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National Geochemical Survey of Australia: The Geochemical Atlas of Australia

Volume 2 of 2

Patrice de Caritat, Michelle Cooper

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2011/20
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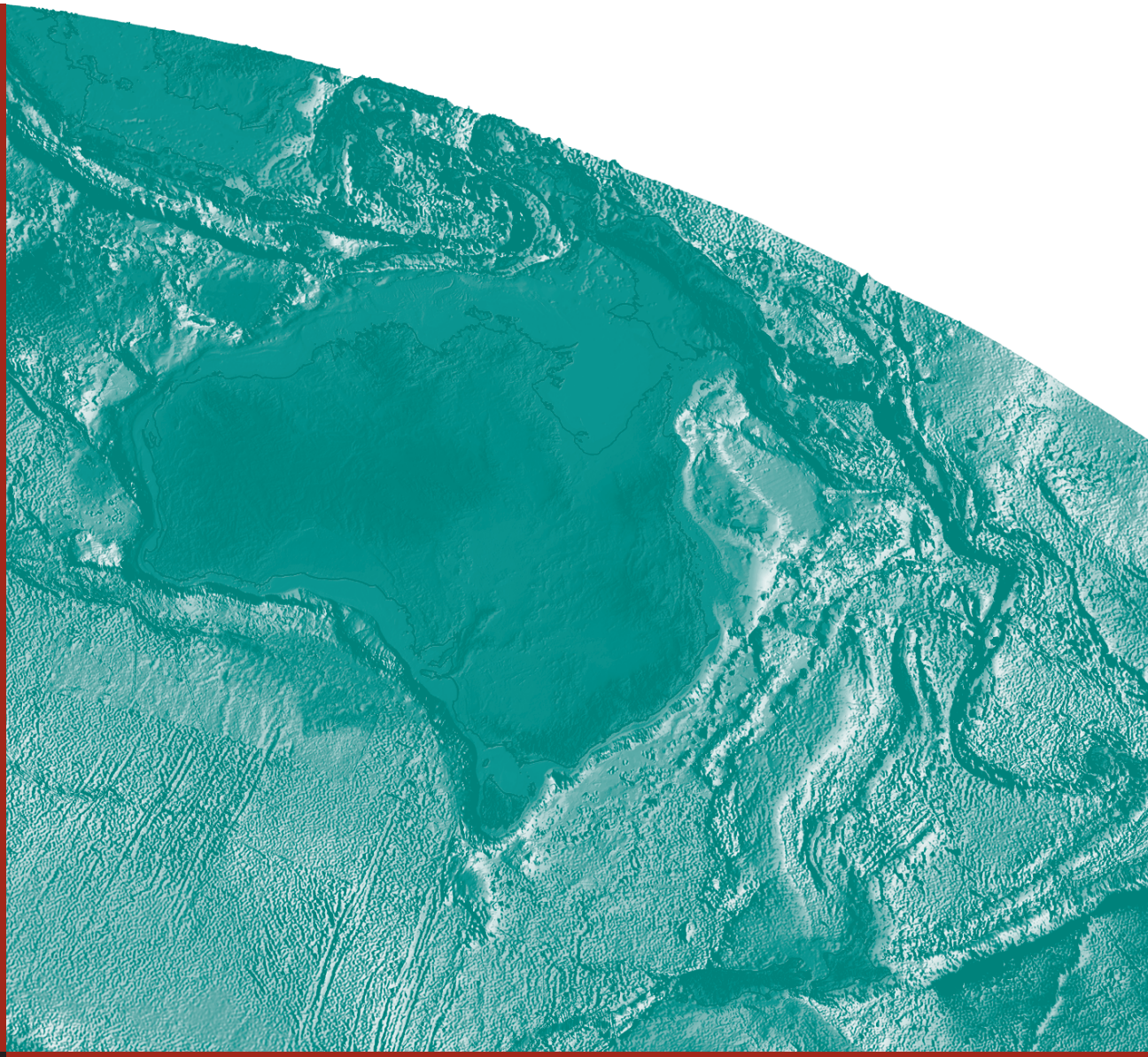

National Geochemical Survey of Australia: The Geochemical Atlas of Australia

Volume 2 of 2

GEOSCIENCE AUSTRALIA
RECORD 2011/20

by

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Australian Government
Geoscience Australia

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Contents

VOLUME 1

VOLUME 2

AQUA REGIA SOLUBLE CONTENT MAPS

Table 3. List of maps showing the concentrations and distributions of elements as determined after Aqua Regia digestion.

Element	Depth	Fraction	Preparation	Analysis
Ag	TOS	<2 mm	Aqua Regia	ICP-MS
Al	TOS	<2 mm	Aqua Regia	ICP-MS
As	TOS	<2 mm	Aqua Regia	ICP-MS
Au	TOS	<2 mm	Aqua Regia	ICP-MS
B	TOS	<2 mm	Aqua Regia	ICP-MS
Ba	TOS	<2 mm	Aqua Regia	ICP-MS
Be	TOS	<2 mm	Aqua Regia	ICP-MS
Bi	TOS	<2 mm	Aqua Regia	ICP-MS
Ca	TOS	<2 mm	Aqua Regia	ICP-MS
Cd	TOS	<2 mm	Aqua Regia	ICP-MS
Ce	TOS	<2 mm	Aqua Regia	ICP-MS
Co	TOS	<2 mm	Aqua Regia	ICP-MS
Cr	TOS	<2 mm	Aqua Regia	ICP-MS
Cs	TOS	<2 mm	Aqua Regia	ICP-MS
Cu	TOS	<2 mm	Aqua Regia	ICP-MS
Dy	TOS	<2 mm	Aqua Regia	ICP-MS
Er	TOS	<2 mm	Aqua Regia	ICP-MS
Eu	TOS	<2 mm	Aqua Regia	ICP-MS
Fe	TOS	<2 mm	Aqua Regia	ICP-MS
Ga	TOS	<2 mm	Aqua Regia	ICP-MS
Gd	TOS	<2 mm	Aqua Regia	ICP-MS
Ge	TOS	<2 mm	Aqua Regia	ICP-MS
Hf	TOS	<2 mm	Aqua Regia	ICP-MS
Hg	TOS	<2 mm	Aqua Regia	ICP-MS
Ho	TOS	<2 mm	Aqua Regia	ICP-MS
In	TOS	<2 mm	Aqua Regia	ICP-MS
K	TOS	<2 mm	Aqua Regia	ICP-MS
La	TOS	<2 mm	Aqua Regia	ICP-MS
Li	TOS	<2 mm	Aqua Regia	ICP-MS
Lu	TOS	<2 mm	Aqua Regia	ICP-MS
Mg	TOS	<2 mm	Aqua Regia	ICP-MS
Mn	TOS	<2 mm	Aqua Regia	ICP-MS
Mo	TOS	<2 mm	Aqua Regia	ICP-MS
Na	TOS	<2 mm	Aqua Regia	ICP-MS
Nb	TOS	<2 mm	Aqua Regia	ICP-MS
Nd	TOS	<2 mm	Aqua Regia	ICP-MS
Ni	TOS	<2 mm	Aqua Regia	ICP-MS
Pb	TOS	<2 mm	Aqua Regia	ICP-MS
Pr	TOS	<2 mm	Aqua Regia	ICP-MS
Rb	TOS	<2 mm	Aqua Regia	ICP-MS
Re	TOS	<2 mm	Aqua Regia	ICP-MS
Sb	TOS	<2 mm	Aqua Regia	ICP-MS
Sc	TOS	<2 mm	Aqua Regia	ICP-MS
Se	TOS	<2 mm	Aqua Regia	ICP-MS

Element	Depth	Fraction	Preparation	Analysis
Sm	TOS	<2 mm	Aqua Regia	ICP-MS
Sn	TOS	<2 mm	Aqua Regia	ICP-MS
Sr	TOS	<2 mm	Aqua Regia	ICP-MS
Tb	TOS	<2 mm	Aqua Regia	ICP-MS
Te	TOS	<2 mm	Aqua Regia	ICP-MS
Th	TOS	<2 mm	Aqua Regia	ICP-MS
Tl	TOS	<2 mm	Aqua Regia	ICP-MS
Tm	TOS	<2 mm	Aqua Regia	ICP-MS
U	TOS	<2 mm	Aqua Regia	ICP-MS
V	TOS	<2 mm	Aqua Regia	ICP-MS
W	TOS	<2 mm	Aqua Regia	ICP-MS
Y	TOS	<2 mm	Aqua Regia	ICP-MS
Yb	TOS	<2 mm	Aqua Regia	ICP-MS
Zn	TOS	<2 mm	Aqua Regia	ICP-MS
Zr	TOS	<2 mm	Aqua Regia	ICP-MS
Ag	TOS	<75 um	Aqua Regia	ICP-MS
Al	TOS	<75 um	Aqua Regia	ICP-MS
As	TOS	<75 um	Aqua Regia	ICP-MS
Au	TOS	<75 um	Aqua Regia	ICP-MS
B	TOS	<75 um	Aqua Regia	ICP-MS
Ba	TOS	<75 um	Aqua Regia	ICP-MS
Be	TOS	<75 um	Aqua Regia	ICP-MS
Bi	TOS	<75 um	Aqua Regia	ICP-MS
Ca	TOS	<75 um	Aqua Regia	ICP-MS
Cd	TOS	<75 um	Aqua Regia	ICP-MS
Ce	TOS	<75 um	Aqua Regia	ICP-MS
Co	TOS	<75 um	Aqua Regia	ICP-MS
Cr	TOS	<75 um	Aqua Regia	ICP-MS
Cs	TOS	<75 um	Aqua Regia	ICP-MS
Cu	TOS	<75 um	Aqua Regia	ICP-MS
Dy	TOS	<75 um	Aqua Regia	ICP-MS
Er	TOS	<75 um	Aqua Regia	ICP-MS
Eu	TOS	<75 um	Aqua Regia	ICP-MS
Fe	TOS	<75 um	Aqua Regia	ICP-MS
Ga	TOS	<75 um	Aqua Regia	ICP-MS
Gd	TOS	<75 um	Aqua Regia	ICP-MS
Ge	TOS	<75 um	Aqua Regia	ICP-MS
Hf	TOS	<75 um	Aqua Regia	ICP-MS
Hg	TOS	<75 um	Aqua Regia	ICP-MS
Ho	TOS	<75 um	Aqua Regia	ICP-MS
In	TOS	<75 um	Aqua Regia	ICP-MS
K	TOS	<75 um	Aqua Regia	ICP-MS
La	TOS	<75 um	Aqua Regia	ICP-MS
Li	TOS	<75 um	Aqua Regia	ICP-MS
Lu	TOS	<75 um	Aqua Regia	ICP-MS
Mg	TOS	<75 um	Aqua Regia	ICP-MS
Mn	TOS	<75 um	Aqua Regia	ICP-MS
Mo	TOS	<75 um	Aqua Regia	ICP-MS

Element	Depth	Fraction	Preparation	Analysis
Na	TOS	<75 um	Aqua Regia	ICP-MS
Nb	TOS	<75 um	Aqua Regia	ICP-MS
Nd	TOS	<75 um	Aqua Regia	ICP-MS
Ni	TOS	<75 um	Aqua Regia	ICP-MS
Pb	TOS	<75 um	Aqua Regia	ICP-MS
Pr	TOS	<75 um	Aqua Regia	ICP-MS
Rb	TOS	<75 um	Aqua Regia	ICP-MS
Re	TOS	<75 um	Aqua Regia	ICP-MS
Sb	TOS	<75 um	Aqua Regia	ICP-MS
Sc	TOS	<75 um	Aqua Regia	ICP-MS
Se	TOS	<75 um	Aqua Regia	ICP-MS
Sm	TOS	<75 um	Aqua Regia	ICP-MS
Sn	TOS	<75 um	Aqua Regia	ICP-MS
Sr	TOS	<75 um	Aqua Regia	ICP-MS
Tb	TOS	<75 um	Aqua Regia	ICP-MS
Te	TOS	<75 um	Aqua Regia	ICP-MS
Th	TOS	<75 um	Aqua Regia	ICP-MS
Tl	TOS	<75 um	Aqua Regia	ICP-MS
Tm	TOS	<75 um	Aqua Regia	ICP-MS
U	TOS	<75 um	Aqua Regia	ICP-MS
V	TOS	<75 um	Aqua Regia	ICP-MS
W	TOS	<75 um	Aqua Regia	ICP-MS
Y	TOS	<75 um	Aqua Regia	ICP-MS
Yb	TOS	<75 um	Aqua Regia	ICP-MS
Zn	TOS	<75 um	Aqua Regia	ICP-MS
Zr	TOS	<75 um	Aqua Regia	ICP-MS
Ag	BOS	<2 mm	Aqua Regia	ICP-MS
Al	BOS	<2 mm	Aqua Regia	ICP-MS
As	BOS	<2 mm	Aqua Regia	ICP-MS
Au	BOS	<2 mm	Aqua Regia	ICP-MS
B	BOS	<2 mm	Aqua Regia	ICP-MS
Ba	BOS	<2 mm	Aqua Regia	ICP-MS
Be	BOS	<2 mm	Aqua Regia	ICP-MS
Bi	BOS	<2 mm	Aqua Regia	ICP-MS
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Cs	BOS	<2 mm	Aqua Regia	ICP-MS
Cu	BOS	<2 mm	Aqua Regia	ICP-MS
Dy	BOS	<2 mm	Aqua Regia	ICP-MS
Er	BOS	<2 mm	Aqua Regia	ICP-MS
Eu	BOS	<2 mm	Aqua Regia	ICP-MS
Fe	BOS	<2 mm	Aqua Regia	ICP-MS
Ga	BOS	<2 mm	Aqua Regia	ICP-MS
Gd	BOS	<2 mm	Aqua Regia	ICP-MS
Ge	BOS	<2 mm	Aqua Regia	ICP-MS

Element	Depth	Fraction	Preparation	Analysis
Hf	BOS	<2 mm	Aqua Regia	ICP-MS
Hg	BOS	<2 mm	Aqua Regia	ICP-MS
Ho	BOS	<2 mm	Aqua Regia	ICP-MS
In	BOS	<2 mm	Aqua Regia	ICP-MS
K	BOS	<2 mm	Aqua Regia	ICP-MS
La	BOS	<2 mm	Aqua Regia	ICP-MS
Li	BOS	<2 mm	Aqua Regia	ICP-MS
Lu	BOS	<2 mm	Aqua Regia	ICP-MS
Mg	BOS	<2 mm	Aqua Regia	ICP-MS
Mn	BOS	<2 mm	Aqua Regia	ICP-MS
Mo	BOS	<2 mm	Aqua Regia	ICP-MS
Na	BOS	<2 mm	Aqua Regia	ICP-MS
Nb	BOS	<2 mm	Aqua Regia	ICP-MS
Nd	BOS	<2 mm	Aqua Regia	ICP-MS
Ni	BOS	<2 mm	Aqua Regia	ICP-MS
Pb	BOS	<2 mm	Aqua Regia	ICP-MS
Pr	BOS	<2 mm	Aqua Regia	ICP-MS
Rb	BOS	<2 mm	Aqua Regia	ICP-MS
Re	BOS	<2 mm	Aqua Regia	ICP-MS
Sb	BOS	<2 mm	Aqua Regia	ICP-MS
Sc	BOS	<2 mm	Aqua Regia	ICP-MS
Se	BOS	<2 mm	Aqua Regia	ICP-MS
Sm	BOS	<2 mm	Aqua Regia	ICP-MS
Sn	BOS	<2 mm	Aqua Regia	ICP-MS
Sr	BOS	<2 mm	Aqua Regia	ICP-MS
Tb	BOS	<2 mm	Aqua Regia	ICP-MS
Te	BOS	<2 mm	Aqua Regia	ICP-MS
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Tl	BOS	<2 mm	Aqua Regia	ICP-MS
Tm	BOS	<2 mm	Aqua Regia	ICP-MS
U	BOS	<2 mm	Aqua Regia	ICP-MS
V	BOS	<2 mm	Aqua Regia	ICP-MS
W	BOS	<2 mm	Aqua Regia	ICP-MS
Y	BOS	<2 mm	Aqua Regia	ICP-MS
Yb	BOS	<2 mm	Aqua Regia	ICP-MS
Zn	BOS	<2 mm	Aqua Regia	ICP-MS
Zr	BOS	<2 mm	Aqua Regia	ICP-MS
Ag	BOS	<75 um	Aqua Regia	ICP-MS
Al	BOS	<75 um	Aqua Regia	ICP-MS
As	BOS	<75 um	Aqua Regia	ICP-MS
Au	BOS	<75 um	Aqua Regia	ICP-MS
B	BOS	<75 um	Aqua Regia	ICP-MS
Ba	BOS	<75 um	Aqua Regia	ICP-MS
Be	BOS	<75 um	Aqua Regia	ICP-MS
Bi	BOS	<75 um	Aqua Regia	ICP-MS
Ca	BOS	<75 um	Aqua Regia	ICP-MS
Cd	BOS	<75 um	Aqua Regia	ICP-MS
Ce	BOS	<75 um	Aqua Regia	ICP-MS

Element	Depth	Fraction	Preparation	Analysis
Co	BOS	<75 um	Aqua Regia	ICP-MS
Cr	BOS	<75 um	Aqua Regia	ICP-MS
Cs	BOS	<75 um	Aqua Regia	ICP-MS
Cu	BOS	<75 um	Aqua Regia	ICP-MS
Dy	BOS	<75 um	Aqua Regia	ICP-MS
Er	BOS	<75 um	Aqua Regia	ICP-MS
Eu	BOS	<75 um	Aqua Regia	ICP-MS
Fe	BOS	<75 um	Aqua Regia	ICP-MS
Ga	BOS	<75 um	Aqua Regia	ICP-MS
Gd	BOS	<75 um	Aqua Regia	ICP-MS
Ge	BOS	<75 um	Aqua Regia	ICP-MS
Hf	BOS	<75 um	Aqua Regia	ICP-MS
Hg	BOS	<75 um	Aqua Regia	ICP-MS
Ho	BOS	<75 um	Aqua Regia	ICP-MS
In	BOS	<75 um	Aqua Regia	ICP-MS
K	BOS	<75 um	Aqua Regia	ICP-MS
La	BOS	<75 um	Aqua Regia	ICP-MS
Li	BOS	<75 um	Aqua Regia	ICP-MS
Lu	BOS	<75 um	Aqua Regia	ICP-MS
Mg	BOS	<75 um	Aqua Regia	ICP-MS
Mn	BOS	<75 um	Aqua Regia	ICP-MS
Mo	BOS	<75 um	Aqua Regia	ICP-MS
Na	BOS	<75 um	Aqua Regia	ICP-MS
Nb	BOS	<75 um	Aqua Regia	ICP-MS
Nd	BOS	<75 um	Aqua Regia	ICP-MS
Ni	BOS	<75 um	Aqua Regia	ICP-MS
Pb	BOS	<75 um	Aqua Regia	ICP-MS
Pr	BOS	<75 um	Aqua Regia	ICP-MS
Rb	BOS	<75 um	Aqua Regia	ICP-MS
Re	BOS	<75 um	Aqua Regia	ICP-MS
Sb	BOS	<75 um	Aqua Regia	ICP-MS
Sc	BOS	<75 um	Aqua Regia	ICP-MS
Se	BOS	<75 um	Aqua Regia	ICP-MS
Sm	BOS	<75 um	Aqua Regia	ICP-MS
Sn	BOS	<75 um	Aqua Regia	ICP-MS
Sr	BOS	<75 um	Aqua Regia	ICP-MS
Tb	BOS	<75 um	Aqua Regia	ICP-MS
Te	BOS	<75 um	Aqua Regia	ICP-MS
Th	BOS	<75 um	Aqua Regia	ICP-MS
Tl	BOS	<75 um	Aqua Regia	ICP-MS
Tm	BOS	<75 um	Aqua Regia	ICP-MS
U	BOS	<75 um	Aqua Regia	ICP-MS
V	BOS	<75 um	Aqua Regia	ICP-MS
W	BOS	<75 um	Aqua Regia	ICP-MS
Y	BOS	<75 um	Aqua Regia	ICP-MS
Yb	BOS	<75 um	Aqua Regia	ICP-MS
Zn	BOS	<75 um	Aqua Regia	ICP-MS
Zr	BOS	<75 um	Aqua Regia	ICP-MS

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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ag

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.002 mg/kg
N: 1190

Maximum: *1.08 mg/kg*

Upper Fence: *0.663 mg/kg*

75%: *0.026 mg/kg*

Median: *0.012 mg/kg*

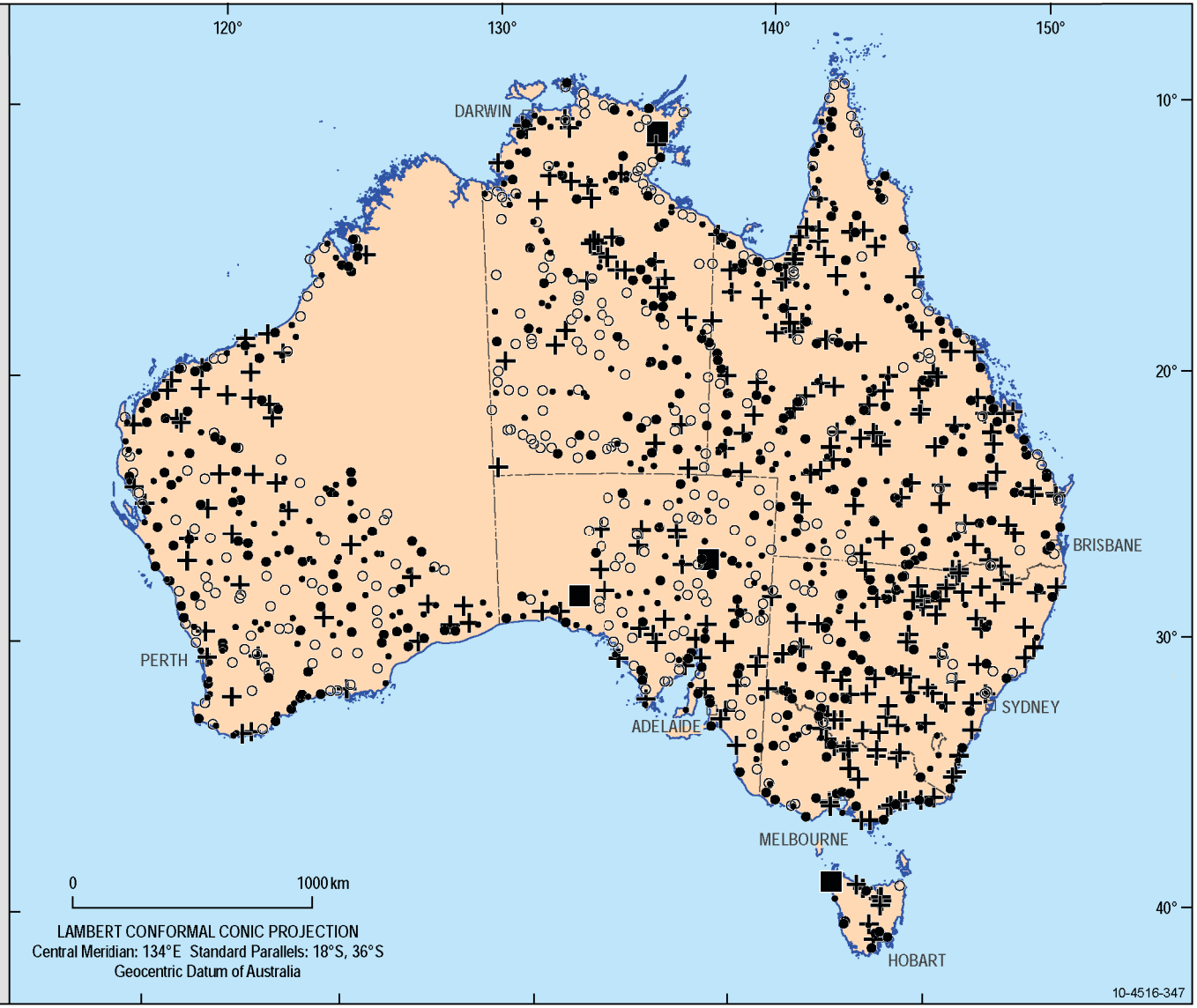
25%: *0.003 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.002 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Al

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 100 mg/kg
N: 1190

Maximum: *Greater than 100000 mg/kg*

Upper Fence: *91627 mg/kg*

75%: *16600 mg/kg*

Median: *9700 mg/kg*

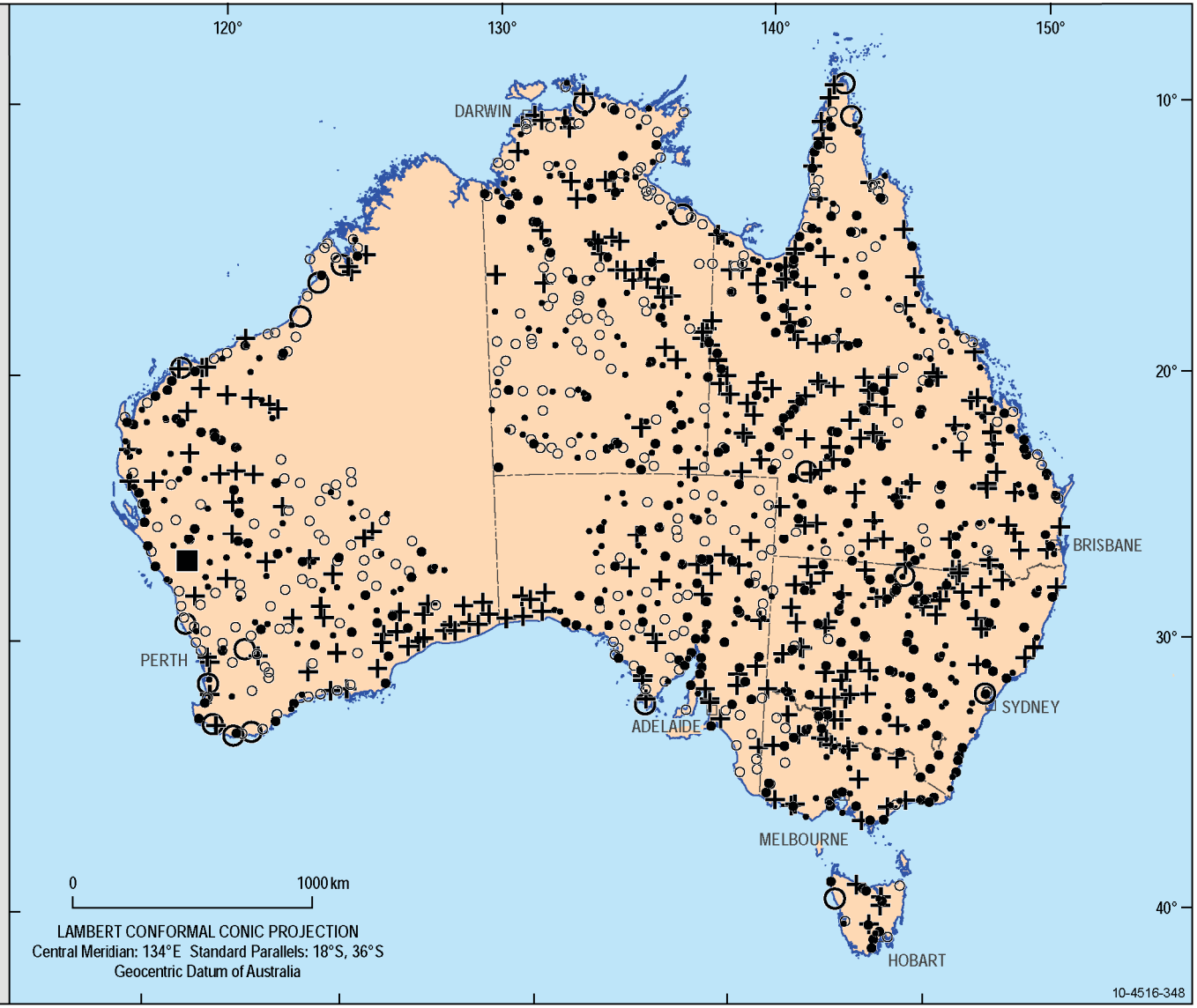
25%: *5100 mg/kg*

Lower Fence: *857 mg/kg*

Minimum: *200 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

As

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190

Maximum: *133 mg/kg*

Upper Fence: *16.8 mg/kg*

75%: *2.9 mg/kg*

Median: *1.6 mg/kg*

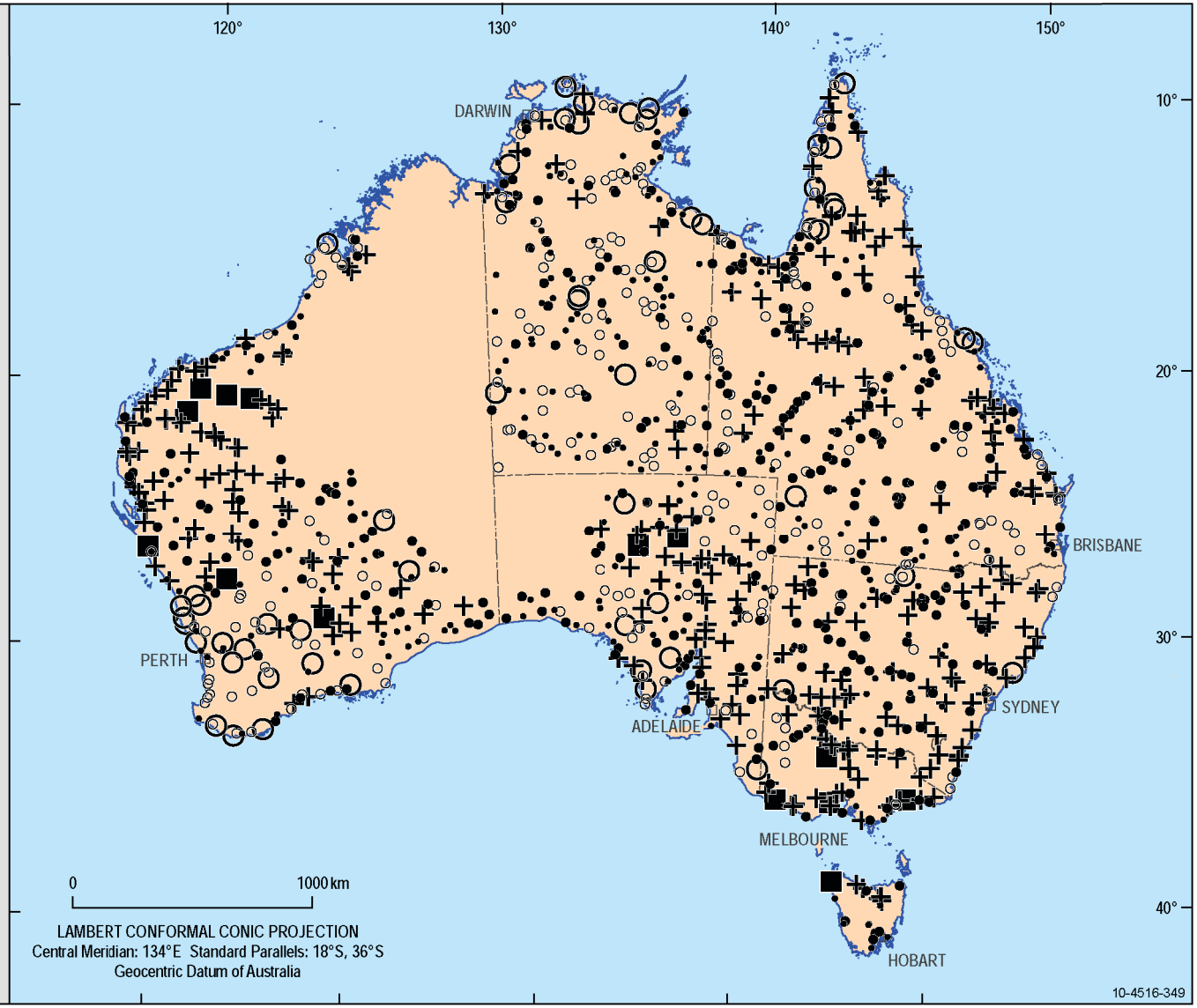
25%: *0.9 mg/kg*

Lower Fence: *0.2 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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Au

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.0001 mg/kg
N: 1189

Maximum: *0.152 mg/kg*

Upper Fence: *0.0176 mg/kg*

75%: *0.0012 mg/kg*

Median: *0.0006 mg/kg*

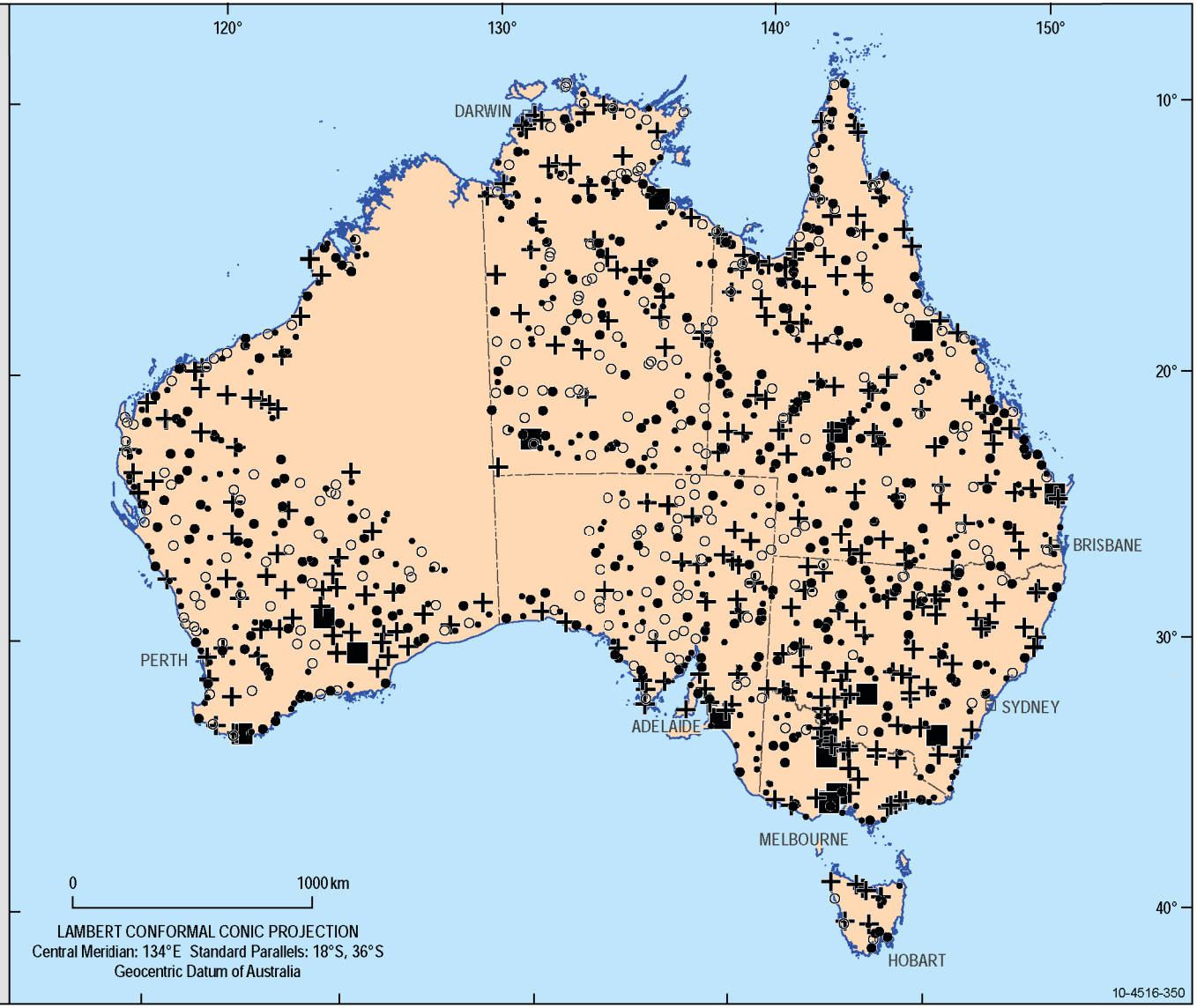
25%: *0.0002 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.0001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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B

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 1 mg/kg
N: 1190

Maximum: *43 mg/kg*

Upper Fence: *3 mg/kg*

75%: *1 mg/kg*

Median: *N/A**

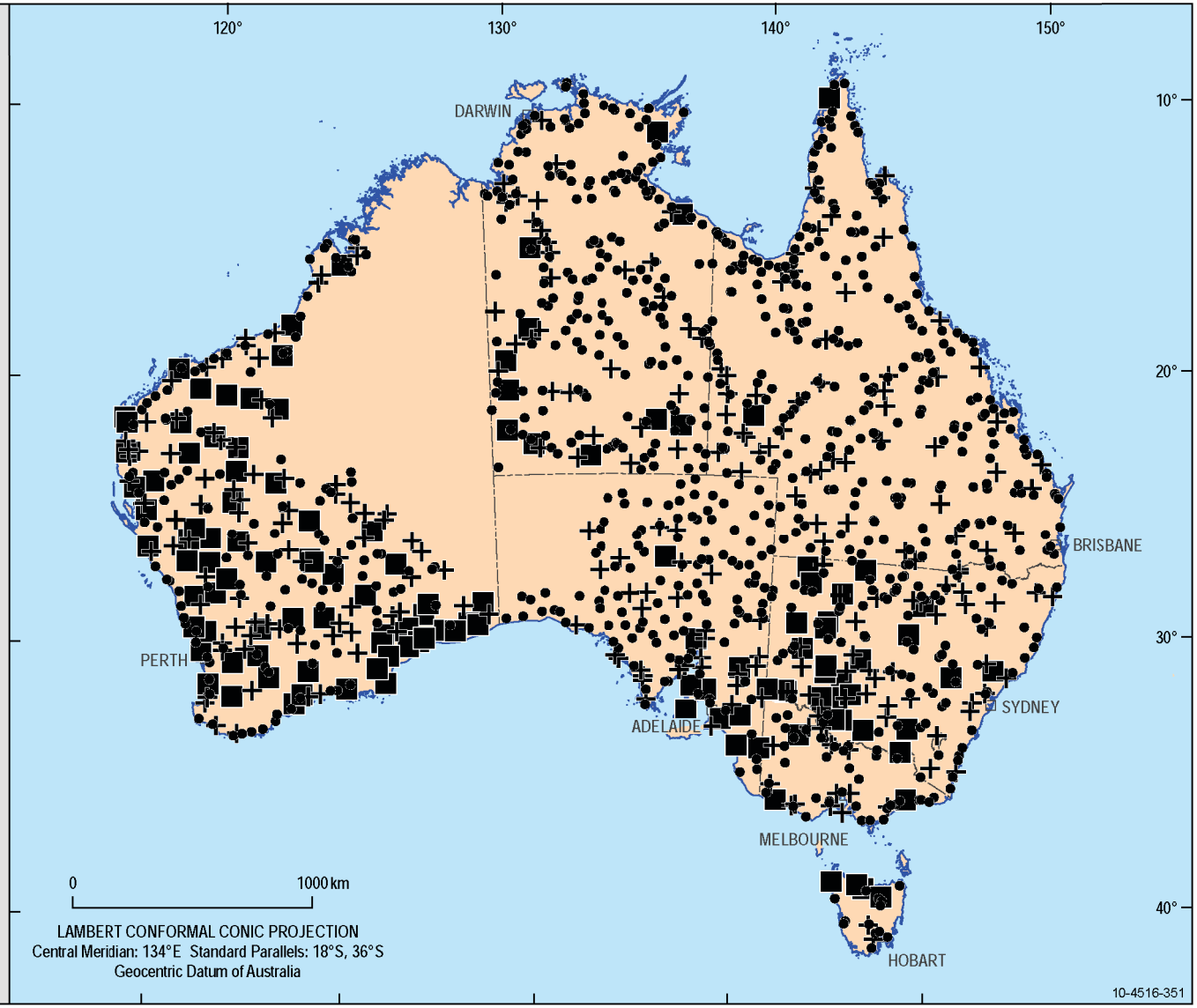
25%: *N/A**

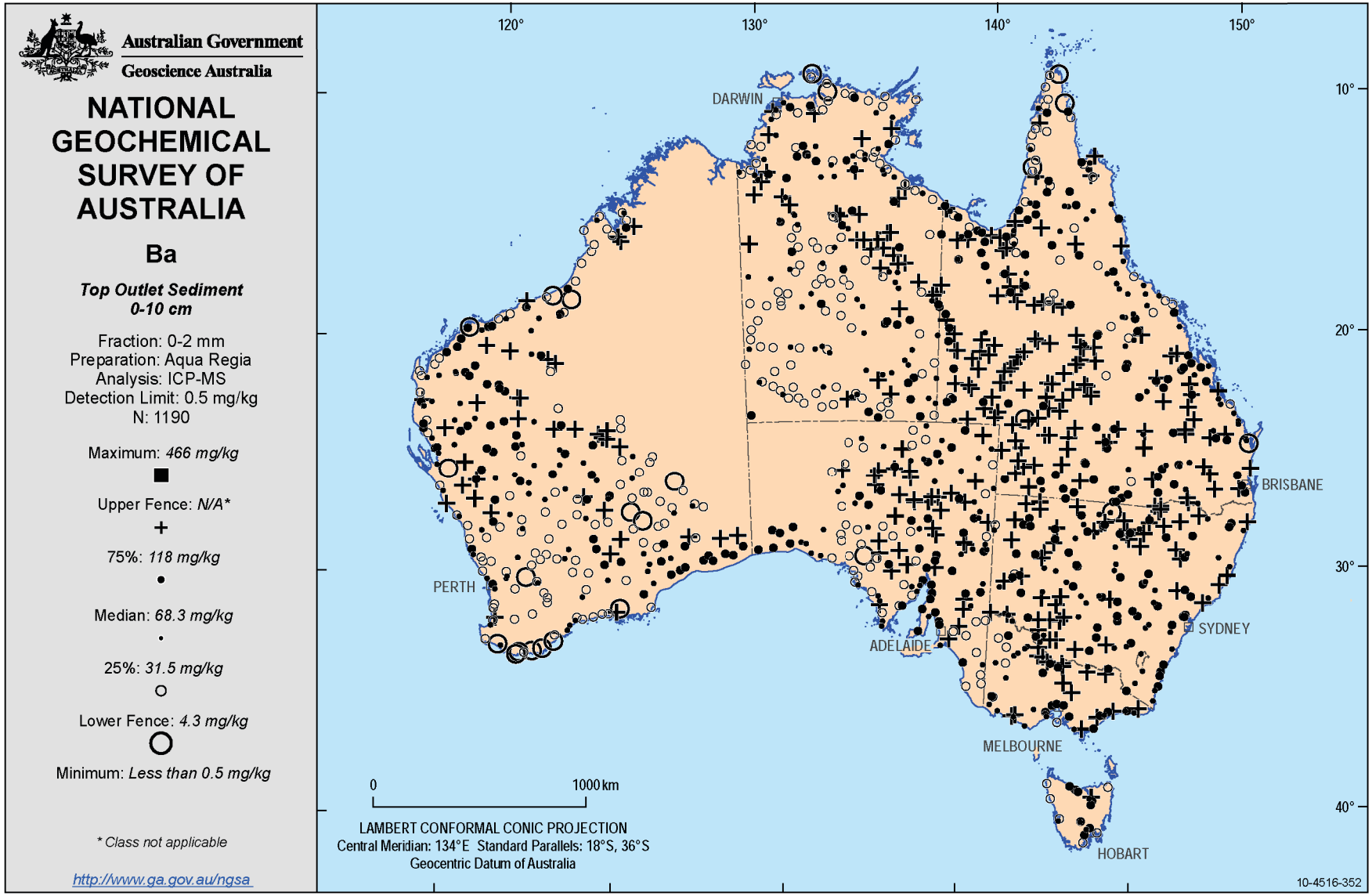
Lower Fence: *N/A**

Minimum: *Less than 1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa

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Ba
Top Outlet Sediment
0-10 cm
Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.5 mg/kg
N: 1190
Maximum: 466 mg/kg
Upper Fence: N/A*
75%: 118 mg/kg
Median: 68.3 mg/kg
25%: 31.5 mg/kg
Lower Fence: 4.3 mg/kg
Minimum: Less than 0.5 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
MELBOURNE
SYDNEY
BRISBANE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-352

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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Be

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190

Maximum: *11.4 mg/kg*

Upper Fence: *4.7 mg/kg*

75%: *0.9 mg/kg*

Median: *0.6 mg/kg*

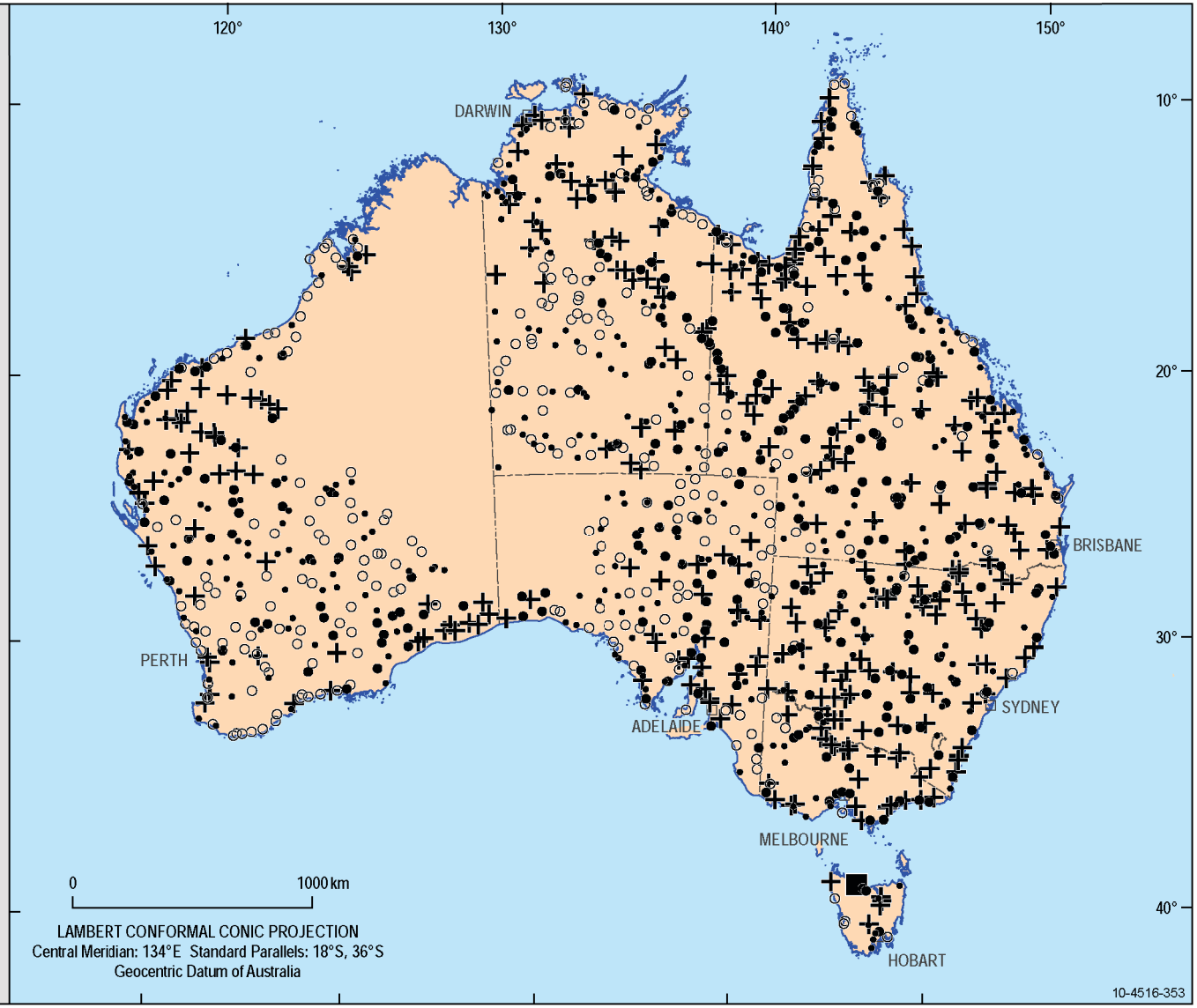
25%: *0.3 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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Bi

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1190

Maximum: *29.3 mg/kg*

Upper Fence: *0.61 mg/kg*

75%: *0.18 mg/kg*

Median: *0.12 mg/kg*

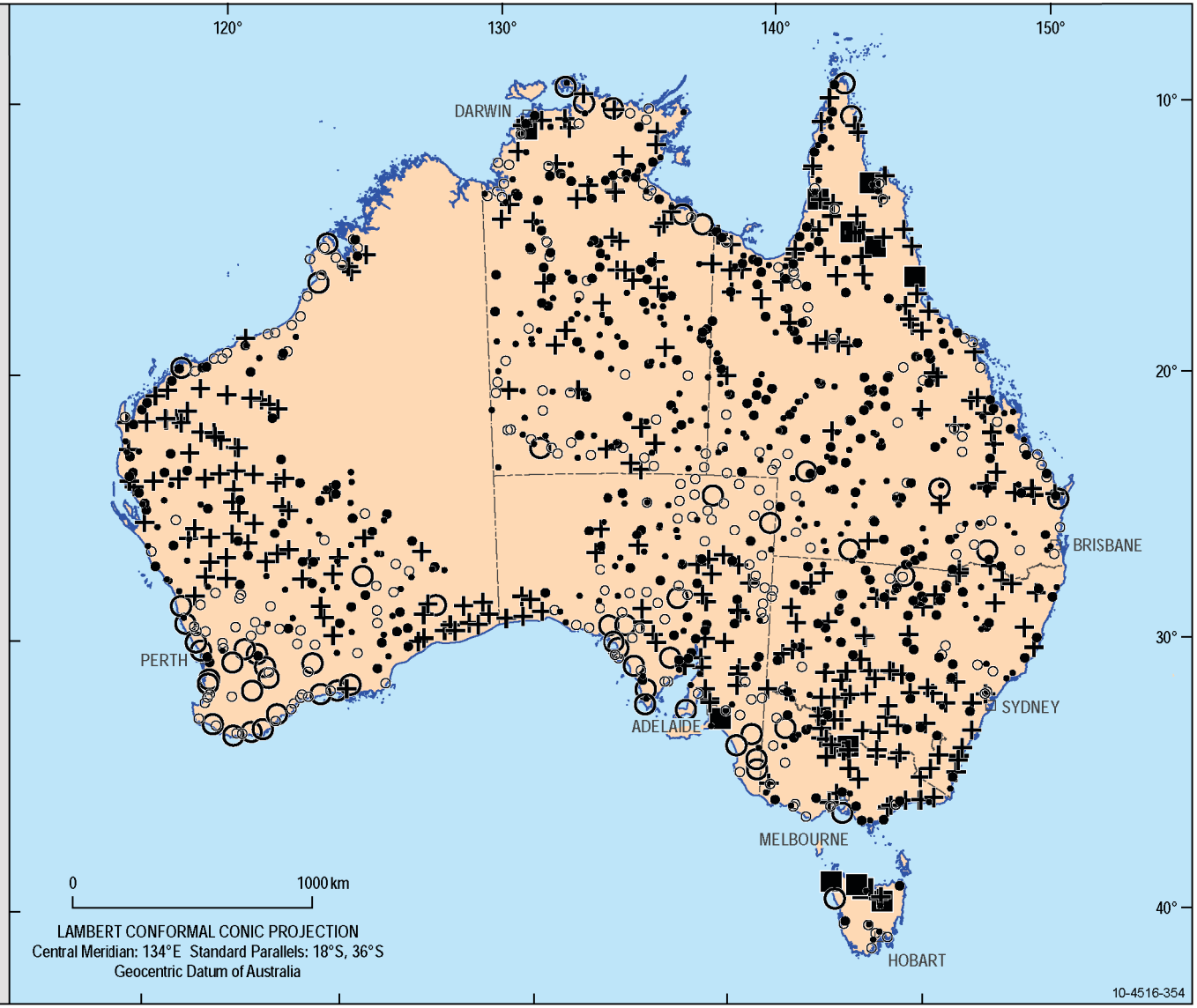
25%: *0.08 mg/kg*

Lower Fence: *0.02 mg/kg*

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ca

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 100 mg/kg
N: 1190

Maximum: *406000 mg/kg*

Upper Fence: *73229 mg/kg*

75%: *5000 mg/kg*

Median: *2400 mg/kg*

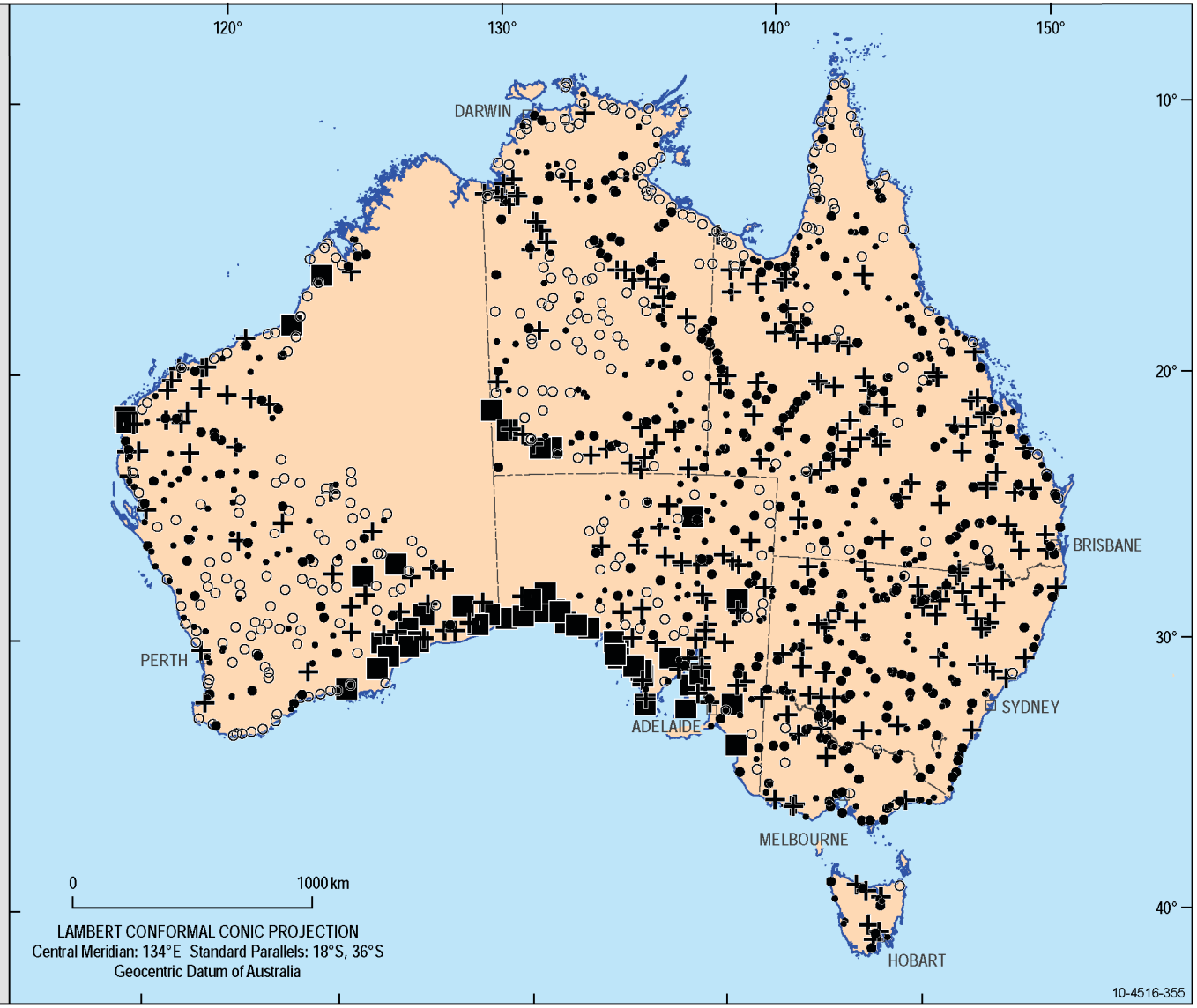
25%: *800 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 100 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Cd

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1190

Maximum: *5.09 mg/kg*

Upper Fence: *0.46 mg/kg*

75%: *0.07 mg/kg*

Median: *0.04 mg/kg*

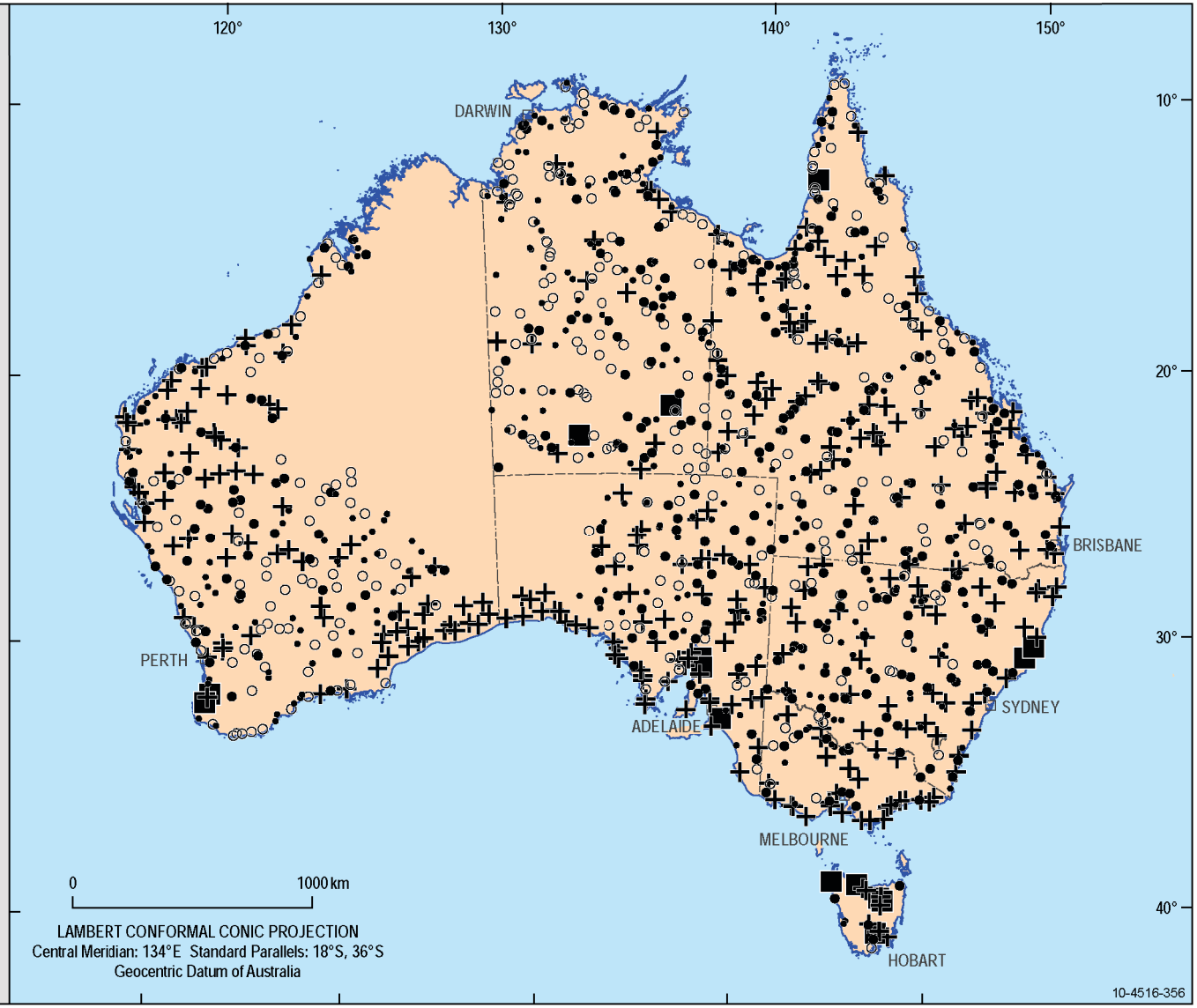
25%: *0.02 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ce

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1190

Maximum: *149 mg/kg*

Upper Fence: *N/A**

75%: *43.7 mg/kg*

Median: *28.8 mg/kg*

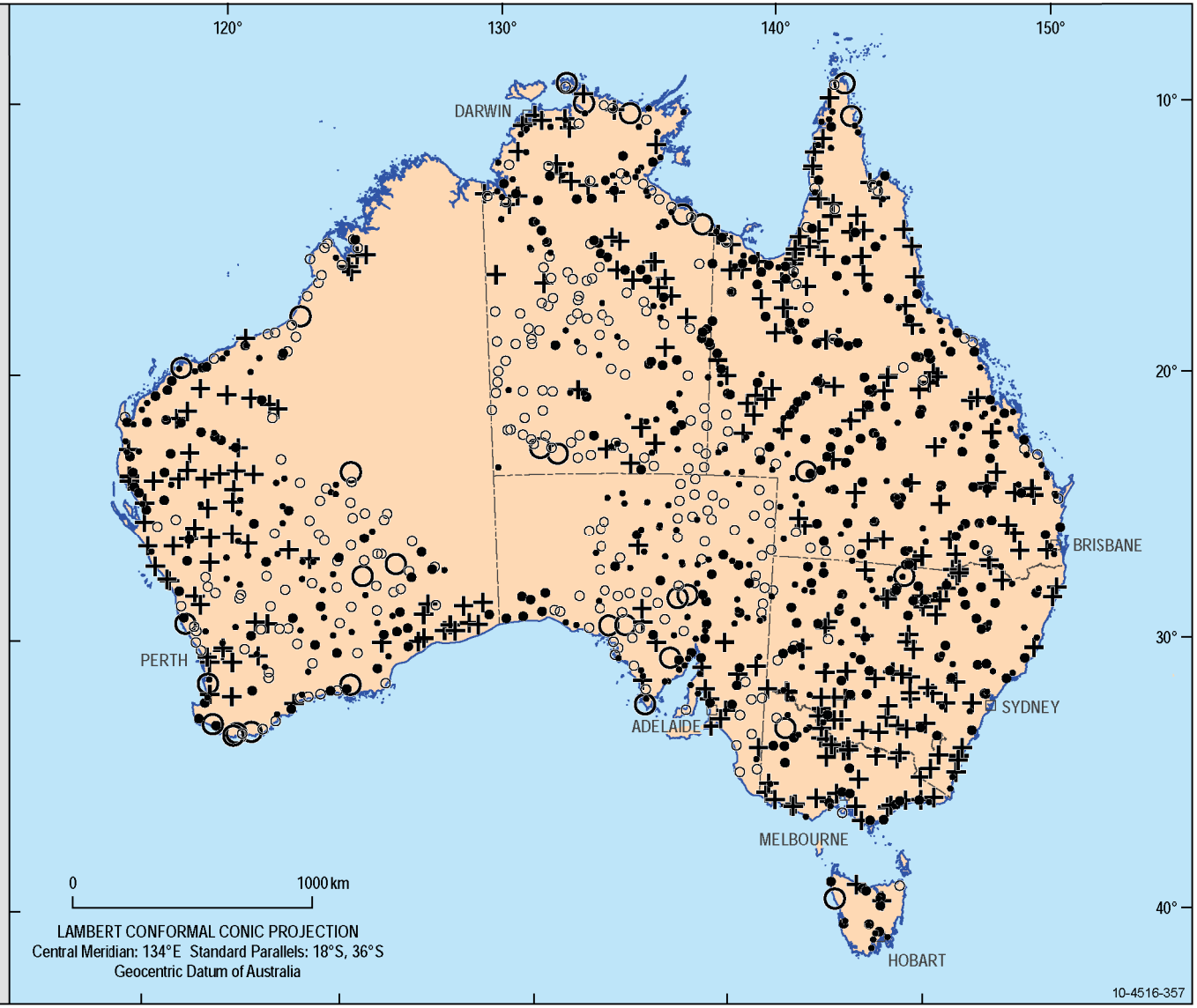
25%: *14.7 mg/kg*

Lower Fence: *2.87 mg/kg*

Minimum: *0.17 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Co

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190

Maximum: *70.1 mg/kg*

Upper Fence: *N/A**

75%: *10.9 mg/kg*

Median: *6.3 mg/kg*

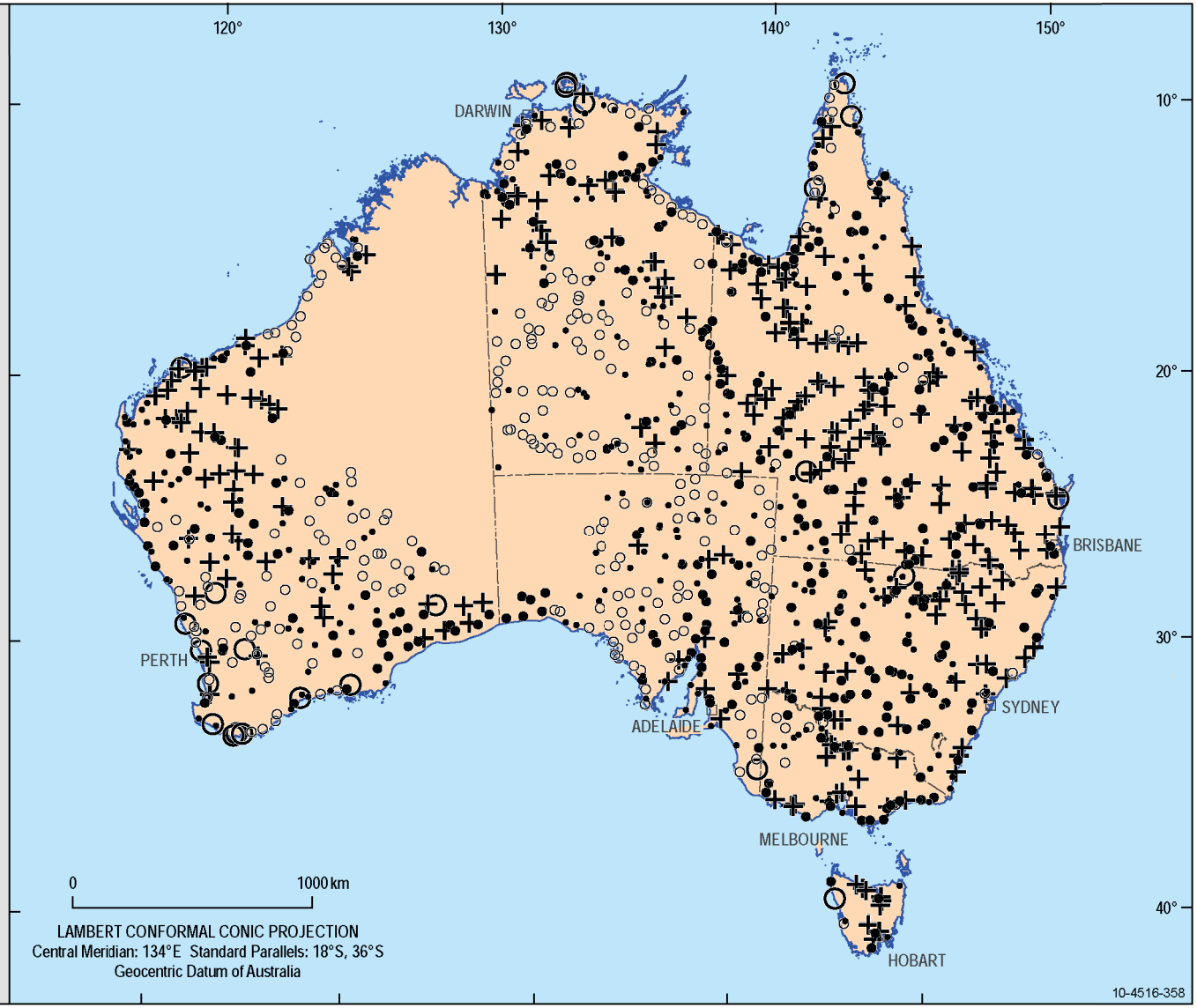
25%: *2.6 mg/kg*

Lower Fence: *0.3 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Cr

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.5 mg/kg
N: 1190

Maximum: *1660 mg/kg*

Upper Fence: *145.3 mg/kg*

75%: *37.2 mg/kg*

Median: *23.6 mg/kg*

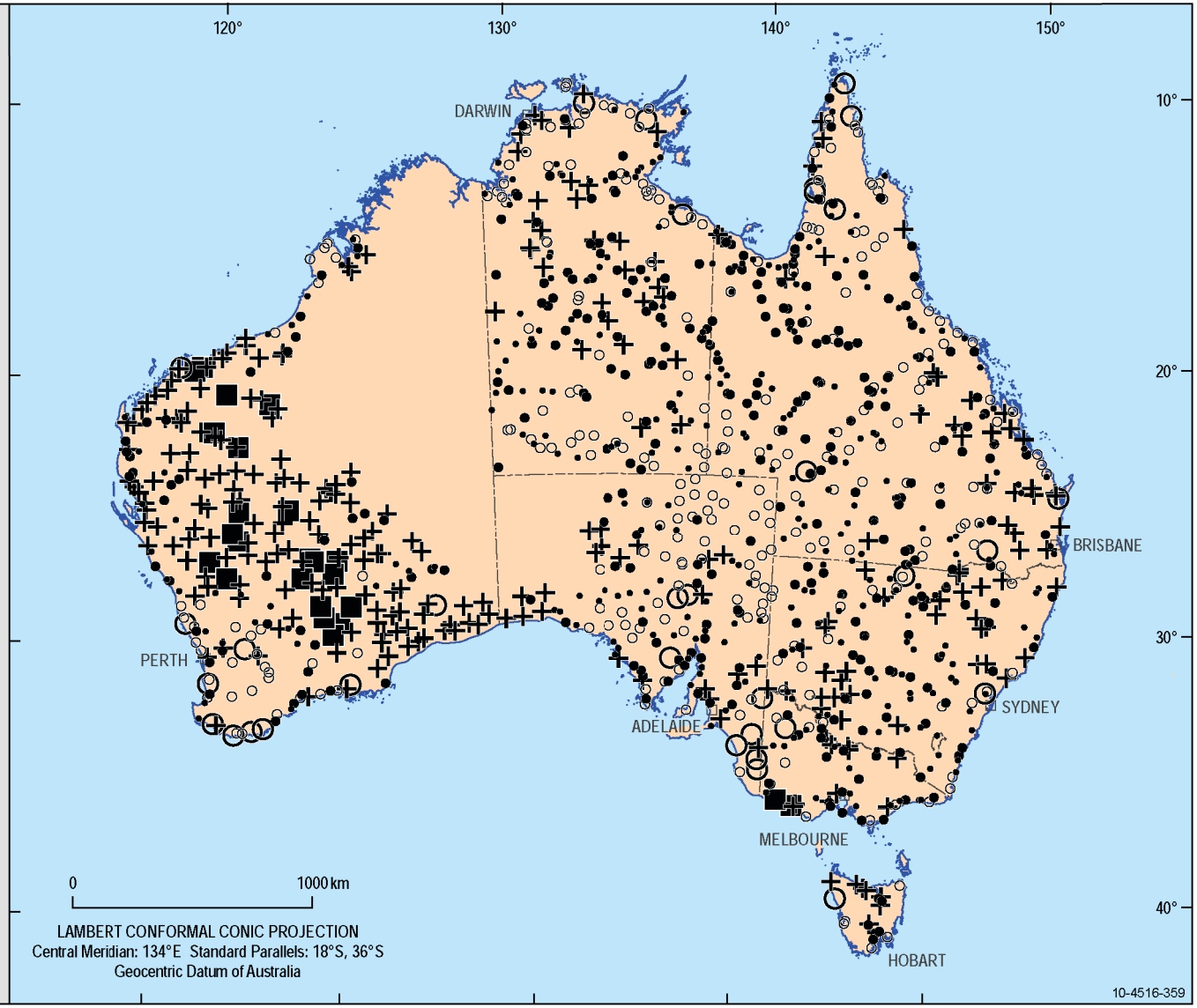
25%: *15 mg/kg*

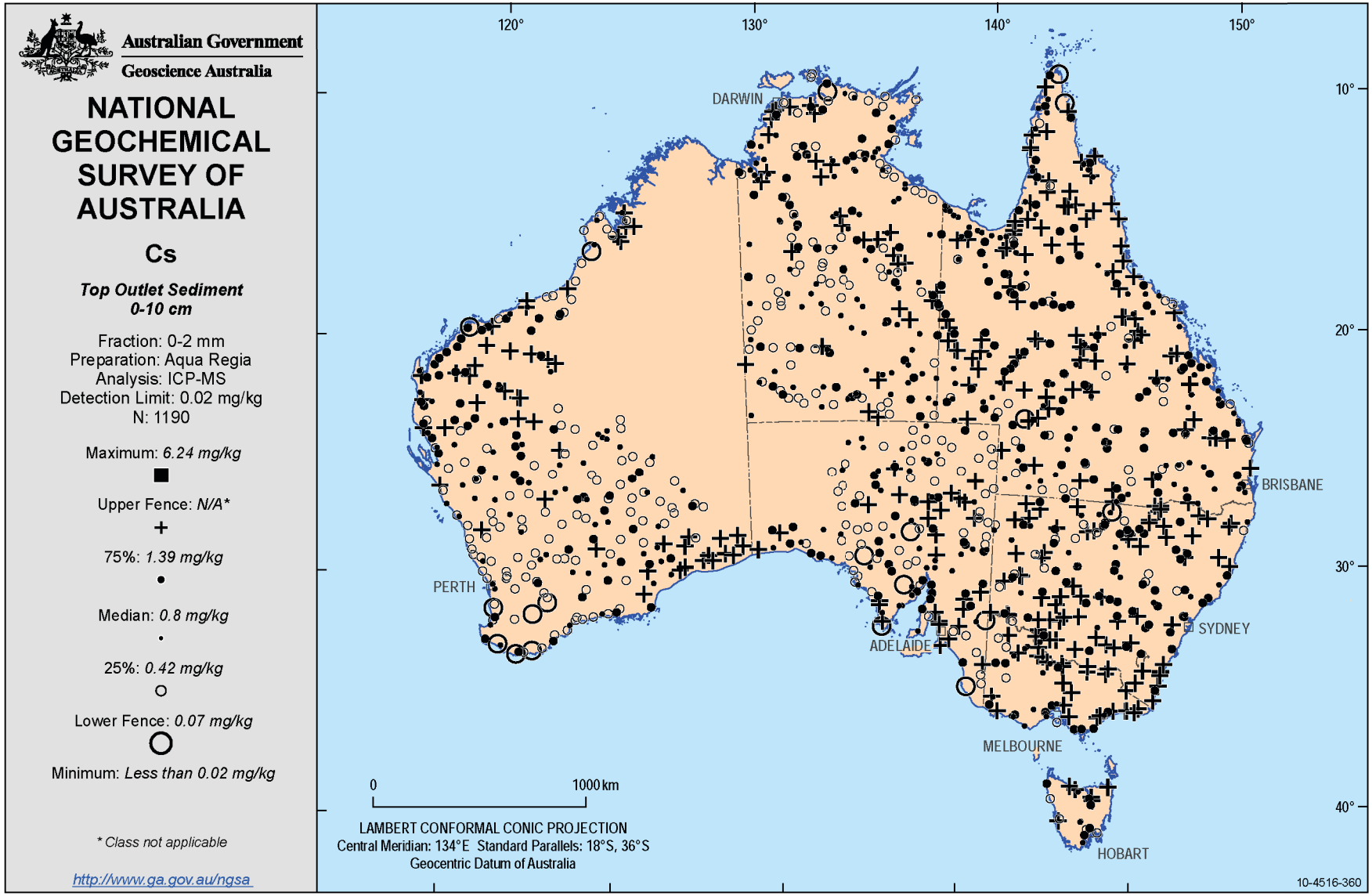
Lower Fence: *3.8 mg/kg*

Minimum: *Less than 0.5 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Cs
Top Outlet Sediment
0-10 cm
Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1190
Maximum: 6.24 mg/kg
Upper Fence: N/A*
75%: 1.39 mg/kg
Median: 0.8 mg/kg
25%: 0.42 mg/kg
Lower Fence: 0.07 mg/kg
Minimum: Less than 0.02 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
MELBOURNE
SYDNEY
BRISBANE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-360

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Cu

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1190

Maximum: *150 mg/kg*

Upper Fence: *106.27 mg/kg*

75%: *18 mg/kg*

Median: *11.3 mg/kg*

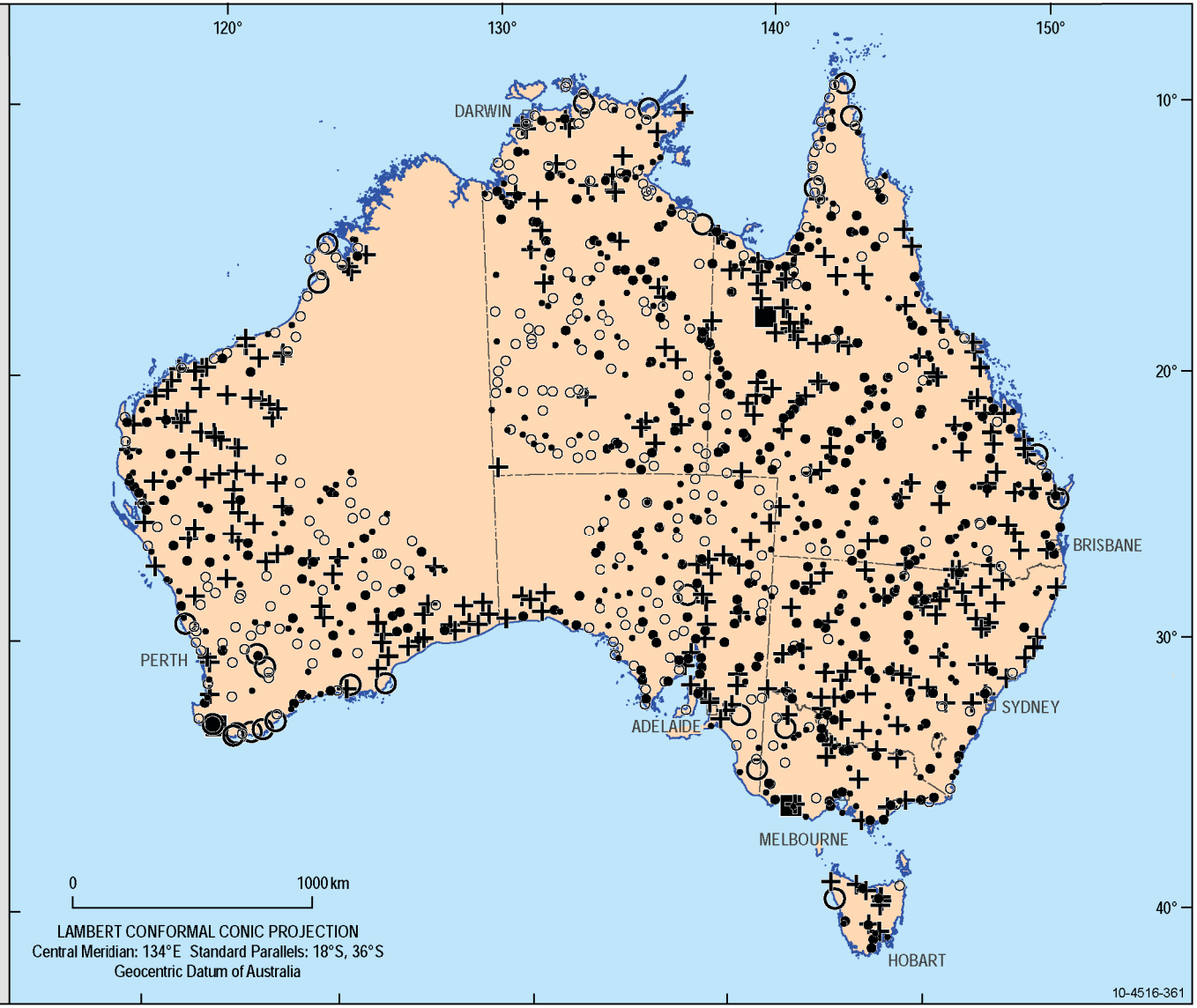
25%: *5.51 mg/kg*

Lower Fence: *0.93 mg/kg*

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Dy

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190

Maximum: *6.6 mg/kg*

Upper Fence: *N/A**

75%: *2.4 mg/kg*

Median: *1.6 mg/kg*

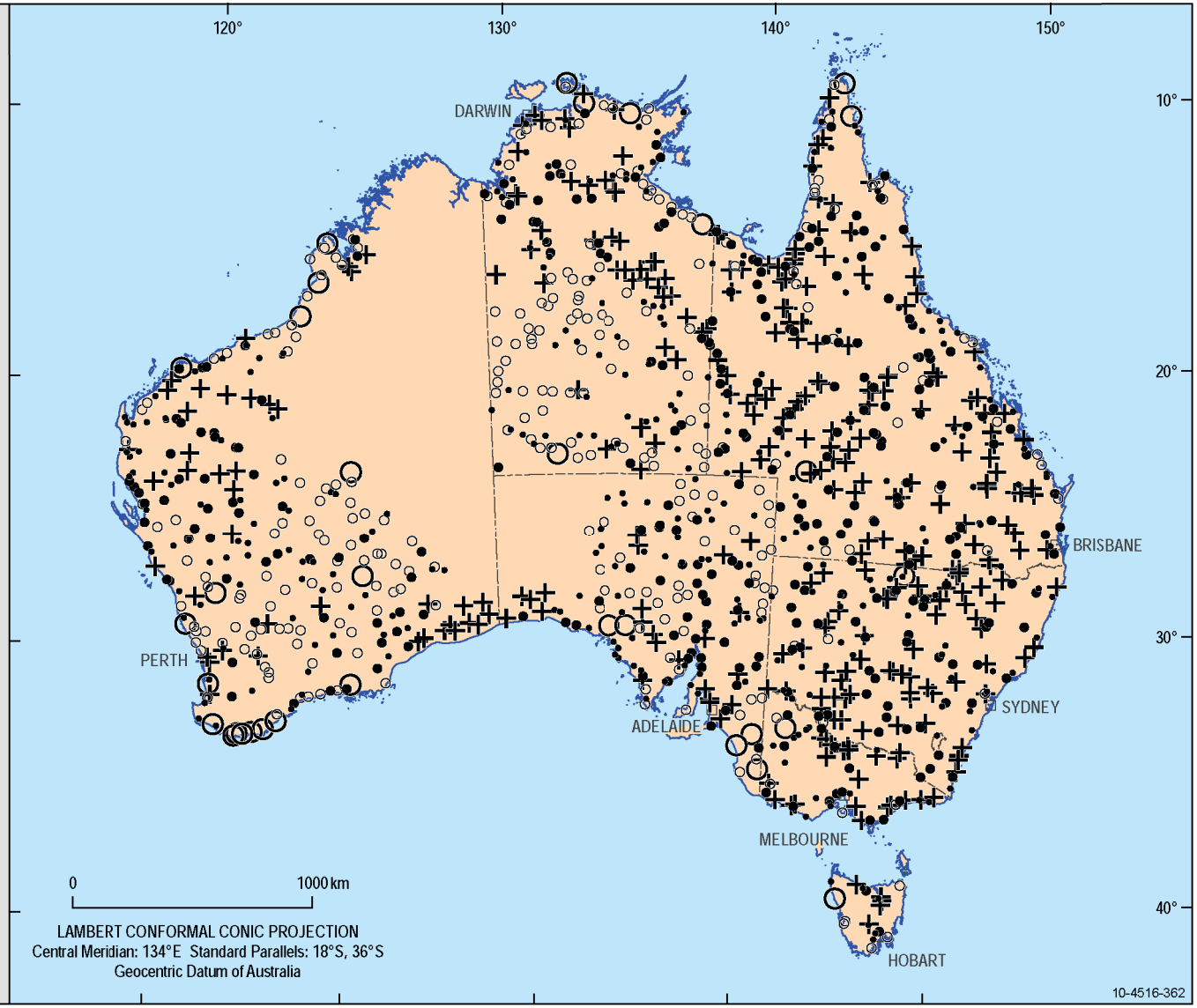
25%: *0.8 mg/kg*

Lower Fence: *0.2 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Er

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190

Maximum: *2.9 mg/kg*

Upper Fence: *N/A**

75%: *1.1 mg/kg*

Median: *0.7 mg/kg*

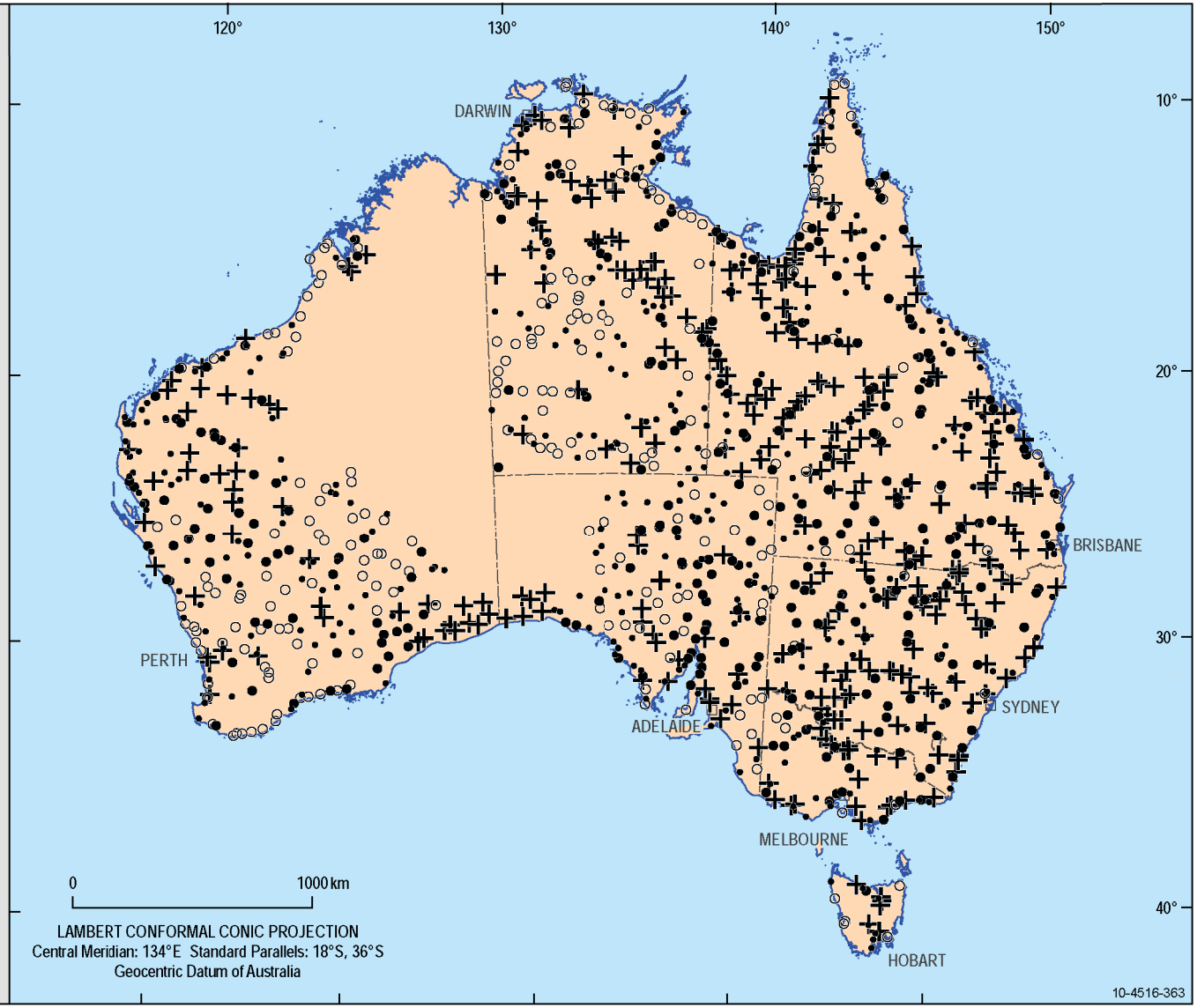
25%: *0.3 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Eu

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190

Maximum: *2.7 mg/kg*

Upper Fence: *N/A**

75%: *0.8 mg/kg*

Median: *0.5 mg/kg*

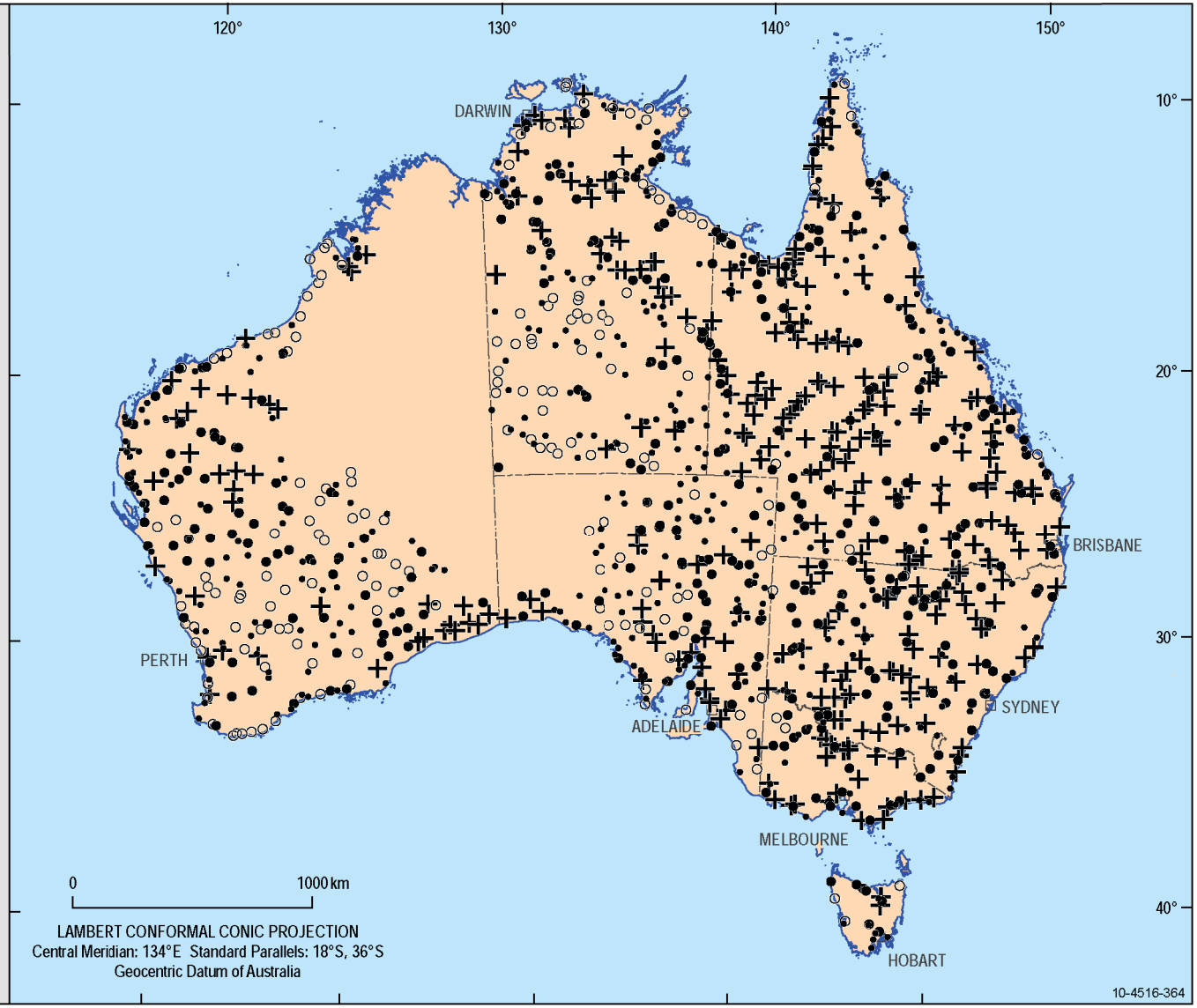
25%: *0.2 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Fe

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 100 mg/kg
N: 1190

Maximum: *202000 mg/kg*

Upper Fence: *109906 mg/kg*

75%: *25800 mg/kg*

Median: *16500 mg/kg*

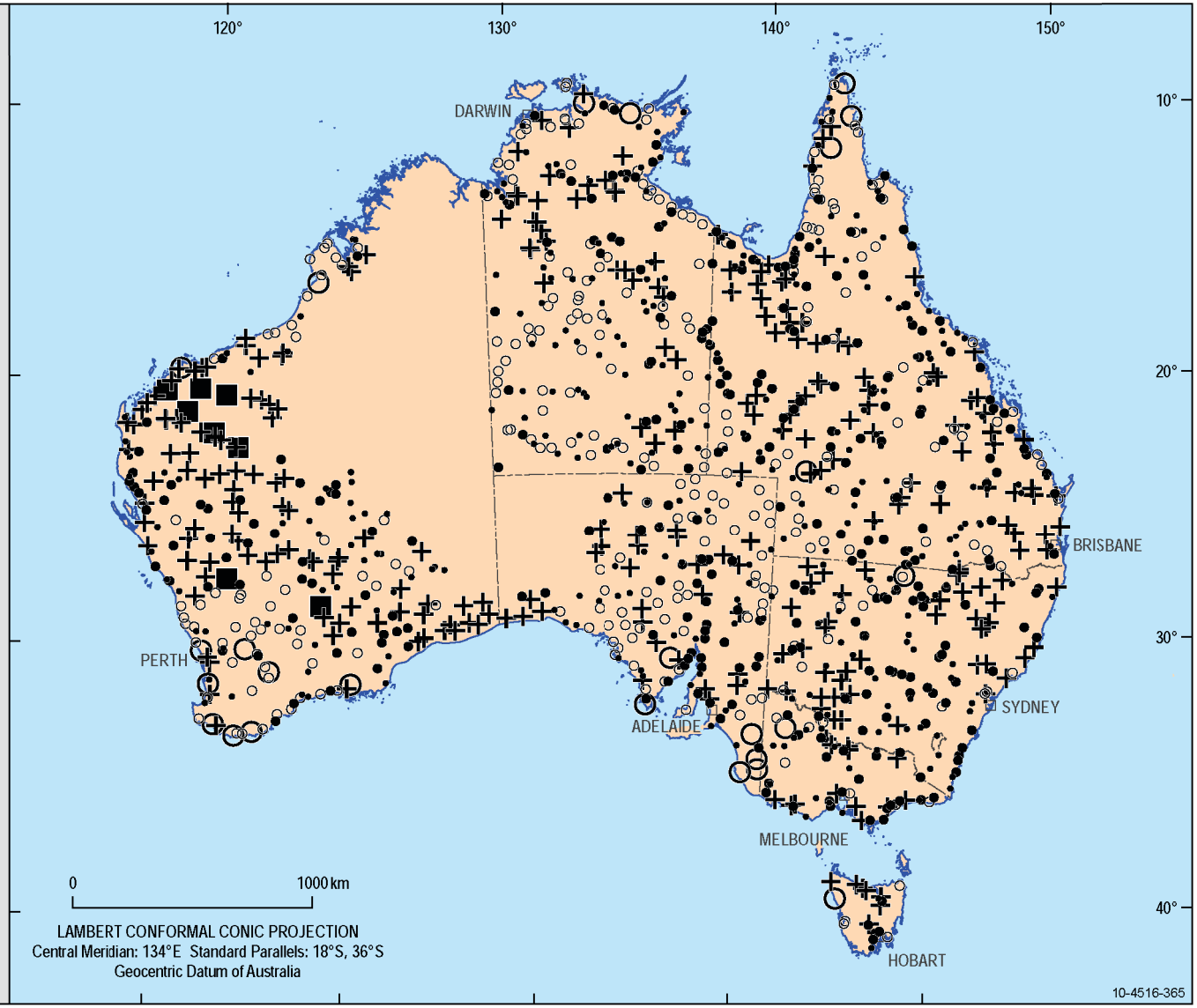
25%: *9400 mg/kg*

Lower Fence: *2031 mg/kg*

Minimum: *Less than 100 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ga

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1190

Maximum: *22.6 mg/kg*

Upper Fence: *N/A**

75%: *5.93 mg/kg*

Median: *3.52 mg/kg*

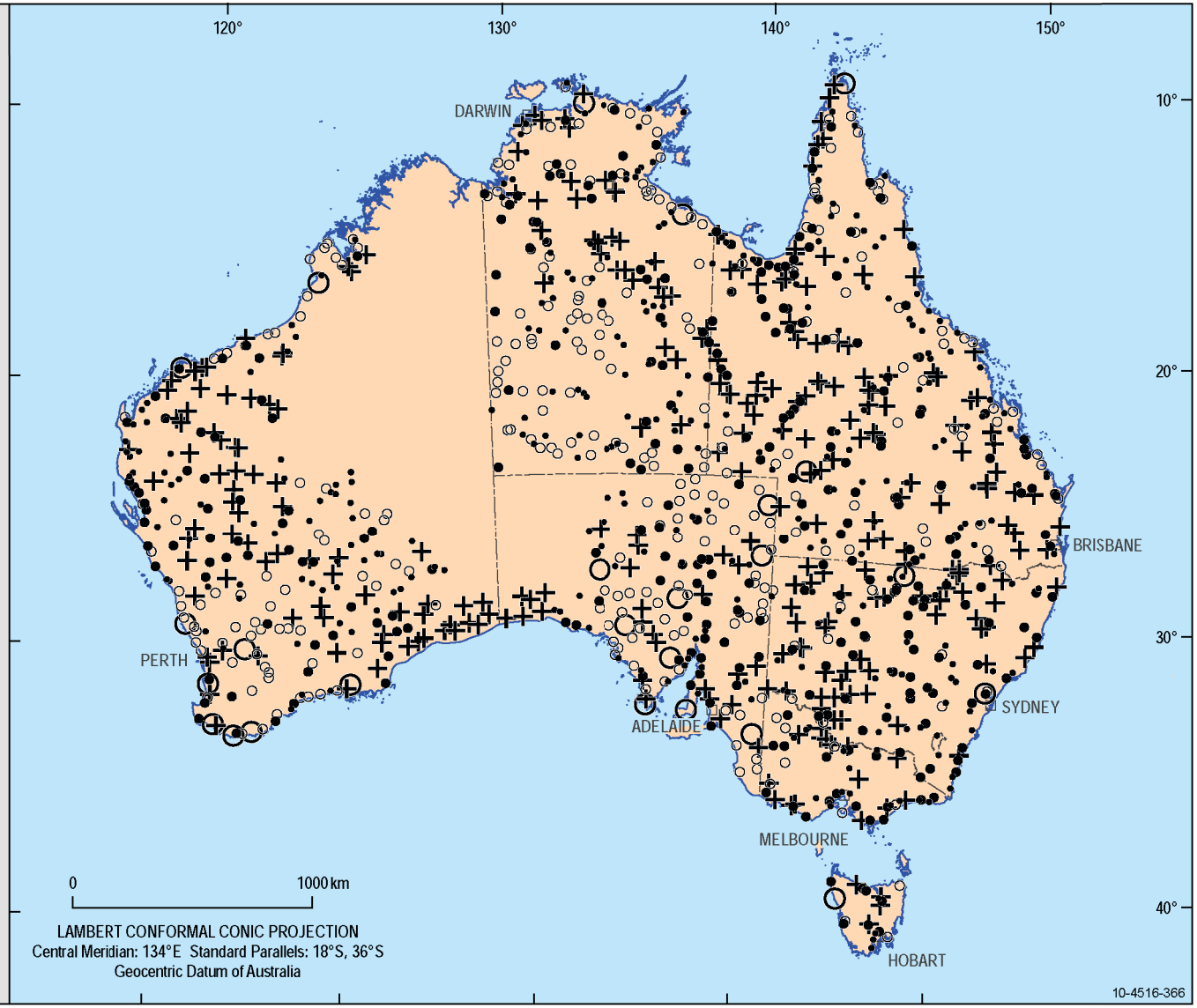
25%: *1.98 mg/kg*

Lower Fence: *0.38 mg/kg*

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Gd

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190

Maximum: *9.1 mg/kg*

Upper Fence: *N/A**

75%: *3.4 mg/kg*

Median: *2.2 mg/kg*

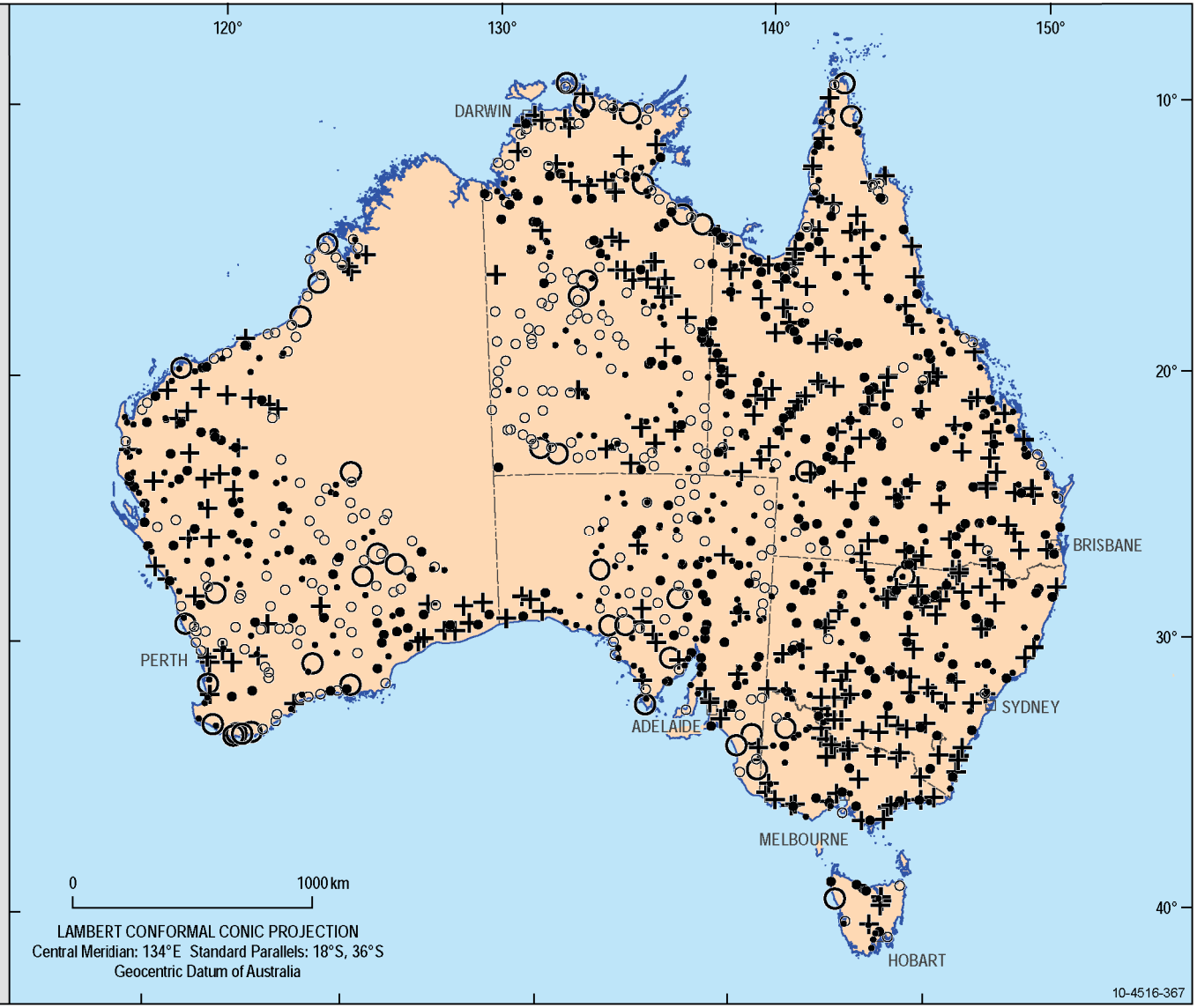
25%: *1.1 mg/kg*

Lower Fence: *0.2 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ge

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190

Maximum: *0.4 mg/kg*

Upper Fence: *Less than 0.1 mg/kg*

75%: *N/A**

Median: *N/A**

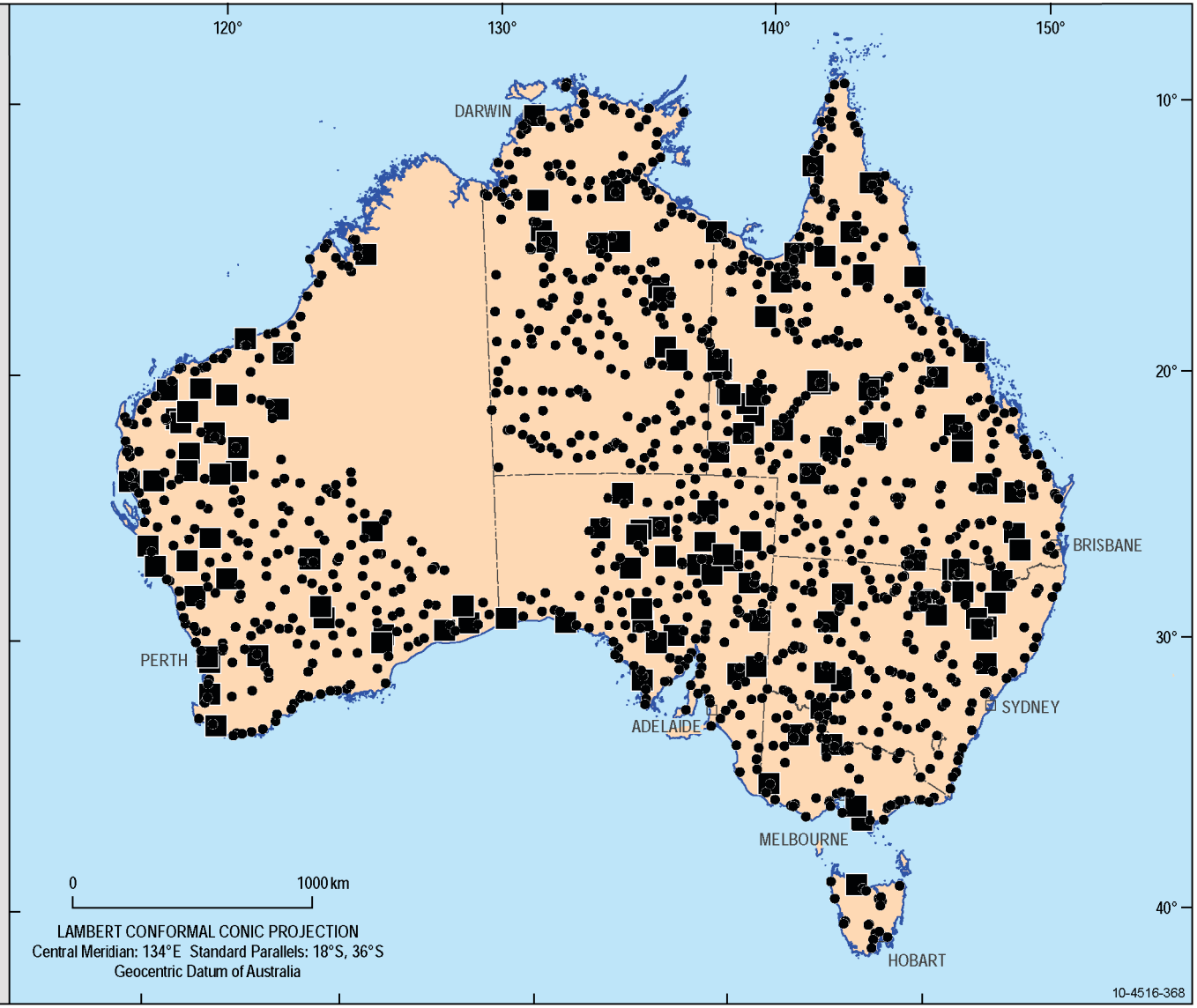
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Hf

