

X-Ray Fluorescence Calibration

Calibration Name

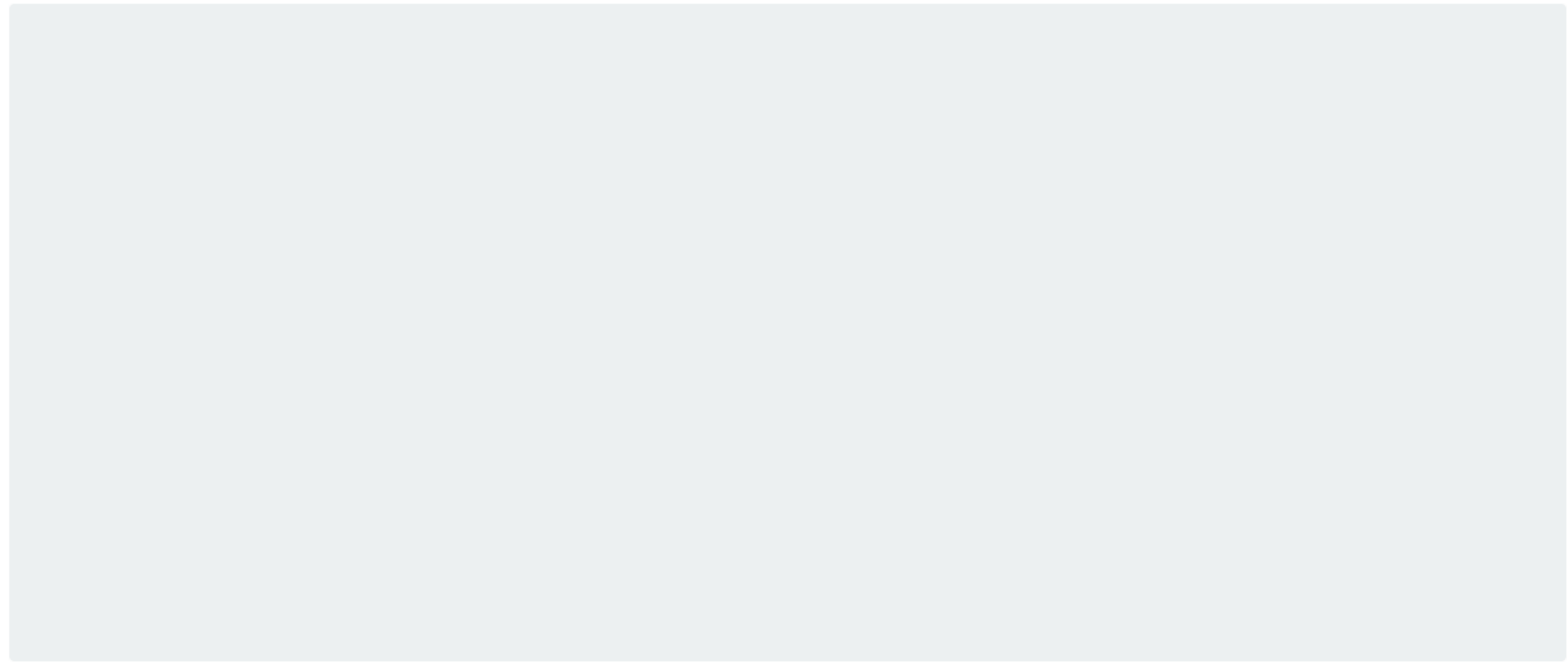
Choose Spectra
 No file selected

Spectra
 Net

Element:

Load Cal File
 No file selected

Use Cal File



X-Ray Fluorescence Calibration

Calibration Name

Process Data **Plot Spectrum** **Plot**

Choose Spectra
Browse... No file selected

Spectra
 Net

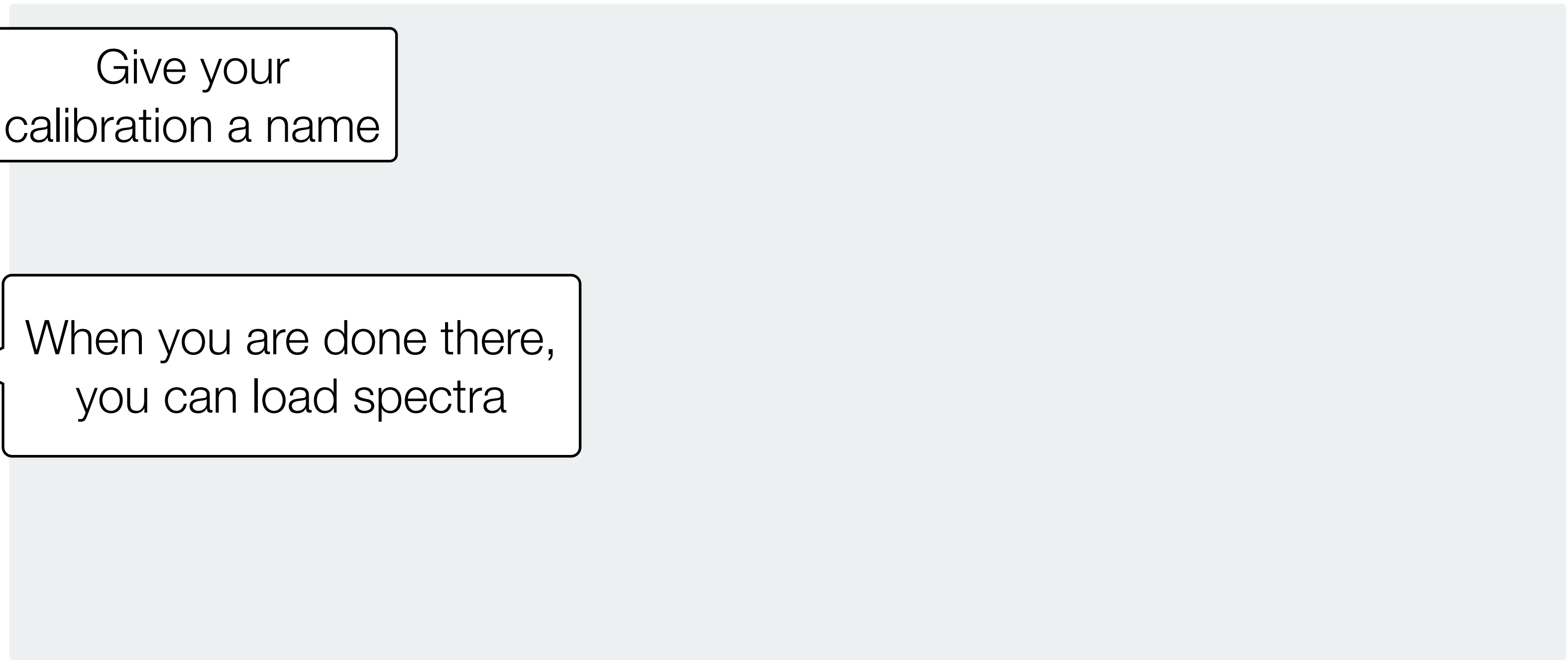
Element:

Load Cal File
Browse... No file selected

Use Cal File

Give your calibration a name

When you are done there, you can load spectra



CloudCal

127.0.0.1:3315

CloudCal Spectrum Counts Add Concentrations Cal Curves Apply Cal

X-Ray Fluorescence Calibration

Calibration Name

Process Data Plot Spectrum Plot

Choose Spectra

Browse... No file selected

Spectra
 Net

Element:

Load Cal File

Browse... No file selected

Use Cal File

Obsidian 1716

mycal.quant
netcal.quant
netPlantLight4352.quant
Nevada Formatted.numbers
Obsidian 1716
PDZ24
Pompey_the_Great.jpg
Quote XRF-17-01.pdf
Regina Raul
Robins
RSP15B_Depth_Sr-Ca.jpg
RSP15B_Depth_Sr-Ca.tiff
Screen Shot 7 14 PM.png

OB40Archibarca35.CSV
OB40Archibarca35.pdz
OB40Basalti...lateau20.CSV
OB40Basaltic_Plateau20.pdz
OB40Big_So..._Butte06.CSV
OB40Big_So..._Butte06.pdz
OB40Blue_Mountain04.CSV
OB40Blue_Mountain04.pdz
OB40Burns_Green15.CSV
OB40Burns_Green15.pdz
OB40Cannonball1_22.CSV
OB40Cannonball1_22.pdz
OB40Casa_Diablo10.CSV

Format: Custom Files

Options Cancel Open

Select your spectra in the pop-up window

Currently, you can use .csv files produced from S1PXRF, or Net count data from Artax as .csv files

X-Ray Fluorescence Calibration

Calibration Name

Choose Spectra
 40 files
Upload complete

Spectra
 Net

Element:

Load Cal File
 No file selected

Use Cal File

When spectra are done uploading, you will be notified here

X-Ray Fluorescence Calibration

Calibration Name
Obsidian

Process Data Next, click 'Process Data'

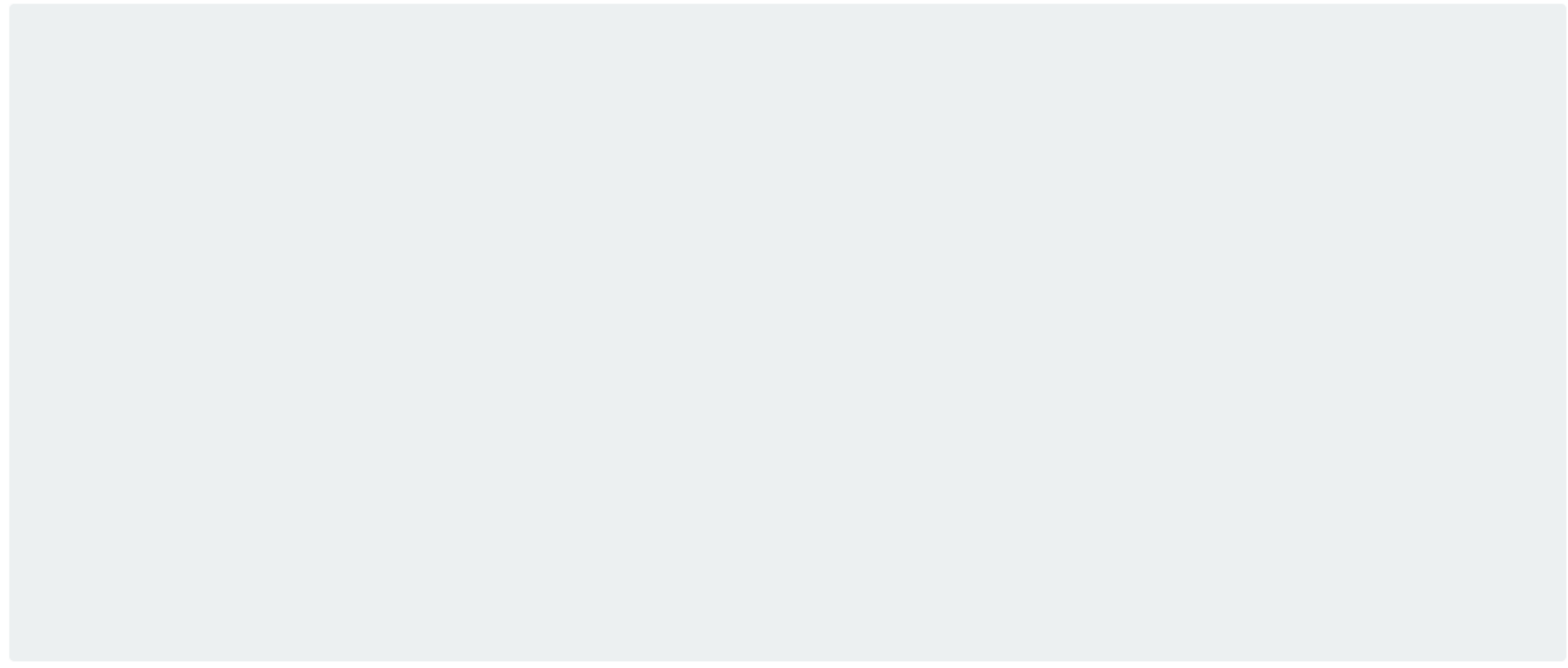
Choose Spectra
Browse... 40 files
Upload complete

Spectra
 Net

Element:
(Fe) Iron

Load Cal File
Browse... No file selected

Use Cal File



X-Ray Fluoro

When you are done, you can go to 'Counts' to select element lines

Calibration Name
Obsidian

Process Data Plot Spectrum Plot

Choose Spectra
Browse... 40 files

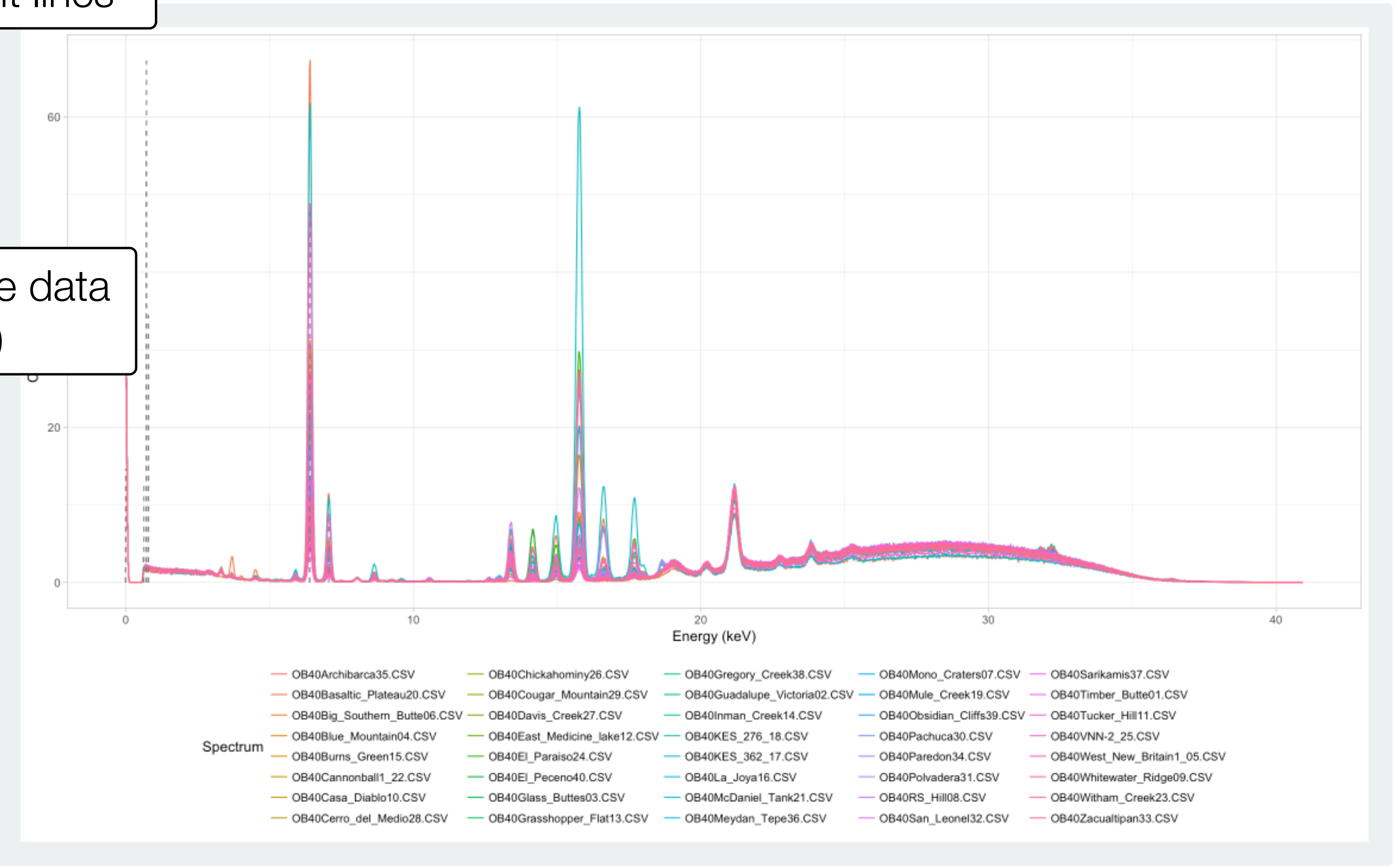
Spectra Net

Element:
(Fe) Iron

Load Cal File
Browse... No file selected

Use Cal File

Click 'Plot Spectrum' to see data (Only for spectra files)



Confirm Elements Table

Elemental lines to show:

- Ne.K.alpha
- Ne.K.beta
- Na.K.alpha
- Na.K.beta
- Mg.K.alpha
- Mg.K.beta
- Al.K.alpha
- Al.K.beta
- Si.K.alpha
- Si.K.beta
- P.K.alpha
- P.K.beta
- S.K.alpha
- S.K.beta
- Cl.K.alpha
- Cl.K.beta
- Ar.K.alpha
- Ar.K.beta
- K.K.alpha
- K.K.beta
- Ca.K.alpha
- Ca.K.beta
- Sc.K.alpha
- Sc.K.beta
- Ti.K.alpha
- Ti.K.beta
- V.K.alpha
- V.K.beta
- Cr.K.alpha
- Cr.K.beta
- Mn.K.alpha

Spectral Lines

Show 10 entries

Search:

	Ca.K.alpha	Ti.K.alpha	Fe.K.alpha	Cu.K.alpha	Zn.K.alpha	Pb.L.alpha
1	3	1	27	2	1	2
2	6	3	194	2	2	1
3	2	1	38	2	4	3
4	1	1	90	2	3	1
5	1	1	57	2	2	2
6	1	1	75	2	3	2
7	2	1	29	2	1	2
8	1	1	23	2	1	2
9	2	1	37	2	1	2
10	2	1	26	2	2	1

Showing 1 to 10 of 40 entries

Previous 1 2 3 4 Next

Choose your spectra in the panel to the left

Counts per second for element lines will appear here

- Cr.K.alpha
- Cr.K.beta
- Mn.K.alpha
- Mn.K.beta
- Fe.K.alpha
- Fe.K.beta
- Co.K.alpha
- Co.K.beta
- Ni.K.alpha
- Ni.K.beta
- Cu.K.alpha
- Cu.K.beta
- Zn.K.alpha
- Zn.K.beta
- Ga.K.alpha
- Ga.K.beta
- Ge.K.alpha
- Ge.K.beta
- As.K.alpha
- As.K.beta
- Se.K.alpha
- Se.K.beta
- Br.K.alpha
- Br.K.beta
- Kr.K.alpha
- Kr.K.beta
- Rb.K.alpha
- Rb.K.beta
- Sr.K.alpha
- Sr.K.beta
- Y.K.beta
- Y.K.alpha
- Zr.K.alpha
- Zr.K.beta
- Nb.K.alpha
- Nb.K.beta
- Mo.K.alpha
- Mo.K.beta
- Mo.L.alpha

Here, you don't need to have concentrations for all elements - you can check some if you only want to use them for corrections (e.g. correct As K-alpha by Pb L-beta)

You will need to scroll down - all possible lines are listed here

Confirm Elements Table

When you are done, click 'Confirm Elements'

- Na.K.alpha
- Mg.K.alpha
- Mg.K.beta
- Al.K.alpha
- Al.K.beta
- Si.K.alpha
- Si.K.beta
- P.K.alpha
- P.K.beta
- S.K.alpha
- S.K.beta
- Cl.K.alpha
- Cl.K.beta
- Ar.K.alpha
- Ar.K.beta
- K.K.alpha
- K.K.beta
- Ca.K.alpha
- Ca.K.beta
- Sc.K.alpha
- Sc.K.beta
- Ti.K.alpha
- Ti.K.beta
- V.K.alpha
- V.K.beta
- Cr.K.alpha
- Cr.K.beta
- Mn.K.alpha

Spectral Lines

Show 10 entries

Search:

	K.K.alpha	Ca.K.alpha	Ti.K.alpha	Mn.K.alpha	Fe.K.alpha	Cu.K.alpha	Zn.K.alpha	Ga.K.alpha	As.K.alpha	Rb.K.alpha	Sr.K.alpha	Y.K.alpha
1	3	3	1	2	27	2	1	1	1	11	38	
2	2	6	3	3	194	2	2	1	0	1	25	
3	4	2	1	1	38	2	4	1	2	26	1	
4	3	1	1	4	90	2	3	1	1	5	1	
5	3	1	1	2	57	2	2	1	1	10	1	
6	3	1	1	1	75	2	3	1	2	31	1	
7	4	2	1	1	29	2	1	1	1	14	13	
8	3	1	1	1	23	2	1	1	1	15	1	
9	3	2	1	1	37	2	1	1	2	10	3	
10	3	2	1	1	26	2	2	1	1	9	4	

Showing 1 to 10 of 40 entries

Previous 1 2 3 4 Next

Enter Values

Enter Concentrations

	Spectrum	K.K.alpha	Ca.K.alpha	Ti.K.alpha	Mn.K.alpha	Fe.K.alpha	Co.K.alpha	Cu.K.alpha	Zn.K.alpha	Ga.K.alpha	As.K.alpha	Rb.K.alpha	Sr.K.alpha	Y.K.alpha
1	OB40Archibarca35.CSV	3.17	1.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	OB40Basaltic_Plateau20.CSV	0.20	4.99	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	OB40Big_Southern_Butte06.CSV	4.06	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	OB40Blue_Mountain04.CSV	2.77	0.10	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	OB40Burns_Green15.CSV	3.50	0.13	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	OB40Cannonball1_22.CSV	3.68	0.18	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	OB40Casa_Diablo10.CSV	3.98	0.61	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	OB40Cerro_del_Medio28.CSV	3.64	0.25	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	OB40Chickahominy26.CSV	3.52	0.42	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	OB40Cougar_Mountain29.CSV	3.22	0.47	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	OB40Davis_Creek27.CSV	4.01	0.58	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	OB40East_Medicine_lake12.CSV	3.66	0.63	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	OB40El_Paraiso24.CSV	3.76	0.11	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	OB40El_Peceno40.CSV	3.85	0.81	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	OB40Glass_Butttes03.CSV	3.60	0.52	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	OB40Grasshopper_Flat13.CSV	3.76	0.58	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	OB40Gregory_Creek38.CSV	3.60	0.82	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	OB40Guadalupe_Victoria02.CSV	3.40	0.34	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	OB40Inman_Creek14.CSV	2.46	0.71	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	OB40KES_276_18.CSV	4.14	0.57	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	OB40KES_362_17.CSV	3.31	0.15	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	OB40La_Joya16.CSV	3.48	0.12	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	OB40McDaniel_Tank21.CSV	3.90	0.69	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	OB40Meydan_Tepe36.CSV	3.46	0.29	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	OB40Mono_Craters07.CSV	3.53	0.38	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	OB40Mule_Creek19.CSV	3.57	0.39	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	OB40Obsidian_Cliffs39.CSV	2.83	0.59	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	OB40Pachuca30.CSV	3.29	0.08	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	OB40Paredon34.CSV	3.91	0.26	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	OB40Polvadera31.CSV	3.98	0.31	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	OB40RS_Hill08.CSV	3.35	0.25	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32	OB40San_Leonel32.CSV	3.56	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
33	OB40Sarikamis37.CSV	3.92	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34	OB40Timber_Butte01.CSV	3.65	0.49	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35	OB40Tucker_Hill11.CSV	3.50	0.54	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	OB40VNN-2_25.CSV	3.02	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37	OB40West_New_Britain1_05.CSV	1.71	0.86	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

You can simply paste values from another spreadsheet here

Enter Values

Enter Concentrations

	pha	Ti.K.alpha	Mn.K.alpha	Fe.K.alpha	Co.K.alpha	Cu.K.alpha	Zn.K.alpha	Ga.K.alpha	As.K.alpha	Rb.K.alpha	Sr.K.alpha	Y.K.alpha	Zr.K.alpha	Nb.K.alpha	Pb.L.alpha	Th.L.alpha
1	1.08	0.08	0.05	0.87	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.00	0.01	0.00	0.00	0.00
2	1.99	0.78	0.11	6.85	0.00	0.00	0.01	0.00	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.00
3	0.32	0.05	0.03	1.17	0.00	0.00	0.03	0.00	0.00					0.00	0.00	0.00
4	0.10	0.12	0.16	2.74	0.00	0.00	0.02	0.00	0.00					0.00	0.00	0.00
5	0.13	0.10	0.05	1.72	0.00	0.00	0.01	0.00	0.00					0.00	0.00	0.00
6	0.18	0.10	0.05	2.33	0.00	0.00	0.02	0.00	0.00					0.00	0.00	0.00
7	0.61	0.11	0.03	0.93	0.00	0.00	0.00	0.00	0.00					0.00	0.00	0.00
8	0.25	0.05	0.04	0.71	0.00	0.00	0.01	0.00	0.00					0.00	0.00	0.00
9	0.42	0.11	0.04	1.18	0.00	0.00	0.01	0.00	0.00					0.00	0.00	0.00
10	0.47	0.03	0.03	0.81	0.00	0.00	0.01	0.00	0.00					0.00	0.00	0.00
11	0.58	0.05	0.04	0.53	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00
12	0.63	0.14	0.03	1.04	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.02	0.00	0.00	0.00
13	0.11	0.08	0.02	1.94	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.02	0.11	0.01	0.00	0.00
14	0.81	0.05	0.09	0.61	0.00	0.00	0.01	0.00	0.00	0.02	0.03	0.00	0.01	0.00	0.00	0.00
15	0.52	0.06	0.03	0.62	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00
16	0.58	0.13	0.03	0.92	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.02	0.00	0.00	0.00
17	0.82	0.02	0.07	0.65	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00
18	0.34	0.06	0.05	0.43	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00
19	0.71	0.05	0.05	1.08	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00
20	0.57	0.31	0.11	2.34	0.00	0.00	0.01	0.00	0.00	0.02	0.01	0.01	0.10	0.03	0.00	0.00
21	0.15	0.16	0.18	5.37	0.00	0.00	0.06	0.00	0.00	0.04	0.00	0.04	0.31	0.06	0.00	0.01
22	0.12	0.09	0.06	1.89	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.07	0.01	0.00	0.00
23	0.69	0.16	0.06	1.00	0.00	0.00	0.01	0.00	0.00	0.02	0.02	0.00	0.02	0.00	0.00	0.00
24	0.29	0.05	0.05	0.93	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.03	0.00	0.00	0.00
25	0.38	0.04	0.04	0.78	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	0.00
26	0.39	0.04	0.04	0.66	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	0.00
27	0.59	0.06	0.03	0.73	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00
28	0.08	0.11	0.11	1.63	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.01	0.09	0.01	0.00	0.00
29	0.26	0.08	0.04	0.85	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.00
30	0.31	0.04	0.04	0.38	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00
31	0.25	0.02	0.04	0.72	0.00	0.00	0.01	0.00	0.00	0.04	0.00	0.01	0.02	0.02	0.00	0.00
32	0.17	0.06	0.03	1.24	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.04	0.00	0.00	0.00
33	0.32	0.05	0.04	0.55	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00
34	0.49	0.03	0.08	0.37	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	0.00
35	0.54	0.03	0.05	0.47	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00
36	0.10	0.07	0.12	4.38	0.00	0.00	0.03	0.00	0.00	0.02	0.00	0.01	0.11	0.01	0.00	0.00
37	0.86	0.11	0.06	0.86	0.00	0.00	0.01	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.00

Even though data rounds to two decimal places here, the values you paste are captured

Enter Values

When the table is complete, you can click 'Enter Values'

Enter Concentrations

	pha	Ti.K.alpha	Mn.K.alpha	Fe.K.alpha	Co.K.alpha	Cu.K.alpha	Zn.K.alpha	Ga.K.alpha	As.K.alpha	Rb.K.alpha	Sr.K.alpha	Y.K.alpha	Zr.K.alpha	Nb.K.alpha	Pb.L.alpha	Th.L.alpha
1	1.08	0.08	0.05	0.87	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.00	0.01	0.00	0.00	0.00
2	1.99	0.78	0.11	6.85	0.00	0.00	0.01	0.00	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.00
3	0.32	0.05	0.03	1.17	0.00	0.00	0.03	0.00	0.00	0.03	0.00	0.02	0.03	0.03	0.00	0.00
4	0.10	0.12	0.16	2.74	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.01	0.04	0.00	0.00	0.00
5	0.13	0.10	0.05	1.72	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.06	0.00	0.00	0.00
6	0.18	0.10	0.05	2.33	0.00	0.00	0.02	0.00	0.00	0.03	0.00	0.01	0.11	0.01	0.00	0.00
7	0.61	0.11	0.03	0.93	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.02	0.00	0.00	0.00
8	0.25	0.05	0.04	0.71	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.00
9	0.42	0.11	0.04	1.18	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.03	0.00	0.00	0.00
10	0.47	0.03	0.03	0.81	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.00	0.00
11	0.58	0.05	0.04	0.53	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00
12	0.63	0.14	0.03	1.04	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.02	0.00	0.00	0.00
13	0.11	0.08	0.02	1.94	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.02	0.11	0.01	0.00	0.00
14	0.81	0.05	0.09	0.61	0.00	0.00	0.01	0.00	0.00	0.02	0.03	0.00	0.01	0.00	0.00	0.00
15	0.52	0.06	0.03	0.62	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00
16	0.58	0.13	0.03	0.92	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.02	0.00	0.00	0.00
17	0.82	0.02	0.07	0.65	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00
18	0.34	0.06	0.05	0.43	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00
19	0.71	0.05	0.05	1.08	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00
20	0.57	0.31	0.11	2.34	0.00	0.00	0.01	0.00	0.00	0.02	0.01	0.01	0.10	0.03	0.00	0.00
21	0.15	0.16	0.18	5.37	0.00	0.00	0.06	0.00	0.00	0.04	0.00	0.04	0.31	0.06	0.00	0.01
22	0.12	0.09	0.06	1.89	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.07	0.01	0.00	0.00
23	0.69	0.16	0.06	1.00	0.00	0.00	0.01	0.00	0.00	0.02	0.02	0.00	0.02	0.00	0.00	0.00
24	0.29	0.05	0.05	0.93	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.03	0.00	0.00	0.00
25	0.38	0.04	0.04	0.78	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	0.00
26	0.39	0.04	0.04	0.66	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	0.00
27	0.59	0.06	0.03	0.73	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00
28	0.08	0.11	0.11	1.63	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.01	0.09	0.01	0.00	0.00
29	0.26	0.08	0.04	0.85	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.00
30	0.31	0.04	0.04	0.38	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00
31	0.25	0.02	0.04	0.72	0.00	0.00	0.01	0.00	0.00	0.04	0.00	0.01	0.02	0.02	0.00	0.00
32	0.17	0.06	0.03	1.24	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.04	0.00	0.00	0.00
33	0.32	0.05	0.04	0.55	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00
34	0.49	0.03	0.08	0.37	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	0.00
35	0.54	0.03	0.05	0.47	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00
36	0.10	0.07	0.12	4.38	0.00	0.00	0.03	0.00	0.00	0.02	0.00	0.01	0.11	0.01	0.00	0.00
37	0.86	0.11	0.06	0.86	0.00	0.00	0.01	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.00

Plot Update Save Model Report

Element
K.K.alpha

Calibration Curve

- Linear
- Non-Linear
- Lucas-Tooth

Normalization

- Time
- Total Counts
- Compton

Min
18.5

Max
19.5

Intercept

- K.K.alpha
- Ca.K.alpha
- Ti.K.alpha
- Mn.K.alpha
- Fe.K.alpha
- Co.K.alpha
- Cu.K.alpha
- Zn.K.alpha
- Ga.K.alpha
- As.K.alpha

When the table is complete, you can click 'Enter Values'

View Curves Diagnostics Standards

Error: arguments imply differing number of rows: 40, 0

You may see error when you begin - this is fine unless it persists after you begin calibration

Plot Update Save Model Report

Element

- K.K.alpha
- As.K.alpha
- Rb.K.alpha
- Sr.K.alpha
- Y.K.alpha
- Zr.K.alpha
- Nb.K.alpha
- Pb.L.alpha
- Th.L.alpha

Compton

Min 18.5

Max 19.5

Intercept

- K.K.alpha
- Ca.K.alpha
- Ti.K.alpha
- Mn.K.alpha
- Fe.K.alpha
- Co.K.alpha
- Cu.K.alpha
- Zn.K.alpha
- Ga.K.alpha
- As.K.alpha

View Curves Diagnostics Standards

Error: arguments imply differing number of rows: 40, 0

Select the element line you would like to calibrate

Plot Update Save Model Report

Element
Zr.K.alpha

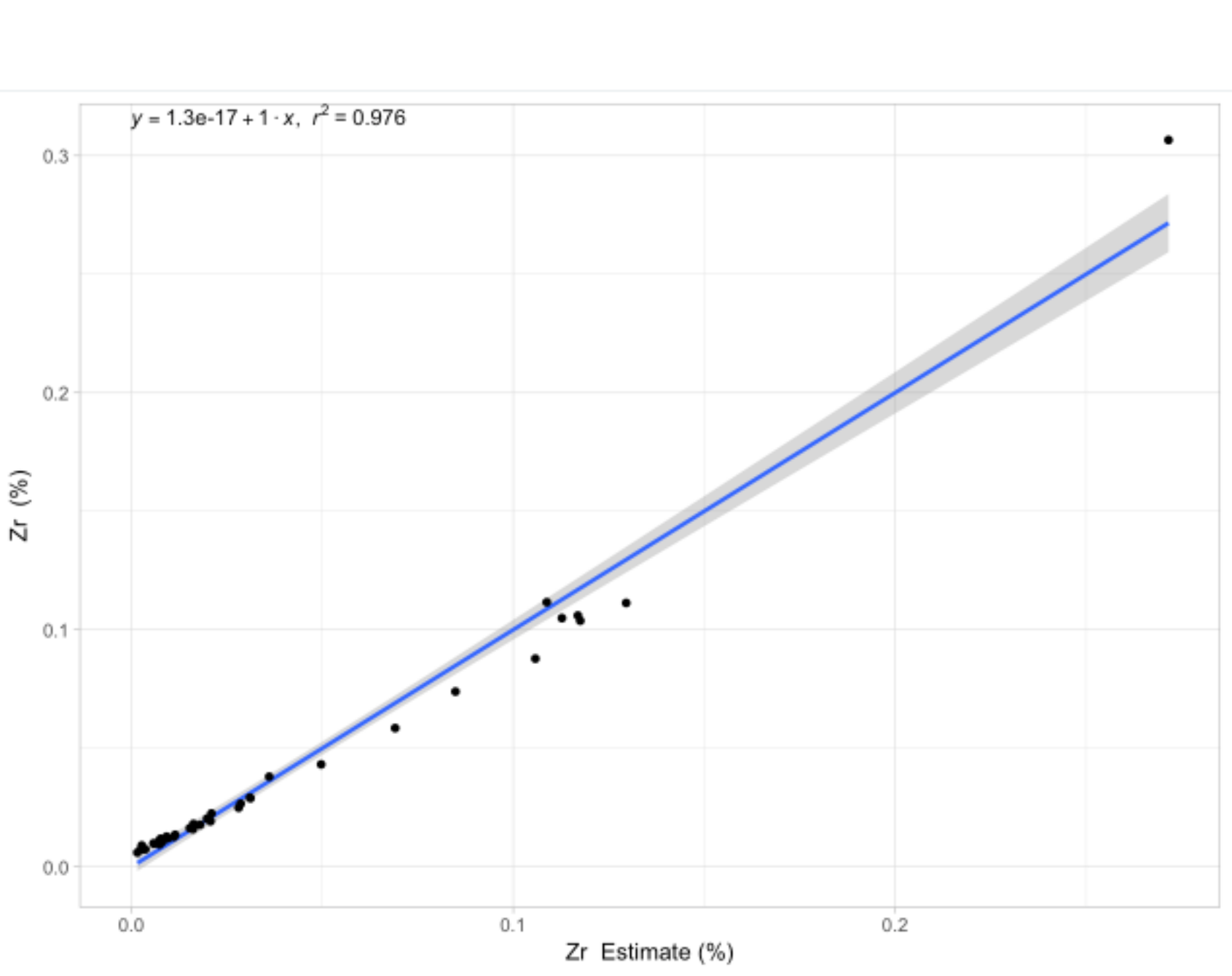
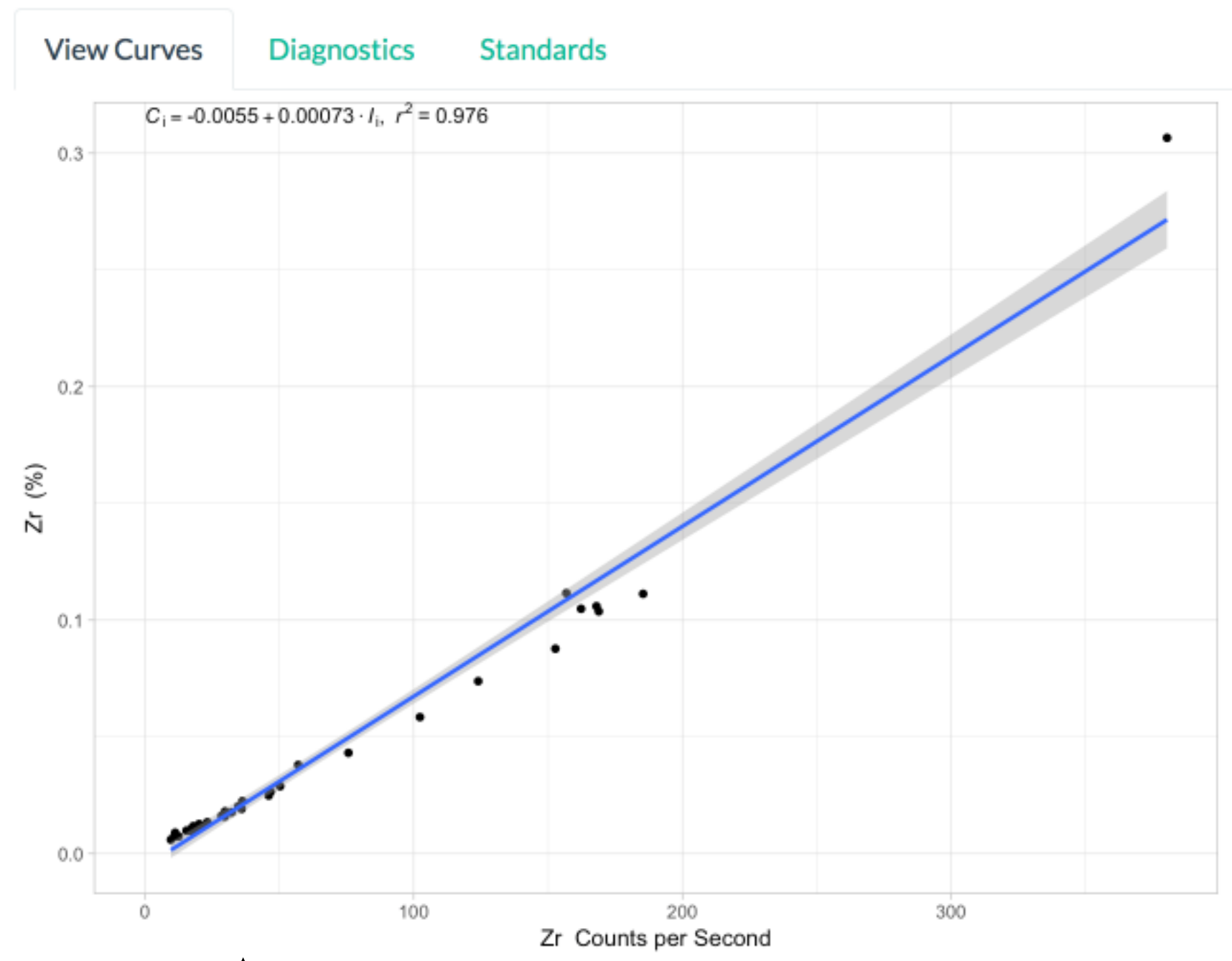
Calibration Curve
 Linear
 Non-Linear
 Lucas-Tooth

