To: Maas, Ken -FS[kmaas@fs.fed.us]; Lombardi, Marc (marc.lombardi@amecfw.com)[marc.lombardi@amecfw.com]
From: Deschambault, Lynda
Sent: Mon 5/22/2017 6:45:56 PM
Subject: RE: Leviathan Mine - 9 am to 4 All day Meeting May 23rd AMEC
FS Technology Discussion agenda_04.12.17.docx

My apologies. I said that sort of like I say "los Angeles" without specifying.

Yes, Marc Can confirm and update the invite. Thanks for the catch!

March 23, 2017; 9 am

AMEC Office:

10940 White Rock Road, Suite 190

Rancho Cordova, CA 95670

From: Maas, Ken -FS [mailto:kmaas@fs.fed.us]
Sent: Friday, May 19, 2017 8:30 AM
To: Deschambault, Lynda <Deschambault.Lynda@epa.gov>
Subject: RE: Leviathan Mine - 9 am to 4 All day Meeting May 23rd AMEC

To be clear, the meeting is in Rancho Cordova, not Sacramento, correct?

Kenneth Maas
On Scene Coordinator

Safety Officer
Forest Service

Humboldt-Toiyabe NF
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Caring for the land and serving people

From: Deschambault, Lynda [mailto:Deschambault.Lynda@epa.gov]
Sent: Thursday, May 18, 2017 4:47 PM
To: Lombardi, Marc <Marc.Lombardi@amecfw.com>; Brown, Anthony R (RM) <anthony.brown@bp.com>
Cc: Greg Reller <gr@burlesonconsulting.com>; Cory Koger <Cory.S.Koger@usace.army.mil>; Maas, Ken -FS <kmaas@fs.fed.us>; Wetmore, Cynthia <Wetmore.Cynthia@epa.gov>; Hillenbrand, John <Hillenbrand.John@epa.gov>; Doug Carey <douglas.carey@waterboards.ca.gov>; Weber, Craig L <Craig.Weber@amecfw.com>; Dionne, Marc E <Marc.Dionne@amecfw.com>; Jefferson, Jill <Jill.Jefferson@amecfw.com>; Grant Ohland - (gohland@ohlandhydrogeo.com) <gohland@ohlandhydrogeo.com>; Starr, Robert <Robert.Starr@amecfw.com>; Lambeth, Gregory <Gregory.Lambeth@amecfw.com>; Barton, Dana <Barton.Dana@epa.gov>
Subject: RE: Leviathan Mine - 9 am to 4 All day Meeting May 23rd AMEC

Hi Marc,

Per our monthly leviathan call with ARC---EPA considers the attached agenda that the Forest Serve and EPA developed several weeks ago to be reasonable.

We do not expect the questions to be answered, rather to understand how they are being considered and

answered in the FS.

I don't see that you've provided a redline or revised agenda, so let's plan to go thru this as outlined.

It sounds like ARC has made substantial progress on many of the items we've laid out, and can provide an update; likely getting us thru the morning session pretty quickly

with ARC going thru each of the items and outlining how they are being addressed—or plan to address and with what data/inputs.

We look forward to hearing about your progress to date and a presentation of preliminary proposed remedial action objectives (RAOs) and general response actions, screening of remedial alternatives, and prototype remedial alternatives. The sections on general site-wide considerations, current conditions and remedy questions can be brief; as you share with us your plans for preliminary screening in (and screening out) of technologies and remedial alternatives

For the afternoon session; EPA looks forward to a robust discussion and feedback on the two topics:

•□□□□□□□□ Perimeter Wells- Discuss preliminary data from the 2016 groundwater sampling and preliminary evaluation of results for perimeter drilling locations LOC-39 and LOC-40per ARC letter dated May 1, 2017

•□□□□□□□□ Geotechnical Investigations Discuss preliminary data from the Geotechnical Focused Feasibility Study and discuss ARC letter dated February 9, 2017, To ensure timely and efficient progress on the proposed geotechnical investigations in 2017 and for completing the FS, EPA is interested in the ARC process; any planned modeling and consideration of necessary data inputs that will be utilized,. We look forward to a discussion on ARC progress and plans for collecting any data for inclusion (data inputs) for the FS including but not limited to: landslide, slope stability, and pond stabilization.

See you on the 23rd!

Best Regards,

Lynda Deschambault

Environmental Scientist

USEPA Region 09

(415) 947-4183

Please be advised I may have limited access to email , therefore please be patient with any communication delays.

