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SAMPLING ACTIVITIES REPORT
2015 Sampling Events

Bonita Peak Mining District Site
San Juan County, Colorado
Final, Revison 1

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Sampling Activities Report – Bonita Peak Mining District Site

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Acronym and Abbreviation List

ABA	Acid-Base Accounting
BLM	Bureau of Land Management
˚C	Degrees Celsius
CDPHE	Colorado Department of Public Health and Environment
cfs	Cubic Feet per Second
CLP	Contract Laboratory Program
CPW	Colorado Parks and Wildlife
CRQL	Contract Required Quantitation Limit
DO	Dissolved Oxygen
DRMS	Division of Reclamation, Mining and Safety
EPA	United States Environmental Protection Agency
ESAT	Environmental Services Assistance Team
Esri	Environmental Systems Research Institute
GIS	Geographical Informational Systems
GPS	Global Positioning System
HDPE	High Density Polyethylene
MDL	Method Detection Limit
mL	Milliliter
RPD	Relative Percent Difference
SAP/QAPP	Sampling Analysis Plan/Quality Assurance Project Plan
SAR	Sampling Activities Report
SOP	Standard Operating Procedure
SPLP	Synthetic Precipitation Leaching Procedure
s.u.	Standard Units
µS/cm	MicroSiemens per Centimeter
µg/L	Micrograms per Liter
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

1.0 INTRODUCTION

This document serves as the Sampling Activities Report (SAR) for fieldwork conducted in the Bonita Peak Mining District Site at select locations along the Animas River, Cement Creek, Mineral Creek, and tributaries in San Juan County and La Plata County, Colorado. This SAR summarizes the 2015 field activities, media collection, data and any deviations from the *Final Revision 0, Sampling Analysis Plan/Quality Assurance Project Plan Upper Animas Mining District - 2015 Sampling Events* (SAP/QAPP) (EPA, 2015). This includes the high-flow sampling event conducted on June 9-10, 2015; the August 4-6, 2015 soil sampling event; and the low-flow sampling event conducted on September 28-October 1, 2015. 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), and the United States Geological Survey (USGS) sampled select locations from near the headwaters of the Animas River downstream to Bakers Bridge including several tributaries and fluvial deposits within the floodplain, and waste rock at individual mine sites as part of a Remedial Investigation.

The following were sampled or assessed during the investigation: surface water, sediment, stream flow measurements, in-situ water quality, pore water, and soil/waste rock. A sampling location map was developed using Trimble Global Positioning System (GPS) and Environmental Systems Research Institute (ESRI) Arc Geographical Informational Systems (GIS) software.

This summary report includes the following sections: 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 1870's. 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 1970's 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: the Old Hundred Mine, Buffalo Boy, Green Mountain, Pride of the West, 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 Upper Animas and Eureka Gulch. Some of the mines located up Eu0reka 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 tons 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 1920's.

EPA, along with the ESAT, BLM, USFWS, DRMS, CPW, and 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.

1.2 Objective

Three sampling events were conducted in June, August, and September 2015 in order 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), temperature, and GPS data;
- Stream flows – using SonTek^{TM} flow meters, flumes, and USGS gaging stations;
- Surface water samples from the river, streams, and adit discharges to measure dissolved and total recoverable metals, alkalinity, and anions;

- Sediment samples – total recoverable metals and mercury;
- Pore water samples – total recoverable metals and dissolved metals;
- Soil samples – total recoverable metals, mercury, Synthetic Precipitation Leaching Procedure (SPLP), and Acid-Base Accounting (ABA).

2.0 SAMPLING ACTIVITIES AND PROCEDURES

Field activities conducted in the Bonita Peak Mining District Site are detailed in the *Final Revision 0, Sampling and Analysis Plan/Quality Assurance Project Plan Upper Animas Mining District – 2015 Sampling Events* (EPA, 2015) and included collection of the following data:

June 9-10, 2015

- Real-time field water quality measurements
- Stream flow data
- Surface water sampling
- Photo documentation
- GPS

August 4-6, 2015

- Soil/waste rock sampling
- Real-time field water quality measurements
- Surface water sampling
- Pore water sampling
- Sediment sampling
- Photo documentation
- GPS

September 22-26, 2015

- Real-time field water quality measurements
- Stream flow data
- Surface water sampling
- Sediment sampling
- Pore water sampling
- Photo documentation
- GPS

2.1 Sample Handling and Identification

Samples were collected, placed in containers, processed, and preserved in accordance with Standard Operating Procedure (SOP) FLD-01.00 *Surface Water Sampling* (EPA, 2012), SOP FLD-05.00 *Soil Sampling* (EPA, 2012), SOP FLD-06.00 *Shallow Stream Sediment Sampling* (EPA, 2012), SOP FLD-10.00 *Pore Water Sampling* (EPA, 2012), SOP FLD-03.00 *Sample Preservation* (EPA, 2012), and as outlined in the *Final Revision 0, Sampling Analysis Plan/Quality Assurance Project Plan Upper Animas Mining*

District - 2015 Sampling Events (EPA, 2015). Sample tags, labels, and chain of custody records were completed in accordance with SOP FLD-11.00 *Sample Custody and Labeling* (EPA, 2012).

Surface water, sediment, and pore water samples collected during the events were identified by the stream name followed by the station number. For example, locations in Cement Creek were identified CCXX, with the station number corresponding to its location along the stream. Likewise, locations along Animas River were identified as AX. Soil samples were identified by the name of the tailings area, either TP for test pit of FP for flood plain, followed by a location number and the depth if applicable. Duplicate samples were indicated with the letters "dup" immediately following the sampling location identification number. Sampling locations are shown in Figures 2.1-1 through 2.1-10.

At several sampling locations during all three events, split samples of surface water, porewater, sediment, and soil/waste rock were collected by Formation for Sunnyside Gold Corporation. Results are not presented in this report.

2.2 Surface Water Sampling

Surface water samples were collected during the events 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 SOP FLD-01.00 *Surface Water Sampling* (EPA, 2012). Prior to sample collection, the 250 mL and 500mL 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. Surface water samples for dissolved metals were then filtered using Nalgene 0.45 micron filters. Samples were preserved with nitric acid (for total and dissolved metals) or placed on ice (for anions and alkalinity). After preservation, 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 method 200.7 and 200.8), hardness (EPA method 2340B calculated from calcium and magnesium results), alkalinity (EPA method 310.1), and anions (EPA method 300.0). Analytical results for dissolved metals, total recoverable metals, alkalinity, and anions are included in Tables 2.2-1 through 2.2-7. Analytical results for surface water for are also shown in Figures 2.2-1 through 2.2-11 for dissolved metals and total recoverable metals.

Water quality measurements included pH, temperature, DO, and specific conductance were collected at each sampling location using multi-parameter meters in accordance with SOP FLD-09.00 *Water Quality Measurements with the In-Situ® Multi-Parameter Meter* (EPA, 2012). These measurements were recorded in project-dedicated field notebooks and scanned copies are provided in Appendix A. Water quality measurements and flow measurements are included in Tables 2.2-8 through 2.2-10

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). Flume measurements were recorded in the field notebook and scanned copies of the field notebook are included in Appendix A. Stream discharge measurements are also shown in Figures 2.2-1 through 2.2-11. Flow Tracker® summary sheets are included in Appendix B.

2.4 Sediment Sampling

Sediment samples were collected during the August and September events for total recoverable metals and mercury analysis. Collection of sediment followed protocols outlined in SOP FLD-06.00 *Shallow Stream Sediment Sampling* (EPA, 2012), and as described in the *Final Revision 0, Sampling and Analysis Plan/Quality Assurance Project Plan Upper Animas Mining District – 2015 Sampling Events* (EPA, 2015). Samples were collected using a station dedicated Teflon™ scoop and placed in a 4 oz glass jar. Sediment samples were preserved by placing them in a cooler on ice after collection and during transportation 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 2.4-1 and 2.4-2 and shown in Figures 2.4-1 through 2.4-3.

2.5 Pore Water Sampling

Pore water samples were collected during the August and September events by using PushPoint® samplers from the hyporheic zone of the streambed in accordance with, SOP FLD-10.00 *Pore Water Sampling* (EPA, 2012). The PushPoint® samplers were purged until the pore water ran clear or until sufficient volume had been purged through the sampling device. The station dedicated syringe used to extract the pore water was rinsed three times prior to sample collection with water from the sample location. The pore water was pulled into the syringe and then placed in a 250 mL HDPE sample bottle for total recoverable metals analysis and a Nalgene 0.45 micron filter bottle for dissolved metals analysis. Analytical results for pore water are included in Tables 2.5-1 through 2.5-3.

2.6 Soil Sampling

Soil samples were collected during the August event from mine waste deposits, tailings piles and select locations in the Animas River floodplain areas for total recoverable metals, mercury, SPLP analysis, and modified Sobek Method for ABA. Soil samples were collected using disposable Teflon™ scoops and placed in either plastic sealable gallon bags or 4 oz glass jars.

Samples from waste deposits and mine waste piles were collected using either a 30-point composite or 5-point composite technique at a depth of 0-6 inches for each location. In

the event that the area was not large enough for a 30-point composite, the 5-point composite was used. Samples were collected in a plastic sealable gallon bag, homogenized, and sieved using a No. 10 sieve with 2 millimeter opening size.

The floodplain of the Animas River was divided into polygons in the area from Kittimack Tailings to the Eureka campground. Prior to sampling, each polygon was divided into 30 sublocations and each sublocation was marked with a pin flag. A 30-point composite grid was determined for each sub location before sampling occurred and samplers navigated to each sublocation using a GPS. Samples were collected at a depth of 0-6 inches, placed in a plastic sealable gallon bag, homogenized, and sieved using a No. 10 sieve with 2 millimeter opening size.

Test pits were also sampled along the floodplain of the Animas River. A backhoe was used to dig down past 30 inches. A disposable Teflon™ scoop was then used to reveal soil untouched by the backhoe. Three samples were collected from each test pit at depths 0-6 inches, 6-18 inches, and 18-30 inches, placed in a plastic sealable gallon bag labeled with the appropriate depth, homogenized, and sieved using a No. 10 sieve with 2 millimeter opening size.

All soil samples were preserved by placing them in a cooler on ice after collection and during transportation to the Region 8 EPA Laboratory for total recoverable metals, mercury, SPLP, and ABA analysis. Total Recoverable metals, mercury, and SPLP analytical results are included in Tables 2.6-1 and 2.6-2. ABA analytical results are included in Attachment 1. Analytical results for fluvial deposition, soil and waste rock can also be found in Figures 2.6-1 through 2.6-5 for SPLP and total recoverable metals.

2.7 Sample Documentation

At the time of sampling, a site-dedicated field logbook was used to record information for each sampling location including: sampling date, time, sample location ID, weather conditions, personnel, sampling plan deviations, real-time stream measurements (pH, DO, specific conductance, and temperature), and other pertinent observations. Samples submitted for laboratory analysis were logged into a chain of custody form in the field and upon receipt at the Region 8 EPA laboratory, logged into the electronic chain of custody system through Scribe. All analytical data and field water quality measurements collected during the event were also entered 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) involved in field sampling activities were either disposable or station dedicated, therefore, decontamination of this equipment was not necessary.

3.2 Field Instrument Calibration

Field instrumentation requiring calibration or routine function checks included the water quality meters and the Flow Tracker® flow meters, respectively. Water quality meters were calibrated daily for pH, conductivity, and DO. Conductivity and pH probes were calibrated with established pH buffers and conductivity standards. The DO probe was calibrated using the saturated water approach. At the completion of each sampling day, calibration checks were performed using pH buffers and conductivity standards in order to check for accuracy. All calibration procedures were recorded in the instruments calibration notebook (Appendix E) and were done so in accordance with SOP FLD-09.00 *Water Quality Measurements with the In-Situ® Multi-Parameter Meter* (EPA, 2012). 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 in order to determine sampling precision and correlation of analytical results between a sample and the duplicate. According to the EPA Contract Laboratory Program (CLP) *National Functional Guidelines for Inorganic Data Review* (EPA, 2015), a control limit of twenty percent for water and thirty-five percent for sediment for the Relative Percent Difference (RPD) shall be used for 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 and dissolved metals (contaminants of potential concern) for duplicate sediment and water samples. RPD values were calculated using the following equation:

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

RPD results are included in the results tables

3.4 Blanks

Field blanks were collected in order to evaluate the potential of sample contamination during collection, transport to the laboratory, and while at the laboratory. Blanks were processed in the field using E-pure de-ionized water. Field blanks were collected daily and treated the same as a sample, including collection and preservation. Blank samples were analyzed for total recoverable metals, dissolved metals, alkalinity, and anions. All blank results were either below, or just above the method detection limit (MDL) for each analyte indicating no substantial contamination issue associated with the collection, transportation, or laboratory analysis process.

4.0 FIELD CHANGES

Field changes to the SAP/QAPP include the following:

June 9-10, 2015

- The following samples were collected as opportunistic samples and were not listed in the June 2015 SAP sampling table: CC03B, CC03D, CC19, CC14, CC03, CC07, CC18B, CC18, CC17, CC21, CC48, and A29A.
- Due to a significant storm event on June 10, 2015, sample locations A72, M34, A68 and A55 were sampled both before (June 9th) and after (June 10th) the storm. To distinguish pre- and post- rain event samples, the post-rain event samples were labeled with "Storm Opp" following the location ID.
- Most flow measurements on the Animas River were not collected due to unsafe conditions created by high flows, see Table 2.2-8 for stations where a flow measurement was not collected.
- Samples at location A33 were not collected due to property access being denied.
- The following sampling locations were inaccessible due to snow accumulation:

A07	A07A	A07B	A07C
BG1A	A01	A02A	A02B
A03	A04	A06	DM26
DM25	A23A	A23	A21
A21A	A22	A19	A19A
A18	A17A	CG3	A17B
DM28	A16	CG6	CG5
CG4	DM34	A38	A39
MC0	DM33	EG3A	DM32
EG5	ARD1	EG2A	EG4
EG1	EG3	DM69	EG2

August 4-6, 2015

- A SAP modification was made to include surface water and pore water collection at twenty-seven locations. Due to rocky substrate conditions, pore water was only collected at two locations because the Push Point pore water samplers could not penetrate the stream bed.
- Surface water location FQ-FP1 was dry and samples were not collected.
- Locations A41A and KT-FP04 are located in the same spot. The surface water and pore water samples used the KT-FP04 nomenclature to correspond with soil samples collected in the area. The A41A nomenclature was used for the sediment sample.
- It was determined that sample location BE1 was too large for one representative composite sample so this location was split into three new sample locations named BE-01A, BE1-B, and BE-01C.
- Location AE32b was collected per the request of the land owner. The original AE32 location was renamed AE32a.
- Location BE3 was under snow and the sample was not collected.

- The waste rock pile for location AE27 could not be found, therefore samples were not collected.
- During event planning, access was denied to the Kittimack Tailing locations and sample locations were not identified in the final SAP/QAPP. However, access was granted the week of the sampling event and composite soil samples and test pit soil samples were collected. Sampling occurred in what became known as KT-03 and 28 sub samples were collected within the KT-03 polygon.
- Kittimack Mill test pits were too deep to enter safely; therefore, samples were collected by reaching down from the top of the pit. Only one composite sample was collected from each pit. These test pits were initially labeled “KT-TP downstream sandy area” and “TP (upstream) "The Beach"” and are now labeled KT03-TP01 and KT03-TP02 respectively.
- All soil samples were sieved using a No. 10 sieve with 2 millimeter opening size at the EPA Region 8 Lab. Some samples were air-dried over night to reduce the moisture content to make sieving easier.

September 29-October 1, 2015

- The following locations were dry and no surface water samples were collected at: DM26, DM25, A19, A18, A17A, CG12A, A25, DM34, A38, DM33, DM69, and A41C.
- The following locations could not be located or no longer exist: CC06B, A02B, and CG5.
- The following opportunistic locations were sampled: CC20, CC21_Post Lime, CC18_Post Lime, and CG3.
- Flow measurements were not collected at some locations because of very low flows. See Table 2.2-10 for sites where flow measurements were not collected.

5.0 REFERENCES

Documents:

Church, S.E., von Guerard, Paul, and Finger, S.E., eds., 2007, *Integrated investigations of environmental effects of historical mining in the Animas River watershed, San Juan County, Colorado:* U.S. Geological Survey Professional Paper 1651, 1,096 p.

EPA, 2015. *Final Revision 0, Sampling Analysis Plan/Quality Assurance Project Plan Upper Animas Mining District – 2015 Sampling Event.* Upper Animas Mining District, Gladstone, San Juan County, Colorado.

EPA, 2004. *National Functional Guidelines for Inorganic Data Review,* EPA Contract Laboratory Program (EPA 540-R-10-011).

Herron, J., Stover, B., Krabacher, P., 2000, *Reclamation Feasibility Report Animas River Below Eureka*, Colorado Division of Minerals and Geology.

Standard Operating Procedures:

EPA 2012, Region 8 – *Surface Water Sampling*. SOP FLD-01.00

EPA 2012, Region 8 – *Sample Preservation*. SOP FLD-03.00

EPA 2012, Region 8 – *Soil Sampling.* SOP FLD-05.00

EPA 2012, Region 8 – *Shallow Stream Sediment Sampling*. SOP FLD-06.00

EPA 2012, Region 8 – *Flow Tracker Operation*. SOP FLD-08.00

EPA 2012, Region 8 – *Water Quality Measurements with the In-Situ® Multi-Parameter Meter*. SOP FLD-09.00

EPA 2012, Region 8 – *Pore Water Sampling.* SOP FLD-10.00

EPA 2012, Region 8 – *Sample Custody and Labeling*. SOP FLD-11.00

Tables

Table 2.2-1 Bonita Peak Mining District Site June 2015
Surface Water Dissolved Metal Analytical Results

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
*A02	Dissolved Metals	769	<0.500U	<0.500U	11.7	<2.00U	14.6	14500	<1.00U	0.998	8.31	46	<100U	7.55	2490	598	<1.00U	2.90	551J	<1.00U	<0.500U	790J	<0.500U	<2.00U	2050
*A05	Dissolved Metals	91.0	<0.500U	<0.500U	6.90J	<2.00U	1.84	8990	<1.00U	0.154J	2.08	27	<100U	0.752	1080	77.2	<1.00U	<0.500U	368J	<1.00U	<0.500U	489J	<0.500U	<2.00U	268
*A08	Dissolved Metals	277	<0.500U	<0.500U	8.43J	<2.00U	3.49	8290	<1.00U	1.05	7.23	25	<100U	1.67	1110	517	<1.00U	1.22	400J	<1.00U	<0.500U	480J	<0.500U	<2.00U	597
A09	Dissolved Metals	<20.0U	<0.500U	<0.500U	7.61J	<2.00U	2.79	7750	<1.00U	0.658	6.50	24	<100U	0.842	1030	353	<1.00U	0.920J	397J	<1.00U	<0.500U	451J	<0.500U	<2.00U	548
A10	Dissolved Metals	247	<0.500U	<0.500U	8.68J	<2.00U	3.02	10400	<1.00U	0.792	16.2	32	<100U	2.81	1460	2080	<1.00U	1.83	407J	<1.00U	<0.500U	501J	<0.500U	<2.00U	969
A11	Dissolved Metals	247	<0.500U	<0.500U	8.07J	<2.00U	2.31	10300	<1.00U	0.679	9.72	31	<100U	2.02	1330	1940	<1.00U	1.56	357J	<1.00U	<0.500U	442J	<0.500U	<2.00U	797
A11A	Dissolved Metals	3160	<0.500U	6.38	22.6	<2.00U	193	4830	<1.00U	27.8	2510	18	12200	947	1390	1900	3.10	8.34	513J	3.71	<0.500U	307J	<0.500U	<2.00U	51200
A12	Dissolved Metals	107	<0.500U	1.34J	9.01J	<2.00U	4.69	78800	<1.00U	8.05	4.70	215	2210	0.591	4550	8190	<1.00U	2.64	1420	<1.00U	<0.500U	2110	<0.500U	<2.00U	3830
A13	Dissolved Metals	305	<0.500U	<0.500U	7.82J	<2.00U	2.26	10000	<1.00U	0.658	11.5	30	<100U	2.82	1260	1980	<1.00U	1.58	302J	<1.00U	<0.500U	391J	<0.500U	<2.00U	802
A14	Dissolved Metals	93.8	<0.500U	<0.500U	8.43J	<2.00U	2.87	10500	<1.00U	0.710	9.48	31	<100U	1.61	1240	1440	<1.00U	1.41	338J	<1.00U	<0.500U	415J	<0.500U	<2.00U	850
*A15	Dissolved Metals	1380	<0.500U	<0.500U	7.63J	2.50J	3.55	11500	<1.00U	1.30	10.0	37	<100U	1.82	2070	4630	<1.00U	3.03	433J	<1.00U	<0.500U	583J	<0.500U	<2.00U	1200
*A20	Dissolved Metals	75.3	<0.500U	<0.500U	10.2	<2.00U	1.83	11300	<1.00U	0.380	17.6	34	<100U	3.98	1290	843	<1.00U	1.54	352J	<1.00U	<0.500U	412J	<0.500U	<2.00U	719
A24	Dissolved Metals	24.8J	<0.500U	<0.500U	5.80J	<2.00U	<0.100U	14800	<1.00U	<0.100U	0.866J	41	<100U	<0.100U	1100	4.67J	<1.00U	<0.500U	365J	<1.00U	<0.500U	370J	<0.500U	<2.00U	<10.0U
A25	Dissolved Metals	<20.0U	<0.500U	<0.500U	7.19J	<2.00U	<0.100U	20500	<1.00U	<0.100U	1.69	57	<100U	<0.100U	1300	<2.00U	<1.00U	<0.500U	380J	<1.00U	<0.500U	343J	<0.500U	<2.00U	<10.0U
A26	Dissolved Metals	25.4J	<0.500U	<0.500U	13.0	<2.00U	0.130J	13900	<1.00U	0.101J	1.37	40	<100U	<0.100U	1200	101	<1.00U	<0.500U	301J	<1.00U	<0.500U	480J	<0.500U	<2.00U	34.7
A27	Dissolved Metals	75.2	<0.500U	<0.500U	6.59J	<2.00U	4.53	18900	<1.00U	<0.100U	34.0	52	<100U	8.10	1170	107	<1.00U	<0.500U	345J	<1.00U	<0.500U	577J	<0.500U	<2.00U	832
A28	Dissolved Metals	43.5J	<0.500U	<0.500U	7.81J	<2.00U	1.78	12900	<1.00U	0.371	6.88	37	<100U	0.763	1220	721	<1.00U	0.826J	373J	<1.00U	<0.500U	443J	<0.500U	<2.00U	480
A29	Dissolved Metals	428	<2.50U	<2.50U	<25.0U	<2.00U	14.1D	129000	<5.00U	3.95D	2320D	341	2470	<0.500U	4800	3120	<5.00U	<2.50U	1150	<5.00U	<2.50U	3710	<2.50U	<10.0U	4010
A29A	Dissolved Metals	31.5J	<2.50U	<2.50U	<25.0U	<2.00U	13.5D	126000	<5.00U	3.86D	712D	335	<100U	<0.500U	4870	3040	<5.00U	<2.50U	1140	<5.00U	<2.50U	3770	<2.50U	<10.0U	3830
A30	Dissolved Metals	44.7J	<0.500U	<0.500U	7.78J	<2.00U	1.85	13100	<1.00U	0.390	13.4	38	<100U	0.918	1210	715	<1.00U	0.778J	359J	<1.00U	<0.500U	450J	<0.500U	<2.00U	496
A31	Dissolved Metals	40.4J	<0.500U	<0.500U	7.39J	<2.00U	1.80	12800	<1.00U	0.327	10.6	37	<100U	1.02	1180	617	<1.00U	<0.500U	349J	<1.00U	<0.500U	453J	<0.500U	<2.00U	471
A32	Dissolved Metals	<20.0U	<0.500U	<0.500U	<5.00U	<2.00U	<0.100U	19200	<1.00U	<0.100U	1.18	52	<100U	<0.100U	1020	2.18J	1.03	<0.500U	328J	<1.00U	<0.500U	533J	<0.500U	<2.00U	<10.0U
A34	Dissolved Metals	91.5	<0.500U	<0.500U	9.98J	<2.00U	0.959	19000	<1.00U	0.330	10.3	53	<100U	0.592	1270	353	<1.00U	<0.500U	279J	<1.00U	<0.500U	650J	<0.500U	<2.00U	374
A35	Dissolved Metals	54.3	<0.500U	<0.500U	7.66J	<2.00U	1.51	14100	<1.00U	0.312	10.1	40	<100U	0.814	1160	527	<1.00U	<0.500U	317J	<1.00U	<0.500U	495J	<0.500U	<2.00U	428
*A36	Dissolved Metals	83.3	<0.500U	<0.500U	8.40J	<2.00U	0.121J	18600	<1.00U	0.355	3.17	52	<100U	<0.100U	1210	31.8	<1.00U	<0.500U	<250U	<1.00U	<0.500U	664J	<0.500U	<2.00U	27.4
*A37	Dissolved Metals	110	<0.500U	<0.500U	15.9	<2.00U	2.27	18100	<1.00U	0.371	14.1	51	<100U	1.16	1310	883	<1.00U	0.898J	276J	<1.00U	<0.500U	547J	<0.500U	<2.00U	794
A40	Dissolved Metals	53.1	<0.500U	<0.500U	8.56J	<2.00U	1.70	17900	<1.00U	0.282	9.35	50	<100U	1.32	1360	507	<1.00U	0.666J	358J	<1.00U	<0.500U	623J	<0.500U	<2.00U	527
A40A	Dissolved Metals	49.5J	<0.500U	<0.500U	8.02J	<2.00U	1.63	15900	<1.00U	0.275	8.46	45	<100U	0.816	1260	498	<1.00U	0.563J	323J	<1.00U	<0.500U	534J	<0.500U	<2.00U	459
A41A	Dissolved Metals	45.4J	<0.500U	<0.500U	18.7	<2.00U	0.932	17600	<1.00U	0.177J	6.50	50	<100U	0.829	1340	268	<1.00U	<0.500U	385J	<1.00U	<0.500U	848J	<0.500U	<2.00U	287
A41C	Dissolved Metals	51.6	<0.500U	<0.500U	10.3	<2.00U	2.13	31100	<1.00U	0.161J	23.8	86	<100U	26.9	1980	625	<1.00U	<0.500U	461J	<1.00U	<0.500U	1560	<0.500U	<2.00U	703
A42	Dissolved Metals	34.9J	<0.500U	<0.500U	28.8	<2.00U	<0.100U	17000	<1.00U	<0.100U	1.46	48	<100U	<0.100U	1310	5.03	<1.00U	<0.500U	420J	<1.00U	<0.500U	1130	<0.500U	<2.00U	<10.0U
A43	Dissolved Metals	44.2J	<0.500U	<0.500U	26.3	<2.00U	<0.100U	15100	<1.00U	<0.100U	1.06	43	<100U	<0.100U	1360	19.4	<1.00U	<0.500U	385J	<1.00U	<0.500U	911J	<0.500U	<2.00U	<10.0U
A45	Dissolved Metals	38.8J	<0.500U	<0.500U	13.4	<2.00U	1.18	19500	<1.00U	0.179J	7.28	55	<100U	0.776	1480	293	<1.00U	<0.500U	405J	<1.00U	<0.500U	848J	<0.500U	<2.00U	355
A47	Dissolved Metals	<20.0U	<0.500U	<0.500U	<5.00U	<2.00U	<0.100U	18900	<1.00U	<0.100U	1.44	51	<100U	0.112J	865	<2.00U	<1.00U	<0.500U	268J	<1.00U	<0.500U	908J	<0.500U	<2.00U	<10.0U
A48	Dissolved Metals	20.3J	<0.500U	<0.500U	33.8	<2.00U	0.145J	18000	<1.00U	<0.100U	1.54	51	<100U	0.404	1350	3.27J	<1.00U	<0.500U	378J	<1.00U	<0.500U	994J	<0.500U	<2.00U	31.5
*A54	Dissolved Metals	90.0	<0.500U	<0.500U	10.4	<2.00U	3.30	87900	<1.00U	12.0	8.47	247	4760	<0.100U	6620	1290	<1.00U	4.30	860J	<1.00U	<0.500U	3750	<0.500U	<2.00U	950
A55	Dissolved Metals	40.8J	<0.500U	<0.500U	15.2	<2.00U	1.14	19600	<1.00U	0.183J	6.49	55	<100U	0.746	1450	284	<1.00U	<0.500U	374J	<1.00U	<0.500U	864J	<0.500U	<2.00U	322
*A55 Storm Opp	Dissolved Metals	43.2J	<0.500U	<0.500U	13.2	<2.00U	0.526	14500	<1.00U	0.112J	5.16	41	<100U	0.896	1130	122	<1.00U	<0.500U	432J	<1.00U	<0.500U	676J	<0.500U	<2.00U	170
A56	Dissolved Metals	38.5J	<0.500U	<0.500U	17.8	<2.00U	0.981	19700	<1.00U	0.157J	6.06	55	<100U	0.728	1450	246	<1.00U	<0.500U	363J	<1.00U	<0.500U	892J	<0.500U	<2.00U	301
A58	Dissolved Metals	<20.0U	<0.500U	<0.500U	14.9	<2.00U	0.684	19500	<1.00U	<0.100U	6.50	52	<100U	1.53	899	2.04J	3.88	<0.500U	349J	<1.00U	<0.500U	1050	<0.500U	<2.00U	120
A60	Dissolved Metals	39.4J	<0.500U	<0.500U	16.2	<2.00U	0.929	18900	<1.00U	0.181J	6.34	53	<100U	0.690	1490	230	<1.00U	<0.500U	384J	<1.00U	<0.500U	953J	<0.500U	<2.00U	285J
A61	Dissolved Metals	101	<0.500U	<0.500U	16.5	<2.00U	1.45	19400	<1.00U	0.412	11.9	55	<100U	0.831	1510	814	<1.00U	0.588J	373J	<1.00U	<0.500U	925J	<0.500U	<2.00U	473
A64	Dissolved Metals	44.6J	<0.500U	<0.500U	15.9	<2.00U	1.04	19100	<1.00U	0.235	7.26	54	<100U	0.753	1410	356	<1.00U	<0.500U	379J	<1.00U	<0.500U	875J	<0.500U	<2.00U	322
A65	Dissolved Metals	49.8J	<0.500U	<0.500U	15.7	<2.00U	1.00	19900	<1.00U	0.216	7.17	56	<100U	0.734	1440	375	<1.00U	<0.500U	376J	<1.00U	<0.500U	914J	<0.500U	<2.00U	331
A66	Dissolved Metals	50.8	<0.500U	<0.500U	15.7	<2.00U	0.907	19500	<1.00U	0.252	7.01	54	<100U	0.959	1420	419	<1.00U	<0.500U	381J	<1.00U	<0.500U	898J	<0.500U	<2.00U	330
A68	Dissolved Metals	53.3	<0.500U	<0.500U	15.1	<2.00U	0.972	19700	<1.00U	0.317	7.23	55	<100U	0.987	1440	538	<1.00U	<0.500U	390J	<1.00U	<0.500U	912J	<0.500U	<2.00U	330
*A68 Storm Opp	Dissolved Metals	36.9J	<0.500U	<0.500U	13.9	<2.00U	0.767	15800	<1.00U	0.365	5.12	44	<100U	0.930	1190	451	<1.00U	<0.500U	473J	<1.00U	<0.500U	741J	<0.500U	<2.00U	211
A72	Dissolved Metals	99.3	<0.500U	<0.500U	16.8	<2.00U	0.729	21000	<1.00U	1.10	7.17	59	325	0.610	1650	344	<1.00U	0.901J	378J	<1.00U	<0.500U	1100	<0.500U	<2.00U	250
*A72 Storm Opp	Dissolved Metals	34.3J	<0.500U	<0.500U	15.7	<2.00U	0.618	16400	<1.00U	0.862	3.13	47	<100U	0.791	1360	267	<1.00U	1.88	463J	<1.00U	<0.500U	946J	<0.500U	<2.00U	145
*Bbridge	Dissolved Metals	96.3	<0.500U	<0.500U	20.3	<2.00U	0.233	15100	<1.00U	0.302	3.31	47	<100U	0.441	2220	103	<1.00U	0.586J	489J	<1.00U	<0.500U	960J	<0.500U	<2.00U	39.8
*CC03	Dissolved Metals	866	<0.500U	<0.500U	15.1	<2.00U	4.24	20600	<1.00U	3.11	83.5	60	1730	5.72	2040	1320	<1.00U	2.95	347J	<1.00U	<0.500U	850J	<0.500U	<2.00U	1380
*CC03B	Dissolved Metals	703	<0.500U	<0.500U	16.1	<2.00U	3.89	11900	<1.00U	0.949	81.9	36	246J	4.86	1480	608	<1.00U	1.73	311J	<1.00U	<0.500U	636J	<0.500U	<2.00U	1100
*CC03D	Dissolved Metals	3480	<2.50U	2.79JD	<25.0U	5.93	23.7D	394000	<5.00U	86.8D	134D	1080	74700	15.1D	23500	26600	<5.00U	39.0D	1390	<5.00U	<2.50U	7480	<2.50U	<10.0U	13200
*CC07	Dissolved Metals	2920	<0.500U	<0.500U	10.8	<2.00U	5.94	25100	<1.00U	8.36	303	78	4080	13.9	3630	1600	<1.00U	4.68	442J	<1.00U	<0.500U	955J	<0.500U	<2.00U	1410
*CC14	Dissolved Metals	1150	<0.500U	1.88J	6.38J	<2.00U	4.68	158000	<1.00U	15.6	67.6	424	18000	0.339	7490	1940	<1.00U	5.38	741J	<1.00U	<0.500U	3110	<0.500U	<2.00U	884
*CC17	Dissolved Metals	305	<0.500U	<0.500U	8.29J	<2.00U	1.06	26500	<1.00U	3.34	13.9	75	380	0.376	2120	267	<1.00U	1.93	403J	<1.00U	<0.500U	1100	<0.500U	<2.00U	253
*CC18	Dissolved Metals	1180	<0.500U	<0.500U	14.2	<2.00U	4.55	24300	<1.00U	4.90	110	71	2510	7.49	2440	1680	<1.00U	3.22	383J	<1.00U	<0.500U	938J	<0.500U	<2.00U	1500
*CC18B	Dissolved Metals	1130	<0.500U	<0.500U	13.1	<2.00U	4.49	22600	<1.00U	4.02	110	66	2020	7.22	2290	1460	<1.00U	3.21	369J	<1.00U	<0.500U	887J	<0.500U	<2.00U	1400
*CC19	Dissolved Metals	4480	<2.50U	<2.50U	<25.0U	4.98J	1.94D	451000	<5.00U	136D	15.2D	1250	135000	0.888JD	31200	39600	<5.00U	51.6D	1270	<5.00U	<2.50U	8910	<2.50U	<10.0U	19100

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STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
*CC21	Dissolved Metals	1200	<0.500U	<0.500U	13.1	<2.00U	4.75	26700	<1.00U	5.08	103	77	2120	7.86	2570	1780	<1.00U	3.07	378J	<1.00U	<0.500U	986J	<0.500U	<2.00U	1540
*CC48	Dissolved Metals	895	<0.500U	<0.500U	21.6	<2.00U	1.88	23500	<1.00U	4.01	43.5	67	1480	3.43	2070	723	<1.00U	2.54	516J	<1.00U	<0.500U	1010	<0.500U	<2.00U	605J
CG11	Dissolved Metals	222	<0.500U	<0.500U	7.58J	<2.00U	2.28	9980	<1.00U	0.708	9.39	31	<100U	1.87	1410	1970	<1.00U	1.72	386J	<1.00U	<0.500U	493J	<0.500U	<2.00U	762
CG12A	Dissolved Metals	<20.0U	<0.500U	<0.500U	7.96J	<2.00U	2.73	11600	<1.00U	<0.100U	5.32	34	<100U	22.5	1150	2.98J	<1.00U	<0.500U	277J	<1.00U	<0.500U	459J	<0.500U	<2.00U	576
CG9	Dissolved Metals	267	<0.500U	<0.500U	8.02J	<2.00U	2.07	9830	<1.00U	0.682	10.3	30	<100U	2.12	1360	1880	<1.00U	1.67	391J	<1.00U	<0.500U	472J	<0.500U	<2.00U	727
A32_Dup-01	Dissolved Metals	<20.0U	<0.500U	0.640J	<5.00U	<2.00U	<0.100U	18800	<1.00U	<0.100U	1.33	51	<100U	<0.100U	1060	2.20J	<1.00U	<0.500U	360J	<1.00U	<0.500U	585J	<0.500U	<2.00U	<10.0U
A55_Dup-02	Dissolved Metals	41.0J	<0.500U	<0.500U	14.5	<2.00U	0.970	19500	<1.00U	0.186J	6.53	55	<100U	0.793	1500	276	<1.00U	<0.500U	401J	<1.00U	<0.500U	937J	<0.500U	<2.00U	297
A12_Dup-03	Dissolved Metals	138	<0.500U	1.64J	8.63J	<2.00U	4.64	74600	<1.00U	8.05	5.16	206	2080	0.351	4780	7920	<1.00U	2.55	1610	<1.00U	<0.500U	2400	<0.500U	<2.00U	3500
A72_Dup-04	Dissolved Metals	93.3	<0.500U	<0.500U	16.0	<2.00U	0.794	20300	<1.00U	1.11	7.71	58	315	0.600	1660	352	<1.00U	0.651J	380J	<1.00U	<0.500U	1140	<0.500U	<2.00U	245
*Bbridge_Dup-05	Dissolved Metals	87.9	<0.500U	<0.500U	20.5	<2.00U	0.164J	15800	<1.00U	0.301	3.24	49	<100U	0.437	2220	101	<1.00U	<0.500U	477J	<1.00U	<0.500U	924J	<0.500U	<2.00U	41.1
*CC48_Dup-06	Dissolved Metals	882	<0.500U	<0.500U	22.0	<2.00U	1.83	23500	<1.00U	3.98	43.6	67	1480	3.40	2070	705	<1.00U	2.38	495J	<1.00U	<0.500U	1020	<0.500U	<2.00U	596
*CC03B_Dup-07	Dissolved Metals	687	<0.500U	<0.500U	16.2	<2.00U	3.85	12200	<1.00U	0.949	83.7	36	237J	4.97	1450	602	<1.00U	1.54	298J	<1.00U	<0.500U	612J	<0.500U	<2.00U	1070
*EG6	Dissolved Metals	91.0	<0.500U	<0.500U	12.3	<2.00U	2.69	17000	<1.00U	0.451	19.7	48	<100U	1.83	1410	1280	<1.00U	1.13	291J	<1.00U	<0.500U	590J	<0.500U	<2.00U	1080
EG9	Dissolved Metals	88.4	<0.500U	<0.500U	10.8	<2.00U	1.11	17800	<1.00U	0.396	9.62	50	<100U	0.659	1250	406	<1.00U	<0.500U	272J	<1.00U	<0.500U	633J	<0.500U	<2.00U	376
FB-01	Dissolved Metals	<20.0U	<0.500U	<0.500U	<5.00U	<2.00U	<0.100U	<100U	<1.00U	<0.100U	<0.500U	<2U	<100U	<0.100U	<100U	<2.00U	<1.00U	<0.500U	<250U	<1.00U	<0.500U	<250U	<0.500U	<2.00U	<10.0U
FB-02	Dissolved Metals	<20.0U	<0.500U	<0.500U	<5.00U	<2.00U	<0.100U	<100U	<1.00U	<0.100U	<0.500U	<2U	<100U	<0.100U	<100U	<2.00U	<1.00U	<0.500U	<250U	<1.00U	<0.500U	<250U	<0.500U	<2.00U	<10.0U
FB-03	Dissolved Metals	<20.0U	<0.500U	<0.500U	<5.00U	<2.00U	<0.100U	<100U	<1.00U	<0.100U	<0.500U	<2U	<100U	<0.100U	<100U	<2.00U	<1.00U	<0.500U	<250U	<1.00U	<0.500U	<250U	<0.500U	<2.00U	<10.0U
FB-04	Dissolved Metals	<20.0U	<0.500U	<0.500U	<5.00U	<2.00U	<0.100U	<100U	<1.00U	<0.100U	<0.500U	<2U	<100U	<0.100U	<100U	<2.00U	<1.00U	<0.500U	<250U	<1.00U	<0.500U	<250U	<0.500U	<2.00U	<10.0U
LA3	Dissolved Metals	39.1J	<0.500U	<0.500U	17.6	<2.00U	0.778	17600	<1.00U	0.154J	5.68	50	<100U	0.675	1470	222	<1.00U	<0.500U	403J	<1.00U	<0.500U	923J	<0.500U	<2.00U	238
M34	Dissolved Metals	85.6	<0.500U	<0.500U	17.4	<2.00U	0.264	19800	<1.00U	1.04	4.40	56	279	0.525	1700	108	<1.00U	<0.500U	316J	<1.00U	<0.500U	1310	<0.500U	<2.00U	60.7
*M34 Storm Opp	Dissolved Metals	47.5J	<0.500U	<0.500U	14.5	<2.00U	0.147J	15000	<1.00U	0.731	6.90	43	<100U	1.79	1390	101	2.05	<0.500U	409J	<1.00U	<0.500U	1160	<0.500U	<2.00U	29.0
TM1	Dissolved Metals	<20.0U	<2.50U	3.60JD	<25.0U	<2.00U	<0.500U	135000	<5.00U	0.715JD	<2.50U	377	293	<0.500U	9720	1890	<5.00U	<2.50U	1560	<5.00U	<2.50U	2620	<2.50U	<10.0U	16.3J
*UA5	Dissolved Metals	28.5J	<0.500U	<0.500U	7.72J	<2.00U	3.18	7790	<1.00U	0.810	7.21	24	<100U	1.41	1110	405	<1.00U	1.04	403J	<1.00U	<0.500U	457J	<0.500U	<2.00U	552
UA8	Dissolved Metals	38.3J	<0.500U	<0.500U	7.65J	<2.00U	1.53	11600	<1.00U	0.419	5.37	34	<100U	0.407	1270	752	<1.00U	0.782J	399J	<1.00U	<0.500U	486J	<0.500U	<2.00U	407

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
A32	Dissolved Metals	<20.0U	<0.500U	<0.500U	<5.00U	<2.00U	<0.100U	19200	<1.00U	<0.100U	1.18	52	<100U	<0.100U	1020	2.18	1.03	<0.500U	328J	<1.00U	<0.500U	533J	<0.500U	<2.00U	<10.0U
A32_Dup-01	Dissolved Metals	<20.0U	<0.500U	0.640J	<5.00U	<2.00U	<0.100U	18800	<1.00U	<0.100U	1.33	51	<100U	<0.100U	1060	2.2	<1.00U	<0.500U	360J	<1.00U	<0.500U	585J	<0.500U	<2.00U	<10.0U
	RPD	N/A	N/A	N/A	N/A	N/A	N/A	**2.11%**	N/A	N/A	**11.95%**	**1.94%**	N/A	N/A	**3.85%**	**0.91%**	N/A	N/A	**#VALUE!**	N/A	N/A	**#######**	N/A	N/A	N/A

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
A55	Dissolved Metals	40.8	<0.500U	<0.500U	15.2	<2.00U	1.14	19600	<1.00U	0.183	6.49	55	<100U	0.746	1450	284	<1.00U	<0.500U	374	<1.00U	<0.500U	864	<0.500U	<2.00U	322
A55_Dup-02	Dissolved Metals	41	<0.500U	<0.500U	14.5	<2.00U	0.970	19500	<1.00U	0.186	6.53	55	<100U	0.793	1500	276	<1.00U	<0.500U	401	<1.00U	<0.500U	937	<0.500U	<2.00U	297
	RPD	**0.49%**	N/A	N/A	**4.71%**	N/A	**16.11%**	**0.51%**	N/A	**1.63%**	**0.61%**	**0.00%**	N/A	**6.11%**	**3.39%**	**2.86%**	N/A	N/A	**6.97%**	N/A	N/A	**8.11%**	N/A	N/A	**8.08%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
A12	Dissolved Metals	107	<0.500U	1.34	9.01	<2.00U	4.69	78800	<1.00U	8.05	4.70	215	2210	0.591	4550	8190	<1.00U	2.64	1420	<1.00U	<0.500U	2110	<0.500U	<2.00U	3830
A12_Dup-03	Dissolved Metals	138	<0.500U	1.64	8.63	<2.00U	4.64	74600	<1.00U	8.05	5.16	206	2080	0.351	4780	7920	<1.00U	2.55	1610	<1.00U	<0.500U	2400	<0.500U	<2.00U	3500
	RPD	**25.31%**	N/A	**20.13%**	**4.31%**	N/A	**1.07%**	**5.48%**	N/A	**0.00%**	**9.33%**	**4.28%**	**6.06%**	**50.96%**	**4.93%**	**3.35%**	N/A	**3.47%**	**12.54%**	N/A	N/A	**12.86%**	N/A	N/A	**9.00%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
A72	Dissolved Metals	99.3	<0.500U	<0.500U	16.8	<2.00U	0.729	21000	<1.00U	1.10	7.17	59	325	0.610	1650	344	<1.00U	0.901	378	<1.00U	<0.500U	1100	<0.500U	<2.00U	250
A72_Dup-04	Dissolved Metals	93.3	<0.500U	<0.500U	16.0	<2.00U	0.794	20300	<1.00U	1.11	7.71	58	315	0.600	1660	352	<1.00U	0.651	380	<1.00U	<0.500U	1140	<0.500U	<2.00U	245
	RPD	**6.23%**	N/A	N/A	**4.88%**	N/A	**8.54%**	**3.39%**	N/A	**0.90%**	**7.26%**	**1.71%**	**3.13%**	**1.65%**	**0.60%**	**2.30%**	N/A	**32.22%**	**0.53%**	N/A	N/A	**3.57%**	N/A	N/A	**2.02%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
*Bbridge	Dissolved Metals	96.3	<0.500U	<0.500U	20.3	<2.00U	0.233	15100	<1.00U	0.302	3.31	47	<100U	0.441	2220	103	<1.00U	0.586J	489	<1.00U	<0.500U	960	<0.500U	<2.00U	39.8
*Bbridge_Dup-05	Dissolved Metals	87.9	<0.500U	<0.500U	20.5	<2.00U	0.164	15800	<1.00U	0.301	3.24	49	<100U	0.437	2220	101	<1.00U	<0.500U	477	<1.00U	<0.500U	924	<0.500U	<2.00U	41.1
	RPD	**9.12%**	N/A	N/A	**0.98%**	N/A	**34.76%**	**4.53%**	N/A	**0.33%**	**2.14%**	**4.17%**	N/A	**0.91%**	**0.00%**	**1.96%**	N/A	N/A	**2.48%**	N/A	N/A	**3.82%**	N/A	N/A	**3.21%**

Note: Removed flags from values for RPD calculation

Table 2.2-1 Bonita Peak Mining District Site June 2015
Surface Water Dissolved Metal Analytical Results

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
*CC48	Dissolved Metals	895	<0.500U	<0.500U	21.6	<2.00U	1.88	23500	<1.00U	4.01	43.5	67	1480	3.43	2070	723	<1.00U	2.54	516	<1.00U	<0.500U	1010	<0.500U	<2.00U	605
*CC48_Dup-06	Dissolved Metals	882	<0.500U	<0.500U	22.0	<2.00U	1.83	23500	<1.00U	3.98	43.6	67	1480	3.40	2070	705	<1.00U	2.38	495	<1.00U	<0.500U	1020	<0.500U	<2.00U	596
	RPD	**1.46%**	N/A	N/A	**1.83%**	N/A	**2.70%**	**0.00%**	N/A	**0.75%**	**0.23%**	**0.00%**	**0.00%**	**0.88%**	**0.00%**	**2.52%**	N/A	**6.50%**	**4.15%**	N/A	N/A	**0.99%**	N/A	N/A	**1.50%**

Note: Removed flags from values for RPD calculation

STATION_ID	**ANALYSIS**	**Aluminum**	**Antimony**	**Arsenic**	**Barium**	**Beryllium**	**Cadmium**	**Calcium**	**Chromium**	**Cobalt**	**Copper**	**Hardness**	**Iron**	**Lead**	**Magnesium**	**Manganese**	**Molybdenum**	**Nickel**	**Potassium**	**Selenium**	**Silver**	**Sodium**	**Thallium**	**Vanadium**	**Zinc**
		ug/L	ug/L	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
*CC03B	Dissolved Metals	703	<0.500U	<0.500U	16.1	<2.00U	3.89	11900	<1.00U	0.949	81.9	36	246	4.86	1480	608	<1.00U	1.73	311	<1.00U	<0.500U	636	<0.500U	<2.00U	1100
*CC03B_Dup-07	Dissolved Metals	687	<0.500U	<0.500U	16.2	<2.00U	3.85	12200	<1.00U	0.949	83.7	36	237	4.97	1450	602	<1.00U	1.54	298	<1.00U	<0.500U	612	<0.500U	<2.00U	1070
	RPD	**2.30%**	N/A	N/A	**0.62%**	N/A	**1.03%**	**2.49%**	N/A	**0.00%**	**2.17%**	**0.00%**	**3.73%**	**2.24%**	**2.05%**	**0.99%**	N/A	**11.62%**	**4.27%**	N/A	N/A	**3.85%**	N/A	N/A	**2.76%**

Note: Removed flags from values for RPD calculation

Note: Not Applicable (N/A) is used for RPD when the analyte was not detected

Note: Data Qualifier Definitions Listed Below:

D The analyte was diluted prior to analysis.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

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

* Samples were collected during a significant storm event

Table 2.2-2 Bonita Peak Mining District Site June 2015
Surface Water and Soil Total Recoverable Metal Analytical Results

Station ID	Analysis	Matrix	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
*A02	Total Recoverable Metals	Surface Water	1970	<2.50U	<2.50U	<25.0U	<2.00U	14.7D	14600	<5.00U	1.05D	12.7D	861	20.1D	2540	600	<5.00U	2.84JD	600J	<5.00U	<2.50U	805J	<2.50U	<10.0U	1970
*A05	Total Recoverable Metals	Surface Water	767	<2.50U	<2.50U	<25.0U	<2.00U	1.73D	9060	<5.00U	<0.500U	3.09JD	627	8.52D	1200	121	<5.00U	<2.50U	601J	<5.00U	<2.50U	506J	12.4D	<10.0U	286
*A08	Total Recoverable Metals	Surface Water	1130	<2.50U	<2.50U	<25.0U	<2.00U	3.07D	8570	<5.00U	1.08D	10.7D	210J	4.78D	1160	528	<5.00U	<2.50U	491J	<5.00U	<2.50U	495J	4.36JD	<10.0U	585
A09	Total Recoverable Metals	Surface Water	1160	<2.50U	<2.50U	<25.0U	<2.00U	3.00D	7830	<5.00U	0.892JD	15.4D	332	15.6D	1110	418	<5.00U	<2.50U	529J	<5.00U	<2.50U	453J	<2.50U	<10.0U	573
A10	Total Recoverable Metals	Surface Water	991	<2.50U	<2.50U	<25.0U	<2.00U	2.62D	10400	<5.00U	0.780JD	23.1D	199J	14.4D	1460	2100	<5.00U	<2.50U	430J	<5.00U	<2.50U	488J	<2.50U	<10.0U	967
A11	Total Recoverable Metals	Surface Water	1210	<2.50U	<2.50U	<25.0U	<2.00U	2.41D	9960	<5.00U	0.744JD	20.4D	331	31.3D	1430	2010	<5.00U	<2.50U	444J	<5.00U	<2.50U	461J	<2.50U	<10.0U	806
A11A	Total Recoverable Metals	Surface Water	3370	<2.50U	8.65JD	<25.0U	<2.00U	194D	4340	<5.00U	28.7D	2510D	11700	1010D	1460	1840	<5.00U	7.64D	623J	<5.00U	<2.50U	343J	<2.50U	<10.0U	47000
A12	Total Recoverable Metals	Surface Water	285	<2.50U	<2.50U	<25.0U	<2.00U	4.69D	70500	<5.00U	8.17D	5.29D	2390	4.02D	4970	7950	<5.00U	<2.50U	1770	<5.00U	<2.50U	2600	<2.50U	<10.0U	3500
A13	Total Recoverable Metals	Surface Water	1120	<2.50U	<2.50U	<25.0U	<2.00U	2.39D	8660	<5.00U	0.644JD	22.9D	239J	28.9D	1360	1960	<5.00U	<2.50U	406J	<5.00U	<2.50U	472J	<2.50U	<10.0U	757
A14	Total Recoverable Metals	Surface Water	851	<2.50U	<2.50U	<25.0U	<2.00U	3.00D	9380	<5.00U	0.698JD	16.8D	139J	8.74D	1350	1380	<5.00U	<2.50U	448J	<5.00U	<2.50U	501J	<2.50U	<10.0U	765
*A15	Total Recoverable Metals	Surface Water	3140	<2.50U	<2.50U	<25.0U	2.69J	3.76D	10100	<5.00U	1.60D	15.9D	496	6.72D	2090	4660	<5.00U	3.38JD	507J	<5.00U	<2.50U	609J	<2.50U	<10.0U	1160
*A20	Total Recoverable Metals	Surface Water	507	<2.50U	<2.50U	<25.0U	<2.00U	1.98D	10500	<5.00U	<0.500U	24.6D	161J	21.2D	1350	852	<5.00U	<2.50U	404J	<5.00U	<2.50U	444J	<2.50U	<10.0U	699
A24	Total Recoverable Metals	Surface Water	310	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	14000	<5.00U	<0.500U	3.23JD	286	4.03D	1310	21.8	<5.00U	<2.50U	507J	<5.00U	<2.50U	410J	<2.50U	<10.0U	11.2J
A25	Total Recoverable Metals	Surface Water	30.8J	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	19000	<5.00U	<0.500U	<2.50U	<100U	<0.500U	1330	3.17J	<5.00U	<2.50U	423J	<5.00U	<2.50U	363J	<2.50U	<10.0U	16.1J
A26	Total Recoverable Metals	Surface Water	200	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	12900	<5.00U	<0.500U	<2.50U	207J	0.776JD	1260	143	<5.00U	<2.50U	382J	<5.00U	<2.50U	529J	<2.50U	<10.0U	40.7
A27	Total Recoverable Metals	Surface Water	108	<2.50U	<2.50U	<25.0U	<2.00U	4.15D	17300	<5.00U	<0.500U	41.6D	<100U	13.1D	1220	117	<5.00U	<2.50U	405J	<5.00U	<2.50U	640J	<2.50U	<10.0U	809
A28	Total Recoverable Metals	Surface Water	137	<2.50U	<2.50U	<25.0U	<2.00U	2.04D	12100	<5.00U	<0.500U	7.23D	<100U	1.81D	1290	736	<5.00U	<2.50U	436J	<5.00U	<2.50U	480J	<2.50U	<10.0U	452
A29	Total Recoverable Metals	Surface Water	1380	<2.50U	99.7D	<25.0U	<2.00U	14.0D	117000	<5.00U	4.11D	6190D	10900	25.8D	4890	3100	<5.00U	<2.50U	1270	<5.00U	<2.50U	4140	<2.50U	<10.0U	3950
A29A	Total Recoverable Metals	Surface Water	825	<2.50U	39.7D	<25.0U	<2.00U	13.4D	117000	<5.00U	3.99D	3820D	5570	12.8D	4940	3030	<5.00U	<2.50U	1270	<5.00U	<2.50U	4020	12.0D	<10.0U	3790
A30	Total Recoverable Metals	Surface Water	454	<2.50U	<2.50U	<25.0U	<2.00U	2.07D	11800	<5.00U	<0.500U	23.5D	115J	7.76D	1250	745	<5.00U	<2.50U	414J	<5.00U	<2.50U	488J	12.0D	<10.0U	507
A31	Total Recoverable Metals	Surface Water	529	<2.50U	<2.50U	<25.0U	<2.00U	1.71D	12100	<5.00U	<0.500U	25.1D	282	15.7D	1290	777	<5.00U	<2.50U	474J	<5.00U	<2.50U	539J	<2.50U	<10.0U	526
A32	Total Recoverable Metals	Surface Water	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	17700	<5.00U	<0.500U	<2.50U	<100U	0.755JD	1060	4.67J	<5.00U	<2.50U	389J	<5.00U	<2.50U	589J	<2.50U	<10.0U	20.5
A34	Total Recoverable Metals	Surface Water	314	<2.50U	<2.50U	<25.0U	<2.00U	0.940JD	18200	<5.00U	<0.500U	15.9D	379	4.13D	1380	389	<5.00U	<2.50U	356J	<5.00U	<2.50U	732J	<2.50U	<10.0U	405
A35	Total Recoverable Metals	Surface Water	548	<2.50U	<2.50U	<25.0U	<2.00U	1.62D	13500	<5.00U	<0.500U	23.5D	341	15.0D	1260	650	<5.00U	<2.50U	437J	<5.00U	<2.50U	550J	<2.50U	<10.0U	486
*A36	Total Recoverable Metals	Surface Water	211	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	18000	<5.00U	<0.500U	4.19JD	319	2.16D	1280	48.0	<5.00U	<2.50U	300J	<5.00U	<2.50U	712J	<2.50U	<10.0U	38.3
*A37	Total Recoverable Metals	Surface Water	262	<2.50U	<2.50U	<25.0U	<2.00U	2.03D	17700	<5.00U	<0.500U	23.5D	178J	5.35D	1390	919	<5.00U	<2.50U	321J	<5.00U	<2.50U	595J	<2.50U	<10.0U	808
A40	Total Recoverable Metals	Surface Water	323	<2.50U	<2.50U	<25.0U	<2.00U	1.42D	17100	<5.00U	<0.500U	18.8D	142J	10.1D	1430	557	<5.00U	<2.50U	412J	<5.00U	<2.50U	692J	<2.50U	<10.0U	560
A40A	Total Recoverable Metals	Surface Water	418	<2.50U	<2.50U	<25.0U	<2.00U	1.42D	15000	<5.00U	<0.500U	21.0D	220J	12.5D	1300	583	<5.00U	<2.50U	388J	<5.00U	<2.50U	573J	<2.50U	<10.0U	492
A41A	Total Recoverable Metals	Surface Water	263	<2.50U	<2.50U	<25.0U	<2.00U	0.750JD	17100	<5.00U	<0.500U	11.2D	176J	5.58D	1420	316	<5.00U	<2.50U	455J	<5.00U	<2.50U	908J	<2.50U	<10.0U	331
A41C	Total Recoverable Metals	Surface Water	59.7	<2.50U	<2.50U	<25.0U	<2.00U	1.96D	29900	<5.00U	<0.500U	25.5D	<100U	30.8D	2000	616	<5.00U	<2.50U	477J	<5.00U	<2.50U	1630	<2.50U	<10.0U	687
A42	Total Recoverable Metals	Surface Water	194	<2.50U	<2.50U	30.0JD	<2.00U	<0.500U	16300	<5.00U	<0.500U	<2.50U	225J	0.925JD	1380	16.5	<5.00U	<2.50U	531J	<5.00U	<2.50U	1220	<2.50U	<10.0U	12.0J
A43	Total Recoverable Metals	Surface Water	227	<2.50U	<2.50U	26.8JD	<2.00U	<0.500U	14700	<5.00U	<0.500U	<2.50U	216J	<0.500U	1430	38.9	<5.00U	<2.50U	499J	<5.00U	<2.50U	959J	<2.50U	<10.0U	<10.0U
A45	Total Recoverable Metals	Surface Water	286	<2.50U	<2.50U	<25.0U	<2.00U	0.972JD	18900	<5.00U	<0.500U	13.1D	195J	9.09D	1550	348	<5.00U	<2.50U	468J	<5.00U	<2.50U	874J	<2.50U	<10.0U	380
A47	Total Recoverable Metals	Surface Water	37.2J	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	18600	<5.00U	<0.500U	<2.50U	<100U	<0.500U	914	5.49	<5.00U	<2.50U	302J	<5.00U	<2.50U	961J	<2.50U	<10.0U	21.7
A48	Total Recoverable Metals	Surface Water	160	<2.50U	<2.50U	33.5JD	<2.00U	<0.500U	19500	<5.00U	<0.500U	<2.50U	182J	3.40D	1450	14.1	<5.00U	<2.50U	442J	<5.00U	<2.50U	1020	<2.50U	<10.0U	43.0
*A54	Total Recoverable Metals	Surface Water	930	<2.50U	3.73JD	<25.0U	4.63J	4.36D	92700	<5.00U	16.8D	24.2D	31100	18.0D	6710	1780	<5.00U	4.57JD	841J	<5.00U	<2.50U	3690	11.1D	<10.0U	1160
A55	Total Recoverable Metals	Surface Water	272	<2.50U	<2.50U	<25.0U	<2.00U	1.01D	20100	<5.00U	<0.500U	11.6D	232J	10.4D	1490	358	<5.00U	<2.50U	410J	<5.00U	<2.50U	852J	12.4D	<10.0U	353
*A55 Storm Opp	Total Recoverable Metals	Surface Water	9330	<2.50U	17.2D	111D	2.62J	6.14D	17200	<5.00U	6.26D	199D	13400	435D	3280	3670	<5.00U	4.54JD	2370	<5.00U	2.59JD	950J	<2.50U	11.8JD	1650
A56	Total Recoverable Metals	Surface Water	236	<2.50U	<2.50U	<25.0U	<2.00U	0.851JD	20000	<5.00U	<0.500U	9.07D	166J	6.96D	1520	290	<5.00U	<2.50U	401J	<5.00U	<2.50U	909J	<2.50U	<10.0U	306
A58	Total Recoverable Metals	Surface Water	23.7J	<2.50U	<2.50U	<25.0U	<2.00U	0.628JD	19400	<5.00U	<0.500U	8.21D	<100U	4.07D	901	5.04	<5.00U	<2.50U	344J	<5.00U	<2.50U	1050	<2.50U	<10.0U	119
A60	Total Recoverable Metals	Surface Water	310	<2.50U	<2.50U	<25.0U	<2.00U	0.803JD	19600	<5.00U	<0.500U	10.9D	297	11.6D	1500	326	<5.00U	<2.50U	438J	<5.00U	<2.50U	888J	<2.50U	<10.0U	334
A61	Total Recoverable Metals	Surface Water	347	<2.50U	<2.50U	<25.0U	<2.00U	1.81D	20000	<5.00U	0.520JD	17.0D	214J	8.82D	1560	875	<5.00U	<2.50U	418J	<5.00U	<2.50U	927J	<2.50U	<10.0U	494
A64	Total Recoverable Metals	Surface Water	332	<2.50U	<2.50U	<25.0U	<2.00U	1.07D	19700	<5.00U	<0.500U	12.1D	300	11.7D	1480	447	<5.00U	<2.50U	444J	<5.00U	<2.50U	894J	<2.50U	<10.0U	347
A65	Total Recoverable Metals	Surface Water	360	<2.50U	<2.50U	<25.0U	<2.00U	0.994JD	19900	<5.00U	<0.500U	12.4D	320	11.6D	1510	474	<5.00U	<2.50U	450J	<5.00U	<2.50U	937J	<2.50U	<10.0U	356
A66	Total Recoverable Metals	Surface Water	393	<2.50U	<2.50U	<25.0U	<2.00U	0.968JD	19500	<5.00U	<0.500U	12.7D	414	13.7D	1490	542	<5.00U	<2.50U	448J	<5.00U	<2.50U	912J	<2.50U	<10.0U	363
A68	Total Recoverable Metals	Surface Water	315	<2.50U	<2.50U	<25.0U	<2.00U	1.00D	20100	<5.00U	<0.500U	11.9D	282	10.5D	1500	640	<5.00U	<2.50U	428J	<5.00U	<2.50U	916J	<2.50U	<10.0U	362
*A68 Storm Opp	Total Recoverable Metals	Surface Water	8310	<2.50U	13.0D	113D	2.08J	5.74D	18600	<5.00U	5.88D	164D	12800	418D	3210	3970	<5.00U	3.68JD	2260	<5.00U	<2.50U	1020	<2.50U	<10.0U	1590J
A72	Total Recoverable Metals	Surface Water	921	<2.50U	<2.50U	<25.0U	<2.00U	0.895JD	21800	<5.00U	1.38D	17.6D	2410	20.6D	1780	483	<5.00U	<2.50U	508J	<5.00U	<2.50U	1090	<2.50U	<10.0U	322J
*A72 Storm Opp	Total Recoverable Metals	Surface Water	8750	<2.50U	20.6D	114D	<2.00U	2.72D	18300	<5.00U	7.14D	91.9D	26500	280D	3330	1910	<5.00U	3.66JD	2050	<5.00U	<2.50U	1400	<2.50U	15.3D	754J
*Bbridge	Total Recoverable Metals	Surface Water	2050	<2.50U	3.47JD	40.8JD	<2.00U	<0.500U	17300	<5.00U	1.86D	11.7D	3180	17.6D	2700	381	<5.00U	<2.50U	908J	<5.00U	<2.50U	984J	<2.50U	<10.0U	175J
*CC03	Total Recoverable Metals	Surface Water	3980	<2.50U	5.45JD	46.1JD	<2.00U	4.35D	22200	<5.00U	4.96D	118D	15900	137D	2750	1740	<5.00U	3.31JD	928J	<5.00U	<2.50U	803J	<2.50U	<10.0U	1490J
*CC03B	Total Recoverable Metals	Surface Water	3660	<2.50U	6.55JD	44.1JD	<2.00U	3.96D	11700	<5.00U	2.16D	111D	8020	111D	2220	830	<5.00U	<2.50U	1040	<5.00U	<2.50U	715J	<2.50U	<10.0U	1010
*CC03D	Total Recoverable Metals	Surface Water	4750	<2.50U	<2.50U	<25.0U	6.39	25.8D	383000	<5.00U	89.7D	158D	77700	147D	24000	26500	<5.00U	38.7D	1500	<5.00U	<2.50U	7850	11.6D	<10.0U	13200
*CC07	Total Recoverable Metals	Surface Water	22200	9.41D	74.8D	280D	<2.00U	7.57D	26900	12.6D	17.4D	519D	198000	3240D	10800	2650	17.8D	10.6D	6470	5.00JD	19.7D	1810	14.2D	58.5D	1580
*CC14	Total Recoverable Metals	Surface Water	1830	<2.50U	4.46JD	<25.0U	<2.00U	5.25D	159000	<5.00U	15.9D	86.9D	19800	7.30D	7790	1980	<5.00U	5.47D	812J	<5.00U	<2.50U	3250	<2.50U	<10.0U	843
*CC17	Total Recoverable Metals	Surface Water	11200	<2.50U	13.4D	111D	<2.00U	3.63D	28200	<5.00U	18.2D	153D	48500	198D	5070	2840	<5.00U	6.63D	2490	<5.00U	<2.50U	1390	<2.50U	23.1D	821
*CC18	Total Recoverable Metals	Surface Water	5630	<2.50U	13.9D	65.6D	<2.00U	4.58D	24700	<5.00U	6.66D	167D	47700	397D	3870	2010	<5.00U	4.22JD	1630	<5.00U	<2.50U	1070	<2.50U	11.5JD	1440
*CC18B	Total Recoverable Metals	Surface Water	5750	<2.50U	13.0D	70.1D	<2.00U	5.30D	22800	<5.00U	6.90D	167D	67100	404D	3700	1840	<5.00U	4.34JD	1630	<5.00U	<2.50U	1050	<2.50U	13.6JD	1360
*CC19	Total Recoverable Metals	Surface Water	4750	<2.50U	3.58JD	<25.0U	4.64J	2.35D	444000	<5.00U	140D	14.1D	136000	3.27D	31300	40000	<5.00U	53.0D	1340	<5.00U	<2.50U	9110	<2.50U	<10.0U	18900
*CC21	Total Recoverable Metals	Surface Water	7630	2.51JD	17.4D	88.1D	<2.00U	5.41D	27000	<5.00U	9.82D	173D	71800	495D	4610	2590	<5.00U	4.86JD	2090	<5.00U	2.65JD	1220	<2.50U	16.4D	1620
*CC48	Total Recoverable Metals	Surface Water	9160	3.22JD	34.5D	172D	<2.00U	2.15D	24000	<5.00U	8.87D	103D	74700	307D	4570	1380	<5.00U	4.56JD	2690	<5.00U	<2.50U	1340	<2.50U	22.9D	668
CG11	Total Recoverable Metals	Surface Water	1000	<2.50U	<2.50U	<25.0U	<2.00U	2.11D	10100	<5.00U	0.644JD	15.8D	179J	10.8D	1450	1910	<5.00U	<2.50U	451J	<5.00U	<2.50U	491J	<2.50U	<10.0U	696
CG12A	Total Recoverable Metals	Surface Water	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	2.17D	11300	<5.00U	<0.500U	5.13D	<100U	27.0D	1170	3.77J	<5.00U	<2.50U	323J	<5.00U	<2.50U	458J	<2.50U	<10.0U	536
CG9	Total Recoverable Metals	Surface Water	1020	<2.50U	<2.50U	<25.0U	<2.00U	2.00D	9490	<5.00U	0.674JD	17.9D	206J	15.3D	1390	1910	<5.00U	<2.50U	420J	<5.00U	<2.50U	473J	<2.50U	<10.0U	701
A32_Dup-01	Total Recoverable Metals	Surface Water	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	18600	<5.00U	<0.500U	<2.50U	<100U	<0.500U	1080	5.08	<5.00U	<2.50U	387J	<5.00U	<2.50U	580J	<2.50U	<10.0U	<10.0U
A55_Dup-02	Total Recoverable Metals	Surface Water	279	<2.50U	<2.50U	<25.0U	<2.00U	0.523JD	18900	<5.00U	<0.500U	13.2D	231J	11.0D	1550	356	<5.00U	<2.50U	492J	<5.00U	<2.50U	955J	<2.50U	<10.0U	325
A12_Dup-03	Total Recoverable Metals	Surface Water	293	<2.50U	2.61JD	<25.0U	<2.00U	4.80D	72600	<5.00U	8.14D	5.11D	2450	3.57D	4920	8010	<5.00U	<2.50U	1720	<5.00U	<2.50U	2470	<2.50U	<10.0U	3300
A72_Dup-04	Total Recoverable Metals	Surface Water	864	<2.50U	<2.50U	<25.0U	<2.00U	0.988JD	20600	<5.00U	1.26D	17.7D	2180	19.1D	1790	474	<5.00U	<2.50U	541J	<5.00U	<2.50U	1160	<2.50U	<10.0U	301
*Bbridge_Dup-05	Total Recoverable Metals	Surface Water	1550	<2.50U	2.76JD	33.9JD	<2.00U	0.546JD	16700	<5.00U	1.56D	11.4D	2370	13.7D	2580	332	<5.00U	<2.50U	847J	<5.00U	<2.50U	1010	12.2D	<10.0U	150
*CC48_Dup-06	Total Recoverable Metals	Surface Water	9180	4.21JD	35.7D	182D	<2.00U	2.42D	24600	5.40JD	9.16D	104D	75600	313D	4610	1520	<5.00U	5.31D	2570	<5.00U	<2.50U	1280	13.9D	21.9D	761

Table 2.2-2 Bonita Peak Mining District Site June 2015
Surface Water and Soil Total Recoverable Metal Analytical Results

Station ID	Analysis	Matrix	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
*CC03B_Dup-07	Total Recoverable Metals	Surface Water	3720	<2.50U	6.76JD	42.2JD	<2.00U	3.76D	12200	<5.00U	2.79D	111D	8950	138D	2190	984	<5.00U	<2.50U	1030	<5.00U	<2.50U	662J	<2.50U	<10.0U	1120
*EG6	Total Recoverable Metals	Surface Water	229	<2.50U	<2.50U	<25.0U	<2.00U	2.69D	17200	<5.00U	<0.500U	25.8D	190J	6.08D	1440	1340	<5.00U	<2.50U	278J	<5.00U	<2.50U	563J	<2.50U	<10.0U	1110
EG9	Total Recoverable Metals	Surface Water	299	<2.50U	<2.50U	<25.0U	<2.00U	0.996JD	17400	<5.00U	<0.500U	14.9D	358	4.57D	1280	455	<5.00U	<2.50U	316J	<5.00U	<2.50U	639J	<2.50U	<10.0U	400
FB-01	Total Recoverable Metals	Surface Water	<20.0U	<2.50U	2.50JD	<25.0U	<2.00U	<0.500U	<100U	<5.00U	<0.500U	<2.50U	<100U	<0.500U	<100U	<2.00U	<5.00U	<2.50U	<250U	<5.00U	<2.50U	<250U	<2.50U	<10.0U	<10.0U
FB-02	Total Recoverable Metals	Surface Water	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	<100U	<5.00U	<0.500U	<2.50U	<100U	<0.500U	<100U	<2.00U	<5.00U	<2.50U	<250U	<5.00U	<2.50U	<250U	<2.50U	<10.0U	<10.0U
FB-03	Total Recoverable Metals	Surface Water	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	<100U	<5.00U	<0.500U	<2.50U	<100U	<0.500U	<100U	<2.00U	<5.00U	<2.50U	<250U	<5.00U	<2.50U	<250U	<2.50U	<10.0U	<10.0U
FB-04	Total Recoverable Metals	Surface Water	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	<100U	<5.00U	<0.500U	<2.50U	<100U	<0.500U	<100U	<2.00U	<5.00U	<2.50U	<250U	<5.00U	<2.50U	<250U	<2.50U	<10.0U	<10.0U
LA3	Total Recoverable Metals	Surface Water	245	<2.50U	<2.50U	<25.0U	<2.00U	0.758JD	17400	<5.00U	<0.500U	11.7D	166J	5.90D	1510	278	<5.00U	<2.50U	442J	<5.00U	<2.50U	932J	<2.50U	<10.0U	264
M34	Total Recoverable Metals	Surface Water	768	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	20000	<5.00U	1.21D	8.57D	1350	5.88D	1800	136	<5.00U	<2.50U	404J	<5.00U	<2.50U	1330	<2.50U	<10.0U	82.6
*M34 Storm Opp	Total Recoverable Metals	Surface Water	13200	<2.50U	36.0D	185D	<2.00U	1.63D	17900	5.65JD	13.6D	82.9D	38800	292D	4060	1300	<5.00U	5.95D	2330	<5.00U	<2.50U	1590	<2.50U	21.4D	403
TM1	Total Recoverable Metals	Surface Water	<20.0U	<2.50U	5.07JD	<25.0U	<2.00U	<0.500U	139000	<5.00U	0.794JD	<2.50U	640	<0.500U	9680	2190	<5.00U	<2.50U	1460	<5.00U	<2.50U	2390	<2.50U	<10.0U	20.7
*UA5	Total Recoverable Metals	Surface Water	1050	<2.50U	<2.50U	<25.0U	<2.00U	3.04D	7850	<5.00U	0.918JD	13.5D	253	10.3D	1130	466	<5.00U	<2.50U	494J	<5.00U	<2.50U	425J	<2.50U	<10.0U	597
UA8	Total Recoverable Metals	Surface Water	489	<2.50U	<2.50U	<25.0U	<2.00U	1.78D	12100	<5.00U	<0.500U	10.5D	125J	4.73D	1230	843	<5.00U	<2.50U	365J	<5.00U	<2.50U	446J	<2.50U	<10.0U	471

Station ID	Analysis	Matrix	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
			mg/L	ug/L	ug/L	ug/L	mg/L	ug/L	mg/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	ug/L	ug/L	mg/L	ug/L	ug/L	mg/L	ug/L	ug/L
Kitty Mac Mine Tailings	Total Recoverable Metals	Soil	473D	1580D	6390D	10800D	<1.98U	2760D	135JD	<992U	532JD	365000D	6800D	4750000JD	136JD	17.7D	0.110D	87800D	<496U	424JD	<992U	18500D	<248U	<496U	<1980U	565D

Station ID	Analysis	Matrix	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
A32	Total Recoverable Metals	Surface Water	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	17700	<5.00U	<0.500U	<2.50U	<100U	0.755JD	1060	4.67	<5.00U	<2.50U	389	<5.00U	<2.50U	589	<2.50U	<10.0U	20.5
A32_Dup-01	Total Recoverable Metals	Surface Water	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	18600	<5.00U	<0.500U	<2.50U	<100U	<0.500U	1080	5.08	<5.00U	<2.50U	387	<5.00U	<2.50U	580	<2.50U	<10.0U	<10.0U
	RPD		N/A	N/A	N/A	N/A	N/A	N/A	**4.96%**	N/A	N/A	N/A	N/A	N/A	**1.87%**	**8.41%**	N/A	N/A	**0.52%**	N/A	N/A	**1.54%**	N/A	N/A	N/A

Note: Removed flags from values for RPD calculation

Station ID	Analysis	Matrix	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
A55	Total Recoverable Metals	Surface Water	272	<2.50U	<2.50U	<25.0U	<2.00U	1.01	20100	<5.00U	<0.500U	11.6	232	10.4	1490	358	<5.00U	<2.50U	410	<5.00U	<2.50U	852	12.4D	<10.0U	353
A55_Dup-02	Total Recoverable Metals	Surface Water	279	<2.50U	<2.50U	<25.0U	<2.00U	0.523	18900	<5.00U	<0.500U	13.2	231	11	1550	356	<5.00U	<2.50U	492	<5.00U	<2.50U	955	<2.50U	<10.0U	325
	RPD		**2.54%**	N/A	N/A	N/A	N/A	**63.54%**	**6.15%**	N/A	N/A	**12.90%**	**0.43%**	**5.61%**	**3.95%**	**0.56%**	N/A	N/A	**18.18%**	N/A	N/A	**11.40%**	N/A	N/A	**8.26%**

Note: Removed flags from values for RPD calculation

Station ID	Analysis	Matrix	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
A12	Total Recoverable Metals	Surface Water	285	<2.50U	<2.50U	<25.0U	<2.00U	4.69	70500	<5.00U	8.17	5.29	2390	4.02	4970	7950	<5.00U	<2.50U	1770	<5.00U	<2.50U	2600	<2.50U	<10.0U	3500
A12_Dup-03	Total Recoverable Metals	Surface Water	293	<2.50U	2.61JD	<25.0U	<2.00U	4.8	72600	<5.00U	8.14	5.11	2450	3.57	4920	8010	<5.00U	<2.50U	1720	<5.00U	<2.50U	2470	<2.50U	<10.0U	3300
	RPD		**2.77%**	N/A	N/A	N/A	N/A	**2.32%**	**2.94%**	N/A	**0.37%**	**3.46%**	**2.48%**	**11.86%**	**1.01%**	**0.75%**	N/A	N/A	**2.87%**	N/A	N/A	**5.13%**	N/A	N/A	**5.88%**

Note: Removed flags from values for RPD calculation

Station ID	Analysis	Matrix	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
A72	Total Recoverable Metals	Surface Water	921	<2.50U	<2.50U	<25.0U	<2.00U	0.895	21800	<5.00U	1.38	17.6	2410	20.6	1780	483	<5.00U	<2.50U	508	<5.00U	<2.50U	1090	<2.50U	<10.0U	322
A72_Dup-04	Total Recoverable Metals	Surface Water	864	<2.50U	<2.50U	<25.0U	<2.00U	0.988	20600	<5.00U	1.26	17.7	2180	19.1	1790	474	<5.00U	<2.50U	541	<5.00U	<2.50U	1160	<2.50U	<10.0U	301
	RPD		**6.39%**	N/A	N/A	N/A	N/A	**9.88%**	**5.66%**	N/A	**9.09%**	**0.57%**	**10.02%**	**7.56%**	**0.56%**	**1.88%**	N/A	N/A	**6.29%**	N/A	N/A	**6.22%**	N/A	N/A	**6.74%**

Note: Removed flags from values for RPD calculation

Station ID	Analysis	Matrix	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
*Bbridge	Total Recoverable Metals	Surface Water	2050	<2.50U	3.47	40.8	<2.00U	<0.500U	17300	<5.00U	1.86	11.7	3180	17.6	2700	381	<5.00U	<2.50U	908	<5.00U	<2.50U	984	<2.50U	<10.0U	175
*Bbridge_Dup-05	Total Recoverable Metals	Surface Water	1550	<2.50U	2.76	33.9	<2.00U	0.546JD	16700	<5.00U	1.56	11.4	2370	13.7	2580	332	<5.00U	<2.50U	847	<5.00U	<2.50U	1010	12.2D	<10.0U	150
	RPD		**27.78%**	N/A	**22.79%**	**18.47%**	N/A	N/A	**3.53%**	N/A	**17.54%**	**2.60%**	**29.19%**	**24.92%**	**4.55%**	**13.74%**	N/A	N/A	**6.95%**	N/A	N/A	**2.61%**	N/A	N/A	**15.38%**

Note: Removed flags from values for RPD calculation

Station ID	Analysis	Matrix	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
*CC48	Total Recoverable Metals	Surface Water	9160	3.22	34.5	172	<2.00U	2.15	24000	<5.00U	8.87	103	74700	307	4570	1380	<5.00U	4.56	2690	<5.00U	<2.50U	1340	<2.50U	22.9	668
*CC48_Dup-06	Total Recoverable Metals	Surface Water	9180	4.21	35.7	182	<2.00U	2.42	24600	5.40JD	9.16	104	75600	313	4610	1520	<5.00U	5.31	2570	<5.00U	<2.50U	1280	13.9D	21.9	761
	RPD		**0.22%**	**26.65%**	**3.42%**	**5.65%**	N/A	**11.82%**	**2.47%**	N/A	**3.22%**	**0.97%**	**1.20%**	**1.94%**	**0.87%**	**9.66%**	N/A	**15.20%**	**4.56%**	N/A	N/A	**4.58%**	N/A	**4.46%**	**13.02%**

Note: Removed flags from values for RPD calculation

Station ID	Analysis	Matrix	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
*CC03B	Total Recoverable Metals	Surface Water	3660	<2.50U	6.55	44.1	<2.00U	3.96	11700	<5.00U	2.16	111	8020	111	2220	830	<5.00U	<2.50U	1040	<5.00U	<2.50U	715	<2.50U	<10.0U	1010
*CC03B_Dup-07	Total Recoverable Metals	Surface Water	3720	<2.50U	6.76	42.2	<2.00U	3.76	12200	<5.00U	2.79	111	8950	138	2190	984	<5.00U	<2.50U	1030	<5.00U	<2.50U	662	<2.50U	<10.0U	1120
	RPD		**1.63%**	N/A	**3.16%**	**4.40%**	N/A	**5.18%**	**4.18%**	N/A	**25.45%**	**0.00%**	**10.96%**	**21.69%**	**1.36%**	**16.98%**	N/A	N/A	**0.97%**	N/A	N/A	**7.70%**	N/A	N/A	**10.33%**

Note: Removed flags from values for RPD calculation

Note: Not Applicable (N/A) is used for RPD when the analyte was not detected

Note: Data Qualifier Definitions Listed Below:

D	The analyte was diluted prior to analysis.
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
*	Samples were collected during a significant storm event

Sub_Location	Analysis	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
A33	Dissolved Metals	70.3	2UJ	0.2J	12.9	0.2J	2.3	32900	0.37J	0.65J	5.4	88.1	8.6J	1UJ	3260	1950	2.2	500U	5U	1UJ	978	1U	0.13J	574
A33_DUP-03	Dissolved Metals	71.5	2UJ	0.24J	12.7	0.21J	2.4	32700	2U	0.66J	5.5	88.2	8.5J	1UJ	3260	1940	2.3	493J	5U	1UJ	977	1U	0.12J	569
A34	Dissolved Metals	68.1	2UJ	0.13J	14.5	1U	0.53J	43800	0.86J	0.49J	4.9	113	16.8J	1UJ	2870	88.6	1.5	500U	5U	1U	1260	1UJ	0.17J	182
A40	Dissolved Metals	62.3	2UJ	0.17J	12.8	0.11J	1.4	33200	2U	0.42J	4.4	87.7	9J	1UJ	2760	934	1.9	451J	5U	1UJ	1080	1U	0.1J	414
A40_DUP-01	Dissolved Metals	58.6	2UJ	0.13J	12.8	0.12J	1.4	32400	2U	0.36J	4.1	86.5	6.4J	1UJ	2620	889	1.2	500UJ	5U	1U	999	1U	5U	371
A41C	Dissolved Metals	82.3	2UJ	0.14J	8.6J	0.05J	0.9J	29300	2U	0.07J	15.6	77.3	7.7J	21.6	1830	283	1U	547	5U	1UJ	1450	1U	5U	318
ES-FP01	Dissolved Metals	85.5	2UJ	0.23J	14.4	1.2	3.7	31600	4.4	1.4	8	86.7	48.1J	1.8	3950	4150	7	575	5U	1UJ	990	1UJ	0.14J	1050
ES-FP02	Dissolved Metals	101	2UJ	0.23J	14.7	1.4	3.9	32400	2U	1.5	8	89.5	44.6J	1.7	4100	4340	6.1	589	5U	1UJ	1010	1U	0.13J	1080
ES-FP03	Dissolved Metals	147	2UJ	0.22J	14.9	1.5	3.9	32200	2U	1.5	8.9	88.4	48J	2.2	4100	4400	5.2	589	5U	1UJ	992	1U	0.11J	1100
ET-FP01	Dissolved Metals	54	2UJ	0.16J	12.5	0.28J	1.4	32800	2U	0.48J	13.8	86.5	22J	1UJ	2740	962	3.4	438J	5U	1U	1030	1U	0.12J	418
ET-FP02	Dissolved Metals	20U	2UJ	0.07J	10.4	1U	0.34J	24100	2U	1U	1J	63.5	4.2J	1UJ	1610	0.9J	1U	500UJ	5U	1U	851	1U	5U	173
ET-FP03	Dissolved Metals	79.9	2UJ	0.16J	13	0.12J	1.6	34500	2U	0.51J	4.7	91	8.7J	1UJ	2990	1210	1.9	433J	5U	1U	1010	1U	0.09J	392
ET-FP04	Dissolved Metals	80.4	2UJ	0.16J	13	0.12J	1.6	34600	2U	0.51J	4.9	91.8	11.1J	1UJ	3020	1220	1.9	443J	5U	1U	1030	1U	0.12J	402
ET-FP05	Dissolved Metals	77.9	2UJ	0.16J	13.2	0.12J	1.6	33600	2U	0.47J	4.3	91	6.1J	1UJ	2840	1150	1.4	500UJ	5U	1U	961	1U	5U	357
ET-FP06	Dissolved Metals	72.6	2UJ	0.13J	13.2	0.12J	1.7	33700	2U	0.47J	4.3	91.4	5.3J	1UJ	2860	1160	1.4	500UJ	5U	1U	974	1U	5U	358
ET-FP07	Dissolved Metals	72.5	2UJ	0.19J	13.1	0.13J	1.6	34500	2U	0.5J	4.9	91	8.2J	1UJ	2960	1210	1.9	450J	5U	1U	1020	1U	0.12J	395
ET-FP08	Dissolved Metals	49.4	2UJ	0.19J	13.3	0.16J	1.8	36100	2U	0.63J	5.9	96	19.5J	1UJ	3130	1300	3.9	433J	5U	1U	1060	1U	0.15J	507
ET-FP09	Dissolved Metals	50.8	2UJ	0.15J	13	0.16J	1.7	36000	2U	0.6J	5.4	96.2	18.7J	1UJ	3120	1310	2.6	434J	1J	1U	1060	1U	0.13J	498
ET-FP09_DUP-02	Dissolved Metals	57.6	2UJ	0.18J	13.5	0.15J	1.7	35600	2U	0.62J	5.3	95.7	20J	1UJ	3030	1280	3.3	414J	5U	1UJ	1020	1U	0.1J	490
ET-FP10	Dissolved Metals	54.2	2UJ	0.21J	12.9	0.16J	1.7	36000	2U	0.6J	5.3	93.8	17.4J	1UJ	3120	1310	4	432J	5U	1U	1060	1U	0.12J	489
ET-FP11	Dissolved Metals	53.5	2UJ	0.13J	12.9	0.17J	1.8	37700	0.3J	0.57J	5.2	106	10.6J	1U	3120	1310	1.8	420J	5U	1U	1050	1U	0.09J	489
ET-FP12	Dissolved Metals	53	2UJ	0.14J	13.1	0.16J	1.7	37300	1.7J	0.6J	5.4	104	17.2J	1U	3080	1300	2.6	417J	5U	1U	1050	1UJ	0.14J	489
ET-FP13	Dissolved Metals	61.4	2UJ	0.16J	12.6	1U	1.8	37600	2U	0.57J	5.3	105	10.5J	1UJ	3040	1290	2	406J	5U	1UJ	1020	1U	0.1J	460
ET-FP14	Dissolved Metals	59.4	2UJ	0.17J	12.6	1U	2	35900	2U	0.6J	6	101	14J	1UJ	3110	1510	2.5	433J	5U	1UJ	1020	1UJ	0.11J	506
ET-FP16	Dissolved Metals	68.5	2UJ	0.17J	12.4	1U	2.3	33600	2U	0.6J	5.7	95.9	8.7J	1UJ	3230	1920	2.3	484J	5U	1U	974	1U	0.12J	571
FB-01	Dissolved Metals	5.1J	2UJ	0.05J	10U	1U	1U	72.4J	2U	1U	2U	33.1	2.3J	1UJ	500U	2.1	0.3J	500U	5U	1UJ	500U	1U	0.11J	4.4
FB-02	Dissolved Metals	5.2J	2UJ	0.07J	10U	1U	1U	99.2J	2U	1U	0.67J	33.1	6.9J	1UJ	500U	1.6	0.78J	500U	5U	1U	500U	1U	0.14J	8.5
KT-FP02	Dissolved Metals	46.6	2UJ	0.14J	14	1U	1.3	33600	2U	0.39J	4.2	93.9	11.2J	1UJ	2700	816	1.9	423J	5U	1U	1090	1U	0.11J	414
KT-FP03	Dissolved Metals	49.8	2UJ	0.17J	14.2	1U	1.4	33600	2U	0.46J	4.3	93.7	12.5J	1UJ	2690	824	2	422J	5U	1U	1100	1U	0.18J	408
KT-FP04	Dissolved Metals	53.1	2UJ	0.13J	14.3	0.13J	1.4	33500	2U	0.35J	4	93.4	8.3J	1UJ	2570	823	1.1	500UJ	5U	1U	1030	1U	5U	363
MT-FP01	Dissolved Metals	53.5	2UJ	0.12J	12	1U	1.4	32100	2U	0.38J	4.3	77.6	6.5J	1UJ	2640	874	1.9	413J	5U	1U	1010	1U	0.13J	401

Sub_Location	Analysis	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
A40	Dissolved Metals	62.3	2UJ	0.17	12.8	0.11	1.4	33200	2U	0.42	4.4	87.7	9	1UJ	2760	934	1.9	451J	5U	1UJ	1080	1U	0.1J	414
A40_DUP-01	Dissolved Metals	58.6	2UJ	0.13	12.8	0.12	1.4	32400	2U	0.36	4.1	86.5	6.4	1UJ	2620	889	1.2	500UJ	5U	1U	999	1U	5U	371
	RPD	**6.12%**	N/A	**26.67%**	**0.00%**	**8.70%**	**0.00%**	**2.44%**	N/A	**15.38%**	**7.06%**	**1.38%**	**33.77%**	N/A	**5.20%**	**4.94%**	**45.16%**	N/A	N/A	N/A	**7.79%**	N/A	N/A	**10.96%**

Note: Removed flags from values for RPD calculation

Sub_Location	Analysis	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
ET-FP09	Dissolved Metals	50.8	2UJ	0.15	13	0.16	1.7	36000	2U	0.6	5.4	96.2	18.7	1UJ	3120	1310	2.6	434	1J	1U	1060	1U	0.13	498
ET-FP09_DUP-02	Dissolved Metals	57.6	2UJ	0.18	13.5	0.15	1.7	35600	2U	0.62	5.3	95.7	20	1UJ	3030	1280	3.3	414	5U	1UJ	1020	1U	0.1	490
	RPD	**12.55%**	N/A	**18.18%**	**3.77%**	**6.45%**	**0.00%**	**1.12%**	N/A	**3.28%**	**1.87%**	**0.52%**	**6.72%**	N/A	**2.93%**	**2.32%**	**23.73%**	**4.72%**	N/A	N/A	**3.85%**	N/A	**26.09%**	**1.62%**

Note: Removed flags from values for RPD calculation

Sub_Location	Analysis	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
A33	Dissolved Metals	70.3	2UJ	0.2	12.9	0.2	2.3	32900	0.37J	0.65	5.4	88.1	8.6	1UJ	3260	1950	2.2	500U	5U	1UJ	978	1U	0.13	574
A33_DUP-03	Dissolved Metals	71.5	2UJ	0.24	12.7	0.21	2.4	32700	2U	0.66	5.5	88.2	8.5	1UJ	3260	1940	2.3	493J	5U	1UJ	977	1U	0.12	569
	RPD	**1.69%**	N/A	**18.18%**	**1.56%**	**4.88%**	**4.26%**	**0.61%**	N/A	**1.53%**	**1.83%**	**0.11%**	**1.17%**	N/A	**0.00%**	**0.51%**	**4.44%**	N/A	N/A	N/A	**0.10%**	N/A	**8.00%**	**0.87%**

Note: Removed flags from values for RPD calculation

Note: Not Applicable (N/A) is used for RPD when the analyte was not detected

Note: Data Qualifier Definitions Listed Below:

D The analyte was diluted prior to analysis.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

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

Table 2.2-4 Bonita Peak Mining District Site August 2015
Surface Water Total Recoverable Metals Analytical Results

Sub_Location	Analysis	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L
A33	Total Recoverable Metals	748	2UJ	0.52J	13.4	1.1	2.4	32600	5.6	0.92J	25.4	114J	4	3300	1970	14.1	523	5U	1U	1050	1UJ	0.15J	666
A33_DUP-03	Total Recoverable Metals	725	2.2	0.56J	13	1	2.4	32200	0.32J	0.63J	24.4	80.7J	3.9	3190	1930	2.2	508	5U	1UJ	985	1U	0.23J	614
A34	Total Recoverable Metals	140	2UJ	0.09J	14.6	1U	0.56J	44400	0.07J	0.46J	8.2	96.6J	1UJ	2950	91.1	1.1	500U	5U	1U	1310	1U	0.12J	190
A40	Total Recoverable Metals	319	2UJ	0.37J	13.6	0.37J	1.5	34200	1.8J	0.49J	11.6	71.8J	2	2810	957	3.2	501	5U	1UJ	1120	1UJ	0.18J	438
A40_DUP-01	Total Recoverable Metals	315	2UJ	0.26J	12.7	0.45J	1.4	31700	2U	0.38J	10.2	59J	2	2590	896	1.2	500UJ	5U	1UJ	1000	1U	5U	390
A41C	Total Recoverable Metals	120	2UJ	0.2J	9J	1U	0.93J	29700	2U	0.08J	20.4	92.7J	39.5	1820	297	1U	567	5U	1UJ	1440	1U	0.07J	332
ES-FP01	Total Recoverable Metals	1740	2.3	0.46J	14.9	2.6	3.6	32000	0.33J	1.4	17.9	132J	7.2	4010	4170	4.4	608	5U	1UJ	1010	1U	0.23J	1080
ES-FP02	Total Recoverable Metals	1840	2.4	0.52J	14.7	2.7	3.6	31000	0.28J	1.5	19	124J	7.2	4130	4280	4.7	613	5U	1UJ	1020	1U	0.27J	1120
ES-FP03	Total Recoverable Metals	1850	2UJ	0.41J	15.6	2.9	4	32700	0.59J	1.5	19	139J	7.8	4170	4520	5.4	607	5U	1UJ	1010	1U	0.13J	1130
ET-FP01	Total Recoverable Metals	359	2UJ	0.36J	13	0.46J	1.5	34000	0.38J	0.43J	12.9	69.8J	2.5	2800	980	1.5	500U	5U	1UJ	1050	1U	0.17J	444
ET-FP02	Total Recoverable Metals	20U	2UJ	0.09J	10.1	1U	0.34J	23500	2U	1U	1.2J	12.5J	1.1	1630	2.9	1U	500UJ	5U	1U	862	1U	5U	174
ET-FP03	Total Recoverable Metals	439	2UJ	0.37J	14.1	0.52J	1.8	35500	0.15J	0.5J	15.4	79J	2.7	3030	1250	1.7	500U	5U	1UJ	1040	1U	0.1J	433
ET-FP04	Total Recoverable Metals	439	2UJ	0.48J	13.2	0.54J	1.7	33800	0.05J	0.58J	16.2	90.6J	2.8	2910	1210	1.7	500U	5U	1UJ	1010	1U	0.29J	432
ET-FP05	Total Recoverable Metals	452	2UJ	0.38J	13	0.57J	1.6	33000	2U	0.49J	15.5	90J	2.7	2850	1170	1.4	500UJ	5U	1U	982	1U	0.05J	398
ET-FP06	Total Recoverable Metals	460	2UJ	0.37J	13.4	0.62J	1.7	34200	2U	0.48J	15	83.8J	2.9	2860	1170	1.3	500UJ	5U	1U	976	1U	0.04J	398
ET-FP07	Total Recoverable Metals	480	2UJ	0.42J	13.7	0.58J	1.8	35200	0.25J	0.55J	17.5	96.9J	3.1	3030	1240	1.7	500U	5U	1U	1040	1U	0.09J	451
ET-FP08	Total Recoverable Metals	425	2UJ	0.36J	12.7	0.57J	1.8	34600	0.25J	0.57J	15.5	69.6J	2	2970	1270	1.9	500U	5U	1UJ	1020	1U	0.16J	508
ET-FP09	Total Recoverable Metals	461	2UJ	0.37J	13.8	0.61J	1.9	37500	0.85J	0.61J	17	80.8J	2.4	3200	1360	2.4	500U	5U	1UJ	1110	1U	0.17J	547
ET-FP09_DUP-02	Total Recoverable Metals	453	2UJ	0.42J	13.6	0.58J	1.9	36800	0.51J	0.62J	16.6	74.6J	2.2	3140	1330	2.3	500U	5U	1UJ	1090	1U	0.2J	520
ET-FP10	Total Recoverable Metals	459	2UJ	0.34J	13.3	0.61J	1.9	36400	0.28J	0.61J	16.5	86.7J	2.7	3130	1330	2.3	500U	5U	1UJ	1070	1U	0.15J	527
ET-FP11	Total Recoverable Metals	522	2UJ	0.34J	13.7	0.63J	1.9	36800	1.2J	0.63J	17	103J	3.8	3260	1360	2.3	453J	5U	1UJ	1110	1UJ	0.15J	555
ET-FP12	Total Recoverable Metals	469	2UJ	0.44J	13.5	0.62J	1.8	35800	10.1	0.87J	17.2	119J	3	3100	1310	5.3	435J	5U	1UJ	1150	1UJ	0.53J	528
ET-FP13	Total Recoverable Metals	497	2UJ	0.42J	13.3	0.6J	1.8	34500	4.6	0.74J	19.6	167J	11	3040	1330	5.9	430J	5U	1UJ	1070	1UJ	0.18J	513
ET-FP14	Total Recoverable Metals	537	2UJ	0.33J	13.2	0.74J	2	34300	1.2J	0.65J	19	81.3J	2.5	3140	1530	2.7	445J	5U	0	1010	0	0.23J	556
ET-FP16	Total Recoverable Metals	719	2UJ	0.54J	12.9	1.1	2.4	31500	0.14J	0.64J	23.9	86.7J	4.3	3160	1910	2.2	482J	5U	0	948	0	0.12J	628
FB-01	Total Recoverable Metals	13.9J	2UJ	0.06J	0.72J	1U	1U	75.3J	0.76J	0.08J	0.32J	18.4J	1U	500U	2.1	0.53J	500U	5U	0	500U	1UJ	0.22J	10.5
FB-02	Total Recoverable Metals	5.9J	2UJ	0.06J	0	1U	1U	83J	0.15J	1U	2U	11J	1U	500U	0.74J	0.18J	500U	5U	0	500U	0	0.13J	9.1
KT-FP02	Total Recoverable Metals	282	2UJ	0.36J	14.2	0.36J	1.4	33100	0.28J	0.4J	10.9	59J	1.8	2740	847	1.4	439J	5U	1UJ	1120	0	0.29J	439
KT-FP03	Total Recoverable Metals	279	2UJ	0.32J	14.6	0.37J	1.3	33400	0.54J	0.43J	10.7	64.3J	2.2	2790	859	1.5	438J	5U	1UJ	1120	0	0.27J	437
KT-FP04	Total Recoverable Metals	280	2UJ	0.23J	14.3	0.35J	1.4	32000	2U	0.36J	9.4	51.6J	1.9	2590	829	1.1	500UJ	5U	0	1030	0	5U	382
MT-FP01	Total Recoverable Metals	273	2UJ	0.37J	11.4	0.34J	1.3	30200	0.33J	0.4J	11.2	57.2J	2	2550	845	1.6	414J	5U	1UJ	976	0	0.32J	418

Sub_Location	Analysis	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L
A40	Total Recoverable Metals	319	2UJ	0.37	13.6	0.37	1.5	34200	1.8J	0.49	11.6	71.8	2	2810	957	3.2	501	5U	1UJ	1120	1UJ	0.18J	438
A40_DUP-01	Total Recoverable Metals	315	2UJ	0.26	12.7	0.45	1.4	31700	2U	0.38	10.2	59	2	2590	896	1.2	500UJ	5U	1UJ	1000	1U	5U	390
	RPD	**1.26%**	N/A	**34.92%**	**6.84%**	**19.51%**	**6.90%**	**7.59%**	N/A	**25.29%**	**12.84%**	**19.57%**	**0.00%**	**8.15%**	**6.58%**	**90.91%**	N/A	N/A	N/A	**11.32%**	N/A	N/A	**11.59%**

Note: Removed flags from values for RPD calculation

Sub_Location	Analysis	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L
ET-FP09	Total Recoverable Metals	461	2UJ	0.37	13.8	0.61	1.9	37500	0.85	0.61	17	80.8	2.4	3200	1360	2.4	500U	5U	1UJ	1110	1U	0.17	547
ET-FP09_DUP-02	Total Recoverable Metals	453	2UJ	0.42	13.6	0.58	1.9	36800	0.51	0.62	16.6	74.6	2.2	3140	1330	2.3	500U	5U	1UJ	1090	1U	0.2	520
	RPD	**1.75%**	N/A	**12.66%**	**1.46%**	**5.04%**	**0.00%**	**1.88%**	**50.00%**	**1.63%**	**2.38%**	**7.98%**	**8.70%**	**1.89%**	**2.23%**	**4.26%**	N/A	N/A	N/A	**1.82%**	N/A	**16.22%**	**5.06%**

Note: Removed flags from values for RPD calculation

Sub_Location	Analysis	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L
A33	Total Recoverable Metals	748	2UJ	0.52	13.4	1.1	2.4	32600	5.6	0.92	25.4	114	4	3300	1970	14.1	523	5U	1U	1050	1UJ	0.15	666
A33_DUP-03	Total Recoverable Metals	725	2.2	0.56	13	1	2.4	32200	0.32	0.63	24.4	80.7	3.9	3190	1930	2.2	508	5U	1UJ	985	1U	0.23	614
	RPD	**3.12%**	N/A	**7.41%**	**3.03%**	**9.52%**	**0.00%**	**1.23%**	**178.38%**	**37.42%**	**4.02%**	**34.21%**	**2.53%**	**3.39%**	**2.05%**	**146.01%**	**2.91%**	N/A	N/A	**6.39%**	N/A	**42.11%**	**8.13%**

Note: Removed flags from values for RPD calculation

Note: Not Applicable (N/A) is used for RPD when the analyte was not detected

Note: Data Qualifier Definitions Listed Below:

D The analyte was diluted prior to analysis.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

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

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
A01	Dissolved Metals	<20.0U	<0.500U	0.585J	9.78J	<2.00U	<0.100U	13200	<1.00U	<0.100U	0.624J	38	<100U	<0.100U	1340	21.8	<1.00U	<0.500U	401J	<1.00U	<0.500U	1250	<0.500U	<2.00U	17.0J
A02	Dissolved Metals	<20.0U	<0.500U	<0.500U	18.8	<2.00U	3.96	18500	<1.00U	0.137J	1.82	59	<100U	<0.100U	3110	74.1	<1.00U	0.596J	846J	<1.00U	<0.500U	1400	<0.500U	<2.00U	774
A02A	Dissolved Metals	<20.0U	<0.500U	0.873J	8.06J	<2.00U	0.477	13100	<1.00U	<0.100U	0.768J	37	<100U	0.213	1090	<2.00U	<1.00U	<0.500U	411J	<1.00U	<0.500U	1100	<0.500U	<2.00U	54.2
A03	Dissolved Metals	<20.0U	<0.500U	0.615J	11.5	<2.00U	0.549	37800	<1.00U	<0.100U	1.18	115	<100U	<0.100U	5140	<2.00U	<1.00U	<0.500U	781J	<1.00U	<0.500U	508J	<0.500U	<2.00U	85.4
A04	Dissolved Metals	<20.0U	<0.500U	<0.500U	9.13J	<2.00U	<0.100U	9660	<1.00U	<0.100U	0.754J	28	<100U	<0.100U	978	4.37J	<1.00U	<0.500U	<250U	<1.00U	<0.500U	957J	<0.500U	<2.00U	10.8J
A05	Dissolved Metals	<20.0U	<0.500U	<0.500U	16.6	<2.00U	0.817	33000	<1.00U	<0.100U	1.12	100	<100U	<0.100U	4400	<2.00U	<1.00U	0.738J	676J	<1.00U	<0.500U	580J	<0.500U	<2.00U	142
A06	Dissolved Metals	<20.0U	<0.500U	<0.500U	18.3	<2.00U	<0.100U	36900	<1.00U	<0.100U	0.736J	128	<100U	<0.100U	8790	<2.00U	<1.00U	<0.500U	881J	<1.00U	<0.500U	328J	<0.500U	<2.00U	<10.0U
A07	Dissolved Metals	10600	<0.500U	<0.500U	23.5	4.07J	19.6	27000	<1.00U	8.03	69.9	88	<100U	6.25	4870	5980	<1.00U	12.6	1040	<1.00U	<0.500U	1670	<0.500U	<2.00U	3240
A07A	Dissolved Metals	13300	<0.500U	<0.500U	25.1	5.35	23.6	30800	<1.00U	10.9	90.4	101	<100U	7.55	5920	7620	<1.00U	15.8	1310	<1.00U	<0.500U	1930	<0.500U	<2.00U	3860
A07B	Dissolved Metals	13400	<0.500U	<0.500U	30.2	5.98	23.0	31400	<1.00U	9.22	51.5	97	102J	9.44	4530	6110	<1.00U	13.9	913J	<1.00U	<0.500U	2290	<0.500U	<2.00U	4340
A07C	Dissolved Metals	15000	<0.500U	<0.500U	31.9	2.22J	19.7	21200	<1.00U	5.38	60.9	69	298	23.2	3900	7820	<1.00U	14.8	389J	<1.00U	<0.500U	418J	<0.500U	<2.00U	4490
A08	Dissolved Metals	1950	<0.500U	<0.500U	18.4	<2.00U	7.30	31100	<1.00U	2.71	22.8	98	<100U	1.96	4910	2060	<1.00U	3.37	770J	<1.00U	<0.500U	942J	<0.500U	<2.00U	1220
A09	Dissolved Metals	449	<0.500U	<0.500U	27.0	<2.00U	7.68	30200	<1.00U	1.16	13.6	95	<100U	22.4	4680	931	<1.00U	2.84	884J	<1.00U	<0.500U	880J	<0.500U	<2.00U	1380
A10	Dissolved Metals	3800	<0.500U	<0.500U	19.2	6.56	11.6	62500	<1.00U	4.16	39.4	191	306	7.22	8480	18000	<1.00U	8.38	1300	<1.00U	<0.500U	2020	<0.500U	<2.00U	4560
A11	Dissolved Metals	3870	<0.500U	<0.500U	18.6	6.82	10.1	63200	<1.00U	4.12	27.7	193	313	6.38	8600	18600	<1.00U	8.39	1320	<1.00U	<0.500U	2050	<0.500U	<2.00U	4110
A11A	Dissolved Metals	29500	<0.500U	12.0	<5.00U	8.33	896	36400	3.93	226	6790	140	61100	289	11900	17900	1.05	65.8	1120	15.8	<0.500U	1310	0.676J	<2.00U	302000
A12	Dissolved Metals	285	<0.500U	2.47	12.0	<2.00U	4.77	147000	1.69J	15.1	2.36	406	3550	0.482	9480	16600	1.81	<0.500U	3580	<1.00U	<0.500U	4600	<0.500U	<2.00U	6080
A13	Dissolved Metals	5590	<0.500U	<0.500U	19.4	9.29	10.2	53400	<1.00U	3.20	28.3	168	203J	7.83	8440	18900	<1.00U	9.47	1120	<1.00U	<0.500U	1750	<0.500U	<2.00U	3920
A14	Dissolved Metals	2930	<0.500U	<0.500U	20.6	5.07	10.7	53600	<1.00U	3.41	32.5	165	218J	11.3	7470	13600	<1.00U	7.20	1180	<1.00U	<0.500U	1720	<0.500U	<2.00U	3800
A15	Dissolved Metals	9520	<0.500U	<0.500U	19.1	15.6	15.5	63600	<1.00U	4.59	36.4	207	133J	0.954	11700	29700	<1.00U	15.4	1200	<1.00U	<0.500U	2300	<0.500U	<2.00U	5100
A16	Dissolved Metals	<20.0U	<0.500U	1.78J	18.8	<2.00U	1.74	102000	2.19	0.696	1.19	280	<100U	<0.100U	6200	892	2.79	<0.500U	1870	<1.00U	<0.500U	3980	<0.500U	<2.00U	954
A17B	Dissolved Metals	25.1J	<0.500U	<0.500U	5.41J	<2.00U	15.6	25900	<1.00U	<0.100U	8.75	72	<100U	0.584	1660	236	2.59	<0.500U	850J	<1.00U	<0.500U	1090	<0.500U	<2.00U	6840
A19A	Dissolved Metals	3200	<0.500U	1.42J	16.2	<2.00U	45.7	15000	<1.00U	6.05	1270	46	5050	208	2000	5700	<1.00U	4.74	962J	<1.00U	0.889J	581J	<0.500U	<2.00U	6230
A20	Dissolved Metals	286	<0.500U	<0.500U	20.8	<2.00U	3.66	38600	<1.00U	1.39	19.4	113	324	20.3	3950	1170	<1.00U	0.975J	1070	<1.00U	<0.500U	1060	<0.500U	<2.00U	1710
A21	Dissolved Metals	815	<0.500U	<0.500U	19.6	<2.00U	3.93	44300	<1.00U	3.08	12.6	129	801	32.6	4570	1900	<1.00U	1.51	1200	<1.00U	<0.500U	1230	<0.500U	<2.00U	1780
A21A	Dissolved Metals	13500	<0.500U	1.40J	14.8	2.49J	12.1	15400	<1.00U	20.5	1.44	59	16300	198	5080	9600	<1.00U	9.95	3710	<1.00U	<0.500U	1110	1.72	<2.00U	4930
A22	Dissolved Metals	29.7J	<0.500U	<0.500U	19.2	<2.00U	1.99	50300	<1.00U	<0.100U	4.71	144	<100U	2.01	4490	348	<1.00U	<0.500U	776J	<1.00U	<0.500U	1210	<0.500U	<2.00U	1150
A23	Dissolved Metals	187	<0.500U	<0.500U	19.7	<2.00U	1.89	40300	<1.00U	<0.100U	4.65	113	<100U	0.227	3070	1090	<1.00U	<0.500U	704J	<1.00U	<0.500U	1360	<0.500U	<2.00U	999
A23A	Dissolved Metals	<20.0U	<0.500U	<0.500U	20.0	<2.00U	1.98	38300	<1.00U	<0.100U	1.18	108	<100U	0.226	3000	7.42	<1.00U	<0.500U	546J	<1.00U	<0.500U	1430	<0.500U	<2.00U	1800
A24	Dissolved Metals	<20.0U	<0.500U	<0.500U	11.4	<2.00U	<0.100U	39500	1.16J	<0.100U	0.612J	110	<100U	<0.100U	2850	<2.00U	1.40	<0.500U	540J	<1.00U	<0.500U	651J	<0.500U	<2.00U	<10.0U
A26	Dissolved Metals	<20.0U	<0.500U	0.965J	35.5	<2.00U	<0.100U	101000	2.09	0.154J	0.890J	284	<100U	<0.100U	7930	31.9	2.03	<0.500U	1250	<1.00U	<0.500U	2040	<0.500U	<2.00U	<10.0U
A27	Dissolved Metals	<20.0U	0.604J	0.637J	11.7	<2.00U	4.73	37700	<1.00U	<0.100U	7.00	105	<100U	1.44	2550	<2.00U	1.20	<0.500U	556J	<1.00U	<0.500U	944J	<0.500U	<2.00U	812
A28	Dissolved Metals	39.5J	<0.500U	<0.500U	18.5	<2.00U	4.43	51600	<1.00U	0.978	3.56	150	<100U	0.442	5180	3800	<1.00U	0.525J	947J	<1.00U	<0.500U	1320	<0.500U	<2.00U	1330
A29	Dissolved Metals	958	1.16	4.40	19.9	<2.00U	15.1	123000	<1.00U	4.78	4200	329	6130	<0.100U	5130	3480	<1.00U	<0.500U	1560	<1.00U	<0.500U	3920	<0.500U	<2.00U	4500
A30	Dissolved Metals	42.9J	<0.500U	<0.500U	18.2	<2.00U	4.44	52900	<1.00U	0.983	19.3	154	<100U	0.313	5200	3750	<1.00U	<0.500U	966J	<1.00U	<0.500U	1360	<0.500U	<2.00U	1410
A31	Dissolved Metals	23.9J	<0.500U	<0.500U	16.7	<2.00U	3.40	52400	<1.00U	0.683	10.4	151	<100U	0.248	4790	2460	<1.00U	<0.500U	878J	<1.00U	<0.500U	1430	<0.500U	<2.00U	1130
A32	Dissolved Metals	<20.0U	<0.500U	0.646J	6.84J	<2.00U	<0.100U	54300	<1.00U	<0.100U	1.18	146	<100U	<0.100U	2470	<2.00U	8.71	<0.500U	660J	<1.00U	<0.500U	2000	<0.500U	<2.00U	10.7J
A33	Dissolved Metals	33.2J	<0.500U	<0.500U	16.2	<2.00U	3.26	52300	<1.00U	0.664	8.25	150	<100U	0.215	4790	2500	<1.00U	<0.500U	958J	<1.00U	<0.500U	1440	<0.500U	<2.00U	949
A34	Dissolved Metals	46.6J	<0.500U	<0.500U	16.1	<2.00U	0.991	75500	<1.00U	0.671	6.79	207	<100U	<0.100U	4490	177	<1.00U	<0.500U	766J	<1.00U	<0.500U	1840	<0.500U	<2.00U	307
A35	Dissolved Metals	42.2J	<0.500U	<0.500U	16.2	<2.00U	2.27	62300	<1.00U	0.658	7.40	175	<100U	0.138J	4690	1560	<1.00U	<0.500U	764J	<1.00U	<0.500U	1600	<0.500U	<2.00U	693
A36	Dissolved Metals	<20.0U	<0.500U	<0.500U	15.5	<2.00U	0.435	86600	<1.00U	2.41	3.08	240	223J	<0.100U	5670	254	<1.00U	<0.500U	697J	<1.00U	<0.500U	1670	<0.500U	<2.00U	80.7
A37	Dissolved Metals	<20.0U	<0.500U	<0.500U	18.2	<2.00U	0.279	63700	<1.00U	0.107J	1.78	172	<100U	<0.100U	3020	5.06	<1.00U	<0.500U	463J	<1.00U	<0.500U	2070	<0.500U	<2.00U	143
A39	Dissolved Metals	48.8J	<0.500U	<0.500U	14.4	<2.00U	1.08	32100	<1.00U	0.192J	14.6	91	<100U	2.23	2650	250	<1.00U	<0.500U	329J	<1.00U	<0.500U	1100	<0.500U	<2.00U	393
A40	Dissolved Metals	<20.0U	<0.500U	<0.500U	14.9	<2.00U	1.59	53500	<1.00U	0.481	5.29	149	<100U	0.149J	3880	1060	<1.00U	<0.500U	566J	<1.00U	<0.500U	1480	<0.500U	<2.00U	506
A40A	Dissolved Metals	<20.0U	<0.500U	<0.500U	16.3	<2.00U	2.17	64400	<1.00U	0.683	6.94	180	<100U	0.115J	4720	1520	<1.00U	<0.500U	606J	<1.00U	<0.500U	1650	<0.500U	<2.00U	586
A41	Dissolved Metals	1770	<0.500U	1.73J	5.17J	<2.00U	10.8	146000	<1.00U	21.0	1.30	419	23900	1.73	12900	2500	<1.00U	0.779J	1520	<1.00U	<0.500U	8690	<0.500U	<2.00U	670
A41A	Dissolved Metals	<20.0U	<0.500U	<0.500U	17.3	<2.00U	1.48	53700	<1.00U	0.456	4.97	150	<100U	<0.100U	3890	1020	<1.00U	<0.500U	528J	<1.00U	<0.500U	1580	<0.500U	<2.00U	490
A42	Dissolved Metals	<20.0U	<0.500U	<0.500U	53.9	<2.00U	<0.100U	51200	<1.00U	0.382	1.08	143	<100U	<0.100U	3790	38.8	1.11	<0.500U	555J	<1.00U	<0.500U	3140	<0.500U	<2.00U	<10.0U
A43	Dissolved Metals	<20.0U	<0.500U	<0.500U	47.0	<2.00U	<0.100U	48200	<1.00U	<0.100U	0.663J	135	<100U	<0.100U	3700	<2.00U	1.24	<0.500U	451J	<1.00U	<0.500U	2860	<0.500U	<2.00U	<10.0U
A45	Dissolved Metals	<20.0U	<0.500U	<0.500U	19.9	<2.00U	0.447	49800	<1.00U	<0.100U	1.21	138	<100U	0.113J	3270	63.6	<1.00U	<0.500U	500J	<1.00U	<0.500U	1940	<0.500U	<2.00U	229
A47	Dissolved Metals	<20.0U	<0.500U	<0.500U	<5.00U	<2.00U	0.168J	60000	<1.00U	<0.100U	0.722J	161	<100U	<0.100U	2600	<2.00U	2.49	<0.500U	278J	<1.00U	<0.500U	2740	<0.500U	<2.00U	16.0J
A48	Dissolved Metals	<20.0U	<0.500U	<0.500U	45.6	<2.00U	0.215	55100	<1.00U	<0.100U	1.10	148	<100U	0.130J	2660	2.24J	3.18	<0.500U	502J	<1.00U	<0.500U	2290	<0.500U	<2.00U	35.6
A54	Dissolved Metals	25.5J	<0.500U	<0.500U	9.98J	<2.00U	1.94	87700	<1.00U	10.6	1.76	244	2660	0.340	6160	1380	<1.00U	<0.500U	881J	<1.00U	<0.500U	3770	<0.500U	<2.00U	727
A55	Dissolved Metals	<20.0U	<0.500U	<0.500U	24.7	<2.00U	0.434	52600	<1.00U	0.209	1.90	144	<100U	0.213	3110	317	1.34	<0.500U	549J	<1.00U	<0.500U	2110	<0.500U	<2.00U	233
A56	Dissolved Metals	<20.0U	<0.500U	<0.500U	23.7	<2.00U	0.425	53400	<1.00U	0.266	1.83	147	<100U	0.176J	3240	256	1.27	<0.500U	550J	<1.00U	<0.500U	2260	<0.500U	<2.00U	203
A58	Dissolved Metals	<20.0U	<0.500U	<0.500U	28.4	<2.00U	1.37	39600	<1.00U	<0.100U	4.76	108	<100U	2.24	2090	<2.00U	6.36	<0.500U	465J	1.02J	<0.500U	2240	<0.500U	<2.00U	188
A60	Dissolved Metals	<20.0U	<0.500U	<0.500U	23.7	<2.00U	0.691	51200	<1.00U	0.228	2.27	140	<100U	0.491	3060	228	1.94	<0.500U	517J	<1.00U	<0.500U	2200	<0.500U	<2.00U	225
A61	Dissolved Metals	<20.0U	<0.500U	<0.500U	23.9	<2.00U	0.820	51900	<1.00U	0.280	3.30	143	<100U	0.459	3170	420	1.83	<0.500U	708J	<1.00U	<0.500U	2280	<0.500U	<2.00U	283
A64	Dissolved Metals	<20.0U	<0.500U	<0.500U	23.3	<2.00U	0.805	53700	<1.00U	0.265	2.90	147	<100U	0.320	3230	724	1.87	<0.500U	627J	<1.00U	<0.500U	2300	<0.500U	<2.00U	317
A65	Dissolved Metals	28.6J	<0.500U	<0.500U	23.2	<2.00U	0.982	51400	<1.00U	0.238	2.75	141	<100U	0.245	3050	780	2.05	<0.500U	631J	<1.00U	<0.500U	2330	<0.500U	<2.00U	326

Table 2.2-5 Bonita Peak Mining District Site September 2015
Surface Water Dissolved Metal Analytical Results

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
A66	Dissolved Metals	24.9J	<0.500U	<0.500U	22.6	<2.00U	1.06	52500	<1.00U	0.670	4.00	144	132J	0.126J	3120	1240	2.00	<0.500U	704J	<1.00U	<0.500U	2330	<0.500U	<2.00U	383
A68	Dissolved Metals	23.6J	<0.500U	<0.500U	21.3	<2.00U	1.14	52500	<1.00U	0.570	2.92	144	<100U	<0.100U	3170	1380	1.88	<0.500U	660J	<1.00U	<0.500U	2300	<0.500U	<2.00U	401
A72	Dissolved Metals	190	<0.500U	<0.500U	20.7	<2.00U	2.50	81300	<1.00U	7.75	30.2	227	1510	<0.100U	5720	2000	<1.00U	1.93	911J	<1.00U	<0.500U	3980	<0.500U	<2.00U	978
ARD1	Dissolved Metals	6370	<0.500U	0.558J	19.3	<2.00U	55.6	33700	<1.00U	16.1	1970	123	2390	861	9470	22300	<1.00U	11.8	983J	1.12J	1.71	1470	<0.500U	<2.00U	19500
Bakers Bridge	Dissolved Metals	<20.0U	<0.500U	<0.500U	30.7	<2.00U	0.838	57000	<1.00U	2.78	2.85	166	<100U	<0.100U	5730	778	<1.00U	<0.500U	919J	<1.00U	<0.500U	2760	<0.500U	<2.00U	275
BG1A	Dissolved Metals	261	<0.500U	<0.500U	26.8	<2.00U	2.03	10700	<1.00U	<0.100U	4.47	31	<100U	3.74	1010	41.3	<1.00U	1.62	366J	<1.00U	<0.500U	<250U	<0.500U	<2.00U	393
CC02D	Dissolved Metals	2820	<2.50U	<2.50U	<25.0U	4.30J	52.6D	196000	<5.00U	21.8D	16.0D	541	24700	232D	12300	29700	<5.00U	6.81D	2000	<5.00U	<2.50U	5590	<2.50U	<10.0U	35300
CC02E	Dissolved Metals	2000	<0.500U	<0.500U	8.66J	<2.00U	22.9	37600	<1.00U	7.46	16.6	107	6900	33.7	3190	2000	<1.00U	3.75	690J	<1.00U	<0.500U	3170	<0.500U	<2.00U	2650
CC03	Dissolved Metals	2040	<5.00U	<5.00U	<50.0U	3.31J	18.6D	243000	<10.0U	50.4D	89.2D	670	38500	6.88D	15200	19500	<10.0U	24.9D	1100	<10.0U	<5.00U	5390	<5.00U	<20.0U	10600
CC03B	Dissolved Metals	2260	<2.50U	<2.50U	<25.0U	<2.00U	15.8D	101000	<5.00U	2.88D	162D	282	164J	10.7D	6900	3630	<5.00U	5.35D	589J	<5.00U	<2.50U	3080	<2.50U	<10.0U	5660
CC03D	Dissolved Metals	1880	<5.00U	<5.00U	<50.0U	6.56	22.4D	409000	<10.0U	97.6D	11.4D	1120	89500	8.61D	24500	35000	<10.0U	39.8D	1690	<10.0U	<5.00U	7800	<5.00U	<20.0U	15100
CC06	Dissolved Metals	21100	<5.00U	<5.00U	<50.0U	10.5	67.6D	330000	<10.0U	95.4D	5370D	913	68700	24.0D	21700	33100	<10.0U	66.9D	1780	<10.0U	<5.00U	4650	<5.00U	<20.0U	24800
CC07	Dissolved Metals	21600	<5.00U	<5.00U	<50.0U	10.2	64.6D	332000	<10.0U	90.0D	4860D	920	61800	24.9D	22300	32900	<10.0U	42.8D	1730	<10.0U	<5.00U	4810	<5.00U	<20.0U	24100
CC14	Dissolved Metals	664	<2.50U	<2.50U	<25.0U	<2.00U	1.78D	185000	<5.00U	15.6D	3.51JD	498	18100	0.557JD	8600	2680	<5.00U	3.65JD	950J	<5.00U	<2.50U	3550	<2.50U	<10.0U	751
CC17	Dissolved Metals	313	<2.50U	<2.50U	<25.0U	<2.00U	1.80D	162000	<5.00U	9.56D	7.32D	439	1760	<0.500U	8210	1460	<5.00U	<2.50U	677J	<5.00U	<2.50U	3290	<2.50U	<10.0U	536
CC18	Dissolved Metals	7770	<5.00U	<5.00U	<50.0U	5.26	36.7D	295000	<10.0U	72.4D	1540D	818	37600	9.76D	19900	26400	<10.0U	31.3D	1490	<10.0U	<5.00U	29900	<5.00U	<20.0U	15900
CC18_Post Lime	Dissolved Metals	3270	<5.00U	<5.00U	<50.0U	3.88J	19.4D	272000	<10.0U	63.4D	173D	753	46900	14.4D	17800	23000	<10.0U	26.9D	1150	<10.0U	<5.00U	6820	<5.00U	<20.0U	12100
CC18B	Dissolved Metals	22200	<5.00U	<5.00U	<50.0U	9.82	64.8D	333000	<10.0U	92.4D	4760D	924	55200	28.2D	22800	31300	<10.0U	42.8D	1580	<10.0U	<5.00U	5140	<5.00U	<20.0U	22800
CC19	Dissolved Metals	42600D	<5.00U	<5.00U	<50.0U	56.5D	1.93JD	4340000D	<10.0U	143D	8.14JD	12100D	1400000D	<1.00U	303000D	472000D	<10.0U	50.2D	14100D	<10.0U	<5.00U	87400D	<5.00U	<20.0U	205000D
CC20	Dissolved Metals	6230	<5.00U	<5.00U	<50.0U	4.82J	28.6D	282000	<10.0U	66.0D	348D	785	43000	36.7D	19300	26700	<10.0U	29.1D	1050	<10.0U	<5.00U	7940	<5.00U	<20.0U	15100
CC21	Dissolved Metals	5310	<5.00U	<5.00U	<50.0U	3.33J	24.1D	232000	<10.0U	46.3D	984D	642	20100	5.02D	15200	16400	<10.0U	19.5D	1070	<10.0U	<5.00U	15700	<5.00U	<20.0U	10500
CC21_Post Lime	Dissolved Metals	2960	<5.00U	<5.00U	<50.0U	2.33J	12.6D	216000	<10.0U	33.5D	160D	594	18600	12.7D	13200	12300	<10.0U	14.1D	915J	<10.0U	<5.00U	5420	<5.00U	<20.0U	6680
CC48	Dissolved Metals	7760	<2.50U	<2.50U	<25.0U	2.11J	9.66D	191000	<5.00U	29.2D	390D	525	6330	11.9D	11600	7340	<5.00U	12.7D	1810	<5.00U	<2.50U	9060	<2.50U	<10.0U	4290
CG11	Dissolved Metals	3830	<0.500U	<0.500U	17.1	6.50	10.2	62200	<1.00U	3.95	27.9	191	324	5.96	8550	17600	<1.00U	8.94	1120	<1.00U	<0.500U	2120	<0.500U	<2.00U	3930
CG3	Dissolved Metals	18700	<0.500U	<0.500U	20.7	27.1	22.9	66300	<1.00U	6.71	56.8	229	<100U	0.639	15400	44100	<1.00U	23.4	1120	<1.00U	<0.500U	2260	<0.500U	<2.00U	7610
CG4	Dissolved Metals	15500	<0.500U	<0.500U	19.8	22.0	18.7	60200	<1.00U	5.75	72.6	207	127J	0.552	13600	36600	<1.00U	19.9	1060	<1.00U	<0.500U	2170	<0.500U	<2.00U	6270
CG6	Dissolved Metals	12000	<0.500U	<0.500U	18.9	17.0	16.4	63500	<1.00U	4.74	35.9	210	106J	0.597	12500	31500	<1.00U	16.4	1020	<1.00U	<0.500U	2360	<0.500U	<2.00U	5310
CG9	Dissolved Metals	4020	<0.500U	<0.500U	17.5	7.09	10.3	62200	<1.00U	4.15	26.8	191	297	6.16	8640	18000	<1.00U	9.73	1120	<1.00U	<0.500U	2090	<0.500U	<2.00U	3880
DM28	Dissolved Metals	<20.0U	<0.500U	4.69	7.67J	<2.00U	0.377	34600	<1.00U	<0.100U	<0.500U	94	<100U	1.67	1900	319	<1.00U	<0.500U	848J	<1.00U	<0.500U	812J	<0.500U	<2.00U	131
DM32	Dissolved Metals	3030	<0.500U	<0.500U	16.2	<2.00U	42.1	45800	<1.00U	4.55	2130	150	<100U	2070	8590	12800	<1.00U	7.05	451J	<1.00U	<0.500U	1210	<0.500U	<2.00U	12200
M34_DUP-01	Dissolved Metals	40.5J	<0.500U	<0.500U	25.3	<2.00U	0.710	71000	<1.00U	7.01	3.68	203	2950	0.325	6230	450	<1.00U	0.784J	607J	<1.00U	<0.500U	3410	<0.500U	<2.00U	183
CC03D_DUP-02	Dissolved Metals	2040	<5.00U	<5.00U	<50.0U	6.72	22.4D	418000	<10.0U	98.9D	12.0D	1150	93500	9.74D	25700	33500	<10.0U	39.9D	1680	<10.0U	<5.00U	8030	<5.00U	<20.0U	15300
A34_DUP-03	Dissolved Metals	61.2	<0.500U	<0.500U	15.6	<2.00U	1.03	78700	<1.00U	0.694	7.72	215	<100U	<0.100U	4570	179	<1.00U	<0.500U	457J	<1.00U	<0.500U	1820	<0.500U	<2.00U	308
CG3_DUP-04	Dissolved Metals	18300D	<0.500U	<0.500U	21.5	25.4D	22.3	65400D	<1.00U	7.49	62.9	224D	<500U	0.662	14800D	45500D	<1.00U	25.9	<1250U	1.27J	<0.500U	2440JD	<0.500U	<2.00U	7190D
A37_DUP-05	Dissolved Metals	<20.0U	<0.500U	<0.500U	16.4	<2.00U	0.272	66900	<1.00U	<0.100U	1.84	180	<100U	<0.100U	3130	6.50	<1.00U	<0.500U	394J	<1.00U	<0.500U	2230	<0.500U	<2.00U	153
A40A_DUP-06	Dissolved Metals	49.3J	<0.500U	<0.500U	14.6	<2.00U	2.13	67500	<1.00U	0.662	6.90	189	<100U	0.105J	4900	1530	<1.00U	<0.500U	629J	<1.00U	<0.500U	1840	<0.500U	<2.00U	592
A07C_DUP-07	Dissolved Metals	15900	<0.500U	<0.500U	29.5J	2.21J	19.4	22100	<1.00U	5.35	60.9	72	314	24.2	4020	7670	<1.00U	15.4	386J	<1.00U	<0.500U	538J	<0.500U	<2.00U	4440
A12_DUP-08	Dissolved Metals	265	<2.50U	<2.50U	<25.0UJ	<2.00U	4.61D	150000	<5.00U	16.3D	<2.50U	415	3550	<0.500U	9650	16200	<5.00U	3.71JD	3240	<5.00U	<2.50U	5120	<2.50U	<10.0U	5680
A20_DUP-09	Dissolved Metals	308	<0.500U	<0.500U	18.6J	<2.00U	3.69	41900	<1.00U	1.48	20.4	121	342	21.6	4080	1160	<1.00U	2.08	837J	<1.00U	<0.500U	1210	<0.500U	<2.00U	1750
A31_DUP-10	Dissolved Metals	36.3J	<0.500U	<0.500U	15.2J	<2.00U	3.35	57100	<1.00U	0.734	11.5	163	<100U	0.270	5030	2460	<1.00U	1.27	781J	<1.00U	<0.500U	1670	<0.500U	<2.00U	1090
Bbridge_DUP-11	Dissolved Metals	<20.0U	<0.500U	<0.500U	29.3J	<2.00U	0.854	62000	<1.00U	2.88	3.04	180	<100U	<0.100U	6140	737	<1.00U	0.759J	991J	<1.00U	<0.500U	3100	<0.500U	<2.00U	286
EG1	Dissolved Metals	<20.0U	<0.500U	<0.500U	17.4J	<2.00U	<0.100U	29600	<1.00U	<0.100U	<0.500U	82	<100U	<0.100U	1880	15.9	<1.00U	<0.500U	<250U	<1.00U	<0.500U	985J	<0.500U	<2.00U	<10.0U
EG2	Dissolved Metals	<20.0U	<0.500U	<0.500U	7.17J	<2.00U	0.537	21000	<1.00U	<0.100U	2.48	57	<100U	<0.100U	1150	34.7	<1.00U	<0.500U	<250U	<1.00U	<0.500U	1050	<0.500U	<2.00U	458
EG2A	Dissolved Metals	445	<0.500U	<0.500U	7.46J	<2.00U	3.28	36000	<1.00U	0.115J	13.0	101	<100U	0.484	2700	1120	<1.00U	1.96	<250U	<1.00U	<0.500U	912J	<0.500U	<2.00U	1920
EG3	Dissolved Metals	<20.0U	<0.500U	<0.500U	18.0J	<2.00U	0.184J	34600	<1.00U	<0.100U	1.37	97	<100U	<0.100U	2530	13.6	<1.00U	<0.500U	<250U	<1.00U	<0.500U	1060	<0.500U	<2.00U	78.1
EG3A	Dissolved Metals	31.7J	<0.500U	<0.500U	15.2J	<2.00U	0.588	33200	<1.00U	0.128J	9.78	94	<100U	2.45	2610	107	<1.00U	<0.500U	<250U	<1.00U	<0.500U	1100	<0.500U	<2.00U	215
EG4	Dissolved Metals	<20.0U	<0.500U	<0.500U	15.9J	<2.00U	0.222	33700	<1.00U	<0.100U	1.82	96	<100U	0.470	2750	7.21	<1.00U	<0.500U	<250U	<1.00U	<0.500U	1060	<0.500U	<2.00U	98.9
EG5	Dissolved Metals	25.6J	<0.500U	<0.500U	14.1J	<2.00U	0.535	33700	<1.00U	<0.100U	5.53	95	<100U	1.12	2590	53.2	<1.00U	<0.500U	252J	<1.00U	<0.500U	1120	<0.500U	<2.00U	228
EG6	Dissolved Metals	<20.0U	<0.500U	<0.500U	14.5J	<2.00U	0.794	43700	<1.00U	<0.100U	4.22	121	<100U	0.796	2910	94.3	<1.00U	<0.500U	368J	<1.00U	<0.500U	1510	<0.500U	<2.00U	429
EG9	Dissolved Metals	23.1J	<0.500U	<0.500U	14.7J	<2.00U	0.360	84000	<1.00U	1.76	2.39	231	<100U	<0.100U	5190	188	<1.00U	<0.500U	576J	<1.00U	<0.500U	1900	<0.500U	<2.00U	91.2
FB-01	Dissolved Metals	<20.0U	<0.500U	<0.500U	<5.00UJ	<2.00U	<0.100U	<100U	<1.00U	<0.100U	<0.500U	<2U	<100U	<0.100U	<100U	<2.00U	<1.00U	<0.500U	<250U	<1.00U	<0.500U	<250U	<0.500U	<2.00U	<10.0U
FB-02	Dissolved Metals	<20.0U	<0.500U	<0.500U	<5.00UJ	<2.00U	<0.100U	<100U	<1.00U	<0.100U	<0.500U	<2U	<100U	<0.100U	<100U	<2.00U	<1.00U	<0.500U	<250U	<1.00U	<0.500U	<250U	<0.500U	<2.00U	<10.0U
FB-03	Dissolved Metals	<20.0U	<0.500U	<0.500U	<5.00U	<2.00U	<0.100U	<100U	<1.00U	<0.100U	<0.500U	<2U	<100U	<0.100U	<100U	<2.00U	<1.00U	<0.500U	<250U	<1.00U	<0.500U	<250U	<0.500U	<2.00U	<10.0U
FB-04	Dissolved Metals	<20.0U	<0.500U	<0.500U	<5.00U	<2.00U	<0.100U	<100U	<1.00U	<0.100U	<0.500U	<2U	<100U	<0.100U	<100U	<2.00U	<1.00U	<0.500U	<250U	<1.00U	<0.500U	<250U	<0.500U	<2.00U	<10.0U
FB-05	Dissolved Metals	<20.0U	<0.500U	<0.500U	<5.00U	<2.00U	<0.100U	105J	<1.00U	<0.100U	<0.500U	<2U	<100U	<0.100U	<100U	<2.00U	<1.00U	<0.500U	<250U	<1.00U	<0.500U	<250U	<0.500U	<2.00U	<10.0U
FB-06	Dissolved Metals	<20.0U	<0.500U	<0.500U	<5.00U	<2.00U	<0.100U	<100U	<1.00U	<0.100U	<0.500U	<2U	<100U	<0.100U	<100U	<2.00U	<1.00U	<0.500U	<250U	<1.00U	<0.500U	<250U	<0.500U	<2.00U	<10.0U
LA3	Dissolved Metals	<20.0U	<0.500U	<0.500U	21.7	<2.00U	0.810	47900	<1.00U	0.167J	2.11	133	<100U	<0.100U	3320	234	<1.00U	<0.500U	603J	<1.00U	<0.500U	1990	<0.500U	<2.00U	329
M34	Dissolved Metals	47.7J	<0.500U	<0.500U	26.1	<2.00U	0.726	76500	<1.00U	6.73	3.63	217	3060	<0.100U	6400	466	<1.00U	1.11	689J	<1.00U	<0.500U	3790	<0.500U	<2.00U	181
MC0	Dissolved Metals	<20.0U	<0.500U	<0.500U	17.3	<2.00U	<0.100U	23000	<1.00U	<0.100U	1.97	67	<100U	<0.100U	2250	11.4	<1.00U	<0.500U	<250U	<1.00U	<0.500U	660J	<0.500U	<2.00U	42.6
TM1	Dissolved Metals	<20.0U	<2.50U	3.88JD	<25.0U	<2.00U	<0.500U	145000	<5.00U	0.662JD	<2.50U	404	282	<0.500U	10100	1970	<5.00U	<2.50U	1590	<5.00U	<2.50U	2470	<2.50U	<10.0U	10.5J

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
UA5	Dissolved Metals	1160	<0.500U	<0.500U	23.7	<2.00U	8.20	32400	<1.00U	1.69	18.5	101	<100U	24.7	4970	1300	<1.00U	4.24	738J	<1.00U	<0.500U	1050	<0.500U	<2.00U	1410
UA8	Dissolved Metals	71.8	<0.500U	<0.500U	19.1	<2.00U	4.29	59600	<1.00U	1.19	3.37	173	<100U	0.340	5970	4580	<1.00U	2.15	826J	<1.00U	<0.500U	1590	<0.500U	<2.00U	1420

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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	47.7	<0.500U	<0.500U	26.1	<2.00U	0.726	76500	<1.00U	6.73	3.63	217	3060	<0.100U	6400	466	<1.00U	1.11	689	<1.00U	<0.500U	3790	<0.500U	<2.00U	181
M34_DUP-01	Dissolved Metals	40.5	<0.500U	<0.500U	25.3	<2.00U	0.710	71000	<1.00U	7.01	3.68	203	2950	0.325	6230	450	<1.00U	0.784	607	<1.00U	<0.500U	3410	<0.500U	<2.00U	183
	RPD	**16.33%**	N/A	N/A	**3.11%**	N/A	**2.23%**	**7.46%**	N/A	**4.08%**	**1.37%**	**6.67%**	**3.66%**	N/A	**2.69%**	**3.49%**	N/A	**34.42%**	**12.65%**	N/A	N/A	**10.56%**	N/A	N/A	**1.10%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
CC03D	Dissolved Metals	1880	<5.00U	<5.00U	<50.0U	6.56	22.4	409000	<10.0U	97.6	11.4	1120	89500	8.61	24500	35000	<10.0U	39.8	1690	<10.0U	<5.00U	7800	<5.00U	<20.0U	15100
CC03D_DUP-02	Dissolved Metals	2040	<5.00U	<5.00U	<50.0U	6.72	22.4	418000	<10.0U	98.9	12	1150	93500	9.74	25700	33500	<10.0U	39.9	1680	<10.0U	<5.00U	8030	<5.00U	<20.0U	15300
	RPD	**8.16%**	N/A	N/A	N/A	**2.41%**	**0.00%**	**2.18%**	N/A	**1.32%**	**5.13%**	**2.64%**	**4.37%**	**12.32%**	**4.78%**	**4.38%**	N/A	**0.25%**	**0.59%**	N/A	N/A	**2.91%**	N/A	N/A	**1.32%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
A34	Dissolved Metals	46.6	<0.500U	<0.500U	16.1	<2.00U	0.991	75500	<1.00U	0.671	6.79	207	<100U	<0.100U	4490	177	<1.00U	<0.500U	766	<1.00U	<0.500U	1840	<0.500U	<2.00U	307
A34_DUP-03	Dissolved Metals	61.2	<0.500U	<0.500U	15.6	<2.00U	1.03	78700	<1.00U	0.694	7.72	215	<100U	<0.100U	4570	179	<1.00U	<0.500U	457	<1.00U	<0.500U	1820	<0.500U	<2.00U	308
	RPD	**27.09%**	N/A	N/A	**3.15%**	N/A	**3.86%**	**4.15%**	N/A	**3.37%**	**12.82%**	**3.79%**	N/A	N/A	**1.77%**	**1.12%**	N/A	N/A	**50.53%**	N/A	N/A	**1.09%**	N/A	N/A	**0.33%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
CG3	Dissolved Metals	18700	<0.500U	<0.500U	20.7	27.1	22.9	66300	<1.00U	6.71	56.8	229	<100U	0.639	15400	44100	<1.00U	23.4	1120	<1.00U	<0.500U	2260	<0.500U	<2.00U	7610
CG3_DUP-04	Dissolved Metals	18300	<0.500U	<0.500U	21.5	25.4	22.3	65400	<1.00U	7.49	62.9	224	<500U	0.662	14800	45500	<1.00U	25.9	<1250U	1.27J	<0.500U	2440	<0.500U	<2.00U	7190
	RPD	**2.16%**	N/A	N/A	**3.79%**	**6.48%**	**2.65%**	**1.37%**	N/A	**10.99%**	**10.19%**	**2.21%**	N/A	**3.54%**	**3.97%**	**3.13%**	N/A	**10.14%**	N/A	N/A	N/A	**7.66%**	N/A	N/A	**5.68%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
A37	Dissolved Metals	<20.0U	<0.500U	<0.500U	18.2	<2.00U	0.279	63700	<1.00U	0.107J	1.78	172	<100U	<0.100U	3020	5.06	<1.00U	<0.500U	463	<1.00U	<0.500U	2070	<0.500U	<2.00U	143
A37_DUP-05	Dissolved Metals	<20.0U	<0.500U	<0.500U	16.4	<2.00U	0.272	66900	<1.00U	<0.100U	1.84	180	<100U	<0.100U	3130	6.50	<1.00U	<0.500U	394	<1.00U	<0.500U	2230	<0.500U	<2.00U	153
	RPD	N/A	N/A	N/A	**10.40%**	N/A	**2.54%**	**4.90%**	N/A	N/A	**3.31%**	**4.55%**	N/A	N/A	**3.58%**	**24.91%**	N/A	N/A	**16.10%**	N/A	N/A	**7.44%**	N/A	N/A	**6.76%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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	<20.0U	<0.500U	<0.500U	16.3	<2.00U	2.17	64400	<1.00U	0.683	6.94	180	<100U	0.115	4720	1520	<1.00U	<0.500U	606	<1.00U	<0.500U	1650	<0.500U	<2.00U	586
A40A_DUP-06	Dissolved Metals	49.3J	<0.500U	<0.500U	14.6	<2.00U	2.13	67500	<1.00U	0.662	6.90	189	<100U	0.105	4900	1530	<1.00U	<0.500U	629	<1.00U	<0.500U	1840	<0.500U	<2.00U	592
	RPD	N/A	N/A	N/A	**11.00%**	N/A	**1.86%**	**4.70%**	N/A	**3.12%**	**0.58%**	**4.88%**	N/A	**9.09%**	**3.74%**	**0.66%**	N/A	N/A	**3.72%**	N/A	N/A	**10.89%**	N/A	N/A	**1.02%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
A07C	Dissolved Metals	15000	<0.500U	<0.500U	31.9	2.22	19.7	21200	<1.00U	5.38	60.9	69	298	23.2	3900	7820	<1.00U	14.8	389	<1.00U	<0.500U	418	<0.500U	<2.00U	4490
A07C_DUP-07	Dissolved Metals	15900	<0.500U	<0.500U	29.5	2.21	19.4	22100	<1.00U	5.35	60.9	72	314	24.2	4020	7670	<1.00U	15.4	386	<1.00U	<0.500U	538	<0.500U	<2.00U	4440
	RPD	**5.83%**	N/A	N/A	**7.82%**	**0.45%**	**1.53%**	**4.16%**	N/A	**0.56%**	**0.00%**	**4.26%**	**5.23%**	**4.22%**	**3.03%**	**1.94%**	N/A	**3.97%**	**0.77%**	N/A	N/A	**25.10%**	N/A	N/A	**1.12%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
A12	Dissolved Metals	285	<0.500U	2.47	12.0	<2.00U	4.77	147000	1.69J	15.1	2.36	406	3550	0.482	9480	16600	1.81	<0.500U	3580	<1.00U	<0.500U	4600	<0.500U	<2.00U	6080
A12_DUP-08	Dissolved Metals	265	<2.50U	<2.50U	<25.0UJ	<2.00U	4.61	150000	<5.00U	16.3	<2.50U	415	3550	<0.500U	9650	16200	<5.00U	3.71JD	3240	<5.00U	<2.50U	5120	<2.50U	<10.0U	5680
	RPD	**7.27%**	N/A	N/A	N/A	N/A	**3.41%**	**2.02%**	N/A	**7.64%**	N/A	**2.19%**	**0.00%**	N/A	**1.78%**	**2.44%**	N/A	N/A	**9.97%**	N/A	N/A	**10.70%**	N/A	N/A	**6.80%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
A20	Dissolved Metals	286	<0.500U	<0.500U	20.8	<2.00U	3.66	38600	<1.00U	1.39	19.4	113	324	20.3	3950	1170	<1.00U	0.975	1070	<1.00U	<0.500U	1060	<0.500U	<2.00U	1710
A20_DUP-09	Dissolved Metals	308	<0.500U	<0.500U	18.6	<2.00U	3.69	41900	<1.00U	1.48	20.4	121	342	21.6	4080	1160	<1.00U	2.08	837	<1.00U	<0.500U	1210	<0.500U	<2.00U	1750
	RPD	**7.41%**	N/A	N/A	**11.17%**	N/A	**0.82%**	**8.20%**	N/A	**6.27%**	**5.03%**	**6.84%**	**5.41%**	**6.21%**	**3.24%**	**0.86%**	N/A	**72.34%**	**24.44%**	N/A	N/A	**13.22%**	N/A	N/A	**2.31%**

Note: Removed flags from values for RPD calculation

Table 2.2-5 Bonita Peak Mining District Site September 2015
Surface Water Dissolved Metal Analytical Results

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
A31	Dissolved Metals	23.9	<0.500U	<0.500U	16.7	<2.00U	3.40	52400	<1.00U	0.683	10.4	151	<100U	0.248	4790	2460	<1.00U	<0.500U	878	<1.00U	<0.500U	1430	<0.500U	<2.00U	1130
A31_DUP-10	Dissolved Metals	36.3	<0.500U	<0.500U	15.2	<2.00U	3.35	57100	<1.00U	0.734	11.5	163	<100U	0.270	5030	2460	<1.00U	1.27	781	<1.00U	<0.500U	1670	<0.500U	<2.00U	1090
	RPD	**41.20%**	N/A	N/A	**9.40%**	N/A	**1.48%**	**8.58%**	N/A	**7.20%**	**10.05%**	**7.64%**	N/A	**8.49%**	**4.89%**	**0.00%**	N/A	N/A	**11.69%**	N/A	N/A	**15.48%**	N/A	N/A	**3.60%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
Bakers Bridge	Dissolved Metals	<20.0U	<0.500U	<0.500U	30.7	<2.00U	0.838	57000	<1.00U	2.78	2.85	166	<100U	<0.100U	5730	778	<1.00U	<0.500U	919	<1.00U	<0.500U	2760	<0.500U	<2.00U	275
Bbridge_DUP-11	Dissolved Metals	<20.0U	<0.500U	<0.500U	29.3	<2.00U	0.854	62000	<1.00U	2.88	3.04	180	<100U	<0.100U	6140	737	<1.00U	0.759J	991	<1.00U	<0.500U	3100	<0.500U	<2.00U	286
	RPD	N/A	N/A	N/A	**4.67%**	N/A	**1.89%**	**8.40%**	N/A	**3.53%**	**6.45%**	**8.09%**	N/A	N/A	**6.91%**	**5.41%**	N/A	N/A	**7.54%**	N/A	N/A	**11.60%**	N/A	N/A	**3.92%**

Note: Removed flags from values for RPD calculation

Note: Not Applicable (N/A) is used for RPD when the analyte was not detected

Note: Data Qualifier Definitions Listed Below:

D The analyte was diluted prior to analysis.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

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

Table 2.2-6 Bonita Peak Mining District Site September 2015
Surface Water Total Recoverable Metal Analytical Results

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
A01	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	14200	<5.00U	<0.500U	<2.50U	205J	<0.500U	1450	36.5	<5.00U	<2.50U	738J	<5.00U	<2.50U	1520	<2.50U	<10.0U	19.8J
A02	Total Recoverable Metals	24.6J	<2.50U	<2.50U	<25.0U	<2.00U	3.98D	19700	<5.00U	<0.500U	<2.50U	<100U	<0.500U	3300	73.4	<5.00U	<2.50U	1060	<5.00U	<2.50U	1590	11.5D	<10.0U	725
A02A	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	0.526JD	14000	<5.00U	<0.500U	<2.50U	<100U	0.569JD	1170	<2.00U	<5.00U	<2.50U	600J	<5.00U	<2.50U	1250	11.8D	<10.0U	52.1
A03	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	0.516JD	39900	<5.00U	<0.500U	<2.50U	<100U	<0.500U	5420	<2.00U	<5.00U	<2.50U	913J	<5.00U	<2.50U	622J	<2.50U	<10.0U	81.9
A04	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	10300	<5.00U	<0.500U	<2.50U	<100U	<0.500U	1090	8.57	<5.00U	<2.50U	467J	<5.00U	<2.50U	1140	<2.50U	<10.0U	11.8J
A05	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	0.764JD	35500	<5.00U	<0.500U	<2.50U	<100U	<0.500U	4790	<2.00U	<5.00U	<2.50U	792J	<5.00U	<2.50U	744J	<2.50U	<10.0U	136
A06	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	39000	<5.00U	<0.500U	<2.50U	<100U	<0.500U	9250	<2.00U	<5.00U	<2.50U	984J	<5.00U	<2.50U	446J	<2.50U	<10.0U	<10.0U
A07	Total Recoverable Metals	11200	<2.50U	<2.50U	<25.0U	4.01J	18.3D	28800	<5.00U	7.70D	65.6D	<100U	6.00D	5180	5870	<5.00U	11.8D	1060	<5.00U	<2.50U	1900	<2.50U	<10.0U	2970
A07A	Total Recoverable Metals	14000	<2.50U	<2.50U	<25.0U	5.22	22.4D	32200	<5.00U	10.2D	86.0D	<100U	7.33D	6280	7400	<5.00U	14.9D	1290	<5.00U	<2.50U	2190	<2.50U	<10.0U	3600
A07B	Total Recoverable Metals	14000	<2.50U	<2.50U	29.0JD	5.81	21.7D	32600	<5.00U	8.51D	49.8D	166J	8.87D	4760	5890	<5.00U	13.5D	1000	<5.00U	<2.50U	2540	<2.50U	<10.0U	3990
A07C	Total Recoverable Metals	15600	<2.50U	<2.50U	31.4JD	2.23J	18.8D	22300	<5.00U	5.00D	58.7D	309	21.9D	4090	7630	<5.00U	14.1D	468J	<5.00U	<2.50U	539J	<2.50U	<10.0U	4130
A08	Total Recoverable Metals	3910	<2.50U	<2.50U	<25.0U	<2.00U	6.88D	32900	<5.00U	2.57D	23.2D	<100U	1.95D	5150	1990	<5.00U	3.72JD	843J	<5.00U	<2.50U	1090	<2.50U	<10.0U	1120
A09	Total Recoverable Metals	1650	<2.50U	<2.50U	<25.0U	<2.00U	7.28D	32200	<5.00U	1.07D	13.5D	<100U	21.6D	4870	915	<5.00U	2.98JD	867J	<5.00U	<2.50U	1020	<2.50U	<10.0U	1260
A10	Total Recoverable Metals	6280	<2.50U	<2.50U	<25.0U	8.46	11.1D	65300	<5.00U	3.97D	41.2D	401	8.13D	8820	17500	<5.00U	7.90D	1280	<5.00U	<2.50U	2280	<2.50U	<10.0U	4130
A11	Total Recoverable Metals	6620	<2.50U	<2.50U	<25.0U	8.98	9.73D	67100	<5.00U	3.98D	30.7D	427	7.27D	8990	18000	<5.00U	7.70D	1240	<5.00U	<2.50U	2300	<2.50U	<10.0U	3790
A11A	Total Recoverable Metals	31000	<2.50U	12.0D	<25.0U	8.11	1090D	38200	<5.00U	227D	6800D	61100	254D	12600	17600	<5.00U	66.5D	1130	17.4D	<2.50U	1500	<2.50U	<10.0U	278000
A12	Total Recoverable Metals	434	<2.50U	<2.50U	<25.0U	<2.00U	4.47D	148000	<5.00U	14.8D	<2.50U	4390	1.39D	9490	16500	<5.00UJ	<2.50U	3560	<5.00U	<2.50U	5050	<2.50U	<10.0U	5470
A13	Total Recoverable Metals	7530	<2.50U	<2.50U	<25.0U	10.3	9.78D	54600	<5.00U	2.91D	31.4D	292	8.85D	8590	18200	<5.00UJ	8.88D	1170	<5.00U	<2.50U	2030	12.8D	<10.0U	3500
A14	Total Recoverable Metals	5100	<2.50U	<2.50U	<25.0U	6.55	10.1D	53800	<5.00U	3.29D	35.4D	314	12.4D	7430	13000	<5.00UJ	6.46D	996J	<5.00U	<2.50U	1900	13.8D	<10.0U	3370
A15	Total Recoverable Metals	12000	<2.50U	<2.50U	<25.0U	17.4	14.4D	63800	<5.00U	4.54D	41.4D	176J	1.41D	11700	29100	<5.00UJ	15.4D	1080	<5.00U	<2.50U	2500	<2.50U	<10.0U	4680
A16	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	1.70D	107000	<5.00U	0.729JD	<2.50U	332	0.718JD	6380	901	<5.00UJ	<2.50U	1650	<5.00U	<2.50U	4290	<2.50U	<10.0U	871
A17B	Total Recoverable Metals	346	<2.50U	<2.50U	<25.0U	<2.00U	14.8D	26900	<5.00U	<0.500U	15.7D	<100U	2.41D	1720	235	<5.00UJ	<2.50U	664J	<5.00U	<2.50U	1190	<2.50U	<10.0U	5980
A19A	Total Recoverable Metals	3310	<2.50U	<2.50U	<25.0U	<2.00U	44.5D	15800	<5.00U	5.92D	1270D	5110	192D	2010	5750	<5.00UJ	4.91JD	770J	<5.00U	<2.50U	643J	<2.50U	<10.0U	5630
A20	Total Recoverable Metals	1240	<2.50U	<2.50U	<25.0U	<2.00U	3.19D	40200	<5.00U	1.32D	21.1D	437	21.5D	3990	1190	<5.00UJ	<2.50U	894J	<5.00U	<2.50U	1160	<2.50U	<10.0U	1620
A21	Total Recoverable Metals	2290	<2.50U	<2.50U	<25.0U	<2.00U	3.85D	46500	<5.00U	2.98D	14.2D	1020	34.1D	4620	1880	<5.00UJ	<2.50U	1090	<5.00U	<2.50U	1320	<2.50U	<10.0U	1700
A21A	Total Recoverable Metals	13600	<2.50U	<2.50U	<25.0U	2.41J	12.1D	15800	<5.00U	20.9D	<2.50U	16400	194D	5040	9460	<5.00UJ	10.4D	3420	<5.00U	<2.50U	1200	<2.50U	<10.0U	4590
A22	Total Recoverable Metals	340	<2.50U	<2.50U	<25.0U	<2.00U	1.84D	52900	<5.00U	<0.500U	8.15D	<100U	4.52D	4570	346	<5.00UJ	<2.50U	611J	<5.00U	<2.50U	1330	<2.50U	<10.0U	1050
A23	Total Recoverable Metals	1020	<2.50U	<2.50U	<25.0U	<2.00U	1.95D	42300	<5.00U	<0.500U	5.71D	<100U	<0.500U	3140	1130	<5.00UJ	<2.50U	619J	<5.00U	<2.50U	1500	<2.50U	<10.0U	910
A23A	Total Recoverable Metals	1290	<2.50U	<2.50U	<25.0U	<2.00U	3.39D	40100	<5.00U	<0.500U	37.8D	539	79.7D	3120	710	<5.00U	<2.50U	455J	<5.00U	<2.50U	1610	<2.50U	<10.0U	4500
A24	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	41400	<5.00U	<0.500U	<2.50U	<100U	<0.500U	2920	<2.00U	<5.00U	<2.50U	456J	<5.00U	<2.50U	752J	<2.50U	<10.0U	<10.0U
A26	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	33.1JD	<2.00U	<0.500U	106000	<5.00U	<0.500U	<2.50U	<100U	<0.500U	8100	38.1	<5.00U	<2.50U	1040	<5.00U	<2.50U	2190	<2.50U	<10.0U	<10.0U
A27	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	4.59D	39100	<5.00U	<0.500U	7.00D	<100U	1.63D	2610	2.74J	<5.00U	<2.50U	460J	<5.00U	<2.50U	1050	<2.50U	<10.0U	763
A28	Total Recoverable Metals	1400	<2.50U	<2.50U	<25.0U	<2.00U	4.69D	56000	<5.00U	1.09D	12.2D	<100U	3.85D	5470	3870	<5.00U	<2.50U	1320	<5.00U	<2.50U	1670	<2.50U	<10.0U	1360
A29	Total Recoverable Metals	1860	3.43JD	132D	<25.0U	<2.00U	16.6D	134000	<5.00U	5.77D	10200D	16000	25.5D	5440	3520	<5.00U	<2.50U	1760	<5.00U	<2.50U	4390	15.0D	<10.0U	4320
A30	Total Recoverable Metals	1390	<2.50U	<2.50U	<25.0U	<2.00U	4.79D	57000	<5.00U	1.18D	83.2D	180J	4.82D	5550	3810	<5.00U	2.73JD	1170	<5.00U	<2.50U	1630	15.5D	<10.0U	1440
A31	Total Recoverable Metals	812	<2.50U	<2.50U	<25.0U	<2.00U	3.49D	55700	<5.00U	0.740JD	45.9D	100J	3.00D	5040	2450	<5.00U	<2.50U	960J	<5.00U	<2.50U	1660	<2.50U	<10.0U	1130
A32	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	57700	<5.00U	<0.500U	<2.50U	<100U	<0.500U	2750	<2.00U	10.0D	<2.50U	690J	<5.00U	<2.50U	2270	<2.50U	<10.0U	10.4J
A33	Total Recoverable Metals	647	<2.50U	<2.50U	<25.0U	<2.00U	3.30D	55500	<5.00U	0.738JD	37.9D	<100U	2.53D	5070	2500	<5.00U	<2.50U	980J	<5.00U	<2.50U	1670	<2.50U	<10.0U	964
A34	Total Recoverable Metals	198	<2.50U	<2.50U	<25.0U	<2.00U	0.963JD	82500	<5.00U	0.787JD	13.9D	<100U	<0.500U	4730	185	<5.00U	<2.50U	757J	<5.00U	<2.50U	2060	<2.50U	<10.0U	308
A35	Total Recoverable Metals	448	<2.50U	<2.50U	<25.0U	<2.00U	2.39D	67100	<5.00U	0.780JD	23.8D	<100U	1.56D	5020	1600	<5.00U	<2.50U	894J	<5.00U	<2.50U	1850	<2.50U	<10.0U	712
A36	Total Recoverable Metals	821	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	90200	<5.00U	2.73JD	15.5D	866	<0.500U	5990	261	<5.00U	<2.50U	892J	<5.00U	<2.50U	1770	<2.50U	<10.0U	104
A37	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	67100	<5.00U	<0.500U	<2.50U	<100U	<0.500U	3240	5.98	<5.00U	<2.50U	582J	<5.00U	<2.50U	2260	<2.50U	<10.0U	152
A39	Total Recoverable Metals	118	<2.50U	<2.50U	<25.0U	<2.00U	1.20D	32700	<5.00U	<0.500U	22.8D	<100U	5.01D	2740	256	<5.00U	<2.50U	424J	<5.00U	<2.50U	1150	<2.50U	<10.0U	385
A40	Total Recoverable Metals	117	<2.50U	<2.50U	<25.0U	<2.00U	1.63D	54400	<5.00U	<0.500U	9.37D	<100U	0.675JD	4020	1080	<5.00U	<2.50U	785J	<5.00U	<2.50U	1600	<2.50U	<10.0U	515
A40A	Total Recoverable Metals	213	<2.50U	<2.50U	<25.0U	<2.00U	2.16D	66100	<5.00U	0.791JD	14.4JD	<100U	0.738JD	5030	1540	<5.00U	<2.50U	825J	<5.00U	<2.50U	1860	<2.50U	<10.0U	599
A41	Total Recoverable Metals	1940	<2.50U	<2.50U	<25.0U	<2.00U	11.8D	149000	<5.00U	27.7JD	<2.50U	24900	1.98D	13500	2460	<5.00U	4.82JD	1850	<5.00U	<2.50U	9310	<2.50U	<10.0U	676
A41A	Total Recoverable Metals	121	<2.50U	<2.50U	<25.0U	<2.00U	1.51D	55500	<5.00U	0.537JD	9.72JD	<100U	0.755JD	4130	974	<5.00U	<2.50U	827J	<5.00U	<2.50U	1750	<2.50U	<10.0U	481
A42	Total Recoverable Metals	102	<2.50U	<2.50U	56.3D	<2.00U	<0.500U	52200	<5.00U	<0.500U	<2.50U	141J	<0.500U	3990	40.1	<5.00U	<2.50U	834J	<5.00U	<2.50U	3400	<2.50U	<10.0U	<10.0U
A43	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	47.8JD	<2.00U	<0.500U	47900	<5.00U	<0.500U	<2.50U	<100U	<0.500U	3790	<2.00U	<5.00U	<2.50U	735J	<5.00U	<2.50U	3020	<2.50U	<10.0U	<10.0U
A45	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	49100	<5.00U	<0.500U	<2.50U	<100U	0.704JD	3330	62.6	<5.00U	<2.50U	751J	<5.00U	<2.50U	2070	15.0D	<10.0U	224
A47	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	59700	<5.00U	<0.500U	<2.50U	<100U	0.518JD	2660	2.84J	<5.00U	<2.50U	583J	<5.00U	<2.50U	2940	15.3D	<10.0U	18.1J
A48	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	44.9JD	<2.00U	<0.500U	53400	<5.00U	<0.500U	<2.50U	<100U	<0.500U	2810	2.74J	<5.00U	<2.50U	670J	<5.00U	<2.50U	2410	<2.50U	<10.0U	36.1
A54	Total Recoverable Metals	110	<2.50U	<2.50U	<25.0U	<2.00U	1.75D	86600	<5.00U	11.2D	3.46JD	4240	1.81D	6250	1350	<5.00U	<2.50U	1030	<5.00U	<2.50U	3970	<2.50U	<10.0U	705
A55	Total Recoverable Metals	20.9J	<2.50U	<2.50U	<25.0U	<2.00U	0.506JD	52100	<5.00U	<0.500U	<2.50U	<100U	0.850JD	3170	318	<5.00U	<2.50U	783J	<5.00U	<2.50U	2270	<2.50U	<10.0U	225
A56	Total Recoverable Metals	36.7J	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	53300	<5.00U	<0.500U	<2.50U	<100U	0.761JD	3310	256	<5.00U	<2.50U	699J	<5.00U	<2.50U	2420	<2.50U	<10.0U	197
A58	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	27.9JD	<2.00U	1.32D	39400	<5.00U	<0.500U	5.50D	<100U	2.89D	2150	<2.00U	6.79D	<2.50U	645J	<5.00U	<2.50U	2400	<2.50U	<10.0U	172
A60	Total Recoverable Metals	42.1J	<2.50U	<2.50U	<25.0U	<2.00U	0.581JD	51300	<5.00U	<0.500U	2.84JD	<100U	1.84D	3150	229	<5.00U	<2.50U	754J	<5.00U	<2.50U	2410	<2.50U	<10.0U	216
A61	Total Recoverable Metals	67.4	<2.50U	<2.50U	<25.0U	<2.00U	0.752JD	50700	<5.00U	<0.500U	4.47JD	<100U	1.32D	3150	395	<5.00U	<2.50U	707J	<5.00U	<2.50U	2390	<2.50U	<10.0U	264
A64	Total Recoverable Metals	94.5	<2.50U	<2.50U	<25.0U	<2.00U	0.815JD	53400	<5.00U	<0.500U	6.10D	<100U	4.22D	3250	738	<5.00U	<2.50U	704J	<5.00U	<2.50U	2440	<2.50U	<10.0U	329
A65	Total Recoverable Metals	49.8J	<2.50U	<2.50U	<25.0U	<2.00U	0.803JD	58200	<5.00U	<0.500U	3.27JD	<100U	0.938JD	3350	753	<5.00U	<2.50U	582J	<5.00U	<2.50U	2550	<2.50U	<10.0U	344
A66	Total Recoverable Metals	91.8	<2.50U	<2.50U	<25.0U	<2.00U	1.07D	58200	<5.00U	0.652JD	4.49JD	337	2.36D	3390	1240	<5.00U	<2.50U	622J	<5.00U	<2.50U	2550	33.3D	<10.0U	388
A68	Total Recoverable Metals	87.6	<2.50U	<2.50U	<25.0U	<2.00U	1.11D	58800	<5.00U	0.539JD	4.97JD	240J	1.72D	3440	1370	<5.00U	<2.50U	574J	<5.00U	<2.50U	2560	<2.50U	<10.0U	411
A72	Total Recoverable Metals	2710	<2.50U	<2.50U	<25.0U	<2.00U	2.54D	91800	<5.00U	7.72D	68.6D	4650	4.82D	6280	2000	<5.00U	<2.50U	923J	<5.00U	<2.50U	4470	<2.50U	<10.0U	1000
ARD1	Total Recoverable Metals	7180	<2.50U	<2.50U	<25.0U	<2.00U	57.5D	37900	<5.00U	16.2D	1940D	3560	840D	10300	22300	<5.00U	12.8D	1040	<5.00U	<2.50U	1640	<2.50U	<10.0U	19900
Bakers Bridge	Total Recoverable Metals	460	<2.50U	<2.50U	31.7JD	<2.00U	0.945JD	62600	<5.00U	2.80D	12.0D	716	2.08D	6180	777	<5.00U	<2.50U	941J	<5.00U	<2.50U	3060	<2.50U	<10.0U	360
BG1A	Total Recoverable Metals	296	<2.50U	<2.50U	27.5JD	<2.00U	1.85D	11700	<5.00U	<0.500U	4.71JD	<100U	3.58D	1080	41.7	<5.00U	<2.50U	395J	<5.00U	<2.50U	256J	<2.50U	<10.0U	395

Table 2.2-6 Bonita Peak Mining District Site September 2015
Surface Water Total Recoverable Metal Analytical Results

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
CC02D	Total Recoverable Metals	3130	<2.50U	3.07JD	<25.0U	4.23J	50.6D	218000	<5.00U	22.4D	13.3D	28500	234D	13400	29700	<5.00U	6.70D	2170	<5.00U	<2.50U	6190	<2.50U	<10.0U	35800
CC02E	Total Recoverable Metals	2310	<2.50U	<2.50U	<25.0U	<2.00U	21.9D	41500	<5.00U	7.49D	17.8D	7550	34.0D	3440	1960	<5.00U	3.55JD	650J	<5.00U	<2.50U	3570	<2.50U	<10.0U	2620
CC03	Total Recoverable Metals	3900	<5.00U	<5.00U	<50.0U	4.27J	18.3D	268000	<10.0U	48.8D	108D	43900	36.6D	16500	19400	<10.0U	22.9D	1050	<10.0U	<5.00U	6030	<5.00U	<20.0U	10800
CC03B	Total Recoverable Metals	2760	<2.50U	<2.50U	<25.0U	<2.00U	15.2D	114000	<5.00U	2.84D	169D	258	11.2D	7550	3610	<5.00U	4.25JD	508J	<5.00U	<2.50U	3490	<2.50U	<10.0U	5710
CC03D	Total Recoverable Metals	4150	<5.00U	<5.00U	<50.0U	8.04	21.6D	441000	<10.0U	97.3D	16.0D	98900	65.3D	26400	34900	<10.0U	44.1D	1660	<10.0U	<5.00U	8610	<5.00U	<20.0U	16000
CC06	Total Recoverable Metals	24600	<5.00U	33.4D	<50.0U	10.8	63.7D	364000	<10.0U	88.6D	5440D	104000	38.2D	23600	32800	<10.0U	45.4D	1910	<10.0U	<5.00U	5200	<5.00U	21.0JD	25000
CC07	Total Recoverable Metals	24600	<5.00U	27.4D	<50.0U	10.5	68.1D	360000	<10.0U	92.9D	5300D	90800	35.9D	24200	32400	<10.0U	42.3D	1710	<10.0U	<5.00U	5400	<5.00U	<20.0U	24200
CC14	Total Recoverable Metals	920	<2.50U	<2.50U	<25.0U	<2.00U	1.82D	206000	<5.00U	15.8D	7.78D	19600	3.41D	9110	2630	<5.00U	<2.50U	826J	<5.00U	<2.50U	3950	<2.50U	<10.0U	732
CC17	Total Recoverable Metals	1830	<2.50U	<2.50U	<25.0U	<2.00U	1.78D	174000	<5.00U	9.82D	15.5D	3150	3.29D	8520	1480	<5.00U	<2.50U	725J	<5.00U	<2.50U	3600	37.2D	<10.0U	525
CC18	Total Recoverable Metals	11900	<5.00U	9.45JD	<50.0U	6.35	35.9D	310000	<10.0U	74.5D	1920D	59000	39.0D	20300	26700	<10.0U	31.2D	1420	<10.0U	<5.00U	30900	85.4D	<20.0U	16500
CC18_Post Lime	Total Recoverable Metals	4820	<5.00U	<5.00U	<50.0U	4.62J	18.2D	294000	<10.0U	61.4D	198D	53200	42.0D	18400	23200	<10.0U	27.4D	1190	<10.0U	<5.00U	7270	<5.00U	<20.0U	12500
CC18B	Total Recoverable Metals	23800	<5.00U	23.8D	<50.0U	9.67	63.3D	351000	<10.0U	88.0D	4540D	81100	36.3D	23300	31200	<10.0U	38.1D	1700	<10.0U	<5.00U	5540	<5.00U	<20.0U	23500
CC19	Total Recoverable Metals	4770D	<5.00U	<5.00U	<50.0U	<20.0U	1.55JD	456000D	<10.0U	138D	8.36JD	145000D	2.29D	30700D	49700D	<10.0U	49.3D	<2500U	<10.0U	<5.00U	9320JD	<5.00U	<20.0U	21500D
CC20	Total Recoverable Metals	7110	<5.00U	<5.00U	<50.0U	4.93J	27.8D	295000	<10.0U	65.6D	355D	51500	65.9D	19700	26800	<10.0U	26.5D	1140	<10.0U	<5.00U	8500	<5.00U	<20.0U	14900
CC21	Total Recoverable Metals	8570	<5.00U	<5.00U	<50.0U	4.07J	22.4D	242000	<10.0U	44.6D	1140D	34000	26.8D	15200	16100	<10.0U	16.5D	1050	<10.0U	<5.00U	16300	<5.00U	<20.0U	10300
CC21_Post Lime	Total Recoverable Metals	4110	<2.50U	<2.50U	<25.0U	2.48J	12.8D	222000	<5.00U	34.0D	176D	22000	31.6D	13300	12400	<5.00U	12.2D	923J	<5.00U	<2.50U	5740	<2.50U	<10.0U	6620
CC48	Total Recoverable Metals	8260	<2.50U	8.18JD	<25.0U	2.07J	9.71D	203000	<5.00U	29.0D	413D	16600	15.3D	11800	7500	<5.00U	12.2D	1900	<5.00U	<2.50U	9690	<2.50U	<10.0U	4330
CG11	Total Recoverable Metals	6610	<2.50U	<2.50U	<25.0U	8.81	9.54D	66600	<5.00U	3.71D	31.5D	440	7.29D	8780	17700	<5.00U	8.98D	1200	<5.00U	<2.50U	2370	<2.50U	<10.0U	3930
CG3	Total Recoverable Metals	19000D	<2.50U	<2.50U	<25.0U	26.3D	22.0D	67800D	<5.00U	6.47D	58.8D	<500U	0.624JD	15200D	46000D	<5.00U	22.6D	<1250U	<5.00U	<2.50U	2420JD	<2.50U	<10.0U	7200D
CG4	Total Recoverable Metals	16300	<2.50U	<2.50U	<25.0U	21.7	18.2D	64700	<5.00U	5.30D	47.2D	140J	0.567JD	13900	36400	<5.00U	19.2D	1070	<5.00U	<2.50U	2410	<2.50U	<10.0U	6030
CG6	Total Recoverable Metals	13700	<2.50U	<2.50U	<25.0U	18.3	15.9D	67200	<5.00U	4.61D	41.2D	151J	1.41D	12500	31600	<5.00U	17.4D	1020	<5.00U	<2.50U	2580	<2.50U	<10.0U	5260
CG9	Total Recoverable Metals	7140	<2.50U	<2.50U	<25.0U	9.58	9.53D	67200	<5.00U	3.87D	31.8D	479	8.70D	8870	18300	<5.00U	8.93D	1140	<5.00U	<2.50U	2340	<2.50U	<10.0U	3980
DM28	Total Recoverable Metals	113	<2.50U	18.5D	<25.0U	<2.00U	1.49D	38400	<5.00U	<0.500U	7.22D	705	83.0D	1970	1240	<5.00U	<2.50U	949J	<5.00U	<2.50U	999J	<2.50U	<10.0U	312
DM32	Total Recoverable Metals	3390	<2.50U	<2.50U	<25.0U	<2.00U	40.0D	49200	<5.00U	4.67D	2030D	376	1990D	8870	13100	<5.00U	7.26D	480J	<5.00U	<2.50U	1440	<2.50U	<10.0U	11900
M34_DUP-01	Total Recoverable Metals	3090	<2.50U	<2.50U	26.4JD	<2.00U	0.632JD	76800	<5.00U	6.66D	10.8D	4380	2.61D	6430	475	<5.00U	<2.50U	653J	<5.00U	<2.50U	3790	<2.50U	<10.0U	191
CC03D_DUP-02	Total Recoverable Metals	4050	<2.50U	2.54JD	<25.0U	8.13	22.2D	438000	<5.00U	93.6D	14.7D	96000	64.1D	25900	34600	<5.00U	37.4D	1650	<5.00U	<2.50U	8460	<2.50U	<10.0U	15700
A34_DUP-03	Total Recoverable Metals	190	<2.50U	<2.50U	<25.0U	<2.00U	0.980JD	82800	<5.00U	0.657JD	12.8D	<100U	<0.500U	4680	188	<5.00U	<2.50U	555J	<5.00U	<2.50U	2060	27.6D	<10.0U	316
CG3_DUP-04	Total Recoverable Metals	19100D	<2.50U	<2.50U	<25.0U	26.9D	21.8D	67600D	<5.00U	6.14D	58.5D	<500U	0.794JD	15200D	46700D	<5.00U	22.7D	<1250U	<5.00U	<2.50U	2370JD	29.2D	<10.0U	7320D
A37_DUP-05	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	67000	<5.00U	<0.500U	<2.50U	<100U	<0.500U	3120	6.61	<5.00U	<2.50U	458J	<5.00U	<2.50U	2170	<2.50U	<10.0U	150
A40A_DUP-06	Total Recoverable Metals	200	<2.50U	<2.50U	<25.0U	<2.00U	2.14D	67300	<5.00U	0.542JD	11.2D	<100U	0.579JD	4850	1530	<5.00U	<2.50U	653J	<5.00U	<2.50U	1770	<2.50U	<10.0U	594
A07C_DUP-07	Total Recoverable Metals	16300	<2.50U	<2.50U	28.7JD	2.30J	19.5D	22700	<5.00U	4.73D	56.3D	331	21.9D	4080	7780	<5.00U	13.5D	390J	<5.00U	<2.50U	510J	<2.50U	<10.0U	4420
A12_DUP-08	Total Recoverable Metals	374	<2.50U	<2.50U	<25.0U	<2.00U	4.23D	155000	<5.00U	13.2D	<2.50U	3930	<0.500U	9740	16500	<5.00U	<2.50U	3390	<5.00U	<2.50U	5080	<2.50U	<10.0U	5560
A20_DUP-09	Total Recoverable Metals	1270	<2.50U	<2.50U	<25.0U	<2.00U	3.29D	41900	<5.00U	1.21D	19.3D	454	22.9D	4050	1180	<5.00U	<2.50U	917J	<5.00U	<2.50U	1160	<2.50U	<10.0U	1740
A31_DUP-10	Total Recoverable Metals	834	<2.50U	<2.50U	<25.0U	<2.00U	3.15D	58200	<5.00U	0.645JD	40.4D	107J	2.70D	5070	2500	<5.00U	<2.50U	780J	<5.00U	<2.50U	1620	<2.50U	<10.0U	1150
Bbridge_DUP-11	Total Recoverable Metals	483	<2.50U	<2.50U	30.9JD	<2.00U	0.958JD	62300	<5.00U	2.87D	11.7D	755	1.81D	6090	809	<5.00U	<2.50U	968J	<5.00U	<2.50U	2980	<2.50U	<10.0U	380
EG1	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	30000	<5.00U	<0.500U	<2.50U	<100U	<0.500U	1960	17.2	<5.00U	<2.50U	<250U	<5.00U	<2.50U	937J	<2.50U	<10.0U	<10.0U
EG2	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	0.523JD	21500	<5.00U	<0.500U	<2.50U	<100U	<0.500U	1130	20.9	<5.00U	<2.50U	<250U	<5.00U	<2.50U	1020	<2.50U	<10.0U	454
EG2A	Total Recoverable Metals	430	<2.50U	<2.50U	<25.0U	<2.00U	2.95D	35900	<5.00U	<0.500U	16.7D	<100U	0.514JD	2620	1050	<5.00U	<2.50U	<250U	<5.00U	<2.50U	862J	<2.50U	<10.0U	1790
EG3	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	34900	<5.00U	<0.500U	<2.50U	<100U	<0.500U	2560	16.0	<5.00U	<2.50U	<250U	<5.00U	<2.50U	1010	<2.50U	<10.0U	75.8
EG3A	Total Recoverable Metals	63.0	<2.50U	<2.50U	<25.0U	<2.00U	0.551JD	33700	<5.00U	<0.500U	11.4D	<100U	4.18D	2650	116	<5.00U	<2.50U	<250U	<5.00U	<2.50U	1050	<2.50U	<10.0U	217
EG4	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	34100	<5.00U	<0.500U	<2.50U	<100U	0.808JD	2780	8.74	<5.00U	<2.50U	<250U	<5.00U	<2.50U	1010	<2.50U	<10.0U	97.0
EG5	Total Recoverable Metals	31.8J	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	34000	<5.00U	<0.500U	6.27D	<100U	1.68D	2610	53.2	<5.00U	<2.50U	<250U	<5.00U	<2.50U	1060	<2.50U	<10.0U	221
EG6	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	0.710JD	44200	<5.00U	<0.500U	3.98JD	<100U	0.869JD	2950	96.8	<5.00U	<2.50U	381J	<5.00U	<2.50U	1470	<2.50U	<10.0U	430
EG9	Total Recoverable Metals	571	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	84400	<5.00U	1.71D	10.7D	587	<0.500U	5200	191	<5.00U	<2.50U	623J	<5.00U	<2.50U	1820	<2.50U	<10.0U	113
FB-01	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	<100U	<5.00U	<0.500U	<2.50U	<100U	<0.500U	<100U	<2.00U	<5.00U	<2.50U	<250U	<5.00U	<2.50U	<250U	30.2D	<10.0U	<10.0U
FB-02	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	<100U	<5.00U	<0.500U	<2.50U	<100U	<0.500U	<100U	<2.00U	<5.00U	<2.50U	<250U	<5.00U	<2.50U	<250U	<2.50U	<10.0U	<10.0U
FB-03	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	<100U	<5.00U	<0.500U	<2.50U	<100U	<0.500U	<100U	<2.00U	<5.00U	<2.50U	<250U	<5.00U	<2.50U	<250U	<2.50U	<10.0U	<10.0U
FB-04	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	<100U	<5.00U	<0.500U	<2.50U	<100U	<0.500U	<100U	<2.00U	<5.00U	<2.50U	<250U	<5.00U	<2.50U	<250U	<2.50U	<10.0U	<10.0U
FB-05	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	<100U	<5.00U	<0.500U	<2.50U	<100U	<0.500U	<100U	<2.00U	<5.00U	<2.50U	<250U	<5.00U	<2.50U	<250U	<2.50U	<10.0U	<10.0U
FB-06	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	<100U	<5.00U	<0.500U	<2.50U	<100U	<0.500U	<100U	<2.00U	<5.00U	<2.50U	<250U	<5.00U	<2.50U	<250U	<2.50U	<10.0U	<10.0U
LA3	Total Recoverable Metals	20.1J	<2.50U	<2.50U	<25.0U	<2.00U	0.807JD	47100	<5.00U	<0.500U	<2.50U	<100U	<0.500U	3340	244	<5.00U	<2.50U	731J	<5.00U	<2.50U	1920	28.3D	<10.0U	343
M34	Total Recoverable Metals	2970	<2.50U	<2.50U	25.5JD	<2.00U	0.742JD	73800	<5.00U	6.81D	11.9D	4350	2.29D	6270	483	<5.00U	<2.50U	690J	<5.00U	<2.50U	3570	<2.50U	<10.0U	210
MC0	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	22700	<5.00U	<0.500U	<2.50U	<100U	<0.500U	2280	12.5	<5.00U	<2.50U	<250U	<5.00U	<2.50U	628J	<2.50U	<10.0U	44.8
TM1	Total Recoverable Metals	<20.0U	<2.50U	3.63JD	<25.0U	<2.00U	<0.500U	142000	<5.00U	0.623JD	<2.50U	367	<0.500U	10000	2010	<5.00U	<2.50U	1690	<5.00U	<2.50U	2340	<2.50U	<10.0U	13.9J
UA5	Total Recoverable Metals	2490	<2.50U	<2.50U	<25.0U	<2.00U	8.17D	32500	<5.00U	1.60D	17.8D	<100U	25.1D	5080	1320	<5.00U	3.57JD	859J	<5.00U	<2.50U	1030	<2.50U	<10.0U	1460
UA8	Total Recoverable Metals	1740	<2.50U	<2.50U	<25.0U	2.23J	3.97D	59900	<5.00U	1.03D	11.6D	104J	3.77D	6100	4710	<5.00U	<2.50U	978J	<5.00U	<2.50U	1530	<2.50U	<10.0U	1590

