

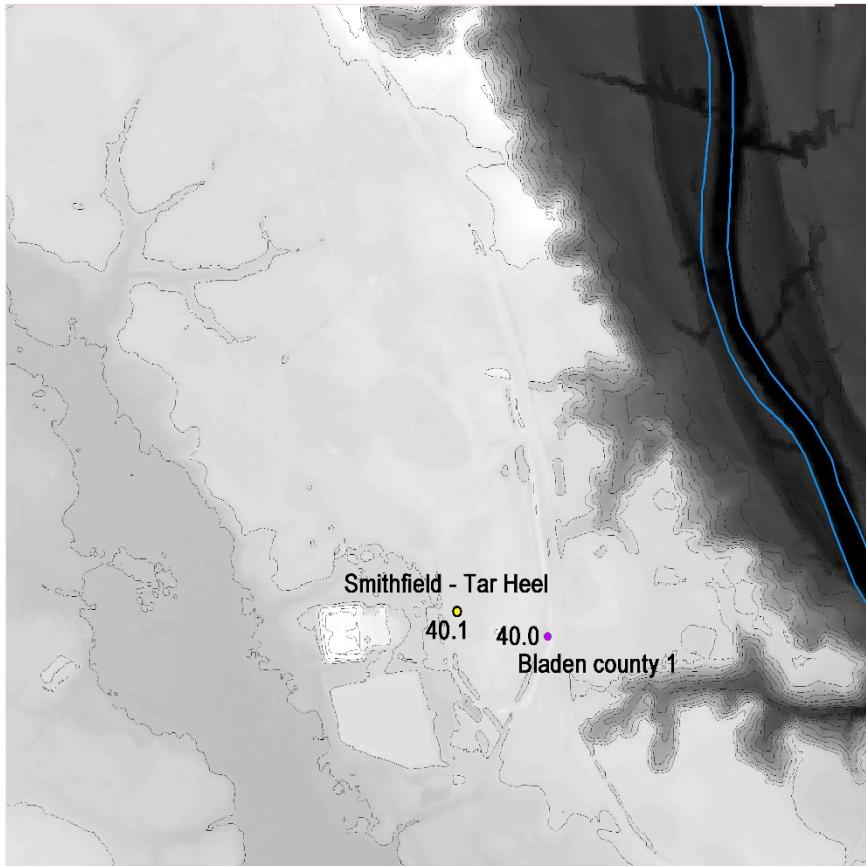
# **Supplemental Figure 1**

## Contour maps of sampling locations

### Table of Contents

Bladen County 1.....	2
Bladen County 2-3.....	3
New Hanover 1-4.....	4
Robeson County 1-3.....	5
Wayne County 1-2.....	6

Bladen County (site 1). See Supplemental Table 1 for site locations and sampling times.



### Legend

- TRI CA
- Sampling site
- River
- Contour

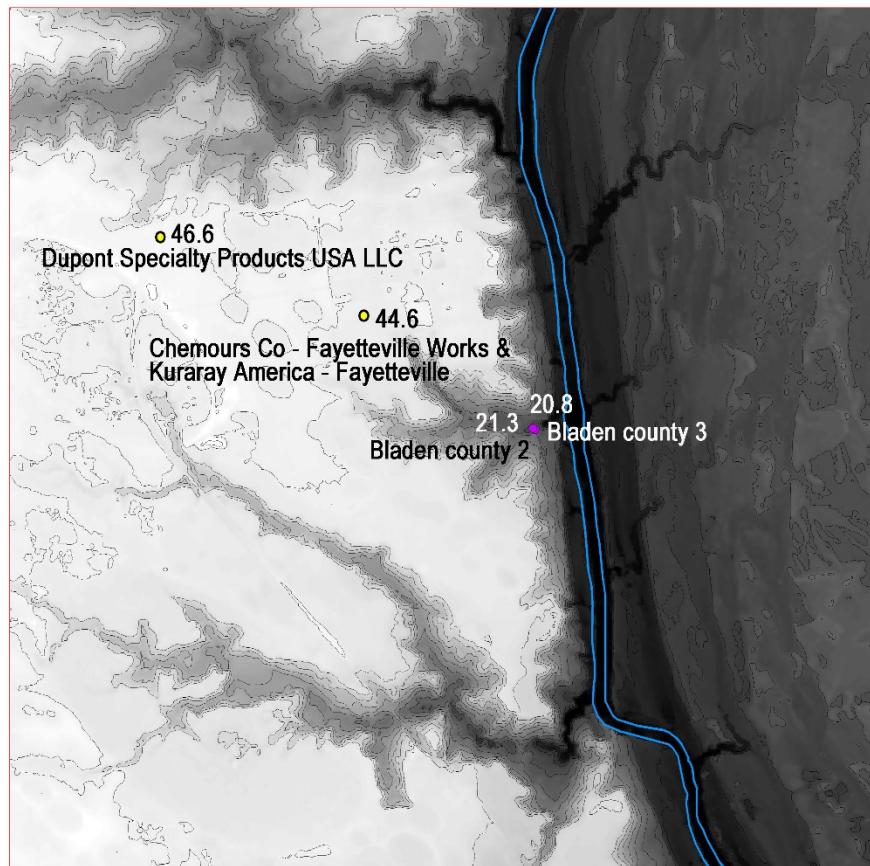


0 0.25 0.5 0.75 1  
Miles

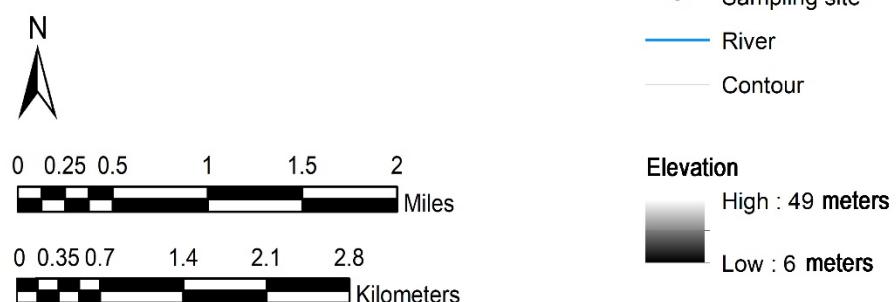
0 0.35 0.7 1.05 1.4  
Kilometers

Elevation  
High : 49 meters  
Low : 6 meters

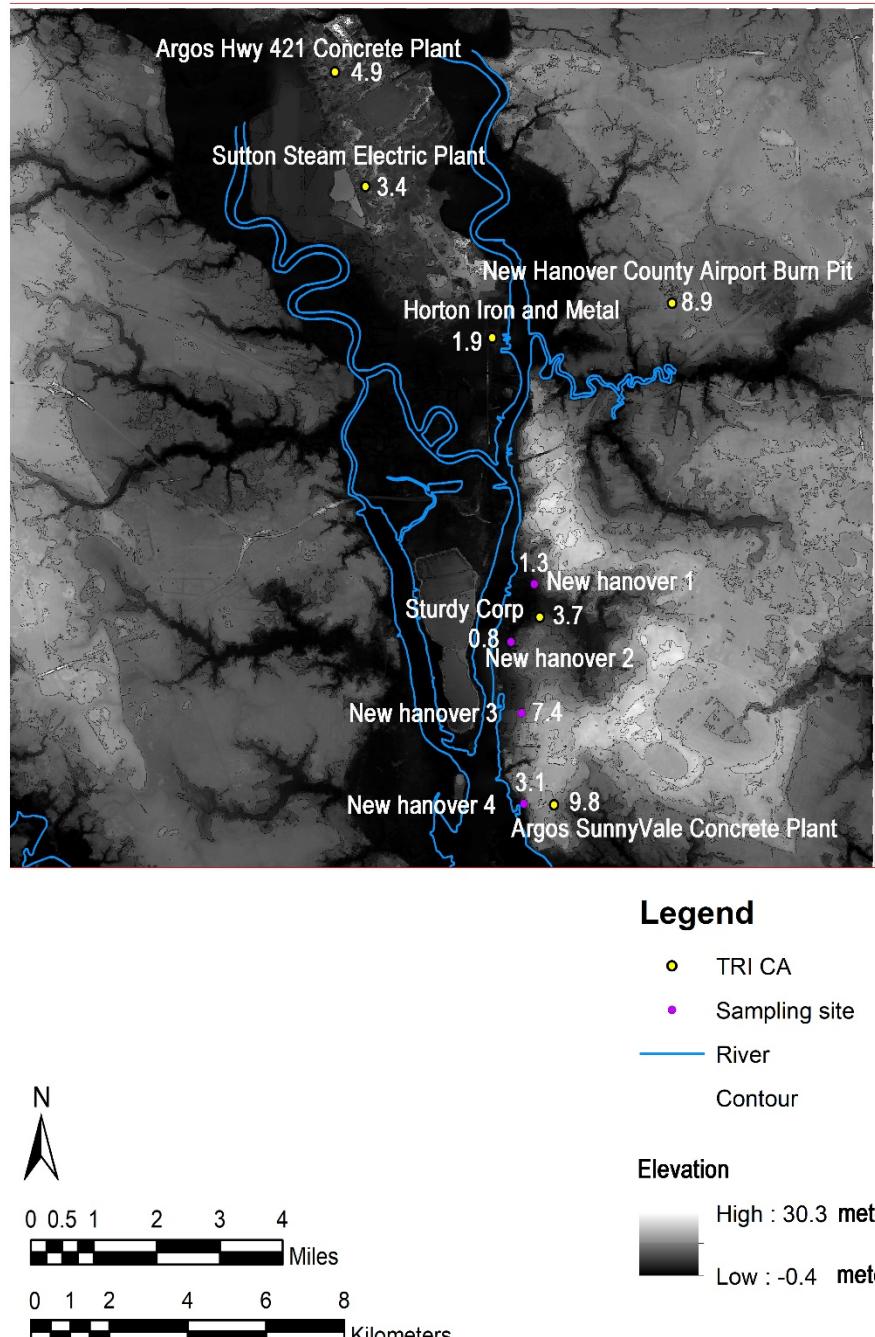
Bladen County (sites 2-3). See Supplemental Table 1 for site locations and sampling times.



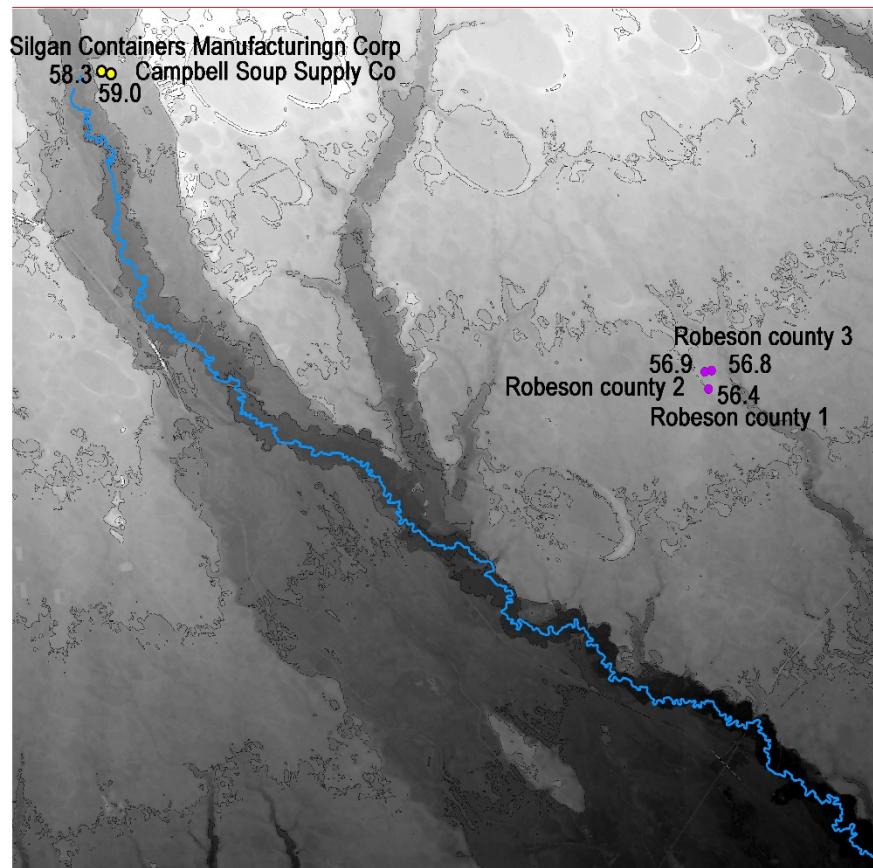
### Legend



New Hanover (sites 1-4). See Supplemental Table 1 for site locations and sampling times.



Robeson County (sites 1-3). See Supplemental Table 1 for site locations and sampling times.



#### Legend

- TRI CA
- Sampling site
- River
- Contour



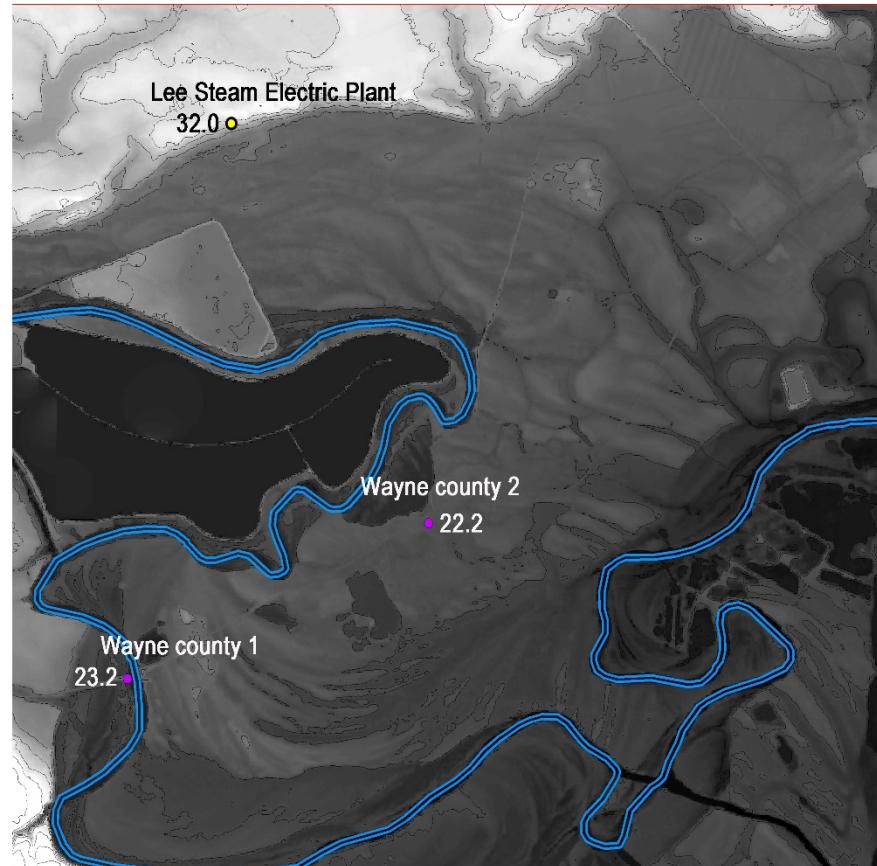
0 0.5 1 2 3 4  
Miles

0 0.75 1.5 3 4.5 6  
Kilometers

#### Elevation

High : 68.5 meters  
Low : 41.5 meters

Wayne County (sites 1-2). See Supplemental Table 1 for site locations and sampling times.



### Legend

● TRI CA

● Sampling site

— River

Contour



### Elevation

High : 46.0 meters

Low : 14.8 meters

# Supplemental Figure 2

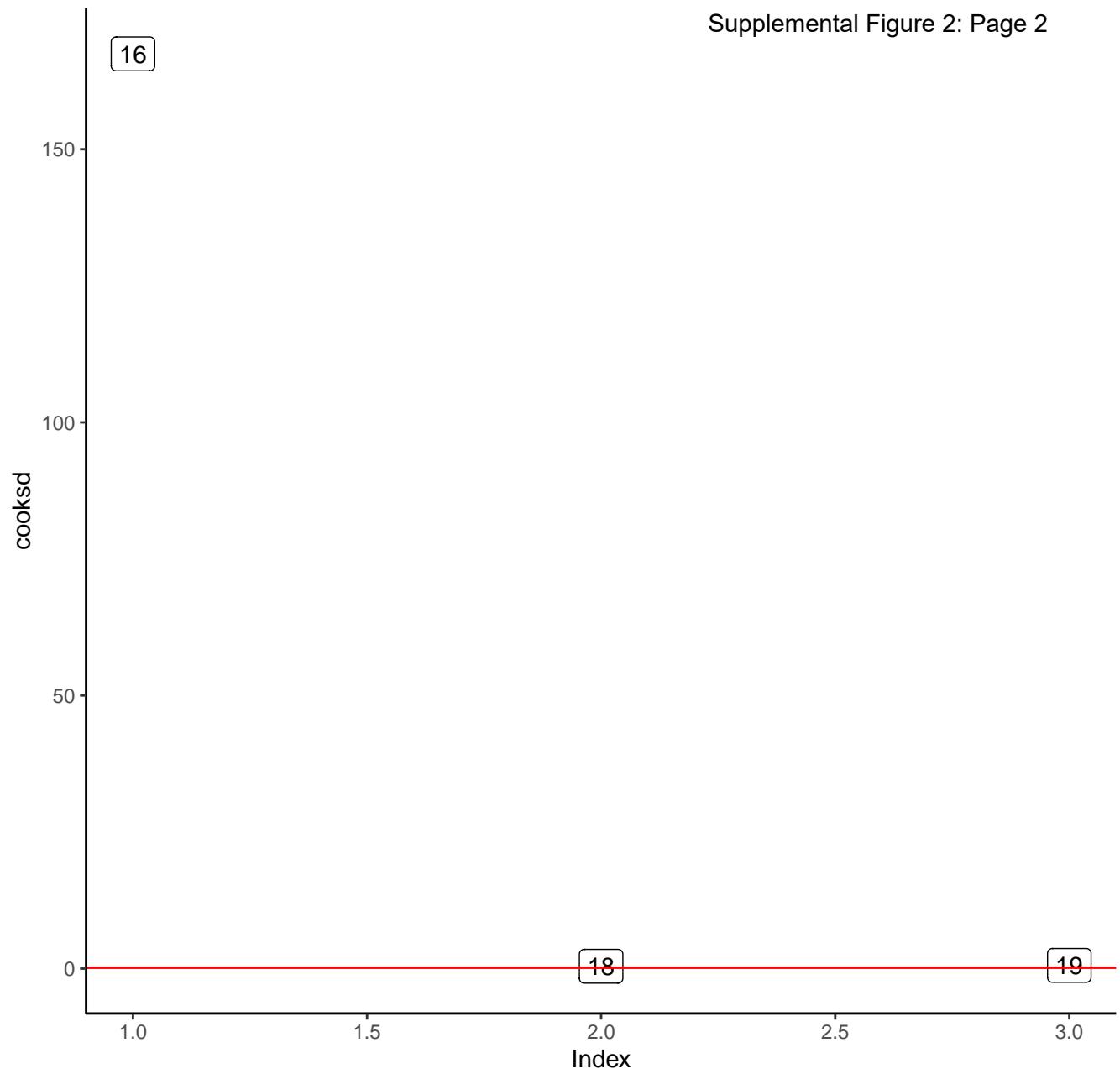
## Cook's Outlier Distance Plots: Metal~Aluminum

### Table of Contents

Antimony.....	1
Arsenic .....	3
Barium.....	5
Beryllium.....	7
Cadmium.....	9
Chromium .....	11
Cobalt.....	13
Copper.....	15
Iron .....	17
Lead.....	19
Lithium.....	21
Manganese.....	23
Nickel .....	25
Selenium.....	27
Silver .....	29
Strontium.....	31
Zinc .....	33
Magnesium.....	35
Tin .....	37
Vanadium .....	39
Mercury .....	41

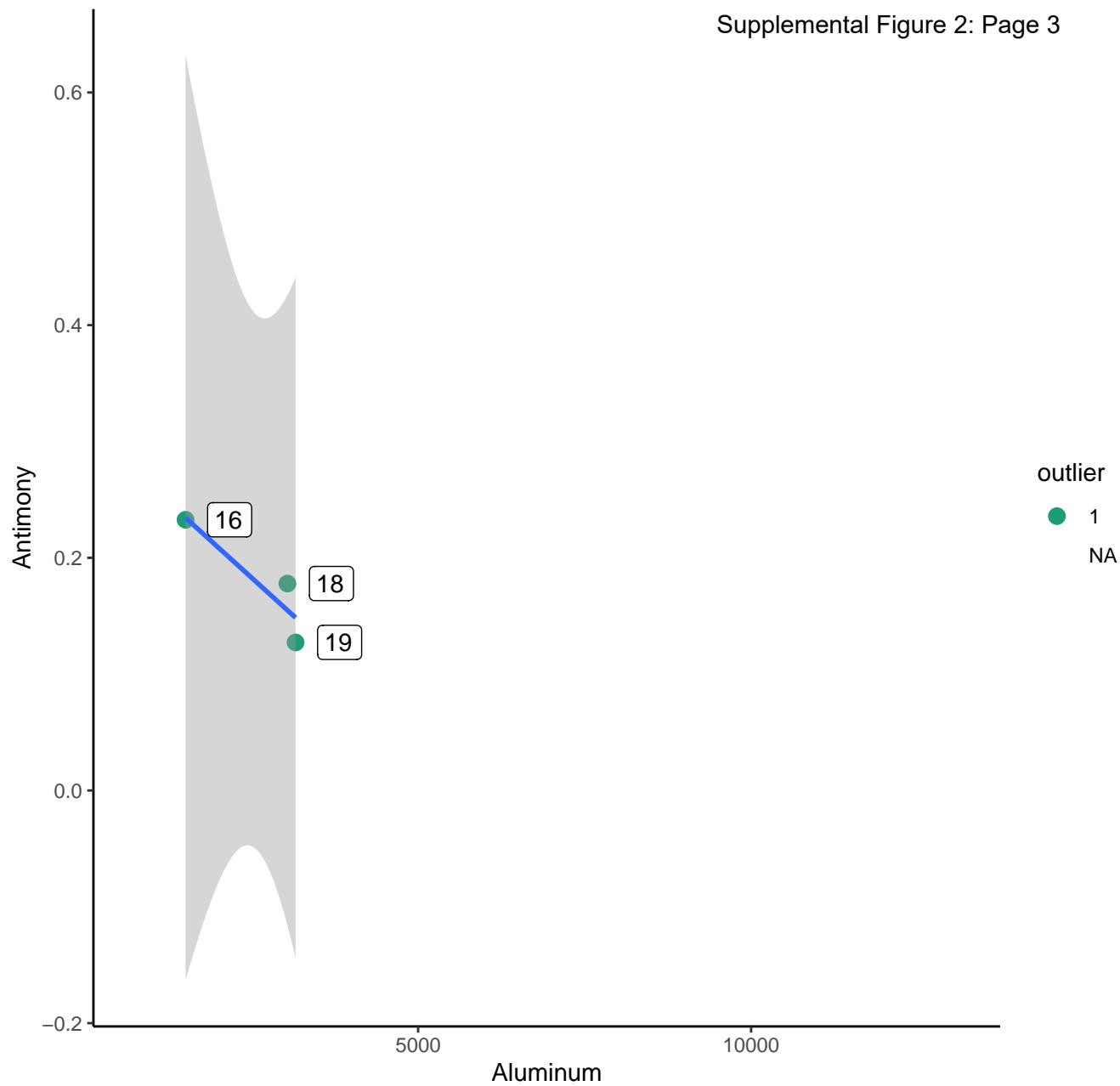
# Cooks Outlier Plot for Antimony~Aluminum

