.650	0.6	0.260	0.9446	1.00	0.9446	0.520	0.4910	5.6
9	16:32	14.20	0.6	0.700	0.6	0.280	1.4072	1.00	1.4072	0.560	0.7880	8.9
10	16:33	15.00	0.6	0.700	0.6	0.280	1.1552	1.00	1.1552	0.560	0.6469	7.3
11	16:34	15.80	0.6	0.600	0.6	0.240	1.2730	1.00	1.2730	0.480	0.6110	6.9
12	16:35	16.60	0.6	0.700	0.6	0.280	1.0000	1.00	1.0000	0.560	0.5600	6.4
13	16:36	17.40	0.6	0.600	0.6	0.240	1.3734	1.00	1.3734	0.480	0.6592	7.5
14	*16:37*	*18.20*	*0.6*	*0.550*	*0.6*	*0.220*	*1.6844*	*1.00*	*1.6844*	*0.440*	*0.7408*	*8.4*
15	16:38	19.00	0.6	0.500	0.6	0.200	1.6230	1.00	1.6230	0.400	0.6491	7.4
16	16:39	19.80	0.6	0.500	0.6	0.200	1.0709	1.00	1.0709	0.400	0.4283	4.9
17	16:40	20.60	0.6	0.500	0.6	0.200	0.5387	1.00	0.5387	0.400	0.2155	2.4
18	*16:41*	*21.40*	*0.6*	*0.450*	*0.6*	*0.180*	*0.3510*	*1.00*	*0.3510*	*0.360*	*0.1264*	*1.4*
19	*16:42*	*22.20*	*0.6*	*0.300*	*0.6*	*0.120*	*0.2444*	*1.00*	*0.2444*	*0.240*	*0.0586*	*0.7*
20	16:42	23.00	None	0.100	0.0	0.0	0.0000	1.00	0.2444	0.040	0.0098	0.1

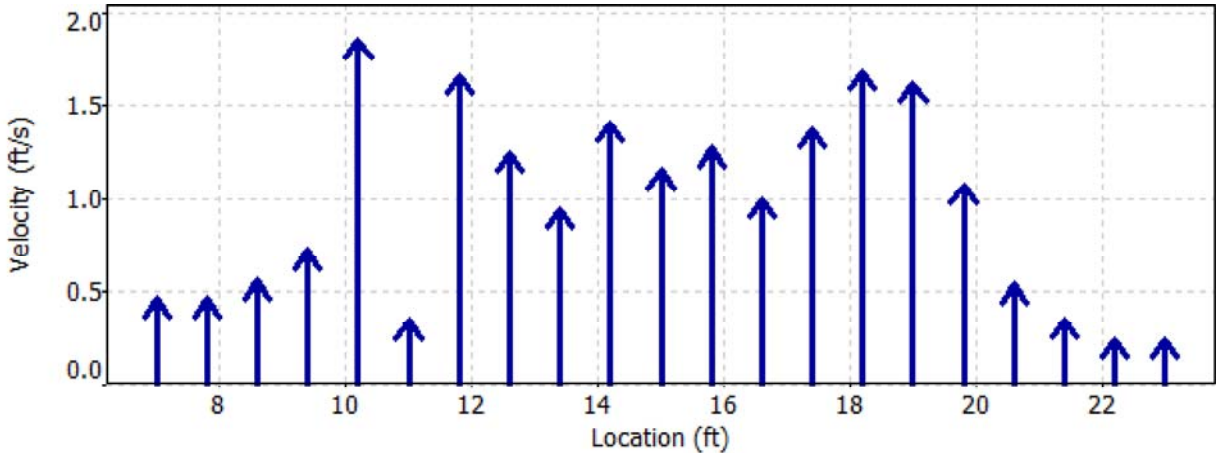
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

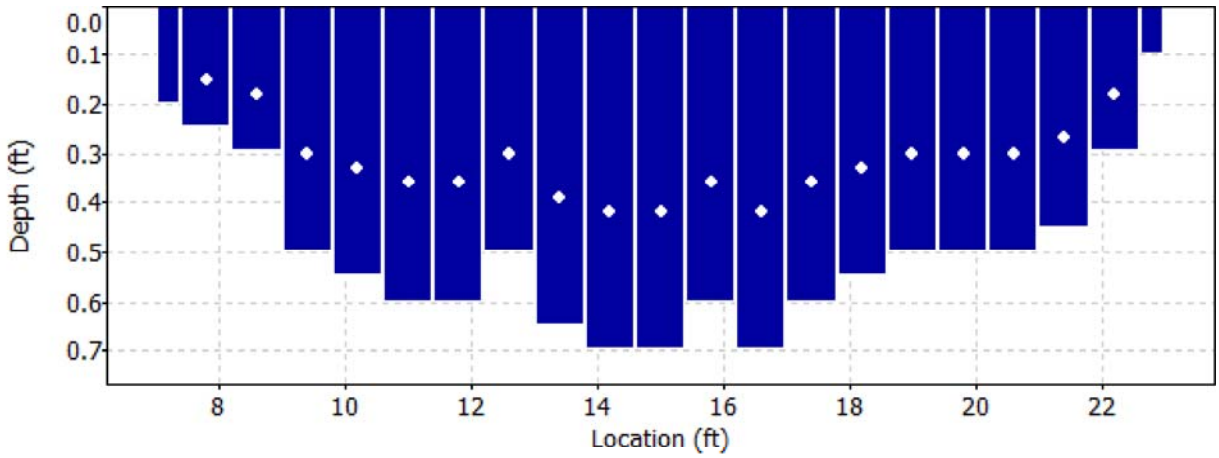
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M13B.WAD	Site Name	M13B
Start Date and Time	2017/09/27 16:24:38	Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M13B.WAD	Site Name	M13B
Start Date and Time	2017/09/27 16:24:38	Operator(s)	KB

Quality Control

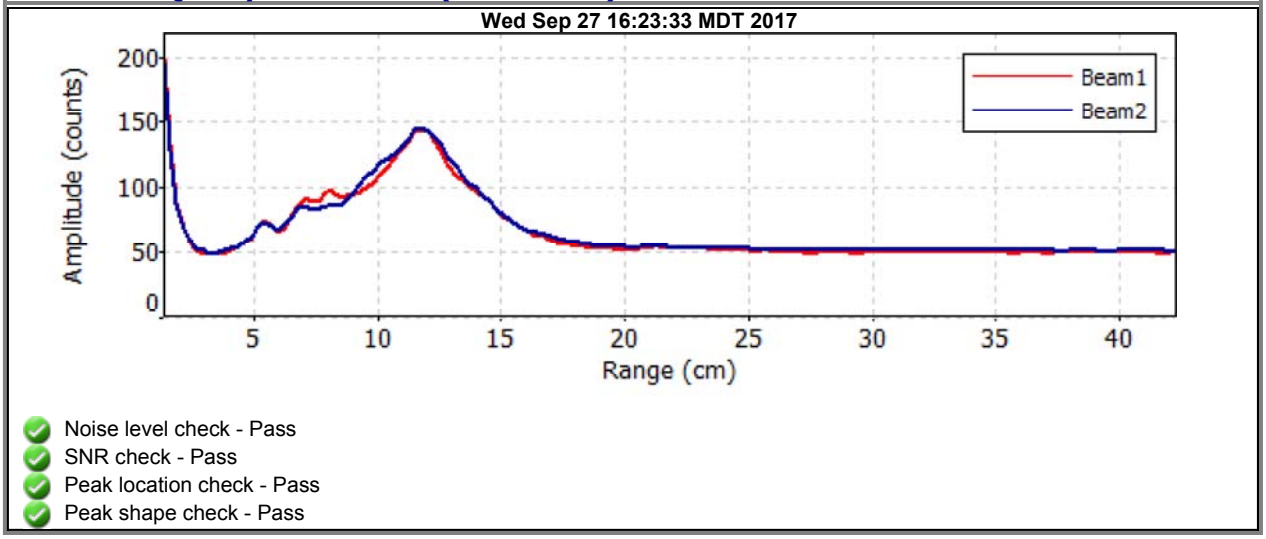
St	Loc	%Dep	Message
1	7.80	0.6	High angle: -37
2	8.60	0.6	High standard error: 0.102
3	9.40	0.6	High standard error: 0.105
4	10.20	0.6	High standard error: 0.119
6	11.80	0.6	High standard error: 0.113
14	18.20	0.6	High number of spikes: 5
18	21.40	0.6	High angle: -23
19	22.20	0.6	High angle: -45

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M13B.WAD	Site Name	M13B
Start Date and Time	2017/09/27 16:24:38	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M13D.WAD
Start Date and Time	2017/09/27 15:34:27

Site Details

Site Name	M13D
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.6%
Velocity	1.5%	6.8%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.0%	-
Overall	**3.2%**	**7.3%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	REW	Total Width	12.001
Mean SNR	42.8 dB	Total Area	6.751
Mean Temp	41.36 °F	Mean Depth	0.562
Disch. Equation	Mid-Section	Mean Velocity	1.3117
		Total Discharge	**8.8544**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:34	10.00	None	0.200	0.0	0.0	0.0000	1.00	-0.0745	0.060	-0.0045	-0.1
1	*15:34*	*10.60*	*0.6*	*0.400*	*0.6*	*0.160*	*-0.0745*	*1.00*	*-0.0745*	*0.240*	*-0.0179*	*-0.2*
2	*15:35*	*11.20*	*0.6*	*0.550*	*0.6*	*0.220*	*0.3835*	*1.00*	*0.3835*	*0.330*	*0.1265*	*1.4*
3	*15:36*	*11.80*	*0.6*	*0.600*	*0.6*	*0.240*	*0.6650*	*1.00*	*0.6650*	*0.360*	*0.2395*	*2.7*
4	*15:37*	*12.40*	*0.6*	*0.750*	*0.6*	*0.300*	*0.2533*	*1.00*	*0.2533*	*0.450*	*0.1140*	*1.3*
5	*15:38*	*13.00*	*0.6*	*0.550*	*0.6*	*0.220*	*1.6608*	*1.00*	*1.6608*	*0.330*	*0.5480*	*6.2*
6	*15:39*	*13.60*	*0.6*	*0.650*	*0.6*	*0.260*	*1.1982*	*1.00*	*1.1982*	*0.390*	*0.4673*	*5.3*
7	*15:40*	*14.20*	*0.6*	*0.750*	*0.6*	*0.300*	*0.6503*	*1.00*	*0.6503*	*0.450*	*0.2927*	*3.3*
8	15:41	14.80	0.6	0.800	0.6	0.320	1.3740	1.00	1.3740	0.480	0.6595	7.4
9	*15:42*	*15.40*	*0.6*	*0.600*	*0.6*	*0.240*	*1.1549*	*1.00*	*1.1549*	*0.330*	*0.3809*	*4.3*
10	15:57	15.90	0.6	0.600	0.6	0.240	1.5689	1.00	1.5689	0.180	0.2825	3.2
11	15:43	16.00	0.6	0.800	0.6	0.320	2.3478	1.00	2.3478	0.240	0.5634	6.4
12	15:54	16.50	0.6	0.950	0.6	0.380	2.2228	1.00	2.2228	0.285	0.6336	7.2
13	15:44	16.60	0.6	0.900	0.6	0.360	2.7841	1.00	2.7841	0.225	0.6264	7.1
14	*15:55*	*17.00*	*0.6*	*0.900*	*0.6*	*0.360*	*1.6995*	*1.00*	*1.6995*	*0.270*	*0.4589*	*5.2*
15	15:45	17.20	0.6	0.800	0.6	0.320	2.4764	1.00	2.4764	0.200	0.4952	5.6
16	15:56	17.50	0.6	0.600	0.6	0.240	2.9442	1.00	2.9442	0.180	0.5301	6.0
17	15:46	17.80	0.6	0.800	0.6	0.320	2.6936	1.00	2.6936	0.160	0.4308	4.9
18	15:58	17.90	0.6	0.800	0.6	0.320	2.6207	1.00	2.6207	0.240	0.6289	7.1
19	*15:47*	*18.40*	*0.6*	*0.600*	*0.6*	*0.240*	*1.8356*	*1.00*	*1.8356*	*0.330*	*0.6064*	*6.8*
20	15:48	19.00	0.6	0.500	0.6	0.200	1.5223	1.00	1.5223	0.300	0.4567	5.2
21	*15:49*	*19.60*	*0.6*	*0.400*	*0.6*	*0.160*	*0.5039*	*1.00*	*0.5039*	*0.240*	*0.1209*	*1.4*
22	15:50	20.20	0.6	0.350	0.6	0.140	0.2900	1.00	0.2900	0.210	0.0609	0.7
23	15:51	20.80	0.6	0.250	0.6	0.100	0.7648	1.00	0.7648	0.150	0.1147	1.3
24	*15:52*	*21.40*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3228*	*1.00*	*0.3228*	*0.120*	*0.0388*	*0.4*
25	15:52	22.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

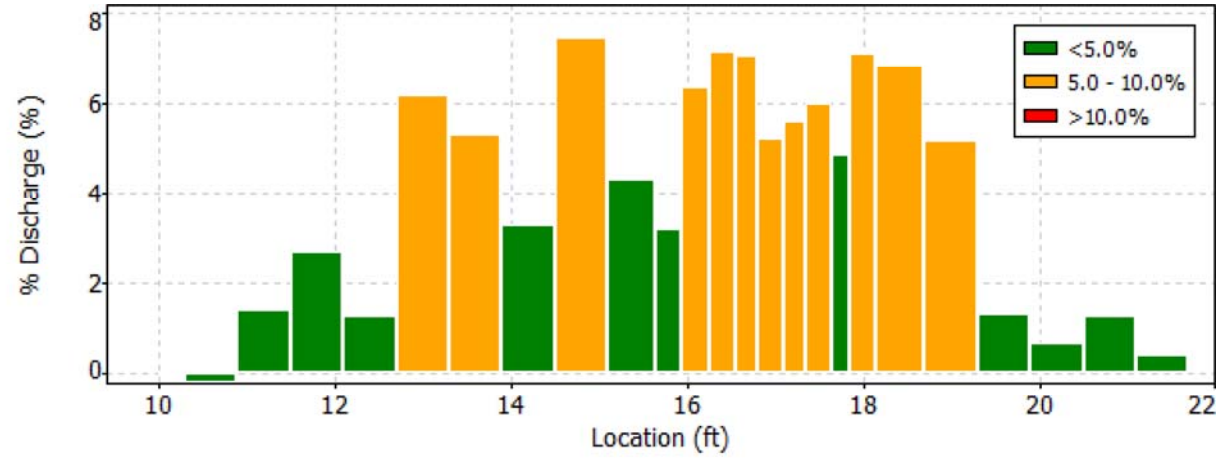
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

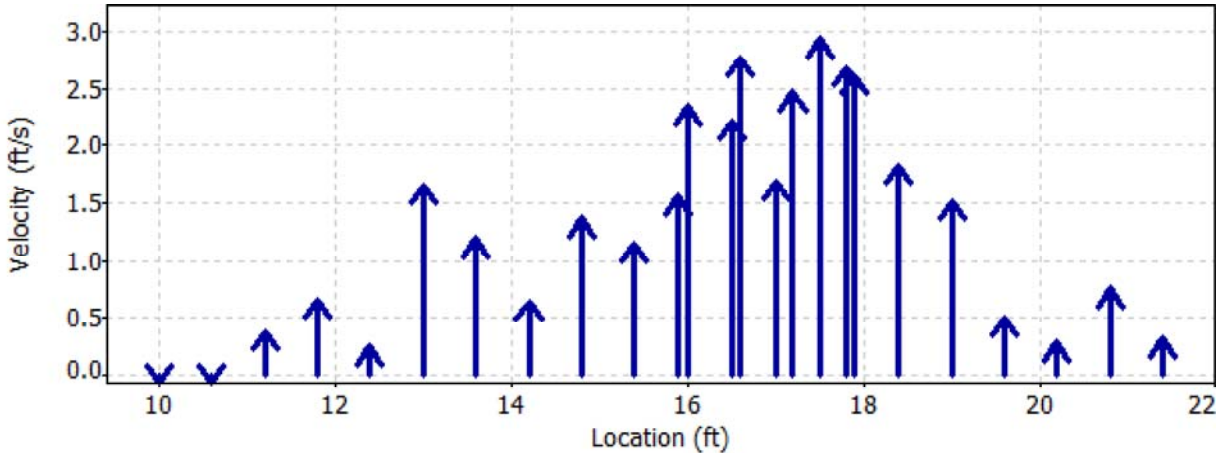
Discharge Measurement Summary

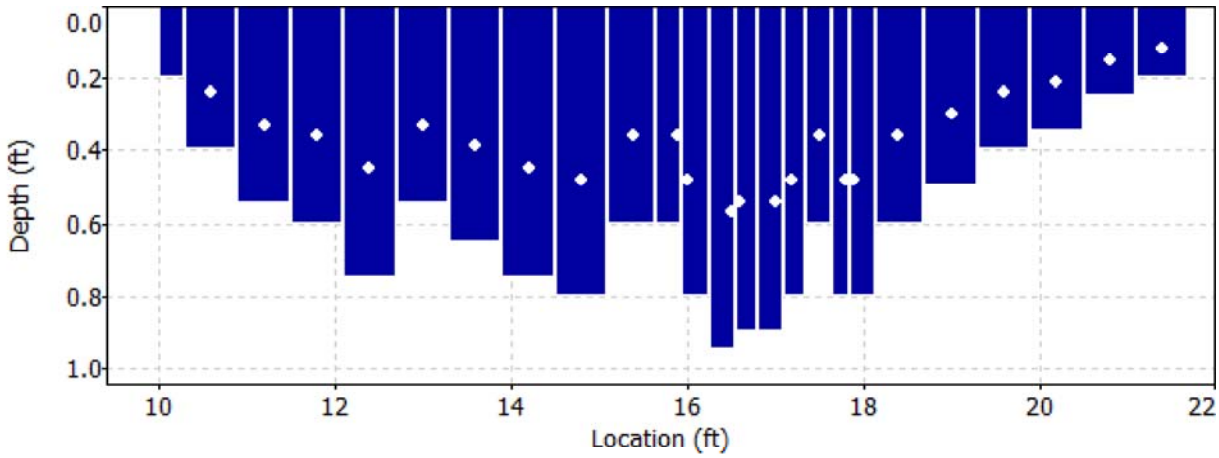
Date Generated: Mon Oct 2 2017

File Information	
File Name	M13D.WAD
Start Date and Time	2017/09/27 15:34:27

Site Details	
Site Name	M13D
Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M13D.WAD	Site Name	M13D
Start Date and Time	2017/09/27 15:34:27	Operator(s)	KB

Quality Control

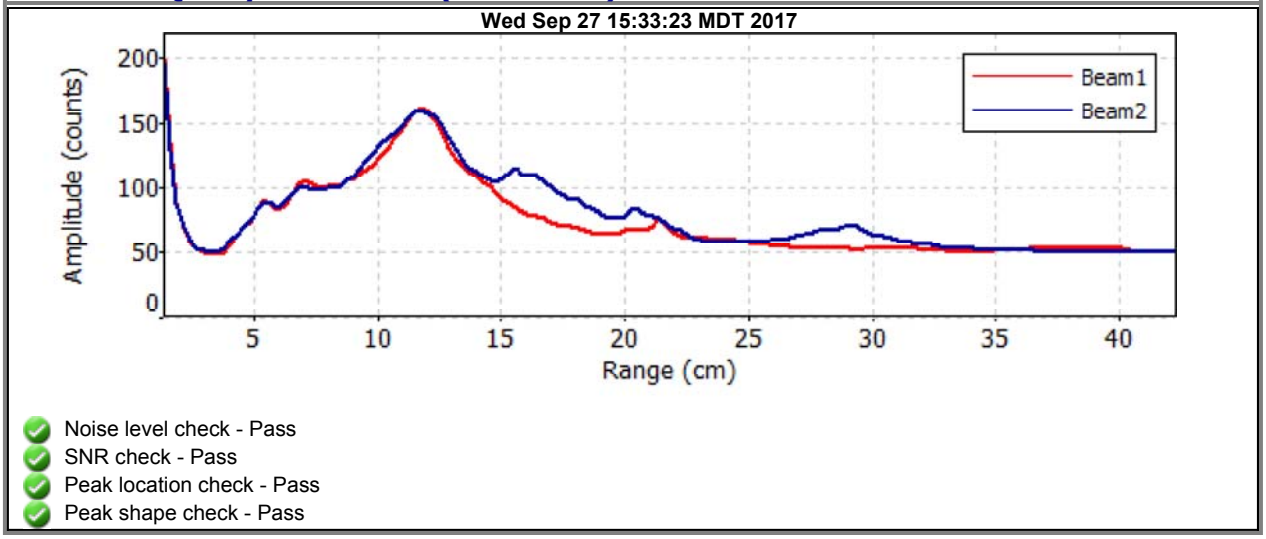
St	Loc	%Dep	Message
1	10.60	0.6	High angle: -122
		0.6	High differences in beam SNR: 6.4,18.4
		0.6	SNR (12.4) is different from typical SNR (42.8)
		0.6	Boundary QC is Fair; possible boundary interference
2	11.20	0.6	High number of spikes: 5
		0.6	High angle: 49
3	11.80	0.6	High angle: 61
4	12.40	0.6	High angle: 80
5	13.00	0.6	High angle: 39
6	13.60	0.6	High angle: 28
7	14.20	0.6	High differences in beam SNR: 34.8,4.3
		0.6	SNR (19.6) is different from typical SNR (42.8)
		0.6	High standard error: 0.179
9	15.40	0.6	High angle: 21
14	17.00	0.6	High standard error: 0.128
19	18.40	0.6	High standard error: 0.122
21	19.60	0.6	High angle: 31
24	21.40	0.6	Boundary QC is Good; possible boundary interference

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M13D.WAD	Site Name	M13D
Start Date and Time	2017/09/27 15:34:27	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M14A.WAD
Start Date and Time	2017/09/27 14:43:45

Site Details

Site Name	M14A
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.6%
Velocity	1.6%	10.0%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**3.5%**	**10.4%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	15.000
Mean SNR	39.9 dB	Total Area	7.500
Mean Temp	41.78 °F	Mean Depth	0.500
Disch. Equation	Mid-Section	Mean Velocity	1.1986
		Total Discharge	**8.9901**

Measurement Results

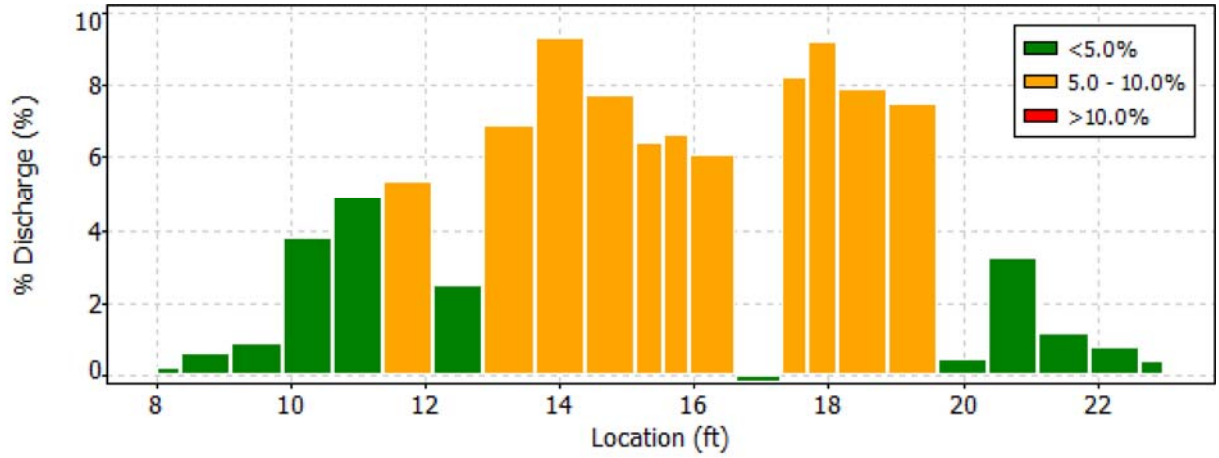
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:43	8.00	None	0.250	0.0	0.0	0.0000	1.00	0.2451	0.094	0.0230	0.3
1	14:43	8.75	0.6	0.300	0.6	0.120	0.2451	1.00	0.2451	0.225	0.0551	0.6
2	14:44	9.50	0.6	0.250	0.6	0.100	0.4295	1.00	0.4295	0.188	0.0805	0.9
3	14:45	10.25	0.6	0.400	0.6	0.160	1.1371	1.00	1.1371	0.300	0.3411	3.8
4	14:46	11.00	0.6	0.450	0.6	0.180	1.3127	1.00	1.3127	0.338	0.4432	4.9
5	14:47	11.75	0.6	0.500	0.6	0.200	1.2812	1.00	1.2812	0.375	0.4804	5.3
6	14:48	12.50	0.6	0.450	0.6	0.180	0.6598	1.00	0.6598	0.338	0.2227	2.5
7	14:49	13.25	0.6	0.500	0.6	0.200	1.6568	1.00	1.6568	0.375	0.6213	6.9
8	*14:50*	*14.00*	*0.6*	*0.600*	*0.6*	*0.240*	*1.8596*	*1.00*	*1.8596*	*0.450*	*0.8369*	*9.3*
9	*14:51*	*14.75*	*0.6*	*0.650*	*0.6*	*0.260*	*1.4216*	*1.00*	*1.4216*	*0.487*	*0.6930*	*7.7*
10	14:52	15.50	0.6	0.700	0.6	0.280	1.9409	1.00	1.9409	0.298	0.5776	6.4
11	15:02	15.60	0.6	0.700	0.6	0.280	2.2657	1.00	2.2657	0.263	0.5949	6.6
12	14:53	16.25	0.6	0.850	0.6	0.340	0.9160	1.00	0.9160	0.595	0.5450	6.1
13	*14:54*	*17.00*	*0.6*	*0.600*	*0.6*	*0.240*	*-0.0486*	*1.00*	*-0.0486*	*0.405*	*-0.0197*	*-0.2*
14	15:03	17.60	0.6	0.750	0.6	0.300	2.6230	1.00	2.6230	0.281	0.7377	8.2
15	14:55	17.75	0.6	0.700	0.6	0.280	2.6362	1.00	2.6362	0.315	0.8305	9.2
16	14:56	18.50	0.6	0.650	0.6	0.260	1.4537	1.00	1.4537	0.487	0.7086	7.9
17	14:57	19.25	0.6	0.600	0.6	0.240	1.5000	1.00	1.5000	0.450	0.6751	7.5
18	*14:58*	*20.00*	*0.6*	*0.500*	*0.6*	*0.200*	*0.1073*	*1.00*	*0.1073*	*0.375*	*0.0402*	*0.4*
19	14:59	20.75	0.6	0.450	0.6	0.180	0.8619	1.00	0.8619	0.338	0.2910	3.2
20	15:00	21.50	0.6	0.400	0.6	0.160	0.3435	1.00	0.3435	0.300	0.1030	1.1
21	*15:01*	*22.25*	*0.6*	*0.200*	*0.6*	*0.080*	*0.4836*	*1.00*	*0.4836*	*0.150*	*0.0726*	*0.8*
22	15:01	23.00	None	0.200	0.0	0.0	0.0000	1.00	0.4836	0.075	0.0363	0.4

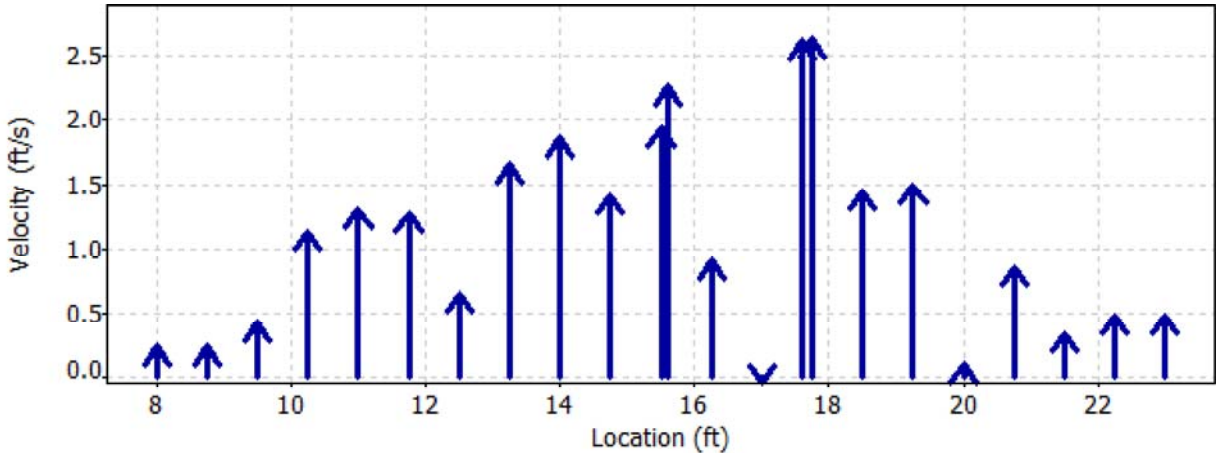
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

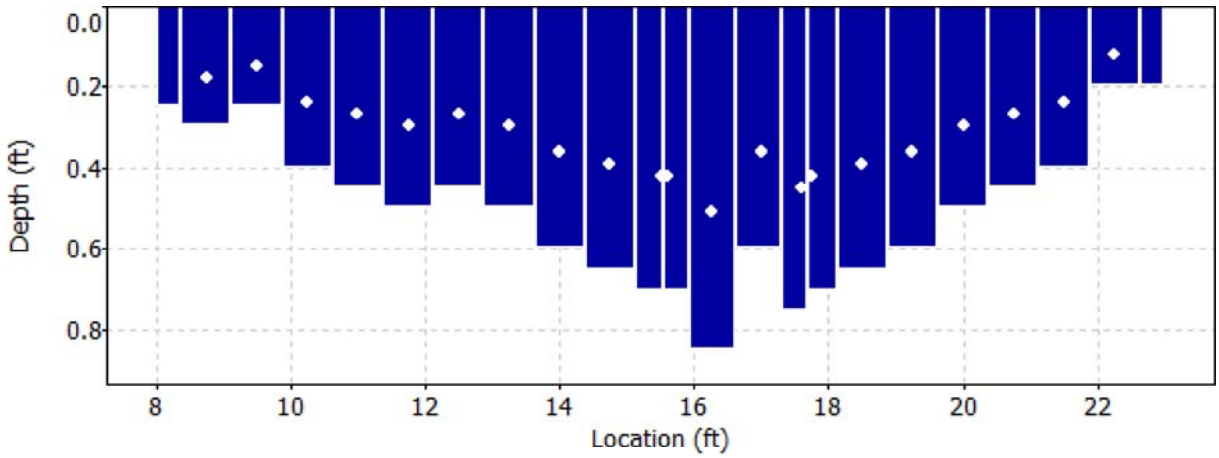
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M14A.WAD	Site Name	M14A
Start Date and Time	2017/09/27 14:43:45	Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M14A.WAD	Site Name	M14A
Start Date and Time	2017/09/27 14:43:45	Operator(s)	KB

Quality Control

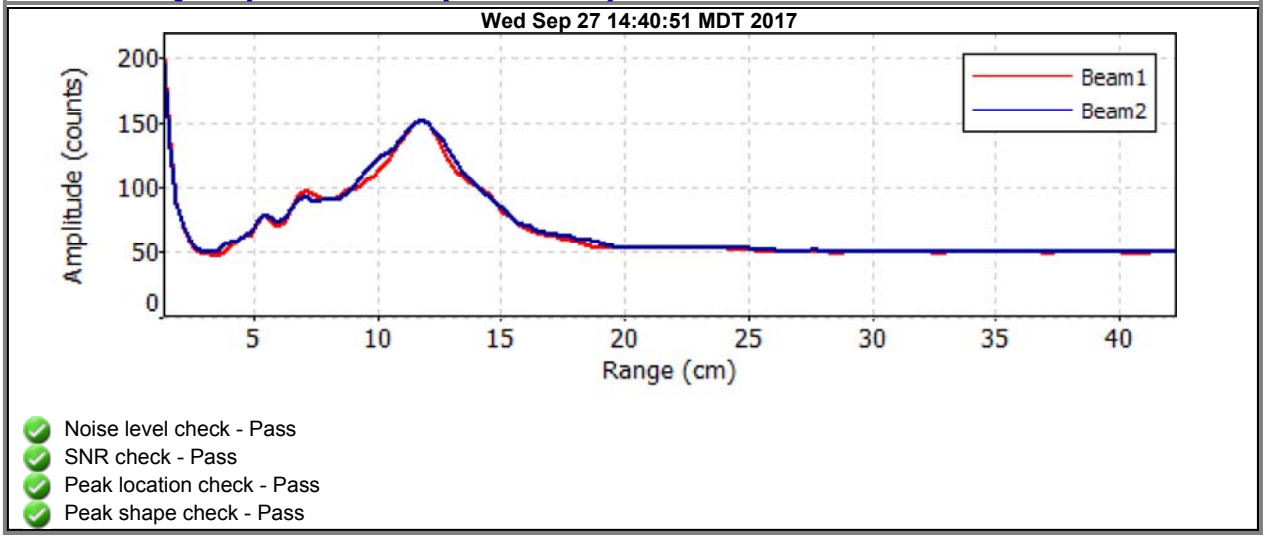
St	Loc	%Dep	Message
8	14.00	0.6	High number of spikes: 5
9	14.75	0.6	High standard error: 0.129
13	17.00	0.6	High angle: 141
		0.6	Low SNR: 3.8,22.7
		0.6	High differences in beam SNR: 3.8,22.7
		0.6	SNR (13.3) is different from typical SNR (39.9)
		0.6	High standard error: 0.153
		0.6	Boundary QC is Poor; possible boundary interference
18	20.00	0.6	High angle: 20
21	22.25	0.6	High angle: 27
		0.6	High standard error: 0.123

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M14A.WAD	Site Name	M14A
Start Date and Time	2017/09/27 14:43:45	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M14B.WAD
Start Date and Time	2017/09/27 13:29:28

Site Details

Site Name	M14B
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	3.1%
Velocity	1.2%	4.0%
Width	0.1%	0.1%
Method	1.7%	-
# Stations	2.1%	-
Overall	**3.1%**	**5.2%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	LEW	Total Width	11.004
Mean SNR	46.8 dB	Total Area	9.242
Mean Temp	43.05 °F	Mean Depth	0.840
Disch. Equation	Mid-Section	Mean Velocity	0.9961
		Total Discharge	**9.2063**

Measurement Results

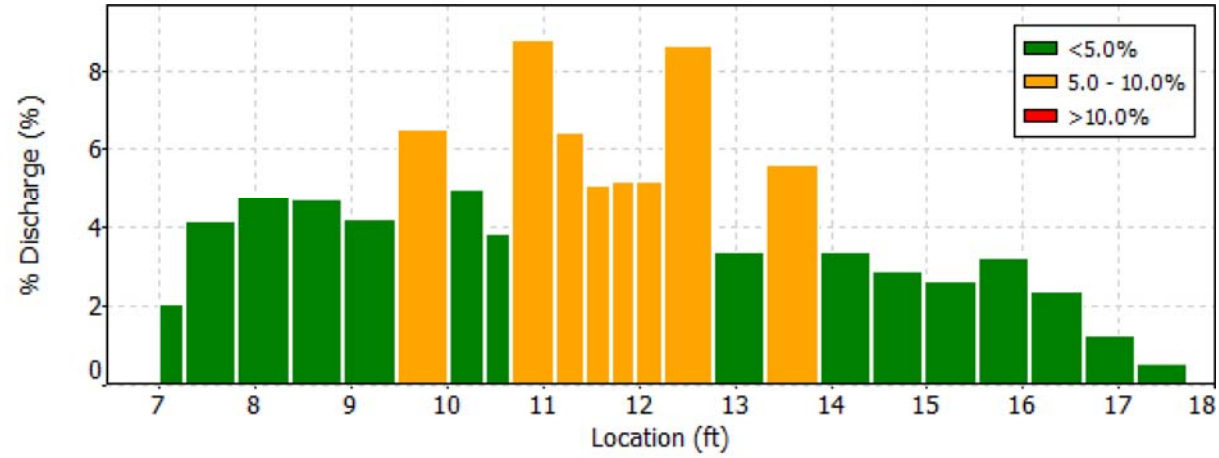
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:29	7.00	None	0.800	0.0	0.0	0.0000	1.00	0.8753	0.220	0.1925	2.1
1	13:29	7.55	0.6	0.800	0.6	0.320	0.8753	1.00	0.8753	0.440	0.3851	4.2
2	13:31	8.10	0.6	0.800	0.6	0.320	0.9987	1.00	0.9987	0.440	0.4395	4.8
3	13:32	8.65	0.6	0.750	0.6	0.300	1.0551	1.00	1.0551	0.413	0.4354	4.7
4	13:33	9.20	0.6	0.800	0.6	0.320	0.8799	1.00	0.8799	0.440	0.3872	4.2
5	13:34	9.75	0.6	0.900	0.6	0.360	1.2080	1.00	1.2080	0.495	0.5981	6.5
6	*13:35*	*10.30*	*0.6*	*1.300*	*0.6*	*0.520*	*0.9360*	*1.00*	*0.9360*	*0.487*	*0.4559*	*5.0*
7	13:49	10.50	0.6	1.000	0.6	0.400	1.2949	1.00	1.2949	0.275	0.3562	3.9
8	*13:36*	*10.85*	*0.6*	*1.300*	*0.6*	*0.520*	*1.3858*	*1.00*	*1.3858*	*0.586*	*0.8117*	*8.8*
9	13:37	11.40	0.6	1.300	0.6	0.520	1.3953	1.00	1.3953	0.422	0.5885	6.4
10	13:52	11.50	0.6	1.300	0.6	0.520	1.3064	1.00	1.3064	0.358	0.4672	5.1
11	13:38	11.95	0.6	1.300	0.6	0.520	1.4747	1.00	1.4747	0.325	0.4792	5.2
12	13:50	12.00	0.6	1.400	0.6	0.560	1.2385	1.00	1.2385	0.385	0.4770	5.2
13	13:39	12.50	0.6	1.300	0.6	0.520	1.1654	1.00	1.1654	0.684	0.7967	8.7
14	13:40	13.05	0.6	1.400	0.6	0.560	0.4068	1.00	0.4068	0.770	0.3134	3.4
15	13:41	13.60	0.6	1.300	0.6	0.520	0.7182	1.00	0.7182	0.715	0.5136	5.6
16	13:42	14.15	0.6	0.650	0.6	0.260	0.8796	1.00	0.8796	0.358	0.3145	3.4
17	13:43	14.70	0.6	0.700	0.6	0.280	0.6903	1.00	0.6903	0.385	0.2659	2.9
18	13:44	15.25	0.6	0.500	0.6	0.200	0.8799	1.00	0.8799	0.275	0.2421	2.6
19	*13:45*	*15.80*	*0.6*	*0.500*	*0.6*	*0.200*	*1.0892*	*1.00*	*1.0892*	*0.275*	*0.2996*	*3.3*
20	13:46	16.35	0.6	0.400	0.6	0.160	1.0013	1.00	1.0013	0.220	0.2203	2.4
21	13:47	16.90	0.6	0.300	0.6	0.120	0.6978	1.00	0.6978	0.165	0.1151	1.3
22	13:48	17.45	0.6	0.200	0.6	0.080	0.4665	1.00	0.4665	0.110	0.0514	0.6
23	13:48	18.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

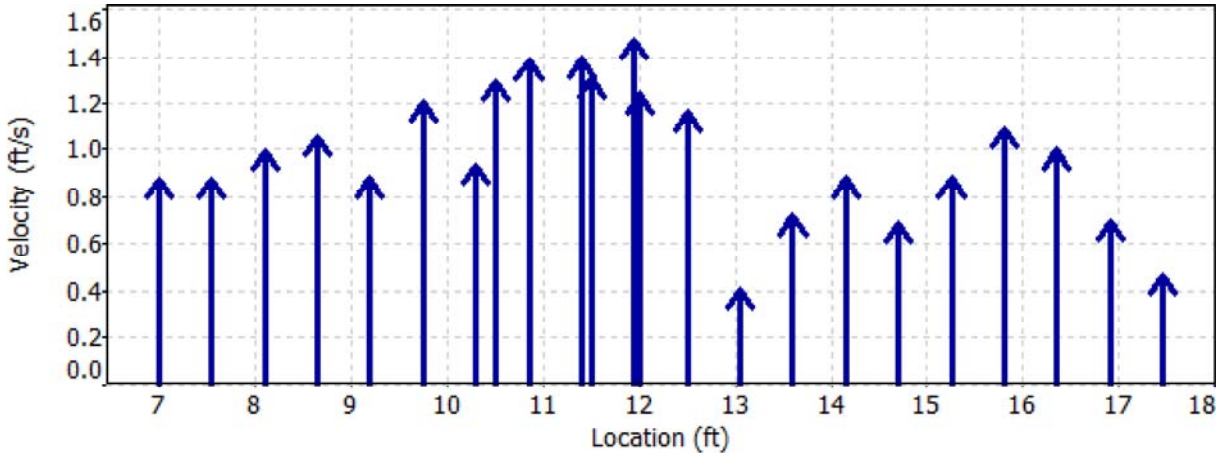
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

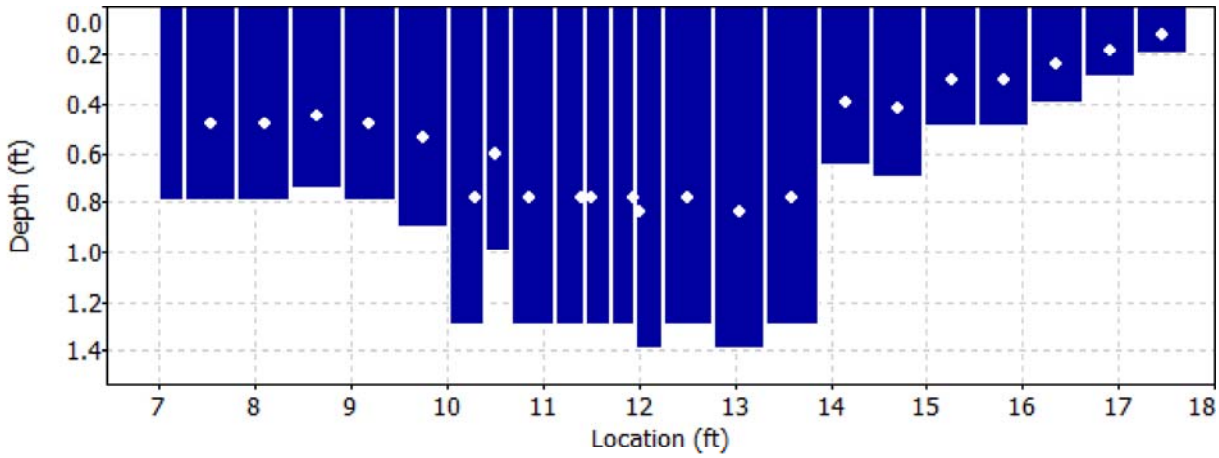
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M14B.WAD	Site Name	M14B
Start Date and Time	2017/09/27 13:29:28	Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M14B.WAD	Site Name	M14B
Start Date and Time	2017/09/27 13:29:28	Operator(s)	KB

Quality Control

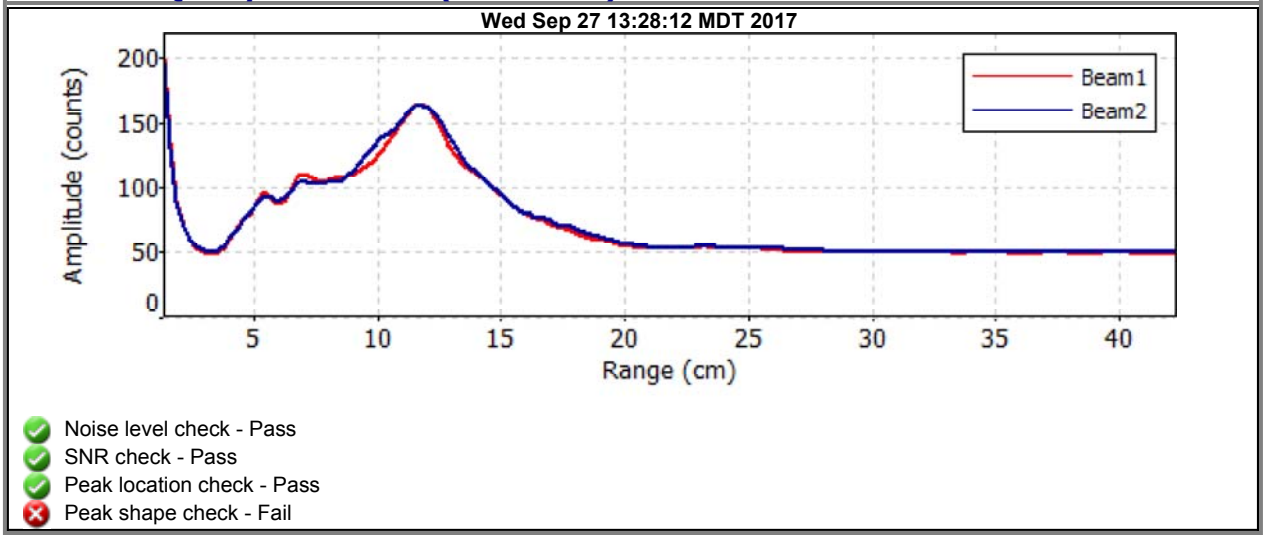
St	Loc	%Dep	Message
6	10.30	0.6	High angle: -25
8	10.85	0.6	High angle: -22
19	15.80	0.6	High standard error: 0.095

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M14B.WAD	Site Name	M14B
Start Date and Time	2017/09/27 13:29:28	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Fail

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M27A.WAD
Start Date and Time	2017/09/28 10:31:35

Site Details

Site Name	M27A
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	3.4%
Velocity	1.6%	11.5%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**3.5%**	**12.0%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	22.001
Mean SNR	40.9 dB	Total Area	12.215
Mean Temp	40.67 °F	Mean Depth	0.555
Disch. Equation	Mid-Section	Mean Velocity	1.2669
		Total Discharge	**15.4754**

Measurement Results

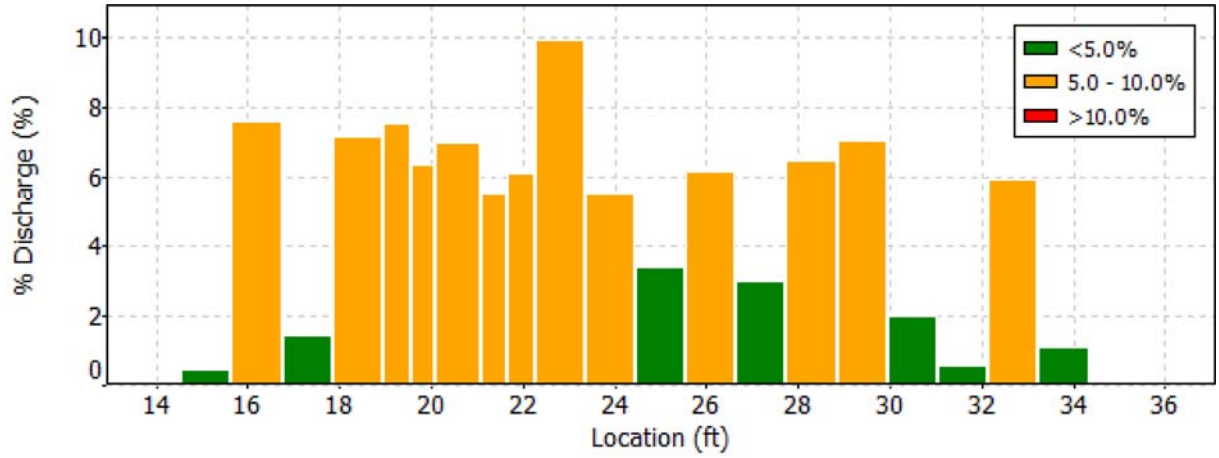
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:31	14.00	None	0.100	0.0	0.0	0.0000	1.00	0.3091	0.055	0.0170	0.1
1	10:31	15.10	0.6	0.200	0.6	0.080	0.3091	1.00	0.3091	0.220	0.0680	0.4
2	10:32	16.20	0.6	0.450	0.6	0.180	2.3734	1.00	2.3734	0.495	1.1752	7.6
3	*10:33*	*17.30*	*0.6*	*0.500*	*0.6*	*0.200*	*0.3917*	*1.00*	*0.3917*	*0.550*	*0.2155*	*1.4*
4	10:34	18.40	0.6	0.800	0.6	0.320	1.2582	1.00	1.2582	0.880	1.1071	7.2
5	10:35	19.50	0.6	0.900	0.6	0.360	2.1545	1.00	2.1545	0.540	1.1632	7.5
6	*10:51*	*19.60*	*0.6*	*0.900*	*0.6*	*0.360*	*1.9790*	*1.00*	*1.9790*	*0.495*	*0.9796*	*6.3*
7	*10:36*	*20.60*	*0.6*	*0.800*	*0.6*	*0.320*	*1.3504*	*1.00*	*1.3504*	*0.800*	*1.0801*	*7.0*
8	10:52	21.60	0.6	0.800	0.6	0.320	1.9360	1.00	1.9360	0.440	0.8518	5.5
9	*10:37*	*21.70*	*0.6*	*0.800*	*0.6*	*0.320*	*1.9596*	*1.00*	*1.9596*	*0.480*	*0.9408*	*6.1*
10	*10:38*	*22.80*	*0.6*	*0.600*	*0.6*	*0.240*	*2.3369*	*1.00*	*2.3369*	*0.660*	*1.5426*	*10.0*
11	*10:39*	*23.90*	*0.6*	*0.750*	*0.6*	*0.300*	*1.0348*	*1.00*	*1.0348*	*0.825*	*0.8537*	*5.5*
12	10:40	25.00	0.6	0.800	0.6	0.320	0.5958	1.00	0.5958	0.880	0.5242	3.4
13	*10:41*	*26.10*	*0.6*	*0.700*	*0.6*	*0.280*	*1.2333*	*1.00*	*1.2333*	*0.770*	*0.9499*	*6.1*
14	*10:41*	*27.20*	*0.6*	*0.700*	*0.6*	*0.280*	*0.5978*	*1.00*	*0.5978*	*0.770*	*0.4604*	*3.0*
15	10:42	28.30	0.6	0.800	0.6	0.320	1.1276	1.00	1.1276	0.880	0.9922	6.4
16	*10:43*	*29.40*	*0.6*	*0.550*	*0.6*	*0.220*	*1.7956*	*1.00*	*1.7956*	*0.605*	*1.0861*	*7.0*
17	10:44	30.50	0.6	0.300	0.6	0.120	0.9344	1.00	0.9344	0.330	0.3082	2.0
18	*10:45*	*31.60*	*0.6*	*0.300*	*0.6*	*0.120*	*0.2448*	*1.00*	*0.2448*	*0.330*	*0.0807*	*0.5*
19	10:46	32.70	0.6	0.550	0.6	0.220	1.5092	1.00	1.5092	0.605	0.9129	5.9
20	*10:48*	*33.80*	*0.6*	*0.300*	*0.6*	*0.120*	*0.4993*	*1.00*	*0.4993*	*0.330*	*0.1647*	*1.1*
21	*10:49*	*34.90*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0046*	*1.00*	*0.0046*	*0.220*	*0.0010*	*0.0*
22	10:49	36.00	None	0.100	0.0	0.0	0.0000	1.00	0.0046	0.055	0.0003	0.0

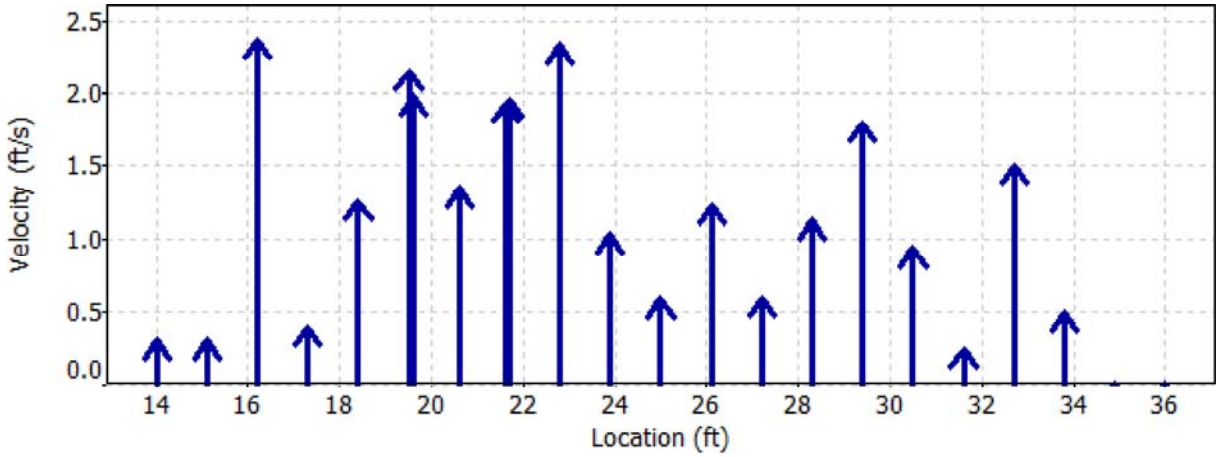
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

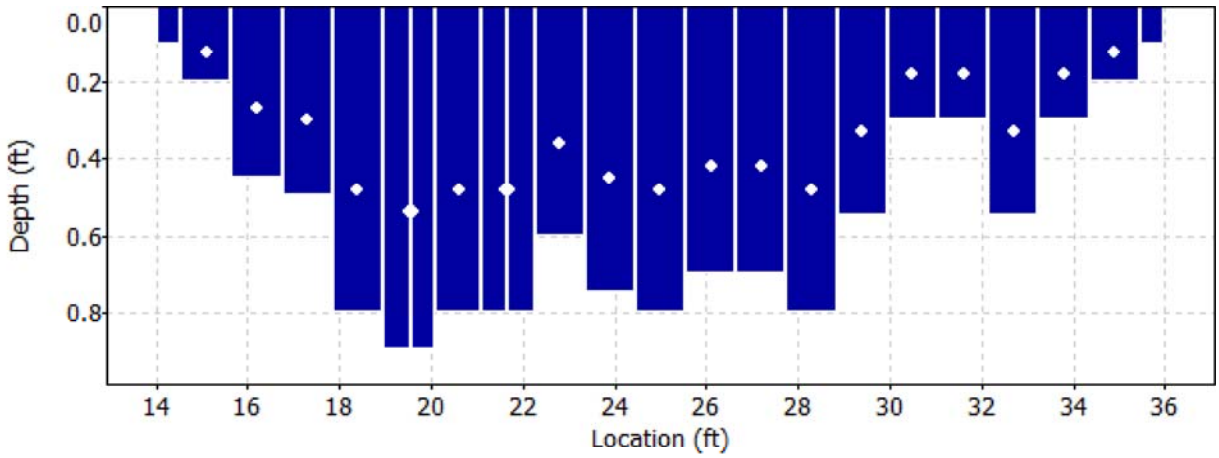
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M27A.WAD	Site Name	M27A
Start Date and Time	2017/09/28 10:31:35	Operator(s)	RB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M27A.WAD	Site Name	M27A
Start Date and Time	2017/09/28 10:31:35	Operator(s)	RB

Quality Control

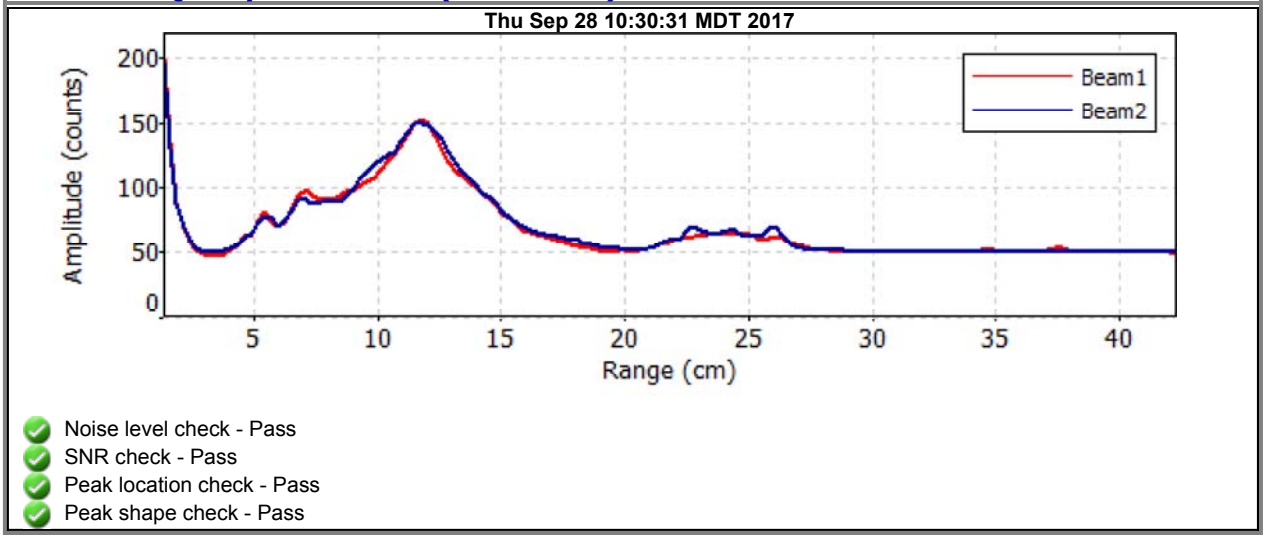
St	Loc	%Dep	Message
3	17.30	0.6	High number of spikes: 5
		0.6	High angle: 40
6	19.60	0.6	High standard error: 0.132
7	20.60	0.6	High standard error: 0.115
9	21.70	0.6	High angle: 20
10	22.80	0.6	High differences in beam SNR: 42.1,17.6
		0.6	SNR (29.9) is different from typical SNR (40.9)
		0.6	High standard error: 0.152
11	23.90	0.6	High angle: 35
13	26.10	0.6	High angle: 26
14	27.20	0.6	High number of spikes: 5
		0.6	High angle: 23
16	29.40	0.6	Boundary QC is Fair; possible boundary interference
18	31.60	0.6	High number of spikes: 5
		0.6	High angle: -36
		0.6	High differences in beam SNR: 40.8,21.5
20	33.80	0.6	Boundary QC is Good; possible boundary interference
21	34.90	0.6	SNR (55.0) is different from typical SNR (40.9)
		0.6	High SNR variation during measurement: 3.0,9.0

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M27A.WAD	Site Name	M27A
Start Date and Time	2017/09/28 10:31:35	Operator(s)	RB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M27A2.WAD
Start Date and Time	2017/09/28 09:27:59

Site Details

Site Name	M27A2
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	3.7%
Velocity	0.8%	6.1%
Width	0.1%	0.1%
Method	1.7%	-
# Stations	2.3%	-
Overall	**3.2%**	**7.2%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	16.804
Mean SNR	38.7 dB	Total Area	12.643
Mean Temp	39.03 °F	Mean Depth	0.752
Disch. Equation	Mid-Section	Mean Velocity	1.1529
		Total Discharge	**14.5762**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:27	7.40	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	09:27	8.20	0.6	0.400	0.6	0.160	1.9462	1.00	1.9462	0.320	0.6228	4.3
2	*09:29*	*9.00*	*0.6*	*1.000*	*0.6*	*0.400*	*1.2890*	*1.00*	*1.2890*	*0.800*	*1.0315*	*7.1*
3	09:30	9.80	0.2/0.8	0.900	0.2	0.720	1.8809	1.00	1.8666	0.720	1.3442	9.2
3	09:31	9.80	0.2/0.8	0.900	0.8	0.180	1.8524					
4	09:32	10.60	0.6	0.900	0.6	0.360	1.7306	1.00	1.7306	0.720	1.2463	8.6
5	*09:33*	*11.40*	*0.6*	*0.950*	*0.6*	*0.380*	*0.8773*	*1.00*	*0.8773*	*0.760*	*0.6670*	*4.6*
6	*09:34*	*12.20*	*0.6*	*0.600*	*0.6*	*0.240*	*1.8143*	*1.00*	*1.8143*	*0.480*	*0.8712*	*6.0*
7	*09:35*	*13.00*	*0.6*	*0.850*	*0.6*	*0.340*	*1.2812*	*1.00*	*1.2812*	*0.680*	*0.8715*	*6.0*
8	*09:37*	*13.80*	*0.6*	*0.700*	*0.6*	*0.280*	*1.4524*	*1.00*	*1.4524*	*0.560*	*0.8137*	*5.6*
9	*09:38*	*14.60*	*0.6*	*0.750*	*0.6*	*0.300*	*0.8835*	*1.00*	*0.8835*	*0.600*	*0.5302*	*3.6*
10	09:39	15.40	0.6	0.800	0.6	0.320	1.1759	1.00	1.1759	0.640	0.7526	5.2
11	09:40	16.20	0.6	0.950	0.6	0.380	1.2700	1.00	1.2700	0.760	0.9656	6.6
12	09:41	17.00	0.6	1.000	0.6	0.400	1.1526	1.00	1.1526	0.800	0.9223	6.3
13	09:42	17.80	0.6	0.900	0.6	0.360	1.0850	1.00	1.0850	0.720	0.7813	5.4
14	09:43	18.60	0.6	0.900	0.6	0.360	0.9446	1.00	0.9446	0.720	0.6802	4.7
15	09:44	19.40	0.6	1.050	0.6	0.420	0.7136	1.00	0.7136	0.840	0.5995	4.1
16	09:45	20.20	0.6	1.050	0.6	0.420	0.7333	1.00	0.7333	0.840	0.6160	4.2
17	09:46	21.00	0.6	0.650	0.6	0.260	0.7986	1.00	0.7986	0.520	0.4153	2.8
18	09:47	21.80	0.6	0.650	0.6	0.260	0.8031	1.00	0.8031	0.520	0.4177	2.9
19	09:48	22.60	0.6	0.500	0.6	0.200	0.7100	1.00	0.7100	0.400	0.2841	1.9
20	*09:50*	*23.40*	*0.6*	*0.300*	*0.6*	*0.120*	*0.5968*	*1.00*	*0.5968*	*0.240*	*0.1432*	*1.0*
21	09:50	24.20	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

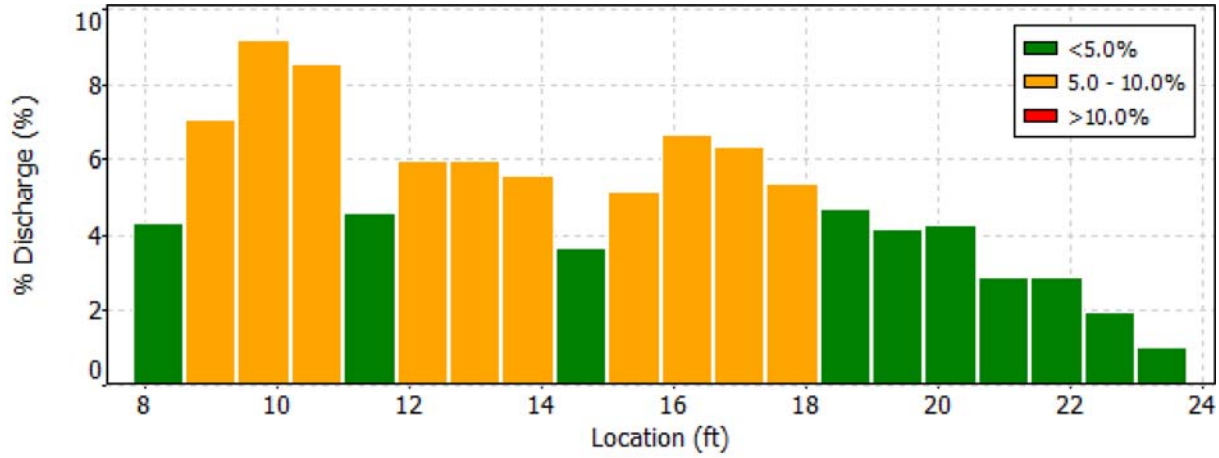
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

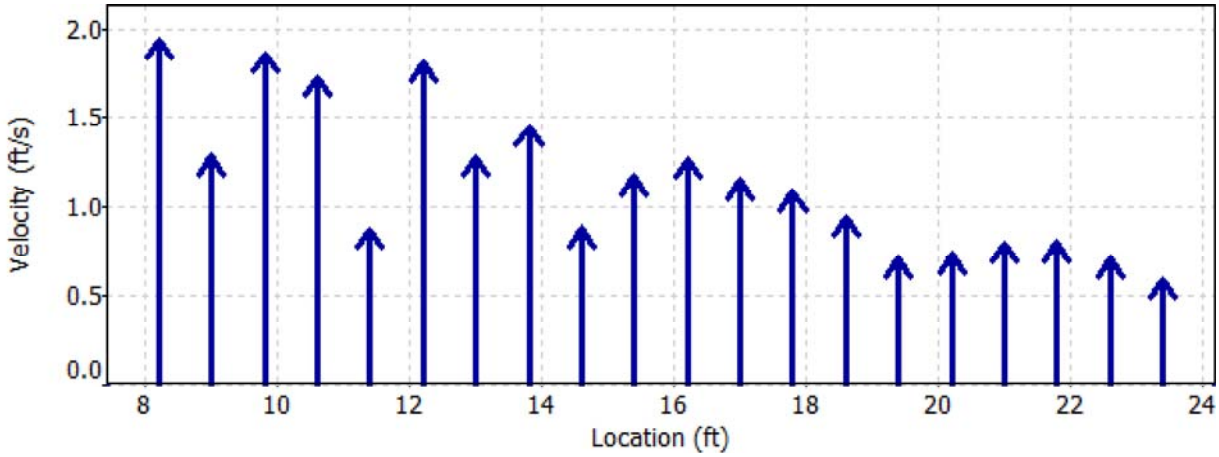
Discharge Measurement Summary

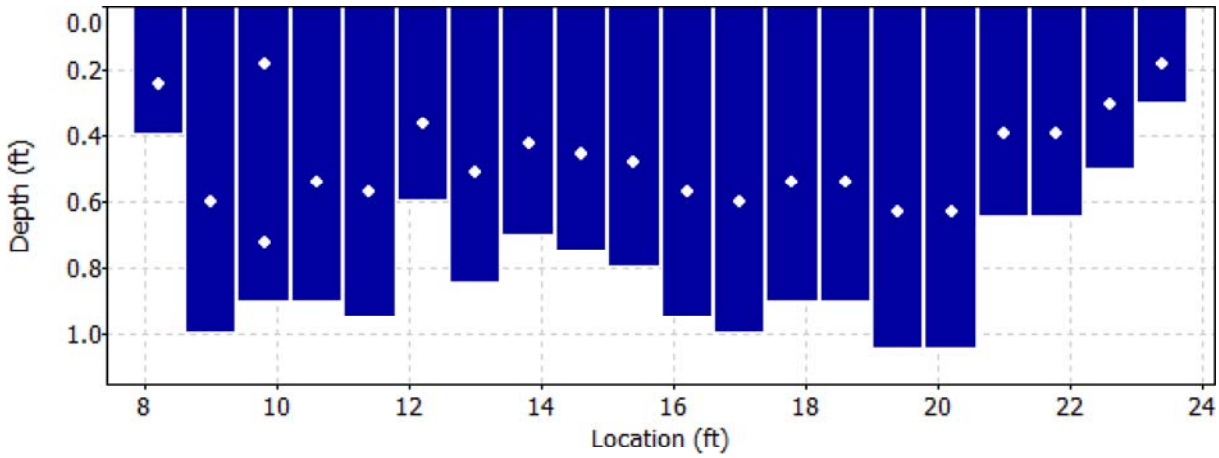
Date Generated: Mon Oct 2 2017

File Information	
File Name	M27A2.WAD
Start Date and Time	2017/09/28 09:27:59

Site Details	
Site Name	M27A2
Operator(s)	RB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information	
File Name	M27A2.WAD
Start Date and Time	2017/09/28 09:27:59

