**Susitna-Watana Hydroelectric Project**

**2013 Focus Area Database Data Dictionary**

Field data were collected at Focus Area point sampling sites and transects along the Susitna River using a Hydrolab MS5 probe. This document describes the standard abbreviations used in each of the MS Excel spreadsheets to assemble data tables and to report values. The focus area water quality field data, formatted for input into the GINA database, is described below in the following sections. Each section corresponds to the four worksheets in the Excel database with each sub-section corresponding to column headings in each worksheet.

# Focus Area Point Samples

## Focus Area

This identifier provides the most current and accurate name commonly used to identify a Focus Area reach. Other names used in subsequent fields are synonyms of this reach designation and associations between site names are indicated in the data spreadsheets.

## Site\_Name (synonyms)

This field is used to identify each sampling site by Focus Area number, common name, and point sample designation; either point upstream (PU), downstream (PD), middle (PM), or a duplicate measurement.

Each site ID corresponds to its full name in the following table.

**Table 3. Site Names and Locations**

|  |  |
| --- | --- |
| **Site\_Name** | **Full Site Name** |
| FA 128 Slough 8A PD | Focus Area 128, Skull Creek, Point Downstream |
| FA 128 Slough 8A PU | Focus Area 128, Skull Creek, Point Upstream |
| FA 138 Gold Creek PD | Focus Area 138, Gold Creek, Point Downstream |
| FA 138 Gold Creek PU | Focus Area 138, Gold Creek, Point Upstream |
| FA 141 Indian River PD | Focus Area 141, Indian River, Point Downstream |
| FA 141 Indian River PU | Focus Area 141, Indian River, Point Upstream |
| FA 144 Slough 21 PD | Focus Area 144, Slough 21, Point Downstream |
| FA 144 Slough 21 PU | Focus Area 144, Slough 21, Point Upstream |
| FA 104 Whiskers Slough PD | Focus Area 104, Whiskers Slough, Point Downstream |
| FA 104 Whiskers Slough PM | Focus Area 104, Whiskers Slough, Point Midstream |
| FA 104 Whiskers Slough PU | Focus Area 104, Whiskers Slough, Point Upstream |
| FA 115 Slough 6A P | Focus Area 115, Lane Creek, Point |
| FA 113 Oxbow I PD | Focus Area 113, Oxbow, Point Downstream |
| FA 113 Oxbow I PU | Focus Area 113 Oxbow, Point Upstream |

## CollectionDate

Collection date is the date that the samples and field measurments were collected.

## SampleTime

Sample time is the time that the sample was collected.

## SampleTimeZone

This field indicates whether samples were collected in Alaskan Standard Time or Alaskan Daylight Savings Time.

## SondeNo

This field corresponds to the serial number on the sampling probe that was used to sample at the time of data collection.

## CameraNo

This field corresponds to the serial number of the camera used in the field during the time of data collection and documented each sampling site.

## GPSNo

This number corresponds to the GPS project designated number used each day to collect latitude and longitude coordinates of the sampling site such a: 1) endpoints of each transect, 2) location of upper and lower point sample locations (and the mid-point sample, where applicable), and the groundwater well locations.

## LogbookNo

This number corresponds to the log book used in the field each day where additional comments not included on the field forms were recorded. These comments were usually reported logistics like boat departure times from designated locations, etc.

## Sample ID

Sample identifiers were recorded on labels for water samples when collected from each point sample and transported to the lab for analysis.

## Water Depth\_ft

This field describes the total water depth at a site during the time of sampling.

## Sample Depth\_ft

This field describes the depth the sample was collected at.

## SampleTime

This field describes the time the sample was taken.

## Latitude

This field describes the GPS coordinate latitude where the point sample was collected.

## Longitude

This field describes the GPS coordinate longitude where the point sample was collected.

## InstrmHab

The “InstrmHab” or instream habitat field was used to describe the environment the sample was taken from or where measurements were collected; either a riffle, run, glide, or pool.

## PointID

This field indicates an abbreviated notation for the position upstream and downstream of the point sample for recording of longitudinal field measurements.

## LocationFromSamplePnt

The location of repeated longitudinal field data recordings centered over a point sample and spaced, equidistantly at 10 meter increments. Field data collection of field measurements were collected every 10 meters upstream and downstream from the sample point for a total 50 meters in each direction.

## Habtype

This field indicates whether the surrounding sampling habitat was a run, glide, riffle, or pool.

## LocationfromPntSample

This field indicates the length in meters, upstream or downstream of the point sample collected.

## Temp\_deg\_C

This field indicates temperature measurements (Celsius) collected at each 10 meter increments from the point sample location, and includes the point sampling site.

## pH

This field indicates pH values (standard units) collected at each 10 meter increment from the point sample location, and includes the point sampling site.

## DO (mg/L)

This field represents the dissolved oxygen concentration of surface water point samples and was collected at each 10 meter increment above and below each point sample site within a Focus Area.

## Cond (umhos/cm)

This field records specific conductance measurements collected at each 10 meter increment, and includes the point sampling site.

## ORP (mV)

This field reports redox potential of the Focus Area point sample location and was also collected at each 10 meter increment from the point sample location that includes the point sampling site.

