To: Rodriguez, Dante[Rodriguez.Dante@epa.gov]; Dietrick McGinnis[dmcginnis@mcginnisandassociates.com]
Cc: Moody, Brett[Moody.Brett@epa.gov]
From: Sturges, Susan
Sent: Thur 1/5/2017 5:36:25 PM
Subject: Yerington Anaconda Mine equipment rinsates and quantitation limits? - FW: Region 9 New Modified Analysis Request for ICP-MS - Anaconda Mine

Dietrick and Dante –

Could you please verify if equipment blank rinsates will also be collected along with the soils for this Yerington / Anaconda event and approximate how many you would collect? If so, we need to schedule with the CLP case and also include a water matrix for the Modified Analysis.

If we are including rinsates, we need to have a water matrix also included in the MA and identify a quantitation limit for water samples for the additional analytes (B, Mo, U, and Th).

To keep it simple for the rinsate samples, we can use the SOW CRQLs for the CLP routine list of 22 analytes (see https://www.epa.gov/clp/inorganic-analytical-service-within-superfund-contract-laboratory-program for limits). What quantitation limits would you like to use for Th, U, B, and Mo? Brett suggests 100 ug/L for B and 10 ug/L for Mo, which have been used successfully in other MAs. What would you like for Th and U?

Thank you.

Susan Sturges

Regional Sample Control Coordinator

U.S EPA Region 9 Laboratory

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http://www.epa.gov/region9/lab/

From: Sturges, Susan
Sent: Wednesday, January 04, 2017 5:06 PM
To: Moody, Brett <Moody.Brett@epa.gov>
Subject: FW: Region 9 New Modified Analysis Request for ICP-MS - Anaconda Mine

Brett –

As you noticed in the email I copied to you, Region 9 is pursuing PE samples for the Anaconda Mine event and has solidified the quantitation limits for the ICP-MS analytes for the MA. It's the end of the day and I'll put in the analytical request tomorrow morning so you'll have additional information. The analytical request will be for the entire suite of CLP analytes for metals (soils and rinsates) with the four additional analytes we discussed, so the case will include ICP-MS (with MA) and ICP. They also want soils pH, so please let me know if I have to do something special for the analytical request or MA to have the lab report for it.

In summary, the Region requests an MA for ICP-MS for the full suite of analytes at the contract required quantitation limits with the following exceptions below for Be and Se. We also ask to add analytes B, Mo, Th, and U. The MA should cover soils and water (at suitable quantitation limits for rinsates only).

ICP-MS with reduced quantitation limits for:

- Be at 0.1 mg/kg (soils), and
- Se at 0.5 mg/kg (soils).

ICP-MS MA adding the following analytes:

- Mo at 0.5 mg/kg (soils),
- U at 1.0 mg/kg (soils),
- Th at 1.0 mg/kg (soils), and
- B at 5.0 mg/kg (soils).

Thanks for all of your help, Brett!

Susan Sturges

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From: McNaughton, Eugenia
Sent: Wednesday, January 04, 2017 1:02 PM
To: Sturges, Susan <Sturges.Susan@epa.gov>; Freitas, Richard <Freitas.Richard@epa.gov>; Rodriguez, Dante <Rodriguez.Dante@epa.gov>
Subject: RE: Region 9 New Modified Analysis Request for ICP-MS - Anaconda Mine

Hi Susan et al.,

I just spoke with Theresa Presser (USGS), with whom we have been working on selenium issues for a very long time. She thinks that 0.5mg/kg should be achievable (and is environmentally protective).

Eugenia

From: Sturges, Susan
Sent: Wednesday, January 04, 2017 10:56 AM
To: Freitas, Richard <Freitas.Richard@epa.gov>; McNaughton, Eugenia <McNaughton.Eugenia@epa.gov>; Rodriguez, Dante <Rodriguez.Dante@epa.gov>
Subject: RE: Region 9 New Modified Analysis Request for ICP-MS - Anaconda Mine

Good morning, Dante, Eugenia, and Rich.

Checking in. Have we decided on the selenium quantitation limit for the Yerington/Anaconda Mine event to include in the CLP MA? 0.2, 0.5, or 1.0 mg/kg?

Also, have we decided to pursue a PE for the metals?

I do need to get back to Analytical Services Branch regarding the MA so they can begin to draft it and solicit for lab bids and also need to enter the analytical request entered in the Sample Management Office Portal.

Thank you everyone for the coordination.

Susan Sturges

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From: Sturges, Susan
Sent: Tuesday, January 03, 2017 2:13 PM
To: 'Dietrick McGinnis' <dmcginnis@mcginnisandassociates.com>
Subject: RE: Region 9 New Modified Analysis Request for ICP-MS - Anaconda Mine

Thank you, Dietrick. I know Eugenia from QA was reaching out to Dante about the PE sample and selenium, so just waiting to hear back.