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
M34	Total Recoverable Metals	2970	<2.50U	<2.50U	25.5	<2.00U	0.742	73800	<5.00U	6.81	11.9	4350	2.29	6270	483	<5.00U	<2.50U	690	<5.00U	<2.50U	3570	<2.50U	<10.0U	210
M34_DUP-01	Total Recoverable Metals	3090	<2.50U	<2.50U	26.4	<2.00U	0.632	76800	<5.00U	6.66	10.8	4380	2.61	6430	475	<5.00U	<2.50U	653	<5.00U	<2.50U	3790	<2.50U	<10.0U	191
	RPD	**3.96%**	N/A	N/A	**3.47%**	N/A	**16.01%**	**3.98%**	N/A	**2.23%**	**9.69%**	**0.69%**	**13.06%**	**2.52%**	**1.67%**	N/A	N/A	**5.51%**	N/A	N/A	**5.98%**	N/A	N/A	**9.48%**

Note: Removed flags from values for RPD calculation

Table 2.2-6 Bonita Peak Mining District Site September 2015
Surface Water Total Recoverable Metal Analytical Results

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
CC03D	Total Recoverable Metals	4150	<5.00U	<5.00U	<50.0U	8.04	21.6	441000	<10.0U	97.3	16	98900	65.3	26400	34900	<10.0U	44.1	1660	<10.0U	<5.00U	8610	<5.00U	<20.0U	16000
CC03D_DUP-02	Total Recoverable Metals	4050	<2.50U	2.54JD	<25.0U	8.13	22.2	438000	<5.00U	93.6	14.7	96000	64.1	25900	34600	<5.00U	37.4	1650	<5.00U	<2.50U	8460	<2.50U	<10.0U	15700
	RPD	**2.44%**	N/A	N/A	N/A	**1.11%**	**2.74%**	**0.68%**	N/A	**3.88%**	**8.47%**	**2.98%**	**1.85%**	**1.91%**	**0.86%**	N/A	**16.44%**	**0.60%**	N/A	N/A	**1.76%**	N/A	N/A	**1.89%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
A34	Total Recoverable Metals	198	<2.50U	<2.50U	<25.0U	<2.00U	0.963	82500	<5.00U	0.787	13.9	<100U	<0.500U	4730	185	<5.00U	<2.50U	757	<5.00U	<2.50U	2060	<2.50U	<10.0U	308
A34_DUP-03	Total Recoverable Metals	190	<2.50U	<2.50U	<25.0U	<2.00U	0.98	82800	<5.00U	0.657	12.8	<100U	<0.500U	4680	188	<5.00U	<2.50U	555	<5.00U	<2.50U	2060	27.6D	<10.0U	316
	RPD	**4.12%**	N/A	N/A	N/A	N/A	**1.75%**	**0.36%**	N/A	**18.01%**	**8.24%**	N/A	N/A	**1.06%**	**1.61%**	N/A	N/A	**30.79%**	N/A	N/A	**0.00%**	N/A	N/A	**2.56%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
CG3	Total Recoverable Metals	19000	<2.50U	<2.50U	<25.0U	26.3	22	67800	<5.00U	6.47	58.8	<500U	0.624	15200	46000	<5.00U	22.6	<1250U	<5.00U	<2.50U	2420	<2.50U	<10.0U	7200
CG3_DUP-04	Total Recoverable Metals	19100	<2.50U	<2.50U	<25.0U	26.9	21.8	67600	<5.00U	6.14	58.5	<500U	0.794	15200	46700	<5.00U	22.7	<1250U	<5.00U	<2.50U	2370	29.2D	<10.0U	7320
	RPD	**0.52%**	N/A	N/A	N/A	**2.26%**	**0.91%**	**0.30%**	N/A	**5.23%**	**0.51%**	N/A	**23.98%**	**0.00%**	**1.51%**	N/A	**0.44%**	N/A	N/A	N/A	**2.09%**	N/A	N/A	**1.65%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
A37	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	67100	<5.00U	<0.500U	<2.50U	<100U	<0.500U	3240	5.98	<5.00U	<2.50U	582	<5.00U	<2.50U	2260	<2.50U	<10.0U	152
A37_DUP-05	Total Recoverable Metals	<20.0U	<2.50U	<2.50U	<25.0U	<2.00U	<0.500U	67000	<5.00U	<0.500U	<2.50U	<100U	<0.500U	3120	6.61	<5.00U	<2.50U	458	<5.00U	<2.50U	2170	<2.50U	<10.0U	150
	RPD	N/A	N/A	N/A	N/A	N/A	N/A	**0.15%**	N/A	N/A	N/A	N/A	N/A	**3.77%**	**10.01%**	N/A	N/A	**23.85%**	N/A	N/A	**4.06%**	N/A	N/A	**1.32%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
A40A	Total Recoverable Metals	213	<2.50U	<2.50U	<25.0U	<2.00U	2.16	66100	<5.00U	0.791	14.4	<100U	0.738	5030	1540	<5.00U	<2.50U	825	<5.00U	<2.50U	1860	<2.50U	<10.0U	599
A40A_DUP-06	Total Recoverable Metals	200	<2.50U	<2.50U	<25.0U	<2.00U	2.14	67300	<5.00U	0.542	11.2	<100U	0.579	4850	1530	<5.00U	<2.50U	653	<5.00U	<2.50U	1770	<2.50U	<10.0U	594
	RPD	**6.30%**	N/A	N/A	N/A	N/A	**0.93%**	**1.80%**	N/A	**37.36%**	**25.00%**	N/A	**24.15%**	**3.64%**	**0.65%**	N/A	N/A	**23.27%**	N/A	N/A	**4.96%**	N/A	N/A	**0.84%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
A07C	Total Recoverable Metals	15600	<2.50U	<2.50U	31.4	2.23	18.8	22300	<5.00U	5	58.7	309	21.9	4090	7630	<5.00U	14.1	468	<5.00U	<2.50U	539	<2.50U	<10.0U	4130
A07C_DUP-07	Total Recoverable Metals	16300	<2.50U	<2.50U	28.7	2.3	19.5	22700	<5.00U	4.73	56.3	331	21.9	4080	7780	<5.00U	13.5	390	<5.00U	<2.50U	510	<2.50U	<10.0U	4420
	RPD	**4.39%**	N/A	N/A	**8.99%**	**3.09%**	**3.66%**	**1.78%**	N/A	**5.55%**	**4.17%**	**6.88%**	**0.00%**	**0.24%**	**1.95%**	N/A	**4.35%**	**18.18%**	N/A	N/A	**5.53%**	N/A	N/A	**6.78%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
A12	Total Recoverable Metals	434	<2.50U	<2.50U	<25.0U	<2.00U	4.47	148000	<5.00U	14.8	<2.50U	4390	1.39D	9490	16500	<5.00UJ	<2.50U	3560	<5.00U	<2.50U	5050	<2.50U	<10.0U	5470
A12_DUP-08	Total Recoverable Metals	374	<2.50U	<2.50U	<25.0U	<2.00U	4.23	155000	<5.00U	13.2	<2.50U	3930	<0.500U	9740	16500	<5.00U	<2.50U	3390	<5.00U	<2.50U	5080	<2.50U	<10.0U	5560
	RPD	**14.85%**	N/A	N/A	N/A	N/A	**5.52%**	**4.62%**	N/A	**11.43%**	N/A	**11.06%**	N/A	**2.60%**	**0.00%**	N/A	N/A	**4.89%**	N/A	N/A	**0.59%**	N/A	N/A	**1.63%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
A20	Total Recoverable Metals	1240	<2.50U	<2.50U	<25.0U	<2.00U	3.19	40200	<5.00U	1.32	21.1	437	21.5	3990	1190	<5.00UJ	<2.50U	894	<5.00U	<2.50U	1160	<2.50U	<10.0U	1620
A20_DUP-09	Total Recoverable Metals	1270	<2.50U	<2.50U	<25.0U	<2.00U	3.29	41900	<5.00U	1.21	19.3	454	22.9	4050	1180	<5.00U	<2.50U	917	<5.00U	<2.50U	1160	<2.50U	<10.0U	1740
	RPD	**2.39%**	N/A	N/A	N/A	N/A	**3.09%**	**4.14%**	N/A	**8.70%**	**8.91%**	**3.82%**	**6.31%**	**1.49%**	**0.84%**	N/A	N/A	**2.54%**	N/A	N/A	**0.00%**	N/A	N/A	**7.14%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
A31	Total Recoverable Metals	812	<2.50U	<2.50U	<25.0U	<2.00U	3.49	55700	<5.00U	0.74	45.9	100	3	5040	2450	<5.00U	<2.50U	960	<5.00U	<2.50U	1660	<2.50U	<10.0U	1130
A31_DUP-10	Total Recoverable Metals	834	<2.50U	<2.50U	<25.0U	<2.00U	3.15	58200	<5.00U	0.645	40.4	107	2.7	5070	2500	<5.00U	<2.50U	780	<5.00U	<2.50U	1620	<2.50U	<10.0U	1150
	RPD	**2.67%**	N/A	N/A	N/A	N/A	**10.24%**	**4.39%**	N/A	**13.72%**	**12.75%**	**6.76%**	**10.53%**	**0.59%**	**2.02%**	N/A	N/A	**20.69%**	N/A	N/A	**2.44%**	N/A	N/A	**1.75%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
Bakers Bridge	Total Recoverable Metals	460	<2.50U	<2.50U	31.7	<2.00U	0.945	62600	<5.00U	2.8	12	716	2.08	6180	777	<5.00U	<2.50U	941	<5.00U	<2.50U	3060	<2.50U	<10.0U	360
Bbridge_DUP-11	Total Recoverable Metals	483	<2.50U	<2.50U	30.9	<2.00U	0.958	62300	<5.00U	2.87	11.7	755	1.81	6090	809	<5.00U	<2.50U	968	<5.00U	<2.50U	2980	<2.50U	<10.0U	380
	RPD	**4.88%**	N/A	N/A	**2.56%**	N/A	**1.37%**	**0.48%**	N/A	**2.47%**	**2.53%**	**5.30%**	**13.88%**	**1.47%**	**4.04%**	N/A	N/A	**2.83%**	N/A	N/A	**2.65%**	N/A	N/A	**5.41%**

Note: Removed flags from values for RPD calculation

Note: Not Applicable (N/A) is used for RPD when the analyte was not detected

Note: Data Qualifier Definitions Listed Below:

D The analyte was diluted prior to analysis.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

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

Table 2.2-7 Bonita Peak Mining District Site September 2015
Surface Water Select Anions and Alkalinity Analytical Results

STATION_ID	ANALYSIS	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
		mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A01	Wet Chem	<0.4U	<0.1U	<0.1U	28.2	18.0
A02	Wet Chem	0.7J	<0.1U	<0.1U	69.9	6.05J
A02A	Wet Chem	<0.4U	<0.1U	<0.1U	13.7	30.9
A03	Wet Chem	<0.4U	<0.1U	0.2	85.1	19.6
A04	Wet Chem	<0.4U	<0.1U	<0.1U	17.3	16.6
A05	Wet Chem	<0.4U	<0.1U	0.2	95.9	18.3
A06	Wet Chem	<0.8U	<0.2U	<0.2U	126D	23.1
A07	Wet Chem	<0.8U	1.3D	<0.2U	183D	<5.00U
A07A	Wet Chem	<1.6U	1.7D	<0.4U	224D	<5.00U
A07B	Wet Chem	<1.6U	1.9D	<0.4U	217D	<5.00U
A07C	Wet Chem	<0.8U	0.5D	<0.2U	171D	<5.00U
A08	Wet Chem	<0.4U	0.5	0.2	128	<5.00U
A09	Wet Chem	<0.4U	0.4	0.1J	115	<5.00U
A10	Wet Chem	<1.6U	5.4D	<0.4U	279D	<5.00U
A11	Wet Chem	<1.6U	5.4D	<0.4U	278D	<5.00U
A11A	Wet Chem	<8.0U	<2.0U	<2.0U	1440D	<5.00U
A12	Wet Chem	<4.0U	1.1JD	<1.0U	466D	63.0
A13	Wet Chem	<1.6U	6.0D	<0.4U	263D	<5.00U
A14	Wet Chem	<1.6U	4.2D	<0.4U	237D	<5.00U
A15	Wet Chem	<4.0U	9.9D	<1.0U	373D	<5.00U
A16	Wet Chem	<4.0U	<1.0U	<1.0U	235D	99.2
A17B	Wet Chem	<0.4U	0.5	0.1J	67.5	26.5
A19A	Wet Chem	<0.8U	1.4D	<0.2U	128D	<5.00U
A20	Wet Chem	<0.8U	0.4D	<0.2U	142D	<5.00U
A21	Wet Chem	<0.8U	0.7D	<0.2U	167D	<5.00U
A21A	Wet Chem	<4.0U	<1.0U	<1.0U	255D	<5.00U
A22	Wet Chem	<0.8U	0.6D	<0.2U	159D	13.8
A23	Wet Chem	<0.8U	0.9D	<0.2U	118D	17.0
A23A	Wet Chem	<0.8U	<0.2U	0.2JD	104D	24.3
A24	Wet Chem	<0.8U	<0.2U	<0.2U	86.8D	44.1
A26	Wet Chem	<4.0U	<1.0U	<1.0U	231D	99.6
A27	Wet Chem	<0.8U	<0.2U	0.2JD	96.1D	26.8
A28	Wet Chem	<0.8U	1.2D	<0.2U	160D	23.5
A29	Wet Chem	<4.0U	3.6D	<1.0U	407D	25.1
A30	Wet Chem	<0.8U	1.2D	<0.2U	163D	23.2
A31	Wet Chem	<1.6U	0.9D	<0.4U	156D	25.5
A32	Wet Chem	<1.6U	<0.4U	<0.4U	113D	53.5
A33	Wet Chem	<1.6U	<0.4U	<0.4U	64.8D	24.7
A34	Wet Chem	<1.6U	0.5JD	<0.4U	231D	27.5
A35	Wet Chem	<1.6U	0.8D	<0.4U	181D	25.6
A36	Wet Chem	<1.6U	0.4JD	<0.4U	265D	21.9
A37	Wet Chem	<1.6U	<0.4U	<0.4U	166D	35.8
A39	Wet Chem	<0.8U	<0.2U	<0.2U	70.8D	31.0
A40	Wet Chem	<1.6U	0.7JD	<0.4U	148D	22.6
A40A	Wet Chem	<1.6U	0.8D	<0.4U	168D	24.7
A41	Wet Chem	<4.0U	1.5JD	<1.0U	596D	<5.00U
A41A	Wet Chem	<1.6U	0.6JD	<0.4U	148D	24.0
A42	Wet Chem	<1.6U	<0.4U	<0.4U	115D	54.5
A43	Wet Chem	<1.6U	<0.4U	<0.4U	85.0D	66.8
A45	Wet Chem	<1.6U	0.4JD	<0.4U	122D	29.4
A47	Wet Chem	<1.6U	0.5JD	<0.4U	112D	63.0
A48	Wet Chem	<1.6U	<0.4U	<0.4U	106D	57.6
A54	Wet Chem	<1.6U	1.3D	<0.4U	275D	22.8
A55	Wet Chem	<1.6U	0.4JD	<0.4U	125D	37.9
A56	Wet Chem	<1.6U	0.4JD	<0.4U	119D	36.9
A58	Wet Chem	<0.8U	<0.2U	0.2JD	66.6D	53.3
A60	Wet Chem	<1.6U	0.4JD	<0.4U	122D	39.0
A61	Wet Chem	<1.6U	0.4JD	<0.4U	122D	39.1
A64	Wet Chem	<1.6U	0.4JD	<0.4U	128D	38.9
A65	Wet Chem	<1.6U	0.4JD	<0.4U	131D	40.3
A66	Wet Chem	<1.6U	0.4JD	<0.4U	134D	39.5
A68	Wet Chem	<1.6U	0.4JD	<0.4U	137D	39.4
A72	Wet Chem	<1.6U	0.7JD	<0.4U	283D	6.14J
ARD1	Wet Chem	<4.0U	1.1JD	<1.0U	351D	<5.00U
Bakers Bridge	Wet Chem	<1.6U	0.4JD	<0.4U	166D	31.6
BG1A	Wet Chem	<0.4U	0.1J	<0.1U	41.7	<5.00U
CC02D	Wet Chem	<8.0U	5.4D	<2.0U	957D	<5.00U
CC02E	Wet Chem	<1.6U	3.6D	<0.4U	179D	<5.00U
CC03	Wet Chem	<8.0U	3.9JD	<2.0U	1020D	<5.00U
CC03B	Wet Chem	<1.6U	1.8D	<0.4U	372D	<5.00U
CC03D	Wet Chem	<8.0U	6.8D	<2.0U	1730D	<5.00U
CC06	Wet Chem	<8.0U	9.7D	<2.0U	1690D	<5.00U
CC07	Wet Chem	<8.0U	3.2JD	<2.0U	726D	<5.00U
CC14	Wet Chem	<8.0U	3.2JD	<2.0U	684D	9.27J
CC17	Wet Chem	<4.0U	1.7JD	<1.0U	541D	6.84J
CC18	Wet Chem	<8.0U	5.7D	<2.0U	1360D	<5.00U
CC18_Post Lime	Wet Chem	<8.0U	4.0D	<2.0U	1240D	<5.00U
CC18B	Wet Chem	<8.0U	8.3D	<2.0U	1660D	<5.00U
CC19	Wet Chem	<16.0U	<4.0U	<4.0U	2350D	<5.00U
CC20	Wet Chem	<8.0U	4.4D	<2.0U	1340D	<5.00U
CC21	Wet Chem	<8.0U	4.4D	<2.0U	1100D	<5.00U
CC21_Post Lime	Wet Chem	<8.0U	2.5JD	<2.0U	965D	<5.00U
CC48	Wet Chem	<8.0U	<2.0U	<2.0U	875D	<5.00U
CG11	Wet Chem	<1.6U	6.0D	<0.4U	303D	<5.00U
CG3	Wet Chem	<4.0U	14.9D	<1.0U	556D	<5.00U
CG4	Wet Chem	<4.0U	12.3D	<1.0U	487D	<5.00U
CG6	Wet Chem	<4.0U	11.3D	<1.0U	447D	<5.00U
CG9	Wet Chem	<1.6U	6.2D	<0.4U	306D	<5.00U
DM28	Wet Chem	<0.8U	1.3D	<0.2U	61.3D	47.3
DM32	Wet Chem	<1.6U	1.0D	<0.4U	275D	<5.00U

Table 2.2-7 Bonita Peak Mining District Site September 2015
Surface Water Select Anions and Alkalinity Analytical Results

STATION_ID	ANALYSIS	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
		mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
M34_DUP-01	Wet Chem	<1.6U	0.6JD	<0.4U	274D	<5.00U
CC03D_DUP-02	Wet Chem	<8.0U	7.3D	<2.0U	1860D	<5.00U
A34_DUP-03	Wet Chem	<1.6U	0.5JD	<0.4U	237D	28.6
CG3_DUP-04	Wet Chem	<4.0U	14.6D	<1.0U	539D	<5.00U
A37_DUP-05	Wet Chem	<1.6U	<0.4U	<0.4U	170D	37.3
A40A_DUP-06	Wet Chem	<1.6U	0.8D	<0.4U	196D	25.8
A07C_DUP-07	Wet Chem	<1.6U	0.6JD	<0.4U	245D	<5.00U
A12_DUP-08	Wet Chem	<4.0U	1.2JD	<1.0U	480D	63.8
A20_DUP-09	Wet Chem	<0.8U	0.6D	<0.2U	148D	<5.00U
A31_DUP-10	Wet Chem	<0.8U	1.0D	<0.2U	152D	26.3
Bbridge_DUP-11	Wet Chem	1.2JD	0.4D	<0.2U	163D	31.5
EG1	Wet Chem	<0.8U	<0.2U	0.2JD	53.7D	34.8
EG2	Wet Chem	<0.8U	0.2JD	<0.2U	41.2D	22.9
EG2A	Wet Chem	<0.8U	1.2D	<0.2U	121D	6.44J
EG3	Wet Chem	<0.8U	<0.2U	<0.2U	75.3D	28.0
EG3A	Wet Chem	<0.8U	<0.2U	<0.2U	69.7D	31.0
EG4	Wet Chem	<0.8U	<0.2U	<0.2U	77.7D	25.3
EG5	Wet Chem	<0.8U	<0.2U	<0.2U	67.1D	34.3
EG6	Wet Chem	<0.8U	0.2JD	<0.2U	105D	25.9
EG9	Wet Chem	<1.6U	0.4JD	<0.4U	238D	25.8
FB-01	Wet Chem	<0.4U	<0.1U	<0.1U	<1.0U	<5.00U
FB-02	Wet Chem	<0.4U	<0.1U	<0.1U	<1.0U	<5.00U
FB-03	Wet Chem	<0.4U	<0.1U	<0.1U	<1.0U	<5.00U
FB-04	Wet Chem	<0.4U	<0.1U	<0.1U	<1.0U	<5.00U
FB-05	Wet Chem	<0.4U	<0.1U	<0.1U	<1.0U	<5.00U
FB-06	Wet Chem	<0.4U	<0.1U	<0.1U	<1.0U	<5.00U
LA3	Wet Chem	<0.8U	0.4D	<0.2U	118D	29.8
M34	Wet Chem	<1.6U	0.5JD	<0.4U	263D	<5.00U
MC0	Wet Chem	<0.8U	<0.2U	<0.2U	59.4D	16.7
TM1	Wet Chem	<4.0U	<1.0U	<1.0U	289D	142
UA5	Wet Chem	<0.8U	0.5D	0.2JD	131D	<5.00U
UA8	Wet Chem	<1.6U	1.5D	<0.4U	175D	23.9

STATION_ID	ANALYSIS	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
		mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
M34	Wet Chem	<1.6U	0.5	<0.4U	263	<5.00U
M34_DUP-01	Wet Chem	<1.6U	0.6	<0.4U	274	<5.00U
	RPD	N/A	**18.18%**	N/A	**4.10%**	N/A

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
		mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
CC03D	Wet Chem	<8.0U	6.8	<2.0U	1730	<5.00U
CC03D_DUP-02	Wet Chem	<8.0U	7.3	<2.0U	1860	<5.00U
	RPD	N/A	**7.09%**	N/A	**7.24%**	N/A

Note: Removed flags from values for RPD calculation

A34	Wet Chem	<1.6U	0.5	<0.4U	231	27.5
A34_DUP-03	Wet Chem	<1.6U	0.5	<0.4U	237	28.6
	RPD	N/A	**0.00%**	N/A	**2.56%**	**3.92%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
		mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
CG3	Wet Chem	<4.0U	14.9	<1.0U	556	<5.00U
CG3_DUP-04	Wet Chem	<4.0U	14.6	<1.0U	539	<5.00U
	RPD	N/A	**2.03%**	N/A	**3.11%**	N/A

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
		mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A37	Wet Chem	<1.6U	<0.4U	<0.4U	166	35.8
A37_DUP-05	Wet Chem	<1.6U	<0.4U	<0.4U	170	37.3
	RPD	N/A	N/A	N/A	**2.38%**	**4.10%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
		mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A40A	Wet Chem	<1.6U	0.8	<0.4U	168	24.7
A40A_DUP-06	Wet Chem	<1.6U	0.8	<0.4U	196	25.8
	RPD	N/A	**0.00%**	N/A	**15.38%**	**4.36%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
		mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A07C	Wet Chem	<0.8U	0.5	<0.2U	171	<5.00U
A07C_DUP-07	Wet Chem	<1.6U	0.6	<0.4U	245	<5.00U
	RPD	N/A	**18.18%**	N/A	**35.58%**	N/A

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
		mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A12	Wet Chem	<4.0U	1.1	<1.0U	466	63.0
A12_DUP-08	Wet Chem	<4.0U	1.2	<1.0U	480	63.8
	RPD	N/A	**8.70%**	N/A	**2.96%**	**1.26%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
		mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A20	Wet Chem	<0.8U	0.4	<0.2U	142	<5.00U
A20_DUP-09	Wet Chem	<0.8U	0.6	<0.2U	148	<5.00U
	RPD	N/A	**40.00%**	N/A	**4.14%**	N/A

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
		mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
A31	Wet Chem	<1.6U	0.9	<0.4U	156	25.5
A31_DUP-10	Wet Chem	<0.8U	1	<0.2U	152	26.3
	RPD	N/A	**10.53%**	N/A	**2.60%**	**3.09%**

Note: Removed flags from values for RPD calculation

Table 2.2-7 Bonita Peak Mining District Site September 2015
Surface Water Select Anions and Alkalinity Analytical Results

STATION_ID	ANALYSIS	Chloride	Fluoride	Nitrate/Nitrite as N	Sulfate as SO4	Total Alkalinity
		mg/L	mg/L	mg/L	mg/L	mg CaCO3 / L
Bakers Bridge	Wet Chem	<1.6U	0.4	<0.4U	166	31.6
Bbridge_DUP-11	Wet Chem	1.2JD	0.4	<0.2U	163	31.5
	RPD	N/A	**0.00%**	N/A	**1.82%**	**0.32%**

Note: Removed flags from values for RPD calculation
Note: Not Applicable (N/A) is used for RPD when the analyte was not detected
Note: Data Qualifier Definitions Listed Below:

D	The analyte was diluted prior to analysis.
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 2.2-8 Bonita Peak Mining District Site
June 2015 Surface Water Quality and Flow Measurements

Location	Sample Date	Sample Time	Temp	pH	Conductivity	Diss O_2	Flow
			°C	s.u.	µS/cm	mg/L	cfs
*A02	6/10/2015	11:45	0.3	5.29	141.3	9.89	
*A05	6/10/2015	11:30	0.7	6.6	69.6	9.3	
*A08	6/10/2015	10:45	0.6	4.8	74.6	9.3	29.6938
A09	6/9/2015	13:50	2.1	7.19	68.6	9.25	
A10	6/9/2015	14:00	3.2	6.18	98.8	9.01	
A11	6/9/2015	15:20	2.4	6.33	91.7	9.19	56.1382
A11A	6/9/2015	14:10	4.3	3.05	647.2	8.06	0.0832
A12	6/9/2015	16:00	10.8	7.14	466.6	5.89	0.186
A13	6/9/2015	16:50	1.3	6.2	87.6	8.7	56.1279
A14	6/9/2015	13:15	3.5	6.67	88.6	9.02	
*A15	6/10/2015	9:00	1	5.33	130.8	9.91	22.8279
*A20	6/10/2015	9:15	0.7	6.38	93.5	8.22	24.7921
A24	6/9/2015	12:45	2.3	7.68	96.2	9.26	
A25	6/9/2015	12:15	4	7.8	127.4	8.9	
A26	6/9/2015	11:45	3.2	7.75	92.6	9.05	14.8171
A27	6/9/2015	11:30	3.2	7.52	25.8	9.34	
A28	6/9/2015	10:50	4	7.57	93.1	9.07	
A29	6/9/2015	10:55	11	6.42	679.5	6.55	
A29A	6/9/2015	10:05	14.4	6.96	671	5.86	
A30	6/9/2015	10:40	4.1	7.52	96.2	9.17	
A31	6/9/2015	9:35	2.9	7.43	94.6	8.55	135.0608
A32	6/9/2015	8:32	1.7	7.59	96.9	9.38	4.7423
A34	6/9/2015	17:05	4.41	7.48	131.4	8.87	
A35	6/9/2015	16:30	5.23	7.57	101.2	8.76	
*A36	6/10/2015	9:15	2.41	7.56	123.6	9.43	
*A37	6/10/2015	8:40	2.54	7.41	126	9.07	
A40	6/9/2015	15:15	7.11	7.27	126.8	8.37	
A40A	6/9/2015	16:25	6.26	7.29	113.2	8.56	
A41A	6/9/2015	14:25	6.64	7.58	119.2	8.38	
A41C	6/9/2015	15:30	7.7	7.43	206.1	8.88	10.7771
A42	6/9/2015	14:45	5.15	7.71	109.9	8.83	53.3402
A43	6/9/2015	13:45	5.19	7.79	97.51	9.06	75.1806
A45	6/9/2015	13:35	7.58	7.27	134.6	8.4	
A47	6/9/2015	12:40	5.58	7.56	119.4	8.71	9.1237
A48	6/9/2015	12:45	5.69	7.57	117.8	8.75	
*A54	6/10/2015	10:50	5.37	6.85	531.5	8.92	
A55	6/9/2015	11:20	5.99	7.22	134.8	8.59	517
*A55 Storm Opp	6/10/2015	17:45	4.77	7.24	98.7	9.15	985
A56	6/9/2015	10:55	5.5	7.45	132	8.76	
A58	6/9/2015	10:30	4.47	7.33	119.5	9.09	
A60	6/9/2015	10:00	4.26	7.17	132.1	9.21	
A61	6/9/2015	10:10	4.92	7.29	137.8	8.82	
A64	6/9/2015	9:15	3.71	7.1	131.2	9.35	
A65	6/9/2015	9:10	3.83	7.15	132.6	8.97	
A66	6/9/2015	8:35	3.07	6.99	132.4	9.5	
A68	6/9/2015	8:30	3.3	7.07	133.2	9.67	730
*A68 Storm Opp	6/10/2015	18:15	5.45	7.31	108.8	9.07	995
A72	6/9/2015	7:55	2.74	6.82	145.9	9.72	1390
*A72 Storm Opp	6/10/2015	17:40	5.1	6.59	118.2	9.19	2510
*Bbridge	6/10/2015	15:10	7.13	7.47	111.6	10.54	
*CC03	6/10/2015	15:50	2.75	4.46	186.1	9.37	
*CC03B	6/10/2015	16:30	2.54	4.46	121.2	9.27	
*CC03D	6/10/2015	16:30	8	5.52	19.24	7.7	0.3
*CC07	6/10/2015	15:45	1.7	2.02	402.8	9.4	
*CC14	6/10/2015	15:30	5.1	6.09	871	5.23	
*CC17	6/10/2015	14:20	2.5	5.57	189.6	9.56	
*CC18	6/10/2015	15:00	3.2	3.5	248.6	9.01	
*CC18B	6/10/2015	14:45	3.2	3.68	236.8	8.98	
*CC19	6/10/2015	15:15	7.5	5.1	2208	4.9	0.2977
*CC21	6/10/2015	14:00	3.5	3.83	265.8	9.38	
*CC48	6/10/2015	13:55	5.1	4.73	190.8	8.84	283
CG11	6/9/2015	14:35	3	6.26	93.9	8.41	48.5692
CG12A	6/9/2015	15:10	8.6	7.13	88.9	7.55	0.0832
CG9	6/9/2015	15:45	2.1	6.28	88.9	9.02	53.2909
*EG6	6/10/2015	9:00	0.97	7.36	130.7	9.29	
EG9	6/9/2015	18:15	2.86	7.77	121.1	8.88	
LA3	6/9/2015	13:15	6.7	7.48	118.7	8.54	
M34	6/9/2015	8:00	2.49	7.21	140.1	9.44	517
*M34 Storm Opp	6/10/2015	18:00	5	6.72	111.6	9.36	582
TM1	6/9/2015	12:50	7.1	7.35	707.6	3.19	0.331
*UA5	6/10/2015	10:30	1	6.18	69.4	9.87	
UA8	6/9/2015	11:05	4.1	7.6	90.7	8.79	

* Samples were collected during a significant storm event

Table 2.2-9 Bonita Peak Mining District Site
August 2015 Surface Water Quality Measurements

Location	Sample Date	Sample Time	Temp	pH	Conductivity	Diss O_2
			°C	s.u.	µS/cm	mg/L
A33	8/5/2015	14:30	12.81	7.59	213.2	6.73
A34	8/5/2015	13:15	10.51	7.67	256.4	7.08
A40	8/4/2015	14:05	11.43	7.02	213.2	7.8
A41C	8/4/2015	15:40	18.64	7	192.8	9.66
ES-FP01	8/5/2015	16:45	14.59	7.32	228.3	6.35
ES-FP02	8/5/2015	17:15	14.16	7.37	230.5	6.35
ES-FP03	8/5/2015	17:30	13.64	6.97	231.2	6.49
ET-FP01	8/4/2015	14:30	11.56	7.06	214.7	7.58
ET-FP02	8/4/2015	16:35	8.38	7.34	161.1	7.92
ET-FP03	8/4/2015	16:50	13.87	7.23	223.3	7.38
ET-FP04	8/4/2015	17:00	12.99	7.36	223.5	7.47
ET-FP05	8/4/2015	17:25	12.48	7.38	223.6	7.57
ET-FP06	8/4/2015	17:50	12.3	7.49	223.7	7.69
ET-FP07	8/4/2015	17:35	12.21	7.45	223.7	7.63
ET-FP08	8/5/2015	9:00	6.3	7.14	224	8.16
ET-FP09	8/5/2015	9:20	6.55	7.18	224.2	8.11
ET-FP10	8/5/2015	9:45	7.26	7.25	224.3	7.97
ET-FP11	8/5/2015	10:00	7.35	7.3	224.6	7.87
ET-FP12	8/5/2012	10:15	7.77	7.34	224.7	7.8
ET-FP13	8/5/2015	11:45	10.26	7.41	225.3	7.37
ET-FP14	8/5/2015	12:05	10.71	7.43	220.3	7.05
ET-FP16	8/5/2015	14:10	12.49	7.53	212.6	6.98
KT-FP02	8/4/2015	9:15	6.51	7.06	209.9	8.89
KT-FP02	8/4/2015	9:15	11.01	6.88	208.4	6.95
KT-FP03	8/4/2015	10:45	8.9	6.97	211.3	8.25
KT-FP04	8/4/2015	11:25	10.62	7.09	214.2	7.96
KT-FP04	8/4/2015	11:25	16.31	7.04	213.1	5.16
MT-FP01	8/4/2015	13:45	11.09	6.98	212.5	7.74

Location	Sample Date	Sample Time	Temp	pH	Conductivity	Diss O_2	Flow
			°C	s.u.	µS/cm	mg/L	cfs
A01	9/30/2015	15:55	9.1	7.48	185.9	8.89	0.00405
A02	9/30/2015	13:35	10.2	7.15	297.9	7.07	0.00125
A02A	9/30/2015	15:25	9	7.51	172.4	7.84	
A03	9/30/2015	13:05	8.1	7.39	494	9.13	0.175
A04	9/30/2015	14:15	10.6	7.53	135.9	8.15	0.0128
A05	9/30/2015	12:15	7.4	7.3	436.3	9.38	0.0949
A06	9/30/2015	11:40	6.8	7.74	535.7	10.45	0.0072
A07	9/30/2015	11:00	7.3	4.79	625.8	9.99	0.13
A07A	9/30/2015	15:40	9.43	4.32	706	7.58	0.0832
A07B	9/30/2015	16:10	10.6	4.3	688	6.3	0.0468
A07C	9/30/2015	16:50	10	3.89	640	6.97	0.0208
A08	9/30/2015	10:20	6.4	5.25	487.8	10.52	0.2884
A09	9/29/2015	8:50	3.51	5.48	232.5	9.09	0.45
A10	9/29/2015	9:20	4.03	5.43	487	8.97	1.4132
A11	9/29/2015	11:20	6.53	5.42	490.3	8.31	1.9221
A11A	9/29/2015	9:50	6.81	2.89	2162	6.43	0.0002
A12	10/1/2015	9:00	10.87	6.25	841.2	5.89	0.0392
A13	9/29/2015	13:05	8.23	5.31	462	7.89	1.16
A14	9/29/2015	8:00	2.82	5.39	428.4	9.24	1.79
A15	9/29/2015	14:05	9.93	5.17	584.8	7.51	0.4459
A16	9/30/2015	10:50	9.94	6.64	579.4	6.89	0.101
A17B	9/30/2015	12:00	9.55	6.49	188.9	7.52	
A19A	9/30/2015	13:35	2.53	3.7	343.9	6.96	0.0018
A20	9/29/2015	14:50	12.72	5.87	279.3	7.01	0.4953
A21	9/29/2015	16:00	13.44	5.54	321.5	6.82	0.169
A21A	9/29/2015	14:15	8.48	4.79	383.8	6.9	0.0365
A22	9/29/2015	16:35	12.39	5.97	331.7	6.95	0.137
A23	9/30/2015	8:30	5.35	6.26	273.1	7.61	0.0832
A23A	9/30/2015	9:25	6.71	6.54	256.3	7.79	
A24	9/30/2015	14:30	7.62	7.42	456	8.01	
A26	9/30/2015	13:30	6.84	7.77	1052	8.39	0.6783
A27	9/30/2015	11:45	6.03	7.07	452	8.4	0.5203
A28	9/30/2015	11:15	5.98	7.03	652	8.73	3.9075
A29	9/30/2015	10:50	11.67	5.74	1344	6.13	
A30	9/30/2015	10:00	4.93	5.82	663	8.57	5.5767
A31	10/1/2015	7:55	5.17	5.14	351	10.69	5.6921
A32	9/30/2015	16:45	5.95	7.3	328	8.25	
A33	9/30/2015	16:40	9.84	7.22	351.7	8.04	4.2218
A34	9/30/2015	15:40	8.66	7.02	457	8.24	2.6006
A35	9/30/2015	14:55	9.83	6.89	392	7.85	6.3051
A36	9/29/2015	18:10	7.87	7.66	513	8.05	1.2083
A37	9/29/2015	17:25	8.73	7.69	376.3	7.91	0.6162
A39	9/30/2015	11:15	8.06	7.1	207	7.95	
A40	9/30/2015	13:45	10.38	6.82	326	8.3	2.8349
A40A	9/30/2015	15:30	11.51	7.25	393.9	7.86	2.0781
A41	10/1/2015	8:00	8.01	4.59	1636	2.4	
A41A	9/30/2015	13:15	10.32	7.07	332	7.64	3.3925
A42	9/30/2015	13:40	7.24	7.46	316.2	8.65	0.8657
A43	9/30/2015	11:40	6.17	6.83	294	8.74	2.0532
A45	9/30/2015	9:45	7.39	7.03	307	7.96	18.8639
A47	9/30/2015	9:15	6.54	7.63	340	8.63	
A48	9/30/2015	8:45	5.88	7.1	318	8.81	6.4076
A54	9/30/2015	8:10	4.12	4.68	530	8.66	
A55	9/29/2015	16:50	9.7	7.46	601.5	8.45	26
A56	9/29/2015	16:45	10.48	7.93	321	6.49	26.4891
A58	9/29/2015	16:10	7.74	6.81	236	7.11	2.8459
A60	9/29/2015	15:20	10.39	7.12	305	6.74	41.117
A61	9/29/2015	14:20	9.97	7.36	309	6.75	35.7428
A64	9/29/2015	13:15	10.11	7.53	323	6.71	39.24
A65	9/29/2015	12:00	7.67	7.35	331	7.39	41.572
A66	9/29/2015	11:00	6.9	7.4	337	7.34	35.917
A68	9/29/2015	10:00	6.47	7.34	339	7.56	42
A72	9/29/2015	7:50	5.05	4.4	531	7.32	98
ARD1	9/29/2015	14:55	13.03	3.1	918	7.09	
Bakers Bridge	10/1/2015	8:45	10.69	6.6	385.5	9.05	139.6386
BG1A	9/30/2015	17:00	7.3	6.67	173.1	7.33	
CC02D	9/29/2015	13:40	5.3	3.7	2607	4.94	0.2036
CC02E	9/29/2015	13:10	4.8	4.75	648.3	5.05	
CC03	9/29/2015	11:50	8.1	5.9	2677	8.13	1.6775
CC03B	9/29/2015	12:30	8.9	5.18	1219	7.98	0.8083
CC03D	9/29/2015	12:30	7.1	5.59	4240	8.84	0.9217
CC06	9/29/2015	8:30	7.7	3.07	3927	7.44	1.1886
CC07	9/29/2015	11:55	8.5	2.91	3884	8.44	
CC14	9/29/2015	14:40	5.6	6.32	1986	3.91	
CC17	9/29/2015	14:45	7.9	5.83	1668	8.39	3.427
CC18	9/29/2015	10:15	7.3	4.54	3378	8.71	3.9049
CC18_Post Lime	9/29/2015	14:45	9.5	4.51	3014	8.39	
CC18B	9/29/2015	11:10	8	2.86	4028	8	
CC19	9/29/2015	9:43	7.7	4.83	4497	5.55	0.2586
CC20	9/29/2015	15:20	10.1	3.61	3157	8.23	
CC21	9/29/2015	10:50	6.8	5.19	2586	8.6	6.6663
CC21_Post Lime	9/29/2015	15:05	9	4.72	2289	8.5	
CC48	9/29/2015	15:27	11.2	3.66	2274	7.91	16
CG11	9/29/2015	10:20	4.85	5.34	486	8.72	1.275
CG3	9/30/2015	12:30	9.4	4.94	707.9	7.59	0.47
CG4	9/30/2015	11:35	8.24	5.01	631.9	7.74	0.55
CG6	9/30/2015	10:20	5.83	5.17	598.5	8.23	0.4213
CG9	9/29/2015	11:50	7.5	5.48	492.1	8.11	1.36
DM28	9/30/2015	14:20	7.78	6.88	211	7.59	
DM32	9/29/2015	12:50	8.82	4.23	487.9	7.34	
EG1	9/29/2015	11:05	6.75	6.83	182	9.29	0.0208
EG2	9/29/2015	9:45	9.09	7.61	136.6	6.4	
EG2A	9/29/2015	10:20	8.44	6.18	242.5	6.44	
EG3	9/29/2015	14:10	9.93	7.1	213.5	7.33	0.195
EG3A	9/29/2015	12:10	8.95	7.25	202.5	7.53	0.0784
EG4	9/29/2015	13:50	12	7.02	212.8	7.28	0.0917
EG5	9/30/2015	11:45	7.3	7.14	206.6	8	
EG6	9/30/2015	9:30	6.44	7.22	275.3	8.17	0.2193
EG9	9/29/2015	16:15	8.92	7.42	476.7	7.85	1.7421
LA3	9/30/2015	10:50	8.43	6.86	285	8.26	9.0069
M34	9/29/2015	8:45	4.51	6	456	7.62	39
MC0	9/30/2015	10:50	5.15	7.12	153.2	8.51	
TM1	9/30/2015	13:50	7.04	6.89	1332	6.89	
UA5	9/30/2015	9:15	4.7	5.32	469.7	10.88	0.5396
UA8	9/30/2015	12:10	6.87	7.09	690	8.2	

Table 2.4-1 Bonita Peak Mining District Site August 2015
Sediment Total Recoverable Metals Analytical Results

Sub_Location	Analysis	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
A03	Total Recoverable Metals	6800	1.7	65.4	62.7	0.86	12.3	2610	2.8	10.3	57.5	20300	233	3660	2530	0.11J	5.6	1190	2.4UJ	2	42J	0.96	13.3	774
A04	Total Recoverable Metals	5940	0.99UJ	36.2	47.2	0.7	1.8	2280	1.8	8.3	15.9	16400	99.5	3490	1650	0.036J	3.4	486	2.5UJ	0.5UJ	46.1J	0.39J	11.8	300
A05	Total Recoverable Metals	4780	1.5	48.5	40.2	0.66	7.1	1890	2.2	8.4	28.5	12900	120	2700	1660	0.022J	4.1	650	2.2UJ	1	463U	0.59	11.1	495
A07	Total Recoverable Metals	18200	2.6	42.3	79.6	2.5	7.7	1050	2.7	28.3	223	27500	593	1620	22000	0.036J	7.2	564	2.5UJ	0.93	61.7J	1.3	9.4	869
A07B	Total Recoverable Metals	16100	3.1	43.8	78.1	2.3	12.9	741	2	51.1	235	39400	760	1170	14200	0.038J	6.3	481	2.5UJ	0.83	83.2J	1.7	7.6	716
A07B-DUP	Total Recoverable Metals	21700	4.6	74.2	81.2	3.1	14.8	744	3.1	55.4	306	41900	918	1140	29100	0.045J	7.7	512	2.7UJ	1.2	93.6J	2.2	11.5	999
A07C	Total Recoverable Metals	9480	2.7	58.1	42	0.68	1.1	1010	2	23.5	63.4	47600	286	1690	5290	0.04J	3	446	2.5UJ	1.1	82.9J	0.65	8.8	308
A07-DUP	Total Recoverable Metals	17300	2.9	37	57.6	2.6	12	1090	2.2	40.7	312	27500	500	1700	16700	0.021J	7.7	529	2.4UJ	1.2	52J	1.6	8.6	687
A08	Total Recoverable Metals	7660	1.5	33.5	41.8	0.85	5.5	1810	1.7	10.1	53.4	19700	244	3210	2240	0.014J	4	698	2UJ	0.98	43.9J	0.57	9.9	482
A09	Total Recoverable Metals	7240	1.1	26.7	29.4	1.2	8.3	1540	2.1	13.7	108	11900	450	2610	5590	0.018J	5.1	519	2.2UJ	0.76	457U	0.57	10.4	625
A10	Total Recoverable Metals	10200	4.4	30.9	114	4	7	1310	3.3	21.8	295	23300	1220	3210	15600	0.11J	7.3	408	0	1.9	40.1J	0.96	16.2	821
A11	Total Recoverable Metals	10700	9.6	38.9	67.3	4.7	17.4	1300	4.9	18.1	596	23500	2200	2800	16300	0.34	7.1	376	0	6.8	49.5J	0.55	17.2	3950
A14	Total Recoverable Metals	8430	0.99	14.8	40.6	0.78	2.6	1800	3.8	9.3	66.8	17400	279	4970	2950	0.022J	4.2	446	0	0.54	26.9J	0.45	16.9	432
A15	Total Recoverable Metals	25300	1.5UJ	29.9	57.6	14.4	2.7	2370	9.1	26.1	277	47200	230	8110	8660	0.038J	12.6	487	0	1.1	117J	0.27J	39.9	686
A18	Total Recoverable Metals	14900	3.1	26.3	54.5	1.3	2.1	2460	6.6	20.9	327	44400	195	7260	1910	0.083J	11.9	597	0	2.1	119J	0.15J	36.4	376
A18-DUP	Total Recoverable Metals	14200	2	22.4	43.3	1	1.6	2380	5.4	18.1	291	39500	186	6670	1580	0.044J	10.5	688	0	2.1	98.2J	0.15J	33.3	351
A19	Total Recoverable Metals	7460	9.3	62.6	66.7	0.39J	0.88	1480	6.1	9.9	114	36100	1130	4370	1960	0.034J	5.3	762	2.2UJ	5.8	74.8J	0.2J	21.1	163
A20	Total Recoverable Metals	13200	17.4	57.9	392	5.7	41.9	1380	4.5	71.5	1430	31300	9250	1720	64500	0.68	18.7	488	0	10.1	67.5J	4	20.7	5040
A21	Total Recoverable Metals	6940	12.8	40.1	110	3	30.9	968	2.9	16.4	911	18900	6470	1240	21600	1.2	8.8	359	0	14.6	37J	0.57	10.1	9450
A22	Total Recoverable Metals	5440	17.3	39.8	127	2.6	41.8	983	3.4	11.5	896	17800	5420	1220	20500	1.1	8.1	259	5UJ	14.6	53.2J	0.43J	10.3	8970
A24	Total Recoverable Metals	8820	0.87UJ	23.6	23.2	0.43J	0.44	3540	4.7	7.7	27.1	22600	39.7	7150	839	0.095J	5.3	492	2.2U	0.71	46.2J	0.17J	20.1	85.8
A25	Total Recoverable Metals	11000	1.1	44.8	42.6	0.73	0.69	3420	5.6	10.1	33.9	26900	50.4	7990	1310	0.053J	6.6	723	2.6U	0.59	40.4J	0.25J	24.8	177
A26	Total Recoverable Metals	9740	0.87	33.2	96.6	0.65	1.4	3710	4	12.1	31.5	25100	55	4890	5460	0.054J	8.1	506	2.1U	1.1	48.7J	0.24J	18.2	309
A28	Total Recoverable Metals	8590	3.8	36.2	73.7	1.8	5.7	3470	3.9	12.7	195	19700	304	5440	6380	0.014J	7.8	551	0	1.3	39.4J	0.38J	20.1	959
A30	Total Recoverable Metals	9750	5.1	50.3	91.3	2.7	14.2	2750	7.7	18.2	324	26700	629	5320	7300	0.061J	11.7	810	0	3.6	61.7J	0.49J	31.4	1520
A31	Total Recoverable Metals	8240	5.4	50.2	57.8	2.4	9.7	2430	2.7	11.5	282	24300	967	4360	7710	0.032J	7.1	711	0	2.9	55.7J	0.28J	12.1	1670
A32	Total Recoverable Metals	5830	0.87UJ	15.3	19.8	0.55	1.2	2670	2.4	6.8	70.7	15400	175	4300	1360	0.11U	3.4	479	2.2U	1.1	41.3J	0.12J	10.4	203
A33	Total Recoverable Metals	8830	4.5	48.6	102	2.5	11.7	2350	3.2	13.6	349	22500	749	5080	8830	0.054J	8.5	730	0	2.2	48.5J	0.43J	14.2	1660
A33_DUP-03	Total Recoverable Metals	8820	7.5	55.2	69.7	2.5	11.1	2640	3.8	12	300	21300	849	4540	7530	0.021J	8.2	906	0	3.2	84.6J	0.43U	15.3	1830
A34	Total Recoverable Metals	9350	2	19.7	76.5	0.82	7	2600	5.7	17.5	236	42400	679	5810	4430	0.21	11.5	837	0	2.8	84.9J	0.15J	21.1	1490
A35	Total Recoverable Metals	10200	5.6	43.5	92.7	2.5	11.2	2600	4.9	17.6	323	31700	815	5340	8850	0.085J	11.5	936	0	3.2	78.8J	0.29J	19.6	1980
A36	Total Recoverable Metals	7920	0.89	18.8	65	0.62	0.99	1690	5.7	14.2	81	37000	106	5190	1270	0.02J	8.5	649	2UJ	0.8	73.6J	0.14J	22.9	256
A37	Total Recoverable Metals	10500	1.9	13.5	85.8	0.75	8	5210	3.4	14.5	185	28400	486	6710	7670	0.11U	9.6	651	0	1.5	58J	0.12J	17.6	1580
A40	Total Recoverable Metals	8170	9.3	41.8	111	2.5	14.6	2210	4.8	15.2	487	25100	1920	4020	12900	0.089J	9.5	737	0	8	52.7J	0.3J	18.8	2150
A40_DUP-01	Total Recoverable Metals	9460	7.5	46.4	128	2.7	16.7	2500	5.4	16.5	540	29000	2200	4660	14800	0.16	10.6	913	0	8	74.5J	0.35J	20.7	2290
A40A	Total Recoverable Metals	9760	1.7	20.7	72.8	1.3	7.6	1960	3.7	14	276	30000	1070	5670	6570	0.033J	7.6	747	0	3.5	56.9J	0.22J	14.9	1120
A41A	Total Recoverable Metals	8180	4.3	22.9	108	1.7	9.7	2580	4	13.1	300	28200	1240	4470	8410	0.048J	7.8	798	0	5.6	69.9J	0.26J	18.1	1490
A41C	Total Recoverable Metals	5740	18.4	32.2	57.7	0.81	13.4	3070	3.7	11.3	1340	24900	8750	2470	12000	0.93	3.7	682	2.4U	28.5	59.1J	0.2J	12.2	2720
A42	Total Recoverable Metals	6990	1	4.9	117	0.62	0.48	2810	3.1	10.9	37.5	21600	46.9	4390	708	0.12U	5.3	762	2.2U	0.56	73.1J	0.44U	19.8	161
A43	Total Recoverable Metals	6630	0.96UJ	7.6	105	0.85	0.52	4710	2.9	13.2	33.1	24400	36.3	4130	1240	0.022J	6.7	766	0	0.48UJ	74.9J	0.48U	17.4	120
A45	Total Recoverable Metals	11800	1.6UJ	27.1	45.5	1.6	3.7	6660	5.6	12.6	109	27000	265	5380	729	0.036J	9	1150	0	1.9	91.4J	0.78U	24.4	539
A48	Total Recoverable Metals	7840	1.2	9.6	107	0.55	2.2	3850	4.1	10.8	67.5	26400	387	4190	1240	0.033J	4.5	923	0	1.3	108J	0.46U	21.7	424
A55	Total Recoverable Metals	8130	3.3	20.7	128	1.6	13	2920	4	14	350	23000	1690	4290	12700	0.057J	8.2	946	2.5U	5.1	84.3J	0.49U	16.7	2350
BG-1A	Total Recoverable Metals	17300	1.9	64.7	58	1.3	4.7	998	4.2	28.9	280	22600	1510	2510	9050	0.067J	5.9	974	3.1U	4.9	77J	1	15.4	644
CG3	Total Recoverable Metals	17100	0.96U	20.4	46.5	6.6	2	1980	4.4	19.2	176	33900	127	7210	6830	0.02J	8.3	671	0	0.74	126J	0.48U	24.9	347
CG4	Total Recoverable Metals	15900	0.99U	17.2	34.2	4.5	1.3	1860	5.5	15.5	152	30900	74.9	6900	4460	0.016J	8.3	584	0	0.86	83.8J	0.5U	25	338
CG6	Total Recoverable Metals	18500	0.98	23.3	46.4	6.3	2.1	2510	5.1	19.1	177	34100	92.8	7330	8300	0.014J	9	566	0	0.61	105J	0.46U	29.1	424
EG1	Total Recoverable Metals	14400	0.99U	8.2	66.6	0.5	0.43J	4260	5.6	10.9	28.2	36600	65.1	9070	958	0.024J	8.2	567	2.5U	0.5U	123J	0.5U	26.9	182
EG2	Total Recoverable Metals	17100	1.4U	13.9	174	1.7	24.5	4180	6.1	17.6	400	30900	367	6680	15400	0.053J	17.5	848	0	0.98	91.2J	0.7U	25.1	2570
EG2A	Total Recoverable Metals	14700	1.7	26.6	55.3	1	7.7	3460	4.7	13.2	277	35400	621	8540	12400	0.055J	9.1	594	0	1	88.2J	0.43U	21.8	1550
EG3A	Total Recoverable Metals	16400	0.99U	16.7	89.2	0.83	7.3	3440	5.8	18.1	179	40600	304	10400	5020	0.025J	13.8	525	0	1.5	116J	0.5U	28.6	1090
EG5	Total Recoverable Metals	14600	1.8	21.6	118	1.3	34.4	3660	5.2	19.7	637	47800	1070	9740	9890	0.046J	15.9	519	0	9.6	123J	0.85U	26.4	2360
EG6	Total Recoverable Metals	14000	1.2	23.9	111	1.3	17.3	3950	5.2	21.9	535	42500	1090	8550	12000	0.092J	15.7	617	0	4.3	113J	0.13J	23.9	3290
EG9	Total Recoverable Metals	10900	0.91U	14.7	68.1	0.64	5.3	3000	4.6	15.3	130	40600	285	6980	7340	0.13U	10	825	2.3U	0.47	93.1J	0.45U	18.4	1400

Table 2.4-1 Bonita Peak Mining District Site August 2015
Sediment Total Recoverable Metals Analytical Results

Sub_Location	Analysis	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LA3	Total Recoverable Metals	9310	3.4	28.4	99.7	2	10.8	2720	4.6	14.7	333	27700	1420	5180	10300	0.054J	9	891	0	4.5	83.6J	0.44U	18.2	1720
UA5	Total Recoverable Metals	10100	1.2	42.6	48.2	1.5	10.7	1540	4	18.4	140	14800	392	2830	5250	0.017J	5.9	1300	0	2	62.4J	0.81	10.9	642

Sub_Location	Analysis	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
A07	Total Recoverable Metals	18200	2.6	42.3	79.6	2.5	7.7	1050	2.7	28.3	223	27500	593	1620	22000	0.036	7.2	564	2.5UJ	0.93	61.7	1.3	9.4	869
A07-DUP	Total Recoverable Metals	17300	2.9	37	57.6	2.6	12	1090	2.2	40.7	312	27500	500	1700	16700	0.021	7.7	529	2.4UJ	1.2	52	1.6	8.6	687
	RPD	**5.07%**	**10.91%**	**13.37%**	**32.07%**	**3.92%**	**43.65%**	**3.74%**	**20.41%**	**35.94%**	**33.27%**	**0.00%**	**17.02%**	**4.82%**	**27.39%**	**52.63%**	**6.71%**	**6.40%**	N/A	**25.35%**	**17.06%**	**20.69%**	**8.89%**	**23.39%**
Note: Removed flags from values for RPD calculation																								
Sub_Location	**Analyses**	**Aluminum**	**Antimony**	**Arsenic**	**Barium**	**Beryllium**	**Cadmium**	**Calcium**	**Chromium**	**Cobalt**	**Copper**	**Iron**	**Lead**	**Magnesium**	**Manganese**	**Mercury**	**Nickel**	**Potassium**	**Selenium**	**Silver**	**Sodium**	**Thallium**	**Vanadium**	**Zinc**
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
A07B	Total Recoverable Metals	16100	3.1	43.8	78.1	2.3	12.9	741	2	51.1	235	39400	760	1170	14200	0.038	6.3	481	2.5UJ	0.83	83.2	1.7	7.6	716
A07B-DUP	Total Recoverable Metals	21700	4.6	74.2	81.2	3.1	14.8	744	3.1	55.4	306	41900	918	1140	29100	0.045	7.7	512	2.7UJ	1.2	93.6	2.2	11.5	999
	RPD	**29.63%**	**38.96%**	**51.53%**	**3.89%**	**29.63%**	**13.72%**	**0.40%**	**43.14%**	**8.08%**	**26.25%**	**6.15%**	**18.83%**	**2.60%**	**68.82%**	**16.87%**	**20.00%**	**6.24%**	N/A	**36.45%**	**11.76%**	**25.64%**	**40.84%**	**33.00%**
Note: Removed flags from values for RPD calculation																								
Sub_Location	**Analysis**	**Aluminum**	**Antimony**	**Arsenic**	**Barium**	**Beryllium**	**Cadmium**	**Calcium**	**Chromium**	**Cobalt**	**Copper**	**Iron**	**Lead**	**Magnesium**	**Manganese**	**Mercury**	**Nickel**	**Potassium**	**Selenium**	**Silver**	**Sodium**	**Thallium**	**Vanadium**	**Zinc**
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
A18	Total Recoverable Metals	14900	3.1	26.3	54.5	1.3	2.1	2460	6.6	20.9	327	44400	195	7260	1910	0.083	11.9	597	0	2.1	119	0.15J	36.4	376
A18-DUP	Total Recoverable Metals	14200	2	22.4	43.3	1	1.6	2380	5.4	18.1	291	39500	186	6670	1580	0.044	10.5	688	0	2.1	98.2	0.15J	33.3	351
	RPD	**4.81%**	**43.14%**	**16.02%**	**22.90%**	**26.09%**	**27.03%**	**3.31%**	**20.00%**	**14.36%**	**11.65%**	**11.68%**	**4.72%**	**8.47%**	**18.91%**	**61.42%**	**12.50%**	**14.16%**	N/A	**0.00%**	**19.15%**	**#VALUE!**	**8.90%**	**6.88%**
Note: Removed flags from values for RPD calculation																								
Sub_Location	**Analysis**	**Aluminum**	**Antimony**	**Arsenic**	**Barium**	**Beryllium**	**Cadmium**	**Calcium**	**Chromium**	**Cobalt**	**Copper**	**Iron**	**Lead**	**Magnesium**	**Manganese**	**Mercury**	**Nickel**	**Potassium**	**Selenium**	**Silver**	**Sodium**	**Thallium**	**Vanadium**	**Zinc**
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
A33	Total Recoverable Metals	8830	4.5	48.6	102	2.5	11.7	2350	3.2	13.6	349	22500	749	5080	8830	0.054	8.5	730	0	2.2	48.5	0.43J	14.2	1660
A33_DUP-03	Total Recoverable Metals	8820	7.5	55.2	69.7	2.5	11.1	2640	3.8	12	300	21300	849	4540	7530	0.021	8.2	906	0	3.2	84.6	0.43U	15.3	1830
	RPD	**0.11%**	**50.00%**	**12.72%**	**37.62%**	**0.00%**	**5.26%**	**11.62%**	**17.14%**	**12.50%**	**15.10%**	**5.48%**	**12.52%**	**11.23%**	**15.89%**	**88.00%**	**3.59%**	**21.52%**	N/A	**37.04%**	**54.24%**	N/A	**7.46%**	**9.74%**
Note: Removed flags from values for RPD calculation																								
Sub_Location	**Analysis**	**Aluminum**	**Antimony**	**Arsenic**	**Barium**	**Beryllium**	**Cadmium**	**Calcium**	**Chromium**	**Cobalt**	**Copper**	**Iron**	**Lead**	**Magnesium**	**Manganese**	**Mercury**	**Nickel**	**Potassium**	**Selenium**	**Silver**	**Sodium**	**Thallium**	**Vanadium**	**Zinc**
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
A40	Total Recoverable Metals	8170	9.3	41.8	111	2.5	14.6	2210	4.8	15.2	487	25100	1920	4020	12900	0.089	9.5	737	0	8	52.7	0.3	18.8	2150
A40_DUP-01	Total Recoverable Metals	9460	7.5	46.4	128	2.7	16.7	2500	5.4	16.5	540	29000	2200	4660	14800	0.16	10.6	913	0	8	74.5	0.35	20.7	2290
	RPD	**14.63%**	**21.43%**	**10.43%**	**14.23%**	**7.69%**	**13.42%**	**12.31%**	**11.76%**	**8.20%**	**10.32%**	**14.42%**	**13.59%**	**14.75%**	**13.72%**	**57.03%**	**10.95%**	**21.33%**	N/A	**0.00%**	**34.28%**	**15.38%**	**9.62%**	**6.31%**

Note: Removed flags from values for RPD calculation

Note: Not Applicable (N/A) is used for RPD when the analyte was not detected

Note: Data Qualifier Definitions Listed Below:

D The analyte was diluted prior to analysis.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

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

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	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	mg/kg dry wt	ug/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	ug/kg dry wt	mg/kg dry wt
A01	Total Recoverable Metals	4320D	<492U	67500D	126000D	<0.984U	4230D	3180D	3690D	13700D	23700D	31200D	58000D	1960D	4950D	0.029D	2490D	5120D	306JD	<984U	527JD	<246U	3520D	12800D	657D
A02A	Total Recoverable Metals	6090D	958JD	73500D	72600D	1.08JD	7550D	2820D	2260D	7280D	31500D	16200D	240000D	3010D	1270D	0.012JD	1530D	4620D	812JD	<1010U	981JD	<253U	535JD	13300D	974D
A03	Total Recoverable Metals	6230D	841JD	52000D	49100D	<1.00U	9090D	2420D	3020D	8650D	41700D	17800D	267000D	3840D	2330D	0.015JD	8360D	4970D	721JD	<1000U	1280D	<250U	3280D	12300D	911D
A04	Total Recoverable Metals	7480D	<503U	47100D	97100JD	1.02JD	5160D	3430D	3930D	8680D	23100D	18200D	113000D	3750D	2290D	0.014JD	3390D	5440D	544JD	<1010U	1440D	<251U	549JD	12900D	728D
A05	Total Recoverable Metals	6460D	635JD	47100D	48200JD	<0.983U	8510D	2150D	2390D	9070D	33100D	16500D	161000D	3880D	2300D	0.020D	6880D	4700D	709JD	<983U	899JD	<246U	690JD	11400D	831D
A07	Total Recoverable Metals	18600D	965JD	43200D	32900JD	2.26JD	5640D	1150D	3840D	22800D	198000D	25700D	358000D	2700D	7780D	0.017JD	14900D	5500D	509JD	<999U	1300D	<250U	1070D	12100D	605D
A07B	Total Recoverable Metals	27500D	2230D	59300D	62300JD	3.81JD	10800D	439D	5310D	48000D	301000D	58800D	889000D	1300D	16900D	0.024D	15300D	7950D	362JD	<1010U	2280D	<252U	1830D	10300D	889D
A07C	Total Recoverable Metals	9260D	1620D	46100D	38200JD	<1.00U	318D	593D	2580D	8350D	47700D	38200D	245000D	1930D	697D	0.037D	7440D	2380D	380JD	<1000U	1200D	<250U	586JD	8110D	295D
A08	Total Recoverable Metals	11800D	768JD	39000D	28300JD	1.47JD	4640D	1870D	3580D	10000D	66800D	14600D	164000D	3260D	2610D	0.012JD	6330D	5130D	534JD	<1000U	902JD	<250U	728JD	11100D	582D
A09	Total Recoverable Metals	9490D	822JD	35000D	22300JD	1.45JD	8650D	1520D	2750D	13200D	111000D	13800D	721000D	3430D	4100D	<0.010U	9740D	5000D	420JD	<1000U	1140D	<251U	<502U	10700D	980D
A10	Total Recoverable Metals	44600D	2140D	41700D	56700JD	40.5D	7460D	1280D	4810D	14100D	477000D	28400D	2190000D	3370D	9230D	0.234D	8790D	6380D	397JD	<1010U	4630D	<253U	<505U	16500D	2240D
A11	Total Recoverable Metals	30500D	3980D	42000D	95500JD	25.1D	16200D	1210D	3970D	22300D	621000D	33400D	3720000D	3430D	17300D	0.283D	7540D	7310D	346JD	1220JD	8120D	<248U	875JD	15200D	4500D
A13	Total Recoverable Metals	20400D	1700D	29000D	41900JD	10.8D	4580D	1520D	5390D	20400JD	239000D	33200D	911000D	6100D	9860D	0.033D	9340D	8270D	263JD	<1010U	3380D	<253U	<505U	26500D	1120D
A14	Total Recoverable Metals	21800D	1340D	35800D	40600JD	13.1D	7310D	1700D	5030D	13200JD	266000D	22400D	1070000D	4400D	6010D	0.134D	7070D	6210D	421JD	<995U	2250D	<249U	<498U	17000D	1370D
A15	Total Recoverable Metals	26900D	628JD	39200D	49500JD	17.7D	1920D	1450D	5620D	18200JD	242000D	34800D	339000D	5810D	6340D	0.032D	6420D	8510D	357JD	<1010U	1640D	<252U	<503U	25600D	824D
A20	Total Recoverable Metals	9460D	5230D	49200D	76400D	2.86JD	14300D	685D	3210D	16500D	555000D	24700D	4260000D	2010D	17500D	0.317D	5550D	5510D	291JD	<1000U	6370D	<251U	912JD	10300D	3220D
A21	Total Recoverable Metals	26800D	11900D	44000D	131000D	7.98D	51500D	820D	3650D	13000D	1560000D	32600D	9180000D	1390D	31600D	0.701D	11200D	10900D	<249U	1370JD	25000D	<249U	4240D	9530D	11900D
A22	Total Recoverable Metals	7690D	8330D	46600D	110000D	2.90JD	25400D	830D	2970D	8990D	771000D	24000D	5120000D	1680D	19000D	0.639D	7340D	6470D	<250U	<998U	13800D	<250U	3450D	9830D	6250D
A24	Total Recoverable Metals	9260D	<493U	35900D	28500D	<0.986U	521D	3760D	6640D	8650D	29100D	22400D	41900D	7570D	1060D	<0.010U	1470D	5910D	<246U	<986U	656JD	<246U	<493U	23100D	130D
A26	Total Recoverable Metals	8970D	539JD	65700D	122000D	1.14JD	1670D	4330D	5160D	14600D	40400D	30500D	66300D	5520D	4620D	0.012JD	1920D	9920D	356JD	<1010U	1360D	<252U	<503U	19500D	421D
A28	Total Recoverable Metals	10100D	1670D	63000D	58500D	2.72JD	12200D	3050D	4870D	14600D	280000D	30900D	1130000D	5830D	7640D	0.049D	4440D	8850D	401JD	<994U	5050D	<249U	<497U	20200D	2790D
A30	Total Recoverable Metals	13900D	1120D	37800D	69800D	8.53D	10900D	2510D	4490D	14500D	355000D	21200D	766000D	5330D	10500D	0.019JD	4400D	9060D	333JD	<994U	1260D	<248U	<497U	17000D	2740D
A31	Total Recoverable Metals	8650D	23900D	52400D	55400D	3.99JD	12300D	2940D	3650D	10900D	381000D	20400D	781000D	4330D	7920D	<0.010U	4340D	7500D	316JD	<1000U	4740D	<251U	<502U	13200D	2840D
A32	Total Recoverable Metals	6900D	<507U	20600D	30200D	1.03JD	2000D	3070D	2940D	8070D	107000D	18000D	383000D	4830D	1880D	0.010JD	11600D	3970D	353JD	<1010U	1000JD	<253U	<507U	12700D	455D
A33	Total Recoverable Metals	25000D	3550D	67700D	67300D	23.8D	10900D	3010D	3800D	11100D	726000D	22100D	1010000D	4350D	7650D	0.019D	6480D	9530D	359JD	1060JD	5540D	<250U	<499U	14500D	4800D
A34	Total Recoverable Metals	10400D	837JD	25400D	81000D	1.32JD	7410D	2500D	5110D	18700D	235000D	41900D	375000D	5840D	4150D	0.028D	4680D	12500D	534JD	<1000U	1470D	<250U	<500U	19300D	2420D
A35	Total Recoverable Metals	9030D	1980D	45900D	73600D	2.88JD	10700D	2290D	5000D	12700D	290000D	27500D	955000D	4980D	8760D	0.029D	6560D	9550D	398JD	<1010U	2000D	<252U	<504U	15600D	2560D
A36	Total Recoverable Metals	9020D	1030D	35300D	102000D	<1.01U	1560D	1910D	6220D	14600D	115000D	58300D	317000D	5070D	1410D	<0.010U	7590D	10100D	806JD	1640JD	896JD	<253U	<506U	22900D	492D
A37	Total Recoverable Metals	9450D	556JD	19600D	103000D	1.13JD	11700D	3150D	4030D	14400D	241000D	30900D	495000D	5790D	7300D	0.021D	3010D	10900D	418JD	<1000U	1040D	<251U	<502U	15800D	3280D
A40	Total Recoverable Metals	12200D	2900D	35600D	134000D	6.51D	21400D	2650D	4970D	16600D	615000D	25200D	2640000D	4330D	21900D	0.052D	12500D	11800D	415JD	<984U	7260D	<246U	<492U	14800D	4820D
A40A	Total Recoverable Metals	7660D	3300D	27000D	112000D	2.17JD	14400D	2020D	3290D	15500D	546000D	20800D	3660000D	4190D	17300D	0.076D	4190D	8050D	559JD	<1000U	7490D	<250U	<500U	12300D	2720D
A41A	Total Recoverable Metals	9960D	1940D	23100D	135000D	4.31JD	12000D	3110D	4540D	13600D	369000D	25400D	1890000D	4290D	11800D	0.015JD	7810D	9290D	452JD	<987U	4600D	<247U	4090D	16700D	3030D
A42	Total Recoverable Metals	6870D	<501U	7720D	96600D	<1.00U	667D	3090D	3400D	9920D	35500D	23300D	72000D	4320D	958D	<0.010U	2690D	5260D	599JD	<1000U	1850D	<251U	3580D	15700D	210D
A43	Total Recoverable Metals	5680D	<505U	12500D	140000D	1.05JD	791D	4470D	2300D	14200D	27200D	19600D	28000D	3390D	1730D	0.216D	1020D	6360D	503JD	<1010U	<505U	<253U	<505U	13300D	168D
A45	Total Recoverable Metals	6700D	1840D	24200D	115000D	1.66JD	10900D	2440D	3530D	11400D	324000D	21500D	2080000D	3740D	10400D	0.045D	6350D	6560D	369JD	<988U	4510D	<247U	<494U	13900D	2110D
A48	Total Recoverable Metals	6380D	<493U	12100D	71400D	<0.987U	2200D	3330D	3030D	7860D	114000D	18400D	683000D	3880D	1200D	0.039D	4910D	3170D	485JD	<987U	1640D	<247U	<493U	13000D	507D
A55	Total Recoverable Metals	6860D	1140D	18600D	99400D	1.14JD	8020D	2780D	3800D	10500D	214000D	20200D	1440000D	4320D	7290D	0.022D	5080D	6020D	435JD	<995U	2860D	<249U	<497U	14000D	1610D
A56	Total Recoverable Metals	9400D	1750D	23100D	123000D	3.74JD	13500D	3880D	4080D	14100D	352000D	23800D	1590000D	4390D	10800D	0.037D	7450D	9740D	483JD	1120JD	6580D	<253U	<507U	16200D	4480D
A58	Total Recoverable Metals	5320D	1760D	9270D	107000D	<0.986U	6790D	2310D	3590D	7330D	625000D	17500D	2090000D	3290D	4320D	0.536D	29600D	3030D	442JD	<986U	5240D	<246U	<493U	11600D	1290D
A60	Total Recoverable Metals	7230D	2010D	19500D	123000D	1.34JD	9910D	3720D	4160D	11600D	240000D	23300D	3240000D	4500D	7500D	0.042D	5640D	7190D	381JD	<984U	3710D	<246U	<492U	15500D	2360D
A61	Total Recoverable Metals	12100D	1370D	20900D	93600D	2.79JD	5570D	2040D	4010D	15500D	347000D	20400D	1350000D	4140D	8110D	0.034D	5940D	6010D	408JD	<989U	3460D	<247U	<494U	13600D	1630D
A64	Total Recoverable Metals	6280D	1120D	15500D	95500D	1.32JD	7720D	2900D	3270D	10400D	226000D	19500D	1430000D	3660D	8500D	0.019JD	4870D	6000D	307JD	<983U	2450D	<246U	<491U	12800D	1760D
A65	Total Recoverable Metals	7660D	1360D	18300D	71100D	0.993JD	4480D	2730D	3660D	10400D	314000D	24500D	1650000JD	4700D	7990D	0.037D	7480D	5690D	443JD	<982U	3600D	<246U	<491U	14000D	1400D
A66	Total Recoverable Metals	7650D	1270D	16300D	83000D	1.13JD	7760D	2830D	3160D	11700D	210000D	23200D	1410000D	4760D	7860D	0.027D	4530D	6940D	431JD	<1010U	3310D	<253U	3260D	14200D	1820D
A68	Total Recoverable Metals	7840D	1790D	16300D	137000D	1.21JD	9980D	3620D	3550D	12600D	267000D	25800D	1690000D	4640D	13200D	0.027D	12900D	7840D	416JD	<1020U	4320D	<255U	3770D	14200D	2770D
A72	Total Recoverable Metals	6490D	2400D	38300D	64200D	<1.02U	1950D	1500D	5370D	4980D	227000D	59100D	891000D	2740D	1180D	0.083D	8390D	2770D	989JD	1490JD	3760D	<254U	<508U	25800D	575D
Bakers Bridge	Total Recoverable Metals	12100D	2240D	19400D	120000D	1.52JD	5270D	4400D	3630D	16200D	266000D	44200D	391000D	3240D	3220D	0.048D	5520D	11000D	781JD	<986U	2010D	<246U	<493U	19300D	2480D
BG1A	Total Recoverable Metals	14200D	793JD	40800D	27500D	1.64JD	4520D	961D	2330D	16600D	206000D	16400D	1230000D	1810D	7840D	0.066D	3110D	5590D	367JD	<1020U	1960D	<255U	664JD	6230D	719D
M34_DUP-01	Total Recoverable Metals	52000D	1520D	28600D	57800D	3.68JD	1640D	2020D	2610D	16500D	202000D	104000D	183000D	1970D	900D	0.042D	6070D	4210D	632JD	<1010U	645JD	<252U	<504U	16500D	528D
A34_DUP-03	Total Recoverable Metals	8630D	538JD	13200D	64900D	<1.01U	5900D	2380D	4570D	13300D	153000D	35300D	210000D	5590D	4370D	0.010JD	5560D	8930D	459JD	<1010U	524JD	<253U	<506U	16500D	1650D
A37_DUP-05	Total Recoverable Metals	10400D	612JD	18500D	115000D	<0.991U	10400D	4120D	4110D	15000D	243000D	34200D	555000D	6410D	7360D	0.018JD	2960D	10700D	583JD	<991U	1610D	<248U	<496U	15900D	3400D
A40A_DUP-06	Total Recoverable Metals	8690D	2950D	28400D	102000D	1.55JD	14200D	2420D	3660D	13400D	426000D	27200D	3070000D	5270D	14800D	0.049D	6630D	7720D	421JD	<1010U	7320D	<251U	<503U	14300D	3030D
A07C_DUP-07	Total Recoverable Metals	9810D	1220D	40300D	27200D	<1.00U	403D	545D	2170D	13300D	43700D	41700D	193000D	2270D	1880D	0.015JD	5110D	2520D	377JD	<1000U	987JD	<250U	<501U	7020D	337D
A20_DUP-09	Total Recoverable Metals	10400D	6850D	52500D	89000D	3.14JD	12900D	889D	3440D	18000D	523000D	31200D	4730000D	2210D	19400D	0.514D	6550D	5720D	414JD	<1010U	6550D	<253U	876JD	10100D	3180D
A31_DUP-10	Total Recoverable Metals	5630D	1710D	18700D	31600D	1.35JD	5000D	2040D	1750JD	6570D	109000D	12300D	413000D	3190D	3520D	0.011JD	1920D	4520D	307JD	<1010U	1390D	<252U	<504U	9830D	1340D
Bbridge_DUP-11	Total Recoverable Metals	11900D	1770D	18900D	117000D	1.58JD	5450D	3410D	3340D	16000D	259000D	40400D	343000D	3080D	3330D	0.040D	4050D	10800D	674JD	<1010U	1550D	<252U	<504U	16800D	2730D
EG1	Total Recoverable Metals	11200D	<497U	10700D	49300D	<0.993U	246D	2780D	4860D	10000D	19400D	37200D	66400D	7840D	1100D	<0.010U	<993U	5820D	<248U	<993U	<497U	<248U	<497U	24100D	214D
EG2	Total Recoverable Metals	15600D	<508U	11100D	206000JD	2.19JD	51600D	3490D	3760D	22200D	684000D	34000D	310000BD	6720D	33600D	0.036D	1170D	23500D	<254U	<1020U	530JD	<254U	<508U	18400D	7210D
EG2A	Total Recoverable Metals	16500D	<506U	65600D	134000D	1.26JD	2960D	4860D	9400D	10300D	40800D	101000D	98000BD	8610D	2200D	0.012JD	4950D	7840D	584JD	<1010U	<506U	<253U	3660D	45700D	880D
EG3	Total Recoverable Metals	16700D	<496U	20400D	116000D	1.39JD	15400D	3650D	5930D	21400D	245000D	39800D	180000BD	10800D	5130D	0.029D	4260D	16800D	273JD	<991U	576JD	<248U	884JD	30100D	1950D
EG3A	Total Recoverable Metals	12300D	1970D	17800D	34200D	<0.983U	5180D	2750D	4550D	13900D	242000D	44100D	948000BD	7820D	4280D	0.336D	4300D	8280D	271JD	<983U	12500D	<246U	<492U	19300D	1610D
EG5	Total Recoverable Metals	21800D	1270D	19700D	77800D	1.54JD	19200D	5350D	6330D	21500D	318000D	76700D	2070000BD	14400D	7060D	0.075D	2740D	16400D	547JD	<982U	9210D	<245U	<491U	34500D	6460D
EG6	Total Recoverable Metals	12900D	655JD	18100D	99700D	1.16JD	14400D	3140D	4560D	16300D	334000D	38600D	1040000BD	8430D	10800D	0.035D	2710D	13000D	342JD	<1010U	1480D	<253U	<505U	20800D	4360D
EG9	Total Recoverable Metals	7490D	548JD	17600D	59700D	<0.982U	3580D	2280D	4490D	9750D	119000D	41800D	329000BD	4330D	2740D	0.020D	3600D	7060D	526JD	<982U	2880D	<245U	<491U	14000D	1230D
LA3	Total Recoverable Metals	8850D	3570D	21300D	99700D	1.71JD	11300D	2260D	3100D	12000D	270000D	26100D	1860000BD	5330D	11300D	0.028D	6060D	8040D	493JD	<1000U	3320D	<250U	<501U	15900D	2520D
M34	Total Recoverable Metals	41400D	1370D	25100D	57100D	2.94JD	1310D	2000D	3150D	15700D	180000D	88000D	205000BD	2510D	808D	0.053D	4830D	4640D	542JD	<1010U	<505U	<253U	<505U	16600D	484D
UA5	Total Recoverable Metals	13600D	587JD	37100D	36500D	1.79JD	5210D	1950D	3470D	10000D	101000D	17100D	645000BD	3610D	3440D	0.021D	7680D	5130D	758JD	<993U	1510D	<248U	540JD	11200D	962D

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	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	mg/kg dry wt	ug/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	ug/kg dry wt	mg/kg dry wt
M34	Total Recoverable Metals	41400	1370	25100	57100	2.94	1310	2000	3150	15700	180000	88000	205000	2510	808	0.053	4830	4640	542	<1010U	<505U	<253U	<505U	16600	484
M34_DUP-01	Total Recoverable Metals	52000	1520	28600	57800	3.68	1640	2020	2610	16500	202000	104000	183000	1970	900	0.042	6070	4210	632	<1010U	645JD	<252U	<504U	16500	528
	RPD	**22.70%**	**10.38%**	**13.04%**	**1.22%**	**22.36%**	**22.37%**	**1.00%**	**18.75%**	**4.97%**	**11.52%**	**16.67%**	**11.34%**	**24.11%**	**10.77%**	**23.16%**	**22.75%**	**9.72%**	**15.33%**	N/A	N/A	N/A	N/A	**0.60%**	**8.70%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	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	mg/kg dry wt	ug/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	ug/kg dry wt	mg/kg dry wt
A34	Total Recoverable Metals	10400	837	25400	81000	1.32JD	7410	2500	5110	18700	235000	41900	375000	5840	4150	0.028	4680	12500	534	<1000U	1470	<250U	<500U	19300	2420
A34_DUP-03	Total Recoverable Metals	8630	538	13200	64900	<1.01U	5900	2380	4570	13300	153000	35300	210000	5590	4370	0.01	5560	8930	459	<1010U	524	<253U	<506U	16500	1650
	RPD	**18.60%**	**43.49%**	**63.21%**	**22.07%**	N/A	**22.69%**	**4.92%**	**11.16%**	**42.27%**	**42.27%**	**17.10%**	**56.41%**	**4.37%**	**5.16%**	**94.74%**	**17.19%**	**33.32%**	**15.11%**	N/A	**94.88%**	N/A	N/A	**15.64%**	**37.84%**

Note: Removed flags from values for RPD calculation

Table 2.4-2 Bonita Peak Mining District Site September 2015
Sediment Total Recoverable Metals Analytical Results

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	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	mg/kg dry wt	ug/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	ug/kg dry wt	mg/kg dry wt
A37	Total Recoverable Metals	9450	556	19600	103000	1.13JD	11700	3150	4030	14400	241000	30900	495000	5790	7300	0.021	3010	10900	418	<1000U	1040	<251U	<502U	15800	3280
A37_DUP-05	Total Recoverable Metals	10400	612	18500	115000	<0.991U	10400	4120	4110	15000	243000	34200	555000	6410	7360	0.018	2960	10700	583	<991U	1610	<248U	<496U	15900	3400
	RPD	**9.57%**	**9.59%**	**5.77%**	**11.01%**	N/A	**11.76%**	**26.69%**	**1.97%**	**4.08%**	**0.83%**	**10.14%**	**11.43%**	**10.16%**	**0.82%**	**15.38%**	**1.68%**	**1.85%**	**32.97%**	N/A	**43.02%**	N/A	N/A	**0.63%**	**3.59%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	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	mg/kg dry wt	ug/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	ug/kg dry wt	mg/kg dry wt
A40A	Total Recoverable Metals	7660	3300	27000	112000	2.17	14400	2020	3290	15500	546000	20800	3660000	4190	17300	0.076	4190	8050	559	<1000U	7490	<250U	<500U	12300	2720
A40A_DUP-06	Total Recoverable Metals	8690	2950	28400	102000	1.55	14200	2420	3660	13400	426000	27200	3070000	5270	14800	0.049	6630	7720	421	<1010U	7320	<251U	<503U	14300	3030
	RPD	**12.60%**	**11.20%**	**5.05%**	**9.35%**	**33.33%**	**1.40%**	**18.02%**	**10.65%**	**14.53%**	**24.69%**	**26.67%**	**17.53%**	**22.83%**	**15.58%**	**43.20%**	**45.10%**	**4.19%**	**28.16%**	N/A	**2.30%**	N/A	N/A	**15.04%**	**10.78%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	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	mg/kg dry wt	ug/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	ug/kg dry wt	mg/kg dry wt
A07C	Total Recoverable Metals	9260	1620	46100	38200	<1.00U	318	593	2580	8350	47700	38200	245000	1930	697	0.037	7440	2380	380	<1000U	1200	<250U	586JD	8110	295
A07C_DUP-07	Total Recoverable Metals	9810	1220	40300	27200	<1.00U	403	545	2170	13300	43700	41700	193000	2270	1880	0.015	5110	2520	377	<1000U	987	<250U	<501U	7020	337
	RPD	**5.77%**	**28.17%**	**13.43%**	**33.64%**	N/A	**23.58%**	**8.44%**	**17.26%**	**45.73%**	**8.75%**	**8.76%**	**23.74%**	**16.19%**	**91.81%**	**84.62%**	**37.13%**	**5.71%**	**0.79%**	N/A	**19.48%**	N/A	N/A	**14.41%**	**13.29%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	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	mg/kg dry wt	ug/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	ug/kg dry wt	mg/kg dry wt
A20	Total Recoverable Metals	9460	5230	49200	76400	2.86	14300	685	3210	16500	555000	24700	4260000	2010	17500	0.317	5550	5510	291	<1000U	6370	<251U	912	10300	3220
A20_DUP-09	Total Recoverable Metals	10400	6850	52500	89000	3.14	12900	889	3440	18000	523000	31200	4730000	2210	19400	0.514	6550	5720	414	<1010U	6550	<253U	876	10100	3180
	RPD	**9.47%**	**26.82%**	**6.49%**	**15.24%**	**9.33%**	**10.29%**	**25.92%**	**6.92%**	**8.70%**	**5.94%**	**23.26%**	**10.46%**	**9.48%**	**10.30%**	**47.41%**	**16.53%**	**3.74%**	**34.89%**	N/A	**2.79%**	N/A	**4.03%**	**1.96%**	**1.25%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	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	mg/kg dry wt	ug/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	ug/kg dry wt	mg/kg dry wt
A31	Total Recoverable Metals	8650	23900	52400	55400	3.99	12300	2940	3650	10900	381000	20400	781000	4330	7920	<0.010U	4340	7500	316	<1000U	4740	<251U	<502U	13200	2840
A31_DUP-10	Total Recoverable Metals	5630	1710	18700	31600	1.35	5000	2040	1750	6570	109000	12300	413000	3190	3520	0.011JD	1920	4520	307	<1010U	1390	<252U	<504U	9830	1340
	RPD	**42.30%**	**173.29%**	**94.80%**	**54.71%**	**98.88%**	**84.39%**	**36.14%**	**70.37%**	**49.57%**	**111.02%**	**49.54%**	**61.64%**	**30.32%**	**76.92%**	N/A	**77.32%**	**49.58%**	**2.89%**	N/A	**109.30%**	N/A	N/A	**29.27%**	**71.77%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	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	mg/kg dry wt	ug/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	ug/kg dry wt	mg/kg dry wt
Bakers Bridge	Total Recoverable Metals	12100	2240	19400	120000	1.52	5270	4400	3630	16200	266000	44200	391000	3240	3220	0.048	5520	11000	781	<986U	2010	<246U	<493U	19300	2480
Bbridge_DUP-11	Total Recoverable Metals	11900	1770	18900	117000	1.58	5450	3410	3340	16000	259000	40400	343000	3080	3330	0.04	4050	10800	674	<1010U	1550	<252U	<504U	16800	2730
	RPD	**1.67%**	**23.44%**	**2.61%**	**2.53%**	**3.87%**	**3.36%**	**25.35%**	**8.32%**	**1.24%**	**2.67%**	**8.98%**	**13.08%**	**5.06%**	**3.36%**	**18.18%**	**30.72%**	**1.83%**	**14.71%**	N/A	**25.84%**	N/A	N/A	**13.85%**	**9.60%**

Note: Removed flags from values for RPD calculation
Note: Not Applicable (N/A) is used for RPD when the analyte was not detected
Note: Data Qualifier Definitions Listed Below:

D The analyte was diluted prior to analysis.
U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 2.5-1 Bonita Peak Mining District Site August 2015
Pore Water Dissolved and Total Recoverable Metals Analytical Results

Sub_Location	Analysis	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness, Total	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
KT-FP02	Dissolved Metals + Hardness	15.8J	2UJ	0.11J	10U	1U	1U	32800	2U	0.05J	1.9J	91.3	15.9J	1UJ	2620	5.4	1.9	371J	5U	1UJ	1100	1U	0.17J	160
KT-FP04	Dissolved Metals + Hardness	11.6J	2UJ	0.07J	16.7	1U	1U	33600	2U	0.06J	2.8	93.6	11.1J	1UJ	2600	4.4	1.6	259J	5U	1UJ	1240	1U	0.13J	476

Sub_Location	Analysis	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver	Sodium	Vanadium	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
KT-FP02	Total Recoverable Metals	119	2UJ	0.41J	5.2J	0.05J	0.66J	32600	0.34J	0.13J	7.6	164J	6.1	2700	67.3	0.59J	396J	5U	1UJ	1120	0.39J	191
KT-FP04	Total Recoverable Metals	479	2UJ	0.95J	22	0.36J	1.9	33700	0.59J	0.32J	40.5	507	15	2720	365	1.8	294J	5U	1UJ	1290	0.37J	754

Table 2.5-2 Bonita Peak Mining District Site September 2015
Pore Water Dissolved Metals Analytical Results

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	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
A56	Dissolved Metals	<20.0U	<0.500U	<0.500U	23.1	<2.00U	0.384	53800	<1.00U	0.217	1.63	148	<100U	0.239	3260	179	1.27	<0.500U	567J	<1.00U	<0.500U	2270	<0.500U	<2.00U	172
A58	Dissolved Metals	<20.0U	<0.500U	<0.500U	28.9	<2.00U	1.35	39300	<1.00U	<0.100U	3.58	107	<100U	1.09	2090	<2.00U	6.38	<0.500U	503J	<1.00U	<0.500U	2220	<0.500U	<2.00U	170
A60	Dissolved Metals	<20.0U	<0.500U	<0.500U	22.1	<2.00U	0.144J	49700	<1.00U	<0.100U	1.22	136	<100U	<0.100U	2950	<2.00U	2.21	<0.500U	561J	<1.00U	<0.500U	2230	<0.500U	<2.00U	58.7
A61	Dissolved Metals	30900D	<2.50U	<2.50U	65.5D	13.0JD	152D	119000D	<5.00U	75.3D	1260D	431D	<500U	34.5D	32800D	269000D	<5.00U	91.8D	2180JD	<5.00U	<2.50U	4090JD	<2.50U	<10.0U	52300D
A64	Dissolved Metals	<20.0U	<0.500U	<0.500U	37.8	<2.00U	1.23	108000	<1.00U	0.183J	2.07	284	<100U	0.104J	3160	34.7	<1.00U	<0.500U	556J	<1.00U	<0.500U	2670	<0.500U	<2.00U	696
A65	Dissolved Metals	158	<0.500U	<0.500U	18.4	<2.00U	6.00	72000	<1.00U	0.236	11.7	199	<100U	0.522	4700	5920	1.07	2.27	1550	<1.00U	<0.500U	2990	<0.500U	<2.00U	1310
A66	Dissolved Metals	<20.0U	<0.500U	<0.500U	17.1	<2.00U	0.134J	52000	<1.00U	<0.100U	1.25	143	<100U	<0.100U	3180	2.43J	<1.00U	<0.500U	633J	<1.00U	<0.500U	2220	<0.500U	<2.00U	84.4
A68	Dissolved Metals	<20.0U	<0.500U	<0.500U	21.1	<2.00U	1.06	53500	<1.00U	0.488	2.31	147	<100U	<0.100U	3200	1210	1.78	<0.500U	592J	<1.00U	<0.500U	2330	<0.500U	<2.00U	388
A72	Dissolved Metals	153	<0.500U	<0.500U	21.9	<2.00U	2.54	81700	<1.00U	7.34	20.5	228	1200	0.127J	5720	1860	<1.00U	2.28	854J	<1.00U	<0.500U	3960	<0.500U	<2.00U	1030
Bakers Bridge	Dissolved Metals	<20.0U	<0.500U	<0.500U	41.0	<2.00U	0.590	55800	<1.00U	0.484	2.66	164	<100U	1.72	5980	55.7	<1.00U	<0.500U	582J	<1.00U	<0.500U	2850	<0.500U	<2.00U	134
M34_DUP-01	Dissolved Metals	98.7	<0.500U	<0.500U	25.8	<2.00U	1.03	71300	<1.00U	10.8	2.57	204	1100	<0.100U	6270	616	<1.00U	2.02	661J	<1.00U	<0.500U	3430	<0.500U	<2.00U	225
Bbridge_DUP-11	Dissolved Metals	<20.0U	<0.500U	<0.500U	40.2J	<2.00U	0.562	61400	<1.00U	0.549	2.74	180	<100U	1.91	6450	64.4	<1.00U	<0.500U	554J	<1.00U	<0.500U	3220	<0.500U	<2.00U	138
M34	Dissolved Metals	107	<0.500U	<0.500U	26.7	<2.00U	1.01	76700	<1.00U	11.1	2.86	218	1170	<0.100U	6440	653	<1.00U	2.03	640J	<1.00U	<0.500U	3780	<0.500U	<2.00U	232

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
M34	Dissolved Metals	107	<0.500U	<0.500U	26.7	<2.00U	1.01	76700	<1.00U	11.1	2.86	218	1170	<0.100U	6440	653	<1.00U	2.03	640	<1.00U	<0.500U	3780	<0.500U	<2.00U	232
M34_DUP-01	Dissolved Metals	98.7	<0.500U	<0.500U	25.8	<2.00U	1.03	71300	<1.00U	10.8	2.57	204	1100	<0.100U	6270	616	<1.00U	2.02	661	<1.00U	<0.500U	3430	<0.500U	<2.00U	225
	RPD	**8.07%**	N/A	N/A	**3.43%**	N/A	**1.96%**	**7.30%**	N/A	**2.74%**	**10.68%**	**6.64%**	**6.17%**	N/A	**2.68%**	**5.83%**	N/A	**0.49%**	**3.23%**	N/A	N/A	**9.71%**	N/A	N/A	**3.06%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Hardness	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
Bakers Bridge	Dissolved Metals	<20.0U	<0.500U	<0.500U	41.0	<2.00U	0.590	55800	<1.00U	0.484	2.66	164	<100U	1.72	5980	55.7	<1.00U	<0.500U	582	<1.00U	<0.500U	2850	<0.500U	<2.00U	134
Bbridge_DUP-11	Dissolved Metals	<20.0U	<0.500U	<0.500U	40.2	<2.00U	0.562	61400	<1.00U	0.549	2.74	180	<100U	1.91	6450	64.4	<1.00U	<0.500U	554	<1.00U	<0.500U	3220	<0.500U	<2.00U	138
	RPD	N/A	N/A	N/A	**1.97%**	N/A	**4.86%**	**9.56%**	N/A	**12.58%**	**2.96%**	**9.30%**	N/A	**10.47%**	**7.56%**	**14.49%**	N/A	N/A	**4.93%**	N/A	N/A	**12.19%**	N/A	N/A	**2.94%**

Note: Removed flags from values for RPD calculation

Note: Not Applicable (N/A) is used for RPD when the analyte was not detected

Note: Data Qualifier Definitions Listed Below:

D The analyte was diluted prior to analysis.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

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

Table 2.5-3 Bonita Peak Mining District Site September 2015
Pore Water Total Recoverable Metals Analytical Results

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
A56	Total Recoverable Metals	2050	<2.50U	<2.50U	49.1JD	<2.00U	3.34D	53200	<5.00U	1.96D	73.7D	2540	157D	3580	1990	<5.00U	<2.50U	943J	<5.00U	<2.50U	2430	<2.50U	<10.0U	1400
A58	Total Recoverable Metals	1120	<2.50U	<2.50U	41.3JD	<2.00U	2.39D	39400	<5.00U	0.790JD	110D	1850	270D	2460	349	6.21D	<2.50U	970J	<5.00U	<2.50U	2410	<2.50U	<10.0U	423
A60	Total Recoverable Metals	2030	<2.50U	<2.50U	51.9D	<2.00U	2.72D	50700	<5.00U	1.51D	65.2D	2910	173D	3570	1100	<5.00U	<2.50U	1240	<5.00U	<2.50U	2490	<2.50U	<10.0U	786
A61	Total Recoverable Metals	35300D	<2.50U	6.70JD	123D	<20.0U	151D	110000D	<5.00U	83.5D	1560D	5210D	360D	31900D	264000D	<5.00U	106D	2630JD	<5.00U	<2.50U	4440JD	<2.50U	<10.0U	46400D
A64	Total Recoverable Metals	424	<2.50U	<2.50U	41.6JD	<2.00U	1.88D	106000	<5.00U	0.515JD	23.2D	627	55.3D	3210	276	<5.00U	<2.50U	749J	<5.00U	<2.50U	2840	<2.50U	<10.0U	785
A65	Total Recoverable Metals	2150	<2.50U	<2.50U	39.8JD	<2.00U	6.21D	74800	<5.00U	1.64D	90.6D	3380	207D	5090	6180	<5.00U	3.15JD	1800	<5.00U	<2.50U	3110	31.5D	<10.0U	1510
A66	Total Recoverable Metals	1330	<2.50U	<2.50U	53.0D	<2.00U	3.56D	60200	<5.00U	1.17D	82.0D	2400	162D	3850	1270	<5.00U	<2.50U	826J	<5.00U	<2.50U	2540	<2.50U	<10.0U	910
A68	Total Recoverable Metals	278	<2.50U	<2.50U	25.9JD	<2.00U	1.85D	59500	<5.00U	0.755JD	12.7D	604	16.5D	3510	1560	<5.00U	<2.50U	623J	<5.00U	<2.50U	2580	<2.50U	<10.0U	545
A72	Total Recoverable Metals	12100	<2.50U	18.1D	77.7D	<2.00U	4.37D	93700	<5.00U	12.0D	259D	34600	302D	8020	3310	<5.00U	5.73D	2130	<5.00U	<2.50U	4640	<2.50U	12.0JD	1700
Bakers Bridge	Total Recoverable Metals	186	<2.50U	<2.50U	43.0JD	<2.00U	0.503JD	61600	5.02JD	0.696JD	8.21D	398	11.5D	6480	72.9	<5.00U	<2.50U	624J	<5.00U	<2.50U	3180	<2.50U	<10.0U	173
M34_DUP-01	Total Recoverable Metals	3490	<2.50U	4.09JD	57.5D	<2.00U	1.24D	75500	<5.00U	25.4D	20.6D	7560	30.6D	6610	1190	<5.00U	<2.50U	835J	<5.00U	<2.50U	3840	<2.50U	<10.0U	274
Bbridge_DUP-11	Total Recoverable Metals	92.1	<2.50U	<2.50U	40.9JD	<2.00U	0.586JD	62100	<5.00U	0.540JD	5.50D	219J	5.73D	6470	74.3	<5.00U	<2.50U	595J	<5.00U	<2.50U	3160	<2.50U	<10.0U	147
M34	Total Recoverable Metals	3590	<2.50U	4.10JD	40.2JD	<2.00U	1.38D	74500	<5.00U	24.8D	22.6D	8070	34.3D	6630	1260	<5.00U	2.97JD	908J	<5.00U	<2.50U	3660	<2.50U	<10.0U	302

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
M34	Total Recoverable Metals	3590	<2.50U	4.1	40.2	<2.00U	1.38	74500	<5.00U	24.8	22.6	8070	34.3	6630	1260	<5.00U	2.97JD	908	<5.00U	<2.50U	3660	<2.50U	<10.0U	302
M34_DUP-01	Total Recoverable Metals	3490	<2.50U	4.09	57.5	<2.00U	1.24	75500	<5.00U	25.4	20.6	7560	30.6	6610	1190	<5.00U	<2.50U	835	<5.00U	<2.50U	3840	<2.50U	<10.0U	274
	RPD	**2.82%**	N/A	**0.24%**	**35.41%**	N/A	**10.69%**	**1.33%**	N/A	**2.39%**	**9.26%**	**6.53%**	**11.40%**	**0.30%**	**5.71%**	N/A	N/A	**8.38%**	N/A	N/A	**4.80%**	N/A	N/A	**9.72%**

Note: Removed flags from values for RPD calculation

STATION_ID	ANALYSIS	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
Bakers Bridge	Total Recoverable Metals	186	<2.50U	<2.50U	43	<2.00U	0.503	61600	5.02JD	0.696	8.21	398	11.5	6480	72.9	<5.00U	<2.50U	624	<5.00U	<2.50U	3180	<2.50U	<10.0U	173
Bbridge_DUP-11	Total Recoverable Metals	92.1	<2.50U	<2.50U	40.9	<2.00U	0.586	62100	<5.00U	0.54	5.5	219	5.73	6470	74.3	<5.00U	<2.50U	595	<5.00U	<2.50U	3160	<2.50U	<10.0U	147
	RPD	**67.53%**	N/A	N/A	**5.01%**	N/A	**15.24%**	**0.81%**	N/A	**25.24%**	**39.53%**	**58.02%**	**66.98%**	**0.15%**	**1.90%**	N/A	N/A	**4.76%**	N/A	N/A	**0.63%**	N/A	N/A	**16.25%**

Note: Removed flags from values for RPD calculation

Note: Not Applicable (N/A) is used for RPD when the analyte was not detected

Note: Data Qualifier Definitions Listed Below:

D The analyte was diluted prior to analysis.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

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

Table 2.6-1 Bonita Peak Mining District Site August 2015
Soil Total Recoverable Metals Analytical Results

Sub_Location	Analysis	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
AE1	Total Recoverable Metals	1920	332	227	182	0.36J	95.8	404U	1	0.26J	664	32000	35700	30.2J	54.3	1.5	0.35J	1900	32.3	16	76J	0.37U	5.4	12400
AE10	Total Recoverable Metals	2910	13.8	174	86.2	0.73	10	918	1.5	6.6	337	33800	7040	1050	4040	1.2	2.4	1870	0.8J	27.1	86.7J	1.4	8.1	1980
AE10 DUP	Total Recoverable Metals	2830	11.5	165	95.1	0.89	8	1390	1.5	7.4	217	33800	6980	962	5630	1.2	2.2	1900	0.38J	20.3	80.1J	1.5	7.4	2420
AE10a	Total Recoverable Metals	3810	7.6	150	91.9	0.22J	14.9	2800	1.5	4.8	143	37600	3400	1760	2640	0.82	1.2	2230	0.8J	17.3	104J	1.1	7.4	3200
AE11	Total Recoverable Metals	980	81.4	92.4	171	0.088J	8.2	392U	0.4J	0.44	629	25600	9760	69.7J	80.9	0.79	0.4	429	0.86J	19.5	38J	0.91	4.7	1240
AE13	Total Recoverable Metals	6000	5.6	91.9	38.3	0.39	6.4	1170	5	5.8	512	41700	6060	3570	1160	0.74	3.8	1490	0.99J	17.7	104J	0.81	20.1	1750
AE18 London Mine	Total Recoverable Metals	1130	155	119	48.1	0.1J	34.7	111J	0.76	0.75	197	14600	5660	277J	107	0.66	1.2	1220	2.2	47.4	55.6J	2	4.5	9680
AE2	Total Recoverable Metals	1010	27.5	106	150	0.2J	2.5	132J	0.61J	0.27J	117	15700	1950	157J	258	1.8	0.31J	1160	2.3	49.6	54.2J	0.37U	3.1	621
AE25	Total Recoverable Metals	3510	11.6	222	46.5	0.17J	4.5	13.9J	1.6	1.7	1110	53800	10700	710	448	1.5	1.5	2380	0.92J	16.1	132J	2.3	14.6	1950
AE26	Total Recoverable Metals	2830	18.2	276	32.8	0.15J	25.1	384U	1.6	1.9	1110	31500	24100	552	362	2.9	1.1	1120	2.7	11.7	67.6J	4.9	8.5	13700
AE32a	Total Recoverable Metals	1480	273	702	24.6	0.093J	10.5	553	2.7	2.2	3830	43400	7010	886	357	0.17	1.9	1730	4.3	16	129J	0.39U	12.4	1340
AE32b	Total Recoverable Metals	1310	273	729	86.3	0.11J	8.6	214J	0.97	0.84	2530	38600	4710	516	289	0.51	0.73	2640	3	17.6	223J	0.39U	10.7	1970
AE4/5	Total Recoverable Metals	7140	11.2	113	62.4	0.64	4	428	5	8.9	212	37200	5530	2730	1410	0.21	3.9	1480	1.2J	16.9	85.4J	0.79	17.8	6090
AE43	Total Recoverable Metals	5870	54.9	416	43.4	0.84	2.2	361U	2.1	2.3	473	54700	8170	4520	1080	1.7	2.1	1680	1.5J	47.1	126J	3.8	17.6	904
AE44	Total Recoverable Metals	5310	101	148	77	0.64	1.1	458U	4.9	18.7	422	47500	2040	847	3080	0.2	3.1	998	1.4J	20.1	104J	2.8	17.7	496
AE45	Total Recoverable Metals	6350	50	109	93.4	0.49	2.7	443U	4.1	21.5	270	55100	2210	1310	8240	0.24	2.8	1280	1.4J	20.3	136J	4.6	14.9	640
AE46	Total Recoverable Metals	7580	7.7	170	115	0.38J	0.68	540U	6.1	34.9	246	102000	631	1750	12800	0.26	2.6	1230	1.1J	8.7	203J	6	24.7	295
AE7	Total Recoverable Metals	3920	8.4	121	58	0.33J	17	336J	2.7	3.8	298	25600	10500	1430	1220	0.12	1.9	1180	0.6J	16	61.9J	0.68	11.4	2980
AE8	Total Recoverable Metals	852	9	127	19.8	0.12J	71	409U	0.51J	0.48	242	21200	11900	304J	326	0.65	0.36J	1170	1.3J	13.3	46.6J	0.6	5.5	15700
AE9	Total Recoverable Metals	1820	12.3	104	81.4	0.19J	7.9	243J	1.3	1.5	155	18000	6010	592	774	1.2	0.88	1440	1.5J	30.7	65.3J	1	5.5	2010
BE-01A	Total Recoverable Metals	9240J	20.5	55.1	64.2	0.68	12.2	3490	7.4	18.9	773	46200J	10500J	4710	11600J	0.58	10	968	0.86J	22.4	117J	0.86U	25.5	4030J
BE1-B	Total Recoverable Metals	1400J	1.4	6.1	100	0.27J	0.86	528	1.9	2.5	104	7110J	119J	222J	167J	0.026J	4	62.6	0.57J	0.48	38.1J	0.43U	8.2	127J
BE2	Total Recoverable Metals	922J	62.9	31.7	19.4	0.034J	34.6	819	0.65J	0.7	749	33000J	28400J	468	528J	0.7	0.71	1330	1.6J	34.7	123J	0.76U	4.4	18300J
BE4	Total Recoverable Metals	3610J	12.6	57.3	40.4	0.1J	6.4	957	2.9	3.8	475	49100J	6770J	2300	1130J	0.47	2.6	1140	1.7J	34.8	148J	0.37U	15.6	2870J
BE-01C	Total Recoverable Metals	6130J	36.7	64.3	46.2	0.66	104	7510	5.8	9.6	1400	42000J	17100J	2380	18500J	0.95	6.1	1460	1.4J	51.7	135J	0.38U	20.7	19900J
ET01-TP01 6in-18in	Total Recoverable Metals	6480J	39.1	54.3	81	1.4	13.3	14200	7.3	5	1910	32200J	13600J	1550	51100J	0.63	2.5	2180	2J	52.9	99.8J	0.38J	17.4	3090J
ET01-TP1 0in-6in	Total Recoverable Metals	5000J	46.2	53.6	117	1.8	11.9	13200	8.5	1.4	2470	25400J	16700J	889	53200J	0.53	1.7	1870	1.8J	65.4	52.1J	0.46J	14.5	2660J
ET01-TP1 18in-30in	Total Recoverable Metals	7080J	22.7	45.4	91.2	0.56	8	12700	4.5	8.7	1510	27900J	9660J	2360	37300J	0.79	3.2	1880	0.79J	50.9	105J	0.48J	18.9	1520J
ET01-TP2 0in-6in	Total Recoverable Metals	2890J	22.7	63.9	38.8	0.28J	14.8	3110	3.8	6.7	564	55100J	7450J	1650	15000J	0.2	2.8	433	2J	41.3	117J	0.19J	10.1	6120J
ET01-TP2 6in-18in	Total Recoverable Metals	3600J	18.1	46.3	43	0.31J	6.4	2670	5.5	7.3	400	40100J	4880J	2200	11000J	0.14	3.2	461	1J	41.4	88.7J	0.15J	12.4	1890J
ET01-TP3 6in-18in	Total Recoverable Metals	5690J	10.2	33.8	81	0.28J	9	1840	4.2	11.1	396	31900J	4020J	3830	16600J	0.086J	4.6	530	0.73J	17.8	69.9J	0.2J	14.7	1560J
ET01-TP30 0in-6in	Total Recoverable Metals	4370J	11.1	39.1	51.9	0.26J	3.9	1970	3.8	7.7	235	35300J	3900J	2690	12600J	0.21	3.1	470	1.1J	22.3	83.1J	0.14J	12.6	1670J
ET-02-TP1 0in-6in	Total Recoverable Metals	3680J	24	39	85.3	1.1	5.5	11600	6.2	1.7	1200	22800J	8760J	453	34800J	0.16	1.3	1450	1.3J	39.9	67.5J	0.43J	9.9	1670J
ET02-TP1 18in-30in	Total Recoverable Metals	6440J	26.2	30.7	79.3	0.48J	5.1	6720	3.9	6	1370	23800J	11900J	2250	23700J	2.9	2.4	1290	0.35J	50	63.6J	0.21J	12.7	1230J
ET02-TP1 6in-18in	Total Recoverable Metals	3500J	34.5	48.2	179	1.3	2.5	13200	7	0.97	1300	25000J	12500J	562	42700J	0.43	1	1380	1.4J	52.8	64.6J	0.35J	10.6	706J
ET-02-TP2 0in-6in	Total Recoverable Metals	2040J	21	36.8	56.1	0.91	9.3	10300	6.1	2.5	1140	21600J	6110J	326J	43700J	0.12	1.4	829	1.4J	34.7	44.5J	0.31J	6.9	1730J
ET02-TP2 18in-30in	Total Recoverable Metals	4430J	32.2	46.7	114	1.5	8.4	11900	7	3.8	1720	26200J	13000J	1080	50200J	0.8	2.9	1550	1.7J	55.3	70.2J	0.35J	12.3	1750J
ET-02-TP2 6in-18in	Total Recoverable Metals	2050J	20.2	42.1	41.7	1.3	8.7	11400	5.1	3	1350	26200J	6720J	387J	53500J	0.22	2.4	810	1.2J	37.8	50J	0.29J	6.5	1680J
ET03-TP1 0in-6in	Total Recoverable Metals	5000J	34.1	46	103	1.5	11.8	15600	7.9	2.9	1590	23000J	10700J	633	61300J	0.29	2.2	2090	1.5J	49.8	63.3J	0.56J	11.9	2060J
ET03-TP1 18in-30in	Total Recoverable Metals	5550J	24.7	38.3	150	2.4	20.5	5950	12.3	34	1080	26800J	6510J	3170	27900J	0.38	25.5	640	4.3	50.6	63.7J	2	36	4800J
ET03-TP1 6in-18in	Total Recoverable Metals	4100	13.2	37.9	41	0.37	7.5	3630	4.3	9.5	508	32600	5200	2630	16000	0.16	3	497	0.77J	33.3	72.5J	0.19J	11.3	1490
ET03-TP2 0in-6in	Total Recoverable Metals	4550	21.8	45.8	86.3	0.32J	8.2	2350	6.2	11	838	36100	9540	2760	22000	0.25	3.5	537	1J	36.1	74.9J	0.38J	13.8	1050
ET03-TP2 18in-30in	Total Recoverable Metals	4240	30.7	54.8	47.6	0.48	23.1	16600	3.9	5.2	1280	27000	9490	1340	30800	0.51	1.9	1330	2.1U	26.4	113J	0.3J	11.1	5280
ET03-TP2 6in-18in	Total Recoverable Metals	4490	29.9	60.1	103	0.59	8.2	7820	4.3	5.3	899	39600	11200	1800	24500	0.43	1.7	1140	1.1J	32.9	79.8J	0.36J	11.9	1820
ET04-TP1 0in-6in	Total Recoverable Metals	1660	23.2	51.6	21.8	1.1	26.9	12600	9.8	5.1	1590	42300	6120	356J	58100	0.077J	3.4	665	2	31.2	93.7J	0.19J	5.3	5270
ET04-TP1 18in-30in	Total Recoverable Metals	5860	15.4	28	63.7	0.43	10.6	2010	5.2	11.5	807	24400	5940	3860	20900	0.9	3.9	524	0.28J	28.3	51.6J	0.24J	14	902
ET04-TP1 6in-18in	Total Recoverable Metals	2380	21.3	42.3	23.4	0.92	22.6	9690	8.9	5.6	1390	30100	6870	1050	47300	0.15	3.4	480	1J	35.6	72.2J	0.22J	7.7	5120
ET04-TP2 0in-6in	Total Recoverable Metals	6140	14.6	38.4	66.7	1.1	8.2	1810	4.3	12.4	511	28900	3550	3280	12600	0.11	5.7	545	0.8J	17.9	65.2J	0.2J	16.5	1290
ET04-TP2 6in-18in	Total Recoverable Metals	5640	11	25.7	89	0.6	19.6	2100	4.1	10.7	553	23400	3930	3570	20900	0.24	5.6	531	0.23J	16.2	57.6J	0.2J	14.3	1170
ET05-TP1 0in-6in	Total Recoverable Metals	6920	6.2	26.9	65.4	0.57	8.1	1490	4.2	13.3	541	27400	2550	4500	12600	0.073J	5.2	636	0.16J	8.5	61.4J	0.24J	15.3	980
ET05-TP1 18in-30in	Total Recoverable Metals	6860	24.1	32.9	79.6	0.56	10.1	4270	5.7	15.1	2380	27900	12900	3630	17000	2.2	5	722	0.53J	38.5	67.7J	0.26J	17.6	1430
ET05-TP1 6in-18in	Total Recoverable Metals	6450	7.8	25.5	58.6	0.42	5.4	1640	4.4	13.2	397	27700	2800	4460	10800	0.094J	5	563	0.55J	9.8	63.5J	0.23J	17.7	835
ET05-TP2 0in-6in	Total Recoverable Metals	6150	14.8	29.6	113	1.4	18.8	2370	5	12.4	999	23600	5290	3020		0.14	6.9	534	0.76J	19	53.3J	0.24J	14.4	2790
ET05-TP2 18in-30in	Total Recoverable Metals	6160	18.3	27.2	65.1	0.5	30	3660	4.2	13.3	973	22700	4980	3740	30600	0.41	5.9	610	0.43J	30.2	58.1J	0.24J	16.5	2090
ET05-TP2 6in-18in	Total Recoverable Metals	6380	11.3	28	93.7	0.77	21.3	2960	3.7	14.6	808	23900	4210	4090	21100	0.19	5.9	574	0.19J	18.2	49.6J	0.25J	15.1	1560
ET06-TP02 0in-6in	Total Recoverable Metals	6170	11	37.5	88.7	0.64	8.9	1660	4.3	13.5	555	29200	3810	3790	15800	0.18	4.6	608	0.42J	15.9	62.4J	0.27J	15.6	1320
ET06-TP02 6in-18in	Total Recoverable Metals	3200	22.2	62.8	47.1	0.28J	10.4	1210	4.1	5.2	451	43100	9290	2090	11500	0.25	2.2	436	1.8J	21	90.1J	0.24J	11.3	2530

Table 2.6-1 Bonita Peak Mining District Site August 2015
Soil Total Recoverable Metals Analytical Results

Sub_Location	Analysis	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
ET06-TP1 0in-6in	Total Recoverable Metals	5910	16.5	32.1	82.9	0.86	26.1	4460	3.2	11.6	1090	20700	4820	3280	22700	0.27	6.8	599	0.22J	13.7	47.5J	0.27J	13.5	2120
ET06-TP1 18in-30in	Total Recoverable Metals	6160	10.1	36.1	73.7	0.49	14	1910	3	11.3	504	22300	3990	4030	14400	0.25	5	513	0.2J	10.1	55.7J	0.25J	13.7	989
ET06-TP1 6in-18in	Total Recoverable Metals	6060	11	37.9	59.3	0.52	15.5	2480	3.7	11	556	22800	4240	3930	17900	0.27	4.7	576	0.32J	15.4	44J	0.24J	15.3	1030
ET06-TP2 18in-30in	Total Recoverable Metals	5690	12	29.8	62.1	0.3J	6.2	1740	5	10.7	375	30800	5300	4080	14000	0.76	3.8	597	0.54J	21.1	56.8J	0.19J	14.7	921
ET09-TP1 6in-18in discret	Total Recoverable Metals	5480	17	34	82.7	0.74	17.7	3000	4.5	11.1	991	28900	5530	3630		0.34	4.5	552	0.56J	14.5	57.8J	0.21J	14	2700
ET-FP01	Total Recoverable Metals	6940	19	43	66.4	1.1	11.8	4900	5.5	11.7	1060	34400	5950	3170	15500	0.56	5.5	917	1J	13.7	84.5J	0.28J	16.3	1990
ET-FP02	Total Recoverable Metals	7940	11.4	33.7	98.3	1.7	12.8	3260	6.7	13	706	28000	4510	4040	16100	0.19	7.6	706	1.9U	11.4	67.1J	0.3J	16.3	1780
ET-FP03	Total Recoverable Metals	5750	18.9	48.6	73.3	0.84	16.4	4130	4.9	10.4	840	36200	6280	2910	19100	0.28	4.8	709	1.2J	16.6	77.6J	0.27J	14	3360
ET-FP04	Total Recoverable Metals	7450	12.7	37.7	103	1.5	15.1	3870	4.9	12.5	745	25700	3400	3580	16800	0.15	7.3	751	0.22J	14.8	68J	0.32J	16.2	1890
ET-FP05	Total Recoverable Metals	7870	10.2	33.7	89.7	1.5	17	2260	5.3	15.3	690	28900	3140	4510	15800	0.17	7.9	641	0.44J	13.7	66.6J	0.32J	18.6	1870
ET-FP06	Total Recoverable Metals	7760	8.7	34.9	110	1.7	14.9	1960	5	15.6	568	24900	2110	4230	14100	0.077J	8.9	665	0.35J	7.5	54.9J	0.32J	19.2	1750
ET-FP07	Total Recoverable Metals	8300	7.3	32.6	109	1.7	15.8	2400	5.1	16.2	774	28400	2630	4560	14800	0.13	8.7	644	1.2J	11.4	67.9J	0.32J	18.9	1840
ET-FP08	Total Recoverable Metals	8850	7.4	36.1	95.4	1.9	13.8	2160	5	16.1	506	26300	1850	4750	13000	0.085J	9.4	742	1.2J	5.2	62.2J	0.31J	20.1	1900
ET-FP09	Total Recoverable Metals	9450	7.7	42.7	108	2.1	17.4	2620	5.5	16.3	701	28500	2350	4890	24100	0.12	10.6	789	0.8J	9.9	70J	0.37J	19.8	2360
ET-FP10	Total Recoverable Metals	8530	5.9	38.5	97.1	1.7	11.9	2230	5	15.1	387	25400	1370	4840	11500	0.056J	9.3	680	0.77J	4	60J	0.34J	19.2	1710
ET-FP11	Total Recoverable Metals	8670	5.2	33	87.4	2.1	13.6	2240	6.7	17.1	455	27600	1310	4970	15800	0.095	10.6	772	0.67J	4.4	70.6J	0.38	19.9	1600
ET-FP13	Total Recoverable Metals	9260	11	48.7	103	2.3	13.4	2430	5.4	17.6	423	26300	1240	5010	18800	0.081J	10.9	839	0.29J	4.2	63.8J	0.37J	21.6	1950
ET-FP15	Total Recoverable Metals	8800	7	36.5	93.5	1.4	10.5	2340	5.4	17.1	383	29200	1460	5150	10300	0.084J	9.1	748	0.66J	5.9	67.8J	0.3J	22.2	1390
FQ01	Total Recoverable Metals	4370	19.5	32.7	56.6	1.7	13.1	6820	4.1	4.5	1160	22900	6610	1540	23500	0.53	2.4	1020	0.89J	26.8	68.1J	0.26J	10.8	2330
FQ-TP01 0in-6in	Total Recoverable Metals	4660	33.3	50.7	53.7	1.4	11	12400	4.5	2.8	1670	26100	13700	809	49100	0.37	2.1	1890	1.5J	13.4	67.6J	0.42J	10.7	2290
FQ-TP01 18in-30in	Total Recoverable Metals	11900	3.9	53.7	117	1.4	5.5	2120	7	16.9	233	35000	997	5320	9070	0.14	7.6	1070	0.86J	4.5	97.7J	0.43J	26.6	521
FQ-TP01 6in-18in	Total Recoverable Metals	8440	36.8	52.4	93.2	1.1	5.7	5380	7.3	10.1	1600	30000	11700	3260	16700	2.6	5.2	1240	0.76J	8.9	80J	0.25J	19.5	1150
FQ-TP02 0in-6in	Total Recoverable Metals	2730	22.8	38.3	33.7	0.87	14.4	10900	4.5	2.4	1360	22400	6450	436	44400	0.12	1.9	1120	1.3J	13.1	62.9J	0.32J	6.4	3480
FQ-TP02 18in-30in	Total Recoverable Metals	9710	2.3	50.3	99	1	8.8J	1810	5.1	14.6	154	30000	472	5130	9200	0.073J	6.1	971	0	2.7	76.2J	0.4J	22.5	592
FQ-TP02 6in-18in	Total Recoverable Metals	9270	34.9	60.3	120	1.1	7.8J	5940	7.3	9	1740	31000	14800	3330	10600	2.5	4.5	1410	0	43.3	114J	0.22J	18.2	1300
KT01	Total Recoverable Metals	8720	18.9	33.1	107	0.97	19J	8430	5.7	10.8	950	27900	7410	3480	23800	0.73	5.2	1480	0	25.2	85.6J	0.31J	19.5	3300
KT02	Total Recoverable Metals	7970	11	29	125	0.68	11J	5840	4.9	11.1	494	29200	3510	3670	14200	0.24	5.6	1130	0	9.7	89J	0.2J	20.8	1640
KT-02-1 (dwnstrm)18in-Bot	Total Recoverable Metals	11500	8.7	27.9	80.8	0.76	16.3J	9810	4.4	10.6	386	24400	1930	4360	7700	0.11	5.1	1890	0	15.5	88.2J	0.26J	20	2810
KT-02-1 (upstream)	Total Recoverable Metals	9900	2.3	16.2	90	0.89	9.6J	4050	5.3	13.7	168	29600	837	4800	4250	0.047J	6.8	1010	0	4	85.1J	0.16J	28.1	1220
KT-02-1(dwnstrm)6in-18in	Total Recoverable Metals	10600	4.3	22.9	86.8	0.76	15.3J	5520	4.3	12.1	254	27000	1310	4660	11200	0.075J	5.5	1210	0	7.1	81.8J	0.21J	20.8	1930
KT-03	Total Recoverable Metals	2840	7.4	9.7	46.9	0.16J	1.6J	661	2.2	3.4	591	14800	5470	1160	215	0.19	2.3	706	2UJ	16	42.2J	0.1J	9.1	275
KT04	Total Recoverable Metals	7310	17.6	38.6	118	0.81	13.5J	3270	4.8	12.4	813	30900	5560	3900	18100	0.62	5.1	826	0	27.5	74.2J	0.24J	18.1	1860
KT04-TP1 0in-6in	Total Recoverable Metals	5870	12.5	29.5	106	0.45	9.6J	3480	4.7	9.3	569	28600	4850	3190	20900	0.31	3.7	711	2UJ	25.2	72.4J	0.19J	15.6	1520
KT04-TP1 18in-30in	Total Recoverable Metals	10200	1.3	28.2	95.8	1	12.4J	2320	5.2	17	93.3	29500	292	5880	4050	0.038J	8.4	798	0	1.4	82.8J	0.35J	23	856
KT04-TP1 6in-18in	Total Recoverable Metals	8320	1.6	15.6	49.7	0.62	6J	2130	6.3	11.3	108	24500	466	5560	4250	0.042J	5.6	623	2UJ	1.8	72J	0.2J	19.8	542
KT03-TP1	Total Recoverable Metals	2510	9.4	12	42.2	0.089J	0.91J	533	1.3	2.4	639	18400	11500	1130	150	0.29	1.4	688	1.9U	5.4	49.4J	0.077J	7.8	246
KT03-TP2	Total Recoverable Metals	6680	2.9	10.1	106	0.23J	1.7J	935	2.9	7.4	579	28900	3180	2740	538	0.15	3.5	1300	2.1UJ	15.1	103J	0.075J	17.9	330

Sub_Location	Analysis	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
AE10	Total Recoverable Metals	2910	13.8	174	86.2	0.73	10	918	1.5	6.6	337	33800	7040	1050	4040	1.2	2.4	1870	0.8	27.1	86.7	1.4	8.1	1980
AE10 DUP	Total Recoverable Metals	2830	11.5	165	95.1	0.89	8	1390	1.5	7.4	217	33800	6980	962	5630	1.2	2.2	1900	0.38	20.3	80.1	1.5	7.4	2420
	RPD	**2.79%**	**18.18%**	**5.31%**	**9.82%**	**19.75%**	**22.22%**	**40.90%**	**0.00%**	**11.43%**	**43.32%**	**0.00%**	**0.86%**	**8.75%**	**32.89%**	**0.00%**	**8.70%**	**1.59%**	**71.19%**	**28.69%**	**7.91%**	**6.90%**	**9.03%**	**20.00%**

Note: Removed flags from values for RPD calculation
Note: Not Applicable (N/A) is used for RPD when the analyte was not detected
Note: Data Qualifier Definitions Listed Below:

D	The analyte was diluted prior to analysis.
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

Table 2.6-2 Bonita Peak Mining District Site August 2015
Soil Synthetic Precipitation Leaching Procedure Analytical Results

Sub_Location	Analysis	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
AE1	CLP-SPLP Metals_Mercury	89.9J	15.5J	10U	60.3J	5U	12.4	2910J	10U	2.2J	173	503	10200	274J	34.6	0.2R	40U	1340	35U	2.9J	14100	25U	50U	2050
AE10	CLP-SPLP Metals_Mercury	200U	60U	10U	70.6J	5U	12.9	9560	10U	50U	1.9J	100U	9J	388J	1300	0.2R	2.7J	594	35U	10U	13000	25U	50U	2850
AE10 DUP	CLP-SPLP Metals_Mercury	200U	60U	10U	71.9J	5U	10.6	13700	10U	50U	1.5J	589	4.9J	451J	1160	0.2R	2.4J	429	35U	10U	13300	25U	50U	1810
AE10a	CLP-SPLP Metals_Mercury	200U	60U	10U	64.6J	5U	0.9J	18300	10U	50U	3.6J	100U	8J	566J	1490	0.2R	40U	127	35U	10U	13900	25U	50U	12.3J
AE11	CLP-SPLP Metals_Mercury	200U	60U	10U	103J	5U	4.3J	2500J	10U	50U	42.4	100U	15500	236J	41.9	0.2R	40U	527	35U	10U	9750	25U	50U	673
AE13	CLP-SPLP Metals_Mercury	200U	60U	10U	30.1J	5U	11.4	9140	10U	2.9J	6.1J	100U	4.7J	759J	1110	0.36J-	40U	535	35U	10U	16000	25U	50U	1680
AE18 London Mine	CLP-SPLP Metals_Mercury	39.3J	8.6J	10U	73.1J	5U	12	3310J	10U	50U	62.2	54.7J	3870	359J	103	0.19J-	40U	2040	35U	10U	14000	25U	50U	2370
AE2	CLP-SPLP Metals_Mercury	60J	60U	10U	92.4J	5U	5U	2040J	10U	50U	12J	47J	24.5	154J	222	0.2R	40U	948	35U	1.7J	9710	25U	50U	81.8
AE25	CLP-SPLP Metals_Mercury	88.9J	60U	10U	62J	5U	17.4	2850J	10U	1.9J	263	40J	3350	479J	325	0.2R	40U	1590	35U	10U	14100	25U	50U	3430
AE26	CLP-SPLP Metals_Mercury	25.8J	60U	10U	51.1J	5U	29.7	2900J	10U	1.9J	250	100U	14300	260J	226	0.18J-	40U	823	35U	10U	13400	25U	50U	5550
AE32a	CLP-SPLP Metals_Mercury	1630	60U	7.6J	62.9J	0.61J	11.6	22900	0.91J	5.6J	1920	7750	4660	974J	736	0.2R	3.6J	3250	35U	10U	14800	25U	50U	2490
AE32b	CLP-SPLP Metals_Mercury	965	14.4J	4.2J	70.8J	1.3J	9.7	8820	1.4J	3.8J	10000	1310	296	893J	1140	0.13J-	1.5J	2470	35U	1.7J	17400	25U	50U	1830
AE4/5	CLP-SPLP Metals_Mercury	200U	60U	10U	54.1J	5U	3.8J	3020J	10U	2.9J	14.8J	100U	453	366J	406	0.2R	40U	920	35U	10U	13000	25U	50U	782
AE43	CLP-SPLP Metals_Mercury	200U	60U	10U	200U	5U	5U	3070J	0.89J	50U	8.3J	100U	3.5J	495J	2.9J	0.2R	40U	196	35U	10U	16400	25U	50U	5.9J
AE44	CLP-SPLP Metals_Mercury	200U	60U	10U	55.2J	5U	0.5J	2940J	10U	0.95J	5J	100U	26	296J	609	0.2R	40U	238	35U	10U	12500	25U	50U	49.1J
AE45	CLP-SPLP Metals_Mercury	2550	60U	10U	100J	1.3J	9.2	2910J	10U	2.6J	217	133	235	464J	4980	0.2R	2.4J	826	35U	1.5J	12500	25U	50U	1480
AE46	CLP-SPLP Metals_Mercury	985	60U	10U	75J	0.62J	7.2	1330J	10U	4.9J	210	51J	49	531J	4210	0.2R	2.2J	478	35U	1.2J	629J	25U	50U	1340
AE7	CLP-SPLP Metals_Mercury	30.3J	60U	10U	114J	5U	37.3	6230	10U	3.9J	51	100U	8390	1000J	1460	0.2R	2.7J	1330	35U	10U	13600	25U	50U	5340
AE8	CLP-SPLP Metals_Mercury	40.2J	60U	10U	47.3J	5U	14.1	2850J	10U	50U	31.5	27.8J	10600	353J	515	0.2R	40U	996	35U	10U	13100	25U	50U	3870
AE9	CLP-SPLP Metals_Mercury	200U	60U	10U	69.6J	5U	13.1	4140J	10U	1.4J	26.7	100U	9200	454J	1270	0.2R	40U	1990	35U	10U	13100	25U	50U	3380
BE-01A	CLP-SPLP Metals_Mercury	1670	60U	10U	66.7J	5U	23.5	7450	10U	1.7J	89.2	100U	333	594J	4210	0.2R	2.9J	1480	35U	1.1J	8870	25U	50U	4610
BE1-B	CLP-SPLP Metals_Mercury	239	60U	10U	8.4J	5U	5U	742J	10U	50U	2.6J	228	5.6J	131J	9.1J	0.2R	40U	5000U	35U	10U	5920	25U	50U	6.9J
BE2	CLP-SPLP Metals_Mercury	583	60U	10U	46.8J	5U	34.8	20900	10U	4.2J	539	358	6740	501J	8130	0.2R	2.8J	3170	35U	0.97J	14300	25U	50U	10600
BE4	CLP-SPLP Metals_Mercury	505	60U	10U	70.7J	5U	7.7	4430J	10U	7.1J	251	1170	1300	835J	2680	0.2R	3.2J	2250	35U	10U	14400	25U	50U	2250
BG-01C	CLP-SPLP Metals_Mercury	541	60U	10U	74.4J	0.48J	53.1	12500	10U	2.7J	89.2	100U	2000	673J	13100	0.2R	3.9J	1540	35U	2J	8260	25U	50U	11500
ET01-TP01 6in-18in	CLP-SPLP Metals_Mercury	200U	60U	10U	130J	5U	15.6	11900	10U	0.75J	9.9J	100U	18.3	486J	14700	0.2R	40U	181	35U	1.6J	15100	25U	50U	1270
ET01-TP1 0in-6in	CLP-SPLP Metals_Mercury	200U	60U	10U	104J	5U	52.7	9240	10U	50U	3.4J	100U	4.3J	420J	16800	0.067J-	40U	173	35U	2J	17300	25U	50U	3950
ET01-TP1 18in-30in	CLP-SPLP Metals_Mercury	200U	60U	10U	56.6J	5U	5U	10100	10U	50U	3.2J	100U	4.6J	466J	4270	0.2R	40U	115	35U	10U	20900	25U	50U	10.3J
ET01-TP2 0in-6in	CLP-SPLP Metals_Mercury	52.7J	60U	10U	91.4J	5U	4.4J	7680	10U	1.9J	13.1J	100U	43.6	518J	7060	0.2R	40U	227	35U	10U	14900	25U	50U	820
ET01-TP2 6in-18in	CLP-SPLP Metals_Mercury	200U	60U	10U	43J	5U	5U	5560	10U	50U	2.6J	100U	14.3	393J	2230	0.2R	40U	5000U	35U	10U	13900	25U	50U	35.7J
ET01-TP3 6in-18in	CLP-SPLP Metals_Mercury	403	60U	10U	7.8J	5U	5U	2650J	10U	50U	8.2J	416	53.6	353J	286	0.2R	40U	219	35U	10U	13200	25U	50U	41.4J
ET01-TP30 0in-6in	CLP-SPLP Metals_Mercury	378	60U	10U	6.8J	5U	5U	2800J	10U	50U	11.6J	923	105	357J	214	0.2R	40U	221	35U	1.8J	13500	25U	50U	77.4
ET-02-TP1 0in-6in	CLP-SPLP Metals_Mercury	45.8J	60U	10U	134J	0.82J	14.5	10600	10U	1.1J	276	100U	703	283J	22900	0.2R	2.3J	244	10.4J	2.4J	11600	25U	50U	1970
ET02-TP1 18in-30in	CLP-SPLP Metals_Mercury	26.2J	60U	10U	51J	5U	10.1	11600	10U	50U	6.8J	100U	18.7	705J	16200	0.2R	40U	5000U	35U	1.9J	11200	25U	50U	313
ET02-TP1 6in-18in	CLP-SPLP Metals_Mercury	85.4J	60U	10U	117J	5U	9.8	7950	1.2J	50U	8J	46.3J	105	361J	13300	0.2R	40U	159	35U	1.2J	18800	25U	50U	872
ET-02-TP2 0in-6in	CLP-SPLP Metals_Mercury	200U	60U	10U	96.1J	5U	38.2	10300	10U	1.9J	25UJ	100U	10	357J	35200	0.2R	1.5J	118	11.6J	4.3J	13000	25U	50U	1310
ET02-TP2 18in-30in	CLP-SPLP Metals_Mercury	200U	60U	10U	143J	5U	16.1	9300	10U	0.8J	3.9J	100U	68.3	295J	15600	0.2R	1.4J	123	35U	2.4J	12600	25U	50U	1050
ET-02-TP2 6in-18in	CLP-SPLP Metals_Mercury	200U	60U	10U	50.7J	5U	17.4	7840	10U	50U	3.6J	100U	51.7	208J	11500	0.2R	40U	5000U	35U	1.8J	12400	25U	50U	411
ET03-TP1 0in-6in	CLP-SPLP Metals_Mercury	200U	60U	10U	118J	5U	63.2	9450	10U	50U	1.9J	100U	2.8J	393J	30700	0.2R	40U	121	9J	3.4J	11500	25U	50U	1820
ET03-TP1 18in-30in	CLP-SPLP Metals_Mercury	37.9J	60U	10U	19.1J	5U	5.2	5450	10U	50U	4.4J	100U	7.3J	431J	4780	0.2R	40U	345	35U	10U	11800	25U	50U	609
ET03-TP1 6in-18in	CLP-SPLP Metals_Mercury	200U	60U	3.3J	48.9J	5U	5.4	6520	10U	1.3J	2.6J	100U	37.9	471J	13700	0.2R	40U	5000U	35U	1.2J	11900	25U	50U	216
ET03-TP2 0in-6in	CLP-SPLP Metals_Mercury	91.8J	60U	10U	200U	5U	5U	1520J	8.3J	50U	10.4J	100U	14.7	194J	12.6J	0.2R	40U	191	35U	10U	86900	25U	50U	49.8J
ET03-TP2 18in-30in	CLP-SPLP Metals_Mercury	200U	60U	10U	5.1J	5U	5U	5660	1.7J	50U	20.3J	100U	6.9J	332J	828	0.2R	40U	5000U	35U	10U	17300	25U	50U	41.7J
ET03-TP2 6in-18in	CLP-SPLP Metals_Mercury	200U	60U	10U	40.7J	5U	5U	7200	10U	50U	3.6J	100U	6.9J	382J	701	0.2R	40U	5000U	35U	10U	12800	25U	50U	18.4J
ET04-TP1 0in-6in	CLP-SPLP Metals_Mercury	200U	60U	10U	55.7J	5U	13.8	6930	10U	50U	2.6J	100U	4.8J	233J	20300	0.2R	40U	5000U	35U	1.9J	11900	25U	50U	11.9J
ET04-TP1 18in-30in	CLP-SPLP Metals_Mercury	54.3J	60U	10U	200U	5U	0.41J	2160J	0.93J	50U	4.1J	100U	4.8J	323J	2440	0.28J-	40U	142	35U	10U	12000	25U	50U	21.6J
ET04-TP1 6in-18in	CLP-SPLP Metals_Mercury	27.2J	60U	10U	42.9J	5U	12.1	6170	10U	50U	3.3J	100U	4.4J	300J	15300	0.2R	40U	104	35U	1.7J	13600	25U	50U	356
ET04-TP2 0in-6in	CLP-SPLP Metals_Mercury	438	60U	10U	8J	5U	5U	2650J	10U	50U	7.8J	514	59.9	386J	175	0.2R	40U	250	35U	10U	13500	25U	50U	33.9J
ET04-TP2 6in-18in	CLP-SPLP Metals_Mercury	256	60U	10U	111J	5U	2.9J	5320	2.5J	50U	34.2	100U	154	730J	236	0.13J-	40U	744	35U	10U	20600	25U	50U	276
ET05	CLP-SPLP Metals_Mercury	138J	60U	10U	5.8J	5U	5U	3450J	10U	50U	3.9J	58.9J	6.6J	433J	17.1	0.2R	40U	131	35U	10U	4980	25U	50U	11J
ET05-TP1 0in-6in	CLP-SPLP Metals_Mercury	200U	60U	10U	200U	5U	5U	1710J	0.95J	50U	2.9J	100U	10U	324J	4J	0.082J-	40U	219	35U	10U	14600	25U	50U	6.1J
ET05-TP1 18in-30in	CLP-SPLP Metals_Mercury	295	60U	10U	10J	5U	1.9J	5750	7J	50U	18.2J	106	26.2	765J	2070	0.1J-	40U	453	35U	1.4J	81200	25U	50U	148
ET05-TP1 6in-18in	CLP-SPLP Metals_Mercury	200U	60U	10U	200U	5U	5U	1370J	1.8J	50U	2.5J	100U	10U	265J	14.6	0.2R	40U	268	35U	10U	20100	25U	50U	6.9J
ET05-TP2 0in-6in	CLP-SPLP Metals_Mercury	555	60U	10U	9.7J	5U	5U	3120J	10U	50U	22.8J	509	72	437J	313	0.2R	40U	229	35U	10U	2740J	25U	50U	85.9
ET05-TP2 18in-30in	CLP-SPLP Metals_Mercury	357	60U	10U	19.6J	5U	0.49J	3360J	10U	50U	16.7J	301	25.3	401J	224	0.2R	40U	199	35U	10U	14400	25U	50U	79
ET05-TP2 6in-18in	CLP-SPLP Metals_Mercury	444	60U	10U	17.1J	5U	5U	3190J	10U	50U	11.2J	318	47	352J	161	0.2R	40U	250	35U	10U	12800	25U	50U	33.4J
ET06-TP02 0in-6in	CLP-SPLP Metals_Mercury	93.7J	60U	10U	11.1J	5U	5U	2110J	0.54J	50U	13.1J	83.7J	38.5	217J	120	0.2R	40U	139	35U	10U	15000	25U	50U	67.3

Table 2.6-2 Bonita Peak Mining District Site August 2015
Soil Synthetic Precipitation Leaching Procedure Analytical Results

Sub_Location	Analysis	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	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	ug/L	ug/L
ET06-TP02 6in-18in	CLP-SPLP Metals_Mercury	200U	60U	10U	178J	5U	33.3	6330	10U	0.77J	3.5J	100U	106	489J	2630	0.063J-	40U	341	35U	10U	12200	25U	50U	5250
ET06-TP1 0in-6in	CLP-SPLP Metals_Mercury	451	60U	10U	9.2J	5U	5U	4230J	10U	50U	5.8J	258	22.4	399J	135	0.2R	40U	189	35U	10U	13600	25U	50U	27.8J
ET06-TP1 18in-30in	CLP-SPLP Metals_Mercury	159J	60U	10U	18.8J	5U	2.4J	1590J	10U	50U	54.7	155	100	134J	302	0.25J-	40U	140	35U	0.88J	18800	25U	50U	205
ET06-TP1 6in-18in	CLP-SPLP Metals_Mercury	173J	60U	10U	39.3J	5U	6.4	2000J	10U	50U	56.2	166	299	241J	673	0.1J-	40U	371	35U	1.6J	3290J	25U	50U	993
ET06-TP2 18in-30in	CLP-SPLP Metals_Mercury	34.1J	60U	10U	7.1J	5U	2.3J	2530J	10U	50U	1.8J	100U	10U	283J	818	0.2R	40U	5000U	35U	10U	12200	2.4J	50U	393
ET09-TP1 6in-18in discret	CLP-SPLP Metals_Mercury	544	60U	10U	8J	5U	5U	1920J	2.3J	50U	11.4J	491	51.7	355J	222	0.2R	40U	293	35U	10U	24200	25U	50U	53.1J
ET-FP01	CLP-SPLP Metals_Mercury	55.3J	60U	10U	17.8J	5U	1.3J	9000	6.8J	50U	7.6J	28.7J	5.3J	642J	5140	0.2R	40U	223	35U	0.87J	79400	25U	50U	19.6J
ET-FP02	CLP-SPLP Metals_Mercury	110J	60U	10U	12.1J	5U	5U	7090	1.9J	50U	4.9J	44J	2.8J	491J	78.6	0.2R	40U	5000U	35U	10U	19000	25U	50U	48.9J
ET-FP03	CLP-SPLP Metals_Mercury	37.1J	60U	10U	20.2J	5U	4.3J	9610	10U	50U	3.1J	100U	10U	636J	1600	0.2R	40U	158	35U	10U	12600	25U	50U	761
ET-FP04	CLP-SPLP Metals_Mercury	97.8J	60U	10U	10.6J	5U	5U	8620	10U	50U	3.7J	46.2J	4.9J	590J	167	0.2R	40U	5000U	35U	10U	12100	25U	50U	14.6J
ET-FP05	CLP-SPLP Metals_Mercury	364	60U	10U	5.2J	5U	5U	4260J	10U	50U	6.5J	267	14.3	430J	59	0.2R	40U	186	35U	10U	13800	25U	50U	21.7J
ET-FP06	CLP-SPLP Metals_Mercury	78.3J	60U	10U	5.5J	5U	5U	2380J	10U	50U	12.6J	28.1J	11.2	240J	47.2	0.2R	40U	105	35U	10U	13200	25U	50U	58.5J
ET-FP07	CLP-SPLP Metals_Mercury	539	60U	10U	13.2J	5U	5U	3850J	10U	50U	13.2J	547	37.4	425J	163	0.2R	40U	206	35U	10U	12300	25U	50U	49.4J
ET-FP08	CLP-SPLP Metals_Mercury	165J	60U	10U	12.2J	5U	0.43J	3310J	10U	50U	16J	62.4J	16	281J	74.4	0.2R	40U	5000U	35U	10U	15500	25U	50U	93.2
ET-FP09	CLP-SPLP Metals_Mercury	40.6J	60U	10U	200U	5U	5U	5920	0.9J	50U	2.5J	23.3J	10U	496J	9.5J	0.2R	40U	5000U	35U	10U	16300	25U	50U	4.9J
ET-FP10	CLP-SPLP Metals_Mercury	279	60U	10U	200U	5U	5U	1270J	10U	50U	5.6J	203	13.5	319J	116	0.069J-	40U	465	35U	10U	3000J	25U	50U	31.3J
ET-FP11	CLP-SPLP Metals_Mercury	991	60U	10U	162J	1.3J	9.8	9390	1.5J	50U	190	95.7J	130	1350J	407	0.2R	1.9J	1880	35U	10U	14600	25U	50U	1780
ET-FP13	CLP-SPLP Metals_Mercury	539	60U	10U	89.2J	0.64J	4.3J	7390	0.84J	50U	114	108	31.3	834J	138	0.2R	3.6J	1760	35U	10U	14400	25U	50U	874
ET-FP15	CLP-SPLP Metals_Mercury	197	60U	10U	6.4J	5U	5U	2800J	10U	50U	25UJ	188	10.6	348J	61.8	0.2R	40U	258	35U	10U	2640J	25U	50U	27.2J
FQ01	CLP-SPLP Metals_Mercury	200U	60U	10U	71.2J	5U	7.6	11400	10U	50U	2.8J	100U	16	677J	5690	0.2R	40U	5000U	35U	0.86J	12900	25U	50U	240
FQ-TP01 0in-6in	CLP-SPLP Metals_Mercury	200U	60U	10U	129J	5U	45.7	11400	10U	50U	6.4J	100U	12.3	638J	25300	0.2R	1.9J	203	35U	2.7J	11200	25U	50U	2820
FQ-TP01 18in-30in	CLP-SPLP Metals_Mercury	198	60U	10U	85J	5U	5.2	6640	0.58J	50U	9.1J	100U	10U	415J	924	0.2R	40U	405	35U	10U	12200	25U	50U	390
FQ-TP01 6in-18in	CLP-SPLP Metals_Mercury	333	60U	10U	81.2J	5U	11.9	12600	0.53J	50U	11.9J	100U	5.3J	822J	21800	0.2U	1.5J	176	7.4J	2.3J	12800	25U	50U	1130
FQ-TP02 0in-6in	CLP-SPLP Metals_Mercury	200U	60U	10U	65.2J	5U	1.4J	7950	0.56J	50U	3.7J	100U	10U	436J	5110	0.2R	40U	5000U	35U	10U	11600	25U	50U	11.4J
FQ-TP02 18in-30in	CLP-SPLP Metals_Mercury	150J	60U	10U	24.8J	5U	5U	4040J	10U	50U	7.8J	54.1J	5.9J	359J	50.7	0.2R	40U	155	35U	10U	14300	25U	50U	20J
FQ-TP02 6in-18in	CLP-SPLP Metals_Mercury	2890	60U	10U	128J	1.1J	43.2	18600	1.1J	1.9J	455	100U	1860	909J	13800	0.2R	3.6J	674	35U	1.5J	11500	25U	50U	5090
KT01	CLP-SPLP Metals_Mercury	599	60U	10U	24J	5U	11.3	4980	10U	50U	25UJ	172	21.9	370J	1140	0.2R	40U	652	35U	10U	2360J	25U	50U	2740
KT02	CLP-SPLP Metals_Mercury	972	60U	10U	165J	0.5J	6.6	9140	10U	50U	185	124	268	1020J	497	0.2R	1.4J	1580	35U	10U	10300	25U	50U	1650
KT-02-1 (dwnstrm)18in-Bot	CLP-SPLP Metals_Mercury	485	60U	10U	45.2J	5U	16.5	4220J	10U	50U	72.1	404	34.1	511J	1070	0.2R	1.4J	994	35U	10U	13100	25U	50U	2840
KT-02-1 (upstream)	CLP-SPLP Metals_Mercury	410	60U	10U	10.2J	5U	0.69J	1290J	10U	50U	25UJ	496	31.2	322J	154	0.2R	40U	219	35U	10U	4750J	25U	50U	101
KT-02-1(dwnstrm)6in-18in	CLP-SPLP Metals_Mercury	1440	60U	10U	52.2J	0.61J	31.8	3050J	10U	50U	25UJ	30.4J	4.6J	328J	2010	0.2R	1.5J	756	35U	10U	3620J	25U	50U	6010
KT-03	CLP-SPLP Metals_Mercury	200U	60U	10U	189J	5U	12	2580J	10U	3.4J	968	100U	11200	390J	118	0.2R	4.6J	1140	35U	10U	3550J	25U	50U	2070
KT04	CLP-SPLP Metals_Mercury	665	60U	10U	23.3J	0.54J	5.6	5170	10U	50U	12.6J	66.8J	6.7J	459J	681	0.2R	40U	841	35U	10U	5550	25U	50U	1370
KT04-TP1 0in-6in	CLP-SPLP Metals_Mercury	277	60U	10U	7.4J	5U	1J	3260J	10U	50U	25UJ	354	31.2	486J	1010	0.2R	40U	175	35U	10U	5680	25U	50U	135
KT04-TP1 18in-30in	CLP-SPLP Metals_Mercury	178J	60U	10U	200U	5U	5U	193J	10U	50U	25UJ	146	4.2J	150J	18.1	0.2R	40U	217	35U	10U	6640	25U	50U	18.9J
KT04-TP1 6in-18in	CLP-SPLP Metals_Mercury	328	60U	10U	200U	5U	5U	190J	10U	50U	25UJ	272	12.8	162J	87.4	0.2R	40U	181	35U	10U	6690	25U	50U	22.7J
KT03-TP1	CLP-SPLP Metals_Mercury	27.1J	60U	10U	109J	5U	7.8	2830J	10U	2.1J	413	22.4J	11600	377J	62.3	0.2R	40U	1170	35U	10U	12400	25U	50U	1530
KT03-TP2	CLP-SPLP Metals_Mercury	200U	60U	10U	158J	5U	17.9	3600J	10U	3.3J	429	100U	2740	500J	73.7	0.2R	40U	703	35U	10U	13100	25U	50U	3360

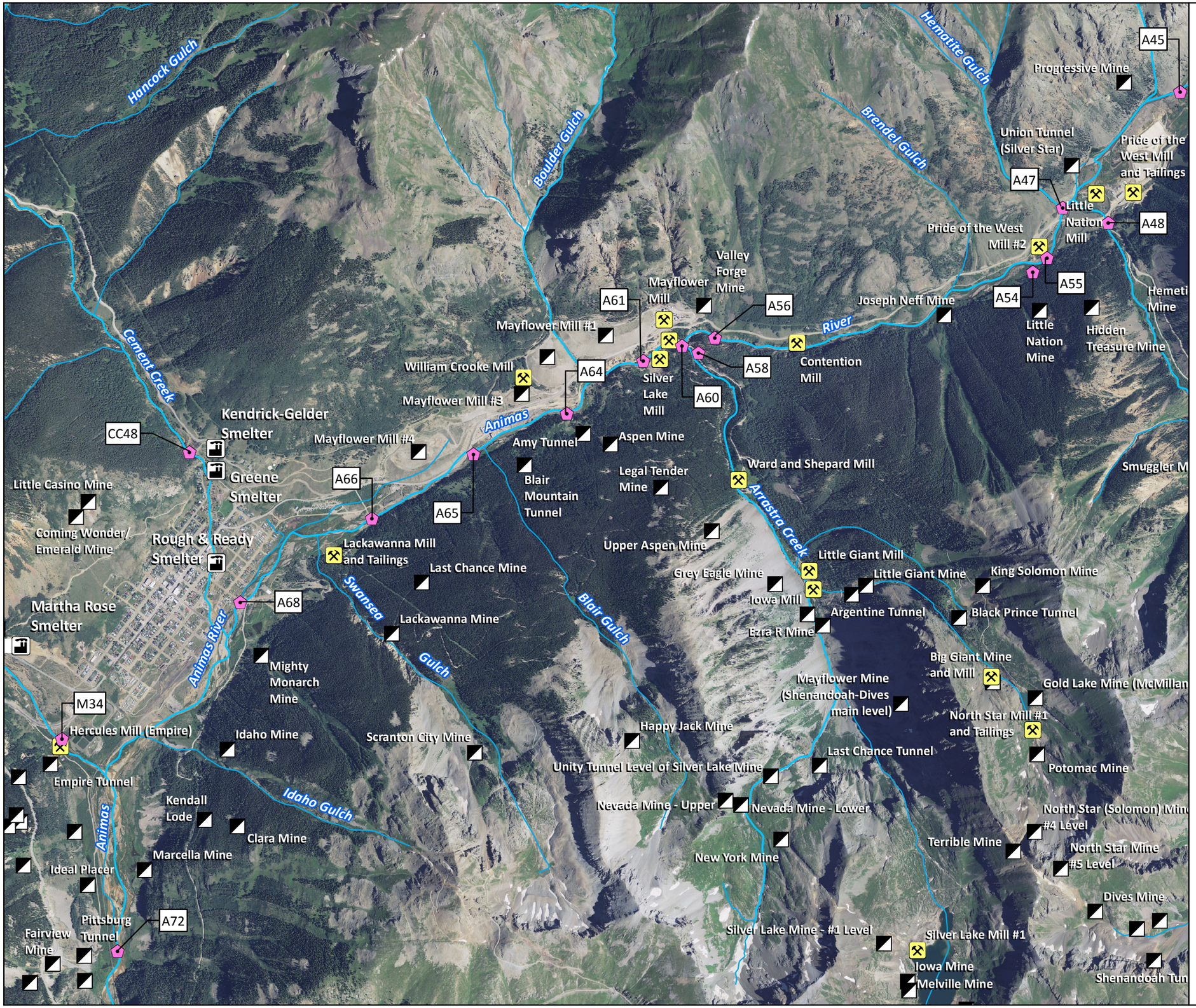
Sub_Location	Analysis	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
AE10	CLP-SPLP Metals_Mercury	200U	60U	10U	70.6	5U	12.9	9560	10U	50U	1.9	100U	9	388	1300	0.2	2.7	594	35U	10U	13000	25U	50U	2850
AE10 DUP	CLP-SPLP Metals_Mercury	200U	60U	10U	71.9	5U	10.6	13700	10U	50U	1.5	589	4.9	451	1160	0.2	2.4	429	35U	10U	13300	25U	50U	1810
	RPD	N/A	N/A	N/A	**1.82%**	N/A	**19.57%**	**35.60%**	N/A	N/A	**23.53%**	N/A	**58.99%**	**15.02%**	**11.38%**	**0.00%**	**11.76%**	**32.26%**	N/A	N/A	**2.28%**	N/A	N/A	**44.64%**

Note: Removed flags from values for RPD calculation
Note: Not Applicable (N/A) is used for RPD when the analyte was not detected
Note: Data Qualifier Definitions Listed Below:

D	The analyte was diluted prior to analysis.
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation 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, but the result may be biased low.
R	The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

Figures

Figure 2.1-1
Bonita Peak Mining District Site
Silverton and Mayflower Mill Area



Surface Water Sample Locations

Smelter Locations

Mill Locations

Mine Locations

Rivers and Streams

Counties

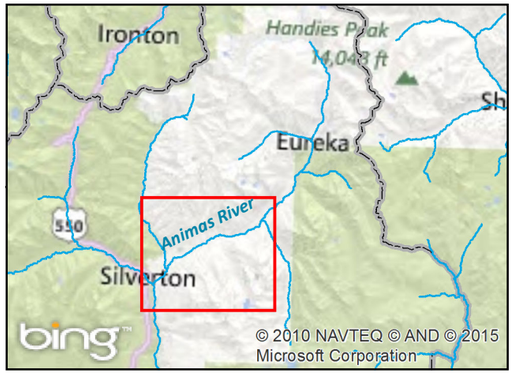
Map Date: December 18, 2015

Data Sources:
Sample Locations: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Counties: U.S. Census Bureau (2010)
Smelter, Mine, & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

0 2,000 4,000 Feet

0 400 800 Meters



Area of Interest

Reference 32

Figure 2.1-2
Bonita Peak Mining District Site
Upper Animas Eureka and Howardsville Area

Surface Water Sample Locations

Smelter Locations

Mill Locations

Mine Locations

Rivers and Streams

Counties

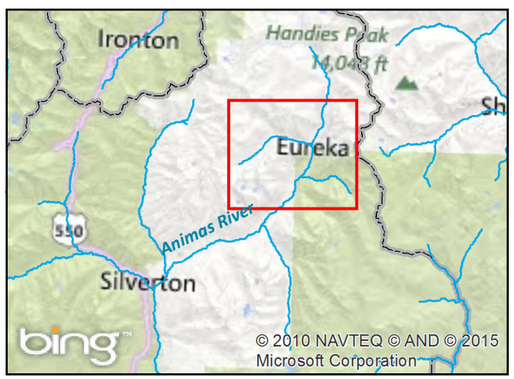
Map Date: December 18, 2015

Data Sources:
Sample Locations: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Counties: U.S. Census Bureau (2010)
Smelter, Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

0 2,000 4,000 Feet

0 400 800 Meters



Area of Interest

Figure 2.1-3
Bonita Peak Mining District Site
Upper Animas Headwaters Area

- Surface Water Sample Locations
- Smelter Locations
- Mill Locations
- Mine Locations
- Rivers and Streams
- Counties

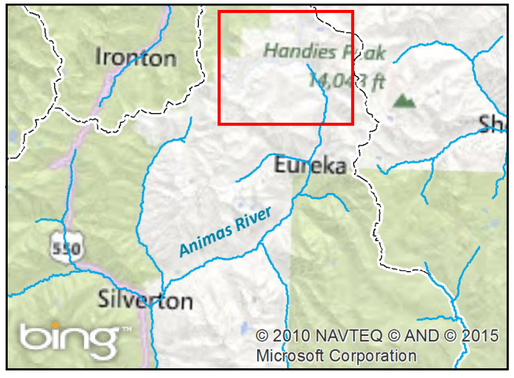
Map Date: December 18, 2015

Data Sources:
Sample Locations: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Counties: U.S. Census Bureau (2010)
Smelter, Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

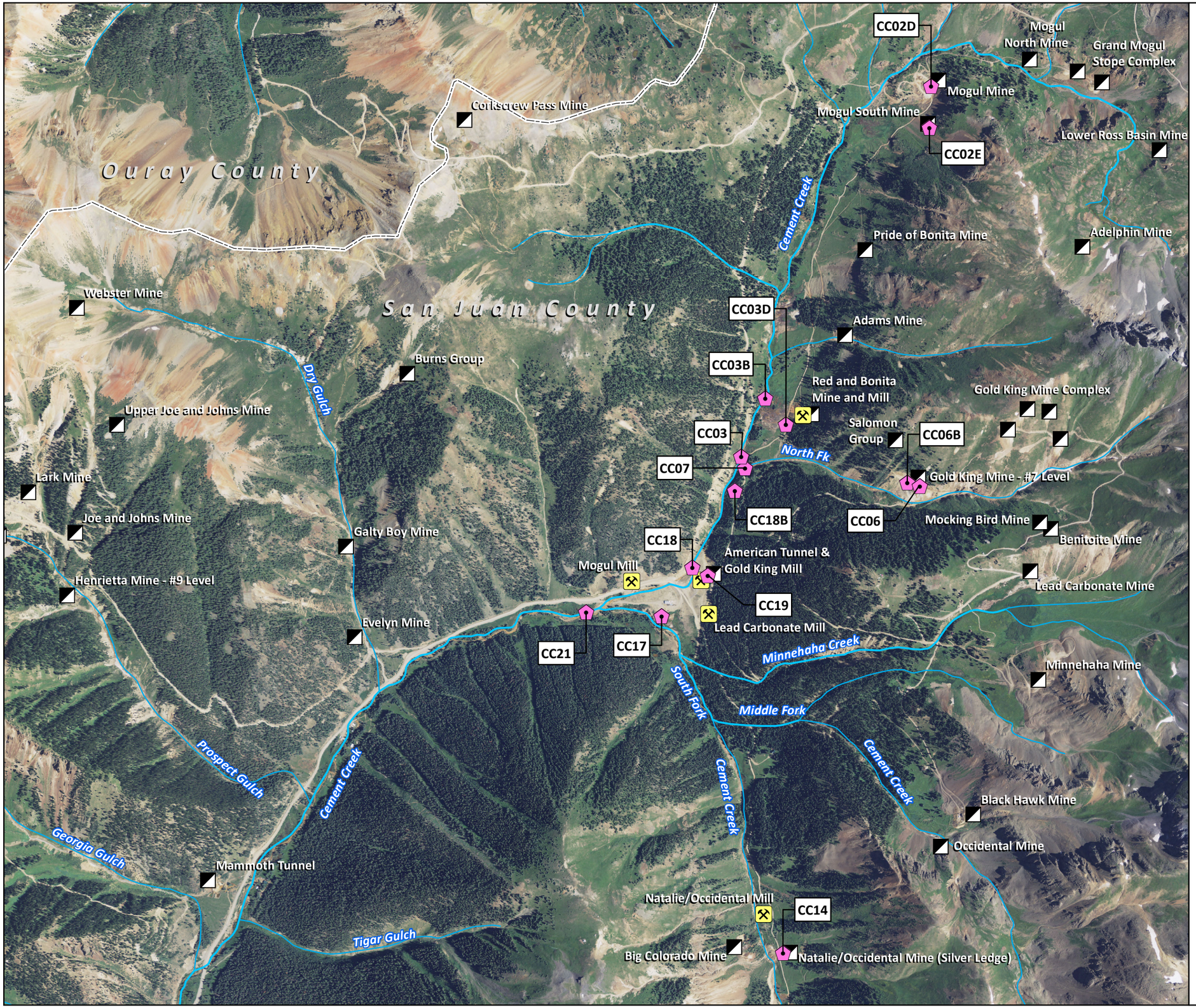
0 2,000 4,000 Feet

0 400 800 Meters



Area of Interest

Figure 2.1-4
Bonita Peak Mining District Site
Upper Cement Creek Area



Surface Water Sample Locations

Mill Locations

Mine Locations

Rivers and Streams

Counties

Map Date: December 18, 2015

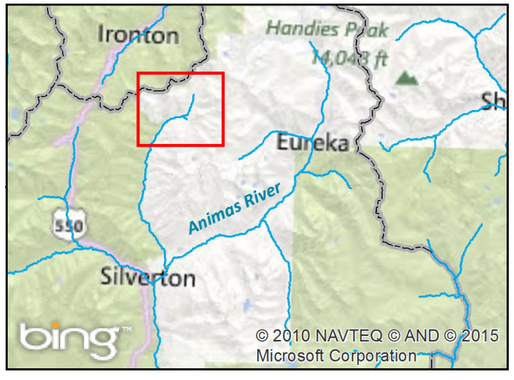
Data Sources:
Sample Locations: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Counties: U.S. Census Bureau (2010)
Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

N
W E
S

0 1,000 2,000 Feet

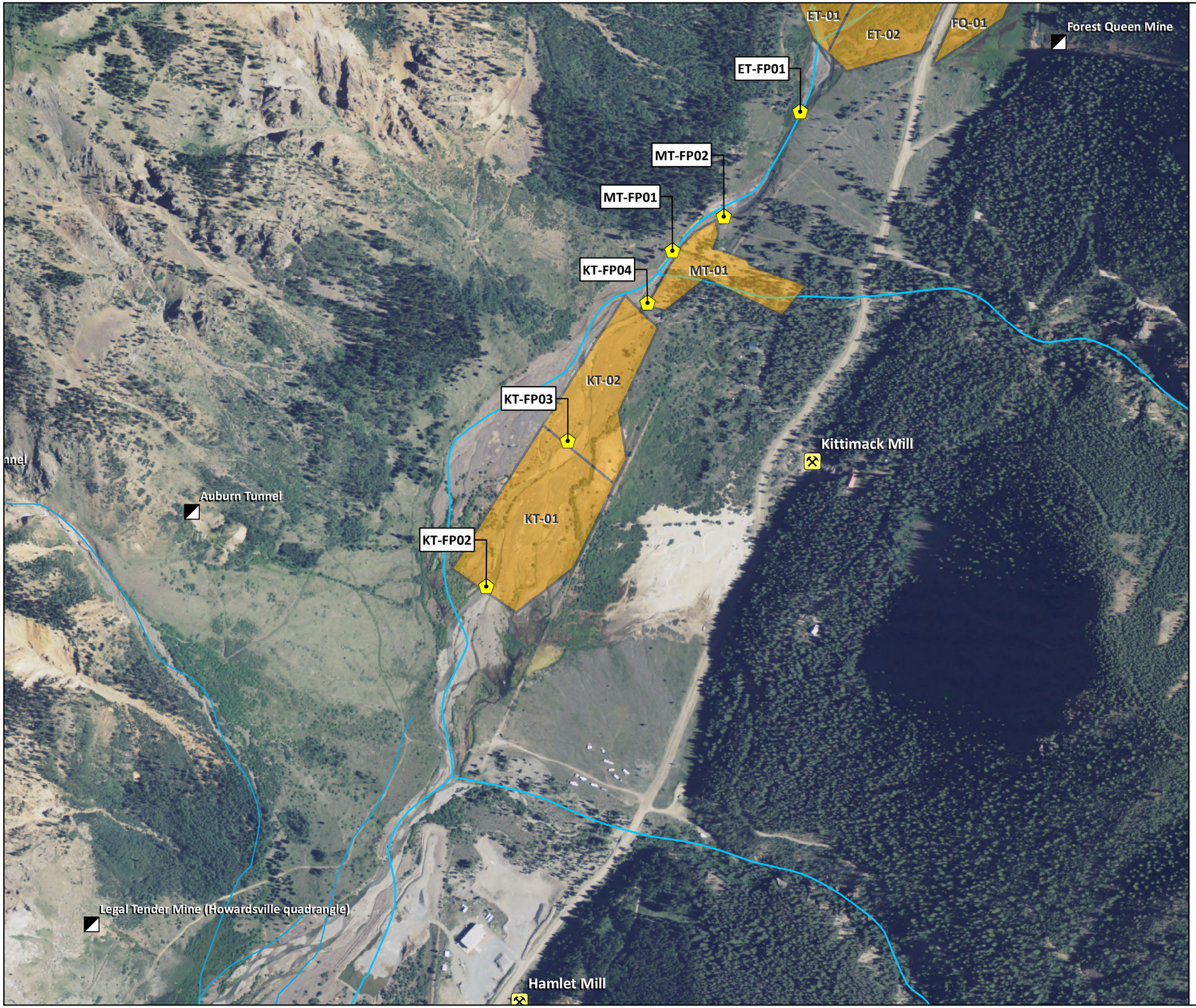
0 200 400 Meters



Area of Interest

Reference 32

Figure 2.1-5
Bonita Peak Mining District Site
Kittimack & Minnie Tailings Fluvial Deposits



Water/Porewater Sample Locations

Floodplain Sampling Area

Mill Locations

Mine Locations

Rivers and Streams

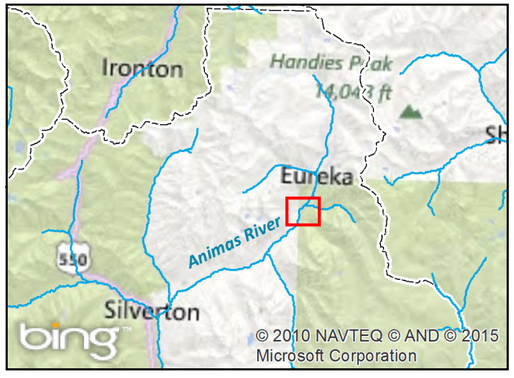
Map Date: December 18, 2015

Data Sources:
Fluvial Samples & Wetlands: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Smelter, Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

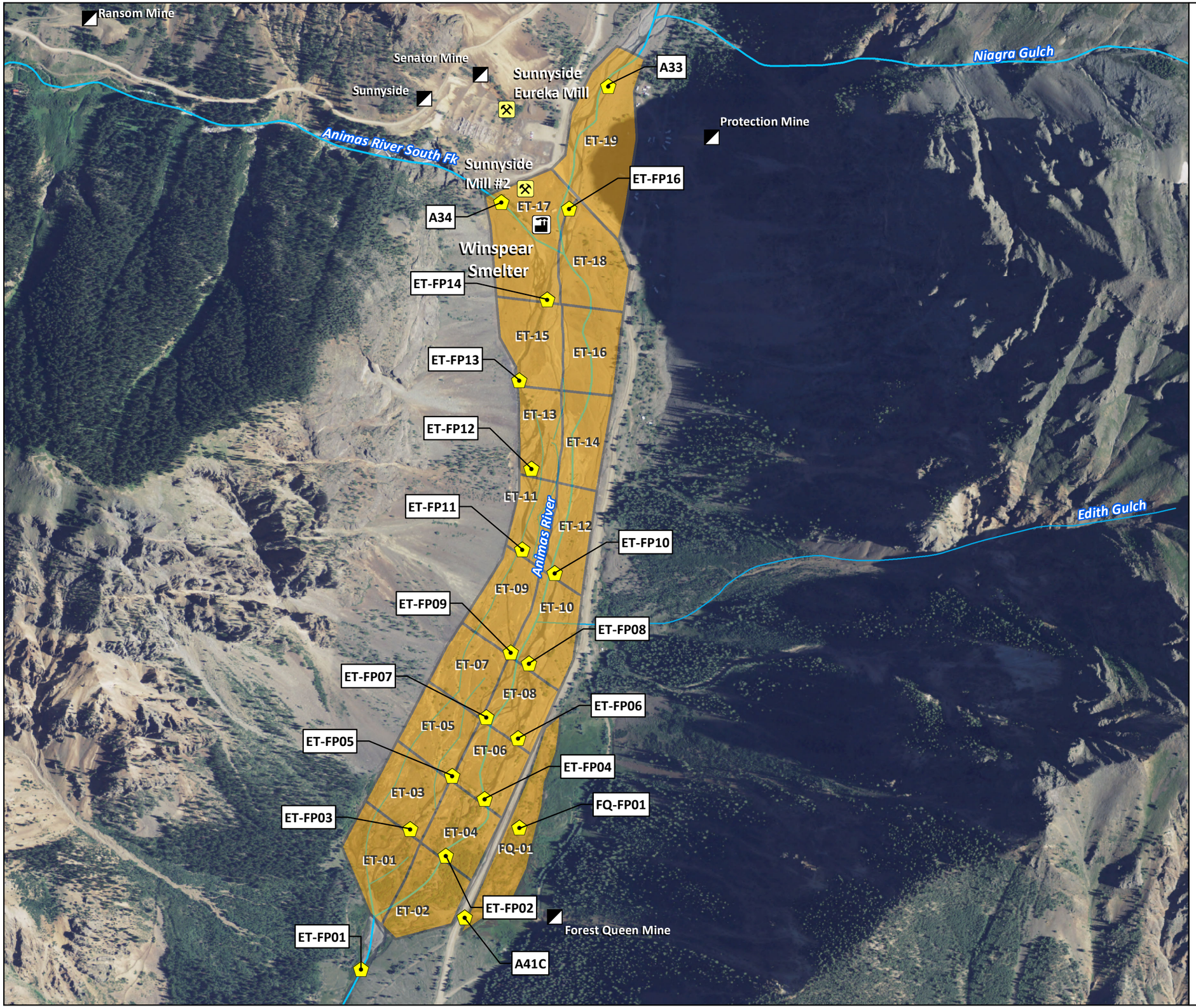
0 500 1,000 Feet

0 100 200 Meters



Area of Interest

Figure 2.1-6
Bonita Peak Mining District Site
Eureka & Forest Queen Tailings Fluvial Deposits



Water/Porewater Sample Locations

Floodplain Sampling Area

Smelter Locations

Mill Locations

Mine Locations

Rivers and Streams

Map Date: December 18, 2015

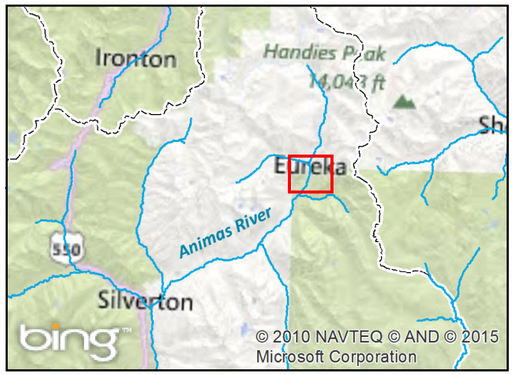
Data Sources:
Fluvial Samples & Wetlands: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Smelter, Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

N W E S

0 750 1,500 Feet

0 150 300 Meters



Area of Interest

Figure 2.1-7
Bonita Peak Mining District Site
Eclipse Smelter & Mill Fines Tailings Fluvial Deposits

Water/Porewater Sample Locations

Floodplain Sampling Area

Smelter Locations

Mill Locations

Mine Locations

Rivers and Streams

Map Date: December 18, 2015

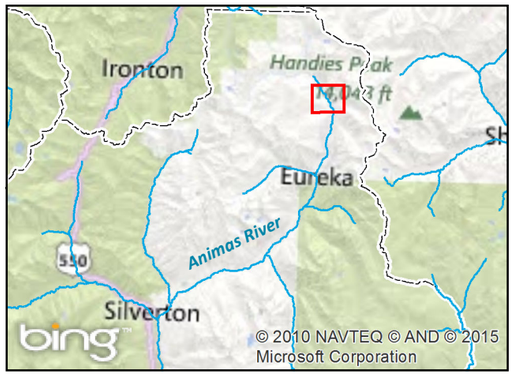
Data Sources:
Fluvial Samples & Wetlands: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Smelter, Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

N W E S

0 500 1,000 Feet

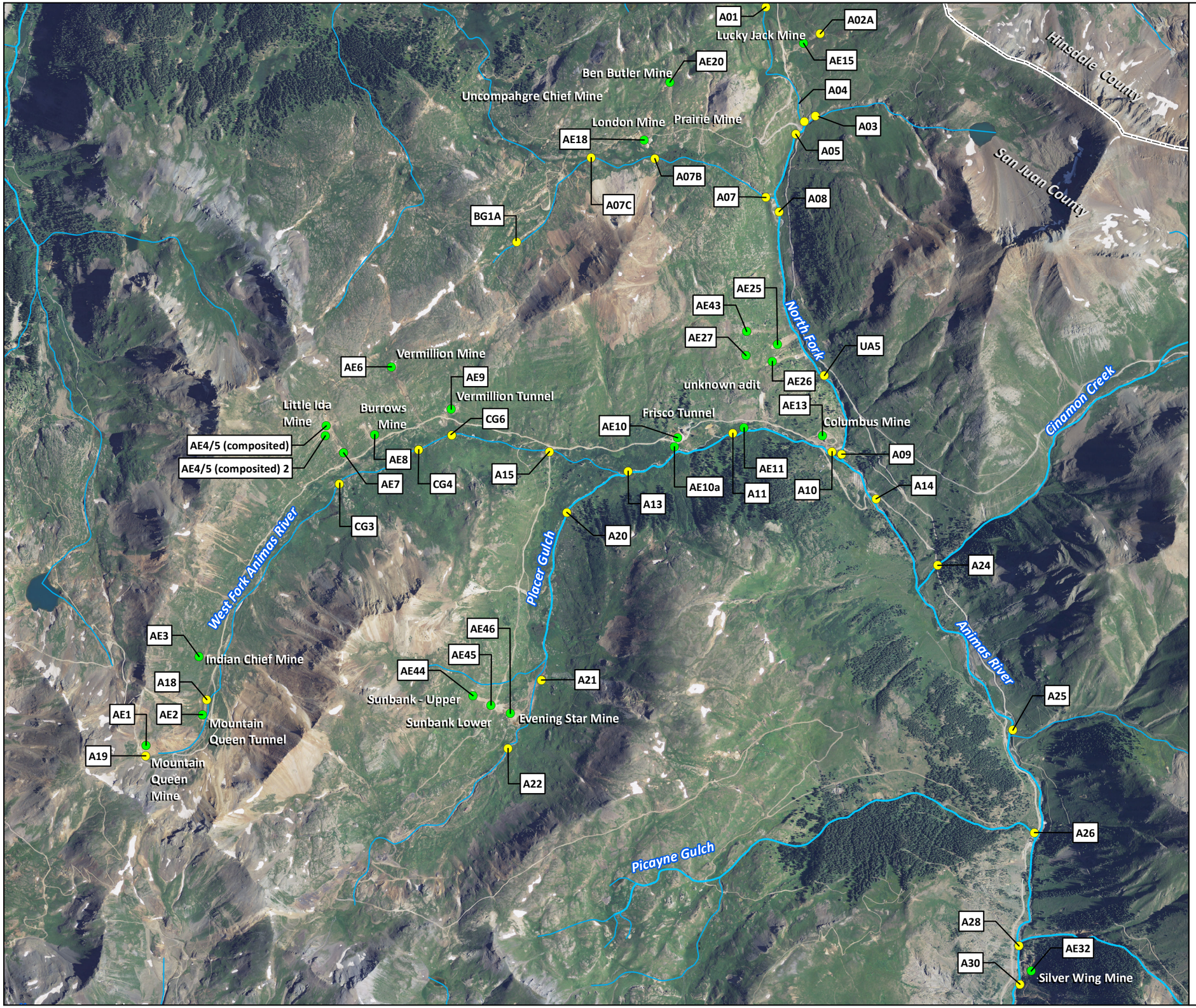
0 100 200 Meters



Area of Interest

Reference 32

Figure 2.1-8
Bonita Peak Mining District Site
Upper Animas Headwaters Area
Sediment and Soil/Waste Rock Sampling