Site Details	
Site Name	M27A2
Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
2	9.00	0.6	High standard error: 0.093
5	11.40	0.6	High angle: -23
		0.6	High standard error: 0.065
6	12.20	0.6	High angle: -21
7	13.00	0.6	High angle: -27
8	13.80	0.6	High angle: -22
9	14.60	0.6	High angle: -21
		0.6	High standard error: 0.067
20	23.40	0.6	High angle: 28

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M29.WAD
Start Date and Time	2017/09/28 06:47:05

Site Details

Site Name	M29
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	1.4%
Velocity	1.0%	6.6%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.4%	-
Overall	**3.4%**	**6.8%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	REW	Total Width	25.000
Mean SNR	35.9 dB	Total Area	26.000
Mean Temp	38.23 °F	Mean Depth	1.040
Disch. Equation	Mid-Section	Mean Velocity	1.3327
		Total Discharge	**34.6507**

Measurement Results

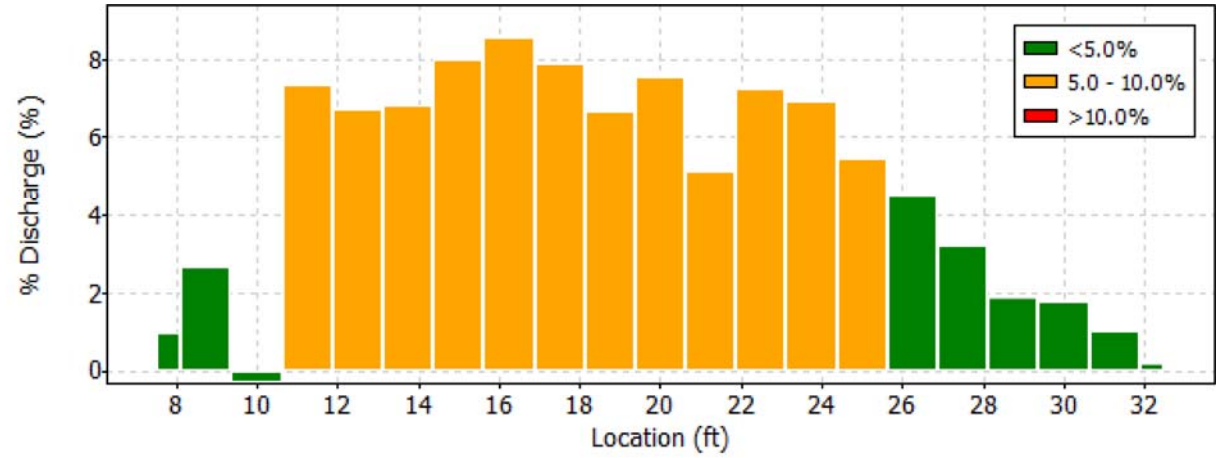
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	06:47	7.50	None	0.400	0.0	0.0	0.0000	1.00	1.3409	0.250	0.3352	1.0
1	06:47	8.75	0.6	0.550	0.6	0.220	1.3409	1.00	1.3409	0.687	0.9216	2.7
2	*06:48*	*10.00*	*0.6*	*1.200*	*0.6*	*0.480*	*-0.0755*	*1.00*	*-0.0755*	*1.500*	*-0.1132*	*-0.3*
3	06:49	11.25	0.6	1.400	0.6	0.560	1.4521	1.00	1.4521	1.750	2.5411	7.3
4	06:50	12.50	0.6	1.400	0.6	0.560	1.3264	1.00	1.3264	1.750	2.3212	6.7
5	06:51	13.75	0.6	1.400	0.6	0.560	1.3442	1.00	1.3442	1.750	2.3522	6.8
6	06:52	15.00	0.6	1.400	0.6	0.560	1.5863	1.00	1.5863	1.750	2.7759	8.0
7	06:53	16.25	0.6	1.400	0.6	0.560	1.6939	1.00	1.6939	1.750	2.9642	8.6
8	06:54	17.50	0.6	1.350	0.6	0.540	1.6184	1.00	1.6184	1.688	2.7312	7.9
9	06:55	18.75	0.6	1.300	0.6	0.520	1.4160	1.00	1.4160	1.625	2.3008	6.6
10	06:55	20.00	0.6	1.200	0.6	0.480	1.7385	1.00	1.7385	1.500	2.6081	7.5
11	06:56	21.25	0.6	1.250	0.6	0.500	1.1371	1.00	1.1371	1.563	1.7768	5.1
12	06:57	22.50	0.6	1.300	0.6	0.520	1.5394	1.00	1.5394	1.625	2.5012	7.2
13	06:58	23.75	0.6	1.100	0.6	0.440	1.7480	1.00	1.7480	1.375	2.4037	6.9
14	06:59	25.00	0.6	1.000	0.6	0.400	1.5066	1.00	1.5066	1.250	1.8832	5.4
15	07:00	26.25	0.6	0.800	0.6	0.320	1.5623	1.00	1.5623	1.000	1.5621	4.5
16	07:01	27.50	0.6	0.700	0.6	0.280	1.2746	1.00	1.2746	0.875	1.1155	3.2
17	07:02	28.75	0.6	0.550	0.6	0.220	0.9541	1.00	0.9541	0.687	0.6558	1.9
18	07:03	30.00	0.6	0.600	0.6	0.240	0.8245	1.00	0.8245	0.750	0.6184	1.8
19	07:04	31.25	0.6	0.600	0.6	0.240	0.4524	1.00	0.4524	0.750	0.3394	1.0
20	07:04	32.50	None	0.200	0.0	0.0	0.0000	1.00	0.4524	0.125	0.0566	0.2

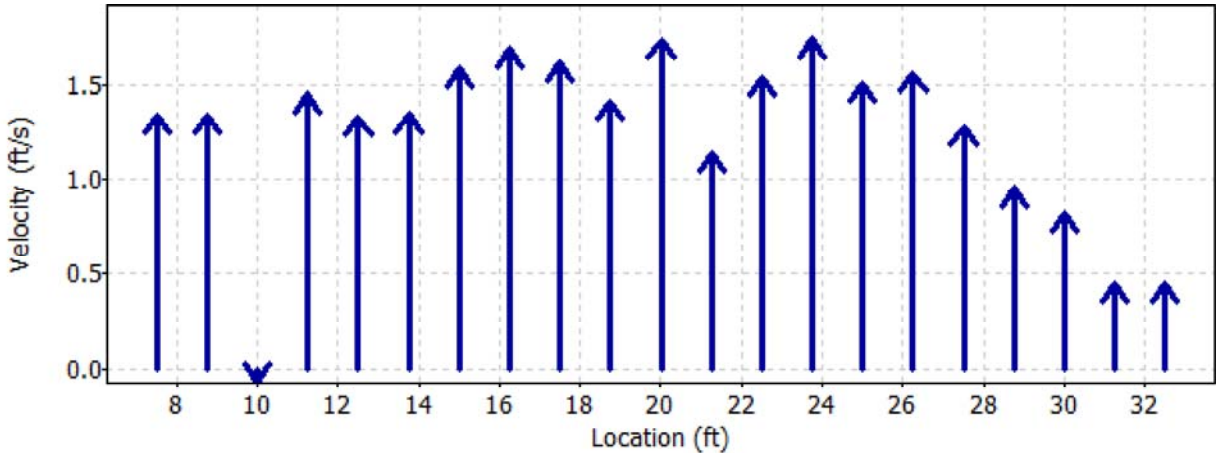
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

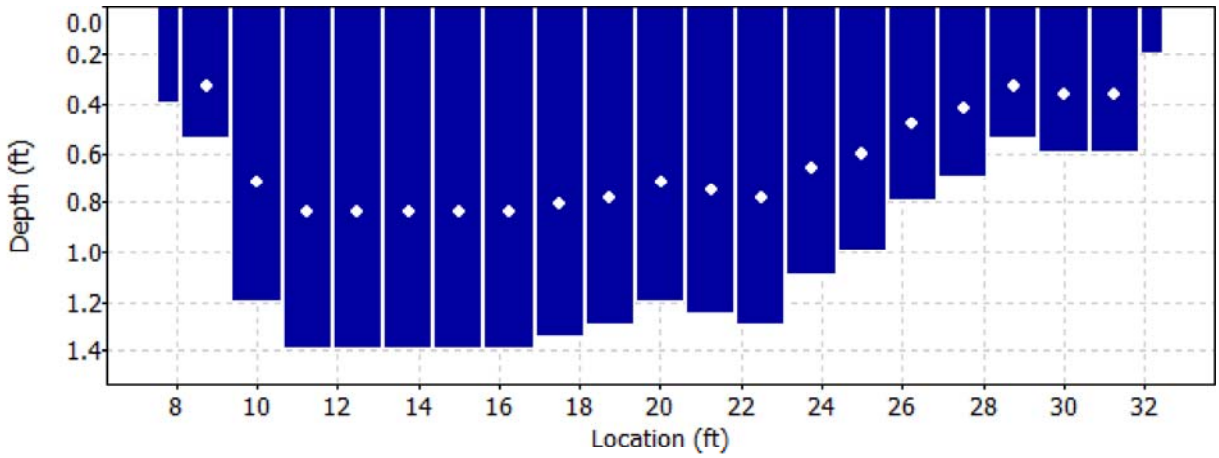
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M29.WAD	Site Name	M29
Start Date and Time	2017/09/28 06:47:05	Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M29.WAD	Site Name	M29
Start Date and Time	2017/09/28 06:47:05	Operator(s)	KB

Quality Control

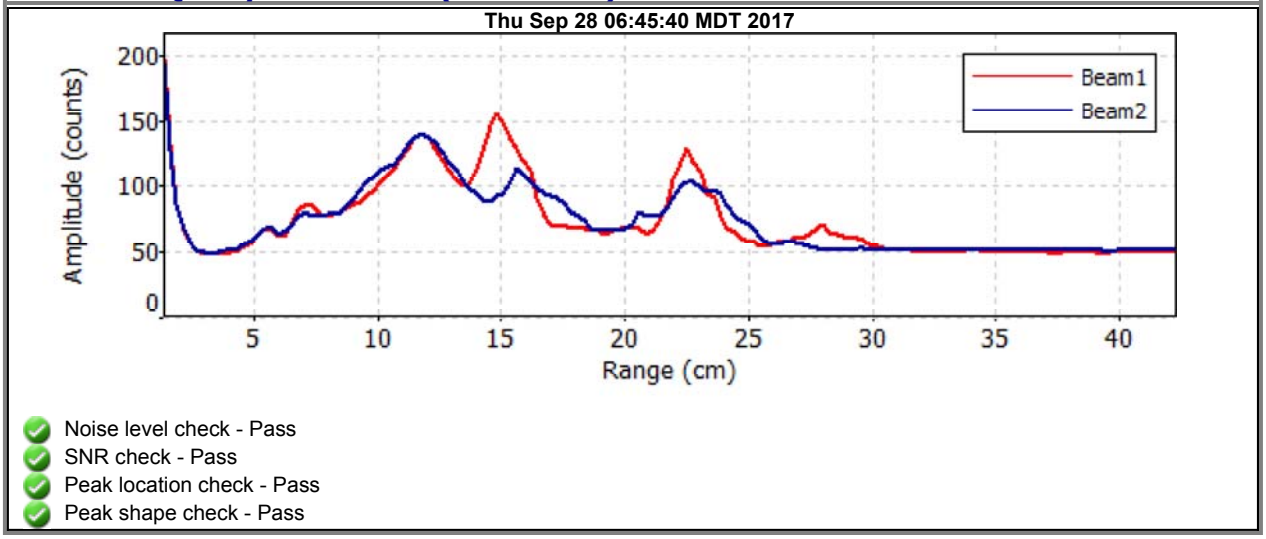
St	Loc	%Dep	Message
2	10.00	0.6	High angle: -112

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M29.WAD	Site Name	M29
Start Date and Time	2017/09/28 06:47:05	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M29A.WAD
Start Date and Time	2017/09/28 08:23:58

Site Details

Site Name	M29A
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	1.9%
Velocity	1.0%	3.0%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**3.3%**	**3.7%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	34.003
Mean SNR	34.4 dB	Total Area	25.982
Mean Temp	39.61 °F	Mean Depth	0.764
Disch. Equation	Mid-Section	Mean Velocity	1.2894
		Total Discharge	**33.5000**

Measurement Results

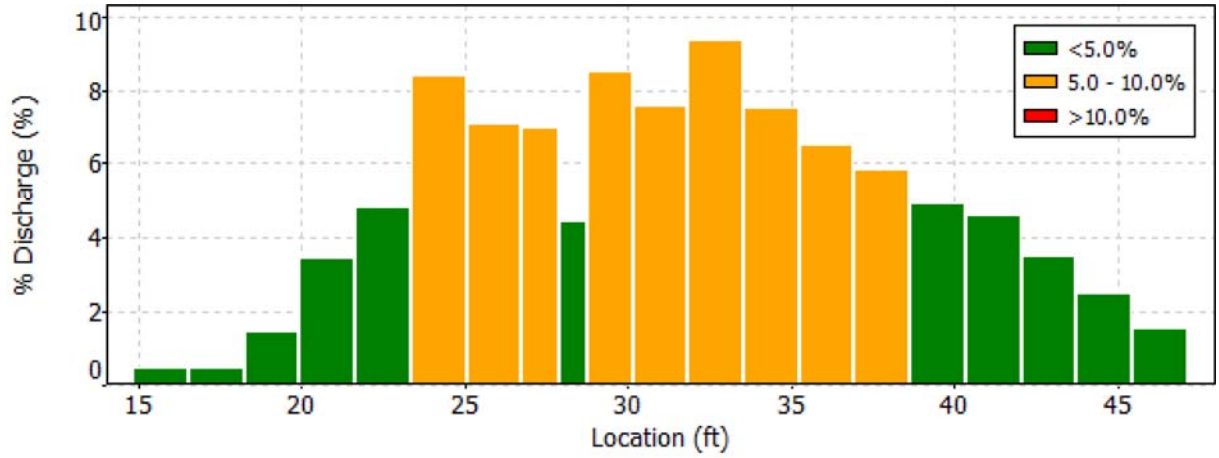
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:23	14.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	08:23	15.70	0.6	0.400	0.6	0.160	0.2251	1.00	0.2251	0.680	0.1530	0.5
2	08:24	17.40	0.6	0.400	0.6	0.160	0.2395	1.00	0.2395	0.680	0.1628	0.5
3	08:26	19.10	0.6	0.500	0.6	0.200	0.5610	1.00	0.5610	0.850	0.4769	1.4
4	08:27	20.80	0.6	0.750	0.6	0.300	0.9075	1.00	0.9075	1.275	1.1571	3.5
5	08:28	22.50	0.6	0.750	0.6	0.300	1.2602	1.00	1.2602	1.275	1.6068	4.8
6	08:29	24.20	0.6	1.050	0.6	0.420	1.5804	1.00	1.5804	1.785	2.8208	8.4
7	*08:30*	*25.90*	*0.6*	*1.100*	*0.6*	*0.440*	*1.2733*	*1.00*	*1.2733*	*1.870*	*2.3814*	*7.1*
8	08:31	27.60	0.6	1.100	0.6	0.440	1.8481	1.00	1.8481	1.265	2.3372	7.0
9	*08:45*	*28.20*	*0.6*	*1.100*	*0.6*	*0.440*	*1.5820*	*1.00*	*1.5820*	*0.935*	*1.4794*	*4.4*
10	*08:33*	*29.30*	*0.6*	*1.200*	*0.6*	*0.480*	*1.6949*	*1.00*	*1.6949*	*1.681*	*2.8489*	*8.5*
11	08:34	31.00	0.6	0.950	0.6	0.380	1.5712	1.00	1.5712	1.615	2.5380	7.6
12	08:35	32.70	0.6	0.950	0.6	0.380	1.9518	1.00	1.9518	1.615	3.1528	9.4
13	08:36	34.40	0.6	0.950	0.6	0.380	1.5676	1.00	1.5676	1.615	2.5322	7.6
14	*08:37*	*36.10*	*0.6*	*1.000*	*0.6*	*0.400*	*1.2785*	*1.00*	*1.2785*	*1.700*	*2.1737*	*6.5*
15	*08:38*	*37.80*	*0.6*	*0.900*	*0.6*	*0.360*	*1.2766*	*1.00*	*1.2766*	*1.530*	*1.9532*	*5.8*
16	*08:40*	*39.50*	*0.6*	*0.800*	*0.6*	*0.320*	*1.2175*	*1.00*	*1.2175*	*1.360*	*1.6557*	*4.9*
17	*08:40*	*41.20*	*0.6*	*0.800*	*0.6*	*0.320*	*1.1286*	*1.00*	*1.1286*	*1.360*	*1.5348*	*4.6*
18	08:41	42.90	0.6	0.800	0.6	0.320	0.8661	1.00	0.8661	1.360	1.1779	3.5
19	08:42	44.60	0.6	0.550	0.6	0.220	0.8970	1.00	0.8970	0.935	0.8385	2.5
20	08:43	46.30	0.6	0.350	0.6	0.140	0.8717	1.00	0.8717	0.595	0.5188	1.5
21	08:43	48.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

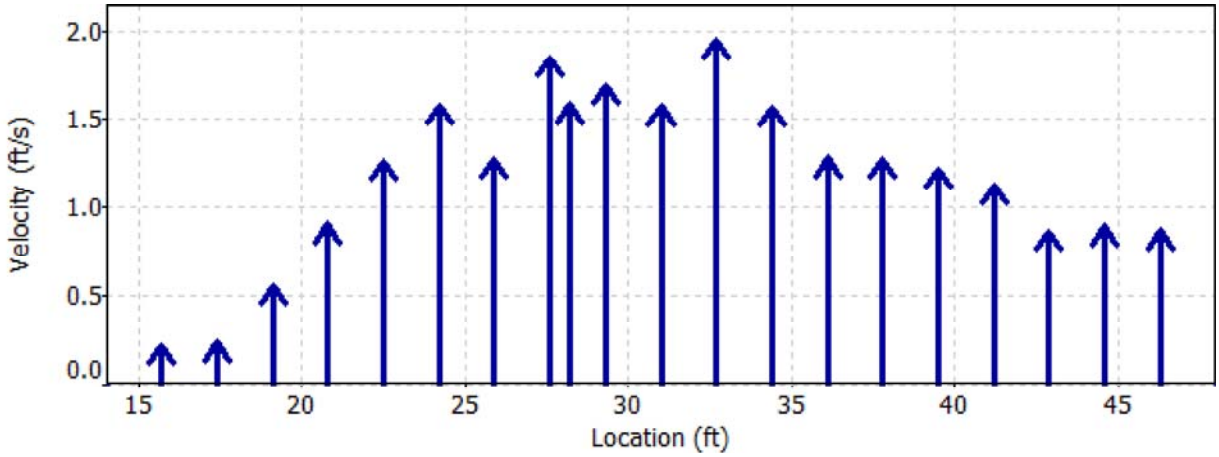
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

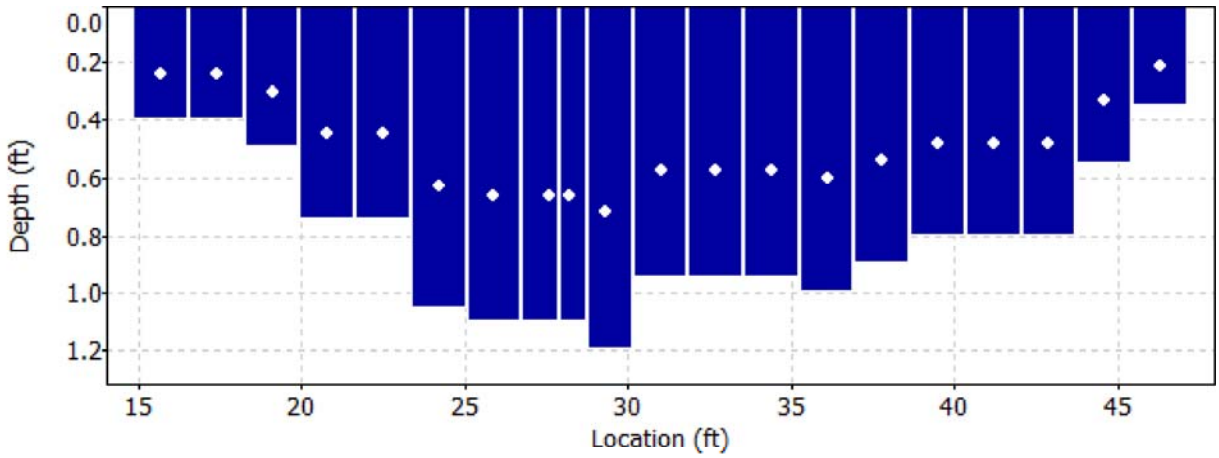
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M29A.WAD	Site Name	M29A
Start Date and Time	2017/09/28 08:23:58	Operator(s)	RB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M29A.WAD	Site Name	M29A
Start Date and Time	2017/09/28 08:23:58	Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
7	25.90	0.6	High standard error: 0.113
9	28.20	0.6	High standard error: 0.083
10	29.30	0.6	High standard error: 0.088
14	36.10	0.6	High angle: 24
15	37.80	0.6	High angle: 32
16	39.50	0.6	High angle: 27
17	41.20	0.6	High angle: 22

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M30.WAD
Start Date and Time	2017/09/28 07:16:15

Site Details

Site Name	M30
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.7%
Velocity	1.5%	4.4%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.0%	-
Overall	**3.3%**	**5.3%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	LEW	Total Width	7.001
Mean SNR	37.5 dB	Total Area	4.566
Mean Temp	37.75 °F	Mean Depth	0.652
Disch. Equation	Mid-Section	Mean Velocity	0.6221
		Total Discharge	**2.8405**

Measurement Results

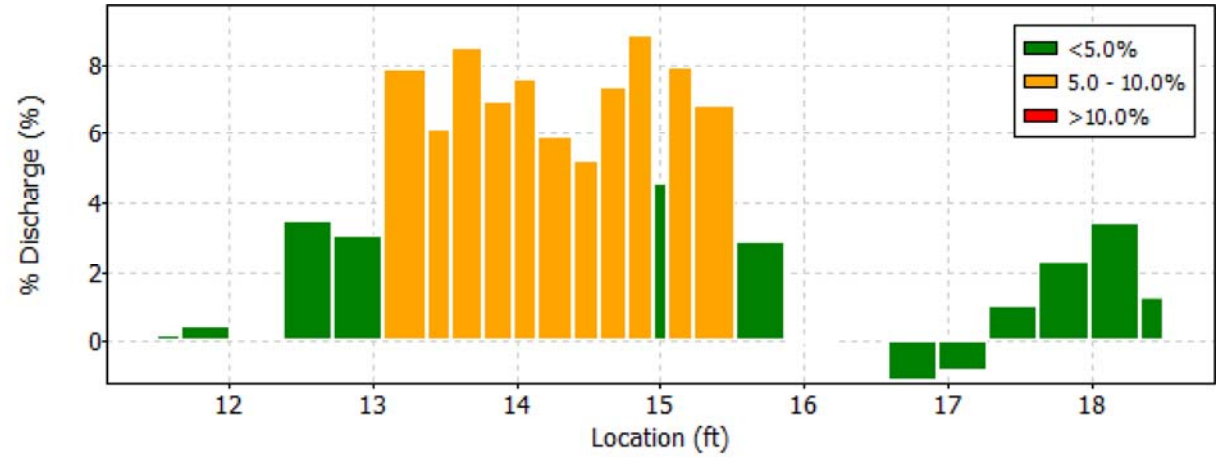
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	07:16	11.50	None	0.600	0.0	0.0	0.0000	1.00	0.0548	0.105	0.0058	0.2
1	*07:16*	*11.85*	*0.6*	*0.700*	*0.6*	*0.280*	*0.0548*	*1.00*	*0.0548*	*0.245*	*0.0134*	*0.5*
2	*07:17*	*12.20*	*0.6*	*0.850*	*0.6*	*0.340*	*-0.0010*	*1.00*	*-0.0010*	*0.298*	*-0.0003*	*0.0*
3	*07:18*	*12.55*	*0.6*	*0.700*	*0.6*	*0.280*	*0.4009*	*1.00*	*0.4009*	*0.245*	*0.0983*	*3.5*
4	*07:19*	*12.90*	*0.6*	*0.600*	*0.6*	*0.240*	*0.4160*	*1.00*	*0.4160*	*0.210*	*0.0874*	*3.1*
5	*07:20*	*13.25*	*0.6*	*0.850*	*0.6*	*0.340*	*0.8809*	*1.00*	*0.8809*	*0.255*	*0.2246*	*7.9*
6	*07:36*	*13.50*	*0.6*	*0.800*	*0.6*	*0.320*	*1.2484*	*1.00*	*1.2484*	*0.140*	*0.1748*	*6.2*
7	07:21	13.60	0.6	0.850	0.6	0.340	1.2608	1.00	1.2608	0.191	0.2414	8.5
8	*07:22*	*13.95*	*0.6*	*0.700*	*0.6*	*0.280*	*1.4075*	*1.00*	*1.4075*	*0.140*	*0.1969*	*6.9*
9	*07:37*	*14.00*	*0.6*	*0.850*	*0.6*	*0.340*	*1.4498*	*1.00*	*1.4498*	*0.149*	*0.2157*	*7.6*
10	*07:23*	*14.30*	*0.6*	*0.800*	*0.6*	*0.320*	*0.8386*	*1.00*	*0.8386*	*0.200*	*0.1677*	*5.9*
11	07:38	14.50	0.6	0.800	0.6	0.320	1.0561	1.00	1.0561	0.140	0.1479	5.2
12	*07:23*	*14.65*	*0.6*	*0.800*	*0.6*	*0.320*	*1.3045*	*1.00*	*1.3045*	*0.160*	*0.2086*	*7.3*
13	*07:39*	*14.90*	*0.6*	*0.800*	*0.6*	*0.320*	*1.7992*	*1.00*	*1.7992*	*0.140*	*0.2519*	*8.9*
14	07:24	15.00	0.6	0.800	0.6	0.320	1.6283	1.00	1.6283	0.080	0.1303	4.6
15	07:40	15.10	0.6	0.800	0.6	0.320	1.6056	1.00	1.6056	0.140	0.2248	7.9
16	07:25	15.35	0.6	0.800	0.6	0.320	0.8064	1.00	0.8064	0.240	0.1937	6.8
17	07:26	15.70	0.6	0.800	0.6	0.320	0.2953	1.00	0.2953	0.280	0.0827	2.9
18	07:27	16.05	0.6	0.450	0.6	0.180	-0.0194	1.00	-0.0194	0.158	-0.0031	-0.1
19	*07:28*	*16.40*	*0.6*	*0.550*	*0.6*	*0.220*	*0.0230*	*1.00*	*0.0230*	*0.192*	*0.0044*	*0.2*
20	*07:29*	*16.75*	*0.6*	*0.500*	*0.6*	*0.200*	*-0.1808*	*1.00*	*-0.1808*	*0.175*	*-0.0316*	*-1.1*
21	*07:30*	*17.10*	*0.6*	*0.550*	*0.6*	*0.220*	*-0.1266*	*1.00*	*-0.1266*	*0.192*	*-0.0244*	*-0.9*
22	07:31	17.45	0.6	0.450	0.6	0.180	0.1936	1.00	0.1936	0.158	0.0305	1.1
23	07:32	17.80	0.6	0.400	0.6	0.160	0.4705	1.00	0.4705	0.140	0.0659	2.3
24	07:34	18.15	0.6	0.400	0.6	0.160	0.6923	1.00	0.6923	0.140	0.0969	3.4
25	07:34	18.50	None	0.300	0.0	0.0	0.0000	1.00	0.6923	0.052	0.0363	1.3

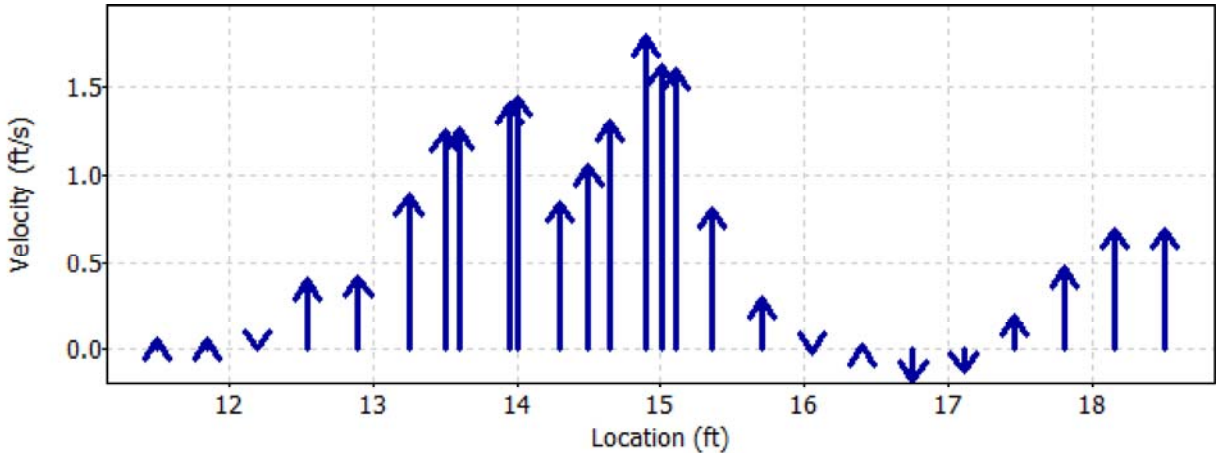
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

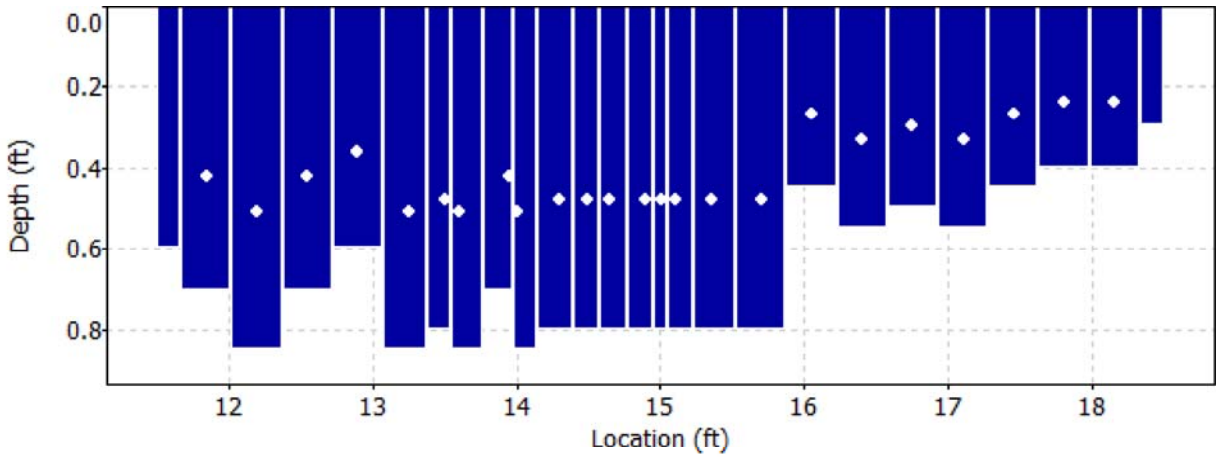
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M30.WAD	Site Name	M30
Start Date and Time	2017/09/28 07:16:15	Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M30.WAD	Site Name	M30
Start Date and Time	2017/09/28 07:16:15	Operator(s)	KB

Quality Control

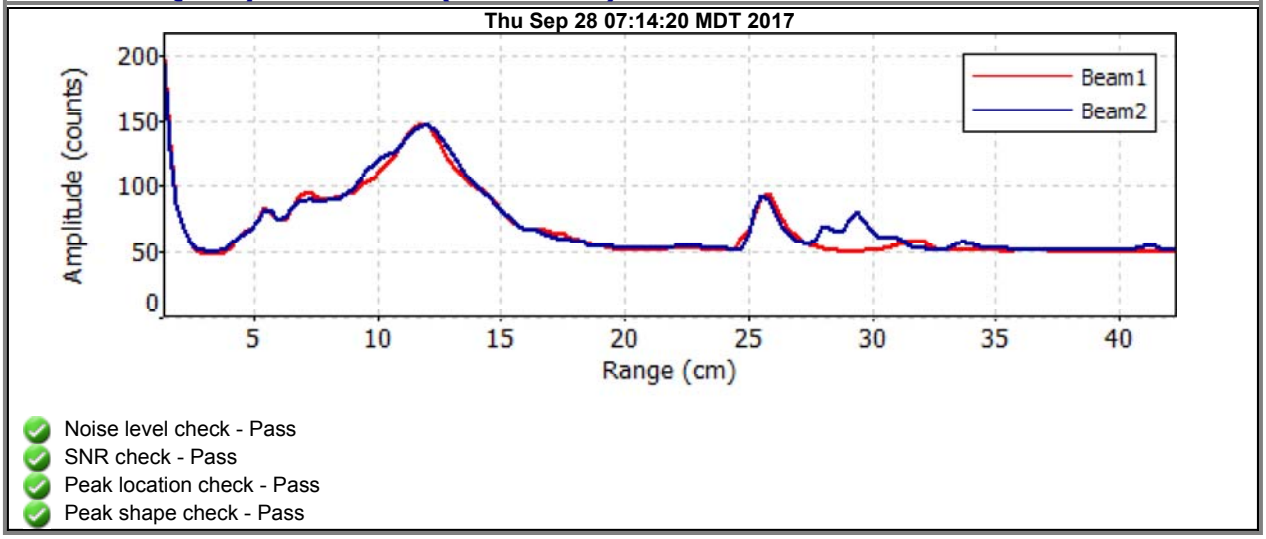
St	Loc	%Dep	Message
1	11.85	0.6	High angle: 62
		0.6	High SNR variation during measurement: 3.9,5.2
2	12.20	0.6	SNR (50.7) is different from typical SNR (37.5)
		0.6	High SNR variation during measurement: 6.5,6.5
3	12.55	0.6	High angle: 20
4	12.90	0.6	High angle: 22
5	13.25	0.6	High angle: 23
6	13.50	0.6	High angle: 21
8	13.95	0.6	High angle: 21
		0.6	High standard error: 0.073
9	14.00	0.6	High angle: 20
		0.6	High standard error: 0.086
10	14.30	0.6	High angle: 23
		0.6	High standard error: 0.122
12	14.65	0.6	High angle: 24
		0.6	High standard error: 0.077
13	14.90	0.6	High angle: 21
19	16.40	0.6	High angle: -22
		0.6	High differences in beam SNR: 18.9,38.2
		0.6	Boundary QC is Good; possible boundary interference
20	16.75	0.6	High angle: 158
21	17.10	0.6	High angle: -154

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M30.WAD	Site Name	M30
Start Date and Time	2017/09/28 07:16:15	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M32.WAD
Start Date and Time	2017/09/26 10:21:50

Site Details

Site Name	M32
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	1.2%
Velocity	1.4%	8.3%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.1%	-
Overall	**3.3%**	**8.4%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	REW	Total Width	21.000
Mean SNR	37.3 dB	Total Area	25.868
Mean Temp	42.64 °F	Mean Depth	1.232
Disch. Equation	Mid-Section	Mean Velocity	1.3988
		Total Discharge	**36.1845**

Measurement Results

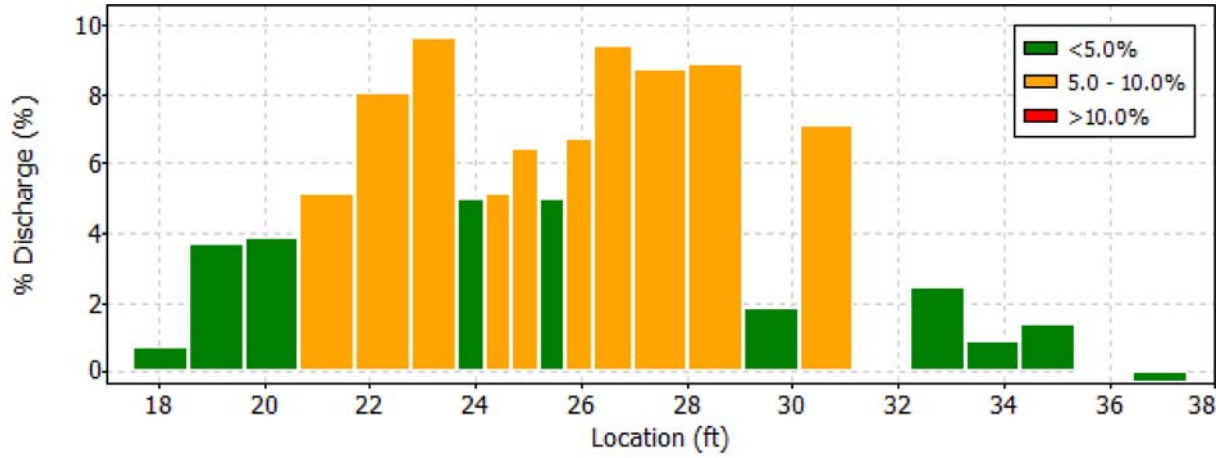
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:21	17.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	10:21	18.05	0.6	0.400	0.6	0.160	0.6217	1.00	0.6217	0.420	0.2610	0.7
2	10:22	19.10	0.6	0.500	0.6	0.200	2.5787	1.00	2.5787	0.525	1.3537	3.7
3	10:23	20.15	0.6	0.700	0.6	0.280	1.9216	1.00	1.9216	0.735	1.4125	3.9
4	*10:25*	*21.20*	*0.6*	*1.100*	*0.6*	*0.440*	*1.6148*	*1.00*	*1.6148*	*1.155*	*1.8650*	*5.2*
5	10:26	22.25	0.6	1.700	0.6	0.680	1.6293	1.00	1.6293	1.785	2.9081	8.0
6	*10:27*	*23.30*	*0.6*	*1.800*	*0.6*	*0.720*	*2.2188*	*1.00*	*2.2188*	*1.575*	*3.4957*	*9.7*
7	10:43	24.00	0.6	1.900	0.6	0.760	1.8018	1.00	1.8018	0.997	1.7970	5.0
8	*10:28*	*24.35*	*0.6*	*1.800*	*0.6*	*0.720*	*2.0745*	*1.00*	*2.0745*	*0.900*	*1.8669*	*5.2*
9	10:44	25.00	0.6	1.850	0.6	0.740	2.3871	1.00	2.3871	0.971	2.3183	6.4
10	*10:29*	*25.40*	*0.6*	*1.800*	*0.6*	*0.720*	*2.0010*	*1.00*	*2.0010*	*0.900*	*1.8008*	*5.0*
11	10:45	26.00	0.6	1.800	0.6	0.720	2.5682	1.00	2.5682	0.945	2.4265	6.7
12	10:30	26.45	0.6	1.750	0.6	0.700	2.6086	1.00	2.6086	1.311	3.4208	9.5
13	10:31	27.50	0.6	1.700	0.6	0.680	1.7772	1.00	1.7772	1.785	3.1722	8.8
14	10:32	28.55	0.6	1.800	0.6	0.720	1.7100	1.00	1.7100	1.890	3.2312	8.9
15	10:33	29.60	0.6	1.800	0.6	0.720	0.3537	1.00	0.3537	1.890	0.6683	1.8
16	*10:34*	*30.65*	*0.6*	*1.750*	*0.6*	*0.700*	*1.4058*	*1.00*	*1.4058*	*1.837*	*2.5829*	*7.1*
17	10:35	31.70	0.6	1.500	0.6	0.600	0.0148	1.00	0.0148	1.575	0.0233	0.1
18	10:37	32.75	0.6	1.300	0.6	0.520	0.6407	1.00	0.6407	1.365	0.8744	2.4
19	10:38	33.80	0.6	1.000	0.6	0.400	0.3061	1.00	0.3061	1.050	0.3214	0.9
20	10:39	34.85	0.6	0.850	0.6	0.340	0.5761	1.00	0.5761	0.892	0.5142	1.4
21	10:40	35.90	0.6	0.750	0.6	0.300	-0.0125	1.00	-0.0125	0.787	-0.0098	0.0
22	*10:41*	*36.95*	*0.6*	*0.550*	*0.6*	*0.220*	*-0.2073*	*1.00*	*-0.2073*	*0.578*	*-0.1199*	*-0.3*
23	10:41	38.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

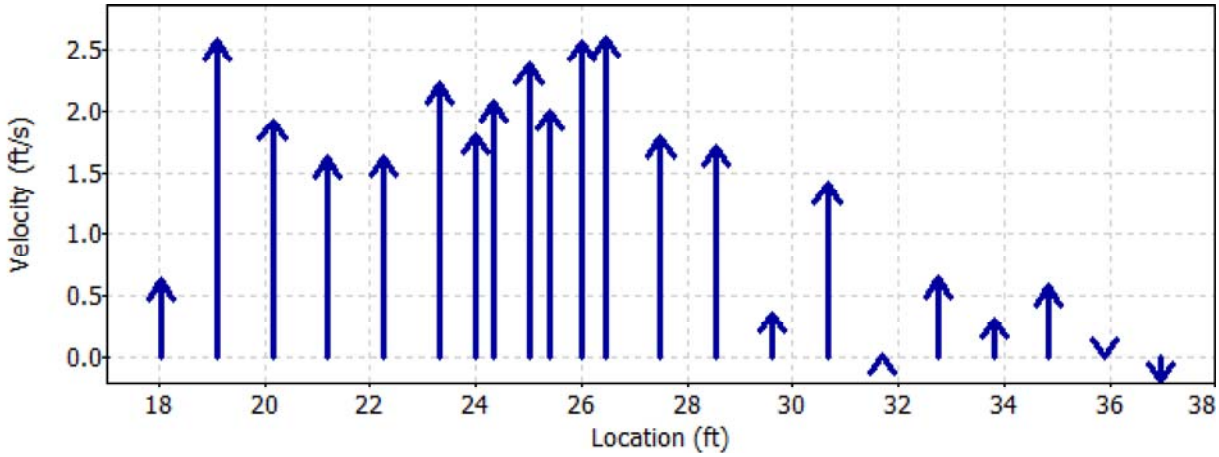
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

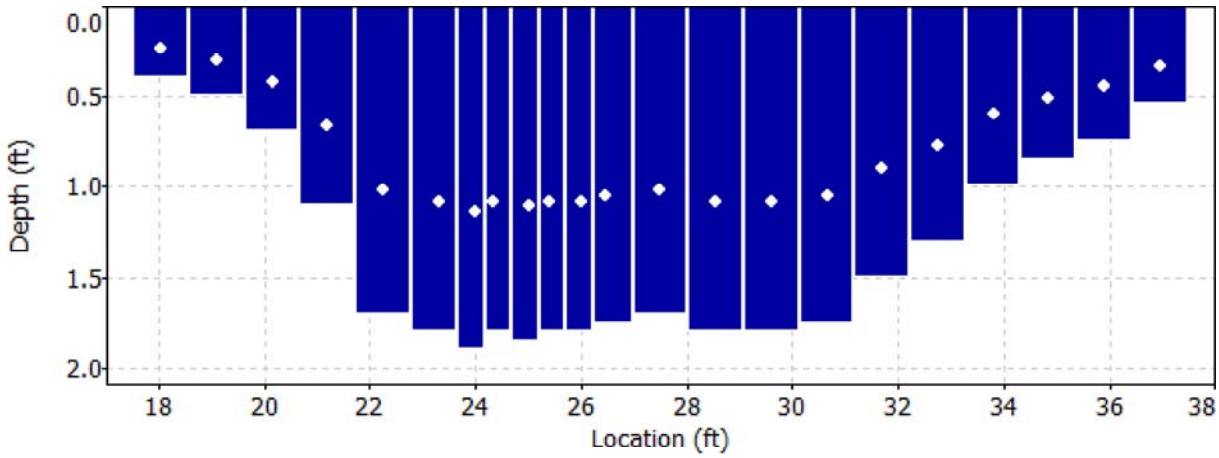
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M32.WAD	Site Name	M32
Start Date and Time	2017/09/26 10:21:50	Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M32.WAD	Site Name	M32
Start Date and Time	2017/09/26 10:21:50	Operator(s)	KB

Quality Control

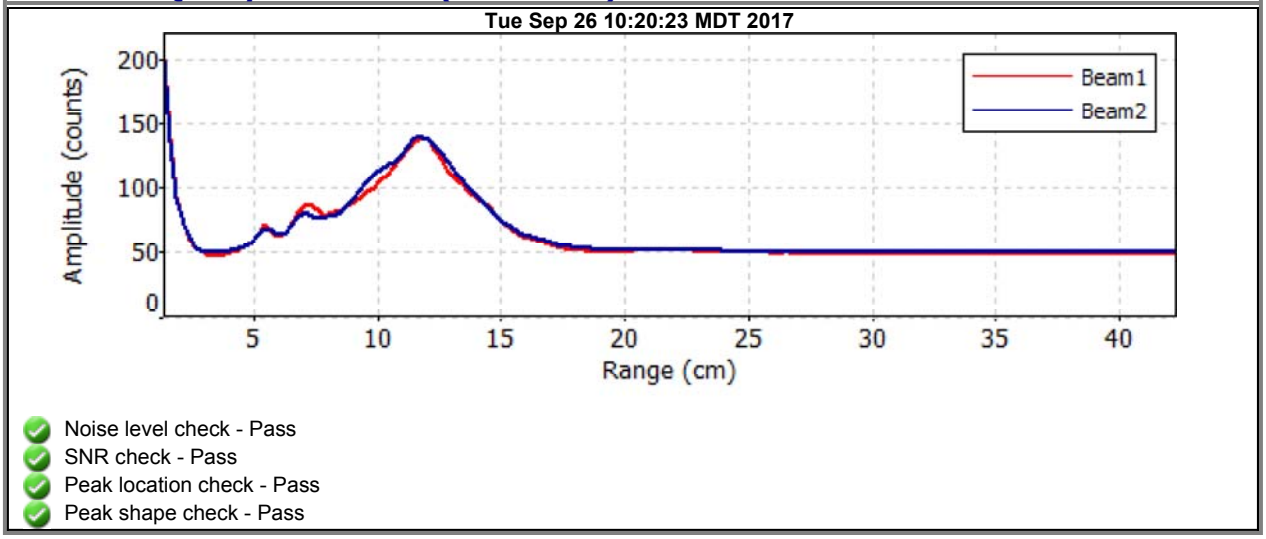
St	Loc	%Dep	Message
4	21.20	0.6	High standard error: 0.105
6	23.30	0.6	High standard error: 0.127
8	24.35	0.6	High standard error: 0.109
10	25.40	0.6	High standard error: 0.146
16	30.65	0.6	High standard error: 0.104
22	36.95	0.6	High angle: -154
		0.6	Boundary QC is Good; possible boundary interference

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M32.WAD	Site Name	M32
Start Date and Time	2017/09/26 10:21:50	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M32B.WAD
Start Date and Time	2017/09/26 11:05:24

Site Details

Site Name	M32B
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	5.8%
Velocity	2.6%	12.8%
Width	0.1%	0.1%
Method	2.1%	-
# Stations	1.8%	-
Overall	**3.9%**	**14.1%**

Summary

Averaging Int.	40	# Stations	28
Start Edge	LEW	Total Width	5.997
Mean SNR	38.0 dB	Total Area	1.596
Mean Temp	45.12 °F	Mean Depth	0.266
Disch. Equation	Mid-Section	Mean Velocity	0.2463
		Total Discharge	**0.3930**

Measurement Results

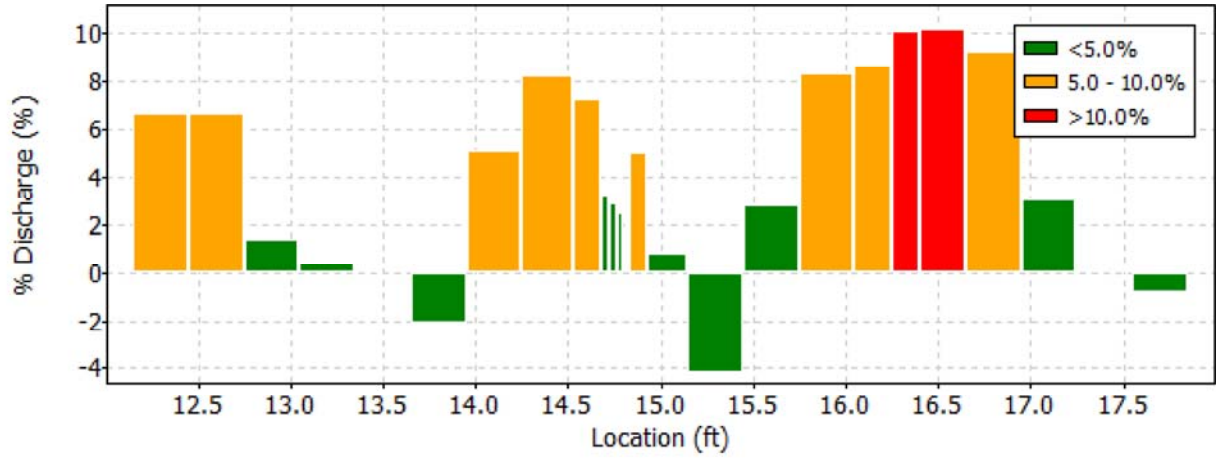
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:05	12.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	11:05	12.30	0.6	0.200	0.6	0.080	0.4367	1.00	0.4367	0.060	0.0262	6.7
2	11:06	12.60	0.6	0.200	0.6	0.080	0.4354	1.00	0.4354	0.060	0.0261	6.6
3	*11:07*	*12.90*	*0.6*	*0.250*	*0.6*	*0.100*	*0.0741*	*1.00*	*0.0741*	*0.075*	*0.0056*	*1.4*
4	*11:08*	*13.20*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0243*	*1.00*	*0.0243*	*0.060*	*0.0015*	*0.4*
5	*11:09*	*13.50*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.0023*	*1.00*	*-0.0023*	*0.090*	*-0.0002*	*-0.1*
6	*11:10*	*13.80*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.0928*	*1.00*	*-0.0928*	*0.090*	*-0.0083*	*-2.1*
7	*11:11*	*14.10*	*0.6*	*0.350*	*0.6*	*0.140*	*0.1903*	*1.00*	*0.1903*	*0.105*	*0.0200*	*5.1*
8	11:12	14.40	0.6	0.450	0.6	0.180	0.2631	1.00	0.2631	0.124	0.0326	8.3
9	11:31	14.65	0.6	0.400	0.6	0.160	0.4747	1.00	0.4747	0.060	0.0285	7.2
10	*11:13*	*14.70*	*0.6*	*0.400*	*0.6*	*0.160*	*0.6434*	*1.00*	*0.6434*	*0.020*	*0.0129*	*3.3*
11	*11:26*	*14.75*	*0.6*	*0.350*	*0.6*	*0.140*	*0.7110*	*1.00*	*0.7110*	*0.016*	*0.0113*	*2.9*
12	*11:28*	*14.79*	*0.6*	*0.350*	*0.6*	*0.140*	*1.1227*	*1.00*	*1.1227*	*0.009*	*0.0098*	*2.5*
13	*11:24*	*14.80*	*0.6*	*0.400*	*0.6*	*0.160*	*1.2041*	*1.00*	*1.2041*	*0.006*	*0.0072*	*1.8*
14	*11:29*	*14.82*	*0.6*	*0.300*	*0.6*	*0.120*	*1.3734*	*1.00*	*1.3734*	*0.008*	*0.0103*	*2.6*
15	*11:32*	*14.85*	*0.6*	*0.300*	*0.6*	*0.120*	*0.7395*	*1.00*	*0.7395*	*0.027*	*0.0198*	*5.0*
16	*11:14*	*15.00*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0463*	*1.00*	*0.0463*	*0.067*	*0.0031*	*0.8*
17	*11:15*	*15.30*	*0.6*	*0.400*	*0.6*	*0.160*	*-0.1394*	*1.00*	*-0.1394*	*0.120*	*-0.0167*	*-4.3*
18	*11:16*	*15.60*	*0.6*	*0.200*	*0.6*	*0.080*	*0.1827*	*1.00*	*0.1827*	*0.060*	*0.0110*	*2.8*
19	*11:17*	*15.90*	*0.6*	*0.250*	*0.6*	*0.100*	*0.4396*	*1.00*	*0.4396*	*0.075*	*0.0330*	*8.4*
20	*11:18*	*16.20*	*0.6*	*0.200*	*0.6*	*0.080*	*0.8468*	*1.00*	*0.8468*	*0.040*	*0.0340*	*8.7*
21	*11:25*	*16.30*	*0.6*	*0.300*	*0.6*	*0.120*	*0.8855*	*1.00*	*0.8855*	*0.045*	*0.0398*	*10.1*
22	*11:19*	*16.50*	*0.6*	*0.200*	*0.6*	*0.080*	*0.8068*	*1.00*	*0.8068*	*0.050*	*0.0402*	*10.2*
23	*11:20*	*16.80*	*0.6*	*0.300*	*0.6*	*0.120*	*0.4055*	*1.00*	*0.4055*	*0.090*	*0.0365*	*9.3*
24	*11:21*	*17.10*	*0.6*	*0.300*	*0.6*	*0.120*	*0.1335*	*1.00*	*0.1335*	*0.090*	*0.0120*	*3.1*
25	11:22	17.40	0.6	0.300	0.6	0.120	0.0052	1.00	0.0052	0.090	0.0005	0.1
26	*11:23*	*17.70*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0587*	*1.00*	*-0.0587*	*0.060*	*-0.0035*	*-0.9*
27	11:23	18.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

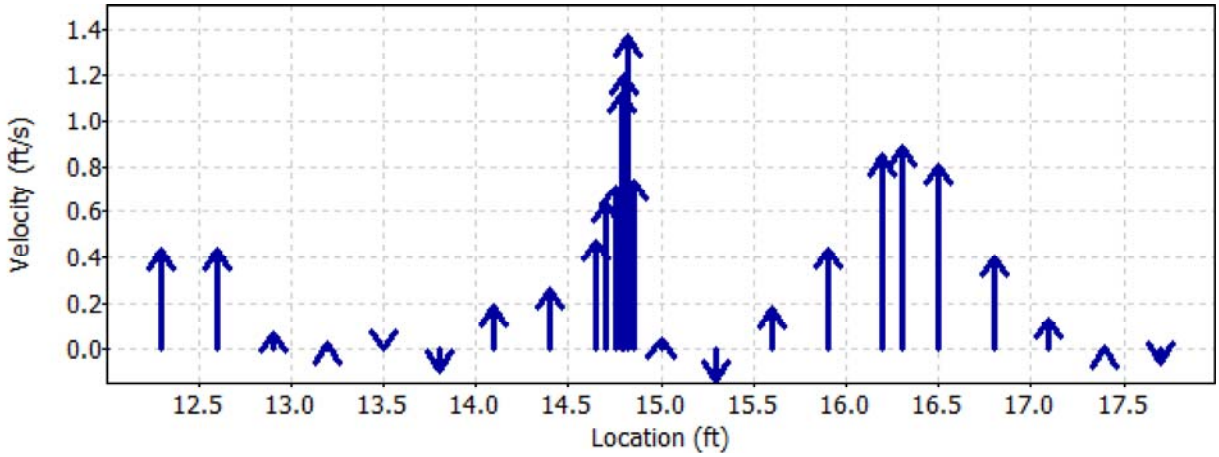
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

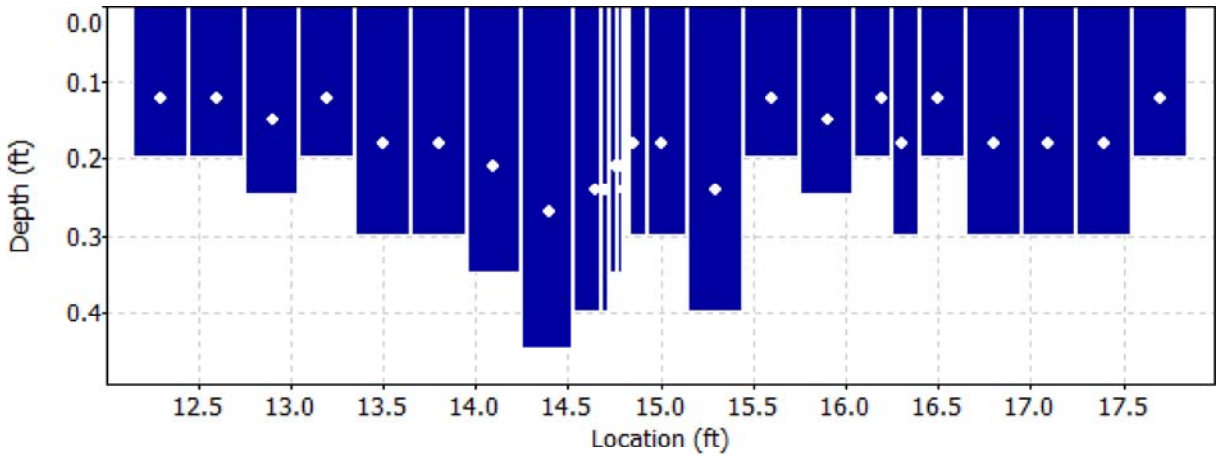
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M32B.WAD	Site Name	M32B
Start Date and Time	2017/09/26 11:05:24	Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M32B.WAD	Site Name	M32B
Start Date and Time	2017/09/26 11:05:24	Operator(s)	KB

Quality Control

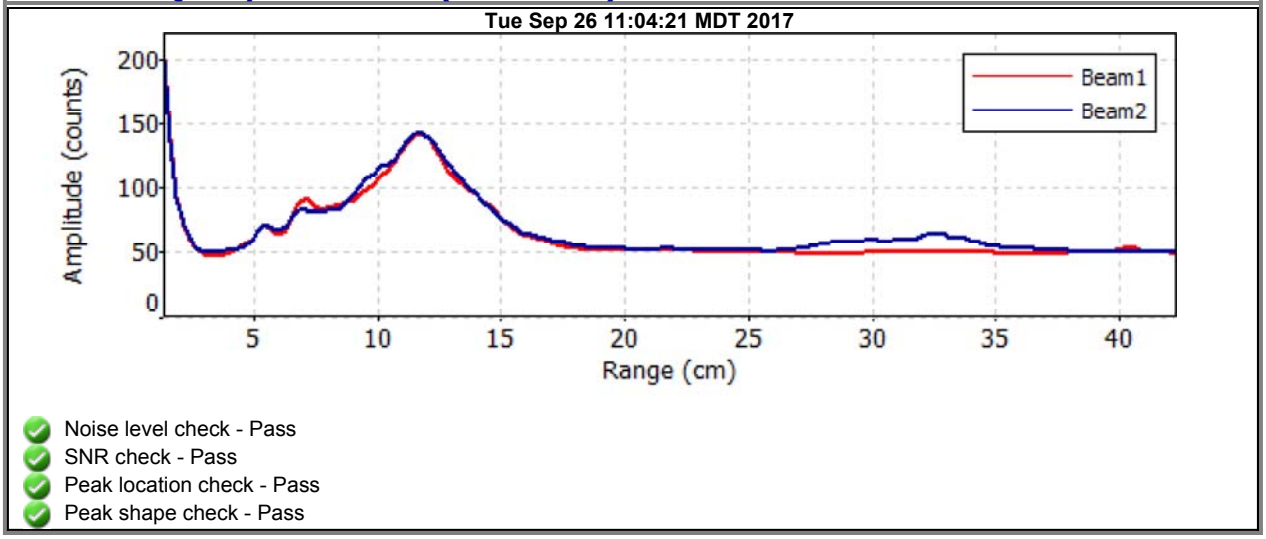
St	Loc	%Dep	Message
3	12.90	0.6	High angle: 66
4	13.20	0.6	High angle: 87
5	13.50	0.6	High differences in beam SNR: 16.3,33.9
		0.6	SNR (25.1) is different from typical SNR (38.0)
		0.6	Boundary QC is Poor; possible boundary interference
6	13.80	0.6	High angle: 170
		0.6	Boundary QC is Good; possible boundary interference
7	14.10	0.6	High angle: 25
10	14.70	0.6	High angle: 31
		0.6	High standard error: 0.077
11	14.75	0.6	High standard error: 0.102
12	14.79	0.6	High standard error: 0.090
13	14.80	0.6	High angle: 22
		0.6	High standard error: 0.083
14	14.82	0.6	High angle: 20
		0.6	High standard error: 0.102
15	14.85	0.6	High angle: 21
		0.6	High standard error: 0.106
16	15.00	0.6	High angle: 78
17	15.30	0.6	High angle: 143
18	15.60	0.6	High angle: 62
19	15.90	0.6	High angle: 49
20	16.20	0.6	High angle: 35
21	16.30	0.6	High angle: 27
22	16.50	0.6	High angle: 27
23	16.80	0.6	High angle: 21
24	17.10	0.6	High angle: 39
26	17.70	0.6	High angle: 156

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M32B.WAD	Site Name	M32B
Start Date and Time	2017/09/26 11:05:24	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M33.WAD
Start Date and Time	2017/09/26 08:46:35

Site Details

Site Name	M33
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	3.6%
Velocity	1.2%	5.4%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.4%	-
Overall	**3.4%**	**6.6%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	LEW	Total Width	35.997
Mean SNR	35.2 dB	Total Area	25.108
Mean Temp	38.05 °F	Mean Depth	0.697
Disch. Equation	Mid-Section	Mean Velocity	1.7044
		Total Discharge	**42.7934**

Measurement Results

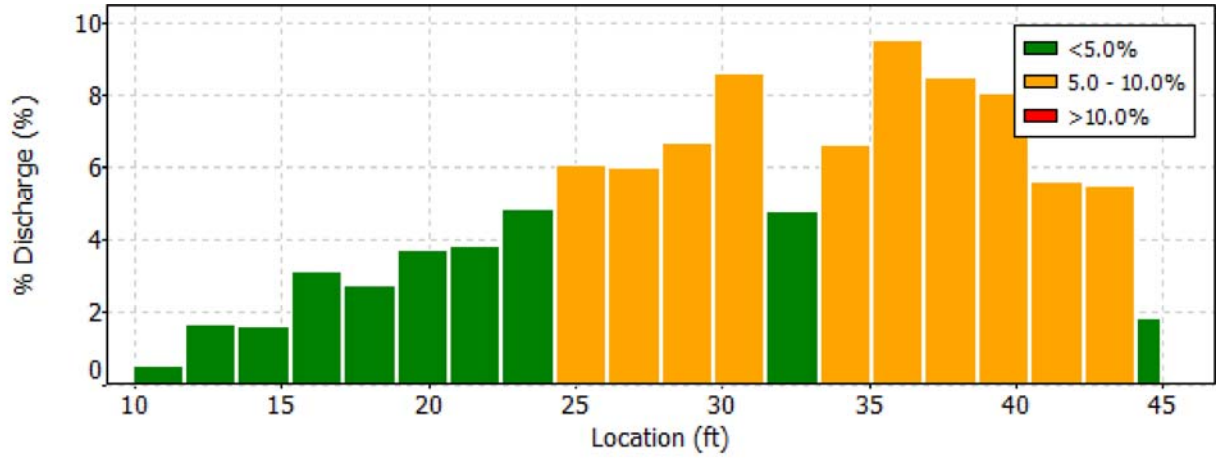
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:46	9.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	08:46	10.80	0.6	0.400	0.6	0.160	0.3219	1.00	0.3219	0.720	0.2317	0.5
2	*08:47*	*12.60*	*0.6*	*0.400*	*0.6*	*0.160*	*0.9898*	*1.00*	*0.9898*	*0.720*	*0.7125*	*1.7*
3	*08:48*	*14.40*	*0.6*	*0.700*	*0.6*	*0.280*	*0.5607*	*1.00*	*0.5607*	*1.260*	*0.7066*	*1.7*
4	*08:49*	*16.20*	*0.6*	*0.400*	*0.6*	*0.160*	*1.8694*	*1.00*	*1.8694*	*0.720*	*1.3457*	*3.1*
5	08:50	18.00	0.6	0.600	0.6	0.240	1.0965	1.00	1.0965	1.080	1.1842	2.8
6	*08:51*	*19.80*	*0.6*	*0.550*	*0.6*	*0.220*	*1.6102*	*1.00*	*1.6102*	*0.990*	*1.5936*	*3.7*
7	*08:52*	*21.60*	*0.6*	*0.550*	*0.6*	*0.220*	*1.6555*	*1.00*	*1.6555*	*0.990*	*1.6384*	*3.8*
8	*08:53*	*23.40*	*0.6*	*0.650*	*0.6*	*0.260*	*1.7726*	*1.00*	*1.7726*	*1.170*	*2.0736*	*4.8*
9	08:54	25.20	0.6	0.600	0.6	0.240	2.4075	1.00	2.4075	1.080	2.6002	6.1
10	08:55	27.00	0.6	0.700	0.6	0.280	2.0469	1.00	2.0469	1.260	2.5794	6.0
11	08:57	28.80	0.6	0.650	0.6	0.260	2.4469	1.00	2.4469	1.170	2.8623	6.7
12	08:58	30.60	0.6	1.000	0.6	0.400	2.0446	1.00	2.0446	1.800	3.6800	8.6
13	08:59	32.40	0.6	0.900	0.6	0.360	1.2621	1.00	1.2621	1.620	2.0444	4.8
14	*09:00*	*34.20*	*0.6*	*1.000*	*0.6*	*0.400*	*1.5745*	*1.00*	*1.5745*	*1.800*	*2.8338*	*6.6*
15	09:01	36.00	0.6	0.950	0.6	0.380	2.3947	1.00	2.3947	1.710	4.0952	9.6
16	*09:02*	*37.80*	*0.6*	*0.850*	*0.6*	*0.340*	*2.3753*	*1.00*	*2.3753*	*1.530*	*3.6343*	*8.5*
17	09:03	39.60	0.6	0.900	0.6	0.360	2.1247	1.00	2.1247	1.620	3.4415	8.0
18	*09:04*	*41.40*	*0.6*	*0.950*	*0.6*	*0.380*	*1.4045*	*1.00*	*1.4045*	*1.710*	*2.4019*	*5.6*
19	09:05	43.20	0.6	0.900	0.6	0.360	1.4511	1.00	1.4511	1.620	2.3505	5.5
20	09:05	45.00	None	0.600	0.0	0.0	0.0000	1.00	1.4511	0.540	0.7836	1.8