Lynda

From: Lombardi, Marc [mailto:Marc.Lombardi@amecfw.com]
Sent: Friday, May 12, 2017 5:21 PM
To: Deschambault, Lynda <Deschambault.Lynda@epa.gov>; Brown, Anthony R (RM) <anthony.brown@bp.com>
Cc: Greg Reller <gr@burlesonconsulting.com>; Cory Koger <Cory.S.Koger@usace.army.mil>; Maas, Ken -FS <kmaas@fs.fed.us>; Wetmore, Cynthia <Wetmore.Cynthia@epa.gov>; Hillenbrand, John <Hillenbrand.John@epa.gov>; Doug Carey <douglas.carey@waterboards.ca.gov>; Weber, Craig L <Craig.Weber@amecfw.com>; Dionne, Marc E <Marc.Dionne@amecfw.com>; Jefferson, Jill <Jill.Jefferson@amecfw.com>; Grant Ohland - (gohland@ohlandhydrogeo.com) <gohland@ohlandhydrogeo.com>; Starr, Robert <Robert.Starr@amecfw.com>; Lambeth, Gregory <Gregory.Lambeth@amecfw.com>
Subject: RE: Leviathan Mine - 9 am to 4 All day Meeting May 23rd AMEC

Lynda,

Atlantic Richfield received your proposed agendas for the morning and afternoon meeting sessions on May 23. The morning meeting was scheduled in response to a comment from the Forest Service on Atlantic Richfield's March 3, 2017 letter regarding the RI/FS schedule. The Forest Service requested that U.S. EPA convene a technical discussion to generate ideas to be considered in the Feasibility Study. They wanted to make sure certain technology types and process options are being considered. Atlantic Richfield agrees that this type of technical discussion is productive. We have been engaged in preliminary screening of technologies and remedial alternatives for some time as part of the ongoing development of the Feasibility Study. Your proposed agenda for the morning meeting on May 23 generally looks fine as a starting point for these discussions although some of the topics appear to be more suited for pre-planning the FS and don't recognize the substantial progress already made on the Feasibility Study. Atlantic Richfield has progressed to the point of identifying proposed remedial action objectives and general response actions, performing some initial screening of remedial alternatives, and assembling a set of prototype remedial alternatives all in accordance with the NCP process. We think it would be a more effective use of everyone's time to review some of that work-in-progress, rather than simply discuss general site-wide considerations, current conditions and remedy questions, as proposed in your draft agenda. This type of review and discussion would likely consume most or all of a half-day meeting, and it could easily spill over into an afternoon session.

We don't think that devoting an afternoon meeting to the two topics proposed in your May 1 email – Perimeter Wells and Geotechnical Investigations – are appropriate at this time. Fully validated results from the 2016 groundwater sampling in the perimeter wells are not yet available or have not yet been fully analyzed. Therefore, the proposed discussion is premature and would be incomplete. One exception pertains to the evaluation of results for perimeter drilling locations LOC-39 and LOC-40. Atlantic Richfield submitted a technical memo summarizing those results on May 1, 2017, in which we explain why the two monitoring wells installed at these locations in 2016 (MW-48 and MW-49) fully satisfy the objectives set forth in the 2016 Drilling Work Plan. We conclude that additional monitoring wells are not needed to support the characterization of potential groundwater impacts in the Aspen Creek Study Area. If time permits on May 23, we recommend that the U.S. EPA be prepared to discuss its response to this technical memorandum.

Similarly, there are few results available from the 2016 commencement of the Geotechnical Focused Feasibility Study to discuss on May 23. This is one reason why Atlantic Richfield has said it does not plan to submit an interim (90-day) data report summarizing the results of the geotechnical evaluation. On February 9, 2017, Atlantic

Richfield provided the U.S. EPA with a comprehensive set of responses to its comments on the Focused Feasibility Study Geotechnical Evaluation TSAP. Those responses explain in detail Atlantic Richfield's rationale for selecting the proposed scope for the TSAP and why certain data collection efforts were not included. Again if time permits on May 23, we recommend that the U.S. EPA be prepared to discuss its response to Atlantic Richfield's February 9 submittal and provide any additional direction necessary to ensure timely and efficient progress on the proposed geotechnical investigations in 2017.

Lastly, Atlantic Richfield submitted its FFS Work Plan for Evaluation of Remedial Technologies for Leviathan Creek Beaver Dam/Pond Complex on March 21, 2017. We understand that the U.S. EPA verbally approved the work plan and has authorized Atlantic Richfield to proceed with field-work planning and implementation. Given the level of effort associated with this task and the need to begin work as soon as site conditions allow, Atlantic Richfield would appreciate hearing if the U.S. EPA has any more specific comments or direction to offer on the implementation of this work plan. Perhaps we could devote a portion of the May 23 afternoon session to this topic as well.

We have generalized the above thoughts into the following agenda items:

- Current Site Status related to FS initiatives
- General Response Actions and Technologies for Consideration
- Evaluation of Technical Results at Perimeter Drilling Locations LOC-39 and LOC-40 (May 1, 2017) - discussion of EPA comments
- Geotechnical Focused Feasibility Study - discussion of EPA response to Atlantic Richfield's February 9, 2017 response to comments
- FFS Work Plan for Evaluation of Remedial Technologies for the Leviathan Creek Beaver Dam/Pond Complex (March 21, 2017) – discussion of EPA comments.

