To: Brown, Anthony R (RM)[anthony.brown@bp.com]
Cc: Greg Reller (gr@burlesonconsulting.com)[gr@burlesonconsulting.com]; lily tavassoli (tavassoli.lily@epa.gov)[tavassoli.lily@epa.gov]; Dana Barton[Barton.Dana@epa.gov]; Doug Carey[douglas.carey@waterboards.ca.gov]; Yogi, David[Yogi.David@epa.gov]; Serda, Sophia[Serda.Sophia@epa.gov]; Black, Ned[Black.Ned@epa.gov]; Wirtschafter, Joshua[Wirtschafter.Joshua@epa.gov]; Helmlinger, Andrew[Helmlinger.Andrew@epa.gov]; Harris-Bishop, Rusty[Harris-Bishop.Rusty@epa.gov]; Barton, Dana[Barton.Dana@epa.gov]; Lyons, John[Lyons.John@epa.gov]
From: Deschambault, Lynda
Sent: Fri 4/7/2017 2:08:47 PM
Subject: RE: Leviathan Mine Site - Discharge of Water At Pond 4
170327 RWQCB Spring Treatment Summary FINAL.pdf

Dear Mr. Brown,

As noted during our phone call, I am concerned that ARC may find " weather conditions are not conducive to safe site access" while the waterboard contractors arrive there to work on the emergency spring treatment .

And rather than only "continue to monitor pH readings in Leviathan Creek" Please take discharge samples at both Aspen seep bioreactor 4th pond as well as Pond 4, using rush lab turnaround time to ensure results are provided to EPA within3- 5 days; in a table alongside the discharge limits for ease of comparison, highlighting any exceedences as the Waterboard has done in their recent weekly reports. (last one attached as an example)

Please also provide a daily update, and please cc: Lily Tavassoli (Acting Section Chief) ; Dana Barton (acting Associate Director); along with my contractors, and the waterboard to ensure consistency in activities and reporting. Thank you

Lynda

-----Original Message-----
From: Brown, Anthony R (RM) [mailto:anthony.brown@bp.com]
Sent: Thursday, April 06, 2017 5:50 PM
To: Deschambault, Lynda <Deschambault.Lynda@epa.gov>
Cc: Greg Reller (gr@burlesonconsulting.com) <gr@burlesonconsulting.com>
Subject: Leviathan Mine Site - Discharge of Water At Pond 4
Importance: High

Lynda – You should have received an email and attached photos at approximately 3:45 PM PST today from Doug Carey indicating that a connection on the riser pipe in Pond 4 (near the HDS treatment building) has separated a few inches below the water line, and as a result, water is discharging through the overflow pipeline to Leviathan Creek. Doug contacted me by phone shortly before sending the email to you about this situation, which was the first time that Atlantic Richfield learned of it. As you know, Atlantic Richfield does not currently have field personnel working in the area of Pond 4 and the HDS Plant, although crews were at the site today attending to the Aspen Seep Bioreactor.

It appears from the Water Board's photos (copies attached) that the separation may have resulted from ice pushing against the riser pipe. It also appears that there are only a few inches of standing water in

Pond 4 above the pipe separation, and the section of pipe below the separation is intact. According to Doug, Water Board crews who were at the site earlier in the week did not observe any discharge from the Pond 4 overflow pipe, so we assume the separation occurred sometime within the last 24 to 48 hours. We have looked at pH readings for Leviathan Creek at 4L, which is below the point of discharge for the Pond 4 overflow pipe, on the EPA Storm Central Water log web site (https://stormcentral.waterlog.com/SiteDetails.php?a=116&site=353&pa=usepar9):

[cid:image003.jpg@01D2AEFE.EE9082E0]

Based on those readings, there is no indication that any discharge from Pond 4 in the last 48 hours has caused a decrease in pH in Leviathan Creek. To the contrary, pH readings have been steadily increasing since March 31, albeit with typical diurnal fluctuations. This makes sense, given the extremely high flows that we are experiencing in Leviathan Creek right now due to spring runoff, which far exceed any flow entering from Pond 4, and given that most or all of the water currently contained in Pond 4 is snow melt or direct precipitation.

Although it does not appear that this situation presents an immediate threat to public health or the environment, Atlantic Richfield is developing plans to repair the Pond 4 riser pipe separation as soon as possible. I have tasked Copper Environmental with mobilizing a field crew to access Pond 4 as soon as weather conditions permit. A technician equipped with appropriate personal safety equipment, including boots, flotation device, tethering, and other safety measures will enter Pond 4 on foot adjacent to the riser pipe. The technician will attempt to straighten the riser pipe and reinsert the upper section of pipe into the lower section, thus resealing the pipe. We believe this will resolve the situation. We will also observe the pipe outlet to confirm that the flow has been stopped or at least reduced. If this effort is not successful in cutting off the flow, we will then consider capping the pipe outlet with a compression fitting, but we are reluctant to install a cap as an initial step because of the risk that once the outlet is capped it may be more difficult to control freeboard levels in Pond 4.

Unfortunately, the current weather forecast calls for wind, rain, and snow in the area starting tomorrow and continuing through Saturday. Copper personnel will assess the weather conditions tomorrow to determine whether or not it is safe to access the site to perform these repairs. If weather conditions are not conducive to safe site access tomorrow, we will reassess conditions again on Saturday and Sunday. Again, personnel will attempt to access the site and complete these repairs as soon as it is safe to do so.

In the meantime, we will continue to monitor pH readings in Leviathan Creek. As noted above, we are fortunate in that the high flows in Leviathan Creek appear to affectively mitigating any effect that the discharge of water from Pond 4 might otherwise be causing on surface water quality. If there is any change in conditions, we will immediately inform EPA and propose appropriate additional response actions.

Please don't hesitate to contact me if you have any related questions or wish to discuss this situation further.

Anthony R Brown
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