Soil/Waste Rock Sample Locations

Sediment Sample Locations

Rivers and Streams

Counties

Map Date: December 18, 2015

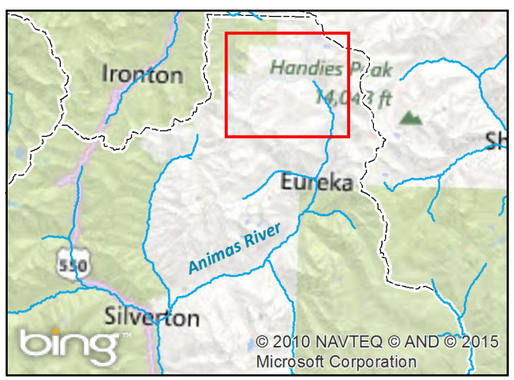
Data Sources:
Sample Locations: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Counties: U.S. Census Bureau (2010)
Smelter, Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

N W E S

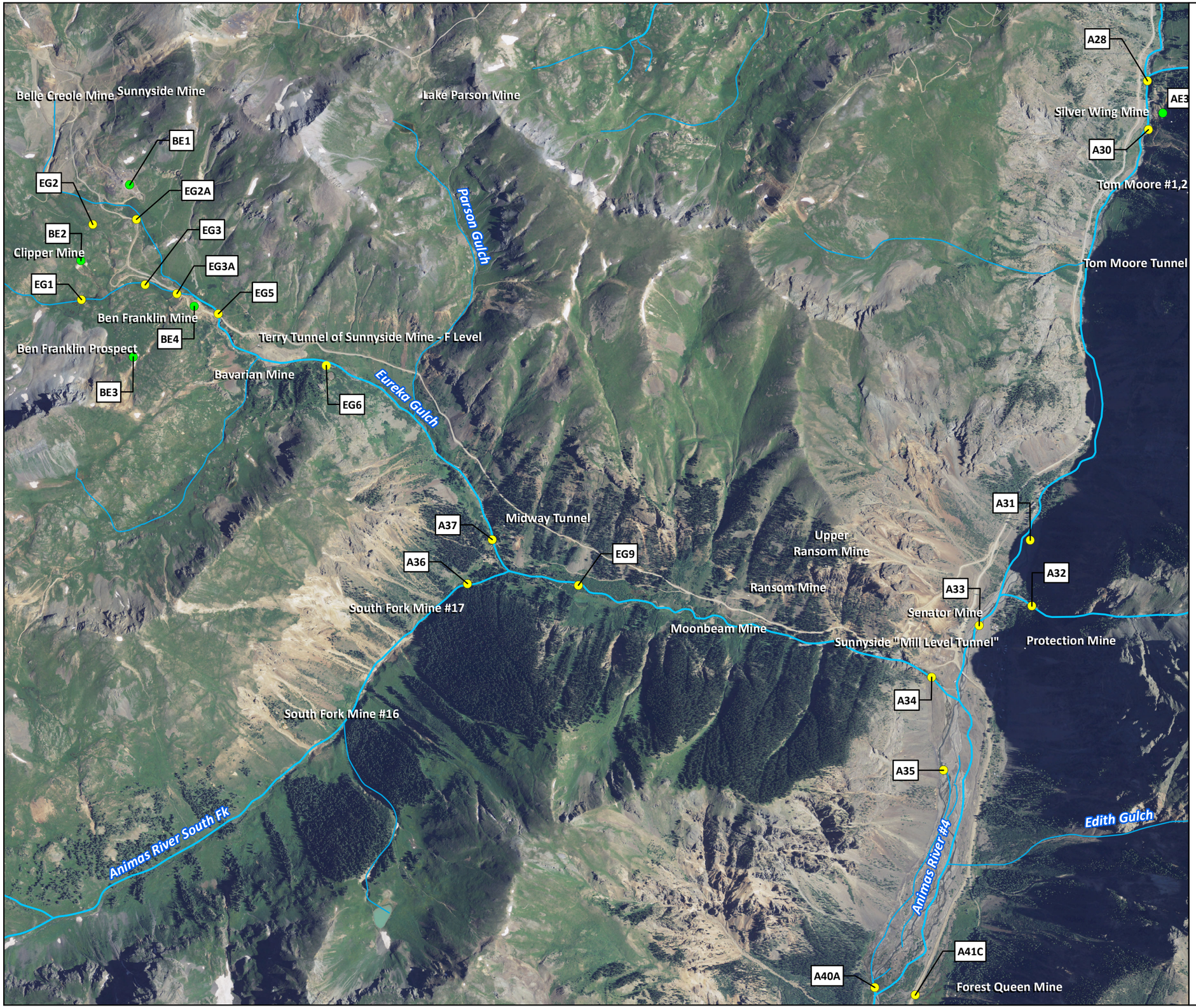
0 2,000 4,000 Feet

0 400 800 Meters



Area of Interest

Figure 2.1-9
Bonita Peak Mining District Site
Eureka Gulch Area
Sediment and Soil/Waste Rock Sampling



Soil/Waste Rock Sample Locations

Sediment Sample Locations

Rivers and Streams

Counties

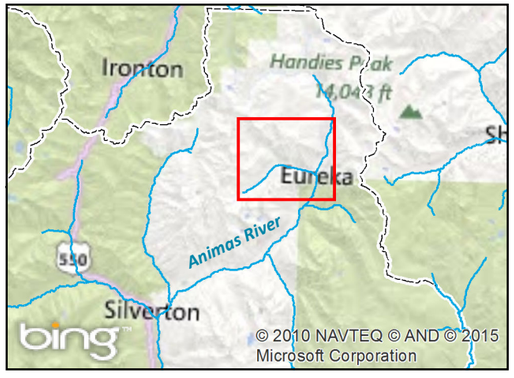
Map Date: December 18, 2015

Data Sources:
Sample Locations: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Counties: U.S. Census Bureau (2010)
Smelter, Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

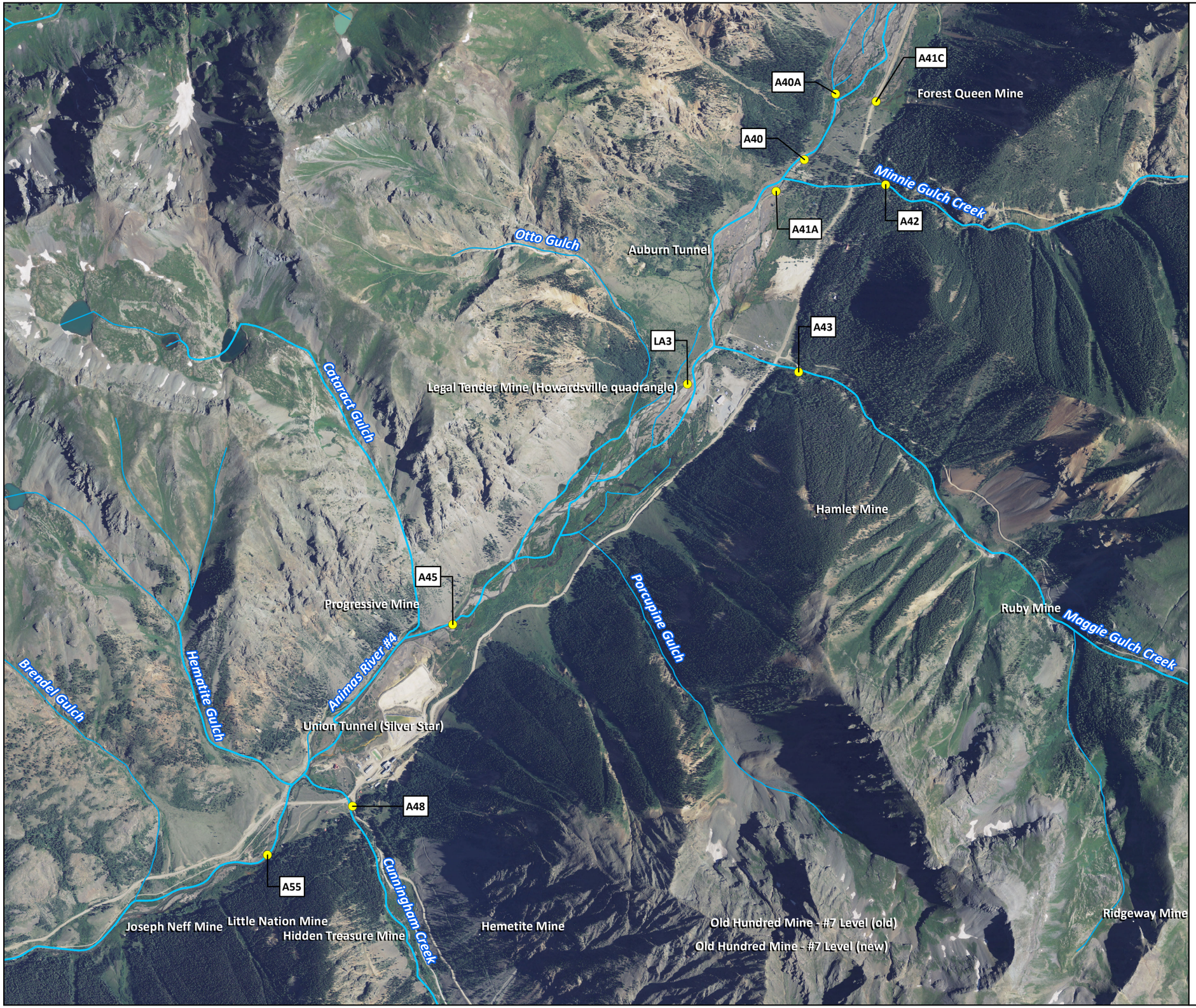
0 1,500 3,000 Feet

0 300 600 Meters



Area of Interest

Figure 2.1-10
Bonita Peak Mining District Site
Howardsville Area
Sediment and Soil/Waste Rock Sampling



Soil/Waste Rock Sample Locations

Sediment Sample Locations

Rivers and Streams

Counties

Map Date: December 18, 2015

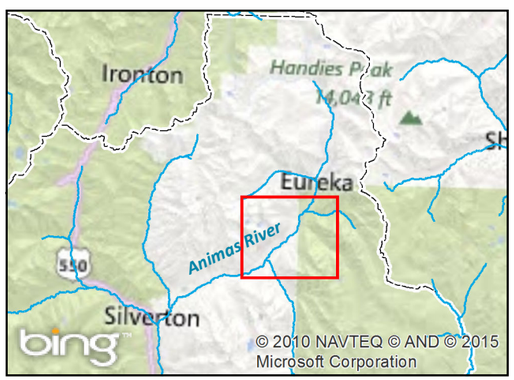
Data Sources:
Sample Locations: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Counties: U.S. Census Bureau (2010)
Smelter, Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

N W E S

0 1,500 3,000 Feet

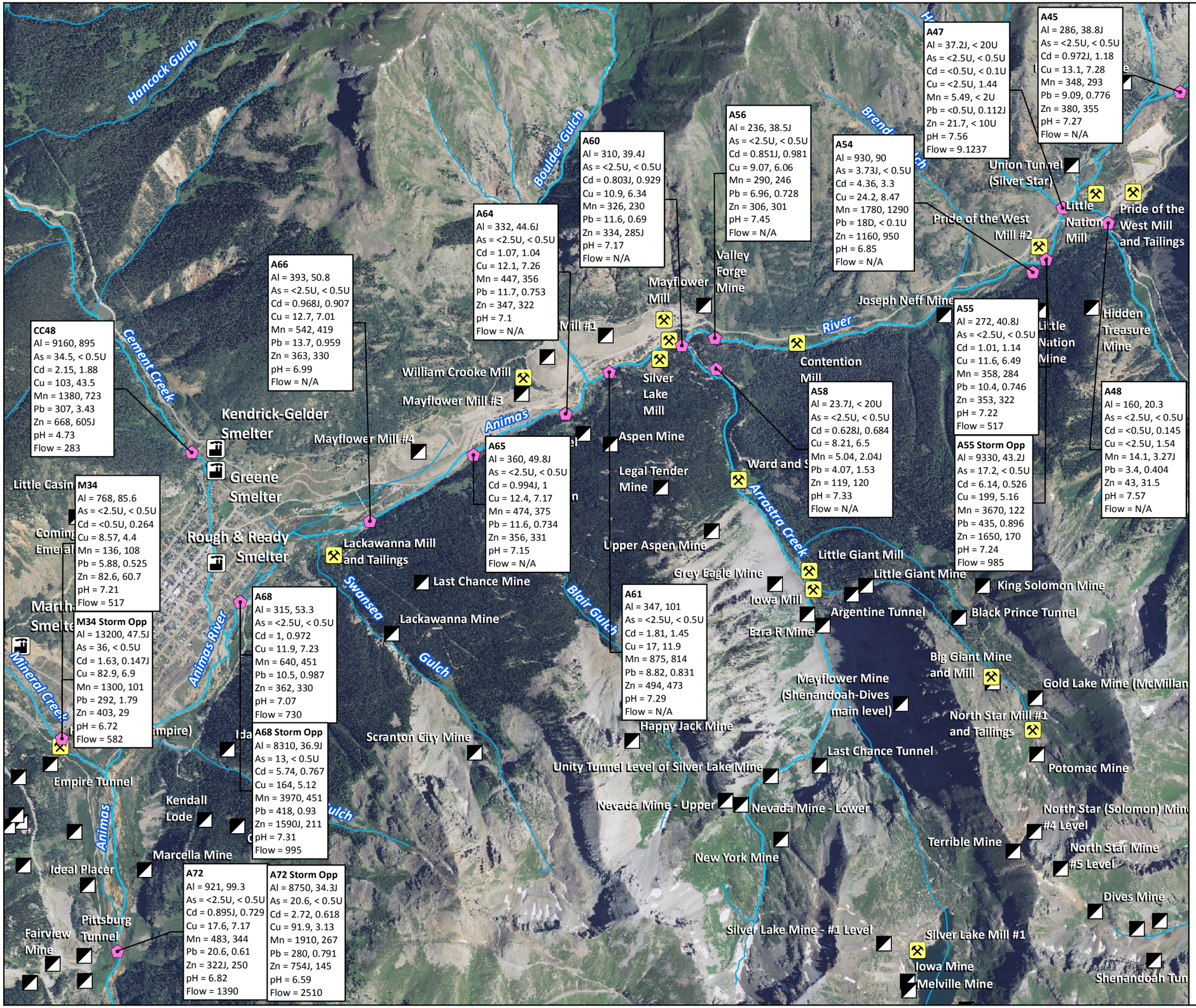
0 300 600 Meters



Area of Interest

Reference 32

Figure 2.2-1
Bonita Peak Mining District Site
Silverton and Mayflower Mill Area
June 2015 Surface Water
Total Recoverable & Dissolved Metals Results



Surface Water Sample Locations
(Total Metals, Dissolved Metals Respectively)
Units = ug/L, Flow = cfs

Smelter Locations

Mill Locations

Mine Locations

Rivers and Streams

Counties

Map Date: December 31, 2015

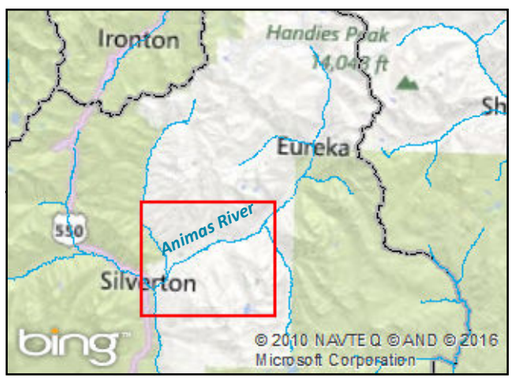
Data Sources:
Sample Locations: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Counties: U.S. Census Bureau (2010)
Smelter, Mine, & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

Qualifier Definitions:
- U: Not detected above reported quantitation limit
- J: Estimated quantity
- J+: Estimated quantity; biased high
- J-: Estimated quantity; biased low
-UJ: Analyte was analyzed for, but not detected

0 2,000 4,000 Feet

0 400 800 Meters



Area of Interest

Reference 32

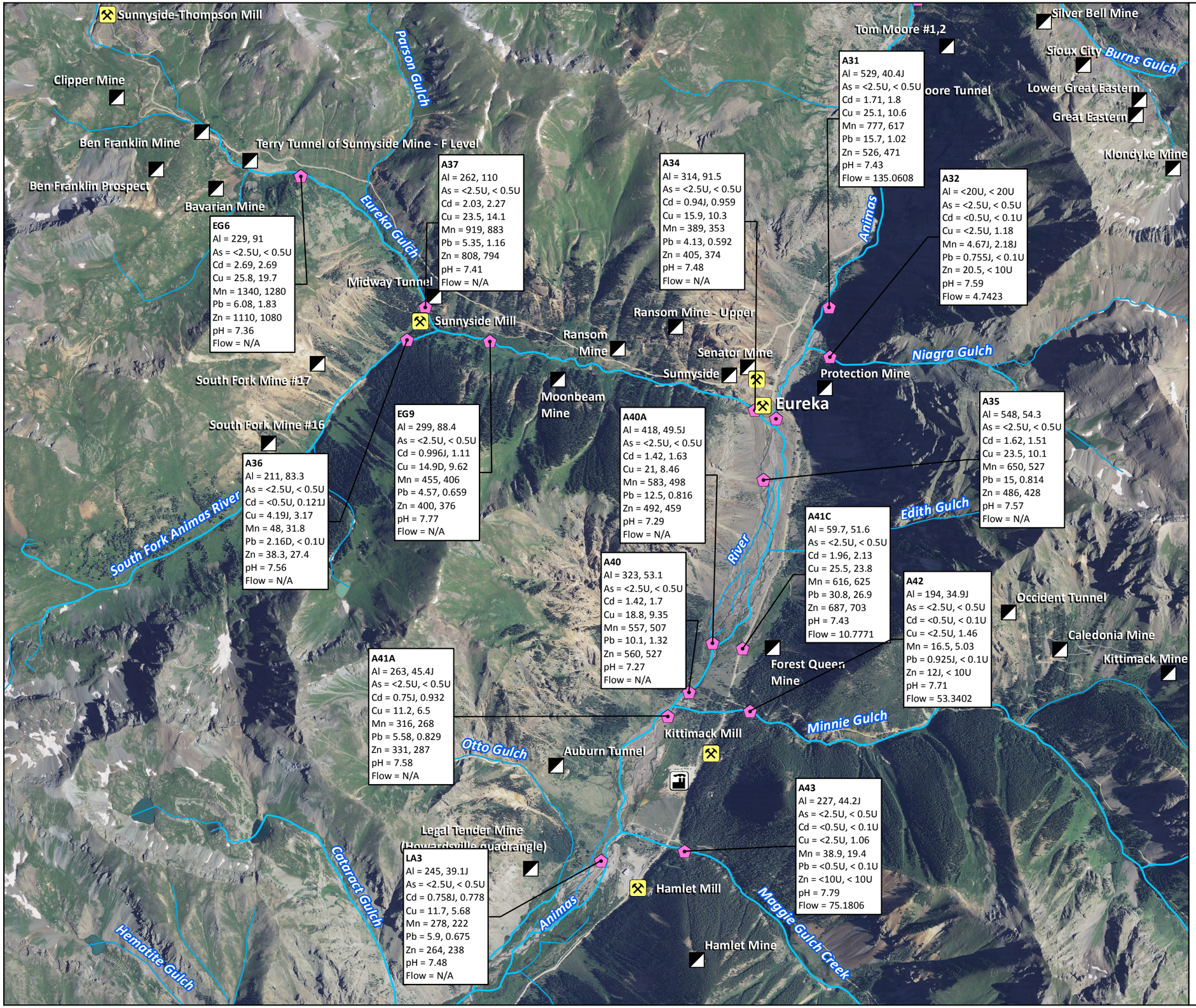
Figure 2.2-2

Bonita Peak Mining District Site

Upper Animas Eureka Area

June 2015 Surface Water Results

Total Recoverable & Dissolved Metals Results



Surface Water Sample Locations
(Total Metals, Dissolved Metals Respectively)
Units = ug/L, Flow = cfs

Smelter Locations

Mill Locations

Mine Locations

Rivers and Streams

Counties

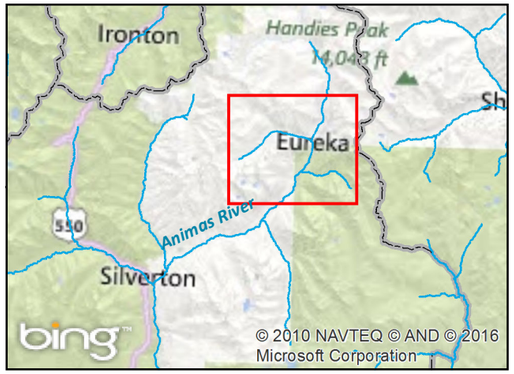
Map Date: December 31, 2015

Data Sources:
Sample Locations: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Counties: U.S. Census Bureau (2010)
Smelter, Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

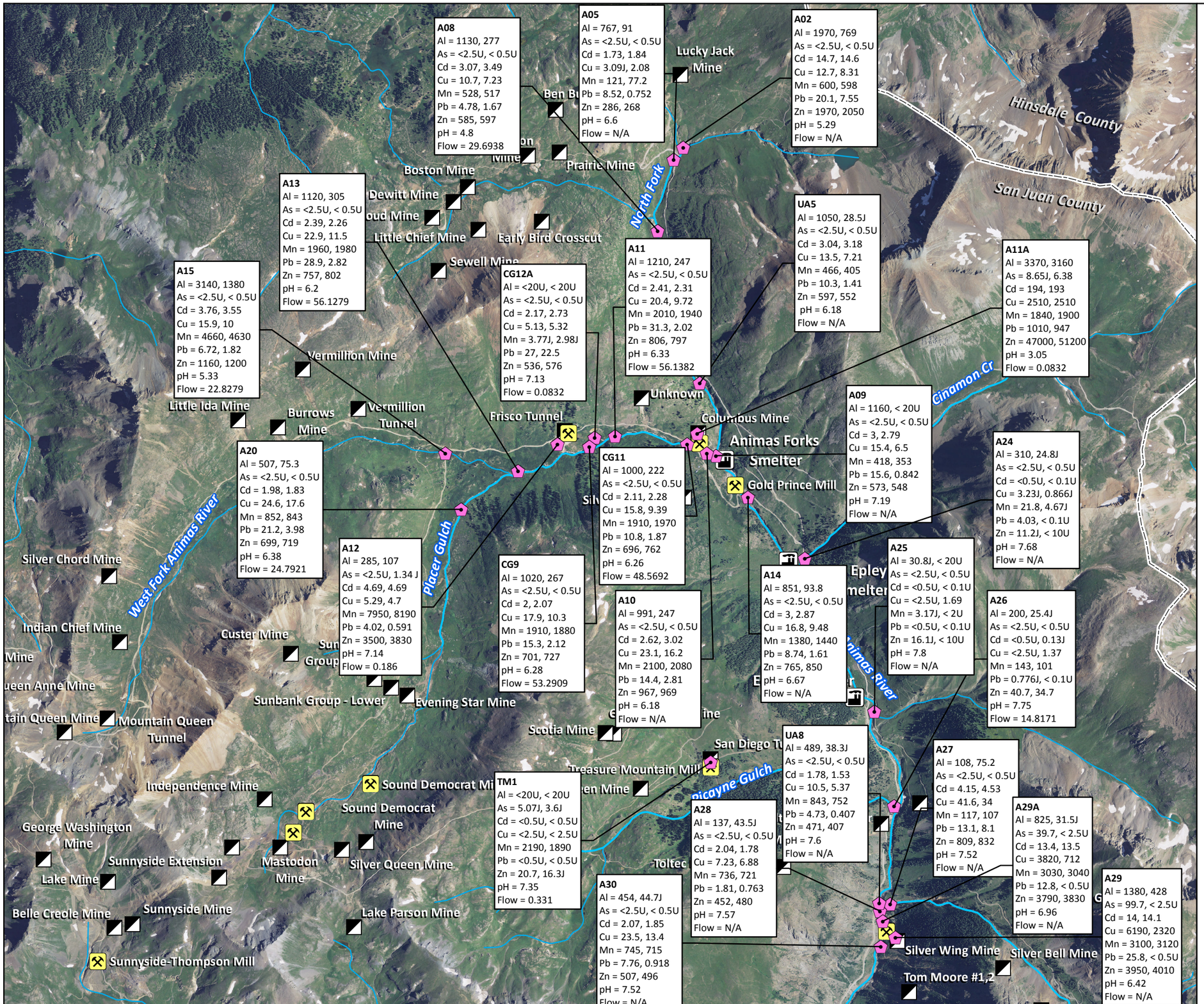
Qualifier Definitions:
- U: Not detected above reported quantitation limit
- J: Estimated quantity
- J+: Estimated quantity; biased high
- J-: Estimated quantity; biased low
- UJ: Analyte was analyzed for, but not detected

0 2,000 4,000 Feet
0 400 800 Meters



Area of Interest

Figure 2.2-3
Bonita Peak Mining District Site
Upper Animas Headwaters Area
June 2015 Surface Water
Total Recoverable & Dissolved Metals Results



Surface Water Sample Locations
(Total Metals, Dissolved Metals Respectively)
Units = ug/L, Flow = cfs

Smelter Locations

Mill Locations

Mine Locations

Rivers and Streams

Counties

Map Date: December 31, 2015

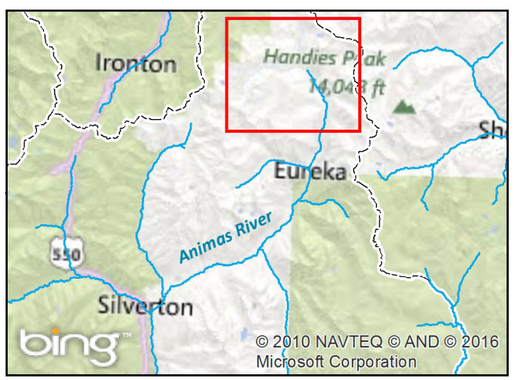
Data Sources:
Sample Locations: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Counties: U.S. Census Bureau (2010)
Smelter, Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

Qualifier Definitions:
- U: Not detected above reported quantitation limit
- J: Estimated quantity
- J+: Estimated quantity; biased high
- J-: Estimated quantity; biased low
- UJ: Analyte was analyzed for, but not detected

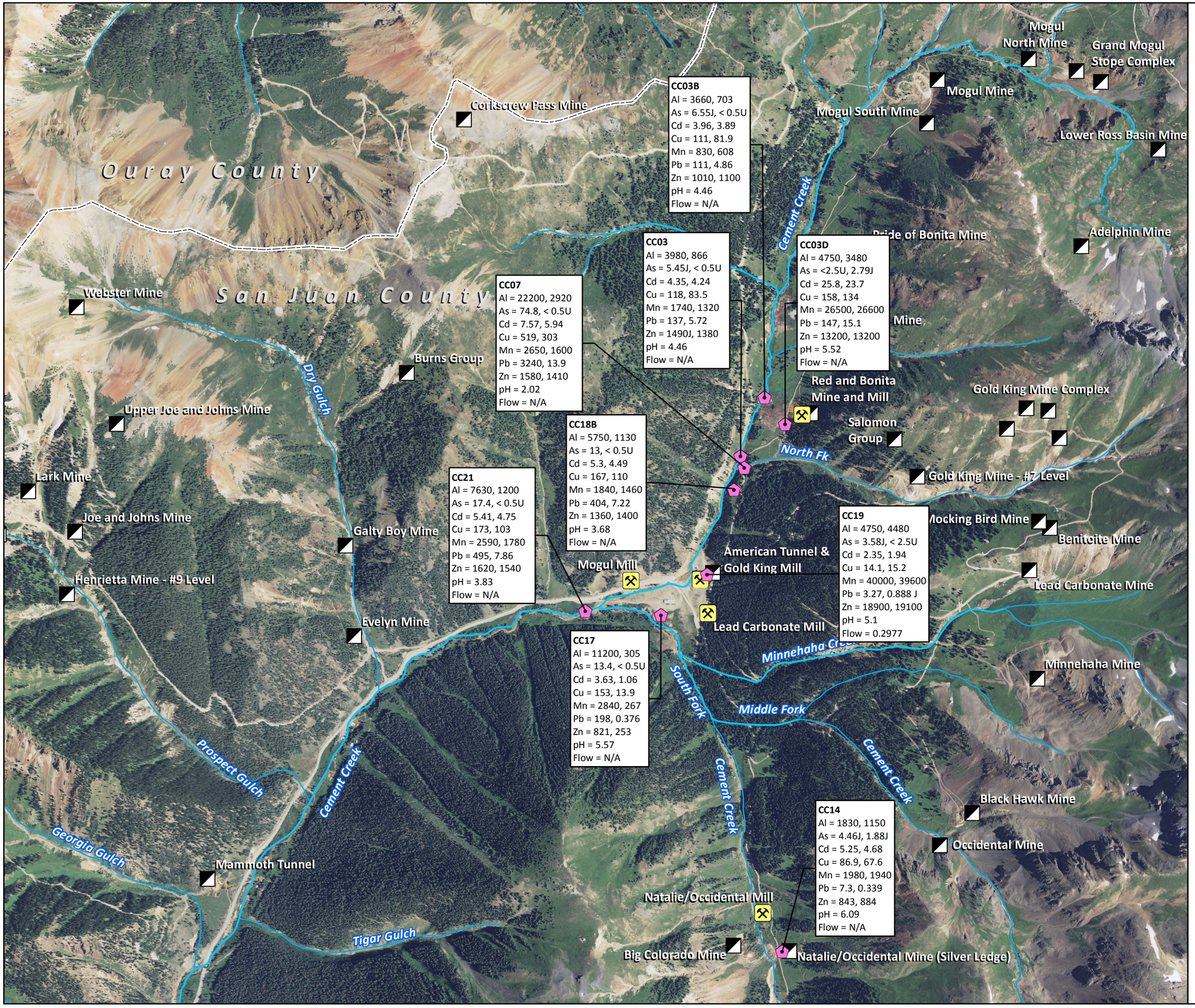
0 2,000 4,000 Feet

0 395 790 Meters



Area of Interest

Figure 2.2-4
Bonita Peak Mining District Site
Upper Cement Creek Area
June 2015 Surface Water
Total Recoverable & Dissolved Metals Results



Surface Water Sample Locations
(Total Metals, Dissolved Metals Respectively)
Units = ug/L, Flow = cfs

Mill Locations

Mine Locations

Rivers and Streams

Counties

Map Date: December 31, 2015

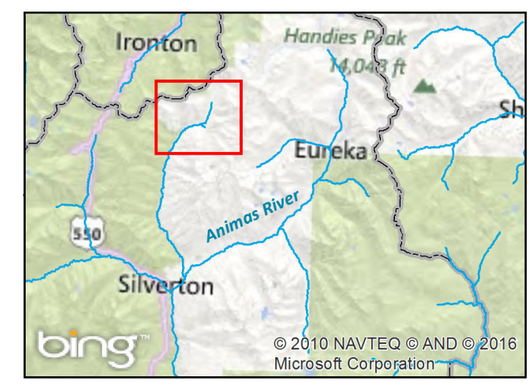
Data Sources:
Sample Locations: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Counties: U.S. Census Bureau (2010)
Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

Qualifier Definitions:
- U: Not detected above reported quantitation limit
- J: Estimated quantity
- J+: Estimated quantity; biased high
- J-: Estimated quantity; biased low
-UJ: Analyte was analyzed for, but not detected

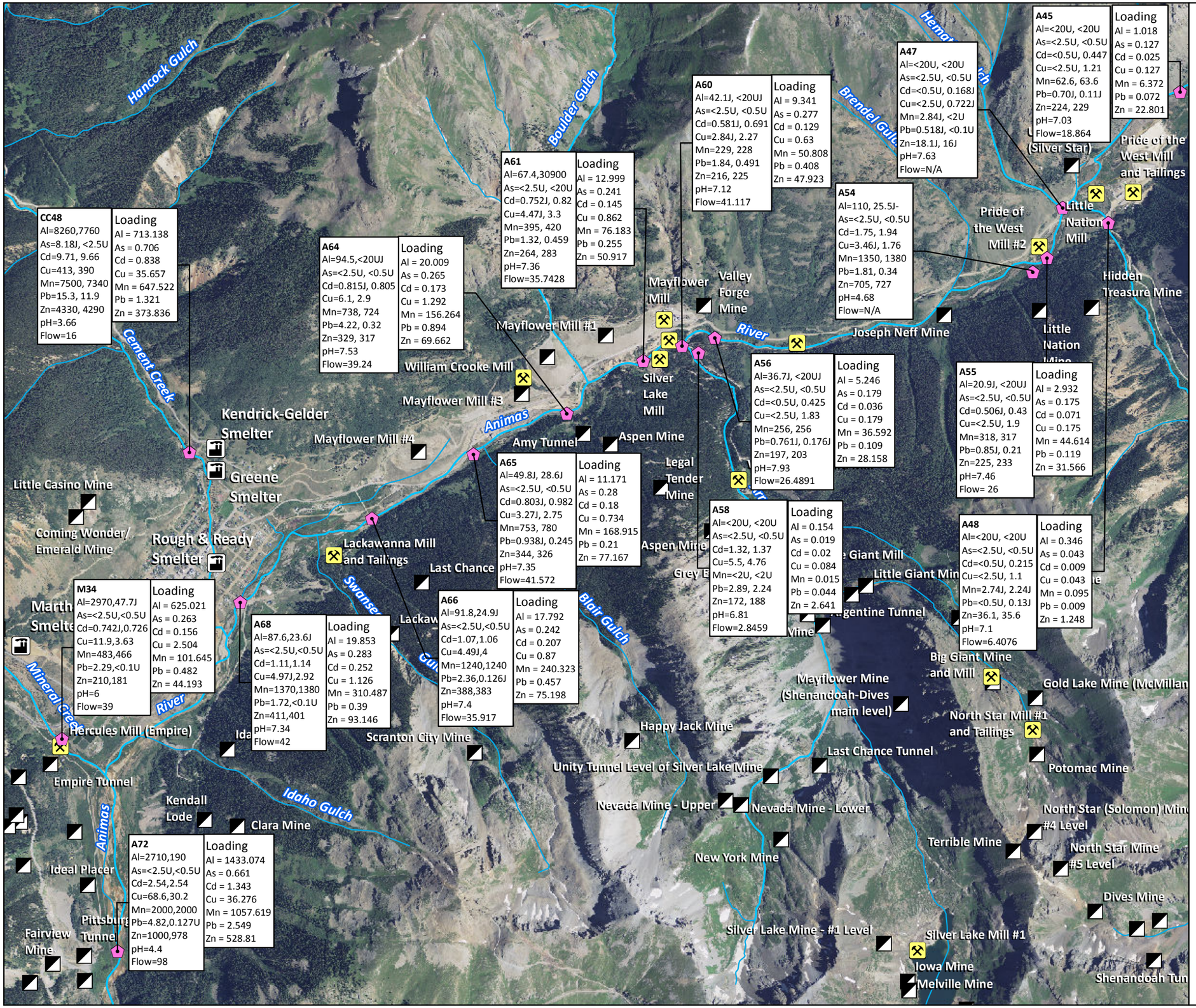
0 1,000 2,000 Feet

0 200 400 Meters



Area of Interest

Figure 2.2-5
Bonita Peak Mining District Site
Silverton and Mayflower Mill Area
September 2015 Surface Water
Total Recoverable & Dissolved Metals Results



Surface Water Sample Locations
(Total Metals, Dissolved Metals Respectively)
Units = ug/L, Flow = cfs, Loading in Lbs per Day

Smelter Locations

Mill Locations

Mine Locations

Rivers and Streams

Counties

Map Date: December 31, 2015

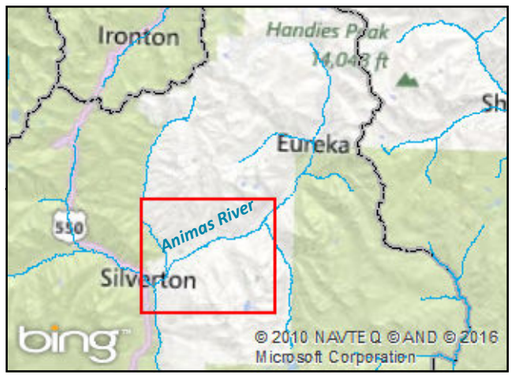
Data Sources:
Sample Locations: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Counties: U.S. Census Bureau (2010)
Smelter, Mine, & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

Qualifier Definitions:
- U: Not detected above reported quantitation limit
- J: Estimated quantity
- J+: Estimated quantity; biased high
- J-: Estimated quantity; biased low
-UJ: Analyte was analyzed for, but not detected

0 2,000 4,000 Feet

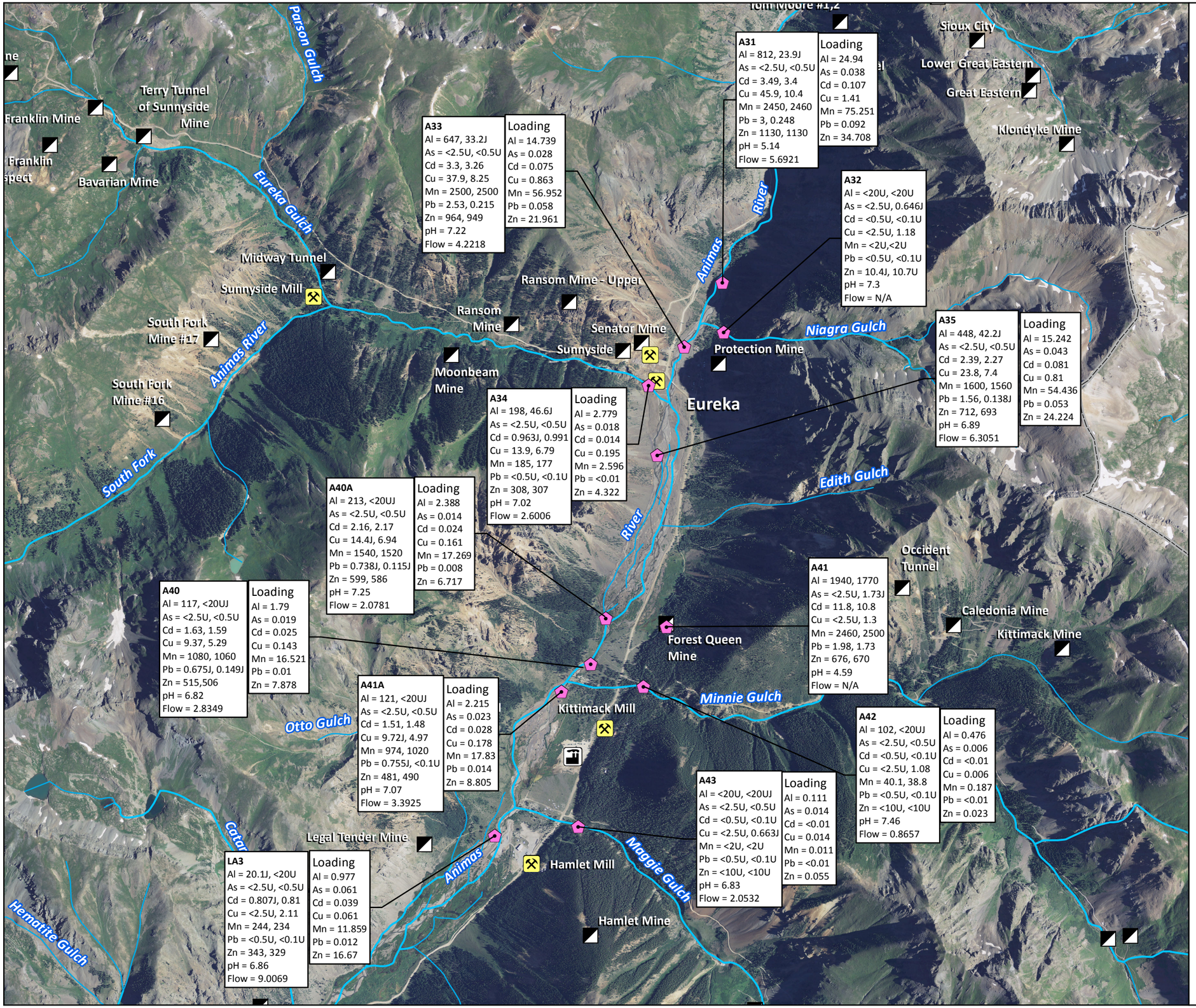
0 400 800 Meters



Area of Interest

Reference 32

Figure 2.2-6
Bonita Peak Mining District Site
Upper Animas Eureka Area
September 2015 Surface Water
Total Recoverable & Dissolved Metals Results



Surface Water Sample Locations
(Total Metals, Dissolved Metals Respectively)
Units = ug/L, Flow = cfs, Loading in Lbs per Day

Smelter Locations

Mill Locations

Mine Locations

Rivers and Streams

Counties

Map Date: December 31, 2015

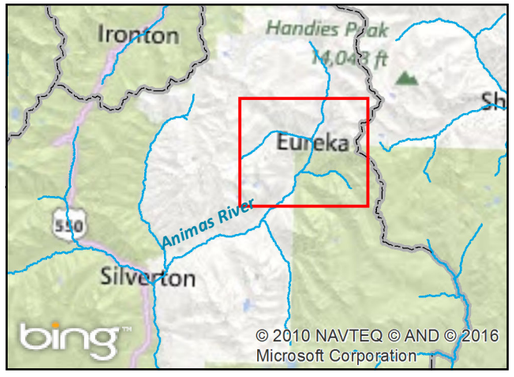
Data Sources:
Sample Locations: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Counties: U.S. Census Bureau (2010)
Smelter, Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

Qualifier Definitions:
- U: Not detected above reported quantitation limit
- J: Estimated quantity
- J+: Estimated quantity; biased high
- J-: Estimated quantity; biased low
-UJ: Analyte was analyzed for, but not detected

0 2,000 4,000 Feet

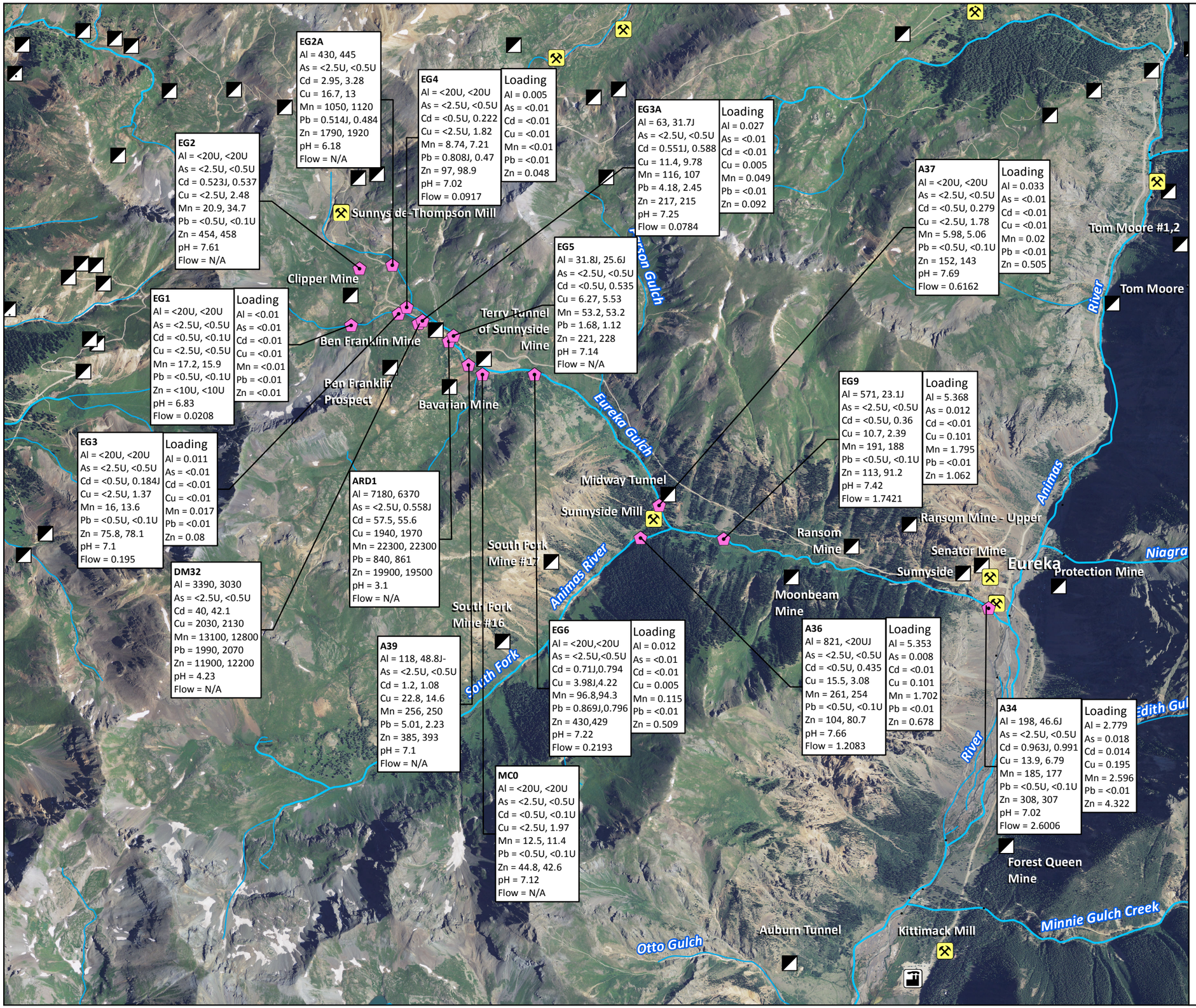
0 400 800 Meters



Area of Interest

Reference 32

Figure 2.2-7
Bonita Peak Mining District Site
Eureka Gulch
September 2015 Surface Water
Total Recoverable & Dissolved Metals Results



Surface Water Sample Locations
(Total Metals, Dissolved Metals Respectively)
Units = ug/L, Flow = cfs, Loading in Lbs per Day

Smelter Locations

Mill Locations

Mine Locations

Rivers and Streams

Counties

Map Date: December 31, 2015

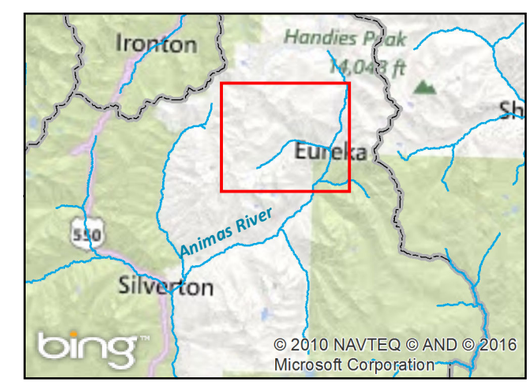
Data Sources:
Sample Locations: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Counties: U.S. Census Bureau (2010)
Smelter, Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

Qualifier Definitions:
- U: Not detected above reported quantitation limit
- J: Estimated quantity
- J+: Estimated quantity; biased high
- J-: Estimated quantity; biased low
- UJ: Analyte was analyzed for, but not detected

0 2,000 4,000 Feet

0 400 800 Meters

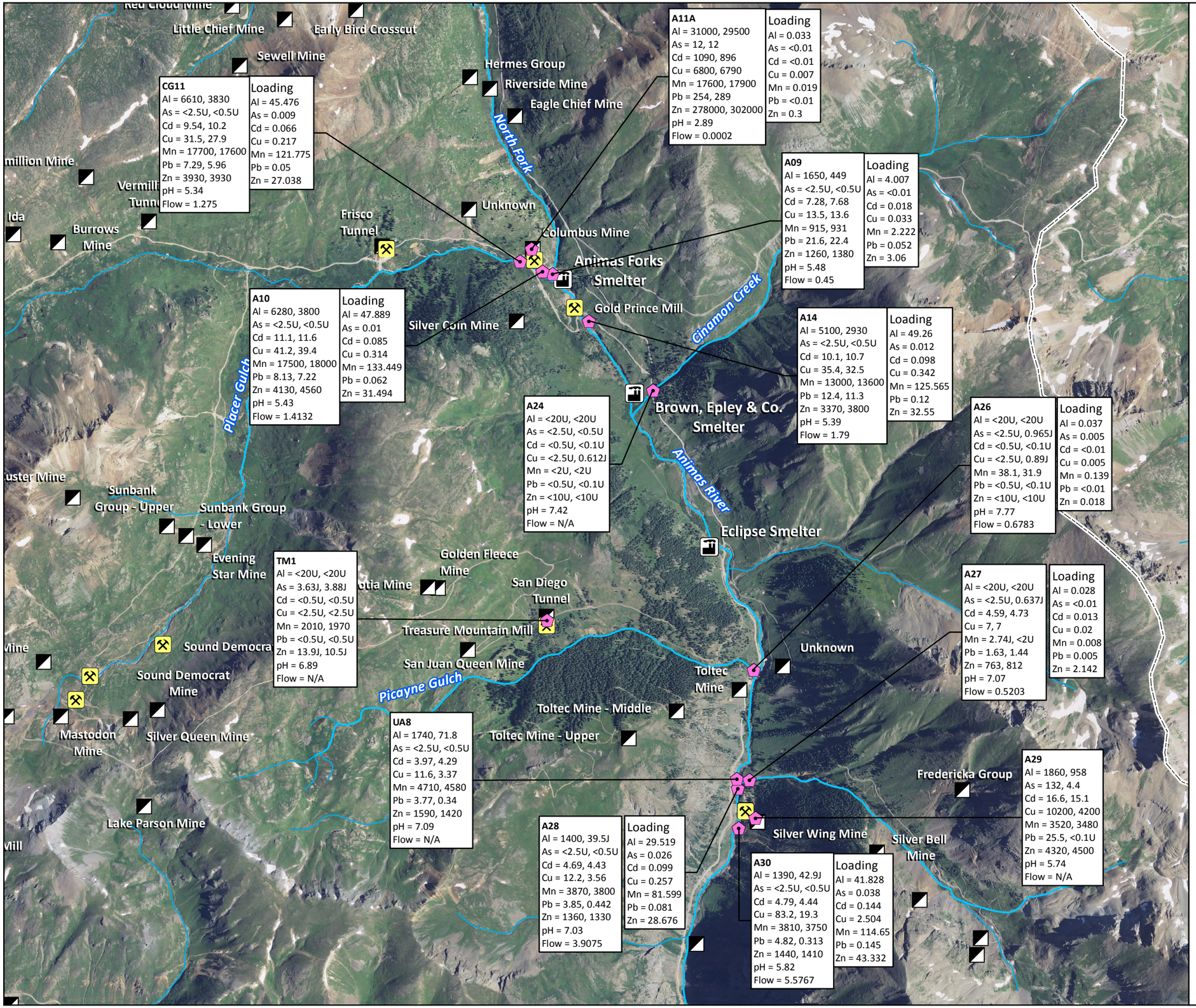


Area of Interest

Figure 2.2-8

Bonita Peak Mining District Site

Upper Animas Headwaters Area
September 2015 Surface Water
Total Recoverable & Dissolved Metals Results



Surface Water Sample Locations
(Total Metals, Dissolved Metals Respectively)
Units = ug/L, Flow = cfs, Loading in Lbs per Day

Smelter Locations

Mill Locations

Mine Locations

Rivers and Streams

Counties

Map Date: December 31, 2015

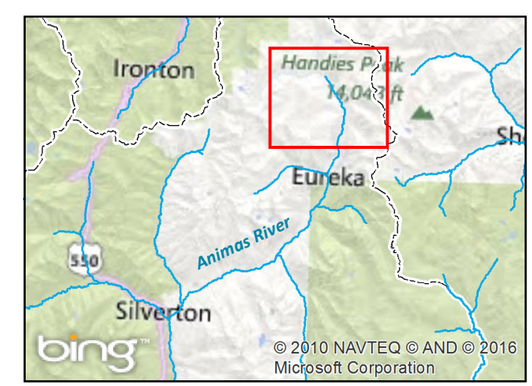
Data Sources:
Sample Locations: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Counties: U.S. Census Bureau (2010)
Smelter, Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

Qualifier Definitions:
- U: Not detected above reported quantitation limit
- J: Estimated quantity
- J+: Estimated quantity; biased high
- J-: Estimated quantity; biased low
- UJ: Analyte was analyzed for, but not detected

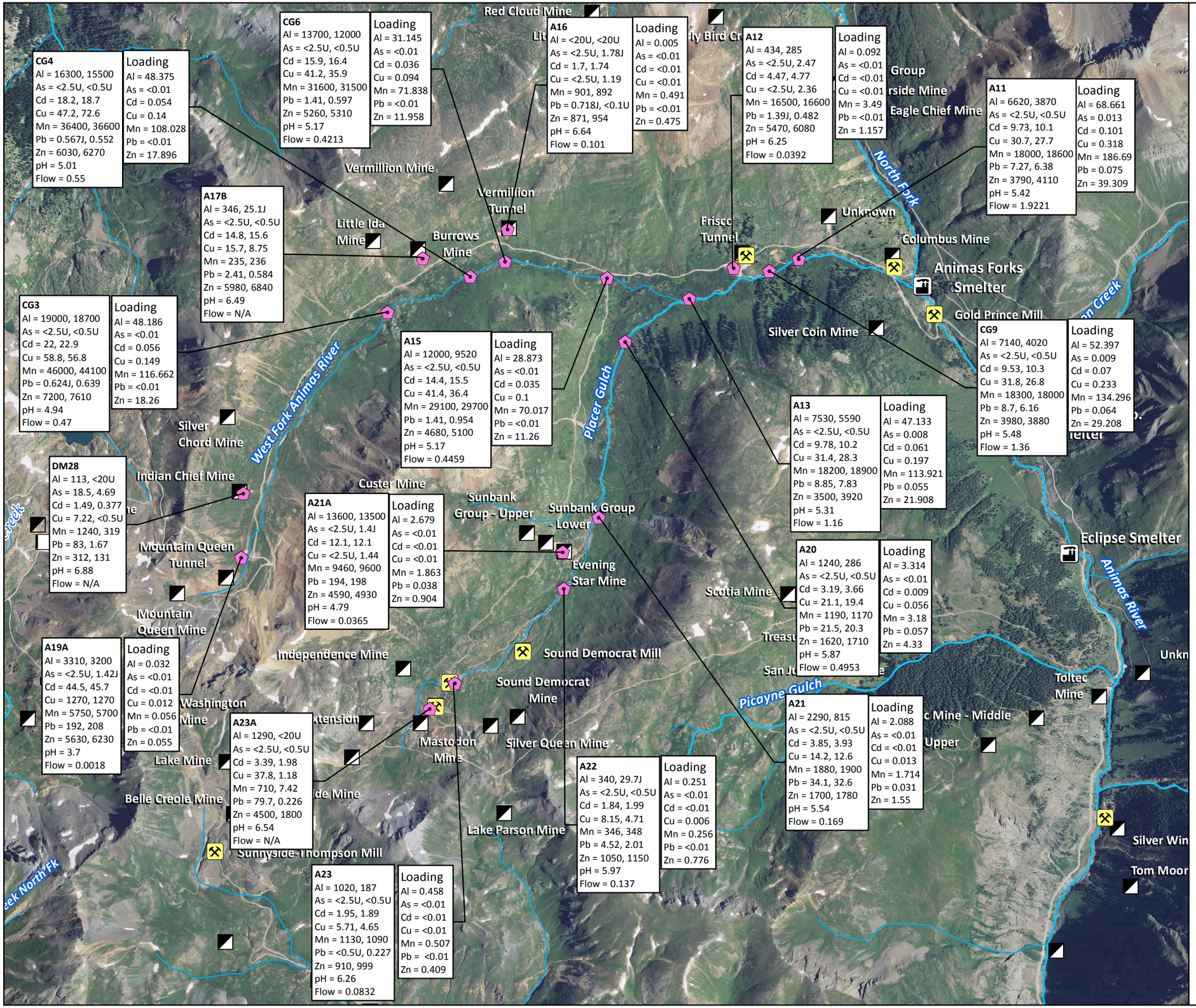
0 2,000 4,000 Feet

0 400 800 Meters



Area of Interest

Figure 2.2-9
Bonita Peak Mining District Site
West Fork Animas River
September 2015 Surface Water
Total Recoverable & Dissolved Metals Results



Surface Water Sample Locations
(Total Metals, Dissolved Metals Respectively)
Units = ug/L, Flow = cfs, Loading in Lbs per Day

Smelter Locations

Mill Locations

Mine Locations

Rivers and Streams

Counties

Map Date: December 31, 2015

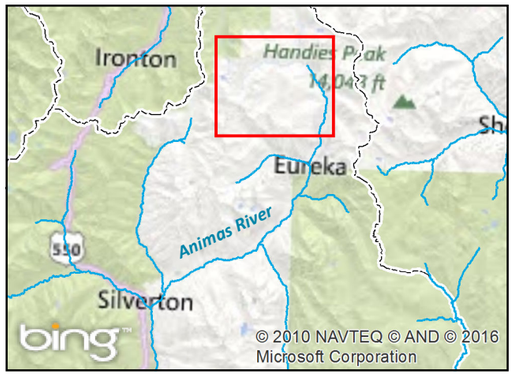
Data Sources:
Sample Locations: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Counties: U.S. Census Bureau (2010)
Smelter, Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

Qualifier Definitions:
- U: Not detected above reported quantitation limit
- J: Estimated quantity
- J+: Estimated quantity; biased high
- J-: Estimated quantity; biased low
-UJ: Analyte was analyzed for, but not detected

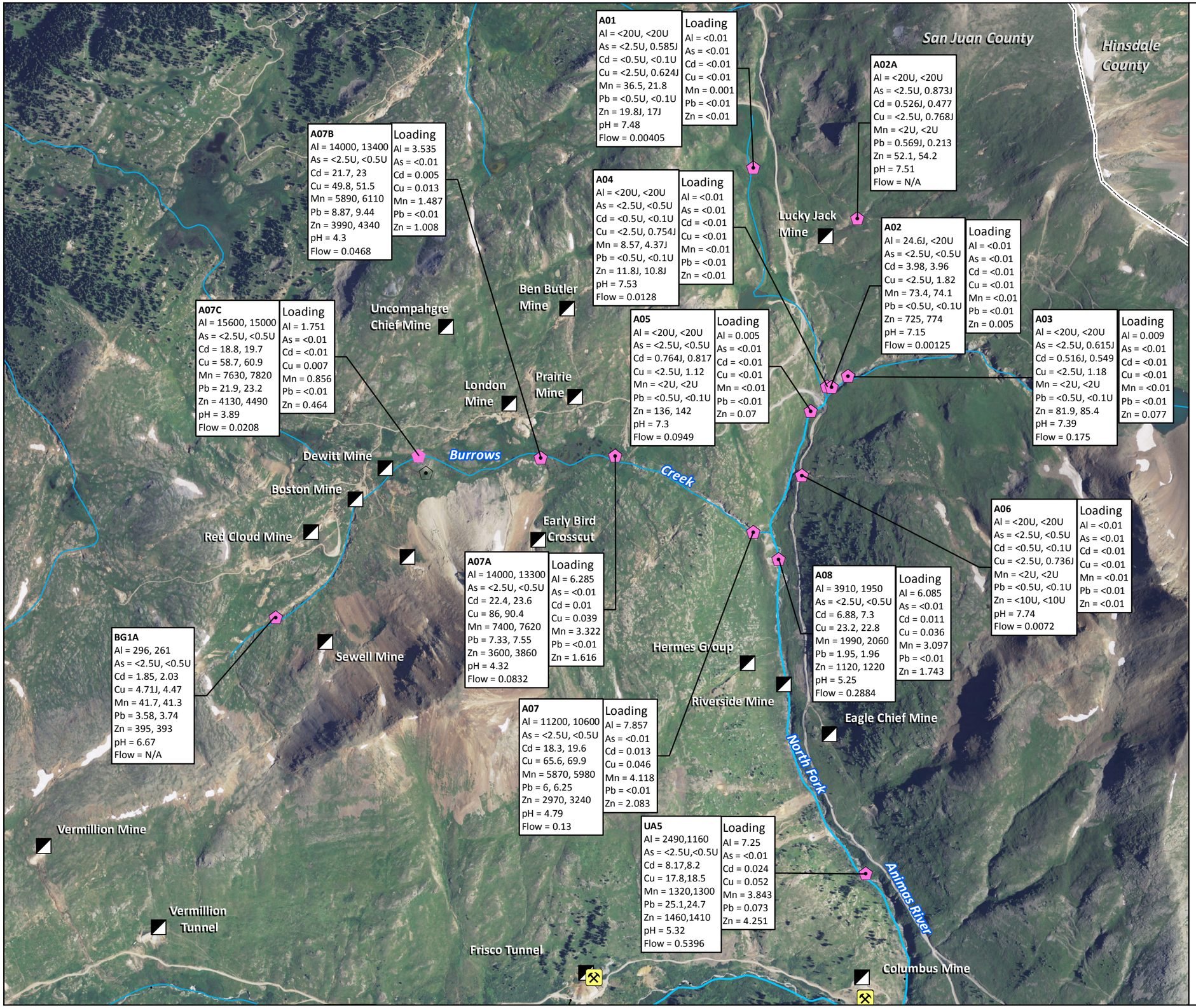
0 2,000 4,000 Feet

0 400 800 Meters



Area of Interest

Figure 2.2-10
Bonita Peak Mining District Site
North Fork of the Animas Headwaters Area
September 2015 Surface Water
Total Recoverable & Dissolved Metals Results



Surface Water Sample Locations
(Total Metals, Dissolved Metals Respectively)
Units = ug/L, Flow = cfs, Loading in Lbs per Day

Smelter Locations

Mill Locations

Mine Locations

Rivers and Streams

Counties

Map Date: December 31, 2015

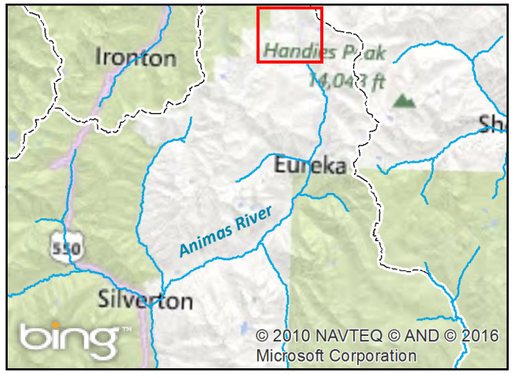
Data Sources:
Sample Locations: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Counties: U.S. Census Bureau (2010)
Smelter, Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

Qualifier Definitions:
- U: Not detected above reported quantitation limit
- J: Estimated quantity
- J+: Estimated quantity; biased high
- J-: Estimated quantity; biased low
-UJ: Analyte was analyzed for, but not detected

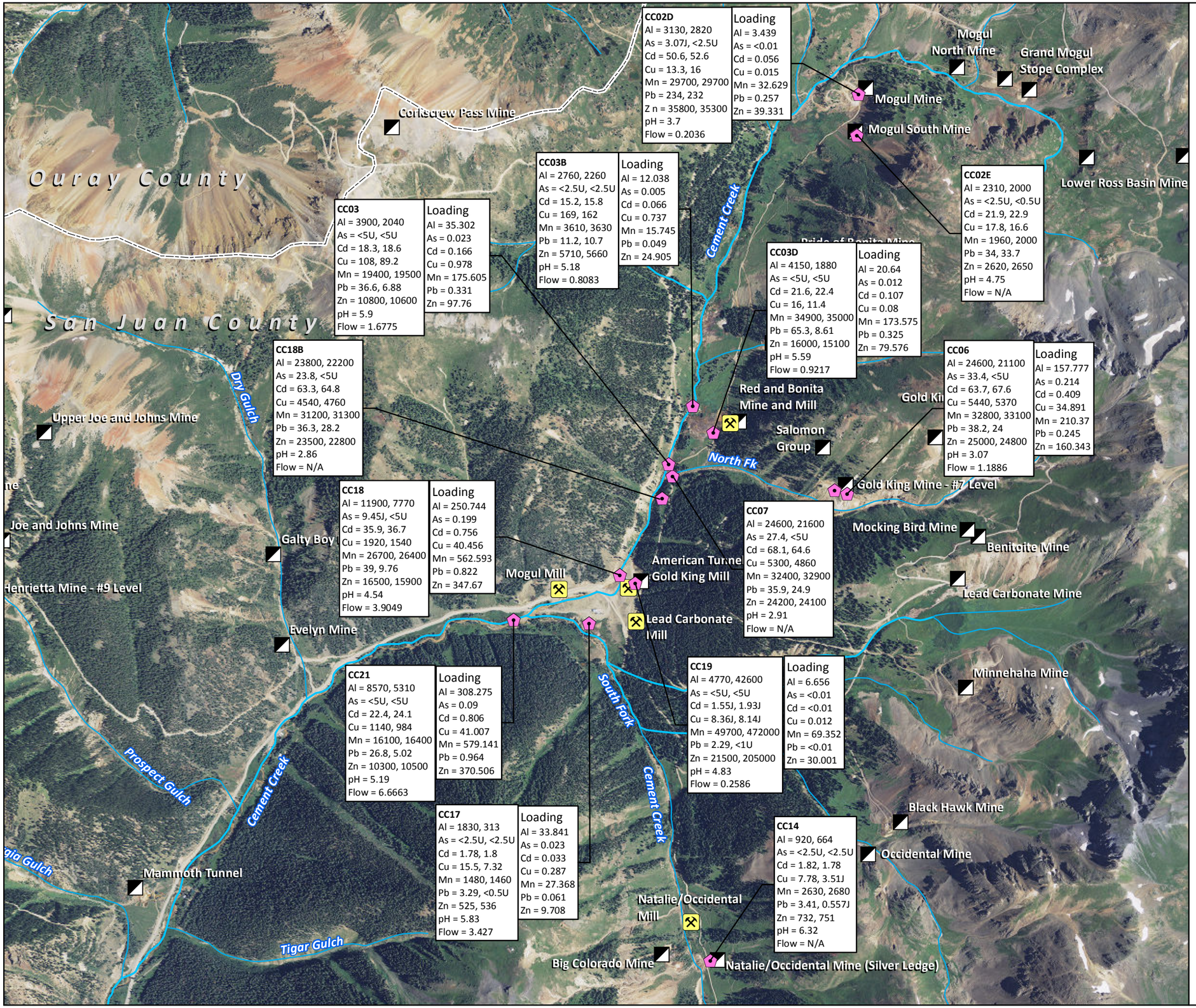
0 1,000 2,000 Feet

0 200 400 Meters



Area of Interest

Figure 2.2-11
Bonita Peak Mining District Site
Upper Cement Creek Area
September 2015 Surface Water
Total Recoverable & Dissolved Metals Results



Surface Water Sample Locations
(Total Metals, Dissolved Metals Respectively)
Units = ug/L, Flow = cfs, Loading in Lbs per Day

Mill Locations

Mine Locations

Rivers and Streams

Counties

Map Date: December 31, 2015

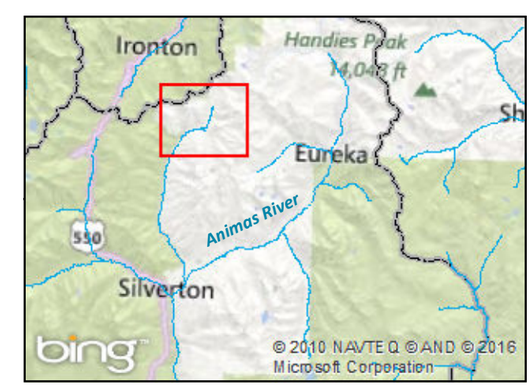
Data Sources:
Sample Locations: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Counties: U.S. Census Bureau (2010)
Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

Qualifier Definitions:
- U: Not detected above reported quantitation limit
- J: Estimated quantity
- J+: Estimated quantity; biased high
- J-: Estimated quantity; biased low
-UJ: Analyte was analyzed for, but not detected

0 1,000 2,000 Feet

0 200 400 Meters

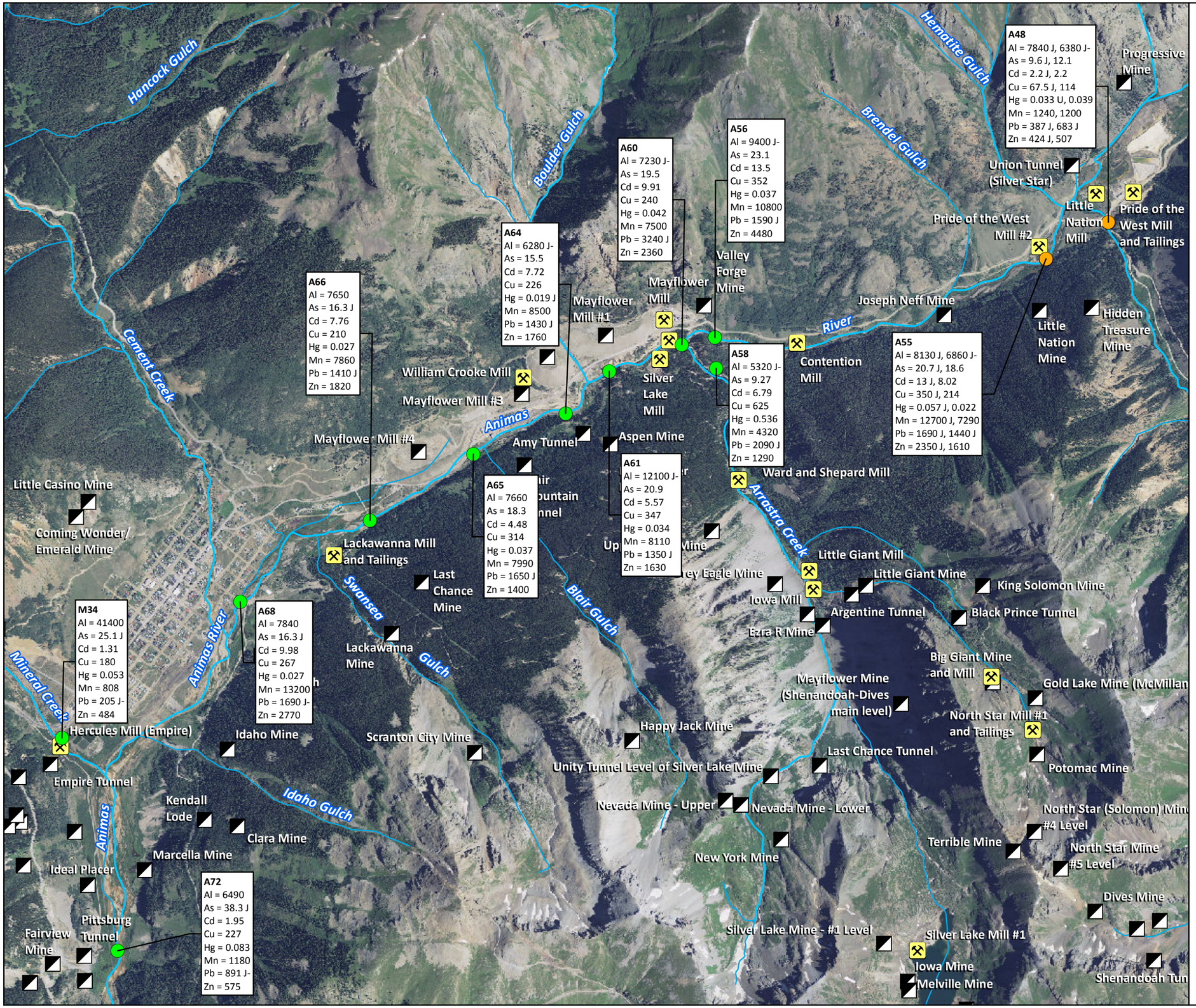


Area of Interest

Reference 32

Figure 2.4-1
Bonita Peak Mining District Site
Silverton and Mayflower Mill Area
2015 Sediment Total Recoverable
Metals Results

Units = mg/kg dry weight



Sediment Sample - August

Sediment Sample - September

Sediment Sample - August & September
(August, September Respectively)

Mill Locations

Mine Locations

Rivers and Streams

Map Date: December 31, 2015

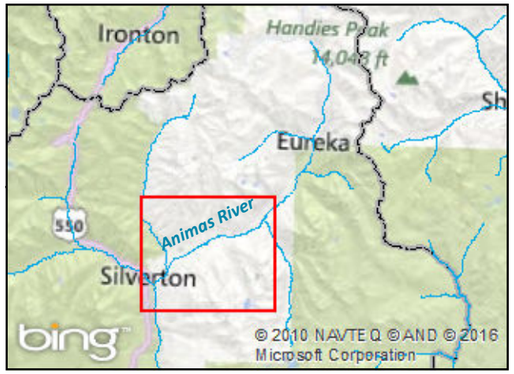
Data Sources:
Sample Locations: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Counties: U.S. Census Bureau (2010)
Smelter, Mine, & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

Qualifier Definitions:
- U: Not detected above reported quantitation limit
- J: Estimated quantity
- J+: Estimated quantity; biased high
- J-: Estimated quantity; biased low
- UJ: Analyte was analyzed for, but not detected

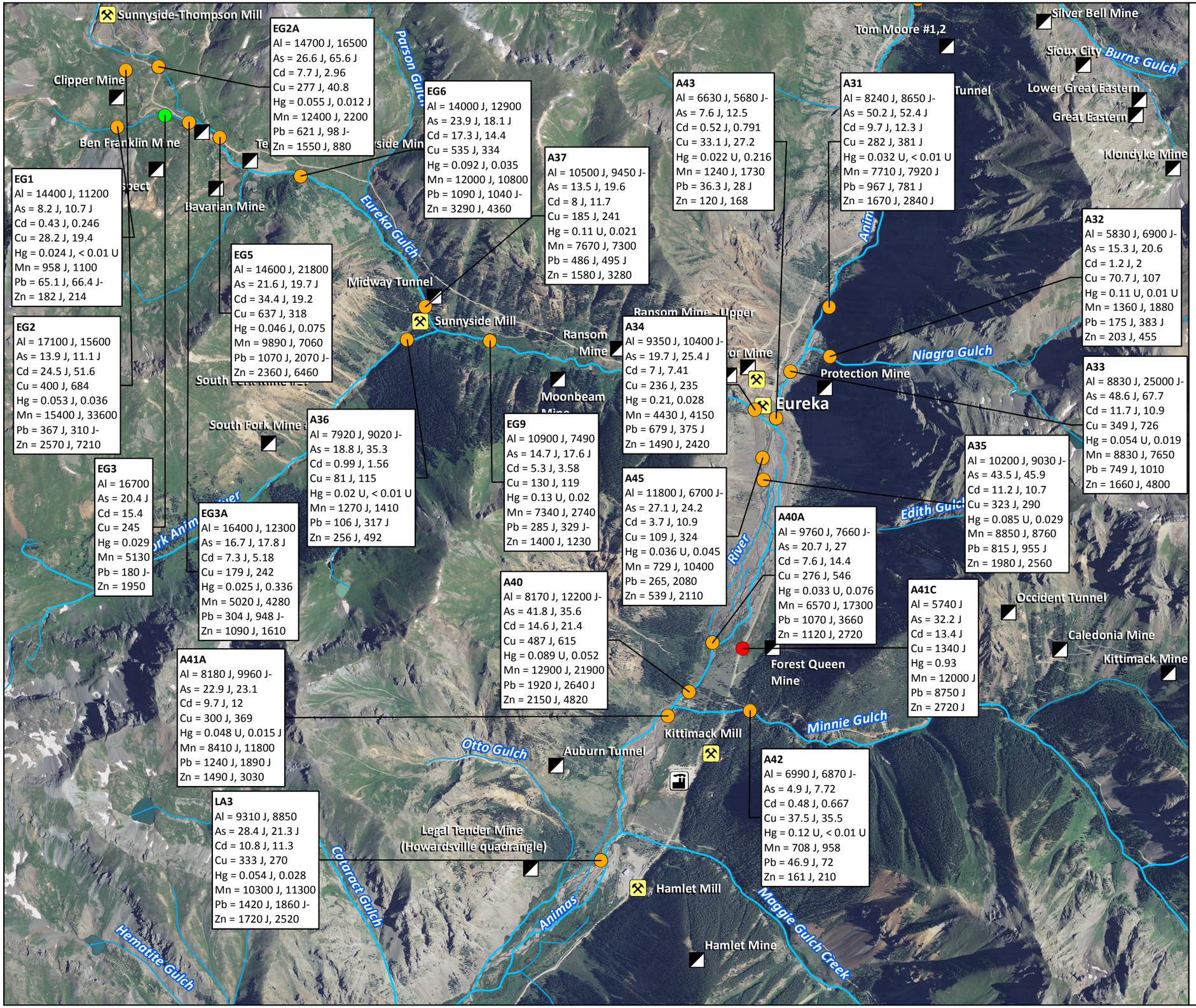
0 2,000 4,000 Feet

0 400 800 Meters



Area of Interest

Figure 2.4-2
Bonita Peak Mining District Site
Upper Animas Eureka & Eureka Gulch Area
2015 Sediment Total Recoverable Metals



Results
Units = mg/kg dry weight

- Sediment Sample - August
- Sediment Sample - September
- Sediment Sample - August & September (August, September Respectively)
- Mill Locations
- Mine Locations
- Rivers and Streams

Map Date: December 31, 2015

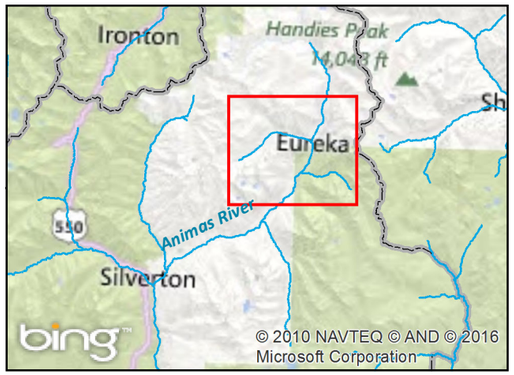
Data Sources:
Sample Locations: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Counties: U.S. Census Bureau (2010)
Smelter, Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

Qualifier Definitions:
- U: Not detected above reported quantitation limit
- J: Estimated quantity
- J+: Estimated quantity; biased high
- J-: Estimated quantity; biased low
- UJ: Analyte was analyzed for, but not detected

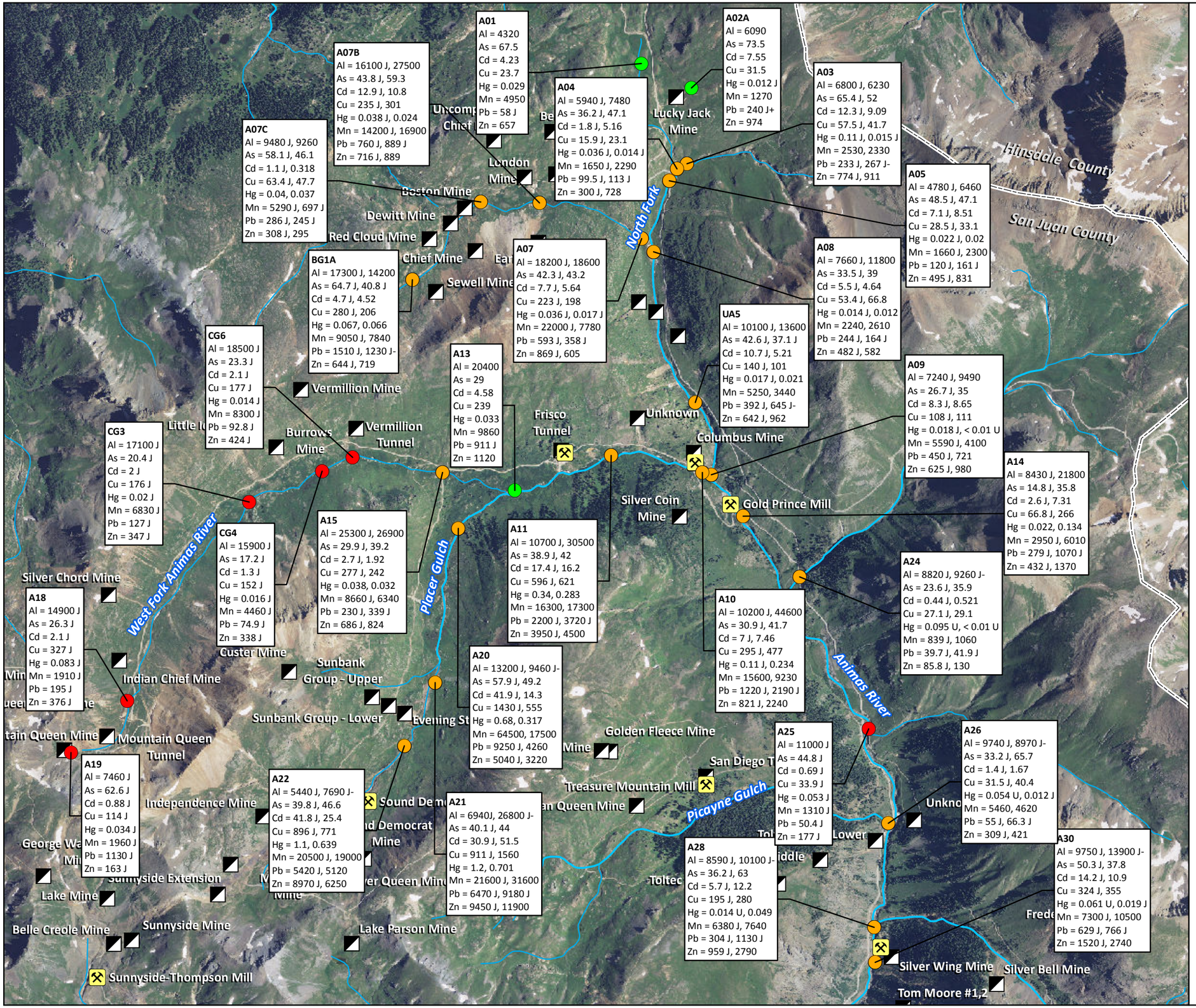
0 2,000 4,000 Feet

0 400 800 Meters



Area of Interest

Figure 2.4-3
Bonita Peak Mining District Site
Upper Animas Headwaters Area
2015 Sediment Total Recoverable Metals
Results
Units = mg/kg dry weight



Sediment Sample - August

Sediment Sample - September

Sediment Sample - August & September
(August, September Respectively)

Mill Locations

Mine Locations

Rivers and Streams

Counties

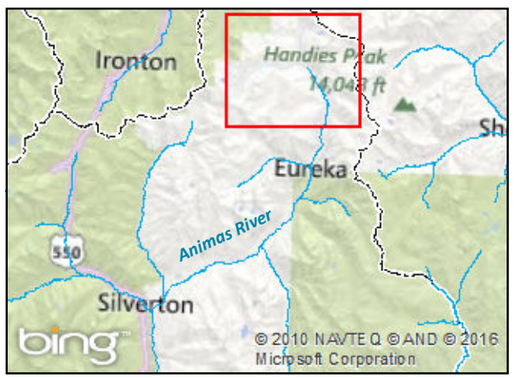
Map Date: December 31, 2015

Data Sources:
Sample Locations: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Counties: U.S. Census Bureau (2010)
Smelter, Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

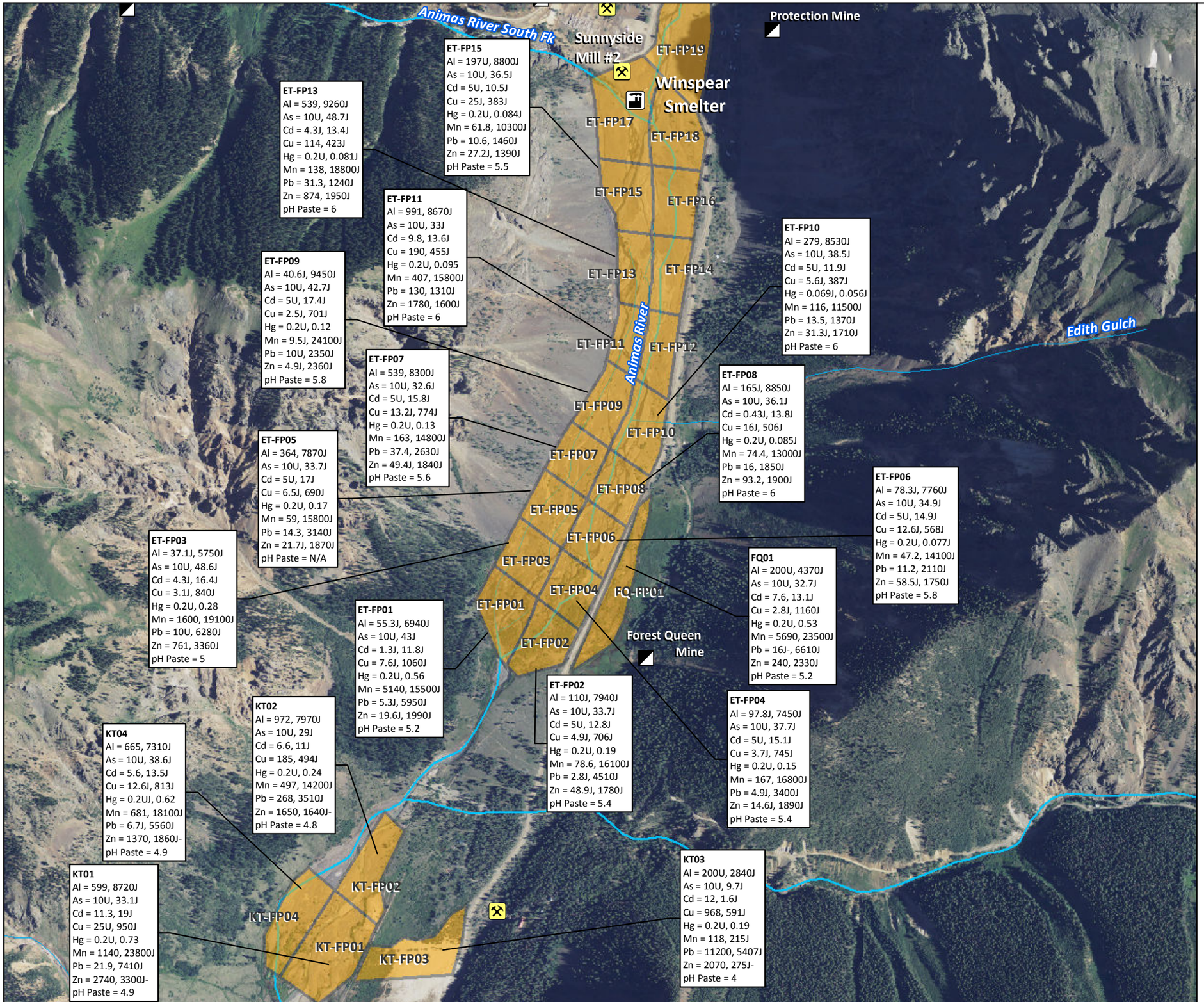
Qualifier Definitions:
- U: Not detected above reported quantitation limit
- J: Estimated quantity
- J+: Estimated quantity; biased high
- J-: Estimated quantity; biased low
- UJ: Analyte was analyzed for, but not detected

0 2,000 4,000 Feet
0 395 790 Meters



Area of Interest

Figure 2.6-1
Bonita Peak Mining District Site
Eureka & Forest Queen Tailings
August 2015 Fluvial Deposits
SPLP & Total Recoverable Metals Results



Floodplain Sampling Area
30 Point Composite Sample at 6 inch depth
#10 sieve 2mm opening
(SPLP, Total Metals Respectively)
Units SPLP = ug/L, Total Metals = mg/kg

Smelter Locations

Mill Locations

Mine Locations

Rivers and Streams

Map Date: December 31, 2015

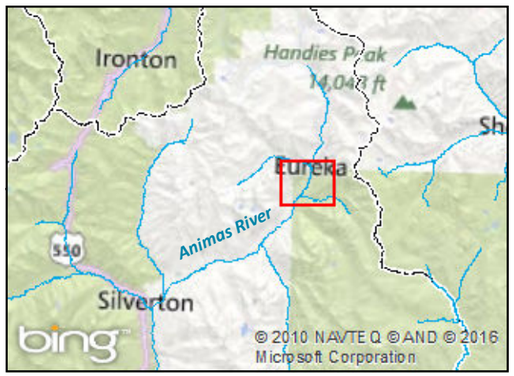
Data Sources:
Fluvial Samples & Wetlands: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Smelter, Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

Qualifier Definitions:
- U: Not detected above reported quantitation limit
- J: Estimated quantity
- J+: Estimated quantity; biased high
- J-: Estimated quantity; biased low
-UJ: Analyte was analyzed for, but not detected

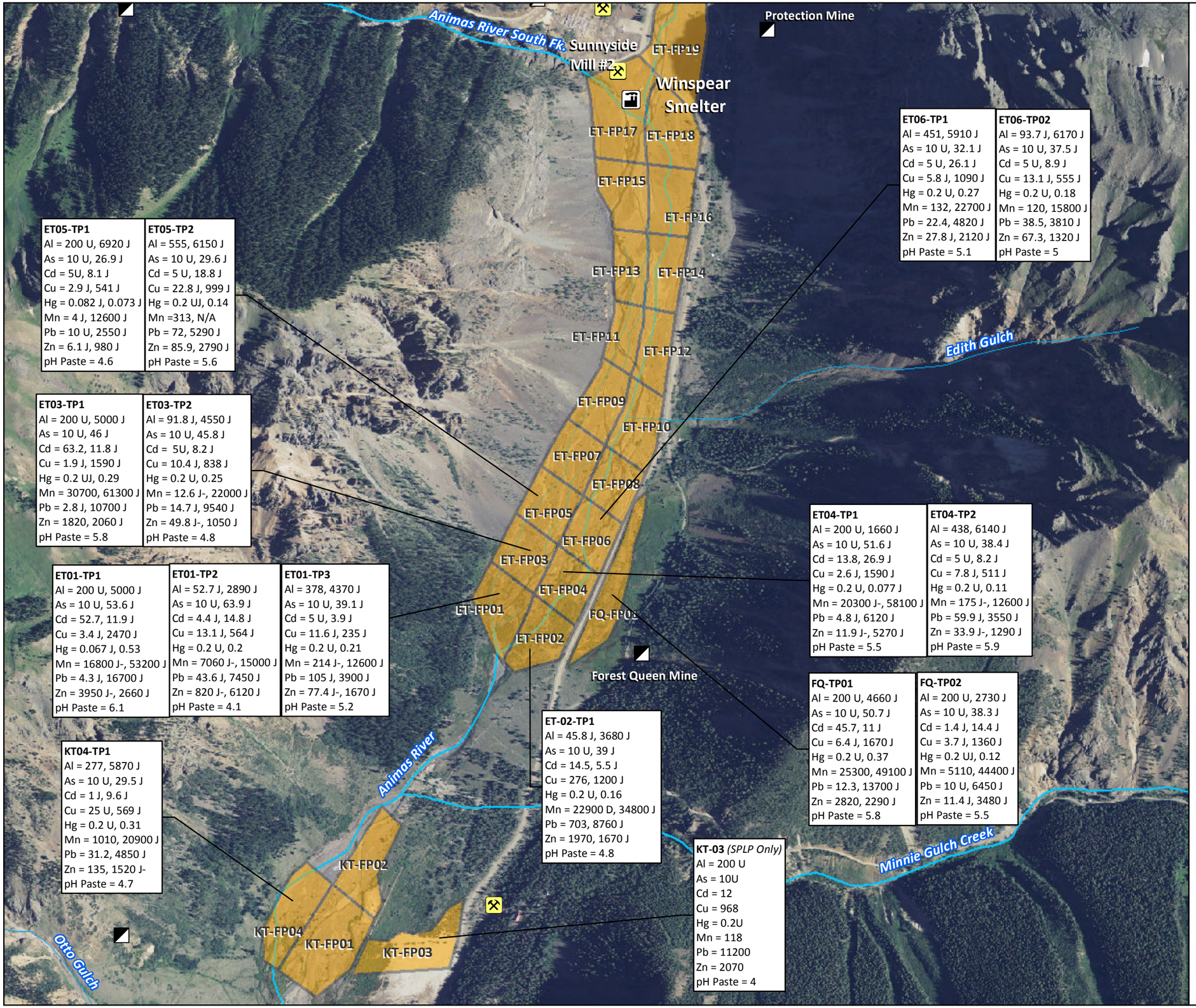
0 1,000 2,000 Feet

0 200 400 Meters



Area of Interest

Figure 2.6-2
Bonita Peak Mining District Site
Eureka & Forest Queen Tailings
August 2015 Test Pits Soil
Total Recoverable Metals Results
0 - 6 inches



Floodplain Sampling Area
Sampled at 0-6 inch depth
#10 sieve 2mm opening
(SPLP, Total Metals Respectively)
Units SPLP = ug/L, Total Metals = mg/kg

Smelter Locations

Mill Locations

Mine Locations

Rivers and Streams

Map Date: December 31, 2015

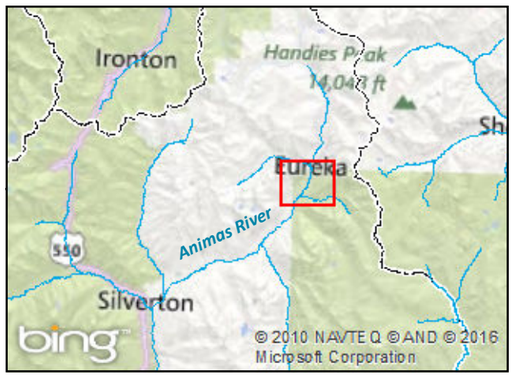
Data Sources:
Fluvial Samples & Wetlands: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Smelter, Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

Qualifier Definitions:
- U: Not detected above reported quantitation limit
- J: Estimated quantity
- J+: Estimated quantity; biased high
- J-: Estimated quantity; biased low
- UJ: Analyte was analyzed for, but not detected

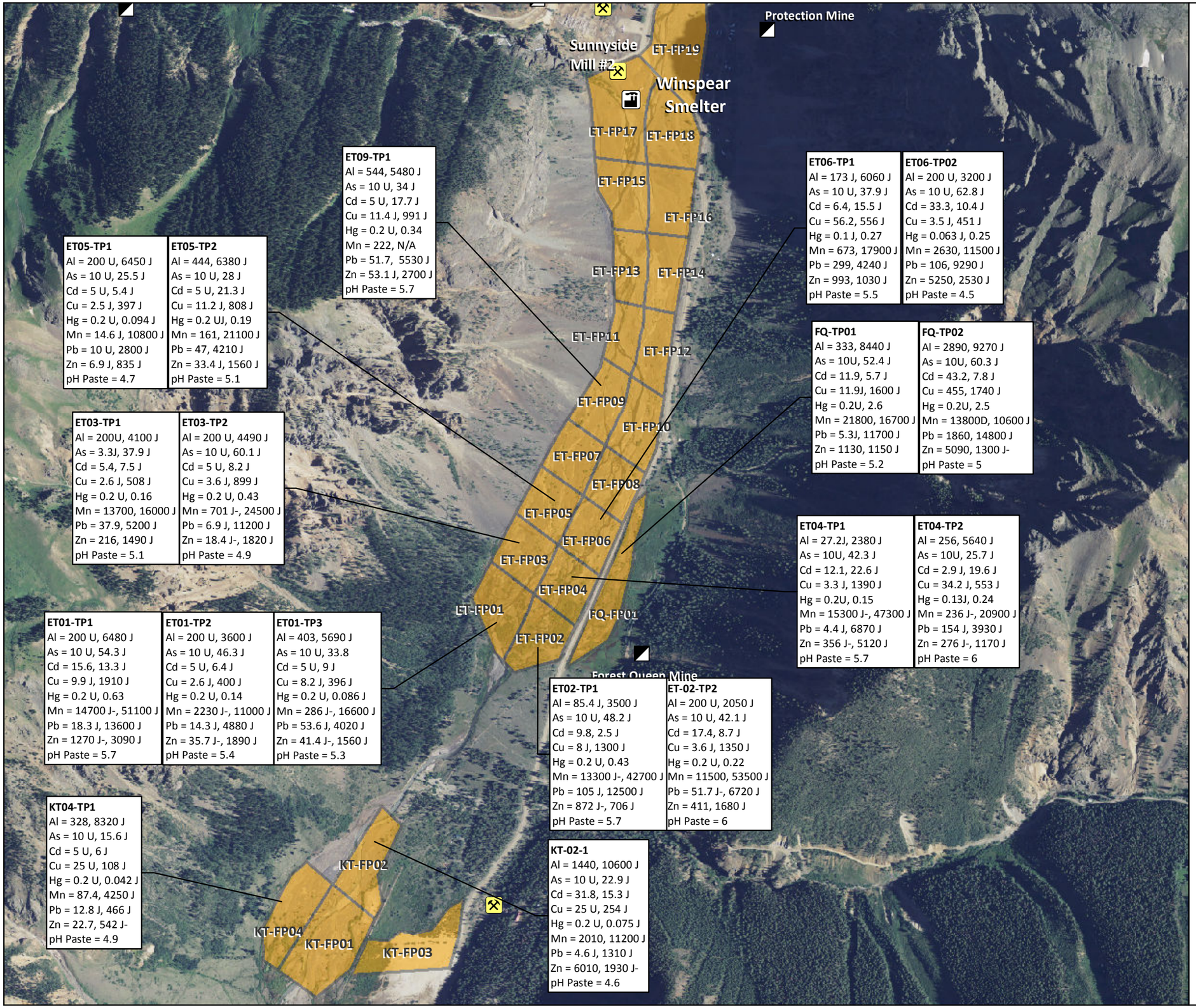
0 1,000 2,000 Feet

0 200 400 Meters



Area of Interest

Figure 2.6-3
Bonita Peak Mining District Site
Eureka & Forest Queen Tailings
August 2015 Test Pits Soil Total Recoverable Metals Results
6 - 18 inches



Floodplain Sampling Area
Sampled at 6-18 inches depth
#10 sieve 2mm opening
(SPLP, Total Metals Respectively)
Units SPLP = ug/L, Total Metals = mg/kg

Smelter Locations

Mill Locations

Mine Locations

Rivers and Streams

Map Date: December 31, 2015

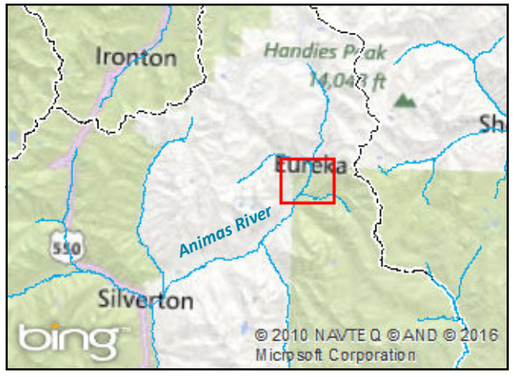
Data Sources:
Fluvial Samples & Wetlands: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Smelter, Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

Qualifier Definitions:
- U: Not detected above reported quantitation limit
- J: Estimated quantity
- J+: Estimated quantity; biased high
- J-: Estimated quantity; biased low
-UJ: Analyte was analyzed for, but not detected

0 1,000 2,000 Feet

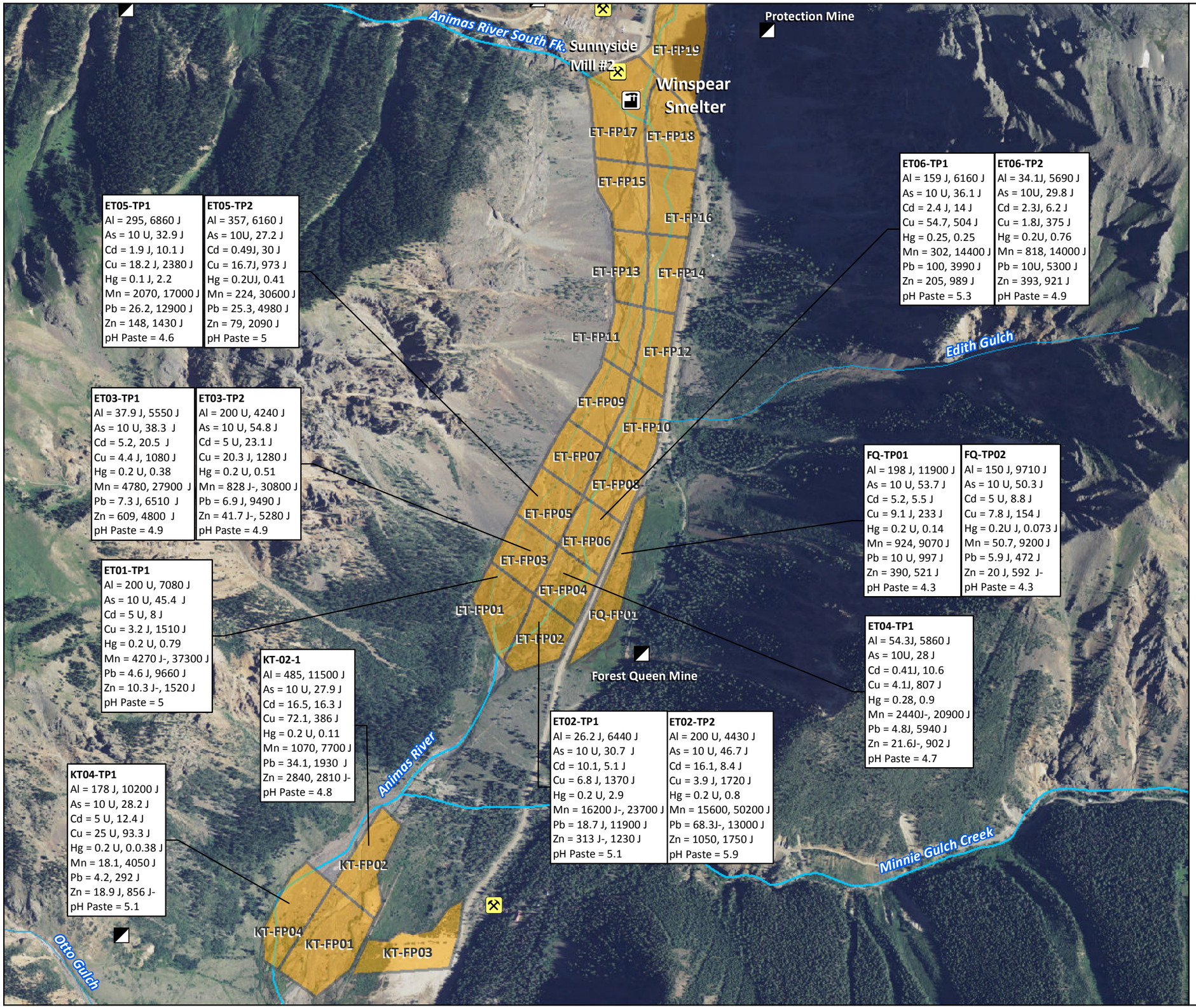
0 200 400 Meters



Area of Interest

Reference 32

Figure 2.6-4
Bonita Peak Mining District Site
Eureka & Forest Queen Tailings
August 2015 Test Pits Soil Total Recoverable Metals Results
18-30 inches



Floodplain Sampling Area
Sampled at 18-30 inches depth
#10 sieve 2mm opening
(SPLP, Total Metals Respectively)
Units SPLP = ug/L, Total Metals = mg/kg

Smelter Locations

Mill Locations

Mine Locations

Rivers and Streams

Map Date: December 31, 2015

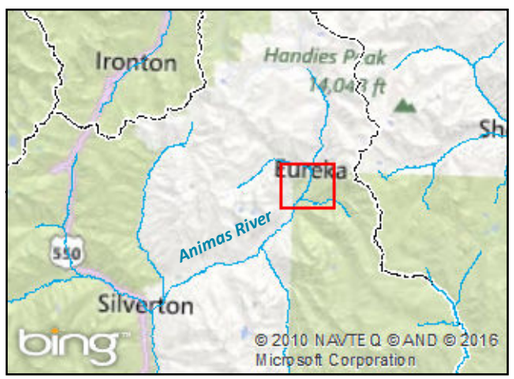
Data Sources:
Fluvial Samples & Wetlands: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Smelter, Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

Qualifier Definitions:
- U: Not detected above reported quantitation limit
- J: Estimated quantity
- J+: Estimated quantity; biased high
- J-: Estimated quantity; biased low
- UJ: Analyte was analyzed for, but not detected

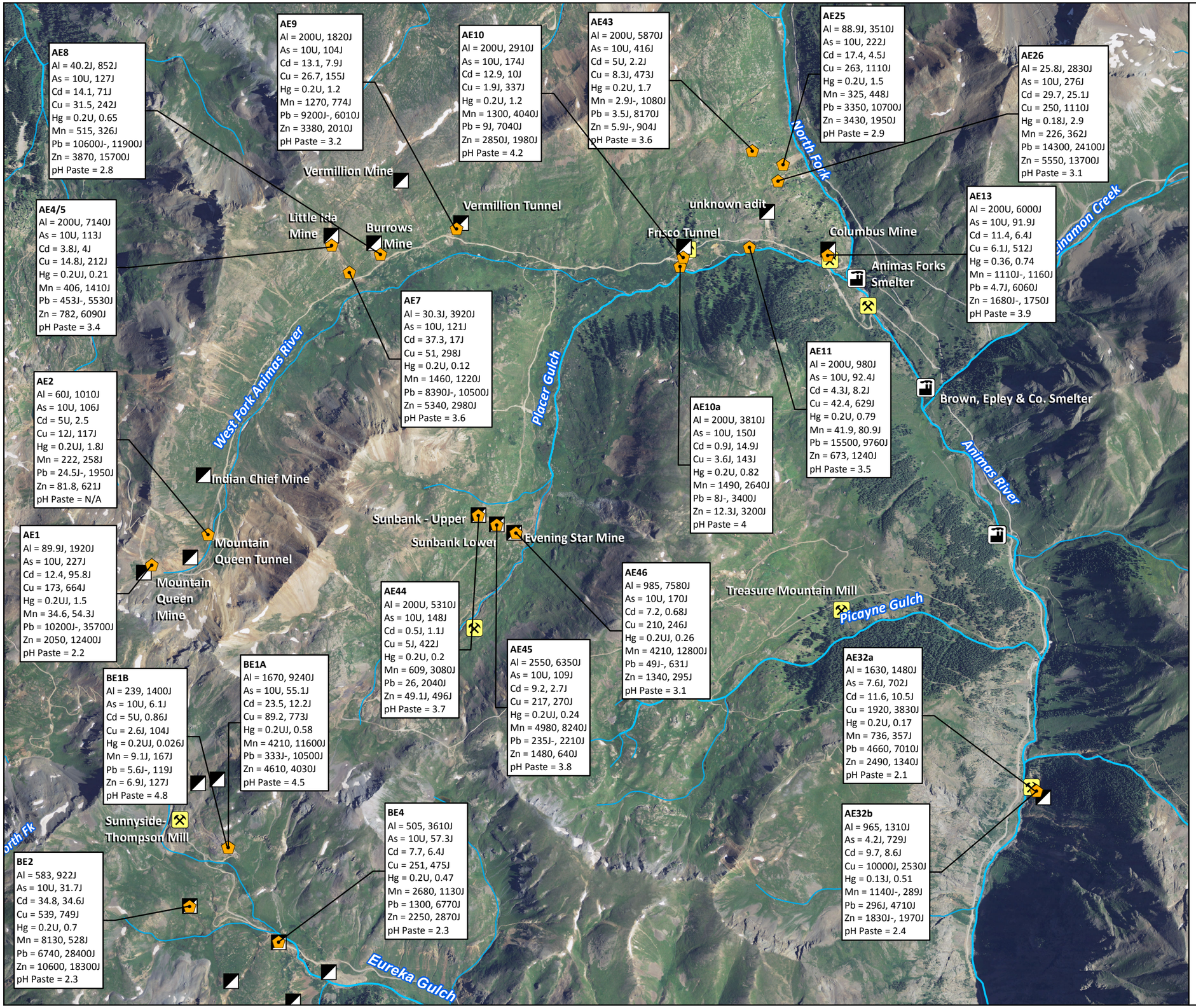
0 1,000 2,000 Feet

0 200 400 Meters



Area of Interest

Figure 2.6-5
Bonita Peak Mining District Site
Upper Animas Headwaters Area
2015 Soil/Waste Rock Sampling
SPLP & Total Recoverable Metals Results



Soil/Waste Rock Sample Locations
30 Point Composite Sample at 6 inch depth
#10 sieve 2mm opening
(SPLP, Total Metals Respectively)
Units SPLP = ug/L, Total Metals = mg/kg

Smelter Locations

Mill Locations

Mine Locations

Rivers and Streams

Map Date: December 31, 2015

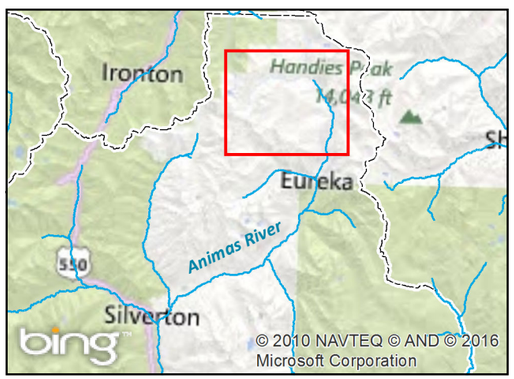
Data Sources:
Sample Locations: U.S. EPA (2015)
Rivers and Streams: CDOW (2004)
Counties: U.S. Census Bureau (2010)
Smelter, Mine & Mill Locations: USGS (2000)
Image: USDA NAIP (2011)

Map Projection: UTM Zone 13 N, NAD83, Meters

Qualifier Definitions:
- U: Not detected above reported quantitation limit
- J: Estimated quantity
- J+: Estimated quantity; biased high
- J-: Estimated quantity; biased low
-UJ: Analyte was analyzed for, but not detected

0 2,000 4,000 Feet

0 400 800 Meters



Area of Interest

Appendix A
Scanned Field Notebook Pages

2

CONTENTS

PAGE	REFERENCE	DATE

3

Location Animas Mining Date 6/9/15

Project / Client

A294

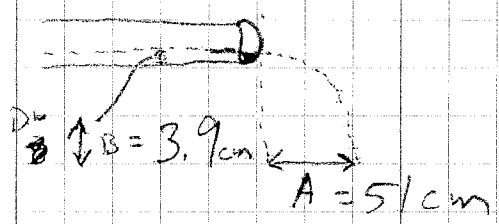
10:05

Samplers: Dan Wall Steve Auer

This is an opportunistic sample from the end of the PVC pipe below what looks to be an infiltration gallery. Water drains down a hill to the river.

PVC Pipe is 4" ID = 9.3cm

Flow recorded from level pipe



pH = 6.96

Temp = 14.4C

Sp Cond = 671 ~~SPC~~ uS/cm

DO = 5.86 mg/L, 57.1%

Picture taken after pipe placed on ground

100900

4

Location A30 Date 6/9/15

Project / Client Animas Mining

A30

Time: 10:40 Samplers Dan Wall
Temp 4.1°C Steve Auer
pH 7.52 S.U
DO 9.17 mg/L 70.2%
Cond 96.2 µs/cm
ORP 123.8

Collected samples for dissolved + total metals

photographs collected upstream + Downstream
100-0003 100-0004

No Flows collected due to unsafe conditions

Weather breezy mild w/ Temps @ 50°F

Snow slide on left edge water

Camera was LSAT Gray
Used YSI pro I.D. 4075 Rental from GeoTech

Location A29 Date 6/9/15 5

Project / Client Animas Mining

A29

Time 10:55 Samplers Dan Wall
Temp 11.0 °C Steve Auer
pH 6.42 S.U
DO 59.5% 6.55 mg/l
Cond 679.5 µs/cm
ORP 130.5

Used GeoTech YSI unit 4075

Collected samples for dissolved + total metal

No Flow measurement collected due to minimal area exposed

Weather breezy, cloudy and mild temps @ 50°F

Collect new GPS coordinates using ESRI unit #4

Collected 1 photo using ESRI Gray camera
100-0005

6

Location A27 Date 6/9/15

Project / Client Animas Mining

Time: 11:30
Temp 3.2
pH 7.52 s.u.
DO 70% 9.34 mg/l
Cond 25.8 us/cm
ORP 102.9

Samplers
Dan Wall
Steve Auer

Collected samples for dissolved and total metals

Collected GPS coordinates using ESAT Unit #4

Weather cloudy, breezy + warm temps upper 50's

Collected 2 photographs using ESAT gray camera 1 upstream 1 downstream
100-0007 100-0006

Water quality meter used was rental from GeoTech #4075

Location A25 Date 6/9/15

Project / Client Animas Mining

7

Time 12:15
Temp 4.0 °C
pH 7.80 s.u.
DO 8.90 mg/L 68.1%
Cond 127.4 us/cm
ORP 90.8 mV

Sampler Steve Auer

Collected samples for total and dissolved metals

Collected GPS Coordinates using ESAT Unit #4

Collected 2 photographs using ESAT Gray Camera 1 upstream 1 Downstream
100-0008 100-0009

Water Quality Meter
GeoTech Unit # 4075

~~Wate~~ Weather: Sunny to partly cloudy temps lower 60's

8

Location A24 Date 6/9/15

Project / Client Animas Mining

Time 12:45 Samplers: Dan Wall
Temp 2.3°C Steve Aver
pH 7.68
DO 67.8%, 9.26 mg/L
Cond 96.2 us/cm
ORP 89.2 mV

Flow not taken due to high water and Culvert

Location is 10 yds upstream of road above large culvert

Total and dissolved metals collected

photo
us 100-0010
ds 100-0011

Water Qual meter rental 4075
Camera ESAT gray
GPS ESAT unit 4

9

Location A14 Date 6/9/15

Project / Client

Time 13:15 Samplers: Dan Wall
Temp 3.5°C Steve Aver
pH 6.67
DO, 68.4%, 9.02 mg/L
Cond 88.6 us/cm
ORP 105.2 mV

Below Animas Forks Confluence ~50 yds below large culvert below Columbus m. 11,

Flow not taken due to high water

Total and dissolved metals collected

photo us 100-0012
ds 100-0013

Water Qual meter 4075 (rental)
Camera: ESAT gray
GPS ESAT unit #4

Weather P. cloudy warm. No precip.

10

Location A09 Date 6/9/15

Project / Client Animas Mining

Time 1350 Sampler Steve Ander
Temp 2.1°C Dan Wall
pH 7.19
DO 66.7%, 9.25 mg/L
Cond 65.6 uS/cm
ORP 94.0

Above confluence of west fork Animas and E Fork Animas. in E fork.

Flows not taken due to high water
Total & Diss metals collected
photo us 100-0014
ds 100-0015

Water Qual meter rental 4075
Camera is ESAT grey
GPS is ESAT unit #4

11

Location A10 Date

Project / Client

Time 1400 Sampler Steve Ander
Temp 3.2 Dan Wall
pH 6.18
DO 67.2%, 9.01 mg/L
Cond 98.8
ORP 110.3

Above confluence of west fork animas an E fork Animas in W. fork

Flows not taken due to high water
Total and diss metals collected

Photo us 100-0016
ds 100-0017

Water qual rental 4075
Camera is ESAT grey
GPS unit is ESAT #4

12

Location ~~A 12A~~ CG-12A (JC 7/10/15) Date 6/9/15

Project / Client Animas Mining

Time 1510 DW
Temp 8.6°C SA
pH 7.13
DO ~~6.46 mg/l~~ DW 69.6%, 7.55 mg/L
Condo 88.9
ORP 77.3

Below Bagly Pond discharge above River by about 25-30 yds, drainage has both Bagley Pond and what appears to be clean ~~drai~~ spring water. Flow was not consolidated until this location

Flume — [ha = 0.2 4"
hb = .09

us 100 - 0018
ds 100 - 0019
Bagley Pond - 0020

Flume #
GPS # 4
Water Qual # (rental) 4075
Camera ESAT gray

Location A 12 Date 6/9/15 13

Project / Client Animas Mining

Time 1600 DW
Temp 10.8 SA
pH 7.14
DO 62.4%, 5.89 mg/L
condo 466.6 uS/cm
ORP 46.1

Frisco Tunnel discharge below road.

us 100 - 0021
ds 100 - 0022

Flume # (EPA) 1 of 2
GPS # 4
Water Qual Rental - 4075
Camera ESAT Gray

Duplicate sample collected at this location labled Dup 2

Flume [ha = 0.21 8"
hb = 0.12

14

Location A-15 Date 6/10/15

Project / Client Animas Mining

Time: 0900
Temp 1.0°C
pH 5.33
DO 69.5% 9.91 mg/L
Cond 130.8
ORP 197.4

DW
SA
KB – Kirstin Brown

Decided to not collect any higher in California due to snow on road, snow and avalanches.

California Gulch above Placer Gulch. Above the road culvert crossing into Placer. 30ft. above the culvert. Location chosen based on the fact that there is no snow in one location – all of creek visible.

Weather – rained last night, cloudy, 45°, not raining now.

Photos –
US – 0023
DS – 0022

Flow Meter #3
GPS #4
Water Quality # (rental) 4075
Camera ESAT Gray

Location UA 5 Date 6/10/15 15

Project / Client Animas Mining

Time 10:30
Temp 1°C
~~pH~~
DO 9.87 mg/l
Cond 69.4 µs/cm
pH 6.18 s.u
ORP 150.5 mV

Samplers DW, SA

Used Geotech unit 4075

Collected samples for total + dissolved metals.

Collected photographs upstream 0024 downstream 0025
ESAT Gray Camera

No flows collected due to unsafe conditions

Collected GPS coordinates using ESAT unit #4 → UAS_New

Weather cool + steady rain

16

Location UA2 Date 6/10/15

Project / Client Animas Mining

Time 1145 Sagers Div, St

Temp 0.3°C

pH 5.29

DO 9.89 mg/L

Cond 141.3

ORP

Can't go above this location due to snow and weather. lots of rain, No flows due to snow cover.

photos 100-0026 ds

Metals, tot and diss collected

GPS #4

Water Quality Rental 4075

ESAT Gray Camera

17

Location CC21 Date 6/10/15

Project / Client Animas Mining

Time 1400

Temp 3.05

pH 3.83

DO 9.38 mg/L

Condo 205.8

ORP 374.2

SAP Mod to include Cement Creek in SPRING event.

Cement creek very high. Too dangerous for flows. Not raining at present but it has been all day

us 100-0027

ds 100-0028

Water Quality Rental 4075

ESAT Gray Camera

Location CC17 Date 6/10/15

Project / Client Animas Mining

Time 1430
Temp 2.5
pH 5.57
DO 9.56 mg/L 70.6%
CondD 189.6 µS/cm
ORP 259.6

photo us
ds

Water too swift for flows
Raining again
photo us 100-0029
ds 100-0030

Total and dissolved metals collected

Same equipment ~~at~~ PW as CC21

Location CC14 Date 6/10/14

Project / Client Animas Mining

Time 15:50
Temp ~~6.09~~ ~~6.09~~ 5.8°C
pH 6.09 SU
Cond 871 µS/cm
D.O. 5.23 mg/L
ORP 112.4 mV

Steve Thorn
Dan Wal
used Geotech unit # 4507

Collected photos 0031 upstream
0032 downstream

Collected samples for dissolved and total recoverable metals

Weather Rainy temps near 50°F. Snow very abundant in basin.
No flow measurements collect
It appears adit ~~flowing~~ discharge more water than in past years
Too wide for flume and too much fine sediment on bottom for Flow Tracker

20

Location A72 Storm opp Date 6/10/15

Project / Client

Time 17:40
Temp 5.7°C
pH 6.59 s.u.
D.O 9.19 mg/l
Cond 118.2 µs/cm
ORP 115.3 mV

Steve Auer
Dan Wall

Used Geotech YSI Meter 4075

Collected water samples for total & dissolved metals
Collected 2 photographs upstream 0035
ESAT Gray Camera downstream 0037

Rained most part of the day and all streams & tributaries flowing high and water was breaching both banks.

Animas River REW flowing over bank

Location M34 Storm opp Date 6/10/15

21

Project / Client

Time 1800
Temp 5.0
pH 6.72
DO 9.36 mg/L
cond 111.6
orp 111.7

Sampler SA, DW

Total and dissolved metals collected

photo < us 0035
ds 0036

With the heavy rain and runoff, we decided to collect storm opp samples at all gauge stations

Same equipment used as before (A72-storm opp)

End of Day YSI 4075 Verification

	Reading
Cond 999	→ 995
pH 4.0	3.93
pH 7.0	[illegible]

22

Location KT-FP02 Date 8/4/15

Project / Client Animas

Surface Water
Time: 9:15
Temp: 6.51°C
pH: 7.06 su
condo: 209.9 us/cm
DO: 8.89 mg/L

pore water
~~Temp:~~
~~pH:~~
~~condo:~~
~~DO:~~
LK 8/4/15

Total recoverable metals and dissolved metals surface water grab samples collected at thalweg with cubitainer by Leslie Christner (LC), for split.

Sunny, calm, clear. Water is clear
Substrate is natural color

Pore Water
Pore water collected by LC
Temp: 11.01°C
pH: 6.88 s.u.
Condo: 208.4 us/cm
DO: 6.95 mg/L

Collected on bank at 22cm depth

2 photos on SS camera 1065 upstream
GPS point collected unit 2 1066 downstream

Location KT-FP03 Date 8/4/15

23

Project / Client

Surface water
Time: 1045
Temp: 8.90°C
pH: 6.97 s.u.
Condo: 211.3 us/cm
DO: 8.75 mg/L

Pore water
Temp:
pH:
Condo:
DO:

Total recoverable metals and dissolved metals surface water grab samples collected at thalweg with cubitainer by LC for split

Sunny, breezy, clear water is clear substrate is natural color.

GPS point collected unit 2

2 photos on SS camera 1067 upstream
1068 downstream

No pore water collected could not find a suitable location. Spent 30 mins searching.

Location KT-FP04 Date 8/4/15

Project / Client

Time: 1125
Temp: 10.62 °C
pH: 7.09 su
condo: 214.2 us/cm
DO: 7.96 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected in cubitainer at thalweg by LC, for split.
Sediment collected at 1140 by LC - A41A
Breezy, sunny, water is clear. Substrate is natural color

2 photo on S. Skipper camera. 1069 upstream
1070 downstream

Pore water collected by Brian Sanchez (BS)
Temp: 16.31 °C
pH: 7.04 s.u.
condo: 213.1 us/cm
DO: 5.16 mg/L

GPS point collection on Unit 2

Location MT-FP01 Date 8/4/15

Project / Client

Time: 1345
Temp: 11.07 °C
pH: 6.98 su
condo: 212.5 us/cm
DO: 7.74 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected in cubitainer at thalweg by LC for split.

Light breeze, sunny. Water is clear to slightly blueish. Substrate is natural to chalky color.

2 photos on SS camera 1071 upstream
1072 downstream

GPS point collected on Unit 2.

No pore water collected. Could not find a suitable location.

26

Location A40(sed) ~~MT FP02~~ Date 8/4/15

Project / Client KB

8/4/15

Time : 1405
Temp : 11.43 °C
pH : 7.02 su
condo : 213.2 us/cm
DO : 7.80 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected in a cubitainer at the thalweg by LC for a split

Partly cloudy / Sunny. Water is clear to bluish. Substrate is natural color

Dup 01 for surface water and sediment collected here.

2 photos on SS camera. upstream 1073
downstream 1074

No pore water collected here. Unable to find sufficient location.
GPS point Trimble unit 2.

Location ET-FP01 Date 8/4/15

27

Project / Client

Time : 1430
Temp : 11.56 °C
pH : 7.06 su
condo : 214.7 us/cm
DO : 7.58 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected in a cubitainer at the thalweg by LC for a split

Sunny and partly cloudy. Water is clear, substrate is natural color

2 photos on SS camera upstream 1075
downstream 1076

GPS point on Trimble unit 2.

No pore water collected here. Unable to find suitable location.

Location A41C Date 8/4/15

Project / Client Animas

Time: 1540
Temp: 18.64 °C
pH: 7.00 su
condo: 192.8 µs/cm
DO: 9.66 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected with cubitainer by LC for split.

Sunny, hot, calm and partly cloudy.

Sediment sample collected by LC.

2 photos on SS camera upstream 1077
downstream 1078.

Barely flowing.

Location A40A Date 8/4/15

Project / Client Animas

Time: 16:15

Sediment sample collected by LC.

Temp: ~~23.84 °C~~ 13.38 °C
pH: ~~6.91 su~~ KB 8/4/15 7.16 su
condo: ~~217.4 µs/cm~~ 215.3 µs/cm
DO: ~~6.22 mg/L~~ 7.17 mg/L

Sunny, hot, light breeze.

2 photos on SS camera. upstream 1079
downstream 1080.

Use 2nd reading in situ.

30

Location ET · FP02 Date 8/4/15

Project / Client Animas

Time : 1635
Temp : 8.38 °C
pH : 7.34 su
condo : 161.1 us/cm
DO : 7.92 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected with cubitainer by LC for split.

Sunny and partly cloudy, calm. Water is clear and the water is bubbling from the substrate.

GPS point collected on Unit 2.

2 photos on SS camera. Upstream 1081
downstream 1082

Location ET - FP03 Date 8/4/15

31

Project / Client Animas

Time : 1650
Temp : 13.87 °C
pH : 7.23 su
condo : 223.3 us/cm
DO : 7.38 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected with cubitainer by LC at thalweg for split.

Cloudy, light breeze. Water is clear, substrate is natural color

GPS point collected on unit 2.

2 photos on SS camera. upstream 1083
downstream 1084

32

Location ET - FP04 Date 8/4/15

Project / Client Animas KB 8/4/15

Time: 1700
Temp: 12.99 °C
pH: 7.36 su
condo: 223.5 us/cm
DO: 7.47 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected with cubitainer at thalweg by LC for split.

Cloudy, light breeze. Water is clear. Substrate is natural color.

GPS point collected on unit 2

2 photos on SS camera upstream 1085
downstream 1086

Location ET-FP05 Date 8/4/15

33

Project / Client Animas

Time: 1725
Temp: 12.48 °C
pH: 7.38 su
condo: 223.6 us/cm
DO: 7.57 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected with cubitainer at thalweg by LC for split.

Cloudy, light breeze, sun starting to go down. Water is clear, substrate natural color.

2 photos on SS Camera upstream 1087
downstream 1088

GPS point collected on unit 2.

Location ET-FP07 Date 8/4/15

Project / Client Animas

Time: 1735
Temp: 12.21 °C
pH: 7.45 su
Condo: 223.7 us/cm
DO: 7.63 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected with cubitainer at thalweg by LC for split.

Cloudy, light breeze, sun is going down.

GPS point collected on unit 2.

2 photos on SS camera upstream 1089
downstream 1090

Location ET-FP06 Date 8/4/15

Project / Client Animas

Time: 1750
Temp: 12.30 °C
pH: 7.49 su
Condo: 223.7 us/cm
DO: 7.69 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected with cubitainer at thalweg by LC for split.

Cloudy, light breeze, sun is getting down. Water is clear, substrate is natural color.

GPS point collected on unit 2

2 photos on SS camera upstream 1091
downstream 1092

Location FQ- FP01 Date 8/5/15

Project / Client

2 photos on SS camera 1093
1094

Site is Dry, Walked around and found no water anywhere

Location ET. FP08 Date 8/5/15

Project / Client Animas

Time 9:00
Temp 6.30 °C
pH 7.14 su
condo 224.0 µs/cm
DO 8.16 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected with cubitainer by LC for split.

Clear, sunny, light breeze. Water is clear, substrate natural color.

GPS point shifted, new point collected on Unit 2

2 photos on SS camera upstream 1095
downstream 1096

Location ET - FP09 Date 8/5/15

Project / Client Animas

Time: 9:20
Temp: 6.55 °C
pH: 7.18 SU
condo: 224.2 us/cm
DO: 8.11 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected with cubitainer by LC for split.

Sunny, clear and calm. Water is clear, substrate natural color.

GPS location shifted, new point collected on unit 2.

Dup 02 collected here, for split with cubitainer.

2 photos on SS camera upstream 1097
downstream 1098

Location ET - FP10 Date 8/5/15

Project / Client Animas

Time: 9:45
Temp: 7.26 °C
pH: 7.25 su
condo: 224.3 us/cm
DO: 7.97 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected with cubitainer by LC for split.

Sunny, clear, light breeze. Water is clear, substrate natural color.

Location redirected, new GPS point collected on unit 2.

2 photos on SS camera. upstream 1099
downstream 1100

Location ET-FP11 Date 8/5/15

Project / Client Animas

Time: 1000
Temp: 7.35°C
pH: 7.30 su
condo: 224.6 us/cm
DO: 7.87 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected in a cubitainer by LC at thalweg for split.

Sunny, calm, clear. Water is clear, substrate natural color to slightly chalky.

Location redirected, new GPS point collected on unit 2.

2 photos on SS camera. upstream 1101
downstream 1102

Location CT-FP12 Date 8/5/15

Project / Client Animas

Time: 1015
Temp: 7.77°C
pH: 7.34 su
condo: 224.7 us/cm
DO: 7.80 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected in a cubitainer at thalweg by LC for split.

Sunny, calm and clear. Water is clear, substrate natural color to slightly white chalky.

Location redirected, new GPS point collected on unit 2.

2 photos on SS camera. upstream 1103
downstream 1104

Location ET-FP13 Date 8/5/15

Project / Client

Time: 1145
Temp: 10.26°C
pH: 7.41 s.u.
Condo: 225.3 uS/cm
DO: 7.37 mg/L

Sampling team
Leslie Christner

Total recoverable metals and dissolved metals surface water grab samples collected in a cubitainer by LC for split

Sunny, calm, clear, temps in the 70's

Substrate is natural looking

New GPS coordinate collected on Unit 2

2 photos on SS camera 1105 upstream
1106 downstream

Location ET-FP14 Date 8/5/15

Project / Client

Time: 1205
Temp: 10.71°C
pH: 7.43 s.u. In-situ # S1017
Condo: 220.3 uS/cm
DO: 7.05 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected in a cubitainer by LC for split.

Sunny breezy, partly cloudy, temps in the 70's

Substrate is natural looking no staining

New GPS coordinate collected on unit 2

2 photos on SS camera 1107 upstream
1108 downstream

Location A34 Date 8/5/15

Project / Client

Time: 1315
Temp: 10.51°C
pH: 7.67 s.u.
condo: 256.4 us/cm
DO: 7.08 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected in a cubitainer by LC for split

partly cloudy, calm, temps in the 70's

Substrate is natural looking, no staining

Sediment collected here

2 photos on SS camera 1109 upstream
1110 downstream

Location ET-FP16 Date 8/5/15

Project / Client

Time: 1410
Temp: 12.49°C
pH: 7.53 s.u.
condo: 212.6 us/cm
DO: 6.98 mg/L

Total recoverable metals and dissolved metals of surface water grab samples collected by LC for split.

partly cloudy, breezy, temps in the 70's

Substrate is natural looking, little to no staining

2 photos on SS camera 1111 upstream
1112 downstream

Location A33 Date 8/5/15

Project / Client

Time: 1430
Temp: 12.81°C
pH: 7.59 s.u. In-situ 5/017
condo: 213.2 µs/cm
DO: 6.73 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected by LC in a cubitainer for split.

Sunny, slight breeze, temps in the 70's. Substrate is natural looking with little to no staining

Dup-03 collected here
Sediment collected for total recoverable metals.

2 photos on SS camera 1113 upstream
1114 downstream

Location ES-FP01 Date 8/5/15

Project / Client

Time: 1645
Temp: 14.59°C
pH: 7.32 s.u.
condo: 228.3 µs/cm
DO: 6.35 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected by LC

Sunny, slight breeze, temps in the 70's

water is clear with slight white tint rocks have slight white stain.

2 photos on SS camera 1115 upstream
1116 downstream

Location ES-FP02 Date 8/5/15

Project / Client

Time: 1715
Temp: 14.16°c
pH: 7.37 s.u.
Condo: 230.5 us/cm
DO: 6.35 mg/L

Total recoverabe metals and dissolved metals surface water grab samples collected by LC

partly cloudy, slight breeze.

Water has slight white tint rocks are stained white.

2 photos on SS camera 1117 upstream
1118 downstream

Location ES-FP03 Date 8/5/15

Project / Client

Time: 1730
Temp: 13.64°c
pH: 6.97 s.u.
Condo: 231.2 us/cm
DO: 6.49 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected by LC

partly cloudy, slight breeze
temps in the 60's

Water has slight white tint
rocks are stained white

2 photos on SS camera 1119 upstr
1120 downstr

CONTENTS

PAGE	REFERENCE	DATE

Location Upper Animas Date June 09 2015

Project / Client

Upper Animas Sampling event beginning Tuesday June 09, 2015. Teams 384 have started at Eureka Mill site. Those present are Dan Wall, Steve Auer, John Wiebe, Ryan Bahnfleth and Jason Willis

The day is clear & sunny. Snow is present on the upper reaches of surrounding mountains.

4

Location Upper Animas Date June 09 2015

Project / Client

A32*

Time 832

Temp 1.7°c
DO 9.58 mg/L
Cond 96.9
pH 1.59

Scribe RB
Sampler JW

*Dup & Field Blank Collected Here.

A32 Dragon Gulch. Parked @ end of Campground & Hiked uphill to base of Waterfall where stream is no longer braided. GPS taken w/ Unit 4 by JW. Flow taken w/ Unit #3 by DW*. Pictures taken w/ Camera #5026453. Pic 182 ESAT Blue Camera.
Day is clear & sunny although site is in the shade. Stream is clear.

*Flow taken ~ 100ft upstream of sample location.

Location Upper Animas Date June 9 2015 5

Project / Client

A31

Time: 09:35
Temp: 2.9°C
DO: 8.55 mg/L
Cond: 94.6 µS/cm
pH: 7.43

Flow meter #1
YSI 4085
GPS unit #3
ESAT Blue camera

Scribe: JEW
Sampler: JW
Flow: RB
GPS: JEW

Photo: #3 upstream
Photo: #4 downstream

Day is clear + sunny. Location in full sun downstream of private residence approx. 300 feet. Flow taken 20 feet upstream of where the river braids. Flow taken in single channel. Water appears slightly cloudy. Site accessed by walking upstream along river bank from the parking spot at the campground.

Location Upper Animas Date June 9 2015

Project / Client

A28

Time: 10:50
Temp: 4.0 °C
DO: 9.07 mg/L
Cond: 93.1 µS/cm
pH: 7.57

Flowmeter: none
YSI 4085
GPS unit: #3
ESAT Blue Camera

Scribe: JEW
Sampler: JW
Flow: not taken
GPS: JEW

Photo #5: upstream
Photo #6: downstream

Sky clear with high clouds. Location downstream of Burns Gulch and Animas River confluence. Water is clear. Site accessed from road by descending a steep slope. Conditions too hazardous to measure flow.

Location Upper Animas Date June 9 2015

Project / Client

UA 8

time 11:05
Temp: 4.1 °C
DO: 9.79 mg/L
Cond: 90.7 µS/cm
pH: 7.60

Flowmeter: N/A
YSI 4085
GPS unit #3
ESAT Blue Camera

Scribe: JEW
Sampler: JW
Flow: not taken
GPS: JEW

photo #7: upstream
photo #8: downstream

Sky clear with high clouds. Location downstream of small inflow from drainage with mine features. Water is clear. Conditions too hazardous to collect flow. Site accessed from road and descending steep slope.

8

Location Upper Animas Date June 9 2015

Project / Client

A26

Time: 11:45
Temp: 3.2 °C
DO: 9.05 mg/L
Cond: 92.6 µS/cm
pH: 7.75

Flow meter: #1
YSI 4085
GPS unit: #3
ESAT Blue Camera

Scribe: JEW
Sampler: JW
Flow: RB
GPS: JEW

Photo: #9 upstream
Photo: #10 downstream

Weather is clear with high clouds. Location easily accessed from road with a culvert 10 feet downstream of where sample was taken.

9

Location Upper Animas Date June 9 2015

Project / Client

TM1

Time: 12:50
Temp: 7.1 °C
DO: 3.19 mg/L
Cond: 707.6 µS/cm
pH: 7.35

YSI 4085
GPS unit #3
ESAT Blue Camera
Flume: Baski 2 of 2
HA = 0.28 ft HB = 0.11 ft
Throat width = 8 in

Scribe: JEW
Sampler: JW
Flow: RB
GPS: JEW

Photo: #11 upstream
Photo #12

Weather clear with high level clouds. Location is Treasure Mountain Adit. Sample taken 10 feet downstream of adit head. Iron floc covering rocks and algae. Flow measured using flume. Site best accessed by ORV or high clearance short length vehicle. NOT recommended for long or wide vehicles.

Location Upper Animas Date June 9 2015

Project / Client

A11A

Time: 14:10
Temp: 4.3 °C
DO: 8.06 mg/L
Cond: 647.2 µS/cm
pH: 3.05

YSI 4085
GPS Unit 3
ESAT Blue Camera
Flume: Baski #2
Throat width: 4"
HA: 0.2
HB: 0.08
5-10% break through

Scribe: JEW
Sampler: JW
Flow: JW
GPS: JEW

Photo #13 upstream
Photo #14 downstream

Weather clear with high overcast. Site accessible from road. Sample taken at head of adit. Minor iron staining. Discharge runs through tailings and on to road before flowing into West Fork of Animas River. Flow taken using a flume.

Location Upper Animas Date June 9 2015

Project / Client

CG11

Time: 14:35
Temp: 3.0 °C
DO: 8.41 mg/L
Cond: 93.9 µS/cm
pH: 6.26

Flow meter: #1
YSI 4085
GPS Unit: #3
ESAT Blue Camera

Scribe: JEW
Sampler: JW
Flow: RB
GPS: JEW

photo: #15 downstream
photo: #16 upstream

Weather high overcast skies. Flow taken approximately 50 feet downstream of sample location. Site easily accessible from road. Water slightly cloudy.

Location Upper Animas Date June 9 2015

Project / Client

A11

Time: 15:20
Temp: 2.4 °C
DO: 9.19 mg/L
Cond: 91.7 µS/cm
pH: 6.33

Flow meter: #1
YSI 4085
GPS Unit: #3
ESAT Blue Camera

Scribe: JEW
Sampler: JW
Flow: RB
GPS: JEW

Photo: #17 upstream
Photo: #18 downstream

Weather overcast. Site captures drainage from several seeps/springs upgradient. Water clear to slightly cloudy. Flow taken approximately 100 feet downstream of where sample was taken.

Location Upper Animas Date June 9 2015

Project / Client

CG9

Time: 15:45
Temp: 2.1 °C
DO: 9.02 mg/L
Cond: 88.9 µS/cm
pH: 6.28

Flow meter: #1
YSI 4085
GPS Unit: #3
ESAT Blue Camera

Scribe: JEW
Sampler: JW
Flow: RB
GPS: JEW

Photo: #19 upstream
Photo: #20 downstream

Weather overcast. Sample collected just upstream of seep that drains into the West Fork Animas River. Flow collected approx. 30 feet downstream of where sample was taken. Water appears clear to slightly cloudy.

Location Upper Animas Date June 9 2015

Project / Client

A13

Time: 16:50
Temp: 1.3 °C
DO: 8.70 mg/L
Cond: 87.6 µS/cm
pH: 6.2

Flow meter #1
YSI 4085
GPS Unit: #3
ESAT Blue Camera

Scribe: JEW
Sampler: JW
Flow: RB
GPS: JEW

Photo #21 Upstream
Photo #22 Downstream

Weather overcast. Water clear to slightly cloudy. Site accessible by hiking through willows. Road impassable by vehicles above this site.

Location Upper Animas Date June 10 2015

Project / Client

A20

Time: 09:15
Temp: 0.7 °C
DO: 8.22 mg/L
Cond: 93.5 µS/cm
pH: 6.38

Flowmeter #1
YSI 4085
GPS Unit: #3
ESAT Blue Camera

Scribe: JEW
Sampler: JW
Flow: RB
GPS: JEW

Photo #~~21~~ 23 upstream
Photo #~~22~~ 24 downstream

Calibrated YSI 4085 at 08:35. Weather overcast with intermittent rain showers. Water clear. Site located approximately 15 feet above a small waterfall. Filter bottle appears to be frozen or defective. Unable to filter the DM sample on location using pump. Let it drip filter.

Location Upper Animas Date June 10 2015

Project / Client

A08

Time: 10:45
Temp: 0.6 °C
DO: 9.3 mg/L
Cond: 74.6 µS/cm
pH: 4.8

Flow meter: #1
YSI 4085
GPS Unit: #3
ESAT Blue Camera

Scribe: JEW
Sampler: JW
Flow: RB
GPS: JEW

Photo # ~~23~~ 25 upstream
Photo # ~~24~~ 26 downstream

Raining steadily. Water clear. Sample and flow taken at a location where there was an opening in the snowfield. 5% of flow was bypassing crossection behind a rock that was beneath the snow field.

Location Upper Animas Date June 10 2015

Project / Client

A05

Time: 11:30
Temp: 9.7 °C
DO: 9.3 mg/L
Cond: 69.6 µS/cm
pH: 6.6

Flow meter: #1
YSI 4085
GPS Unit #3
ESAT Blue Camera

Scribe: JEW
Sampler: JW
Flow: RB
GPS: JEW

photo # ~~25~~ 27: upstream
photo # ~~26~~ 28: downstream

Steady rain and sleet. Wooohoo! Sample taken downstream of culvert. Water slightly muddy from runoff above.

Location Upper Animas Date June 10 2015

Project / Client

CC48

Time: 13:55
Temp: 5.1 °C
DO: 8.84 mg/L
Cond: 190.8 µS/cm
pH: 4.73

Flowmeter: N/A
YSI 4085
GPS Unit #3
ESAT Blue Camera

Scribe: JEW
Sampler: JW
Flow: N/A
GPS: ~~JEW N/A~~ JEW

Photo #~~25~~29 upstream
Photo #~~26~~30 downstream

Overcast with intermittent rain showers. No flow taken due to hazardous conditions. Water orange and muddy. River raging.

* Duplicate sample taken.

Location Upper Animas Date June 10 2015

Project / Client

CC18

Time: ~~14:45~~ 15:00
Temp: 3.2 °C
DO: 9.01 mg/L
Cond: 248.6 µS/cm
pH: 3.5

Flowmeter: N/A
YSI 4085
~~GPS Unit #3~~ GPS N/A
ESAT Blue Camera

Scribe: JEW
Sampler: JW
Flow: N/A
GPS: ~~JEW~~ N/A

Photo #31 upstream
Photo #32 downstream

Raining hard. Water orange. Conditions too hazardous for flow measurements. No GPS coordinate taken. Established sample location.

20

Location Upper Animas Date June 10 2015

Project / Client

CC19

Time: 15:15
Temp: 7.5 °C
DO: 4.9 mg/L
Cond: 2208 µS/cm
pH: 5.10

YSI 4085
~~GPS Unit #3~~ GPS N/A
ESAT Blue Camera
Established flume.
0.46

Scribes: JEW
Sampler: JW
Flow: RB
GPS: N/A

Photo #33 upstream
Photo #34 downstream

Raining hard. Water orange. Sample taken at adit out flow. Flow from established flume after cleaning it out. Established sample location, no GPS coordinate taken.

21

Location Upper Animas. Date June 10 2015

Project / Client

CC18B

Time: 14:45
Temp: 3.2
DO: 8.98 mg/L
Cond: 236.8 µS/cm
pH: 3.68

YSI 4085
GPS: N/A
ESAT Blue Camera
Flow meter: N/A

Scribes: JEW
Sampler: JW
Flow: N/A
GPS: N/A

photo #35 upstream
photo #36 downstream

Overcast light rain. Water orange. No flow due to hazardous conditions. Established sample location, no GPS coordinate taken.

Location Upper Animas Date June 10 2015

Project / Client

CC07

Time: 15:45
Temp: 1.7 °C
DO: 9.4 mg/L
Cond: 402.8 µS/cm
pH: 2.02

YSI 4085
GPS N/A
ESAT Blue Camera
Flow: N/A

Scribe: JEW
Sampler: JW
Flow: N/A
GPS: N/A

Photo # 37 upstream
Photo # 38 downstream

Light rain, Water orange. Established location, no GPS coordinate taken. No flow taken, stream too braided.

Location Upper Animas Date June 10 2015

Project / Client

GEO3

Time:
Temp: °C
DO: mg/L
Cond: µS/cm
pH:

YSI 4085
GPS: N/A
ESAT Blue Camera
Flow:

Scribe: JEW
Sampler:
Flow:
GPS: N/A

Photo # 39 upstream
Photo # 40 downstream

In Book CC1

Location _____ Date _____

Project / Client _____

Location Upper Animas Date June 10 2015

Project / Client _____

CC03D

Time: 16:30
Temp: 8 °C
DO: 7.7 mg/L
Cond: 19.24 µS/cm
pH: 5.52

Scribe: JEW
Sampler: JW
Flow: JW
GPS: N/A

YSI 4085
GPS N/A
ESAT Blue Camera
Flume: ~~Basket~~ 2 of 2
HA: .38 15% loss
HB: .2
Throat width: ~~6"~~ 4" RM

Photo # 39 upstream
Photo # 40 downstream

Raining with episodes of sun. Flow taken with Basket flume 2 of 2. Sample and flow taken approx. 20 feet upstream of culverts. Established location, no GPS coordinate taken.

Location Upper Animas Date 08/04/15

Project / Client BE1

Kirstin Brown, Sherry Skipper, Ryan Monahan

08/04/2015 ~~BE-1~~ BE1

0935 AM Sunnyside Mine / Lake Emma area

- Area is big and not homogeneous
Road cuts through tailings

Accompanied by:
Pat Maley
Diane Crawford
Len Mason
} Kinross + Golder field team members

Divided area into 4 subareas for sampling based on appearance of material. Kirstin B. helped with making field determination of these areas. We did this to make sure that none of this areas were over represented in sample (composite)

3 samples taken - 30 point composites each
BE1-A roadside, downhill from road & uphill
BE1-B clinker or smelter waste? black, light material
BE1-C
~~BE1-D~~ no samples taken

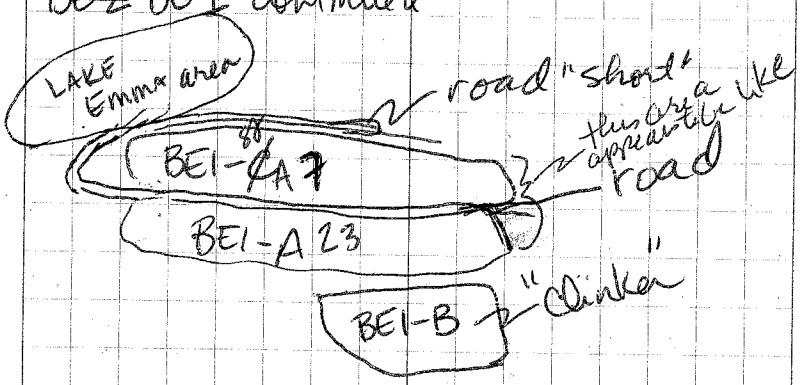
We did not use pin flags as area were odd shaped + hillsides

Location Upper Animas Date 08/04/15

Project / Client BE1

Kirstin Brown, Sherry Skipper, Ryan Monahan

~~BE2~~ BE1 Continued



Photos taken of general area including Lake Emma and individual areas to be sampled. S. Skipper Canon 5D 9218 - 9243

BE1-A - taken above + below road side
7 samples taken uphill of road +
23 samples downhill.

GPS points (polygon) taken by RM + KB to capture entire site and subsamples

Location Upper Animas Date 08/04/15

Project / Client

BE1 - continued

~~BT~~BE1-B - Clinker has coal in it and vegetation growing, no sulfides present, no mini rock obvious. Boiler may have been at the site w/ steam engine and this is boiler waste. Shoot & XRF before analyzing

Mountainside above sunnyside tailings has 5 levels of mines above Lake Emma KB - tailings are deep, pyrite, sphalerite, rhodonite (manganese) - black! galena? Lake Emma - waste rock placed in lake bed and capped with local material and revegetated. 9243 - 9256

Wildlife seen on site: chipmunks, pica, marmots, rosy finches, unknown hummingbirds sheep (large herd) grazing down hill of site

10:25 BE1-C sample taken

Location Upper Animas Silverton, CO Date 08/04/15

Project / Client

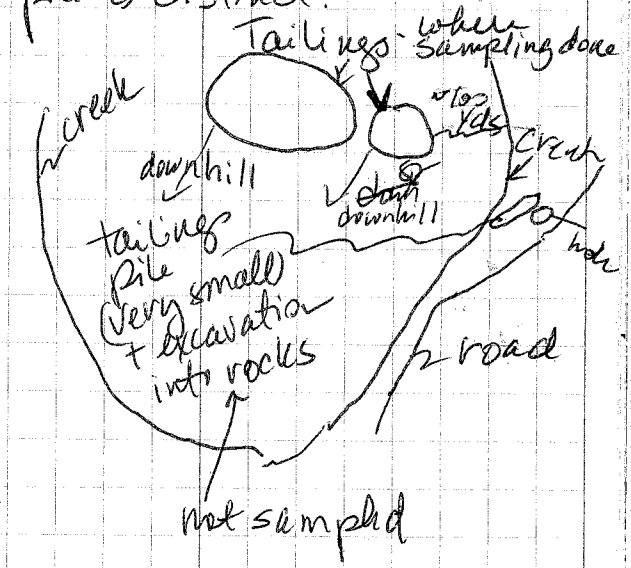
BE2 Kirstin Brown, Sherry Skipper, Ryan Monahan

BE2 Clipper Mine 11:45 using grid system, ten top, ten mid, ten bottom

Photos taken by S. Skipper w/ S. Skipper Canon 5D

GPS polygon - Kirstin Brown using Trimble Unit #3 (ESAT)

Tailings pile is distinct.



Location Upper animas Date 08/04/15

Project / Client

EG1 Kirstin Brown Sherry Skipper, Ryan Monahan

12:25 Sediment sediment
Tape measure laid for sampling
water is clear, substrate clear,
brownish - ~~orange~~ or orange, stream
is surrounded by wetlands
photos: 9269-9268
photos taken by S. Skipper w/
Skipper's Canon 5D
Sediment collected by Kirstin Brown

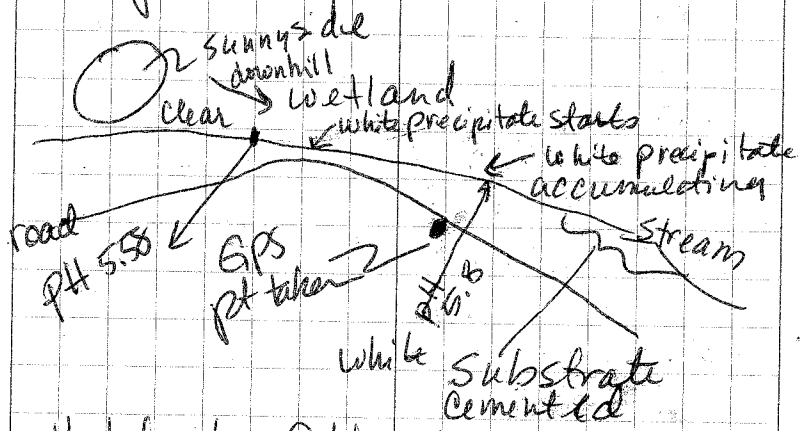
EG2 - Sediment collection
1320 Sediment collected By
R. Monahan; pt collected by RM EG2-01
Tape measure used to measure stream
reach, skipped peaty/organic part of stream
Stream downhill of Sunnyside site.
There is a road, wetland and hill
between stream sampling area and
Sunnyside Tailings site. Stream
is surrounded by meadows +
wetlands. Sheep grazing in
meadow area
photos taken by S. Skipper w/ S. Skipper
Canon 5D Camera: 9272-9273
water clear, substrate clean.

Location Upper Animas Date 08/04/15

Project / Client

Kirstin Brown, Sherry Skipper, Ryan Monahan

EG2A 1320
Water clear, substrate white - aluminum
precipitate. When flip rocks, iron particles
are all loose. Collecting sediment
difficult. KB collected sample.
GPS point collected EG 2A - aluminum



pH taken by Golder Assoc.

32

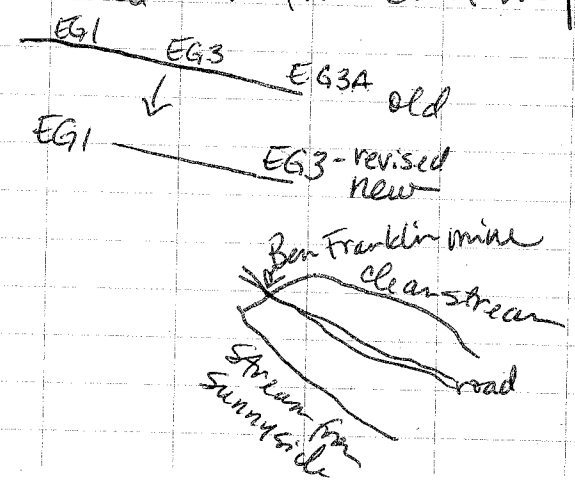
Location Upper Animas Date 08/~~05~~ 04 15

Project / Client
EG3/EG3A/EG3-revised/Ben Franklin Prospect

EG3A not taken. There has been major road work done in 2013 and rechannelized the water to bypass the stope. The water is directed under the road and joins stream from toe of Sunny Side Site

Samples were taken at site marked EG 3A on map. This site is actually ~~3A~~ EG3 on UAA map. Identified by Kirstin Brown.

GPS point retaken by RM as EG3 revised. Please remove old EG3 from ESAT map



Location Upper Animas Date 08/04/15 33

Project / Client
EG3/EG3A/EG3 revised/~~Ben Franklin Prospect~~ Prospect

Ben Franklin mine tailings covered with snow. Kirstin Brown feels it shouldn't be sample but next sampling (Sept. 2015) water quality/metals should be measured in small stream coming down slope from Benjamin Franklin Prospect mine.

Water quality parameters taken by Golder Assoc in stream @ EG3-revised, in stream that comes down from Sunny Side (EG2A):

Below confluence - Temp 11.8°C
pH 7.43 DO 7.77 mg/L
SC 172.0 uS/cm ORP 206.7
clear w/ armor on rocks Turb 8.60 NTU

EG-3
Temp 11.1°C DO 7.04 mg/L
pH 7.59 ORP 203.7 mV
SC 156.7 uS/cm Turb 10.7 NTU
clear

Below ~~EG~~ EG-2A Temp 14.0°C DO 6.42 mg/L
pH 6.80 ORP 197.7 mV
SC 214.4 uS/cm Turb 0.94

34

Location Upper Animas Date 08/04/15

Project / Client

EG3/EG3A/EG3-revised/ Ben Franklin Prospect

photos taken by S. Skipper w/ Skipper Canon 5D:

9278, 9279 9280 - EG3-revised

9280 - roadwork done by county, changes to water flow
- Benjamin Franklin mine in background

9281, 9282, 9283 - Benjamin Franklin mine

9284 - stream below BG 24

9285 " " " w/culvert

9286 - below culvert

9287 - " "

9288 - " "

note dramatic difference in substrate at confluence with culvert between up and downstream and the amount of white precipitate on the rocks)

Suggest for Sept 2015 event bracketing this confluence with water quality parameters + collection of surface water

35

Location Upper Animas Date 08/04/15

Project / Client

Kirstin Brown, Ryan Monahan, Sherry Skipper

BE4 - Ben Franklin mine tailings

Polygon taken around tailings by K. Brown ESAT #3

1550 sample (30 point composite) taken by K. Brown

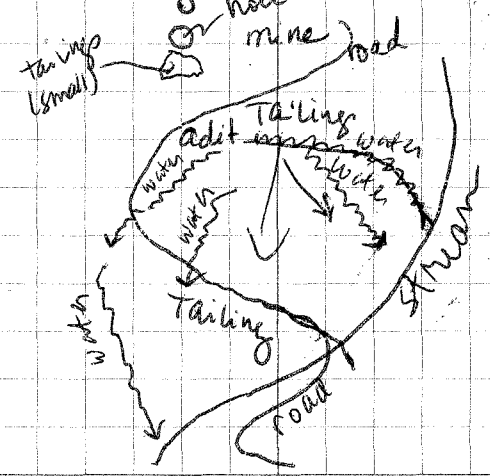
photos taken by S. Skipper & Skipper Canon 5D:

9289 - 9294 - panorama of tailing

9295 - adit

9296 - 9297 + 9298 - adit flow

9299 - 9300 - water moving through tailings



Location Upper Animas Date 08/04/15

Project / Client

Kirstin Brown, Ryan Monahan, Sherry Skipper

EG5 - Eureka Gulch below Ben Franklin Mine 16:05PM
- water running clear
- substrate colored w light, clay colored material
Sediment sample collected by R. Monahan above Terry Tunnel and up stream of high stream on far bank from an un-mined basin
Accesed from Terry Tunnel remedied site
photos taken by S. Skipper w/ Skipper Canon 5D
9388 - stream
9302 - "
9303-9305 Terry Tunnel Tailings remediation area
9306 - clean stream across from old Terry Tunnel Tailing site

New GPS point taken by ~~R. Monahan~~ K. Brown 8/2
EG5-revised
Pica seen on site

Location Upper Animas Date 08/04/15

Project / Client

Kirstin Brown, Ryan Monahan, Sherry Skipper

EG6 Eureka Gulch below Terry Tunnel 1715
Sample downstream of Terry Tunnel waste piles
Sediment samples taken by K. Brown and R. Monahan
Stream is clear, light to white coating on rocks - not heavy coating
photos taken by S. Skipper w/ Skipper Canon 5D

SLS
08/04/15

38

Location Upper Animas Date 08/05/15

Project / Client
A37 - Eureka Gulch

0900 S. Skipper and Kinross crew
Florence Boyer, Pat Maley, Diane Crawford
Len mason.

Water clear, substrate clear
sample started at when road
crosses creek and moved upward
water is very fast moving

Sediment collected by Golder
split for ESAT done by Golder
in field.

Photos taken by S. Skipper w/
S. Skipper Camera:
9312 - 9315

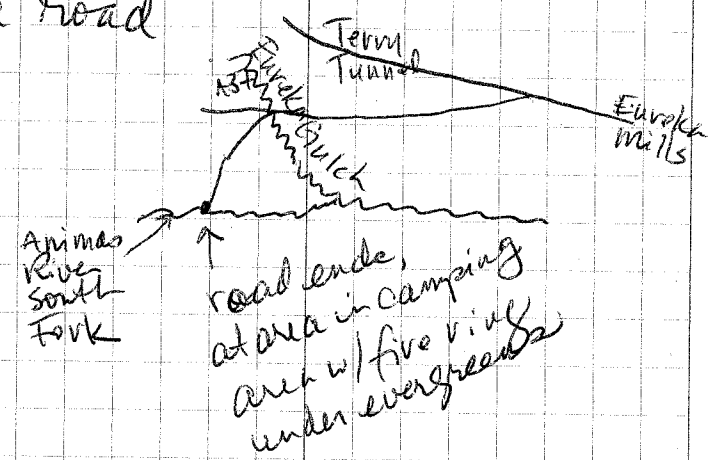
water quality parameters taken by
Golder

Location Upper Animas Date 08/05/15 39

Project / Client
08/05/15 ~~A37~~ A36

Animas River South Fk
0945

Sample area is at the end of
the road



Sediment collected by Golder
split for ESAT done by Golder
in field

Water is clear. There is a slippery
whitish red substrate covering

Photos taken by S. Skipper w/ Skipper
Canon 5D
9316, 9317, 9319

Water quality parameters taken by Golder

40

Location Upper Animas Date 08/05/15

Project / Client

E 09 S Upper and Kinnikinnick

Eureka Gulch downstream of confluence with Animas River South Fork

Sample time 10:40

Light

Weather clear, some red staining on shoreline

Sediment collected by Golder

Split taken for SIP by Golder

Water quality parameters taken by Golder

Shots taken by S Stanger w/ Hyger Canon 30D

9821-9823

Turbidity 5.71 NTU

Temp 7.3°C

DO 72.6%, 8.1 mg/L

SPC 248.3

pH 7.78

ORP 51.2

Location Upper Animas Date 08/05/15 41

Project / Client

A 36 Water quality parameters from Golder

Turbidity 0.85 NTU

Temp 5.4°C

DO 74.9%, 9.37 mg/L

SPC 263.9

pH 7.74

ORP 49.7

A 37

Turbidity 2.70 NTU

Temp 5.2°C

DO 76.8%, 9.16 mg/L

SPC 197

pH 7.79

ORP 176.4

GS SLF

08/15

Location A14 Date 9/29/15

Project / Client Upper Animas

Site: A14 Above road/culvert ~~Below~~ confluence
Sampler: B. Sanchez (USFW)
Flow: A. Todd (USGS)
Time: 08:00
3 water samples collected for
TM, DM, Alk-Anions
1 sed sample collected for TM/Hg ~1/2
4 oz jar filled. site very cemented.
ESAT IN-SITU unit #1 used
for H_2O quality readings

Temp 2.82°C pH 5.39
Cond 428.4 µS/cm DO 9.24 mg/L

Flow
Meter used for flow USGS ~~Rickly~~ 9/29/15 PY
9/29/15 PY ~~Pulse counter/timer~~ Pigmy P97112
2 photos taken w/ Nikon 31550496
upstream 1145
downstream 1146

Weather: partly cloudy skies w/ no wind & temps in the mid-upper 40's

Location A-9 Date 9/29/2015

Project / Client Animas

Site: A9 ~~California Gulch~~ ~~Animas~~ 9/29/15 PY, above confluence with ~~Animas~~ 9/29/15 PY Cal Gulch
Sampler: B. Sanchez
Flow
Time: ~~0800~~ 9/29/15 PY 0850
3 water Suples taken: DM, TM, Alk/Anions
ESAT Inst. #1 used
pH: 5.48 s.u. DO: 9.09 mg/L
Temp: 3.51°C Cond: 232.5 uS/cm

1 sed sample taken 4oz jar 80% filled

Weather: Sunny, no wind, clear

2 photos taken w/ Nikon 31550496
1147 upstream
1148 downstream

Flow done by A. Todd USGS
w/ Rickly digital pulse counter/timer
ID 60566

Location A-10 Date 9/29/2015

Project / Client Upper Animas

Site: A-10 ; ~~Animas~~ 9/29/15 PY, above cont. w/ ~~California~~ Animas 9/29/15 PY ~~Gulch~~ Cal Gulch

Sampler: B. Sanchez

Time: 09:20

ESAT In-situ #1 used

pH: 5.43 Temp: 4.03°C

DO: 8.97 mg/L Cond: 487.0 uS/cm

3 water Samples taken: TM, DM, Alk/Anions

1 sed sample taken for TM/Hg

2 photos taken w/ Nikon 37550496

1149 upstream

1150 downstream

Flow tracker ESAT Unit #2

Flow: 1.413 cFS

Flow completed by P. Yang ESAT

Weather: clear w/ temps in mid 50's

Location A-11A Date 9/29/2015

Project / Client Upper Animas

Site: A11-A Columbus Mine Adit

Sampler: B. Sanchez

Time: 0950

ESAT In-situ #1 used

pH: 2.89 s.u. Temp: 6.81°C

DO: 6.43 mg/L Cond: 2162 uS/cm

3 water Samples Taken: TM, DM, Alk/Anions

2 photos taken w/ Nikon 37550496

1151 upstream 1152 downstream

Flow: 1 inch flume by PY

Hq: 0.02 EPA ID of flume:

Hb: 0.01 0000005

Weather: mostly cloudy, mid-50's

breezy

Location CG-11 Date

Project / Client

Site CG-11; California Gulch above Columbus mine Adit
Time: 1020
Sampler: B Sanchez
ESAT In Situ #1 used
pH: 5.34 s.u Temp: 4.85°C
DO: 8.72 mg/L Cond: 486.0 us/cm

3 water samples taken: DM, TM, AK/Animas

2 photos taken w/ Nikon 37550496
1153 upstream
1154 downstream

Weather: Mostly Cloudy, breezy, mid 50's

FlowTracker ESAT Unit #2
Flow 1.275 cfs
Flow completed by PY, ESAT

Location A-11 Date 9/29/2015

Project / Client Upper Animas

Site A-11 California Gulch, downstream of Frisco Tunnel
Time: 1120
Sampler: B. Sanchez
ESAT In-Situ Unit #1 used
pH: 5.42 s.u Temp: 6.53°C
DO: 8.31 mg/L Cond: 490.3 us/cm

3 water samples taken: TM, DM, AK/Animas

2 photos taken w/ Nikon 37550496
1155 upstream
1156 downstream
Weather: mostly Cloudy, Sunny, warmer mid-60's

FlowTracker ESAT Unit #2
Flow: 1.922 cfs
Flow completed by PW

1 sediment sample collected
4 oz bottle about 30% full
Not much sediment in area to collect

50

Location CG-9 Date 9/29/2015

Project / Client Upper Animas

Site: CG-9: California Gulch above Frisco Tunnel

Sampler: B. Sanchez

Time: 11:50

ESAT Insitu #1 used

pH: 5.48 s.u. Temp: 7.50°C

DO: 8.11 mg/L Cond: 492.1 uS/cm

3 water samples taken: DM, TM, Alk/Anions

2 photos taken w/ Nikon 37550496

1157 upstream

BCS ~~TLS~~ 1158 downstream

Weather: Cloudy, breezy, mid-60's

BCS 9/29/15 ~~Flow Tracker ESAT Unit #2~~

Flow done by A. Todd USGS w/ Rickly digital pulse counter/timer ID 60566

Flow

Location A-12 Date 9/29/2015

51

Project / Client Upper Animas

Site A-12, Frisco Tunnel, Bagley tunnel mine drainage

Sampler: B. Sanchez

Time: 12:30

ESAT In-Situ #1 used

pH: 5.54 s.u. Temp: 8.08°C

DO: 7.97 mg/L Cond: 513.8 uS/cm

3 water samples taken: TM, DM, Alk/Anions

2 phots taken w/ Nikon 37550496

1159 upstream

1160 downstream

Weather: Cloudy, sprinkling, light wind mid-50's

Flow Tracker ESAT unit #2

Flow: 1.301 cfs

Flow done by PY, ESAT

Location ~~A-13~~ BCS 9/29/15 A-13 Date 9/29/15

Project / Client Upper Animas

Site A-13; California Gulch above both Frisco + Pond
Sampler: B. Sanchez
Time: ~~1305~~ BCS 9/29/15 1305
ESAT In-Situ #1 used
pH: 5.31 s.u. Temp: 8.23°C
DO: 7.89 mg/L Cond: 462.0 uS/cm
3 water samples taken: TM, DM, ALK/Anions
2 photos taken w/ Nikon 37550496
1161 upstream
1162 downstream

Weather: Cloudy, no rain, no wind
50's

Flow taken by A. Todd w/ Rickly
Digital Pulse counter/timer
ID: 60556

Flow

Sediment Sample collected
4oz jar filled

Location A-15 Date 9/29/2015

Project / Client Upper Animas

Site A15: California Gulch Above Placer
Sampler: B. Sanchez
Time 1405
ESAT In Situ #1 used
pH: 5.17 s.u. Temp 9.93°C
DO 7.51 mg/L Cond: 584.8 uS/cm
3 water samples taken: TM, DM, ALK/Anions
2 photos taken w/ Nikon 37550496
1163 upstream
1164 downstream

Weather: Mostly Cloudy, sunny
light breeze 60's

Flow taken w/ Flow Tracker ESAT
Unit #2 by PY, ESAT
Flow: 0.446 cfs

Sediment Sample taken
4oz jar full

Location A-20 Date 9/29/2015

Project / Client Upper Animas

Site A-20; Placer Gulch, above confluence with California Gulch
Sampler: B. Sanchez
Time: 1450
ESAT In-situ #1 used
pH: 5.87 s.u. Temp: 12.72°C
DO: 7.01 mg/L Cond: 279.3 uS/cm
3 water samples Taken: TM, DM, Alk/Anions
3 DUPS Taken: TM, DM, Alk/Anions

2 photos taken w/ Nikon 37550496
1165 upstream
1166 downstream

Flow taken w/ ESAT FlowTracker Unit #2
Flow taken by PY, ESAT
Flow: 0.495 cfs

Sed sample taken
DUP Sediment Sample Taken

Weather; partly cloudy, sunny; light wind

Location A-21 Date 9/29/2015

Project / Client Upper Animas

Site: A-21; Placer Gulch downstream Comet Adit
Sampler: B. Sanchez
Time 1600
ESAT In-situ #1 used
pH: 5.54 s.u. Temp: 13.44°C
DO: 6.82 mg/L Cond: 321.5 uS/cm
3 water samples taken
2 photos taken w/ Nikon 37550496
1167 upstream
1168 downstream

Flow taken by PY, ESAT, with 8" Flume
H_a 0.2
H_b 0.1
Flume made by Baski, Inc
Sediment Sample Taken
4oz jar approx 60% full

Weather; partly cloudy, sunny
breezy, 60's

Location A-21A Date 9/29/2015

Project / Client Upper Animas

Site : A-21A ; At Comet Adit
Sampler : B. Sanchez
Time : 1415
*ESAT In-Situ #1 used
pH : 4.79 s.u. Temp : 8.48°C
DO : 6.90 mg/L Cond : 383.8 uS/cm
3 water samples taken : DM, TM, Alk/Anions
2 photos taken on Nikon 37550496
1169 upstream
1170 downstream
Flow taken by PY, ESAT w/ 1" Flume
Ha : 0.27 EPA ID 0000005
Hb : 0.13

Adit drainage enters Placer Gulch at 3-4 sites observed

weather : mostly cloudy, breezy 60's

* Water Quality Parameters measured from In-Situ Cup

Location A-22 Date 9/29/2015

Project / Client Upper Animas

A-22
Sampler
Time 1635
ESAT In-Situ #1 used
pH : 5.97 s.u. Temp : 12.39
DO : 6.95 mg/L Cond : 331.7
3 water samples taken : DM, TM, Alk/Anions
2 photos taken w/ Nikon 37550496
1171 upstream
1172 downstream
Flow measured by PY, ESAT, w 8" Flume
Ha : 0.18
Hb : 0.08
Flume made by Baski, Inc

Weather : windy, storm clouds rolling in 50's

Sediment sample taken 4oz jar full

Location A-23 Date 9/30/2015

Project / Client Upper Animas

Site A-23; Placer Gulch below Gold Prince
Sampler: B. Sanchez
Time: 0830
ESAT In-Situ Unit #1 used
pH: 6.26 s.u. Temp: 5.35
DO: 7.61 mg/L Cond: 273.1 uS/cm
3 water samples taken: TM, DM, Alk/Anions
2 photos taken w/ Nikon 37550496
1173 upstream
1174 downstream

Flow taken by PY, ESAT w/
4" Flume
Ha: 0.2
Hb: 0.03
Flume made by Baski, Inc.
Weather: Mostly Sunny, breezy, low 40's

Location A-23A Date

Project / Client

Site: A-23A
Sampler: B. Sanchez
Time: 0925
ESAT In-Situ Unit #1 used
Water Quality Parameters taken in
In-Situ Cup
pH: 6.54 s.u. Temp: 6.71°C
DO: 7.79 mg/L Cond 256.3 uS/cm
3 water samples Taken: TM, DM,
Alk/Anions
2 photos taken on Nikon 37550496
1175 upstream
1176 downstream

No Flow taken, Not enough flow to measure
with 1 inch flume

Location CG-6 Date 9/30/2015

Project / Client Upper Animas

Site CG-6 California Gulch, downstream of Vermillion Tunnel
Sampler: B. Sanchez
Time: 1020
ESAT In-Situ #1 used
pH: 5.17 s.u. Temp: 5.83°C
DO: 8.23 mg/L Cond: 598.5
3 water samples taken, TM, DM, AHL/Animas
2 photos taken w/ Nikon 37550496
1177 upstream
1178 downstream

Flow taken by PY w/ Flowtracker #2
Flow: 0.427 cfs

Weather: Mostly sunny, breezy, 40's

Location A-16 Date 6/30/2015

Project / Client Upper Animas

Site: A-16 Vermillion Adit
Sampler: B. Sanchez
Time: 1050
ESAT In-Situ #1 used
pH: 6.64 s.u. Temp: 9.94°C
DO: 6.89 mg/L Cond: 579.4 uS/cm
3 water samples taken
2 photos taken w/ Nikon 37550496
1179 upstream
1180 downstream

Flow taken w/ 4" Flume
Ha: ~~0~~ 0.22 8/5 9/13/15
Hb: 0.20
Flume made by Baski, Inc

Flow taken w/ 1" Flume by PY
Ha: 0.45 EPAID: 0000005
Hb: 0.20

Weather: Cloudy, breezy, 40's

Location CG-4 Date 9/30/2015

Project / Client Upper Animas

Site CG4; California Gulch, below Burrows
Sampler: B. Sanchez
Time: 1135
ESAT In-Situ #1 used
pH: 5.01 s.u. Temp: 8.24°C
DO: 7.74 mg/L Cond: 631.9 uS/cm
3 water samples taken
2 photos taken w/ Nikon 37550496
1181 upstream
1182 downstream

Flow taken by A. Todd, USGS,
with Rickly digital pulse/counter/timer
ID 60566
Flow

Weather: Mostly cloudy, breezy, 50's

Location A-17B Date 9/30/2015

Project / Client Upper Animas

Site A-17B; Burrows mine
Sampler: B. Sanchez
Time: 1200
ESAT In-situ #1 used
pH: 6.49 s.u. Temp: 9.55°C
DO: 7.52 mg/L Cond: 188.9 uS/cm
* Water Quality Parameters taken in
In-Situ cup
3 water samples taken: DM, TM, MK/Anions
2 photos taken w/ Nikon 37550496
1183 upstream
1184 downstream

Flow not able to be taken, too little
discharge

weather: mostly cloudy, breezy

Location CG-3 Date 9/30/2015

Project / Client Upper Animas

Site: CG-3; California Gulch above DM11-16
Sampler: B. Sanchez
Time: 1230
ESAT In-Situ #1 used
pH: 4.94 s.u. Temp: 9.40°C
DO: 7.59 mg/L Cond: 707.9 uS/cm
3 water samples taken: TM, DM, Alk/Anions
* 3 DUP water samples taken: TM, DM, Alk/Anions
2 photos taken w/ Nikon 37550496
1185 Upstream
1186 Downstream

Flow taken by A. Todd, USGS
with Rickly digital pulse counter/timer
Flow:

Weather: Mostly cloudy, light wind, 50's

Location A-19A Date 9/30/2015

Project / Client Upper Animas

Site - A-19A, Mountain Queen Adit
Sampler B. Sanchez
Time 1335
ESAT In-situ #1 used
pH: 3.70 s.u. Temp: 2.53°C
DO: 6.96 mg/L Cond: 343.9 uS/cm
3 water samples taken. TM, DM, Alk/Anions
2 photos taken on Nikon 37550496
1187 upstream
1188 downstream

Flow taken w/ 1" flume EPA ID 000005
H_a = 0.06 H_b = 0.03

Weather: cloudy, sprinkling

Location DM-28 Date 9/30/2015

Project / Client Upper Animas

Site DM-28 ; Indian Chief mine
Sampler: P. Young
Time: 1420
* ESAT In-situ #1 used
pH: 6.88 s.u. Temp: 7.78°C
DO 7.59 mg/L Cond: 211.0 uS/cm
* Water Quality parameters taken in In-Situ Cup
3 water samples taken: DM, TM, Cond
2 photos taken w/ Nikon 37550496
1189 upstream
1190 downstream

No Flow taken; Discharge too little to measure with Flume

Weather: breezy, sprinkling

Location A-12 Date 10/1/2015

Project / Client Upper Animas

Site: A-12
Sampler: B. Sanchez
Time: 0900
ESAT In-Situ #1 used
pH: 6.25 s.u. Temp: 10.87°C
DO: 5.89 mg/L Cond: 841.2 uS/cm
3 water Samples taken: TM, DM, Alk/Anions
*3 DUPS taken: TM, DM, Alk/Anions
2 photos taken w/ Nikon 37550496
1191 upstream
1192 downstream

Flow taken with 1 inch Flume
Flume ID # 000005
Ha: 0.28
Hb: 0.13

Weather: mostly sunny, no wind, 40's

Animas River ab. Elk Creek 9/25/2014

A-73 - Animas upstream of Elk Creek
Time 1130
pH : 7.24 s.u.
Temp : 7.90°C
Cond : 317.9 uS/cm sp. cond.
DO : 8.61 mg/L

Photos: #43 - upstr. AR
#44 - dnstr. AR

Pore water collected by L. Christner @ 30cm
B. Sanchez collected TM, DM, DOC, Alk/Anions
P. Schmittdiel, Leslie Christner collected sediment

Sky is clear, few clouds, slight breeze from South. Air temp in mid-70's
Water is somewhat cloudy, blueish gray

Animas River

N34 Animas below 550 bridge

Time 0800 #2
pH 7.21
temp 2.49 °C
cond 1460 uS/cm
DO 9.44 mg/L

Sunny morning, clear sky
Water samples collected w/ extendo stick. Water running fast. K. Bartling collected water samples Total metals and dissolved metals

Photos: #4222 upstream
4223 downstream
Photos taken by S. Skipper
Sony - Skipper

USGS gauge for flow

Team 1: S. Skipper (SS), K. Bartling (KB)
S. Griffin (SG)

Animas River 06/09/15

A66 - Lackawanna Bridge - Animas

Time 0835 #2
pH 6.99
temp 3.07°C
cond 132.4 µ/cm
DO 9.58 mg/L

Total metal + dissolved metal + splits collected by SS + KB.
Parameters collected by SG
Water samples collected by Extado stick. Sunny day, high ~~fast~~ water.

Trimble #1 unit coordinates taken and Fish & Wildlife trimble

Photos #4224 upstream
#4225 downstream
Photos taken by SS w/ Sony Skipper

Team #1 - SS, KB, SG

Animas River 06/09/15

A66 - Lackawanna Bridge (con)

Split taken. Echo disk used for filtration for dissolved
Splits - filtered w/ syringe filter

A64 09:15 - Team 1, SS, SG, KB
~~To~~ ~~Split filtered with syringe filter~~ Nalgene SS
photos taken by S. Skipper w/ skipper Sony
upstream: 4226
downstream: 4227

Sunny, partly cloudy, low 60's. River running high - no flow. Water clear

Time 0915 #2
pH 7.11 pH units
Temp 3.83°C
Cond 131.3 µ/cm
DO 9.38 mg/L

Total metal + dissolved metal collected by SG + KB

Trimble points taken w/ ESAT #1 and USFWS units

Split sample w/ Kinross - used nalgene filter

Location: Animas River Date: 06/09/15
Project / Client:

A 64

#2

Time: 9:15
Temp: 3.71 °C
pH: 7.10 su
Condo: 131.2 µs/cm
DO: 9.35 mg/L

Total metals and dissolved metals taken with extendo-stick grab device, by SG. Cubitainer sample to split

Sunny, calm and temps in the 50s. River is high, fast water.

New GPS point taken at rubber point.

Water is clear - turbid.

Trimble #1 unit coordinate and fish + wildlife trimble.

2 Photos taken with sony skipper Team #1.

Location: Animas Date: 06/09/15
Project / Client:

A-60 Below bridge where Arrastra + Animas join

Time 1000
Temp 4.26 °C #2
pH 7.17
Cond. 132.1 µ/cm
DO 9.21 mg/L

TM + DO taken w/ extendo stick by KB + SS. Cubitainer sample to split
Parameters taken by SG

Starting to cloud up, but still sunny + calm.