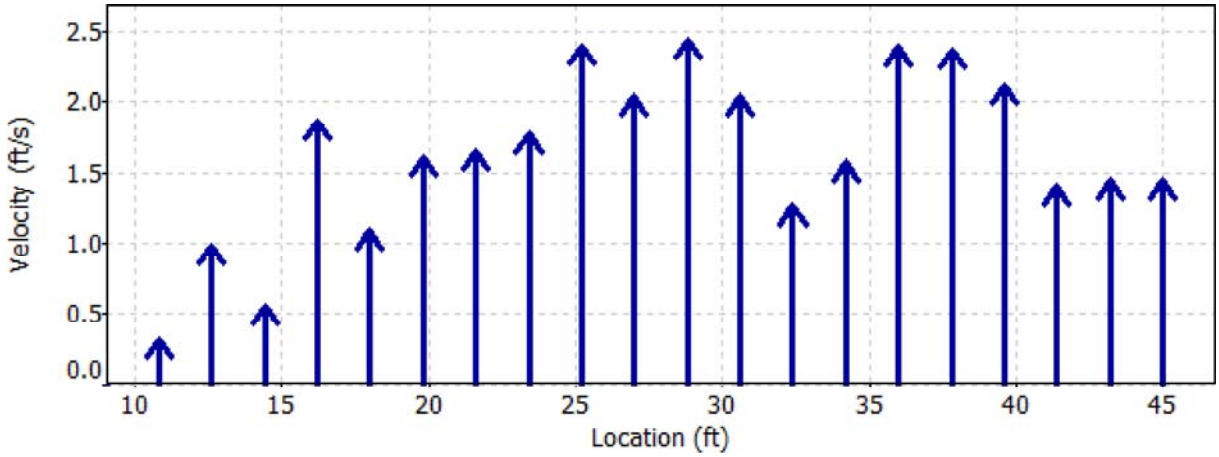
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

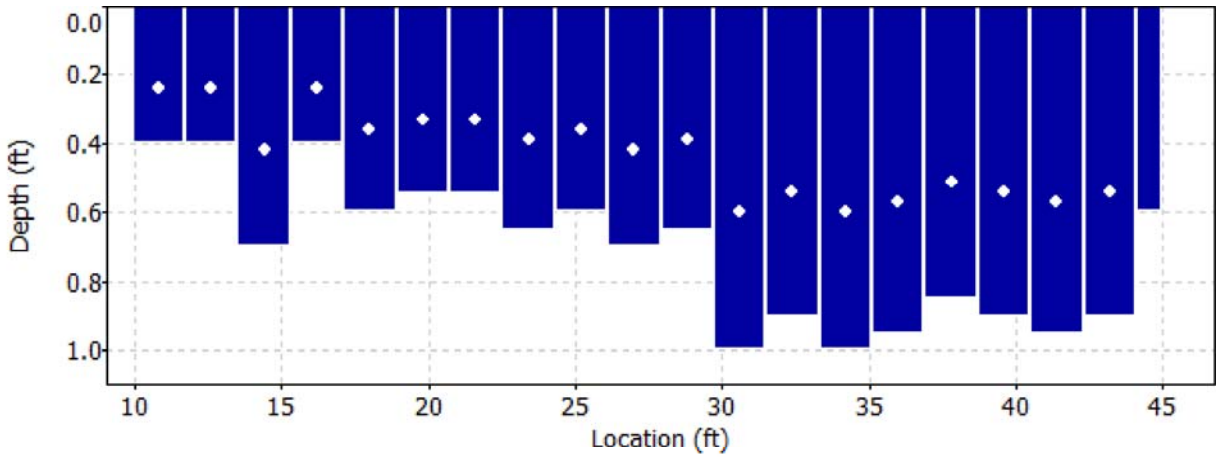
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M33.WAD	Site Name	M33
Start Date and Time	2017/09/26 08:46:35	Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M33.WAD	Site Name	M33
Start Date and Time	2017/09/26 08:46:35	Operator(s)	KB

Quality Control

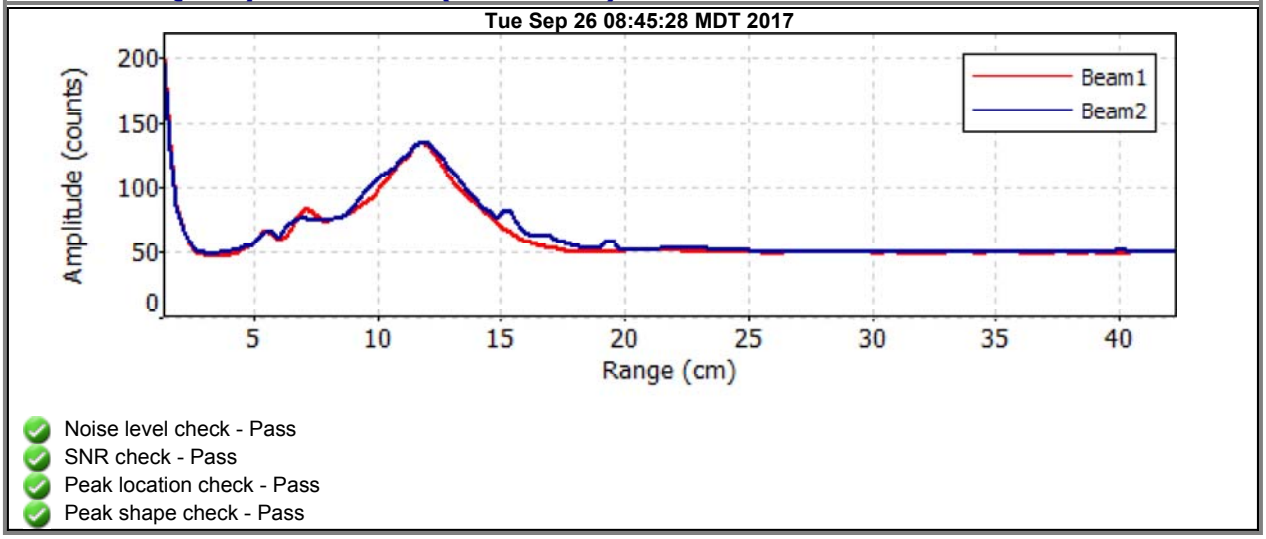
St	Loc	%Dep	Message
2	12.60	0.6	High angle: 31
3	14.40	0.6	High standard error: 0.153
4	16.20	0.6	High angle: 20
6	19.80	0.6	High angle: 45
7	21.60	0.6	High angle: 39
8	23.40	0.6	High angle: 39
14	34.20	0.6	High standard error: 0.120
16	37.80	0.6	High number of spikes: 6
18	41.40	0.6	High standard error: 0.120

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M33.WAD	Site Name	M33
Start Date and Time	2017/09/26 08:46:35	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M38.WAD
Start Date and Time	2017/09/26 07:07:35

Site Details

Site Name	M38
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P5879
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	3.8%
Velocity	0.8%	4.9%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.4%	-
Overall	**3.4%**	**6.3%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	LEW	Total Width	45.000
Mean SNR	34.9 dB	Total Area	23.063
Mean Temp	34.00 °F	Mean Depth	0.513
Disch. Equation	Mid-Section	Mean Velocity	1.9229
		Total Discharge	**44.3475**

Measurement Results

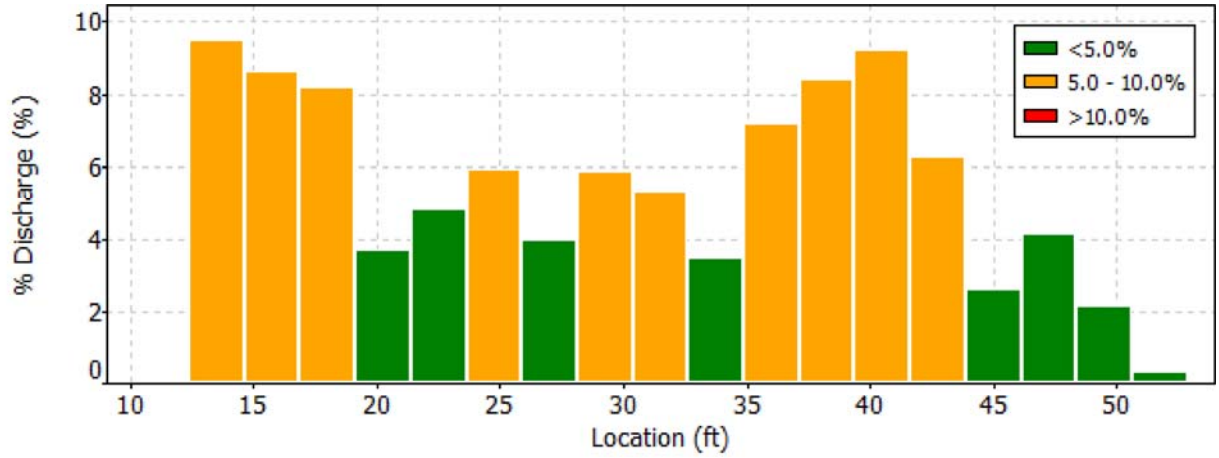
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	07:07	9.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*07:07*	*11.25*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.0003*	*1.00*	*-0.0003*	*0.675*	*-0.0002*	*0.0*
2	07:08	13.50	0.6	0.900	0.6	0.360	2.0892	1.00	2.0892	2.025	4.2304	9.5
3	07:09	15.75	0.6	0.800	0.6	0.320	2.1234	1.00	2.1234	1.800	3.8214	8.6
4	07:10	18.00	0.6	0.700	0.6	0.280	2.3120	1.00	2.3120	1.575	3.6421	8.2
5	*07:11*	*20.25*	*0.6*	*0.450*	*0.6*	*0.180*	*1.6414*	*1.00*	*1.6414*	*1.013*	*1.6624*	*3.7*
6	*07:12*	*22.50*	*0.6*	*0.500*	*0.6*	*0.200*	*1.9009*	*1.00*	*1.9009*	*1.125*	*2.1385*	*4.8*
7	07:13	24.75	0.6	0.600	0.6	0.240	1.9485	1.00	1.9485	1.350	2.6308	5.9
8	*07:15*	*27.00*	*0.6*	*0.450*	*0.6*	*0.180*	*1.7635*	*1.00*	*1.7635*	*1.013*	*1.7860*	*4.0*
9	*07:16*	*29.25*	*0.6*	*0.500*	*0.6*	*0.200*	*2.3130*	*1.00*	*2.3130*	*1.125*	*2.6021*	*5.9*
10	*07:17*	*31.50*	*0.6*	*0.500*	*0.6*	*0.200*	*2.1027*	*1.00*	*2.1027*	*1.125*	*2.3655*	*5.3*
11	*07:18*	*33.75*	*0.6*	*0.500*	*0.6*	*0.200*	*1.3914*	*1.00*	*1.3914*	*1.125*	*1.5653*	*3.5*
12	*07:19*	*36.00*	*0.6*	*0.600*	*0.6*	*0.240*	*2.3599*	*1.00*	*2.3599*	*1.350*	*3.1862*	*7.2*
13	*07:20*	*38.25*	*0.6*	*0.600*	*0.6*	*0.240*	*2.7644*	*1.00*	*2.7644*	*1.350*	*3.7324*	*8.4*
14	*07:21*	*40.50*	*0.6*	*0.700*	*0.6*	*0.280*	*2.6030*	*1.00*	*2.6030*	*1.575*	*4.1005*	*9.2*
15	*07:22*	*42.75*	*0.6*	*0.550*	*0.6*	*0.220*	*2.2402*	*1.00*	*2.2402*	*1.237*	*2.7715*	*6.2*
16	*07:23*	*45.00*	*0.6*	*0.500*	*0.6*	*0.200*	*1.0384*	*1.00*	*1.0384*	*1.125*	*1.1682*	*2.6*
17	07:24	47.25	0.6	0.500	0.6	0.200	1.6345	1.00	1.6345	1.125	1.8388	4.1
18	07:25	49.50	0.6	0.400	0.6	0.160	1.0630	1.00	1.0630	0.900	0.9565	2.2
19	07:27	51.75	0.6	0.200	0.6	0.080	0.3307	1.00	0.3307	0.450	0.1489	0.3
20	07:27	54.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

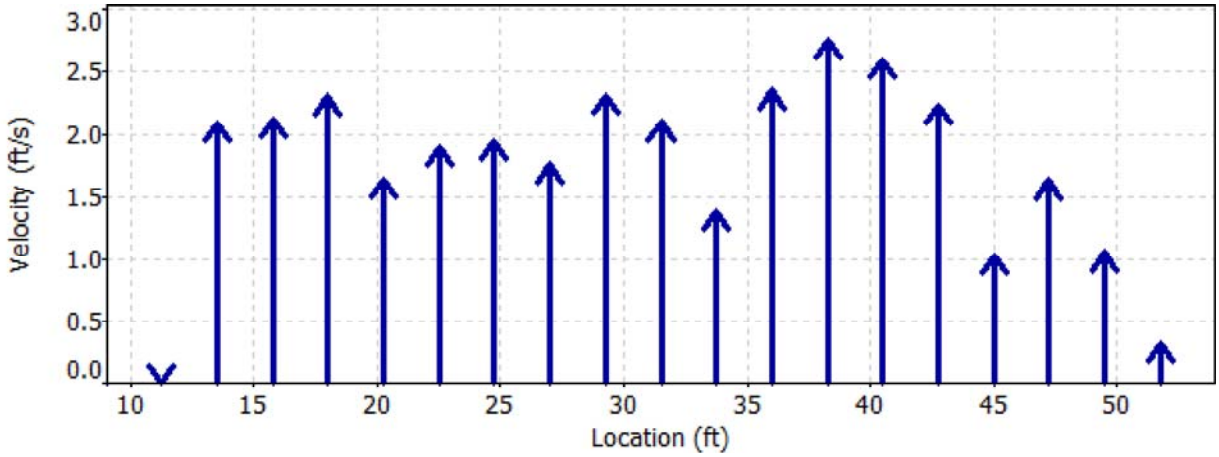
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

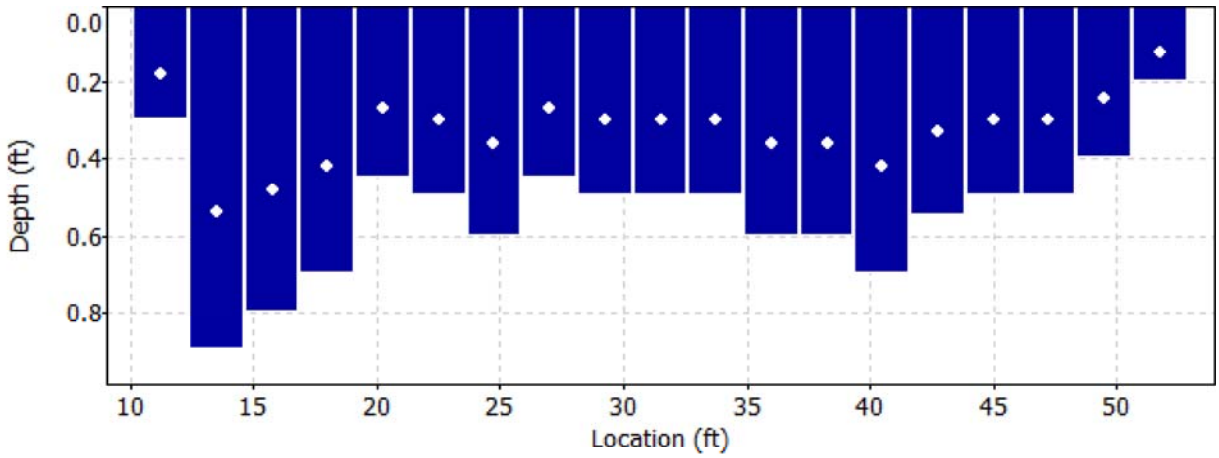
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M38.WAD	Site Name	M38
Start Date and Time	2017/09/26 07:07:35	Operator(s)	KB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M38.WAD	Site Name	M38
Start Date and Time	2017/09/26 07:07:35	Operator(s)	KB

Quality Control

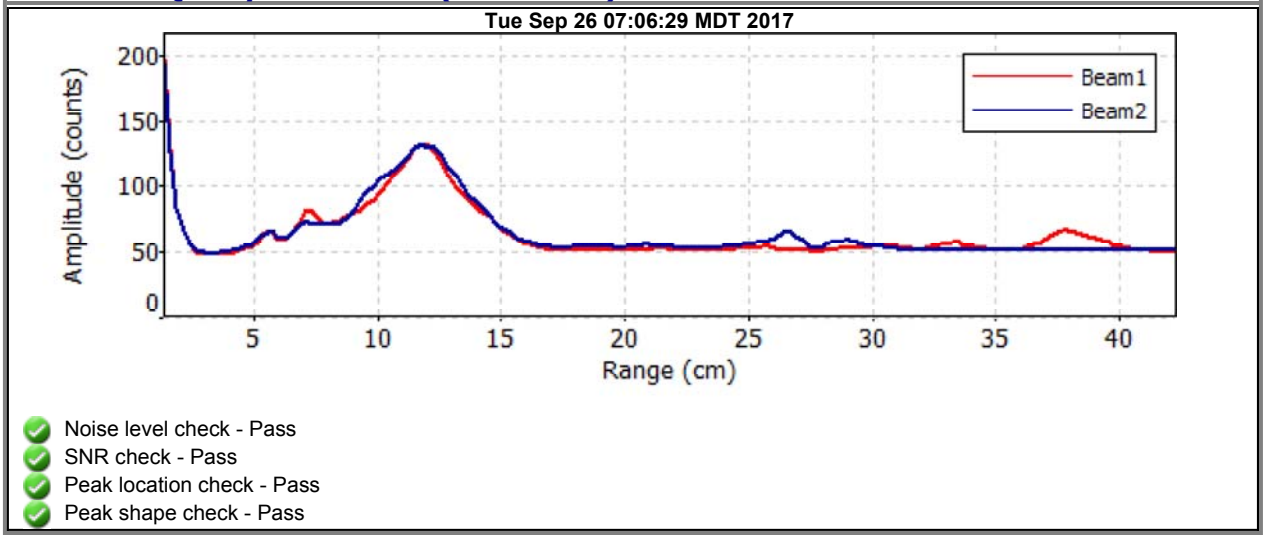
St	Loc	%Dep	Message
1	11.25	0.6	SNR (56.3) is different from typical SNR (34.9)
		0.6	High SNR variation during measurement: 5.6,6.0
		0.6	Boundary QC is Good; possible boundary interference
5	20.25	0.6	High angle: 24
6	22.50	0.6	High angle: 21
8	27.00	0.6	High angle: 32
9	29.25	0.6	High angle: 26
10	31.50	0.6	High angle: 31
11	33.75	0.6	High standard error: 0.138
12	36.00	0.6	High angle: 21
13	38.25	0.6	High angle: 24
14	40.50	0.6	High angle: 24
15	42.75	0.6	High angle: 26
16	45.00	0.6	High angle: 35

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M38.WAD	Site Name	M38
Start Date and Time	2017/09/26 07:07:35	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M16E.WAD
Start Date and Time	2017/09/26 14:03:30

Site Details

Site Name	M16E
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.2%
Velocity	1.1%	11.2%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.2%	-
Overall	**3.2%**	**11.5%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	7.199
Mean SNR	45.7 dB	Total Area	1.772
Mean Temp	43.58 °F	Mean Depth	0.246
Disch. Equation	Mid-Section	Mean Velocity	1.2069
		Total Discharge	**2.1387**

Measurement Results

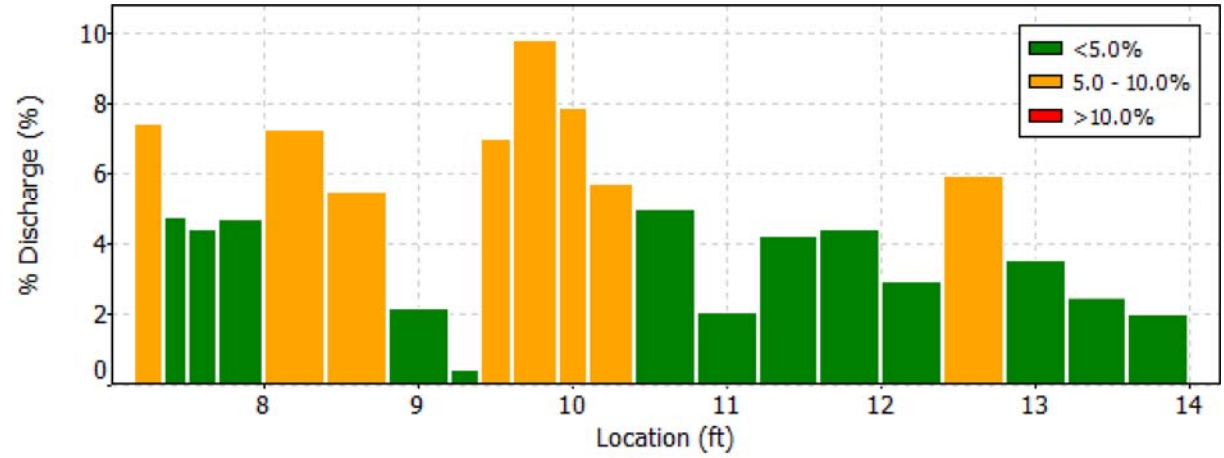
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:03	7.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	14:24	7.30	0.6	0.350	0.6	0.140	2.2717	1.00	2.2717	0.070	0.1590	7.4
2	14:03	7.40	0.6	0.350	0.6	0.140	1.9472	1.00	1.9472	0.053	0.1023	4.8
3	14:22	7.60	0.6	0.300	0.6	0.120	1.5768	1.00	1.5768	0.060	0.0945	4.4
4	*14:04*	*7.80*	*0.6*	*0.300*	*0.6*	*0.120*	*1.1129*	*1.00*	*1.1129*	*0.090*	*0.1001*	*4.7*
5	*14:05*	*8.20*	*0.6*	*0.300*	*0.6*	*0.120*	*1.2992*	*1.00*	*1.2992*	*0.120*	*0.1558*	*7.3*
6	*14:06*	*8.60*	*0.6*	*0.300*	*0.6*	*0.120*	*0.9823*	*1.00*	*0.9823*	*0.120*	*0.1178*	*5.5*
7	14:07	9.00	0.6	0.300	0.6	0.120	0.3917	1.00	0.3917	0.120	0.0470	2.2
8	*14:08*	*9.40*	*0.6*	*0.300*	*0.6*	*0.120*	*0.1598*	*1.00*	*0.1598*	*0.060*	*0.0096*	*0.4*
9	14:25	9.40	0.6	0.350	0.6	0.140	2.1411	1.00	2.1411	0.070	0.1499	7.0
10	14:09	9.80	0.6	0.300	0.6	0.120	2.3412	1.00	2.3412	0.090	0.2106	9.8
11	14:26	10.00	0.6	0.350	0.6	0.140	2.4160	1.00	2.4160	0.070	0.1691	7.9
12	14:10	10.20	0.6	0.300	0.6	0.120	1.3642	1.00	1.3642	0.090	0.1226	5.7
13	14:11	10.60	0.6	0.300	0.6	0.120	0.8855	1.00	0.8855	0.120	0.1062	5.0
14	*14:12*	*11.00*	*0.6*	*0.300*	*0.6*	*0.120*	*0.3760*	*1.00*	*0.3760*	*0.120*	*0.0451*	*2.1*
15	14:13	11.40	0.6	0.200	0.6	0.080	1.1378	1.00	1.1378	0.080	0.0911	4.3
16	14:14	11.80	0.6	0.200	0.6	0.080	1.1867	1.00	1.1867	0.080	0.0950	4.4
17	*14:16*	*12.20*	*0.6*	*0.200*	*0.6*	*0.080*	*0.7907*	*1.00*	*0.7907*	*0.080*	*0.0633*	*3.0*
18	14:17	12.60	0.6	0.200	0.6	0.080	1.5889	1.00	1.5889	0.080	0.1272	5.9
19	*14:19*	*13.00*	*0.6*	*0.200*	*0.6*	*0.080*	*0.9472*	*1.00*	*0.9472*	*0.080*	*0.0758*	*3.5*
20	14:20	13.40	0.6	0.150	0.6	0.060	0.8855	1.00	0.8855	0.060	0.0531	2.5
21	14:21	13.80	0.6	0.150	0.6	0.060	0.7277	1.00	0.7277	0.060	0.0436	2.0
22	14:21	14.20	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

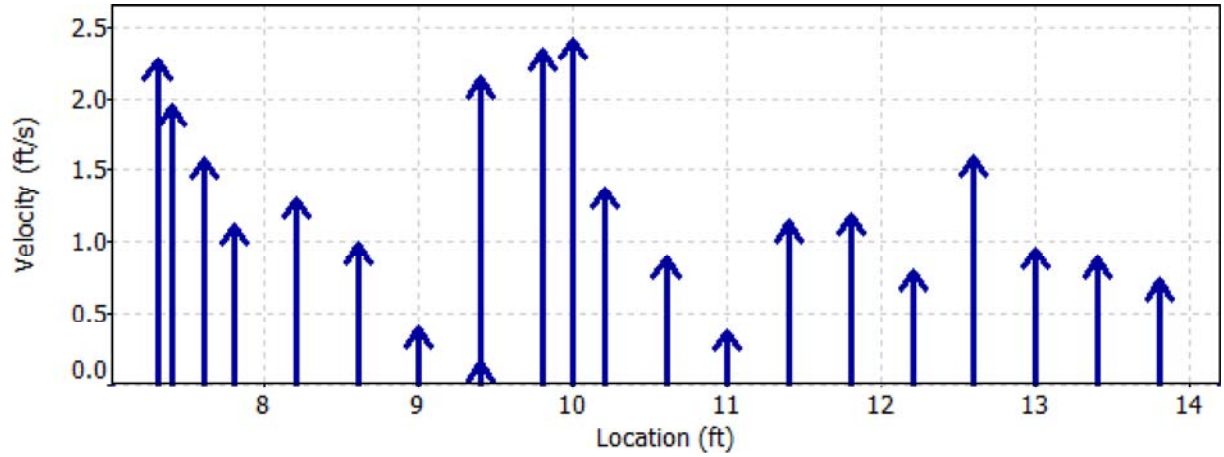
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

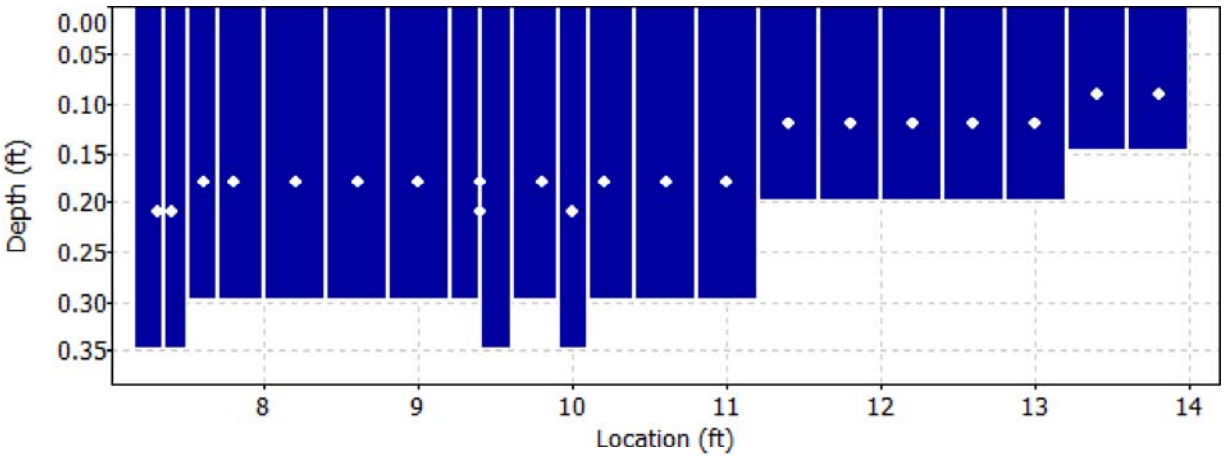
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M16E.WAD	Site Name	M16E
Start Date and Time	2017/09/26 14:03:30	Operator(s)	RB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M16E.WAD
Start Date and Time	2017/09/26 14:03:30

Site Details

Site Name	M16E
Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
4	7.80	0.6	High standard error: 0.095
5	8.20	0.6	High standard error: 0.088
6	8.60	0.6	High angle: -20
8	9.40	0.6	High angle: 42
14	11.00	0.6	High angle: -49
17	12.20	0.6	High standard error: 0.107
19	13.00	0.6	High angle: 29

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M16F.WAD
Start Date and Time	2017/09/26 13:38:56

Site Details

Site Name	M16F
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	0.0%
Velocity	1.4%	11.5%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.4%	-
Overall	**3.6%**	**11.5%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	LEW	Total Width	3.202
Mean SNR	50.7 dB	Total Area	0.601
Mean Temp	45.62 °F	Mean Depth	0.188
Disch. Equation	Mid-Section	Mean Velocity	1.0522
		Total Discharge	**0.6322**

Measurement Results

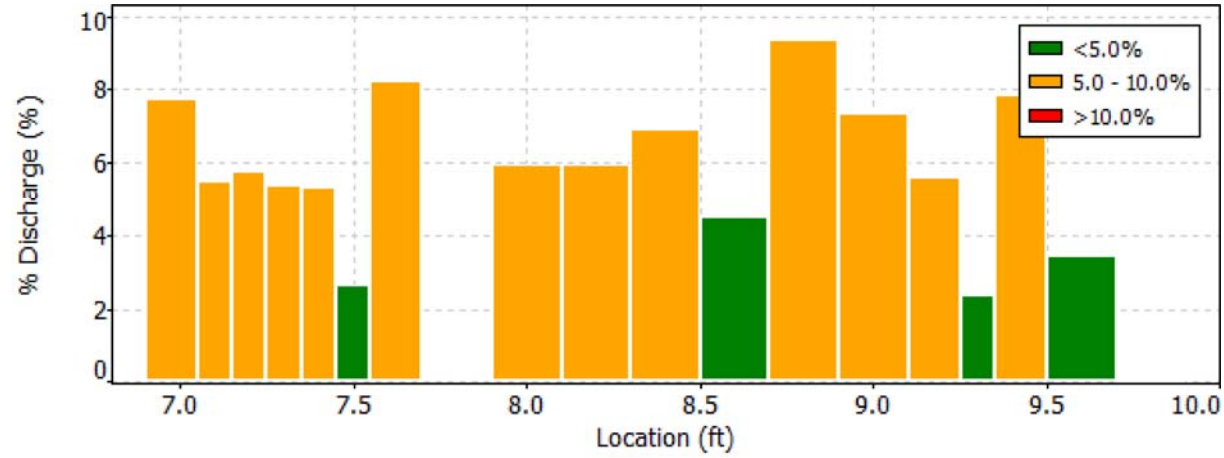
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:38	6.80	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	13:38	7.00	0.6	0.200	0.6	0.080	1.6270	1.00	1.6270	0.030	0.0489	7.7
2	13:56	7.10	0.6	0.200	0.6	0.080	1.7336	1.00	1.7336	0.020	0.0347	5.5
3	13:39	7.20	0.6	0.200	0.6	0.080	1.8264	1.00	1.8264	0.020	0.0365	5.8
4	13:53	7.30	0.6	0.200	0.6	0.080	1.7077	1.00	1.7077	0.020	0.0342	5.4
5	*13:40*	*7.40*	*0.6*	*0.200*	*0.6*	*0.080*	*1.6877*	*1.00*	*1.6877*	*0.020*	*0.0338*	*5.3*
6	*13:54*	*7.50*	*0.6*	*0.200*	*0.6*	*0.080*	*0.8373*	*1.00*	*0.8373*	*0.020*	*0.0168*	*2.7*
7	13:41	7.60	0.6	0.200	0.6	0.080	1.7356	1.00	1.7356	0.030	0.0522	8.3
8	*13:42*	*7.80*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0112*	*1.00*	*0.0112*	*0.040*	*0.0004*	*0.1*
9	13:43	8.00	0.6	0.200	0.6	0.080	0.9350	1.00	0.9350	0.040	0.0375	5.9
10	13:44	8.20	0.6	0.200	0.6	0.080	0.9386	1.00	0.9386	0.040	0.0376	5.9
11	13:45	8.40	0.6	0.200	0.6	0.080	1.0945	1.00	1.0945	0.040	0.0438	6.9
12	13:46	8.60	0.6	0.200	0.6	0.080	0.7123	1.00	0.7123	0.040	0.0285	4.5
13	*13:47*	*8.80*	*0.6*	*0.200*	*0.6*	*0.080*	*1.4846*	*1.00*	*1.4846*	*0.040*	*0.0595*	*9.4*
14	13:48	9.00	0.6	0.200	0.6	0.080	1.1594	1.00	1.1594	0.040	0.0464	7.3
15	*13:49*	*9.20*	*0.6*	*0.200*	*0.6*	*0.080*	*1.1870*	*1.00*	*1.1870*	*0.030*	*0.0355*	*5.6*
16	13:55	9.30	0.6	0.200	0.6	0.080	0.7382	1.00	0.7382	0.020	0.0148	2.3
17	13:49	9.40	0.6	0.200	0.6	0.080	1.6401	1.00	1.6401	0.030	0.0495	7.8
18	*13:50*	*9.60*	*0.6*	*0.200*	*0.6*	*0.080*	*0.5492*	*1.00*	*0.5492*	*0.040*	*0.0220*	*3.5*
19	13:51	9.80	0.6	0.200	0.6	0.080	-0.0108	1.00	-0.0108	0.040	-0.0004	-0.1
20	13:51	10.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

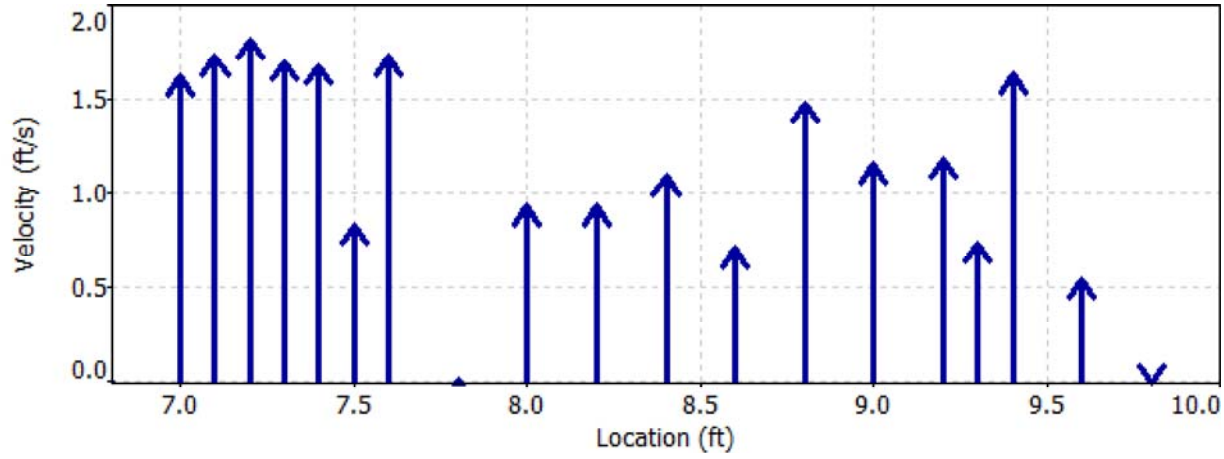
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

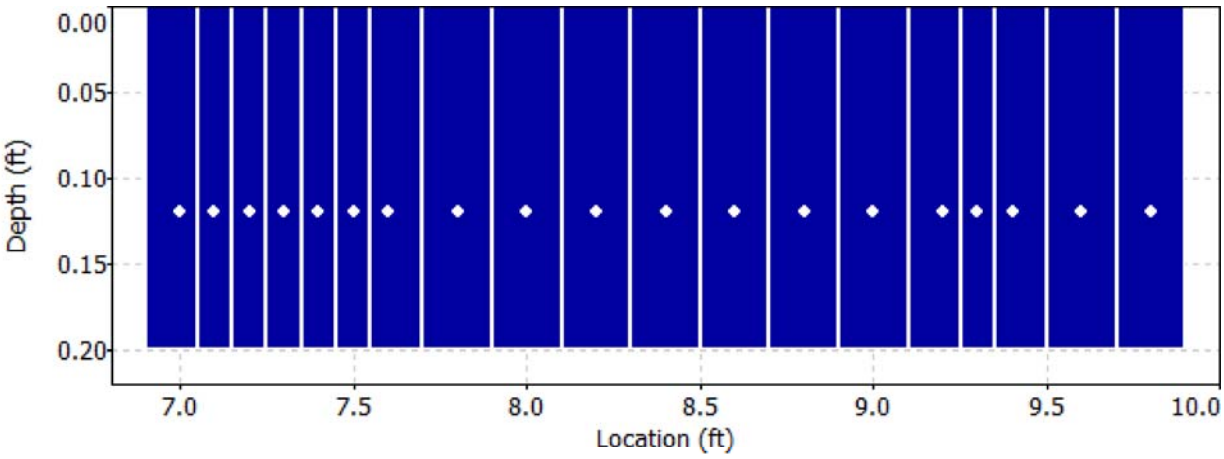
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M16F.WAD	Site Name	M16F
Start Date and Time	2017/09/26 13:38:56	Operator(s)	RB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M16F.WAD	Site Name	M16F
Start Date and Time	2017/09/26 13:38:56	Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
5	7.40	0.6	High standard error: 0.149
6	7.50	0.6	High standard error: 0.112
8	7.80	0.6	SNR (66.8) is different from typical SNR (50.7)
		0.6	High SNR variation during measurement: 6.0,4.7
13	8.80	0.6	High standard error: 0.097
15	9.20	0.6	High angle: -20
		0.6	High standard error: 0.100
18	9.60	0.6	High SNR variation during measurement: 1.3,6.0

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M16G.WAD
Start Date and Time	2017/09/26 14:46:55

Site Details

Site Name	M16G
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.7%
Velocity	1.6%	4.5%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**3.5%**	**5.3%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	4.196
Mean SNR	51.4 dB	Total Area	1.673
Mean Temp	42.76 °F	Mean Depth	0.399
Disch. Equation	Mid-Section	Mean Velocity	0.6479
		Total Discharge	**1.0841**

Measurement Results

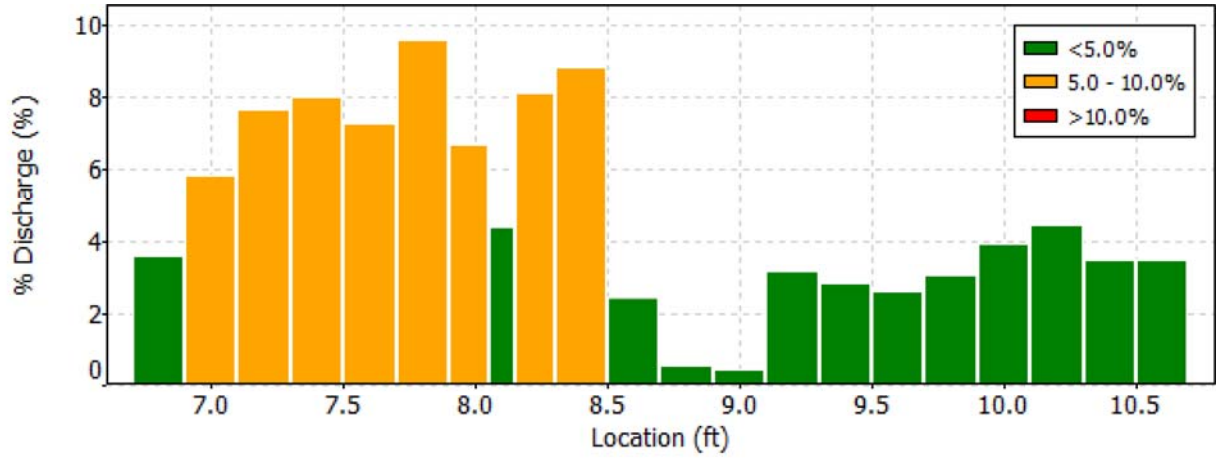
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:46	6.60	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	14:46	6.80	0.6	0.250	0.6	0.100	0.7779	1.00	0.7779	0.050	0.0389	3.6
2	14:48	7.00	0.6	0.550	0.6	0.220	0.5719	1.00	0.5719	0.110	0.0628	5.8
3	14:48	7.20	0.6	0.550	0.6	0.220	0.7539	1.00	0.7539	0.110	0.0828	7.6
4	14:50	7.40	0.6	0.450	0.6	0.180	0.9613	1.00	0.9613	0.090	0.0865	8.0
5	14:51	7.60	0.6	0.400	0.6	0.160	0.9836	1.00	0.9836	0.080	0.0786	7.3
6	14:52	7.80	0.6	0.400	0.6	0.160	1.3031	1.00	1.3031	0.080	0.1041	9.6
7	14:53	8.00	0.6	0.450	0.6	0.180	1.0640	1.00	1.0640	0.068	0.0721	6.7
8	15:07	8.10	0.6	0.400	0.6	0.160	1.1850	1.00	1.1850	0.040	0.0473	4.4
9	14:53	8.20	0.6	0.450	0.6	0.180	1.3061	1.00	1.3061	0.067	0.0877	8.1
10	14:55	8.40	0.6	0.450	0.6	0.180	1.0633	1.00	1.0633	0.090	0.0956	8.8
11	14:56	8.60	0.6	0.600	0.6	0.240	0.2182	1.00	0.2182	0.120	0.0262	2.4
12	*14:57*	*8.80*	*0.6*	*0.600*	*0.6*	*0.240*	*0.0476*	*1.00*	*0.0476*	*0.120*	*0.0057*	*0.5*
13	*14:58*	*9.00*	*0.6*	*0.500*	*0.6*	*0.200*	*0.0482*	*1.00*	*0.0482*	*0.100*	*0.0048*	*0.4*
14	*14:59*	*9.20*	*0.6*	*0.500*	*0.6*	*0.200*	*0.3383*	*1.00*	*0.3383*	*0.100*	*0.0338*	*3.1*
15	*15:00*	*9.40*	*0.6*	*0.450*	*0.6*	*0.180*	*0.3356*	*1.00*	*0.3356*	*0.090*	*0.0302*	*2.8*
16	*15:01*	*9.60*	*0.6*	*0.400*	*0.6*	*0.160*	*0.3533*	*1.00*	*0.3533*	*0.080*	*0.0282*	*2.6*
17	*15:02*	*9.80*	*0.6*	*0.300*	*0.6*	*0.120*	*0.5505*	*1.00*	*0.5505*	*0.060*	*0.0330*	*3.0*
18	15:03	10.00	0.6	0.300	0.6	0.120	0.7126	1.00	0.7126	0.060	0.0427	3.9
19	15:04	10.20	0.6	0.300	0.6	0.120	0.8002	1.00	0.8002	0.060	0.0479	4.4
20	15:05	10.40	0.6	0.250	0.6	0.100	0.7497	1.00	0.7497	0.050	0.0374	3.5
21	15:06	10.60	0.6	0.250	0.6	0.100	0.7539	1.00	0.7539	0.050	0.0377	3.5
22	15:06	10.80	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

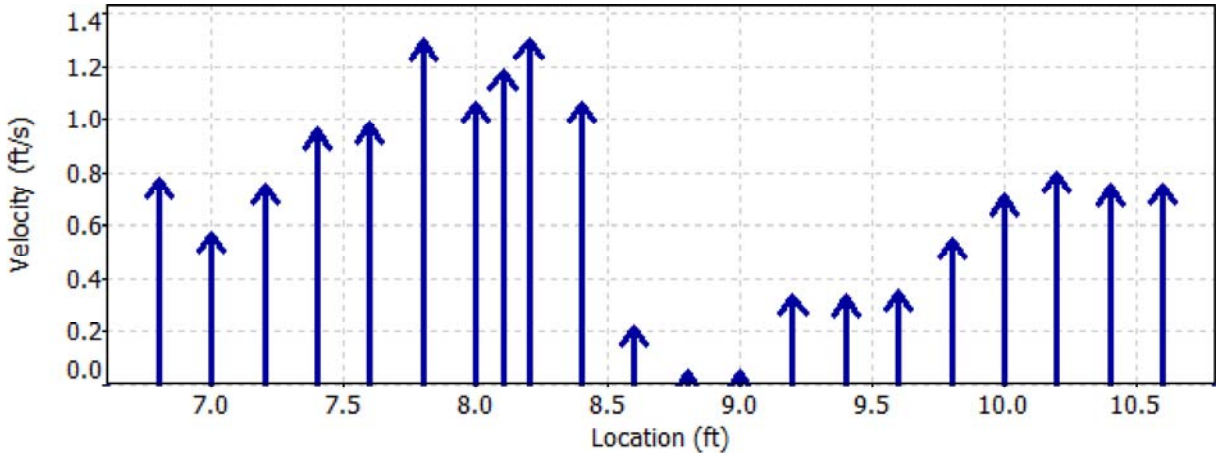
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

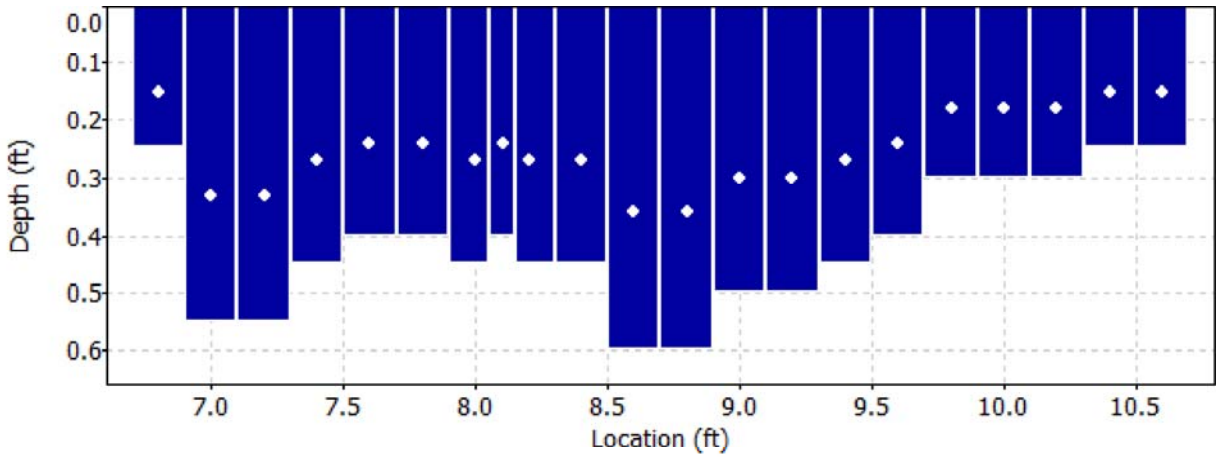
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M16G.WAD	Site Name	M16G
Start Date and Time	2017/09/26 14:46:55	Operator(s)	RB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M16G.WAD	Site Name	M16G
Start Date and Time	2017/09/26 14:46:55	Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
12	8.80	0.6	High number of spikes: 6
		0.6	High angle: -75
13	9.00	0.6	High angle: -76
14	9.20	0.6	High angle: -37
15	9.40	0.6	High angle: -34
16	9.60	0.6	High angle: -33
17	9.80	0.6	High angle: -23

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M17.WAD
Start Date and Time	2017/09/26 13:03:31

Site Details

Site Name	M17
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.1%
Velocity	2.0%	7.9%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**3.7%**	**8.3%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	6.804
Mean SNR	47.9 dB	Total Area	2.572
Mean Temp	43.48 °F	Mean Depth	0.378
Disch. Equation	Mid-Section	Mean Velocity	0.9113
		Total Discharge	**2.3435**

Measurement Results

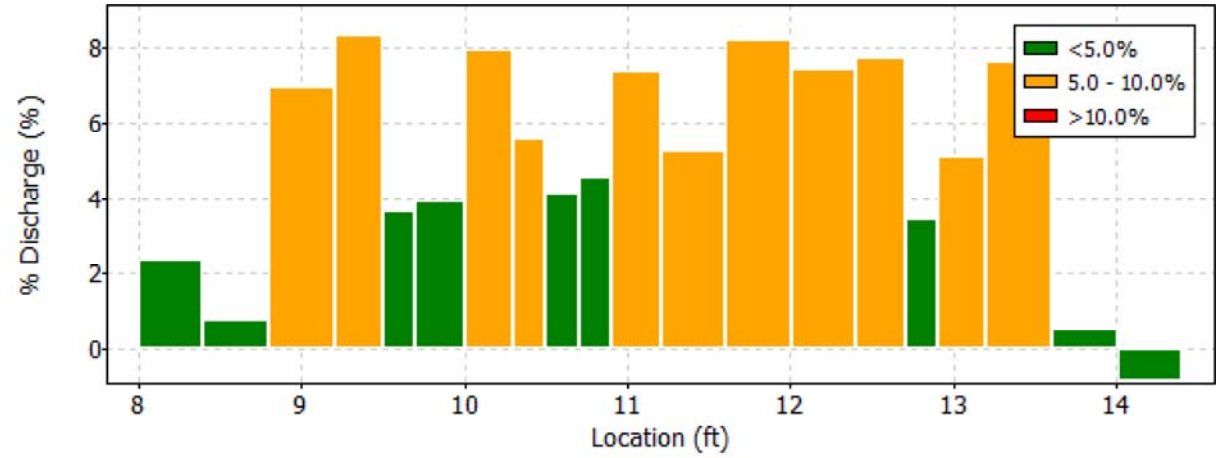
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:03	7.80	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	13:03	8.20	0.6	0.300	0.6	0.120	0.4646	1.00	0.4646	0.120	0.0558	2.4
2	*13:04*	*8.60*	*0.6*	*0.400*	*0.6*	*0.160*	*0.1181*	*1.00*	*0.1181*	*0.160*	*0.0189*	*0.8*
3	*13:05*	*9.00*	*0.6*	*0.400*	*0.6*	*0.160*	*1.0174*	*1.00*	*1.0174*	*0.160*	*0.1629*	*6.9*
4	13:06	9.40	0.6	0.300	0.6	0.120	2.1657	1.00	2.1657	0.090	0.1946	8.3
5	*13:23*	*9.60*	*0.6*	*0.350*	*0.6*	*0.140*	*1.2323*	*1.00*	*1.2323*	*0.070*	*0.0863*	*3.7*
6	13:08	9.80	0.6	0.350	0.6	0.140	0.8776	1.00	0.8776	0.105	0.0924	3.9
7	*13:08*	*10.20*	*0.6*	*0.400*	*0.6*	*0.160*	*1.5515*	*1.00*	*1.5515*	*0.120*	*0.1858*	*7.9*
8	13:24	10.40	0.6	0.450	0.6	0.180	1.4409	1.00	1.4409	0.090	0.1298	5.5
9	13:09	10.60	0.6	0.450	0.6	0.180	1.0738	1.00	1.0738	0.090	0.0967	4.1
10	13:25	10.80	0.6	0.550	0.6	0.220	0.9659	1.00	0.9659	0.110	0.1063	4.5
11	13:10	11.00	0.6	0.600	0.6	0.240	0.9528	1.00	0.9528	0.181	0.1722	7.3
12	13:12	11.40	0.6	0.500	0.6	0.200	0.6161	1.00	0.6161	0.200	0.1233	5.3
13	*13:12*	*11.80*	*0.6*	*0.500*	*0.6*	*0.200*	*0.9626*	*1.00*	*0.9626*	*0.200*	*0.1926*	*8.2*
14	13:14	12.20	0.6	0.400	0.6	0.160	1.0876	1.00	1.0876	0.160	0.1741	7.4
15	*13:14*	*12.60*	*0.6*	*0.400*	*0.6*	*0.160*	*1.5174*	*1.00*	*1.5174*	*0.119*	*0.1812*	*7.7*
16	*13:27*	*12.80*	*0.6*	*0.350*	*0.6*	*0.140*	*1.1457*	*1.00*	*1.1457*	*0.070*	*0.0803*	*3.4*
17	13:16	13.00	0.6	0.350	0.6	0.140	1.1289	1.00	1.1289	0.106	0.1193	5.1
18	*13:17*	*13.40*	*0.6*	*0.400*	*0.6*	*0.160*	*1.1161*	*1.00*	*1.1161*	*0.160*	*0.1787*	*7.6*
19	*13:19*	*13.80*	*0.6*	*0.350*	*0.6*	*0.140*	*0.0863*	*1.00*	*0.0863*	*0.140*	*0.0121*	*0.5*
20	*13:21*	*14.20*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.1634*	*1.00*	*-0.1634*	*0.120*	*-0.0196*	*-0.8*
21	13:21	14.60	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

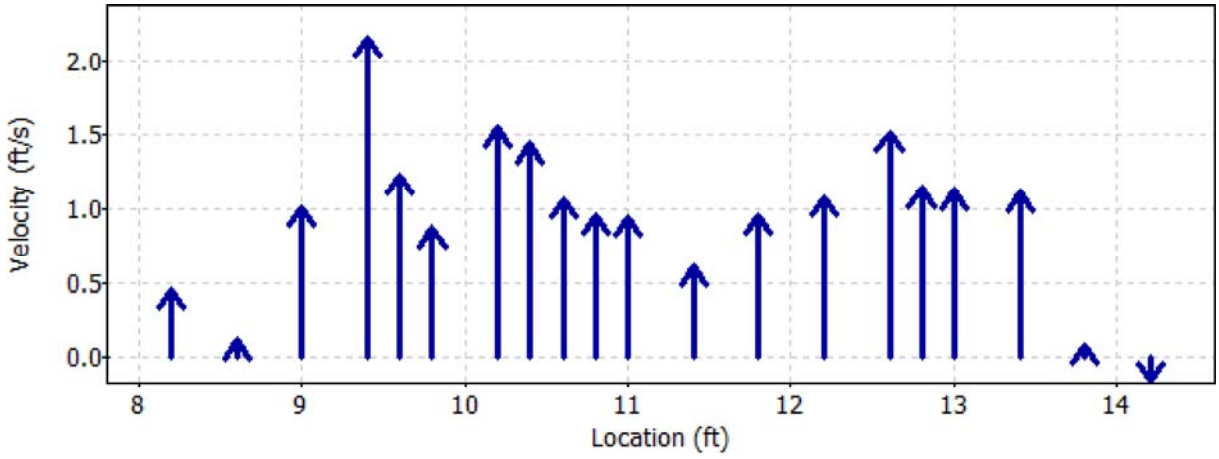
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

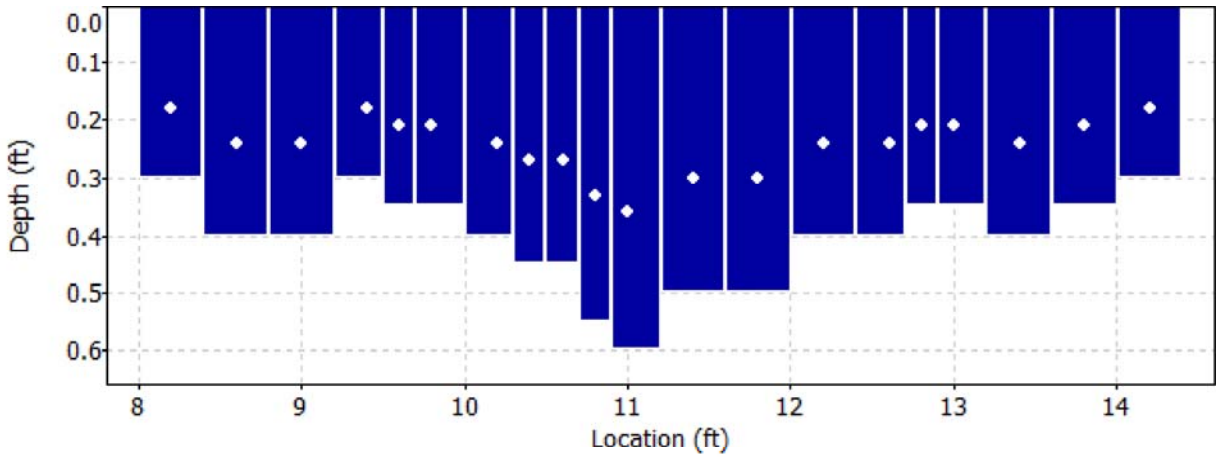
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M17.WAD	Site Name	M17
Start Date and Time	2017/09/26 13:03:31	Operator(s)	RB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M17.WAD	Site Name	M17
Start Date and Time	2017/09/26 13:03:31	Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
2	8.60	0.6	High angle: 58
3	9.00	0.6	High standard error: 0.143
5	9.60	0.6	High standard error: 0.136
7	10.20	0.6	High standard error: 0.113
13	11.80	0.6	High number of spikes: 6
		0.6	High angle: -24
15	12.60	0.6	High standard error: 0.106
16	12.80	0.6	High standard error: 0.113
18	13.40	0.6	High standard error: 0.114
19	13.80	0.6	High angle: -50
20	14.20	0.6	High angle: 168

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M17A.WAD
Start Date and Time	2017/09/26 11:22:03

Site Details

Site Name	M17A
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.3%
Velocity	1.1%	3.2%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.4%	-
Overall	**3.4%**	**4.0%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	LEW	Total Width	5.398
Mean SNR	46.9 dB	Total Area	2.839
Mean Temp	40.57 °F	Mean Depth	0.526
Disch. Equation	Mid-Section	Mean Velocity	1.5677
		Total Discharge	**4.4500**

Measurement Results

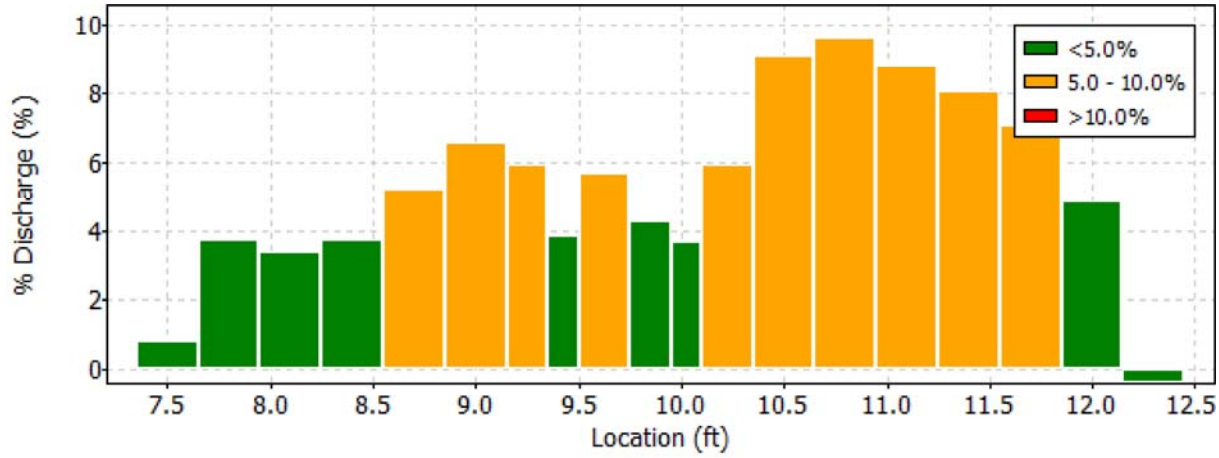
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:22	7.20	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	11:22	7.50	0.6	0.300	0.6	0.120	0.3780	1.00	0.3780	0.090	0.0340	0.8
2	11:23	7.80	0.6	0.400	0.6	0.160	1.4022	1.00	1.4022	0.120	0.1682	3.8
3	11:24	8.10	0.6	0.350	0.6	0.140	1.4534	1.00	1.4534	0.105	0.1526	3.4
4	11:25	8.40	0.6	0.350	0.6	0.140	1.5843	1.00	1.5843	0.105	0.1663	3.7
5	11:26	8.70	0.6	0.500	0.6	0.200	1.5466	1.00	1.5466	0.150	0.2319	5.2
6	11:27	9.00	0.6	0.500	0.6	0.200	1.9380	1.00	1.9380	0.150	0.2906	6.5
7	11:28	9.30	0.6	0.600	0.6	0.240	2.1844	1.00	2.1844	0.120	0.2625	5.9
8	11:41	9.40	0.6	0.650	0.6	0.260	1.7782	1.00	1.7782	0.097	0.1733	3.9
9	*11:29*	*9.60*	*0.6*	*0.650*	*0.6*	*0.260*	*1.5587*	*1.00*	*1.5587*	*0.162*	*0.2528*	*5.7*
10	11:30	9.90	0.6	0.650	0.6	0.260	1.4583	1.00	1.4583	0.130	0.1900	4.3
11	*11:40*	*10.00*	*0.6*	*0.650*	*0.6*	*0.260*	*1.6870*	*1.00*	*1.6870*	*0.097*	*0.1644*	*3.7*
12	*11:31*	*10.20*	*0.6*	*0.650*	*0.6*	*0.260*	*1.6250*	*1.00*	*1.6250*	*0.162*	*0.2633*	*5.9*
13	*11:32*	*10.50*	*0.6*	*0.800*	*0.6*	*0.320*	*1.6936*	*1.00*	*1.6936*	*0.240*	*0.4062*	*9.1*
14	11:33	10.80	0.6	0.650	0.6	0.260	2.2008	1.00	2.2008	0.195	0.4289	9.6
15	*11:34*	*11.10*	*0.6*	*0.650*	*0.6*	*0.260*	*2.0167*	*1.00*	*2.0167*	*0.195*	*0.3931*	*8.8*
16	11:35	11.40	0.6	0.650	0.6	0.260	1.8406	1.00	1.8406	0.195	0.3587	8.1
17	*11:36*	*11.70*	*0.6*	*0.600*	*0.6*	*0.240*	*1.7500*	*1.00*	*1.7500*	*0.180*	*0.3149*	*7.1*
18	*11:37*	*12.00*	*0.6*	*0.500*	*0.6*	*0.200*	*1.4482*	*1.00*	*1.4482*	*0.150*	*0.2171*	*4.9*
19	*11:39*	*12.30*	*0.6*	*0.650*	*0.6*	*0.260*	*-0.0965*	*1.00*	*-0.0965*	*0.195*	*-0.0188*	*-0.4*
20	11:39	12.60	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

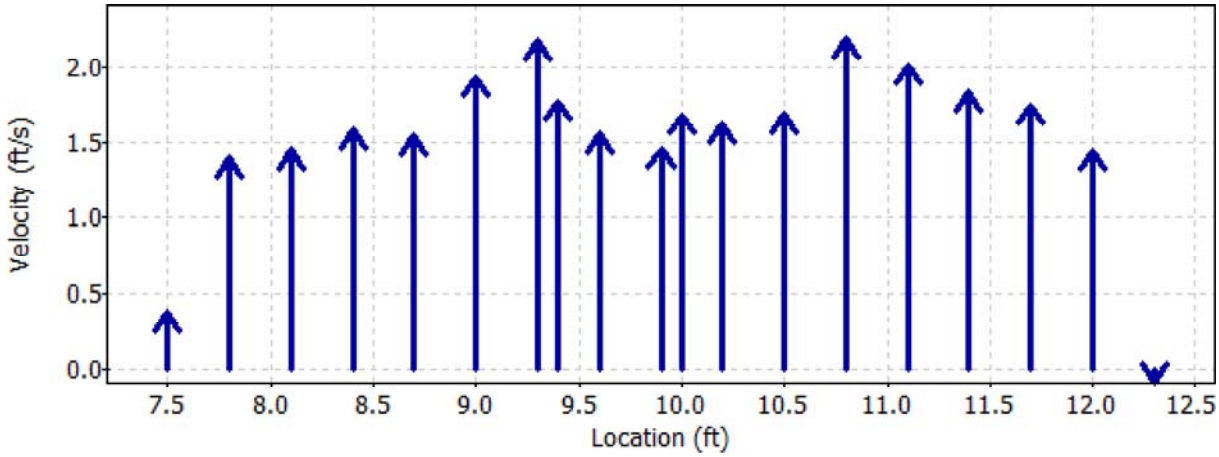
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

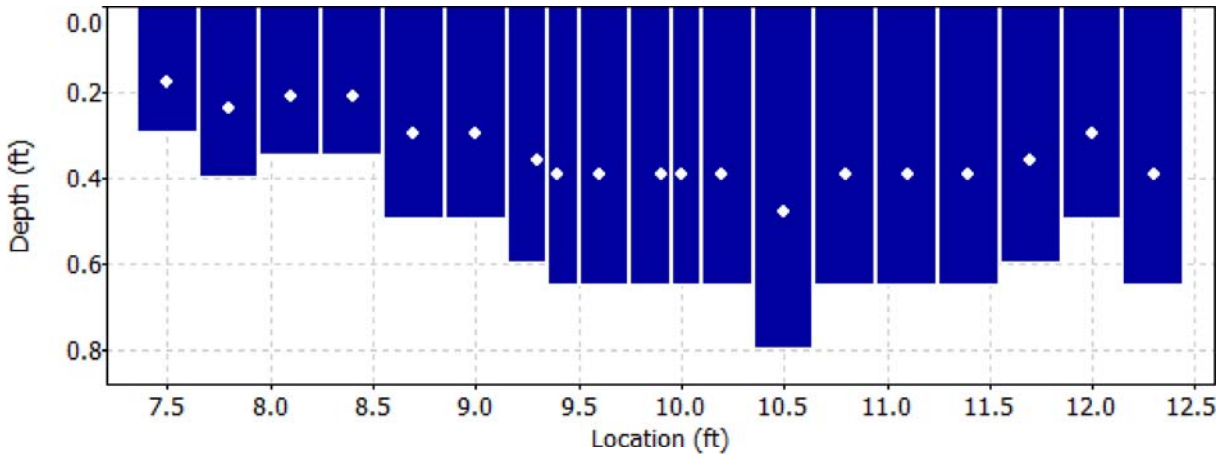
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M17A.WAD	Site Name	M17A
Start Date and Time	2017/09/26 11:22:03	Operator(s)	RB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M17A.WAD
Start Date and Time	2017/09/26 11:22:03

Site Details

Site Name	M17A
Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
9	9.60	0.6	High standard error: 0.116
11	10.00	0.6	High standard error: 0.119
12	10.20	0.6	High standard error: 0.109
13	10.50	0.6	High standard error: 0.105
15	11.10	0.6	High angle: -24
17	11.70	0.6	High angle: -21
18	12.00	0.6	High angle: -22
19	12.30	0.6	High number of spikes: 5
		0.6	High angle: -118

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M18.WAD
Start Date and Time	2017/09/26 10:58:58

Site Details

Site Name	M18
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.6%
Velocity	0.9%	2.3%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.8%	-
Overall	**3.7%**	**3.0%**

Summary

Averaging Int.	40	# Stations	18
Start Edge	LEW	Total Width	2.802
Mean SNR	46.6 dB	Total Area	1.121
Mean Temp	33.39 °F	Mean Depth	0.400
Disch. Equation	Mid-Section	Mean Velocity	1.1672
		Total Discharge	**1.3080**

