Record of Modification

Phase 1 Site Characterization Sampling and Analysis Plan Field Activities
Columbia Fall Aluminum Company RI/FS
Phase 1 SAP MOD #3

Instructions to Requester: **Submit to Roux RI Manager or Roux RI/FS Project Manager**
Roux RI Manager will maintain legible copies in a binder that can be accessed by personnel.

Project Work Plan/QAPP (check one)**:**

[X] 2015 Phase 1 SAP

[ ] SOP (Title, # and approval date): _____

Requester: Amy Hoffmann, Field Manager Date: 6/23/2016

Applicable section of SAP/SOP:

SAP Section 4.7: Monitoring Well Installation

Description of Modification:

Deep Monitoring Well CFMW-016a will be constructed with a five foot screen length, in lieu of a 10 foot screen length, installed from 121-126 feet below ground surface (ft bgs) for the reasons described below.

Rational for Modifications / Potential Implications of Modifications:

During the drilling of the borehole for deep monitoring well CFMW-016a, an initial water bearing zone was encountered from 74 to 126 ft bgs. Beneath this zone a dry confining unit consisting primarily of sandy silt, with some fine gravel and clay, was encountered from a depth of 126 to 300 ft bgs where the boring was terminated. No water was observed from 126 to 300 ft bgs.

Based on these observations, the deep monitoring well will be constructed with a five foot screen length installed from 121-126 ft bgs to ensure ample separation from the shallow monitoring well, CFMW-016, which will be installed with a 10 foot screen length from 85 to 95 ft bgs. Use of the 5-ft screen for the deep well (CFMW-16a) at will allow for better characterization of vertical gradients at this well nest, as well as allow for assessment of groundwater quality conditions immediately atop the confining unit.

Duration of Modification (Check one):

[X] Temporary

Date(s) 6/24/2016

Sample Numbers CFMW-016a

[ ] Permanent (Proposed Text Modification Section)

Effective Date: _____

Proposed Text Modifications in Associated Document:

Data Quality Indicator (check one) – Please reference definitions on next page for direction on selecting data quality indicators:

[X] **Not Applicable** [ ] **Reject** [ ] **Low Bias** [ ] **Estimate** [ ] **High Bias** [ ] **No Bias**

Roux Project Manager Approval: Andrew Baris Date: 6/24/2016

(Roux RI/FS Project Manager or designate)

EPA Review and Approval: Mike Cirian Date: _____

(USEPA RPM or designate)

DATA QUALITY INDICATOR DEFINITIONS

Reject – Samples associated with this modification form are not useable. The conditions outlined in the modification form adversely affect the associated sample to such a degree that the data are not reliable.

Low Bias – Samples associated with this modification form are useable, but results are likely to be biased low. The conditions outlined in the modification form suggest that associated sample data are reliable, but estimated low.

Estimate – Samples associated with this modification form are useable, but results should be considered approximations. The conditions outlined in the modification form suggest that associated sample data are reliable, but estimates.

High Bias – Samples associated with this modification form are useable, but results are likely to be biased high. The conditions outlined in the modification form suggest that associated sample data are reliable, but estimated high.

No Bias – Samples associated with this modification form are useable as reported. The conditions outlined in the modification form suggest that associated sample data are reliable as reported.