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190

Maximum: *1.1 mg/kg*

Upper Fence: *0.3 mg/kg*

75%: *0.1 mg/kg*

Median: *N/A**

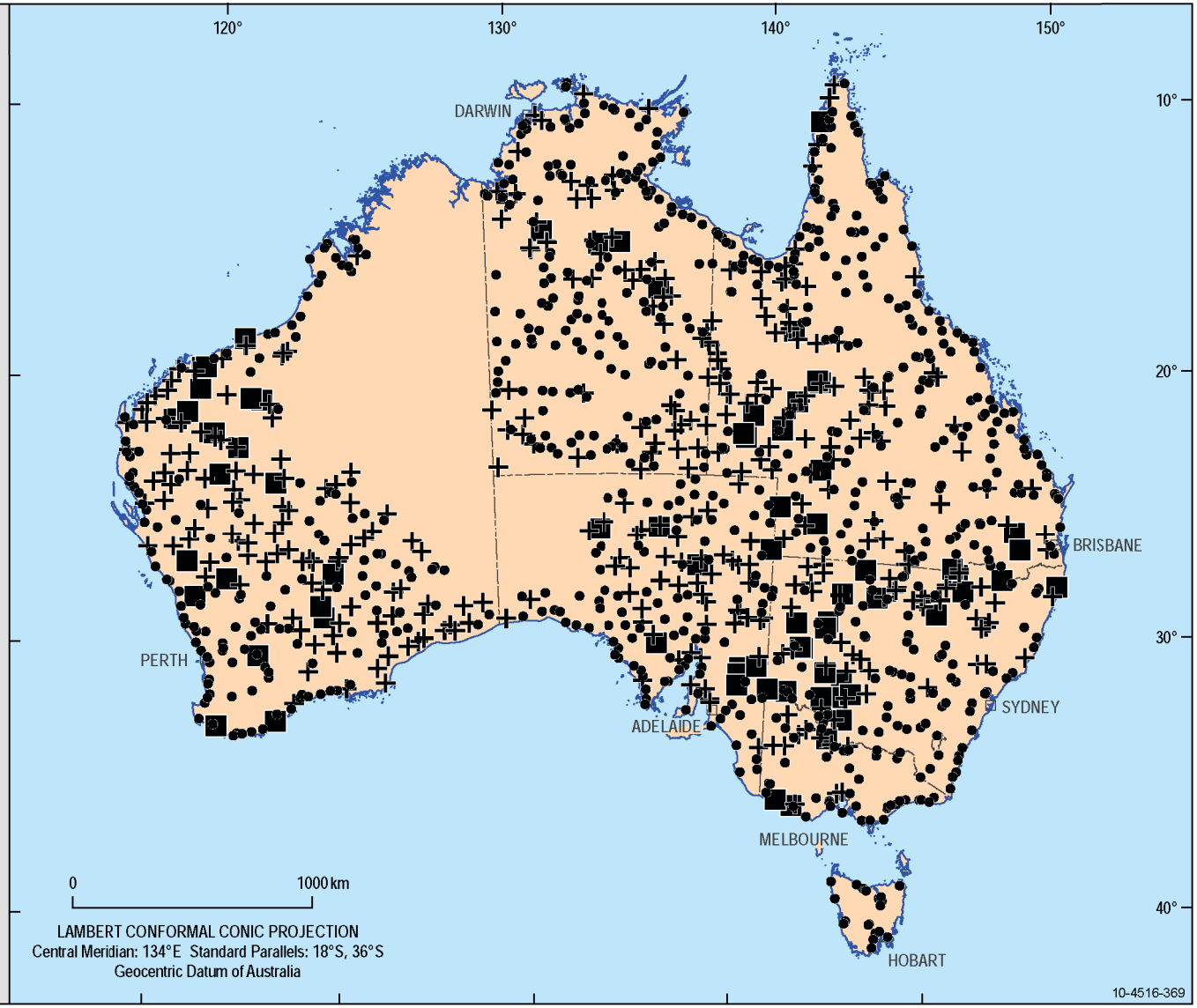
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Hg

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1190

Maximum: *3.07 mg/kg*

Upper Fence: *0.16 mg/kg*

75%: *0.02 mg/kg*

Median: *0.01 mg/kg*

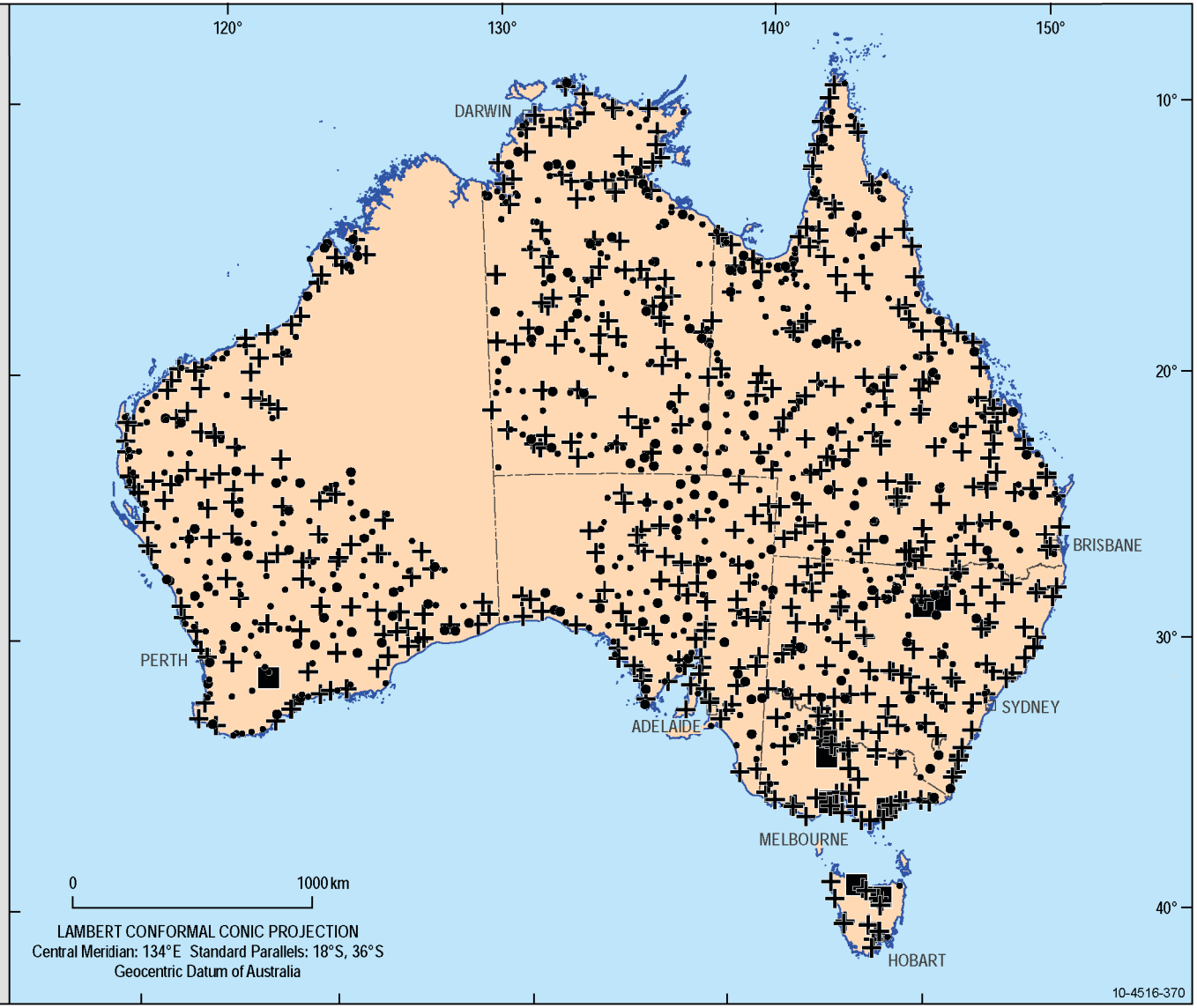
25%: *N/A**

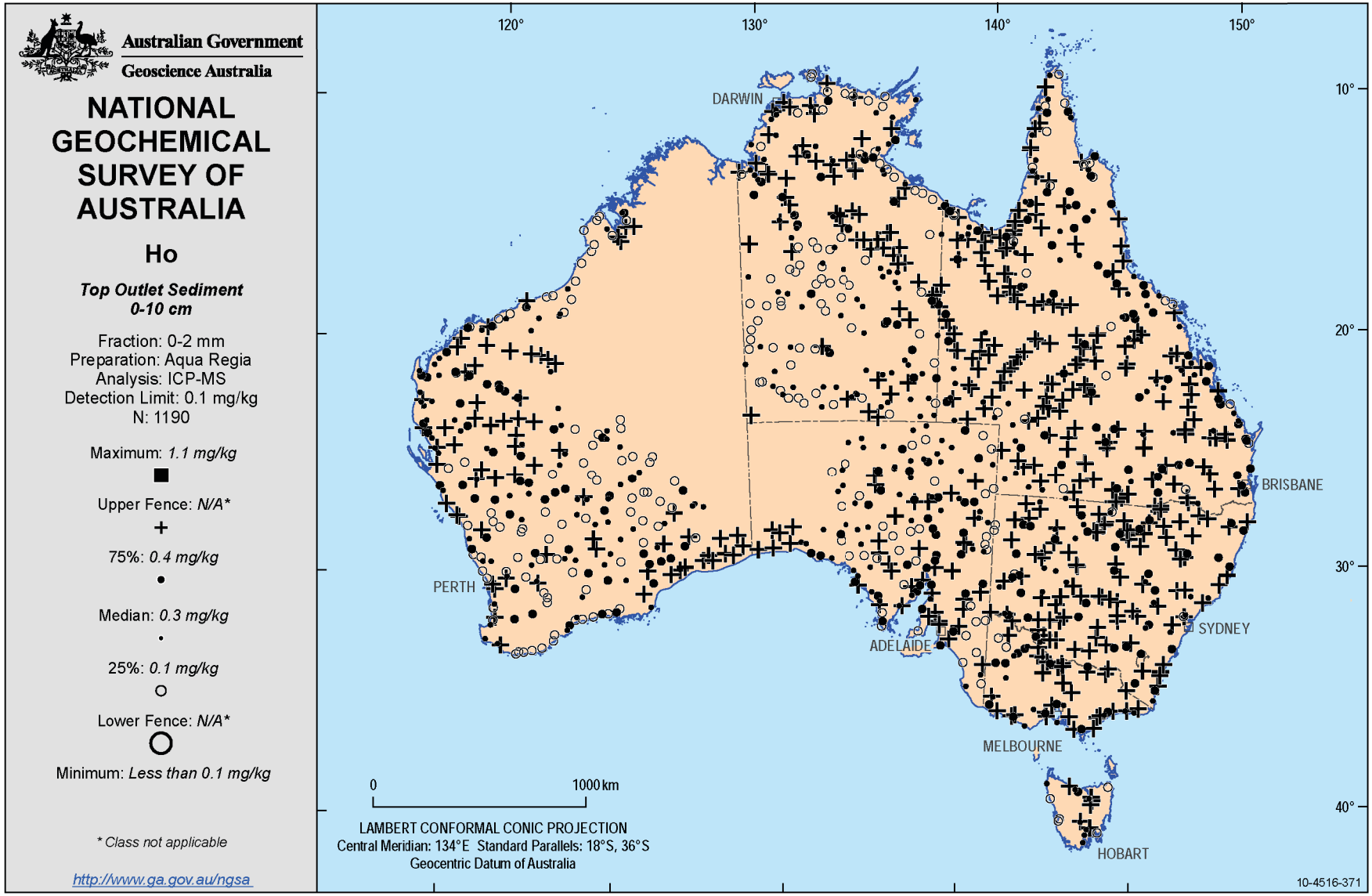
Lower Fence: *N/A**

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Ho
Top Outlet Sediment
0-10 cm
Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190
Maximum: 1.1 mg/kg
Upper Fence: N/A*
75%: 0.4 mg/kg
Median: 0.3 mg/kg
25%: 0.1 mg/kg
Lower Fence: N/A*
Minimum: Less than 0.1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
MELBOURNE
SYDNEY
BRISBANE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-371

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

In

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1190

Maximum: *0.65 mg/kg*

Upper Fence: *0.16 mg/kg*

75%: *0.03 mg/kg*

Median: *N/A**

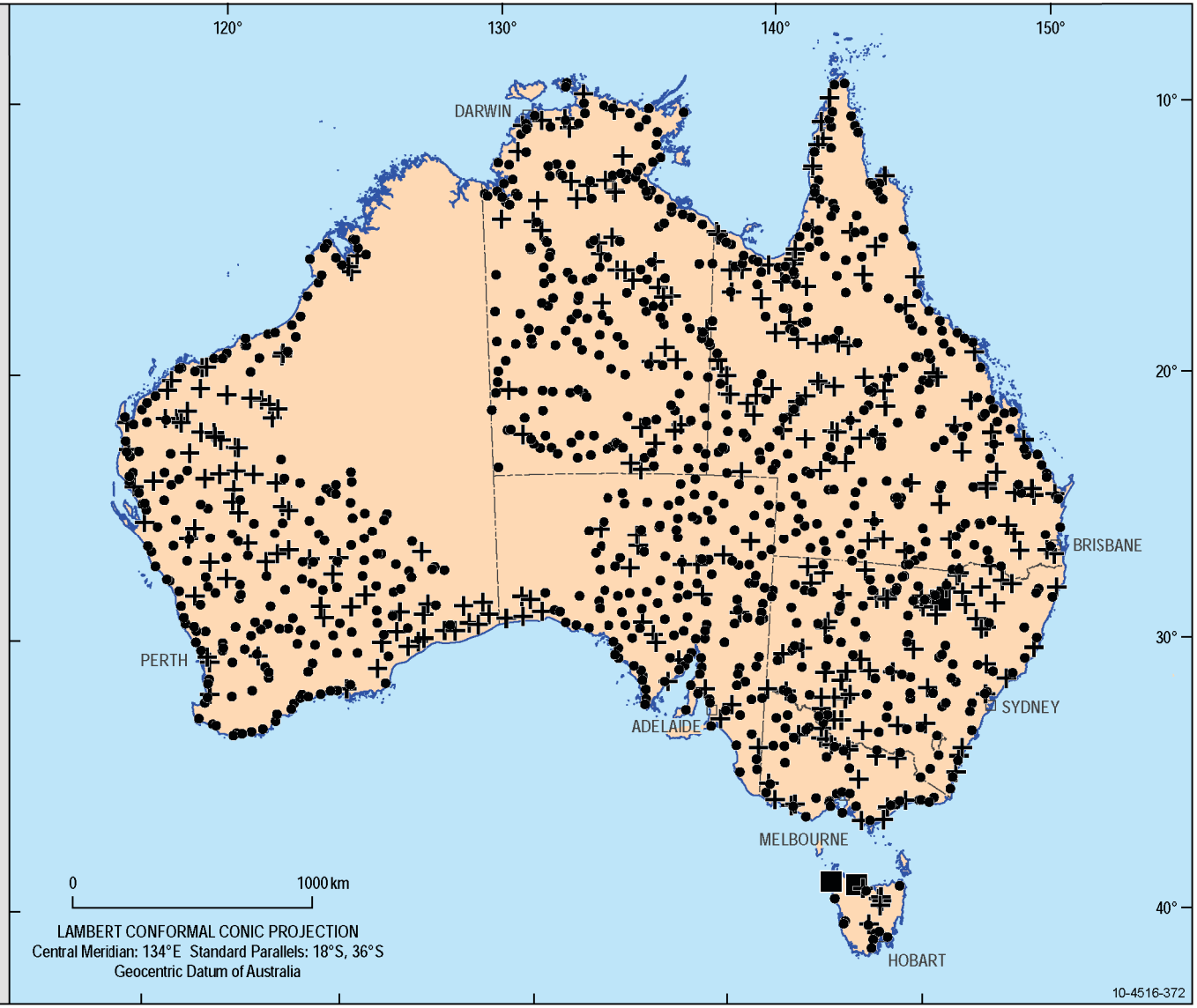
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

K

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 100 mg/kg
N: 1190

Maximum: *31200 mg/kg*

Upper Fence: *23249 mg/kg*

75%: *3100 mg/kg*

Median: *1600 mg/kg*

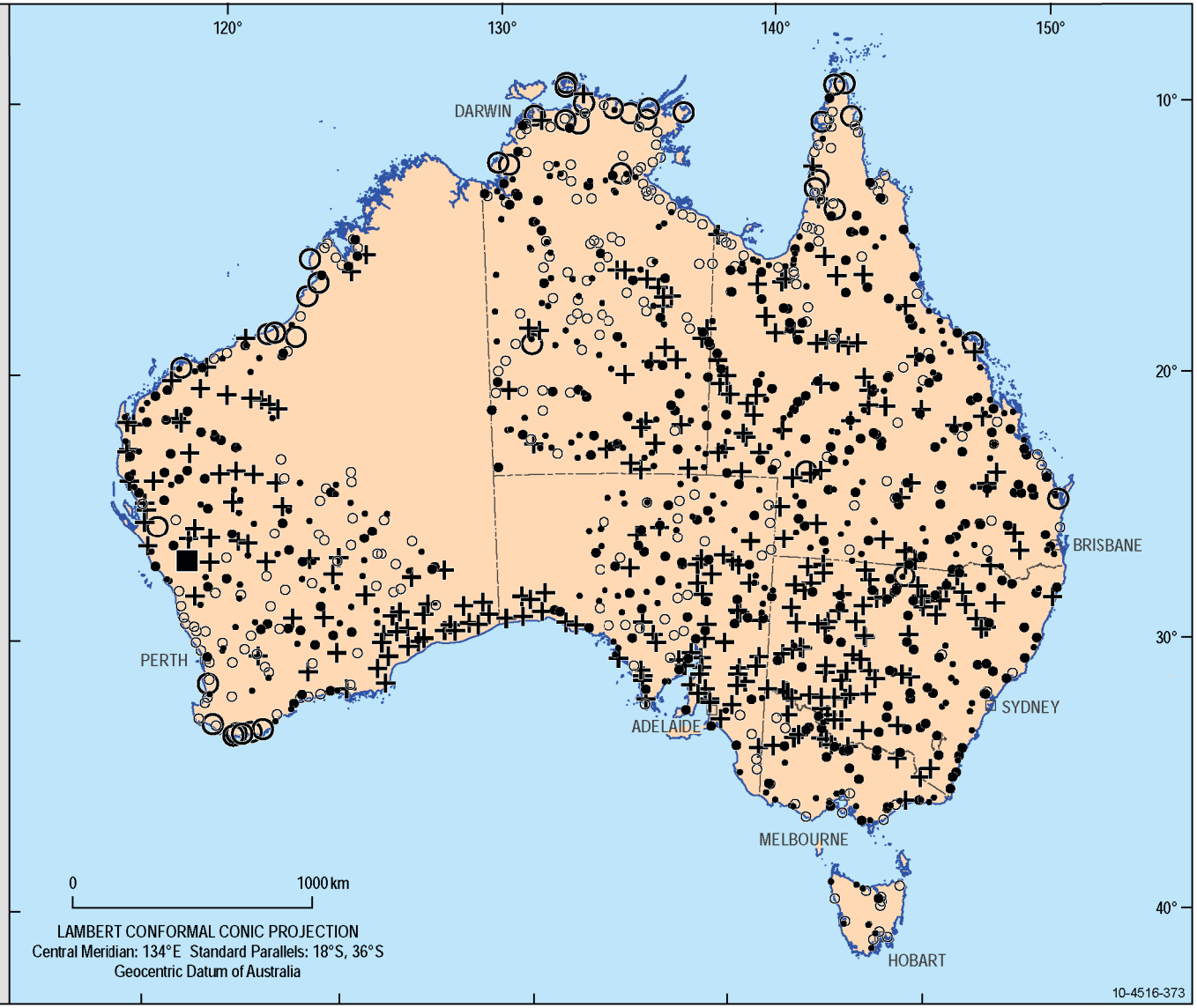
25%: *800 mg/kg*

Lower Fence: *105 mg/kg*

Minimum: *Less than 100 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

La

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.5 mg/kg
N: 1190

Maximum: *112 mg/kg*

Upper Fence: *100.9 mg/kg*

75%: *20.7 mg/kg*

Median: *13.8 mg/kg*

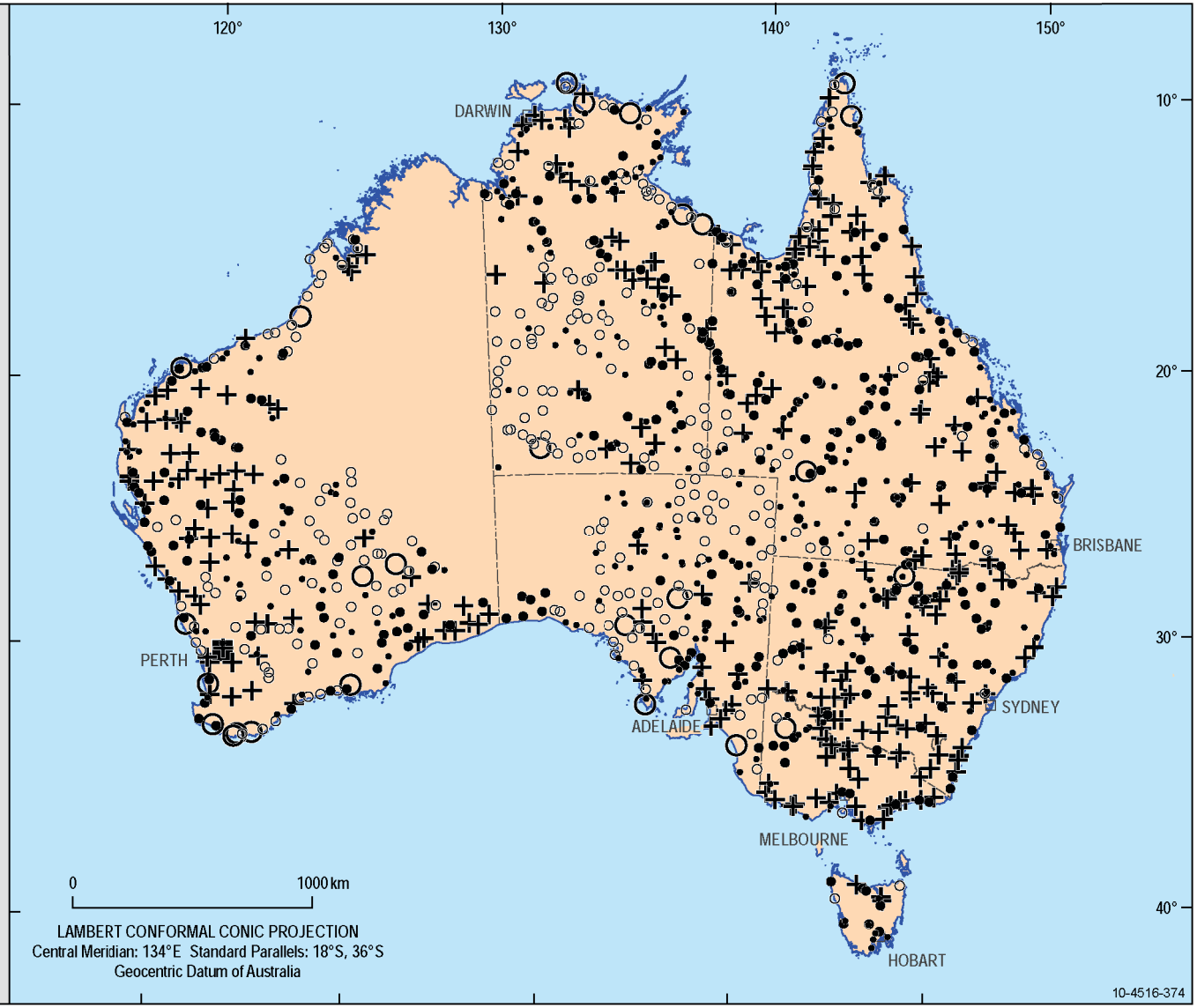
25%: *7.2 mg/kg*

Lower Fence: *1.5 mg/kg*

Minimum: *Less than 0.5 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Li

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190

Maximum: *67.4 mg/kg*

Upper Fence: *N/A**

75%: *10.4 mg/kg*

Median: *5.7 mg/kg*

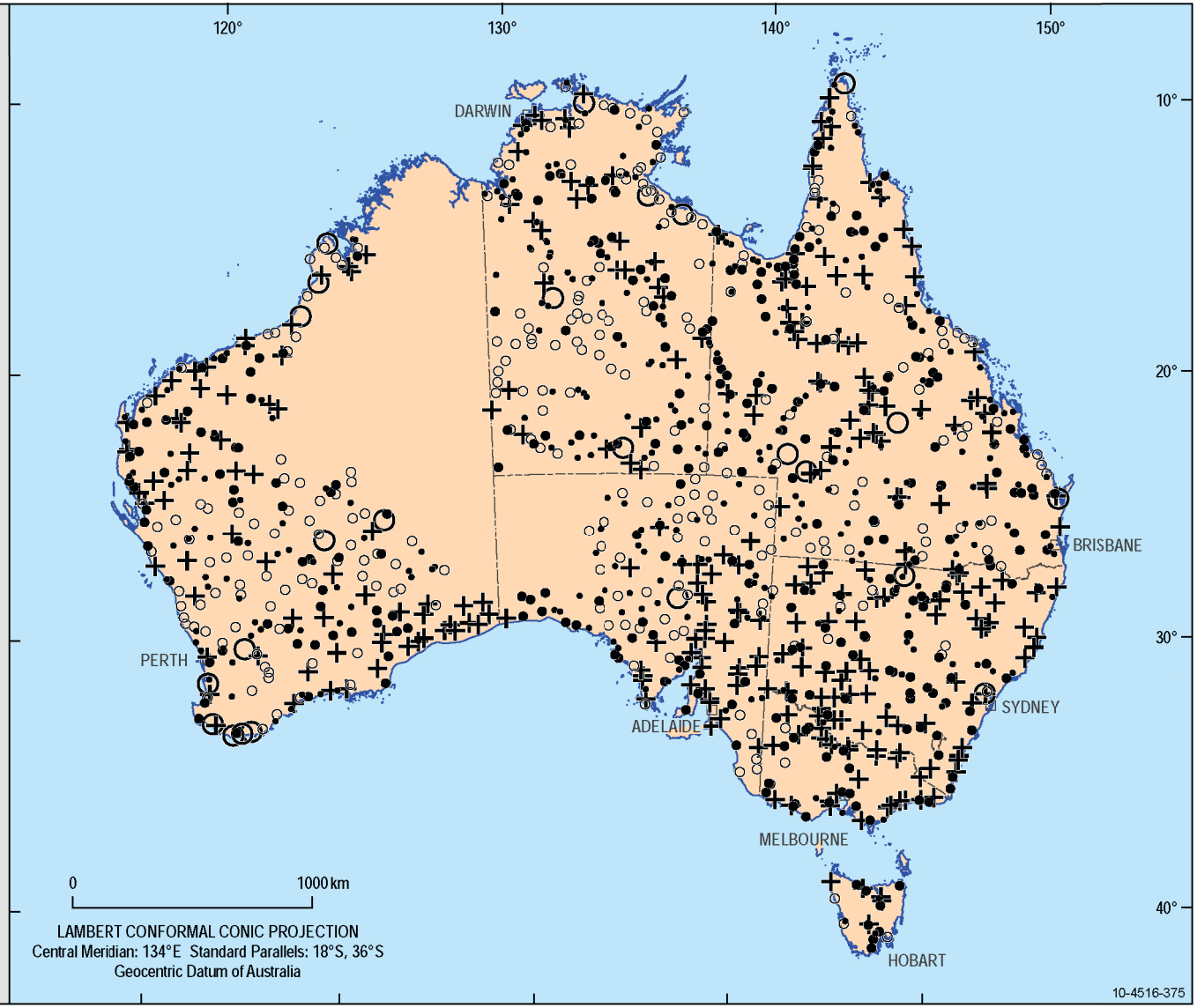
25%: *2.8 mg/kg*

Lower Fence: *0.4 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Lu

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190

Maximum: *0.9 mg/kg*

Upper Fence: *0.3 mg/kg*

75%: *0.1 mg/kg*

Median: *N/A**

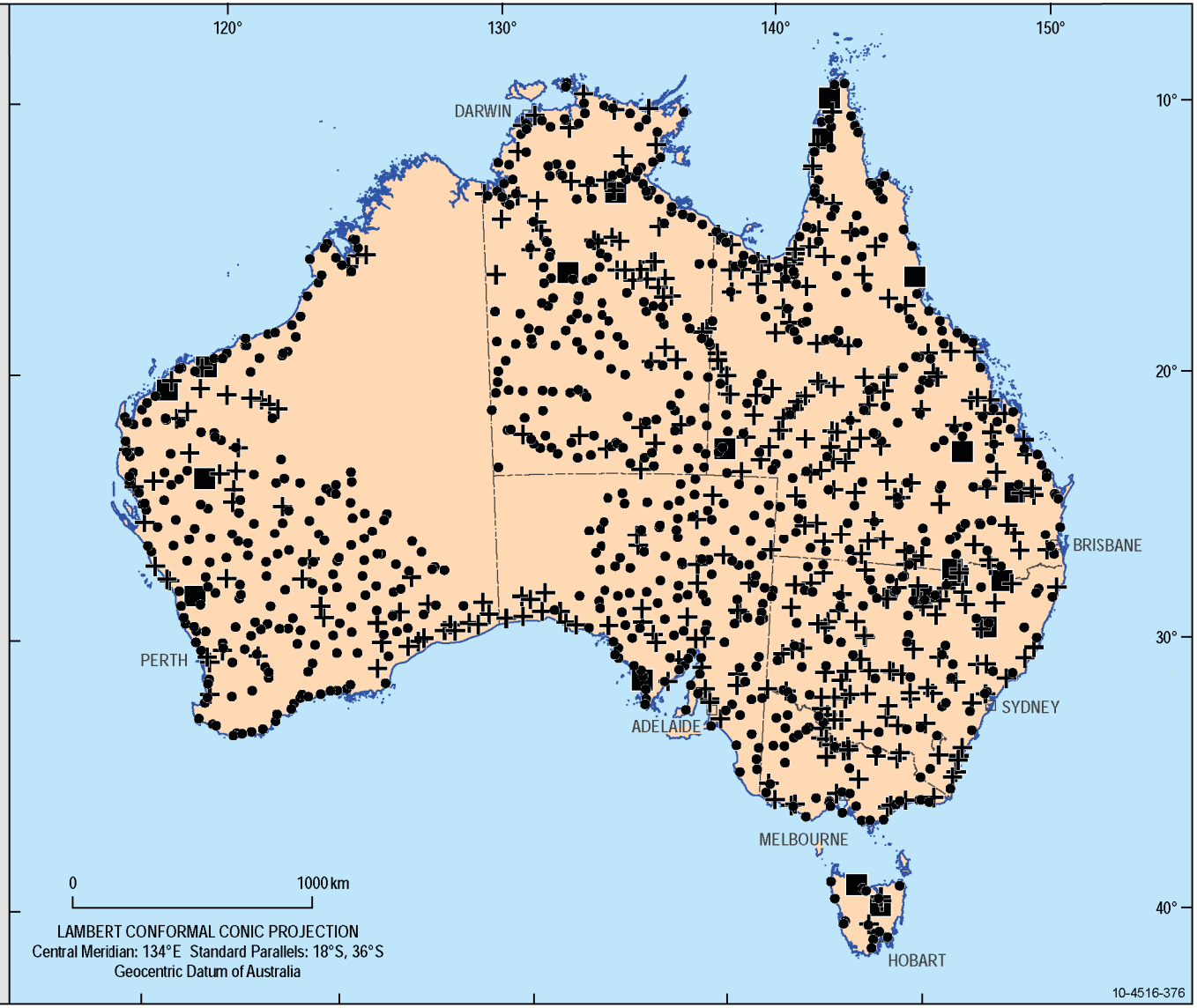
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Mg

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 100 mg/kg
N: 1190

Maximum: *33700 mg/kg*

Upper Fence: *N/A**

75%: *3600 mg/kg*

Median: *1700 mg/kg*

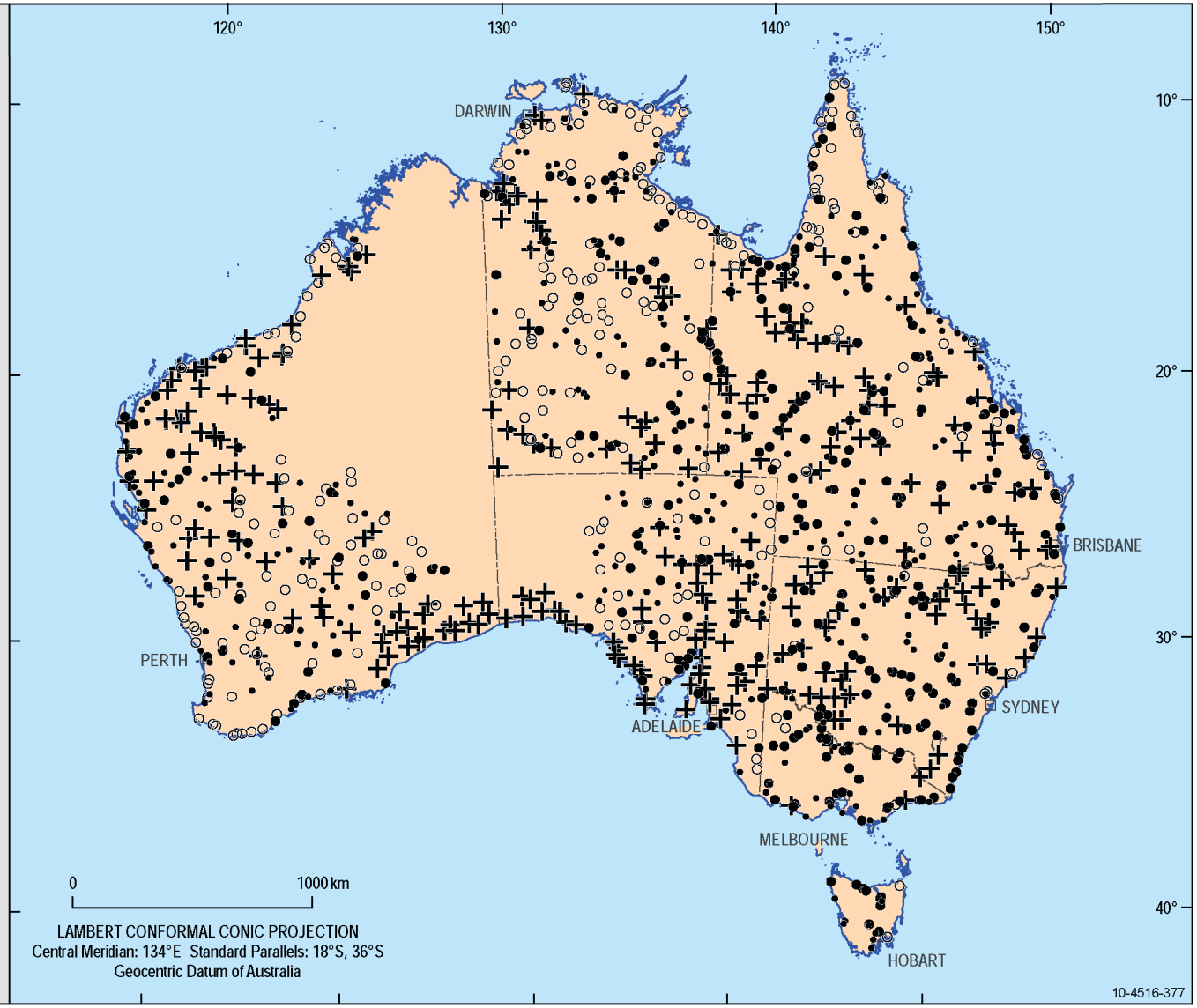
25%: *600 mg/kg*

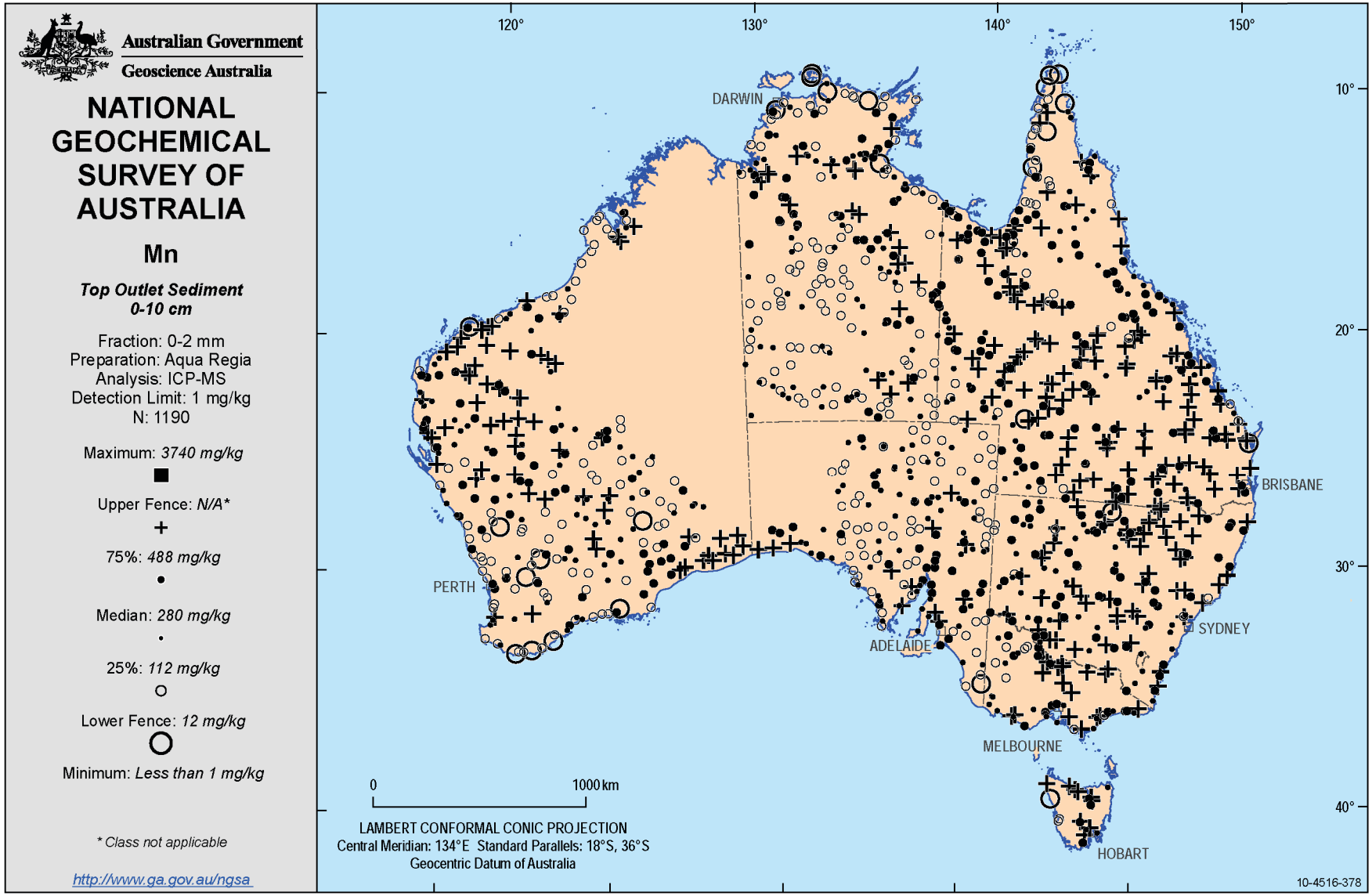
Lower Fence: *N/A**

Minimum: *Less than 100 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Mn
Top Outlet Sediment
0-10 cm
Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 1 mg/kg
N: 1190
Maximum: 3740 mg/kg
Upper Fence: N/A*
75%: 488 mg/kg
Median: 280 mg/kg
25%: 112 mg/kg
Lower Fence: 12 mg/kg
Minimum: Less than 1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
MELBOURNE
SYDNEY
BRISBANE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-378

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Mo

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1190

Maximum: *18.2 mg/kg*

Upper Fence: *1.99 mg/kg*

75%: *0.35 mg/kg*

Median: *0.2 mg/kg*

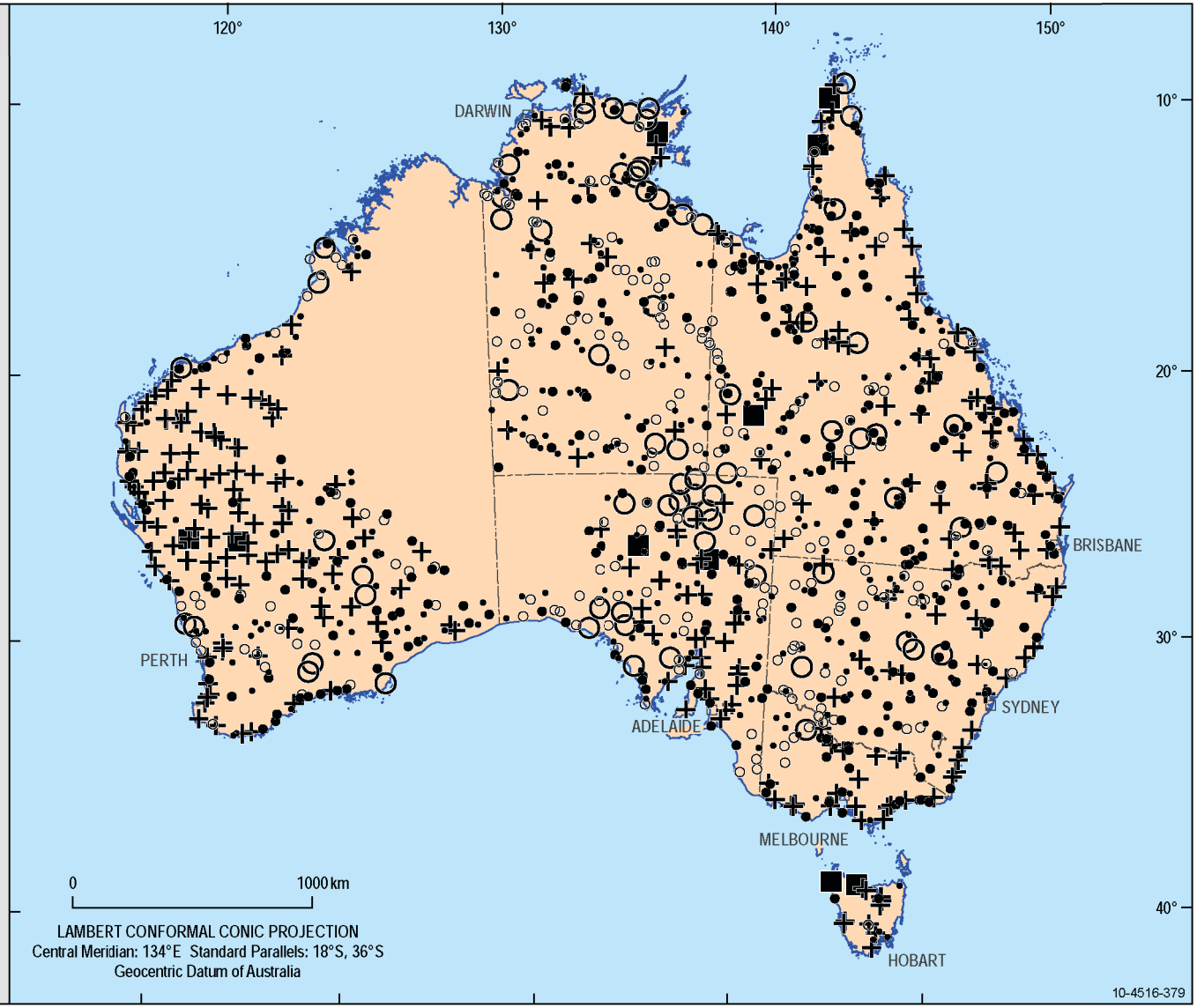
25%: *0.11 mg/kg*

Lower Fence: *0.02 mg/kg*

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Na

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 10 mg/kg
N: 1190

Maximum: *32500 mg/kg*

Upper Fence: *3427 mg/kg*

75%: *360 mg/kg*

Median: *180 mg/kg*

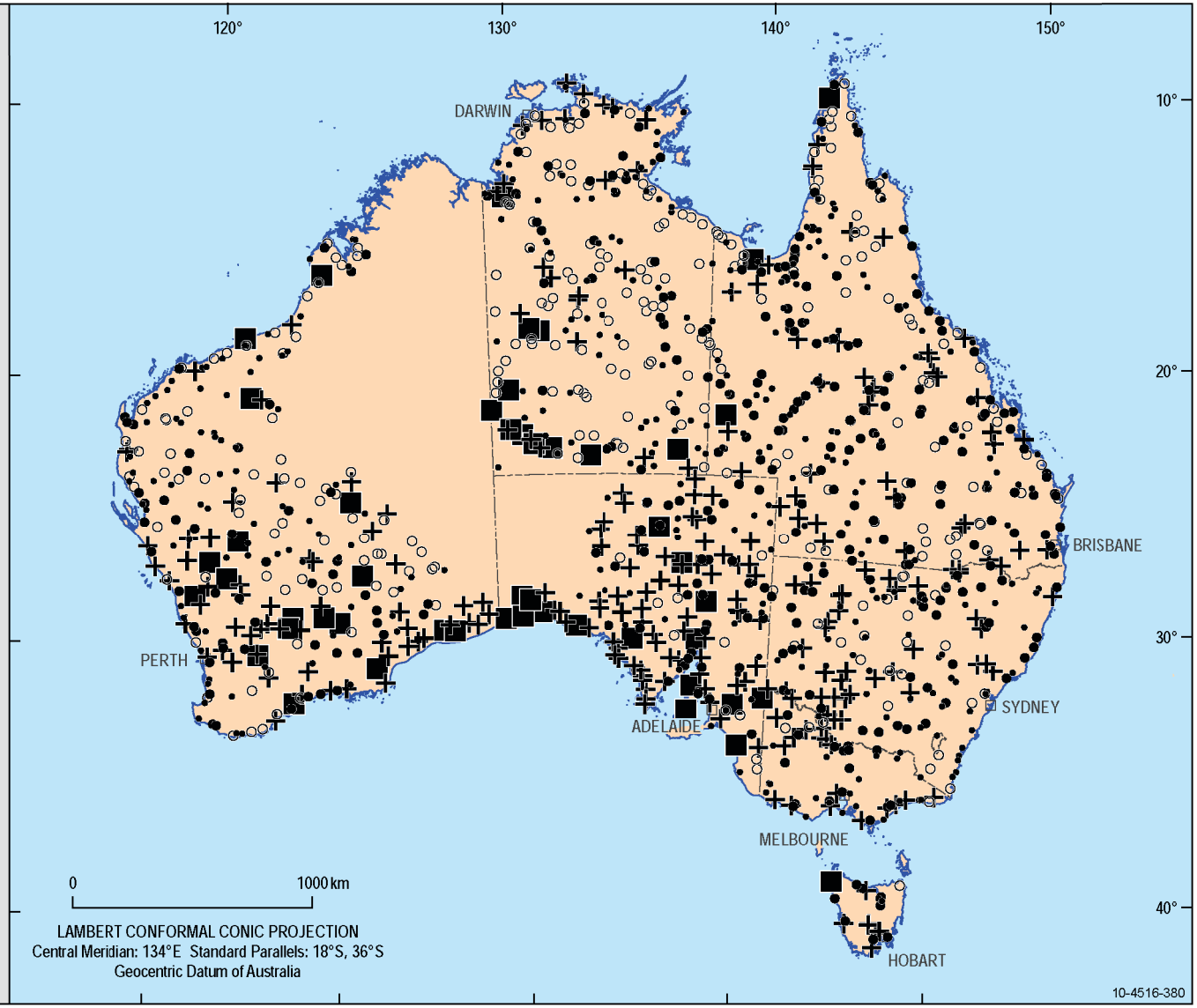
25%: *80 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 10 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Nb

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190

Maximum: *15.1 mg/kg*

Upper Fence: *4.4 mg/kg*

75%: *0.3 mg/kg*

Median: *0.2 mg/kg*

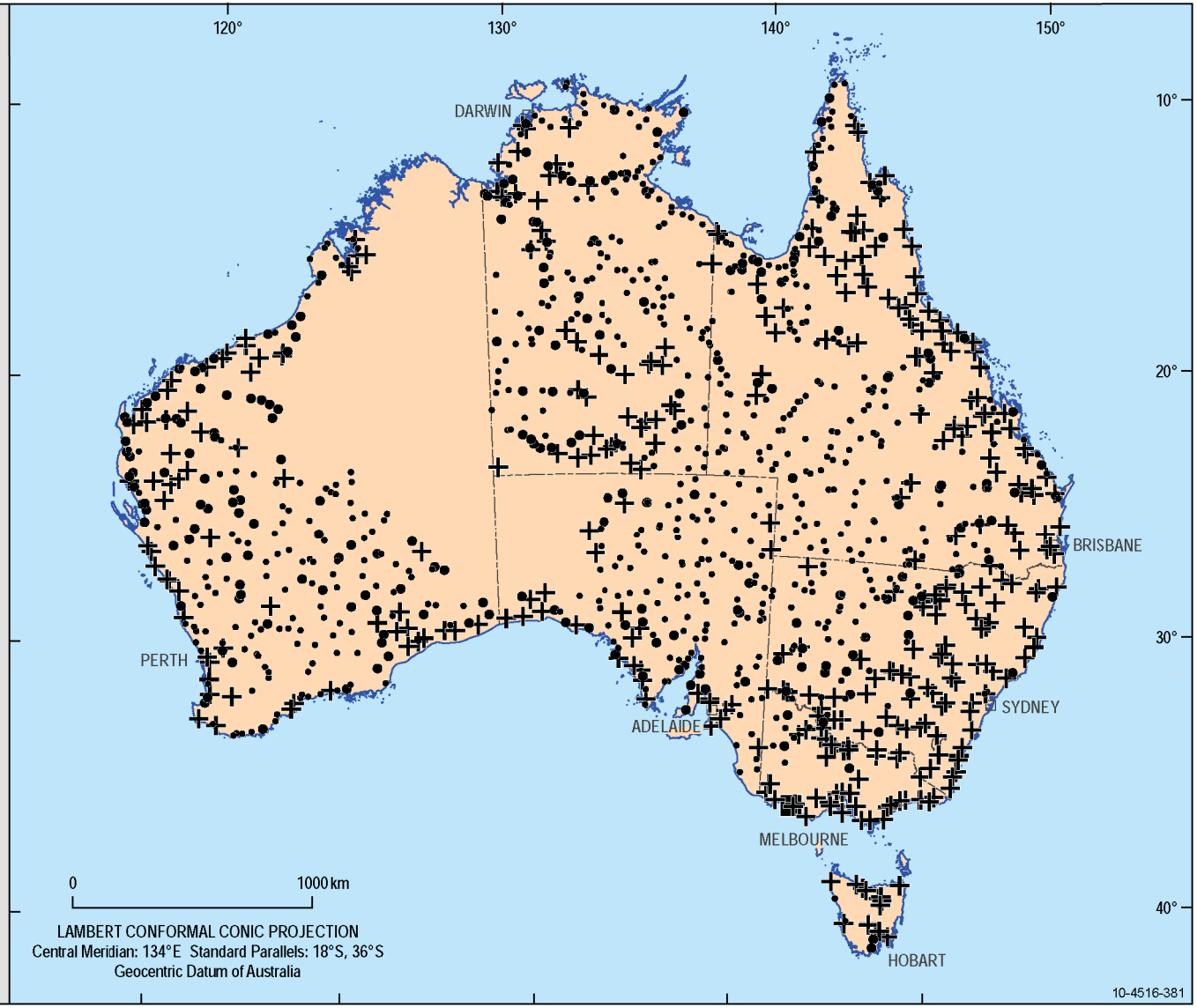
25%: *N/A**

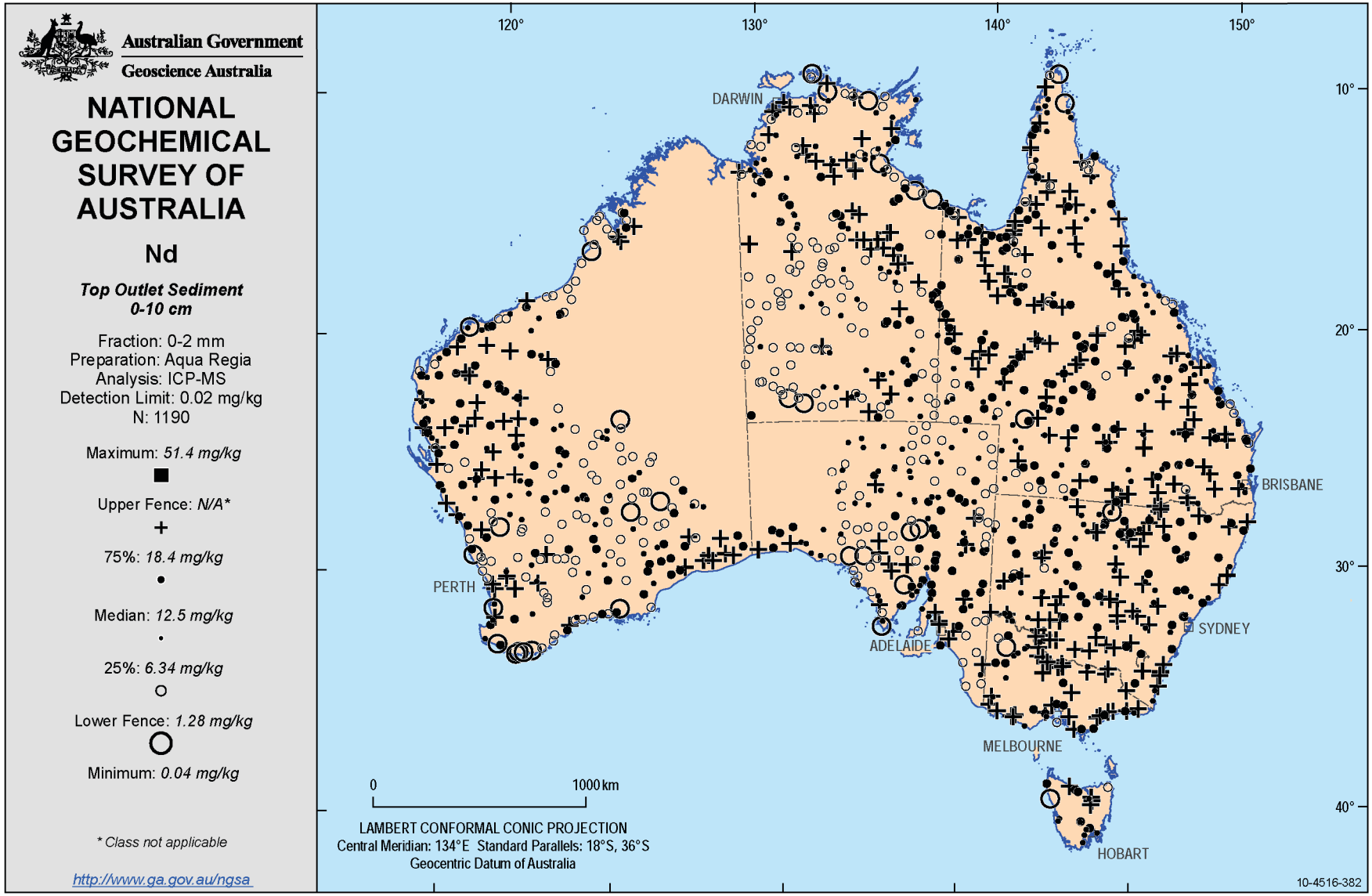
Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Nd
Top Outlet Sediment
0-10 cm
Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1190
Maximum: 51.4 mg/kg
Upper Fence: N/A*
75%: 18.4 mg/kg
Median: 12.5 mg/kg
25%: 6.34 mg/kg
Lower Fence: 1.28 mg/kg
Minimum: 0.04 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
BRISBANE
SYDNEY
MELBOURNE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-382

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ni

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190

Maximum: *387 mg/kg*

Upper Fence: *115.5 mg/kg*

75%: *16.7 mg/kg*

Median: *9.8 mg/kg*

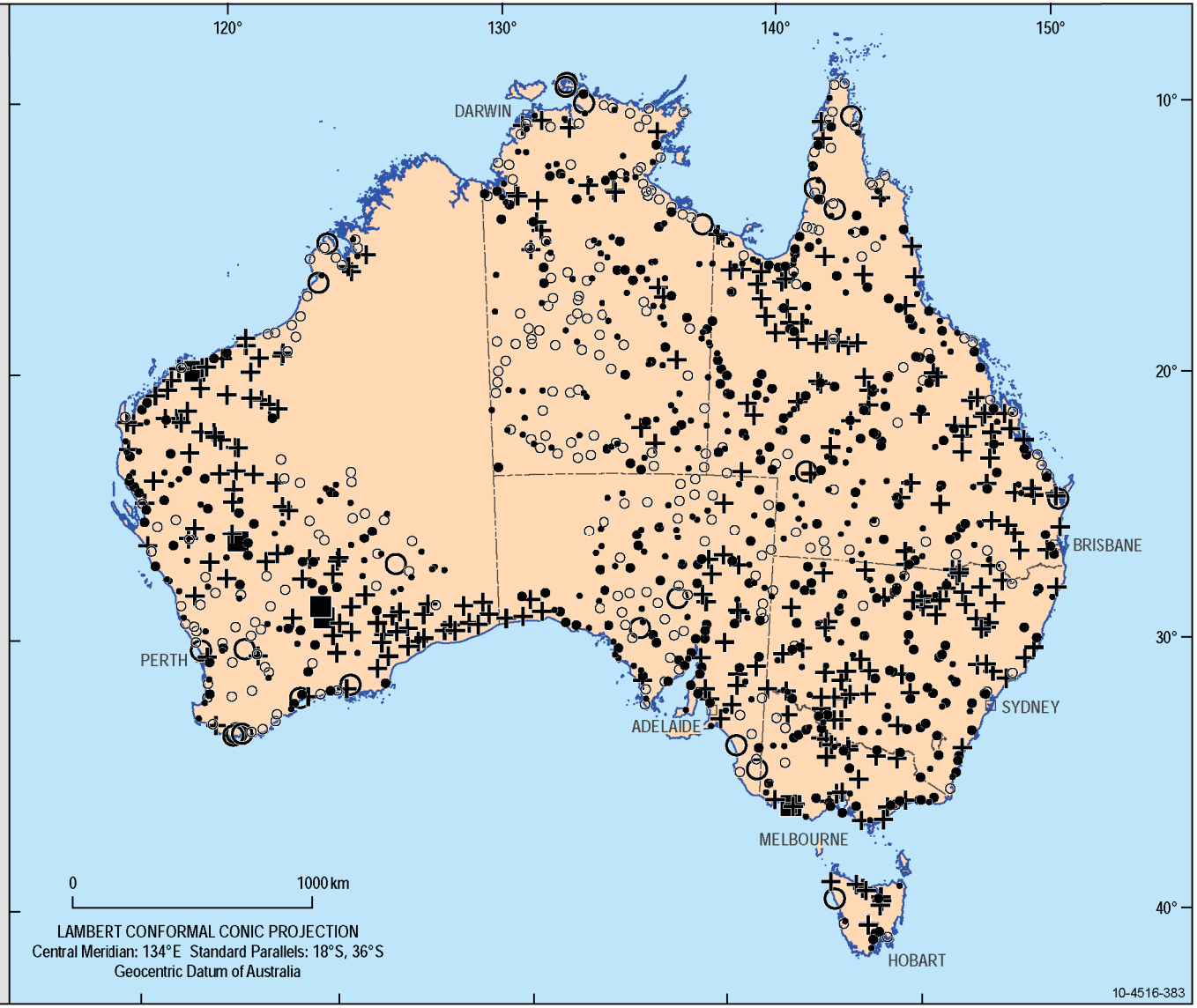
25%: *4.6 mg/kg*

Lower Fence: *0.7 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Pb

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1190

Maximum: *1090 mg/kg*

Upper Fence: *52.87 mg/kg*

75%: *11.2 mg/kg*

Median: *7.26 mg/kg*

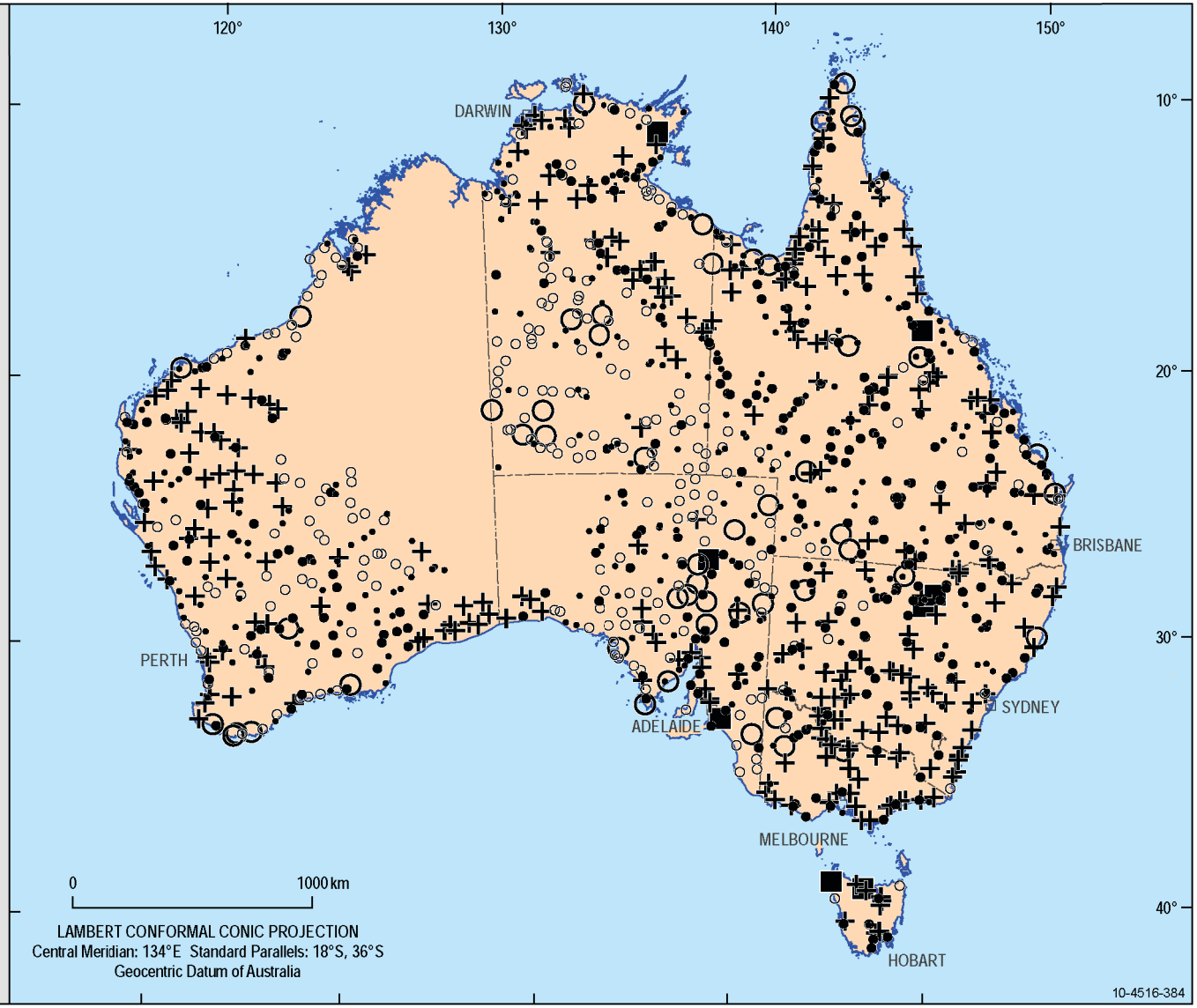
25%: *3.98 mg/kg*

Lower Fence: *0.84 mg/kg*

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Pr

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190

Maximum: *14.5 mg/kg*

Upper Fence: *N/A**

75%: *4.8 mg/kg*

Median: *3.3 mg/kg*

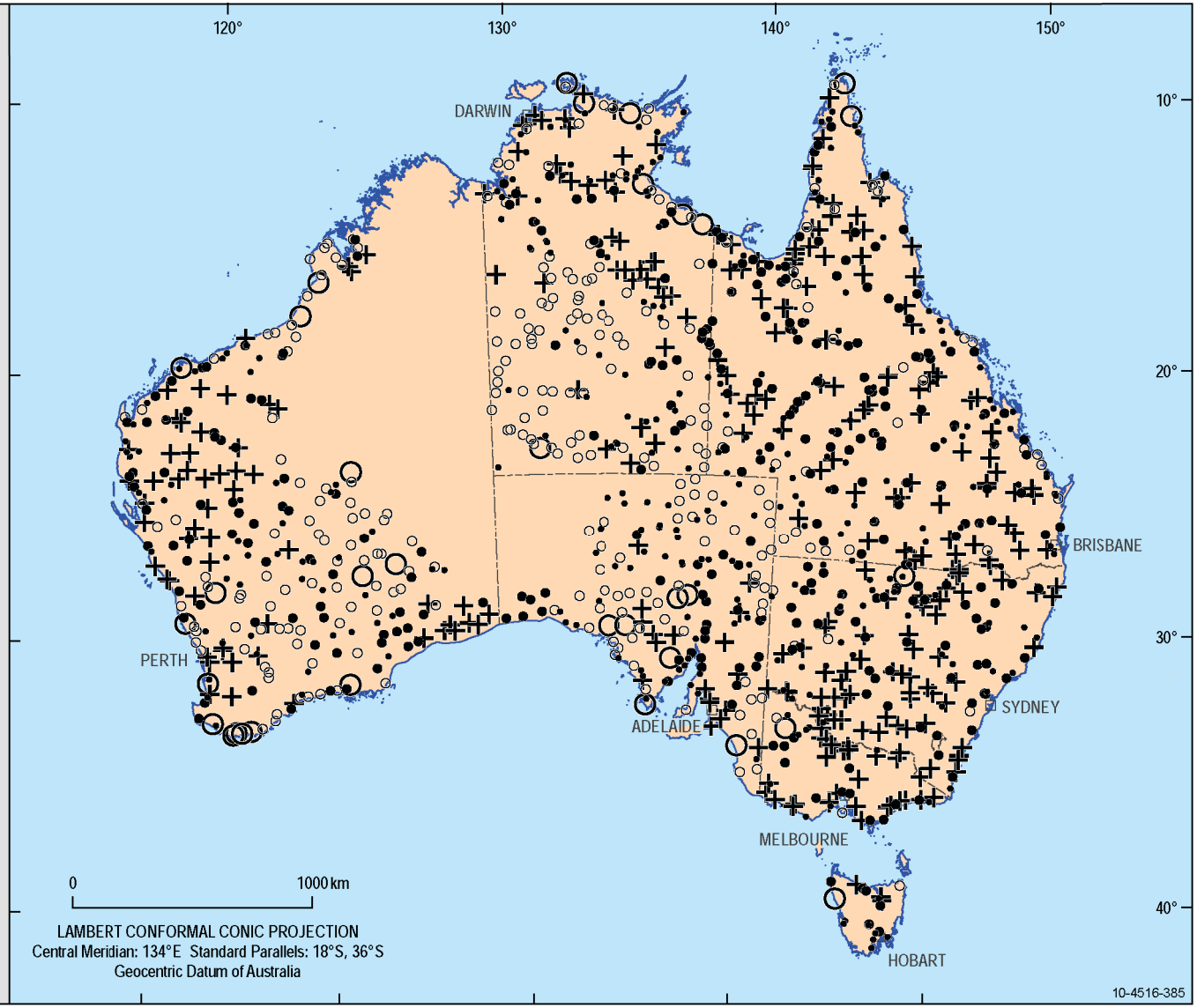
25%: *1.7 mg/kg*

Lower Fence: *0.4 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Rb

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190

Maximum: *96.4 mg/kg*

Upper Fence: *N/A**

75%: *21.1 mg/kg*

Median: *12.6 mg/kg*

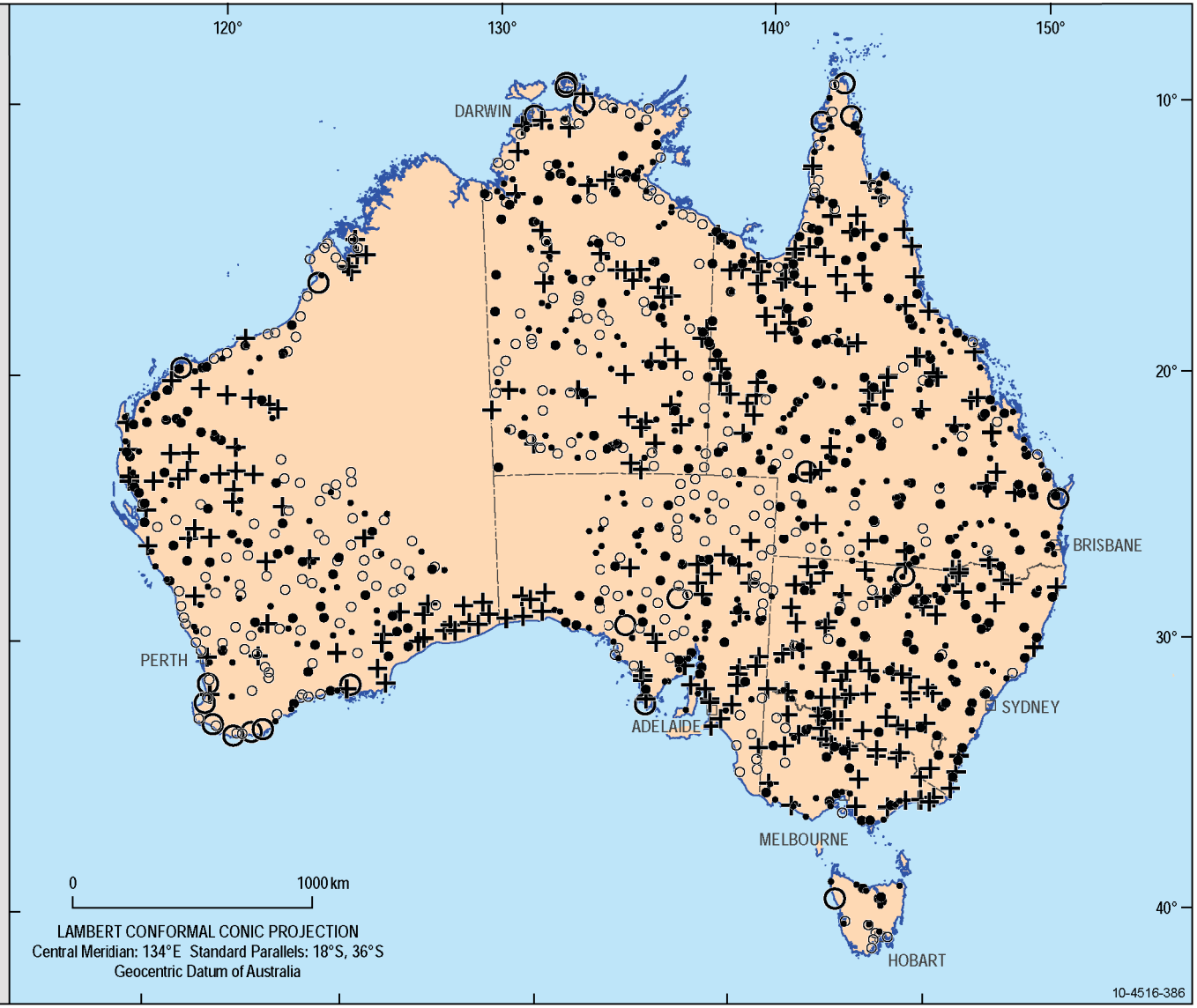
25%: *6.6 mg/kg*

Lower Fence: *1.2 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Re

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1190

Maximum: *0.06 mg/kg*

Upper Fence: *0.016 mg/kg*

75%: *0.002 mg/kg*

Median: *N/A**

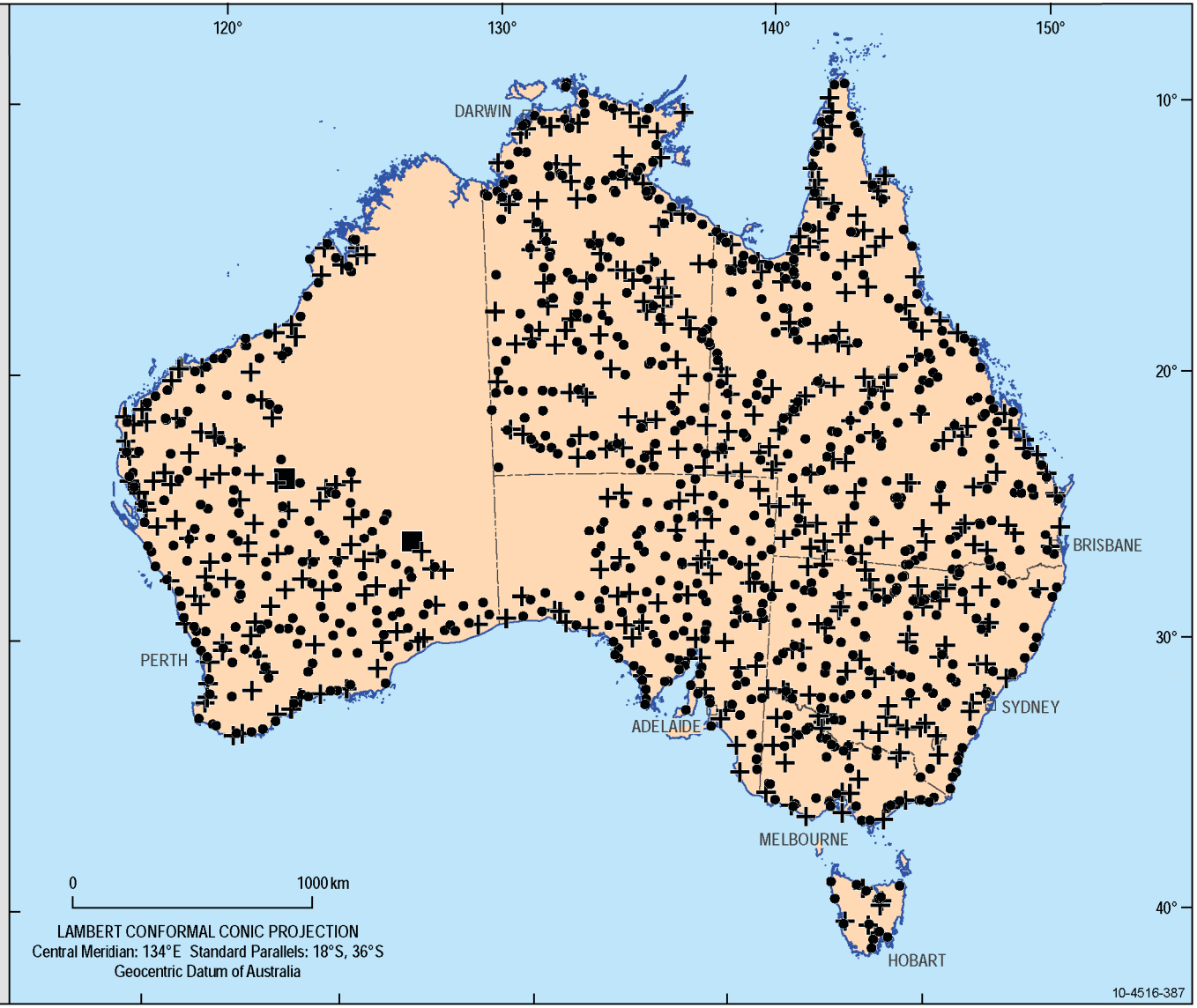
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Sb

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1190

Maximum: *18.1 mg/kg*

Upper Fence: *1.07 mg/kg*

75%: *0.19 mg/kg*

Median: *0.12 mg/kg*

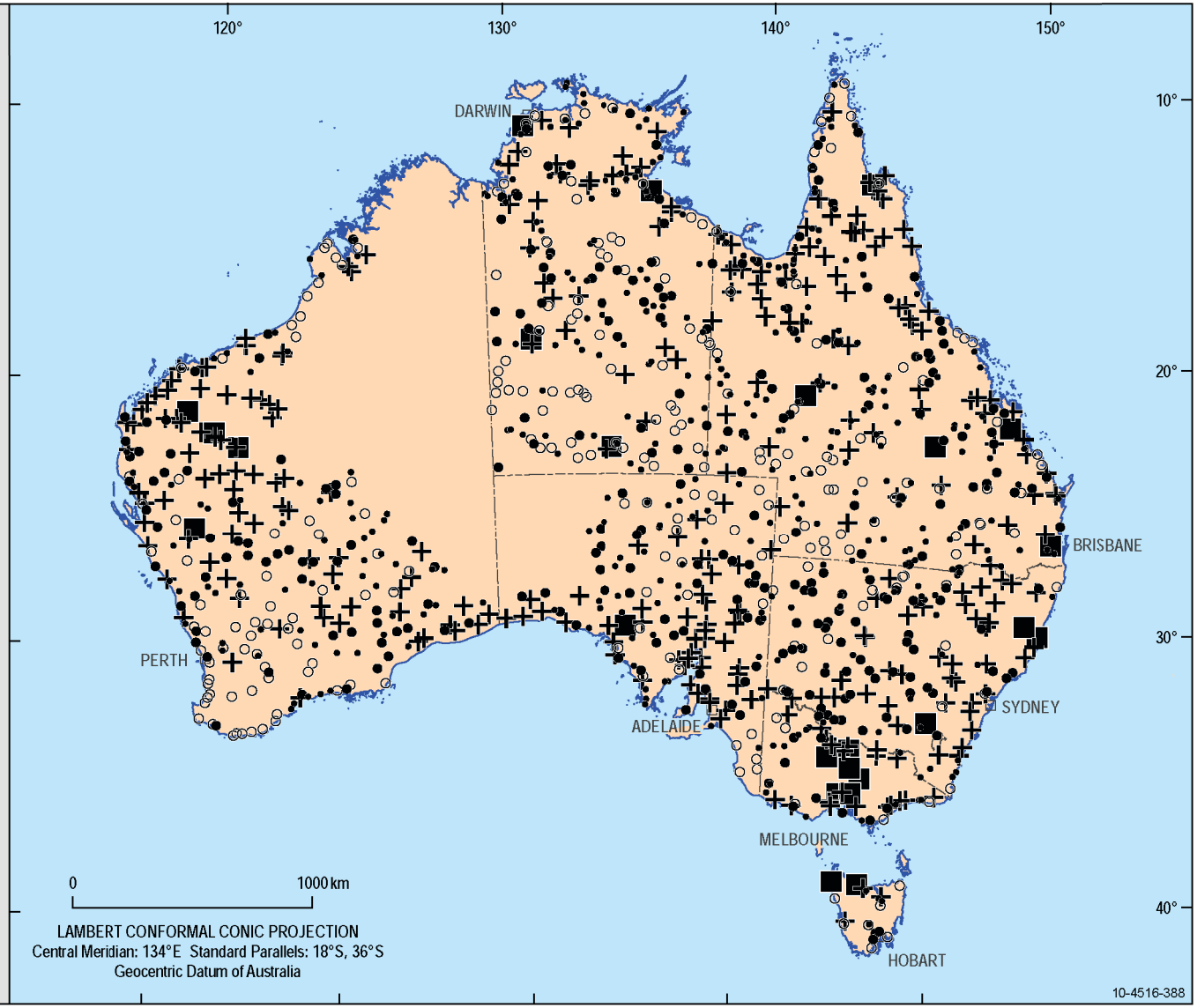
25%: *0.06 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Sc

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190

Maximum: *27.8 mg/kg*

Upper Fence: *N/A**

75%: *6.3 mg/kg*

Median: *3.5 mg/kg*

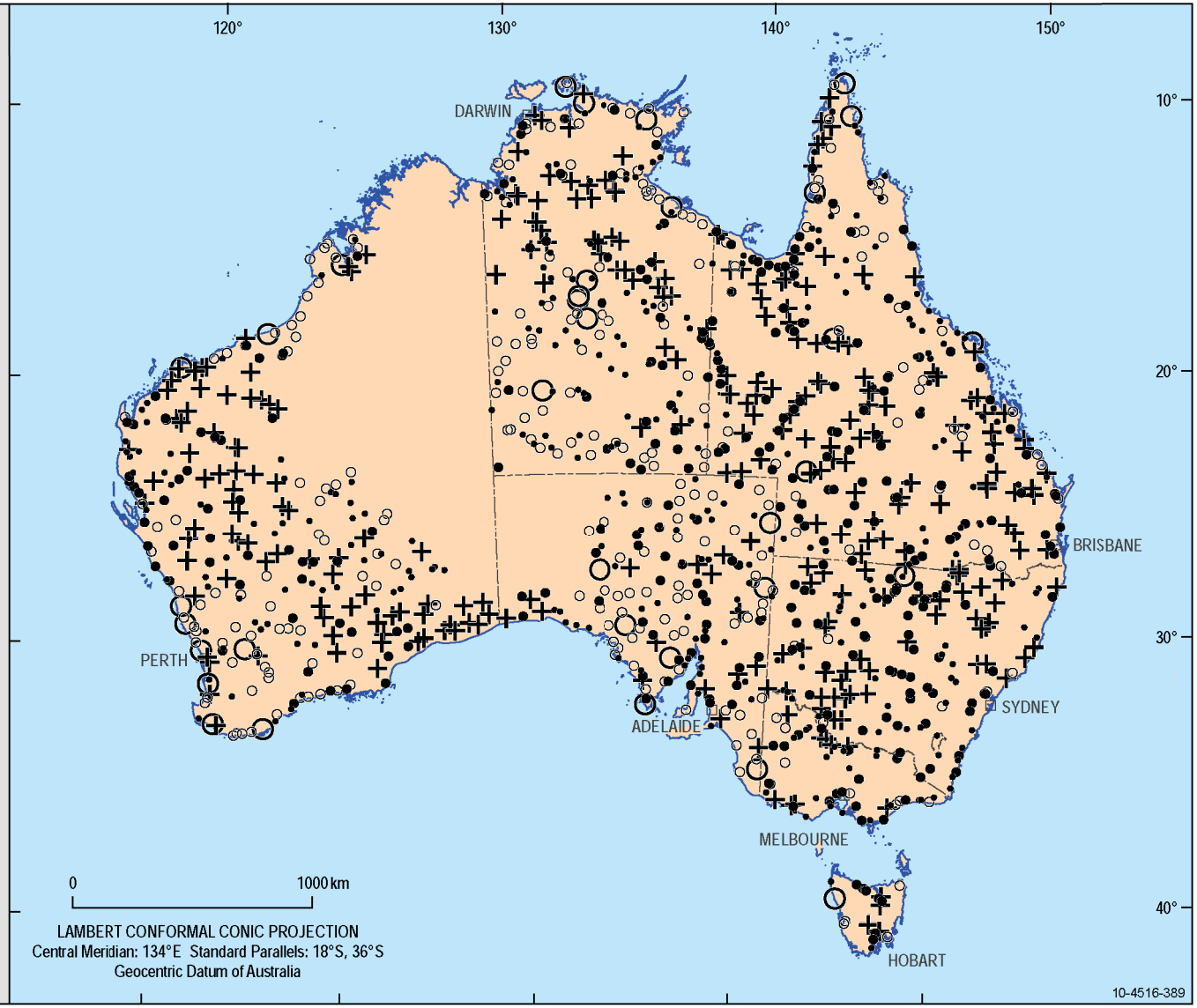
25%: *1.7 mg/kg*

Lower Fence: *0.2 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Se

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1191

Maximum: *2.01 mg/kg*

Upper Fence: *0.96 mg/kg*

75%: *0.12 mg/kg*

Median: *0.06 mg/kg*

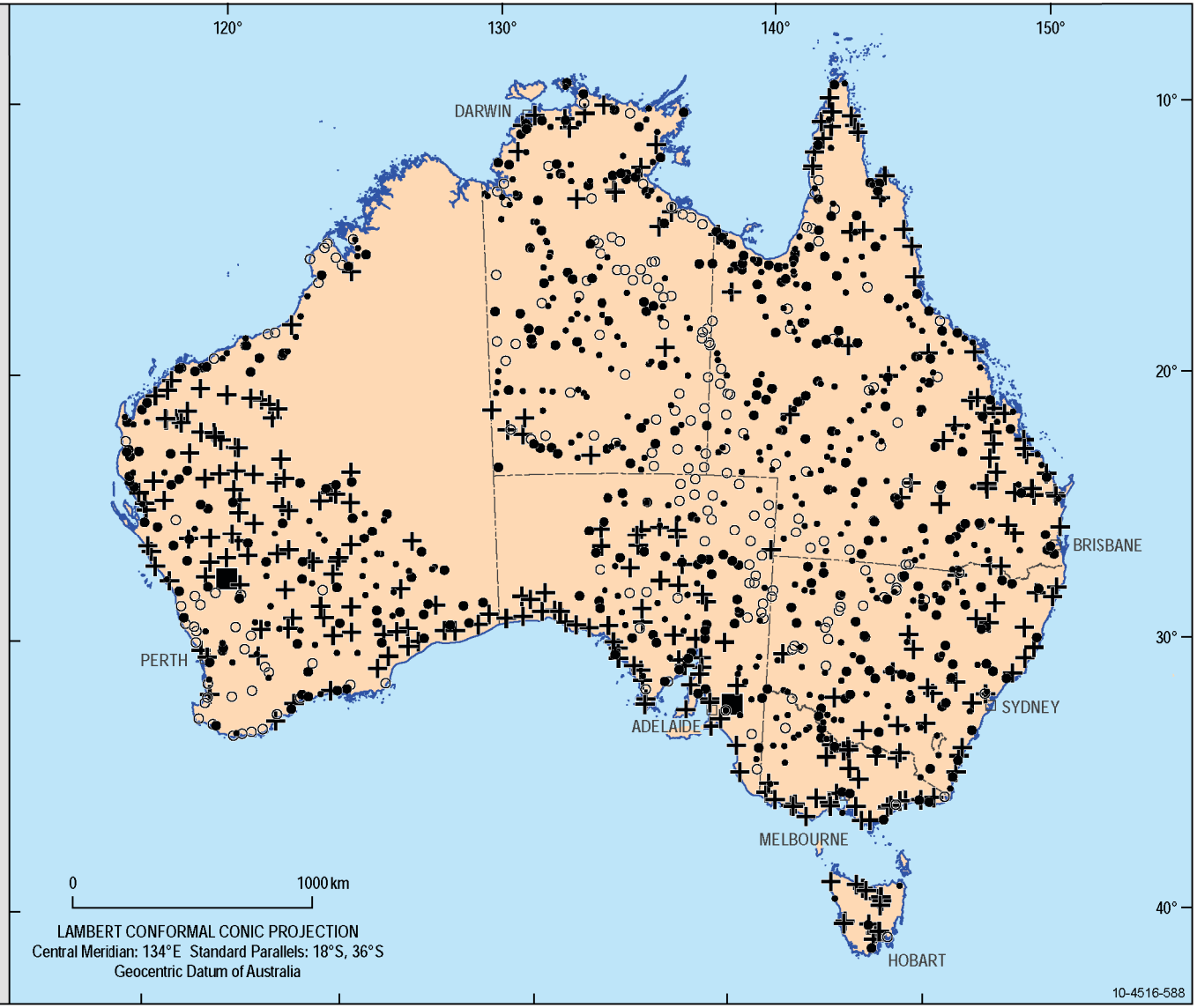
25%: *0.03 mg/kg*

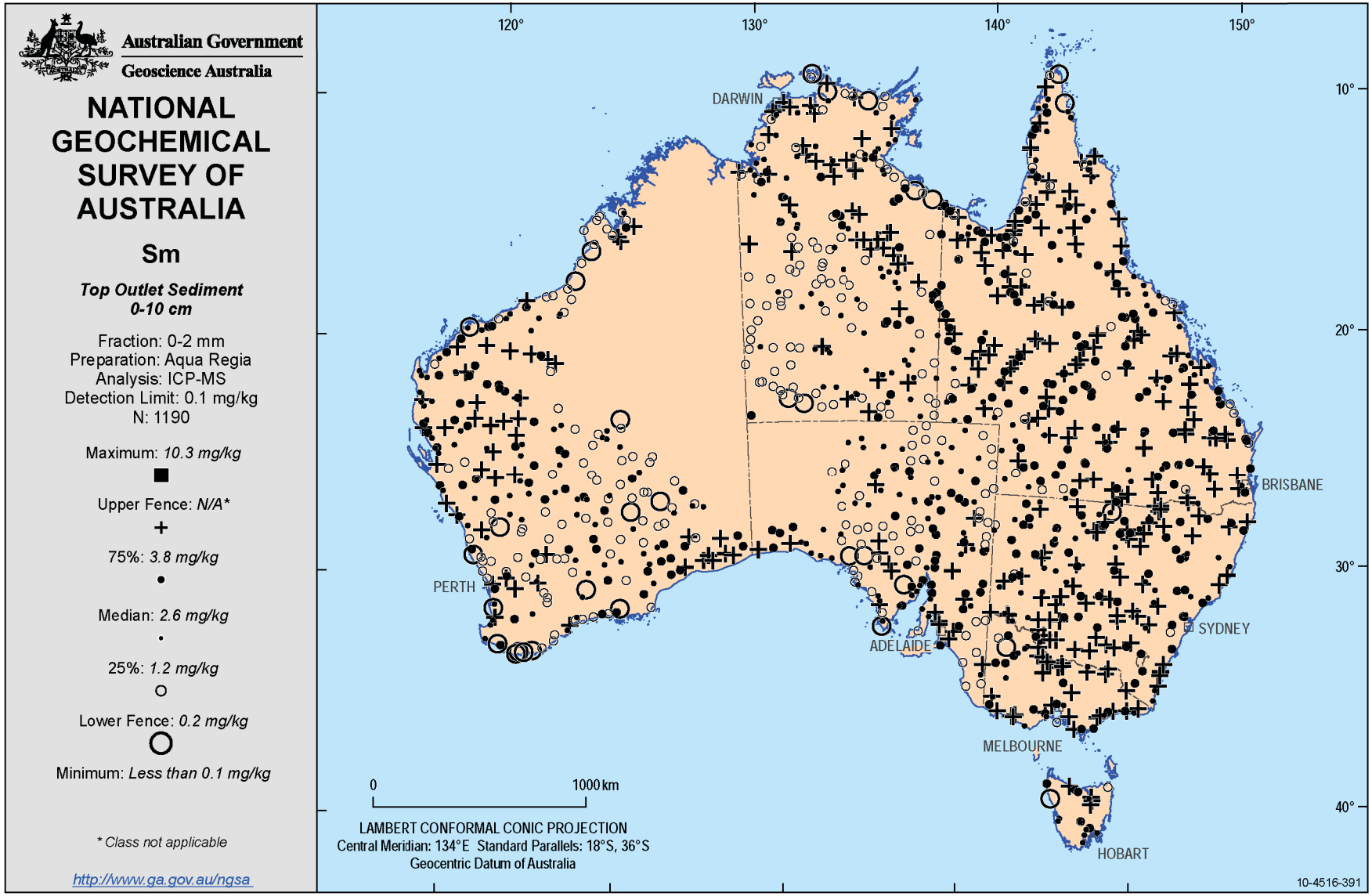
Lower Fence: *N/A**

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Sm
Top Outlet Sediment
0-10 cm
Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190
Maximum: 10.3 mg/kg
Upper Fence: N/A*
75%: 3.8 mg/kg
Median: 2.6 mg/kg
25%: 1.2 mg/kg
Lower Fence: 0.2 mg/kg
Minimum: Less than 0.1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
BRISBANE
SYDNEY
MELBOURNE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-391

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Sn

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.05 mg/kg
N: 1190

Maximum: *73.2 mg/kg*

Upper Fence: *3.71 mg/kg*

75%: *0.99 mg/kg*

Median: *0.65 mg/kg*

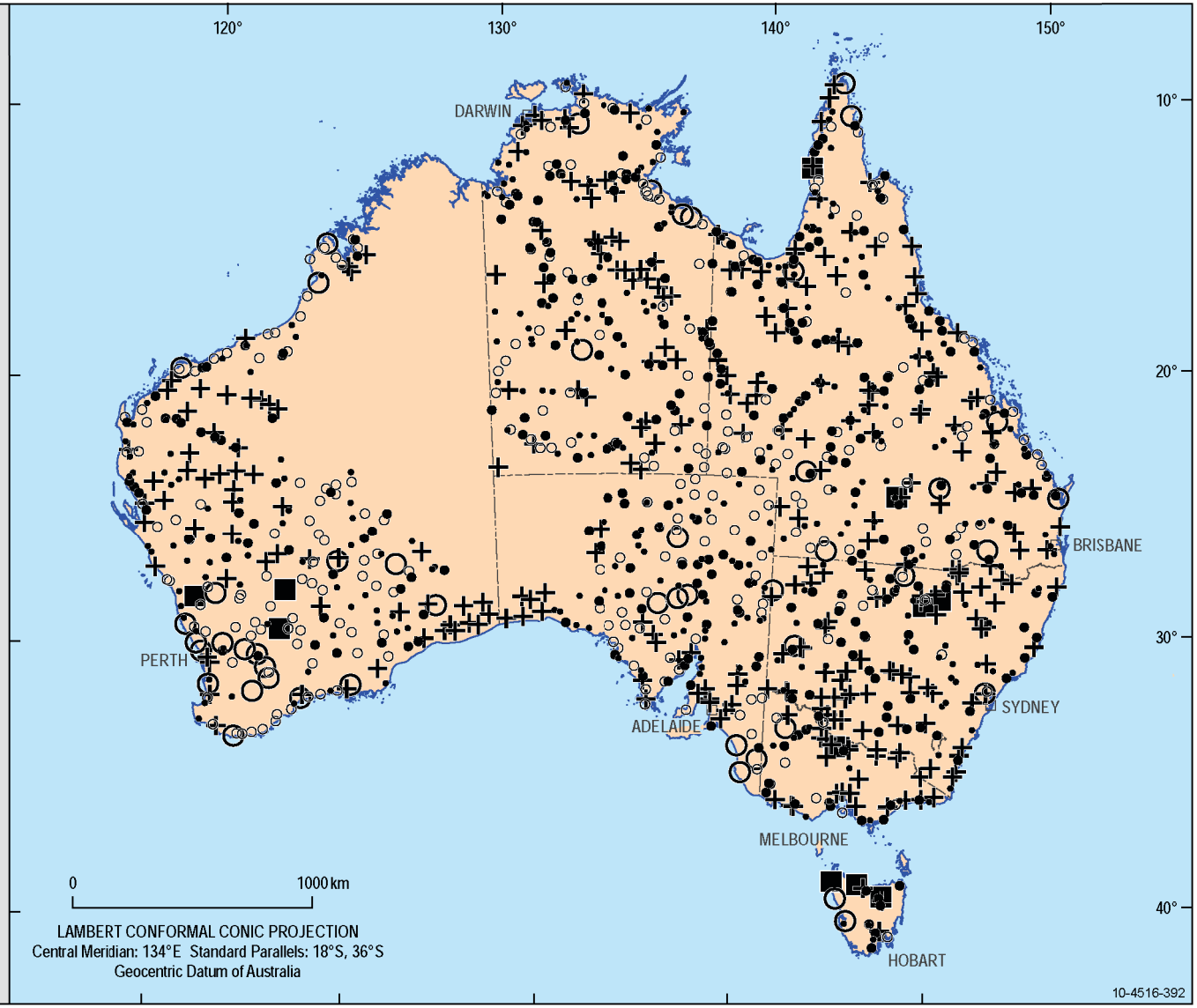
25%: *0.41 mg/kg*

Lower Fence: *0.11 mg/kg*

Minimum: *Less than 0.05 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Sr

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.5 mg/kg
N: 1190

Maximum: *Greater than 1000 mg/kg*

Upper Fence: *568.2 mg/kg*

75%: *46.3 mg/kg*

Median: *22.1 mg/kg*

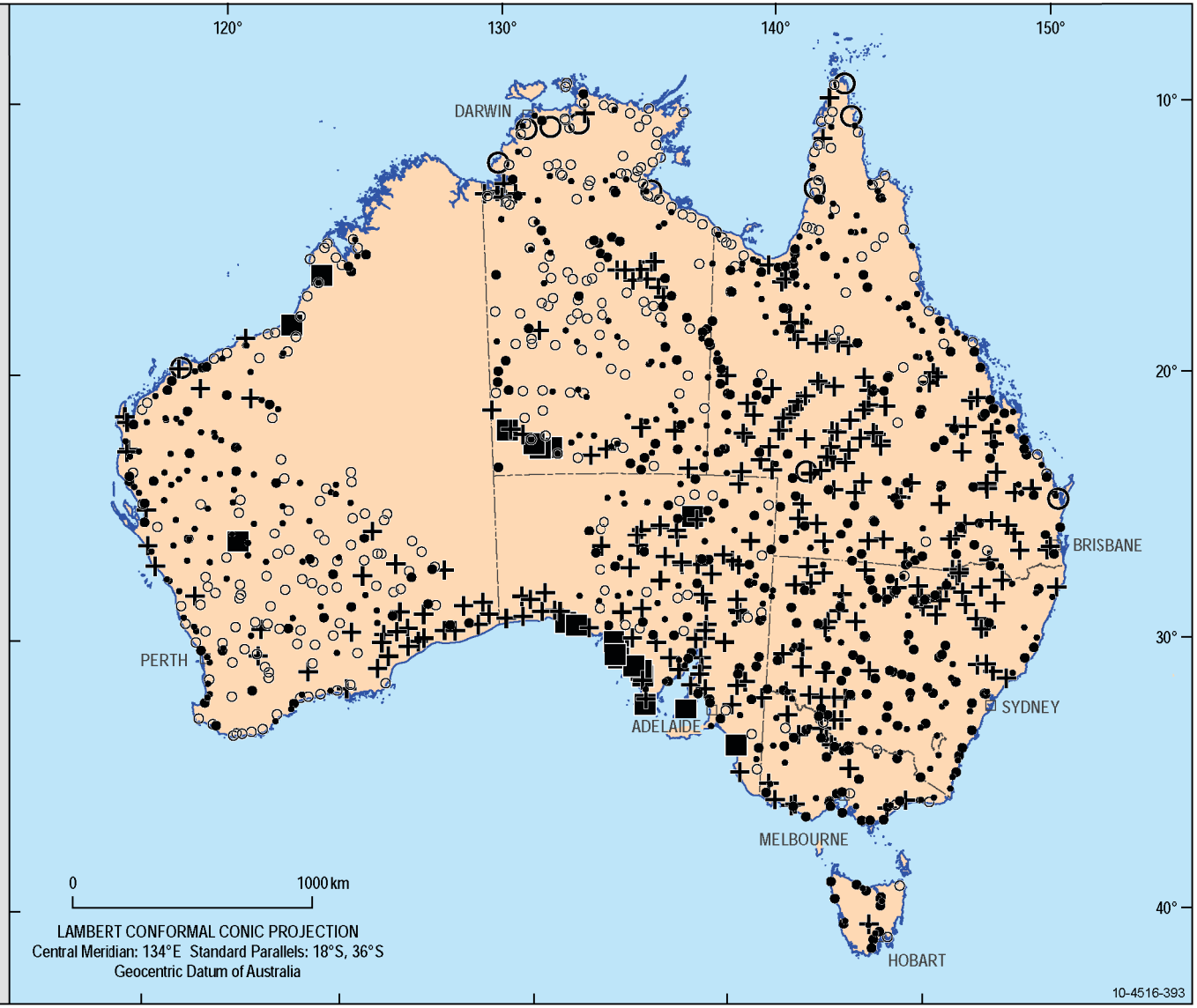
25%: *8.7 mg/kg*

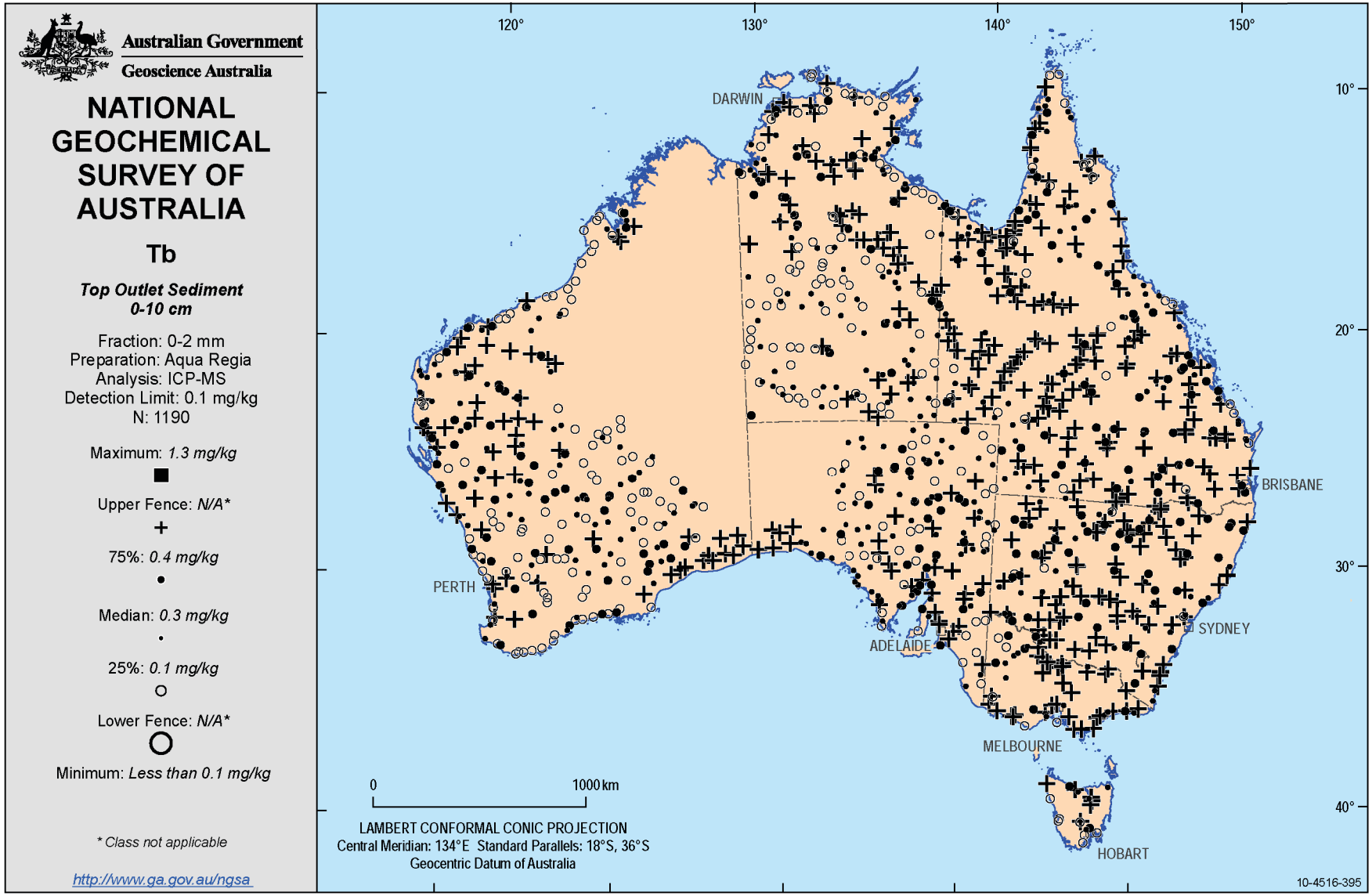
Lower Fence: *0.7 mg/kg*

Minimum: *Less than 0.5 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Tb
Top Outlet Sediment
0-10 cm
Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190
Maximum: 1.3 mg/kg
Upper Fence: N/A*
75%: 0.4 mg/kg
Median: 0.3 mg/kg
25%: 0.1 mg/kg
Lower Fence: N/A*
Minimum: Less than 0.1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
MELBOURNE
SYDNEY
BRISBANE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-395