Photos #4228 - upstream
#4229 - downstream
photo taken w/ Sony Skipper

Animas 6/9/15

A 58 Team 1: SS, SG, KB

Time: 10:30
Temp: 4.47 °C
pH: 7.33 su
condo: 119.5 us/cm
DO: 9.09 mg/L

#2

Total recoverable metals and dissolved metals surface water grab samples collected with extend-stick into cubitainer for split sample by KB + SG

2 photos on Sony Skipper #s:
upstream: 4229
downstream: 4228

Cloudy, but still calm. Temps low 60's
Water - clear. High water level.
Water fast moving and high flow - No flow done due to safety concerns. Samples + WQ done below bridge on Animas just upstream of confluence of Animas & Animas River
New GPS points taken with ESAT #1 + USFWS trimbles

Animas 6/9/15

A 55 Team 1 SS, KB, SG

Temp 5.99°C
Time 1120
pH 7.22
cond 134.8 us/cm
DO 8.59 mg/L

#2

TM + DM collected w/ KB w/ extend stick. Cubitainer used to collect split sample

photos: S. Skipper Camera (Sony)
upstream: 4230
downstream: 4231

Sample @ USGS station - Howardsville

Overcast, light wind, low 60's
Water high - clear
New GPS points taken w/ ESAT #1 + USFWS Trimbles

Duplicate taken -
Field Blank taken -

Location: Animas Date: 06/09/15

Project / Client:

A47 - 12:40 - Team 1 KB, SG, SS

Time : 1240
~~pH~~ Temp: 5.58°C #2
pH : 7.56
Condo : 119.4 µg/cm
DO : 8.71 mg/L

Accessed 2 track from bridge @ Howardsville
High velocity stream, rocky bottom.
flow taken w/ flowtracker in road bed - depth of water was good. Flow done by KB using: Unit 4

Photos taken w/ S. Skipper's camera (Sony) by S.S. - 4 photos taken
upstream : 4233 side: 4235
downstream: 4234 downstream to river: 4236

Sun out, some clouds, mild breeze, mid-60's

Samples for dissolved + total metals collected by S.G. No split @ this site.

Location: Animas Date: 06/09/15

Project / Client:

A45 - 13:35 - Team 1 KB, SG, SS

Temp : 7.58°C
pH : 7.27 su
Condo : 134.6 µ/cm
DO : 8.40 mg/L

Accessed from road alongside river
Same road as A47. - just downstream of wetland area.

High flow, turbid water, rocky bottom
No flow taken.

2 photos w/ Sony Skipper Photos #:
upstream : 4237
downstream : 4238
Sun out, some clouds, breeze, mid 60s
Samples for dissolved and total metals using extendo pole by SG.

Samples for dissolved + total metals collected by SG

partly cloudy - 70's, light wind

80 Location Animas Date 6/9/2015

Project / Client

A-41A - below Minnie

#2

Time: 1425
temp ~~7.89°C~~ 6.64°C
pH ~~7.29~~ 7.58
cond ~~156.5~~ 119.2 µ/cm
DO ~~6.63~~ 8.38 mg/L

TM + DM collected by KB using extendo stick Parameters collected by SG

Cloudy

Photo #4239 upstream
#4240 downstream
Photo by Sony Skipper

Call Ahead!
↳ Joe Jepson 970 387 5400
Canyon View Motel
4215 CR2 Middleton

Location Animas Date 6/9/2015

Project / Client

A40 - Team 1 SS, KB, SG
Downhill from Minnie Gulch sign
Bend in river

Time 1515
Temp 7.11 °C
pH 7.27
Cond 126.8 µ/cm
DO 8.37 mg/L

TM + DM collected by KB using extendo stick Cubatainer used to collect splits. Parameters by SG

Cloudy high flow, rocky bottom

Photo by Sony Skipper
#4241 upstream
#4242 downstream

Trimble battery out so point taken on Fish + Wildlife trimble

Location: Animas Date: 6/9/15

Project / Client:

A40A - Team 1

Time: 16:25
Temp: ~~6.57 °C~~ 6.26 °C KB 6/9/15
pH: ~~7.25 su~~ 7.29 su
condo: ~~132.0 us/cm~~ 113.2 us/cm
DO: ~~8.38 mg/L~~ 8.56 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected via extendo-pole for split by ~~SG~~ KB

Flow is high, fast velocity. Cloudy, breezy.

Trimble unit #1 battery low, GPS taken with Fish + wildlife unit, by SS.

Sample taken upstream of input from the Forest Queen tailings.

Photos #4243 - upstream on Sony Stripper
4244 - downstream

There are 2 A40A - New files
A40A - New is in the wrong location
A40A - New 2 is CORRECT!

Location: Animas Date: 6/9/15

Project / Client:

~~A40A - Team 1~~

KB 6/9/15

A34 - Team 1
~~Time~~ Time: 17:05
~~Temp~~ Temp: 4.41 °C
~~pH~~ pH: 7.48 su
condo: 131.4 us/cm
DO: 8.87 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected via extendo-pole by SG, for split

Flow is high, fast velocity. Cloudy + breezy.

Still charging KB 6/9/15
~~GPS taken with Trimble unit #1~~ and with Fish and wildlife GPS unit by SS.

2 Photos: upstream #4245, downstream #4246

Location Animas Date 6/10/15

Project / Client

EG6

Time: 0900
Temp: 0.97°C
pH: 7.36 su
cond: 130.7 us/cm
DO: 9.29 mg/L

Total recoverable metals and dissolved metals collected via extendo stick by SG.

Water is clear, high flow, fast velocity.

GPS point taken on Fish and Wildlife unit.

2 photos on Sony Skipper upstream # 4252
downstream # 4251

Cloudy, foggy.

Location Animas Date 6/10/15

Project / Client

The road beyond EG6 toward Terry Tunnel had a snow slide at least 20 ft deep. Hard snow, unable to safely cross. Imminent and substantial threat. Also at a 50° angle. Were not able to collect the following samples including: A38, A39, EG5, ARD1, EG4, EG2A, EG2, EG3, EG1, DM32, EG3A, DM33, MCO

Location: Animas Date: 6/10/15

Project / Client:

DM34

The adit was dry. We scouted the area and could not find any water. A new trimble coordinate was taken on the Fish and Wildlife unit.

5 photos on Sony Skipper camera:
4259 # 4261 # 4263
4260 # 4262

Kittimack Mine Tailings

SG collected a ~~grab~~ composite sample for soil. KB 6/10/15

4264 - # 4275 photos on Sony Skipper.

Location: Animas Date: 6/10/15

Project / Client:

Bakers Bridge

Time: 1510
Temp: 7.13 °C
pH: 7.47 su
Condo: 141.6 µS/cm
DO: 10.54 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected via extendo stick by NP

River is very high, fast velocity. Water is turbid

2 photos by Sony Skipper camera upstream # 4278, downstream # 4279

New GPS point on Unit 1 Trimble and Fish and Wildlife unit.

Duplicate collected here.

Location _____ Date _____

Project / Client _____

A55

8/4/15

Time 12:10

Collected sediment samples for total Recoverable metals

Collected 2x volume for split samples with Sunrysite

A48

8/4/15

12:30

Collected sediment for total recoverable metals

A45

8/4/15

13:00

Location _____ Date 8/5/15

Project / Client _____

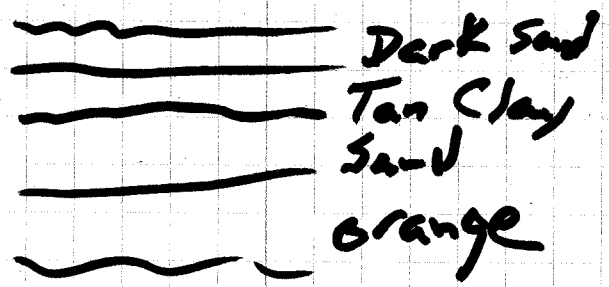
ET02-TP2

Test pit was dug to ~ 30" depth

Samples 0-6"
6-18"
18-33"

Split samples with mining company

Pit profile



Location ET02-TP1 Date 8/5/15

Project / Client

Time: 1035

0-6"
6-18"
18-30"
} collected samples along the profile for various depth intervals. Split samples

Water encountered at 32"

Orange and dark brown clay.
Wet and moist from about the top all the way down.
Soil is also slightly silty.
Bright orange layer starts about 1 foot down.

New GPS coordinate with Unit 1

3 photos on iPhone SA.

Photos taken by S. Skipper w/ Canon 5D
9356 - 9361

Location ET01 - TP1 Date 8/5/15

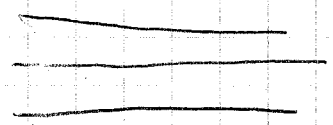
Project / Client

Time: 11:15

Water encountered at 40" depth.
Total depth 4'2".

Orange, tan and, black layers.
Very sandy and saturated.
The bottom of the pit is unstable and filled quickly with water.
There is a distinctive black layer and an orange layer above.

0-6"
6-18"
18-30"
} collected samples along the profile for various depth intervals. Split samples with mining company.



3 photos on SA iPhone.
clumps together when wet.

Location ET01 - TP2 Date 8/5/15

Project / Client Animas

Time: 11:55

Shallow pit hit water at 22"

Silty and dark brown layer with orange mixed in. Rocky through the whole pit, sandy does not clump.

3 photos on SA camera.

Highly mixed, stream gravel. Seems to be a high velocity area, with mixed in tailings.

0 - 6"
6 - 18" > Collected samples along profile at various depth intervals. Split samples with mining company.

New GPS point collected with unit 1.

Breaks off in layers.

Location ET01 - TP3 Date 8/5/15

Project / Client Animas

Time: 1225

Shallow pit of 29" depth. Hit water at 22". 1" of water.

Vegetation on top, soil is silty/sandy and dark brown. Also rocky and mixed.

3 photos on SA camera

0 - 6"
6 - 8" > Collected samples by SA along profile at various depth intervals. Split samples with mining company.

Manganese conglomerate about 6" down underneath a lot of roots. No orange.

New GPS point collected with unit 1. Same spot as 30 point composite.

94 Location: ET04 TP-1 Date: 08/05/15
Project / Client: Upper Animas
S. Skipper, S. Auer

Time: 1345 ; sample time ~~1350~~ 1355 08/05/15

Pit depth 44" in middle, evidence of tailings on surface
Sandy material on top
Some cobble at bottom of pit

Layer of orange @ 2 inches, silty material (grayish) above orange

Cobble starts at 8" and continues to bottom of pit

pH tested in field by Golder Assoc. ~6.5. One test @ 5 PH. S. Auer sulfur smell

photos taken by S. Skipper w/ Canon 5D 9329-9335

0-6" } Collected by S. Auer
6-18" } at various depth intervals
18-30" } Split samples w/ Golder
~ actually 2 3 foot grab

Area has sand over wide area around test pit. Stream ~ 10 yards from pit

New GPS point taken by S. Skipper ET04 TP1

Upper Animas 08/05/15

ET04 TP-~~02~~ 01 08/05/15

Area around pit is cobble stained bluish black (manganese)

Time: 1450

Lots of cobble mixed w/ soil. Top layer has orange tailings.

photos taken by S Skipper w/ Canon 5D 9336-9339

top layer light brown-gray ~6" then layer of dark cobble that was cemented ~ 2 feet then area beneath to 40" that is looser. Cemented layer is thinner toward road. Golder assoc identified the cemented area as "magnocement"

0-6" } collected by S. Auer at various
6-18" } depth intervals. Split samples
18-30" } w/ Golder Assoc

New GPS point taken by S. Skipper
ET04_TP2

96

Location ET06 TP-1 Date 08/05/15

Project / Client Upper Animas

S. Skipper S. Auer

Time: 1545

Pit depth: 48"

photos taken by S. Skipper w/ Canon 5D
9340 - 9344

Cobble on top and mixed through pit. At 2 feet less cementing. Cemented substrate above 2 feet top layer light brown - black

0-6" } collected by S. Auer at various
6-18" } depth intervals, split
18-30" } samples with Golder Assoc

site about 40-50 yards from road

New GPS point taken by S. Skipper
ET06_TP1

08/05/15 SS

97

Location ET06_TP2 Date 08/05/15

Project / Client Upper Animas

S. Skipper S. Auer

Time: 1635
Pit depth: 46"

Photos taken by S. Skipper w/ Canon 5D
9345 - 9348

Site dug ~30 yards from water channel and ~100 yards from road. Edge of vegetated area and cobble (small) gravel bed.

New GPS point taken by S. Skipper
ET06_TP2

Starting at just under surface/plant area, orange (primarily) and black tailings to bottom of pit
orange lens thick to thin top to bottom. using hand lens, quartz crystals see a black tailings

0-6" } collected by S. Auer at various
6-18" } depths split samples
18-30" } with Golder Assoc.
Golder taking discrete sample of orange lens @ 1 ft.

Photos 9349 - 9355 upstream and around pit

Location: ET03 - TP1 Date: 8/6/15

Project / Client:

Time: 8:50
Pit depth: 4 ft.

3 Photo taken by KB on EIA7 S82852 camera #s 0368, 0369 and 0370.

0-6"
6-18"
18-30"
> samples collected along profile at various depths split samples. by S. Acer

2½ / 3 ft soil is less cemented and starts to crumble.

Orange layer about 6" down. Then a black / orange mixed layer. Coarse grain tailing / sand mix at about 3' depth.

New GPS point collected on unit 1.

Rocky and cobbles mixed throughout.

Location: ET03 - TP2 Date: 8/6/15

Project / Client: Animas

Time: 9:30
Pit depth: 49" total

Soil is very easy to dig through. Hit water at 48", 1" of water.

Roots near the top, silty / rocky (small) layer. Followed by orange / black tailings layer. Gritty sand near 3 ft.

0-6"
6-18"
18-30"
> Samples collected along profile at various depths split samples by S. Acer.

Become very rocky near the bottom below the fine orange layer.

3 photos on S82852 camera # 0371, 0372 and 0373

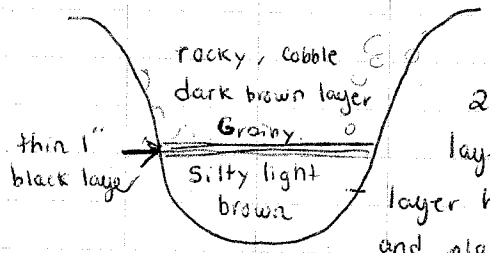
New GPS point collected on unit 1.
pH tested by Golder Associates: Bottom 6.5 (orange / black) Top 5.5

Location ETOS - TP1 Date 8/6/15

Project / Client Animas

Time: 1010

Pit depth: 4 ft



No root zone, 2 distinct brown layers. Streambed layer. layer has plenty of moisture and plasticity. Uniform, no large rocks.

0 - 6"
6 - 18"
18 - 30"

Samples collected at various depths throughout profile by S. Aver

3 photos on S82852 camera # 0374, 0375, 0376.

At 3 KB 8/6/15 ft about 1" thick

Some orange and black between the two layers and mixed in with the bottom layer.

New GPS point collected with unit #1.

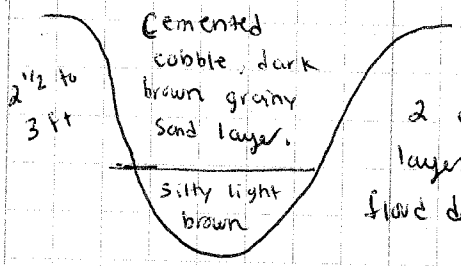
pH tested by Golder Associates: 5 - 5.5 for both layers

Location ETOS TP2 Date 8/6/15

Project / Client Animas

Time: 1050

Pit depth: 4 ft



No root zone, 2 distinct brown layers. Streambed flood deposit on top.

Test pit bracketed by streams on either side, one about 40 ft away, the other about 80 ft away. However, pit did not have water at bottom. The bottom layer was fine sand/silt moist, and has orange and black mixed in.

KB 8/6/15 4 photos on S82852 camera # 0377, 0378, 0379, 0380

0 - 6"
6 - 18"
18 - 30"

Samples collected by S. Aver at various depths throughout profile by ~~S. Aver~~

New GPS point collected with unit 1.

pH tested by Golder Assoc: Bottom 6

Top 6.5

ET07 - ~~TP1~~ Pothole KB 8/6/15

Animas

Time:
Pit depth: 4 ft.

Test pit is uniform cemented cobble dark brown sandy streambed deposits. There are no tailings to be found. Similar to what we have been seeing like ET04. Manganese streambed deposit.

No sample collected.

2 photos on S82852 camera 0381 and 0382.

Did not hit water again but was about 20ft from stream.

New GPS point collected on unit 1. as ET07 - PH.

ET09 - TP1 8/6/15

Animas

Time: 1220
Pit depth: 3 ft.

Discrete composite sample collected by S. Aven 1½ft black layer. 18" grab sample split.

3 photos on S82852 camera 0383, 0384 and 0385.

Uniform cemented black streambed/manganese deposit.

New GPS point collected on unit 1. issues with GPS, feature stored

Chose this location because there were tailings plugs visible on the surface.

Location: ET08 - pothole Date: 8/6/15

Project / Client:

Time: 1255
Depth: 3 ft.
No sample taken. Again, cemented black streaked manganese deposit. Uniform throughout.

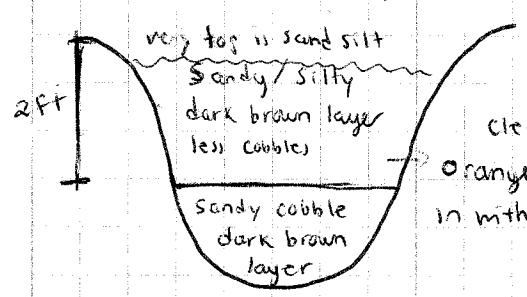
3 photos on S82852 camera. 0386 0387, 0388.

GPS point collected on unit 1. ET08 - PH.

Location: FQ01 - TP1 Date: 8/6/15

Project / Client: Animas

Time: 1320
Pit depth: 4 ft depth



No root zone, clear deposit zone, orange tailings mixed in with brown.

0 - 6" - Sandy silt layer
6 - 18"
18" - 30"

Samples collected at various depths throughout profile. by S. Aver for split.

3 photos on S82852 camera: #0390. 0391, 0392.

New GPS point collected on Unit 1.

Location: FQ01 - ~~TP2~~ pothole Date: 8/6/15

Project / Client: Animas

No sample collected. Water hit at 18" depth.

Total depth 23"

Orange / brown tailings mixture

2 photos S82852: # 0393 and 0394.

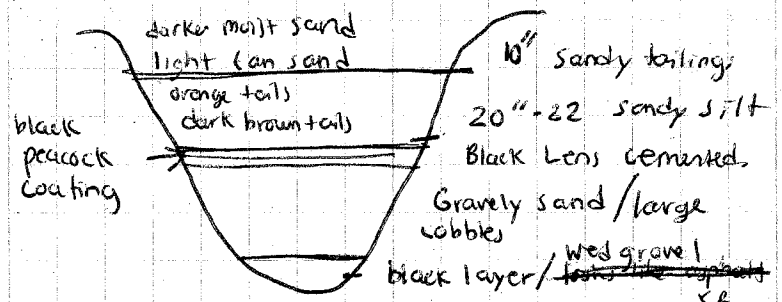
New GPS point collected on unit 1.
FQ01 - PH

Location: FQ01 - TP2 Date: 8/6/15

Project / Client: Animas

Time: 1425
Pit Depth: 4'

1-2" Water at 46". 3 to 4 layers of tails.



KB 8/6/15

3 photos S82852: 0395, 0396, 0397

0-6"
6-18"
18-30"
} Samples collected at varry depths throughout profile collected by S. Auer for split.

New GPS point collected on unit 1.

Only able to collect about 6" of last depth
The cemented black layer is too difficult to sample.
~~Piece of metal about halfway into pit~~

Location: KT04-TP1 Date: 8/6/15

Project / Client: Animas

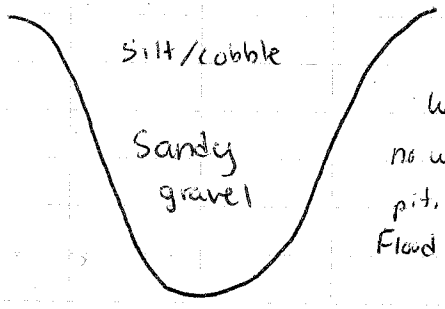
Time: 1645

Pit Depth: 48"

0-6"
6-18"
18-30"

Samples collected at various depths throughout profile by S. Auer for split sample.

Cobbley, gravel, silt.



Uniform

Wet throughout, but no water at bottom of pit.

Flood deposits.

3 photos on S82852 camera #0398 0399, and 0400.

New GPS point collected on unit 1

pH tested by Golder Associates: 6-6.5

Location: CC06 Date: 9/23/15

Project / Client: Animas Mining District

time: 0850
pH: 3.07 SU
DO: 7.44 mg/L
Cond: 3927 uS/cm
temp: 7.7°C

Nicole Fiscia (NF), Steve Auer (SA), Ryan Brehnfleth (RB), Ian Bowen (IB) are on site sampling. NF collected surface water grab samples. RB collected flows using Unit 4 flowtracker. NF collected water quality parameters.

Samples collected at same locations as monitoring locations. flow coming out of 2 culverts. Iron precipitates on bank of stream.

photos collected using USHS unit #1
upstream: 0002
downstream: 0003

Location: LL19 Date: 9/29/15
Project / Client: Animas Mining District

Time: 0943
pH: 4.83 pH
DO: 5.55 mg/L
Cond: 4497 us/cm
Temp: 7.7 °C
} Collected using Unit 3401

Flow: 0.42 feet
NP, IB, RB, Benton Line (BL); Ian Charles (IC) w/formation are on site sampling. Formation Crew collecting split samples of total metals and dissolved metals.
NP collected surface water grab samples.
IB collected water quality parameters.
RB ~~cleaned~~ cleaned flume and collected flow data. Flow = 0.42 feet

Flow coming out of culvert. Iron precipitates present on stream bed and bank. Weather is sunny and cool. Slight wind

Formation WQ parameters: pH = 5.76 DO = 19.3 mg/L
Cond = 1557 Temp = 7.62°C

Photos collected using USFWS #1
004 - up stream w/ NP sampling
005 - Downstream w/ flume

Re

Location: LL18 Date: 9/29/15
Project / Client: Animas mining District

YSI Pro plus unit 3401 readings were significantly different than formation readings. Recheck calibration of Specific Conductance
Std = 998 us/cm Actual = 993 us/cm
calibration looks good. Formation DO reading is 77 100% Sat. so do not agree. It was determined unit 3401 is working properly

Time: 10:115 DO: 8.71 mg/L } YSI
pH: 4.54 Cond: 337 us/cm } 3401
Discharge: 3.904 CFS - ESAT flowtracker unit 4
NP, IB, RA, SA, BL, IL, Nat Beal (NB) - Formation
Terry Turner (TT) - Sunnyside. on site sampling
Formation collecting split of TM + DM.
NP collected ~~gw~~ Surface water grab samples

Flow cascading down water fall in armored stream channel near gladstone. Water Temp = 7.3°C

Photos using USFWS #1
006 up stream
007 Downstream

112

Location CC18B Date 9/29/15

Project / Client Animas Mining District

Time 11:10
pH 2.86 s.u. Unit 3401
DO 8.05 mg/L
Cond 4028 µs/cm
Temp 8.0 °C
Flow N/C

IB, SA, BL, TT, IC, NB are on site sampling. Formation collected splits. IB collected Surface water grab samples.

Creek has been altered due to Gold King incident. Stream is 4-8 ft wide and cascading down rocks. Iron precipitate on stream bed. Excavators working up stream. Weather is overcast and cool. Temps in Upper 60's.

Flow measurements were not collected due to manipulated stream bed

Pictures w USFWS #1
~~008~~ upstream
009 Downstream

Location CC07 Date 9/29/15 113

Project / Client Upper Animas Mining District

Time: 1155
pH = 2.91
DO = 8.44 mg/L
Cond = ~~3221~~ 3884
Temp = 8.5 °C
Flow = N/C

IB + SA on site sampling. IB collected Surface water grab samples

Treatment is occurring down stream. Samples Collected approximately 300 ft up stream. Water is narrow and fast moving. Iron on banks and stream bed.
Weather is overcast and cool. Temps in the low 70's.

Pictures Collected
012 ~~010~~ upstream
013 ~~011~~ Downstream w/ Culvert
014 further down stream ~~with~~ treatment area taken from near above Culvert.

Location CC03D Date 9/29/15

Project / Client Animas Mining district

Time 1230pm
pH = 5.59
DO = 8.84 mg/L
Cond = 4240 uS/cm
Temp = 7.1°C
flow = 0.922 cfs

IB & SA on site to collect surface water grab samples. Some iron (red) precipitate as well as a gray/white precipitate in streambed. Too much flow for 4" flume so SA collected a measurement using Esat flowtracker #4.

Weather is overcast, temps in 70's.

Dup collected @ 1230pm

Photos taken w/ USFWS #1

015 up stream
016 Down stream w/ SA collecting flow

Location CC18 Date 9/29/15

Project / Client Animas mining District

Time = 1315 post-Lime
pH = 5.13
DO = 8.31
Cond = 3298 uS/cm
Temp = 9.9°C

IB & SA on site to collect surface water grab samples @ CC18 after they began adding lime at treatment facility

Weather is sunny w/ temps in 70's.

Samples discarded due to turbidity will be recollected later

Location: CC17 Date: 9/20/15

Project / Client: Animas mining District

Time: ~~1445~~ IB 1345
pH = 5.83
DO = 8.39 mg/L
Cond = 1668 µs/cm
Temp = 7.9°C
flow: 3.426 CFS

IB & SA on site to sample. IB collected surface water grab samples. SA recorded flow with ESAT flowtracker #4.

Stream is ~ 4-8' ~~batch~~ IB wide an 6-12" deep. Iron precipitate in stream bed and black moss growing on bank

Photos by USFWS #1
017 upstream
018 Downstream

Location: CC18 Date:

Project / Client:

Time: 1445 post lime
pH = 4.51
DO = 8.39 mg/L
Cond = 3014 µs/cm
Temp = 9.5°C
flow = NC

IB + SA on site to collect surface water grab samples after they began treating with lime.

Location: CC21 Date: 9/29/15
Project / Client: Animas Mining District

Time = 1505
pH = 4.72
DO = 8.50 mg/L
Cond = 2289 µS/cm
Temp = 9.0 °C

IB & SA on site to collect samples.
IB collected surface water grab samples
Location just downstream of CC17.
Stream is ~ 4' wide. rocky banks.
Iron precipitate in stream bed.
~ post lime addition

Photos by USFWS #1
019 upstream
020 downstream

Location: CC20 Date: 9/29/15
Project / Client: Animas Mining district

Time: 1520
pH: 3.61
DO: 8.23 mg/L
Cond: 3157 µS/cm
Temp: 10.1 °C

IB & SA on site to collect samples.
IB collected surface water grab samples.
location just upstream of stream
Crossing near gladstone
~ post lime addition

Photos by US FWS #1
021 upstream
022 downstream

120

Location _____ Date 9/29/15

Project / Client _____

YSI 3401 post cal

	reading
cond	1 [illegible]
pH 7.0	6.71
pH 4.0	3.70

Checked by KB

121

Location _____ Date 9/30/15

Project / Client _____

YSI 1921 Calibration

Std.	Actual
pH 4.0	3.99
pH 7.0	7.00
Condo 998 µs/cm	997 µs/cm
DO 100% Sat	69.2%

Calibrated by IB.

Location: A30 Date: 9/30/15

Project / Client: ~~Ani~~ Animas

Time: 1000
pH: ~~4.92~~ DB 5.82
DO: 8.57 mg/L
Condo: 663 µs/cm
Temp: 4.93 °C

IB & SA on site sampling. Water Quality parameters taken with unit 1921 -YSI-556. Surface water grab samples collected by IB: Total metals, Dissolved metals, and Alk/Anions. Sediment samples also collected by IB. SA collected flows with Flowtracker #4
River is approximately 20' wide and 1-2' deep. Some grey/brown sediment present near banks

2 photos on USFWS #1

023 upstream
024 Downstream

Location: A29 Date: 9/30/15

Project / Client: Animas

Time: 1050
pH: 5.74
DO: 6.13 mg/L
Condo: 1344 µs/cm
Temp: 11.67 °C

IB & SA on site sampling. Water Quality with YSI 556 # 1921. Surface water grab samples from mouth of ~~Adit~~ it by IB. Total metals, Dissolved metals and Alk/Anions.

Area is an abandoned adit. Iron precipitate present. Water is Orange and turbid.

1 photo on USFWS #1

025 Adit

Location: A28 Date: 9/30/15
Project / Client: Animas

Time: 1115
pH: ~~0.47 DS~~ 7.03 Unit
DO: 8.73 mg/L 1921
Condo: 652 uS/cm
Temp: 5.98

IB + SA on site to sample. IB collected SW grab samples and sediment. Water samples for total metals, dissolved metals, and Alk/Anions. SA collected flows with flowtracker #4
River is 6-12' wide and ~1-4' deep. Iron precipitate and gray/brown precipitate on bottom and banks. This gray/brown deposit is likely Algae.
Weather is overcast and warm temps in Mid 70's.

2 Photos USFWS #1
026 up stream
027 Downstream

Location: A27 Date: 9/30/15
Project / Client: Animas

Time: 1145
pH: 7.07 Unit
DO: 8.40 mg/L 1921
Condo: 452 uS/cm
Temp: 6.03 °C

IB + SA on site. IB collected SW grab samples, samples for Total metals, dissolved metals, and Alk/Anions. SA collected flows on Flowtracker #4. Flows very difficult to obtain due to channel width.

Stream has very steep gradient and is 2-6' wide, and 6-18" deep.

2 photos USFWS #1
028 up stream
029 Downstream

126

Location: 4A8 Date: 9/30/15

Project / Client: Animas

Time: 1210 am
Temp: 6.87 °C
DO: 8.20 mg/L
Condo: 690 uS/cm
pH: 7.09

Unit 1971

IB & SA on site. IB collected Surface water grab samples for total metals, dissolved metals, and Alk/Anions. SA ~~collected flows~~ IB up stream of IB but did not begin until after water samples were taken. Flows could not be collected. River is 4 - 12' wide and 1-3' deep.

2 photos USFWS #1

030 up Stream
031 Down Stream

127

Location: A26 Date:

Project / Client: Animas

Time: 1300
~~Time~~
Temp: 6.84 °C
DO: 8.39 mg/L
Condo: 1052 uS/cm
pH: 7.77
flow: 0.678 CFS

IB & SA on site. IB collected SW grab samples for total metals, dissolved metals, and Alk/Anions. SA collected flows w/ flow tracker # 4. ~~IB~~ Also collected sediment.

Stream is 3-8' wide and <1' deep.

2 photos USFWS #1

032 up stream
033 Down Stream w/ SA collecting flows

Location: TM1 Date: 9/30/15

Project / Client: Animas

Time: 1350
Temp: 7.04°C
Cond.: 1332 uS/cm
DO: 3.87 mg/L
pH: 6.89
Flow: NC

JB & SA on site to collect surface water grab samples for total metals, Dissolved metals, and Alk/Anions. No flows collected.

Flow comes from mine adit. Stream is 3-6' wide and <6" deep. Iron precipitate and algae are abundant.

Photos on WSFWS #1

034 upstream w/ Adit
035 Downstream w/ mill.

Location: A24 Date: 9/30/15

Project / Client: Animas

Time: 1430
Temp: 7.62°C
Cond: 456 uS/cm
DO: 8.01 mg/L
pH: 7.42
Flow: NC

JB & SA on site to collect ~~total~~ ~~and~~ surface water grab samples for total metals, dissolved metals, and Alk/Anions. Sediment samples were collected. No flows were collected

Stream is very rocky. Some iron staining observed.

Photos on WSFWS #1
036 upstream
037 Downstream w/ culvert

Location A25 Date 9/30/15

Project / Client Animas

This location was dry. No samples collected.

Location A07A Date 9/30/15

Project / Client Animas

Time: 1540
Temp: 9.43°C
Cond: 706 uS/cm
DO: 7.58 mg/L
pH: 4.32
flow: 0.2 HA 0.1 HB

IB + SA on site. IB collected surface water grab samples for total metals, dissolved metals, and Alk/Anions. No sediment collected. SA collected flow data using 4" cutthroat flume

Stream is in an alpine meadow with a wide marshy flood plain. Stream is 3-6' wide and up to 2' deep. Stream and rocks have slight red tinge.

photos US Flows #1
038 up stream
039 Downstream

132

Location A07B Date 9/30/15

Project / Client Animas

Time: 1610
Temp: 10.60°C
Cond: ~~888 JB~~ 688 µS/cm
DO: 6.30 mg/L
pH: 4.30
flow: H_A = 0.15 H_B = 0.07

JB & SA on site sampling. JB collected Surface water grab samples for total metals, dissolved metals, and Alk/Anions. SA did flow using 4" cut throat flume. This location is ~ 1000' upstream of A07A. stream characteristics are the same

Photos USFWS #1

040 Downstream
041: upstream

133

Location A07C & Dup Date 9/30/15

Project / Client Animas

Time: 1656
Temp: 10.00
Cond: 640 µS/cm
DO: 6.97 mg/L
pH: 3.89
flow: H_A = 0.1' H_B = 0.05'

JB & SA on site sampling. SA collected flow using 4" cutthroat flume and then assisted JB collect Surface water grab samples for total metals, dissolved metals, and Alk/Anions. Sediment was also collected. A duplicate sample was also taken at this location River similar to A07A & A07B with some white precipitate here.

Photos USFWS #1
042 upstream
043 down stream

Location: A41 Date: 10/1/15

Project / Client: Upper Animas

time: 0800 Scribe = NP

temp: 8.01 °C

pH: 4.59

DO: 2.40 ~~mg/L~~ NP mg/L

cond: 1636 µs/cm

Surface water grab samples collected for TM, DM, alk/anions by Steve Auer. Water quality parameters collected by Steve Auer with Quotech YSI 1921 (rented). No flow taken at this location. Sample taken from 3 inch pvc pipe discharging just below the road. Orange stain present in and around pond. water dumps into pond before discharging into wetland.

photos taken with Nick Plucia's phone.

Location: A41C Date: 10/1/15

Project / Client: Upper Animas

No sample collected, location was dry.

photo taken with Nick Plucia's phone.

Animas

BBridge

09/25/14 1635 - Taken at Durango Riverside RV & Resort

samplers: D. Wall, S Griffith, S. Skipper

Temp 12.33°C
pH 7.58 pH units
Cond 215.5 uS/cm
O2 8.31 mg/L
pore water depth: 10"

sediment: DW/SG
porewater: DW
surface water: SG
water quality - Unit #3, display acting up

photos taken: S. Skipper w/ Skipper camera

upstream: 3220
downstream: 3221

Upper 70's, partly cloudy, thunder still (no wind). Water slightly murky.

Location Animas Date 6/9/15

Project / Client

A72 by gaging station
Time: 0755
Temp: 2.74°C
pH: 6.82 s.u.
cond: 145.9 uS/cm
DO: 9.72 mg/L

Team
Leslie Christner
Nicole Plescia

In-situ unit 3
5/017

TM and DM collected by Nicole Plescia

Temps in the 40's clear DW

Flows high water is turbid

2 photos upstream 1721-1722
on SS camera downstream 1723

Location: Animas Date: 6/9/15
Project / Client: A68

Time: 0830
Temp: 3.30°c
pH: 7.07 s.u.
Condo: 133.2 us/cm
DO: 9.67 mg/L

In-situ unit 3
51017

Total recoverable metals and Dissolved metals collected by NP Split samples collected by Hank Dickie. Water for all samples was first collected in a cubitainer and then poured into sample bottles.

Sunny temps in the 40's partly cloudy

2 photos on SS camera 1724 - downstream
1725 - upstream

water is turbid and flowing quickly

Location: Animas Date: 6/9/15
Project / Client: A65

Time: 0910
Temp: 3.83°c
pH: 7.15 su
Condo: 132.6 us/cm
DO: 8.97 mg/L

In-situ unit 3
SN 51017

Total recoverable metals and dissolved metals collected by NP using the dipstick, Split samples collected by HD. Water for all samples was collected in a cubitainer before being poured into sample bottles

Sunny temps in the 50's

Flow is high and water is turbid.

2 photos on SS camera 1726 upstream
1727 downstream

GPS point collected on unit 2

Location Animas Date 6/9/15
Project/Client A61

Time: 1010
Temp: 4.92°C
pH: 7.29 s.u.
Condo: 137.8 us/cm
DO: 8.82 mg/L

Total Recoverable metals and dissolved metals samples collected by NP. Water for samples was first collected in a cubitainer before being split. Split samples collected by HD

Sunny/partly cloudy with temps in the 50's

Flows are high and water is turbid

2 photos on SS camera 1728 upstream
1729 downstream

GPS point collected on unit 2 as A61-New2. Point was moved to match HD upstream ≈ 50 ft

Location Animas Date 6/9/15
Project/Client A56

Time: 1055
Temp: 5.50°C
pH: 7.45 s.u.
Condo: 132.0 us/cm
DO: 8.76 mg/L

In-situ unit 3
5/017

Total recoverable metals and dissolved metals samples collected by NP. Water for samples was first collected in a cubitainer before being split. Split samples collected by HD

Partly cloudy with temps in the 50's

Water is slighty Turbid with high flows

2 photos on SS camera 1730 upstream
1731 downstream

GPS point collected on unit 2

58 Location A48 Date 6/9/15
Project / Client

Time: 12:45
Temp: 5.69°c In-situ 5 1017
pH: 7.57 su
condo: 117.8 uS/cm
DO: 8.75 mg/L

Total recoverable and dissolved metals samples collected by NP

partly cloudy temps in the 60's

water is clear and flows are high. No staining of substrate

Flows are too high to safely collect measurements

2 photos collected on SS camer
1731 downstream
1730 upstream

New GPS point on unit 2

59 Location LA3 Date 6/9/15
Project / Client Animas

Time: 1315
Temp: 6.70°C
pH: 7.48 s.u.
condo: 118.7 uS/cm
DO: 8.54 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected by NP

Partly cloudy temps in the 60's

Water is clear with no staining of substrate

Flows to high to safely measure

2 photos on SS camera
1732 upstream
1733 downstream

New GPS point on unit ~~3~~ 2

Location: A43 Date: 6/9/15
Project / Client: Animas

time: 1345
temp: 5.19°C Insitu 51017
pH: 7.79 SU
cond: 97.51 us/cm
DO: 9.06 mg/L

TRM & DM Surface Water Samples collected by NP. Flow taken downstream of GPS due to preferred & safer conditions. Flow taken by LC (unit 965842)

Cloudy w/ temps in high 60's.

Water is clear and flow is high.

2 photos on SS camera
upstream 1734
downstream 1735

new GPS coordinate collected on unit 2

Location: A42 Date: 6/9/15
Project / Client: Animas

time: 1445
temp: 5.15°C Insitu 51017
pH: 7.71 SU
cond: 109.9 us/cm
DO: 8.83 mg/L

TRM & DM surface water samples collected by NP. Flows taken by LC. (unit 965842)

Cloudy w/ temps in the high 60's

Water is clear and flow is high

2 photos on SS camera
upstream 1736
downstream 1737

new GPS coordinate collected on unit 2

Location: A41C Date: 6/9/15
Project / Client: Animas

time: 1530
pH: 7.43 su
temp: 7.70 °C
DO: 6.88 mg/L
cond: 206.1 us/cm

Insitu 5/017

TRM + DM surface water samples collected by NP. Water for samples was first collected in a cubitainer before being split. Split samples collected by HD. Flows collected by LC (unit 965842).

Cloudy with temps in the high 60s.

Water is clear with long grasses present on bottom of stream bed.

2 photos collected on SS camera.
upstream 1738
downstream 1739

new GPS coordinate collected on Unit 2

Location: A35 Date: 6/9/15
Project / Client: Animas

Time: 1630
Temp: 5.23°C
pH: 7.57 s.u.
cond: 101.2 us/cm
DO: 8.76 mg/L

Total recoverable metals and dissolved metals collected by NP. Water was first collected in a cubitainer before being split. Split samples collected by HD.

Cloudy temps in the 60's

water is slighty turbid and moving quickly

2 photos on SS camera
upstream 1740
downstream 1741

New GPS coordinate collected on unit 2.

EG9 6/9/15

Time: 1615
Temp: 2.86 °C
pH: 7.77 s.u.
Condo: 121.1 us/cm
DO: 8.88 mg/L

Total recoverable metals and dissolved metals collected by NP. Water was first collected in a cubitainer before being split, Split samples collected by HD.

Flow is moving to quickly to be safely measured.

Cloudy, temps in the 50's

water slightly turbid substrate stained slightly orange

2 photos collected on SS camera
1742 upstream
1743 downstream
New GPS coordinates on Unit 2

A37 6/10/15

Time: 0840
Temp: 2.54°C In-Situ 5107
pH: 7.41 s.u.
Condo: 126.0 us/cm
DO: 9.07 mg/L

Total recoverable metals and dissolved metals collected by N.P.

Flow is moving to quickly to safely collect measurements

Cloudy raining off and on temps in the 40's

Water is cascading and white appears to be clear

2 photos on SS camera
1744 upstream
1745 downstream

New GPS point collected on unit 2

Location A36 Date 6/10/15

Project / Client

Time: 0915
Temp: 2.41°c
pH: 7.56 s.u.
condo: 123.6 µs/cm
DO: 9.43 mg/L

Total recoverable and dissolved metals surface water grab samples collected by NP. Water was first collected in acubitainer before being split. Split samples collected by HD.

Tried to collect flow but could not safely cross creek.

Cloudy, lightly raining.

Water is clear substrate is stained orange.

2 photos on SS camera
1746 upstream
1747 downstream

Location A54 Date 6/10/15

Project / Client Animas

time: 1050
temp: 5.37°c
pH: 6.85 su
condo: 531.5 µs/cm
DO: 8.92 mg/L

Total Recoverable and dissolved metals surface water grab samples collected by NP.

Heavy rain, temps in upper 40s.

2 photos on SS camera
upstream 1748
downstream 1749

CC03 6/10/15

Time: 1550
Temp: 2.75°c Team: Ryan B
pH: 4.46 s.u. Leslie C
Condo: 186.1 uS/cm - Situ 51017
DO: 9.37 mg/L

Total Recoverable and dissolved metals surface water grab samples collected by RB

Lightly Raining cloudy temps in the 40's

Water is very turbid

Flows too high to safely measure

2 photos on SS camera
1750 upstream
1751 downstream

CC03B 6/10/15

Time: 1630
Temp: 2.54°c
pH: 4.46 s.u.
Condo: 121.2 uS/cm
DO: 9.27 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected by RB

Partly cloudy, stopped raining temps in the 40's
Water is turbid

No flow measurements were collected due to high unsafe flows

2 photos on SS camera
1752 upstream
1753 downstream

Location: A55 Date: 6/10/15

Project / Client:

Time: 1745
Temp: 4.77°c In-situ 51017
pH: 7.24 s.u.
Condo: 98.70 µs/cm
DO: 9.15 mg/L

Total recoverable metals and dissolved metals collected by RB

2 photos collected on SS camera
1754 upstream
1755 down stream

Sunny temps in the 50's

water is turbid

Location: A68 Date: 6/10/15

Project / Client:

Time: 1815
Temp: 5.45°c
pH: 7.31 s.u.
Condo: 108.8 µs/cm
DO: 9.07 mg/L

Total recoverable metals and dissolved metals collected by RB

2 photos on SS camera
1756 upstream
1757 down stream

partly cloudy temps in the 50's

water is much higher than yesterday and is very turbid

A30 8/4/15
Animas

Time: 09:09
Sampler: P. Young

One sediment sample taken

2 photos taken with Canon A550
Uppstream #110
Downstream #111

Stream adjacent to sample is clear with moderate flow

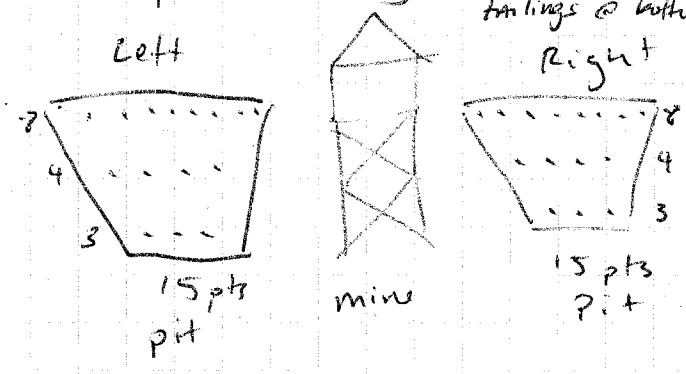
Partly cloudy skies with temps ranging from 60-65°F

GPS #4 was used to find location.

AE32a 8/4/15
Animas

Time: 09:30
Sampler P. Young

Only 28 of 30 pts collected due to tailings @ bottom of hill



2 photos taken w/ Canon A550
Left of mine #112
Right of mine #113

Partly cloudy skies w/ temps ranging 55-65°F

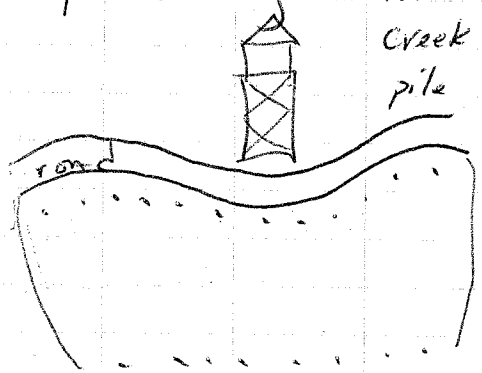
GPS #4 was used to identify location. Per land owners request additional 30 pt composite was taken at AE32. Subsamples are labeled AE32a & AE32b

Sulfur odor observed while collecting samples

Location AE32b Date 8/4/15
Project / Client Animas

Time: 10:30
Sampler: P. Yang

Site is below mine in elevation between creek & road above tailings pile



2 photos taken #114; 115
camera used: Canon A550

Composite may be biased based on distribution & ability to sample. Site AE32b was taken per the request of the land owner. Due to pitch of tailings samples were taken just below road & just above base of tailings pile (see drawing)

Partly cloudy skies w/ southern wind around 10mph temps between 55-60°F

GPS #4 was used on parent location AE32

Sulfur odor observed while collecting samples

Location A28 Date 8/4/15
Project / Client Animas

Time: 11:30
Sampler: P. Yang

One sediment sample taken

2 photos taken w/ Canon A550
upstream #116
down stream #117

Sample taken just below Bear Gulch on NW side of creek.

Partly cloudy skies w/ temps ranging from 60-65°F

GPS used to locate sample position is #4
8/4/15 PY

~~Photo looking upstream #114 a~~ 8/4/15 PY
~~Downstream - 4150~~
8/4/15 PY

A26 8/4/15
Animas

Time: 12:00
Sampler: P. Young

1 sediment Sample taken

2 photos taken w/ canon A550
Looking upstream 118
Looking down stream 119

Sample taken above road on Picayune gulch.

GPS #4 used to locate sample position

Partly cloudy skies w/ temps in the 60's °F

A25 8/4/15
Animas

Time: 12:15
Sampler: P. Young

1 Sediment Sample Taken

2 photos taken w/ canon A550
Looking upstream 120
Looking downstream 121

Sample taken above Animas in Goose Gulch above ATV trail

GPS #4 used to locate sample position

Partly cloudy skies w/ temps in the 60's °F

Location: A24 Date: 8/4/15
Project / Client: Animas

Time: 12:40
Sampler: P. Young / Bruce Staver (BKS)

1 sediment sample taken

2 photos taken w/ Canon A550
Looking upstream 122
Looking downstream 123
Sample taken on Cinnamon Creek above road

GPS #4 used to find sample location

Partly cloudy w/ temps in 60's °F

Location: A14 Date: 8/4/15
Project / Client: Animas

Time: 1300
Sampler: P. Young

1 sediment sample taken

2 photos taken w/ Canon A550
upstream 124
downstream 125

Sample taken below road @ the Confluence

GPS #4 used to find sample location

Partly cloudy w/ light drizzle
w/ temps in 60's °F

2 worms were observed while taking sed sample from creek
Al deposition present on adjacent rocks

80

Location A9 Date 8/4/15

Project / Client Animas above Cal Gulch

Time 1315
Sampler P. Young, Brace Stover

1 sediment sample taken

2 Photos Canon A550
Looking upstream 126
Looking down stream 127

GPS #4 used to find location

Ptly cloudy T= 60s

81

Location A10 Date 8/4/15

Project / Client Cal Gulch above Animas

Time 1325
Sampler P Young, Brace

1 sediment sample taken

2 photos Canon A550
Looking upstream 128
Looking downstream 129

GPS #4 used to find location

Mostly cloudy T=60s

AE13 8/4/15
Animas

Time: 13:45
Sampler: P. Young

30 total points taken

30 pt composite taken & be sieved at the lab where TM/Hg, SPLP & ABA are to be sub sampled out for analysis

photos taken using Canon A550
(5 pts) 130 - 132 - Top, all from same place
(2 pts) 133 - 140 - Midde slope, above road through mine waste
(5 pts) 141 - 143 - Lower slope

GPS #4 used to find location

Partly cloudy skies w/ temps in 60's F

AE43 8/4/15
Animas W of Columbus Mine
Feature 7 - closure marker

Time 15:15
Sampler P Young

30 pts SPLP, ABA & TM/Hg Taken
8 lower
22 upper

Photos Canon A550
144-5 Lower pile
146-7 Upper pile

30 pt composite taken to be sieved at the lab where TM/Hg SPLP & ABA are to be sub sampled for analysis

GPS #4 used to find location

Ptly cloudy T = 60s

84 Location AE 26 Date 8/4/15
Project / Client Animas

Time 1620
Sampler P Young

29 pts taken; 1 pt was too rocky for SPLP, ABA, & TM/Hg
Photos taken w/ Canon A550
9 pts upper pile -
1 ~~4~~ photos 148 ~~+ 149~~ DC 8/4/15
PY 8/4/15
20 pts lower pile
1 photo 149

GPS #4 used to find location

Partly cloudy skies w/ winds ~ 10mph & temps in 60's °F

Location AE 25 Date 8/4/15 85
Project / Client Animas

Time 1720
Sampler P Young

30 pts taken for TM/Hg, SPLP & ABA
Photos taken w/ Canon A550
18 upper pile pts
12 lower pile pts

~~6~~ 5 photos 150 - 155
PY 8/4/15 of full grid layout

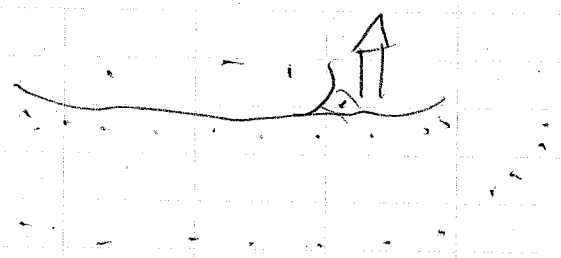
GPS #4 used to find location

Partly cloudy skies w/ ~ 10 mph winds & temp in 60's °F

AE10 8/5/15
Animas

Time: 09:00
Sampler: PY

30 pt Composite & 1 duplicate taken at site Steep grade so samples were taken towards top & bottom of dump pile
5 photos taken w/ Canon A550
#157-161



Site found w/ GPS #4

Clear skies w/ lite breeze & temps in 60's °F

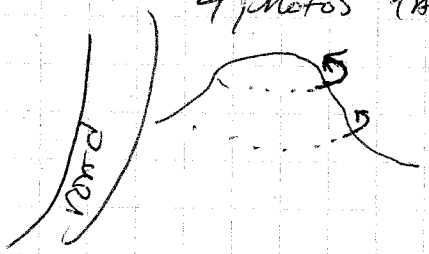
AE10a 8/5/15
Animas

Time: 10:00
Sampler: PY

Only 22 pts sampled due to size & steep grade of dump pile

30 pt Composite taken to be sieved @ lab for SPLP/TM's Hg/ABA.

4 photos taken w/ Canon A550
#162-165



Site found w/ GPS #4

Clear skies w/ lite breeze & temps in the 60's

Location A15 Date 8/5/15
Project / Client Animas

Time: 10:40
Sampler: Brian Sanchez (F:W) B.S.

1 sediment sample taken

2 photos taken w/ Canon A550
upstream # 196
downstream # 197

Sample was taken above CR9 on W. Fork of Animas River

GPS # 4 was used to locate site

Partly cloudy skies w/ temps in the 60's °F

Location A13 Date 8/5/15
Project / Client Animas

Time: 10:45
Sampler: PY

Sample not taken, due to vegitation & creek flow that allows access to the location.

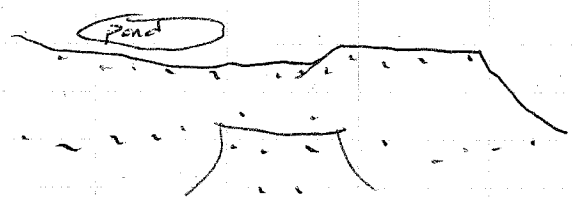
GPS # 4 was used to take photo of vegitation @ location index from the road.

1 photo was taken w/ Canon A550
166

AE9 8/5/15
Animas

Time: 11:20 28 pts taken due
Sampler: PY to Rocks & steep grade

30 pt composite taken to be sieved at lab for SPLP/Tm/Hg/ABA



3 photos taken of site
#167-169 w/Canon A550

GPS #4 used to find location

Partly cloudy skies w/ temps in the 60's °F

CG6 8/5/15
Animas

Time: 12:00
Sampler: PY

1 sediment sample taken

2 photos taken w/ Canon A550
upstream #170
downstream #171

Sample taken below Vermillion Tributary

GPS #4 used to find location

Partly cloudy skies w/ temps in 60's °F

Location: CG4 Date: 8/5/15

Project / Client: Animas

Time: 12:20
Sampler: PY

1 sediment sample taken above Vermillion Tunnel & below Burrows mine

2 photos taken using Canon A550
upstream: #172
downstream: #173

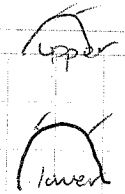
GPS #4 used to find sample location

Partly cloudy skies w/ temps in 60's °F

Location: AE8 Date: 8/5/15

Project / Client: Animas

Time: 12:45
Sampler: PY



30 pt composite taken to be sieved at the lab for SPLP / TM / Hg / ABA

5 photos taken w/ Canon A550
#174-178

only 22 pts taken due to steep grade & rocky conditions. 2 dumps were a part of the site the lower attit had 14 pts & the upper attit had 8 pts collected. H_2O visibly seeping from both attits.

GPS #4 was used to find location

Partly cloudy skies w/ temps in the 60's °F

Sulfur smell/odor observed while collecting samples from lower dump

AE7 8/5/15
Animas

Time: 13:45
Sampler: PY

30 pt composite taken to be sieved at the lab for TM/Hg/SPLP/ABA

4 photos taken w/ Canon A550
179-182

Only 24 pts sub sampled due to size of location & the amount of large rocks in the sample area

GPS # 4 used to find location

Partly Cloudy skie w/ temps in 60's °F

AE 4/5 Composited 8/5/15
Animas

Time: 14:25
Sampler: PY

30 pt Composite taken to be sieved at the lab for TM/Hg/SPLP/ABA

4 photos taken w/ Canon A550
183-186

Samples taken in J shape below AHH & to include multiple tailings piles & dumps. 2 sites are on the map for composite sampling but sample location table only calls for 1 sample. Therefore only 1 sample was taken for the site but encompasses the entire area on the map & GPS coordinates

GPS #4 used to find location

Partly cloudy skies w/ temps in upper 60's °F

Location AE1 Date 8/5/15

Project / Client Animas

Time: 16:15
Sampler: PY

30 pt composite taken to be sieved for analysis at lab for TM/Hg/SPLP/ABA

3 photos taken w/ Canon A550
#'s 187 - 189

Only 21 pts were gathered for composite sample due to extremely steep grades and an abundance of rocks. GPS # 4 was used to find location

Partly Cloudy w/ steady 10+mph winds & temps in the 60's °F

Sulfur odor was observed while sampling this site.

Location AE2 Date 8/5/15

Project / Client Animas

Time: 17:00
Sampler: PY

30 pt composite taken to be sieved at the lab for analysis of TM/Hg/SPLP/ABA

6 Photos taken w/ Canon A550
#190 - 195

Water actively seeping from mine adit. Location was rocky but all 30pts were taken throughout the entire tailings/dump piles. Sulfur odor was observed on points in the SW quadrant of location

GPS # 4 was used to find the location

Partly cloudy w/ steady 10+ mph winds & temps in the 60's °F

98

Location AE44 Date 8/6/15

Project / Client Animas

Time: 08:30
Sampler: PY

30 pt composite taken to be sieved at lab for TM/Hg/SPLP/ABA analysis

2 photos taken w/ Canon A550 #'s 198-199
Camera failed after photo 199 so P. Yang used his camera on his cell phone to take 2 more photos of the sample area. Time stamped photos are: 8/6/15 09:15
8/6/15 09:16

large test pit or sink hole at top of location has appearance of zinc presence. The hole was too steep to enter so samples were collected around the rim. Some vegetation is growing in location. 4" PVC pipe runs ⊥ to slope of site

Clear skies w/ 10-20 mph winds & temps in the high 50's °F

GPS #4 used to find location

Location AE 45 Date 8/6/15 99

Project / Client Animas

Time: 09:45
Sampler: PY

30 pt composite taken to be sieved at the lab for TM/Hg/SPLP/ABA analysis

Total of 4 photos taken w/ P. Yang Cell phone Time stamps: 8/6/15 0945
8/6/15 0953
8/6/15 0958
8/6/15 1005

Very large testing area total of 10 points were sampled above the road & 20 pts sampled below the road but above site AE46

GPS #4 was used to find location

Clear skies w/ lite breeze <5mph & temps in the 60's °F

Location AE46 Date 8/6/15

Project / Client Animas

Time: 10:30
Sampler: P.Y.

30 pt composite sample taken to be sieved at the lab for TM/Hg/SPLP/ABA analysis

Total of 2 photos taken w/ P. Yang cell phone time stamped: 8/6/15 10:46
8/6/15 11:02

Location is very large in area. Small pile above main pile had 7 samples & the remaining 23 points were taken on the larger pile close to the river. Large rocks inhibited sampling on the slope closest to the river. Small pools below site show evidence of Iron oxidization
GPS #4 was used to find the location

Clear skies w/ constant 10mph winds & temps in the 60's °F

Location A22 Date 8/6/15

Project / Client Animas

Time: ~~11:05~~ 8/6/15 PY 11:20
Sampler: B.S.
Location: Placer Gulch Above Sunbank Adit

1 sediment sample taken for TM/Hg analysis.

A total of 2 photos were taken w/ P. Yang cell phone w/ respective time stamps
upstream: 8/6/15 11:29
downstream: 8/6/15 11:29
upstream photo was taken first

GPS unit 4 was used to locate sample location

Clear skies w/ stand winds ~10mph & temps in the 60's °F

A21 8/6/15
Animas

Time: ~~11:20~~ 8/6/15 PY 11:05
Sampler: B.S.
Location: Placer Gulch below Sunbank Adit

1 sediment sample was taken for TM/Hg analysis.

A total of 2 photos were taken one upstream, one downstream w/ P. Yang cell phone. respective time stamps:
upstream: 8/6/15 11:12
downstream: 8/6/15 11:12
upstream photo was taken first

GPS Unit 4 was used to locate the sample location

Clear skies w/ steady 10+ mph winds & temps in the 60's °F

A20 8/6/15
Animas

Time: 12:10
Sampler: BS

1 sediment sample taken for TM/Hg analysis.

A total of 2 photos were taken P. Yang cell phone. One upstream & one downstream time stamps on the photos are: upstream: 8/6/15 12:14
downstream: 8/6/15 12:14
upstream photo was taken first

GPS unit #4 was used to locate sample location.

Clear skies w/ occassional breeze temps are in the high 60's to low 70's °F

Location A11 Date 8/6/15

Project / Client Animas

Time: 12:45
Sampler: BS

1 sediment sample taken for TM/Hg analysis

A total of 2 photos were taken at the site 1 upstream & 1 downstream.
upstream time stamp: 8/6/15 1251
downstream time stamp: 8/6/15 1251
Both photos were taken w/ P. Young cell phone. The upstream photo was taken first.

GPS #4 was used to find the location.

Clear skies w/ lite breeze & temps in the 70's °F

Location AE11 Date 8/6/15

Project / Client Animas

Time: 1300
Sampler:

30 pt composite sample taken to be sieved @ the lab for TM/Hg/SPLP/ABA

A total of 2 photos were taken at the site w/ P. Young cell phone
Time stamp for photos are: 8/6/15 1314
8/6/15 1315

GPS unit 4 was used to find location. All 30 pts were concentrated to area below road and above old tailings or what appears to be old tailings. The area looks to have seasonal flow through it. Tailings or mound below site has vegitation growing on it.

Clear skies w/ slight breeze & temps in the 70's °F

Location: KT-02-1 upstream Date: 8/6/15
Project / Client: Animas

Time: 1500
Sampler: PY

1 composite sample taken from a test pit ~3' deep. ~1/3 of a 1gal poly bag was filled w/sample.

1 photo was taken w/ P. Yang cell phone w/ time stamp: 8/6/15 14:55

Benton L. w/ Formation shook bag to homogenize then filled a 1qt sample bag from the parent for their analysis.

Clear skies w/ lite breeze & temps in 80's °F

Location: Test pit (downstream) Date: 8/6/15
Project / Client:

Time: 16:33

Collected Composite Soil Sample From test pit dug by land owner. test pit was too deep to safely enter so Samples were Collected by Reaching into the pit an arms length. pit had ~~water~~ ground water, and was located in a tailing site the pit had multiple horizons including a orange horizon near the top.

Pictures Collected by PY

Samplers
Paul Yang
Brian Sanchez ?SS.

Location: Test pit (upstream) Date: 8/6/15

Project / Client:

Time 16:36

Pit located approximally 50 feet upstream from pit described on previous page (pg. 107)

Characteristics are the same as the described pit on (pg. 107)

Sample Collected by Ryan Monahan

SLS 09/29/15

Location: Upper Animas Date: 09/25/15

Project / Client:

Recorder: SS EG-2 9:45AM

samplers:

Sherry Skipper	SS	USFWS/EPA
Ryan Monahan	RM	ESAT
Terry Walters	TW	Formation
Ann Ji	AJ	Formation

- Temp: ~~9.77°C~~ 9.09°C (SR 09/26/15) WQ meter (SR 09/29/15)
- pH: 7.61 pH units meter Unit#3 by SS
- Cond: 136.6 µS/cm
- DO: 6.40 mg/L

- Photos taken by SS with USFWS 2 camera upstream 0001 downstream 0002
- water samples collected by RM Total, dissolved, alkalinity and ions.
- Site is downhill (South) of Sunny side tailing piles. Can be reached on foot along small 2 track that runs south of main road.
- No flow taken, water trickling at meadow entrance (where stream daylights) Water occurs as puddles throughout stream section. Exposed gravelly substrate. Substrate clear, NO visible staining
- Sediment collected by RM

Location: Upper Animas Date: 09/29/15

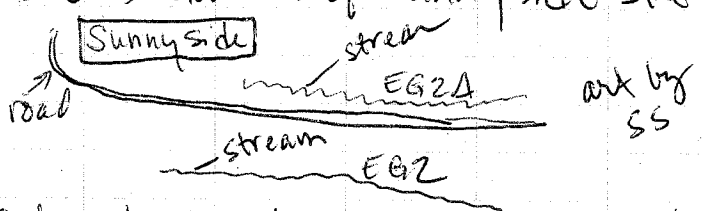
Project / Client:

EG2A 10:20AM

Samplers: SS, RM, AJ, TW
- Recorder: SS
- Water samples collected by RM
  Total, dissolved, alkalinity + anions
- Sediment collected by RM SS 9/29/15
- photos taken w/USFWS #2 ~~with~~ by SS
- water meter unit #3 by SS
  Temp 8.44°C
  pH 6.18 pH units
  Cond 242.5 ms/cm
  DO 6.44 mg/L

upstream 0003
downstream 0004

- Stream is not flowing - pools + puddles with trickle from upper pool to lower pool. Lot of algae. Milky white substrate on rocks of stream bed. Very light film (substrate) - not opaque
- Site is downhill of Sunnyside Site



art by SS

- Sediment collected by RM. Sediment collected out of current channel but in area where flow normally occurs. Water is low and not flowing. Existing H2O in small pools + puddles

Location: Upper Animas Date: 09/29/15

Project / Client:

EG01 1105AM

Samplers: SS, RM, AJ, TW
Recorder: SS
- Temp 6.75°C
- pH 6.83 pH units
- Cond 182.0 ms/cm
- DO 9.29 mg/L
- water meter unit #3 by SS
- Water samples taken by TW, SS
  Total, dissolved, alkalinity + anions
- Photos taken by SS w/USFWS #2 camera
  upstream 0005 downstream 0006
- Sediment collected by RM in channel
- Stream very slow running - substrate small rocks, areas of slow running water has small pebbles, fine silt + sands. Substrate clear
- Flows by RM w/ 4 inch flume #2
  Ha: 0.1
  Hb: 0.03 ~2-3% leakage
- partly cloudy, cool, light wind
- Flume appeared level, bubble level compromised

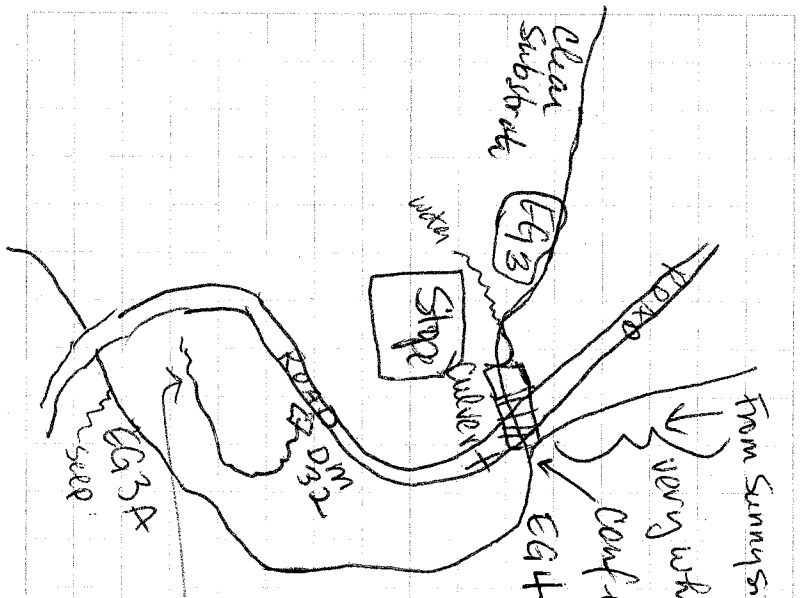
Location Upper Animas Date 09/29/15

Project / Client

SLJ 09/29/15

Location Upper Animas Date 09/29/15

Project / Client



114 Location: Upper Animas Date: 09/29/15

Project / Client:

EG 3A 12:10 PM see map on previous page

Recorder: SS

Samplers: SS, RM, AJ, TW

Flow tracker - Unit #5

flow taken by RM

Water Quality Unit #3 by SS

~~pH~~ ST 09/29/15

Temp ~~7.25°C~~ 8.95°C

pH 7.25 pH units

Cond 202.5 uS/cm

DO 7.53 mg/L

- Flow too low at some points for .6 method. Instrument at lowest possible depth - RM
- Sediment collected by AJ
- water sample collected by TW + SS Total dissolved alkalinity + anions
- photos taken by SS w/ USFWS #2 camera upstream 0007 downstream 0008
- water is running clear - area is like a chute with small rocks + sediment rare. Bedrock is stained heavily with primarily white + some red. Profile of rock on bank shows heavy contrast between dark native color and white-red ~~film~~ deposition ST

09/29/15 partly cloudy, upper 50's, light wind

115 Location: Upper Animas Date: 09/29/15

Project / Client:

DM32 12:50 PM see map 113

- Recorder: SS
- Samplers: SS, RM, AJ TW
- No flow measurement - some H_2O coming out of plastic pipe at caged area (where water crosses under road). In August, flow was high enough to go over lower road. Now too low to measure
- Temp 8.82°C

  pH 4.23 pH units

  Cond 487.9 mS/cm

  DO 7.34 mg/L

  water quality unit #3 by SS
- Rock pile / tailings area. Water is clear. Substrate ~~but~~ is stained red. White precipitate on rocks at point of evaporation ST 09/29/15
- Photos taken by SS w/ USFWS #2 camera upstream 0009 downstream 0010
- Water samples collected by TW / SS Total, dissolved alk + anions
- No sediment required for collection at this site. Sediment very red-orange
- low 60's, partly cloudy, light wind

ST 09/29/15

Location: Upper Animas Date: 09/29/15

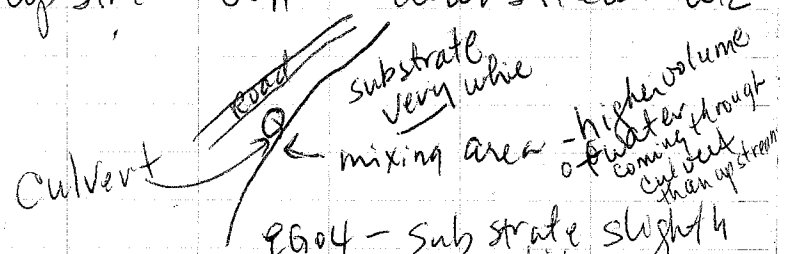
Project / Client:

EG04 13:50 See map 113

Samplers: SS, RM, AJ, TW
recorder: SS

Water quality Unit #3 by SS
Temp: 12.0°C
pH: 7.02 pH
Cond: 212.8 µS/cm
DO: 7.28 mg/L

- water collected by SS/TW
Total, dissolved, alk/anions
- Mostly cloudy, upper 50's, no wind
- water flowing well, substrate coated with white-slight red deposit water is clear. Water clear
- Flow measurement by RM
4" flume ESAT #2
Ha 0.21 leakage ~10%
Hb 0.06
- photos taken by S.S. w/ USFWS #2 camera
up stream 0011 down stream 0012



EG04 - substrate slightly less white

Location: Upper Animas Date: 09/29/15

Project / Client:

EG03 1410 see map 113

samplers: SS, RM, AJ, TW
Recorder: SS
Water Quality Unit #3 by SS
Temp: 9.93 °C
pH: 7.10 pH units
Cond: 213.5 µS/cm
DO: 7.33 mg/L
water collected by SS, TW
Total, dissolved, alk/anions
- mostly cloudy upper 50's, slight wind
- water flowing, rocky bottom substrate exposed (previously covered by water)
- flow measurement by RM
4" flume ESAT #2
Ha: 0.195 ~leakage 10%
Hb: 0.075
- photos taken by SS w/ USFWS #2 camera
- Water clear, substrate has some black and red staining
- photos taken by SS w/ USFWS #2 camera
upstream: 0013 down stream: 0014

SS 09/29/15

Upper Animas 09/29/15

ARD1 1455

Samplers: SS, RM, AS, TW
~~Use syringe~~ st 09/~~25~~29/15
- Water is not flowing. Slope is steep and water occurs in shallow pools. Moss growing in upper part of channel
- Water collected by RM. Total, dissolved, alkalinity + anions
- No sediment - not on table
- Water Quality - ESAT Unit #3 by SS
  Temp 13.03°C
  pH 3.1 pH units
  Cond 918 µs/cm
  DO 7.09 mg/L
- Photos taken by S. Skipper w/ USFWS #2
  upstream 0015 downstream 0016

- No flow taken, water flow very low.
- Upper 50's, partly cloudy, slight wind
- Substrate has white deposition. Red staining on rocks. Sample site is below waste rock pile + water ran through pile + reappears 30 yards from road.

Upper Animas 09/29/15

DM69 Sampler RM
Recorder: SS 09/29/15 1545
Ransom Mine
No water verified by RM
photos taken by RM w/ USFWS #2 camera
adit: -0017
looking down at tailing pile 0018

SLS
09/29/15

Location: Upper Animas Date: 09/29/15

Project / Client:

EG09 1615

Samplers: SS, RM, TW, AJ
Recorder: SS
Water Quality ESAT #3 by SS
Temp 8.92°C
pH 7.42 pH units
Cond 476.7 uS/cm
DO 7.85 mg/L
- Flow done w/ flowtracker #5 by RM 1.741 cfs
- Water collected by SS + AJ Total, dissolved (split w/ formation) and alk/anions (non-split)
- Site is directly opposite of Scree pile.
- Photos taken w/ USFWS Camera #2 by SS upstream 1019 downstream 1020
- Sediment collected by Formation split taken for EPA
- Water is clear. White/red/brown deposition on rocks. Lots of red-brown algae w/ gas bubbles

Location: Upper Animas Date: 09/29/15

Project / Client:

437 1725

Samplers SS, RM, TW, AJ
Recorder SS
Water Quality ESAT #3 by SS
Temp : 8.73°C
pH : 7.69 pH units
Cond : 376.3 uS/cm
DO : 7.91 mg/L
- Water collected by S. Skipper Total, dissolved (split w/ Formation) ALK/ANIONS, Sed.
Dup taken Total, dissolved, alk/anions
- photos taken by S.S w/ USFWS #2 upstream 1021 downstream 1022
- Site is at end of road before stream crosses
- Sediment collected by Formation
- Water is clear, substrate has whitish deposits covering rocks
- Flows collected w/ Flowtracker #5
- Duplicate of sediment taken
- Flows 0.614 cfs - RM

SS 09/29/15

Location Upper Animas Date 09/29/15

Project / Client

A36 1810

Samplers: SS, RM, AJ, TW
recorder: SS
Water quality meter ESAT #3 by SS
Temp 7.87°C
pH 7.66 pH units
Cond 513.0 uS/cm
DO 8.05 mg/L

- Photos taken by SS w/ USFWS #2 downstream 0023 upstream 0024
- Substrate is milky reddish brown, water is very slightly cloudy.
- Site is across stream from A37. Walk road until come to foundation w/ green stone + then head downhill toward S. Fork of Animas River. Lots of fallen trees across stream
- Flow taken by RM w Flow tracker #5
- H2O samples collected by SS. Total + dissolved (split w/ Formation) alkalinity + anions (not split)
- Sediment collected by AJ + TW
- partly cloudy, upper 50's, no wind

Location Upper Animas Date 09/29/15

Project / Client

DM34 1900

Recorder: SS
Sampler: RM
Adit was dry - no samples collected
Photos of adit taken by RM w/ USFWS #2 camera 0025 + 0026

A38 0915 09/30/15
Recorder: SS. No water found at this site - no samples collected. Photos taken by S. Skipper w/ USFWS #2. Site has been remediated + there is no opening (tunnel or adit). GPS point at road crossing over black pipe
Photos: 0029, 0030

DM33 0900 09/30/15 Recorder: SS
Bavarian Mine. Location is across stream from Terry Tunnel - high, mostly red, rock face. Area was scanned with a monocular scope and no water was seen anywhere on this mountain face (other than stream (MCO).
photos taken w/ USFWS #2 by SS
Photos: 0031 — 0035

Location: Upper Animas Date: 09/30/15

Project / Client: EG06 0930

Samplers: SS, RM, AJ, TW, Recorder: SS
water quality meter ESAT #3 by SS
Temp 6.44°C
pH 7.22 pH unit
Cond 275.3 uS/cm
DO 8.17 mg/L

- photos taken by SS w/ USFWS #2
- water collected by RM
  Total, dissolved, alk, anions
- sediment collected by AJ
- Flow collected by RM w/ FlowTracker #B 0.219 cfs
- photos - upstream: 1027 downstream: 1028
- site is ~300 meters downstream of Terry Tunnel. Area flanked by stone cliff on opposite side of creek and willows on other shore. Willow area is very wet, peaty + marshy. Lots of evidence of ungulate presence - scat, lay down areas and musky smell. Bottom mostly rocky - some rocks large + slippery. Light white deposit on rocks
- weather - partly cloudy, mid-50's, light wind
- site just below tram house

Location: Upper Animas Date: 09/30/15

Project / Client: MC0 10:50

Recorder: SS
Samplers: SS, RM
- water quality meter ESAT #3 by: SS
  Temp: 5.15°C
  pH: 7.12 pH units
  Cond: 153.2 uS/cm
  DO: 8.51 mg/L
- photos taken by: w/ USFWS #2 camera
  upstream: 0036 downstream: 0037
- water collected by: RM, SS
  Total, dissolved, alkalinity + anions
- weather: partly cloudy, mid-50's, light wind
- Flow: No flow taken - too shallow, narrow, rocky, no level location for flume
- Sediment - not collected per table
- Site description: Collection point @ mouth of vertical stream that descends just east of Bavarian mine. There are other water sources from the mountain face that Bavarian mine is located. Rocks and bottom are stained black (manganese + magnesium) Heavy staining on rocks that doesn't rub off. In receiving stream, beige colored bottom has areas of black precipitate

Location: Upper Animas Date: 09/30/15

Project / Client:

A39 11:15

Recorder: SS
Samplers: SS, RM, TW, AJ
- Water quality meter ESAT #3 by:
Temp: 8.06°C
pH: 7.1 pH units
Cond: 207.0 uS/cm
DO: 7.95 mg/L
- photos taken by: SS w/ USFWS #2 camera
upstream 0038 downstream 0039
- water collected by: RM
Total, dissolved alkalinity + anions
- weather: partly cloudy, mid-50s, ~~cool~~ light wind SS 09/30/15
- Flow - nine - braided channel, lots of drop pools
- Sediment - no sediment
- site description - site upstream of Terry Tunnel - some braiding in area through rock pile w rocks stained milky red (more white than red). Bottom on some braids beige. On other braids, some black precipitate and some rocks are slightly stained black

Location: Upper Animas Date: 09/30/15

Project / Client:

EG-5 1145

Recorder: RM
Samplers: RM, AJ
Water Quality meter ESAT #3 by:
Temp: 7.30°C
pH: 7.14 SU
Cond: 206.6 uS/cm
DO: 8.00 mg/L
- photos taken w/ USFWS camera #~~3~~ 2 SS 09/30/15 (09/30/15) by: upstream: 0041 downstream: 0040
- water collected by: RM
Total, dissolved alkalinity + anions
- weather: ~~pla~~ SS 09/30/15 partly cloudy, mid-50s, light wind
- Flow: No Flow Collected here
- Sediment: AJ Collected Sediment from RL
- Site description
50 meters downstream from Road Culvert Above tributary from terry tunnel Waste Rock (ARD-1) Channel is bedrock & stained Orange & Green

Not A Suitable location
Fall Drop/high gradient

128 Location Upper Animas Date 09/30/15

Project / Client

A42 1340

Recorder: SS
Samplers: SS, RM, TW, AJ
~~WATT~~ SS 09/~~24~~30/15
Water Quality ESAT #3 by SS
Temp: 7.24°C
pH: 7.46 pH units
Cond: 316.2 µS/cm
DO: 8.65 mg/L
- Photos taken w/ USFWS Camera #2
upstream: 0042 downstream: 0043
- water collected by: SS
Total dissolved (split w/ Formation,
alk/anions (not split)
- Sediment collected by: TW - split for formation
- Flow by RM w/ Flow Tracker #5

- Site description:
Sample taken upstream of culvert
Close to road.
Water is clear, substrate clear

SS 9/30/15

- Weather: Light rain, low wind, low 50's

Location Upper Animas Date 09/30/15

Project / Client

A40A 1530

Recorder: SS
Samplers: SS, RM, TW, AJ
- Water Quality ESAT #3 by SS
Temp: 11.51°C
pH: 7.25 pH units
Cond: 393.9 µS/cm
DO: 7.86 mg/L
- photos taken w/ USFWS Camera #~~3~~ 2 by SS SS 09/30/15
upstream 0048 downstream 0049
- water collected by: SS
Total dissolved (split w/ Formation)
alk/anions (not split)
- sediment collected by: ~~TW - split for Formation~~ SS 09/30/15
RM - not a split w/ Formation
2.078 CFS
- Flow by RM w/ Flow Tracker #5
SS 09/30/15
- Duplicate collected: Sediment for A40A split, dup not
- Site Description: In Animas River directly across road from Forest Queen. Sample + flow taken where braiding becomes 1 channel. Water is clear. Substrate has fine milky coating.

- Weather: Rain, light wind, low 50's
Sun came out while sampling

130 Location: Upper Animas Date: 09/30/15

Project / Client:

Recorder: SS SS 09/30/15

A41C ~~Forest Queen Adit~~ Forest Queen drainage above culvert 1450

Dry - verified by RM

photos taken by RM w/ USFWS #2

downstream: 0045, upstream: 0044

Weather: raining, 50's

~~A41C - At culvert~~ SS 09/30/15

SJ 09/30/15

131 Location: Upper Animas Date: 09/30/15

Project:

A33

Recorder: SS

Samplers: SS, RM, TW, AJ

Water Quality ESAT #3 by SS

Temp ~~7.24~~ SS 09/30/15: 9.84°C

pH: 7.22 pH units

Cond: 357.7 µS/cm

DO: 8.04 mg/L

- photos taken w/ USFWS #2 by SS
  up stream: 0050 downstream 0051
- Water collected by SS
  Total, dissolved - split w/ formation
  alkalinity and anions (not split)
- Flow by RM FlowTracker #5
- Sediment collected by TW, split w/ formation

Location: Upper Animas Date: 10/01/15

Project / Client: Bakers Bridge 0845

Recorder: SS
Samplers: SS, ~~TE~~ SS 10/01/15 RM, IB
- Water Quality ESAT #3
  Temp: 10.69 °C
  pH: 6.60
  Cond: 385.5 uS/cm
  do: 9.05 mg/L
- photos taken w/ USFWS #2 by IB
  upstream: 0052 downstream: 0053
- porewater collected by: SS

- Surface water collected by: IB/SS
  Total, dissolved, alkalinity + anions
- Sediment collected by: IB/SS
- flows collected by RM w/ FlowTracker #5
  flow coming from opposite bank upstream of flow measurement
- Duplicate of all media at this site
- Site info - Samples collected at Durango RV resort, entered between cabins. Water level is low in Animas River. Water is clear. Cobble closest to water stained light orange.
- Weather - low 50's, mostly sunny, no wind

Cont'd

Location: Upper Animas Date: 10/1/15

Project / Client: Bakers Bridge 0845

Cont'd from pg 132

- Pore water collected approximately 150' downstream of sediment sampler and surface water samples. No porewater locations were available in surface water collection location. Field samples collected followed by dup
- Pore water probe depth: 6 3/4" 6.75 inches

- Flows and samples were taken near the middle of the RV campground near cabin #

Flow rate: RM 139.639 CFS
Porewater collected at shoreline in muddy area w/ little cobble

SS 10/1/15

112
Location: Date:
Project / Client:

118
Location: Upper Animas Date: 08/05/2015
Project / Client:

KT-03
11:30

Samples
Dan Wall
Steve Auer
Ryan Schuffler

After meeting w/ the land owner & touring his property, A polygon was added to assess a portion of the Kittimack tailings on his property, which we called KT-03. Soil samples were collected inside the polygon from 0-6 inches, sieved w/ a coarse #10 sieve and homogonized before filling sample bottles. ABA SPLP & total recoverable metals w/ mercury. Pictures 266, 267, 268, & 269 taken on Camera 582852. One scoop was used

Next page →

Location _____ Date _____

Project / Client _____

KT-03 Continued.

per polygon. Three scoops were taken per hole. Scoops & Seive are dry deconed between each collection station. Land owner's name is Joe Jepson. KT03 had a total of 28 sub locations that soil was collected from.

Location _____ Date _____

Project / Client _____

KT-01
08/03/2015
2:00pm 14:00

Samplers
DW
SA
RB

KT-01 is rocky & comprised of cobble along w/ soil. KT-01 is West of the railroad and abutts KT-02 to the North. Equal volumes of samples from each sub location were collected to be sieved later. Picture taken with Camera S82852 pic # 270 looking South.

116

Location: Eureka Date: 8-4-2015

Project / Client:

Team: B. Forsythe, K. Fahnfle/A, B. Line, T. Walker, Jon Pede

0855 ET-02

- sunny 54°
- #1 (warm creek, gravel bars with <6" Bars) scours (gravely)
- #2 (high point of braided channels w/ gravel)

Polygon ET-02 is Dominated by willows & meandering creeks with gravel bars. Samples were taken at each sublocation from 0-6". Pictures taken on Black Camera 582582 Pic # 271, 272, 273, 274 All Photos taken looking To the South

Test Pits were established w/ bias on obvious depositional areas.

117

Location: Eureka Date: 08/04/2015

Project / Client:

ET-01 Scribe 23

1100

ET-01 is more open w/ fewer stands of willows. Area was River is braided through the polygon in the center and west side.

Photos taken w/ Camera 582582 Pic # 275, 276, 277, 278

Test Pits were established w/ bias on obvious depositional areas location recorded on Unit 1

Eureka 08/04/2015

ET04 Scribe RB
~~1400~~ 1300 Sampler BF
DW

South Eastern portion of polygon is dominated by willows. Polygon opens up to more obscure braided stream channel. Weather is becoming increasing cloudy. Polygon is more open w/ deposits to the North West.

Test pit chosen based on ground observation location recorded on GPS Unit 1

Pictures taken w/ Camera 582582
Pic# 279, 280, 281, 282, 283, 284
facing South

Eureka 08/04/2015

ET03 Scribe RB
1415 Sampler BF
DW, SA

Southern end of polygon is open w/ few willows. River is braided and meandering through this portion. Northern and western portion of polygon is open w/ braided stream. A large berm is diverting water into different channels @ the North end of polygon.

Test pits chosen based on ground observations. Location recorded on GPS Unit 1

Pictures taken w/ Camera 582882
Pic# 285 286 287 288

Eureka Floodplain 08/04/2015

ET 05
1530

Source RB
Samples
SA, DW, BF

Open area w/ Braided stream @ southern end of polygon. Lots of woody debris around water channel. Area remains open as we traversed the sample grid to the North.

Test pits chosen based on ground observation. Coordinate recorded on Unit 1.

Pictures taken on Camera 582582
Pic # 289 290 291 292 293 294

Eureka Floodplain 08/04/2015

ET 06

Source RB
Samples
SA, DW, BF, BS

Area is open w/ cobble rock bars. This polygon abutts the road on its eastern edge & abutts the river on its western edge.

Test pits chosen w/ bias. GPS taken w/ GPS Unit 1

Pictures taken on Camera 582582
Pics # 295, 296, 297, 298

Location: Eureka Floodplain Date: 08/05/2015

Project / Client:

ET08 Scribe RB

8:30 Sampler DW, BF, RM

Area is open w/ rocky and coldy soil & few willows interspersed. We did not encounter the Animas river until the very North West end of the Polygon. The day has started warm & sunny w/ no clouds in the air. Three teams were used and samples were consolidated

Pictures taken on Camera 582852
Pic # 300, 301, 302, 303, 304, 305

Location: Eureka Floodplain Date: 08/05/2015

Project / Client:

ET07 Scribe RB

940 Samplers DW, BF, RM

Polygon area is open w/ few willows. Substrate is rocky w/ lots of debris. Three teams were used to collect samples which were consolidated into one. Animas river runs through the east & center of this polygon. The Animas becomes very braided in this polygon

Pictures on Camera 582852
Pic # 306, 307, 308, 309, 310, 311

Eureka Floodplain 08/05/2015

ET 09

Scribe RJ
Samplers
DW, BF, RM

Polygon is rocky & open w/ multiple braided channels of the Animas. The Day is warm & clear sky w/ few clouds. Lots of woody Debris in this Polygon. Large rock berms are built up in places but not consistently.

Pictures taken on Camera 582852
Pic # 312, 314, 315, 316, 317

Eureka Floodplain 08/05/2015

ET 10

Scribe RJ
Samplers
DW, BF, RM

This polygon is dominated by rocky substrate with no river channels flowing. There is clear evidence of machinery having worked in the area with large rock berms near the road. Few willows or other vegetation growing in the area.

Pictures on camera 582852
Pic # 318, 319, 320, 321, 322

Eureka Floodplain 08/05/2015

ET 11 Scribe KB

1330

This polygon is dominated by rocky substrate.

3 photos documented ESAT S82852

4 teams of diggers.

326, 327, 326

Samplers DW BF RM RB

Very Little Vegetation. The Animas River is Consolidated into a single stream on the West side of the Sample Polygon

Eureka Floodplain 08/05/2015

ET 13 Scribe KB

1420

This polygon is dominated by rocky substrate. There were a few sandy spots.

4 teams of diggers

5 photos on S82852 camera

100 · 0333, 0332, 0331, 0330 0329

Samplers DW BF RM RB

The Animas river is consolidated on the West side of the Sample Polygon. Very Little Vegetation

Location Eureka floodplain Date 08/05/2015

Project / Client

ET 015
1525

Scribe

Samplers
DW, BF, RM, RB

This polygon is comprised of rocky substrate. The kuuwas is braided in parts of this polygon. Very little vegetation w/ willows interspersed.

Four Pics taken on Camera SB 28852
334, 335, 336, 337

Location Forest Queen Date 08/05/2015

Project / Client

FQ 01
1630

Scribe RB

Samplers
DW, BF, RM, RB

Polygon is interspersed w/ willow, grass & a variety of vegetation. There are multiple flows of dirt interspersed w/ orange soil. There are many dead willow stumps in the mud flows. 28 samples were collected at this polygon.

Pics taken on Camera SB28852
337 338 339 340 341
342 343 344 345 346
347 348

PAGE NOT Applicable

Location _____ Date 8/6/15

Project / Client _____

LA3
Leslie Christner collected sediment for TRM + Hg
Split was taken
Sunny, calm, temps in the 70's
2 photos on SS camera
5021 upstream 5022 downstream

A43
LC collected sediment for TRM + Hg split was taken
2 photos on SS camera
5023 upstream 5022 downstream

A42
LC collected sediment for TRM + Hg analysis. Split was taken.
Water has slight yellow tint.
2 photos collected on SS camera 5025 upstream
5026 downstream
Sunny calm Temps in the 70's

PAGE NOT Applicable

Location CC-48 Date 8/6/15

Project / Client

CC-48
Time: 1300
Temp: ~~14.23°C~~ 14.06°C 8/6/15
pH: 3.74 s.u.
condo: 993.8 µs/cm
DO: 7.23 mg/L

Total recoverable metals and dissolved metals surface water grab samples collected by LC.

Water is very turbid and orangish brown.

Sunny and calm

2 photos on SS camera 5031 upst
5032 downst

Seems like water level has gone down. Fresh sediment on banks

Location _____ Date _____

Project / Client _____

pH 4.0 Response 56.7561

pH 7.0 Response -88.3366
Slope -48.3642
offset 250.213

Condo
999 uS/cm Response 353.457 ohms
KCell 0.316314

DO 6.64 mg/L
20.50 °C
730.27 mbar
Slope 0.97 (mg/L)/(mg/L)

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Common Field Data Error Codes

Error codes are used to explain common mistakes and are written above or close to the mistake.
Commonly used error codes include:

- RE Recording Error
- CE Calculation Error
- TE Transcription Error
- SE Spelling Error
- CI Changed for Clarity
- DC Original Sample Description Changed After Further Evaluation
- WO Write Over
- NI Not Initialed and Dated at Time of Entry
- OB Not Recorded at the Time of Initial Observation

Note: Error code should be circled, dated, and initialed when recorded.

Hazard Classifications

Class 1 Explosives
Class 2 Gas
Class 3 Flammable Liquid
Class 4 Flammable Solids (Potential spontaneous combustion, or emission of flammable gases when in contact with water)
Class 5 Oxidizing Substances and Organic Peroxides
Class 6 Toxic (poisonous) and Infectious substances
Class 7 Radioactive material
Class 8 Corrosives
Class 9 Miscellaneous dangerous goods

Container type abbreviations (for sampling guidelines)

BR - Boston Round • ABR - Amber Boston Round • AJ - Amber Jug • AWM - Amber Wide Mouth • Poly - Polyethylene Bottles • BOD - Bottle • CWM - Clear Wide Mouth

Location _____ Date 10/1/15

Project / Client Upper Animas

GeoTech YSI Calibration : 2231
10/1/15

	initial	final
pH 4.0	4.07	4.00
pH 7.0	6.98	7.00
condo (999 ms/cm)	0.999 ms/cm	0.999 ms/cm
DO	59.0%	72.0 %

Location A-72 Date 9/29/15

Project / Client Upper Animas

Time : 7:50
Temp : 5.05°C
pH : 4.40
condo : 0.531 ms/cm
DO : 7.32 mg/L

Total recoverable metals and dissolved metals pulsewater sampler collected by KB.
Temp : 5.06°C
pH : 4.25 su
condo : 0.523 ms/cm
DO : 6.87 mg/L
Collected at 16cm

TRM, dissolved metals and HLT Anions surface water grab sampler collected by KB.

Gaging station, no flow.

Sediment collected by LC

2 photos on Blue E47 camera

YSI bump check @ 2:30
pH 4 read 3.87 pH 7 read 7.00

Location M34 Date 9/29/15

Project / Client Upper Animas

Time 8:45
Temp 4.51° C
pH 6.00 su
cond 0.456 ms/cm
DO 7.62

Total metals and dissolved metals (15.5 cm)
porewater samples collected by LC. Temp: 4.69°C
pH: 6.48 su
cond: 0.547 ms/cm
DO: 6.24 mg/L

DUP 01 collected here.

Total metals, dissolved metals, and
alk + anions surface water grab samples
collected by KB

2 photos on Blue ESAT camera
582853.

Sediment collected by LC.

Clear skies, staining and orange precipitate
on substrate

Location A68 Date 9/29/15

Project / Client Animas

Time: 1000
Temp: 6.47°C
pH: 7.34 su
cond: 0.339 ms/cm
DO: 7.56 mg/L

Total metals and dissolved metals
porewater samples collected by LC
Temp: 8.39°C
pH: 7.59 (13.5 cm)
cond: 0.340 ms/cm
DO: 6.44 mg/L

Total metals, dissolved metals, and
Alk + anions surface water grab samples
collected by KB.
Sediment collected by KB

2 photos on Blue ESAT 582853.

Partly cloudy, algae on banks and
substrate. Water is clear.

8

Location A66 Date 9/29/15

Project / Client Animas

Time 1100
Temp 6.90°C
pH 7.40 su
condo 0.337 ms/cm
DO 7.34 mg/L

Total metals and dissolved metals porewater samples collected by KB
Temp 7.98°C
pH 7.18 su (18.0 cm)
condo 0.330 ms/cm
DO 6.00 mg/L

Total metals, dissolved metals and Alk + Anions surface water grab samples collected by KB.
Sediment collected by KB.

2 photos on 182853.

Flow collected by LC on unit 3.

9

Location A65 Date 9/29/15

Project / Client Animas

Time 1200
Temp 7.67°C
pH 7.35 su
condo 0.331 ms/cm
DO 7.39 mg/L

Total metals, dissolved metals and Alk + Anions surface water grab samples collected by KB.
Sediment collected by KB.

2 photos on 182853.

Water is clear. Cloudy with temps in the 60s.

Total metals and dissolved metals porewater samples collected by KB
Temp 10.33°C
pH 7.19 su (10.0 cm)
condo 0.412 ms/cm
DO 5.63 mg/L

Flow collected by LC on unit 3.

10

Location A64 Date 9/29/15

Project / Client Animas

Time 13:15
Temp 10.11 °C
pH 7.53 su
Condo 0.323 ms/cm
DO 6.71 mg/L

Total metals and dissolved metals porewater samples collected by KB.
Temp 12.56 °C
pH 6.71 su
Condo 0.561 ms/cm (16.5 cm)
DO 1.90 mg/L

Total metals, dissolved metals, Alk + Anions surface water grab samples collected by KB.
Sediment collected by KB.

2 photos on SD2853 camera.

Flow measurement on Unit 3 by LC.

2 dead fish on bottom of river at location.

11

Location A61 Date 9/29/15

Project / Client Animas

Time 14:20
Temp 9.97 °C
pH 7.36 su
Condo 0.309 ms/cm
DO 6.75 mg/L

Total recoverable metals, dissolved metals and Alk + Anions surface water grab samples collected by KB.

Flow measurement collected on unit 3 by LC

Light rain, water is clear, temps in the 50s

2 photos on SD2853

Sediment collected by KB.

Porewater total and dissolved metals collected by LC.
Temp 11.06 °C
pH 5.48 s.u. (17.0 cm)
Condo 1.548 ms/cm
DO 3.75 mg/L

12

Location A60 Date 9/29/15

Project / Client Animas

Time: 1520
Temp: 10.39 °C
pH: 7.12 su
Condc: 0.305 ms/cm
DO: 6.74 mg/L

Total metals and dissolved metals porewater samples collected by KB.
Temp: 10.88 °C @ (13.5 cm)
pH: 6.93 su
Condc: 0.305 ms/cm
DO: 6.46 mg/L

Total metals, dissolved metals and Alk + Anions surface water grab samples collected by KB.
Sediment collected by KB.

2 photos on SD2853.

Flow collected on unit #3 by LC.

Location A58 Date 9/29/15

13

Project / Client Animas

Time: 1610
Temp: 7.74 °C
pH: 6.81
Cond.: 0.236 mS/cm
DO: 7.11 mg/L

Total metals and dissolved metals porewater samples collected by KB
Temp: 10.90 °C @ (11.5 cm)
pH: 7.96
Cond.: 0.237 mS/cm
DO: 5.51 mg/L

Total metals, dissolved metals, and Alk + Anions surface water grab samples collected by KB.
Sediment collected by KB

2 photos on SD2853

14

Location A56 Date 9/29/15

Project / Client Animas

Time: 1645
Temp: 10.84 °C
pH: 7.93
Cond.: 0.321 mS/cm
DO: 6.49 mg/L

Total metals and dissolved metals porewater
Samples collected by KB
Temp: 12.93 °C
pH: 7.92
Cond: 0.319 mS/cm @ (11 cm)
DO: 5.54 mg/L

Total Metals, dissolved metals and Alk/Anions
Surface water grab sample collected by IB

Location A54 Date 9/30/15

15

Project / Client Animas

Time: 810
Temp: 4.12 °C
pH: 4.68 su
cond: 0.530 ms/cm
DO: 8.66 mg/L

GeoTech YSI 2231

Total metals, dissolved metals and Alk + Anions surface water grab
Samples collected by LC

Split samples for metals with mining company.

2 photos on EJA7 P2853.

Clear calm

Orange precipitate all over substrate.

No flow collected, not channellized.

16

Location A48 Date 9/30/15

Project / Client

Time: 0845
Temp: 5.88°C GeoTech YSI 2231
pH: 7.10 s.u.
cond: 0.318 ms/cm
DO: 8.81 mg/L

Total recoverable metals, dissolved metals, and Alk+Anions surface water grab Samples collected by LC

Sediment for total metals analysis collected by LC

partly cloudy temps in the 30's calm

Water is clear substrate not stained

Flow measured on FlowTracker unit 3 by KB

2 photos on S82853

Location A47 Date 9/30/15

17

Project / Client

Time: 0915
Temp: 6.54°C GeoTech YSI 2231
pH: 7.63 s.u.
cond: 0.340 ms/cm
DO: 8.63 mg/L
surface water
Samples for total recoverable metals, dissolved metals, Alk+Anions Analysis collected by KB

Flow measurements not collected because its too shallow for a ~~4" Flume and too~~ FlowTracker and too much flow for a Flume

Partly cloudy and warming up, calm

2 photos on S82853

water is clear substrate is natural looking

Location A45 Date 9/30/15

Project / Client Animas

Time: 945
Temp: 7.39°C
pH: 7.03 su
condo: 0.307 ms/cm
DO: 7.96 mg/L

GeoTech YSI 2231

Total recoverable metals, dissolved metals and Alk + Anions surface water grab samples collected by KB.

Flow measurement collected on Unit #3 by LC.

2 photos on ESA7 S82853

Sunny, partly cloudy, calm.
Water is clear, algae on substrate.

Sediment collected by KB.

Location LA3 Date 9/30/15

Project / Client Animas

Time: 1050
Temp: 8.43°C
pH: 6.86 su
condo: 0.285 ms/cm
DO: 8.26 mg/L

GeoTech YSI 2231

Total recoverable metals, dissolved metals and Alk + Anions surface water grab samples collected by KB.

Flow measurement collected on Unit #3 by LC.

2 photos on ESA7 S82853

Sunny, partly cloudy, calm.
Water is clear, algae on substrate.

Sediment collected by KB.

20

Location A43 Date 9/30/15

Project / Client

Time: 11:40
Temp: 6.17°C GeoTech YSI 2231
pH: 6.83
Cond: 0.294ms/cm
DO: 8.74mg/L

Total metals, dissolved metals, Alk + Anions Surface water grab Samples collected by LC

Sediment collected by LC

partly Cloudy, light breeze,

water is clear

2 photos on S82853

Flow measured by KB on FlowTracker unit 3

Surface water and sediment samples split with mining company

21

Location A41A Date 9/30/15

Project / Client Animas

Time: 1315
Temp: 10.32°C GeoTech YSI 2231
pH: 7.07 su
condo: 0.332 ms/cm
DO: 7.64 mg/L

Total metals, dissolved metals, Alk + Anions surface water grab samples collected by KB.

Sediment collected by KB
Surface water split for metals with mining company, as well as sediment.

2 photos on S82853

Flow measured by LC on FlowTracker unit 3

Cloudy, light rain has stopped
Water is clear.

Location A40 Date 9/30/15

Project / Client

Time: 1345
Temp: 10.38°C
pH: 6.82 s.u.
Cond: 0.326 ms/cm
DO: 8.30 mg/L

Total recoverable metals, dissolved metals, alk + Anions Surface water grab samples collected by LC

Sediment collected by LC

Cloudy and breezy raining on and off.

Flow measured by KB using FlowTracker

Water is clear

Surface water for metals and sediment Samples split with mining company

2 photos on S82853

Location A35 Date 9/30/15

Project / Client Animas

Time: 1455
Temp: 9.83°C
pH: 6.89 su
Cond: 0.392 mS/cm
DO: 7.85 mg/L

Total recoverable metals, dissolved metals, and Alk + Anions surface water grab samples collected by KB

Sediment collected by KB.

Surface water samples split for metals with mining company as well as sediment.

2 photos on S82853.

Flow measured using FlowTracker # 3 by LC.

Water is clear, algae on substrate, light rain and cloudy.

Location A34 Date 9/30/15

Project / Client Animas

Time: 1540
Temp: 8.66°C
pH: 7.02 su
Condo: 0.457 ms/cm
DO: 8.24 mg/L

Flow measurement collected by LC on FlowTracker Unit #3 as A34A.

DUP 03 collected here for surface water and sediment.

Surface water and sediment for metals split with mining company.

2 photos on SD2853.

Cloudy, calm, rain has stopped.

Water is clear, substrate natural looking.

Location A32 Date 9/30/15

Project / Client Animas

Time: 1645
Temp: 5.95°C
pH: 7.30 su
Condo: 0.328 ms/cm
DO: 8.25 mg/L

Total recoverable metals, dissolved metals and Alkt Anions surface water grab samples collected by LC.

Unable to flume or measure flow due to rocky substrate and steep gradient.

Surface water for metals and sediment split with mining company.

Cloudy, calm. Water is clear, substrate natural looking.

2 photos on SD2853.

26

Location A31 Date 10/1/15

Project / Client

Time: 7:55
Temp: 5.17°C
pH: 5.14
Cond: 351 us/cm
DO: 10.69 mg/L

Total recoverable metals, dissolved metals, Alk + Anions surface water grab samples collected by LC
Sediment collected by LC

partly Cloudy and calm

water is clear

Dup collected here

2 photos on S82853

Splits taken with Formation

27

Location Date

Project / Client

CONTENTS

PAGE	REFERENCE	DATE

Location CC21 Date 9/29/15

Project / Client Upper Animas

time: 1050
pH: 5.19
temp: 6.8°C
DO: 8.60 mg/L
Cond: 2586 us/cm

Surface water grab samples collected by Nicole Plescia (NP). Water quality parameters collected by NP using YSI ~~#5216~~ 5126 (NP). Flow measured by Ryan Bahnfleth (RB) using FlowTracker Unit 6.

Cement Creek appears to be more cloudy than South Fork Cement Creek. Orange stain present on stream banks and bedrock. Sample taken below confluence and after both creeks have mixed.

Partly cloudy, temperature ~70°F.

upstream and downstream photos taken with RB's cell phone.

4

Location CC03 Date 9/29/15

Project / Client Upper Animas

time: 1150
pH: 5.90
temp: 8.1°C
DO: 8.13 mg/L
Cond: 2677 µs/cm

Surface water grab samples for ~~total~~ metals, dissolved metals, alkalinity/anions collected by Nicole Plescia (NP). Water quality 5126 (NP) parameters collected by NP using YSI ~~#5216~~. Flow measured by Ryan Bahnfleth (RB) using FlowTracker Unit #6.

Cement Creek is cloudy and orange stain is present along the stream banks and substrate. Substrate is rocky, which makes flow measurements tough to accurately measure. Samples taken above newly constructed collection pond.

Photos taken with 5828852
upstream: 569
downstream: 570

Location CC03B Date 9/29/15

5

Project / Client Upper Animas

time: 1230
pH: 5.18
temp: 8.9°C
DO: 7.98 mg/L
Cond: 1219 µs/cm

Surface water grab samples for total metals, dissolved metals, alk/anions collected by NP. Water quality parameters collected by NP using YSI ~~#5216~~ 5126 (NP). Flow measured by RB using FlowTracker Unit #6.

Cement Creek is clearer than downstream sites. No orange stain present. Low flow, rocky substrate. Sample taken just upstream of power pole.

photos taken with 5828852
upstream: 571
downstream: 572

6

Location CC02E Date 9/29/15

Project / Client Upper Animas

time: 1310
pH: 4.75
temp: 4.8°C
DO: 5.05 mg/L
cond: 648.3 µs/cm

Surface grab samples for total metals, dissolved metals, alk/anions collected by RB. Water quality parameters collected by NP using YSI ~~#5210~~ 5126 (NP). Unable to do flow at this site due to lack in volume of water.

Low flow from open portal. Water drains to the road below and then dissapates.

photo taken with 582852
upstream: 573
downstream: 574

Location CC02D Date 9/29/15

7

Project / Client Upper Animas

time: 1340
pH: 3.70
temp: 5.3°C
DO: 4.94 mg/L
Cond: 2607 µs/cm

Surface grab samples for total metals, dissolved metals, alk/anions collected by NP. Water quality parameters collected by NP using YSI ~~#5210~~ 5126 (NP). Flow taken with partial flume HA 0.36. Flume was cleaned by RB prior to reading.

Low flow coming out of mine adit. Orange stain present in flow.

photos taken with 582852
upstream: 575
downstream: 576

8

Location CC14 Date 09/29/15

Project / Client South Fork Cement Creek

Scribe RB

Sampler NP

Time 1440
Temp 5.6°C
pH 6.32
Condo 1986 µS/cm
DO 3.91 mg/L

Surface Water Samples collected for TM, DM & ALK/Anions

Water from Adit is clear with the stream bottom stained Red/orange. Precipitate is built up along stream bank & bottom as much as 10 inches thick in some areas. Buildup makes flows measurements impractical. No flow taken. Buildup on grate over mine about 3ft tall.

Photos taken on Black ESAT Camera
Upstream #577 Downstream #578

9

Location CC46 Date 09/29/15

Project / Client Cement Creek

Scribe RB

Sampler NP

Time 1527
Temp 11.2
pH 3.66
Condo 2274
DO 7.91

Surface water samples collected for TM, DM & ALK/Anions. These samples were split w/ Formations Environmental.

Creek is murky & a mild orange in color. Recent, short rain event before samples were collected and rain (light) has started again while recording water quality parameters. Flow will be taken from USGS gauge

Photos taken on black ESAT camera Upstream #579 Downstream #580

10

Location A55 Date 9/29/15

Project / Client Upper Animas

time: 1650 Scribe: NP
temp: 9.7°C
pH: 7.46
DO: 8.45 mg/L
Cond: 601.5 us/cm

Surface grab samples collected by NP for TM, DM, alk/anions, Sediment samples collected by RB and Formation Environmental personnel. Sediment samples were split.

Animas is clear. Flow was measured at stream gauge. Grab samples were taken adjacent to USGS stream gauge.

photos taken with S82852
upstream: 581
downstream: 582

Location UA05 Date 9/30/15

11

Project / Client Upper Animas

time: 0915 Scribe: NP
temp: 4.7°C
pH: 5.32
DO: 10.88 mg/L
Cond: 469.7 us/cm

Surface grab samples collected by Nicole Plescia (NP) for total metals, dissolved metals, alk/anions, and sediment. Flow was measured by Ryan Bahnfleth (RB) using Flow Tracker Unit 6. YSI ~~#5210~~ 5120 (NP) used for water quality parameters.

Upper Animas is clear. Limited sediment in streambed, difficult to collect sample. Samples taken below mining debris in stream.

photos taken with S82852
upstream: 583
downstream: 584

Location A08 Date 9/30/15

Project / Client Upper Animas

time: 1020 Scribe: NP

temp: 6.4°C

DO: 10.52 mg/L

Cond: 467.8 us/cm

pH: 5.25

Surface water grab samples for TM, DM, Alkalinity, and sediment collected by NP. Water quality parameters collected by NP with YSI ~~5216~~ 5126 (NP). Flow collected by RB using FlowTracker Unit 6.

Water is clear, but white stain along bank and in substrate. Sediment sample difficult to collect due to lack of sediment. Rocky braided creek, difficult to obtain flow.

photos taken with 5592852
upstream: 585
downstream: 586

Location A07 Date 9/30/15

Project / Client Upper Animas

time: 1100 Scribe: NP

temp: 7.3°C

DO: 9.79 mg/L

pH: 4.79

Cond: 625.8 us/cm

Surface water grab samples for TM, DM, alk/anions, and sediment collected by NP. Water quality parameters collected by NP with YSI ~~5216~~ 5126 (NP). Baski Flume 4 inch throat used for flow by RB. HA = 0.25
HB = 0.18

Stream is clear, rocky braided creek. low flow. lack of sediment present.

photos taken with 5592852
upstream: 587
downstream: 588

14

Location A06 Date 9/30/15

Project / Client Upper Animas

time: 1140 Scribe: NP
temp: 6.8°C
pH: 7.74
DO: 10.45 mg/L
Cond: 535.7 us/cm

Surface water grab samples collected by NP for TM, DM, alk/anions. Water quality parameters collected using YSI ~~5426~~ 5126 (NP). 8 inch Baski flume used for flow. Flow collected by RB. HA = 0.12
HB = 0.02

Small tributary, low flow. Sample taken above culvert. unknown if mining activity above stream

photos taken with 582852
upstream: 589
downstream: 590

Location A05 Date 9/30/15 15

Project / Client Upper Animas

time: 1215 Scribe: NP
temp: 7.4°C
pH: 7.30
DO: 9.38 mg/L
Cond: 436.3 us/cm

Surface water samples collected by NP for TM, DM, sediment, alk/anions. Water quality parameters collected with YSI ~~5426~~ 5126 (NP). Flow collected with 8 inch Baski flume by RB. HA = 0.15
HB = 0.07

Algae growth present in stream. Water is clear. difficult to collect sediment sample. low flow, rocky substrate

photos taken with 582852
upstream: 591
downstream: 592

weather is cloudy with light rain

16

Location A03 Date 9/30/15

Project / Client Upper Animas

Scribe: NP

time: 1305
pH: 7.39
temp: 8.1°C
DO: 9.13 mg/L
Cond: 494.0 us/cm

Surface water samples collected by NP for TM, DM, alkalinity, & sediment. Water quality parameters collected with YSI ~~5210~~ 5126 (NP)
Flow taken with 4 inch Baski flume.
Flume taken by RB. HA = 0.29
HB = 0.10

sample collected just below 1st waterfall in pool. Water is clear

photos taken with 582852
593
594

GPS of updated location taken with unit 3 Trimble.

Location A02 Date 9/30/15 17

Project / Client Upper Animas

Scribe: NP

time: 1335
pH: 7.15
temp: 10.2°C
DO: 7.07 mg/L
Cond: 297.7 ms/cm

Surface water quality samples collected by NP for TM, DM, alkalinity. Water quality parameters collected with YSI ~~5210~~ 5126 (NP) Flow taken with 1 inch Baski flume. Flow taken by RB. HA = 0.05
HB = 0.02

Site location moved because of ease of access. low flow, orange algae stain present in substrate.

photos taken with 582852
upstream: 595
downstream: 596
GPS of updated location taken with Unit 3 Trimble.

18

Location A04 Date 9/30/15

Project / Client Upper Animas

time: 1415 Scribe: NP
temp: 10.6°C
pH: 7.53
DO: 8.15 mg/L
cond: 135.9 ms/cm

Surface water grab samples collected by NP for TM, DM, alk/anions, sediment. Water quality parameters collected with YSI ~~5246~~ 5126 (NP) 1 inch Baski flume used by RB for flow. HA = .16
HB = ~~.20~~ NP 0.02

Samples taken just below fixed auto sampler. Stream is low.

photos taken with SD2852
upstream: 597
downstream: 598

GPS of updated location taken with Unit 3 Trimble. Location moved due to better reflect access.

Location A02A Date 9/30/15

19

Project / Client Upper Animas

time: 1525
pH: 7.51
temp: 9.0°C
DO: 7.84 mg/L
Cond: 172.4 ms/cm

Surface water grab samples collected by NP for TM, DM, alk/anions. RB collected sediment. Water quality parameters collected on YSI (NP) ~~5246~~ 5126. Flow not collected due to insufficient volume of water in stream. Evident abandoned mines, very high elevation.

photos taken with SD2852
upstream: 600
downstream: 601

* A02B does not exist. After extensive recon of surrounding piles, no water evident. (RB)

20

Location A01 Date 9/30/15

Project / Client Upper Animas

time: 1555 Scribe: NP
pH: 7.48
temp: 9.1°C
DO: 8.89 mg/L
cond: 185.9 uS/cm

Surface water samples collected by NP for TM, DM, alk/anions, sediment. Water quality parameters collected with YSI ~~5226~~ 5126 (NP)
Flow measured by RB with 1 inch Baski flume. HA = 0.09
HB = 0.02

sample location is in a marsh. low flow, tall grasses growing over & around stream.

photos taken with S82852
upstream: 602
downstream: 603

Location BG Date 9/30/15 21

Project / Client Upper Animas

time: 1700 Scribe: NP
temp: 7.3°C
pH: 6.67
DO: 7.33 mg/L
Cond: 173.1 uS/cm

Water quality grab samples collected for TM, DM, alk/anions, sediment. RB collected sediment. NP collected TM, DM, alk/anions. Water quality parameters collected on YSI #5126. No flow taken at this location. flow was too low to sample with 1 inch flume.

Sample is at very high elevation, long hike to reach sample location.

photos taken with S82852
upstream: 604
downstream: 605

Appendix B
Flow Summary Sheets

Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information

File Name	CG11.WAD
Start Date and Time	2015/06/09 13:57:36

Site Details

Site Name	CG11
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
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	0.3%	3.2%
Velocity	1.2%	8.7%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.4%	-
Overall	**3.5%**	**9.3%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	REW	Total Width	18.000
Mean SNR	46.0 dB	Total Area	13.050
Mean Temp	37.24 °F	Mean Depth	0.725
Disch. Equation	Mid-Section	Mean Velocity	3.7219
		Total Discharge	**48.5692**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:57	6.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	13:57	7.00	0.6	0.400	0.6	0.160	1.7608	1.00	1.7608	0.400	0.7042	1.4
2	13:58	8.00	0.6	0.450	0.6	0.180	3.9259	1.00	3.9259	0.450	1.7671	3.6
3	13:59	9.00	0.6	0.550	0.6	0.220	4.9675	1.00	4.9675	0.550	2.7315	5.6
4	*14:00*	*10.00*	*0.6*	*0.400*	*0.6*	*0.160*	*2.5085*	*1.00*	*2.5085*	*0.400*	*1.0032*	*2.1*
5	*14:01*	*11.00*	*0.6*	*0.800*	*0.6*	*0.320*	*1.4386*	*1.00*	*1.4386*	*0.800*	*1.1507*	*2.4*
6	*14:03*	*12.00*	*0.6*	*0.750*	*0.6*	*0.300*	*3.1837*	*1.00*	*3.1837*	*0.750*	*2.3878*	*4.9*
7	*14:05*	*13.00*	*0.6*	*0.600*	*0.6*	*0.240*	*1.5676*	*1.00*	*1.5676*	*0.600*	*0.9407*	*1.9*
8	14:06	14.00	0.6	0.650	0.6	0.260	5.9098	1.00	5.9098	0.650	3.8410	7.9
9	*14:07*	*15.00*	*0.6*	*0.650*	*0.6*	*0.260*	*3.1932*	*1.00*	*3.1932*	*0.650*	*2.0754*	*4.3*
10	*14:08*	*16.00*	*0.6*	*0.700*	*0.6*	*0.280*	*3.0955*	*1.00*	*3.0955*	*0.700*	*2.1672*	*4.5*
11	*14:09*	*17.00*	*0.6*	*1.000*	*0.6*	*0.400*	*5.7533*	*1.00*	*5.7533*	*0.750*	*4.3150*	*8.9*
12	*14:21*	*17.50*	*0.6*	*1.100*	*0.6*	*0.440*	*3.7959*	*1.00*	*3.7959*	*0.550*	*2.0879*	*4.3*
13	*14:12*	*18.00*	*0.6*	*1.100*	*0.6*	*0.440*	*3.5039*	*1.00*	*3.5039*	*0.825*	*2.8909*	*6.0*
14	*14:13*	*19.00*	*0.6*	*0.850*	*0.6*	*0.340*	*6.7470*	*1.00*	*6.7470*	*0.638*	*4.3016*	*8.9*
15	14:19	19.50	0.6	1.100	0.6	0.440	5.2920	1.00	5.2920	0.550	2.9108	6.0
16	14:14	20.00	0.6	1.050	0.6	0.420	4.7474	1.00	4.7474	0.787	3.7381	7.7
17	*14:15*	*21.00*	*0.6*	*1.050*	*0.6*	*0.420*	*3.9580*	*1.00*	*3.9580*	*1.050*	*4.1554*	*8.6*
18	14:16	22.00	0.6	1.050	0.6	0.420	4.0879	1.00	4.0879	1.050	4.2918	8.8
19	14:17	23.00	0.6	0.900	0.6	0.360	1.2323	1.00	1.2323	0.900	1.1090	2.3
20	14:17	24.00	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.

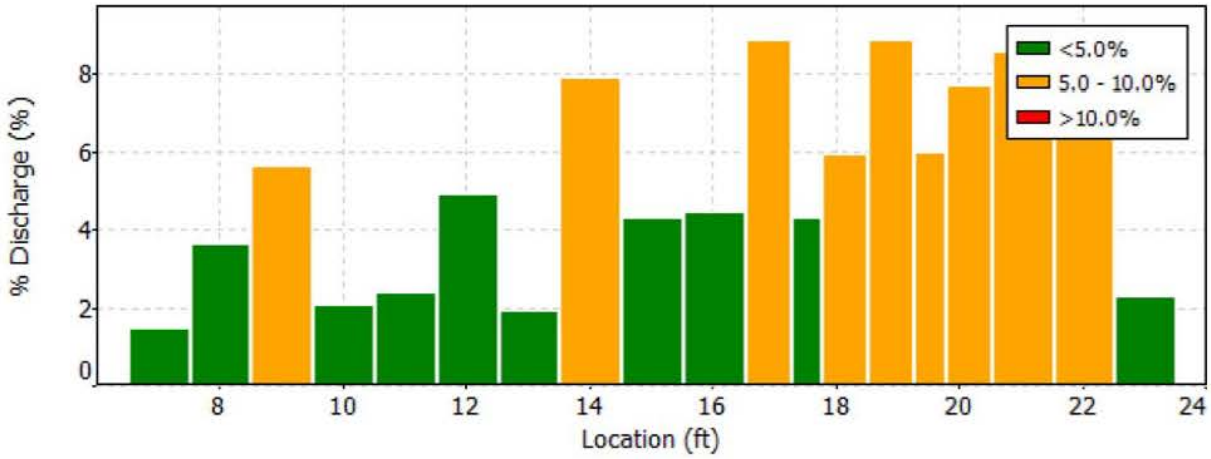
Reference 32

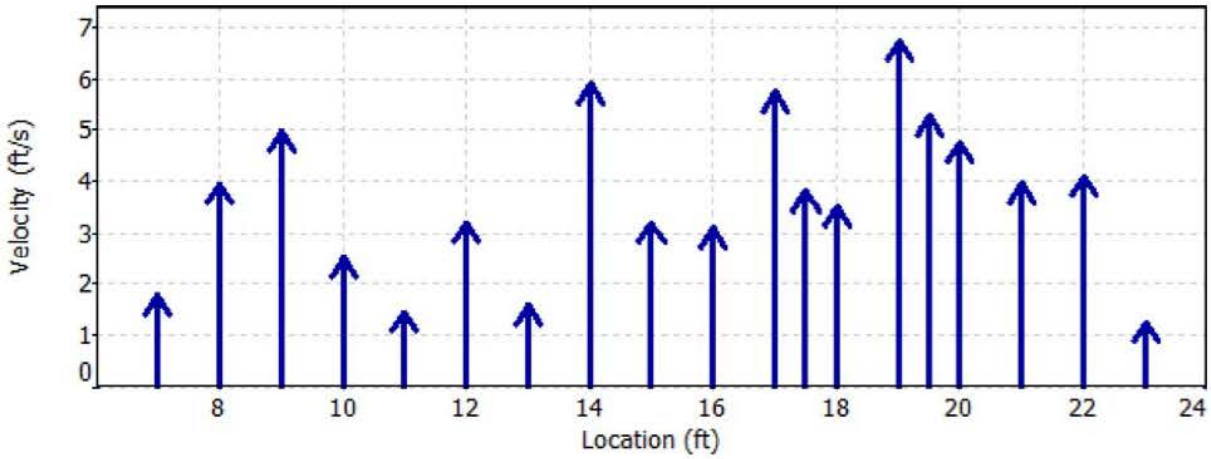
Discharge Measurement Summary

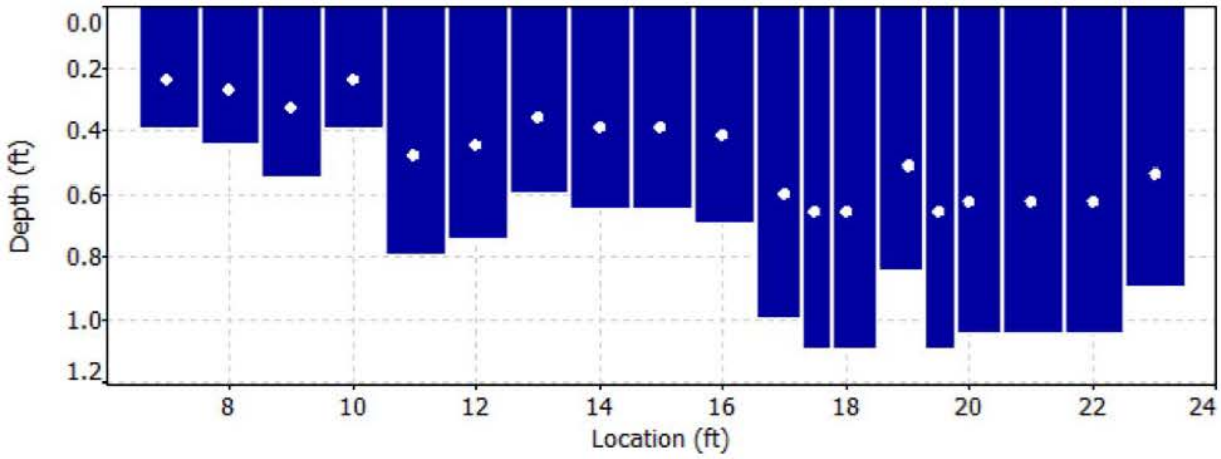
Date Generated: Thu Jul 2 2015

File Information	
File Name	CG11.WAD
Start Date and Time	2015/06/09 13:57:36

Site Details	
Site Name	CG11
Operator(s)	RB







Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	CG11.WAD	Site Name	CG11
Start Date and Time	2015/06/09 13:57:36	Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
4	10.00	0.6	High standard error: 0.202
5	11.00	0.6	High angle: -27
6	12.00	0.6	High angle: -26
7	13.00	0.6	High angle: -34
9	15.00	0.6	High standard error: 0.332
10	16.00	0.6	High angle: -24
		0.6	High standard error: 0.373
11	17.00	0.6	High number of spikes: 7
12	17.50	0.6	High number of spikes: 7
		0.6	High standard error: 0.302
13	18.00	0.6	High number of spikes: 5
		0.6	High standard error: 0.250
14	19.00	0.6	High number of spikes: 7
17	21.00	0.6	High standard error: 0.211

Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information

File Name	A08.WAD
Start Date and Time	2015/06/10 10:31:43

Site Details

Site Name	A08
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
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	0.3%	1.2%
Velocity	1.0%	4.6%
Width	0.1%	0.1%
Method	1.7%	-
# Stations	2.4%	-
Overall	**3.3%**	**4.9%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	REW	Total Width	10.801
Mean SNR	45.4 dB	Total Area	8.243
Mean Temp	33.08 °F	Mean Depth	0.763
Disch. Equation	Mid-Section	Mean Velocity	3.6021
		Total Discharge	**29.6938**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:31	8.40	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	10:31	9.00	0.6	1.100	0.6	0.440	4.6873	1.00	4.6873	0.495	2.3202	7.8
2	10:52	9.30	0.6	1.100	0.6	0.440	4.1906	1.00	4.1906	0.330	1.3831	4.7
3	10:32	9.60	0.6	1.100	0.6	0.440	5.9948	1.00	5.9948	0.330	1.9786	6.7
4	*10:54*	*9.90*	*0.2/0.8*	*1.000*	*0.2*	*0.800*	*5.8166*	*1.00*	*6.0751*	*0.300*	*1.8227*	*6.1*
4	*10:55*	*9.90*	*0.2/0.8*	*1.000*	*0.8*	*0.200*	*6.3337*					
5	10:33	10.20	0.6	0.950	0.6	0.380	4.5108	1.00	4.5108	0.428	1.9292	6.5
6	*10:34*	*10.80*	*0.6*	*1.050*	*0.6*	*0.420*	*3.3537*	*1.00*	*3.3537*	*0.630*	*2.1128*	*7.1*
7	*10:35*	*11.40*	*0.6*	*0.900*	*0.6*	*0.360*	*3.3727*	*1.00*	*3.3727*	*0.540*	*1.8213*	*6.1*
8	10:36	12.00	0.6	0.800	0.6	0.320	4.3448	1.00	4.3448	0.480	2.0854	7.0
9	10:37	12.60	0.6	0.600	0.6	0.240	3.6030	1.00	3.6030	0.360	1.2974	4.4
10	10:38	13.20	0.6	0.500	0.6	0.200	3.6581	1.00	3.6581	0.300	1.0976	3.7
11	10:39	13.80	0.6	0.500	0.6	0.200	2.7087	1.00	2.7087	0.300	0.8127	2.7
12	10:40	14.40	0.6	0.550	0.6	0.220	1.5200	1.00	1.5200	0.330	0.5015	1.7
13	10:41	15.00	0.6	0.650	0.6	0.260	2.2871	1.00	2.2871	0.390	0.8920	3.0
14	10:42	15.60	0.6	0.800	0.6	0.320	2.3570	1.00	2.3570	0.480	1.1313	3.8
15	*10:44*	*16.20*	*0.6*	*0.950*	*0.6*	*0.380*	*3.2067*	*1.00*	*3.2067*	*0.570*	*1.8283*	*6.2*
16	10:44	16.80	0.6	0.950	0.6	0.380	3.4564	1.00	3.4564	0.570	1.9706	6.6
17	10:45	17.40	0.6	0.950	0.6	0.380	3.8028	1.00	3.8028	0.570	2.1681	7.3
18	*10:46*	*18.00*	*0.2/0.8*	*0.800*	*0.2*	*0.640*	*4.5866*	*1.00*	*4.7740*	*0.480*	*2.2914*	*7.7*
18	*10:48*	*18.00*	*0.2/0.8*	*0.800*	*0.8*	*0.160*	*4.9613*					
19	*10:50*	*18.60*	*0.8/0.2*	*0.600*	*0.2*	*0.480*	*0.9127*	*1.00*	*0.6932*	*0.360*	*0.2496*	*0.8*
19	*10:49*	*18.60*	*0.8/0.2*	*0.600*	*0.8*	*0.120*	*0.4738*					
20	10:49	19.20	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

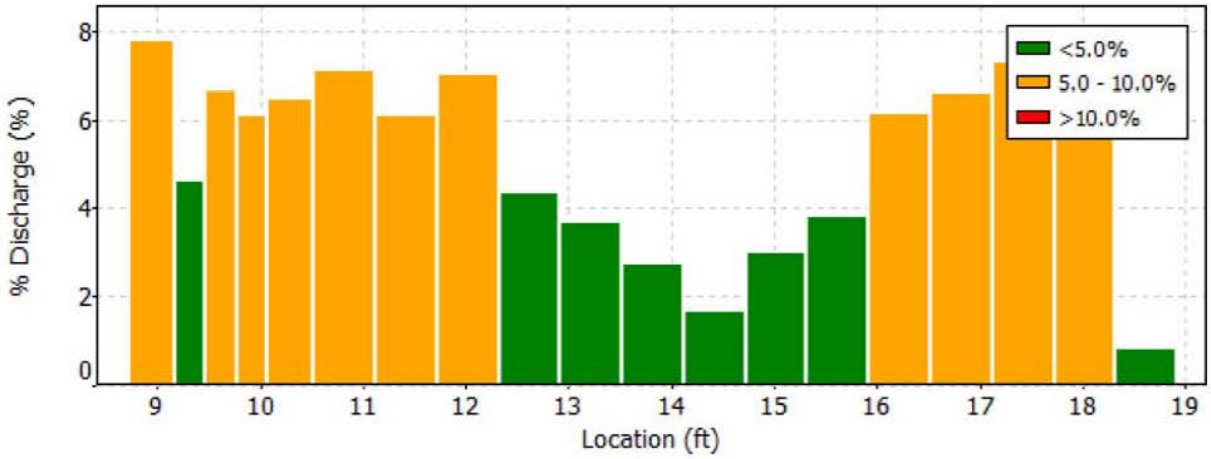
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

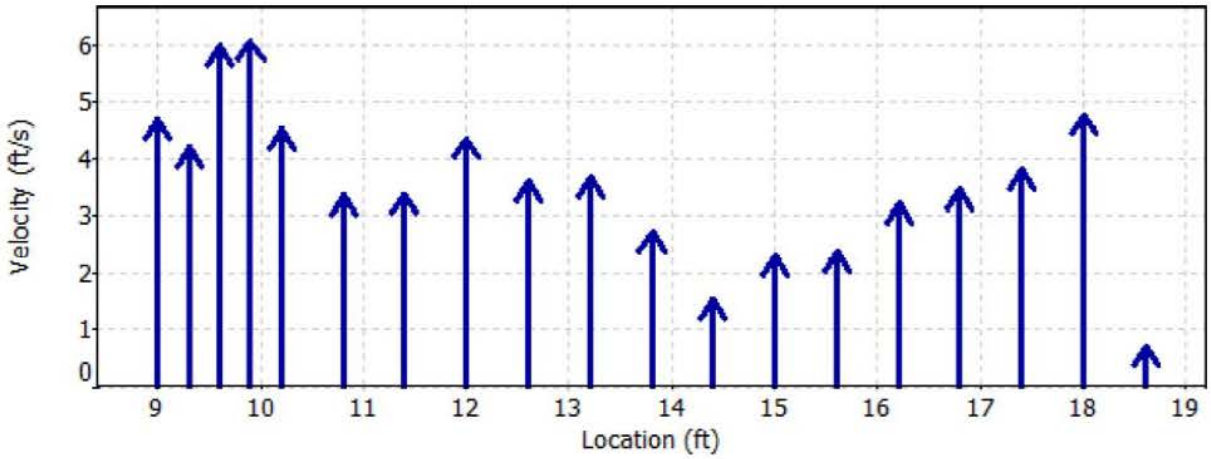
Reference 32

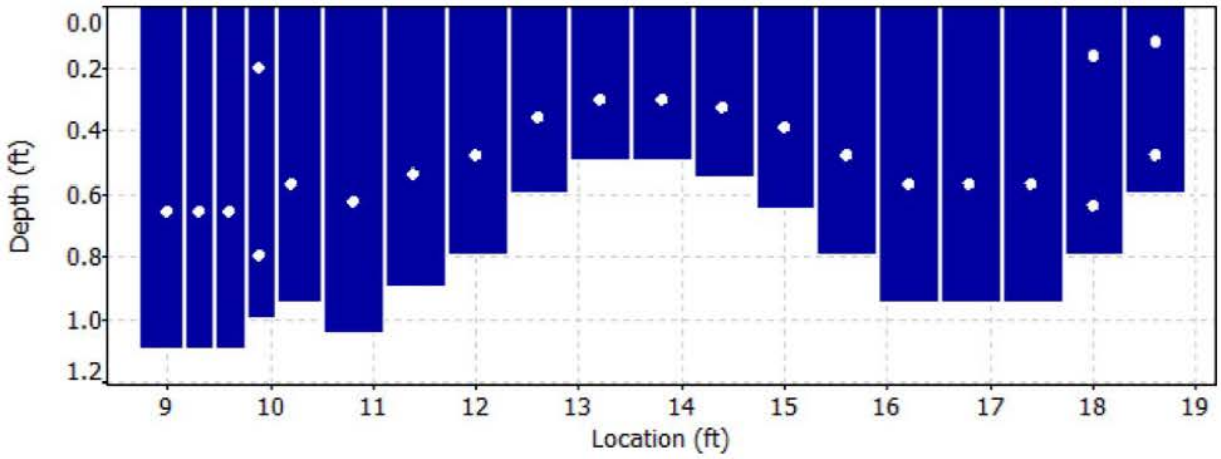
Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A08.WAD	Site Name	A08
Start Date and Time	2015/06/10 10:31:43	Operator(s)	RB







Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A08.WAD	Site Name	A08
Start Date and Time	2015/06/10 10:31:43	Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
4	9.90	0.2	High number of spikes: 8
6	10.80	0.6	High standard error: 0.276
7	11.40	0.6	High standard error: 0.238
15	16.20	0.6	High angle: -22
18	18.00	0.2	High angle: -21
		0.8	High number of spikes: 5
19	18.60	0.2	High angle: 33

Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information

File Name	A11.WAD
Start Date and Time	2015/06/09 15:12:31

Site Details

Site Name	A11
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
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	0.2%	2.8%
Velocity	1.2%	8.5%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.5%	-
Overall	**3.6%**	**9.0%**

Summary

Averaging Int.	40	# Stations	20
Start Edge	REW	Total Width	12.602
Mean SNR	44.9 dB	Total Area	14.107
Mean Temp	36.00 °F	Mean Depth	1.119
Disch. Equation	Mid-Section	Mean Velocity	3.9794
		Total Discharge	**56.1382**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:12	4.30	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	15:12	5.00	0.6	1.000	0.6	0.400	4.8556	1.00	4.8556	0.700	3.3996	6.1
2	15:13	5.70	0.6	1.000	0.6	0.400	5.8953	1.00	5.8953	0.700	4.1275	7.4
3	15:14	6.40	0.6	1.500	0.6	0.600	5.2287	1.00	5.2287	1.050	5.4911	9.8
4	*15:16*	*7.10*	*0.6*	*1.300*	*0.6*	*0.520*	*5.7694*	*1.00*	*5.7694*	*0.910*	*5.2506*	*9.4*
5	15:17	7.80	0.6	1.400	0.6	0.560	6.4357	1.00	6.4357	0.700	4.5033	8.0
6	15:34	8.10	0.6	1.300	0.6	0.520	6.5020	1.00	6.5020	0.455	2.9587	5.3
7	15:18	8.50	0.6	1.400	0.6	0.560	6.5512	1.00	6.5512	0.770	5.0475	9.0
8	*15:19*	*9.20*	*0.6*	*1.000*	*0.6*	*0.400*	*1.5869*	*1.00*	*1.5869*	*0.700*	*1.1111*	*2.0*
9	15:22	9.90	0.6	0.800	0.6	0.320	4.7100	1.00	4.7100	0.560	2.6376	4.7
10	*15:23*	*10.60*	*0.6*	*0.700*	*0.6*	*0.280*	*3.4003*	*1.00*	*3.4003*	*0.490*	*1.6668*	*3.0*
11	*15:24*	*11.30*	*0.6*	*1.000*	*0.6*	*0.400*	*2.5102*	*1.00*	*2.5102*	*0.700*	*1.7574*	*3.1*
12	*15:26*	*12.00*	*0.6*	*1.400*	*0.6*	*0.560*	*3.9885*	*1.00*	*3.9885*	*0.980*	*3.9093*	*7.0*
13	*15:27*	*12.70*	*0.6*	*1.300*	*0.6*	*0.520*	*0.0010*	*1.00*	*0.0010*	*0.910*	*0.0009*	*0.0*
14	15:28	13.40	0.6	1.300	0.6	0.520	2.7621	1.00	2.7621	0.910	2.5138	4.5
15	15:29	14.10	0.6	1.300	0.6	0.520	3.8225	1.00	3.8225	0.910	3.4788	6.2
16	15:30	14.80	0.6	1.350	0.6	0.540	3.9439	1.00	3.9439	0.945	3.7279	6.6
17	15:31	15.50	0.6	1.350	0.6	0.540	2.8871	1.00	2.8871	0.945	2.7290	4.9
18	15:32	16.20	0.6	1.100	0.6	0.440	2.3727	1.00	2.3727	0.770	1.8274	3.3
19	15:32	16.90	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

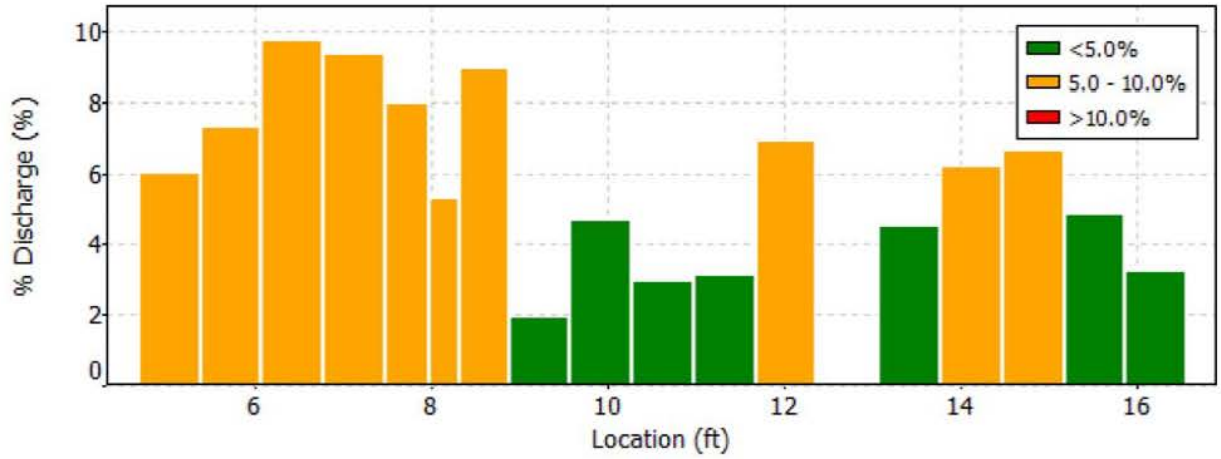
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

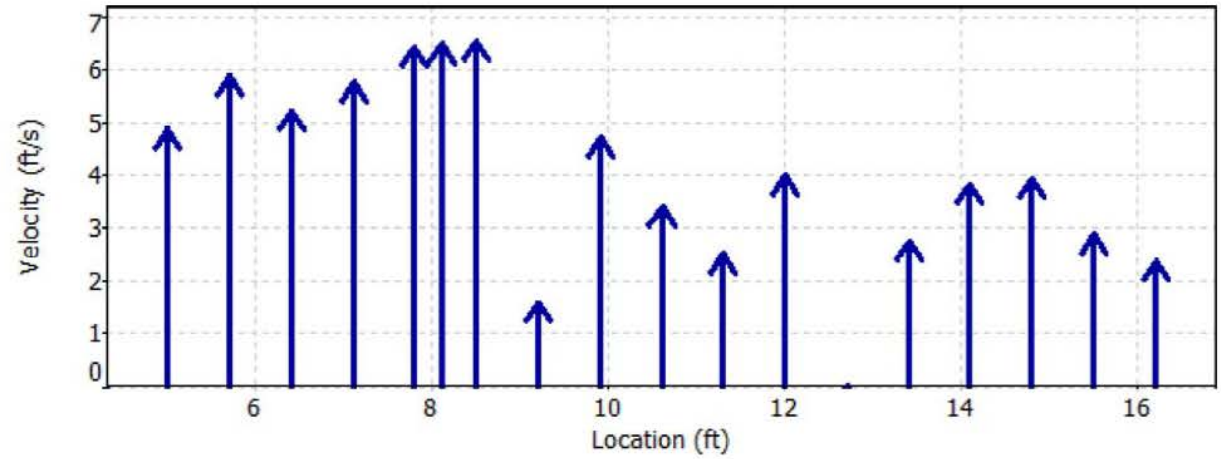
Reference 32

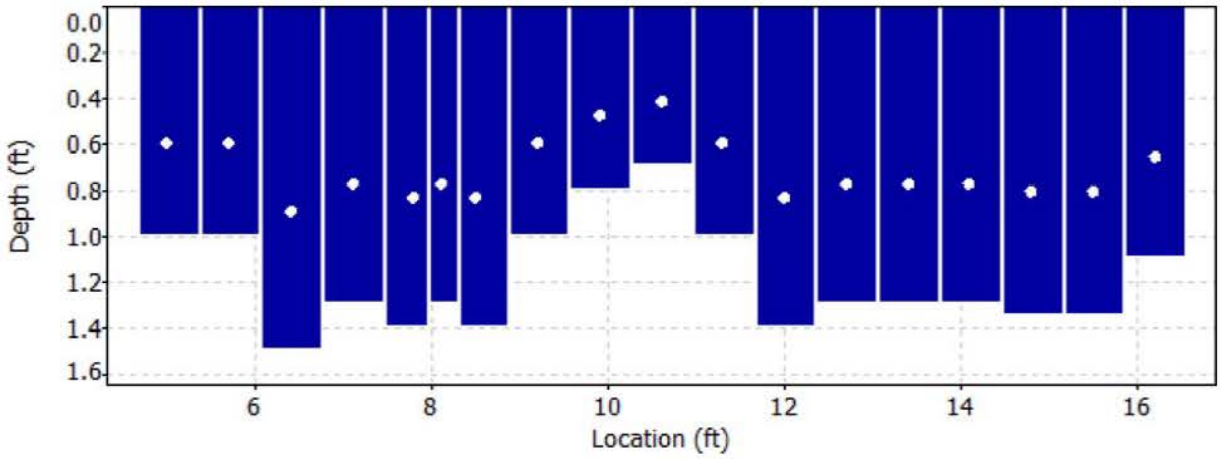
Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A11.WAD	Site Name	A11
Start Date and Time	2015/06/09 15:12:31	Operator(s)	RB







Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A11.WAD	Site Name	A11
Start Date and Time	2015/06/09 15:12:31	Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
4	7.10	0.6	High number of spikes: 5
8	9.20	0.6	High standard error: 0.272
10	10.60	0.6	High angle: 20
		0.6	High SNR variation during measurement: 3.9,8.2
		0.6	High standard error: 0.274
11	11.30	0.6	High standard error: 0.328
12	12.00	0.6	High standard error: 0.353
13	12.70	0.6	High SNR variation during measurement: 3.4,5.2

Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information

File Name	A13.WAD
Start Date and Time	2015/06/09 16:38:37

Site Details

Site Name	
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
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	0.1%	1.3%
Velocity	0.7%	2.0%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.5%	-
Overall	**3.4%**	**2.6%**

Summary

Averaging Int.	40	# Stations	20
Start Edge	REW	Total Width	7.599
Mean SNR	45.1 dB	Total Area	11.158
Mean Temp	34.23 °F	Mean Depth	1.468
Disch. Equation	Mid-Section	Mean Velocity	5.0302
		Total Discharge	**56.1279**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	16:38	3.60	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	16:38	4.00	0.6	1.350	0.6	0.540	2.9974	1.00	2.9974	0.540	1.6184	2.9
2	16:39	4.40	0.6	1.700	0.6	0.680	3.9869	1.00	3.9869	0.680	2.7108	4.8
3	16:40	4.80	0.6	1.750	0.6	0.700	4.4928	1.00	4.4928	0.700	3.1444	5.6
4	16:41	5.20	0.6	1.650	0.6	0.660	5.0325	1.00	5.0325	0.660	3.3208	5.9
5	16:42	5.60	0.6	1.750	0.6	0.700	4.0066	1.00	4.0066	0.700	2.8041	5.0
6	16:43	6.00	0.6	1.600	0.6	0.640	4.1808	1.00	4.1808	0.640	2.6754	4.8
7	16:44	6.40	0.6	1.550	0.6	0.620	4.5860	1.00	4.5860	0.620	2.8426	5.1
8	16:46	6.80	0.6	1.650	0.6	0.660	4.7756	1.00	4.7756	0.660	3.1512	5.6
9	16:47	7.20	0.6	1.800	0.6	0.720	4.8688	1.00	4.8688	0.720	3.5047	6.2
10	16:48	7.60	0.6	1.900	0.6	0.760	6.3442	1.00	6.3442	0.760	4.8206	8.6
11	16:49	8.00	0.6	1.900	0.6	0.760	6.6424	1.00	6.6424	0.760	5.0472	9.0
12	16:49	8.40	0.6	1.900	0.6	0.760	6.6378	1.00	6.6378	0.760	5.0437	9.0
13	16:51	8.80	0.6	1.400	0.6	0.560	6.9803	1.00	6.9803	0.560	3.9082	7.0
14	16:52	9.20	0.6	1.200	0.6	0.480	6.6342	1.00	6.6342	0.480	3.1842	5.7
15	16:53	9.60	0.6	1.200	0.6	0.480	6.5525	1.00	6.5525	0.480	3.1450	5.6
16	16:54	10.00	0.6	1.200	0.6	0.480	6.5531	1.00	6.5531	0.480	3.1453	5.6
17	*16:55*	*10.40*	*0.6*	*1.200*	*0.6*	*0.480*	*4.0463*	*1.00*	*4.0463*	*0.480*	*1.9421*	*3.5*
18	16:56	10.80	0.6	1.200	0.6	0.480	0.2480	1.00	0.2480	0.480	0.1190	0.2
19	16:56	11.20	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

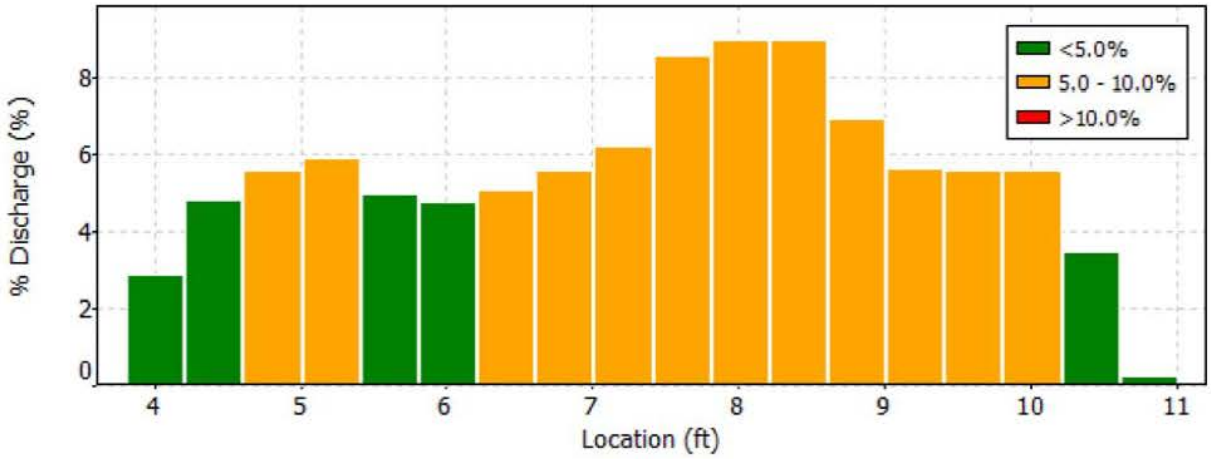
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

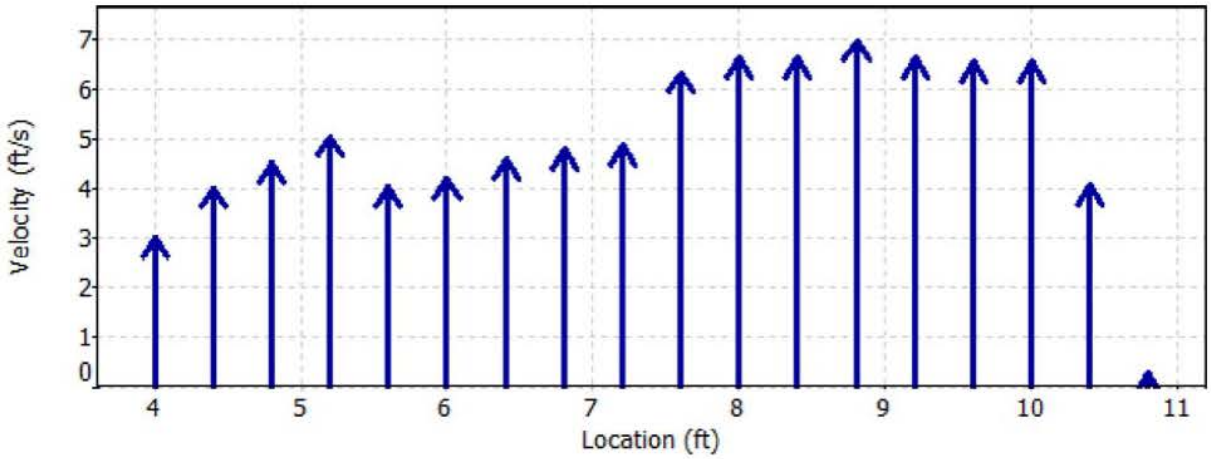
Reference 32

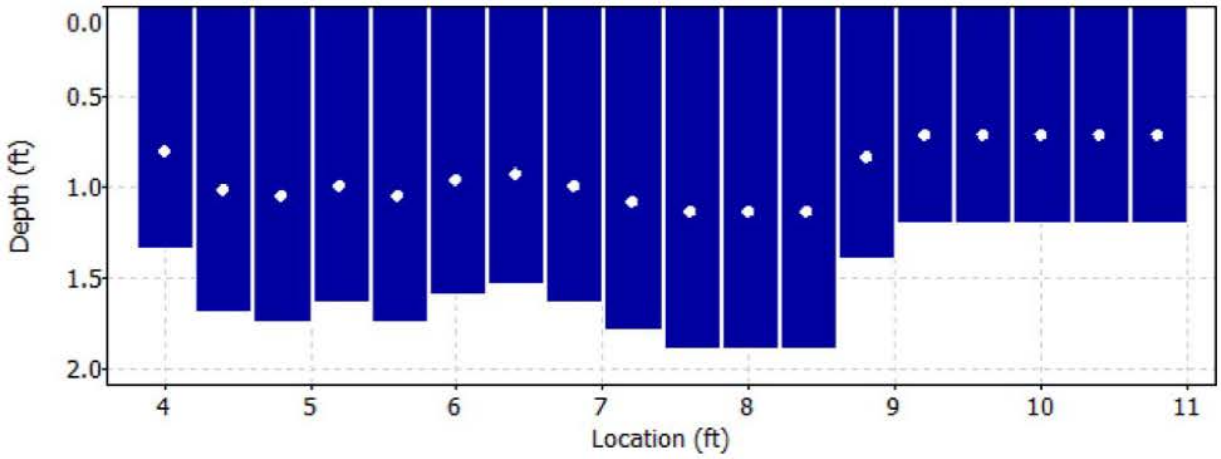
Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A13.WAD	Site Name	
Start Date and Time	2015/06/09 16:38:37	Operator(s)	RB







Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A13.WAD	Site Name	
Start Date and Time	2015/06/09 16:38:37	Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
17	10.40	0.6	High standard error: 0.240

Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information

File Name	A15.WAD
Start Date and Time	2015/06/10 08:58:29

Site Details

Site Name	
Operator(s)	DW

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
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	0.3%	2.1%
Velocity	1.0%	5.3%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.2%	-
Overall	**3.2%**	**5.8%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	15.997
Mean SNR	42.9 dB	Total Area	9.178
Mean Temp	33.75 °F	Mean Depth	0.574
Disch. Equation	Mid-Section	Mean Velocity	2.4872
		Total Discharge	**22.8279**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:58	4.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	08:58	4.80	0.6	0.600	0.6	0.240	1.8855	1.00	1.8855	0.480	0.9050	4.0
2	08:59	5.60	0.6	0.800	0.6	0.320	2.9659	1.00	2.9659	0.640	1.8975	8.3
3	09:01	6.40	0.6	0.950	0.6	0.380	2.8556	1.00	2.8556	0.570	1.6281	7.1
4	09:23	6.80	0.6	0.900	0.6	0.360	3.0692	1.00	3.0692	0.360	1.1047	4.8
5	09:04	7.20	0.6	1.000	0.6	0.400	4.0892	1.00	4.0892	0.400	1.6361	7.2
6	09:24	7.60	0.6	0.900	0.6	0.360	4.2822	1.00	4.2822	0.360	1.5412	6.8
7	*09:05*	*8.00*	*0.6*	*0.950*	*0.6*	*0.380*	*2.6726*	*1.00*	*2.6726*	*0.570*	*1.5225*	*6.7*
8	09:06	8.80	0.6	1.000	0.6	0.400	1.6824	1.00	1.6824	0.800	1.3457	5.9
9	09:07	9.60	0.6	0.800	0.6	0.320	1.4016	1.00	1.4016	0.640	0.8967	3.9
10	09:08	10.40	0.6	0.850	0.6	0.340	2.4180	1.00	2.4180	0.680	1.6441	7.2
11	09:09	11.20	0.6	0.800	0.6	0.320	3.0390	1.00	3.0390	0.640	1.9443	8.5
12	09:10	12.00	0.6	0.700	0.6	0.280	2.3809	1.00	2.3809	0.560	1.3333	5.8
13	09:12	12.80	0.6	0.500	0.6	0.200	1.9495	1.00	1.9495	0.400	0.7797	3.4
14	09:13	13.60	0.6	0.400	0.6	0.160	1.9948	1.00	1.9948	0.320	0.6381	2.8
15	09:14	14.40	0.6	0.400	0.6	0.160	2.8911	1.00	2.8911	0.320	0.9248	4.1
16	09:15	15.20	0.6	0.300	0.6	0.120	1.9177	1.00	1.9177	0.240	0.4600	2.0
17	09:16	16.00	0.6	0.400	0.6	0.160	2.9774	1.00	2.9774	0.320	0.9524	4.2
18	09:17	16.80	0.6	0.300	0.6	0.120	1.3753	1.00	1.3753	0.240	0.3299	1.4
19	09:18	17.60	0.6	0.250	0.6	0.100	2.3835	1.00	2.3835	0.200	0.4766	2.1
20	*09:19*	*18.40*	*0.6*	*0.300*	*0.6*	*0.120*	*2.1339*	*1.00*	*2.1339*	*0.240*	*0.5118*	*2.2*
21	09:20	19.20	0.6	0.250	0.6	0.100	1.7766	1.00	1.7766	0.200	0.3553	1.6
22	09:20	20.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

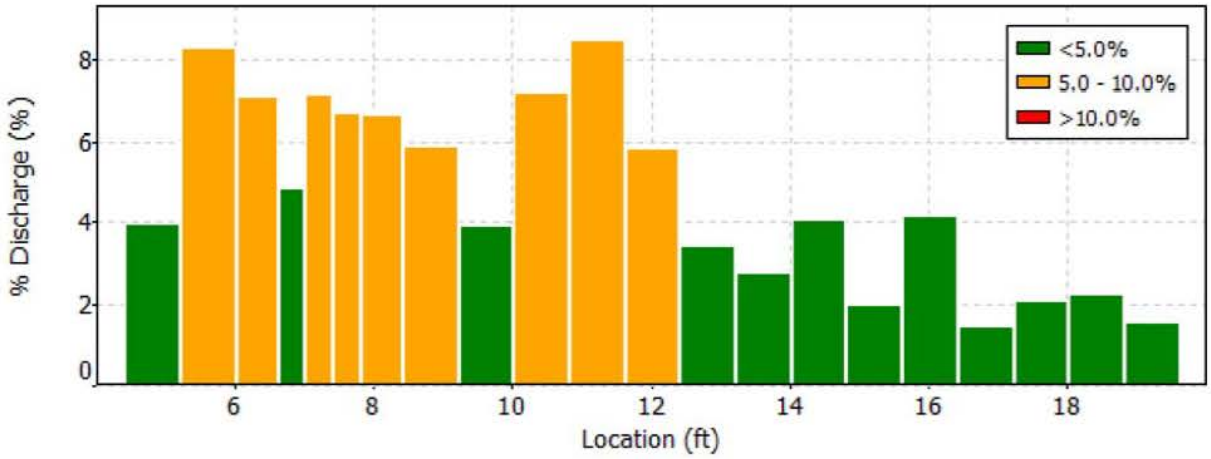
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

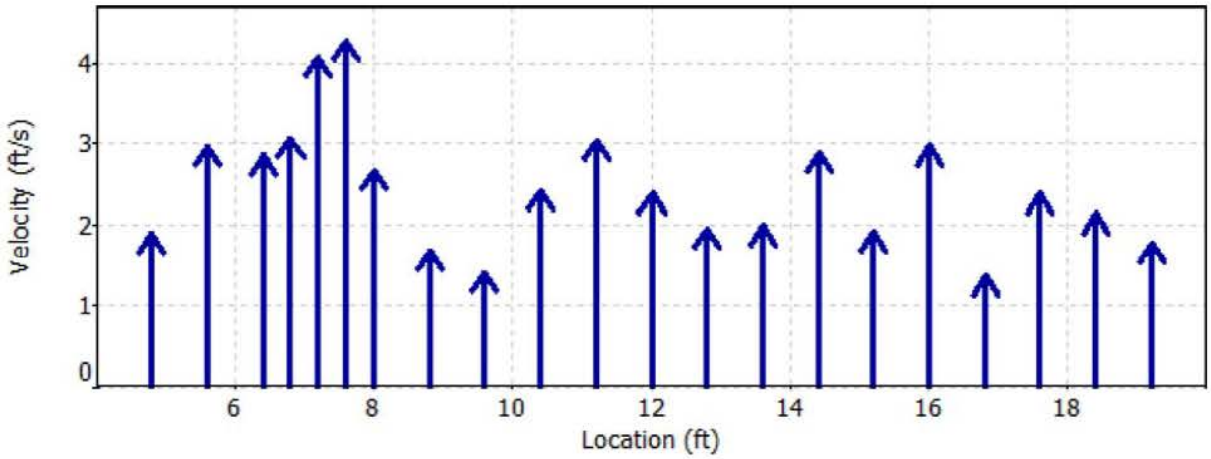
Reference 32

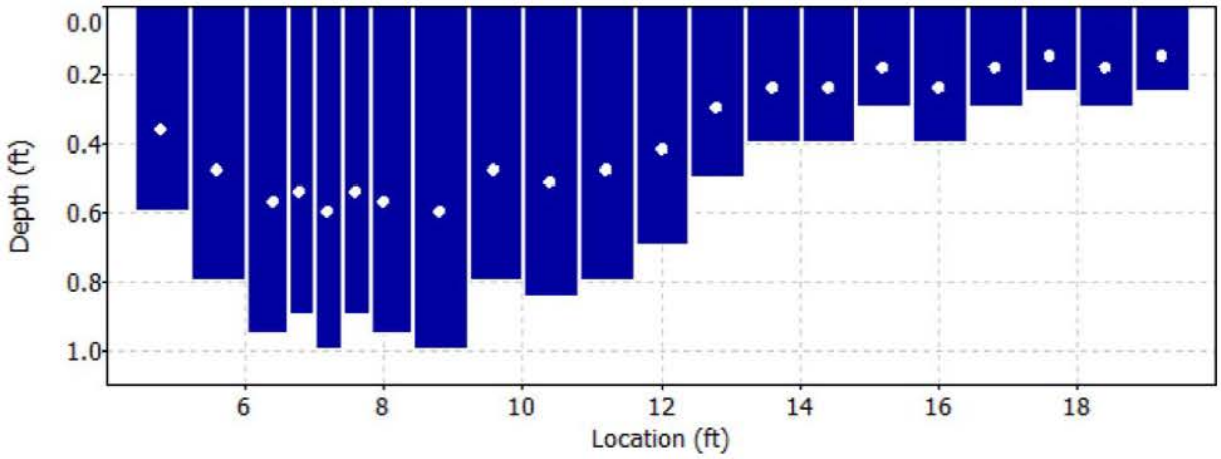
Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A15.WAD	Site Name	
Start Date and Time	2015/06/10 08:58:29	Operator(s)	DW







Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A15.WAD	Site Name	
Start Date and Time	2015/06/10 08:58:29	Operator(s)	DW

Quality Control

St	Loc	%Dep	Message
7	8.00	0.6	High standard error: 0.142
20	18.40	0.6	High number of spikes: 6

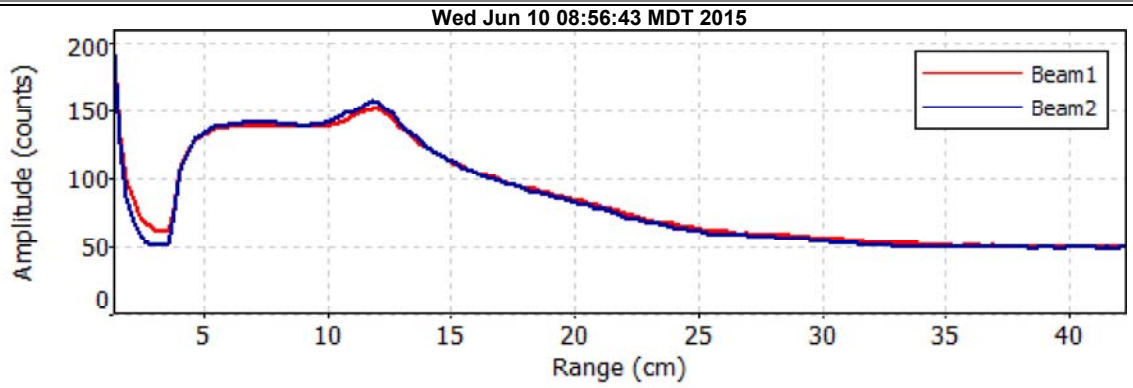
Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A15.WAD	Site Name	
Start Date and Time	2015/06/10 08:58:29	Operator(s)	DW

Automatic Quality Control Test (BeamCheck)



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

Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information

File Name	A20.WAD
Start Date and Time	2015/06/10 09:04:56

Site Details

Site Name	A20
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
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%	4.5%
Velocity	1.4%	7.6%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.3%	-
Overall	**3.5%**	**8.9%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	14.003
Mean SNR	43.0 dB	Total Area	8.191
Mean Temp	33.12 °F	Mean Depth	0.585
Disch. Equation	Mid-Section	Mean Velocity	3.0266
		Total Discharge	**24.7921**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:04	2.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*09:04*	*2.70*	*0.6*	*0.500*	*0.6*	*0.200*	*4.0922*	*1.00*	*4.0922*	*0.350*	*1.4325*	*5.8*
2	09:06	3.40	0.6	0.450	0.6	0.180	6.2612	1.00	6.2612	0.315	1.9732	8.0
3	09:07	4.10	0.6	0.750	0.6	0.300	4.3182	1.00	4.3182	0.525	2.2675	9.1
4	*09:08*	*4.80*	*0.6*	*0.550*	*0.6*	*0.220*	*1.4987*	*1.00*	*1.4987*	*0.385*	*0.5770*	*2.3*
5	*09:09*	*5.50*	*0.6*	*0.350*	*0.6*	*0.140*	*0.4751*	*1.00*	*0.4751*	*0.245*	*0.1164*	*0.5*
6	*09:10*	*6.20*	*0.6*	*0.350*	*0.6*	*0.140*	*0.1824*	*1.00*	*0.1824*	*0.245*	*0.0447*	*0.2*
7	09:11	6.90	0.6	0.350	0.6	0.140	2.2559	1.00	2.2559	0.245	0.5529	2.2
8	09:13	7.60	0.6	0.500	0.6	0.200	3.8091	1.00	3.8091	0.350	1.3334	5.4
9	*09:14*	*8.30*	*0.6*	*0.500*	*0.6*	*0.200*	*4.1198*	*1.00*	*4.1198*	*0.350*	*1.4422*	*5.8*
10	*09:15*	*9.00*	*0.6*	*0.900*	*0.6*	*0.360*	*3.5095*	*1.00*	*3.5095*	*0.630*	*2.2112*	*8.9*
11	09:16	9.70	0.6	0.800	0.6	0.320	5.1660	1.00	5.1660	0.399	2.0634	8.3
12	*09:27*	*10.00*	*0.6*	*1.000*	*0.6*	*0.400*	*3.1020*	*1.00*	*3.1020*	*0.350*	*1.0859*	*4.4*
13	*09:17*	*10.40*	*0.6*	*0.800*	*0.6*	*0.320*	*3.5581*	*1.00*	*3.5581*	*0.441*	*1.5677*	*6.3*
14	*09:18*	*11.10*	*0.6*	*0.600*	*0.6*	*0.240*	*1.4452*	*1.00*	*1.4452*	*0.420*	*0.6072*	*2.4*
15	09:20	11.80	0.6	0.750	0.6	0.300	4.5075	1.00	4.5075	0.525	2.3669	9.5
16	09:21	12.50	0.6	0.800	0.6	0.320	3.6893	1.00	3.6893	0.560	2.0661	8.3
17	09:22	13.20	0.6	0.900	0.6	0.360	2.4790	1.00	2.4790	0.630	1.5620	6.3
18	09:23	13.90	0.6	0.700	0.6	0.280	1.5423	1.00	1.5423	0.490	0.7560	3.0
19	09:24	14.60	0.6	0.550	0.6	0.220	1.4423	1.00	1.4423	0.385	0.5552	2.2
20	09:25	15.30	0.6	0.500	0.6	0.200	0.6017	1.00	0.6017	0.350	0.2106	0.8
21	09:25	16.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

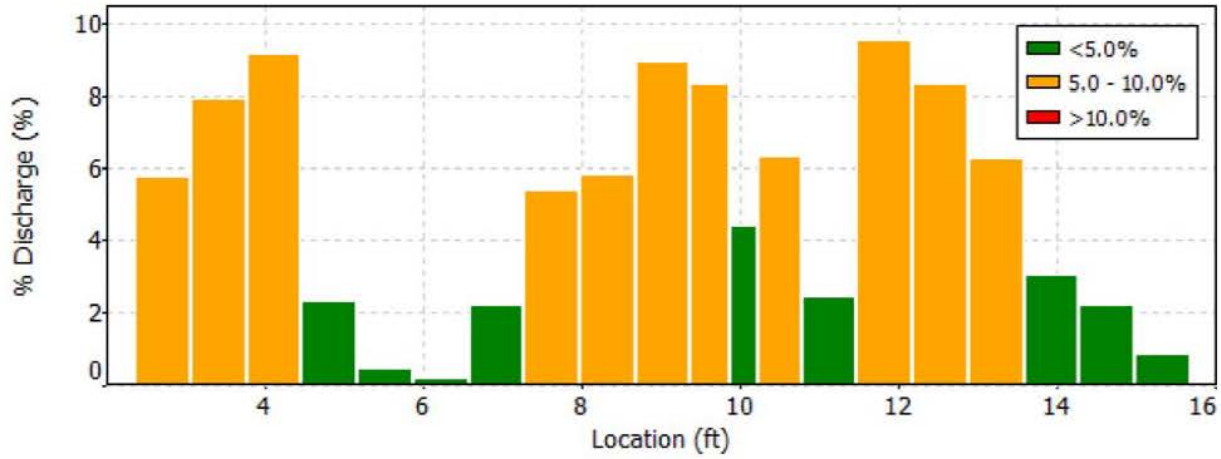
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

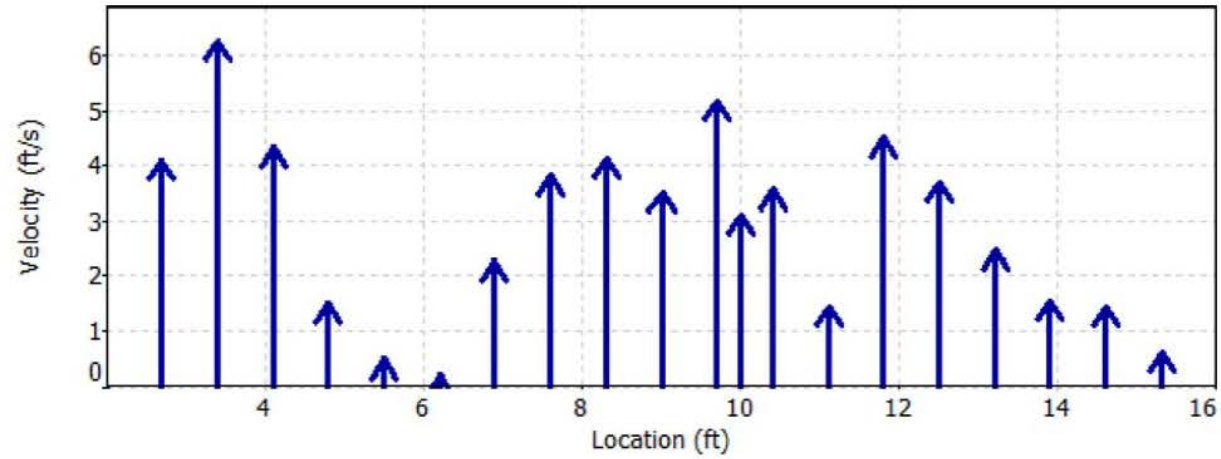
Reference 32

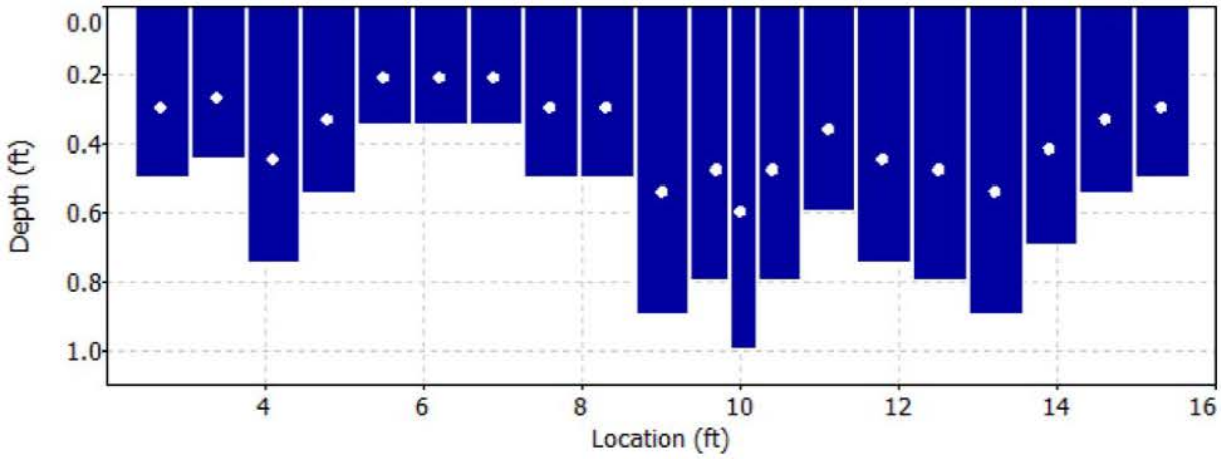
Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A20.WAD	Site Name	A20
Start Date and Time	2015/06/10 09:04:56	Operator(s)	RB







Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A20.WAD	Site Name	A20
Start Date and Time	2015/06/10 09:04:56	Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
1	2.70	0.6	High standard error: 0.238
4	4.80	0.6	High angle: 31
5	5.50	0.6	High SNR variation during measurement: 4.3,5.2
6	6.20	0.6	High angle: -21
9	8.30	0.6	High standard error: 0.257
10	9.00	0.6	High standard error: 0.211
12	10.00	0.6	High standard error: 0.220
13	10.40	0.6	High standard error: 0.281
14	11.10	0.6	High angle: -24
		0.6	High standard error: 0.213

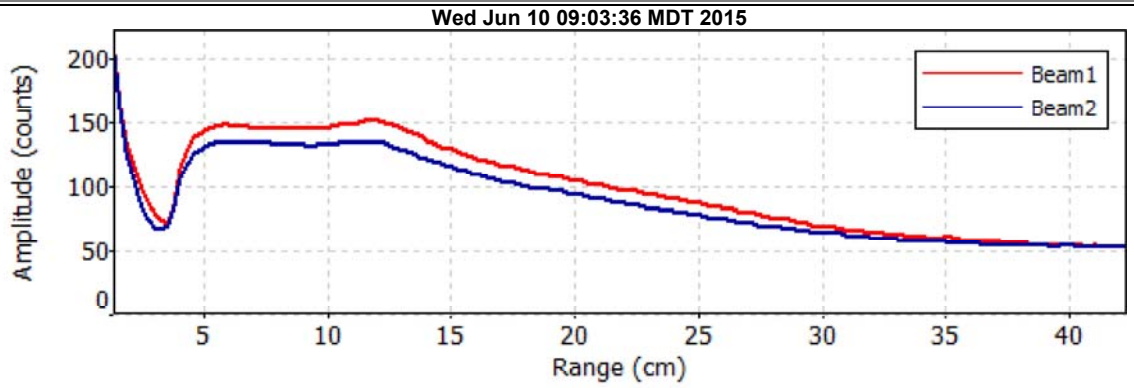
Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A20.WAD	Site Name	A20
Start Date and Time	2015/06/10 09:04:56	Operator(s)	RB

Automatic Quality Control Test (BeamCheck)



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

Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information

File Name	A26.WAD
Start Date and Time	2015/06/09 11:23:33

Site Details

Site Name	A26
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
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%	2.0%
Velocity	2.3%	13.4%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.0%	-
Overall	**3.7%**	**13.6%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	REW	Total Width	12.601
Mean SNR	46.8 dB	Total Area	6.621
Mean Temp	37.66 °F	Mean Depth	0.525
Disch. Equation	Mid-Section	Mean Velocity	2.2379
		Total Discharge	**14.8171**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:23	4.40	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*11:23*	*5.00*	*0.6*	*0.350*	*0.6*	*0.140*	*1.0276*	*1.00*	*1.0276*	*0.210*	*0.2159*	*1.5*
2	11:24	5.60	0.6	0.400	0.6	0.160	0.6663	1.00	0.6663	0.240	0.1599	1.1
3	*11:25*	*6.20*	*0.6*	*0.500*	*0.6*	*0.200*	*1.7930*	*1.00*	*1.7930*	*0.300*	*0.5380*	*3.6*
4	*11:26*	*6.80*	*0.6*	*0.600*	*0.6*	*0.240*	*0.8652*	*1.00*	*0.8652*	*0.360*	*0.3115*	*2.1*
5	11:27	7.40	0.6	0.500	0.6	0.200	3.2884	1.00	3.2884	0.300	0.9866	6.7
6	11:29	8.00	0.6	0.650	0.6	0.260	1.8816	1.00	1.8816	0.390	0.7338	5.0
7	11:30	8.60	0.6	0.650	0.6	0.260	4.5922	1.00	4.5922	0.292	1.3425	9.1
8	11:54	8.90	0.6	0.600	0.6	0.240	4.8819	1.00	4.8819	0.180	0.8789	5.9
9	11:31	9.20	0.6	0.650	0.6	0.260	2.1286	1.00	2.1286	0.293	0.6230	4.2
10	11:34	9.80	0.6	0.500	0.6	0.200	1.5135	1.00	1.5135	0.300	0.4541	3.1
11	11:36	10.40	0.6	0.650	0.6	0.260	1.8478	1.00	1.8478	0.390	0.7206	4.9
12	*11:37*	*11.00*	*0.6*	*0.600*	*0.6*	*0.240*	*-0.0515*	*1.00*	*-0.0515*	*0.360*	*-0.0185*	*-0.1*
13	*11:38*	*11.60*	*0.6*	*0.600*	*0.6*	*0.240*	*5.1289*	*1.00*	*5.1289*	*0.270*	*1.3839*	*9.3*
14	*11:50*	*11.90*	*0.6*	*0.650*	*0.6*	*0.260*	*4.8284*	*1.00*	*4.8284*	*0.195*	*0.9415*	*6.4*
15	*11:40*	*12.20*	*0.6*	*0.700*	*0.6*	*0.280*	*4.3501*	*1.00*	*4.3501*	*0.140*	*0.6090*	*4.1*
16	*11:52*	*12.30*	*0.6*	*0.700*	*0.6*	*0.280*	*0.6424*	*1.00*	*0.6424*	*0.210*	*0.1349*	*0.9*
17	*11:41*	*12.80*	*0.6*	*0.700*	*0.6*	*0.280*	*4.3579*	*1.00*	*4.3579*	*0.245*	*1.0681*	*7.2*
18	*11:55*	*13.00*	*0.6*	*0.700*	*0.6*	*0.280*	*3.7976*	*1.00*	*3.7976*	*0.210*	*0.7977*	*5.4*
19	*11:43*	*13.40*	*0.6*	*0.650*	*0.6*	*0.260*	*3.0784*	*1.00*	*3.0784*	*0.325*	*1.0014*	*6.8*
20	11:44	14.00	0.6	0.600	0.6	0.240	2.6444	1.00	2.6444	0.360	0.9522	6.4
21	*11:45*	*14.60*	*0.6*	*0.500*	*0.6*	*0.200*	*-0.4816*	*1.00*	*-0.4816*	*0.300*	*-0.1445*	*-1.0*
22	11:46	15.20	0.6	0.450	0.6	0.180	1.2890	1.00	1.2890	0.270	0.3482	2.3
23	11:47	15.80	0.6	0.450	0.6	0.180	2.0197	1.00	2.0197	0.270	0.5455	3.7
24	11:48	16.40	0.6	0.350	0.6	0.140	1.1086	1.00	1.1086	0.210	0.2329	1.6
25	11:48	17.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

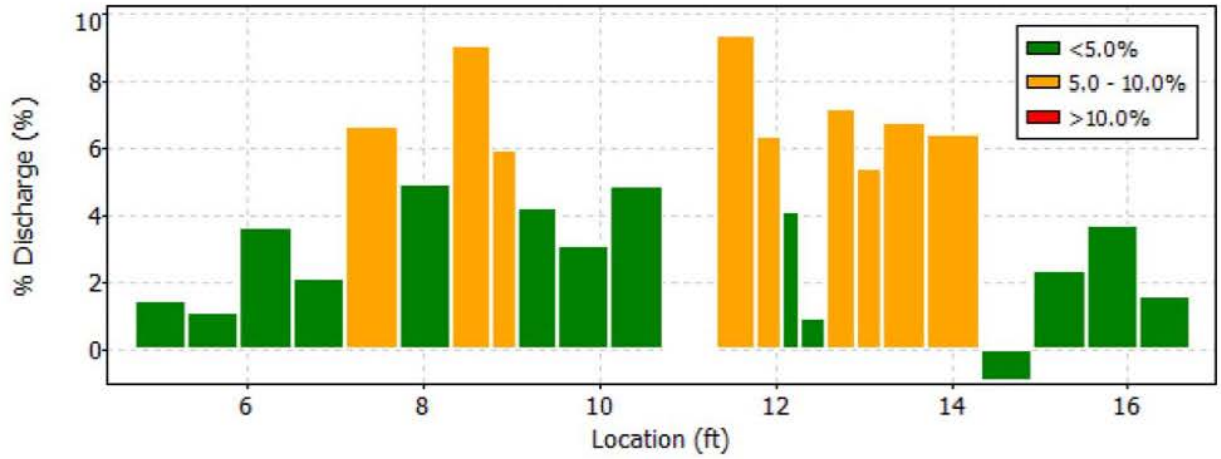
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

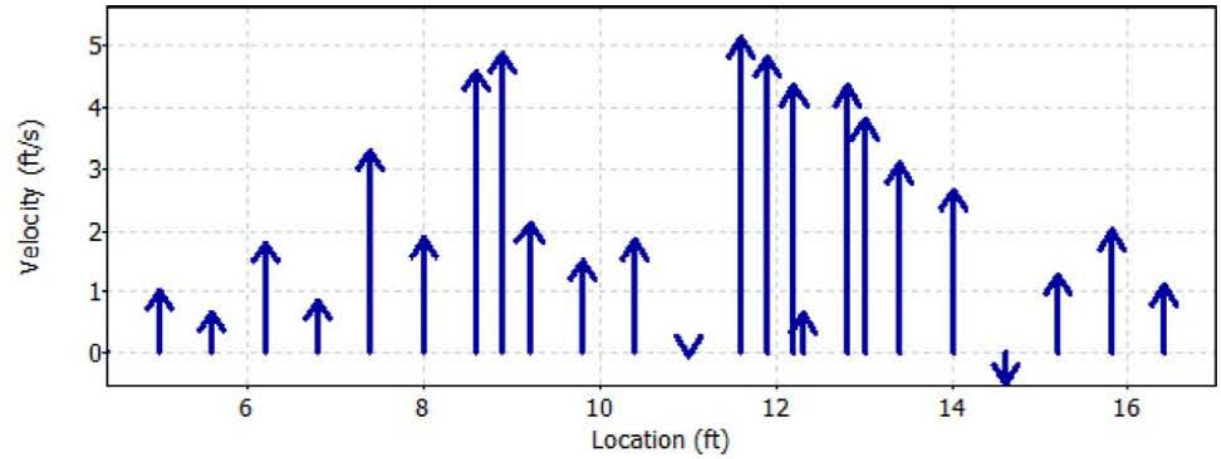
Reference 32

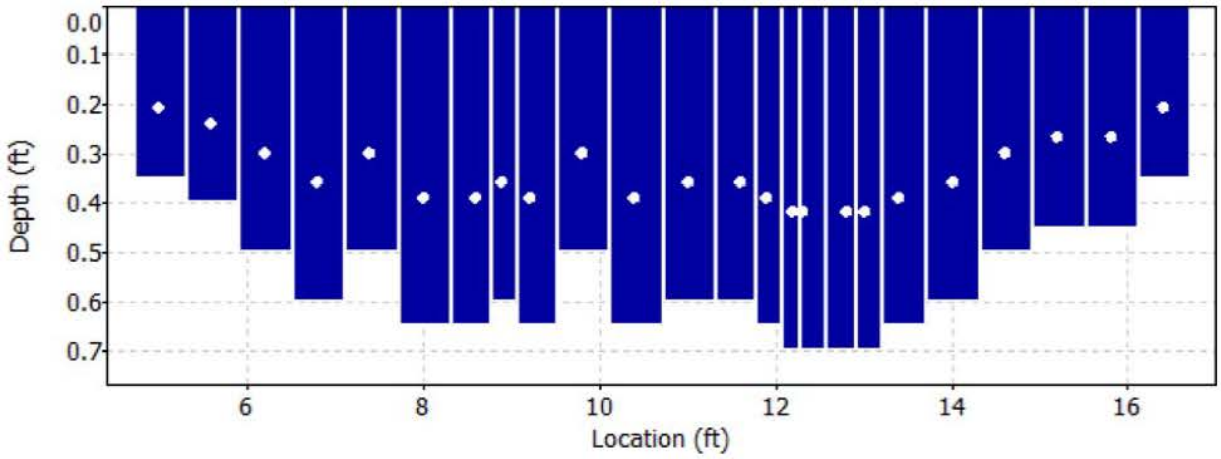
Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A26.WAD	Site Name	A26
Start Date and Time	2015/06/09 11:23:33	Operator(s)	RB







Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A26.WAD	Site Name	A26
Start Date and Time	2015/06/09 11:23:33	Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
1	5.00	0.6	High angle: 34
3	6.20	0.6	High angle: 21
4	6.80	0.6	High angle: 27
12	11.00	0.6	High number of spikes: 11
		0.6	High angle: -160
		0.6	SNR (57.2) is different from typical SNR (46.8)
13	11.60	0.6	High standard error: 0.355
14	11.90	0.6	High standard error: 0.442
15	12.20	0.6	High standard error: 0.609
16	12.30	0.6	High differences in beam SNR: 45.1,33.9
		0.6	High SNR variation during measurement: 2.6,9.9
		0.6	High standard error: 1.034
17	12.80	0.6	High SNR variation during measurement: 2.6,6.0
18	13.00	0.6	High differences in beam SNR: 45.1,33.5
		0.6	High SNR variation during measurement: 3.4,8.2
		0.6	High standard error: 0.292
19	13.40	0.6	High SNR variation during measurement: 2.6,6.5
21	14.60	0.6	High angle: -166

Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information

File Name	A31.WAD
Start Date and Time	2015/06/09 09:22:09

Site Details

Site Name	A31
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
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	0.1%	3.0%
Velocity	2.5%	10.7%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**4.0%**	**11.2%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	33.601
Mean SNR	41.9 dB	Total Area	37.922
Mean Temp	37.41 °F	Mean Depth	1.129
Disch. Equation	Mid-Section	Mean Velocity	3.5616
		Total Discharge	**135.0608**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:22	12.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	09:22	13.60	0.6	0.650	0.6	0.260	3.1522	1.00	3.1522	1.040	3.2781	2.4
2	09:23	15.20	0.6	1.050	0.6	0.420	2.4879	1.00	2.4879	1.680	4.1793	3.1
3	*09:24*	*16.80*	*0.6*	*1.050*	*0.6*	*0.420*	*3.3333*	*1.00*	*3.3333*	*1.680*	*5.5995*	*4.1*
4	*09:27*	*18.40*	*0.6*	*1.400*	*0.6*	*0.560*	*3.9764*	*1.00*	*3.9764*	*2.240*	*8.9070*	*6.6*
5	*09:29*	*20.00*	*0.6*	*1.000*	*0.6*	*0.400*	*0.5505*	*1.00*	*0.5505*	*1.600*	*0.8809*	*0.7*
6	*09:30*	*21.60*	*0.6*	*1.300*	*0.6*	*0.520*	*4.0315*	*1.00*	*4.0315*	*2.080*	*8.3850*	*6.2*
7	*09:31*	*23.20*	*0.6*	*1.300*	*0.6*	*0.520*	*-0.6791*	*1.00*	*-0.6791*	*2.080*	*-1.4125*	*-1.0*
8	*09:32*	*24.80*	*0.6*	*1.100*	*0.6*	*0.440*	*4.1923*	*1.00*	*4.1923*	*1.760*	*7.3791*	*5.5*
9	09:34	26.40	0.6	1.100	0.6	0.440	3.1604	1.00	3.1604	1.760	5.5629	4.1
10	*09:35*	*28.00*	*0.6*	*1.200*	*0.6*	*0.480*	*3.0210*	*1.00*	*3.0210*	*1.920*	*5.8012*	*4.3*
11	09:36	29.60	0.6	1.450	0.6	0.580	4.8264	1.00	4.8264	2.320	11.1988	8.3
12	*09:37*	*31.20*	*0.6*	*1.450*	*0.6*	*0.580*	*5.5879*	*1.00*	*5.5879*	*2.320*	*12.9657*	*9.6*
13	09:38	32.80	0.6	1.600	0.6	0.640	4.8048	1.00	4.8048	2.560	12.3013	9.1
14	09:40	34.40	0.6	1.450	0.6	0.580	2.9570	1.00	2.9570	2.320	6.8612	5.1
15	09:41	36.00	0.6	1.350	0.6	0.540	4.8950	1.00	4.8950	2.160	10.5742	7.8
16	09:42	37.60	0.6	0.900	0.6	0.360	3.2487	1.00	3.2487	1.440	4.6780	3.5
17	09:43	39.20	0.6	1.000	0.6	0.400	3.3999	1.00	3.3999	1.600	5.4401	4.0
18	09:44	40.80	0.6	1.200	0.6	0.480	4.4596	1.00	4.4596	1.920	8.5638	6.3
19	09:45	42.40	0.6	1.300	0.6	0.520	4.6647	1.00	4.6647	2.080	9.7020	7.2
20	09:47	44.00	0.6	0.850	0.6	0.340	3.0991	1.00	3.0991	1.360	4.2152	3.1
21	09:47	45.60	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.