Measurement Results

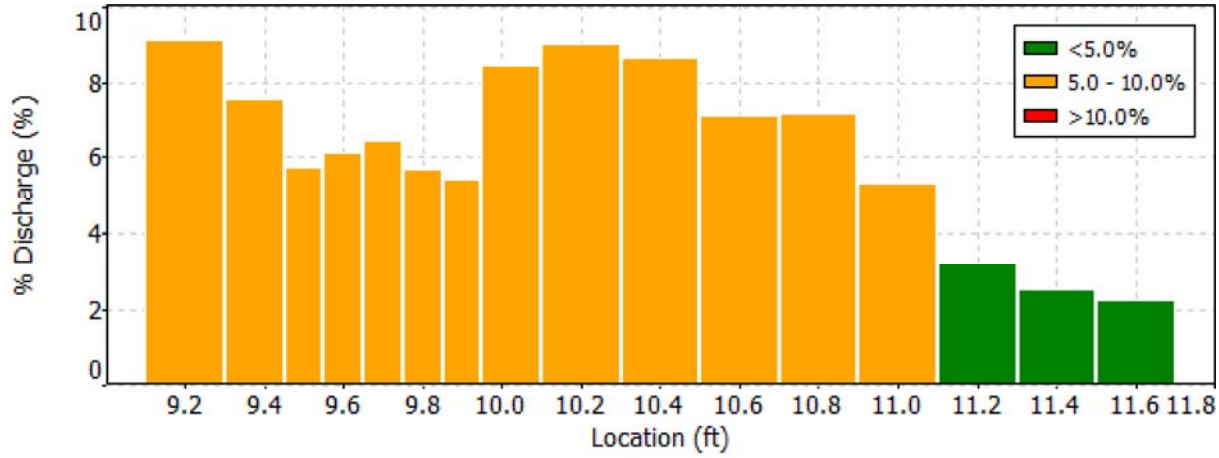
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:58	9.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*10:58*	*9.20*	*0.6*	*0.600*	*0.6*	*0.240*	*0.9970*	*1.00*	*0.9970*	*0.120*	*0.1197*	*9.2*
2	10:59	9.40	0.6	0.600	0.6	0.240	1.0988	1.00	1.0988	0.090	0.0989	7.6
3	11:13	9.50	0.6	0.550	0.6	0.220	1.3694	1.00	1.3694	0.055	0.0753	5.8
4	11:00	9.60	0.6	0.600	0.6	0.240	1.3343	1.00	1.3343	0.060	0.0801	6.1
5	11:14	9.70	0.6	0.550	0.6	0.220	1.5315	1.00	1.5315	0.055	0.0843	6.4
6	11:01	9.80	0.6	0.550	0.6	0.220	1.3510	1.00	1.3510	0.055	0.0742	5.7
7	11:16	9.90	0.6	0.500	0.6	0.200	1.4222	1.00	1.4222	0.050	0.0712	5.4
8	11:03	10.00	0.6	0.500	0.6	0.200	1.4731	1.00	1.4731	0.075	0.1108	8.5
9	11:04	10.20	0.6	0.450	0.6	0.180	1.3114	1.00	1.3114	0.090	0.1181	9.0
10	11:05	10.40	0.6	0.450	0.6	0.180	1.2595	1.00	1.2595	0.090	0.1135	8.7
11	11:06	10.60	0.6	0.400	0.6	0.160	1.1650	1.00	1.1650	0.080	0.0932	7.1
12	11:07	10.80	0.6	0.400	0.6	0.160	1.1775	1.00	1.1775	0.080	0.0942	7.2
13	11:08	11.00	0.6	0.300	0.6	0.120	1.1660	1.00	1.1660	0.060	0.0700	5.3
14	11:09	11.20	0.6	0.300	0.6	0.120	0.6969	1.00	0.6969	0.060	0.0418	3.2
15	11:10	11.40	0.6	0.250	0.6	0.100	0.6572	1.00	0.6572	0.050	0.0329	2.5
16	11:12	11.60	0.6	0.250	0.6	0.100	0.5942	1.00	0.5942	0.050	0.0297	2.3
17	11:12	11.80	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

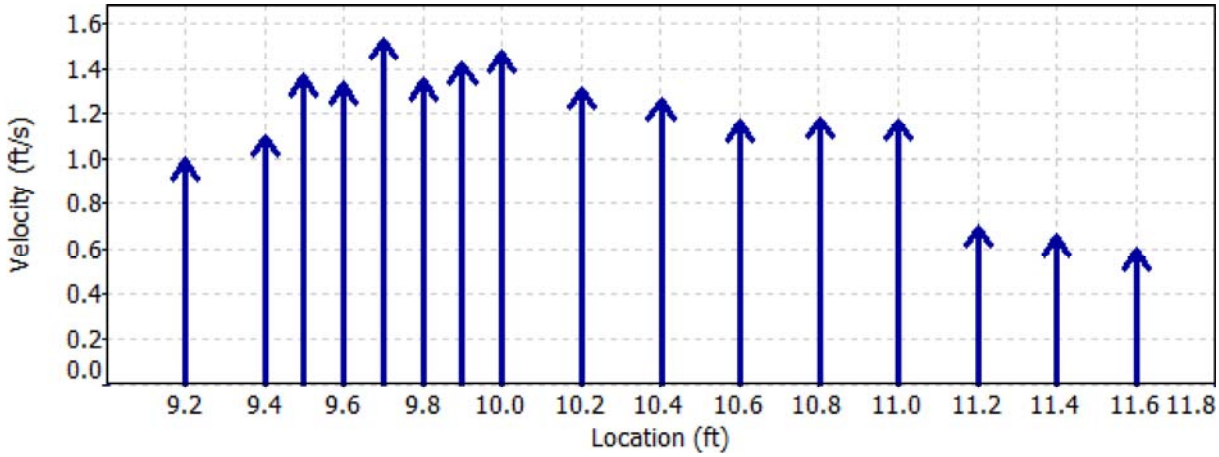
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

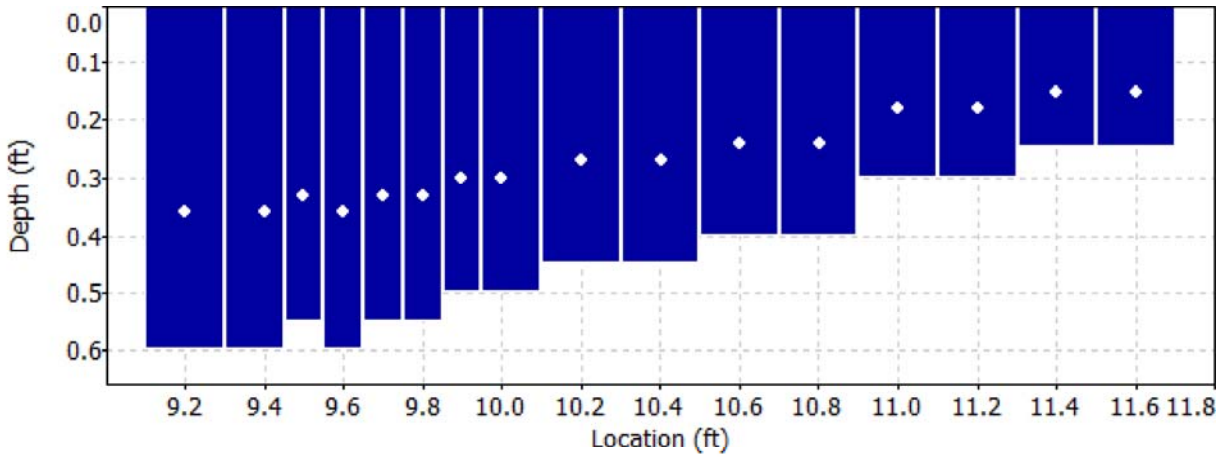
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M18.WAD	Site Name	M18
Start Date and Time	2017/09/26 10:58:58	Operator(s)	RB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M18.WAD
Start Date and Time	2017/09/26 10:58:58

Site Details

Site Name	M18
Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
1	9.20	0.6	High number of spikes: 7

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M19.WAD
Start Date and Time	2017/09/26 10:29:17

Site Details

Site Name	M19
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.1%
Velocity	1.1%	6.5%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.4%	-
Overall	**3.4%**	**6.9%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	LEW	Total Width	11.401
Mean SNR	46.8 dB	Total Area	4.163
Mean Temp	36.77 °F	Mean Depth	0.365
Disch. Equation	Mid-Section	Mean Velocity	1.6236
		Total Discharge	**6.7587**

Measurement Results

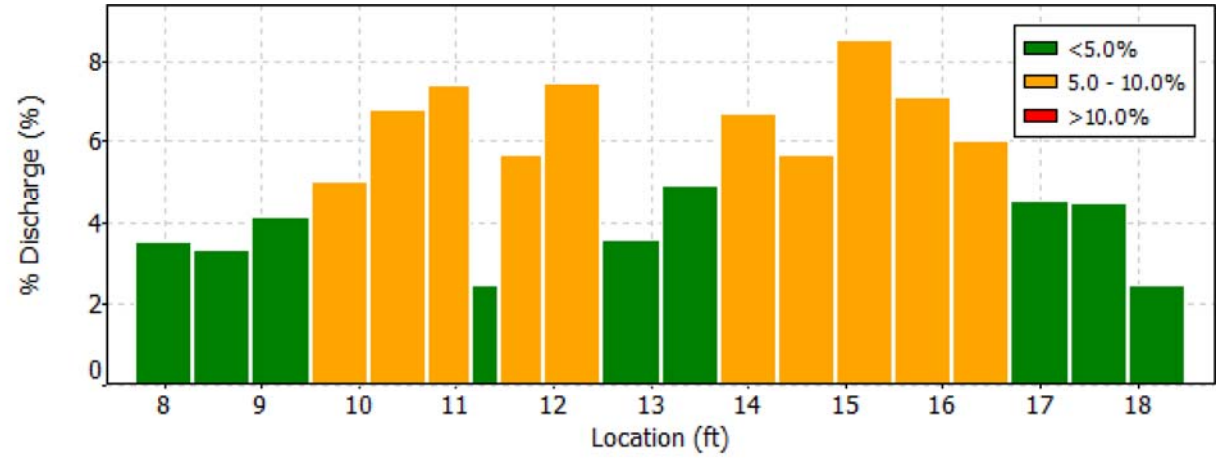
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:29	7.40	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	10:29	8.00	0.6	0.250	0.6	0.100	1.5899	1.00	1.5899	0.150	0.2385	3.5
2	10:30	8.60	0.6	0.250	0.6	0.100	1.4967	1.00	1.4967	0.150	0.2245	3.3
3	10:31	9.20	0.6	0.300	0.6	0.120	1.5594	1.00	1.5594	0.180	0.2806	4.2
4	10:32	9.80	0.6	0.300	0.6	0.120	1.8881	1.00	1.8881	0.180	0.3398	5.0
5	10:33	10.40	0.6	0.350	0.6	0.140	2.1991	1.00	2.1991	0.210	0.4620	6.8
6	10:34	11.00	0.6	0.400	0.6	0.160	2.7917	1.00	2.7917	0.180	0.5022	7.4
7	10:48	11.30	0.6	0.400	0.6	0.160	1.3835	1.00	1.3835	0.120	0.1660	2.5
8	*10:35*	*11.60*	*0.6*	*0.450*	*0.6*	*0.180*	*1.8885*	*1.00*	*1.8885*	*0.203*	*0.3828*	*5.7*
9	*10:37*	*12.20*	*0.6*	*0.450*	*0.6*	*0.180*	*1.8720*	*1.00*	*1.8720*	*0.270*	*0.5057*	*7.5*
10	10:38	12.80	0.6	0.450	0.6	0.180	0.9035	1.00	0.9035	0.270	0.2441	3.6
11	*10:39*	*13.40*	*0.6*	*0.450*	*0.6*	*0.180*	*1.2352*	*1.00*	*1.2352*	*0.270*	*0.3336*	*4.9*
12	10:40	14.00	0.6	0.400	0.6	0.160	1.8953	1.00	1.8953	0.240	0.4549	6.7
13	10:41	14.60	0.6	0.400	0.6	0.160	1.5994	1.00	1.5994	0.240	0.3838	5.7
14	10:42	15.20	0.6	0.400	0.6	0.160	2.4104	1.00	2.4104	0.240	0.5785	8.6
15	10:43	15.80	0.6	0.500	0.6	0.200	1.6040	1.00	1.6040	0.300	0.4813	7.1
16	10:44	16.40	0.6	0.500	0.6	0.200	1.3550	1.00	1.3550	0.300	0.4065	6.0
17	10:45	17.00	0.6	0.500	0.6	0.200	1.0177	1.00	1.0177	0.300	0.3053	4.5
18	10:46	17.60	0.6	0.300	0.6	0.120	1.6909	1.00	1.6909	0.180	0.3043	4.5
19	10:47	18.20	0.6	0.300	0.6	0.120	0.9137	1.00	0.9137	0.180	0.1644	2.4
20	10:47	18.80	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

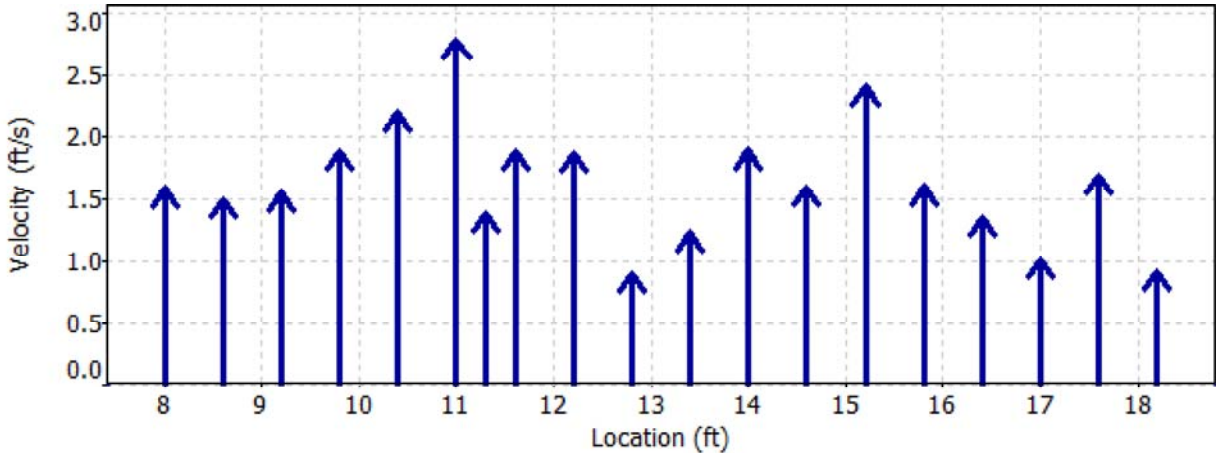
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

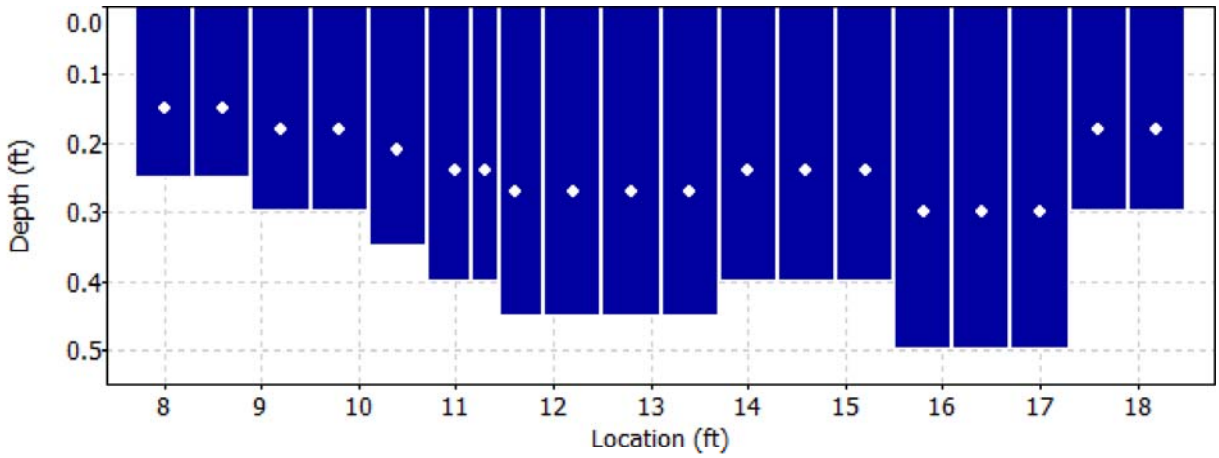
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M19.WAD	Site Name	M19
Start Date and Time	2017/09/26 10:29:17	Operator(s)	RB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information	
File Name	M19.WAD
Start Date and Time	2017/09/26 10:29:17

Site Details	
Site Name	M19
Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
8	11.60	0.6	High standard error: 0.122
9	12.20	0.6	High standard error: 0.122
11	13.40	0.6	High standard error: 0.113

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M20.WAD
Start Date and Time	2017/09/26 09:18:36

Site Details

Site Name	M20
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.4%
Velocity	1.4%	8.1%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**3.4%**	**8.5%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	6.399
Mean SNR	47.1 dB	Total Area	3.012
Mean Temp	35.25 °F	Mean Depth	0.471
Disch. Equation	Mid-Section	Mean Velocity	1.8226
		Total Discharge	**5.4894**

Measurement Results

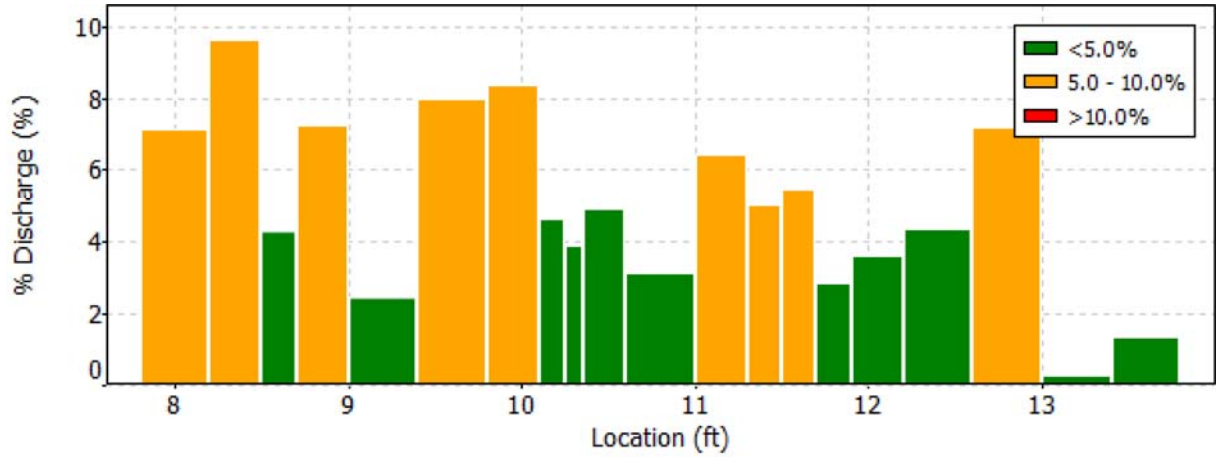
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:18	7.60	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	09:18	8.00	0.6	0.500	0.6	0.200	1.9636	1.00	1.9636	0.200	0.3927	7.2
2	09:20	8.40	0.6	0.550	0.6	0.220	3.2152	1.00	3.2152	0.165	0.5304	9.7
3	*09:36*	*8.60*	*0.6*	*0.550*	*0.6*	*0.220*	*2.1247*	*1.00*	*2.1247*	*0.110*	*0.2336*	*4.3*
4	*09:21*	*8.80*	*0.6*	*0.600*	*0.6*	*0.240*	*2.2034*	*1.00*	*2.2034*	*0.180*	*0.3965*	*7.2*
5	*09:22*	*9.20*	*0.6*	*0.500*	*0.6*	*0.200*	*0.6729*	*1.00*	*0.6729*	*0.200*	*0.1346*	*2.5*
6	09:23	9.60	0.6	0.500	0.6	0.200	2.1841	1.00	2.1841	0.200	0.4367	8.0
7	09:24	10.00	0.6	0.500	0.6	0.200	3.0515	1.00	3.0515	0.150	0.4580	8.3
8	09:37	10.20	0.6	0.550	0.6	0.220	3.0732	1.00	3.0732	0.083	0.2536	4.6
9	09:41	10.30	0.6	0.650	0.6	0.260	3.2717	1.00	3.2717	0.065	0.2121	3.9
10	09:25	10.40	0.6	0.500	0.6	0.200	2.1480	1.00	2.1480	0.125	0.2683	4.9
11	09:27	10.80	0.6	0.500	0.6	0.200	0.8510	1.00	0.8510	0.200	0.1702	3.1
12	09:28	11.20	0.6	0.550	0.6	0.220	2.1263	1.00	2.1263	0.165	0.3510	6.4
13	09:38	11.40	0.6	0.600	0.6	0.240	2.3012	1.00	2.3012	0.120	0.2761	5.0
14	09:29	11.60	0.6	0.600	0.6	0.240	2.4895	1.00	2.4895	0.120	0.2987	5.4
15	*09:39*	*11.80*	*0.6*	*0.550*	*0.6*	*0.220*	*1.4186*	*1.00*	*1.4186*	*0.110*	*0.1560*	*2.8*
16	09:30	12.00	0.6	0.600	0.6	0.240	1.1056	1.00	1.1056	0.180	0.1988	3.6
17	09:31	12.40	0.6	0.500	0.6	0.200	1.1978	1.00	1.1978	0.200	0.2395	4.4
18	09:32	12.80	0.6	0.500	0.6	0.200	1.9787	1.00	1.9787	0.200	0.3957	7.2
19	*09:33*	*13.20*	*0.6*	*0.300*	*0.6*	*0.120*	*0.1250*	*1.00*	*0.1250*	*0.120*	*0.0150*	*0.3*
20	*09:34*	*13.60*	*0.6*	*0.300*	*0.6*	*0.120*	*0.5984*	*1.00*	*0.5984*	*0.120*	*0.0718*	*1.3*
21	09:34	14.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

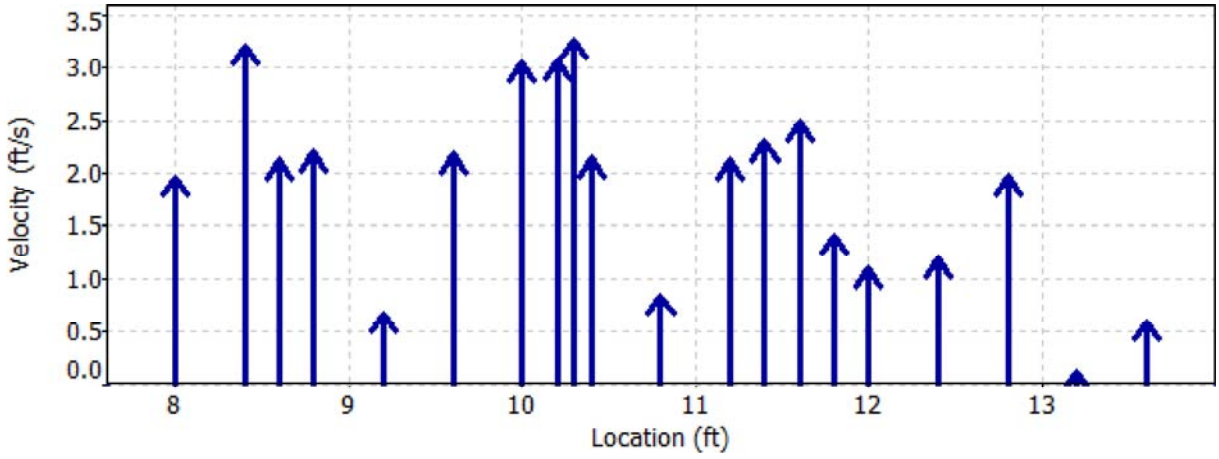
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

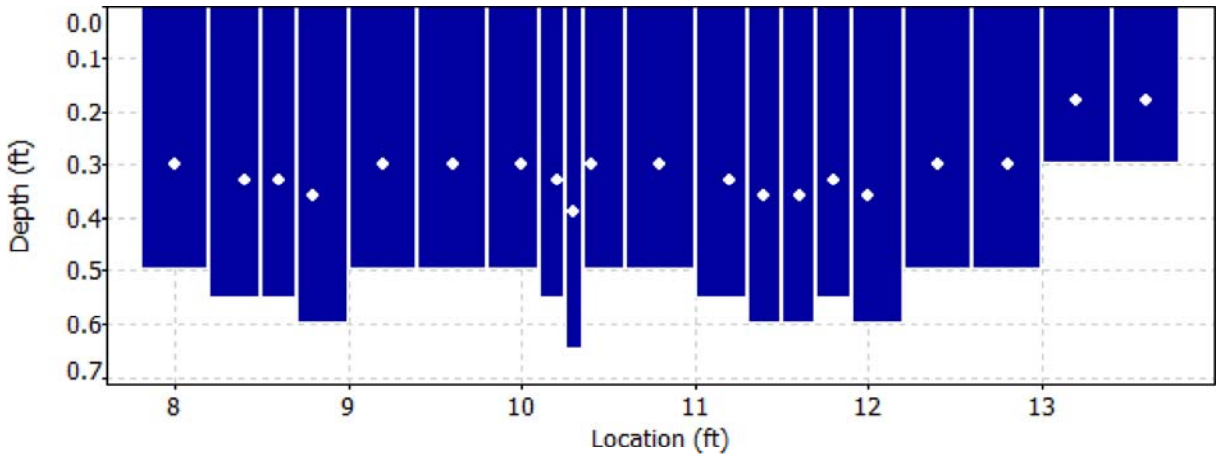
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M20.WAD	Site Name	M20
Start Date and Time	2017/09/26 09:18:36	Operator(s)	RB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M20.WAD	Site Name	M20
Start Date and Time	2017/09/26 09:18:36	Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
3	8.60	0.6	High standard error: 0.136
4	8.80	0.6	High standard error: 0.145
5	9.20	0.6	High angle: 23
15	11.80	0.6	High standard error: 0.133
19	13.20	0.6	High angle: -53
20	13.60	0.6	High angle: -26

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M22.WAD
Start Date and Time	2017/09/26 08:35:42

Site Details

Site Name	M22
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.7%
Velocity	2.0%	8.4%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**3.7%**	**8.6%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	10.500
Mean SNR	43.9 dB	Total Area	5.150
Mean Temp	34.13 °F	Mean Depth	0.490
Disch. Equation	Mid-Section	Mean Velocity	0.9972
		Total Discharge	**5.1355**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:35	11.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*08:35*	*11.50*	*0.6*	*0.450*	*0.6*	*0.180*	*0.1220*	*1.00*	*0.1220*	*0.225*	*0.0275*	*0.5*
2	08:36	12.00	0.6	0.500	0.6	0.200	0.5719	1.00	0.5719	0.250	0.1430	2.8
3	*08:37*	*12.50*	*0.6*	*0.500*	*0.6*	*0.200*	*0.7740*	*1.00*	*0.7740*	*0.250*	*0.1935*	*3.8*
4	*08:38*	*13.00*	*0.6*	*0.400*	*0.6*	*0.160*	*1.1030*	*1.00*	*1.1030*	*0.200*	*0.2206*	*4.3*
5	*08:39*	*13.50*	*0.6*	*0.350*	*0.6*	*0.140*	*1.1378*	*1.00*	*1.1378*	*0.175*	*0.1992*	*3.9*
6	*08:40*	*14.00*	*0.6*	*0.400*	*0.6*	*0.160*	*1.3045*	*1.00*	*1.3045*	*0.200*	*0.2608*	*5.1*
7	08:42	14.50	0.6	0.500	0.6	0.200	1.3248	1.00	1.3248	0.250	0.3312	6.4
8	*08:43*	*15.00*	*0.6*	*0.500*	*0.6*	*0.200*	*1.0108*	*1.00*	*1.0108*	*0.250*	*0.2527*	*4.9*
9	*08:44*	*15.50*	*0.6*	*0.550*	*0.6*	*0.220*	*1.4823*	*1.00*	*1.4823*	*0.275*	*0.4075*	*7.9*
10	*08:45*	*16.00*	*0.6*	*0.550*	*0.6*	*0.220*	*1.2477*	*1.00*	*1.2477*	*0.275*	*0.3430*	*6.7*
11	08:46	16.50	0.6	0.550	0.6	0.220	0.3825	1.00	0.3825	0.275	0.1052	2.0
12	08:47	17.00	0.6	0.500	0.6	0.200	0.4406	1.00	0.4406	0.250	0.1102	2.1
13	08:48	17.50	0.6	0.500	0.6	0.200	1.5135	1.00	1.5135	0.250	0.3784	7.4
14	*08:49*	*18.00*	*0.6*	*0.500*	*0.6*	*0.200*	*1.4603*	*1.00*	*1.4603*	*0.250*	*0.3651*	*7.1*
15	*08:50*	*18.50*	*0.6*	*0.600*	*0.6*	*0.240*	*1.6135*	*1.00*	*1.6135*	*0.300*	*0.4841*	*9.4*
16	*08:51*	*19.00*	*0.6*	*0.600*	*0.6*	*0.240*	*0.1355*	*1.00*	*0.1355*	*0.300*	*0.0407*	*0.8*
17	*08:52*	*19.50*	*0.6*	*0.700*	*0.6*	*0.280*	*0.8507*	*1.00*	*0.8507*	*0.350*	*0.2978*	*5.8*
18	*08:54*	*20.00*	*0.6*	*0.650*	*0.6*	*0.260*	*1.3645*	*1.00*	*1.3645*	*0.325*	*0.4434*	*8.6*
19	08:55	20.50	0.6	0.500	0.6	0.200	1.6483	1.00	1.6483	0.250	0.4121	8.0
20	08:55	21.00	0.6	0.500	0.6	0.200	0.4787	1.00	0.4787	0.250	0.1197	2.3
21	08:55	21.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

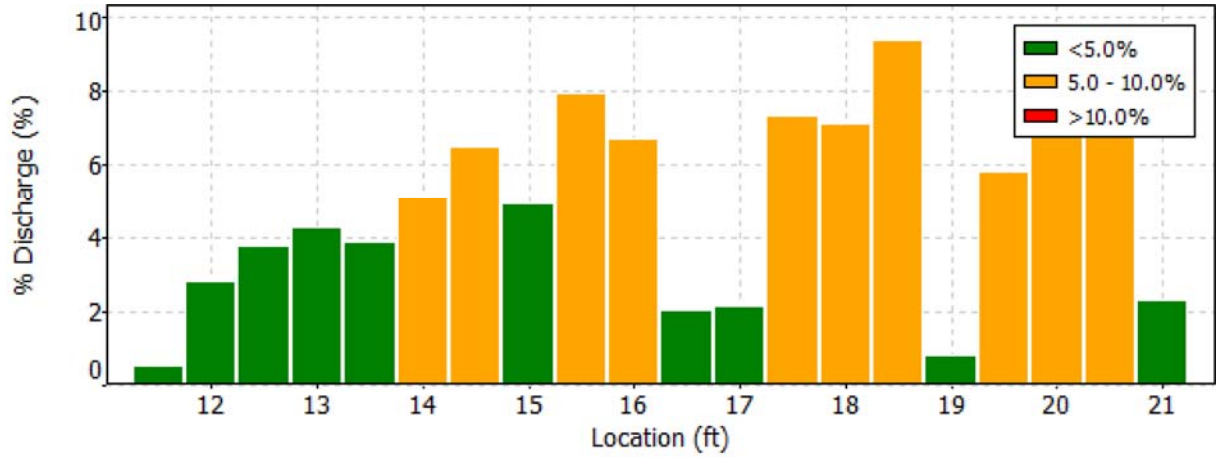
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

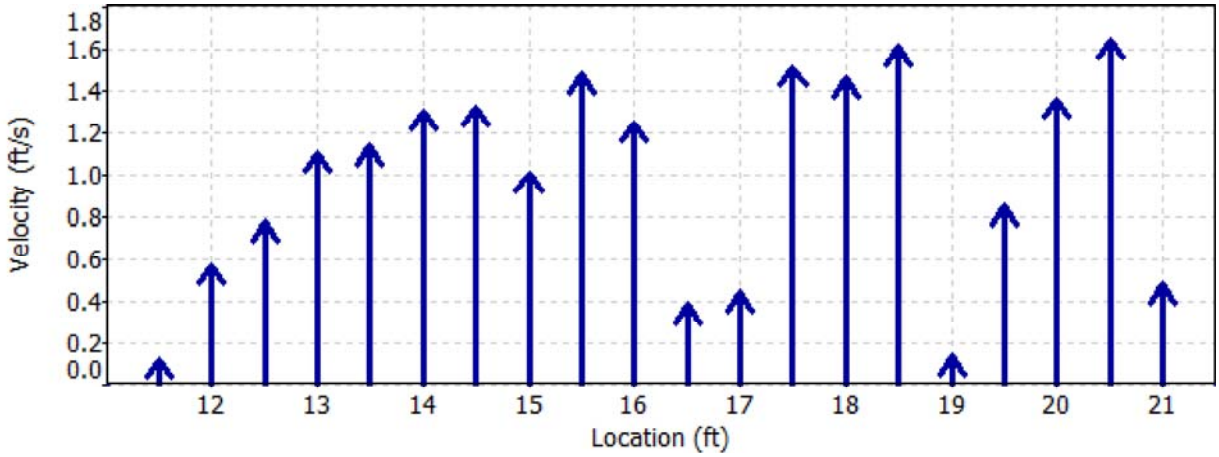
Discharge Measurement Summary

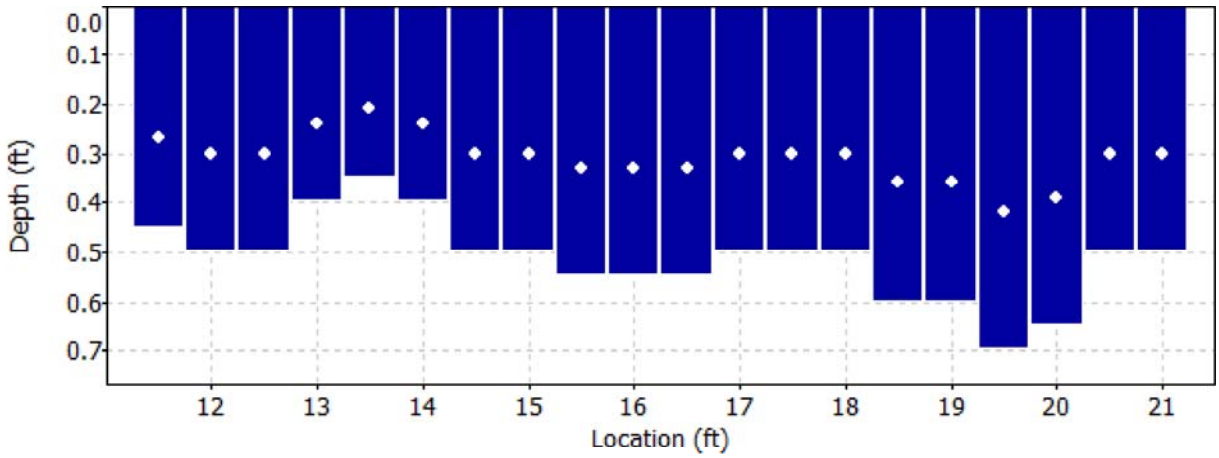
Date Generated: Mon Oct 2 2017

File Information	
File Name	M22.WAD
Start Date and Time	2017/09/26 08:35:42

Site Details	
Site Name	M22
Operator(s)	RB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M22.WAD	Site Name	M22
Start Date and Time	2017/09/26 08:35:42	Operator(s)	RB

Quality Control

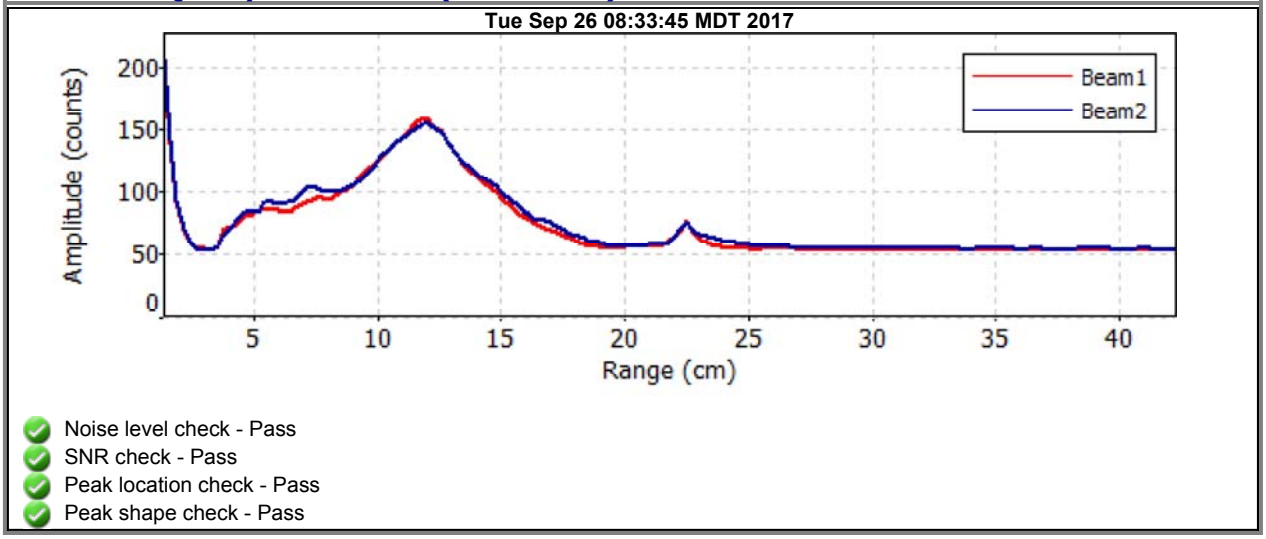
St	Loc	%Dep	Message
1	11.50	0.6	High angle: -26
3	12.50	0.6	High angle: -27
4	13.00	0.6	High number of spikes: 6
		0.6	High angle: -23
5	13.50	0.6	High angle: -32
6	14.00	0.6	High angle: -29
8	15.00	0.6	High angle: -27
9	15.50	0.6	High angle: -24
10	16.00	0.6	High standard error: 0.129
14	18.00	0.6	High standard error: 0.142
15	18.50	0.6	High standard error: 0.145
16	19.00	0.6	High angle: -64
17	19.50	0.6	High angle: -39
18	20.00	0.6	High angle: -26

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M22.WAD	Site Name	M22
Start Date and Time	2017/09/26 08:35:42	Operator(s)	RB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M23.WAD
Start Date and Time	2017/09/27 10:46:24

Site Details

Site Name	M23
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	3.4%
Velocity	1.0%	5.6%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**3.3%**	**6.7%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	16.597
Mean SNR	40.1 dB	Total Area	4.934
Mean Temp	37.63 °F	Mean Depth	0.297
Disch. Equation	Mid-Section	Mean Velocity	1.0952
		Total Discharge	**5.4036**

Measurement Results

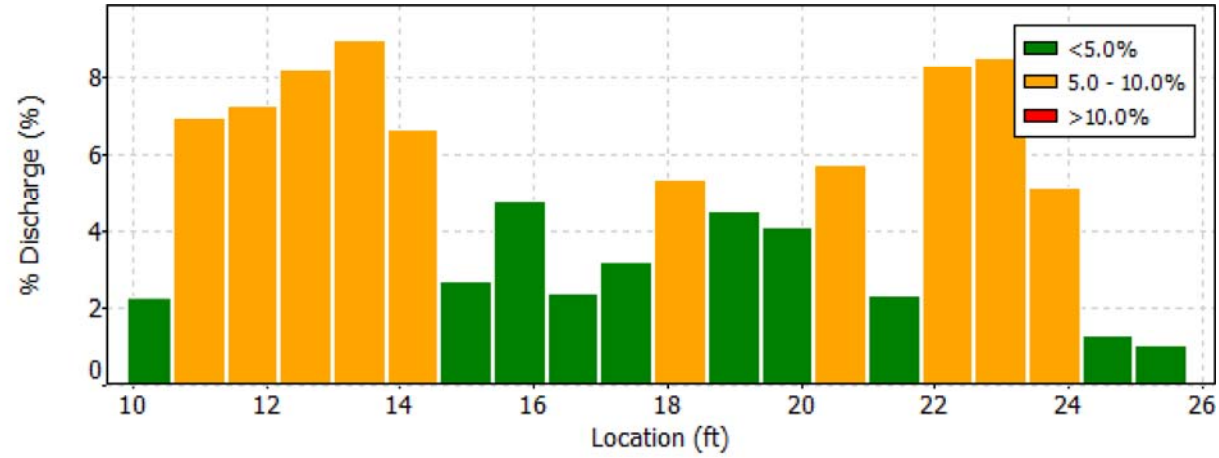
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:46	9.60	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	10:46	10.20	0.6	0.250	0.6	0.100	0.7090	1.00	0.7090	0.175	0.1241	2.3
2	10:47	11.00	0.6	0.300	0.6	0.120	1.5741	1.00	1.5741	0.240	0.3776	7.0
3	10:48	11.80	0.6	0.350	0.6	0.140	1.4078	1.00	1.4078	0.280	0.3942	7.3
4	10:49	12.60	0.6	0.350	0.6	0.140	1.5932	1.00	1.5932	0.280	0.4461	8.3
5	10:50	13.40	0.6	0.400	0.6	0.160	1.5253	1.00	1.5253	0.320	0.4879	9.0
6	10:51	14.20	0.6	0.400	0.6	0.160	1.1286	1.00	1.1286	0.320	0.3610	6.7
7	*10:52*	*15.00*	*0.6*	*0.300*	*0.6*	*0.120*	*0.6047*	*1.00*	*0.6047*	*0.240*	*0.1450*	*2.7*
8	10:53	15.80	0.6	0.300	0.6	0.120	1.0748	1.00	1.0748	0.240	0.2578	4.8
9	10:54	16.60	0.6	0.250	0.6	0.100	0.6375	1.00	0.6375	0.200	0.1275	2.4
10	10:55	17.40	0.6	0.250	0.6	0.100	0.8648	1.00	0.8648	0.200	0.1729	3.2
11	10:56	18.20	0.6	0.250	0.6	0.100	1.4485	1.00	1.4485	0.200	0.2897	5.4
12	10:57	19.00	0.6	0.250	0.6	0.100	1.2287	1.00	1.2287	0.200	0.2457	4.5
13	10:58	19.80	0.6	0.250	0.6	0.100	1.1099	1.00	1.1099	0.200	0.2219	4.1
14	*10:59*	*20.60*	*0.6*	*0.400*	*0.6*	*0.160*	*0.9656*	*1.00*	*0.9656*	*0.320*	*0.3089*	*5.7*
15	11:00	21.40	0.6	0.250	0.6	0.100	0.6322	1.00	0.6322	0.200	0.1264	2.3
16	11:01	22.20	0.6	0.350	0.6	0.140	1.6060	1.00	1.6060	0.280	0.4497	8.3
17	11:02	23.00	0.6	0.350	0.6	0.140	1.6496	1.00	1.6496	0.280	0.4619	8.5
18	*11:03*	*23.80*	*0.6*	*0.350*	*0.6*	*0.140*	*0.9984*	*1.00*	*0.9984*	*0.280*	*0.2795*	*5.2*
19	*11:04*	*24.60*	*0.6*	*0.300*	*0.6*	*0.120*	*0.2936*	*1.00*	*0.2936*	*0.240*	*0.0704*	*1.3*
20	*11:05*	*25.40*	*0.6*	*0.300*	*0.6*	*0.120*	*0.2306*	*1.00*	*0.2306*	*0.240*	*0.0553*	*1.0*
21	11:05	26.20	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

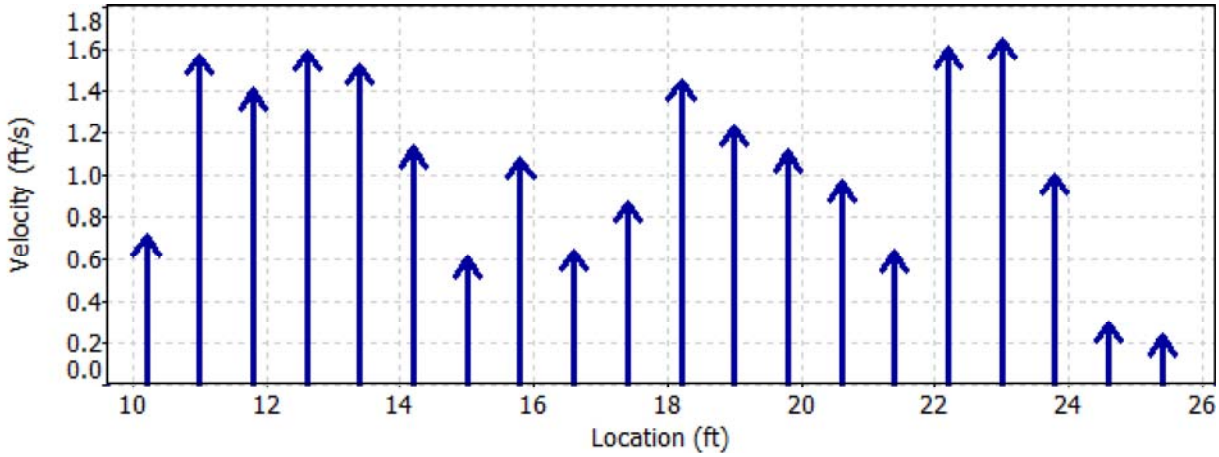
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

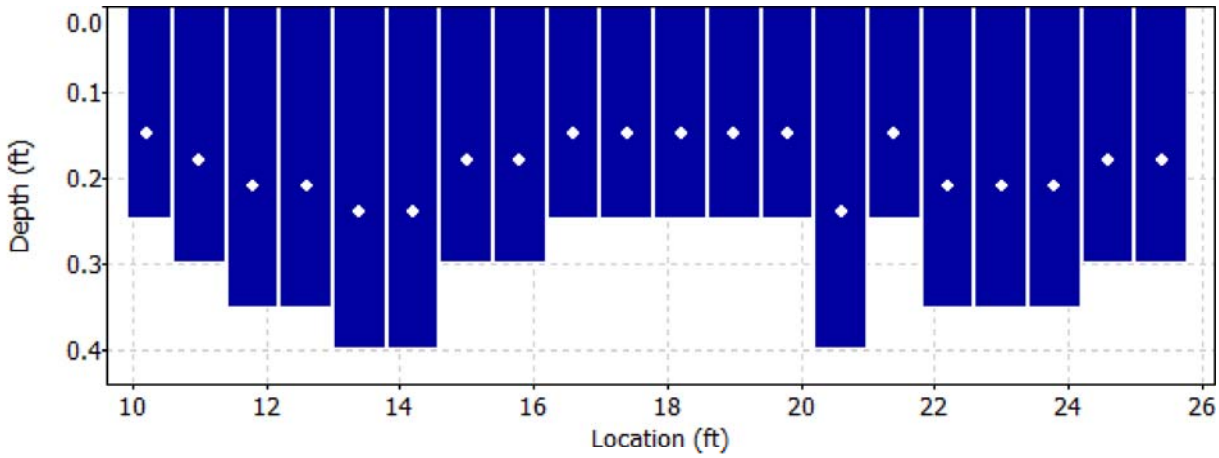
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M23.WAD	Site Name	M23
Start Date and Time	2017/09/27 10:46:24	Operator(s)	RB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information	
File Name	M23.WAD
Start Date and Time	2017/09/27 10:46:24

Site Details	
Site Name	M23
Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
7	15.00	0.6	High angle: 27
14	20.60	0.6	High angle: -20
18	23.80	0.6	High standard error: 0.083
19	24.60	0.6	High angle: 25
20	25.40	0.6	High angle: 21

Discharge Measurement Summary

Date Generated: Wed Jan 3 2018

File Information

File Name	M24E.WAD
Start Date and Time	2017/09/27 12:14:24

Site Details

Site Name	
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.30
Mounting Correction	0.0%

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	3.7%
Velocity	2.8%	17.8%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**4.1%**	**18.2%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	4.498
Mean SNR	50.7 dB	Total Area	1.319
Mean Temp	40.22 °F	Mean Depth	0.293
Disch. Equation	Mid-Section	Mean Velocity	0.4394
		Total Discharge	**0.5798**

Measurement Results

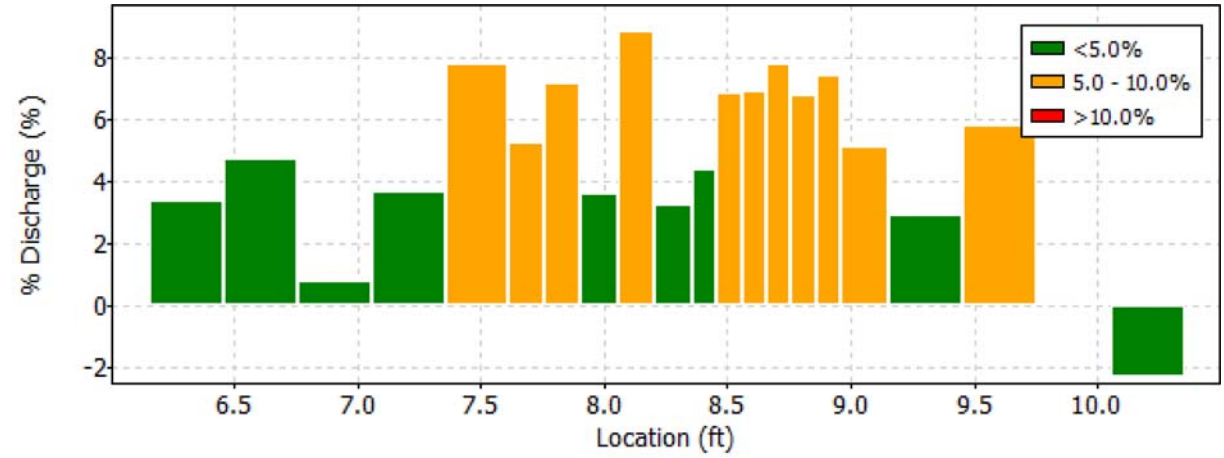
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	12:14	6.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*12:14*	*6.30*	*0.6*	*0.350*	*0.6*	*0.140*	*0.1860*	*1.00*	*0.1860*	*0.105*	*0.0195*	*3.4*
2	*12:15*	*6.60*	*0.6*	*0.300*	*0.6*	*0.120*	*0.3054*	*1.00*	*0.3054*	*0.090*	*0.0275*	*4.7*
3	*12:16*	*6.90*	*0.6*	*0.350*	*0.6*	*0.140*	*0.0443*	*1.00*	*0.0443*	*0.105*	*0.0046*	*0.8*
4	*12:17*	*7.20*	*0.6*	*0.350*	*0.6*	*0.140*	*0.2031*	*1.00*	*0.2031*	*0.105*	*0.0213*	*3.7*
5	*12:18*	*7.50*	*0.6*	*0.350*	*0.6*	*0.140*	*0.5161*	*1.00*	*0.5161*	*0.088*	*0.0452*	*7.8*
6	*12:40*	*7.70*	*0.6*	*0.350*	*0.6*	*0.140*	*0.5748*	*1.00*	*0.5748*	*0.052*	*0.0302*	*5.2*
7	*12:21*	*7.80*	*0.6*	*0.350*	*0.6*	*0.140*	*0.7877*	*1.00*	*0.7877*	*0.052*	*0.0413*	*7.1*
8	*12:31*	*8.00*	*0.6*	*0.300*	*0.6*	*0.120*	*0.4678*	*1.00*	*0.4678*	*0.045*	*0.0210*	*3.6*
9	*12:22*	*8.10*	*0.6*	*0.250*	*0.6*	*0.100*	*1.3645*	*1.00*	*1.3645*	*0.037*	*0.0511*	*8.8*
10	12:33	8.30	0.6	0.400	0.6	0.160	0.3150	1.00	0.3150	0.060	0.0189	3.3
11	*12:23*	*8.40*	*0.6*	*0.250*	*0.6*	*0.100*	*1.0213*	*1.00*	*1.0213*	*0.025*	*0.0255*	*4.4*
12	*12:39*	*8.50*	*0.6*	*0.350*	*0.6*	*0.140*	*1.1211*	*1.00*	*1.1211*	*0.035*	*0.0395*	*6.8*
13	*12:34*	*8.60*	*0.6*	*0.300*	*0.6*	*0.120*	*1.3455*	*1.00*	*1.3455*	*0.030*	*0.0401*	*6.9*
14	*12:24*	*8.70*	*0.6*	*0.350*	*0.6*	*0.140*	*1.2959*	*1.00*	*1.2959*	*0.035*	*0.0453*	*7.8*
15	*12:37*	*8.80*	*0.6*	*0.350*	*0.6*	*0.140*	*1.1125*	*1.00*	*1.1125*	*0.035*	*0.0392*	*6.8*
16	*12:36*	*8.90*	*0.6*	*0.350*	*0.6*	*0.140*	*1.2329*	*1.00*	*1.2329*	*0.035*	*0.0429*	*7.4*
17	12:25	9.00	0.6	0.350	0.6	0.140	0.4219	1.00	0.4219	0.070	0.0294	5.1
18	*12:26*	*9.30*	*0.6*	*0.300*	*0.6*	*0.120*	*0.1860*	*1.00*	*0.1860*	*0.090*	*0.0167*	*2.9*
19	*12:27*	*9.60*	*0.6*	*0.250*	*0.6*	*0.100*	*0.4511*	*1.00*	*0.4511*	*0.075*	*0.0338*	*5.8*
20	12:28	9.90	0.6	0.250	0.6	0.100	-0.0007	1.00	-0.0007	0.075	0.0000	0.0
21	*12:29*	*10.20*	*0.6*	*0.250*	*0.6*	*0.100*	*-0.1788*	*1.00*	*-0.1788*	*0.075*	*-0.0134*	*-2.3*
22	12:29	10.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

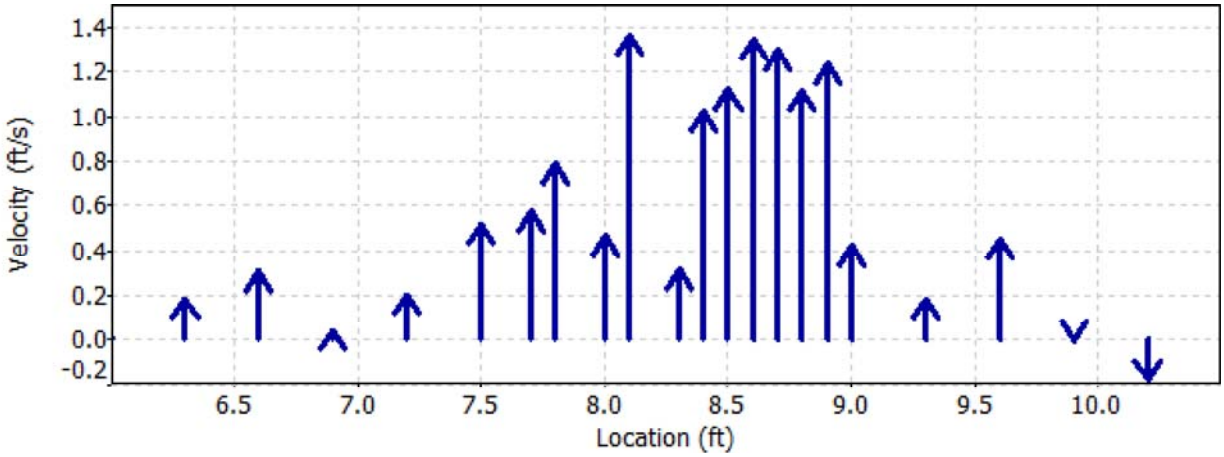
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

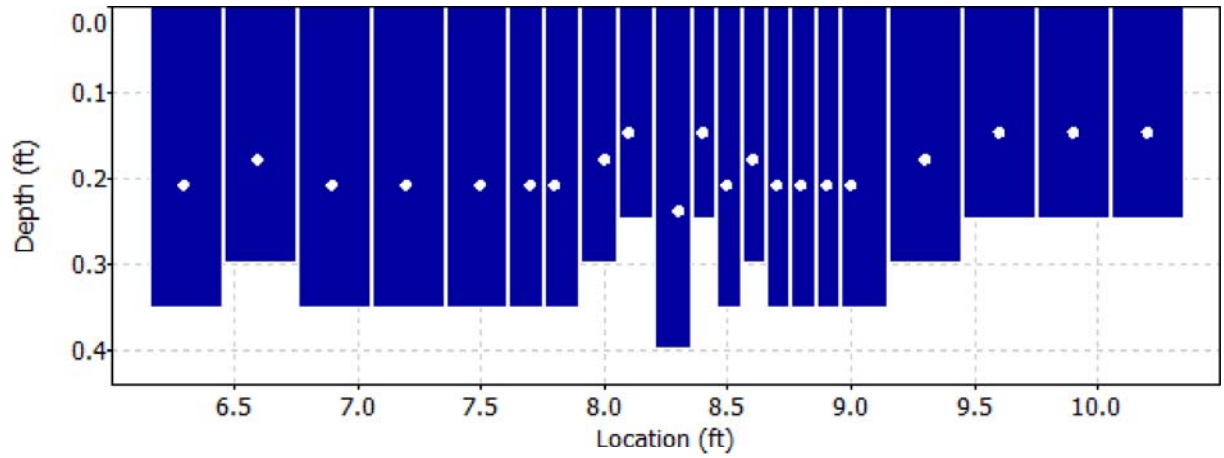
Discharge Measurement Summary

Date Generated: Wed Jan 3 2018

File Information		Site Details	
File Name	M24E.WAD	Site Name	M23E
Start Date and Time	2017/09/27 12:14:24	Operator(s)	RB







Discharge Measurement Summary

Date Generated: Wed Jan 3 2018

File Information		Site Details	
File Name	M24E.WAD	Site Name	M23E
Start Date and Time	2017/09/27 12:14:24	Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
1	6.30	0.6	High angle: -38
2	6.60	0.6	High angle: -39
3	6.90	0.6	High angle: -72
4	7.20	0.6	High angle: -44
5	7.50	0.6	High angle: -43
6	7.70	0.6	High SNR variation during measurement: 5.2,5.2
		0.6	High standard error: 0.133
7	7.80	0.6	High SNR variation during measurement: 5.2,6.0
		0.6	High standard error: 0.111
8	8.00	0.6	High angle: -27
		0.6	High SNR variation during measurement: 5.2,4.7
		0.6	High standard error: 0.132
9	8.10	0.6	High angle: -30
11	8.40	0.6	High angle: -32
12	8.50	0.6	High angle: -28
13	8.60	0.6	High angle: -30
		0.6	High standard error: 0.100
14	8.70	0.6	High angle: -23
15	8.80	0.6	High number of spikes: 7
		0.6	High angle: -32
16	8.90	0.6	High angle: -25
18	9.30	0.6	High angle: 34
19	9.60	0.6	High angle: 23
21	10.20	0.6	High angle: 119

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M25.WAD
Start Date and Time	2017/09/27 10:07:12

Site Details

Site Name	M25
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.5%
Velocity	1.1%	4.8%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**3.3%**	**5.5%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	10.000
Mean SNR	42.1 dB	Total Area	4.593
Mean Temp	36.67 °F	Mean Depth	0.459
Disch. Equation	Mid-Section	Mean Velocity	1.3126
		Total Discharge	**6.0293**

Measurement Results

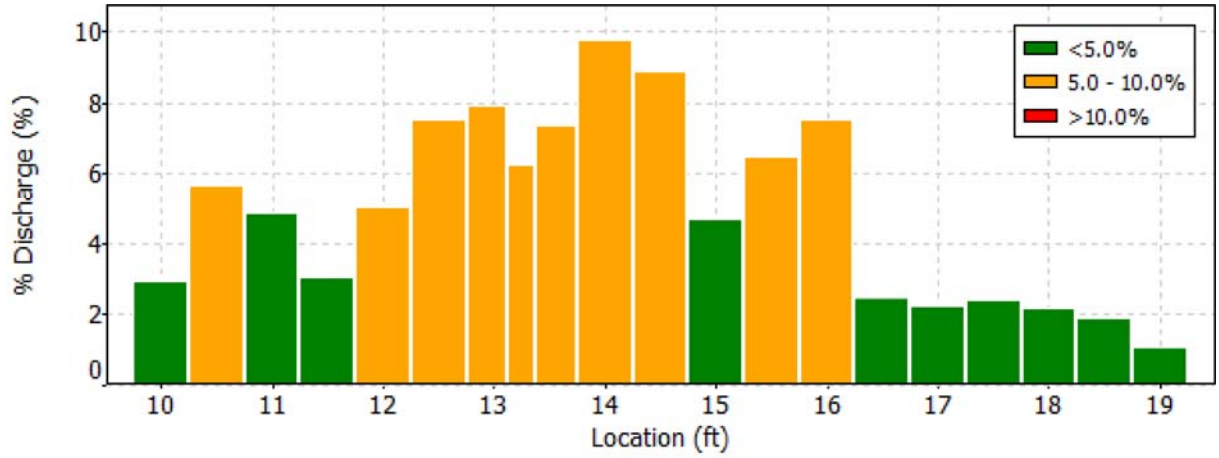
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:07	9.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	10:07	10.00	0.6	0.400	0.6	0.160	0.8822	1.00	0.8822	0.200	0.1764	2.9
2	*10:08*	*10.50*	*0.6*	*0.400*	*0.6*	*0.160*	*1.7034*	*1.00*	*1.7034*	*0.200*	*0.3406*	*5.6*
3	10:09	11.00	0.6	0.550	0.6	0.220	1.0614	1.00	1.0614	0.275	0.2918	4.8
4	10:10	11.50	0.6	0.500	0.6	0.200	0.7297	1.00	0.7297	0.250	0.1824	3.0
5	10:11	12.00	0.6	0.450	0.6	0.180	1.3396	1.00	1.3396	0.225	0.3015	5.0
6	10:12	12.50	0.6	0.500	0.6	0.200	1.8110	1.00	1.8110	0.250	0.4528	7.5
7	*10:13*	*13.00*	*0.6*	*0.700*	*0.6*	*0.280*	*1.8232*	*1.00*	*1.8232*	*0.263*	*0.4787*	*7.9*
8	10:27	13.25	0.6	0.700	0.6	0.280	2.1322	1.00	2.1322	0.175	0.3732	6.2
9	*10:14*	*13.50*	*0.6*	*0.550*	*0.6*	*0.220*	*2.1535*	*1.00*	*2.1535*	*0.206*	*0.4441*	*7.4*
10	10:15	14.00	0.6	0.550	0.6	0.220	2.1496	1.00	2.1496	0.275	0.5910	9.8
11	*10:16*	*14.50*	*0.6*	*0.550*	*0.6*	*0.220*	*1.9442*	*1.00*	*1.9442*	*0.275*	*0.5345*	*8.9*
12	10:17	15.00	0.6	0.550	0.6	0.220	1.0259	1.00	1.0259	0.275	0.2821	4.7
13	10:18	15.50	0.6	0.500	0.6	0.200	1.5574	1.00	1.5574	0.250	0.3894	6.5
14	10:19	16.00	0.6	0.550	0.6	0.220	1.6463	1.00	1.6463	0.275	0.4526	7.5
15	10:20	16.50	0.6	0.450	0.6	0.180	0.6660	1.00	0.6660	0.225	0.1499	2.5
16	10:21	17.00	0.6	0.500	0.6	0.200	0.5413	1.00	0.5413	0.250	0.1353	2.2
17	10:22	17.50	0.6	0.400	0.6	0.160	0.7264	1.00	0.7264	0.200	0.1453	2.4
18	10:23	18.00	0.6	0.400	0.6	0.160	0.6594	1.00	0.6594	0.200	0.1319	2.2
19	10:24	18.50	0.6	0.400	0.6	0.160	0.5682	1.00	0.5682	0.200	0.1136	1.9
20	10:25	19.00	0.6	0.250	0.6	0.100	0.4987	1.00	0.4987	0.125	0.0623	1.0
21	10:25	19.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

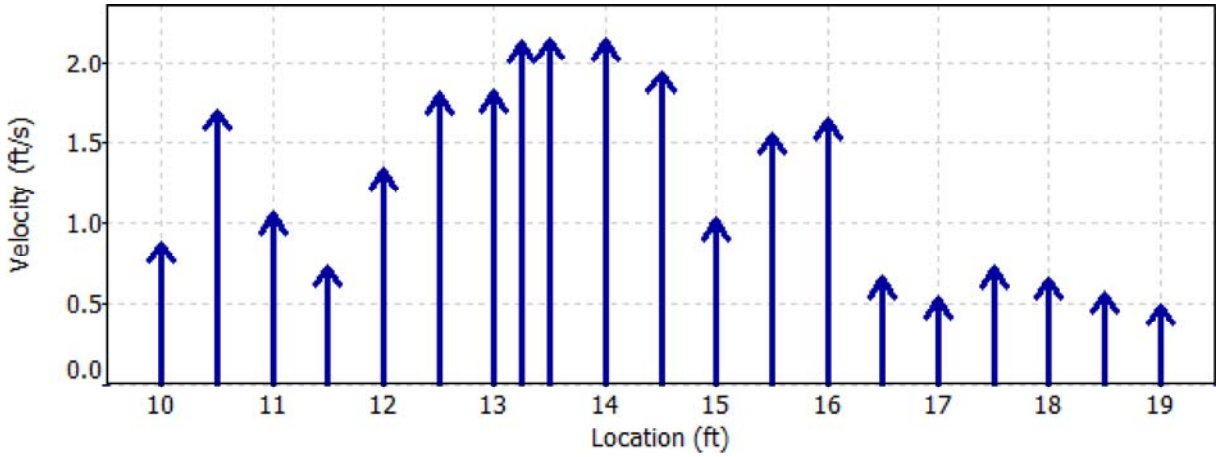
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

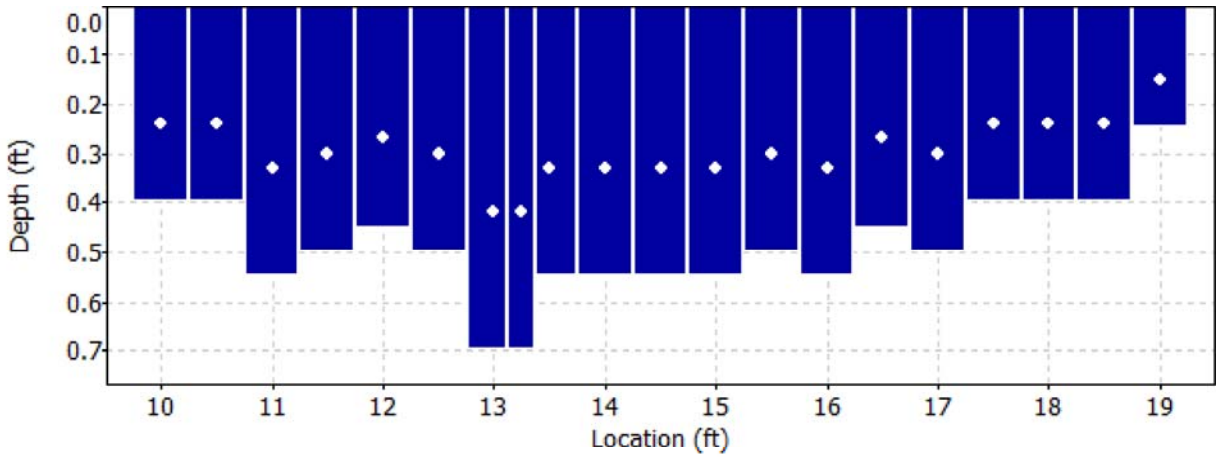
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M25.WAD	Site Name	M25
Start Date and Time	2017/09/27 10:07:12	Operator(s)	RB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M25.WAD	Site Name	M25
Start Date and Time	2017/09/27 10:07:12	Operator(s)	RB