Normalization
 Time
 Total Counts
 Compton

Min
18.5

Max
19.5

Intercept
 K.K.alpha
 Ca.K.alpha
 Ti.K.alpha
 Mn.K.alpha
 Fe.K.alpha
 Co.K.alpha
 Cu.K.alpha
 Zn.K.alpha
 Ga.K.alpha
 As.K.alpha



The plot on the left is the calibration curve, with photon counts on the x-axis and known values on the y-axis

Element
Zr.K.alpha

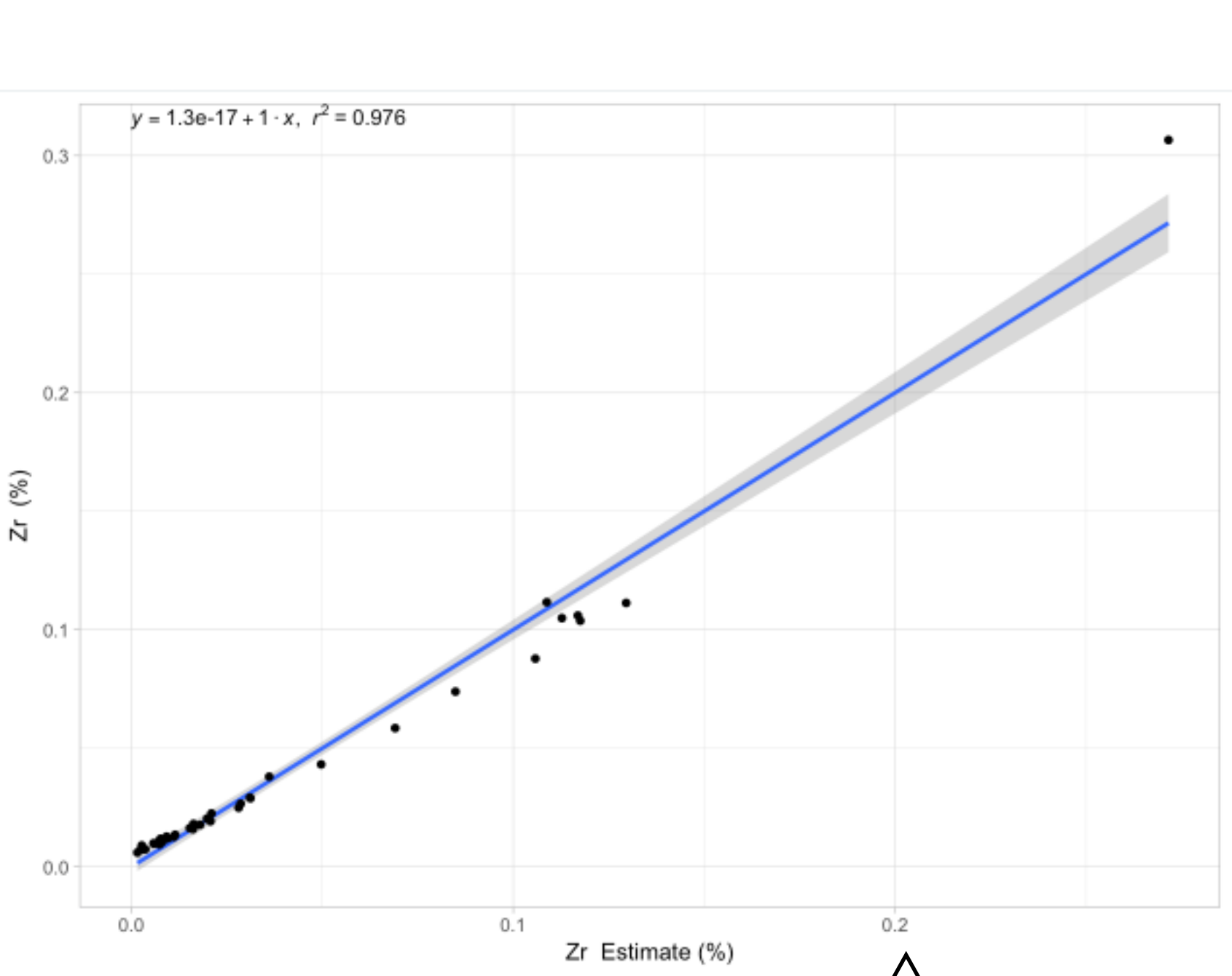
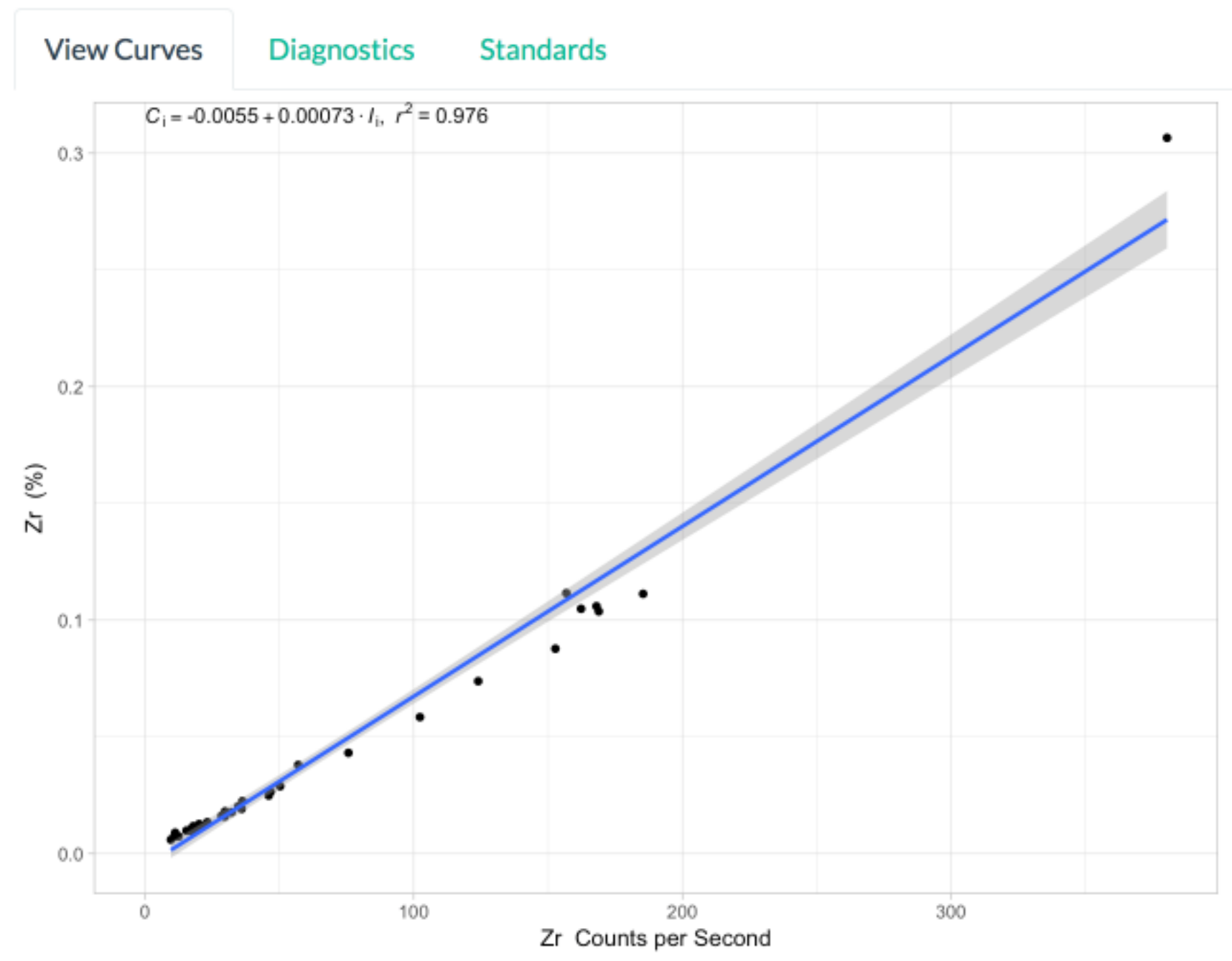
Calibration Curve
 Linear
 Non-Linear
 Lucas-Tooth

Normalization
 Time
 Total Counts
 Compton

Min
18.5

Max
19.5

Intercept
 K.K.alpha
 Ca.K.alpha
 Ti.K.alpha
 Mn.K.alpha
 Fe.K.alpha
 Co.K.alpha
 Cu.K.alpha
 Zn.K.alpha
 Ga.K.alpha
 As.K.alpha



The plot on the right is the validation plot - with XRF estimates on the x-axis and known values on the y-axis

Plot Update Save Model Report

Element
Zr.K.alpha

Calibration Curve

- Linear
- Non-Linear
- Lucas-Tooth

Normalization

- Time
- Total Counts
- Compton

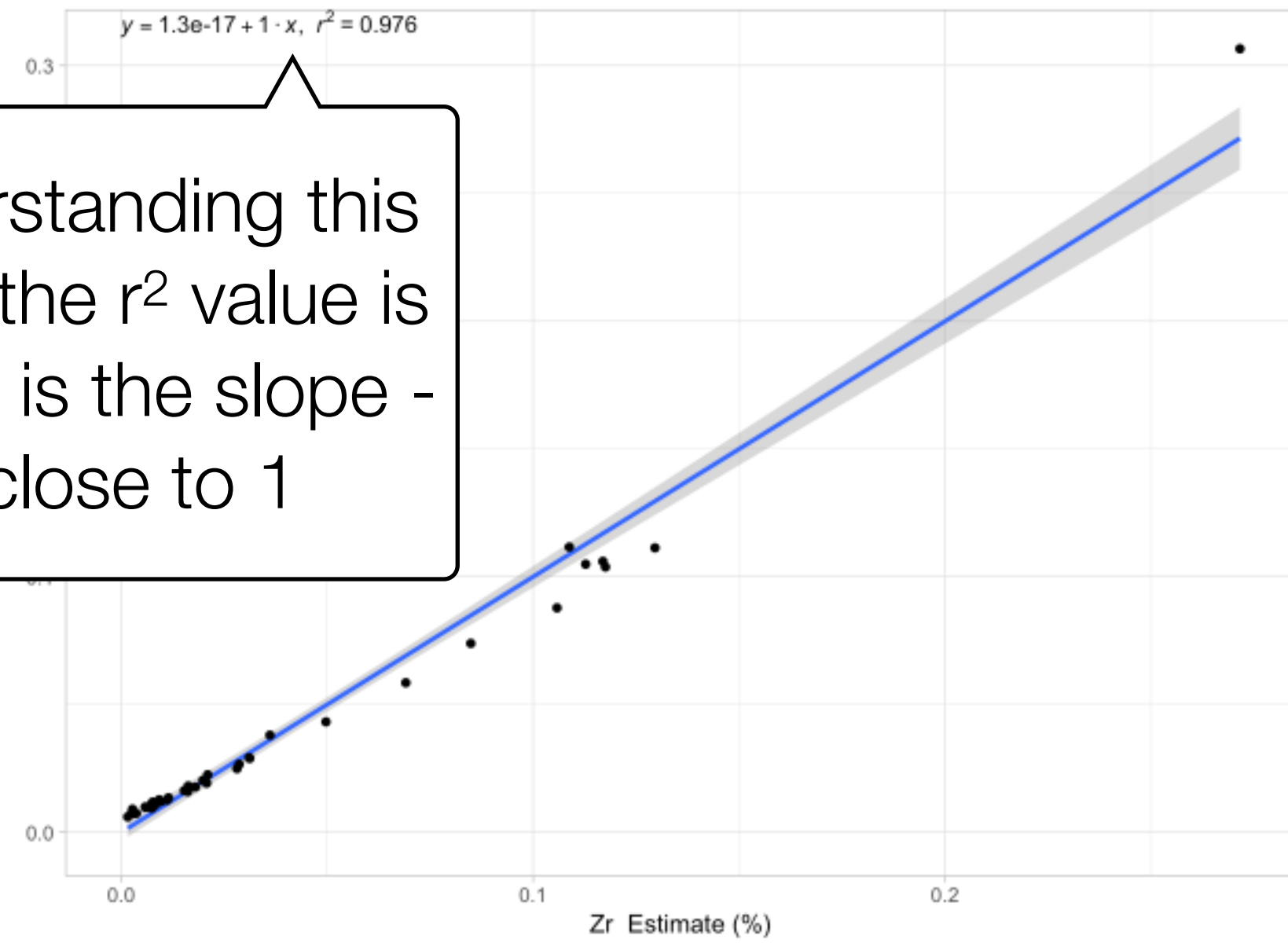
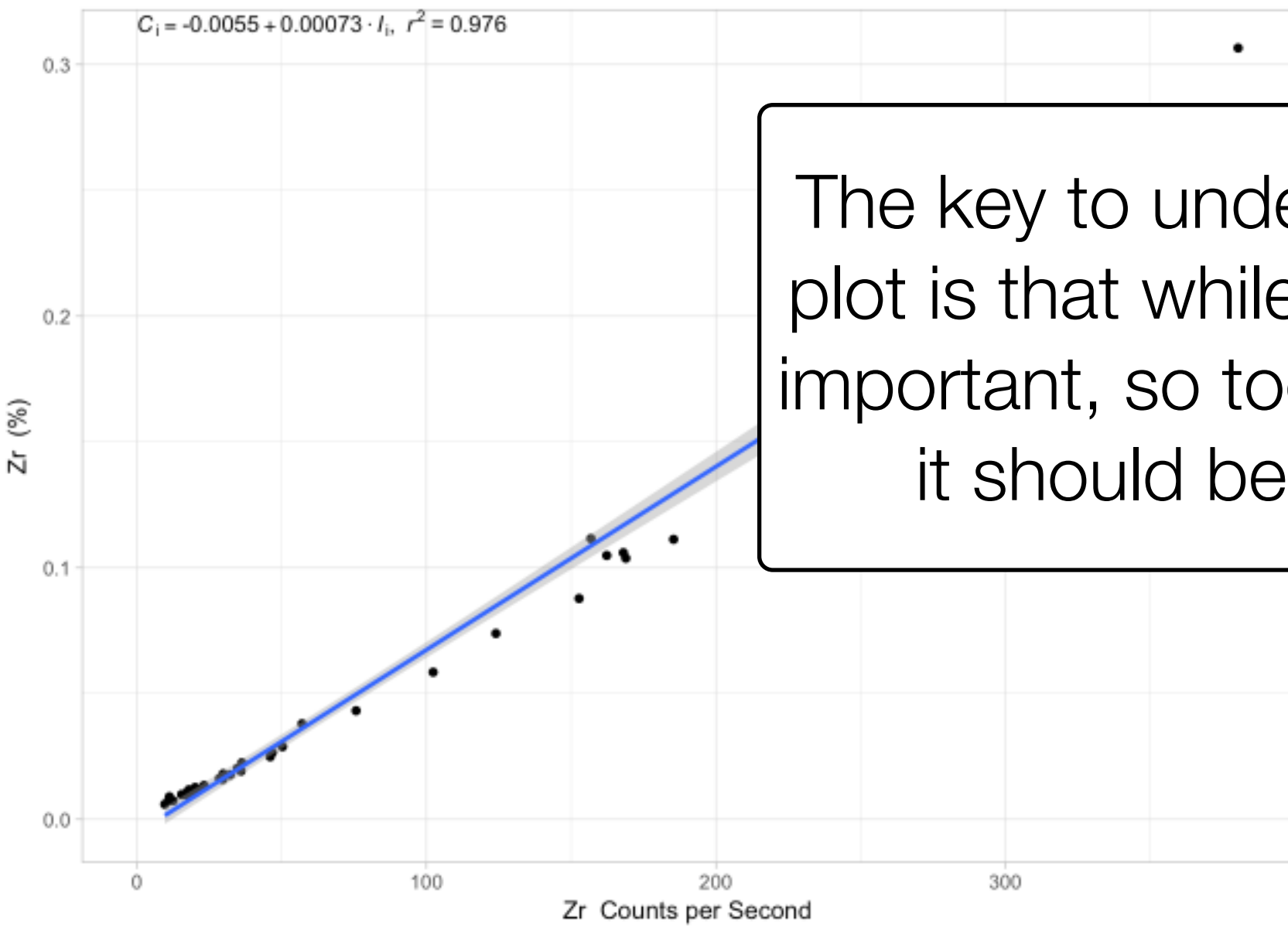
Min
18.5

Max
19.5

Intercept

- K.K.alpha
- Ca.K.alpha
- Ti.K.alpha
- Mn.K.alpha
- Fe.K.alpha
- Co.K.alpha
- Cu.K.alpha
- Zn.K.alpha
- Ga.K.alpha
- As.K.alpha

View Curves **Diagnostics** Standards



The key to understanding this plot is that while the r^2 value is important, so too is the slope - it should be close to 1

Plot Update Save Model Report

Element
Zr.K.alpha

Calibration Curve
 Linear
 Non-Linear
 Lucas-Tooth

Normalization
 Time
 Total Counts
 Compton

Min
18.5

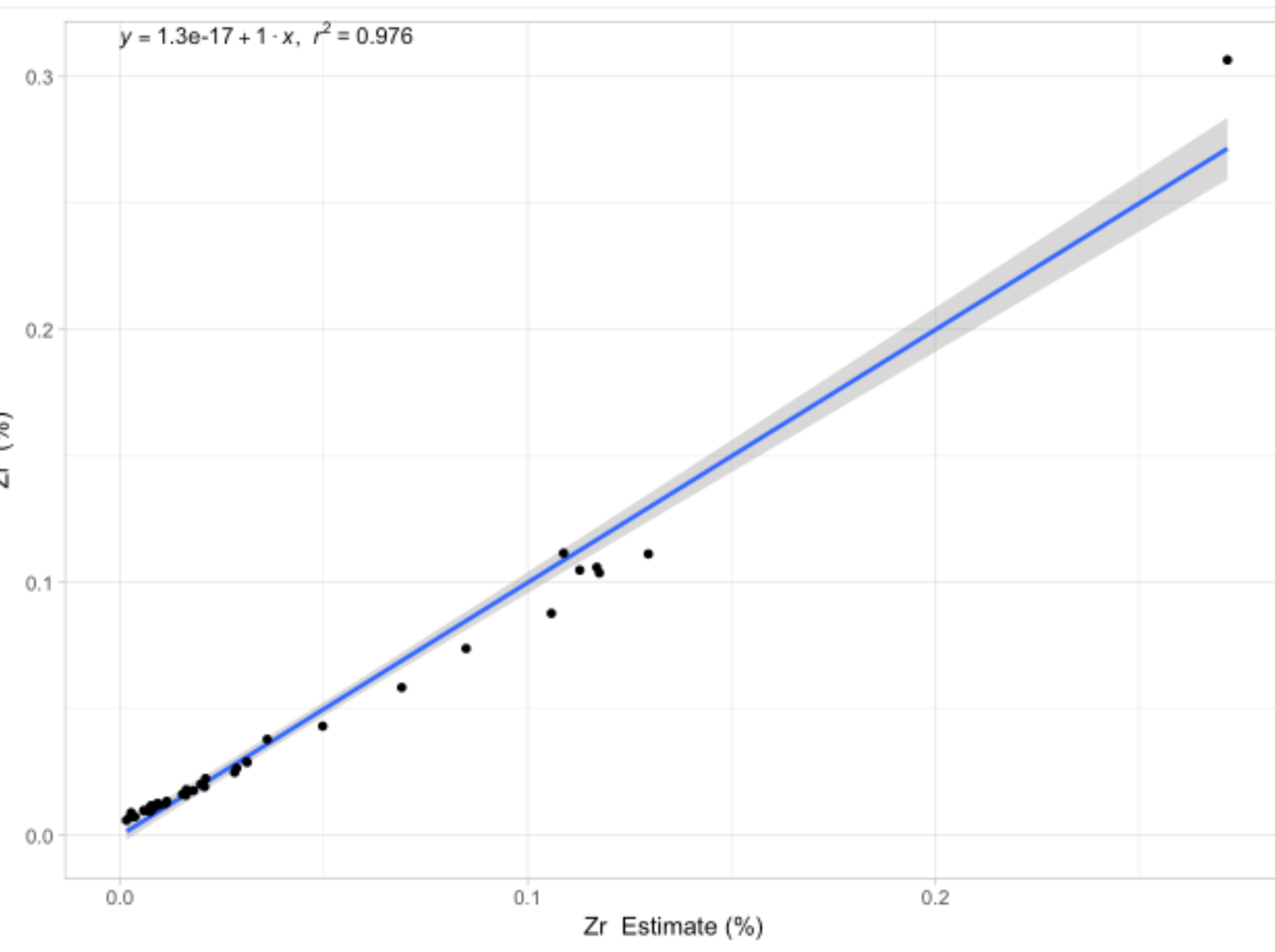
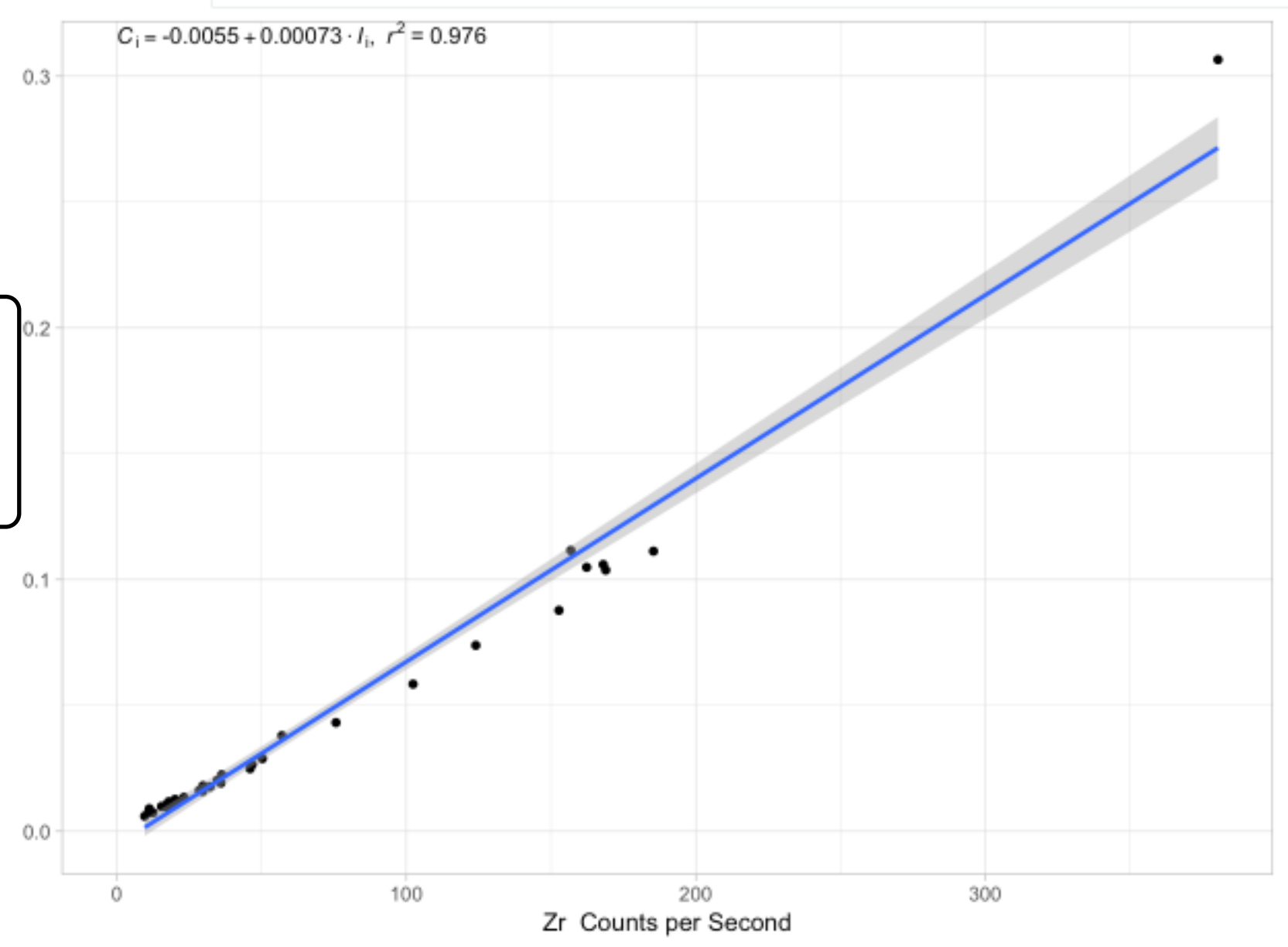
Max
19.5

Intercept
 K.K.alpha
 Ca.K.alpha
 Ti.K.alpha
 Mn.K.alpha
 Fe.K.alpha
 Co.K.alpha
 Cu.K.alpha
 Zn.K.alpha
 Ga.K.alpha
 As.K.alpha

Currently, we are using a simple linear calibration - no corrections

We are also only normalizing data to time

View Curves **Diagnostics** Standards



Plot Update Save Model Report

Element
Zr.K.alpha

Calibration Curve
 Linear
 Non-Linear
 Lucas-Tooth

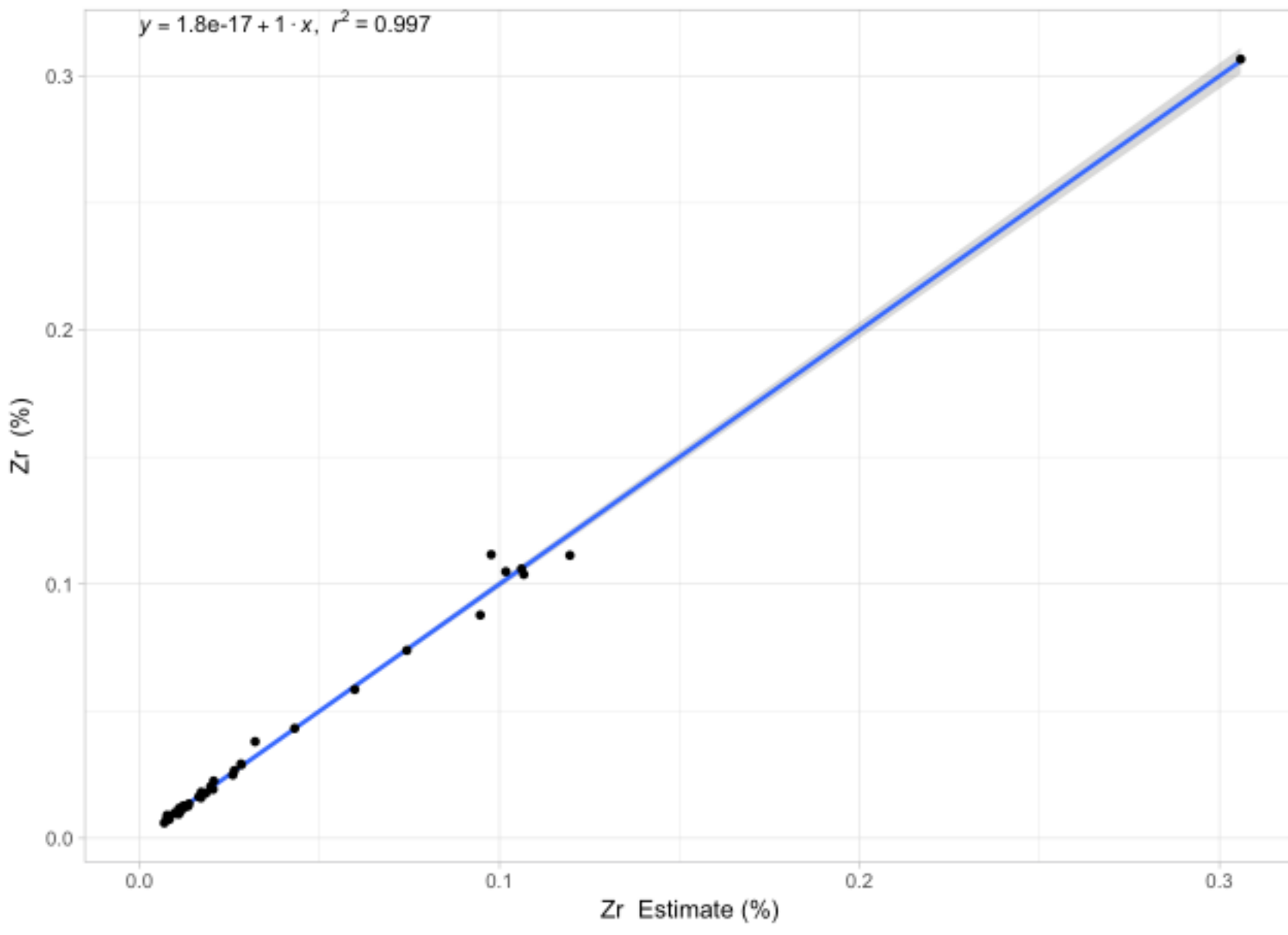
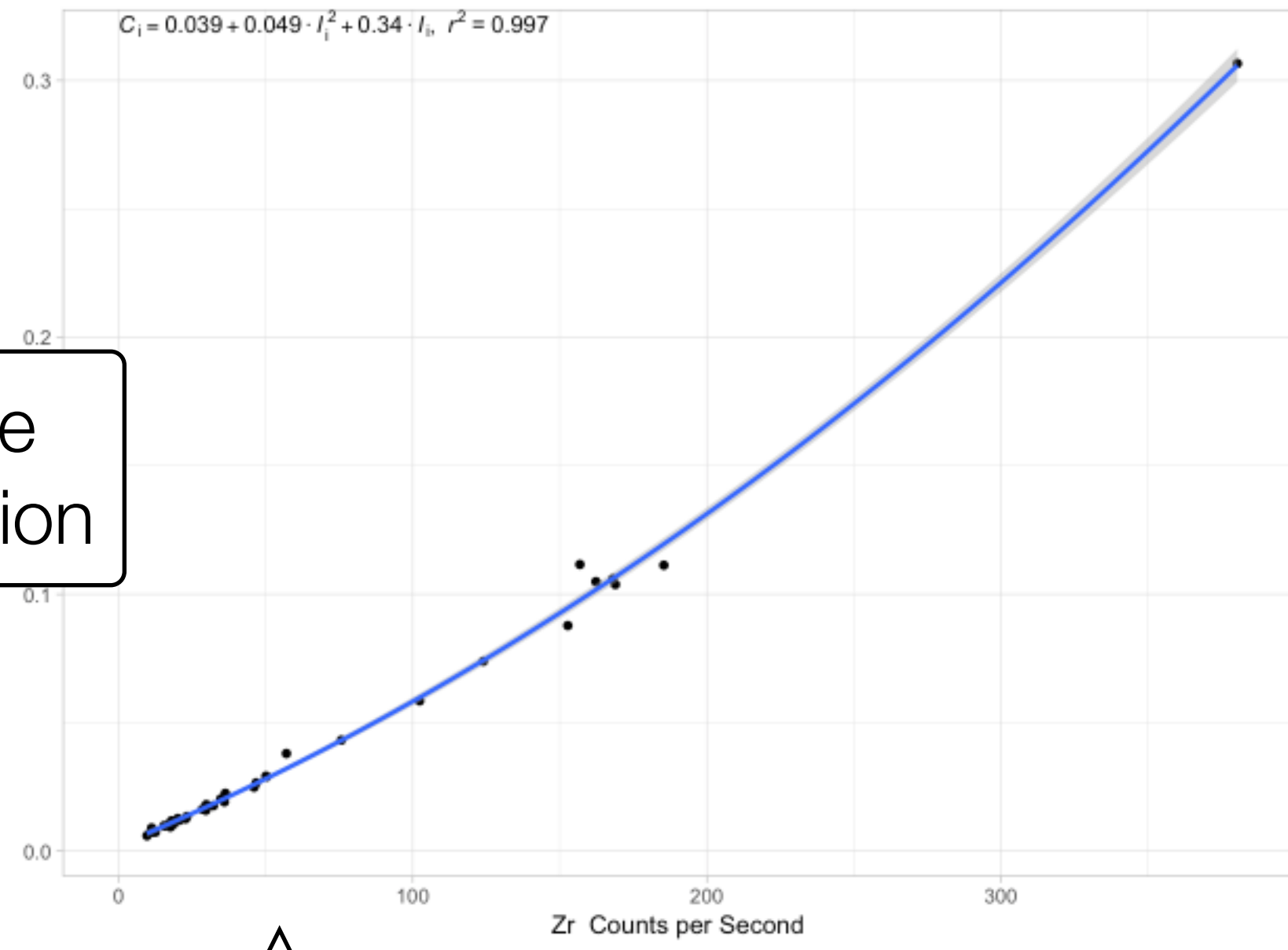
Normalization
 Time
 Total Counts
 Compton

Min
18.5

Max
19.5

Intercept
 K.K.alpha
 Ca.K.alpha
 Ti.K.alpha
 Mn.K.alpha
 Fe.K.alpha
 Co.K.alpha
 Cu.K.alpha
 Zn.K.alpha
 Ga.K.alpha
 As.K.alpha

View Curves Diagnostics Standards



Switching to a non-linear curve simply uses a quadratic regression

Note that while the cal curve plots is curvilinear, the validation plot remains linear