Supplemental Figure 2: Page 2



# Plot for Antimony~Aluminum

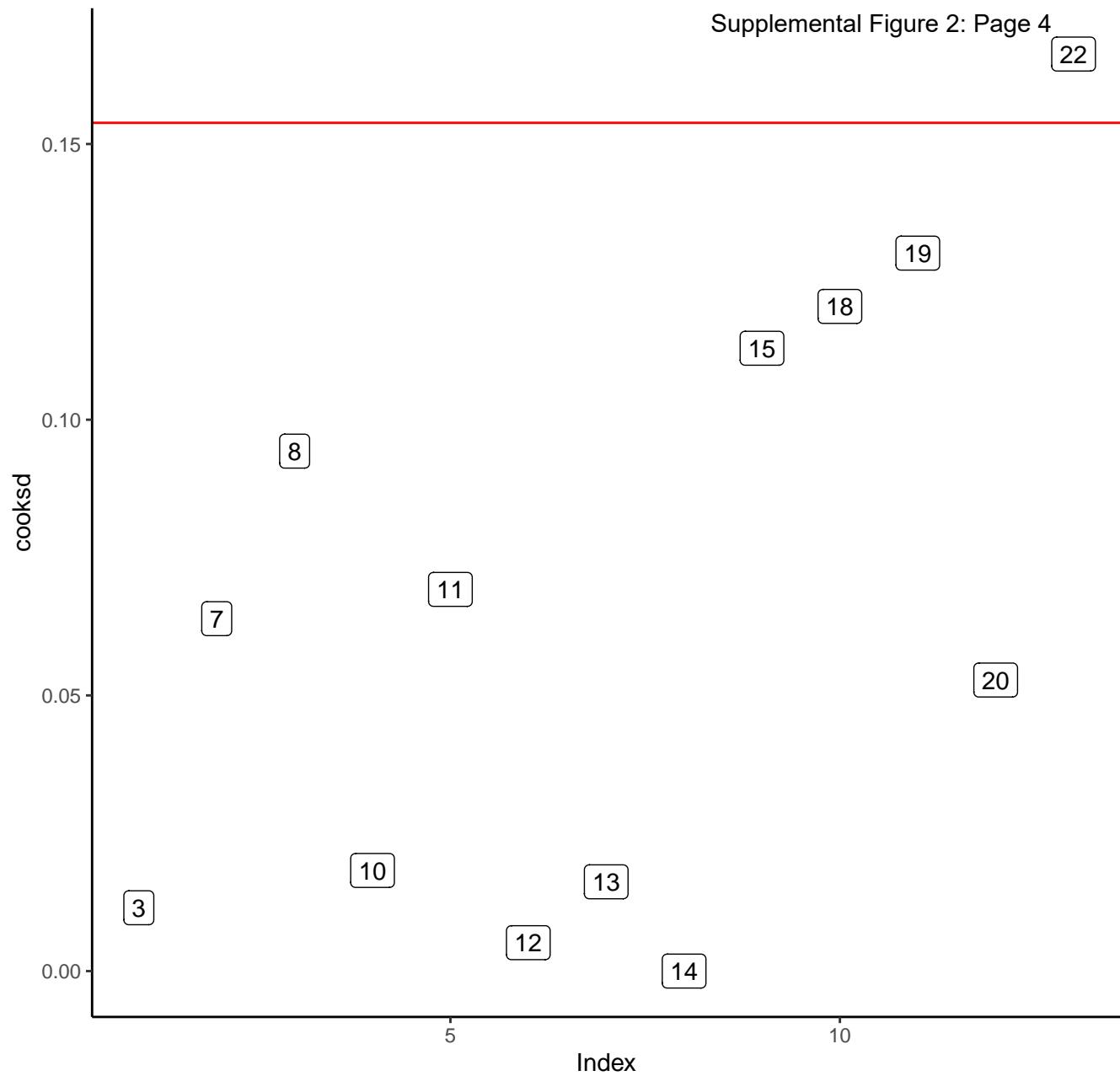
Supplemental Figure 2: Page 3



# Cooks Outlier Plot for Arsenic~Aluminum

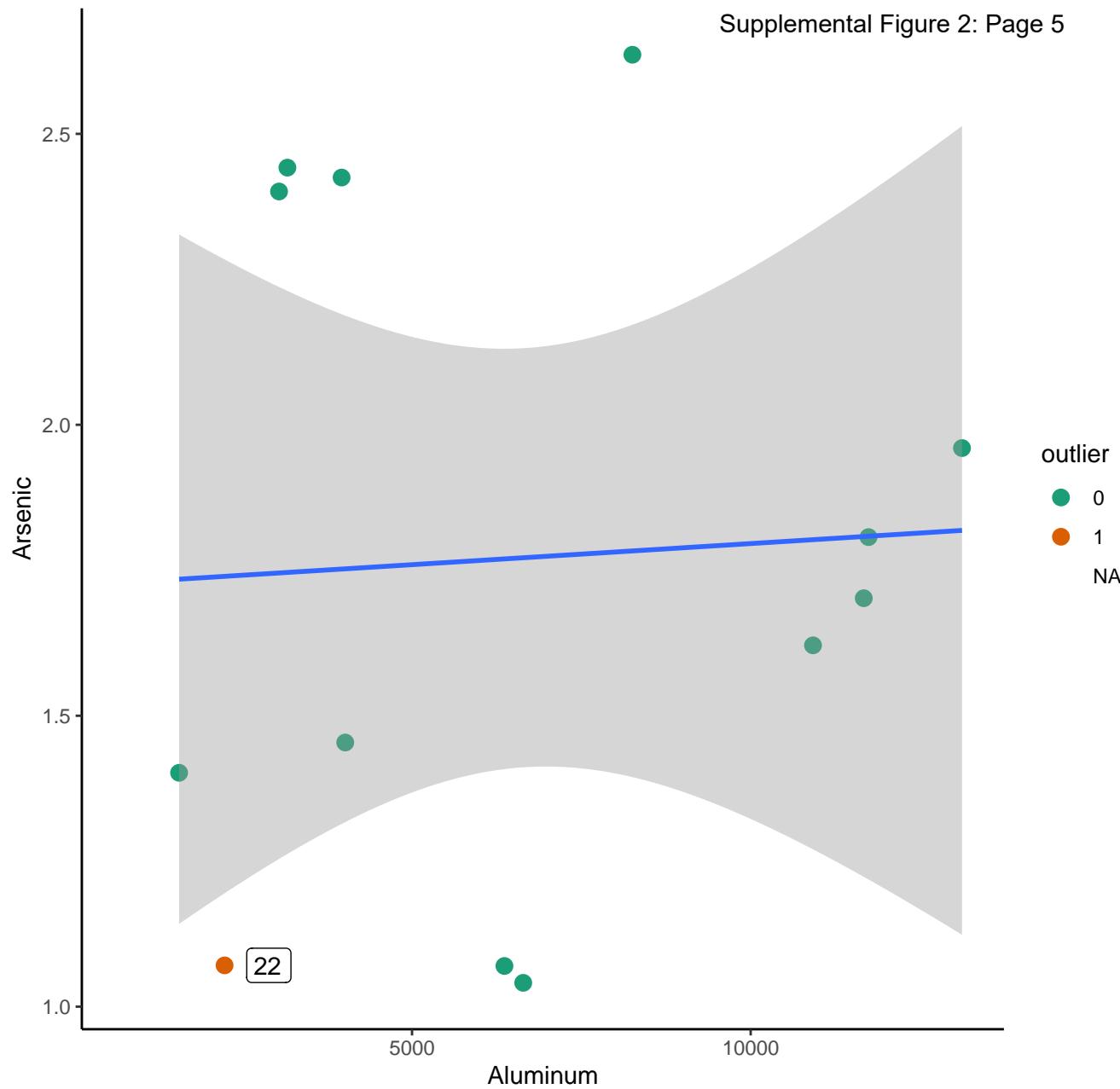
Supplemental Figure 2: Page 4

22



# Plot for Arsenic~Aluminum

Supplemental Figure 2: Page 5

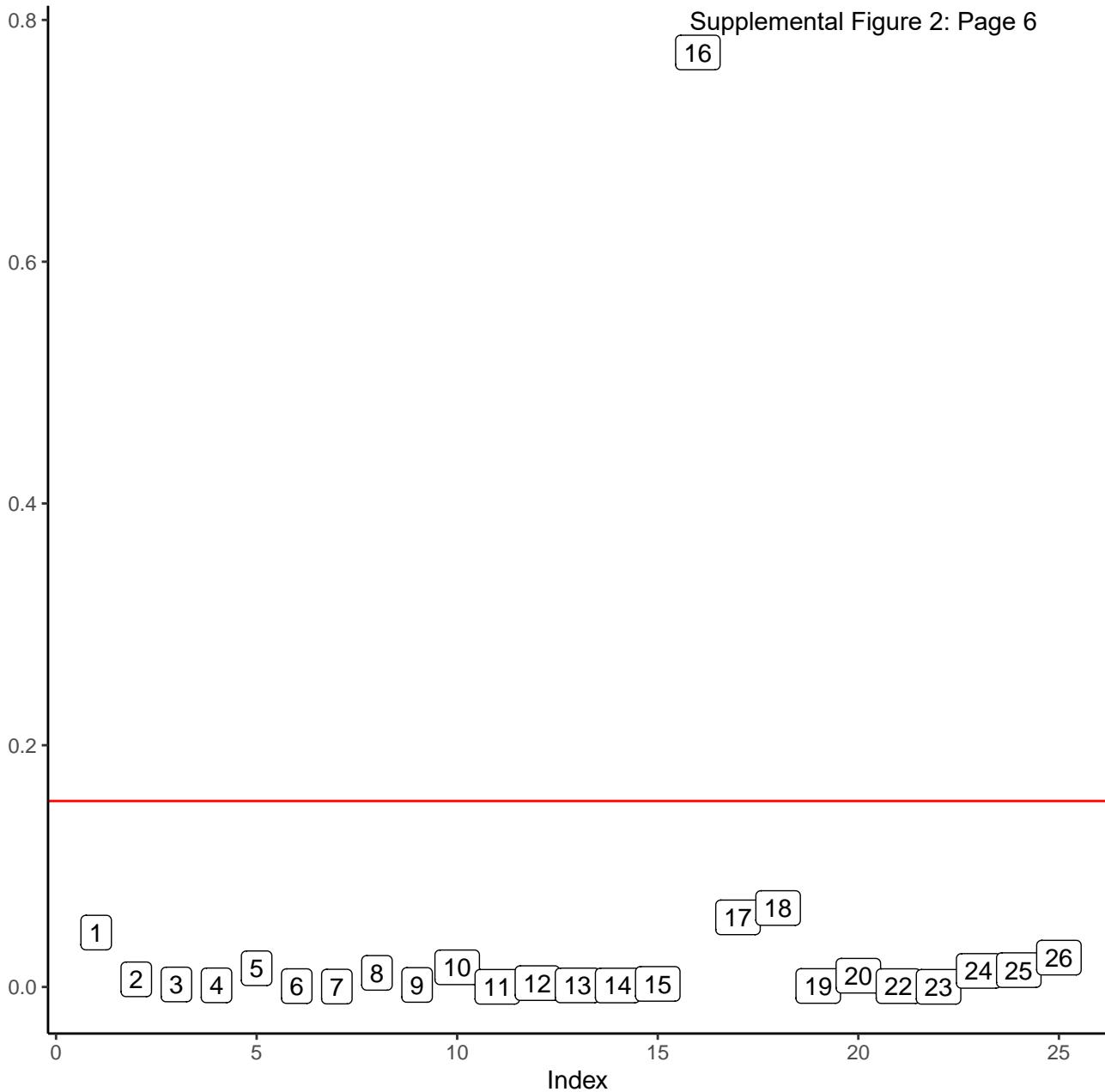


# Cooks Outlier Plot for Barium~Aluminum

Supplemental Figure 2: Page 6

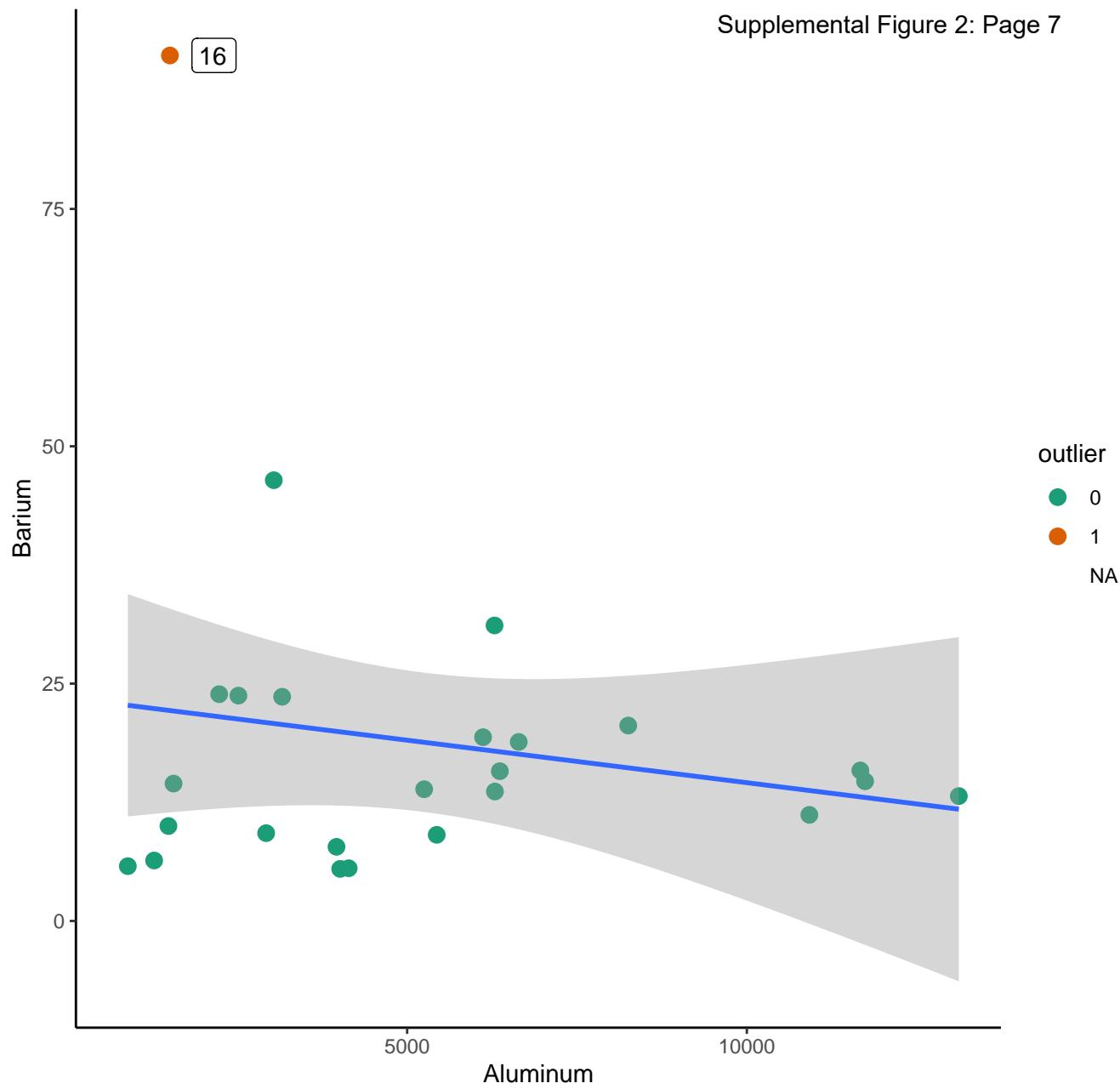
16

cooksdi



# Plot for Barium~Aluminum

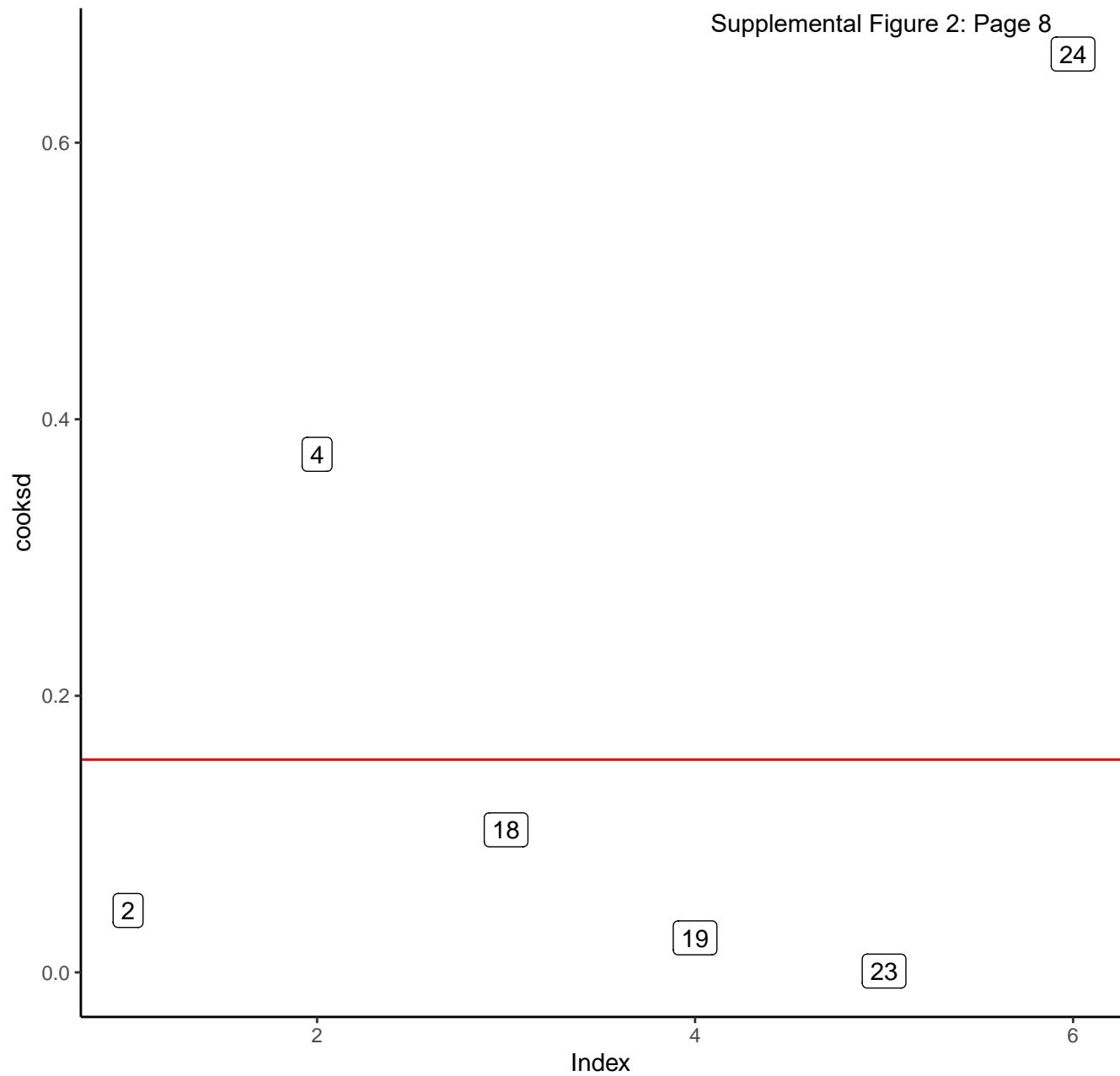
Supplemental Figure 2: Page 7



# Cooks Outlier Plot for Beryllium~Aluminum

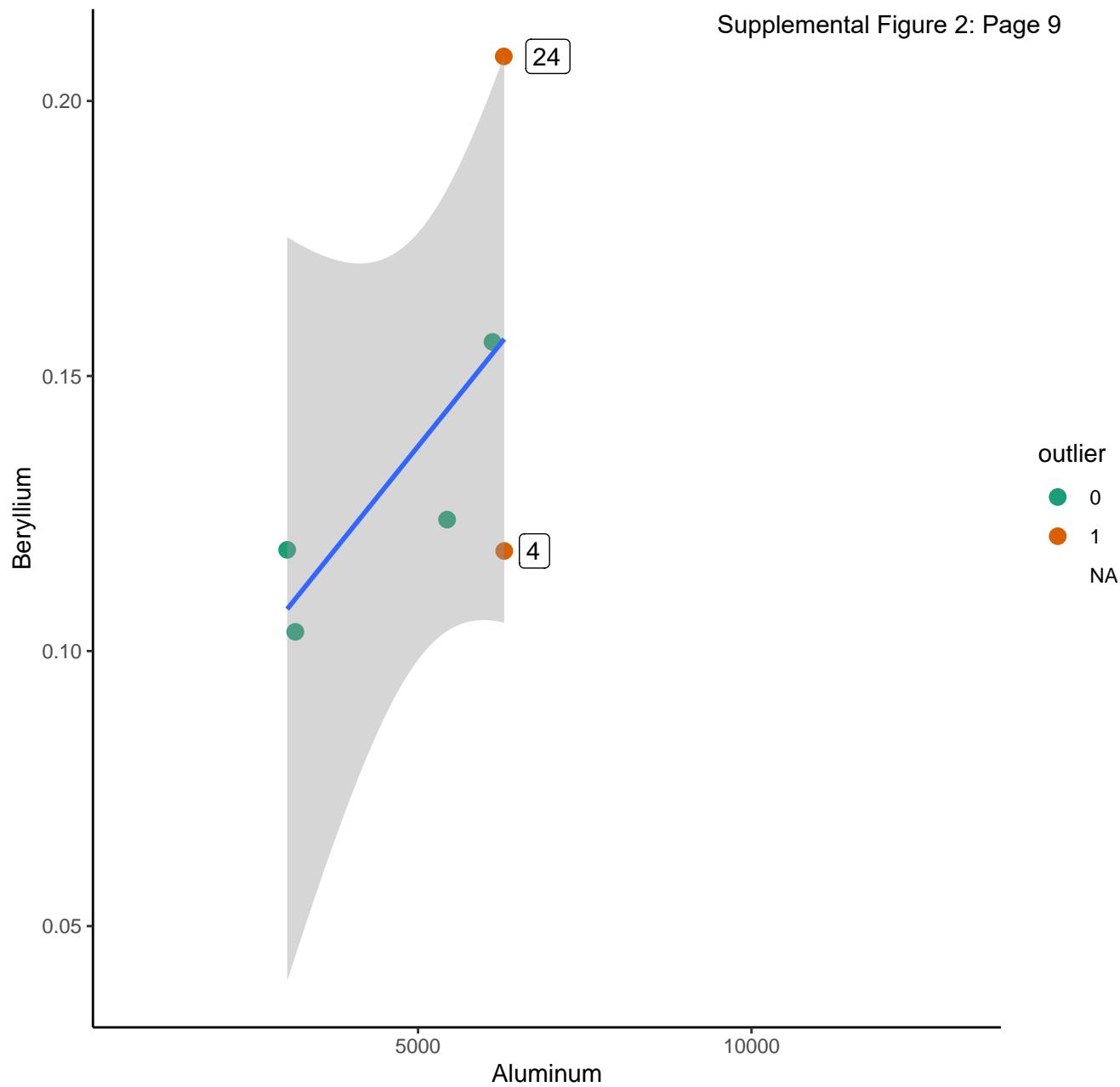
Supplemental Figure 2: Page 8

24



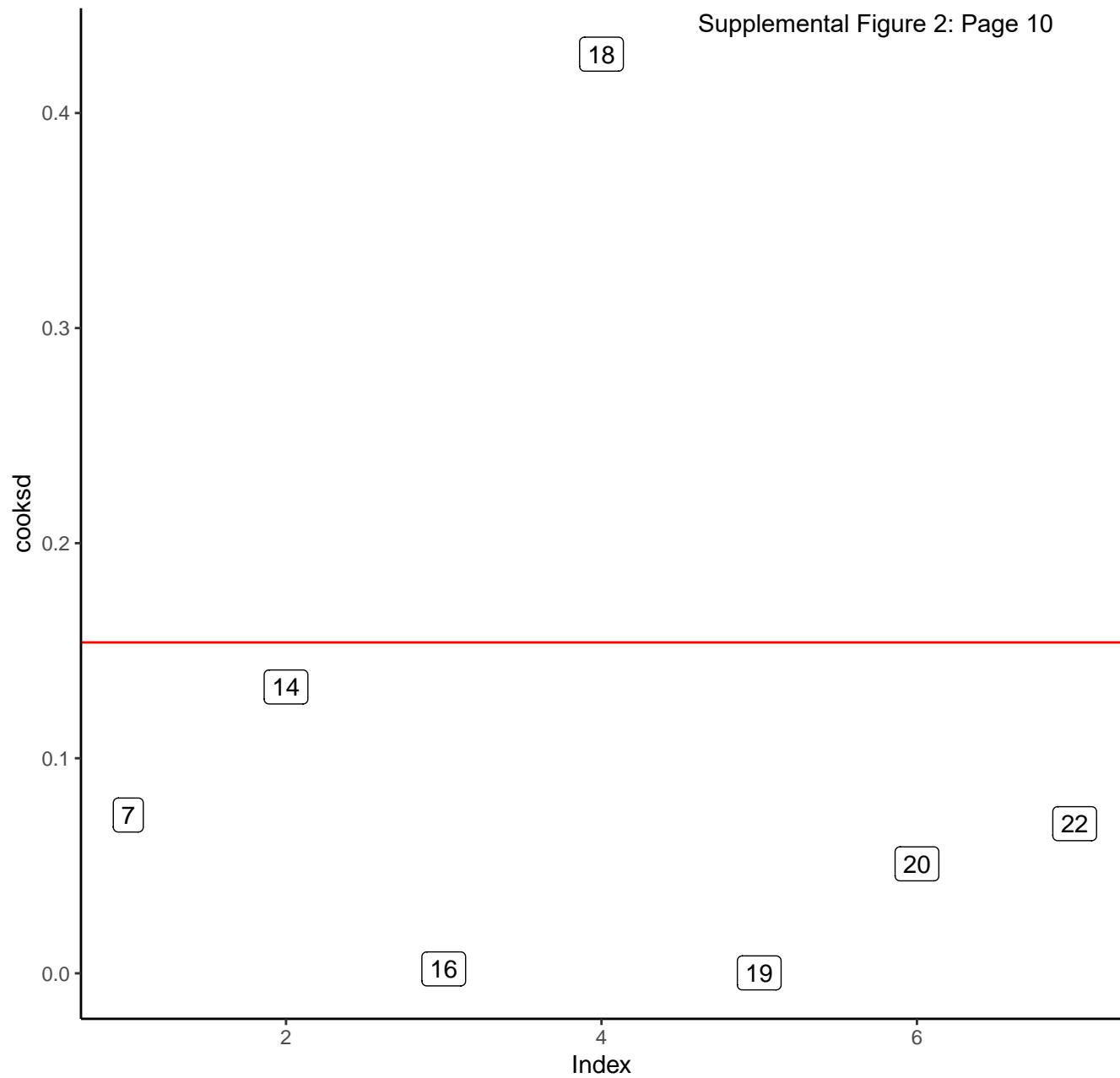
# Plot for Beryllium~Aluminum

Supplemental Figure 2: Page 9



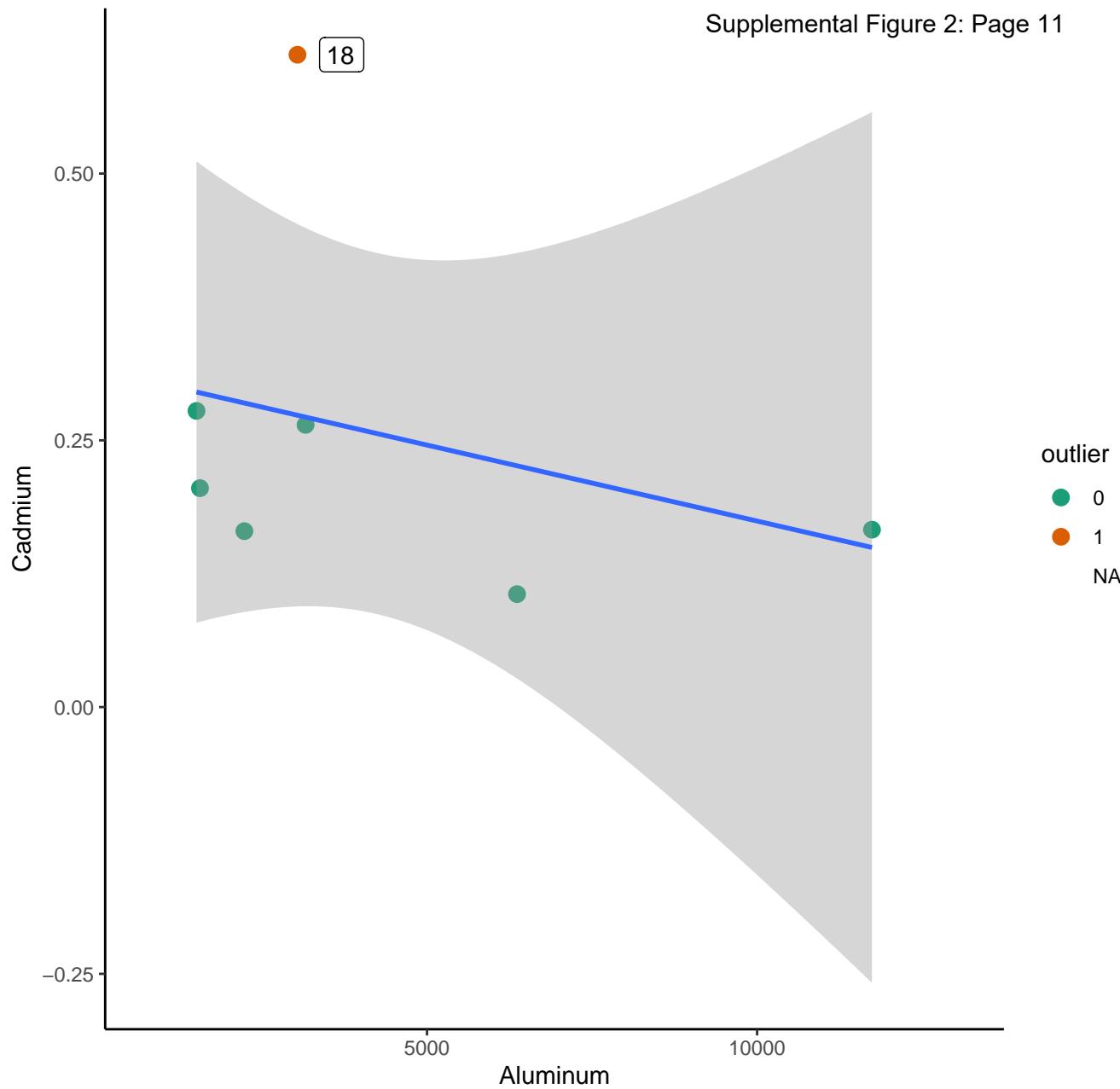
# Cooks Outlier Plot for Cadmium~Aluminum