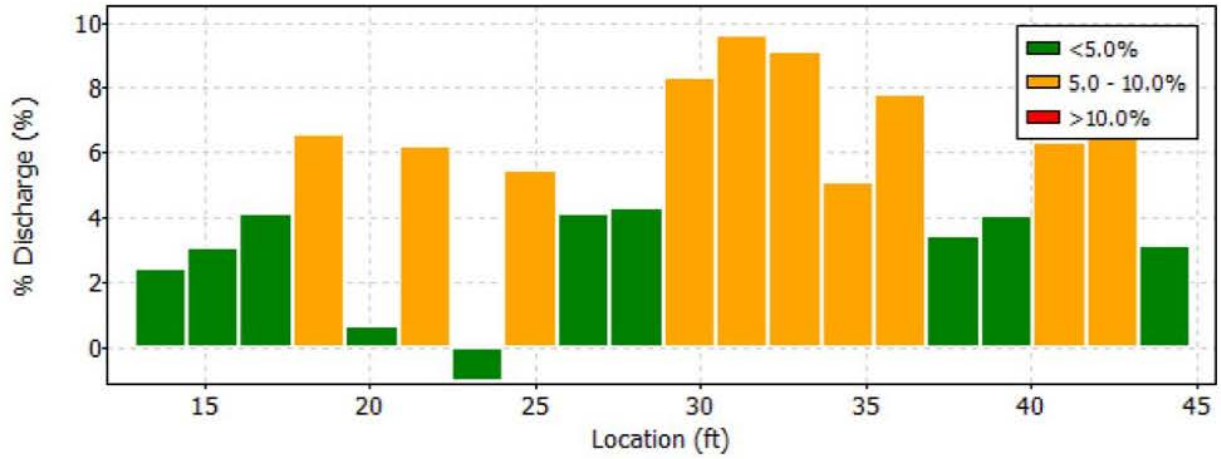
Reference 32

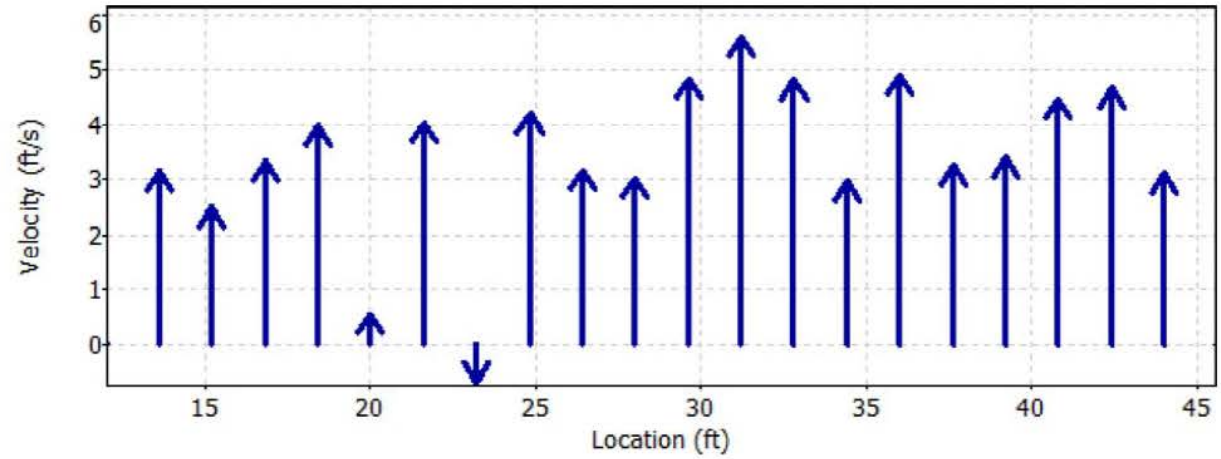
Discharge Measurement Summary

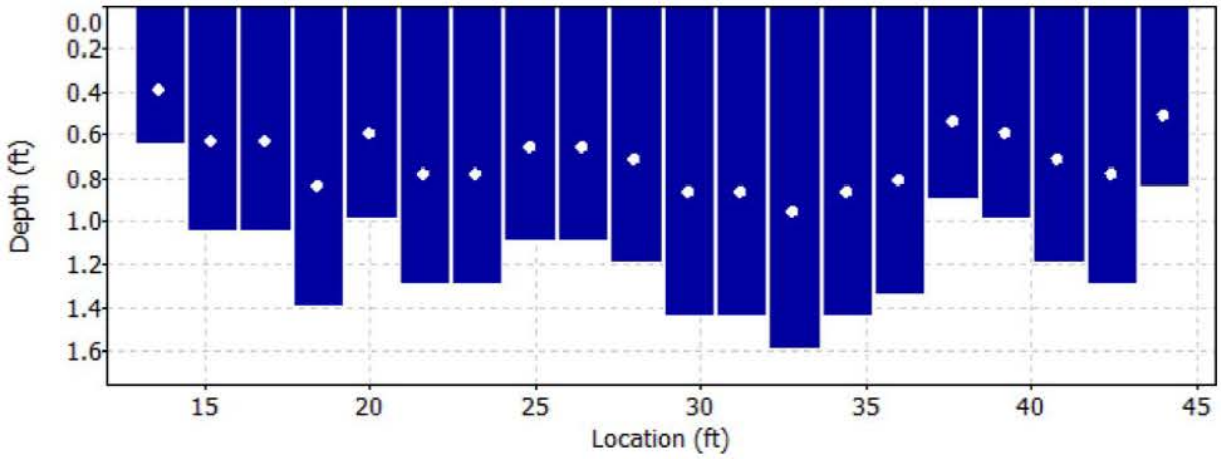
Date Generated: Thu Jul 2 2015

File Information	
File Name	A31.WAD
Start Date and Time	2015/06/09 09:22:09

Site Details	
Site Name	A31
Operator(s)	RB







Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A31.WAD	Site Name	A31
Start Date and Time	2015/06/09 09:22:09	Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
3	16.80	0.6	High angle: -20
4	18.40	0.6	High standard error: 0.340
5	20.00	0.6	High angle: -48
		0.6	High standard error: 1.072
6	21.60	0.6	High number of spikes: 8
7	23.20	0.6	High angle: -138
		0.6	High standard error: 1.151
8	24.80	0.6	High standard error: 0.279
10	28.00	0.6	High angle: -24
12	31.20	0.6	High number of spikes: 5

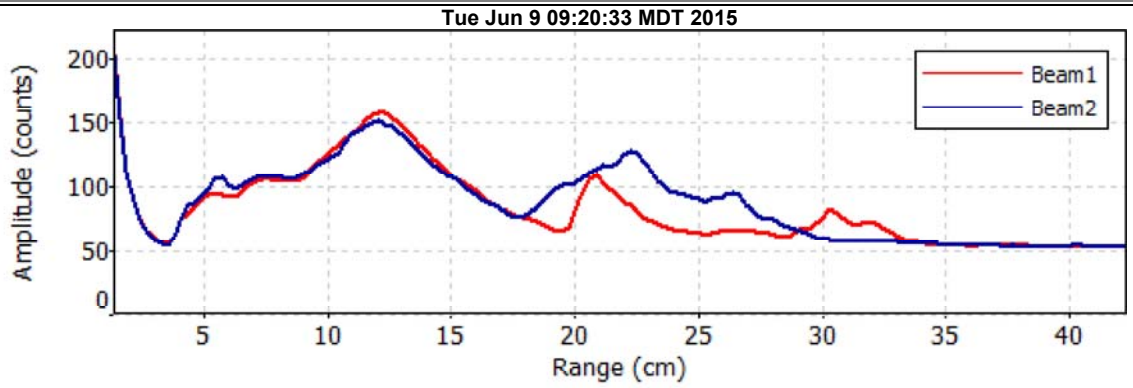
Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A31.WAD	Site Name	A31
Start Date and Time	2015/06/09 09:22:09	Operator(s)	RB

Automatic Quality Control Test (BeamCheck)



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

Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information

File Name	A32.WAD
Start Date and Time	2015/06/09 08:37:24

Site Details

Site Name	A32
Operator(s)	DW

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
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	0.5%	6.8%
Velocity	3.1%	13.3%
Width	0.2%	0.2%
Method	2.3%	-
# Stations	2.6%	-
Overall	**4.8%**	**14.9%**

Summary

Averaging Int.	40	# Stations	19
Start Edge	REW	Total Width	7.199
Mean SNR	42.4 dB	Total Area	2.120
Mean Temp	35.28 °F	Mean Depth	0.294
Disch. Equation	Mid-Section	Mean Velocity	2.2374
		Total Discharge	**4.7423**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:37	2.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	08:37	2.90	0.6	0.250	0.6	0.100	2.1932	1.00	2.1932	0.100	0.2193	4.6
2	08:39	3.30	0.6	0.300	0.6	0.120	3.5830	1.00	3.5830	0.120	0.4297	9.1
3	08:42	3.70	0.6	0.350	0.6	0.140	3.1450	1.00	3.1450	0.140	0.4403	9.3
4	*08:45*	*4.10*	*0.6*	*0.500*	*0.6*	*0.200*	*3.2717*	*1.00*	*3.2717*	*0.200*	*0.6542*	*13.8*
5	*08:46*	*4.50*	*0.6*	*0.500*	*0.6*	*0.200*	*2.2408*	*1.00*	*2.2408*	*0.200*	*0.4481*	*9.4*
6	*08:48*	*4.90*	*0.6*	*0.400*	*0.6*	*0.160*	*0.8104*	*1.00*	*0.8104*	*0.160*	*0.1296*	*2.7*
7	*08:49*	*5.30*	*0.6*	*0.400*	*0.6*	*0.160*	*4.0367*	*1.00*	*4.0367*	*0.160*	*0.6457*	*13.6*
8	08:50	5.70	0.6	0.400	0.6	0.160	1.3064	1.00	1.3064	0.160	0.2090	4.4
9	*08:51*	*6.10*	*0.6*	*0.400*	*0.6*	*0.160*	*2.9514*	*1.00*	*2.9514*	*0.160*	*0.4721*	*10.0*
10	*08:52*	*6.50*	*0.6*	*0.400*	*0.6*	*0.160*	*2.2090*	*1.00*	*2.2090*	*0.160*	*0.3533*	*7.5*
11	*08:54*	*6.90*	*0.6*	*0.000*	*0.6*	*0.000*	*1.4347*	*1.00*	*0.0000*	*0.000*	*0.0000*	*0.0*
12	08:55	7.30	0.6	0.200	0.6	0.080	1.5187	1.00	1.5187	0.080	0.1216	2.6
13	08:57	7.70	0.6	0.200	0.6	0.080	1.1388	1.00	1.1388	0.080	0.0911	1.9
14	08:58	8.10	0.6	0.250	0.6	0.100	2.1499	1.00	2.1499	0.100	0.2150	4.5
15	09:01	8.50	0.6	0.250	0.6	0.100	3.1355	1.00	3.1355	0.100	0.3135	6.6
16	*09:02*	*8.90*	*0.6*	*0.250*	*0.6*	*0.100*	*0.0056*	*1.00*	*0.0056*	*0.100*	*0.0006*	*0.0*
17	*09:03*	*9.30*	*0.6*	*0.250*	*0.6*	*0.100*	*-0.0066*	*1.00*	*-0.0066*	*0.100*	*-0.0007*	*0.0*
18	09:03	9.70	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.

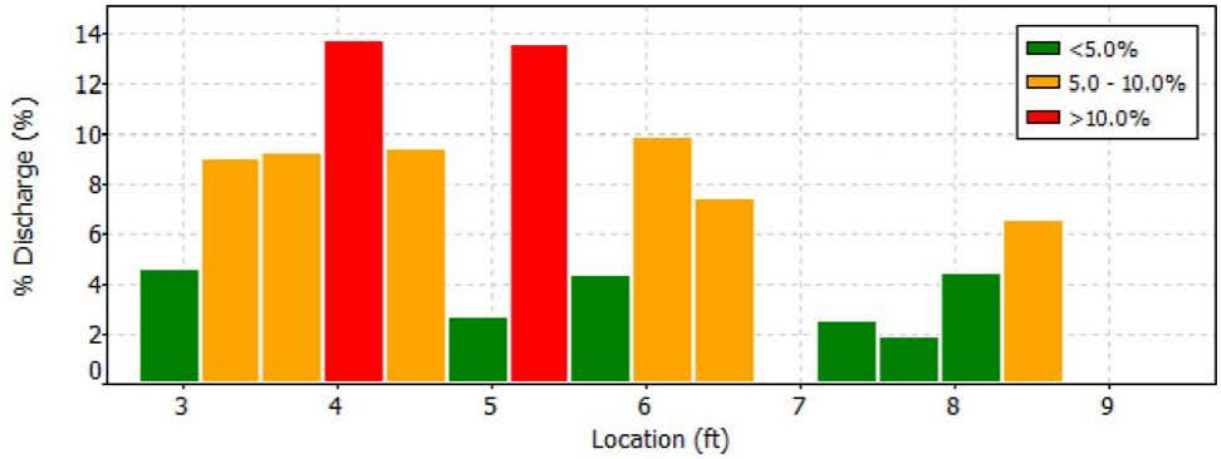
Reference 32

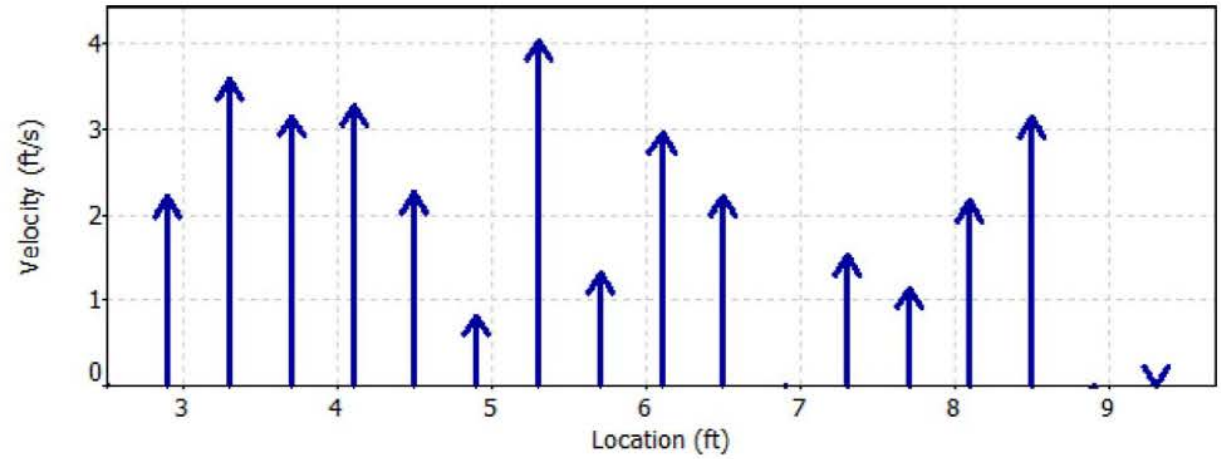
Discharge Measurement Summary

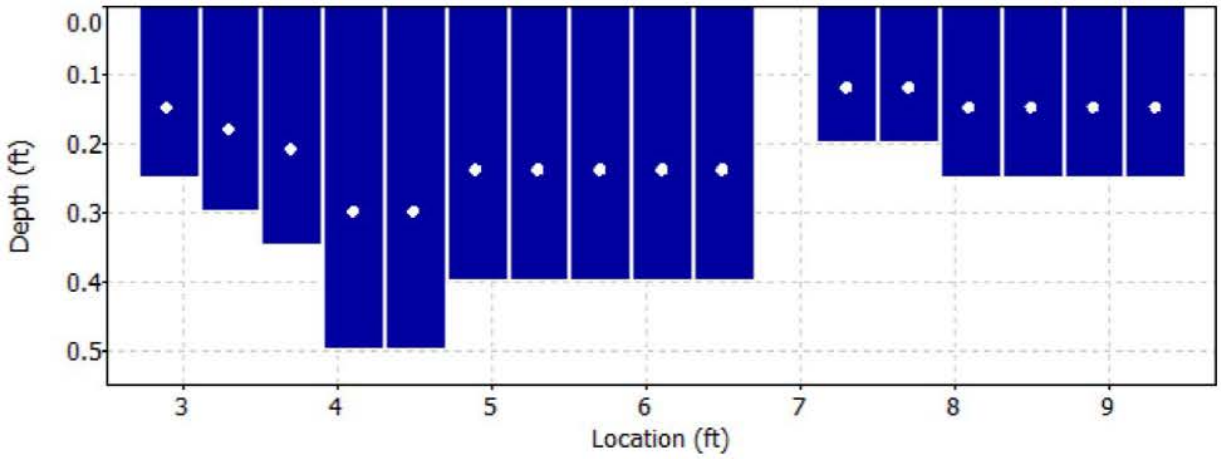
Date Generated: Thu Jul 2 2015

File Information	
File Name	A32.WAD
Start Date and Time	2015/06/09 08:37:24

Site Details	
Site Name	A32
Operator(s)	DW







Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A32.WAD	Site Name	A32
Start Date and Time	2015/06/09 08:37:24	Operator(s)	DW

Quality Control

St	Loc	%Dep	Message
4	4.10	0.6	High standard error: 0.330
5	4.50	0.6	High SNR variation during measurement: 3.4,10.8
		0.6	High standard error: 0.449
		0.6	Boundary QC is Good; possible boundary interference
6	4.90	0.6	High standard error: 0.232
7	5.30	0.6	High standard error: 0.321
9	6.10	0.6	High standard error: 0.277
10	6.50	0.6	High number of spikes: 5
		0.6	High standard error: 0.244
		0.6	Boundary QC is Good; possible boundary interference
11	6.90	0.6	High standard error: 0.463
		0.6	Boundary QC is Good; possible boundary interference
16	8.90	0.6	High differences in beam SNR: 65.7,52.4
		0.6	SNR (59.1) is different from typical SNR (42.4)
17	9.30	0.6	SNR (62.1) is different from typical SNR (42.4)
		0.6	High SNR variation during measurement: 4.3,6.9
		0.6	Boundary QC is Good; possible boundary interference

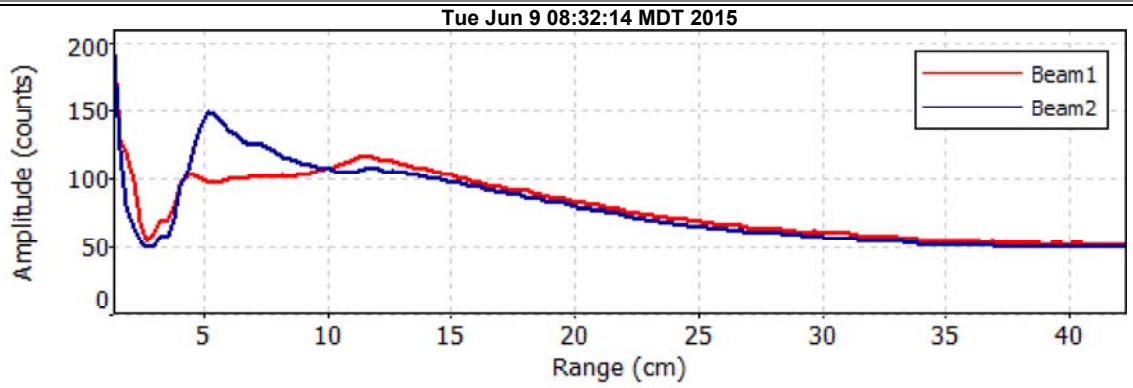
Reference 32

Discharge Measurement Summary

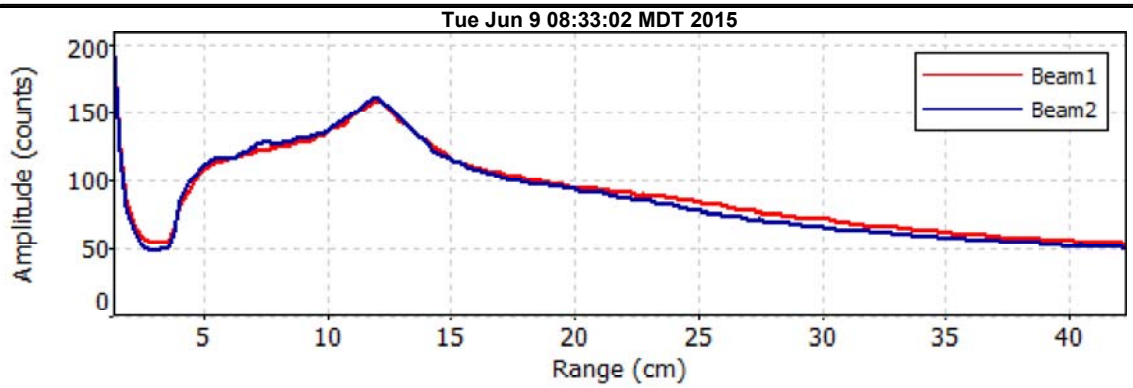
Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A32.WAD	Site Name	A32
Start Date and Time	2015/06/09 08:37:24	Operator(s)	DW

Automatic Quality Control Test (BeamCheck)



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



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

Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information

File Name	A41C.WAD
Start Date and Time	2015/06/09 15:26:54

Site Details

Site Name	A41C
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
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%	1.2%
Velocity	0.9%	2.9%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.3%	-
Overall	**3.2%**	**3.3%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	6.098
Mean SNR	22.8 dB	Total Area	4.191
Mean Temp	46.41 °F	Mean Depth	0.687
Disch. Equation	Mid-Section	Mean Velocity	2.5716
		Total Discharge	**10.7771**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:26	1.50	None	0.100	0.0	0.0	0.0000	1.00	2.1529	0.010	0.0216	0.2
1	15:26	1.70	0.6	0.300	0.6	0.120	2.1529	1.00	2.1529	0.060	0.1292	1.2
2	15:27	1.90	0.6	0.350	0.6	0.140	2.3415	1.00	2.3415	0.088	0.2049	1.9
3	15:29	2.20	0.6	0.450	0.6	0.180	2.3274	1.00	2.3274	0.135	0.3142	2.9
4	15:30	2.50	0.6	0.600	0.6	0.240	2.3661	1.00	2.3661	0.180	0.4258	4.0
5	15:31	2.80	0.6	0.600	0.6	0.240	2.8294	1.00	2.8294	0.180	0.5091	4.7
6	15:32	3.10	0.6	0.750	0.6	0.300	2.3507	1.00	2.3507	0.225	0.5287	4.9
7	15:33	3.40	0.6	0.900	0.6	0.360	2.8524	1.00	2.8524	0.270	0.7697	7.1
8	*15:35*	*3.70*	*0.6*	*0.800*	*0.6*	*0.320*	*2.7949*	*1.00*	*2.7949*	*0.240*	*0.6704*	*6.2*
9	15:36	4.00	0.6	0.800	0.6	0.320	2.6181	1.00	2.6181	0.240	0.6280	5.8
10	*15:37*	*4.30*	*0.6*	*0.850*	*0.6*	*0.340*	*2.4501*	*1.00*	*2.4501*	*0.255*	*0.6246*	*5.8*
11	15:38	4.60	0.6	0.850	0.6	0.340	3.3353	1.00	3.3353	0.255	0.8502	7.9
12	15:39	4.90	0.6	0.900	0.6	0.360	2.6138	1.00	2.6138	0.270	0.7054	6.5
13	*15:40*	*5.20*	*0.6*	*0.900*	*0.6*	*0.360*	*3.0699*	*1.00*	*3.0699*	*0.270*	*0.8284*	*7.7*
14	*15:41*	*5.50*	*0.6*	*0.800*	*0.6*	*0.320*	*2.9741*	*1.00*	*2.9741*	*0.240*	*0.7134*	*6.6*
15	15:42	5.80	0.6	0.750	0.6	0.300	3.4869	1.00	3.4869	0.225	0.7842	7.3
16	15:44	6.10	0.6	0.700	0.6	0.280	2.4672	1.00	2.4672	0.210	0.5180	4.8
17	15:45	6.40	0.6	0.700	0.6	0.280	2.3438	1.00	2.3438	0.210	0.4921	4.6
18	*15:46*	*6.70*	*0.6*	*0.700*	*0.6*	*0.280*	*1.8346*	*1.00*	*1.8346*	*0.210*	*0.3852*	*3.6*
19	*15:47*	*7.00*	*0.6*	*0.650*	*0.6*	*0.260*	*1.5988*	*1.00*	*1.5988*	*0.195*	*0.3116*	*2.9*
20	15:48	7.30	0.6	0.500	0.6	0.200	1.6125	1.00	1.6125	0.150	0.2418	2.2
21	15:48	7.60	None	0.500	0.0	0.0	0.0000	1.00	1.6125	0.075	0.1209	1.1

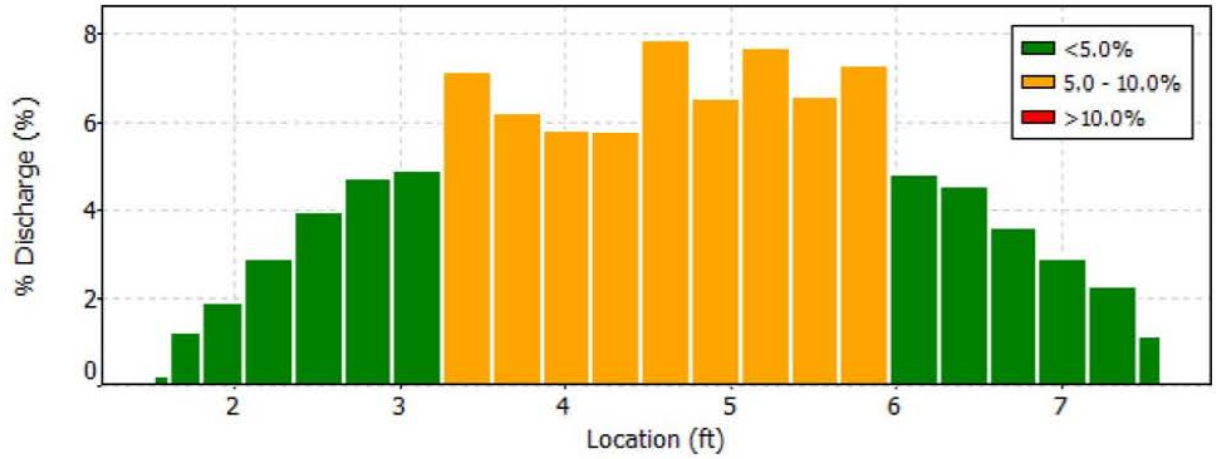
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

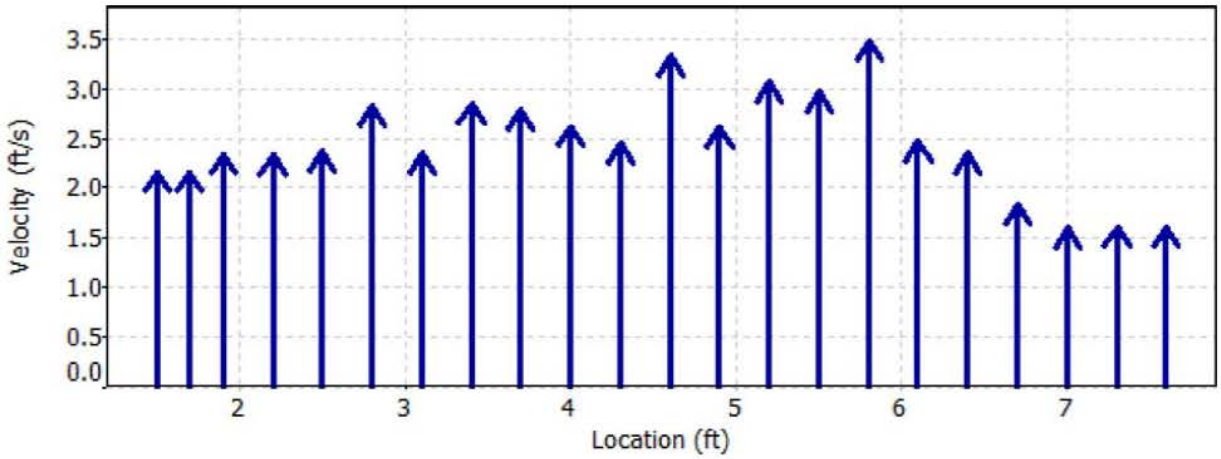
Reference 32

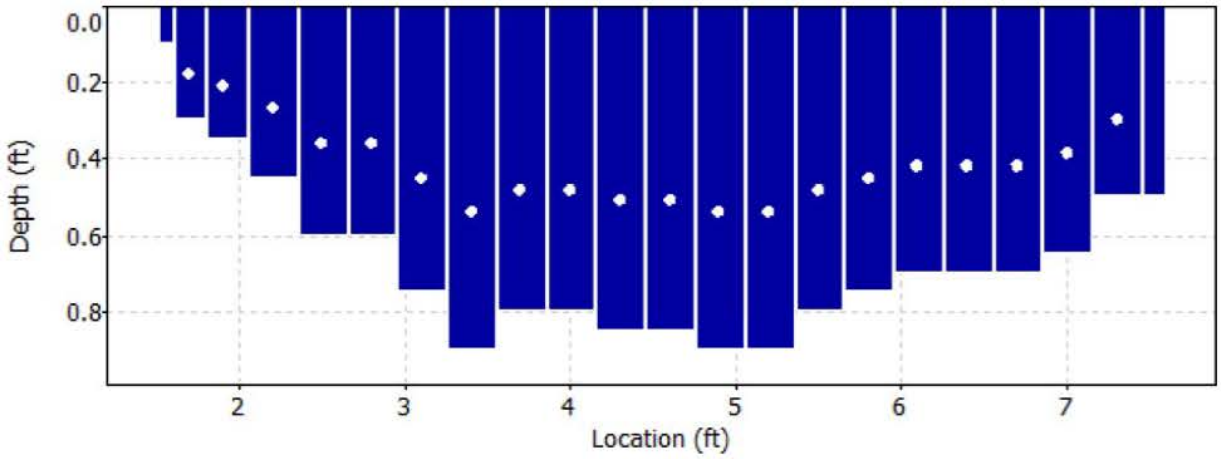
Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A41C.WAD	Site Name	A41C
Start Date and Time	2015/06/09 15:26:54	Operator(s)	LC







Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A41C.WAD	Site Name	A41C
Start Date and Time	2015/06/09 15:26:54	Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
8	3.70	0.6	High SNR variation during measurement: 3.9,5.6
		0.6	High standard error: 0.144
10	4.30	0.6	High angle: -22
		0.6	High SNR variation during measurement: 4.7,8.2
		0.6	High standard error: 0.282
13	5.20	0.6	High angle: -23
14	5.50	0.6	High angle: -31
18	6.70	0.6	High angle: -30
19	7.00	0.6	High angle: -21

Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information

File Name	A42.WAD
Start Date and Time	2015/06/09 14:42:16

Site Details

Site Name	A42
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
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	0.2%	1.0%
Velocity	0.7%	7.2%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.3%	-
Overall	**3.2%**	**7.4%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	12.800
Mean SNR	47.8 dB	Total Area	11.429
Mean Temp	41.30 °F	Mean Depth	0.893
Disch. Equation	Mid-Section	Mean Velocity	4.6670
		Total Discharge	**53.3402**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:42	6.50	None	0.100	0.0	0.0	0.0000	1.00	1.5253	0.050	0.0763	0.1
1	14:42	7.50	0.6	0.300	0.6	0.120	1.5253	1.00	1.5253	0.300	0.4574	0.9
2	*14:43*	*8.50*	*0.6*	*0.500*	*0.6*	*0.200*	*2.0472*	*1.00*	*2.0472*	*0.387*	*0.7932*	*1.5*
3	14:44	9.05	0.6	0.600	0.6	0.240	2.3665	1.00	2.3665	0.330	0.7808	1.5
4	*14:45*	*9.60*	*0.6*	*0.700*	*0.6*	*0.280*	*3.1932*	*1.00*	*3.1932*	*0.385*	*1.2293*	*2.3*
5	14:46	10.15	0.6	0.800	0.6	0.320	5.0466	1.00	5.0466	0.440	2.2196	4.2
6	14:47	10.70	0.6	0.800	0.6	0.320	5.1027	1.00	5.1027	0.440	2.2443	4.2
7	14:48	11.25	0.6	0.800	0.6	0.320	6.8517	1.00	6.8517	0.440	3.0135	5.6
8	14:49	11.80	0.6	0.800	0.6	0.320	7.0243	1.00	7.0243	0.440	3.0894	5.8
9	*14:50*	*12.35*	*0.6*	*0.900*	*0.6*	*0.360*	*1.0052*	*1.00*	*1.0052*	*0.495*	*0.4974*	*0.9*
10	*14:52*	*12.90*	*0.6*	*1.200*	*0.6*	*0.480*	*6.7221*	*1.00*	*6.7221*	*0.660*	*4.4360*	*8.3*
11	14:54	13.45	0.6	1.300	0.6	0.520	6.0203	1.00	6.0203	0.715	4.3031	8.1
12	14:55	14.00	0.6	1.450	0.6	0.580	5.7969	1.00	5.7969	0.797	4.6224	8.7
13	14:56	14.55	0.6	1.350	0.6	0.540	6.0594	1.00	6.0594	0.742	4.4982	8.4
14	14:57	15.10	0.6	1.250	0.6	0.500	4.6765	1.00	4.6765	0.687	3.2143	6.0
15	14:58	15.65	0.6	1.250	0.6	0.500	5.2851	1.00	5.2851	0.687	3.6326	6.8
16	14:59	16.20	0.6	1.150	0.6	0.460	5.0758	1.00	5.0758	0.632	3.2095	6.0
17	15:00	16.75	0.6	1.050	0.6	0.420	4.8688	1.00	4.8688	0.577	2.8107	5.3
18	15:01	17.30	0.6	1.000	0.6	0.400	3.4058	1.00	3.4058	0.550	1.8728	3.5
19	15:02	17.85	0.6	1.100	0.6	0.440	3.9980	1.00	3.9980	0.605	2.4184	4.5
20	15:04	18.40	0.6	1.100	0.6	0.440	3.6663	1.00	3.6663	0.799	2.9283	5.5
21	15:04	19.30	None	0.600	0.0	0.0	0.0000	1.00	3.6663	0.271	0.9925	1.9

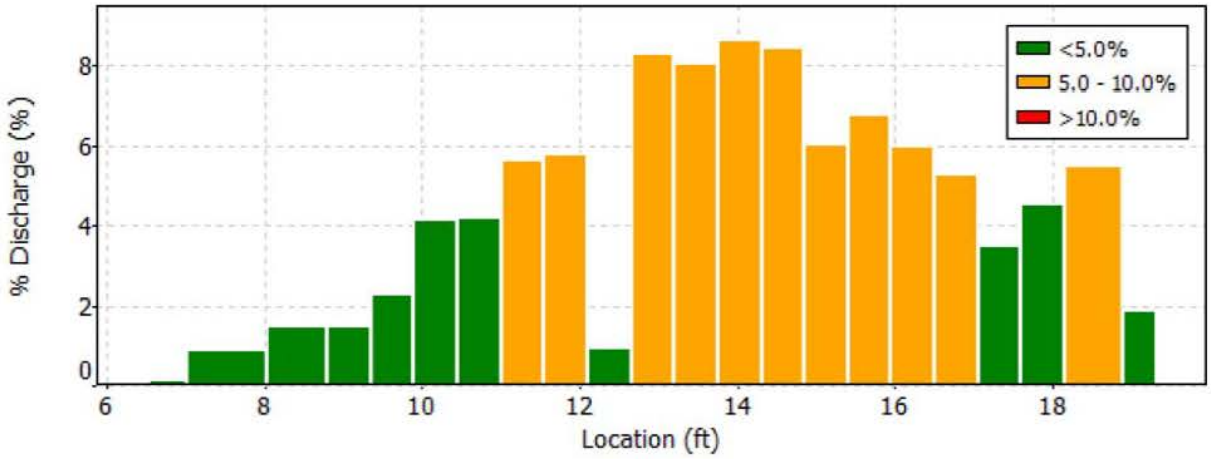
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

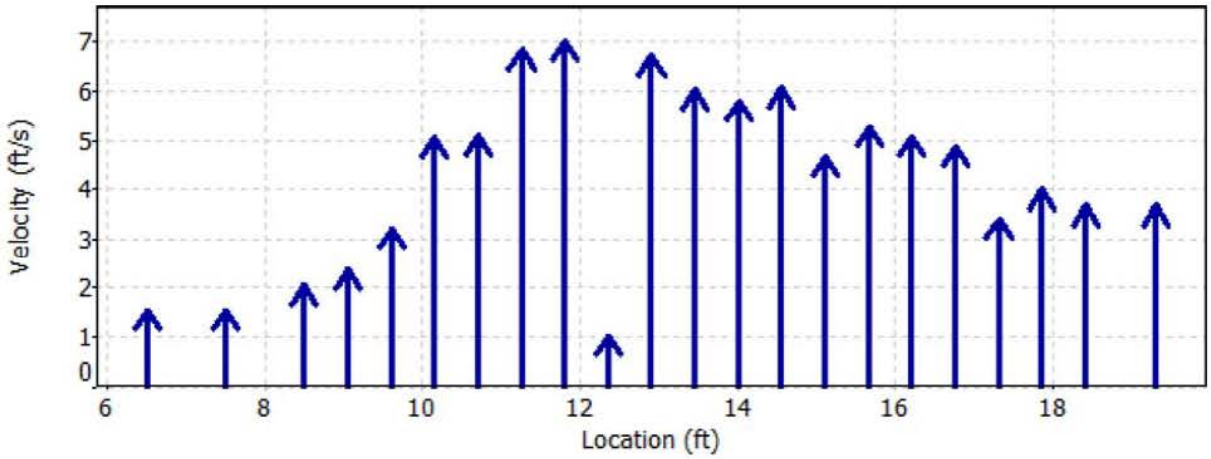
Reference 32

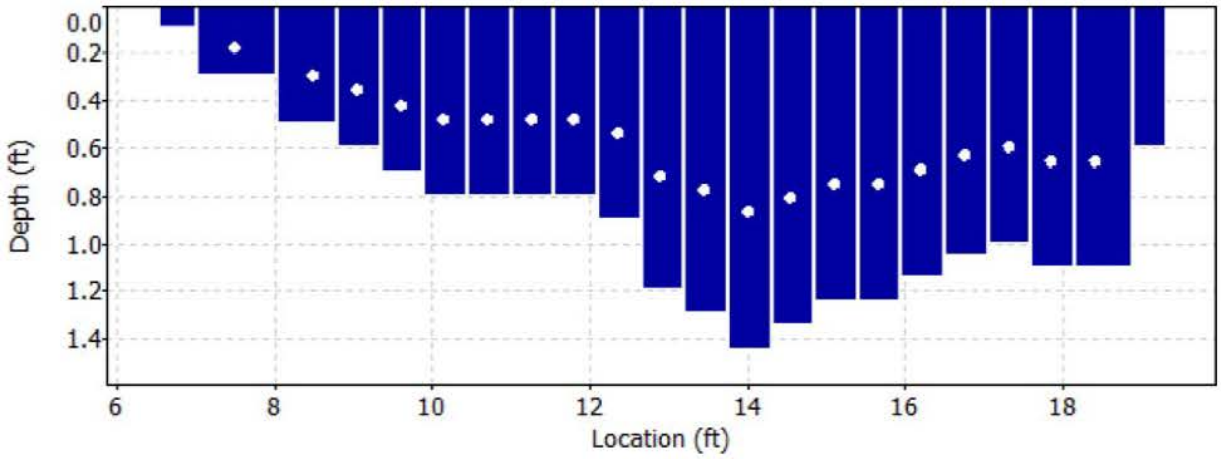
Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A42.WAD	Site Name	A42
Start Date and Time	2015/06/09 14:42:16	Operator(s)	LC







Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A42.WAD	Site Name	A42
Start Date and Time	2015/06/09 14:42:16	Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
2	8.50	0.6	High angle: -22
4	9.60	0.6	High standard error: 0.242
9	12.35	0.6	High standard error: 0.273
10	12.90	0.6	High number of spikes: 5

Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information

File Name	A43.WAD
Start Date and Time	2015/06/09 13:50:28

Site Details

Site Name	A43
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
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	0.2%	1.8%
Velocity	0.8%	3.1%
Width	0.1%	0.1%
Method	1.7%	-
# Stations	2.3%	-
Overall	**3.1%**	**3.7%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	17.000
Mean SNR	46.3 dB	Total Area	17.925
Mean Temp	41.32 °F	Mean Depth	1.054
Disch. Equation	Mid-Section	Mean Velocity	4.1942
		Total Discharge	**75.1806**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:50	8.50	None	0.400	0.0	0.0	0.0000	1.00	1.6604	0.160	0.2656	0.4
1	*13:50*	*9.30*	*0.6*	*0.550*	*0.6*	*0.220*	*1.6604*	*1.00*	*1.6604*	*0.440*	*0.7303*	*1.0*
2	13:52	10.10	0.6	0.800	0.6	0.320	4.1562	1.00	4.1562	0.640	2.6591	3.5
3	13:53	10.90	0.6	1.000	0.6	0.400	3.8878	1.00	3.8878	0.800	3.1097	4.1
4	13:54	11.70	0.6	1.200	0.6	0.480	3.6975	1.00	3.6975	0.960	3.5494	4.7
5	13:55	12.50	0.6	1.250	0.6	0.500	4.4754	1.00	4.4754	1.000	4.4747	6.0
6	13:56	13.30	0.6	1.300	0.6	0.520	4.4196	1.00	4.4196	1.040	4.5952	6.1
7	13:57	14.10	0.6	1.200	0.6	0.480	4.6053	1.00	4.6053	0.960	4.4209	5.9
8	13:58	14.90	0.6	1.100	0.6	0.440	4.3796	1.00	4.3796	0.880	3.8536	5.1
9	14:00	15.70	0.6	1.000	0.6	0.400	4.0472	1.00	4.0472	0.800	3.2373	4.3
10	14:01	16.50	0.6	0.900	0.6	0.360	3.5443	1.00	3.5443	0.720	2.5513	3.4
11	*14:02*	*17.30*	*0.6*	*1.200*	*0.6*	*0.480*	*3.5069*	*1.00*	*3.5069*	*0.960*	*3.3664*	*4.5*
12	14:03	18.10	0.6	1.000	0.6	0.400	3.8822	1.00	3.8822	0.800	3.1053	4.1
13	14:04	18.90	0.6	1.000	0.6	0.400	4.9898	1.00	4.9898	0.800	3.9912	5.3
14	14:06	19.70	0.6	1.200	0.6	0.480	5.4190	1.00	5.4190	0.960	5.2019	6.9
15	14:07	20.50	0.6	1.100	0.6	0.440	4.3615	1.00	4.3615	0.880	3.8378	5.1
16	14:08	21.30	0.6	0.950	0.6	0.380	4.7831	1.00	4.7831	0.760	3.6351	4.8
17	14:09	22.10	0.6	1.000	0.6	0.400	5.7113	1.00	5.7113	0.800	4.5683	6.1
18	*14:10*	*22.90*	*0.6*	*1.300*	*0.6*	*0.520*	*4.3465*	*1.00*	*4.3465*	*1.040*	*4.5191*	*6.0*
19	14:11	23.70	0.6	1.250	0.6	0.500	5.2510	1.00	5.2510	1.000	5.2501	7.0
20	14:13	24.50	0.6	1.250	0.6	0.500	2.7877	1.00	2.7877	1.127	3.1405	4.2
21	14:13	25.50	None	0.800	0.0	0.0	0.0000	1.00	2.7877	0.401	1.1178	1.5

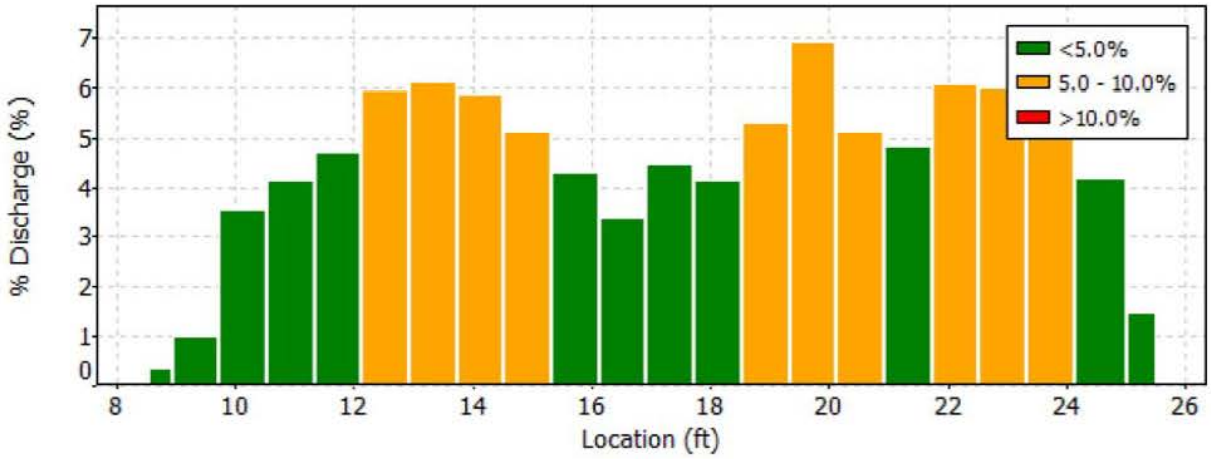
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

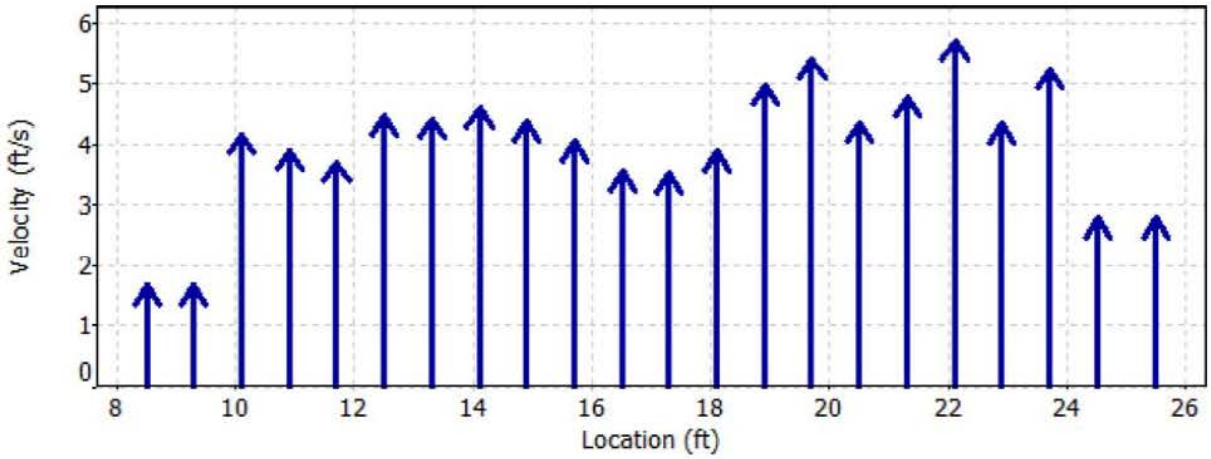
Reference 32

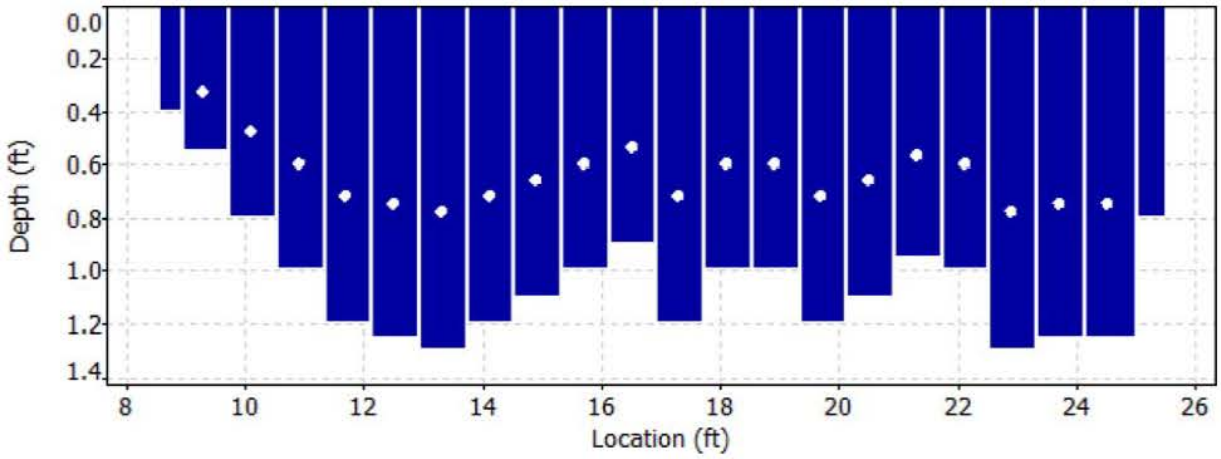
Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A43.WAD	Site Name	A43
Start Date and Time	2015/06/09 13:50:28	Operator(s)	LC







Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A43.WAD	Site Name	A43
Start Date and Time	2015/06/09 13:50:28	Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
1	9.30	0.6	High angle: 26
11	17.30	0.6	High standard error: 0.214
18	22.90	0.6	High standard error: 0.253

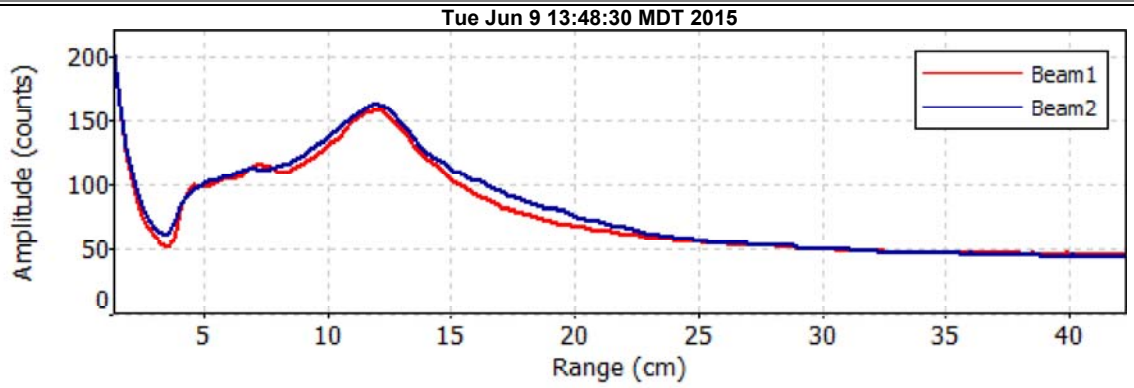
Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A43.WAD	Site Name	A43
Start Date and Time	2015/06/09 13:50:28	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



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

Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information

File Name	A47.WAD
Start Date and Time	2015/06/09 12:01:16

Site Details

Site Name	A47
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
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%	3.3%
Velocity	1.2%	12.3%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**3.4%**	**12.8%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	22.802
Mean SNR	42.9 dB	Total Area	7.140
Mean Temp	42.67 °F	Mean Depth	0.313
Disch. Equation	Mid-Section	Mean Velocity	1.2779
		Total Discharge	**9.1237**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	12:01	14.00	None	0.200	0.0	0.0	0.0000	1.00	0.7287	0.120	0.0875	1.0
1	12:01	15.20	0.6	0.200	0.6	0.080	0.7287	1.00	0.7287	0.240	0.1750	1.9
2	*12:02*	*16.40*	*0.6*	*0.300*	*0.6*	*0.120*	*0.9524*	*1.00*	*0.9524*	*0.360*	*0.3428*	*3.8*
3	12:03	17.60	0.6	0.500	0.6	0.200	0.8376	1.00	0.8376	0.575	0.4816	5.3
4	*12:21*	*18.70*	*0.6*	*0.500*	*0.6*	*0.200*	*2.2349*	*1.00*	*2.2349*	*0.300*	*0.6705*	*7.3*
5	*12:04*	*18.80*	*0.6*	*0.500*	*0.6*	*0.200*	*1.5663*	*1.00*	*1.5663*	*0.325*	*0.5092*	*5.6*
6	*12:05*	*20.00*	*0.6*	*0.400*	*0.6*	*0.160*	*-0.1476*	*1.00*	*-0.1476*	*0.440*	*-0.0649*	*-0.7*
7	*12:19*	*21.00*	*0.6*	*0.300*	*0.6*	*0.120*	*1.1204*	*1.00*	*1.1204*	*0.180*	*0.2016*	*2.2*
8	12:06	21.20	0.6	0.400	0.6	0.160	2.3950	1.00	2.3950	0.280	0.6709	7.4
9	12:07	22.40	0.6	0.400	0.6	0.160	1.8993	1.00	1.8993	0.480	0.9116	10.0
10	*12:07*	*23.60*	*0.6*	*0.300*	*0.6*	*0.120*	*0.4245*	*1.00*	*0.4245*	*0.360*	*0.1528*	*1.7*
11	*12:08*	*24.80*	*0.6*	*0.300*	*0.6*	*0.120*	*1.3173*	*1.00*	*1.3173*	*0.360*	*0.4741*	*5.2*
12	*12:09*	*26.00*	*0.6*	*0.300*	*0.6*	*0.120*	*0.9364*	*1.00*	*0.9364*	*0.360*	*0.3370*	*3.7*
13	*12:10*	*27.20*	*0.6*	*0.400*	*0.6*	*0.160*	*1.7694*	*1.00*	*1.7694*	*0.480*	*0.8492*	*9.3*
14	12:11	28.40	0.6	0.300	0.6	0.120	1.3950	1.00	1.3950	0.360	0.5020	5.5
15	*12:12*	*29.60*	*0.6*	*0.300*	*0.6*	*0.120*	*1.2933*	*1.00*	*1.2933*	*0.360*	*0.4654*	*5.1*
16	12:13	30.80	0.6	0.250	0.6	0.100	1.5948	1.00	1.5948	0.300	0.4785	5.2
17	12:14	32.00	0.6	0.300	0.6	0.120	2.4039	1.00	2.4039	0.360	0.8651	9.5
18	*12:15*	*33.20*	*0.6*	*0.300*	*0.6*	*0.120*	*0.9268*	*1.00*	*0.9268*	*0.360*	*0.3336*	*3.7*
19	12:16	34.40	0.6	0.250	0.6	0.100	1.9449	1.00	1.9449	0.300	0.5835	6.4
20	*12:17*	*35.60*	*0.6*	*0.200*	*0.6*	*0.080*	*0.4022*	*1.00*	*0.4022*	*0.240*	*0.0966*	*1.1*
21	12:17	36.80	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.

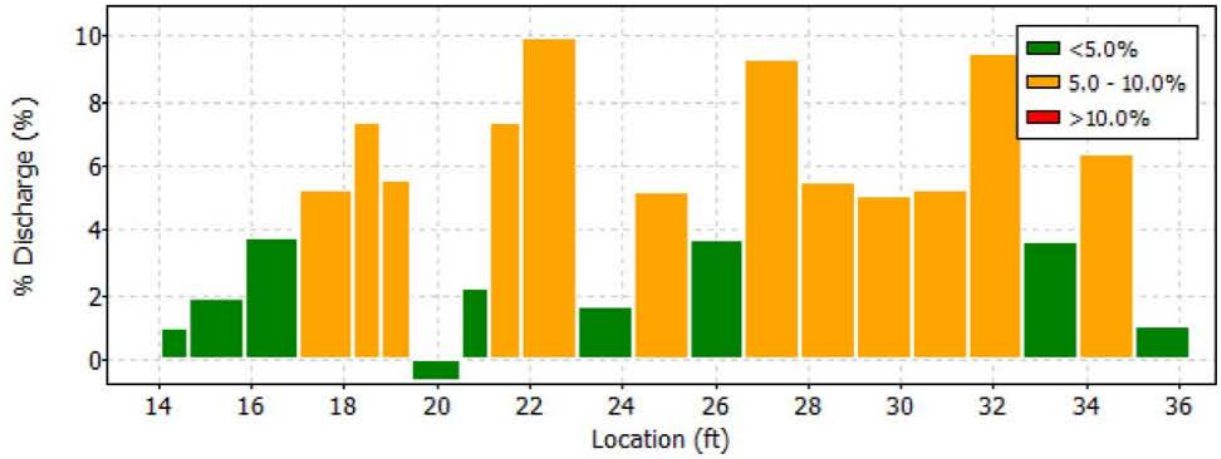
Reference 32

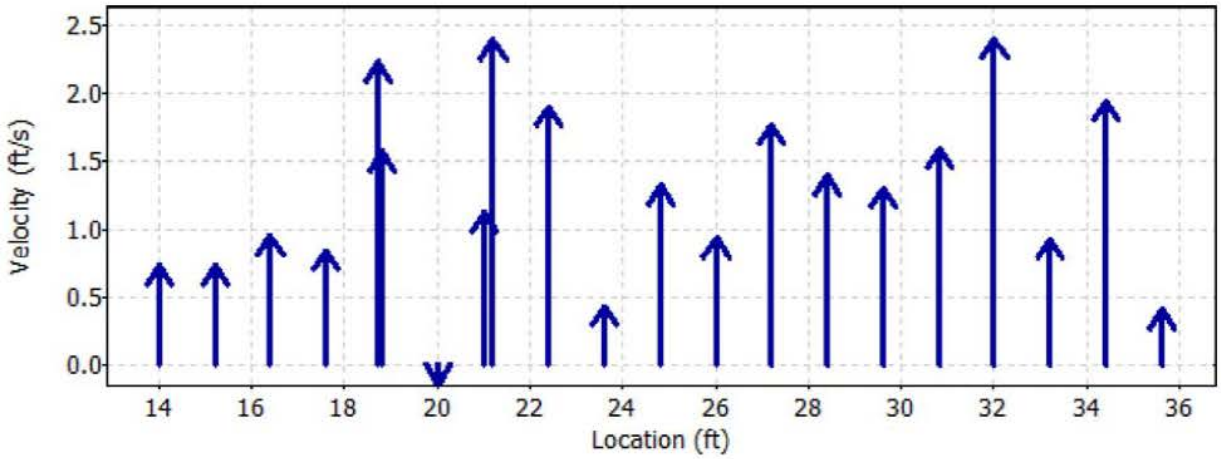
Discharge Measurement Summary

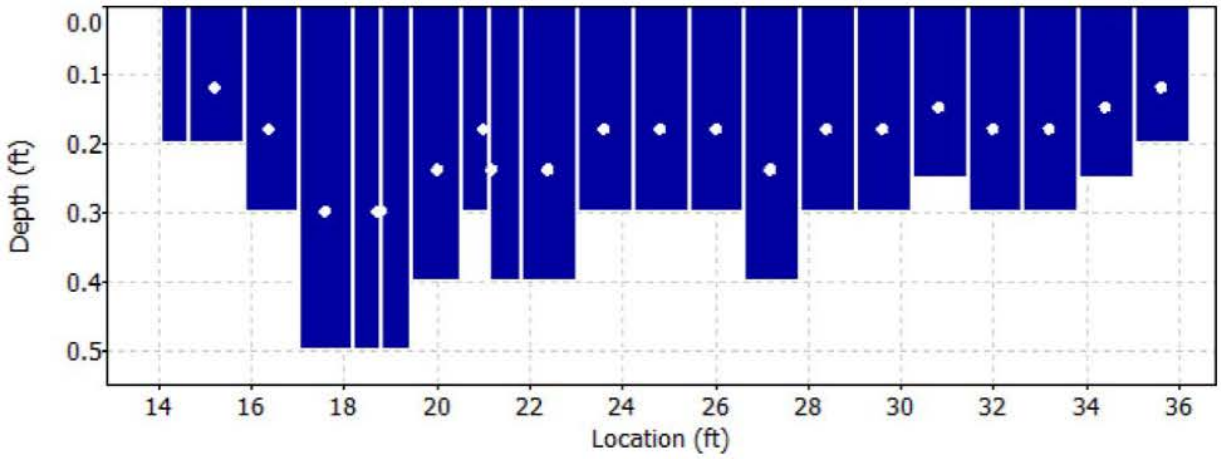
Date Generated: Thu Jul 2 2015

File Information	
File Name	A47.WAD
Start Date and Time	2015/06/09 12:01:16

Site Details	
Site Name	A47
Operator(s)	KB







Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information	
File Name	A47.WAD
Start Date and Time	2015/06/09 12:01:16

Site Details	
Site Name	A47
Operator(s)	KB

Quality Control

St	Loc	%Dep	Message
2	16.40	0.6	High angle: 23
4	18.70	0.6	High angle: 23
5	18.80	0.6	High angle: 24
6	20.00	0.6	High angle: 147
7	21.00	0.6	High standard error: 0.112
10	23.60	0.6	High angle: -28
11	24.80	0.6	High standard error: 0.096
12	26.00	0.6	High angle: -21
13	27.20	0.6	High standard error: 0.104
15	29.60	0.6	High angle: -26
18	33.20	0.6	High angle: -25
20	35.60	0.6	Boundary QC is Good; possible boundary interference

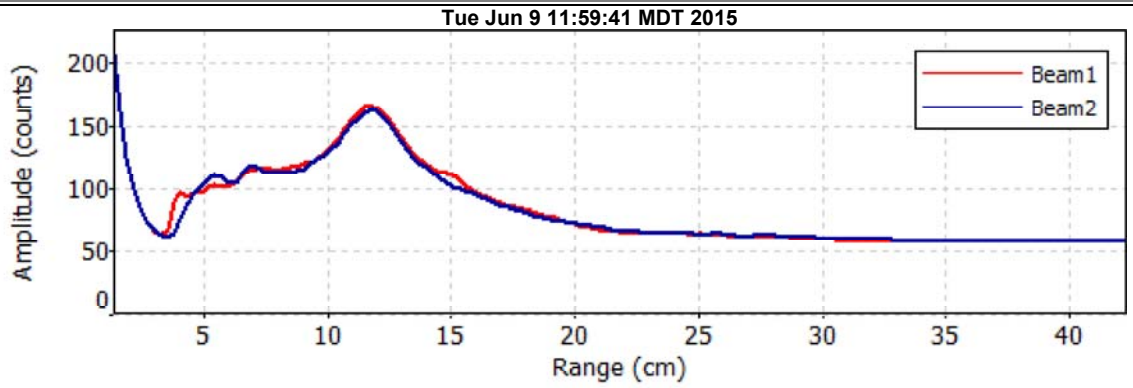
Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	A47.WAD	Site Name	A47
Start Date and Time	2015/06/09 12:01:16	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



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

Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information

File Name	CG9.WAD
Start Date and Time	2015/06/09 15:47:49

Site Details

Site Name	CG9
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
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	0.1%	0.8%
Velocity	1.0%	3.3%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.5%	-
Overall	**3.5%**	**3.5%**

Summary

Averaging Int.	40	# Stations	20
Start Edge	REW	Total Width	13.302
Mean SNR	45.7 dB	Total Area	16.733
Mean Temp	35.58 °F	Mean Depth	1.258
Disch. Equation	Mid-Section	Mean Velocity	3.1847
		Total Discharge	**53.2909**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:47	5.30	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*15:47*	*6.00*	*0.6*	*0.900*	*0.6*	*0.360*	*0.6152*	*1.00*	*0.6152*	*0.630*	*0.3876*	*0.7*
2	15:48	6.70	0.6	1.000	0.6	0.400	1.9183	1.00	1.9183	0.700	1.3431	2.5
3	15:50	7.40	0.6	1.150	0.6	0.460	2.5105	1.00	2.5105	0.805	2.0212	3.8
4	15:51	8.10	0.6	1.250	0.6	0.500	4.0758	1.00	4.0758	0.875	3.5670	6.7
5	15:52	8.80	0.6	1.300	0.6	0.520	4.6165	1.00	4.6165	0.910	4.2014	7.9
6	15:53	9.50	0.6	1.350	0.6	0.540	4.1453	1.00	4.1453	0.945	3.9183	7.4
7	15:54	10.20	0.6	1.400	0.6	0.560	4.8704	1.00	4.8704	0.980	4.7737	9.0
8	*15:55*	*10.90*	*0.6*	*1.400*	*0.6*	*0.560*	*4.9006*	*1.00*	*4.9006*	*0.980*	*4.8033*	*9.0*
9	15:56	11.60	0.6	1.450	0.6	0.580	3.8924	1.00	3.8924	1.015	3.9519	7.4
10	15:57	12.30	0.6	1.600	0.6	0.640	3.9314	1.00	3.9314	1.120	4.4042	8.3
11	15:59	13.00	0.6	1.500	0.6	0.600	3.0128	1.00	3.0128	1.050	3.1640	5.9
12	16:00	13.70	0.6	1.400	0.6	0.560	2.6742	1.00	2.6742	0.980	2.6211	4.9
13	16:01	14.40	0.6	1.200	0.6	0.480	2.5010	1.00	2.5010	0.840	2.1015	3.9
14	*16:02*	*15.10*	*0.6*	*1.200*	*0.6*	*0.480*	*1.6880*	*1.00*	*1.6880*	*0.840*	*1.4183*	*2.7*
15	*16:03*	*15.80*	*0.6*	*1.200*	*0.6*	*0.480*	*2.2103*	*1.00*	*2.2103*	*0.840*	*1.8572*	*3.5*
16	16:04	16.50	0.6	1.400	0.6	0.560	3.1654	1.00	3.1654	0.980	3.1025	5.8
17	16:06	17.20	0.6	1.500	0.6	0.600	3.6647	1.00	3.6647	1.050	3.8487	7.2
18	*16:07*	*17.90*	*0.6*	*1.700*	*0.6*	*0.680*	*1.5174*	*1.00*	*1.5174*	*1.190*	*1.8062*	*3.4*
19	16:07	18.60	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

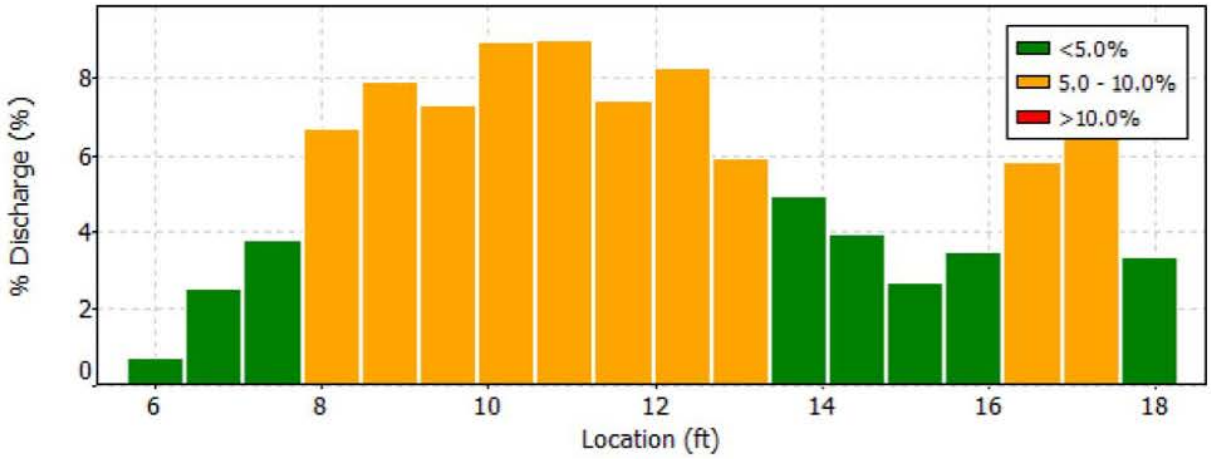
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

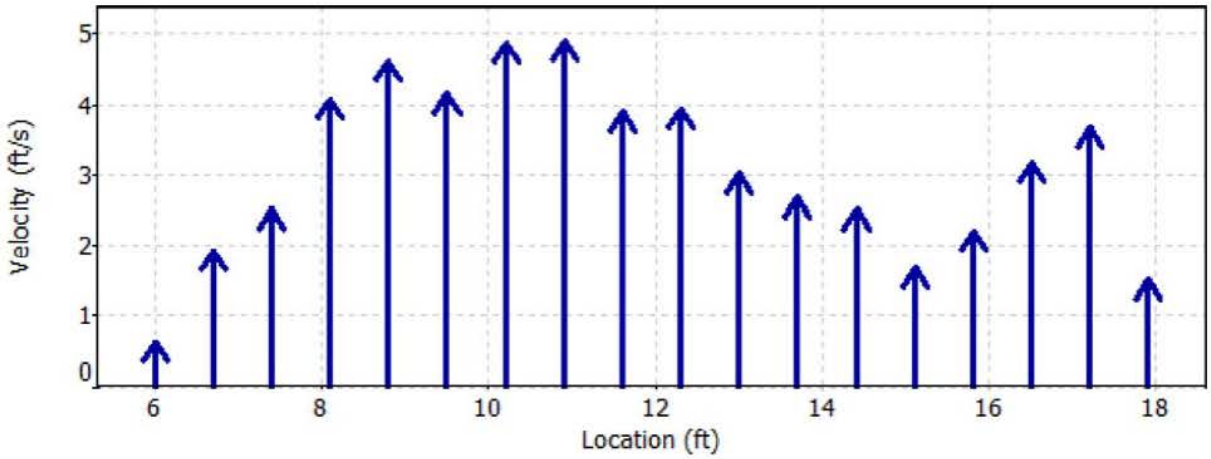
Reference 32

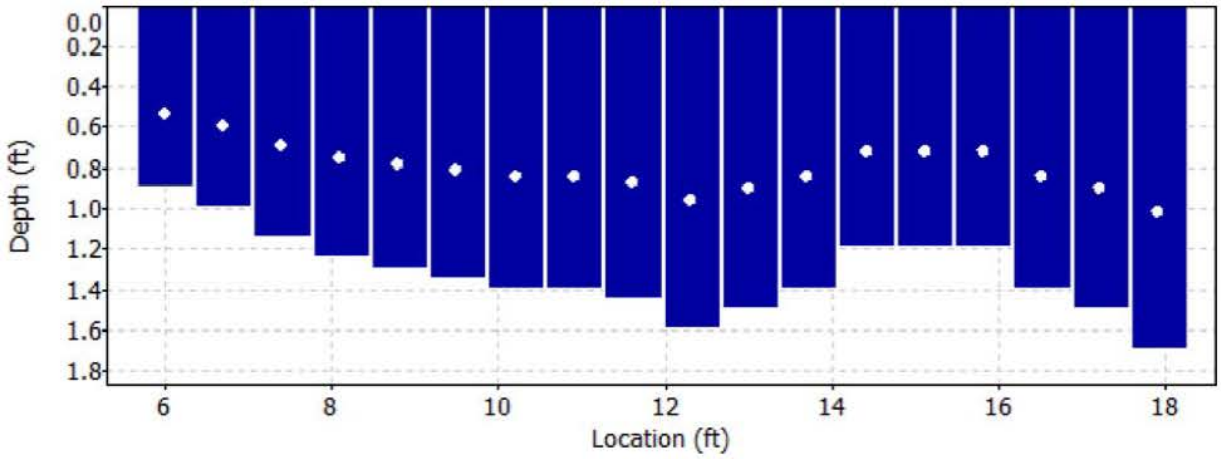
Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	CG9.WAD	Site Name	CG9
Start Date and Time	2015/06/09 15:47:49	Operator(s)	RB







Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	CG9.WAD	Site Name	CG9
Start Date and Time	2015/06/09 15:47:49	Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
1	6.00	0.6	High angle: -24
8	10.90	0.6	High SNR variation during measurement: 2.1,5.2
14	15.10	0.6	High standard error: 0.196
15	15.80	0.6	High standard error: 0.160
18	17.90	0.6	High standard error: 0.239

Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information

File Name	CG11.WAD
Start Date and Time	2015/06/09 13:57:36

Site Details

Site Name	CG11
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P3513
CPU Firmware Version	3.7
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	0.3%	3.2%
Velocity	1.2%	8.7%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.4%	-
Overall	**3.5%**	**9.3%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	REW	Total Width	18.000
Mean SNR	46.0 dB	Total Area	13.050
Mean Temp	37.24 °F	Mean Depth	0.725
Disch. Equation	Mid-Section	Mean Velocity	3.7219
		Total Discharge	**48.5692**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:57	6.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	13:57	7.00	0.6	0.400	0.6	0.160	1.7608	1.00	1.7608	0.400	0.7042	1.4
2	13:58	8.00	0.6	0.450	0.6	0.180	3.9259	1.00	3.9259	0.450	1.7671	3.6
3	13:59	9.00	0.6	0.550	0.6	0.220	4.9675	1.00	4.9675	0.550	2.7315	5.6
4	*14:00*	*10.00*	*0.6*	*0.400*	*0.6*	*0.160*	*2.5085*	*1.00*	*2.5085*	*0.400*	*1.0032*	*2.1*
5	*14:01*	*11.00*	*0.6*	*0.800*	*0.6*	*0.320*	*1.4386*	*1.00*	*1.4386*	*0.800*	*1.1507*	*2.4*
6	*14:03*	*12.00*	*0.6*	*0.750*	*0.6*	*0.300*	*3.1837*	*1.00*	*3.1837*	*0.750*	*2.3878*	*4.9*
7	*14:05*	*13.00*	*0.6*	*0.600*	*0.6*	*0.240*	*1.5676*	*1.00*	*1.5676*	*0.600*	*0.9407*	*1.9*
8	14:06	14.00	0.6	0.650	0.6	0.260	5.9098	1.00	5.9098	0.650	3.8410	7.9
9	*14:07*	*15.00*	*0.6*	*0.650*	*0.6*	*0.260*	*3.1932*	*1.00*	*3.1932*	*0.650*	*2.0754*	*4.3*
10	*14:08*	*16.00*	*0.6*	*0.700*	*0.6*	*0.280*	*3.0955*	*1.00*	*3.0955*	*0.700*	*2.1672*	*4.5*
11	*14:09*	*17.00*	*0.6*	*1.000*	*0.6*	*0.400*	*5.7533*	*1.00*	*5.7533*	*0.750*	*4.3150*	*8.9*
12	*14:21*	*17.50*	*0.6*	*1.100*	*0.6*	*0.440*	*3.7959*	*1.00*	*3.7959*	*0.550*	*2.0879*	*4.3*
13	*14:12*	*18.00*	*0.6*	*1.100*	*0.6*	*0.440*	*3.5039*	*1.00*	*3.5039*	*0.825*	*2.8909*	*6.0*
14	*14:13*	*19.00*	*0.6*	*0.850*	*0.6*	*0.340*	*6.7470*	*1.00*	*6.7470*	*0.638*	*4.3016*	*8.9*
15	14:19	19.50	0.6	1.100	0.6	0.440	5.2920	1.00	5.2920	0.550	2.9108	6.0
16	14:14	20.00	0.6	1.050	0.6	0.420	4.7474	1.00	4.7474	0.787	3.7381	7.7
17	*14:15*	*21.00*	*0.6*	*1.050*	*0.6*	*0.420*	*3.9580*	*1.00*	*3.9580*	*1.050*	*4.1554*	*8.6*
18	14:16	22.00	0.6	1.050	0.6	0.420	4.0879	1.00	4.0879	1.050	4.2918	8.8
19	14:17	23.00	0.6	0.900	0.6	0.360	1.2323	1.00	1.2323	0.900	1.1090	2.3
20	14:17	24.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

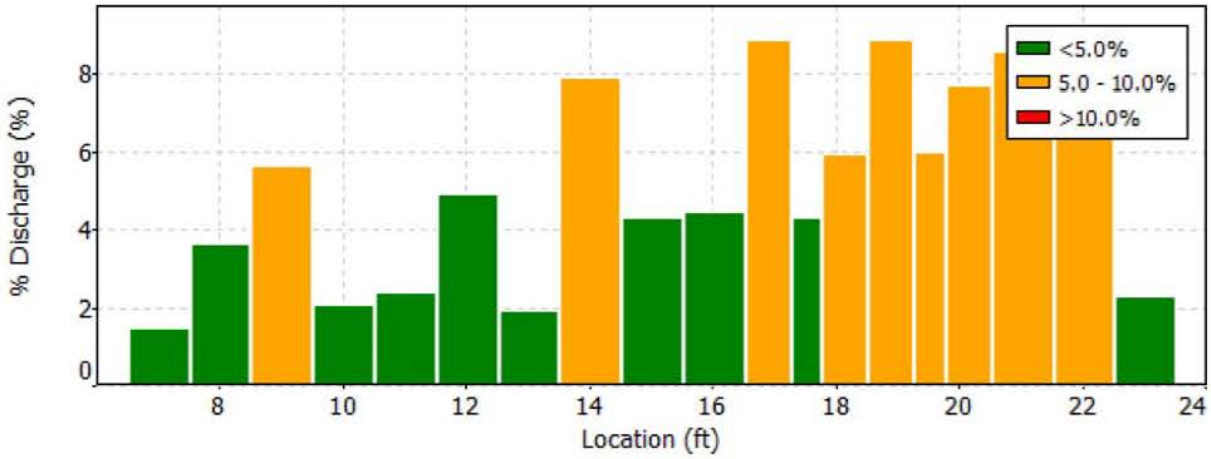
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

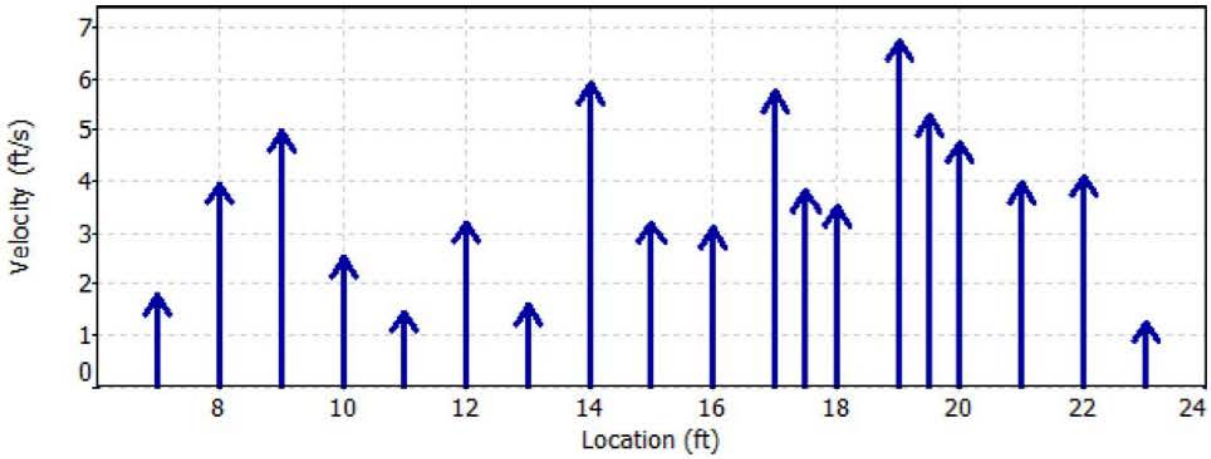
Reference 32

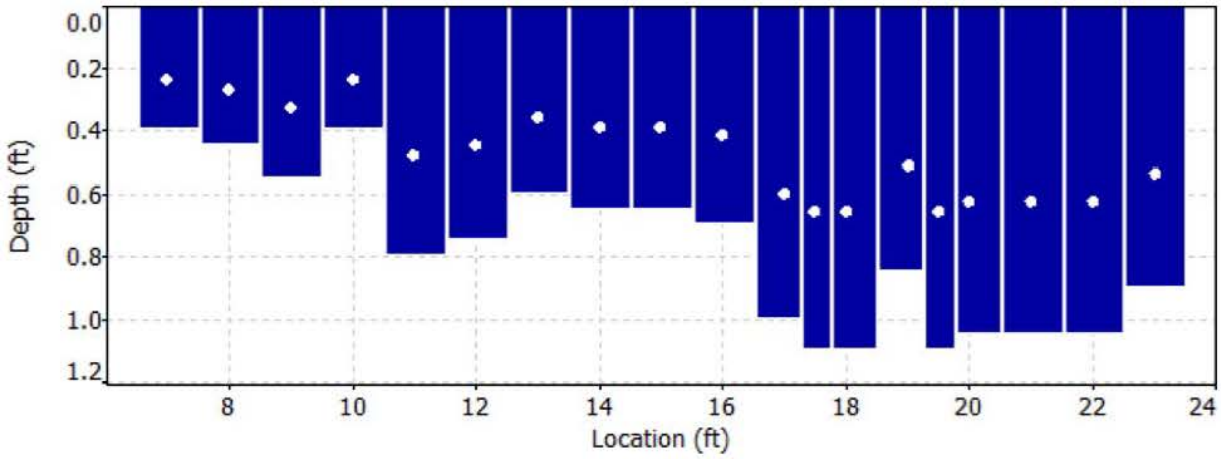
Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	CG11.WAD	Site Name	CG11
Start Date and Time	2015/06/09 13:57:36	Operator(s)	RB







Reference 32

Discharge Measurement Summary

Date Generated: Thu Jul 2 2015

File Information		Site Details	
File Name	CG11.WAD	Site Name	CG11
Start Date and Time	2015/06/09 13:57:36	Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
4	10.00	0.6	High standard error: 0.202
5	11.00	0.6	High angle: -27
6	12.00	0.6	High angle: -26
7	13.00	0.6	High angle: -34
9	15.00	0.6	High standard error: 0.332
10	16.00	0.6	High angle: -24
		0.6	High standard error: 0.373
11	17.00	0.6	High number of spikes: 7
12	17.50	0.6	High number of spikes: 7
		0.6	High standard error: 0.302
13	18.00	0.6	High number of spikes: 5
		0.6	High standard error: 0.250
14	19.00	0.6	High number of spikes: 7
17	21.00	0.6	High standard error: 0.211

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A08.WAD
Start Date and Time	2015/09/30 09:17:11

Site Details

Site Name	A08
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	0.3%	1.7%
Velocity	4.0%	15.0%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.0%	-
Overall	**5.0%**	**15.1%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	REW	Total Width	4.798
Mean SNR	47.7 dB	Total Area	3.080
Mean Temp	43.04 °F	Mean Depth	0.642
Disch. Equation	Mid-Section	Mean Velocity	0.0936
		Total Discharge	**0.2884**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:17	6.10	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*09:17*	*6.40*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0394*	*1.00*	*0.0394*	*0.090*	*0.0035*	*1.2*
2	09:18	6.70	0.6	0.350	0.6	0.140	0.0079	1.00	0.0079	0.105	0.0008	0.3
3	09:19	7.00	0.6	0.400	0.6	0.160	0.0459	1.00	0.0459	0.120	0.0055	1.9
4	09:20	7.30	0.6	0.500	0.6	0.200	0.1119	1.00	0.1119	0.150	0.0168	5.8
5	09:21	7.60	0.6	0.650	0.6	0.260	0.0909	1.00	0.0909	0.195	0.0177	6.1
6	*09:23*	*7.90*	*0.6*	*0.800*	*0.6*	*0.320*	*0.0387*	*1.00*	*0.0387*	*0.240*	*0.0093*	*3.2*
7	*09:24*	*8.20*	*0.6*	*0.850*	*0.6*	*0.340*	*0.0636*	*1.00*	*0.0636*	*0.255*	*0.0162*	*5.6*
8	09:25	8.50	0.6	1.000	0.6	0.400	-0.0036	1.00	-0.0036	0.300	-0.0011	-0.4
9	*09:26*	*8.80*	*0.6*	*0.900*	*0.6*	*0.360*	*-0.0210*	*1.00*	*-0.0210*	*0.270*	*-0.0057*	*-2.0*
10	09:27	9.10	0.6	0.750	0.6	0.300	-0.0079	1.00	-0.0079	0.225	-0.0018	-0.6
11	*09:28*	*9.40*	*0.6*	*0.750*	*0.6*	*0.300*	*0.1381*	*1.00*	*0.1381*	*0.150*	*0.0208*	*7.2*
12	*09:38*	*9.50*	*0.6*	*0.800*	*0.6*	*0.320*	*0.2421*	*1.00*	*0.2421*	*0.081*	*0.0195*	*6.8*
13	*09:33*	*9.60*	*0.6*	*0.750*	*0.6*	*0.300*	*0.4147*	*1.00*	*0.4147*	*0.056*	*0.0233*	*8.1*
14	*09:40*	*9.65*	*0.6*	*0.800*	*0.6*	*0.320*	*0.5161*	*1.00*	*0.5161*	*0.039*	*0.0203*	*7.0*
15	*09:29*	*9.70*	*0.6*	*0.800*	*0.6*	*0.320*	*0.4213*	*1.00*	*0.4213*	*0.040*	*0.0169*	*5.8*
16	*09:36*	*9.75*	*0.6*	*1.000*	*0.6*	*0.400*	*0.3471*	*1.00*	*0.3471*	*0.051*	*0.0176*	*6.1*
17	*09:35*	*9.80*	*0.6*	*1.000*	*0.6*	*0.400*	*0.5089*	*1.00*	*0.5089*	*0.050*	*0.0255*	*8.8*
18	*09:41*	*9.85*	*0.6*	*1.000*	*0.6*	*0.400*	*0.3054*	*1.00*	*0.3054*	*0.050*	*0.0153*	*5.3*
19	*09:37*	*9.90*	*0.6*	*0.850*	*0.6*	*0.340*	*0.4094*	*1.00*	*0.4094*	*0.043*	*0.0174*	*6.0*
20	09:42	9.95	0.6	0.850	0.6	0.340	0.3540	1.00	0.3540	0.042	0.0148	5.1
21	09:30	10.00	0.6	0.800	0.6	0.320	0.3002	1.00	0.3002	0.060	0.0180	6.2
22	09:44	10.10	0.6	0.850	0.6	0.340	0.1427	1.00	0.1427	0.127	0.0182	6.3
23	09:31	10.30	0.6	0.650	0.6	0.260	0.0151	1.00	0.0151	0.162	0.0024	0.8
24	09:32	10.60	0.6	0.600	0.6	0.240	-0.0164	1.00	-0.0164	0.180	-0.0030	-1.0
25	09:32	10.90	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

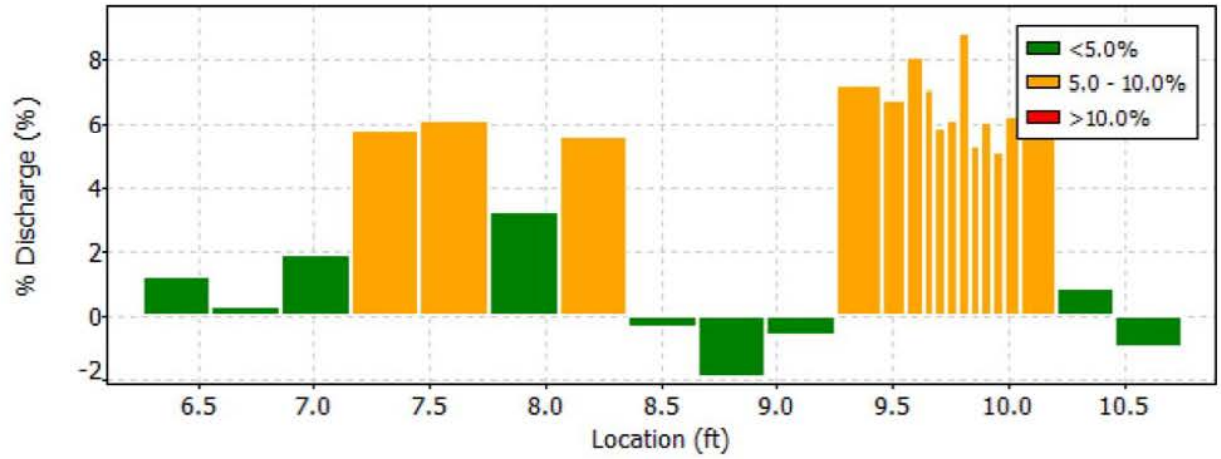
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

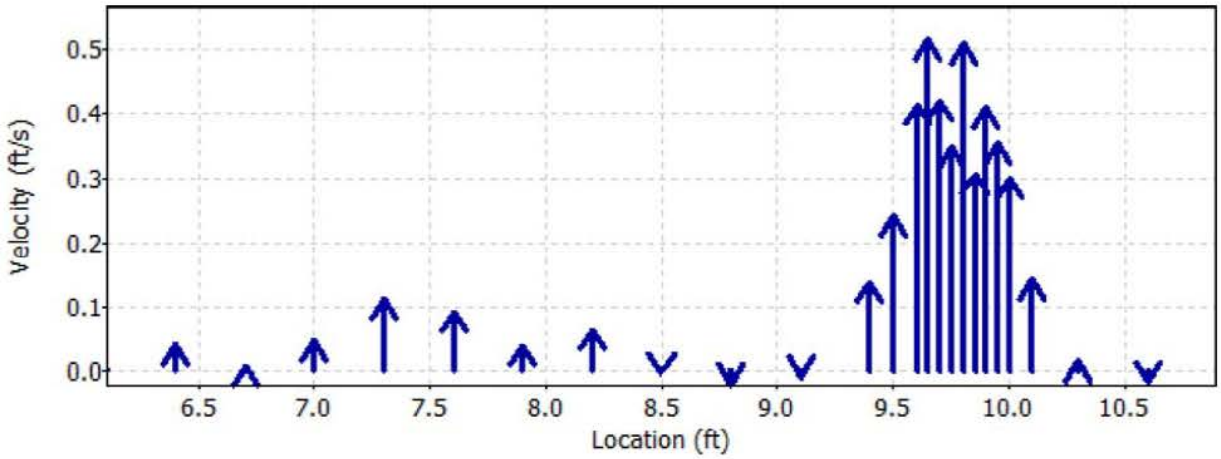
Reference 32

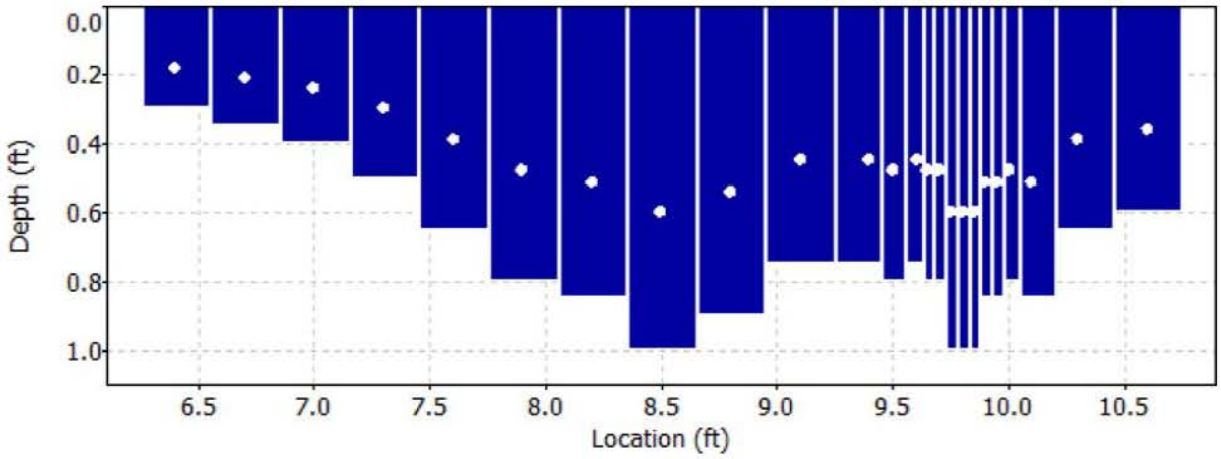
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A08.WAD	Site Name	A08
Start Date and Time	2015/09/30 09:17:11	Operator(s)	RB







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information	
File Name	A08.WAD
Start Date and Time	2015/09/30 09:17:11

Site Details	
Site Name	A08
Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
1	6.40	0.6	High angle: -38
6	7.90	0.6	High angle: 61
7	8.20	0.6	High angle: 51
9	8.80	0.6	High angle: 99
11	9.40	0.6	High angle: 20
12	9.50	0.6	High standard error: 0.041
13	9.60	0.6	High standard error: 0.037
14	9.65	0.6	High standard error: 0.040
15	9.70	0.6	High standard error: 0.039
16	9.75	0.6	High standard error: 0.030
17	9.80	0.6	High standard error: 0.035
18	9.85	0.6	High standard error: 0.034
19	9.90	0.6	High standard error: 0.032

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A10.WAD
Start Date and Time	2015/09/29 08:51:35

Site Details

Site Name	A10
Operator(s)	PY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
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%	6.0%
Velocity	1.2%	5.9%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.1%	-
Overall	**3.3%**	**8.4%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	LEW	Total Width	5.402
Mean SNR	34.5 dB	Total Area	1.971
Mean Temp	38.55 °F	Mean Depth	0.365
Disch. Equation	Mid-Section	Mean Velocity	0.7171
		Total Discharge	**1.4132**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:51	5.60	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*08:51*	*5.90*	*0.6*	*0.200*	*0.6*	*0.080*	*1.3258*	*1.00*	*1.3258*	*0.060*	*0.0796*	*5.6*
2	*08:53*	*6.20*	*0.6*	*0.400*	*0.6*	*0.160*	*0.0515*	*1.00*	*0.0515*	*0.120*	*0.0062*	*0.4*
3	*08:54*	*6.50*	*0.6*	*0.400*	*0.6*	*0.160*	*0.1194*	*1.00*	*0.1194*	*0.120*	*0.0143*	*1.0*
4	*08:55*	*6.80*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3481*	*1.00*	*0.3481*	*0.060*	*0.0209*	*1.5*
5	08:57	7.10	0.6	0.500	0.6	0.200	0.1749	1.00	0.1749	0.150	0.0262	1.9
6	*08:58*	*7.40*	*0.6*	*0.400*	*0.6*	*0.160*	*0.2464*	*1.00*	*0.2464*	*0.060*	*0.0148*	*1.0*
7	*09:00*	*7.40*	*0.6*	*0.400*	*0.6*	*0.160*	*0.1217*	*1.00*	*0.1217*	*0.060*	*0.0073*	*0.5*
8	*09:02*	*7.70*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3655*	*1.00*	*0.3655*	*0.060*	*0.0220*	*1.6*
9	*09:03*	*8.00*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3491*	*1.00*	*0.3491*	*0.060*	*0.0210*	*1.5*
10	*09:04*	*8.30*	*0.6*	*0.200*	*0.6*	*0.080*	*0.6234*	*1.00*	*0.6234*	*0.060*	*0.0375*	*2.7*
11	*09:05*	*8.60*	*0.6*	*0.600*	*0.6*	*0.240*	*0.5331*	*1.00*	*0.5331*	*0.180*	*0.0960*	*6.8*
12	09:06	8.90	0.6	0.700	0.6	0.280	0.4646	1.00	0.4646	0.175	0.0812	5.7
13	*09:15*	*9.10*	*0.6*	*0.600*	*0.6*	*0.240*	*0.6181*	*1.00*	*0.6181*	*0.090*	*0.0557*	*3.9*
14	09:08	9.20	0.6	0.600	0.6	0.240	1.2552	1.00	1.2552	0.090	0.1129	8.0
15	*09:16*	*9.40*	*0.6*	*0.500*	*0.6*	*0.200*	*1.2346*	*1.00*	*1.2346*	*0.075*	*0.0927*	*6.6*
16	*09:09*	*9.50*	*0.6*	*0.600*	*0.6*	*0.240*	*1.2726*	*1.00*	*1.2726*	*0.090*	*0.1146*	*8.1*
17	*09:17*	*9.70*	*0.6*	*0.500*	*0.6*	*0.200*	*1.3491*	*1.00*	*1.3491*	*0.075*	*0.1012*	*7.2*
18	*09:10*	*9.80*	*0.6*	*0.400*	*0.6*	*0.160*	*1.4836*	*1.00*	*1.4836*	*0.040*	*0.0593*	*4.2*
19	09:19	9.90	0.6	0.400	0.6	0.160	1.5646	1.00	1.5646	0.060	0.0939	6.6
20	*09:11*	*10.10*	*0.6*	*0.300*	*0.6*	*0.120*	*1.3711*	*1.00*	*1.3711*	*0.075*	*0.1032*	*7.3*
21	*09:12*	*10.40*	*0.6*	*0.300*	*0.6*	*0.120*	*1.3474*	*1.00*	*1.3474*	*0.090*	*0.1213*	*8.6*
22	09:13	10.70	0.6	0.400	0.6	0.160	1.0945	1.00	1.0945	0.120	0.1314	9.3
23	09:13	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.

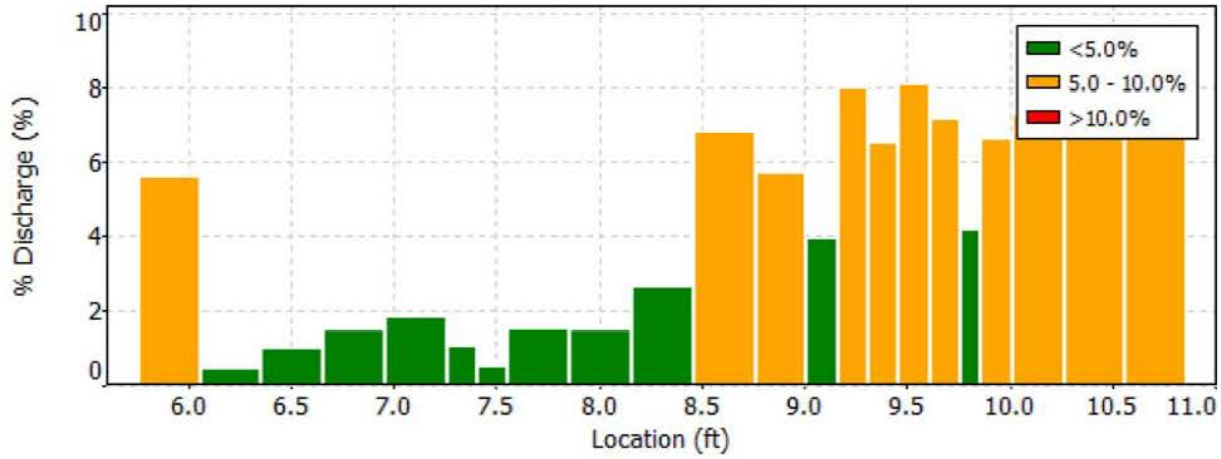
Reference 32

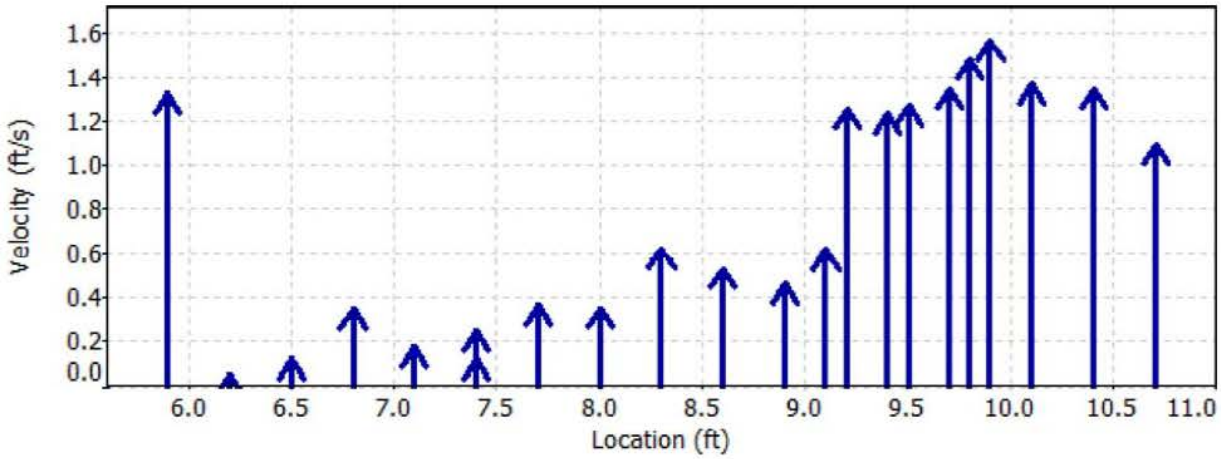
Discharge Measurement Summary

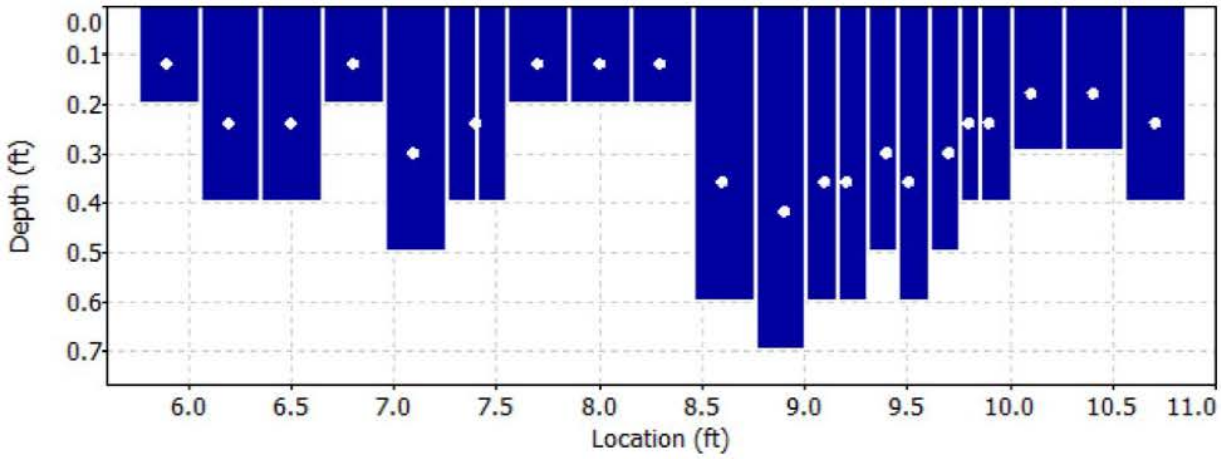
Date Generated: Mon Dec 21 2015

File Information	
File Name	A10.WAD
Start Date and Time	2015/09/29 08:51:35

Site Details	
Site Name	A10
Operator(s)	PY







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A10.WAD	Site Name	A10
Start Date and Time	2015/09/29 08:51:35	Operator(s)	PY

Quality Control

St	Loc	%Dep	Message
1	5.90	0.6	High angle: 26
		0.6	High standard error: 0.091
		0.6	Boundary QC is Good; possible boundary interference
2	6.20	0.6	Boundary QC is Good; possible boundary interference
3	6.50	0.6	High angle: -37
4	6.80	0.6	High angle: -23
6	7.40	0.6	High number of spikes: 5
		0.6	Low SNR: 31.8,3.0
		0.6	High differences in beam SNR: 31.8,3.0
		0.6	SNR (17.4) is different from typical SNR (34.5)
		0.6	High standard error: 0.068
		0.6	Boundary QC is Good; possible boundary interference
7	7.40	0.6	High angle: 38
8	7.70	0.6	High angle: 37
9	8.00	0.6	High angle: 43
10	8.30	0.6	High angle: 37
11	8.60	0.6	High angle: 28
13	9.10	0.6	High angle: 34
15	9.40	0.6	High angle: 29
16	9.50	0.6	High angle: 23
17	9.70	0.6	High angle: 26
18	9.80	0.6	High angle: 28
20	10.10	0.6	High angle: 30
21	10.40	0.6	High angle: 21

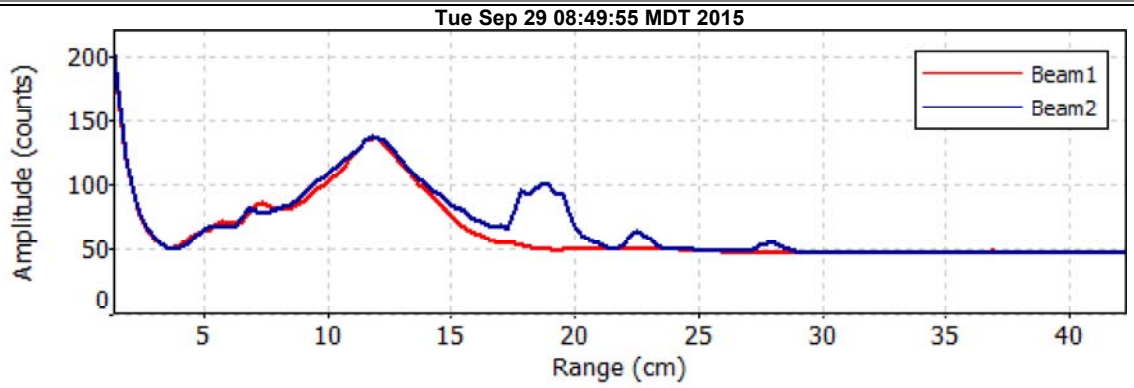
Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A10.WAD	Site Name	A10
Start Date and Time	2015/09/29 08:51:35	Operator(s)	PY

Automatic Quality Control Test (BeamCheck)



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

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A11.WAD
Start Date and Time	2015/09/29 11:10:23

Site Details

Site Name	A11
Operator(s)	PY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
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	0.3%	1.6%
Velocity	0.9%	2.0%
Width	0.1%	0.1%
Method	1.7%	-
# Stations	2.3%	-
Overall	**3.2%**	**2.7%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	2.101
Mean SNR	41.6 dB	Total Area	1.161
Mean Temp	44.50 °F	Mean Depth	0.552
Disch. Equation	Mid-Section	Mean Velocity	1.6558
		Total Discharge	**1.9221**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:10	7.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*11:10*	*7.10*	*0.6*	*0.600*	*0.6*	*0.240*	*1.7044*	*1.00*	*1.7044*	*0.060*	*0.1023*	*5.3*
2	*11:11*	*7.20*	*0.6*	*0.600*	*0.6*	*0.240*	*1.4219*	*1.00*	*1.4219*	*0.060*	*0.0854*	*4.4*
3	*11:12*	*7.30*	*0.6*	*0.600*	*0.6*	*0.240*	*1.4295*	*1.00*	*1.4295*	*0.060*	*0.0858*	*4.5*
4	*11:13*	*7.40*	*0.6*	*0.500*	*0.6*	*0.200*	*1.6581*	*1.00*	*1.6581*	*0.050*	*0.0830*	*4.3*
5	*11:14*	*7.50*	*0.6*	*0.700*	*0.6*	*0.280*	*1.4327*	*1.00*	*1.4327*	*0.070*	*0.1004*	*5.2*
6	*11:15*	*7.60*	*0.6*	*0.700*	*0.6*	*0.280*	*1.4505*	*1.00*	*1.4505*	*0.070*	*0.1016*	*5.3*
7	*11:16*	*7.70*	*0.6*	*0.700*	*0.6*	*0.280*	*2.0479*	*1.00*	*2.0479*	*0.070*	*0.1435*	*7.5*
8	*11:17*	*7.80*	*0.6*	*0.700*	*0.6*	*0.280*	*1.8166*	*1.00*	*1.8166*	*0.070*	*0.1273*	*6.6*
9	11:18	7.90	0.6	0.600	0.6	0.240	1.9514	1.00	1.9514	0.060	0.1172	6.1
10	11:19	8.00	0.6	0.600	0.6	0.240	1.7949	1.00	1.7949	0.060	0.1078	5.6
11	11:21	8.10	0.6	0.600	0.6	0.240	1.7900	1.00	1.7900	0.060	0.1075	5.6
12	*11:22*	*8.20*	*0.6*	*0.600*	*0.6*	*0.240*	*1.5712*	*1.00*	*1.5712*	*0.060*	*0.0943*	*4.9*
13	11:23	8.30	0.6	0.500	0.6	0.200	1.6007	1.00	1.6007	0.050	0.0801	4.2
14	11:24	8.40	0.6	0.500	0.6	0.200	1.5719	1.00	1.5719	0.050	0.0786	4.1
15	11:25	8.50	0.6	0.500	0.6	0.200	1.5285	1.00	1.5285	0.050	0.0765	4.0
16	*11:26*	*8.60*	*0.6*	*0.500*	*0.6*	*0.200*	*1.5492*	*1.00*	*1.5492*	*0.050*	*0.0775*	*4.0*
17	11:27	8.70	0.6	0.500	0.6	0.200	1.8284	1.00	1.8284	0.050	0.0915	4.8
18	11:28	8.80	0.6	0.500	0.6	0.200	1.7425	1.00	1.7425	0.050	0.0872	4.5
19	11:29	8.90	0.6	0.500	0.6	0.200	1.8107	1.00	1.8107	0.050	0.0906	4.7
20	11:30	9.00	0.6	0.600	0.6	0.240	1.4006	1.00	1.4006	0.060	0.0841	4.4
21	11:30	9.10	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

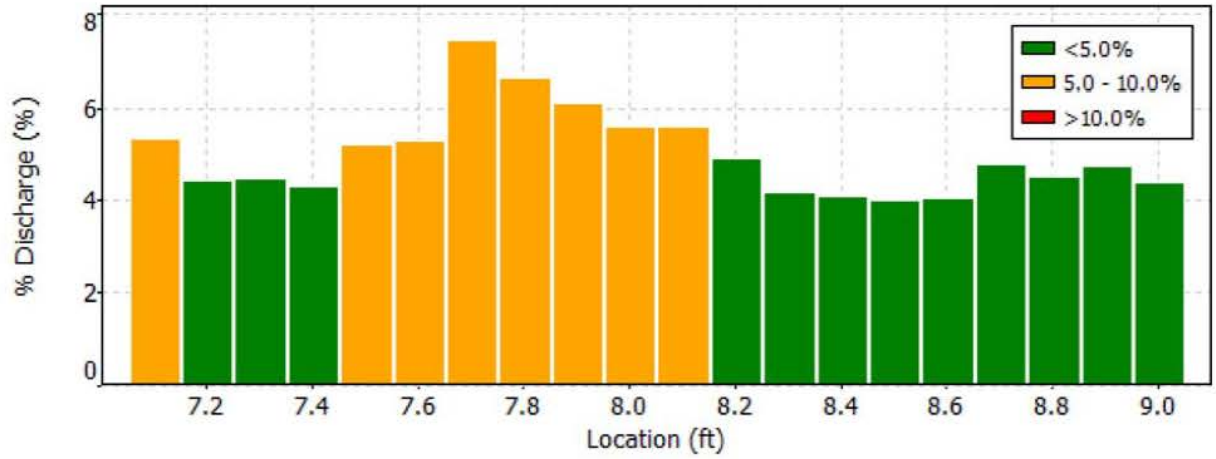
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

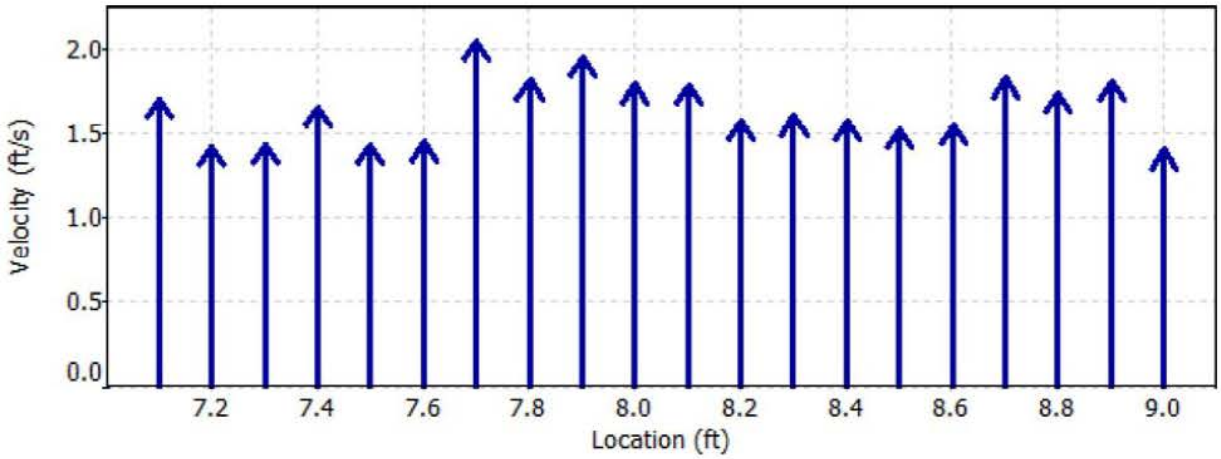
Reference 32

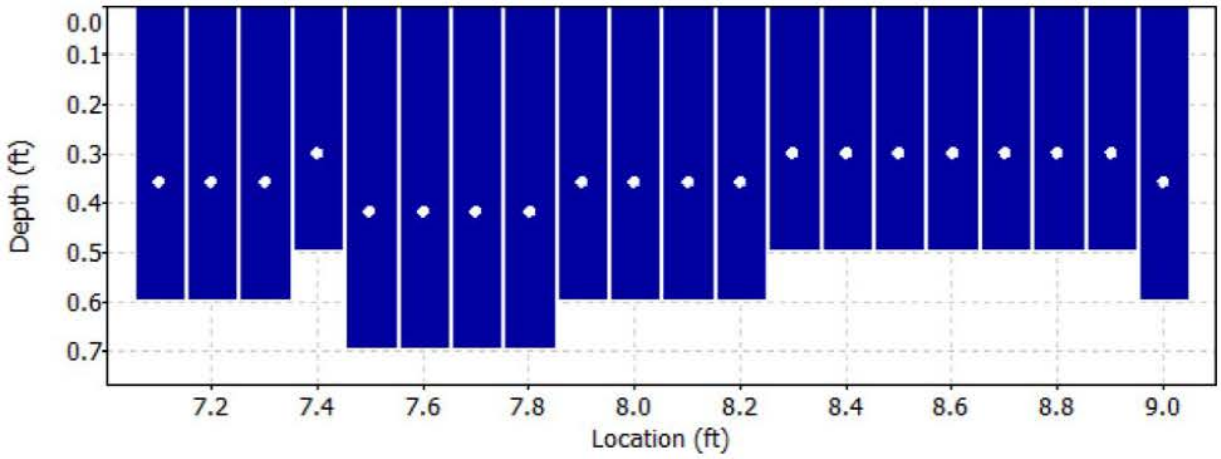
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A11.WAD	Site Name	A11
Start Date and Time	2015/09/29 11:10:23	Operator(s)	PY







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information	
File Name	A11.WAD
Start Date and Time	2015/09/29 11:10:23

Site Details	
Site Name	A11
Operator(s)	PY

Quality Control

St	Loc	%Dep	Message
1	7.10	0.6	High angle: -24
		0.6	High standard error: 0.098
2	7.20	0.6	High angle: -35
3	7.30	0.6	High angle: -34
		0.6	High standard error: 0.101
4	7.40	0.6	High angle: -22
		0.6	High standard error: 0.095
5	7.50	0.6	High angle: -46
6	7.60	0.6	High angle: -37
7	7.70	0.6	High angle: -25
8	7.80	0.6	High number of spikes: 6
12	8.20	0.6	High number of spikes: 6
16	8.60	0.6	High number of spikes: 5

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A12.WAD
Start Date and Time	2015/09/29 12:04:16

Site Details

Site Name	A12
Operator(s)	PY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
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%	1.6%
Velocity	1.3%	3.3%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.1%	-
Overall	**3.2%**	**3.8%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	REW	Total Width	4.403
Mean SNR	38.4 dB	Total Area	1.641
Mean Temp	46.01 °F	Mean Depth	0.373
Disch. Equation	Mid-Section	Mean Velocity	0.7932
		Total Discharge	**1.3016**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	12:04	8.80	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*12:05*	*9.00*	*0.6*	*0.400*	*0.6*	*0.160*	*-0.0102*	*1.00*	*-0.0102*	*0.080*	*-0.0008*	*-0.1*
2	*12:06*	*9.20*	*0.6*	*0.350*	*0.6*	*0.140*	*0.4370*	*1.00*	*0.4370*	*0.070*	*0.0306*	*2.4*
3	12:07	9.40	0.6	0.400	0.6	0.160	0.5627	1.00	0.5627	0.080	0.0450	3.5
4	12:08	9.60	0.6	0.350	0.6	0.140	0.5646	1.00	0.5646	0.070	0.0396	3.0
5	12:09	9.80	0.6	0.350	0.6	0.140	0.4892	1.00	0.4892	0.070	0.0343	2.6
6	12:10	10.00	0.6	0.300	0.6	0.120	0.4327	1.00	0.4327	0.060	0.0260	2.0
7	12:11	10.20	0.6	0.300	0.6	0.120	0.6913	1.00	0.6913	0.060	0.0415	3.2
8	12:12	10.40	0.6	0.300	0.6	0.120	1.0545	1.00	1.0545	0.060	0.0633	4.9
9	12:13	10.60	0.6	0.400	0.6	0.160	1.4731	1.00	1.4731	0.080	0.1179	9.1
10	*12:14*	*10.80*	*0.6*	*0.400*	*0.6*	*0.160*	*1.4406*	*1.00*	*1.4406*	*0.080*	*0.1153*	*8.9*
11	*12:15*	*11.00*	*0.6*	*0.400*	*0.6*	*0.160*	*0.9400*	*1.00*	*0.9400*	*0.060*	*0.0562*	*4.3*
12	*12:27*	*11.10*	*0.6*	*0.450*	*0.6*	*0.180*	*0.9754*	*1.00*	*0.9754*	*0.045*	*0.0439*	*3.4*
13	*12:16*	*11.20*	*0.6*	*0.500*	*0.6*	*0.200*	*1.3428*	*1.00*	*1.3428*	*0.075*	*0.1012*	*7.8*
14	12:17	11.40	0.6	0.500	0.6	0.200	1.0171	1.00	1.0171	0.100	0.1018	7.8
15	12:18	11.60	0.6	0.500	0.6	0.200	0.8612	1.00	0.8612	0.100	0.0862	6.6
16	12:19	11.80	0.6	0.500	0.6	0.200	0.6204	1.00	0.6204	0.100	0.0621	4.8
17	12:20	12.00	0.6	0.500	0.6	0.200	0.5082	1.00	0.5082	0.100	0.0509	3.9
18	12:21	12.20	0.6	0.400	0.6	0.160	0.6936	1.00	0.6936	0.080	0.0555	4.3
19	12:22	12.40	0.6	0.400	0.6	0.160	0.9800	1.00	0.9800	0.080	0.0784	6.0
20	12:23	12.60	0.6	0.400	0.6	0.160	0.9718	1.00	0.9718	0.080	0.0778	6.0
21	12:24	12.80	0.6	0.350	0.6	0.140	0.7513	1.00	0.7513	0.070	0.0526	4.0
22	12:25	13.00	0.6	0.200	0.6	0.080	0.5597	1.00	0.5597	0.040	0.0224	1.7
23	12:25	13.20	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

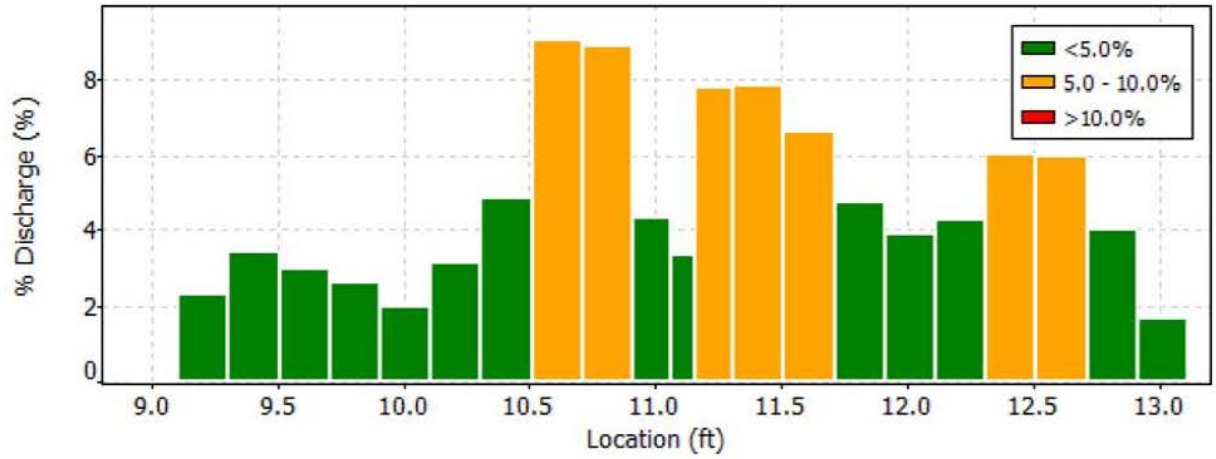
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

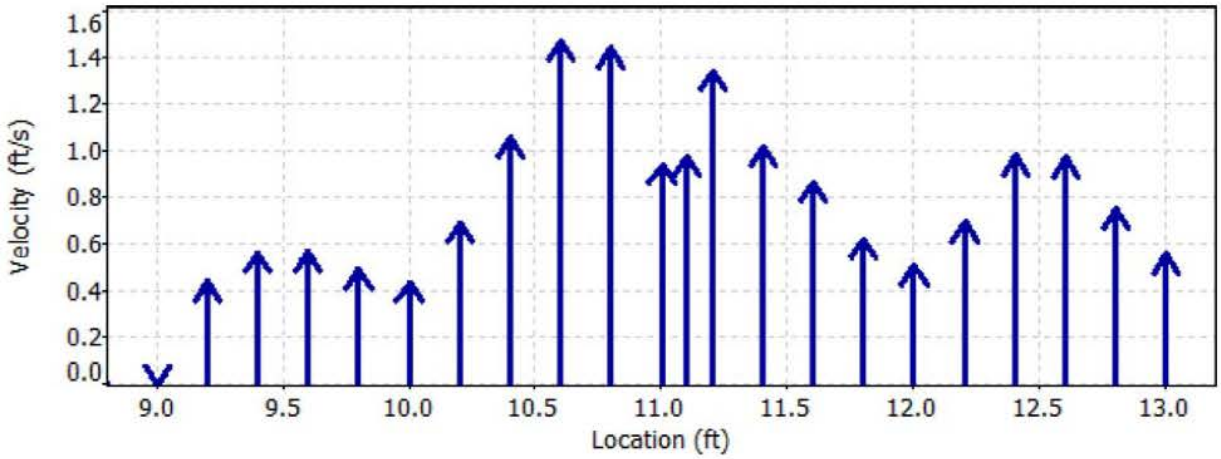
Reference 32

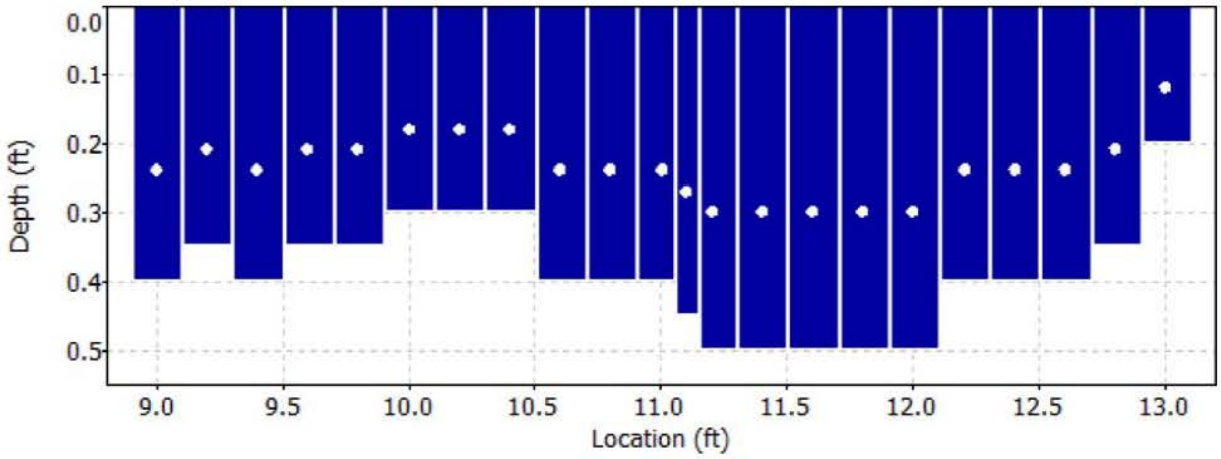
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A12.WAD	Site Name	A12
Start Date and Time	2015/09/29 12:04:16	Operator(s)	PY







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A12.WAD	Site Name	A12
Start Date and Time	2015/09/29 12:04:16	Operator(s)	PY

Quality Control

St	Loc	%Dep	Message
1	9.00	0.6	SNR (20.6) is different from typical SNR (38.4)
		0.6	Boundary QC is Fair; possible boundary interference
2	9.20	0.6	High angle: -26
		0.6	Boundary QC is Fair; possible boundary interference
10	10.80	0.6	High standard error: 0.076
11	11.00	0.6	High standard error: 0.105
12	11.10	0.6	High angle: 23
		0.6	High standard error: 0.076
13	11.20	0.6	High standard error: 0.084

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A15.WAD
Start Date and Time	2015/09/29 13:30:59

Site Details

Site Name	A15
Operator(s)	PY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
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%	1.9%
Velocity	1.7%	7.4%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.0%	-
Overall	**3.4%**	**7.7%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	REW	Total Width	2.200
Mean SNR	42.2 dB	Total Area	0.970
Mean Temp	50.26 °F	Mean Depth	0.441
Disch. Equation	Mid-Section	Mean Velocity	0.4596
		Total Discharge	**0.4459**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:30	9.10	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	13:30	9.20	0.6	0.400	0.6	0.160	0.2815	1.00	0.2815	0.040	0.0113	2.5
2	*13:32*	*9.30*	*0.6*	*0.400*	*0.6*	*0.160*	*0.1844*	*1.00*	*0.1844*	*0.040*	*0.0074*	*1.7*
3	*13:33*	*9.40*	*0.6*	*0.400*	*0.6*	*0.160*	*0.4390*	*1.00*	*0.4390*	*0.040*	*0.0176*	*3.9*
4	*13:34*	*9.50*	*0.6*	*0.400*	*0.6*	*0.160*	*-0.0305*	*1.00*	*-0.0305*	*0.040*	*-0.0012*	*-0.3*
5	*13:35*	*9.60*	*0.6*	*0.300*	*0.6*	*0.120*	*0.5958*	*1.00*	*0.5958*	*0.030*	*0.0179*	*4.0*
6	13:36	9.70	0.6	0.300	0.6	0.120	0.4678	1.00	0.4678	0.030	0.0140	3.1
7	*13:37*	*9.80*	*0.6*	*0.400*	*0.6*	*0.160*	*0.1004*	*1.00*	*0.1004*	*0.040*	*0.0040*	*0.9*
8	*13:38*	*9.90*	*0.6*	*0.400*	*0.6*	*0.160*	*0.2021*	*1.00*	*0.2021*	*0.040*	*0.0081*	*1.8*
9	*13:39*	*10.00*	*0.6*	*0.400*	*0.6*	*0.160*	*0.2894*	*1.00*	*0.2894*	*0.040*	*0.0116*	*2.6*
10	13:40	10.10	0.6	0.400	0.6	0.160	0.3465	1.00	0.3465	0.040	0.0139	3.1
11	13:41	10.20	0.6	0.400	0.6	0.160	0.3980	1.00	0.3980	0.040	0.0159	3.6
12	13:42	10.30	0.6	0.400	0.6	0.160	0.4334	1.00	0.4334	0.040	0.0173	3.9
13	*13:43*	*10.40*	*0.6*	*0.500*	*0.6*	*0.200*	*0.2126*	*1.00*	*0.2126*	*0.050*	*0.0106*	*2.4*
14	*13:44*	*10.50*	*0.6*	*0.600*	*0.6*	*0.240*	*0.3317*	*1.00*	*0.3317*	*0.060*	*0.0199*	*4.5*
15	13:45	10.60	0.6	0.600	0.6	0.240	0.4019	1.00	0.4019	0.060	0.0241	5.4
16	*13:46*	*10.70*	*0.6*	*0.600*	*0.6*	*0.240*	*0.4711*	*1.00*	*0.4711*	*0.060*	*0.0283*	*6.3*
17	13:47	10.80	0.6	0.600	0.6	0.240	0.6801	1.00	0.6801	0.045	0.0304	6.8
18	13:52	10.85	0.6	0.600	0.6	0.240	0.6053	1.00	0.6053	0.030	0.0182	4.1
19	13:48	10.90	0.6	0.700	0.6	0.280	0.8258	1.00	0.8258	0.035	0.0289	6.5
20	13:53	10.95	0.6	0.600	0.6	0.240	0.7585	1.00	0.7585	0.030	0.0228	5.1
21	13:49	11.00	0.6	0.700	0.6	0.280	0.8678	1.00	0.8678	0.035	0.0303	6.8
22	13:54	11.05	0.6	0.600	0.6	0.240	0.9157	1.00	0.9157	0.030	0.0275	6.2
23	13:50	11.10	0.6	0.600	0.6	0.240	0.8950	1.00	0.8950	0.075	0.0671	15.1
24	13:50	11.30	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.

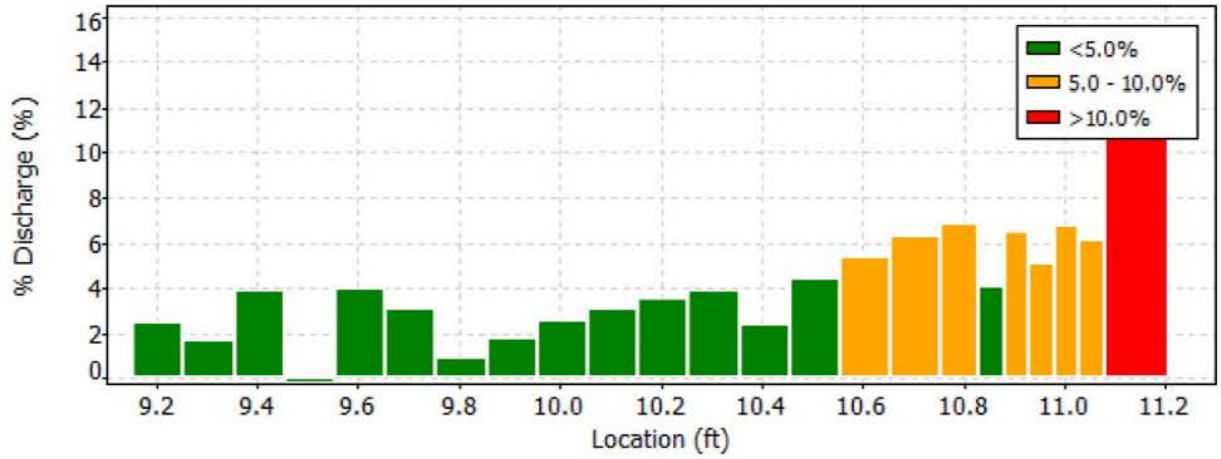
Reference 32

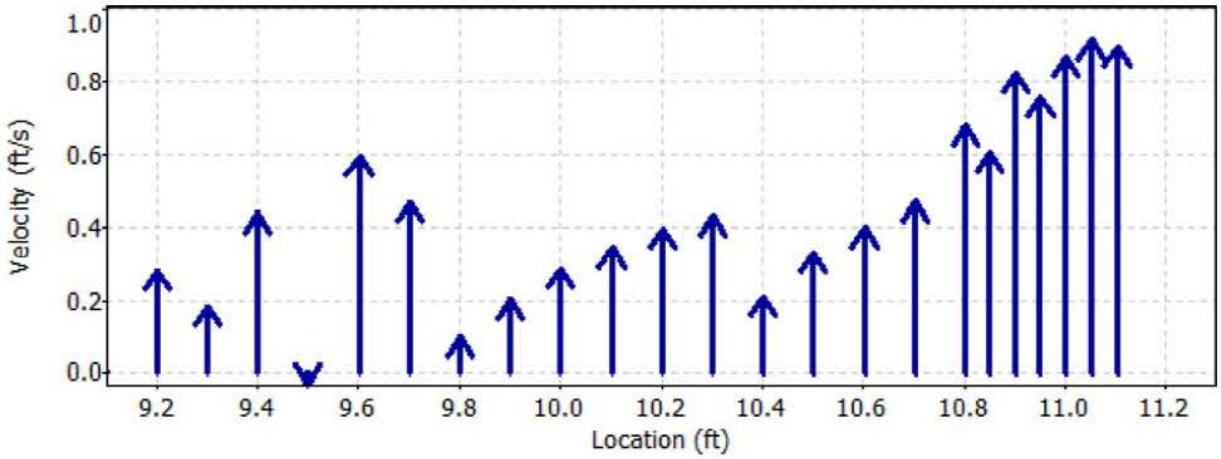
Discharge Measurement Summary

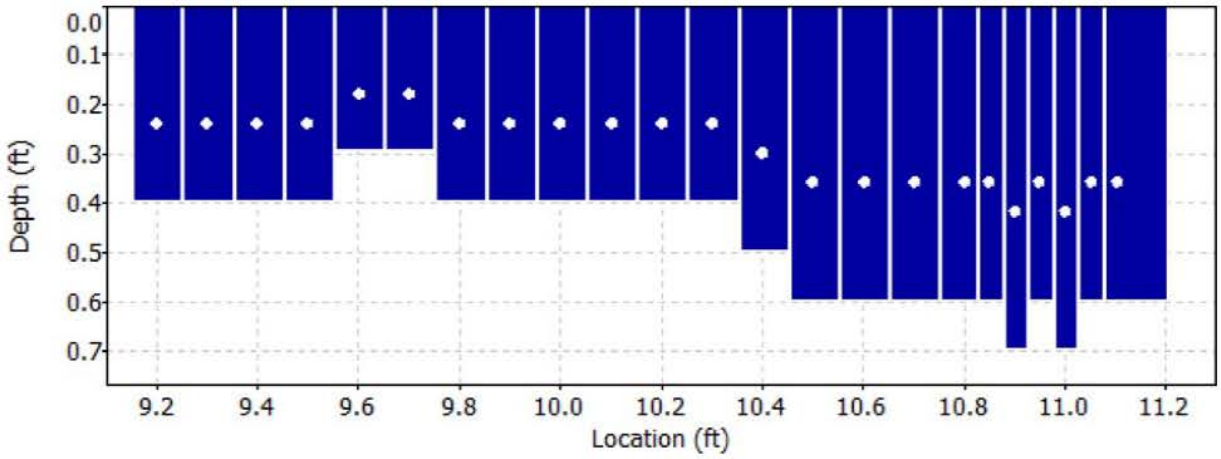
Date Generated: Mon Dec 21 2015

File Information	
File Name	A15.WAD
Start Date and Time	2015/09/29 13:30:59

Site Details	
Site Name	A15
Operator(s)	PY







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A15.WAD	Site Name	A15
Start Date and Time	2015/09/29 13:30:59	Operator(s)	PY

Quality Control

St	Loc	%Dep	Message
2	9.30	0.6	High angle: 32
		0.6	Boundary QC is Good; possible boundary interference
3	9.40	0.6	Boundary QC is Good; possible boundary interference
4	9.50	0.6	High number of spikes: 10
		0.6	High angle: -154
5	9.60	0.6	High angle: -27
7	9.80	0.6	High angle: 69
8	9.90	0.6	High angle: 41
9	10.00	0.6	High angle: 28
13	10.40	0.6	High angle: 29
14	10.50	0.6	High angle: 30
16	10.70	0.6	High angle: 22

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A20.WAD
Start Date and Time	2015/09/29 14:20:40

Site Details

Site Name	A20
Operator(s)	PY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
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%	1.4%
Velocity	1.4%	10.7%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.3%	-
Overall	**3.5%**	**10.8%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	2.100
Mean SNR	41.6 dB	Total Area	1.035
Mean Temp	55.51 °F	Mean Depth	0.493
Disch. Equation	Mid-Section	Mean Velocity	0.4786
		Total Discharge	**0.4953**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:20	9.20	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	14:23	9.30	0.6	0.450	0.6	0.180	0.2238	1.00	0.2238	0.045	0.0100	2.0
2	14:24	9.40	0.6	0.500	0.6	0.200	0.2274	1.00	0.2274	0.050	0.0113	2.3
3	14:25	9.50	0.6	0.500	0.6	0.200	0.2805	1.00	0.2805	0.050	0.0140	2.8
4	14:25	9.60	0.6	0.500	0.6	0.200	0.4154	1.00	0.4154	0.050	0.0207	4.2
5	14:26	9.70	0.6	0.600	0.6	0.240	0.4419	1.00	0.4419	0.060	0.0264	5.3
6	14:27	9.80	0.6	0.600	0.6	0.240	0.5112	1.00	0.5112	0.060	0.0306	6.2
7	14:28	9.90	0.6	0.500	0.6	0.200	0.6519	1.00	0.6519	0.050	0.0325	6.6
8	14:29	10.00	0.6	0.500	0.6	0.200	0.8560	1.00	0.8560	0.050	0.0427	8.6
9	*14:30*	*10.10*	*0.6*	*0.500*	*0.6*	*0.200*	*0.8714*	*1.00*	*0.8714*	*0.050*	*0.0435*	*8.8*
10	*14:31*	*10.20*	*0.6*	*0.500*	*0.6*	*0.200*	*-0.0007*	*1.00*	*-0.0007*	*0.050*	*0.0000*	*0.0*
11	*14:33*	*10.30*	*0.6*	*0.500*	*0.6*	*0.200*	*0.9718*	*1.00*	*0.9718*	*0.050*	*0.0485*	*9.8*
12	14:34	10.40	0.6	0.500	0.6	0.200	0.8094	1.00	0.8094	0.050	0.0404	8.1
13	*14:35*	*10.50*	*0.6*	*0.500*	*0.6*	*0.200*	*0.6171*	*1.00*	*0.6171*	*0.050*	*0.0308*	*6.2*
14	14:35	10.60	0.6	0.600	0.6	0.240	0.5728	1.00	0.5728	0.060	0.0343	6.9
15	14:36	10.70	0.6	0.600	0.6	0.240	0.5052	1.00	0.5052	0.060	0.0302	6.1
16	14:37	10.80	0.6	0.500	0.6	0.200	0.5184	1.00	0.5184	0.050	0.0259	5.2
17	14:38	10.90	0.6	0.500	0.6	0.200	0.4196	1.00	0.4196	0.050	0.0209	4.2
18	14:39	11.00	0.6	0.500	0.6	0.200	0.2720	1.00	0.2720	0.050	0.0136	2.7
19	14:40	11.10	0.6	0.500	0.6	0.200	0.1854	1.00	0.1854	0.051	0.0095	1.9
20	14:41	11.20	0.6	0.500	0.6	0.200	0.1886	1.00	0.1886	0.051	0.0097	1.9
21	14:41	11.30	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

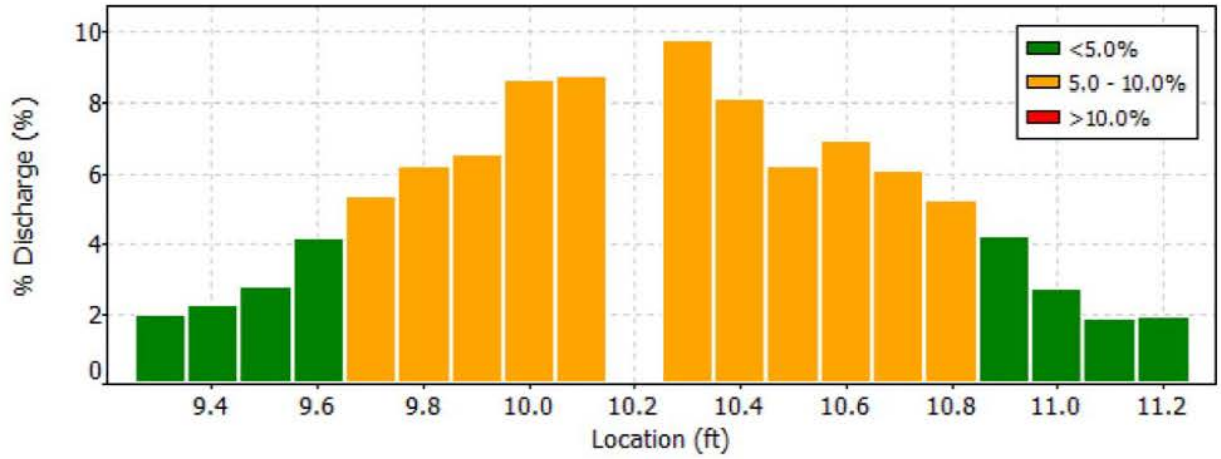
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

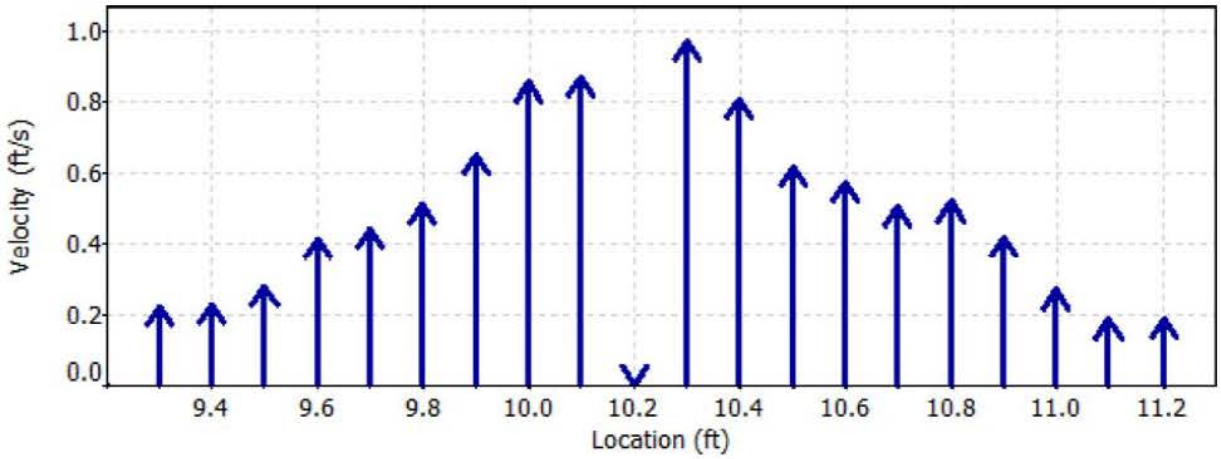
Reference 32

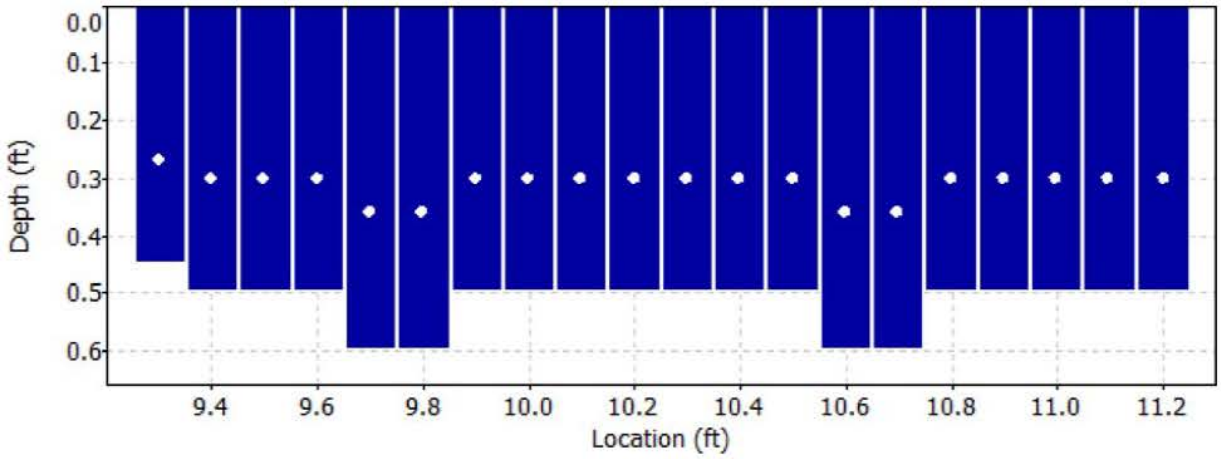
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A20.WAD	Site Name	A20
Start Date and Time	2015/09/29 14:20:40	Operator(s)	PY







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A20.WAD	Site Name	A20
Start Date and Time	2015/09/29 14:20:40	Operator(s)	PY

Quality Control

St	Loc	%Dep	Message
9	10.10	0.6	High standard error: 0.068
		0.6	Boundary QC is Good; possible boundary interference
10	10.20	0.6	High number of spikes: 7
		0.6	Boundary QC is Fair; possible boundary interference
11	10.30	0.6	High standard error: 0.063
		0.6	Boundary QC is Fair; possible boundary interference
13	10.50	0.6	High standard error: 0.032

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A26A.WAD
Start Date and Time	2015/09/30 12:18:40

Site Details

Site Name	
Operator(s)	SA

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
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%	4.6%
Velocity	1.4%	7.8%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.2%	-
Overall	**3.3%**	**9.1%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	3.502
Mean SNR	34.5 dB	Total Area	0.893
Mean Temp	44.35 °F	Mean Depth	0.255
Disch. Equation	Mid-Section	Mean Velocity	0.7597
		Total Discharge	**0.6783**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	12:18	3.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*12:18*	*3.50*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3940*	*1.00*	*0.3940*	*0.065*	*0.0256*	*3.8*
2	*12:19*	*3.65*	*0.6*	*0.300*	*0.6*	*0.120*	*0.5331*	*1.00*	*0.5331*	*0.045*	*0.0240*	*3.5*
3	12:20	3.80	0.6	0.300	0.6	0.120	0.6703	1.00	0.6703	0.045	0.0301	4.4
4	*12:21*	*3.95*	*0.6*	*0.400*	*0.6*	*0.160*	*0.5587*	*1.00*	*0.5587*	*0.060*	*0.0335*	*4.9*
5	*12:22*	*4.10*	*0.6*	*0.400*	*0.6*	*0.160*	*0.5551*	*1.00*	*0.5551*	*0.060*	*0.0333*	*4.9*
6	*12:23*	*4.25*	*0.6*	*0.400*	*0.6*	*0.160*	*0.5781*	*1.00*	*0.5781*	*0.060*	*0.0347*	*5.1*
7	12:24	4.40	0.6	0.400	0.6	0.160	0.5692	1.00	0.5692	0.060	0.0341	5.0
8	12:25	4.55	0.6	0.500	0.6	0.200	1.0085	1.00	1.0085	0.050	0.0505	7.5
9	12:37	4.60	0.6	0.300	0.6	0.120	1.2106	1.00	1.2106	0.022	0.0272	4.0
10	*12:26*	*4.70*	*0.6*	*0.400*	*0.6*	*0.160*	*1.1194*	*1.00*	*1.1194*	*0.050*	*0.0558*	*8.2*
11	12:27	4.85	0.6	0.400	0.6	0.160	1.1752	1.00	1.1752	0.040	0.0471	6.9
12	12:39	4.90	0.6	0.300	0.6	0.120	0.6339	1.00	0.6339	0.022	0.0142	2.1
13	12:28	5.00	0.6	0.200	0.6	0.080	1.0148	1.00	1.0148	0.025	0.0253	3.7
14	*12:29*	*5.15*	*0.6*	*0.200*	*0.6*	*0.080*	*1.2812*	*1.00*	*1.2812*	*0.020*	*0.0257*	*3.8*
15	*12:38*	*5.20*	*0.6*	*0.200*	*0.6*	*0.080*	*1.1066*	*1.00*	*1.1066*	*0.015*	*0.0166*	*2.4*
16	12:30	5.30	0.6	0.300	0.6	0.120	1.6270	1.00	1.6270	0.037	0.0607	9.0
17	12:31	5.45	0.6	0.300	0.6	0.120	0.9091	1.00	0.9091	0.045	0.0409	6.0
18	12:32	5.60	0.6	0.200	0.6	0.080	1.0036	1.00	1.0036	0.030	0.0301	4.4
19	12:33	5.75	0.6	0.200	0.6	0.080	0.5010	1.00	0.5010	0.040	0.0201	3.0
20	*12:34*	*6.00*	*0.6*	*0.200*	*0.6*	*0.080*	*0.9108*	*1.00*	*0.9108*	*0.050*	*0.0457*	*6.7*
21	*12:35*	*6.25*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0551*	*1.00*	*0.0551*	*0.050*	*0.0028*	*0.4*
22	12:35	6.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

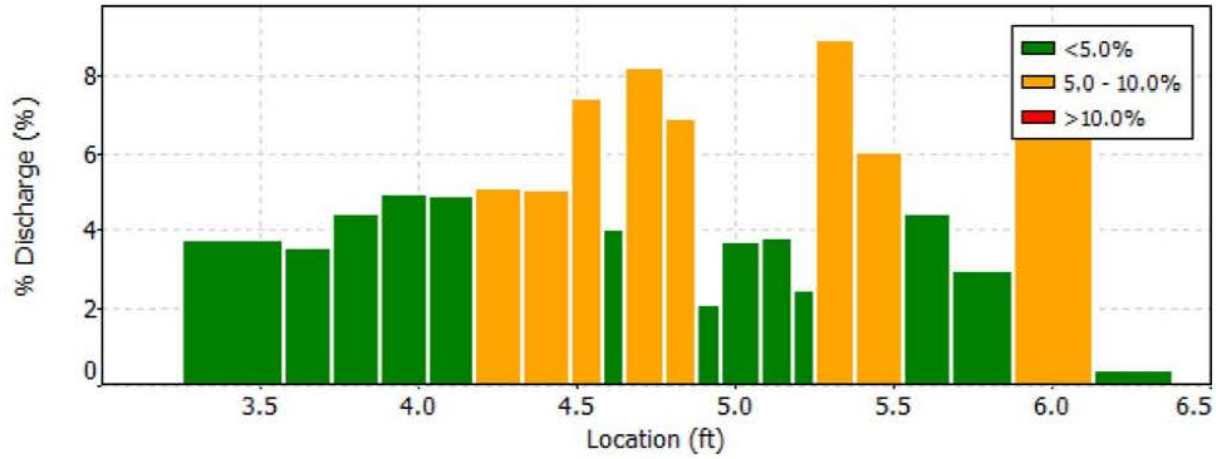
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

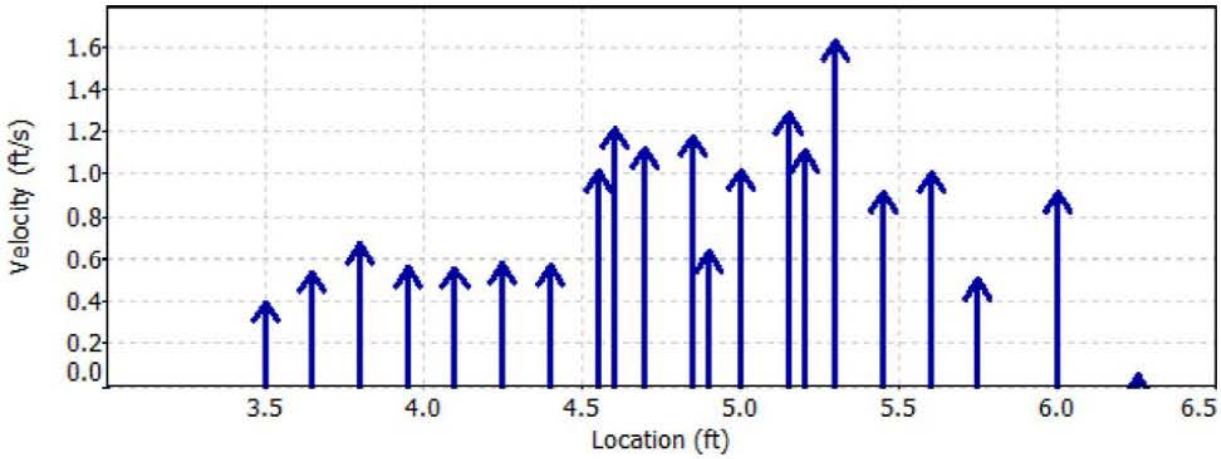
Reference 32

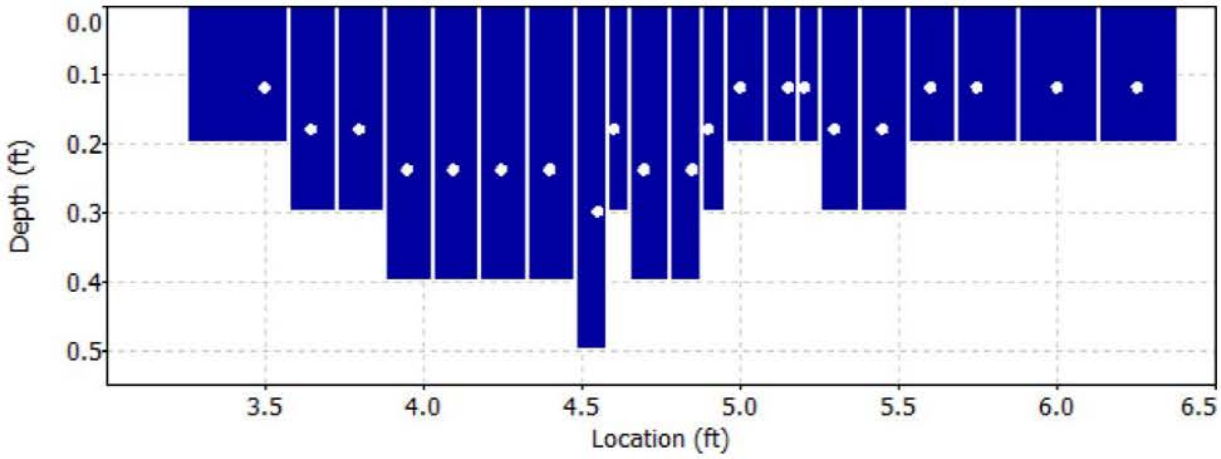
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A26A.WAD	Site Name	
Start Date and Time	2015/09/30 12:18:40	Operator(s)	SA







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A26A.WAD	Site Name	
Start Date and Time	2015/09/30 12:18:40	Operator(s)	SA

Quality Control

St	Loc	%Dep	Message
1	3.50	0.6	High angle: -48
2	3.65	0.6	High angle: -37
4	3.95	0.6	High angle: -25
5	4.10	0.6	High angle: -25
6	4.25	0.6	High angle: -23
10	4.70	0.6	High number of spikes: 5
14	5.15	0.6	High number of spikes: 5
15	5.20	0.6	High standard error: 0.077
20	6.00	0.6	Boundary QC is Good; possible boundary interference
21	6.25	0.6	High SNR variation during measurement: 5.6,4.3
		0.6	Boundary QC is Good; possible boundary interference

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A27.WAD
Start Date and Time	2015/09/30 10:50:26

Site Details

Site Name	BURNS
Operator(s)	SA

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
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	0.5%	11.2%
Velocity	1.8%	5.5%
Width	0.2%	0.2%
Method	2.5%	-
# Stations	2.8%	-
Overall	**4.3%**	**12.5%**

Summary

Averaging Int.	40	# Stations	18
Start Edge	LEW	Total Width	1.600
Mean SNR	39.5 dB	Total Area	0.585
Mean Temp	42.63 °F	Mean Depth	0.366
Disch. Equation	Mid-Section	Mean Velocity	0.8895
		Total Discharge	**0.5203**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:50	4.40	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*11:00*	*4.50*	*0.6*	*0.400*	*0.6*	*0.160*	*0.8510*	*1.00*	*0.8510*	*0.030*	*0.0255*	*4.9*
2	11:01	4.55	0.6	0.400	0.6	0.160	0.8507	1.00	0.8507	0.100	0.0851	16.3
3	10:51	5.00	0.6	0.400	0.6	0.160	1.1322	1.00	1.1322	0.110	0.1246	23.9
4	10:53	5.10	0.6	0.400	0.6	0.160	0.9094	1.00	0.9094	0.030	0.0273	5.2
5	11:07	5.15	0.6	0.000	0.6	0.160	0.9806	1.00	0.0000	0.000	0.0000	0.0
6	10:54	5.20	0.6	0.500	0.6	0.200	1.0404	1.00	1.0404	0.025	0.0260	5.0
7	10:55	5.25	0.6	0.400	0.6	0.160	1.0295	1.00	1.0295	0.020	0.0205	3.9
8	10:56	5.30	0.6	0.400	0.6	0.160	1.0207	1.00	1.0207	0.020	0.0204	3.9
9	10:57	5.35	0.6	0.400	0.6	0.160	1.0180	1.00	1.0180	0.020	0.0204	3.9
10	10:58	5.40	0.6	0.400	0.6	0.160	0.9951	1.00	0.9951	0.020	0.0199	3.8
11	10:59	5.45	0.6	0.400	0.6	0.160	0.9390	1.00	0.9390	0.040	0.0376	7.2
12	11:02	5.60	0.6	0.400	0.6	0.160	0.8737	1.00	0.8737	0.040	0.0349	6.7
13	*11:03*	*5.65*	*0.6*	*0.400*	*0.6*	*0.160*	*1.0778*	*1.00*	*1.0778*	*0.020*	*0.0216*	*4.1*
14	11:04	5.70	0.6	0.400	0.6	0.160	0.7251	1.00	0.7251	0.030	0.0217	4.2
15	11:05	5.80	0.6	0.400	0.6	0.160	0.8612	1.00	0.8612	0.040	0.0344	6.6
16	*10:50*	*5.90*	*0.6*	*0.400*	*0.6*	*0.160*	*0.0102*	*1.00*	*0.0102*	*0.040*	*0.0004*	*0.1*
17	10:50	6.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

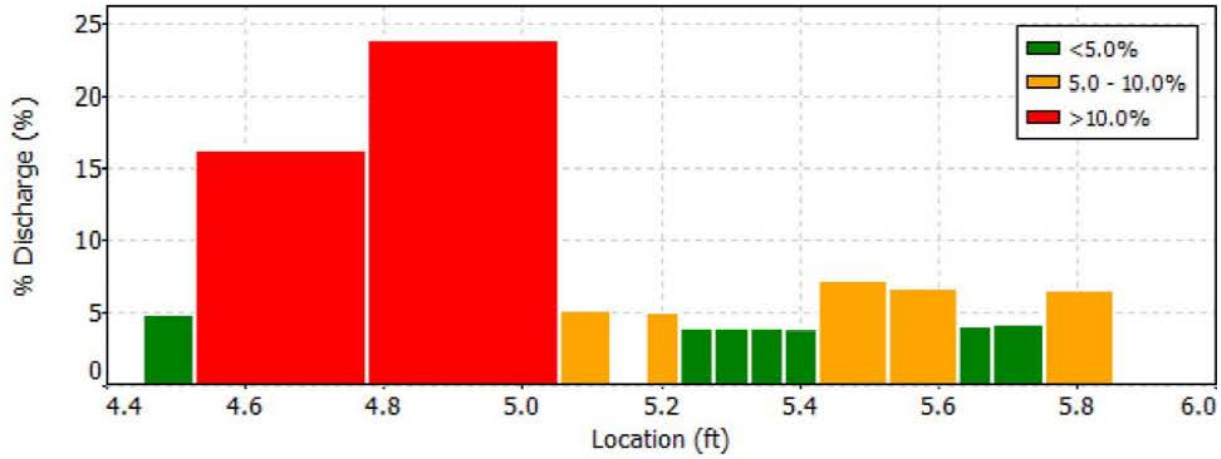
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

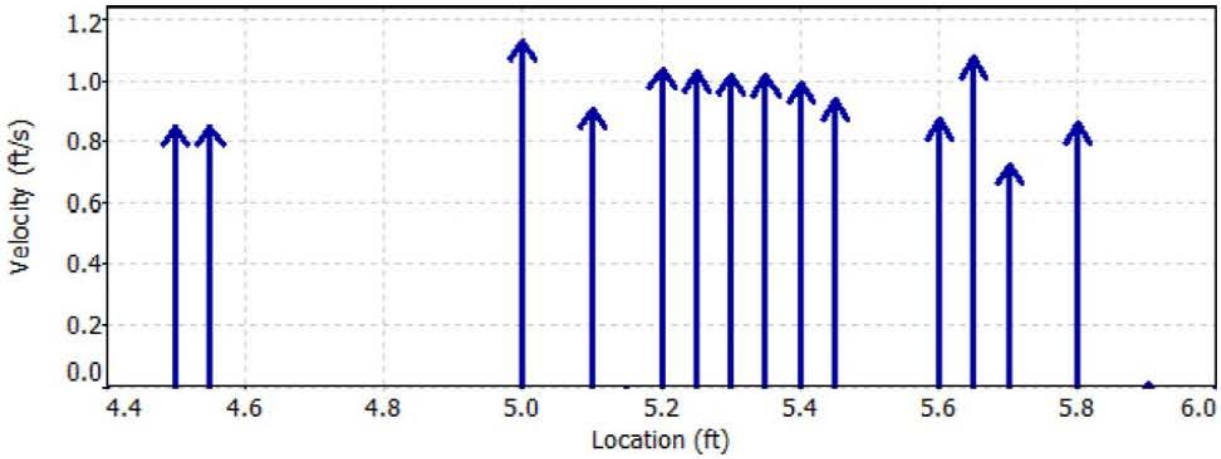
Reference 32

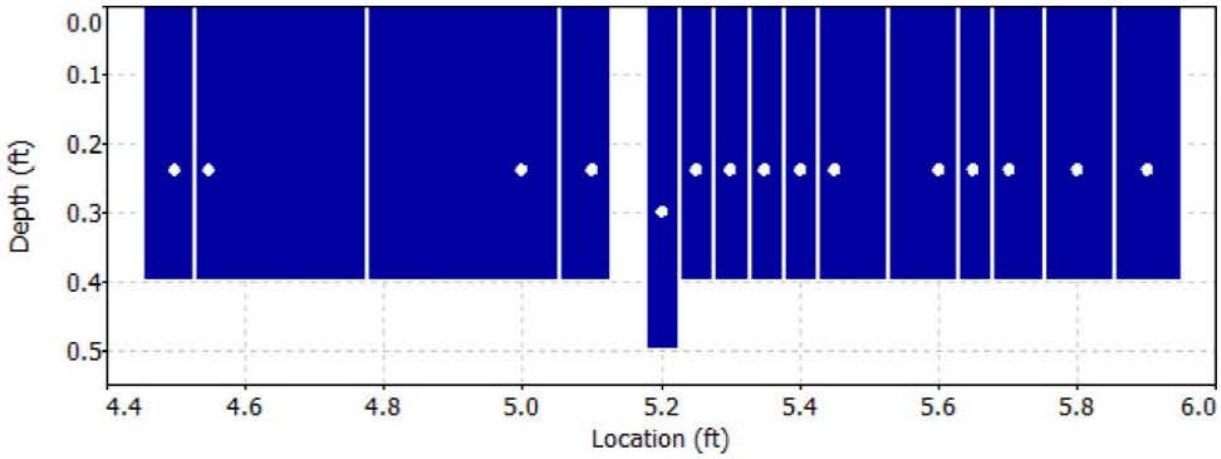
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A27.WAD	Site Name	BURNS
Start Date and Time	2015/09/30 10:50:26	Operator(s)	SA







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A27.WAD	Site Name	BURNS
Start Date and Time	2015/09/30 10:50:26	Operator(s)	SA

Quality Control

St	Loc	%Dep	Message
1	4.50	0.6	High number of spikes: 6
13	5.65	0.6	High standard error: 0.081
16	5.90	0.6	High number of spikes: 7
		0.6	SNR (49.7) is different from typical SNR (39.5)
		0.6	High SNR variation during measurement: 9.9,10.8

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A28.WAD
Start Date and Time	2015/09/30 10:09:37

Site Details

Site Name	A28
Operator(s)	SA

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
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	0.3%	2.6%
Velocity	1.1%	3.9%
Width	0.1%	0.1%
Method	1.7%	-
# Stations	2.0%	-
Overall	**3.0%**	**4.8%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	LEW	Total Width	6.496
Mean SNR	29.3 dB	Total Area	2.414
Mean Temp	42.52 °F	Mean Depth	0.372
Disch. Equation	Mid-Section	Mean Velocity	1.6185
		Total Discharge	**3.9075**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:09	8.90	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*10:09*	*9.20*	*0.6*	*0.200*	*0.6*	*0.080*	*0.2185*	*1.00*	*0.2185*	*0.110*	*0.0241*	*0.6*
2	*10:11*	*10.00*	*0.6*	*0.400*	*0.6*	*0.160*	*0.5883*	*1.00*	*0.5883*	*0.200*	*0.1176*	*3.0*
3	*10:12*	*10.20*	*0.6*	*0.500*	*0.6*	*0.200*	*1.4498*	*1.00*	*1.4498*	*0.100*	*0.1451*	*3.7*
4	*10:13*	*10.40*	*0.6*	*0.500*	*0.6*	*0.200*	*1.6385*	*1.00*	*1.6385*	*0.100*	*0.1640*	*4.2*
5	10:14	10.60	0.6	0.500	0.6	0.200	1.3340	1.00	1.3340	0.100	0.1335	3.4
6	10:15	10.80	0.6	0.500	0.6	0.200	1.1496	1.00	1.1496	0.100	0.1150	2.9
7	10:16	11.00	0.6	0.300	0.6	0.120	2.1578	1.00	2.1578	0.060	0.1295	3.3
8	10:17	11.20	0.6	0.300	0.6	0.120	2.1801	1.00	2.1801	0.060	0.1308	3.3
9	10:18	11.40	0.6	0.300	0.6	0.120	2.1037	1.00	2.1037	0.060	0.1262	3.2
10	10:19	11.60	0.6	0.300	0.6	0.120	1.5696	1.00	1.5696	0.060	0.0942	2.4
11	*10:20*	*11.80*	*0.6*	*0.300*	*0.6*	*0.120*	*0.8379*	*1.00*	*0.8379*	*0.060*	*0.0503*	*1.3*
12	10:21	12.00	0.6	0.400	0.6	0.160	1.7398	1.00	1.7398	0.080	0.1393	3.6
13	10:22	12.20	0.6	0.400	0.6	0.160	2.3750	1.00	2.3750	0.080	0.1901	4.9
14	10:23	12.40	0.6	0.400	0.6	0.160	2.3707	1.00	2.3707	0.080	0.1898	4.9
15	10:24	12.60	0.6	0.400	0.6	0.160	2.3009	1.00	2.3009	0.120	0.2753	7.0
16	*10:25*	*13.00*	*0.6*	*0.400*	*0.6*	*0.160*	*2.0322*	*1.00*	*2.0322*	*0.140*	*0.2837*	*7.3*
17	10:35	13.30	0.6	0.600	0.6	0.240	1.8412	1.00	1.8412	0.120	0.2200	5.6
18	10:26	13.40	0.6	0.500	0.6	0.200	2.1430	1.00	2.1430	0.100	0.2144	5.5
19	10:33	13.70	0.6	0.500	0.6	0.200	2.3862	1.00	2.3862	0.100	0.2376	6.1
20	*10:27*	*13.80*	*0.6*	*0.500*	*0.6*	*0.200*	*2.1670*	*1.00*	*2.1670*	*0.100*	*0.2167*	*5.5*
21	10:32	14.10	0.6	0.400	0.6	0.160	2.3947	1.00	2.3947	0.081	0.1932	4.9
22	*10:28*	*14.20*	*0.6*	*0.500*	*0.6*	*0.200*	*2.3176*	*1.00*	*2.3176*	*0.126*	*0.2918*	*7.5*
23	*10:29*	*14.60*	*0.6*	*0.400*	*0.6*	*0.160*	*0.8196*	*1.00*	*0.8196*	*0.160*	*0.1311*	*3.4*
24	10:30	15.00	0.6	0.300	0.6	0.120	0.7930	1.00	0.7930	0.119	0.0942	2.4
25	10:30	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.