Plot Update Save Model Report

Element
Zr.K.alpha

Calibration Curve
 Linear
 Non-Linear
 Lucas-Tooth

Normalization
 Time
 Total Counts
 Compton

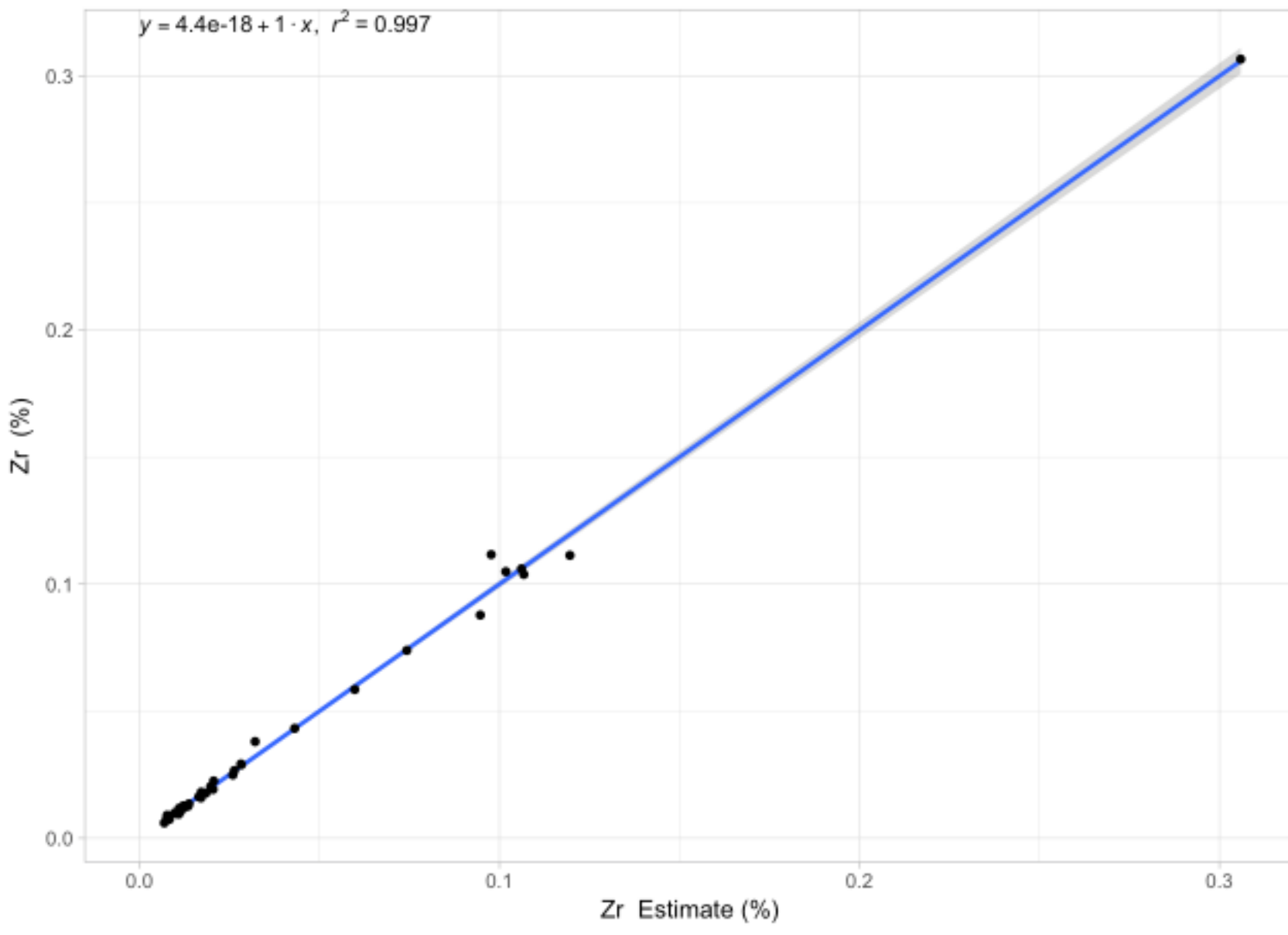
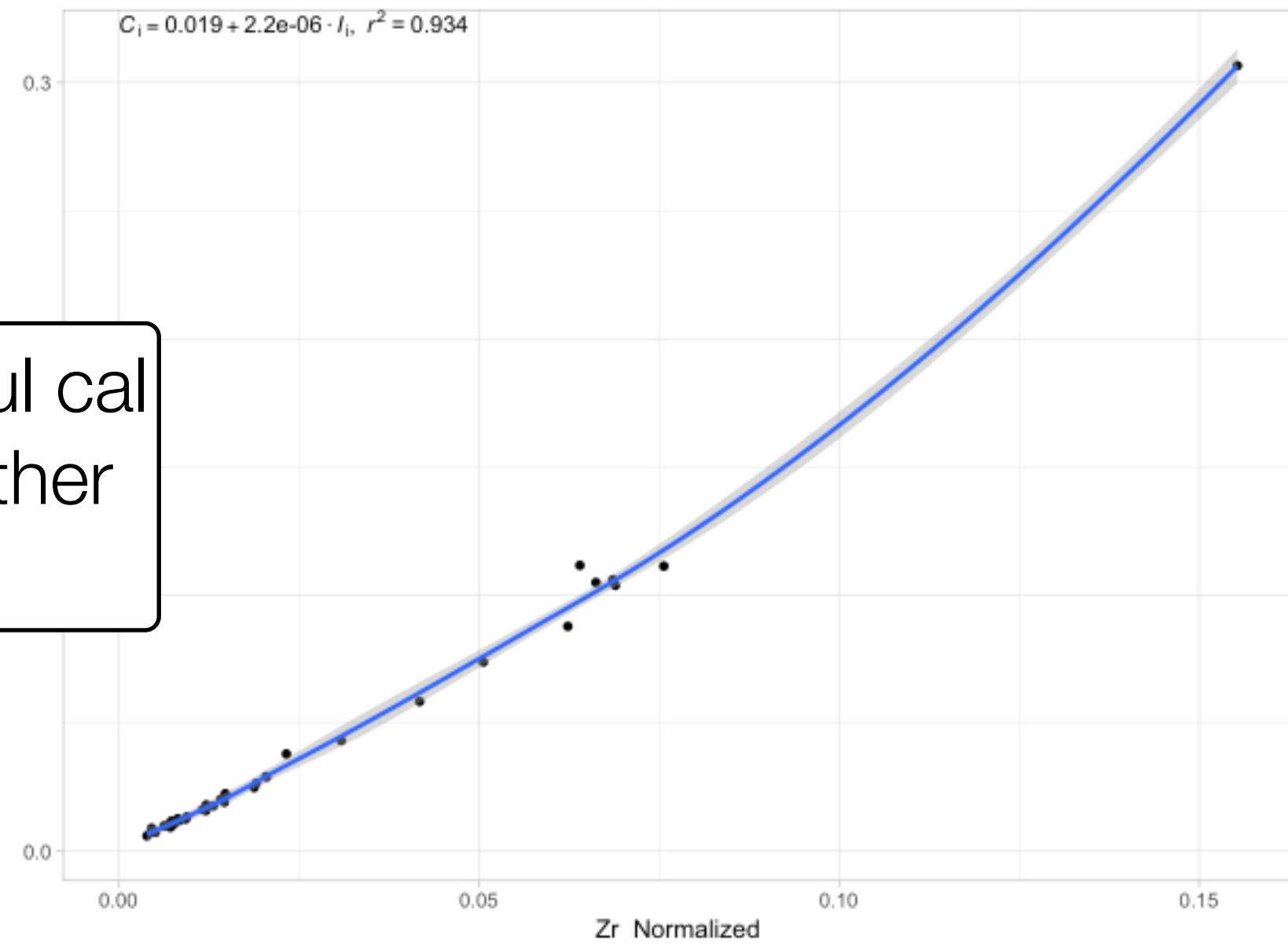
Min
18.5

Max
19.5

Intercept
 K.K.alpha
 Ca.K.alpha
 Ti.K.alpha
 Mn.K.alpha
 Fe.K.alpha
 Co.K.alpha
 Cu.K.alpha
 Zn.K.alpha
 Ga.K.alpha
 As.K.alpha

Lukas-Tooth is the most powerful cal engine - it enables the use of other elements as corrections

View Curves Diagnostics Standards



Plot Update Save Model Report

Element
Zr.K.alpha

Calibration Curve

- Linear
- Non-Linear
- Lucas-Tooth

Normalization

- Time
- Total Counts
- Compton

Min
18.5

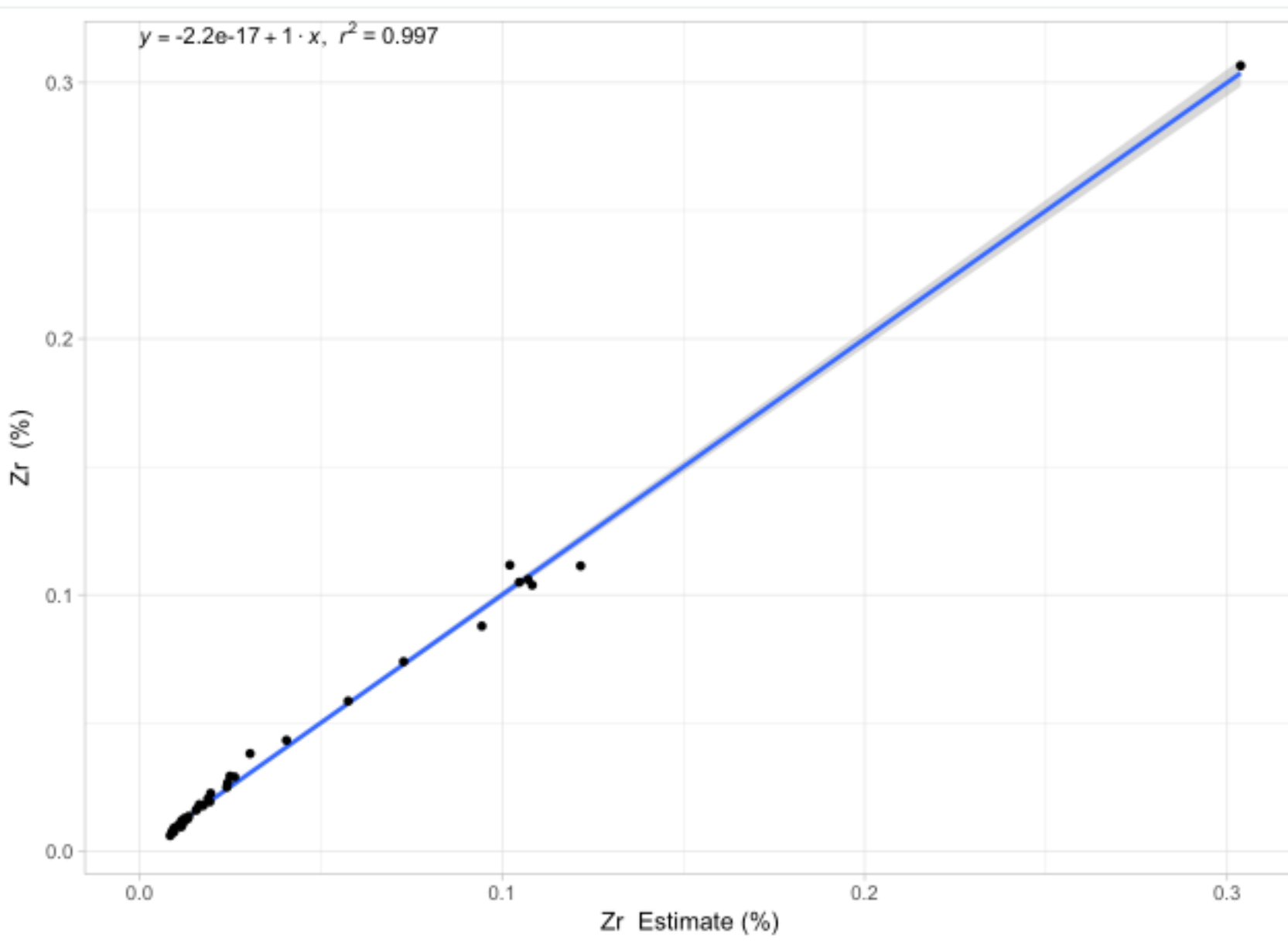
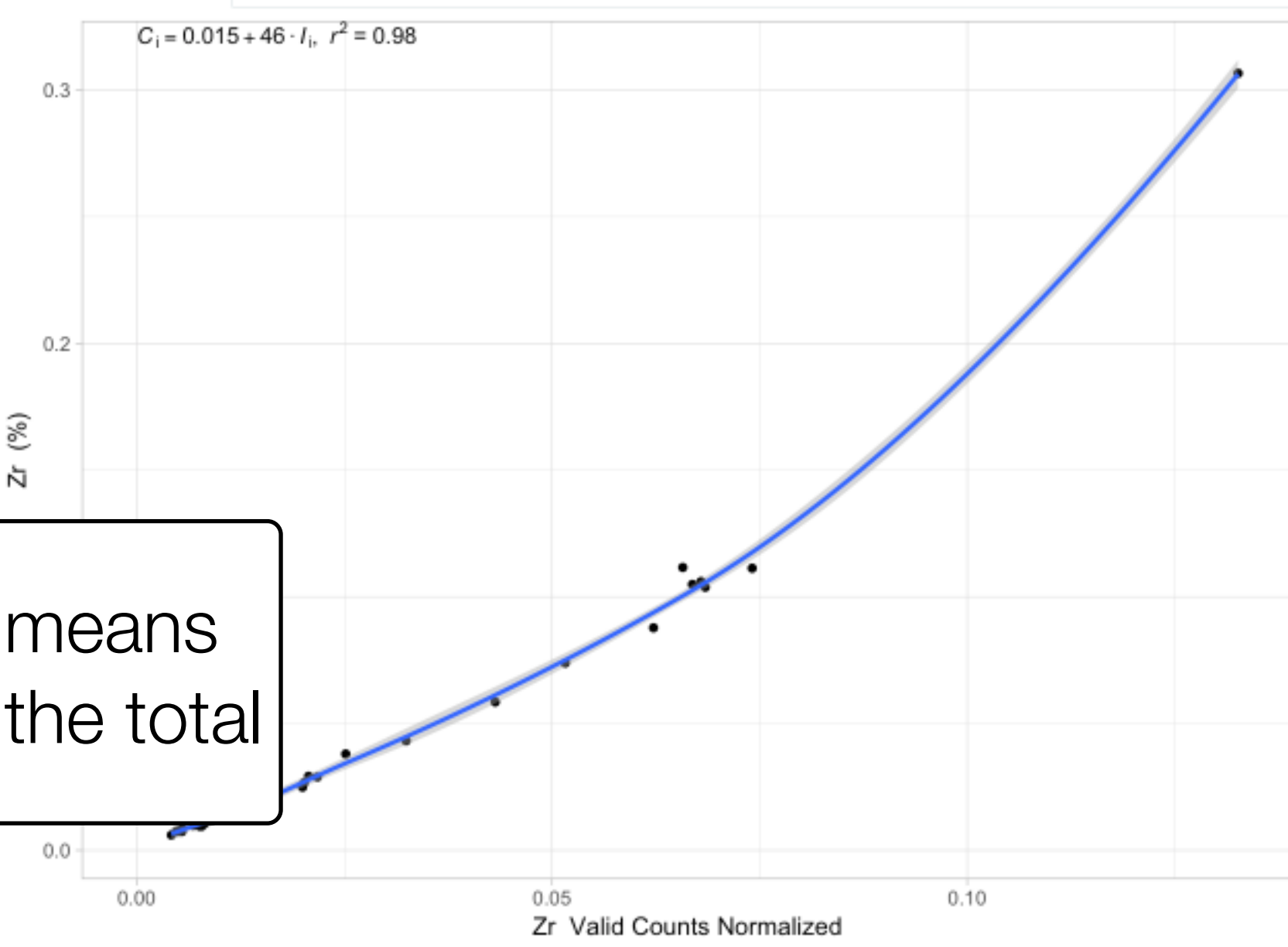
Max
19.5

Intercept

- K.K.alpha
- Ca.K.alpha
- Ti.K.alpha
- Mn.K.alpha
- Fe.K.alpha
- Co.K.alpha
- Cu.K.alpha
- Zn.K.alpha
- Ga.K.alpha
- As.K.alpha

Normalizing to 'Total Counts' means we are using the peak as % of the total

View Curves Diagnostics Standards



Plot Update Save Model Report

Element
Zr.K.alpha

Calibration Curve
 Linear
 Non-Linear
 Lucas-Tooth

Normalization
 Time
 Total Counts
 Compton

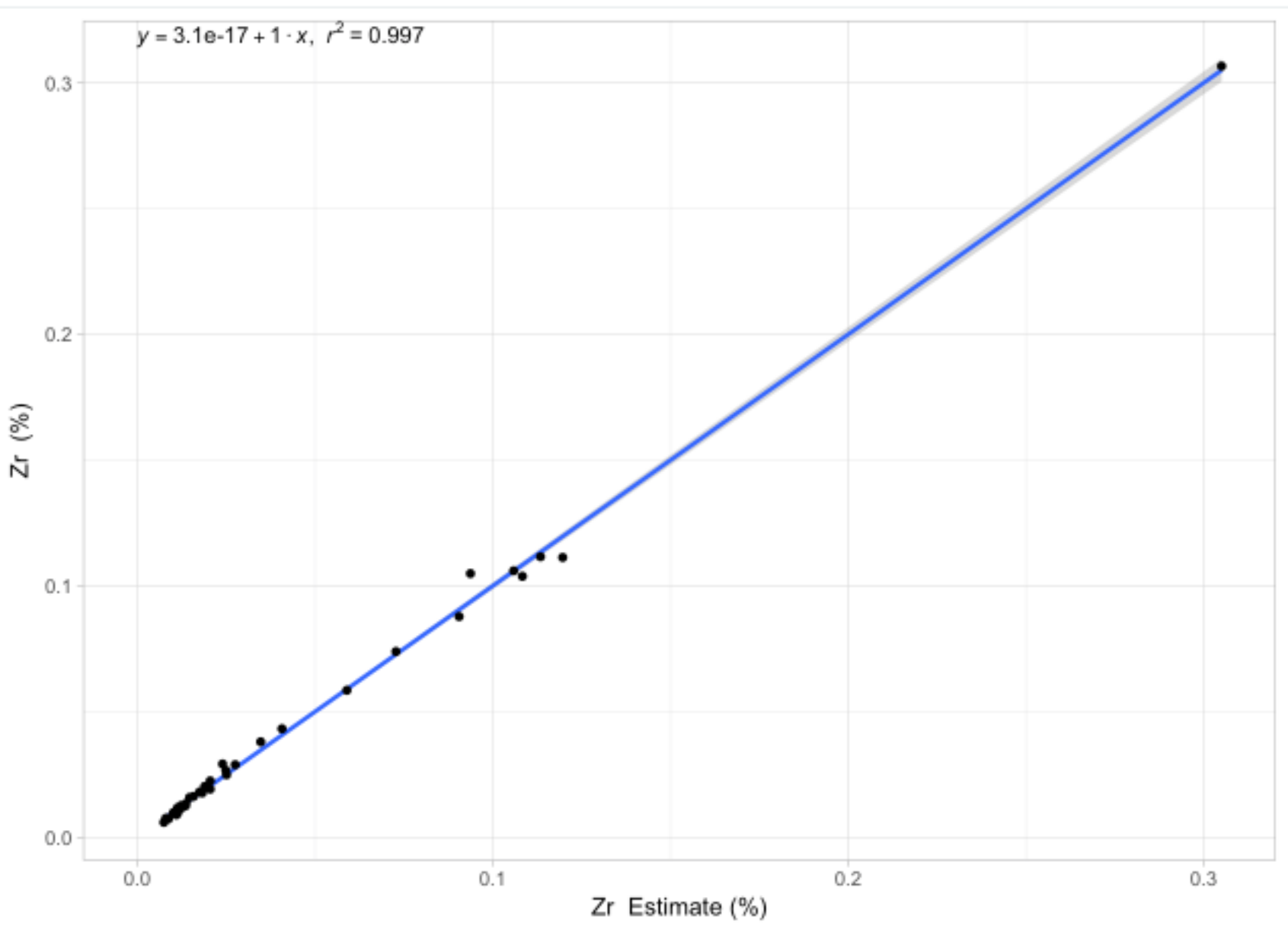
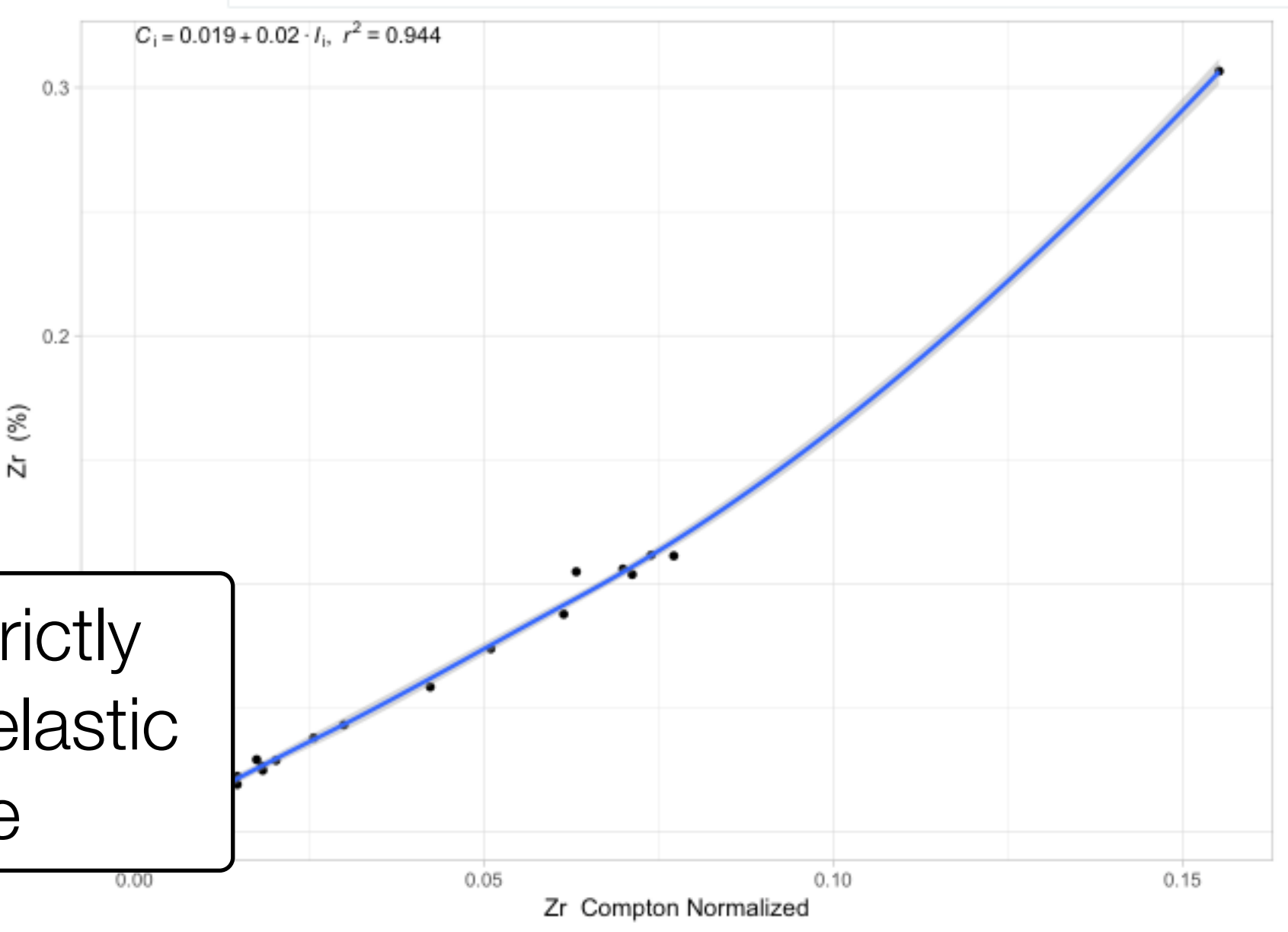
Min
18.5

Max
19.5

Intercept
 K.K.alpha
 Ca.K.alpha
 Ti.K.alpha
 Mn.K.alpha
 Fe.K.alpha
 Co.K.alpha
 Cu.K.alpha
 Zn.K.alpha
 Ga.K.alpha
 As.K.alpha

Normalizing to Compton is, strictly speaking, normalizing to the inelastic scatter from the x-ray tube

View Curves **Diagnostics** Standards



Plot Update Save Model Report

Element
Zr.K.alpha

Calibration Curve

- Linear
- Non-Linear
- Lucas-Tooth

Normalization

- Time
- Total Counts
- Compton

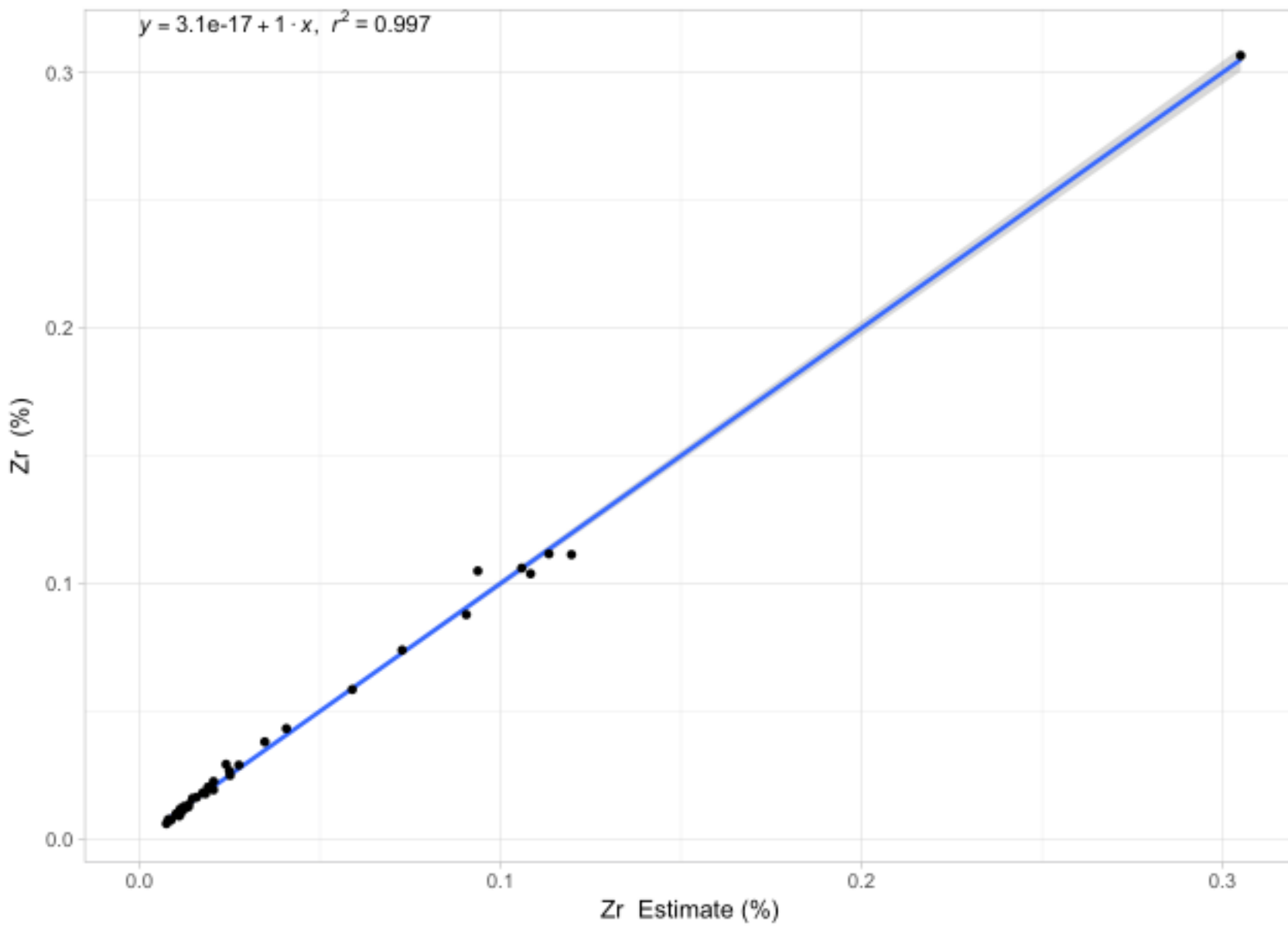
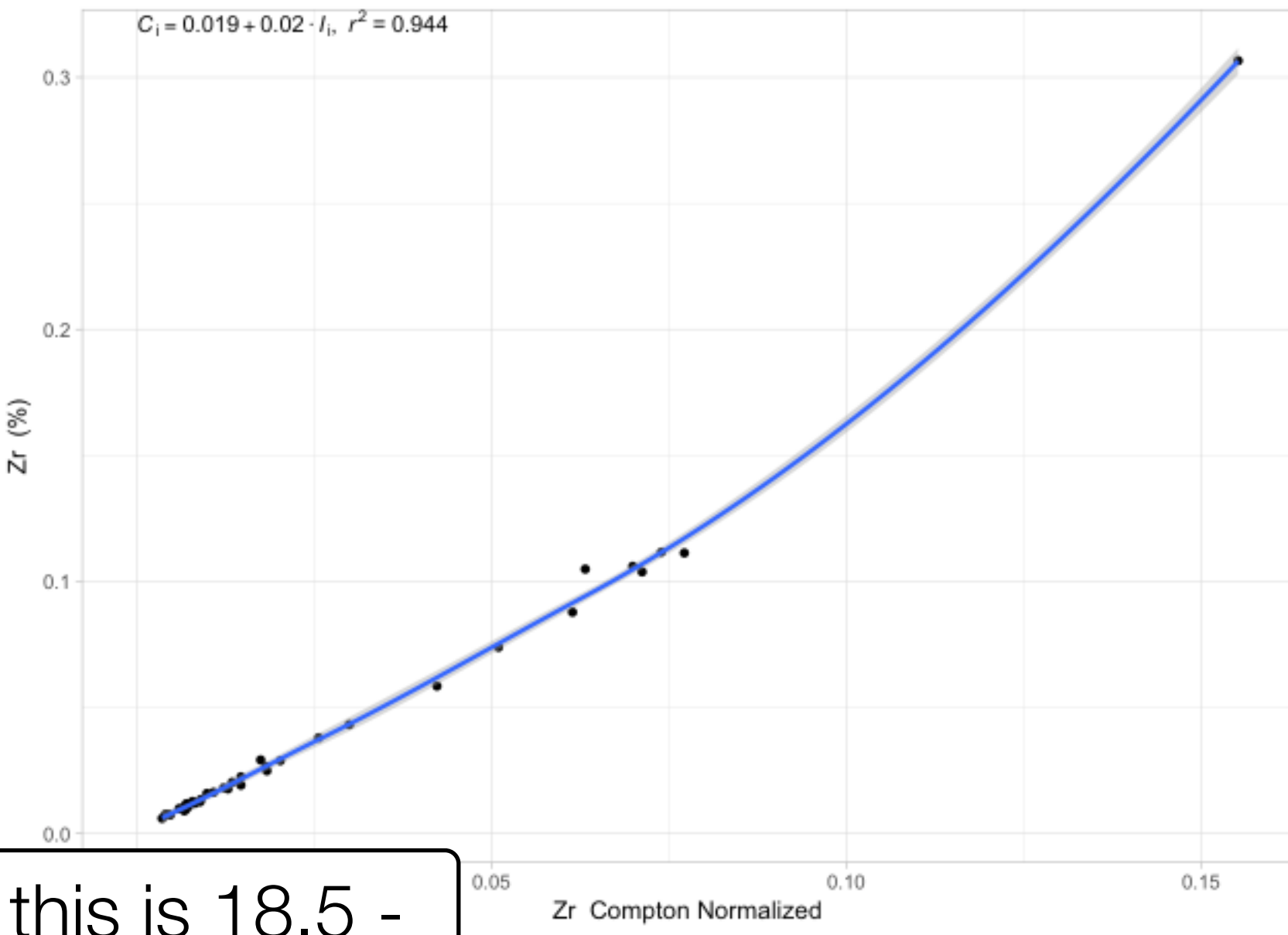
Min
18.5

Max
19.5

Intercept

- K.K.alpha
- Ca.K.alpha
- Ti.K.alpha
- Mn.K.alpha
- Fe.K.alpha
- Co.K.alpha
- Cu.K.alpha
- Zn.K.alpha
- Ga.K.alpha
- As.K.alpha

View Curves Diagnostics Standards



For Rhodium x-ray tubes, this is 18.5 - 19.5 keV, though this can shift depending on the density of your sample

...however, you can normalize to any range using this menu. You can even do this separately for each element

Plot Update Save Model Report

Element
Zr.K.alpha

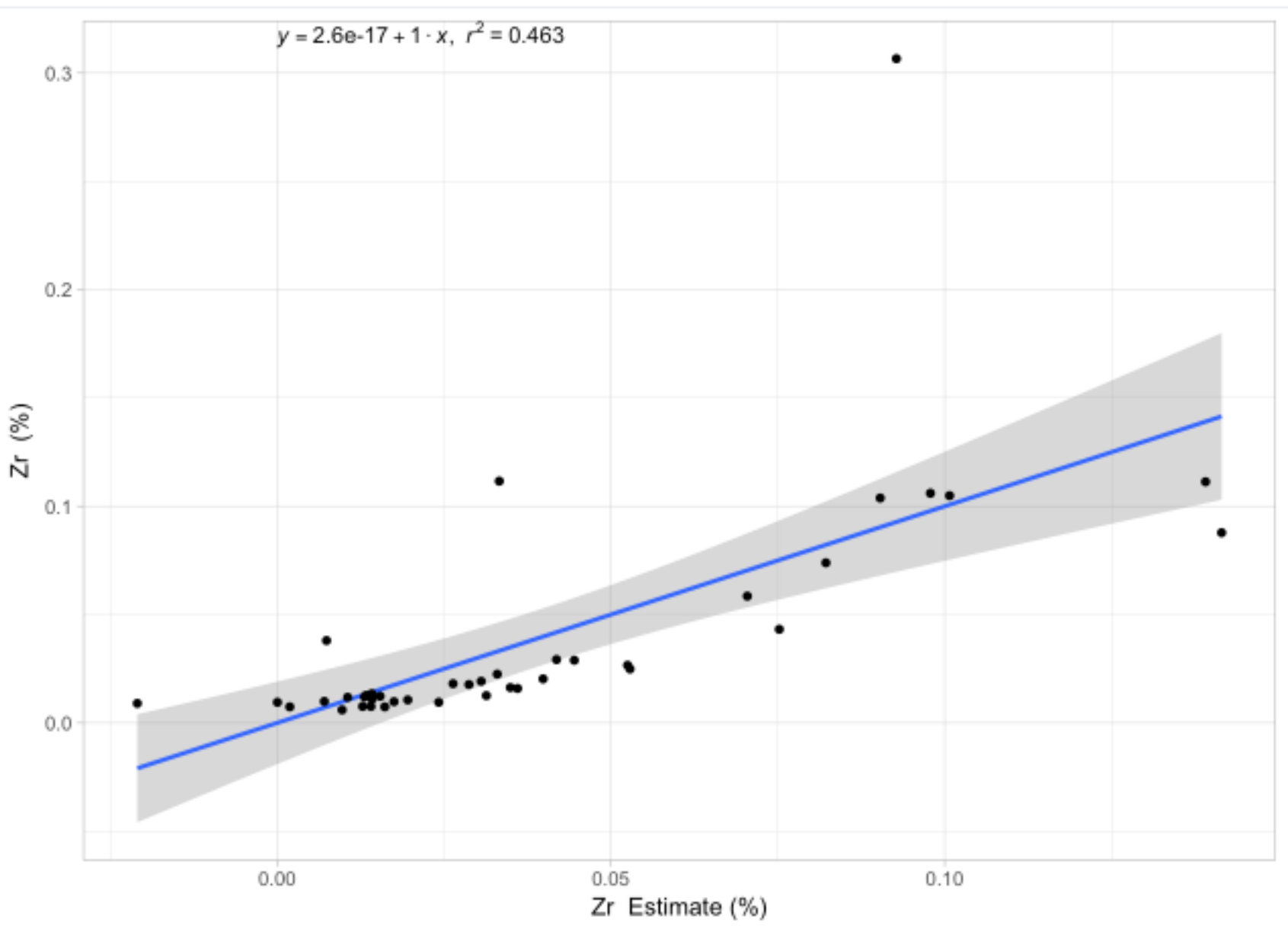
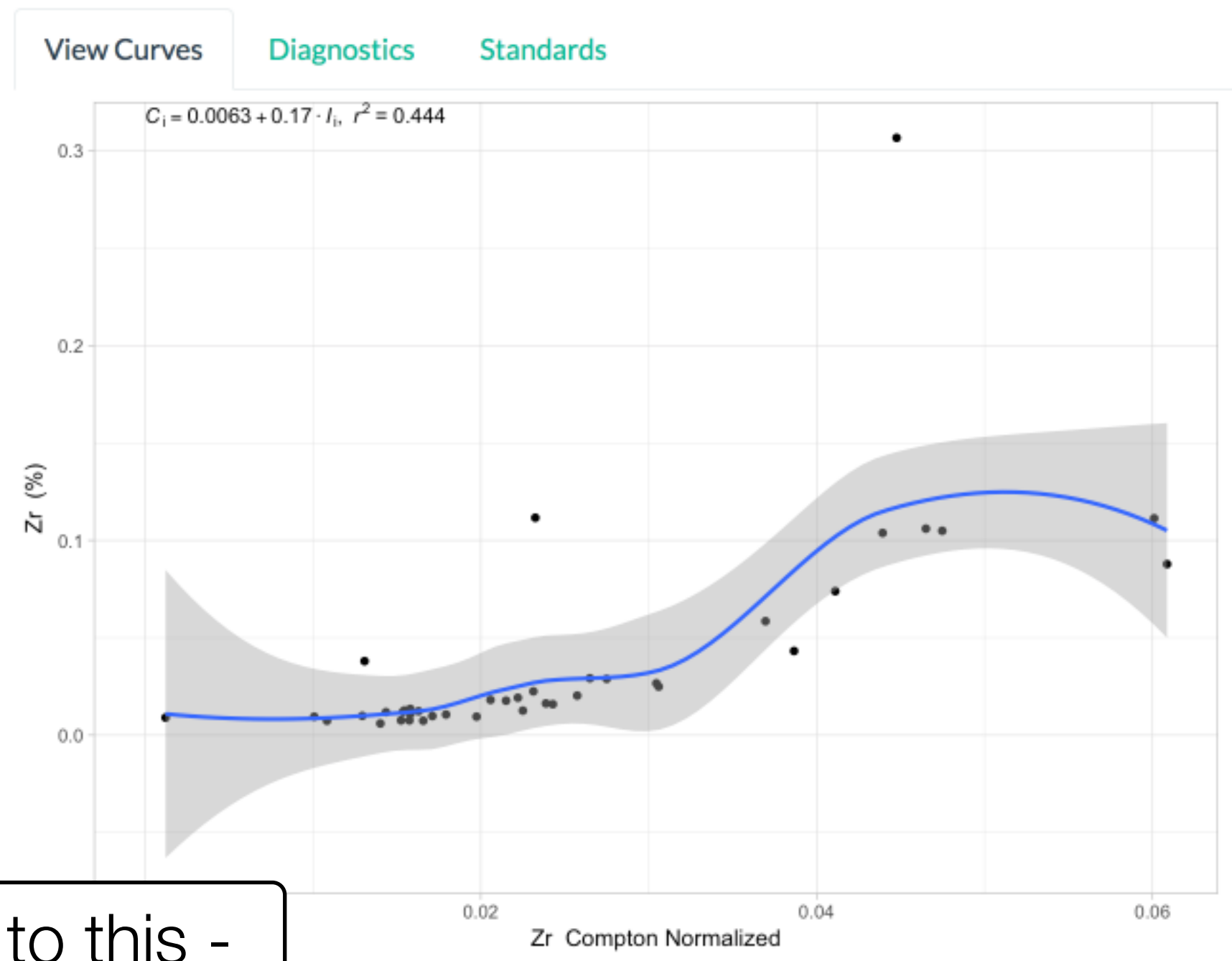
Calibration Curve
 Linear
 Non-Linear
 Lucas-Tooth

Normalization
 Time
 Total Counts
 Compton

Min
6

Max
7

There are consequences to this - choosing a bad range can disrupt your calibration quality