Supplemental Figure 2: Page 10



# Plot for Cadmium~Aluminum

Supplemental Figure 2: Page 11



# Cooks Outlier Plot for Chromium~Aluminum

Supplemental Figure 2: Page 12

18

cooksd

0.6

0.4

0.2

0.0

5

10

Index

3

4

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14

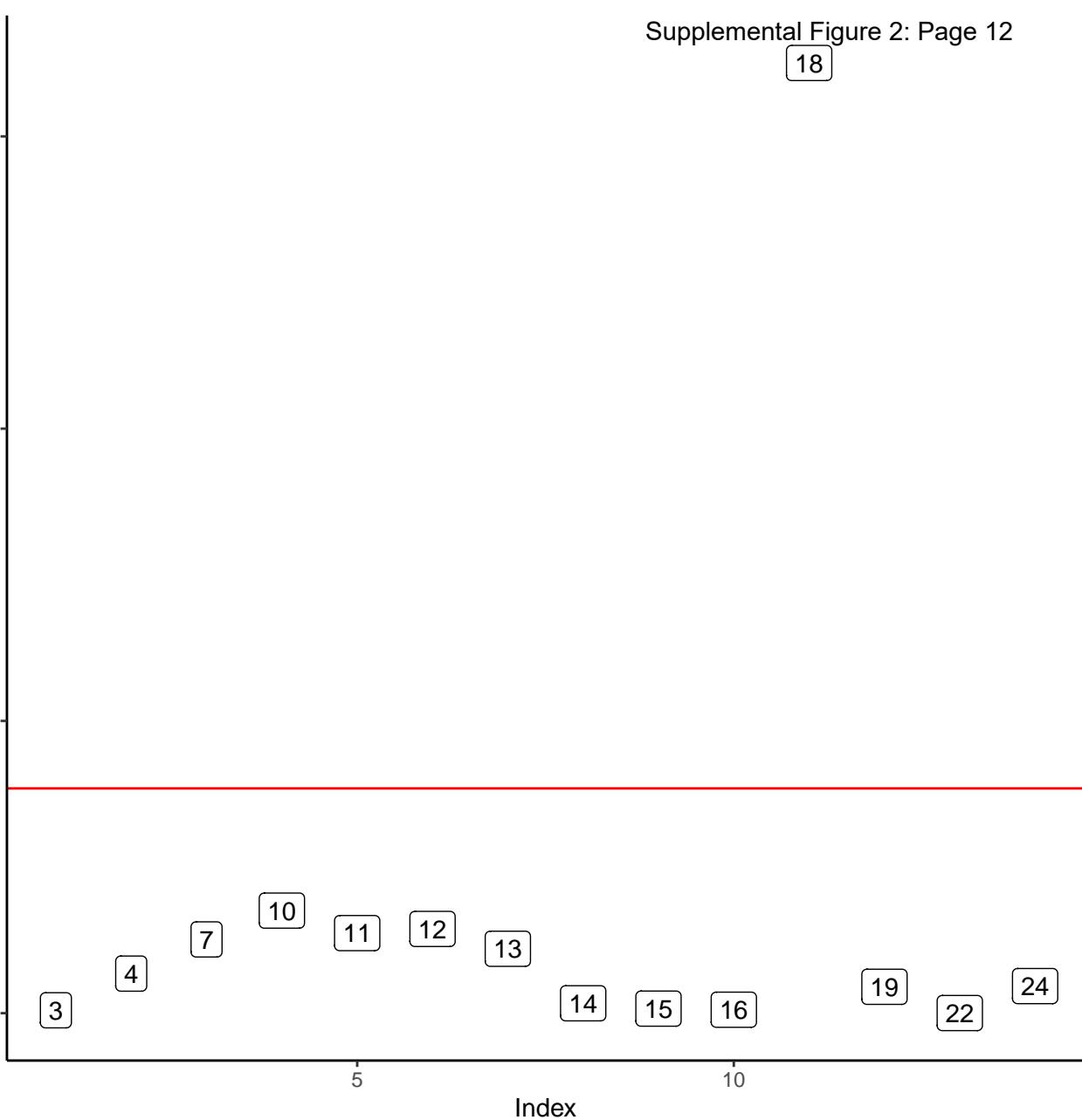
15

16

19

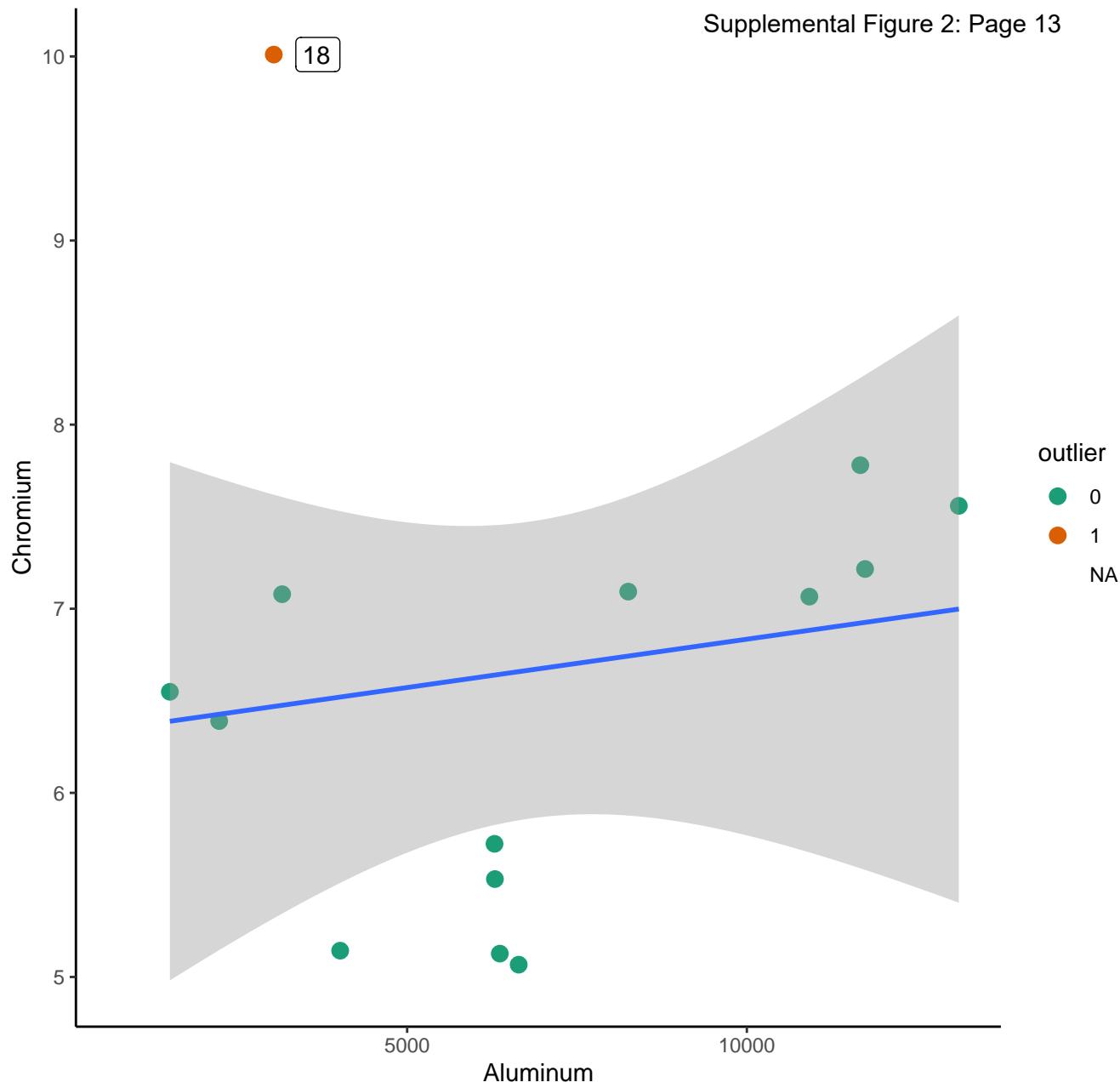
22

24



# Plot for Chromium~Aluminum

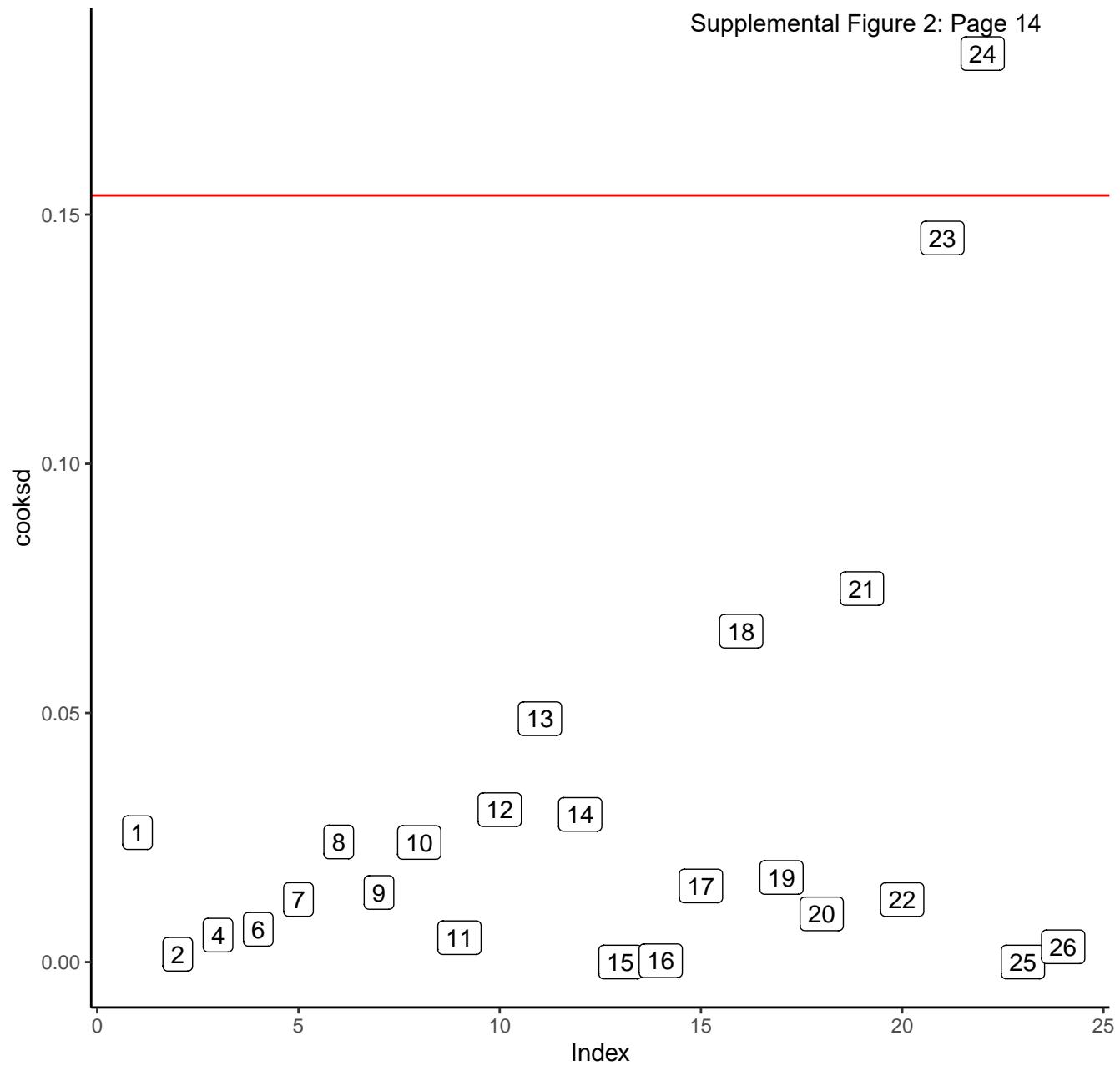
Supplemental Figure 2: Page 13



# Cooks Outlier Plot for Cobalt~Aluminum

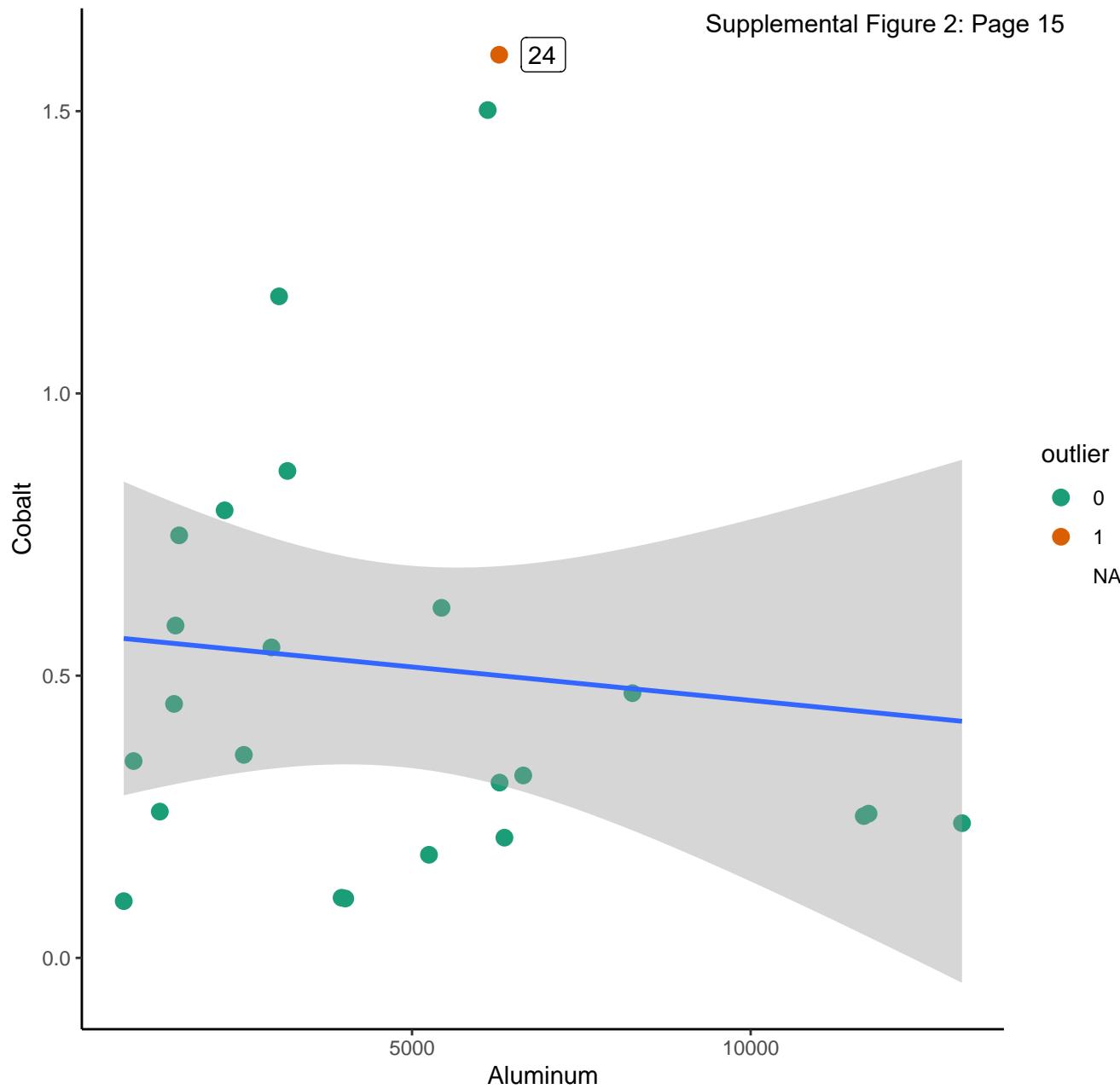
Supplemental Figure 2: Page 14

24



# Plot for Cobalt~Aluminum

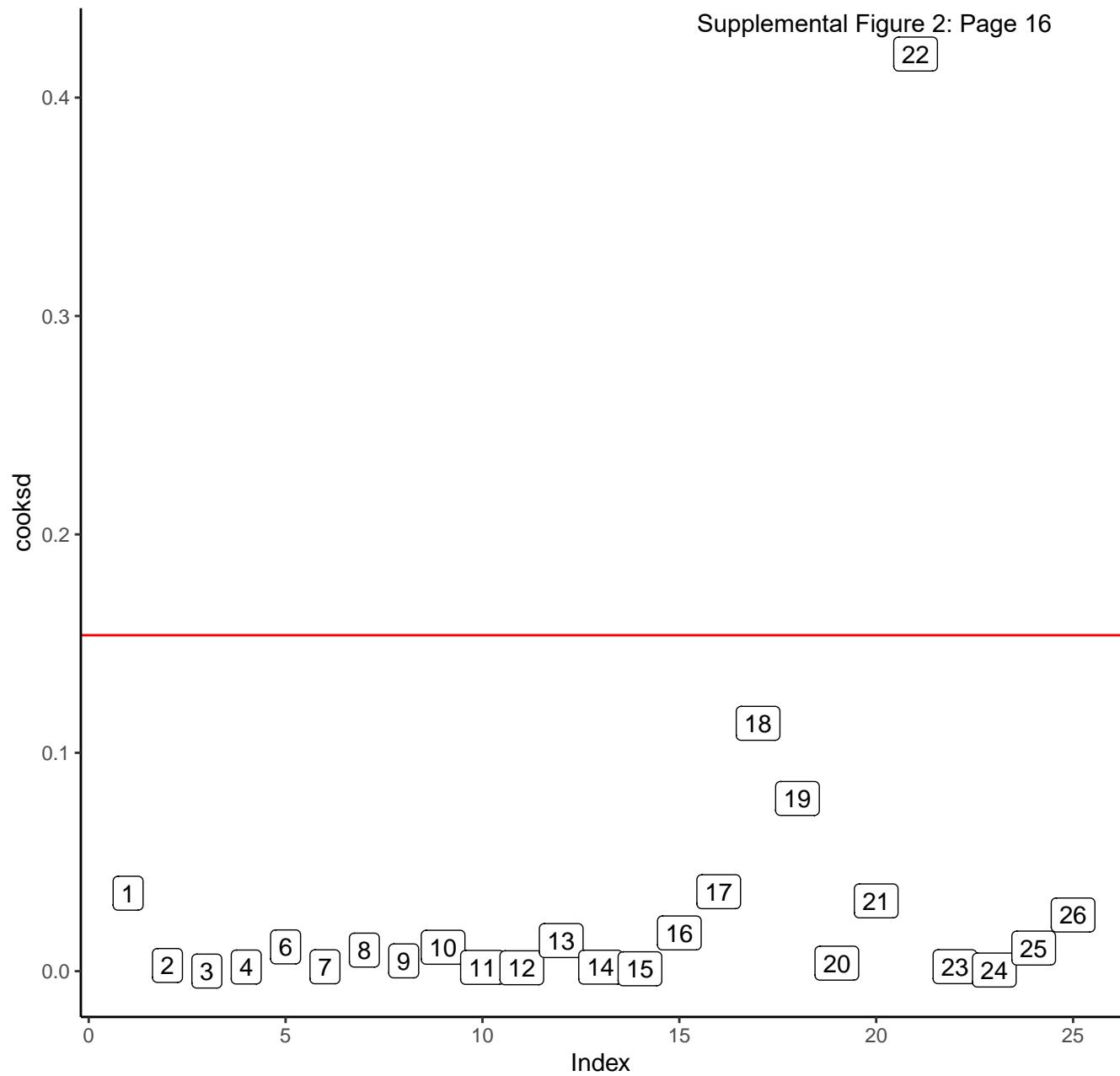
Supplemental Figure 2: Page 15



# Cooks Outlier Plot for Copper~Aluminum

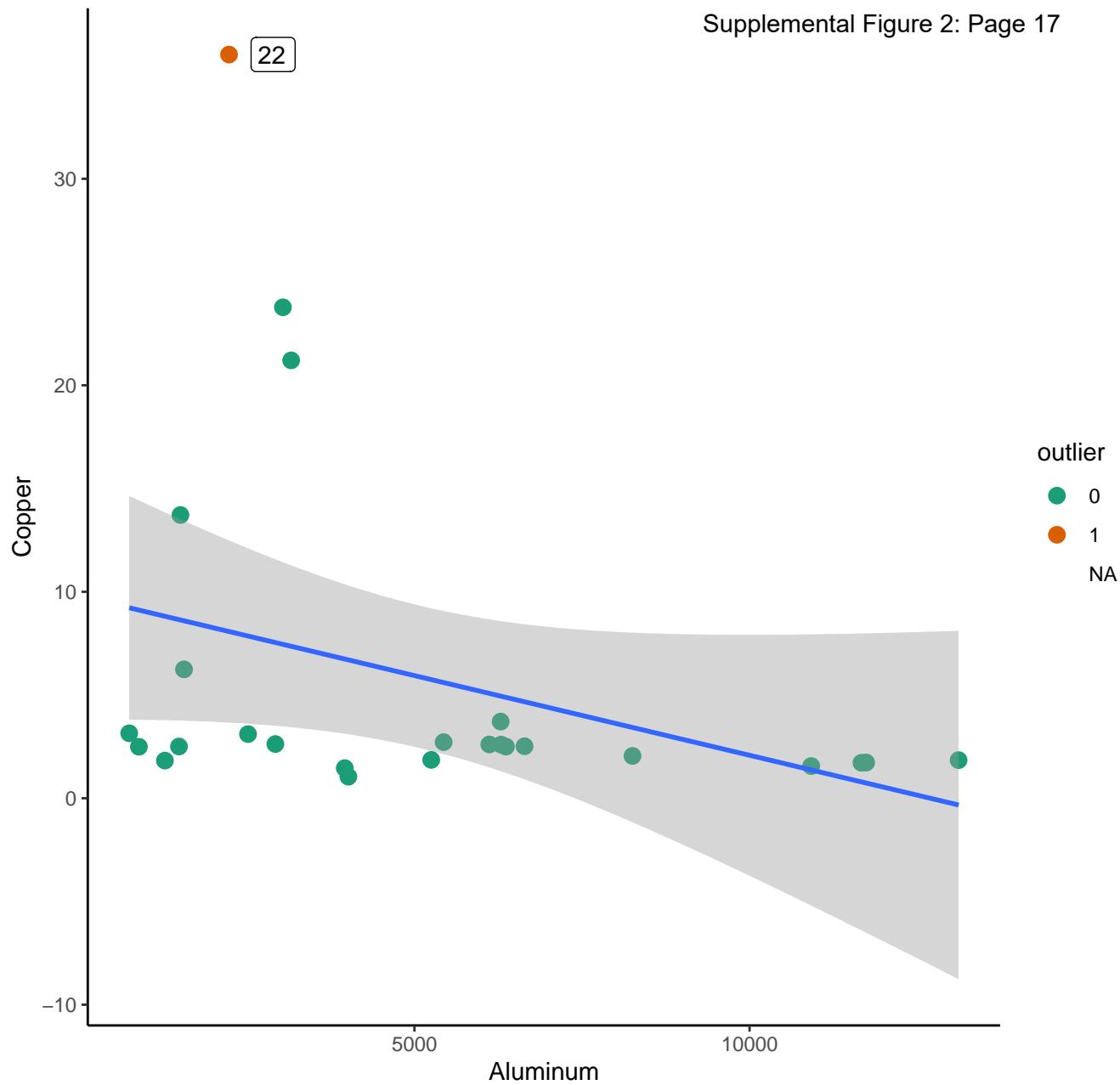
Supplemental Figure 2: Page 16

22



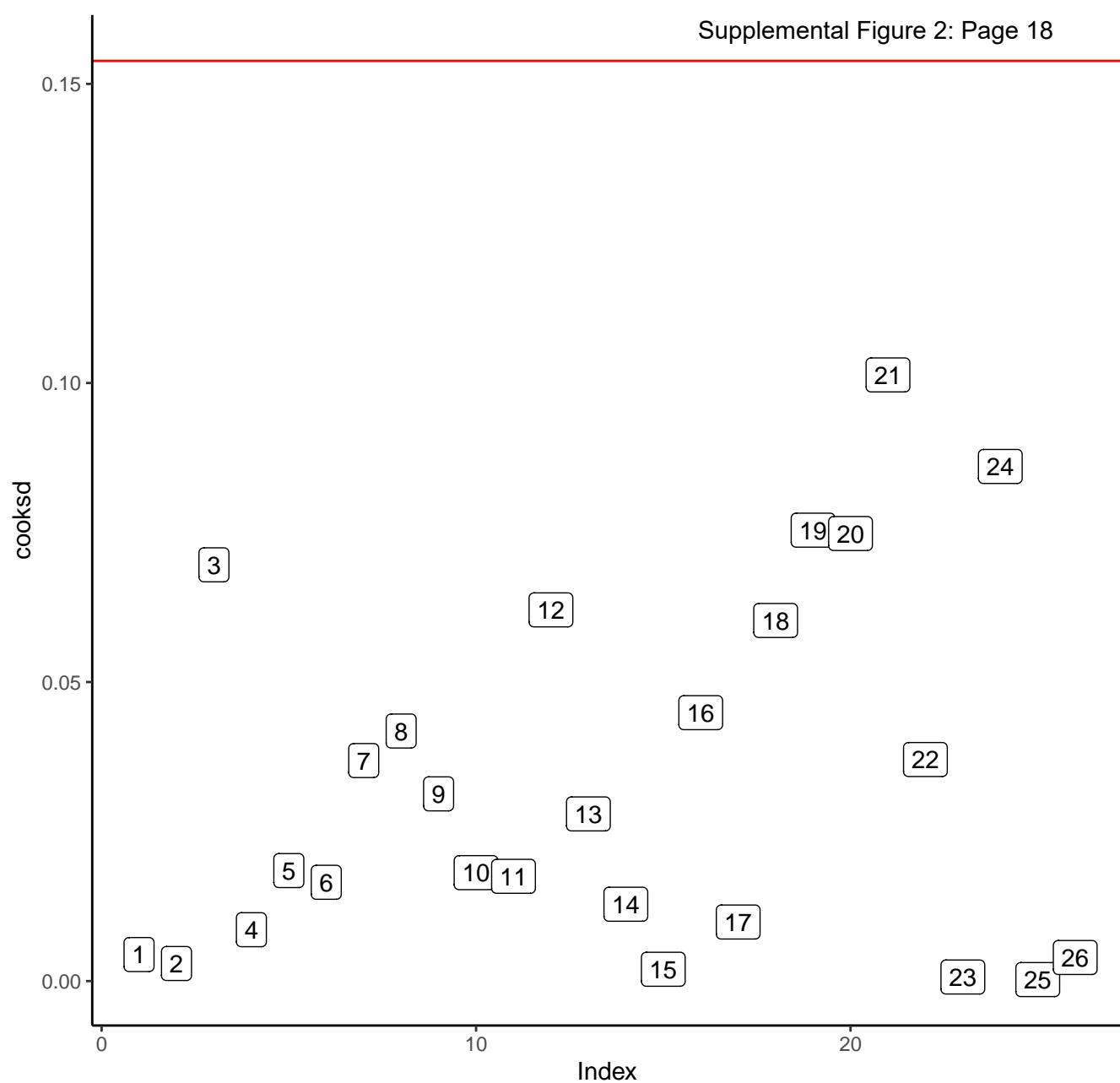
# Plot for Copper~Aluminum

Supplemental Figure 2: Page 17



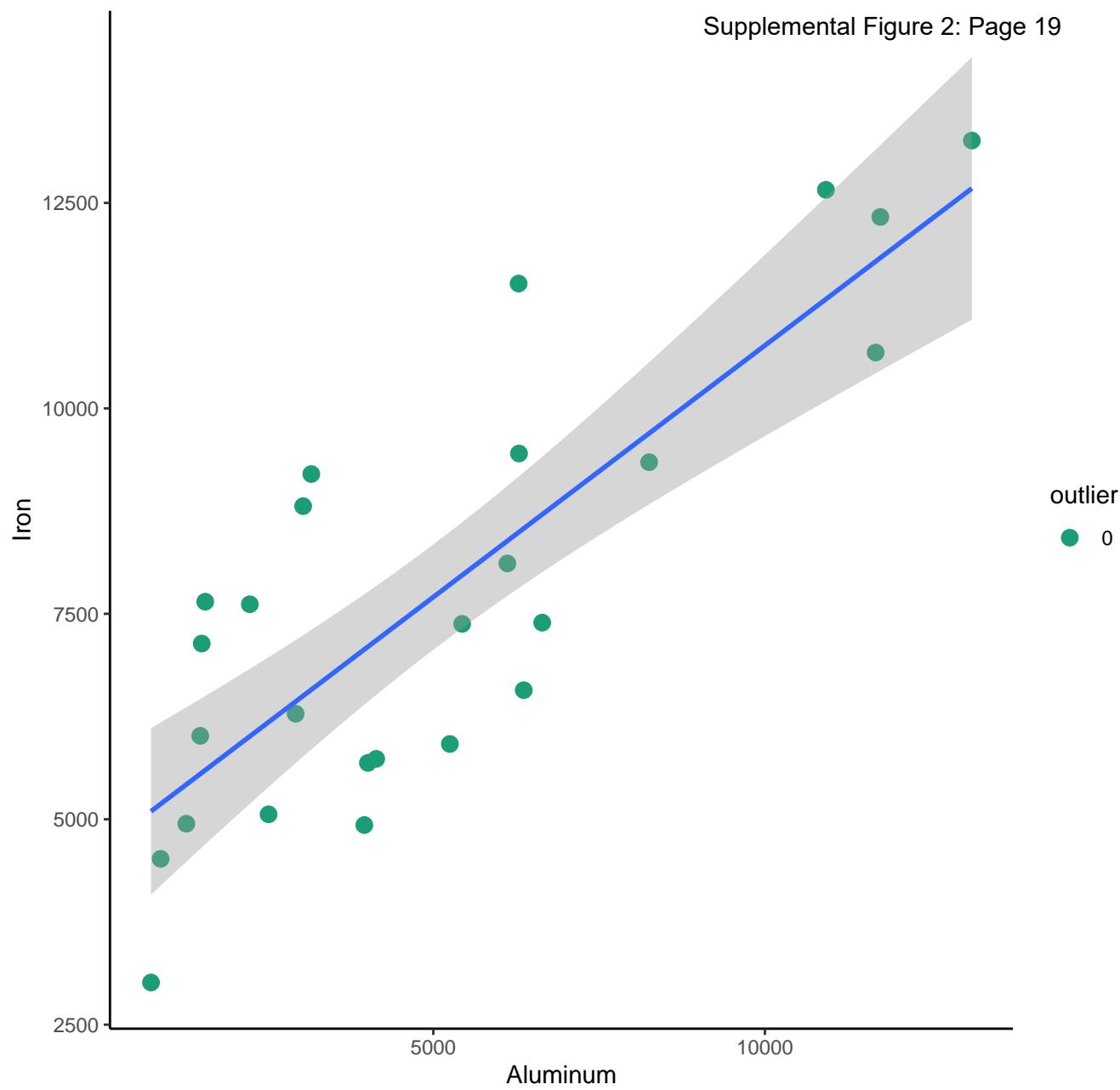
# Cooks Outlier Plot for Iron~Aluminum

Supplemental Figure 2: Page 18



# Plot for Iron~Aluminum

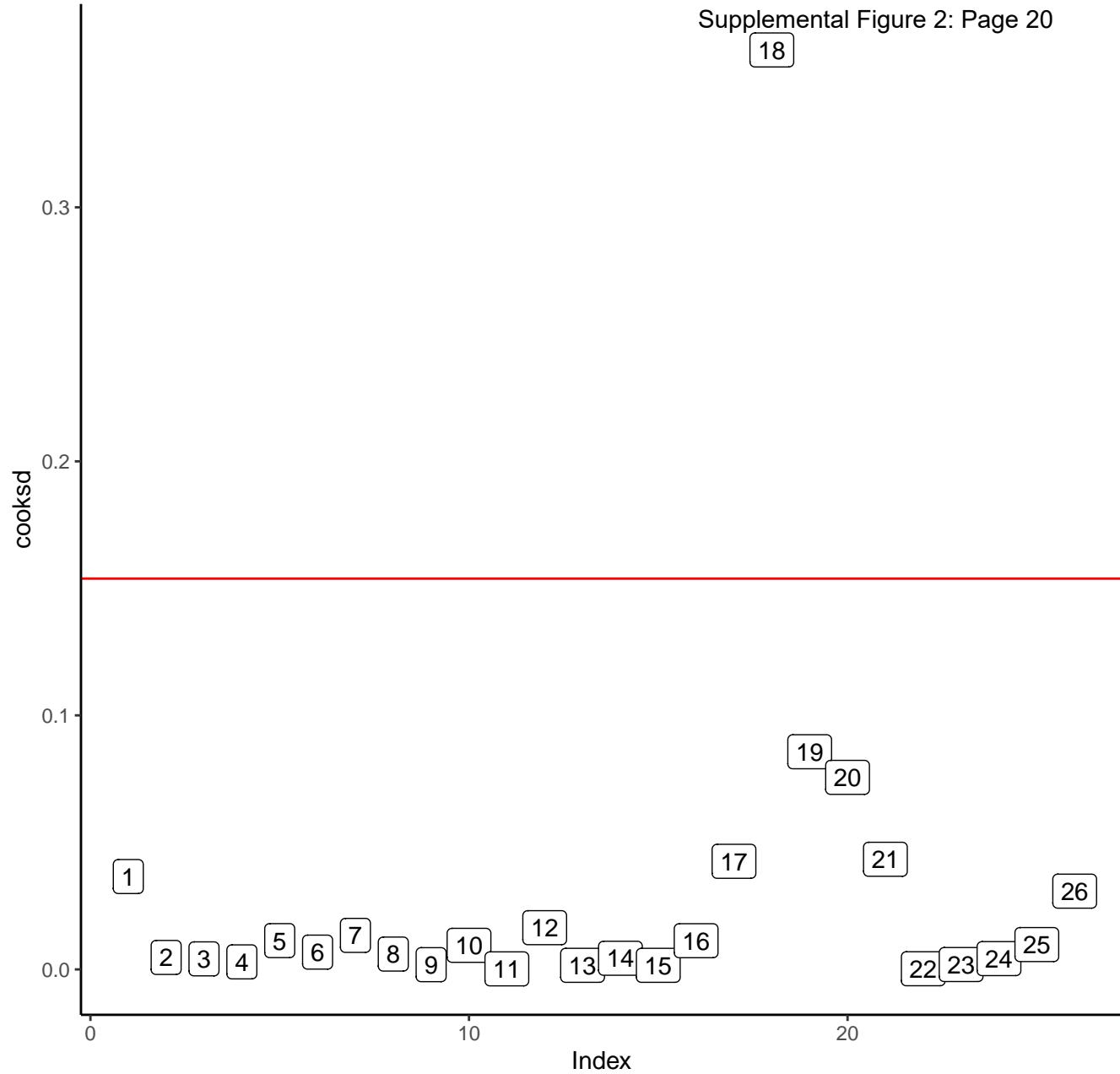
Supplemental Figure 2: Page 19



# Cooks Outlier Plot for Lead~Aluminum

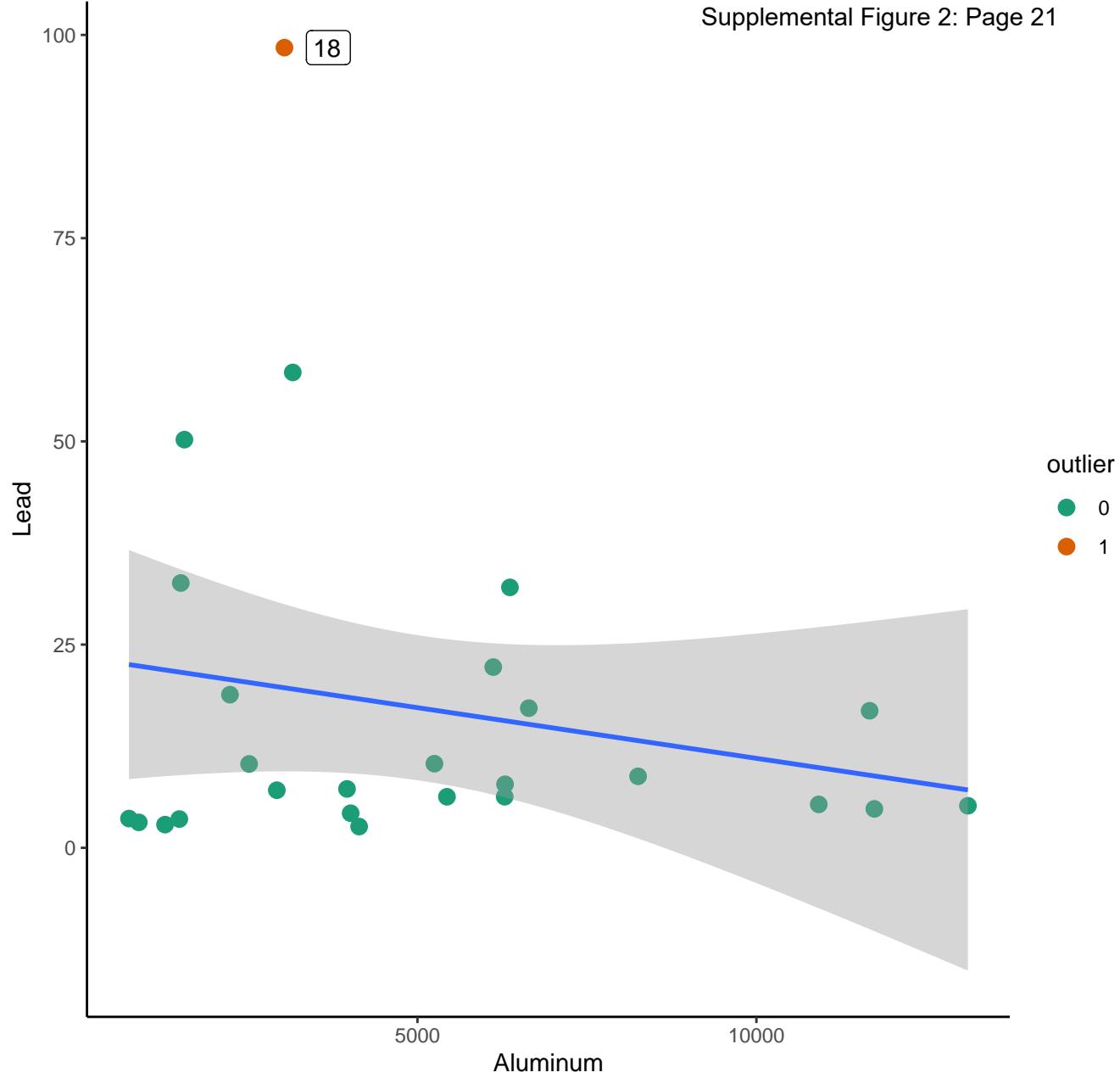
Supplemental Figure 2: Page 20

18



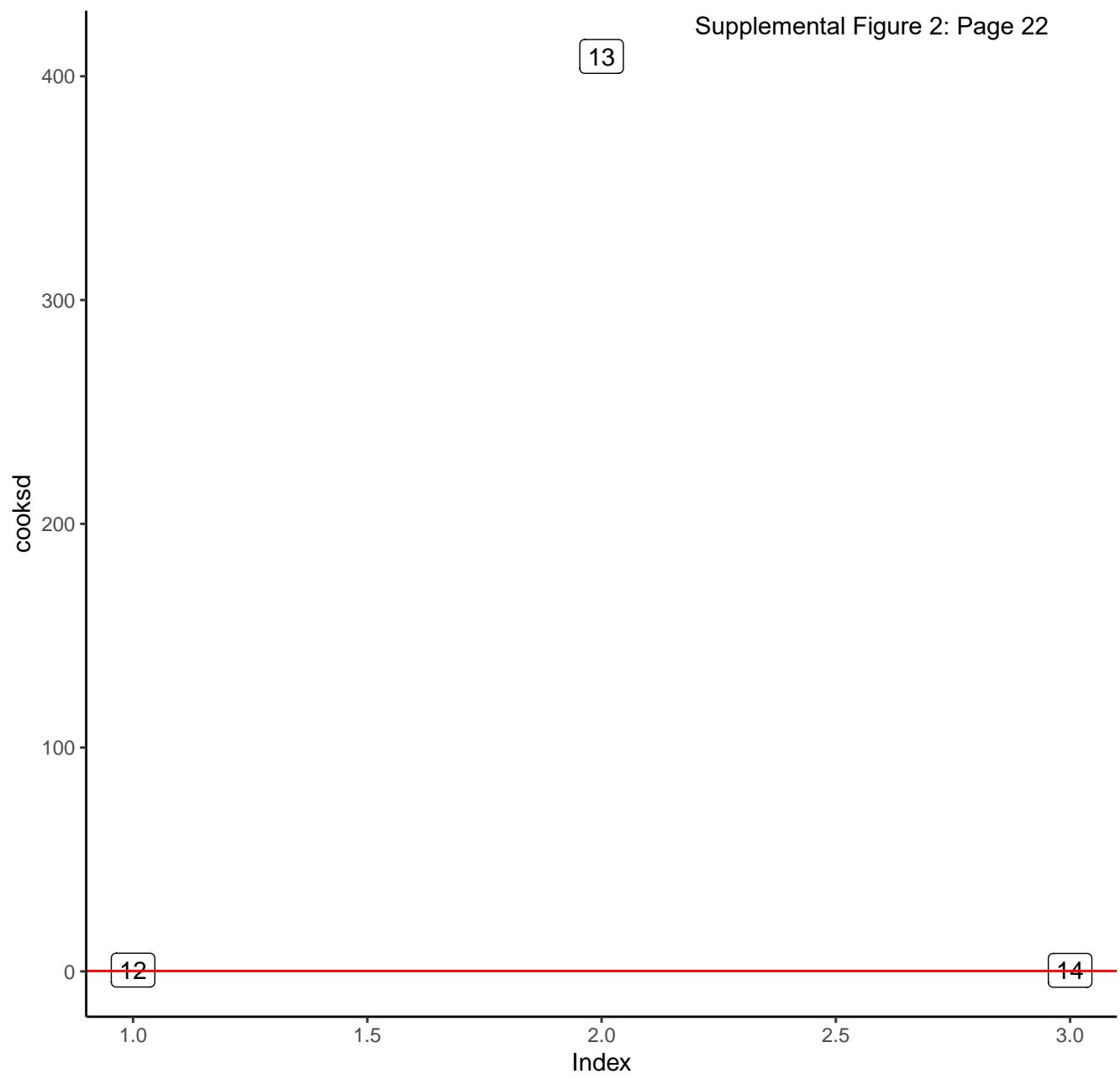
# Plot for Lead~Aluminum

Supplemental Figure 2: Page 21



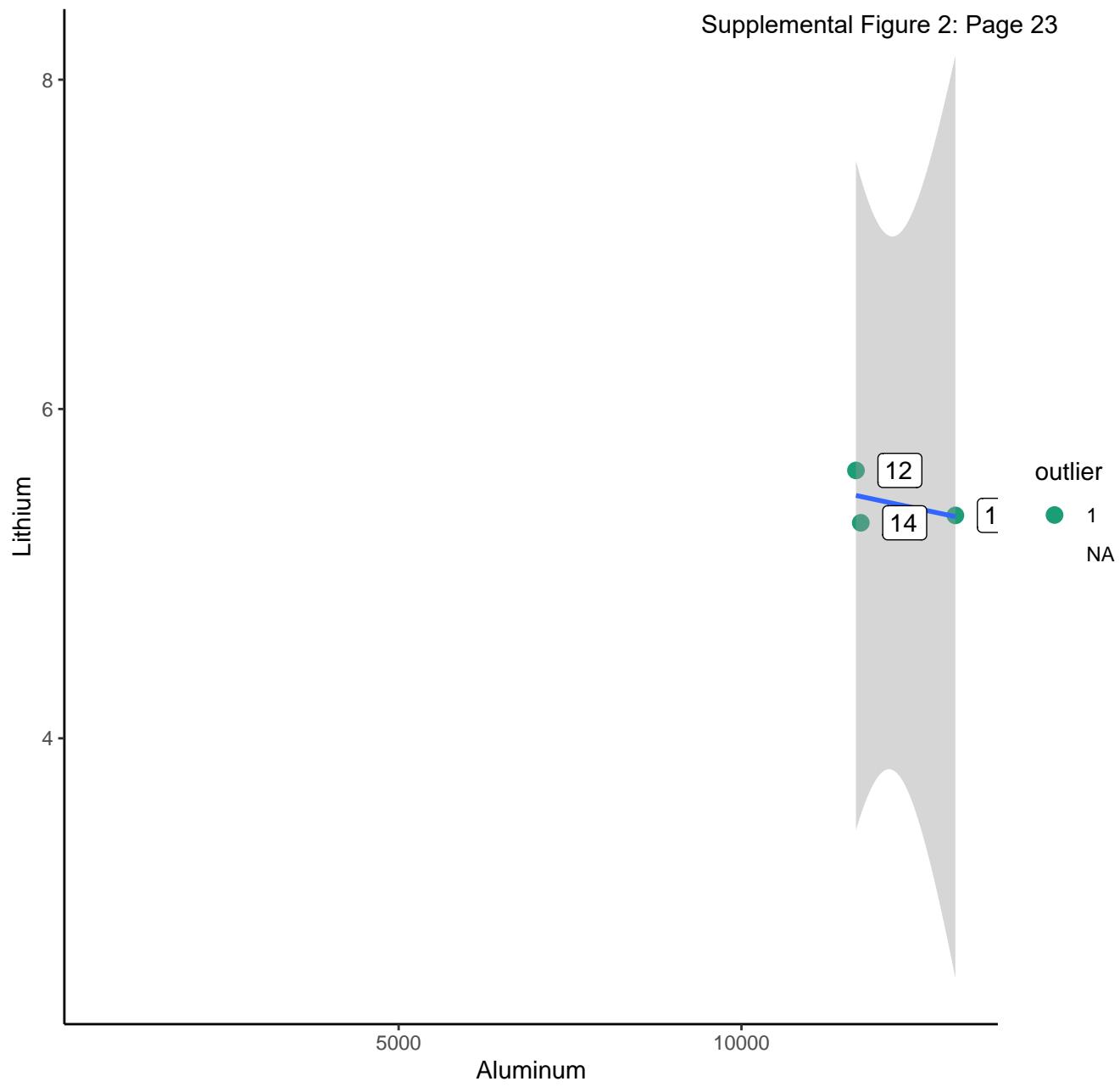
# Cooks Outlier Plot for Lithium~Aluminum

Supplemental Figure 2: Page 22



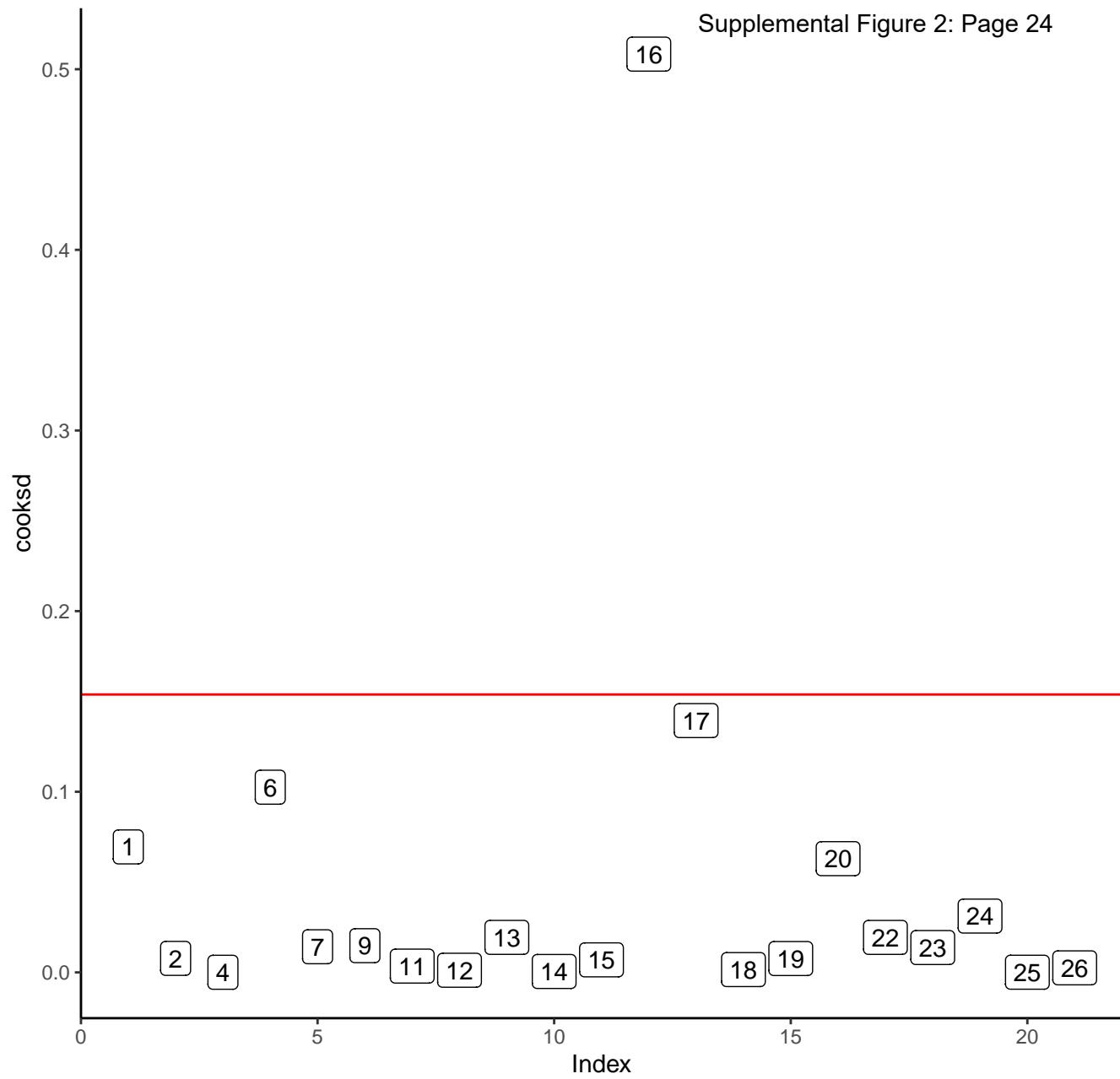
# Plot for Lithium~Aluminum

Supplemental Figure 2: Page 23



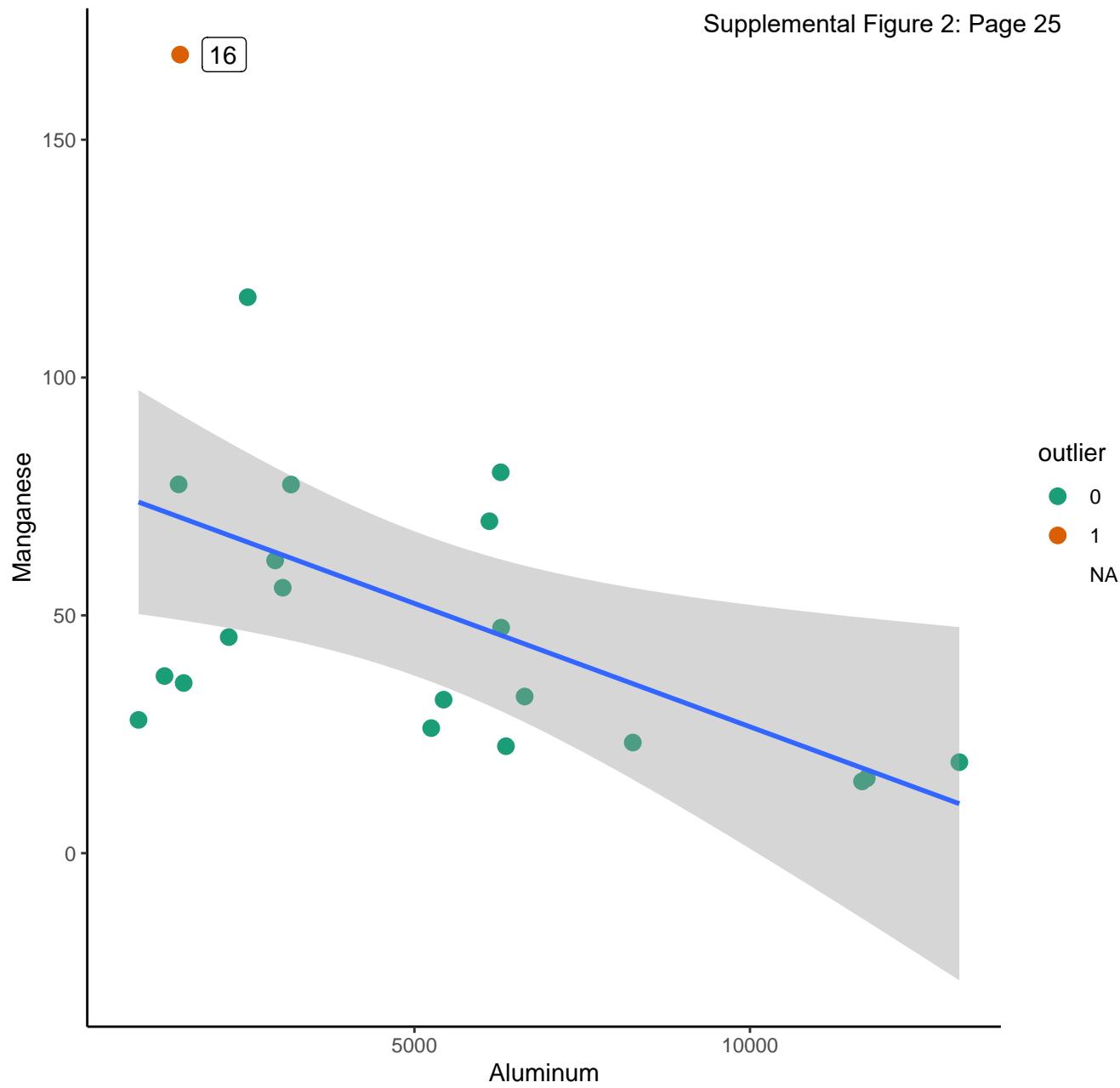
# Cooks Outlier Plot for Manganese~Aluminum