Susan Sturges

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From: Dietrick McGinnis [mailto:dmcginnis@mcginnisandassociates.com]
Sent: Tuesday, January 03, 2017 11:30 AM
To: Sturges, Susan <Sturges.Susan@epa.gov>; Rodriguez, Dante <Rodriguez.Dante@epa.gov>
Cc: Freitas, Richard <Freitas.Richard@epa.gov>; McNaughton, Eugenia <McNaughton.Eugenia@epa.gov>
Subject: RE: Region 9 New Modified Analysis Request for ICP-MS - Anaconda Mine

Those will work but Selenium is important to get as low as we can. It would be best at 0.2 but we can bump it up to 0.5 if we have to…a lot of the historical data is 0.5 to 2 though and those levels can be important to our use of the data.

Dietrick

Dietrick McGinnis PhD PE CEM

McGinnis & Associates

65 Regency Way, Suite C, Reno, NV 89509

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From: Sturges, Susan [mailto:Sturges.Susan@epa.gov]
Sent: Tuesday, January 03, 2017 11:01 AM
To: Rodriguez, Dante <Rodriguez.Dante@epa.gov>; Dietrick McGinnis <dmcginnis@mcginnisandassociates.com>
Cc: Freitas, Richard <Freitas.Richard@epa.gov>; McNaughton, Eugenia <McNaughton.Eugenia@epa.gov>
Subject: FW: Region 9 New Modified Analysis Request for ICP-MS - Anaconda Mine

Happy New Year.

Dante and Dietrick –

Checking in on a response regarding whether the metals CLP quantitation limits are acceptable that I shared last week from the CLP Analytical Services Branch. The CLP Inorganic Program Manager was on vacation and mentions below that we may have more success with CLP labs bidding on this Yerington/Anaconda Mine Modified Analysis if the selenium quantitation limit is not so low (0.2 mg/kg) and suggests bumping it up to 1 mg/kg (with an MDL of 0.5 mg/kg or lower). Let me know if you would like to use 1 mg/kg or if you would like to maintain 0.2 mg/kg and see if labs accept the bid.

As a summary, we are able to draft a CLP modified analysis for your metals with the following reporting limits:

- Be at 0.1 mg/kg,

- Se at 0.2 mg/kg (it's been done in the past and we can solicit for it, but ASB mentions below that they have had situations where CLP labs do not bid on MAs due to the low quantitation limit of 0.2 mg/kg. Headquarters recommends bumping up the quantitation limit to 1.0 mg/kg)

- Mo at 0.5 mg/kg, and

- U at 1.0 mg/kg.

- Thorium is likely not an issue if the CLP lab has the standards, so we can solicit for it (we can ask for 1.0 mg/kg since this is your preference).

- B at 5.0 mg/kg (Is this acceptable? Dietrick, your last email asked for 3.0 mg/kg).

Please let us know how you would like to proceed.

Eugenia, Rich, Dante, and Dietrick –

The CLP Inorganic Program Manager highly recommends including a PE sample (external QA sample) with this Yerington Anaconda CLP case since the metals analyses adds analytes (B, Mo, U, and Th) that are not included in the CLP Statement of Work. Is this something you would like to pursue for this sampling event?

Susan Sturges

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From: Moody, Brett
Sent: Tuesday, January 03, 2017 5:47 AM
To: Sturges, Susan <Sturges.Susan@epa.gov>; Appleby, Charlie <Appleby.Charlie@epa.gov>
Subject: RE: Region 9 New Modified Analysis Request for ICP-MS - Anaconda Mine

Hey Susan,

Happy New Year! In addition to what Charlie has stated below, after reviewing the list of quantitation limits, selenium is really low to the point where the solicitation may not get any quotes. I would like to propose increasing the CRQL of Se from 0.2 mg/kg to 1.0 mg/kg (this would mean that the labs would have an MDL of 0.5 mg/kg or lower). If you have enough time before sample collection, you could leave it at the current CRQL of 0.2 mg/kg and we could

adjust it afterwards if no quotes were provided but that would take up to an extra week after initially receiving no quotes. Selenium has caused this issue a couple of times this past year; increasing the CRQL to 1.0 mg/kg will likely avoid it.

Please let ASB know if this is acceptable/not acceptable – along with the Boron modification.

Since this solicitation includes additional analytes not covered by the SOW (B, U, Mo, and Th), I would also highly recommend including a PE sample with this Case. This would be an excellent way to bolster the quality of the data. Charlie Appleby (current QATS COR) and I can assist with this if you're interested. It would be pretty easy though as we've done this before – the PE sample could be sent to R9 and included with the Field Samples (double blind) or QATS could send it directly to the lab (less hassle but the lab knows what it is). This would depend on how soon the samples are being collected and shipped but since the MA has not been approved yet by the Region (to my knowledge at least), I feel there is enough time. If you're interested in this, please let me know and I can help answer any and all questions.