Plot Update Save Model Report

Element
Zr.K.alpha

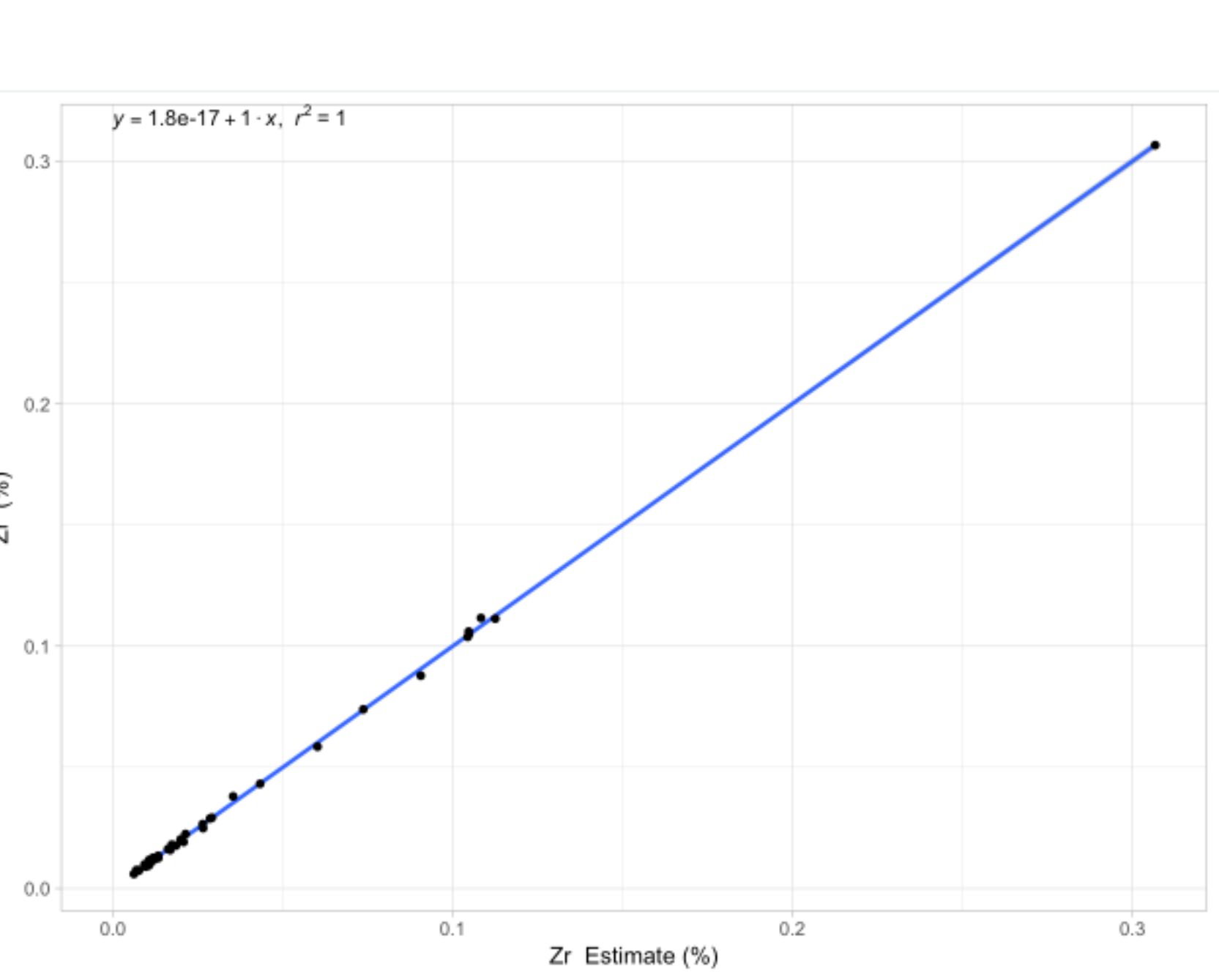
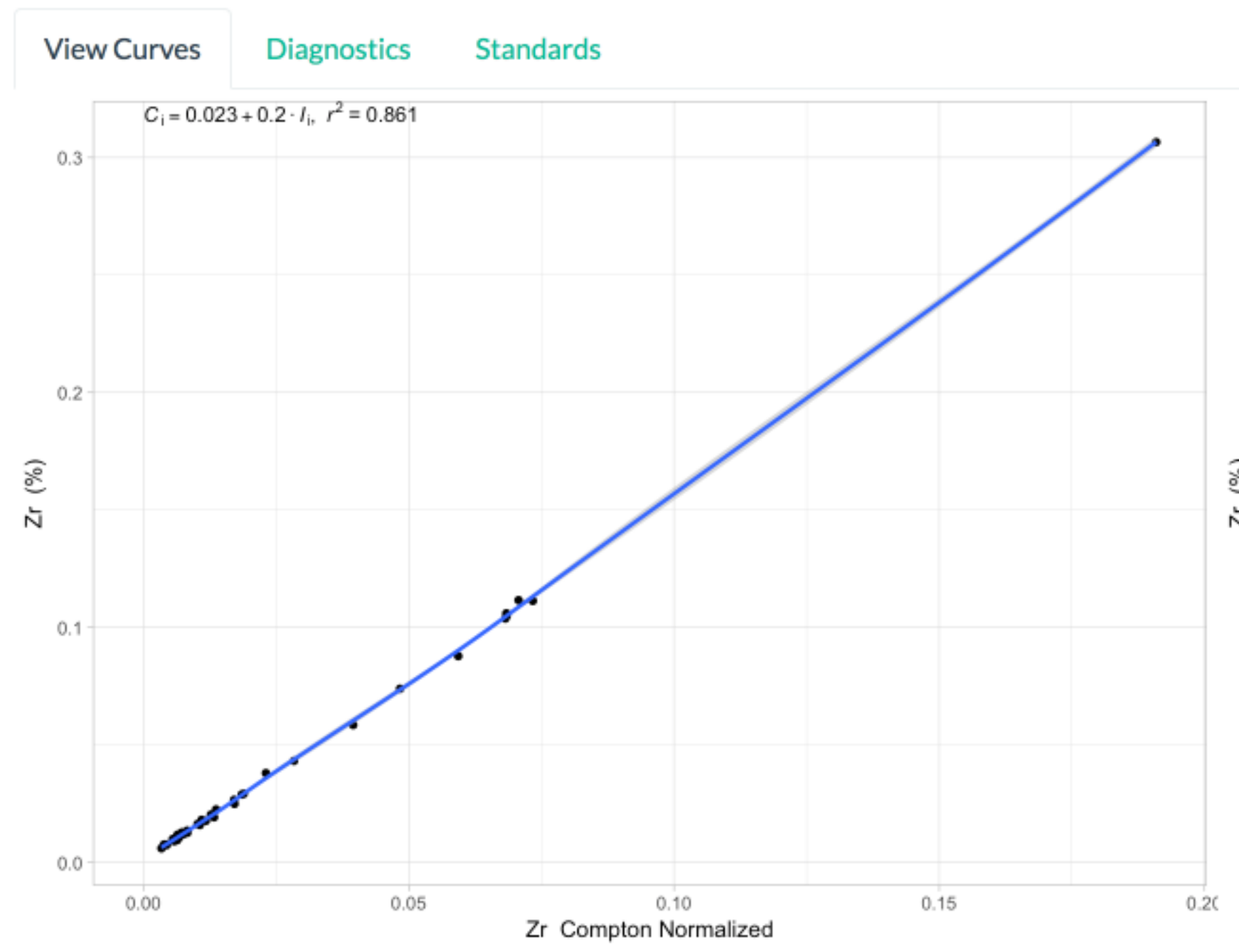
Calibration Curve
 Linear
 Non-Linear
 Lucas-Tooth

Normalization
 Time
 Total Counts
 Compton

Min
19.5

Max
22

Intercept
 K.K.alpha
 Ca.K.alpha
 Ti.K.alpha
 Mn.K.alpha
 Fe.K.alpha
 Co.K.alpha
 Cu.K.alpha
 Zn.K.alpha
 Ga.K.alpha
 As.K.alpha



For this element and this set, we have hit the theoretical best performance - an r^2 of 1, a slope of 1

- Mn.K.alpha
 - Fe.K.alpha
 - Co.K.alpha
 - Cu.K.alpha
 - Zn.K.alpha
 - Ga.K.alpha
 - As.K.alpha
 - Rb.K.alpha
 - Sr.K.alpha
 - Y.K.alpha
 - Zr.K.alpha
 - Nb.K.alpha
 - Pb.L.alpha
 - Th.L.alpha
 - U.L.alpha
 - None
- Slope
- K.K.alpha
 - Ca.K.alpha
 - Ti.K.alpha
 - Mn.K.alpha
 - Fe.K.alpha
 - Co.K.alpha
 - Cu.K.alpha
 - Zn.K.alpha
 - Ga.K.alpha
 - As.K.alpha
 - Rb.K.alpha
 - Sr.K.alpha
 - Y.K.alpha
 - Zr.K.alpha
 - Nb.K.alpha
 - Pb.L.alpha
 - Th.L.alpha
 - U.L.alpha
 - None

Nonetheless, this element can still be influenced by an overlap with Sr - you can add that as a slope or intercept correction

Plot Update Save Model Report

Element
Zr.K.alpha

Calibration Curve
 Linear
 Non-Linear
 Lucas-Tooth

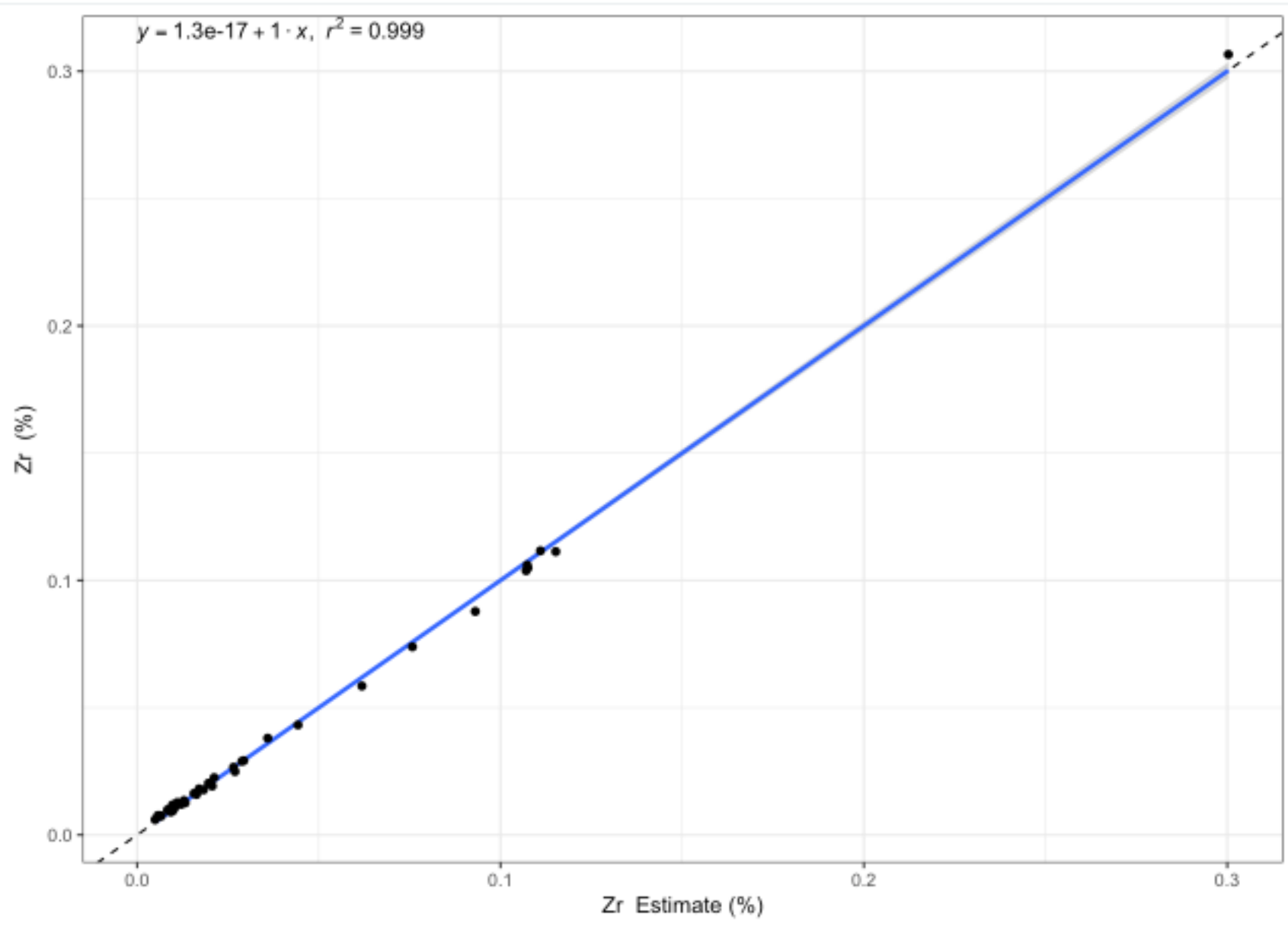
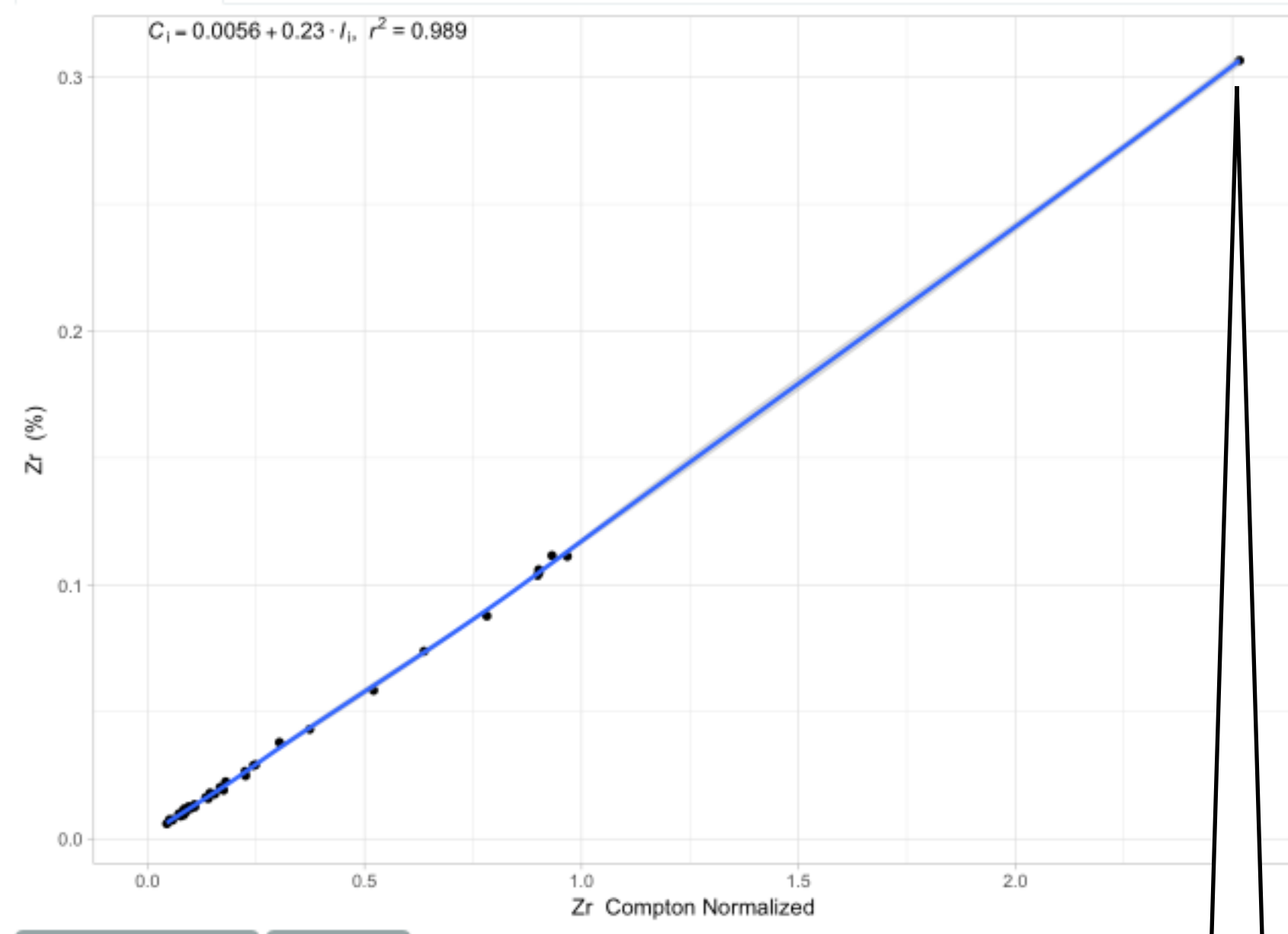
Normalization
 Time
 Total Counts
 Compton

Min
19.5

Max
22

- Intercept
- K.K.alpha
 - Ca.K.alpha
 - Ti.K.alpha
 - Mn.K.alpha
 - Fe.K.alpha
 - Co.K.alpha
 - Cu.K.alpha
 - Zn.K.alpha
 - Ga.K.alpha
 - As.K.alpha

Cal Curves Diagnostics Standards



Toggle points Reset

Sometimes, it can be a problem to have one far-off point. It may not be an outlier - as it is real data - but still problem for calibration models

Plot Update Save Model Report

Element
Zr.K.alpha

Calibration Curve
 Linear
 Non-Linear
 Lucas-Tooth

Normalization
 Time
 Total Counts
 Compton

Min
19.5

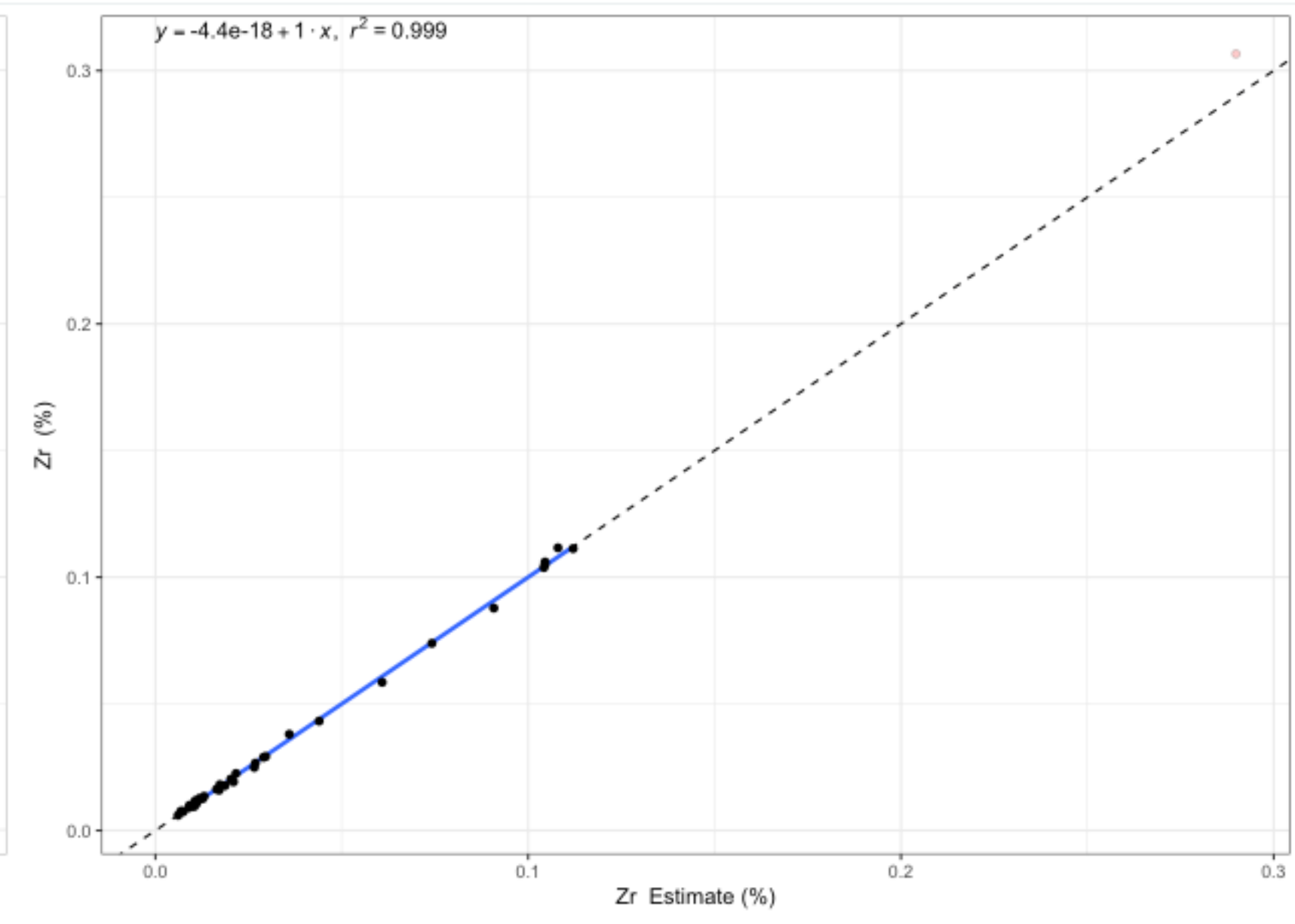
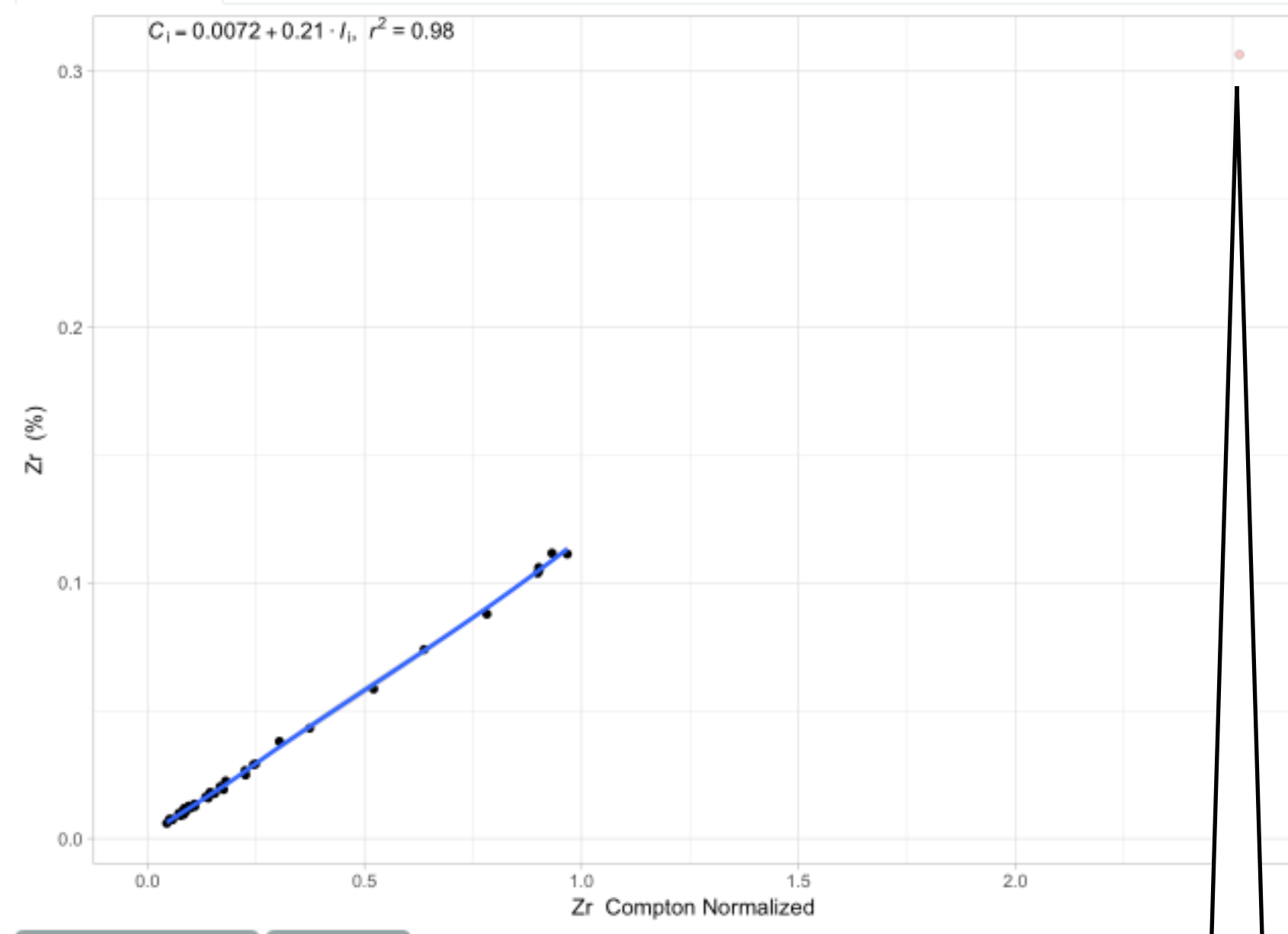
Max
22

- Intercept
- K.K.alpha
 - Ca.K.alpha
 - Ti.K.alpha
 - Mn.K.alpha
 - Fe.K.alpha
 - Co.K.alpha
 - Cu.K.alpha
 - Zn.K.alpha
 - Ga.K.alpha
 - As.K.alpha

Cal Curves

Diagnostics

Standards



Toggle points Reset

If you click on the point, you can remove it from the calibration plot. The validation plot (right) will continue the calibration line to show you what affect this would have on the data

Plot Update Save Model Report

Element
Zr.K.alpha

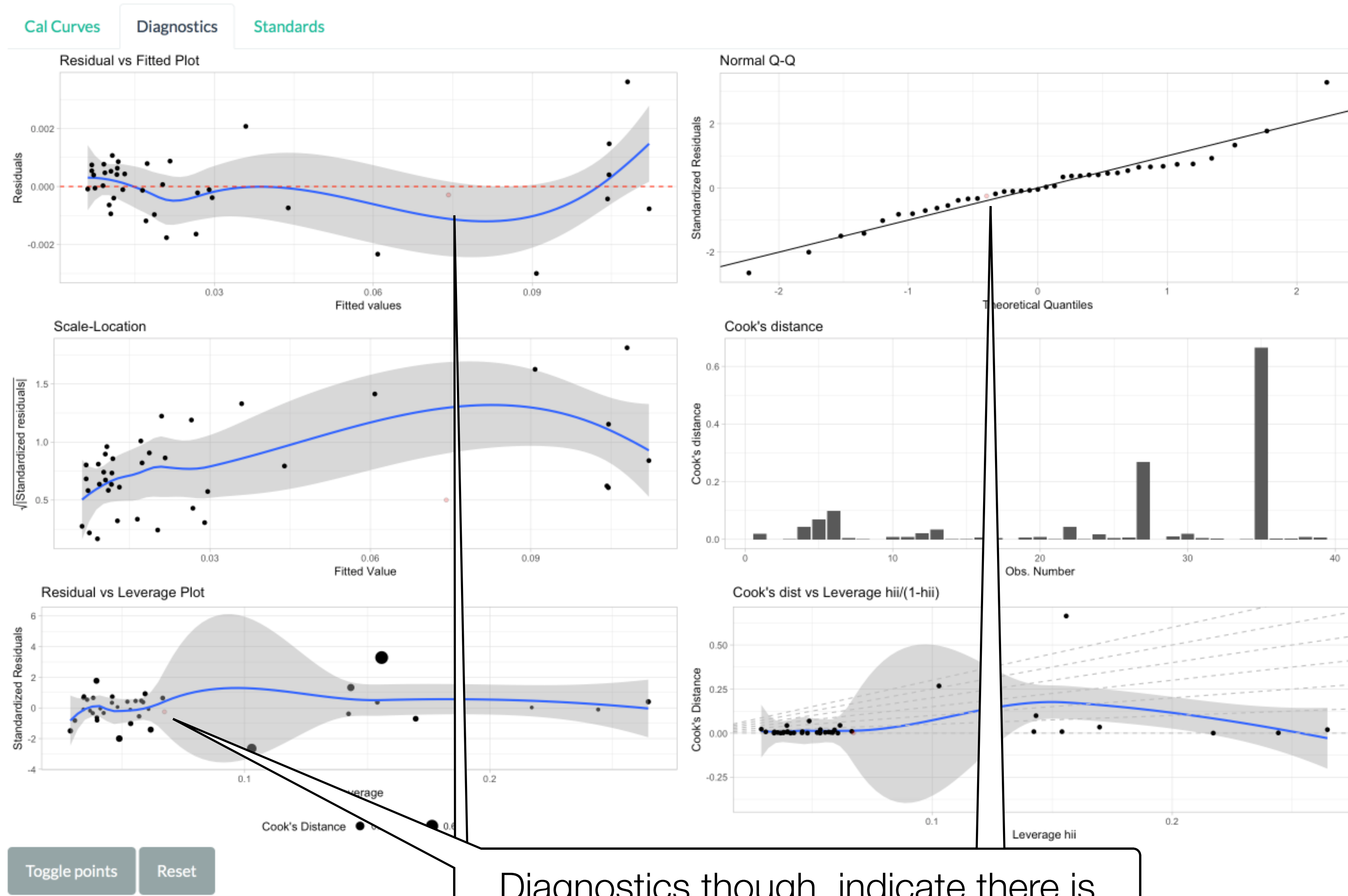
Calibration Curve
 Linear
 Non-Linear
 Lucas-Tooth

Normalization
 Time
 Total Counts
 Compton

Min
19.5

Max
22

- Intercept
- K.K.alpha
 - Ca.K.alpha
 - Ti.K.alpha
 - Mn.K.alpha
 - Fe.K.alpha
 - Co.K.alpha
 - Cu.K.alpha
 - Zn.K.alpha
 - Ga.K.alpha
 - As.K.alpha



Diagnostics though, indicate there is nothing wrong with the datum

Plot **Update** **Save** **Model** **Report**

Element
Zr.K.alpha

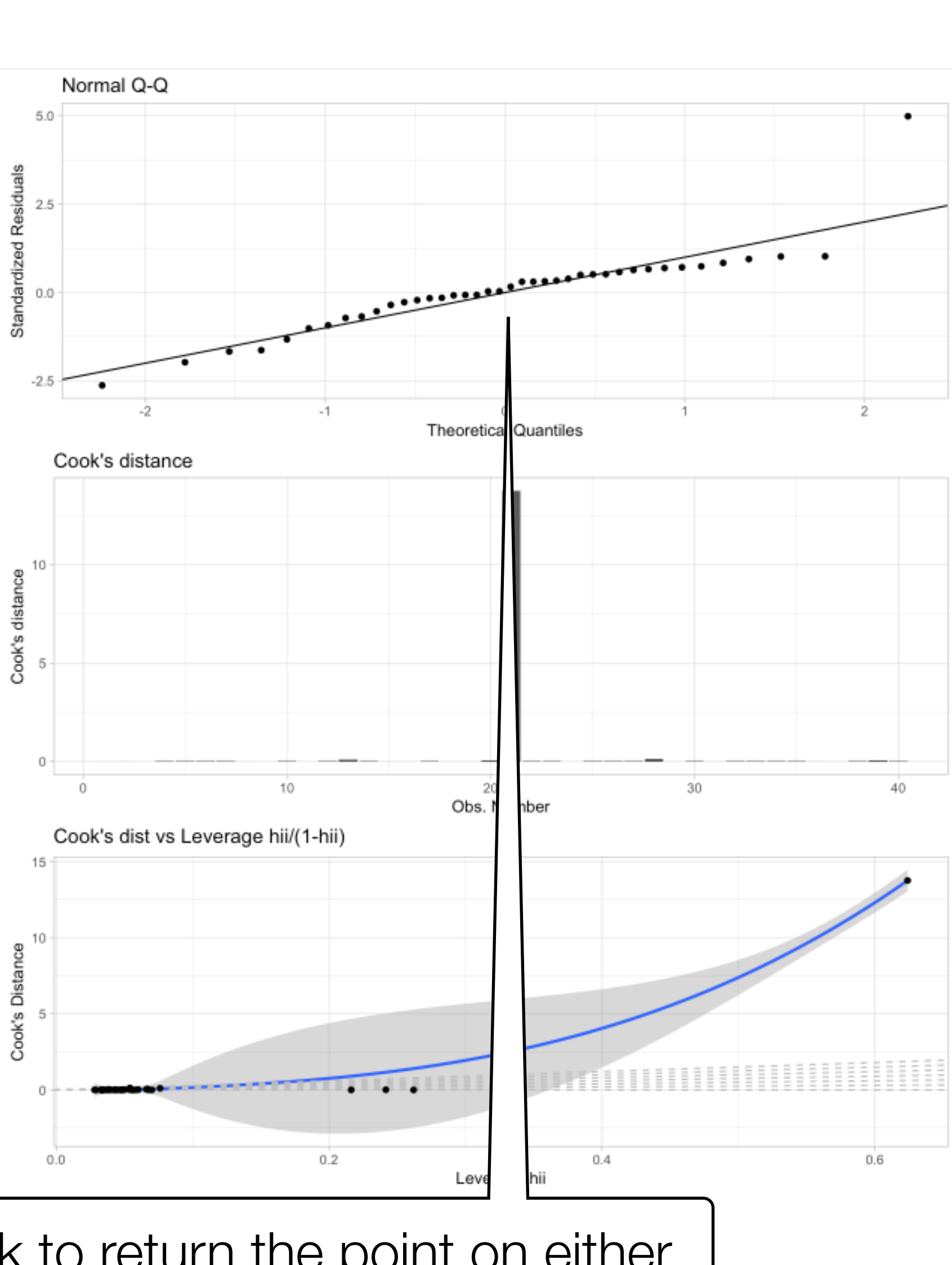
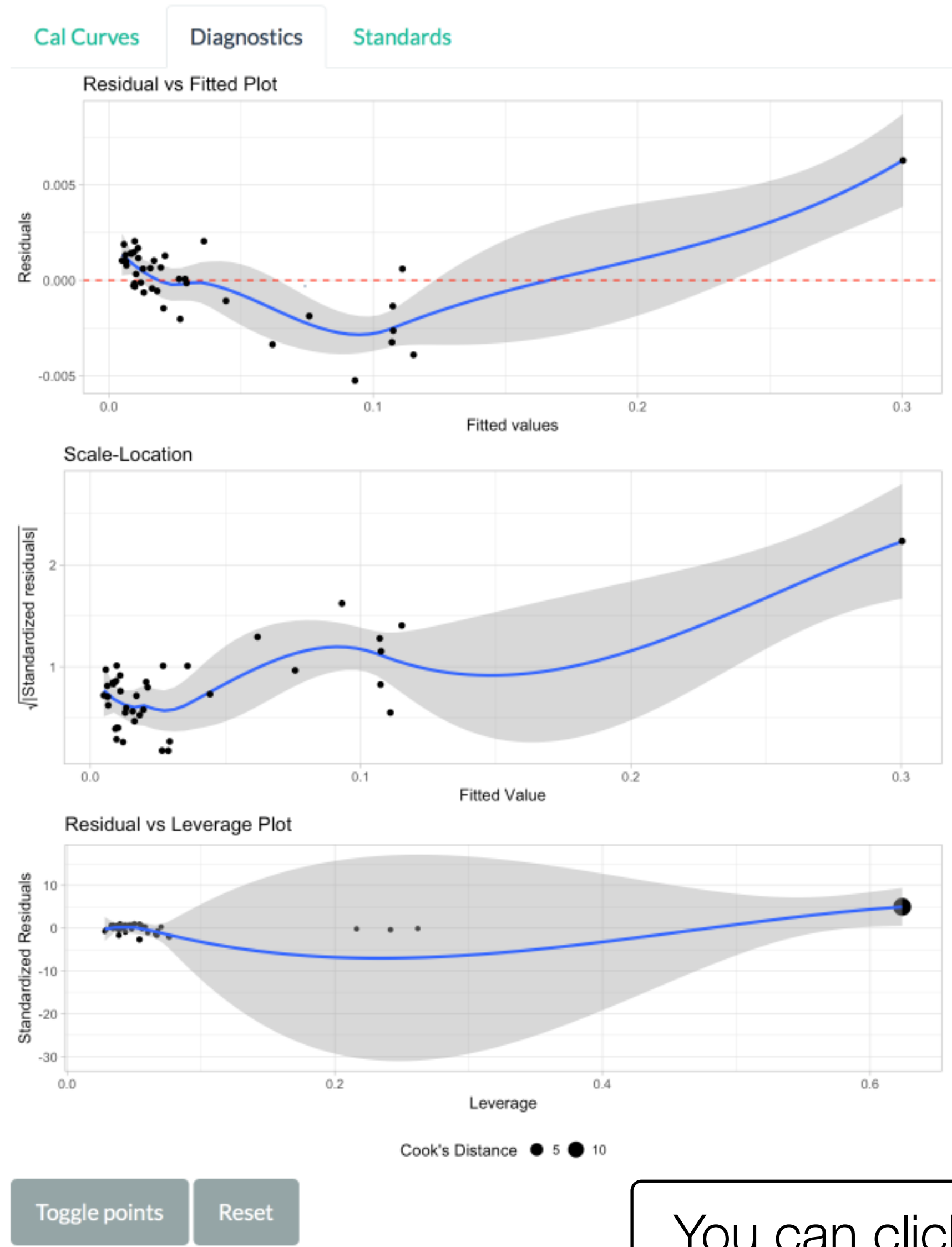
Calibration Curve
 Linear
 Non-Linear
 Lucas-Tooth

Normalization
 Time
 Total Counts
 Compton

Min
19.5

Max
22

Intercept
 K.K.alpha
 Ca.K.alpha
 Ti.K.alpha
 Mn.K.alpha
 Fe.K.alpha
 Co.K.alpha
 Cu.K.alpha
 Zn.K.alpha
 Ga.K.alpha
 As.K.alpha



You can click to return the point on either diagnostic, cal curve, or cal val plots