Supplemental Figure 2: Page 24



# Plot for Manganese~Aluminum

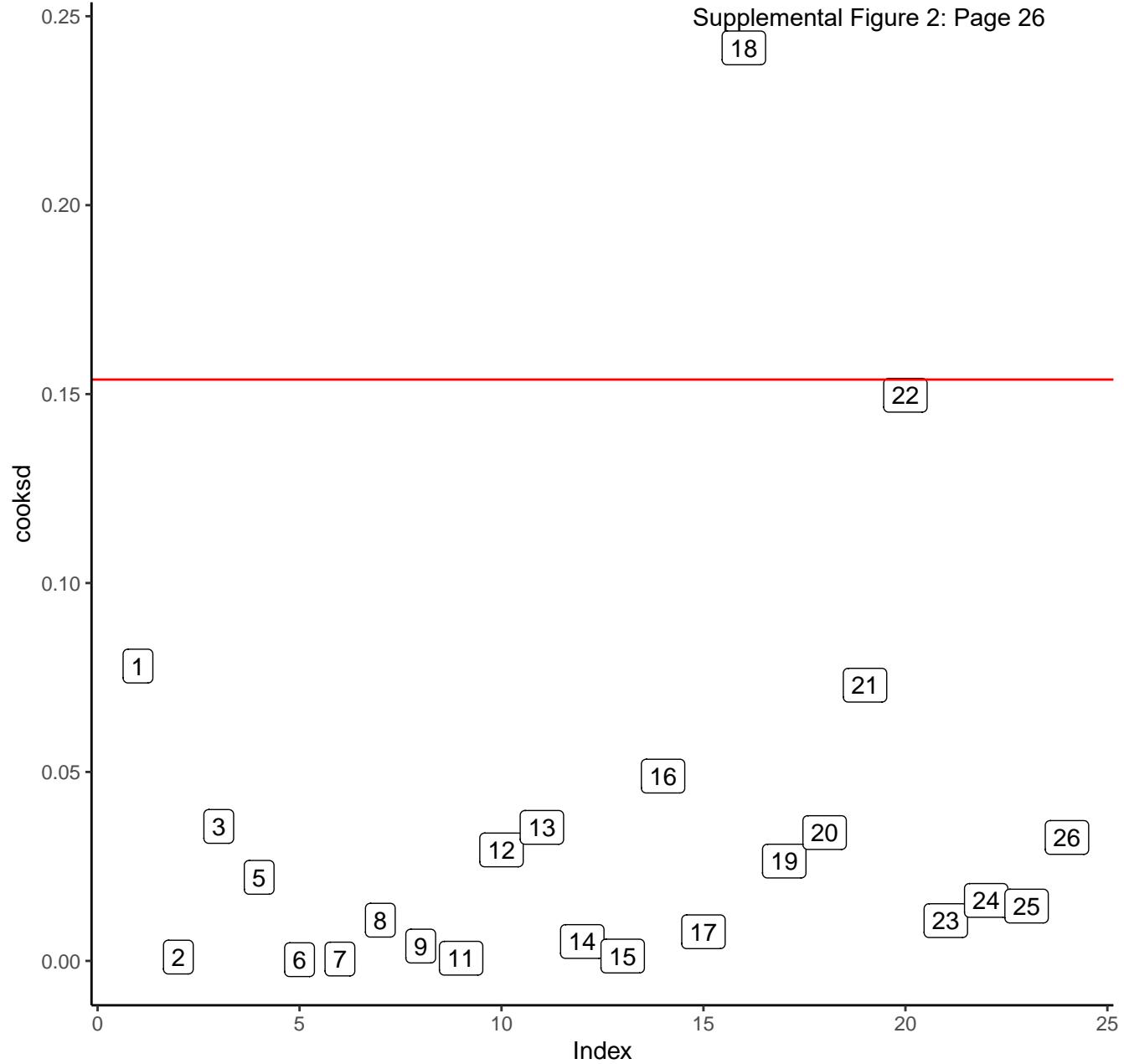
Supplemental Figure 2: Page 25



# Cooks Outlier Plot for Nickel~Aluminum

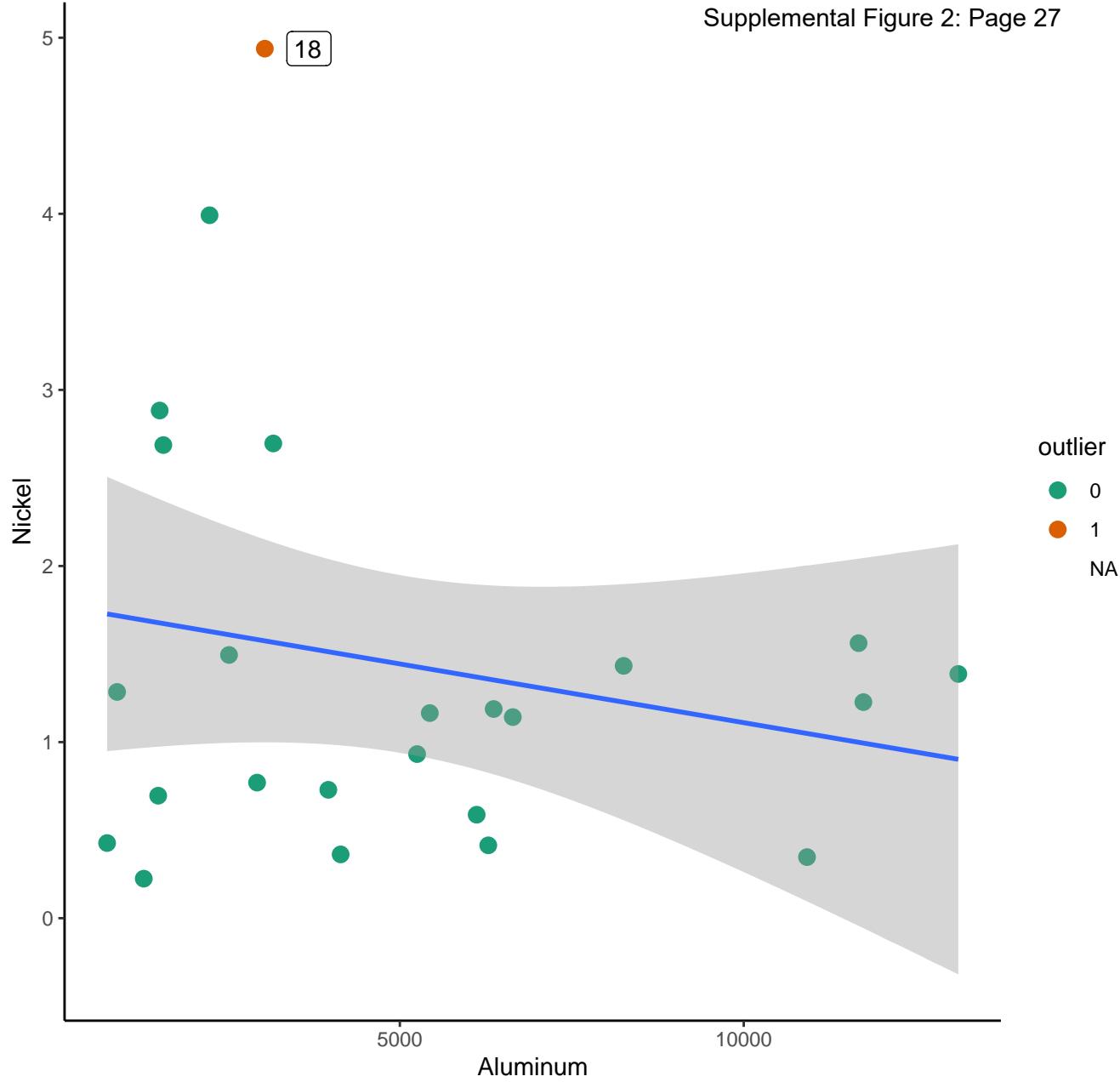
Supplemental Figure 2: Page 26

18



# Plot for Nickel~Aluminum

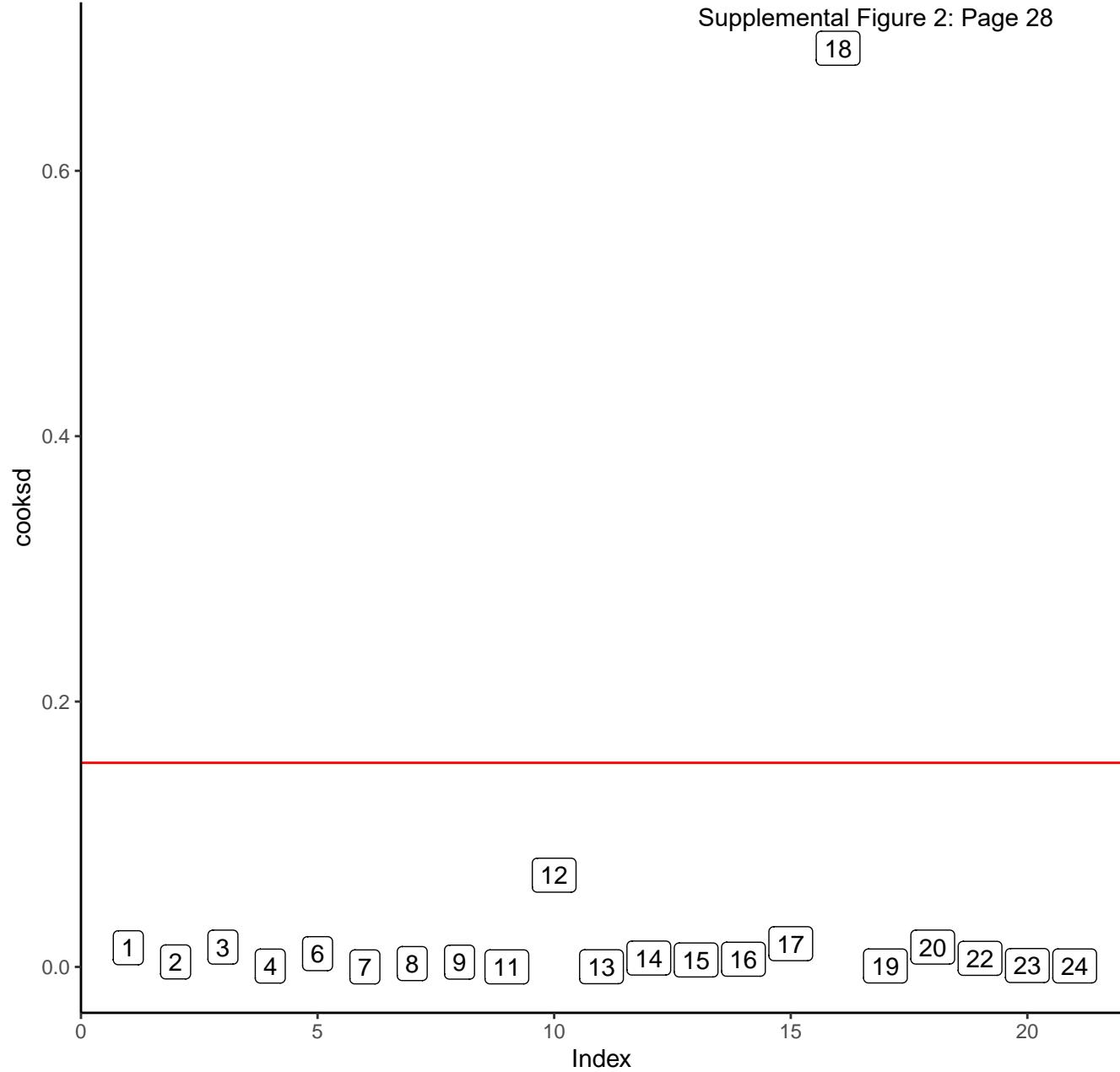
Supplemental Figure 2: Page 27



# Cooks Outlier Plot for Selenium~Aluminum

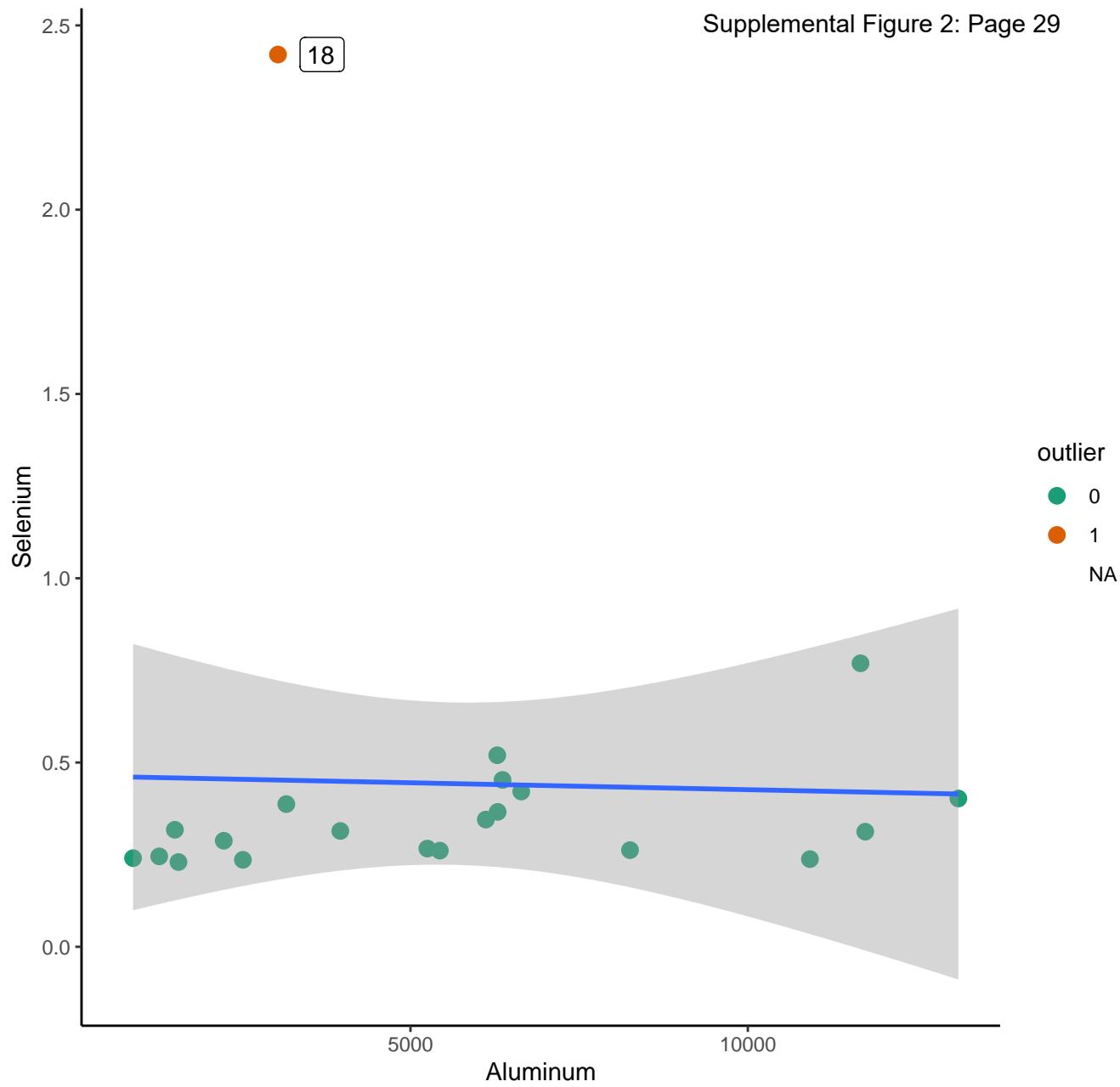
Supplemental Figure 2: Page 28

18



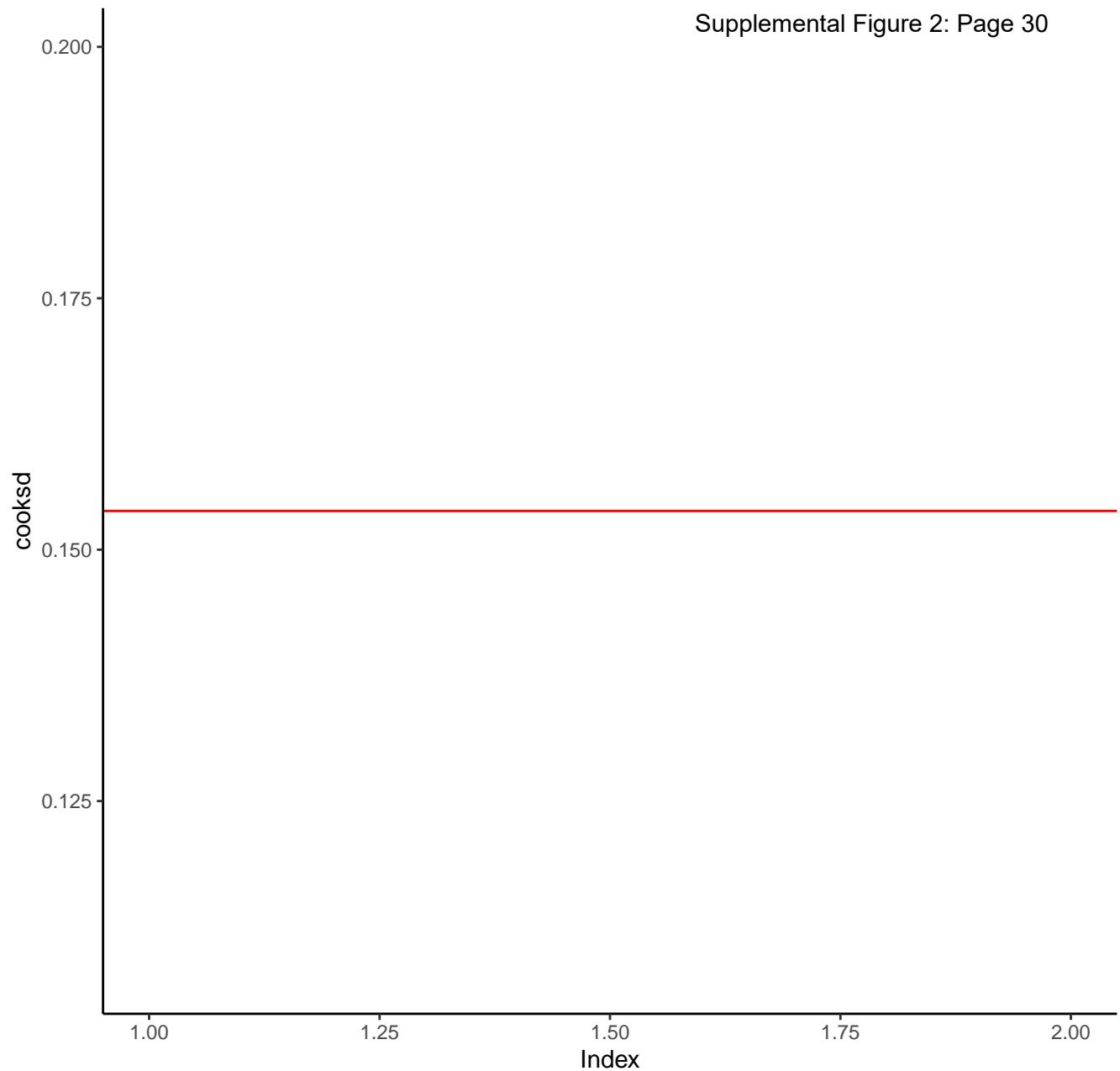
# Plot for Selenium~Aluminum

Supplemental Figure 2: Page 29



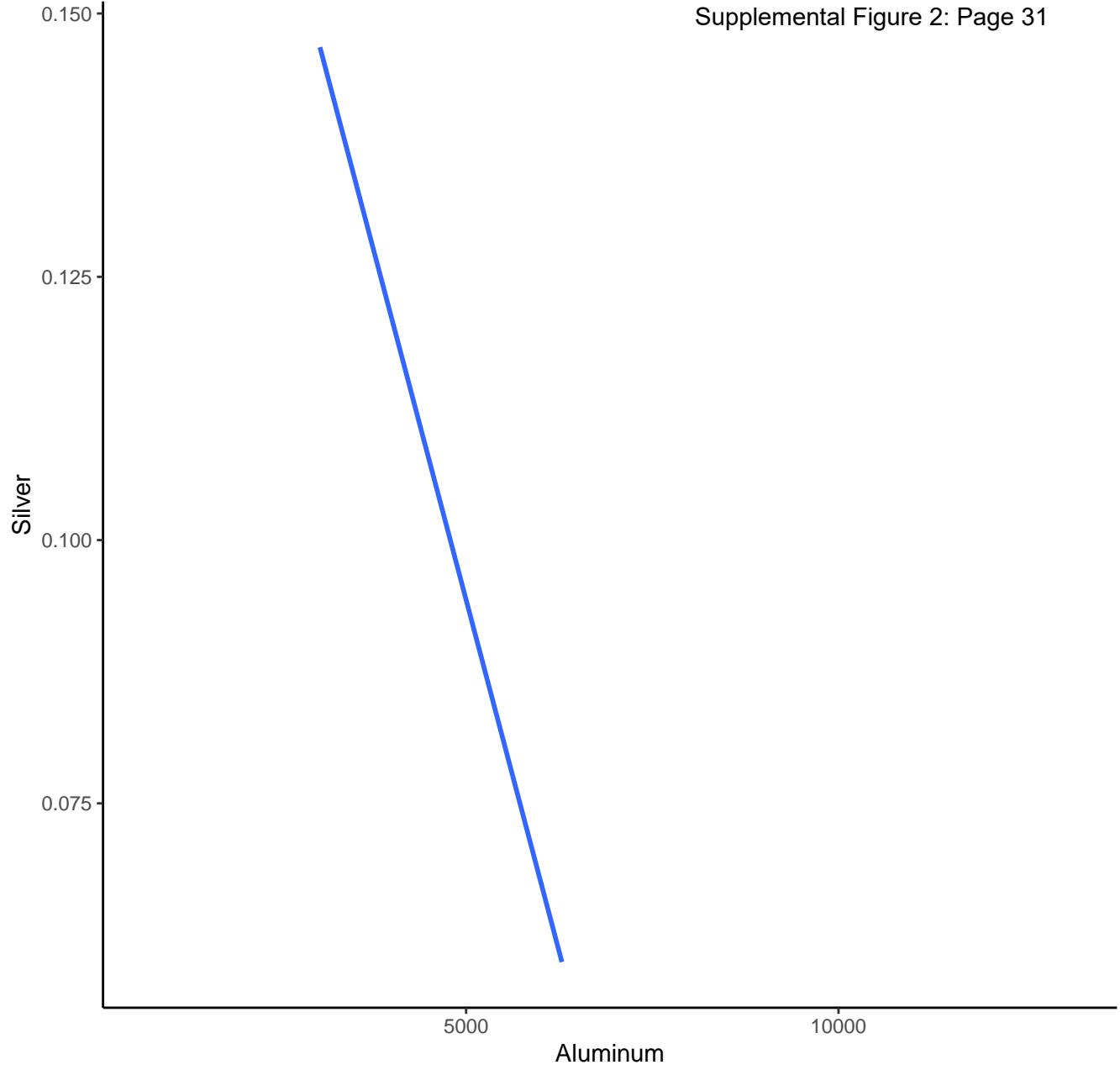
# Cooks Outlier Plot for Silver~Aluminum

Supplemental Figure 2: Page 30



# Plot for Silver~Aluminum

Supplemental Figure 2: Page 31



# Cooks Outlier Plot for Strontium~Aluminum

Supplemental Figure 2: Page 32

16

cooks<sub>d</sub>

0.5

0.4

0.3

0.2

0.1

0.0

0

10

20

Index

1

2

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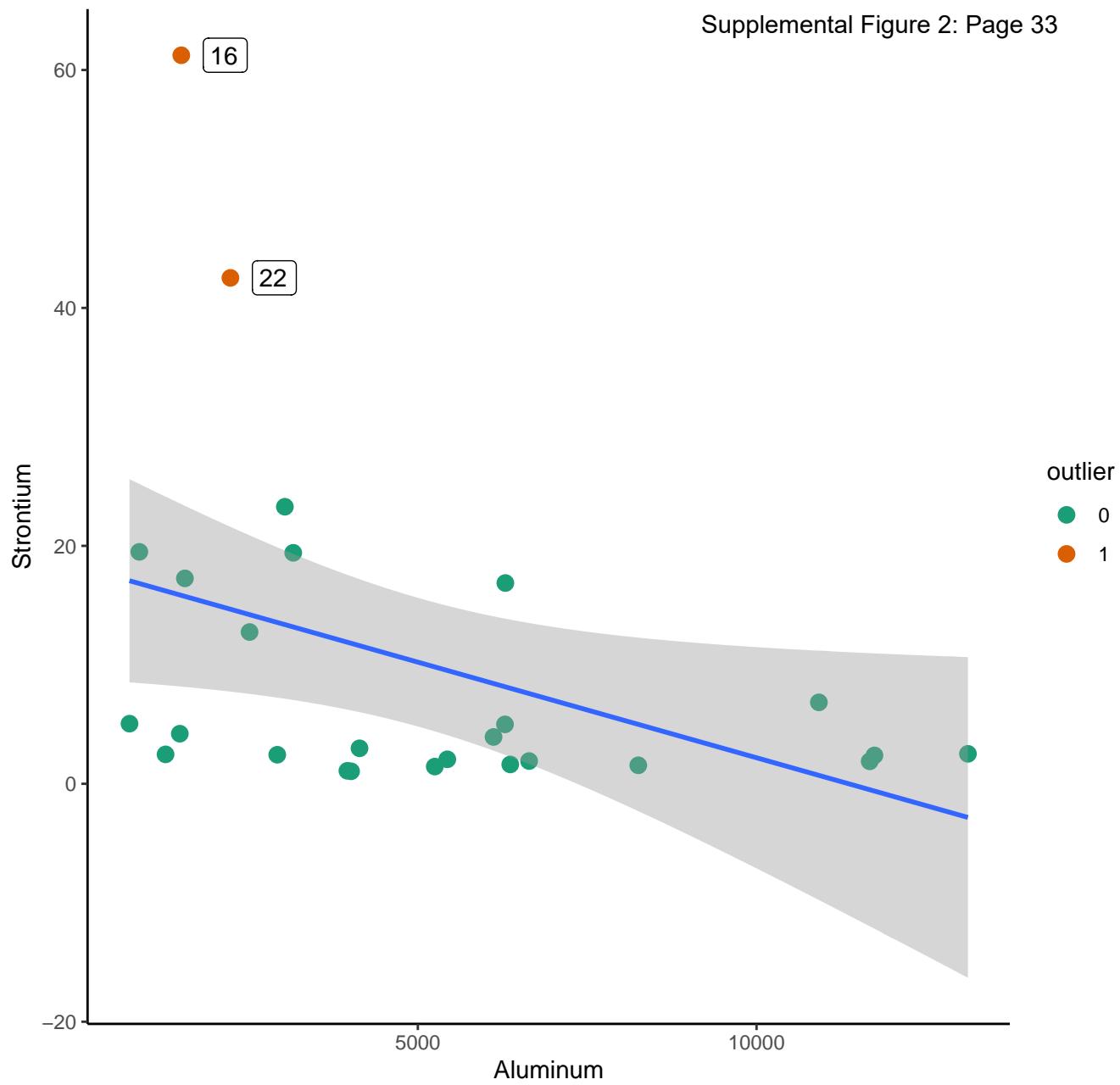
24

25

26

# Plot for Strontium~Aluminum

Supplemental Figure 2: Page 33



# Cooks Outlier Plot for Zinc~Aluminum

Supplemental Figure 2: Page 34

20

cooksd

0.4

0.2

0.0

0

10

20

Index

1

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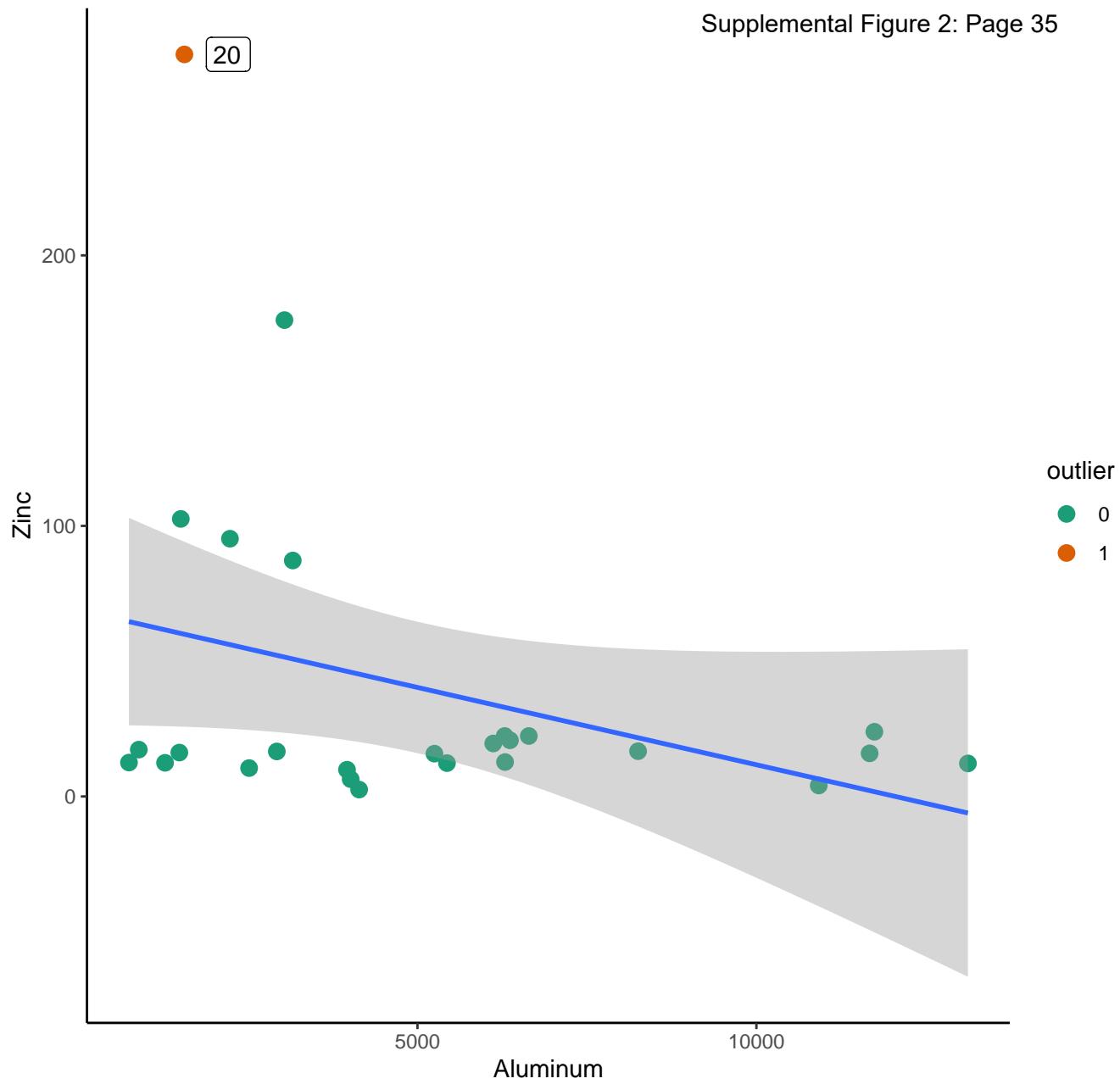
24