Should you have any questions or comments please contact Tony Brown at (657) 529-4537 or anthony.brown@bp.com.

Thanks,

Marc

Marc R. Lombardi, CEM, PG

Principal Geologist / Office Manager, Environment & Infrastructure Americas, Amec Foster Wheeler

10940 White Rock Road, Suite 190, Rancho Cordova, CA 95670, USA

D (916) 853-8903 M (916) 302-6326

marc.lombardi@amecfw.com amecfw.com

From: Deschambault, Lynda [mailto:Deschambault.Lynda@epa.gov]
Sent: Monday, May 01, 2017 1:54 PM
To: Brown, Anthony R (RM) <anthony.brown@bp.com>
Cc: Greg Reller <gr@burlesonconsulting.com>; Cory Koger <Cory.S.Koger@usace.army.mil>; Deschambault, Lynda <Deschambault.Lynda@epa.gov>; Maas, Ken -FS <kmaas@fs.fed.us>; Lombardi, Marc <Marc.Lombardi@amecfw.com>; Wetmore, Cynthia <Wetmore.Cynthia@epa.gov>; Hillenbrand, John <Hillenbrand.John@epa.gov>; Doug Carey <douglas.carey@waterboards.ca.gov>
Subject: FW: Leviathan Mine - 9 am to 4 All day Meeting May 23rd AMEC

Tony/ Marc

You have our draft proposed agenda for the am 9 to 12.

Here is our draft proposed agenda for the afternoon portion of our May 23rd meeting at AMEC:

Perimeter Wells:

Review original purpose for the wells

ARC Summarize all wells installed to date

ARC Summarize all information from the installed perimeter wells

ARC review 2017 installed wells; and assess need for shallow wells.

Recommendation for 2017 Drilling based on this information

Geotechnical Investigations

Scope of Geotechnical work for the RIFS (ponds construction; landslide; wall stability)

Planned Modeling and anticipated information inputs for the FS

Is there a need for additional geotechnical data gathering

History and Recent observations at the site

Implications of these observations for the broader FS

Look forward to another productive meeting!

Best Regards,

Lynda Deschambault

Environmental Scientist

USEPA Region 09

(415) 947-4183

Please be advised I may have limited access to email , therefore please be patient with any communication delays.

From: Brown, Anthony R (RM) [mailto:anthony.brown@bp.com]
Sent: Wednesday, April 12, 2017 4:00 PM
To: Deschambault, Lynda <Deschambault.Lynda@epa.gov>; Maas, Ken -FS <kmaas@fs.fed.us>; Carey, Douglas@Waterboards <douglas.carey@waterboards.ca.gov>; Lombardi, Marc <Marc.Lombardi@amecfw.com>
Cc: Greg Reller <gr@burlesonconsulting.com>; Cory Koger <Cory.S.Koger@usace.army.mil>
Subject: RE: Leviathan Mine - 9 am to noon Meeting to Discuss FS March 23rd

Hi Lynda, yes Sacramento AMEC on May 23rd is fine. Await Marc's return later this week regarding the request for the other items… Thanks… Tony…

From: Deschambault, Lynda [mailto:Deschambault.Lynda@epa.gov]
Sent: Wednesday, April 12, 2017 3:49 PM
To: Maas, Ken -FS; Carey, Douglas@Waterboards; Lombardi, Marc
Cc: Brown, Anthony R (RM); Greg Reller; Cory Koger
Subject: RE: Leviathan Mine - 9 am to noon Meeting to Discuss FS March 23rd

Great,

Tony, working with the Forest Service---here is our DRAFT proposed agenda for the morning (9 to noon)

Please confirm AMEC location is good meeting spot?

And let's develop a proposed agenda for the afternoon session (1 to 4pm)

Best Regards,

Lynda Deschambault

Environmental Scientist

USEPA Region 09

(415) 947-4183

Please be advised I may have limited access to email , therefore please be patient with any communication delays.

From: Maas, Ken -FS [mailto:kmaas@fs.fed.us]
Sent: Wednesday, April 12, 2017 12:19 PM
To: Deschambault, Lynda <Deschambault.Lynda@epa.gov>; Carey, Douglas@Waterboards <douglas.carey@waterboards.ca.gov>; Lombardi, Marc <Marc.Lombardi@amecfw.com>
Cc: Brown, Anthony R (RM) <anthony.brown@bp.com>; Greg Reller <gr@burlesonconsulting.com>; Cory Koger <Cory.S.Koger@usace.army.mil>
Subject: RE: Leviathan Mine - 1/2 Day Meeting to Discuss FS

I can make the 23rd work!!