Plot Update Save Model Report

Element

Zr.K.alpha

Calibration Curve

- Linear
- Non-Linear
- Lucas-Tooth

Normalization

- Time
- Total Counts
- Compton

Min

19.5

Max

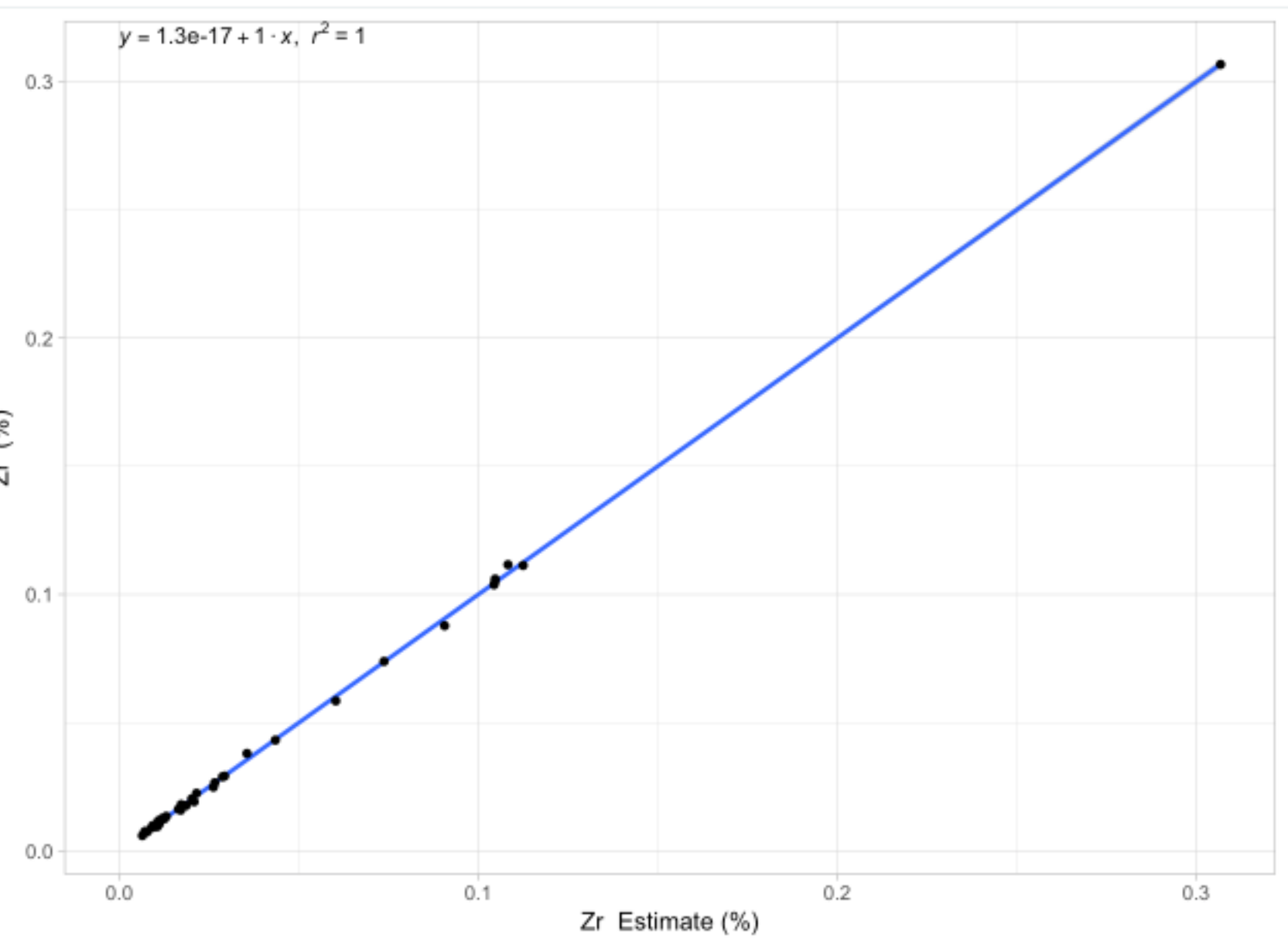
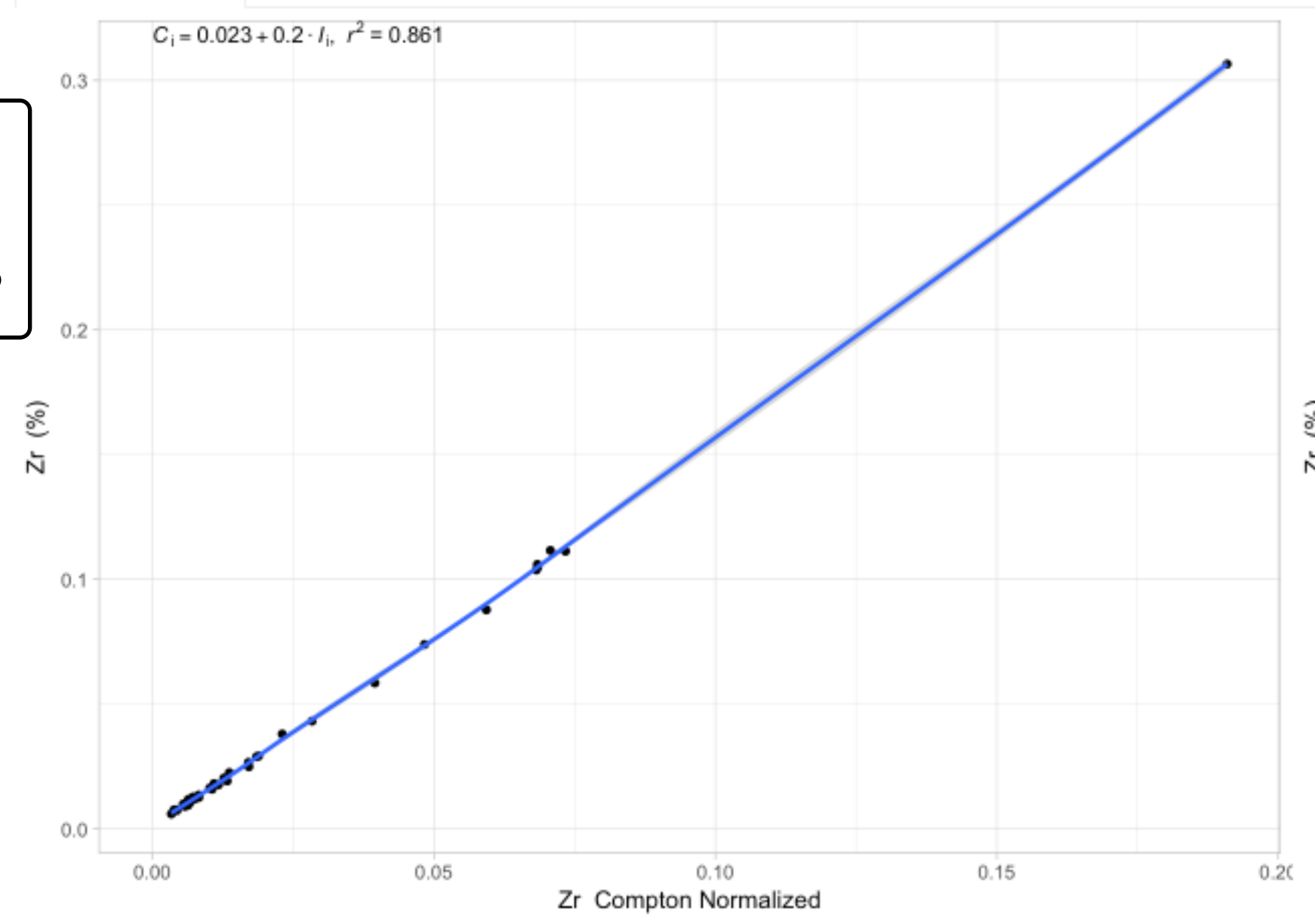
22

Intercept

- K.K.alpha
- Ca.K.alpha
- Ti.K.alpha
- Mn.K.alpha
- Fe.K.alpha
- Co.K.alpha
- Cu.K.alpha
- Zn.K.alpha
- Ga.K.alpha
- As.K.alpha

If you are satisfied, you can click 'Update' to commit these changes

View Curves Diagnostics Standards



Plot Update Save Model Report

Element
Rb.K.alpha

Calibration Curve
 Linear
 Non-Linear
 Lucas-Tooth

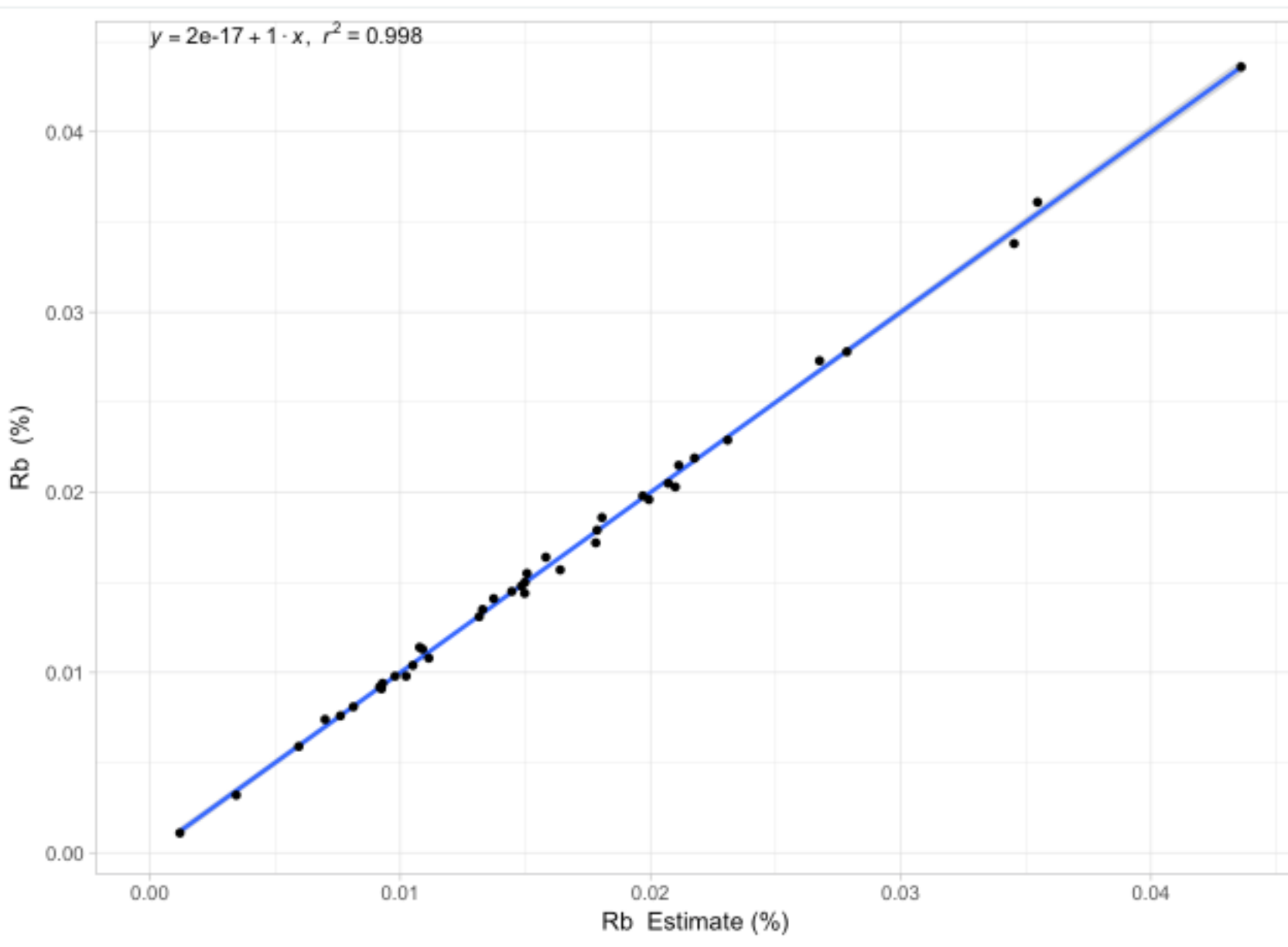
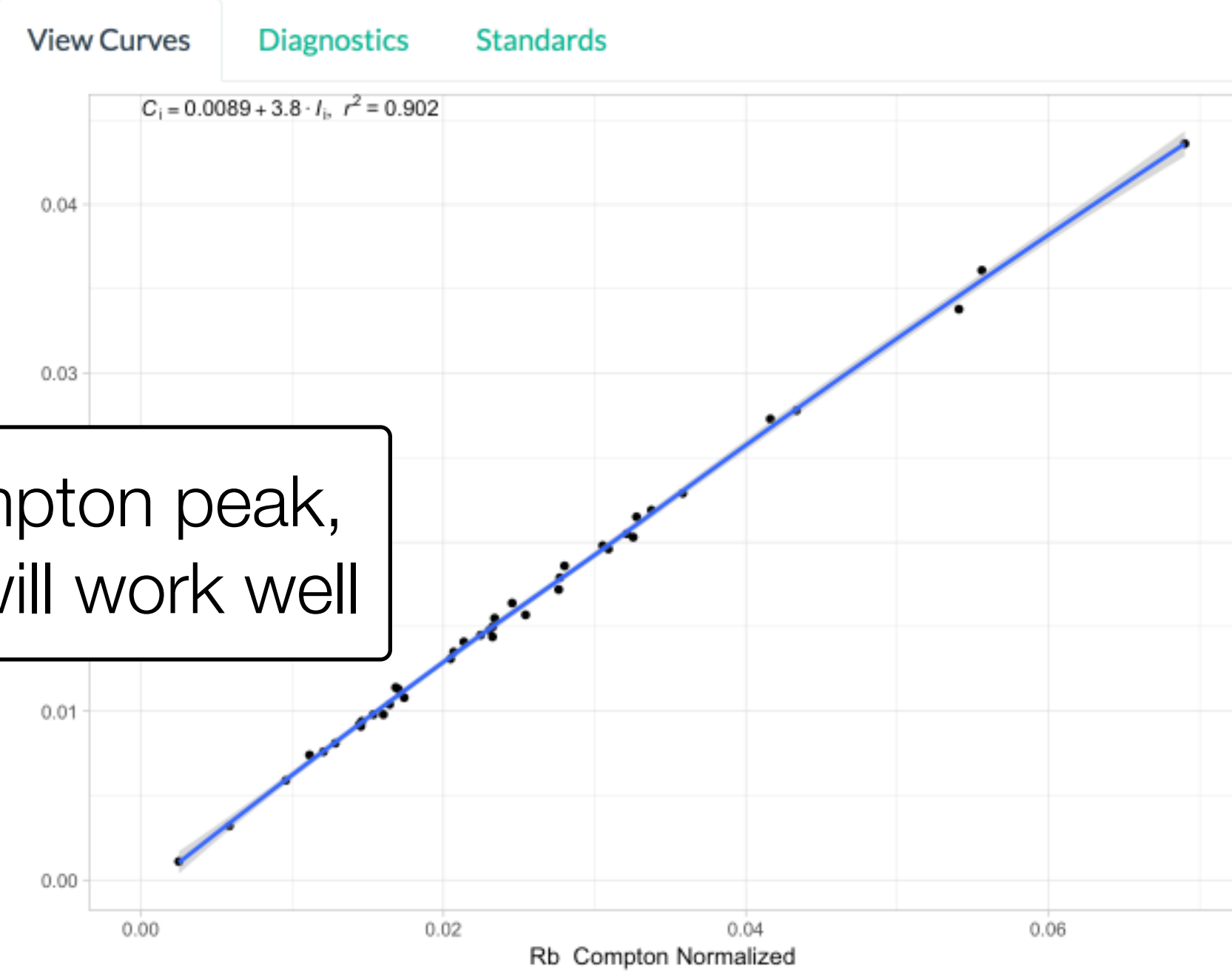
Normalization
 Time
 Total Counts
 Compton

Min
19.5

Max
22

Intercept
 K.K.alpha
 Ca.K.alpha
 Ti.K.alpha
 Mn.K.alpha
 Fe.K.alpha
 Co.K.alpha
 Cu.K.alpha
 Zn.K.alpha
 Ga.K.alpha
 As.K.alpha

For elements near the Compton peak, that form of normalization will work well



Plot Update Save Model Report

Element
K.K.alpha

Calibration Curve

- Linear
- Non-Linear
- Lucas-Tooth

Normalization

- Time
- Total Counts
- Compton

Min
19.5

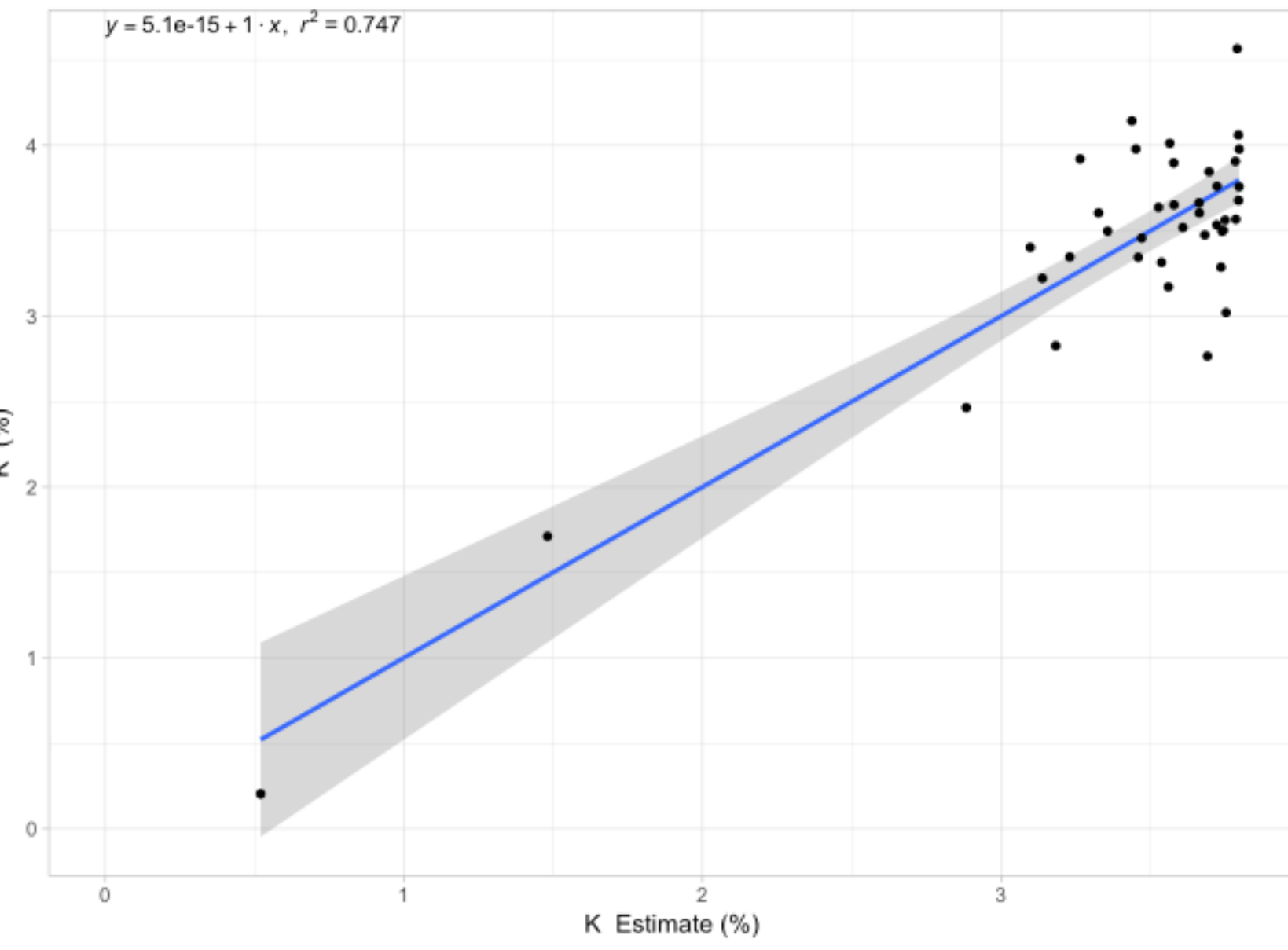
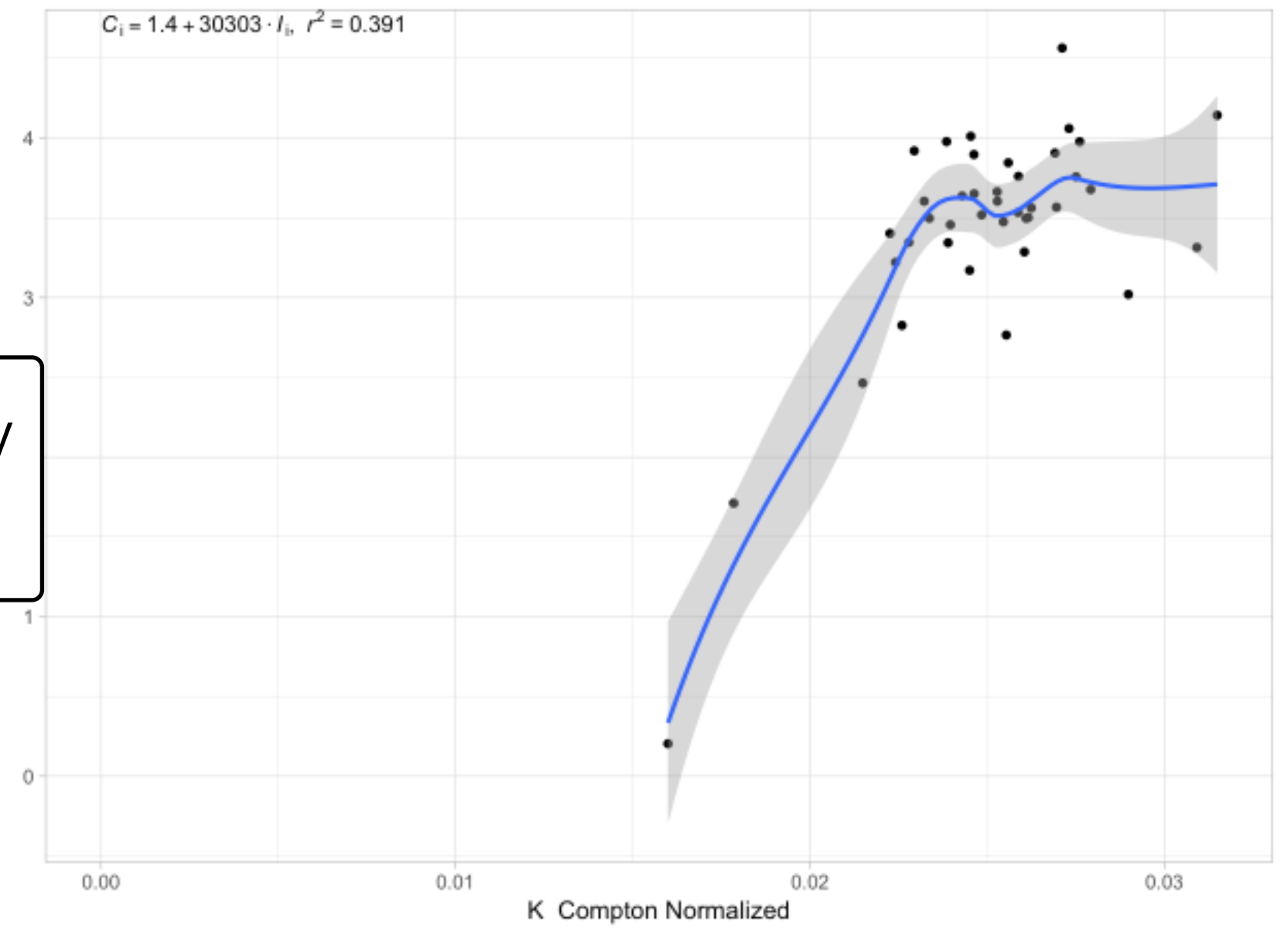
Max
22

Intercept

- K.K.alpha
- Ca.K.alpha
- Ti.K.alpha
- Mn.K.alpha
- Fe.K.alpha
- Co.K.alpha
- Cu.K.alpha
- Zn.K.alpha
- Ga.K.alpha
- As.K.alpha

For other elements, this may not work well however

View Curves Diagnostics Standards



X-Ray Fluorescence Calibration

Calibration Name

Obsidian

Process Data Plot Spectrum Plot

Choose Spectra

Browse... 40 files Upload complete

Spectra Net

Element:

(K) Potassium

(P) Phosphorus

(S) Sulfur

(Cl) Chlorine

(Ar) Argon

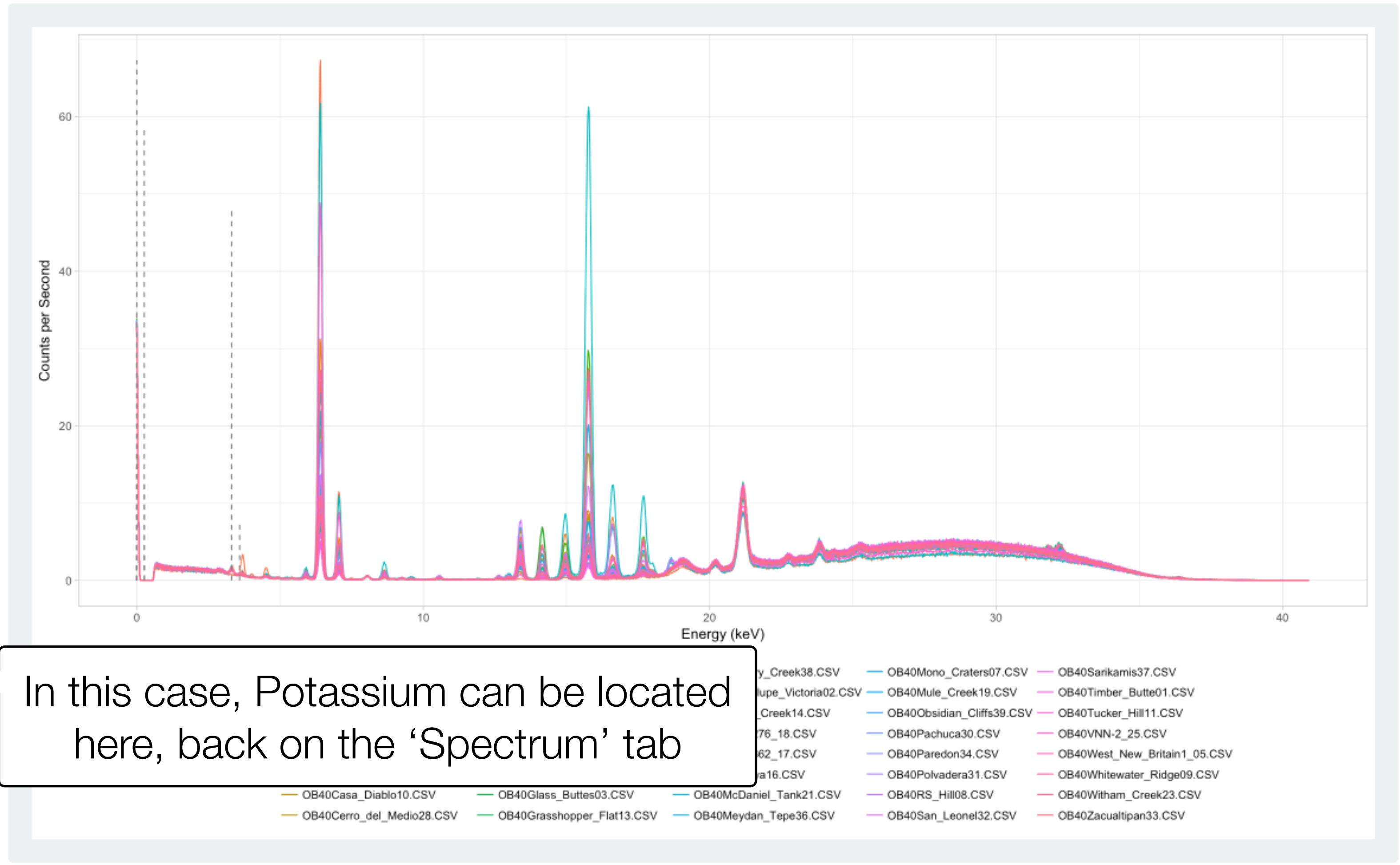
(K) Potassium

(Ca) Calcium

(Sc) Scandium

(Ti) Titanium

Use Cal File



In this case, Potassium can be located here, back on the 'Spectrum' tab

X-Ray Fluorescence Calibration

Calibration Name
Obsidian

Process Data Plot Spectrum Plot

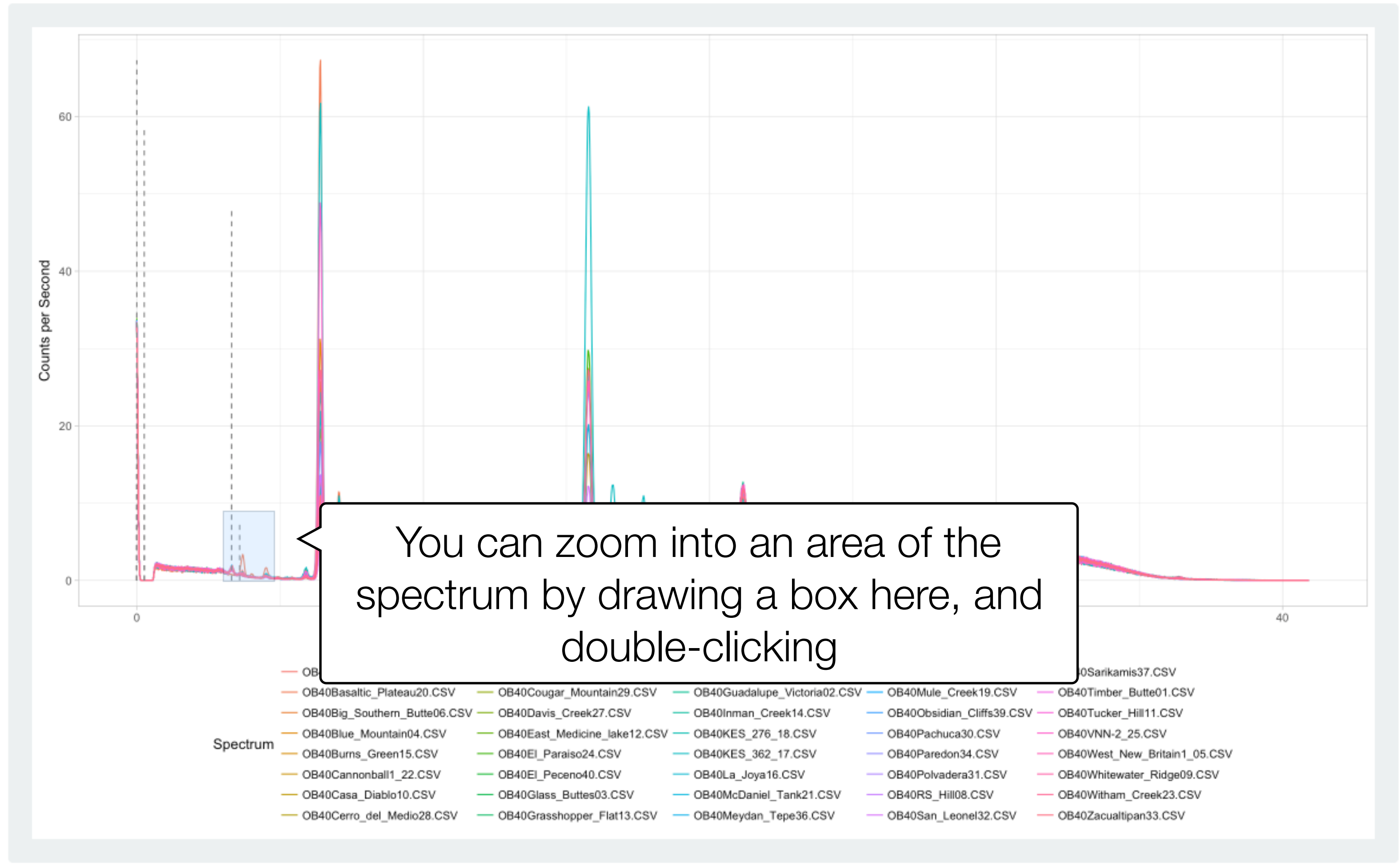
Choose Spectra
Browse... 40 files Upload complete

Spectra
 Net

Element:
(K) Potassium

Load Cal File
Browse... No file selected

Use Cal File



X-Ray Fluorescence Calibration

Calibration Name
Obsidian

Process Data Plot Spectrum Plot

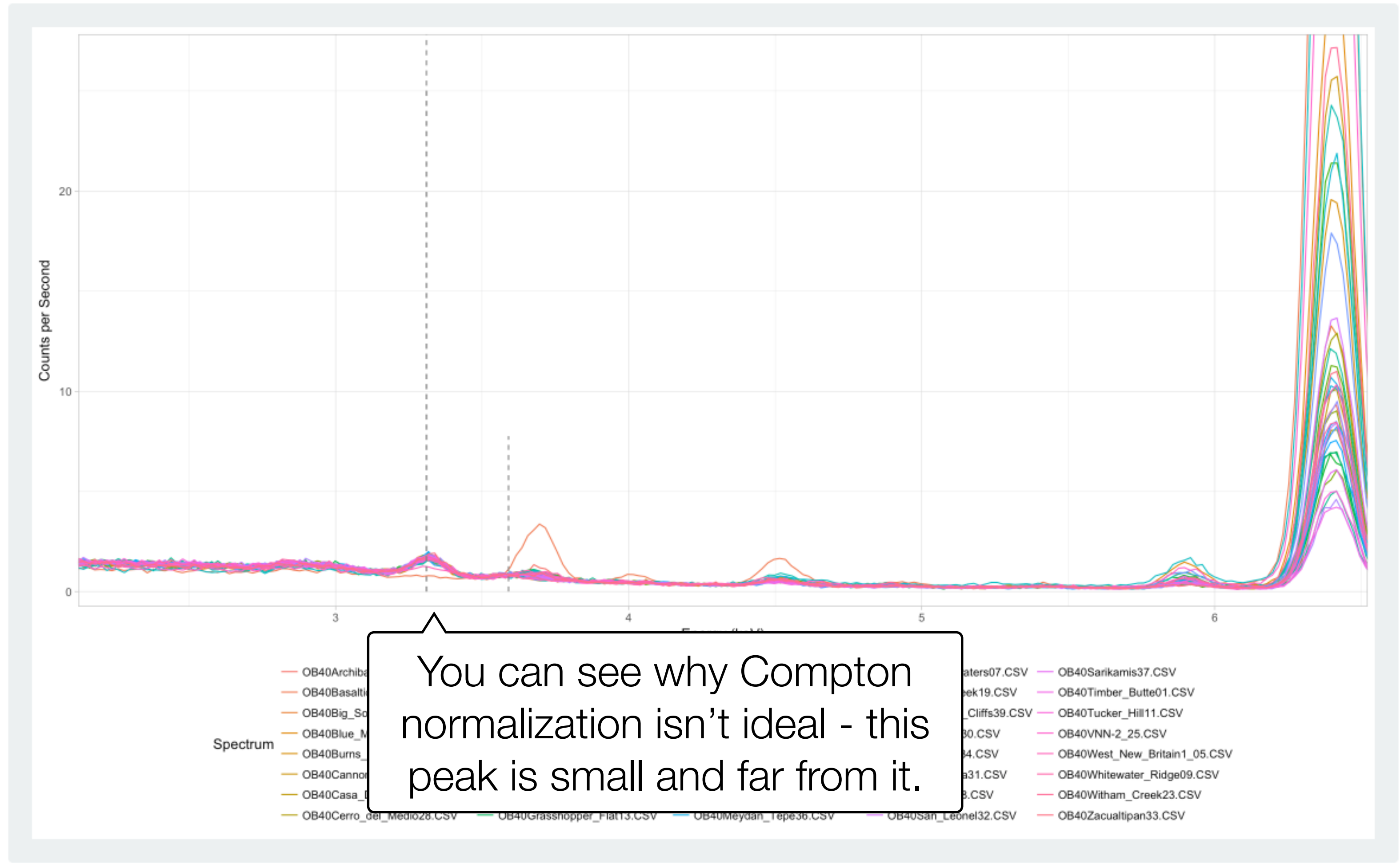
Choose Spectra
Browse... 40 files Upload complete