Quality Control

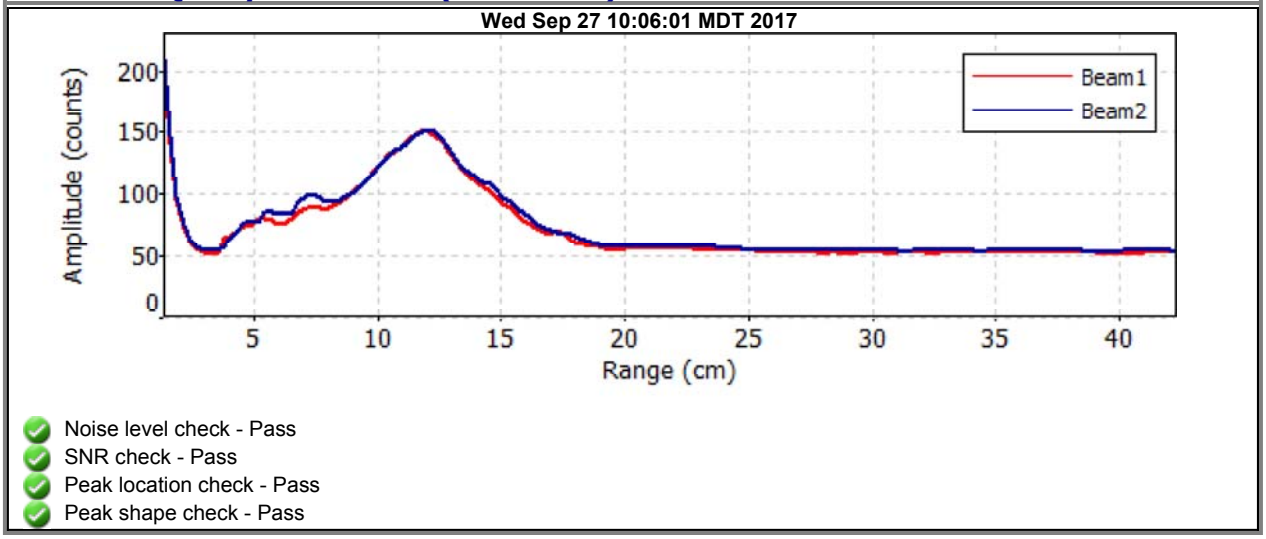
St	Loc	%Dep	Message
2	10.50	0.6	High standard error: 0.092
7	13.00	0.6	High standard error: 0.124
9	13.50	0.6	High angle: -20
11	14.50	0.6	High standard error: 0.101

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M25.WAD	Site Name	M25
Start Date and Time	2017/09/27 10:07:12	Operator(s)	RB

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Pass
- Peak shape check - Pass

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M26B.WAD
Start Date and Time	2017/09/27 13:20:40

Site Details

Site Name	M26B
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	0.7%
Velocity	0.9%	5.4%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.4%	-
Overall	**3.4%**	**5.6%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	LEW	Total Width	17.099
Mean SNR	33.9 dB	Total Area	12.454
Mean Temp	38.15 °F	Mean Depth	0.728
Disch. Equation	Mid-Section	Mean Velocity	0.8725
		Total Discharge	**10.8667**

Measurement Results

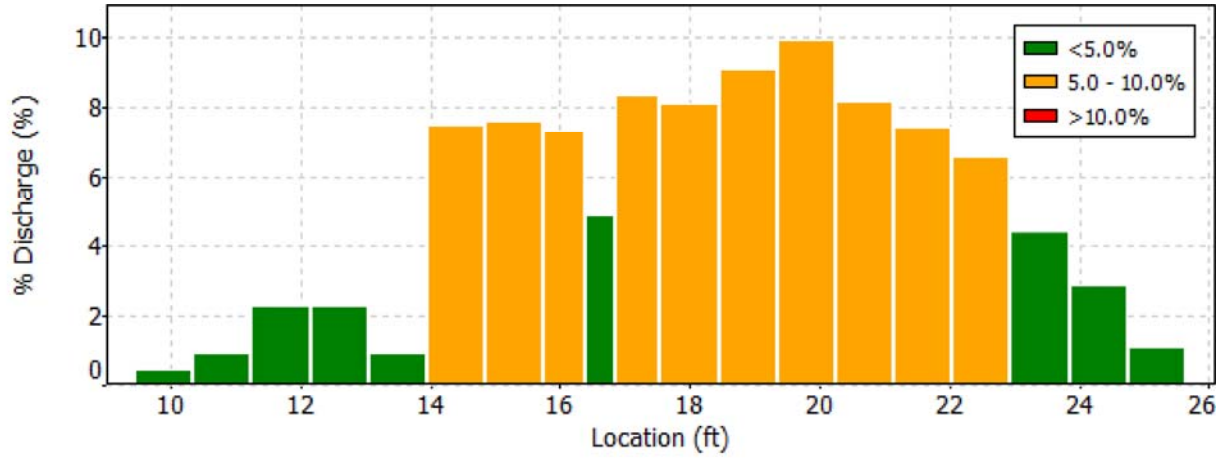
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:20	9.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*13:20*	*9.90*	*0.6*	*0.200*	*0.6*	*0.080*	*0.2612*	*1.00*	*0.2612*	*0.180*	*0.0470*	*0.4*
2	13:21	10.80	0.6	0.200	0.6	0.080	0.5289	1.00	0.5289	0.180	0.0953	0.9
3	13:22	11.70	0.6	0.300	0.6	0.120	0.9163	1.00	0.9163	0.270	0.2473	2.3
4	*13:23*	*12.60*	*0.6*	*0.500*	*0.6*	*0.200*	*0.5538*	*1.00*	*0.5538*	*0.450*	*0.2492*	*2.3*
5	*13:25*	*13.50*	*0.6*	*0.700*	*0.6*	*0.280*	*0.1529*	*1.00*	*0.1529*	*0.630*	*0.0963*	*0.9*
6	13:26	14.40	0.6	0.850	0.6	0.340	1.0643	1.00	1.0643	0.765	0.8142	7.5
7	13:27	15.30	0.6	0.900	0.6	0.360	1.0207	1.00	1.0207	0.810	0.8266	7.6
8	13:28	16.20	0.6	0.950	0.6	0.380	1.2818	1.00	1.2818	0.618	0.7920	7.3
9	13:39	16.60	0.6	0.950	0.6	0.380	1.2339	1.00	1.2339	0.428	0.5275	4.9
10	13:29	17.10	0.6	1.000	0.6	0.400	1.2956	1.00	1.2956	0.700	0.9065	8.3
11	13:30	18.00	0.6	1.000	0.6	0.400	0.9790	1.00	0.9790	0.900	0.8810	8.1
12	13:31	18.90	0.6	1.000	0.6	0.400	1.1004	1.00	1.1004	0.900	0.9903	9.1
13	13:32	19.80	0.6	1.000	0.6	0.400	1.2051	1.00	1.2051	0.900	1.0845	10.0
14	13:33	20.70	0.6	1.000	0.6	0.400	0.9856	1.00	0.9856	0.900	0.8869	8.2
15	13:34	21.60	0.6	1.000	0.6	0.400	0.8980	1.00	0.8980	0.900	0.8081	7.4
16	13:35	22.50	0.6	0.950	0.6	0.380	0.8307	1.00	0.8307	0.855	0.7103	6.5
17	13:35	23.40	0.6	0.900	0.6	0.360	0.5906	1.00	0.5906	0.810	0.4783	4.4
18	13:37	24.30	0.6	0.800	0.6	0.320	0.4337	1.00	0.4337	0.720	0.3122	2.9
19	*13:38*	*25.20*	*0.6*	*0.600*	*0.6*	*0.240*	*0.2096*	*1.00*	*0.2096*	*0.540*	*0.1132*	*1.0*
20	13:38	26.10	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

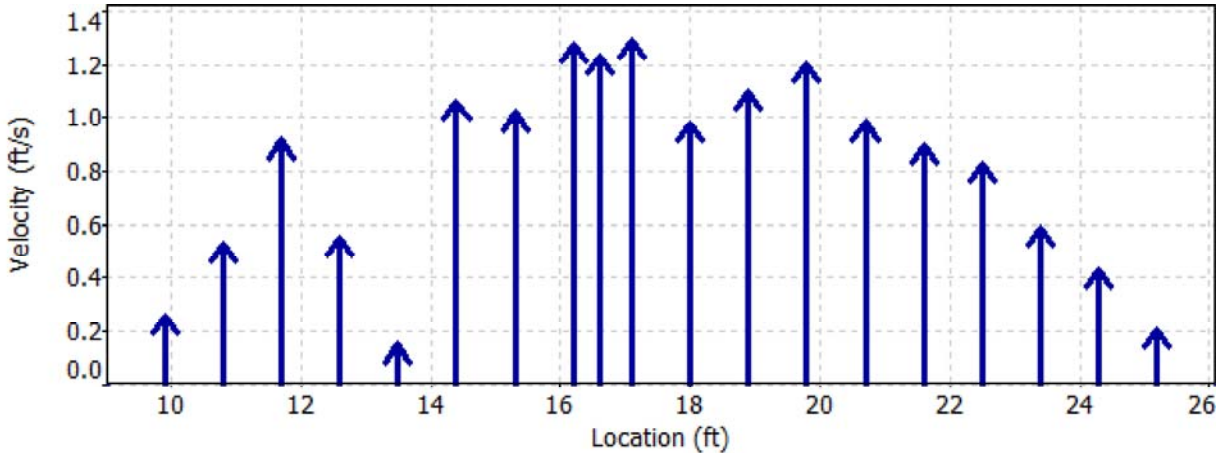
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

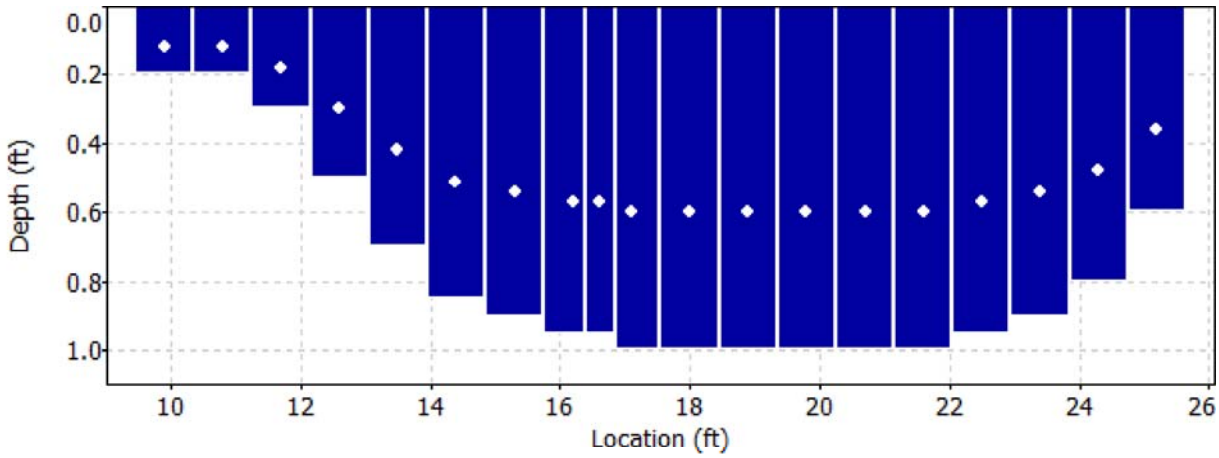
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M26B.WAD	Site Name	M26B
Start Date and Time	2017/09/27 13:20:40	Operator(s)	RB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M26B.WAD
Start Date and Time	2017/09/27 13:20:40

Site Details

Site Name	M26B
Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
1	9.90	0.6	High angle: -23
4	12.60	0.6	High angle: 22
5	13.50	0.6	High angle: 37
19	25.20	0.6	High angle: 24

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M26D.WAD
Start Date and Time	2017/09/27 14:28:28

Site Details

Site Name	M26D
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.3%	1.9%
Velocity	0.8%	3.8%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.3%	-
Overall	**3.2%**	**4.4%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	18.899
Mean SNR	34.4 dB	Total Area	15.794
Mean Temp	42.25 °F	Mean Depth	0.836
Disch. Equation	Mid-Section	Mean Velocity	1.0093
		Total Discharge	**15.9403**

Measurement Results

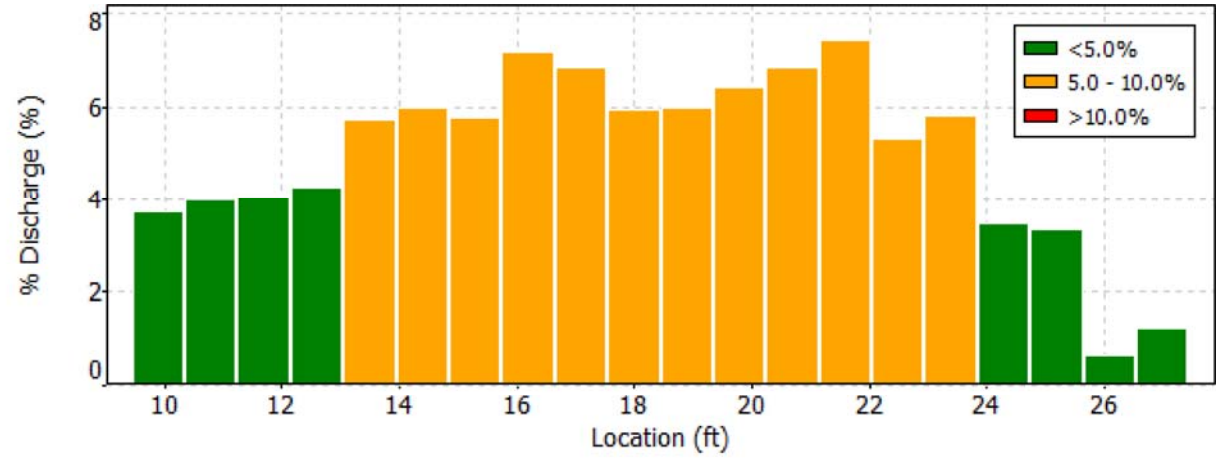
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:28	9.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*14:28*	*9.90*	*0.6*	*0.800*	*0.6*	*0.320*	*0.8291*	*1.00*	*0.8291*	*0.720*	*0.5968*	*3.7*
2	*14:29*	*10.80*	*0.6*	*0.900*	*0.6*	*0.360*	*0.7858*	*1.00*	*0.7858*	*0.810*	*0.6364*	*4.0*
3	*14:30*	*11.70*	*0.6*	*0.850*	*0.6*	*0.340*	*0.8376*	*1.00*	*0.8376*	*0.765*	*0.6408*	*4.0*
4	*14:31*	*12.60*	*0.6*	*1.100*	*0.6*	*0.440*	*0.6873*	*1.00*	*0.6873*	*0.990*	*0.6805*	*4.3*
5	*14:32*	*13.50*	*0.6*	*1.000*	*0.6*	*0.400*	*1.0128*	*1.00*	*1.0128*	*0.900*	*0.9114*	*5.7*
6	*14:33*	*14.40*	*0.6*	*1.050*	*0.6*	*0.420*	*1.0066*	*1.00*	*1.0066*	*0.945*	*0.9510*	*6.0*
7	*14:34*	*15.30*	*0.6*	*0.950*	*0.6*	*0.380*	*1.0741*	*1.00*	*1.0741*	*0.855*	*0.9185*	*5.8*
8	14:35	16.20	0.6	1.100	0.6	0.440	1.1591	1.00	1.1591	0.990	1.1475	7.2
9	*14:36*	*17.10*	*0.6*	*1.050*	*0.6*	*0.420*	*1.1532*	*1.00*	*1.1532*	*0.945*	*1.0896*	*6.8*
10	*14:38*	*18.00*	*0.6*	*0.900*	*0.6*	*0.360*	*1.1699*	*1.00*	*1.1699*	*0.810*	*0.9475*	*5.9*
11	14:38	18.90	0.6	0.900	0.6	0.360	1.1818	1.00	1.1818	0.810	0.9571	6.0
12	14:39	19.80	0.6	1.000	0.6	0.400	1.1342	1.00	1.1342	0.900	1.0207	6.4
13	14:40	20.70	0.6	1.000	0.6	0.400	1.2123	1.00	1.2123	0.900	1.0910	6.8
14	14:41	21.60	0.6	0.950	0.6	0.380	1.3911	1.00	1.3911	0.855	1.1894	7.5
15	*14:42*	*22.50*	*0.6*	*0.950*	*0.6*	*0.380*	*0.9892*	*1.00*	*0.9892*	*0.855*	*0.8458*	*5.3*
16	*14:43*	*23.40*	*0.6*	*0.800*	*0.6*	*0.320*	*1.2907*	*1.00*	*1.2907*	*0.720*	*0.9291*	*5.8*
17	*14:44*	*24.30*	*0.6*	*0.700*	*0.6*	*0.280*	*0.8825*	*1.00*	*0.8825*	*0.630*	*0.5561*	*3.5*
18	*14:45*	*25.20*	*0.6*	*0.700*	*0.6*	*0.280*	*0.8524*	*1.00*	*0.8524*	*0.630*	*0.5370*	*3.4*
19	*14:46*	*26.10*	*0.6*	*0.450*	*0.6*	*0.180*	*0.2418*	*1.00*	*0.2418*	*0.405*	*0.0979*	*0.6*
20	14:47	27.00	0.6	0.400	0.6	0.160	0.5453	1.00	0.5453	0.360	0.1963	1.2
21	14:47	27.90	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

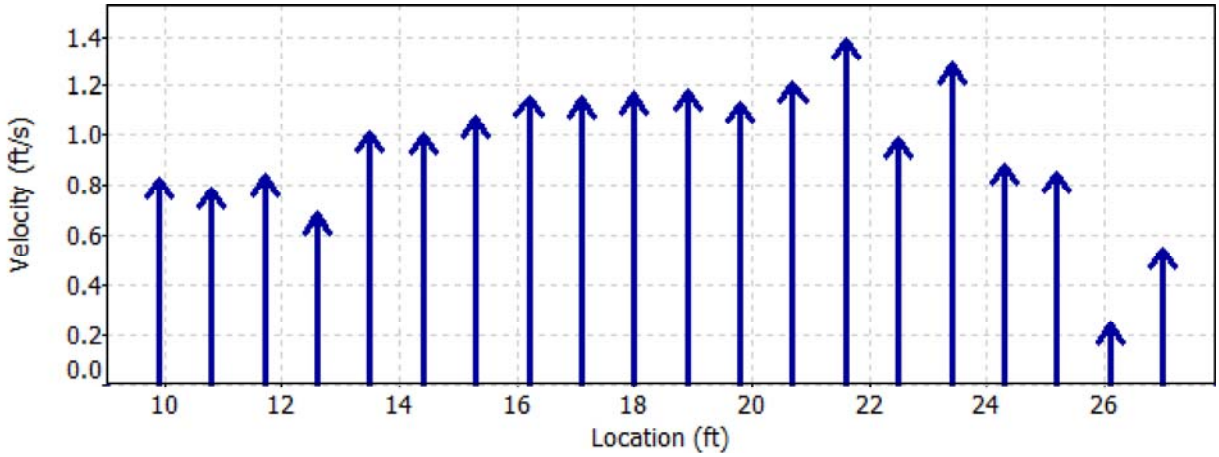
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

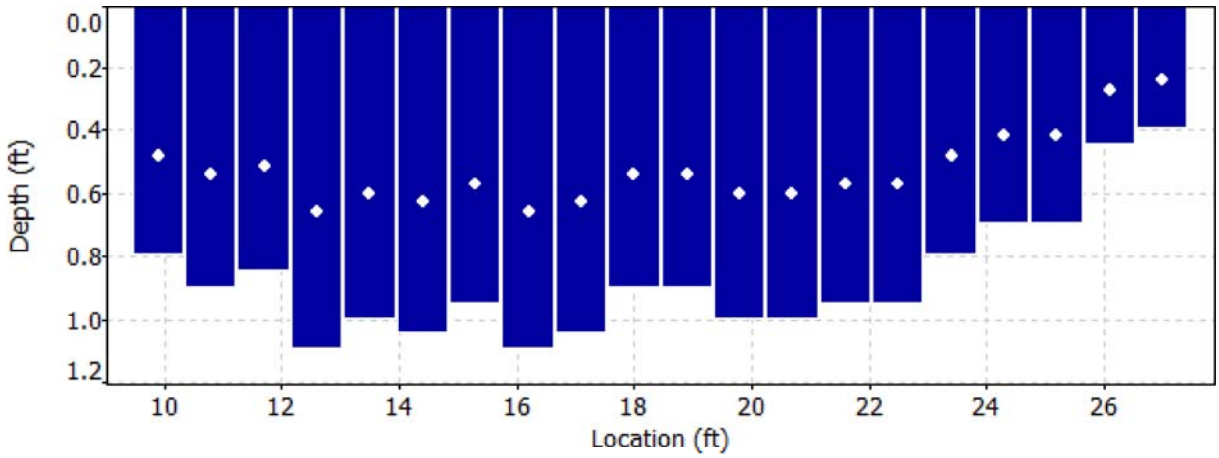
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M26D.WAD	Site Name	M26D
Start Date and Time	2017/09/27 14:28:28	Operator(s)	RB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M26D.WAD
Start Date and Time	2017/09/27 14:28:28

Site Details

Site Name	M26D
Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
1	9.90	0.6	High angle: -23
2	10.80	0.6	High angle: -35
3	11.70	0.6	High angle: -32
4	12.60	0.6	High angle: -34
5	13.50	0.6	High angle: -23
6	14.40	0.6	High angle: -28
7	15.30	0.6	High angle: -28
9	17.10	0.6	High angle: -26
10	18.00	0.6	High angle: -27
15	22.50	0.6	High angle: -21
16	23.40	0.6	High angle: -24
17	24.30	0.6	High angle: -24
18	25.20	0.6	High angle: -22
19	26.10	0.6	High angle: -22

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M27.WAD
Start Date and Time	2017/09/27 16:12:41

Site Details

Site Name	M27
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.2%	1.7%
Velocity	1.3%	2.0%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.0%	-
Overall	**3.3%**	**2.8%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	LEW	Total Width	17.999
Mean SNR	42.5 dB	Total Area	13.424
Mean Temp	42.14 °F	Mean Depth	0.746
Disch. Equation	Mid-Section	Mean Velocity	1.1860
		Total Discharge	**15.9207**

Measurement Results

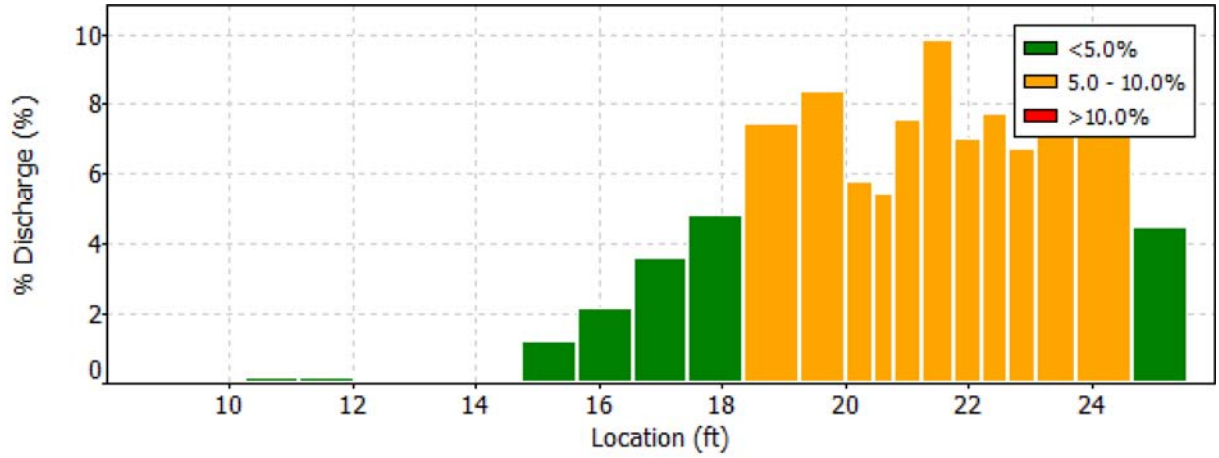
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	16:12	8.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	16:12	8.90	0.6	0.200	0.6	0.080	-0.0059	1.00	-0.0059	0.180	-0.0011	0.0
2	16:13	9.80	0.6	0.200	0.6	0.080	-0.0095	1.00	-0.0095	0.180	-0.0017	0.0
3	16:15	10.70	0.6	0.300	0.6	0.120	0.0732	1.00	0.0732	0.270	0.0197	0.1
4	16:16	11.60	0.6	0.300	0.6	0.120	0.0722	1.00	0.0722	0.270	0.0195	0.1
5	16:17	12.50	0.6	0.300	0.6	0.120	0.0715	1.00	0.0715	0.270	0.0193	0.1
6	16:18	13.40	0.6	0.400	0.6	0.160	0.0223	1.00	0.0223	0.360	0.0080	0.1
7	16:20	14.30	0.6	0.500	0.6	0.200	-0.0164	1.00	-0.0164	0.450	-0.0074	0.0
8	16:21	15.20	0.6	0.650	0.6	0.260	0.3199	1.00	0.3199	0.585	0.1871	1.2
9	16:22	16.10	0.6	0.750	0.6	0.300	0.5075	1.00	0.5075	0.675	0.3426	2.2
10	16:23	17.00	0.6	0.950	0.6	0.380	0.6749	1.00	0.6749	0.855	0.5771	3.6
11	16:24	17.90	0.6	1.050	0.6	0.420	0.8140	1.00	0.8140	0.945	0.7691	4.8
12	16:25	18.80	0.6	1.300	0.6	0.520	1.0118	1.00	1.0118	1.170	1.1836	7.4
13	*16:26*	*19.70*	*0.6*	*1.200*	*0.6*	*0.480*	*1.4777*	*1.00*	*1.4777*	*0.900*	*1.3306*	*8.4*
14	*16:39*	*20.30*	*0.6*	*1.500*	*0.6*	*0.600*	*1.3573*	*1.00*	*1.3573*	*0.675*	*0.9161*	*5.8*
15	*16:27*	*20.60*	*0.6*	*1.550*	*0.6*	*0.620*	*1.6020*	*1.00*	*1.6020*	*0.543*	*0.8692*	*5.5*
16	*16:34*	*21.00*	*0.6*	*1.550*	*0.6*	*0.620*	*1.7211*	*1.00*	*1.7211*	*0.697*	*1.2003*	*7.5*
17	*16:28*	*21.50*	*0.6*	*1.600*	*0.6*	*0.640*	*1.9656*	*1.00*	*1.9656*	*0.800*	*1.5725*	*9.9*
18	*16:36*	*22.00*	*0.6*	*1.400*	*0.6*	*0.560*	*1.7625*	*1.00*	*1.7625*	*0.630*	*1.1102*	*7.0*
19	*16:30*	*22.40*	*0.6*	*1.300*	*0.6*	*0.520*	*2.0978*	*1.00*	*2.0978*	*0.585*	*1.2270*	*7.7*
20	*16:37*	*22.90*	*0.6*	*1.000*	*0.6*	*0.400*	*2.3714*	*1.00*	*2.3714*	*0.450*	*1.0670*	*6.7*
21	16:31	23.30	0.6	0.900	0.6	0.360	2.3192	1.00	2.3192	0.584	1.3555	8.5
22	16:31	24.20	0.6	0.900	0.6	0.360	1.7887	1.00	1.7887	0.810	1.4486	9.1
23	16:32	25.10	0.6	0.600	0.6	0.240	1.3107	1.00	1.3107	0.540	0.7078	4.4
24	16:32	26.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

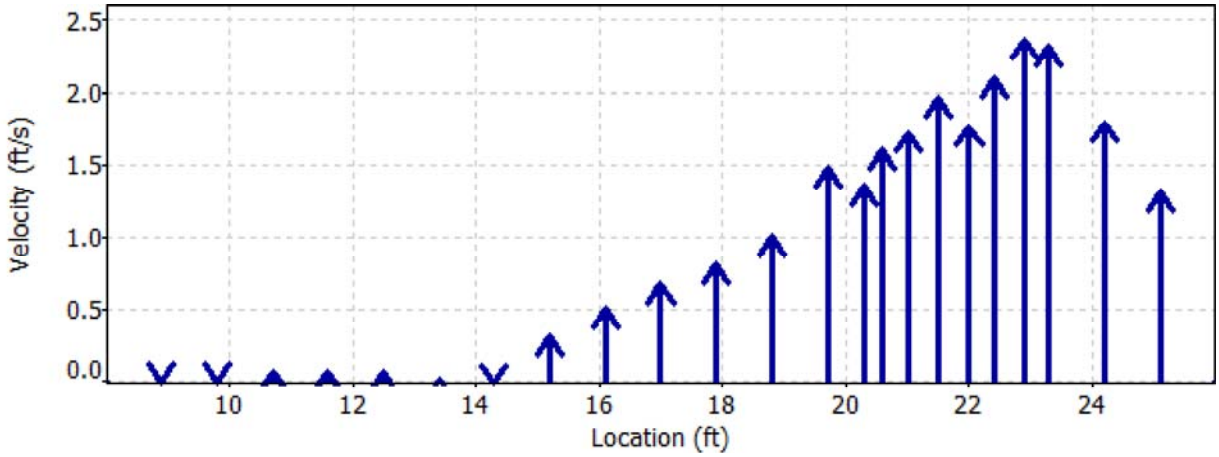
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

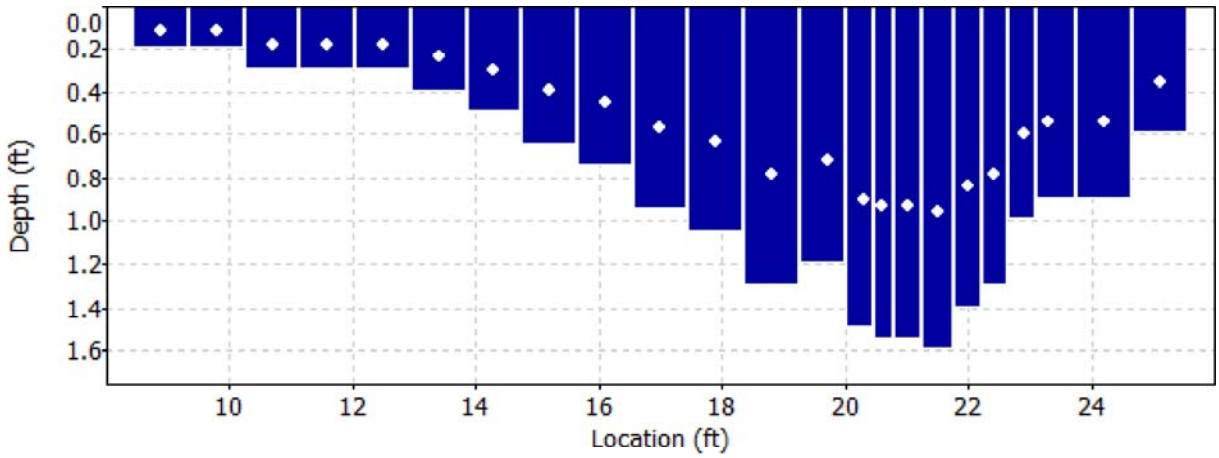
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M27.WAD	Site Name	M27
Start Date and Time	2017/09/27 16:12:41	Operator(s)	RB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M27.WAD	Site Name	M27
Start Date and Time	2017/09/27 16:12:41	Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
13	19.70	0.6	High angle: -24
14	20.30	0.6	High angle: -24
		0.6	High standard error: 0.096
15	20.60	0.6	High angle: -21
		0.6	High standard error: 0.123
16	21.00	0.6	High angle: -24
17	21.50	0.6	High angle: -24
		0.6	High standard error: 0.143
18	22.00	0.6	High angle: -35
19	22.40	0.6	High angle: -27
20	22.90	0.6	High number of spikes: 5

Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information

File Name	M28.WAD
Start Date and Time	2017/09/27 15:31:45

Site Details

Site Name	M28
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P5878
CPU Firmware Version	3.9
Software Ver	2.20

Units (English Units)

Distance	ft
Velocity	ft/s
Area	ft^2
Discharge	cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.7%
Velocity	0.7%	2.4%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.4%	-
Overall	**3.3%**	**3.1%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	LEW	Total Width	17.999
Mean SNR	37.2 dB	Total Area	12.060
Mean Temp	42.51 °F	Mean Depth	0.670
Disch. Equation	Mid-Section	Mean Velocity	1.4435
		Total Discharge	**17.4086**

Measurement Results

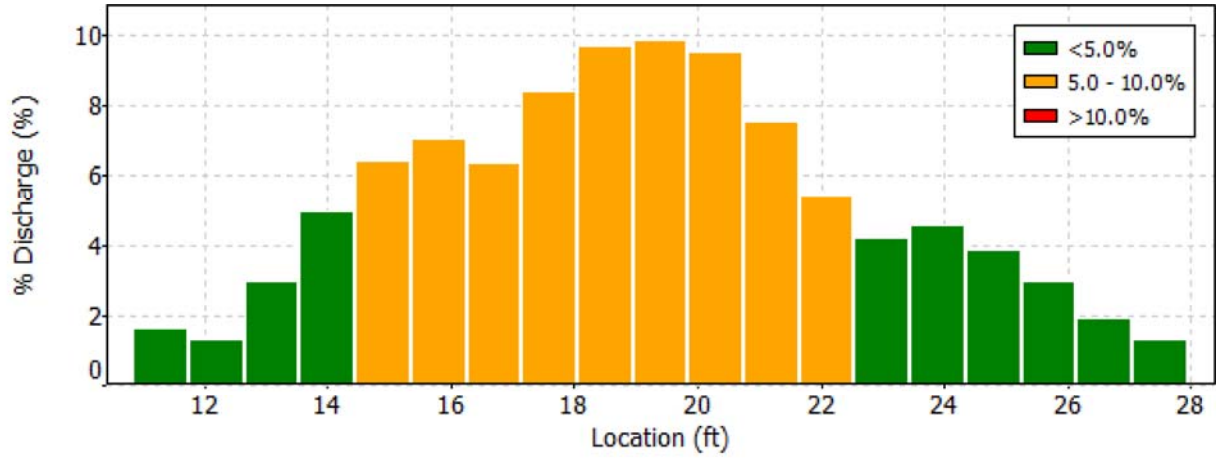
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:31	10.40	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	15:31	11.30	0.6	0.300	0.6	0.120	1.0600	1.00	1.0600	0.270	0.2861	1.6
2	15:32	12.20	0.6	0.400	0.6	0.160	0.6322	1.00	0.6322	0.360	0.2275	1.3
3	15:34	13.10	0.6	0.450	0.6	0.180	1.2661	1.00	1.2661	0.405	0.5129	2.9
4	15:35	14.00	0.6	0.600	0.6	0.240	1.6007	1.00	1.6007	0.540	0.8644	5.0
5	*15:36*	*14.90*	*0.6*	*0.700*	*0.6*	*0.280*	*1.7723*	*1.00*	*1.7723*	*0.630*	*1.1167*	*6.4*
6	*15:38*	*15.80*	*0.6*	*0.750*	*0.6*	*0.300*	*1.8107*	*1.00*	*1.8107*	*0.675*	*1.2221*	*7.0*
7	*15:39*	*16.70*	*0.6*	*0.750*	*0.6*	*0.300*	*1.6296*	*1.00*	*1.6296*	*0.675*	*1.0999*	*6.3*
8	*15:41*	*17.60*	*0.6*	*0.850*	*0.6*	*0.340*	*1.9137*	*1.00*	*1.9137*	*0.765*	*1.4640*	*8.4*
9	15:42	18.50	0.6	0.850	0.6	0.340	2.2195	1.00	2.2195	0.765	1.6979	9.8
10	15:43	19.40	0.6	0.950	0.6	0.380	2.0197	1.00	2.0197	0.855	1.7269	9.9
11	*15:44*	*20.30*	*0.6*	*0.900*	*0.6*	*0.360*	*2.0607*	*1.00*	*2.0607*	*0.810*	*1.6689*	*9.6*
12	*15:45*	*21.20*	*0.6*	*0.850*	*0.6*	*0.340*	*1.7188*	*1.00*	*1.7188*	*0.765*	*1.3149*	*7.6*
13	*15:46*	*22.10*	*0.6*	*0.800*	*0.6*	*0.320*	*1.3077*	*1.00*	*1.3077*	*0.720*	*0.9414*	*5.4*
14	*15:47*	*23.00*	*0.6*	*0.600*	*0.6*	*0.240*	*1.3547*	*1.00*	*1.3547*	*0.540*	*0.7315*	*4.2*
15	15:49	23.90	0.6	0.700	0.6	0.280	1.2585	1.00	1.2585	0.630	0.7930	4.6
16	15:50	24.80	0.6	0.700	0.6	0.280	1.0646	1.00	1.0646	0.630	0.6708	3.9
17	15:51	25.70	0.6	0.800	0.6	0.320	0.7087	1.00	0.7087	0.720	0.5101	2.9
18	15:52	26.60	0.6	0.700	0.6	0.280	0.5341	1.00	0.5341	0.630	0.3365	1.9
19	15:53	27.50	0.6	0.750	0.6	0.300	0.3304	1.00	0.3304	0.675	0.2230	1.3
20	15:53	28.40	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

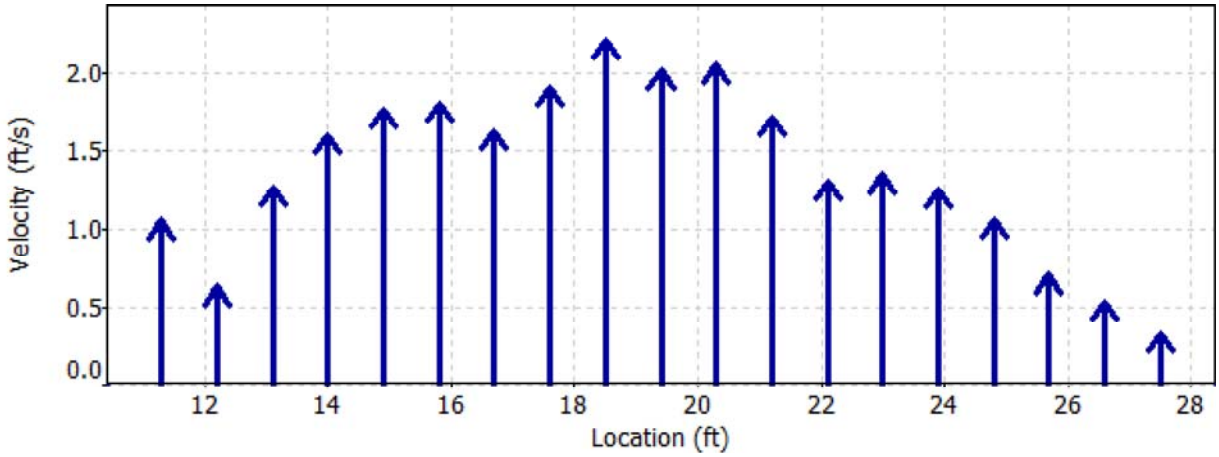
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

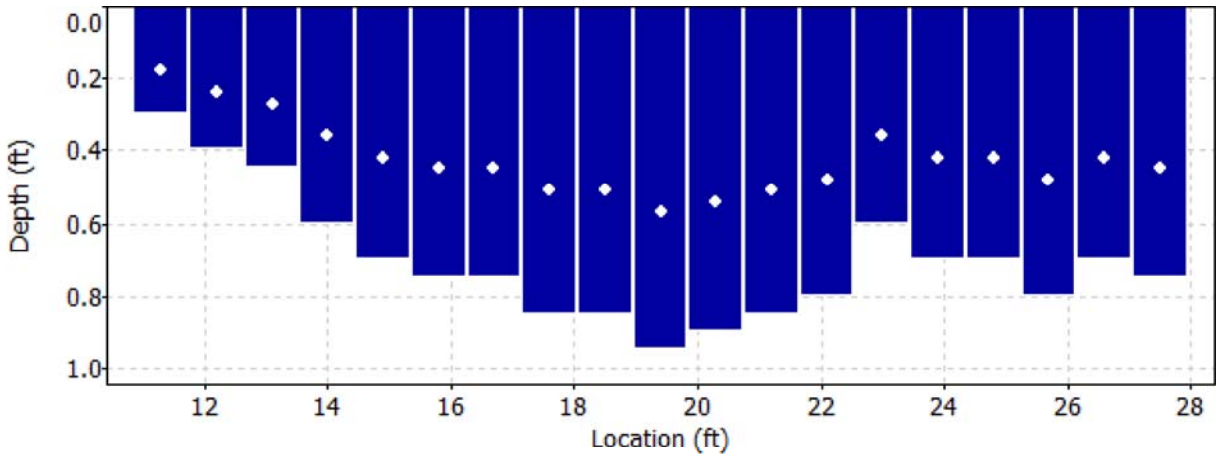
Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information		Site Details	
File Name	M28.WAD	Site Name	M28
Start Date and Time	2017/09/27 15:31:45	Operator(s)	RB







Discharge Measurement Summary

Date Generated: Mon Oct 2 2017

File Information	
File Name	M28.WAD
Start Date and Time	2017/09/27 15:31:45

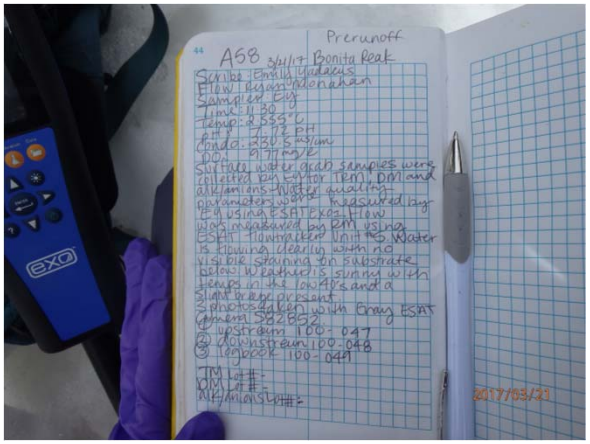
Site Details	
Site Name	M28
Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
5	14.90	0.6	High number of spikes: 5
6	15.80	0.6	High angle: -20
7	16.70	0.6	High angle: -24
		0.6	High standard error: 0.104
8	17.60	0.6	High angle: -21
		0.6	High differences in beam SNR: 39.1,19.7
11	20.30	0.6	High angle: -25
12	21.20	0.6	High angle: -32
13	22.10	0.6	High angle: -34
14	23.00	0.6	High angle: -31

Appendix B
Site Photos

Appendix B- Photo Log
Bonita Peak Mining District
March 21, 2017



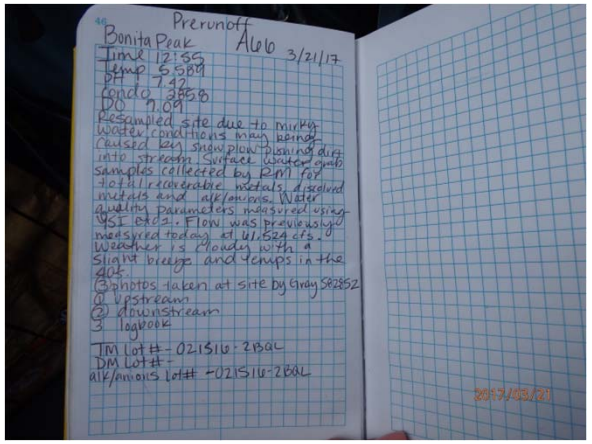
A58_Logbook

A58_Downstream

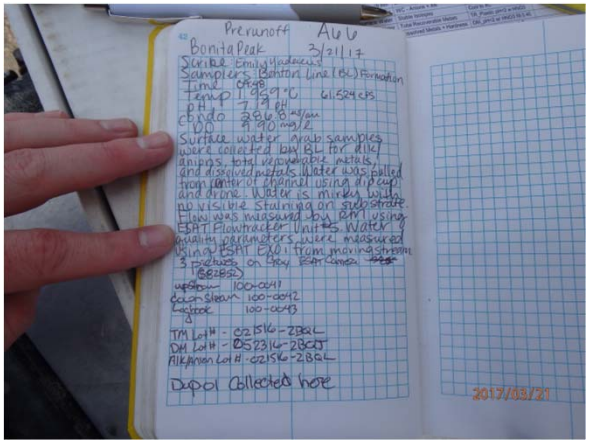
A58_Upstream

A66_Downstream

A66_Downstream



A66_Logbook

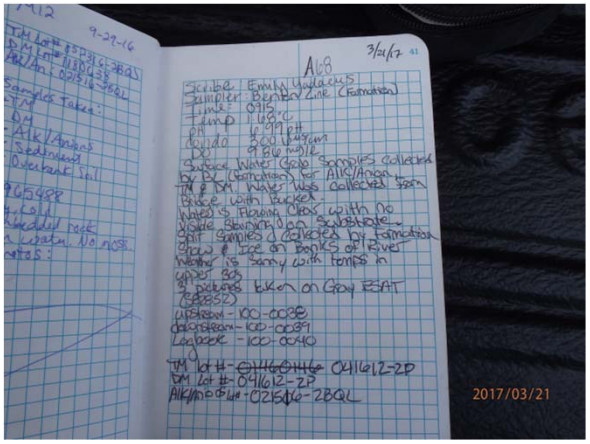


A66_Logbook

A66_Upstream

A66_Upstream

A68_Downstream

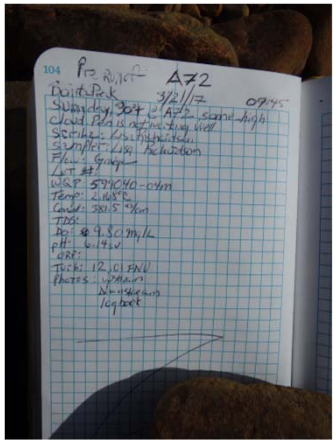


A68_Logbook

A68_Upstream

A72_Downstream

A72_Downstream

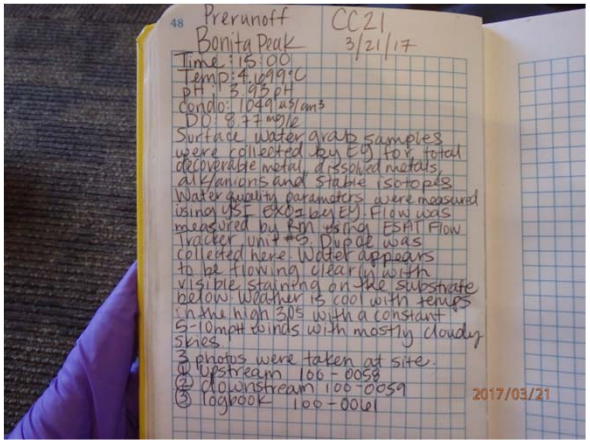


A72_Logbook

A72_Upstream

A72_Upstream

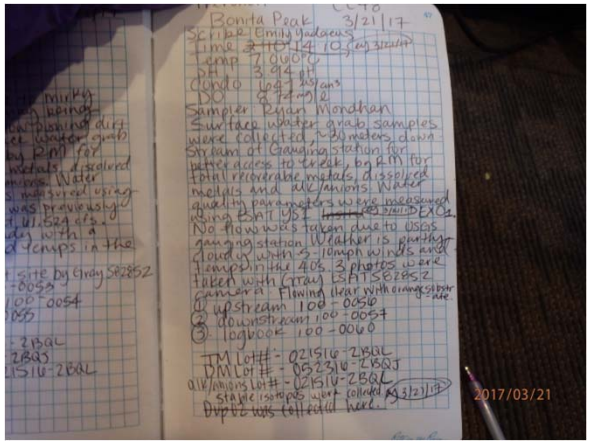
CC21_Downstream



CC21_Logbook

CC21_Upstream

CC48_Downstream

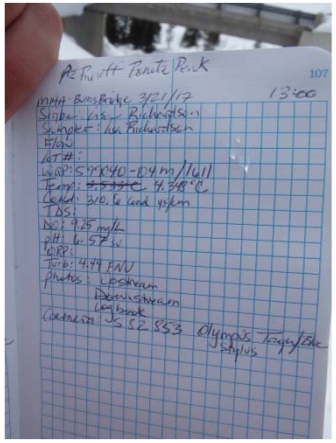


CC48_Logbook

CC48_Upstream

M14A_Downstream

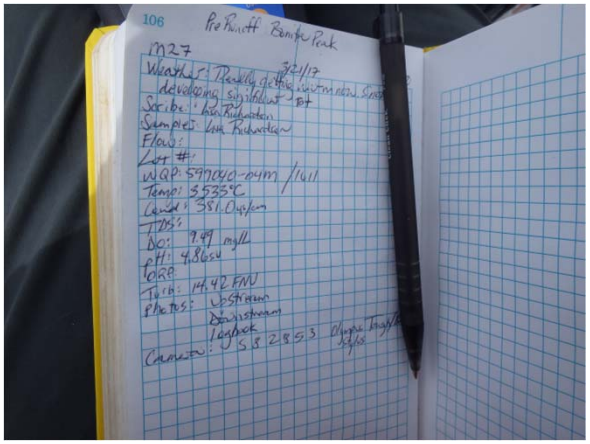
M14A_Logbook (2)