### AO. FA 115 Depth Profile

An additional depth profile was taken in a pool at Focus Area-115 and this field indicates whether data was recorded at a point sample site as “yes or no”.

### AP. Depth (ft)

This field indicates the depth increments of the pool profile collected in Focus Area-115 where field measurements were recorded.

### AQ-AU. TempC-2, pH-2, DO (mg/L)-2, Cond. (µmhos/cm)-2, ORP (mV)-2

These fields are measurements recorded for a depth profile in the pool at Focus Area-115, when applicable.

### AV. FA 144, Slough 21 Profile

This field indicates additional longitudinal field measurements recorded extending up Slough 21 at Focus Area-144.

### AW. Distance (m)-2

This field records incremental distance (in meters) from an established point that field measurements were made in an upstream direction. Distances are in increments of 10 meters in the thalweg of Slough 21, Focus Area-144.

### AX-BB. TempC-3, pH-3, DO (mg/L)-3, Cond. (µmhos/cm)-3, ORP (mV)-3

### 

These fields are the field measurements collected at 10-meter increment upstream in Slough 21 at Focus Area-144.

# Focus Area Transect Data

## Focus Area

This identifier provides the most current and accurate name commonly used to identify a Focus Area reach. Other names used in subsequent fields are synonyms of this reach designation and associations between site names are indicated in the data spreadsheets.

## FA\_Name (synonyms)

This field reports Focus Area sites and river mile designations. DUP with a site name indicates a duplicate sample, as well as MS/MSD and FB or field blank. Site names are given below in Table 4.

**Table 4. Focus Area site names**

|  |
| --- |
| **Site\_Name** |
| FA 128 Skull Creek |
| FA 138 Gold Creek |
| FA 141 Indian River |
| FA 144 Slough 21 |
| FA 104 Whiskers Slough |
| FA 115 Lane Creek |
| FA 113 Oxbow |

## CollectionDate

This field indicates the date that the sample and field parameters were collected.

## SampleTime

This field indicates the time that each sample was collected.

## SampleTimeZone

This field indicates the time zone that the sample was collected in, whether Alaskan Standard Time or Alaskan Daylight Savings Time.

## SondeNo

This field corresponds to the serial number on the Hydrolab MS5 sampling probe that was used at time of sample collection.

## CameraNo

This field corresponds to the serial number of the camera used to record images of sites sampled during each day.

## GPSNo

This number corresponds to a GPS number was used identify latitude and longitude coordinates for the end of each transect visited when collecting surface water samples.

## LogbookNo

This number corresponds to the log book during each field day to record additional comments not included on field forms. These comments were usually related to field logistics like boat departure from a designated location, etc.

## Transect

Describes the location of a transect in a Focus Area (FA). There were usually three sampling transects within each FA and were designated as: downstream, middle or upstream.

## RB\_Latitude

Latitude in decimal degrees identifying the right bank point of a transect when viewing direction of the river downstream.

## RB\_Longitude

Longitude in decimal degrees identifying the right bank point of a transect when viewing direction of the river downstream.

## LB\_Latitude

Latitude in decimal degrees identifying the left bank point of a transect when viewing direction of the river downstream.

## LB\_Longitude

Longitude in decimal degrees identifying the left bank point of a transect when viewing direction of the river downstream.

## RiverWidth (yds)

“River Width (yds)” is the distance of the wetted margin from the left bank of a transect to the right bank of a transect.

## Braided

This field describes when a transect that was sampled was braided (intersected by dry gravel bars) or was not braided (Y/N = Yes or No).

## Sample Point

“Sample Point” the sample point location on the transect with 1 being the point nearest to the right bank and 4 being the point nearest the left bank. The locations for each of these points is found in the Baseline Water Quality Monitoring QAPP (Appendix to Section 5.5 of the RSP).

## Parameter DUP

This field indicates when field parameter duplicates were collected at a site.

## Sample DUP

This field indicates when water sample duplicates for laboratory analysis were collected at a site.

## Water Depth (ft)

“Water Depth” is the total depth of water from surface to bottom at each location on a transect.

## SampleDepth (ft)

Samples were collected at 1.5 ft from the water surface.

### V-Z. Temp\_deg\_C, pH, DO (mg/L), Cond. (µmhos/cm), ORP (mV)

These fields represent field measurements collected at each point along a transect and at depth from a point, where applicable.

**AA. SamplePtID**

This field indicates the ID used to identify each collected sample that was then sent to the lab.

**AB. Sample Time**

This field describes the time each sample was collected.

### AC. No. of Samples

This field represents the number of bottles used to collect water samples and submitted to the laboratory from each site. This field was used to determine the “completeness” of sample collection at a site.

### AD. Weather/ Site Obs

This field was used to record visual observations while sampling at each site during the day. Observations included weather information, presence of debris, and operation of equipment. Additional notes included how equipment malfunctions were addressed and data collected based on the Quality Assurance Project Plan (QAPP).

### AE-AL. Photo No. 1-4 with Descriptions

These fields were used to document photograph numbers recorded at a site and the subject in each photograph.