Spectra
 Net

Element:
(K) Potassium

Load Cal File
Browse... No file selected

Use Cal File



Plot Update Save Model Report

Element: K.K.alpha

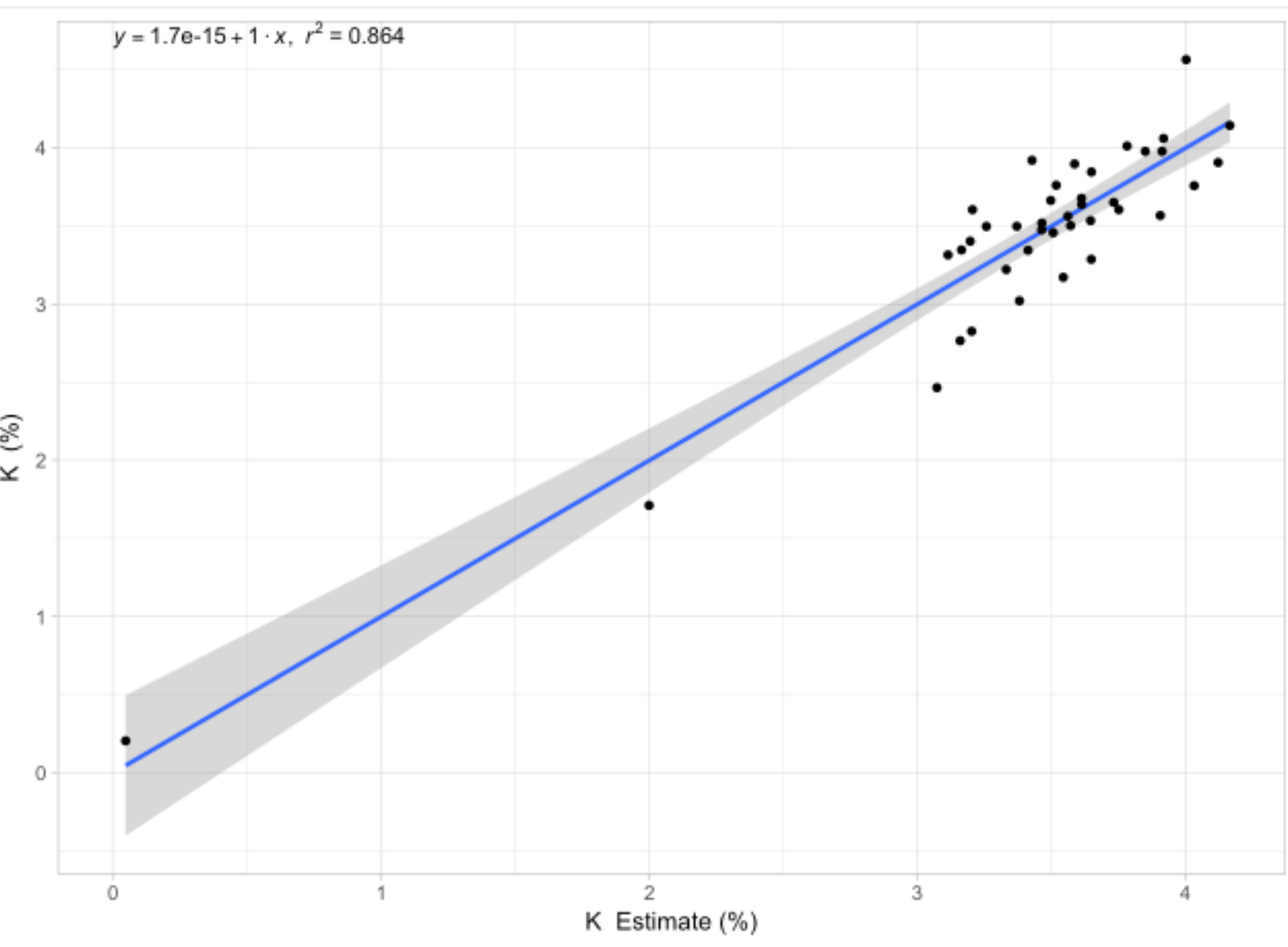
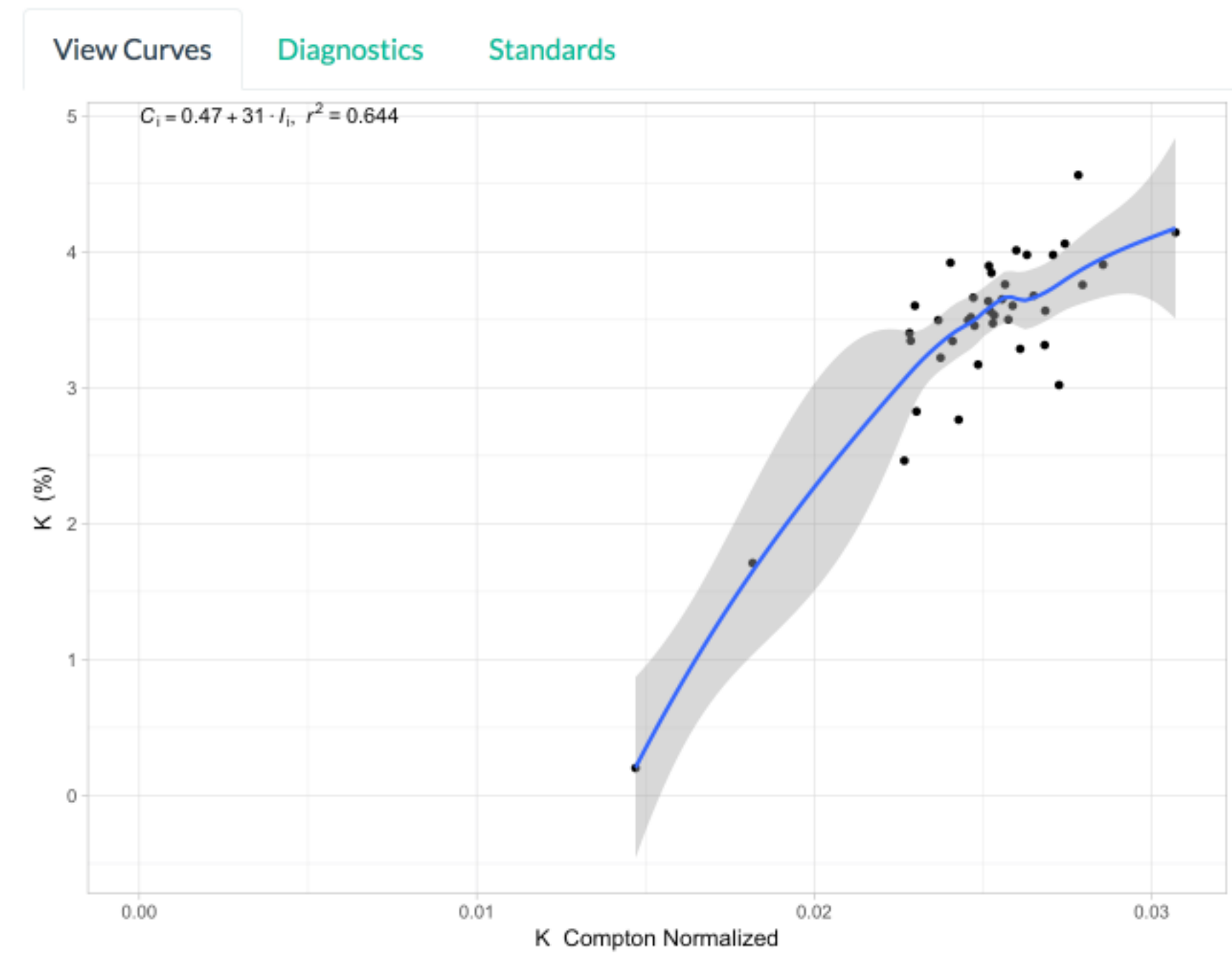
Calibration Curve: Linear Non-Linear Lucas-Tooth

Normalization: Time Total Counts Compton

Min: 3

Max: 3.2

Intercept: K.K.alpha Ca.K.alpha Ti.K.alpha Mn.K.alpha Fe.K.alpha Co.K.alpha Cu.K.alpha Zn.K.alpha Ga.K.alpha As.K.alpha



Here, when the normalization is changed to something closer to the peak, the model improves

Plot Update

To check the quality of the cal, we can evaluate a variety of diagnostic plots

Element
K.K.alpha

Calibration Curve

- Linear
- Non-Linear
- Lucas-Tooth

Normalization

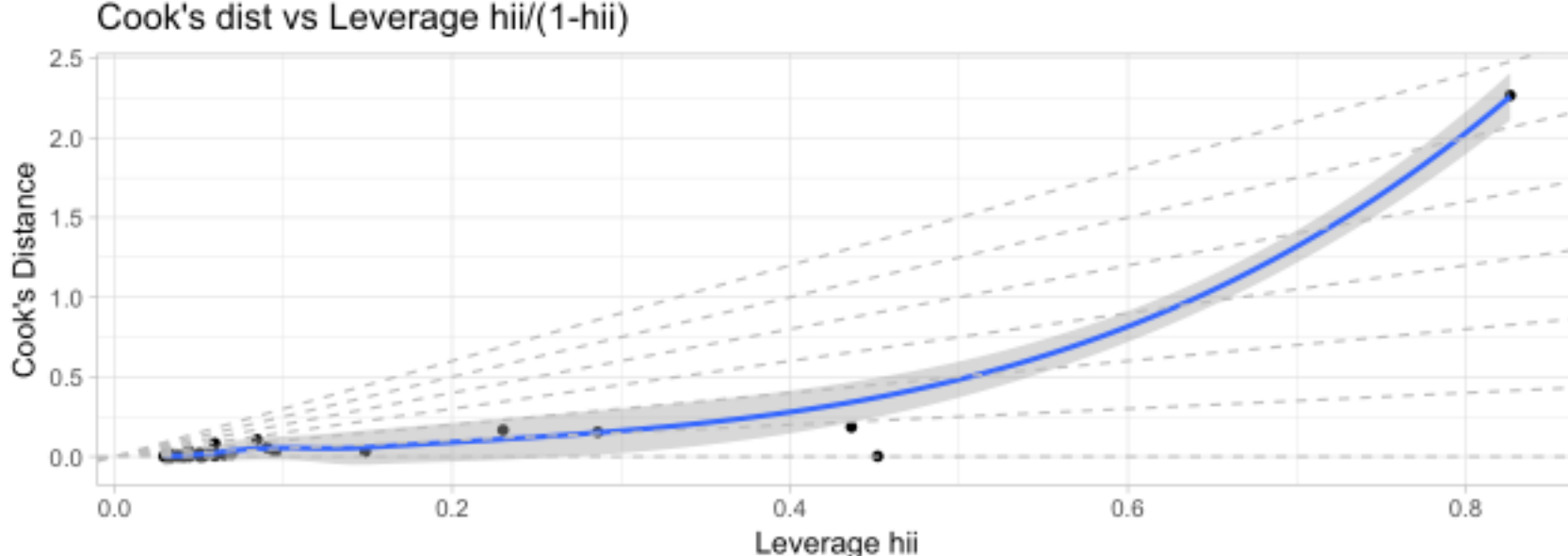
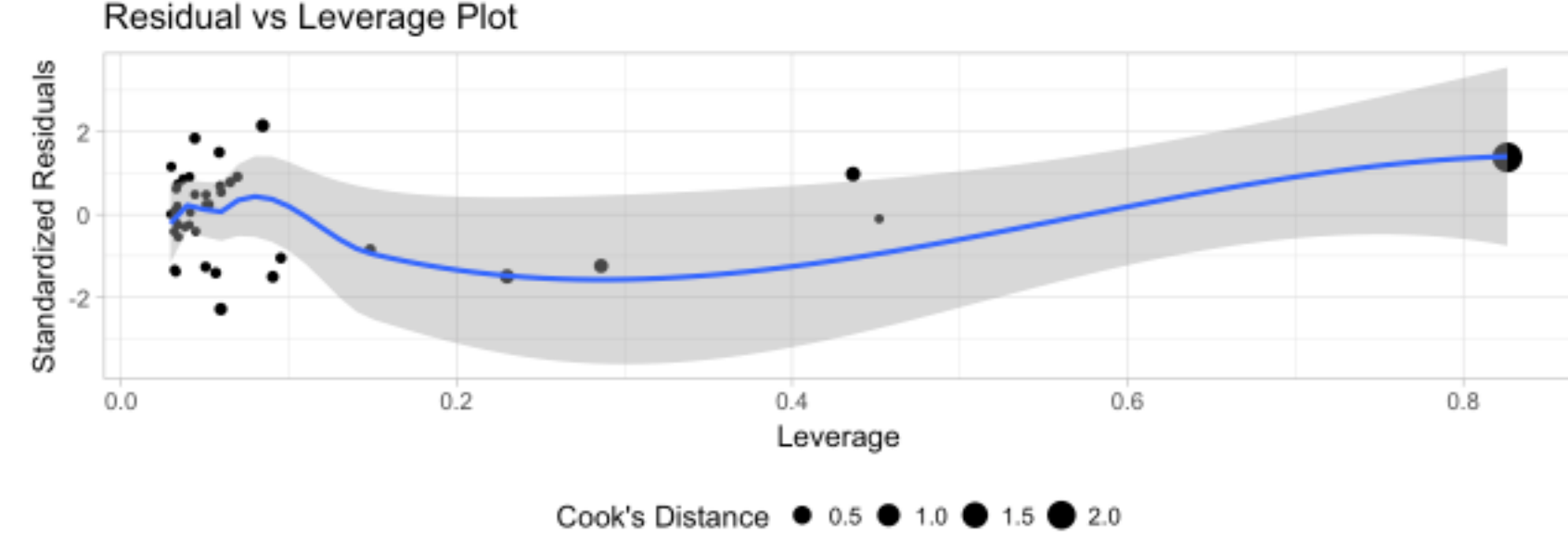
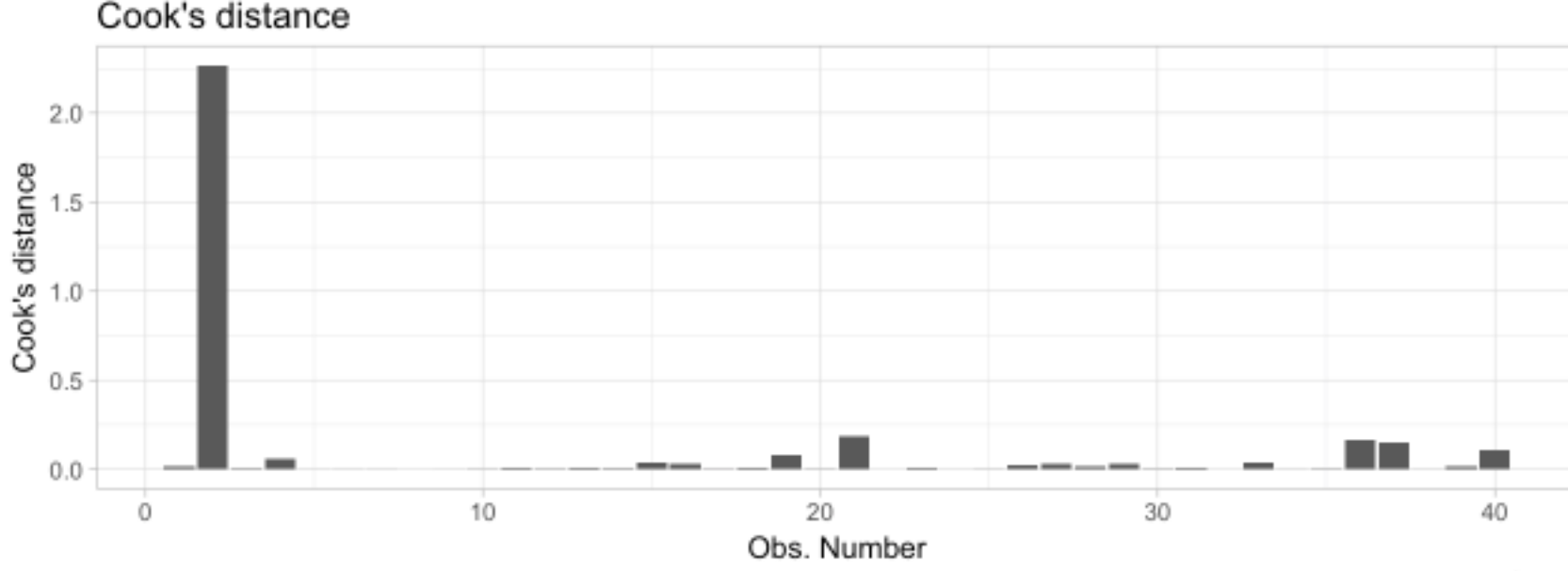
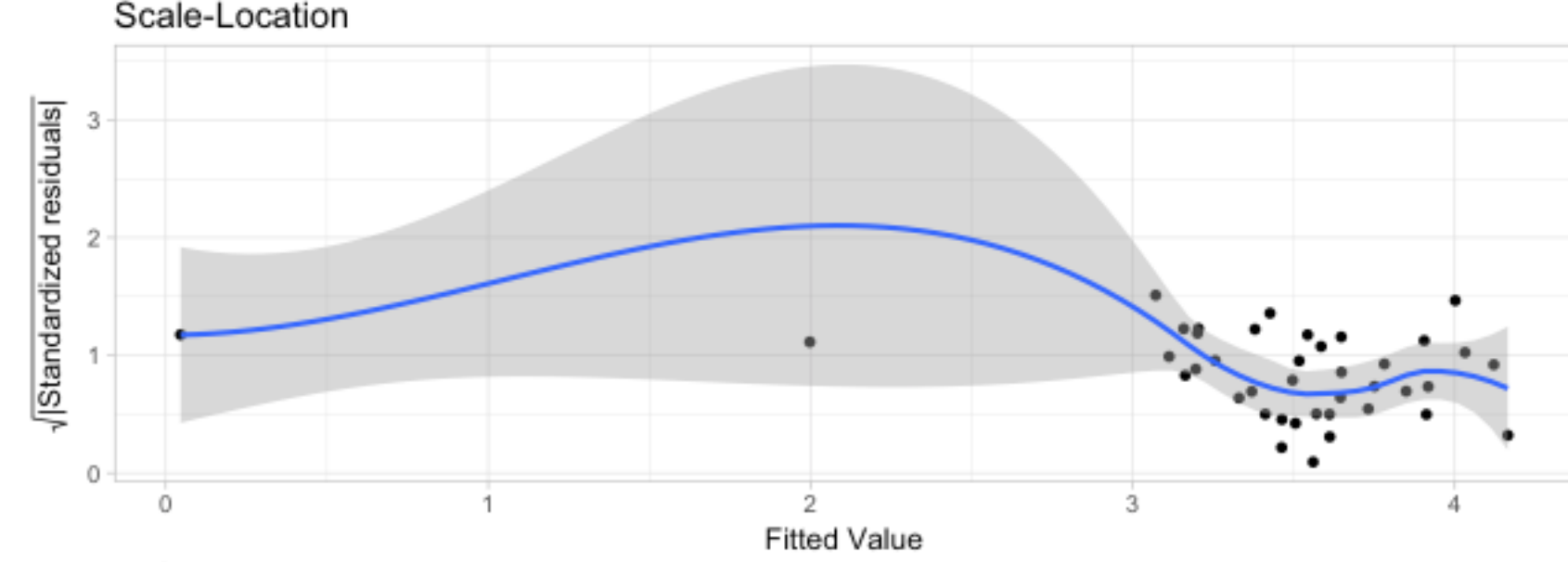
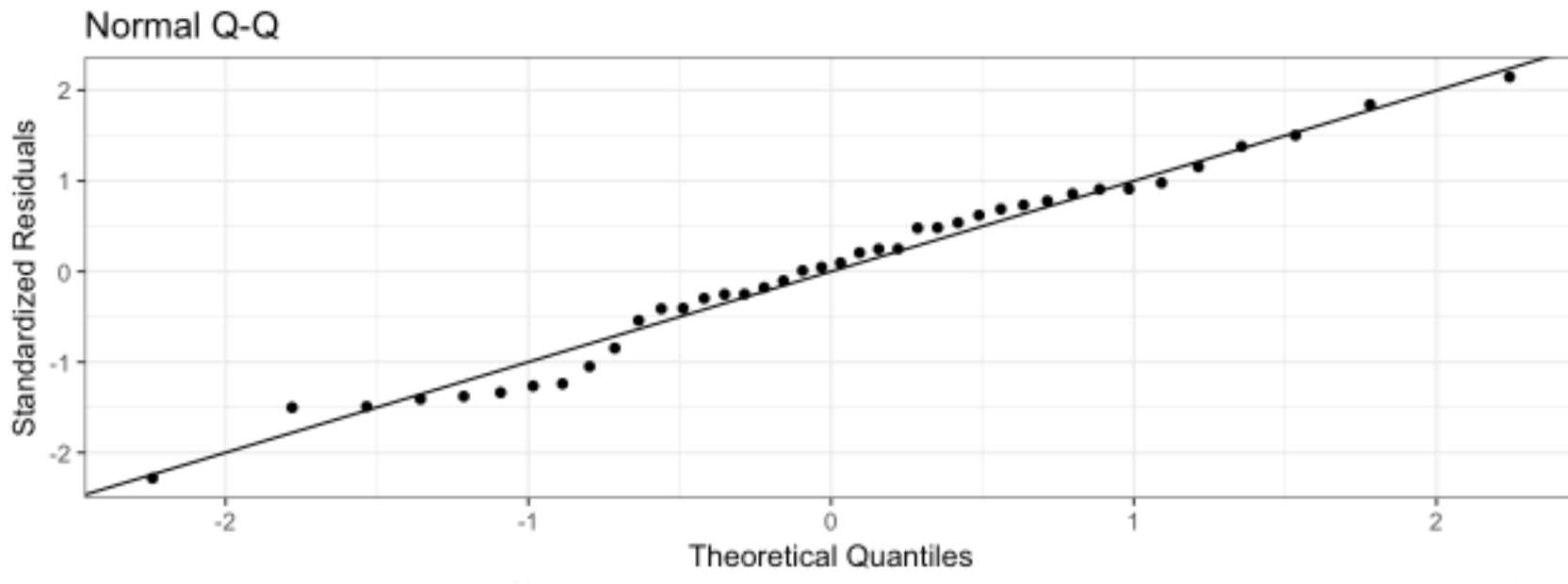
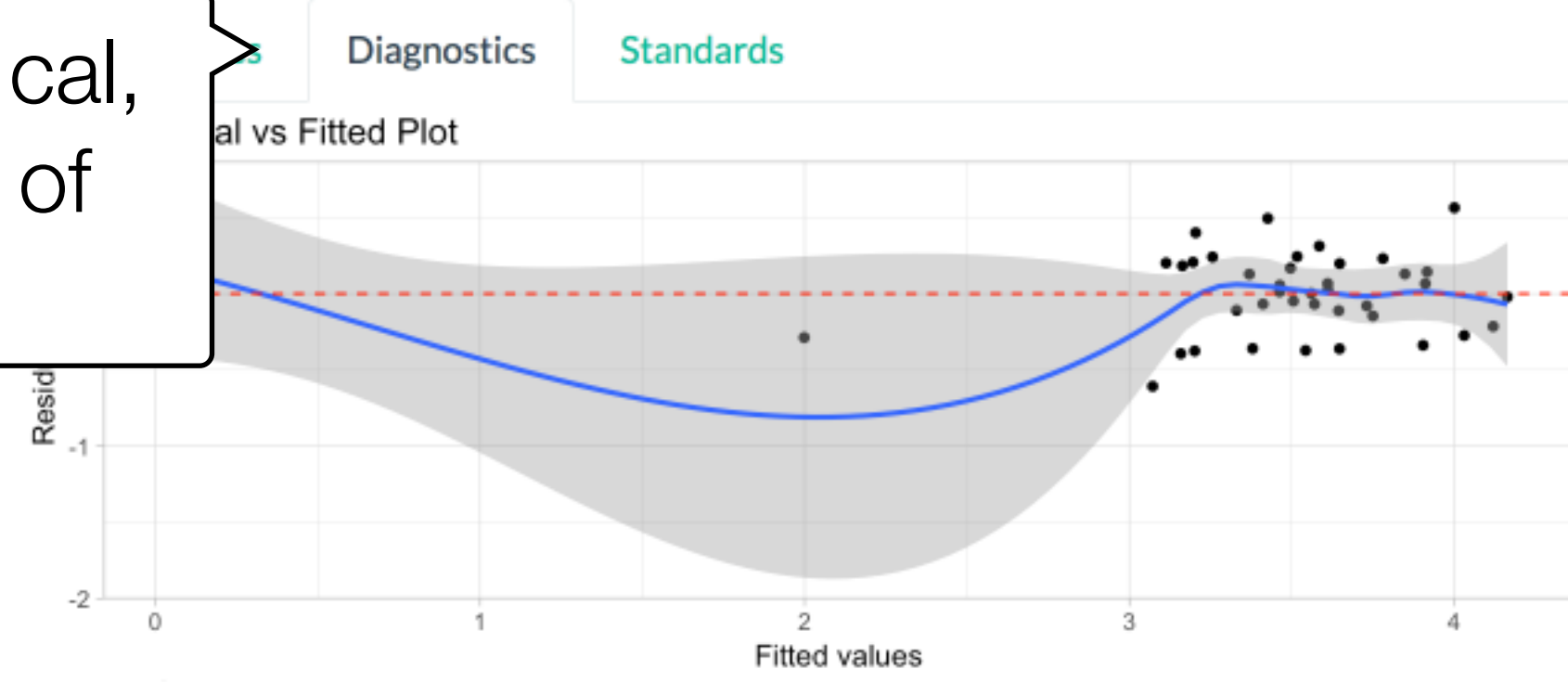
- Time
- Total Counts
- Compton

Min
3

Max
3.2

Intercept

- K.K.alpha
- Ca.K.alpha
- Ti.K.alpha
- Mn.K.alpha
- Fe.K.alpha
- Co.K.alpha
- Cu.K.alpha
- Zn.K.alpha
- Ga.K.alpha
- As.K.alpha



We can also evaluate the product data of the calibration in absolute and relative terms

Plot Update Save

Element K.K.alpha

Calibration Curve Linear Non-Linear Lucas-Tooth

Normalization Time Total Counts Compton

Min 3

Max 3.2

Intercept K.K.alpha Ca.K.alpha Ti.K.alpha Mn.K.alpha Fe.K.alpha Co.K.alpha Cu.K.alpha Zn.K.alpha Ga.K.alpha As.K.alpha

Standards

Search:

		Concentration	Prediction	Difference	Relative
1	OB40Cannonball1_22.CSV	3.6776	3.61095241204926	0.0666475879507411	0.0181225766670495
2	OB40Basaltic_Plateau20.CSV	0.2036	0.0457670629668963	0.157832937033104	0.775210889160627
3	OB40Big_Southern_Butte06.CSV	4.0605	3.91723052438532	0.143269475614676	0.0352837028973466
4	OB40Blue_Mountain04.CSV	2.7656	3.15848555757976	-0.392885557579755	-0.142061598777754
5	OB40Burns_Green15.CSV	3.5022	3.57038916259993	-0.068189162599928	-0.0194703793615236
6	OB40Cannonball1_22.CSV	3.6776	3.61095241204926	0.0666475879507411	0.0181225766670495
7	OB40Casa_Diablo10.CSV	3.9778	3.91174367817721	0.0660563218227885	0.0166062451160914
8	OB40Cerro_del_Medio28.CSV	3.6373	3.61179432075415	0.0255056792458457	0.00701225613665237
9	OB40Chickahominy26.CSV	3.519	3.46324429496596	0.0557557050340427	0.0158441901205009
10	OB40Cougar_Mountain29.CSV	3.2214	3.33031419391722	-0.108914193917224	-0.0338095840060916

Showing 1 to 10 of 40 entries

Previous 1 2 3 4 Next

Plot Update Save Model Report

Element
Ca.K.alpha

Calibration Curve
Total Counts
Compton

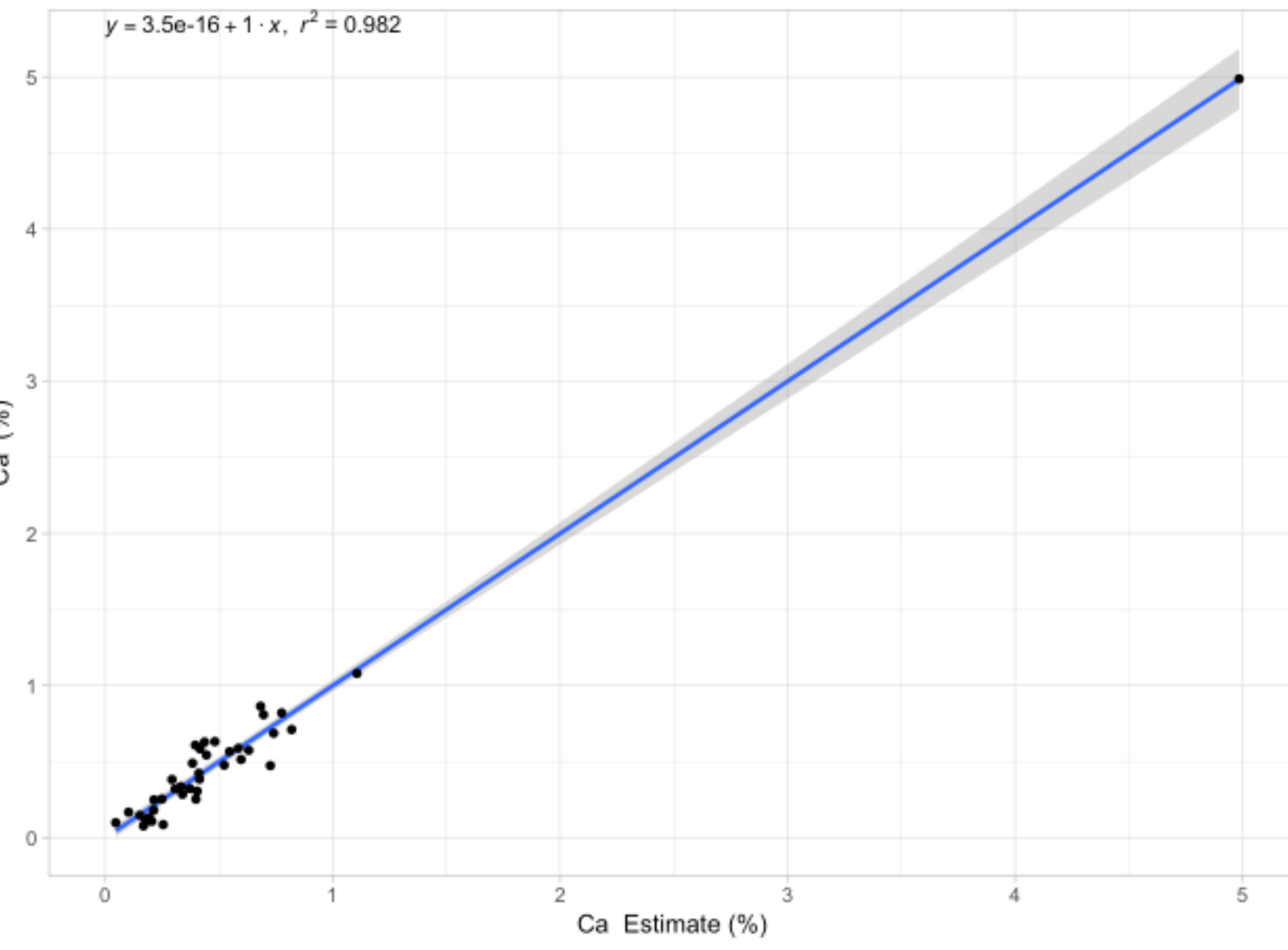
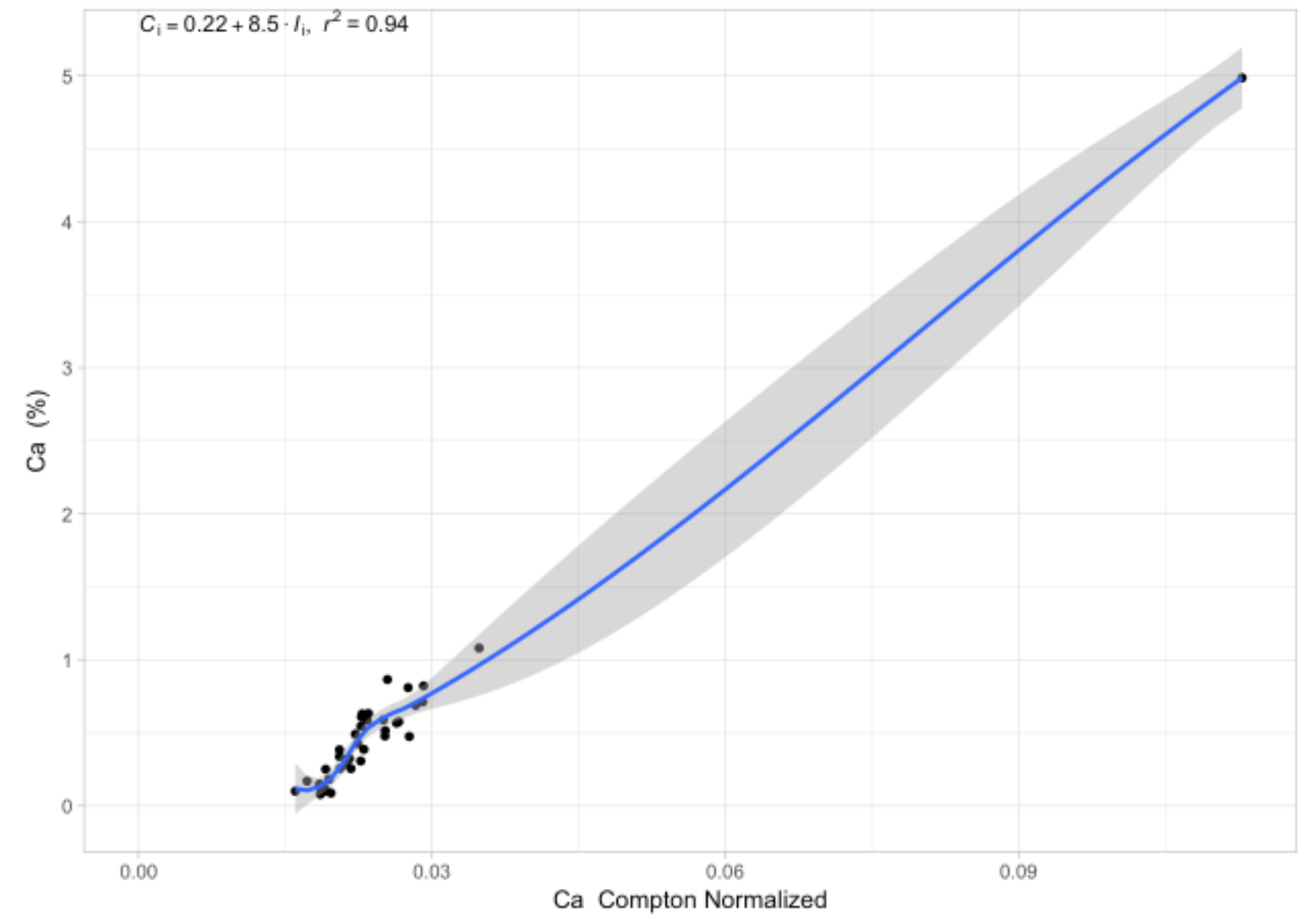
Min
3

Max
3.2

- Intercept
- K.K.alpha
 - Ca.K.alpha
 - Ti.K.alpha
 - Mn.K.alpha
 - Fe.K.alpha
 - Co.K.alpha
 - Cu.K.alpha
 - Zn.K.alpha
 - Ga.K.alpha
 - As.K.alpha

To see why this is important, we can look at another element

View Curves Diagnostics Standards



One point has a concentration much higher than all the others, is this ok for the model?