M14A_Logbook

M14A_Upstream

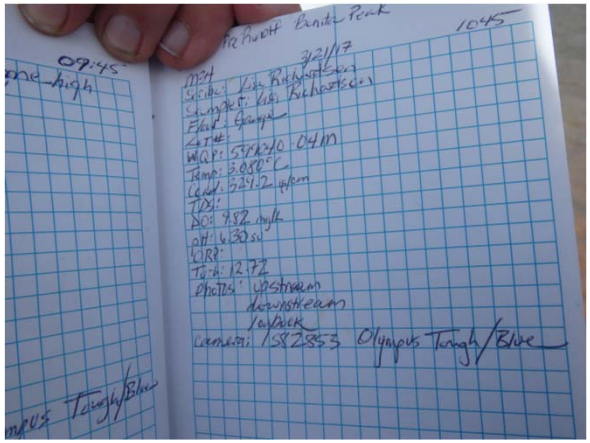
M27_Downstream



M27_Logbook

M27_Upstream

M34_Gauging_Station

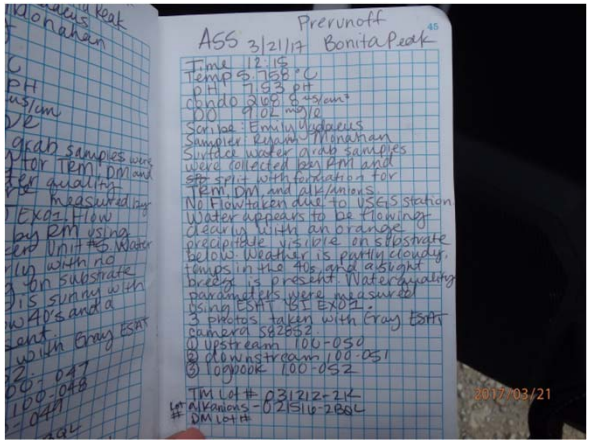


M34_Logbook

M34_Upstream

M34_Upstream

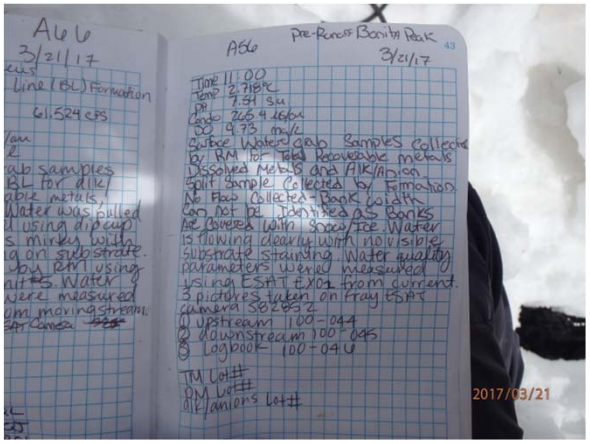
A55_Downstream



A55_Logbook

A55_Upstream

A56_Downstream

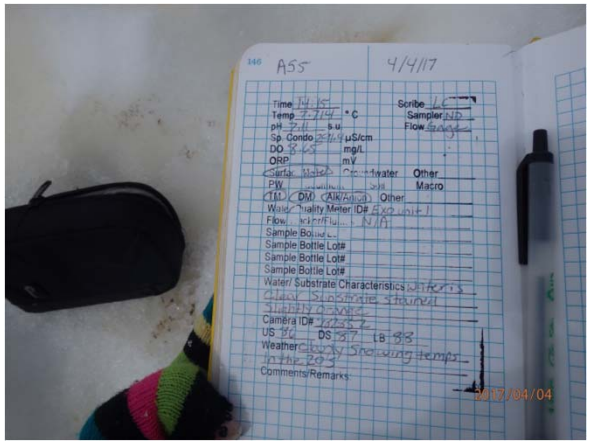


A56_Logbook

A56_Upstream

Appendix B- Photo Log
Bonita Peak Mining District
April 4, 2017

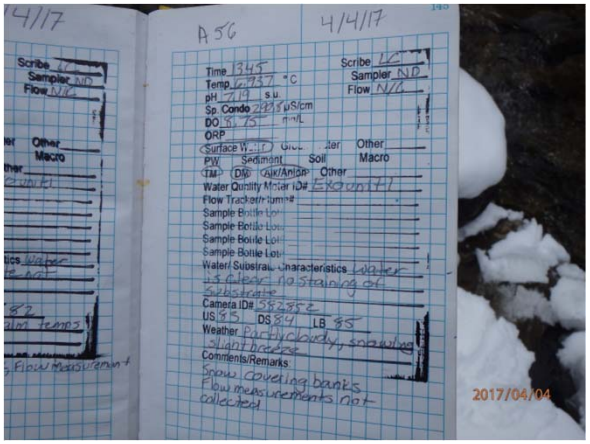
A55_Downstream



A55_Logbook

A55_Upstream

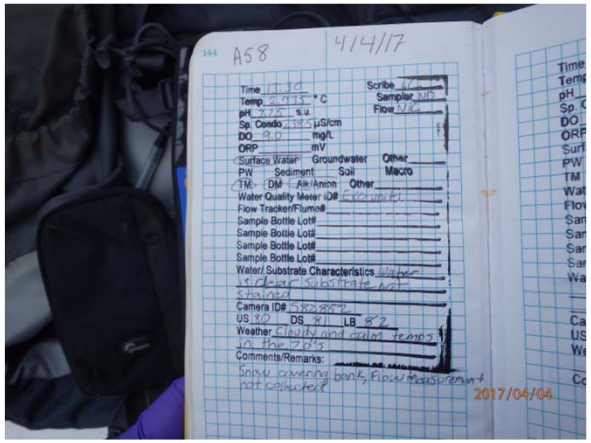
A56_Downstream



A56_Logbook

A56_Upstream

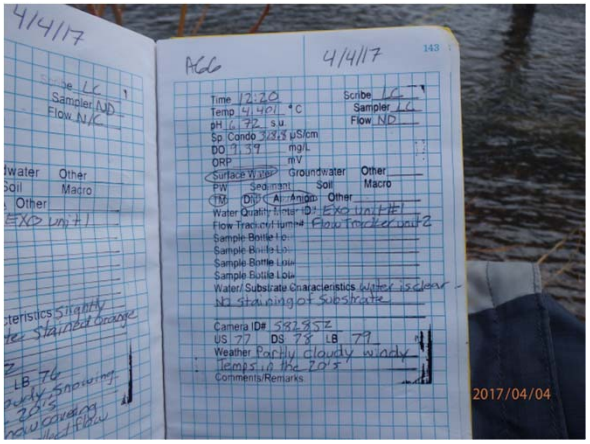
A58_Downstream



A58_Logbook

A58_Upstream

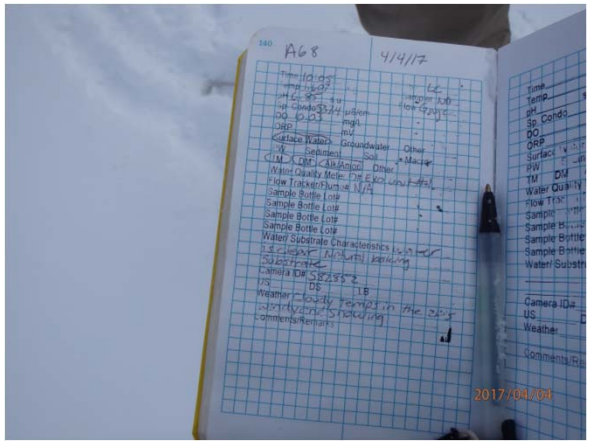
A66_Downstream



A66_Logbook

A66_Upstream

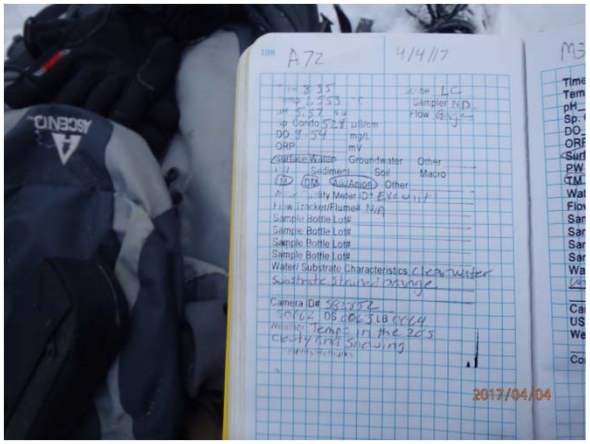
A68_Downstream



A68_Logbook

A68_Upstream

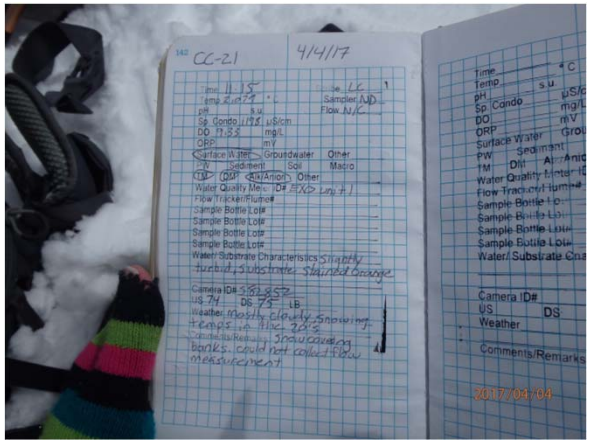
A72_Downstream



A72_Logbook

A72_Upstream

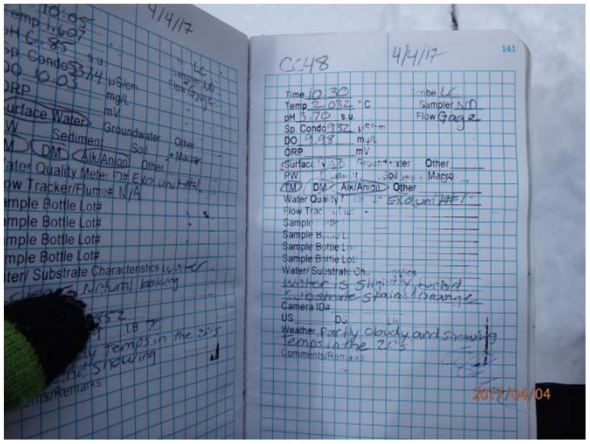
CC21_Downstream



CC21_Logbook

CC21_Upstream

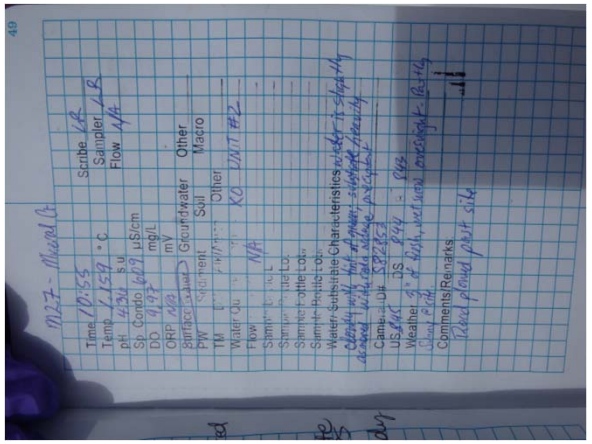
CC48_Downstream



CC48_Logbook

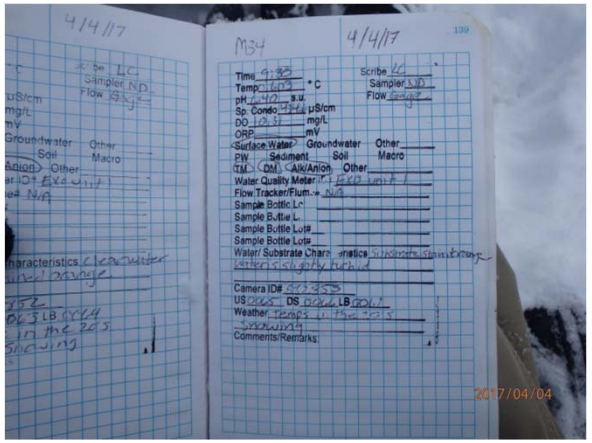
CC48_Upstream

M27_Downstream



M27_Logbook

M34_Downstream

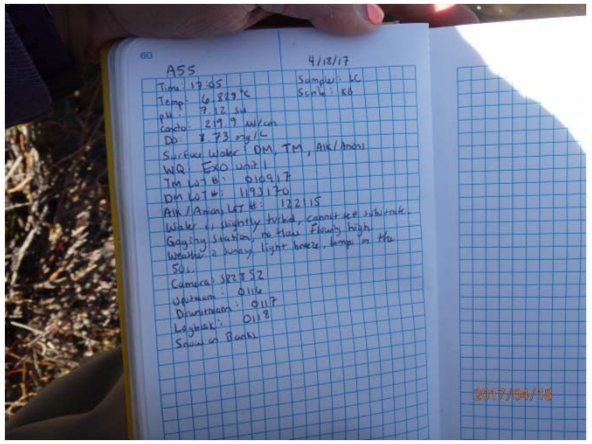


M34_Logbook

M34_Upstream

Appendix B- Photo Log
Bonita Peak Mining District
April 18, 2017

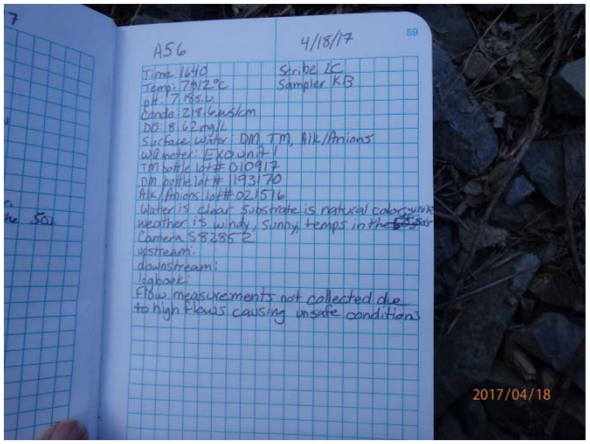
A55_Downstream



A55_Logbook

A55_Upstream

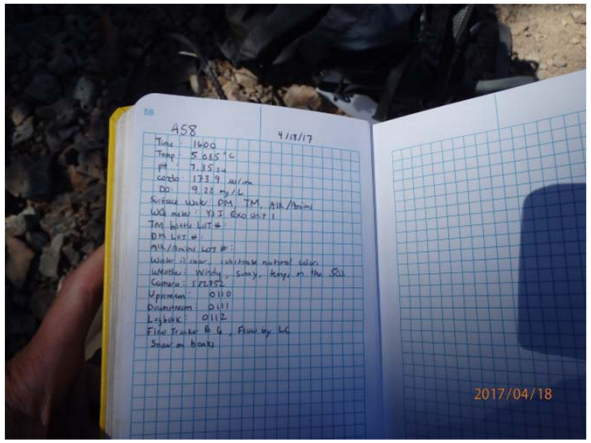
A56_Downstream



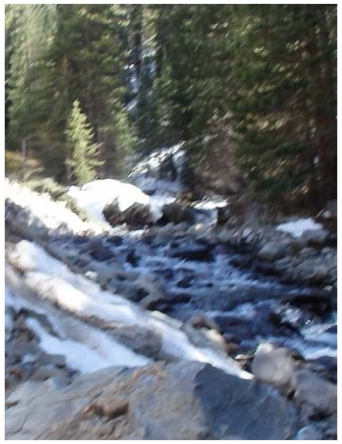
A56_Logbook

A56_upstream

A58_Downstream



A58_Logbook



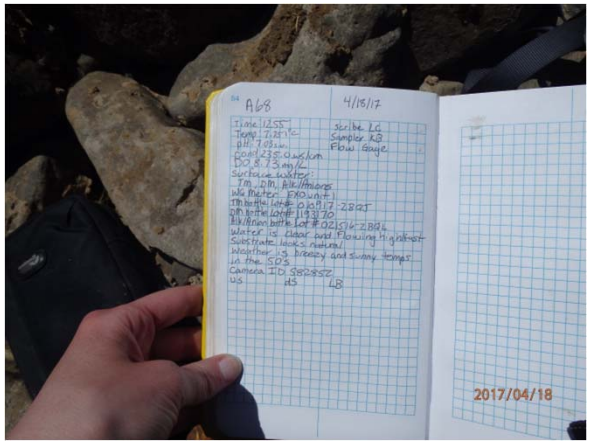
A58_Upstream

A66_Downstream

A66_Logbook

A66_Upstream

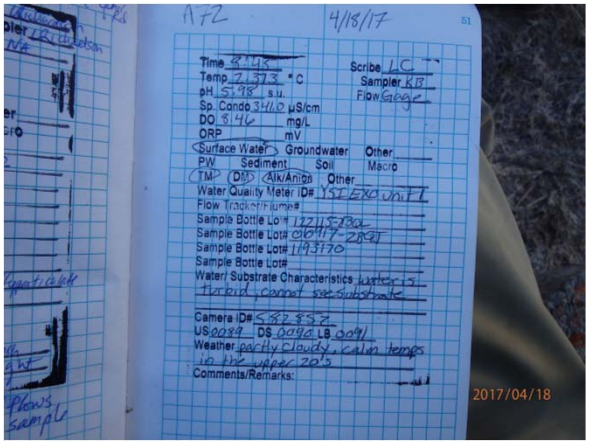
A68_Downstream



A68_Logbook

A68_Upstream

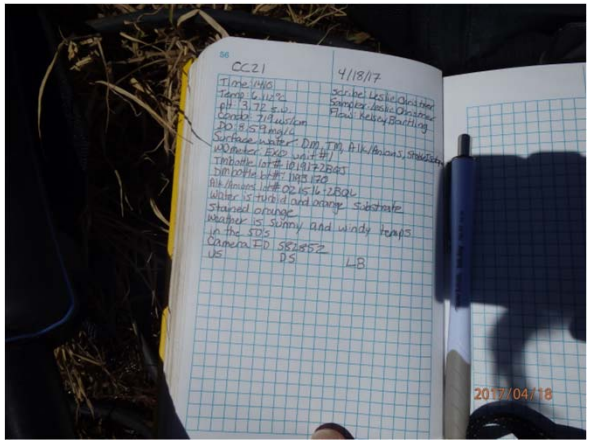
A72_Downstream



A72_Logbook

A72_Upstream

CC21_Downstream



CC21_Logbook

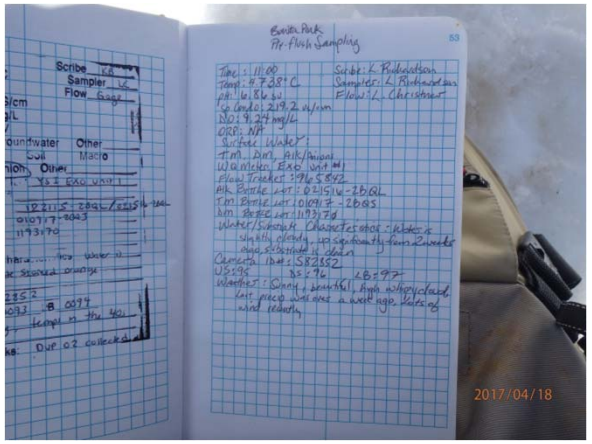
CC21_Upstrream

CC48_Downstream

CC48_Logbook

CC48_Upstream

M14A_Downstream



M14A_Logbook

M14A_Upstream

M27_Downstream

M27_Logbook

M27_Upstream

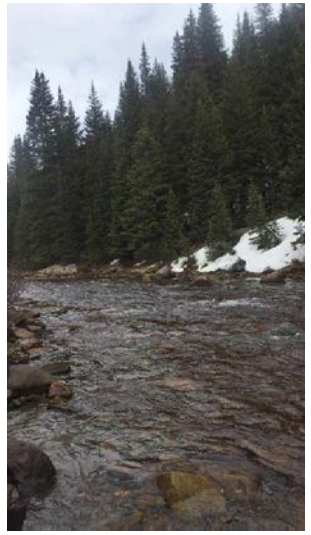
M34_Downstream

M34_Logbook

M34_Upstream

Appendix B
Bonita Peak Mining District Photo Log
May 2, 2017

A55_Downstream

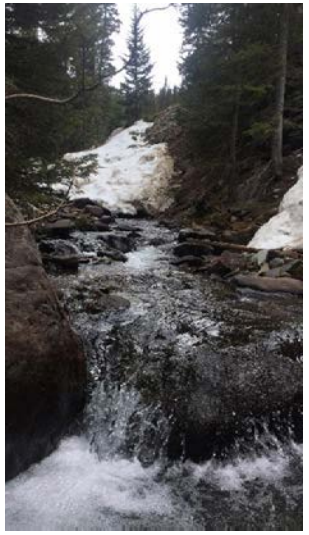


A55_Upstream

A56_Downstream

A56_Upstream

A58_Downstream



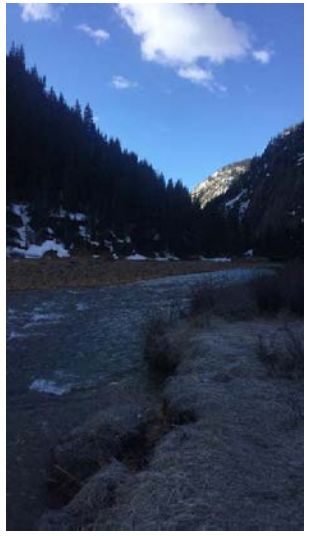
A58_Upstream

A66_Downstream

A66_Upstream

A68_Downstream

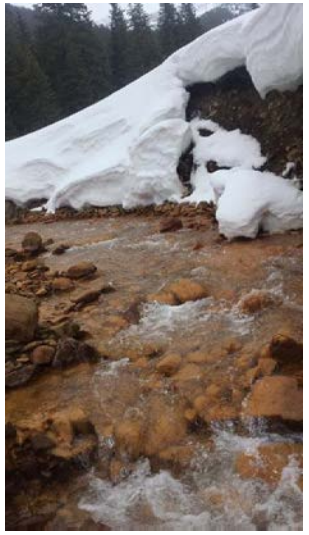
A68_Upstream



A72_Downstream

A72_Upstream

CC21_Downstream

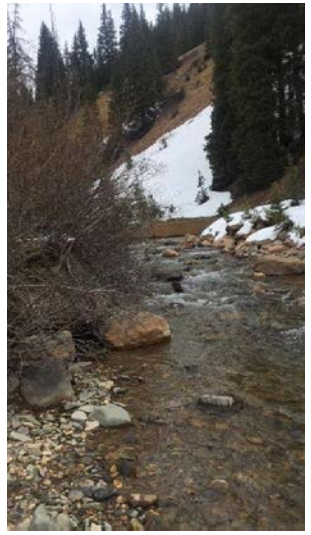


CC21_Upstream

CC48_Downstream

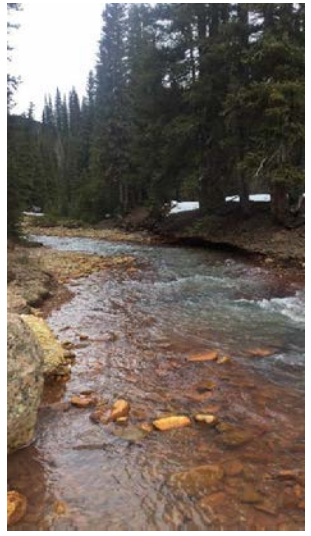
CC48_Upstream

M14A_Downstream

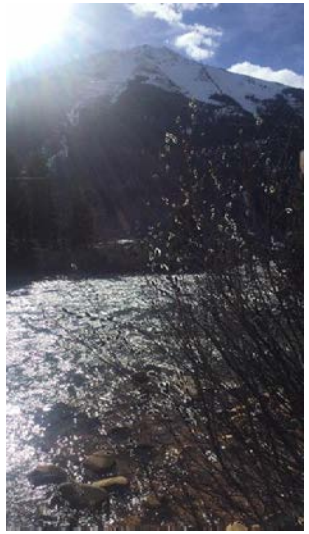


M14A_Upstream

M27_Downstream



M27_Upstream



M34_Downstream

M34_Upstream

Appendix B
Bonita Peak Mining District
May 15-17, 2017 Photo Log

A33_Downstream

A33_Upstream

A34_Downstream

A34_Upstream

A35_Downstream

A35_Upstream

A53AC_Downstream

A53AC_Upstream

A55_Downstream

A55_Upstream

A56_Downstream

A56_Upstream

A58_Downstream

A58_Upstream

A66_Downstream

A66_Upstream

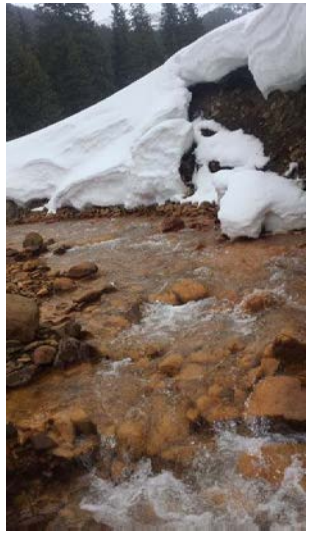
A68_Downstream

A68_Upstream

A72_Downstream

A72_Upstream

CC21_Downstream

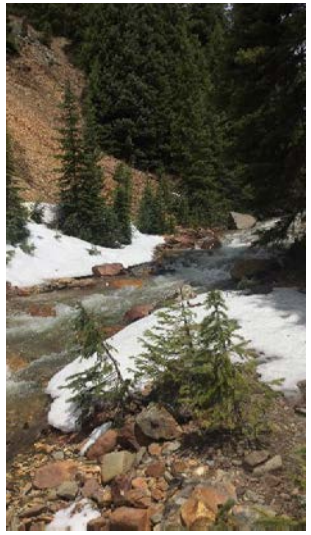


CC21_Upstream

CC48_Downstream

CC48_Upstream

M07_Downstream

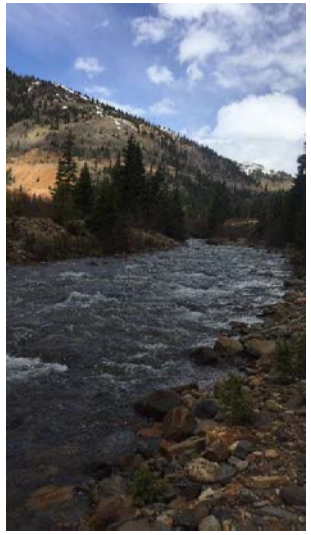


M07_Upstream

M10A_Downstream

M10A_Upstream

M11_Downstream



M11_Upstream

M14A_Downstream

M14A_Upstream

M27_Downstream

M27_Upstream

M28_Downstream

M28_Upstream

M34_Downstream

M34_Upstream

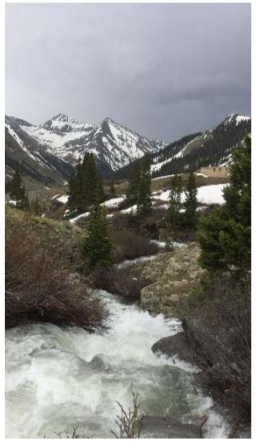
T4_Downstream

T4_Upstream

Appendix B- Photo Log
Bonita Peak Mining District
June 2017

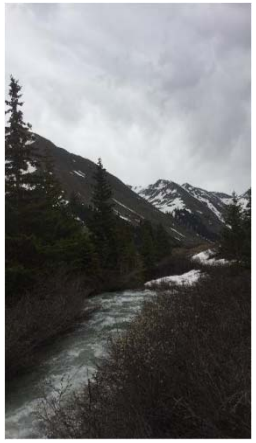
A05_Downstream

A05_Upstream



A09_Downstream

A09_Upstream



A10_Downstream

A10_Upstream

A11_Downstream

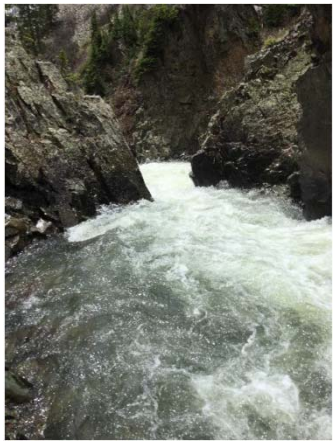
A11_Upstream

A13_Downstream

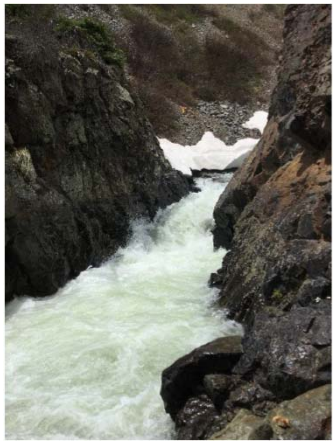
A13_Upstream

A14_Downstream

A14_Upstream



A28_Downstream



A28_Upstream

A30_Downstream

A30_Upstream

A30A_Downstream

A30A_Upstream

A30B_Downstream

A30B_Upstream

A31_Downstream

A31_Upstream

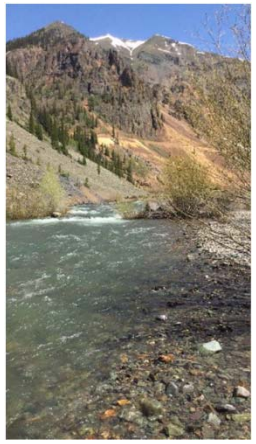
A33_Downstream

A33_Upstream

A34_Downstream

A34_Upstream

A35_Downstream

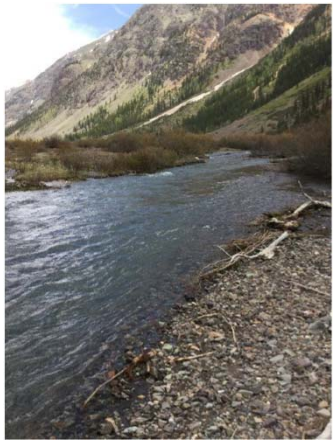


A35_Upstream

A40_Downstream

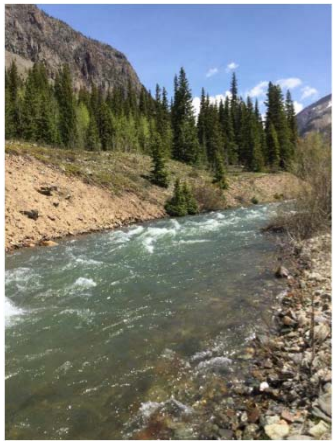
A40_Upstream

A40A_Downstream



A40A_Upstream

A41A_Downstream



A41A_Upstream

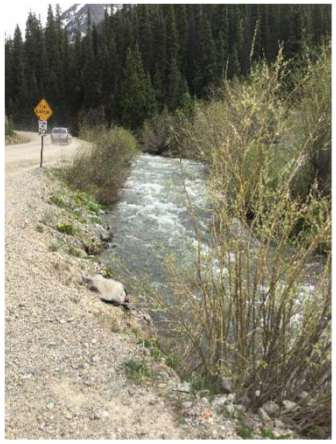
A45_Downstream

A45_Upstream

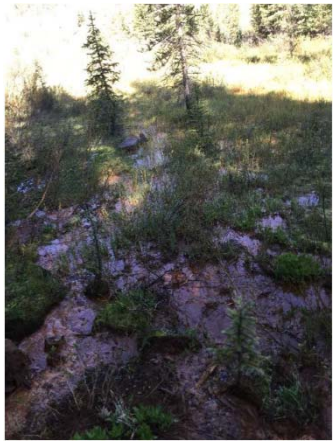
A47_Downstream

A47_Upstream

A48_Downstream



A48_Upstream



A54_Downstream

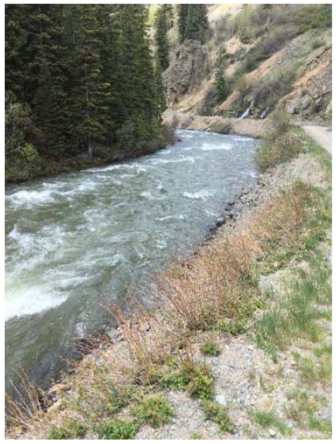
A54_Upstream

A55_Downstream

A55_Upstream

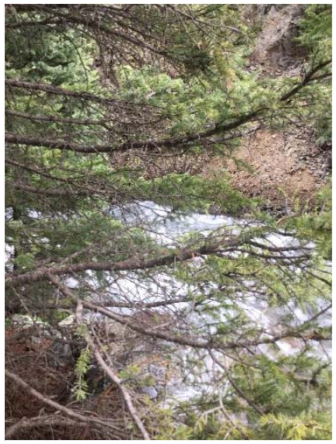
A55a_Downstream

A55a_Upstream

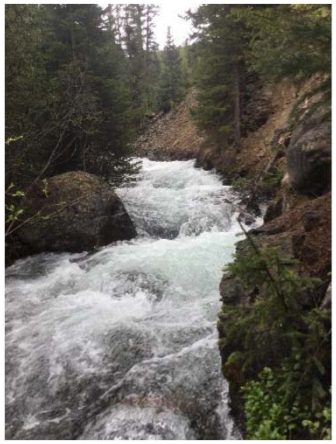


A56_Downstream

A56_Upstream

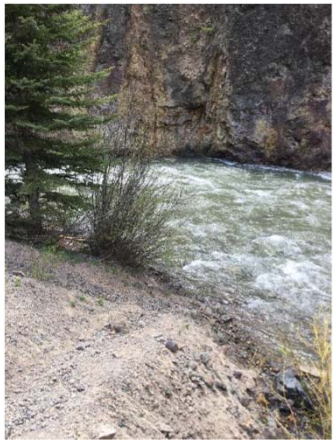


A58_Downstream



A58_Upstream

A60_Downstream



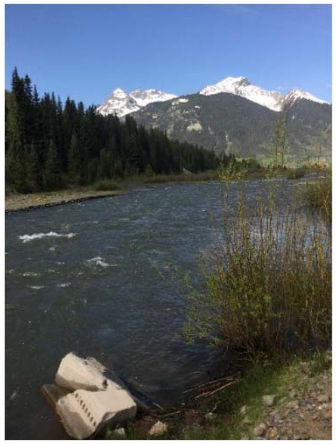
A60_Upstream

A61_Downstream

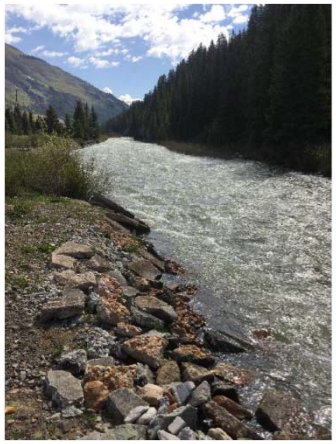
A61_Upstream

A65_Downstream

A65_Upstream

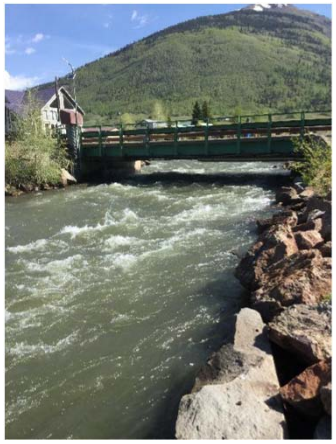


A66_Downstream



A66_Upstream

A68_Downstream



A68_Upstream

A72_Downstream

A72_Upstream

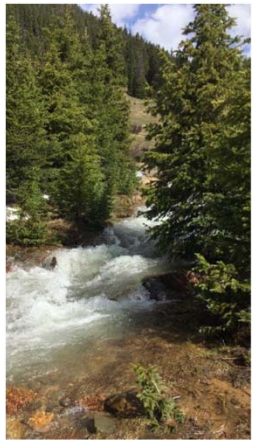
Bakers Bridge
Downstream

Bakers Bridge
Upstream

CC03_Downstream

CC03_Upstream

CC03B_Downstream



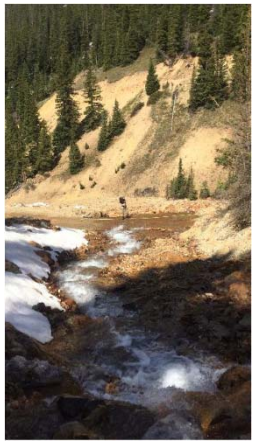
CC03B_Upstream

CC03C_Downstream

CC03C_Upstream

CC06_Downstream

CC06_Upstream



CC07_Downstream

CC07_Upstream

CC17_Downstream

CC17_Upstream

CC18_Downstream

CC18_Upstream

CC19_Downstream

CC19_Upstream

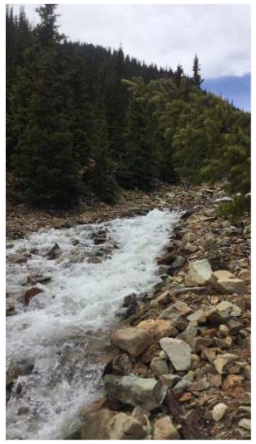
CC20H_Downstream

CC20H_Upstream

CC21_Downstream

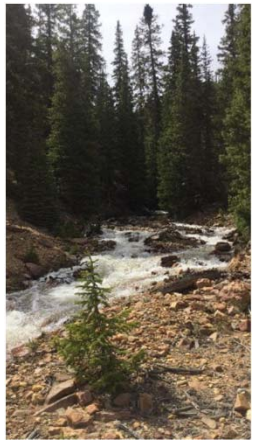
CC21_Upstream

CC21D_Downstream



CC21D_Upstream

CC26_Downstream



CC26_Upstream

CC28C_Downstream

CC28C_Upstream

CC28D_Downstream

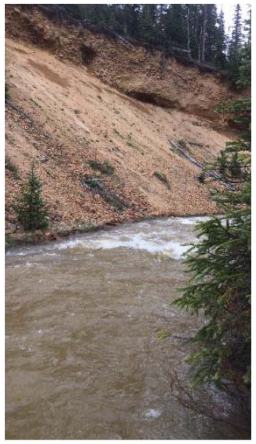
CC28D_Upstream

CC28E_Downstream

CC28E_Upstream

CC39_Downstream

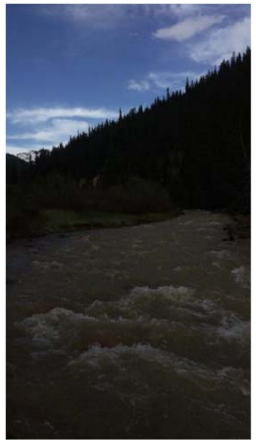
CC39_Upstream



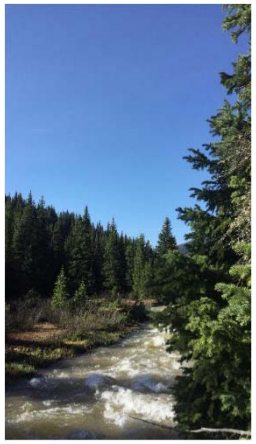
CC39B_Downstream

CC39B_Upstream

CC39C_Downstream

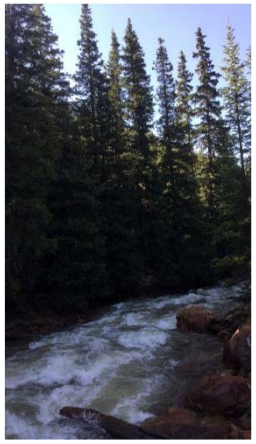


CC39C_Upstream



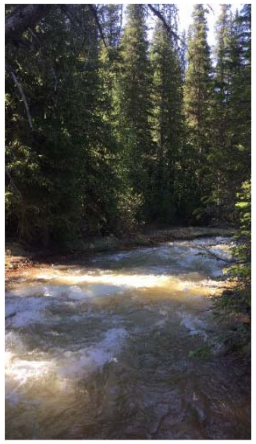
CC39D_Downstream

CC39D_Upstream

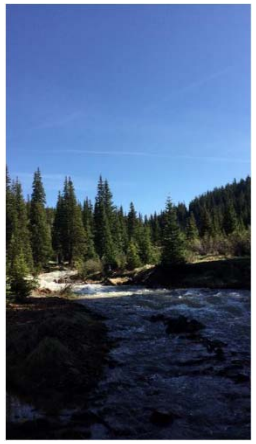


CC41_Downstream

CC41_Upstream

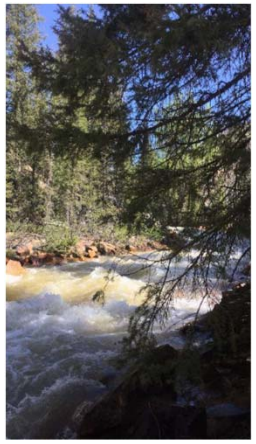


CC43E_Downstream



CC43E_Upstream

CC48_Downstream



CC48_Upstream

CG01_Downstream

CG01_Upstream

CG02_Downstream

CG02_Upstream

CG9_Downstream

CG9_Upstream

CG11_Downstream

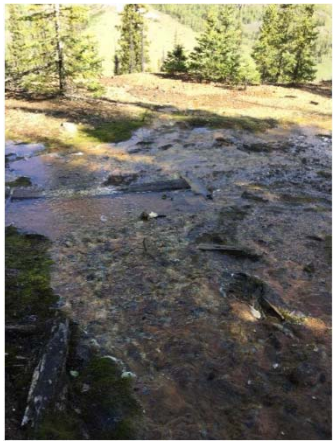
CG11_Upstream

CU4_Downstream

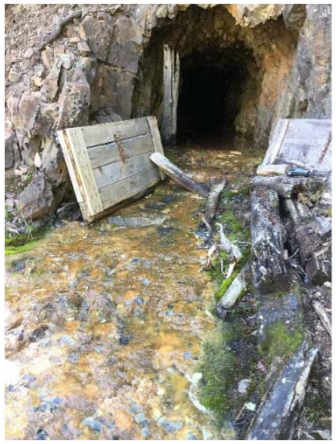
CU4_Upstream

CU4a_Downstream

CU4a_Upstream



DM56_Downstream



DM56_Upstream

LA3_Upstream

LA3_Downstream

M06A_Downstream

M06A_Upstream

M06B_Downstream

M06B_Upstream

M06C_Downstream

M06C_Upstream

M07_Downstream

M07_Upstream

M11_Downstream

M11_Upstream

M12_Downstream

M12_Upstream

M13A_Downstream

M13A_Upstream

M13B_Downstream

M13B_Upstream

M13D_Downstream

M13D_Upstream

M14_Downstream

M14_Upstream

M14A_Downstream

M14A_Upstream

M14B_Downstream

M14B_Upstream

M16_Downstream

M16_Upstream

M16A_Downstream

M16A_Upstream

M16C_Downstream

M16C_Upstream

M16D_Downstream

M16D_Upstream

M16E_Downstream

M16E_Upstream

M16F_Downstream

M16F_Upstream

M16G_Downstream

M16G_Upstream

M16H_Downstream

M16H_Upstream

M17_Downstream

M17_Upstream

M17A_Downstream

M17A_Upstream

M18_Downstream

M18_Upstream

M19_Downstream

M19_Upstream

M20_Downstream

M20_Upstream

M22_Downstream

M22_Upstream

M26B_Downstream

M26B_Upstream

M26D_Downstream

M26D_Upstream

M27_Downstream

M27_Upstream

M27A_Downstream

M27A_Upstream

M27A2_Downstream

M27A2_Upstream

M28_Downstream

M28_Upstream

M29_Downstream

M29_Upstream

M29A_Downstream

M29A_Upstream

M29B_Downstream

M29B_Upstream

M32_Downstream

M32_Upstream

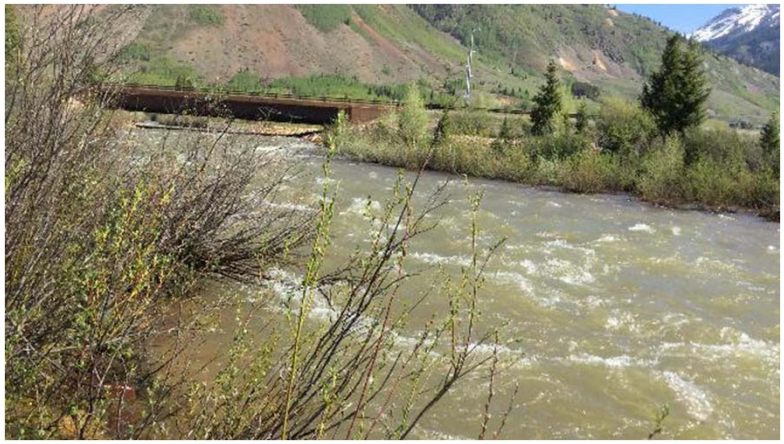
M33_Downstream

M33_Upstream

M33A_Downstream

M33A_Upstream

M34_Downstream



M34_Upstream

M38_Downstream

M38_Upstream

T4_Downstream

T4_Upstream

Appendix B- Photo Log
Bonita Peak Mining District
July 2017

A07C1_Downstream

A07C1_Upstream

A07D_Downstream

A07D_Upstream

A07E_Downstream

A07E_Upstream

A07E1_Downstream

A07E1_Upstream

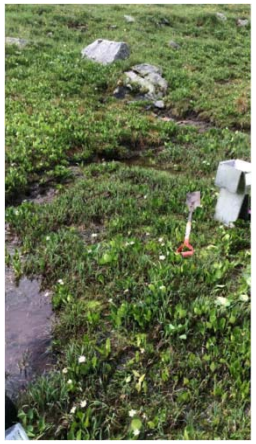
A08_Downstream

A08_Upstream

A55opp_Downstream

A55opp_Upstream

A07B1_Downstream



A07B1_Upstream

A07B2_Downstream

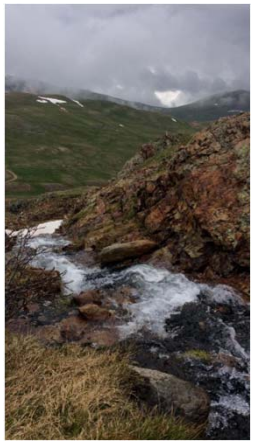
A07B2_Upstream

A07B3_Downstream

A07B3_Upstream

A07D1_Downstream

A07D1_Upstream



A07F_Downstream

A07F_Upstream

A07G_Downstream

A07G_Upstream

A18B_Downstream

A18B_Upstream

A20_Downstream

A20_Upstream

A21_Downstream

A21_Upstream

A22_Downstream

A22_Upstream

A23_Downstream

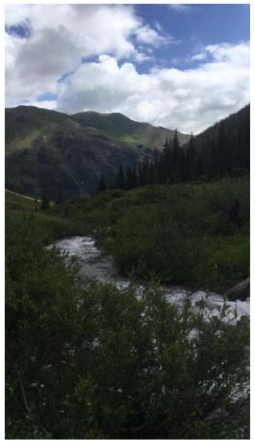
A23_Upstream

A23A_Downstream

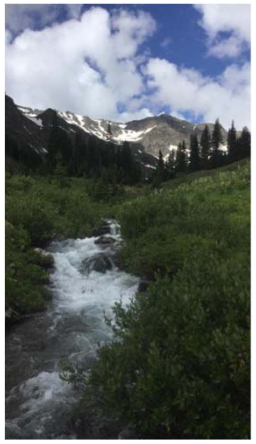
A23A_Upstream

A36_Downstream

A36_Upstream



A36A_Downstream



A36A_Upstream

A37_Downstream

A37_Upstream

A38_Downstream

A38_Upstream

A39_Downstream

A39_Upstream

A39A_Downstream

A39A_Upstream

ARD1_Downstream

ARD1_Upstream

BB2_Downstream

BB2_Upstream

BF1_Downstream

BF1_Upstream

BF2_Downstream

BF2_Upstream

BG1A_Downstream

BG1A_Upstream

CC01C1_Downstream

CC01C1_Upstream

CC01C2_Downstream

CC01C2_Upstream

CC01F_Downstream

CC01F_Upstream

CC01S_Downstream

CC01S_Upstream

CC01T_Downstream

CC01T_Upstream

CC02C_Downstream

CC02C_Upstream

CC02D_Downstream

CC02D_Upstream

CC04_Downstream

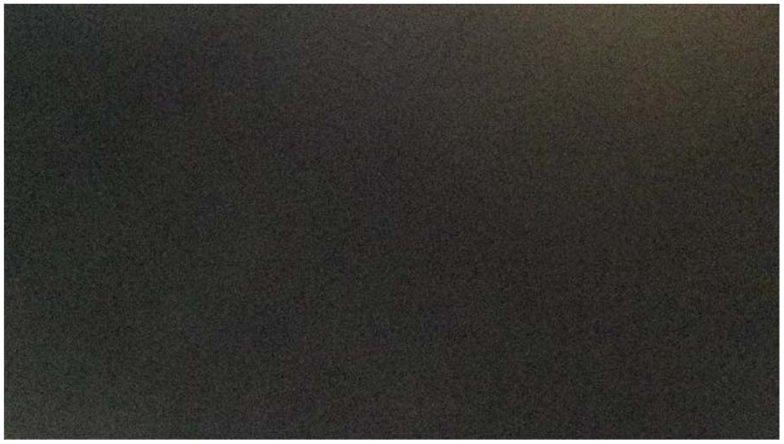
CC04_Upstream

CC15_Downstream

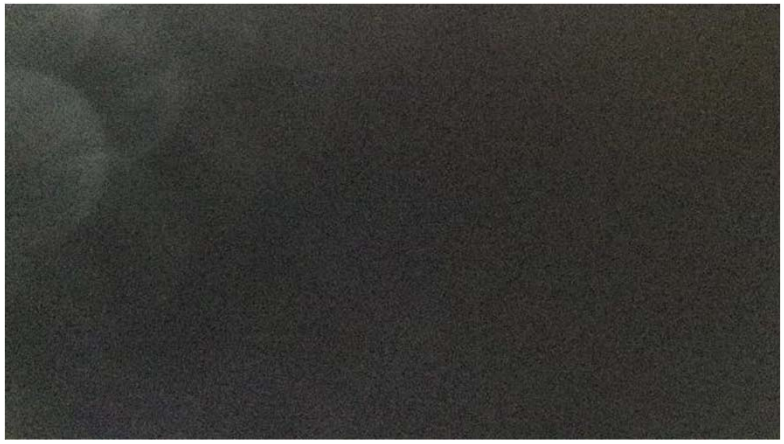
CC15_Upstream

CC15A_Downstream

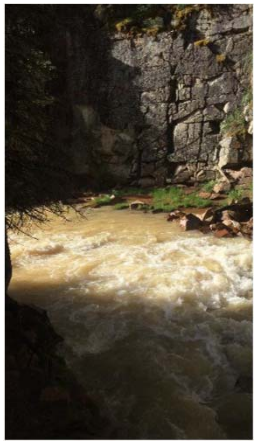
CC15A_Upstream



CC16B_Downstream



CC16B_Upstream



CC48_Downstream

CC48_Upstream

CG3_Downstream

CG3_Upstream

CG4_Downstream

CG4_Upstream

CG6_Downstream

CG6_Upstream

DM8A_Downstream

DM8A_Upstream

EG_Trib_1_Downstream

EG_Trib_1_Upstream

EG1_Downstream

EG1_Upstream

EG2_Downstream

EG2_Upstream

EG3_Downstream

EG3_Upstream

EG3A_Downstream

EG3A_Upstream

EG4_Downstream

EG4_Upstream

EG5_Downstream

EG5_Upstream

EG6_Downstream

EG6_Upstream

EG9_Downstream

EG9_Upstream

LSS1_Downstream

LSS1_Upstream

M01_Downstream

M01_Upstream

M02_Downstream

M02_Upstream

M02B_Downstream

M02B_Upstream

M02E_Downstream

M02E_Upstream

M02K_Downstream

M02K_Upstream

M02L_Downstream

M02L_Upstream

M03_Downstream

M03_Upstream

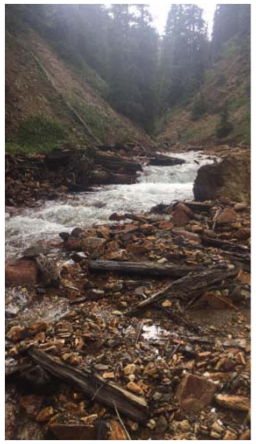
M04_Downstream

M04_Upstream

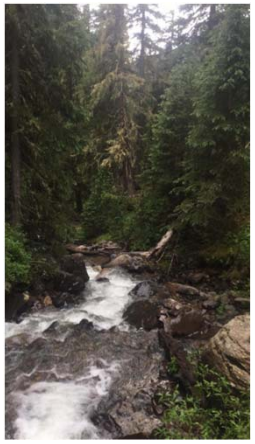
M05_Downstream

M05_Upstream

M06D_Downstream



M06D_Upstream



M06E_Downstream

M06E_Upstream

M10_Downstream

M10_Upstream

M10B_Downstream

M10B_Upstream

M23_Downstream

M23_Upstream

M24A_Downstream

M24A_Upstream

M24B_Downstream

M24B_Upstream

M24C_Downstream

M24C_Upstream

M24D_Downstream

M24D_Upstream

M25_Downstream

M25_Upstream

MC0_Downstream

MC0_Upstream

A15_Downstream

A15_Upstream

A18A_Downstream

A18A_Upstream

Mountain Queen Adit_Downstream

Mountain Queen Adit_Upstream

M29 Opp_Downstream

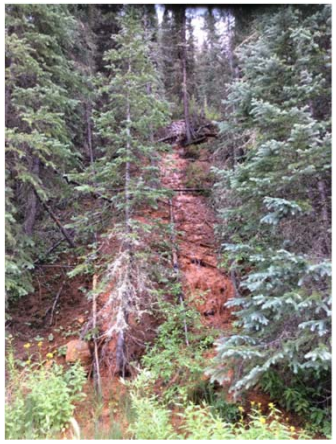
M29 Opp_Upstream

West of
A54_Downstream

West of A54_Upstream

BG1B ?? Upstream

BG1B ?? Downstream



Little Nation

Little Nation

Little Nation

Little Nation

Little Nation

Little Nation

Little Nation

Little Nation

Willow clipping area for terrestrial next to A15

Willow clipping area for terrestrial next to A15

Willow clipping area for terrestrial next to A15

Soil composite area for
Terrestrial next to A15

Soil composite area for Terrestrial next to A15

Soil composite area for Terrestrial next to A15

Willow clipping area for terrestrial next to A15

Appendix B- Photo Log
Bonita Peak Mining District
XRF - August, 2017

Brooklyn Mine

Brooklyn Mine

Brooklyn Mine

Brooklyn Mine

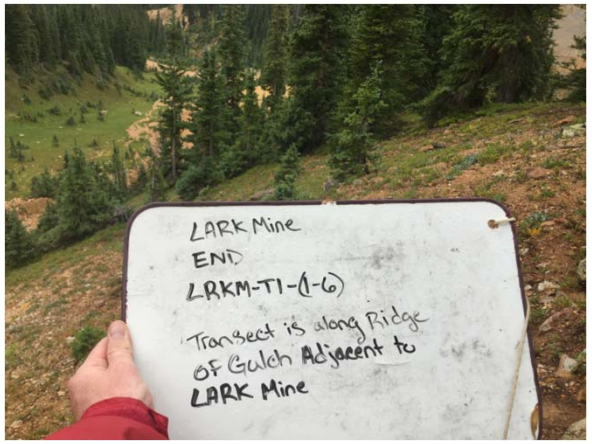
Brooklyn Mine

Brooklyn Mine

Brooklyn Mine

Brooklyn Mine

Lark Mine



Lark Mine

Lark Mine

Lark Mine

Lark Mine

Lark Mine

Lark Mine

Lark Mine

Lark Mine

Lark Mine

Lark Mine

Lark Mine

Lark Mine

Lark Mine

Lark Mine

Lark Mine

Lark Mine

Lark Mine

Lark Mine

Lark Mine

Lark Mine

Lark Mine

Lark Mine

Lark Mine

Mogul Mine

Mogul Mine

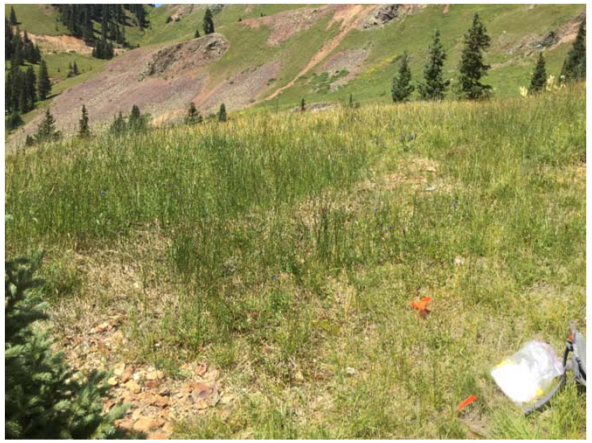
Mogul Mine

Mogul Mine

Mogul Mine

Mogul Mine

Mogul Mine



Mogul Mine

Mogul Mine

Mogul Mine

Mogul Mine

Mogul Mine

Mogul Mine

Mogul Mine

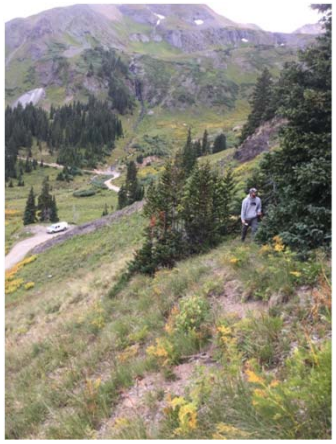
Mogul Mine

Mogul Mine

Mogul Mine

Mogul Mine

?

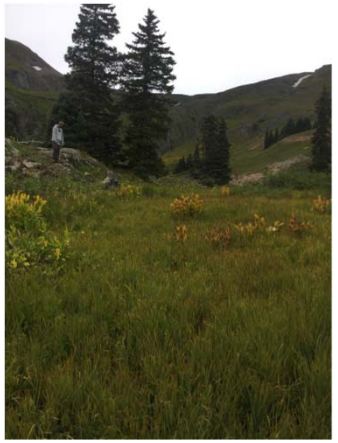


Black Bear Pass

Black Bear Pass

Black Bear Pass

Black Bear Pass



Black Bear Pass

Brooklyn Mine

Brooklyn Mine

Brooklyn Mine

Brooklyn Mine

Brooklyn Mine

Brooklyn Mine

Brooklyn Mine

Brooklyn Mine

Brooklyn Mine

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Brooklyn Mine

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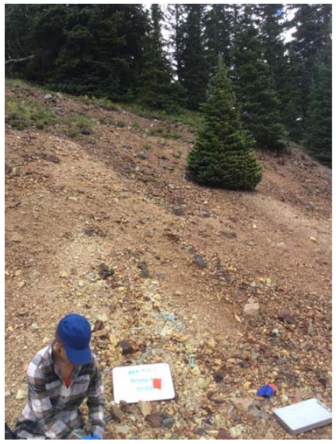
Brooklyn Mine

Brooklyn Mine



Brooklyn Mine

Brooklyn Mine

Brooklyn Mine

Brooklyn Mine

Bandora Mine

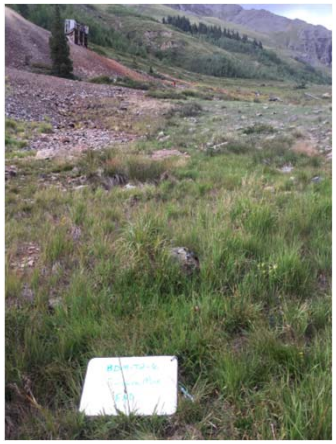
Bandora Mine

Bandora Mine

Bandora Mine

Bandora Mine

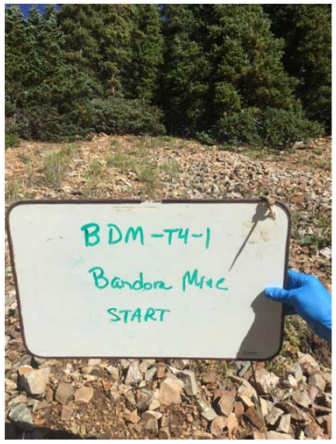
Bandora Mine



Bandora Mine

Bandora Mine

Bandora Mine



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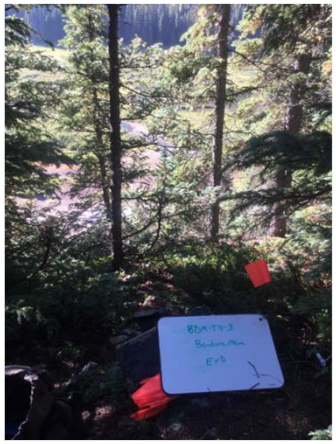

Bandora Mine

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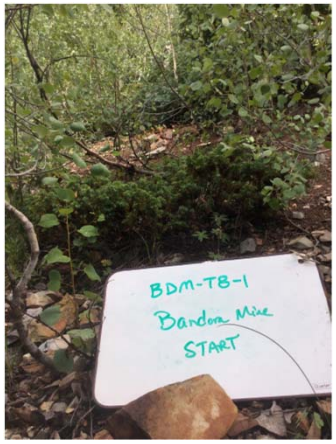
Bandora Mine



Bandora Mine

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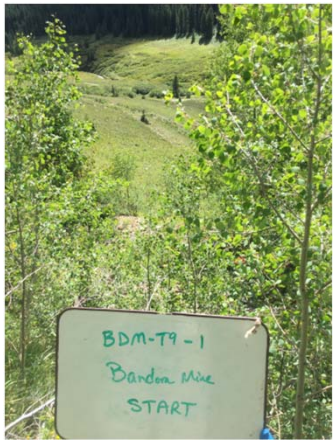

Bandora Mine

Bandora Mine

Bandora Mine

Porcupine Creek

Porcupine Creek

Porcupine Creek

Porcupine Creek

Porcupine Creek

Porcupine Creek

Porcupine Creek

Porcupine Creek

Porcupine Creek

Porcupine Creek

Clipper Mine

Clipper Mine

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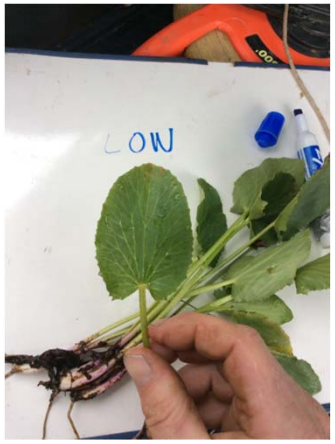


London Mine

Red Cloud Mine

Red Cloud Mine

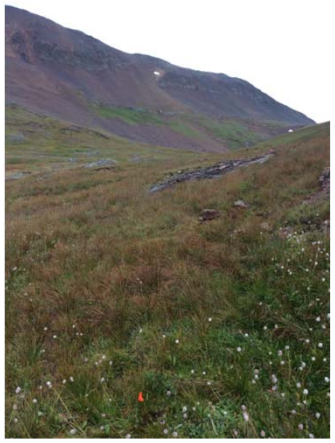
Red Cloud Mine

Red Cloud Mine

Red Cloud Mine

Red Cloud Mine

Red Cloud Mine



Red Cloud Mine

Red Cloud Mine

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Vermillion Mine

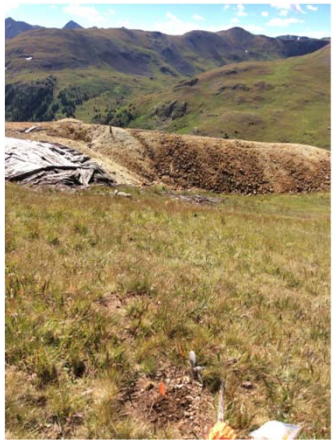
Vermillion Mine

Vermillion Mine

Vermillion Mine

Vermillion Mine

Vermillion Mine



Vermillion Mine

Vermillion Mine

Vermillion Mine

Vermillion Mine

Vermillion Mine

Vermillion Mine

London Mine

London Mine

London Mine

Clipper Mine

Clipper Mine

Clipper Mine

Clipper Mine

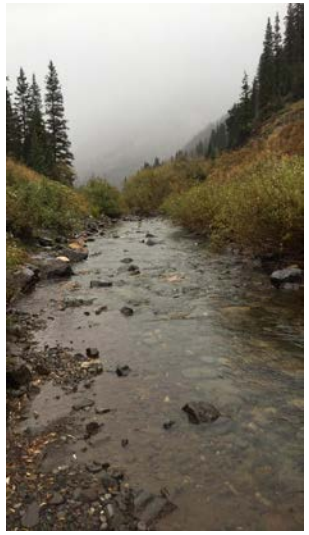
Clipper Mine

Clipper Mine

Clipper Mine

Clipper Mine

Appendix B- Photo Log
Bonita Peak Mining District
September 2017



CU4_Downstream

CU4_Upstream

32nd St bridge_Downstream

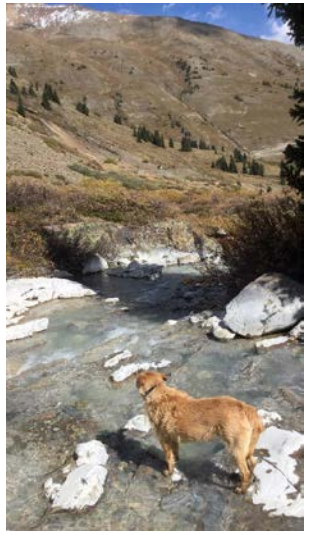
32nd St bridge_Upstream

A09_Downstream

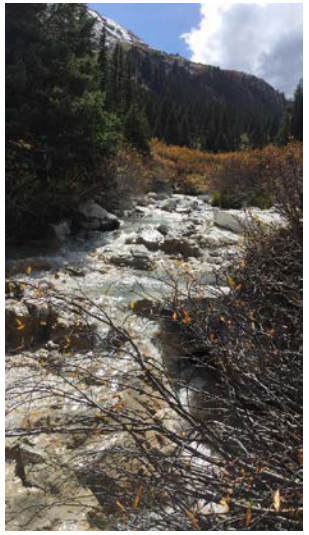
A09_Upstream

A10_Downstream

A10_Upstream



A11_Downstream



A11_Upstream

A14_Downstream

A14_Upstream

A18_Downstream

A18_Upstream

A18A_Downstream

A18A_Upstream

A18B_Downstream

A18B_Upstream

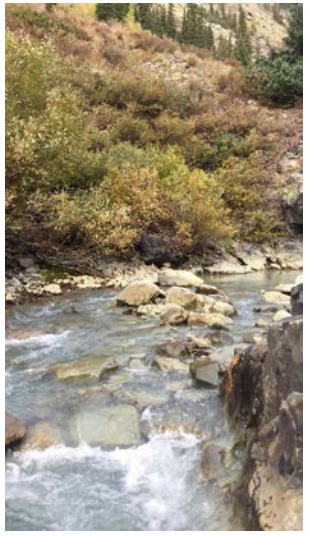
A19A_Downstream

A19A_Upstream

A28_Downstream

A28_Upstream

A30_Downstream



A30_Upstream

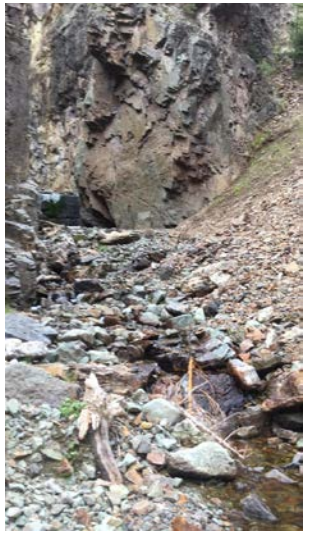
A30A_Downstream

A30A_Upstream

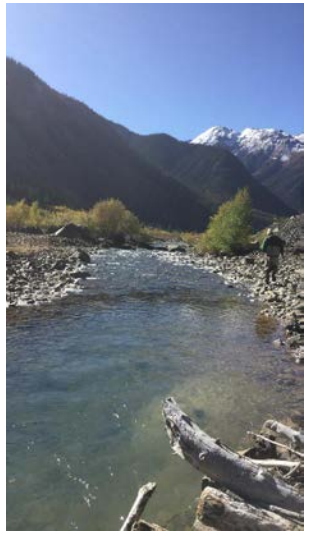
A30B_Downstream

A30B_Upstream

A32_Downstream

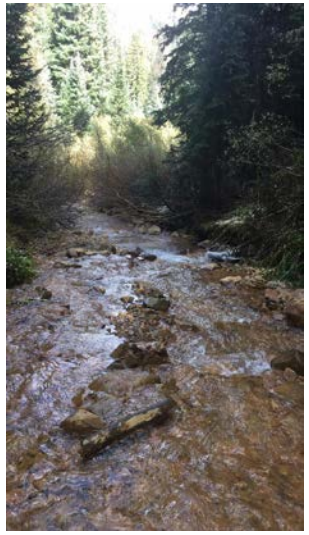


A32_Upstream

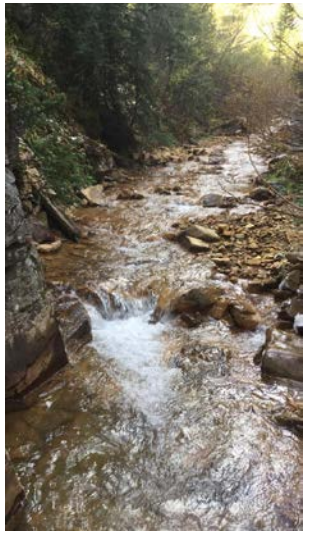


A35_Downstream

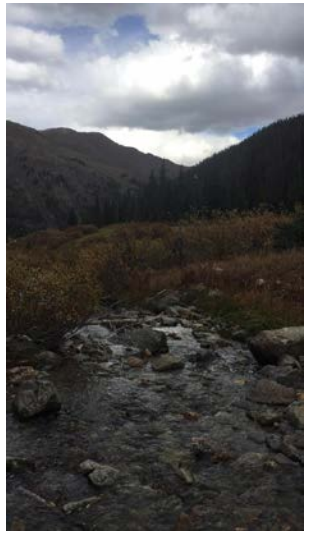
A35_Upstream



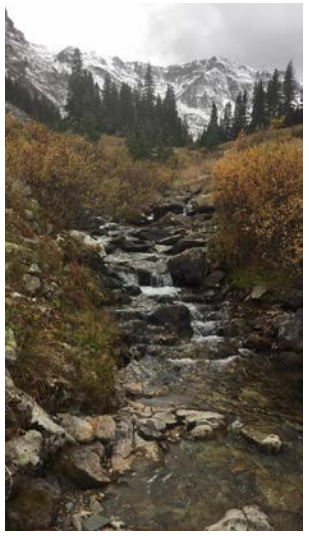
A36_Downstream



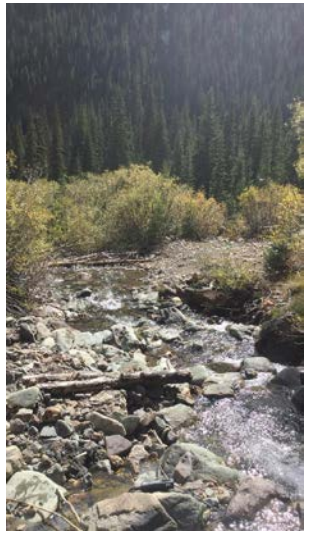
A36_Upstream



A36A_Downstream



A36A_Upstream



A37_Downstream

A37_Upstream

A38_Downstream

A38_Upstream

A39_Downstream

A39_Upstream

A40_Downstream

A40_Upstream

A41A_Downstream

A41A_Upstream

A45_Downstream

A45_Upstream

A47_Downstream

A47_Upstream

A48_Downstream

A48_Upstream

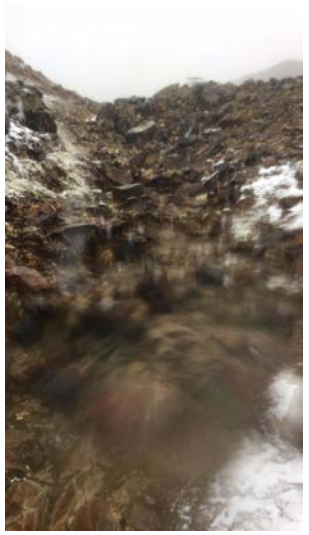
A53AC_Downstream

A53AC_Upstream

A55a_Downstream

A55a_Upstream

ARD1_Downstream



ARD1_Upstream

Bakers Bridge _Downstream

Bakers Bridge _Upstream

BF1_Downstream

BF1_Upstream

BF3_Downstream

BF3_Upstream

CC01C1_Downstream

CC01C1_Upstream

CC01C2_Downstream

CC01C2_Upstream

CC01F_Downstream

CC01F_Upstream

CC01S_Downstream

CC01S_Upstream

CC01T_Downstream

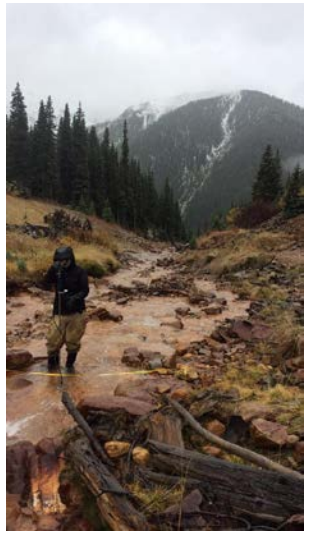
CC01T_Upstream

CC02C_Downstream

CC02C_Upstream

CC02D_Downstream

CC02D_Upstream



CC03_Downstream

CC03_Upstream

CC03B_Downstream

CC03B_Upstream

CC03C_Downstream

CC03C_Upstream

CC04_Downstream

CC04_Upstream

CC06_Downstream

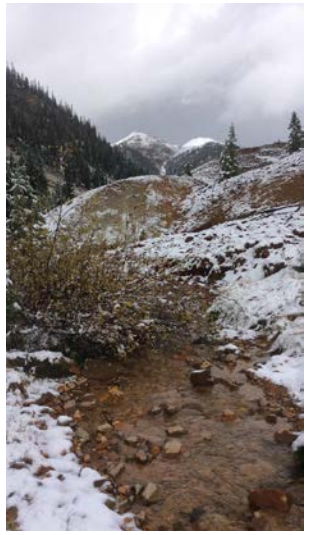
CC06_Upstream

CC07_Downstream

CC07_Upstream

CC14_Downstream

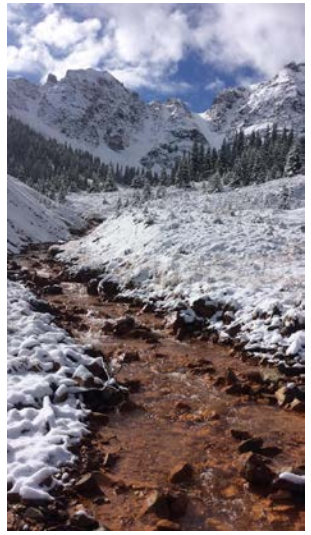
CC14_Upstream



CC15_Downstream

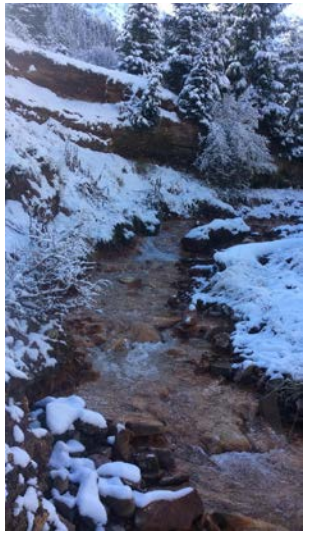
CC15_Upstream

CC15A_Downstream



CC15A_Upstream

CC16B_Downstream



CC16B_Upstream

CC17_Downstream

CC17_Upstream

CC18_Downstream

CC18_Upstream

CC19_Downstream

CC19_Upstream

CC20H_Downstream

CC20H_Upstream

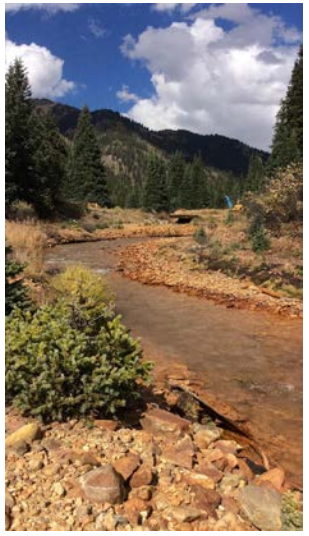
CC21_Downstream

CC21_Upstream

CC27_Downstream

CC27_Upstream

CC28C_Downstream



CC28C_Upstream

CC28D_Downstream

CC28D_Upstream

CC28E_Downstream

CC28E_Upstream

CC39_Downstream

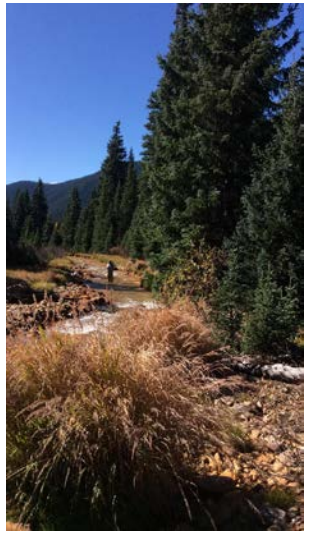
CC39_Upstream

CC39B_Downstream

CC39B_Upstream

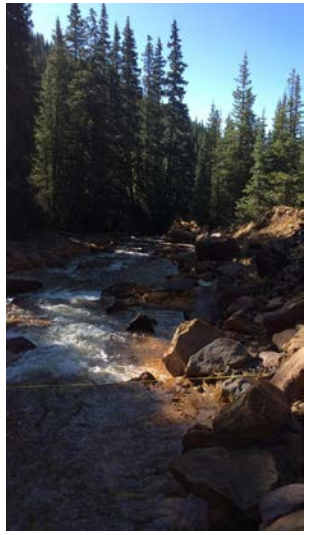
CC39C_Downstream

CC39C_Upstream

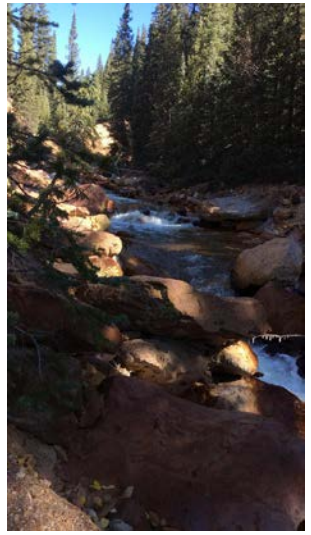


CC39D_Downstream

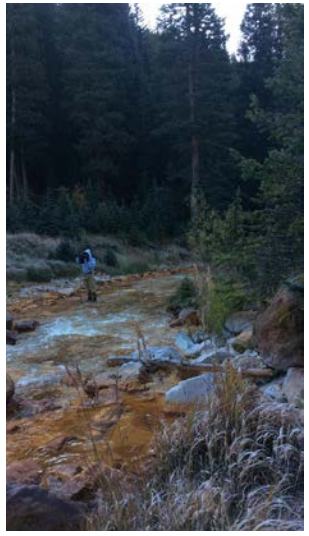
CC39D_Upstream



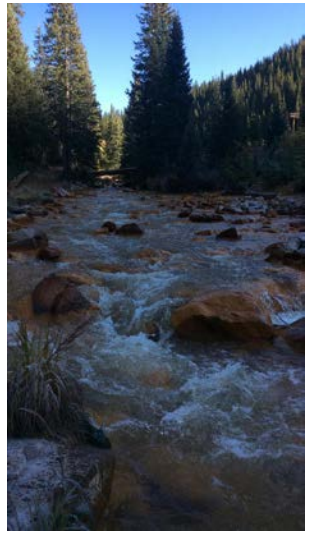
CC41_Downstream



CC41_Upstream



CC43E_Downstream



CC43E_Upstream

CC48_Downstream

CC48_Upstream

CG01_Downstream

CG01_Upstream

CG02_Downstream

CG02_Upstream

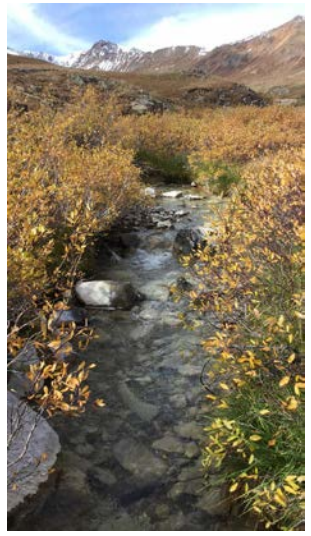
CG3_Downstream

CG3_Upstream

CG4_Downstream

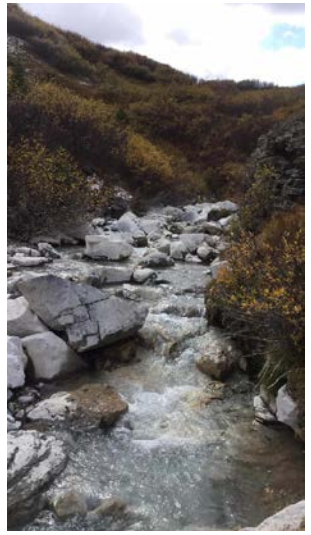
CG4_Upstream

CG6_Downstream



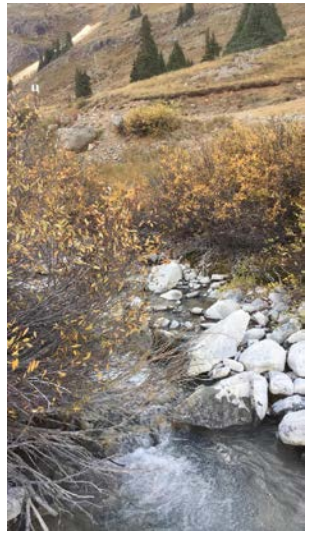
CG6_Upstream

CG9_Downstream



CG9_Upstream

CG11_Downstream



CG11_Upstream

EG1_Downstream

EG1_Upstream

EG2_Downstream

EG2_Upstream

EG2A_Downstream

EG2A_Upstream

EG3_Downstream

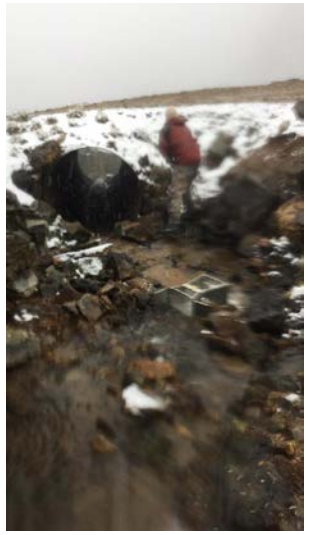
EG3_Upstream

EG3A_Downstream

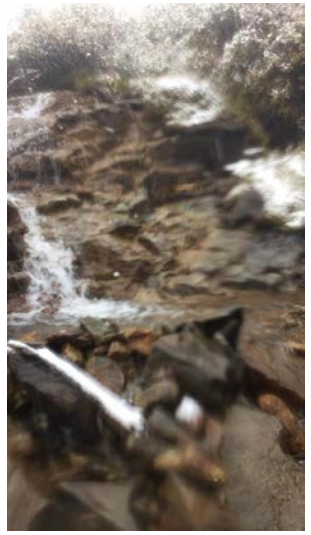
EG3A_Upstream

EG4_Downstream

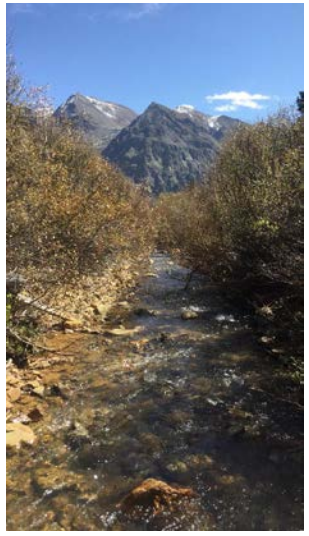
EG4_Upstream



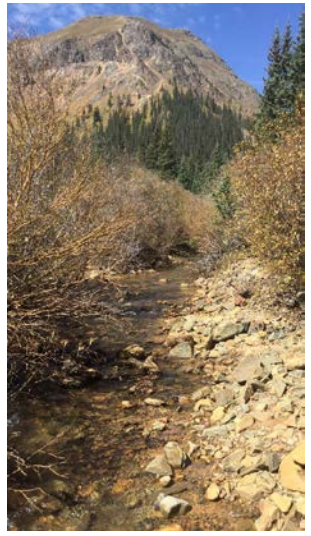
EG5_Downstream



EG5_Upstream

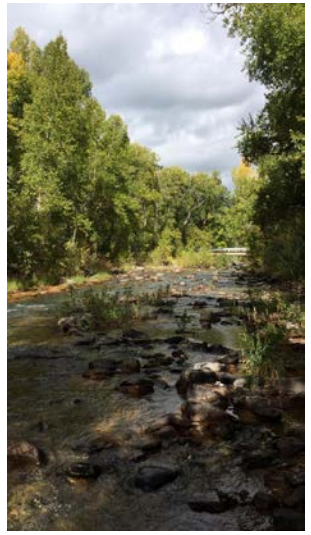


EG9_Downstream



EG9_Upstream

HC02_Downstream



HC02_Upstream

LA3_Downstream

LA3_Upstream

Lightner Creek_Downstream

Lightner Creek_Upstream

M01_Downstream

M01_Upstream

M02_Downstream

M02_Upstream

M02B_Downstream

M02B_Upstream

M02E_Downstream

M02E_Upstream

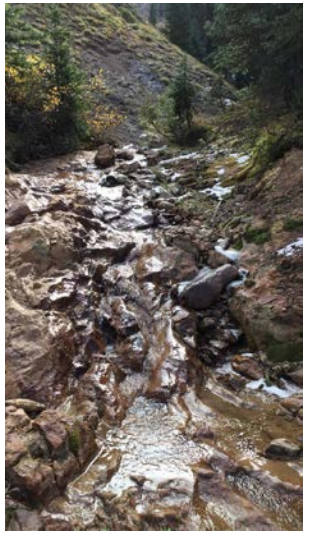
M02K_Downstream

M02K_Upstream

M02L_Downstream

M02L_Upstream

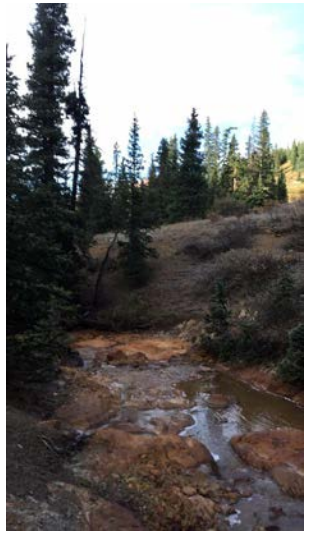
M03_Downstream



M03_Upstream

M04_Downstream

M04_Upstream



M05_Downstream

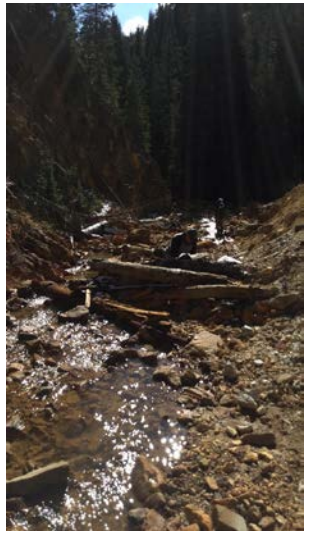
M05_Upstream

M06A_Downstream

M06A_Upstream

M06B_Downstream

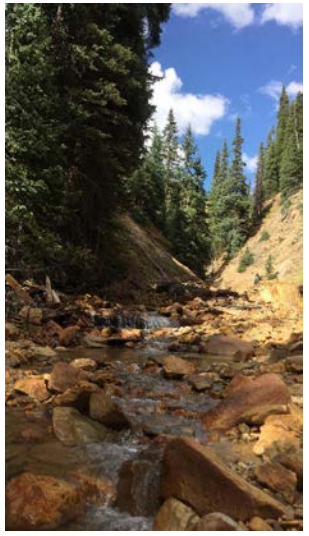
M06B_Upstream



M06C_Downstream

M06C_Upstream

M06D_Downstream



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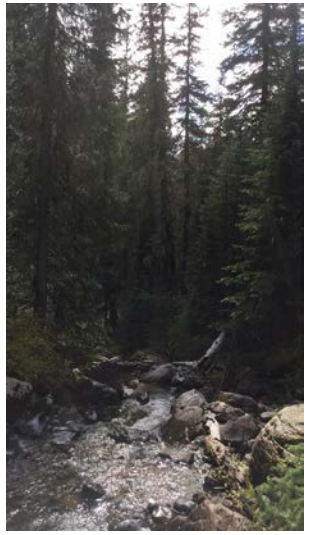
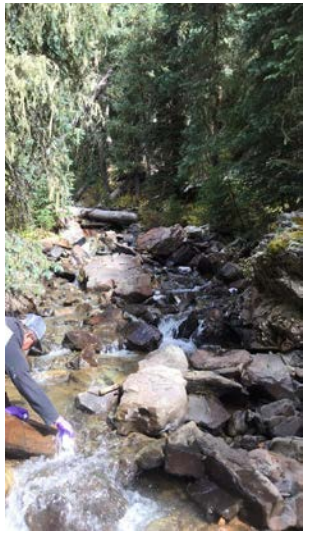
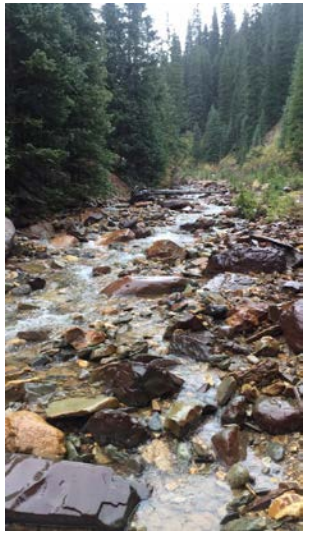