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Te

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1190

Maximum: *0.2 mg/kg*

Upper Fence: *N/A**

75%: *0.05 mg/kg*

Median: *0.03 mg/kg*

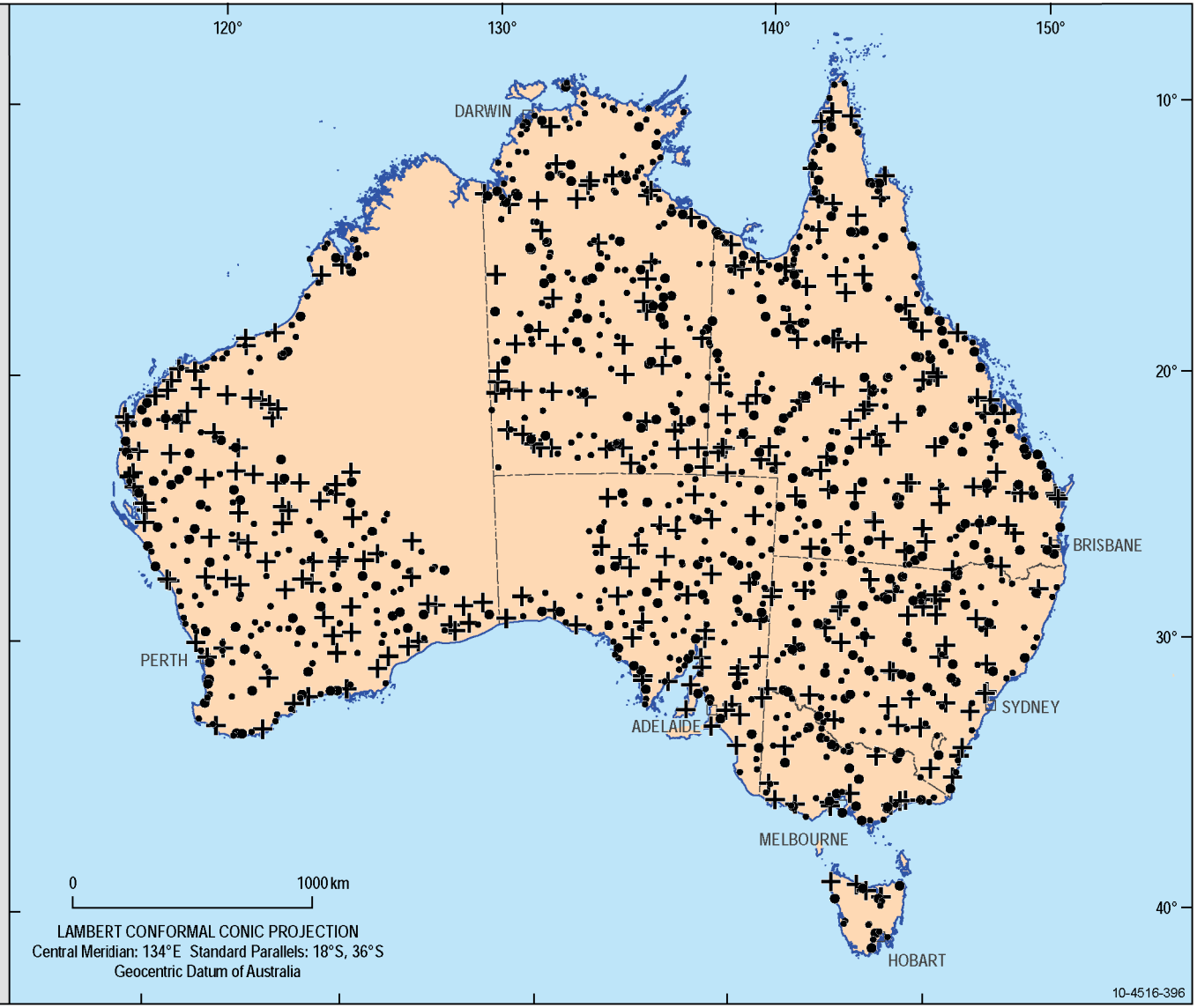
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Th

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190

Maximum: *44.2 mg/kg*

Upper Fence: *24.2 mg/kg*

75%: *5.9 mg/kg*

Median: *3.7 mg/kg*

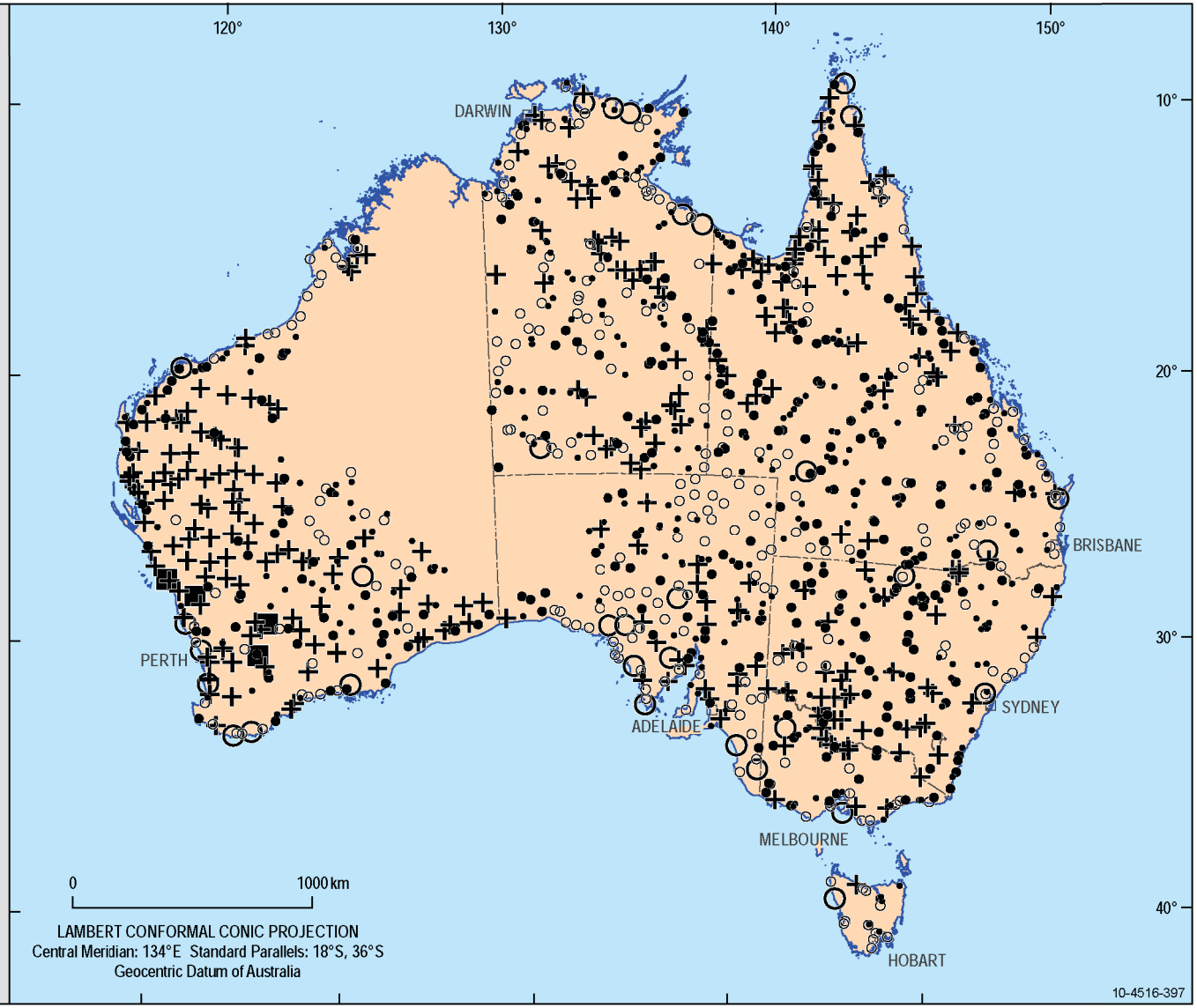
25%: *2.3 mg/kg*

Lower Fence: *0.6 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

TI

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1190

Maximum: *0.49 mg/kg*

Upper Fence: *N/A**

75%: *0.14 mg/kg*

Median: *0.08 mg/kg*

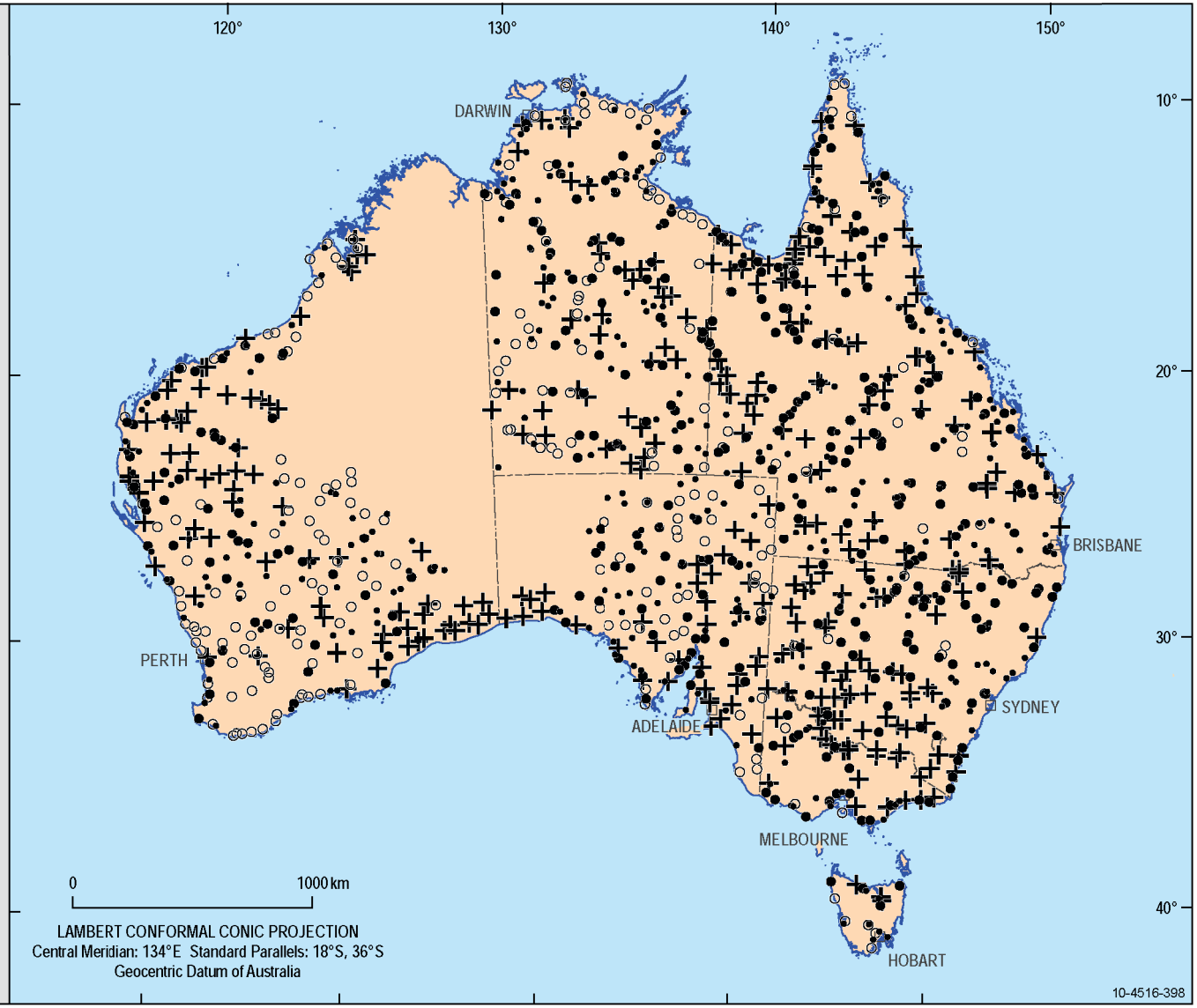
25%: *0.04 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Tm

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190

Maximum: *0.5 mg/kg*

Upper Fence: *N/A**

75%: *0.2 mg/kg*

Median: *N/A**

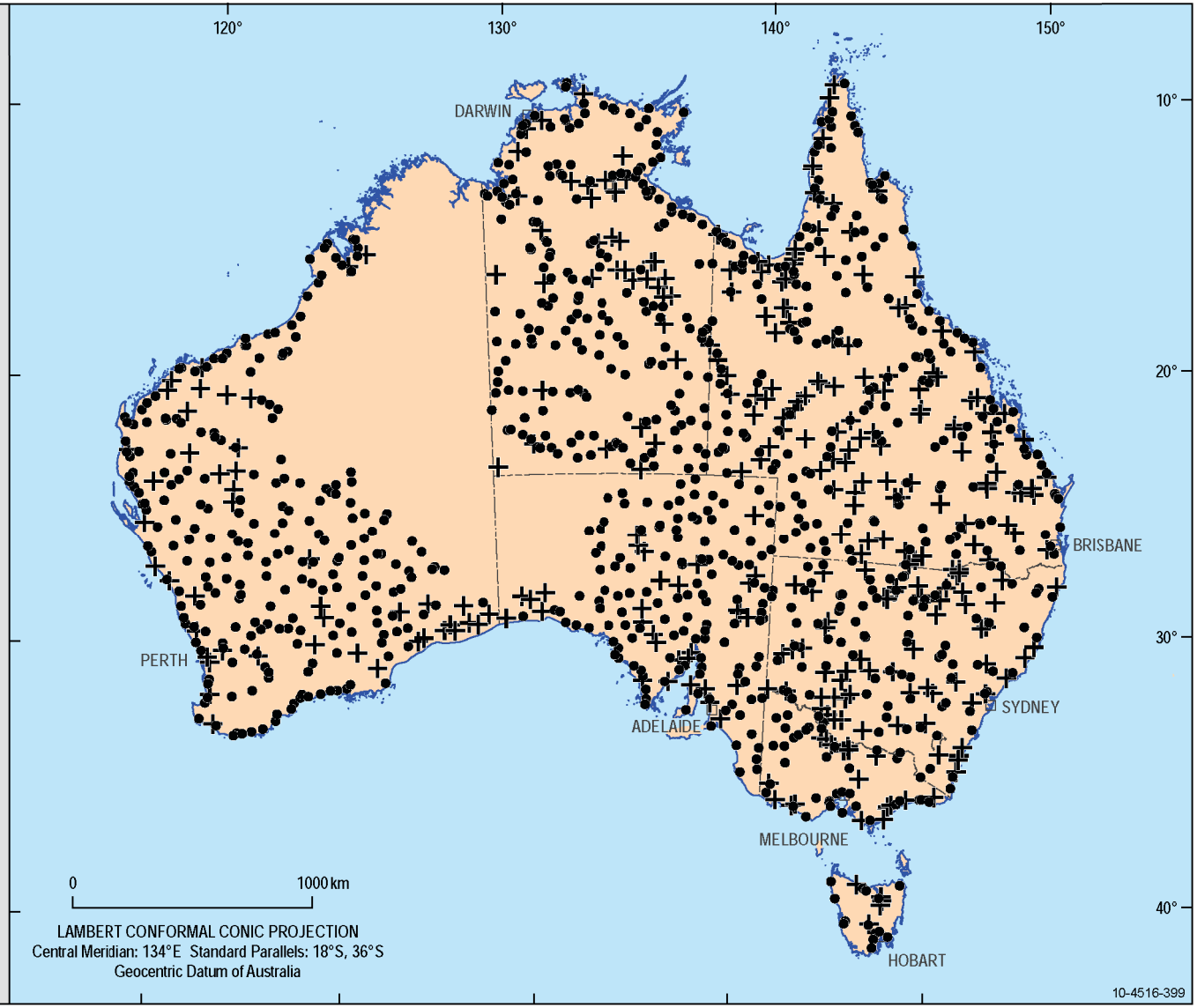
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

U

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190

Maximum: *35 mg/kg*

Upper Fence: *6.1 mg/kg*

75%: *1 mg/kg*

Median: *0.5 mg/kg*

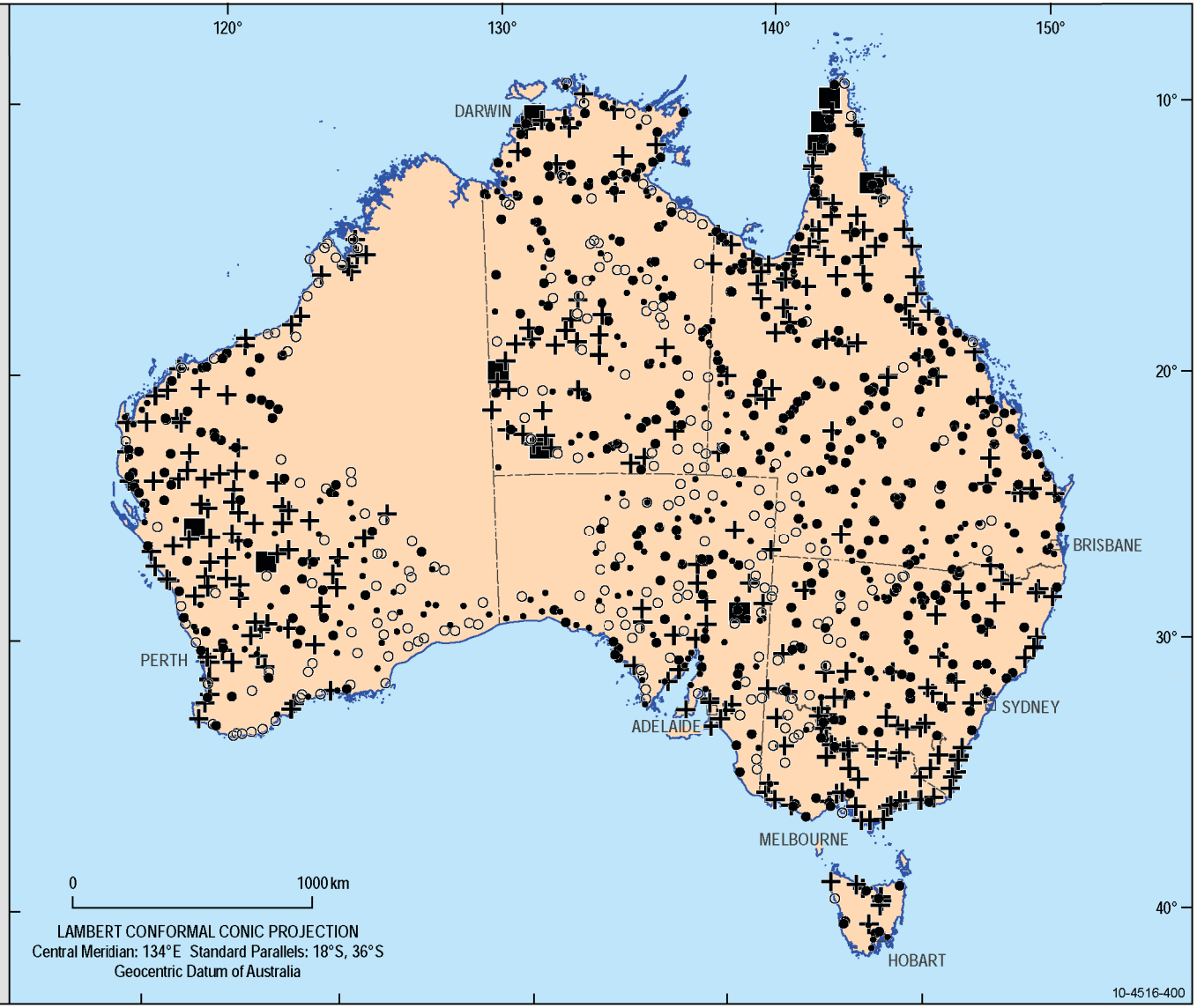
25%: *0.3 mg/kg*

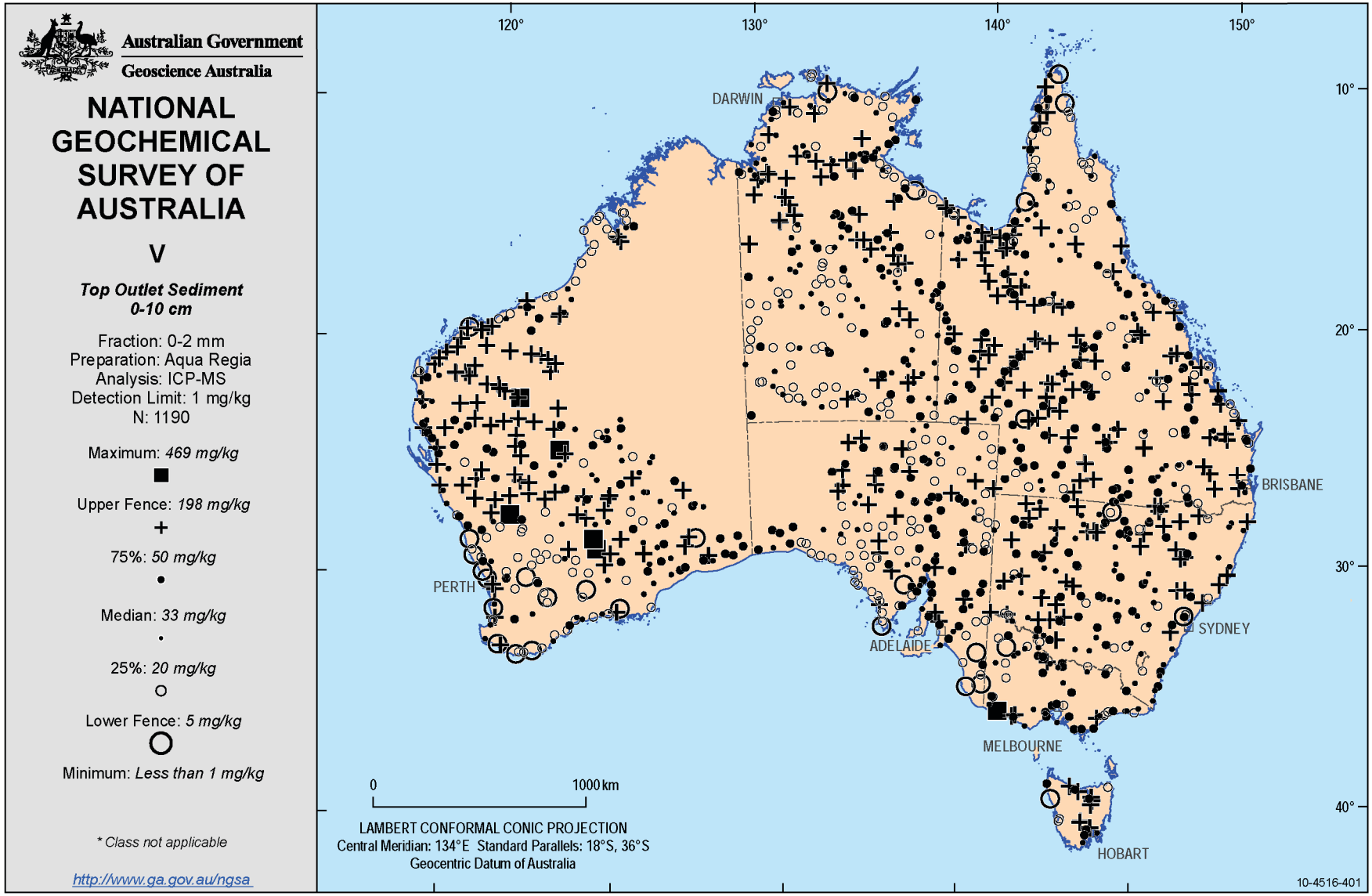
Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
V
Top Outlet Sediment
0-10 cm
Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 1 mg/kg
N: 1190
Maximum: 469 mg/kg
Upper Fence: 198 mg/kg
75%: 50 mg/kg
Median: 33 mg/kg
25%: 20 mg/kg
Lower Fence: 5 mg/kg
Minimum: Less than 1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
MELBOURNE
SYDNEY
BRISBANE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-401

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

W

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190

Maximum: *174 mg/kg*

Upper Fence: *Less than 0.1 mg/kg*

75%: *N/A**

Median: *N/A**

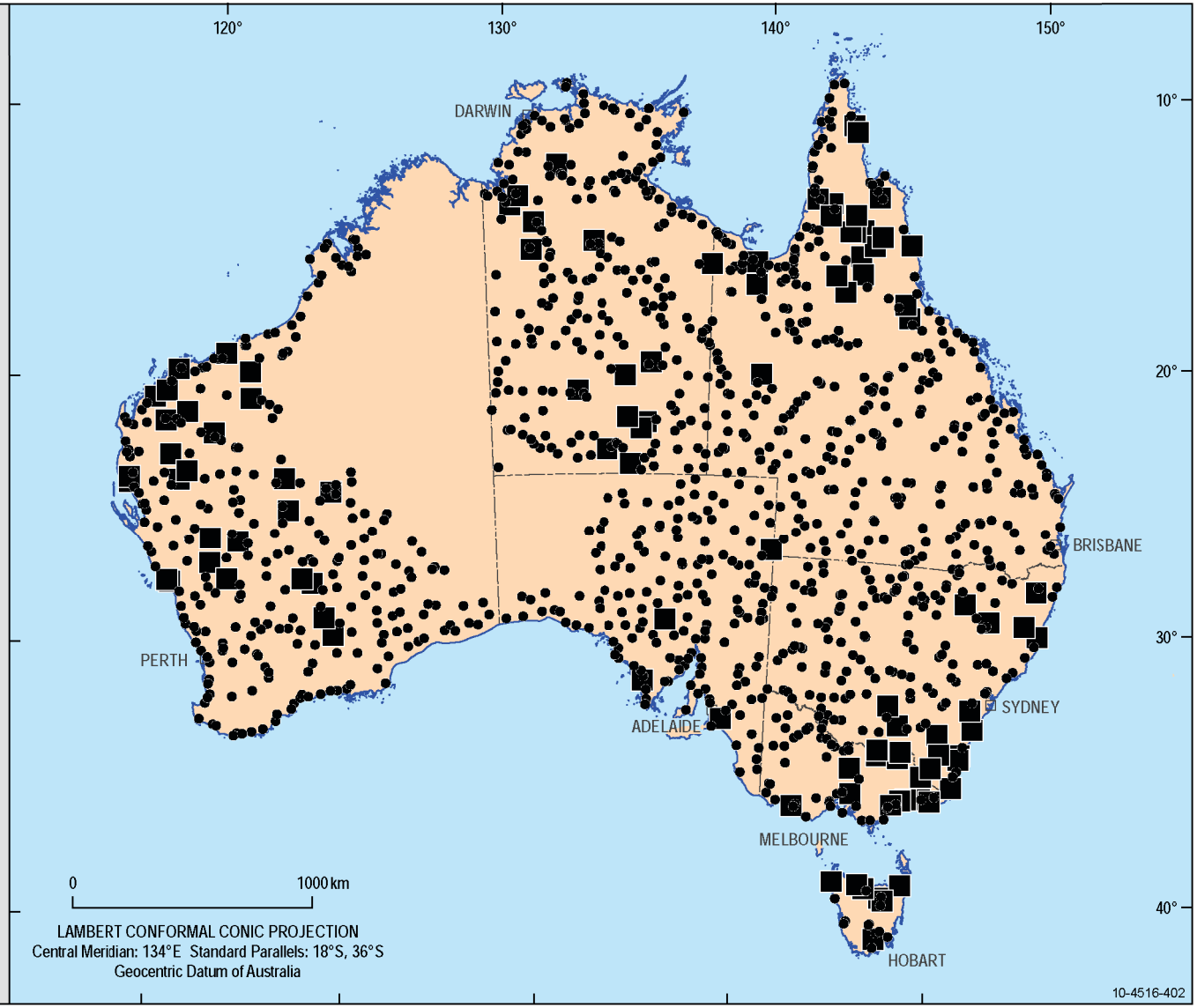
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Y

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1190

Maximum: *31.1 mg/kg*

Upper Fence: *N/A**

75%: *12.2 mg/kg*

Median: *7.59 mg/kg*

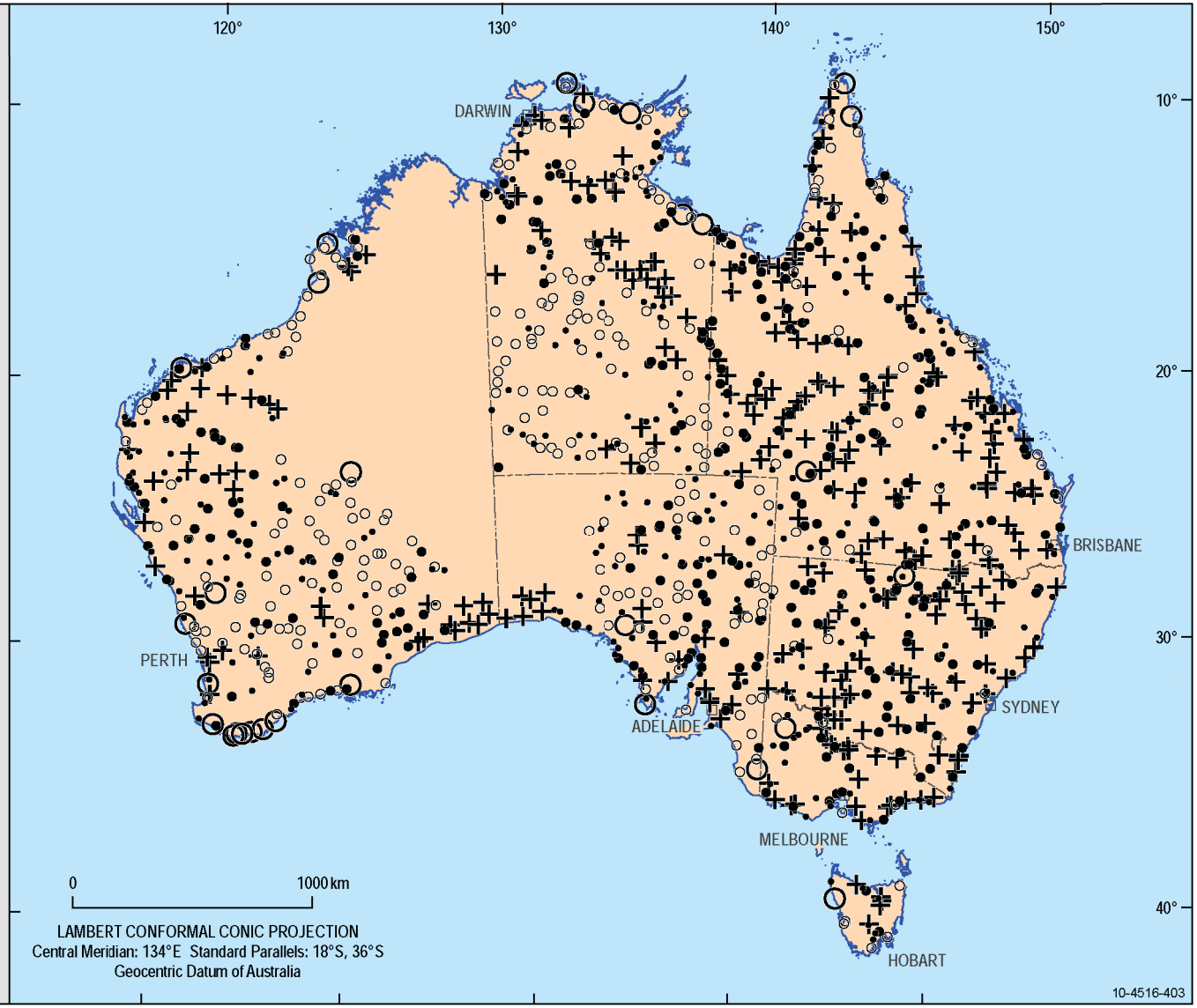
25%: *3.6 mg/kg*

Lower Fence: *0.58 mg/kg*

Minimum: *0.03 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Yb

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190

Maximum: *2.6 mg/kg*

Upper Fence: *N/A**

75%: *0.9 mg/kg*

Median: *0.6 mg/kg*

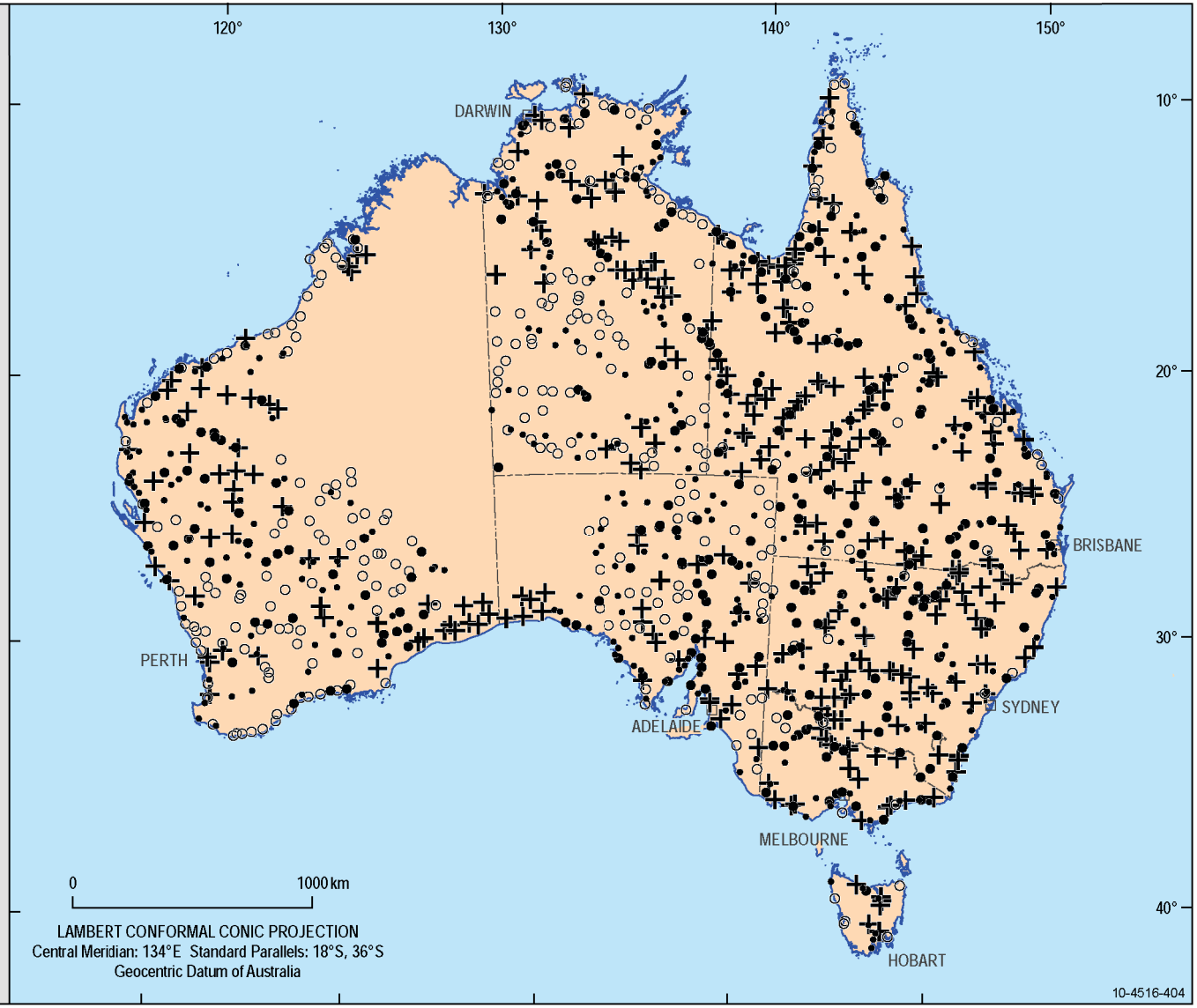
25%: *0.3 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Zn

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190

Maximum: *262 mg/kg*

Upper Fence: *251.6 mg/kg*

75%: *43.5 mg/kg*

Median: *26.5 mg/kg*

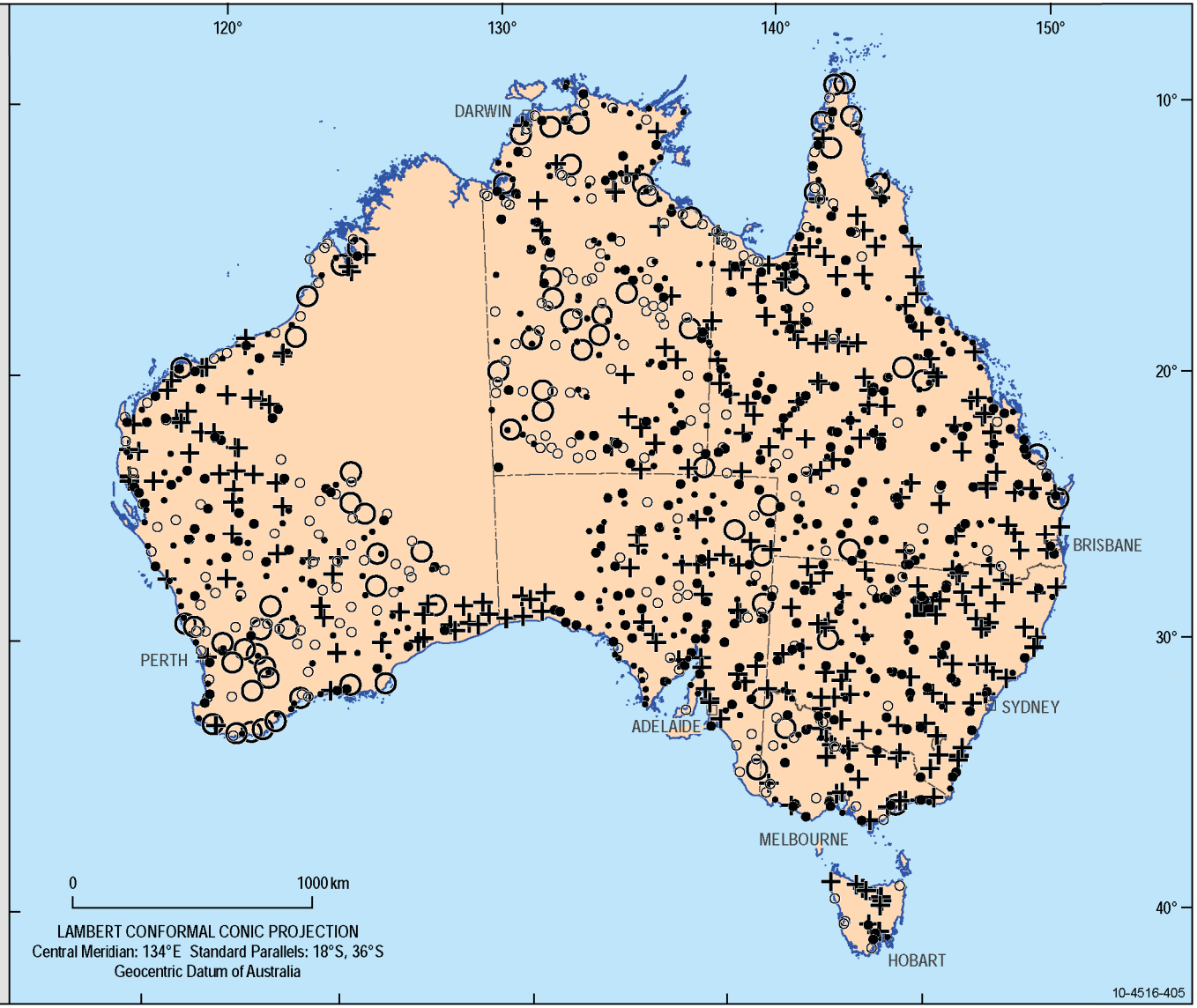
25%: *13.5 mg/kg*

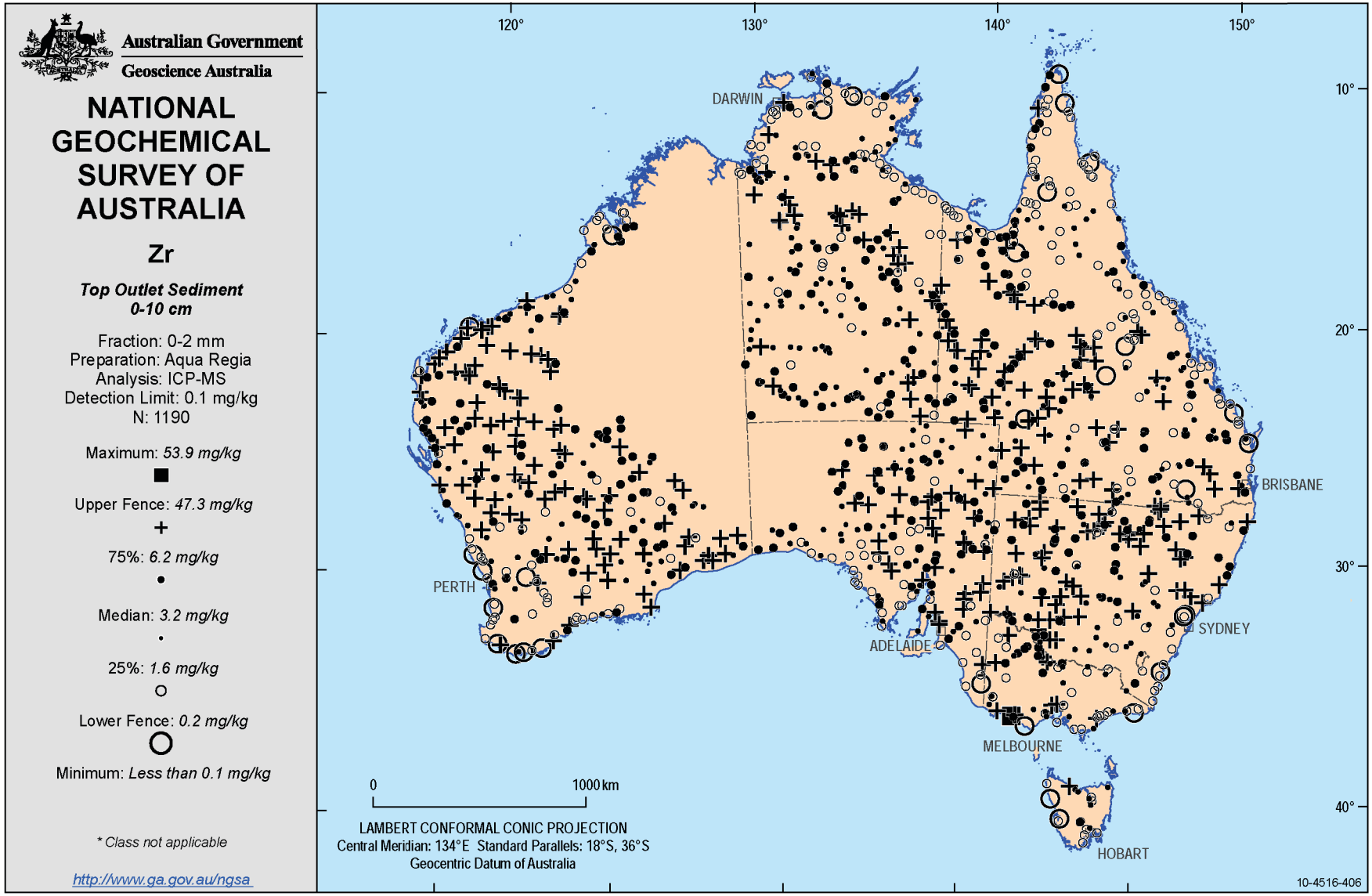
Lower Fence: *2.3 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Zr
Top Outlet Sediment
0-10 cm
Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1190
Maximum: 53.9 mg/kg
Upper Fence: 47.3 mg/kg
75%: 6.2 mg/kg
Median: 3.2 mg/kg
25%: 1.6 mg/kg
Lower Fence: 0.2 mg/kg
Minimum: Less than 0.1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
MELBOURNE
SYDNEY
BRISBANE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-406

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ag

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.002 mg/kg
N: 1177

Maximum: *5.42 mg/kg*

Upper Fence: *0.236 mg/kg*

75%: *0.031 mg/kg*

Median: *0.017 mg/kg*

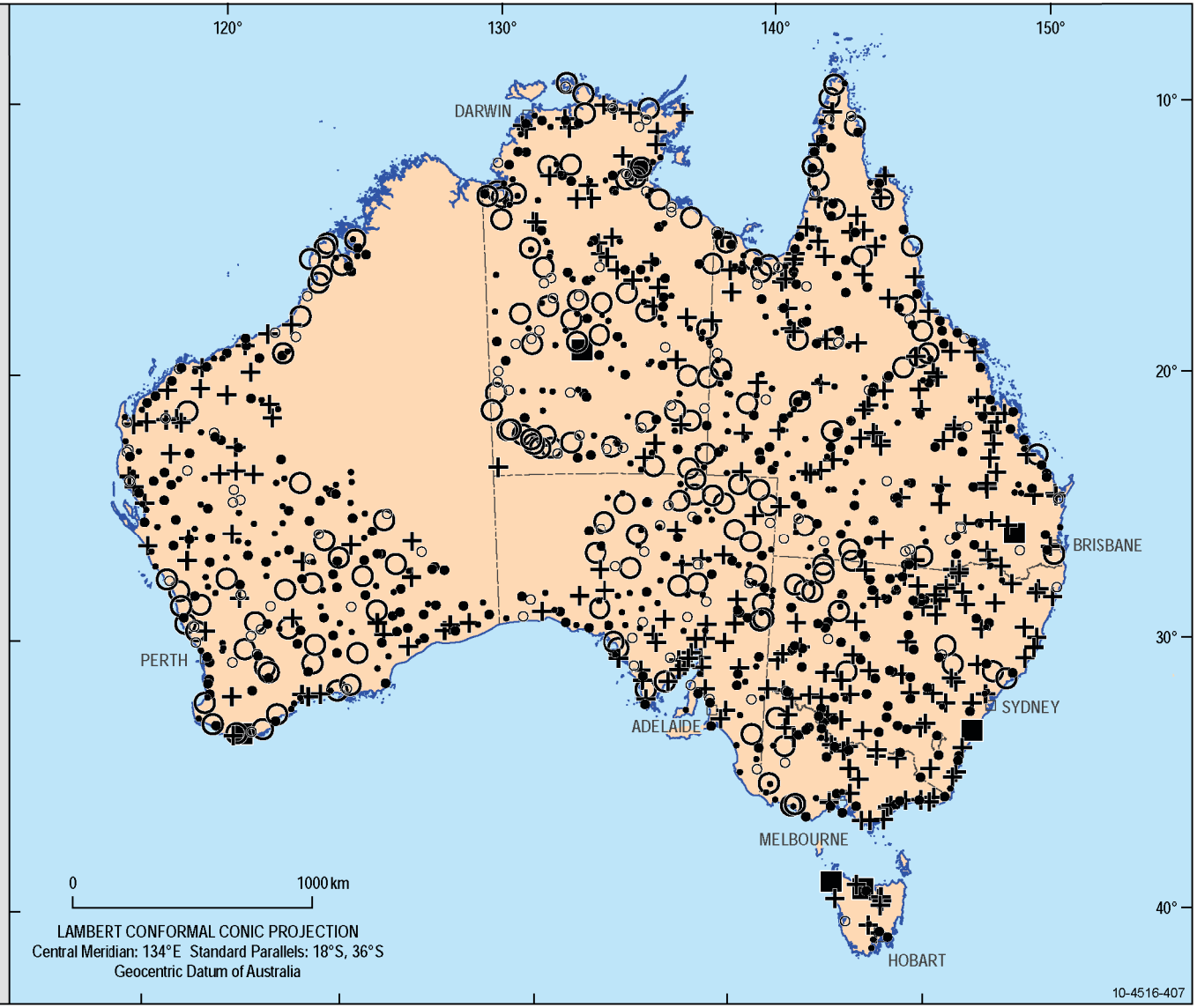
25%: *0.008 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.002 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Al

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 100 mg/kg
N: 1177

Maximum: *94500 mg/kg*

Upper Fence: *75564 mg/kg*

75%: *22100 mg/kg*

Median: *15000 mg/kg*

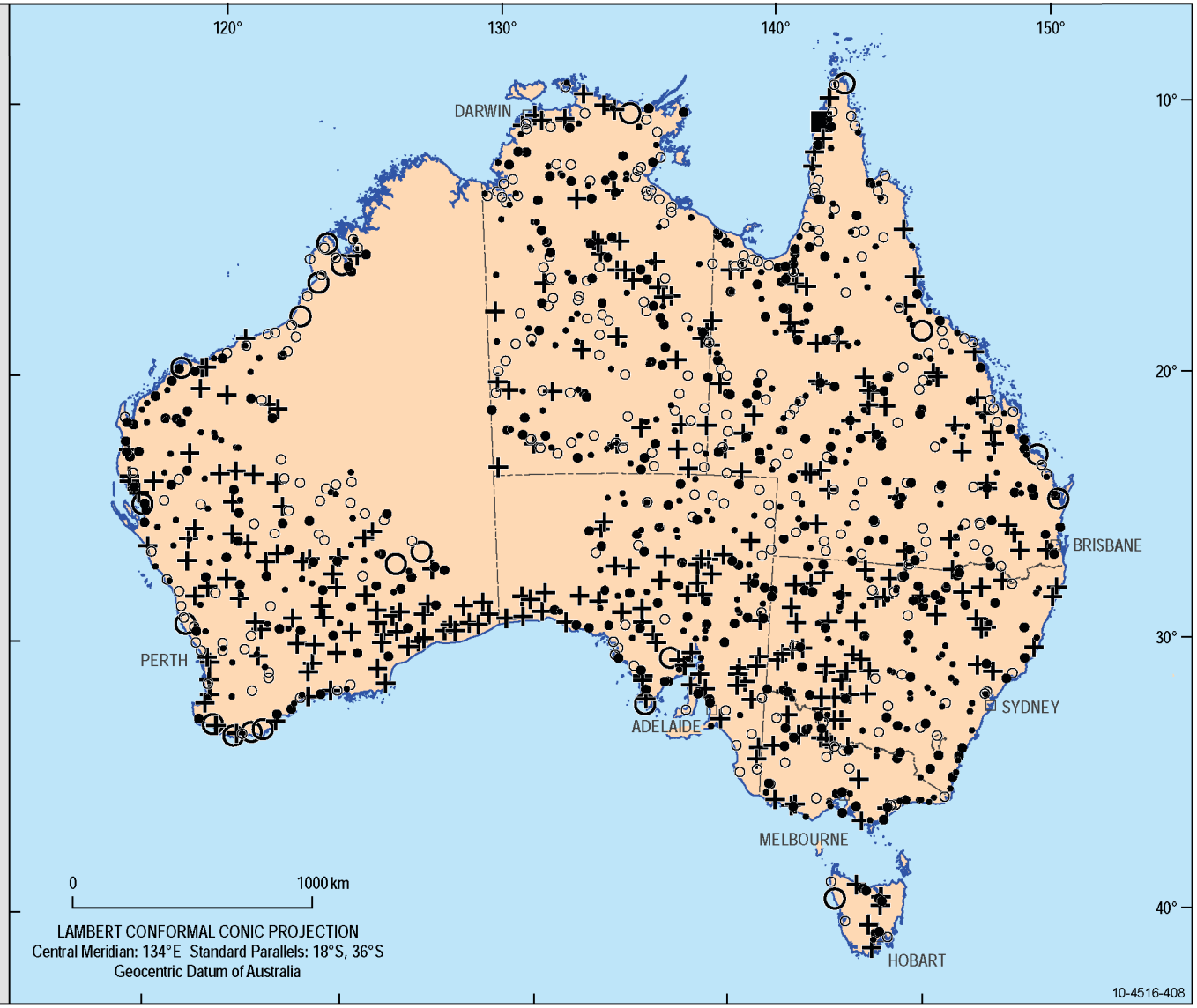
25%: *9500 mg/kg*

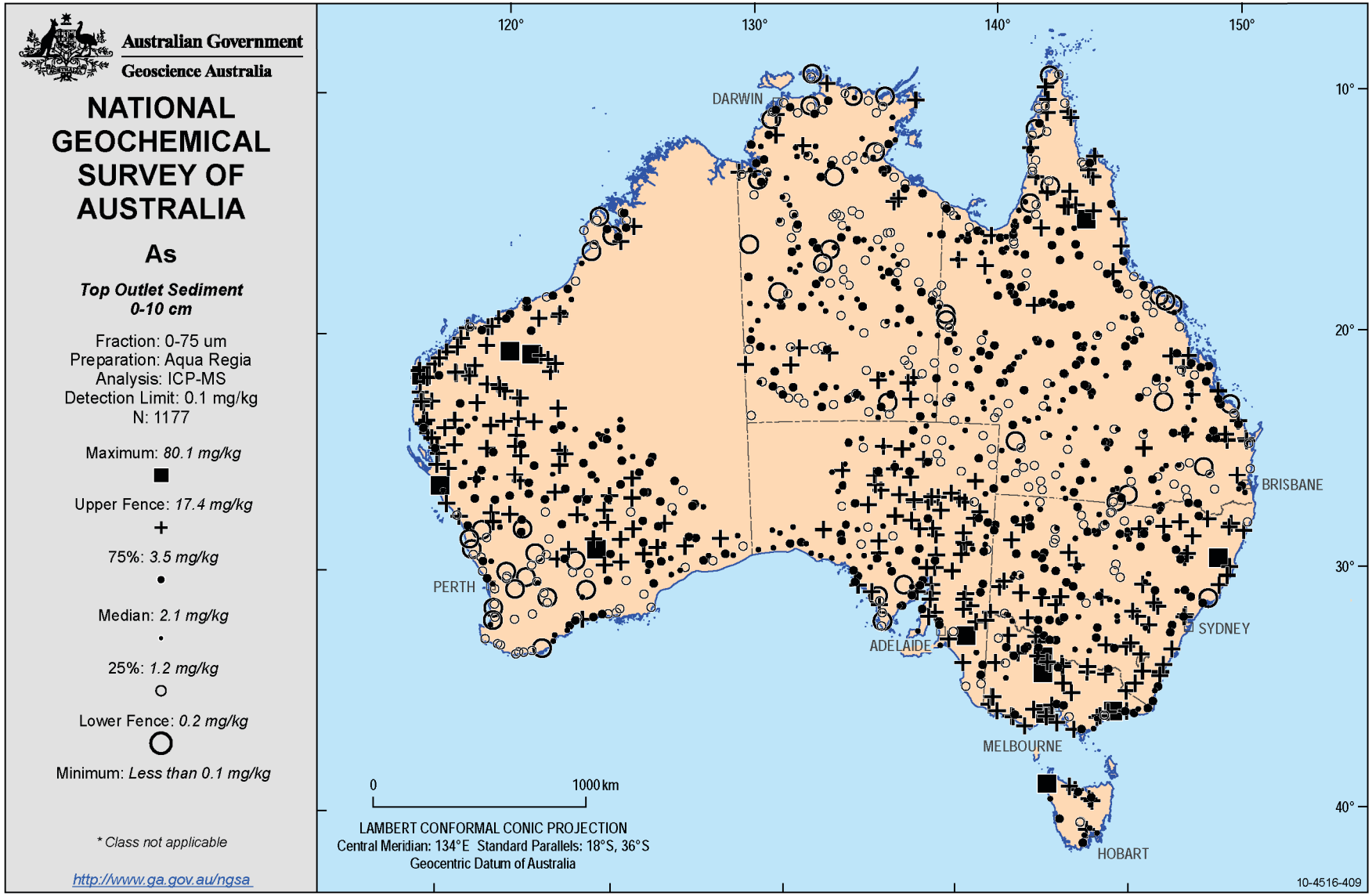
Lower Fence: *2645 mg/kg*

Minimum: *Less than 100 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
As
Top Outlet Sediment
0-10 cm
Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177
Maximum: 80.1 mg/kg
Upper Fence: 17.4 mg/kg
75%: 3.5 mg/kg
Median: 2.1 mg/kg
25%: 1.2 mg/kg
Lower Fence: 0.2 mg/kg
Minimum: Less than 0.1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
MELBOURNE
SYDNEY
BRISBANE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-409

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Au

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.0001 mg/kg
N: 1177

Maximum: *0.269 mg/kg*

Upper Fence: *0.0109 mg/kg*

75%: *0.0015 mg/kg*

Median: *0.0008 mg/kg*

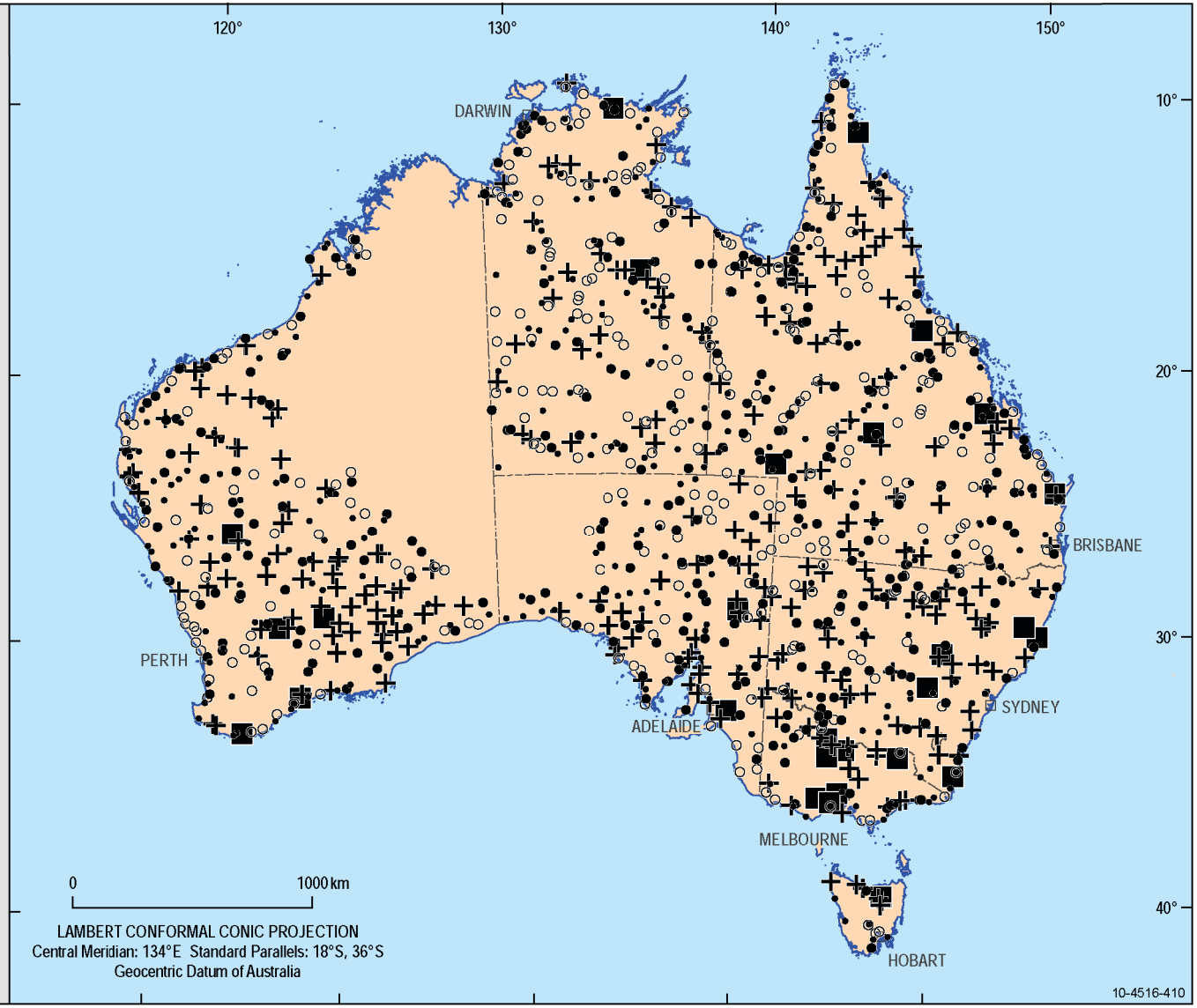
25%: *0.0004 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.0001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

B

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 1 mg/kg
N: 1177

Maximum: *51 mg/kg*

Upper Fence: *3 mg/kg*

75%: *1 mg/kg*

Median: *N/A**

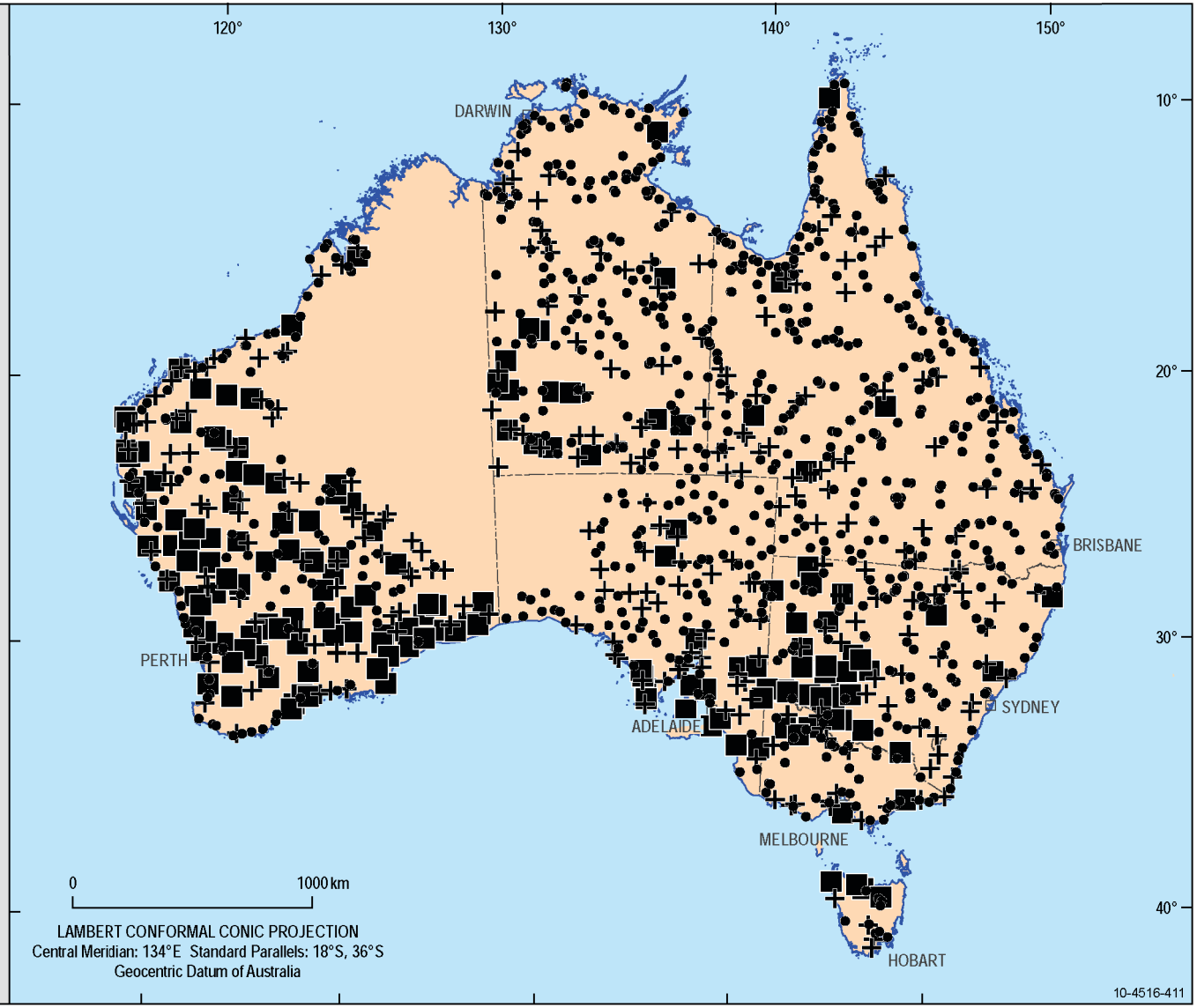
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ba

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.5 mg/kg
N: 1177

Maximum: *619 mg/kg*

Upper Fence: *510.9 mg/kg*

75%: *134 mg/kg*

Median: *89 mg/kg*

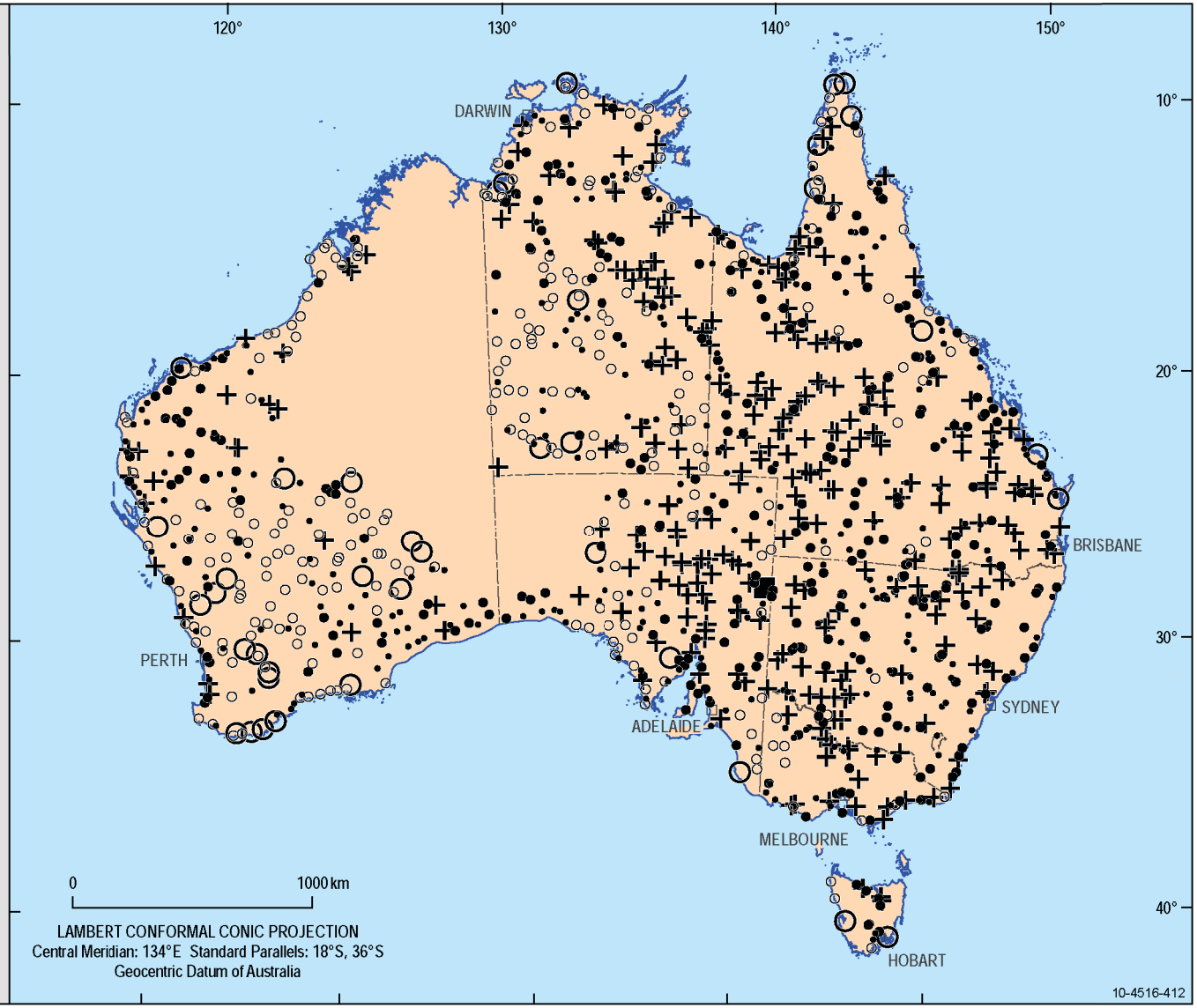
25%: *54.9 mg/kg*

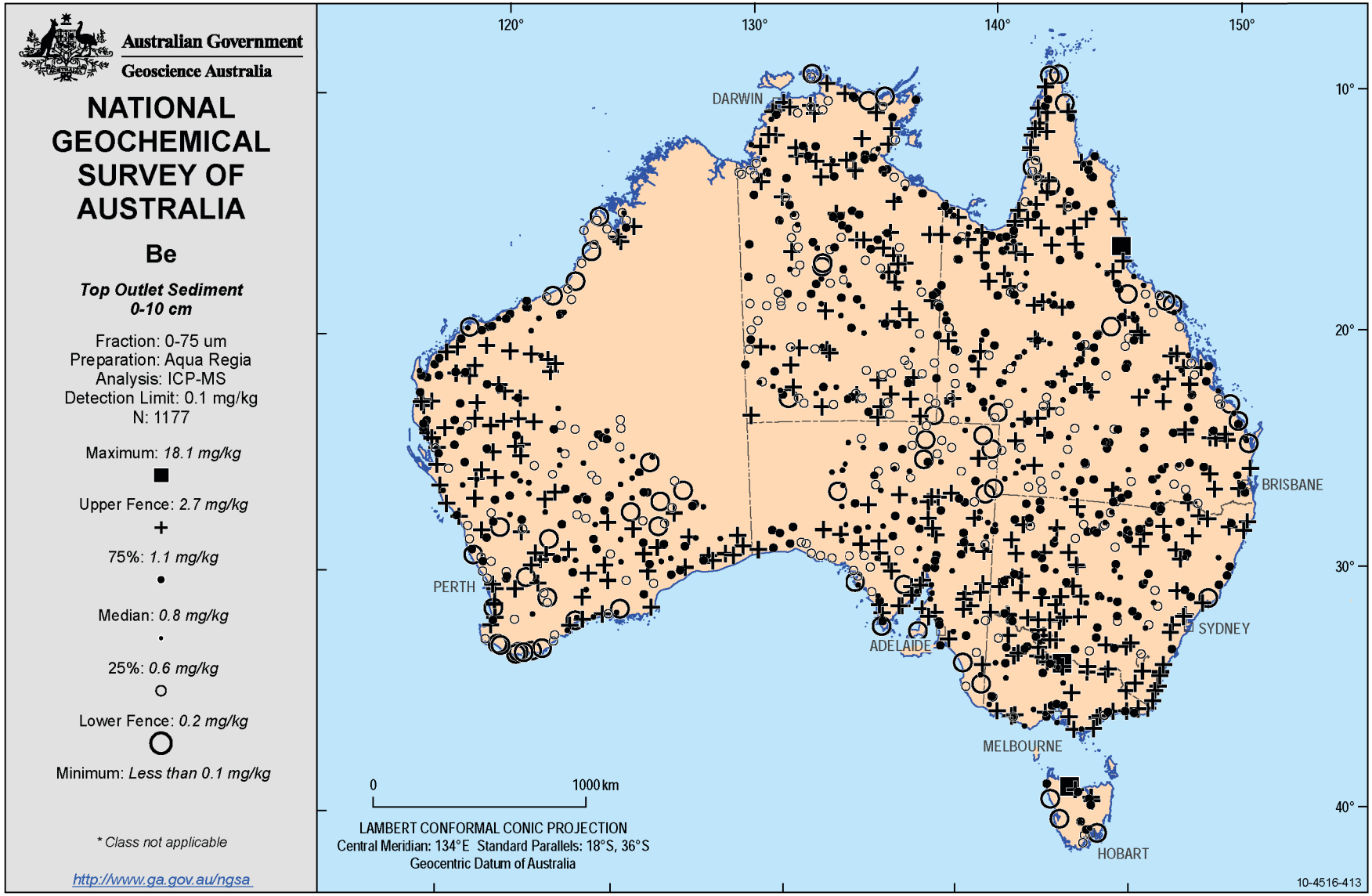
Lower Fence: *14.4 mg/kg*

Minimum: *0.5 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Be
Top Outlet Sediment
0-10 cm
Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177
Maximum: 18.1 mg/kg
Upper Fence: 2.7 mg/kg
75%: 1.1 mg/kg
Median: 0.8 mg/kg
25%: 0.6 mg/kg
Lower Fence: 0.2 mg/kg
Minimum: Less than 0.1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
BRISBANE
SYDNEY
MELBOURNE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-413

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Bi

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1177

Maximum: *39.3 mg/kg*

Upper Fence: *0.75 mg/kg*

75%: *0.25 mg/kg*

Median: *0.18 mg/kg*

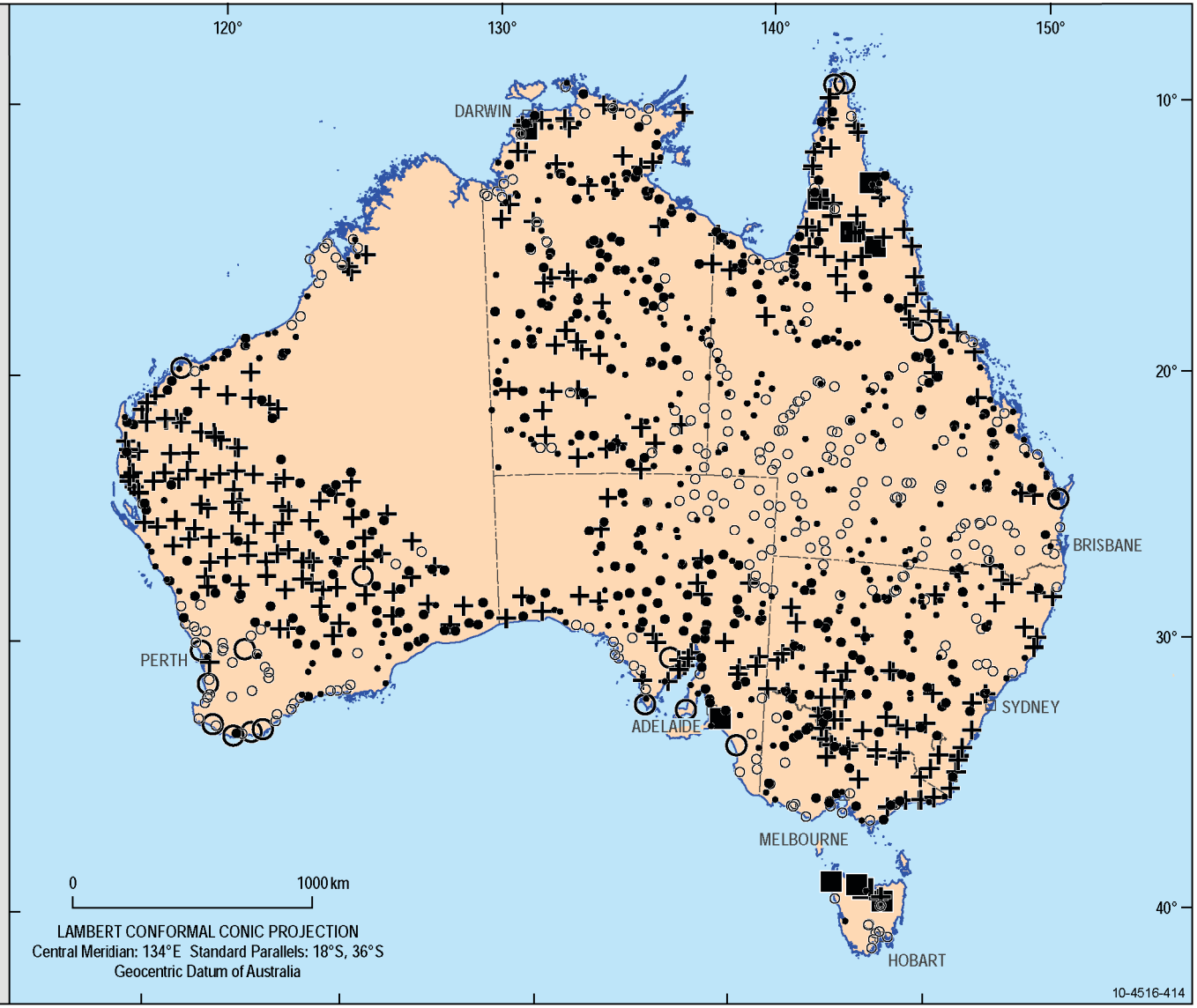
25%: *0.12 mg/kg*

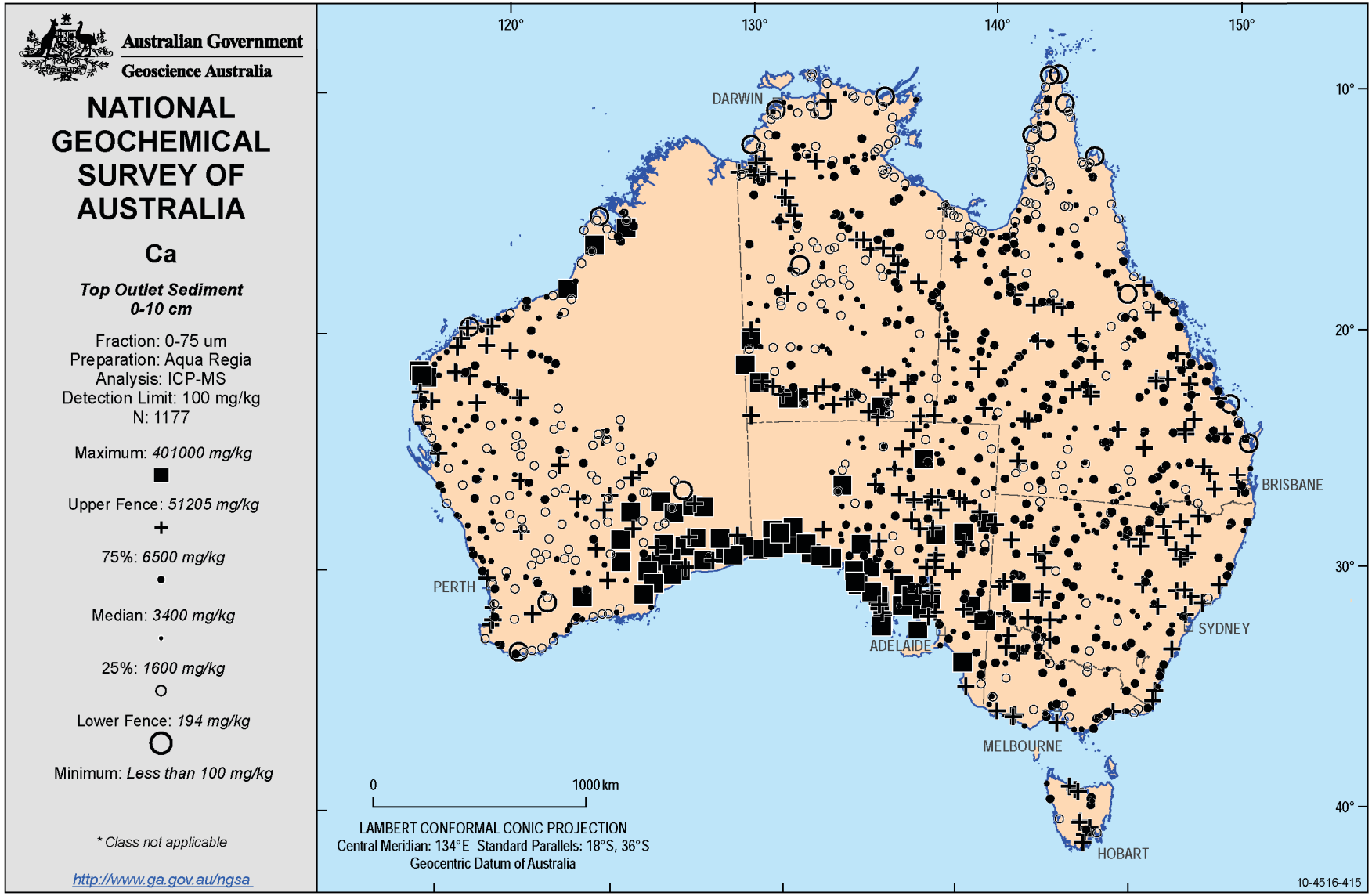
Lower Fence: *0.04 mg/kg*

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Ca
Top Outlet Sediment
0-10 cm
Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 100 mg/kg
N: 1177
Maximum: 401000 mg/kg
Upper Fence: 51205 mg/kg
75%: 6500 mg/kg
Median: 3400 mg/kg
25%: 1600 mg/kg
Lower Fence: 194 mg/kg
Minimum: Less than 100 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
MELBOURNE
SYDNEY
BRISBANE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-415

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Cd

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1177

Maximum: *22.1 mg/kg*

Upper Fence: *0.47 mg/kg*

75%: *0.09 mg/kg*

Median: *0.05 mg/kg*

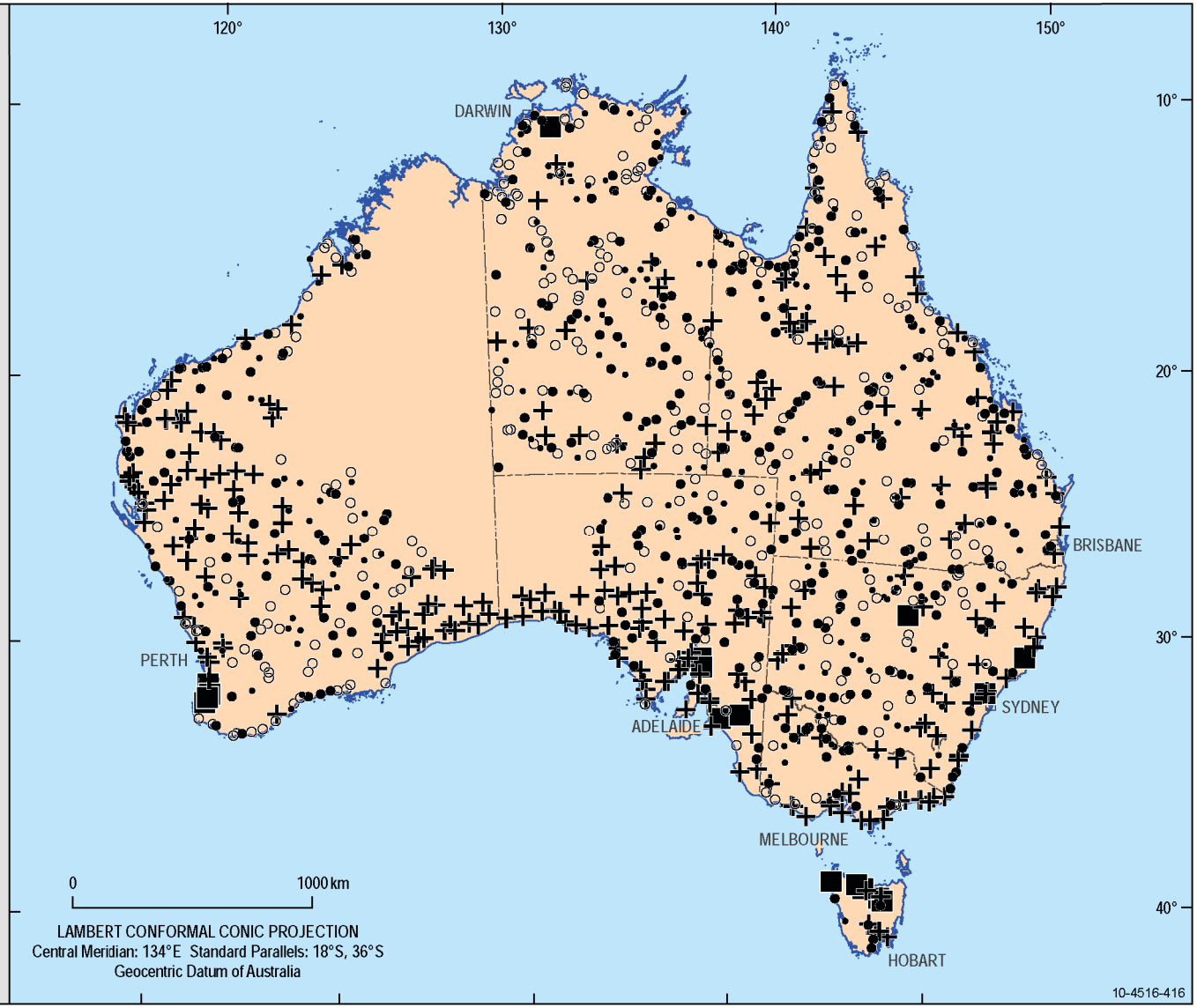
25%: *0.03 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ce

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1177

Maximum: *395 mg/kg*

Upper Fence: *140.69 mg/kg*

75%: *57.1 mg/kg*

Median: *42.9 mg/kg*

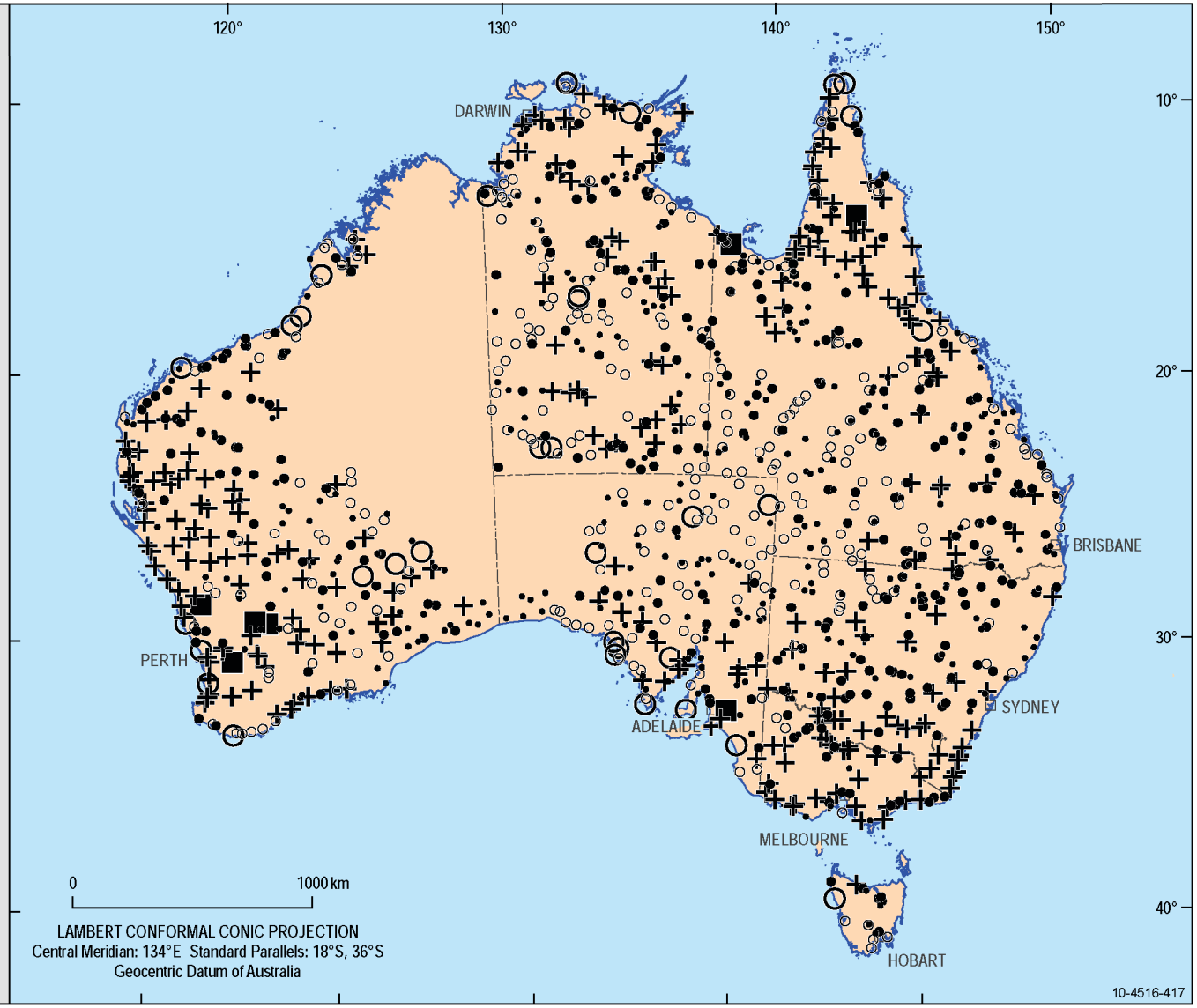
25%: *31.3 mg/kg*

Lower Fence: *12.7 mg/kg*

Minimum: *0.29 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Co

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177

Maximum: *60.1 mg/kg*

Upper Fence: *39.5 mg/kg*

75%: *12.1 mg/kg*

Median: *8.6 mg/kg*

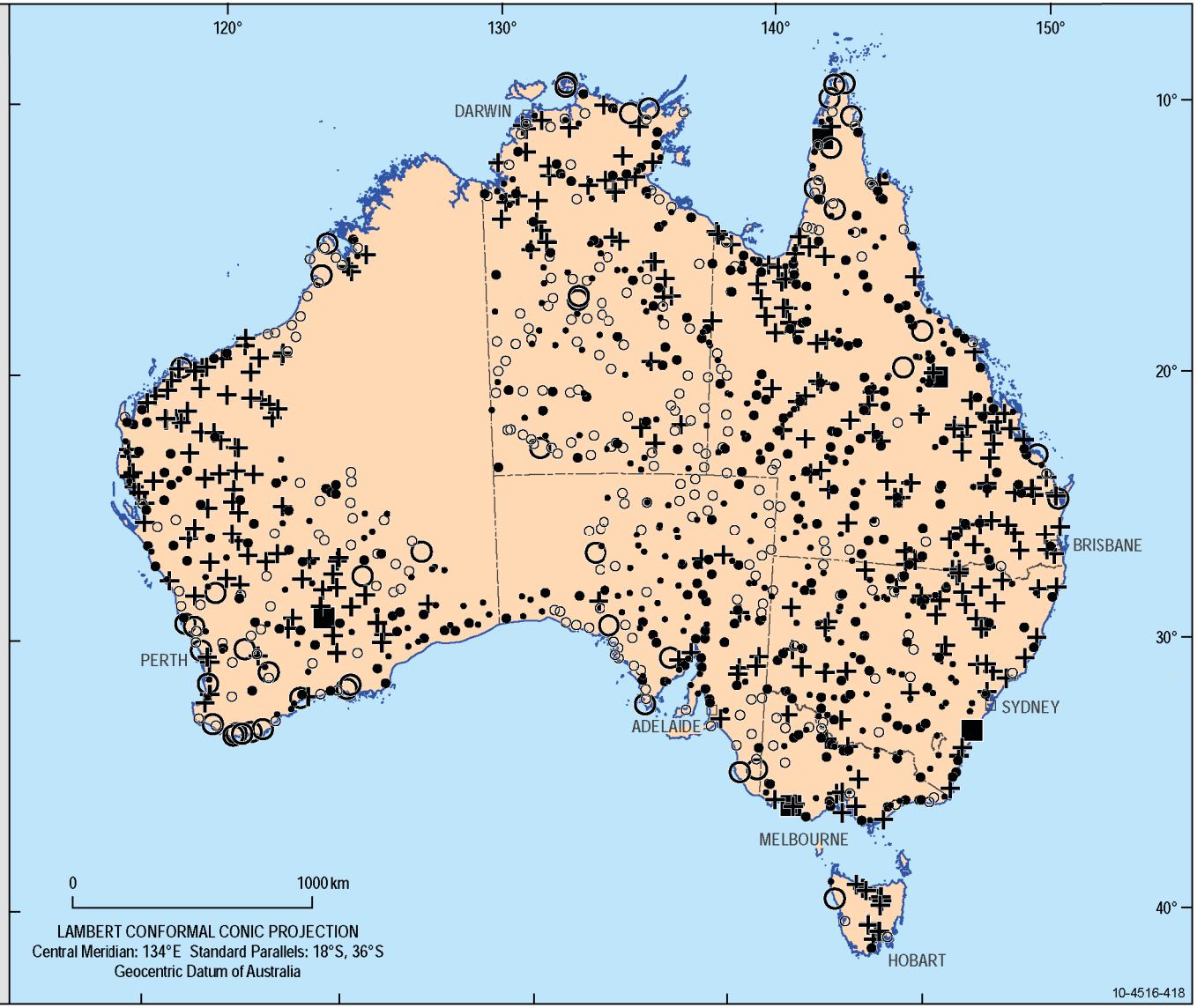
25%: *5.5 mg/kg*

Lower Fence: *1.7 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Cr

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.5 mg/kg
N: 1177

Maximum: *915 mg/kg*

Upper Fence: *178.8 mg/kg*

75%: *47.6 mg/kg*

Median: *29.4 mg/kg*

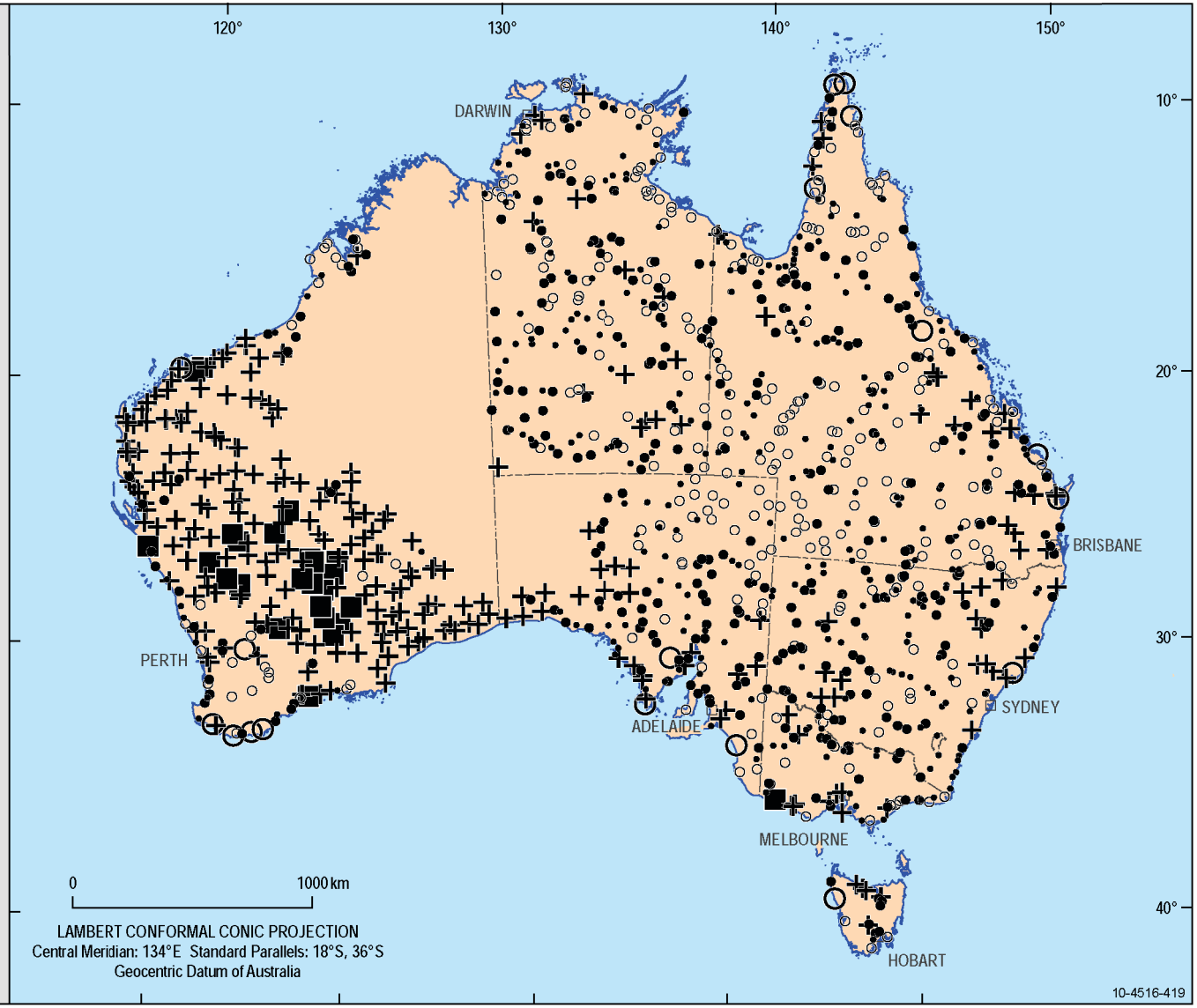
25%: *19.7 mg/kg*

Lower Fence: *5.2 mg/kg*

Minimum: *0.9 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Cs

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1177

Maximum: *7.31 mg/kg*

Upper Fence: *7.22 mg/kg*

75%: *1.78 mg/kg*

Median: *1.16 mg/kg*

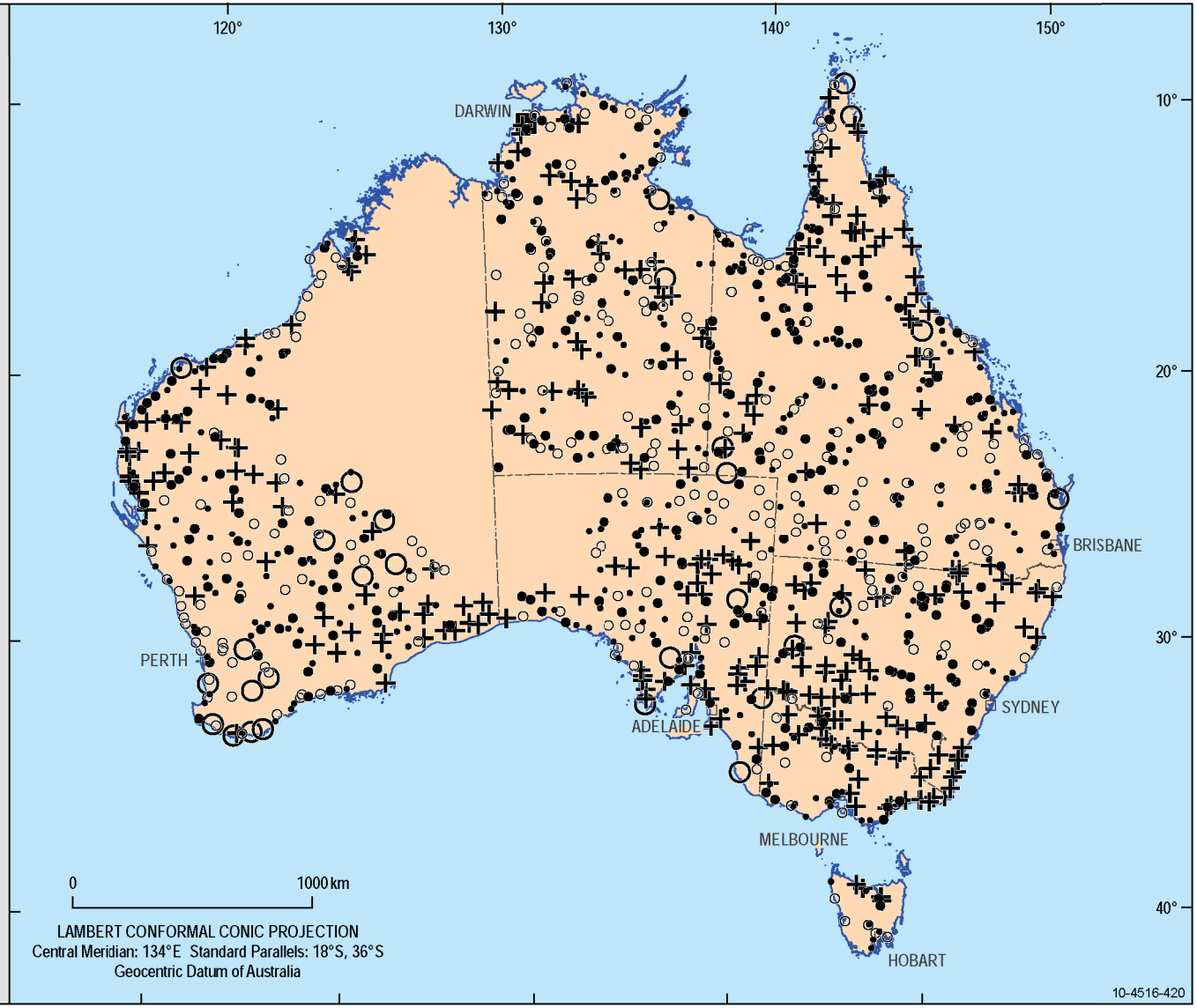
25%: *0.7 mg/kg*

Lower Fence: *0.17 mg/kg*

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Cu

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1177

Maximum: *170 mg/kg*

Upper Fence: *78.96 mg/kg*

75%: *24.2 mg/kg*

Median: *16.5 mg/kg*

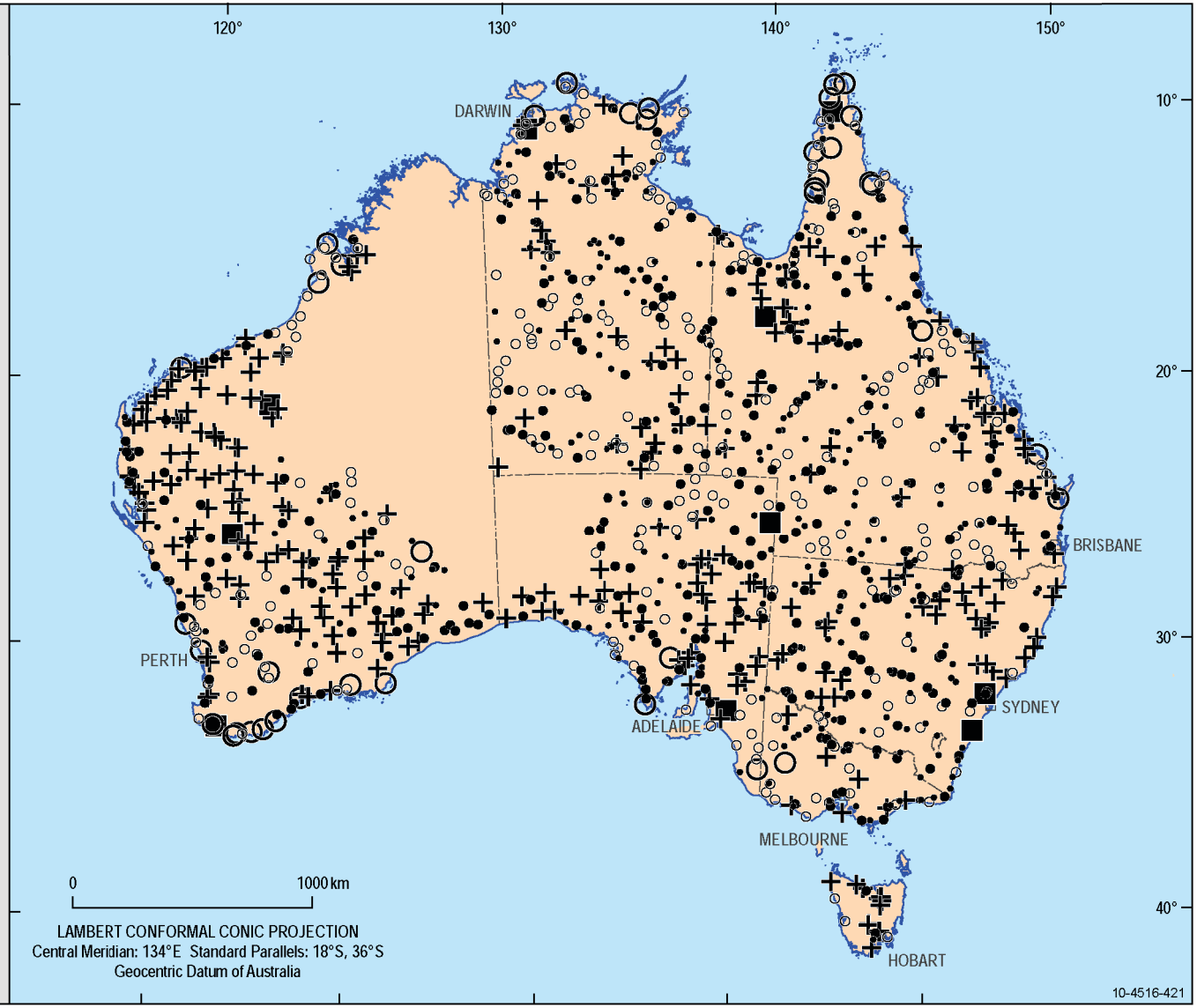
25%: *11 mg/kg*

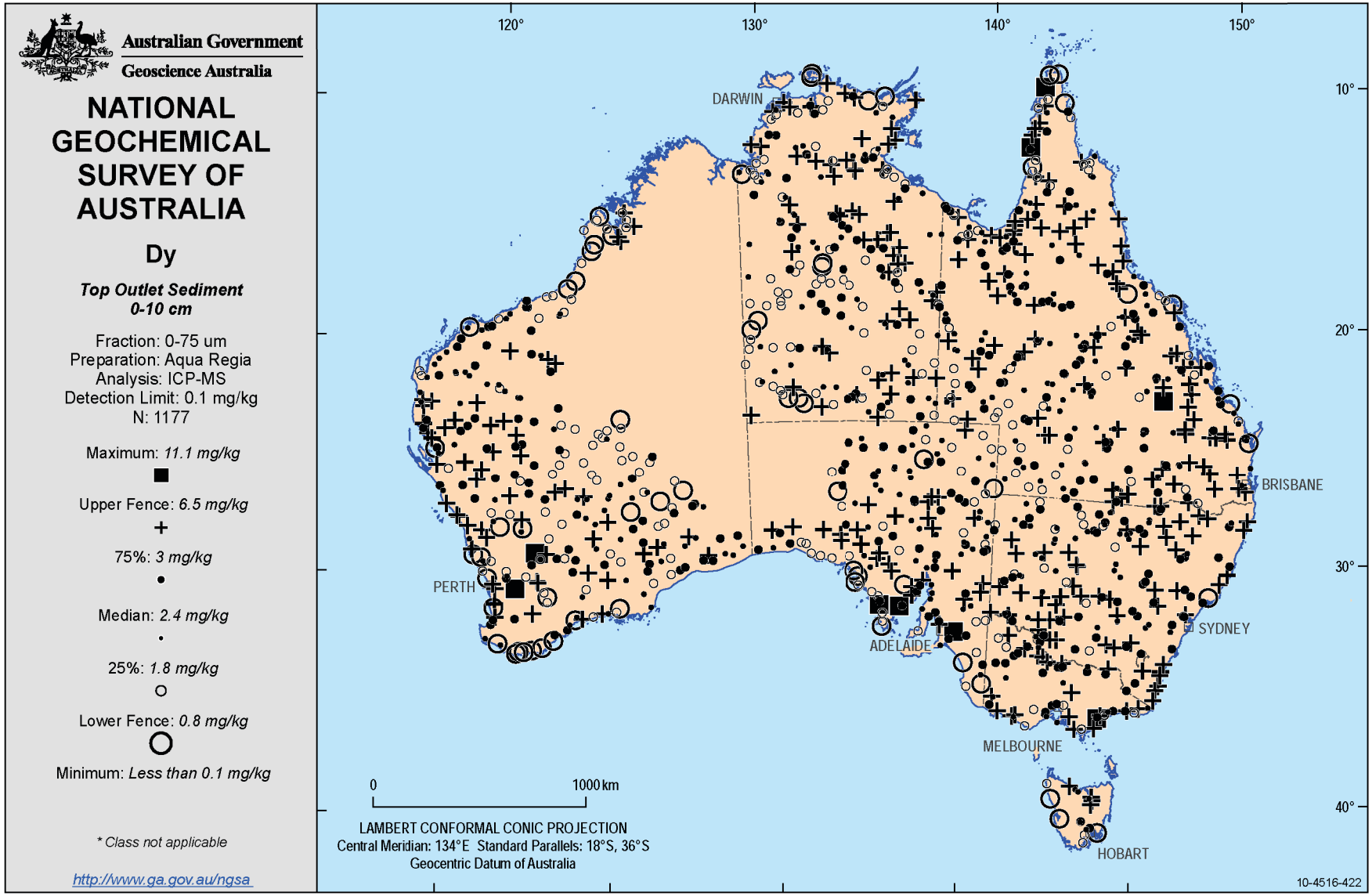
Lower Fence: *3.37 mg/kg*

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Dy
Top Outlet Sediment
0-10 cm
Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177
Maximum: 11.1 mg/kg
Upper Fence: 6.5 mg/kg
75%: 3 mg/kg
Median: 2.4 mg/kg
25%: 1.8 mg/kg
Lower Fence: 0.8 mg/kg
Minimum: Less than 0.1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
BRISBANE
SYDNEY
MELBOURNE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-422