Plot Update Save Model Report

Element
Ca.K.alpha

Calibration Curve

- Linear
- Non-Linear
- Lucas-Tooth

Normalization

- Time
- Total Counts
- Compton

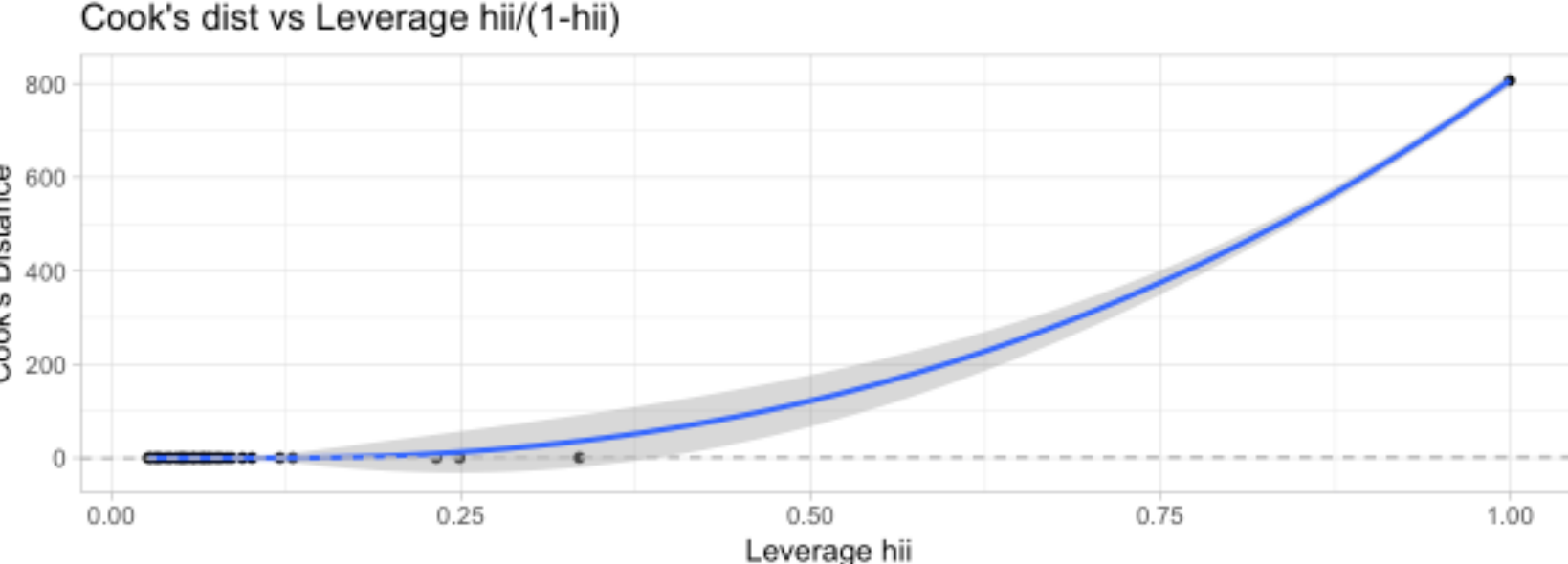
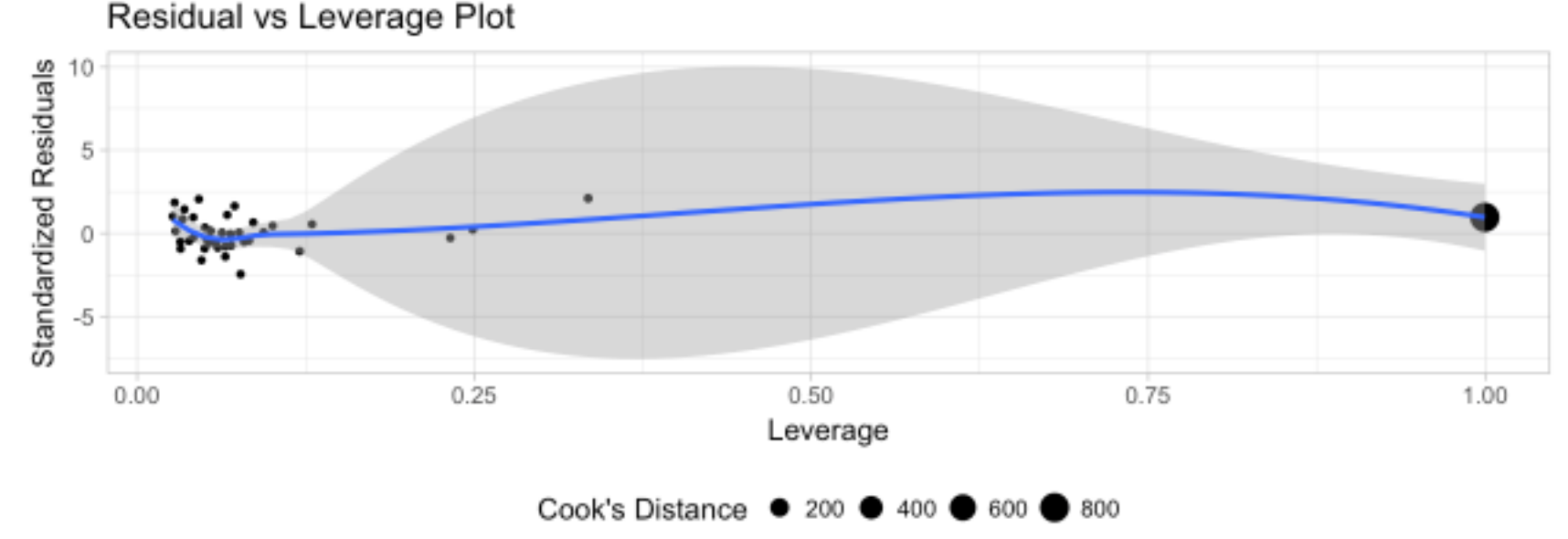
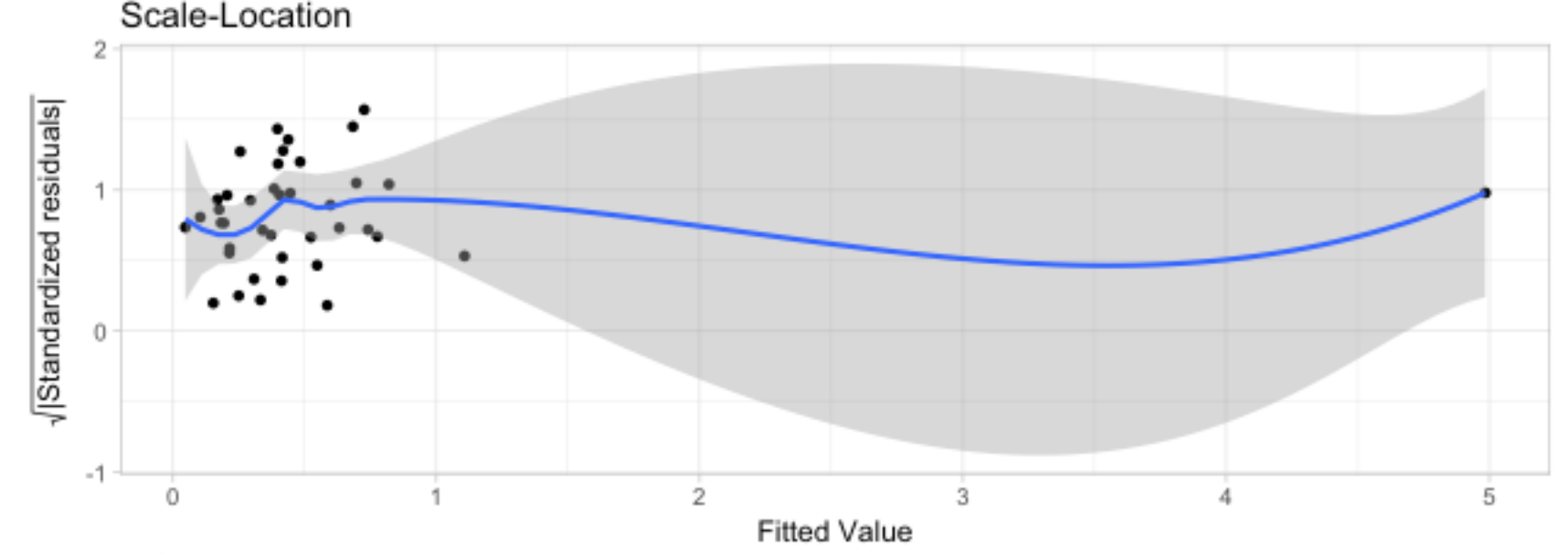
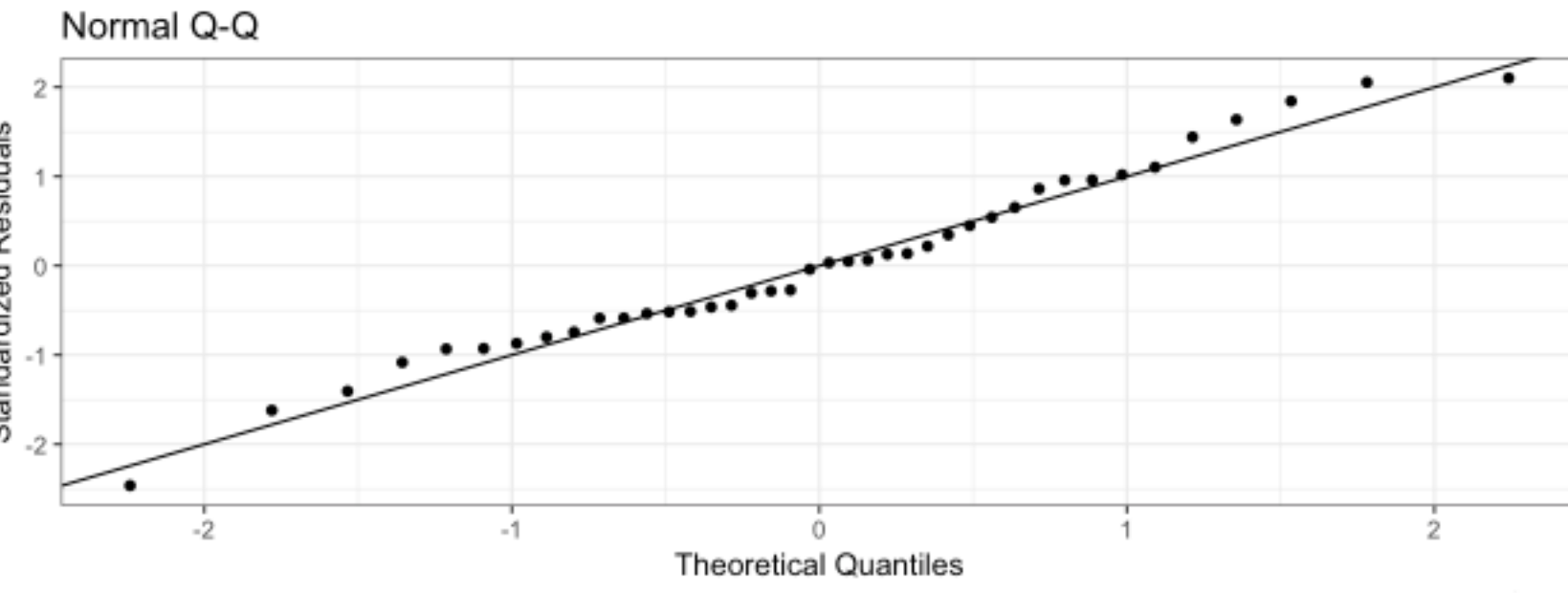
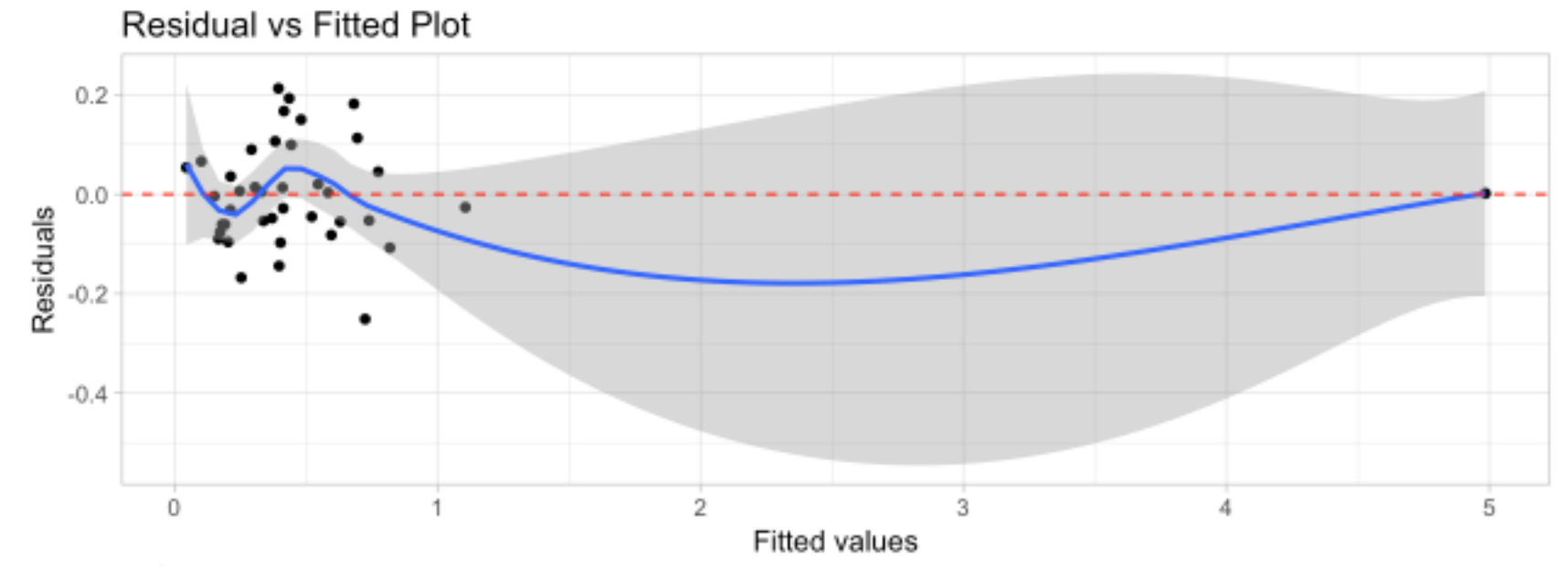
Min
3

Max
3.2

Intercept

- K.K.alpha
- Ca.K.alpha
- Ti.K.alpha
- Mn.K.alpha
- Fe.K.alpha
- Co.K.alpha
- Cu.K.alpha
- Zn.K.alpha
- Ga.K.alpha
- As.K.alpha

View Curves Diagnostics Standards



Cook's Distance ● 200 ● 400 ● 600 ● 800

Diagnostic plots indicate that while the Q-Q is good, that point has a large Cook's Distance

Enter Values

If we return to 'Add Concentrations', we can put in '999' in the cell with the high value to delete it. Then hit 'Enter Values'

Enter Concentrations

	Spectrum	K.K.alpha	Ca.K.alpha	Ti.K.alpha	Mn.K.alpha	Fe.K.alpha	Co.K.alpha	Cu.K.alpha	Zn.K.alpha	Ga.K.alpha	As.K.alpha	Rb.K.alpha	Sr.K.alpha	Y.K.alpha
1	OB40Archibarca35.CSV	3.17	1.08	0.08	0.05	0.87	0.00	0.00	0.00	0.00	0.00	0.01	0.03	
2	OB40Basaltic_Plateau20.CSV	0.20	999	0.78	0.11	6.85	0.00	0.00	0.01	0.00	0.00	0.00	0.03	
3	OB40Big_Southern_Butte06.CSV	4.06	0.32	0.05	0.03	1.17	0.00	0.00	0.03	0.00	0.00	0.03	0.00	
4	OB40Blue_Mountain04.CSV	2.77	0.10	0.12	0.16	2.74	0.00	0.00	0.02	0.00	0.00	0.01	0.00	
5	OB40Burns_Green15.CSV	3.50	0.13	0.10	0.05	1.72	0.00	0.00	0.01	0.00	0.00	0.01	0.00	
6	OB40Cannonball1_22.CSV	3.68	0.18	0.10	0.05	2.33	0.00	0.00	0.02	0.00	0.00	0.03	0.00	
7	OB40Casa_Diablo10.CSV	3.98	0.61	0.11	0.03	0.93	0.00	0.00	0.00	0.00	0.00	0.01	0.01	
8	OB40Cerro_del_Medio28.CSV	3.64	0.25	0.05	0.04	0.71	0.00	0.00	0.01	0.00	0.00	0.02	0.00	
9	OB40Chickahominy26.CSV	3.52	0.42	0.11	0.04	1.18	0.00	0.00	0.01	0.00	0.00	0.01	0.00	
10	OB40Cougar_Mountain29.CSV	3.22	0.47	0.03	0.03	0.81	0.00	0.00	0.01	0.00	0.00	0.01	0.00	
11	OB40Davis_Creek27.CSV	4.01	0.58	0.05	0.04	0.53	0.00	0.00	0.00	0.00	0.00	0.01	0.01	
12	OB40East_Medicine_lake12.CSV	3.66	0.63	0.14	0.03	1.04	0.00	0.00	0.00	0.00	0.00	0.01	0.01	
13	OB40El_Paraiso24.CSV	3.76	0.11	0.08	0.02	1.94	0.00	0.00	0.02	0.00	0.00	0.02	0.00	
14	OB40El_Peceno40.CSV	3.85	0.81	0.05	0.09	0.61	0.00	0.00	0.01	0.00	0.00	0.02	0.03	
15	OB40Glass_Butttes03.CSV	3.60	0.52	0.06	0.03	0.62	0.00	0.00	0.00	0.00	0.00	0.01	0.01	
16	OB40Grasshopper_Flat13.CSV	3.76	0.58	0.13	0.03	0.92	0.00	0.00	0.00	0.00	0.00	0.01	0.01	
17	OB40Gregory_Creek38.CSV	3.60	0.82	0.02	0.07	0.65	0.00	0.00	0.00	0.00	0.00	0.01	0.01	
18	OB40Guadalupe_Victoria02.CSV	3.40	0.34	0.06	0.05	0.43	0.00	0.00	0.00	0.00	0.00	0.01	0.01	
19	OB40Inman_Creek14.CSV	2.46	0.71	0.05	0.05	1.08	0.00	0.00	0.01	0.00	0.00	0.01	0.01	
20	OB40KES_276_18.CSV	4.14	0.57	0.31	0.11	2.34	0.00	0.00	0.01	0.00	0.00	0.02	0.01	
21	OB40KES_362_17.CSV	3.31	0.15	0.16	0.18	5.37	0.00	0.00	0.06	0.00	0.00	0.04	0.00	
22	OB40La_Joya16.CSV	3.48	0.12	0.09	0.06	1.89	0.00	0.00	0.01	0.00	0.00	0.02	0.00	
23	OB40McDaniel_Tank21.CSV	3.90	0.69	0.16	0.06	1.00	0.00	0.00	0.01	0.00	0.00	0.02	0.02	
24	OB40Meydan_Tepe36.CSV	3.46	0.29	0.05	0.05	0.93	0.00	0.00	0.01	0.00	0.00	0.02	0.00	
25	OB40Mono_Craters07.CSV	3.53	0.38	0.04	0.04	0.78	0.00	0.00	0.00	0.00	0.00	0.02	0.00	
26	OB40Mule_Creek19.CSV	3.57	0.39	0.04	0.04	0.66	0.00	0.00	0.00	0.00	0.00	0.02	0.00	
27	OB40Obsidian_Cliffs39.CSV	2.83	0.59	0.06	0.03	0.73	0.00	0.00	0.00	0.00	0.00	0.01	0.01	
28	OB40Pachuca30.CSV	3.29	0.08	0.11	0.11	1.63	0.00	0.00	0.02	0.00	0.00	0.02	0.00	
29	OB40Paredon34.CSV	3.91	0.26	0.08	0.04	0.85	0.00	0.00	0.01	0.00	0.00	0.02	0.00	
30	OB40Polvadera31.CSV	3.98	0.31	0.04	0.04	0.38	0.00	0.00	0.00	0.00	0.00	0.01	0.00	
31	OB40RS_Hill08.CSV	3.35	0.25	0.02	0.04	0.72	0.00	0.00	0.01	0.00	0.00	0.04	0.00	
32	OB40San_Leonel32.CSV	3.56	0.17	0.06	0.03	1.24	0.00	0.00	0.01	0.00	0.00	0.01	0.00	
33	OB40Sarikamis37.CSV	3.92	0.32	0.05	0.04	0.55	0.00	0.00	0.00	0.00	0.00	0.01	0.00	
34	OB40Timber_Butte01.CSV	3.65	0.49	0.03	0.08	0.37	0.00	0.00	0.01	0.00	0.00	0.02	0.00	
35	OB40Tucker_Hill11.CSV	3.50	0.54	0.03	0.05	0.47	0.00	0.00	0.00	0.00	0.00	0.01	0.00	
36	OB40VNN-2_25.CSV	3.02	0.10	0.07	0.12	4.38	0.00	0.00	0.03	0.00	0.00	0.02	0.00	
37	OB40West_New_Britain1_05.CSV	1.71	0.86	0.11	0.06	0.86	0.00	0.00	0.01	0.00	0.00	0.00	0.02	

Plot Update Save Model Report

Element
Ca.K.alpha

Calibration Curve

- Linear
- Non-Linear
- Lucas-Tooth

Normalization

- Time
- Total Counts
- Compton

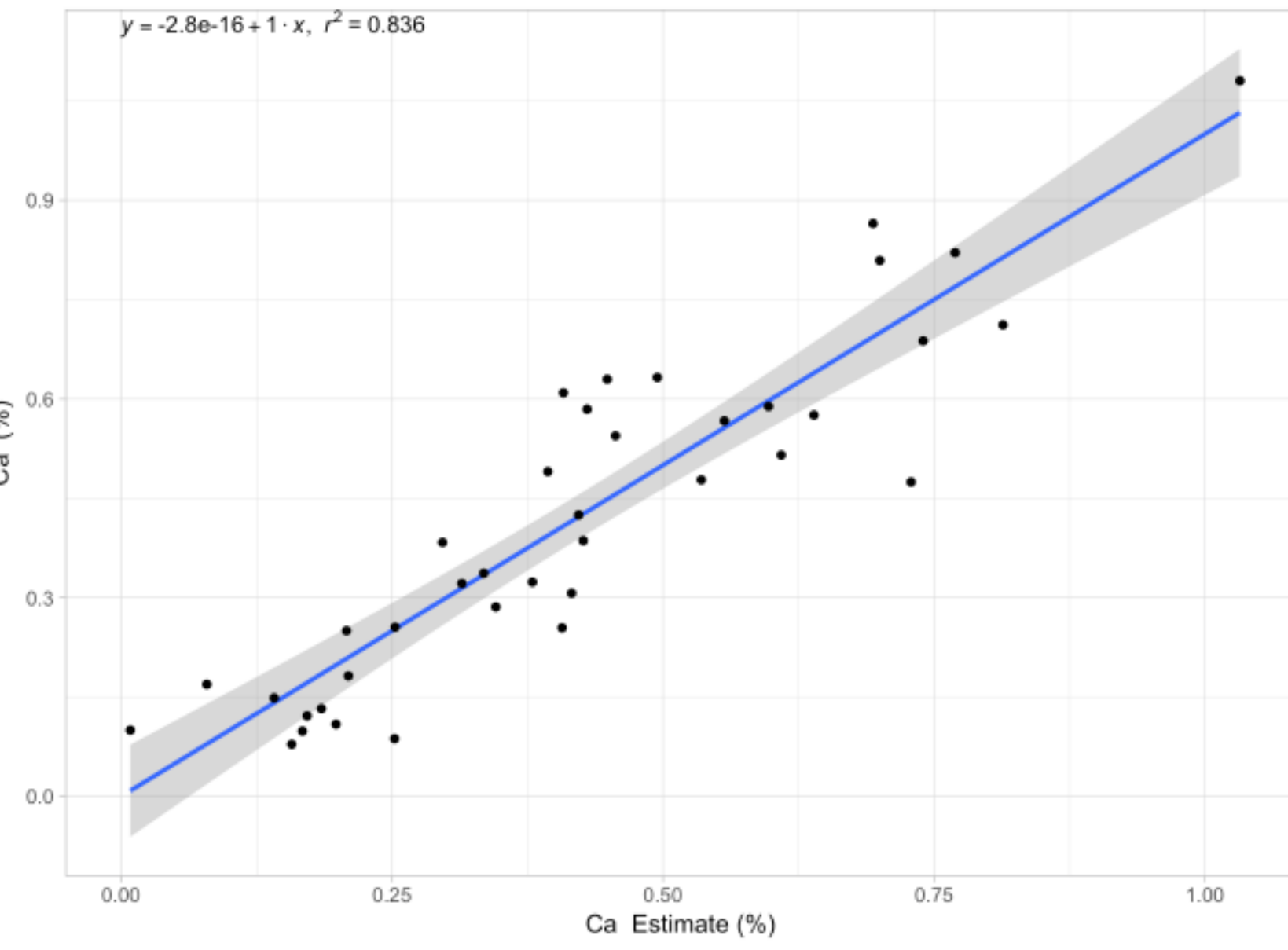
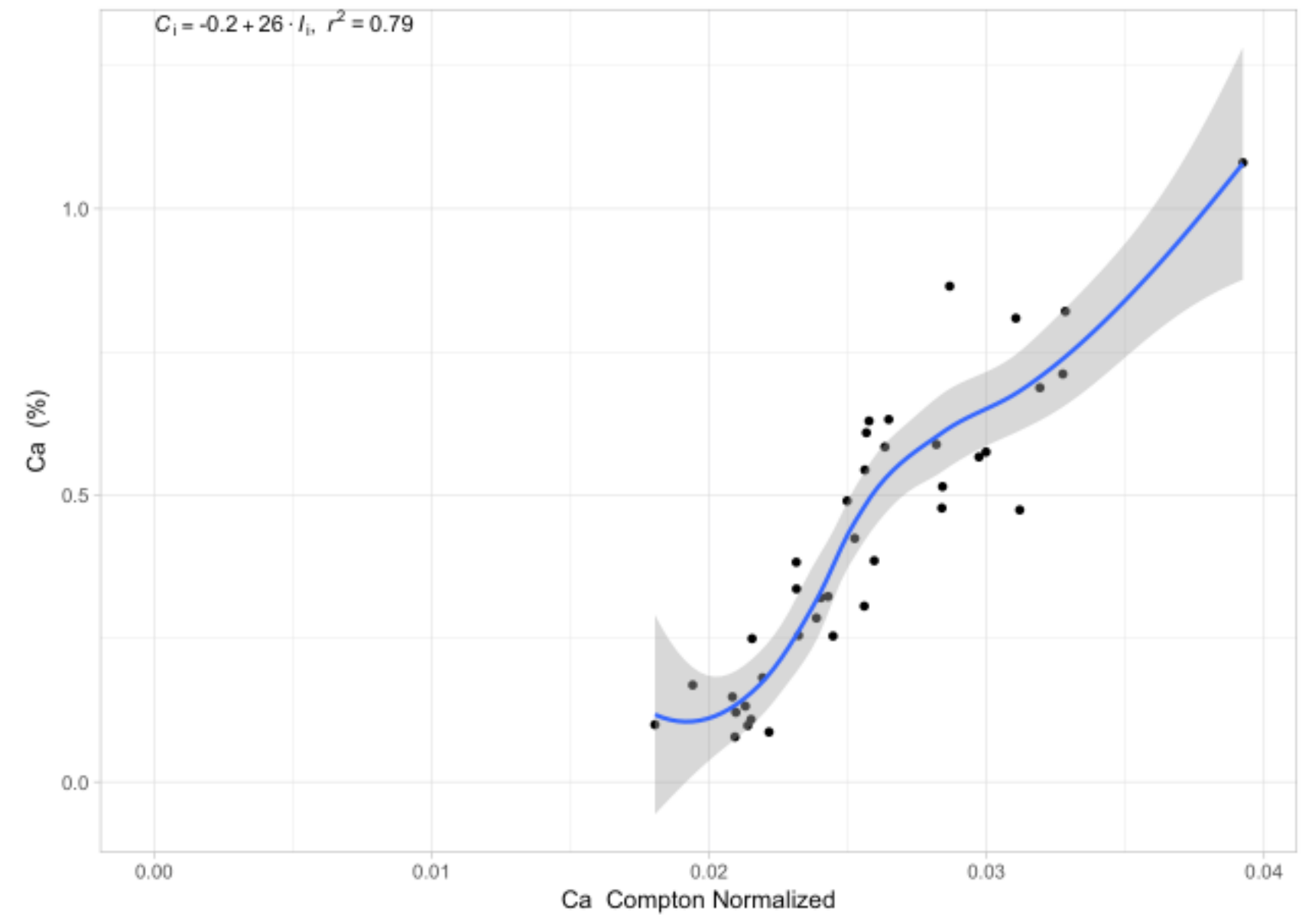
Min
3

Max
3.2

Intercept

- K.K.alpha
- Ca.K.alpha
- Ti.K.alpha
- Mn.K.alpha
- Fe.K.alpha
- Co.K.alpha
- Cu.K.alpha
- Zn.K.alpha
- Ga.K.alpha
- As.K.alpha

View Curves Diagnostics Standards



Click 'Plot' in the 'Cal Curves' window, and you can now see the plot without the data point

Plot Update Save Model Report

Element
Ca.K.alpha

Calibration Curve

- Linear
- Non-Linear
- Lucas-Tooth

Normalization

- Time
- Total Counts
- Compton

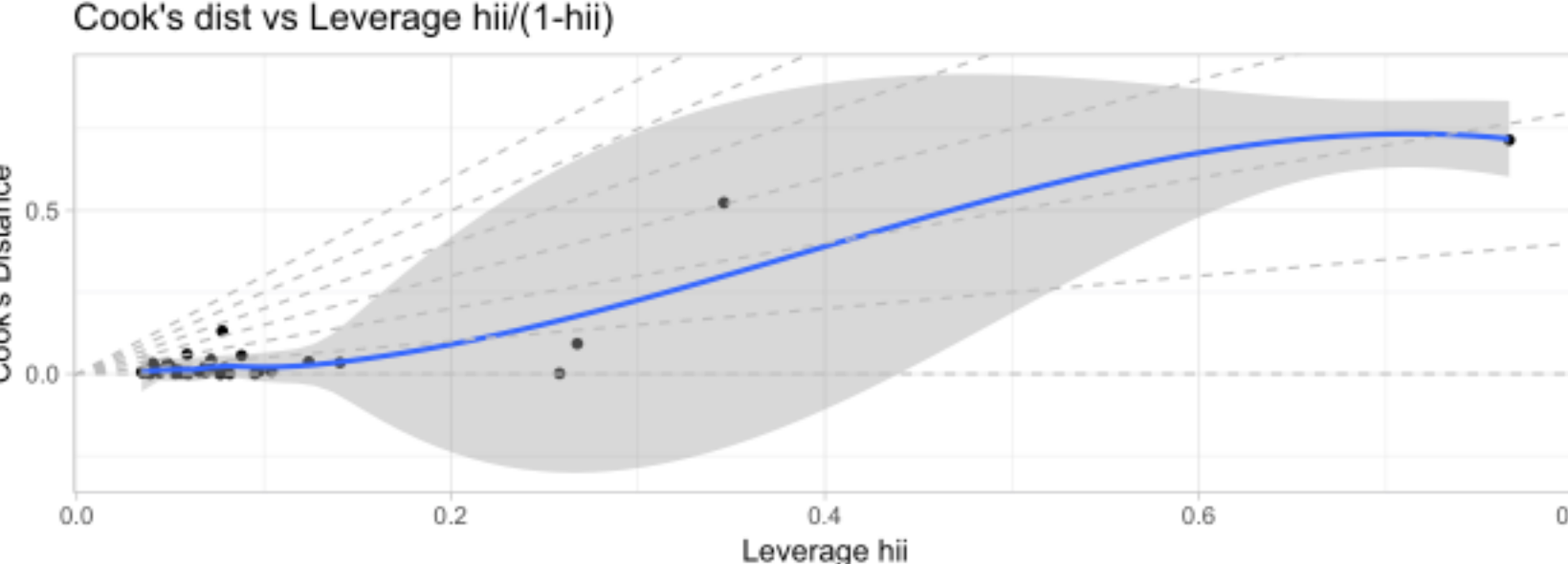
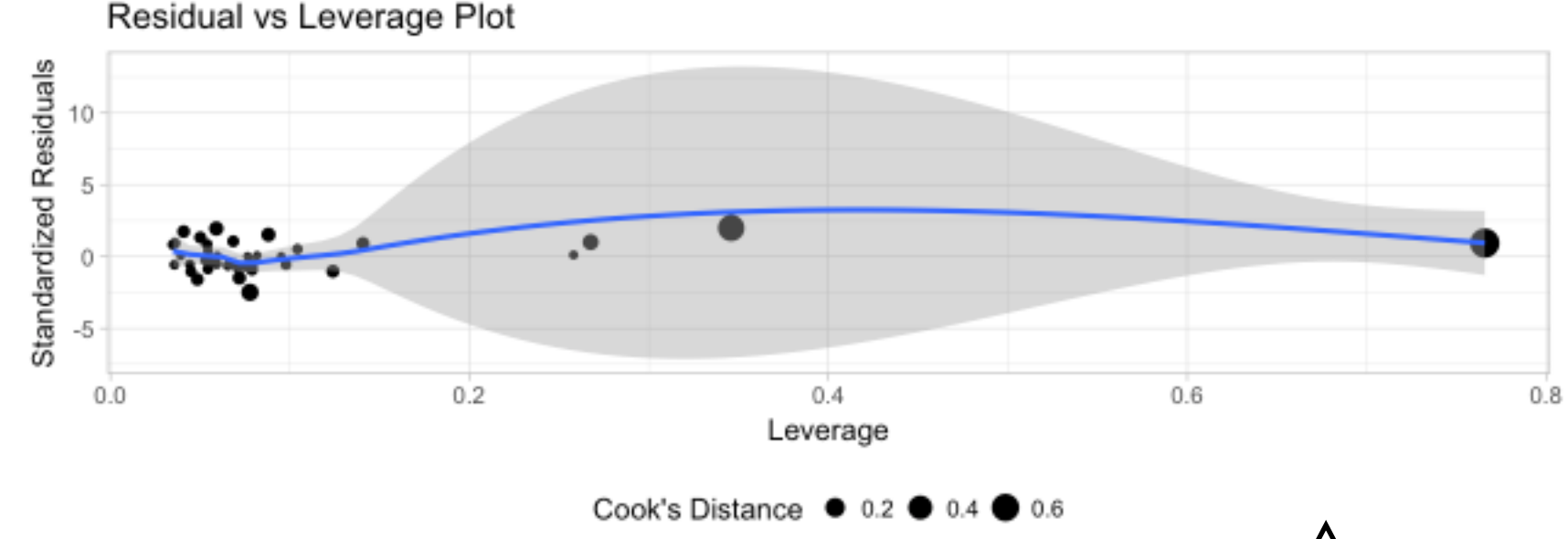
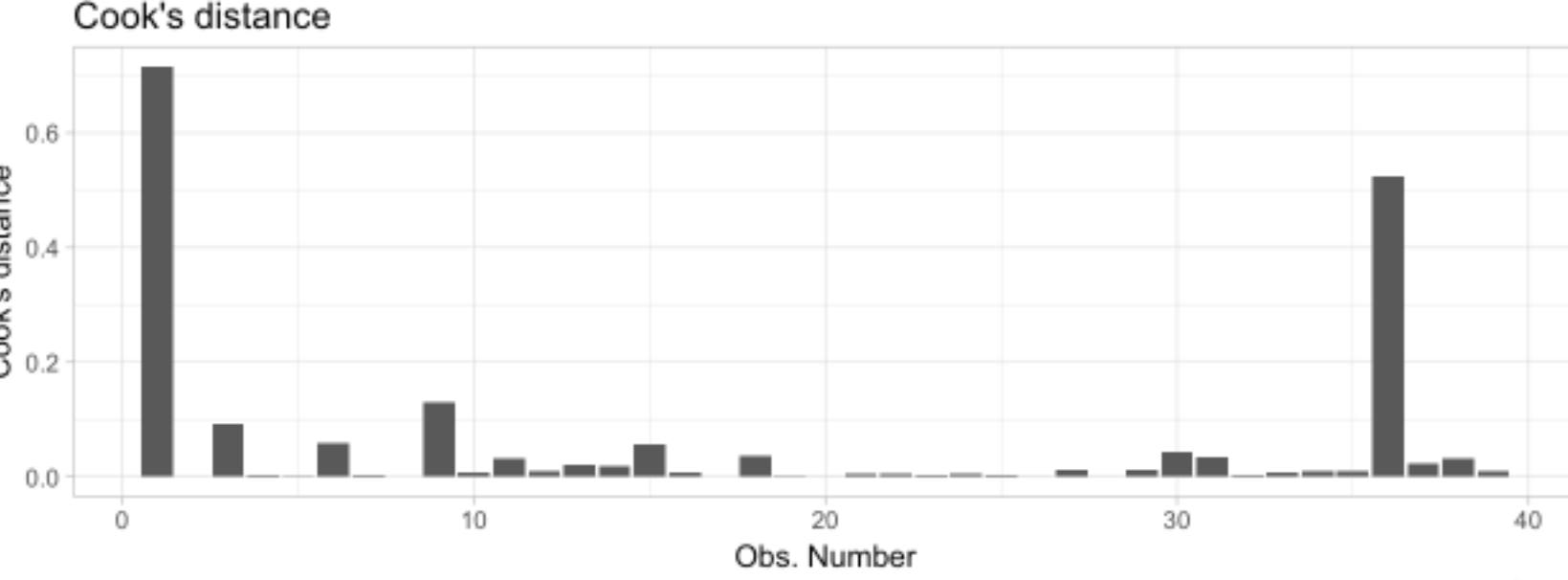
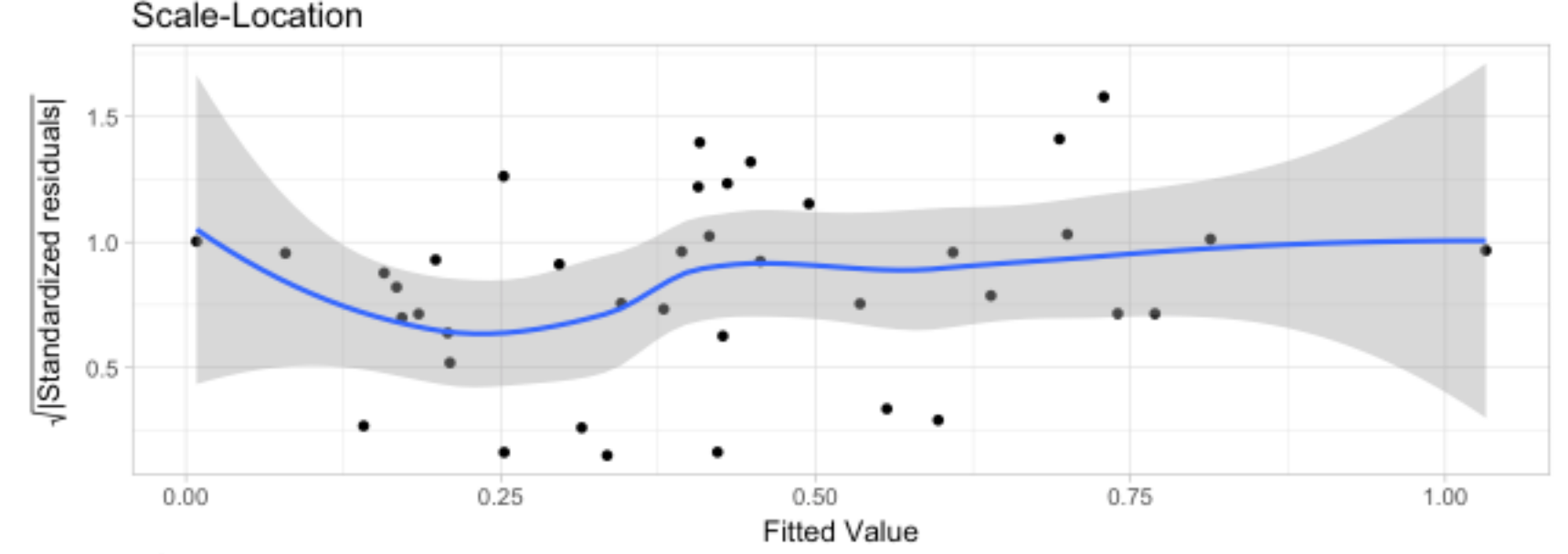
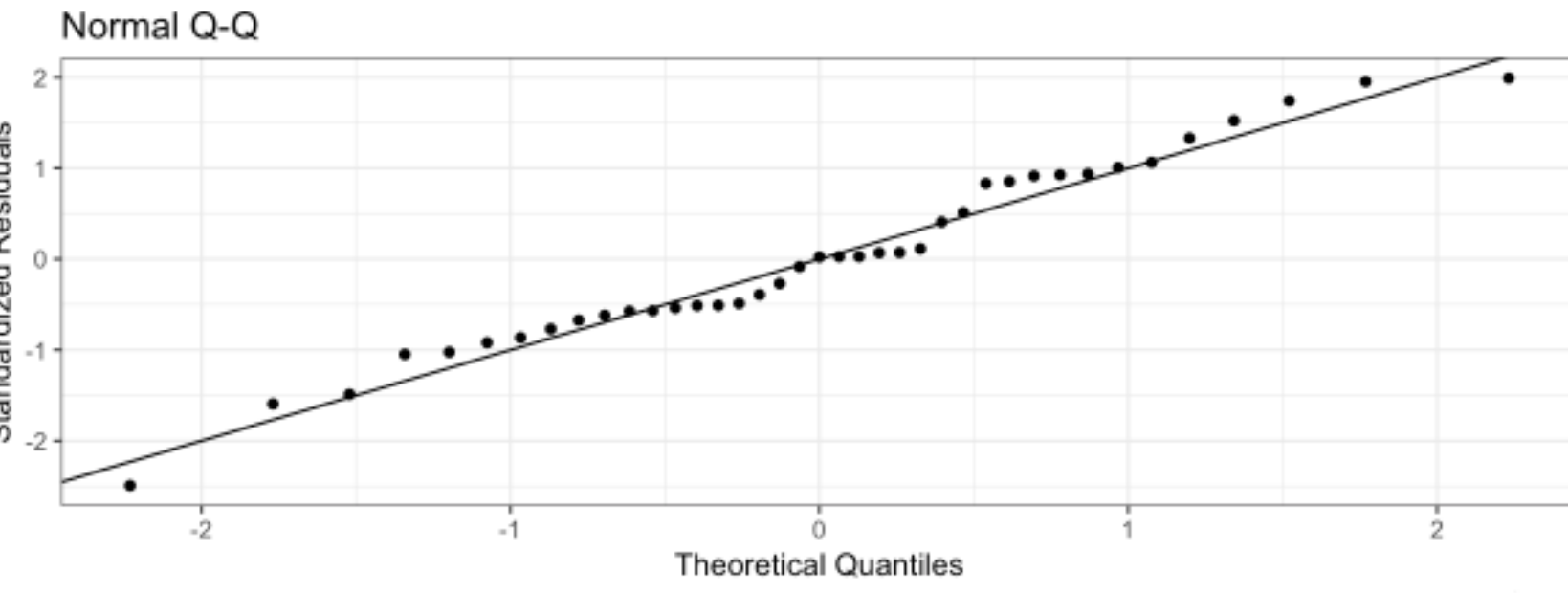
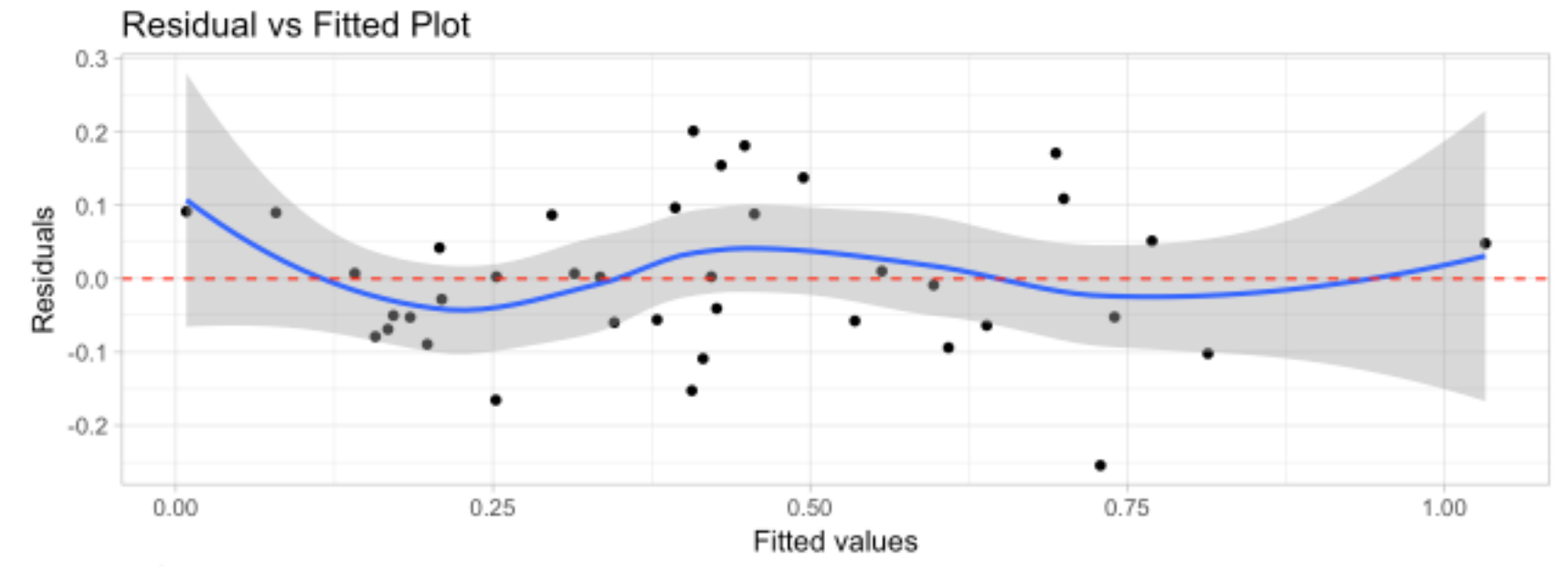
Min
3