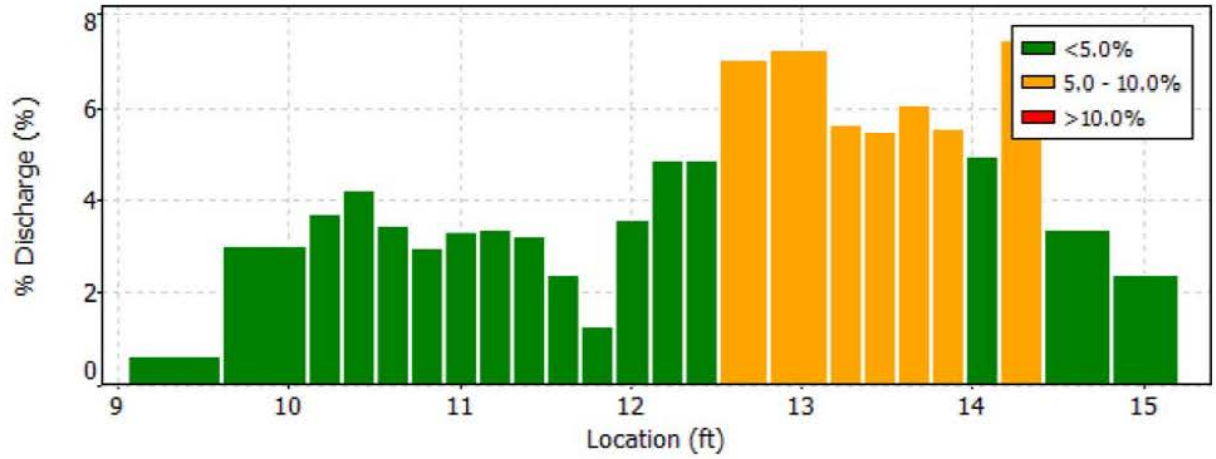
Reference 32

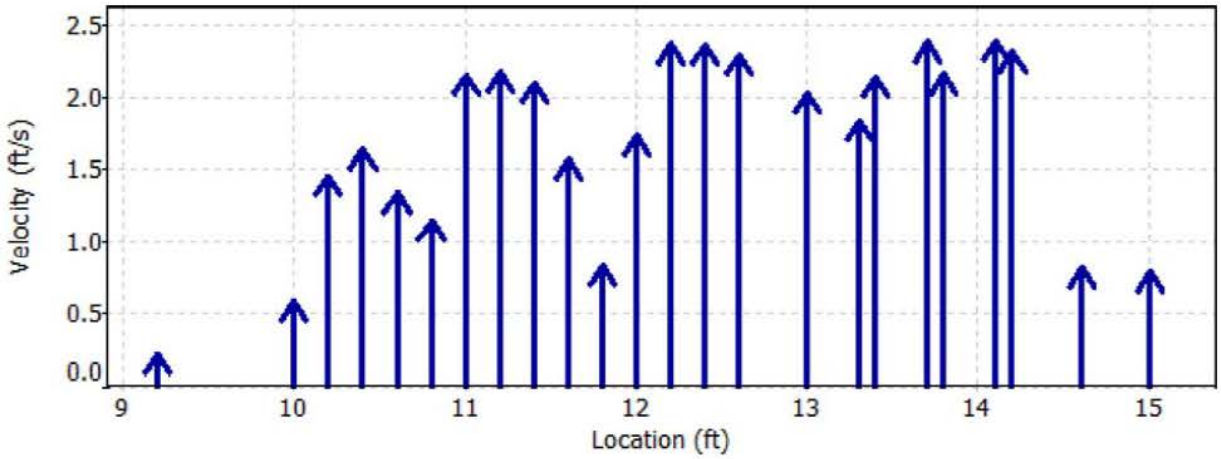
Discharge Measurement Summary

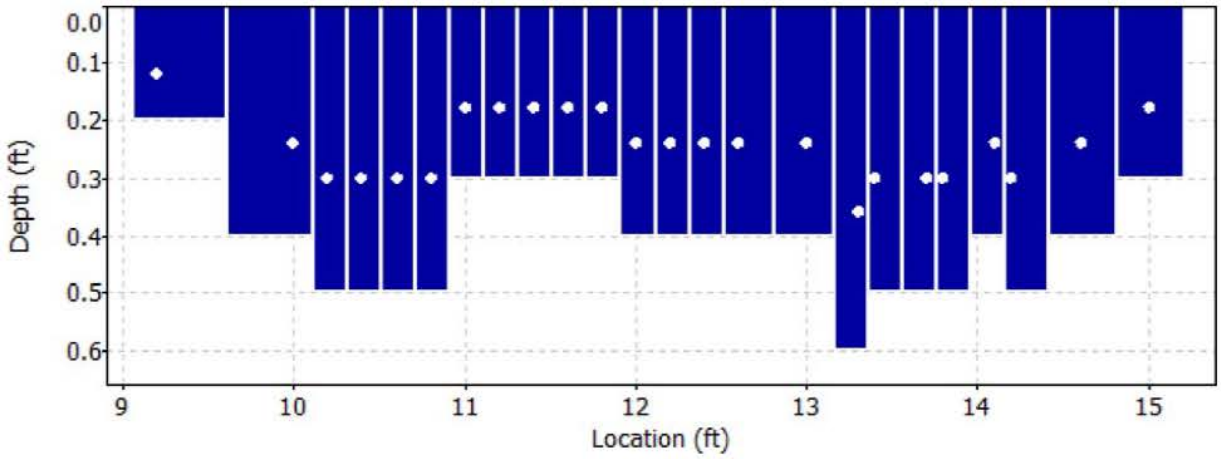
Date Generated: Mon Dec 21 2015

File Information	
File Name	A28.WAD
Start Date and Time	2015/09/30 10:09:37

Site Details	
Site Name	A28
Operator(s)	SA







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A28.WAD	Site Name	A28
Start Date and Time	2015/09/30 10:09:37	Operator(s)	SA

Quality Control

St	Loc	%Dep	Message
1	9.20	0.6	High SNR variation during measurement: 12.5,11.6
		0.6	High standard error: 0.111
2	10.00	0.6	High standard error: 0.120
3	10.20	0.6	High number of spikes: 6
4	10.40	0.6	High standard error: 0.119
11	11.80	0.6	High standard error: 0.119
16	13.00	0.6	High number of spikes: 5
20	13.80	0.6	High number of spikes: 5
22	14.20	0.6	High number of spikes: 5
23	14.60	0.6	High angle: -22

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A30.WAD
Start Date and Time	2015/09/30 09:10:05

Site Details

Site Name	A30
Operator(s)	SA

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
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	0.2%	2.6%
Velocity	2.3%	5.6%
Width	0.1%	0.1%
Method	2.1%	-
# Stations	3.0%	-
Overall	**4.4%**	**6.2%**

Summary

Averaging Int.	40	# Stations	17
Start Edge	LEW	Total Width	5.098
Mean SNR	33.3 dB	Total Area	5.233
Mean Temp	40.42 °F	Mean Depth	1.026
Disch. Equation	Mid-Section	Mean Velocity	1.0657
		Total Discharge	**5.5767**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:10	9.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	09:10	9.60	0.6	0.700	0.6	0.280	1.0679	1.00	1.0679	0.315	0.3364	6.0
2	*09:11*	*9.90*	*0.6*	*1.300*	*0.6*	*0.520*	*1.0906*	*1.00*	*1.0906*	*0.390*	*0.4251*	*7.6*
3	*09:12*	*10.20*	*0.6*	*1.200*	*0.6*	*0.480*	*0.6066*	*1.00*	*0.6066*	*0.360*	*0.2183*	*3.9*
4	*09:13*	*10.50*	*0.6*	*1.300*	*0.6*	*0.520*	*1.3852*	*1.00*	*1.3852*	*0.390*	*0.5399*	*9.7*
5	09:14	10.80	0.6	1.300	0.6	0.520	1.2940	1.00	1.2940	0.390	0.5044	9.0
6	09:15	11.10	0.6	1.300	0.6	0.520	1.2753	1.00	1.2753	0.390	0.4971	8.9
7	*09:16*	*11.40*	*0.6*	*1.300*	*0.6*	*0.520*	*1.3219*	*1.00*	*1.3219*	*0.390*	*0.5152*	*9.2*
8	09:17	11.70	0.6	1.300	0.6	0.520	1.3491	1.00	1.3491	0.390	0.5259	9.4
9	09:18	12.00	0.6	1.000	0.6	0.400	1.2628	1.00	1.2628	0.300	0.3787	6.8
10	*09:19*	*12.30*	*0.6*	*1.000*	*0.6*	*0.400*	*1.6135*	*1.00*	*1.6135*	*0.300*	*0.4838*	*8.7*
11	09:20	12.60	0.6	1.000	0.6	0.400	1.5230	1.00	1.5230	0.300	0.4567	8.2
12	09:21	12.90	0.6	1.000	0.6	0.400	1.4869	1.00	1.4869	0.300	0.4459	8.0
13	09:21	13.20	0.6	1.000	0.6	0.400	0.6299	1.00	0.6299	0.300	0.1889	3.4
14	*09:23*	*13.50*	*0.6*	*1.200*	*0.6*	*0.480*	*0.0709*	*1.00*	*0.0709*	*0.360*	*0.0255*	*0.5*
15	*09:24*	*13.80*	*0.6*	*1.200*	*0.6*	*0.480*	*0.0971*	*1.00*	*0.0971*	*0.360*	*0.0349*	*0.6*
16	09:24	14.10	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

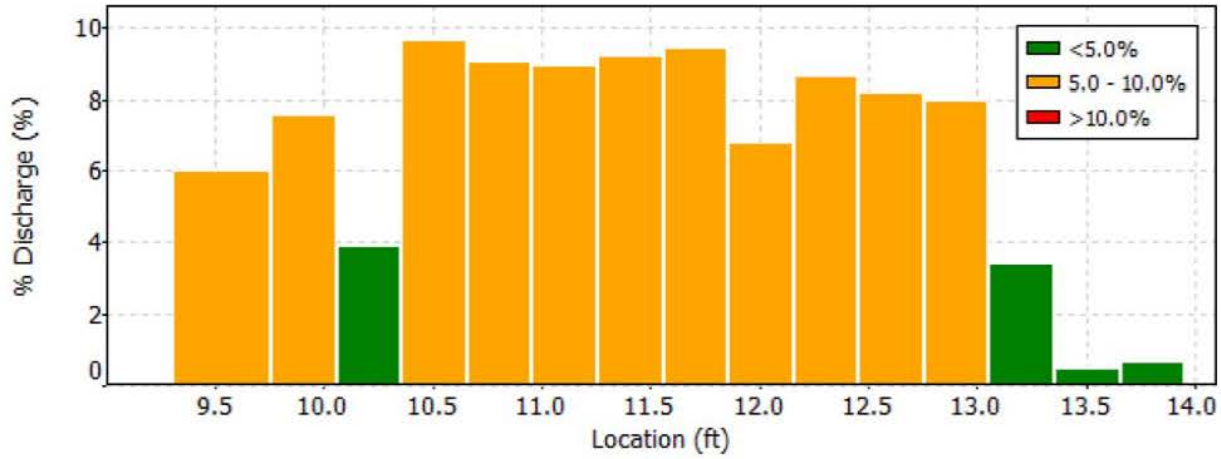
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

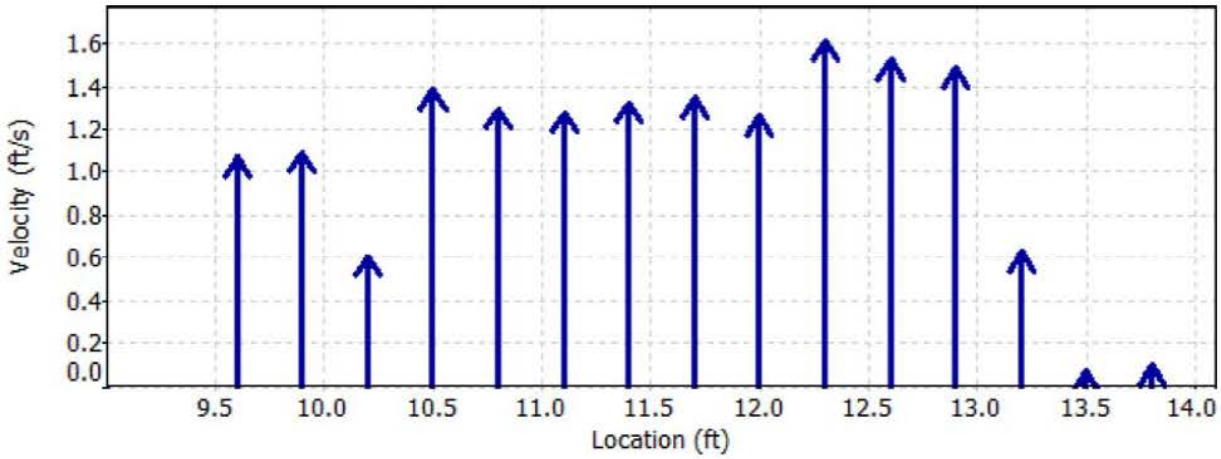
Reference 32

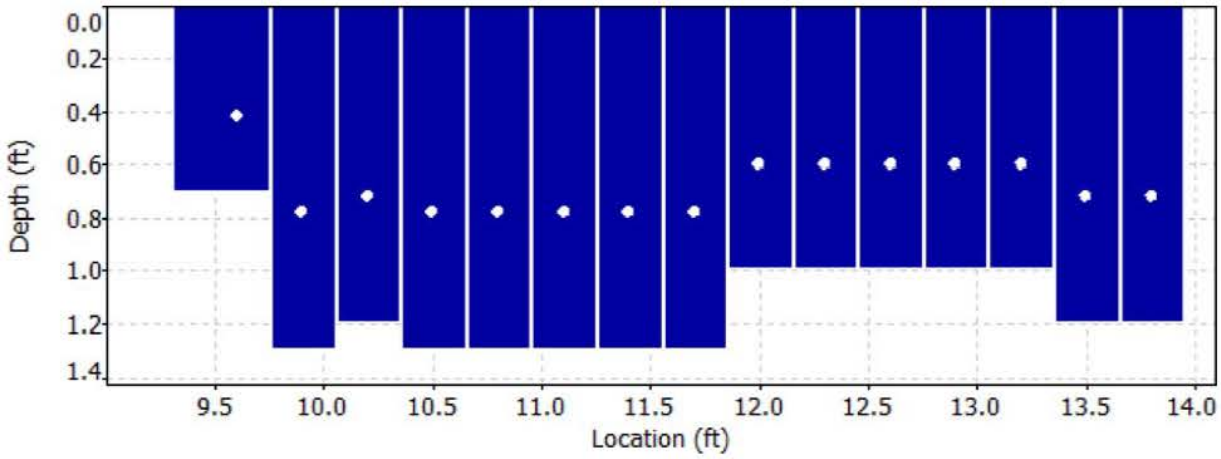
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A30.WAD	Site Name	A30
Start Date and Time	2015/09/30 09:10:05	Operator(s)	SA







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information	
File Name	A30.WAD
Start Date and Time	2015/09/30 09:10:05

Site Details	
Site Name	A30
Operator(s)	SA

Quality Control

St	Loc	%Dep	Message
2	9.90	0.6	High angle: -27
3	10.20	0.6	High angle: -26
4	10.50	0.6	High standard error: 0.133
7	11.40	0.6	High standard error: 0.125
10	12.30	0.6	High standard error: 0.133
14	13.50	0.6	High angle: 61
15	13.80	0.6	High angle: 47

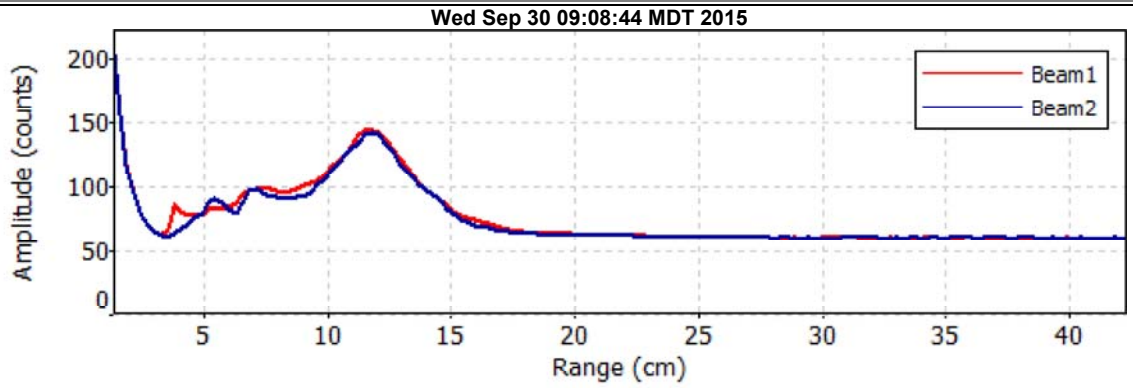
Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A30.WAD	Site Name	A30
Start Date and Time	2015/09/30 09:10:05	Operator(s)	SA

Automatic Quality Control Test (BeamCheck)



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

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A31.WAD
Start Date and Time	2015/10/01 07:41:37

Site Details

Site Name	A31
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
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	0.3%	4.7%
Velocity	1.2%	6.8%
Width	0.1%	0.1%
Method	1.7%	-
# Stations	2.2%	-
Overall	**3.2%**	**8.3%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	15.997
Mean SNR	25.4 dB	Total Area	6.919
Mean Temp	41.19 °F	Mean Depth	0.433
Disch. Equation	Mid-Section	Mean Velocity	0.8226
		Total Discharge	**5.6921**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	07:41	7.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*07:41*	*8.30*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0007*	*1.00*	*-0.0007*	*0.160*	*-0.0001*	*0.0*
2	07:42	9.10	0.6	0.300	0.6	0.120	0.7930	1.00	0.7930	0.240	0.1902	3.3
3	07:43	9.90	0.6	0.300	0.6	0.120	1.2290	1.00	1.2290	0.210	0.2580	4.5
4	08:03	10.50	0.6	0.500	0.6	0.200	0.9895	1.00	0.9895	0.200	0.1979	3.5
5	07:44	10.70	0.6	0.500	0.6	0.200	1.6706	1.00	1.6706	0.250	0.4174	7.3
6	07:45	11.50	0.6	0.350	0.6	0.140	1.0869	1.00	1.0869	0.280	0.3044	5.3
7	*07:46*	*12.30*	*0.6*	*0.200*	*0.6*	*0.080*	*0.8661*	*1.00*	*0.8661*	*0.160*	*0.1387*	*2.4*
8	*07:47*	*13.10*	*0.6*	*0.350*	*0.6*	*0.140*	*0.5804*	*1.00*	*0.5804*	*0.280*	*0.1625*	*2.9*
9	*07:48*	*13.90*	*0.6*	*0.400*	*0.6*	*0.160*	*0.6335*	*1.00*	*0.6335*	*0.320*	*0.2027*	*3.6*
10	07:49	14.70	0.6	0.600	0.6	0.240	0.4364	1.00	0.4364	0.480	0.2094	3.7
11	07:50	15.50	0.6	0.600	0.6	0.240	0.4249	1.00	0.4249	0.480	0.2039	3.6
12	07:51	16.30	0.6	0.700	0.6	0.280	0.2238	1.00	0.2238	0.560	0.1253	2.2
13	*07:52*	*17.10*	*0.6*	*0.600*	*0.6*	*0.240*	*0.3556*	*1.00*	*0.3556*	*0.480*	*0.1707*	*3.0*
14	*07:54*	*17.90*	*0.6*	*0.700*	*0.6*	*0.280*	*0.8166*	*1.00*	*0.8166*	*0.491*	*0.4007*	*7.0*
15	*08:01*	*18.50*	*0.6*	*0.500*	*0.6*	*0.200*	*1.4741*	*1.00*	*1.4741*	*0.200*	*0.2948*	*5.2*
16	*07:55*	*18.70*	*0.6*	*0.500*	*0.6*	*0.200*	*1.4718*	*1.00*	*1.4718*	*0.250*	*0.3672*	*6.5*
17	07:56	19.50	0.6	0.350	0.6	0.140	1.2234	1.00	1.2234	0.280	0.3426	6.0
18	07:57	20.30	0.6	0.500	0.6	0.200	1.2188	1.00	1.2188	0.400	0.4875	8.6
19	*07:58*	*21.10*	*0.6*	*0.500*	*0.6*	*0.200*	*0.5443*	*1.00*	*0.5443*	*0.400*	*0.2177*	*3.8*
20	07:59	21.90	0.6	0.250	0.6	0.100	1.1565	1.00	1.1565	0.200	0.2313	4.1
21	08:00	22.70	0.6	0.500	0.6	0.200	1.2828	1.00	1.2828	0.400	0.5130	9.0
22	08:00	23.50	None	0.500	0.0	0.0	0.0000	1.00	1.2828	0.200	0.2565	4.5

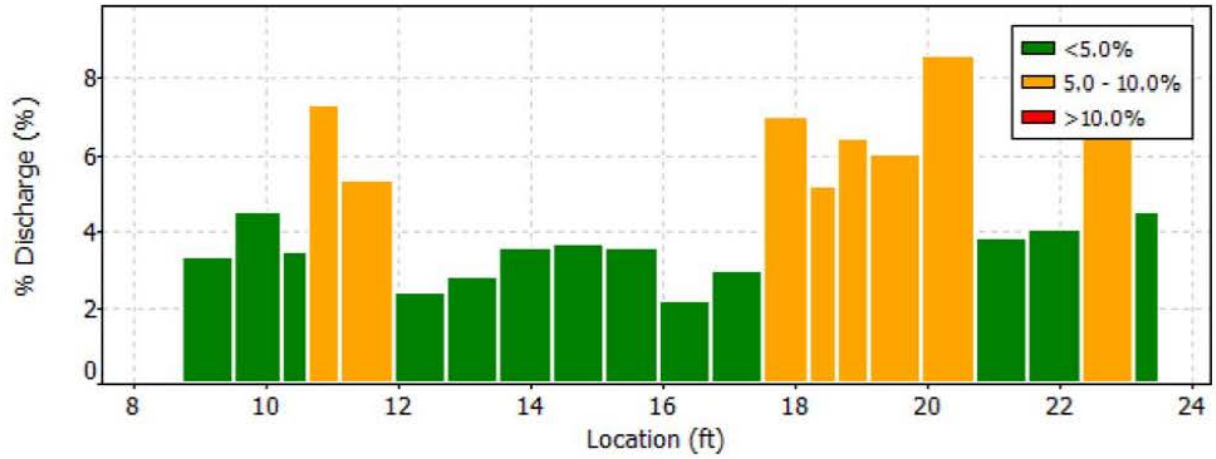
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

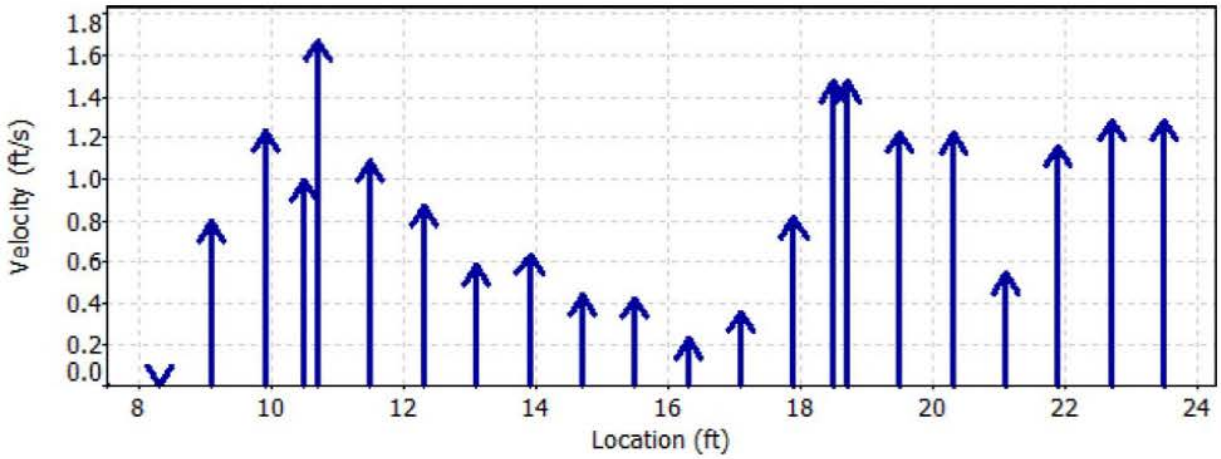
Reference 32

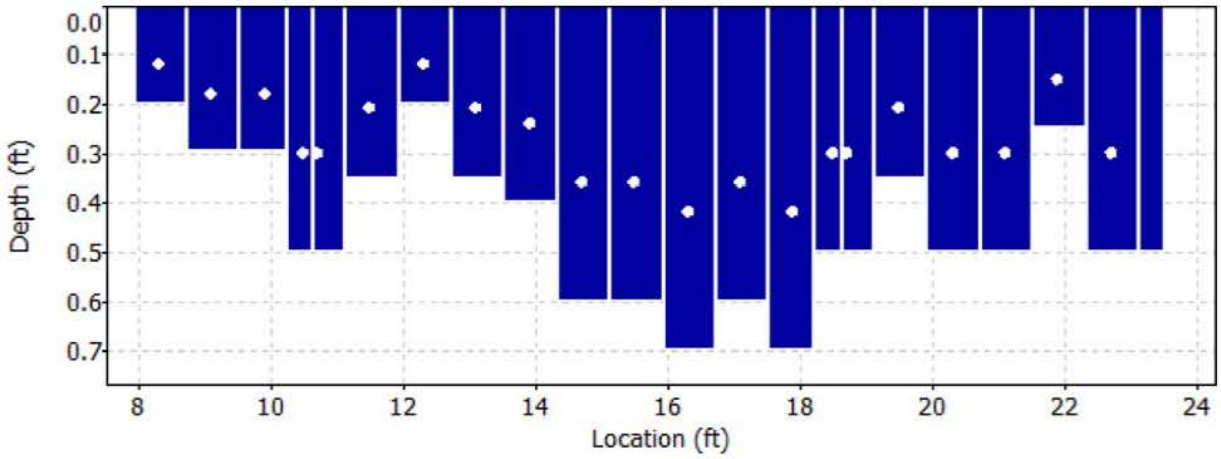
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A31.WAD	Site Name	A31
Start Date and Time	2015/10/01 07:41:37	Operator(s)	KB







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information	
File Name	A31.WAD
Start Date and Time	2015/10/01 07:41:37

Site Details	
Site Name	A31
Operator(s)	KB

Quality Control

St	Loc	%Dep	Message
1	8.30	0.6	High differences in beam SNR: 27.5,16.7
		0.6	Boundary QC is Fair; possible boundary interference
7	12.30	0.6	High angle: -22
8	13.10	0.6	High angle: -36
9	13.90	0.6	High angle: -26
13	17.10	0.6	High angle: 34
14	17.90	0.6	High angle: 36
15	18.50	0.6	High standard error: 0.096
16	18.70	0.6	High standard error: 0.096
19	21.10	0.6	High angle: 26

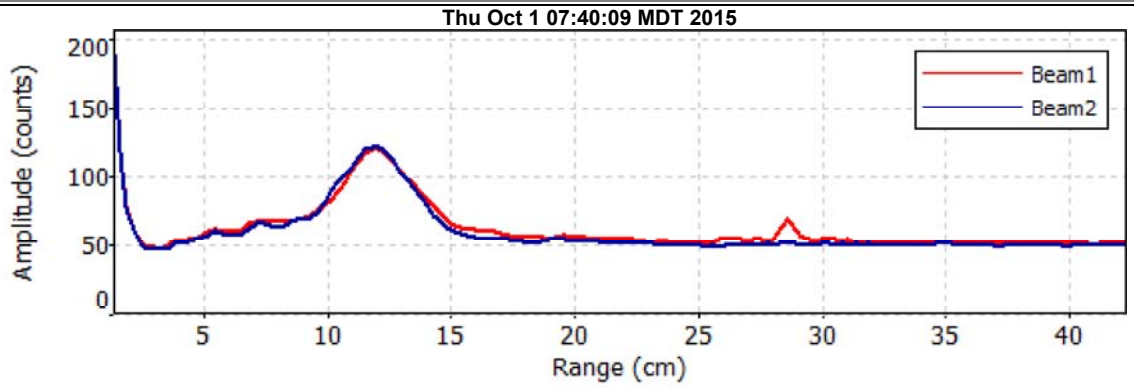
Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A31.WAD	Site Name	A31
Start Date and Time	2015/10/01 07:41:37	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



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

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A33.WAD
Start Date and Time	2015/09/30 15:50:03

Site Details

Site Name	
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5879
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%	4.2%
Velocity	2.4%	12.5%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	1.9%	-
Overall	**3.7%**	**13.2%**

Summary

Averaging Int.	40	# Stations	27
Start Edge	LEW	Total Width	13.800
Mean SNR	30.8 dB	Total Area	6.058
Mean Temp	49.45 °F	Mean Depth	0.439
Disch. Equation	Mid-Section	Mean Velocity	0.6969
		Total Discharge	**4.2218**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:50	10.00	None	0.100	0.0	0.0	0.0000	1.00	0.6152	0.035	0.0215	0.5
1	15:50	10.70	0.6	0.280	0.6	0.112	0.6152	1.00	0.6152	0.196	0.1205	2.9
2	15:51	11.40	0.6	0.670	0.6	0.268	1.0784	1.00	1.0784	0.301	0.3251	7.7
3	16:18	11.60	0.6	0.400	0.6	0.160	0.3579	1.00	0.3579	0.140	0.0501	1.2
4	*15:52*	*12.10*	*0.6*	*0.620*	*0.6*	*0.248*	*0.1864*	*1.00*	*0.1864*	*0.372*	*0.0694*	*1.6*
5	*15:54*	*12.80*	*0.6*	*0.750*	*0.6*	*0.300*	*0.0535*	*1.00*	*0.0535*	*0.450*	*0.0241*	*0.6*
6	*16:19*	*13.30*	*0.6*	*0.680*	*0.6*	*0.272*	*0.9846*	*1.00*	*0.9846*	*0.238*	*0.2344*	*5.6*
7	*15:55*	*13.50*	*0.6*	*0.720*	*0.6*	*0.288*	*1.6444*	*1.00*	*1.6444*	*0.180*	*0.2960*	*7.0*
8	16:21	13.80	0.6	0.650	0.6	0.260	0.9701	1.00	0.9701	0.228	0.2207	5.2
9	*15:56*	*14.20*	*0.6*	*0.680*	*0.6*	*0.272*	*0.1020*	*1.00*	*0.1020*	*0.272*	*0.0278*	*0.7*
10	*16:23*	*14.60*	*0.6*	*0.800*	*0.6*	*0.320*	*1.0883*	*1.00*	*1.0883*	*0.280*	*0.3047*	*7.2*
11	*15:57*	*14.90*	*0.6*	*0.800*	*0.6*	*0.320*	*1.2425*	*1.00*	*1.2425*	*0.240*	*0.2982*	*7.1*
12	*16:24*	*15.20*	*0.6*	*0.680*	*0.6*	*0.272*	*1.6693*	*1.00*	*1.6693*	*0.238*	*0.3974*	*9.4*
13	*15:58*	*15.60*	*0.6*	*0.500*	*0.6*	*0.200*	*1.3133*	*1.00*	*1.3133*	*0.200*	*0.2626*	*6.2*
14	*16:25*	*16.00*	*0.6*	*0.680*	*0.6*	*0.272*	*0.3287*	*1.00*	*0.3287*	*0.238*	*0.0783*	*1.9*
15	*15:59*	*16.30*	*0.6*	*0.700*	*0.6*	*0.280*	*1.1617*	*1.00*	*1.1617*	*0.140*	*0.1626*	*3.9*
16	*16:27*	*16.40*	*0.6*	*0.700*	*0.6*	*0.280*	*1.4104*	*1.00*	*1.4104*	*0.245*	*0.3457*	*8.2*
17	*16:00*	*17.00*	*0.6*	*0.700*	*0.6*	*0.280*	*0.5971*	*1.00*	*0.5971*	*0.456*	*0.2721*	*6.4*
18	*16:01*	*17.70*	*0.6*	*0.450*	*0.6*	*0.180*	*0.3176*	*1.00*	*0.3176*	*0.315*	*0.1001*	*2.4*
19	16:03	18.40	0.6	0.280	0.6	0.112	1.3963	1.00	1.3963	0.196	0.2736	6.5
20	*16:04*	*19.10*	*0.6*	*0.200*	*0.6*	*0.080*	*0.2218*	*1.00*	*0.2218*	*0.140*	*0.0311*	*0.7*
21	*16:11*	*19.80*	*0.6*	*0.350*	*0.6*	*0.140*	*0.0282*	*1.00*	*0.0282*	*0.245*	*0.0069*	*0.2*
22	16:12	20.50	0.6	0.220	0.6	0.088	0.3652	1.00	0.3652	0.154	0.0563	1.3
23	16:13	21.20	0.6	0.300	0.6	0.120	0.1841	1.00	0.1841	0.210	0.0386	0.9
24	*16:14*	*21.90*	*0.6*	*0.250*	*0.6*	*0.100*	*0.5348*	*1.00*	*0.5348*	*0.175*	*0.0936*	*2.2*
25	*16:15*	*22.60*	*0.6*	*0.120*	*0.6*	*0.048*	*0.6345*	*1.00*	*0.6345*	*0.114*	*0.0723*	*1.7*
26	16:15	23.80	None	0.100	0.0	0.0	0.0000	1.00	0.6345	0.060	0.0380	0.9

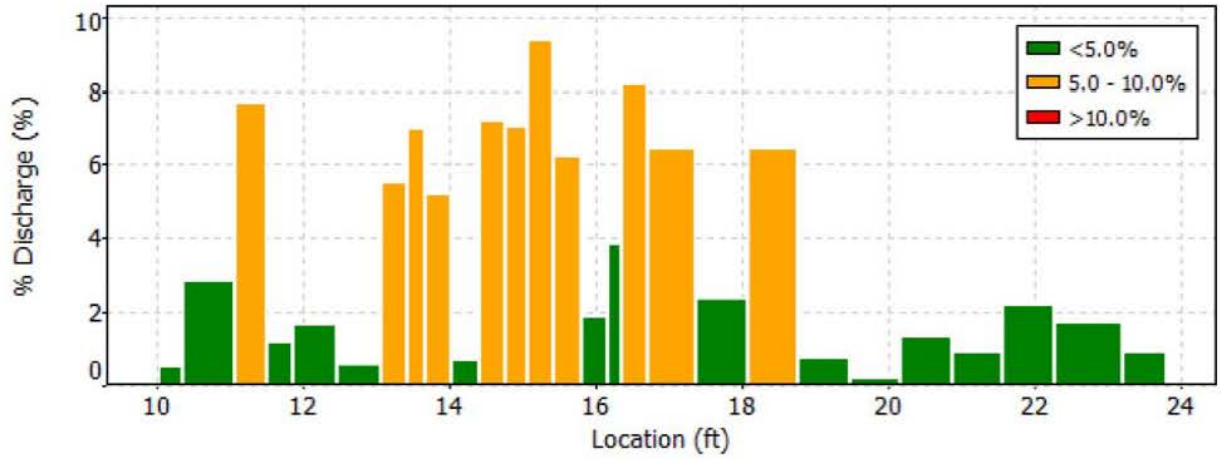
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

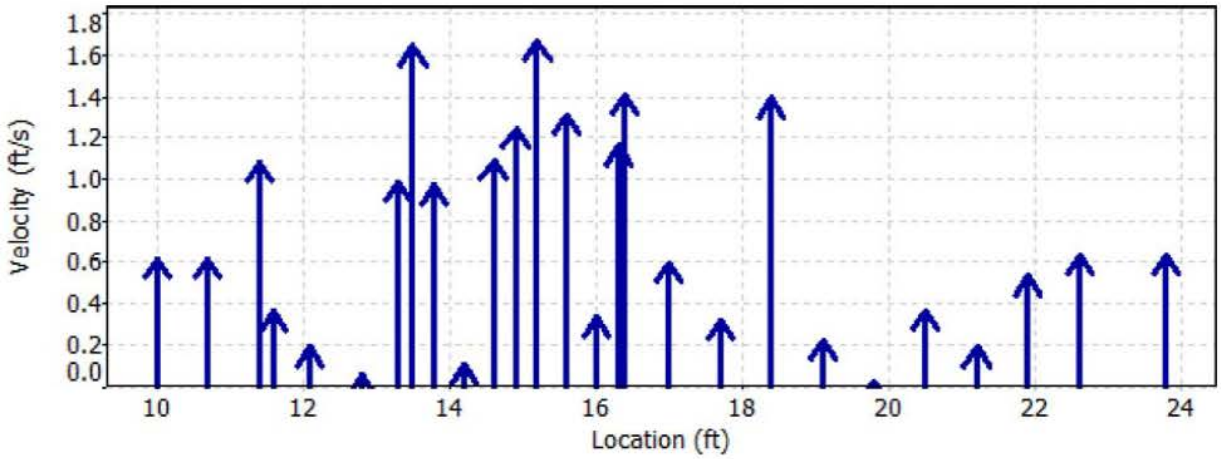
Reference 32

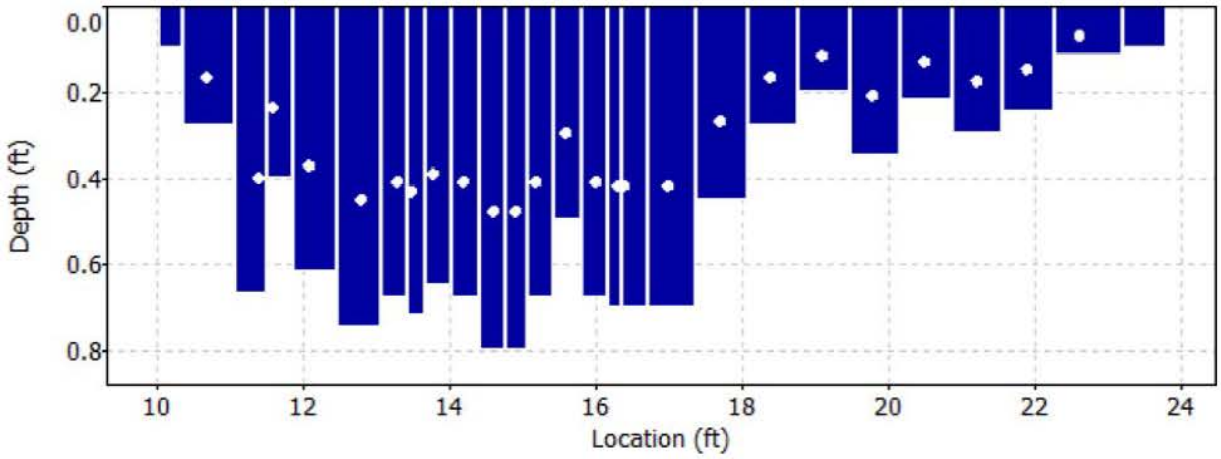
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A33.WAD	Site Name	
Start Date and Time	2015/09/30 15:50:03	Operator(s)	RM







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A33.WAD	Site Name	
Start Date and Time	2015/09/30 15:50:03	Operator(s)	RM

Quality Control

St	Loc	%Dep	Message
4	12.10	0.6	High angle: 28
5	12.80	0.6	High angle: 44
		0.6	Boundary QC is Fair; possible boundary interference
6	13.30	0.6	High standard error: 0.117
7	13.50	0.6	High standard error: 0.153
9	14.20	0.6	High angle: 69
10	14.60	0.6	High standard error: 0.106
11	14.90	0.6	High standard error: 0.119
12	15.20	0.6	High standard error: 0.120
13	15.60	0.6	High standard error: 0.129
14	16.00	0.6	High standard error: 0.103
15	16.30	0.6	High standard error: 0.103
16	16.40	0.6	High standard error: 0.129
17	17.00	0.6	Boundary QC is Good; possible boundary interference
18	17.70	0.6	High angle: -28
		0.6	Boundary QC is Fair; possible boundary interference
20	19.10	0.6	High angle: 54
21	19.80	0.6	SNR (15.2) is different from typical SNR (30.8)
		0.6	High SNR variation during measurement: 6.0,2.6
		0.6	Boundary QC is Poor; possible boundary interference
24	21.90	0.6	Boundary QC is Fair; possible boundary interference
25	22.60	0.6	Boundary QC is Poor; possible boundary interference

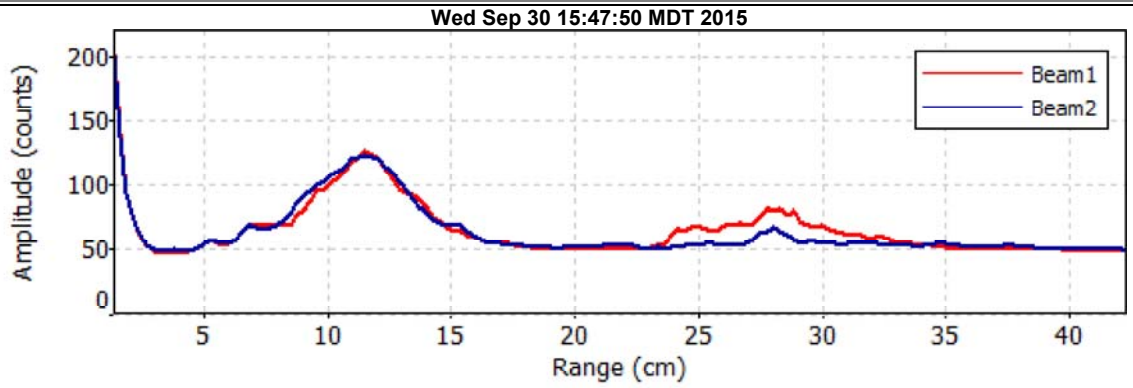
Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A33.WAD	Site Name	
Start Date and Time	2015/09/30 15:50:03	Operator(s)	RM

Automatic Quality Control Test (BeamCheck)



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

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A34.WAD
Start Date and Time	2015/09/30 15:19:48

Site Details

Site Name	A34
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
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%	1.3%
Velocity	1.0%	4.4%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**3.3%**	**4.7%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	7.200
Mean SNR	34.4 dB	Total Area	3.244
Mean Temp	47.48 °F	Mean Depth	0.451
Disch. Equation	Mid-Section	Mean Velocity	0.8017
		Total Discharge	**2.6006**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:19	6.40	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*15:19*	*6.75*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0066*	*1.00*	*0.0066*	*0.070*	*0.0005*	*0.0*
2	15:20	7.10	0.6	0.300	0.6	0.120	0.1568	1.00	0.1568	0.105	0.0165	0.6
3	15:21	7.45	0.6	0.300	0.6	0.120	0.2201	1.00	0.2201	0.105	0.0231	0.9
4	*15:23*	*7.80*	*0.6*	*0.350*	*0.6*	*0.140*	*0.1932*	*1.00*	*0.1932*	*0.123*	*0.0237*	*0.9*
5	15:24	8.15	0.6	0.400	0.6	0.160	0.1214	1.00	0.1214	0.140	0.0170	0.7
6	*15:25*	*8.50*	*0.6*	*0.450*	*0.6*	*0.180*	*0.3474*	*1.00*	*0.3474*	*0.158*	*0.0547*	*2.1*
7	*15:26*	*8.85*	*0.6*	*0.500*	*0.6*	*0.200*	*0.3150*	*1.00*	*0.3150*	*0.175*	*0.0551*	*2.1*
8	15:27	9.20	0.6	0.500	0.6	0.200	1.1243	1.00	1.1243	0.175	0.1968	7.6
9	15:28	9.55	0.6	0.500	0.6	0.200	1.4331	1.00	1.4331	0.175	0.2508	9.6
10	15:29	9.90	0.6	0.550	0.6	0.220	1.1713	1.00	1.1713	0.192	0.2255	8.7
11	15:31	10.25	0.6	0.550	0.6	0.220	0.7766	1.00	0.7766	0.192	0.1495	5.7
12	15:32	10.60	0.6	0.600	0.6	0.240	0.5292	1.00	0.5292	0.210	0.1112	4.3
13	15:33	10.95	0.6	0.600	0.6	0.240	0.9633	1.00	0.9633	0.210	0.2023	7.8
14	15:34	11.30	0.6	0.650	0.6	0.260	1.3284	1.00	1.3284	0.162	0.2156	8.3
15	15:41	11.45	0.6	0.600	0.6	0.240	1.0640	1.00	1.0640	0.105	0.1118	4.3
16	15:35	11.65	0.6	0.700	0.6	0.280	1.0810	1.00	1.0810	0.122	0.1324	5.1
17	15:43	11.80	0.6	0.700	0.6	0.280	0.8953	1.00	0.8953	0.123	0.1097	4.2
18	15:36	12.00	0.6	0.650	0.6	0.260	0.7785	1.00	0.7785	0.179	0.1394	5.4
19	15:37	12.35	0.6	0.500	0.6	0.200	1.1358	1.00	1.1358	0.175	0.1988	7.6
20	15:38	12.70	0.6	0.400	0.6	0.160	1.1893	1.00	1.1893	0.140	0.1665	6.4
21	15:39	13.05	0.6	0.400	0.6	0.160	0.9639	1.00	0.9639	0.180	0.1733	6.7
22	15:39	13.60	None	0.100	0.0	0.0	0.0000	1.00	0.9639	0.027	0.0265	1.0

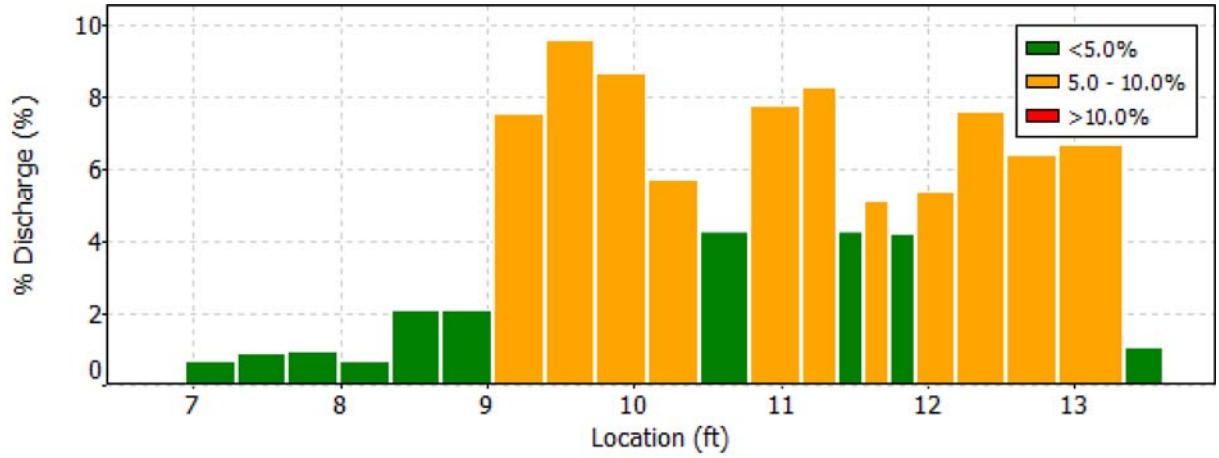
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

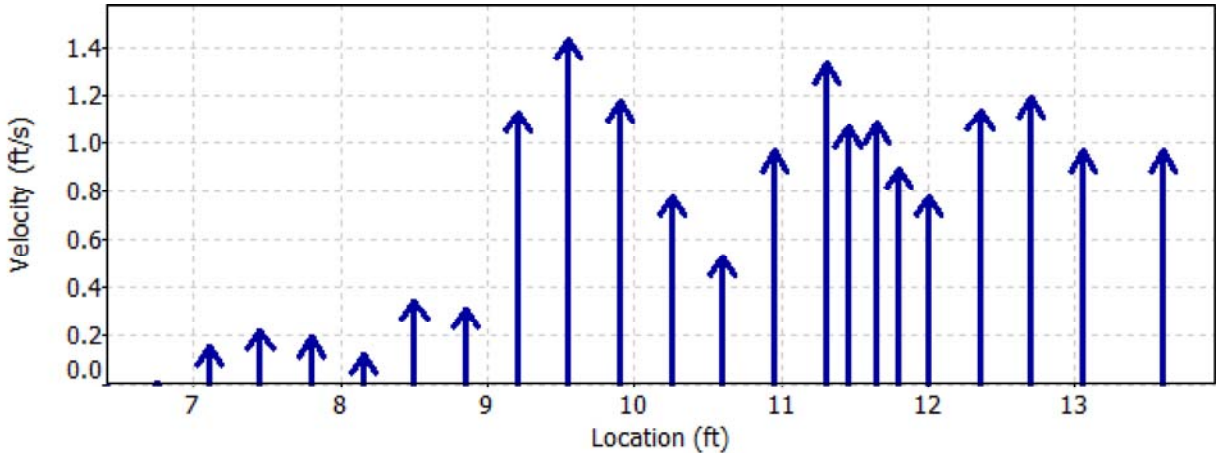
Reference 32

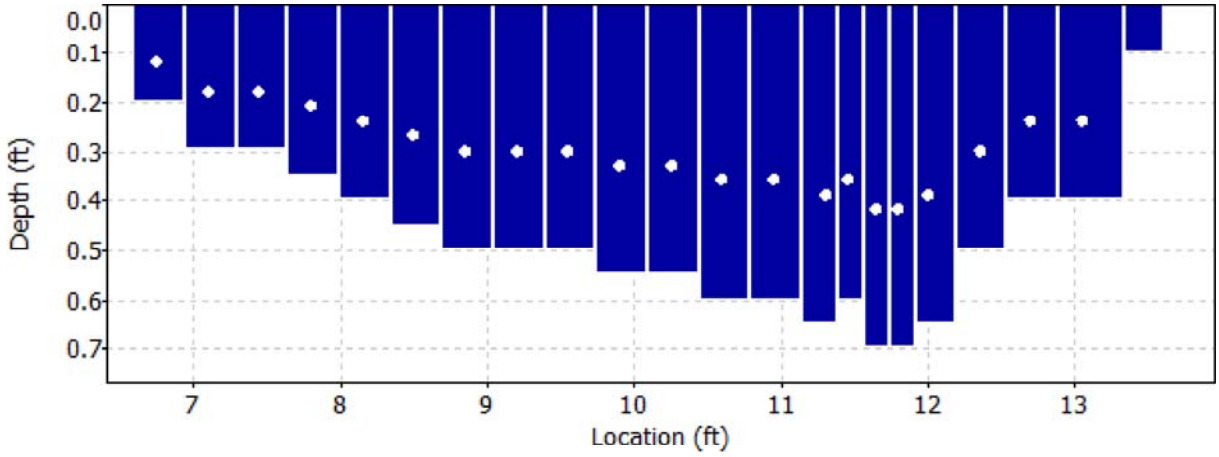
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A34.WAD	Site Name	A34
Start Date and Time	2015/09/30 15:19:48	Operator(s)	LC







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A34.WAD	Site Name	A34
Start Date and Time	2015/09/30 15:19:48	Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
1	6.75	0.6	High SNR variation during measurement: 5.2,5.2
4	7.80	0.6	High angle: 24
6	8.50	0.6	High angle: 29
7	8.85	0.6	High angle: 30

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A35.WAD
Start Date and Time	2015/09/30 14:40:00

Site Details

Site Name	A35
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
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%	1.8%
Velocity	0.9%	4.3%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.4%	-
Overall	**3.4%**	**4.7%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	REW	Total Width	15.600
Mean SNR	23.4 dB	Total Area	10.362
Mean Temp	49.61 °F	Mean Depth	0.664
Disch. Equation	Mid-Section	Mean Velocity	0.6085
		Total Discharge	**6.3051**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:39	8.50	None	0.200	0.0	0.0	0.0000	1.00	0.3589	0.075	0.0269	0.4
1	14:39	9.25	0.6	0.500	0.6	0.200	0.3589	1.00	0.3589	0.375	0.1346	2.1
2	14:40	10.00	0.6	0.500	0.6	0.200	0.4406	1.00	0.4406	0.375	0.1652	2.6
3	14:41	10.75	0.6	0.500	0.6	0.200	0.5092	1.00	0.5092	0.375	0.1909	3.0
4	14:43	11.50	0.6	0.700	0.6	0.280	0.5922	1.00	0.5922	0.525	0.3110	4.9
5	*14:44*	*12.25*	*0.6*	*0.600*	*0.6*	*0.240*	*0.3970*	*1.00*	*0.3970*	*0.450*	*0.1787*	*2.8*
6	14:45	13.00	0.6	0.700	0.6	0.280	0.7031	1.00	0.7031	0.525	0.3692	5.9
7	14:46	13.75	0.6	0.800	0.6	0.320	0.7667	1.00	0.7667	0.600	0.4600	7.3
8	14:47	14.50	0.6	0.900	0.6	0.360	0.9226	1.00	0.9226	0.675	0.6227	9.9
9	14:48	15.25	0.6	0.900	0.6	0.360	0.8110	1.00	0.8110	0.675	0.5474	8.7
10	*14:49*	*16.00*	*0.6*	*0.850*	*0.6*	*0.340*	*0.5830*	*1.00*	*0.5830*	*0.638*	*0.3717*	*5.9*
11	14:50	16.75	0.6	0.800	0.6	0.320	0.8717	1.00	0.8717	0.600	0.5229	8.3
12	*14:51*	*17.50*	*0.6*	*0.900*	*0.6*	*0.360*	*0.9186*	*1.00*	*0.9186*	*0.675*	*0.6200*	*9.8*
13	*14:52*	*18.25*	*0.6*	*0.850*	*0.6*	*0.340*	*0.7034*	*1.00*	*0.7034*	*0.638*	*0.4485*	*7.1*
14	*14:53*	*19.00*	*0.6*	*0.850*	*0.6*	*0.340*	*0.6050*	*1.00*	*0.6050*	*0.638*	*0.3857*	*6.1*
15	*14:54*	*19.75*	*0.6*	*0.850*	*0.6*	*0.340*	*0.4049*	*1.00*	*0.4049*	*0.638*	*0.2581*	*4.1*
16	*14:55*	*20.50*	*0.6*	*0.900*	*0.6*	*0.360*	*0.3264*	*1.00*	*0.3264*	*0.675*	*0.2203*	*3.5*
17	14:56	21.25	0.6	0.700	0.6	0.280	0.5896	1.00	0.5896	0.525	0.3096	4.9
18	14:57	22.00	0.6	0.500	0.6	0.200	0.4003	1.00	0.4003	0.375	0.1501	2.4
19	*14:58*	*22.75*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0371*	*1.00*	*0.0371*	*0.210*	*0.0078*	*0.1*
20	14:58	24.10	None	0.150	0.0	0.0	0.0000	1.00	0.0371	0.101	0.0038	0.1

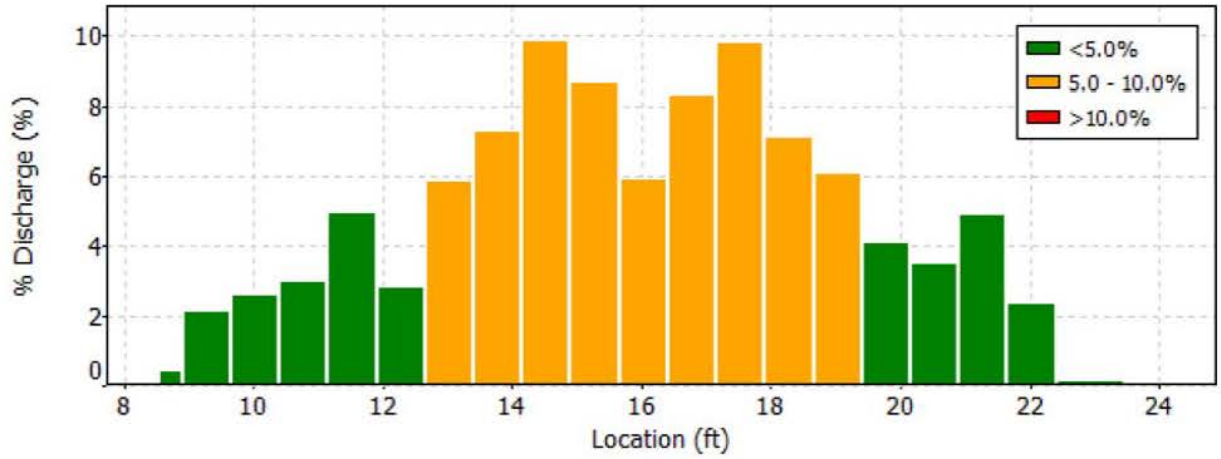
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

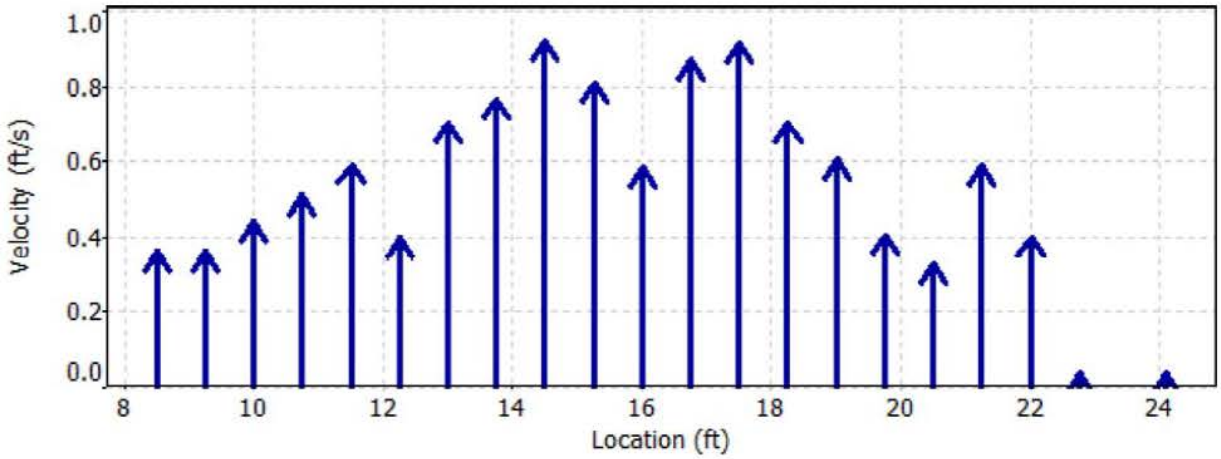
Reference 32

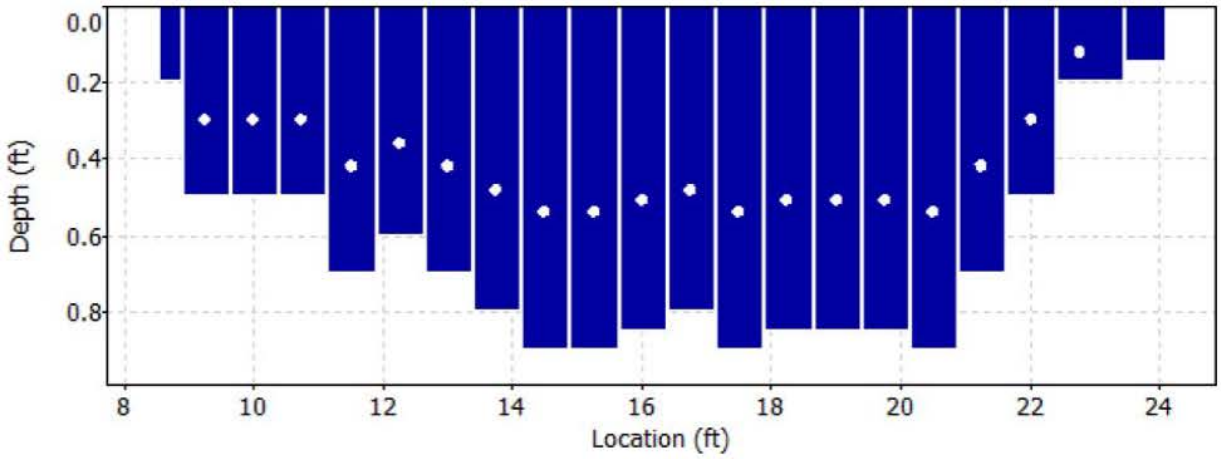
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A35.WAD	Site Name	A35
Start Date and Time	2015/09/30 14:40:00	Operator(s)	LC







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A35.WAD	Site Name	A35
Start Date and Time	2015/09/30 14:40:00	Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
5	12.25	0.6	High angle: 21
		0.6	High standard error: 0.036
10	16.00	0.6	High angle: 22
		0.6	High standard error: 0.045
12	17.50	0.6	High angle: 22
13	18.25	0.6	High angle: 26
14	19.00	0.6	High angle: 31
		0.6	High standard error: 0.035
15	19.75	0.6	High angle: 41
16	20.50	0.6	High angle: 26
19	22.75	0.6	High angle: 46

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A36.WAD
Start Date and Time	2015/09/29 17:24:13

Site Details

Site Name	
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5879
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%	3.3%
Velocity	1.9%	13.5%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	1.9%	-
Overall	**3.4%**	**13.9%**

Summary

Averaging Int.	40	# Stations	27
Start Edge	LEW	Total Width	8.300
Mean SNR	44.1 dB	Total Area	3.197
Mean Temp	45.64 °F	Mean Depth	0.385
Disch. Equation	Mid-Section	Mean Velocity	0.3779
		Total Discharge	**1.2083**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	17:24	7.70	None	0.300	0.0	0.0	0.0000	1.00	0.1375	0.045	0.0062	0.5
1	*17:24*	*8.00*	*0.6*	*0.250*	*0.6*	*0.100*	*0.1375*	*1.00*	*0.1375*	*0.075*	*0.0103*	*0.9*
2	*17:25*	*8.30*	*0.6*	*0.350*	*0.6*	*0.140*	*0.0764*	*1.00*	*0.0764*	*0.105*	*0.0080*	*0.7*
3	17:26	8.60	0.6	0.300	0.6	0.120	0.0026	1.00	0.0026	0.090	0.0002	0.0
4	17:27	8.90	0.6	0.350	0.6	0.140	0.2867	1.00	0.2867	0.105	0.0301	2.5
5	17:28	9.20	0.6	0.220	0.6	0.088	0.7218	1.00	0.7218	0.066	0.0476	3.9
6	17:29	9.50	0.6	0.400	0.6	0.160	0.5154	1.00	0.5154	0.120	0.0618	5.1
7	17:30	9.80	0.6	0.320	0.6	0.128	0.9656	1.00	0.9656	0.096	0.0926	7.7
8	17:31	10.10	0.6	0.400	0.6	0.160	0.5338	1.00	0.5338	0.080	0.0428	3.5
9	17:46	10.20	0.6	0.400	0.6	0.160	0.6755	1.00	0.6755	0.060	0.0405	3.4
10	17:32	10.40	0.6	0.450	0.6	0.180	1.1293	1.00	1.1293	0.067	0.0762	6.3
11	*17:50*	*10.50*	*0.6*	*0.450*	*0.6*	*0.180*	*0.5200*	*1.00*	*0.5200*	*0.067*	*0.0351*	*2.9*
12	17:33	10.70	0.6	0.450	0.6	0.180	0.0007	1.00	0.0007	0.112	0.0001	0.0
13	*17:34*	*11.00*	*0.6*	*0.500*	*0.6*	*0.200*	*-0.0020*	*1.00*	*-0.0020*	*0.150*	*-0.0003*	*0.0*
14	*17:35*	*11.30*	*0.6*	*0.350*	*0.6*	*0.140*	*1.4104*	*1.00*	*1.4104*	*0.070*	*0.0991*	*8.2*
15	17:47	11.40	0.6	0.400	0.6	0.160	1.3547	1.00	1.3547	0.060	0.0812	6.7
16	17:36	11.60	0.6	0.480	0.6	0.192	1.2379	1.00	1.2379	0.072	0.0892	7.4
17	17:48	11.70	0.6	0.500	0.6	0.200	1.1355	1.00	1.1355	0.075	0.0851	7.0
18	17:37	11.90	0.6	0.600	0.6	0.240	0.9603	1.00	0.9603	0.090	0.0864	7.2
19	*17:49*	*12.00*	*0.6*	*0.600*	*0.6*	*0.240*	*0.9029*	*1.00*	*0.9029*	*0.090*	*0.0812*	*6.7*
20	*17:38*	*12.20*	*0.6*	*0.650*	*0.6*	*0.260*	*0.7241*	*1.00*	*0.7241*	*0.162*	*0.1172*	*9.7*
21	*17:39*	*12.50*	*0.6*	*0.800*	*0.6*	*0.320*	*0.2930*	*1.00*	*0.2930*	*0.240*	*0.0703*	*5.8*
22	*17:40*	*12.80*	*0.6*	*0.800*	*0.6*	*0.320*	*0.2034*	*1.00*	*0.2034*	*0.240*	*0.0488*	*4.0*
23	*17:41*	*13.10*	*0.6*	*0.630*	*0.6*	*0.252*	*0.1394*	*1.00*	*0.1394*	*0.189*	*0.0263*	*2.2*
24	*17:42*	*13.40*	*0.6*	*0.600*	*0.6*	*0.240*	*0.0299*	*1.00*	*0.0299*	*0.271*	*0.0081*	*0.7*
25	*17:44*	*14.00*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.0899*	*1.00*	*-0.0899*	*0.390*	*-0.0351*	*-2.9*
26	17:44	16.00	None	0.010	0.0	0.0	0.0000	1.00	-0.0899	0.010	-0.0009	-0.1

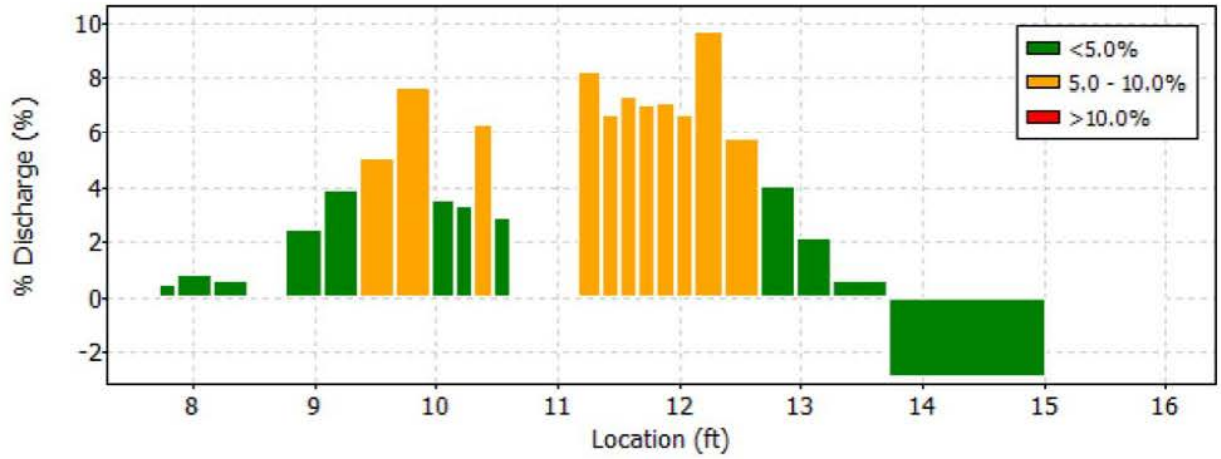
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

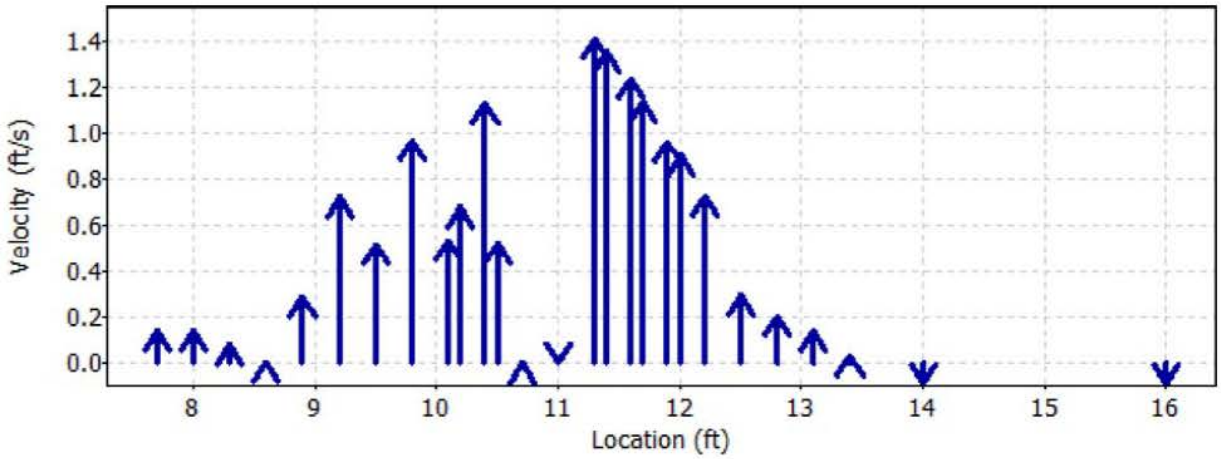
Reference 32

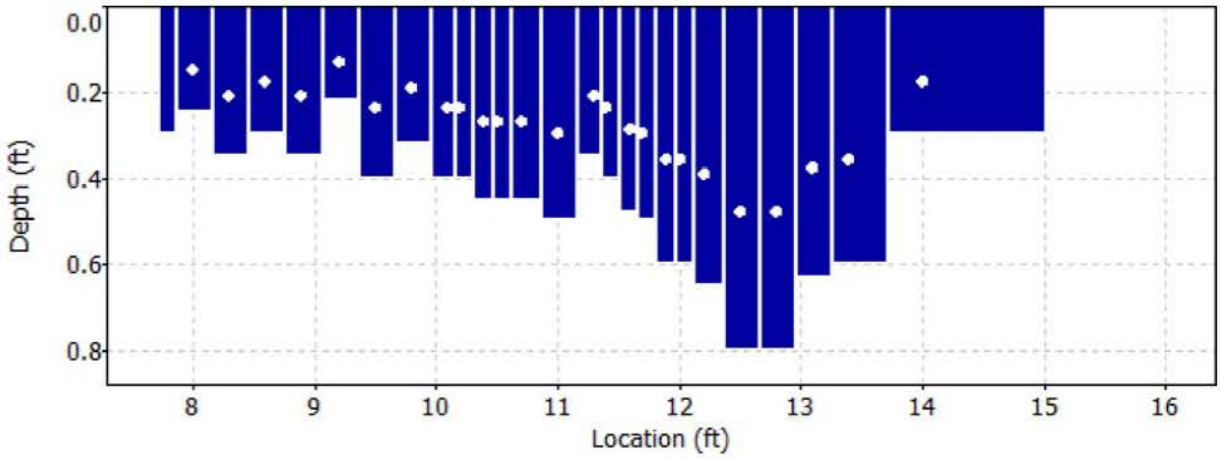
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A36.WAD	Site Name	
Start Date and Time	2015/09/29 17:24:13	Operator(s)	RM







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A36.WAD	Site Name	
Start Date and Time	2015/09/29 17:24:13	Operator(s)	RM

Quality Control

St	Loc	%Dep	Message
1	8.00	0.6	High angle: 28
2	8.30	0.6	High angle: 22
		0.6	Boundary QC is Good; possible boundary interference
11	10.50	0.6	High angle: -27
		0.6	SNR (30.9) is different from typical SNR (44.1)
		0.6	High SNR variation during measurement: 8.6,8.6
		0.6	High standard error: 0.070
13	11.00	0.6	Boundary QC is Good; possible boundary interference
14	11.30	0.6	High SNR variation during measurement: 6.5,0.9
19	12.00	0.6	High angle: 22
20	12.20	0.6	High angle: 27
21	12.50	0.6	High angle: 53
22	12.80	0.6	High angle: 64
23	13.10	0.6	High angle: 72
24	13.40	0.6	High angle: 86
25	14.00	0.6	High angle: 104

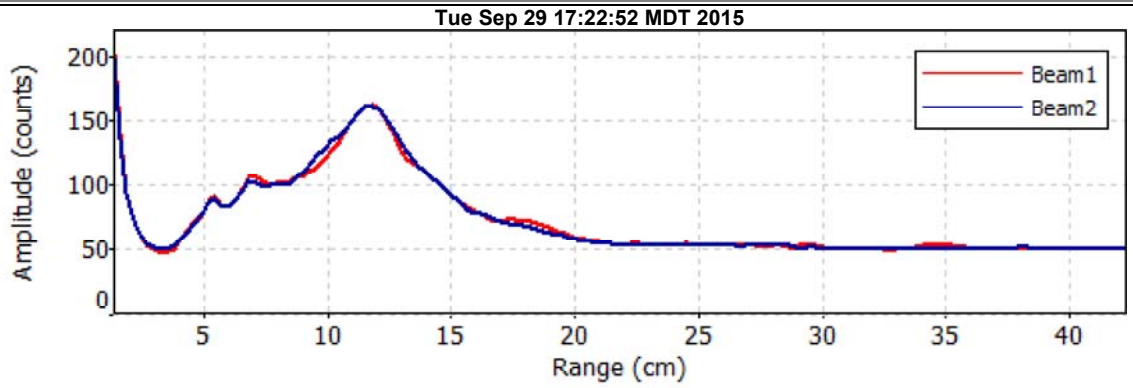
Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A36.WAD	Site Name	
Start Date and Time	2015/09/29 17:24:13	Operator(s)	RM

Automatic Quality Control Test (BeamCheck)



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

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A37.WAD
Start Date and Time	2015/09/29 16:25:09

Site Details

Site Name	
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5879
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	0.5%	3.1%
Velocity	4.3%	33.4%
Width	0.2%	0.2%
Method	2.6%	-
# Stations	1.6%	-
Overall	**5.4%**	**33.5%**

Summary

Averaging Int.	40	# Stations	32
Start Edge	LEW	Total Width	5.000
Mean SNR	44.1 dB	Total Area	2.678
Mean Temp	47.57 °F	Mean Depth	0.536
Disch. Equation	Mid-Section	Mean Velocity	0.2301
		Total Discharge	**0.6162**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	16:25	6.50	None	0.330	0.0	0.0	0.0000	1.00	0.0764	0.041	0.0032	0.5
1	*16:25*	*6.75*	*0.6*	*0.500*	*0.6*	*0.200*	*0.0764*	*1.00*	*0.0764*	*0.125*	*0.0096*	*1.6*
2	*16:26*	*7.00*	*0.6*	*0.600*	*0.6*	*0.240*	*0.0338*	*1.00*	*0.0338*	*0.150*	*0.0051*	*0.8*
3	*16:27*	*7.25*	*0.6*	*0.550*	*0.6*	*0.220*	*-0.1014*	*1.00*	*-0.1014*	*0.137*	*-0.0139*	*-2.3*
4	*16:28*	*7.50*	*0.6*	*0.750*	*0.6*	*0.300*	*-0.0325*	*1.00*	*-0.0325*	*0.188*	*-0.0061*	*-1.0*
5	*16:29*	*7.75*	*0.6*	*0.600*	*0.6*	*0.240*	*-0.2008*	*1.00*	*-0.2008*	*0.150*	*-0.0301*	*-4.9*
6	16:31	8.00	0.6	0.550	0.6	0.220	0.0876	1.00	0.0876	0.096	0.0084	1.4
7	16:32	8.10	0.6	0.650	0.6	0.260	0.3278	1.00	0.3278	0.049	0.0160	2.6
8	16:52	8.15	0.6	0.600	0.6	0.240	0.5217	1.00	0.5217	0.030	0.0157	2.5
9	*16:33*	*8.20*	*0.6*	*0.800*	*0.6*	*0.320*	*1.1447*	*1.00*	*1.1447*	*0.040*	*0.0458*	*7.4*
10	16:53	8.25	0.6	0.850	0.6	0.340	1.2946	1.00	1.2946	0.043	0.0551	8.9
11	*16:35*	*8.30*	*0.6*	*0.800*	*0.6*	*0.320*	*1.6129*	*1.00*	*1.6129*	*0.040*	*0.0645*	*10.5*
12	16:54	8.35	0.6	0.700	0.6	0.280	1.4032	1.00	1.4032	0.035	0.0492	8.0
13	16:36	8.40	0.6	0.810	0.6	0.324	1.6545	1.00	1.6545	0.041	0.0671	10.9
14	*16:55*	*8.45*	*0.6*	*0.800*	*0.6*	*0.320*	*1.0453*	*1.00*	*1.0453*	*0.040*	*0.0418*	*6.8*
15	*16:37*	*8.50*	*0.6*	*0.820*	*0.6*	*0.328*	*1.2425*	*1.00*	*1.2425*	*0.041*	*0.0508*	*8.2*
16	16:57	8.55	0.6	0.890	0.6	0.356	0.7041	1.00	0.7041	0.045	0.0314	5.1
17	*16:38*	*8.60*	*0.6*	*0.850*	*0.6*	*0.340*	*1.4183*	*1.00*	*1.4183*	*0.043*	*0.0603*	*9.8*
18	*16:58*	*8.65*	*0.6*	*0.880*	*0.6*	*0.352*	*0.8793*	*1.00*	*0.8793*	*0.044*	*0.0387*	*6.3*
19	*16:39*	*8.70*	*0.6*	*0.900*	*0.6*	*0.360*	*1.5745*	*1.00*	*1.5745*	*0.045*	*0.0709*	*11.5*
20	*16:59*	*8.75*	*0.6*	*0.900*	*0.6*	*0.360*	*0.6844*	*1.00*	*0.6844*	*0.045*	*0.0308*	*5.0*
21	16:40	8.80	0.6	0.890	0.6	0.356	1.7621	1.00	1.7621	0.045	0.0785	12.7
22	*17:02*	*8.85*	*0.6*	*0.890*	*0.6*	*0.356*	*0.5922*	*1.00*	*0.5922*	*0.045*	*0.0264*	*4.3*
23	*16:41*	*8.90*	*0.6*	*0.900*	*0.6*	*0.360*	*0.2336*	*1.00*	*0.2336*	*0.045*	*0.0105*	*1.7*
24	17:00	8.95	0.6	0.800	0.6	0.320	0.1512	1.00	0.1512	0.040	0.0061	1.0
25	*16:42*	*9.00*	*0.6*	*0.650*	*0.6*	*0.260*	*-0.1857*	*1.00*	*-0.1857*	*0.114*	*-0.0211*	*-3.4*
26	*16:44*	*9.30*	*0.6*	*0.400*	*0.6*	*0.160*	*-0.0781*	*1.00*	*-0.0781*	*0.120*	*-0.0093*	*-1.5*
27	16:46	9.60	0.6	0.550	0.6	0.220	0.0121	1.00	0.0121	0.165	0.0020	0.3
28	*16:47*	*9.90*	*0.6*	*0.450*	*0.6*	*0.180*	*-0.3018*	*1.00*	*-0.3018*	*0.158*	*-0.0476*	*-7.7*
29	*16:48*	*10.30*	*0.6*	*0.480*	*0.6*	*0.192*	*-0.0719*	*1.00*	*-0.0719*	*0.264*	*-0.0190*	*-3.1*
30	*16:50*	*11.00*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.1112*	*1.00*	*-0.1112*	*0.180*	*-0.0200*	*-3.2*
31	16:50	11.50	None	0.150	0.0	0.0	0.0000	1.00	-0.1112	0.037	-0.0042	-0.7

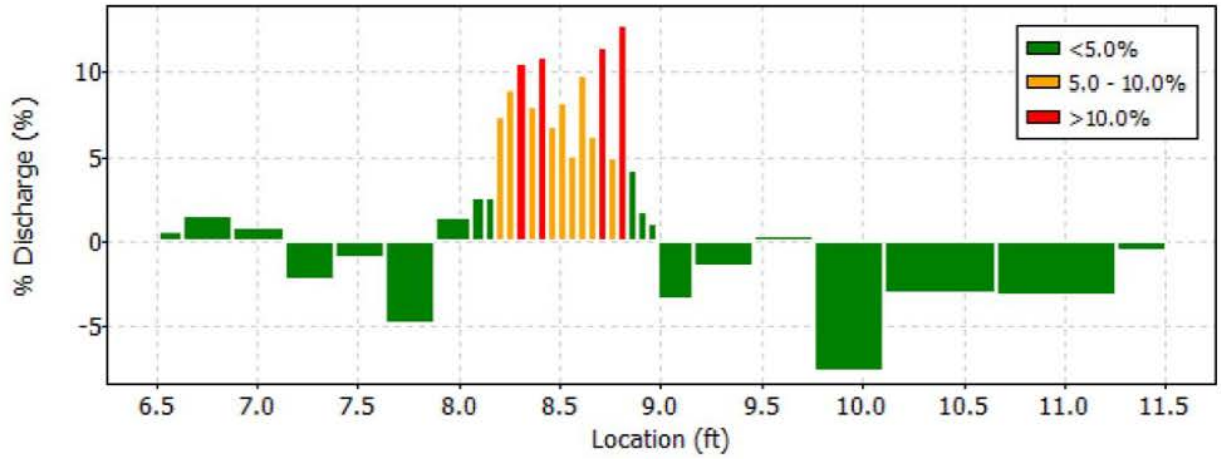
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

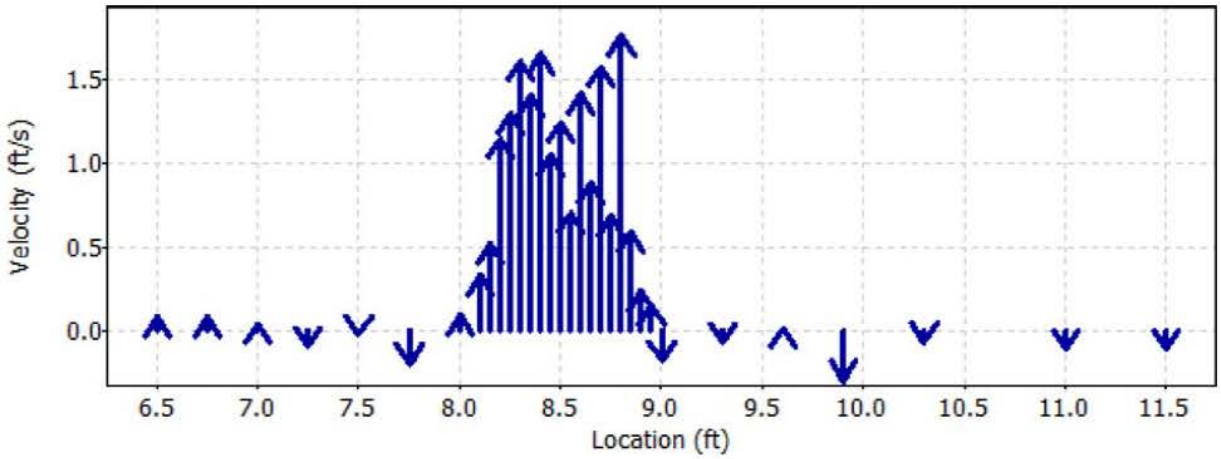
Reference 32

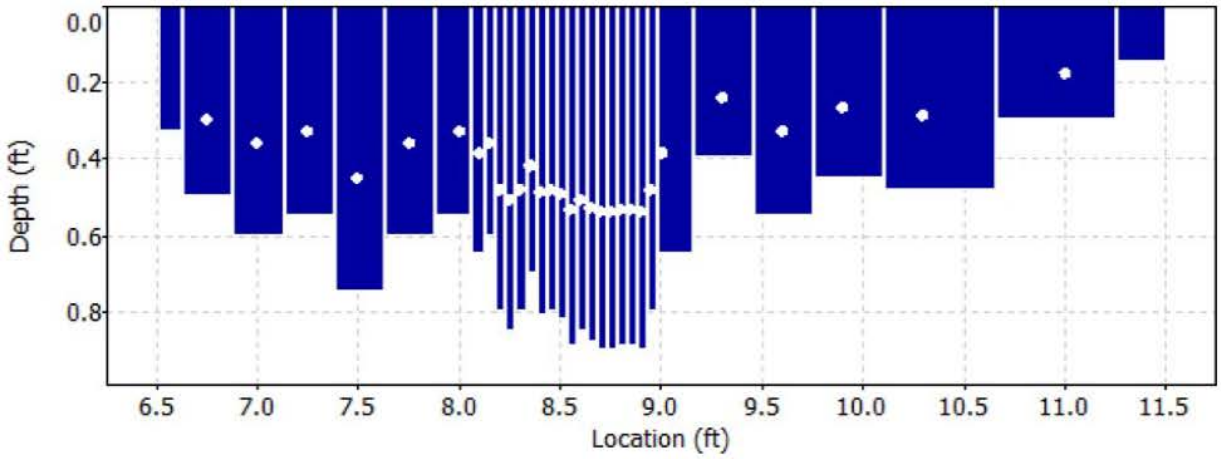
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A37.WAD	Site Name	
Start Date and Time	2015/09/29 16:25:09	Operator(s)	RM







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A37.WAD	Site Name	
Start Date and Time	2015/09/29 16:25:09	Operator(s)	RM

Quality Control

St	Loc	%Dep	Message
1	6.75	0.6	High SNR variation during measurement: 4.3,5.6
		0.6	Boundary QC is Good; possible boundary interference
2	7.00	0.6	High angle: 49
3	7.25	0.6	High angle: 127
4	7.50	0.6	High angle: 107
5	7.75	0.6	High angle: 129
9	8.20	0.6	High standard error: 0.116
		0.6	Boundary QC is Good; possible boundary interference
11	8.30	0.6	High standard error: 0.131
		0.6	Boundary QC is Good; possible boundary interference
14	8.45	0.6	High standard error: 0.126
15	8.50	0.6	High standard error: 0.128
17	8.60	0.6	High standard error: 0.136
18	8.65	0.6	High standard error: 0.146
19	8.70	0.6	High standard error: 0.130
20	8.75	0.6	High angle: -21
22	8.85	0.6	High angle: -24
23	8.90	0.6	High angle: 35
		0.6	High SNR variation during measurement: 6.5,6.0
		0.6	High standard error: 0.156
25	9.00	0.6	High angle: -136
		0.6	Boundary QC is Fair; possible boundary interference
26	9.30	0.6	High angle: -180
		0.6	SNR (18.5) is different from typical SNR (44.1)
		0.6	Boundary QC is Poor; possible boundary interference
28	9.90	0.6	High angle: -158
29	10.30	0.6	High angle: -153
		0.6	High differences in beam SNR: 35.2,15.4
		0.6	SNR (25.3) is different from typical SNR (44.1)
		0.6	Boundary QC is Poor; possible boundary interference
30	11.00	0.6	High angle: -124

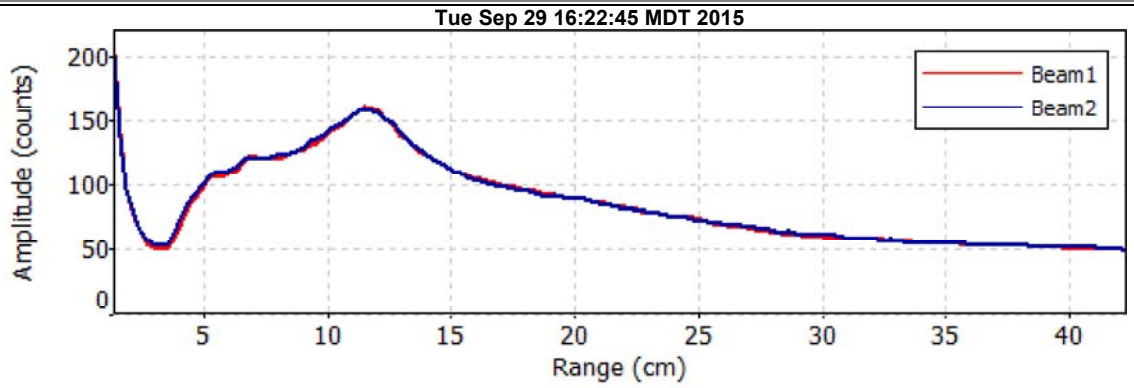
Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A37.WAD	Site Name	
Start Date and Time	2015/09/29 16:25:09	Operator(s)	RM

Automatic Quality Control Test (BeamCheck)



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

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A40.WAD
Start Date and Time	2015/09/30 13:27:58

Site Details

Site Name	A40
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
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%	5.1%
Velocity	1.6%	8.3%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.2%	-
Overall	**3.5%**	**9.8%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	17.999
Mean SNR	21.7 dB	Total Area	5.480
Mean Temp	50.85 °F	Mean Depth	0.304
Disch. Equation	Mid-Section	Mean Velocity	0.5173
		Total Discharge	**2.8349**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:27	7.50	None	0.200	0.0	0.0	0.0000	1.00	0.1453	0.090	0.0131	0.5
1	*13:27*	*8.40*	*0.6*	*0.200*	*0.6*	*0.080*	*0.1453*	*1.00*	*0.1453*	*0.180*	*0.0262*	*0.9*
2	*13:28*	*9.30*	*0.6*	*0.200*	*0.6*	*0.080*	*0.2162*	*1.00*	*0.2162*	*0.180*	*0.0389*	*1.4*
3	*13:30*	*10.20*	*0.6*	*0.300*	*0.6*	*0.120*	*0.2552*	*1.00*	*0.2552*	*0.270*	*0.0689*	*2.4*
4	13:31	11.10	0.6	0.250	0.6	0.100	0.3376	1.00	0.3376	0.225	0.0760	2.7
5	*13:32*	*12.00*	*0.6*	*0.300*	*0.6*	*0.120*	*0.9259*	*1.00*	*0.9259*	*0.270*	*0.2499*	*8.8*
6	*13:33*	*12.90*	*0.6*	*0.350*	*0.6*	*0.140*	*0.5669*	*1.00*	*0.5669*	*0.315*	*0.1786*	*6.3*
7	13:34	13.80	0.6	0.450	0.6	0.180	0.5492	1.00	0.5492	0.405	0.2225	7.8
8	*13:34*	*14.70*	*0.6*	*0.400*	*0.6*	*0.160*	*0.2943*	*1.00*	*0.2943*	*0.360*	*0.1059*	*3.7*
9	13:35	15.60	0.6	0.400	0.6	0.160	0.2119	1.00	0.2119	0.340	0.0721	2.5
10	13:50	16.40	0.6	0.500	0.6	0.200	0.6122	1.00	0.6122	0.225	0.1377	4.9
11	13:36	16.50	0.6	0.500	0.6	0.200	0.7808	1.00	0.7808	0.250	0.1951	6.9
12	13:37	17.40	0.6	0.500	0.6	0.200	0.5558	1.00	0.5558	0.450	0.2501	8.8
13	13:39	18.30	0.6	0.200	0.6	0.080	0.8645	1.00	0.8645	0.180	0.1557	5.5
14	13:40	19.20	0.6	0.350	0.6	0.140	0.4715	1.00	0.4715	0.298	0.1403	5.0
15	13:49	20.00	0.6	0.450	0.6	0.180	1.1152	1.00	1.1152	0.203	0.2259	8.0
16	13:41	20.10	0.6	0.500	0.6	0.200	0.8924	1.00	0.8924	0.250	0.2229	7.9
17	13:42	21.00	0.6	0.200	0.6	0.080	0.8491	1.00	0.8491	0.180	0.1529	5.4
18	13:44	21.90	0.6	0.200	0.6	0.080	0.6345	1.00	0.6345	0.180	0.1143	4.0
19	13:45	22.80	0.6	0.200	0.6	0.080	0.5226	1.00	0.5226	0.180	0.0941	3.3
20	*13:46*	*23.70*	*0.6*	*0.300*	*0.6*	*0.120*	*0.2874*	*1.00*	*0.2874*	*0.270*	*0.0776*	*2.7*
21	*13:47*	*24.60*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0909*	*1.00*	*0.0909*	*0.180*	*0.0164*	*0.6*
22	13:47	25.50	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.

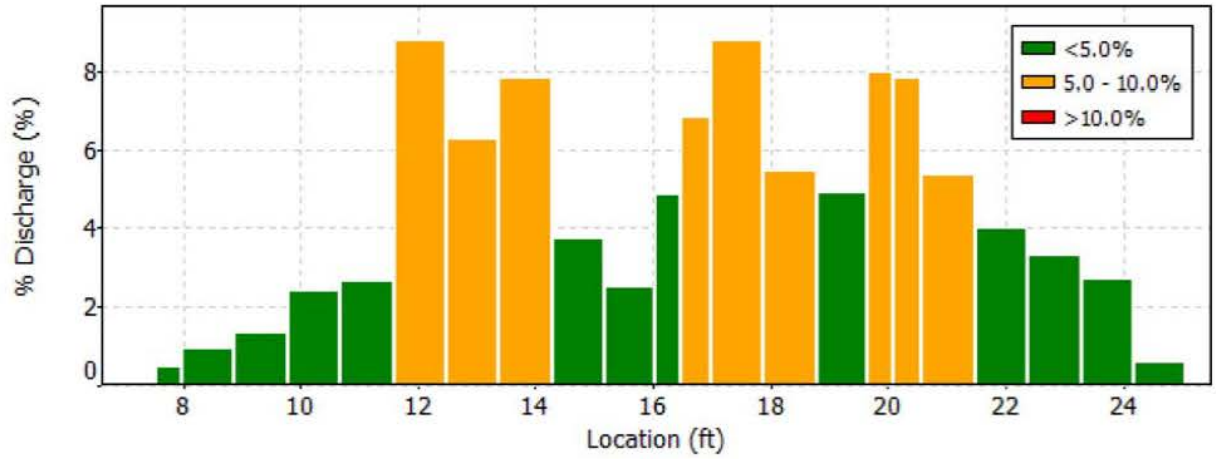
Reference 32

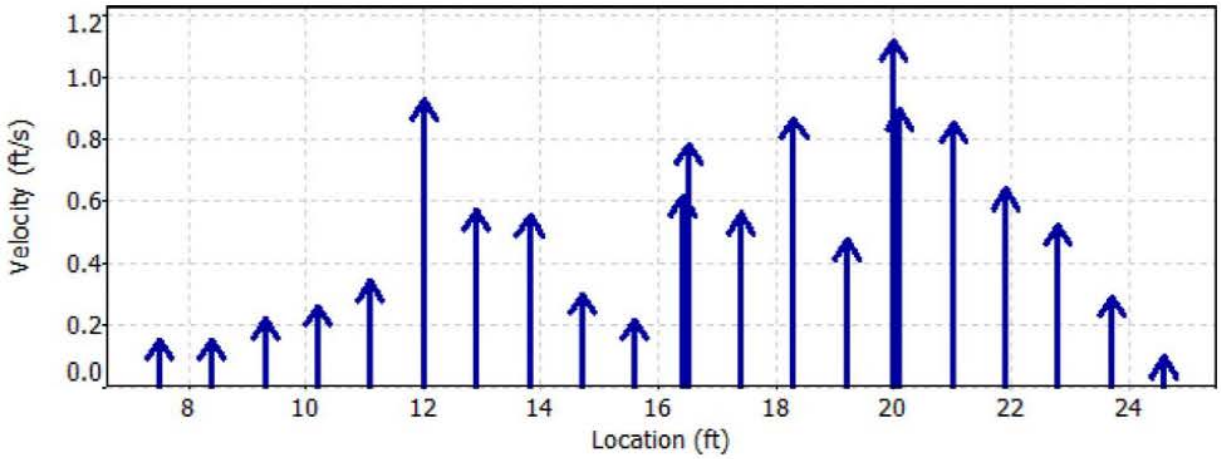
Discharge Measurement Summary

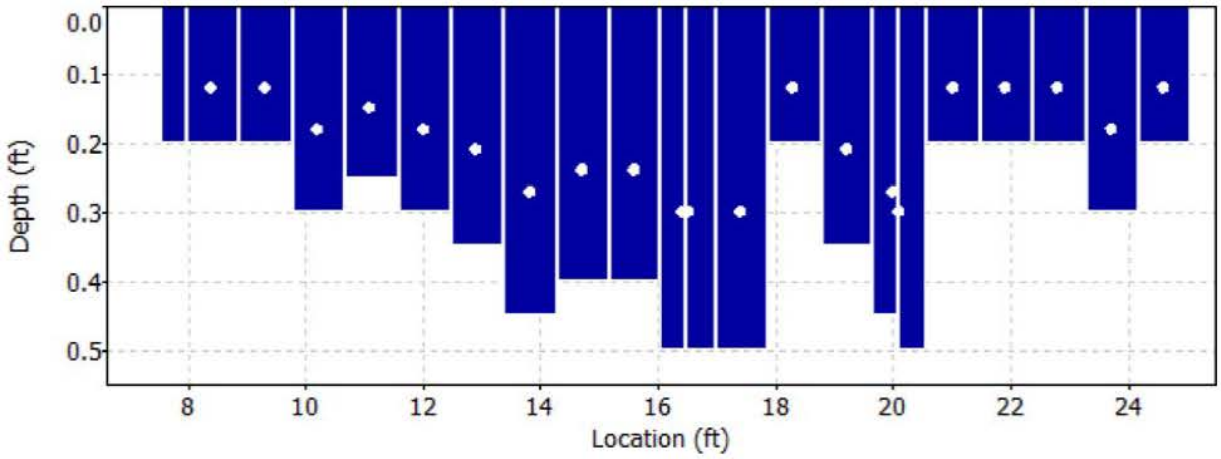
Date Generated: Mon Dec 21 2015

File Information	
File Name	A40.WAD
Start Date and Time	2015/09/30 13:27:58

Site Details	
Site Name	A40
Operator(s)	KB







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A40.WAD	Site Name	A40
Start Date and Time	2015/09/30 13:27:58	Operator(s)	KB

Quality Control

St	Loc	%Dep	Message
1	8.40	0.6	Boundary QC is Fair; possible boundary interference
2	9.30	0.6	Boundary QC is Poor; possible boundary interference
3	10.20	0.6	High number of spikes: 5
		0.6	Boundary QC is Poor; possible boundary interference
5	12.00	0.6	High angle: -33
6	12.90	0.6	High angle: -21
8	14.70	0.6	High standard error: 0.064
20	23.70	0.6	High angle: -34
21	24.60	0.6	High angle: -55

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A40A.WAD
Start Date and Time	2015/09/30 14:32:16

Site Details

Site Name	
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5879
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%	1.8%
Velocity	1.2%	4.6%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.0%	-
Overall	**3.2%**	**5.0%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	LEW	Total Width	11.100
Mean SNR	31.0 dB	Total Area	5.529
Mean Temp	52.57 °F	Mean Depth	0.498
Disch. Equation	Mid-Section	Mean Velocity	0.3758
		Total Discharge	**2.0781**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:32	8.60	None	0.100	0.0	0.0	0.0000	1.00	0.0604	0.030	0.0018	0.1
1	*14:32*	*9.20*	*0.6*	*0.320*	*0.6*	*0.128*	*0.0604*	*1.00*	*0.0604*	*0.192*	*0.0116*	*0.6*
2	*14:34*	*9.80*	*0.6*	*0.350*	*0.6*	*0.140*	*0.1056*	*1.00*	*0.1056*	*0.210*	*0.0222*	*1.1*
3	14:35	10.40	0.6	0.400	0.6	0.160	0.1312	1.00	0.1312	0.240	0.0315	1.5
4	14:36	11.00	0.6	0.500	0.6	0.200	0.2234	1.00	0.2234	0.300	0.0670	3.2
5	14:37	11.60	0.6	0.550	0.6	0.220	0.2359	1.00	0.2359	0.330	0.0778	3.7
6	*14:38*	*12.20*	*0.6*	*0.720*	*0.6*	*0.288*	*0.2211*	*1.00*	*0.2211*	*0.432*	*0.0956*	*4.6*
7	14:39	12.80	0.6	0.700	0.6	0.280	0.4157	1.00	0.4157	0.280	0.1163	5.6
8	14:55	13.00	0.6	0.710	0.6	0.284	0.3451	1.00	0.3451	0.213	0.0735	3.5
9	14:40	13.40	0.6	0.600	0.6	0.240	0.6867	1.00	0.6867	0.300	0.2060	9.9
10	14:53	14.00	0.6	0.800	0.6	0.320	0.6572	1.00	0.6572	0.240	0.1577	7.6
11	14:41	14.00	0.6	0.800	0.6	0.320	0.7772	1.00	0.7772	0.120	0.0932	4.5
12	14:56	14.30	0.6	0.750	0.6	0.300	0.7713	1.00	0.7713	0.187	0.1444	7.0
13	14:59	14.50	0.6	0.750	0.6	0.300	0.8576	1.00	0.8576	0.113	0.0968	4.7
14	14:43	14.60	0.6	0.750	0.6	0.300	0.8871	1.00	0.8871	0.188	0.1663	8.0
15	14:51	15.00	0.6	0.700	0.6	0.280	0.7159	1.00	0.7159	0.210	0.1504	7.2
16	*14:44*	*15.20*	*0.6*	*0.650*	*0.6*	*0.260*	*0.5581*	*1.00*	*0.5581*	*0.162*	*0.0907*	*4.4*
17	14:57	15.50	0.6	0.700	0.6	0.280	0.6266	1.00	0.6266	0.210	0.1316	6.3
18	14:45	15.80	0.6	0.640	0.6	0.256	0.5863	1.00	0.5863	0.288	0.1690	8.1
19	*14:46*	*16.40*	*0.6*	*0.700*	*0.6*	*0.280*	*0.2060*	*1.00*	*0.2060*	*0.420*	*0.0866*	*4.2*
20	14:47	17.00	0.6	0.490	0.6	0.196	0.1194	1.00	0.1194	0.294	0.0351	1.7
21	*14:48*	*17.60*	*0.6*	*0.300*	*0.6*	*0.120*	*0.1391*	*1.00*	*0.1391*	*0.180*	*0.0250*	*1.2*
22	*14:49*	*18.20*	*0.6*	*0.300*	*0.6*	*0.120*	*0.1558*	*1.00*	*0.1558*	*0.180*	*0.0280*	*1.3*
23	*14:50*	*18.80*	*0.6*	*0.250*	*0.6*	*0.100*	*-0.0010*	*1.00*	*-0.0010*	*0.187*	*-0.0002*	*0.0*
24	14:50	19.70	None	0.050	0.0	0.0	0.0000	1.00	-0.0010	0.022	0.0000	0.0

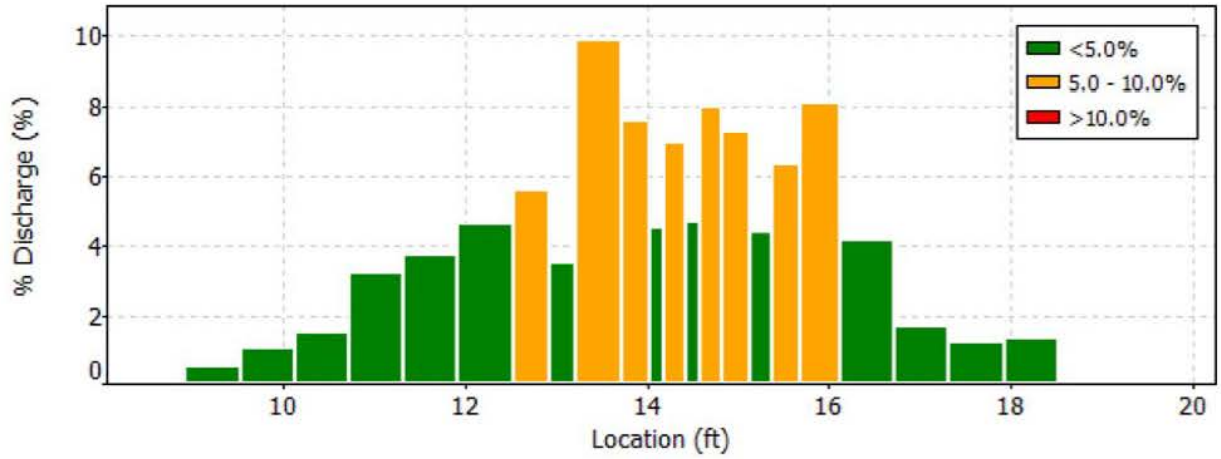
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

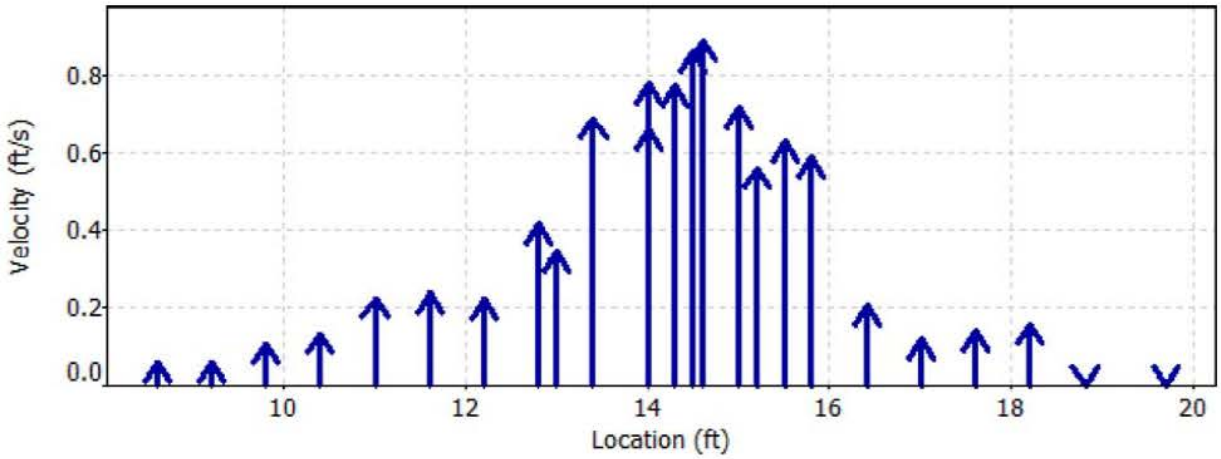
Reference 32

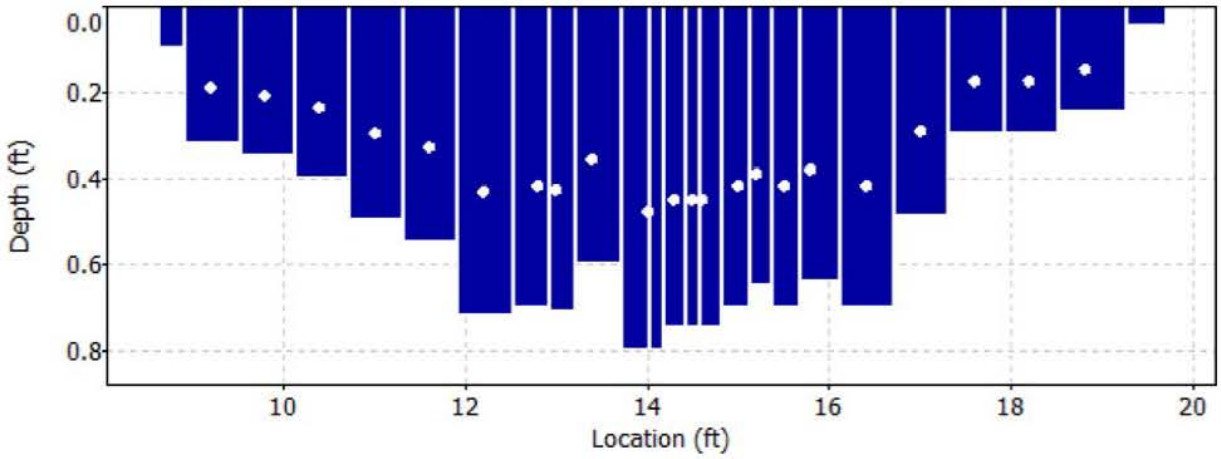
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A40A.WAD	Site Name	
Start Date and Time	2015/09/30 14:32:16	Operator(s)	RM







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A40A.WAD	Site Name	
Start Date and Time	2015/09/30 14:32:16	Operator(s)	RM

Quality Control

St	Loc	%Dep	Message
1	9.20	0.6	High SNR variation during measurement: 5.6,5.2
		0.6	Boundary QC is Good; possible boundary interference
2	9.80	0.6	High SNR variation during measurement: 4.7,5.2
6	12.20	0.6	High SNR variation during measurement: 4.7,5.2
16	15.20	0.6	High standard error: 0.031
19	16.40	0.6	High angle: -37
		0.6	Boundary QC is Good; possible boundary interference
21	17.60	0.6	High SNR variation during measurement: 5.6,6.0
		0.6	High standard error: 0.033
		0.6	Boundary QC is Poor; possible boundary interference
22	18.20	0.6	High angle: 24
		0.6	Boundary QC is Poor; possible boundary interference
23	18.80	0.6	High differences in beam SNR: 36.9,54.6
		0.6	SNR (45.8) is different from typical SNR (31.0)

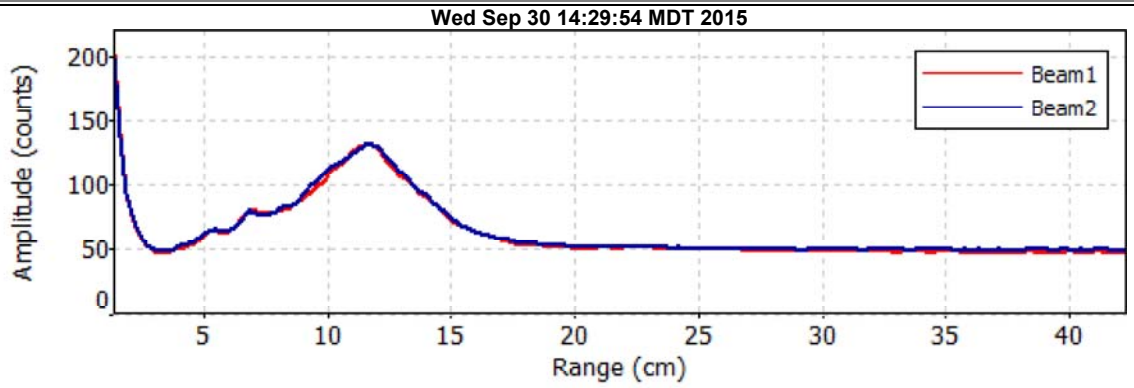
Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A40A.WAD	Site Name	
Start Date and Time	2015/09/30 14:32:16	Operator(s)	RM

Automatic Quality Control Test (BeamCheck)



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

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A41A.WAD
Start Date and Time	2015/09/30 12:57:14

Site Details

Site Name	A41A
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
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%	1.2%
Velocity	1.1%	6.6%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**3.3%**	**6.8%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	LEW	Total Width	15.850
Mean SNR	17.5 dB	Total Area	7.315
Mean Temp	50.65 °F	Mean Depth	0.462
Disch. Equation	Mid-Section	Mean Velocity	0.4637
		Total Discharge	**3.3925**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	12:57	9.70	None	0.100	0.0	0.0	0.0000	1.00	0.1312	0.038	0.0049	0.1
1	*12:57*	*10.45*	*0.6*	*0.250*	*0.6*	*0.100*	*0.1312*	*1.00*	*0.1312*	*0.188*	*0.0246*	*0.7*
2	*12:58*	*11.20*	*0.6*	*0.300*	*0.6*	*0.120*	*0.1788*	*1.00*	*0.1788*	*0.225*	*0.0402*	*1.2*
3	*12:59*	*11.95*	*0.6*	*0.350*	*0.6*	*0.140*	*0.2687*	*1.00*	*0.2687*	*0.263*	*0.0705*	*2.1*
4	*13:00*	*12.70*	*0.6*	*0.350*	*0.6*	*0.140*	*0.2457*	*1.00*	*0.2457*	*0.263*	*0.0645*	*1.9*
5	*13:01*	*13.45*	*0.6*	*0.350*	*0.6*	*0.140*	*0.4659*	*1.00*	*0.4659*	*0.263*	*0.1223*	*3.6*
6	*13:02*	*14.20*	*0.6*	*0.450*	*0.6*	*0.180*	*0.2959*	*1.00*	*0.2959*	*0.338*	*0.0999*	*2.9*
7	*13:04*	*14.95*	*0.6*	*0.500*	*0.6*	*0.200*	*0.4596*	*1.00*	*0.4596*	*0.375*	*0.1724*	*5.1*
8	*13:05*	*15.70*	*0.6*	*0.500*	*0.6*	*0.200*	*0.2110*	*1.00*	*0.2110*	*0.375*	*0.0791*	*2.3*
9	*13:06*	*16.45*	*0.6*	*0.500*	*0.6*	*0.200*	*0.5699*	*1.00*	*0.5699*	*0.375*	*0.2137*	*6.3*
10	13:07	17.20	0.6	0.600	0.6	0.240	0.5210	1.00	0.5210	0.450	0.2345	6.9
11	13:08	17.95	0.6	0.600	0.6	0.240	0.4137	1.00	0.4137	0.450	0.1862	5.5
12	13:09	18.70	0.6	0.600	0.6	0.240	0.7133	1.00	0.7133	0.450	0.3210	9.5
13	*13:10*	*19.45*	*0.6*	*0.500*	*0.6*	*0.200*	*0.8186*	*1.00*	*0.8186*	*0.375*	*0.3070*	*9.0*
14	*13:11*	*20.20*	*0.6*	*0.500*	*0.6*	*0.200*	*0.6056*	*1.00*	*0.6056*	*0.375*	*0.2271*	*6.7*
15	13:12	20.95	0.6	0.500	0.6	0.200	0.7526	1.00	0.7526	0.375	0.2822	8.3
16	*13:13*	*21.70*	*0.6*	*0.500*	*0.6*	*0.200*	*0.6171*	*1.00*	*0.6171*	*0.375*	*0.2314*	*6.8*
17	13:14	22.45	0.6	0.500	0.6	0.200	0.9636	1.00	0.9636	0.275	0.2649	7.8
18	13:18	22.80	0.6	0.500	0.6	0.200	0.9711	1.00	0.9711	0.188	0.1821	5.4
19	*13:15*	*23.20*	*0.6*	*0.500*	*0.6*	*0.200*	*0.6040*	*1.00*	*0.6040*	*0.288*	*0.1737*	*5.1*
20	*13:16*	*23.95*	*0.6*	*0.600*	*0.6*	*0.240*	*0.1220*	*1.00*	*0.1220*	*0.450*	*0.0549*	*1.6*
21	*13:17*	*24.70*	*0.6*	*0.600*	*0.6*	*0.240*	*0.0623*	*1.00*	*0.0623*	*0.480*	*0.0299*	*0.9*
22	13:17	25.55	None	0.200	0.0	0.0	0.0000	1.00	0.0623	0.085	0.0053	0.2

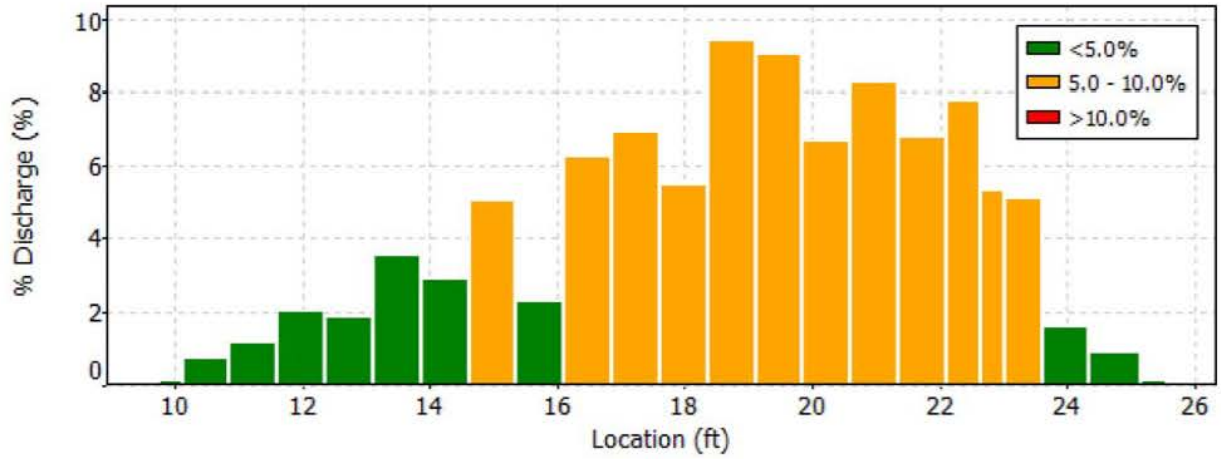
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

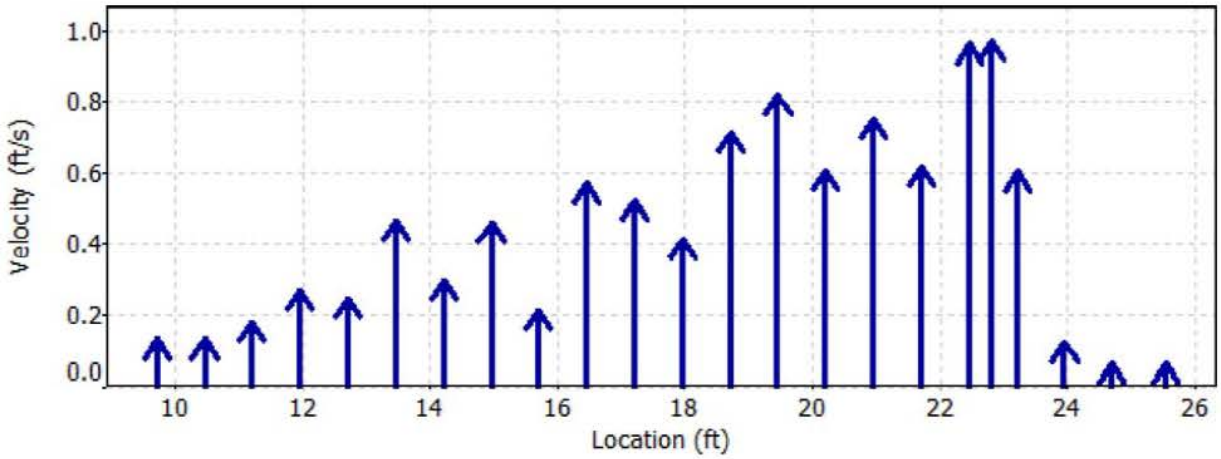
Reference 32

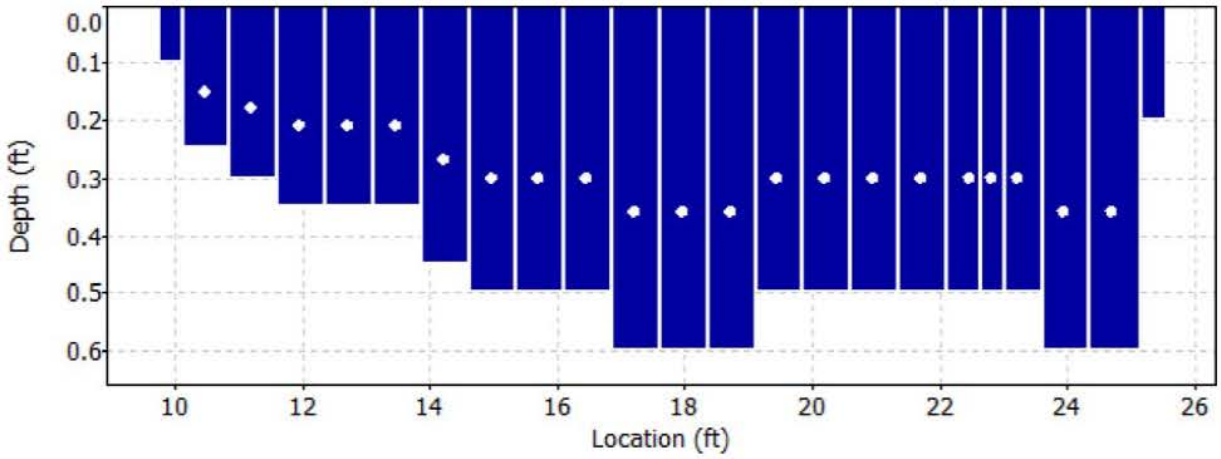
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A41A.WAD	Site Name	A41A
Start Date and Time	2015/09/30 12:57:14	Operator(s)	LC







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A41A.WAD	Site Name	A41A
Start Date and Time	2015/09/30 12:57:14	Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
1	10.45	0.6	High angle: 28
2	11.20	0.6	High angle: 27
3	11.95	0.6	High angle: 36
4	12.70	0.6	High angle: 20
5	13.45	0.6	High angle: 37
6	14.20	0.6	High angle: 45
7	14.95	0.6	High angle: 39
8	15.70	0.6	High angle: 60
9	16.45	0.6	High angle: 22
13	19.45	0.6	High angle: 20
14	20.20	0.6	High angle: 30
		0.6	High standard error: 0.035
16	21.70	0.6	High standard error: 0.041
19	23.20	0.6	High angle: -26
20	23.95	0.6	High angle: -58
		0.6	High SNR variation during measurement: 4.3,5.2
21	24.70	0.6	High angle: -57
		0.6	High SNR variation during measurement: 4.7,5.2

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A42.WAD
Start Date and Time	2015/09/30 12:43:24

Site Details

Site Name	
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5879
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%	4.8%
Velocity	3.5%	12.4%
Width	0.1%	0.1%
Method	2.1%	-
# Stations	2.0%	-
Overall	**4.7%**	**13.3%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	REW	Total Width	5.900
Mean SNR	44.7 dB	Total Area	1.864
Mean Temp	45.18 °F	Mean Depth	0.316
Disch. Equation	Mid-Section	Mean Velocity	0.4644
		Total Discharge	**0.8657**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	12:43	11.60	None	0.050	0.0	0.0	0.0000	1.00	0.0023	0.010	0.0000	0.0
1	*12:43*	*12.00*	*0.6*	*0.230*	*0.6*	*0.092*	*0.0023*	*1.00*	*0.0023*	*0.092*	*0.0002*	*0.0*
2	12:45	12.40	0.6	0.150	0.6	0.060	0.8488	1.00	0.8488	0.060	0.0509	5.9
3	12:46	12.80	0.6	0.200	0.6	0.080	0.2749	1.00	0.2749	0.080	0.0220	2.5
4	*12:47*	*13.20*	*0.6*	*0.350*	*0.6*	*0.140*	*0.0587*	*1.00*	*0.0587*	*0.140*	*0.0082*	*0.9*
5	*12:48*	*13.60*	*0.6*	*0.250*	*0.6*	*0.100*	*0.0863*	*1.00*	*0.0863*	*0.100*	*0.0086*	*1.0*
6	*12:49*	*14.00*	*0.6*	*0.280*	*0.6*	*0.112*	*-0.1371*	*1.00*	*-0.1371*	*0.112*	*-0.0153*	*-1.8*
7	*12:51*	*14.40*	*0.6*	*0.380*	*0.6*	*0.152*	*0.0965*	*1.00*	*0.0965*	*0.152*	*0.0147*	*1.7*
8	*12:52*	*14.80*	*0.6*	*0.400*	*0.6*	*0.160*	*0.2034*	*1.00*	*0.2034*	*0.120*	*0.0244*	*2.8*
9	*12:53*	*15.00*	*0.6*	*0.400*	*0.6*	*0.160*	*0.3510*	*1.00*	*0.3510*	*0.080*	*0.0281*	*3.3*
10	*12:55*	*15.20*	*0.6*	*0.400*	*0.6*	*0.160*	*-0.4006*	*1.00*	*-0.4006*	*0.080*	*-0.0321*	*-3.7*
11	*12:58*	*15.40*	*0.6*	*0.430*	*0.6*	*0.172*	*0.0745*	*1.00*	*0.0745*	*0.086*	*0.0064*	*0.7*
12	13:00	15.60	0.6	0.450	0.6	0.180	0.8501	1.00	0.8501	0.090	0.0767	8.9
13	*13:01*	*15.80*	*0.6*	*0.400*	*0.6*	*0.160*	*0.9075*	*1.00*	*0.9075*	*0.080*	*0.0728*	*8.4*
14	*13:02*	*16.00*	*0.6*	*0.380*	*0.6*	*0.152*	*1.1490*	*1.00*	*1.1490*	*0.057*	*0.0651*	*7.5*
15	*13:09*	*16.10*	*0.6*	*0.520*	*0.6*	*0.208*	*0.8583*	*1.00*	*0.8583*	*0.052*	*0.0447*	*5.2*
16	13:03	16.20	0.6	0.350	0.6	0.140	1.3812	1.00	1.3812	0.035	0.0483	5.6
17	13:10	16.30	0.6	0.520	0.6	0.208	1.2743	1.00	1.2743	0.052	0.0664	7.7
18	13:04	16.40	0.6	0.420	0.6	0.168	1.6677	1.00	1.6677	0.032	0.0526	6.1
19	13:14	16.45	0.6	0.520	0.6	0.208	1.7415	1.00	1.7415	0.025	0.0438	5.1
20	13:11	16.50	0.6	0.500	0.6	0.200	1.7356	1.00	1.7356	0.038	0.0666	7.7
21	13:06	16.60	0.6	0.500	0.6	0.200	1.3156	1.00	1.3156	0.050	0.0658	7.6
22	*13:12*	*16.70*	*0.6*	*0.450*	*0.6*	*0.180*	*0.2779*	*1.00*	*0.2779*	*0.045*	*0.0125*	*1.4*
23	*13:06*	*16.80*	*0.6*	*0.400*	*0.6*	*0.160*	*0.1404*	*1.00*	*0.1404*	*0.061*	*0.0085*	*1.0*
24	*13:07*	*17.00*	*0.6*	*0.350*	*0.6*	*0.140*	*0.9357*	*1.00*	*0.9357*	*0.122*	*0.1140*	*13.2*
25	13:07	17.50	None	0.050	0.0	0.0	0.0000	1.00	0.9357	0.012	0.0116	1.3

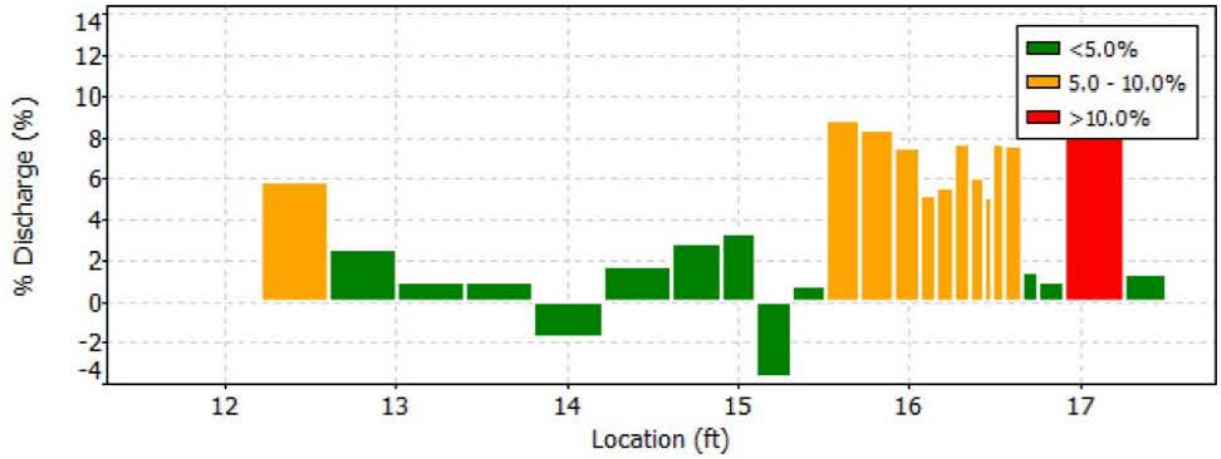
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

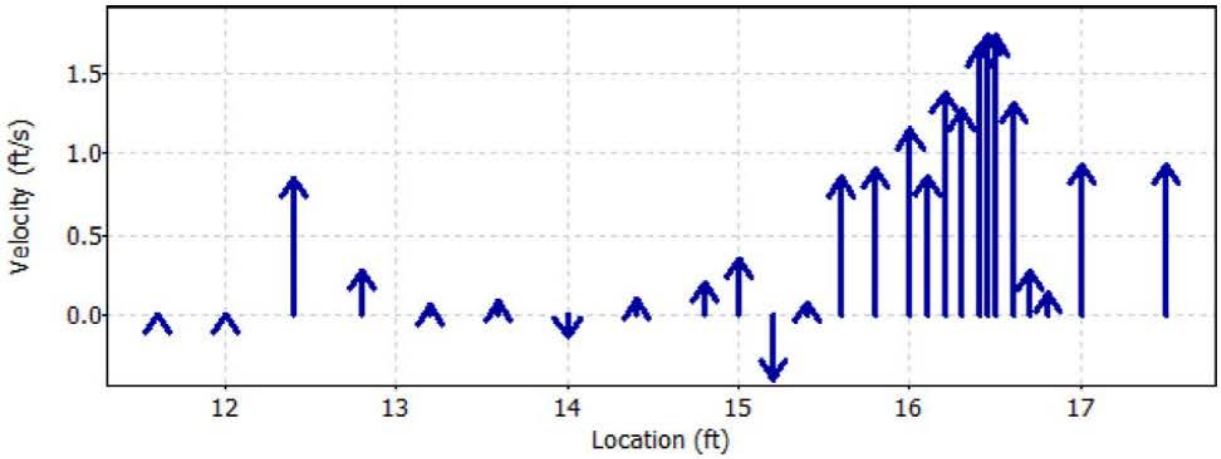
Reference 32

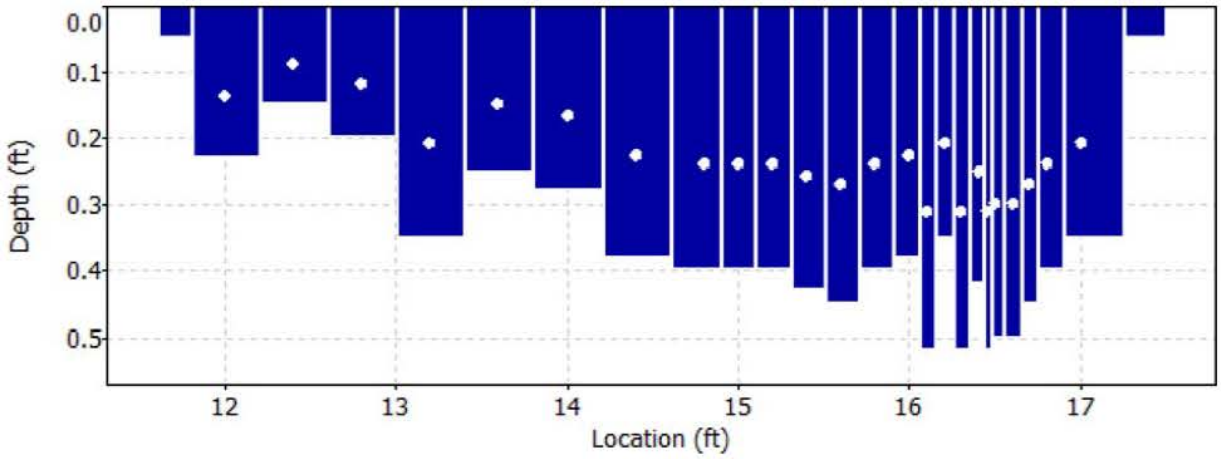
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A42.WAD	Site Name	
Start Date and Time	2015/09/30 12:43:24	Operator(s)	RM







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A42.WAD	Site Name	
Start Date and Time	2015/09/30 12:43:24	Operator(s)	RM

Quality Control

St	Loc	%Dep	Message
1	12.00	0.6	High differences in beam SNR: 58.9,46.4
4	13.20	0.6	High angle: 80
		0.6	High differences in beam SNR: 45.1,18.9
		0.6	SNR (32.0) is different from typical SNR (44.7)
5	13.60	0.6	High angle: 23
6	14.00	0.6	High angle: -156
		0.6	High differences in beam SNR: 20.2,33.5
		0.6	SNR (26.9) is different from typical SNR (44.7)
		0.6	Boundary QC is Good; possible boundary interference
7	14.40	0.6	High angle: -55
		0.6	SNR (30.5) is different from typical SNR (44.7)
		0.6	Boundary QC is Fair; possible boundary interference
8	14.80	0.6	High angle: -35
9	15.00	0.6	Boundary QC is Good; possible boundary interference
10	15.20	0.6	High angle: 161
11	15.40	0.6	High angle: 49
13	15.80	0.6	High angle: 28
		0.6	High standard error: 0.114
14	16.00	0.6	High angle: 22
		0.6	High standard error: 0.118
15	16.10	0.6	High angle: 20
22	16.70	0.6	High angle: 47
23	16.80	0.6	High angle: 67
24	17.00	0.6	High standard error: 0.098

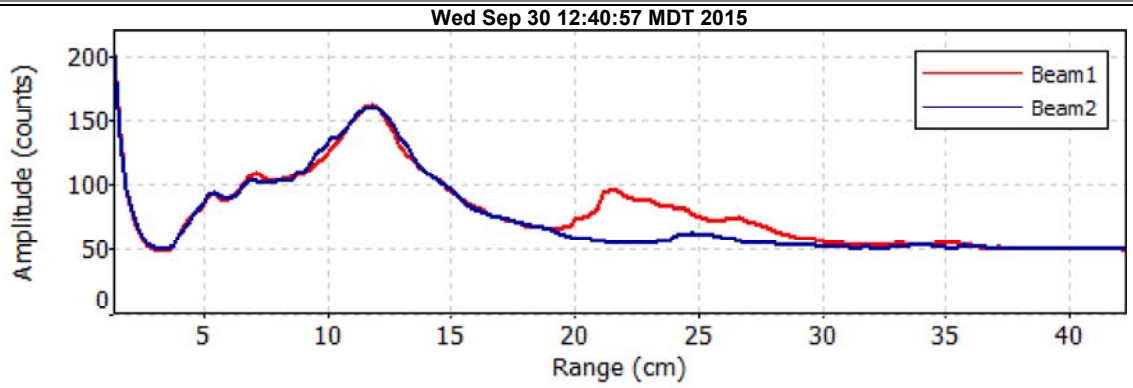
Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A42.WAD	Site Name	
Start Date and Time	2015/09/30 12:43:24	Operator(s)	RM

Automatic Quality Control Test (BeamCheck)



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

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A43.WAD
Start Date and Time	2015/09/30 11:23:39

Site Details

Site Name	A43
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
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%	4.9%
Velocity	1.7%	14.3%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.0%	-
Overall	**3.4%**	**15.2%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	LEW	Total Width	7.999
Mean SNR	35.1 dB	Total Area	2.245
Mean Temp	43.33 °F	Mean Depth	0.281
Disch. Equation	Mid-Section	Mean Velocity	0.9146
		Total Discharge	**2.0532**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:23	6.50	None	0.200	0.0	0.0	0.0000	1.00	-0.1693	0.040	-0.0068	-0.3
1	*11:23*	*6.90*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.1693*	*1.00*	*-0.1693*	*0.080*	*-0.0135*	*-0.7*
2	*11:24*	*7.30*	*0.6*	*0.200*	*0.6*	*0.080*	*0.1237*	*1.00*	*0.1237*	*0.080*	*0.0099*	*0.5*
3	11:25	7.70	0.6	0.200	0.6	0.080	1.7014	1.00	1.7014	0.080	0.1362	6.6
4	*11:26*	*8.10*	*0.6*	*0.300*	*0.6*	*0.120*	*0.2835*	*1.00*	*0.2835*	*0.120*	*0.0340*	*1.7*
5	11:27	8.50	0.6	0.300	0.6	0.120	0.1775	1.00	0.1775	0.120	0.0213	1.0
6	*11:28*	*8.90*	*0.6*	*0.200*	*0.6*	*0.080*	*0.4455*	*1.00*	*0.4455*	*0.080*	*0.0357*	*1.7*
7	*11:30*	*9.30*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0574*	*1.00*	*0.0574*	*0.120*	*0.0069*	*0.3*
8	*11:31*	*9.70*	*0.6*	*0.300*	*0.6*	*0.120*	*0.4662*	*1.00*	*0.4662*	*0.120*	*0.0559*	*2.7*
9	*11:32*	*10.10*	*0.6*	*0.200*	*0.6*	*0.080*	*1.0869*	*1.00*	*1.0869*	*0.080*	*0.0870*	*4.2*
10	*11:32*	*10.50*	*0.6*	*0.200*	*0.6*	*0.080*	*2.2841*	*1.00*	*2.2841*	*0.080*	*0.1828*	*8.9*
11	*11:33*	*10.90*	*0.6*	*0.200*	*0.6*	*0.080*	*1.8366*	*1.00*	*1.8366*	*0.080*	*0.1470*	*7.2*
12	*11:35*	*11.30*	*0.6*	*0.300*	*0.6*	*0.120*	*0.1703*	*1.00*	*0.1703*	*0.120*	*0.0204*	*1.0*
13	*11:37*	*11.70*	*0.6*	*0.500*	*0.6*	*0.200*	*0.4629*	*1.00*	*0.4629*	*0.200*	*0.0926*	*4.5*
14	*11:37*	*12.10*	*0.6*	*0.500*	*0.6*	*0.200*	*0.6309*	*1.00*	*0.6309*	*0.200*	*0.1262*	*6.1*
15	*11:39*	*12.50*	*0.6*	*0.400*	*0.6*	*0.160*	*0.3097*	*1.00*	*0.3097*	*0.160*	*0.0495*	*2.4*
16	*11:40*	*12.90*	*0.6*	*0.500*	*0.6*	*0.200*	*1.5738*	*1.00*	*1.5738*	*0.100*	*0.1577*	*7.7*
17	*11:49*	*12.90*	*0.6*	*0.500*	*0.6*	*0.200*	*0.4984*	*1.00*	*0.4984*	*0.023*	*0.0114*	*0.6*
18	*11:50*	*12.99*	*0.6*	*0.400*	*0.6*	*0.160*	*1.2149*	*1.00*	*1.2149*	*0.020*	*0.0243*	*1.2*
19	11:44	13.00	0.6	0.500	0.6	0.200	2.4003	1.00	2.4003	0.077	0.1853	9.0
20	11:41	13.30	0.6	0.300	0.6	0.120	2.4587	1.00	2.4587	0.060	0.1474	7.2
21	11:45	13.40	0.6	0.300	0.6	0.120	3.0974	1.00	3.0974	0.045	0.1399	6.8
22	11:46	13.60	0.6	0.200	0.6	0.080	3.4734	1.00	3.4734	0.030	0.1039	5.1
23	11:42	13.70	0.6	0.200	0.6	0.080	3.4462	1.00	3.4462	0.050	0.1720	8.4
24	11:43	14.10	0.6	0.200	0.6	0.080	1.5787	1.00	1.5787	0.080	0.1264	6.2
25	11:43	14.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

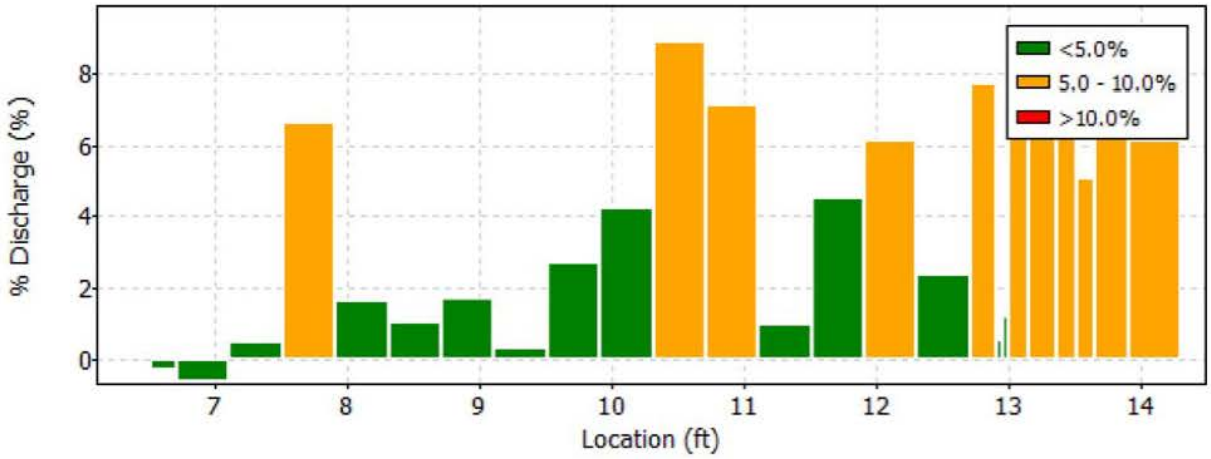
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

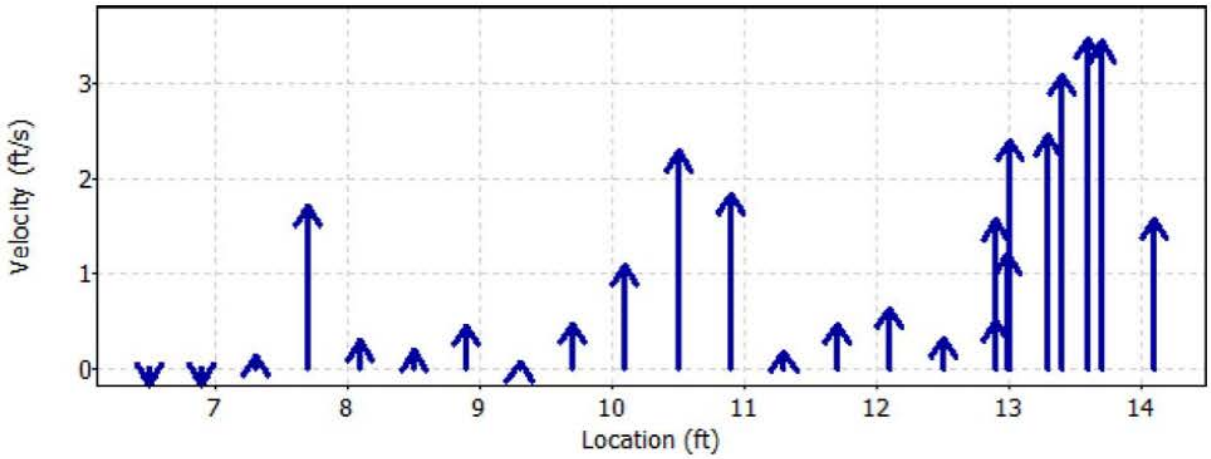
Reference 32

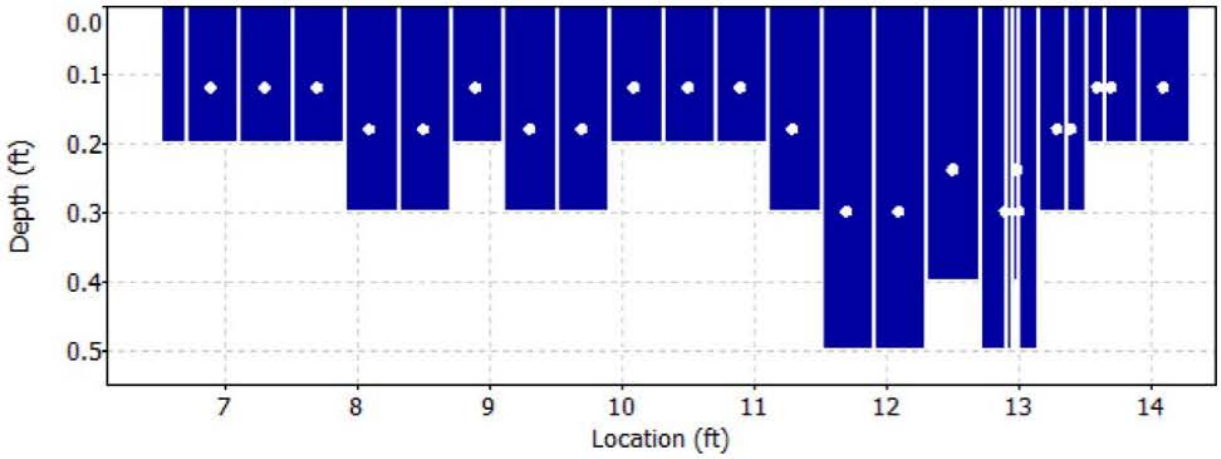
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A43.WAD	Site Name	A43
Start Date and Time	2015/09/30 11:23:39	Operator(s)	KB







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A43.WAD	Site Name	A43
Start Date and Time	2015/09/30 11:23:39	Operator(s)	KB

Quality Control

St	Loc	%Dep	Message
1	6.90	0.6	High angle: -138
		0.6	High SNR variation during measurement: 4.3,5.2
		0.6	Boundary QC is Fair; possible boundary interference
2	7.30	0.6	High angle: -29
4	8.10	0.6	High angle: -27
6	8.90	0.6	High angle: 45
7	9.30	0.6	High angle: 69
8	9.70	0.6	High angle: 33
9	10.10	0.6	High angle: 26
10	10.50	0.6	High angle: 26
		0.6	High differences in beam SNR: 26.2,37.4
		0.6	High SNR variation during measurement: 5.6,5.6
11	10.90	0.6	High angle: 21
		0.6	High differences in beam SNR: 25.3,38.2
		0.6	Boundary QC is Good; possible boundary interference
12	11.30	0.6	High differences in beam SNR: 27.5,44.7
13	11.70	0.6	High SNR variation during measurement: 6.9,5.6
14	12.10	0.6	High standard error: 0.099
15	12.50	0.6	High angle: 49
		0.6	High standard error: 0.092
16	12.90	0.6	High angle: 35
17	12.90	0.6	High SNR variation during measurement: 13.3,10.8
		0.6	High standard error: 0.113
18	12.99	0.6	High angle: 24
		0.6	High standard error: 0.102

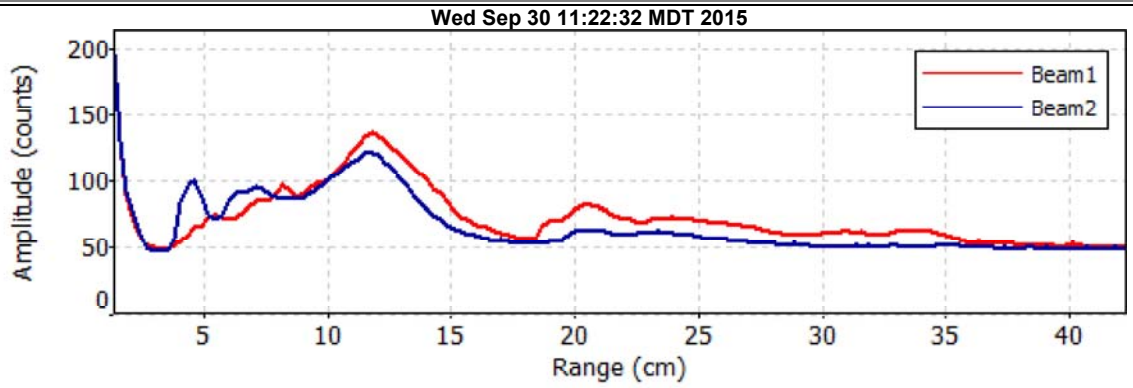
Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A43.WAD	Site Name	A43
Start Date and Time	2015/09/30 11:23:39	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



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

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A45.WAD
Start Date and Time	2015/09/30 09:27:55

Site Details

Site Name	A45
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
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%	1.9%
Velocity	0.8%	3.2%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.3%	-
Overall	**3.2%**	**3.8%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	41.400
Mean SNR	6.9 dB	Total Area	21.169
Mean Temp	44.69 °F	Mean Depth	0.511
Disch. Equation	Mid-Section	Mean Velocity	0.8911
		Total Discharge	**18.8639**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:27	10.60	None	0.100	0.0	0.0	0.0000	1.00	0.3146	0.100	0.0315	0.2
1	*09:27*	*12.60*	*0.6*	*0.300*	*0.6*	*0.120*	*0.3146*	*1.00*	*0.3146*	*0.600*	*0.1887*	*1.0*
2	*09:29*	*14.60*	*0.6*	*0.300*	*0.6*	*0.120*	*0.3583*	*1.00*	*0.3583*	*0.600*	*0.2149*	*1.1*
3	*09:30*	*16.60*	*0.6*	*0.450*	*0.6*	*0.180*	*0.7238*	*1.00*	*0.7238*	*0.900*	*0.6516*	*3.5*
4	09:31	18.60	0.6	0.400	0.6	0.160	1.0112	1.00	1.0112	0.800	0.8088	4.3
5	*09:32*	*20.60*	*0.6*	*0.500*	*0.6*	*0.200*	*0.8888*	*1.00*	*0.8888*	*1.000*	*0.8888*	*4.7*
6	09:33	22.60	0.6	0.500	0.6	0.200	1.1056	1.00	1.1056	1.000	1.1056	5.9
7	09:34	24.60	0.6	0.550	0.6	0.220	0.8783	1.00	0.8783	1.100	0.9659	5.1
8	09:36	26.60	0.6	0.550	0.6	0.220	1.2595	1.00	1.2595	1.100	1.3851	7.3
9	09:36	28.60	0.6	0.550	0.6	0.220	1.2343	1.00	1.2343	1.100	1.3574	7.2
10	09:37	30.60	0.6	0.600	0.6	0.240	1.1335	1.00	1.1335	1.200	1.3604	7.2
11	09:38	32.60	0.6	0.600	0.6	0.240	0.8967	1.00	0.8967	1.200	1.0761	5.7
12	09:40	34.60	0.6	0.600	0.6	0.240	1.0180	1.00	1.0180	1.200	1.2218	6.5
13	09:41	36.60	0.6	0.550	0.6	0.220	0.9226	1.00	0.9226	1.100	1.0146	5.4
14	09:42	38.60	0.6	0.600	0.6	0.240	0.9685	1.00	0.9685	1.200	1.1623	6.2
15	09:43	40.60	0.6	0.500	0.6	0.200	1.1033	1.00	1.1033	1.000	1.1033	5.8
16	09:44	42.60	0.6	0.550	0.6	0.220	0.8412	1.00	0.8412	1.100	0.9251	4.9
17	09:45	44.60	0.6	0.550	0.6	0.220	0.9370	1.00	0.9370	1.100	1.0305	5.5
18	09:46	46.60	0.6	0.600	0.6	0.240	0.7726	1.00	0.7726	1.200	0.9273	4.9
19	09:47	48.60	0.6	0.550	0.6	0.220	0.6896	1.00	0.6896	1.100	0.7584	4.0
20	09:48	50.60	0.6	0.700	0.6	0.280	0.4665	1.00	0.4665	1.190	0.5553	2.9
21	09:48	52.00	None	0.400	0.0	0.0	0.0000	1.00	0.4665	0.280	0.1306	0.7

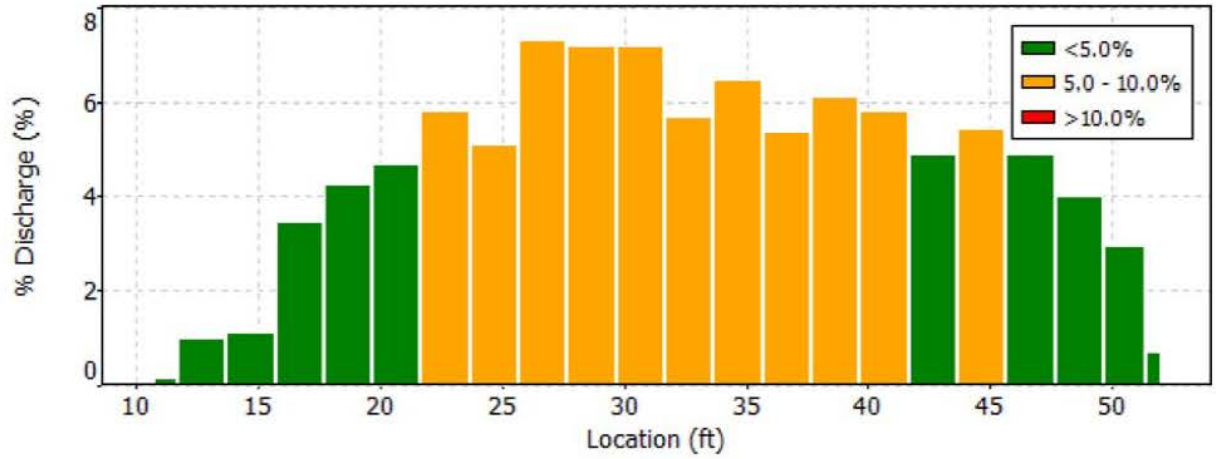
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

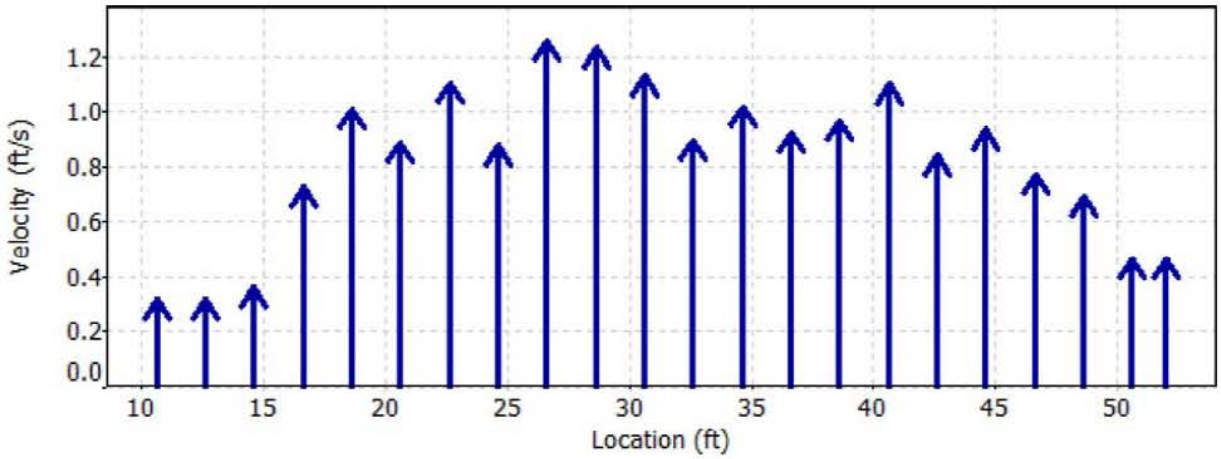
Reference 32

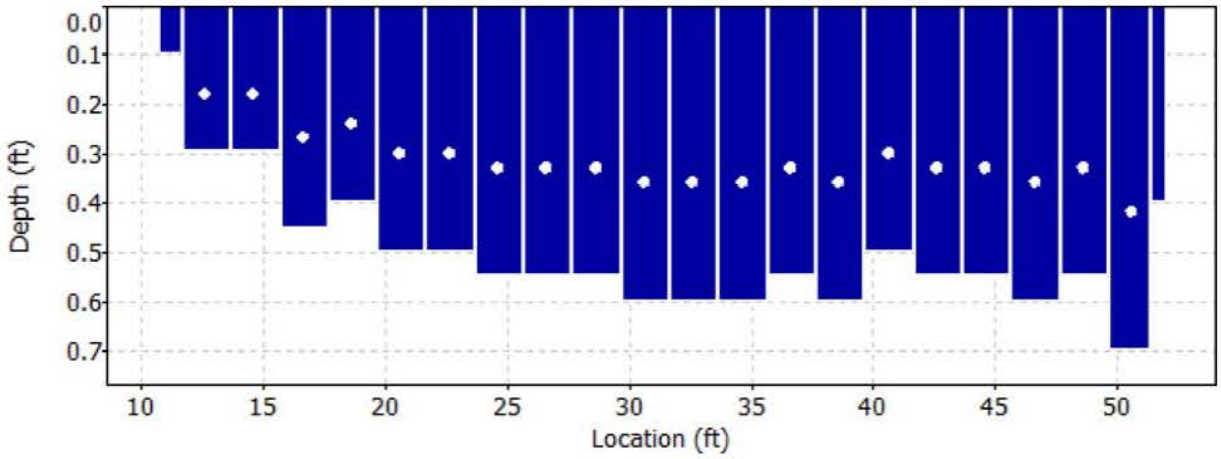
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A45.WAD	Site Name	A45
Start Date and Time	2015/09/30 09:27:55	Operator(s)	LC







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A45.WAD	Site Name	A45
Start Date and Time	2015/09/30 09:27:55	Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
1	12.60	0.6	SNR (18.9) is different from typical SNR (6.9)
		0.6	High SNR variation during measurement: 3.4,5.2
2	14.60	0.6	High angle: 36
3	16.60	0.6	Low SNR: 3.8,3.4
5	20.60	0.6	High SNR variation during measurement: 7.7,7.7

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A48.WAD
Start Date and Time	2015/09/30 08:25:48

Site Details

Site Name	A48
Operator(s)	KB

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
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%	3.6%
Velocity	1.5%	9.9%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.3%	-
Overall	**3.5%**	**10.6%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	15.000
Mean SNR	27.2 dB	Total Area	7.505
Mean Temp	42.48 °F	Mean Depth	0.500
Disch. Equation	Mid-Section	Mean Velocity	0.8537
		Total Discharge	**6.4076**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:25	5.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	08:25	6.25	0.6	0.200	0.6	0.080	0.8537	1.00	0.8537	0.150	0.1281	2.0
2	08:26	7.00	0.6	0.200	0.6	0.080	1.3179	1.00	1.3179	0.150	0.1978	3.1
3	*08:28*	*7.75*	*0.6*	*0.500*	*0.6*	*0.200*	*0.1506*	*1.00*	*0.1506*	*0.375*	*0.0565*	*0.9*
4	08:29	8.50	0.6	0.500	0.6	0.200	1.0292	1.00	1.0292	0.375	0.3859	6.0
5	08:30	9.25	0.6	0.500	0.6	0.200	1.0518	1.00	1.0518	0.375	0.3944	6.2
6	08:31	10.00	0.6	0.500	0.6	0.200	1.2077	1.00	1.2077	0.375	0.4529	7.1
7	08:32	10.75	0.6	0.500	0.6	0.200	1.4314	1.00	1.4314	0.375	0.5368	8.4
8	*08:33*	*11.50*	*0.6*	*0.700*	*0.6*	*0.280*	*0.7215*	*1.00*	*0.7215*	*0.525*	*0.3788*	*5.9*
9	08:34	12.25	0.6	0.600	0.6	0.240	0.8484	1.00	0.8484	0.450	0.3818	6.0
10	08:35	13.00	0.6	0.700	0.6	0.280	0.5663	1.00	0.5663	0.508	0.2875	4.5
11	08:45	13.70	0.6	0.700	0.6	0.280	1.2530	1.00	1.2530	0.263	0.3290	5.1
12	08:36	13.75	0.6	0.900	0.6	0.360	0.9915	1.00	0.9915	0.360	0.3568	5.6
13	08:37	14.50	0.6	0.800	0.6	0.320	0.7995	1.00	0.7995	0.600	0.4796	7.5
14	*08:38*	*15.25*	*0.6*	*0.800*	*0.6*	*0.320*	*0.8366*	*1.00*	*0.8366*	*0.600*	*0.5019*	*7.8*
15	*08:39*	*16.00*	*0.6*	*0.700*	*0.6*	*0.280*	*1.0207*	*1.00*	*1.0207*	*0.525*	*0.5360*	*8.4*
16	*08:40*	*16.75*	*0.6*	*0.600*	*0.6*	*0.240*	*0.3990*	*1.00*	*0.3990*	*0.450*	*0.1795*	*2.8*
17	*08:41*	*17.50*	*0.6*	*0.500*	*0.6*	*0.200*	*0.7736*	*1.00*	*0.7736*	*0.375*	*0.2901*	*4.5*
18	*08:42*	*18.25*	*0.6*	*0.400*	*0.6*	*0.160*	*0.8294*	*1.00*	*0.8294*	*0.300*	*0.2488*	*3.9*
19	*08:43*	*19.00*	*0.6*	*0.300*	*0.6*	*0.120*	*1.0551*	*1.00*	*1.0551*	*0.225*	*0.2373*	*3.7*
20	*08:44*	*19.75*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3199*	*1.00*	*0.3199*	*0.150*	*0.0480*	*0.7*
21	08:44	20.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

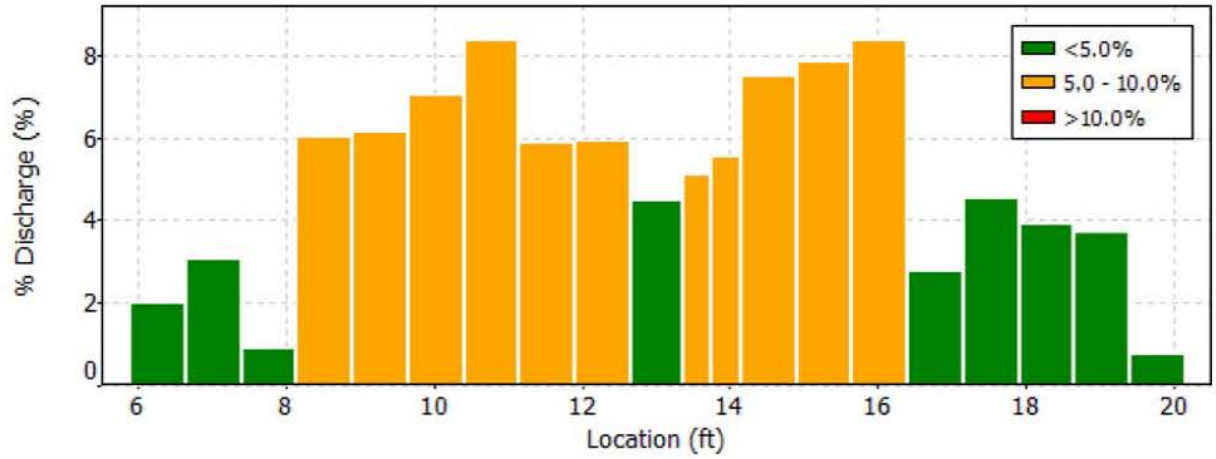
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

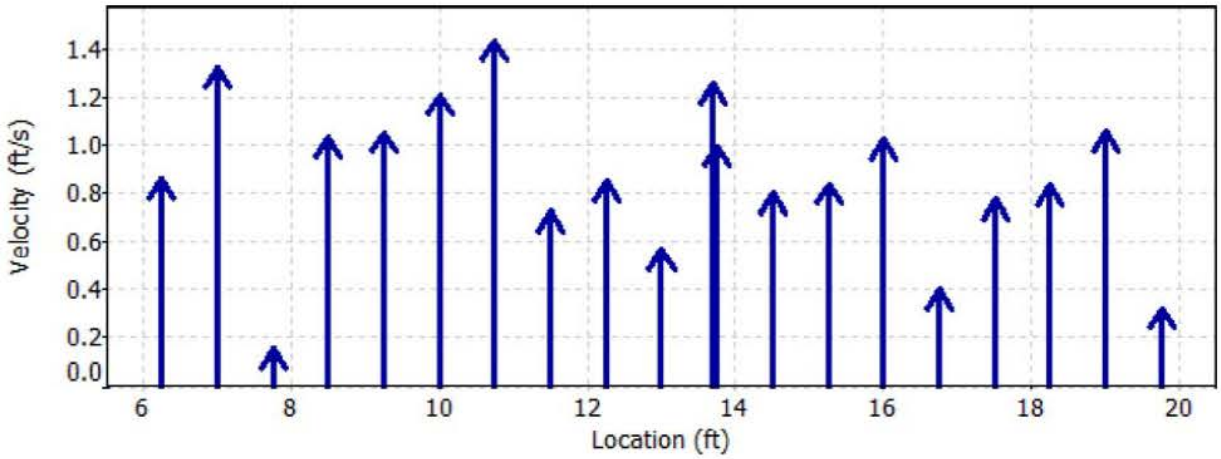
Reference 32

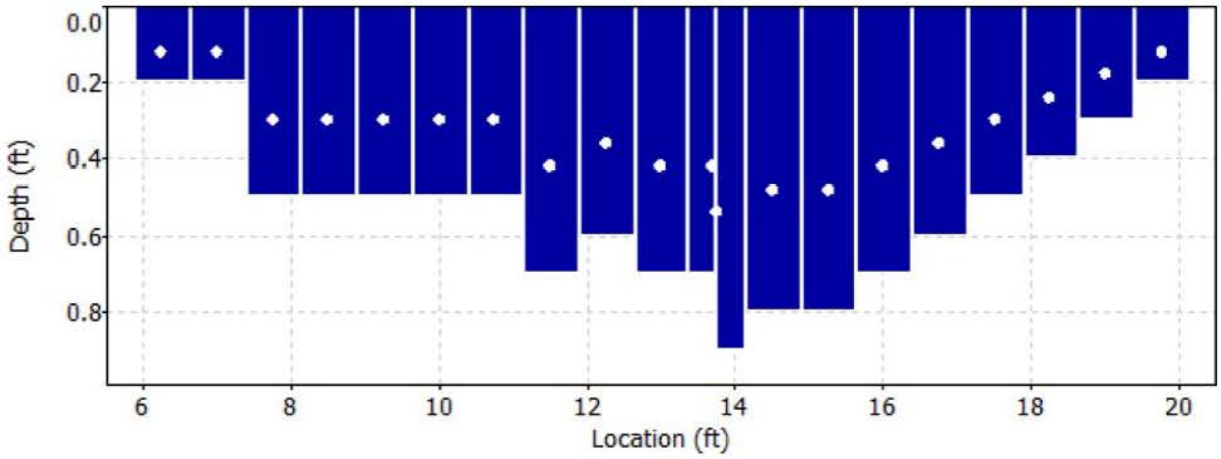
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A48.WAD	Site Name	A48
Start Date and Time	2015/09/30 08:25:48	Operator(s)	KB







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A48.WAD	Site Name	A48
Start Date and Time	2015/09/30 08:25:48	Operator(s)	KB

Quality Control

St	Loc	%Dep	Message
3	7.75	0.6	High SNR variation during measurement: 17.2,9.9
		0.6	Boundary QC is Good; possible boundary interference
8	11.50	0.6	High angle: -35
		0.6	Boundary QC is Good; possible boundary interference
14	15.25	0.6	High angle: -23
15	16.00	0.6	High angle: -37
16	16.75	0.6	High angle: -34
17	17.50	0.6	High number of spikes: 5
18	18.25	0.6	High standard error: 0.102
19	19.00	0.6	High angle: 27
		0.6	Boundary QC is Good; possible boundary interference
20	19.75	0.6	Boundary QC is Poor; possible boundary interference

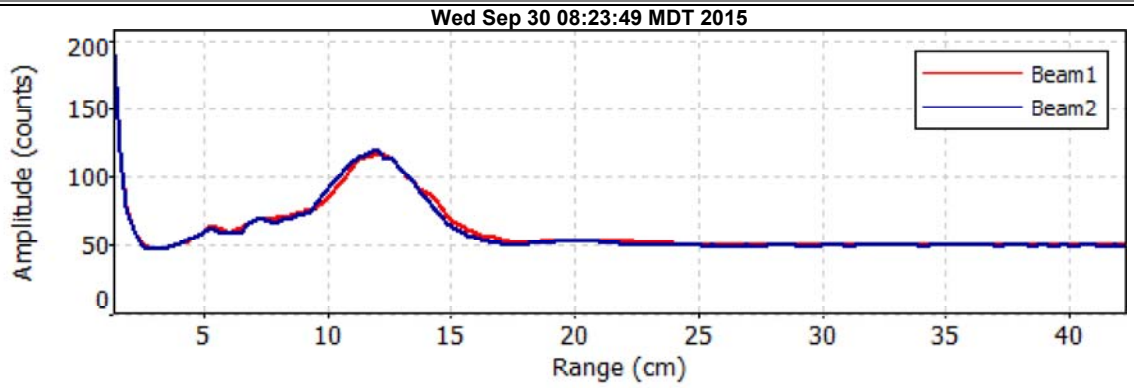
Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A48.WAD	Site Name	A48
Start Date and Time	2015/09/30 08:25:48	Operator(s)	KB

Automatic Quality Control Test (BeamCheck)



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

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A56.WAD
Start Date and Time	2015/09/29 15:17:35

Site Details

Site Name	A56
Operator(s)	SA

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
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	0.2%	3.1%
Velocity	1.2%	8.2%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.1%	-
Overall	**3.3%**	**8.8%**

Summary

Averaging Int.	40	# Stations	24
Start Edge	LEW	Total Width	24.099
Mean SNR	26.1 dB	Total Area	20.662
Mean Temp	51.67 °F	Mean Depth	0.857
Disch. Equation	Mid-Section	Mean Velocity	1.2820
		Total Discharge	**26.4891**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:17	3.90	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*15:17*	*4.00*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0039*	*1.00*	*0.0039*	*0.120*	*0.0005*	*0.0*
2	*15:18*	*5.10*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3356*	*1.00*	*0.3356*	*0.220*	*0.0739*	*0.3*
3	*15:20*	*6.20*	*0.6*	*0.900*	*0.6*	*0.360*	*-0.0869*	*1.00*	*-0.0869*	*0.990*	*-0.0861*	*-0.3*
4	15:21	7.30	0.6	0.800	0.6	0.320	0.7480	1.00	0.7480	0.880	0.6582	2.5
5	*15:22*	*8.40*	*0.6*	*0.700*	*0.6*	*0.280*	*-0.0020*	*1.00*	*-0.0020*	*0.770*	*-0.0015*	*0.0*
6	*15:24*	*9.50*	*0.6*	*0.600*	*0.6*	*0.240*	*1.7697*	*1.00*	*1.7697*	*0.660*	*1.1682*	*4.4*
7	*15:25*	*10.60*	*0.6*	*1.000*	*0.6*	*0.400*	*1.8753*	*1.00*	*1.8753*	*1.100*	*2.0630*	*7.8*
8	*15:26*	*11.70*	*0.6*	*1.100*	*0.6*	*0.440*	*1.6955*	*1.00*	*1.6955*	*1.210*	*2.0518*	*7.7*
9	*15:27*	*12.80*	*0.6*	*1.200*	*0.6*	*0.480*	*0.8025*	*1.00*	*0.8025*	*1.320*	*1.0595*	*4.0*
10	*15:28*	*13.90*	*0.6*	*1.200*	*0.6*	*0.480*	*0.7684*	*1.00*	*0.7684*	*1.320*	*1.0144*	*3.8*
11	15:29	15.00	0.6	1.200	0.6	0.480	1.9803	1.00	1.9803	1.320	2.6145	9.9
12	*15:30*	*16.10*	*0.6*	*1.200*	*0.6*	*0.480*	*1.2254*	*1.00*	*1.2254*	*1.320*	*1.6178*	*6.1*
13	*15:31*	*17.20*	*0.6*	*1.200*	*0.6*	*0.480*	*1.7690*	*1.00*	*1.7690*	*1.320*	*2.3355*	*8.8*
14	*15:32*	*18.30*	*0.6*	*1.300*	*0.6*	*0.520*	*1.5889*	*1.00*	*1.5889*	*1.430*	*2.2720*	*8.6*
15	15:33	19.40	0.6	1.400	0.6	0.560	1.5256	1.00	1.5256	1.540	2.3494	8.9
16	15:34	20.50	0.6	1.300	0.6	0.520	1.5807	1.00	1.5807	1.430	2.2603	8.5
17	15:36	21.60	0.6	1.000	0.6	0.400	1.5896	1.00	1.5896	1.100	1.7486	6.6
18	15:37	22.70	0.6	0.900	0.6	0.360	1.4094	1.00	1.4094	0.990	1.3953	5.3
19	15:38	23.80	0.6	0.600	0.6	0.240	1.1145	1.00	1.1145	0.660	0.7357	2.8
20	15:39	24.90	0.6	0.500	0.6	0.200	1.2211	1.00	1.2211	0.550	0.6717	2.5
21	15:40	26.00	0.6	0.200	0.6	0.080	1.4793	1.00	1.4793	0.210	0.3107	1.2
22	15:41	27.00	0.6	0.200	0.6	0.080	0.8789	1.00	0.8789	0.200	0.1757	0.7
23	15:41	28.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

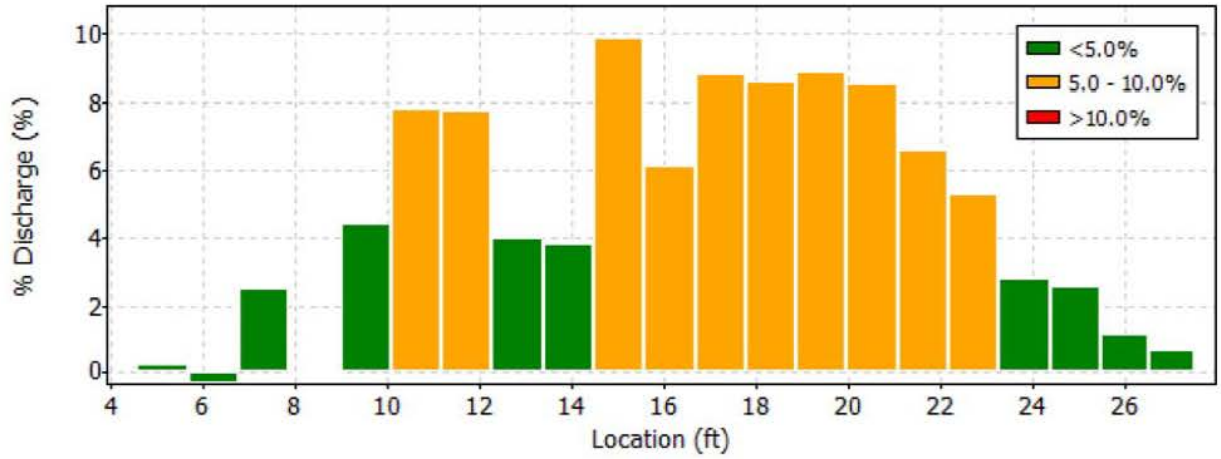
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

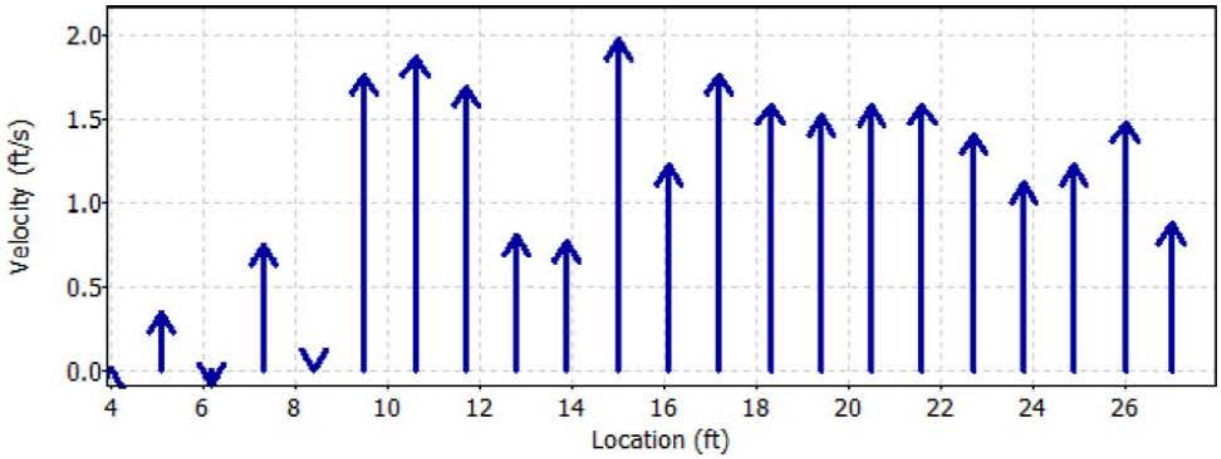
Reference 32

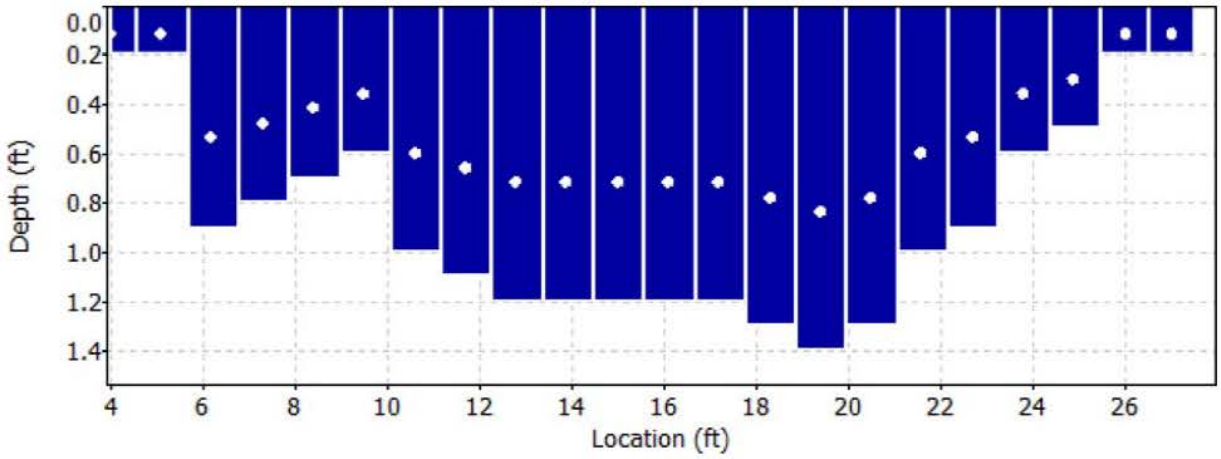
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A56.WAD	Site Name	A56
Start Date and Time	2015/09/29 15:17:35	Operator(s)	SA







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information	
File Name	A56.WAD
Start Date and Time	2015/09/29 15:17:35

Site Details	
Site Name	A56
Operator(s)	SA

Quality Control

St	Loc	%Dep	Message
1	4.00	0.6	High SNR variation during measurement: 5.2,5.2
2	5.10	0.6	High angle: -27
		0.6	High SNR variation during measurement: 5.2,4.7
3	6.20	0.6	High angle: 140
5	8.40	0.6	High standard error: 0.111
6	9.50	0.6	High angle: -25
7	10.60	0.6	High angle: -22
8	11.70	0.6	High angle: -28
9	12.80	0.6	High angle: -22
		0.6	High standard error: 0.137
10	13.90	0.6	High standard error: 0.103
12	16.10	0.6	High angle: -23
		0.6	High standard error: 0.097
13	17.20	0.6	High angle: -22
14	18.30	0.6	High number of spikes: 5

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A58.WAD
Start Date and Time	2015/09/29 16:13:22

Site Details

Site Name	A58
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
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%	4.0%
Velocity	0.8%	15.0%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.4%	-
Overall	**3.3%**	**15.5%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	LEW	Total Width	7.800
Mean SNR	33.6 dB	Total Area	3.540
Mean Temp	45.75 °F	Mean Depth	0.454
Disch. Equation	Mid-Section	Mean Velocity	0.8039
		Total Discharge	**2.8459**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	16:13	16.90	None	0.200	0.0	0.0	0.0000	1.00	0.7566	0.040	0.0303	1.1
1	*16:13*	*16.50*	*0.6*	*0.400*	*0.6*	*0.160*	*0.7566*	*1.00*	*0.7566*	*0.160*	*0.1210*	*4.3*
2	16:14	16.10	0.6	0.450	0.6	0.180	0.9879	1.00	0.9879	0.180	0.1778	6.2
3	16:15	15.70	0.6	0.400	0.6	0.160	1.0148	1.00	1.0148	0.160	0.1623	5.7
4	16:16	15.30	0.6	0.400	0.6	0.160	1.5909	1.00	1.5909	0.160	0.2545	8.9
5	*16:17*	*14.90*	*0.6*	*0.400*	*0.6*	*0.160*	*1.2470*	*1.00*	*1.2470*	*0.160*	*0.1995*	*7.0*
6	16:18	14.50	0.6	0.400	0.6	0.160	1.8258	1.00	1.8258	0.120	0.2192	7.7
7	*16:33*	*14.30*	*0.6*	*0.500*	*0.6*	*0.200*	*-0.0003*	*1.00*	*-0.0003*	*0.100*	*0.0000*	*0.0*
8	16:19	14.10	0.6	0.500	0.6	0.200	1.4633	1.00	1.4633	0.150	0.2193	7.7
9	16:20	13.70	0.6	0.450	0.6	0.180	1.2379	1.00	1.2379	0.180	0.2228	7.8
10	*16:21*	*13.30*	*0.6*	*0.400*	*0.6*	*0.160*	*1.0328*	*1.00*	*1.0328*	*0.160*	*0.1652*	*5.8*
11	*16:22*	*12.90*	*0.6*	*0.450*	*0.6*	*0.180*	*0.0000*	*1.00*	*0.0000*	*0.180*	*0.0000*	*0.0*
12	16:23	12.50	0.6	0.450	0.6	0.180	0.8396	1.00	0.8396	0.180	0.1511	5.3
13	16:24	12.10	0.6	0.500	0.6	0.200	0.7441	1.00	0.7441	0.200	0.1488	5.2
14	16:25	11.70	0.6	0.400	0.6	0.160	0.7149	1.00	0.7149	0.160	0.1143	4.0
15	16:26	11.30	0.6	0.350	0.6	0.140	0.6480	1.00	0.6480	0.140	0.0907	3.2
16	*16:27*	*10.90*	*0.6*	*0.400*	*0.6*	*0.160*	*0.5814*	*1.00*	*0.5814*	*0.160*	*0.0930*	*3.3*
17	*16:28*	*10.50*	*0.6*	*0.800*	*0.6*	*0.320*	*0.3796*	*1.00*	*0.3796*	*0.320*	*0.1214*	*4.3*
18	*16:29*	*10.10*	*0.6*	*0.700*	*0.6*	*0.280*	*0.3091*	*1.00*	*0.3091*	*0.280*	*0.0865*	*3.0*
19	16:30	9.70	0.6	0.400	0.6	0.160	0.7651	1.00	0.7651	0.200	0.1531	5.4
20	16:30	9.10	None	0.500	0.0	0.0	0.0000	1.00	0.7651	0.150	0.1150	4.0

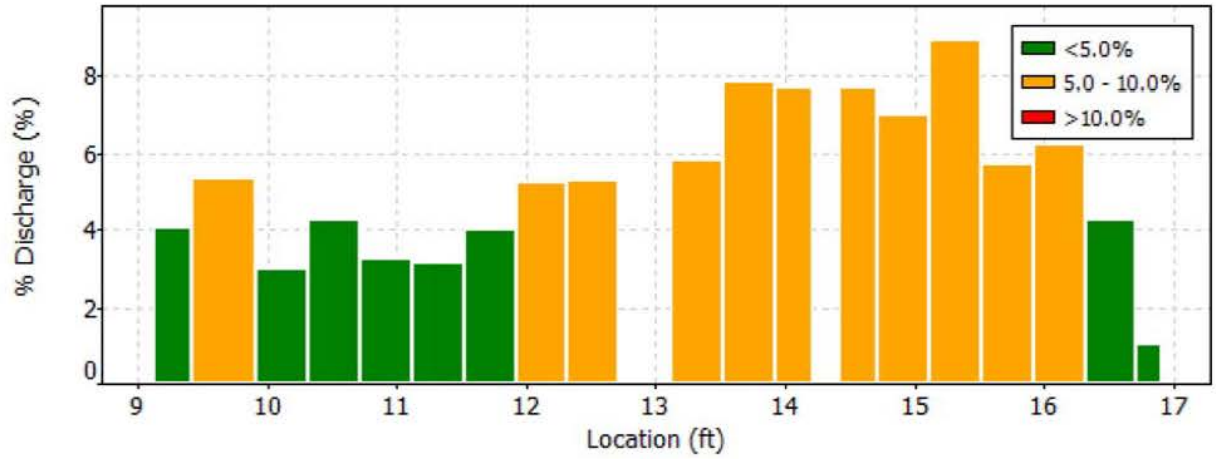
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

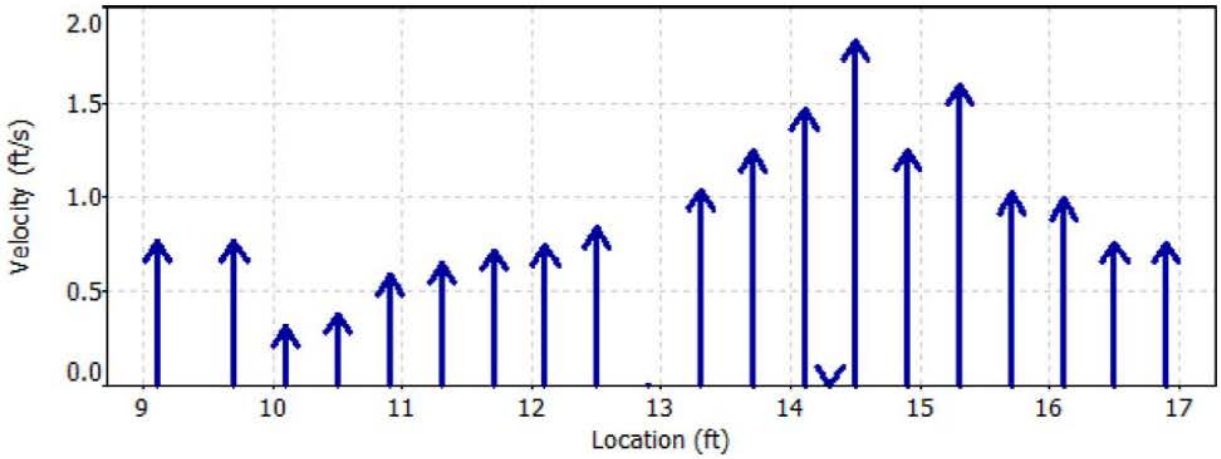
Reference 32

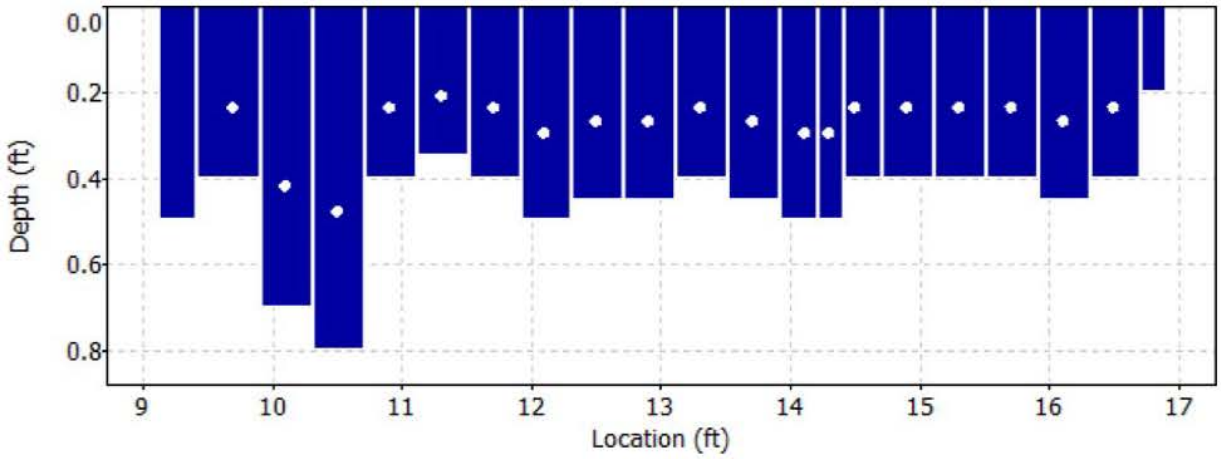
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A58.WAD	Site Name	A58
Start Date and Time	2015/09/29 16:13:22	Operator(s)	LC