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26

# Plot for Zinc~Aluminum

Supplemental Figure 2: Page 35



# Cooks Outlier Plot for Magnesium~Aluminum

Supplemental Figure 2: Page 36

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24  
25  
26

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1

2

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13

14

0.20

0.15

0.10

0.05

0.00

0

10

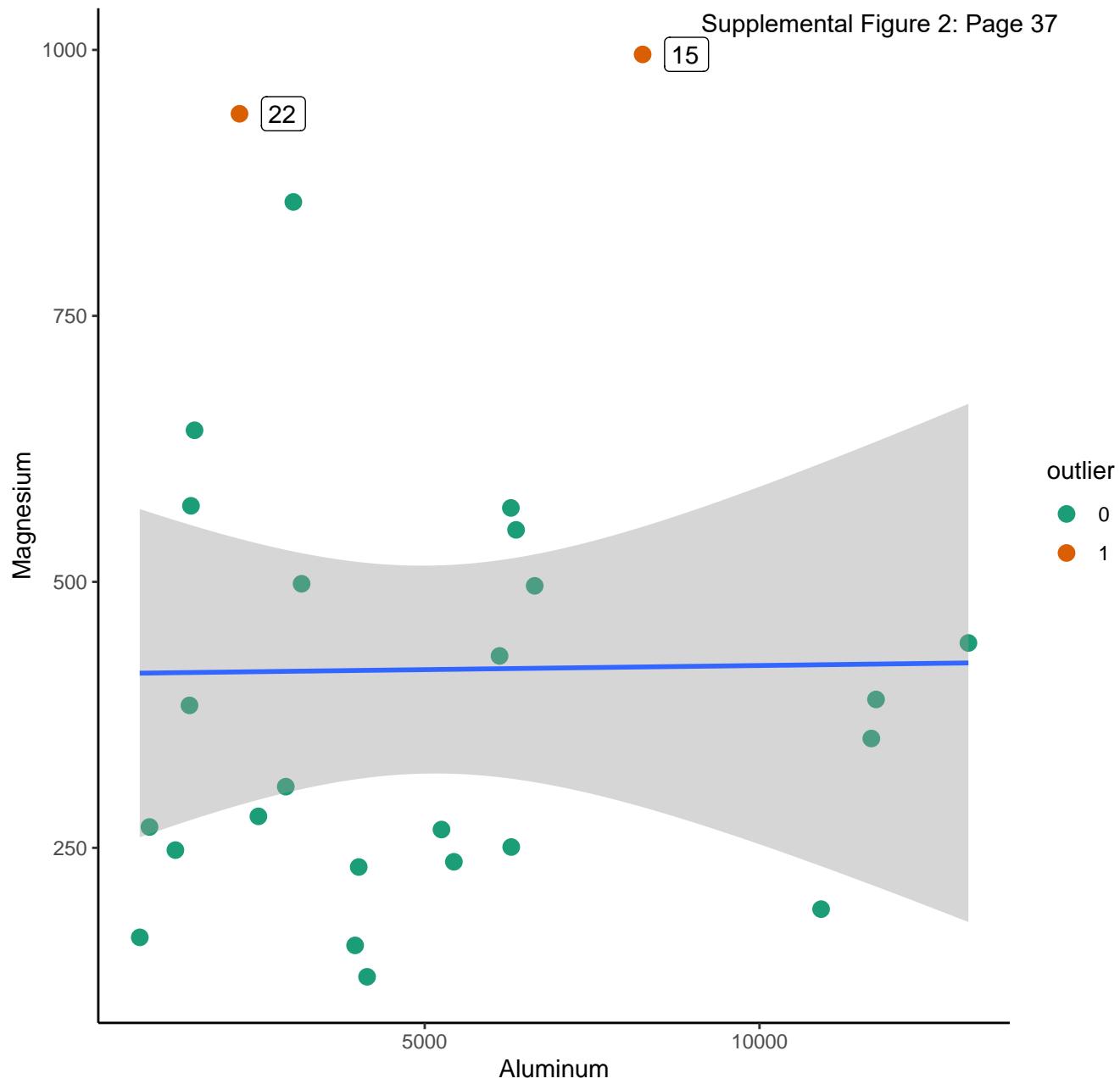
20

Index

cooks<sub>d</sub>

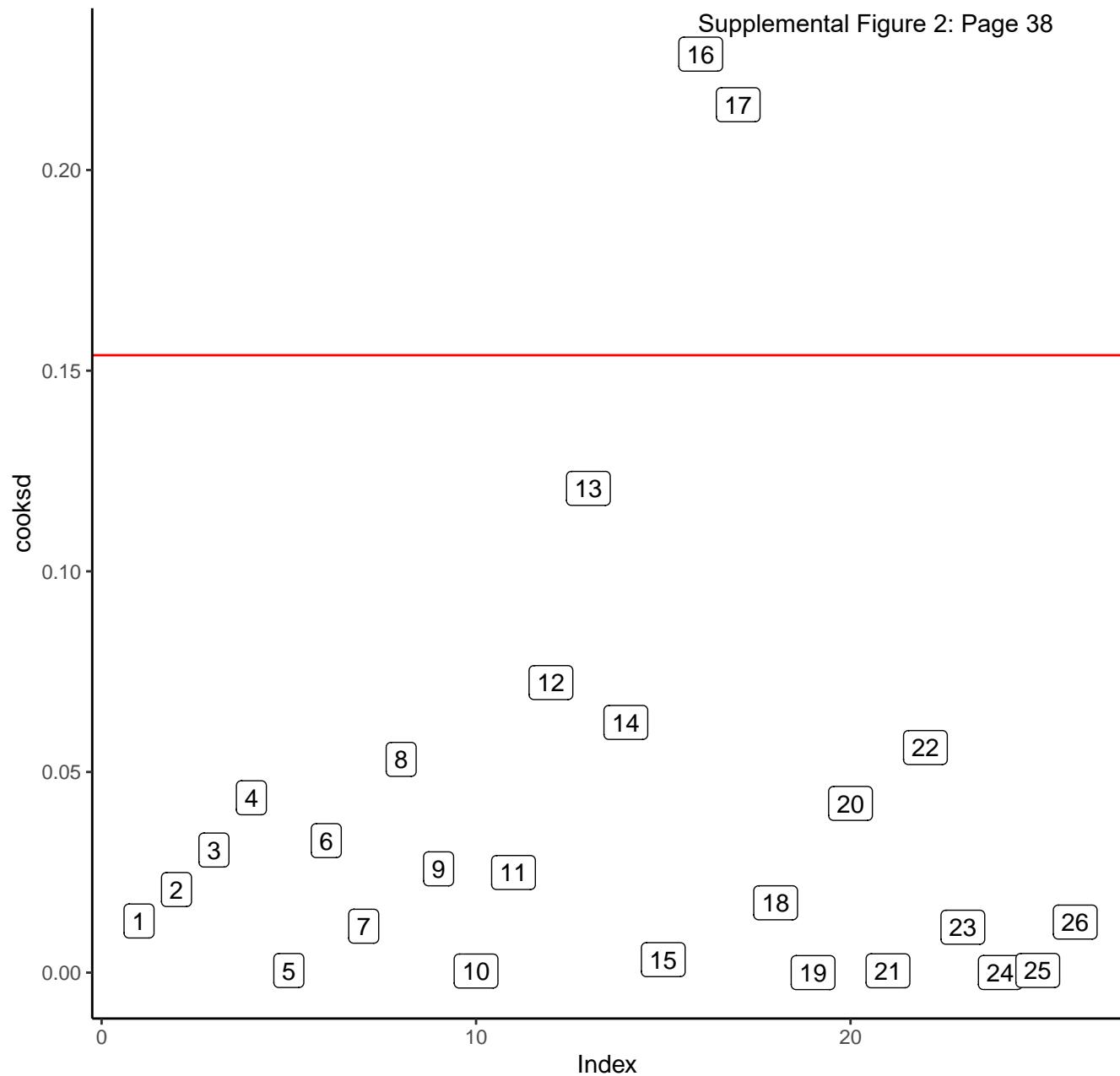
# Plot for Magnesium~Aluminum

Supplemental Figure 2: Page 37



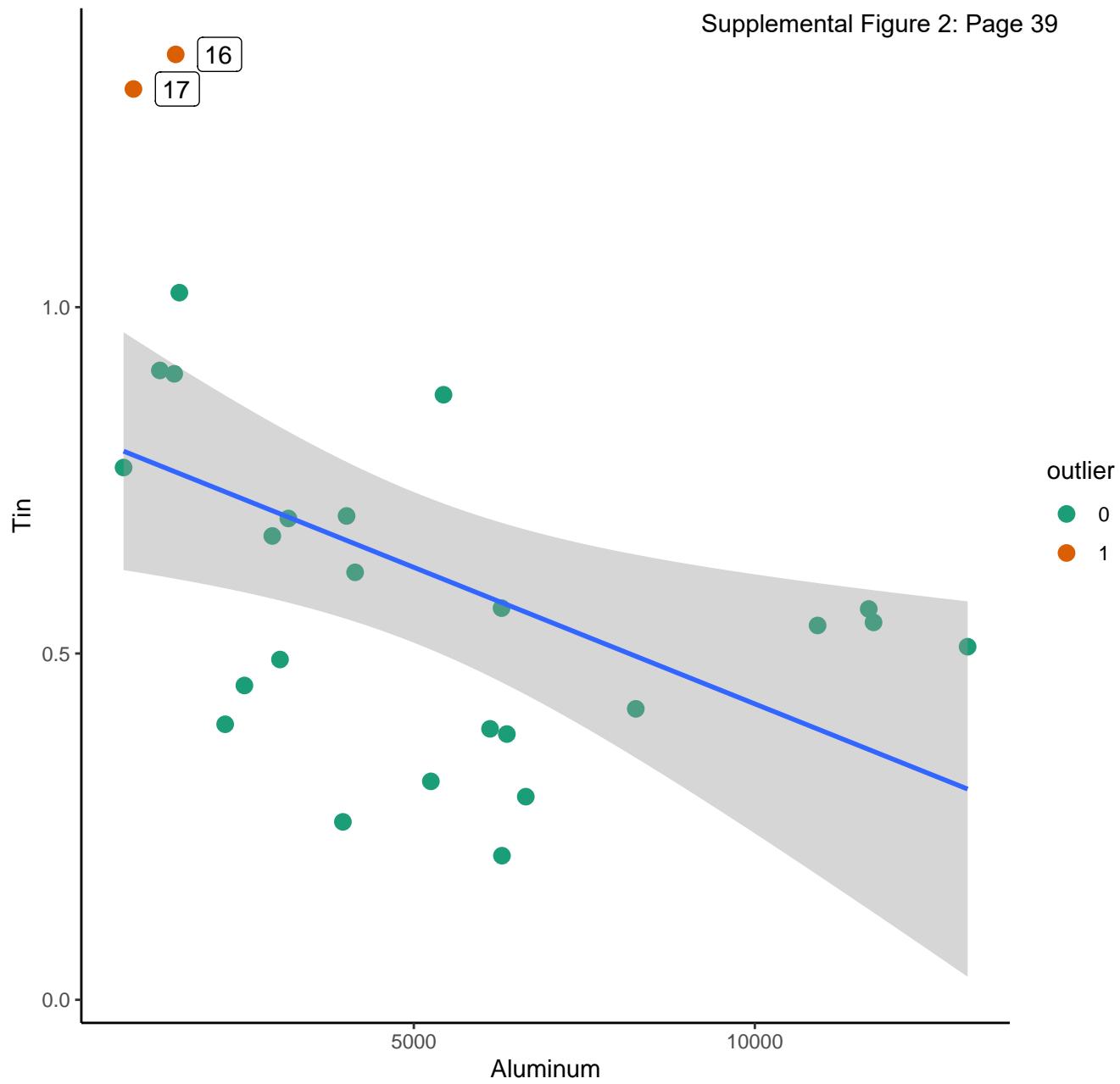
# Cooks Outlier Plot for Tin~Aluminum

Supplemental Figure 2: Page 38



# Plot for Tin~Aluminum

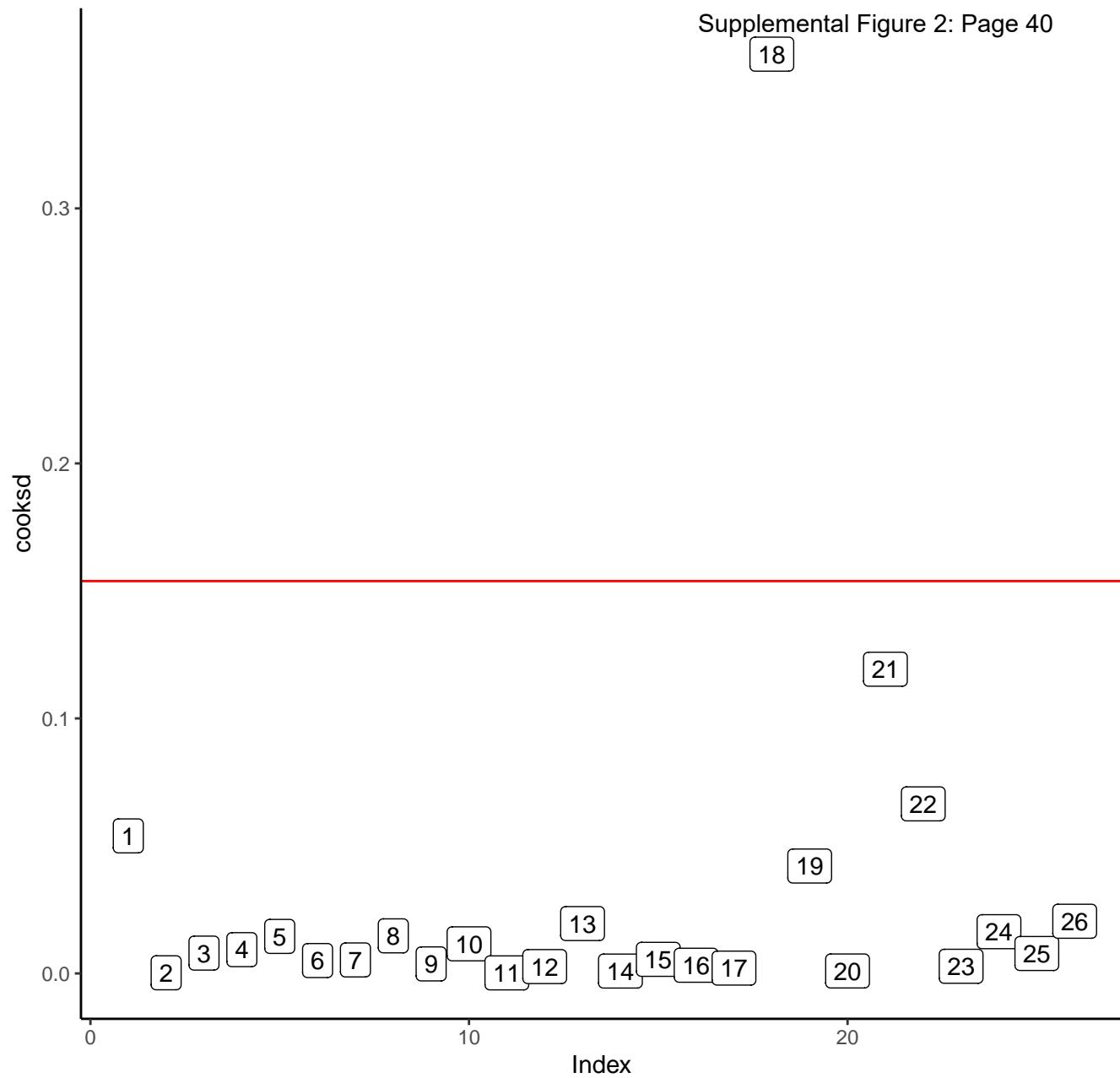
Supplemental Figure 2: Page 39



# Cooks Outlier Plot for Vanadium~Aluminum

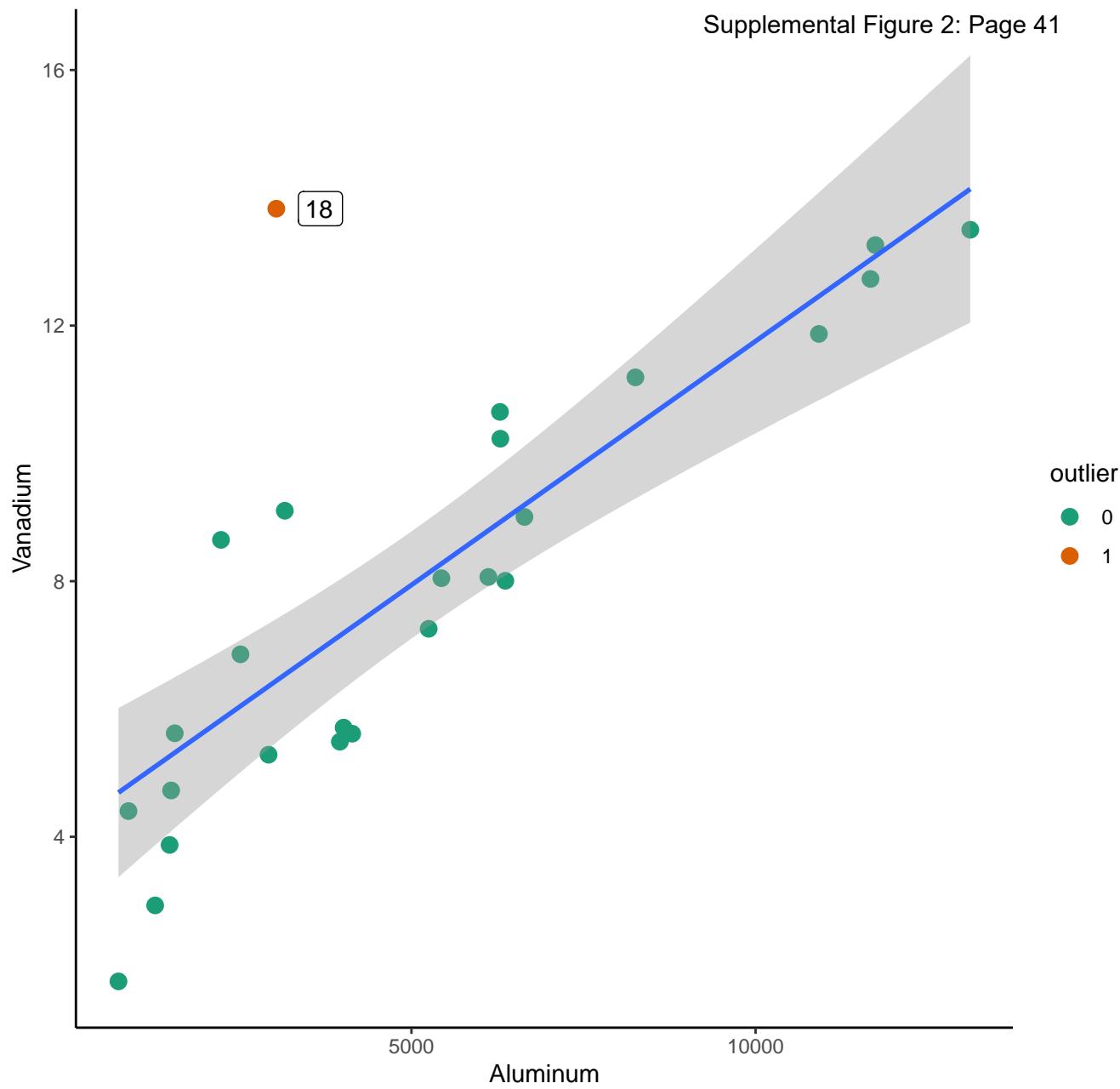
Supplemental Figure 2: Page 40

18



# Plot for Vanadium~Aluminum

Supplemental Figure 2: Page 41



# Cooks Outlier Plot for Mercury~Aluminum

Supplemental Figure 2: Page 42

18

cooks

0.3

0.2

0.1

0.0

0

10

20

Index

1

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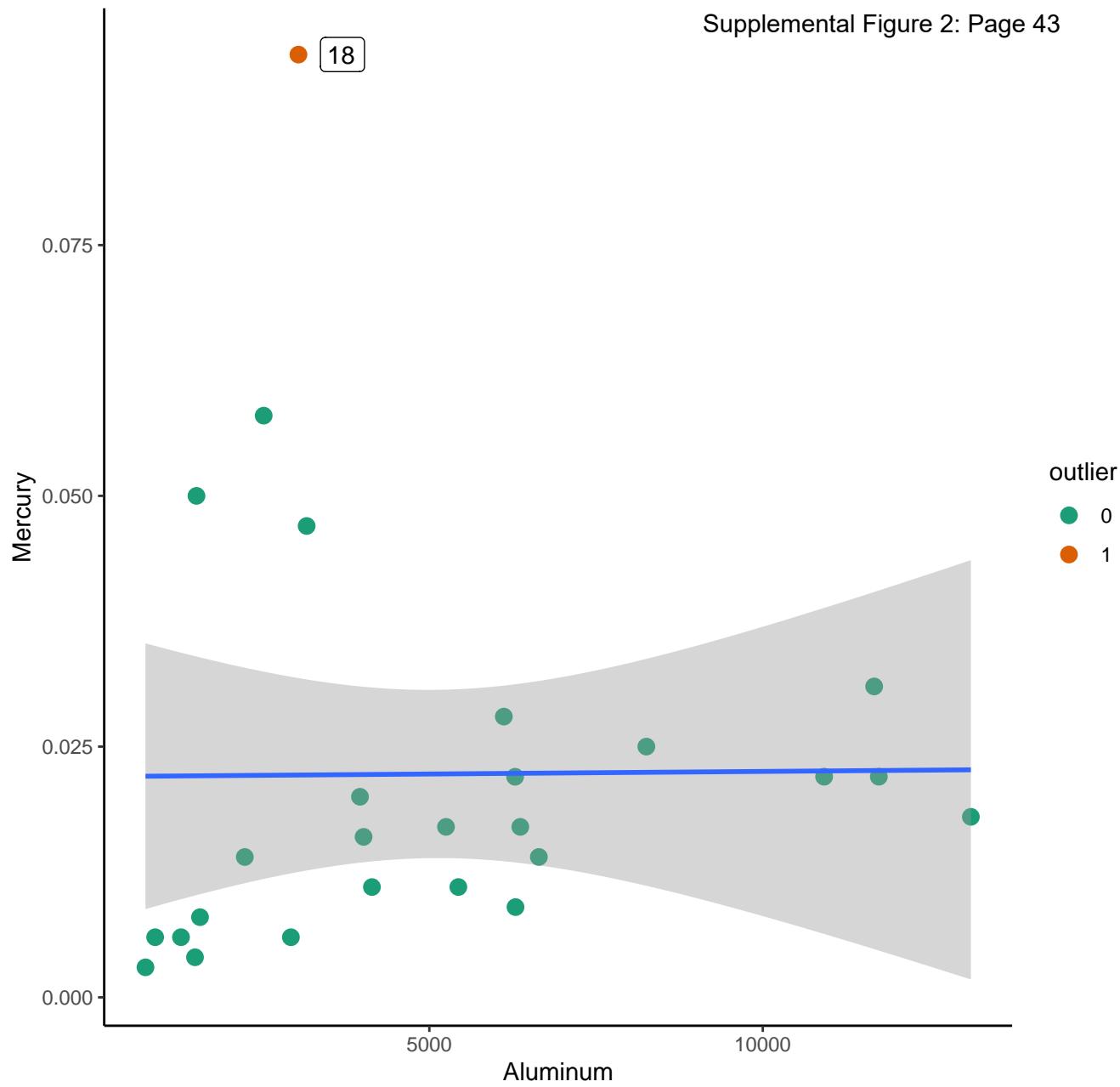
24

25

26

# Plot for Mercury~Aluminum

Supplemental Figure 2: Page 43



# Supplemental Figure 3

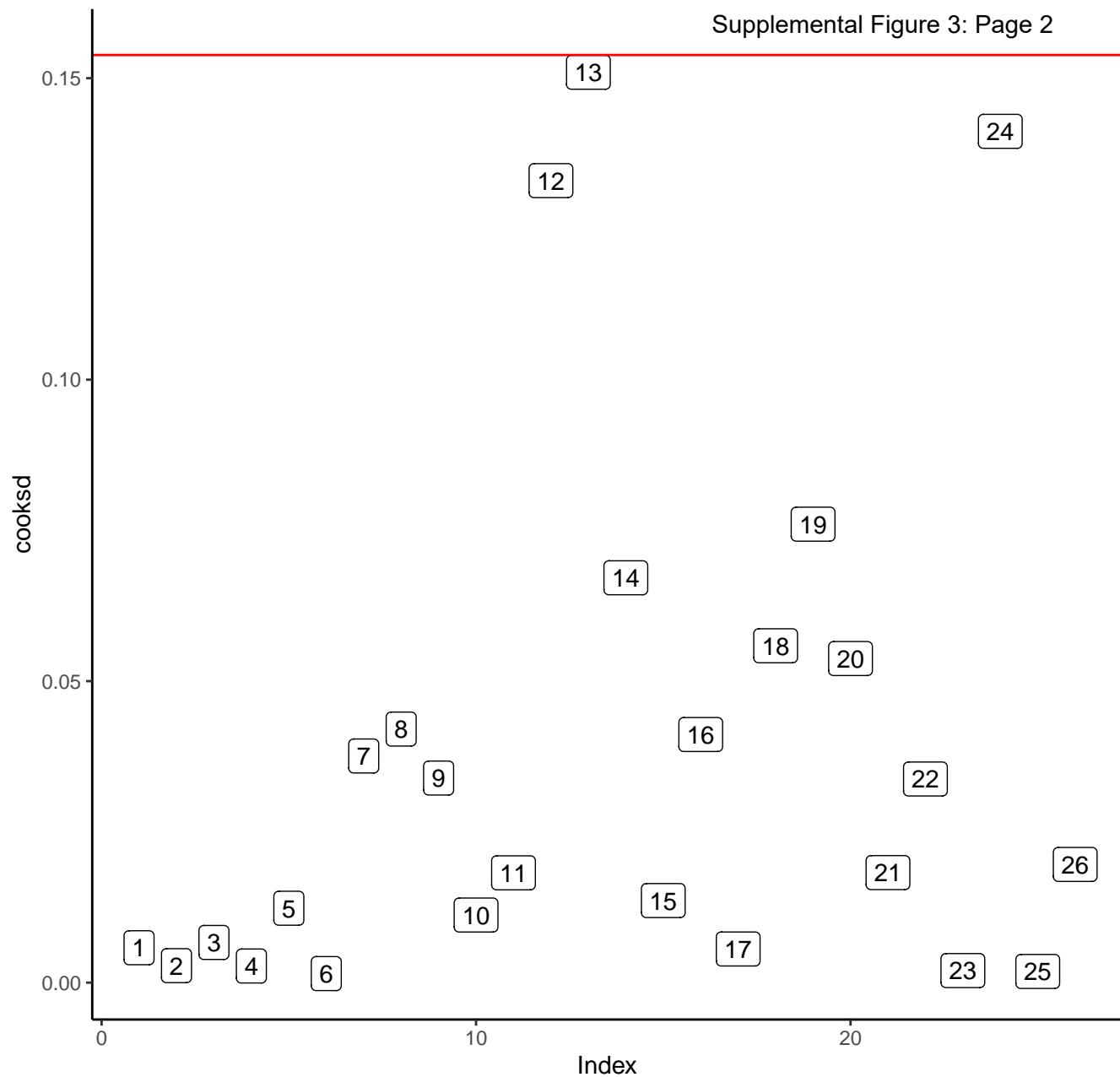
## Cook's Outlier Distance Plots: Metal~Iron

### Table of Contents

Aluminum .....	1
Antimony.....	3
Arsenic .....	5
Barium.....	7
Beryllium.....	9
Cadmium.....	11
Chromium .....	13
Cobalt .....	15
Copper .....	17
Lead.....	19
Lithium.....	21
Manganese.....	23
Nickel .....	25
Selenium.....	27
Silver .....	29
Strontium.....	31
Zinc .....	33
Magnesium.....	35
Tin .....	37
Vanadium.....	39
Mercury .....	41