M06E_Downstream



M06E_Upstream

M07_Downstream



M07_Upstream

M10A_Downstream

M10A_Upstream

M11_Downstream

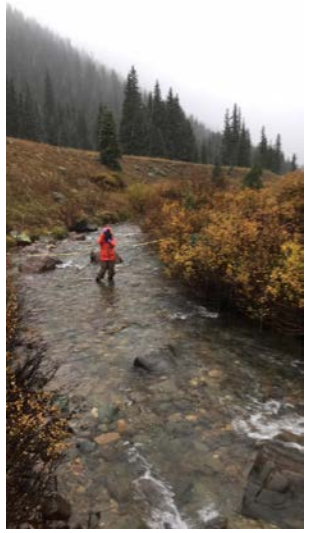
M11_Upstream

M12_Downstream

M12_Upstream

M13A_Downstream

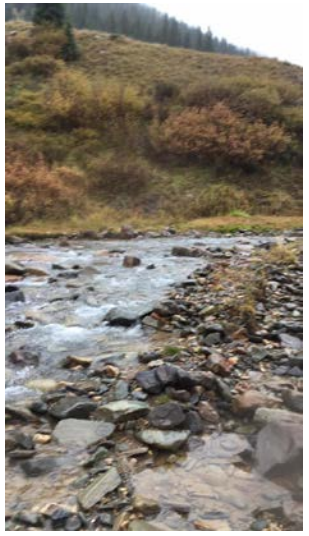
M13A_Upstream



M13B_Downstream

M13B_Upstream

M13D_Downstream



M13D_Upstream

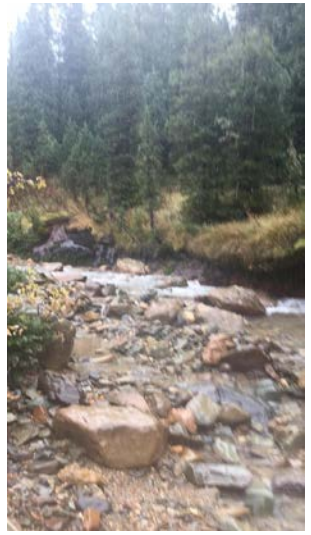
M14_Downstream

M14_Upstream

M14A_Downstream

M14A_Upstream

M14B_Downstream



M14B_Upstream

M16_Downstream

M16_Upstream

M16A_Downstream

M16A_Upstream

M16C_Downstream

M16C_Upstream

M16D_Downstream

M16D_Upstream

M16E_Downstream

M16E_Upstream

M16F_Downstream

M16F_Upstream

M16G_Downstream

M16G_Upstream

M16H_Downstream

M16H_Upstream

M17_Downstream

M17_Upstream

M17A_Downstream

M17A_Upstream

M18_Downstream

M18_Upstream

M19_Downstream

M19_Upstream

M20_Downstream

M20_Upstream

M22_Downstream

M22_Upstream

M23_Downstream

M23_Upstream

M24A_Downstream

M24A_Upstream

M24B_Downstream

M24B_Upstream

M24C_Downstream

M24C_Upstream

M24D_Downstream

M24D_Upstream

M24E_Downstream

M24E_Upstream

M25_Downstream

M25_Upstream

M26B_Downstream

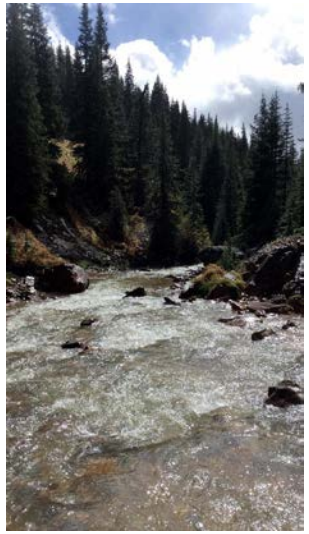
M26B_Upstream

M26D_Downstream

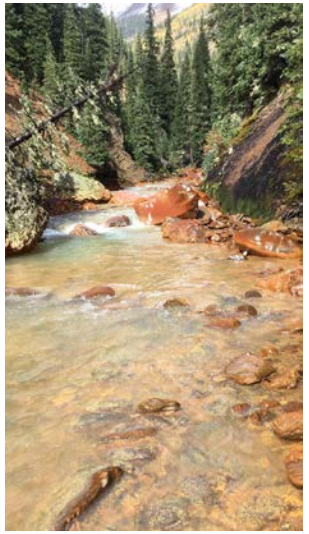
M26D_Upstream

M27_Downstream

M27_Upstream



M27A_Downstream



M27A_Upstream

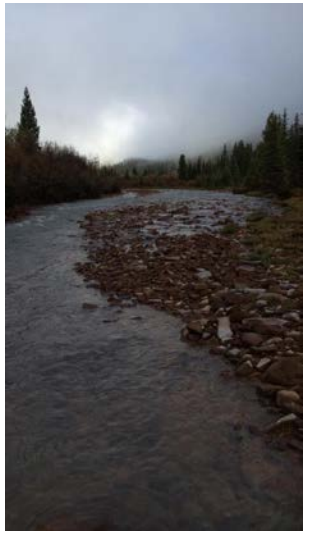
M27A2_Downstream

M27A2_Upstream

M28_Downstream

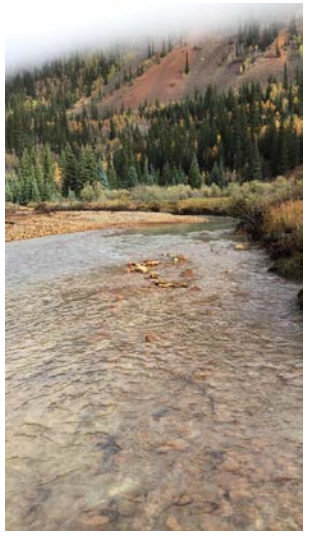
M28_Upstream

M29_Downstream



M29_Upstream

M29A_Downstream



M29A_Upstream

M29B_Downstream

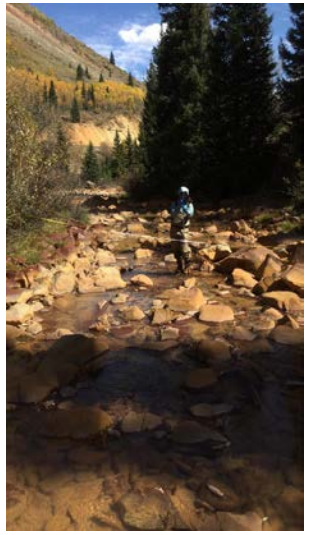
M29B_Upstream

M30_Downstream

M30_Upstream

M32_Downstream

M32_Upstream

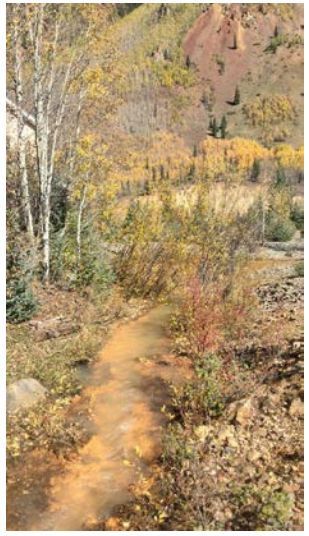


M32B_Downstream

M32B_Upstream

M33_Downstream

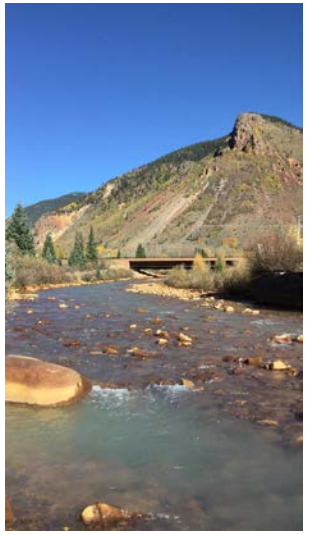
M33_Upstream



M33A_Downstream

M33A_Upstream

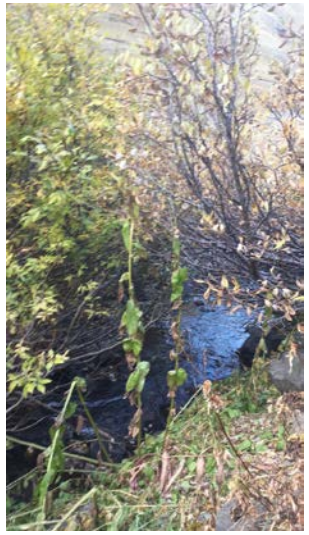
M34_Downstream



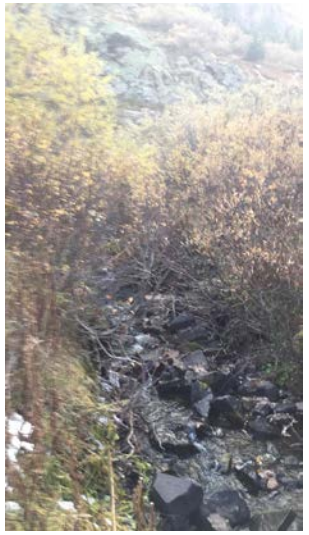
M34_Upstream

M38_Downstream

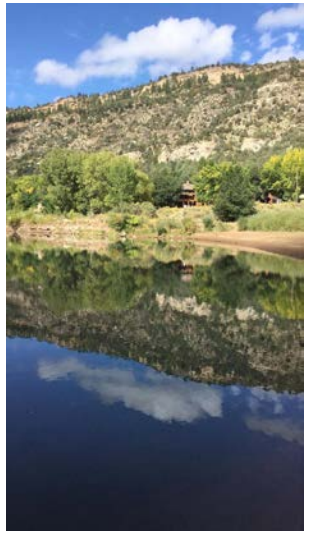
M38_Upstream



MC0_Downstream



MC0_Upstream



Oxbow Park_Downstream

Oxbow Park_Upstream

Purple Cliffs_Downstream

Purple Cliffs_Upstream

Rotary Park dupe_Downstream

Rotary Park dupe_Upstream

Rotary Park_Downstream

Rotary Park_Upstream

A56_Downstream

A56_Upstream

A58_Downstream

A58_Upstream

A60_Downstream

A60_Upstream

A61_Downstream

A61_Upstream

A64_Downstream

A64_Upstream

A65_Downstream

A65_Upstream

A66_Downstream

A66_Upstream

A68_Downstream

A68_Upstream

A72_Downstream

A72_Upstream

T4_Downstream

T4_Upstream

CC26_Upstream

CC26_Downstream

CC21D_Upstream

CC21D_Downstream

A07A

A07A

A07A

BG1B

BG1B

BG1B

BG1B

A07B

A07B_Upstream

A07B_Downstream

A07B

A07B3_Upstream

A07B3 Downstream

A07B3

A07B2_Upstream

A07B2_Downstream

A07B2

A07B1_Upstream

A07B1_Downstream

A07B1

LSS1_Upstream

LSS1_Downstream

LSS1

BB2_Upstream

BB2_Downstream

DM8A_Downstream

DM8A_Upstream

DM8A

A07D_Upstream

A07D_Downstream

A07D

A07C1_Upstream

A07C1_Downstream

A07C1

A07C1

A07E1_Upstream

A07E1_Downstream

A07E1

A07D1_Upstream

A07D1_Downstream

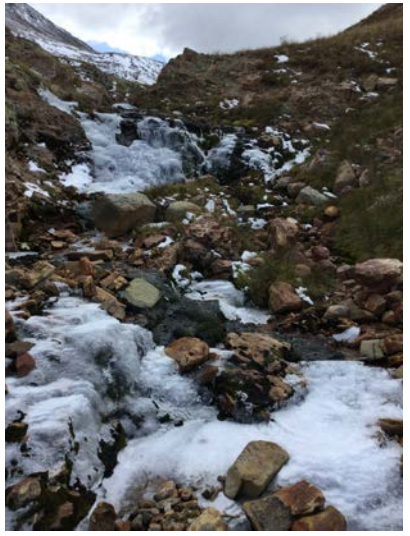
A07D1

A07E

A07E

A07E_Downstream

A07E_Upstream



A07F_Upstream

A07F_Downstream

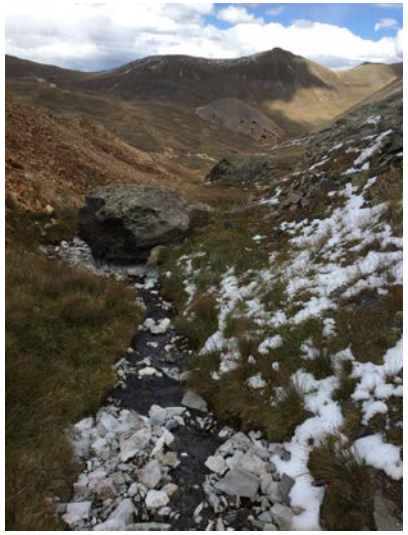
A07F

A07G_Upstream

A07G_Downstream

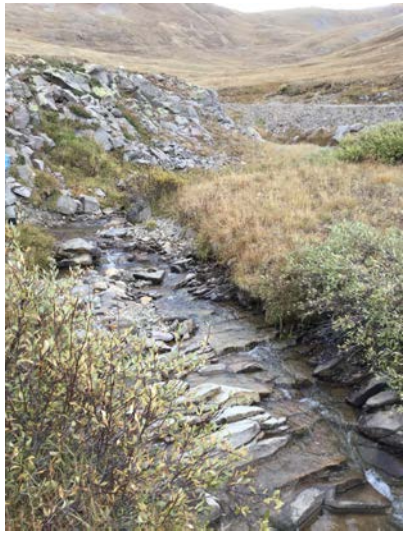
A07G

BG1A_Upstream



BG1A_Downstream

BG1A



A05_Upstream

A05_Downstream

A05

A05

A08_Upstream

A08_Downstream

A08

A07_Downstream

A07_Upstream

A07

A39A renamed A09A

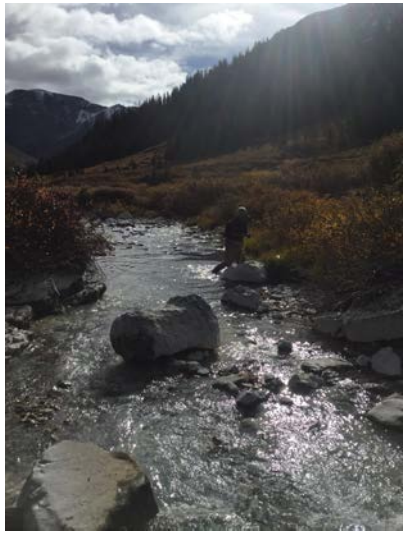
A39A_Upstream renamed A09A

A39A_Downstream renamed A09A

CMP-8

A13

A13_Upstream



A13_Downstream

A15_Upstream

A15_Downstream

A15

A15

A20

A20_Upstream

A20_Downstream

A21

A21_Downstream

A21_Upstream

A21

A22

A22

A22_Upstream

A22_Downstream

A23

A23_Downstream

A23_Upstream

A23

A23A

A23A

A23A_Upstream

A23A_Downstream

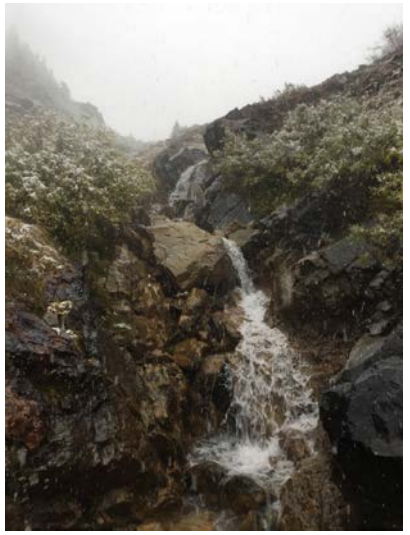
EG-Trib1

EG-Trib2_Downstream

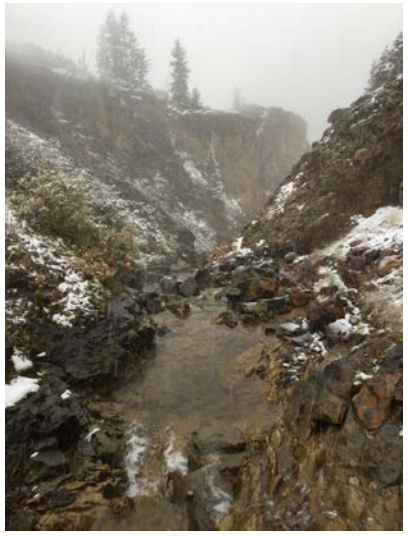
EG-Trib2_Upstream

EG-Trib2 WQ Meter

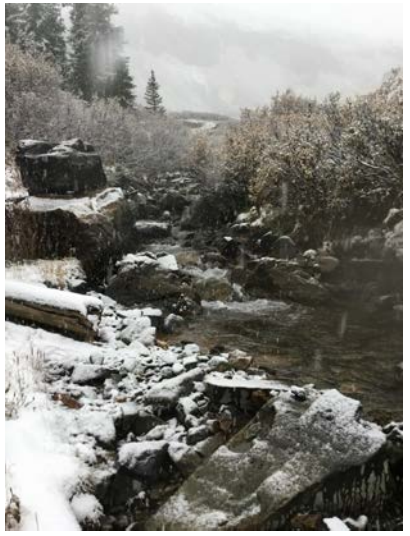
A39A WQ Meter



A39A_Upstream



A39A_Downstream



EG-6_Upstream

EG-6_Downstream

EG-6 WQ Meter

A40A_Upstream

A40A_Downstream

A40A WQ Meter

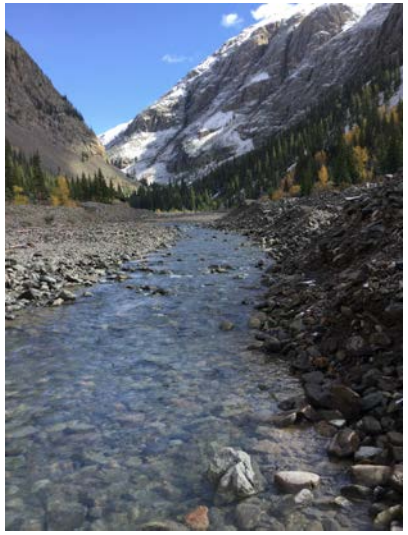
A34_Upstream

A34_Downstream

A34 WQ Meter

A34 WQ Meter

A33 WQ Meter



A33_Upstream

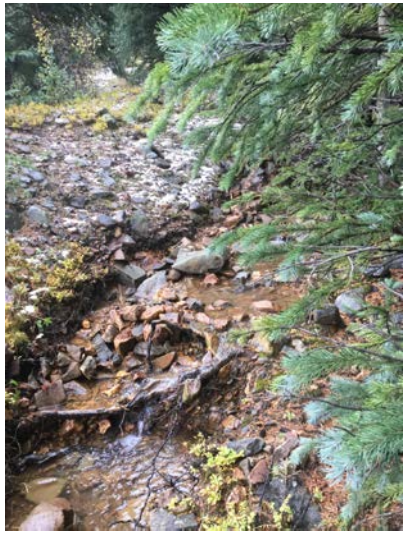
A33_Downstream

AM1_Upstream

AM1_Downstream

AM1 WQ Meter

M10B WQ Meter



M10B_Upstream

M10B_Downstream

Appendix C
Groundwater Data Sheets

Bonita Peak Mining District
GROUNDWATER SAMPLING DATA SHEET

WELL IDENTIFICATION ~~LWP54 #1~~ KMMW-1

RM 5/22/17

PROJECT Bonita Peak PeRunoff

SAMPLE ID ~~LWP54 #1~~

PROJECT NUMBER

SAMPLING PERSONNEL Ryan Monahan Emily Yodacus

SAMPLE DATE 5/17/17
SAMPLE TIME 1435

STATIC WATER LEVEL (SWL) (ft below Measuring Point (MP)) 3.608

WELL DEPTH (TD)(ft below MP/GS) 15.26 MP DESCRIPTION: Ground Surface (GS)___ Top of Casing (TOC)___

WELL DIAMETER (inside/inches) 1" WELL LOCATION DESCRIPTION

CASING VOLUME (gals) = 11.6 FEET OF WATER (TD-SWL) x 0.464 GALLONS/FOOT ***(1/25(TD-SWL)X(DIA)²)*** = 5.38 gals

ACTUAL VOLUME REMOVED (gals) _____ WATER LEVEL RECOVERY INFORMATION

COMMENTS: Had A Hard time removing pre existing tubing. Had to replace with New tubing. Currently Snowing temps in the 30's. Collected TM, DM, Alk/Anion, Stable Isotopes

PURGING/SAMPLING DATA

TIME (hr:min)	DISCHARGE RATE (GPM)	VOL REMOVED (Gal)	T (°C)	pH	SC (mS/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Comments
1410									Purging Began
1418		1.7	4.353	6.90	373.5		7.97		
1425		1.7	4.346	6.88	374.5		7.95		
1431		1.7	4.370	6.85	374.2		7.95		
1435									Sample Collected

GROUNDWATER SAMPLES COLLECTED

ANALYSIS	CONTAINER TYPE	VOLUME	PRESERVATIVE

QUALITY CONTROL SAMPLES COLLECTED: SAMPLE ID _____ DATE _____ TIME _____

1 picture taken on SD2853 100-0121

Bonita Peak Mining District
GROUNDWATER SAMPLING DATA SHEET

WELL IDENTIFICATION ~~LWPS4 #2~~ KMMW-2

RM 5/22/17

PROJECT Bonita Peak Pre Runoff

PROJECT NUMBER

SAMPLING PERSONNEL Ryan Morahan Emily Yodocus

STATIC WATER LEVEL (SWL) (ft below Measuring Point (MP)) 2.89

SAMPLE ID ~~LWPS4 #2~~

SAMPLE DATE 5/17/17

SAMPLE TIME 1210

WELL DEPTH (TD)(ft below MP/GS) 17.67 MP DESCRIPTION: Ground Surface (GS)___ Top of Casing (TOC)___

WELL DIAMETER (inside/inches) 1" WELL LOCATION DESCRIPTION

CASING VOLUME (gals) = 14.78 FEET OF WATER (TD-SWL) x 0.59 GALLONS/FOOT ***(1/25(TD-SWL)X(DIA)²)*** = 8.73 gals

ACTUAL VOLUME REMOVED (gals) _____ WATER LEVEL RECOVERY INFORMATION

COMMENTS: temps in the 30's, Snowing Collected TM, DM, Alk/Anion, Stable Isotopes. Dup Collected here. Used Site Specific tubing found in Well. Picture 5/22/17 100-0120

PURGING/SAMPLING DATA

TIME (hr:min)	DISCHARGE RATE (GPM)	VOL REMOVED (Gal)	T (°C)	pH	SC (mS/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Comments
1150									Began Purge
1156		1.6	4.460	6.86	254.1		8.19		
1202		1.6	4.413	6.84	254.5		8.24		
1208		1.6	4.326	6.82	253.9		8.26		
1210									Sample Collected

GROUNDWATER SAMPLES COLLECTED

ANALYSIS	CONTAINER TYPE	VOLUME	PRESERVATIVE

QUALITY CONTROL SAMPLES COLLECTED: SAMPLE ID _____ DATE _____ TIME _____

Bonita Peak Mining District
GROUNDWATER SAMPLING DATA SHEET

WELL IDENTIFICATION ~~LWPS4 #3~~ KMMW-3

R.M 5/22/17

PROJECT Bonita Peak: PreRunoff

SAMPLE ID ~~LWPS4 #3~~

PROJECT NUMBER ______

SAMPLING PERSONNEL Ryan Monahan Emily Yadocus

SAMPLE DATE 5/17/17

SAMPLE TIME 1140

STATIC WATER LEVEL (SWL) (ft below Measuring Point (MP)) 4.33

WELL DEPTH (TD)(ft below MP/GS) 12.67' MP DESCRIPTION: Ground Surface (GS)____ Top of Casing (TOC)____

WELL DIAMETER (inside/inches) 1" WELL LOCATION DESCRIPTION ______

CASING VOLUME (gals) = 8.34 FEET OF WATER (TD-SWL) x ______ GALLONS/FOOT **(1/25(TD-SWL)X(DIA)²)** = 2.78 gals x3

ACTUAL VOLUME REMOVED (gals) ______ WATER LEVEL RECOVERY INFORMATION ______

COMMENTS: Snowing, used site dedicated tubing with peristaltic pump. Collected TM, DM, Alk/Anion, Stable Isotopes. 1 Picture 10/ S02852 100-019

PURGING/SAMPLING DATA

TIME (hr:min)	DISCHARGE RATE (GPM)	VOL REMOVED (Gal)	T (°C)	pH	SC (mS/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Comments
11:18									Began Purge
11:24		2gal.	4.720	7.03	261.5		8.17		
11:30		1.5 gal	4.886	6.98	260.8		8.11		
11:35		1.5gal	4.811	6.95	260.4		8.09		
11:40									Sample Collected

GROUNDWATER SAMPLES COLLECTED

ANALYSIS	CONTAINER TYPE	VOLUME	PRESERVATIVE

QUALITY CONTROL SAMPLES COLLECTED: SAMPLE ID ______ DATE ______ TIME ______

Bonita Peak Mining District
GROUNDWATER SAMPLING DATA SHEET

WELL IDENTIFICATION ~~LWP54 #4~~ KMMW-4

RM 5/22/17

PROJECT Bonita Peak Presumoff

SAMPLE ID ~~LWP54 #4~~

PROJECT NUMBER

SAMPLING PERSONNEL Ryan Monahan Emily Yadacus

SAMPLE DATE 5/17/17
SAMPLE TIME 1505

STATIC WATER LEVEL (SWL) (ft below Measuring Point (MP)) 7.28

WELL DEPTH (TD)(ft below MP/GS) 17.71 MP DESCRIPTION: Ground Surface (GS)___ Top of Casing (TOC)___

WELL DIAMETER (inside/inches) 1" WELL LOCATION DESCRIPTION

CASING VOLUME (gals) = 16.43 FEET OF WATER (TD-SWL) x 0.417 GALLONS/FOOT ***(1/25(TD-SWL)X(DIA)²)*** = 4.35 gals

ACTUAL VOLUME REMOVED (gals) WATER LEVEL RECOVERY INFORMATION

COMMENTS: Had A Hard time removing Site dedicated tubing. used Site dedicated tubing. Currently Snowing with temps in the 20's Collected TM, DM, Alk/Anions, SI

PURGING/SAMPLING DATA

TIME (hr:min)	DISCHARGE RATE (GPM)	VOL REMOVED (Gal)	T (°C)	pH	SC (mS/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Comments
1439									Purging Began
1445		1.6	4.145	6.76	364.4		6.79		
1451		1.6 RM	~~8~~ 4.213	6.71	364.9		7.9		
1458		1.6	4.278	6.67	364.8		7.88		
1504		1.6	4.198	6.65	365.1		8.05		
1505									Sample Collected

GROUNDWATER SAMPLES COLLECTED

ANALYSIS	CONTAINER TYPE	VOLUME	PRESERVATIVE

QUALITY CONTROL SAMPLES COLLECTED: SAMPLE ID DATE TIME

1 picture taken on 585852 100-0122

~~Field Blank was collected here.~~ EY 5/17/17

Attachment 1
In-vitro Bioaccessibility of Willow Bark

Laboratory of Environment and Geological Sciences, University of Colorado, Boulder

Project Name: TechLaw

Run #: 1 Date: 8/17/2017 Operater: Drexler

Postion in rack	Sample name	Lab#	Wt. Grams	pH start	Starting time	Stopping time	pH stop
1	A8M5-4333		1.04516	7.1	7:45	8:45	7.037
2	A8M5-4329		1.06261	7.1	7:45	8:45	6.997
3	A8M5-4331		1.072	7.1	7:45	8:45	6.913
4	A8M5-4335		1.04851	7.1	7:45	8:45	7.023
5	A8M5-4334		1.06135	7.009	7:45	8:45	6.820
6	A8M5-4337		1.08971	7.1	7:45	8:45	6.936
7	A8M5-4336		1.021278	7.009	7:45	8:45	7.012
8	A8M5-4332		1.03203	7.009	7:45	8:45	7.001
9	A8M5-4330		1.07461	7.1	7:45	8:45	7.015
10							

Sample ID #	**Useable Sample Location/ID**
A8M5-4333	PLG-TP-WLB-500
A8M5-4329	CAG-TP-WLB-508
A8M5-4331	OSL-TP-WLB-514
A8M5-4335	SFM-TP-WLB-504
A8M5-4334	SFC-TP-WLB-510
A8M5-4337	UMC-TP-WLB-502
A8M5-4336	SFM-TP-WLB-505
A8M5-4332	OSL-TP-WLB-515
A8M5-4330	MGR-TP-WLB-512

TABLE 2 . Preliminary Summary Of In Vitro Bioassay Results

Sample	ID	Pb in bulk plant ug/kg	mass plant (g)	calc Pb #1	ICP Pb (ug/l)	solution amt (l)	% Pb IVBA	%RBA Predicted based on Drexler and Brattin, 2007	
A8M5-4333		2412	1.04516	2.52	29.5	0.1	117	100	
A8M5-4329		636	1.06261	0.68	0.012	0.1	0	-3	Assume MDL
A8M5-4331		18570	1.072	19.91	17.2	0.1	9	5	
A8M5-4335		544	1.04851	0.57	4.2	0.1	74	62	
A8M5-4334		107	1.06135	0.11	0.019	0.1	2	-1	Assume MDL
A8M5-4337		124	1.08971	0.13	0.012	0.1	1	-2	Assume MDL
A8M5-4330		101	1.07461	0.11	3.1	0.1	285	248	
A8M5-4336		146	1.021278	0.15	0.019	0.1	1	-2	
A8M5-4332		2560	1.03203	2.64	1.6	0.1	6	2	

Sample ID #	Useable Sample Location/ID
A8M5-4333	PLG-TP-WLB-500
A8M5-4329	CAG-TP-WLB-508
A8M5-4331	OSL-TP-WLB-514
A8M5-4335	SFM-TP-WLB-504
A8M5-4334	SFC-TP-WLB-510
A8M5-4337	UMC-TP-WLB-502
A8M5-4336	SFM-TP-WLB-505
A8M5-4332	OSL-TP-WLB-515
A8M5-4330	MGR-TP-WLB-512

TABLE 2 . Preliminary Summary Of In Vitro Bioassay Results

Sample	ID	As in bulk plant ug/kg	mass plant (g)	calc As #1	ICP As (ug/l)	solution amt (l)	% As IVBA	%RBA Predicted based on Brattin et al, 2013
A8M5-4333		DL	1.04516	ND	DL	0.1	ND	ND
A8M5-4329		DL	1.06261	ND	DL	0.1	ND	ND
A8M5-4331		DL	1.072	ND	DL	0.1	ND	ND
A8M5-4335		DL	1.04851	ND	DL	0.1	ND	ND
A8M5-4334		DL	1.06135	ND	DL	0.1	ND	ND
A8M5-4337		DL	1.08971	ND	DL	0.1	ND	ND
A8M5-4330		DL	1.07461	ND	DL	0.1	ND	ND
A8M5-4336		DL	1.021278	ND	DL	0.1	ND	ND
A8M5-4332		DL	1.03203	ND	DL	0.1	ND	ND

ND- Not Detected

Sample ID #	Useable Sample Location/ID
A8M5-4333	PLG-TP-WLB-500
A8M5-4329	CAG-TP-WLB-508
A8M5-4331	OSL-TP-WLB-514
A8M5-4335	SFM-TP-WLB-504
A8M5-4334	SFC-TP-WLB-510
A8M5-4337	UMC-TP-WLB-502
A8M5-4336	SFM-TP-WLB-505
A8M5-4332	OSL-TP-WLB-515
A8M5-4330	MGR-TP-WLB-512

Attachment 1 - Invitro Bioaccessibility of Willow Bark

Put curser here to see notes.	As ug/L (ug/kg)	Pb ug/L (ug/kg)
BIO		
process blank	DL	DL
A8M5-4333	DL	29.5
A8M5-4329	DL	DL
A8M5-4331	DL	17.2
A8M5-4335	DL	4.2
A8M5-4334	DL	DL
A8M5-4337	DL	DL
A8M5-4330	DL	3.1
A8M5-4336	DL	DL
A8M5-4332	DL	1.6

3050		
A8M5-4333	DL	2412
A8M5-4329	DL	636
A8M5-4331	DL	18570
A8M5-4335	DL	544
A8M5-4334	DL	107
A8M5-4337	DL	124
A8M5-4330	DL	101
A8M5-4336	DL	146
A8M5-4332	DL	2560
Machine Detection Limit	0.149	0.012

Sample ID #	**Useable Sample Location/ID**
A8M5-4333	PLG-TP-WLB-500
A8M5-4329	CAG-TP-WLB-508
A8M5-4331	OSL-TP-WLB-514
A8M5-4335	SFM-TP-WLB-504
A8M5-4334	SFC-TP-WLB-510
A8M5-4337	UMC-TP-WLB-502
A8M5-4336	SFM-TP-WLB-505
A8M5-4332	OSL-TP-WLB-515
A8M5-4330	MGR-TP-WLB-512

Attachment 2
Activity Based Sampling of Road Dust Analytical Results

Case Narrative

Analysis: NIOSH 0600 Mod.
Preparation SOP#: N/A
Analysis SOP#: NIOSH 0600 Mod.
Analysis Batch: IGRV/7529

Client: TechLaw, Inc.
Matrix: MCE Filter
ALS WorkOrder ID: 1729257
HBN: 201103

General Set Information: There were a total of ten samples that were analyzed for respirable dust by NIOSH 0600 Mod. on MCE filters. No problems were encountered with the receipt of these samples.

Method Summary: The samples were analyzed for total dust by gravimetric analysis using NIOSH 0600 with the following modifications: 1) The filters and backup pads are stored in an environmentally controlled room (21± 3ºC and 50 ± 5% R.H.) and are subjected to the room conditions for at least half an hour for stabilization prior to gross weighing. 2) Two weighings of each filter for every fifth sample are performed. The averages of the weighings are used for the total weight analysis. 3) The total weight of each sample is determined by weighing the filter plus sample on an electrobalance.

Sample Preparation: N/A

Initial and Continuing Calibration Verification Analysis: N/A

Initial and Continuing Calibration Blank Analysis: N/A

Method Blank Analysis: N/A

Dilution(s): N/A

Laboratory Control Sample and Duplicate Analysis: Two Laboratory Control Samples (LCS and LCSD) were analyzed with the sample batch. The results were within the control limits.

Flagging Codes: None.

Nonconformance/Corrective Action Report (NC/CAR): N/A

Sample Calculation: The final results are calculated by the following equation:

Concentration of total dust, C (mg/m^3), in the air volume sampled, V (L):

$C = (W2-W1)/V) * 1000, mg/m^3$

Where: W1 = pre-sampling weight of the filter

W2 = post-sampling weight of the filter

V = air volume as sampled

Miscellaneous Comments: None.

_____

Andrew Wilson 25 October 2017

Case Narrative

Analysis: ICP-MS Metals
Preparation SOP#: IH-AN-021, Rev. 6
Analysis SOP#: NIOSH 7303 MOD, Rev. 2
Analysis Batch: IIMS/5603

Client: Tech Law
Matrix: MCE Filter
ALS WorkOrder ID: 1729257
HBN: 201282

General Set Information: There are ten field samples in this workorder that were analyzed in this HBN. The samples were analyzed for chromium, manganese, arsenic, and lead by NIOSH Method 7303, modified.

Method Summary: Each MCE filter was digested in a hotblock in the presence of 1:1 (v/v) nitric acid. The resulting digests are filtered and diluted prior to being analyzed using an Agilent 7700x ICP Mass Spectrometer "ICPM04".

Sample Preparation: Each sample was transferred to 50 mL centrifuge tube and digested in the presence of 10 mL of 1:1 (v/v) nitric acid. Each sample was digested in a hot block set at 96 ºC for 40 minutes. The digestion solution was diluted to 50 mL final volume with ASTM Type II water.

Instrument Calibration: Instrument calibration was performed in accordance with published procedures.

Initial and Continuing Calibration Data: Recoveries of the requested analytes in all initial and continuing calibration verification samples are within quality control limits. No requested analytes were found in any initial or continuing calibration blank sample at levels above the reporting limits.

Dilutions: The MCE filter samples in this HBN were diluted 5x to adjust the nitric acid concentration from digestion to protect instrument integrity for reanalysis by ICP-MS. The reporting limits were raised proportionately to the reported dilution level.

Method and Sample QC Data: No requested analytes were found in the blank samples at levels above the reporting limits except the LMB. The LMB was above the reporting limit for chromium so the RLVS, LCS, and LCSD results have been media blank corrected for chromium. LCS and LCSD samples were prepared and analyzed with these samples. All requested analytes are within quality control limits.

NC/CAR: None required.

Flagging Codes: Refer to the last page of the report for all applicable flagging codes.

Sample Calculation:

Method 7303 mod: $C \times \frac{Vf}{sample} \times DF = Concentration(\mu g/sample)$

Where,

C = Instrument value in µg/L (The average of all replicate integrations).

Vf = Final digestion volume (L)

DF = Dilution Factor

Miscellaneous Comments: None required.

Penny A. Foote 24 October 2017

ANALYTICAL REPORT

Report Date: October 25, 2017

Scott Walker
Tech Law
16194 W. 45th Drive
Golden, CO 80403

Phone: (303) 312-7726

E-mail: scwalker@techlawinc.com

Workorder: **34-1729257**
Client Project ID: A8M5 101217
Purchase Order: A8M5
Project Manager: Rand Potter

Analytical Results

Sample ID: **5-115270 SMC-DST** Collected: 10/12/2017
Lab ID: 1729257001 Sampling Location: A8M5 Received: 10/18/2017

Method: **IH by ICP-MS** **Media:** MCE Filter **Instrument:** ICPM04
Sampling Info: **Air Volume 1354 L** **Prepared:** 10/20/2017 (201122)
Analyzed: 10/23/2017 (201282)

Analyte	Result (ug/sample)	Result (ug/m³)	RL (ug/sample)
Arsenic	<0.013	<0.0092	0.013
Chromium	**0.28**	**0.20**	0.13
Lead	<0.013	<0.0092	0.013
Manganese	**0.062**	**0.046**	0.013

Method: **NIOSH 0600 Mod., MW MCE Filter** **Media:** MCE Filter **Instrument:** GRAV01
Sampling Info: **Air Volume 1354 L** **Analyzed:** 10/20/2017 (201103)

Analyte	Result (mg/sample)	Result (ug/m³)	RL (mg/sample)
Respirable Dust	<0.10	<74	0.10

Sample ID: **5-112591 GHC-DST** Collected: 10/12/2017
Lab ID: 1729257002 Sampling Location: A8M5 Received: 10/18/2017

Method: **IH by ICP-MS** **Media:** MCE Filter **Instrument:** ICPM04
Sampling Info: **Air Volume 1333 L** **Prepared:** 10/20/2017 (201122)
Analyzed: 10/23/2017 (201282)

Analyte	Result (ug/sample)	Result (ug/m³)	RL (ug/sample)
Arsenic	<0.013	<0.0094	0.013
Chromium	**0.31**	**0.23**	0.13
Lead	<0.013	<0.0094	0.013
Manganese	**0.042**	**0.032**	0.013

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: **34-1729257**
Client Project ID: A8M5 101217
Purchase Order: A8M5
Project Manager: Rand Potter

Analytical Results

Sample ID: **5-112591 GHC-DST** Collected: 10/12/2017
Lab ID: 1729257002 Sampling Location: A8M5 Received: 10/18/2017

Method: **NIOSH 0600 Mod., MW MCE Filter** **Media:** MCE Filter **Instrument:** GRAV01
Sampling Info: **Air Volume 1333 L** **Analyzed:** 10/20/2017 (201103)

Analyte	Result (mg/sample)	Result (ug/m³)	RL (mg/sample)
Respirable Dust	<0.10	<75	0.10

Sample ID: **5-112614 SFC-DST** Collected: 10/12/2017
Lab ID: 1729257003 Sampling Location: A8M5 Received: 10/18/2017

Method: **IH by ICP-MS** **Media:** MCE Filter **Instrument:** ICPM04
Sampling Info: **Air Volume 1334 L** **Prepared:** 10/20/2017 (201122)
Analyzed: 10/23/2017 (201282)

Analyte	Result (ug/sample)	Result (ug/m³)	RL (ug/sample)
Arsenic	<0.013	<0.0094	0.013
Chromium	**0.29**	**0.22**	0.13
Lead	<0.013	<0.0094	0.013
Manganese	**0.063**	**0.047**	0.013

Method: **NIOSH 0600 Mod., MW MCE Filter** **Media:** MCE Filter **Instrument:** GRAV01
Sampling Info: **Air Volume 1334 L** **Analyzed:** 10/20/2017 (201103)

Analyte	Result (mg/sample)	Result (ug/m³)	RL (mg/sample)
Respirable Dust	**0.15**	**110**	0.10

Sample ID: **5-113283 PPG-DST** Collected: 10/12/2017
Lab ID: 1729257004 Sampling Location: A8M5 Received: 10/18/2017

Method: **IH by ICP-MS** **Media:** MCE Filter **Instrument:** ICPM04
Sampling Info: **Air Volume 1329 L** **Prepared:** 10/20/2017 (201122)
Analyzed: 10/23/2017 (201282)

Analyte	Result (ug/sample)	Result (ug/m³)	RL (ug/sample)
Arsenic	<0.013	<0.0094	0.013
Chromium	**0.23**	**0.17**	0.13
Lead	**0.25**	**0.19**	0.013
Manganese	**0.49**	**0.37**	0.013

Method: **NIOSH 0600 Mod., MW MCE Filter** **Media:** MCE Filter **Instrument:** GRAV01
Sampling Info: **Air Volume 1329 L** **Analyzed:** 10/20/2017 (201103)

Analyte	Result (mg/sample)	Result (ug/m³)	RL (mg/sample)
Respirable Dust	**0.40**	**300**	0.10

ANALYTICAL REPORT

Workorder: **34-1729257**
Client Project ID: A8M5 101217
Purchase Order: A8M5
Project Manager: Rand Potter

Analytical Results

Sample ID: **5-112589 PSG-DST** Collected: 10/12/2017
Lab ID: 1729257005 Sampling Location: A8M5 Received: 10/18/2017

Method: **IH by ICP-MS** **Media:** MCE Filter **Instrument:** ICPM04
Sampling Info: **Air Volume 1325 L** **Prepared:** 10/20/2017 (201122)
Analyzed: 10/23/2017 (201282)

Analyte	Result (ug/sample)	Result (ug/m³)	RL (ug/sample)
Arsenic	<0.013	<0.0094	0.013
Chromium	**0.30**	**0.22**	0.13
Lead	<0.013	<0.0094	0.013
Manganese	**0.029**	**0.022**	0.013

Method: **NIOSH 0600 Mod., MW MCE Filter** **Media:** MCE Filter **Instrument:** GRAV01
Sampling Info: **Air Volume 1325 L** **Analyzed:** 10/20/2017 (201103)

Analyte	Result (mg/sample)	Result (ug/m³)	RL (mg/sample)
Respirable Dust	<0.10	<75	0.10

Sample ID: **5-113277 GLS-DST** Collected: 10/12/2017
Lab ID: 1729257006 Sampling Location: A8M5 Received: 10/18/2017

Method: **IH by ICP-MS** **Media:** MCE Filter **Instrument:** ICPM04
Sampling Info: **Air Volume 1324 L** **Prepared:** 10/20/2017 (201122)
Analyzed: 10/23/2017 (201282)

Analyte	Result (ug/sample)	Result (ug/m³)	RL (ug/sample)
Arsenic	<0.013	<0.0094	0.013
Chromium	**0.25**	**0.19**	0.13
Lead	**0.034**	**0.026**	0.013
Manganese	**0.054**	**0.041**	0.013

Method: **NIOSH 0600 Mod., MW MCE Filter** **Media:** MCE Filter **Instrument:** GRAV01
Sampling Info: **Air Volume 1324 L** **Analyzed:** 10/20/2017 (201103)

Analyte	Result (mg/sample)	Result (ug/m³)	RL (mg/sample)
Respirable Dust	<0.10	<76	0.10

Sample ID: **5-112604 MFM-DST** Collected: 10/12/2017
Lab ID: 1729257007 Sampling Location: A8M5 Received: 10/18/2017

Method: **IH by ICP-MS** **Media:** MCE Filter **Instrument:** ICPM04
Sampling Info: **Air Volume 1312 L** **Prepared:** 10/20/2017 (201122)
Analyzed: 10/23/2017 (201282)

Analyte	Result (ug/sample)	Result (ug/m³)	RL (ug/sample)
Arsenic	<0.013	<0.0095	0.013
Chromium	**0.27**	**0.20**	0.13

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: **34-1729257**
Client Project ID: A8M5 101217
Purchase Order: A8M5
Project Manager: Rand Potter

Analytical Results

Sample ID: **5-112604 MFM-DST** Collected: 10/12/2017
Lab ID: 1729257007 Sampling Location: A8M5 Received: 10/18/2017

Method: **IH by ICP-MS** **Media:** MCE Filter **Instrument:** ICPM04
Sampling Info: **Air Volume 1312 L** **Prepared:** 10/20/2017 (201122)
Analyzed: 10/23/2017 (201282)

Analyte	Result (ug/sample)	Result (ug/m³)	RL (ug/sample)
Lead	**0.030**	**0.023**	0.013
Manganese	**0.19**	**0.15**	0.013

Method: **NIOSH 0600 Mod., MW MCE Filter** **Media:** MCE Filter **Instrument:** GRAV01
Sampling Info: **Air Volume 1312 L** **Analyzed:** 10/20/2017 (201103)

Analyte	Result (mg/sample)	Result (ug/m³)	RL (mg/sample)
Respirable Dust	<0.10	<76	0.10

Sample ID: **5-113273 KMT-DST** Collected: 10/12/2017
Lab ID: 1729257008 Sampling Location: A8M5 Received: 10/18/2017

Method: **IH by ICP-MS** **Media:** MCE Filter **Instrument:** ICPM04
Sampling Info: **Air Volume 1319 L** **Prepared:** 10/20/2017 (201122)
Analyzed: 10/23/2017 (201282)

Analyte	Result (ug/sample)	Result (ug/m³)	RL (ug/sample)
Arsenic	<0.013	<0.0095	0.013
Chromium	**0.26**	**0.19**	0.13
Lead	**0.020**	**0.015**	0.013
Manganese	**0.091**	**0.069**	0.013

Method: **NIOSH 0600 Mod., MW MCE Filter** **Media:** MCE Filter **Instrument:** GRAV01
Sampling Info: **Air Volume 1319 L** **Analyzed:** 10/20/2017 (201103)

Analyte	Result (mg/sample)	Result (ug/m³)	RL (mg/sample)
Respirable Dust	<0.10	<76	0.10

Sample ID: **5-113305 EKC-DST** Collected: 10/12/2017
Lab ID: 1729257009 Sampling Location: A8M5 Received: 10/18/2017

Method: **IH by ICP-MS** **Media:** MCE Filter **Instrument:** ICPM04
Sampling Info: **Air Volume 1305 L** **Prepared:** 10/20/2017 (201122)
Analyzed: 10/23/2017 (201282)

Analyte	Result (ug/sample)	Result (ug/m³)	RL (ug/sample)
Arsenic	<0.013	<0.0096	0.013
Chromium	**0.28**	**0.22**	0.13
Lead	**0.031**	**0.024**	0.013
Manganese	**0.17**	**0.13**	0.013

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: **34-1729257**
Client Project ID: A8M5 101217
Purchase Order: A8M5
Project Manager: Rand Potter

Analytical Results

Sample ID: **5-113305 EKC-DST** Collected: 10/12/2017
Lab ID: 1729257009 Sampling Location: A8M5 Received: 10/18/2017

Method: **NIOSH 0600 Mod., MW MCE Filter** **Media:** MCE Filter **Instrument:** GRAV01
Sampling Info: **Air Volume 1305 L** **Analyzed:** 10/20/2017 (201103)

Analyte	Result (mg/sample)	Result (ug/m³)	RL (mg/sample)
Respirable Dust	<0.10	<77	0.10

Sample ID: **5-112588 BLANK** Collected: 10/12/2017
Lab ID: 1729257010 Sampling Location: A8M5 Received: 10/18/2017

Method: **IH by ICP-MS** **Media:** MCE Filter **Instrument:** ICPM04
Sampling Info: **Air Volume 46.96 L** **Prepared:** 10/20/2017 (201122)
Analyzed: 10/23/2017 (201282)

Analyte	Result (ug/sample)	Result (ug/m³)	RL (ug/sample)
Arsenic	<0.013	<0.27	0.013
Chromium	**0.26**	**5.6**	0.13
Lead	<0.013	<0.27	0.013
Manganese	<0.013	<0.27	0.013

Method: **NIOSH 0600 Mod., MW MCE Filter** **Media:** MCE Filter **Instrument:** GRAV01
Sampling Info: **Air Volume 46.96 L** **Analyzed:** 10/20/2017 (201103)

Analyte	Result (mg/sample)	Result (ug/m³)	RL (mg/sample)
Respirable Dust	<0.10	<2100	0.10

Comments

Workorder: **1729257**

ICP-MS: The MCE filter samples in this workorder were diluted 5x to adjust the nitric acid concentrations from digestion to protect instrument integrity. The reporting limits were raised proportionately to the reported dilution level.

Quality Control: **IH by ICP-MS - (HBN: 201282)**

The MCE filter LMB 571087 was above the reporting limit for chromium (0.505 µg/sample) and nickel (0.0175 µg/sample) so the RLVS 571088, RLVS-2 571089, RLVS-3 571090, LCS 571091, and LCSD 571092 results have been media blank corrected for chromium and nickel with LMB 571087.

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
IH by ICP-MS	/S/ Penny A. Foote 10/24/2017 12:17	/S/ Kristie F. Bitner 10/24/2017 14:40
NIOSH 0600 Mod., MW MCE Filter	/S/ Andrew Wilson 10/20/2017 11:00	/S/ Brian S. Stites 10/25/2017 11:26

BPMD Air Sampling

Date: 10/12/2017 Samplers: RM, LC

	Sample ID	Filter #	Time On	Initial Flow (L/min)	Time Off	Final Flow (L/min)	Time Sampled (min)	Average Flow (L/min)	Total Volume Sampled (L)
1	SMC-DST	5-115270	9:00	2.7840	17:00	2.8569	480	2.8	1353.816
2	GHC-DST	5-112591	9:00	2.7491	17:00	2.8044	480	2.8	1332.840
3	SFC-DST	5-112614	9:00	2.7534	17:00	2.8072	480	2.8	1334.544
4	PPG-DST	5-113283	9:15	2.7487	17:15	2.7879	480	2.8	1328.784
5	PSG-DST	5-112589	9:20	2.7491	17:20	2.7733	480	2.8	1325.376
6	GLS-DST	5-113277	9:30	2.7429	17:30	2.7723	480	2.8	1323.648
7	MFM-DST	5-112604	10:00	2.7529	18:00	2.7159	480	2.7	1312.512
8	KMT-DST	5-113273	10:20	2.7570	18:20	2.7381	480	2.7	1318.824
9	EKC-DST	5-113305	10:40	2.7582	18:40	2.6790	480	2.7	1304.928
10	Blank	5-112588	19:02	2.7573	19:19	2.7672	17	2.8	46.958
11									
12									
13									
14									
15									
16									

Attachment 3
Scanned Field Notebook Pages

BONITA PEAK

R8-FLD-072

Bonita Peak
2016 →

Rite in the Rain®
ALL-WEATHER
METRIC GRID
FIELD BOOK
№ 380F

R8-FLD-072

Pg Rvsit AZ2

Butte Peak 3/21/17 09:45

Sunny day, 30° ~ AZ2, some high cloud. Rain is not inviting well

Scribe: Lisa Richardson

Sampler: Lisa Richardson

Flow: Gauge

Lot #:

WQP: 599040-04mm/16011

Temp: 2.168°C

Cond: 381.5 uS/cm

TDS: _____

Do: @ 9.80 mg/L

pH: 6.14 su

ORP: _____

Turb: 12.01 FNU

Photos: upstream
downstream
logbook

Camera: 8152853 Olympus Tough/Blue Stylus

Gabriel Judaeus 10/17/17

Pg Rvsit Bunita Peak

MH 3/21/17 10:45

Scribe: Lisa Richardson

Sampler: Lisa Richardson

Flow: Gauge

Lot #:

WQP: 599040-04mm/16011

Temp: 3.080°C

Cond: 329.2 uS/cm

TDS: _____

DO: 9.82 mg/L

pH: 6.30 su

ORP: _____

Turb: 12.72

Photos: upstream
downstream
logbook

Camera: 8152853 Olympus Tough/Blue Stylus

Gabriel Judaeus 10/17/17

Rite in the Rain

Pre Runoff Bonita Peak

M27 3/21/17 1152

Weather: Really getting warm new snow is developing significant rot

Scribe: Lisa Richardson

Samples: Lisa Richardson

Flow:

Lot #:

WQP: 599040-04M /1611

Temp: 3.533°C

Cond: 351.0 μs/cm

TDS: ———

DO: 9.49 mg/L

pH: 4.86 su

ORP: ———

Turb: 14.42 FNU

Photos: Upstream
Downstream
logbook

Camera: S 3 2 8 5 3 Olympus Tough/Blue Stylus

Emily Lefardacus 10/17/17

Pre Runoff Bonita Peak

M14A-Bross Bridge 3/21/17 13:00

Scribe: Lisa Richardson

Sampler: Lisa Richardson

Flow:

Lot #:

WQP: 599040-04m /1611

Temp: ~~3.533°C~~ 4.348°C

Cond: 310.6 cond μs/cm

TDS: ———

DO: 9.25 mg/L

pH: 6.57 su

ORP: ———

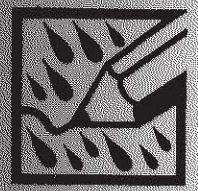
Turb: 4.44 FNU

Photos: Upstream
Downstream
Logbook

Camera: S 3 2 8 5 3 Olympus Tough/Blue Stylus

Emily Lefardacus 10/17/17

Bonita Peak
2016 →



Rite in the Rain®

ALL-WEATHER

METRIC GRID FIELD BOOK

№ 380F

RR-FLD-071

new bottles - Glass 40z
09/20/16 - Filters 250

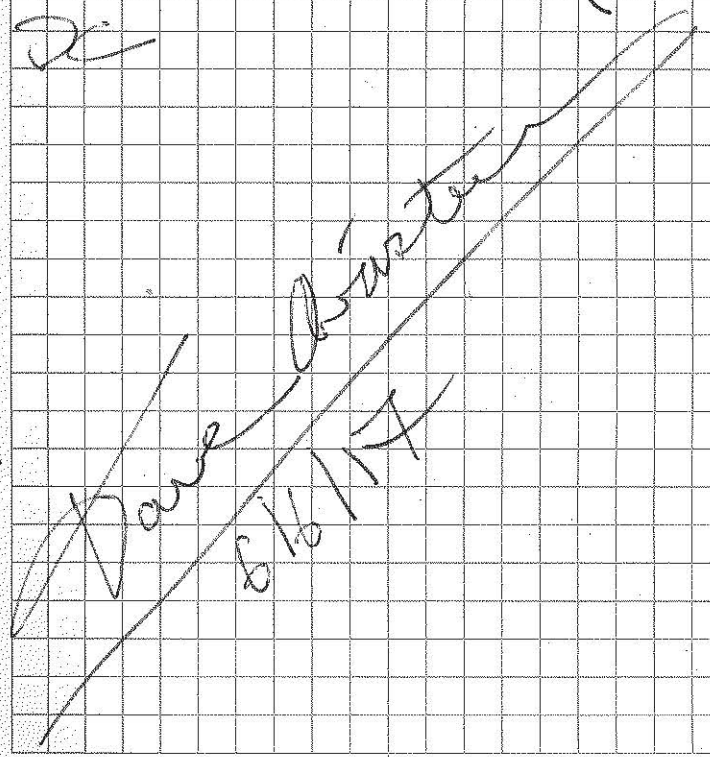
LOT # 1480636
LOT # 1180635

A Bonita Peak CG6 09/30/16

Time: 1540
Scribe: SS
Team: SS WB EY
Water Quality Parameters w/ YSI-3746
Temp: 9.3
pH: 4.97
SpCond: 500.8 uS/cm
DO: 7.77 mg/L
ORP: 133.2 mV
- Surface water collected by WB - TR, DM, alk/anions
- Sediment and soil collected by WB
- photos taken by WB w/ USFWS #3
upstream - 095
downstream - 096
notebook: 097
- flow taken by EY using FlowTracker 965844
- water appears to be flowing clearly with a large amount of white precipitate on substrate below.
- Weather is partly cloudy with a chance of rain, temps in the 50s with a light breeze present.

6/6/17 M33A

1710 - Sample time
Flow 8" Flume
Ha = 0.42
Hb = 0.22
Other Data in iPad



Rite in the Rain

7/12/17 OSL-TP

South Fork mineral creek

opportunistic willow sample

downgradient

~~SS~~ site M24A Bandora

willow stem = WLS

willow bark = WLB

willow buds

co-located soil composite

start time: 11:20a

End time: 11:55a

Sampler: SS

Site conditions: Sunny, clear

(1) Plant Sample ID: willow stem

~~Coord~~ indices: on Pad 5

Area Sampled (m^2): 80

Composite: 10

(2) Soil Sampled

Coord: on Pad 5

Composite #: 15

Area Sampled (m^2): ~~17~~ 80

(3) Plant Sample ID: willow buds

composite: 30

area (m^2): 80 Coord: on Pad 5

3 photos: USFWS1 Camera

~~7 total~~ SS #

100-0342 ~~downgradient~~

100-0343: downgradient

100-0344: up gradient Bandora

Sample conditions

Sunny, clear

Sampler: Subheesh

Sue Subheesh

7/12/17

BONITA PEAK
APACHE-SITGREAVES

Bonita Peak
2016 →

Rite in the Rain®
ALL-WEATHER
METRIC GRID
FIELD BOOK
№ 380F

R8-FLD-074

A72 4/4/17

Time 8:35 Scribe LC
Temp 1.553 °C Sampler ND
pH 5.57 s.u. Flow Gage
Sp. Condo 52.8 µS/cm
DO 3.54 mg/L
ORP mV
Surface Water Groundwater Other
PW Sediment Soil Macro
TM DM Alk/Anion Other
Water Quality Meter ID# EXO unit 1
Flow Tracker/Flume# N/A
Sample Bottle Lot# 1038073
Sample Bottle Lot# 021516-2BOL
Sample Bottle Lot# 021516-2BOL
Sample Bottle Lot#
Water/ Substrate Characteristics clear water
substrate stained orange

Camera ID# SR23552
US 0004 DS 0003 LB 0004
Weather Temps in the 20's
cloudy and snowing
Comments/Remarks

Emily Judacewski 10/17/17

M34 4/4/17

Time 9:30 Scribe LC
Temp 0.603 °C Sampler ND
pH 6.40 s.u. Flow Gage
Sp. Condo 434.6 µS/cm
DO 10.31 mg/L
ORP mV
Surface Water Groundwater Other
PW Sediment Soil Macro
TM DM Alk/Anion Other
Water Quality Meter ID# EXO unit 1
Flow Tracker/Flume# N/A
Sample Bottle Lot# 1038073
Sample Bottle Lot# 021516-2BOL
Sample Bottle Lot# 021516-2BOL
Sample Bottle Lot#
Water/ Substrate Characteristics substrate stained orange
water is slightly turbid

Camera ID# SR23553
US 0005 DS 0006 LB 0001
Weather Temps in the 20's
snowing
Comments/Remarks

Emily Judacewski 10/17/17

Rite in the Rain

140

A68 4/4/17

Time 10:05 Scribe LC
Temp 1.69° Sampler ND
pH 6.85 s.u. Flow Gage
Sp. Condo 334 µS/cm
DO 10.03 mg/L
ORP mV
(Surface Water) Groundwater Other
PW Sediment Soil Macro
(TM) (DM) (Alk/Anion) Other
Water Quality Meter ID# EXO unit #1
Flow Tracker/Flume# N/A
Sample Bottle Lot# 1038073
Sample Bottle Lot# 021516-2BOL
Sample Bottle Lot# 021516-2BOL
Sample Bottle Lot#
Water/ Substrate Characteristics water
is clear Natural looking
substrate
Camera ID# 5825532
US 68 DS 69 LB 70
Weather Cloudy temps in the 20's
windy and snowing
Comments/Remarks

Emily DeJadacw 10/17/17

141

C648 4/4/17

Time 10:30 Scribe LC
Temp 2.082 °C Sampler ND
pH 3.70 s.u. Flow Gage
Sp. Condo 932 µS/cm
DO 9.98 mg/L
ORP mV
(Surface Water) Groundwater Other
PW Sediment Soil Macro
(TM) (DM) (Alk/Anion) Other Stable Isotope
Water Quality Meter ID# EXO unit #1
Flow Tracker/Flume# N/A
Sample Bottle Lot# 041116-2BOL
Sample Bottle Lot# ~~041116-2BOL~~ 021516-2BOL
Sample Bottle Lot# 021516-2BOL
Sample Bottle Lot#
Water/ Substrate Characteristics
water is slightly turbid
substrate stained orange
Camera ID# 5825535
US 71 DS 72 LB 73
Weather Partly cloudy and snowing
temps in the 20's
Comments/Remarks

Emily DeJadacw 10/17/17

Rite in the Rain

142 CC-21 4/4/17

Time 11:15 Scribe LC
Temp 2.079 °C Sampler ND
pH 5.07 s.u. Flow N/C
Sp. Condo 1198 µS/cm
DO 9.33 mg/L
ORP mV
(Surface Water) Groundwater Other
PW Sediment Soil Macro
(TM) (DM) (Alk/Anion) Other Stable Isotope
Water Quality Meter ID# EXO Unit #1
Flow Tracker/Flume#
Sample Bottle Lot# 041116-2BQJ
Sample Bottle Lot# 021516-2BQL
Sample Bottle Lot# 021516-2BQL
Sample Bottle Lot#
Water/ Substrate Characteristics Slightly turbid, substrate Stained Orange

Camera ID# 582852
US 74 DS 75 LB 76
Weather Mostly cloudy, snowing, temps in mid-20's
Comments/Remarks: Snow covering banks. could not collect flow measurement
Dup-01 collected here

Emily Yadacsa 10/17/17

ACC 4/4/17 143 15

Time 12:20 Scribe LC
Temp 4.401 °C Sampler LC
pH 6.72 s.u. Flow ND
Sp. Condo 328.8 µS/cm
DO 9.39 mg/L
ORP mV
(Surface Water) Groundwater Other
PW Sediment Soil Macro
(TM) (DM) (Alk/Anion) Other
Water Quality Meter ID# EXO Unit #1
Flow Tracker/Flume# Flow tracker unit 2
Sample Bottle Lot# 1034073
Sample Bottle Lot# 021516-2BQL
Sample Bottle Lot# 021516-2BQL
Sample Bottle Lot#
Water/ Substrate Characteristics Water is clear - No staining of substrate

Camera ID# 582852
US 77 DS 78 LB 79
Weather Partly cloudy windy
Temps in the 20's
Comments/Remarks:
Flow: 48.00 cf's

Emily Yadacsa 10/17/17

Rite in the Rain

144

A58 4/4/17

Time 13:30 Scribe LC
Temp 2.935 °C Sampler ND
pH 7.25 s.u. Flow N/C
Sp. Condo 238.5 µS/cm
DO 9.0 mg/L
ORP ____ mV
(Surface Water) Groundwater Other ____
PW Sediment Soil Macro
(TM) (DM) (Alk/Anion) Other ____
Water Quality Meter ID# EXO unit1
Flow Tracker/Flume# ____
Sample Bottle Lot# 1038073
Sample Bottle Lot# 02.15.16-250L
Sample Bottle Lot# 02.15.16-250L
Sample Bottle Lot# ____
Water/ Substrate Characteristics Water is clear substrate not stained
Camera ID# 582852
US 80 DS 81 LB 82
Weather Cloudy and calm temps in the 20's
Comments/Remarks:
Snow covering bank, Flow measurements not collected

Emily J Jadacsa 10/17/17

145

A56 4/4/17

Time 1345 Scribe LC
Temp 6.937 °C Sampler ND
pH 7.19 s.u. Flow N/C
Sp. Condo 290.8 µS/cm
DO 8.75 mg/L
ORP ____
(Surface Water) Groundwater Other ____
PW Sediment Soil Macro
(TM) (DM) (Alk/Anion) Other ____
Water Quality Meter ID# EXO unit1
Flow Tracker/Flume# ____
Sample Bottle Lot# 1038073
Sample Bottle Lot# 02.15.16-250L
Sample Bottle Lot# 02.15.16-250L
Sample Bottle Lot# ____
Water/ Substrate Characteristics Water is clear no staining of substrate
Camera ID# 582852
US 83 DS 84 LB 85
Weather Partly cloudy, snowing slight breeze
Comments/Remarks:
Snow covering banks Flow measurements not collected

Emily J Jadacsa 10/17/17

Rite in the Rain

A55 4/4/17

Time 14:15 Scribe LC
Temp 7.714 °C Sampler ND
pH 7.11 s.u. Flow Gage
Sp. Condo 291.4 µS/cm
DO 8.65 mg/L
ORP mV
Surface Water Groundwater Other
PW Sediment Soil Macro
TM DM Alk/Anion Other
Water Quality Meter ID# EXO unit 1
Flow Tracker/Flume# N/A
Sample Bottle Lot# 1038073
Sample Bottle Lot# 021516-3BQL
Sample Bottle Lot# 021516-2BQL
Sample Bottle Lot#
Water/ Substrate Characteristics Waters is Clear Substrate stained Slightly Orange
Camera ID# 582853
US 86 DS 57 LB 88
Weather cloudy Showing temps in the 20's
Comments/Remarks:

Emily LaJeunesse 10/17/17

M27 4/18/17

Time 1100 Scribe KB
Temp 3.512 °C Sampler KB
pH 5.18 s.u. Flow 60.612 cfs
Sp. Condo 273.9 µS/cm
DO 9.49 mg/L
ORP mV
Surface Water Groundwater Other
PW Sediment Soil Macro
TM DM Alk/Anion Other
Water Quality Meter ID# YSI EXO Unit 2
Flow Tracker/Flume# Unit 6
TM Sample Bottle Lot# 010917-2643
Alk Sample Bottle Lot# 021516-2BQL
DM Sample Bottle Lot# 193170
Sample Bottle Lot#
Water/ Substrate Characteristics Water is tu.b.d, substrate stained orange
Camera ID# 582853
US 0293 DS 0294 LB 0295
Weather Sunny & partly cloudy temps in upper 40's
Comments/Remarks:

Emily LaJeunesse 10/17/17

Rite in the Rain

CC01T 7/11/17

Time 1515
Temp 6.54 °C
pH 5.58 s.u.
Sp. Condo 247 µS/cm
DO 8.06 mg/L
ORP ____ mV
Surface Water / Groundwater / Other ____
PW / Sediment / Soil / Macro
TM / DM / Alk/Anion / Other ____
Water Quality Meter ID# IC0101538
Flow Tracker/Flume# ____
Sample Bottle Lot# 0506I7-2B0J -TM
Sample Bottle Lot# 000
Sample Bottle Lot# 0006S090 -Alk
Sample Bottle Lot# ____
Water/ Substrate Characteristics
Water Turbid after rain storm

Camera ID# BWA50298
US 39/5 DS 39/4 LB ____
Weather Overcast, cloudy

Comments/Remarks:
Clement Creek downstream of Queen Anne Tributary upstream of confluence with Mogul Stud Level 1 tributaries.