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Er

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177

Maximum: *3.8 mg/kg*

Upper Fence: *3.2 mg/kg*

75%: *1.4 mg/kg*

Median: *1.1 mg/kg*

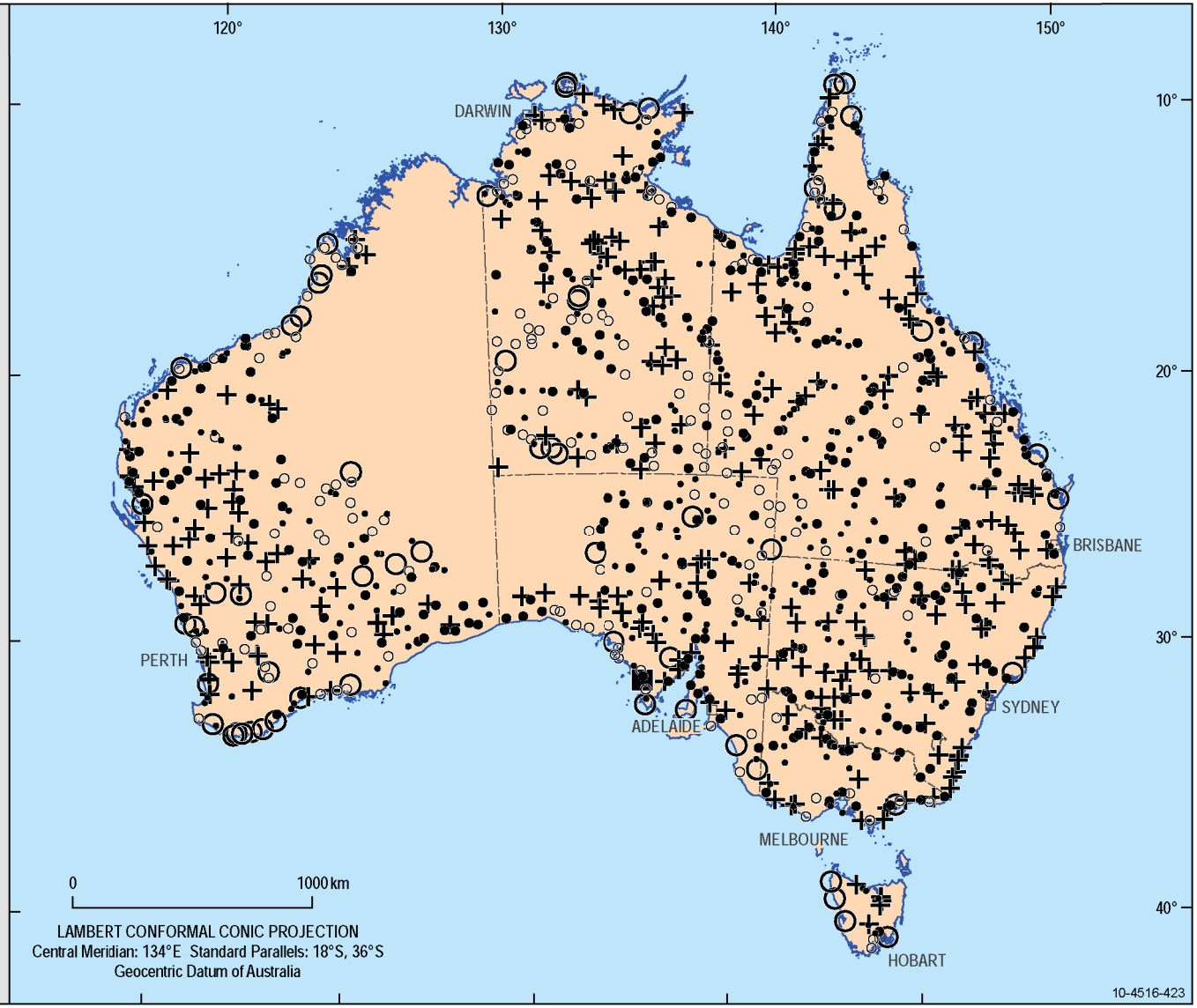
25%: *0.8 mg/kg*

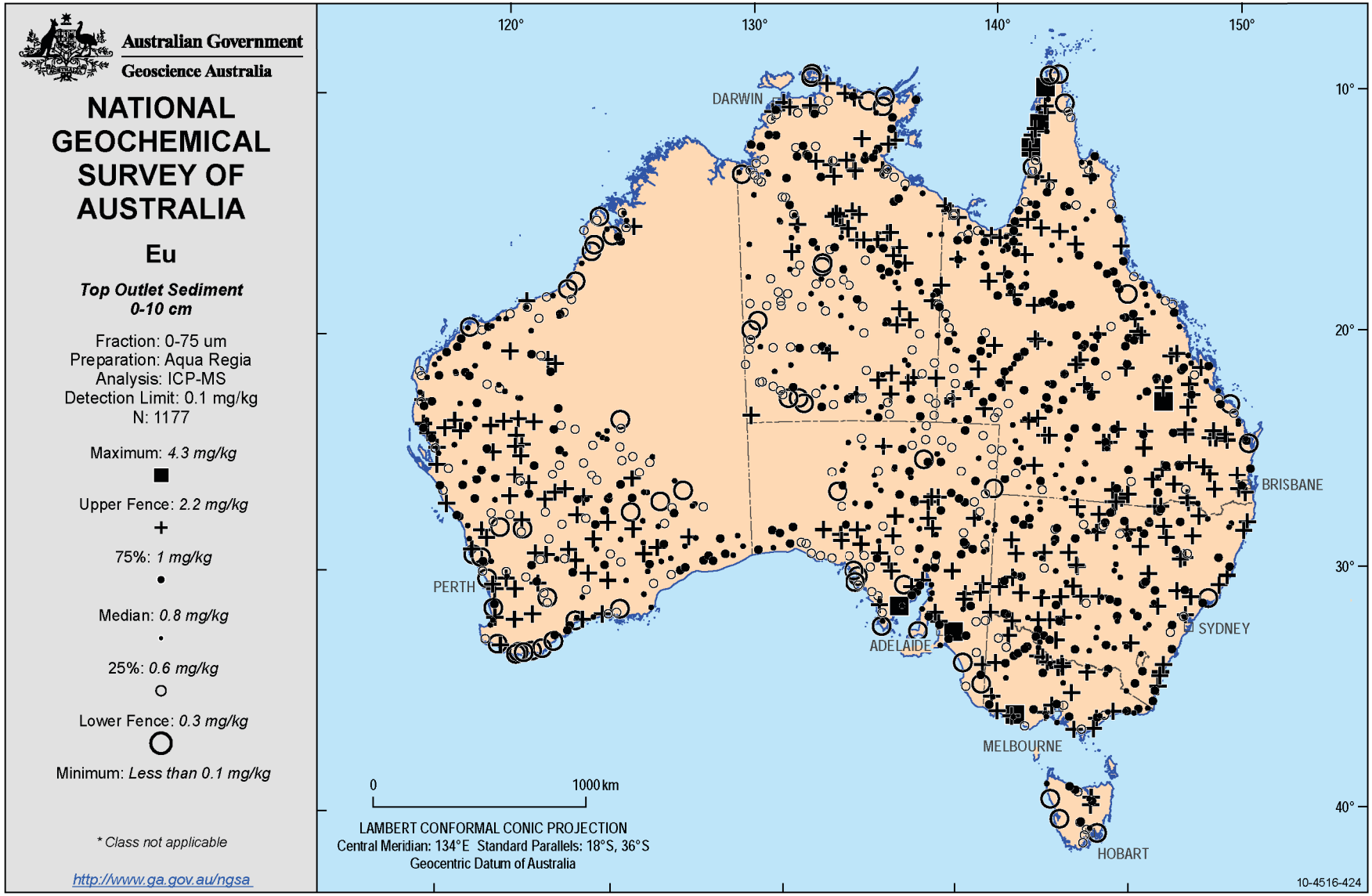
Lower Fence: *0.3 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Eu
Top Outlet Sediment
0-10 cm
Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177
Maximum: 4.3 mg/kg
Upper Fence: 2.2 mg/kg
75%: 1 mg/kg
Median: 0.8 mg/kg
25%: 0.6 mg/kg
Lower Fence: 0.3 mg/kg
Minimum: Less than 0.1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
MELBOURNE
SYDNEY
BRISBANE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-424

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Fe

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 100 mg/kg
N: 1177

Maximum: *175000 mg/kg*

Upper Fence: *97734 mg/kg*

75%: *33800 mg/kg*

Median: *23300 mg/kg*

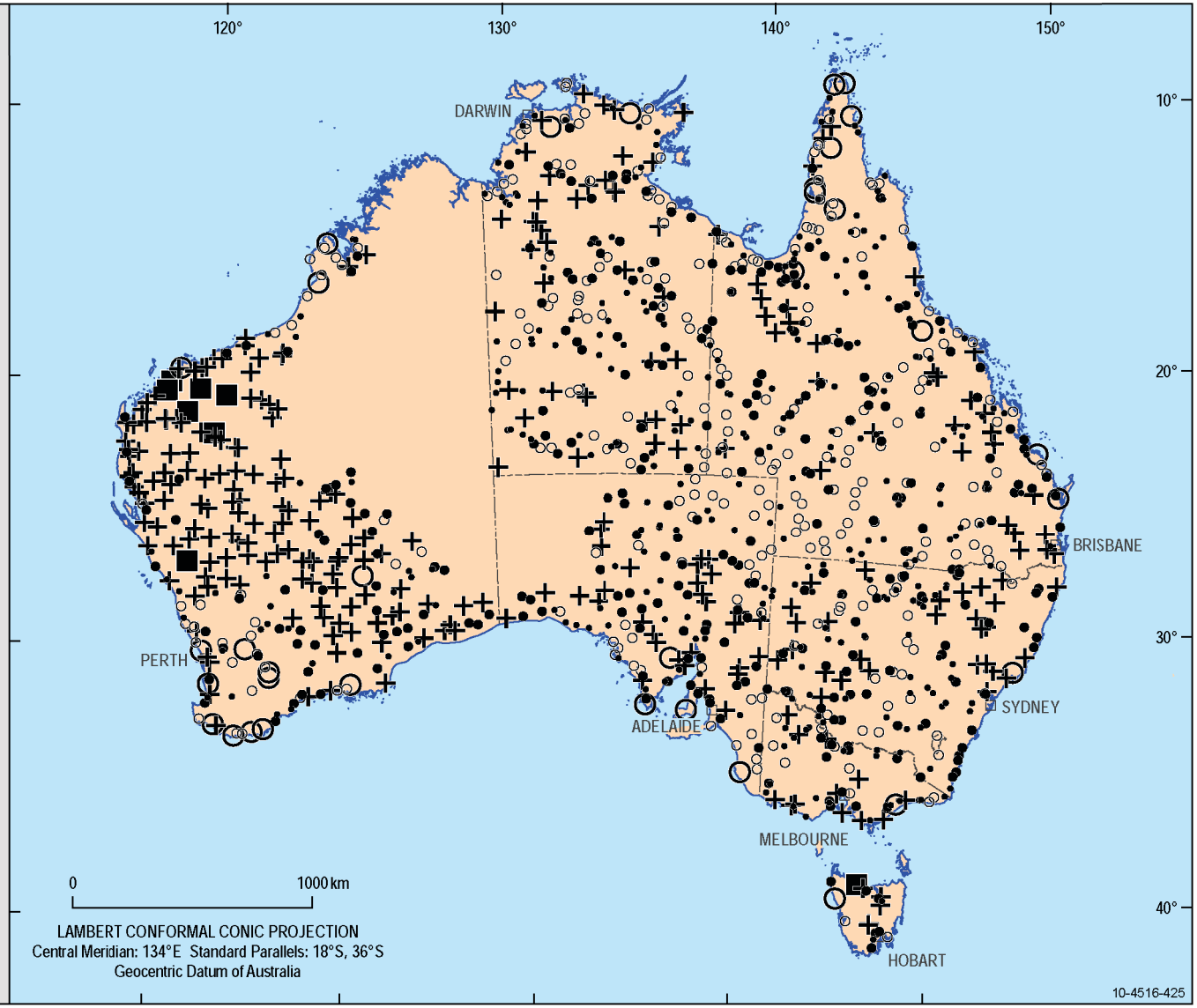
25%: *16200 mg/kg*

Lower Fence: *5290 mg/kg*

Minimum: *100 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ga

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1177

Maximum: *23.9 mg/kg*

Upper Fence: *N/A**

75%: *7.62 mg/kg*

Median: *5.29 mg/kg*

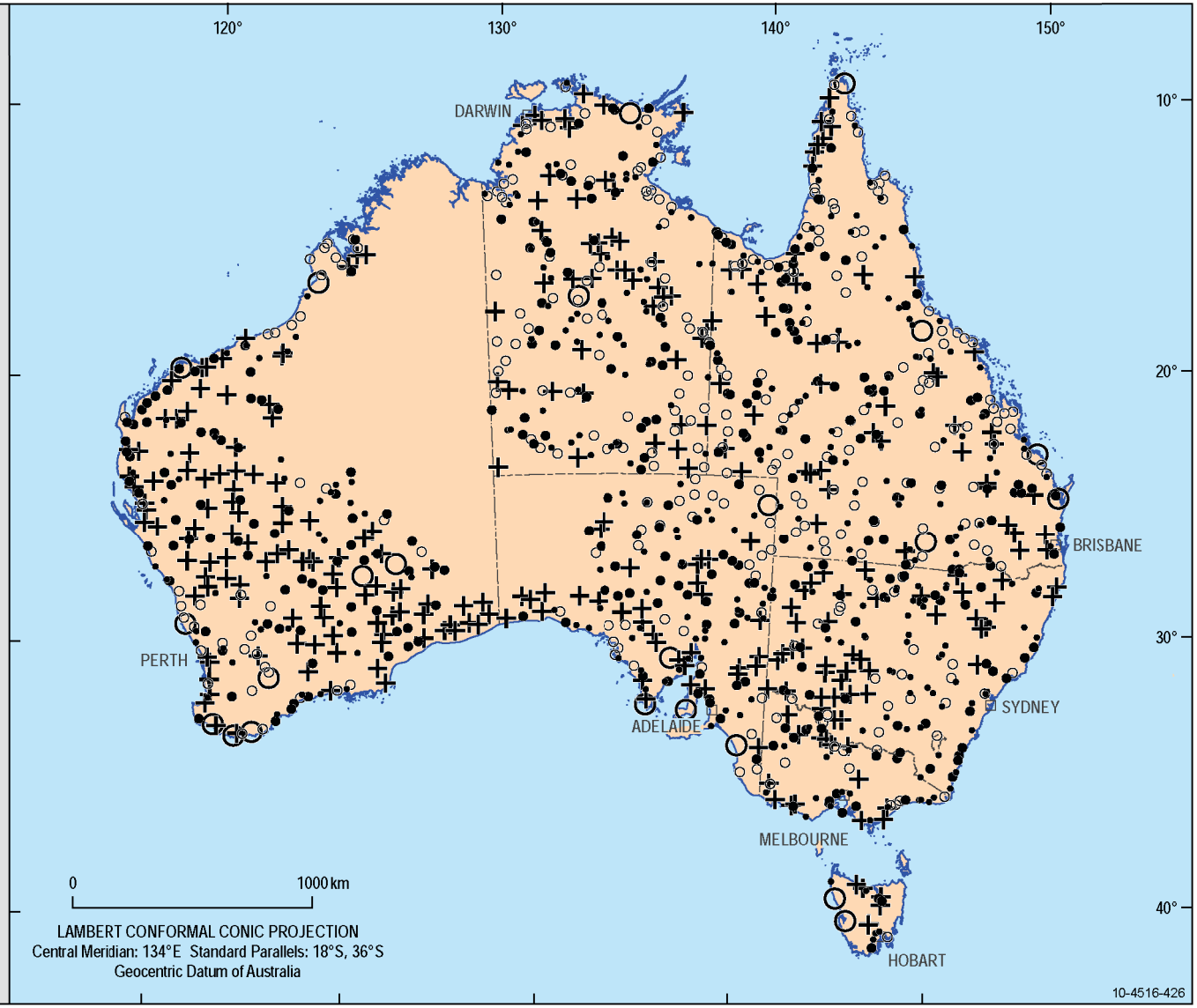
25%: *3.54 mg/kg*

Lower Fence: *1.12 mg/kg*

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Gd

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177

Maximum: *23.6 mg/kg*

Upper Fence: *9.7 mg/kg*

75%: *4.3 mg/kg*

Median: *3.3 mg/kg*

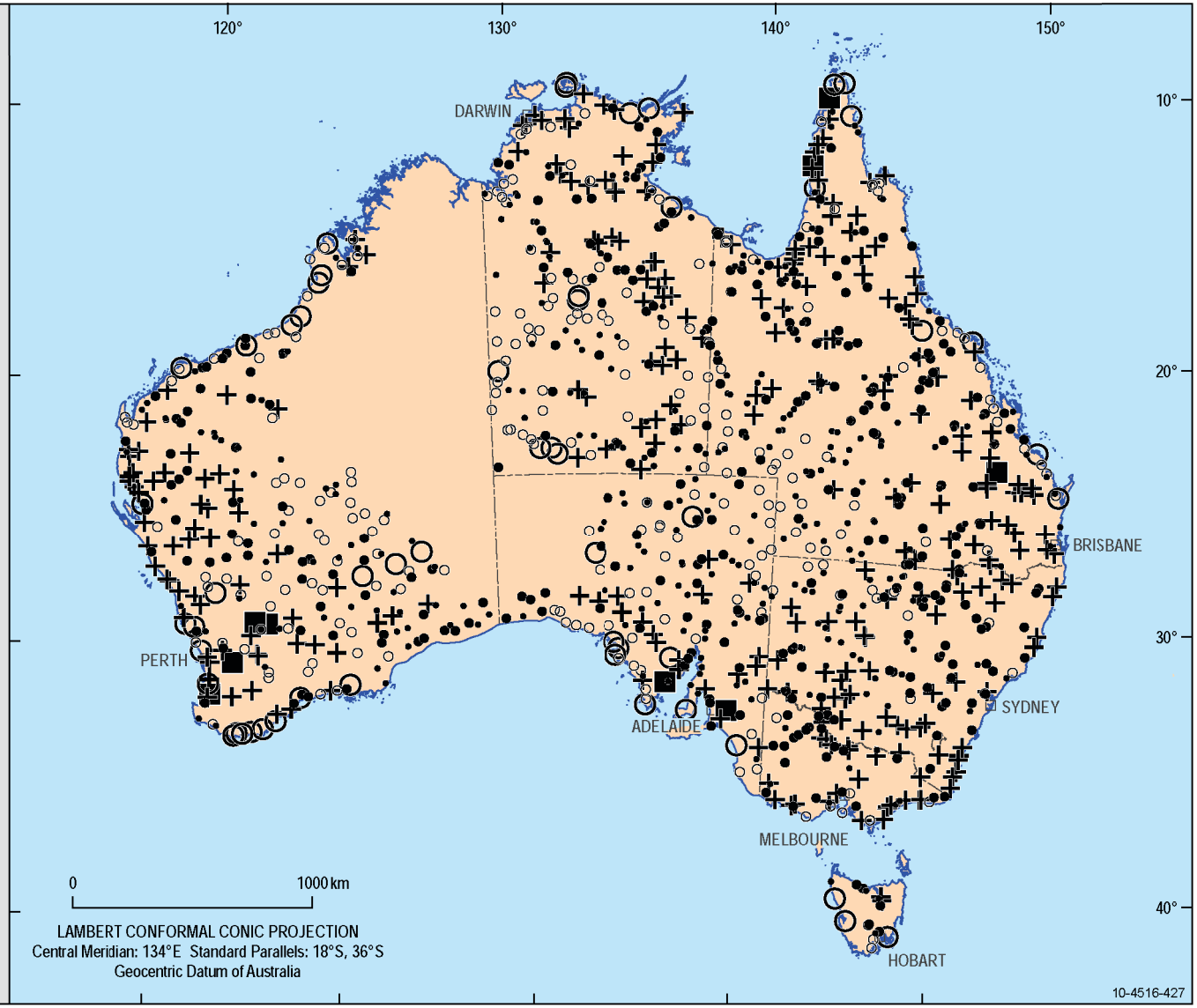
25%: *2.5 mg/kg*

Lower Fence: *1.1 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ge

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177

Maximum: *0.3 mg/kg*

Upper Fence: *Less than 0.1 mg/kg*

75%: *N/A**

Median: *N/A**

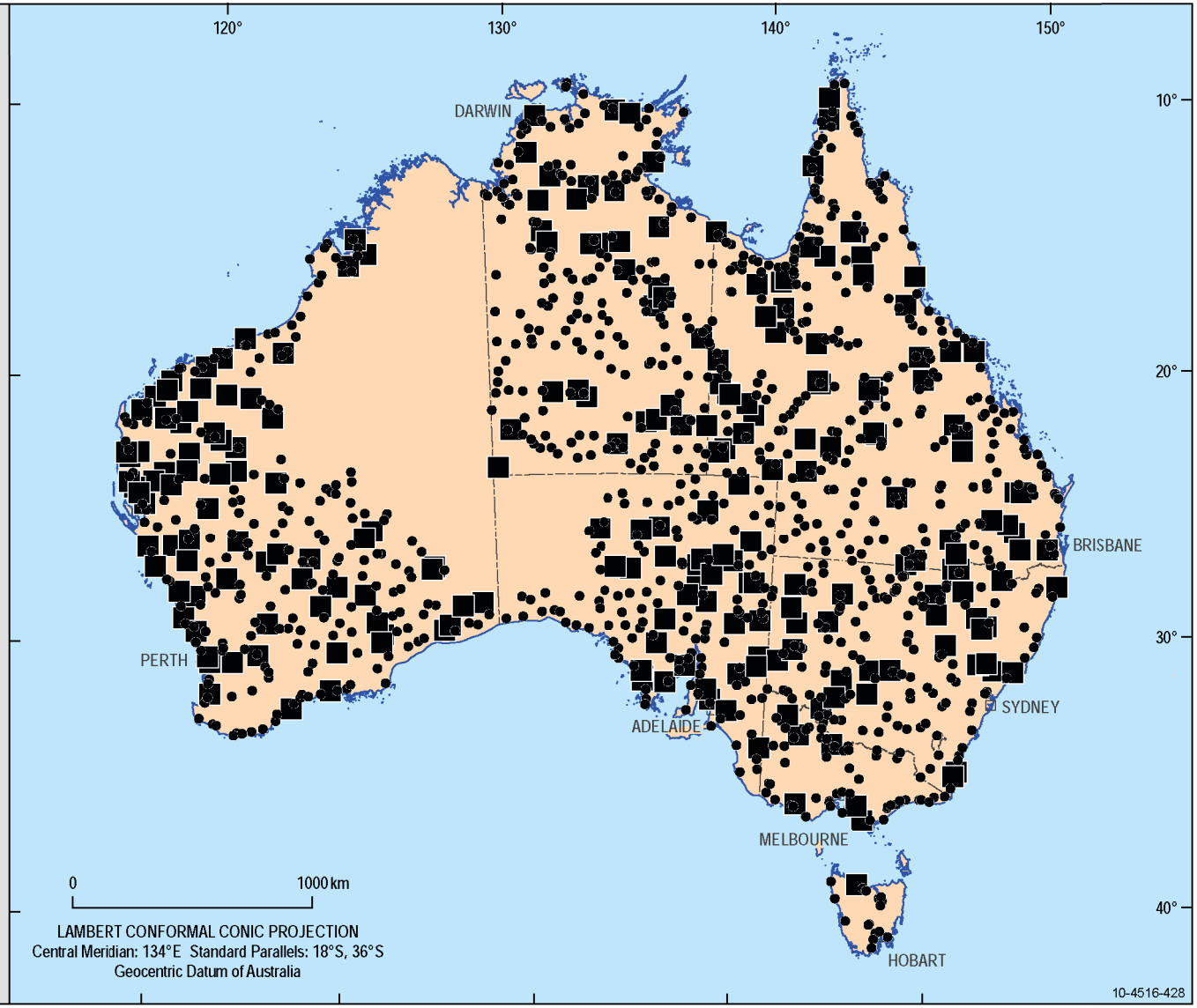
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Hf

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177

Maximum: *0.8 mg/kg*

Upper Fence: *N/A**

75%: *0.2 mg/kg*

Median: *N/A**

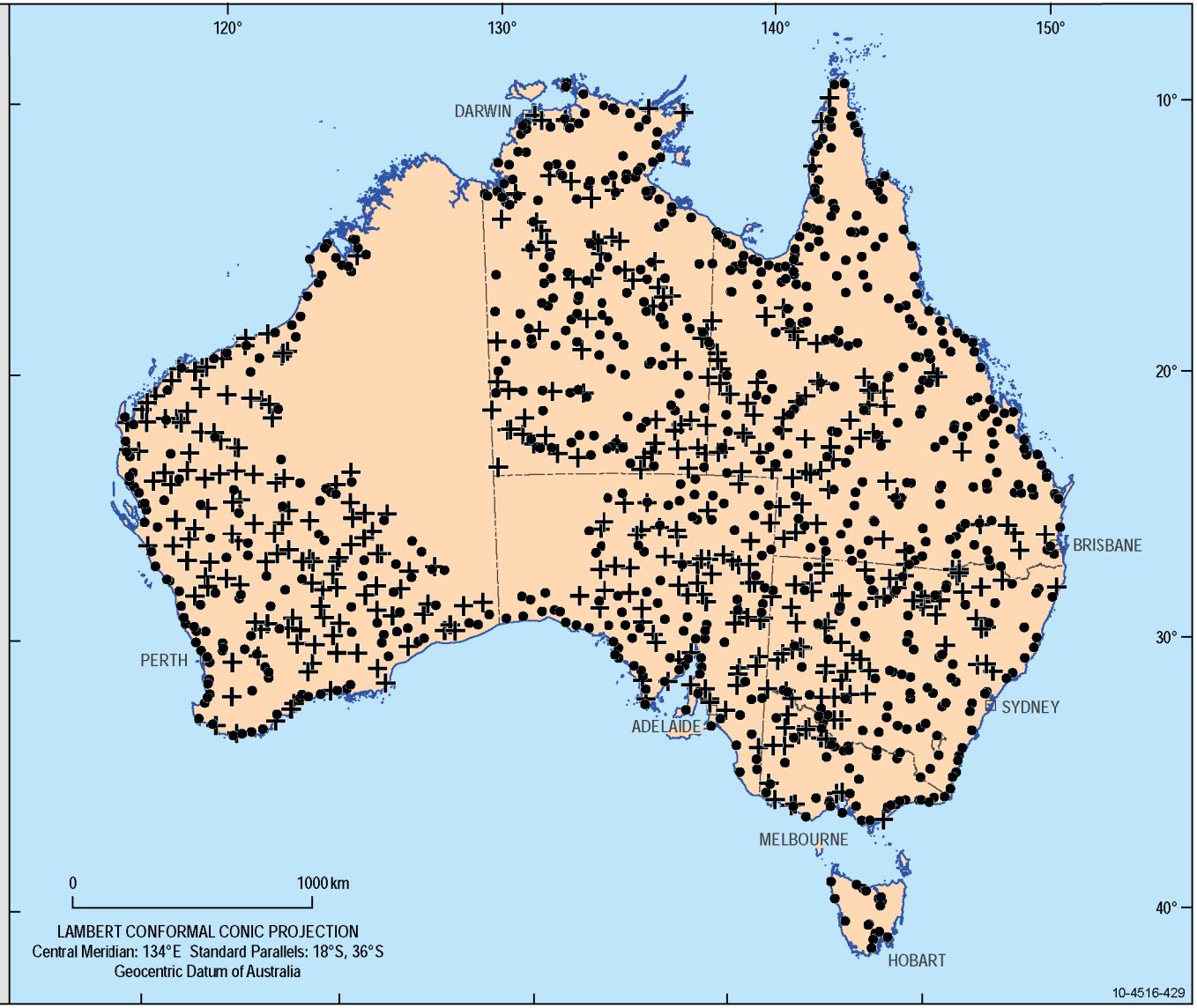
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Hg

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1177

Maximum: *5.74 mg/kg*

Upper Fence: *0.32 mg/kg*

75%: *0.04 mg/kg*

Median: *0.02 mg/kg*

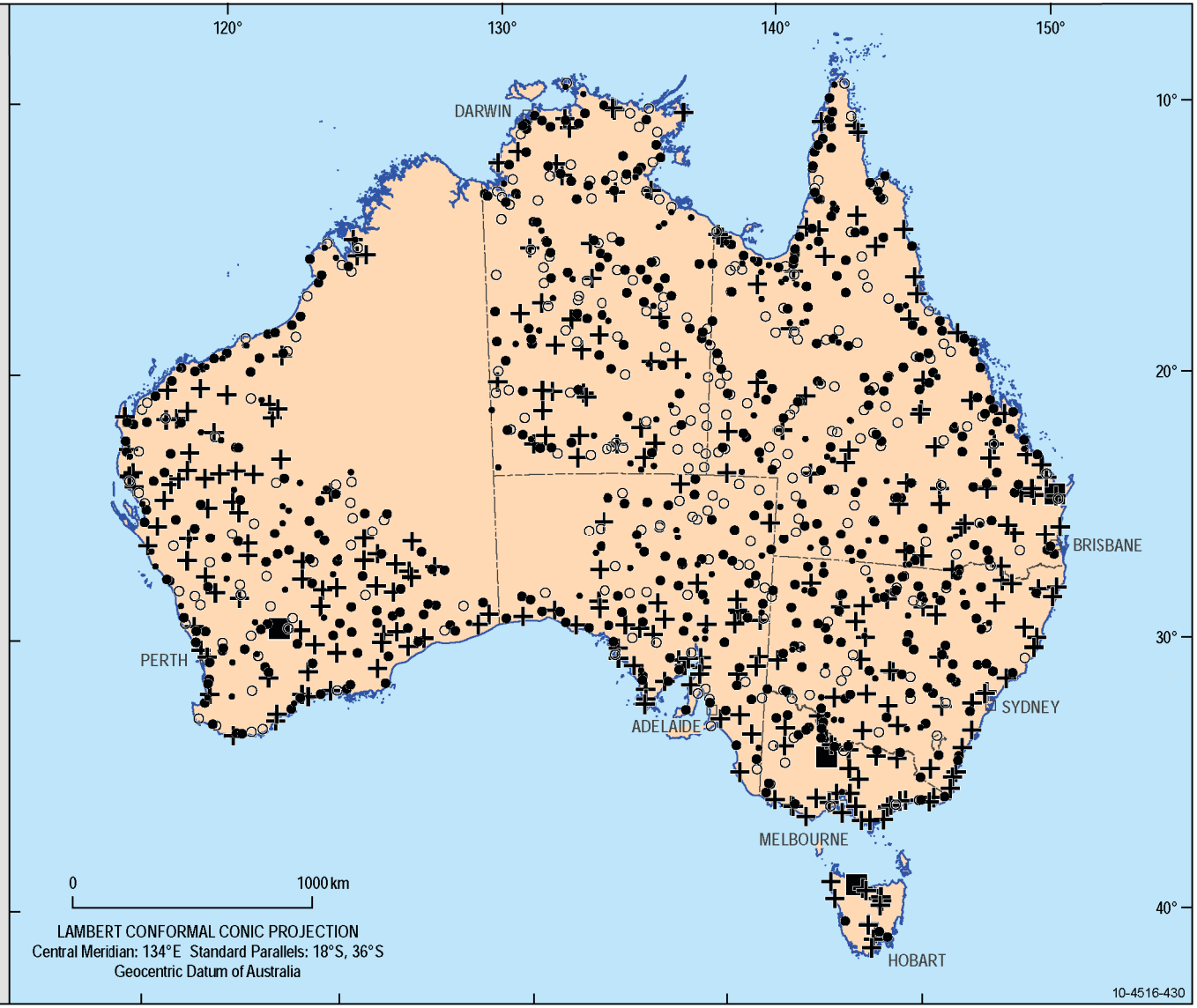
25%: *0.01 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ho

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177

Maximum: *1.5 mg/kg*

Upper Fence: *1.1 mg/kg*

75%: *0.5 mg/kg*

Median: *0.4 mg/kg*

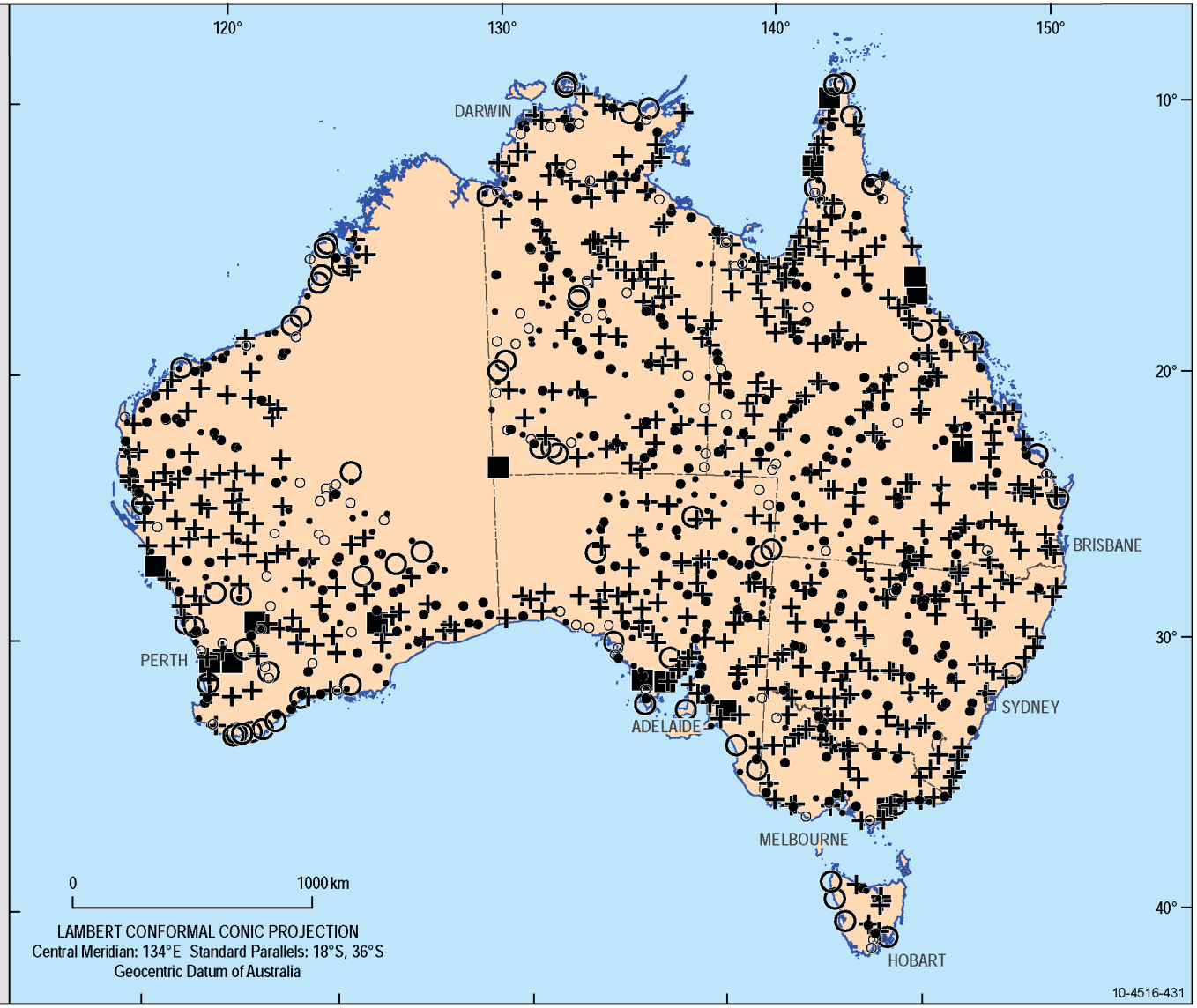
25%: *0.3 mg/kg*

Lower Fence: *0.1 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

In

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1177

Maximum: *0.5 mg/kg*

Upper Fence: *0.16 mg/kg*

75%: *0.03 mg/kg*

Median: *0.02 mg/kg*

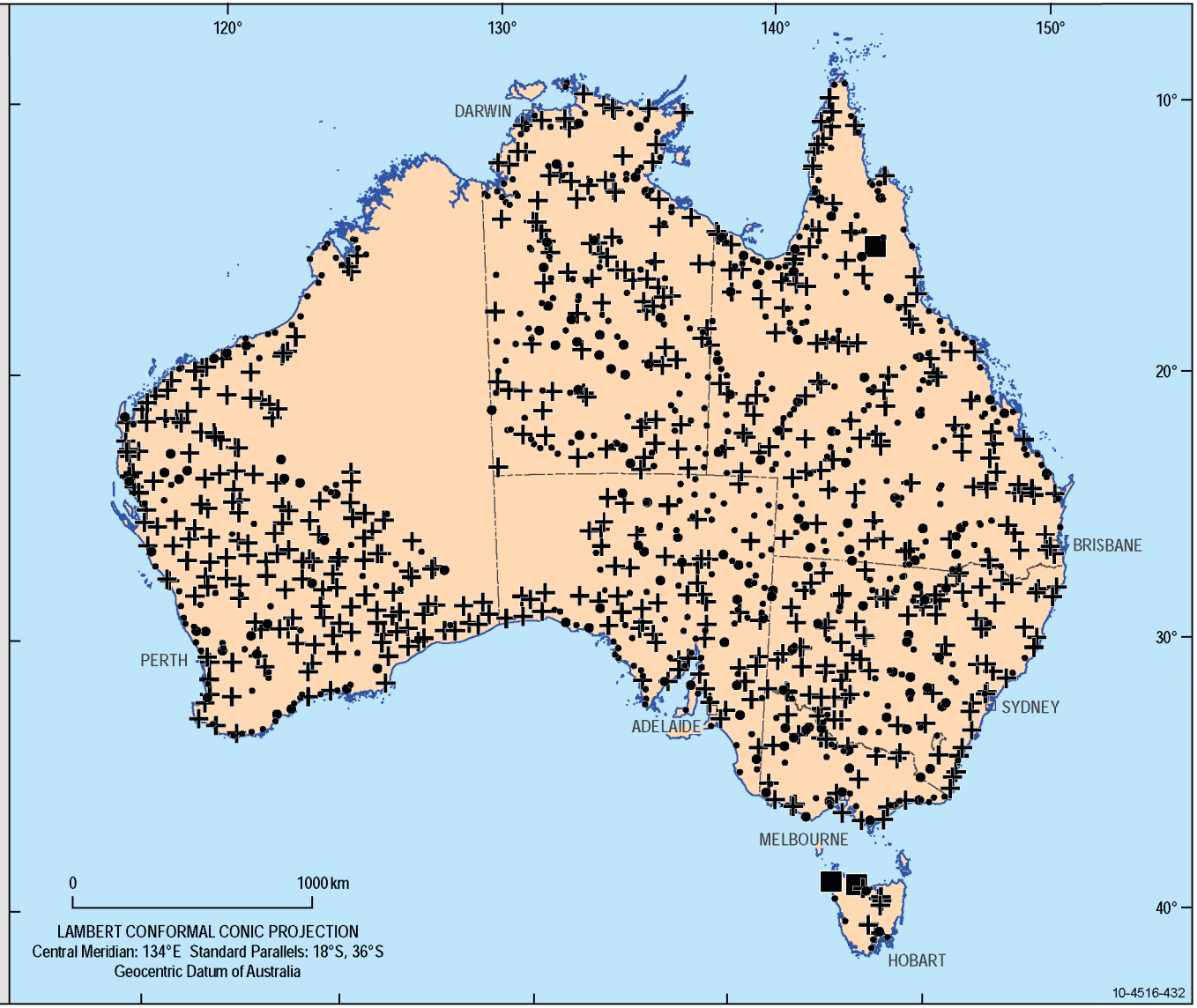
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

K

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 100 mg/kg
N: 1177

Maximum: *21600 mg/kg*

Upper Fence: *N/A**

75%: *4300 mg/kg*

Median: *2400 mg/kg*

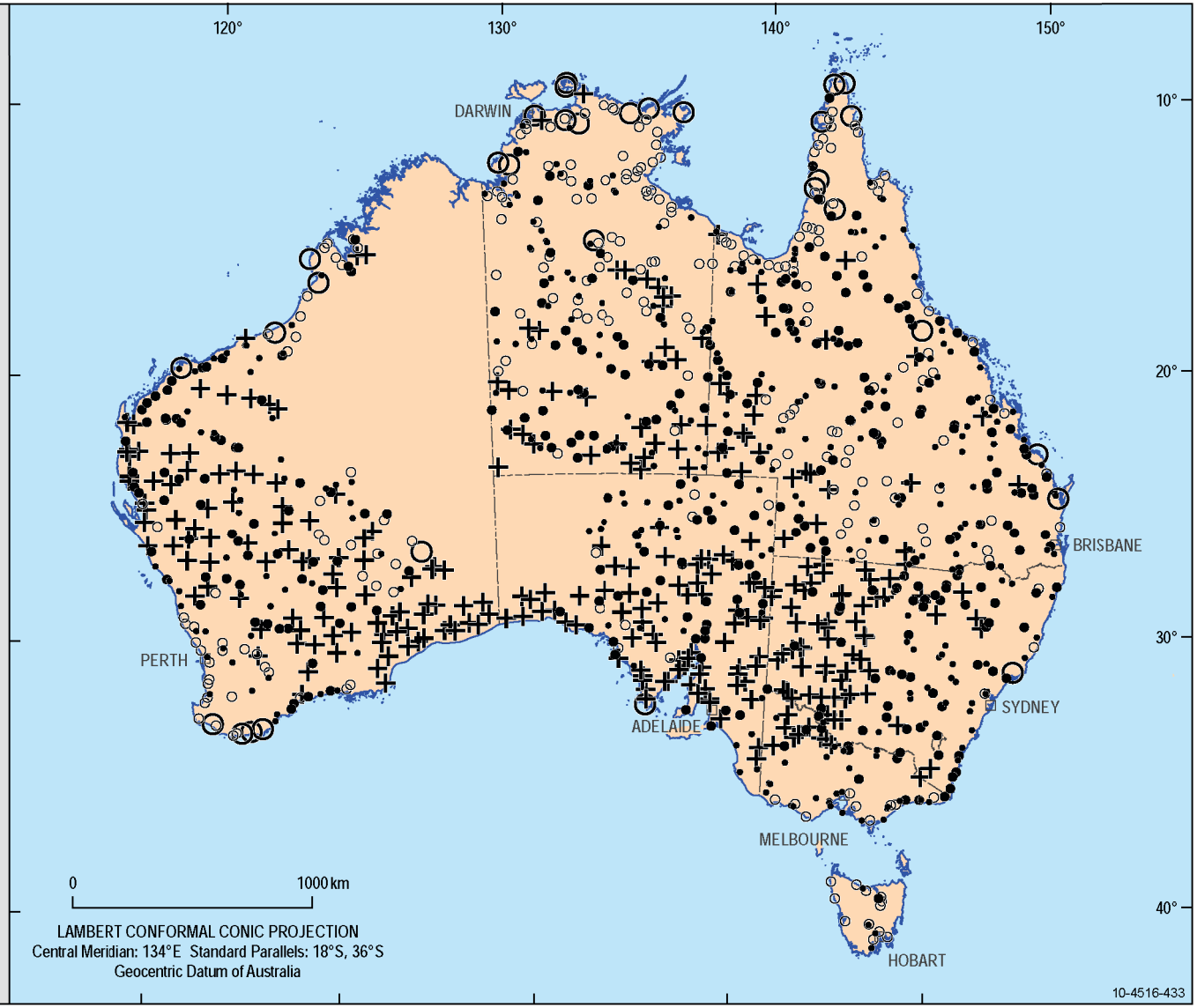
25%: *1300 mg/kg*

Lower Fence: *215 mg/kg*

Minimum: *Less than 100 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

La

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.5 mg/kg
N: 1177

Maximum: *226 mg/kg*

Upper Fence: *70.8 mg/kg*

75%: *27.9 mg/kg*

Median: *20.6 mg/kg*

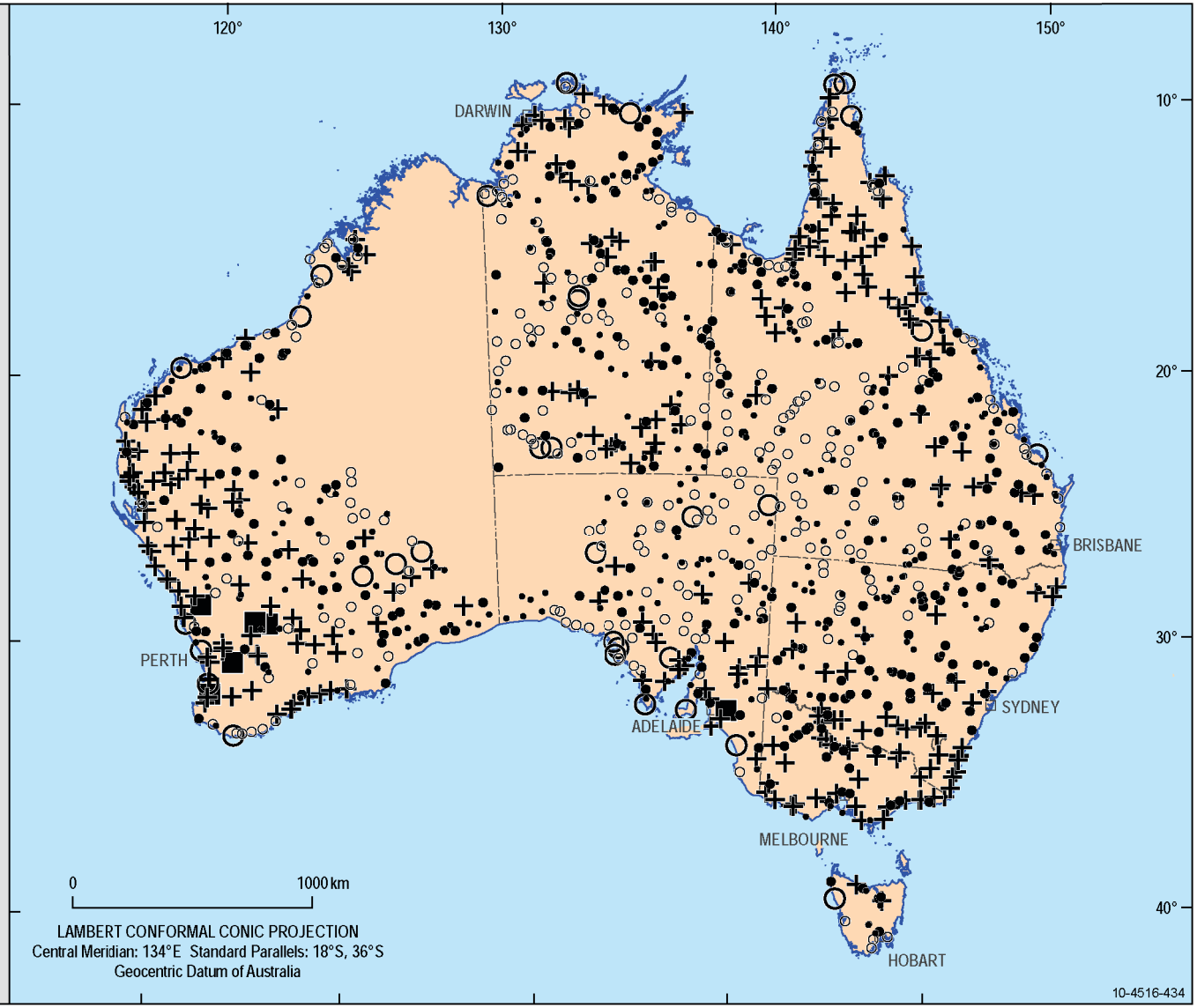
25%: *15 mg/kg*

Lower Fence: *5.9 mg/kg*

Minimum: *Less than 0.5 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Li

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177

Maximum: *88 mg/kg*

Upper Fence: *69.1 mg/kg*

75%: *14.8 mg/kg*

Median: *9 mg/kg*

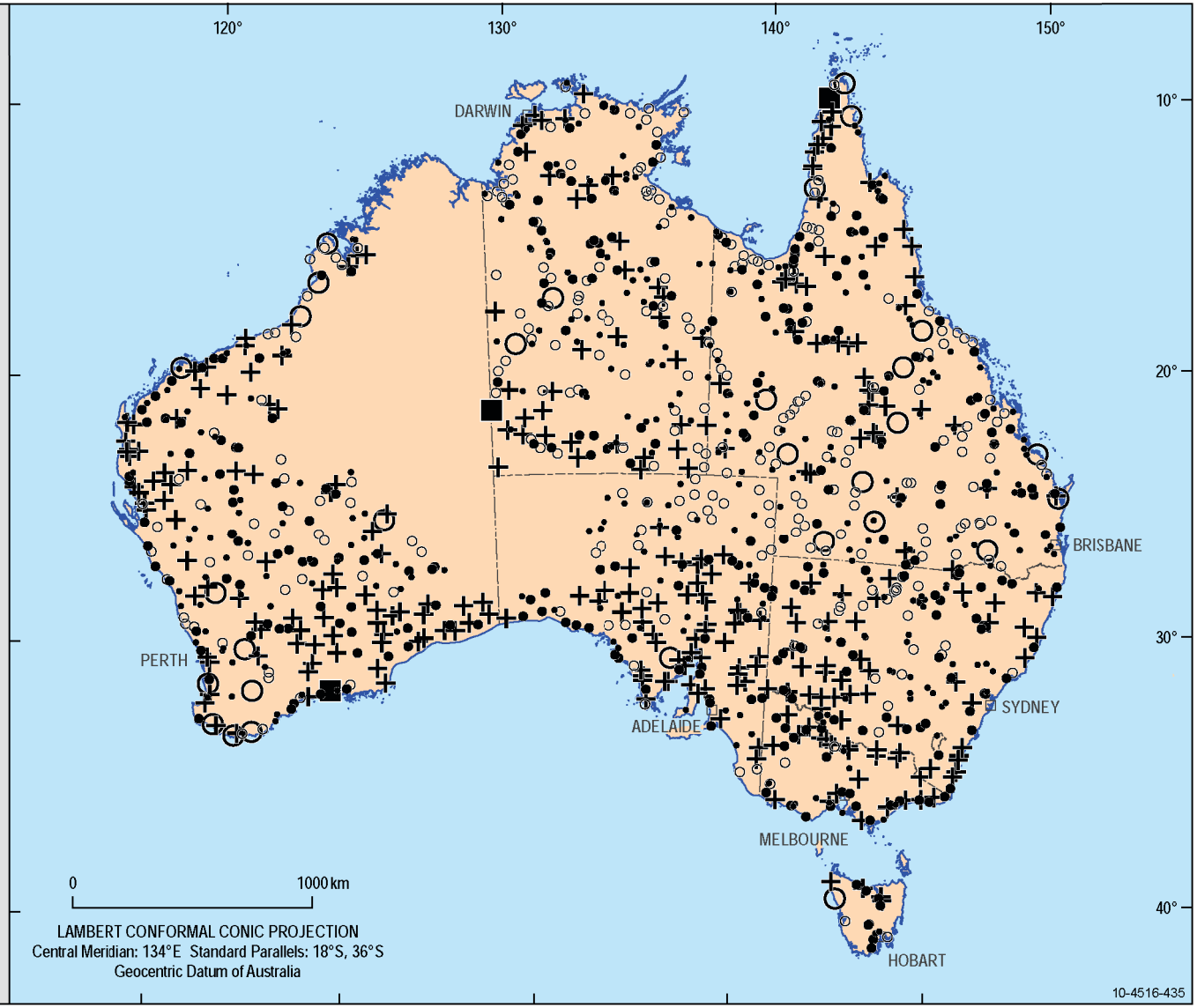
25%: *5.3 mg/kg*

Lower Fence: *1.1 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Lu

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177

Maximum: *3.7 mg/kg*

Upper Fence: *0.3 mg/kg*

75%: *0.1 mg/kg*

Median: *0.1 mg/kg*

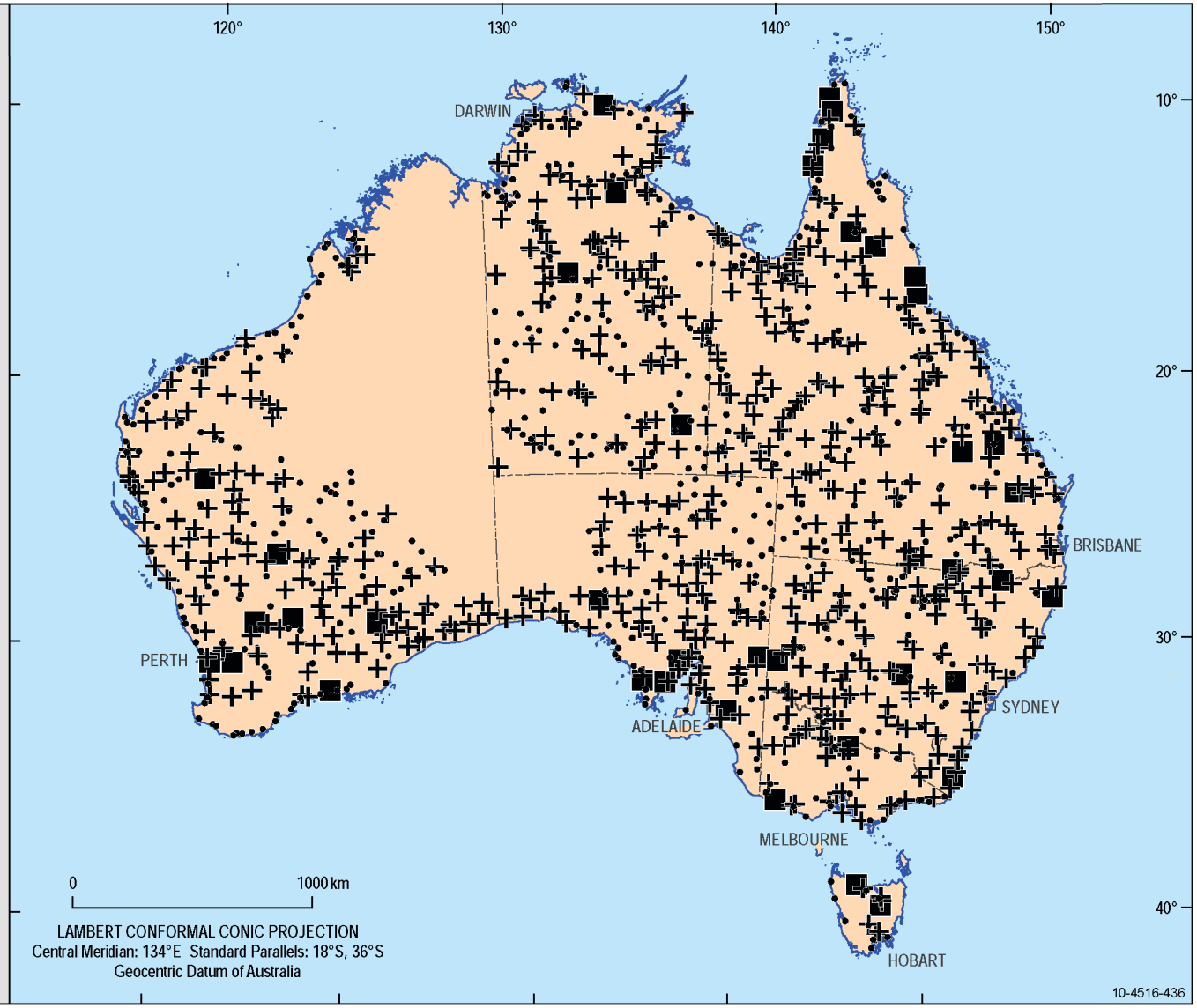
25%: *N/A**

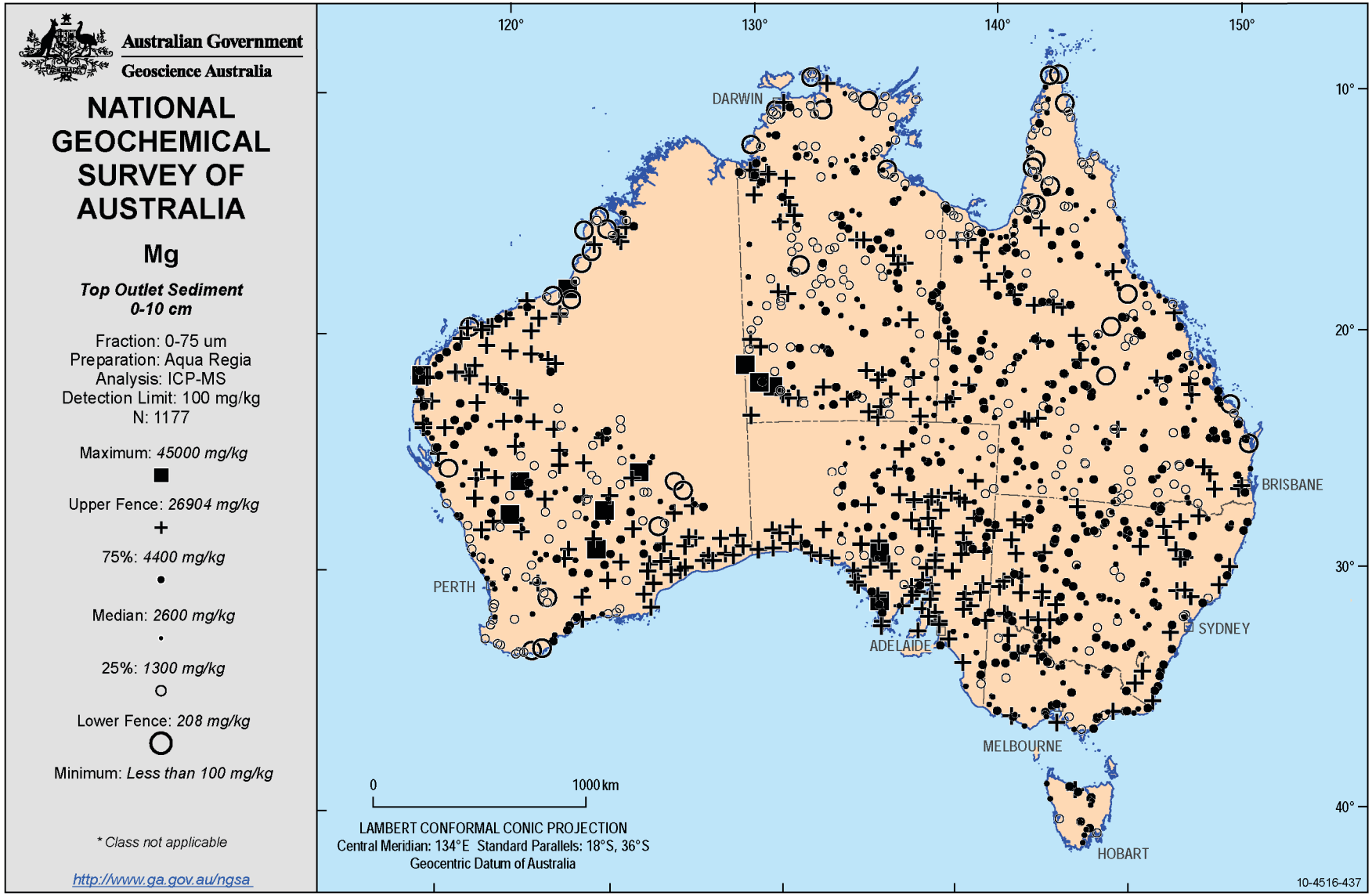
Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Mg
Top Outlet Sediment
0-10 cm
Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 100 mg/kg
N: 1177
Maximum: 45000 mg/kg
Upper Fence: 26904 mg/kg
75%: 4400 mg/kg
Median: 2600 mg/kg
25%: 1300 mg/kg
Lower Fence: 208 mg/kg
Minimum: Less than 100 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
BRISBANE
SYDNEY
MELBOURNE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-437

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Mn

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 1 mg/kg
N: 1177

Maximum: *3060 mg/kg*

Upper Fence: *2238 mg/kg*

75%: *585 mg/kg*

Median: *387 mg/kg*

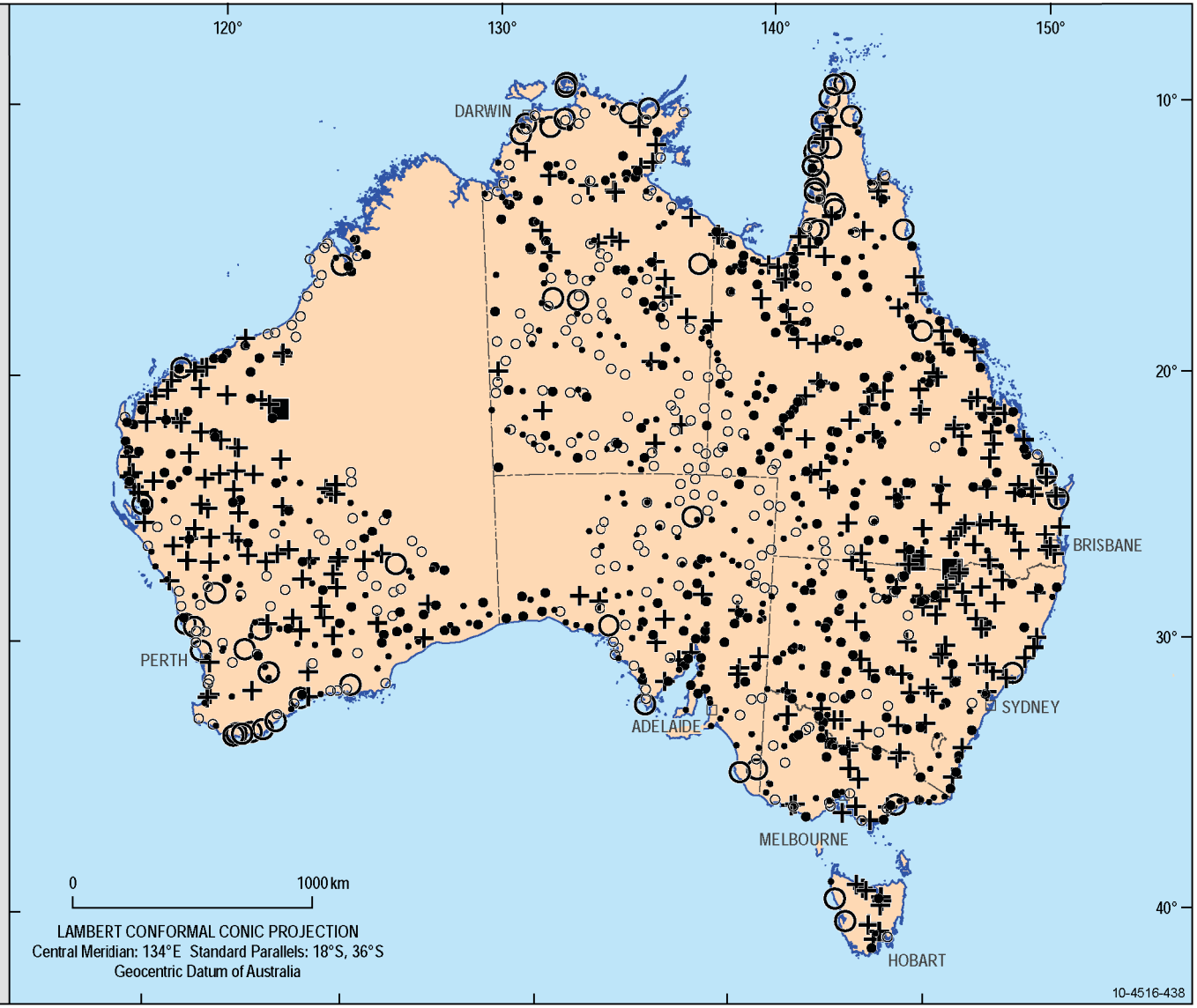
25%: *239 mg/kg*

Lower Fence: *62 mg/kg*

Minimum: *Less than 1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Mo

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1177

Maximum: *19.9 mg/kg*

Upper Fence: *2.16 mg/kg*

75%: *0.47 mg/kg*

Median: *0.29 mg/kg*

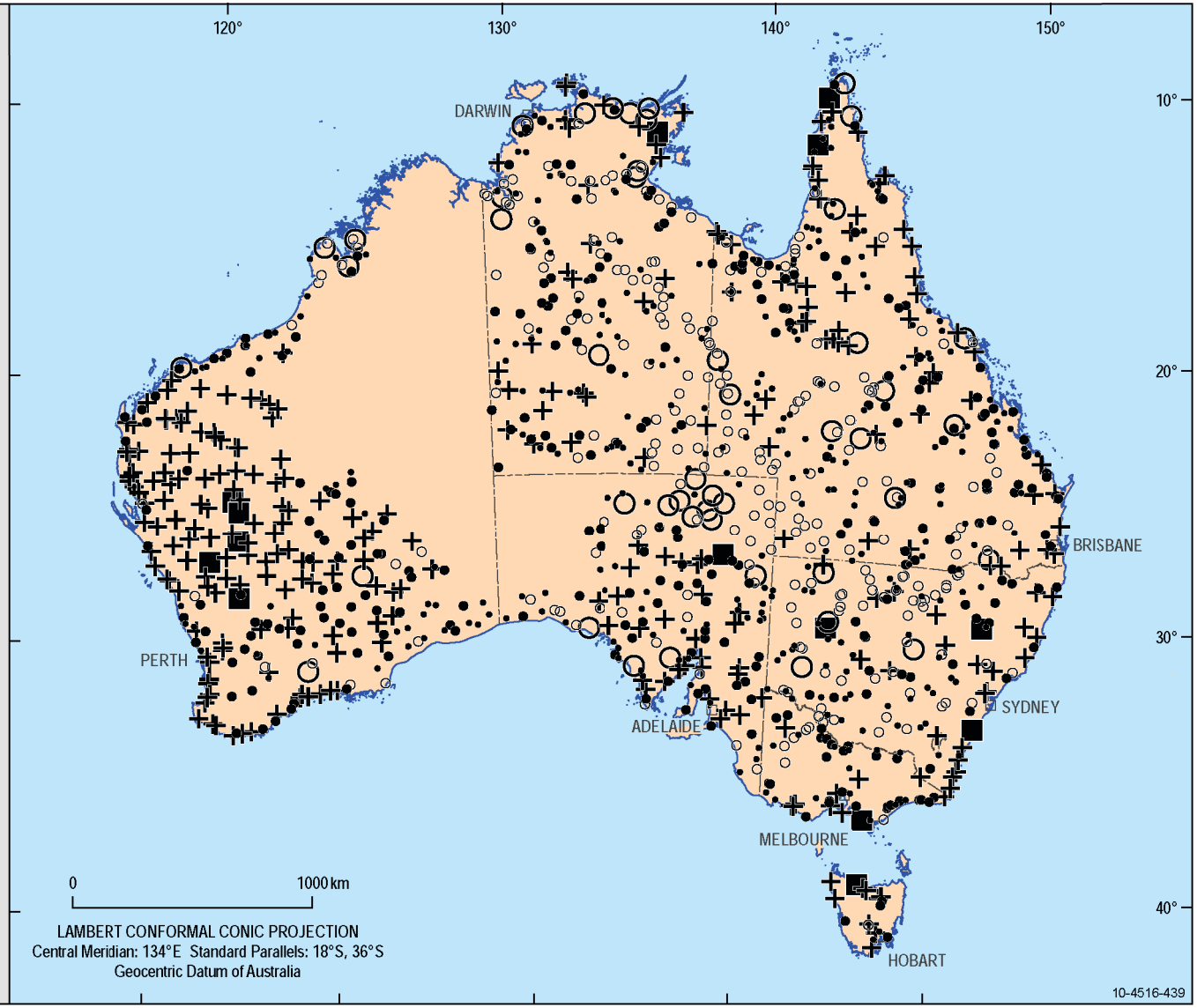
25%: *0.17 mg/kg*

Lower Fence: *0.04 mg/kg*

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Na

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 10 mg/kg
N: 1177

Maximum: *32200 mg/kg*

Upper Fence: *4361 mg/kg*

75%: *480 mg/kg*

Median: *210 mg/kg*

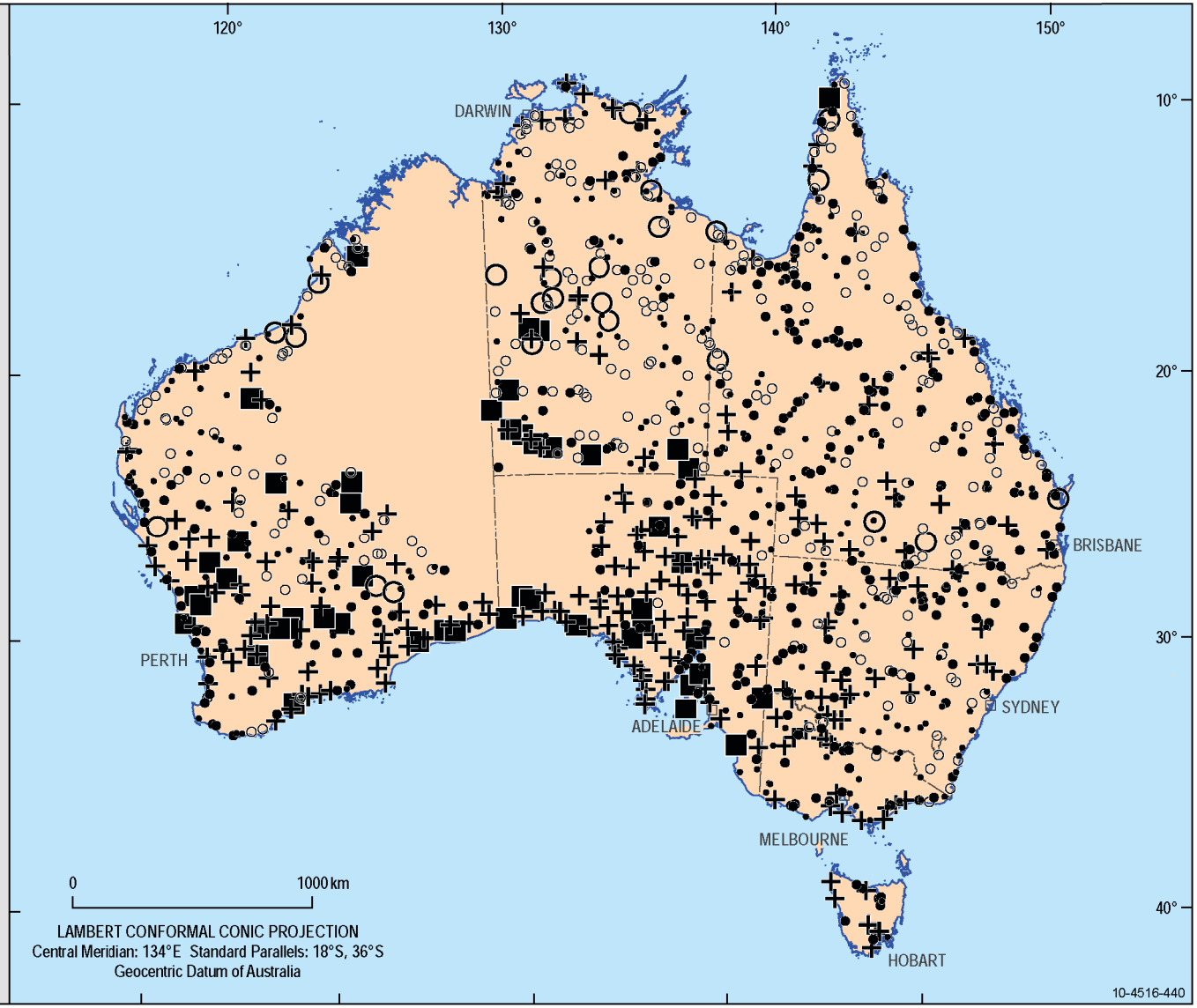
25%: *110 mg/kg*

Lower Fence: *12 mg/kg*

Minimum: *Less than 10 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Nb

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177

Maximum: *17.8 mg/kg*

Upper Fence: *3.2 mg/kg*

75%: *0.4 mg/kg*

Median: *0.2 mg/kg*

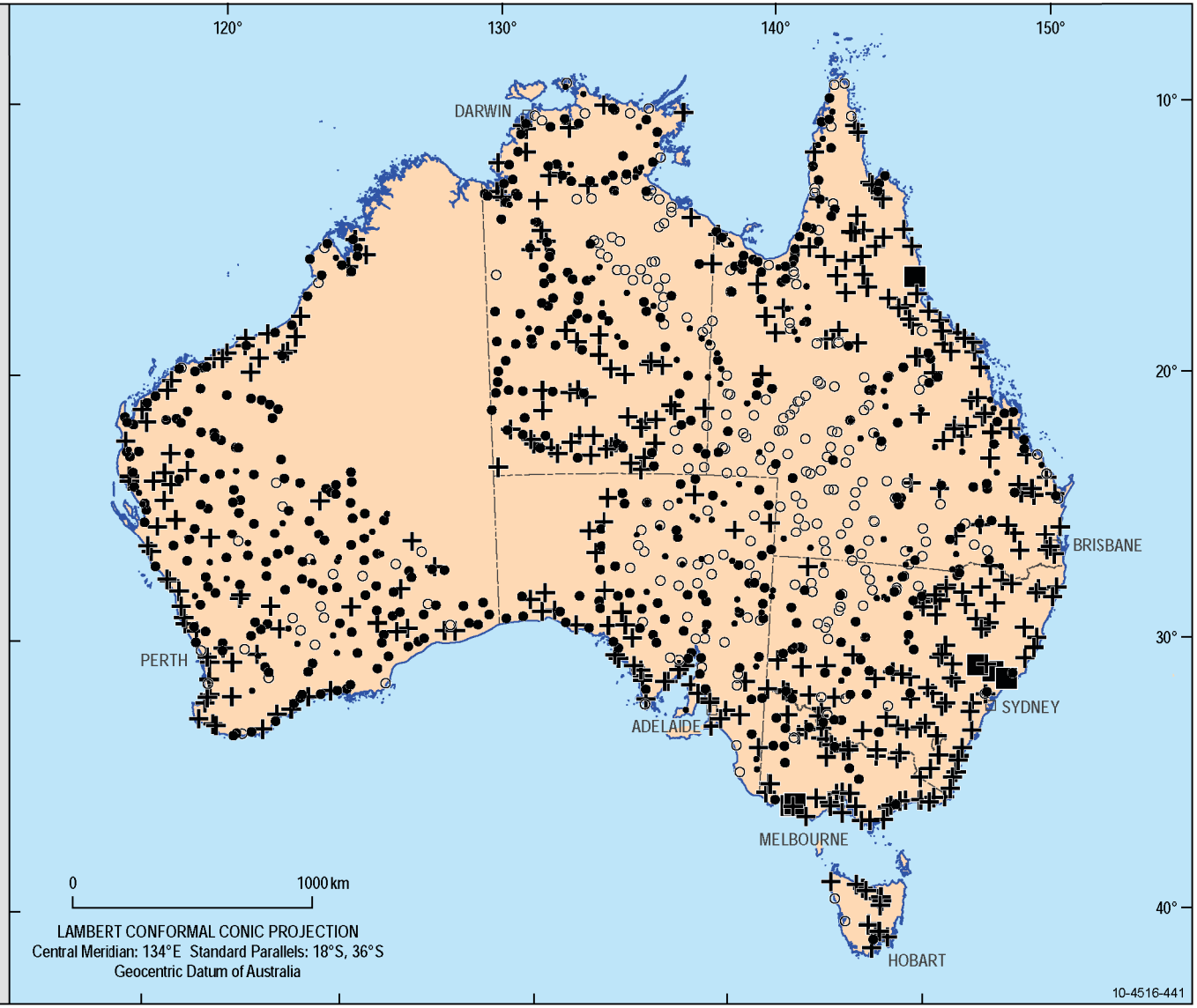
25%: *0.1 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Nd

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1177

Maximum: *152 mg/kg*

Upper Fence: *52.73 mg/kg*

75%: *24 mg/kg*

Median: *18.6 mg/kg*

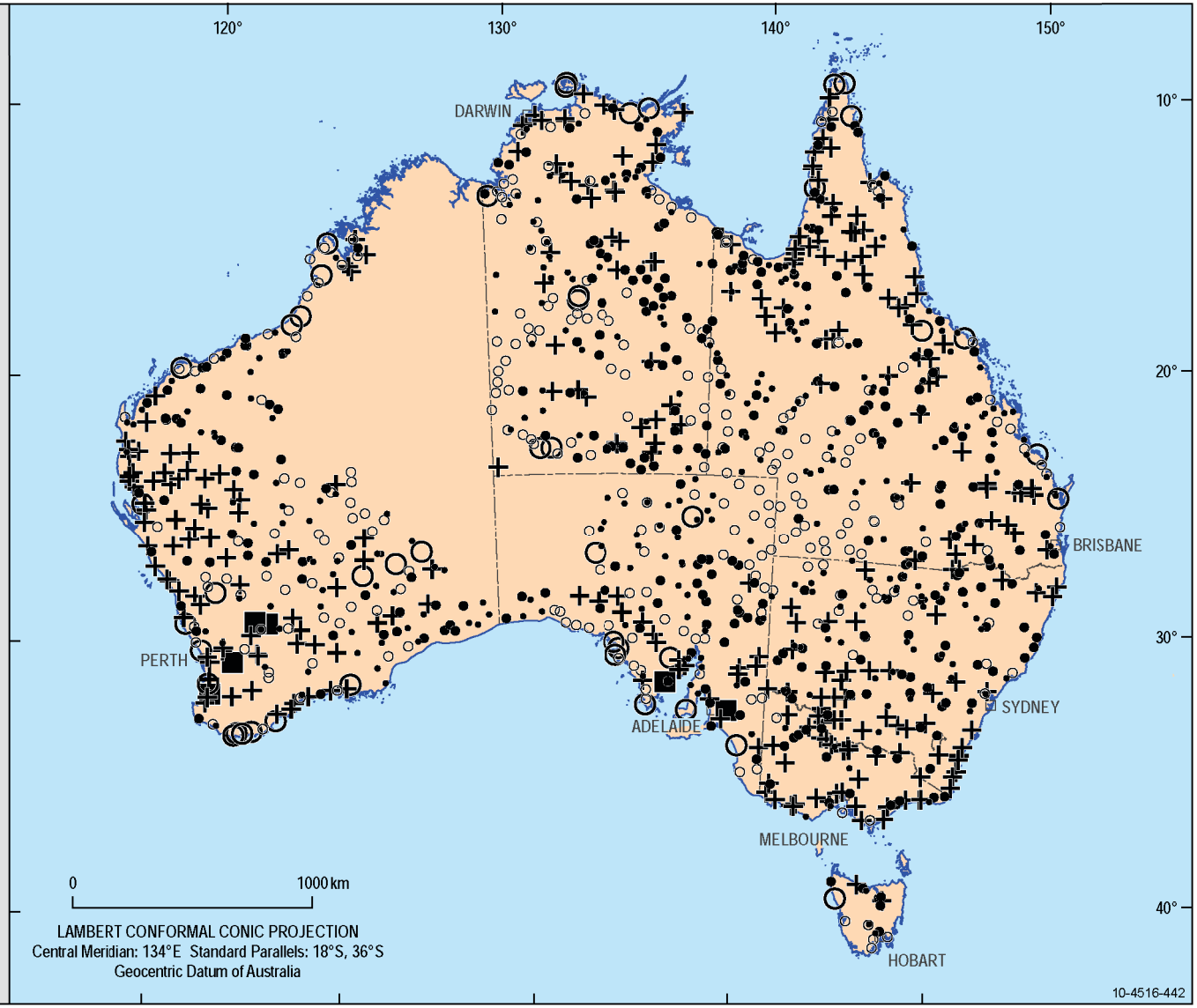
25%: *14.2 mg/kg*

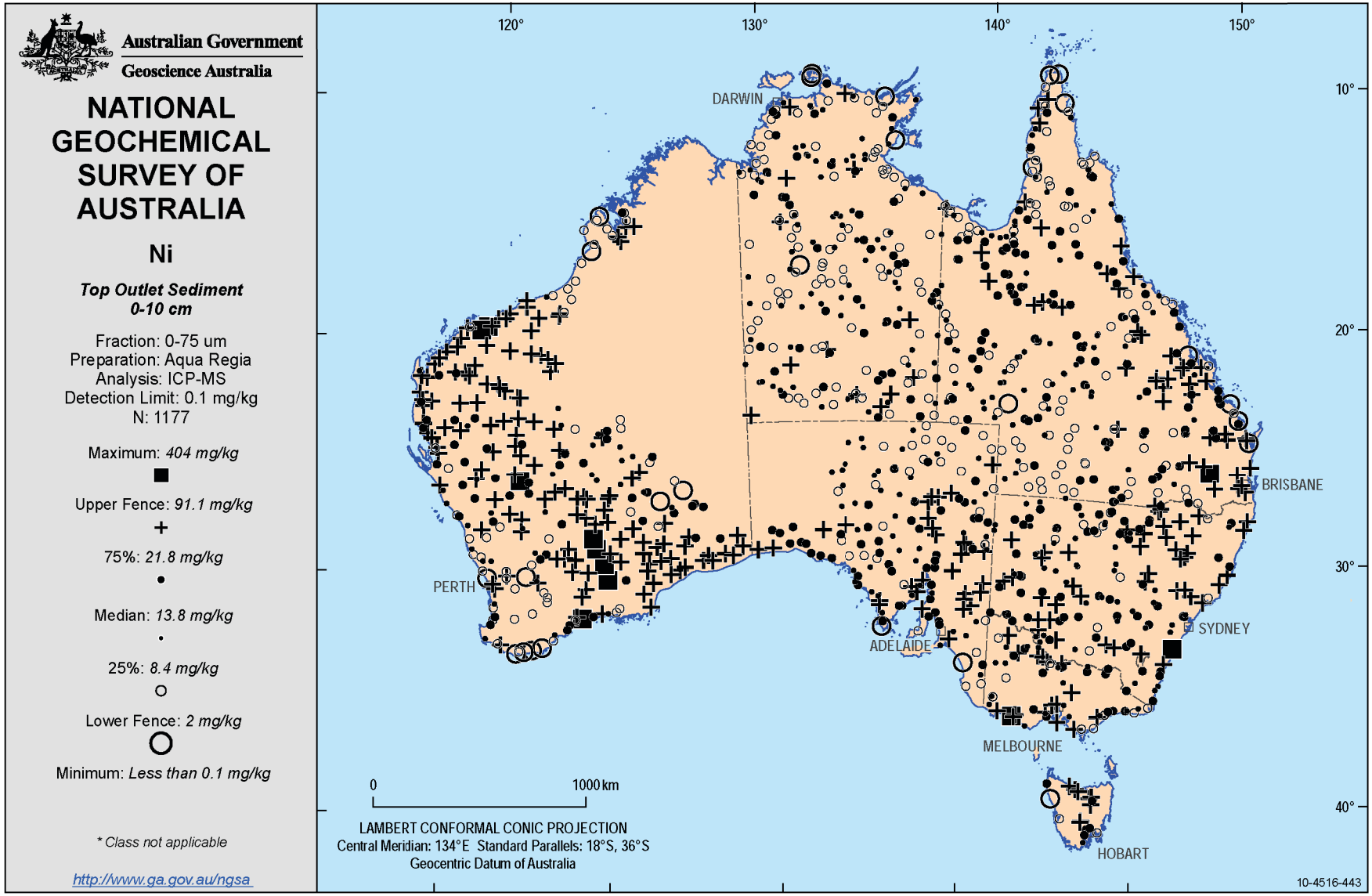
Lower Fence: *6.46 mg/kg*

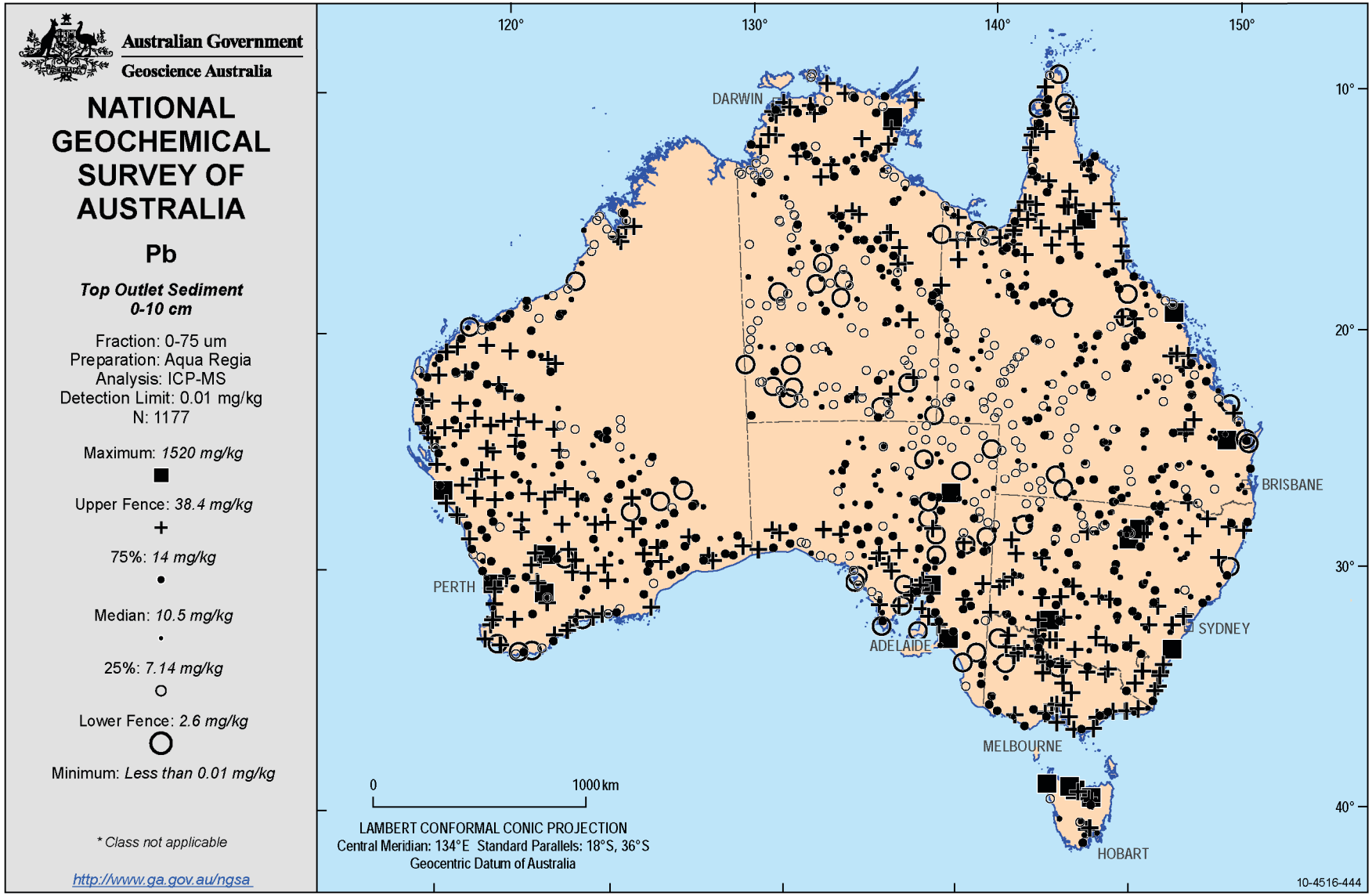
Minimum: *0.07 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Ni
Top Outlet Sediment
0-10 cm
Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177
Maximum: 404 mg/kg
Upper Fence: 91.1 mg/kg
75%: 21.8 mg/kg
Median: 13.8 mg/kg
25%: 8.4 mg/kg
Lower Fence: 2 mg/kg
Minimum: Less than 0.1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
BRISBANE
SYDNEY
MELBOURNE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-443


Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Pb
Top Outlet Sediment
0-10 cm
Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1177
Maximum: 1520 mg/kg
Upper Fence: 38.4 mg/kg
75%: 14 mg/kg
Median: 10.5 mg/kg
25%: 7.14 mg/kg
Lower Fence: 2.6 mg/kg
Minimum: Less than 0.01 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
BRISBANE
SYDNEY
PERTH
ADELAIDE
MELBOURNE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-444