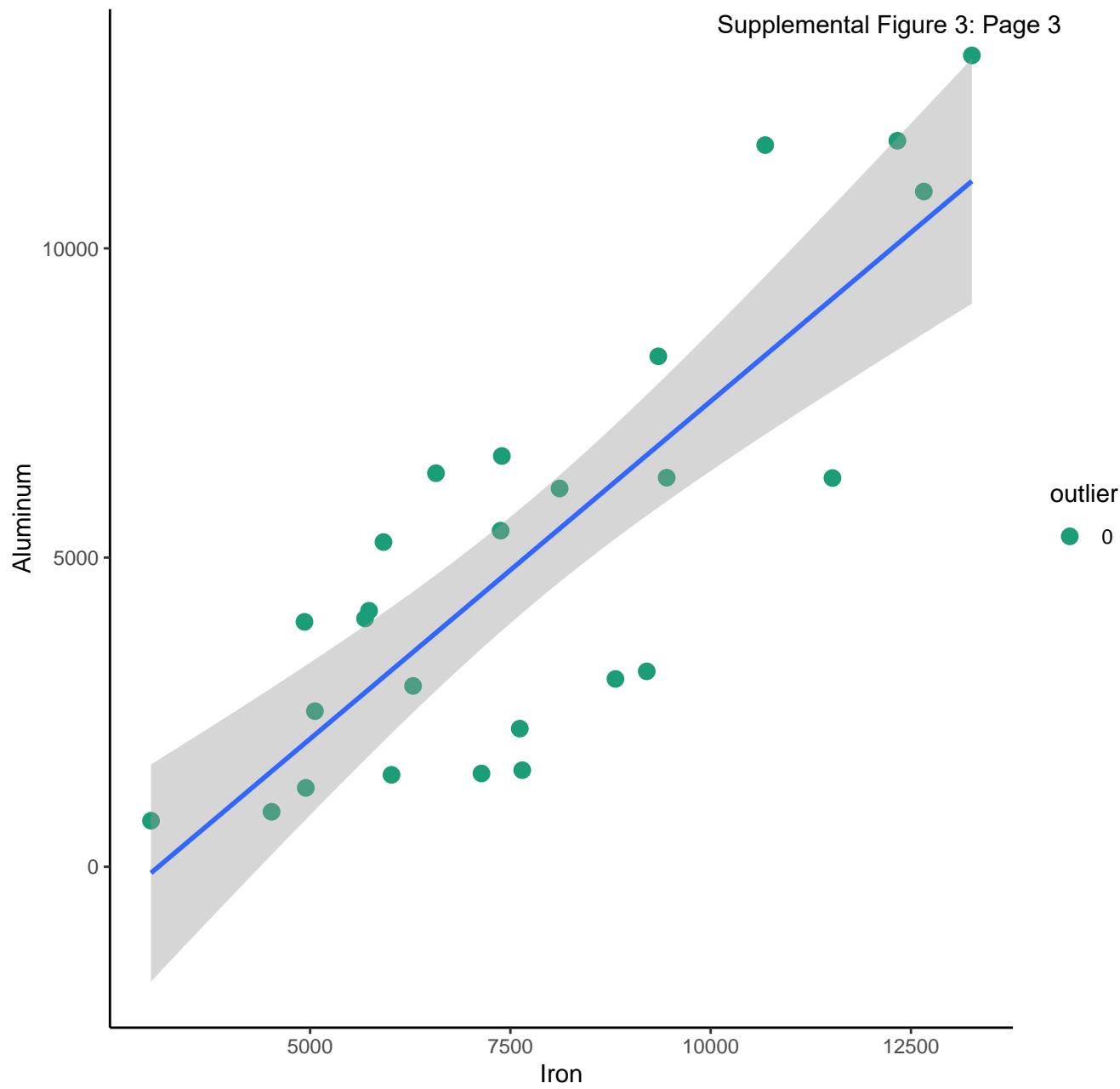
# Cooks Outlier Plot for Aluminum~Iron

Supplemental Figure 3: Page 2



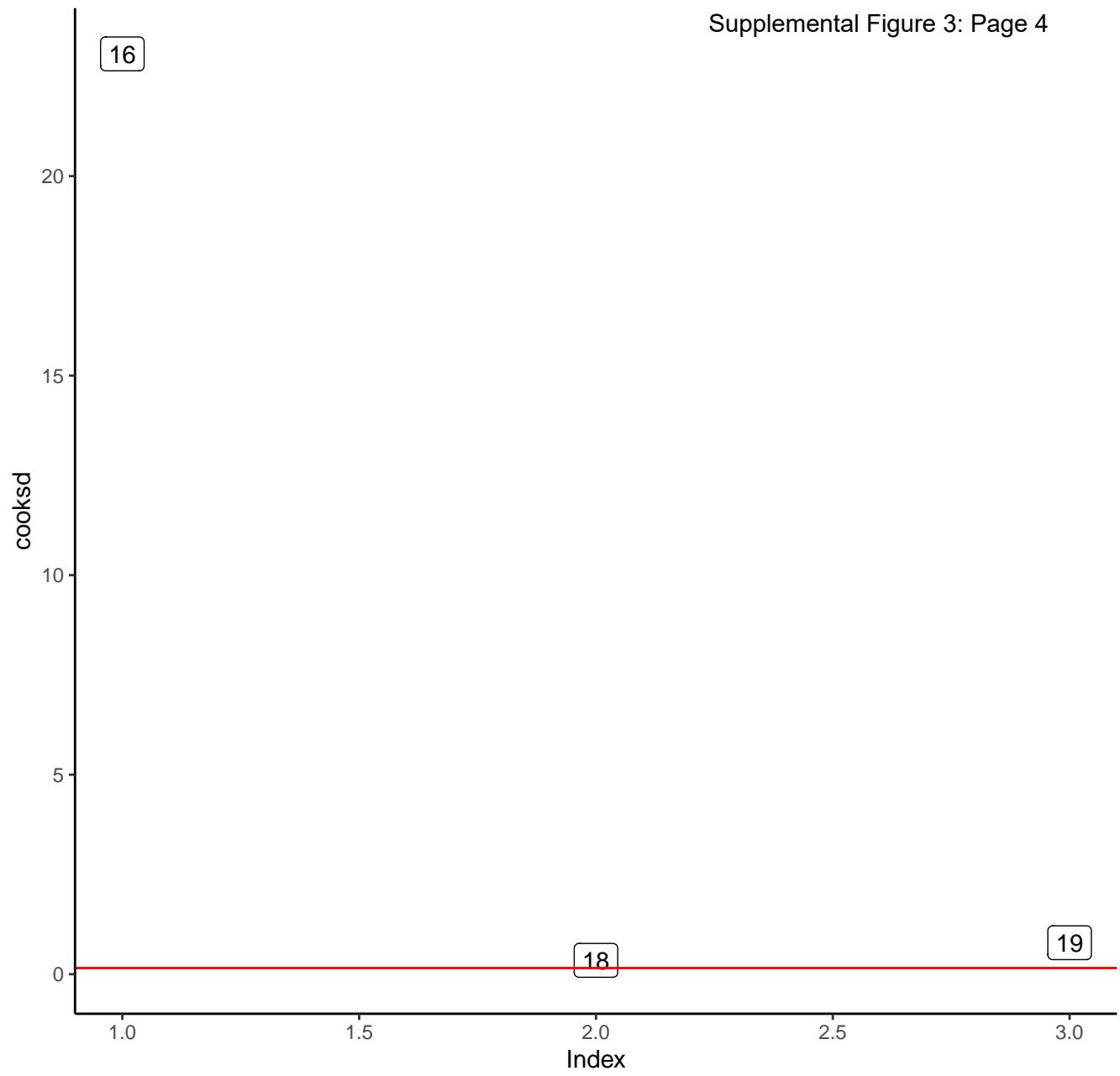
# Plot for Aluminum~Iron

Supplemental Figure 3: Page 3



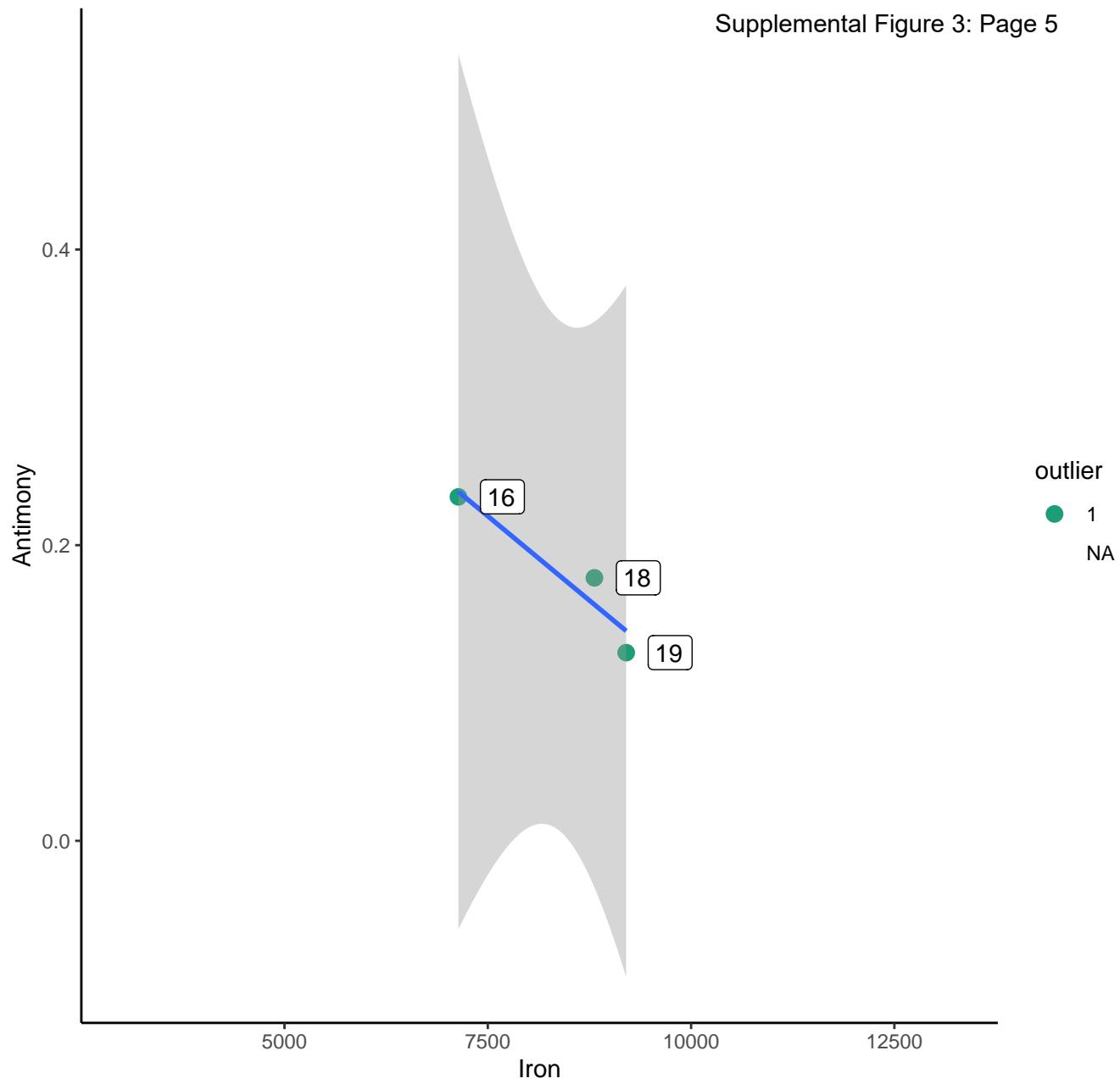
# Cooks Outlier Plot for Antimony~Iron

Supplemental Figure 3: Page 4



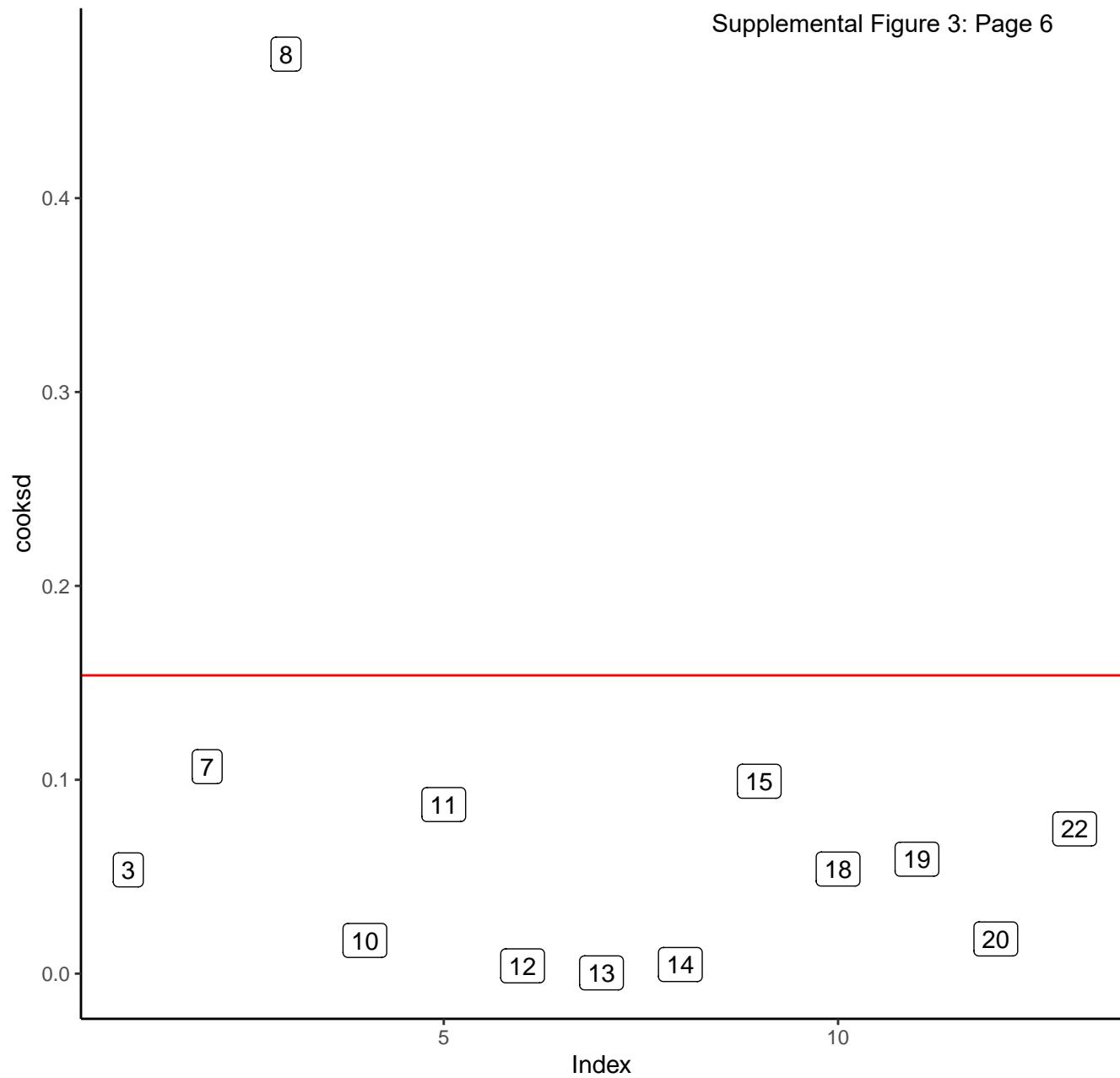
# Plot for Antimony~Iron

Supplemental Figure 3: Page 5



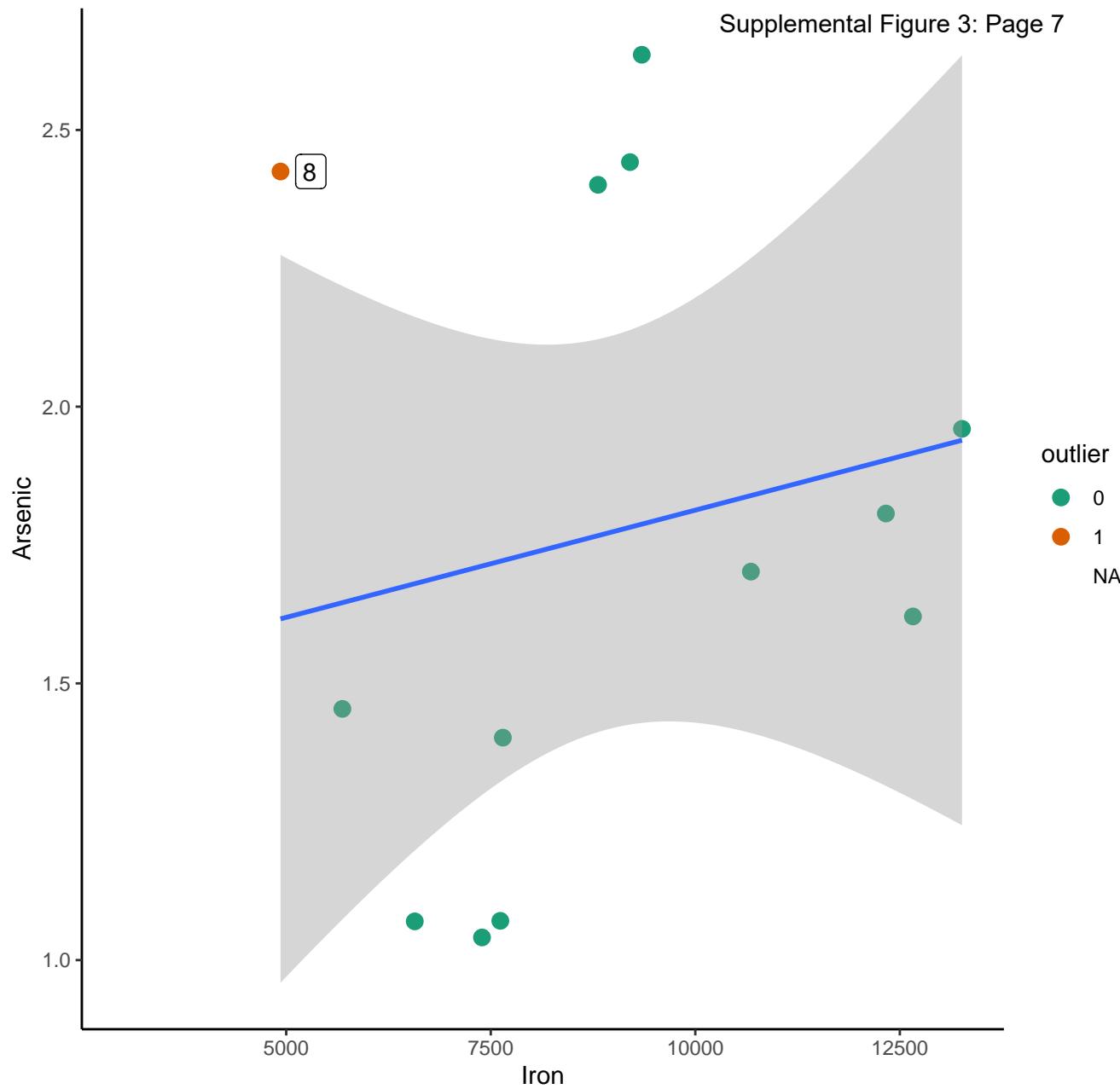
# Cooks Outlier Plot for Arsenic~Iron

Supplemental Figure 3: Page 6



# Plot for Arsenic~Iron

Supplemental Figure 3: Page 7

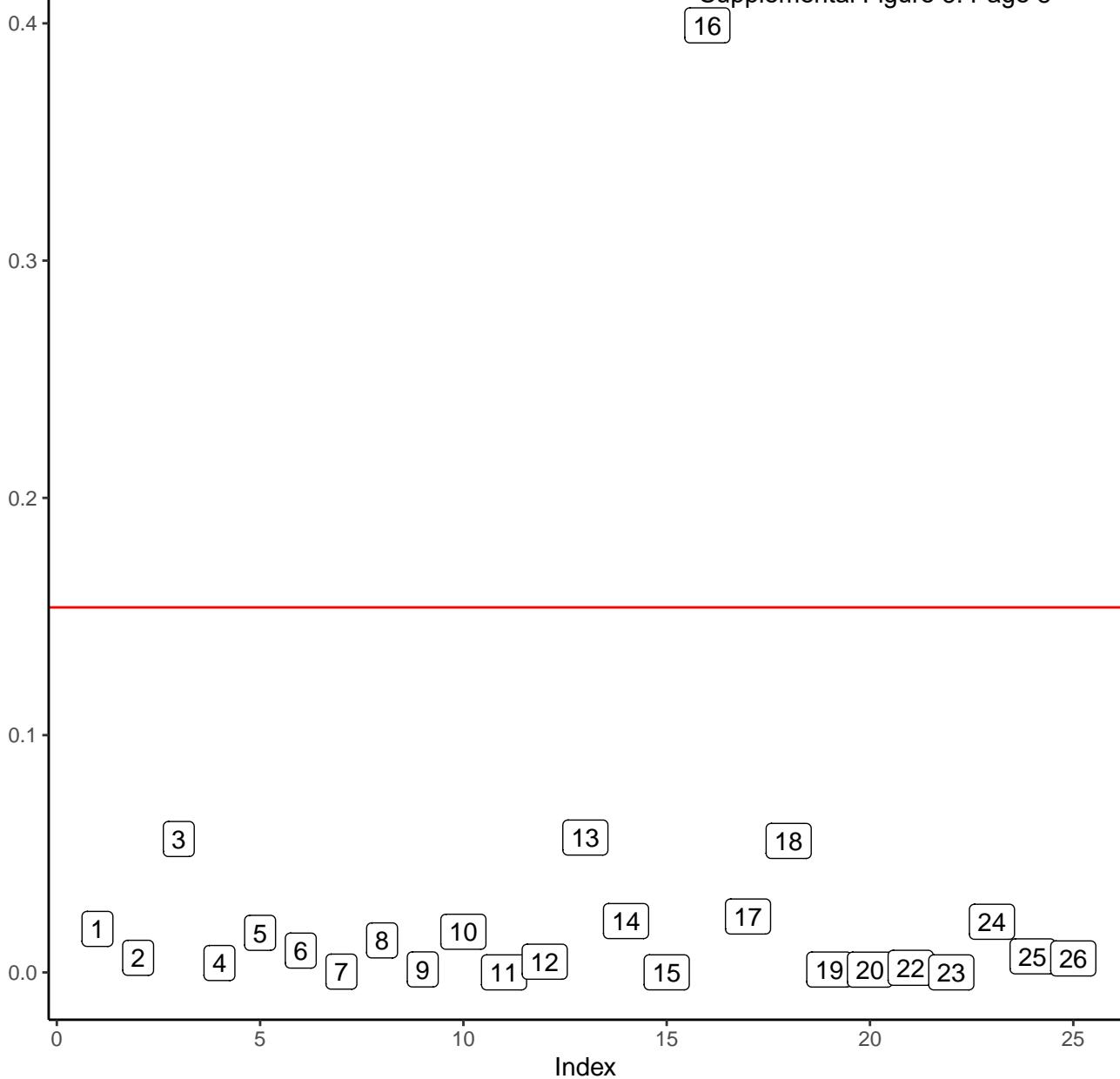


# Cooks Outlier Plot for Barium~Iron

Supplemental Figure 3: Page 8

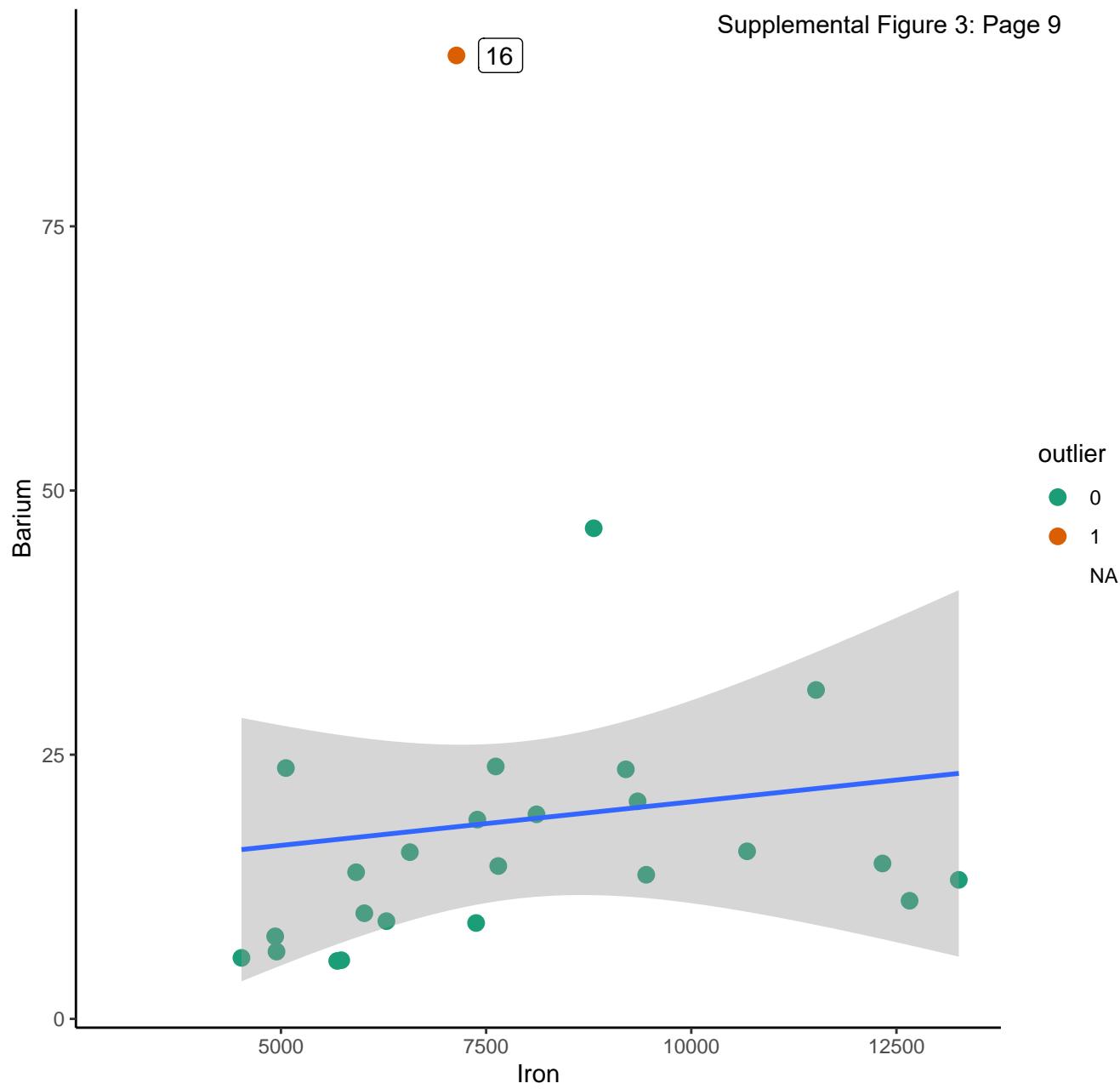
16

cooksd



# Plot for Barium~Iron

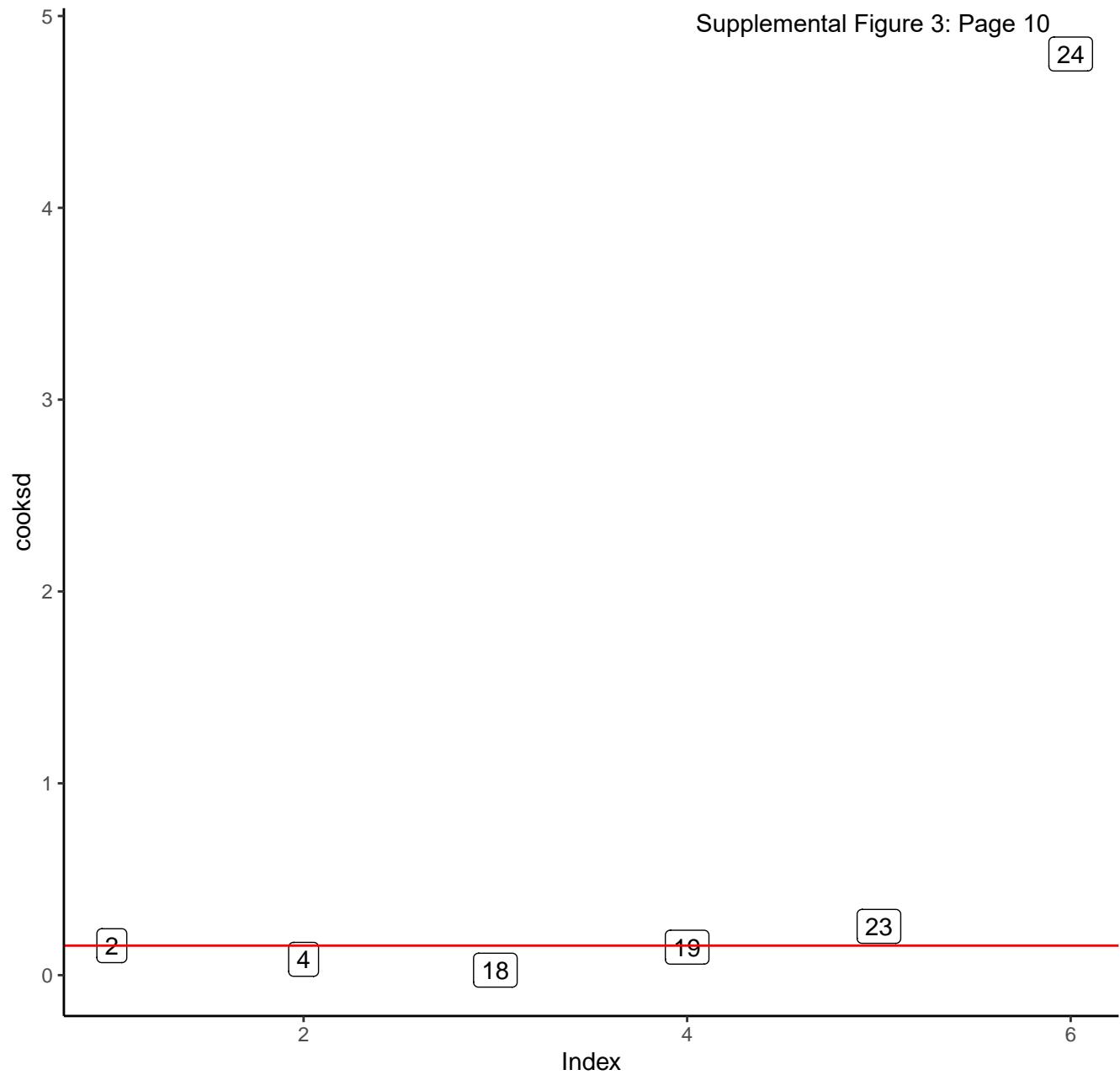
Supplemental Figure 3: Page 9



# Cooks Outlier Plot for Beryllium~Iron

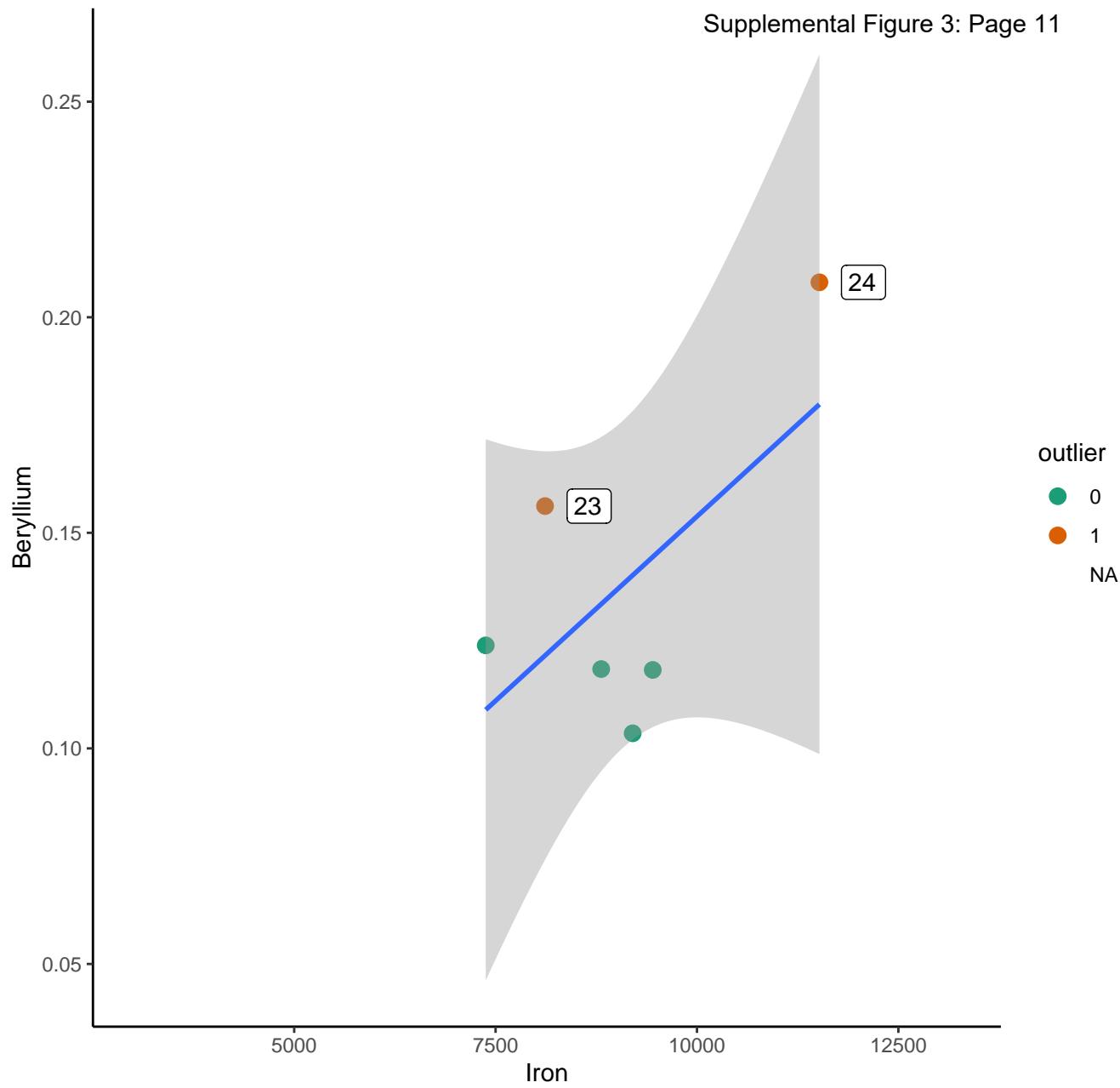
Supplemental Figure 3: Page 10

24



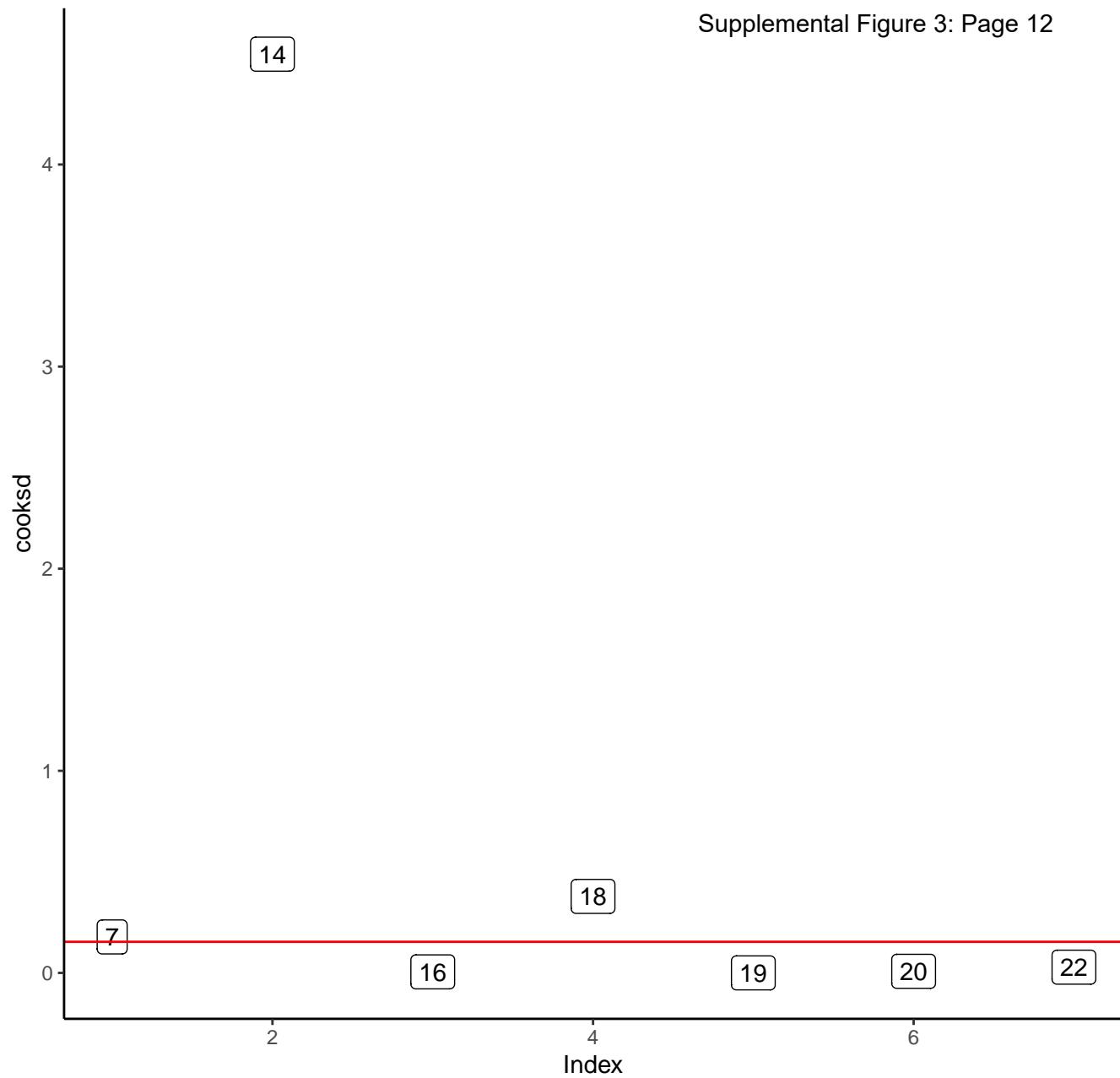
# Plot for Beryllium~Iron

Supplemental Figure 3: Page 11



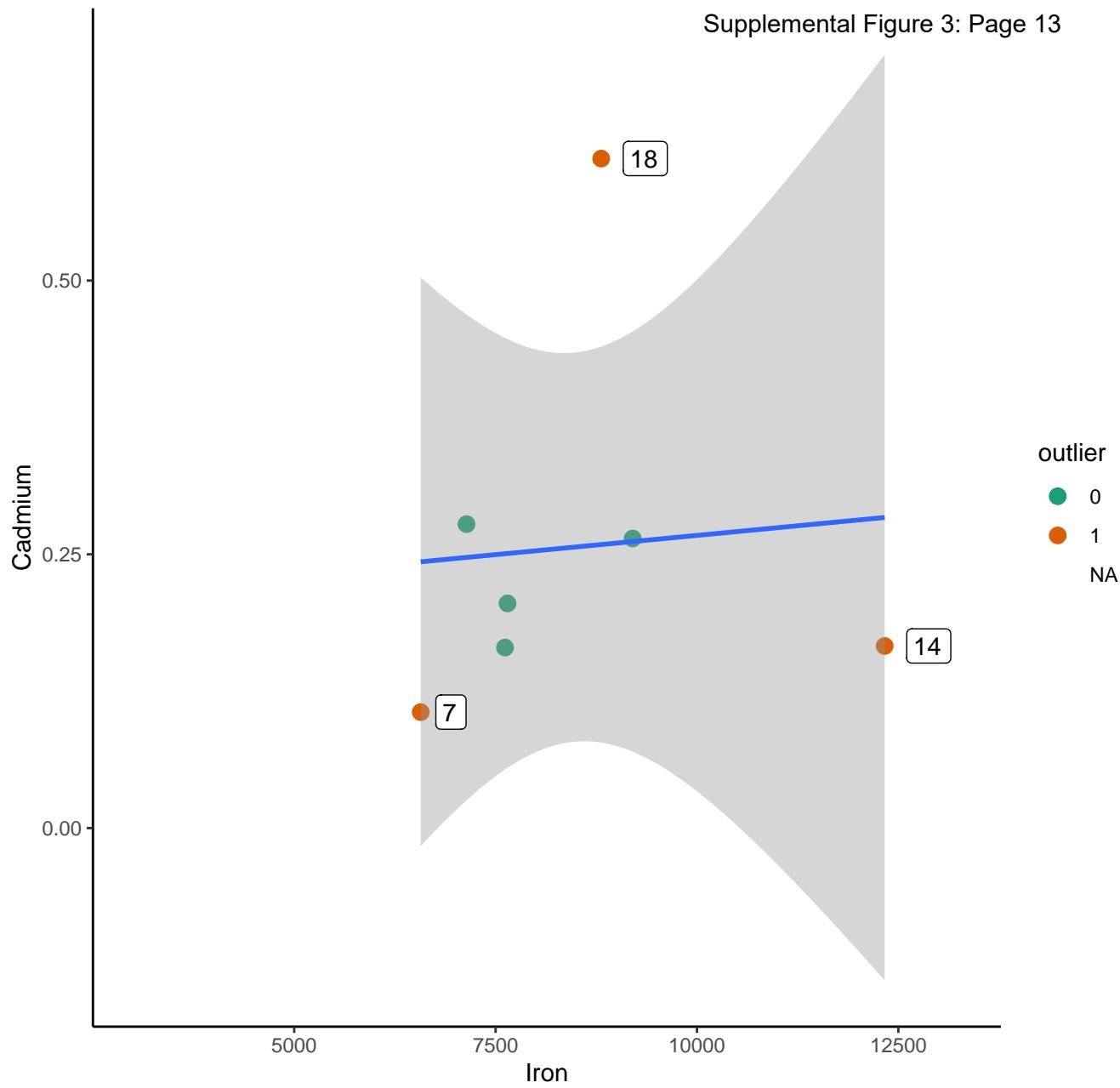
# Cooks Outlier Plot for Cadmium~Iron

Supplemental Figure 3: Page 12



# Plot for Cadmium~Iron

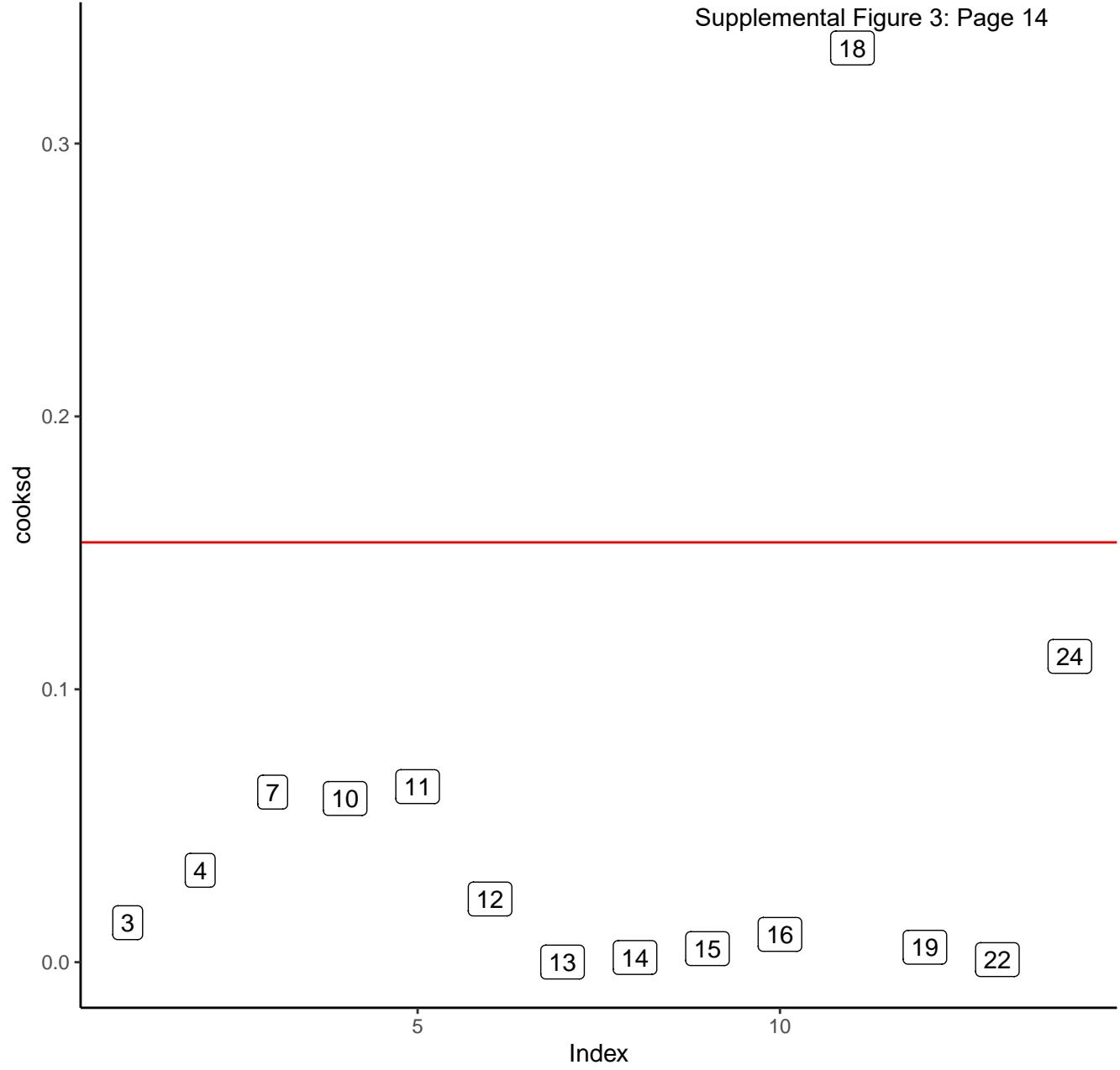
Supplemental Figure 3: Page 13



# Cooks Outlier Plot for Chromium~Iron

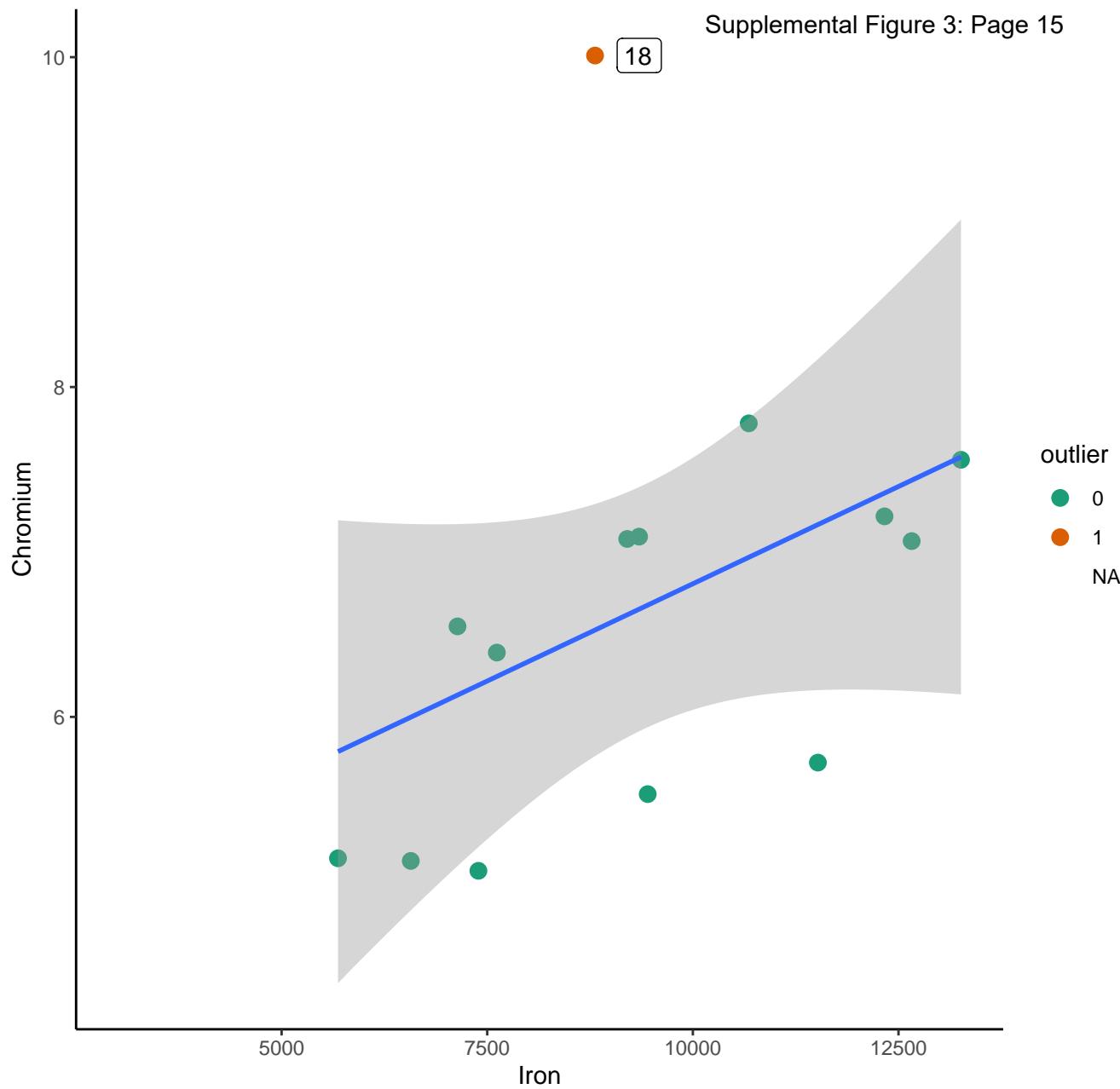
Supplemental Figure 3: Page 14

18



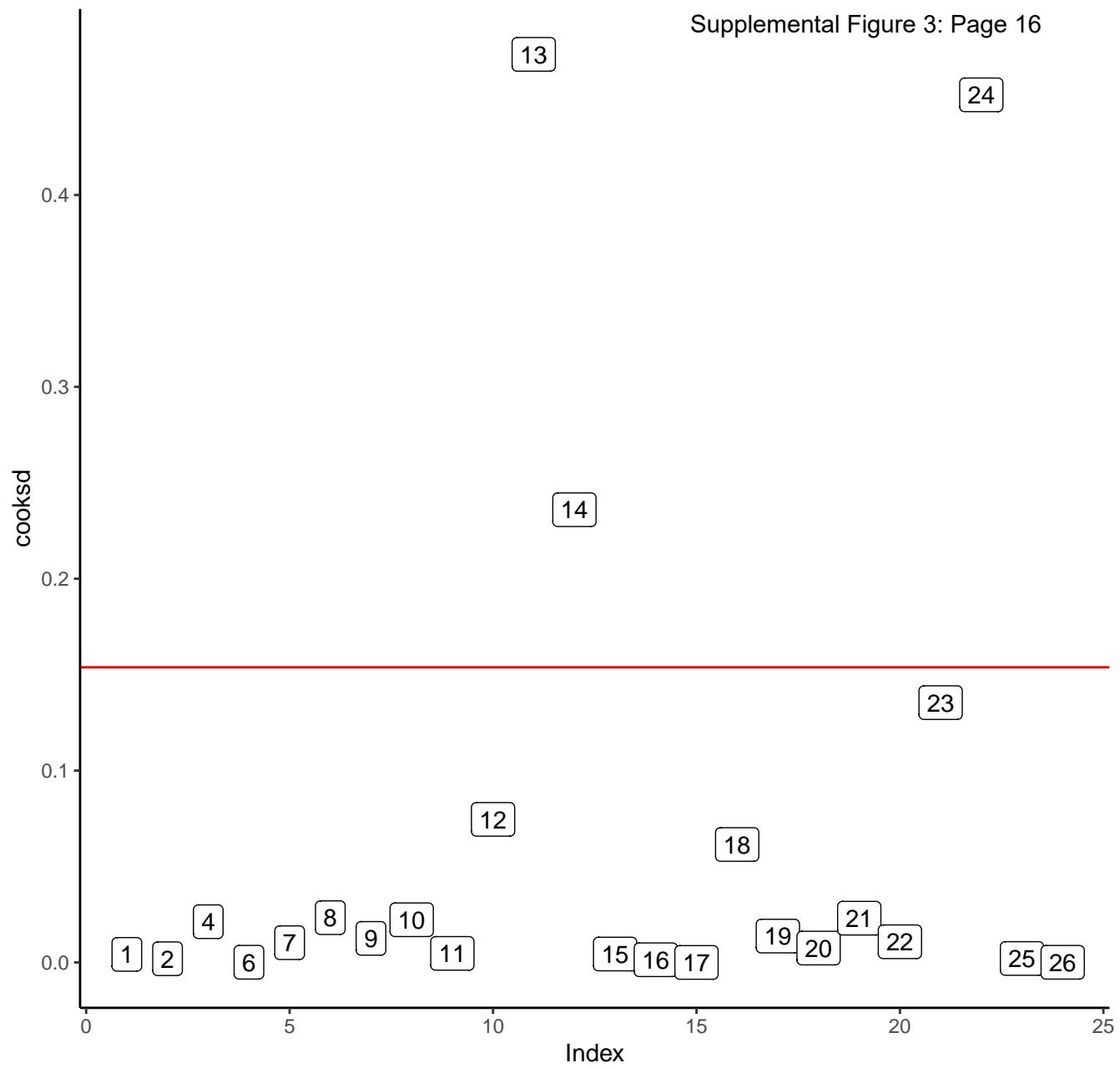
# Plot for Chromium~Iron

Supplemental Figure 3: Page 15



# Cooks Outlier Plot for Cobalt~Iron

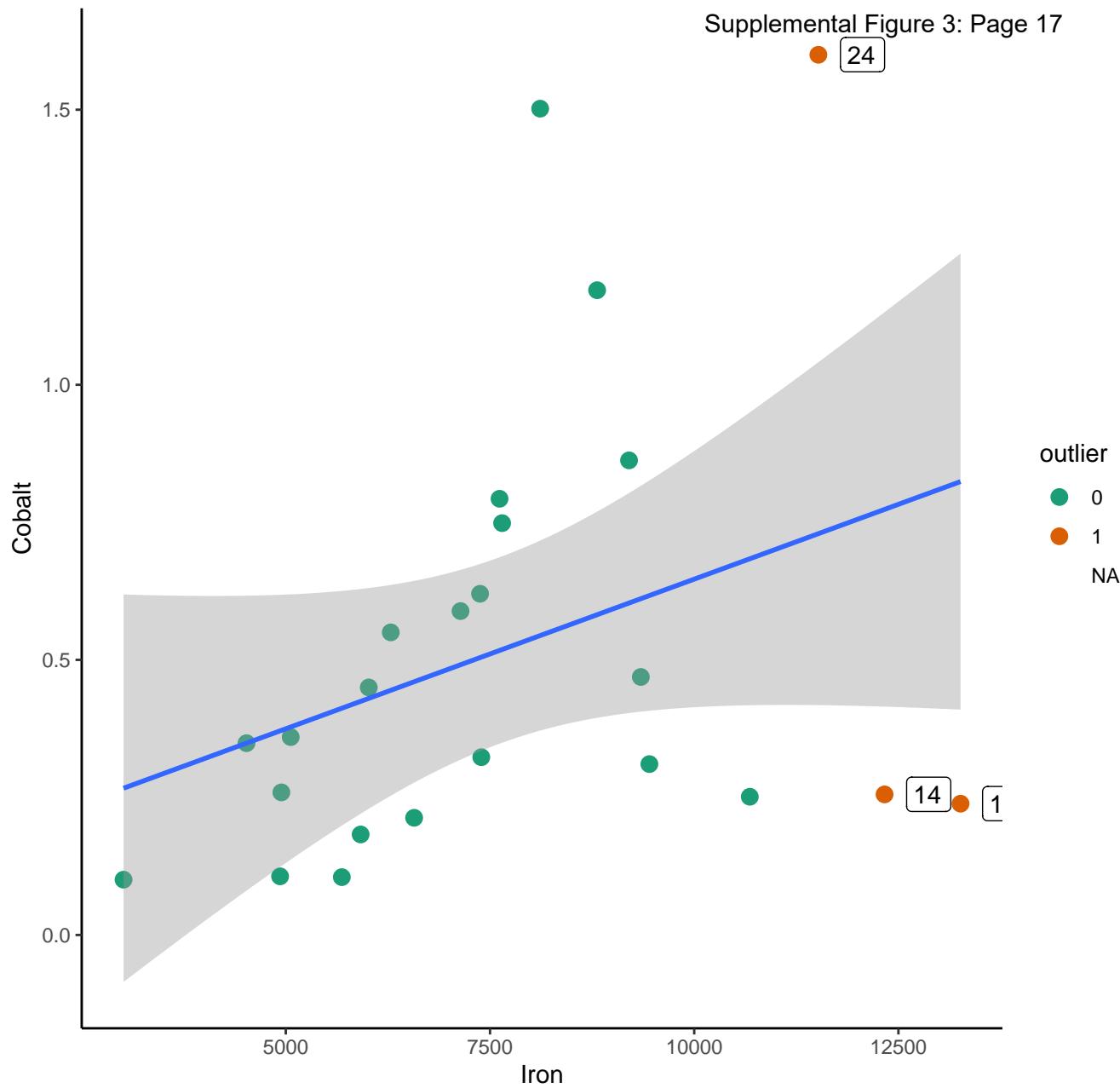
Supplemental Figure 3: Page 16



# Plot for Cobalt~Iron

Supplemental Figure 3: Page 17

24



# Cooks Outlier Plot for Copper~Iron

Supplemental Figure 3: Page 18

22

cooksd

0.2

0.1

0.0

0

5

10

15

20

25

Index

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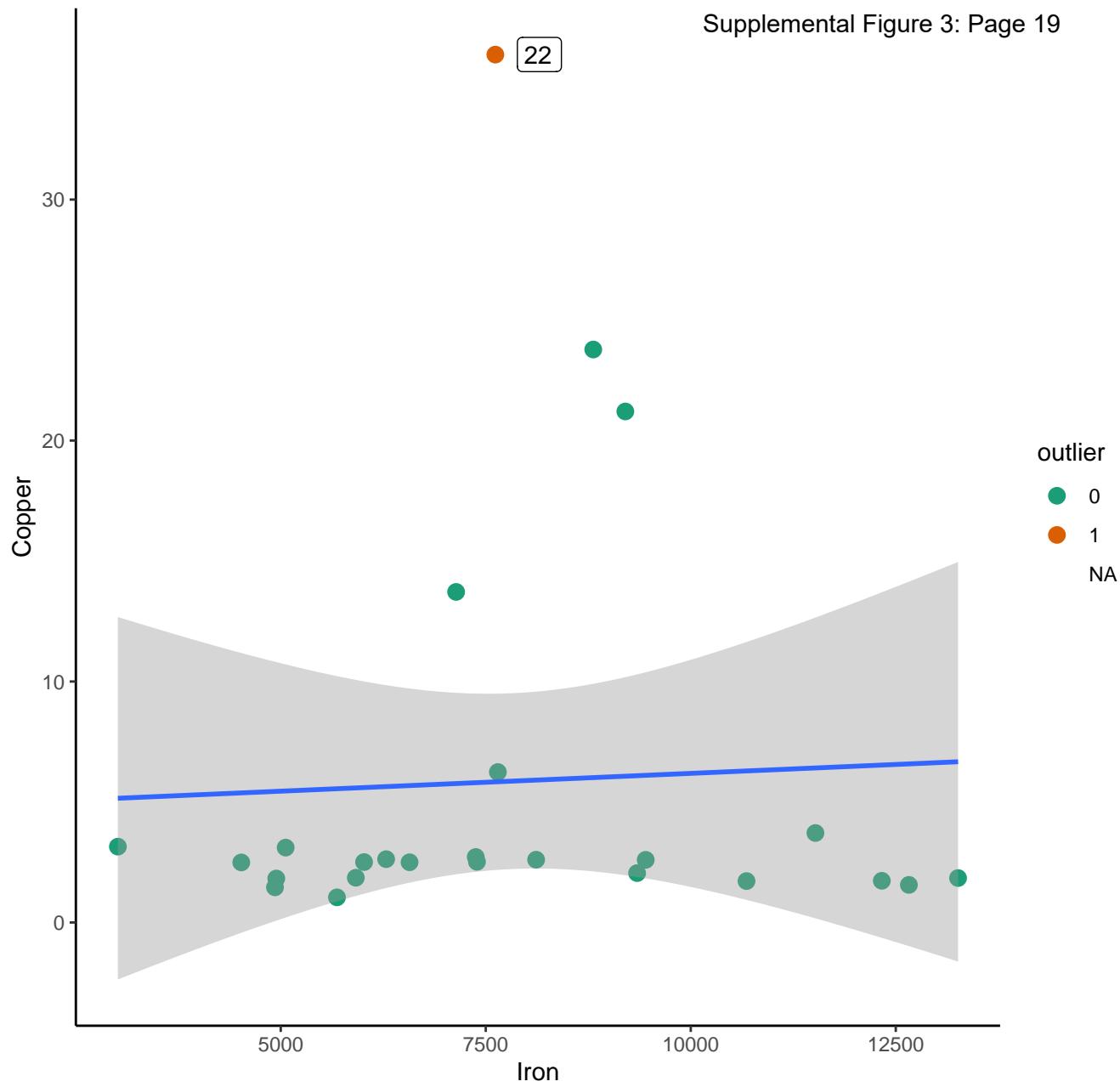
26