Flow 7.732

Scribe SG
Sampler SG
Flow LC

Emily Fedaeus 10/17/17

CC01S 7/11/17

Time 1545
Temp
pH
Cond
DO

Scribe SG
Sampler SG
Flow LC

Surface Water
TM PM Alk Stable Isotope

Water Quality Meter ID IC0101538
failed info not collected
TM Bottle Lot 0506I7-2B0J
PM " " N/A
Alk " " 0006S090

Water: Turbid after rain storm

Camera ID BWA50298
US 3912 DS 3911

Weath: Overcast, cloudy, cool

Queen Anne Tributary Upstream Confluence Clement Creek

Flow

Emily Fedaeus 10/17/17

Rite in the Rain

Time: 1640 Scribe LC
Temp Flow: LC
pH Sampler: SG
condo
DO
Surface water
TRM DM Alk/Anions Stable Isotopes

Water Quality meter failed, info not collected
TRM Sample bottle lot #052717-2BQJ
DM Sample bottle lot #052717-2BQJ
Alk/Anions bottle lot #00068090
water is clear substrate strained orangish red with some algae
weather is cloudy and windy
Flow 4" baski
Ha ~~4.48~~ 0.16 Hb 0.08
Camera BWAS0295
US 3910
DS 3909

10/17/17

Time 1700 Scribe: LC
Temp Sampler: SG
pH
Cond
DO
Surface water samples for
TRM, DM, Alk/Anions, Stable Isotopes
Water Quality ~~#~~ meter failed, info not collected
TRM Sample bottle Lot #052717-2BQJ
DM Sample bottle Lot #052717-2BQJ
Alk/Anions bottle Lot #00068090
Water is clear substrate is yellow orange and red with some algae
weather is cloudy and windy temps in the 50's
The flow is very braided and could not collect flow measurement
camera BWAS0298
US 0347
DS 0348

10/17/17

CC01F

7/11/17

Time 1730 Scribe LC
Temp Sampler SG
pH
cond
DO
surface water samples
TRM DM Alk/Anions
water Quality ~~pH~~ pH cond DO 7/11/17 meter failed
info not collected
TRM sample ~~bottle#~~ 052717-2BCRJ
DM bottle #
Alk/Anions bottle # 0001680990
water is clear with natural looking
in color substrate
Weather is cloudy and breezy with
temps in the 50's
Flow could not be measured due
to cascading water
Camera BWA502118
US 0349
DS 0350

Cindy Jackson 10/17/17

Rite in the Rain.

Bonita Peak
2016 ->

Rite in the Rain®
ALL-WEATHER
METRIC GRID
FIELD BOOK
№ 380F

R8-FLD-079

BONITA PEAK

R8-FLD-079

A07

Boat a Peak N. Fork Animus/Burrows

A07 Burrows, above N Fork Animas
7/11/2017
1110
Sampler: BCS Scribe BCS
DO : 2.54 mg/L
Temp : 10.4°C
Cond : 144.5 uS/cm
pH : 4.58 s.u.
ORP : 275.6 mV

TM : 050617-2BQJ
DM : 1186799
AlkMeans : 00068090
WQ Meter : YSI 5435
Flowtracker Unit #2
Flow taken by: N. DelHierro
Flow : 3.917 cfs
No photos taken. Ipad out of charge
Env: Breezy, overcast, mid 50's

Emily Gladeau 10/17/17

A05

7/11/2017

Time : 1210
Sampler : B. Sanchez
Scribe : B. Sanchez
YSI Meter # 5435
Flowtracker Unit #2 Flow taken by: N. DelHierro
DO : 7.94 mg/L
Temp : 9.1°C
pH : 6.84 s.u.
Cond : 66.3 uS/cm
ORP : 237.7 mV
DM : 1186799
TM : 050617-2BQJ
Alk Means : 00068090
Env: Overcast, breezy 50's
Photos taken on: Olympus 582852
U/S : 100-0123
D/S : 100-0124
Flow : 4.300 cfs

Emily Gladeau 10/17/17

Rite in the Rain

AO 7A 7/11/2017

1310
Sampler: B. Sanchez
Scribe: B. Sanchez
YSI METER #5435
Flowtracker #2
Flow taken by N. Del Hierro
TM: 0109 17 - 2BQJ
DM: 1186799
AIK/Animas: 00680 90
Temp 9.8 °C
DO 7.96 mg/L
pH 4.36 s.u
Cond: 165.0 us/cm
ORP 312.2 mV
Photos taken on Olympus 82852
u/s: 100-0125
d/s: 100-0126
Flow: 4.703 cfs
Env: mostly calm; cloudy low 60s

Emily Del Hierro 10/17/17

BG1B 7/11/2017

Time 1340
Sampler: B. Sanchez
Scribe: B Sanchez
WQ Meter YSI #5435
Flowtracker unit #2
TM: 0506 17 - 2BQJ
DM: 1185799
AIK/Animas: 00068090
DO: 1.40 mg/L
Temp: 9.7°C
pH: 4.24 s.u.
Cond 176.9 us/cm
ORP 345.4 mV
Photos taken on olympus 82852
u/s 100-0128
d/s 100-0127
Flow: ~~3.242 cfs~~ 3.242 cfs
Env: cloudy breezy mid 60s
Flow taken by N. Del Hierro

Emily Del Hierro 10/17/17

Rite in the Rain

4073 7/11/2017

Time: 1405
Sampler: B. Sanchez
Scribe: B Sanchez
YSI Meter 5455
Flow Tracker Unit #2
Flow Taken by N. DelHierro
Do 72.2 %Sat 7.65 mg/L
Temp 10.7°C
PH : 4.37
Cond 152.1 us/cm
ORP 368.6 mV
TM: 050617-2BQJ
DM: 1186799
AIK/Anions: 09068090
Photos # Taken on Olympus 82852
U/S 100-0129
D/S 100-0130
Flow: 2.757 cfs
Cloudy, Rain, Thunder, Lightning

10/17/17

Rite in the Rain

Bonita Peak
2014 →

Rite in the Rain®
ALL-WEATHER
METRIC GRID
FIELD BOOK
№ 380F

R8-FLD-076

BONITA PEAK

R8-FLD-076

M24B

42

Prerunoff A46

Bonita Peak 3/21/17

Scribe: Emily Yadeveia
Samplers: Benton Line (BL) Formation
Time 09:48
Temp 1.959°C 61.524 cfs
pH 7.19 pH
Condo 286.8 us/cm
DO 9.90 mg/L
Surface water grab samples were collected by BL for dik/anions, total recoverable metals, and dissolved metals. Water was pulled from center of channel using dip cup and drone. Water is mirky with no visible staining on substrate. Flow was measured by RM using ESAT Flowtracker Unit #5. Water quality parameters were measured using ESAT EXO1 from moving stream.
3 pictures on Gray ESAT Camera ~~B82852~~ (B82852)
upstream 100-0041
downstream 100-0042
Logbook 100-0043

TM Lot# - 021516-2BQL
DM Lot# - 052316-2BQJ
Alk/Anion Lot# - 021516-2BQL

Depot collected hose

10-17-17 Emily Yadeveia

43

A46 Pre-Runoff Bonita Peak

3/21/17

Time 11:00
Temp 2.718°C
pH 7.54 su.
Condo 265.4 us/cm
DO 9.73 mg/L
Surface Water grab Samples Collected by RM for Total Recoverable metals Dissolved Metals and Alk/Anion
Split Sample Collected by Formation
No Flow Collected - Bank width can not be identified as Banks are covered with Snow/Ice. Water is flowing clearly with no visible substrate staining. Water quality parameters were measured using ESAT EXO1 from current.
3 pictures taken on Gray ESAT camera 582852
1. upstream 100-044
2. downstream 100-045
3. Logbook 100-046

TM Lot# 021516-2BQL
DM Lot# - 052316-2BQJ
Alk/anions Lot# - 021516-2BQL

10-17-17 Emily Yadeveia

M24B

Prerunoff

44

A58 3/21/17 Bonita Peak

Scribe: Emily Yadaeus
Flow: Ryan Monahan
Sampler: EY
Time: 11:30
Temp: 2.555°C
pH: 7.72 pH
Condo: 230.5 µs/cm
DO: 9.77 mg/L
Surface water grab samples were collected by EY for TRM, DM and alk/anions. Water quality parameters were measured by EY using ESAT EXO1. Flow was measured by RM using ESAT flowtracker Unit #5. Water is flowing clearly with no visible staining on substrate below. Weather is sunny with temps in the low 40's and a slight breeze present.
3 photos taken with Gray ESAT Camera S82852.
① upstream 100-047
② downstream 100-048
③ logbook 100-049

TM Lot # - 021516-2BQL
DM Lot # - 052316-2BQJ
alk/anions Lot # - 021516-2BQL

10-17-17 Emily Yadaeus

Prerunoff

45

A55 3/21/17 Bonita Peak

Time 12:15
Temp 5.758°C
pH 7.53 pH
Condo 268.8 µs/cm
DO 9.02 mg/L
Scribe: Emily Yadaeus
Sampler: Ryan Monahan
Surface water grab samples were collected by RM and ~~sp~~ split with formation for TRM, DM, and alk/anions.
No Flow taken due to USGS station. Water appears to be flowing clearly with an orange precipitate visible on substrate below. Weather is partly cloudy, temps in the 40s, and a slight breeze is present. Water quality parameters were measured using ESAT YSI EXO1.
3 photos taken with Gray ESAT camera S82852.
① upstream 100-050
② downstream 100-051
③ logbook 100-052 EY 3/21/17

~~TM Lot # 031212-2K~~ 021516-2BQL
Lot # alkanions - 021516-2BQL
DM Lot # 031212-2K

10-17-17 Emily Yadaeus

Rita in the Rain

M24B

46

Prerunoff A66

Bonita Peak 3/21/17

Time 12:55
Temp 5.589
PH 7.42
Condo 285.8
DO 9.09
Resampled site due to mirky water conditions may being caused by snow plow pushing dirt into stream. Surface water grab samples collected by RM for total recoverable metals, disolved metals and alk/anions. Water quality parameters measured using YSI EXO1. Flow was previously measured today at 61.524 cfs. Weather is cloudy with a slight breeze and temps in the 40s.
(3) photos taken at site by Gray S82852
① Upstream 100-0053
② downstream 100-0054
3 logbook 100-0055

TM Lot # - 021516-2BQL
DM Lot # - 052316-2BQJ
alk/anions Lot # - 021516-2BQL

10-17-17 Emily Yadaeus

47

Prerunoff CC48

Bonita Peak 3/21/17

Scribe Emily Yadaeus
Time ~~2:10~~ 14:10 (ey) 3/21/17
Temp 7.060°C
pH 3.94 pH
Condo 641 µs/cm3
DO 8.74 mg/L
Sampler: Ryan Monahan
Surface water grab samples were collected, ~30 meters downstream of Gauging station for better access to creek, by RM for total recoverable metals, dissolved metals and alk/anions. Water quality parameters were measured using ESAT YSI ~~Insta~~ (ey) 3/21/17 EXO1.
No flow was taken due to USGS gauging station. Weather is partly cloudy with 5-10mph winds and temps in the 40s. 3 photos were taken with Gray ESAT S82852 camera. Flowing clear with orange substr-ate.
① upstream 100-0056
② downstream 100-0057
③ logbook 100-0060

TM Lot #- 021516-2BQL
DM Lot # - 052316-2BQJ
alk/anions Lot # - 021516-2BQL
stable isotopes were collected. (ey) 3/21/17
~~Dup02 was collected here.~~

10-17-17 Emily Yadaeus

M24B

Prerunoff
Bonita Peak

CC21
3/21/17

Time: 15:00
Temp: 4.1099°C
pH: 3.93 pH
Condo: 1049 µs/cm
DO: 8.77 mg/L

Surface water grab samples were collected by EY for total recoverable metal, dissolved metals, alk/anions and stable isotopes. Water quality parameters were measured using YSI EXO1 by EY. Flow was measured by RM using ESAT Flow Tracker unit #5. Dupe was collected here. Water appears to be flowing clearly with visible staining on the substrate below. Weather is cool with temps in the high 30s with a constant 5-10 mph winds with mostly cloudy skies.

3 photos were taken at site.
① upstream 100-0058
② downstream 100-0059
③ logbook 100-0061

TM Lot# - 021516-2BQL
DM Lot# - 041116-2BQJ
alk/an # - 021516-2BQL

10-17-17 Emily Fajardo

Prerunoff Bonita Peak

M27 - Mineral Cr

Time 10:55 Scribe L Richardson
Temp 1.159 °C Sampler L Richardson
pH 4.36 s.u. Flow N/A
Sp Condo 609 µS/cm
DO 9.97 mg/L
ORP N/A mV
Surface water (circled) Groundwater Other
PW Sediment Soil Macro
TM DM Alk/Anion Other
Water Quality Meter: XO UNIT #2
Flow Meter: N/A
Sample Bottle Lot: 1038073
Sample Bottle Lot: 1038073
Sample Bottle Lot: 021516-2BQL
Sample Bottle Lot:
Water/ Substrate Characteristics: water is slightly cloudy with tint of green; substrate heavily armored with red/orange precipitate
Camera ID# S82853
US 845 DS 844 & 843
Weather: 3" of fresh, wet snow overnight. Partly sunny @ site
Comments/Remarks:
Road plowed past site

10-17-17 Emily Fajardo

M24B

50 Pre runoff Bonita Peak

M14A - Mineral Cr. above Unnamed Gold Pond

Time 12:00 Scribe [redacted]
Temp 0.52 °C Sampler LR Lindsey
pH 5.84 s.u. Flow NA
Sp. Condo 420.4 µS/cm
DO 10.07 mg/L
ORP NA mV
(Surface Water) Groundwater Other
PW Sediment Soil Macro
(TM) DM Alk/Anion Other
Water Quality Meter ID# YSI Unit 2
Flow Tracker/Flume# NA
Sample Bottle Lot# 1038073
Sample Bottle Lot# 1038073
Sample Bottle Lot# 021516-2BQL
Sample Bottle Lot#
Water/ Substrate Characteristics
very clear water; light brown silt/organic/clay material in eddies, holes
Camera ID#
US DS LB
Weather Sunny w/breeze, 4-5 " fresh snow in 5/17 that came in overnight
Comments/Remarks:
site needs shoveling if flows are obtained for this sample
2 Vent

10-17-17 [redacted]

Preflush Bonita Peak

AFZ 4/18/17

51

Time 8:45 Scribe LC
Temp 7.373 °C Sampler KB
pH 5.98 s.u. Flow Gage
Sp. Condo 341.0 µS/cm
DO 8.46 mg/L
ORP mV
(Surface Water) Groundwater Other
PW Sediment Soil Macro
(TM) (DM) (Alk/Anion) Other
Water Quality Meter ID# YSI EXO Unit 1
Flow Tracker/Flume#
Sample Bottle Lot# 122115-2BQL
Sample Bottle Lot# 060117-2BQT
Sample Bottle Lot# 1193170
Sample Bottle Lot#
Water/ Substrate Characteristics water is turbid, cannot see substrate
Camera ID# SS2 SS2
US 0089 DS 0090 LB 0091
Weather partly cloudy, calm temps in the upper 20's
Comments/Remarks:

10-17-17 [redacted]

Rite in the Rain

M24B

52

Bonita Peak
Pre-flush Sampling
M34

4/18/17

Time 9:10
Temp 1.902 °C
pH 6.47 s.u.
Sp Condo 251.9 µS/cm
DO 9.73 mg/L
ORP mV

Scribe KB
Sampler LC
Flow Gage

(Surface Water) Groundwater Other
PW Sediment Soil Macro
(TM) (OM) (Alk/Anion) Other

Water Quality Meter I.D.: YSI EXO unit 1
Flow Tracker/Flu...:
Alk Sample Bottle Lot: 122115-28QL/021516-28QL
TR Sample Bottle Lot# 010917-28QS
DM Sample Bottle Lot# 1193170
Sample Bottle Lot#
Water/ Substrate Chara...ics Water ID
turbid, substrate stained orange

Camera ID# S82852
US 0092 DS 0093 LB 0094
Weather Sunny, temps in the 40s
Comments/Remarks: Dup 02 collected here

10-17-17 Emily Kalderon

Bonita Peak
Pre-flush Sampling M14A

53

4/18/17

Time: 11:00
Temp: 4.738°C
pH: 6.86 SU
Sp Condo: 219.2 µs/cm
DO: 9.24 mg/L
ORP: NA
Surface Water:
TM, DM, Alk/Anions
WQ Meter: EXO unit #1
Flow Tracker: 965842
Alk Bottle Lot: 021516-28QL
TM Bottle Lot: 010917-28QS
DM Bottle Lot: 1193170
Water/Substrate Characteristics: Water is slightly cloudy, up significantly from 2 weeks ago, substrate is clean
Camera ID#: S82852
US: 95 DS: 96 LB: 97
Weather: Sunny, beautiful, high whispy clouds, last precip was over a week ago, lots of wind recently

Scribe: K. Richardson
Samplers: K. Richardson
Flow: L. Christensen

10-17-17 Emily Kalderon

Rite in the Rain

M248

54

A68

4/18/17

Time: 1255
Temp: 7.751°C
pH: 7.03 s.u.
Cond 235.0 us/cm
DO 8.73 mg/L
Surface water:
TM, DM, Alk/Anions
WQ Meter: EXO unit 1
TM bottle Lot# 010917-2BQJ
DM bottle Lot# 1193170
Alk/Anion bottle Lot # 021516-2BQL
Water is clear and Flowing high/fast
Substrate looks natural
Weather is breezy and sunny temps in the 50's
Camera ID 5828852
us 0098 ds 0099LB 0100

Scribe LC
Sampler KB
Flow Gage

10-17-17 Emily Gradeless

55

CC48

4/18/17

Time: 1320
Temp: 8.093°C
pH: 3.92 su
Condo: 461.6 us/cm
DO: 8.61
Surface water: DM, TM, Alk + Anions, stable isotopes
WQ Meter: Exo unit 1
TM Bottle Lot #: 010917-2BQJ
DM Lot #: 1193170
Alk/Anion bottle Lot # 021516-2BQL
Water is turbid, flowing high / fast, substrate stained orange.
Weather: light breeze, sunny, temps in the 50s.
No flow gaging station.
Camera 5828852
upstream: 0101
downstream: 0102
logbook: 0103

Scribe: KB
Sampler: LC

10-17-17 Emily Gradeless

Rite in the Rain

M248

56

CC21 4/18/17

Time: 1410 scribe: Leslie Christner
Temp: 6.112°C Sampler: Leslie Christner
pH: 3.72 s.u. Flow: Kelsey Bartling
Condo: 719 us/cm
DO: 8.59 mg/L
Surface water: DM, TM, Alk/Anions, Stable Isotope
WQ Meter: EXO unit #1
TM bottle lot#: 101917ZBQJ
DM bottle lot#: 1193170
Alk/Anions lot#: 021516+ZBQL
Water is turbid and orange substrate stained orange
Weather is sunny and windy temps in the 50's
Camera ID 582552
US 0104 DS 0105 LB 0106
KB collected flow measurement on FlowTracker #6
Still a lot of snow on banks

10-17-17

57

A66 4/18/17

Time: 1520 Scribe: LC
Temp: 9.699°C Sampler: KB
pH: 6.79 s.u.
Condo: 231.4 us/cm
DO: 8.28
Surface water: DM, TM, Alk/Anions
WQ Meter: EXO unit 1
Flow measurements not collected due to high flows causing unsafe conditions
TM bottle lot #: 010917
DM bottle lot #: 1193170
Alk/Anions lot #: 021516
Water is clear with natural looking substrate
Weather is sunny with slight breeze
Temps in the 50's
Camera ID 582552
US 0107 DS 0108 LB 0109

10-17-17

Rite in the Rain

M243

58

A58 4/18/17

Time: 1600
Temp: 5.085 °C
pH: 7.35 su
condo: 173.9 us/cm
DO: 9.22 mg/L
Surface Water: DM, TM, Alk/Anions
WQ meter: YSI EXO Unit 1
TM bottle LOT #: 010917
DM LOT #: 1193170
Alk/Anions LOT #: 122115
Water is clear, substrate natural color
Weather: Windy, sunny, temps in the 50s
Camera: 582852
Upstream: 0110
Downstream: 0111
Logbook: 0112
Flow Tracker # 6, Flows by LC
Snow on banks

Scribe: KB
Sampler: KB

10:17:17 End of Videos

59

A56 4/18/17

Time: 1640
Temp: 7.612°C
pH: 7.185 s.u.
Condo: 218.6 us/cm
DO: 8.62 mg/L
Surface water: DM, TM, Alk/Anions
WQ meter: EXO unit 1
TM bottle lot# 010917
DM bottle lot# 1193170
Alk/Anions lot# 021516
Water is clear substrate is natural color
Weather is windy, sunny, temps in the ~~60s~~ 50s
Camera 58285 2
upstream: 0113
downstream: 0114
logbook: 0115
Flow measurements not collected due to high flows causing unsafe conditions

Scribe ZC
Sampler KB

10:17:17 End of Videos

Rite in the Rain

M243

A55 4/18/17

Time: 17:05 Sampler: LC
Temp: 6.829 °C Scribe: KB
pH: 7.12 su
Condo: 219.9 uS/cm
DO: 8.73 mg/L
Surface Water: DM, TM, Alk/Anions
WQ: EXO unit 1
TM Lot #: 010917
DM Lot #: 119317O
Alk/Anions Lot #: 122115
Water is slightly turbid, cannot see substrate.
Gaging Station, no flow. Flowing high.
Weather is sunny, light breeze, temps in the 50s.
Camera: SB2852
Upstream: 0116
Downstream: 0117
Logbook: 0118
Snow on Banks.

10-17-17 Emily Lafaderne

Rite in the Rain

Attachment 4
Water Quality Meter Calibration Logbook

Prerunoff

Bonita Peak 3/21/17 07:00

Calibration for sonde 16D101839

pH 4.0 cal value 4.0
Lot# 1604B13 sensor value 148.2 pH mV
Exp 4/2018 temp 19.1°C

pH 7.0 cal val 7.00
Lot# 1504B94 sensor val -32.3 pH mV
Exp 3/2017 temp 19.4°C
Slope 61.38240 mV/pH

Condo 1000 us/cm cal value 1000
Lot# 1601918 pre cal value 1003
Exp 12/ Cell constant 5.181280
temp 18.962

DO Cal value 100.0 DO%L
sensor value 62.1
ODO Gain 1.002951
Barometer 547.5 mm Hg

post cal Value
condo 1000 us/cm 979 us/cm
pH 7.0 6.53
pH 4.0 4.14

Emily Jadeau 10/17/17

PreRunoff

Bonita Peak 3/21/17 0700

Calibrated EXO Sonde

pH 4.0 Cal Value 4.00
Lot # 1604B13 Sensor 156.9 mV/pH
Exp # 4/18 temp 19.3°C

pH 7.0 Cal Value 7.00
Lot # 1504B94 Sesor Value -20.5 pH/mV
Exp 3/17 temp 19.4°C
Slope 60.266608

Condo 1000 us/cm cal value 1000
Lot # 1601918 pre cal value 1015
Exp 2/ Cell constant 5.154674
temp 19.383

DO Sensor Value 62.1
ODO gain 1.07
pressure 544.2 mm Hg

post cal Value
condo 1000 us/cm 988 us/cm
pH 7.0 6.56
pH 4.0 4.20

Emily Jadeau 10/17/17

Rain on the Rain

Calibration Logbook
YSI EXO B00220

Rite in the Rain®
ALL-WEATHER
METRIC GRID
FIELD BOOK
№ 380F

R8-FLD-086

12 20 Bonita Peak 4/4/17

calibrated by Nathan DeLuiemo

pH 4
Lot# 4501324
pre: 4.02
post 4.0
pHmV: 146.3

pH 7
Lot# 1504894
pre: 7.00
post 7.0
pHmV: -32.3
slope: 61.35

Condo 1000uS/cm
Lot# 140,918
pre: ~~408~~ 1012 ND 4/4/17
post: 1000
Kcell: 5.417
temp: 19.57°C

DO
Pre: 69.2
Post: 70.1
Opt gain: 1.085

exo handheld display 16H102715
marked "2".
Post calibration by N. DeLuiemo
530pm.

Condo 1000uS/cm 980 uS/cm

pH 7 7.12

pH 4 4.10

4/4/17

Bonita Peak 4/18/17

calibrated by L. Christner

pH 4.0
Lot# 1702B97

pH 7.0
Lot# TS1

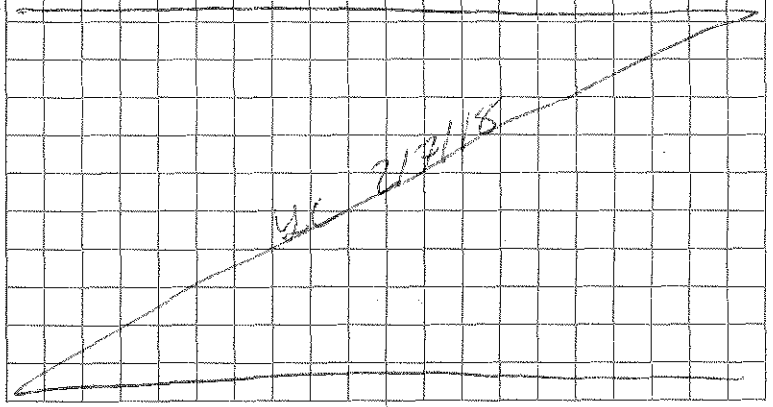
Condo 1000 us/cm
Lot# 1601918

DO

pre: 4.0
post: 4.0
pH mV: 146.7
pre: 6.99
post: ~~6.97~~ 7.00
pH mV: -28.7
Slope: 59.4003
pre: 997 us/cm
post: 1000 us/cm
Kcell: 5.183025
temp: 19.99°C
pre: 70.6%
post: 71.4%
DO gain: 1.07862
temp 20.4

Post cal by L. Christner @ 1745

Condo 1000 us/cm — 994 us/cm (not reading)
pH 7.0 — 7.15 s.u.
pH 4.0 — 4.12 s.u.



Rite in the Rain

12 26 Bonita Peak 5/2/17 06:30

Calibration by Emily Yadavacs

pH 4.0
Lot# 1702397
exp 1/2019
pH 7.0
Lot# TS1
exp 8/2017

Condo 1413 us/cm
Lot# 6CE3516
exp 5/2017

DO

post cal by EY @ 17:17

Condo
1413

pH 7.0

pH 4.0

pre 4.1
post 4.0
pHmV 59.40063
pre 7.02
post 7.00
pHmV -29.3
Slope 59.40063
pre 1404
post 1413
Kcell 5.21223
temp 19.851°C
pre
post 61.3
ODOcal in 1.0795
temp 19.5

1337

7.26

4.26

YC 2/7/18

30

Silverton, CO 1520 5/15/17

Calibrated by Ryan Monahan

pH 4.0	Pre	4.08 S.u
Lot#	Post	4.00 S.u
1702B97	pH mV	141.3 pH mV
Exp.	Temp.	21.2°C
1/2019		
pH 7.0	Pre	7.03 S.u
Lot#	Post	7.00 S.u
TSI	pH mV	-32.1 pH mV
Exp.	Temp	21.3°C
8/2017	Slope	58.63114 mV/pH
Condo	Pre	1405 us/cm
Lot#	Post	1413 us/cm
6GE356	K-cell	5.229376
Exp.	Temp.	21.802°C
5/2017		
DO	Sensor Value	60.6
	ODO gain	1.708090
	Pressure	536.7 mmHg
	temp	19.6°C

post calibration

Condo	1413 us/cm	1353 us/cm
pH 7.0		7.02
pH 4.0		4.17

yc 2/7/18

Silverton, Co 5/16/17

31

Calibration by Emily Yadaceus

pH 4.0	pre	3.97
Lot #	post	4.00
1702B97	pH mV	142.1 mV
EXP	temp	18.4°C
1/2019		
pH 7.0	pre	7.01
Lot #	post	7.02
TSI	pH mV	-31.6 mV
EXP	temp	18.6°C
8/2017	Slope	59.23628
Cond.0 1413	pre	1415
Lot #	post	1413
6GE356	K-cell	5.220274
EXP	temp	18.522°C
5/2017		
DO	sensor value	59.2
	ODO gain	1.075844
	pressure	536.8 mmHg
	temp	19.8°C

Post(ca)	Stimulus	Reading
Condo	1413 us/cm	1382 us/cm
pH	7.0	7.26
pH	4.0	4.08

yc 2/7/18

Rite in the Rain

32 Bonita Peak Prerunoff 5/17/17

Calibrated by Emily Yadaeus 9:30am

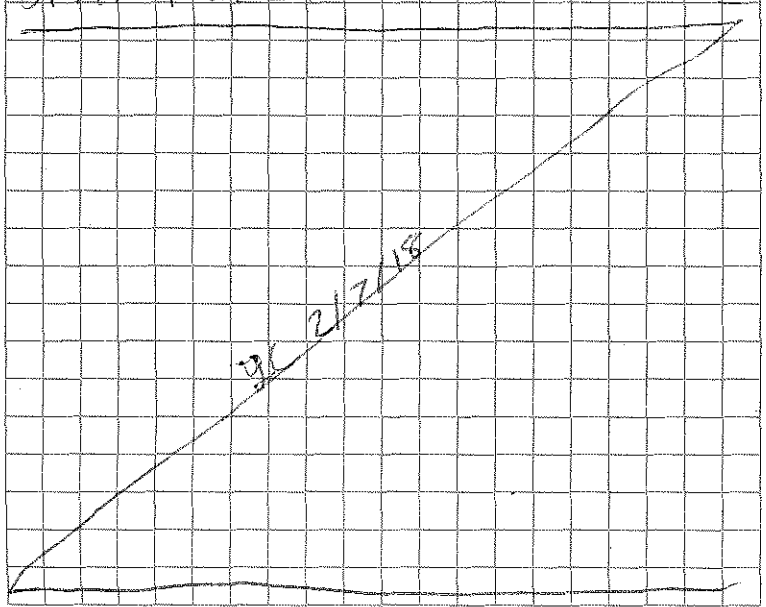
pH 4.0
Lot# 1702B97
EXP 1/2019

pre
post
pH mV
+temp

pH 7.0
Lot# TSI
EXP 5/17

pre
post
pH mV
temp
slope

Would not accept pH 7.0 in range. Tried to calibrate slowly fluide more and still failed.



34 Silverton, CO

Bonita Peak 7/11/16

pH 4.0
Lot #
1702B97

pre 3.93
post 4.00
pH mV 142.2

pH 7.0
Lot #
7GE282

pre 7.03
post 7.00
pH mV -33.1

Condo
Lot #
2703597

pre 991 us/cm
post 1000 us/cm
K cell 5.210791
temp 20.083

DO

~~Pre 94.0%~~ YC 7/11/16
Pre 71.8%
Post 7.00 mg/L
ODO Gain 1.135161

Post calibration by Emily

Yadacus

Condo 1000 us/cm 990 us/cm

pH 7.0 7.07

pH 4.0 4.04

YC 2/2/16

35 Silverton, CO

Bonita Peak 7/12/16

Parameters

pH 7.0
Lot #
1702B97

pre 6.99
post 7.00
pH mV -32.8 mV

pH 4.0
Lot #
LG7E281

pre 4.00
post 4.00
pH mV 139.8

Condo
1000 us/cm

pre 982 us/cm
post 1000 us/cm
temp 14.617°C

DO

Barometer 545.4 mmHg
Sal 0.03
temp 14.2°C
71.8%

post calibration by Emily

Yadacus

Condo 1000 us/cm 1014 us/cm

pH 7.0 7.12

pH 4.0 4.01

YC 2/2/16

Rite in the Rain

Bonita Peak 9/26/17

Calibration by N. DelHierro

pH 7
Lot # 1706 J48
exp June 2019

pre	6.99
post	7.03
pHmV	-90.6

pH 4
Lot # 1702 B97
exp Jan 2019

pre	3.95
post	4.00
pHmV	137.3
Temp	15.7°C
slope	60.418

Condo
Lot # 2703597
exp Feb 2019

pre	986
post	1000
K cell	5.15
Temp	15.4°C

DO

pre	71.6
post	71.3
ODO gain	1.14

Post cal by LC @ 1944

	reading
pH 7.0	7.10 µs/cm
pH 4.0	4.11 µs/cm
Condo 1000 µs/cm	998 µs/cm

This post Cal is for EXO unit 1

LC 2/7/18

Bonita Peak 9/27/17

Calibration by N. DelHierro

pH 7
Lot # 1706 J48
exp June 2019

pre	7.09
post	7.00
pHmV	+43.9

pH 4
Lot # 1702 B97
exp Jan 2019

pre	4.05
post	4.00
pHmV	136.6
Temp	18.9
slope	61.314

Condo
Lot # 2703597
exp Feb 2019

pre	998
post	1000
K cell	5.166862
Temp	18.781

DO

pre	71.5
post	71.5
ODO gain	1.135469

Post Cal by N. DelHierro

pH 7	7.06
pH 4	4.02
Condo 1000 µS/cm	993

LC 2/7/18

Rita in the Rain

Calibration Log Book

Rite in the Rain®

ALL-WEATHER

METRIC GRID

FIELD BOOK

№ 380F

YSI

EXO 1

B00219

R8-FLD-085

Bonita Peak 4/4/17

unit: 16110274

calibrated by Leslie Christner 7:00

pH 4
Lot# 4501324
pre: 3.93
post: 4.00
pH mV: 160 pH mV

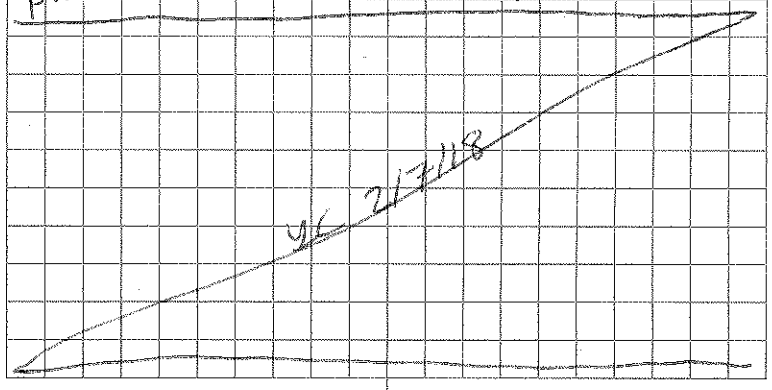
pH 7
Lot# 1504394
pre: 6.99
post: 7.00
pH mV: -20.1 pH mV
Slope: 61.47997 mV/pH

Cond 1000 us/cm
Lot# 150913
pre: 1007 us/cm
post: 1000 us/cm
Cell const: 5.121113

DO
pre: 69.7%
Post: 70.5%
~~DO~~ 4/4/17
ODO gain: 1.075478

Post Cal: Leslie Christner @ 1725
Cond 1000
Final 985 us/cm

pH 7.0
7.10 s.u.
pH 4.0
4.09 s.u.



Rite in the Rain

Bonita Peak 4/18/17

Unit: 1

Calibrated by Kelsey Bartling @ 7:10

pH 4.0 pre:
post: 4.00
pH mv: 161.1 mV

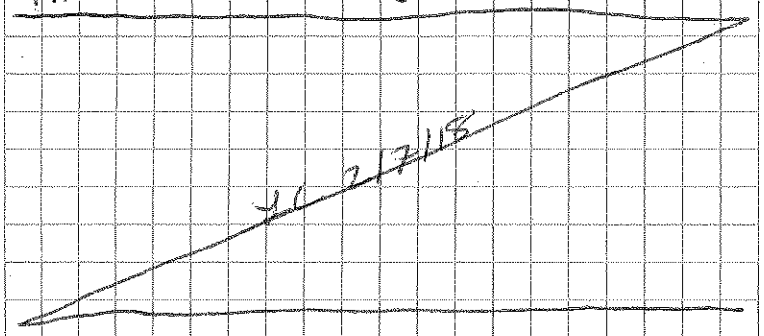
pH 7.0 pre: 6.99 su
post: 7.00 su
pH mv: -19.4 mV
Slope: 101.33820 mV/pH

condo 1000 us/cm pre: 1002 SPC us/cm
post: 1000 SPC us/cm
cell const: ~~BM~~ 5.111134
WTW

DO pre: 71.7 DO %
post: 71.8 DO %
ODO sat: 1.071513

Post CAL: Kelsey Bartling 17:45

	Final
Condo 1000 us/cm	968 us/cm
pH 7.0	7.11
pH 4.0	4.10



30 Bonita Peak Prerunoff

Calibration

pH 4.0
Lot #
1702B97
Exp
1/19

pre 3.99
post 4.0
pHmV 157.6
temp 17.3°C

pH 7.0
lot #
TSI
Exp
5/17

pre 7.00
post 7.00
pHmV -16.0
slope 59.4092

Cond
1413
lot #
1001918
Exp 5/17

pre 1373
post 1413
kcell 5.338578
temp 17.517°C

DO

sensor 56.2
~~pre~~
~~post~~
1074391 ODO gain
pressure
537.4

2/7/18

Silverton, Co
Bonita Peak

Calibrated by Emily Yeskiewicz
@ 7:40 @ ATV8

pH 4
Lot#
1702B97

pH 7
Lot#
7GE282

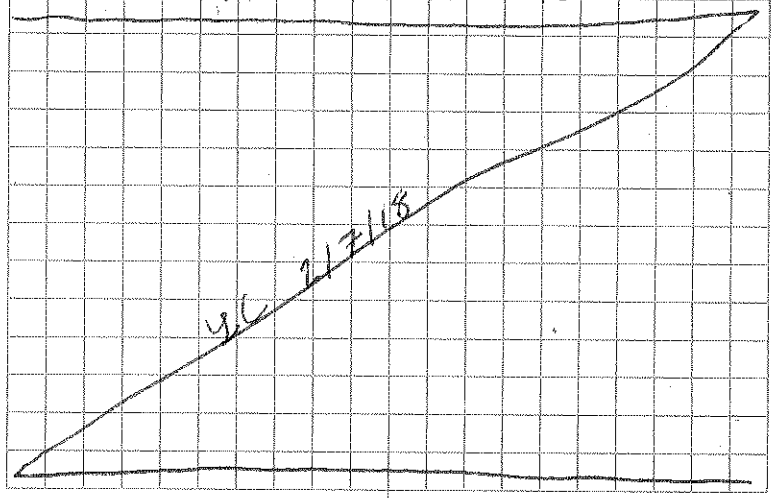
Condc
2703597

~~DO~~
DO

pre 4.02
post 4.00
pHmV 155.4 mV
pre 7.03 slope
post 7.00
pHmV -19.2 mV
pre 972
post 1000
cell constant 5.143953
temp 20.432

post 72.1%
pre 73.3%
ODOGain 1.058671

Could not post cal
would not connect to sonde



Rite in the Rain

EX02

Bonita Peak 07/12/17 Final JB 7/12/17

Parameters	Pre	Post	
pH 4.0	4.00	4.00	139.8 mV
Lot # 1702B97			
pH 7.0	6.99	7.00	-32.8 mV
Lot# LG1E251			
Condo 1000 µs/cm	~~1952~~ 1952 µs/cm @ 7/12/17		1000 µs/cm 14.617°C
DO 9.54 mg/L	14.2°C	71.8%	

Calibrated @ 7:30 by E. Tadeucs

Transcribed into other book.
EJ 7/12/17

EJ 7/12/17

Silverton, CO
Bonita Peak

9/26/17

Calibrated by Leslie Christner @ 7:10

pH 7.0
pre: 7.12 s.u
post: 7.00 s.u.
pHmV: -28.8

pH 4.0
pre: 4.03
post: 4.00
pHmV: 150.1
Slope: 61.54502

Condo 1000 µs/cm
pre: 1001
post: 1000
cell constant: 5.17552
temp: 15.473°C

DO
Pre: 72.7%
Post: 71.7%
ODOgain: 1.07245

Post Cal for EXO Unit 2

	reading
Condo 1000 µs/cm	973 µs/cm
pH 7.0	7.11 s.u
pH 4.0	4.06

2/7/18 yl

Bonita Peak

9/27/17

Calibration by N. DelHierro

pH 7
Lot# 1706548
exp June 2019

pre	7.01
post	7.03
pHmV	-29.2

pH 4
Lot# 1702B97
exp Jan 2019

pre	4.03
post	4.00
pHmV	150.6
Temp	18.6
Slope	61.282

Condo
Lot# 2703597
exp Feb 2019

pre	1001
post	1000
K Cell	5.170012
Temp	18.412

DO

pre	71.9%
post	71.9%
DO gain	1.069854

Post Cal by J. Bernard @ 15:52 9/27/17

	Readings
Condo 1000 µS/cm	993 µS/cm
pH 7.0	7.08
pH 4.0	4.07

yl 2/7/18

Return to Rain

Calibrated by N. DelHierro

pH 7
Lot # 1706J48
exp. June 2019

pre	7.00
post	7.00
pHmV	-29.3

pH 4
Lot # 1702B97
exp. Jan 2019

pre	4.00
post	4.00
pHmV	149.7
temp	17.5
slope	61.23319

Condo
Lot # 2703597
exp Feb 2019

pre	1003
post	1000
K cell	5.153212
temp	16.07

DO

pre	72.1
post	72.0
ODO gain	1.071698

Post Calibration by K. Barkley @ 1600
condo 1000 µs/cm 990 µs/cm
pH 7 7.05
pH 4 4.05

Rite in the Rain

Rental
Water Quality Meter
Logbook

Rite in the Rain®
ALL-WEATHER
METRIC GRID
FIELD BOOK
№ 380F

RB-FLD-087

6/6/17

Bonita Peak Rental unit 4085

Calibrated by Kelsey Barling @ 6:20

	Initial	Final
7 KB 6/6/17 pH 4.0	6.99	7.00
Lot # 76E282		
pH 4.0	3.88	4.00
Lot # 1702697		
Condo (1000 us/cm)	785 us/cm	1000 us/cm
Lot # 2703597		
DO	6.64 %	

Post Cal Parameter	Reading
Condo 1000us/cm	1023 us/cm
pH 7.0 s.u	7.12 s.u
pH 4.0	4.11 s.u

Post Calibration done by Ryan Monahan

End of Deployment 10/17/17

Rite in the Rain

6/6/17

Bonita Peak Rental Unit 3338

Calibrated by Kelsey Bartling @ 6:20

	Initial	Final
pH 7.0	7.12	7.00
LOT # 76E282		
pH 4.0	4.03	4.00
LOT # 1702B97		
cond (1000 µS/cm)	1016 µS/cm	1000 µS/cm
LOT # 2703597		
DO	75.9 %	

Post calibration by Kelsey Bartling @ 6:50 pm
for unit 3338

cond (1000 µS/cm)	997 µS/cm
pH 7	6.96 SU
pH 4	4.03

Emily Jadlocco 10/17/17

6/7/17

Bonita Peak Rental Unit 3338

Calibrated by Kelsey Bartling @ 7:00

	Initial	Final
pH 4.0	3.96 SU	4.00 SU
LOT # 1702B97		
pH 7.0	6.95 SU	7.00 SU
LOT # 76E282		
cond (1000 µS/cm)	997 µS/cm	1000 µS/cm
LOT # 2703597		
DO	75.1 %	

Post calibration by Kelsey Bartling @ 6:10 pm
for unit 3338

cond (1000 µS/cm)	993 µS/cm
pH 7	7.02 SU
pH 4	4.04

Emily Jadlocco 10/17/17

Rite in the Rain

6/7/17

Bonita Peak rental unit 14K10574 (4507)

Calibrated by Leslie Chrostner @ 7:05

		Initial	Final
pH 4.0 7.0 6/7/17			
Lot 7GE282		7.07	7.00
pH 4.0			
Lot# 1702897		3.97	4.00
		pH mV 169.4	
Cond 1000 us/cm		1.019 ~~mS~~/cm	1.000
Lot# ~~207~~ 2703597 6/6/17			
DO		56.6%	72.1%

Post calibration by Kelsey Bartling 6:10 pm

unit 4507	
Condo (1000 us/cm)	992 us/cm
pH 7	7.08
pH 4	4.05

Leslie Chrostner 10/17/17

6/8/17

Bonita Peak Rental unit 5435

Calibrated by Kelsey Bartling @ 8:40

		Initial	Final
pH 4.0	4.03	~~3.99~~ su	4.00 su
		6/8/17	
pH 7.0			
LOT 7GE282		7.04 su	7.00 su
Condo 1000 us/cm			
LOT 2703597		1002 us/cm	1000 us/cm
DO		80.3%	

Post cal by Kelsey Bartling @ 9:10

unit 5435	
condo (1000 us/cm)	984 us/cm
pH 7	6.97 su
pH 4	3.99 su

Leslie Chrostner 10/17/17

Rite in the Rain

28 Bonita Peak 7/11/17
YSI 5435

Calibrated by Leslie Christner

	Pre	Final
pH 7.0	7.12	7.00
lot #7GE282	mV	
pH 4.0	4.12	4.00
lot # 1702897	mV 159.5	
cond c	1003 us/cm	1000 us/cm
1000 us/cm	20.4°C	
Lot# 2703597		
DO	75.0%	71.9%

Post calibration by Emily Yadlacus.

Condo 1000 us/cm	983 us/cm
pH 7.0	7.07
pH 4.0	4.02

Emily Yadlacus 10/17/17

29 Bonita Peak 7/11/17
YSI 4440

Calibrated by Leslie Christner

	Pre	Post-
pH 7.0	7.01	7.00
Lot # 7GE282		
pH 4.0	4.00	4.00
Lot# 1702897		
Cond 1000 us/cm	1015 us/cm	1000 us/cm
Lot# 2703597		
DO	71.2%	72.0%

Post calibration by Emily Yadlacus.

Condo 1000 us/cm	983 avg 6/12/17 ~~984~~ us/cm
pH 7.0	7.02
pH 4.0	4.02

Emily Yadlacus 10/17/17

Rite in the Rain

Silverton, CO | 7/11/17

4143 Bonita Peak

pH 4.0 Lot #
pre 4.06
post 4.00
pH mV 167.0 mV

pH 7.0 Lot #
pre 7.07
post 7.00
pH mV -16.4 mV

Condo Lot #
pre 995
post 1000
Kcell
Temp 20.5°C

DO
Barometer 541.5
Salinity 0.03
DO% 58.3
temp 27.2°C

post calibration by Emily:

Condo 1000 us/cm 969 us/cm

pH 7.0 7.03

pH 4.0 4.01

Emily Jadacew 10/17/17

Bonita Peak 7/12/17

4143 YSI

calibrated by N. DelHierro

pH 4
Lot # 1702897
pre ~~6.99~~ 3.96 NP 7/12/17
post 4.00
pHmV 166.2

pH 7
Lot # 762252
pre 6.99
post 7.00
pHmV

Condo
Lot # 2705597
pre 999
post 1000
Kcell
temp 14.5°C

DO
pre 60.8 %
post 65.2 %
Barometer 547.5
Sal 0.01

Post calibration by K. Bardsley
condo (1000 u/cm) 1887 u/cm
pH 7 7.05
pH 4 4.05
NOTE: conductivity did not hold calibration throughout the day *

~~Post calibration~~ ~~READING~~
~~condo (1000 u/cm)~~ ~~997 u/cm~~
~~pH 7~~
~~pH 4~~

KD
7/12/17

Emily Jadacew 10/17/17

Rite in the Rain

32

Bonita Peak 7/12/17

3665 YSI

Calibrated by N. Del Hierro

pH 4
Lot# 1702897
pre 3.97
post 4.00
pHmV 137.4

pH 7
Lot# 7GE282
pre 7.09
post 7.00
pHmV

Condo
Lot# 2703597
pre 997
post 1000
Kcell
temp 14.5°C

DO
pre 74.6%
post
Barometer 547.5
Sal 0.03

Post calibration by E. Yadrevich @ 1805
condo (1000 µS/cm) 997 µS/cm
pH 7 6.96
pH 4 4.04

Erik Yadrevich 10/17/17

33

Bonita Peak 7/13/17

3665

Calibrated by L. Christner
pH 7.0

7/13/17

Rite in the Rain

9/26/17

Silverton Co Rental unit 4464

pH 7.0
~~Lot#1701~~
Lot#1706J48

Pre 7.21
Post 7.0
pH mV

pH 4.0
Lot#1702B97

Pre 4.08
Post 4.0
pH mV 144.1

Condo
1000uS/cm
Lot#27035597

Pre 1017
Post 1000
~~Cell Constant~~

DO

Pressure 543.7
Pre 74.6%
Post 75.0%

PostCal

	Reading
Condo 1000uS/cm	1011
pH 7.0	7.0
pH 4.0	4.04

Emily Jadaeus 10/17/17

~~Silverton Co~~ Rental unit 2035

9/26/17
calibraked by K Bartling @ 7:10

pH 7.0
Lot# 1706J48

Pre 7.12
Post 7.00
pH mV = -5.8

pH 4.0
Lot# 1702B97

Pre 3.97
Post 4.00
pH mV 164.8

condo
1000 u/cm
Lot# 27035597

Pre 1008 u/cm
Post 1000 u/cm

DO %

Pre: 64.3 %
Post: 71.5 %

post calibration by Emily Jadaeus.

Condo 1000uS/cm	996uS/cm
pH 7.0	7.11
pH 4.0	4.10

Emily Jadaeus 10/17/17

Rite in the Rain

46 Bonita Peak
Silverton, CO

9/27/17
rental 4464

Calibrated by LC @ 8:55
pH 7.0
Lot#1706J48
pre: 6.91
post: 7.00
pH mV: -23.3

pH 4.0
Lot#1702B97
pre: 3.95
post: 4.00
pH mV: 177.9 mV

Conductivity
Lot#2703597
pre: 1002 us/cm
post: 1000 us/cm
temp: 18.2°C

DO%
pre: 77.2%
post: 71.8%

Post Cal — Reading

pH 7.0 — 7.14

pH 4.0 — 4.11

Condo 1000 us/cm — 1001 us/cm

Emily Jadeau 10/17/17

Bonita Peak
Silverton Co

9/27/17
Rental unit 2085

Calibrated by RM 9/27/17

pH 7.0
Lot#1706J48
pre 7.06
post 7.0

pH 4.0
Lot#1702B97
pre 3.94
post 4.0

Condo 1000
Lot#2703597
pre 997
post 1000

DO
pre 70%
7.11 mg/L

post 71.8%
7.31 mg/L

Post Calibration by J. Bernard @ 17:42 4/27/17
JB 9/27/17 Repeat Readings
Condo 1000 us/cm — 998 us/cm
pH 7.0 — 7.06
pH 4.0 — 4.07

Emily Jadeau 10/17/17

Bonita Peak 9/28/17
Rental 4231

Calibrated by N. DelHierro

pH 7
Lot # 1706 J48
exp June 2019

pre	7.01
post	7.00
pHmV	

pH 4
Lot # 1702 B97
exp Jan 2019

pre	4.00
post	4.01
pHmV	166.1
Temp	17.5
slope	N/A

Cond0
Lot # 2703597
exp Feb 2019

pre	1002
post	1001
K cell	N/A
Temp	16.7

DO

pre	72.3%
post	72.0%
ODO gain	N/A

post cal by N. DelHierro

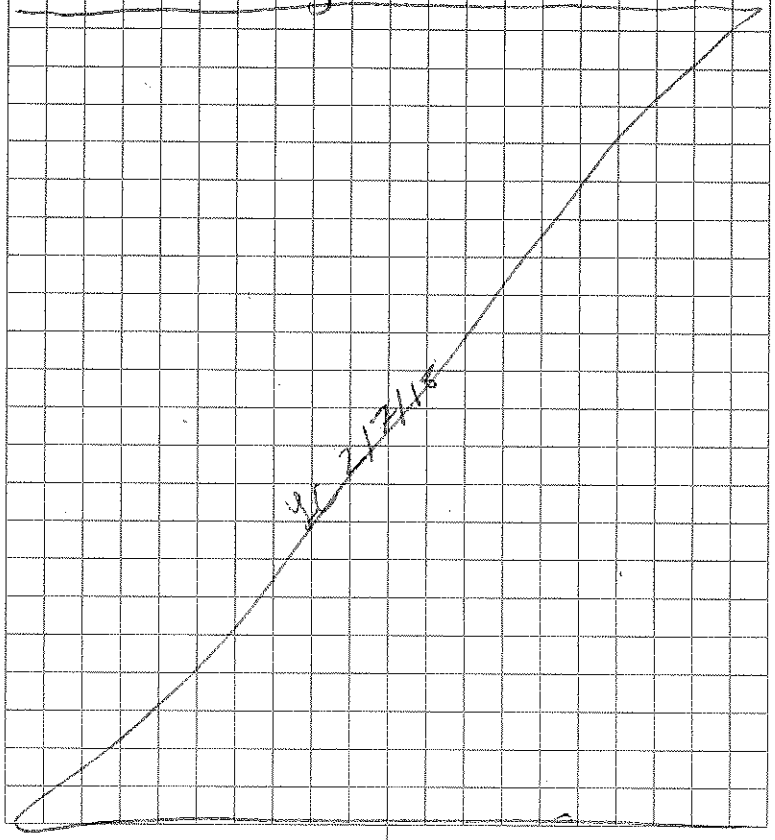
Cond0 1000 µS/cm	993
pH 7	7.04
pH 4	4.05

10/17/17

Bonita Peak Rental 11/7/17
YSI 17F1043346

	Pre Cal	Post Cal
pH 4	4.10	4.00
Cond	1020 µS/cm	1022 µS/cm
DO	77.5%	100.7%
pH 7	7.11	7.03

calibration by Ian Bowen



Rite in the Rain

Rite in the Rain®

ALL-WEATHER

METRIC GRID

FIELD BOOK

№ 380F

Rental
Water Quality Meter
Logbook

R8-FLD-088

2

6/6/17

Bonita Peak

YSI 4075

Calibrated by Leslie Christner @ 6:20

	Initial	Final
pH 7.0		
Lot# 7GE282	7.13	7.00
pH 4.0		
Lot# 1702B97	3.99	4.00
	pHmV 134.3mV	
Cond 1000us/cm	1019us/cm	1000us/cm
Lot# 2703597		
DO	73.6%	72%

Post Calibration by LC @ 1900

Cond 1000us/cm	979us/cm
pH 7.0	7.05 s.u.
pH 4.0	3.96 s.u.

Emily Lyadeurs 10/4/17

3

6/6/17

Bonita Peak

YSI 5435

Calibrated by Leslie Christner @ 6:20

	Initial	Final
pH 7.0	7.01	7.00
Lot# 7GE282	pHmV -6.3	
pH 4.0	3.88	4.00
Lot# 1702B97	pHmV 168.8mV	
cond 1000 us/cm	980us/cm	1000us/cm
Lot# 2703597		
DO	73.7%	72.2%

Post Calibration by EJ @ 6:50

PH 4.0	
Lot# 7GE282	4.08 us/cm
PH 7.0	
Lot# 1702B97	7.06 us/cm
Cond 1000 us/cm	
Lot# 2703597	1019 us/cm

Emily Lyadeurs 6/6/17

Rite in the Rain

6/7/17

Bonita Peak YSI 5435

	Initial	Final
Calibrated by EY @ 700		
pH 4.0	4.03	4.00
Lot # 7EG1282	167.4 pH mV	
pH 7.0 ↕	7.05	7.00
Lot # 1702IB97	-8.9 mV pH	
Condo 1000 us/cm	985	1000
Lot # 2703597		
DO%	107%	106%

Post cal by Kelsey Bartling 6:05 pm

Condo 1000 us/cm	1001 us/cm
pH 7	7.03
pH 4	4.05

Emily Lyndeen 10/17/17

6/7/17

Bonita Peak 4085

Parameters	Initial	Final
pH 4.0	3.95	4.0
lot # 7EG1282	pH mV	160.8
pH 7.0 ↕	6.99	7.0
Lot # 1702IB97	pH mV	-10.5
Condo 1000 us/cm	1013 us/cm	1000 us/cm
Lot # 2703597		
DO	74.0%	72.7%

Post Cal by Kelsey Bartling @ 6:10 pm

condo 1000 us/cm	1007 us/cm
pH 7	7.10
pH 4	4.12

Emily Lyndeen 10/17/17

Rite in the Rain

12 14 Bonita Peak 7/11/17

Parameters	pre	post
pH 4	3.94	4.00
Lot# 1702B97	156.9mV	
pH 7	7.04	7.08
Lot# 765282	-20.3mV	
Condo	999uS/cm	1000uS/cm
Lot# 2703597		
DO	63.5%	72.8%

post pH 4 5838
Calibrated by N. DeHerrera 8am

Cindy Jadaeus 10/17/17

15 Bonita Peak, 07/12/17 YSI 4535 5435 JB 7/12/17

Parameters	Pre	Final	
pH 4.0	3.96	4.00	158.7mV
Lot# 1702B97	6.99	7.00	
pH 7.0	-13.3mV		
Lot# LGE281	13.4°C		
Cond 1000 uS/cm	990uS/cm	100uS/cm	14.6°C
Lot# 2703597			
DO 546.8mmHg	74.8	13.4°C	0.3ppt

Calibrated @ 07:15 by E. Yadaeus
Post calibration @ 17:40 by K. Bartling
Condo (1000 uS/cm) 957 uS/cm
pH 7 7.08
pH 4 4.05

Bonita Peak YSI 4440

Parameters	Pre	Final	
pH 4.0	3.98	4.00	165.7mV
Lot# 1702B97			
pH 7.0	7.05	7.00	
Lot# LGE281	-6.1mV		
	13.3°C		
Condo 1000uS/cm	978uS/cm	1000uS/cm	14.7°C
Lot# 2703597			
DO 546.9mmHg	0.03 SAL ppt	78.8 DO%	13.2°C

Calibrated @ 07:15 by E. Yadaeus
Post calibration @ 1745 by K. Bartling
condo (1000 uS/cm) 996 uS/cm
pH 7 7.03
pH 4 4.04

Cindy Jadaeus 10/17/17

Rite in the Rain

16 07/12/17

Bonita Peak

Parameters	Pre	Post
pH 4.0		
Lot # 1702B97		
pH 7.0		
Lot # 761E282		
Condo 1400 µS/cm		
Lot # 2703547		
DO		
Calibrated @	by	

Bonita Peak 07/12/17

Parameters

pH 4.0
Lot # 1702B97
pH 7.0
Lot # 761E282

Condo 1000 µs/cm
Lot # 2703597

DO

Calibrated @ by

Bonita Peak 9/26/17 17

unit 1958

Calibration by N. DelHierro

pH 7	pre	7.03
Lot # 1706J48	post	7.00
exp June 2019	pHmV	1.8
pH 4	pre	4.00
Lot # 1702B97	post	4.00
exp Jan 2019	pHmV	170.6
	Temp	16.09
	Slope	NA
Condo		
Lot # 2703597	pre	1005
exp Feb 2019	post	1000
	K cell	NA
	Temp	15.81

DO %: Pre: 65.4%
Post: 71.7%

Post by J. Bernard @ 19:20

		Reading
Condo	1000 µS/cm	1001 µs/cm
pH	7.0	7.11
pH	4.0	4.01

10/17/17

Return the Rain

Bonita Peak 9/27/17

Rental 4231

Calibrated by Emily Yadaeus

@ 6:42

pH 7.0 — 6.75 / 7.00

Lot# 1706J48 — -10.7 mV

exp June 2019 — 19.2°C

pH 4.0 — ~~3.96~~ 4.00

Lot# 1702B97 — 166.7 mV

exp Jan 2019

Condo — 998

1000 us/cm — 18°C

2703597 — 1000

DO

~~pre: 71.1%~~ EC 9/27/17

~~post: 72.2%~~

pre: 105.9%

post: 71.8%

Post Cal by J Bernard @ 18:33 9/27/17

		Readings
Condo	1000 us/cm	1005 us/cm
pH	7.0	7.04
pH	4.0	4.08

Emily Yadaeus 10/17/17

Bonita Peak 9/27/17

Rental 1958

Calibrated by Emily Yadaeus

@ 6:42

pH 7.0 — pre 7.08 / post 7.00

Lot# 1706J48

June 2019

exp

pH 4.0 — 3.88 / 4.00

Lot# 1702B97

Jan ~~2018~~ 2019

exp

Condo — 1008

1000 us/cm — 1000

Lot# 2703597

EC 9/27/17

exp — pre: ~~72.1%~~ 83.2%

DO — post: 72.0%

Post Calibration by J. Bernard @ 18:06 9/27/17

		Reading
Condo	1000 us/cm	998 us/cm
pH	7.0	7.01
pH	4.0	4.03

Emily Yadaeus 10/17/17

Bonita Peak

Rental 2085 — 9/28/17

Calibrated by Emily Yadaeus

pH 7.0 — pre 7.09 — post 7.00
Lot # 1706J48

pH 4.0 — pre 3.96 — post 4.00
Lot # 1702B97

Condo 1000 us/cm — pre 998 us/cm — post 1000 us/cm
Lot # 2703597

446.9%
71.8%

Post calibration by K. Barney @ 1615

	Reading
Condo 1000 us/cm	997 us/cm
pH 7	7.05
pH 4	4.05

Emily Yadaeus 10/17/17

Bonita Peak

Rental 1958 — 9/28/17

Calibrated by Emily Yadaeus

pH 7.0 — pre 7.02 — post 7.00
Lot # 1706J48

pH 4.0 — pre 4.01 — post 4.00
Lot # 1702B97

Condo 1000 us/cm — pre: 1005 us/cm — post 1000 us/cm
Lot # 2703597

DO% — pre: 66.8% — post: 72.1%

Emily Yadaeus 10/17/17

Rite in the Rain

22 Bonita Peak 9/26/17

Calibration by Emily Yadacus

Rental Unit 5110

pH 7.0 pre 7.15
170635 48 post 7.00
pHmV -34.3mV

pH 4.0 pre 3.96
170B97 post 4.00
pHmV 142.9mV

Condo
1000 us/cm pre 1018
2703597 post 1000
temp 15.3°C

DO% pre 53.4%
Sal 0.03
barometer 543.9
temp 15.6°

Post calibration by Emily Yadacus

	Final Reading
Condo 1000 us/cm	991 us/cm
pH 7.0	7.10 su
pH 4.0	3.92 su

Emily Yadacus 10/17/17

Bonita Peak 9/26/17 23

Calibration by Emily Yadacus

Rental Unit 4231

pH 7.0 pre 7.11
170635 48 post 7.00
pHmV -13.1mV

pH 4.0 pre 3.98
170B97 post 4.00
pHmV 163.4mV

Condo
1000 us/cm pre 1015
2703597 post 1000
temp 15.4°C

DO% pre 49.4%
Sal 0.03
barometer 543.5
temp 16.3°

post calibration by Leslie.

	Final Reading
Condo 1000 us/cm	989 us/cm
pH 7.0	6.80 su
pH 4.0	3.68 su.

Emily Yadacus 10/17/17

Rite in the Rain

9/28/17

Rental Unit 5110

Calibrated by 9/27/17 by K. Kelsey Barthing @ 7:00 am.

pH 7.0	pre	6.94
Lot #	post	7.00
1706J48	pHmV	-31.1 mV
pH 4.0	pre	3.74
Lot #	post	4.00
1702B97	pHmV	149.1 mV
Condo (1000 us/cm)	pre	993 us/cm
Lot #	post	1000 us/cm
2703597		
DO%	pre:	89.5%
	post:	71.8%

Post Calibration by Johnathen Bernard @ 17:10 on 9/27/17

Condo	994 us/cm
1000 us/cm	
pH 7.0	7.01
pH 4.0	4.11

Emily Jadams 10/17/17

Rental Unit 5110 9/28/17

Calibrated by K. Barthing @ 7:00

pH 7.0	pre	7.02
Lot #	post	7.00
1706J48	pHmV	-32.5 mV
pH 4.0	pre	4.01
Lot #	post	4.00
1702B97	pHmV	147.5 mV
Condo	pre	1000
1000 us/cm	post	1000
Lot #	temp	16.1°C
2703597		
DO%	pre	65.2%
	post	72.0%

Post Calibration by N. DeHaven @ 16:15 on 9/28/17

Condo	993 us/cm
1000 us/cm	
pH 7.0	6.97
pH 4.0	4.08

Emily Jadams 10/17/17

Rite in the Rain