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Pr

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177

Maximum: *45.3 mg/kg*

Upper Fence: *15.2 mg/kg*

75%: *6.4 mg/kg*

Median: *4.8 mg/kg*

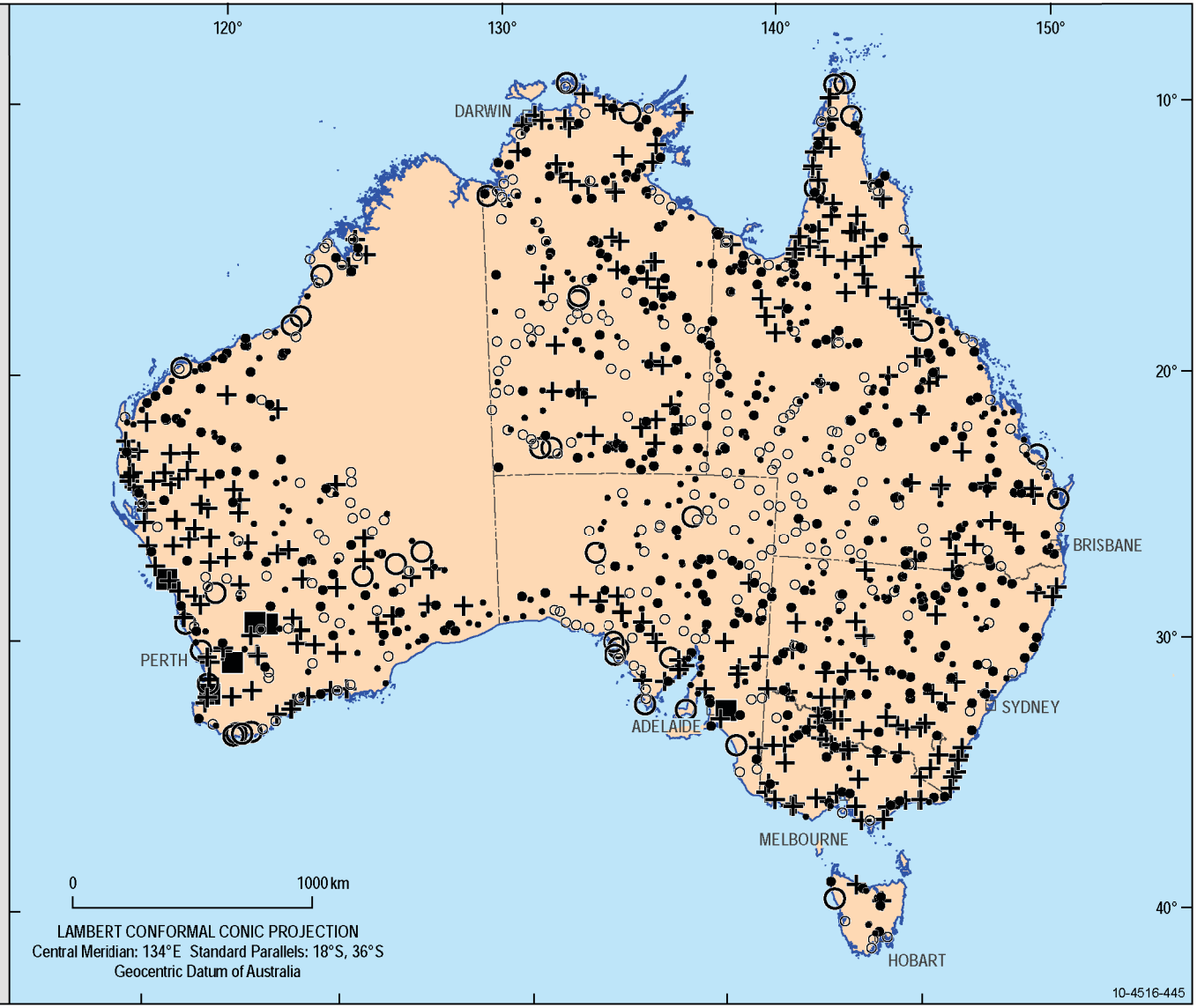
25%: *3.6 mg/kg*

Lower Fence: *1.5 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Rb

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177

Maximum: *109 mg/kg*

Upper Fence: *N/A**

75%: *29.4 mg/kg*

Median: *18.9 mg/kg*

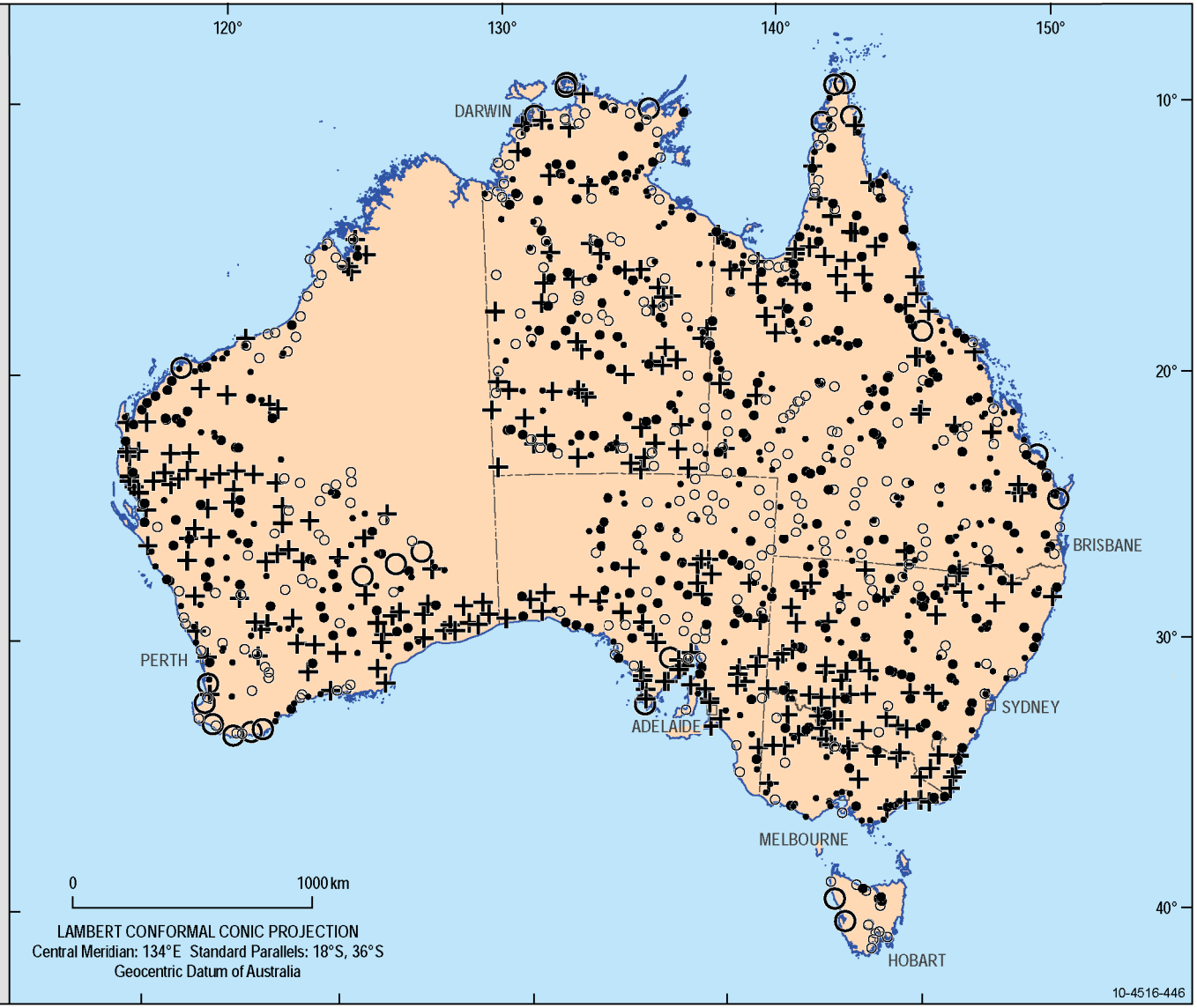
25%: *11.8 mg/kg*

Lower Fence: *3 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Re

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1177

Maximum: *0.028 mg/kg*

Upper Fence: *0.016 mg/kg*

75%: *0.002 mg/kg*

Median: *N/A**

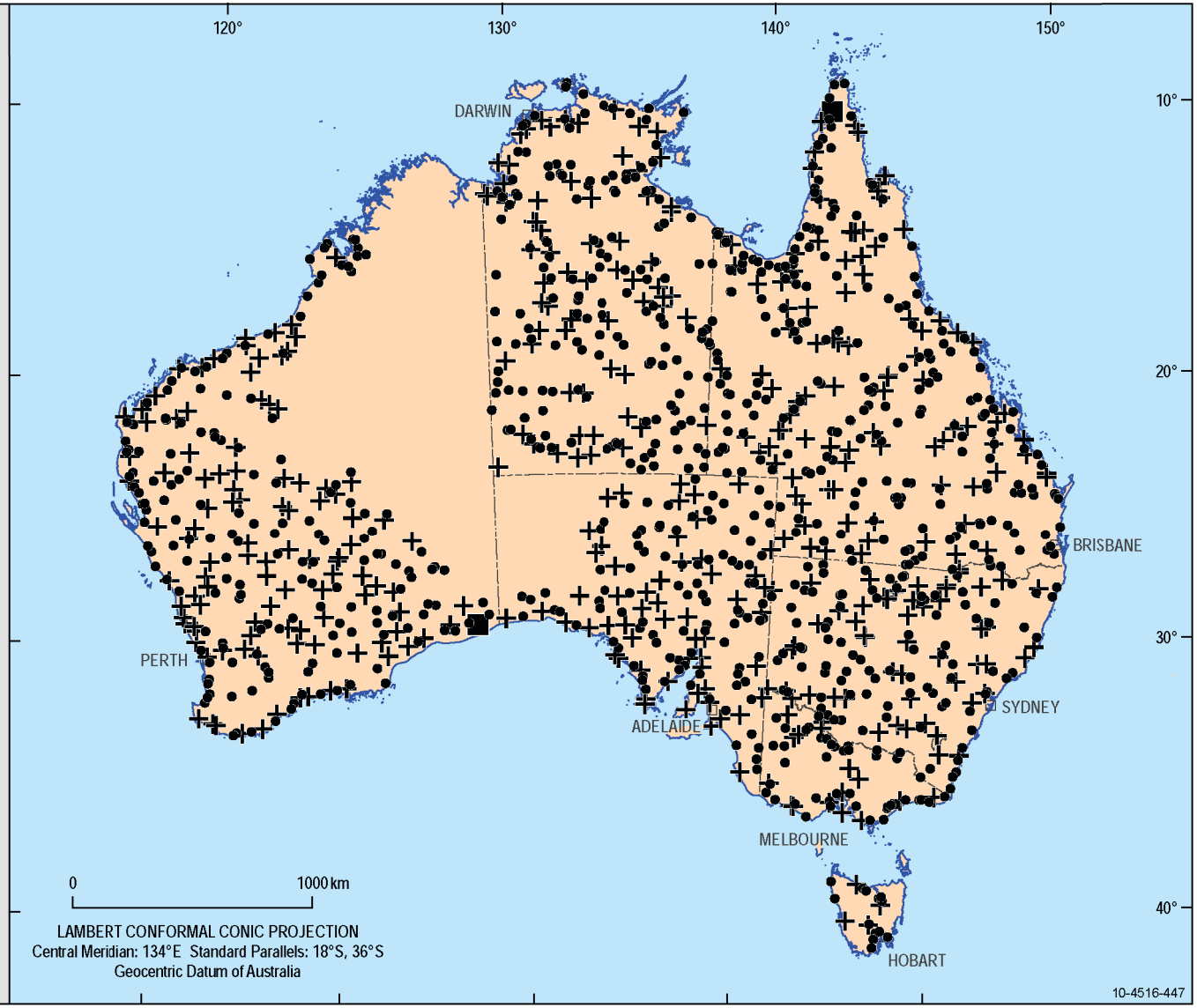
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Sb

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1177

Maximum: *37.1 mg/kg*

Upper Fence: *1.16 mg/kg*

75%: *0.25 mg/kg*

Median: *0.15 mg/kg*

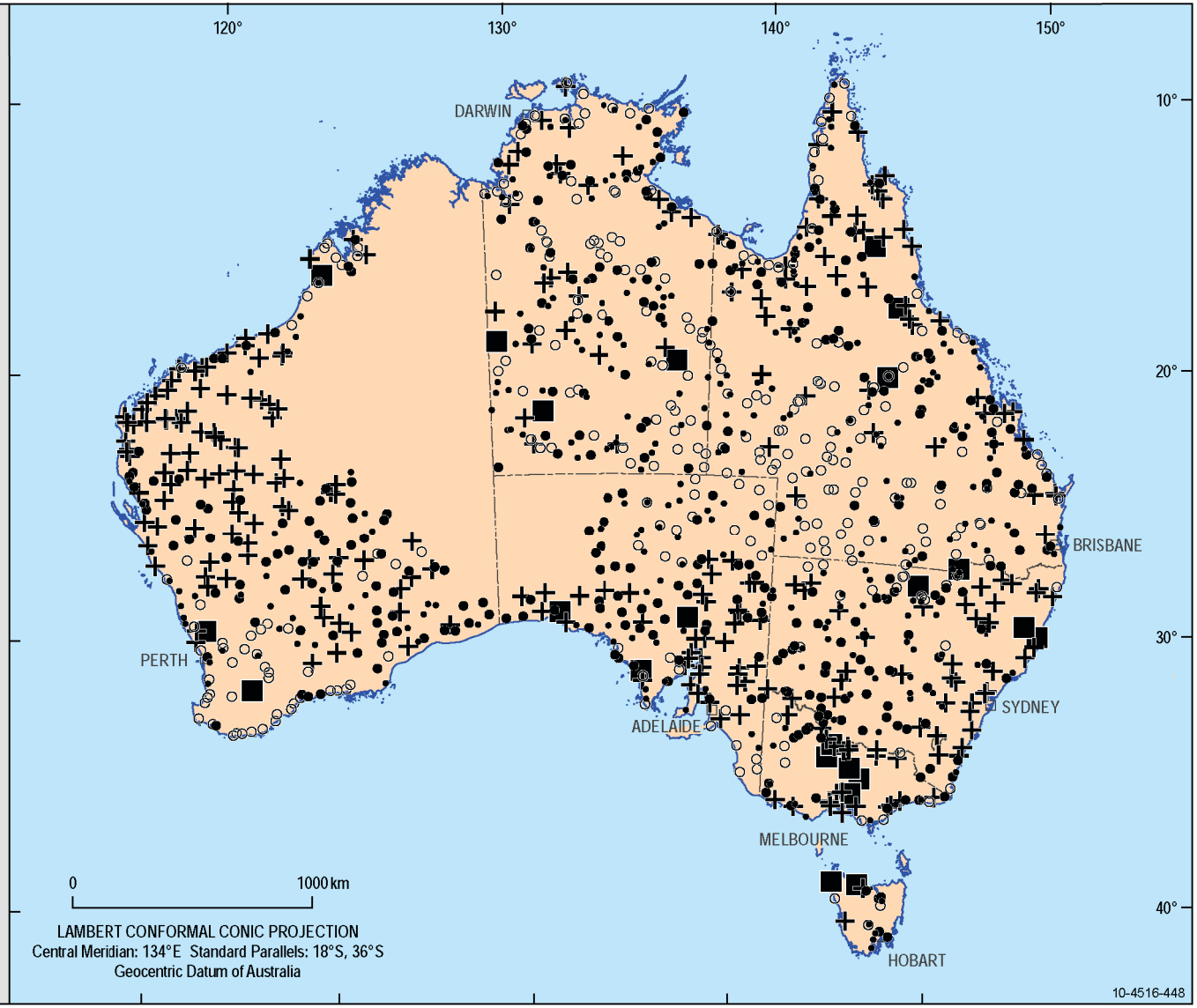
25%: *0.09 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Sc

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177

Maximum: *27 mg/kg*

Upper Fence: *N/A**

75%: *8 mg/kg*

Median: *5.4 mg/kg*

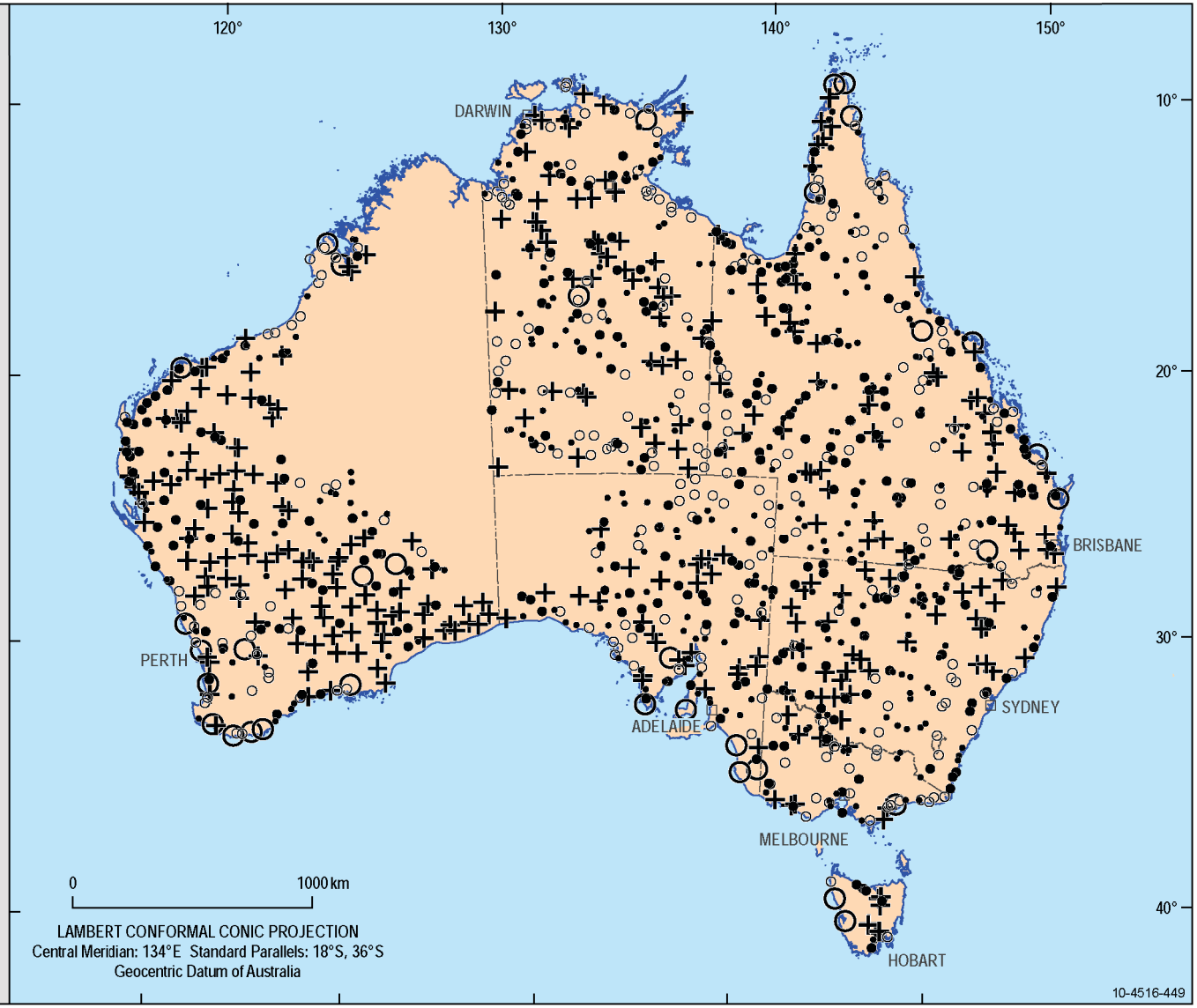
25%: *3.5 mg/kg*

Lower Fence: *1 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Se

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1187

Maximum: *2.5 mg/kg*

Upper Fence: *0.78 mg/kg*

75%: *0.15 mg/kg*

Median: *0.09 mg/kg*

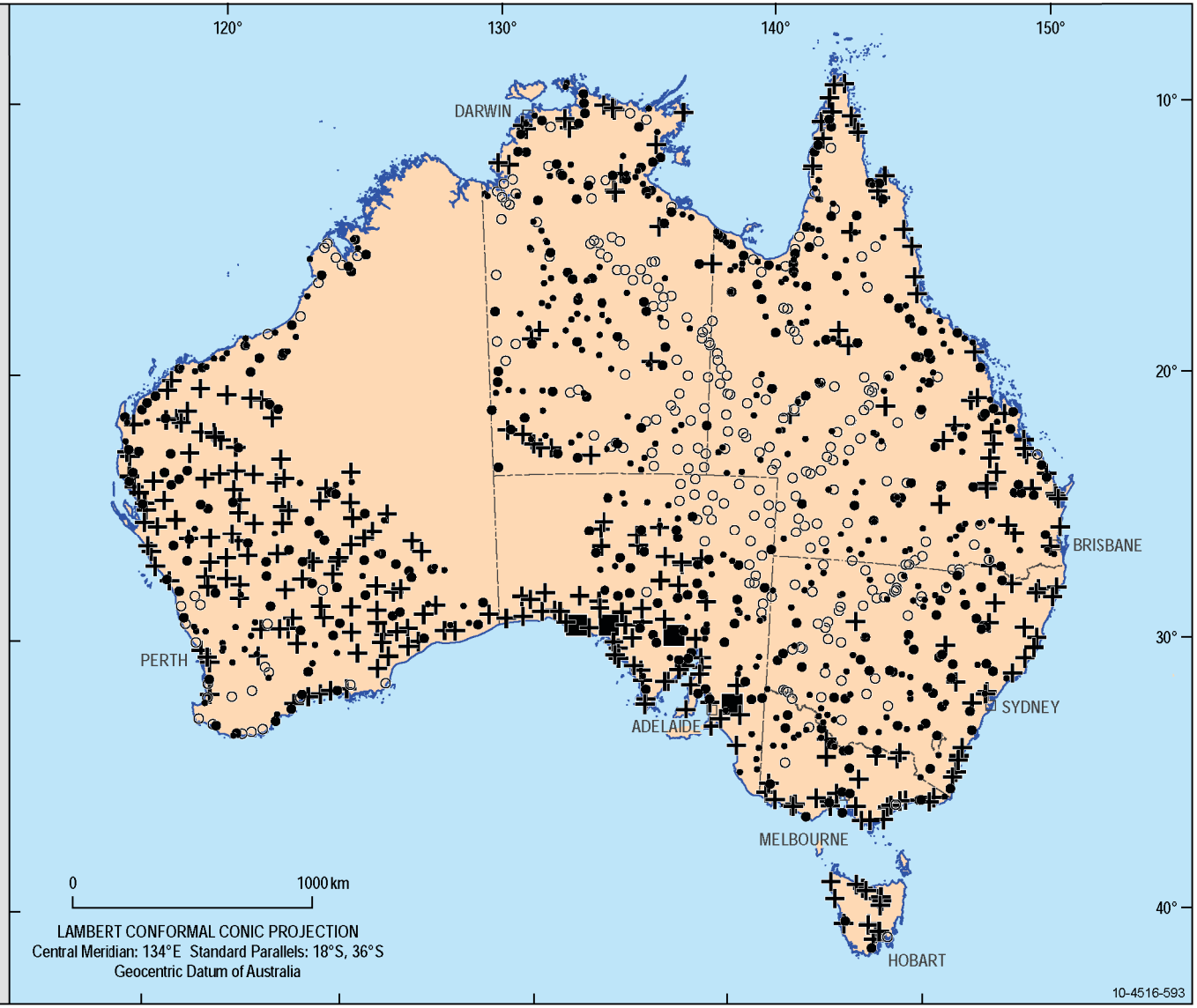
25%: *0.05 mg/kg*

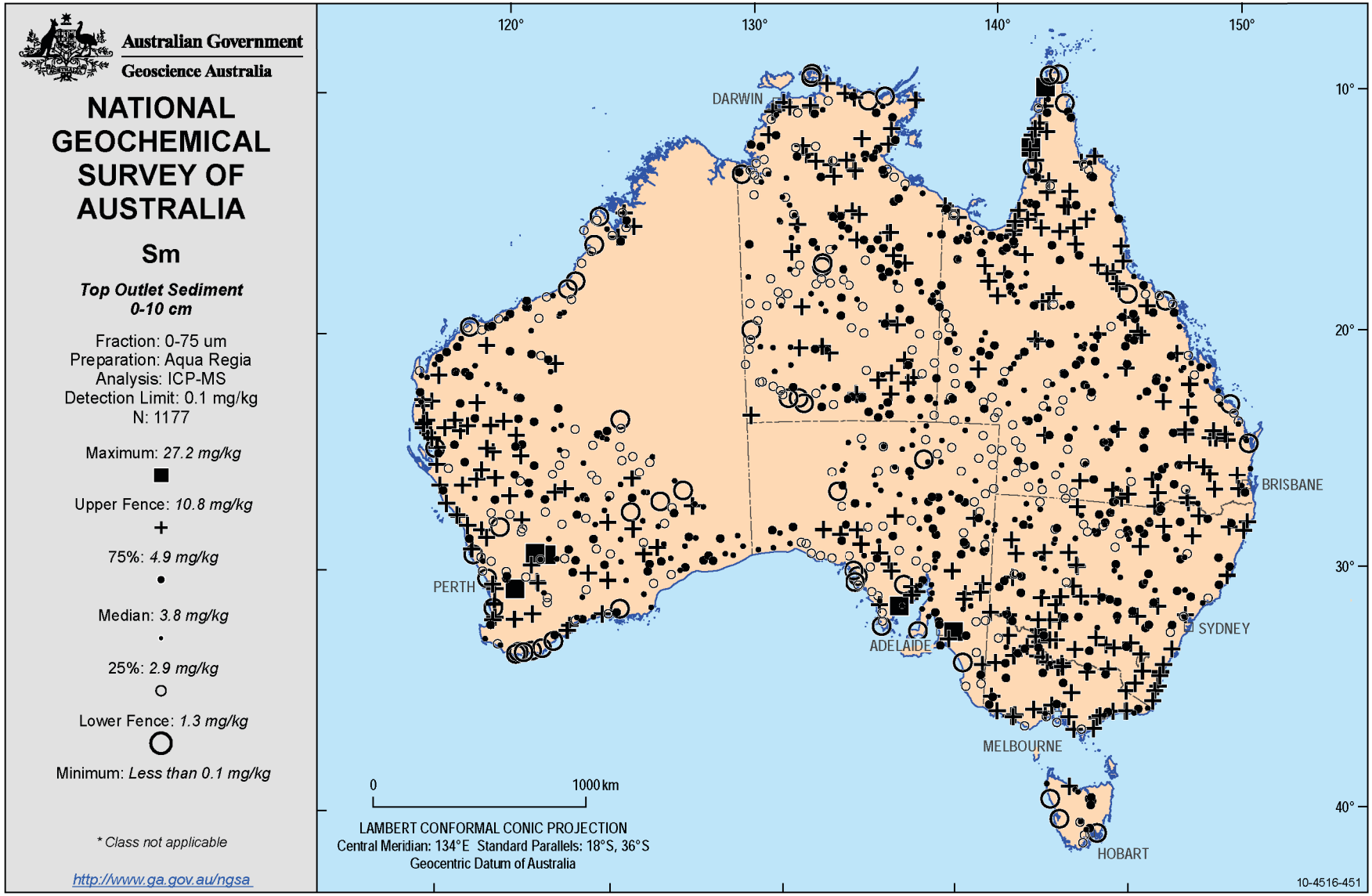
Lower Fence: *N/A**

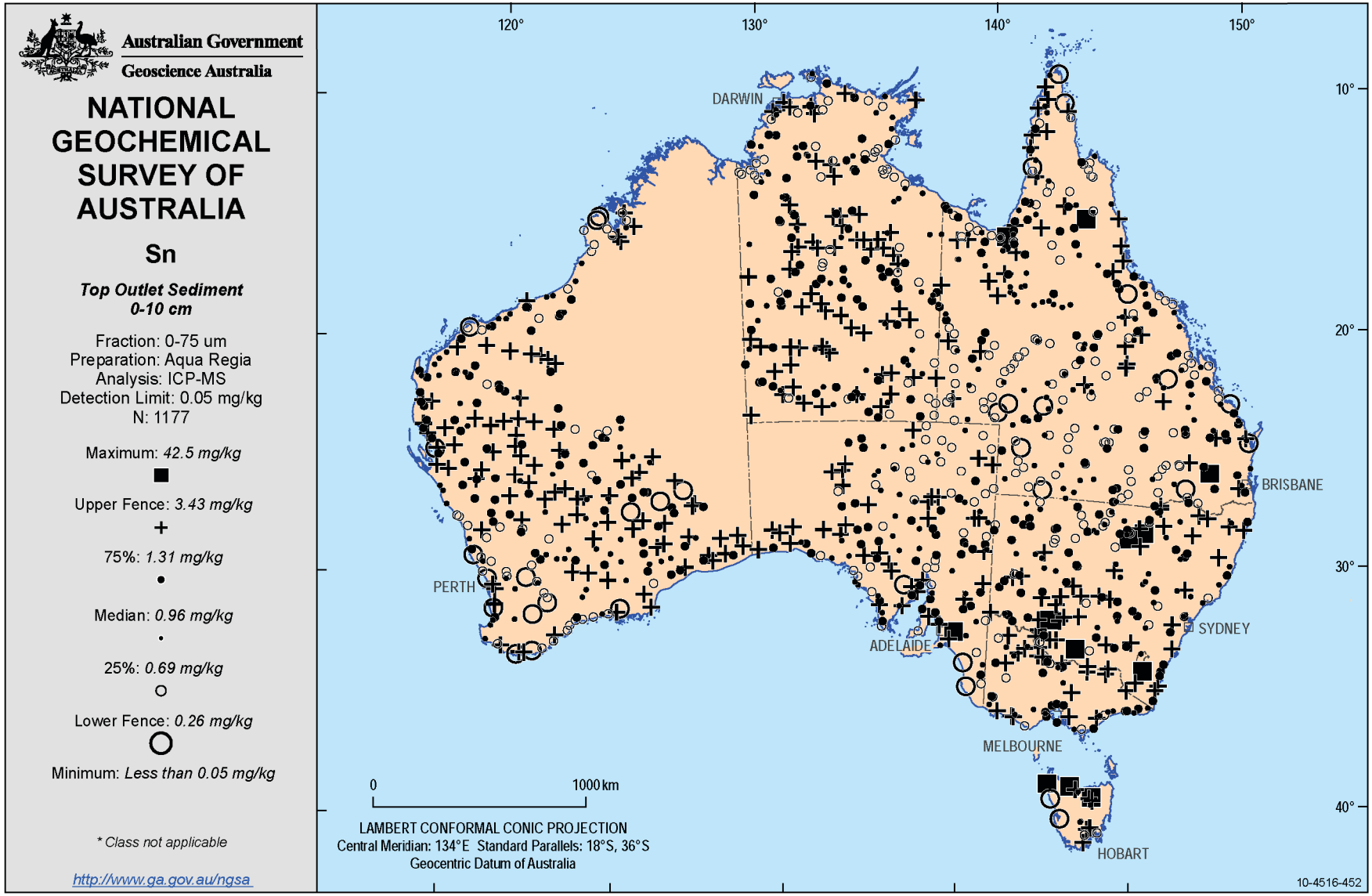
Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Sm
Top Outlet Sediment
0-10 cm
Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177
Maximum: 27.2 mg/kg
Upper Fence: 10.8 mg/kg
75%: 4.9 mg/kg
Median: 3.8 mg/kg
25%: 2.9 mg/kg
Lower Fence: 1.3 mg/kg
Minimum: Less than 0.1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
BRISBANE
SYDNEY
MELBOURNE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-451


Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Sn
Top Outlet Sediment
0-10 cm
Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.05 mg/kg
N: 1177
Maximum: 42.5 mg/kg
Upper Fence: 3.43 mg/kg
75%: 1.31 mg/kg
Median: 0.96 mg/kg
25%: 0.69 mg/kg
Lower Fence: 0.26 mg/kg
Minimum: Less than 0.05 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
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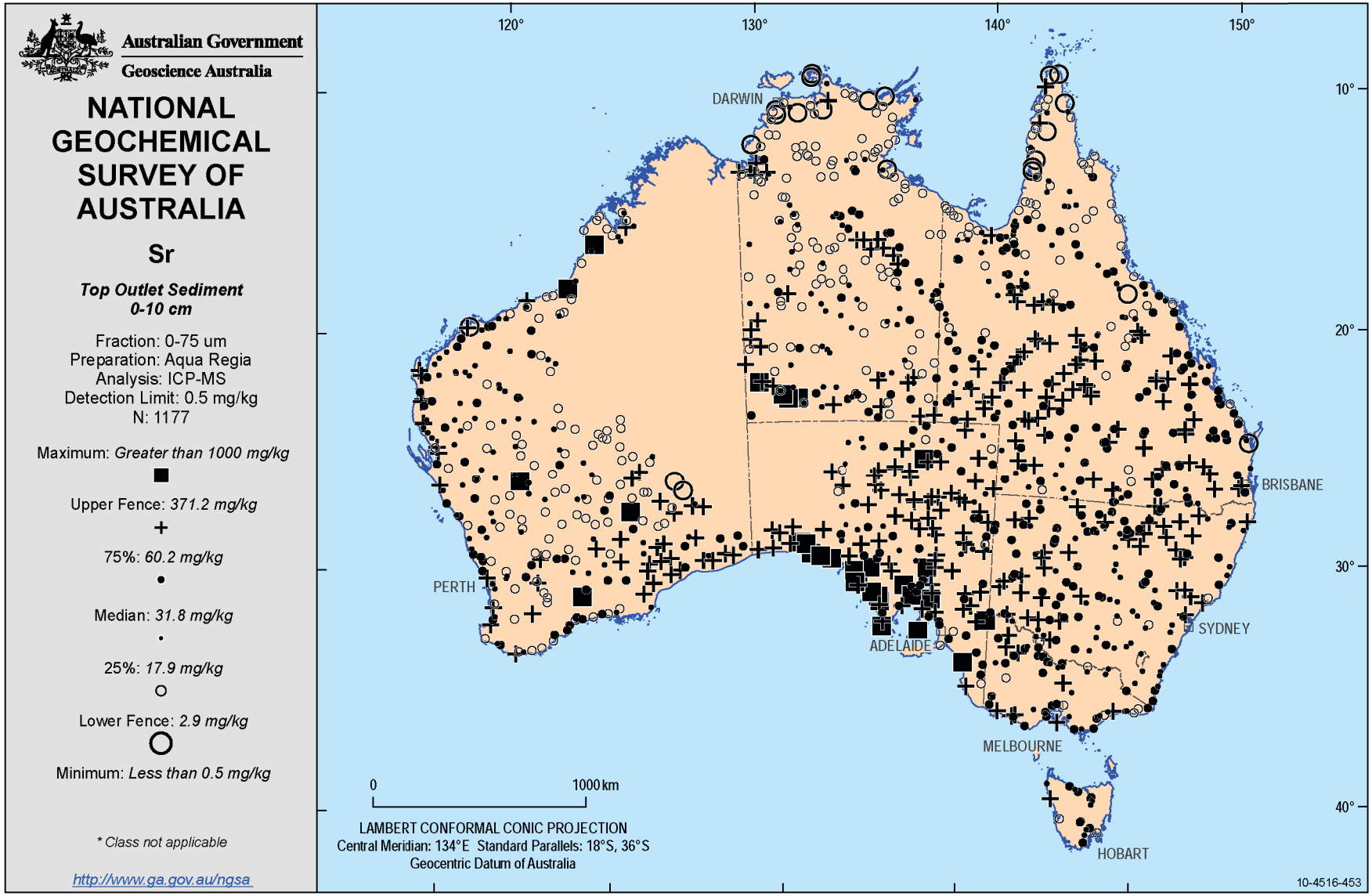
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
MELBOURNE
SYDNEY
BRISBANE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-452


Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Sr
Top Outlet Sediment
0-10 cm
Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.5 mg/kg
N: 1177
Maximum: Greater than 1000 mg/kg
Upper Fence: 371.2 mg/kg
75%: 60.2 mg/kg
Median: 31.8 mg/kg
25%: 17.9 mg/kg
Lower Fence: 2.9 mg/kg
Minimum: Less than 0.5 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
MELBOURNE
HOBART
SYDNEY
BRISBANE
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-453

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Tb

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177

Maximum: *2.1 mg/kg*

Upper Fence: *1.1 mg/kg*

75%: *0.5 mg/kg*

Median: *0.4 mg/kg*

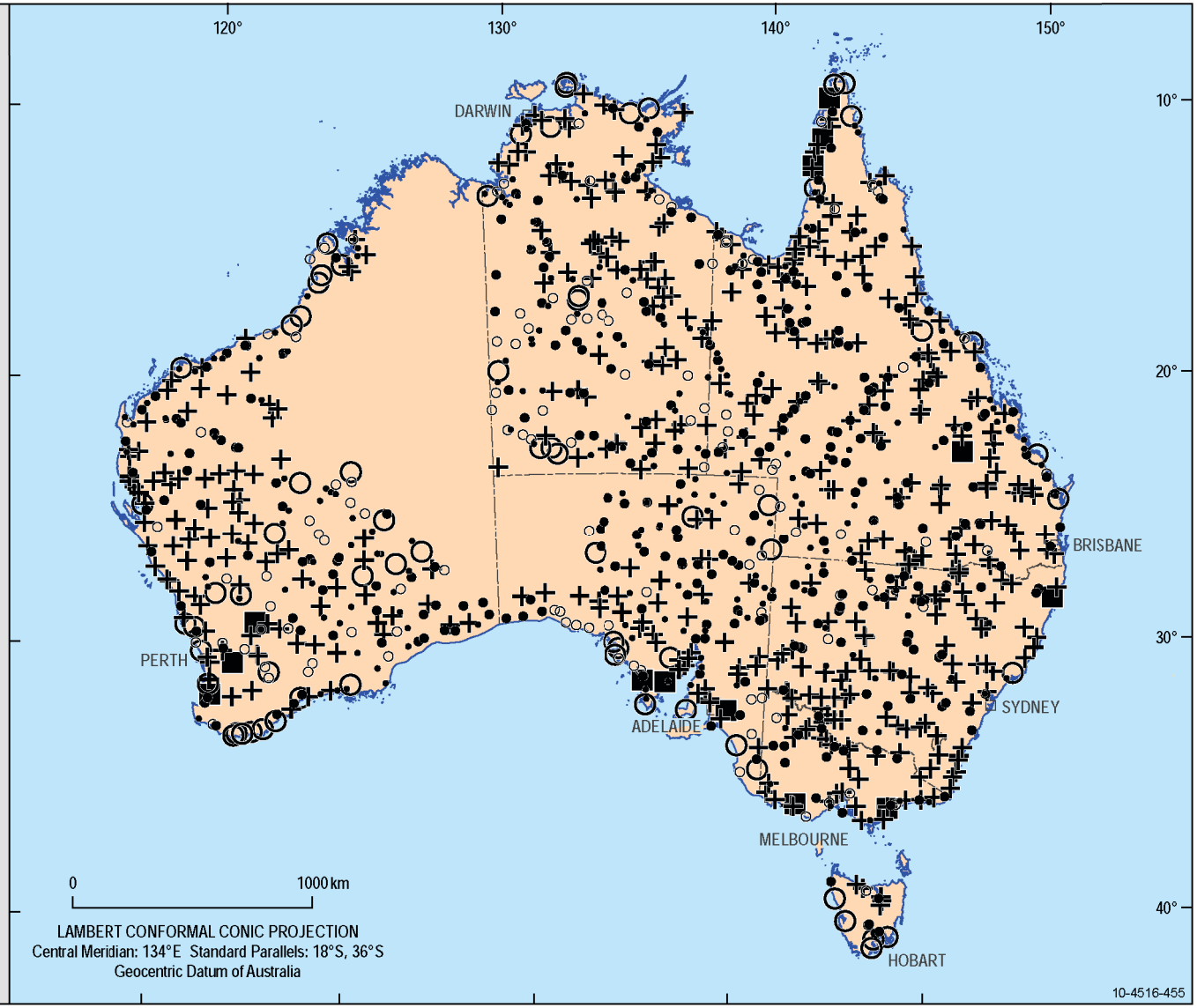
25%: *0.3 mg/kg*

Lower Fence: *0.1 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Te

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1177

Maximum: *0.26 mg/kg*

Upper Fence: *N/A**

75%: *0.05 mg/kg*

Median: *0.03 mg/kg*

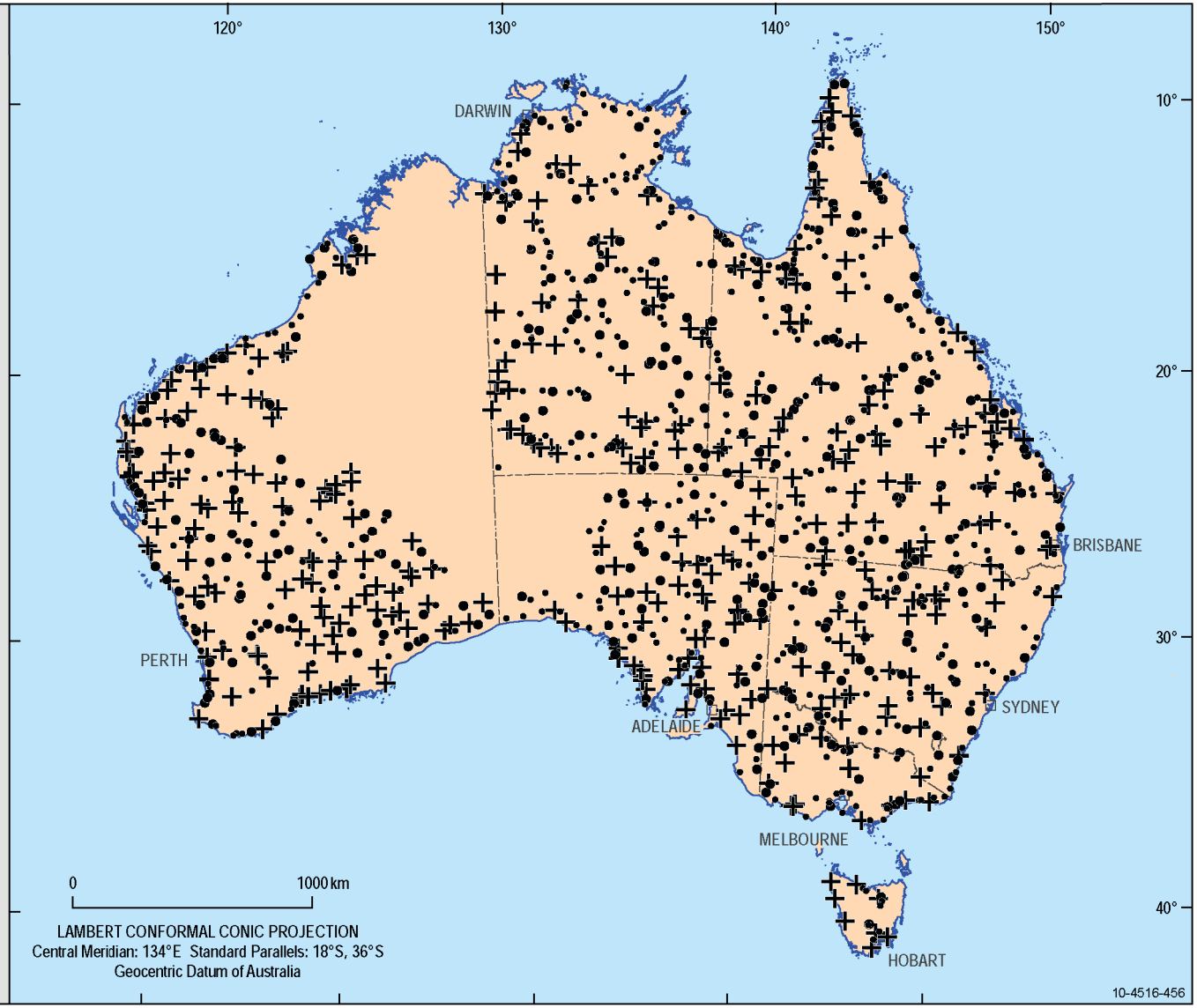
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Th

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177

Maximum: *94.1 mg/kg*

Upper Fence: *30.1 mg/kg*

75%: *8.7 mg/kg*

Median: *5.8 mg/kg*

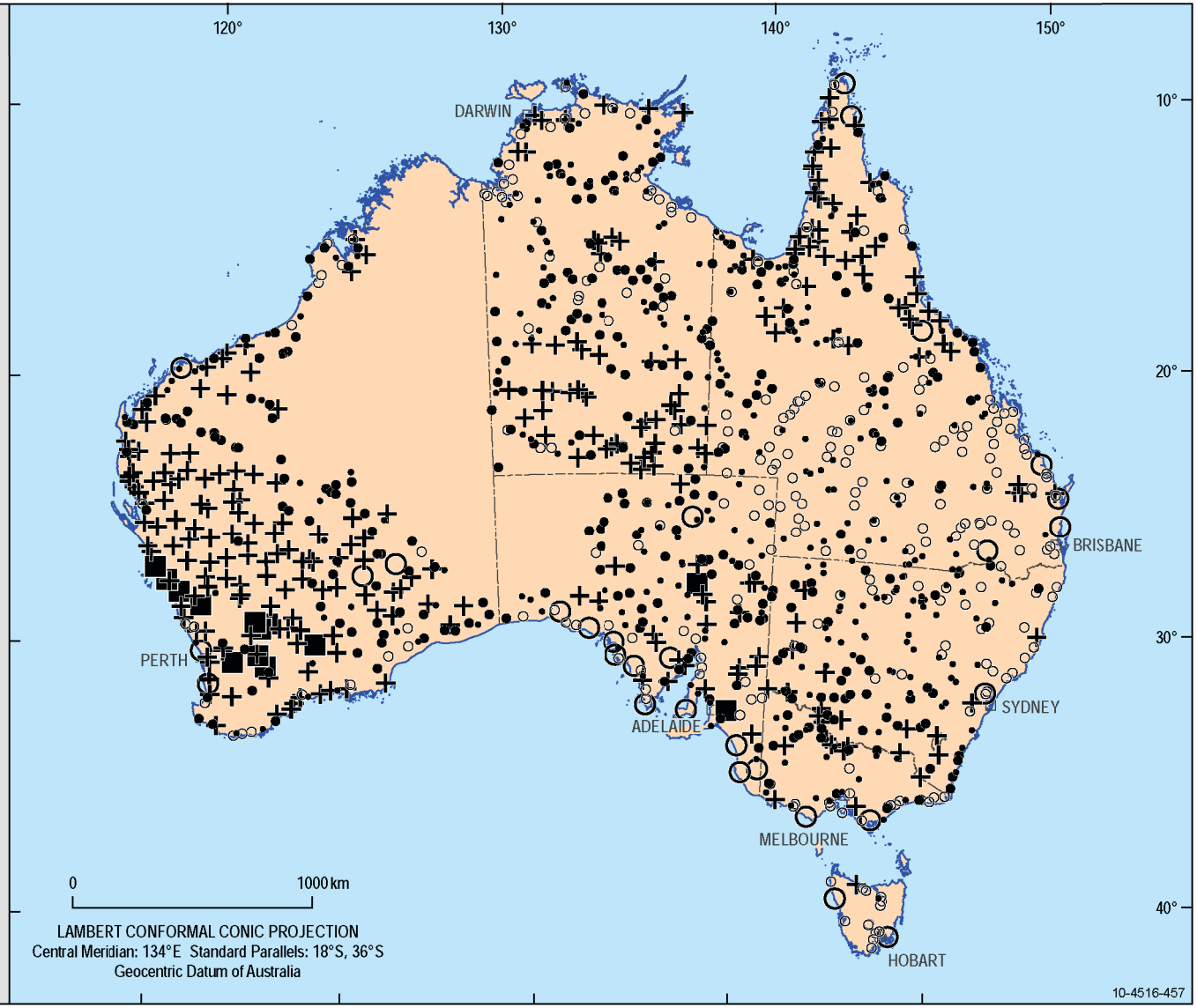
25%: *3.8 mg/kg*

Lower Fence: *1.1 mg/kg*

Minimum: *0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

TI

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1177

Maximum: *0.46 mg/kg*

Upper Fence: *N/A**

75%: *0.18 mg/kg*

Median: *0.12 mg/kg*

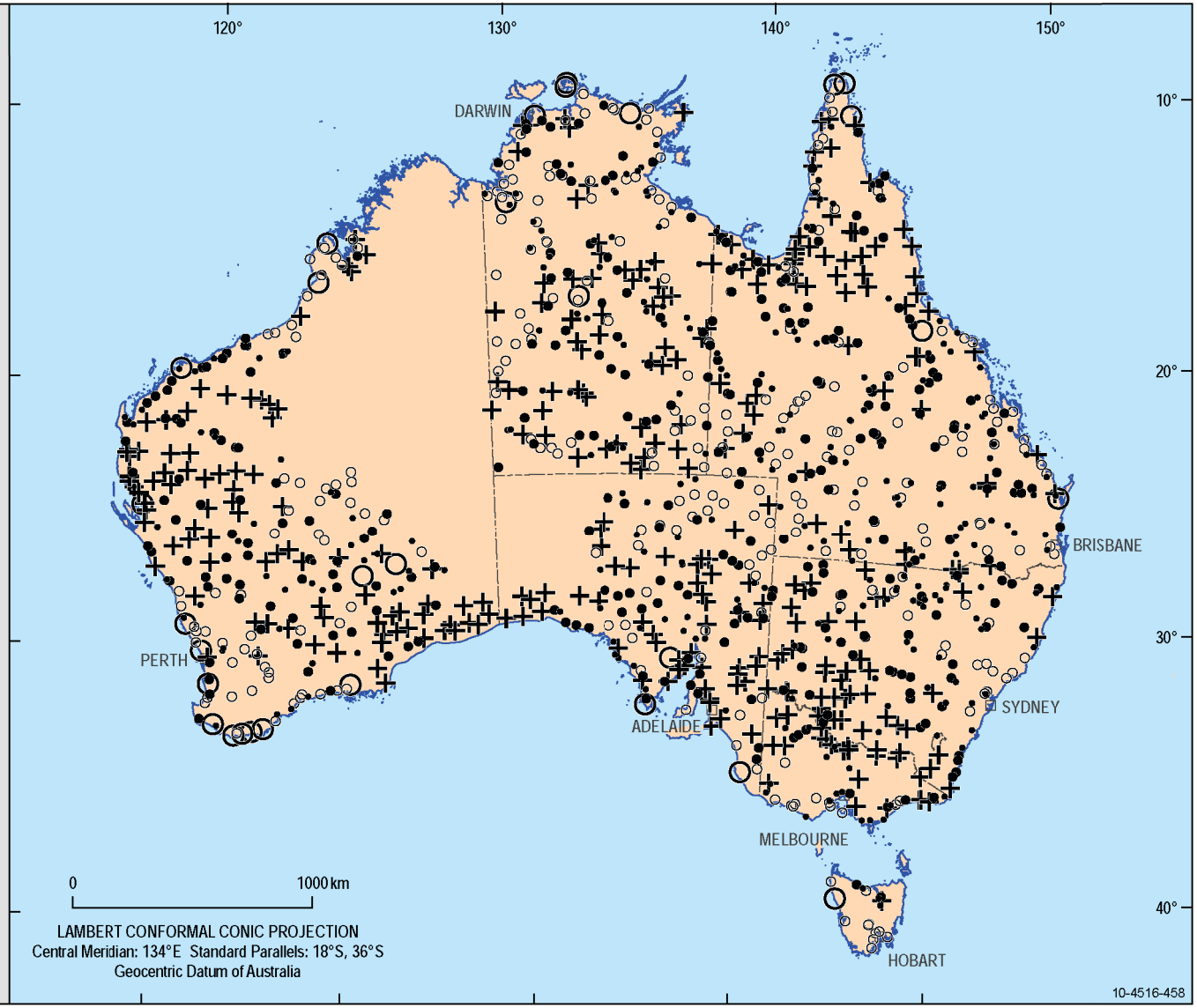
25%: *0.08 mg/kg*

Lower Fence: *0.02 mg/kg*

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Tm

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177

Maximum: *0.5 mg/kg*

Upper Fence: *N/A**

75%: *0.2 mg/kg*

Median: *0.1 mg/kg*

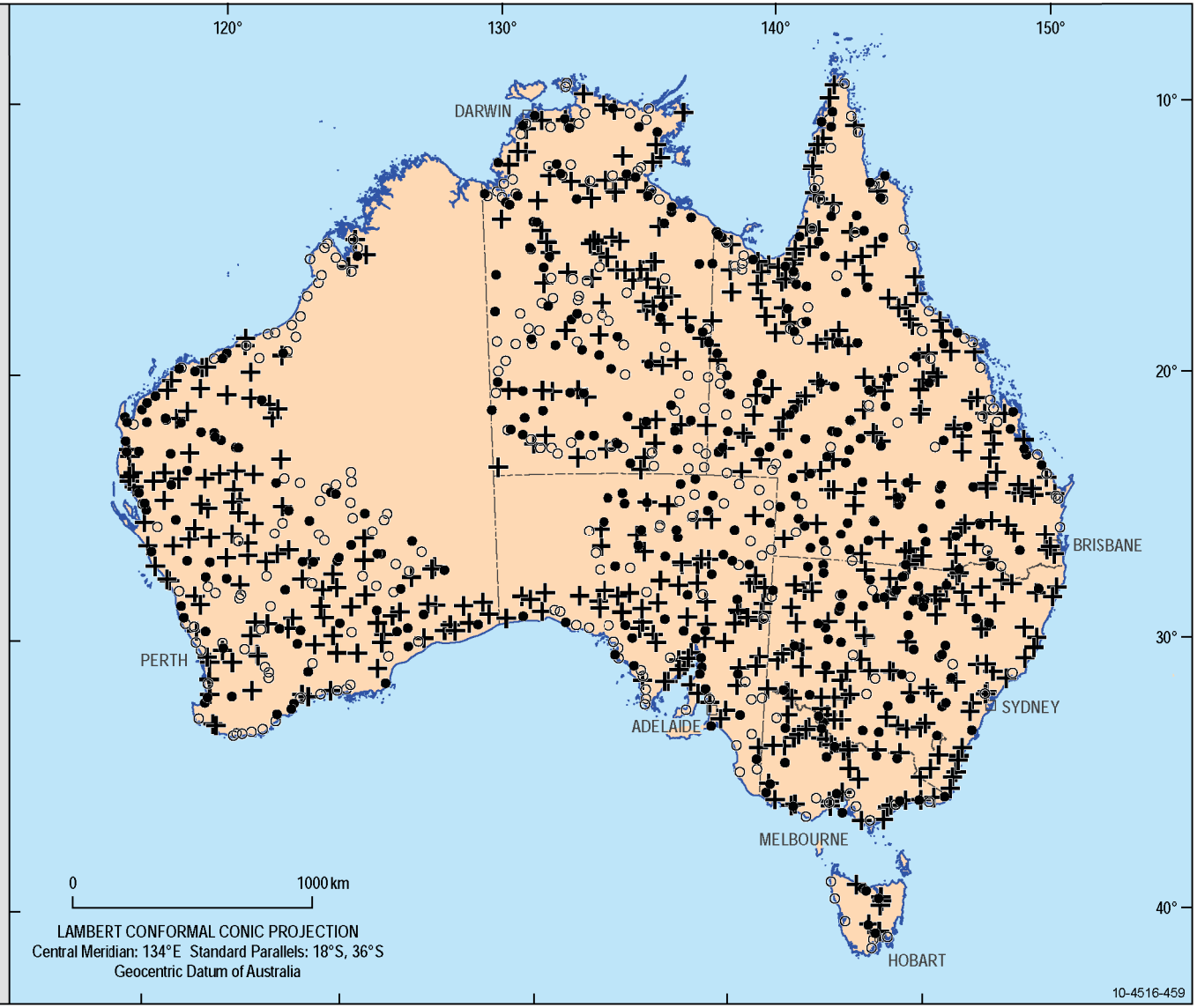
25%: *0.1 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

U

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177

Maximum: *42.6 mg/kg*

Upper Fence: *9.2 mg/kg*

75%: *1.6 mg/kg*

Median: *0.8 mg/kg*

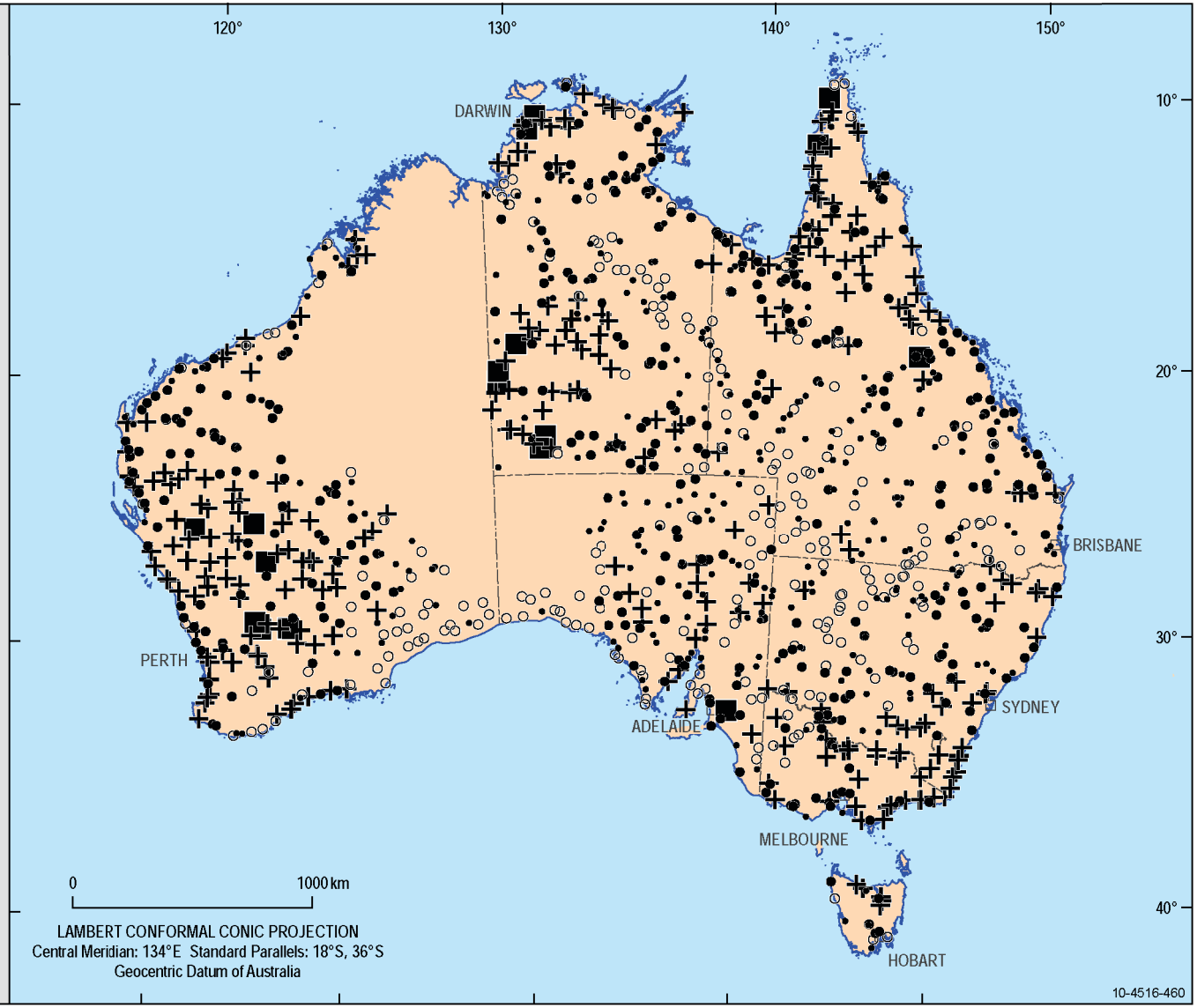
25%: *0.5 mg/kg*

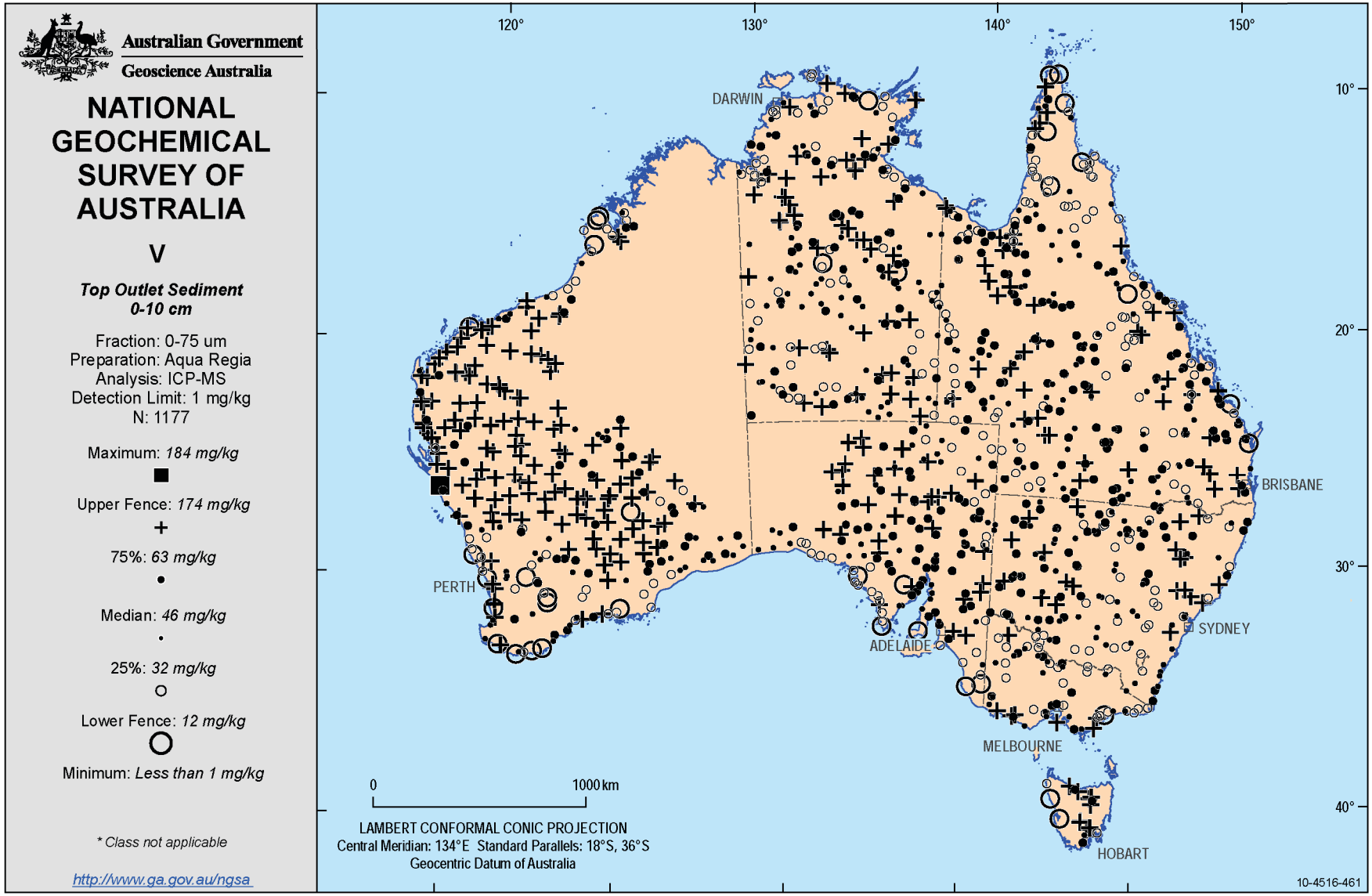
Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
V
Top Outlet Sediment
0-10 cm
Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 1 mg/kg
N: 1177
Maximum: 184 mg/kg
Upper Fence: 174 mg/kg
75%: 63 mg/kg
Median: 46 mg/kg
25%: 32 mg/kg
Lower Fence: 12 mg/kg
Minimum: Less than 1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
MELBOURNE
HOBART
SYDNEY
BRISBANE
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-461

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

W

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177

Maximum: *Greater than 200 mg/kg*

Upper Fence: *Less than 0.1 mg/kg*

75%: *N/A**

Median: *N/A**

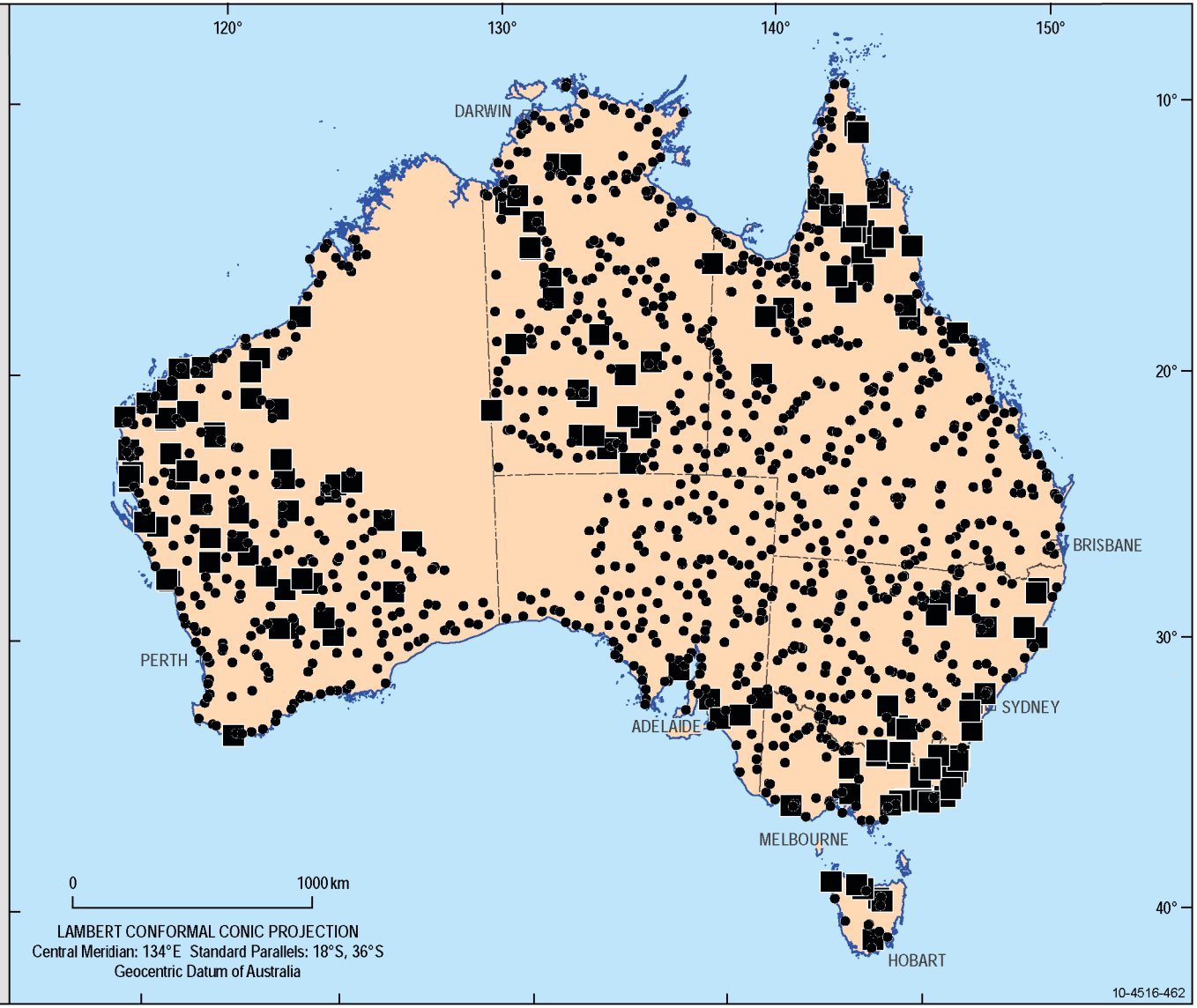
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Y

Top Outlet Sediment
0-10 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1177

Maximum: *46.4 mg/kg*

Upper Fence: *33.8 mg/kg*

75%: *14.9 mg/kg*

Median: *11.4 mg/kg*

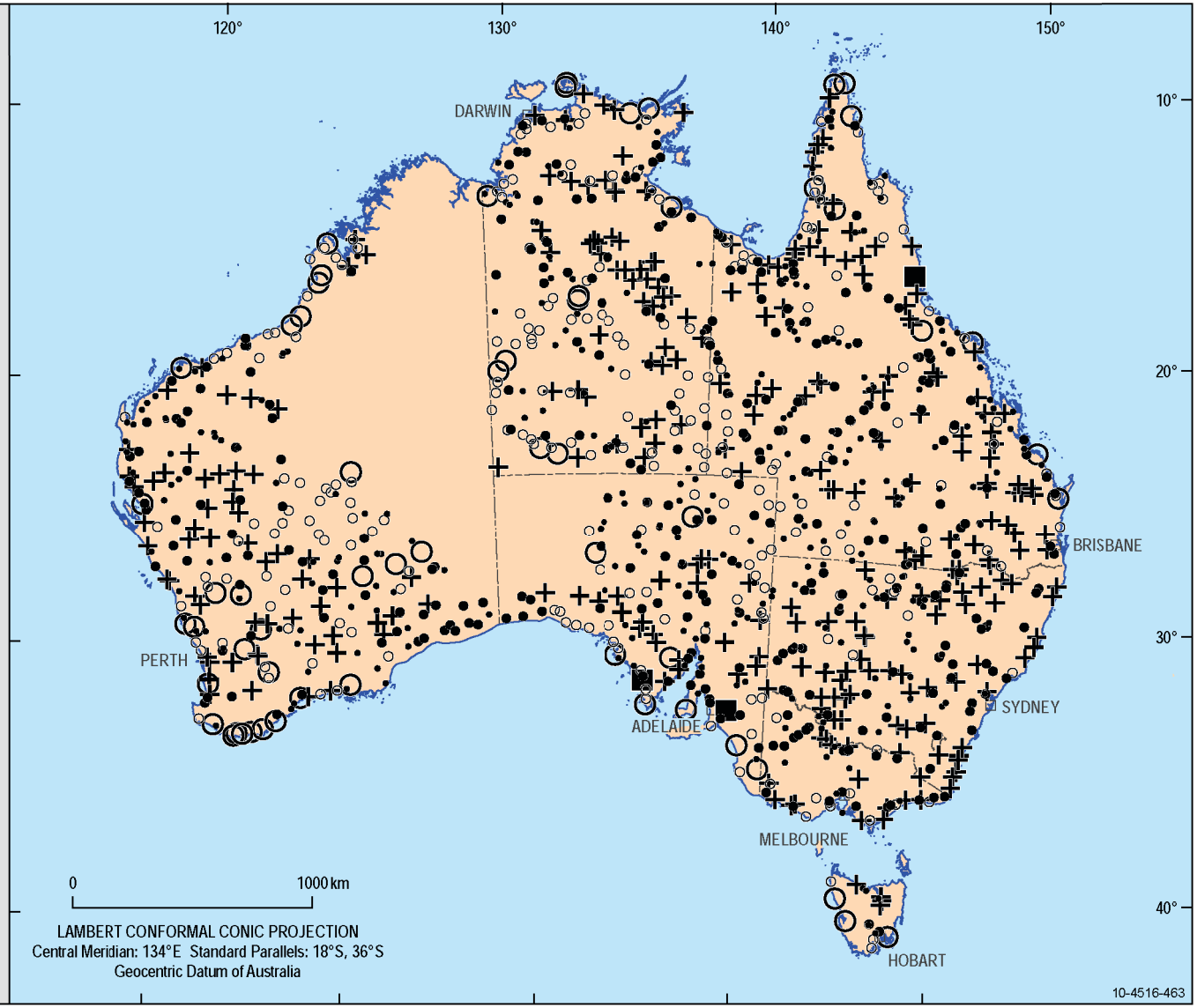
25%: *8.63 mg/kg*

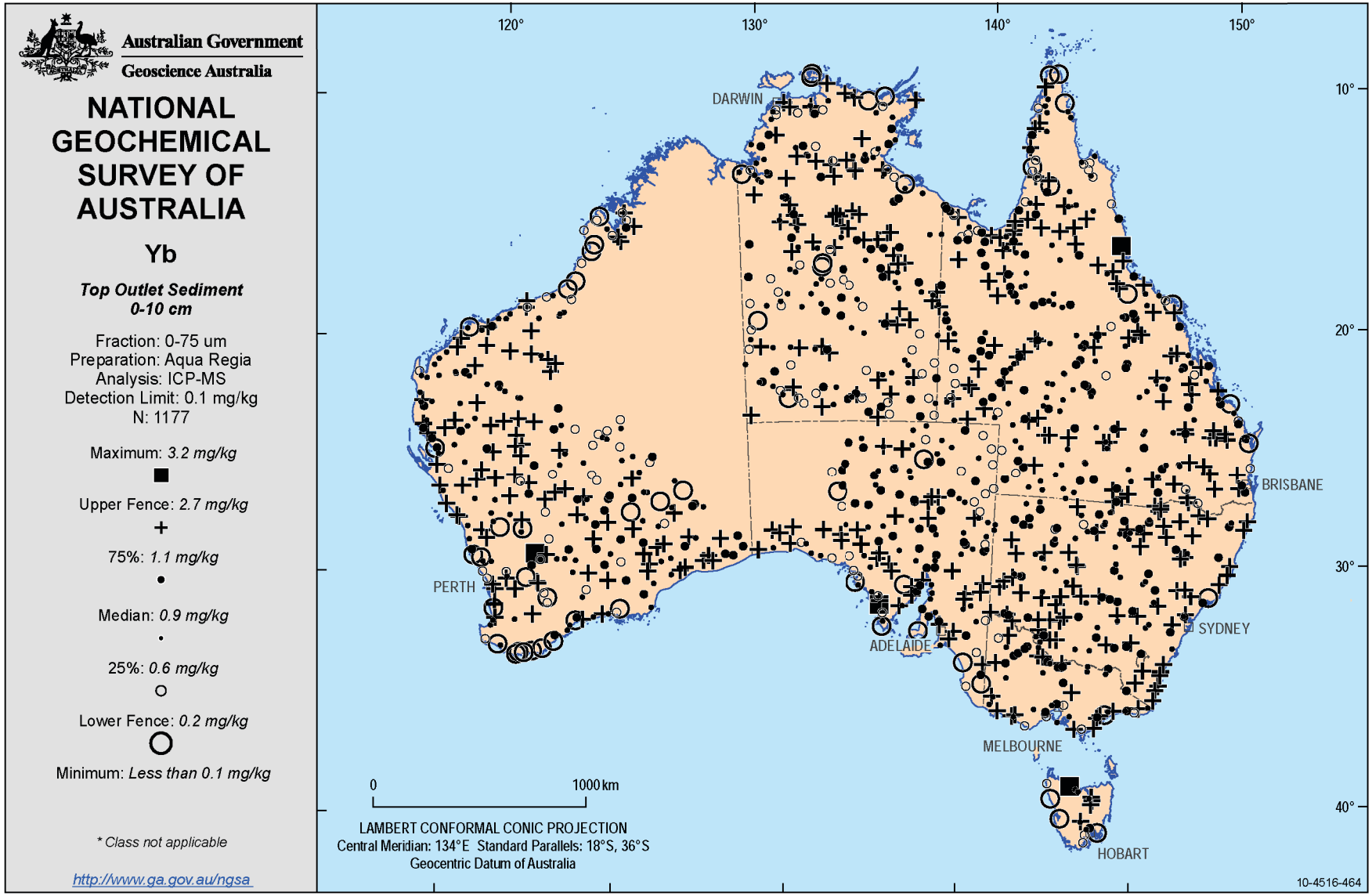
Lower Fence: *3.8 mg/kg*

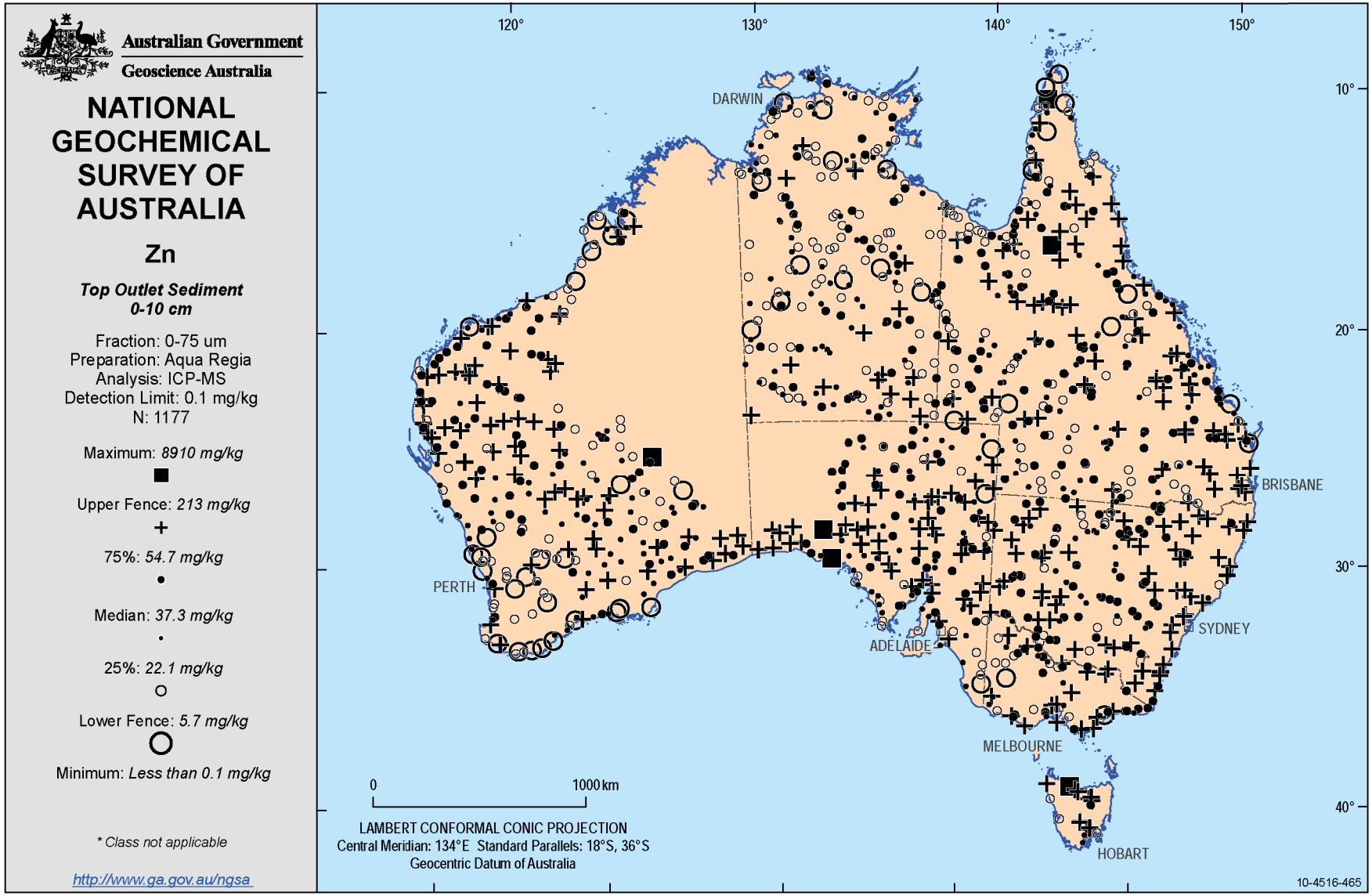
Minimum: *0.09 mg/kg*

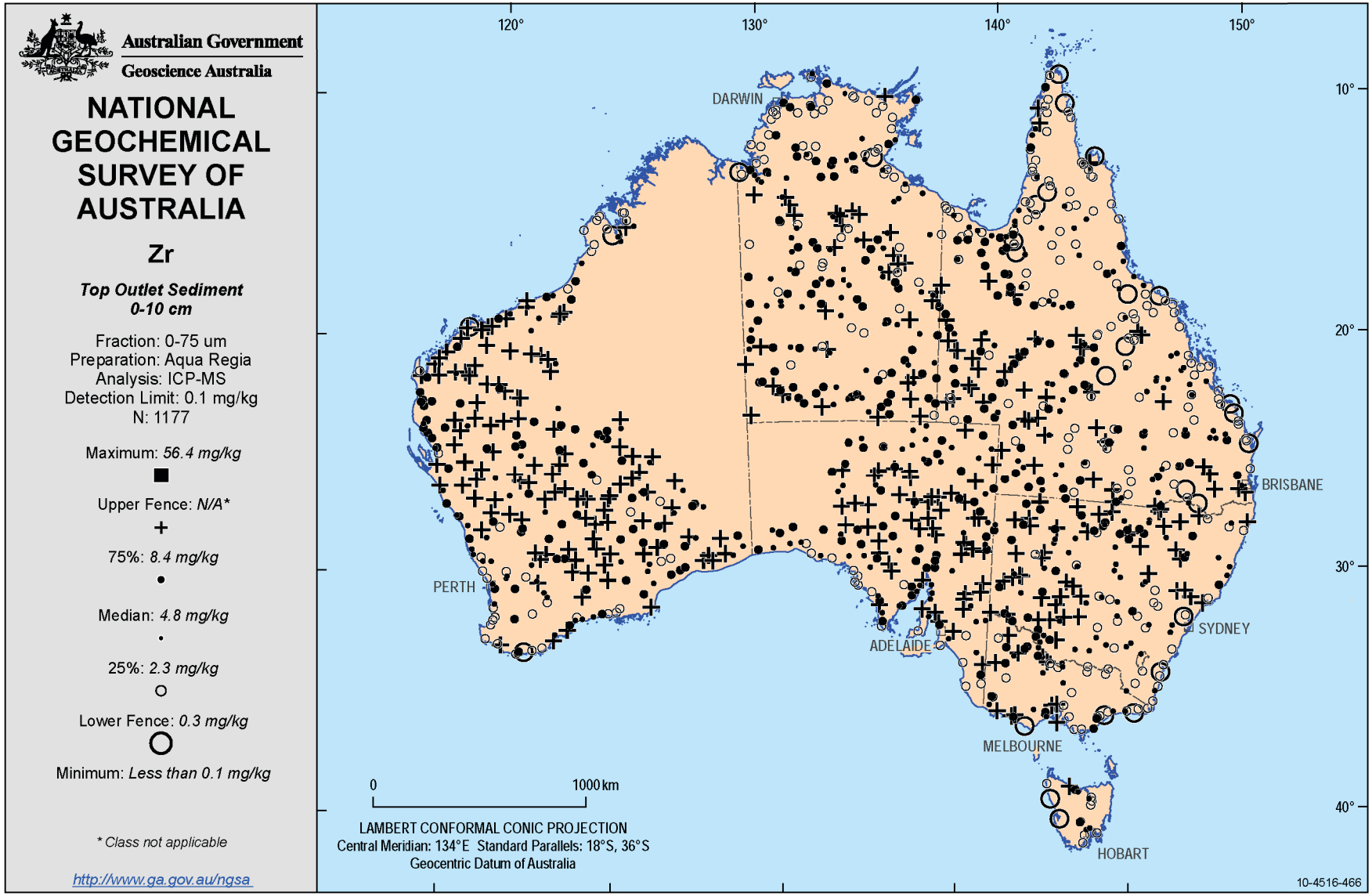
** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Yb
Top Outlet Sediment
0-10 cm
Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177
Maximum: 3.2 mg/kg
Upper Fence: 2.7 mg/kg
75%: 1.1 mg/kg
Median: 0.9 mg/kg
25%: 0.6 mg/kg
Lower Fence: 0.2 mg/kg
Minimum: Less than 0.1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
BRISBANE
SYDNEY
MELBOURNE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-464


Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Zn
Top Outlet Sediment
0-10 cm
Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177
Maximum: 8910 mg/kg
Upper Fence: 213 mg/kg
75%: 54.7 mg/kg
Median: 37.3 mg/kg
25%: 22.1 mg/kg
Lower Fence: 5.7 mg/kg
Minimum: Less than 0.1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
BRISBANE
SYDNEY
MELBOURNE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-465


Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Zr
Top Outlet Sediment
0-10 cm
Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1177
Maximum: 56.4 mg/kg
Upper Fence: N/A*
75%: 8.4 mg/kg
Median: 4.8 mg/kg
25%: 2.3 mg/kg
Lower Fence: 0.3 mg/kg
Minimum: Less than 0.1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
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20°
30°
40°
DARWIN
PERTH
ADELAIDE
MELBOURNE
SYDNEY
BRISBANE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-466

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ag

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.002 mg/kg
N: 1191

Maximum: *3.28 mg/kg*

Upper Fence: *0.998 mg/kg*

75%: *0.024 mg/kg*

Median: *0.011 mg/kg*

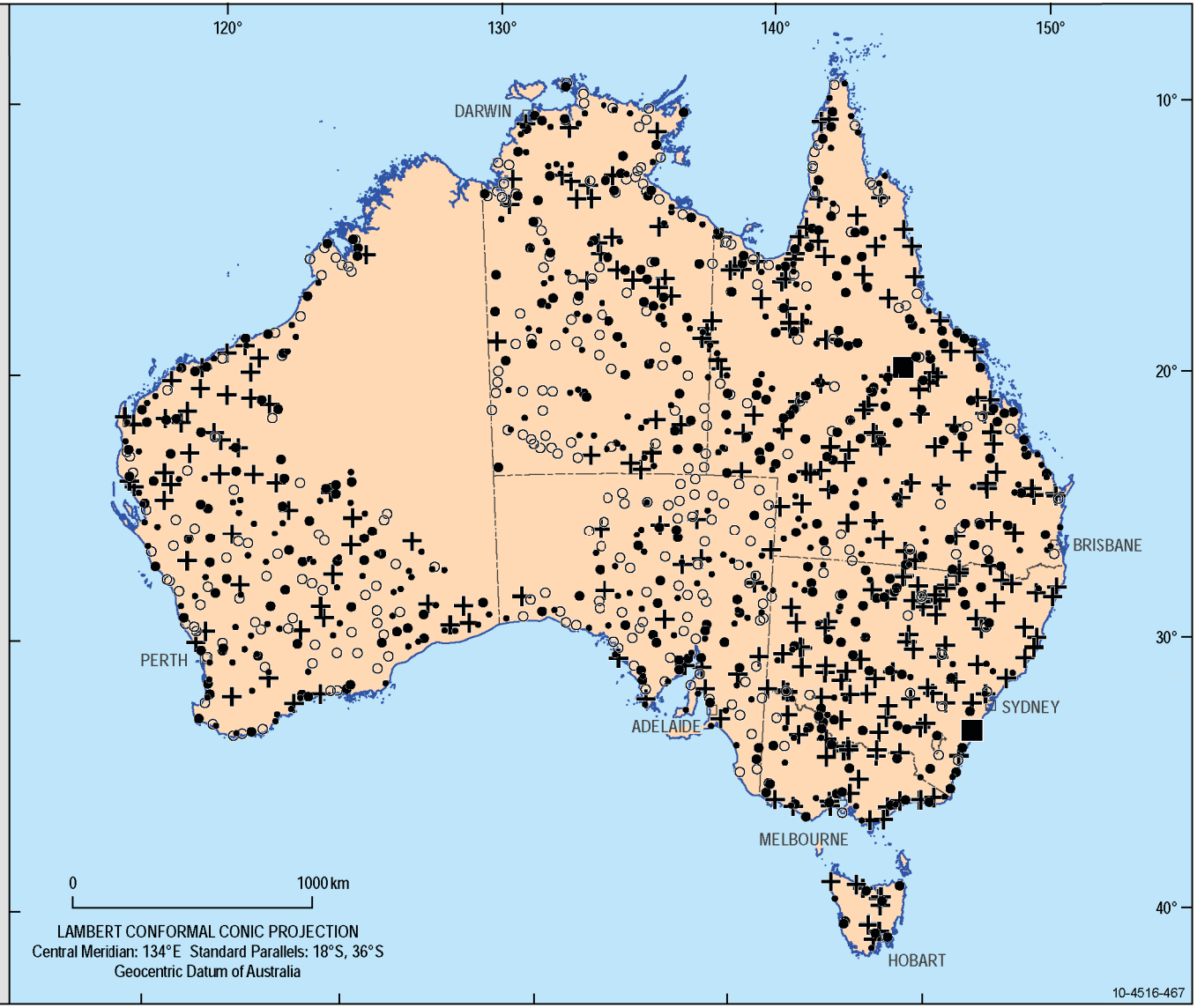
25%: *0.002 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.002 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Al

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 100 mg/kg
N: 1191

Maximum: *Greater than 100000 mg/kg*

Upper Fence: *89791 mg/kg*

75%: *19000 mg/kg*

Median: *11600 mg/kg*

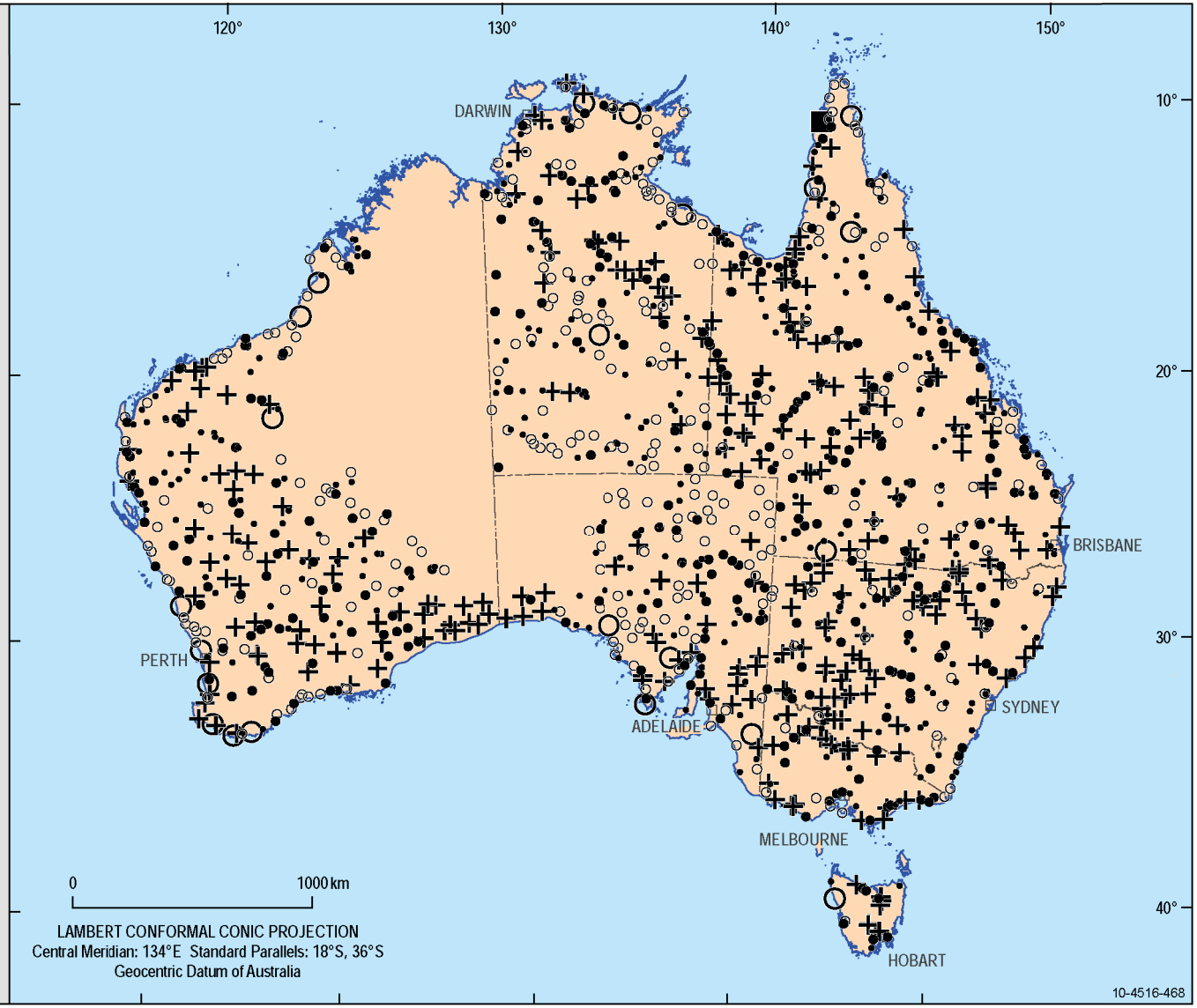
25%: *6500 mg/kg*

Lower Fence: *1283 mg/kg*

Minimum: *Less than 100 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

As

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *79 mg/kg*

Upper Fence: *19.9 mg/kg*

75%: *3.5 mg/kg*

Median: *2 mg/kg*

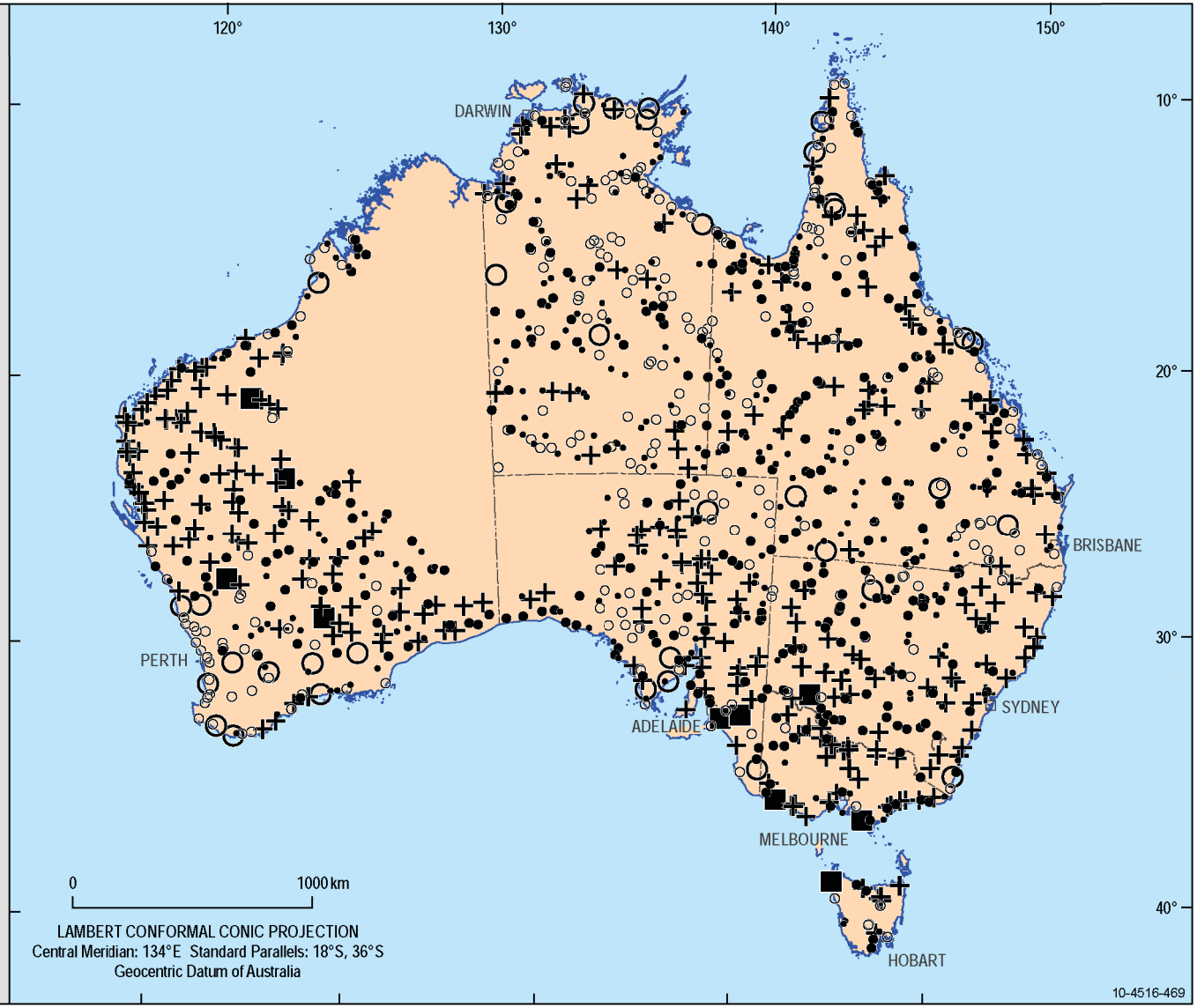
25%: *1.1 mg/kg*

Lower Fence: *0.2 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Au

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.0001 mg/kg
N: 1190

Maximum: *0.0662 mg/kg*

Upper Fence: *0.0141 mg/kg*

75%: *0.0014 mg/kg*

Median: *0.0007 mg/kg*

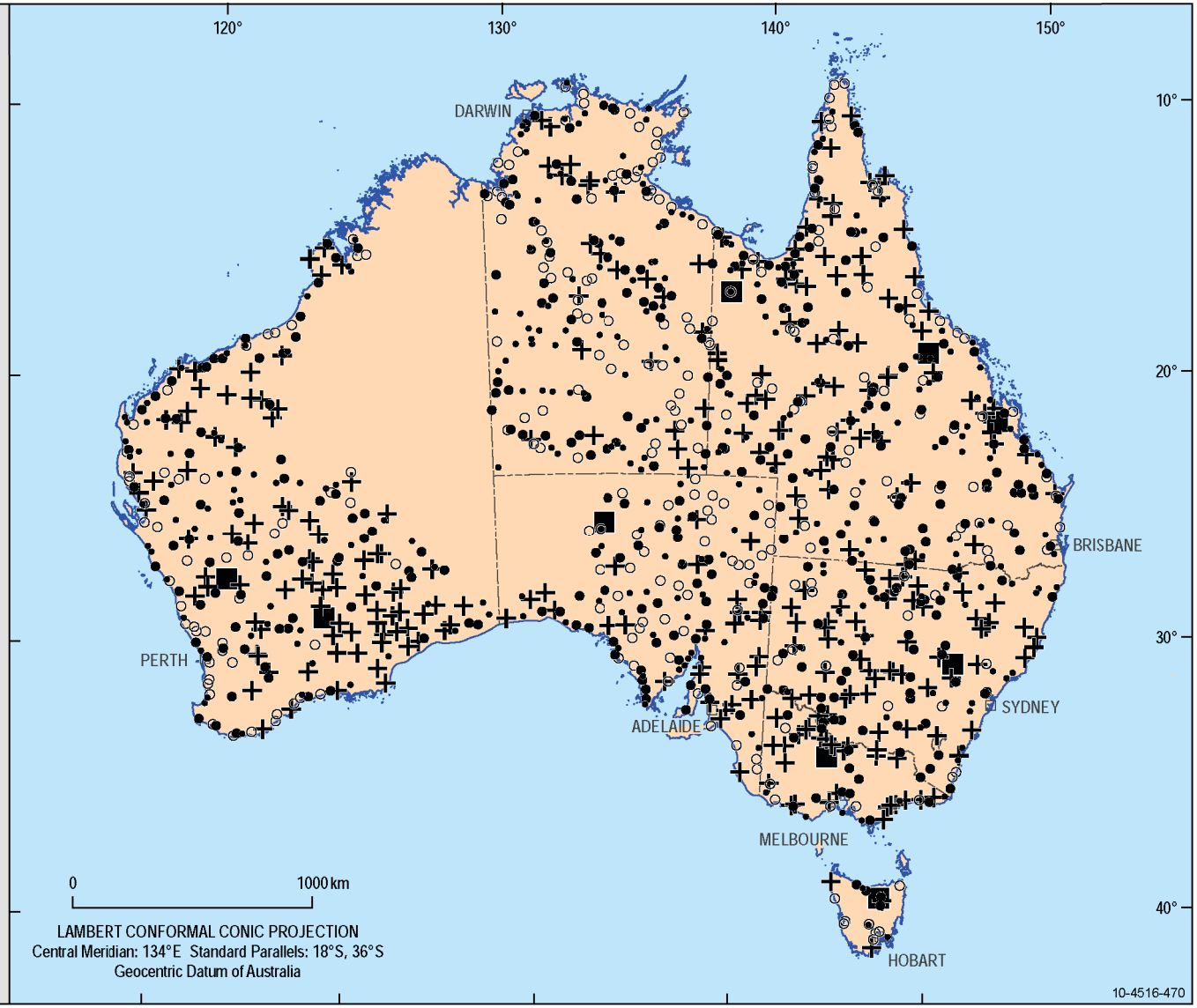
25%: *0.0003 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.0001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