18

19

# Plot for Copper~Iron

Supplemental Figure 3: Page 19



# Cooks Outlier Plot for Lead~Iron

Supplemental Figure 3: Page 20

18

cooksd

0.3

0.2

0.1

0.0

0

10

20

Index

3

1

2

4

5

6

7

8

9

10

11

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14

15

16

17

19

20

21

22

23

24

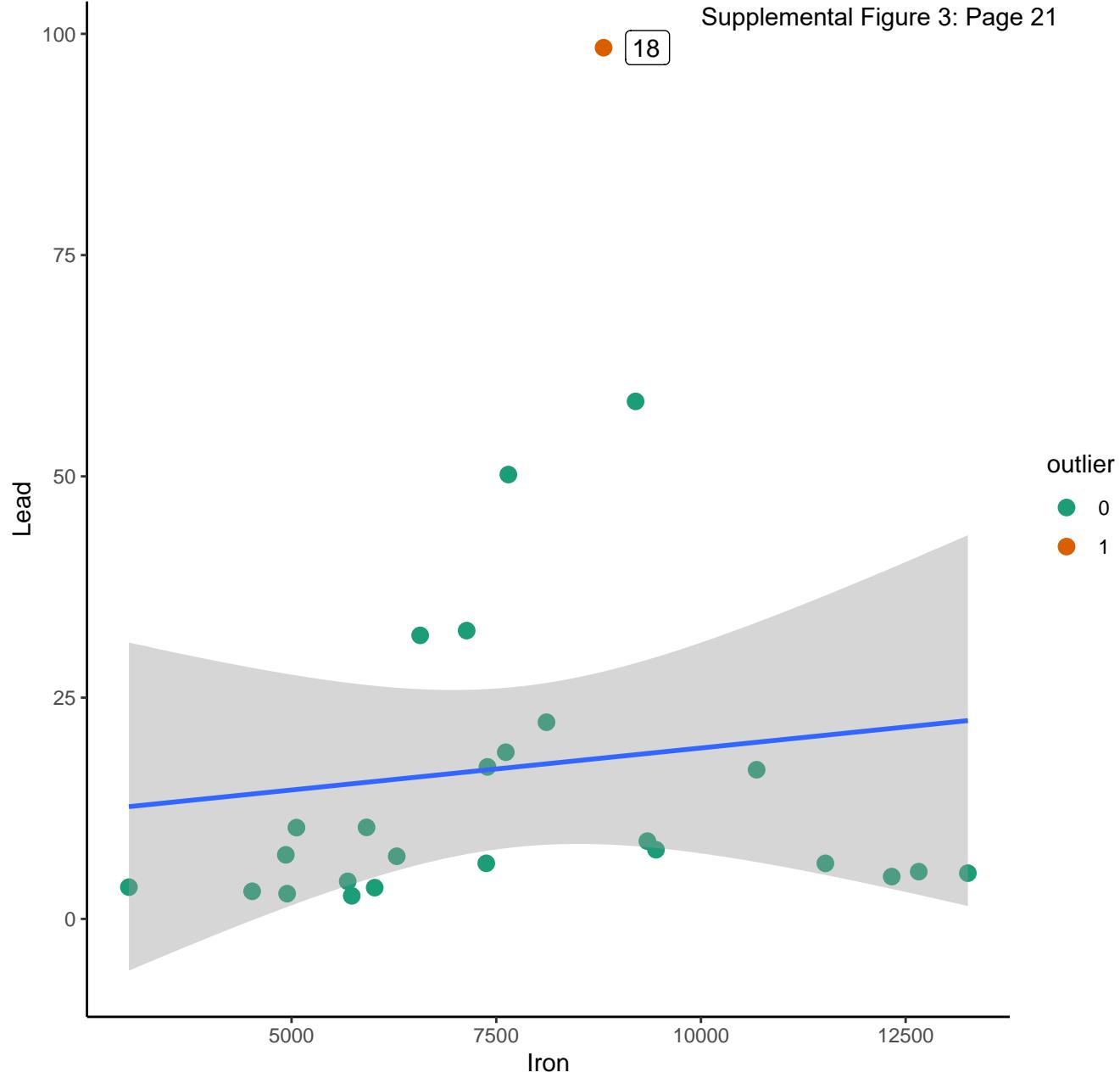
25

26

# Plot for Lead~Iron

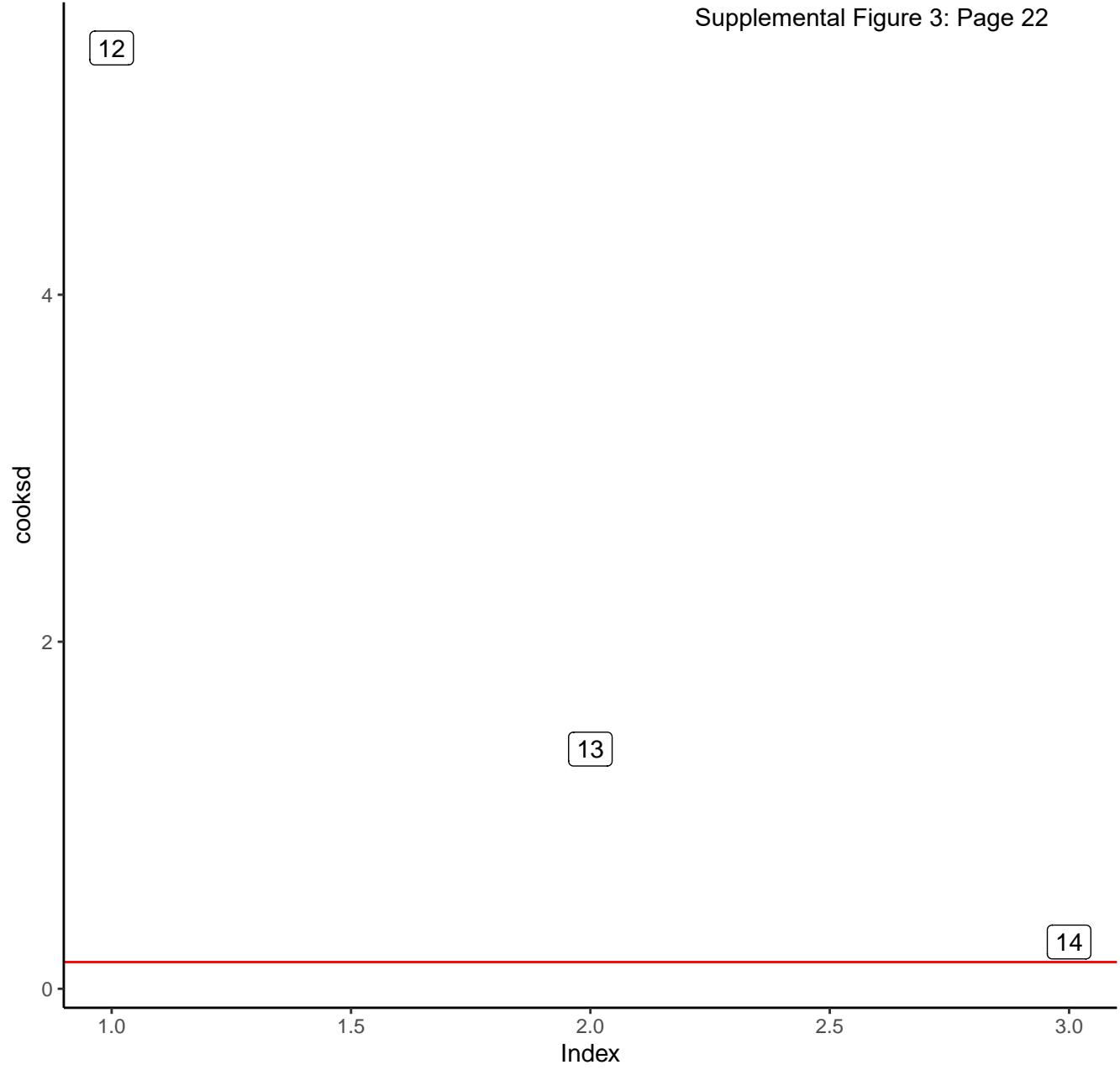
Supplemental Figure 3: Page 21

18



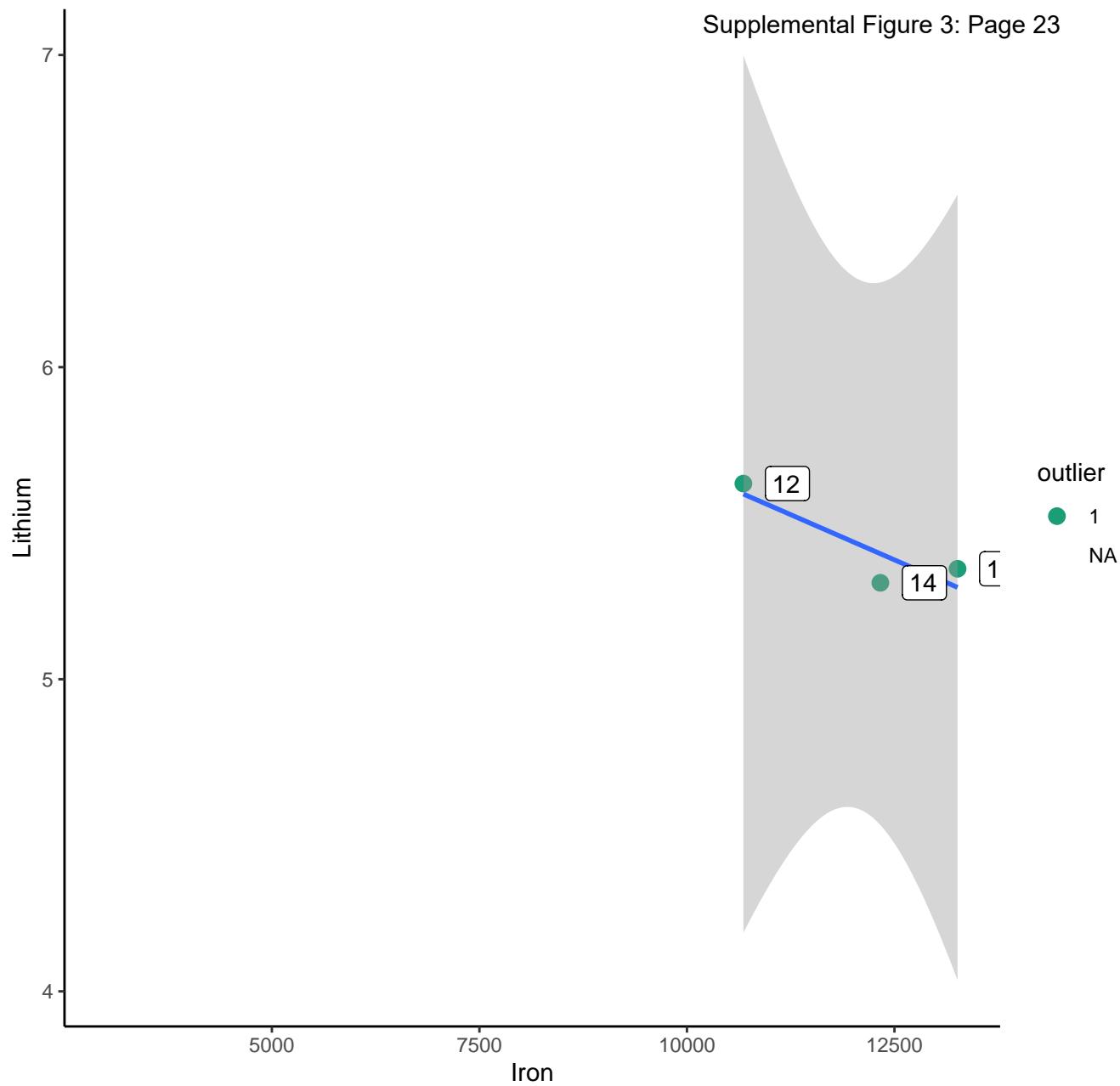
# Cooks Outlier Plot for Lithium~Iron

Supplemental Figure 3: Page 22



# Plot for Lithium~Iron

Supplemental Figure 3: Page 23



# Cooks Outlier Plot for Manganese~Iron

Supplemental Figure 3: Page 24

16

cooksd

0.2

6

24

17

1

2

4

7

9

11

12

13

14

10

15

Index

19

18

20

22

23

25

26

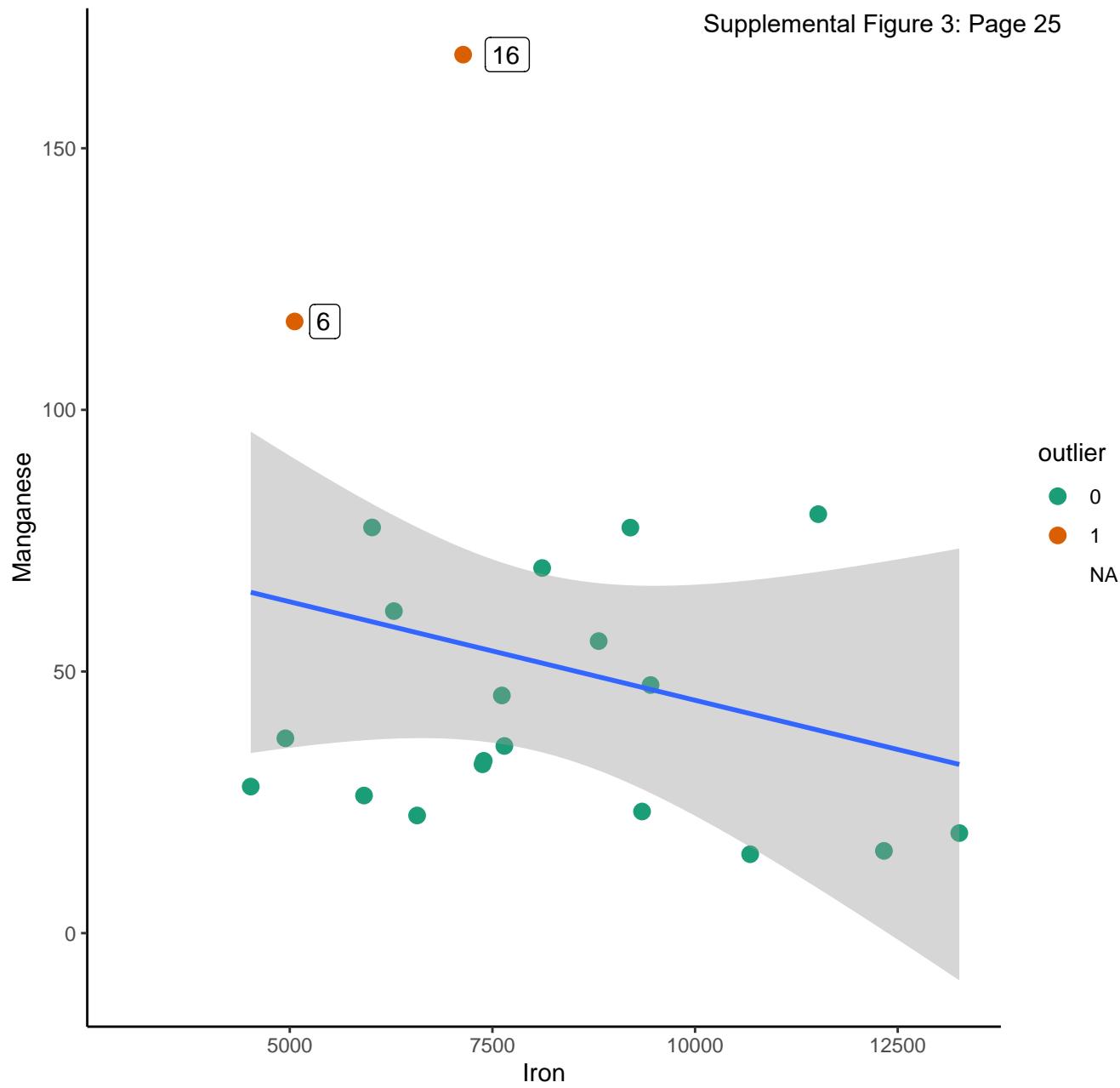
0

15

20

# Plot for Manganese~Iron

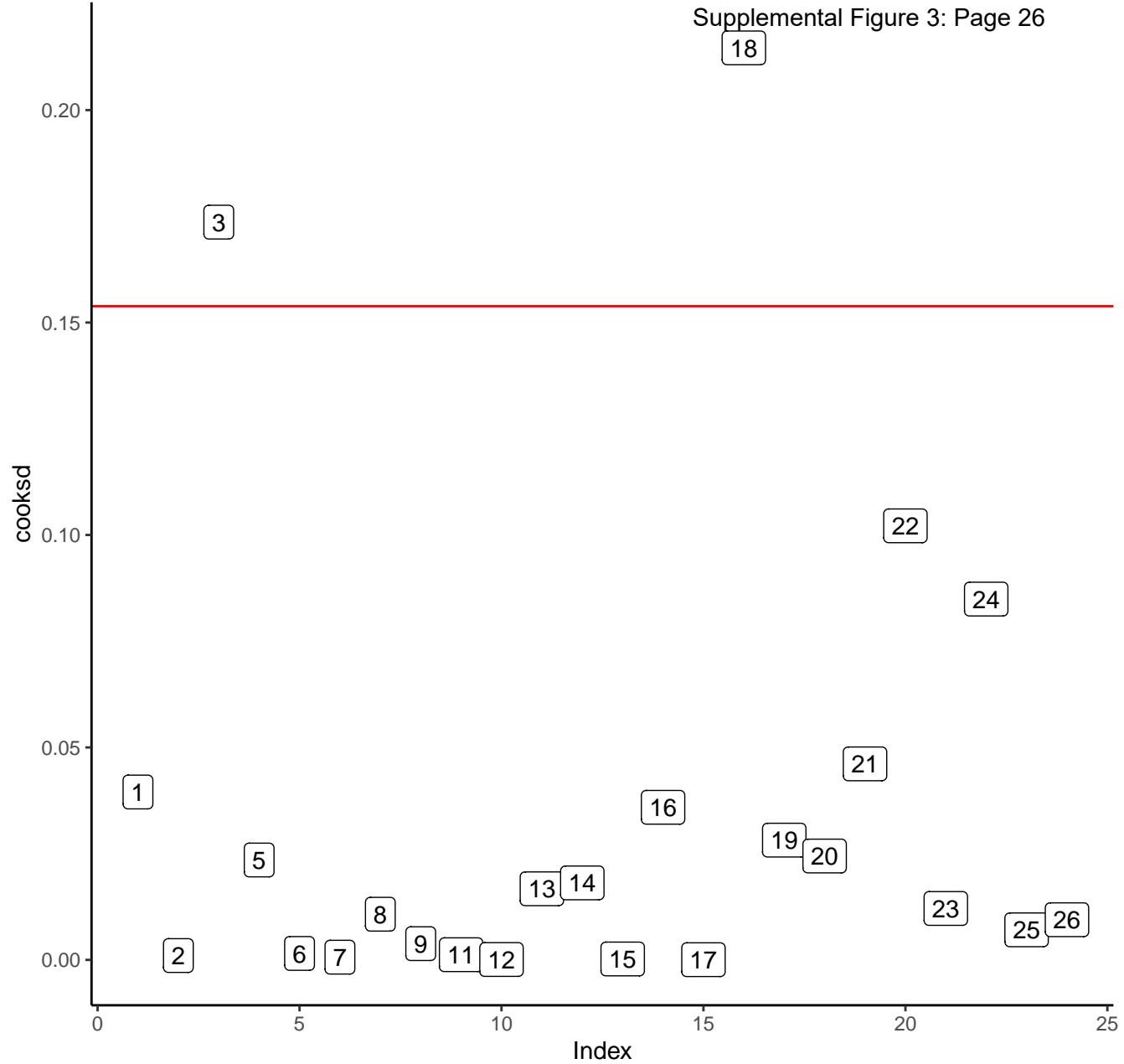
Supplemental Figure 3: Page 25



# Cooks Outlier Plot for Nickel~Iron

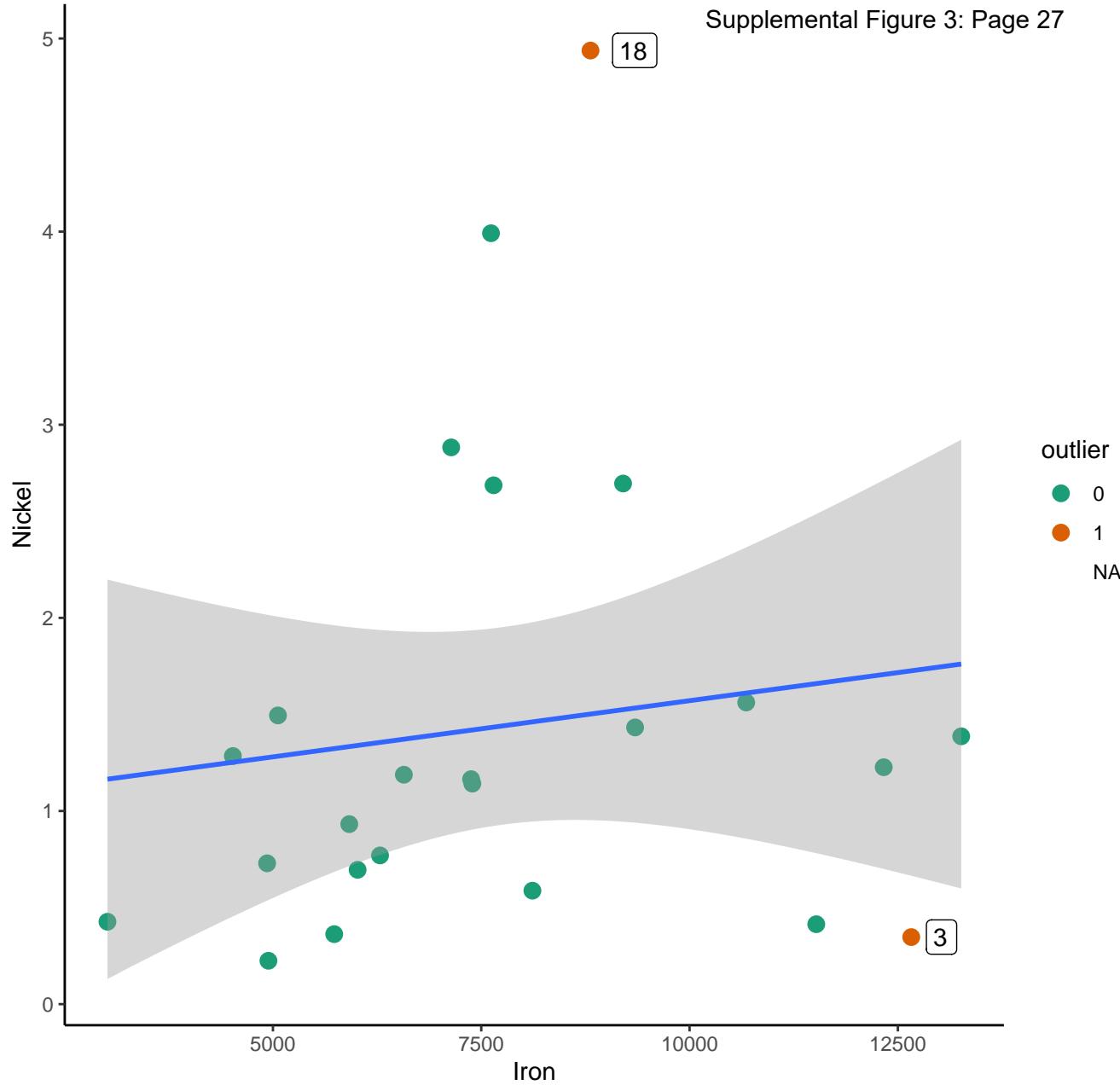
Supplemental Figure 3: Page 26

18



# Plot for Nickel~Iron

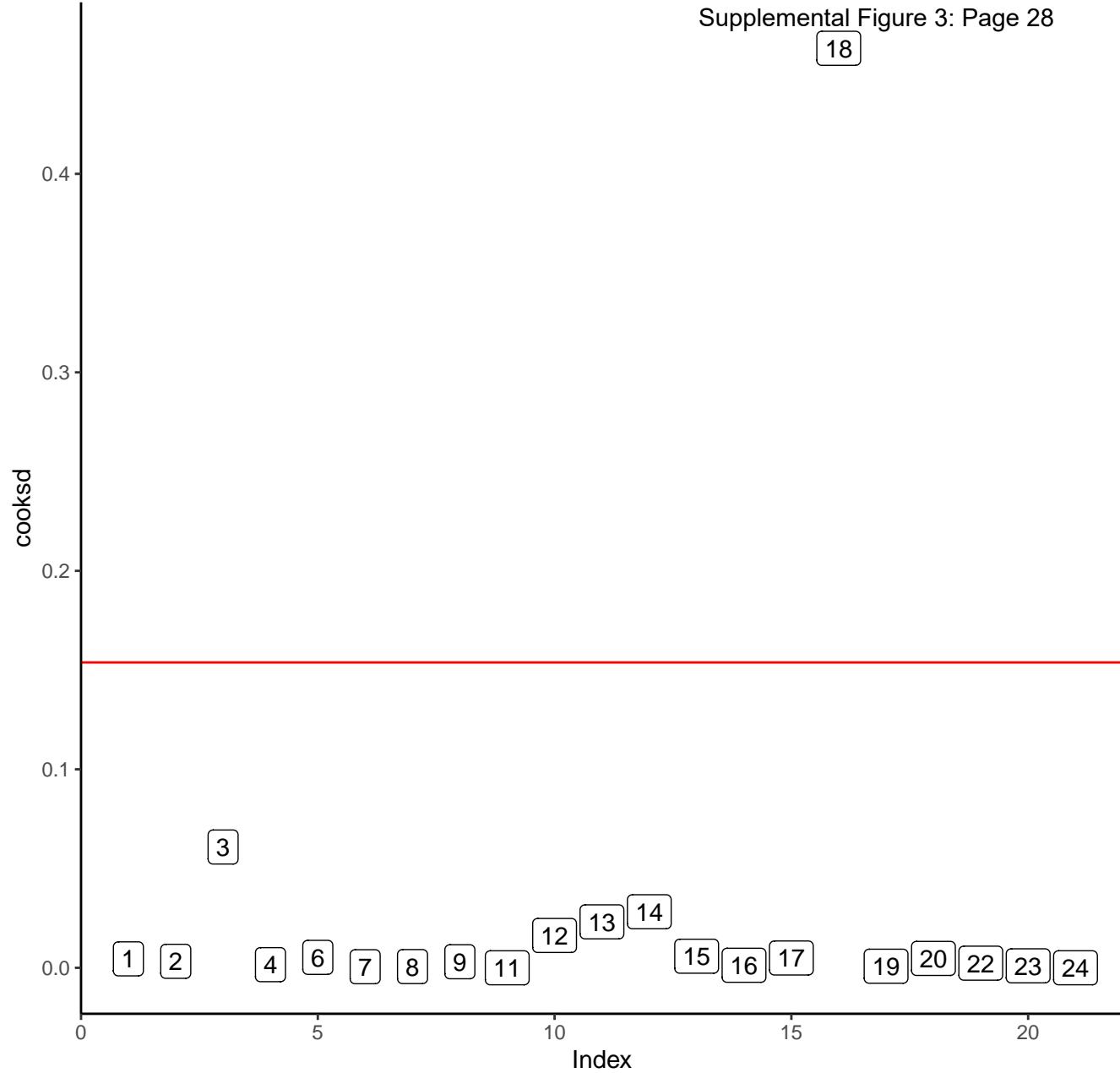
Supplemental Figure 3: Page 27



# Cooks Outlier Plot for Selenium~Iron

Supplemental Figure 3: Page 28

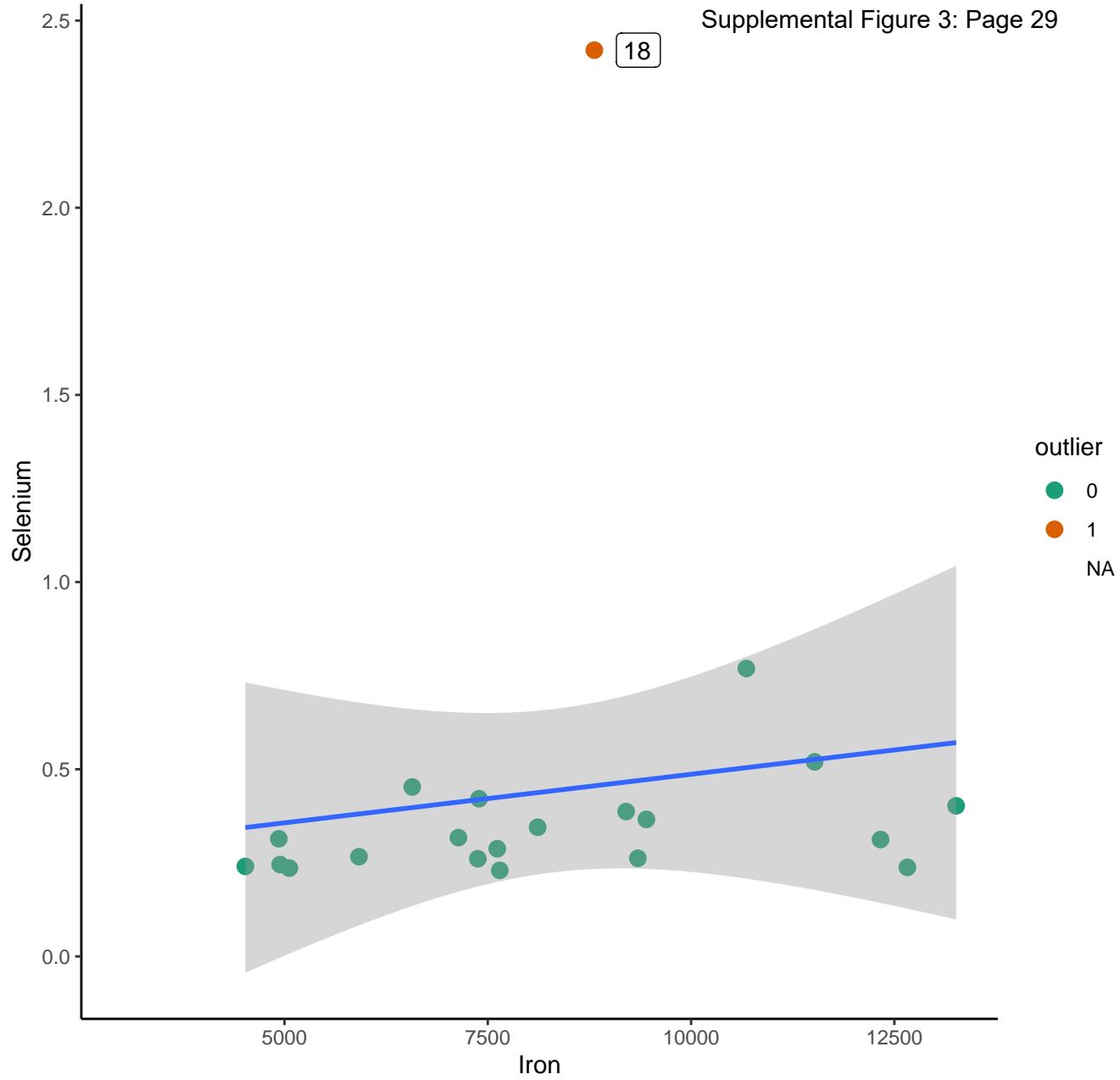
18



# Plot for Selenium~Iron

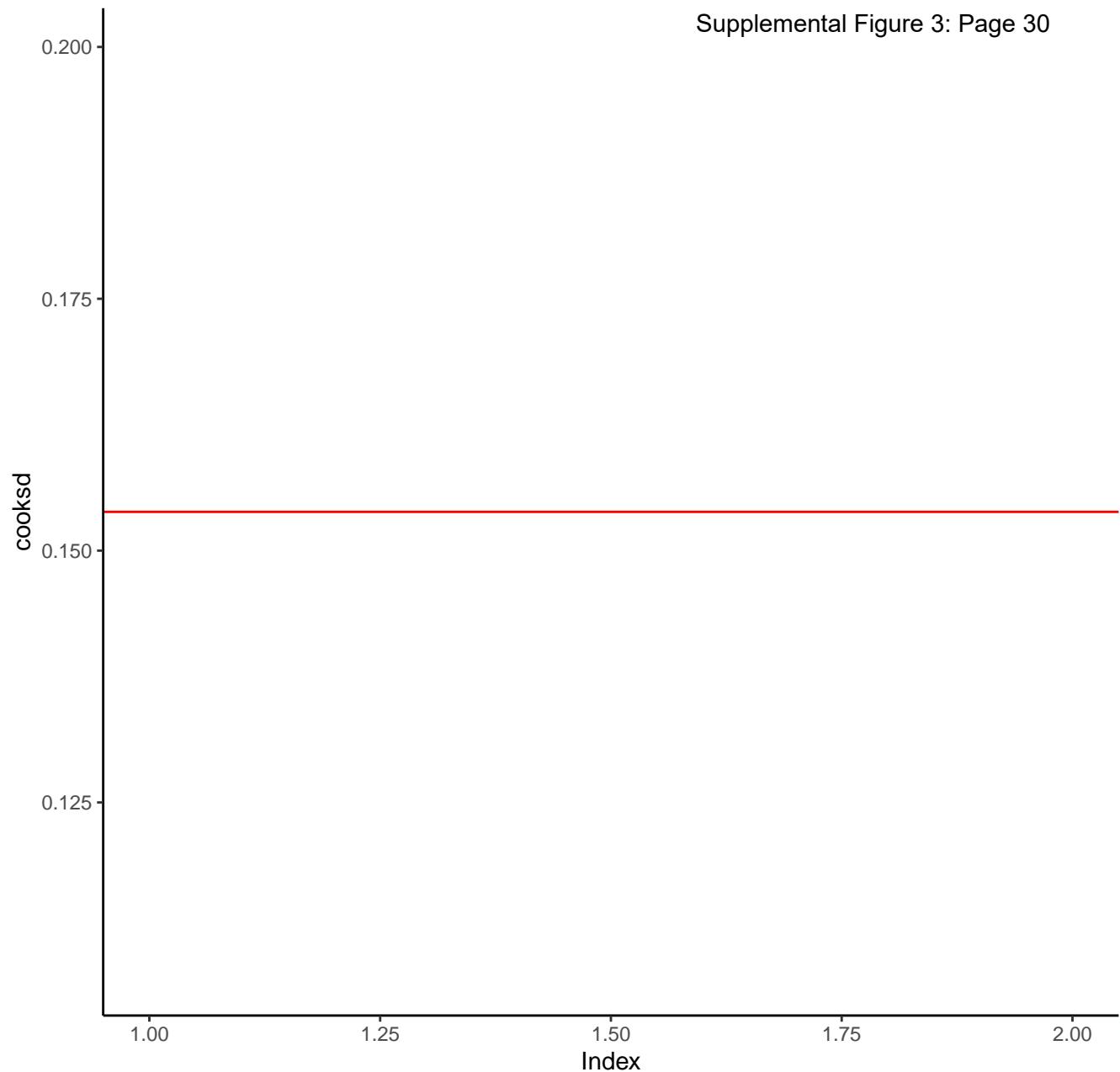
Supplemental Figure 3: Page 29

18



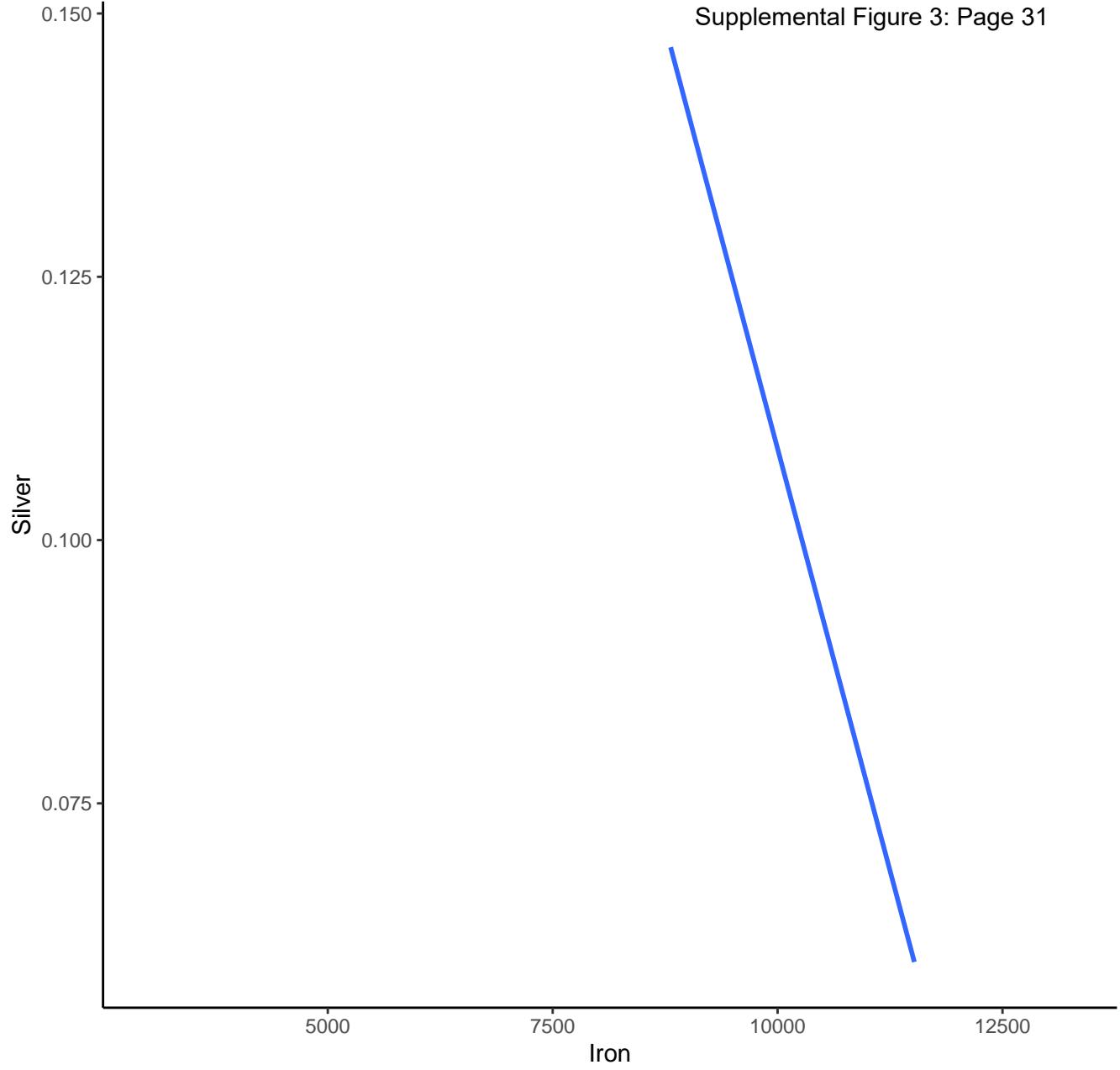
# Cooks Outlier Plot for Silver~Iron

Supplemental Figure 3: Page 30



# Plot for Silver~Iron

Supplemental Figure 3: Page 31