Max
3.2

Intercept

- K.K.alpha
- Ca.K.alpha
- Ti.K.alpha
- Mn.K.alpha
- Fe.K.alpha
- Co.K.alpha
- Cu.K.alpha
- Zn.K.alpha
- Ga.K.alpha
- As.K.alpha

View Curves Diagnostics Standards



Here, we see that there is a more even spread of data, creating a calibration less leveraged on one value

Plot Update Save Model Report

Element

U.L.alpha

Calibration Curve

- Linear
- Non-Linear
- Lucas-Tooth

Normalization

- Time
- Total Counts
- Compton

Min

19.5

Max

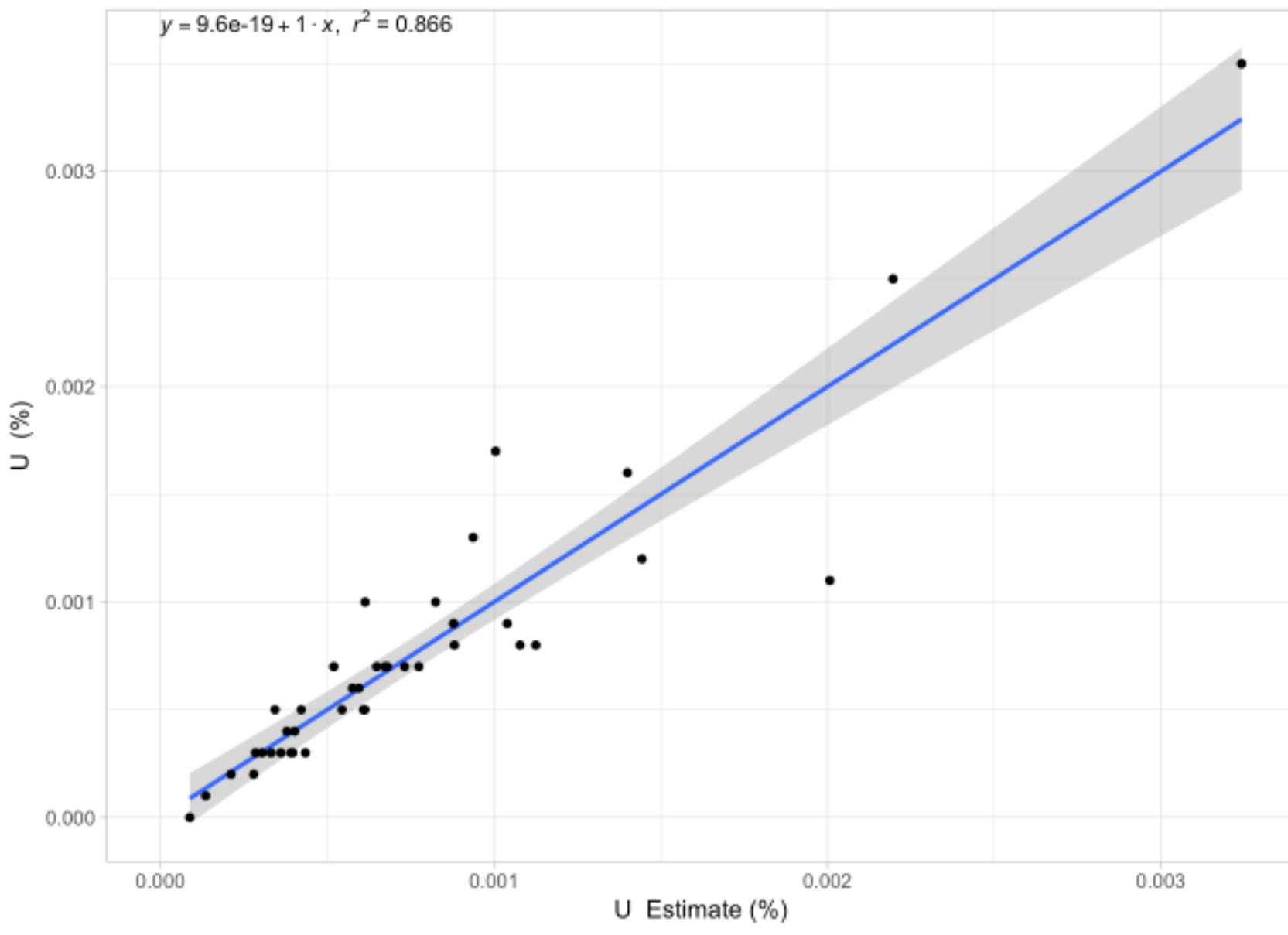
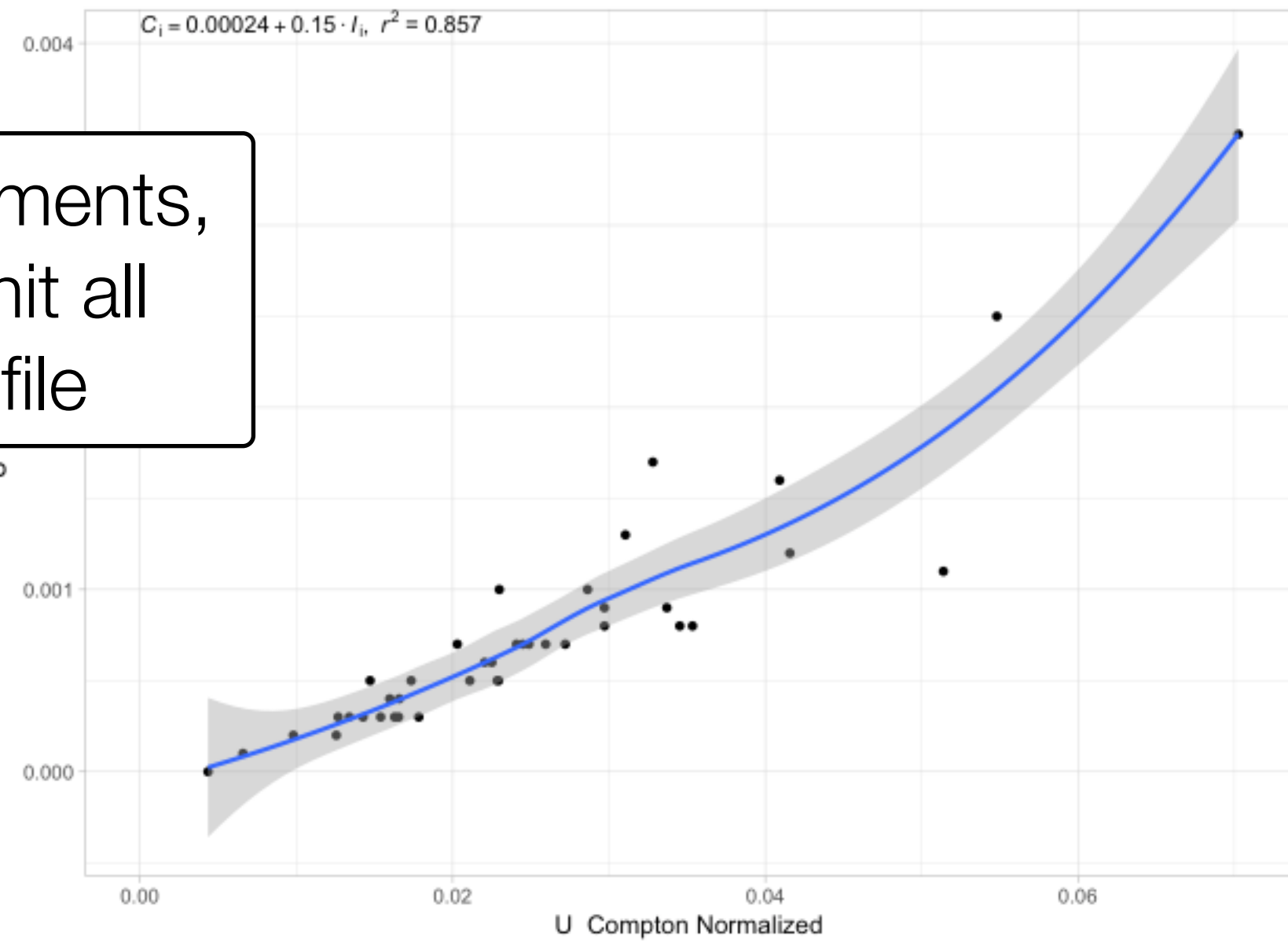
22

Intercept

- K.K.alpha
- Ca.K.alpha
- Ti.K.alpha
- Mn.K.alpha
- Fe.K.alpha
- Co.K.alpha
- Cu.K.alpha
- Zn.K.alpha
- Ga.K.alpha
- As.K.alpha

When you are done with all elements, you can click 'Save' to commit all elements to the calibration file

View Curves Diagnostics Standards



X-Ray Fluorescence Calibration

Calibration Name
ObsidianT3S1716

Process Data Plot Spectrum Plot

Choose Spectra
Browse... 40 files
Upload complete

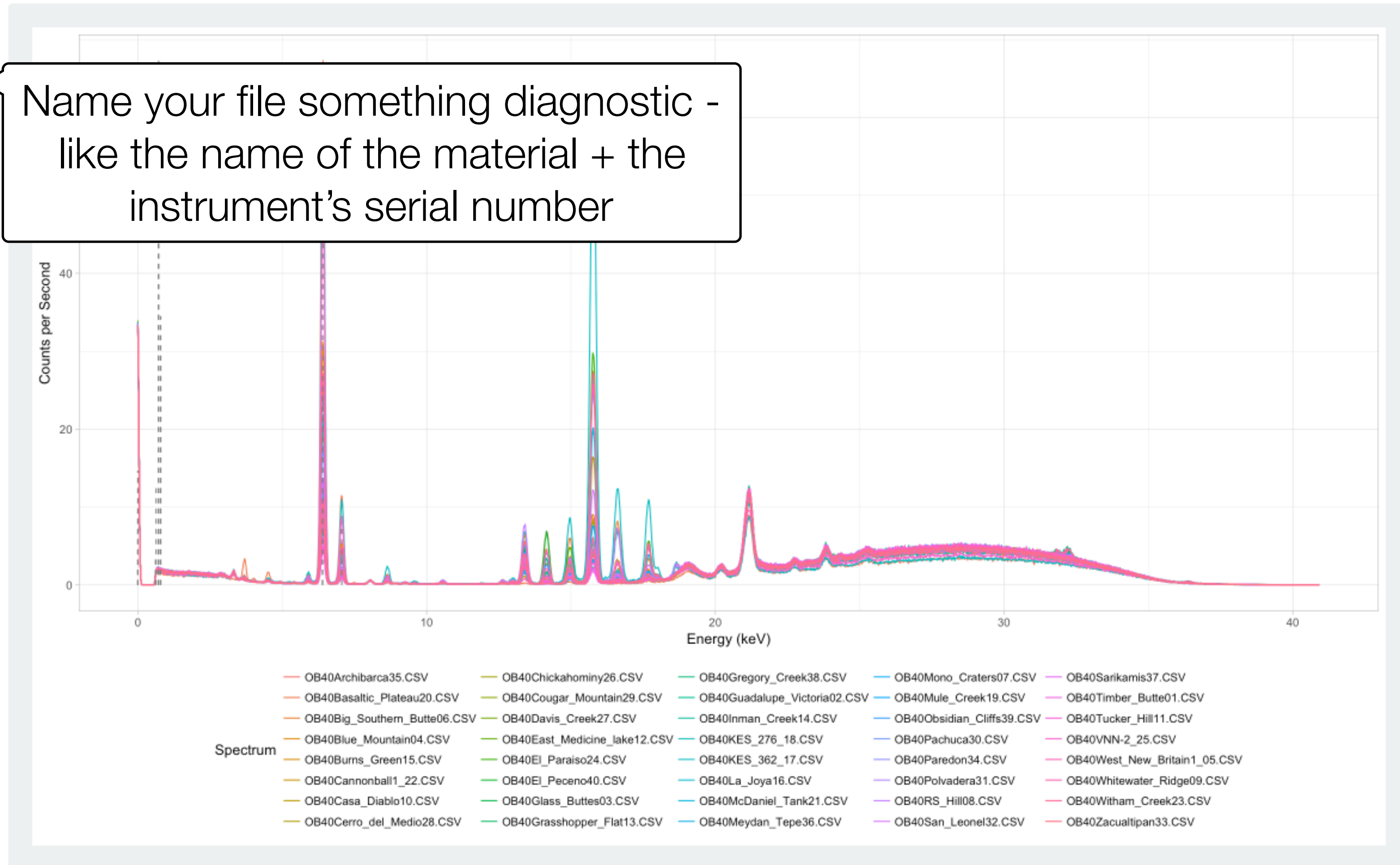
Spectra
 Net

Element:
(Fe) Iron

Load Cal File
Browse... No file selected

Use Cal File

Name your file something diagnostic - like the name of the material + the instrument's serial number



Plot Update Save Model Report

Element

U.L.alpha

Calibration Curve

- Linear
- Non-Linear
- Lucas-Tooth

Normalization

- Time
- Total Counts
- Compton

Min

19.5

Max

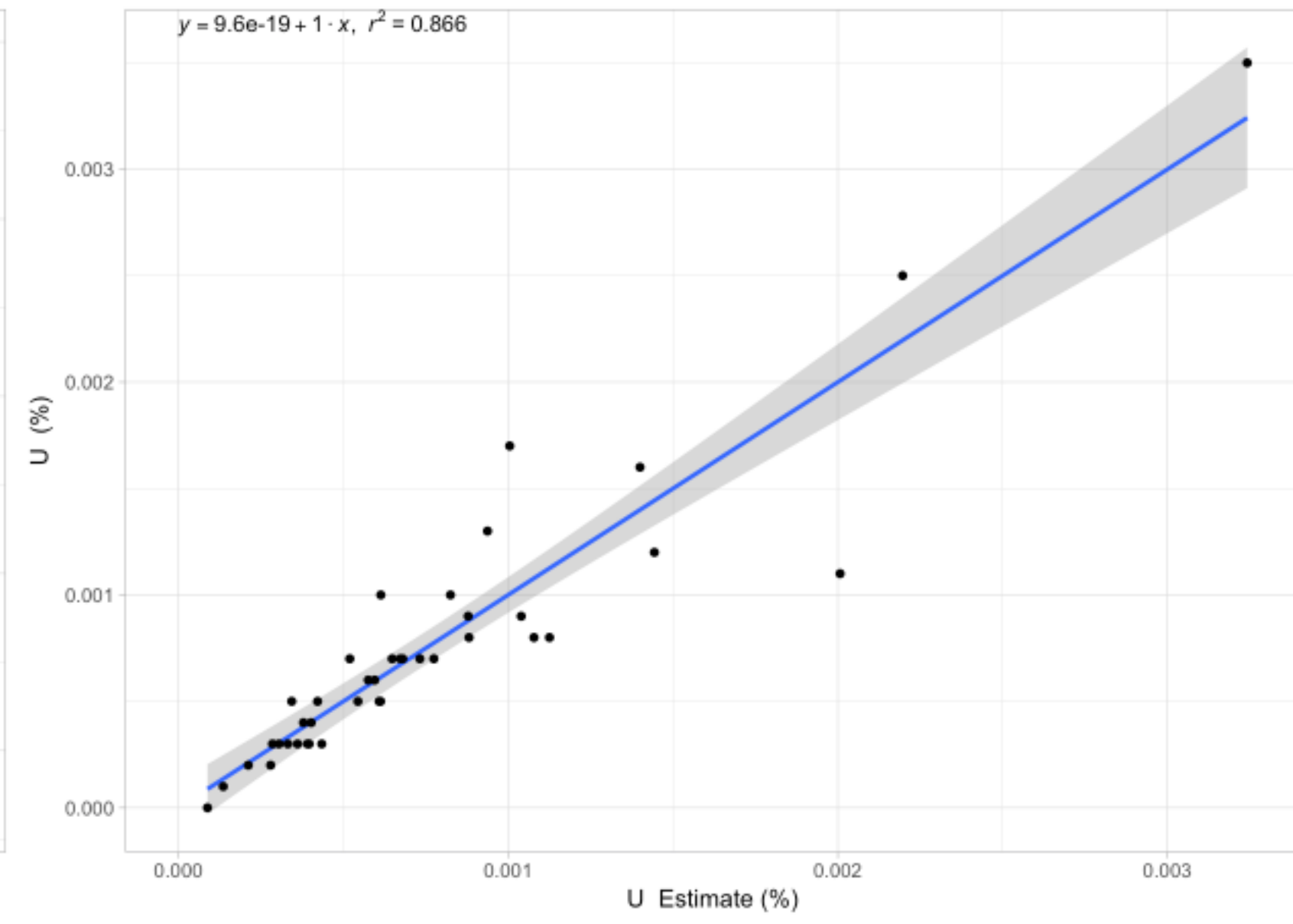
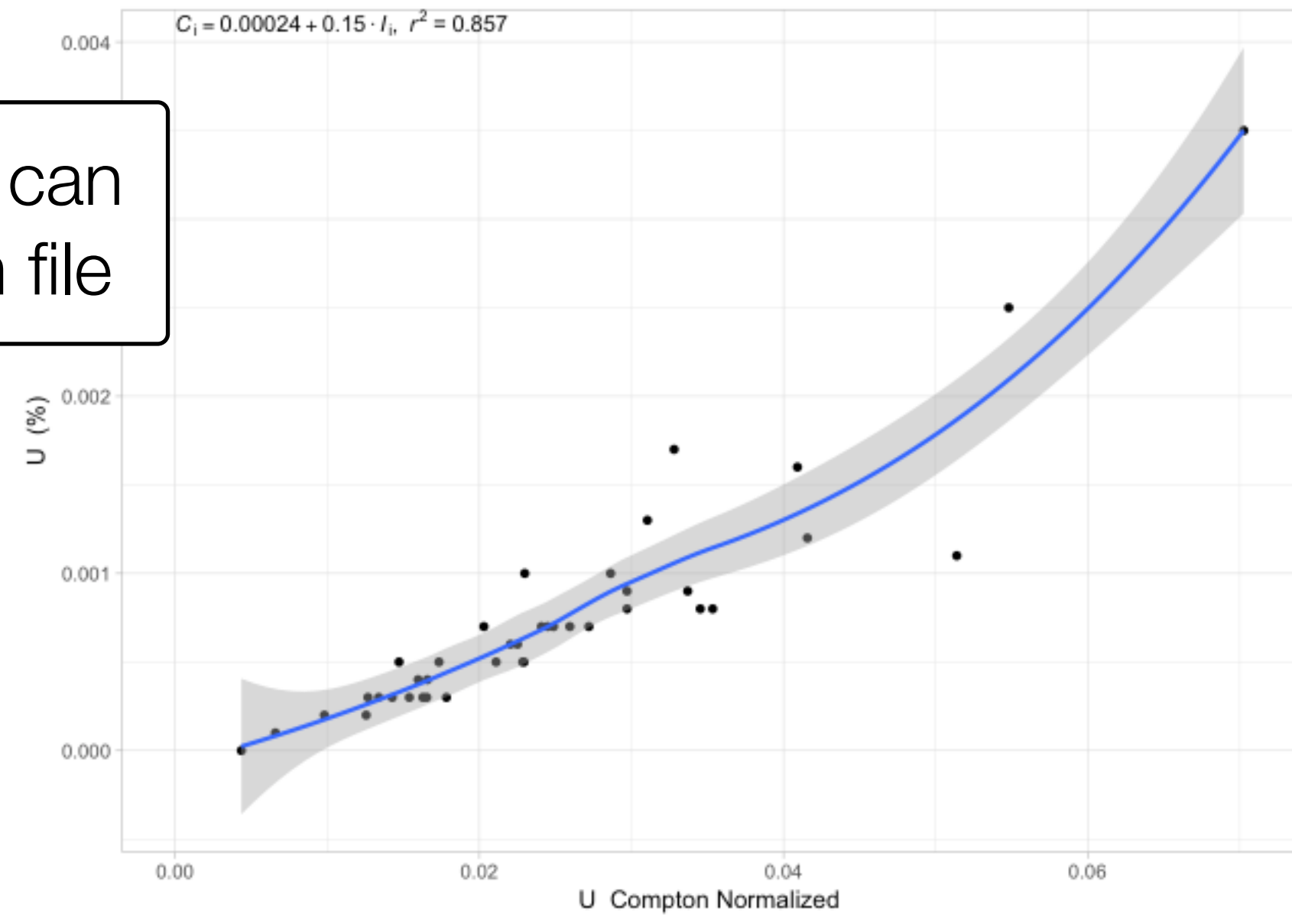
22

Intercept

- K.K.alpha
- Ca.K.alpha
- Ti.K.alpha
- Mn.K.alpha
- Fe.K.alpha
- Co.K.alpha
- Cu.K.alpha
- Zn.K.alpha

Once you are ready, you can download the calibration file

View Curves Diagnostics Standards



The calibration will be saved with the name you gave it as a .quant file

X-Ray Fluorescence Calibration

Calibration Name

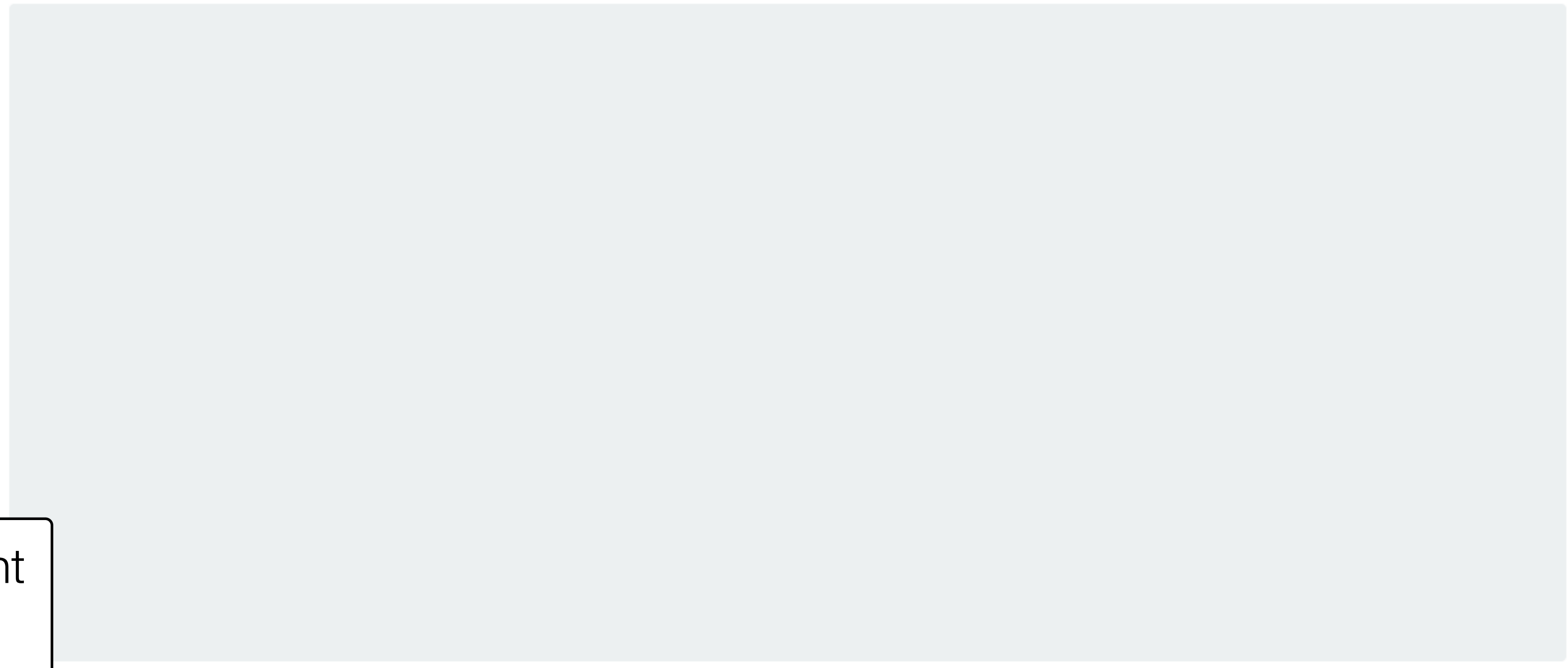
Choose Spectra
 No file selected

Spectra
 Net

Element

Load Cal File
 No file selected

Use Cal File



In the future, you can edit this .quant file by loading it on the 'Spectrum' page, and clicking 'Use Cal File'

If you edit a cal file, you will need to follow all steps to save changes

You can test the cal, or apply it to large data sets, on 'Apply Calibration'

Quantify

Choose Spectra

Browse... No file selected

Results

Load Cal File

Browse... No file selected

CloudCal Spectrum Counts Add Concentrations Cal Curves Apply Cal

Quantify

Choose Spectra

Browse... No file selected

Load Cal File

Browse... No file selected

Open up the spectra you want to quantify using 'Browse'

Validation

OB40Tucker_Hill11.CSV
OB40Tucker_Hill11.pdz
OB40VNN-2_25.CSV
OB40VNN-2_25.pdz
OB40West...ritain1_05.CSV
OB40West...ritain1_05.pdz
OB40Whitew...Ridge09.CSV
OB40Whitew...Ridge09.pdz
OB40Witham_Creek23.CSV
OB40Witham_Creek23.pdz
OB40Zacualtipan33.CSV
OB40Zacualtipan33.pdz
Validation

OB40KES_362_17-00.CSV
OB40KES_362_17-00.pdz
OB40KES_362_17-01.CSV
OB40KES_362_17-01.pdz
OB40KES_362_17-02.CSV
OB40KES_362_17-02.pdz
OB40KES_362_17-03.CSV
OB40KES_362_17-03.pdz
OB40KES_362_17-04.CSV
OB40KES_362_17-04.pdz
OB40KES_362_17-05.CSV
OB40KES_362_17-05.pdz
OB40KES_362_17-06.CSV

Format: Custom Files

Options Cancel Open

Quantify

Choose Spectra

Browse... 30 files
Upload complete

Results

Load Cal File

Browse... No file selected

Validation Counts

The status of the upload will be indicated here

CloudCal Spectrum Counts Add Concentrations Cal Curves Apply C

Quantify

Choose Spectra

Browse... 30 files

Upload complete

Results

Load Cal File

Browse... No file selected

Obsidian1716

Search

__priSERVER_.sql
_Cu-Zn_Nb-Rb_RatioPlot.jpg
_Cu-Zn_Nb-Rb_RatioPlot.tif
+Peak Maste...Number.doc
0c569b936f...a9efaf1ef.pdf
1-KX11EMC...bEIXjqg.png
01a0f3a0-1...e-original.png
6d994fa353...8629084.pdf
1280px-Evar...ne_rivière.jpg
8791123_orig.jpg
Artax.lnk
Batoni_Pomp..._1750.jpg
calExample.quant

OB40Tucker_Hill11.pdz
OB40VNN-2_25.CSV
OB40VNN-2_25.pdz
OB40West...itain1_05.CSV
OB40West...ritain1_05.pdz
OB40Whitew...Ridge09.CSV
OB40Whitew...Ridge09.pdz
OB40Witham_Creek23.CSV
OB40Witham_Creek23.pdz
OB40Zacualtipan33.CSV
OB40Zacualtipan33.pdz
ObsidianT3S1716.quant
Validation

ObsidianT3S1716.quant

Format: All Files

Options Cancel Open

Browse for your .quant file here - you will need to have an existing file

Quantify

When everything is ready, click 'Quantify'

Choose Spectra

Browse... 30 files Upload complete

Results

Load Cal File

Browse... ObsidianT3S1716.quant Upload complete

Validation Counts

Quantify

Choose Spectra

Browse... 30 files Upload complete

Results

Load Cal File

Browse... ObsidianT3S1716.quant Upload complete

Validation Counts

Show 10 entries

Search:

	Spectrum	As.K.alpha	Ba.K.alpha	Ca.K.alpha	Co.K.alpha	Cu.K.alpha	Fe.K.alpha
1	OB40KES_362_17-00.CSV	0.000463815295623188	-0.064370668587769	0.306205801868475	0.00237023275057566	0.00131966273556775	5.7924834480857
2	OB40KES_362_17-01.CSV	0.000322096800981703	-0.0610441906197434	0.317104466145157	0.00300956958636639	0.000139274358499416	6.23039281488607
3	OB40KES_362_17-02.CSV	0.000315432693311329	-0.0610002951449382	-0.135324989048458	0.00187021927541898	0.000178072071125506	5.70154025119591
4	OB40KES_362_17-03.CSV	-0.000113820147964187	0.00685861778769903	0.371006235386069	0.00333625432297064	0.000322612915564326	5.64466483574534
5	OB40KES_362_17-04.CSV	0.000686491088709026	-0.0793083119274642	0.858100270567482	0.00346760366923405	0.000871850939981579	6.06797227540175
6	OB40KES_362_17-05.CSV	0.00036797545848524	-0.0649268528143068	0.313844891759042	0.00199153754250897	0.000407589231228397	6.14956098518842
7	OB40KES_362_17-06.CSV	0.000527937188744937	-0.0844006731489197	0.366748434920399	0.00278301669649239	0.000362639048515526	5.71349639773715
8	OB40KES_362_17-07.CSV	-0.000186530532410853	-0.0386374268963758	-0.108502135352386	-0.00051692485675101	0.00184082559843627	5.05393602605671
9	OB40KES_362_17-08.CSV	0.0000362648935217126	-0.0495280682863057	0.11805452462534	0.00193892752507277	0.0002435240599248	5.65518595019268
10	OB40KES_362_17-09.CSV	0.000643491416236847	-0.0506811695464275	0.328223673872163	0.00141975060266103	0.0019063462070858	5.6506440639408

Showing 1 to 10 of 30 entries

Previous 1 2 3 Next

A table of values will appear. Note that some values may be negative - this indicates that the data fall outside the range of the calibration, or are below the detection limit

Quantify

Choose Spectra

Browse... 30 files Upload complete

Results

Load Cal File

Browse... ObsidianT3S1716.quant Upload complete

Click on 'Counts' to see the counts per second values for each element

Validation Counts

Show 10 entries

Search:

	Spectrum	As.K.alpha	Ba.K.alpha	Ca.K.alpha	Co.K.alpha	Cu.K.alpha	Fe.K.alpha	Ga.K.alpha
1	OB40KES_362_17-00.CSV	0.232747050302078	6.92422474648682	0.16209169574609	0.511212271199207	0.195341274360673	21.9655028722586	0.112217327824
2	OB40KES_362_17-01.CSV	0.274309023570306	6.82447601064307	0.153779301092444	0.519524665852853	0.257684234263015	22.3063110530581	0.149623103765
3	OB40KES_362_17-02.CSV	0.224434655648432	6.95331812777458	0.108061130497393	0.498743679218739	0.228590852975255	22.1483755546388	0.108061130497
4	OB40KES_362_17-03.CSV	0.22027845832161	7.47699899095426	0.174560287726559	0.569399033774727	0.224434655648432	22.2231871065216	0.120529722477
5	OB40KES_362_17-04.CSV	0.224434655648432	6.67069670955063	0.228590852975255	0.536149455160144	0.228590852975255	21.8325045578003	0.120529722477
6	OB40KES_362_17-05.CSV	0.241059444955724	6.90344375985271	0.157935498419267	0.490431284565093	0.245215642282546	22.5972448659357	0.124685919804
7	OB40KES_362_17-06.CSV	0.253528036936192	6.69147769618474	0.178716485053381	0.561086639121081	0.224434655648432	23.0876761505008	0.128842117131
8	OB40KES_362_17-07.CSV	0.195341274360673	7.248408137979	0.124685919804685	0.403151140701814	0.174560287726559	21.7992549791857	0.157935498419
9	OB40KES_362_17-08.CSV	0.187028879707027	7.11540982352067	0.13299831445833	0.507056073872384	0.207809866341141	22.2689052771167	0.141310709111
10	OB40KES_362_17-09.CSV	0.228590852975255	7.00734869302328	0.166247893072913	0.490431284565093	0.199497471687495	22.5681514846479	0.13299831445

Showing 1 to 10 of 30 entries

Previous 1 2 3 Next

Quantify

Choose Spectra

Browse... 30 files Upload complete

Results

You can download the data by clicking 'Results', or copying from the table

Validation Counts

Show 10 entries

Search:

	Spectrum	As.K.alpha	Ba.K.alpha	Ca.K.alpha	Co.K.alpha	Cu.K.alpha	Fe.K.alpha	Ga.K.alpha
1	OB40KES_362_17-00.CSV	0.232747050302078	6.92422474648682	0.16209169574609	0.511212271199207	0.195341274360673	21.9655028722586	0.112217327824
2	OB40KES_362_17-01.CSV	0.274309023570306	6.82447601064307	0.153779301092444	0.519524665852853	0.257684234263015	22.3063110530581	0.149623103765
3	OB40KES_362_17-02.CSV	0.224434655648432	6.95331812777458	0.108061130497393	0.498743679218739	0.228590852975255	22.1483755546388	0.108061130497
4	OB40KES_362_17-03.CSV	0.22027845832161	7.47699899095426	0.174560287726559	0.569399033774727	0.224434655648432	22.2231871065216	0.120529722477
5	OB40KES_362_17-04.CSV	0.224434655648432	6.67069670955063	0.228590852975255	0.536149455160144	0.228590852975255	21.8325045578003	0.120529722477
6	OB40KES_362_17-05.CSV	0.241059444955724	6.90344375985271	0.157935498419267	0.490431284565093	0.245215642282546	22.5972448659357	0.124685919804
7	OB40KES_362_17-06.CSV	0.253528036936192	6.69147769618474	0.178716485053381	0.561086639121081	0.224434655648432	23.0876761505008	0.128842117131
8	OB40KES_362_17-07.CSV	0.195341274360673	7.248408137979	0.124685919804685	0.403151140701814	0.174560287726559	21.7992549791857	0.157935498419
9	OB40KES_362_17-08.CSV	0.187028879707027	7.11540982352067	0.13299831445833	0.507056073872384	0.207809866341141	22.2689052771167	0.141310709111
10	OB40KES_362_17-09.CSV	0.228590852975255	7.00734869302328	0.166247893072913	0.490431284565093	0.199497471687495	22.5681514846479	0.13299831445

Showing 1 to 10 of 30 entries

Previous 1 2 3 Next