B

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 1 mg/kg
N: 1191

Maximum: *49 mg/kg*

Upper Fence: *16 mg/kg*

75%: *2 mg/kg*

Median: *N/A**

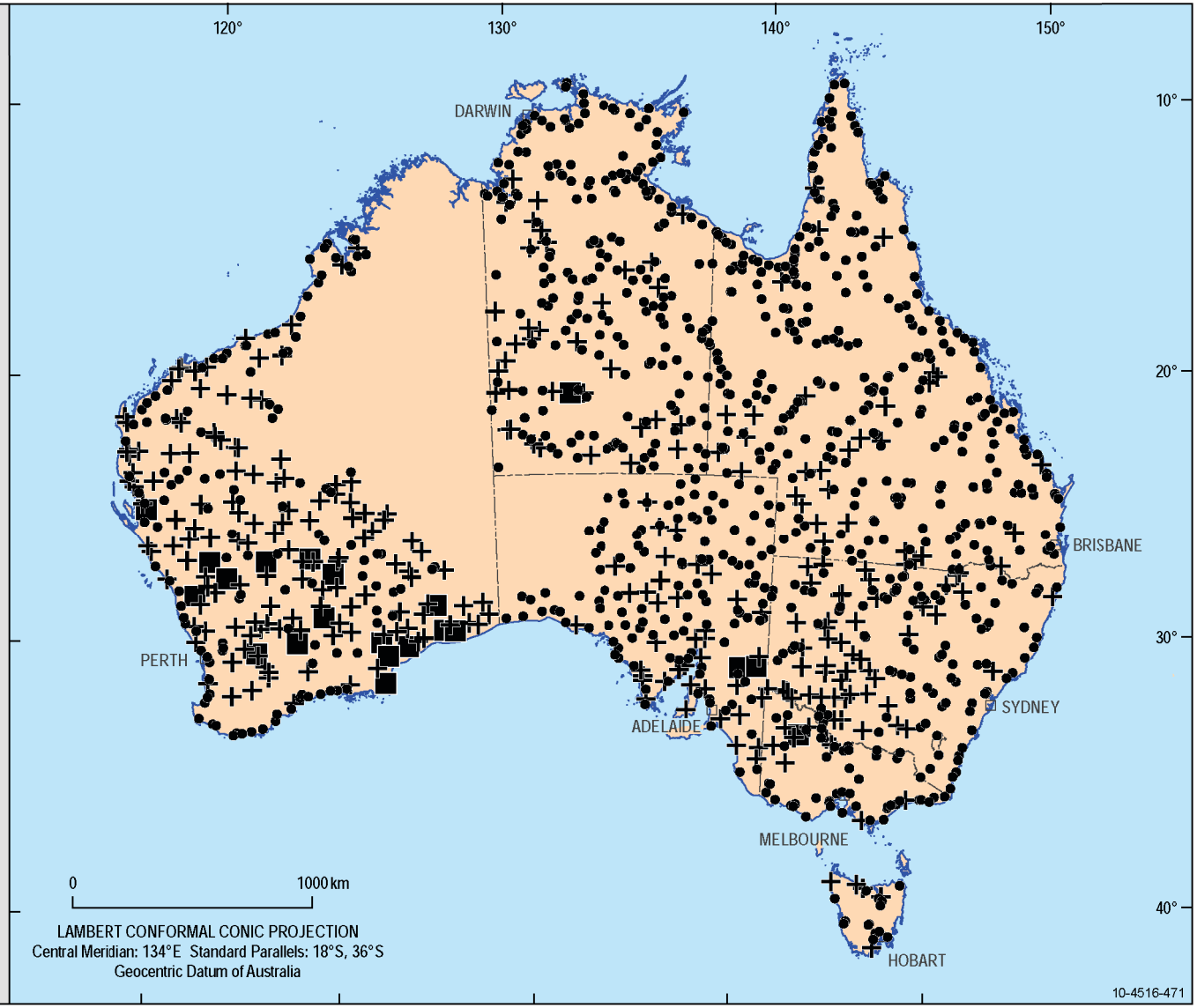
25%: *N/A**

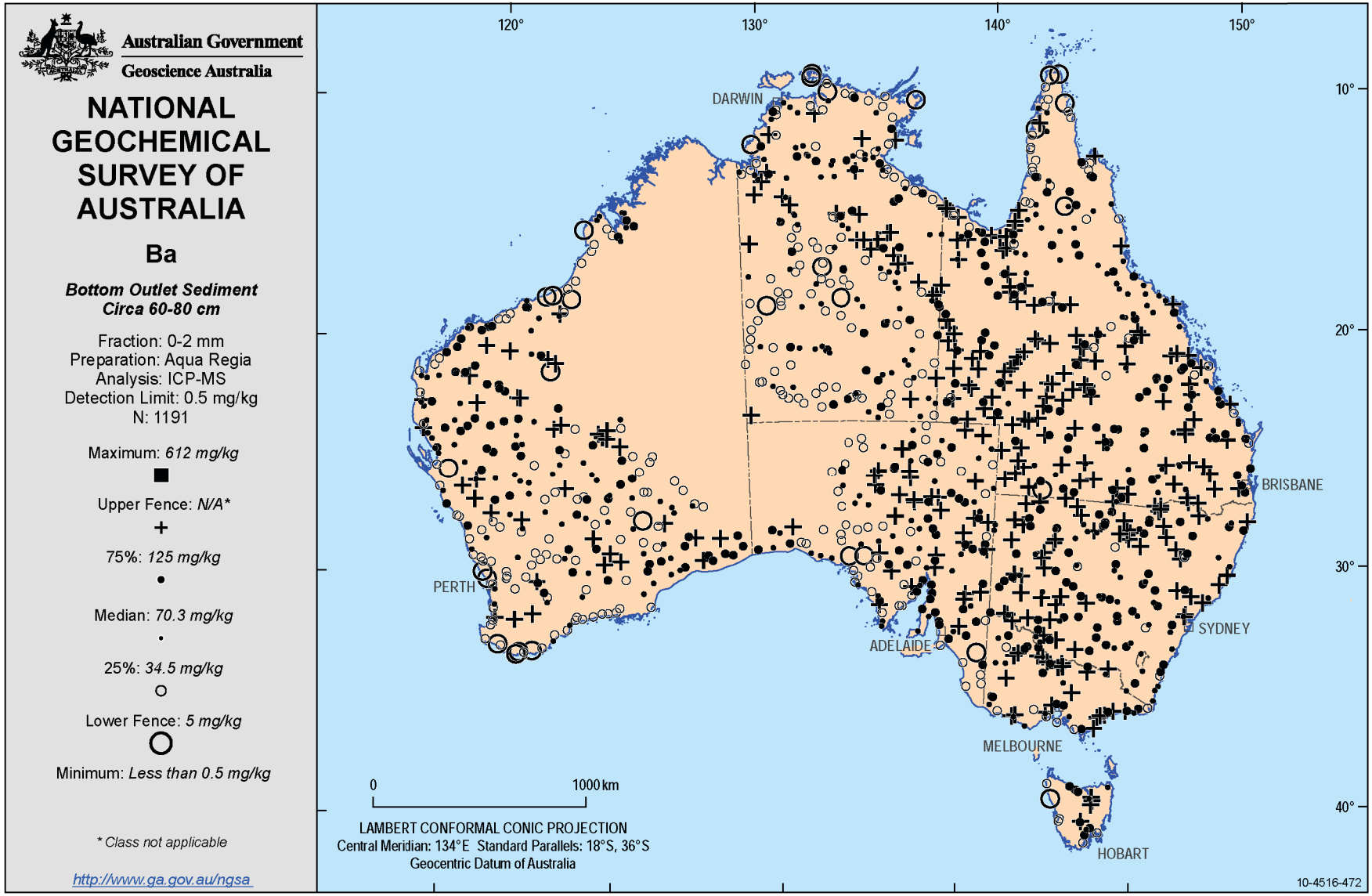
Lower Fence: *N/A**

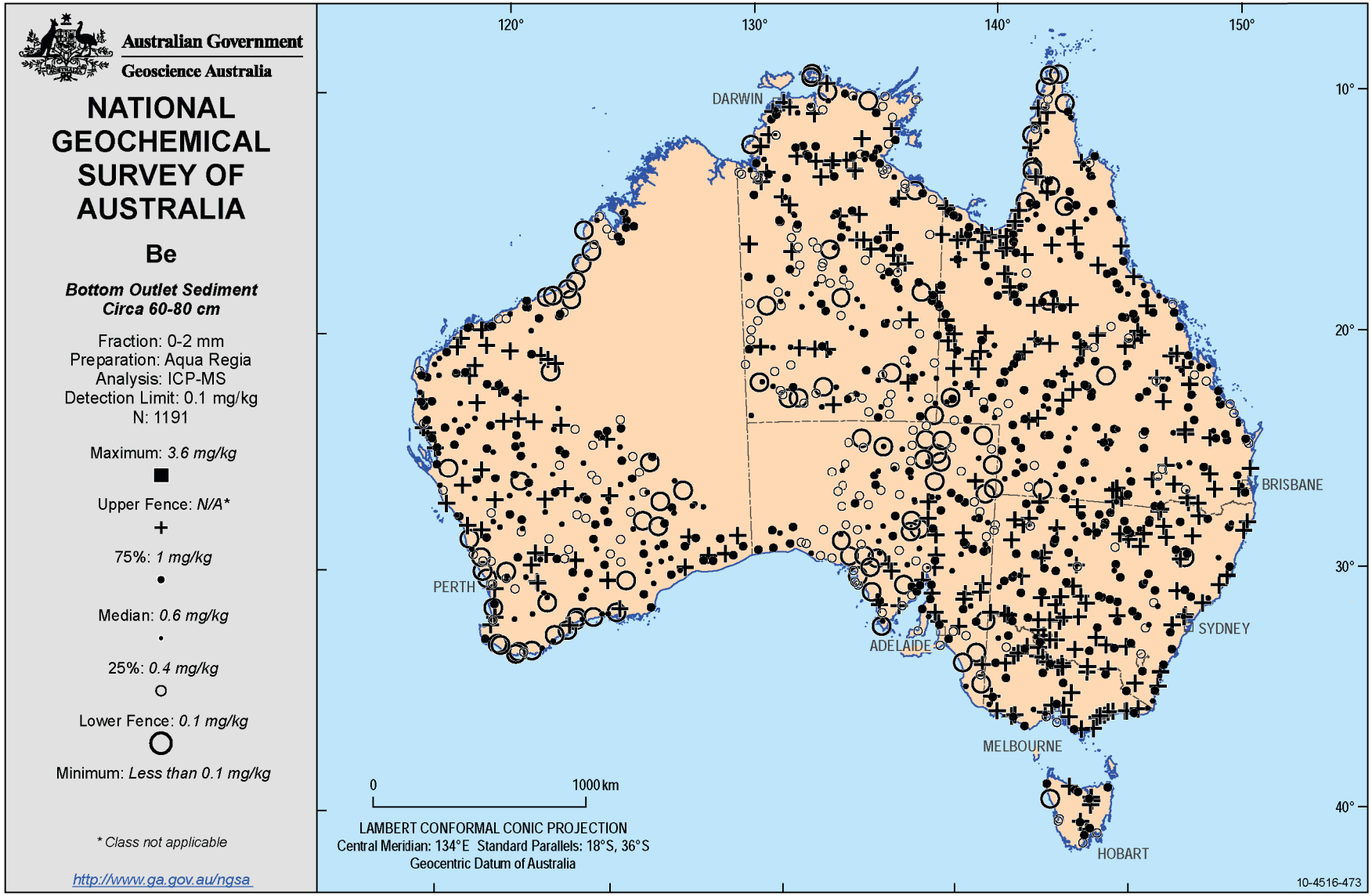
Minimum: *Less than 1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Ba
Bottom Outlet Sediment
Circa 60-80 cm
Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.5 mg/kg
N: 1191
Maximum: 612 mg/kg
Upper Fence: N/A*
75%: 125 mg/kg
Median: 70.3 mg/kg
25%: 34.5 mg/kg
Lower Fence: 5 mg/kg
Minimum: Less than 0.5 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
MELBOURNE
SYDNEY
BRISBANE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-472


Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Be
Bottom Outlet Sediment
Circa 60-80 cm
Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191
Maximum: 3.6 mg/kg
Upper Fence: N/A*
75%: 1 mg/kg
Median: 0.6 mg/kg
25%: 0.4 mg/kg
Lower Fence: 0.1 mg/kg
Minimum: Less than 0.1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
BRISBANE
SYDNEY
MELBOURNE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-473

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Bi

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1191

Maximum: *3.72 mg/kg*

Upper Fence: *0.7 mg/kg*

75%: *0.19 mg/kg*

Median: *0.12 mg/kg*

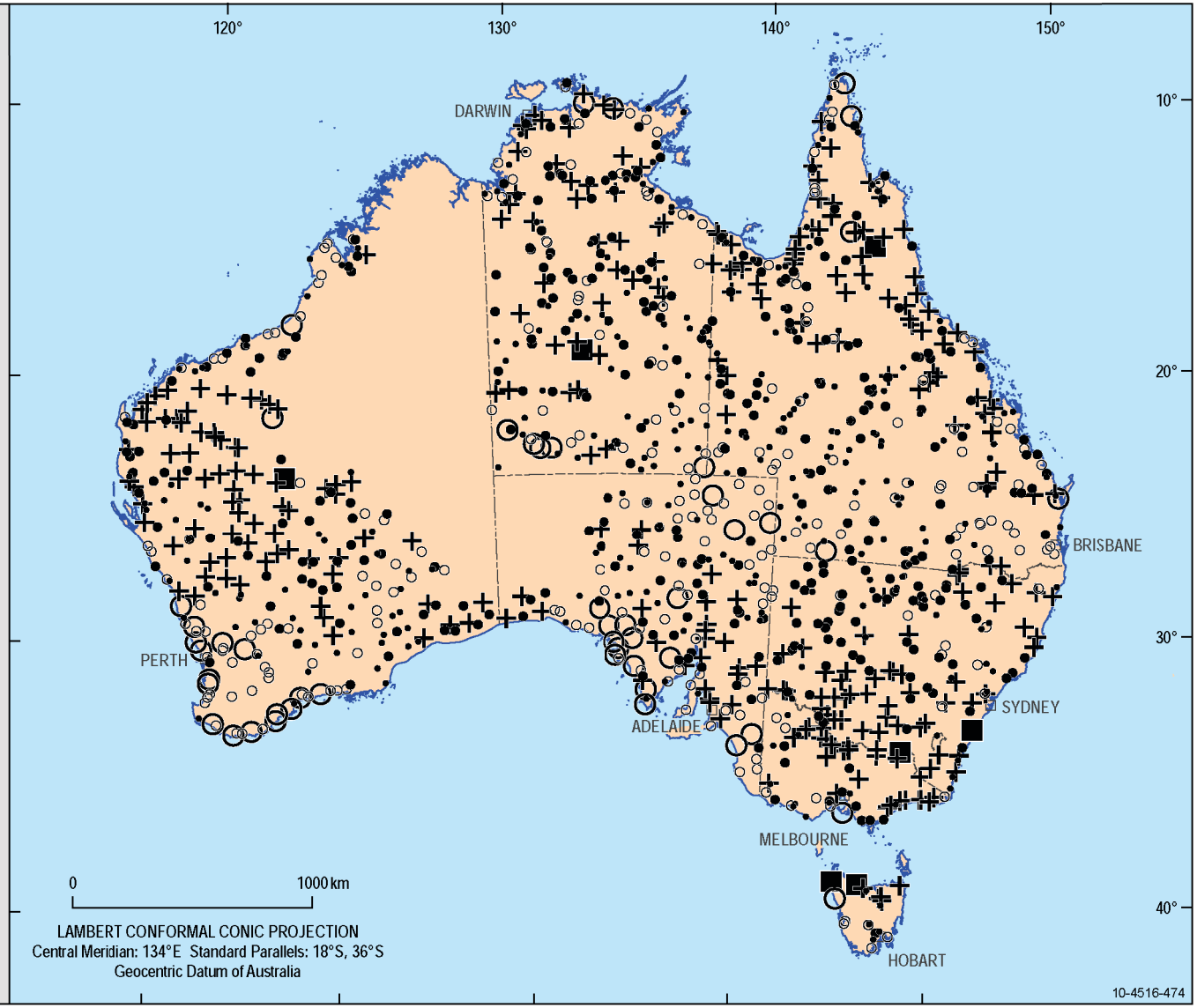
25%: *0.08 mg/kg*

Lower Fence: *0.02 mg/kg*

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ca

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 100 mg/kg
N: 1191

Maximum: *383000 mg/kg*

Upper Fence: *165071 mg/kg*

75%: *7200 mg/kg*

Median: *2800 mg/kg*

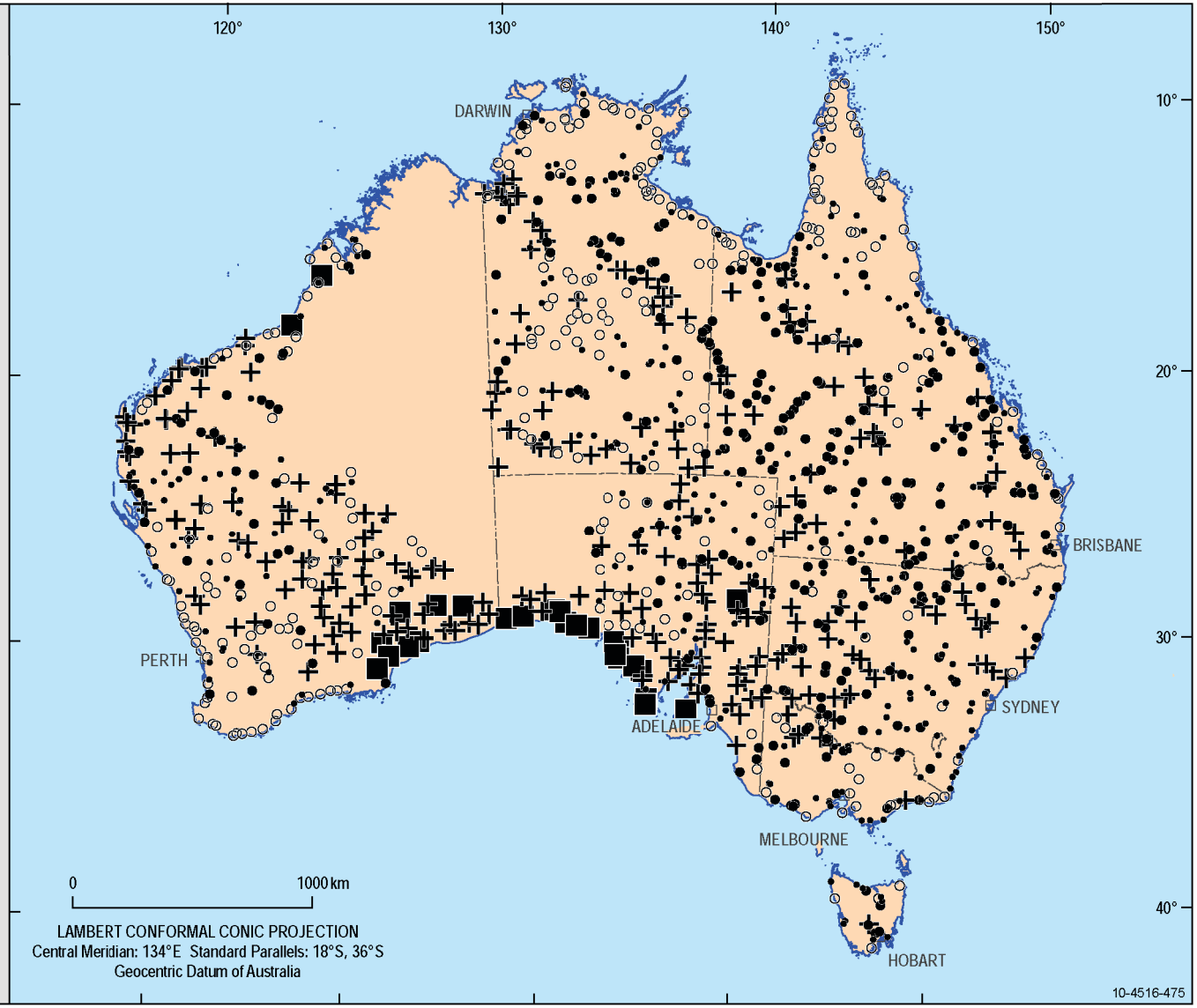
25%: *800 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 100 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Cd

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1191

Maximum: *1.42 mg/kg*

Upper Fence: *0.56 mg/kg*

75%: *0.05 mg/kg*

Median: *0.03 mg/kg*

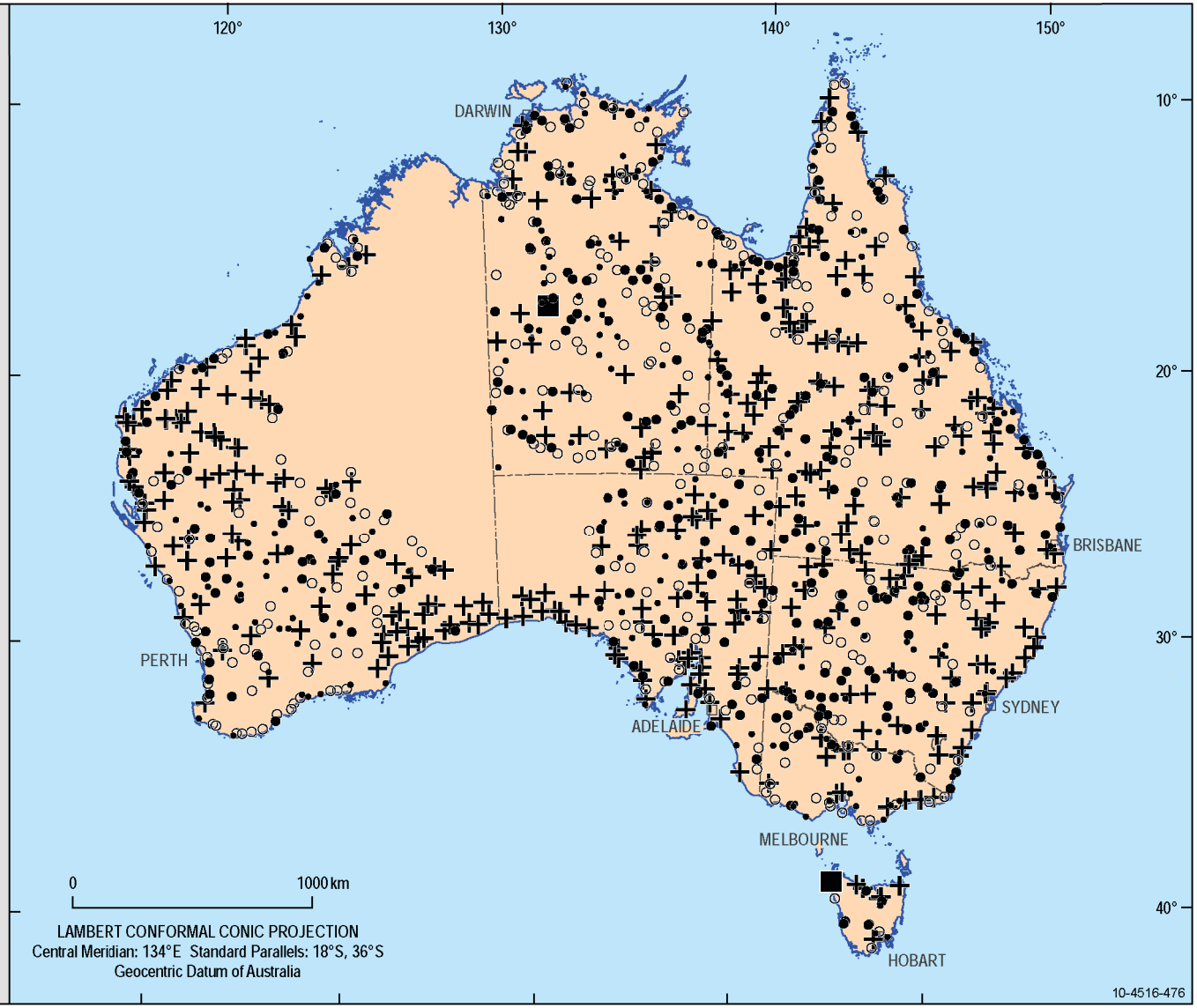
25%: *0.01 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ce

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1191

Maximum: *170 mg/kg*

Upper Fence: *N/A**

75%: *43.7 mg/kg*

Median: *30.2 mg/kg*

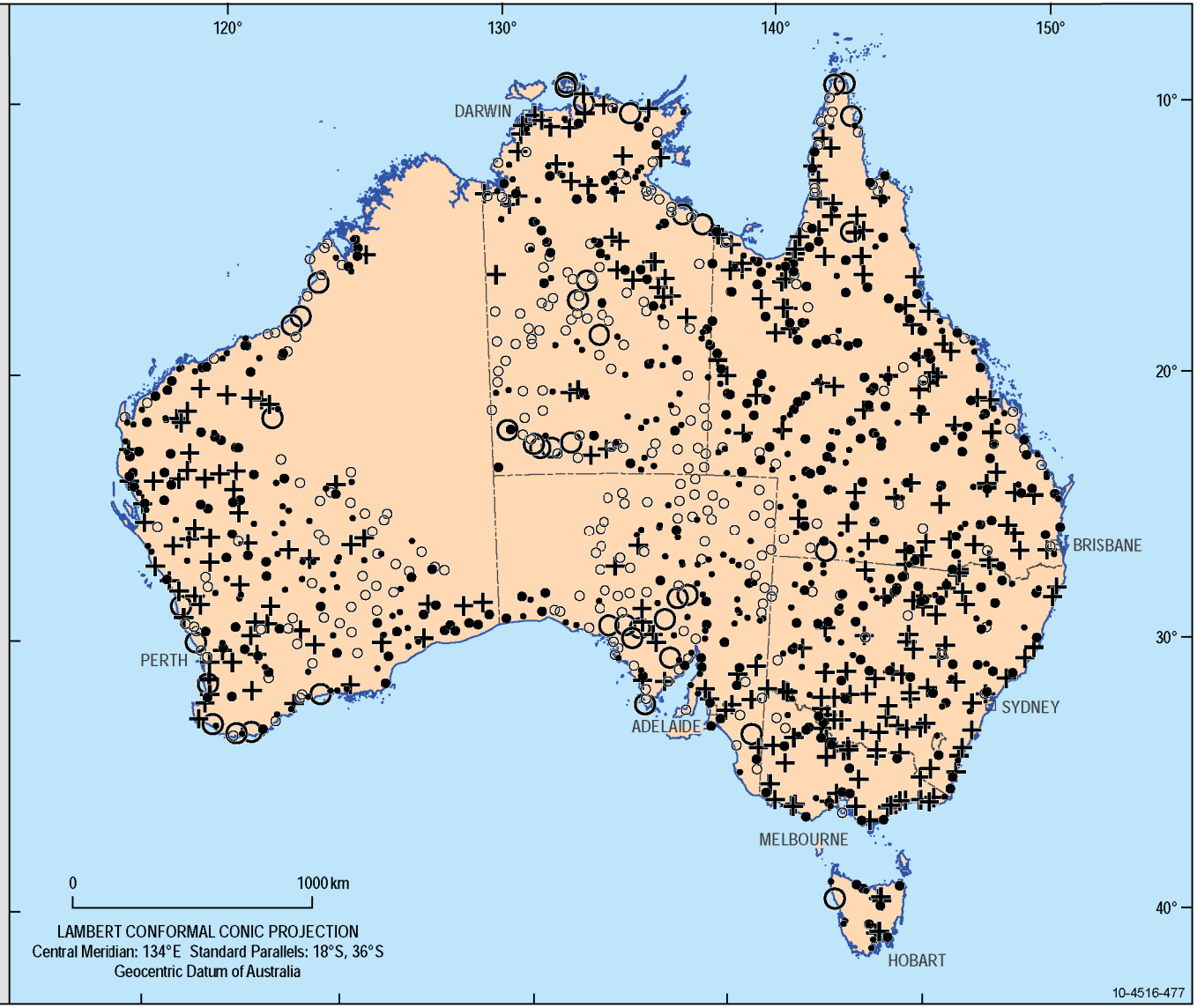
25%: *17.1 mg/kg*

Lower Fence: *4.19 mg/kg*

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Co

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *141 mg/kg*

Upper Fence: *70.2 mg/kg*

75%: *10.8 mg/kg*

Median: *6.7 mg/kg*

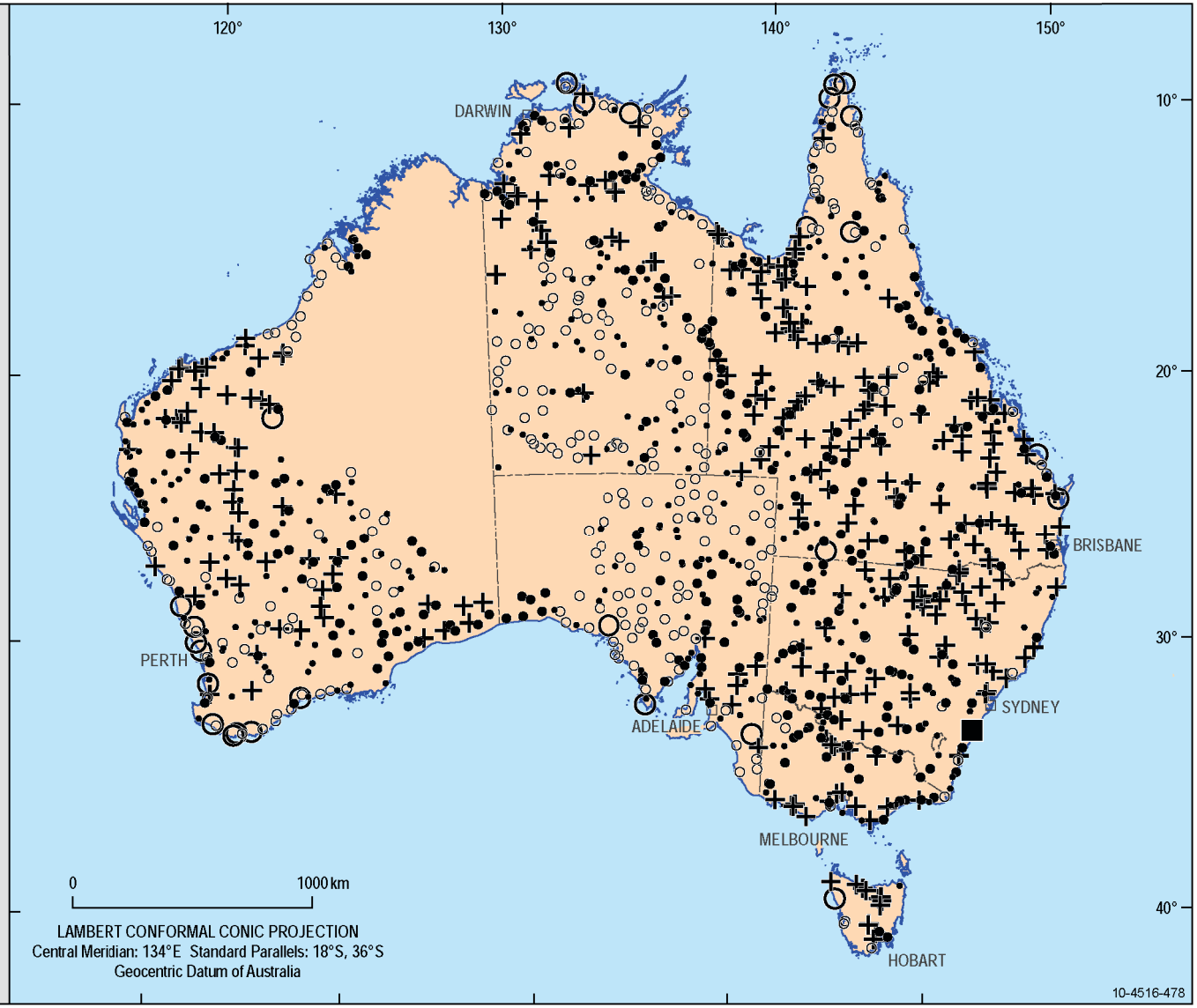
25%: *3.1 mg/kg*

Lower Fence: *0.5 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Cr

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.5 mg/kg
N: 1191

Maximum: *1310 mg/kg*

Upper Fence: *148.2 mg/kg*

75%: *39.7 mg/kg*

Median: *25.7 mg/kg*

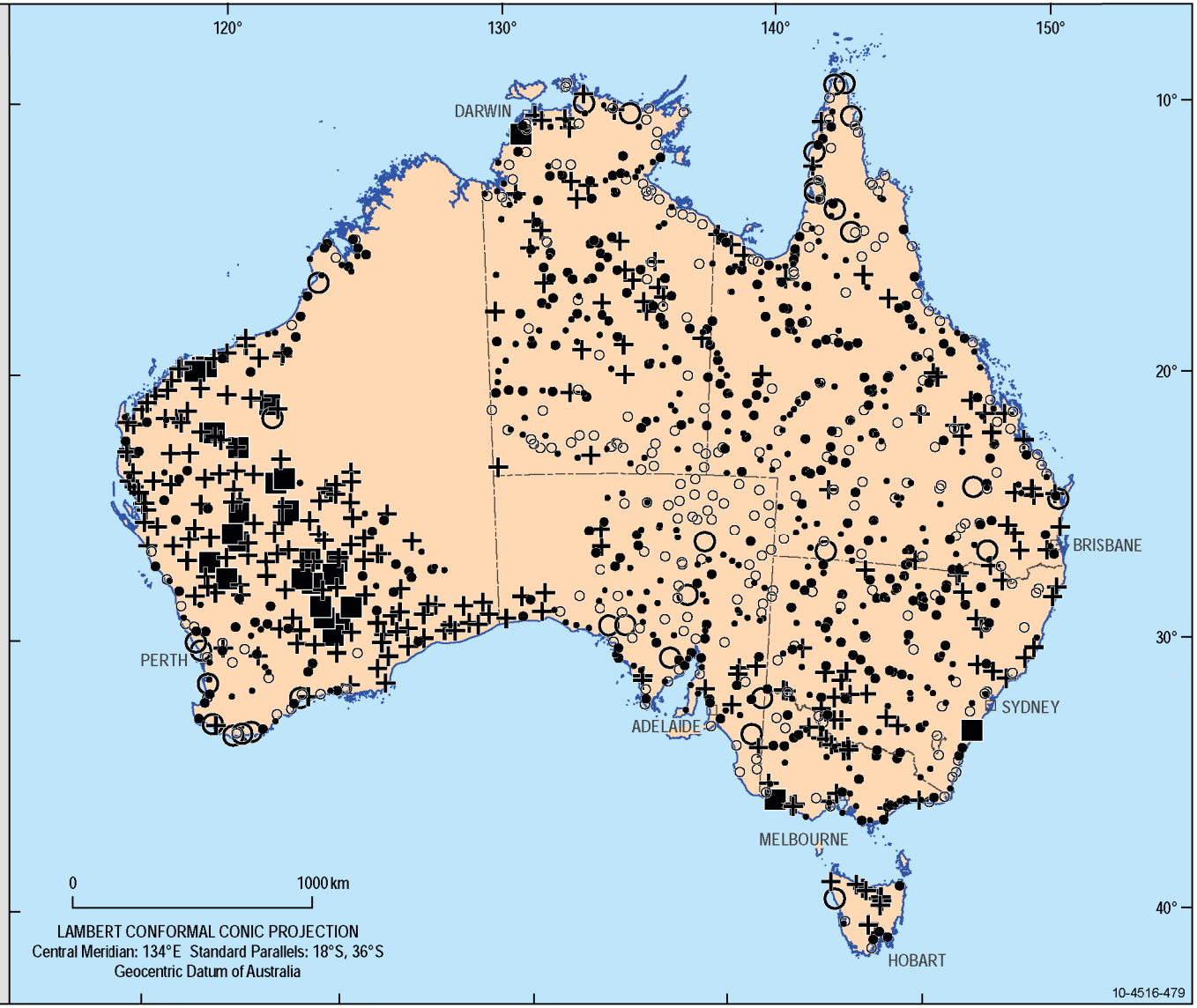
25%: *16.5 mg/kg*

Lower Fence: *4.4 mg/kg*

Minimum: *Less than 0.5 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Cs

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1191

Maximum: *8.33 mg/kg*

Upper Fence: *7.45 mg/kg*

75%: *1.56 mg/kg*

Median: *0.98 mg/kg*

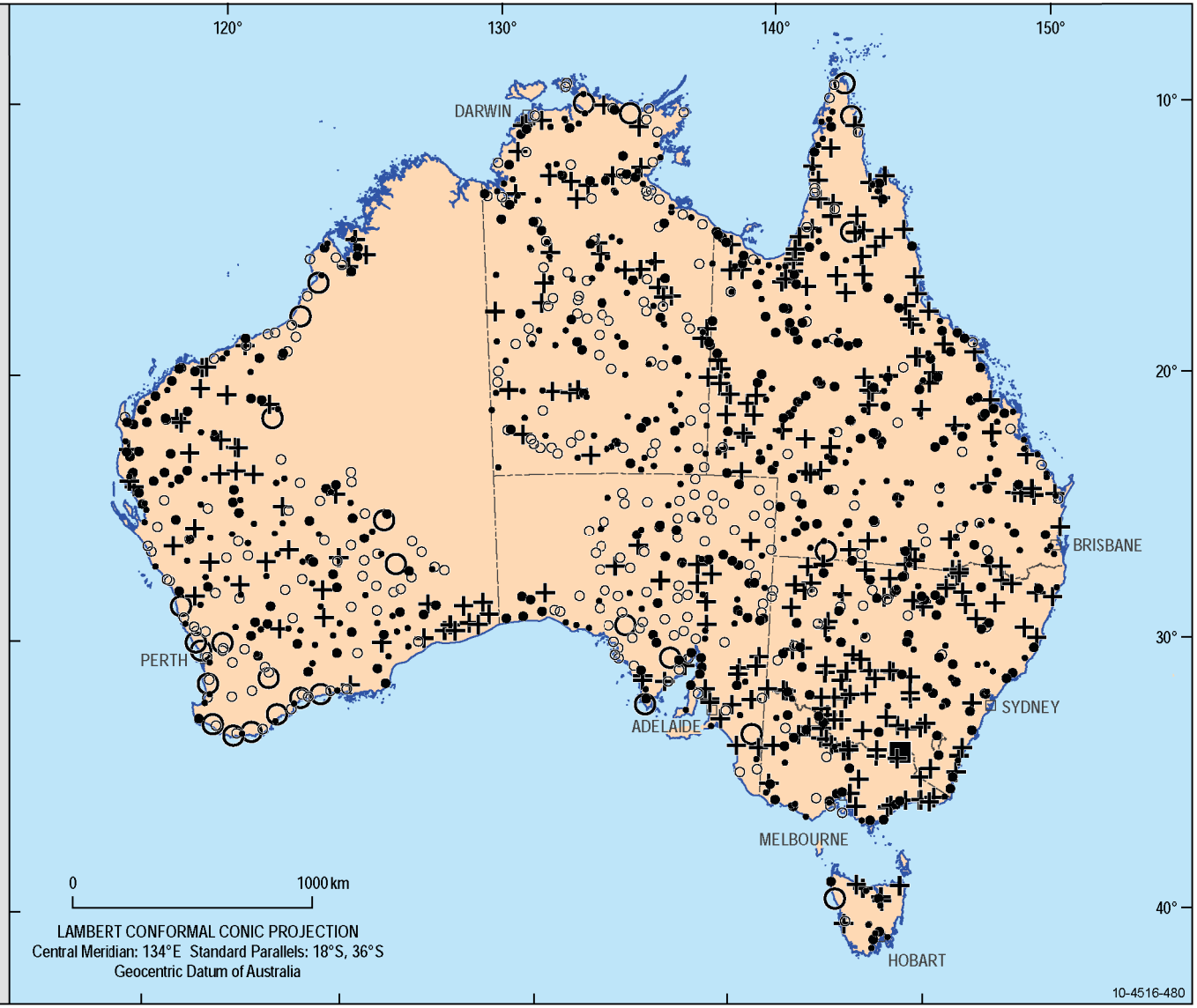
25%: *0.55 mg/kg*

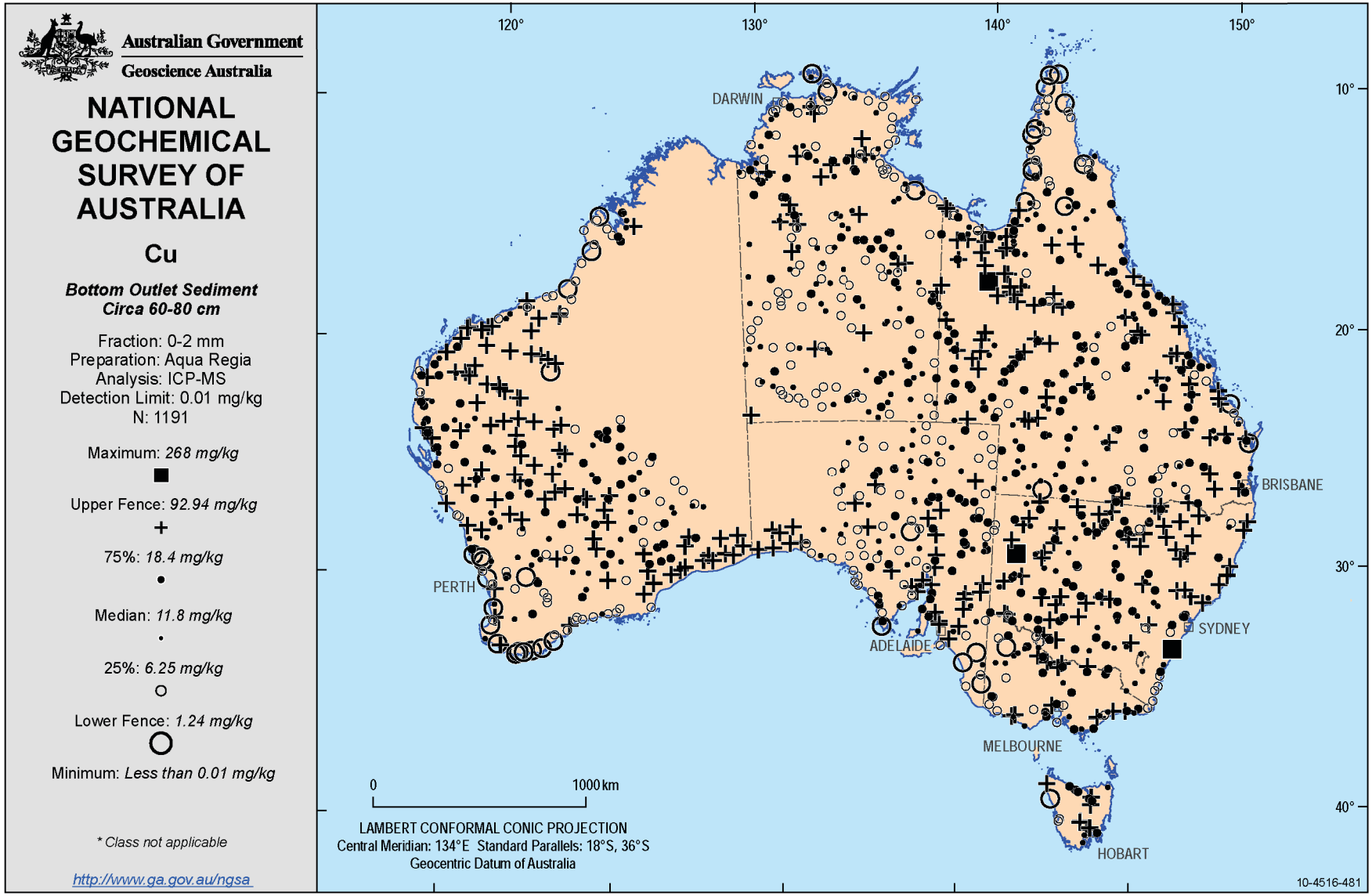
Lower Fence: *0.12 mg/kg*

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Cu
Bottom Outlet Sediment
Circa 60-80 cm
Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1191
Maximum: 268 mg/kg
Upper Fence: 92.94 mg/kg
75%: 18.4 mg/kg
Median: 11.8 mg/kg
25%: 6.25 mg/kg
Lower Fence: 1.24 mg/kg
Minimum: Less than 0.01 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
BRISBANE
SYDNEY
MELBOURNE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-481

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Dy

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *7.2 mg/kg*

Upper Fence: *N/A**

75%: *2.4 mg/kg*

Median: *1.6 mg/kg*

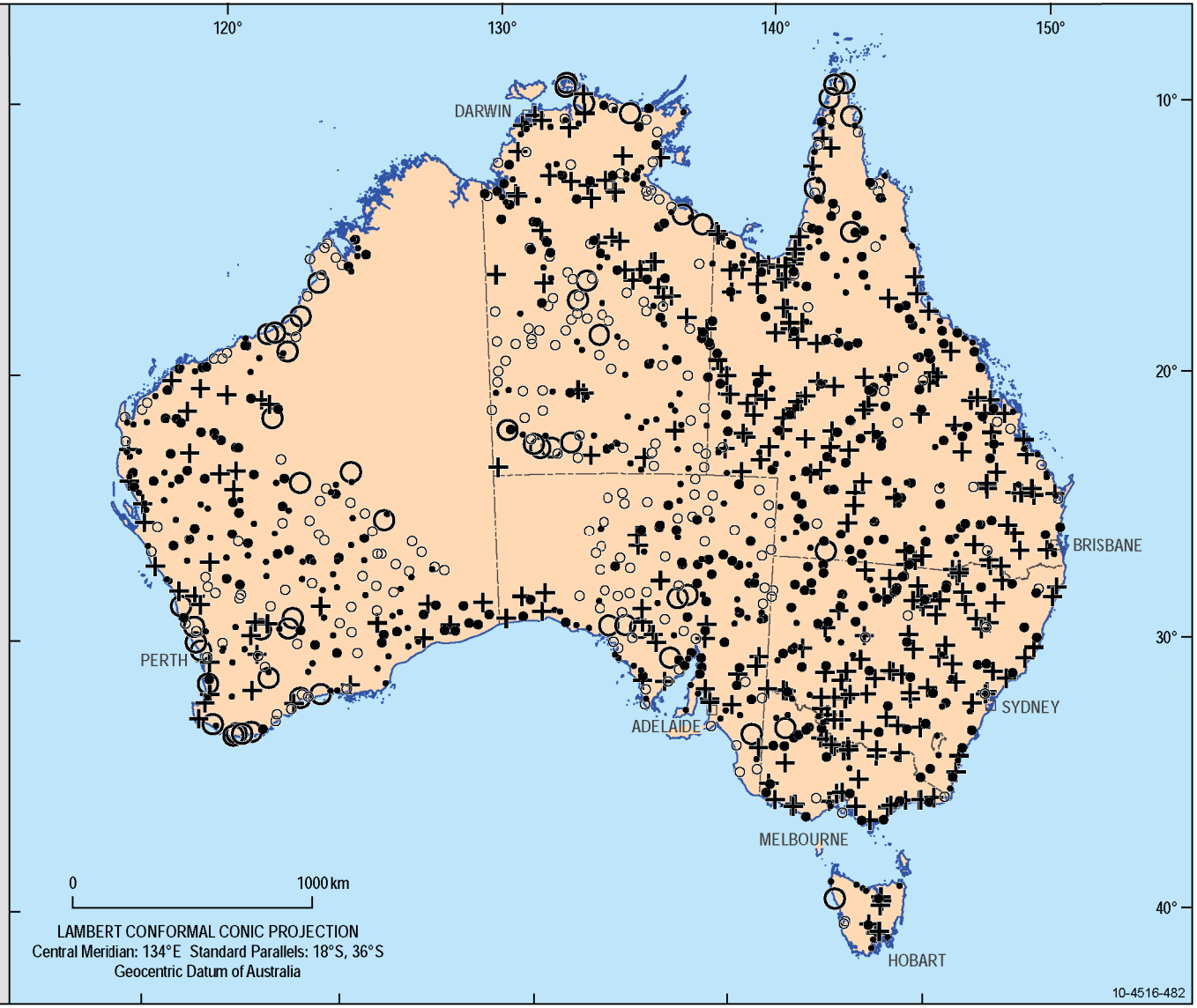
25%: *0.9 mg/kg*

Lower Fence: *0.2 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Er

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *3 mg/kg*

Upper Fence: *N/A**

75%: *1.1 mg/kg*

Median: *0.7 mg/kg*

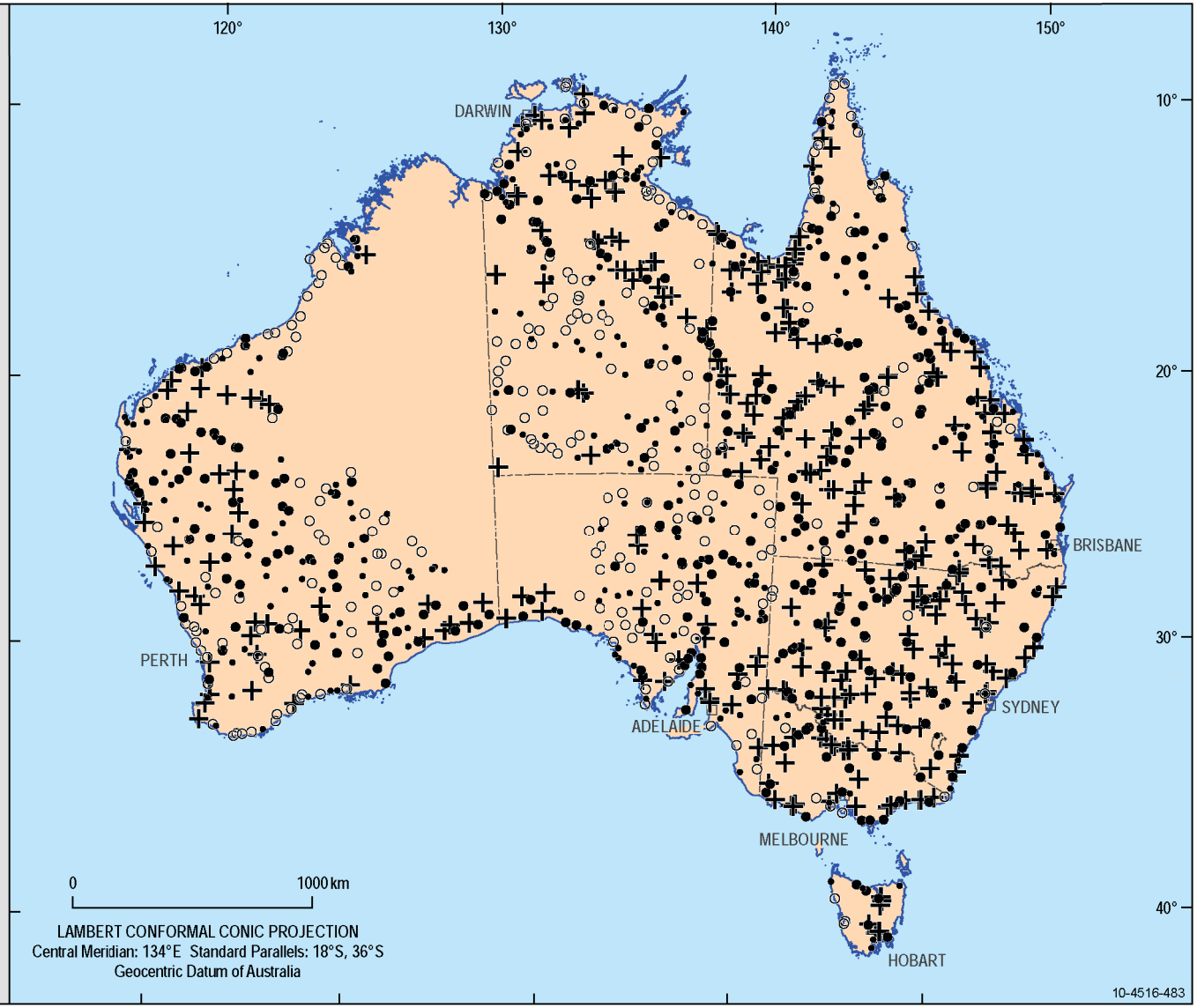
25%: *0.4 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Eu

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *2.7 mg/kg*

Upper Fence: *N/A**

75%: *0.8 mg/kg*

Median: *0.5 mg/kg*

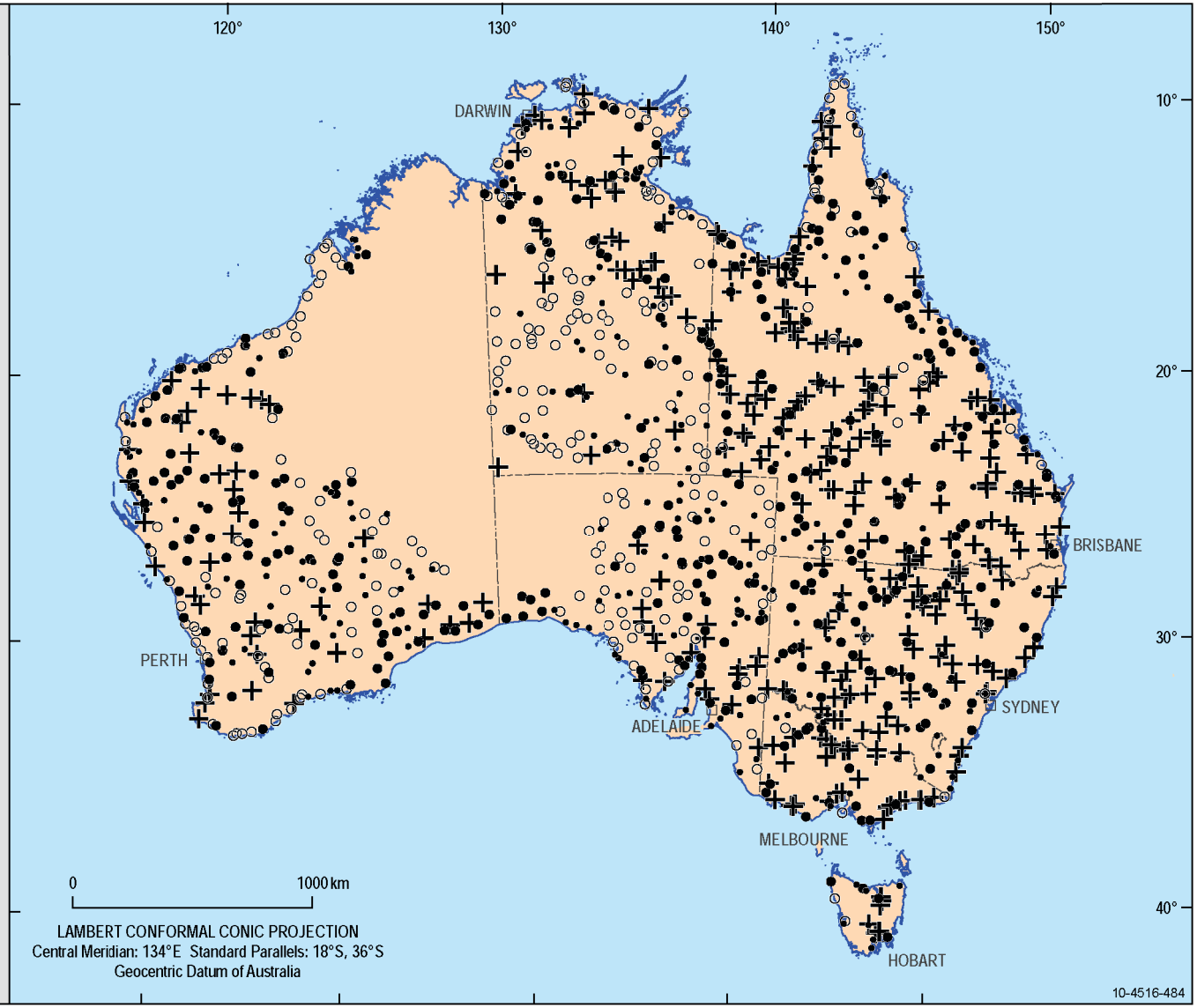
25%: *0.3 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Fe

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 100 mg/kg
N: 1191

Maximum: *223000 mg/kg*

Upper Fence: *106324 mg/kg*

75%: *27600 mg/kg*

Median: *18300 mg/kg*

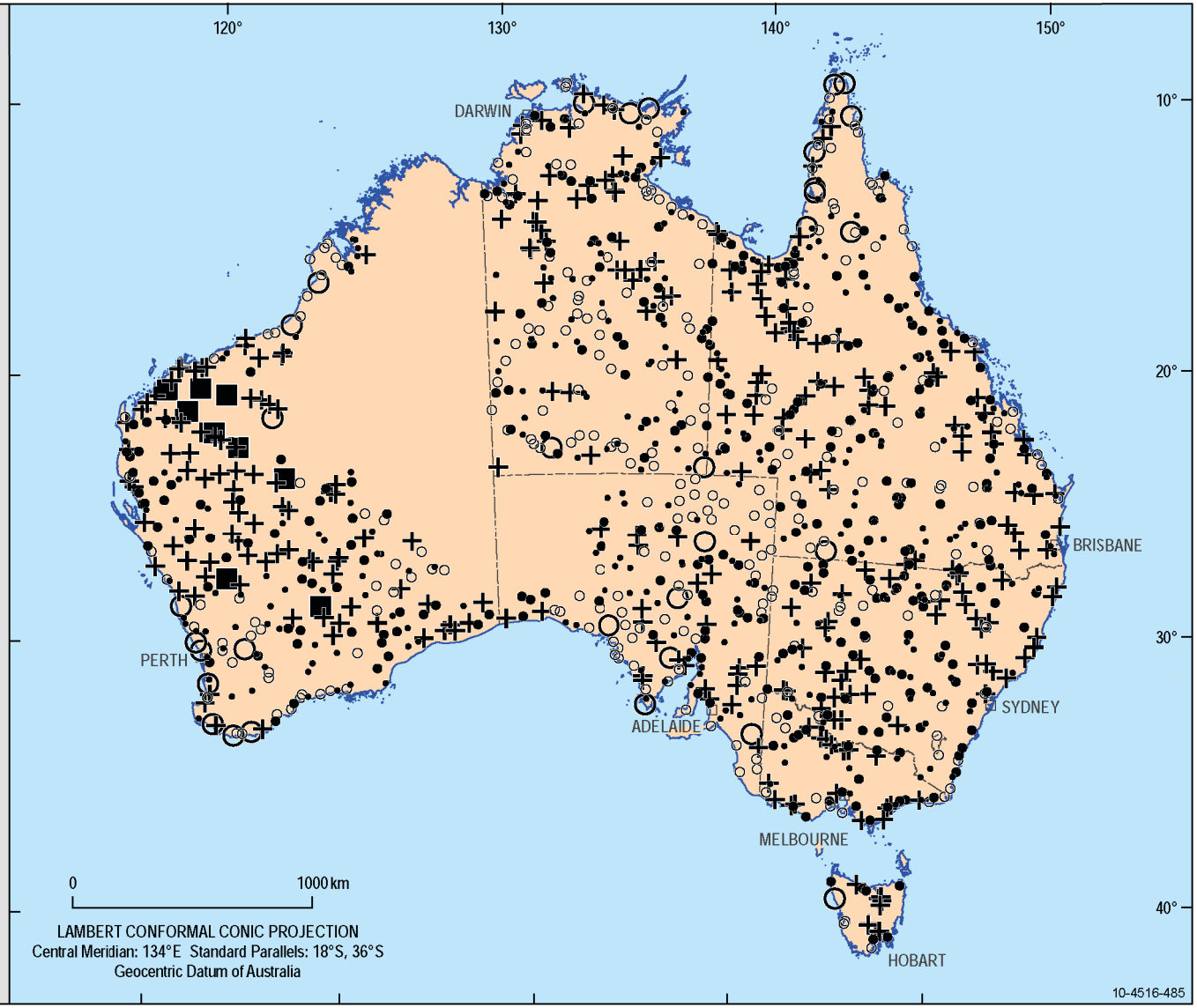
25%: *10800 mg/kg*

Lower Fence: *2598 mg/kg*

Minimum: *Less than 100 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ga

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1191

Maximum: *36.6 mg/kg*

Upper Fence: *29.25 mg/kg*

75%: *6.59 mg/kg*

Median: *4.34 mg/kg*

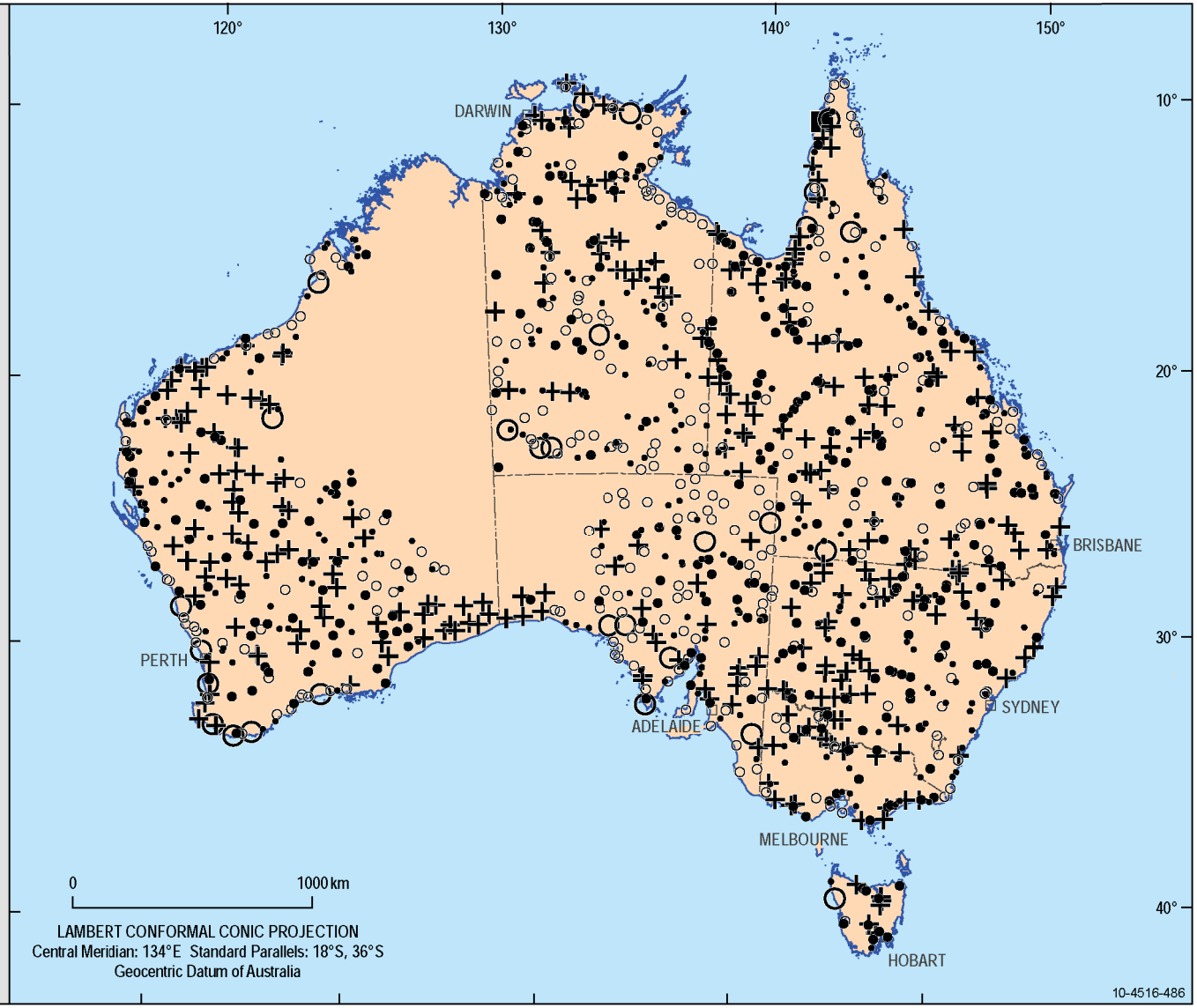
25%: *2.44 mg/kg*

Lower Fence: *0.55 mg/kg*

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Gd

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *10.4 mg/kg*

Upper Fence: *N/A**

75%: *3.4 mg/kg*

Median: *2.3 mg/kg*

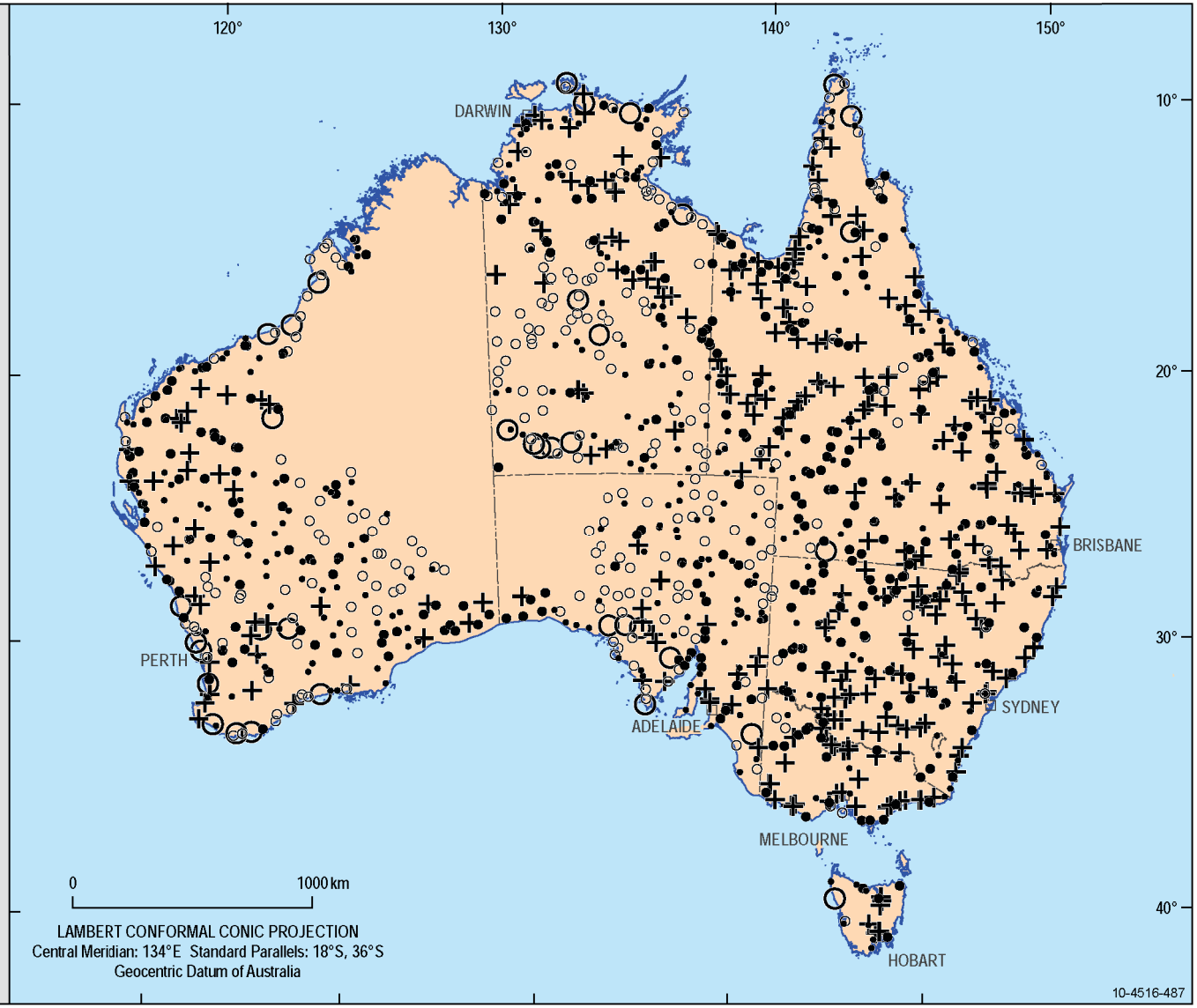
25%: *1.2 mg/kg*

Lower Fence: *0.3 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ge

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *0.3 mg/kg*

Upper Fence: *Less than 0.1 mg/kg*

75%: *N/A**

Median: *N/A**

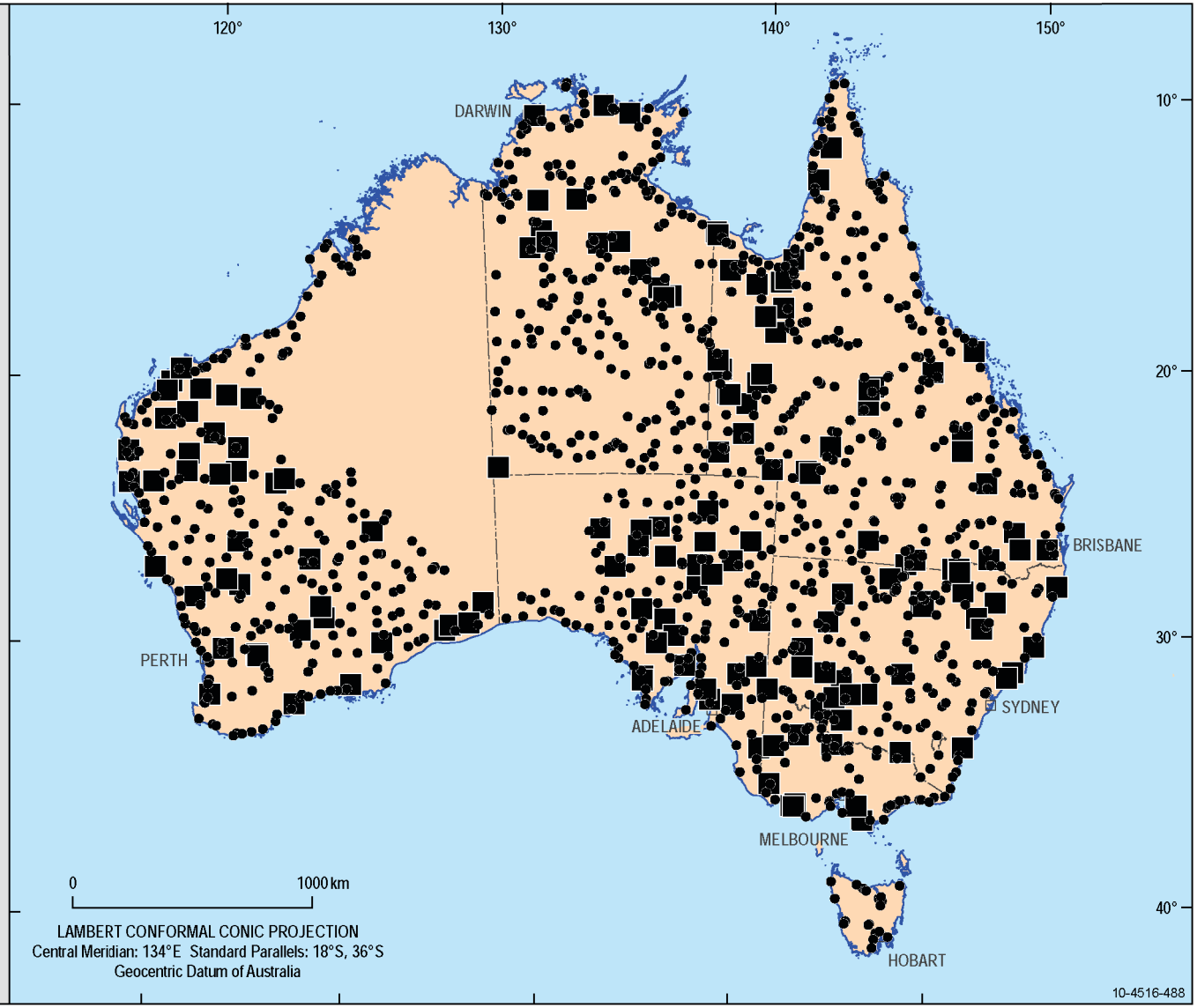
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Hf

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *2.1 mg/kg*

Upper Fence: *1.6 mg/kg*

75%: *0.2 mg/kg*

Median: *0.1 mg/kg*

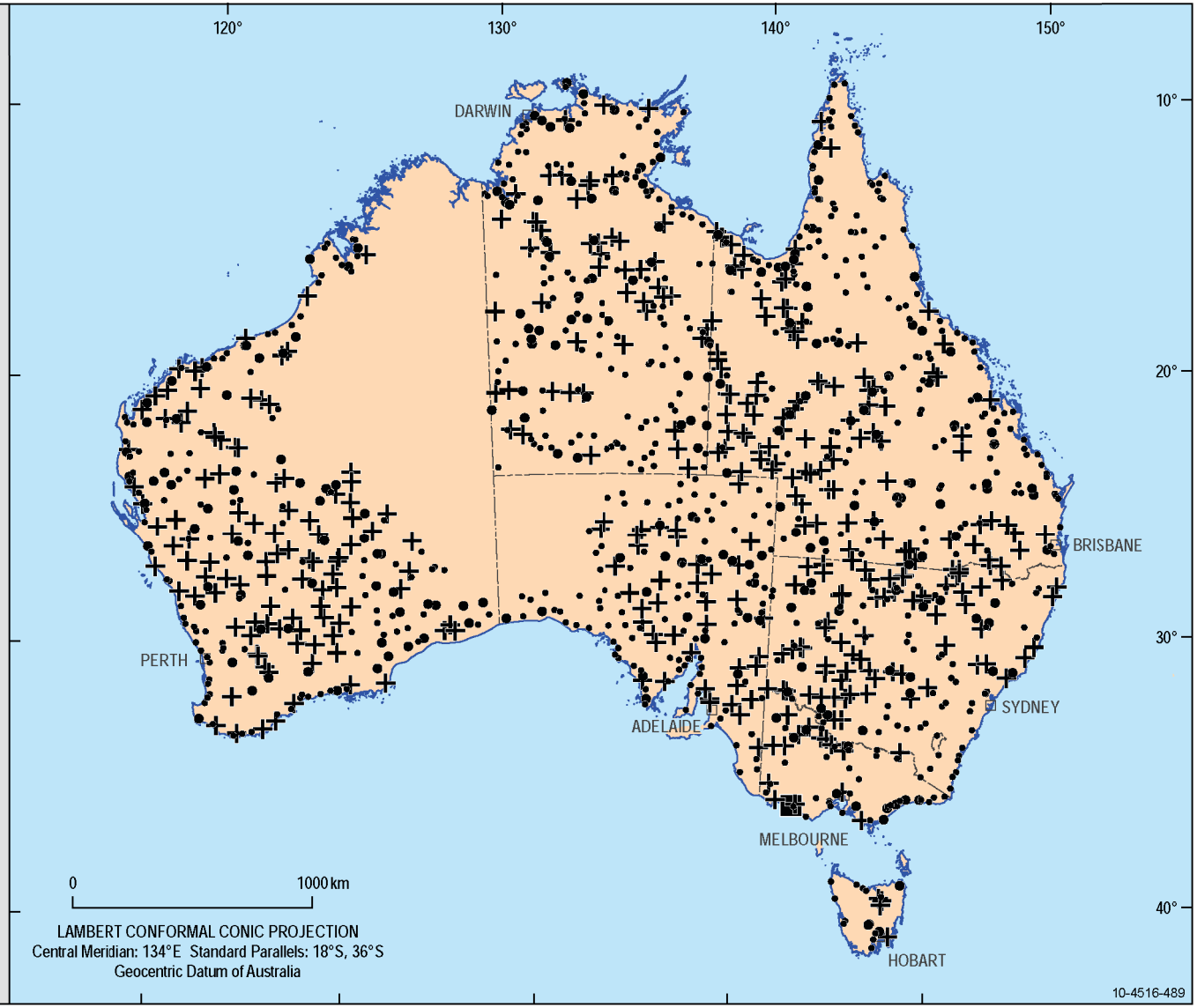
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Hg

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1191

Maximum: *0.26 mg/kg*

Upper Fence: *0.16 mg/kg*

75%: *0.02 mg/kg*

Median: *0.01 mg/kg*

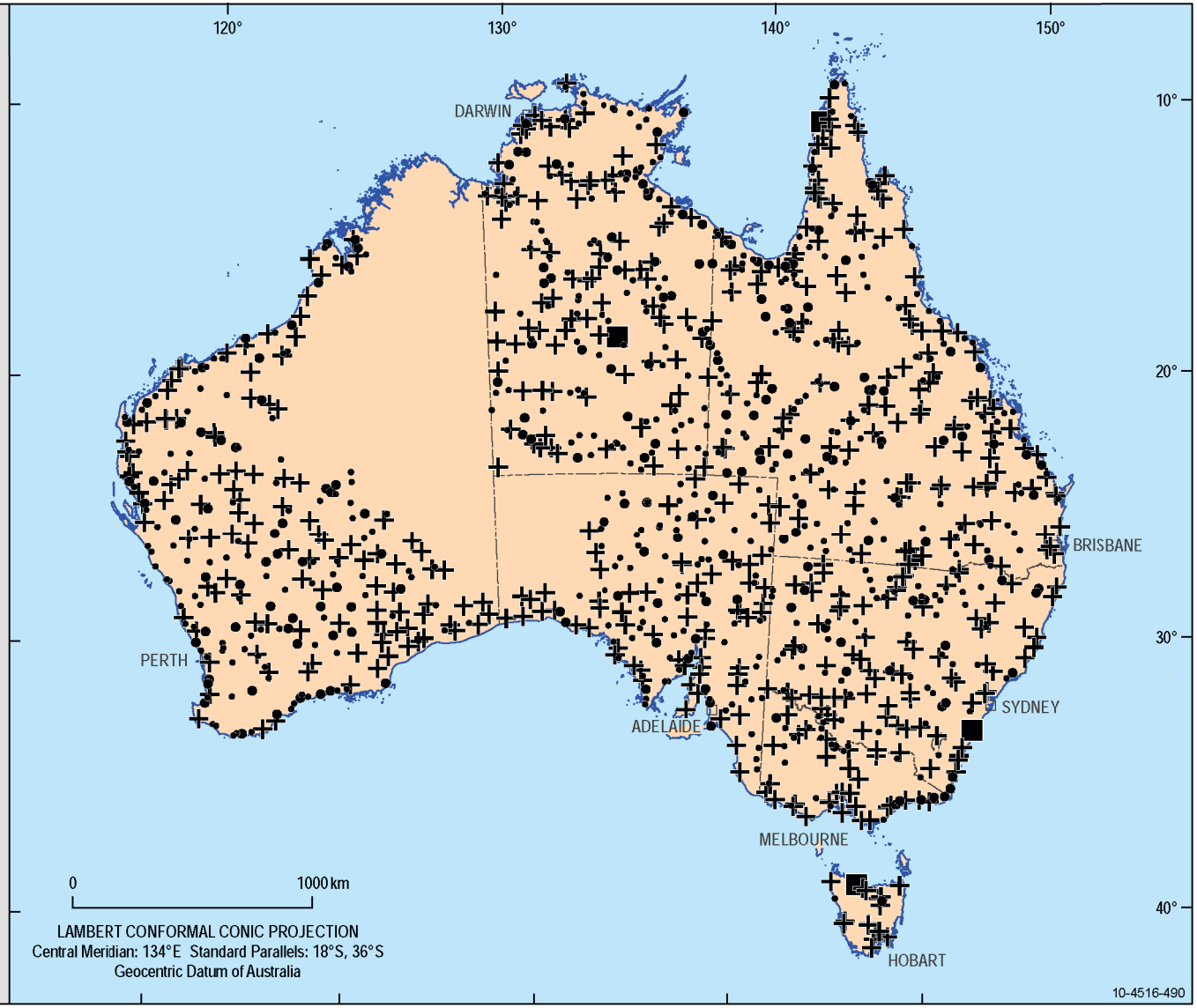
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ho

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *1.3 mg/kg*

Upper Fence: *1.1 mg/kg*

75%: *0.4 mg/kg*

Median: *0.3 mg/kg*

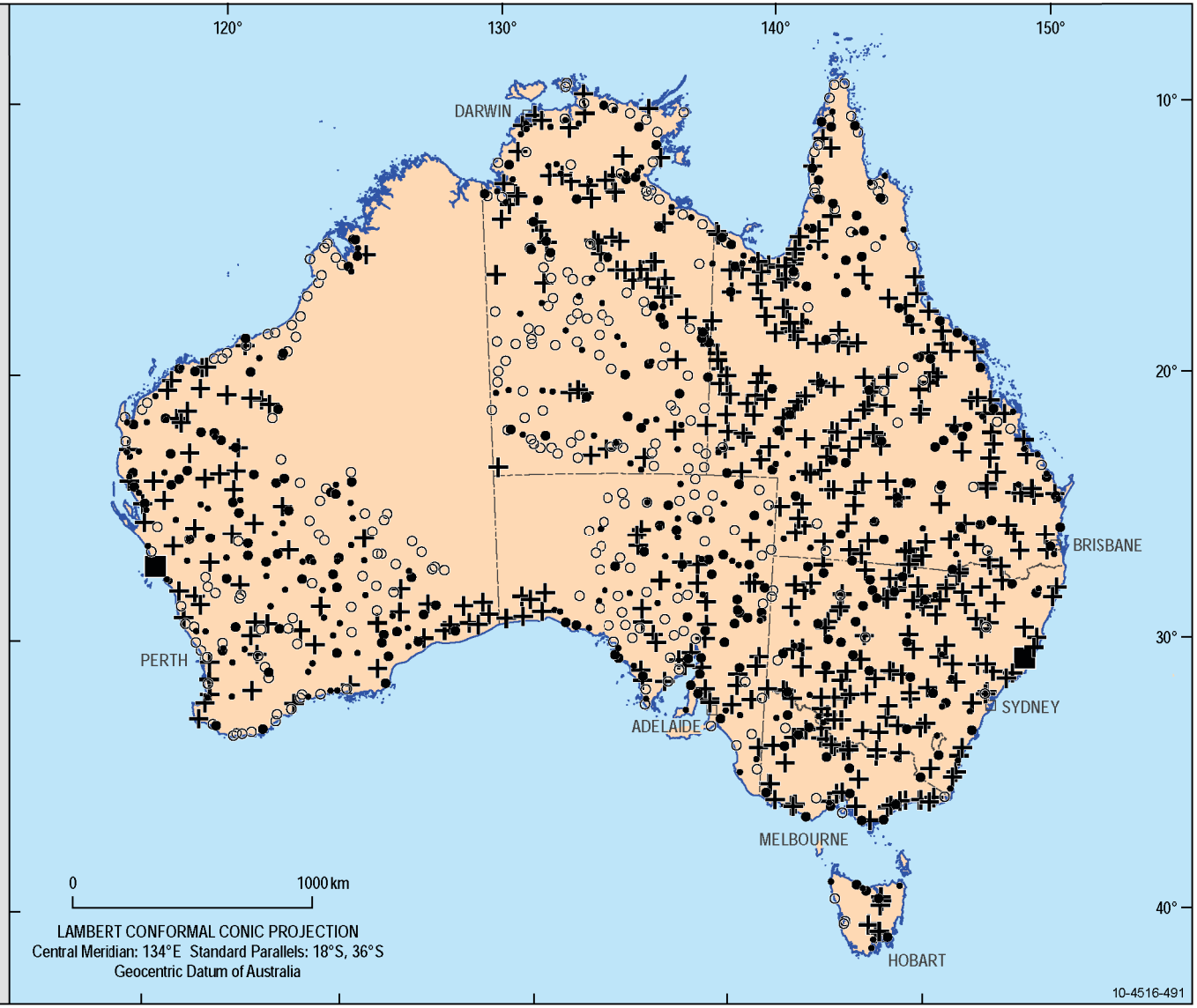
25%: *0.2 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

In

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1191

Maximum: *0.22 mg/kg*

Upper Fence: *0.16 mg/kg*

75%: *0.03 mg/kg*

Median: *N/A**

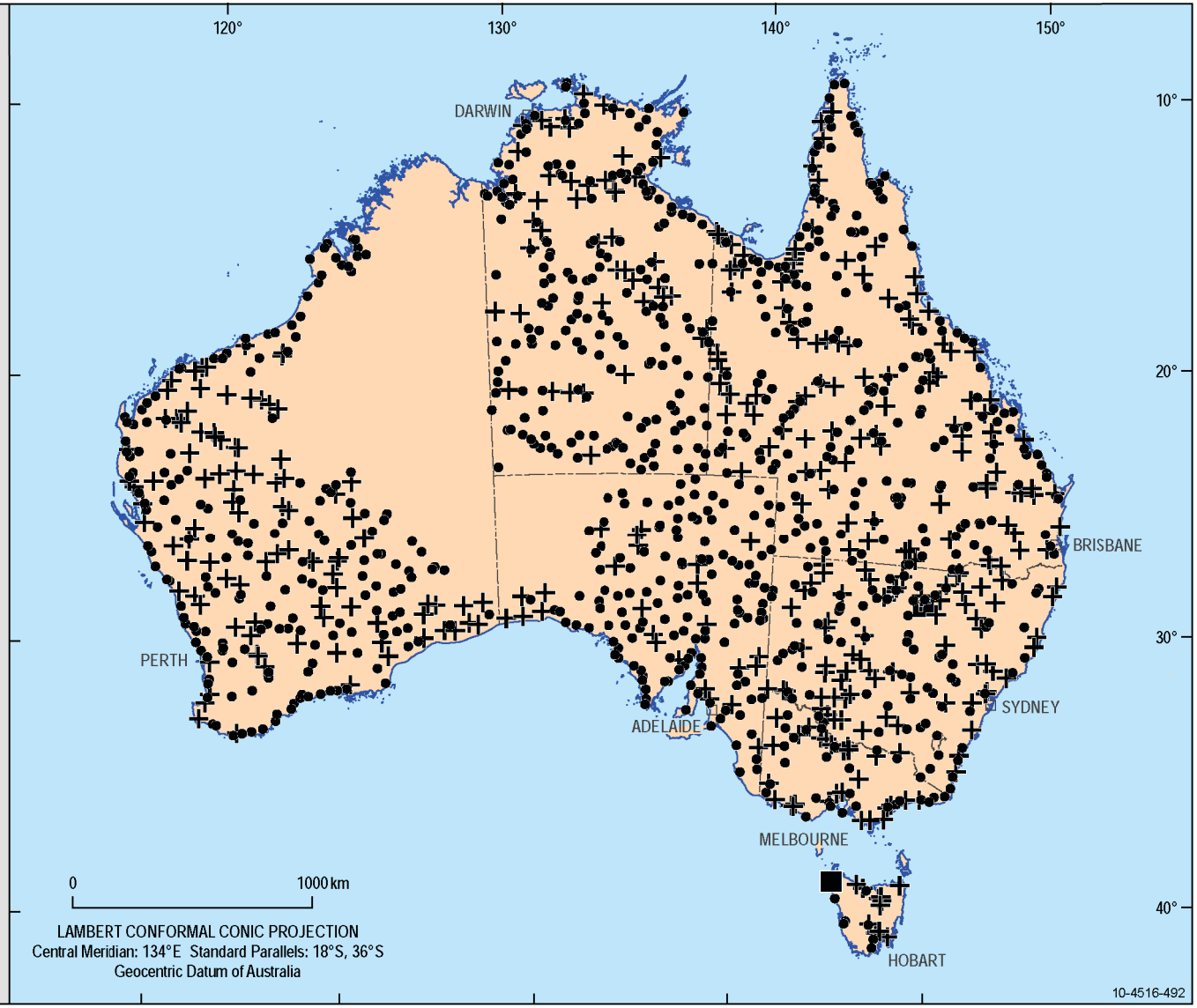
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

K

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 100 mg/kg
N: 1191

Maximum: *17600 mg/kg*

Upper Fence: *N/A**

75%: *3100 mg/kg*

Median: *1700 mg/kg*

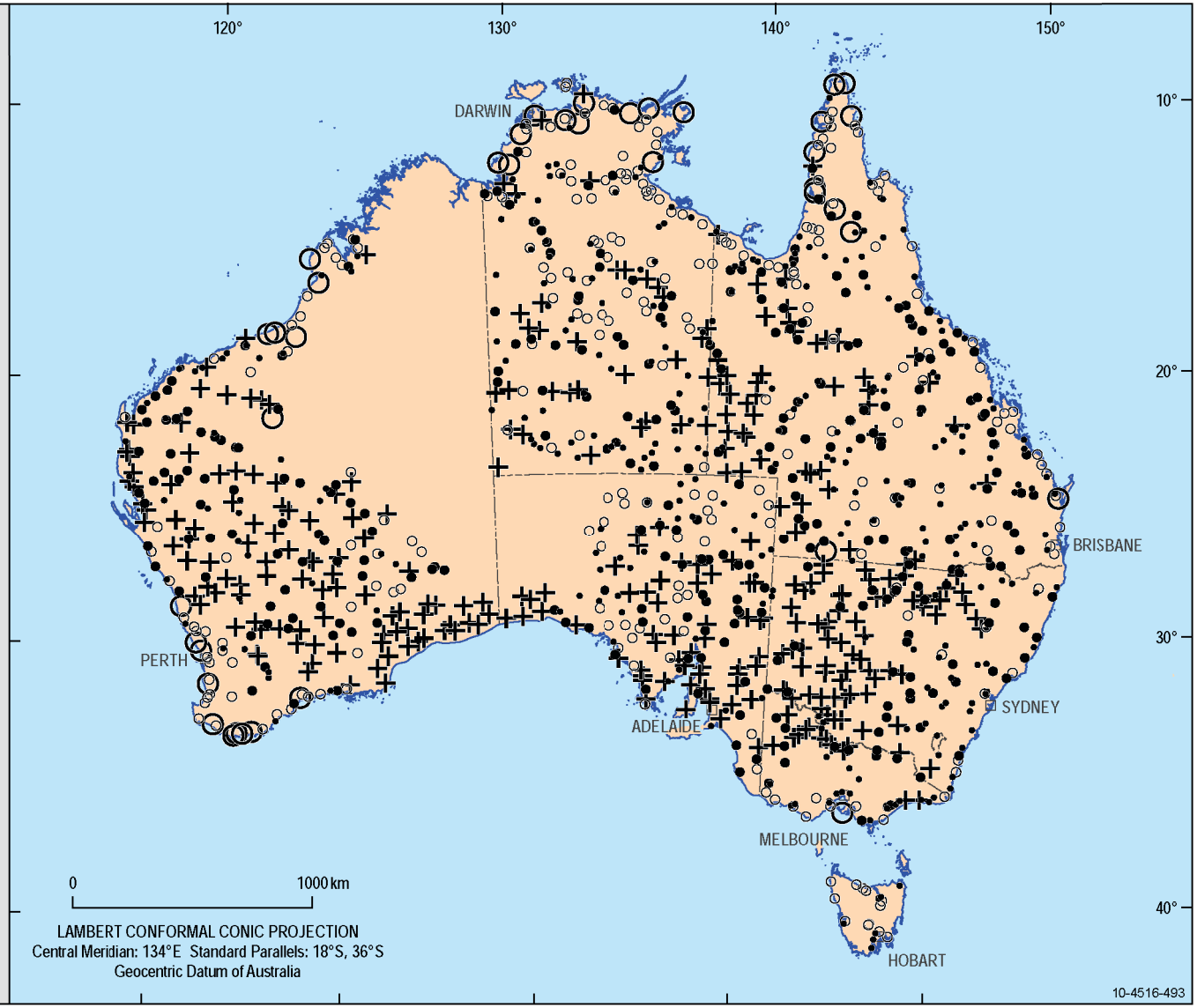
25%: *800 mg/kg*

Lower Fence: *105 mg/kg*

Minimum: *Less than 100 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

La

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.5 mg/kg
N: 1191

Maximum: *74.2 mg/kg*

Upper Fence: *N/A**

75%: *21.1 mg/kg*

Median: *14.3 mg/kg*

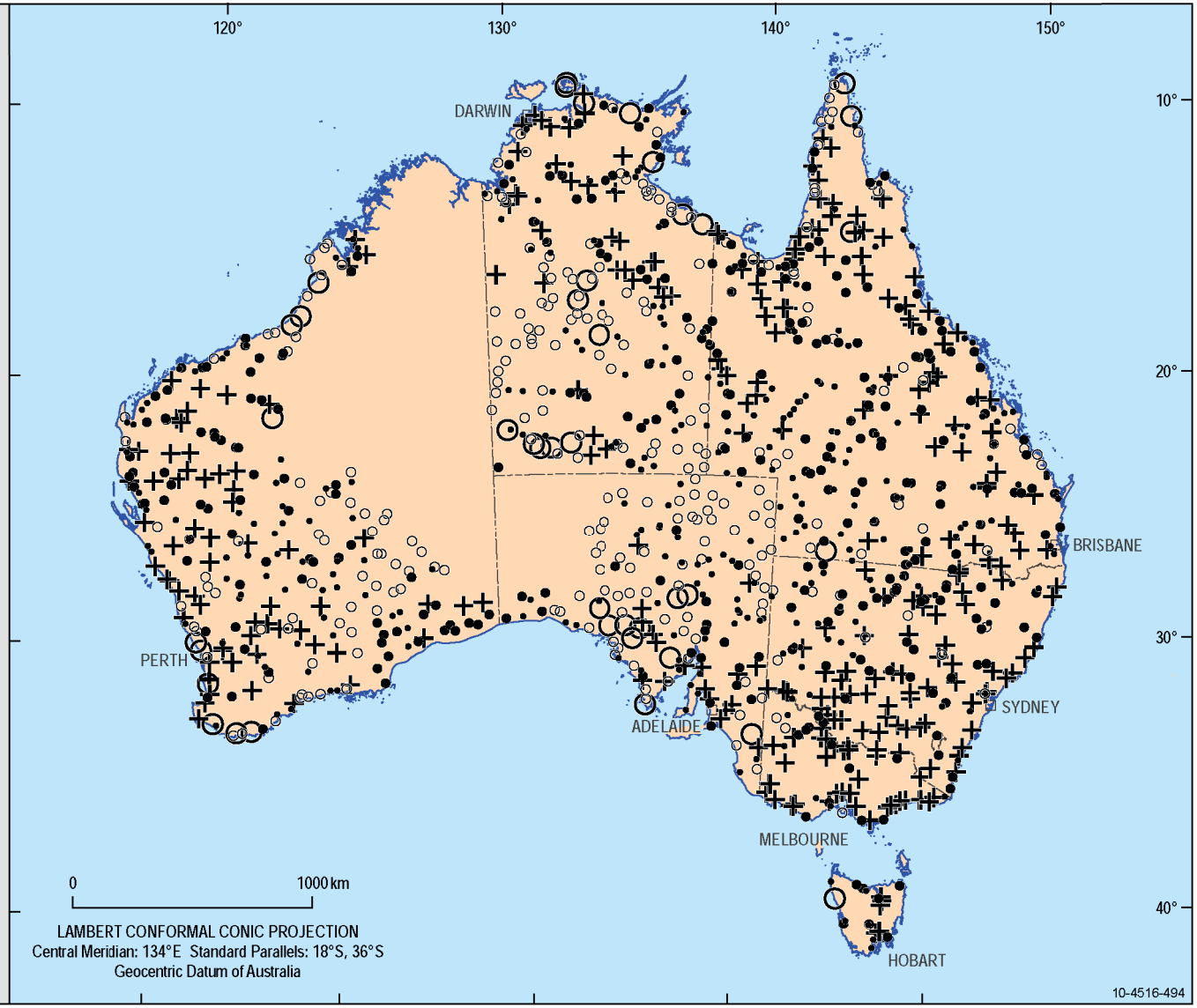
25%: *8.1 mg/kg*

Lower Fence: *1.9 mg/kg*

Minimum: *Less than 0.5 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Li

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *56 mg/kg*

Upper Fence: *N/A**

75%: *11.7 mg/kg*

Median: *7 mg/kg*

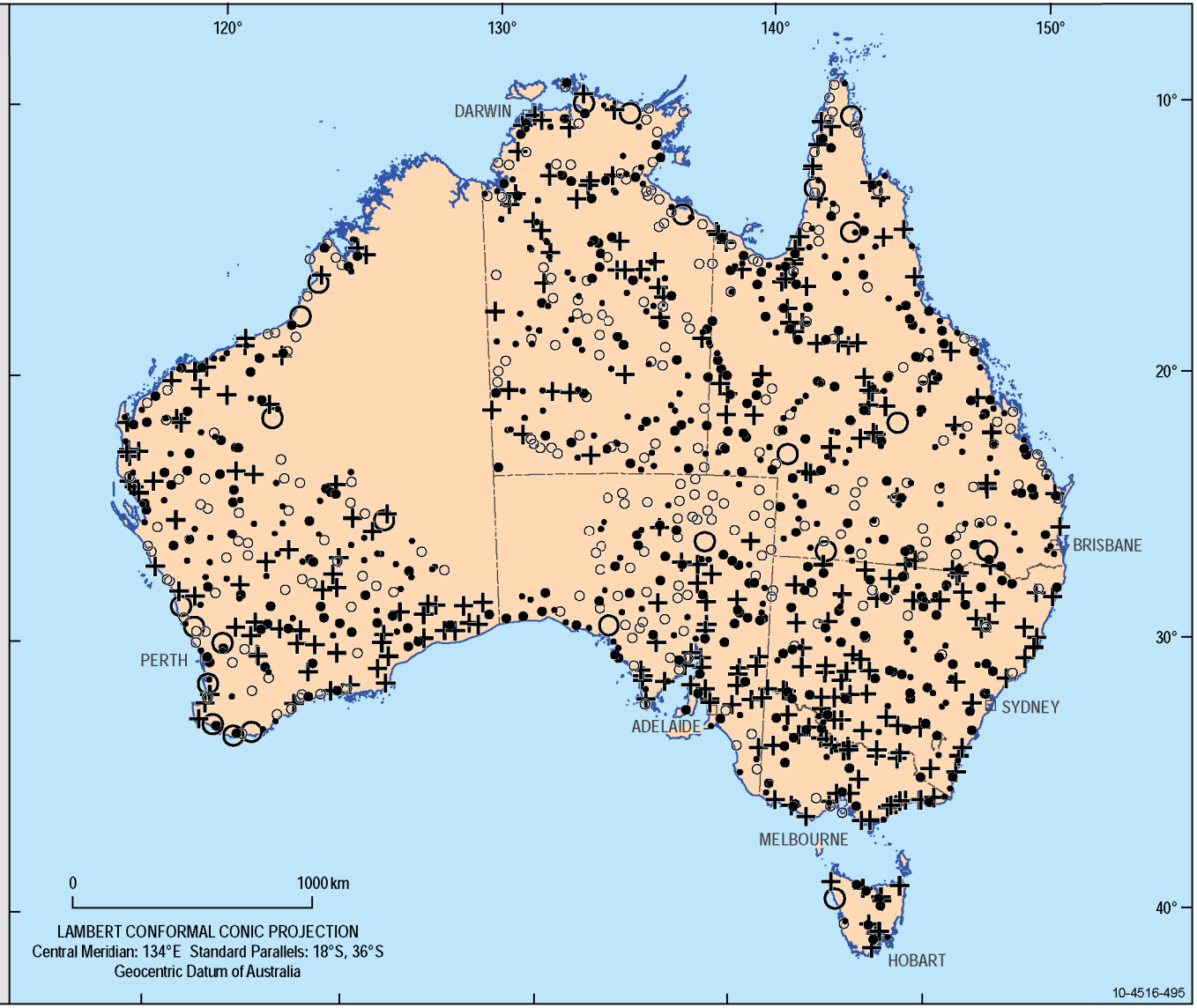
25%: *3.5 mg/kg*

Lower Fence: *0.6 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Lu

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *1.2 mg/kg*

Upper Fence: *0.3 mg/kg*

75%: *0.1 mg/kg*

Median: *N/A**

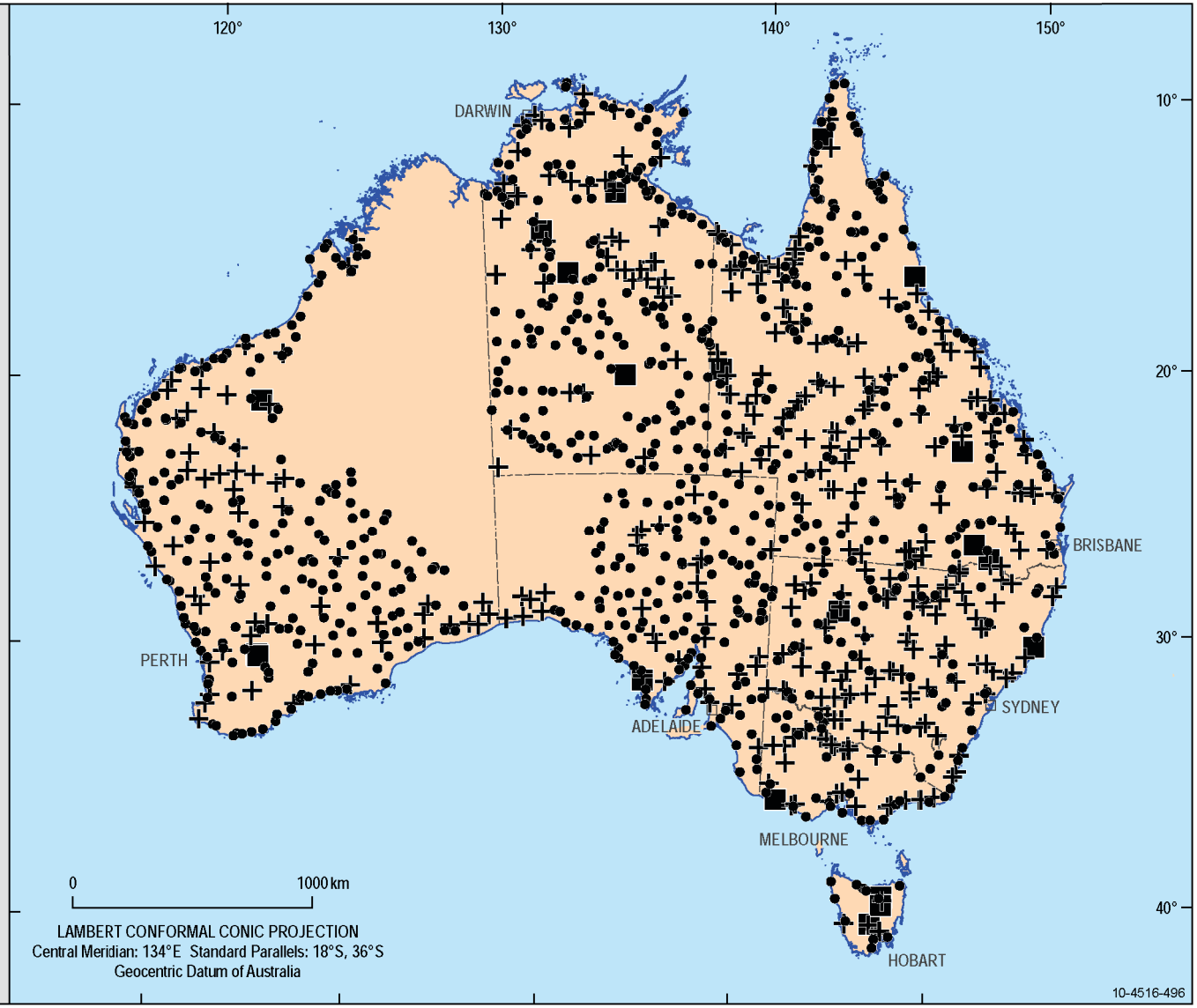
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Mg