Thanks so much,

Brett Moody

OLEM/OSRTI/TIFSD/Analytical Services Branch

CLP Inorganic Program Manager

Work: 703.603.9903/Cell: 571.289.8244

From: Sturges, Susan
Sent: Thursday, December 29, 2016 8:05 PM
To: Appleby, Charlie <Appleby.Charlie@epa.gov>
Cc: Moody, Brett <Moody.Brett@epa.gov>
Subject: RE: Region 9 New Modified Analysis Request for ICP-MS - Anaconda Mine

Thanks, Charlie. I'll check with the project contact and get back to you.

Susan Sturges

Regional Sample Control Coordinator

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From: Appleby, Charlie
Sent: Thursday, December 29, 2016 2:46 PM
To: Sturges, Susan <Sturges.Susan@epa.gov>
Cc: Moody, Brett <Moody.Brett@epa.gov>
Subject: RE: Region 9 New Modified Analysis Request for ICP-MS - Anaconda Mine

Susan,

Please find the status of appropriate MAs for your project, below, and let me know what questions you have.

Charlie Appleby

Analytical Services Branch

OLEM/OSRTI/TIFSD

(703) 347-0266 (Potomac Yard)

(703) 405-0057 (Mobile)

(706) 355-8555 (Athens)

From: Mayo, Alfred N [mailto:Alfred.Mayo@csra.com]
Sent: Thursday, December 29, 2016 8:16 AM
To: Appleby, Charlie <Appleby.Charlie@epa.gov>; Jarosz, Margaret T <Margaret.Jarosz@csra.com>; Moody, Brett <Moody.Brett@epa.gov>
Cc: Perkins, Nazy M <Nazy.Perkins@csra.com>
Subject: RE: Region 9 New Modified Analysis Request for ICP-MS - Anaconda Mine

Good Morning Charlie:

We have had modified analyses for Be at 0.1 mg/kg, Se at 0.2 mg/kg, and Mo at 0.5 mg/kg (MA 2535.1), as well as for U at 1.0 mg/kg (MA 2459.1). The lowest level I have found for Boron by ICP-MS so far is 5.0 mg/kg (MA 2570.0). Would this level be acceptable to the Region? The Boron MA does include the standard language to avoid the use of borosilicate glassware for sample preparation.

I have not yet located any previous MA's for Thorium. To the best of my knowledge, if a lab has the standards it should not be a problem to analyze.

Alfred Mayo

Senior Research Scientist

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From: Appleby, Charlie [mailto:Appleby.Charlie@epa.gov]
Sent: Wednesday, December 28, 2016 5:47 PM
To: Jarosz, Margaret T <Margaret.Jarosz@csra.com>; Moody, Brett <Moody.Brett@epa.gov>
Cc: Mayo, Alfred N <Alfred.Mayo@csra.com>
Subject: FW: Region 9 New Modified Analysis Request for ICP-MS - Anaconda Mine

Margaret,

Please look at this request and give me some feedback vis-à-vis Susan's questions.

Thanks,

Charlie Appleby

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From: Sturges, Susan
Sent: Wednesday, December 28, 2016 5:16 PM
To: Moody, Brett <Moody.Brett@epa.gov>; Appleby, Charlie <Appleby.Charlie@epa.gov>
Cc: R9RSCC <R9RSCC@epa.gov>
Subject: Region 9 New Modified Analysis Request for ICP-MS - Anaconda Mine

Hi Brett (and Charlie – Brett has an out of office until Jan 3rd).

Region 9 has an upcoming Anaconda Mine Superfund analytical request (21 day TAT) for about 80 soils/sediments for metals analysis (ICP and ICP-MS) that will occur in sometime in January (dates not set yet).

Part of the request includes standard CRQLs for ICP-MS, with the following exceptions requiring a modified analysis:

1) Reduced quantitation limits for:

- Beryllium at 0.1 mg/kg

- Selenium at 0.2 mg/kg

2) Adding the following analytes:

- Boron at quantitation limit 3 mg/kg

- Molybdenum at quantitation limit 0.5 mg/kg

- Thorium at quantitation limit 1 mg/kg (1 is preferred, but 5 mg/kg falls in the lower end of expected results if 1 is not doable).

- Uranium at quantitation limit 1 mg/kg

Are these reduced quantitation limits and additional analytes available for ICP-MS through the CLP by a new MA? What is the likelihood of labs bidding on the request?

Thank you. Hope you're having a great holiday season!

Susan Sturges

Regional Sample Control Coordinator

U.S EPA Region 9 Laboratory

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