# Cooks Outlier Plot for Strontium~Iron

Supplemental Figure 3: Page 32

16

cooks

0.2

0.1

0.0

0

10

20

Index

1

2

3

4

5

6

7

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9

10

11

12

13

14

15

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24

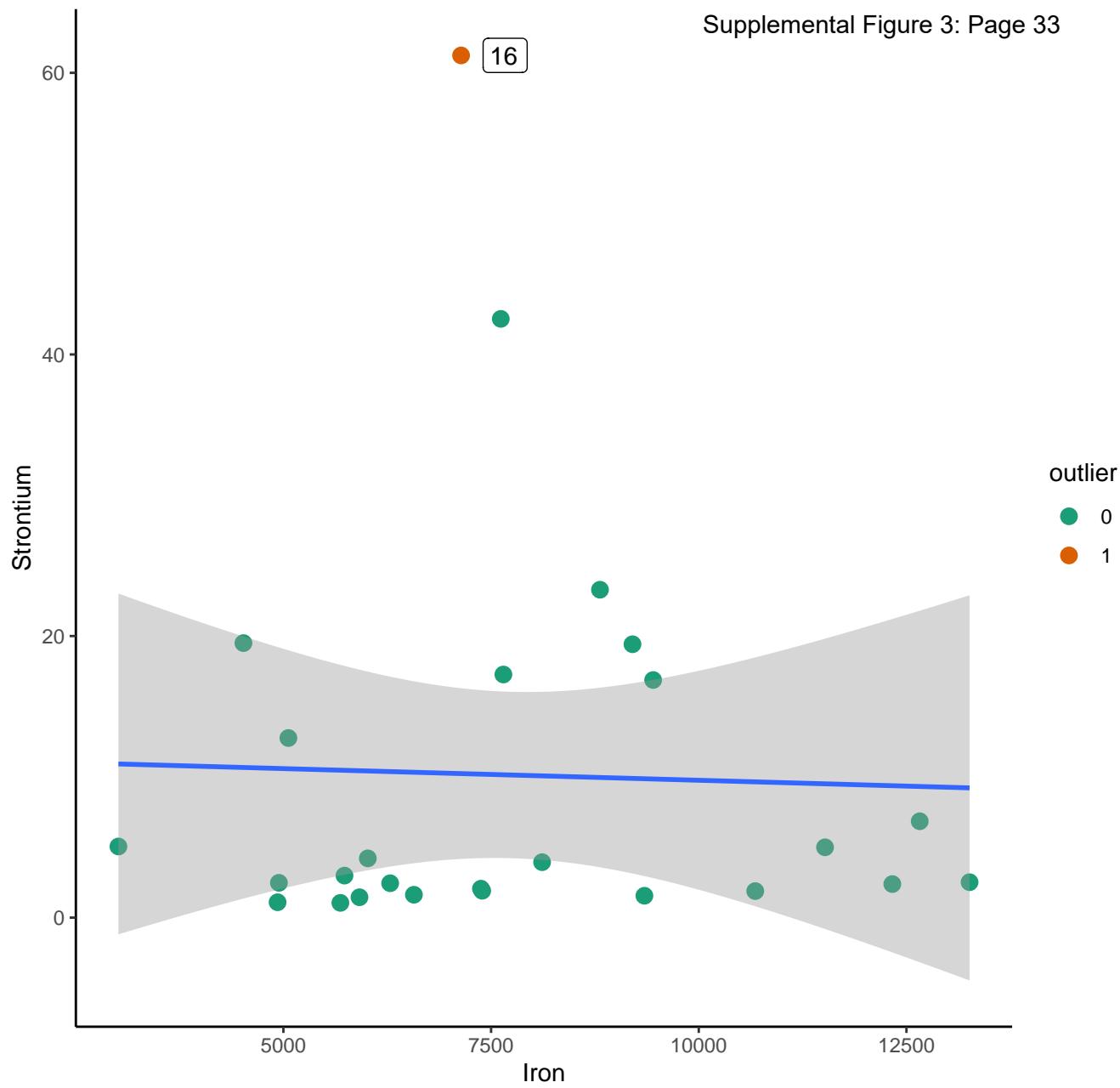
25

26

22

# Plot for Strontium~Iron

Supplemental Figure 3: Page 33



# Cooks Outlier Plot for Zinc~Iron

Supplemental Figure 3: Page 34

20

cooks

0.2

0.1

0.0

0

10

20

Index

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26

# Plot for Zinc~Iron

Supplemental Figure 3: Page 35

● 20

Zinc

200

100

outlier

0

1

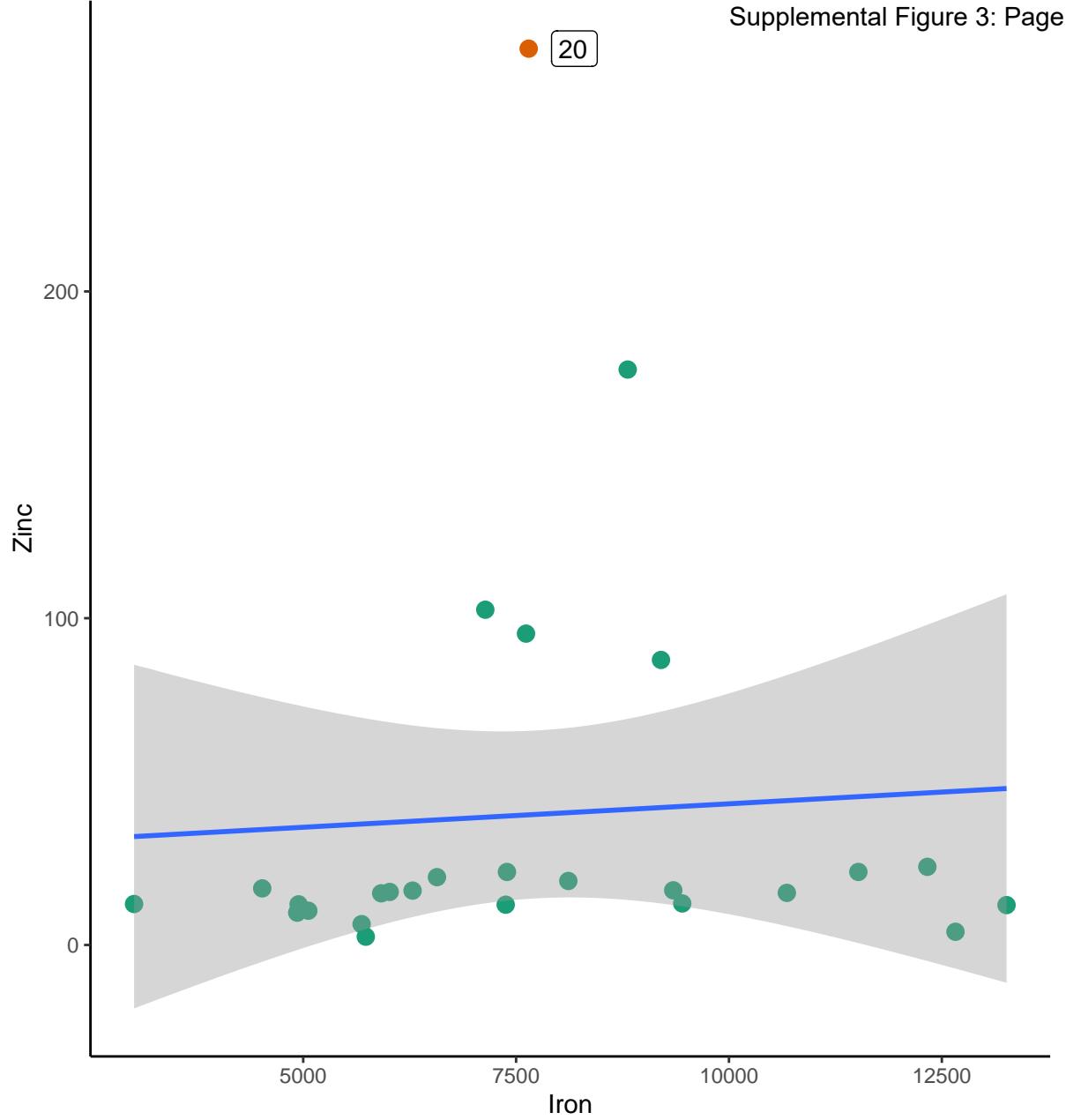
Iron

5000

7500

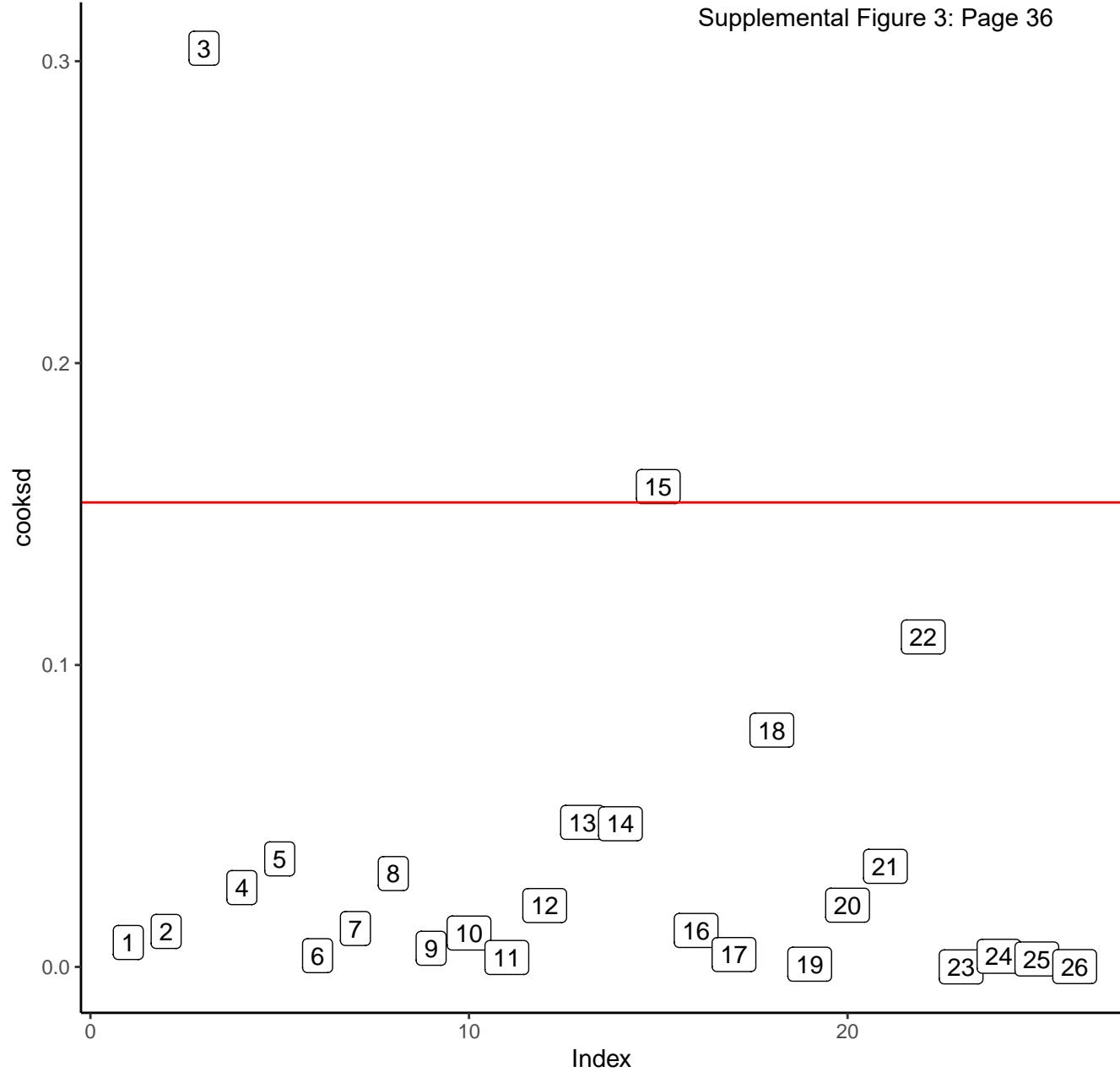
10000

12500



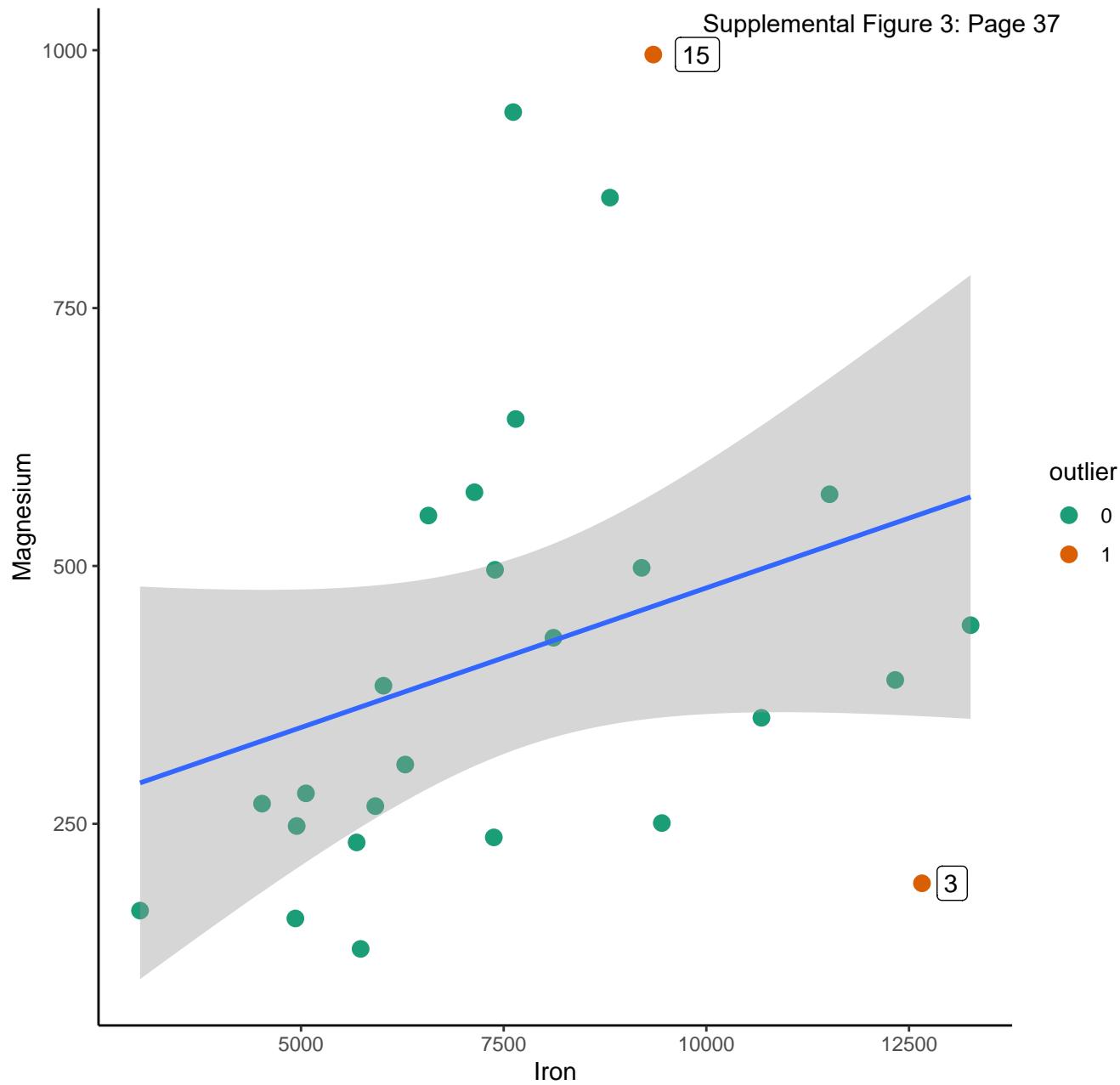
# Cooks Outlier Plot for Magnesium~Iron

Supplemental Figure 3: Page 36



# Plot for Magnesium~Iron

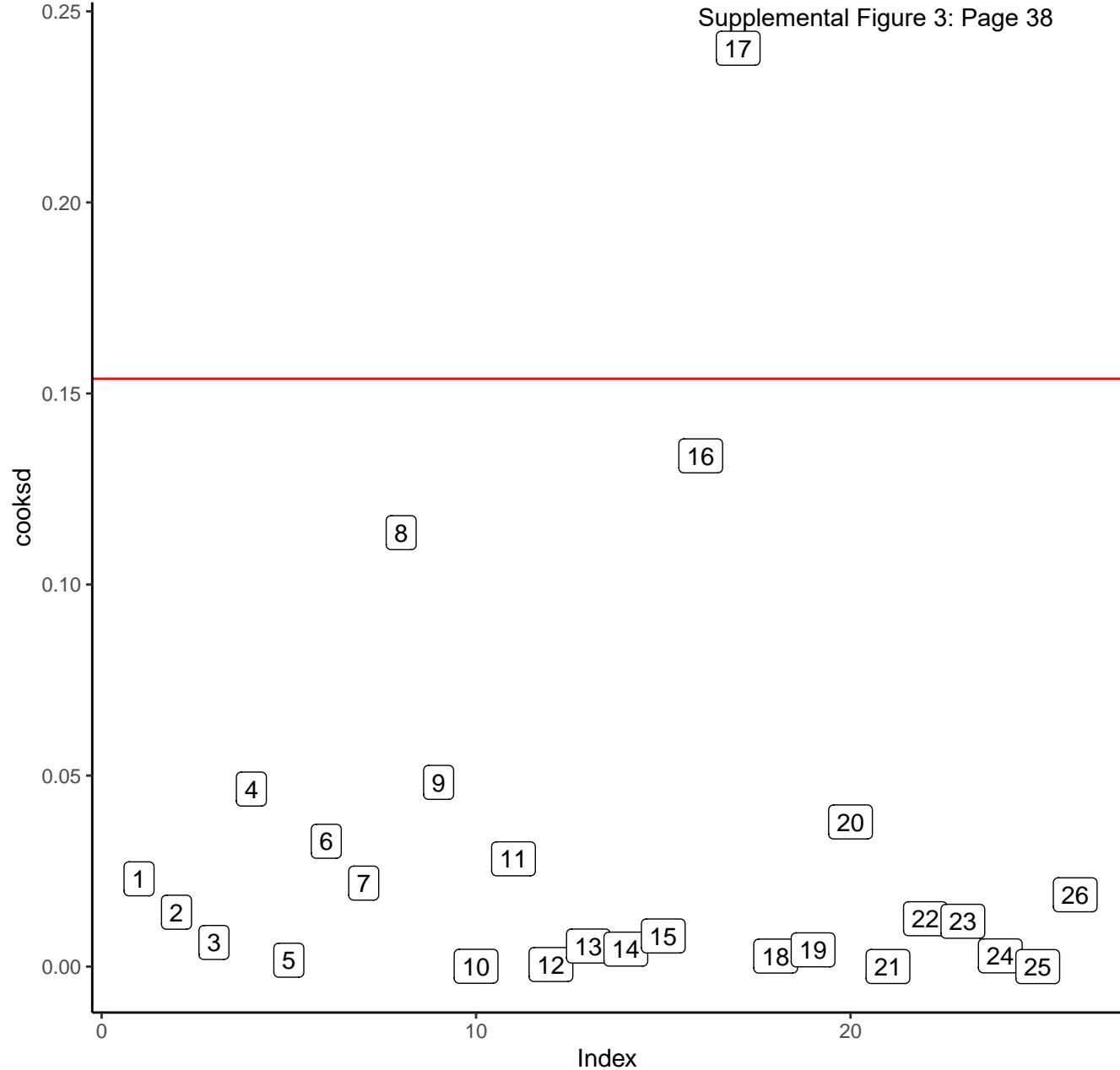
Supplemental Figure 3: Page 37



# Cooks Outlier Plot for Tin~Iron

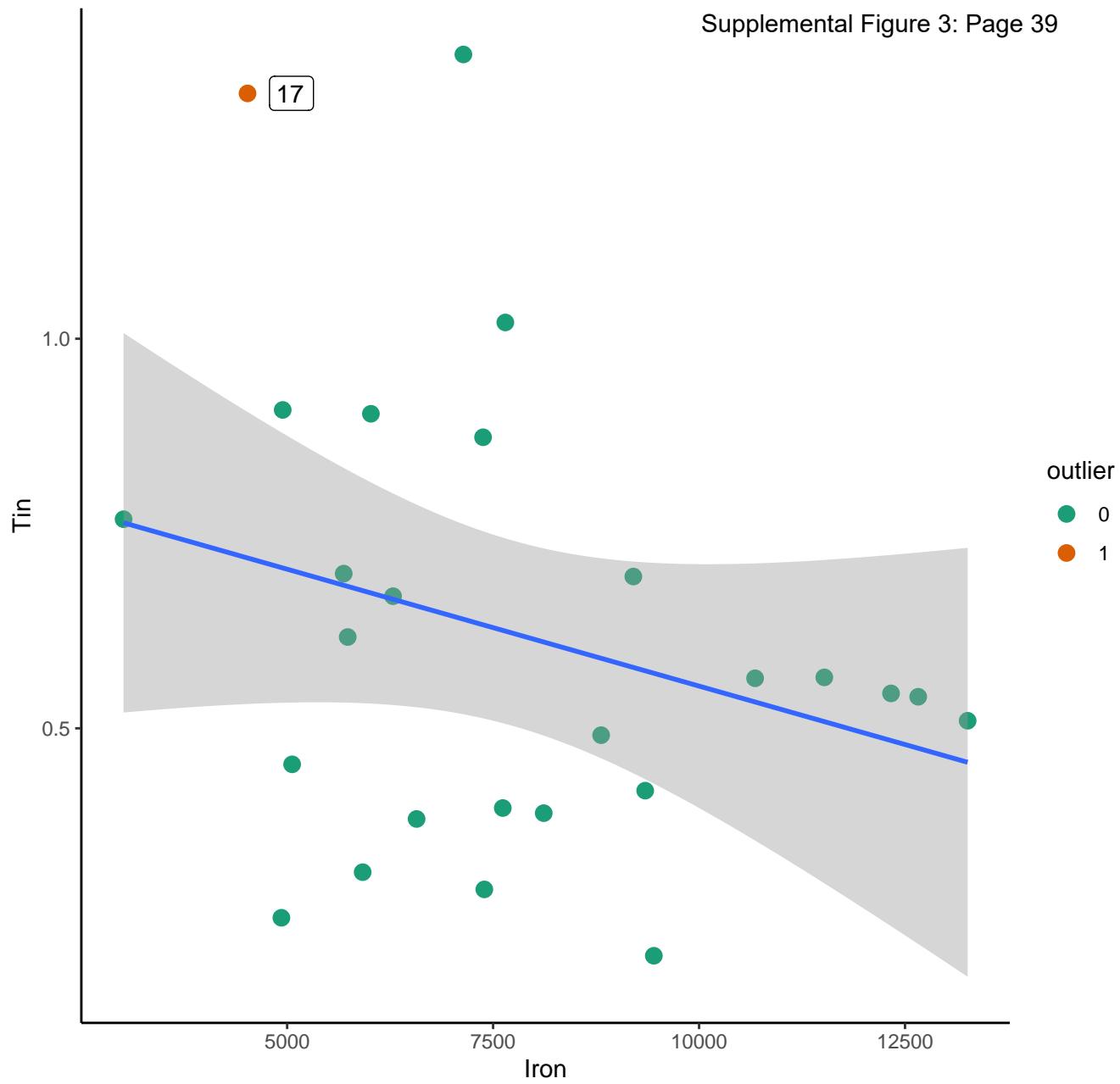
Supplemental Figure 3: Page 38

17



# Plot for Tin~Iron

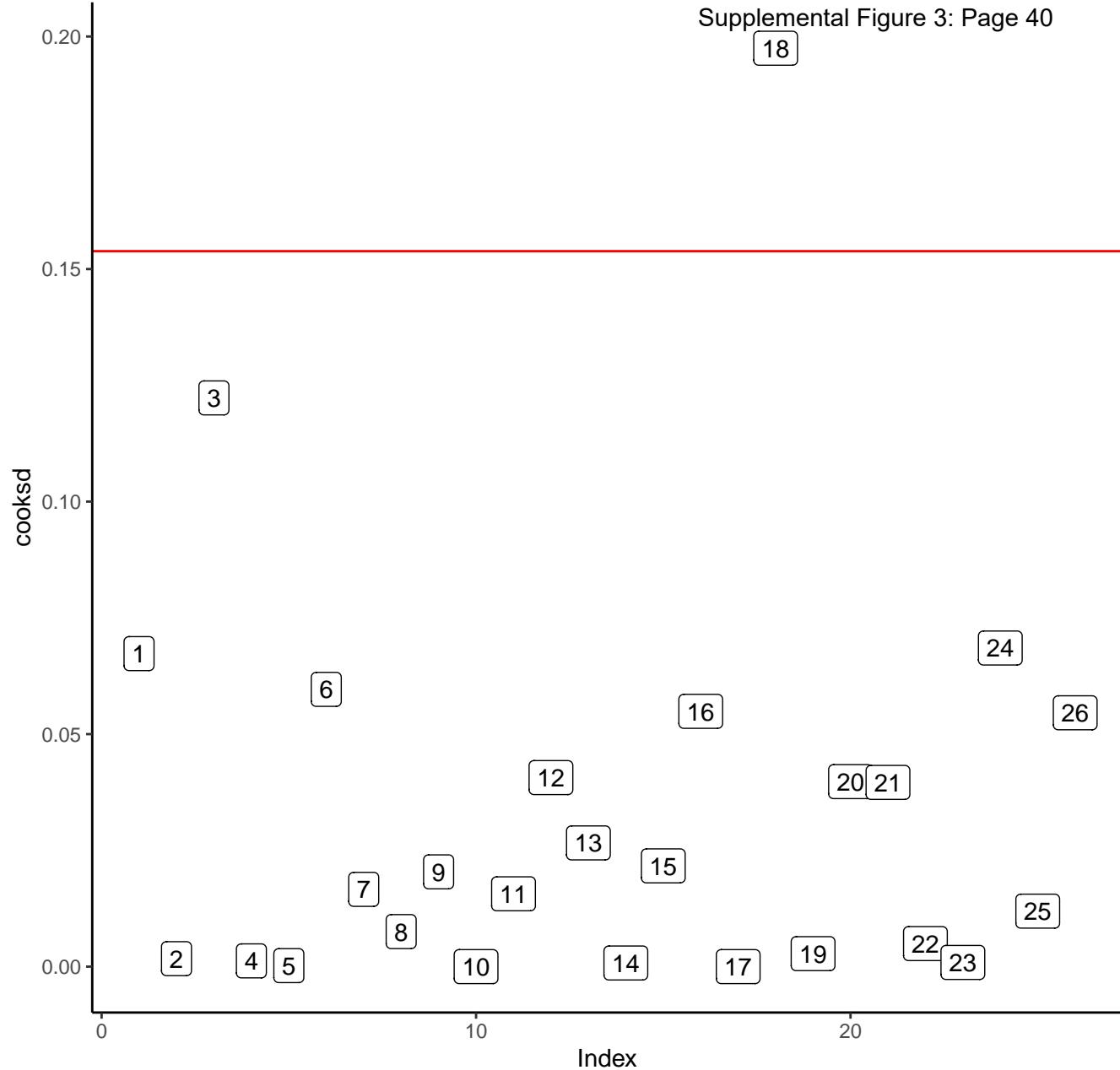
Supplemental Figure 3: Page 39



# Cooks Outlier Plot for Vanadium~Iron

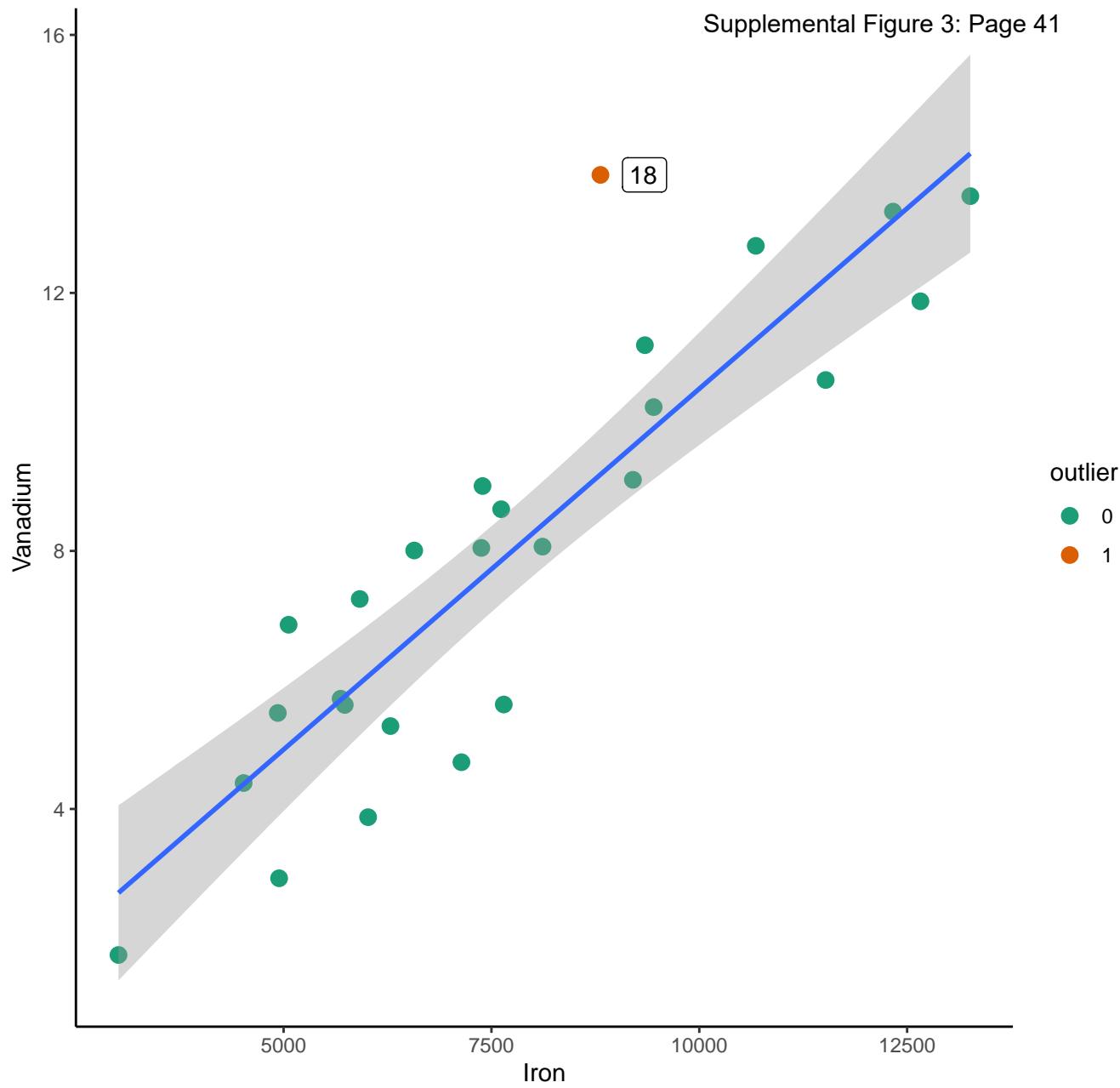
Supplemental Figure 3: Page 40

18



# Plot for Vanadium~Iron

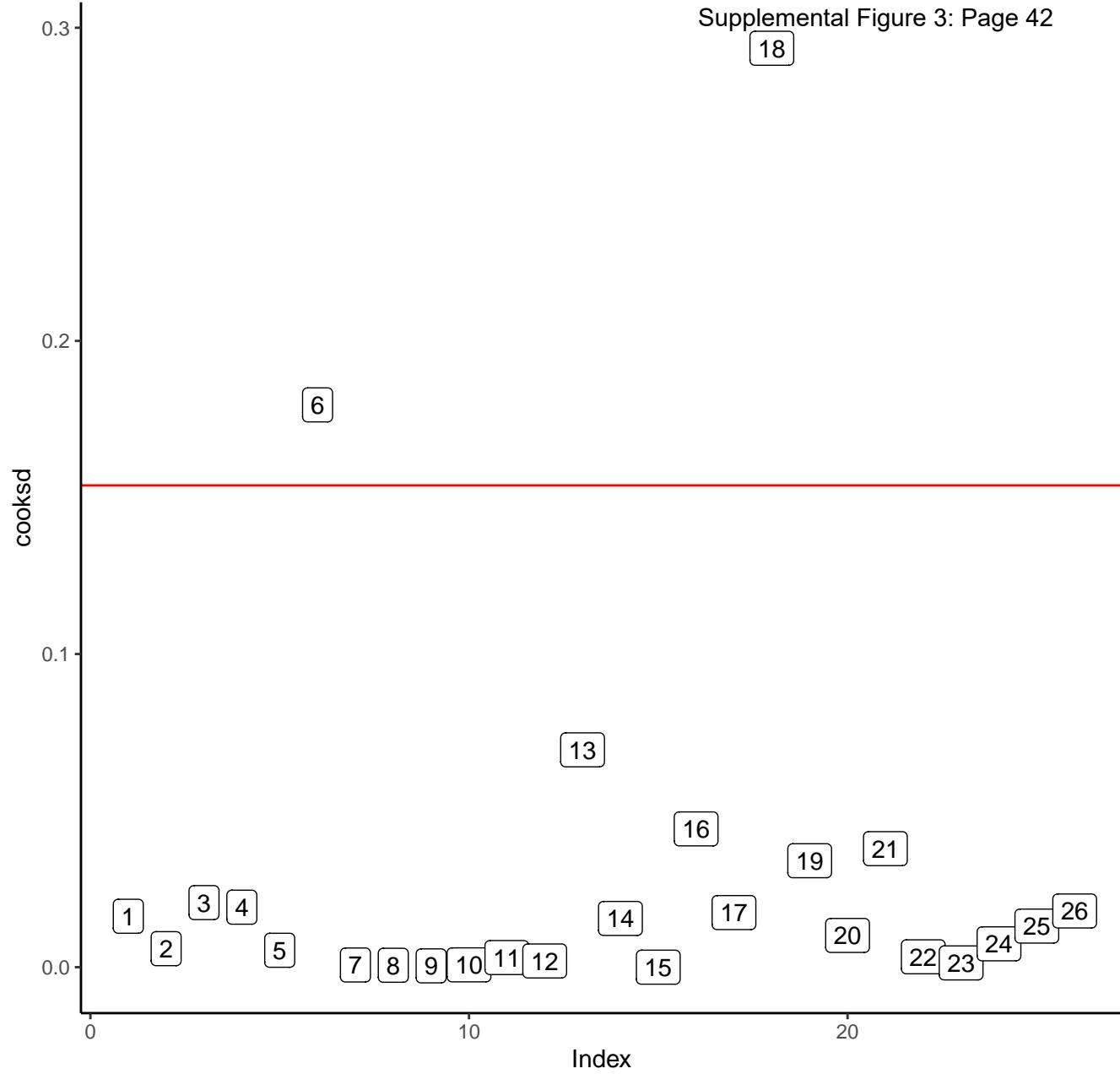
Supplemental Figure 3: Page 41



# Cooks Outlier Plot for Mercury~Iron

Supplemental Figure 3: Page 42

18



# Plot for Mercury~Iron

Supplemental Figure 3: Page 43

