

From: Manzo, Jason
Sent: Tuesday, May 19, 2015 5:09 PM
To: Long, David W; Buchanan, Ira; Hickman, Patricia A; Mark J. Welch
Cc: Blankenship, Anne; Lutz, Mike; Perrine, Patty S
Subject: RE: Freedom Industries - Draft VRRP Remediation Work Plan Outline and updated budget

Dave Please find the attached, updated Interim VRRP Work Plan per discussions and follow-up comments.

One item you mentioned is potentially reducing the number of Surface Water and Sediment samples, we can amend this work plan to compensate for that change. In addition, I am working at providing an updated budget to Freedom to accommodate the changes in the scope of work which is derived from our recent discussions and WVDEP requests. I hope to have that to Freedom for review tomorrow, but my estimation is that costs will only be slightly modified.

In addition, please find responses to your questions in the email below. Ira is travelling today but should be available for questions the rest of the week. We wanted to make sure we provided you the work plan and responses in a timely fashion for your review. In the interim if you need anything please let Mark or myself know.

Thank you for the consideration,

Jason
Jason Manzo | Certified Project Manager

From: Long, David W
Sent: Thursday, May 14, 2015 5:02 PM
To: Buchanan, Ira; Hickman, Patricia A; Mark J. Welch
Cc: Blankenship, Anne; Manzo, Jason; Lutz, Mike; Perrine, Patty S
Subject: RE: Freedom Industries - Draft VRRP Remediation Work Plan Outline and updated budget
Importance: High

Ira, Mark:

In addition to our discussion this morning, WVDEP would like information/clarification concerning the following items in the VRRP (Interim) Remediation Work Plan:

1. Please provide any and all data and information on the extent of the cobble fill area (esp., depth). – No current data is available; the work plan includes further investigation to determine the horizontal and vertical extent of the cobble fill (see Section 6 and Section 6.2).
2. Please provide an estimate of soil that will be removed in yds³ under the current plan. See Section 6.2; “Excavate and dispose of approximately 1,400 cubic yards (yd³)(2,100 tons) of material from an approximately 20,000 square foot area (the previous excavation area is excluded in the excavation estimates, but is included in the backfill and site-restoration estimates)”
3. Please provide an estimate of material that will be removed in yds³ if the cobble fill area were to be included in the excavation effort. Justify your claim that excavation of the cobble fill area is

cost-prohibitive. The cobble fill will be excavated to a depth of approximately three (3) feet. Currently the volume of the cobble fill is unknown therefore an estimate of the cost to remove the entire 'cobble fill'.

4. Arcadis discussed installation of a test pit in the cobble fill area – why is a test pit beneficial and what information would be gained from the test pit installation? Currently there is not information to the extent (specifically vertically) of the cobble fill; a test pit would be required to determine the depth to native and/or fine-grained material.
5. WVDEP has concerns about the stability of the slope in the excavation area should only a clay cap and vegetative cover be installed, even as just a temporary measure.. What will be the angle of the final slope? Has Arcadis considered terracing of the slope? WVDEP's concerns are valid, if soil were to be placed on the current slope there would be an inherit risk of the material to collapse. To alleviate these concerns, ARCADIS proposes to line the current slope with a geomembrane cover to restrict surface water infiltration. After excavation and before emplacement of the geomembrane cover the area will be returned to approximate original grade with fill.
6. Please provide a description and diagram of the area the temporary cap will cover. Also, describe how this will assure that there will be no contaminated stormwater runoff to the river from the site. See the figures attached to the work plan. The fine-grained cover combined with the geomembrane cover will restrict surface water from encountering any contaminated media.
7. Based on the extent of the capped area, stormwater monitoring/sampling locations will be required (other than just surface water sampling) to verify that the cap is doing its job. See the discussion in Section 8 "A series of three 5-gallon buckets will be inserted flush to the finish grade elevation of the temporary cover down gradient of the former trench. The buckets will be used to collect storm water that has flowed across the Site prior to entering the river. After a rain event, if sufficient volume had accumulated, the water in the three buckets will be combined and a sample will be collected and analyzed for COPCs."
8. WVDEP believes there may also be contaminated runoff issues below the trench- riverbank sampling is needed to assess this area. If necessary, the cap may need to extend all the way to the river. Depending on the results of the sampling, extending the cap or similar will be evaluated.

Dave