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 100 mg/kg
N: 1191

Maximum: *47300 mg/kg*

Upper Fence: *39384 mg/kg*

75%: *4400 mg/kg*

Median: *2300 mg/kg*

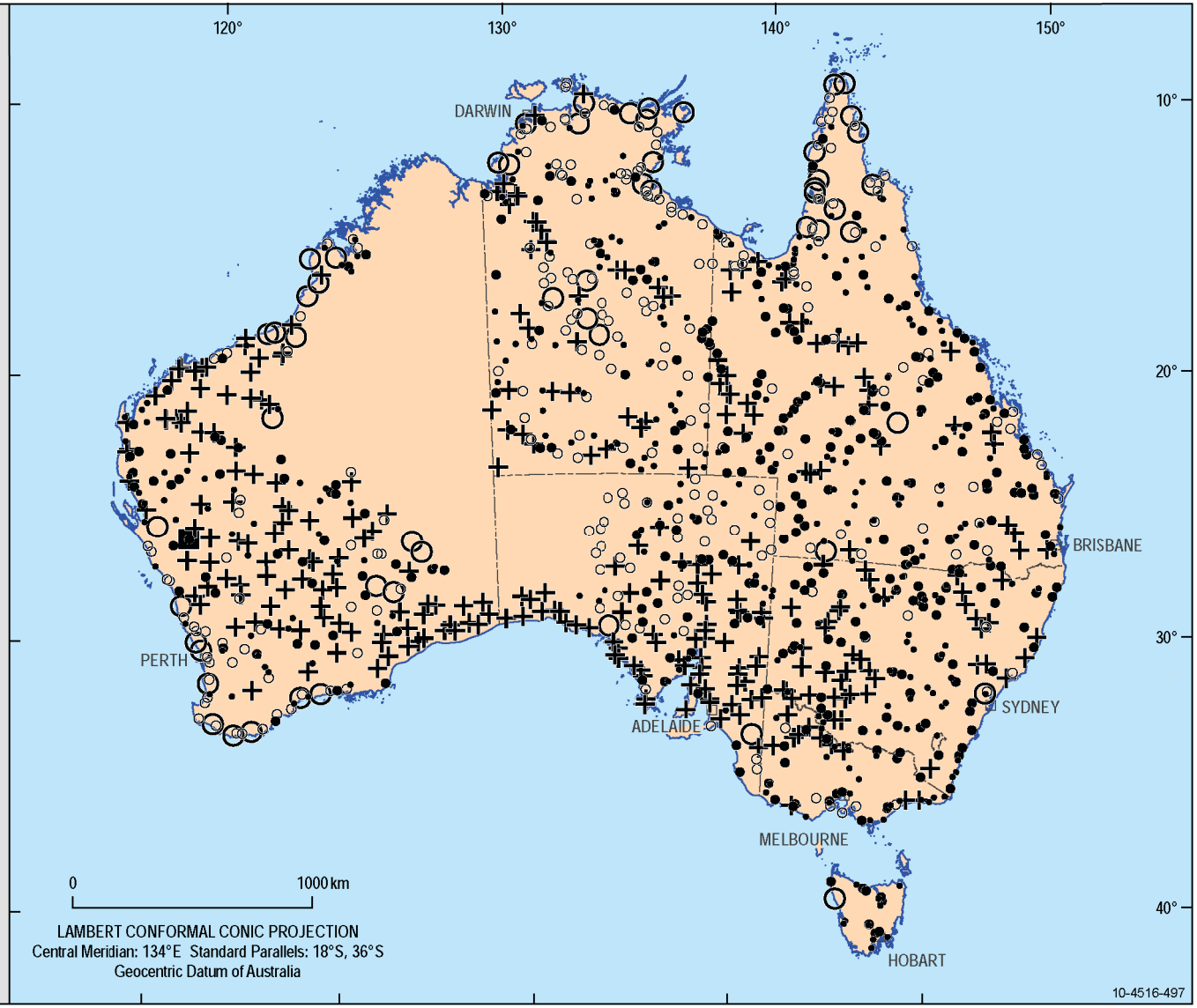
25%: *1000 mg/kg*

Lower Fence: *108 mg/kg*

Minimum: *Less than 100 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Mn

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 1 mg/kg
N: 1191

Maximum: *4090 mg/kg*

Upper Fence: *N/A**

75%: *458 mg/kg*

Median: *245 mg/kg*

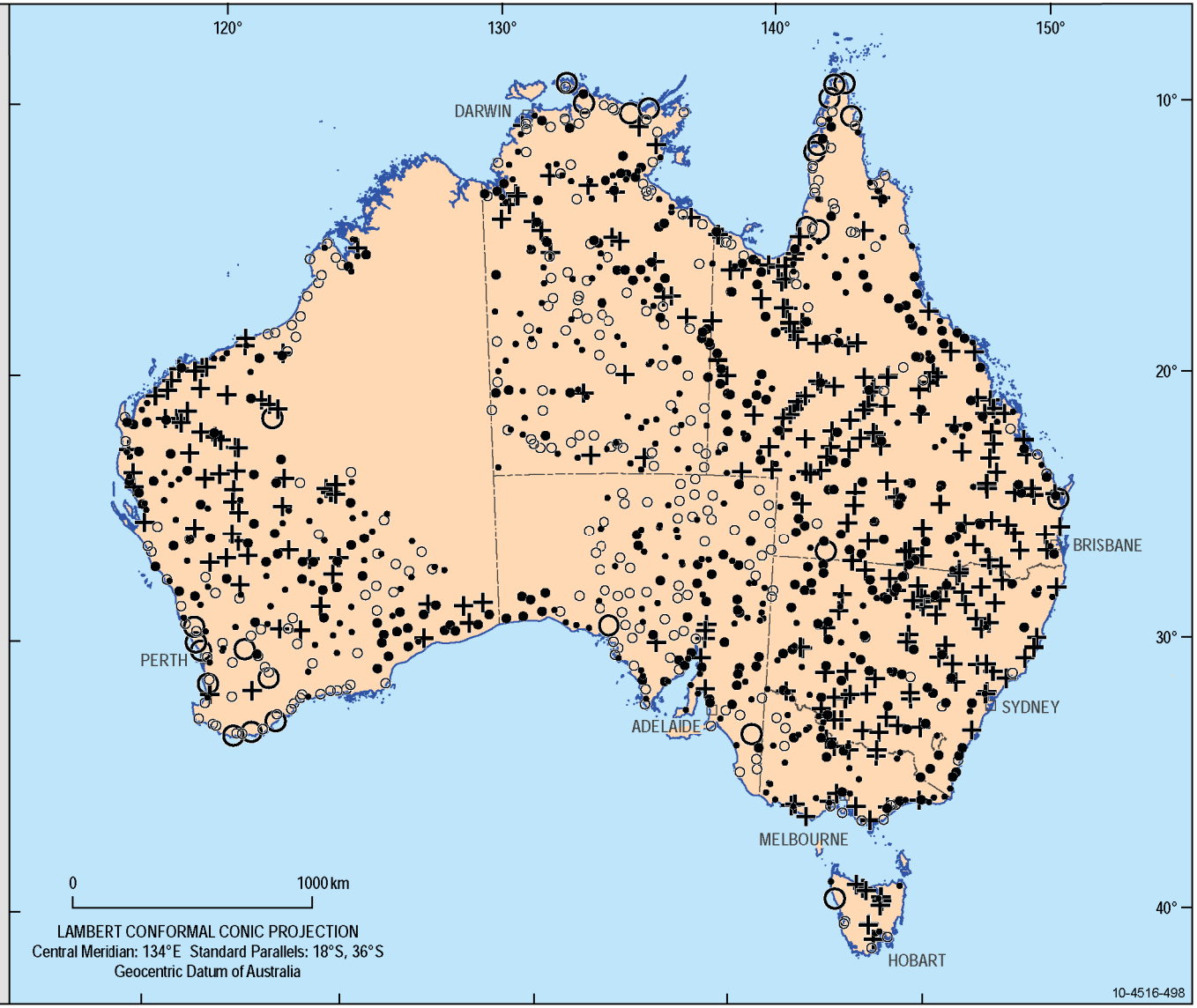
25%: *92 mg/kg*

Lower Fence: *8 mg/kg*

Minimum: *Less than 1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Mo

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1191

Maximum: *63.7 mg/kg*

Upper Fence: *2.3 mg/kg*

75%: *0.41 mg/kg*

Median: *0.23 mg/kg*

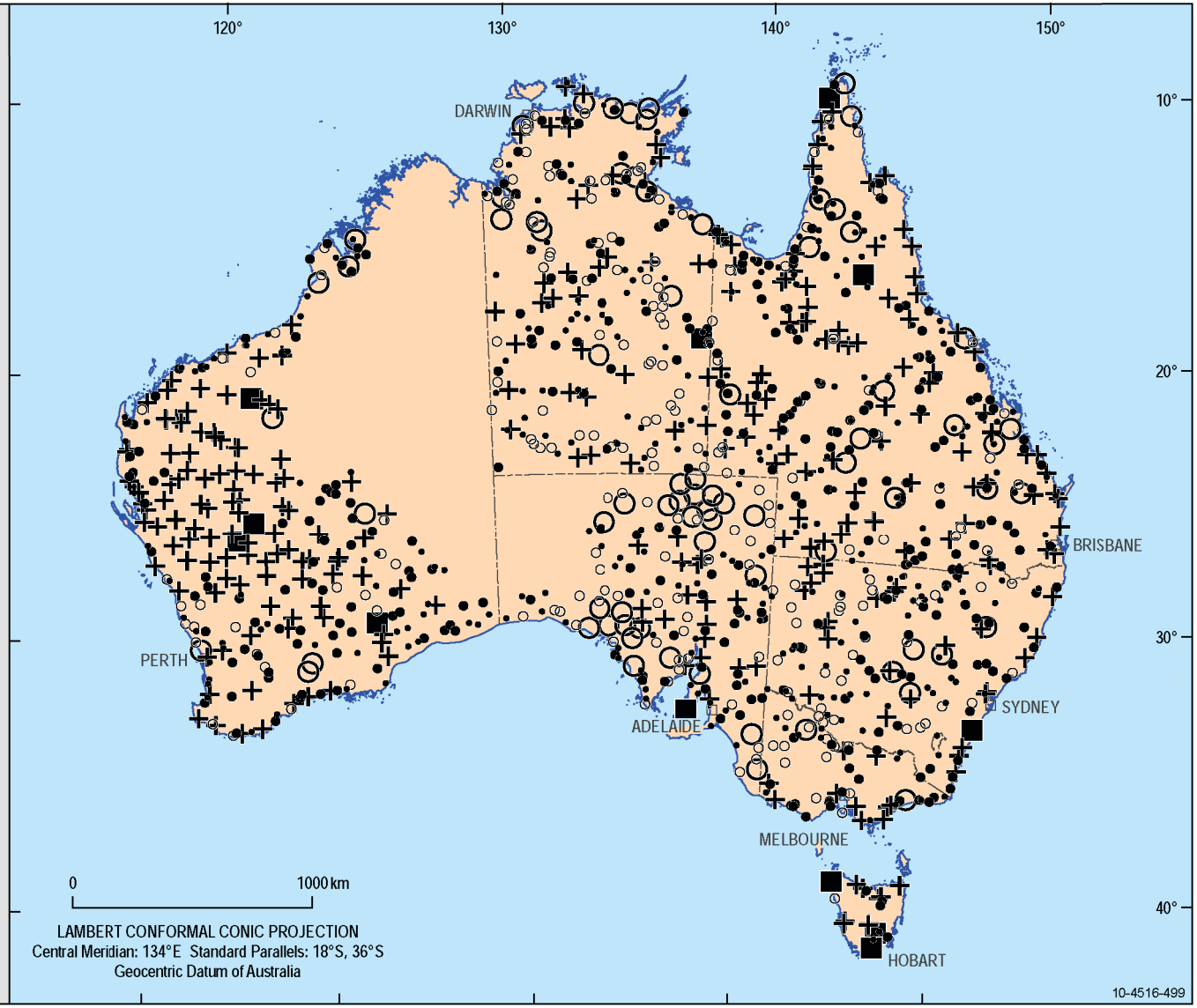
25%: *0.13 mg/kg*

Lower Fence: *0.02 mg/kg*

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Na

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 10 mg/kg
N: 1191

Maximum: *28500 mg/kg*

Upper Fence: *N/A**

75%: *1560 mg/kg*

Median: *370 mg/kg*

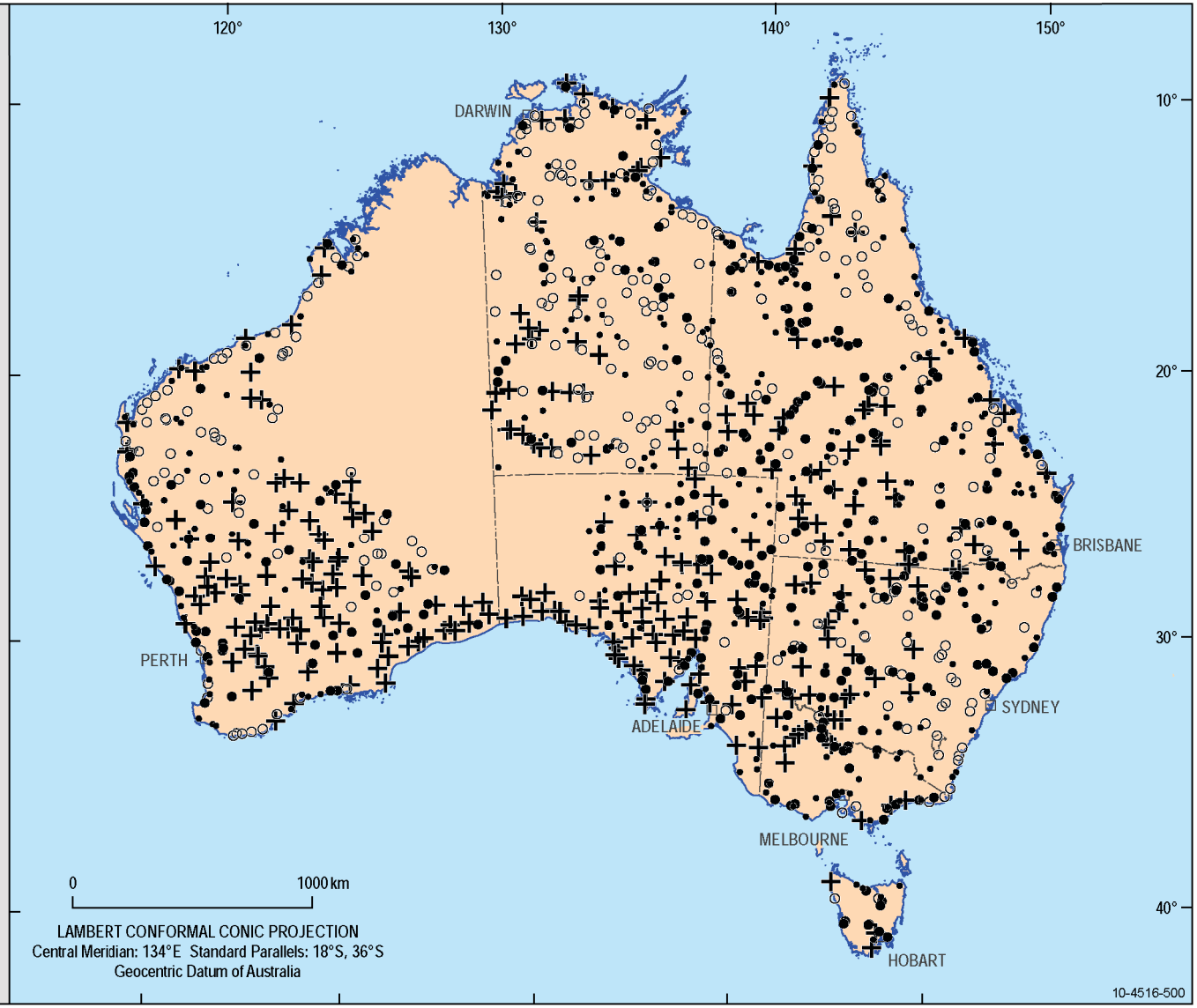
25%: *120 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 10 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Nb

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *7.5 mg/kg*

Upper Fence: *1.6 mg/kg*

75%: *0.2 mg/kg*

Median: *0.1 mg/kg*

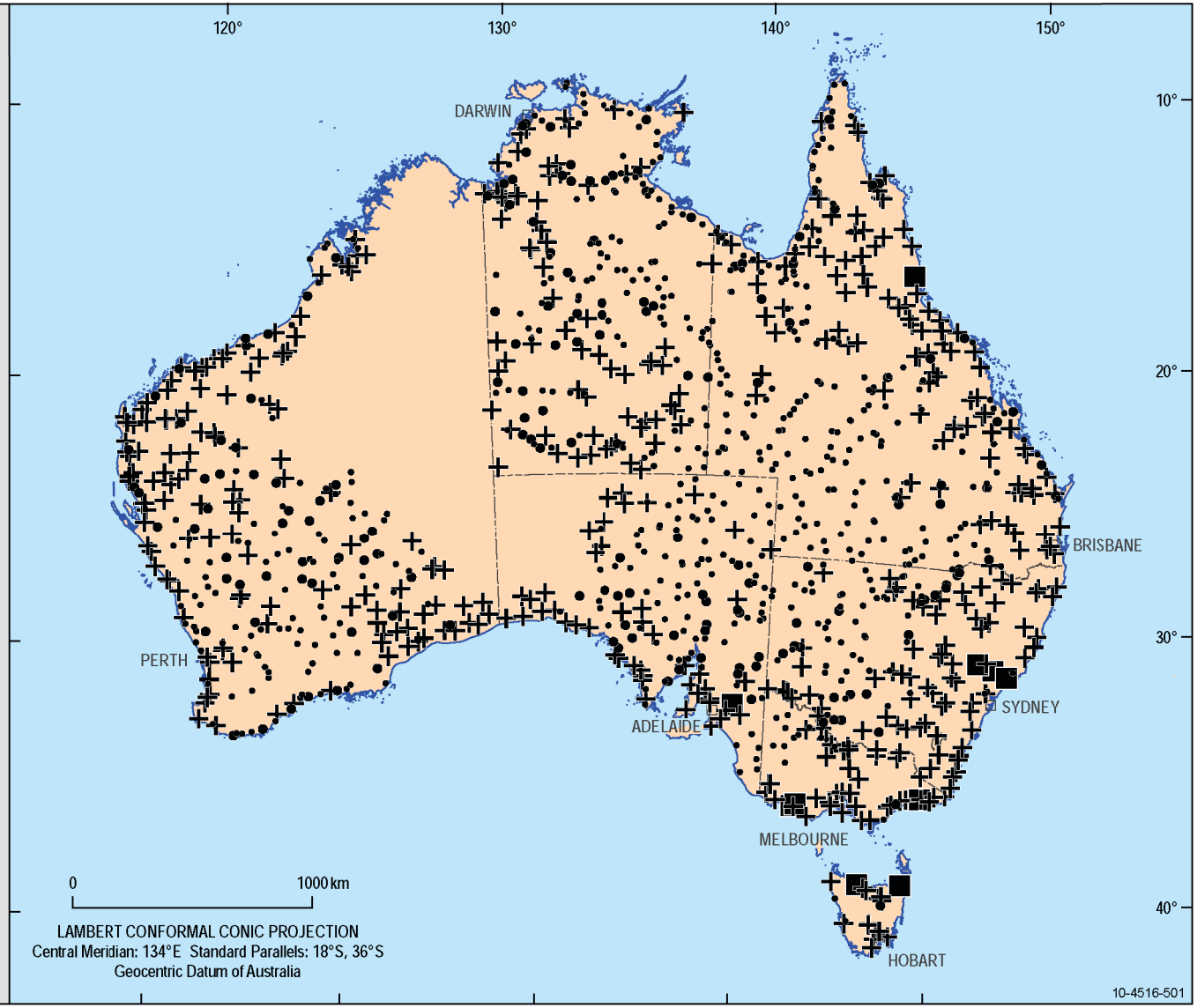
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Nd

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1191

Maximum: *54.7 mg/kg*

Upper Fence: *N/A**

75%: *18.3 mg/kg*

Median: *13 mg/kg*

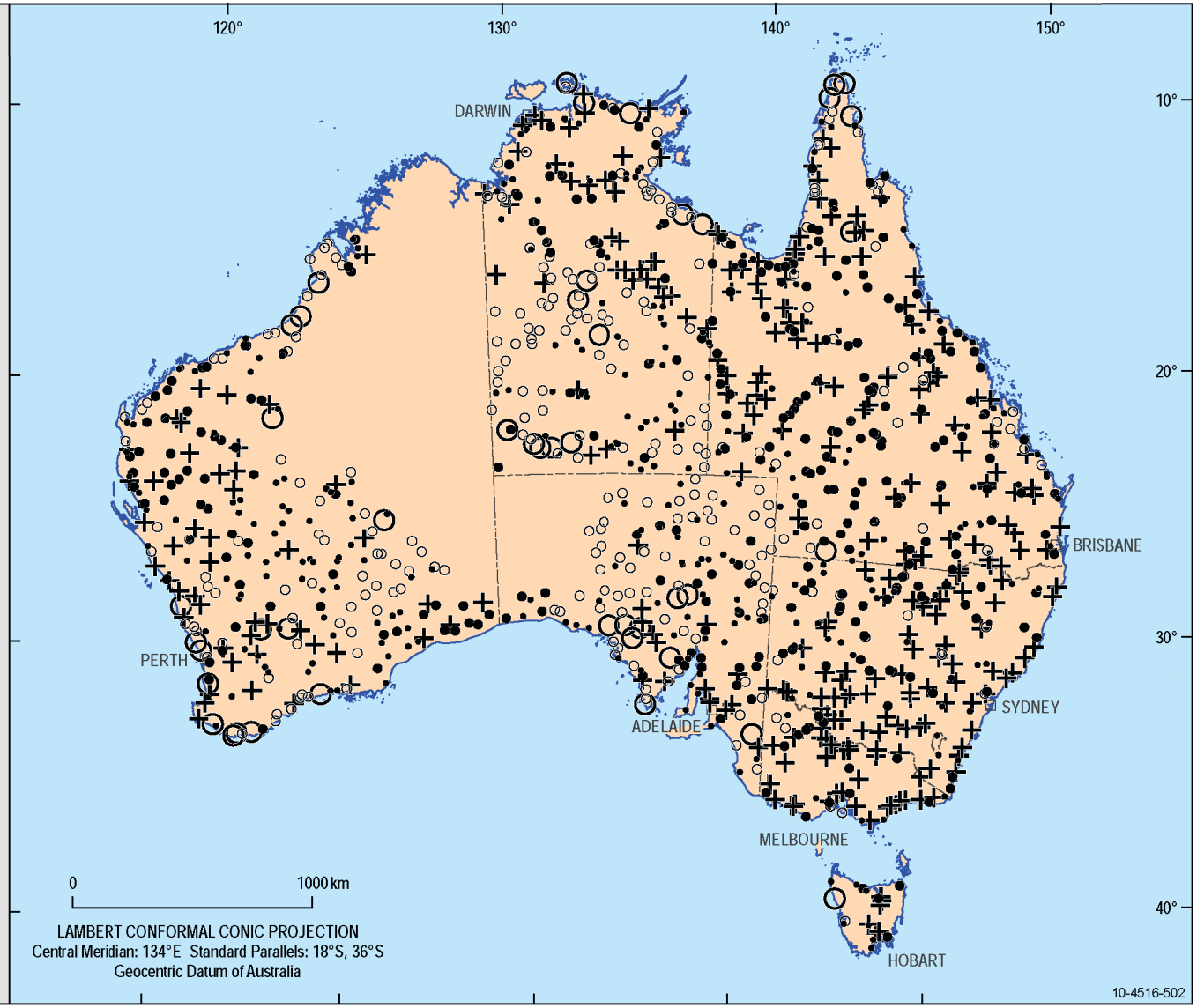
25%: *7.18 mg/kg*

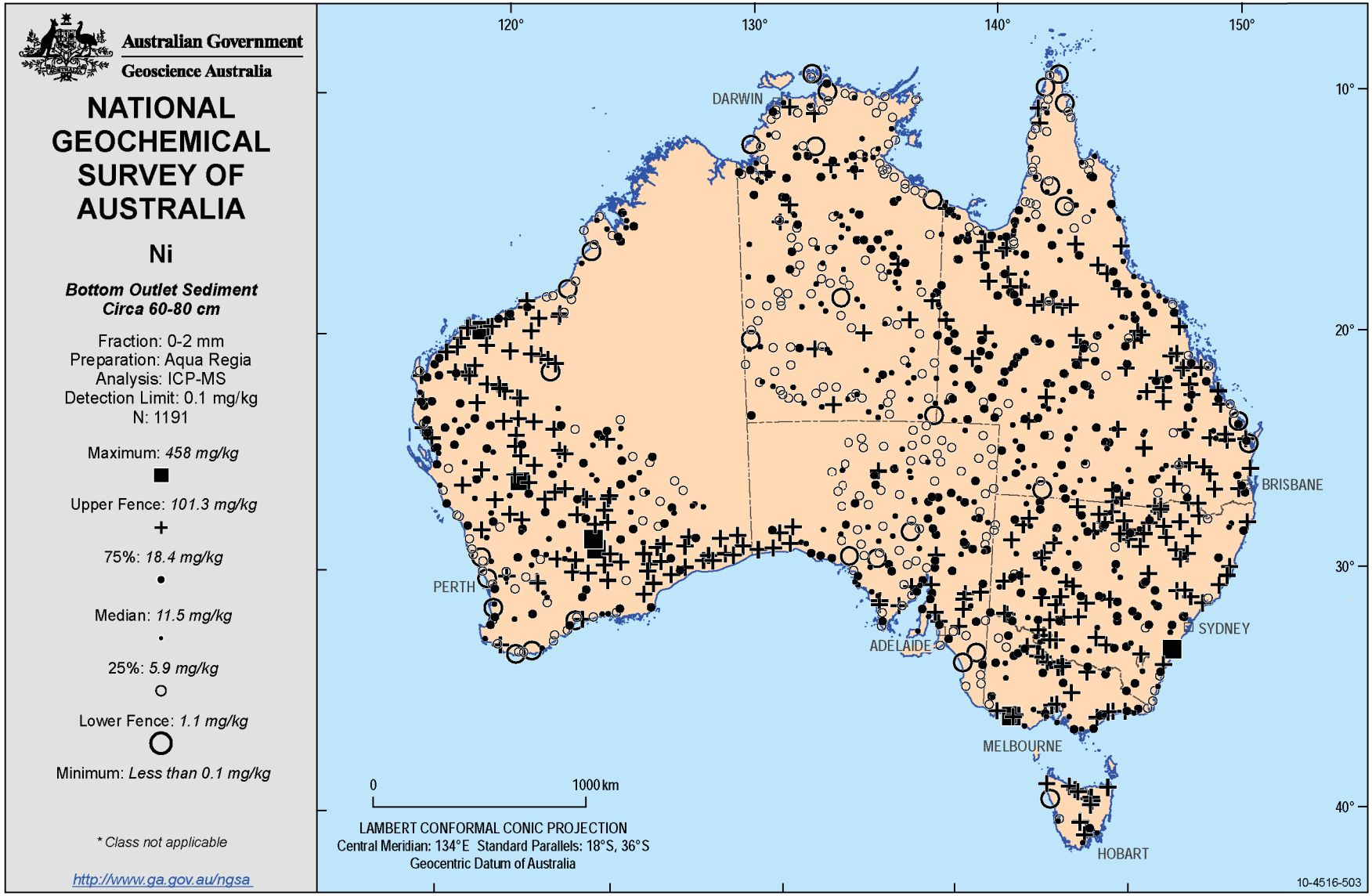
Lower Fence: *1.76 mg/kg*

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Ni
Bottom Outlet Sediment
Circa 60-80 cm
Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191
Maximum: 458 mg/kg
Upper Fence: 101.3 mg/kg
75%: 18.4 mg/kg
Median: 11.5 mg/kg
25%: 5.9 mg/kg
Lower Fence: 1.1 mg/kg
Minimum: Less than 0.1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
BRISBANE
SYDNEY
MELBOURNE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-503

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Pb

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1191

Maximum: *789 mg/kg*

Upper Fence: *46.23 mg/kg*

75%: *10.9 mg/kg*

Median: *7.38 mg/kg*

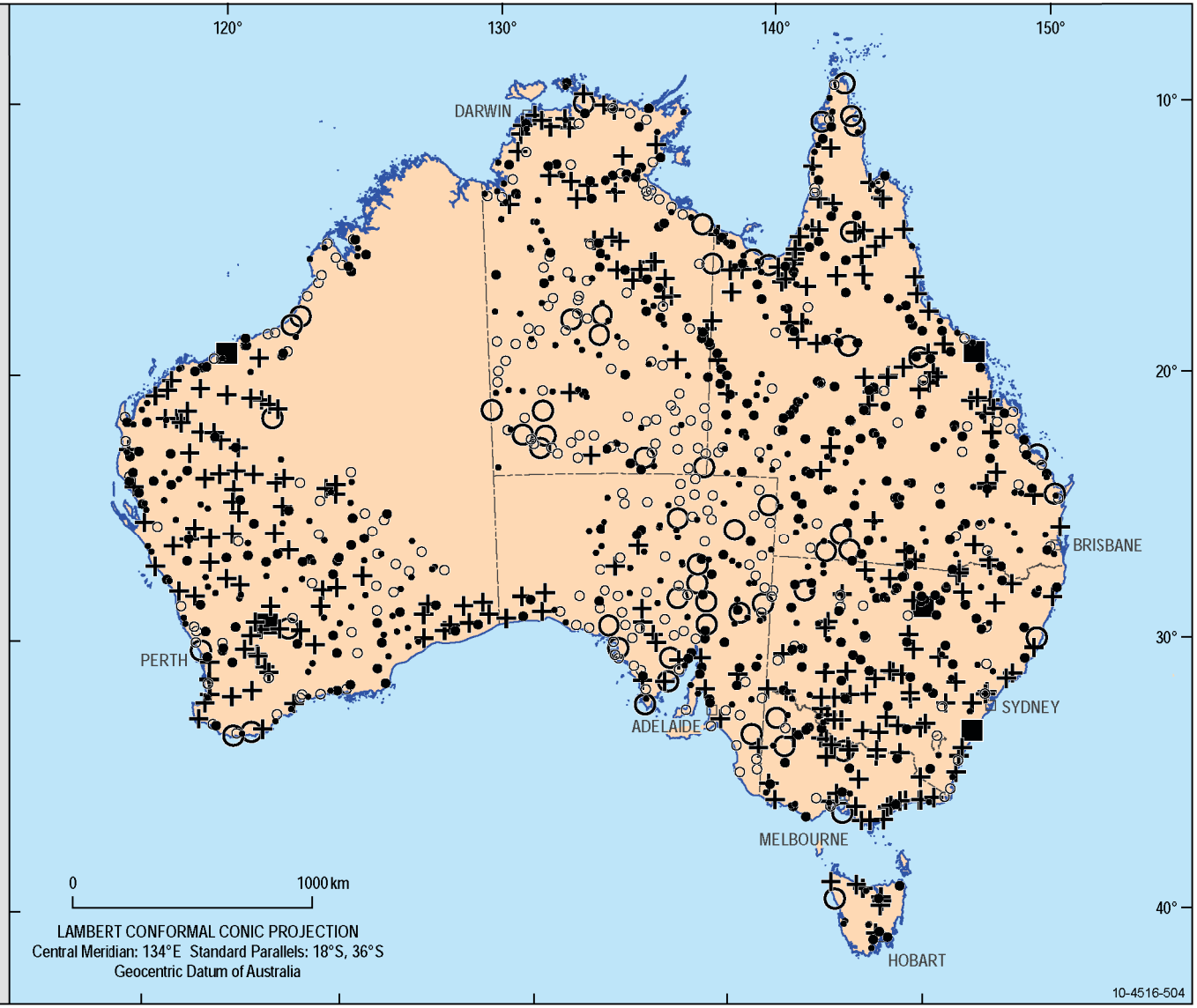
25%: *4.16 mg/kg*

Lower Fence: *0.98 mg/kg*

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Pr

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *14.6 mg/kg*

Upper Fence: *N/A**

75%: *4.8 mg/kg*

Median: *3.3 mg/kg*

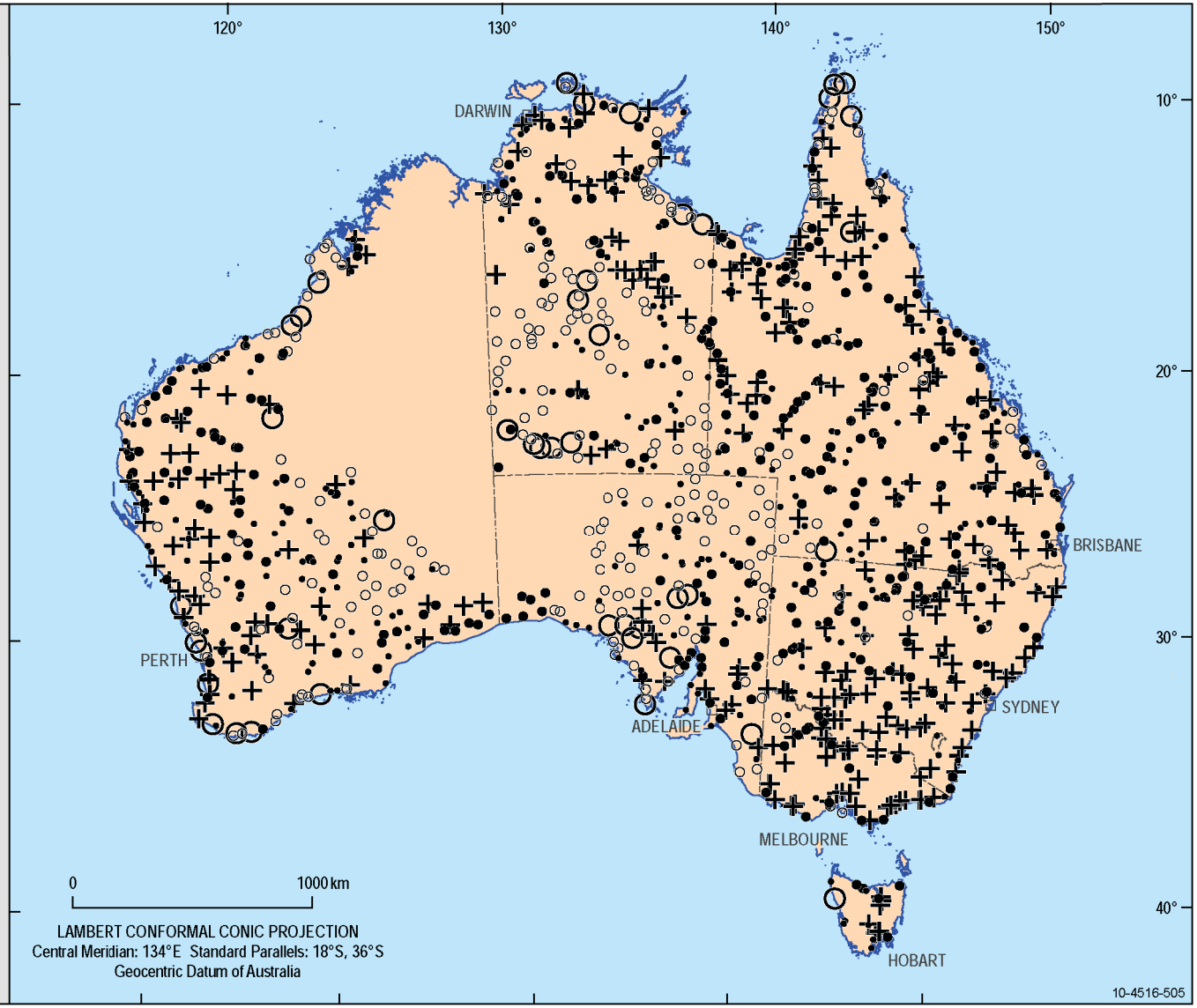
25%: *1.9 mg/kg*

Lower Fence: *0.5 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Rb

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *88.2 mg/kg*

Upper Fence: *N/A**

75%: *22.7 mg/kg*

Median: *13.9 mg/kg*

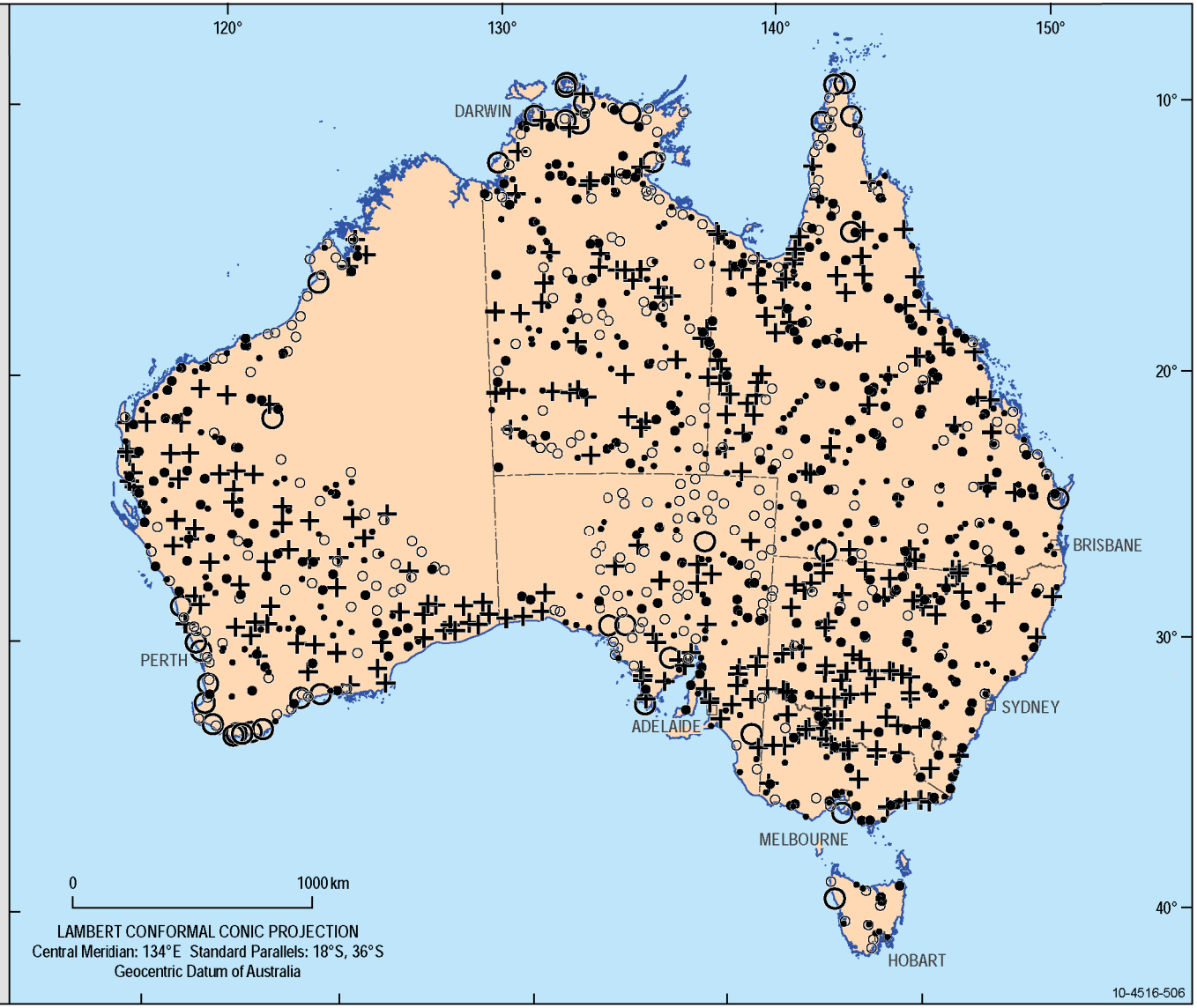
25%: *8.1 mg/kg*

Lower Fence: *1.7 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Re

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191

Maximum: *0.053 mg/kg*

Upper Fence: *0.016 mg/kg*

75%: *0.002 mg/kg*

Median: *N/A**

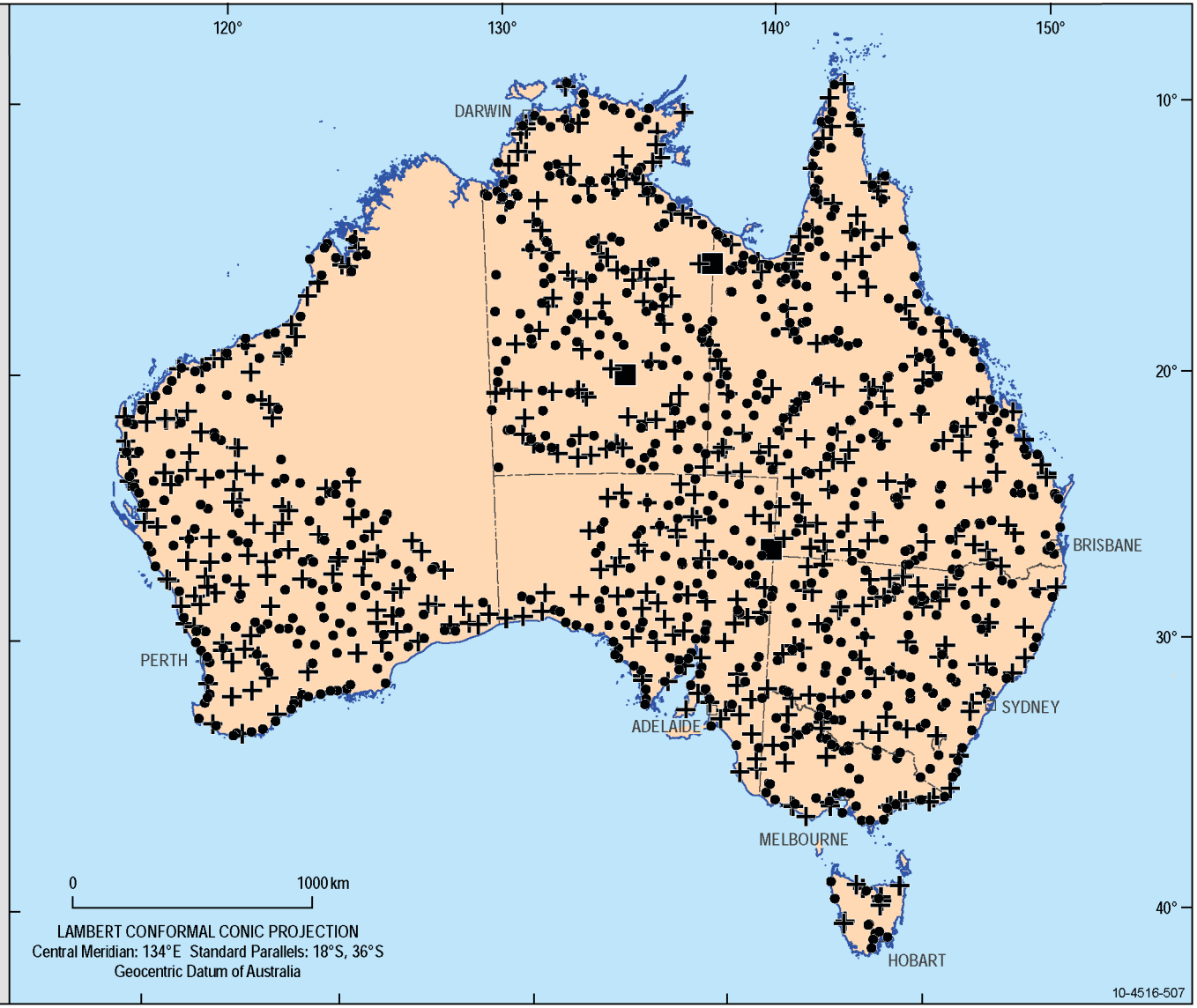
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Sb

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1191

Maximum: *38.9 mg/kg*

Upper Fence: *1.09 mg/kg*

75%: *0.21 mg/kg*

Median: *0.13 mg/kg*

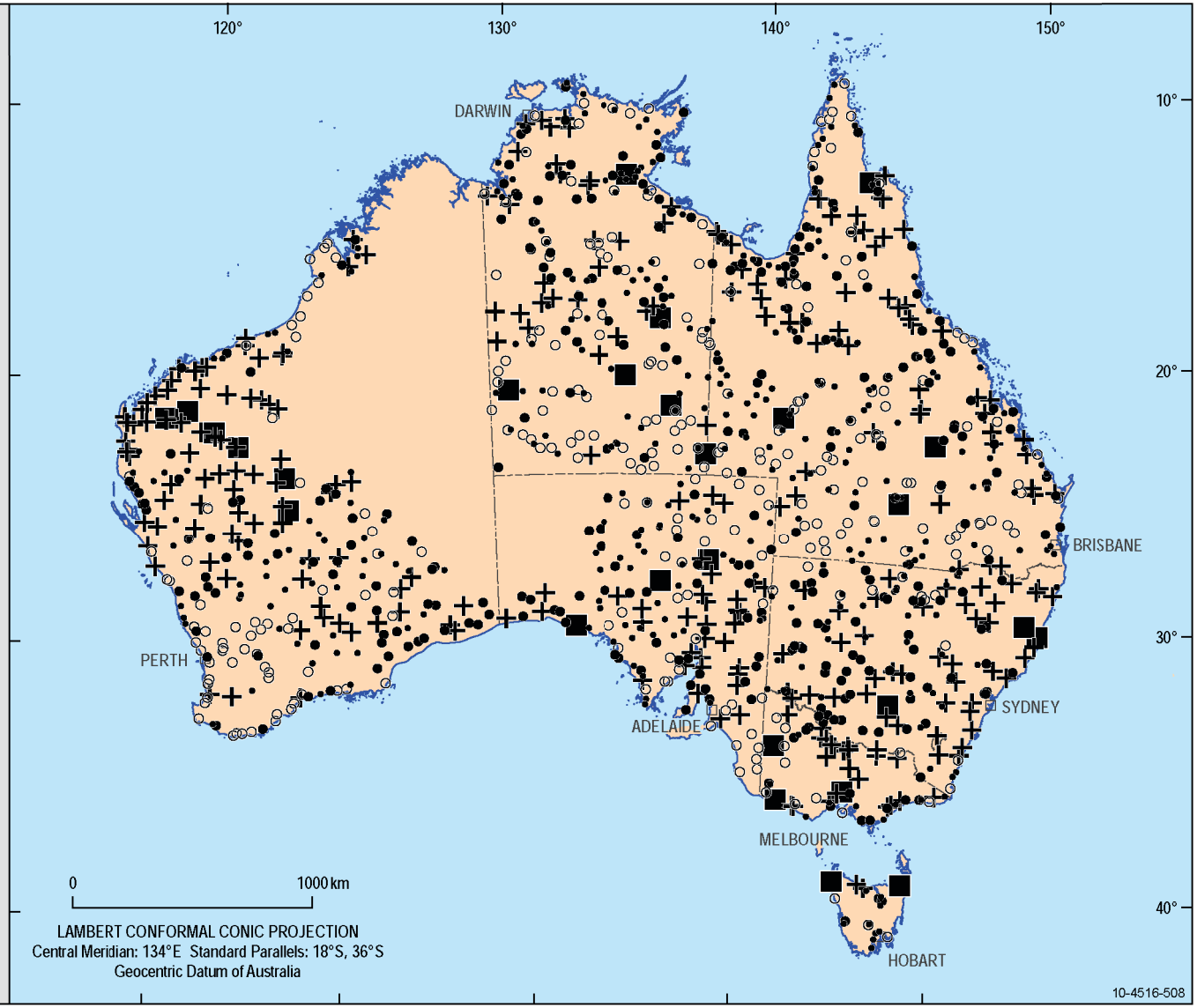
25%: *0.07 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Sc

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *33 mg/kg*

Upper Fence: *N/A**

75%: *7 mg/kg*

Median: *4.4 mg/kg*

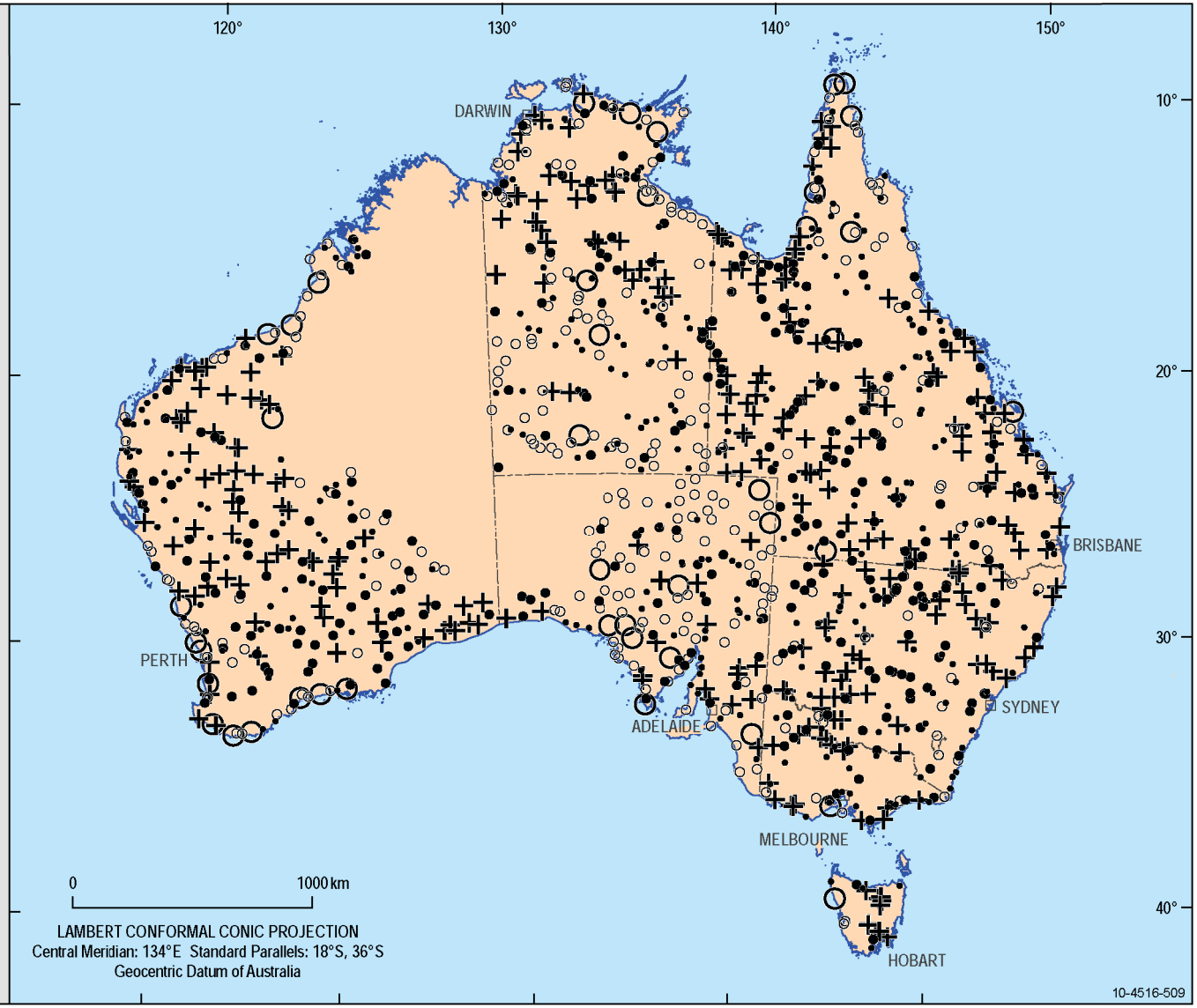
25%: *2.3 mg/kg*

Lower Fence: *0.4 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Se

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1191

Maximum: *2.36 mg/kg*

Upper Fence: *1.17 mg/kg*

75%: *0.13 mg/kg*

Median: *0.06 mg/kg*

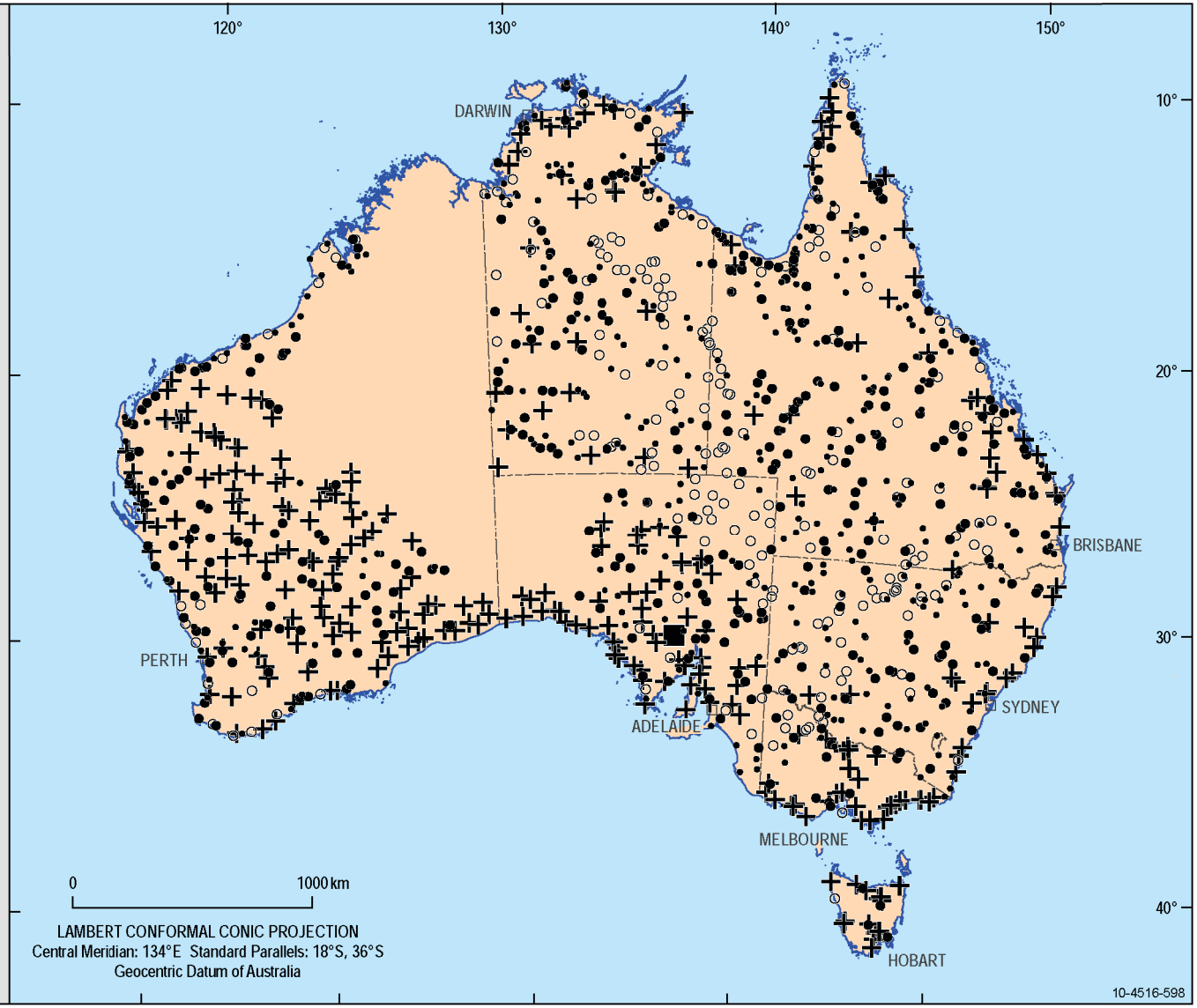
25%: *0.03 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Sm

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *11.8 mg/kg*

Upper Fence: *N/A**

75%: *3.8 mg/kg*

Median: *2.7 mg/kg*

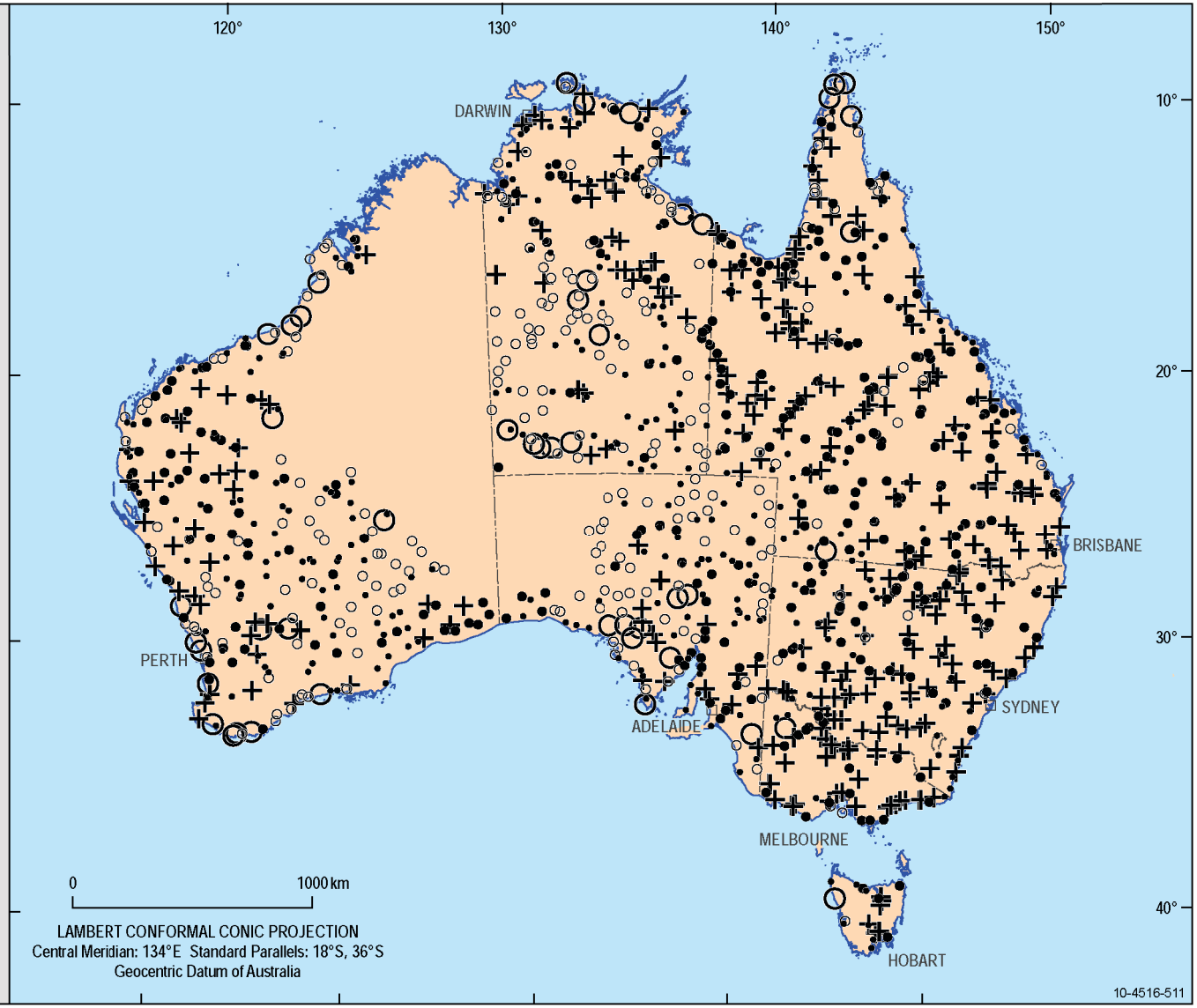
25%: *1.4 mg/kg*

Lower Fence: *0.3 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Sn

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.05 mg/kg
N: 1191

Maximum: *67 mg/kg*

Upper Fence: *3.42 mg/kg*

75%: *1.04 mg/kg*

Median: *0.71 mg/kg*

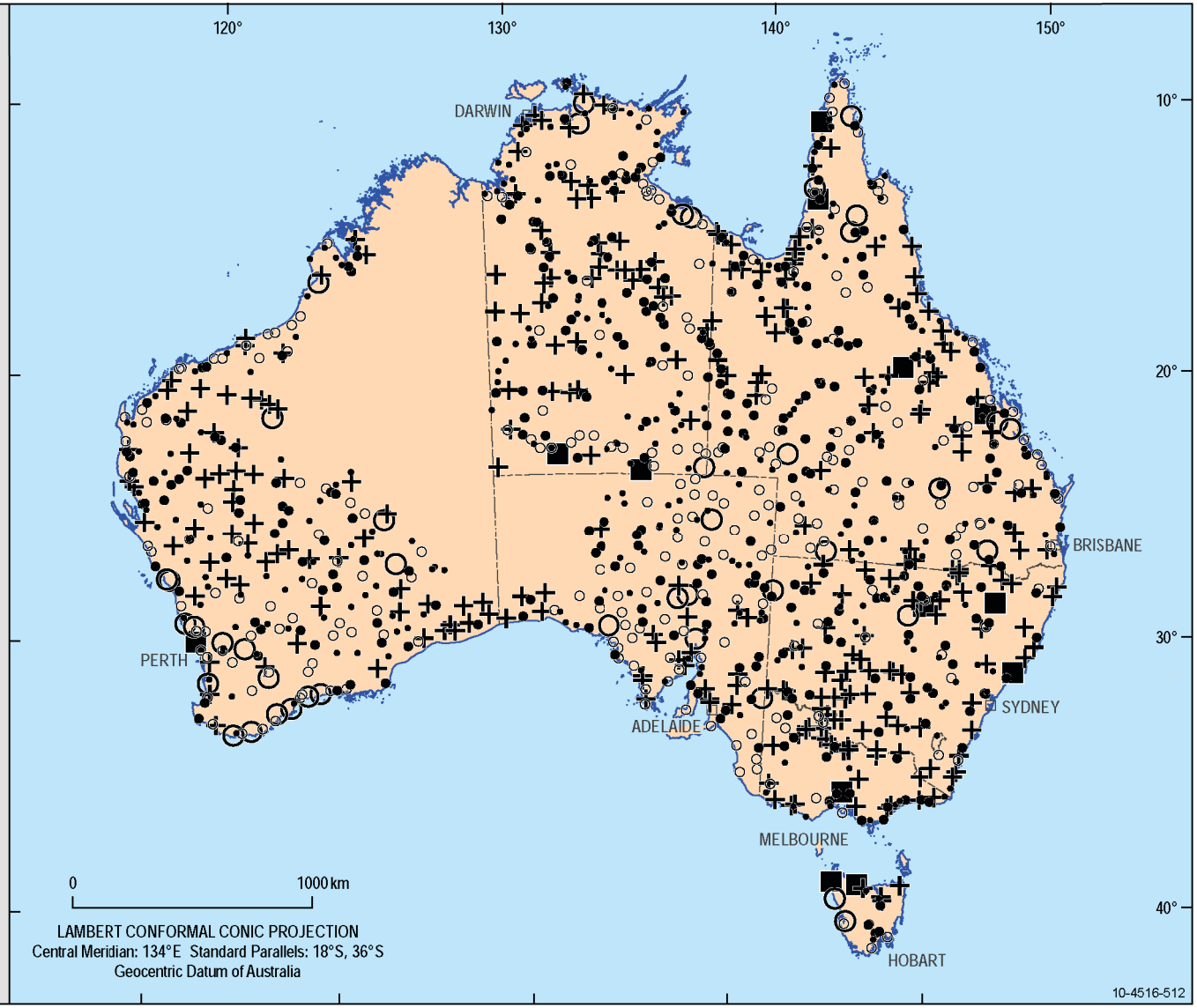
25%: *0.47 mg/kg*

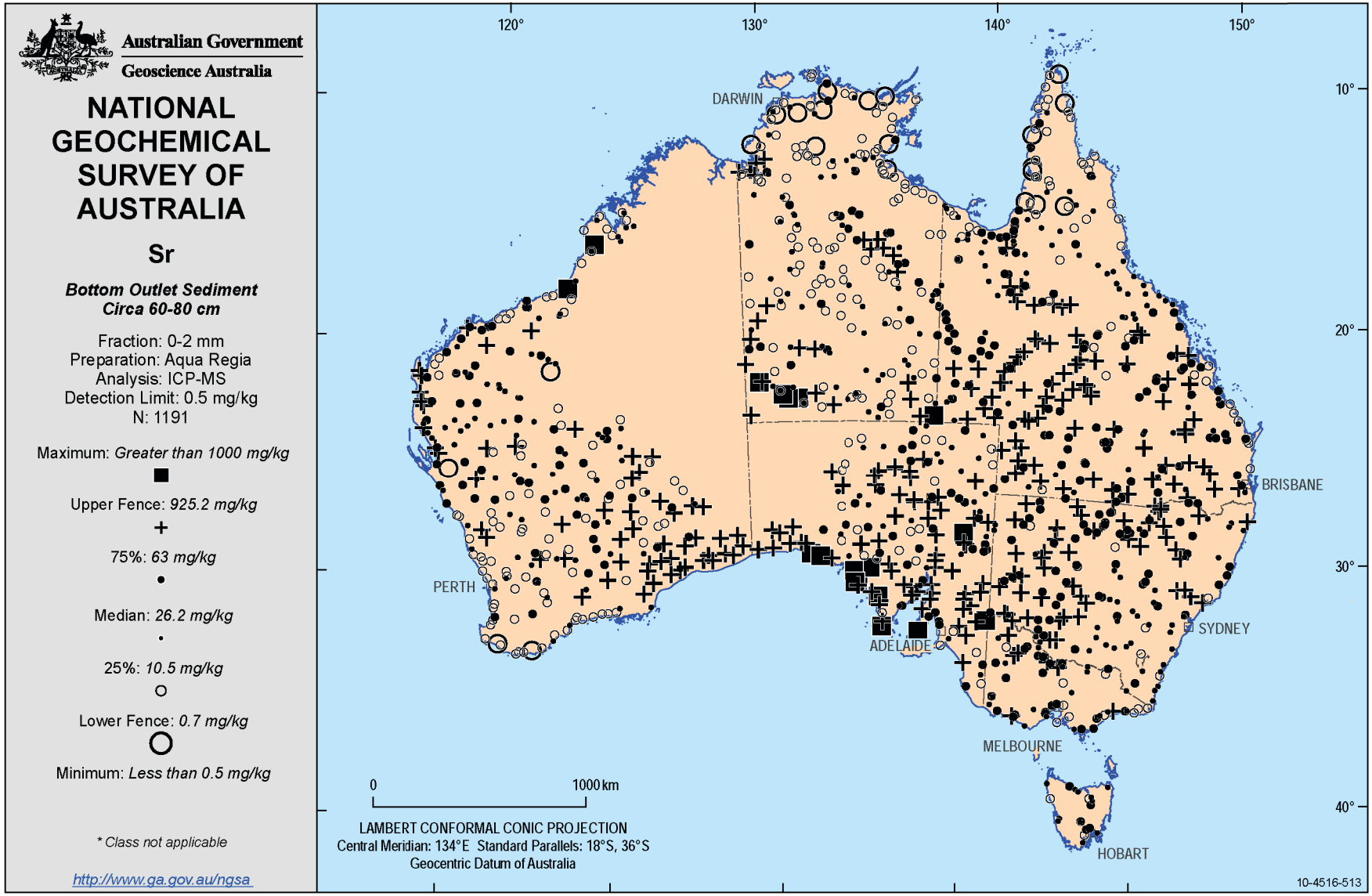
Lower Fence: *0.14 mg/kg*

Minimum: *Less than 0.05 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Sr
Bottom Outlet Sediment
Circa 60-80 cm
Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.5 mg/kg
N: 1191
Maximum: Greater than 1000 mg/kg
Upper Fence: 925.2 mg/kg
75%: 63 mg/kg
Median: 26.2 mg/kg
25%: 10.5 mg/kg
Lower Fence: 0.7 mg/kg
Minimum: Less than 0.5 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
MELBOURNE
SYDNEY
BRISBANE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-513

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Tb

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *1.2 mg/kg*

Upper Fence: *N/A**

75%: *0.4 mg/kg*

Median: *0.3 mg/kg*

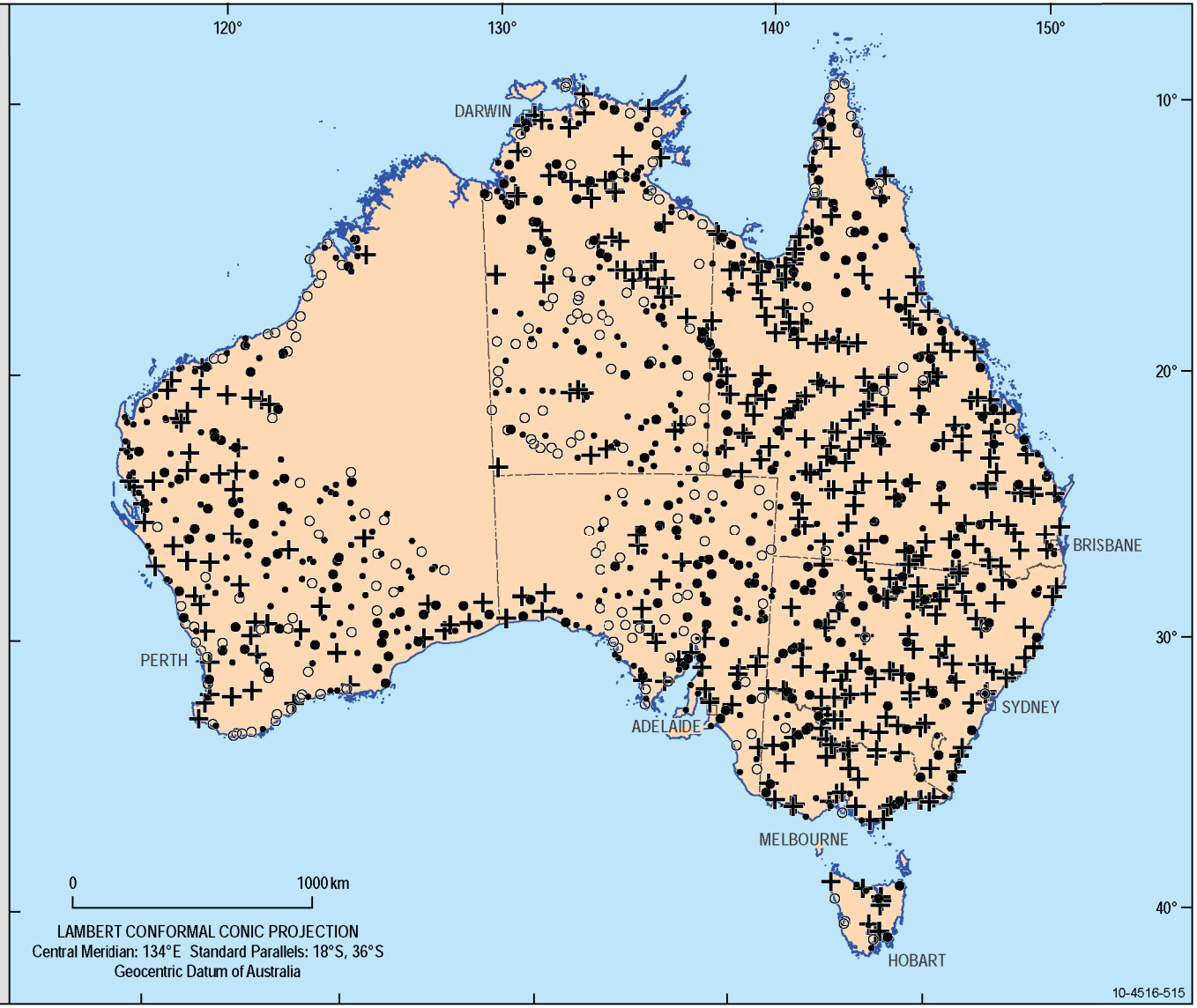
25%: *0.1 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Te

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1191

Maximum: *0.22 mg/kg*

Upper Fence: *N/A**

75%: *0.05 mg/kg*

Median: *0.03 mg/kg*

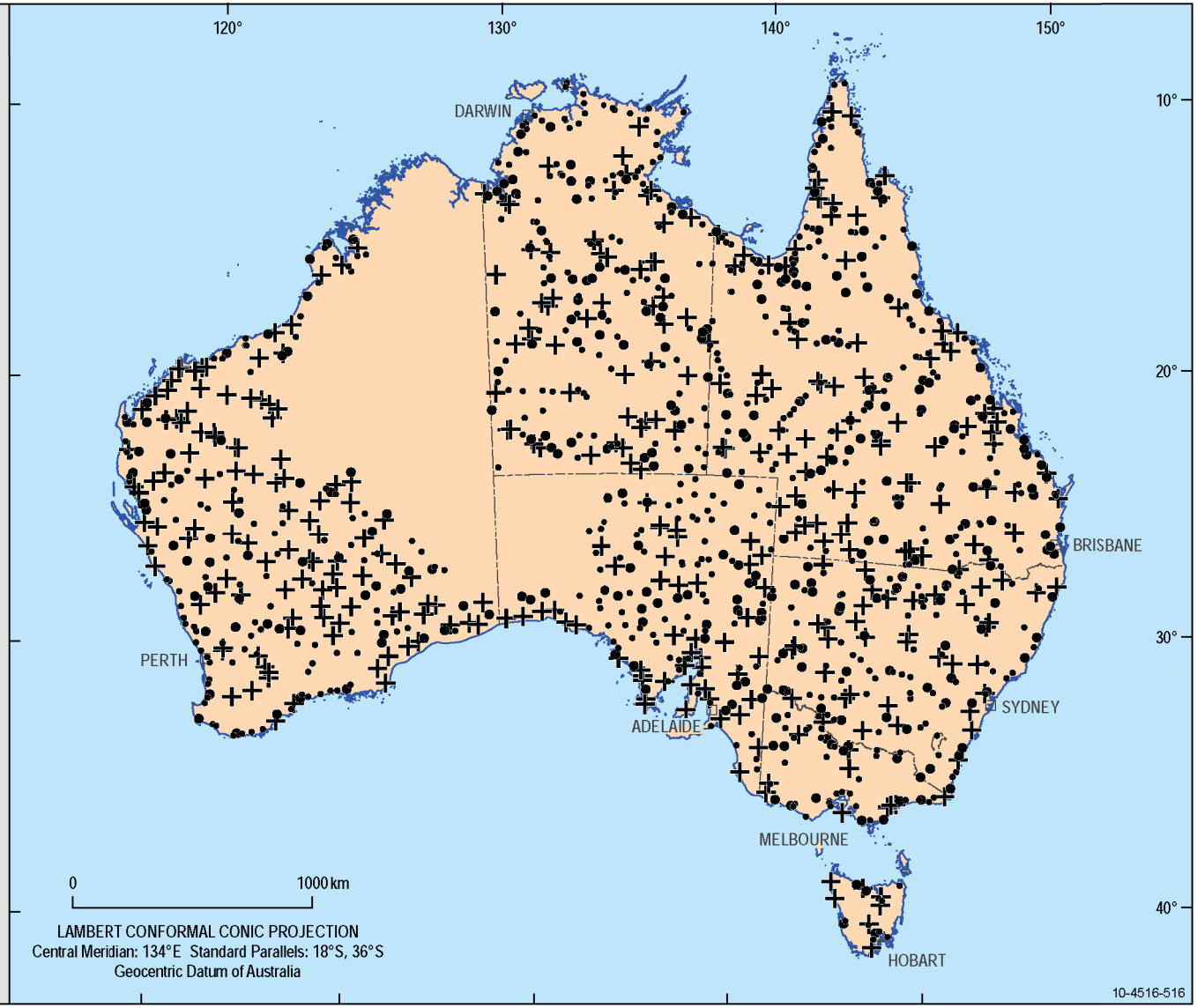
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Th

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *41.9 mg/kg*

Upper Fence: *24.8 mg/kg*

75%: *6.7 mg/kg*

Median: *4.3 mg/kg*

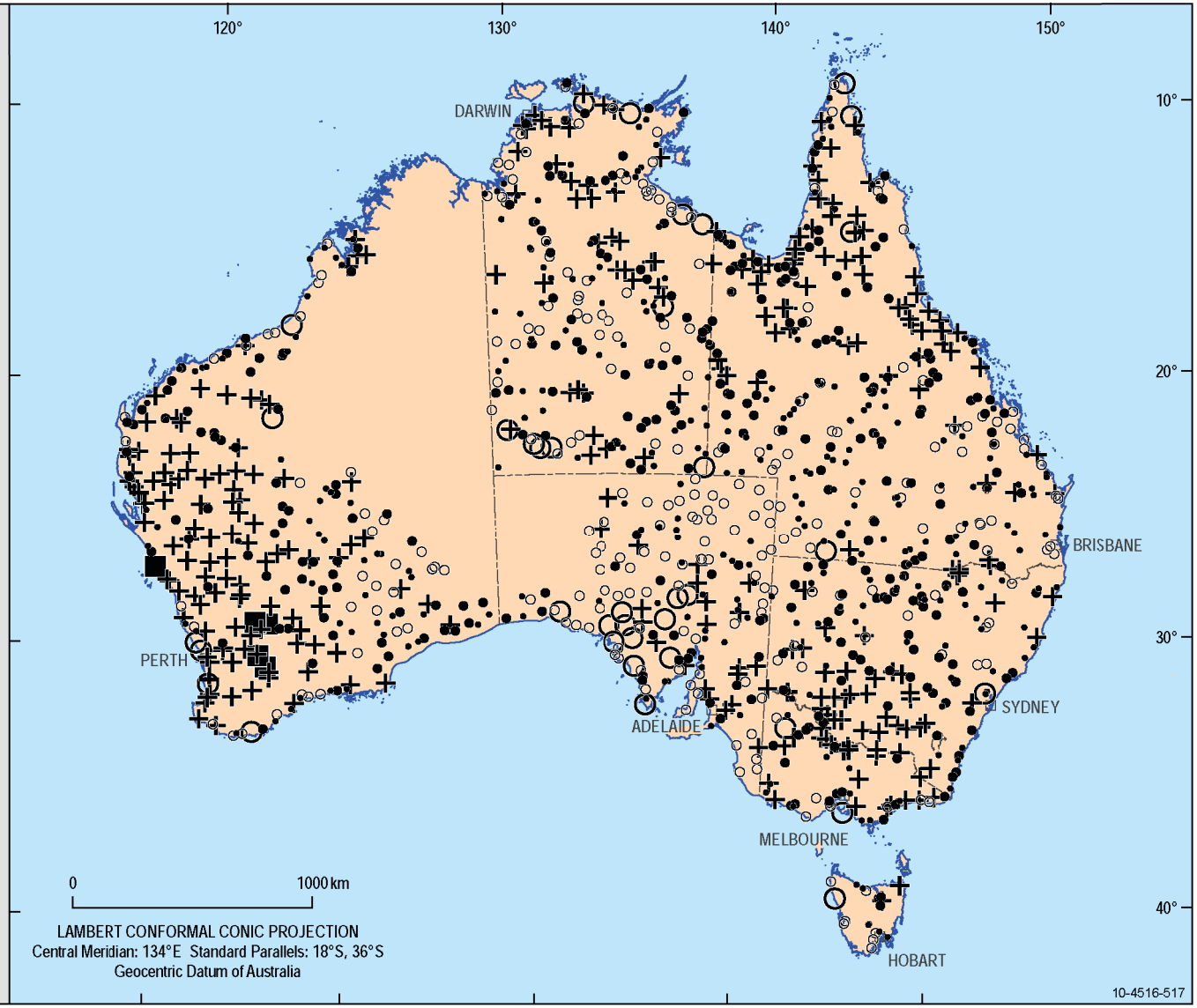
25%: *2.8 mg/kg*

Lower Fence: *0.8 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

TI

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1191

Maximum: *0.43 mg/kg*

Upper Fence: *N/A**

75%: *0.16 mg/kg*

Median: *0.1 mg/kg*

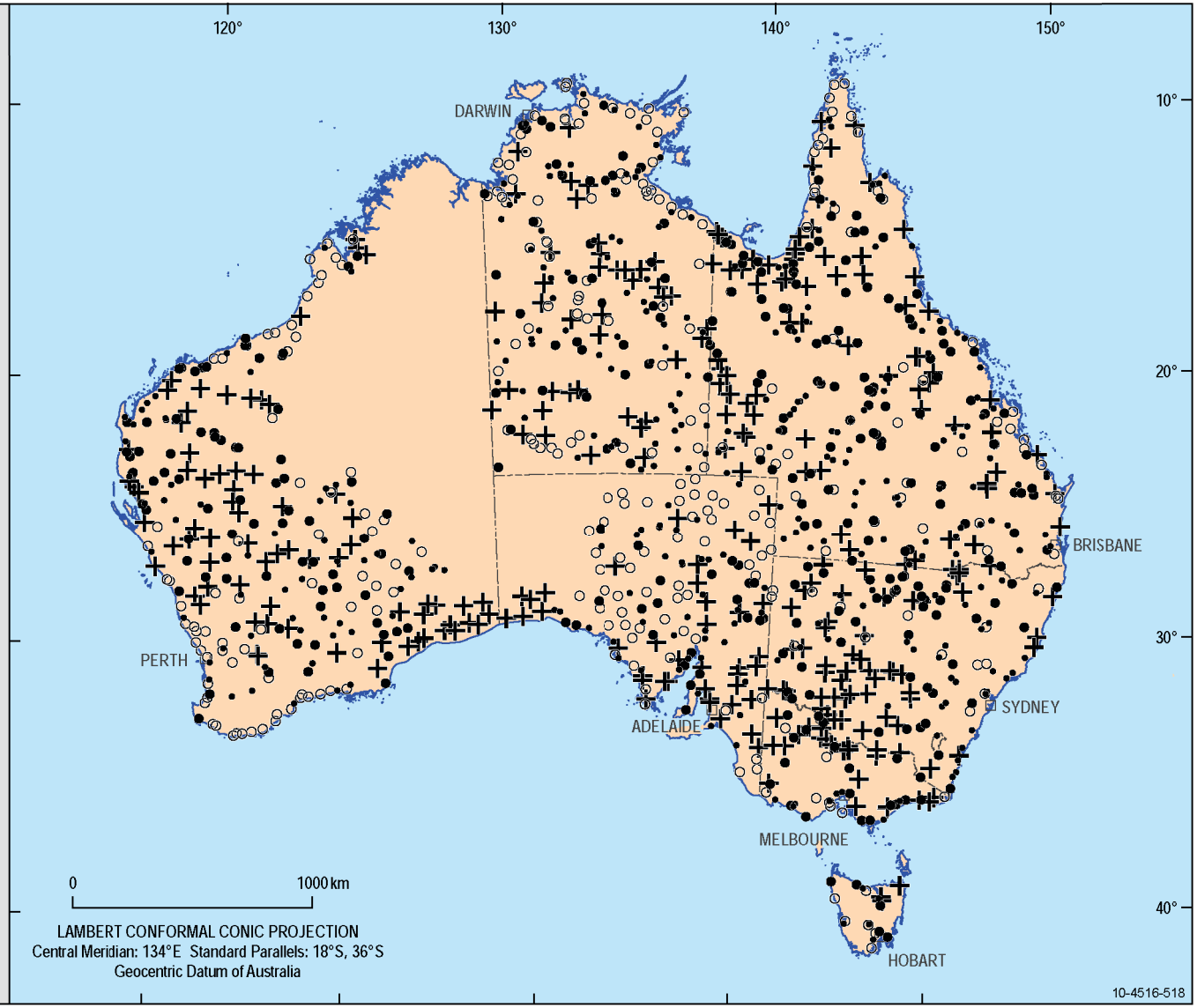
25%: *0.06 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Tm

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *0.6 mg/kg*

Upper Fence: *N/A**

75%: *0.2 mg/kg*

Median: *0.1 mg/kg*

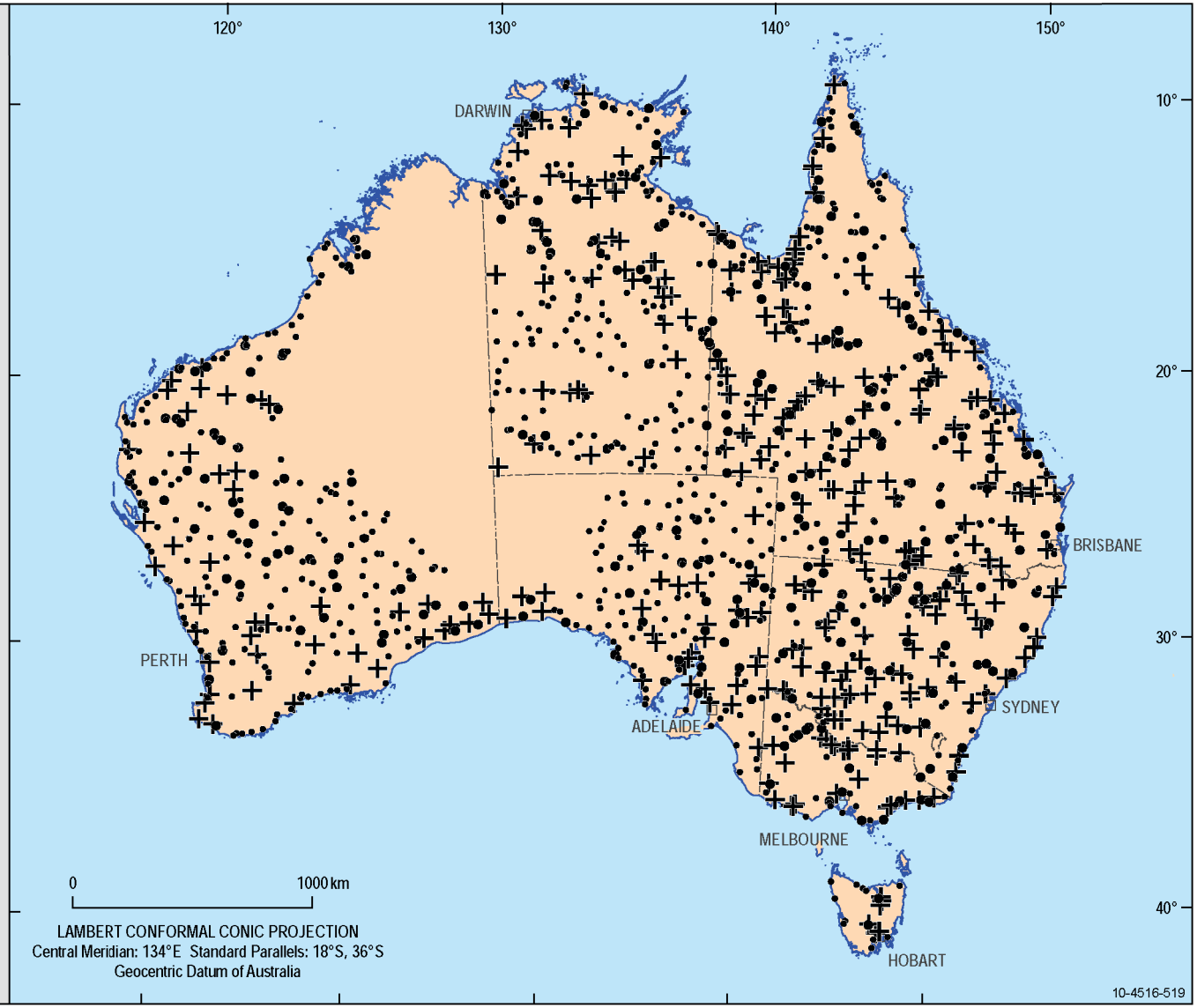
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

U

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *16.4 mg/kg*

Upper Fence: *6.2 mg/kg*

75%: *1.2 mg/kg*

Median: *0.6 mg/kg*

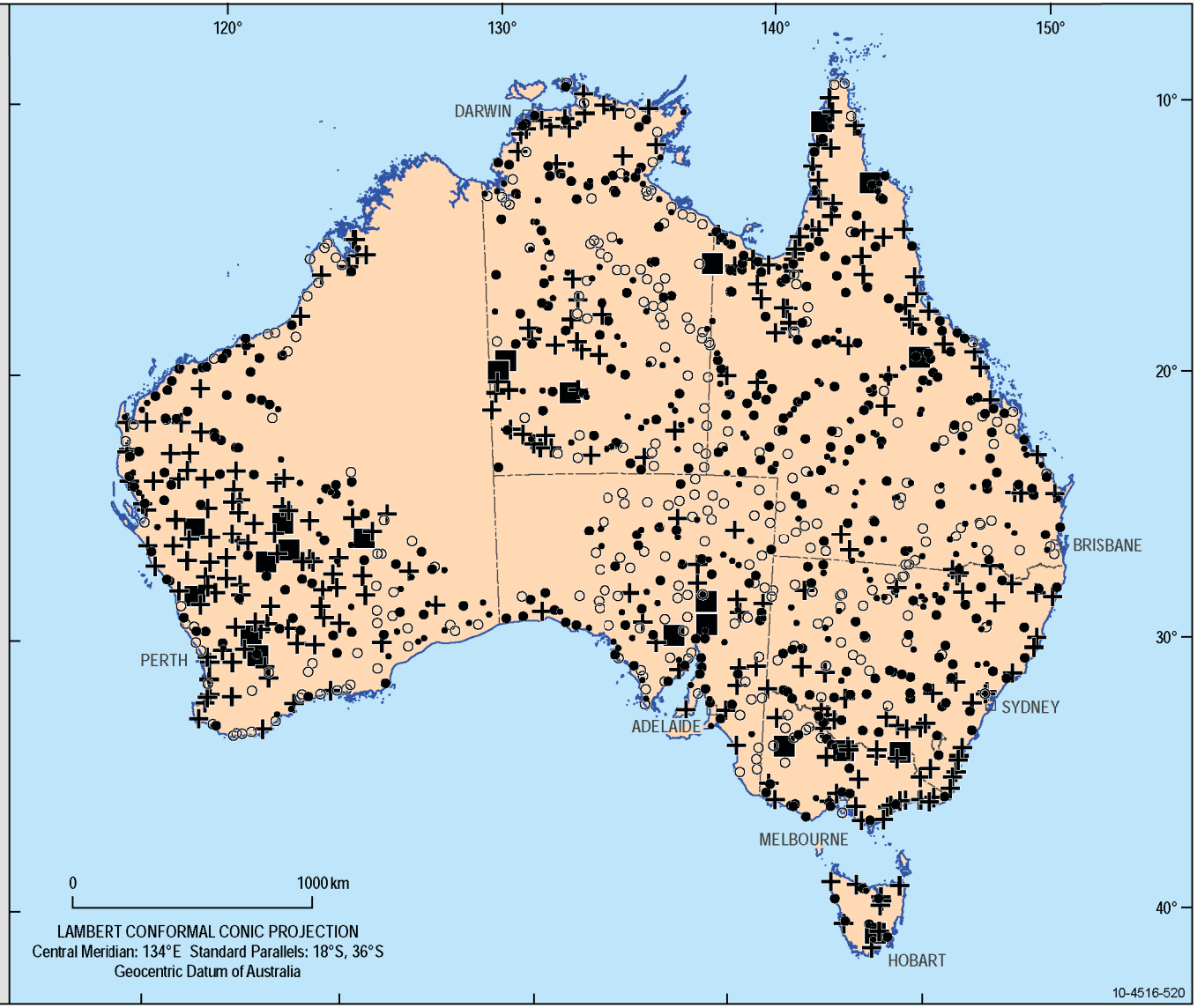
25%: *0.4 mg/kg*

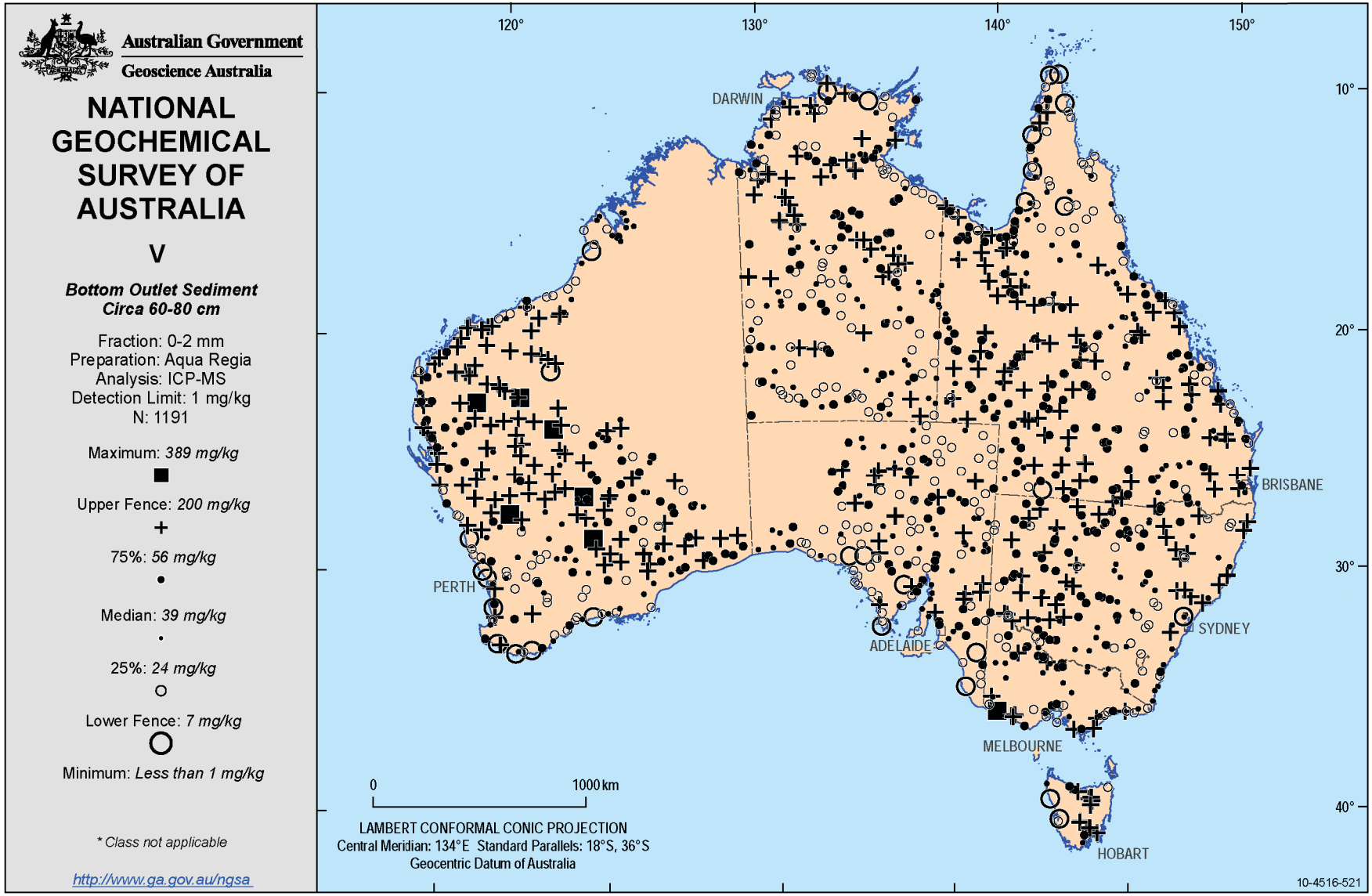
Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
V
Bottom Outlet Sediment
Circa 60-80 cm
Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 1 mg/kg
N: 1191
Maximum: 389 mg/kg
Upper Fence: 200 mg/kg
75%: 56 mg/kg
Median: 39 mg/kg
25%: 24 mg/kg
Lower Fence: 7 mg/kg
Minimum: Less than 1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
BRISBANE
PERTH
SYDNEY
ADELAIDE
MELBOURNE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-521

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

W

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *10.7 mg/kg*

Upper Fence: *Less than 0.1 mg/kg*

75%: *N/A**

Median: *N/A**

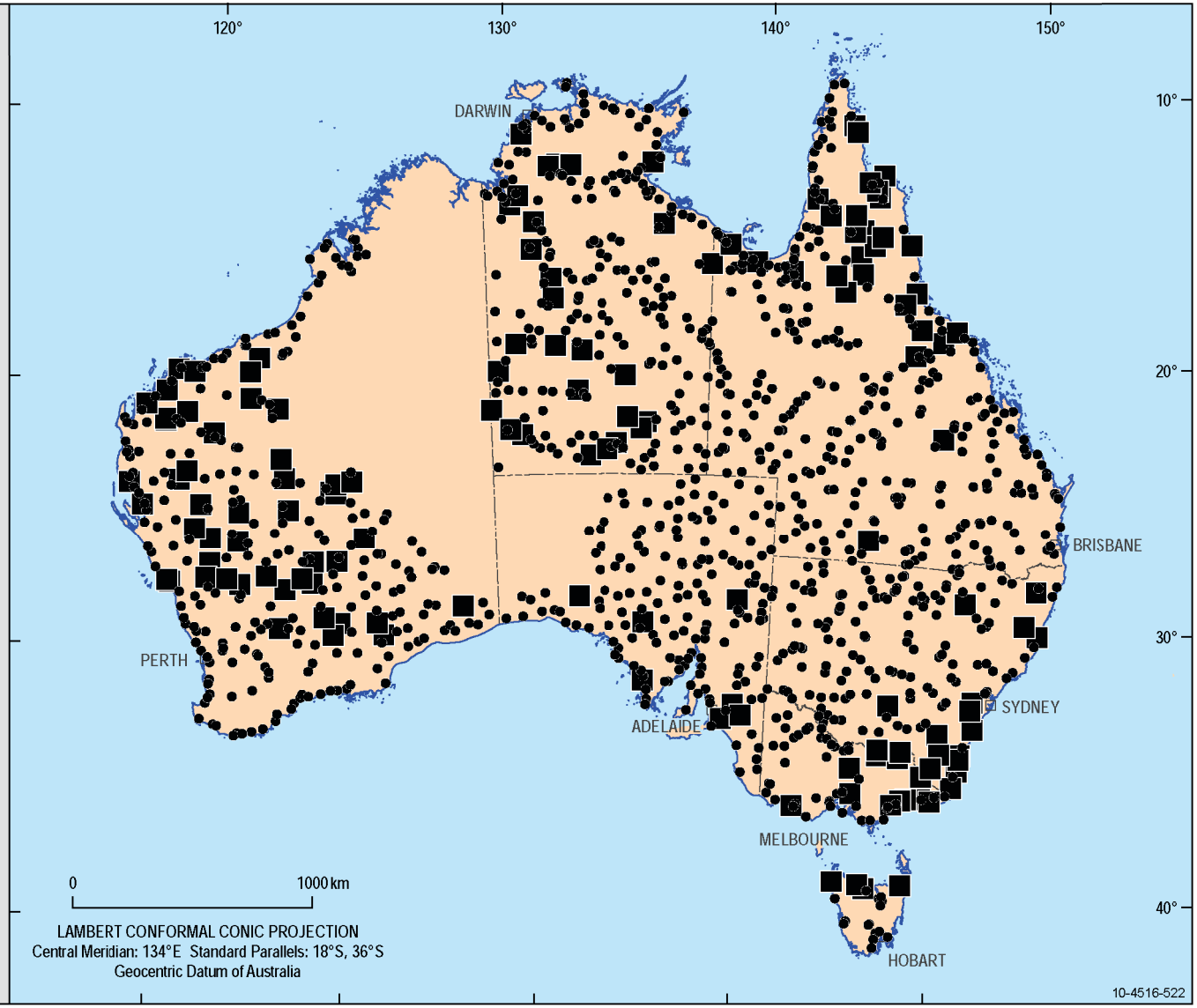
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Y

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1191

Maximum: *35.1 mg/kg*

Upper Fence: *N/A**

75%: *12 mg/kg*

Median: *7.91 mg/kg*

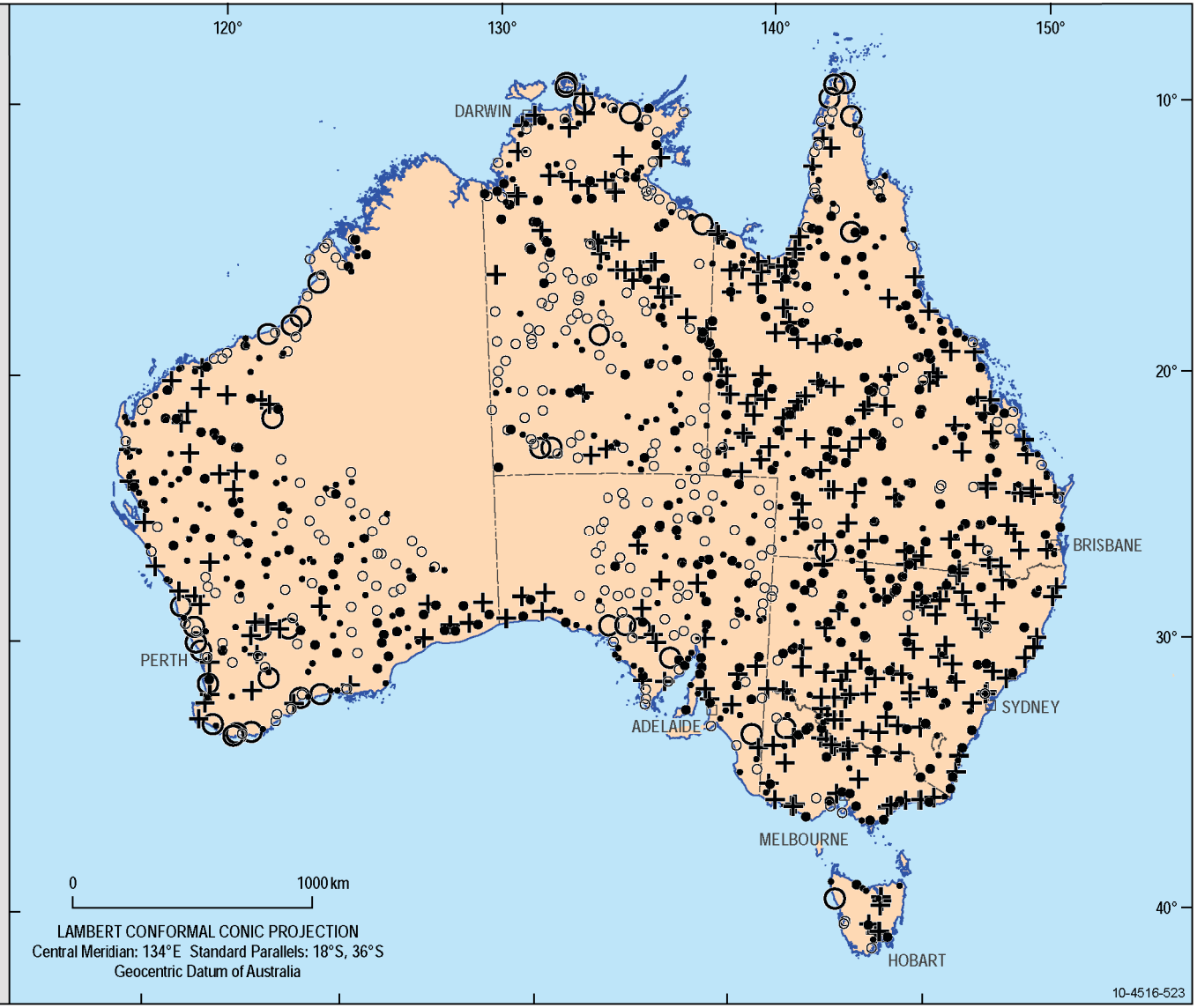
25%: *4.27 mg/kg*

Lower Fence: *0.91 mg/kg*

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Yb

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *2.7 mg/kg*

Upper Fence: *N/A**

75%: *0.9 mg/kg*

Median: *0.6 mg/kg*

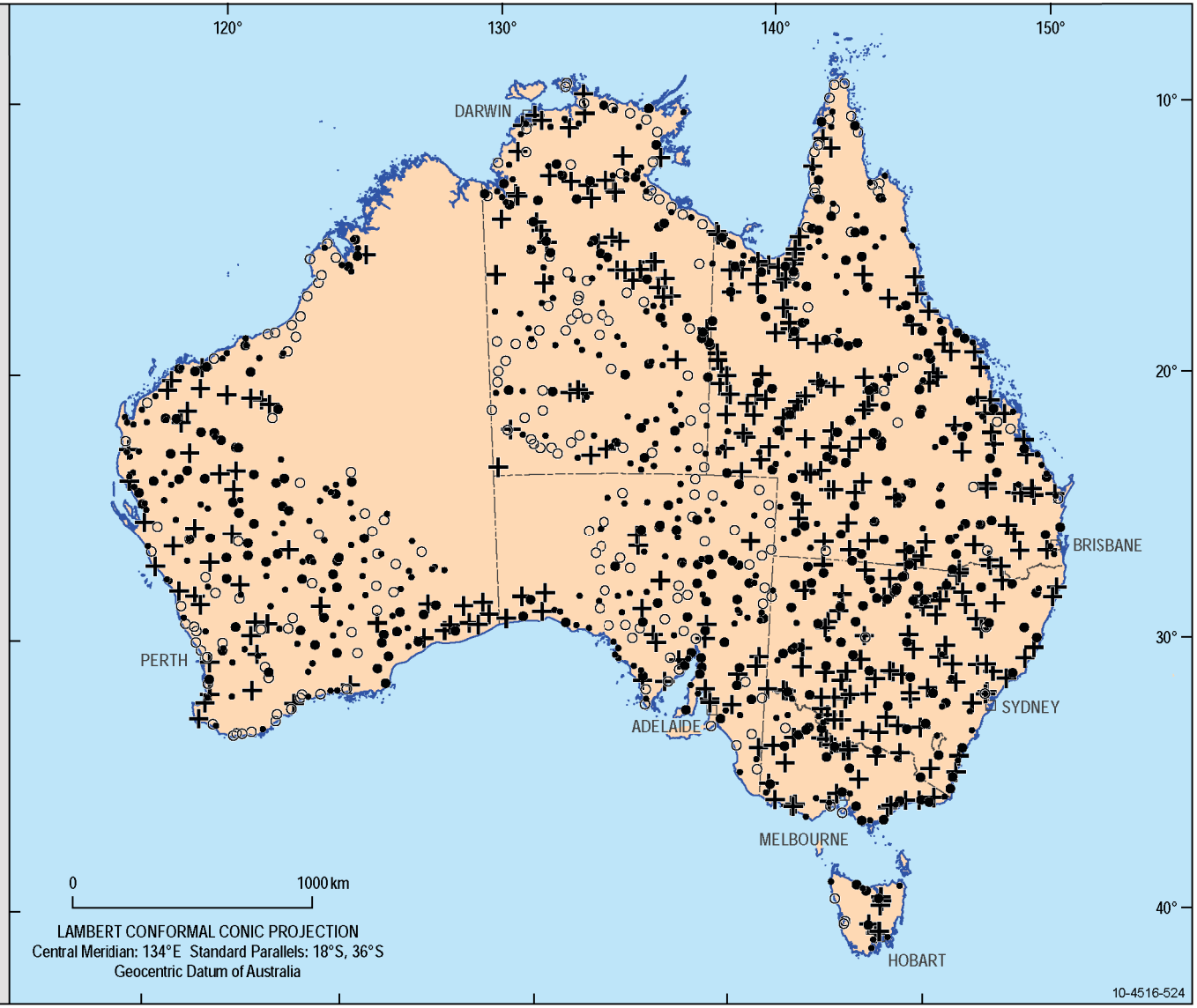
25%: *0.3 mg/kg*

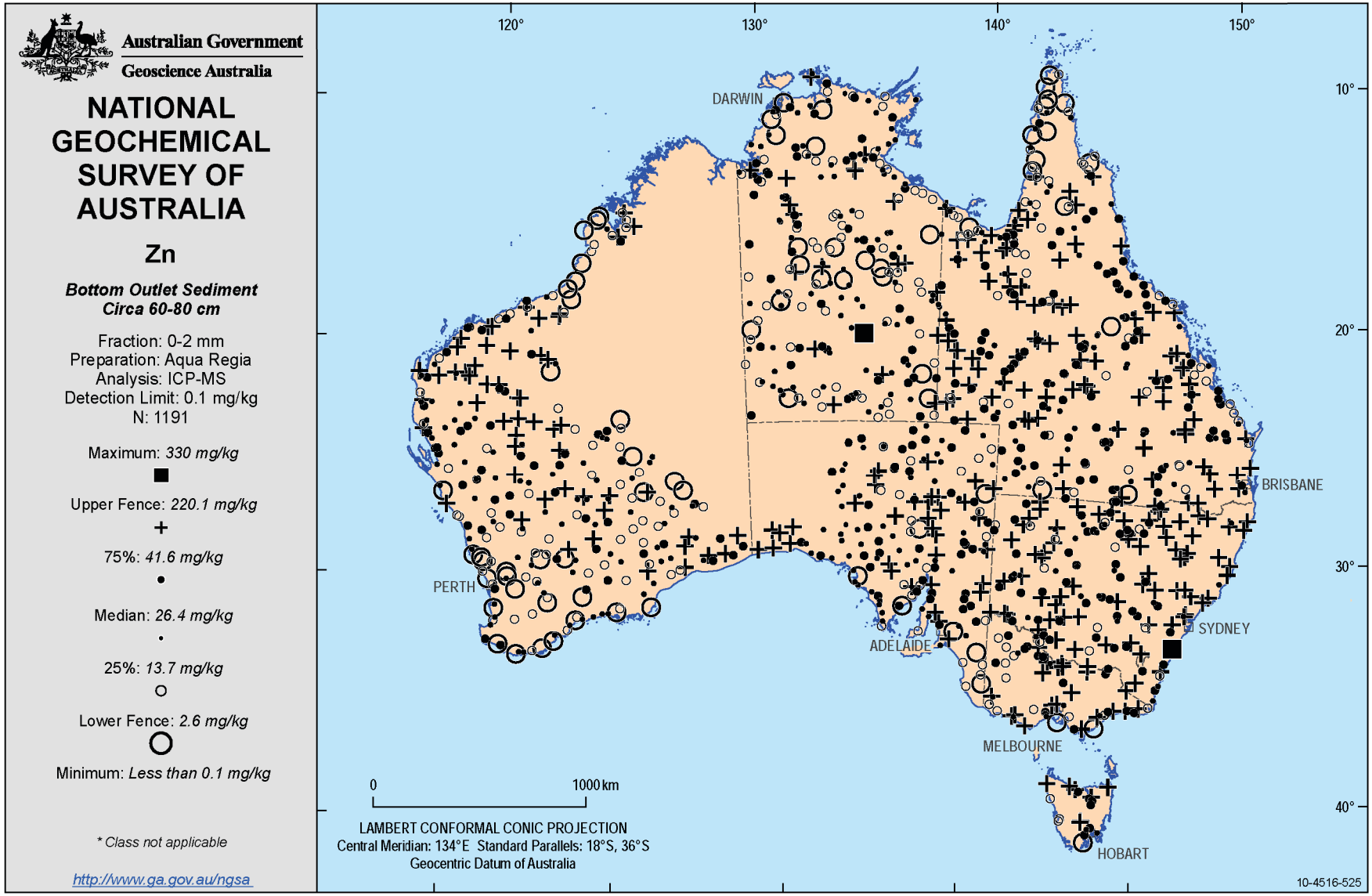
Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Zn
Bottom Outlet Sediment
Circa 60-80 cm
Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191
Maximum: 330 mg/kg
Upper Fence: 220.1 mg/kg
75%: 41.6 mg/kg
Median: 26.4 mg/kg
25%: 13.7 mg/kg
Lower Fence: 2.6 mg/kg
Minimum: Less than 0.1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
MELBOURNE
SYDNEY
BRISBANE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-525