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A58.WAD	Site Name	A58
Start Date and Time	2015/09/29 16:13:22	Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
1	16.50	0.6	High standard error: 0.043
5	14.90	0.6	High standard error: 0.068
7	14.30	0.6	SNR (52.0) is different from typical SNR (33.6)
		0.6	High SNR variation during measurement: 9.5,8.6
10	13.30	0.6	High SNR variation during measurement: 6.0,2.1
11	12.90	0.6	High SNR variation during measurement: 3.9,5.6
16	10.90	0.6	High standard error: 0.031
17	10.50	0.6	High angle: -22
18	10.10	0.6	High angle: -38

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A60.WAD
Start Date and Time	2015/09/29 15:02:10

Site Details

Site Name	A60
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
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	0.1%	1.8%
Velocity	1.1%	6.7%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.0%	-
Overall	**3.1%**	**7.0%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	REW	Total Width	30.500
Mean SNR	26.2 dB	Total Area	31.945
Mean Temp	51.04 °F	Mean Depth	1.047
Disch. Equation	Mid-Section	Mean Velocity	1.2871
		Total Discharge	**41.1170**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:02	8.70	None	0.200	0.0	0.0	0.0000	1.00	0.5489	0.140	0.0769	0.2
1	15:02	10.10	0.6	0.300	0.6	0.120	0.5489	1.00	0.5489	0.420	0.2304	0.6
2	15:03	11.50	0.6	0.400	0.6	0.160	1.2152	1.00	1.2152	0.560	0.6804	1.7
3	*15:04*	*12.90*	*0.6*	*0.450*	*0.6*	*0.180*	*0.0003*	*1.00*	*0.0003*	*0.630*	*0.0002*	*0.0*
4	15:06	14.30	0.6	0.500	0.6	0.200	0.8983	1.00	0.8983	0.700	0.6288	1.5
5	*15:07*	*15.70*	*0.6*	*0.400*	*0.6*	*0.160*	*0.1417*	*1.00*	*0.1417*	*0.560*	*0.0794*	*0.2*
6	15:08	17.10	0.6	0.700	0.6	0.280	0.2188	1.00	0.2188	0.980	0.2145	0.5
7	*15:10*	*18.50*	*0.6*	*0.950*	*0.6*	*0.380*	*1.2434*	*1.00*	*1.2434*	*1.330*	*1.6539*	*4.0*
8	*15:11*	*19.90*	*0.6*	*1.100*	*0.6*	*0.440*	*0.9836*	*1.00*	*0.9836*	*1.540*	*1.5148*	*3.7*
9	15:12	21.30	0.6	1.100	0.6	0.440	1.7480	1.00	1.7480	1.540	2.6920	6.5
10	*15:13*	*22.70*	*0.6*	*1.450*	*0.6*	*0.580*	*1.6631*	*1.00*	*1.6631*	*2.030*	*3.3762*	*8.2*
11	15:14	24.10	0.6	1.300	0.6	0.520	2.5010	1.00	2.5010	1.365	3.4141	8.3
12	15:27	24.80	0.6	1.400	0.6	0.560	2.4357	1.00	2.4357	0.980	2.3868	5.8
13	15:16	25.50	0.6	1.450	0.6	0.580	2.5791	1.00	2.5791	1.015	2.6185	6.4
14	15:29	26.20	0.6	1.400	0.6	0.560	2.5522	1.00	2.5522	0.980	2.5009	6.1
15	15:17	26.90	0.6	1.500	0.6	0.600	2.3091	1.00	2.3091	1.050	2.4244	5.9
16	*15:30*	*27.60*	*0.6*	*1.500*	*0.6*	*0.600*	*2.0810*	*1.00*	*2.0810*	*1.050*	*2.1850*	*5.3*
17	*15:18*	*28.30*	*0.6*	*1.600*	*0.6*	*0.640*	*1.3540*	*1.00*	*1.3540*	*1.679*	*2.2738*	*5.5*
18	*15:19*	*29.70*	*0.6*	*1.500*	*0.6*	*0.600*	*1.2060*	*1.00*	*1.2060*	*2.100*	*2.5326*	*6.2*
19	*15:20*	*31.10*	*0.6*	*1.400*	*0.6*	*0.560*	*0.8576*	*1.00*	*0.8576*	*1.960*	*1.6808*	*4.1*
20	*15:21*	*32.50*	*0.6*	*1.700*	*0.6*	*0.680*	*0.5974*	*1.00*	*0.5974*	*2.380*	*1.4220*	*3.5*
21	*15:22*	*33.90*	*0.6*	*1.500*	*0.6*	*0.600*	*0.7533*	*1.00*	*0.7533*	*2.100*	*1.5818*	*3.8*
22	15:24	35.30	0.6	1.400	0.6	0.560	0.5801	1.00	0.5801	1.960	1.1368	2.8
23	15:25	36.70	0.6	1.100	0.6	0.440	1.3163	1.00	1.3163	2.146	2.8245	6.9
24	15:25	39.20	None	0.600	0.0	0.0	0.0000	1.00	1.3163	0.750	0.9878	2.4

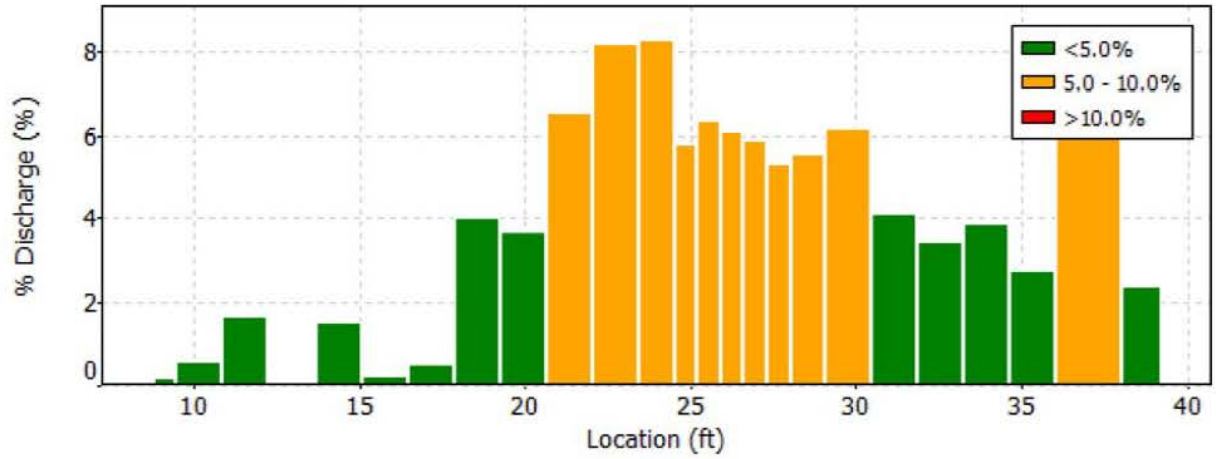
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

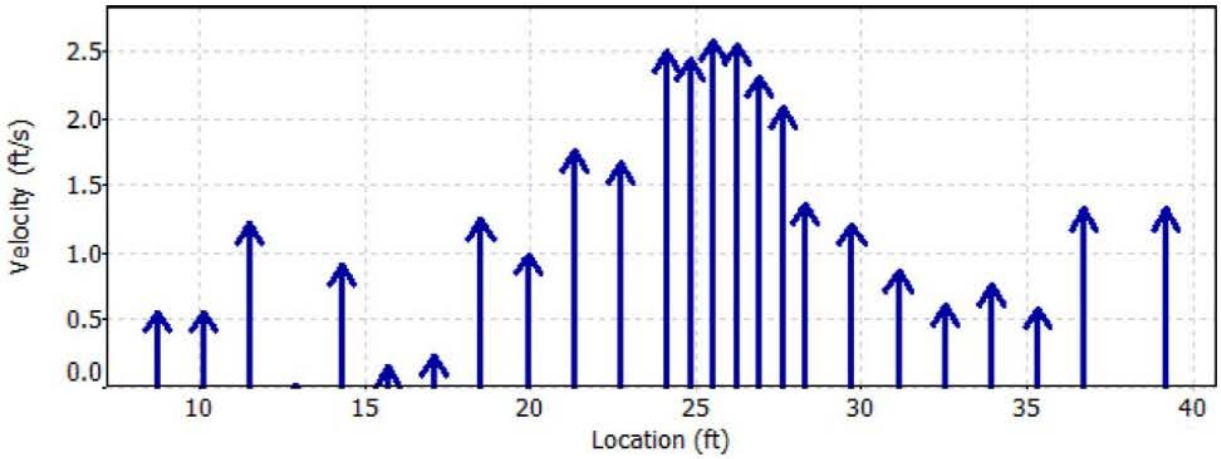
Reference 32

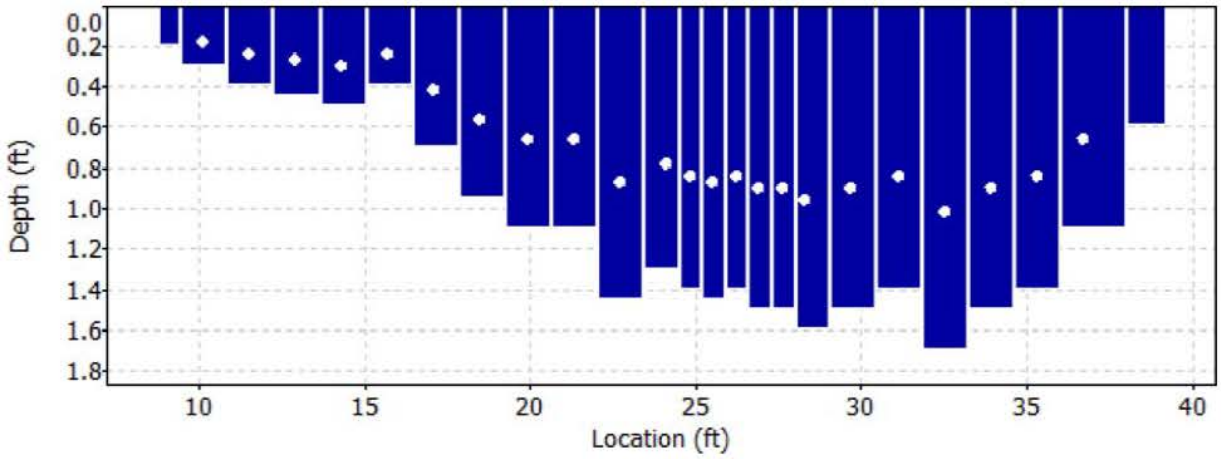
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A60.WAD	Site Name	A60
Start Date and Time	2015/09/29 15:02:10	Operator(s)	LC







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information	
File Name	A60.WAD
Start Date and Time	2015/09/29 15:02:10

Site Details	
Site Name	A60
Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
3	12.90	0.6	SNR (57.0) is different from typical SNR (26.2)
5	15.70	0.6	High angle: 32
		0.6	High SNR variation during measurement: 4.7,5.2
7	18.50	0.6	High angle: 23
8	19.90	0.6	High angle: 26
10	22.70	0.6	High standard error: 0.122
16	27.60	0.6	High angle: 29
17	28.30	0.6	High angle: 30
		0.6	High standard error: 0.118
18	29.70	0.6	High angle: 36
19	31.10	0.6	High angle: 42
20	32.50	0.6	High angle: 38
21	33.90	0.6	High angle: 31

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A61.WAD
Start Date and Time	2015/09/29 13:49:23

Site Details

Site Name	A61
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
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	0.2%	2.8%
Velocity	1.3%	7.8%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**3.3%**	**8.3%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	32.900
Mean SNR	27.6 dB	Total Area	30.381
Mean Temp	49.99 °F	Mean Depth	0.923
Disch. Equation	Mid-Section	Mean Velocity	1.1765
		Total Discharge	**35.7428**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:49	16.70	None	0.450	0.0	0.0	0.0000	1.00	2.1473	0.360	0.7731	2.2
1	13:49	18.30	0.6	0.600	0.6	0.240	2.1473	1.00	2.1473	0.960	2.0613	5.8
2	13:50	19.90	0.6	0.800	0.6	0.320	0.7349	1.00	0.7349	1.280	0.9404	2.6
3	*13:51*	*21.50*	*0.6*	*0.850*	*0.6*	*0.340*	*0.6001*	*1.00*	*0.6001*	*1.360*	*0.8160*	*2.3*
4	*13:52*	*23.10*	*0.6*	*0.600*	*0.6*	*0.240*	*1.6243*	*1.00*	*1.6243*	*0.960*	*1.5593*	*4.4*
5	13:53	24.70	0.6	0.800	0.6	0.320	0.8209	1.00	0.8209	1.280	1.0504	2.9
6	13:55	26.30	0.6	0.750	0.6	0.300	0.5771	1.00	0.5771	1.200	0.6924	1.9
7	*13:56*	*27.90*	*0.6*	*0.600*	*0.6*	*0.240*	*0.7644*	*1.00*	*0.7644*	*0.960*	*0.7338*	*2.1*
8	13:57	29.50	0.6	0.700	0.6	0.280	0.2638	1.00	0.2638	1.120	0.2954	0.8
9	*13:58*	*31.10*	*0.6*	*0.800*	*0.6*	*0.320*	*1.6831*	*1.00*	*1.6831*	*1.280*	*2.1536*	*6.0*
10	*13:59*	*32.70*	*0.6*	*1.100*	*0.6*	*0.440*	*1.7205*	*1.00*	*1.7205*	*1.760*	*3.0277*	*8.5*
11	14:00	34.30	0.6	1.000	0.6	0.400	1.5335	1.00	1.5335	1.600	2.4531	6.9
12	14:01	35.90	0.6	1.400	0.6	0.560	1.0190	1.00	1.0190	2.240	2.2821	6.4
13	14:03	37.50	0.6	1.350	0.6	0.540	1.6096	1.00	1.6096	2.160	3.4763	9.7
14	*14:04*	*39.10*	*0.6*	*1.100*	*0.6*	*0.440*	*2.6509*	*1.00*	*2.6509*	*1.322*	*3.5041*	*9.8*
15	*14:14*	*39.90*	*0.6*	*1.100*	*0.6*	*0.440*	*2.1109*	*1.00*	*2.1109*	*0.880*	*1.8574*	*5.2*
16	*14:05*	*40.70*	*0.6*	*1.100*	*0.6*	*0.440*	*1.4131*	*1.00*	*1.4131*	*1.318*	*1.8622*	*5.2*
17	14:06	42.30	0.6	1.200	0.6	0.480	1.4508	1.00	1.4508	1.920	2.7854	7.8
18	*14:07*	*43.90*	*0.6*	*1.000*	*0.6*	*0.400*	*0.8120*	*1.00*	*0.8120*	*1.600*	*1.2990*	*3.6*
19	14:09	45.50	0.6	1.000	0.6	0.400	1.0505	1.00	1.0505	1.600	1.6806	4.7
20	*14:10*	*47.10*	*0.6*	*0.900*	*0.6*	*0.360*	*0.3455*	*1.00*	*0.3455*	*1.442*	*0.4982*	*1.4*
21	*14:11*	*48.70*	*0.6*	*1.100*	*0.6*	*0.440*	*-0.0331*	*1.00*	*-0.0331*	*1.378*	*-0.0457*	*-0.1*
22	14:11	49.60	None	0.900	0.0	0.0	0.0000	1.00	-0.0331	0.405	-0.0134	0.0

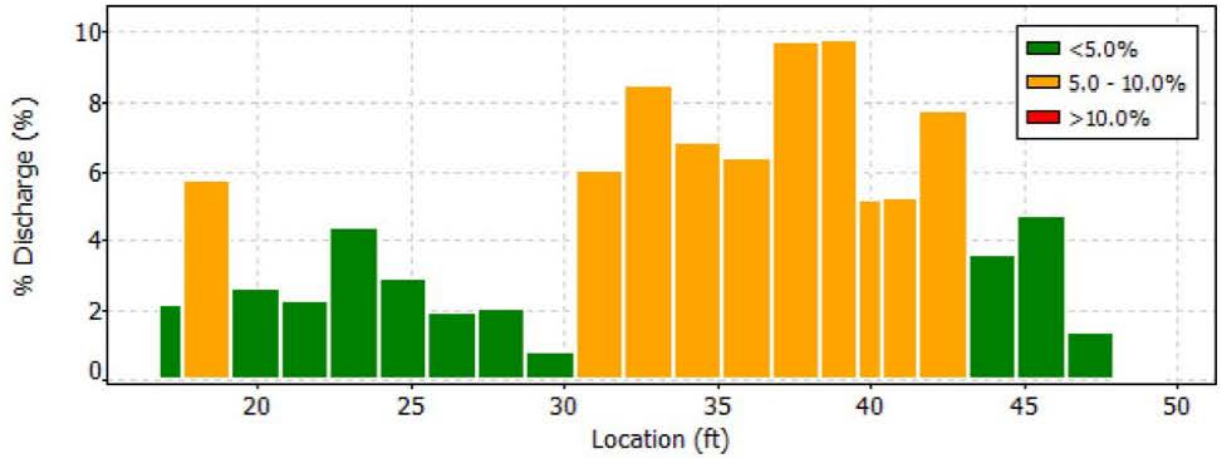
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

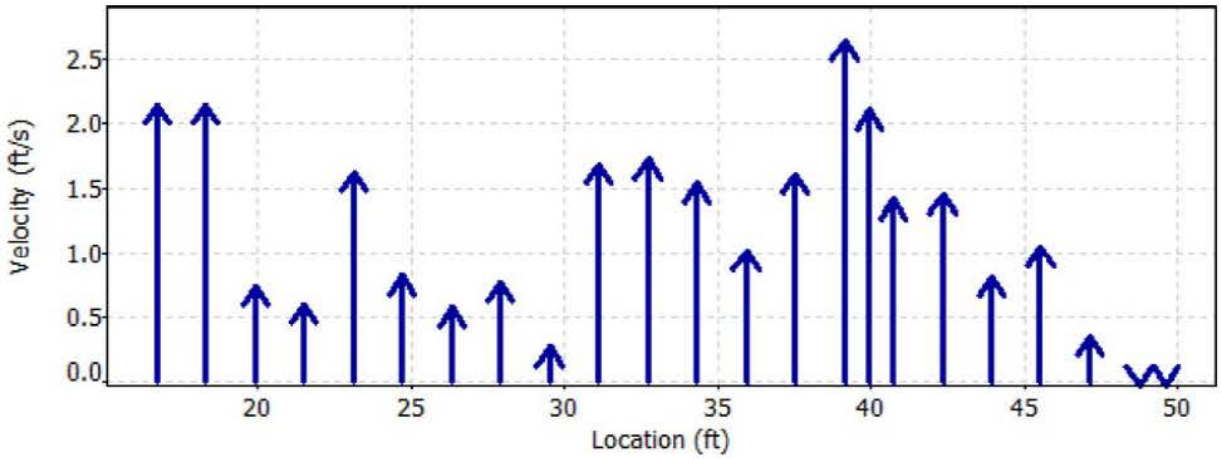
Reference 32

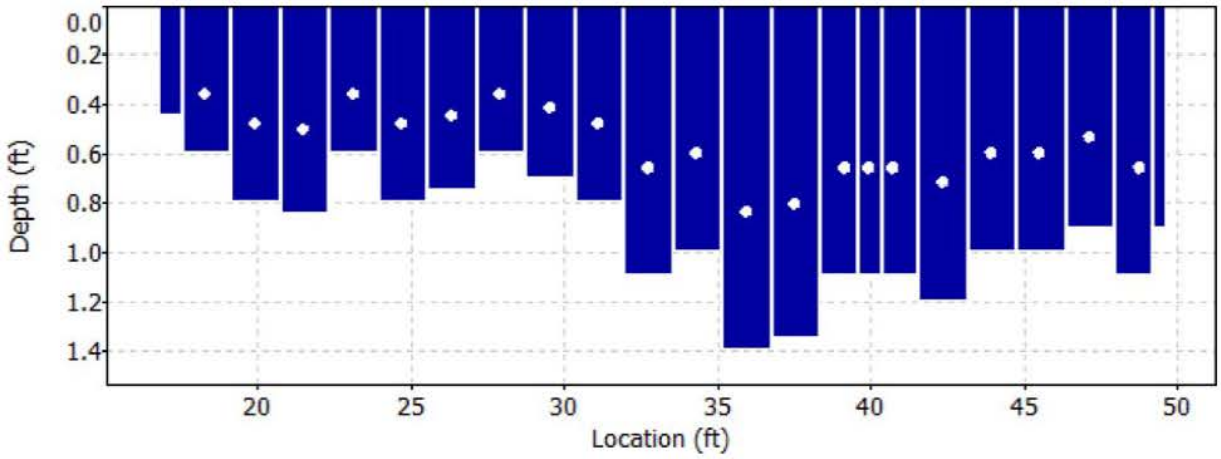
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A61.WAD	Site Name	A61
Start Date and Time	2015/09/29 13:49:23	Operator(s)	LC







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A61.WAD	Site Name	A61
Start Date and Time	2015/09/29 13:49:23	Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
3	21.50	0.6	High angle: -33
4	23.10	0.6	High standard error: 0.101
7	27.90	0.6	High standard error: 0.104
9	31.10	0.6	High angle: 25
10	32.70	0.6	High angle: 22
		0.6	High standard error: 0.124
14	39.10	0.6	High angle: 23
15	39.90	0.6	High standard error: 0.108
16	40.70	0.6	High angle: 32
18	43.90	0.6	High angle: -32
20	47.10	0.6	High angle: 26
		0.6	High SNR variation during measurement: 5.6,6.0
21	48.70	0.6	High angle: -175
		0.6	High SNR variation during measurement: 6.0,6.5

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A64.WAD
Start Date and Time	2015/09/29 12:49:17

Site Details

Site Name	A64
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
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	0.2%	1.0%
Velocity	1.0%	5.1%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**3.2%**	**5.3%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	29.700
Mean SNR	20.9 dB	Total Area	30.268
Mean Temp	49.58 °F	Mean Depth	1.019
Disch. Equation	Mid-Section	Mean Velocity	1.2964
		Total Discharge	**39.2400**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	12:49	14.60	None	0.100	0.0	0.0	0.0000	1.00	0.2822	0.070	0.0198	0.1
1	12:49	16.00	0.6	0.400	0.6	0.160	0.2822	1.00	0.2822	0.560	0.1580	0.4
2	12:51	17.40	0.6	0.400	0.6	0.160	0.9639	1.00	0.9639	0.560	0.5397	1.4
3	12:52	18.80	0.6	0.700	0.6	0.280	1.0722	1.00	1.0722	0.980	1.0509	2.7
4	12:53	20.20	0.6	0.900	0.6	0.360	1.6096	1.00	1.6096	1.260	2.0278	5.2
5	12:54	21.60	0.6	1.000	0.6	0.400	0.9537	1.00	0.9537	1.400	1.3352	3.4
6	12:55	23.00	0.6	1.100	0.6	0.440	1.5653	1.00	1.5653	1.540	2.4106	6.1
7	12:56	24.40	0.6	1.350	0.6	0.540	1.6946	1.00	1.6946	1.890	3.2027	8.2
8	*12:57*	*25.80*	*0.6*	*1.450*	*0.6*	*0.580*	*1.3668*	*1.00*	*1.3668*	*2.030*	*2.7747*	*7.1*
9	12:58	27.20	0.6	1.500	0.6	0.600	1.8474	1.00	1.8474	2.100	3.8794	9.9
10	12:59	28.60	0.6	1.500	0.6	0.600	1.8970	1.00	1.8970	1.575	2.9883	7.6
11	13:12	29.30	0.6	1.400	0.6	0.560	1.4432	1.00	1.4432	0.980	1.4142	3.6
12	13:00	30.00	0.6	1.450	0.6	0.580	1.7844	1.00	1.7844	1.522	2.7163	6.9
13	*13:01*	*31.40*	*0.6*	*1.450*	*0.6*	*0.580*	*1.4137*	*1.00*	*1.4137*	*2.030*	*2.8700*	*7.3*
14	13:02	32.80	0.6	1.350	0.6	0.540	1.4400	1.00	1.4400	1.890	2.7215	6.9
15	*13:03*	*34.20*	*0.6*	*1.200*	*0.6*	*0.480*	*1.2448*	*1.00*	*1.2448*	*1.680*	*2.0913*	*5.3*
16	13:04	35.60	0.6	1.100	0.6	0.440	0.6339	1.00	0.6339	1.540	0.9762	2.5
17	13:05	37.00	0.6	1.200	0.6	0.480	1.3340	1.00	1.3340	1.680	2.2412	5.7
18	13:06	38.40	0.6	1.100	0.6	0.440	1.1726	1.00	1.1726	1.540	1.8058	4.6
19	13:07	39.80	0.6	0.900	0.6	0.360	0.9705	1.00	0.9705	1.260	1.2226	3.1
20	*13:08*	*41.20*	*0.6*	*0.700*	*0.6*	*0.280*	*0.3625*	*1.00*	*0.3625*	*0.980*	*0.3553*	*0.9*
21	13:10	42.60	0.6	0.500	0.6	0.200	0.3652	1.00	0.3652	0.775	0.2831	0.7
22	13:10	44.30	None	0.500	0.0	0.0	0.0000	1.00	0.3652	0.425	0.1553	0.4

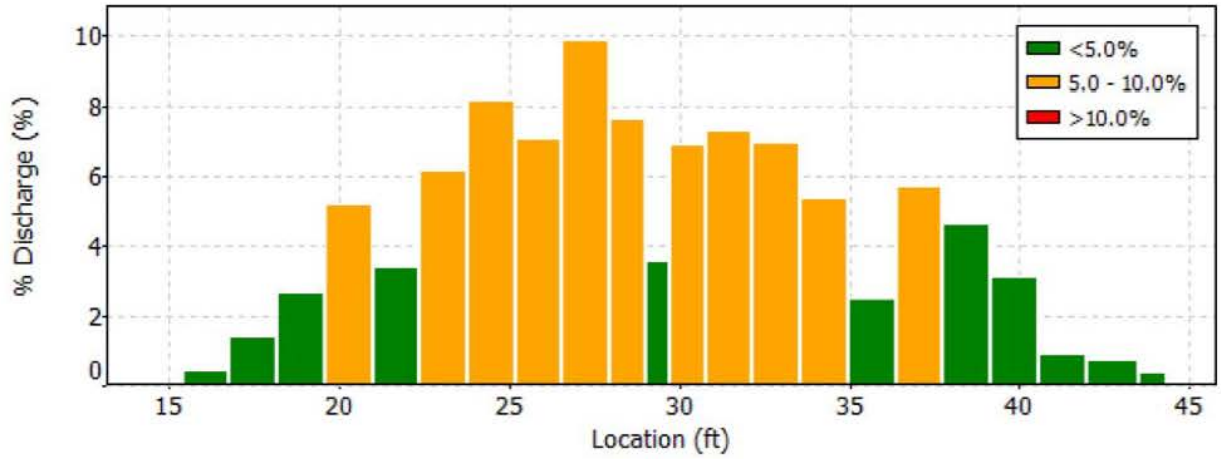
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

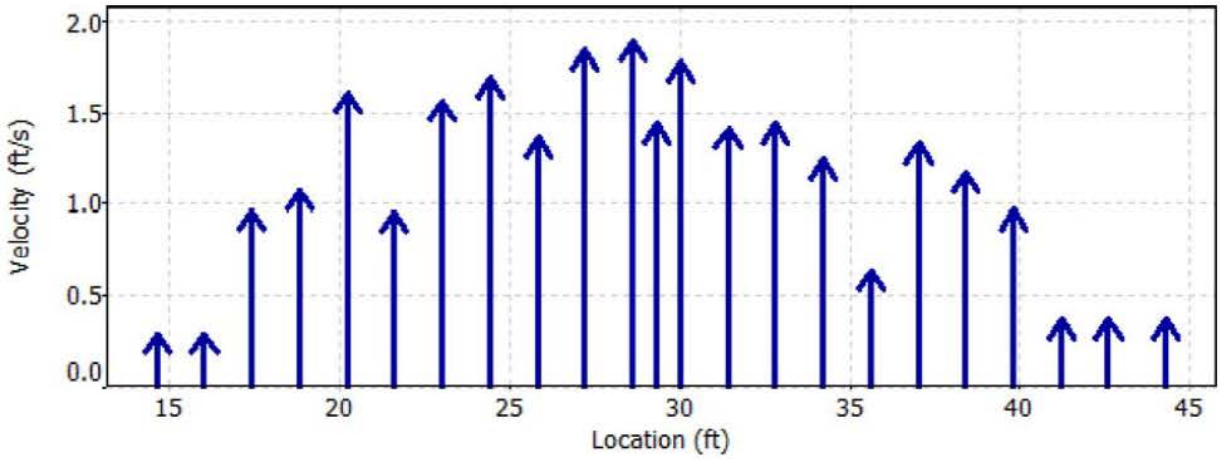
Reference 32

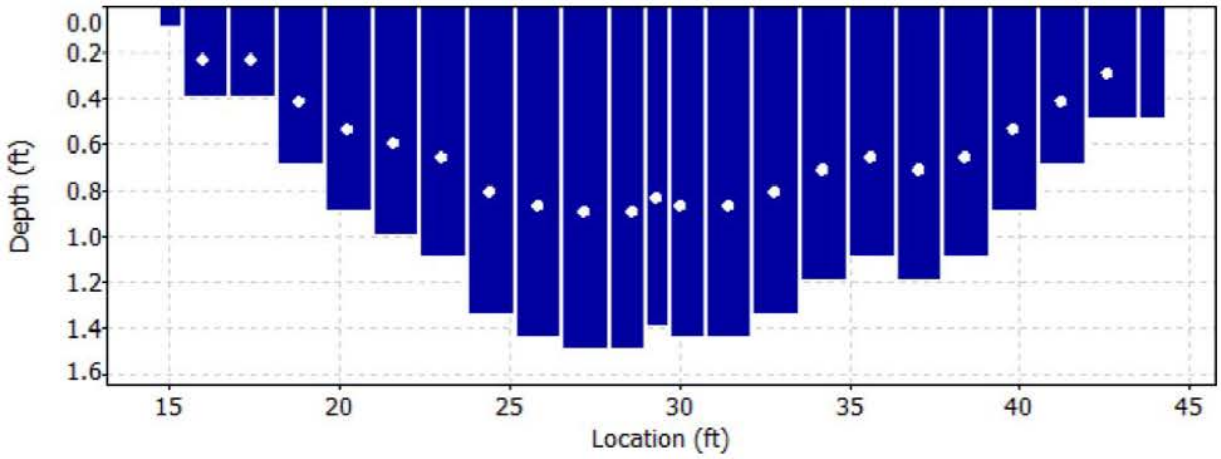
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A64.WAD	Site Name	A64
Start Date and Time	2015/09/29 12:49:17	Operator(s)	LC







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A64.WAD	Site Name	A64
Start Date and Time	2015/09/29 12:49:17	Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
8	25.80	0.6	High standard error: 0.081
13	31.40	0.6	High standard error: 0.093
15	34.20	0.6	High angle: 40
20	41.20	0.6	High angle: 22

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A65.WAD
Start Date and Time	2015/09/29 11:28:02

Site Details

Site Name	A65
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
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	0.3%	2.4%
Velocity	1.3%	9.9%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**3.3%**	**10.2%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	42.000
Mean SNR	26.2 dB	Total Area	29.151
Mean Temp	45.81 °F	Mean Depth	0.694
Disch. Equation	Mid-Section	Mean Velocity	1.4261
		Total Discharge	**41.5720**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:28	8.20	None	0.150	0.0	0.0	0.0000	1.00	1.0755	0.285	0.3064	0.7
1	*11:28*	*12.00*	*0.6*	*0.200*	*0.6*	*0.080*	*1.0755*	*1.00*	*1.0755*	*0.560*	*0.6026*	*1.4*
2	11:29	13.80	0.6	0.650	0.6	0.260	0.3875	1.00	0.3875	1.186	0.4596	1.1
3	*11:30*	*15.65*	*0.6*	*0.700*	*0.6*	*0.280*	*1.8996*	*1.00*	*1.8996*	*1.295*	*2.4605*	*5.9*
4	*11:31*	*17.50*	*0.6*	*0.900*	*0.6*	*0.360*	*1.5912*	*1.00*	*1.5912*	*1.665*	*2.6493*	*6.4*
5	*11:32*	*19.35*	*0.6*	*0.800*	*0.6*	*0.320*	*0.7753*	*1.00*	*0.7753*	*1.480*	*1.1472*	*2.8*
6	*11:33*	*21.20*	*0.6*	*0.750*	*0.6*	*0.300*	*0.0827*	*1.00*	*0.0827*	*1.388*	*0.1147*	*0.3*
7	*11:35*	*23.05*	*0.6*	*0.700*	*0.6*	*0.280*	*0.4196*	*1.00*	*0.4196*	*1.295*	*0.5435*	*1.3*
8	11:36	24.90	0.6	0.700	0.6	0.280	1.6112	1.00	1.6112	1.295	2.0870	5.0
9	11:37	26.75	0.6	0.700	0.6	0.280	1.1568	1.00	1.1568	1.295	1.4984	3.6
10	*11:38*	*28.60*	*0.6*	*1.000*	*0.6*	*0.400*	*2.1873*	*1.00*	*2.1873*	*1.850*	*4.0467*	*9.7*
11	*11:39*	*30.45*	*0.6*	*1.000*	*0.6*	*0.400*	*0.4915*	*1.00*	*0.4915*	*1.850*	*0.9093*	*2.2*
12	11:40	32.30	0.6	0.950	0.6	0.380	2.7218	1.00	2.7218	1.259	3.4260	8.2
13	11:51	33.10	0.6	0.800	0.6	0.320	2.0528	1.00	2.0528	0.740	1.5189	3.7
14	11:41	34.15	0.6	0.850	0.6	0.340	1.9117	1.00	1.9117	1.233	2.3569	5.7
15	11:42	36.00	0.6	0.900	0.6	0.360	2.2844	1.00	2.2844	1.665	3.8035	9.1
16	*11:43*	*37.85*	*0.6*	*0.900*	*0.6*	*0.360*	*2.0561*	*1.00*	*2.0561*	*1.665*	*3.4233*	*8.2*
17	11:44	39.70	0.6	0.900	0.6	0.360	1.9170	1.00	1.9170	1.665	3.1917	7.7
18	11:46	41.55	0.6	0.700	0.6	0.280	1.4879	1.00	1.4879	1.295	1.9272	4.6
19	*11:47*	*43.40*	*0.6*	*0.700*	*0.6*	*0.280*	*1.1654*	*1.00*	*1.1654*	*1.295*	*1.5095*	*3.6*
20	11:48	45.25	0.6	0.600	0.6	0.240	0.6220	1.00	0.6220	1.620	1.0076	2.4
21	11:49	48.80	0.6	0.400	0.6	0.160	2.0338	1.00	2.0338	0.990	2.0128	4.8
22	11:49	50.20	None	0.400	0.0	0.0	0.0000	1.00	2.0338	0.280	0.5695	1.4

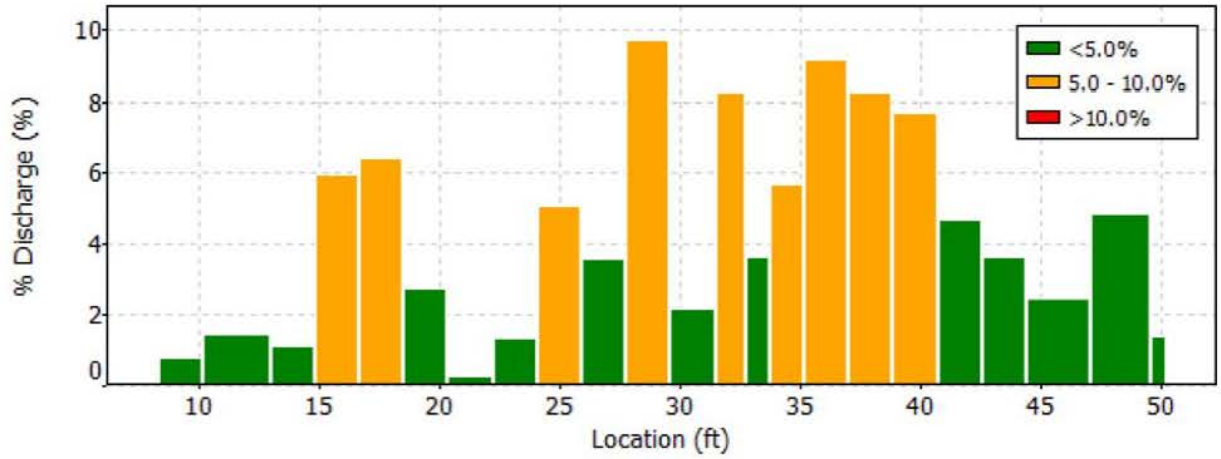
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

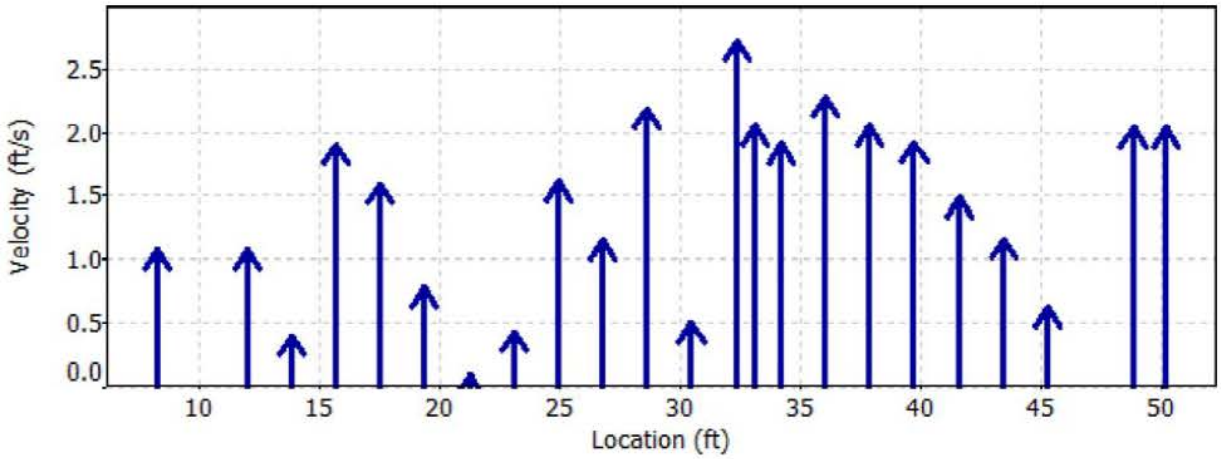
Reference 32

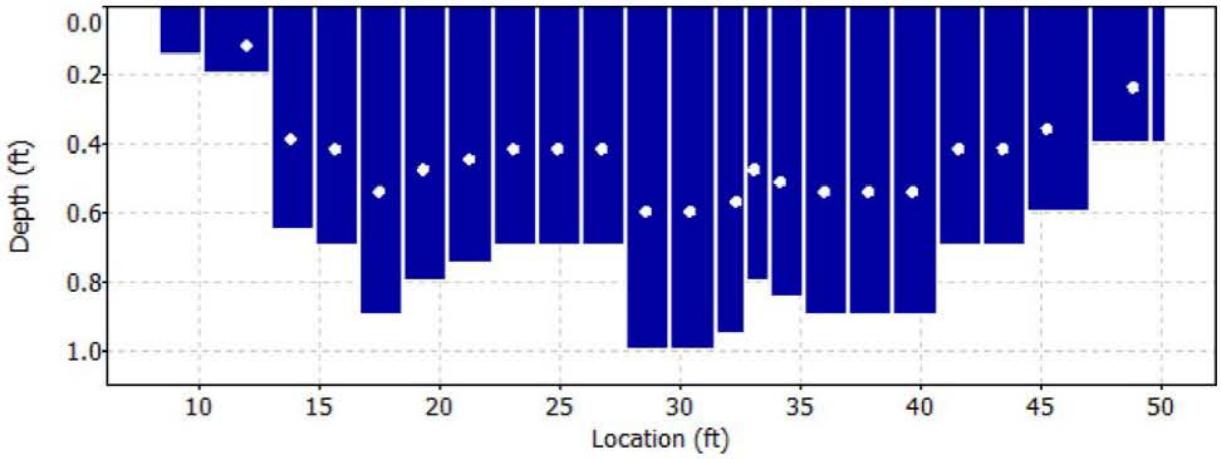
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A65.WAD	Site Name	A65
Start Date and Time	2015/09/29 11:28:02	Operator(s)	LC







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A65.WAD	Site Name	A65
Start Date and Time	2015/09/29 11:28:02	Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
1	12.00	0.6	High angle: 24
3	15.65	0.6	High number of spikes: 5
4	17.50	0.6	High standard error: 0.129
5	19.35	0.6	High angle: 24
6	21.20	0.6	High angle: -67
		0.6	High SNR variation during measurement: 4.3,5.2
7	23.05	0.6	High angle: -66
10	28.60	0.6	High number of spikes: 5
11	30.45	0.6	High standard error: 0.114
16	37.85	0.6	High angle: 26
19	43.40	0.6	High angle: 25

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	A66.WAD
Start Date and Time	2015/09/29 10:31:57

Site Details

Site Name	A66
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
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%	1.8%
Velocity	0.4%	2.0%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.3%	-
Overall	**3.1%**	**2.9%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	42.500
Mean SNR	21.7 dB	Total Area	22.936
Mean Temp	44.15 °F	Mean Depth	0.540
Disch. Equation	Mid-Section	Mean Velocity	1.5660
		Total Discharge	**35.9170**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:31	25.90	None	0.200	0.0	0.0	0.0000	1.00	0.8048	0.210	0.1691	0.5
1	10:31	28.00	0.6	0.400	0.6	0.160	0.8048	1.00	0.8048	0.840	0.6759	1.9
2	10:32	30.10	0.6	0.450	0.6	0.180	1.1476	1.00	1.1476	0.945	1.0849	3.0
3	10:33	32.20	0.6	0.400	0.6	0.160	1.3251	1.00	1.3251	0.840	1.1130	3.1
4	10:34	34.30	0.6	0.450	0.6	0.180	1.6900	1.00	1.6900	0.945	1.5975	4.4
5	10:35	36.40	0.6	0.500	0.6	0.200	1.6043	1.00	1.6043	1.050	1.6846	4.7
6	10:36	38.50	0.6	0.500	0.6	0.200	1.5712	1.00	1.5712	1.050	1.6498	4.6
7	10:37	40.60	0.6	0.600	0.6	0.240	1.6427	1.00	1.6427	1.260	2.0701	5.8
8	10:38	42.70	0.6	0.600	0.6	0.240	1.7851	1.00	1.7851	1.260	2.2495	6.3
9	10:39	44.80	0.6	0.600	0.6	0.240	1.7041	1.00	1.7041	1.260	2.1474	6.0
10	10:40	46.90	0.6	0.650	0.6	0.260	1.7034	1.00	1.7034	1.365	2.3250	6.5
11	10:41	49.00	0.6	0.650	0.6	0.260	1.5164	1.00	1.5164	1.365	2.0697	5.8
12	10:42	51.10	0.6	0.600	0.6	0.240	2.0226	1.00	2.0226	1.260	2.5489	7.1
13	10:43	53.20	0.6	0.500	0.6	0.200	1.8763	1.00	1.8763	1.050	1.9702	5.5
14	10:44	55.30	0.6	0.600	0.6	0.240	1.8793	1.00	1.8793	1.260	2.3682	6.6
15	10:45	57.40	0.6	0.600	0.6	0.240	2.1480	1.00	2.1480	1.260	2.7068	7.5
16	10:46	59.50	0.6	0.650	0.6	0.260	1.8970	1.00	1.8970	1.365	2.5892	7.2
17	10:47	61.60	0.6	0.650	0.6	0.260	1.5128	1.00	1.5128	1.365	2.0648	5.7
18	*10:48*	*63.70*	*0.6*	*0.600*	*0.6*	*0.240*	*1.2671*	*1.00*	*1.2671*	*1.260*	*1.5967*	*4.4*
19	10:49	65.80	0.6	0.600	0.6	0.240	0.7205	1.00	0.7205	1.260	0.9079	2.5
20	10:50	67.90	0.6	0.300	0.6	0.120	0.7054	1.00	0.7054	0.390	0.2748	0.8
21	10:50	68.40	None	0.300	0.0	0.0	0.0000	1.00	0.7054	0.075	0.0527	0.1

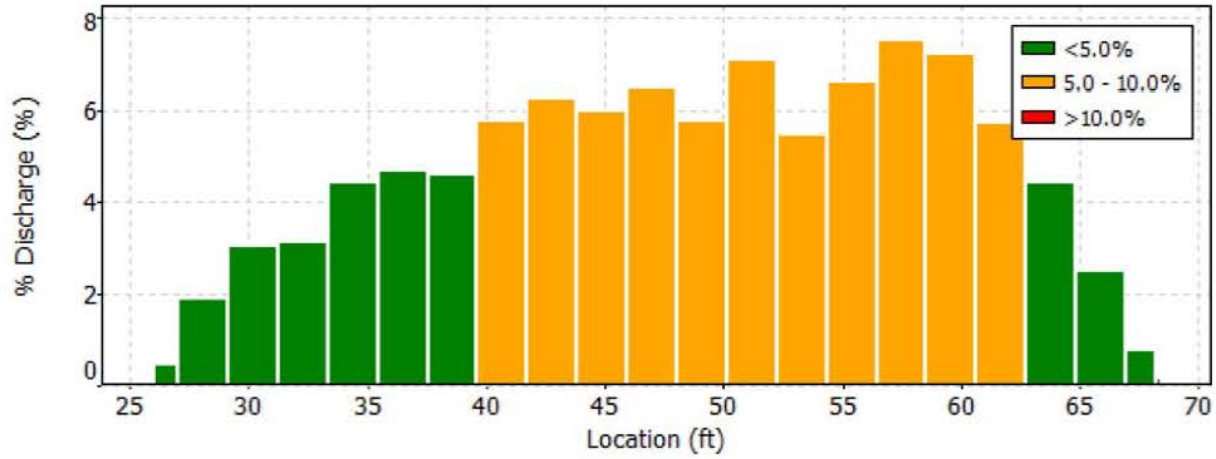
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

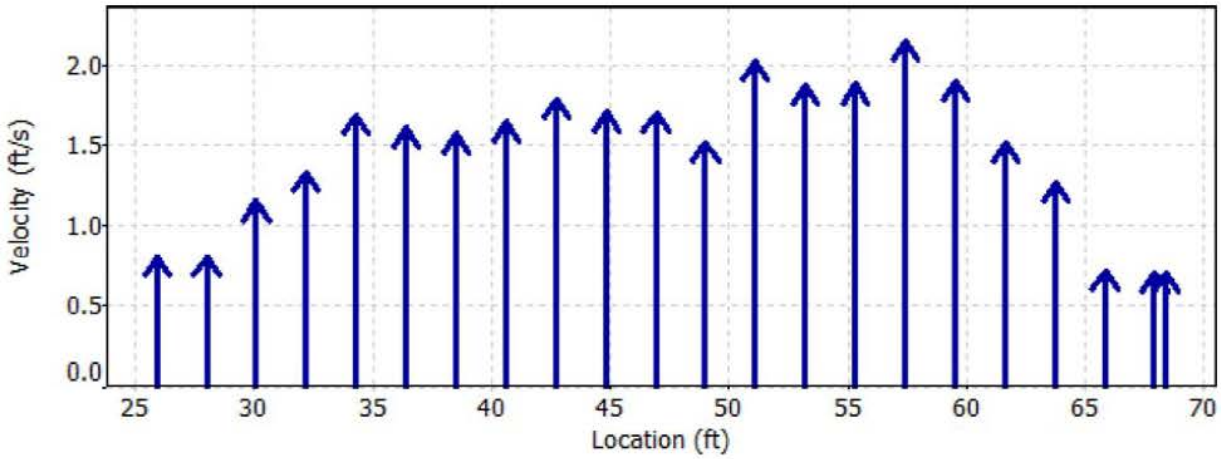
Reference 32

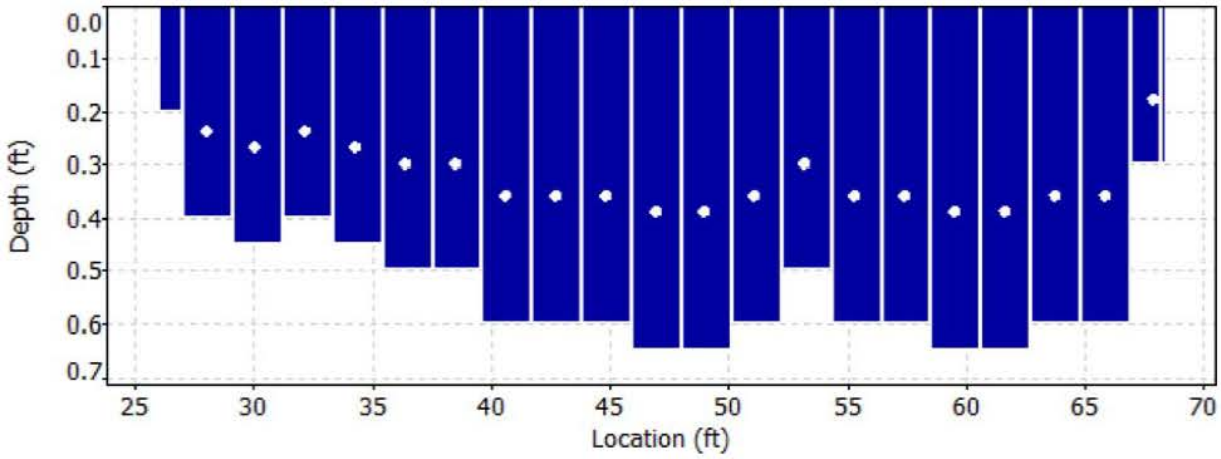
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A66.WAD	Site Name	A66
Start Date and Time	2015/09/29 10:31:57	Operator(s)	LC







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information	
File Name	A66.WAD
Start Date and Time	2015/09/29 10:31:57

Site Details	
Site Name	A66
Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
18	63.70	0.6	High angle: -24

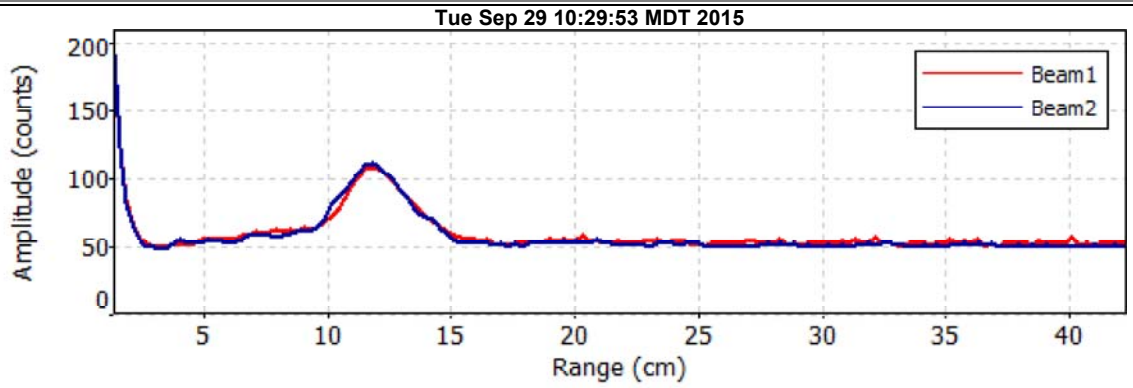
Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	A66.WAD	Site Name	A66
Start Date and Time	2015/09/29 10:31:57	Operator(s)	LC

Automatic Quality Control Test (BeamCheck)



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

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	BBRIDGE.WAD
Start Date and Time	2015/10/01 08:07:46

Site Details

Site Name	
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5879
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	0.1%	2.2%
Velocity	1.1%	3.2%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	1.8%	-
Overall	**3.0%**	**4.0%**

Summary

Averaging Int.	40	# Stations	28
Start Edge	LEW	Total Width	81.900
Mean SNR	18.8 dB	Total Area	105.154
Mean Temp	51.08 °F	Mean Depth	1.284
Disch. Equation	Mid-Section	Mean Velocity	1.3279
		Total Discharge	**139.6386**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:07	35.00	None	0.200	0.0	0.0	0.0000	1.00	0.2215	0.300	0.0665	0.0
1	08:07	38.00	0.6	0.250	0.6	0.100	0.2215	1.00	0.2215	0.750	0.1661	0.1
2	*08:09*	*41.00*	*0.6*	*0.450*	*0.6*	*0.180*	*0.0056*	*1.00*	*0.0056*	*1.575*	*0.0088*	*0.0*
3	*08:10*	*45.00*	*0.6*	*0.550*	*0.6*	*0.220*	*-0.0007*	*1.00*	*-0.0007*	*2.199*	*-0.0014*	*0.0*
4	08:11	49.00	0.6	0.550	0.6	0.220	0.1739	1.00	0.1739	1.925	0.3346	0.2
5	08:13	52.00	0.6	0.600	0.6	0.240	0.6414	1.00	0.6414	1.800	1.1547	0.8
6	08:14	55.00	0.6	0.800	0.6	0.320	0.7343	1.00	0.7343	2.400	1.7619	1.3
7	08:15	58.00	0.6	0.450	0.6	0.180	0.9938	1.00	0.9938	1.350	1.3420	1.0
8	08:17	61.00	0.6	1.000	0.6	0.400	0.7031	1.00	0.7031	3.000	2.1093	1.5
9	*08:18*	*64.00*	*0.6*	*1.000*	*0.6*	*0.400*	*0.7789*	*1.00*	*0.7789*	*3.000*	*2.3366*	*1.7*
10	08:19	67.00	0.6	1.400	0.6	0.560	0.9875	1.00	0.9875	4.200	4.1474	3.0
11	08:20	70.00	0.6	1.590	0.6	0.636	1.1919	1.00	1.1919	4.770	5.6851	4.1
12	08:21	73.00	0.6	1.350	0.6	0.540	1.7536	1.00	1.7536	4.050	7.1025	5.1
13	08:23	76.00	0.6	1.800	0.6	0.720	1.3455	1.00	1.3455	5.400	7.2650	5.2
14	08:24	79.00	0.6	1.780	0.6	0.712	1.3435	1.00	1.3435	5.340	7.1737	5.1
15	*08:26*	*82.00*	*0.6*	*1.750*	*0.6*	*0.700*	*1.4537*	*1.00*	*1.4537*	*5.250*	*7.6321*	*5.5*
16	08:27	85.00	0.6	1.700	0.6	0.680	1.8599	1.00	1.8599	5.100	9.4863	6.8
17	08:28	88.00	0.6	1.700	0.6	0.680	1.7260	1.00	1.7260	5.100	8.8035	6.3
18	*08:29*	*91.00*	*0.6*	*2.050*	*0.6*	*0.820*	*1.7625*	*1.00*	*1.7625*	*6.150*	*10.8385*	*7.8*
19	08:30	94.00	0.6	1.780	0.6	0.712	2.0801	1.00	2.0801	5.340	11.1066	8.0
20	08:31	97.00	0.6	1.900	0.6	0.760	1.4337	1.00	1.4337	5.700	8.1720	5.9
21	08:33	100.00	0.6	1.800	0.6	0.720	1.9167	1.00	1.9167	5.400	10.3492	7.4
22	*08:34*	*103.00*	*0.6*	*1.850*	*0.6*	*0.740*	*1.6975*	*1.00*	*1.6975*	*5.550*	*9.4215*	*6.7*
23	08:35	106.00	0.6	1.900	0.6	0.760	1.8540	1.00	1.8540	5.700	10.5675	7.6
24	08:36	109.00	0.6	1.870	0.6	0.748	1.4006	1.00	1.4006	5.610	7.8576	5.6
25	08:37	112.00	0.6	1.500	0.6	0.600	0.8192	1.00	0.8192	4.500	3.6865	2.6
26	*08:38*	*115.00*	*0.6*	*1.400*	*0.6*	*0.560*	*0.2881*	*1.00*	*0.2881*	*3.430*	*0.9880*	*0.7*
27	08:38	116.90	None	0.280	0.0	0.0	0.0000	1.00	0.2881	0.266	0.0766	0.1

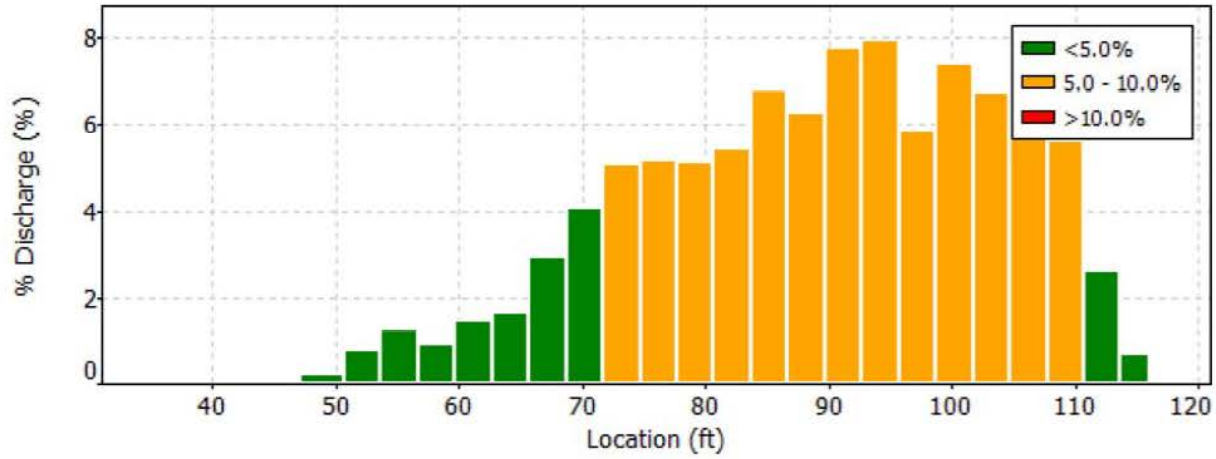
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

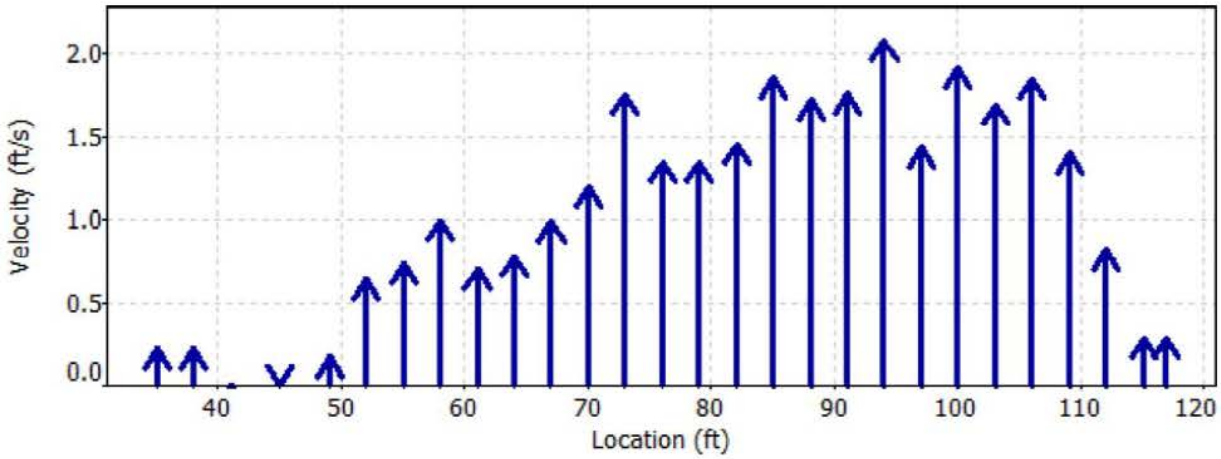
Reference 32

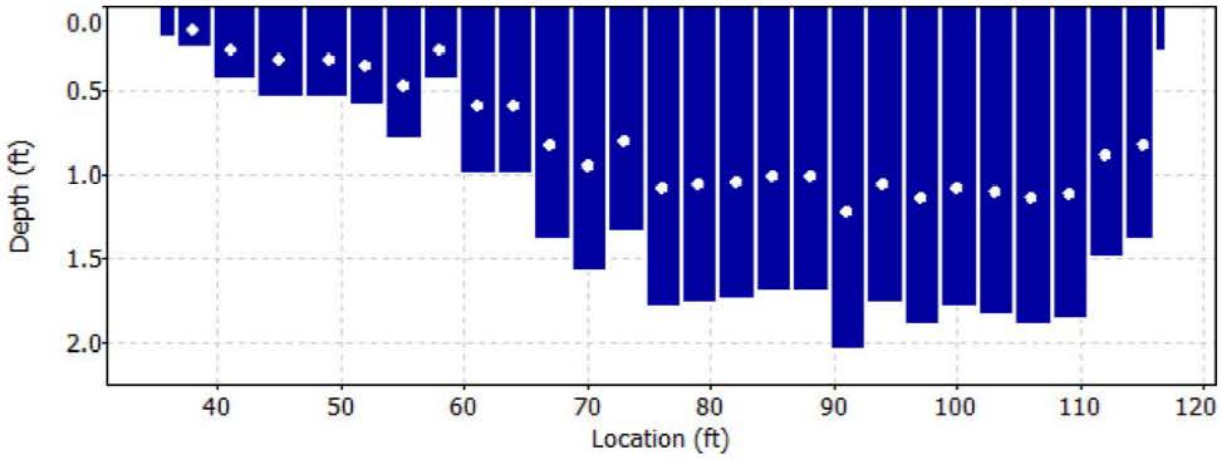
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	BBRIDGE.WAD	Site Name	
Start Date and Time	2015/10/01 08:07:46	Operator(s)	RM







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	BBRIDGE.WAD	Site Name	
Start Date and Time	2015/10/01 08:07:46	Operator(s)	RM

Quality Control

St	Loc	%Dep	Message
2	41.00	0.6	High SNR variation during measurement: 4.7,5.2
3	45.00	0.6	SNR (64.5) is different from typical SNR (18.8)
9	64.00	0.6	High number of spikes: 5
15	82.00	0.6	High standard error: 0.101
18	91.00	0.6	High standard error: 0.108
22	103.00	0.6	High standard error: 0.102
26	115.00	0.6	High angle: 20

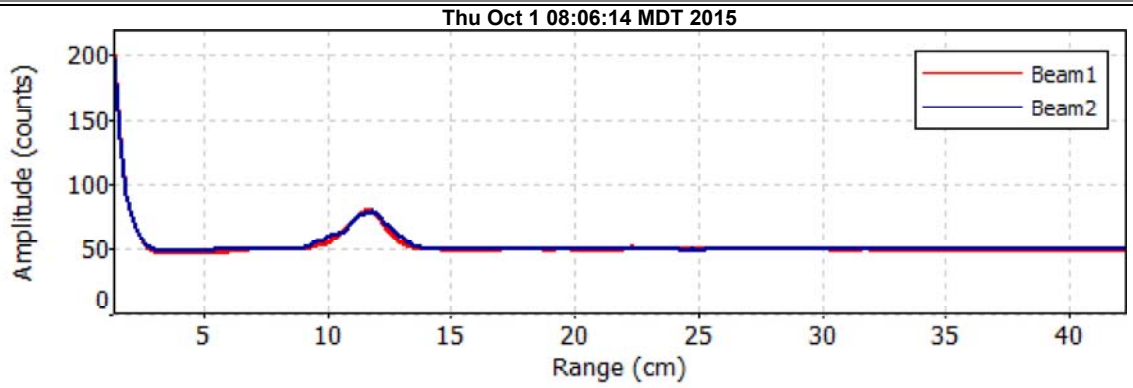
Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	BBRIDGE.WAD	Site Name	
Start Date and Time	2015/10/01 08:07:46	Operator(s)	RM

Automatic Quality Control Test (BeamCheck)



- Noise level check - Pass
- SNR check - Pass
- Peak location check - Fail
  SNR too low for test
- Peak shape check - Fail
  SNR too low for test

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	CC03.WAD
Start Date and Time	2015/09/29 10:47:08

Site Details

Site Name	CC03
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%	3.1%
Velocity	2.2%	12.7%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.3%	-
Overall	**3.9%**	**13.2%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	7.199
Mean SNR	49.5 dB	Total Area	2.314
Mean Temp	46.28 °F	Mean Depth	0.321
Disch. Equation	Mid-Section	Mean Velocity	0.7248
		Total Discharge	**1.6775**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:47	6.20	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*10:47*	*6.60*	*0.6*	*0.400*	*0.6*	*0.160*	*0.1184*	*1.00*	*0.1184*	*0.160*	*0.0189*	*1.1*
2	*10:48*	*7.00*	*0.6*	*0.400*	*0.6*	*0.160*	*-0.0164*	*1.00*	*-0.0164*	*0.160*	*-0.0026*	*-0.2*
3	10:49	7.40	0.6	0.350	0.6	0.140	1.3222	1.00	1.3222	0.105	0.1389	8.3
4	11:05	7.60	0.6	0.350	0.6	0.140	0.7589	1.00	0.7589	0.070	0.0531	3.2
5	*10:50*	*7.80*	*0.6*	*0.300*	*0.6*	*0.120*	*1.7411*	*1.00*	*1.7411*	*0.090*	*0.1566*	*9.3*
6	*10:51*	*8.20*	*0.6*	*0.300*	*0.6*	*0.120*	*1.3550*	*1.00*	*1.3550*	*0.120*	*0.1625*	*9.7*
7	10:52	8.60	0.6	0.300	0.6	0.120	1.6152	1.00	1.6152	0.090	0.1453	8.7
8	*11:06*	*8.80*	*0.6*	*0.400*	*0.6*	*0.160*	*1.4350*	*1.00*	*1.4350*	*0.080*	*0.1148*	*6.8*
9	10:53	9.00	0.6	0.350	0.6	0.140	1.6798	1.00	1.6798	0.070	0.1177	7.0
10	*11:08*	*9.20*	*0.6*	*0.300*	*0.6*	*0.120*	*1.3986*	*1.00*	*1.3986*	*0.060*	*0.0839*	*5.0*
11	*10:55*	*9.40*	*0.6*	*0.300*	*0.6*	*0.120*	*1.7014*	*1.00*	*1.7014*	*0.090*	*0.1529*	*9.1*
12	*10:56*	*9.80*	*0.6*	*0.350*	*0.6*	*0.140*	*0.3619*	*1.00*	*0.3619*	*0.140*	*0.0507*	*3.0*
13	10:57	10.20	0.6	0.300	0.6	0.120	0.1611	1.00	0.1611	0.120	0.0193	1.2
14	*10:58*	*10.60*	*0.6*	*0.450*	*0.6*	*0.180*	*0.1522*	*1.00*	*0.1522*	*0.180*	*0.0274*	*1.6*
15	*10:59*	*11.00*	*0.6*	*0.500*	*0.6*	*0.200*	*0.2575*	*1.00*	*0.2575*	*0.200*	*0.0515*	*3.1*
16	*11:00*	*11.40*	*0.6*	*0.400*	*0.6*	*0.160*	*0.1470*	*1.00*	*0.1470*	*0.160*	*0.0235*	*1.4*
17	11:01	11.80	0.6	0.300	0.6	0.120	1.0312	1.00	1.0312	0.120	0.1237	7.4
18	11:02	12.20	0.6	0.250	0.6	0.100	0.8438	1.00	0.8438	0.100	0.0844	5.0
19	*11:03*	*12.60*	*0.6*	*0.250*	*0.6*	*0.100*	*0.6165*	*1.00*	*0.6165*	*0.100*	*0.0616*	*3.7*
20	11:03	13.00	0.6	0.250	0.6	0.100	0.9354	1.00	0.9354	0.100	0.0935	5.6
21	11:03	13.40	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

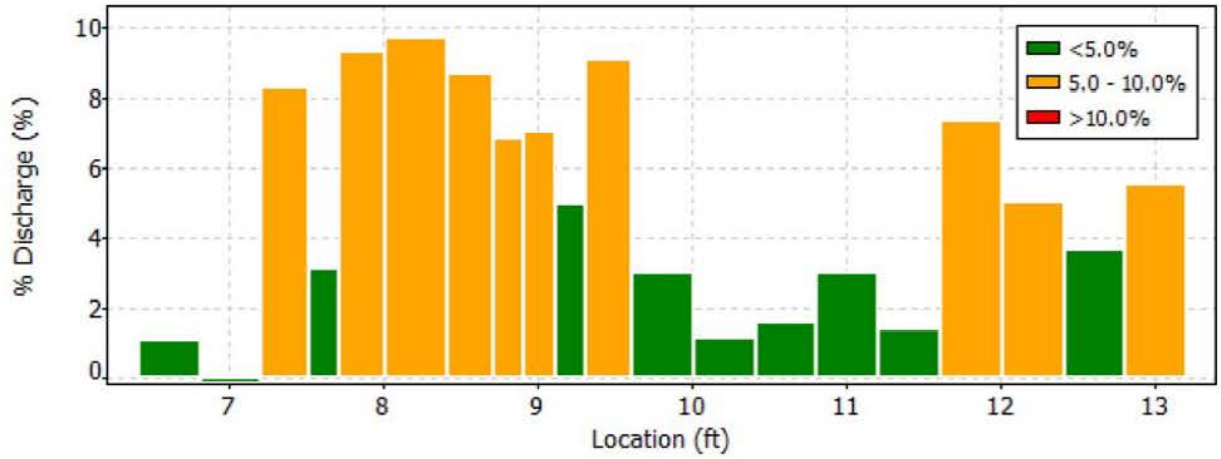
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

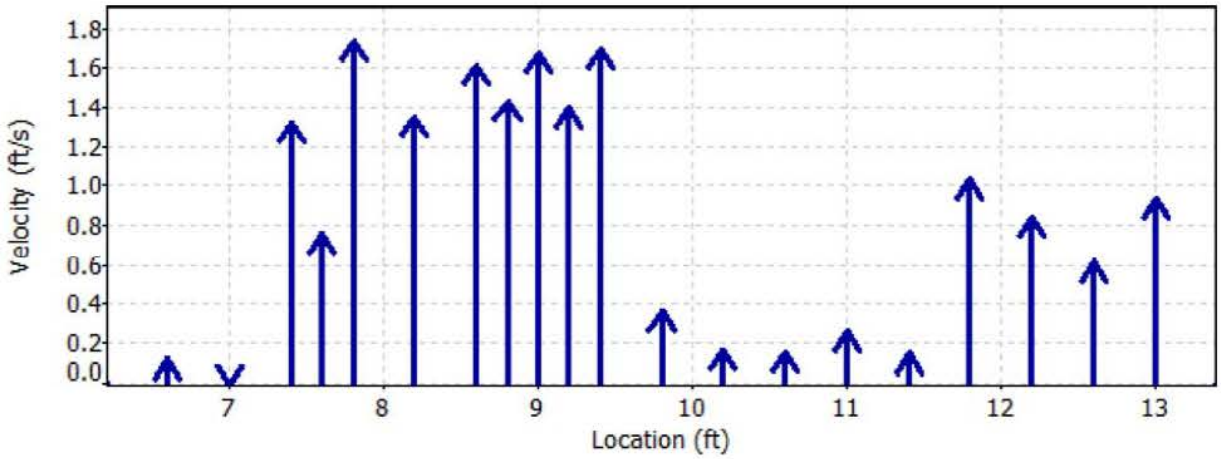
Reference 32

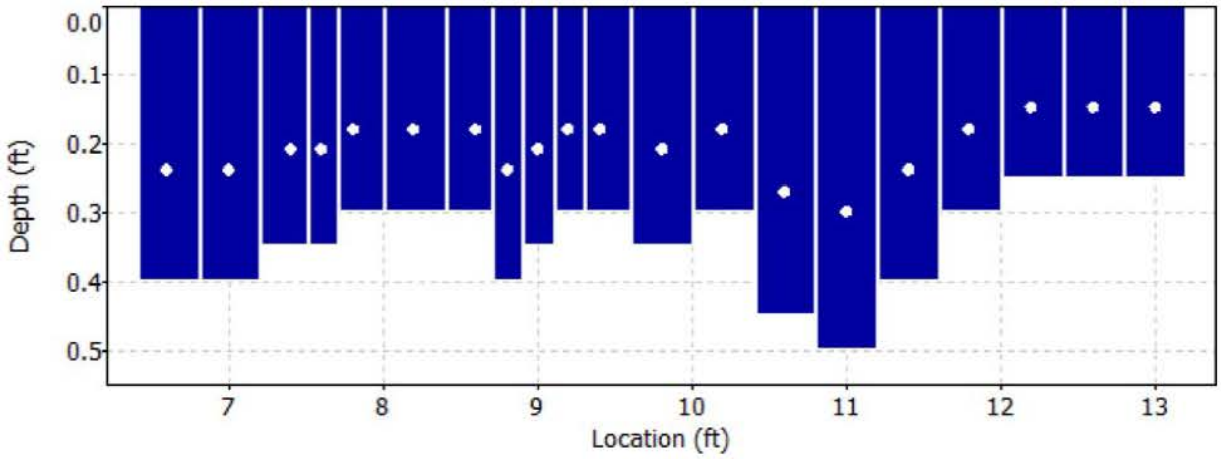
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	CC03.WAD	Site Name	CC03
Start Date and Time	2015/09/29 10:47:08	Operator(s)	RB







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	CC03.WAD	Site Name	CC03
Start Date and Time	2015/09/29 10:47:08	Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
1	6.60	0.6	High angle: -33
		0.6	High differences in beam SNR: 25.7,47.2
		0.6	SNR (36.5) is different from typical SNR (49.5)
		0.6	High standard error: 0.100
2	7.00	0.6	High number of spikes: 11
5	7.80	0.6	High standard error: 0.168
6	8.20	0.6	High standard error: 0.101
8	8.80	0.6	High standard error: 0.123
10	9.20	0.6	High angle: 20
11	9.40	0.6	High standard error: 0.108
12	9.80	0.6	High number of spikes: 6
14	10.60	0.6	High angle: 65
15	11.00	0.6	High angle: 54
16	11.40	0.6	High angle: 31
19	12.60	0.6	High angle: -30

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	CC03B.WAD
Start Date and Time	2015/09/29 11:30:10

Site Details

Site Name	CC03B
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%	2.4%
Velocity	1.4%	7.7%
Width	0.1%	0.1%
Method	2.0%	-
# Stations	2.3%	-
Overall	**3.5%**	**8.1%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	REW	Total Width	5.398
Mean SNR	47.6 dB	Total Area	1.780
Mean Temp	47.88 °F	Mean Depth	0.330
Disch. Equation	Mid-Section	Mean Velocity	0.4540
		Total Discharge	**0.8083**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:30	5.40	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*11:30*	*5.70*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0997*	*1.00*	*-0.0997*	*0.060*	*-0.0060*	*-0.7*
2	*11:31*	*6.00*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0000*	*1.00*	*0.0000*	*0.090*	*0.0000*	*0.0*
3	11:33	6.30	0.6	0.250	0.6	0.100	0.1486	1.00	0.1486	0.075	0.0111	1.4
4	*11:34*	*6.60*	*0.6*	*0.300*	*0.6*	*0.120*	*0.1073*	*1.00*	*0.1073*	*0.075*	*0.0080*	*1.0*
5	*11:51*	*6.80*	*0.6*	*0.300*	*0.6*	*0.120*	*0.7411*	*1.00*	*0.7411*	*0.045*	*0.0333*	*4.1*
6	*11:35*	*6.90*	*0.6*	*0.300*	*0.6*	*0.120*	*1.2500*	*1.00*	*1.2500*	*0.037*	*0.0469*	*5.8*
7	11:48	7.05	0.6	0.350	0.6	0.140	0.8950	1.00	0.8950	0.052	0.0470	5.8
8	11:36	7.20	0.6	0.400	0.6	0.160	1.1444	1.00	1.1444	0.060	0.0687	8.5
9	11:49	7.35	0.6	0.350	0.6	0.140	1.0781	1.00	1.0781	0.052	0.0566	7.0
10	11:37	7.50	0.6	0.350	0.6	0.140	1.0046	1.00	1.0046	0.079	0.0790	9.8
11	*11:38*	*7.80*	*0.6*	*0.350*	*0.6*	*0.140*	*0.5627*	*1.00*	*0.5627*	*0.105*	*0.0591*	*7.3*
12	*11:39*	*8.10*	*0.6*	*0.350*	*0.6*	*0.140*	*0.5853*	*1.00*	*0.5853*	*0.105*	*0.0614*	*7.6*
13	11:40	8.40	0.6	0.400	0.6	0.160	0.6539	1.00	0.6539	0.120	0.0784	9.7
14	11:41	8.70	0.6	0.400	0.6	0.160	0.4623	1.00	0.4623	0.120	0.0554	6.9
15	11:42	9.00	0.6	0.500	0.6	0.200	0.5062	1.00	0.5062	0.150	0.0759	9.4
16	*11:43*	*9.30*	*0.6*	*0.500*	*0.6*	*0.200*	*0.4219*	*1.00*	*0.4219*	*0.150*	*0.0633*	*7.8*
17	*11:44*	*9.60*	*0.6*	*0.350*	*0.6*	*0.140*	*0.2320*	*1.00*	*0.2320*	*0.105*	*0.0243*	*3.0*
18	*11:45*	*9.90*	*0.6*	*0.350*	*0.6*	*0.140*	*0.1345*	*1.00*	*0.1345*	*0.105*	*0.0141*	*1.7*
19	11:46	10.20	0.6	0.350	0.6	0.140	0.1693	1.00	0.1693	0.105	0.0178	2.2
20	11:47	10.50	0.6	0.300	0.6	0.120	0.1545	1.00	0.1545	0.090	0.0139	1.7
21	11:47	10.80	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

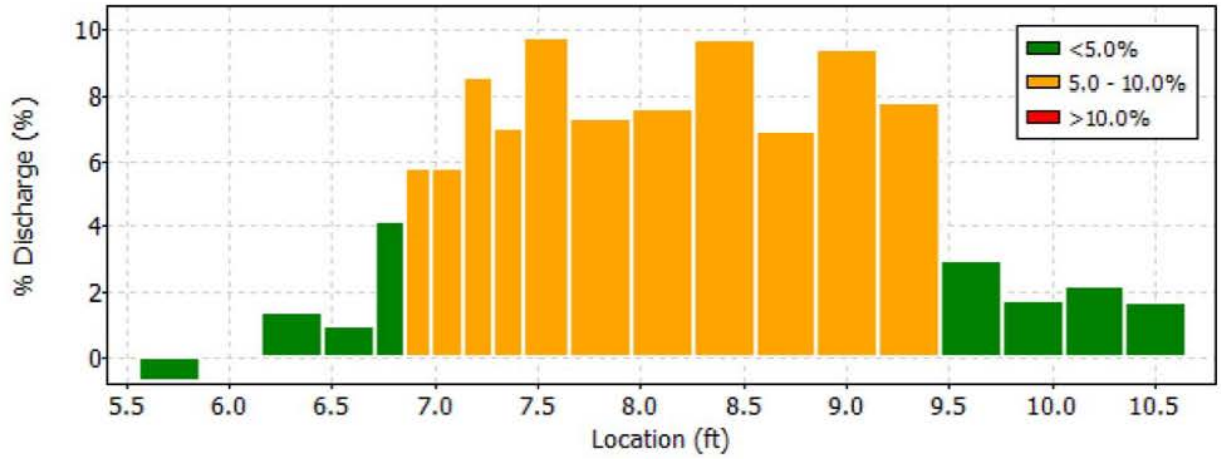
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

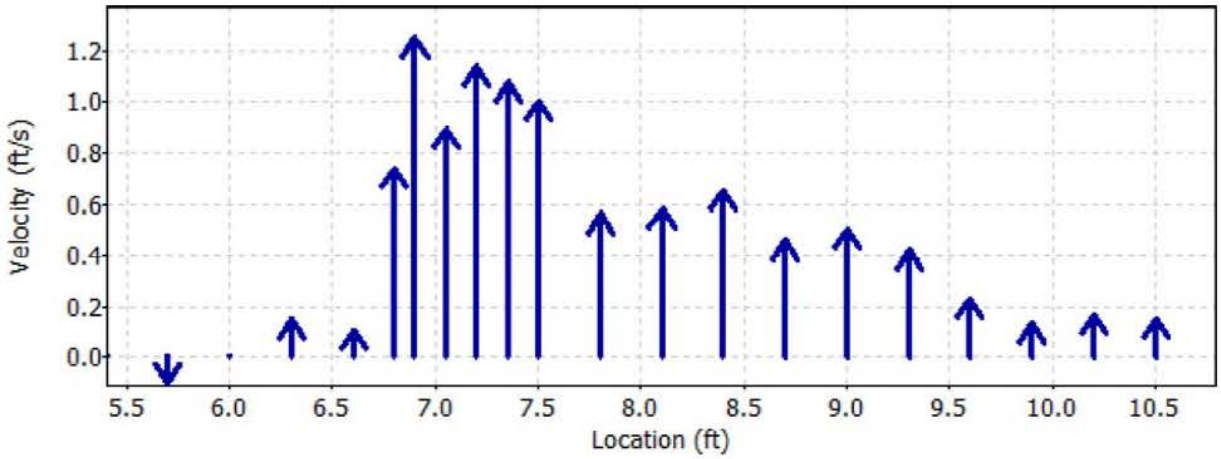
Reference 32

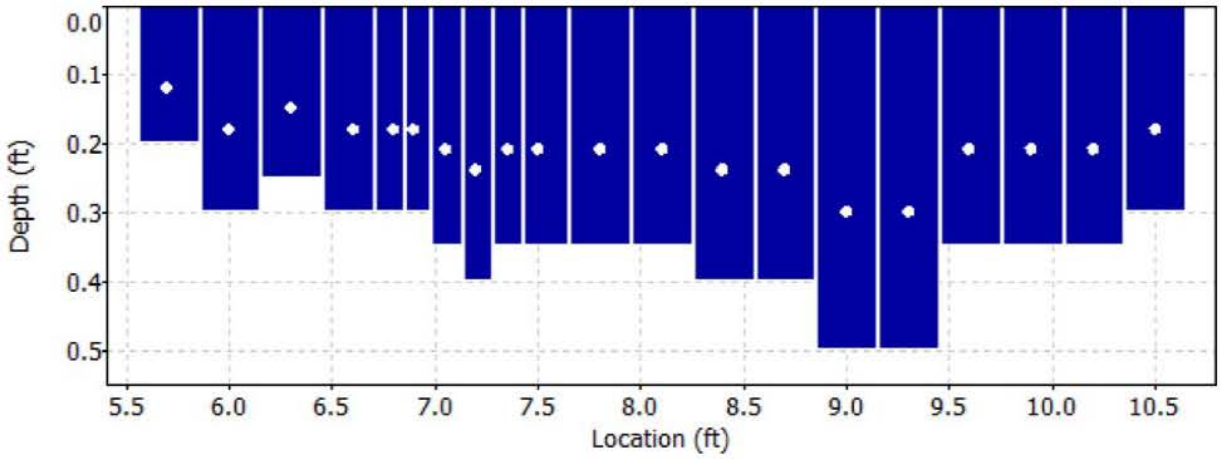
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	CC03B.WAD	Site Name	CC03B
Start Date and Time	2015/09/29 11:30:10	Operator(s)	RB







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information	
File Name	CC03B.WAD
Start Date and Time	2015/09/29 11:30:10

Site Details	
Site Name	CC03B
Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
1	5.70	0.6	High angle: -162
2	6.00	0.6	SNR (73.7) is different from typical SNR (47.6)
4	6.60	0.6	High angle: 42
5	6.80	0.6	High standard error: 0.049
6	6.90	0.6	High standard error: 0.103
11	7.80	0.6	High standard error: 0.042
12	8.10	0.6	High standard error: 0.046
16	9.30	0.6	High angle: 21
17	9.60	0.6	High angle: 41
18	9.90	0.6	High angle: 36

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	CC03D.WAD
Start Date and Time	2015/09/29 11:42:13

Site Details

Site Name	CC03D
Operator(s)	SA

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
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%	2.3%
Velocity	1.0%	3.7%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.0%	-
Overall	**3.1%**	**4.4%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	LEW	Total Width	2.898
Mean SNR	35.7 dB	Total Area	0.590
Mean Temp	44.70 °F	Mean Depth	0.204
Disch. Equation	Mid-Section	Mean Velocity	1.5623
		Total Discharge	**0.9217**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:42	2.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*11:43*	*2.80*	*0.6*	*0.100*	*0.6*	*0.040*	*0.2756*	*1.00*	*0.2756*	*0.020*	*0.0055*	*0.6*
2	*11:44*	*2.90*	*0.6*	*0.100*	*0.6*	*0.040*	*0.1854*	*1.00*	*0.1854*	*0.010*	*0.0019*	*0.2*
3	11:45	3.00	0.6	0.100	0.6	0.040	0.2254	1.00	0.2254	0.010	0.0023	0.2
4	*11:46*	*3.10*	*0.6*	*0.150*	*0.6*	*0.060*	*0.3944*	*1.00*	*0.3944*	*0.015*	*0.0059*	*0.6*
5	*11:47*	*3.20*	*0.6*	*0.150*	*0.6*	*0.060*	*0.4072*	*1.00*	*0.4072*	*0.015*	*0.0061*	*0.7*
6	11:48	3.30	0.6	0.200	0.6	0.080	0.6030	1.00	0.6030	0.020	0.0121	1.3
7	11:49	3.40	0.6	0.200	0.6	0.080	0.7753	1.00	0.7753	0.020	0.0155	1.7
8	11:50	3.50	0.6	0.200	0.6	0.080	1.2766	1.00	1.2766	0.020	0.0256	2.8
9	11:51	3.60	0.6	0.300	0.6	0.120	1.1460	1.00	1.1460	0.030	0.0344	3.7
10	11:52	3.70	0.6	0.350	0.6	0.140	0.9734	1.00	0.9734	0.035	0.0341	3.7
11	*11:53*	*3.80*	*0.6*	*0.350*	*0.6*	*0.140*	*1.6650*	*1.00*	*1.6650*	*0.035*	*0.0583*	*6.3*
12	11:54	3.90	0.6	0.300	0.6	0.120	1.8110	1.00	1.8110	0.030	0.0543	5.9
13	11:55	4.00	0.6	0.350	0.6	0.140	2.0272	1.00	2.0272	0.035	0.0710	7.7
14	11:56	4.10	0.6	0.350	0.6	0.140	2.2333	1.00	2.2333	0.035	0.0782	8.5
15	11:57	4.20	0.6	0.350	0.6	0.140	2.1391	1.00	2.1391	0.035	0.0749	8.1
16	*11:58*	*4.30*	*0.6*	*0.350*	*0.6*	*0.140*	*1.5676*	*1.00*	*1.5676*	*0.035*	*0.0549*	*6.0*
17	12:00	4.40	0.6	0.250	0.6	0.100	2.8629	1.00	2.8629	0.025	0.0716	7.8
18	12:01	4.50	0.6	0.250	0.6	0.100	2.7949	1.00	2.7949	0.025	0.0699	7.6
19	12:02	4.60	0.6	0.250	0.6	0.100	2.8136	1.00	2.8136	0.025	0.0704	7.6
20	12:03	4.70	0.6	0.250	0.6	0.100	2.6811	1.00	2.6811	0.025	0.0671	7.3
21	12:04	4.80	0.6	0.200	0.6	0.080	1.8583	1.00	1.8583	0.030	0.0556	6.0
22	*12:05*	*5.00*	*0.6*	*0.200*	*0.6*	*0.080*	*0.9488*	*1.00*	*0.9488*	*0.040*	*0.0378*	*4.1*
23	12:06	5.20	0.6	0.100	0.6	0.040	0.7198	1.00	0.7198	0.020	0.0143	1.6
24	12:06	5.40	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

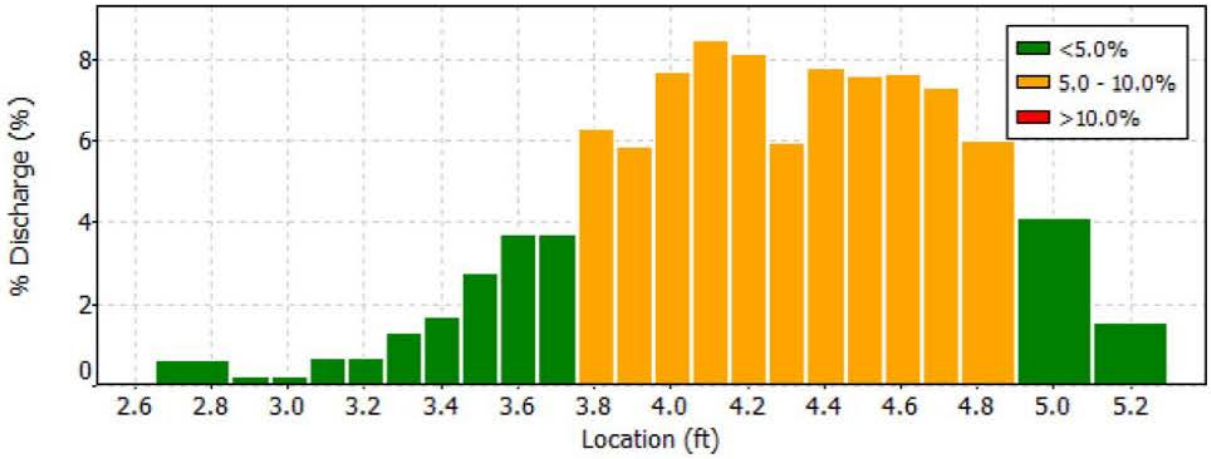
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

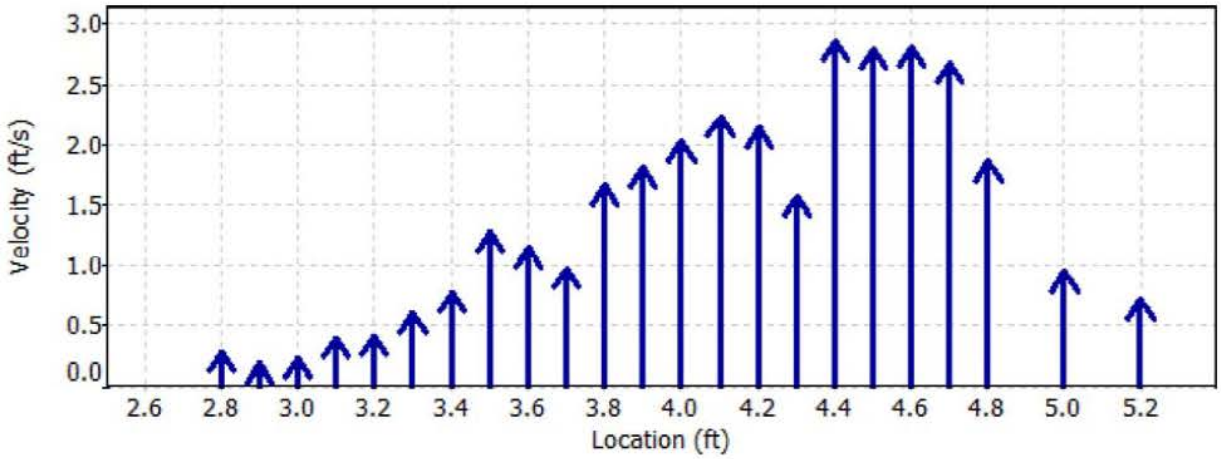
Reference 32

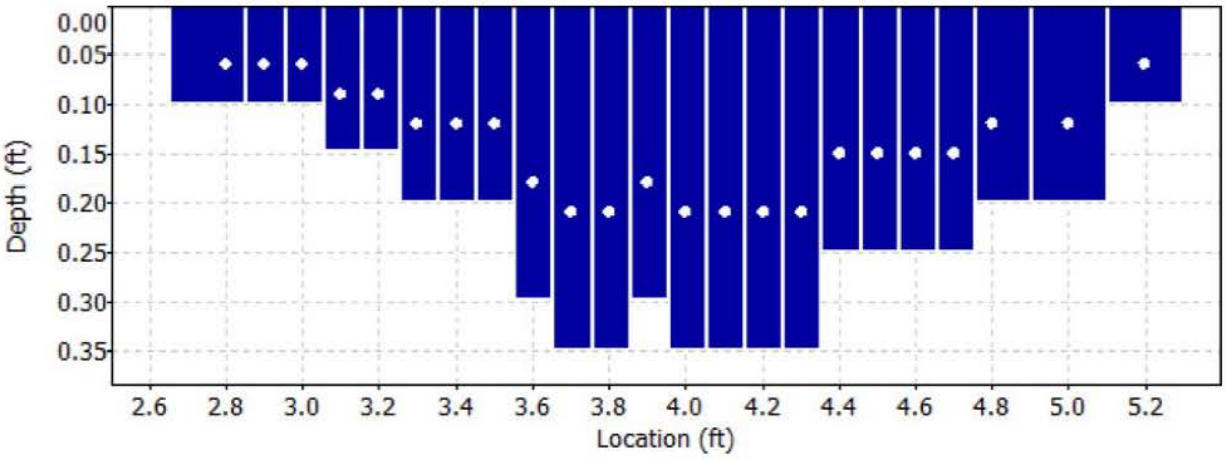
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	CC03D.WAD	Site Name	CC03D
Start Date and Time	2015/09/29 11:42:13	Operator(s)	SA







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information	
File Name	CC03D.WAD
Start Date and Time	2015/09/29 11:42:13

Site Details	
Site Name	CC03D
Operator(s)	SA

Quality Control

St	Loc	%Dep	Message
1	2.80	0.6	High angle: 23
2	2.90	0.6	High angle: 21
4	3.10	0.6	High angle: 20
5	3.20	0.6	High angle: 28
11	3.80	0.6	High standard error: 0.107
16	4.30	0.6	High standard error: 0.114
22	5.00	0.6	High number of spikes: 5

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	CC06.WAD
Start Date and Time	2015/09/29 07:29:34

Site Details

Site Name	CC06
Operator(s)	RB

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
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%	1.8%
Velocity	1.5%	6.4%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.4%	-
Overall	**3.6%**	**6.7%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	REW	Total Width	4.798
Mean SNR	32.4 dB	Total Area	1.418
Mean Temp	45.52 °F	Mean Depth	0.296
Disch. Equation	Mid-Section	Mean Velocity	0.8382
		Total Discharge	**1.1886**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	07:29	1.10	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*07:29*	*1.40*	*0.6*	*0.200*	*0.6*	*0.080*	*1.7690*	*1.00*	*1.7690*	*0.060*	*0.1062*	*8.9*
2	*07:30*	*1.70*	*0.6*	*0.250*	*0.6*	*0.100*	*1.8373*	*1.00*	*1.8373*	*0.050*	*0.0918*	*7.7*
3	07:46	1.80	0.6	0.300	0.6	0.120	1.9245	1.00	1.9245	0.045	0.0865	7.3
4	*07:31*	*2.00*	*0.6*	*0.300*	*0.6*	*0.120*	*1.3488*	*1.00*	*1.3488*	*0.045*	*0.0607*	*5.1*
5	*07:47*	*2.10*	*0.6*	*0.300*	*0.6*	*0.120*	*1.6253*	*1.00*	*1.6253*	*0.045*	*0.0731*	*6.1*
6	*07:32*	*2.30*	*0.6*	*0.300*	*0.6*	*0.120*	*2.0010*	*1.00*	*2.0010*	*0.052*	*0.1050*	*8.8*
7	*07:49*	*2.45*	*0.6*	*0.300*	*0.6*	*0.120*	*1.4167*	*1.00*	*1.4167*	*0.045*	*0.0637*	*5.4*
8	07:33	2.60	0.6	0.350	0.6	0.140	1.4554	1.00	1.4554	0.044	0.0637	5.4
9	*07:50*	*2.70*	*0.6*	*0.300*	*0.6*	*0.120*	*1.8583*	*1.00*	*1.8583*	*0.045*	*0.0835*	*7.0*
10	07:34	2.90	0.6	0.350	0.6	0.140	0.9154	1.00	0.9154	0.087	0.0800	6.7
11	07:35	3.20	0.6	0.350	0.6	0.140	0.6667	1.00	0.6667	0.105	0.0700	5.9
12	07:36	3.50	0.6	0.350	0.6	0.140	0.4731	1.00	0.4731	0.105	0.0497	4.2
13	07:37	3.80	0.6	0.400	0.6	0.160	0.5059	1.00	0.5059	0.120	0.0607	5.1
14	07:38	4.10	0.6	0.400	0.6	0.160	0.6916	1.00	0.6916	0.120	0.0829	7.0
15	07:40	4.40	0.6	0.400	0.6	0.160	0.5719	1.00	0.5719	0.120	0.0686	5.8
16	07:41	4.70	0.6	0.350	0.6	0.140	0.3550	1.00	0.3550	0.105	0.0373	3.1
17	*07:42*	*5.00*	*0.6*	*0.300*	*0.6*	*0.120*	*0.1102*	*1.00*	*0.1102*	*0.090*	*0.0099*	*0.8*
18	07:43	5.30	0.6	0.250	0.6	0.100	0.0059	1.00	0.0059	0.075	0.0004	0.0
19	*07:44*	*5.60*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0846*	*1.00*	*-0.0846*	*0.060*	*-0.0051*	*-0.4*
20	07:44	5.90	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

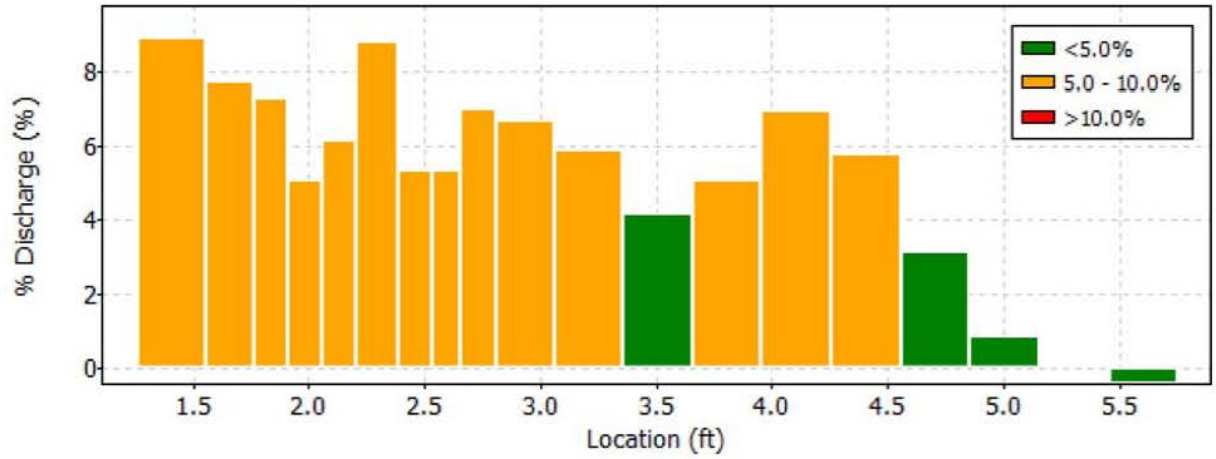
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

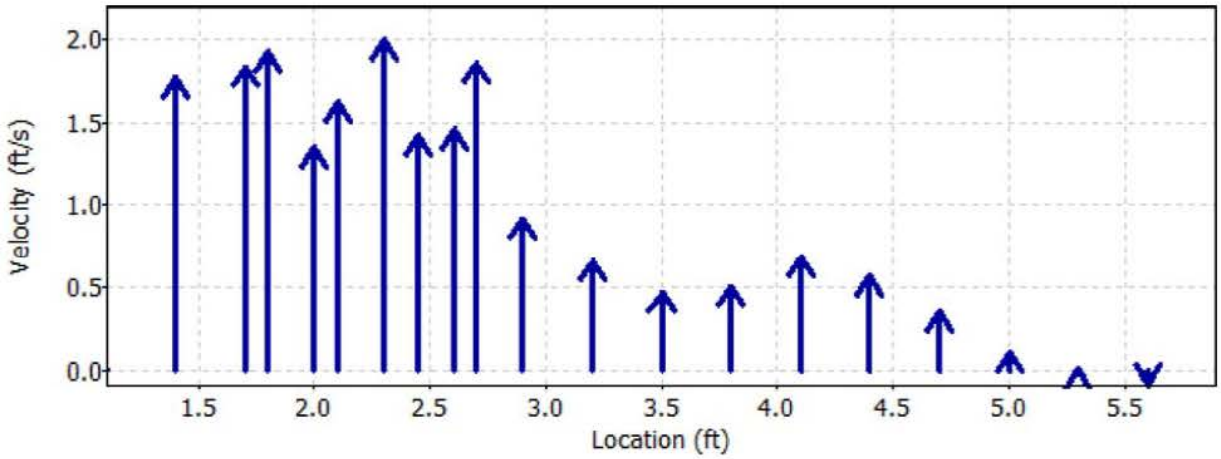
Reference 32

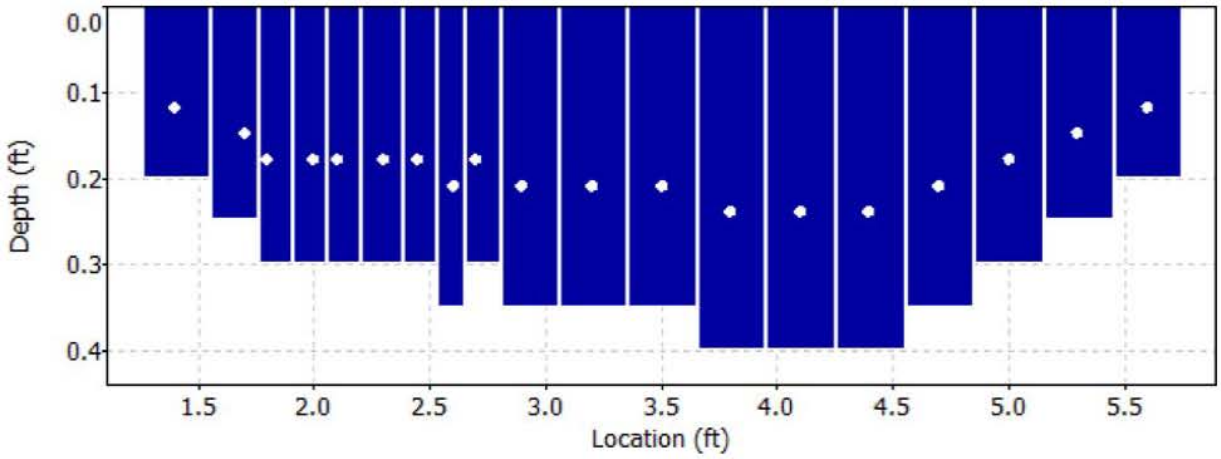
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	CC06.WAD	Site Name	CC06
Start Date and Time	2015/09/29 07:29:34	Operator(s)	RB







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information	
File Name	CC06.WAD
Start Date and Time	2015/09/29 07:29:34

Site Details	
Site Name	CC06
Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
1	1.40	0.6	High standard error: 0.117
2	1.70	0.6	High standard error: 0.101
4	2.00	0.6	High standard error: 0.114
5	2.10	0.6	High standard error: 0.097
6	2.30	0.6	High standard error: 0.128
7	2.45	0.6	High standard error: 0.108
9	2.70	0.6	High standard error: 0.106
17	5.00	0.6	High angle: 34
19	5.60	0.6	High angle: 170

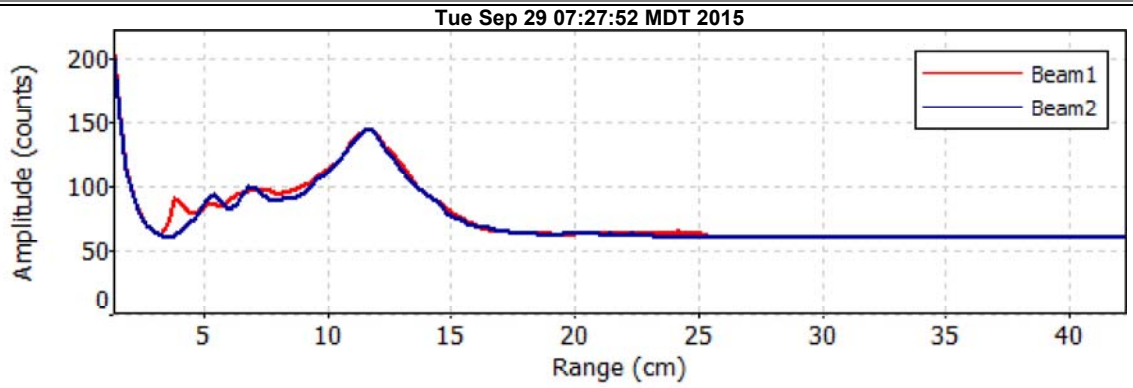
Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	CC06.WAD	Site Name	CC06
Start Date and Time	2015/09/29 07:29:34	Operator(s)	RB

Automatic Quality Control Test (BeamCheck)



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

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	CC17A.WAD
Start Date and Time	2015/09/29 13:06:29

Site Details

Site Name	
Operator(s)	SA

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
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%	7.2%
Velocity	1.1%	8.0%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	1.7%	-
Overall	**3.0%**	**10.9%**

Summary

Averaging Int.	40	# Stations	31
Start Edge	LEW	Total Width	7.900
Mean SNR	34.8 dB	Total Area	2.819
Mean Temp	45.99 °F	Mean Depth	0.357
Disch. Equation	Mid-Section	Mean Velocity	1.2157
		Total Discharge	**3.4270**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:06	3.40	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*13:06*	*3.70*	*0.6*	*0.100*	*0.6*	*0.040*	*0.0010*	*1.00*	*0.0010*	*0.030*	*0.0000*	*0.0*
2	*13:07*	*4.00*	*0.6*	*0.100*	*0.6*	*0.040*	*0.2536*	*1.00*	*0.2536*	*0.030*	*0.0076*	*0.2*
3	*13:08*	*4.30*	*0.6*	*0.200*	*0.6*	*0.080*	*0.8848*	*1.00*	*0.8848*	*0.060*	*0.0532*	*1.6*
4	13:09	4.60	0.6	0.100	0.6	0.040	1.6375	1.00	1.6375	0.030	0.0492	1.4
5	13:10	4.90	0.6	0.300	0.6	0.120	2.3540	1.00	2.3540	0.090	0.2119	6.2
6	*13:11*	*5.20*	*0.6*	*0.300*	*0.6*	*0.120*	*2.1532*	*1.00*	*2.1532*	*0.090*	*0.1938*	*5.7*
7	*13:13*	*5.50*	*0.6*	*0.200*	*0.6*	*0.080*	*0.1575*	*1.00*	*0.1575*	*0.060*	*0.0095*	*0.3*
8	*13:14*	*5.80*	*0.6*	*0.300*	*0.6*	*0.120*	*0.9170*	*1.00*	*0.9170*	*0.090*	*0.0825*	*2.4*
9	*13:15*	*6.10*	*0.6*	*0.400*	*0.6*	*0.160*	*1.9354*	*1.00*	*1.9354*	*0.120*	*0.2324*	*6.8*
10	13:16	6.40	0.6	0.400	0.6	0.160	0.6109	1.00	0.6109	0.120	0.0733	2.1
11	13:17	6.70	0.6	0.400	0.6	0.160	0.3238	1.00	0.3238	0.120	0.0389	1.1
12	13:18	7.00	0.6	0.400	0.6	0.160	0.2129	1.00	0.2129	0.120	0.0256	0.7
13	*13:19*	*7.30*	*0.6*	*0.500*	*0.6*	*0.200*	*0.1122*	*1.00*	*0.1122*	*0.150*	*0.0168*	*0.5*
14	*13:20*	*7.60*	*0.6*	*0.500*	*0.6*	*0.200*	*-0.0679*	*1.00*	*-0.0679*	*0.150*	*-0.0102*	*-0.3*
15	*13:20*	*7.90*	*0.6*	*0.500*	*0.6*	*0.200*	*-0.0226*	*1.00*	*-0.0226*	*0.150*	*-0.0034*	*-0.1*
16	13:21	8.20	0.6	0.600	0.6	0.240	1.5295	1.00	1.5295	0.180	0.2755	8.0
17	13:22	8.50	0.6	0.600	0.6	0.240	2.5709	1.00	2.5709	0.119	0.3062	8.9
18	*13:33*	*8.60*	*0.6*	*0.600*	*0.6*	*0.240*	*1.7359*	*1.00*	*1.7359*	*0.090*	*0.1563*	*4.6*
19	13:23	8.80	0.6	0.600	0.6	0.240	2.8878	1.00	2.8878	0.090	0.2598	7.6
20	13:32	8.90	0.6	0.600	0.6	0.240	2.8379	1.00	2.8379	0.059	0.1673	4.9
21	13:31	9.00	0.6	0.200	0.6	0.080	2.8143	1.00	2.8143	0.020	0.0574	1.7
22	13:24	9.10	0.6	0.600	0.6	0.240	2.0846	1.00	2.0846	0.150	0.3127	9.1
23	*13:30*	*9.50*	*0.6*	*0.200*	*0.6*	*0.080*	*0.8507*	*1.00*	*0.8507*	*0.050*	*0.0423*	*1.2*
24	13:25	9.60	0.6	0.600	0.6	0.240	1.5535	1.00	1.5535	0.150	0.2330	6.8
25	13:29	10.00	0.6	0.600	0.6	0.240	0.9783	1.00	0.9783	0.149	0.1457	4.3
26	13:26	10.10	0.6	0.500	0.6	0.200	1.7493	1.00	1.7493	0.050	0.0875	2.6
27	13:35	10.20	0.6	0.500	0.6	0.200	2.0138	1.00	2.0138	0.051	0.1024	3.0
28	*13:37*	*10.30*	*0.6*	*0.500*	*0.6*	*0.200*	*2.0262*	*1.00*	*2.0262*	*0.150*	*0.3038*	*8.9*
29	*13:27*	*10.80*	*0.6*	*0.200*	*0.6*	*0.080*	*-0.0420*	*1.00*	*-0.0420*	*0.100*	*-0.0042*	*-0.1*
30	13:27	11.30	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

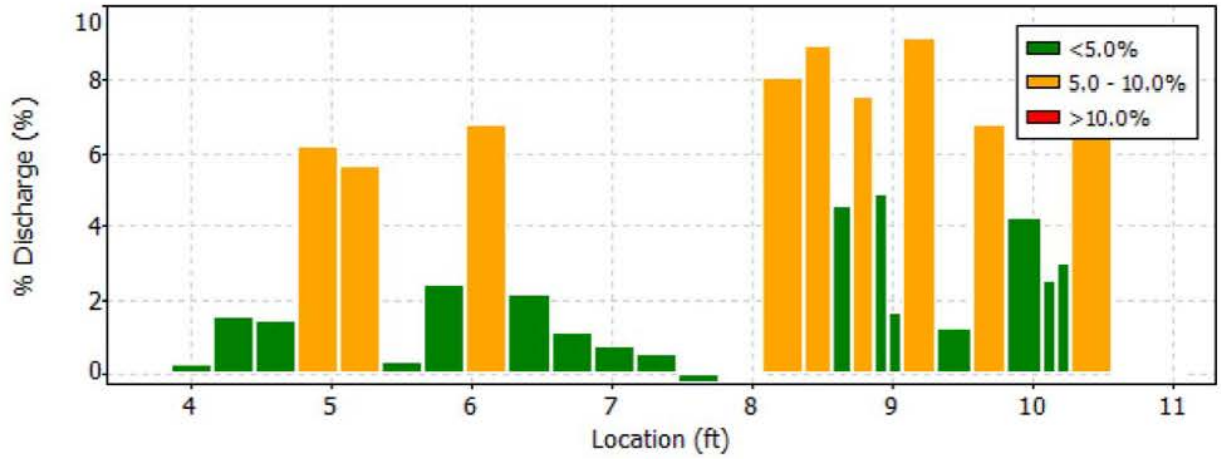
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

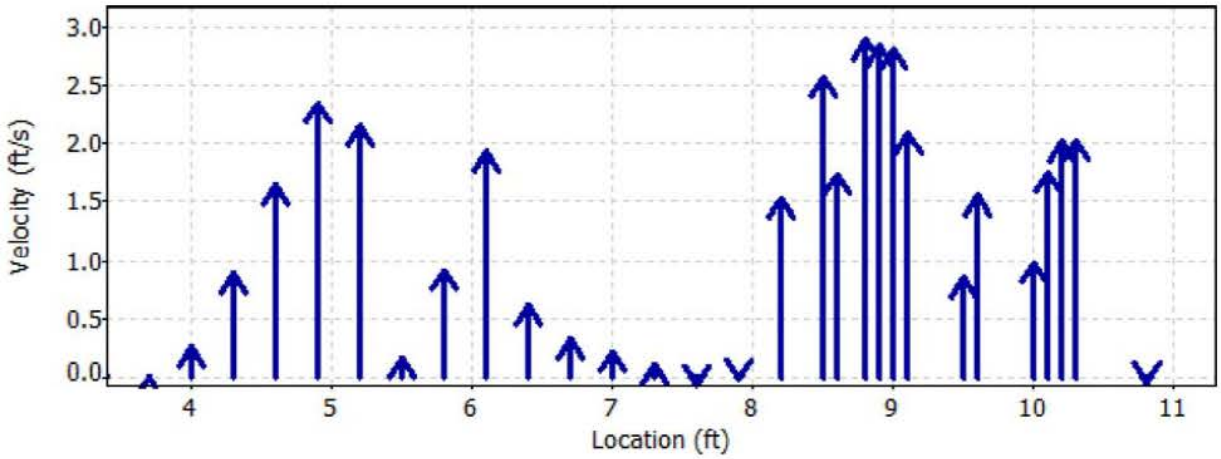
Reference 32

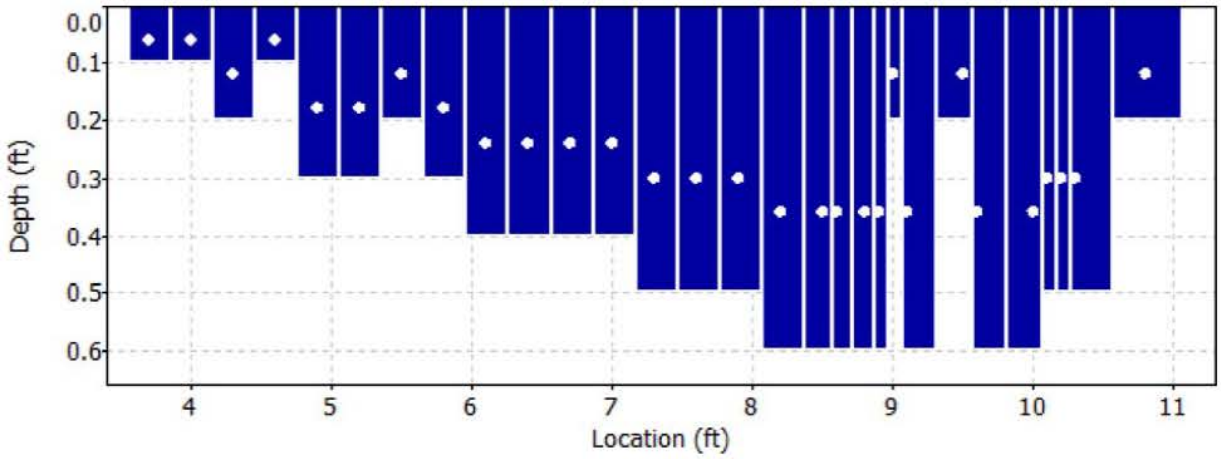
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	CC17A.WAD	Site Name	
Start Date and Time	2015/09/29 13:06:29	Operator(s)	SA







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	CC17A.WAD	Site Name	
Start Date and Time	2015/09/29 13:06:29	Operator(s)	SA

Quality Control

St	Loc	%Dep	Message
1	3.70	0.6	SNR (61.3) is different from typical SNR (34.8)
2	4.00	0.6	High angle: 54
3	4.30	0.6	High number of spikes: 5
6	5.20	0.6	High standard error: 0.110
7	5.50	0.6	High SNR variation during measurement: 5.2,4.7
		0.6	High standard error: 0.109
8	5.80	0.6	High standard error: 0.109
9	6.10	0.6	High standard error: 0.102
13	7.30	0.6	High angle: -58
14	7.60	0.6	High angle: -117
15	7.90	0.6	High angle: -98
18	8.60	0.6	High standard error: 0.097
23	9.50	0.6	High standard error: 0.131
28	10.30	0.6	High number of spikes: 7
29	10.80	0.6	High angle: 100

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	CC18.WAD
Start Date and Time	2015/09/29 09:10:41

Site Details

Site Name	CC18
Operator(s)	SA

System Information

Sensor Type	FlowTracker
Serial #	P3514
CPU Firmware Version	3.7
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%	3.3%
Velocity	0.9%	7.2%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.2%	-
Overall	**3.2%**	**8.0%**

Summary

Averaging Int.	40	# Stations	23
Start Edge	REW	Total Width	5.100
Mean SNR	36.5 dB	Total Area	1.867
Mean Temp	43.90 °F	Mean Depth	0.366
Disch. Equation	Mid-Section	Mean Velocity	2.0910
		Total Discharge	**3.9049**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:10	4.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	09:10	4.10	0.6	0.100	0.6	0.040	1.4915	1.00	1.4915	0.018	0.0261	0.7
2	09:11	4.35	0.6	0.100	0.6	0.040	2.7628	1.00	2.7628	0.025	0.0691	1.8
3	09:13	4.60	0.6	0.200	0.6	0.080	2.7851	1.00	2.7851	0.050	0.1393	3.6
4	09:14	4.85	0.6	0.400	0.6	0.160	3.2628	1.00	3.2628	0.100	0.3262	8.4
5	09:15	5.10	0.6	0.500	0.6	0.200	2.5384	1.00	2.5384	0.125	0.3173	8.1
6	09:16	5.35	0.6	0.500	0.6	0.200	2.9872	1.00	2.9872	0.125	0.3734	9.6
7	09:17	5.60	0.6	0.600	0.6	0.240	3.1047	1.00	3.1047	0.105	0.3261	8.4
8	09:35	5.70	0.6	0.600	0.6	0.240	2.2697	1.00	2.2697	0.075	0.1702	4.4
9	09:18	5.85	0.6	0.600	0.6	0.240	1.4327	1.00	1.4327	0.120	0.1719	4.4
10	09:19	6.10	0.6	0.400	0.6	0.160	2.9498	1.00	2.9498	0.100	0.2949	7.6
11	*09:19*	*6.35*	*0.6*	*0.400*	*0.6*	*0.160*	*1.5623*	*1.00*	*1.5623*	*0.100*	*0.1562*	*4.0*
12	*09:20*	*6.60*	*0.6*	*0.500*	*0.6*	*0.200*	*1.5046*	*1.00*	*1.5046*	*0.125*	*0.1881*	*4.8*
13	09:22	6.85	0.6	0.500	0.6	0.200	2.8937	1.00	2.8937	0.125	0.3617	9.3
14	09:23	7.10	0.6	0.500	0.6	0.200	0.9839	1.00	0.9839	0.125	0.1230	3.1
15	09:24	7.35	0.6	0.400	0.6	0.160	1.6818	1.00	1.6818	0.100	0.1681	4.3
16	09:25	7.60	0.6	0.500	0.6	0.200	1.5453	1.00	1.5453	0.125	0.1932	4.9
17	09:27	7.85	0.6	0.300	0.6	0.120	2.5571	1.00	2.5571	0.075	0.1917	4.9
18	09:28	8.10	0.6	0.300	0.6	0.120	2.3819	1.00	2.3819	0.075	0.1786	4.6
19	09:31	8.35	0.6	0.300	0.6	0.120	1.0279	1.00	1.0279	0.075	0.0771	2.0
20	09:32	8.60	0.6	0.200	0.6	0.080	0.7188	1.00	0.7188	0.050	0.0360	0.9
21	*09:33*	*8.85*	*0.6*	*0.200*	*0.6*	*0.080*	*0.3317*	*1.00*	*0.3317*	*0.050*	*0.0166*	*0.4*
22	09:33	9.10	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

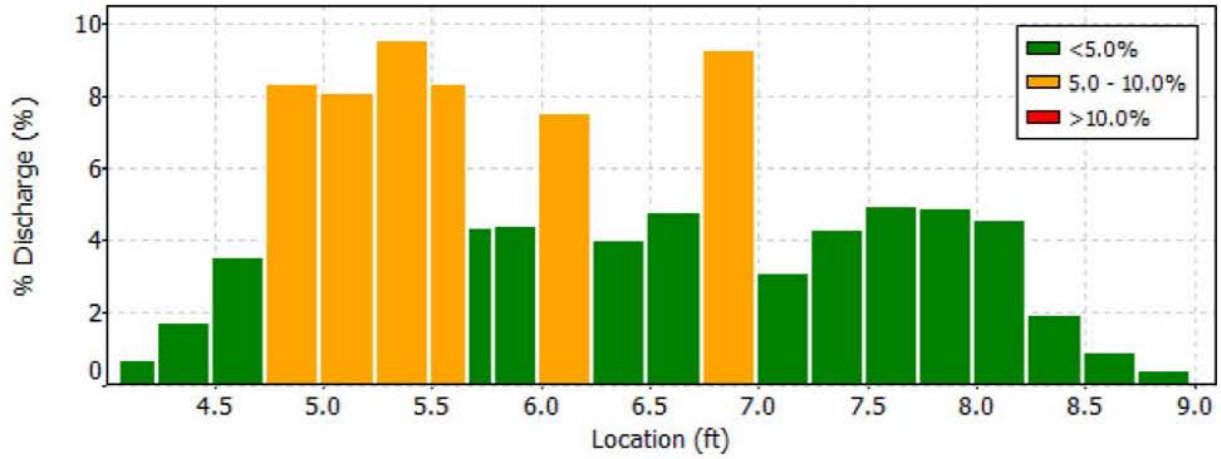
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

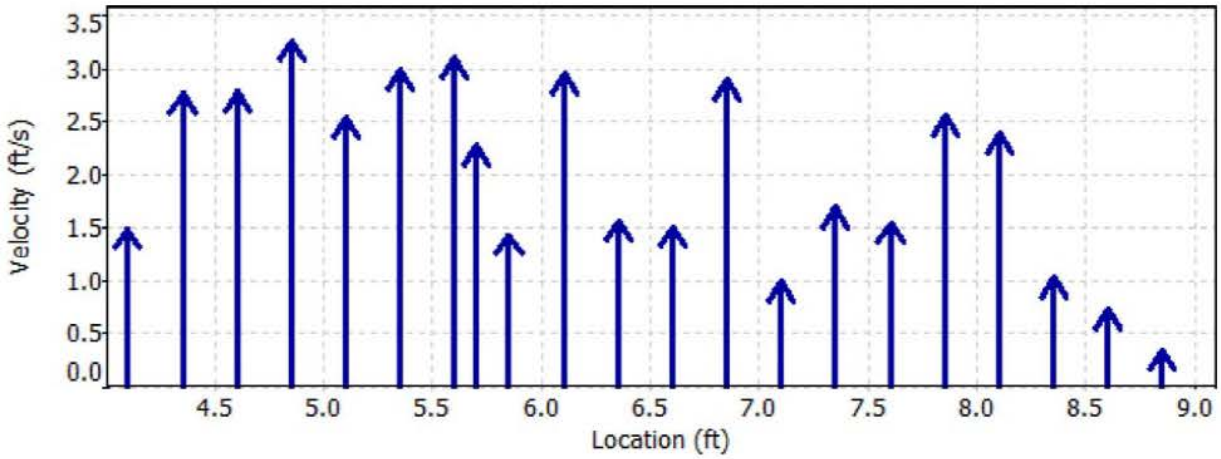
Reference 32

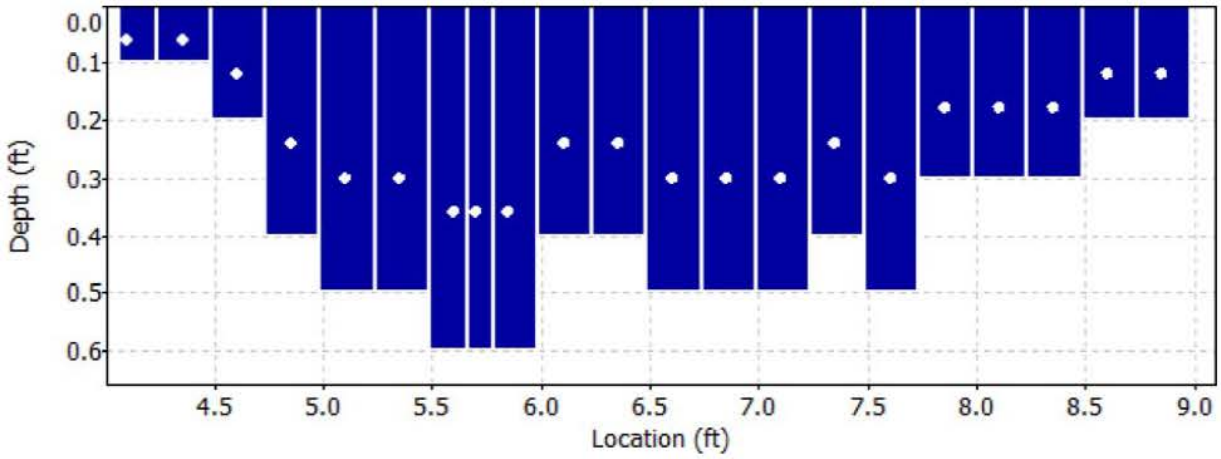
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	CC18.WAD	Site Name	CC18
Start Date and Time	2015/09/29 09:10:41	Operator(s)	SA







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	CC18.WAD	Site Name	CC18
Start Date and Time	2015/09/29 09:10:41	Operator(s)	SA

Quality Control

St	Loc	%Dep	Message
11	6.35	0.6	High standard error: 0.124
12	6.60	0.6	High standard error: 0.115
21	8.85	0.6	High SNR variation during measurement: 5.6,3.4

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	CC21.WAD
Start Date and Time	2015/09/29 09:44:51

Site Details

Site Name	CC21
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%	2.1%
Velocity	0.6%	2.2%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.4%	-
Overall	**3.3%**	**3.3%**

Summary

Averaging Int.	40	# Stations	21
Start Edge	REW	Total Width	10.801
Mean SNR	47.2 dB	Total Area	3.766
Mean Temp	44.18 °F	Mean Depth	0.349
Disch. Equation	Mid-Section	Mean Velocity	1.7701
		Total Discharge	**6.6663**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:44	3.80	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*09:44*	*4.40*	*0.6*	*0.450*	*0.6*	*0.180*	*0.0000*	*1.00*	*0.0000*	*0.270*	*0.0000*	*0.0*
2	09:45	5.00	0.6	0.200	0.6	0.080	0.7149	1.00	0.7149	0.120	0.0859	1.3
3	09:46	5.60	0.6	0.200	0.6	0.080	1.4514	1.00	1.4514	0.120	0.1743	2.6
4	*09:47*	*6.20*	*0.6*	*0.350*	*0.6*	*0.140*	*2.1900*	*1.00*	*2.1900*	*0.210*	*0.4600*	*6.9*
5	09:52	6.80	0.6	0.450	0.6	0.180	2.5249	1.00	2.5249	0.203	0.5114	7.7
6	10:07	7.10	0.6	0.450	0.6	0.180	2.2667	1.00	2.2667	0.135	0.3061	4.6
7	09:54	7.40	0.6	0.400	0.6	0.160	2.6253	1.00	2.6253	0.180	0.4726	7.1
8	09:55	8.00	0.6	0.400	0.6	0.160	2.3402	1.00	2.3402	0.180	0.4210	6.3
9	10:08	8.30	0.6	0.450	0.6	0.180	2.8222	1.00	2.8222	0.135	0.3811	5.7
10	09:56	8.60	0.6	0.450	0.6	0.180	2.5705	1.00	2.5705	0.203	0.5210	7.8
11	09:57	9.20	0.6	0.450	0.6	0.180	2.2569	1.00	2.2569	0.270	0.6096	9.1
12	09:58	9.80	0.6	0.450	0.6	0.180	2.0797	1.00	2.0797	0.270	0.5618	8.4
13	09:59	10.40	0.6	0.400	0.6	0.160	1.8652	1.00	1.8652	0.240	0.4476	6.7
14	10:00	11.00	0.6	0.350	0.6	0.140	1.6611	1.00	1.6611	0.210	0.3489	5.2
15	10:01	11.60	0.6	0.350	0.6	0.140	1.8622	1.00	1.8622	0.210	0.3912	5.9
16	10:02	12.20	0.6	0.350	0.6	0.140	1.6358	1.00	1.6358	0.210	0.3436	5.2
17	10:03	12.80	0.6	0.350	0.6	0.140	1.5607	1.00	1.5607	0.210	0.3278	4.9
18	10:04	13.40	0.6	0.350	0.6	0.140	1.1273	1.00	1.1273	0.210	0.2368	3.6
19	10:05	14.00	0.6	0.300	0.6	0.120	0.3638	1.00	0.3638	0.180	0.0655	1.0
20	10:05	14.60	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

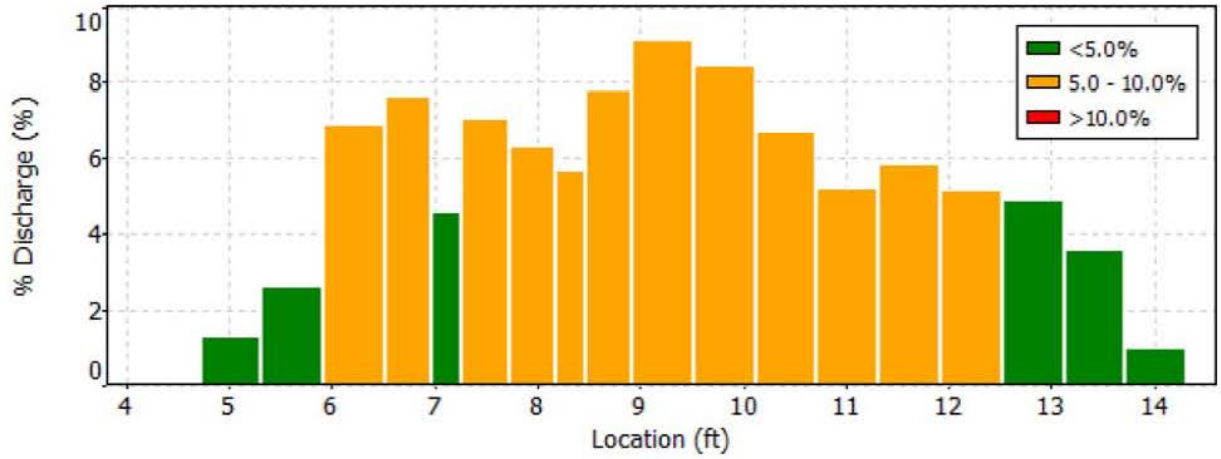
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

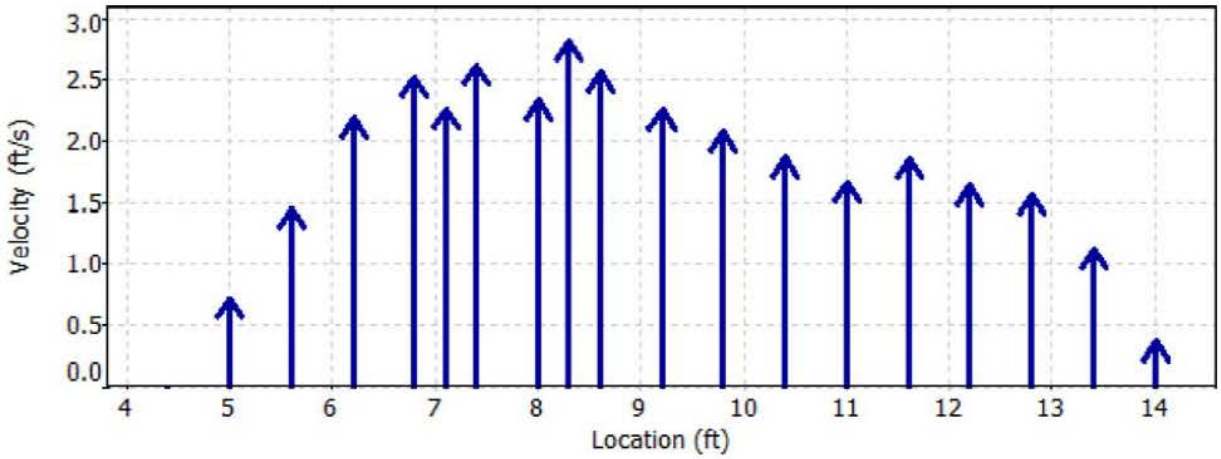
Reference 32

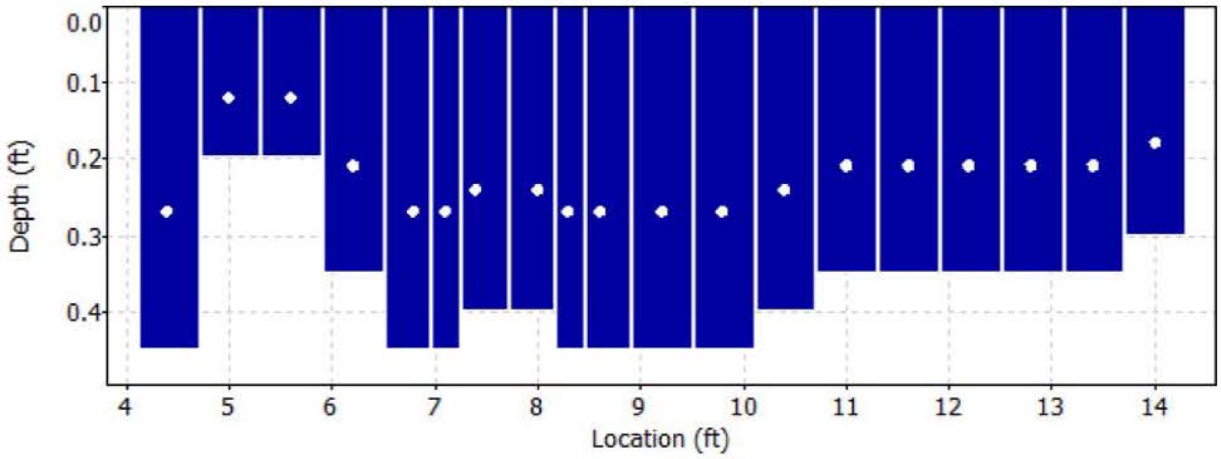
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	CC21.WAD	Site Name	CC21
Start Date and Time	2015/09/29 09:44:51	Operator(s)	RB







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	CC21.WAD	Site Name	CC21
Start Date and Time	2015/09/29 09:44:51	Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
1	4.40	0.6	SNR (60.2) is different from typical SNR (47.2)
4	6.20	0.6	High angle: -20

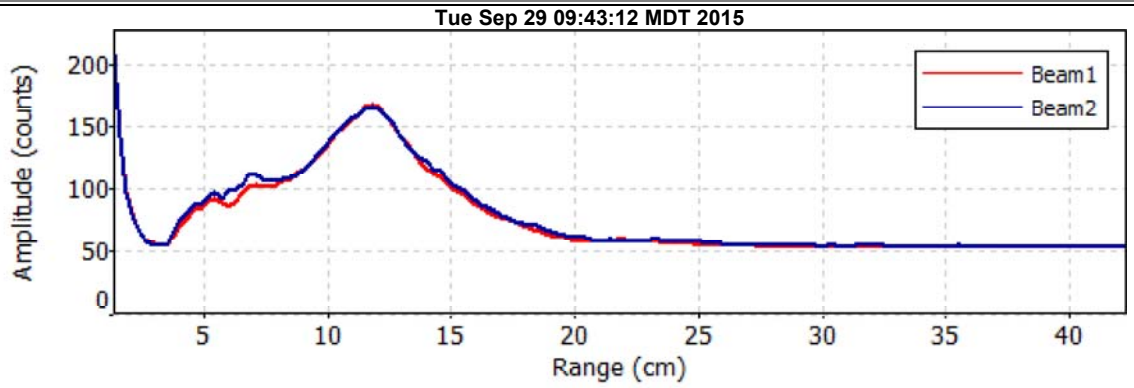
Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	CC21.WAD	Site Name	CC21
Start Date and Time	2015/09/29 09:44:51	Operator(s)	RB

Automatic Quality Control Test (BeamCheck)



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

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	CG6.WAD
Start Date and Time	2015/09/30 09:52:21

Site Details

Site Name	CG6
Operator(s)	PY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
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%	3.3%
Velocity	1.1%	5.5%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.0%	-
Overall	**3.2%**	**6.5%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	REW	Total Width	2.101
Mean SNR	40.7 dB	Total Area	0.640
Mean Temp	43.31 °F	Mean Depth	0.305
Disch. Equation	Mid-Section	Mean Velocity	0.6580
		Total Discharge	**0.4213**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:52	8.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*09:52*	*8.10*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0709*	*1.00*	*0.0709*	*0.020*	*0.0014*	*0.3*
2	*09:53*	*8.20*	*0.6*	*0.200*	*0.6*	*0.080*	*0.0456*	*1.00*	*0.0456*	*0.020*	*0.0009*	*0.2*
3	09:54	8.30	0.6	0.200	0.6	0.080	0.0525	1.00	0.0525	0.020	0.0011	0.2
4	09:55	8.40	0.6	0.300	0.6	0.120	0.0476	1.00	0.0476	0.030	0.0014	0.3
5	09:56	8.50	0.6	0.300	0.6	0.120	0.1552	1.00	0.1552	0.030	0.0047	1.1
6	09:56	8.60	0.6	0.300	0.6	0.120	0.2493	1.00	0.2493	0.030	0.0075	1.8
7	09:58	8.70	0.6	0.400	0.6	0.160	0.2730	1.00	0.2730	0.040	0.0109	2.6
8	09:59	8.80	0.6	0.400	0.6	0.160	0.3898	1.00	0.3898	0.040	0.0156	3.7
9	10:00	8.90	0.6	0.400	0.6	0.160	0.3091	1.00	0.3091	0.040	0.0124	2.9
10	*10:02*	*9.00*	*0.6*	*0.500*	*0.6*	*0.200*	*0.4806*	*1.00*	*0.4806*	*0.050*	*0.0240*	*5.7*
11	*10:03*	*9.10*	*0.6*	*0.500*	*0.6*	*0.200*	*0.5659*	*1.00*	*0.5659*	*0.050*	*0.0283*	*6.7*
12	10:04	9.20	0.6	0.400	0.6	0.160	0.6995	1.00	0.6995	0.040	0.0280	6.6
13	10:05	9.30	0.6	0.300	0.6	0.120	1.4117	1.00	1.4117	0.022	0.0316	7.5
14	10:16	9.35	0.6	0.400	0.6	0.160	0.9921	1.00	0.9921	0.020	0.0199	4.7
15	10:06	9.40	0.6	0.300	0.6	0.120	1.4580	1.00	1.4580	0.015	0.0219	5.2
16	10:14	9.45	0.6	0.200	0.6	0.080	1.3120	1.00	1.3120	0.010	0.0131	3.1
17	*10:07*	*9.50*	*0.6*	*0.300*	*0.6*	*0.120*	*1.2267*	*1.00*	*1.2267*	*0.023*	*0.0278*	*6.6*
18	*10:08*	*9.60*	*0.6*	*0.300*	*0.6*	*0.120*	*1.0709*	*1.00*	*1.0709*	*0.030*	*0.0321*	*7.6*
19	10:09	9.70	0.6	0.300	0.6	0.120	1.0951	1.00	1.0951	0.030	0.0329	7.8
20	10:10	9.80	0.6	0.300	0.6	0.120	1.1047	1.00	1.1047	0.022	0.0247	5.9
21	10:15	9.85	0.6	0.300	0.6	0.120	1.0669	1.00	1.0669	0.015	0.0160	3.8
22	10:11	9.90	0.6	0.300	0.6	0.120	1.5075	1.00	1.5075	0.023	0.0342	8.1
23	10:12	10.00	0.6	0.200	0.6	0.080	1.5512	1.00	1.5512	0.020	0.0311	7.4
24	10:12	10.10	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

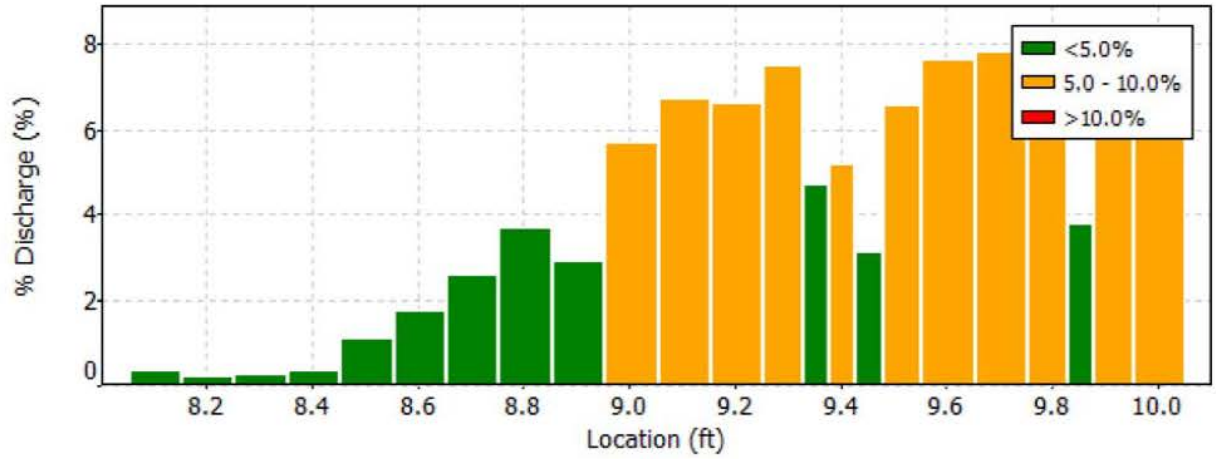
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

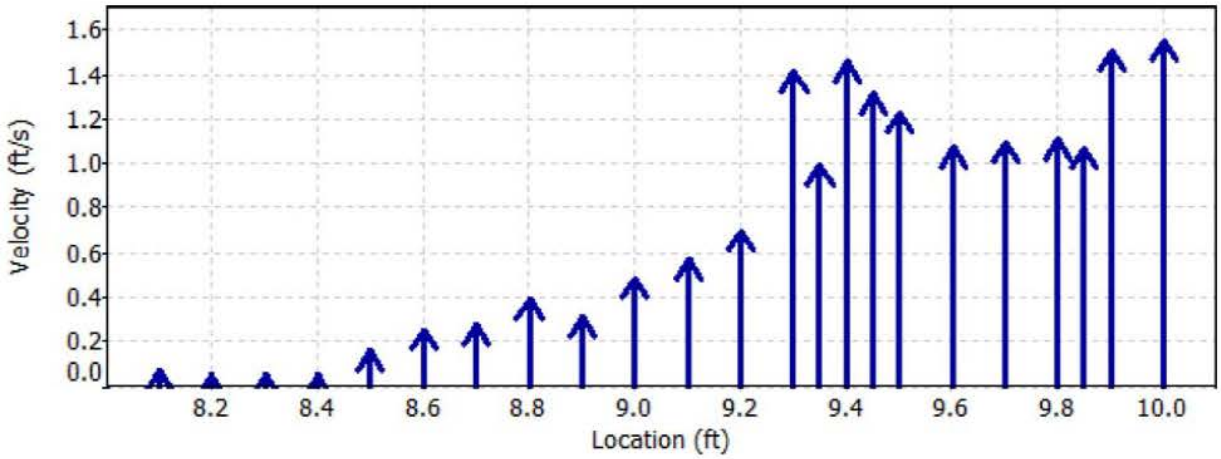
Reference 32

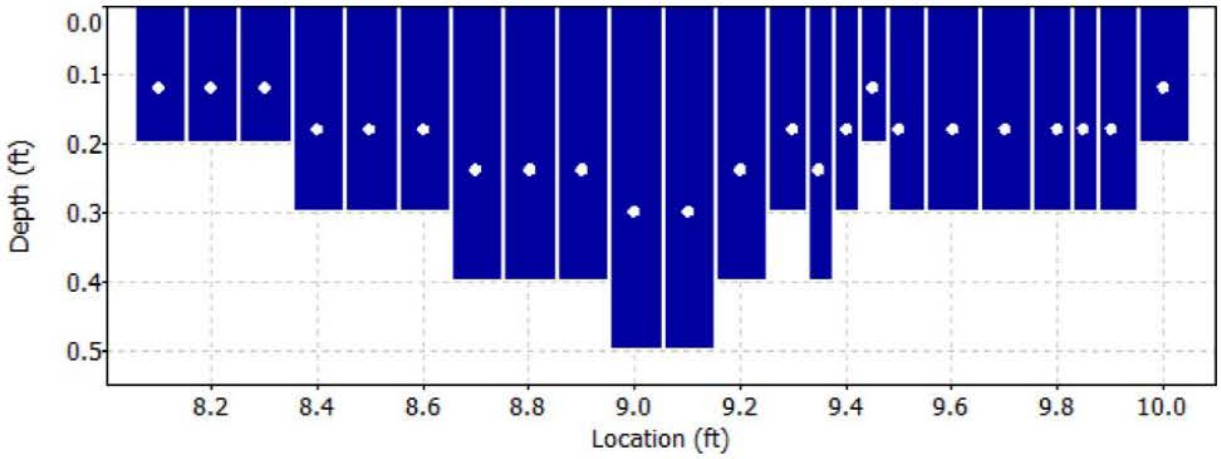
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	CG6.WAD	Site Name	CG6
Start Date and Time	2015/09/30 09:52:21	Operator(s)	PY







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information	
File Name	CG6.WAD
Start Date and Time	2015/09/30 09:52:21

Site Details	
Site Name	CG6
Operator(s)	PY

Quality Control

St	Loc	%Dep	Message
1	8.10	0.6	High angle: 41
2	8.20	0.6	High angle: 48
10	9.00	0.6	High angle: 22
11	9.10	0.6	High angle: 23
17	9.50	0.6	High angle: 27
18	9.60	0.6	High angle: 26

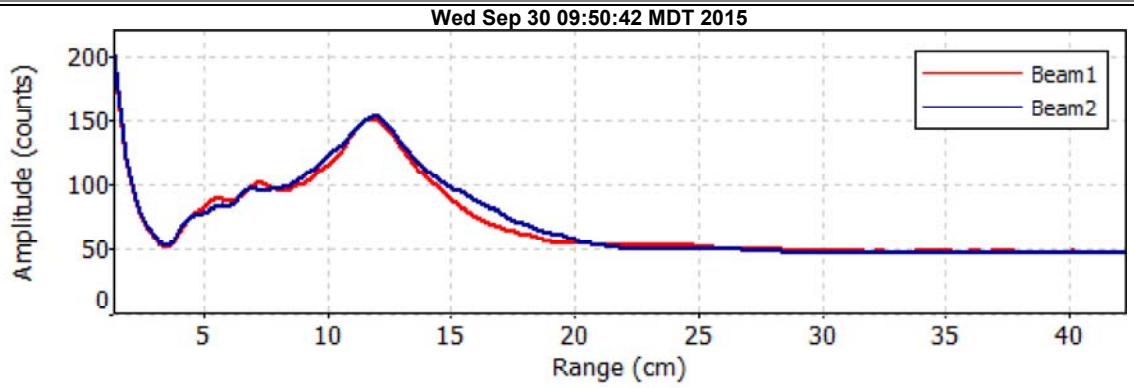
Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	CG6.WAD	Site Name	CG6
Start Date and Time	2015/09/30 09:52:21	Operator(s)	PY

Automatic Quality Control Test (BeamCheck)



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

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	CG11.WAD
Start Date and Time	2015/09/29 10:13:53

Site Details

Site Name	CG11
Operator(s)	PY

System Information

Sensor Type	FlowTracker
Serial #	P3533
CPU Firmware Version	3.7
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%	1.7%
Velocity	1.4%	3.6%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.0%	-
Overall	**3.3%**	**4.1%**

Summary

Averaging Int.	40	# Stations	25
Start Edge	REW	Total Width	5.250
Mean SNR	33.9 dB	Total Area	3.626
Mean Temp	40.87 °F	Mean Depth	0.691
Disch. Equation	Mid-Section	Mean Velocity	0.3516
		Total Discharge	**1.2750**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:13	5.05	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	*10:13*	*5.30*	*0.6*	*0.300*	*0.6*	*0.120*	*0.4278*	*1.00*	*0.4278*	*0.075*	*0.0321*	*2.5*
2	10:15	5.55	0.6	0.500	0.6	0.200	0.2480	1.00	0.2480	0.125	0.0310	2.4
3	10:15	5.80	0.6	0.500	0.6	0.200	0.1539	1.00	0.1539	0.125	0.0192	1.5
4	*10:16*	*6.05*	*0.6*	*0.500*	*0.6*	*0.200*	*0.1506*	*1.00*	*0.1506*	*0.125*	*0.0188*	*1.5*
5	10:17	6.30	0.6	0.600	0.6	0.240	0.3186	1.00	0.3186	0.150	0.0478	3.7
6	*10:18*	*6.55*	*0.6*	*0.750*	*0.6*	*0.300*	*0.5702*	*1.00*	*0.5702*	*0.188*	*0.1069*	*8.4*
7	10:19	6.80	0.6	0.800	0.6	0.320	0.7877	1.00	0.7877	0.140	0.1103	8.6
8	10:35	6.90	0.6	0.750	0.6	0.300	0.9268	1.00	0.9268	0.094	0.0869	6.8
9	10:21	7.05	0.6	0.700	0.6	0.280	0.9324	1.00	0.9324	0.070	0.0653	5.1
10	10:36	7.10	0.6	0.700	0.6	0.280	0.8832	1.00	0.8832	0.088	0.0773	6.1
11	10:22	7.30	0.6	0.700	0.6	0.280	0.7913	1.00	0.7913	0.105	0.0831	6.5
12	*10:37*	*7.40*	*0.6*	*0.900*	*0.6*	*0.360*	*0.5571*	*1.00*	*0.5571*	*0.112*	*0.0627*	*4.9*
13	10:23	7.55	0.6	0.900	0.6	0.360	0.4682	1.00	0.4682	0.180	0.0843	6.6
14	10:24	7.80	0.6	1.000	0.6	0.400	0.3396	1.00	0.3396	0.250	0.0849	6.7
15	*10:25*	*8.05*	*0.6*	*0.900*	*0.6*	*0.360*	*0.0535*	*1.00*	*0.0535*	*0.225*	*0.0120*	*0.9*
16	10:26	8.30	0.6	0.800	0.6	0.320	0.0007	1.00	0.0007	0.200	0.0001	0.0
17	10:27	8.55	0.6	0.700	0.6	0.280	0.0121	1.00	0.0121	0.175	0.0021	0.2
18	10:28	8.80	0.6	0.750	0.6	0.300	0.0659	1.00	0.0659	0.188	0.0124	1.0
19	10:29	9.05	0.6	0.800	0.6	0.320	0.1188	1.00	0.1188	0.200	0.0237	1.9
20	10:30	9.30	0.6	0.800	0.6	0.320	0.3002	1.00	0.3002	0.200	0.0600	4.7
21	10:31	9.55	0.6	0.800	0.6	0.320	0.2507	1.00	0.2507	0.200	0.0501	3.9
22	10:32	9.80	0.6	0.900	0.6	0.360	0.4373	1.00	0.4373	0.225	0.0984	7.7
23	*10:33*	*10.05*	*0.6*	*0.750*	*0.6*	*0.300*	*0.5630*	*1.00*	*0.5630*	*0.188*	*0.1056*	*8.3*
24	10:33	10.30	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

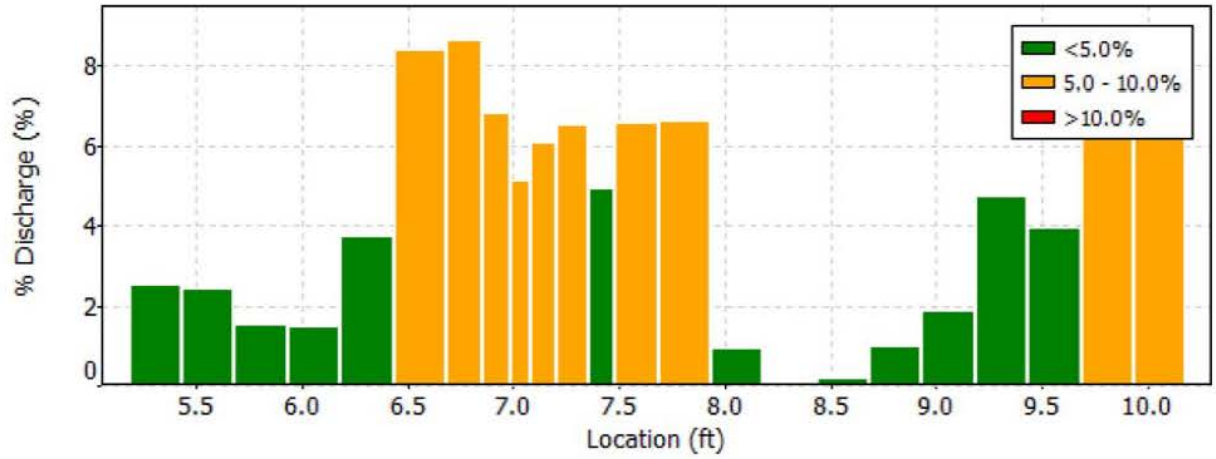
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

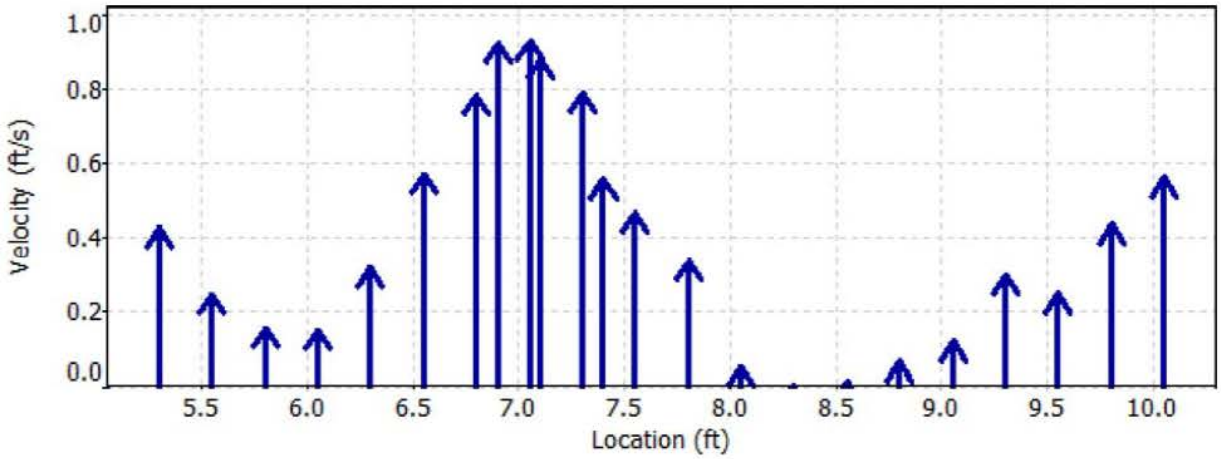
Reference 32

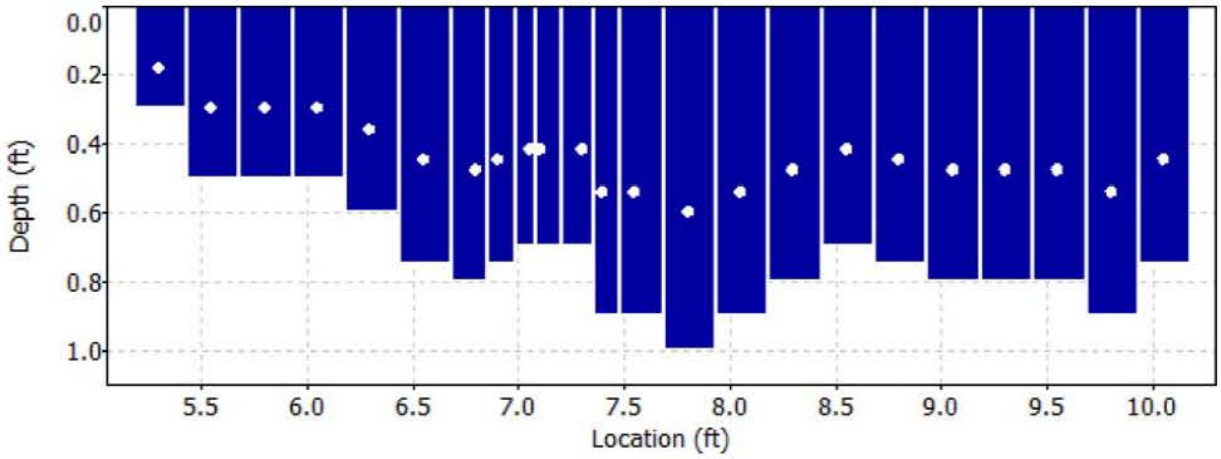
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	CG11.WAD	Site Name	CG11
Start Date and Time	2015/09/29 10:13:53	Operator(s)	PY







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information	
File Name	CG11.WAD
Start Date and Time	2015/09/29 10:13:53

Site Details	
Site Name	CG11
Operator(s)	PY

Quality Control

St	Loc	%Dep	Message
1	5.30	0.6	High angle: -21
4	6.05	0.6	High angle: -20
6	6.55	0.6	High number of spikes: 5
12	7.40	0.6	High standard error: 0.034
15	8.05	0.6	High angle: -43
23	10.05	0.6	High standard error: 0.031

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	EG3A.WAD
Start Date and Time	2015/09/29 11:18:11

Site Details

Site Name	EG 3A
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5879
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	0.6%	7.5%
Velocity	3.4%	19.7%
Width	0.2%	0.2%
Method	2.8%	-
# Stations	2.0%	-
Overall	**4.9%**	**21.1%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	REW	Total Width	3.050
Mean SNR	40.5 dB	Total Area	0.760
Mean Temp	49.01 °F	Mean Depth	0.249
Disch. Equation	Mid-Section	Mean Velocity	0.1031
		Total Discharge	**0.0784**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	11:18	7.75	None	0.050	0.0	0.0	0.0000	1.00	-0.0003	0.009	0.0000	0.0
1	*11:18*	*8.10*	*0.6*	*0.150*	*0.6*	*0.060*	*-0.0003*	*1.00*	*-0.0003*	*0.034*	*0.0000*	*0.0*
2	*11:35*	*8.20*	*0.6*	*0.150*	*0.6*	*0.060*	*0.7021*	*1.00*	*0.7021*	*0.011*	*0.0079*	*10.1*
3	11:45	8.25	0.6	0.150	0.6	0.060	0.7349	1.00	0.7349	0.007	0.0055	7.0
4	*11:19*	*8.30*	*0.6*	*0.200*	*0.6*	*0.080*	*0.7320*	*1.00*	*0.7320*	*0.010*	*0.0073*	*9.3*
5	*11:47*	*8.35*	*0.6*	*0.150*	*0.6*	*0.060*	*0.7516*	*1.00*	*0.7516*	*0.008*	*0.0056*	*7.2*
6	*11:37*	*8.40*	*0.6*	*0.150*	*0.6*	*0.060*	*0.8947*	*1.00*	*0.8947*	*0.008*	*0.0067*	*8.6*
7	11:48	8.45	0.6	0.150	0.6	0.060	0.7995	1.00	0.7995	0.007	0.0060	7.6
8	*11:20*	*8.50*	*0.6*	*0.200*	*0.6*	*0.080*	*0.6181*	*1.00*	*0.6181*	*0.010*	*0.0062*	*7.9*
9	11:50	8.55	0.6	0.150	0.6	0.060	0.7507	1.00	0.7507	0.008	0.0056	7.2
10	*11:38*	*8.60*	*0.6*	*0.150*	*0.6*	*0.060*	*0.7198*	*1.00*	*0.7198*	*0.011*	*0.0081*	*10.3*
11	*11:22*	*8.70*	*0.6*	*0.150*	*0.6*	*0.060*	*0.5308*	*1.00*	*0.5308*	*0.015*	*0.0080*	*10.1*
12	*11:39*	*8.80*	*0.6*	*0.150*	*0.6*	*0.060*	*0.4780*	*1.00*	*0.4780*	*0.015*	*0.0072*	*9.1*
13	*11:23*	*8.90*	*0.6*	*0.160*	*0.6*	*0.064*	*0.2825*	*1.00*	*0.2825*	*0.016*	*0.0045*	*5.8*
14	11:40	9.00	0.6	0.150	0.6	0.060	0.5148	1.00	0.5148	0.015	0.0077	9.8
15	11:24	9.10	0.6	0.180	0.6	0.072	0.4662	1.00	0.4662	0.018	0.0084	10.7
16	11:41	9.20	0.6	0.200	0.6	0.080	0.1178	1.00	0.1178	0.020	0.0024	3.0
17	*11:25*	*9.30*	*0.6*	*0.300*	*0.6*	*0.120*	*0.0659*	*1.00*	*0.0659*	*0.045*	*0.0030*	*3.8*
18	*11:26*	*9.50*	*0.6*	*0.220*	*0.6*	*0.088*	*0.1145*	*1.00*	*0.1145*	*0.044*	*0.0050*	*6.4*
19	*11:27*	*9.70*	*0.6*	*0.320*	*0.6*	*0.128*	*0.0476*	*1.00*	*0.0476*	*0.064*	*0.0030*	*3.9*
20	11:29	9.90	0.6	0.370	0.6	0.148	-0.0148	1.00	-0.0148	0.074	-0.0011	-1.4
21	*11:30*	*10.10*	*0.6*	*0.450*	*0.6*	*0.180*	*-0.0587*	*1.00*	*-0.0587*	*0.090*	*-0.0053*	*-6.7*
22	*11:31*	*10.30*	*0.6*	*0.350*	*0.6*	*0.140*	*-0.0801*	*1.00*	*-0.0801*	*0.070*	*-0.0056*	*-7.1*
23	*11:32*	*10.50*	*0.6*	*0.390*	*0.6*	*0.156*	*-0.1273*	*1.00*	*-0.1273*	*0.039*	*-0.0050*	*-6.4*
24	*11:51*	*10.50*	*0.6*	*0.400*	*0.6*	*0.160*	*-0.1122*	*1.00*	*-0.1122*	*0.060*	*-0.0068*	*-8.6*
25	11:51	10.80	None	0.350	0.0	0.0	0.0000	1.00	-0.1122	0.052	-0.0059	-7.5

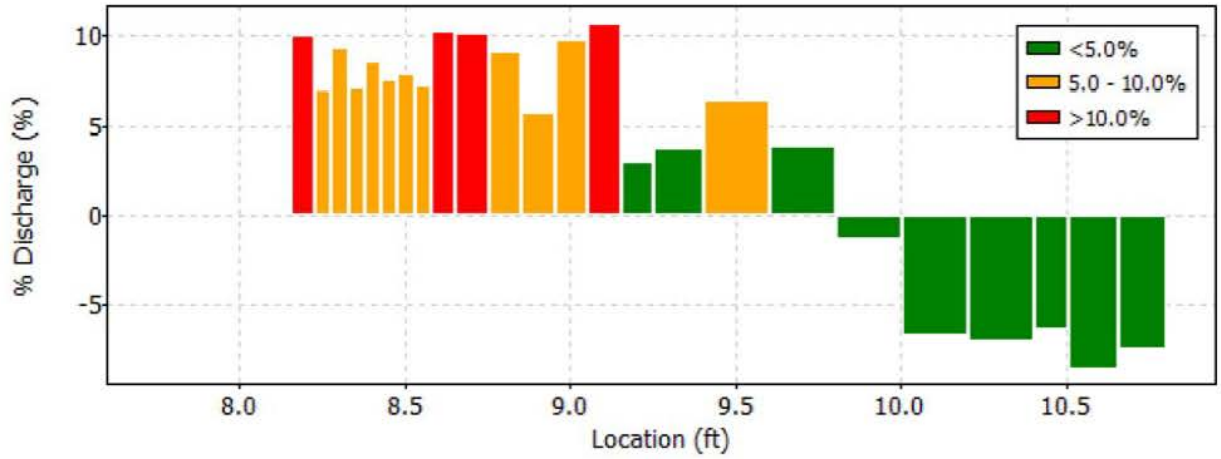
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

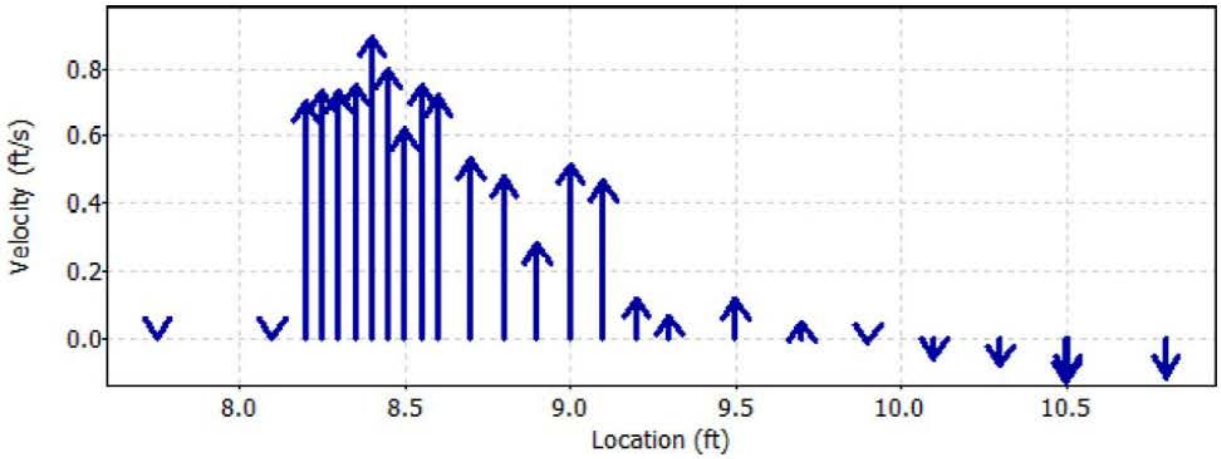
Reference 32

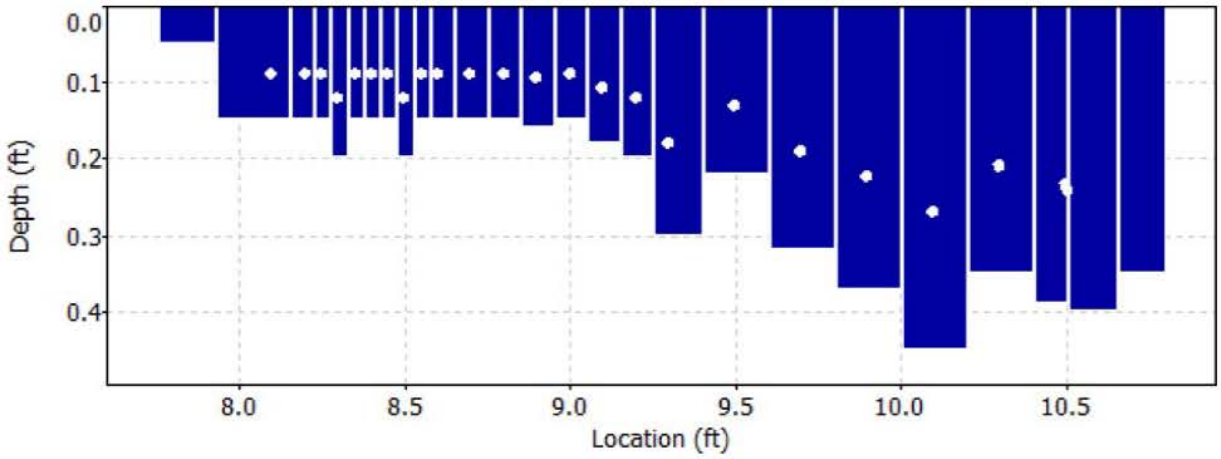
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	EG3A.WAD	Site Name	EG 3A
Start Date and Time	2015/09/29 11:18:11	Operator(s)	RM







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	EG3A.WAD	Site Name	EG 3A
Start Date and Time	2015/09/29 11:18:11	Operator(s)	RM

Quality Control

St	Loc	%Dep	Message
1	8.10	0.6	Boundary QC is Good; possible boundary interference
2	8.20	0.6	High standard error: 0.039
4	8.30	0.6	High angle: -24
5	8.35	0.6	High standard error: 0.049
6	8.40	0.6	High standard error: 0.049
8	8.50	0.6	High angle: -26
		0.6	High standard error: 0.041
10	8.60	0.6	High standard error: 0.054
11	8.70	0.6	High standard error: 0.033
12	8.80	0.6	High standard error: 0.031
13	8.90	0.6	High angle: -20
17	9.30	0.6	High angle: 44
18	9.50	0.6	High angle: 27
19	9.70	0.6	High angle: 47
21	10.10	0.6	High angle: 124
		0.6	High SNR variation during measurement: 4.3,5.2
22	10.30	0.6	High angle: -159
		0.6	High SNR variation during measurement: 3.9,5.2
23	10.50	0.6	High angle: -178
		0.6	Boundary QC is Good; possible boundary interference
24	10.50	0.6	High angle: -171

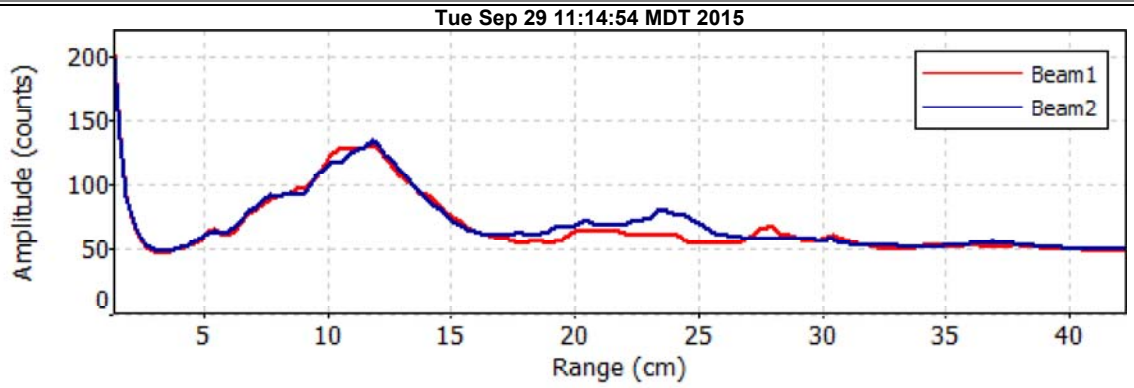
Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	EG3A.WAD	Site Name	EG 3A
Start Date and Time	2015/09/29 11:18:11	Operator(s)	RM

Automatic Quality Control Test (BeamCheck)



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

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	EG6.WAD
Start Date and Time	2015/09/30 08:48:09

Site Details

Site Name	
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5879
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%	4.6%
Velocity	3.9%	37.4%
Width	0.1%	0.1%
Method	2.1%	-
# Stations	1.8%	-
Overall	**4.9%**	**37.7%**

Summary

Averaging Int.	40	# Stations	29
Start Edge	LEW	Total Width	3.000
Mean SNR	40.4 dB	Total Area	0.883
Mean Temp	44.09 °F	Mean Depth	0.294
Disch. Equation	Mid-Section	Mean Velocity	0.2484
		Total Discharge	**0.2193**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:48	5.20	None	0.100	0.0	0.0	0.0000	1.00	0.1499	0.008	0.0011	0.5
1	*08:48*	*5.35*	*0.6*	*0.250*	*0.6*	*0.100*	*0.1499*	*1.00*	*0.1499*	*0.037*	*0.0056*	*2.6*
2	*08:49*	*5.50*	*0.6*	*0.300*	*0.6*	*0.120*	*0.1158*	*1.00*	*0.1158*	*0.045*	*0.0052*	*2.4*
3	*08:50*	*5.65*	*0.6*	*0.100*	*0.6*	*0.040*	*0.0285*	*1.00*	*0.0285*	*0.010*	*0.0003*	*0.1*
4	*09:09*	*5.70*	*0.6*	*0.350*	*0.6*	*0.140*	*0.7779*	*1.00*	*0.7779*	*0.026*	*0.0204*	*9.3*
5	08:52	5.80	0.6	0.350	0.6	0.140	0.4948	1.00	0.4948	0.035	0.0173	7.9
6	*09:10*	*5.90*	*0.6*	*0.400*	*0.6*	*0.160*	*1.1631*	*1.00*	*1.1631*	*0.030*	*0.0349*	*15.9*
7	08:53	5.95	0.6	0.450	0.6	0.180	0.0699	1.00	0.0699	0.011	0.0008	0.4
8	09:20	5.95	0.6	0.400	0.6	0.160	0.0108	1.00	0.0108	0.010	0.0001	0.0
9	*09:14*	*6.00*	*0.6*	*0.400*	*0.6*	*0.160*	*0.7106*	*1.00*	*0.7106*	*0.030*	*0.0213*	*9.7*
10	08:54	6.10	0.6	0.400	0.6	0.160	0.1109	1.00	0.1109	0.050	0.0055	2.5
11	*08:55*	*6.25*	*0.6*	*0.400*	*0.6*	*0.160*	*-0.0574*	*1.00*	*-0.0574*	*0.060*	*-0.0034*	*-1.6*
12	08:56	6.40	0.6	0.430	0.6	0.172	0.0121	1.00	0.0121	0.064	0.0008	0.4
13	*08:57*	*6.55*	*0.6*	*0.400*	*0.6*	*0.160*	*0.2037*	*1.00*	*0.2037*	*0.060*	*0.0122*	*5.6*
14	*08:58*	*6.70*	*0.6*	*0.430*	*0.6*	*0.172*	*0.0164*	*1.00*	*0.0164*	*0.054*	*0.0009*	*0.4*
15	*09:18*	*6.80*	*0.6*	*0.380*	*0.6*	*0.152*	*0.1804*	*1.00*	*0.1804*	*0.028*	*0.0051*	*2.3*
16	*08:59*	*6.85*	*0.6*	*0.430*	*0.6*	*0.172*	*0.1978*	*1.00*	*0.1978*	*0.011*	*0.0021*	*1.0*
17	09:15	6.85	0.6	0.400	0.6	0.160	1.6020	1.00	1.6020	0.010	0.0162	7.4
18	*09:17*	*6.90*	*0.6*	*0.350*	*0.6*	*0.140*	*0.3858*	*1.00*	*0.3858*	*0.026*	*0.0101*	*4.6*
19	*09:00*	*7.00*	*0.6*	*0.300*	*0.6*	*0.120*	*0.4944*	*1.00*	*0.4944*	*0.015*	*0.0074*	*3.4*
20	*09:11*	*7.00*	*0.6*	*0.350*	*0.6*	*0.140*	*0.3291*	*1.00*	*0.3291*	*0.026*	*0.0086*	*3.9*
21	*09:01*	*7.15*	*0.6*	*0.300*	*0.6*	*0.120*	*0.6434*	*1.00*	*0.6434*	*0.030*	*0.0193*	*8.8*
22	*09:12*	*7.20*	*0.6*	*0.300*	*0.6*	*0.120*	*0.4908*	*1.00*	*0.4908*	*0.022*	*0.0110*	*5.0*
23	*09:02*	*7.30*	*0.6*	*0.300*	*0.6*	*0.120*	*0.3934*	*1.00*	*0.3934*	*0.037*	*0.0147*	*6.7*
24	*09:03*	*7.45*	*0.6*	*0.220*	*0.6*	*0.088*	*-0.0020*	*1.00*	*-0.0020*	*0.033*	*-0.0001*	*0.0*
25	*09:04*	*7.60*	*0.6*	*0.220*	*0.6*	*0.088*	*0.0850*	*1.00*	*0.0850*	*0.033*	*0.0028*	*1.3*
26	09:06	7.75	0.6	0.260	0.6	0.104	-0.0003	1.00	-0.0003	0.039	0.0000	0.0
27	*09:07*	*7.90*	*0.6*	*0.180*	*0.6*	*0.072*	*-0.0259*	*1.00*	*-0.0259*	*0.041*	*-0.0011*	*-0.5*
28	09:07	8.20	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

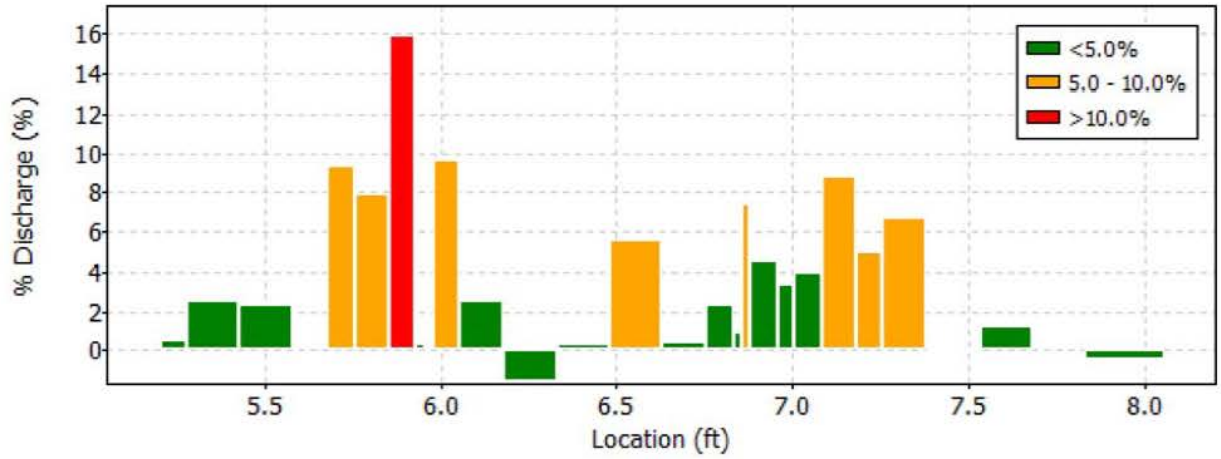
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