Kenneth Maas
On Scene Coordinator

Safety Officer
Forest Service

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From: Deschambault, Lynda [mailto:Deschambault.Lynda@epa.gov]
Sent: Wednesday, April 12, 2017 11:58 AM
To: Carey, Douglas@Waterboards <douglas.carey@waterboards.ca.gov>; Maas, Ken -FS <kmaas@fs.fed.us>; Lombardi, Marc <Marc.Lombardi@amecfw.com>
Cc: Brown, Anthony R (RM) <anthony.brown@bp.com>; Greg Reller <gr@burlesonconsulting.com>; Cory Koger <Cory.S.Koger@usace.army.mil>
Subject: RE: Leviathan Mine - 1/2 Day Meeting to Discuss FS

I left a message for Ken--- the 23rd works for EPA

Let's make that work and could we hold it at the AMEC office 9 to noon? That would be halfway for Ken.

That should be plenty of time for a robust FS discussion. We'll put together our proposed agenda and send over to you.

And let's also review and reconcile EPA previous comments on the FS discussion and I look forward to a productive meeting.

please also let's use the 2nd half of the day (1 to 4p) to meet and discuss on other technical topics, I.e. groundwater and need for additional wells. EPA originally requested April or Early May, since we are pushing this meeting time back some—I

am optimistic we can make that work.

Lynda

From: Carey, Douglas@Waterboards [mailto:douglas.carey@waterboards.ca.gov]
Sent: Wednesday, April 12, 2017 10:56 AM
To: Deschambault, Lynda <Deschambault.Lynda@epa.gov>; Maas, Ken -FS <kmaas@fs.fed.us>; Lombardi, Marc <Marc.Lombardi@amecfw.com>
Cc: Brown, Anthony R (RM) <anthony.brown@bp.com>; Greg Reller <gr@burlesonconsulting.com>
Subject: RE: Leviathan Mine - 1/2 Day Meeting to Discuss FS

May 23 can work for Waterboard staff.

Douglas Carey, P.G.

Senior Engineering Geologist

Leviathan Mine

Regional Water Quality Control Board, Lahontan Region

2501 Lake Tahoe Blvd.

South Lake Tahoe, CA 96150

(530) 542-5468

douglas.carey@waterboards.ca.gov

From: Deschambault, Lynda [mailto:Deschambault.Lynda@epa.gov]
Sent: Wednesday, April 12, 2017 9:52 AM
To: Maas, Ken -FS; Lombardi, Marc; Carey, Douglas@Waterboards
Cc: Brown, Anthony R (RM); Greg Reller
Subject: RE: Leviathan Mine - 1/2 Day Meeting to Discuss FS

Thanks for getting back to us Ken.

EPA suggested May 16 or 18th? How do either of those work?

I am generally available the week of May 22nd as well.

From: Maas, Ken -FS [mailto:kmaas@fs.fed.us]
Sent: Tuesday, April 11, 2017 12:14 PM
To: Lombardi, Marc <Marc.Lombardi@amecfw.com>; Deschambault, Lynda <Deschambault.Lynda@epa.gov>; DCarey@waterboards.ca.gov
Cc: Brown, Anthony R (RM) <anthony.brown@bp.com>; Greg Reller <gr@burlesonconsulting.com>
Subject: RE: Leviathan Mine - 1/2 Day Meeting to Discuss FS

Neither of those dates work for me.

Kenneth Maas
On Scene Coordinator

Safety Officer
Forest Service

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f: 775-355-5399

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From: Lombardi, Marc [mailto:Marc.Lombardi@amecfw.com]
Sent: Tuesday, April 11, 2017 8:12 AM
To: Lynda Deschambault (deschambault.lynda@epa.gov) <deschambault.lynda@epa.gov>; Maas, Ken -FS <kmaas@fs.fed.us>; DCarey@waterboards.ca.gov
Cc: Brown, Anthony R (RM) <anthony.brown@bp.com>; Greg Reller <gr@burlesonconsulting.com>
Subject: Leviathan Mine - 1/2 Day Meeting to Discuss FS
Importance: High

Lynda / Ken / Doug,

Atlantic Richfield is following up requests by the EPA and Forest Service to have a ½-day meeting to discuss the Leviathan Mine FS. We are working on coordinating everyone's availability for a meeting to be held at the Amec Foster Wheeler Office in Sacramento.

The two first dates that work for the Atlantic Richfield team are May 31 or June 1.

Please let me know if either of those dates would work with your schedules. Once we find a date that works for all I will send out a save the date MS Outlook meeting request.

Thanks,

Marc

Marc R. Lombardi, CEM, PG

Principal Geologist / Office Manager, Environment & Infrastructure Americas, Amec Foster Wheeler

10940 White Rock Road, Suite 190, Rancho Cordova, CA 95670, USA

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amec foster wheeler

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