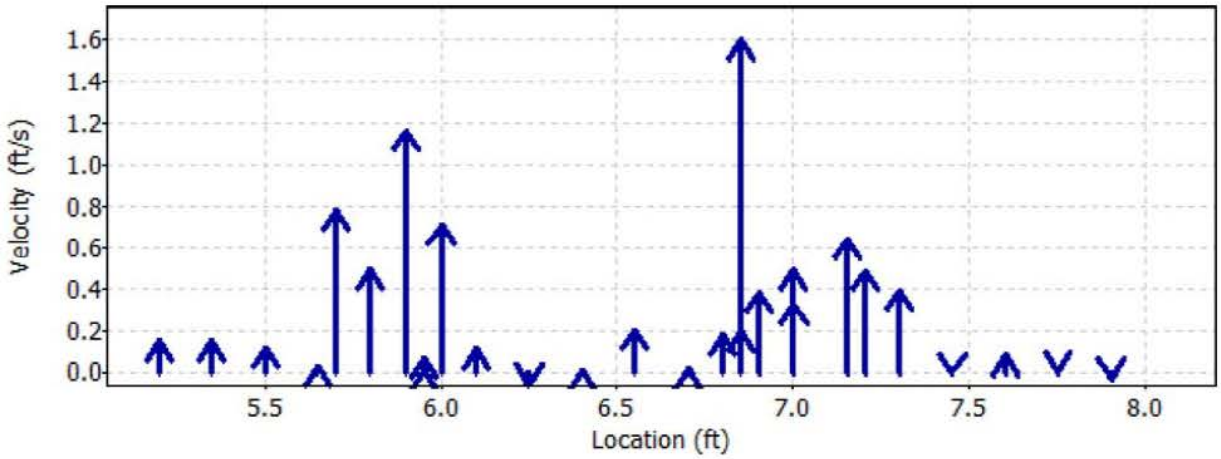
Reference 32

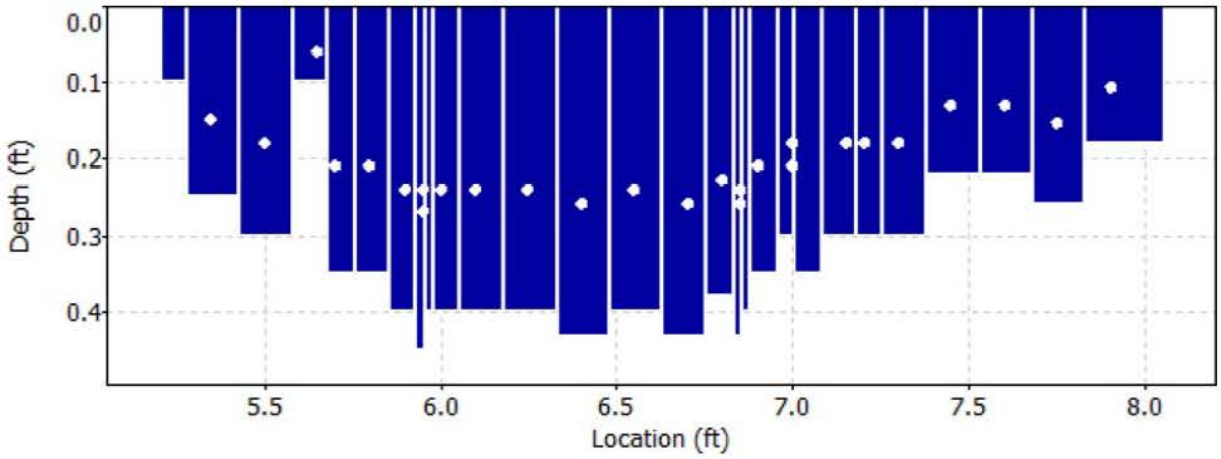
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	EG6.WAD	Site Name	
Start Date and Time	2015/09/30 08:48:09	Operator(s)	RM







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	EG6.WAD	Site Name	
Start Date and Time	2015/09/30 08:48:09	Operator(s)	RM

Quality Control

St	Loc	%Dep	Message
1	5.35	0.6	High angle: -37
2	5.50	0.6	High angle: -47
3	5.65	0.6	High angle: 23
		0.6	High SNR variation during measurement: 4.7,5.2
4	5.70	0.6	High standard error: 0.077
6	5.90	0.6	High standard error: 0.088
9	6.00	0.6	High SNR variation during measurement: 6.9,6.9
		0.6	High standard error: 0.133
		0.6	Boundary QC is Good; possible boundary interference
11	6.25	0.6	High angle: -146
13	6.55	0.6	High angle: -22
14	6.70	0.6	High standard error: 0.094
15	6.80	0.6	High angle: -29
16	6.85	0.6	High angle: -27
18	6.90	0.6	High number of spikes: 5
19	7.00	0.6	High angle: -24
20	7.00	0.6	High angle: -24
21	7.15	0.6	Boundary QC is Good; possible boundary interference
22	7.20	0.6	High angle: -38
		0.6	Boundary QC is Fair; possible boundary interference
23	7.30	0.6	High angle: -28
		0.6	Boundary QC is Good; possible boundary interference
24	7.45	0.6	SNR (64.7) is different from typical SNR (40.4)
		0.6	High SNR variation during measurement: 3.4,5.2
		0.6	Boundary QC is Fair; possible boundary interference
25	7.60	0.6	High angle: -63
		0.6	Boundary QC is Fair; possible boundary interference
27	7.90	0.6	High angle: -166
		0.6	High differences in beam SNR: 68.8,18.9
		0.6	Boundary QC is Fair; possible boundary interference

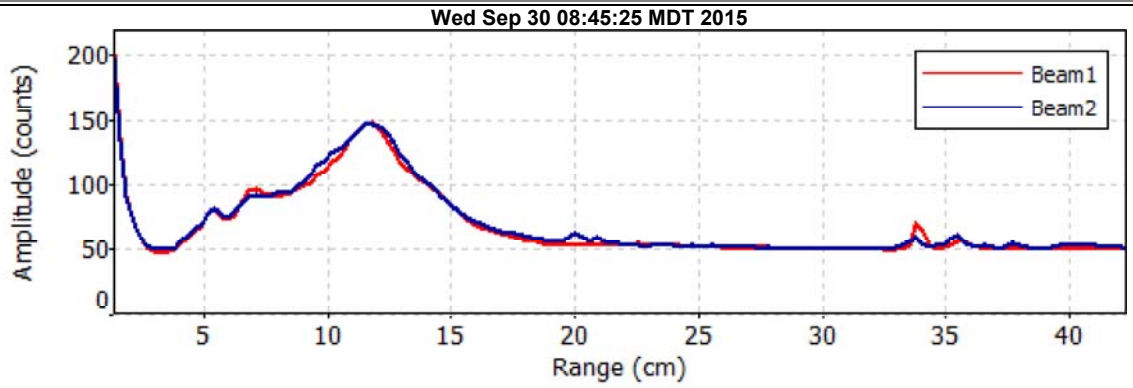
Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	EG6.WAD	Site Name	
Start Date and Time	2015/09/30 08:48:09	Operator(s)	RM

Automatic Quality Control Test (BeamCheck)



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

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	EG9.WAD
Start Date and Time	2015/09/29 15:25:48

Site Details

Site Name	
Operator(s)	RM

System Information

Sensor Type	FlowTracker
Serial #	P5879
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%	3.1%
Velocity	1.9%	12.3%
Width	0.1%	0.1%
Method	1.9%	-
# Stations	2.0%	-
Overall	**3.5%**	**12.7%**

Summary

Averaging Int.	40	# Stations	26
Start Edge	REW	Total Width	7.500
Mean SNR	40.8 dB	Total Area	2.545
Mean Temp	47.99 °F	Mean Depth	0.339
Disch. Equation	Mid-Section	Mean Velocity	0.6844
		Total Discharge	**1.7421**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	15:25	8.70	None	0.100	0.0	0.0	0.0000	1.00	0.2664	0.065	0.0173	1.0
1	*15:25*	*10.00*	*0.6*	*0.250*	*0.6*	*0.100*	*0.2664*	*1.00*	*0.2664*	*0.212*	*0.0566*	*3.2*
2	*15:27*	*10.40*	*0.6*	*0.280*	*0.6*	*0.112*	*0.0013*	*1.00*	*0.0013*	*0.112*	*0.0001*	*0.0*
3	*15:28*	*10.80*	*0.6*	*0.280*	*0.6*	*0.112*	*0.5810*	*1.00*	*0.5810*	*0.112*	*0.0650*	*3.7*
4	15:29	11.20	0.6	0.300	0.6	0.120	1.2037	1.00	1.2037	0.120	0.1444	8.3
5	*15:30*	*11.60*	*0.6*	*0.320*	*0.6*	*0.128*	*1.3990*	*1.00*	*1.3990*	*0.096*	*0.1343*	*7.7*
6	*15:51*	*11.80*	*0.6*	*0.450*	*0.6*	*0.180*	*0.5400*	*1.00*	*0.5400*	*0.090*	*0.0486*	*2.8*
7	*15:31*	*12.00*	*0.6*	*0.450*	*0.6*	*0.180*	*0.6099*	*1.00*	*0.6099*	*0.045*	*0.0275*	*1.6*
8	*15:46*	*12.00*	*0.6*	*0.500*	*0.6*	*0.200*	*0.0577*	*1.00*	*0.0577*	*0.050*	*0.0029*	*0.2*
9	*15:53*	*12.20*	*0.6*	*0.500*	*0.6*	*0.200*	*0.8757*	*1.00*	*0.8757*	*0.100*	*0.0875*	*5.0*
10	*15:33*	*12.40*	*0.6*	*0.550*	*0.6*	*0.220*	*0.7881*	*1.00*	*0.7881*	*0.165*	*0.1299*	*7.5*
11	*15:34*	*12.80*	*0.6*	*0.410*	*0.6*	*0.164*	*1.0823*	*1.00*	*1.0823*	*0.123*	*0.1333*	*7.6*
12	15:48	13.00	0.6	0.410	0.6	0.164	-0.0082	1.00	-0.0082	0.082	-0.0007	0.0
13	*15:36*	*13.20*	*0.6*	*0.400*	*0.6*	*0.160*	*-0.0965*	*1.00*	*-0.0965*	*0.080*	*-0.0077*	*-0.4*
14	15:58	13.40	0.6	0.420	0.6	0.168	1.5446	1.00	1.5446	0.084	0.1297	7.4
15	*15:37*	*13.60*	*0.6*	*0.480*	*0.6*	*0.192*	*1.2782*	*1.00*	*1.2782*	*0.096*	*0.1227*	*7.0*
16	15:56	13.80	0.6	0.410	0.6	0.164	0.8658	1.00	0.8658	0.082	0.0710	4.1
17	15:38	14.00	0.6	0.400	0.6	0.160	0.8907	1.00	0.8907	0.040	0.0356	2.0
18	15:49	14.00	0.6	0.490	0.6	0.196	0.8652	1.00	0.8652	0.049	0.0426	2.4
19	15:54	14.20	0.6	0.450	0.6	0.180	1.4570	1.00	1.4570	0.090	0.1309	7.5
20	15:40	14.40	0.6	0.320	0.6	0.128	1.4462	1.00	1.4462	0.096	0.1386	8.0
21	*15:42*	*14.80*	*0.6*	*0.440*	*0.6*	*0.176*	*0.4101*	*1.00*	*0.4101*	*0.132*	*0.0542*	*3.1*
22	15:57	15.00	0.6	0.420	0.6	0.168	0.5623	1.00	0.5623	0.084	0.0472	2.7
23	*15:43*	*15.20*	*0.6*	*0.450*	*0.6*	*0.180*	*1.0630*	*1.00*	*1.0630*	*0.135*	*0.1433*	*8.2*
24	*15:44*	*15.60*	*0.6*	*0.350*	*0.6*	*0.140*	*-0.0617*	*1.00*	*-0.0617*	*0.175*	*-0.0108*	*-0.6*
25	15:44	16.20	None	0.100	0.0	0.0	0.0000	1.00	-0.0617	0.030	-0.0019	-0.1

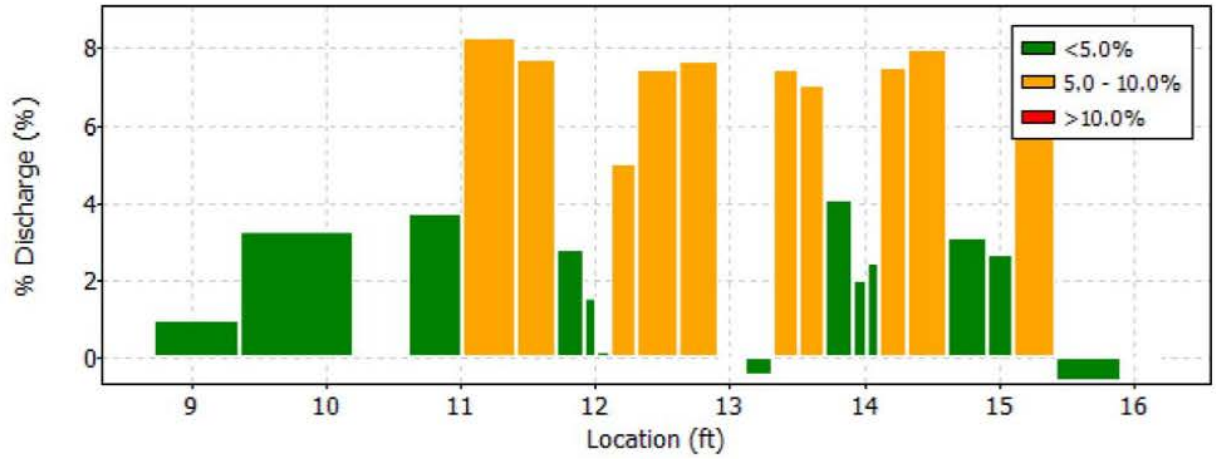
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

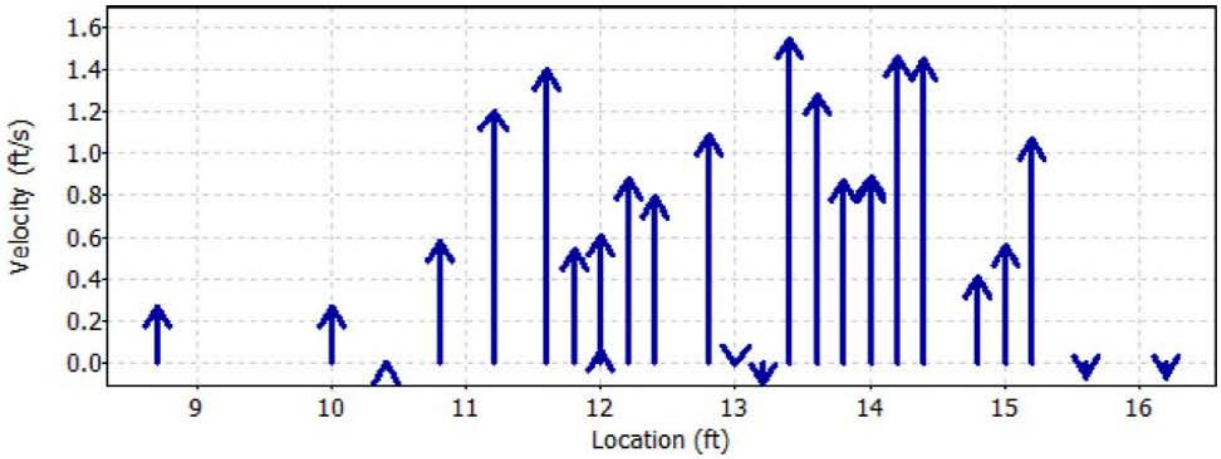
Reference 32

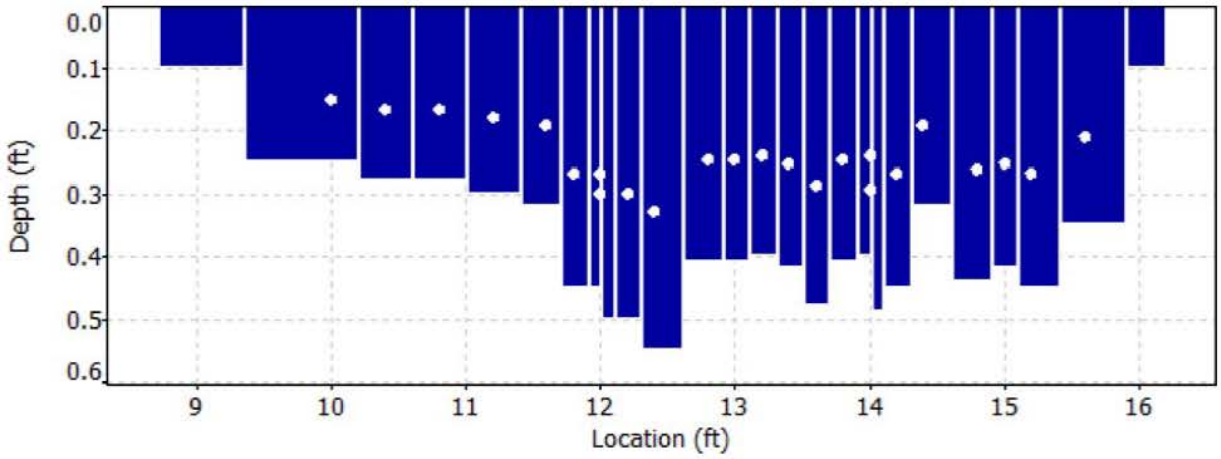
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	EG9.WAD	Site Name	
Start Date and Time	2015/09/29 15:25:48	Operator(s)	RM







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	EG9.WAD	Site Name	
Start Date and Time	2015/09/29 15:25:48	Operator(s)	RM

Quality Control

St	Loc	%Dep	Message
1	10.00	0.6	High angle: -23
2	10.40	0.6	High differences in beam SNR: 14.1,70.0
		0.6	Boundary QC is Poor; possible boundary interference
3	10.80	0.6	Boundary QC is Good; possible boundary interference
5	11.60	0.6	High standard error: 0.087
6	11.80	0.6	Boundary QC is Fair; possible boundary interference
7	12.00	0.6	High angle: -21
		0.6	Boundary QC is Fair; possible boundary interference
8	12.00	0.6	High number of spikes: 7
		0.6	Boundary QC is Good; possible boundary interference
9	12.20	0.6	High standard error: 0.098
10	12.40	0.6	High standard error: 0.089
11	12.80	0.6	High standard error: 0.104
13	13.20	0.6	High angle: 155
15	13.60	0.6	High standard error: 0.100
21	14.80	0.6	High angle: 28
23	15.20	0.6	SNR (26.6) is different from typical SNR (40.8)
		0.6	Boundary QC is Fair; possible boundary interference
24	15.60	0.6	High angle: 122

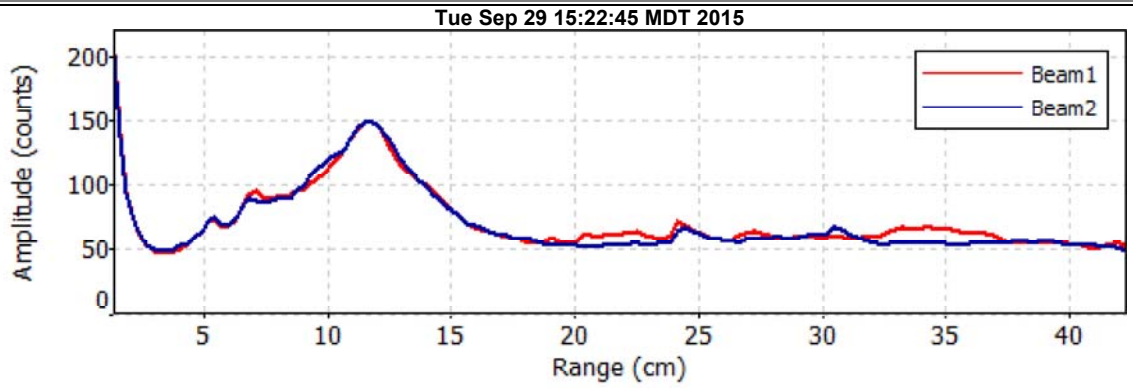
Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	EG9.WAD	Site Name	
Start Date and Time	2015/09/29 15:25:48	Operator(s)	RM

Automatic Quality Control Test (BeamCheck)



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

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	LA3.WAD
Start Date and Time	2015/09/30 10:32:15

Site Details

Site Name	LA3
Operator(s)	LC

System Information

Sensor Type	FlowTracker
Serial #	P3512
CPU Firmware Version	3.7
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	0.3%	1.2%
Velocity	0.9%	3.5%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.3%	-
Overall	**3.2%**	**3.9%**

Summary

Averaging Int.	40	# Stations	22
Start Edge	LEW	Total Width	19.100
Mean SNR	17.6 dB	Total Area	14.816
Mean Temp	47.33 °F	Mean Depth	0.776
Disch. Equation	Mid-Section	Mean Velocity	0.6079
		Total Discharge	**9.0069**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:32	9.30	None	0.500	0.0	0.0	0.0000	1.00	0.0397	0.225	0.0089	0.1
1	*10:32*	*10.20*	*0.6*	*0.700*	*0.6*	*0.280*	*0.0397*	*1.00*	*0.0397*	*0.630*	*0.0250*	*0.3*
2	*10:33*	*11.10*	*0.6*	*0.900*	*0.6*	*0.360*	*0.0039*	*1.00*	*0.0039*	*0.810*	*0.0032*	*0.0*
3	*10:35*	*12.00*	*0.6*	*1.050*	*0.6*	*0.420*	*0.4780*	*1.00*	*0.4780*	*0.945*	*0.4518*	*5.0*
4	*10:36*	*12.90*	*0.6*	*1.000*	*0.6*	*0.400*	*0.6873*	*1.00*	*0.6873*	*0.900*	*0.6188*	*6.9*
5	10:37	13.80	0.6	1.000	0.6	0.400	0.7717	1.00	0.7717	0.900	0.6947	7.7
6	*10:38*	*14.70*	*0.6*	*0.950*	*0.6*	*0.380*	*0.5230*	*1.00*	*0.5230*	*0.855*	*0.4473*	*5.0*
7	10:39	15.60	0.6	1.000	0.6	0.400	0.7956	1.00	0.7956	0.900	0.7163	8.0
8	10:40	16.50	0.6	0.900	0.6	0.360	0.8159	1.00	0.8159	0.810	0.6611	7.3
9	10:41	17.40	0.6	0.900	0.6	0.360	0.9091	1.00	0.9091	0.810	0.7365	8.2
10	10:42	18.30	0.6	0.850	0.6	0.340	0.9472	1.00	0.9472	0.765	0.7249	8.0
11	10:43	19.20	0.6	0.700	0.6	0.280	0.9291	1.00	0.9291	0.630	0.5856	6.5
12	10:44	20.10	0.6	0.600	0.6	0.240	0.7621	1.00	0.7621	0.540	0.4117	4.6
13	10:45	21.00	0.6	0.700	0.6	0.280	0.6594	1.00	0.6594	0.630	0.4157	4.6
14	*10:46*	*21.90*	*0.6*	*0.700*	*0.6*	*0.280*	*0.5558*	*1.00*	*0.5558*	*0.630*	*0.3503*	*3.9*
15	10:47	22.80	0.6	0.700	0.6	0.280	0.7726	1.00	0.7726	0.630	0.4870	5.4
16	10:48	23.70	0.6	0.650	0.6	0.260	0.7257	1.00	0.7257	0.585	0.4246	4.7
17	10:49	24.60	0.6	0.650	0.6	0.260	0.6932	1.00	0.6932	0.585	0.4056	4.5
18	10:50	25.50	0.6	0.650	0.6	0.260	0.6066	1.00	0.6066	0.585	0.3549	3.9
19	10:51	26.40	0.6	0.700	0.6	0.280	0.4603	1.00	0.4603	0.628	0.2893	3.2
20	*10:52*	*27.30*	*0.6*	*0.600*	*0.6*	*0.240*	*0.2365*	*1.00*	*0.2365*	*0.599*	*0.1416*	*1.6*
21	10:52	28.40	None	0.400	0.0	0.0	0.0000	1.00	0.2365	0.220	0.0520	0.6

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

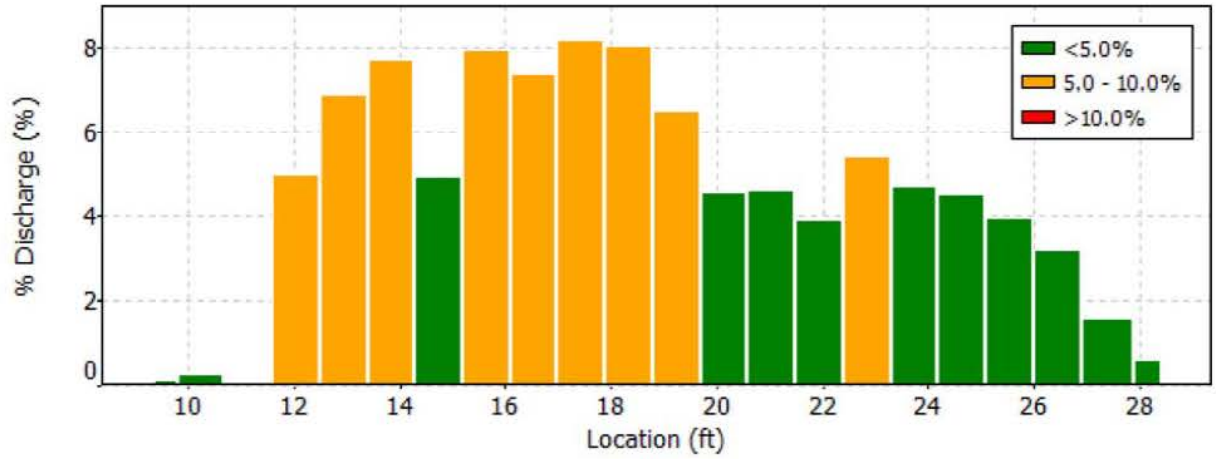
Reference 32

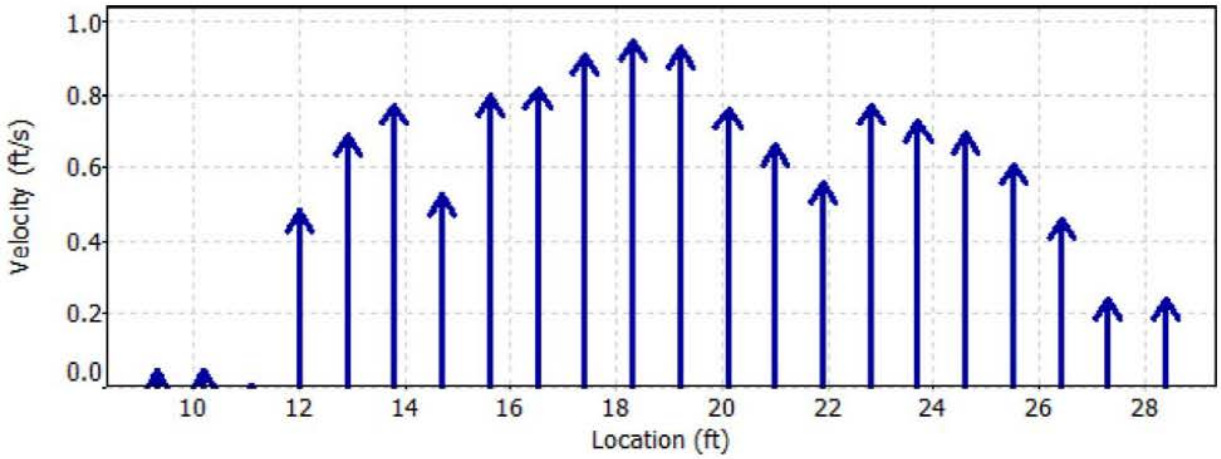
Discharge Measurement Summary

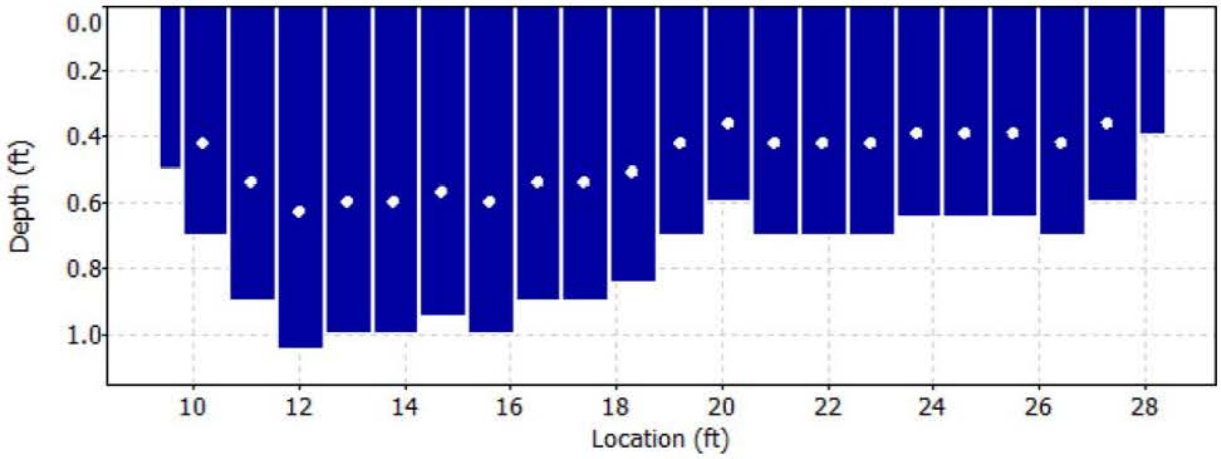
Date Generated: Mon Dec 21 2015

File Information	
File Name	LA3.WAD
Start Date and Time	2015/09/30 10:32:15

Site Details	
Site Name	LA3
Operator(s)	LC







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	LA3.WAD	Site Name	LA3
Start Date and Time	2015/09/30 10:32:15	Operator(s)	LC

Quality Control

St	Loc	%Dep	Message
1	10.20	0.6	High angle: 20
2	11.10	0.6	High differences in beam SNR: 66.6,50.3
		0.6	SNR (58.5) is different from typical SNR (17.6)
		0.6	High SNR variation during measurement: 3.9,6.9
3	12.00	0.6	High SNR variation during measurement: 4.3,5.2
4	12.90	0.6	High SNR variation during measurement: 4.7,5.2
6	14.70	0.6	High SNR variation during measurement: 5.2,5.2
14	21.90	0.6	High SNR variation during measurement: 5.2,5.2
20	27.30	0.6	SNR (7.1) is different from typical SNR (17.6)

Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information

File Name	UA5.WAD
Start Date and Time	2015/09/30 08:15:25

Site Details

Site Name	UA5
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	0.5%	4.6%
Velocity	3.2%	47.7%
Width	0.2%	0.2%
Method	2.3%	-
# Stations	1.9%	-
Overall	**4.5%**	**47.9%**

Summary

Averaging Int.	40	# Stations	27
Start Edge	REW	Total Width	10.795
Mean SNR	44.1 dB	Total Area	3.831
Mean Temp	39.60 °F	Mean Depth	0.355
Disch. Equation	Mid-Section	Mean Velocity	0.1409
		Total Discharge	**0.5396**

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	08:15	6.20	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	08:15	6.80	0.6	0.250	0.6	0.100	-0.0177	1.00	-0.0177	0.150	-0.0027	-0.5
2	*08:16*	*7.40*	*0.6*	*0.300*	*0.6*	*0.120*	*0.2749*	*1.00*	*0.2749*	*0.180*	*0.0494*	*9.2*
3	*08:17*	*8.00*	*0.6*	*0.300*	*0.6*	*0.120*	*-0.0394*	*1.00*	*-0.0394*	*0.180*	*-0.0071*	*-1.3*
4	*08:18*	*8.60*	*0.6*	*0.400*	*0.6*	*0.160*	*-0.1450*	*1.00*	*-0.1450*	*0.240*	*-0.0348*	*-6.4*
5	08:19	9.20	0.6	0.400	0.6	0.160	0.1434	1.00	0.1434	0.180	0.0258	4.8
6	*08:43*	*9.50*	*0.6*	*0.400*	*0.6*	*0.160*	*0.4902*	*1.00*	*0.4902*	*0.080*	*0.0393*	*7.3*
7	*08:34*	*9.60*	*0.6*	*0.400*	*0.6*	*0.160*	*0.6985*	*1.00*	*0.6985*	*0.040*	*0.0280*	*5.2*
8	*08:38*	*9.70*	*0.6*	*0.400*	*0.6*	*0.160*	*0.5456*	*1.00*	*0.5456*	*0.040*	*0.0217*	*4.0*
9	08:21	9.80	0.6	0.350	0.6	0.140	1.2572	1.00	1.2572	0.035	0.0440	8.1
10	*08:39*	*9.90*	*0.6*	*0.400*	*0.6*	*0.160*	*0.1791*	*1.00*	*0.1791*	*0.040*	*0.0072*	*1.3*
11	08:35	10.00	0.6	0.300	0.6	0.120	1.1234	1.00	1.1234	0.045	0.0506	9.4
12	*08:36*	*10.20*	*0.6*	*0.350*	*0.6*	*0.140*	*0.6798*	*1.00*	*0.6798*	*0.070*	*0.0474*	*8.8*
13	*08:22*	*10.40*	*0.6*	*0.400*	*0.6*	*0.160*	*0.2861*	*1.00*	*0.2861*	*0.160*	*0.0456*	*8.5*
14	08:23	11.00	0.6	0.400	0.6	0.160	0.2480	1.00	0.2480	0.180	0.0447	8.3
15	*08:41*	*11.30*	*0.6*	*0.350*	*0.6*	*0.140*	*-0.0548*	*1.00*	*-0.0548*	*0.105*	*-0.0058*	*-1.1*
16	*08:23*	*11.60*	*0.6*	*0.450*	*0.6*	*0.180*	*-0.0472*	*1.00*	*-0.0472*	*0.158*	*-0.0074*	*-1.4*
17	*08:42*	*12.00*	*0.6*	*0.400*	*0.6*	*0.160*	*0.3376*	*1.00*	*0.3376*	*0.120*	*0.0405*	*7.5*
18	*08:25*	*12.20*	*0.6*	*0.300*	*0.6*	*0.120*	*0.3691*	*1.00*	*0.3691*	*0.120*	*0.0441*	*8.2*
19	08:26	12.80	0.6	0.300	0.6	0.120	0.2966	1.00	0.2966	0.180	0.0533	9.9
20	08:27	13.40	0.6	0.550	0.6	0.220	0.1558	1.00	0.1558	0.330	0.0514	9.5
21	08:28	14.00	0.6	0.500	0.6	0.200	-0.0112	1.00	-0.0112	0.300	-0.0033	-0.6
22	*08:29*	*14.60*	*0.6*	*0.350*	*0.6*	*0.140*	*-0.0492*	*1.00*	*-0.0492*	*0.210*	*-0.0103*	*-1.9*
23	08:30	15.20	0.6	0.300	0.6	0.120	-0.0043	1.00	-0.0043	0.180	-0.0008	-0.1
24	08:31	15.80	0.6	0.400	0.6	0.160	0.1125	1.00	0.1125	0.240	0.0270	5.0
25	*08:32*	*16.40*	*0.6*	*0.450*	*0.6*	*0.180*	*-0.0308*	*1.00*	*-0.0308*	*0.270*	*-0.0083*	*-1.5*
26	08:32	17.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

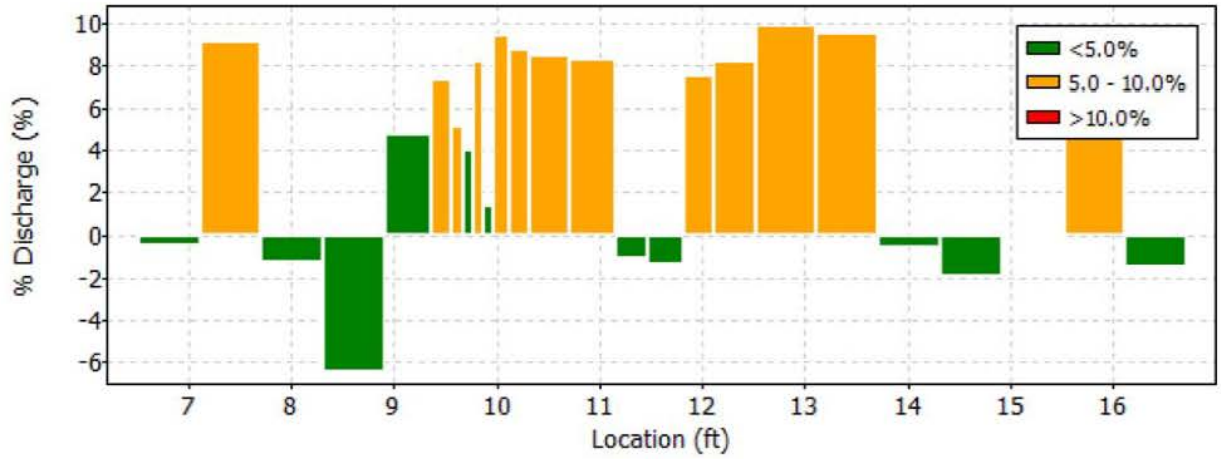
Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

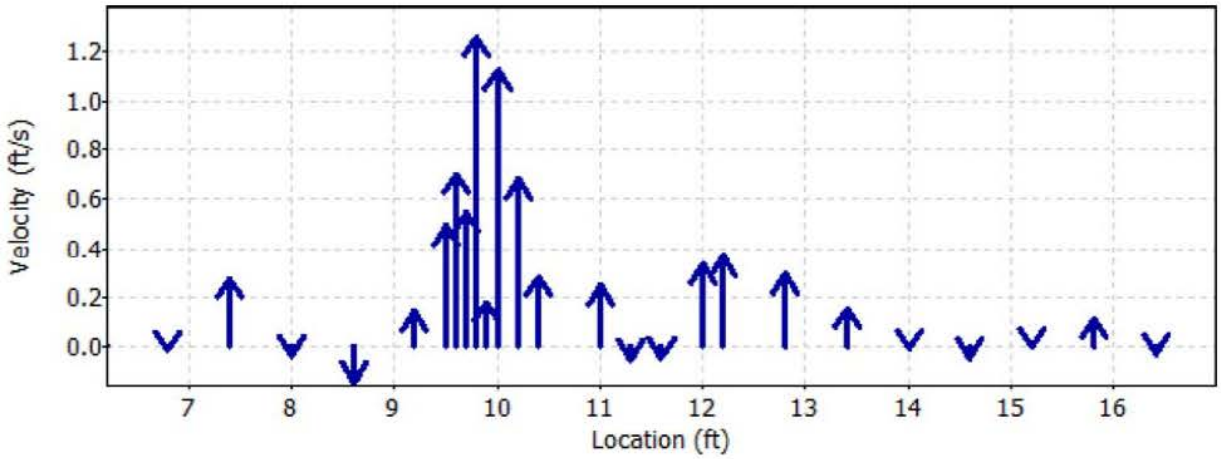
Reference 32

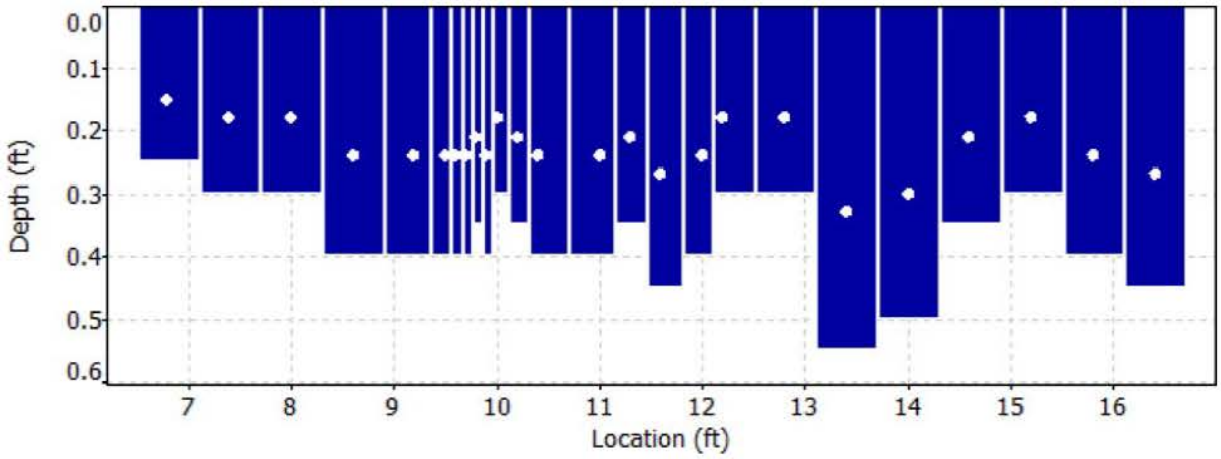
Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	UA5.WAD	Site Name	UA5
Start Date and Time	2015/09/30 08:15:25	Operator(s)	RB







Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	UA5.WAD	Site Name	UA5
Start Date and Time	2015/09/30 08:15:25	Operator(s)	RB

Quality Control

St	Loc	%Dep	Message
2	7.40	0.6	High angle: 51
		0.6	High standard error: 0.031
3	8.00	0.6	High angle: 128
4	8.60	0.6	High angle: -146
6	9.50	0.6	High standard error: 0.052
7	9.60	0.6	High standard error: 0.050
8	9.70	0.6	High standard error: 0.048
10	9.90	0.6	High angle: 27
		0.6	High standard error: 0.045
12	10.20	0.6	High angle: 26
		0.6	High standard error: 0.063
13	10.40	0.6	High angle: 37
		0.6	High standard error: 0.034
15	11.30	0.6	High angle: -175
16	11.60	0.6	High angle: 134
17	12.00	0.6	High angle: -29
18	12.20	0.6	High angle: -29
22	14.60	0.6	High angle: -136
25	16.40	0.6	High angle: -130

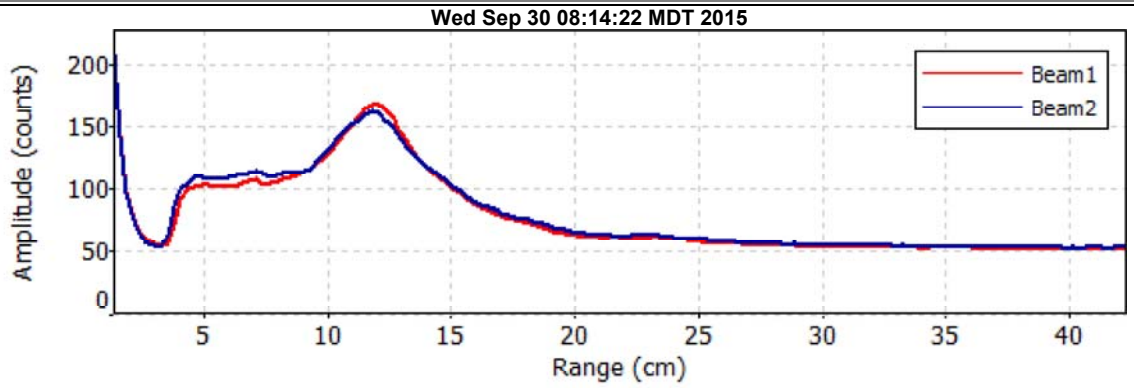
Reference 32

Discharge Measurement Summary

Date Generated: Mon Dec 21 2015

File Information		Site Details	
File Name	UA5.WAD	Site Name	UA5
Start Date and Time	2015/09/30 08:15:25	Operator(s)	RB

Automatic Quality Control Test (BeamCheck)



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

Appendix C
Site Photos

Appendix C
Bonita Peak June 2015
Site Photos

A29A

A32 upstream

A32 downstream

A31 upstream

A31 downstream

A28 upstream

A28 downstream

UA8 upstream

UA8 downstream

A26 upstream

A26 downstream

TM1 upstream

TM1 downstream

A11A upstream

A11A downstream

CG11 downstream

CG11 upstream

A11 upstream

A11 downstream

CG9 upstream

CG9 downstream

A13 upstream

A13 downstream

A20 upstream

A20 downstream

A08 upstream

A08 downstream

A05 upstream

A05 downstream

CC48 upstream

CC48 downstream

CC18 upstream

CC18 downstream

CC19 upstream

CC19 downstream

CC18B upstream

CC18B downstream

CC07 upstream

CC07 downstream

CC03D upstream

CC03D downstream

A30 upstream

A30 downstream

A29

A27 downstream

A27 upstream

A25 upstream

A25 downstream

A24 upstream

A24 downstream

A14 upstream

A14 downstream

A09 upstream

A09 downstream

A10 upstream

A10 downstream

CG12A upstream

CG12A downstream

Bagley Pond

A12 downstream

A12 upstream

A15 downstream

UA5 upstream

UA5 downstream

UA2

CC21 upstream

CC21 downstream

CC17 upstream

CC17 downstream

CC14 upstream

CC14 downstream

A72 Storm Opp upstream

A72 Storm Opp downstream

M34 Storm Opp upstream

M34 Storm Opp downstream

M34 upstream

M34 downstream

A66 upstream

A66 downstream

A64 upstream

A64 downstream

A60 upstream

A60 downstream

A58 upstream

A55 upstream

A55 downstream

A47 upstream

A47 downstream

A47 side

A47 downstream to river

A45 upstream

A45 downstream

A41A upstream

A41A downstream

A40 upstream

A40 downstream

A40A upstream

A40A downstream

A34 upstream

A34 downstream

EG6 downstream

EG6

EG6 upstream

DM34

DM34

DM34

DM34

DM34

Bbridge upstream

Bbridge downstream

A72 upstream

A72 downstream

A68 upstream

A68 downstream

A65 upstream

A65 downstream

A61 upstream

A61 downstream

A48 upstream

A48 downstream

LA3 upstream

LA3 downstream

A43 upstream

A43 downstream

A42 upstream

A42 downstream

A41C upstream

A41C downstream

A35 upstream

A35 downstream

EG9 upstream

EG9 downstream

A37 upstream

A37 downstream

A36 upstream

A36 downstream

A54 upstream

A54 downstream

CC03 upstream

CC03 downstream

CC03B upstream

CC03B downstream

A55 Storm Opp upstream

A55 Storm Opp downstream

A68 Storm Opp downstream

A68 Storm Opp upstream

Appendix C
Bonita Peak August 2015
Site Photos

KT-FP02 upstream

KT-FP02 downstream

KT-FP03 upstream

KT-FP03 downstream

KT-FP04 upstream

KT-FP04 downstream

MT-FP01 upstream

MT-FP01 downstream

A40 upstream

A40 downstream

ET-FP01 upstream

ET-FP01 downstream

A41C upstream

A41C downstream

A40A upstream

A40A downstream

ET-FP02 upstream

ET-FP02 downstream

ET-FP03 upstream

ET-FP03 downstream

ET-FP04 upstream

ET-FP04 downstream

ET-FP05 upstream

ET-FP05 downstream

ET-FP07 upstream

ET-FP07 downstream

ET-FP06 upstream

ET-FP06 downstream

FQ-FP01

FQ-FP01

ET-FP08 upstream

ET-FP08 downstream

ET-FP09 upstream

ET-FP09 downstream

ET-FP10 upstream

ET-FP10 downstream

ET-FP11 upstream

ET-FP11 downstream

ET-FP12 upstream

ET-FP12 downstream

ET-FP13 upstream

ET-FP13 downstream

ET-FP14 upstream

ET-FP14 downstream

A34 upstream

A34 downstream

ET-FP16 upstream

ET-FP16 downstream

A33 upstream

A33 downstream

ES-FP01 upstream

ES-FP01 downstream

ES-FP02 upstream

ES-FP02 downstream

ES-FP03 upstream

ES-FP03 downstream

LA3 upstream

LA3 downstream

A43 upstream

A43 downstream

A42 upstream

A42 downstream

A32 upstream

A32 downstream

A31 upstream

A31 downstream

KT-03

KT-03

KT-03

KT-03

KT-01

ET-02

ET-02

ET-02

ET-02

ET-01

ET-01

ET-01

ET-01

ET-04

ET-04

ET-04

ET-04

ET-04

ET-04

ET-03

ET-03

ET-03

ET-03

ET-05

ET-05

ET-05

ET-05

ET-05

ET-05

ET-06

ET-06

ET-06

ET-06

Safety Meeting

ET-08

ET-08

ET-08

ET-08

ET-08

ET-08

ET-07

ET-07

ET-07

ET-07

ET-07

ET-07

ET-09

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ET-11

ET-11

ET-11

ET-11

ET-13

ET-13

ET-13

ET-13

ET-13

ET-15

ET-15

ET-15

ET-15

FQ-01

FQ-01

FQ-01

FQ-01

FQ-01

FQ-01

FQ-01

FQ-01

FQ-01

FQ-01

FQ-01

FQ-01

FQ-01

ET03-TP1

ET03-TP1

ET03-TP1

ET03-TP2

ET03-TP2

ET03-TP2

ET05-TP1

ET05-TP1

ET05-TP1

ET05-TP2

ET05-TP2

ET05-TP2

ET05-TP2

ET-07 pothole

ET-07 pothole

ET09-TP1

ET09-TP1

ET09-TP1

ET-08 Pothole

ET08 Pothole

ET08 Pothole

FQ-TP1

FQ-TP1

FQ-TP1

FQ01 Pothole

FQ01 Pothole

FQ-TP02

FQ-TP02

FQ-TP02

KT04-TP1

KT04-TP1

KT04-TP1

AE44

AE44

AE45

AE45

AE45

AE45

AE46

AE46

A21

A21

A22

A22

A20

A20

A11

A11

AE11

AE11

AE11

KT-02-1 upstream

KT-02-1 downstream

KT-02-1 downstream

BE1

BE1

BE1

BE1

BE1

BE1

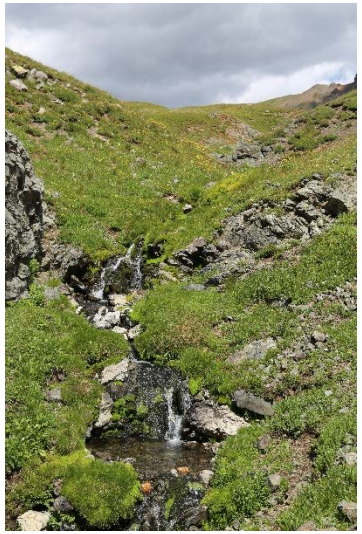
BE1

BE1

BE2

BE2

EG2



EG2

EG2

EG1

EG1

EG2 Upstream

EG2 Downstream

EG2A

EG2A

EG2A

EG3 Upstream

EG3 Downstream

EG3 Ben Franklin Collapsed Shaft in Background

Ben Franklin Collapsed Shaft

BE4

BE4

BE4

BE4

BE4

BE4

Ben Franklin Adit

BE4

BE4

BE4

BE4

EG5

A39

Reclaimed Terry Tunnel

Reclaimed Terry Tunnel

A39

Bavarian Mine (top right)

EG5 Downstream

EG5 Downstream

EG5 Upstream

A37

A37 Upstream

A37 Downstream

A37 Upstream

A36

A36

A36

EG9 Upstream

EG9 Downstream

ET-03 TP-1

ET-03 TP-1

ET-04 TP-1

ET-04 TP-1

ET-04 TP-1

ET-04 TP-1

ET-04 TP-1

ET-04 TP-1

ET-04 TP-1

ET-04 TP-2

ET-04 TP-2

ET-04 TP-2

ET-04 TP-2

ET-04 TP-2

ET-06 TP-1

ET-06 TP-1

ET-06 TP-1

ET-06 TP-1

ET-06 TP-2

ET-06 TP-2

ET-06 TP-2

ET-06 TP-2 Upstream

ET-06 TP-2 Downstream

ET-06 TP-2 Downstream

ET-06 TP-2 East (road in background where dust is present)

ET-06 TP-2 East (road in background where dust is present)

FQ-01 TP

FQ-01 TP

FQ-01 TP

FQ-01 TP

FQ-01 TP

FQ-01 TP

Appendix C
Bonita Peak September 2015
Site Photos

CC21 downstream

CC21 upstream

Gold King Mine Portal

A72 upstream

A72 Downstream

M34 upstream

M34 downstream

A68 upstream

A68 downstream

A66 upstream

A66 downstream

A65 upstream

A65 downstream

A64 upstream

A64 downstream

A61 upstream

A61 downstream

A60 upstream

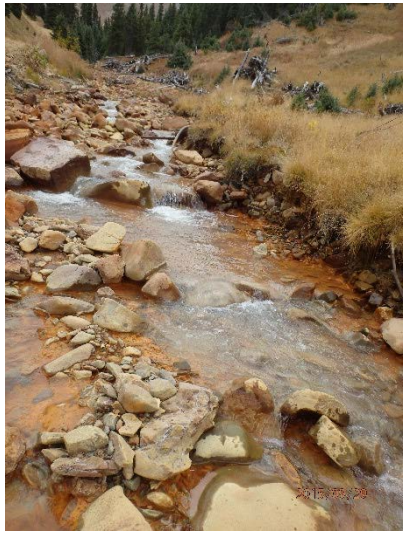
A60 downstream

A58 upstream

A58 downstream

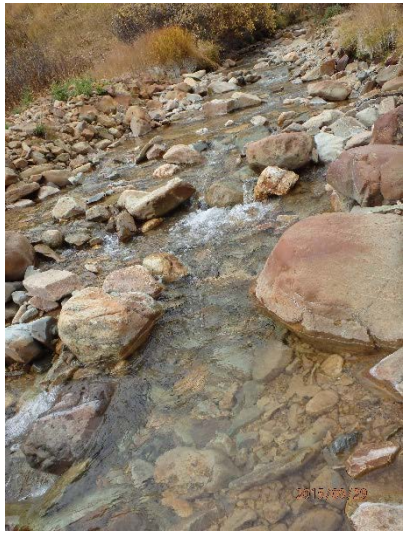
A56 upstream

A56 downstream



CC03 upstream

CC03 downstream



CC03B upstream

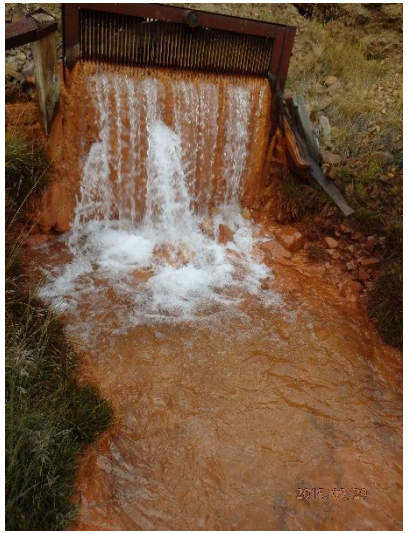
CC03B downstream

CC02E upstream

CC02E downstream

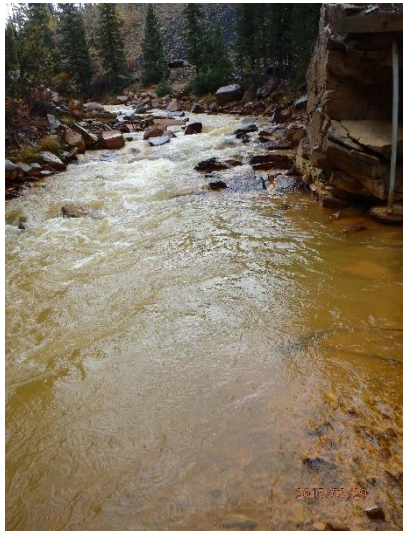
CC02D upstream

CC02D downstream

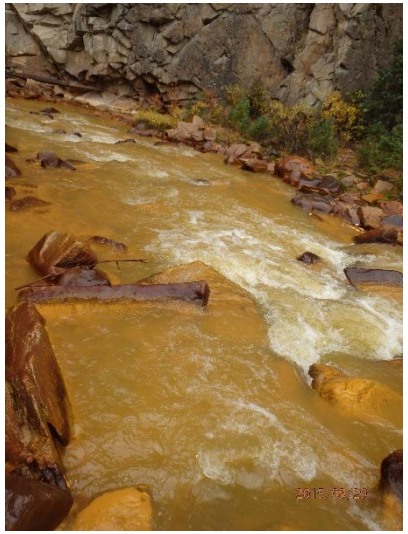


CC14 upstream

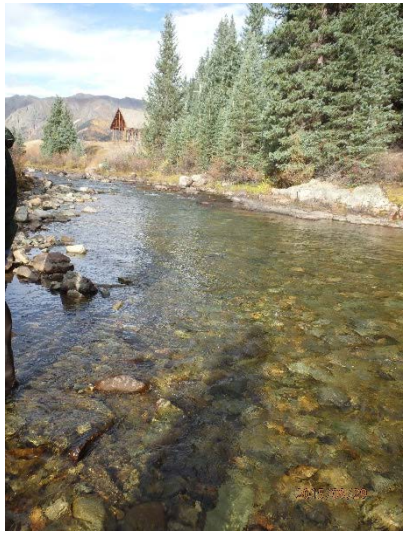
CC14 downstream



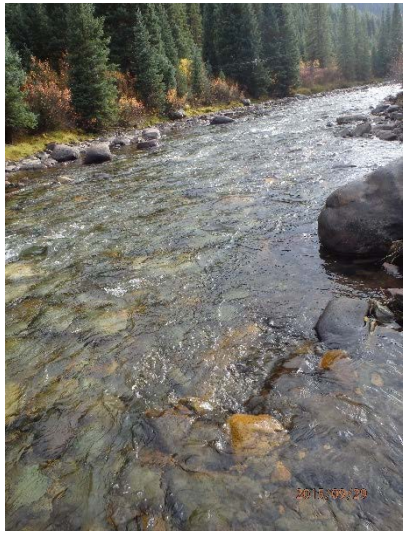
CC48 upstream



CC48 downstream



A55 upstream



A55 downstream

A54 upstream

A54 downstream

A47 upstream

A48

A45 upstream

A45 downstream

LA3 upstream

LA3 downstream

A43 upstream

A43 downstream

A41A upstream

A41A downstream

A40 upstream

A40 downstream

A35 upstream

A35 downstream

A34 upstream

A34 downstream

A32 upstream

A32 downstream

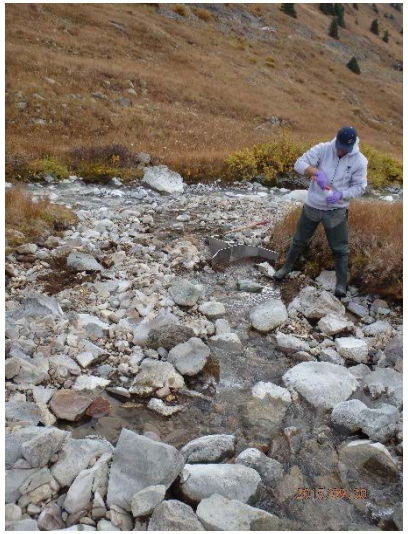
UA05 upstream

UA05 downstream

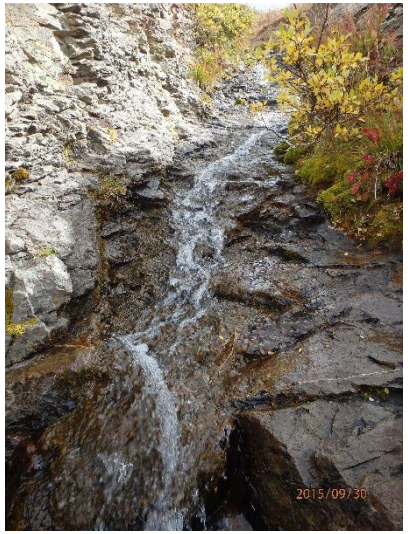
A08 upstream

A08 downstream

A07 upstream

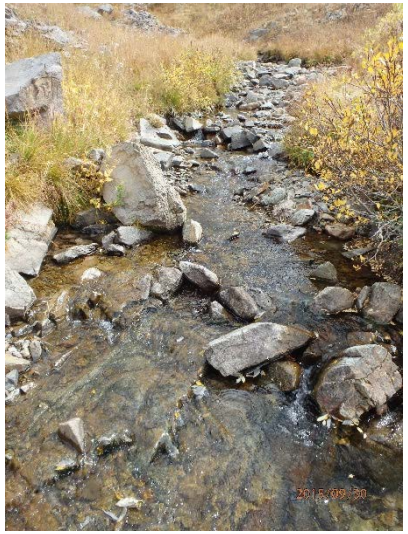


A07 downstream

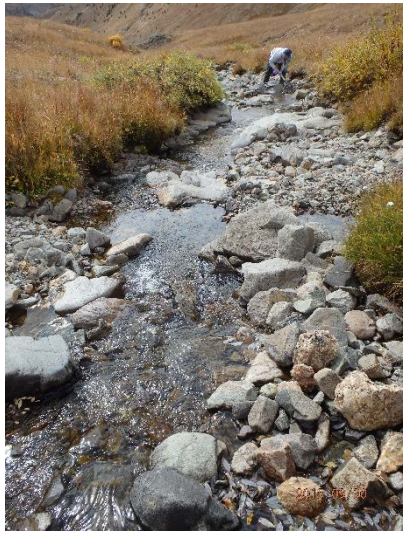


A06 upstream

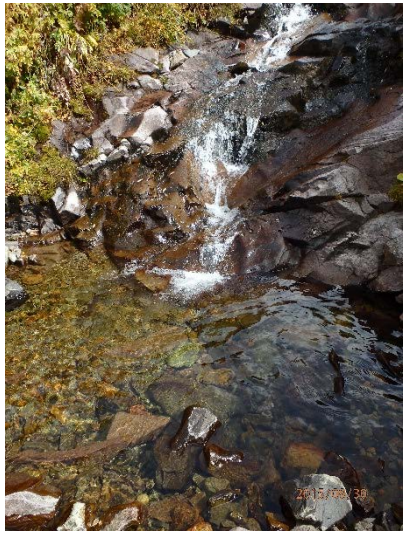
A06 downstream



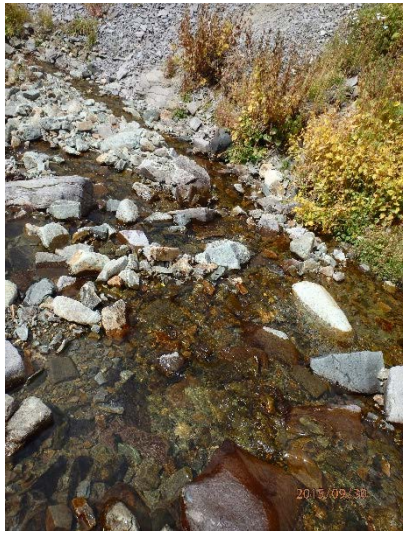
A05 upstream



A05 downstream

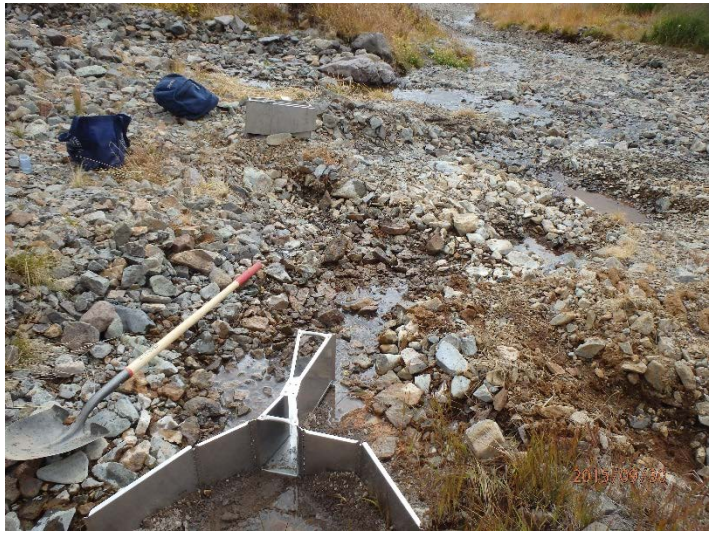


A03 upstream



A03 downstream

A02 upstream



A02 downstream

A04 upstream

A04 downstream

A02A

A02A upstream

A02A downstream

A01 upstream

A01 downstream

BG-1A upstream

BG-1A downstream

A31 upstream

A31 downstream

CC06 upstream

CC06 downstream

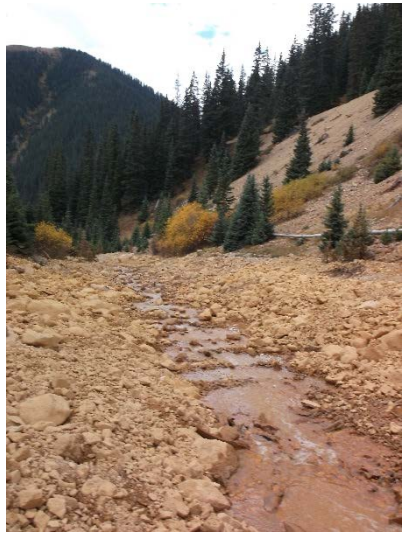
CC19 upstream

CC19 downstream

CC18 upstream

CC18 downstream

CC18B upstream

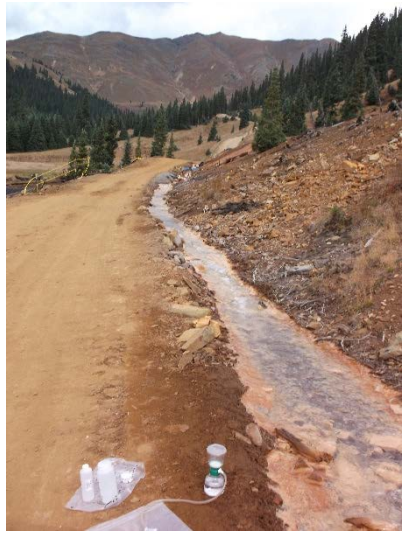


CC18B downstream

CC07 upstream

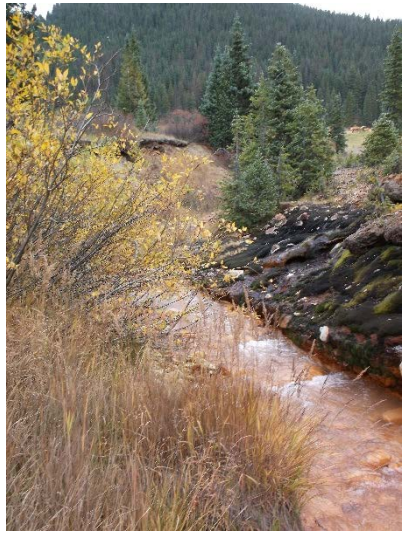
CC07 downstream

CC07 further downstream

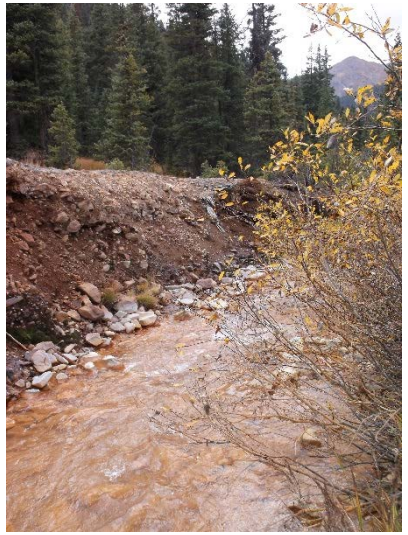


CC03D upstream

CC03D downstream

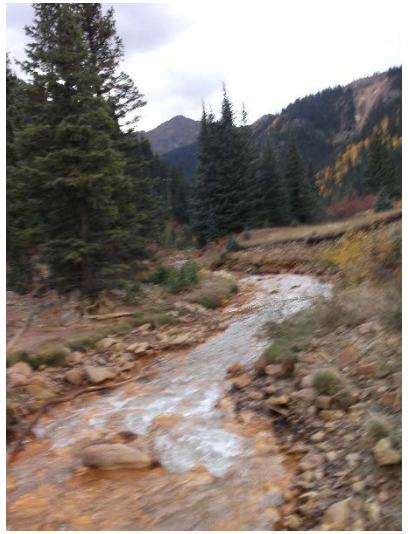


CC17 upstream



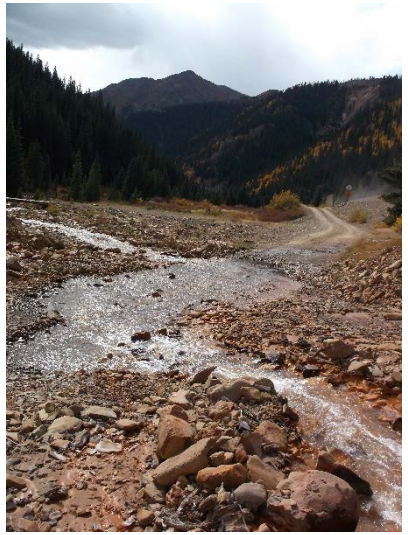
CC17 downstream

CC21 upstream



CC21 downstream

CC20 upstream



CC20 downstream

A30 upstream

A30 downstream

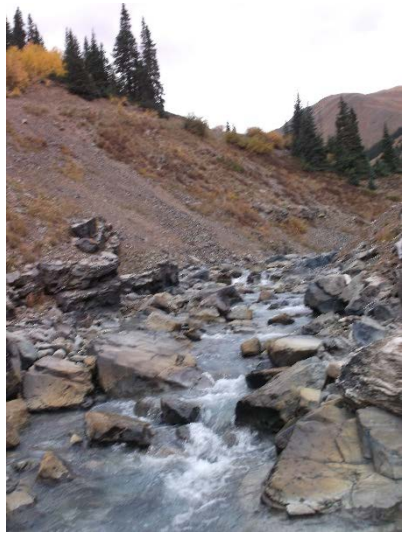
A29

A28 upstream

A28 downstream

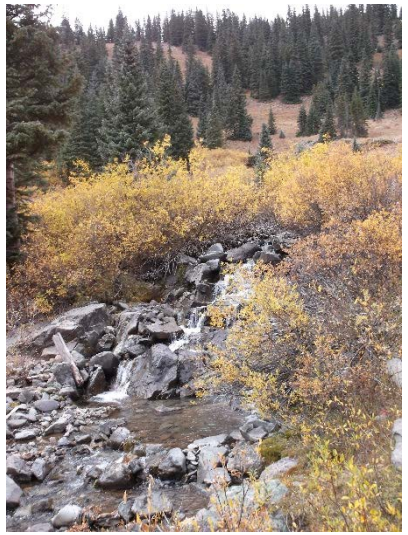
A27 upstream

A27 downstream

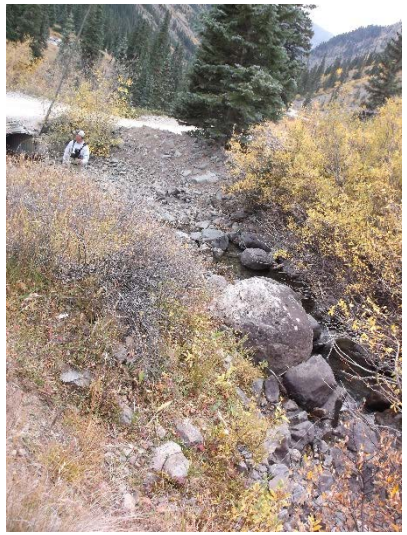


UA8 upstream

UA8 downstream



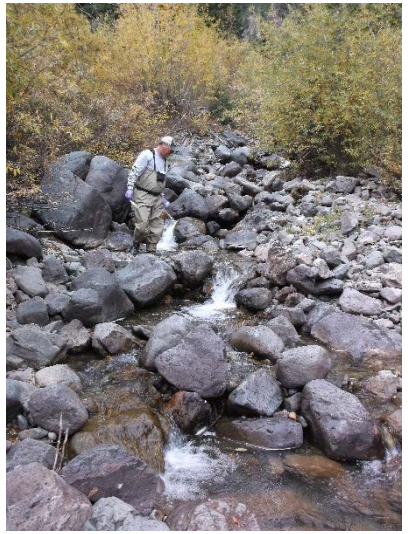
A26 upstream



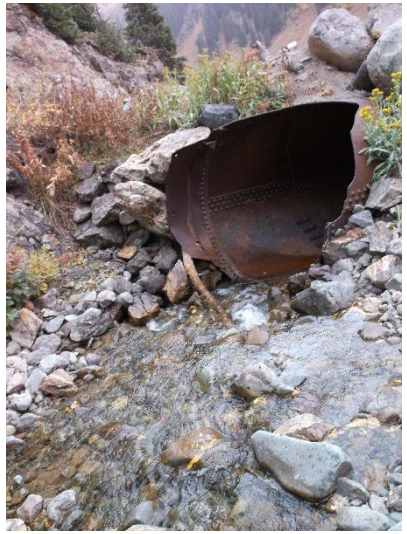
A26 downstream

TM1 upstream

TM1 downstream



A24 upstream



A24 downstream

A07A upstream

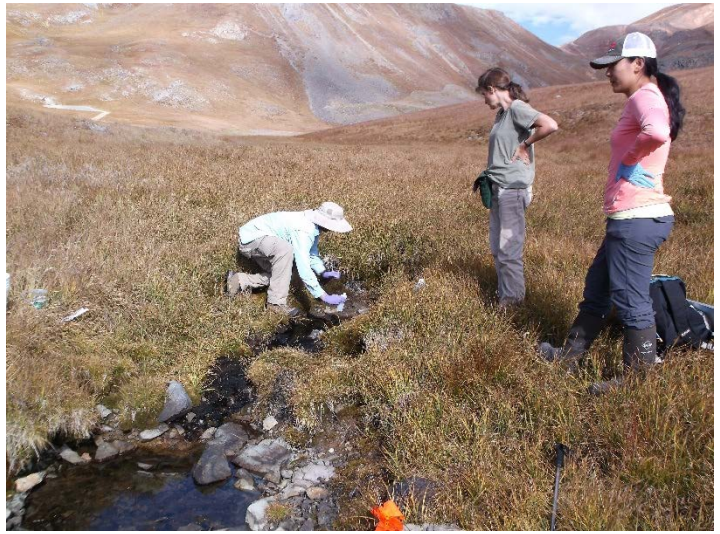
A07A downstream

A07B upstream

A07B downstream

A07C upstream

A07C downstream



EG2 upstream

EG2 downstream

EG2A upstream

EG2A downstream

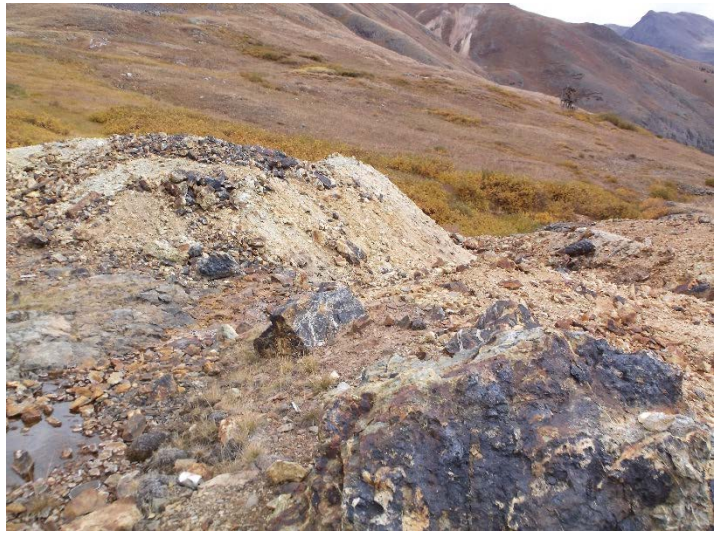
EG1 upstream

EG1 downstream

EG3A upstream

EG3A downstream

DM32 upstream



DM32 downstream

EG4 upstream

EG4 downstream

EG3 upstream

EG3 downstream

ARD1 upstream

ARD1 downstream

DM69 upstream

DM69 downstream

EG9 upstream

EG9 downstream

A37 upstream

A37 downstream

A36 upstream

A36 downstream

DM34

DM34

EG6 upstream

EG6 downstream

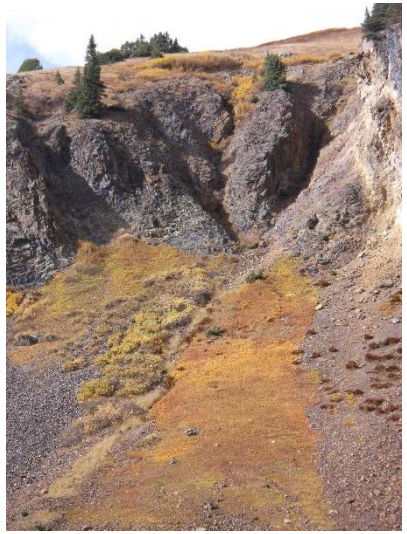
A38

A38

DM33

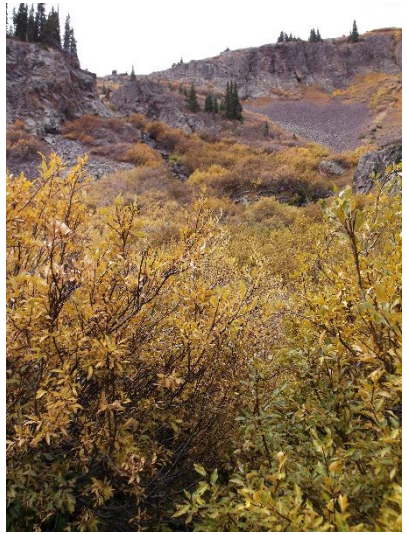
DM33

DM33



DM33

DM33



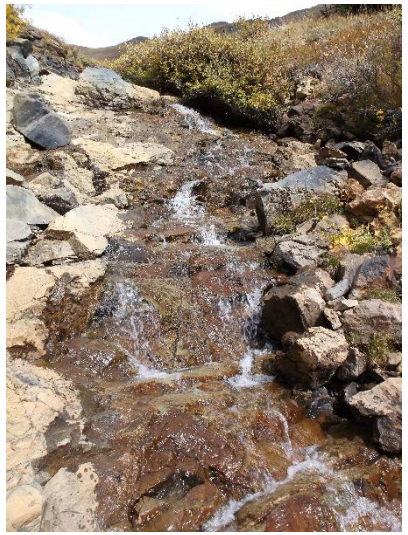
MC0 upstream

MC0 downstream

A39 upstream

A39 downstream

EG5 downstream



EG5 upstream

A42 upstream

A42 downstream

A41C

A41C

A41C

A41 upstream

A41 downstream

A41 Downstream

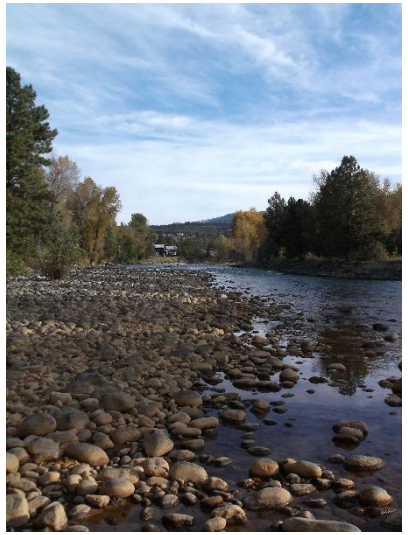
A41 Upstream

A40A upstream

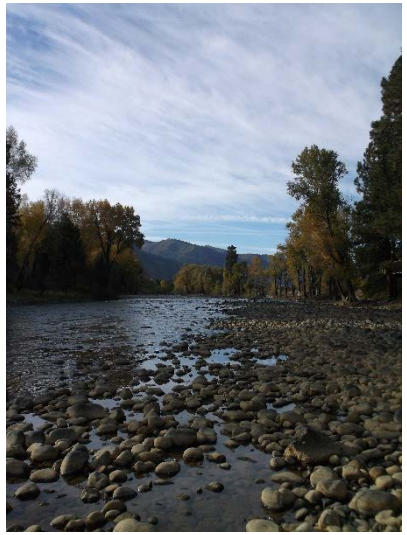
A40A downstream

A33 upstream

A33 downstream



Bakers Bridge



Bakers Bridge

Appendix D
Water Quality Meter Calibration Logbook

In-Situ

S/N ~~48831~~

Unit 1 51017

"Rite in the Rain"®

ALL-WEATHER

ENVIRONMENTAL

No. 550F

Calibration

Logbook

Location Silverton, CO Date 6/9/15

Project / Client Upper Animas

parameter	stimulus	Final
pH 4.0	4.0	4.0
	response: 153.21mV	
pH 7.0	7.0	7.0
	response: -27.0203mV	
	slope: -60.0768mV/pH	
	offset: 393.578mV	
conductivity	999uS/cm	999uS/cm
	response: 340.845ohms	
	temp: 22.0561 °C	
	K-cell: 0.321358	
DO	sat point: 6.81 mg/L	
	21.86 °C	
	732.54 mbar	
	slope: 0.92 (mg/L)/(mg/L)	
	offset: 0.03 mg/L	

Postcal	Reading
pH7.0	7.08
pH4.0	4.10
condo 999uS/cm	1027uS/cm

118

Location Silverton, CO Date 6/10/15

Project / Client Upper Animas

Parameter	stimulus	Final
pH 4.0	4.0	4.0
	response: 149.567mV	
pH 7.0	7.0	7.0
	response: -29.2594mV	
	slope: -59.6088mV/pH	
	offset: 388.002mV	
Condo	999uS/cm	999uS/cm
	response: 329.968ohms	
	temp: 23.4946°C	
	k-cell: 0.320	
DO	satpoint: 6.58mg/L	
	23.11°C	
	738.33mbar	
	slope: 0.93(mg/L)/(mg/L)	
	offset: 0.03mg/L	

Postcal	Final
999uS/cm condo	998.8uS/cm
pH 7.0	7.06
pH 4.0	4.02

126

Location Upper Animas Date 8/4/15

Project / Client

parameter	stimulus	Final
pH 4.0	4.0	4.0
	response: 139.214mV	
pH 7.0	7.0	7.0
	response: -38.7719mV	
	slope: -59.3285mV/pH	
	offset: 376.528mV	

condo 1000 us/cm
response: 402.495 ohms
7/14/15 YC ~~sto~~ temp: 14.1031°C
K-cell: 0.319

DO sat point: 7.99 mg/L
13.57°C
731.23 mbar
slope: 0.93 (mg/L)(mg/L)
offset: 0.03 mg/L

Post cal
condo 1000 us/cm
pH 7.0
pH 4.0

Final reading
1009 us/cm
7.08 s.u.
4.10 s.u.

127

Location Upper Animas Date 8/5/15

Project / Client

Parameter	Stimulus	Final
pH 4.0	4.0	4.0
	response: 137.039 mV	
pH 7.0	7.0	7.0
	response: -40.2097 mV	
	slope: -59.0829 mV/pH	
	offset: 373.371 mV	

Conductivity 1000 us/cm 1000 us/cm
response: 396.666 ohms
temp: 13.6579°C
K-Cell: 0.310735

DO sat point: 8.09 mg/L
temp: 13.95°C
pressure: 681.58 mbar
slope: 0.85 (mg/L)/(mg/L)
offset: 0.03 mg/L

132

Location Upper Animas Date 9/29/15

Project / Client

Cal by P. Yang

Parameter	Stimulus	Final
pH 4.0	4.0	4.0
	response: 126.047 mV	
pH 7.0	7.0	7.0
	response: -52.913 mV	
	slope: -59.6533 mV/pH	
	offset: 364.66 mV	
Condo	1000 µS	1000 µS
	response: 477.595 ohms	
	Temp: 6.47422 °C	
	Kcell: 0.3060	
DO	sat point 8.33 mg/L	
	Temp 2.27 °C	
	626.36 mbar	
	slope: 0.93 (mg/L)/(mg/L)	
	offset: 0.03 mg/L	

Calibration Check

Post Cal	Final reading
pH 4.0	4.12
pH 7.0	7.04
Condo 1000 µS	988.3 µS

133

Location Upper Animas Date 9/30/15

Project / Client

Cal by P. Yang

Parameter	Stimulus	Final
pH 4.0	4.0	4.0
	response: 127.535 mV	
pH 7.0	7.0	7.0
	response: -52.5787 mV	
	slope: -60.0379 mV/pH	
	offset: 367.687 mV	
Condo	1000 µS	1000 µS
	response: 416.419 ohms	
	Temp: 11.2997 °C	
	Kcell: 0.307453	
DO	sat point 7.30 mg/L	
	13.59 °C	
	661.64 mbar	
	slope: 0.92 (mg/L)/(mg/L)	
	offset: 0.03 mg/L	

Post Cal	Final reading
pH 4.0	4.06
pH 7.0	7.03
Condo 1000 µS	985.6

134

Location Upper Animas Date 10/1/15

Project / Client

Cal by P. Yang

Parameter	Stimulus	Final
pH 4.0	4.0	4.0
	response: 126.866 mV	
pH 7.0	7.0	7.0
	response -50.8933 mV	
	slope -59.2531 mV/pH	
	offset 363.879 mV	
Condo	998 µS	998 µS
	response: 342.76 ohms	
	Temp: 20.1719 °C	
	Kcell: 0.31053	
DO	sat point 7.02 mg/L	
	19.74 °C	
	661.00 mbar	
	slope 0.83 (mg/L)/(mg/L)	
	offset 0.03 mg/L	

In-Situ
SIN ~~48832~~
Unit 2 50817

"Rite in the Rain"®
ALL-WEATHER
ENVIRONMENTAL
No. 550F

Calibration
Log Book

Location Upper Animas Date 6/9/15

Project / Client

Parameter	Stimulus	Final
pH 4.0	4.0	4.0
	Respone:	95.005 mV
pH 7.0	7.0	7.0
	Response:	-69.6283 mV
	Slope:	- 54.8777 mV/pH
Conductivity	999 µs/cm	999 µs/cm
	Response	340.404 ohms
	Temp	21.9239 C
	Kcell	0.320083
DO	Sat Point:	6.60 mg/L
	Temp:	21.95°C
	pressure:	732.71 mbar
	Slope:	0.95 (mg/L)/(mg/L)
	offset:	0.00 mg/L

Post Cal:	Reading
pH 7.0	7.23
pH 4.0	4.27
condo 999 µs/cm	998 µs/cm

94

Location Upper Animas Date 6/10/15

Project / Client

Parameter	Stimulus	Final
pH 4.0	4.0	4.0
	Response: 80.3235 mV	
pH 7.0	7.0	7.0
	Response: -79.9677 mV	
	Slope: -53.4304 mV/pH	
Conductivity	999 µs/cm	999 µs/cm
	Response: 329.378 ohms	
	Temp: 23.5976 °C	
	Kcell: 0.320234	
DO	Sat point: 6.25 mg/L	
	Temp: 23.23 °C	
	Pressure: 727.45 mbar	
	Slope: 0.97 (mg/L)/(mg/L)	
	offset: 0.00 mg/L	

Post Cal	Reading
condo	998.1 µs/cm
pH 7	7.08 su
pH 4	4.10 su

Location Upper Animas Date AUG 4, 2015 99

Project / Client

Leslie / Paul Y / Kelsey

Parameter	Stimulus	Final
pH 4.0	4.0	4.0
	Response:	75.9132 mV ~~61.5503 mV~~ 8/4/15 PY
pH 7.0	7.0	7.0
	Response:	-61.5383 mV
	slope:	-45.8174 mV/pH
	offset:	259.183 mV
Conductivity:	1000 µS/cm	1000 µS/cm
	Response:	394.161 ohms
	Temp	14.1808 °C
	Kcell	0.312709
DO	Sat Point:	7.61 mg/L
	Temp	13.68 °C
	Pressure	731.08 mbar
	Slope:	0.98 (mg/L)/(mg/L)
	offset	0.00 mg/L

In-situ

S/N ~~48833~~

Unit 3 51016

"Rite in the Rain"®

ALL-WEATHER

ENVIRONMENTAL

No. 550F

Calibration

Logbook

Location Silverton CO Date 9/29/15

Project / Client Animas Fish

Parameter	Stimulus	Final
pH 4.0	4.0	4.0
	Response 41.2927 mV	
pH 7.0	7.0	7.0
	Response -75.3741 mV	
	Slope -38.8889 mV/pH	
	Offset 196.848 mV	
Condo	999 us/cm	999 us/cm
	Respons 446.646 ohms	
	Temp 9.46812°C	
	KCell 0.313702	
DO	SAT point 8.79 mg/L	
Oxygen SAT.	Temp 9.76°C	
	baro 732.27 mbar	
	Slope 0.93 mg/L/mg/L	
	Offset 0.00 mg/L	

108

Location Silverton, CO Date 9/30/15

Project / Client

pH 4.0 4.0 4.0

Response 41.9727 mV

pH 7.0 Response -110.763 mV

Slope -50.918 mV/pH

Offset 245.62 mV

Condo 1000 uS/cm 1000 uS/cm

Response 322.611 ohms

Temp 23.0966°C

Kcell 0.310883

DO Sat Point 6.71 mg/L

Temp 21.85°C

Pressure 733.16 mbar

Slope 0.94 mg/L / mg/L

Offset 0.00 mg/L

Location Bakers Bridge Date 10/1/15 109

Project / Client Durango

Parameter	Stimulus	Final
pH 4.0	4.0	4.0
	Response 22.3055	
pH 7.0	7.0	7.0
	Response -105.963 mV	
	Slope -42.7562 mV/pH	
	Offset 193.33 mV	
Condo	999 uS/cm	999 uS/cm
	Response 374.373 ohms	
	temp 16.573°C	
	Kcell 0.313802	

DO

Sat point 8.11 mg/L

temp 17.01 °C

Pressure 803.24 mbar

Slope 0.94 mg/L / mg/L

offset 0.00

post cal

pH 4.0	pH 7.0	Cond: 998
3.75	6.99	995.6

Attachment 1
ABA Analytical Results

Location	Analysis	Analyte	Result	Reporting_Limit	Units
AE10 DUP	ASAM10-3	Conductivity, sat. paste	1.3	0.1	mmhos/cm
AE10 DUP	ASAM10-3.2	pH, sat. paste	4.2	0.1	s.u.
AE10 DUP	Sobek Modified	Acid Potential	17	1	t/kt
AE10 DUP	Sobek Modified	Acid/Base Potential	-10	-5000	t/kt
AE10 DUP	Sobek Modified	Neutralization Potential	8	1	t/kt
AE10 DUP	Sobek Modified	Sulfur, HCl Extractable	0.04	0.01	%
AE10 DUP	Sobek Modified	Sulfur, HNO3 Extractable	0.41	0.01	%
AE10 DUP	Sobek Modified	Sulfur, Hot Water Extractable	0.08	0.01	%
AE10 DUP	Sobek Modified	Sulfur, Residual	0.11	0.01	%
AE10 DUP	Sobek Modified	Sulfur, Total	0.63	0.01	%
AE10a	ASAM10-3	Conductivity, sat. paste	2.3	0.1	mmhos/cm
AE10a	ASAM10-3.2	pH, sat. paste	4	0.1	s.u.
AE10a	Sobek Modified	Acid Potential	12	1	t/kt
AE10a	Sobek Modified	Acid/Base Potential	-3	-5000	t/kt
AE10a	Sobek Modified	Neutralization Potential	9	1	t/kt
AE10a	Sobek Modified	Sulfur, HCl Extractable	0.05	0.01	%
AE10a	Sobek Modified	Sulfur, HNO3 Extractable	0.26	0.01	%
AE10a	Sobek Modified	Sulfur, Hot Water Extractable	0.17	0.01	%
AE10a	Sobek Modified	Sulfur, Residual	0.07	0.01	%
AE10a	Sobek Modified	Sulfur, Total	0.55	0.01	%
AE11	ASAM10-3	Conductivity, sat. paste	0.2	0.1	mmhos/cm
AE11	ASAM10-3.2	pH, sat. paste	3.5	0.1	s.u.
AE11	Sobek Modified	Acid Potential	8	1	t/kt
AE11	Sobek Modified	Acid/Base Potential	-4	-5000	t/kt
AE11	Sobek Modified	Neutralization Potential	3	1	t/kt
AE11	Sobek Modified	Sulfur, HCl Extractable	0.1	0.01	%
AE11	Sobek Modified	Sulfur, HNO3 Extractable	0.08	0.01	%
AE11	Sobek Modified	Sulfur, Hot Water Extractable	0.08	0.01	%
AE11	Sobek Modified	Sulfur, Residual	0.07	0.01	%
AE11	Sobek Modified	Sulfur, Total	0.32	0.01	%
AE13	ASAM10-3	Conductivity, sat. paste	1	0.1	mmhos/cm
AE13	ASAM10-3.2	pH, sat. paste	3.9	0.1	s.u.
AE13	Sobek Modified	Acid Potential	30	1	t/kt
AE13	Sobek Modified	Acid/Base Potential	-26	-5000	t/kt
AE13	Sobek Modified	Neutralization Potential	4	1	t/kt
AE13	Sobek Modified	Sulfur, HCl Extractable	0.05	0.01	%
AE13	Sobek Modified	Sulfur, HNO3 Extractable	0.45	0.01	%
AE13	Sobek Modified	Sulfur, Hot Water Extractable	0.09	0.01	%
AE13	Sobek Modified	Sulfur, Residual	0.46	0.01	%
AE13	Sobek Modified	Sulfur, Total	1.06	0.01	%
AE18 London Mine	ASAM10-3	Conductivity, sat. paste	1.1	0.1	mmhos/cm
AE18 London Mine	ASAM10-3.2	pH, sat. paste	2.7	0.1	s.u.
AE18 London Mine	Sobek Modified	Acid Potential	30	1	t/kt
AE18 London Mine	Sobek Modified	Acid/Base Potential	-30	-5000	t/kt
AE18 London Mine	Sobek Modified	Neutralization Potential	0	1	t/kt
AE18 London Mine	Sobek Modified	Sulfur, HCl Extractable	0.07	0.01	%
AE18 London Mine	Sobek Modified	Sulfur, HNO3 Extractable	0.66	0.01	%
AE18 London Mine	Sobek Modified	Sulfur, Hot Water Extractable	0.14	0.01	%
AE18 London Mine	Sobek Modified	Sulfur, Residual	0.24	0.01	%
AE18 London Mine	Sobek Modified	Sulfur, Total	1.12	0.01	%
AE2	ASAM10-3	Conductivity, sat. paste	1.1	0.1	mmhos/cm
AE2	ASAM10-3.2	pH, sat. paste	2.8	0.1	s.u.
AE2	Sobek Modified	Acid Potential	10	1	t/kt
AE2	Sobek Modified	Acid/Base Potential	-9	-5000	t/kt
AE2	Sobek Modified	Neutralization Potential	0	1	t/kt

Location	Analysis	Analyte	Result	Reporting_Limit	Units
AE2	Sobek Modified	Sulfur, HCl Extractable	0.05	0.01	%
AE2	Sobek Modified	Sulfur, HNO3 Extractable	0.2	0.01	%
AE2	Sobek Modified	Sulfur, Hot Water Extractable	0.12	0.01	%
AE2	Sobek Modified	Sulfur, Residual	0.05	0.01	%
AE2	Sobek Modified	Sulfur, Total	0.43	0.01	%
AE25	ASAM10-3	Conductivity, sat. paste	0.8	0.1	mmhos/cm
AE25	ASAM10-3.2	pH, sat. paste	2.9	0.1	s.u.
AE25	Sobek Modified	Acid Potential	29	1	t/kt
AE25	Sobek Modified	Acid/Base Potential	-29	-5000	t/kt
AE25	Sobek Modified	Neutralization Potential	0	1	t/kt
AE25	Sobek Modified	Sulfur, HCl Extractable	0.12	0.01	%
AE25	Sobek Modified	Sulfur, HNO3 Extractable	0.66	0.01	%
AE25	Sobek Modified	Sulfur, Hot Water Extractable	0.18	0.01	%
AE25	Sobek Modified	Sulfur, Residual	0.14	0.01	%
AE25	Sobek Modified	Sulfur, Total	1.1	0.01	%
AE26	ASAM10-3	Conductivity, sat. paste	0.6	0.1	mmhos/cm
AE26	ASAM10-3.2	pH, sat. paste	3.1	0.1	s.u.
AE26	Sobek Modified	Acid Potential	43	1	t/kt
AE26	Sobek Modified	Acid/Base Potential	-43	-5000	t/kt
AE26	Sobek Modified	Neutralization Potential	0	1	t/kt
AE26	Sobek Modified	Sulfur, HCl Extractable	0.18	0.01	%
AE26	Sobek Modified	Sulfur, HNO3 Extractable	0.7	0.01	%
AE26	Sobek Modified	Sulfur, Hot Water Extractable	0.18	0.01	%
AE26	Sobek Modified	Sulfur, Residual	0.48	0.01	%
AE26	Sobek Modified	Sulfur, Total	1.54	0.01	%
AE32a	ASAM10-3	Conductivity, sat. paste	6.8	0.1	mmhos/cm
AE32a	ASAM10-3.2	pH, sat. paste	2.1	0.1	s.u.
AE32a	Sobek Modified	Acid Potential	107	1	t/kt
AE32a	Sobek Modified	Acid/Base Potential	-107	-5000	t/kt
AE32a	Sobek Modified	Neutralization Potential	0	1	t/kt
AE32a	Sobek Modified	Sulfur, HCl Extractable	0.34	0.01	%
AE32a	Sobek Modified	Sulfur, HNO3 Extractable	2.62	0.01	%
AE32a	Sobek Modified	Sulfur, Hot Water Extractable	ND	0.01	%
AE32a	Sobek Modified	Sulfur, Residual	0.47	0.01	%
AE32a	Sobek Modified	Sulfur, Total	3.43	0.01	%
AE32b	ASAM10-3	Conductivity, sat. paste	4.4	0.1	mmhos/cm
AE32b	ASAM10-3.2	pH, sat. paste	2.4	0.1	s.u.
AE32b	Sobek Modified	Acid Potential	58	1	t/kt
AE32b	Sobek Modified	Acid/Base Potential	-58	-5000	t/kt
AE32b	Sobek Modified	Neutralization Potential	0	1	t/kt
AE32b	Sobek Modified	Sulfur, HCl Extractable	0.2	0.01	%
AE32b	Sobek Modified	Sulfur, HNO3 Extractable	1.38	0.01	%
AE32b	Sobek Modified	Sulfur, Hot Water Extractable	0.06	0.01	%
AE32b	Sobek Modified	Sulfur, Residual	0.26	0.01	%
AE32b	Sobek Modified	Sulfur, Total	1.9	0.01	%
AE4/5	ASAM10-3	Conductivity, sat. paste	0.4	0.1	mmhos/cm
AE4/5	ASAM10-3.2	pH, sat. paste	3.4	0.1	s.u.
AE4/5	Sobek Modified	Acid Potential	13	1	t/kt
AE4/5	Sobek Modified	Acid/Base Potential	-13	-5000	t/kt
AE4/5	Sobek Modified	Neutralization Potential	0	1	t/kt
AE4/5	Sobek Modified	Sulfur, HCl Extractable	0.06	0.01	%
AE4/5	Sobek Modified	Sulfur, HNO3 Extractable	0.28	0.01	%
AE4/5	Sobek Modified	Sulfur, Hot Water Extractable	0.08	0.01	%
AE4/5	Sobek Modified	Sulfur, Residual	0.07	0.01	%
AE4/5	Sobek Modified	Sulfur, Total	0.49	0.01	%

Location	Analysis	Analyte	Result	Reporting_Limit	Units
AE43	ASAM10-3	Conductivity, sat. paste	0.4	0.1	mmhos/cm
AE43	ASAM10-3.2	pH, sat. paste	3.6	0.1	s.u.
AE43	Sobek Modified	Acid Potential	17	1	t/kt
AE43	Sobek Modified	Acid/Base Potential	-16	-5000	t/kt
AE43	Sobek Modified	Neutralization Potential	0	1	t/kt
AE43	Sobek Modified	Sulfur, HCl Extractable	0.08	0.01	%
AE43	Sobek Modified	Sulfur, HNO3 Extractable	0.41	0.01	%
AE43	Sobek Modified	Sulfur, Hot Water Extractable	0.18	0.01	%
AE43	Sobek Modified	Sulfur, Residual	0.05	0.01	%
AE43	Sobek Modified	Sulfur, Total	0.71	0.01	%
AE44	ASAM10-3	Conductivity, sat. paste	0.3	0.1	mmhos/cm
AE44	ASAM10-3.2	pH, sat. paste	3.7	0.1	s.u.
AE44	Sobek Modified	Acid Potential	9	1	t/kt
AE44	Sobek Modified	Acid/Base Potential	-8	-5000	t/kt
AE44	Sobek Modified	Neutralization Potential	2	1	t/kt
AE44	Sobek Modified	Sulfur, HCl Extractable	0.02	0.01	%
AE44	Sobek Modified	Sulfur, HNO3 Extractable	0.22	0.01	%
AE44	Sobek Modified	Sulfur, Hot Water Extractable	0.1	0.01	%
AE44	Sobek Modified	Sulfur, Residual	0.06	0.01	%
AE44	Sobek Modified	Sulfur, Total	0.4	0.01	%
AE45	ASAM10-3	Conductivity, sat. paste	1.3	0.1	mmhos/cm
AE45	ASAM10-3.2	pH, sat. paste	3.8	0.1	s.u.
AE45	Sobek Modified	Acid Potential	16	1	t/kt
AE45	Sobek Modified	Acid/Base Potential	-16	-5000	t/kt
AE45	Sobek Modified	Neutralization Potential	0	1	t/kt
AE45	Sobek Modified	Sulfur, HCl Extractable	0.1	0.01	%
AE45	Sobek Modified	Sulfur, HNO3 Extractable	0.34	0.01	%
AE45	Sobek Modified	Sulfur, Hot Water Extractable	0.1	0.01	%
AE45	Sobek Modified	Sulfur, Residual	0.06	0.01	%
AE45	Sobek Modified	Sulfur, Total	0.61	0.01	%
AE46	ASAM10-3	Conductivity, sat. paste	0.9	0.1	mmhos/cm
AE46	ASAM10-3.2	pH, sat. paste	3.1	0.1	s.u.
AE46	Sobek Modified	Acid Potential	15	1	t/kt
AE46	Sobek Modified	Acid/Base Potential	-14	-5000	t/kt
AE46	Sobek Modified	Neutralization Potential	1	1	t/kt
AE46	Sobek Modified	Sulfur, HCl Extractable	0.23	0.01	%
AE46	Sobek Modified	Sulfur, HNO3 Extractable	0.18	0.01	%
AE46	Sobek Modified	Sulfur, Hot Water Extractable	0.08	0.01	%
AE46	Sobek Modified	Sulfur, Residual	0.06	0.01	%
AE46	Sobek Modified	Sulfur, Total	0.56	0.01	%
AE7	ASAM10-3	Conductivity, sat. paste	0.6	0.1	mmhos/cm
AE7	ASAM10-3.2	pH, sat. paste	3.6	0.1	s.u.
AE7	Sobek Modified	Acid Potential	22	1	t/kt
AE7	Sobek Modified	Acid/Base Potential	-19	-5000	t/kt
AE7	Sobek Modified	Neutralization Potential	3	1	t/kt
AE7	Sobek Modified	Sulfur, HCl Extractable	0.11	0.01	%
AE7	Sobek Modified	Sulfur, HNO3 Extractable	0.38	0.01	%
AE7	Sobek Modified	Sulfur, Hot Water Extractable	0.15	0.01	%
AE7	Sobek Modified	Sulfur, Residual	0.22	0.01	%
AE7	Sobek Modified	Sulfur, Total	0.86	0.01	%
AE8	ASAM10-3	Conductivity, sat. paste	1.2	0.1	mmhos/cm
AE8	ASAM10-3.2	pH, sat. paste	2.8	0.1	s.u.
AE8	Sobek Modified	Acid Potential	39	1	t/kt
AE8	Sobek Modified	Acid/Base Potential	-35	-5000	t/kt
AE8	Sobek Modified	Neutralization Potential	4	1	t/kt

Location	Analysis	Analyte	Result	Reporting_Limit	Units
AE8	Sobek Modified	Sulfur, HCl Extractable	0.18	0.01	%
AE8	Sobek Modified	Sulfur, HNO3 Extractable	0.62	0.01	%
AE8	Sobek Modified	Sulfur, Hot Water Extractable	0.23	0.01	%
AE8	Sobek Modified	Sulfur, Residual	0.45	0.01	%
AE8	Sobek Modified	Sulfur, Total	1.48	0.01	%
AE9	ASAM10-3	Conductivity, sat. paste	0.7	0.1	mmhos/cm
AE9	ASAM10-3.2	pH, sat. paste	3.2	0.1	s.u.
AE9	Sobek Modified	Acid Potential	18	1	t/kt
AE9	Sobek Modified	Acid/Base Potential	-18	-5000	t/kt
AE9	Sobek Modified	Neutralization Potential	0	1	t/kt
AE9	Sobek Modified	Sulfur, HCl Extractable	0.17	0.01	%
AE9	Sobek Modified	Sulfur, HNO3 Extractable	0.26	0.01	%
AE9	Sobek Modified	Sulfur, Hot Water Extractable	0.17	0.01	%
AE9	Sobek Modified	Sulfur, Residual	0.14	0.01	%
AE9	Sobek Modified	Sulfur, Total	0.74	0.01	%
BE-01A	ASAM10-3	Conductivity, sat. paste	0.8	0.1	mmhos/cm
BE-01A	ASAM10-3.2	pH, sat. paste	4.5	0.1	s.u.
BE-01A	Sobek Modified	Acid Potential	40	1	t/kt
BE-01A	Sobek Modified	Acid/Base Potential	-26	-5000	t/kt
BE-01A	Sobek Modified	Neutralization Potential	14	0.1	t/kt
BE-01A	Sobek Modified	Sulfur, HCl Extractable	0.11	0.01	%
BE-01A	Sobek Modified	Sulfur, HNO3 Extractable	0.85	0.01	%
BE-01A	Sobek Modified	Sulfur, Hot Water Extractable	0.01	0.01	%
BE-01A	Sobek Modified	Sulfur, Residual	0.32	0.01	%
BE-01A	Sobek Modified	Sulfur, Total	1.29	0.01	%
BE1-B	ASAM10-3	Conductivity, sat. paste	0.1	0.1	mmhos/cm
BE1-B	ASAM10-3.2	pH, sat. paste	4.8	0.1	s.u.
BE1-B	Sobek Modified	Acid Potential	5	1	t/kt
BE1-B	Sobek Modified	Acid/Base Potential	-2	-5000	t/kt
BE1-B	Sobek Modified	Neutralization Potential	3	0.1	t/kt
BE1-B	Sobek Modified	Sulfur, HCl Extractable	0.01	0.01	%
BE1-B	Sobek Modified	Sulfur, HNO3 Extractable	0.04	0.01	%
BE1-B	Sobek Modified	Sulfur, Hot Water Extractable	0.01	0.01	%
BE1-B	Sobek Modified	Sulfur, Residual	0.11	0.01	%
BE1-B	Sobek Modified	Sulfur, Total	0.18	0.01	%
BE2	ASAM10-3	Conductivity, sat. paste	4	0.1	mmhos/cm
BE2	ASAM10-3.2	pH, sat. paste	2.3	0.1	s.u.
BE2	Sobek Modified	Acid Potential	63	1	t/kt
BE2	Sobek Modified	Acid/Base Potential	-63	-5000	t/kt
BE2	Sobek Modified	Neutralization Potential	0	0.1	t/kt
BE2	Sobek Modified	Sulfur, HCl Extractable	0.38	0.01	%
BE2	Sobek Modified	Sulfur, HNO3 Extractable	1.04	0.01	%
BE2	Sobek Modified	Sulfur, Hot Water Extractable	ND	0.01	%
BE2	Sobek Modified	Sulfur, Residual	0.59	0.01	%
BE2	Sobek Modified	Sulfur, Total	2.01	0.01	%
BE4	ASAM10-3	Conductivity, sat. paste	3.9	0.1	mmhos/cm
BE4	ASAM10-3.2	pH, sat. paste	2.3	0.1	s.u.
BE4	Sobek Modified	Acid Potential	43	1	t/kt
BE4	Sobek Modified	Acid/Base Potential	-43	-5000	t/kt
BE4	Sobek Modified	Neutralization Potential	0	0.1	t/kt
BE4	Sobek Modified	Sulfur, HCl Extractable	0.23	0.01	%
BE4	Sobek Modified	Sulfur, HNO3 Extractable	0.96	0.01	%
BE4	Sobek Modified	Sulfur, Hot Water Extractable	0.2	0.01	%
BE4	Sobek Modified	Sulfur, Residual	0.19	0.01	%
BE4	Sobek Modified	Sulfur, Total	1.57	0.01	%

Location	Analysis	Analyte	Result	Reporting_Limit	Units
BE-01C	ASAM10-3	Conductivity, sat. paste	1.8	0.1	mmhos/cm
BE-01C	ASAM10-3.2	pH, sat. paste	4.9	0.1	s.u.
BE-01C	Sobek Modified	Acid Potential	102	1	t/kt
BE-01C	Sobek Modified	Acid/Base Potential	-75	-5000	t/kt
BE-01C	Sobek Modified	Neutralization Potential	26	0.1	t/kt
BE-01C	Sobek Modified	Sulfur, HCl Extractable	ND	0.01	%
BE-01C	Sobek Modified	Sulfur, HNO3 Extractable	2.56	0.01	%
BE-01C	Sobek Modified	Sulfur, Hot Water Extractable	ND	0.01	%
BE-01C	Sobek Modified	Sulfur, Residual	0.69	0.01	%
BE-01C	Sobek Modified	Sulfur, Total	3.25	0.01	%
ET01-TP01 6in-18in	ASAM10-3	Conductivity, sat. paste	1	0.1	mmhos/cm
ET01-TP01 6in-18in	ASAM10-3.2	pH, sat. paste	5.7	0.1	s.u.
ET01-TP01 6in-18in	Sobek Modified	Acid Potential	53	1	t/kt
ET01-TP01 6in-18in	Sobek Modified	Acid/Base Potential	-11	-5000	t/kt
ET01-TP01 6in-18in	Sobek Modified	Neutralization Potential	42	0.1	t/kt
ET01-TP01 6in-18in	Sobek Modified	Sulfur, HCl Extractable	ND	0.01	%
ET01-TP01 6in-18in	Sobek Modified	Sulfur, HNO3 Extractable	1.53	0.01	%
ET01-TP01 6in-18in	Sobek Modified	Sulfur, Hot Water Extractable	ND	0.01	%
ET01-TP01 6in-18in	Sobek Modified	Sulfur, Residual	0.17	0.01	%
ET01-TP01 6in-18in	Sobek Modified	Sulfur, Total	1.7	0.01	%
ET01-TP1 0in-6in	ASAM10-3	Conductivity, sat. paste	1.3	0.1	mmhos/cm
ET01-TP1 0in-6in	ASAM10-3.2	pH, sat. paste	6.1	0.1	s.u.
ET01-TP1 0in-6in	Sobek Modified	Acid Potential	42	1	t/kt
ET01-TP1 0in-6in	Sobek Modified	Acid/Base Potential	-1	-5000	t/kt
ET01-TP1 0in-6in	Sobek Modified	Neutralization Potential	41	0.1	t/kt
ET01-TP1 0in-6in	Sobek Modified	Sulfur, HCl Extractable	0.04	0.01	%
ET01-TP1 0in-6in	Sobek Modified	Sulfur, HNO3 Extractable	1.18	0.01	%
ET01-TP1 0in-6in	Sobek Modified	Sulfur, Hot Water Extractable	0.06	0.01	%
ET01-TP1 0in-6in	Sobek Modified	Sulfur, Residual	0.12	0.01	%
ET01-TP1 0in-6in	Sobek Modified	Sulfur, Total	1.4	0.01	%
ET01-TP1 18in-30in	ASAM10-3	Conductivity, sat. paste	1	0.1	mmhos/cm
ET01-TP1 18in-30in	ASAM10-3.2	pH, sat. paste	5	0.1	s.u.
ET01-TP1 18in-30in	Sobek Modified	Acid Potential	13	1	t/kt
ET01-TP1 18in-30in	Sobek Modified	Acid/Base Potential	5	-5000	t/kt
ET01-TP1 18in-30in	Sobek Modified	Neutralization Potential	18	0.1	t/kt
ET01-TP1 18in-30in	Sobek Modified	Sulfur, HCl Extractable	0.05	0.01	%
ET01-TP1 18in-30in	Sobek Modified	Sulfur, HNO3 Extractable	0.29	0.01	%
ET01-TP1 18in-30in	Sobek Modified	Sulfur, Hot Water Extractable	0.05	0.01	%
ET01-TP1 18in-30in	Sobek Modified	Sulfur, Residual	0.07	0.01	%
ET01-TP1 18in-30in	Sobek Modified	Sulfur, Total	0.46	0.01	%
ET01-TP2 0in-6in	ASAM10-3	Conductivity, sat. paste	1.2	0.1	mmhos/cm
ET01-TP2 0in-6in	ASAM10-3.2	pH, sat. paste	4.1	0.1	s.u.
ET01-TP2 0in-6in	Sobek Modified	Acid Potential	69	1	t/kt
ET01-TP2 0in-6in	Sobek Modified	Acid/Base Potential	-59	-5000	t/kt
ET01-TP2 0in-6in	Sobek Modified	Neutralization Potential	10	0.1	t/kt
ET01-TP2 0in-6in	Sobek Modified	Sulfur, HCl Extractable	0.07	0.01	%
ET01-TP2 0in-6in	Sobek Modified	Sulfur, HNO3 Extractable	1.9	0.01	%
ET01-TP2 0in-6in	Sobek Modified	Sulfur, Hot Water Extractable	ND	0.01	%
ET01-TP2 0in-6in	Sobek Modified	Sulfur, Residual	0.23	0.01	%
ET01-TP2 0in-6in	Sobek Modified	Sulfur, Total	2.2	0.01	%
ET01-TP2 6in-18in	ASAM10-3.2	pH, sat. paste	5.4	0.1	s.u.
ET01-TP2 6in-18in	Sobek Modified	Acid Potential	13	1	t/kt
ET01-TP2 6in-18in	Sobek Modified	Acid/Base Potential	-4	-5000	t/kt
ET01-TP2 6in-18in	Sobek Modified	Neutralization Potential	9	0.1	t/kt
ET01-TP2 6in-18in	Sobek Modified	Sulfur, HCl Extractable	0.03	0.01	%

Location	Analysis	Analyte	Result	Reporting_Limit	Units
ET01-TP2 6in-18in	Sobek Modified	Sulfur, HNO3 Extractable	0.28	0.01	%
ET01-TP2 6in-18in	Sobek Modified	Sulfur, Hot Water Extractable	0.05	0.01	%
ET01-TP2 6in-18in	Sobek Modified	Sulfur, Residual	0.09	0.01	%
ET01-TP2 6in-18in	Sobek Modified	Sulfur, Total	0.45	0.01	%
ET01-TP3 0in-6in	ASAM10-3	Conductivity, sat. paste	0.4	0.1	mmhos/cm
ET01-TP3 0in-6in	ASAM10-3.2	pH, sat. paste	5.2	0.1	s.u.
ET01-TP3 0in-6in	Sobek Modified	Acid Potential	5	1	t/kt
ET01-TP3 0in-6in	Sobek Modified	Acid/Base Potential	1	-5000	t/kt
ET01-TP3 0in-6in	Sobek Modified	Neutralization Potential	6	1	t/kt
ET01-TP3 0in-6in	Sobek Modified	Sulfur, HCl Extractable	0.03	0.01	%
ET01-TP3 0in-6in	Sobek Modified	Sulfur, HNO3 Extractable	0.09	0.01	%
ET01-TP3 0in-6in	Sobek Modified	Sulfur, Hot Water Extractable	0.03	0.01	%
ET01-TP3 0in-6in	Sobek Modified	Sulfur, Residual	0.06	0.01	%
ET01-TP3 0in-6in	Sobek Modified	Sulfur, Total	0.2	0.01	%
ET01-TP3 6in-18in	ASAM10-3	Conductivity, sat. paste	0.3	0.1	mmhos/cm
ET01-TP3 6in-18in	ASAM10-3.2	pH, sat. paste	5.3	0.1	s.u.
ET01-TP3 6in-18in	Sobek Modified	Acid Potential	4	1	t/kt
ET01-TP3 6in-18in	Sobek Modified	Acid/Base Potential	3	-5000	t/kt
ET01-TP3 6in-18in	Sobek Modified	Neutralization Potential	7	1	t/kt
ET01-TP3 6in-18in	Sobek Modified	Sulfur, HCl Extractable	0.03	0.01	%
ET01-TP3 6in-18in	Sobek Modified	Sulfur, HNO3 Extractable	0.06	0.01	%
ET01-TP3 6in-18in	Sobek Modified	Sulfur, Hot Water Extractable	ND	0.01	%
ET01-TP3 6in-18in	Sobek Modified	Sulfur, Residual	0.05	0.01	%
ET01-TP3 6in-18in	Sobek Modified	Sulfur, Total	0.14	0.01	%
ET-02-TP1 0in-6in	ASAM10-3	Conductivity, sat. paste	2.5	0.1	mmhos/cm
ET-02-TP1 0in-6in	ASAM10-3.2	pH, sat. paste	4.8	0.1	s.u.
ET-02-TP1 0in-6in	Sobek Modified	Acid Potential	29	1	t/kt
ET-02-TP1 0in-6in	Sobek Modified	Acid/Base Potential	-9	-5000	t/kt
ET-02-TP1 0in-6in	Sobek Modified	Neutralization Potential	20	1	t/kt
ET-02-TP1 0in-6in	Sobek Modified	Sulfur, HCl Extractable	0.06	0.01	%
ET-02-TP1 0in-6in	Sobek Modified	Sulfur, HNO3 Extractable	0.81	0.01	%
ET-02-TP1 0in-6in	Sobek Modified	Sulfur, Hot Water Extractable	0.11	0.01	%
ET-02-TP1 0in-6in	Sobek Modified	Sulfur, Residual	0.07	0.01	%
ET-02-TP1 0in-6in	Sobek Modified	Sulfur, Total	1.04	0.01	%
ET02-TP1 18in-30in	ASAM10-3	Conductivity, sat. paste	1.4	0.1	mmhos/cm
ET02-TP1 18in-30in	ASAM10-3.2	pH, sat. paste	5.1	0.1	s.u.
ET02-TP1 18in-30in	Sobek Modified	Acid Potential	12	1	t/kt
ET02-TP1 18in-30in	Sobek Modified	Acid/Base Potential	9	-5000	t/kt
ET02-TP1 18in-30in	Sobek Modified	Neutralization Potential	21	1	t/kt
ET02-TP1 18in-30in	Sobek Modified	Sulfur, HCl Extractable	0.1	0.01	%
ET02-TP1 18in-30in	Sobek Modified	Sulfur, HNO3 Extractable	0.21	0.01	%
ET02-TP1 18in-30in	Sobek Modified	Sulfur, Hot Water Extractable	0.05	0.01	%
ET02-TP1 18in-30in	Sobek Modified	Sulfur, Residual	0.09	0.01	%
ET02-TP1 18in-30in	Sobek Modified	Sulfur, Total	0.45	0.01	%
ET02-TP1 6in-18in	ASAM10-3	Conductivity, sat. paste	1.2	0.1	mmhos/cm
ET02-TP1 6in-18in	ASAM10-3.2	pH, sat. paste	5.7	0.1	s.u.
ET02-TP1 6in-18in	Sobek Modified	Acid Potential	22	1	t/kt
ET02-TP1 6in-18in	Sobek Modified	Acid/Base Potential	0.06	-5000	t/kt
ET02-TP1 6in-18in	Sobek Modified	Neutralization Potential	22	1	t/kt
ET02-TP1 6in-18in	Sobek Modified	Sulfur, HCl Extractable	0.07	0.01	%
ET02-TP1 6in-18in	Sobek Modified	Sulfur, HNO3 Extractable	0.57	0.01	%
ET02-TP1 6in-18in	Sobek Modified	Sulfur, Hot Water Extractable	0.06	0.01	%
ET02-TP1 6in-18in	Sobek Modified	Sulfur, Residual	0.06	0.01	%
ET02-TP1 6in-18in	Sobek Modified	Sulfur, Total	0.76	0.01	%
ET-02-TP2 0in-6in	ASAM10-3	Conductivity, sat. paste	2.7	0.1	mmhos/cm

Location	Analysis	Analyte	Result	Reporting_Limit	Units
ET-02-TP2 0in-6in	ASAM10-3.2	pH, sat. paste	5.3	0.1	s.u.
ET-02-TP2 0in-6in	Sobek Modified	Acid Potential	46	1	t/kt
ET-02-TP2 0in-6in	Sobek Modified	Acid/Base Potential	-21	-5000	t/kt
ET-02-TP2 0in-6in	Sobek Modified	Neutralization Potential	25	1	t/kt
ET-02-TP2 0in-6in	Sobek Modified	Sulfur, HCl Extractable	0.04	0.01	%
ET-02-TP2 0in-6in	Sobek Modified	Sulfur, HNO3 Extractable	1.32	0.01	%
ET-02-TP2 0in-6in	Sobek Modified	Sulfur, Hot Water Extractable	0.1	0.01	%
ET-02-TP2 0in-6in	Sobek Modified	Sulfur, Residual	0.11	0.01	%
ET-02-TP2 0in-6in	Sobek Modified	Sulfur, Total	1.57	0.01	%
ET02-TP2 18in-30in	ASAM10-3	Conductivity, sat. paste	1.1	0.1	mmhos/cm
ET02-TP2 18in-30in	ASAM10-3.2	pH, sat. paste	5.9	0.1	s.u.
ET02-TP2 18in-30in	Sobek Modified	Acid Potential	50	1	t/kt
ET02-TP2 18in-30in	Sobek Modified	Acid/Base Potential	-11	-5000	t/kt
ET02-TP2 18in-30in	Sobek Modified	Neutralization Potential	39	1	t/kt
ET02-TP2 18in-30in	Sobek Modified	Sulfur, HCl Extractable	ND	0.01	%
ET02-TP2 18in-30in	Sobek Modified	Sulfur, HNO3 Extractable	1.47	0.01	%
ET02-TP2 18in-30in	Sobek Modified	Sulfur, Hot Water Extractable	0.08	0.01	%
ET02-TP2 18in-30in	Sobek Modified	Sulfur, Residual	0.14	0.01	%
ET02-TP2 18in-30in	Sobek Modified	Sulfur, Total	1.69	0.01	%
ET-02-TP2 6in-18in	ASAM10-3	Conductivity, sat. paste	1	0.1	mmhos/cm
ET-02-TP2 6in-18in	ASAM10-3.2	pH, sat. paste	6	0.1	s.u.
ET-02-TP2 6in-18in	Sobek Modified	Acid Potential	84	1	t/kt
ET-02-TP2 6in-18in	Sobek Modified	Acid/Base Potential	-40	-5000	t/kt
ET-02-TP2 6in-18in	Sobek Modified	Neutralization Potential	44	1	t/kt
ET-02-TP2 6in-18in	Sobek Modified	Sulfur, HCl Extractable	0.28	0.01	%
ET-02-TP2 6in-18in	Sobek Modified	Sulfur, HNO3 Extractable	2.22	0.01	%
ET-02-TP2 6in-18in	Sobek Modified	Sulfur, Hot Water Extractable	0.14	0.01	%
ET-02-TP2 6in-18in	Sobek Modified	Sulfur, Residual	0.2	0.01	%
ET-02-TP2 6in-18in	Sobek Modified	Sulfur, Total	2.84	0.01	%
ET03-TP1 0in-6in	ASAM10-3	Conductivity, sat. paste	2.2	0.1	mmhos/cm
ET03-TP1 0in-6in	ASAM10-3.2	pH, sat. paste	5.8	0.1	s.u.
ET03-TP1 0in-6in	Sobek Modified	Acid Potential	61	1	t/kt
ET03-TP1 0in-6in	Sobek Modified	Acid/Base Potential	-18	-5000	t/kt
ET03-TP1 0in-6in	Sobek Modified	Neutralization Potential	43	1	t/kt
ET03-TP1 0in-6in	Sobek Modified	Sulfur, HCl Extractable	0.08	0.01	%
ET03-TP1 0in-6in	Sobek Modified	Sulfur, HNO3 Extractable	1.73	0.01	%
ET03-TP1 0in-6in	Sobek Modified	Sulfur, Hot Water Extractable	0.06	0.01	%
ET03-TP1 0in-6in	Sobek Modified	Sulfur, Residual	0.13	0.01	%
ET03-TP1 0in-6in	Sobek Modified	Sulfur, Total	2	0.01	%
ET03-TP1 18in-30in	ASAM10-3	Conductivity, sat. paste	0.7	0.1	mmhos/cm
ET03-TP1 18in-30in	ASAM10-3.2	pH, sat. paste	4.9	0.1	s.u.
ET03-TP1 18in-30in	Sobek Modified	Acid Potential	26	1	t/kt
ET03-TP1 18in-30in	Sobek Modified	Acid/Base Potential	-7	-5000	t/kt
ET03-TP1 18in-30in	Sobek Modified	Neutralization Potential	19	1	t/kt
ET03-TP1 18in-30in	Sobek Modified	Sulfur, HCl Extractable	0.12	0.01	%
ET03-TP1 18in-30in	Sobek Modified	Sulfur, HNO3 Extractable	0.51	0.01	%
ET03-TP1 18in-30in	Sobek Modified	Sulfur, Hot Water Extractable	0.04	0.01	%
ET03-TP1 18in-30in	Sobek Modified	Sulfur, Residual	0.22	0.01	%
ET03-TP1 18in-30in	Sobek Modified	Sulfur, Total	0.88	0.01	%
ET03-TP1 6in-18in	ASAM10-3	Conductivity, sat. paste	1.3	0.1	mmhos/cm
ET03-TP1 6in-18in	ASAM10-3.2	pH, sat. paste	5.1	0.1	s.u.
ET03-TP1 6in-18in	Sobek Modified	Acid Potential	15	1	t/kt
ET03-TP1 6in-18in	Sobek Modified	Acid/Base Potential	-3	-5000	t/kt
ET03-TP1 6in-18in	Sobek Modified	Neutralization Potential	12	1	t/kt
ET03-TP1 6in-18in	Sobek Modified	Sulfur, HCl Extractable	0.01	0.01	%

Location	Analysis	Analyte	Result	Reporting_Limit	Units
ET03-TP1 6in-18in	Sobek Modified	Sulfur, HNO3 Extractable	0.4	0.01	%
ET03-TP1 6in-18in	Sobek Modified	Sulfur, Hot Water Extractable	0.1	0.01	%
ET03-TP1 6in-18in	Sobek Modified	Sulfur, Residual	0.06	0.01	%
ET03-TP1 6in-18in	Sobek Modified	Sulfur, Total	0.57	0.01	%
ET03-TP2 0in-6in	ASAM10-3	Conductivity, sat. paste	0.4	0.1	mmhos/cm
ET03-TP2 0in-6in	ASAM10-3.2	pH, sat. paste	4.8	0.1	s.u.
ET03-TP2 0in-6in	Sobek Modified	Acid Potential	9	1	t/kt
ET03-TP2 0in-6in	Sobek Modified	Acid/Base Potential	-2	-5000	t/kt
ET03-TP2 0in-6in	Sobek Modified	Neutralization Potential	7	1	t/kt
ET03-TP2 0in-6in	Sobek Modified	Sulfur, HCl Extractable	0.03	0.01	%
ET03-TP2 0in-6in	Sobek Modified	Sulfur, HNO3 Extractable	0.19	0.01	%
ET03-TP2 0in-6in	Sobek Modified	Sulfur, Hot Water Extractable	0.04	0.01	%
ET03-TP2 0in-6in	Sobek Modified	Sulfur, Residual	0.06	0.01	%
ET03-TP2 0in-6in	Sobek Modified	Sulfur, Total	0.32	0.01	%
ET03-TP2 18in-30in	ASAM10-3	Conductivity, sat. paste	0.7	0.1	mmhos/cm
ET03-TP2 18in-30in	ASAM10-3.2	pH, sat. paste	4.9	0.1	s.u.
ET03-TP2 18in-30in	Sobek Modified	Acid Potential	20	1	t/kt
ET03-TP2 18in-30in	Sobek Modified	Acid/Base Potential	-5	-5000	t/kt
ET03-TP2 18in-30in	Sobek Modified	Neutralization Potential	14	1	t/kt
ET03-TP2 18in-30in	Sobek Modified	Sulfur, HCl Extractable	0.05	0.01	%
ET03-TP2 18in-30in	Sobek Modified	Sulfur, HNO3 Extractable	0.4	0.01	%
ET03-TP2 18in-30in	Sobek Modified	Sulfur, Hot Water Extractable	0.06	0.01	%
ET03-TP2 18in-30in	Sobek Modified	Sulfur, Residual	0.17	0.01	%
ET03-TP2 18in-30in	Sobek Modified	Sulfur, Total	0.68	0.01	%
ET03-TP2 6in-18in	ASAM10-3	Conductivity, sat. paste	0.5	0.1	mmhos/cm
ET03-TP2 6in-18in	ASAM10-3.2	pH, sat. paste	4.9	0.1	s.u.
ET03-TP2 6in-18in	Sobek Modified	Acid Potential	8	1	t/kt
ET03-TP2 6in-18in	Sobek Modified	Acid/Base Potential	6	-5000	t/kt
ET03-TP2 6in-18in	Sobek Modified	Neutralization Potential	14	1	t/kt
ET03-TP2 6in-18in	Sobek Modified	Sulfur, HCl Extractable	0.02	0.01	%
ET03-TP2 6in-18in	Sobek Modified	Sulfur, HNO3 Extractable	0.14	0.01	%
ET03-TP2 6in-18in	Sobek Modified	Sulfur, Hot Water Extractable	0.06	0.01	%
ET03-TP2 6in-18in	Sobek Modified	Sulfur, Residual	0.09	0.01	%
ET03-TP2 6in-18in	Sobek Modified	Sulfur, Total	0.3	0.01	%
ET04-TP1 0in-6in	ASAM10-3	Conductivity, sat. paste	2.4	0.1	mmhos/cm
ET04-TP1 0in-6in	ASAM10-3.2	pH, sat. paste	5.5	0.1	s.u.
ET04-TP1 0in-6in	Sobek Modified	Acid Potential	154	1	t/kt
ET04-TP1 0in-6in	Sobek Modified	Acid/Base Potential	-108	-5000	t/kt
ET04-TP1 0in-6in	Sobek Modified	Neutralization Potential	45	1	t/kt
ET04-TP1 0in-6in	Sobek Modified	Sulfur, HCl Extractable	0.2	0.01	%
ET04-TP1 0in-6in	Sobek Modified	Sulfur, HNO3 Extractable	4.17	0.01	%
ET04-TP1 0in-6in	Sobek Modified	Sulfur, Hot Water Extractable	ND	0.01	%
ET04-TP1 0in-6in	Sobek Modified	Sulfur, Residual	0.56	0.01	%
ET04-TP1 0in-6in	Sobek Modified	Sulfur, Total	4.92	0.01	%
ET04-TP1 18in-30in	ASAM10-3	Conductivity, sat. paste	0.6	0.1	mmhos/cm
ET04-TP1 18in-30in	ASAM10-3.2	pH, sat. paste	4.7	0.1	s.u.
ET04-TP1 18in-30in	Sobek Modified	Acid Potential	5	1	t/kt
ET04-TP1 18in-30in	Sobek Modified	Acid/Base Potential	6	-5000	t/kt
ET04-TP1 18in-30in	Sobek Modified	Neutralization Potential	12	1	t/kt
ET04-TP1 18in-30in	Sobek Modified	Sulfur, HCl Extractable	0.03	0.01	%
ET04-TP1 18in-30in	Sobek Modified	Sulfur, HNO3 Extractable	0.08	0.01	%
ET04-TP1 18in-30in	Sobek Modified	Sulfur, Hot Water Extractable	0.03	0.01	%
ET04-TP1 18in-30in	Sobek Modified	Sulfur, Residual	0.06	0.01	%
ET04-TP1 18in-30in	Sobek Modified	Sulfur, Total	0.2	0.01	%
ET04-TP1 6in-18in	ASAM10-3	Conductivity, sat. paste	1.4	0.1	mmhos/cm

Location	Analysis	Analyte	Result	Reporting_Limit	Units
ET04-TP1 6in-18in	ASAM10-3.2	pH, sat. paste	5.7	0.1	s.u.
ET04-TP1 6in-18in	Sobek Modified	Acid Potential	112	1	t/kt
ET04-TP1 6in-18in	Sobek Modified	Acid/Base Potential	-70	-5000	t/kt
ET04-TP1 6in-18in	Sobek Modified	Neutralization Potential	42	1	t/kt
ET04-TP1 6in-18in	Sobek Modified	Sulfur, HCl Extractable	0.44	0.01	%
ET04-TP1 6in-18in	Sobek Modified	Sulfur, HNO3 Extractable	2.82	0.01	%
ET04-TP1 6in-18in	Sobek Modified	Sulfur, Hot Water Extractable	ND	0.01	%
ET04-TP1 6in-18in	Sobek Modified	Sulfur, Residual	0.31	0.01	%
ET04-TP1 6in-18in	Sobek Modified	Sulfur, Total	3.58	0.01	%
ET04-TP2 0in-6in	ASAM10-3	Conductivity, sat. paste	0.4	0.1	mmhos/cm
ET04-TP2 0in-6in	ASAM10-3.2	pH, sat. paste	5.9	0.1	s.u.
ET04-TP2 0in-6in	Sobek Modified	Acid Potential	5	1	t/kt
ET04-TP2 0in-6in	Sobek Modified	Acid/Base Potential	2	-5000	t/kt
ET04-TP2 0in-6in	Sobek Modified	Neutralization Potential	7	1	t/kt
ET04-TP2 0in-6in	Sobek Modified	Sulfur, HCl Extractable	0.02	0.01	%
ET04-TP2 0in-6in	Sobek Modified	Sulfur, HNO3 Extractable	0.1	0.01	%
ET04-TP2 0in-6in	Sobek Modified	Sulfur, Hot Water Extractable	0.02	0.01	%
ET04-TP2 0in-6in	Sobek Modified	Sulfur, Residual	0.05	0.01	%
ET04-TP2 0in-6in	Sobek Modified	Sulfur, Total	0.18	0.01	%
ET04-TP2 6in-18in	ASAM10-3.2	pH, sat. paste	6	0.1	s.u.
ET04-TP2 6in-18in	Sobek Modified	Acid Potential	3	1	t/kt
ET04-TP2 6in-18in	Sobek Modified	Acid/Base Potential	11	-5000	t/kt
ET04-TP2 6in-18in	Sobek Modified	Neutralization Potential	14	1	t/kt
ET04-TP2 6in-18in	Sobek Modified	Sulfur, HCl Extractable	0.01	0.01	%
ET04-TP2 6in-18in	Sobek Modified	Sulfur, HNO3 Extractable	0.04	0.01	%
ET04-TP2 6in-18in	Sobek Modified	Sulfur, Hot Water Extractable	0.02	0.01	%
ET04-TP2 6in-18in	Sobek Modified	Sulfur, Residual	0.04	0.01	%
ET04-TP2 6in-18in	Sobek Modified	Sulfur, Total	0.11	0.01	%
ET05	ASAM10-3	Conductivity, sat. paste	0.4	0.1	mmhos/cm
ET05	ASAM10-3.2	pH, sat. paste	5.4	0.1	s.u.
ET05	Sobek Modified	Acid Potential	5	1	t/kt
ET05	Sobek Modified	Acid/Base Potential	8	-5000	t/kt
ET05	Sobek Modified	Neutralization Potential	13	1	t/kt
ET05	Sobek Modified	Sulfur, HCl Extractable	0.01	0.01	%
ET05	Sobek Modified	Sulfur, HNO3 Extractable	0.1	0.01	%
ET05	Sobek Modified	Sulfur, Hot Water Extractable	0.03	0.01	%
ET05	Sobek Modified	Sulfur, Residual	0.04	0.01	%
ET05	Sobek Modified	Sulfur, Total	0.18	0.01	%
ET05-TP1 0in-6in	ASAM10-3	Conductivity, sat. paste	0.2	0.1	mmhos/cm
ET05-TP1 0in-6in	ASAM10-3.2	pH, sat. paste	4.6	0.1	s.u.
ET05-TP1 0in-6in	Sobek Modified	Acid Potential	3	1	t/kt
ET05-TP1 0in-6in	Sobek Modified	Acid/Base Potential	6	-5000	t/kt
ET05-TP1 0in-6in	Sobek Modified	Neutralization Potential	9	1	t/kt
ET05-TP1 0in-6in	Sobek Modified	Sulfur, HCl Extractable	ND	0.01	%
ET05-TP1 0in-6in	Sobek Modified	Sulfur, HNO3 Extractable	0.05	0.01	%
ET05-TP1 0in-6in	Sobek Modified	Sulfur, Hot Water Extractable	0.04	0.01	%
ET05-TP1 0in-6in	Sobek Modified	Sulfur, Residual	0.04	0.01	%
ET05-TP1 0in-6in	Sobek Modified	Sulfur, Total	0.14	0.01	%
ET05-TP1 18in-30in	ASAM10-3	Conductivity, sat. paste	0.7	0.1	mmhos/cm
ET05-TP1 18in-30in	ASAM10-3.2	pH, sat. paste	4.6	0.1	s.u.
ET05-TP1 18in-30in	Sobek Modified	Acid Potential	9	1	t/kt
ET05-TP1 18in-30in	Sobek Modified	Acid/Base Potential	7	-5000	t/kt
ET05-TP1 18in-30in	Sobek Modified	Neutralization Potential	15	1	t/kt
ET05-TP1 18in-30in	Sobek Modified	Sulfur, HCl Extractable	0.02	0.01	%
ET05-TP1 18in-30in	Sobek Modified	Sulfur, HNO3 Extractable	0.2	0.01	%

Location	Analysis	Analyte	Result	Reporting_Limit	Units
ET05-TP1 18in-30in	Sobek Modified	Sulfur, Hot Water Extractable	0.06	0.01	%
ET05-TP1 18in-30in	Sobek Modified	Sulfur, Residual	0.06	0.01	%
ET05-TP1 18in-30in	Sobek Modified	Sulfur, Total	0.33	0.01	%
ET05-TP1 6in-18in	ASAM10-3	Conductivity, sat. paste	0.2	0.1	mmhos/cm
ET05-TP1 6in-18in	ASAM10-3.2	pH, sat. paste	4.7	0.1	s.u.
ET05-TP1 6in-18in	Sobek Modified	Acid Potential	4	1	t/kt
ET05-TP1 6in-18in	Sobek Modified	Acid/Base Potential	3	-5000	t/kt
ET05-TP1 6in-18in	Sobek Modified	Neutralization Potential	7	1	t/kt
ET05-TP1 6in-18in	Sobek Modified	Sulfur, HCl Extractable	0.03	0.01	%
ET05-TP1 6in-18in	Sobek Modified	Sulfur, HNO3 Extractable	0.05	0.01	%
ET05-TP1 6in-18in	Sobek Modified	Sulfur, Hot Water Extractable	0.02	0.01	%
ET05-TP1 6in-18in	Sobek Modified	Sulfur, Residual	0.04	0.01	%
ET05-TP1 6in-18in	Sobek Modified	Sulfur, Total	0.13	0.01	%
ET05-TP2 0in-6in	ASAM10-3	Conductivity, sat. paste	0.3	0.1	mmhos/cm
ET05-TP2 0in-6in	ASAM10-3.2	pH, sat. paste	5.6	0.1	s.u.
ET05-TP2 0in-6in	Sobek Modified	Acid Potential	5	1	t/kt
ET05-TP2 0in-6in	Sobek Modified	Acid/Base Potential	6	-5000	t/kt
ET05-TP2 0in-6in	Sobek Modified	Neutralization Potential	11	1	t/kt
ET05-TP2 0in-6in	Sobek Modified	Sulfur, HCl Extractable	0.05	0.01	%
ET05-TP2 0in-6in	Sobek Modified	Sulfur, HNO3 Extractable	0.07	0.01	%
ET05-TP2 0in-6in	Sobek Modified	Sulfur, Hot Water Extractable	ND	0.01	%
ET05-TP2 0in-6in	Sobek Modified	Sulfur, Residual	0.06	0.01	%
ET05-TP2 0in-6in	Sobek Modified	Sulfur, Total	0.17	0.01	%
ET05-TP2 18in-30in	ASAM10-3	Conductivity, sat. paste	0.2	0.1	mmhos/cm
ET05-TP2 18in-30in	ASAM10-3.2	pH, sat. paste	5	0.1	s.u.
ET05-TP2 18in-30in	Sobek Modified	Acid Potential	3	1	t/kt
ET05-TP2 18in-30in	Sobek Modified	Acid/Base Potential	6	-5000	t/kt
ET05-TP2 18in-30in	Sobek Modified	Neutralization Potential	9	1	t/kt
ET05-TP2 18in-30in	Sobek Modified	Sulfur, HCl Extractable	0.02	0.01	%
ET05-TP2 18in-30in	Sobek Modified	Sulfur, HNO3 Extractable	0.04	0.01	%
ET05-TP2 18in-30in	Sobek Modified	Sulfur, Hot Water Extractable	ND	0.01	%
ET05-TP2 18in-30in	Sobek Modified	Sulfur, Residual	0.04	0.01	%
ET05-TP2 18in-30in	Sobek Modified	Sulfur, Total	0.11	0.01	%
ET05-TP2 6in-18in	ASAM10-3	Conductivity, sat. paste	0.3	0.1	mmhos/cm
ET05-TP2 6in-18in	ASAM10-3.2	pH, sat. paste	5.1	0.1	s.u.
ET05-TP2 6in-18in	Sobek Modified	Acid Potential	3	1	t/kt
ET05-TP2 6in-18in	Sobek Modified	Acid/Base Potential	7	-5000	t/kt
ET05-TP2 6in-18in	Sobek Modified	Neutralization Potential	11	1	t/kt
ET05-TP2 6in-18in	Sobek Modified	Sulfur, HCl Extractable	0.02	0.01	%
ET05-TP2 6in-18in	Sobek Modified	Sulfur, HNO3 Extractable	0.04	0.01	%
ET05-TP2 6in-18in	Sobek Modified	Sulfur, Hot Water Extractable	ND	0.01	%
ET05-TP2 6in-18in	Sobek Modified	Sulfur, Residual	0.05	0.01	%
ET05-TP2 6in-18in	Sobek Modified	Sulfur, Total	0.12	0.01	%
ET06-TP02 0in-6in	ASAM10-3	Conductivity, sat. paste	0.3	0.1	mmhos/cm
ET06-TP02 0in-6in	ASAM10-3.2	pH, sat. paste	5	0.1	s.u.
ET06-TP02 0in-6in	Sobek Modified	Acid Potential	4	1	t/kt
ET06-TP02 0in-6in	Sobek Modified	Acid/Base Potential	0.9	-5000	t/kt
ET06-TP02 0in-6in	Sobek Modified	Neutralization Potential	5	1	t/kt
ET06-TP02 0in-6in	Sobek Modified	Sulfur, HCl Extractable	ND	0.01	%
ET06-TP02 0in-6in	Sobek Modified	Sulfur, HNO3 Extractable	0.07	0.01	%
ET06-TP02 0in-6in	Sobek Modified	Sulfur, Hot Water Extractable	ND	0.01	%
ET06-TP02 0in-6in	Sobek Modified	Sulfur, Residual	0.05	0.01	%
ET06-TP02 0in-6in	Sobek Modified	Sulfur, Total	0.13	0.01	%
ET06-TP02 6in-18in	ASAM10-3	Conductivity, sat. paste	0.7	0.1	mmhos/cm
ET06-TP02 6in-18in	ASAM10-3.2	pH, sat. paste	4.5	0.1	s.u.

Location	Analysis	Analyte	Result	Reporting_Limit	Units
ET06-TP02 6in-18in	Sobek Modified	Acid Potential	10	1	t/kt
ET06-TP02 6in-18in	Sobek Modified	Acid/Base Potential	-5	-5000	t/kt
ET06-TP02 6in-18in	Sobek Modified	Neutralization Potential	5	1	t/kt
ET06-TP02 6in-18in	Sobek Modified	Sulfur, HCl Extractable	0.1	0.01	%
ET06-TP02 6in-18in	Sobek Modified	Sulfur, HNO3 Extractable	0.12	0.01	%
ET06-TP02 6in-18in	Sobek Modified	Sulfur, Hot Water Extractable	0.01	0.01	%
ET06-TP02 6in-18in	Sobek Modified	Sulfur, Residual	0.1	0.01	%
ET06-TP02 6in-18in	Sobek Modified	Sulfur, Total	0.33	0.01	%
ET06-TP1 0in-6in	ASAM10-3	Conductivity, sat. paste	0.4	0.1	mmhos/cm
ET06-TP1 0in-6in	ASAM10-3.2	pH, sat. paste	5.1	0.1	s.u.
ET06-TP1 0in-6in	Sobek Modified	Acid Potential	6	1	t/kt
ET06-TP1 0in-6in	Sobek Modified	Acid/Base Potential	4	-5000	t/kt
ET06-TP1 0in-6in	Sobek Modified	Neutralization Potential	11	1	t/kt
ET06-TP1 0in-6in	Sobek Modified	Sulfur, HCl Extractable	0.05	0.01	%
ET06-TP1 0in-6in	Sobek Modified	Sulfur, HNO3 Extractable	0.07	0.01	%
ET06-TP1 0in-6in	Sobek Modified	Sulfur, Hot Water Extractable	ND	0.01	%
ET06-TP1 0in-6in	Sobek Modified	Sulfur, Residual	0.08	0.01	%
ET06-TP1 0in-6in	Sobek Modified	Sulfur, Total	0.2	0.01	%
ET06-TP1 18in-30in	ASAM10-3	Conductivity, sat. paste	0.2	0.1	mmhos/cm
ET06-TP1 18in-30in	ASAM10-3.2	pH, sat. paste	5.3	0.1	s.u.
ET06-TP1 18in-30in	Sobek Modified	Acid Potential	3	1	t/kt
ET06-TP1 18in-30in	Sobek Modified	Acid/Base Potential	4	-5000	t/kt
ET06-TP1 18in-30in	Sobek Modified	Neutralization Potential	7	1	t/kt
ET06-TP1 18in-30in	Sobek Modified	Sulfur, HCl Extractable	ND	0.01	%
ET06-TP1 18in-30in	Sobek Modified	Sulfur, HNO3 Extractable	0.05	0.01	%
ET06-TP1 18in-30in	Sobek Modified	Sulfur, Hot Water Extractable	0.02	0.01	%
ET06-TP1 18in-30in	Sobek Modified	Sulfur, Residual	0.04	0.01	%
ET06-TP1 18in-30in	Sobek Modified	Sulfur, Total	0.11	0.01	%
ET06-TP1 6in-18in	ASAM10-3	Conductivity, sat. paste	0.3	0.1	mmhos/cm
ET06-TP1 6in-18in	ASAM10-3.2	pH, sat. paste	5.5	0.1	s.u.
ET06-TP1 6in-18in	Sobek Modified	Acid Potential	4	1	t/kt
ET06-TP1 6in-18in	Sobek Modified	Acid/Base Potential	6	-5000	t/kt
ET06-TP1 6in-18in	Sobek Modified	Neutralization Potential	10	1	t/kt
ET06-TP1 6in-18in	Sobek Modified	Sulfur, HCl Extractable	ND	0.01	%
ET06-TP1 6in-18in	Sobek Modified	Sulfur, HNO3 Extractable	0.06	0.01	%
ET06-TP1 6in-18in	Sobek Modified	Sulfur, Hot Water Extractable	ND	0.01	%
ET06-TP1 6in-18in	Sobek Modified	Sulfur, Residual	0.04	0.01	%
ET06-TP1 6in-18in	Sobek Modified	Sulfur, Total	0.11	0.01	%
ET06-TP2 18in-30in	ASAM10-3	Conductivity, sat. paste	0.3	0.1	mmhos/cm
ET06-TP2 18in-30in	ASAM10-3.2	pH, sat. paste	4.9	0.1	s.u.
ET06-TP2 18in-30in	Sobek Modified	Acid Potential	3	1	t/kt
ET06-TP2 18in-30in	Sobek Modified	Acid/Base Potential	1	-5000	t/kt
ET06-TP2 18in-30in	Sobek Modified	Neutralization Potential	5	1	t/kt
ET06-TP2 18in-30in	Sobek Modified	Sulfur, HCl Extractable	0.02	0.01	%
ET06-TP2 18in-30in	Sobek Modified	Sulfur, HNO3 Extractable	0.05	0.01	%
ET06-TP2 18in-30in	Sobek Modified	Sulfur, Hot Water Extractable	0.02	0.01	%
ET06-TP2 18in-30in	Sobek Modified	Sulfur, Residual	0.04	0.01	%
ET06-TP2 18in-30in	Sobek Modified	Sulfur, Total	0.13	0.01	%
ET09-TP1 6in-18in discrete	ASAM10-3.2	pH, sat. paste	5.7	0.1	s.u.
ET09-TP1 6in-18in discrete	Sobek Modified	Acid Potential	5	1	t/kt
ET09-TP1 6in-18in discrete	Sobek Modified	Acid/Base Potential	5	-5000	t/kt
ET09-TP1 6in-18in discrete	Sobek Modified	Neutralization Potential	9	1	t/kt
ET09-TP1 6in-18in discrete	Sobek Modified	Sulfur, HCl Extractable	0.02	0.01	%
ET09-TP1 6in-18in discrete	Sobek Modified	Sulfur, HNO3 Extractable	0.05	0.01	%
ET09-TP1 6in-18in discrete	Sobek Modified	Sulfur, Hot Water Extractable	0.02	0.01	%

Location	Analysis	Analyte	Result	Reporting_Limit	Units
ET09-TP1 6in-18in discrete	Sobek Modified	Sulfur, Residual	0.08	0.01	%
ET09-TP1 6in-18in discrete	Sobek Modified	Sulfur, Total	0.18	0.01	%
ET-FP01	ASAM10-3	Conductivity, sat. paste	1.3	0.1	mmhos/cm
ET-FP01	ASAM10-3.2	pH, sat. paste	5.2	0.1	s.u.
ET-FP01	Sobek Modified	Acid Potential	19	1	t/kt
ET-FP01	Sobek Modified	Acid/Base Potential	-4	-5000	t/kt
ET-FP01	Sobek Modified	Neutralization Potential	14	1	t/kt
ET-FP01	Sobek Modified	Sulfur, HCl Extractable	0.04	0.01	%
ET-FP01	Sobek Modified	Sulfur, HNO3 Extractable	0.47	0.01	%
ET-FP01	Sobek Modified	Sulfur, Hot Water Extractable	0.05	0.01	%
ET-FP01	Sobek Modified	Sulfur, Residual	0.08	0.01	%
ET-FP01	Sobek Modified	Sulfur, Total	0.64	0.01	%
ET-FP02	ASAM10-3	Conductivity, sat. paste	0.7	0.1	mmhos/cm
ET-FP02	ASAM10-3.2	pH, sat. paste	5.4	0.1	s.u.
ET-FP02	Sobek Modified	Acid Potential	6	1	t/kt
ET-FP02	Sobek Modified	Acid/Base Potential	6	-5000	t/kt
ET-FP02	Sobek Modified	Neutralization Potential	12	1	t/kt
ET-FP02	Sobek Modified	Sulfur, HCl Extractable	0.02	0.01	%
ET-FP02	Sobek Modified	Sulfur, HNO3 Extractable	0.14	0.01	%
ET-FP02	Sobek Modified	Sulfur, Hot Water Extractable	0.05	0.01	%
ET-FP02	Sobek Modified	Sulfur, Residual	0.05	0.01	%
ET-FP02	Sobek Modified	Sulfur, Total	0.25	0.01	%
ET-FP03	ASAM10-3	Conductivity, sat. paste	1.3	0.1	mmhos/cm
ET-FP03	ASAM10-3.2	pH, sat. paste	5	0.1	s.u.
ET-FP03	Sobek Modified	Acid Potential	26	1	t/kt
ET-FP03	Sobek Modified	Acid/Base Potential	-13	-5000	t/kt
ET-FP03	Sobek Modified	Neutralization Potential	13	1	t/kt
ET-FP03	Sobek Modified	Sulfur, HCl Extractable	ND	0.01	%
ET-FP03	Sobek Modified	Sulfur, HNO3 Extractable	0.72	0.01	%
ET-FP03	Sobek Modified	Sulfur, Hot Water Extractable	ND	0.01	%
ET-FP03	Sobek Modified	Sulfur, Residual	0.11	0.01	%
ET-FP03	Sobek Modified	Sulfur, Total	0.83	0.01	%
ET-FP04	ASAM10-3	Conductivity, sat. paste	1	0.1	mmhos/cm
ET-FP04	ASAM10-3.2	pH, sat. paste	5.4	0.1	s.u.
ET-FP04	Sobek Modified	Acid Potential	9	1	t/kt
ET-FP04	Sobek Modified	Acid/Base Potential	11	-5000	t/kt
ET-FP04	Sobek Modified	Neutralization Potential	20	1	t/kt
ET-FP04	Sobek Modified	Sulfur, HCl Extractable	ND	0.01	%
ET-FP04	Sobek Modified	Sulfur, HNO3 Extractable	0.22	0.01	%
ET-FP04	Sobek Modified	Sulfur, Hot Water Extractable	0.07	0.01	%
ET-FP04	Sobek Modified	Sulfur, Residual	0.06	0.01	%
ET-FP04	Sobek Modified	Sulfur, Total	0.35	0.01	%
ET-FP06	ASAM10-3	Conductivity, sat. paste	0.2	0.1	mmhos/cm
ET-FP06	ASAM10-3.2	pH, sat. paste	5.8	0.1	s.u.
ET-FP06	Sobek Modified	Acid Potential	4	1	t/kt
ET-FP06	Sobek Modified	Acid/Base Potential	4	-5000	t/kt
ET-FP06	Sobek Modified	Neutralization Potential	8	1	t/kt
ET-FP06	Sobek Modified	Sulfur, HCl Extractable	0.02	0.01	%
ET-FP06	Sobek Modified	Sulfur, HNO3 Extractable	0.06	0.01	%
ET-FP06	Sobek Modified	Sulfur, Hot Water Extractable	ND	0.01	%
ET-FP06	Sobek Modified	Sulfur, Residual	0.04	0.01	%
ET-FP06	Sobek Modified	Sulfur, Total	0.13	0.01	%
ET-FP07	ASAM10-3	Conductivity, sat. paste	0.4	0.1	mmhos/cm
ET-FP07	ASAM10-3.2	pH, sat. paste	5.6	0.1	s.u.
ET-FP07	Sobek Modified	Acid Potential	5	1	t/kt

Location	Analysis	Analyte	Result	Reporting_Limit	Units
ET-FP07	Sobek Modified	Acid/Base Potential	0.7	-5000	t/kt
ET-FP07	Sobek Modified	Neutralization Potential	6	1	t/kt
ET-FP07	Sobek Modified	Sulfur, HCl Extractable	ND	0.01	%
ET-FP07	Sobek Modified	Sulfur, HNO3 Extractable	0.11	0.01	%
ET-FP07	Sobek Modified	Sulfur, Hot Water Extractable	0.02	0.01	%
ET-FP07	Sobek Modified	Sulfur, Residual	0.05	0.01	%
ET-FP07	Sobek Modified	Sulfur, Total	0.17	0.01	%
ET-FP08	ASAM10-3	Conductivity, sat. paste	0.3	0.1	mmhos/cm
ET-FP08	ASAM10-3.2	pH, sat. paste	6	0.1	s.u.
ET-FP08	Sobek Modified	Acid Potential	4	1	t/kt
ET-FP08	Sobek Modified	Acid/Base Potential	10	-5000	t/kt
ET-FP08	Sobek Modified	Neutralization Potential	14	1	t/kt
ET-FP08	Sobek Modified	Sulfur, HCl Extractable	0.03	0.01	%
ET-FP08	Sobek Modified	Sulfur, HNO3 Extractable	0.06	0.01	%
ET-FP08	Sobek Modified	Sulfur, Hot Water Extractable	0.01	0.01	%
ET-FP08	Sobek Modified	Sulfur, Residual	0.04	0.01	%
ET-FP08	Sobek Modified	Sulfur, Total	0.14	0.01	%
ET-FP09	ASAM10-3	Conductivity, sat. paste	0.5	0.1	mmhos/cm
ET-FP09	ASAM10-3.2	pH, sat. paste	5.8	0.1	s.u.
ET-FP09	Sobek Modified	Acid Potential	7	1	t/kt
ET-FP09	Sobek Modified	Acid/Base Potential	3	-5000	t/kt
ET-FP09	Sobek Modified	Neutralization Potential	10	1	t/kt
ET-FP09	Sobek Modified	Sulfur, HCl Extractable	0.04	0.01	%
ET-FP09	Sobek Modified	Sulfur, HNO3 Extractable	0.13	0.01	%
ET-FP09	Sobek Modified	Sulfur, Hot Water Extractable	0.01	0.01	%
ET-FP09	Sobek Modified	Sulfur, Residual	0.05	0.01	%
ET-FP09	Sobek Modified	Sulfur, Total	0.23	0.01	%
ET-FP10	ASAM10-3	Conductivity, sat. paste	0.4	0.1	mmhos/cm
ET-FP10	ASAM10-3.2	pH, sat. paste	6	0.1	s.u.
ET-FP10	Sobek Modified	Acid Potential	4	1	t/kt
ET-FP10	Sobek Modified	Acid/Base Potential	10	-5000	t/kt
ET-FP10	Sobek Modified	Neutralization Potential	14	1	t/kt
ET-FP10	Sobek Modified	Sulfur, HCl Extractable	ND	0.01	%
ET-FP10	Sobek Modified	Sulfur, HNO3 Extractable	0.08	0.01	%
ET-FP10	Sobek Modified	Sulfur, Hot Water Extractable	0.02	0.01	%
ET-FP10	Sobek Modified	Sulfur, Residual	0.04	0.01	%
ET-FP10	Sobek Modified	Sulfur, Total	0.14	0.01	%
ET-FP11	ASAM10-3	Conductivity, sat. paste	0.3	0.1	mmhos/cm
ET-FP11	ASAM10-3.2	pH, sat. paste	6	0.1	s.u.
ET-FP11	Sobek Modified	Acid Potential	5	1	t/kt
ET-FP11	Sobek Modified	Acid/Base Potential	10	-5000	t/kt
ET-FP11	Sobek Modified	Neutralization Potential	14	1	t/kt
ET-FP11	Sobek Modified	Sulfur, HCl Extractable	ND	0.01	%
ET-FP11	Sobek Modified	Sulfur, HNO3 Extractable	0.11	0.01	%
ET-FP11	Sobek Modified	Sulfur, Hot Water Extractable	0.01	0.01	%
ET-FP11	Sobek Modified	Sulfur, Residual	0.04	0.01	%
ET-FP11	Sobek Modified	Sulfur, Total	0.16	0.01	%
ET-FP13	ASAM10-3	Conductivity, sat. paste	0.5	0.1	mmhos/cm
ET-FP13	ASAM10-3.2	pH, sat. paste	6	0.1	s.u.
ET-FP13	Sobek Modified	Acid Potential	4	1	t/kt
ET-FP13	Sobek Modified	Acid/Base Potential	8	-5000	t/kt
ET-FP13	Sobek Modified	Neutralization Potential	12	1	t/kt
ET-FP13	Sobek Modified	Sulfur, HCl Extractable	ND	0.01	%
ET-FP13	Sobek Modified	Sulfur, HNO3 Extractable	0.08	0.01	%
ET-FP13	Sobek Modified	Sulfur, Hot Water Extractable	0.03	0.01	%

Location	Analysis	Analyte	Result	Reporting_Limit	Units
ET-FP13	Sobek Modified	Sulfur, Residual	0.03	0.01	%
ET-FP13	Sobek Modified	Sulfur, Total	0.16	0.01	%
ET-FP15	ASAM10-3	Conductivity, sat. paste	0.3	0.1	mmhos/cm
ET-FP15	ASAM10-3.2	pH, sat. paste	5.5	0.1	s.u.
ET-FP15	Sobek Modified	Acid Potential	5	1	t/kt
ET-FP15	Sobek Modified	Acid/Base Potential	6	-5000	t/kt
ET-FP15	Sobek Modified	Neutralization Potential	11	1	t/kt
ET-FP15	Sobek Modified	Sulfur, HCl Extractable	0.02	0.01	%
ET-FP15	Sobek Modified	Sulfur, HNO3 Extractable	0.11	0.01	%
ET-FP15	Sobek Modified	Sulfur, Hot Water Extractable	ND	0.01	%
ET-FP15	Sobek Modified	Sulfur, Residual	0.04	0.01	%
ET-FP15	Sobek Modified	Sulfur, Total	0.17	0.01	%
FQ01	ASAM10-3	Conductivity, sat. paste	1.3	0.1	mmhos/cm
FQ01	ASAM10-3.2	pH, sat. paste	5.2	0.1	s.u.
FQ01	Sobek Modified	Acid Potential	31	1	t/kt
FQ01	Sobek Modified	Acid/Base Potential	-9	-5000	t/kt
FQ01	Sobek Modified	Neutralization Potential	21	1	t/kt
FQ01	Sobek Modified	Sulfur, HCl Extractable	0.11	0.01	%
FQ01	Sobek Modified	Sulfur, HNO3 Extractable	0.77	0.01	%
FQ01	Sobek Modified	Sulfur, Hot Water Extractable	ND	0.01	%
FQ01	Sobek Modified	Sulfur, Residual	0.09	0.01	%
FQ01	Sobek Modified	Sulfur, Total	0.98	0.01	%
FQ-TP01 0in-6in	ASAM10-3	Conductivity, sat. paste	1.5	0.1	mmhos/cm
FQ-TP01 0in-6in	ASAM10-3.2	pH, sat. paste	5.8	0.1	s.u.
FQ-TP01 0in-6in	Sobek Modified	Acid Potential	43	1	t/kt
FQ-TP01 0in-6in	Sobek Modified	Acid/Base Potential	-11	-5000	t/kt
FQ-TP01 0in-6in	Sobek Modified	Neutralization Potential	32	1	t/kt
FQ-TP01 0in-6in	Sobek Modified	Sulfur, HCl Extractable	0.06	0.01	%
FQ-TP01 0in-6in	Sobek Modified	Sulfur, HNO3 Extractable	1.23	0.01	%
FQ-TP01 0in-6in	Sobek Modified	Sulfur, Hot Water Extractable	0.02	0.01	%
FQ-TP01 0in-6in	Sobek Modified	Sulfur, Residual	0.08	0.01	%
FQ-TP01 0in-6in	Sobek Modified	Sulfur, Total	1.4	0.01	%
FQ-TP01 18in-30in	ASAM10-3	Conductivity, sat. paste	0.5	0.1	mmhos/cm
FQ-TP01 18in-30in	ASAM10-3.2	pH, sat. paste	4.3	0.1	s.u.
FQ-TP01 18in-30in	Sobek Modified	Acid Potential	4	1	t/kt
FQ-TP01 18in-30in	Sobek Modified	Acid/Base Potential	5	-5000	t/kt
FQ-TP01 18in-30in	Sobek Modified	Neutralization Potential	9	1	t/kt
FQ-TP01 18in-30in	Sobek Modified	Sulfur, HCl Extractable	0.02	0.01	%
FQ-TP01 18in-30in	Sobek Modified	Sulfur, HNO3 Extractable	0.07	0.01	%
FQ-TP01 18in-30in	Sobek Modified	Sulfur, Hot Water Extractable	0.03	0.01	%
FQ-TP01 18in-30in	Sobek Modified	Sulfur, Residual	0.03	0.01	%
FQ-TP01 18in-30in	Sobek Modified	Sulfur, Total	0.15	0.01	%
FQ-TP01 6in-18in	ASAM10-3	Conductivity, sat. paste	1.3	0.1	mmhos/cm
FQ-TP01 6in-18in	ASAM10-3.2	pH, sat. paste	5.2	0.1	s.u.
FQ-TP01 6in-18in	Sobek Modified	Acid Potential	16	1	t/kt
FQ-TP01 6in-18in	Sobek Modified	Acid/Base Potential	5	-5000	t/kt
FQ-TP01 6in-18in	Sobek Modified	Neutralization Potential	20	1	t/kt
FQ-TP01 6in-18in	Sobek Modified	Sulfur, HCl Extractable	0.08	0.01	%
FQ-TP01 6in-18in	Sobek Modified	Sulfur, HNO3 Extractable	0.36	0.01	%
FQ-TP01 6in-18in	Sobek Modified	Sulfur, Hot Water Extractable	0.09	0.01	%
FQ-TP01 6in-18in	Sobek Modified	Sulfur, Residual	0.06	0.01	%
FQ-TP01 6in-18in	Sobek Modified	Sulfur, Total	0.59	0.01	%
FQ-TP02 0in-6in	ASAM10-3	Conductivity, sat. paste	1.2	0.1	mmhos/cm
FQ-TP02 0in-6in	ASAM10-3.2	pH, sat. paste	5.5	0.1	s.u.
FQ-TP02 0in-6in	Sobek Modified	Acid Potential	68	1	t/kt

Location	Analysis	Analyte	Result	Reporting_Limit	Units
FQ-TP02 0in-6in	Sobek Modified	Acid/Base Potential	-40	-5000	t/kt
FQ-TP02 0in-6in	Sobek Modified	Neutralization Potential	28	1	t/kt
FQ-TP02 0in-6in	Sobek Modified	Sulfur, HCl Extractable	0.3	0.01	%
FQ-TP02 0in-6in	Sobek Modified	Sulfur, HNO3 Extractable	1.76	0.01	%
FQ-TP02 0in-6in	Sobek Modified	Sulfur, Hot Water Extractable	ND	0.01	%
FQ-TP02 0in-6in	Sobek Modified	Sulfur, Residual	0.13	0.01	%
FQ-TP02 0in-6in	Sobek Modified	Sulfur, Total	2.19	0.01	%
FQ-TP02 18in-30in	ASAM10-3	Conductivity, sat. paste	0.4	0.1	mmhos/cm
FQ-TP02 18in-30in	ASAM10-3.2	pH, sat. paste	4.3	0.1	s.u.
FQ-TP02 18in-30in	Sobek Modified	Acid Potential	3	1	t/kt
FQ-TP02 18in-30in	Sobek Modified	Acid/Base Potential	8	-5000	t/kt
FQ-TP02 18in-30in	Sobek Modified	Neutralization Potential	11	1	t/kt
FQ-TP02 18in-30in	Sobek Modified	Sulfur, HCl Extractable	ND	0.01	%
FQ-TP02 18in-30in	Sobek Modified	Sulfur, HNO3 Extractable	0.06	0.01	%
FQ-TP02 18in-30in	Sobek Modified	Sulfur, Hot Water Extractable	0.02	0.01	%
FQ-TP02 18in-30in	Sobek Modified	Sulfur, Residual	0.03	0.01	%
FQ-TP02 18in-30in	Sobek Modified	Sulfur, Total	0.12	0.01	%
FQ-TP02 6in-18in	ASAM10-3	Conductivity, sat. paste	1	0.1	mmhos/cm
FQ-TP02 6in-18in	ASAM10-3.2	pH, sat. paste	5	0.1	s.u.
FQ-TP02 6in-18in	Sobek Modified	Acid Potential	13	1	t/kt
FQ-TP02 6in-18in	Sobek Modified	Acid/Base Potential	6	-5000	t/kt
FQ-TP02 6in-18in	Sobek Modified	Neutralization Potential	19	1	t/kt
FQ-TP02 6in-18in	Sobek Modified	Sulfur, HCl Extractable	0.07	0.01	%
FQ-TP02 6in-18in	Sobek Modified	Sulfur, HNO3 Extractable	0.29	0.01	%
FQ-TP02 6in-18in	Sobek Modified	Sulfur, Hot Water Extractable	0.07	0.01	%
FQ-TP02 6in-18in	Sobek Modified	Sulfur, Residual	0.05	0.01	%
FQ-TP02 6in-18in	Sobek Modified	Sulfur, Total	0.49	0.01	%
KT01	ASAM10-3	Conductivity, sat. paste	0.8	0.1	mmhos/cm
KT01	ASAM10-3.2	pH, sat. paste	4.9	0.1	s.u.
KT01	Sobek Modified	Acid Potential	10	1	t/kt
KT01	Sobek Modified	Acid/Base Potential	12	-5000	t/kt
KT01	Sobek Modified	Neutralization Potential	22	1	t/kt
KT01	Sobek Modified	Sulfur, HCl Extractable	0.04	0.01	%
KT01	Sobek Modified	Sulfur, HNO3 Extractable	0.2	0.01	%
KT01	Sobek Modified	Sulfur, Hot Water Extractable	0.02	0.01	%
KT01	Sobek Modified	Sulfur, Residual	0.07	0.01	%
KT01	Sobek Modified	Sulfur, Total	0.33	0.01	%
KT02	ASAM10-3	Conductivity, sat. paste	0.3	0.1	mmhos/cm
KT02	ASAM10-3.2	pH, sat. paste	5.1	0.1	s.u.
KT02	Sobek Modified	Acid Potential	6	1	t/kt
KT02	Sobek Modified	Acid/Base Potential	14	-5000	t/kt
KT02	Sobek Modified	Neutralization Potential	19	1	t/kt
KT02	Sobek Modified	Sulfur, HCl Extractable	0.03	0.01	%
KT02	Sobek Modified	Sulfur, HNO3 Extractable	0.1	0.01	%
KT02	Sobek Modified	Sulfur, Hot Water Extractable	0.03	0.01	%
KT02	Sobek Modified	Sulfur, Residual	0.05	0.01	%
KT02	Sobek Modified	Sulfur, Total	0.21	0.01	%
KT-02-1 (dwnstrm)18in-Bot	ASAM10-3	Conductivity, sat. paste	0.7	0.1	mmhos/cm
KT-02-1 (dwnstrm)18in-Bot	ASAM10-3.2	pH, sat. paste	4.8	0.1	s.u.
KT-02-1 (dwnstrm)18in-Bot	Sobek Modified	Acid Potential	6	1	t/kt
KT-02-1 (dwnstrm)18in-Bot	Sobek Modified	Acid/Base Potential	14	-5000	t/kt
KT-02-1 (dwnstrm)18in-Bot	Sobek Modified	Neutralization Potential	20	1	t/kt
KT-02-1 (dwnstrm)18in-Bot	Sobek Modified	Sulfur, HCl Extractable	0.04	0.01	%
KT-02-1 (dwnstrm)18in-Bot	Sobek Modified	Sulfur, HNO3 Extractable	0.09	0.01	%
KT-02-1 (dwnstrm)18in-Bot	Sobek Modified	Sulfur, Hot Water Extractable	0.02	0.01	%

Location	Analysis	Analyte	Result	Reporting_Limit	Units
KT-02-1 (dwnstrm)18in-Bot	Sobek Modified	Sulfur, Residual	0.07	0.01	%
KT-02-1 (dwnstrm)18in-Bot	Sobek Modified	Sulfur, Total	0.21	0.01	%
KT-02-1 (upstream)	ASAM10-3	Conductivity, sat. paste	0.2	0.1	mmhos/cm
KT-02-1 (upstream)	ASAM10-3.2	pH, sat. paste	5	0.1	s.u.
KT-02-1 (upstream)	Sobek Modified	Acid Potential	3	1	t/kt
KT-02-1 (upstream)	Sobek Modified	Acid/Base Potential	18	-5000	t/kt
KT-02-1 (upstream)	Sobek Modified	Neutralization Potential	21	1	t/kt
KT-02-1 (upstream)	Sobek Modified	Sulfur, HCl Extractable	ND	0.01	%
KT-02-1 (upstream)	Sobek Modified	Sulfur, HNO3 Extractable	0.04	0.01	%
KT-02-1 (upstream)	Sobek Modified	Sulfur, Hot Water Extractable	0.01	0.01	%
KT-02-1 (upstream)	Sobek Modified	Sulfur, Residual	0.04	0.01	%
KT-02-1 (upstream)	Sobek Modified	Sulfur, Total	0.1	0.01	%
KT-02-1(dwnstrm)6in-18in	ASAM10-3	Conductivity, sat. paste	0.8	0.1	mmhos/cm
KT-02-1(dwnstrm)6in-18in	ASAM10-3.2	pH, sat. paste	4.6	0.1	s.u.
KT-02-1(dwnstrm)6in-18in	Sobek Modified	Acid Potential	5	1	t/kt
KT-02-1(dwnstrm)6in-18in	Sobek Modified	Acid/Base Potential	12	-5000	t/kt
KT-02-1(dwnstrm)6in-18in	Sobek Modified	Neutralization Potential	17	1	t/kt
KT-02-1(dwnstrm)6in-18in	Sobek Modified	Sulfur, HCl Extractable	0.02	0.01	%
KT-02-1(dwnstrm)6in-18in	Sobek Modified	Sulfur, HNO3 Extractable	0.09	0.01	%
KT-02-1(dwnstrm)6in-18in	Sobek Modified	Sulfur, Hot Water Extractable	0.04	0.01	%
KT-02-1(dwnstrm)6in-18in	Sobek Modified	Sulfur, Residual	0.05	0.01	%
KT-02-1(dwnstrm)6in-18in	Sobek Modified	Sulfur, Total	0.2	0.01	%
KT-03	ASAM10-3	Conductivity, sat. paste	0.3	0.1	mmhos/cm
KT-03	ASAM10-3.2	pH, sat. paste	4	0.1	s.u.
KT-03	Sobek Modified	Acid Potential	5	1	t/kt
KT-03	Sobek Modified	Acid/Base Potential	-5	-5000	t/kt
KT-03	Sobek Modified	Neutralization Potential	0	1	t/kt
KT-03	Sobek Modified	Sulfur, HCl Extractable	0.03	0.01	%
KT-03	Sobek Modified	Sulfur, HNO3 Extractable	0.07	0.01	%
KT-03	Sobek Modified	Sulfur, Hot Water Extractable	0.07	0.01	%
KT-03	Sobek Modified	Sulfur, Residual	0.05	0.01	%
KT-03	Sobek Modified	Sulfur, Total	0.21	0.01	%
KT04	ASAM10-3	Conductivity, sat. paste	0.6	0.1	mmhos/cm
KT04	ASAM10-3.2	pH, sat. paste	4.9	0.1	s.u.
KT04	Sobek Modified	Acid Potential	9	1	t/kt
KT04	Sobek Modified	Acid/Base Potential	4	-5000	t/kt
KT04	Sobek Modified	Neutralization Potential	13	1	t/kt
KT04	Sobek Modified	Sulfur, HCl Extractable	0.12	0.01	%
KT04	Sobek Modified	Sulfur, HNO3 Extractable	0.11	0.01	%
KT04	Sobek Modified	Sulfur, Hot Water Extractable	ND	0.01	%
KT04	Sobek Modified	Sulfur, Residual	0.07	0.01	%
KT04	Sobek Modified	Sulfur, Total	0.31	0.01	%
KT04-TP1 0in-6in	ASAM10-3	Conductivity, sat. paste	0.3	0.1	mmhos/cm
KT04-TP1 0in-6in	ASAM10-3.2	pH, sat. paste	4.7	0.1	s.u.
KT04-TP1 0in-6in	Sobek Modified	Acid Potential	7	1	t/kt
KT04-TP1 0in-6in	Sobek Modified	Acid/Base Potential	8	-5000	t/kt
KT04-TP1 0in-6in	Sobek Modified	Neutralization Potential	14	1	t/kt
KT04-TP1 0in-6in	Sobek Modified	Sulfur, HCl Extractable	0.03	0.01	%
KT04-TP1 0in-6in	Sobek Modified	Sulfur, HNO3 Extractable	0.15	0.01	%
KT04-TP1 0in-6in	Sobek Modified	Sulfur, Hot Water Extractable	0.02	0.01	%
KT04-TP1 0in-6in	Sobek Modified	Sulfur, Residual	0.03	0.01	%
KT04-TP1 0in-6in	Sobek Modified	Sulfur, Total	0.23	0.01	%
KT04-TP1 18in-30in	ASAM10-3	Conductivity, sat. paste	0.2	0.1	mmhos/cm
KT04-TP1 18in-30in	ASAM10-3.2	pH, sat. paste	5.1	0.1	s.u.
KT04-TP1 18in-30in	Sobek Modified	Acid Potential	2	1	t/kt

Location	Analysis	Analyte	Result	Reporting_Limit	Units
KT04-TP1 18in-30in	Sobek Modified	Acid/Base Potential	3	-5000	t/kt
KT04-TP1 18in-30in	Sobek Modified	Neutralization Potential	6	1	t/kt
KT04-TP1 18in-30in	Sobek Modified	Sulfur, HCl Extractable	ND	0.01	%
KT04-TP1 18in-30in	Sobek Modified	Sulfur, HNO3 Extractable	0.04	0.01	%
KT04-TP1 18in-30in	Sobek Modified	Sulfur, Hot Water Extractable	0.03	0.01	%
KT04-TP1 18in-30in	Sobek Modified	Sulfur, Residual	0.03	0.01	%
KT04-TP1 18in-30in	Sobek Modified	Sulfur, Total	0.1	0.01	%
KT04-TP1 6in-18in	ASAM10-3	Conductivity, sat. paste	0.2	0.1	mmhos/cm
KT04-TP1 6in-18in	ASAM10-3.2	pH, sat. paste	4.9	0.1	s.u.
KT04-TP1 6in-18in	Sobek Modified	Acid Potential	2	1	t/kt
KT04-TP1 6in-18in	Sobek Modified	Acid/Base Potential	3	-5000	t/kt
KT04-TP1 6in-18in	Sobek Modified	Neutralization Potential	5	1	t/kt
KT04-TP1 6in-18in	Sobek Modified	Sulfur, HCl Extractable	ND	0.01	%
KT04-TP1 6in-18in	Sobek Modified	Sulfur, HNO3 Extractable	ND	0.01	%
KT04-TP1 6in-18in	Sobek Modified	Sulfur, Hot Water Extractable	0.02	0.01	%
KT04-TP1 6in-18in	Sobek Modified	Sulfur, Residual	0.07	0.01	%
KT04-TP1 6in-18in	Sobek Modified	Sulfur, Total	0.09	0.01	%
KT-TP dwnstrm sandy area	ASAM10-3	Conductivity, sat. paste	0.2	0.1	mmhos/cm
KT-TP dwnstrm sandy area	ASAM10-3.2	pH, sat. paste	3.7	0.1	s.u.
KT-TP dwnstrm sandy area	Sobek Modified	Acid Potential	6	1	t/kt
KT-TP dwnstrm sandy area	Sobek Modified	Acid/Base Potential	-5	-5000	t/kt
KT-TP dwnstrm sandy area	Sobek Modified	Neutralization Potential	1	1	t/kt
KT-TP dwnstrm sandy area	Sobek Modified	Sulfur, HCl Extractable	0.05	0.01	%
KT-TP dwnstrm sandy area	Sobek Modified	Sulfur, HNO3 Extractable	0.09	0.01	%
KT-TP dwnstrm sandy area	Sobek Modified	Sulfur, Hot Water Extractable	0.09	0.01	%
KT-TP dwnstrm sandy area	Sobek Modified	Sulfur, Residual	0.05	0.01	%
KT-TP dwnstrm sandy area	Sobek Modified	Sulfur, Total	0.28	0.01	%
TP (upstream) ""The Beach""	ASAM10-3	Conductivity, sat. paste	0.3	0.1	mmhos/cm
TP (upstream) ""The Beach""	ASAM10-3.2	pH, sat. paste	3.7	0.1	s.u.
TP (upstream) ""The Beach""	Sobek Modified	Acid Potential	5	1	t/kt
TP (upstream) ""The Beach""	Sobek Modified	Acid/Base Potential	0.3	-5000	t/kt
TP (upstream) ""The Beach""	Sobek Modified	Neutralization Potential	5	1	t/kt
TP (upstream) ""The Beach""	Sobek Modified	Sulfur, HCl Extractable	0.04	0.01	%
TP (upstream) ""The Beach""	Sobek Modified	Sulfur, HNO3 Extractable	0.07	0.01	%
TP (upstream) ""The Beach""	Sobek Modified	Sulfur, Hot Water Extractable	0.06	0.01	%
TP (upstream) ""The Beach""	Sobek Modified	Sulfur, Residual	0.04	0.01	%
TP (upstream) ""The Beach""	Sobek Modified	Sulfur, Total	0.21	0.01	%
AE1	ASAM10-3	Conductivity, sat. paste	4.9	0.1	mmhos/cm
AE1	ASAM10-3.2	pH, sat. paste	2.2	0.1	s.u.
AE1	Sobek Modified	Acid Potential	69	1	t/kt
AE1	Sobek Modified	Acid/Base Potential	-69	-5000	t/kt
AE1	Sobek Modified	Neutralization Potential	0	1	t/kt
AE1	Sobek Modified	Sulfur, HCl Extractable	0.43	0.01	%
AE1	Sobek Modified	Sulfur, HNO3 Extractable	1.02	0.01	%
AE1	Sobek Modified	Sulfur, Hot Water Extractable	0.02	0.01	%
AE1	Sobek Modified	Sulfur, Residual	0.76	0.01	%
AE1	Sobek Modified	Sulfur, Total	2.23	0.01	%
AE10	ASAM10-3	Conductivity, sat. paste	0.8	0.1	mmhos/cm
AE10	ASAM10-3.2	pH, sat. paste	4.2	0.1	s.u.
AE10	Sobek Modified	Acid Potential	20	1	t/kt
AE10	Sobek Modified	Acid/Base Potential	-15	-5000	t/kt
AE10	Sobek Modified	Neutralization Potential	5	1	t/kt
AE10	Sobek Modified	Sulfur, HCl Extractable	0.1	0.01	%
AE10	Sobek Modified	Sulfur, HNO3 Extractable	0.43	0.01	%
AE10	Sobek Modified	Sulfur, Hot Water Extractable	0.08	0.01	%

Location	Analysis	Analyte	Result	Reporting_Limit	Units
AE10	Sobek Modified	Sulfur, Residual	0.13	0.01	%
AE10	Sobek Modified	Sulfur, Total	0.73	0.01	%