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Zr

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-2 mm
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *124 mg/kg*

Upper Fence: *43 mg/kg*

75%: *7.8 mg/kg*

Median: *4.7 mg/kg*

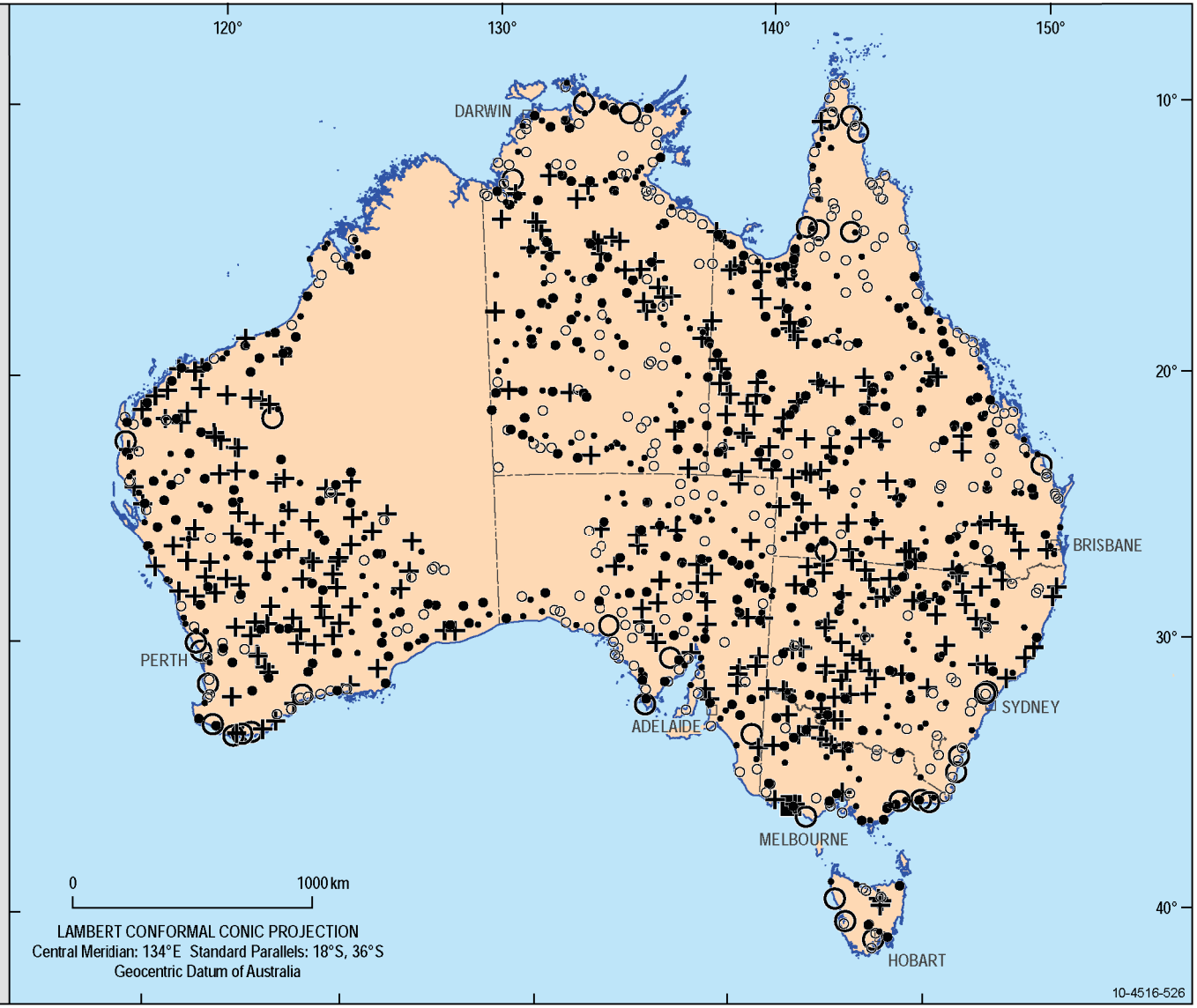
25%: *2.5 mg/kg*

Lower Fence: *0.5 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ag

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.002 mg/kg
N: 1179

Maximum: *0.646 mg/kg*

Upper Fence: *0.245 mg/kg*

75%: *0.029 mg/kg*

Median: *0.016 mg/kg*

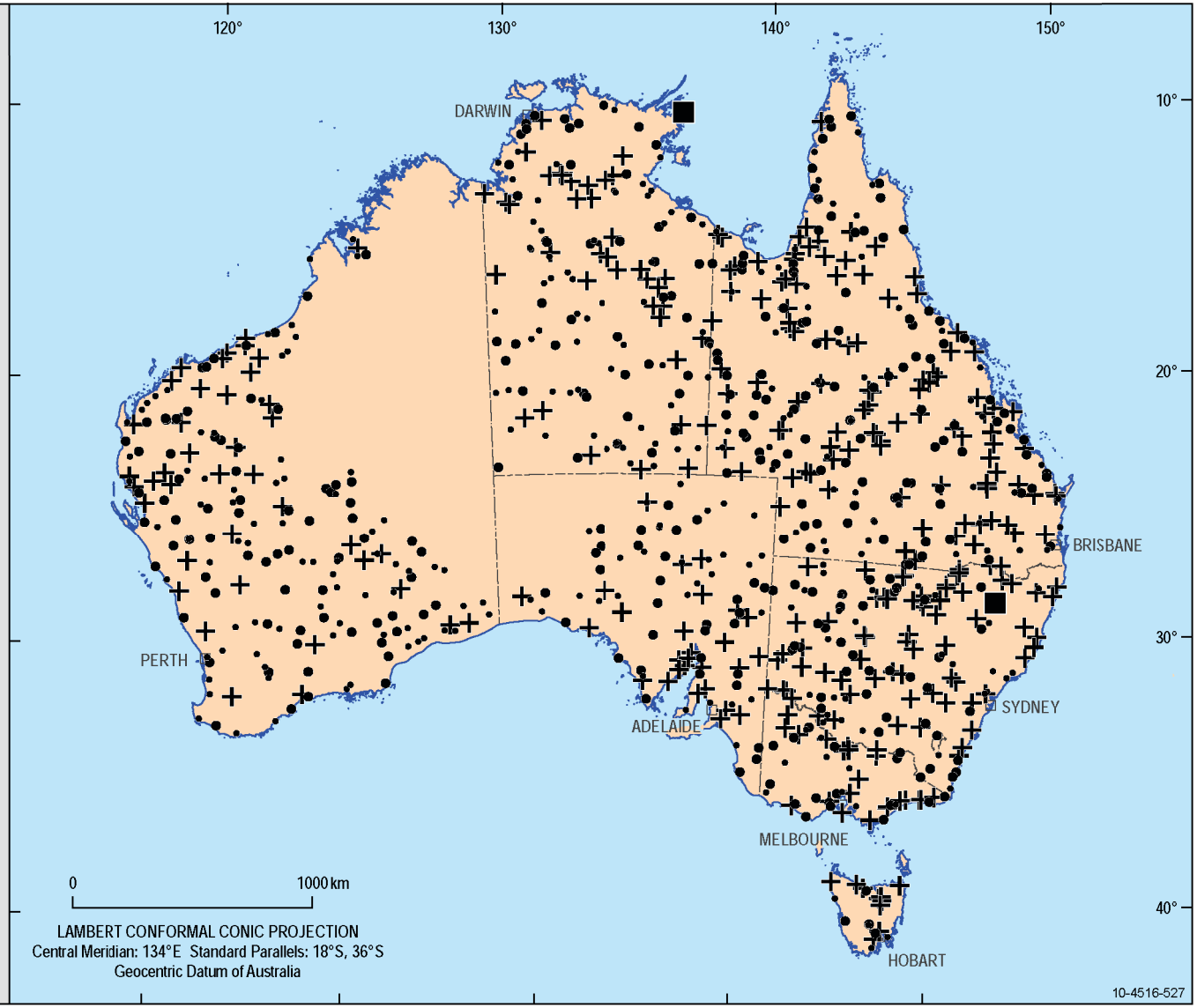
25%: *0.007 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.002 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Al

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 100 mg/kg
N: 1179

Maximum: *Greater than 100000 mg/kg*

Upper Fence: *80880 mg/kg*

75%: *25600 mg/kg*

Median: *17300 mg/kg*

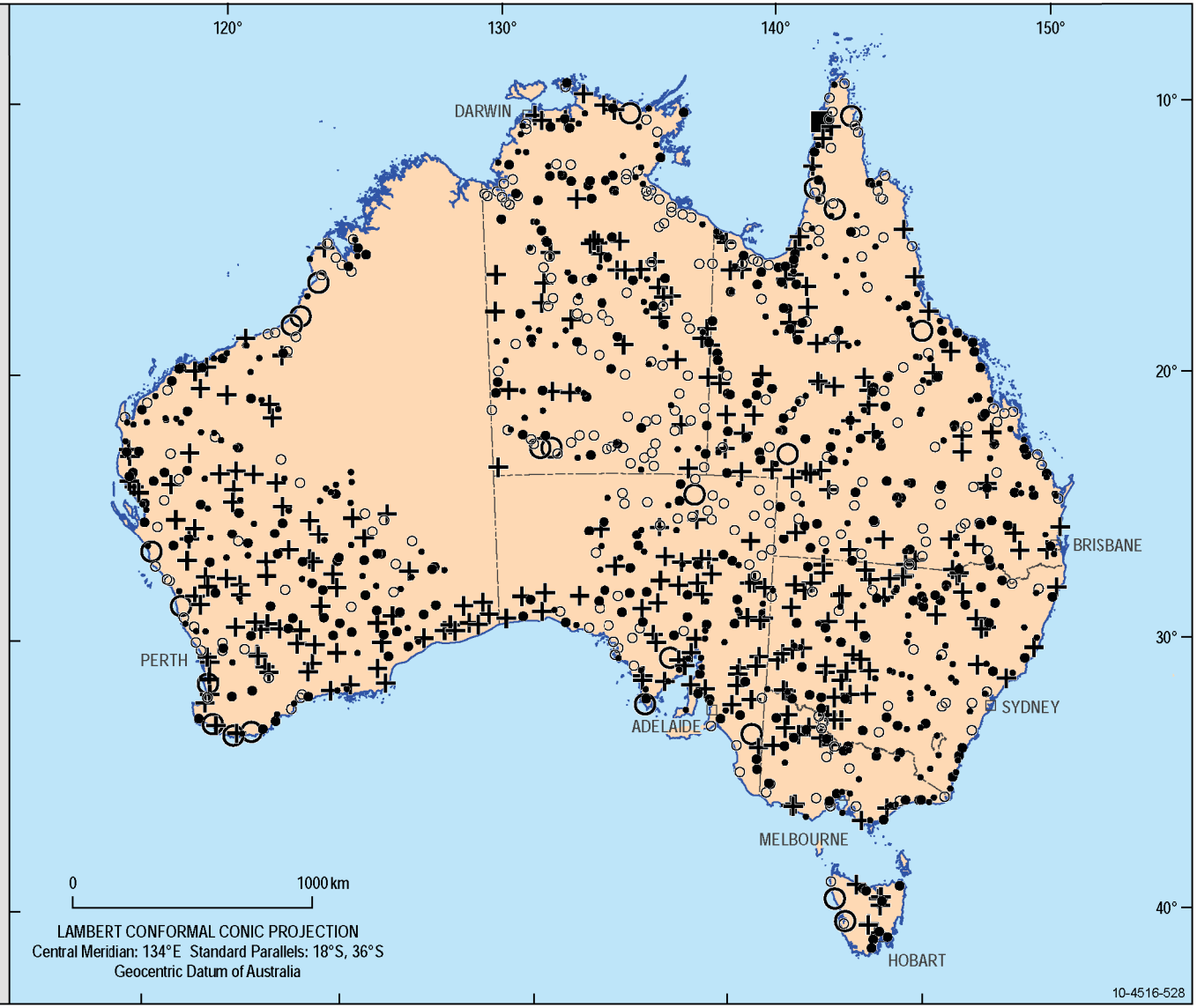
25%: *11600 mg/kg*

Lower Fence: *3492 mg/kg*

Minimum: *300 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

As

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *140 mg/kg*

Upper Fence: *22.1 mg/kg*

75%: *4.4 mg/kg*

Median: *2.7 mg/kg*

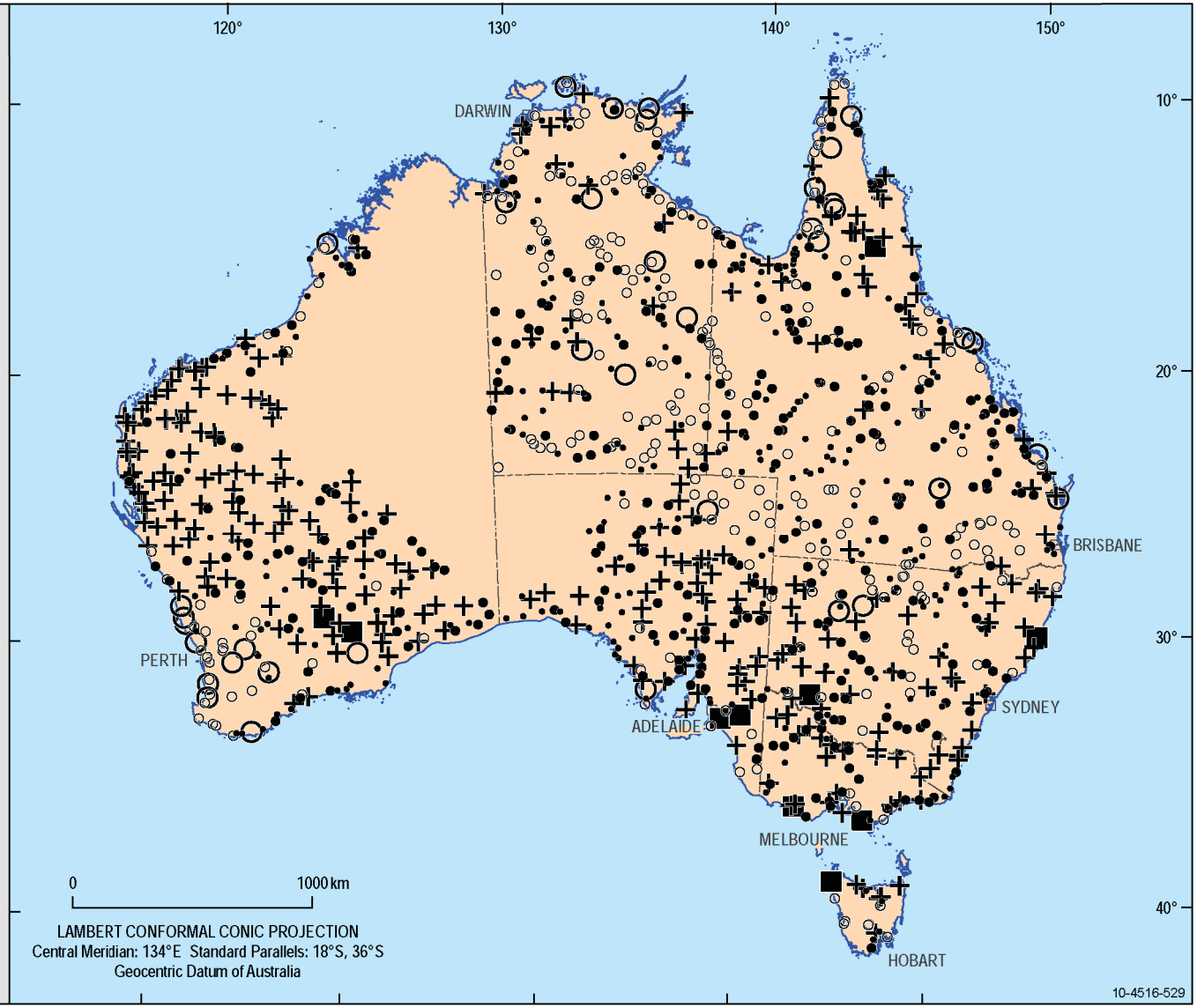
25%: *1.5 mg/kg*

Lower Fence: *0.3 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Au

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.0001 mg/kg
N: 1179

Maximum: *0.31 mg/kg*

Upper Fence: *0.0122 mg/kg*

75%: *0.002 mg/kg*

Median: *0.0011 mg/kg*

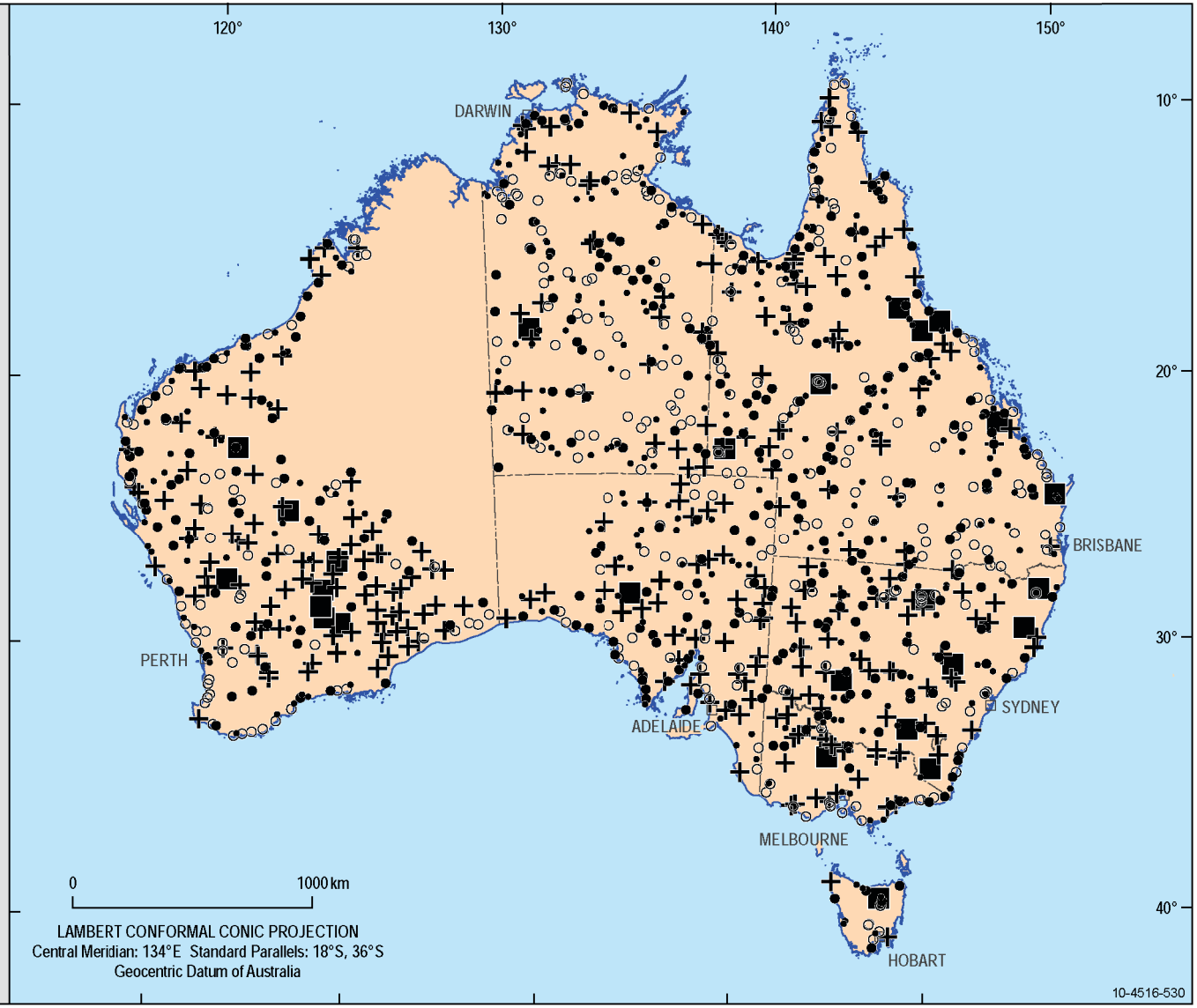
25%: *0.0006 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.0001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

B

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 1 mg/kg
N: 1179

Maximum: *70 mg/kg*

Upper Fence: *16 mg/kg*

75%: *2 mg/kg*

Median: *N/A**

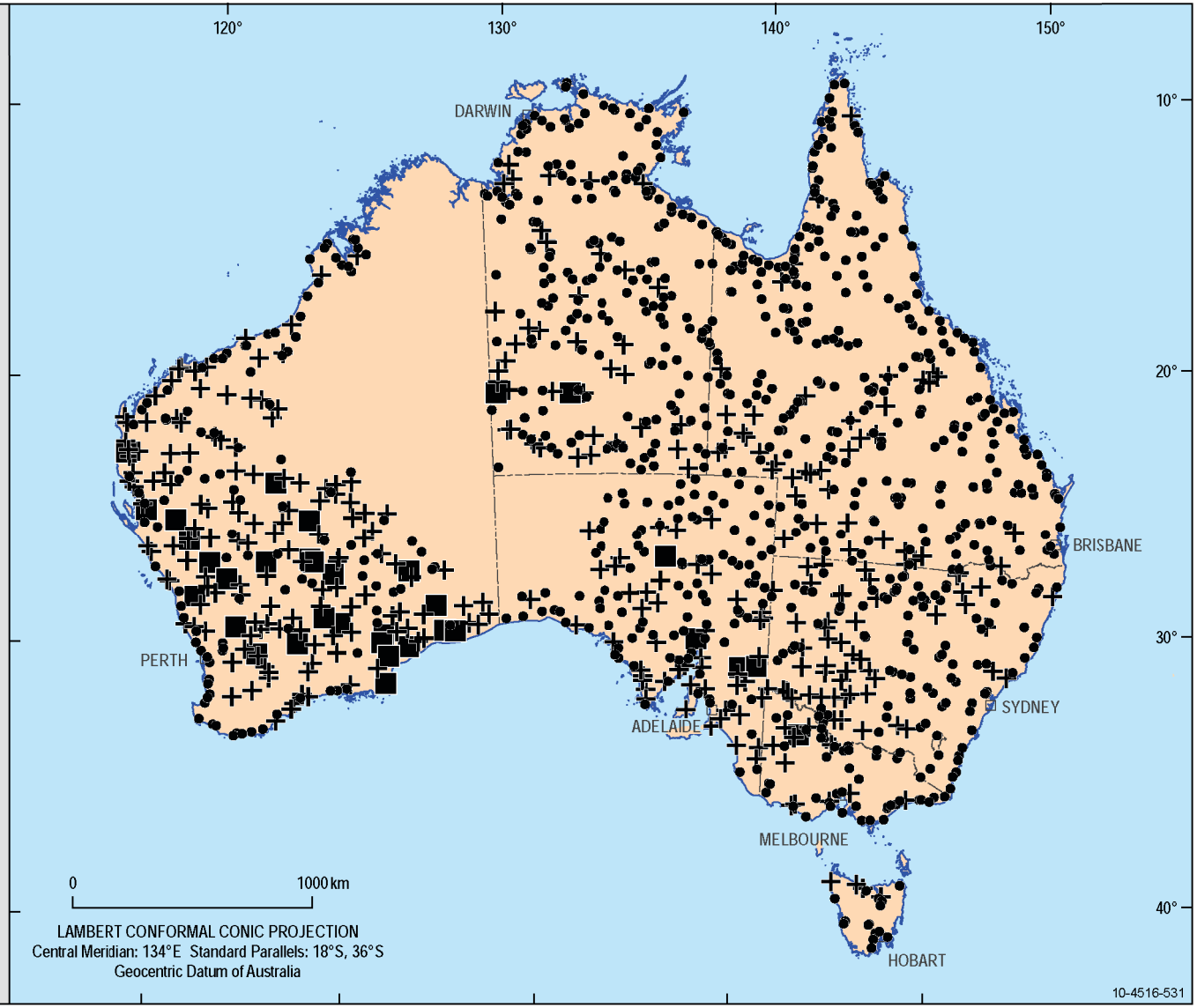
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ba

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.5 mg/kg
N: 1179

Maximum: *1490 mg/kg*

Upper Fence: *757.8 mg/kg*

75%: *165 mg/kg*

Median: *104 mg/kg*

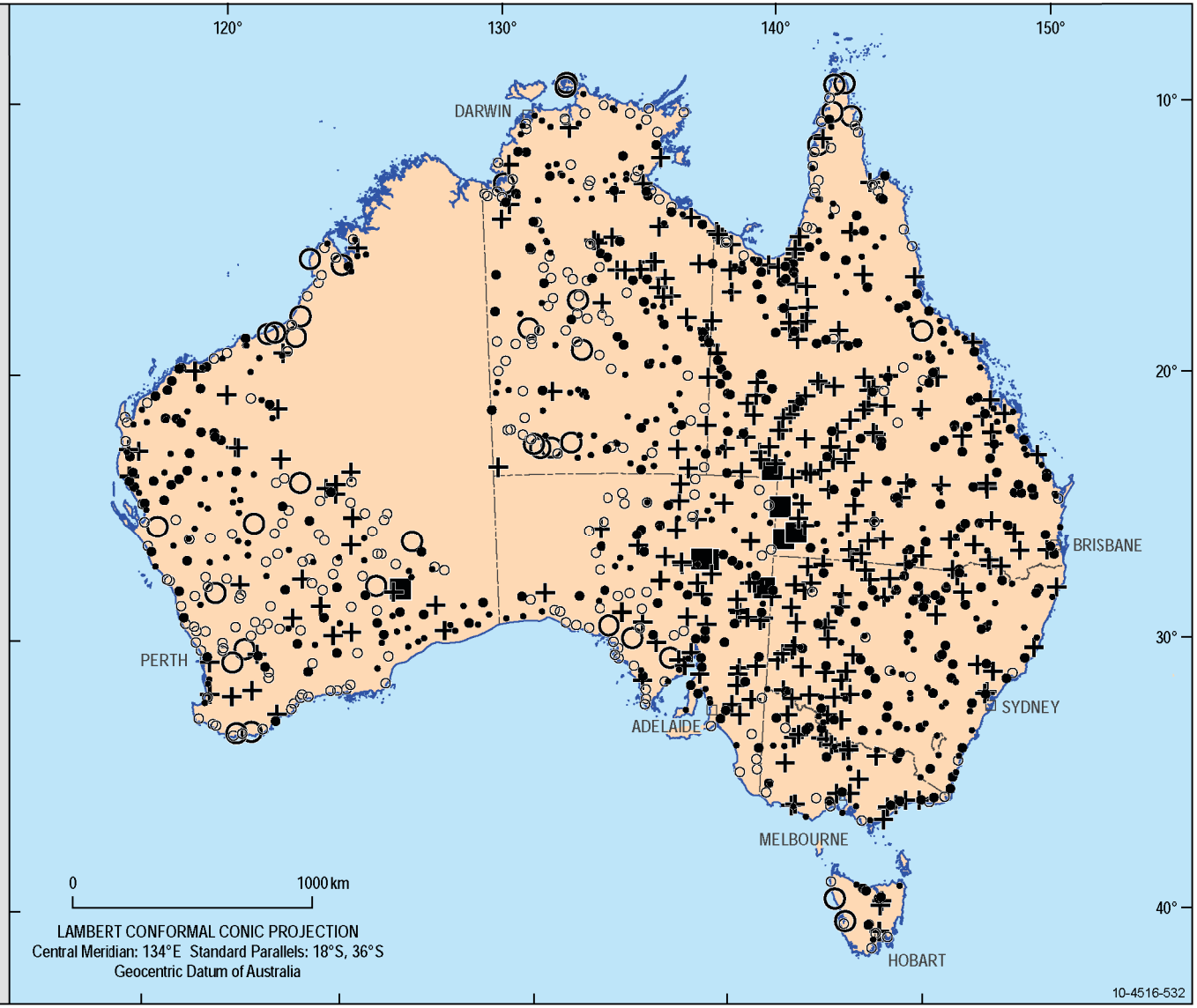
25%: *59.7 mg/kg*

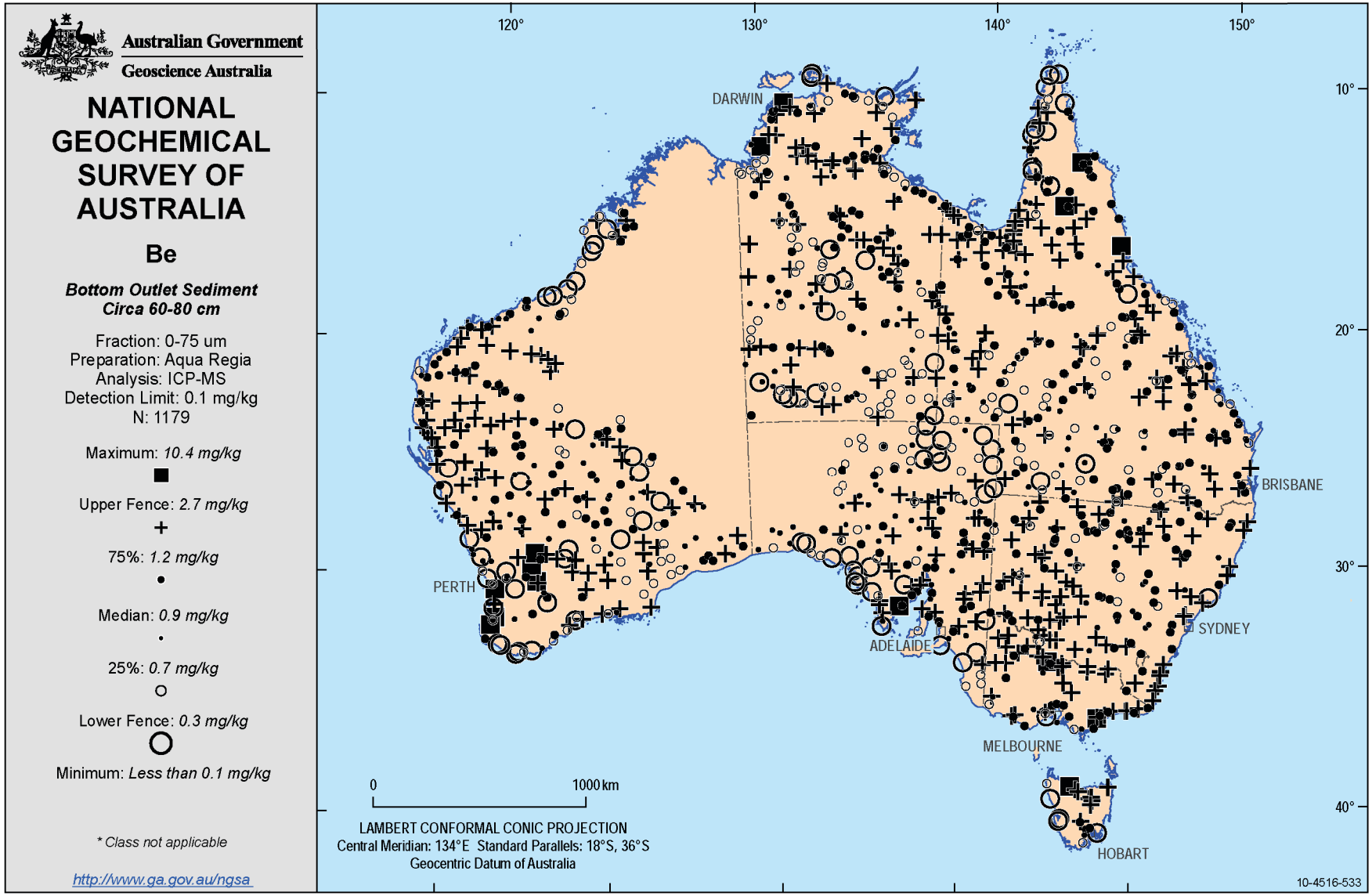
Lower Fence: *13 mg/kg*

Minimum: *0.8 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Be
Bottom Outlet Sediment
Circa 60-80 cm
Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179
Maximum: 10.4 mg/kg
Upper Fence: 2.7 mg/kg
75%: 1.2 mg/kg
Median: 0.9 mg/kg
25%: 0.7 mg/kg
Lower Fence: 0.3 mg/kg
Minimum: Less than 0.1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
BRISBANE
SYDNEY
MELBOURNE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-533

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Bi

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1179

Maximum: *8.05 mg/kg*

Upper Fence: *0.75 mg/kg*

75%: *0.25 mg/kg*

Median: *0.18 mg/kg*

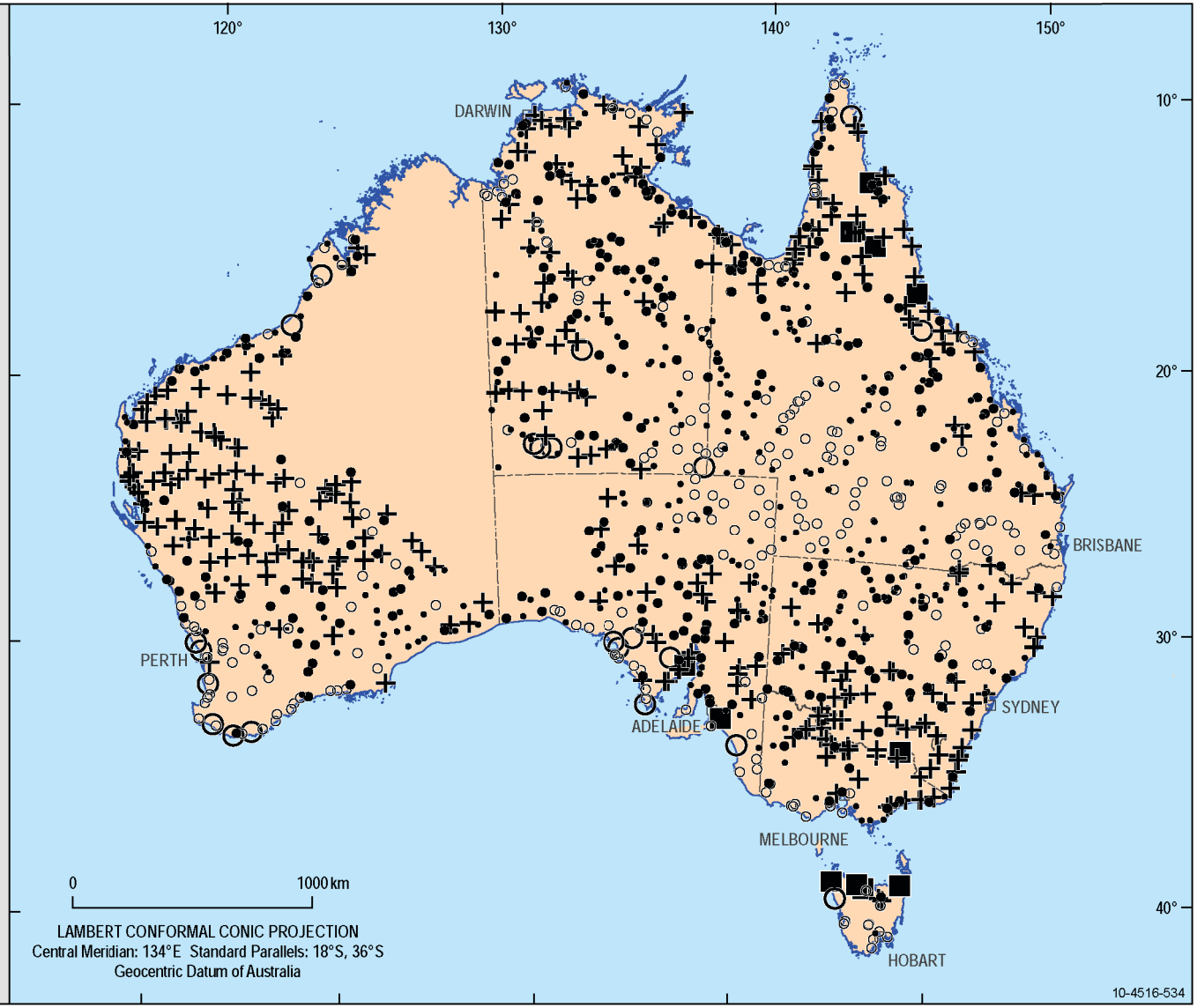
25%: *0.12 mg/kg*

Lower Fence: *0.04 mg/kg*

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ca

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 100 mg/kg
N: 1179

Maximum: *386000 mg/kg*

Upper Fence: *121781 mg/kg*

75%: *9800 mg/kg*

Median: *4400 mg/kg*

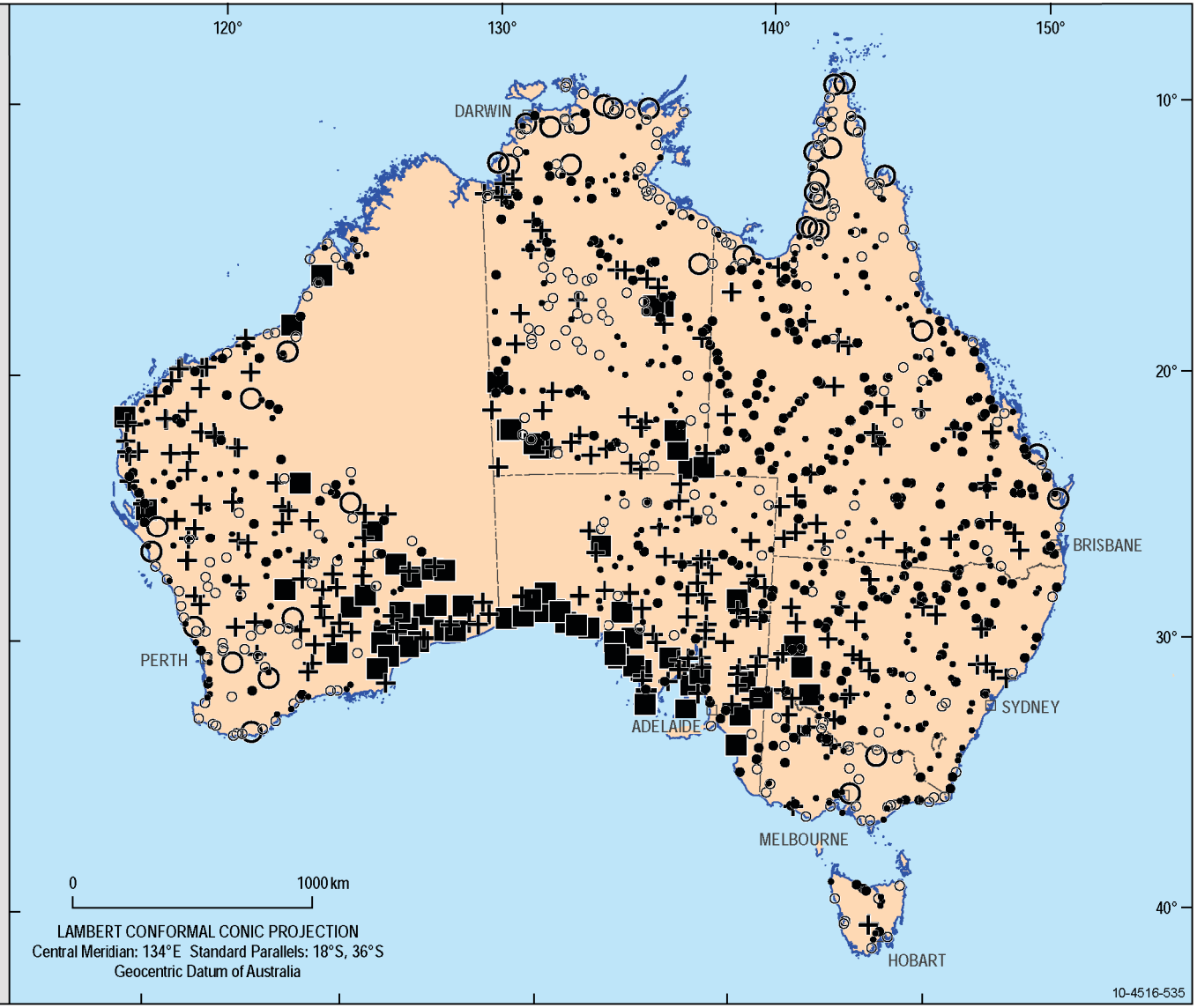
25%: *1700 mg/kg*

Lower Fence: *122 mg/kg*

Minimum: *Less than 100 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Cd

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1179

Maximum: *1.19 mg/kg*

Upper Fence: *0.46 mg/kg*

75%: *0.07 mg/kg*

Median: *0.04 mg/kg*

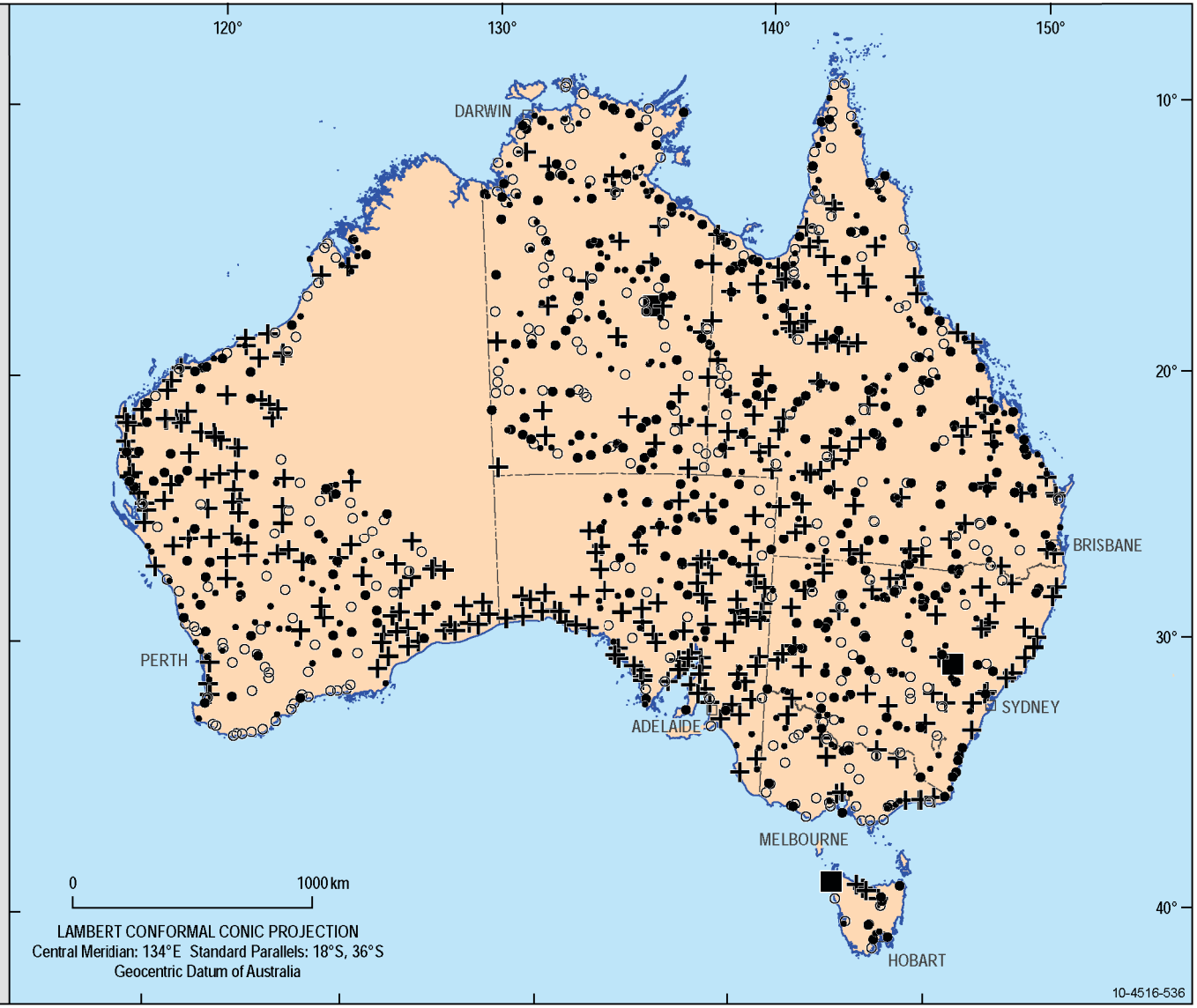
25%: *0.02 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ce

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1179

Maximum: *295 mg/kg*

Upper Fence: *148.21 mg/kg*

75%: *60.4 mg/kg*

Median: *44.3 mg/kg*

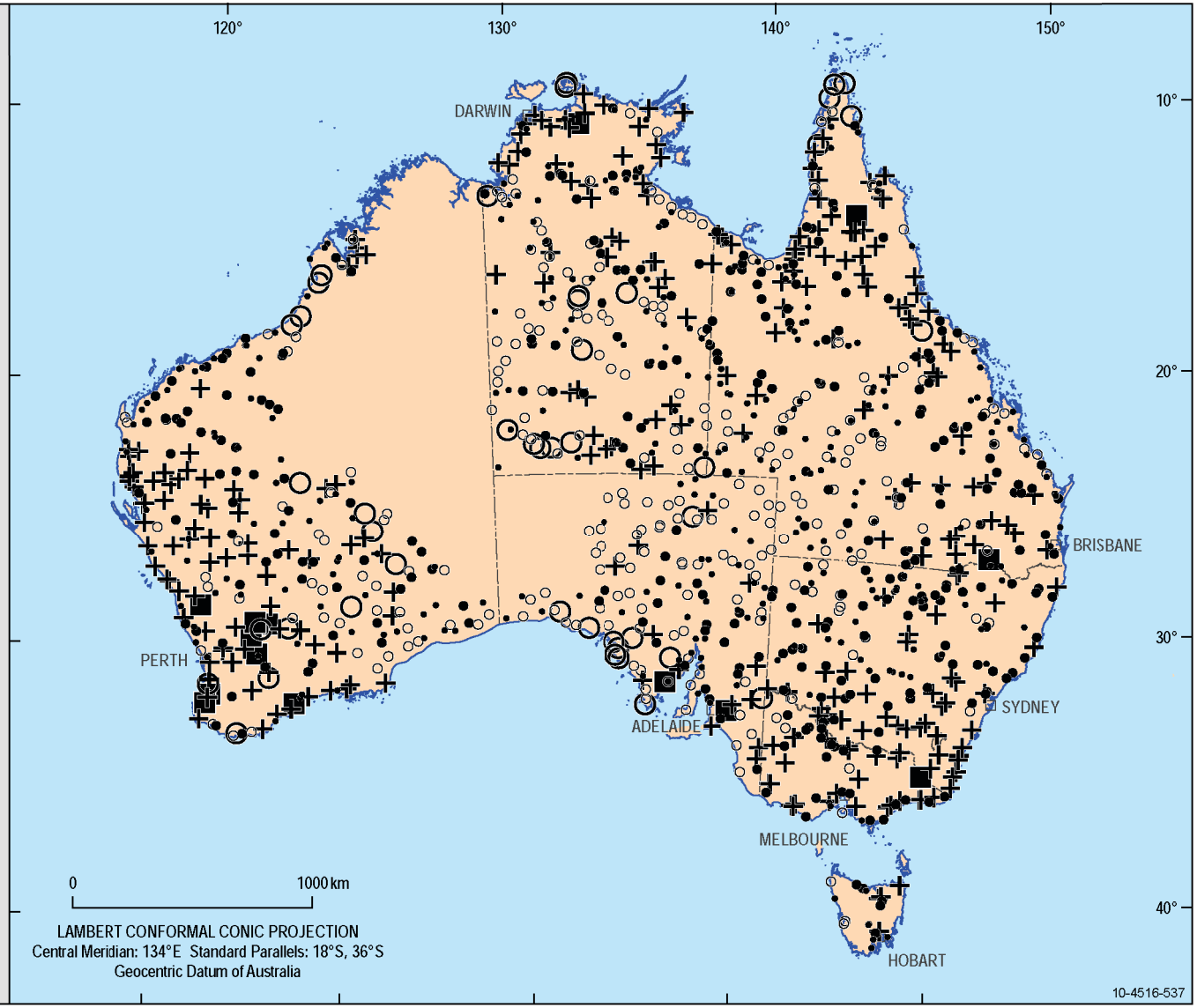
25%: *33.2 mg/kg*

Lower Fence: *13.53 mg/kg*

Minimum: *0.33 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Co

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *70.9 mg/kg*

Upper Fence: *46.4 mg/kg*

75%: *14 mg/kg*

Median: *9.9 mg/kg*

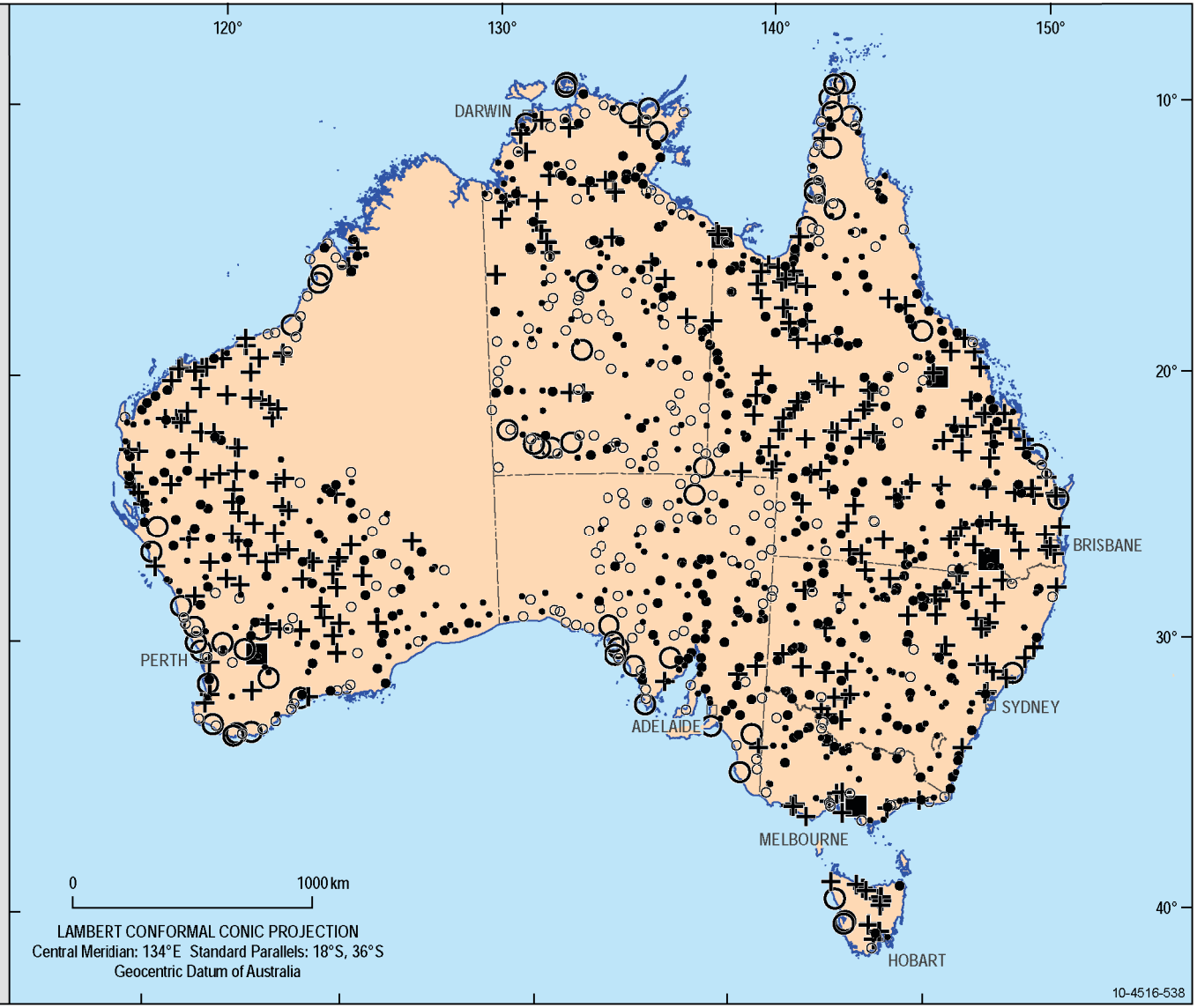
25%: *6.3 mg/kg*

Lower Fence: *1.9 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Cr

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.5 mg/kg
N: 1179

Maximum: *1580 mg/kg*

Upper Fence: *168.7 mg/kg*

75%: *51.3 mg/kg*

Median: *34.7 mg/kg*

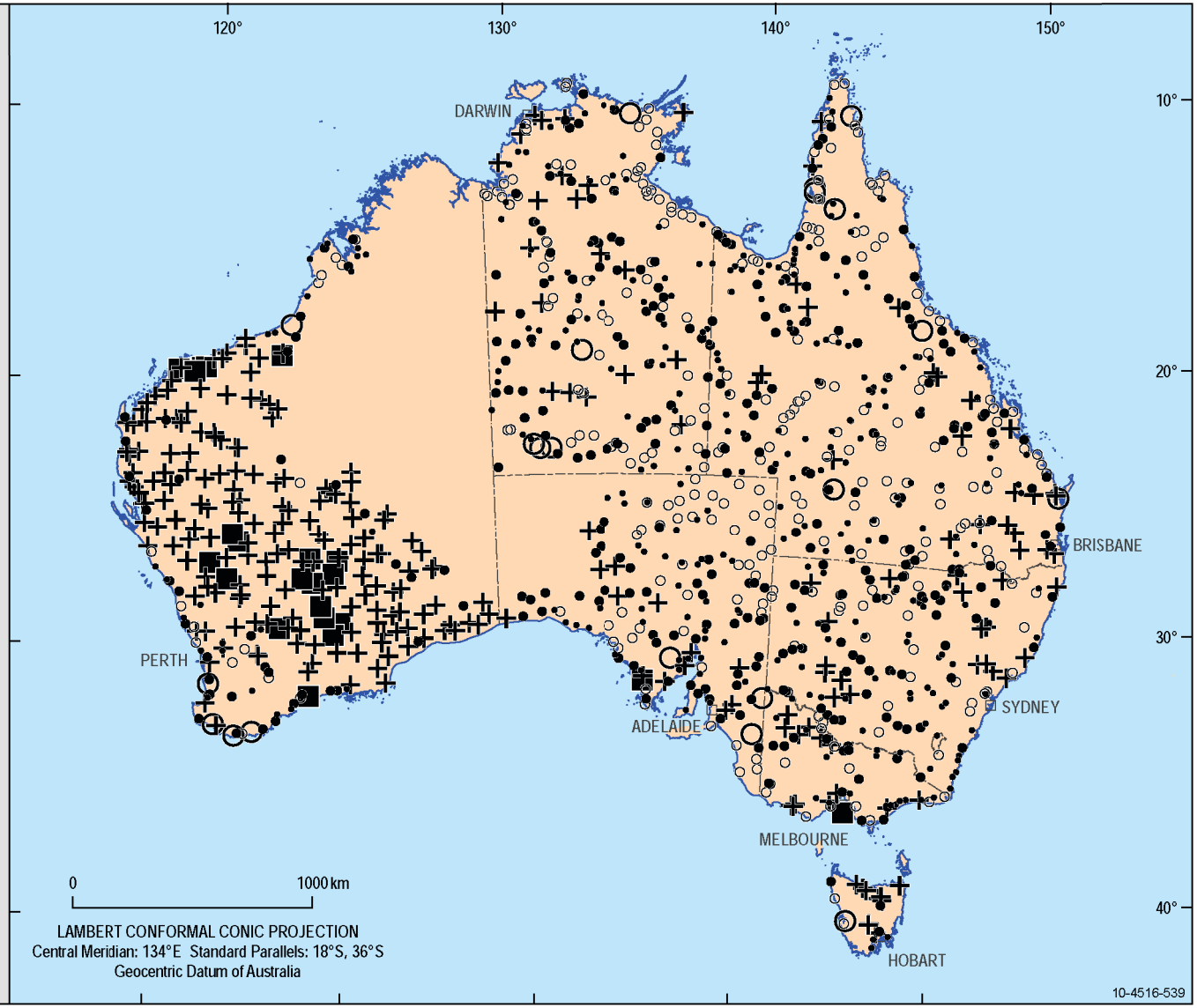
25%: *23.2 mg/kg*

Lower Fence: *7.1 mg/kg*

Minimum: *1.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Cs

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1179

Maximum: *7.48 mg/kg*

Upper Fence: *N/A**

75%: *2.1 mg/kg*

Median: *1.43 mg/kg*

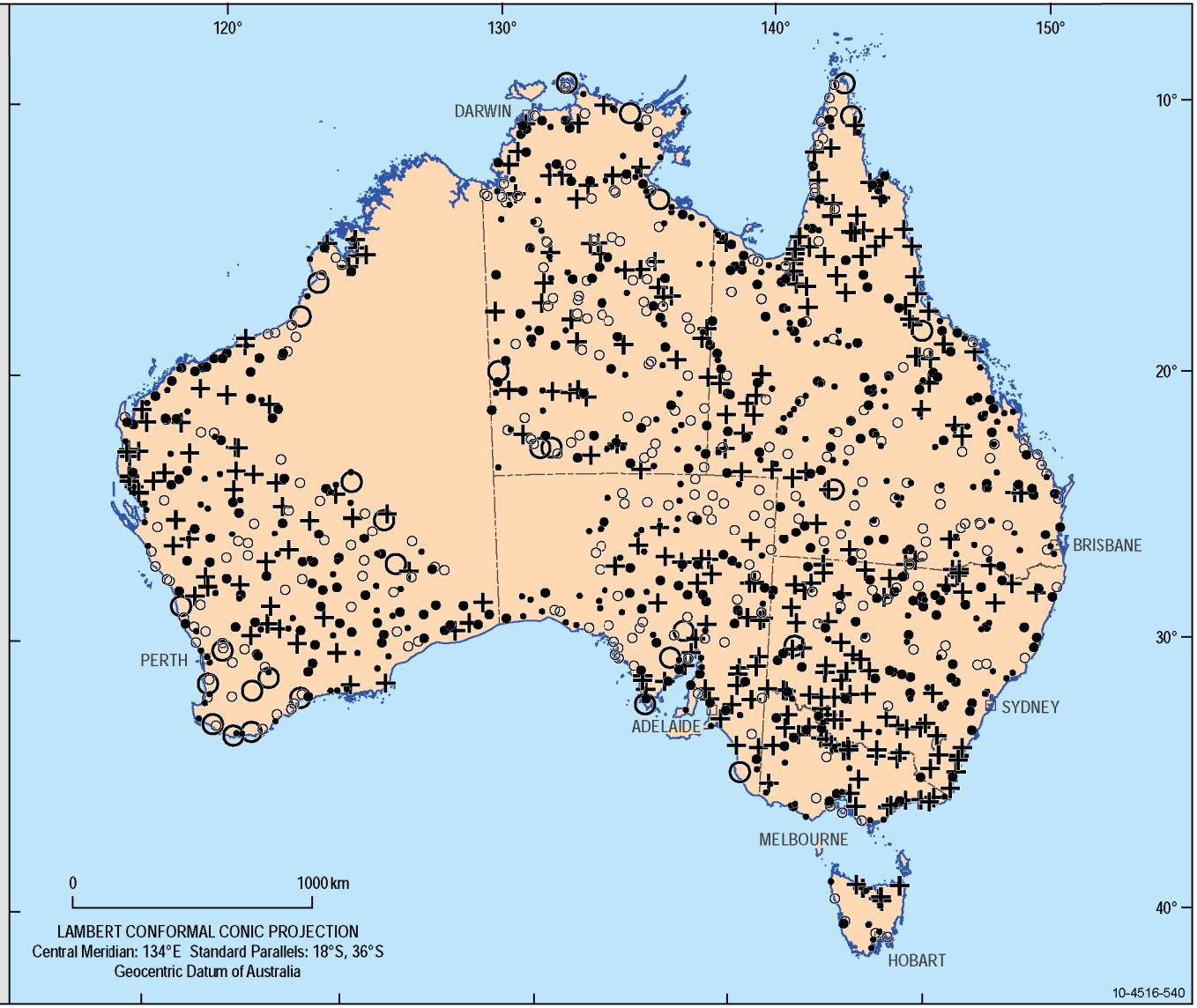
25%: *0.89 mg/kg*

Lower Fence: *0.25 mg/kg*

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Cu

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1179

Maximum: *141 mg/kg*

Upper Fence: *80.55 mg/kg*

75%: *25.7 mg/kg*

Median: *17.8 mg/kg*

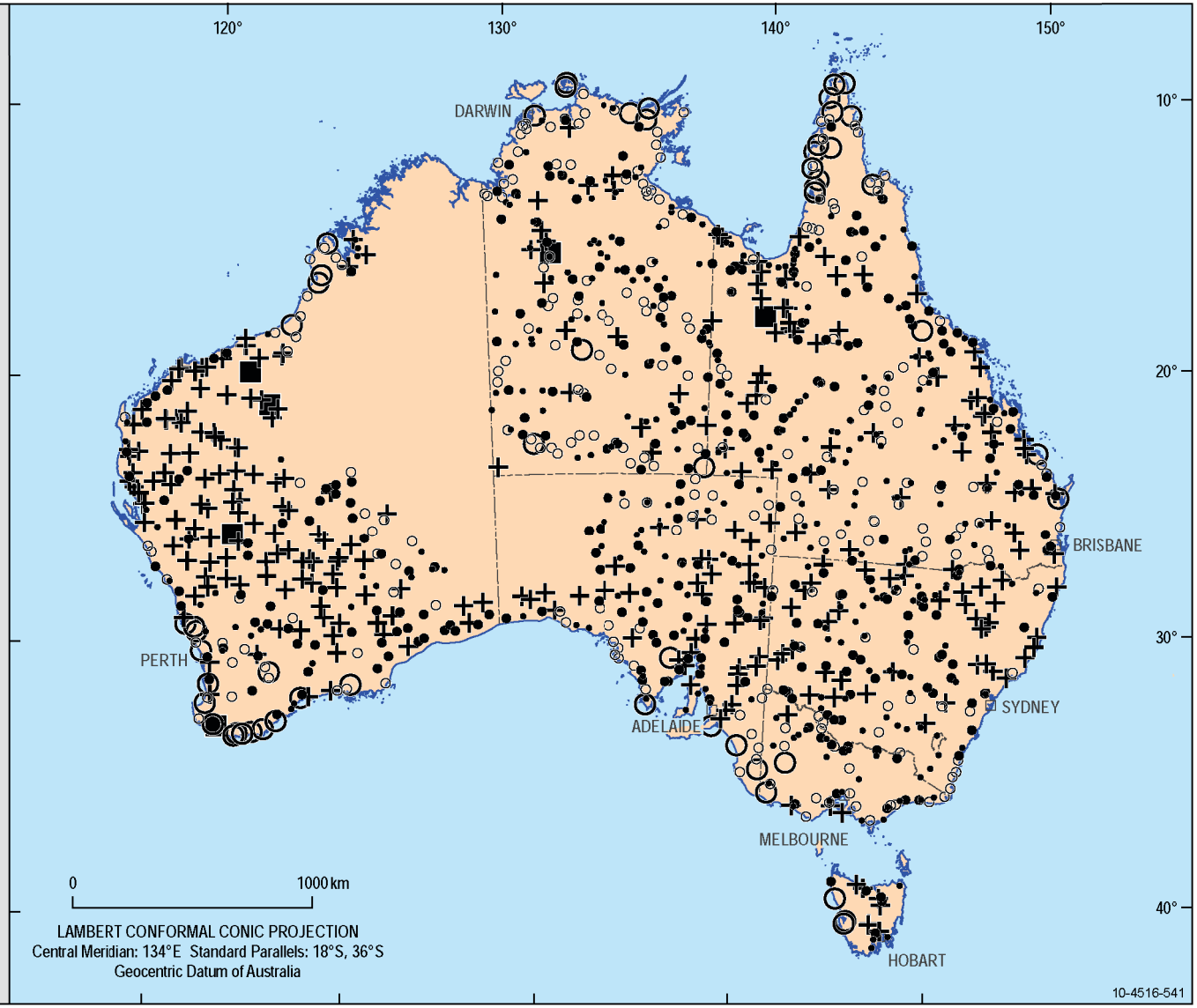
25%: *12 mg/kg*

Lower Fence: *3.83 mg/kg*

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Dy

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *11.8 mg/kg*

Upper Fence: *7 mg/kg*

75%: *3.2 mg/kg*

Median: *2.5 mg/kg*

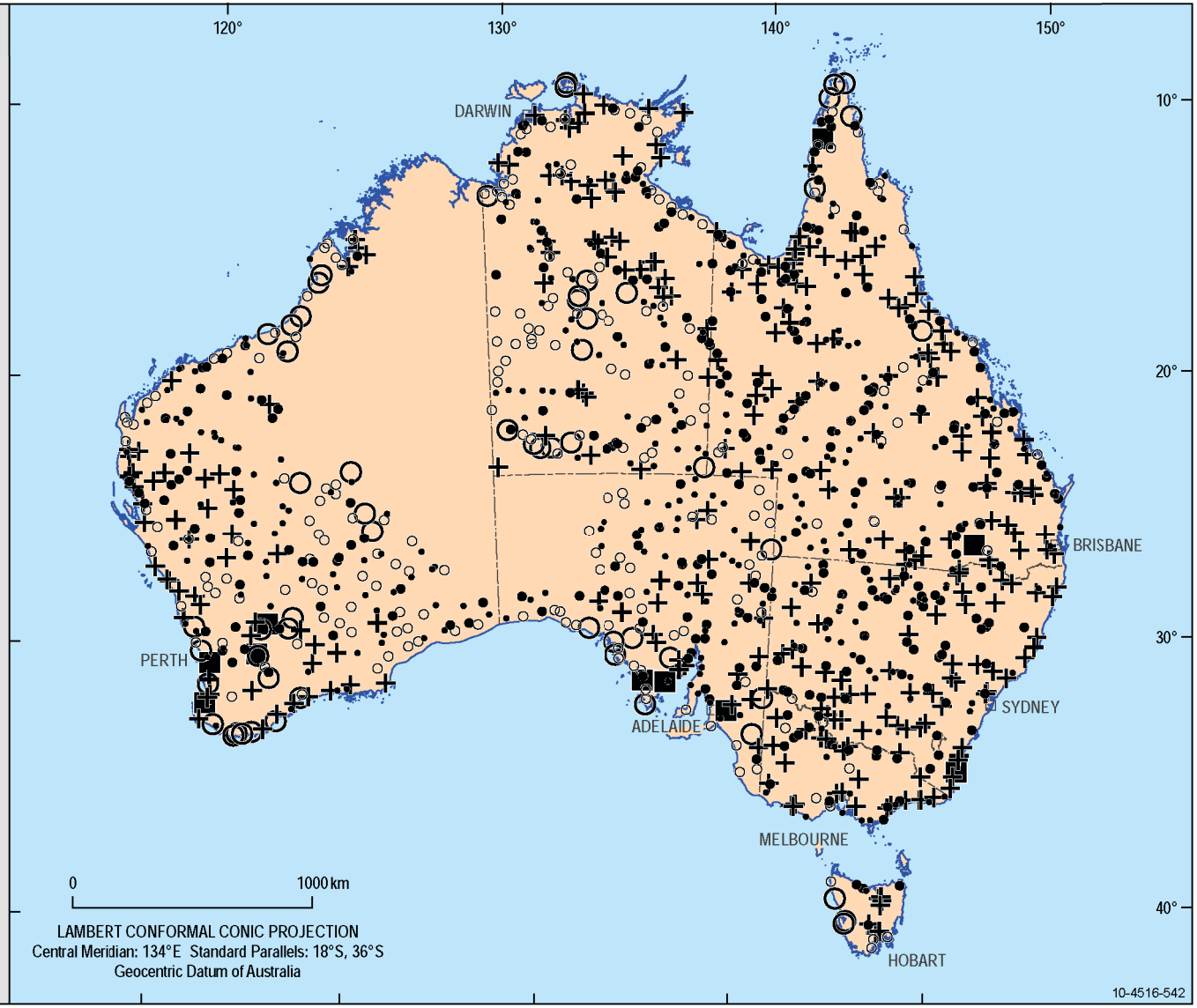
25%: *1.9 mg/kg*

Lower Fence: *0.9 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Er

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *4.9 mg/kg*

Upper Fence: *2.7 mg/kg*

75%: *1.4 mg/kg*

Median: *1.1 mg/kg*

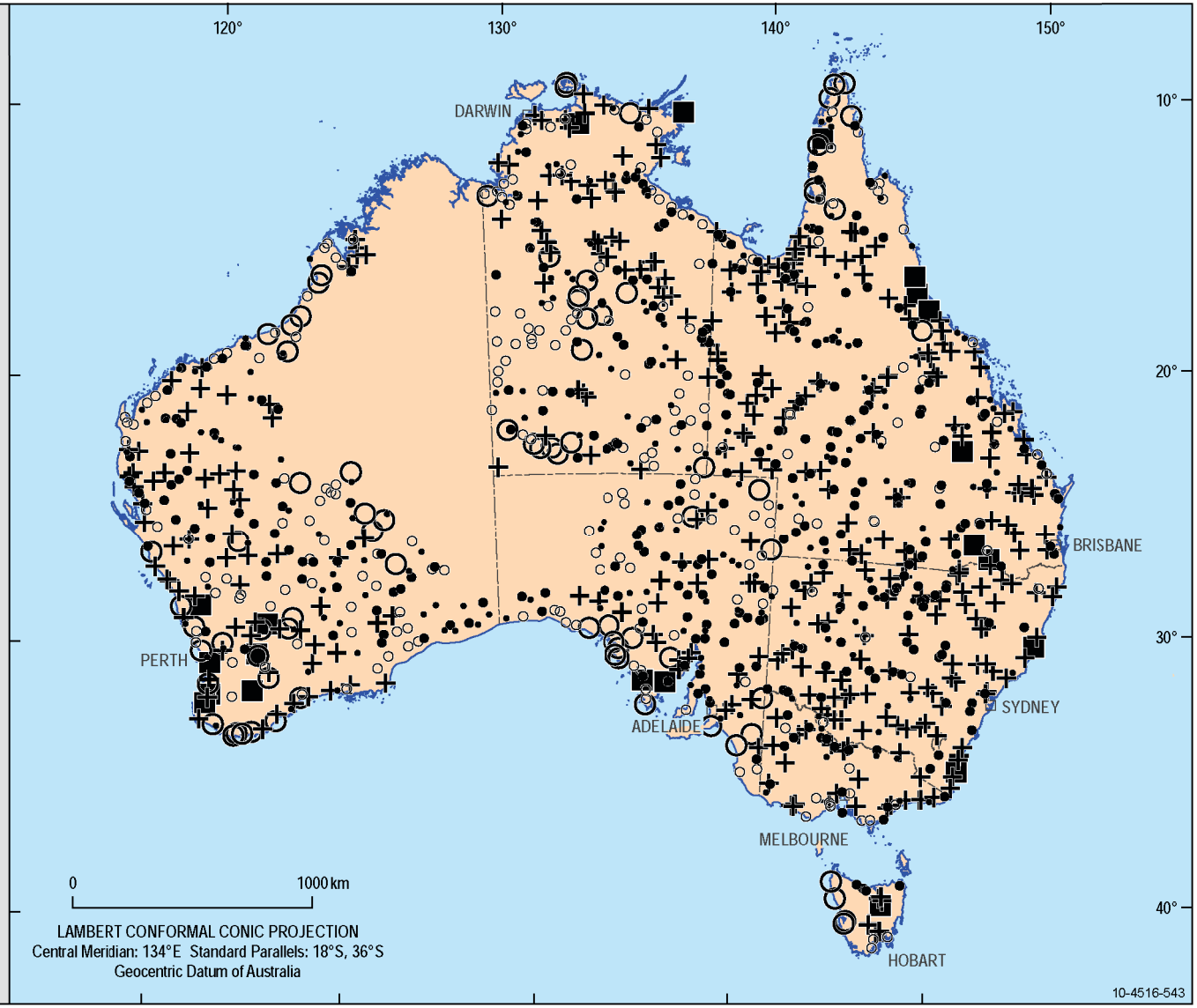
25%: *0.9 mg/kg*

Lower Fence: *0.5 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Eu

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *3.6 mg/kg*

Upper Fence: *2.2 mg/kg*

75%: *1 mg/kg*

Median: *0.8 mg/kg*

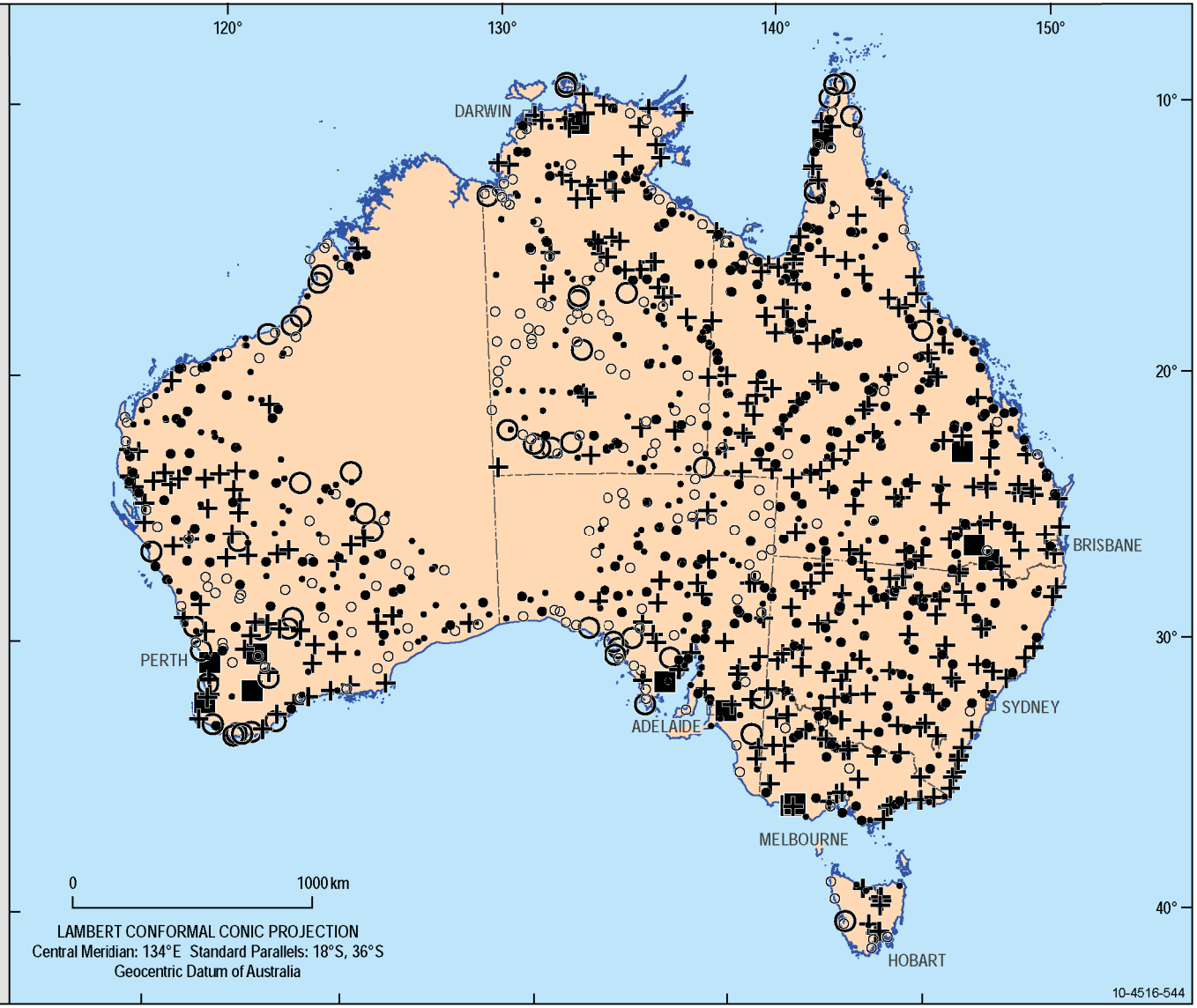
25%: *0.6 mg/kg*

Lower Fence: *0.3 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Fe

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 100 mg/kg
N: 1179

Maximum: *212000 mg/kg*

Upper Fence: *96512 mg/kg*

75%: *36700 mg/kg*

Median: *26700 mg/kg*

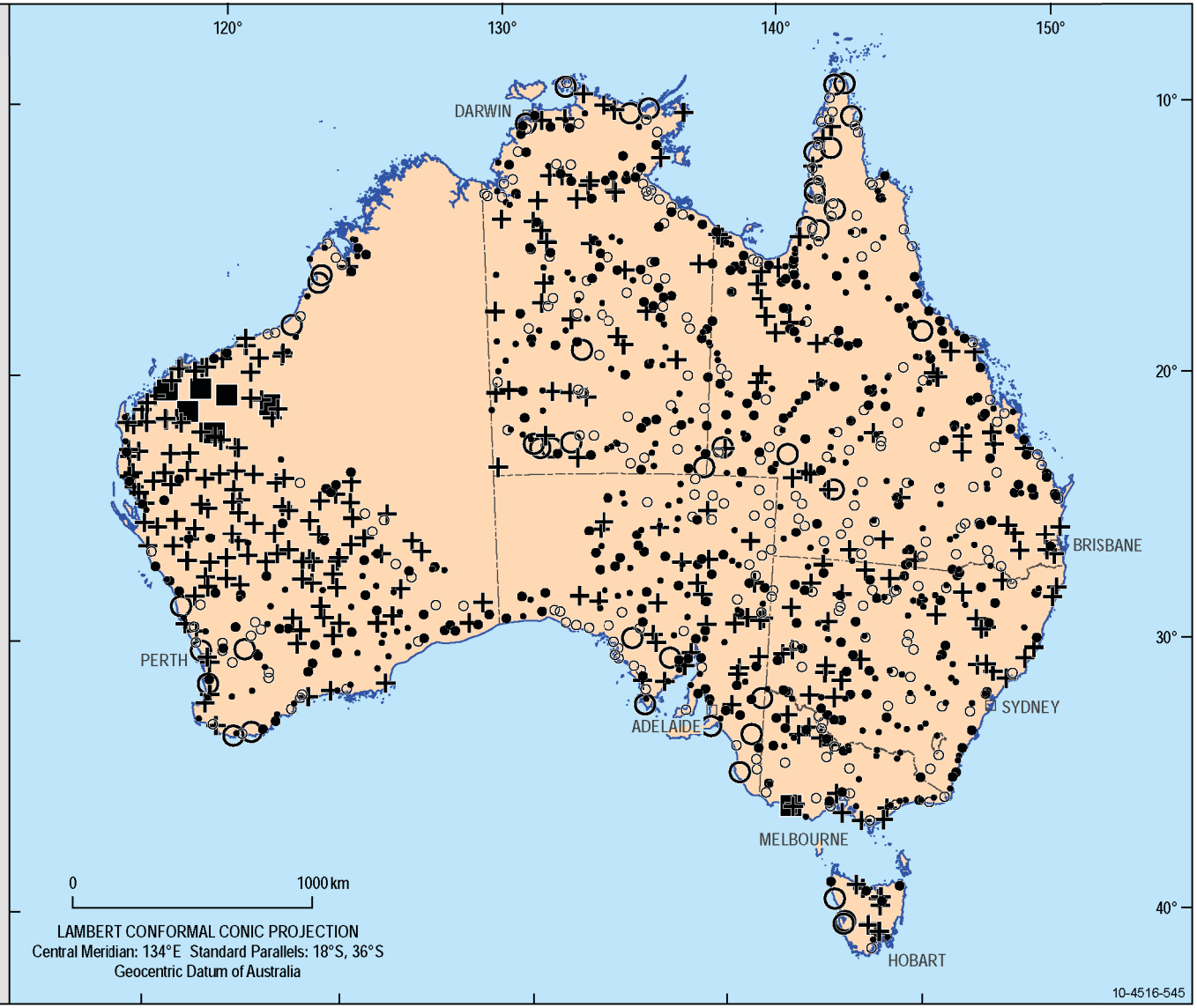
25%: *18800 mg/kg*

Lower Fence: *6787 mg/kg*

Minimum: *Less than 100 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ga

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1179

Maximum: *35.2 mg/kg*

Upper Fence: *26.27 mg/kg*

75%: *8.93 mg/kg*

Median: *6.39 mg/kg*

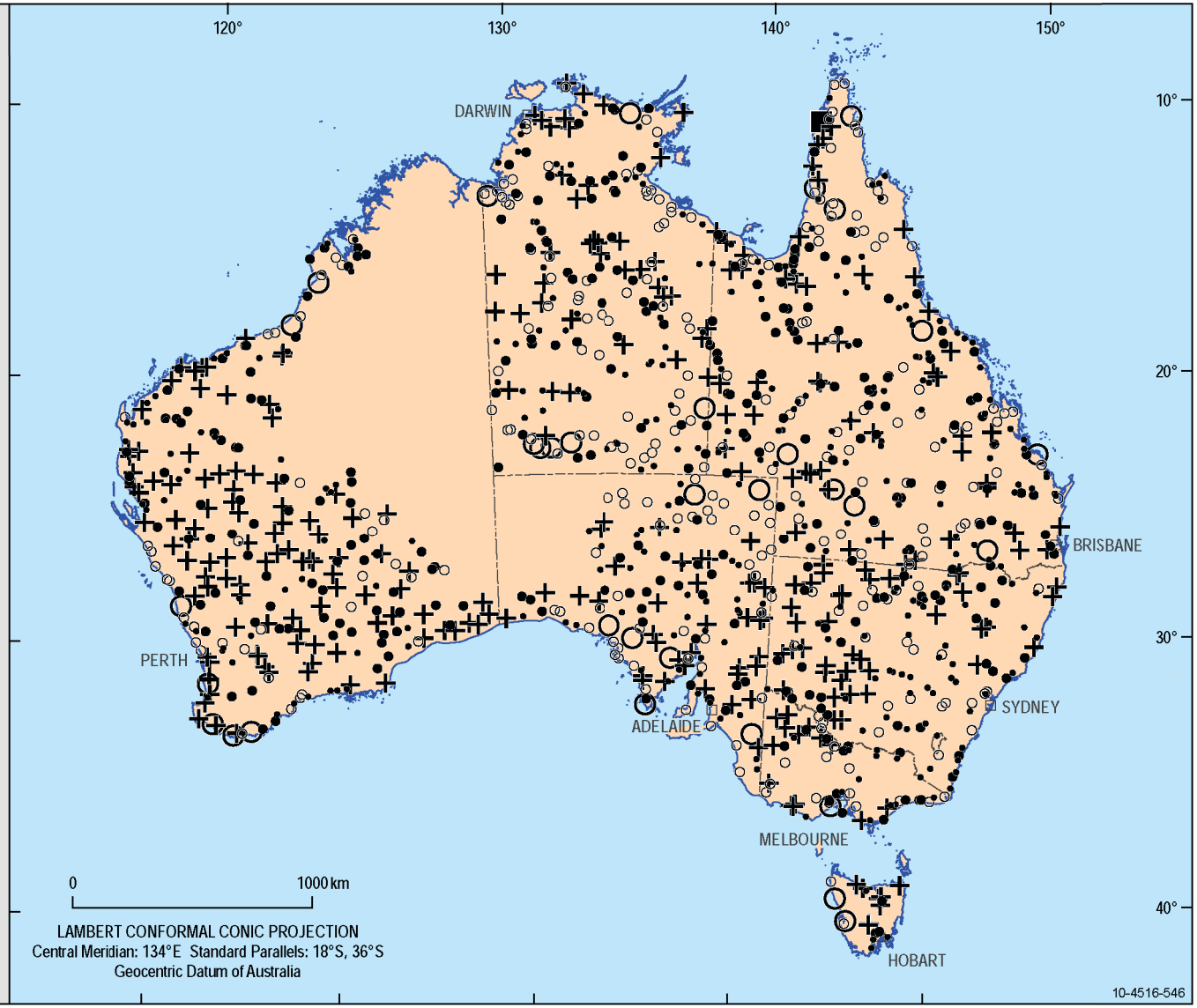
25%: *4.35 mg/kg*

Lower Fence: *1.48 mg/kg*

Minimum: *0.05 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Gd

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *16.6 mg/kg*

Upper Fence: *9.7 mg/kg*

75%: *4.4 mg/kg*

Median: *3.4 mg/kg*

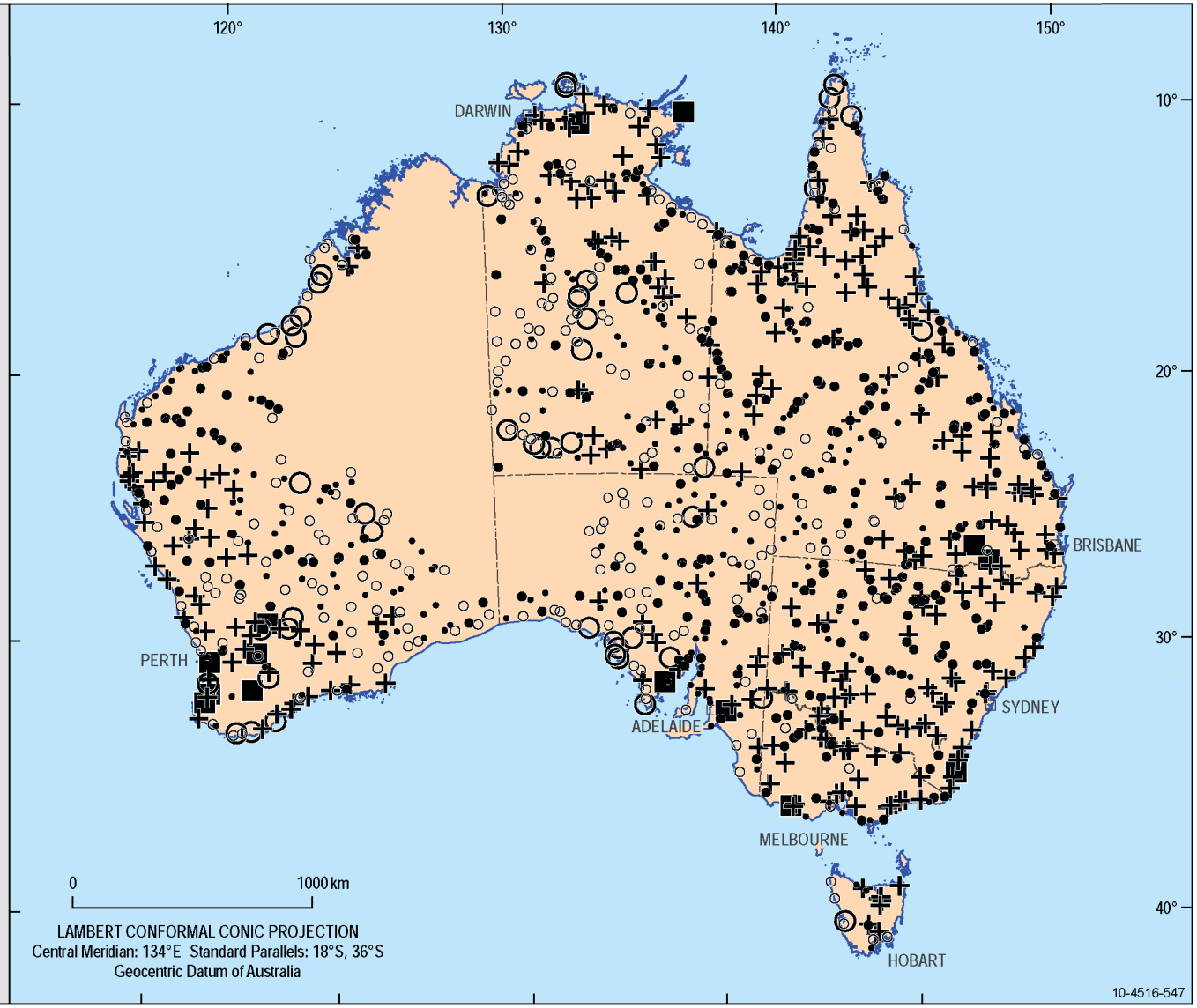
25%: *2.6 mg/kg*

Lower Fence: *1.2 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ge

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *0.3 mg/kg*

Upper Fence: *0.3 mg/kg*

75%: *0.1 mg/kg*

Median: *N/A**

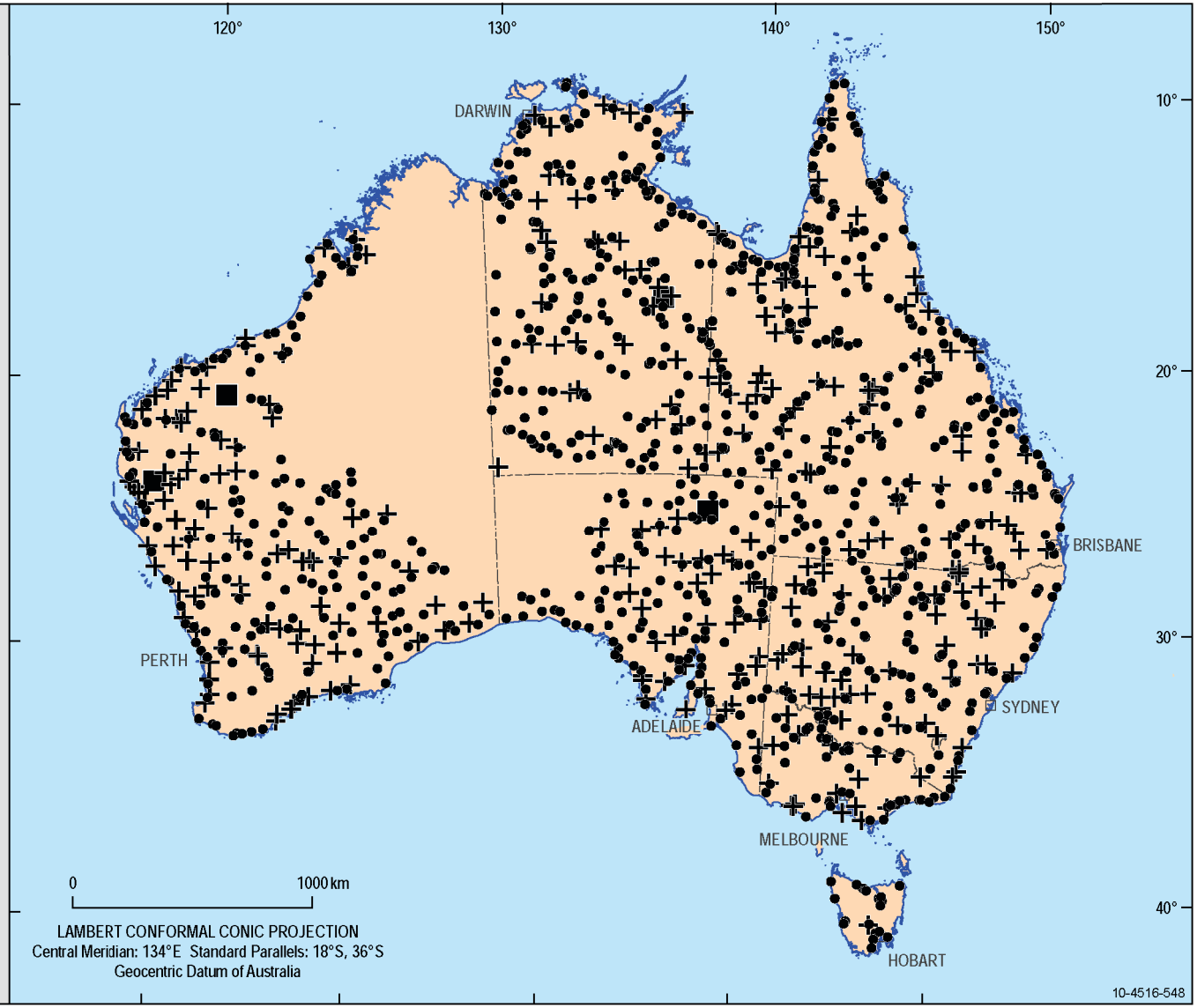
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Hf

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *2.3 mg/kg*

Upper Fence: *1.6 mg/kg*

75%: *0.2 mg/kg*

Median: *0.1 mg/kg*

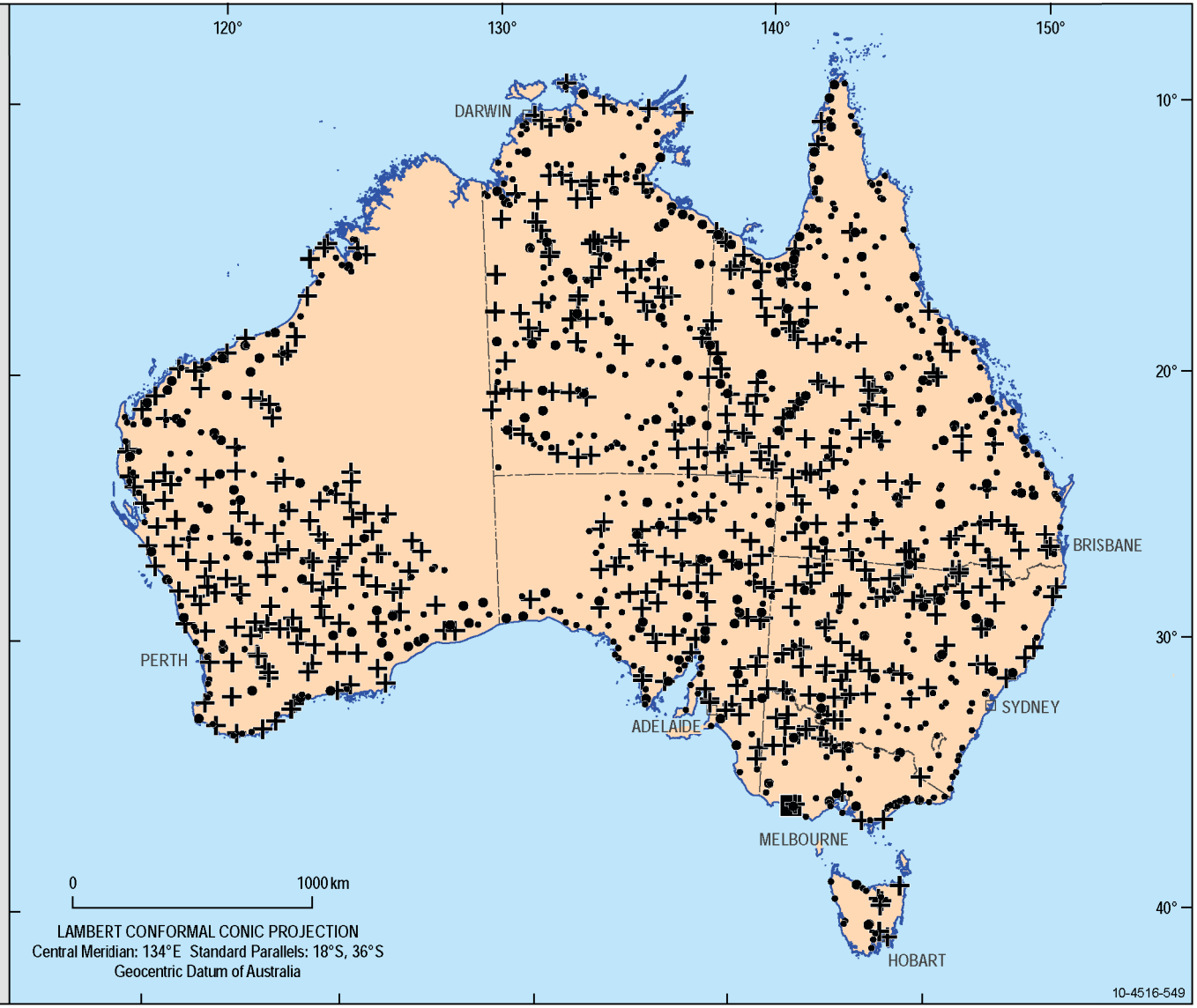
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Hg

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1179

Maximum: *0.6 mg/kg*

Upper Fence: *0.44 mg/kg*

75%: *0.03 mg/kg*

Median: *0.02 mg/kg*

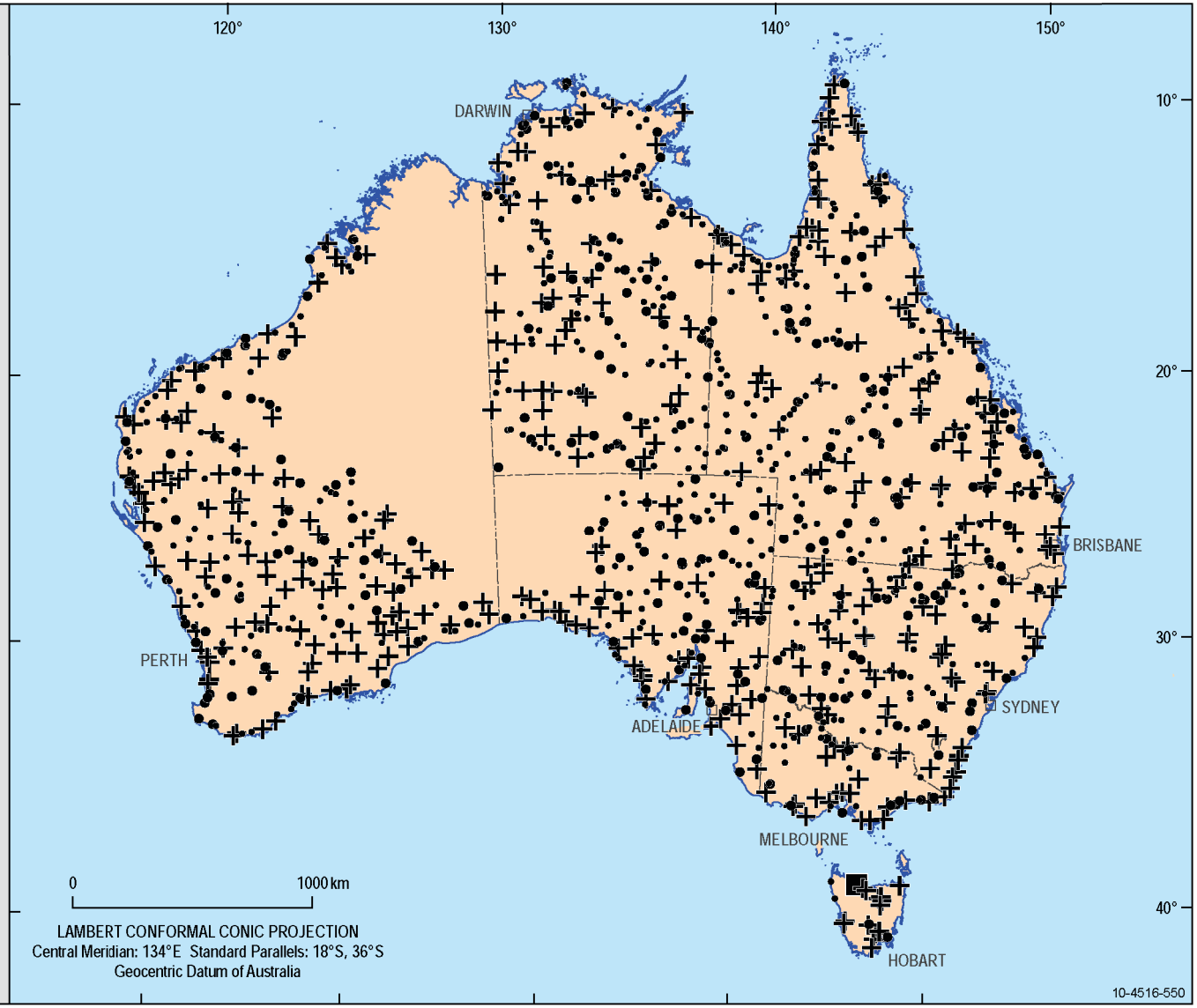
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ho

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *2.1 mg/kg*

Upper Fence: *1.7 mg/kg*

75%: *0.6 mg/kg*

Median: *0.5 mg/kg*

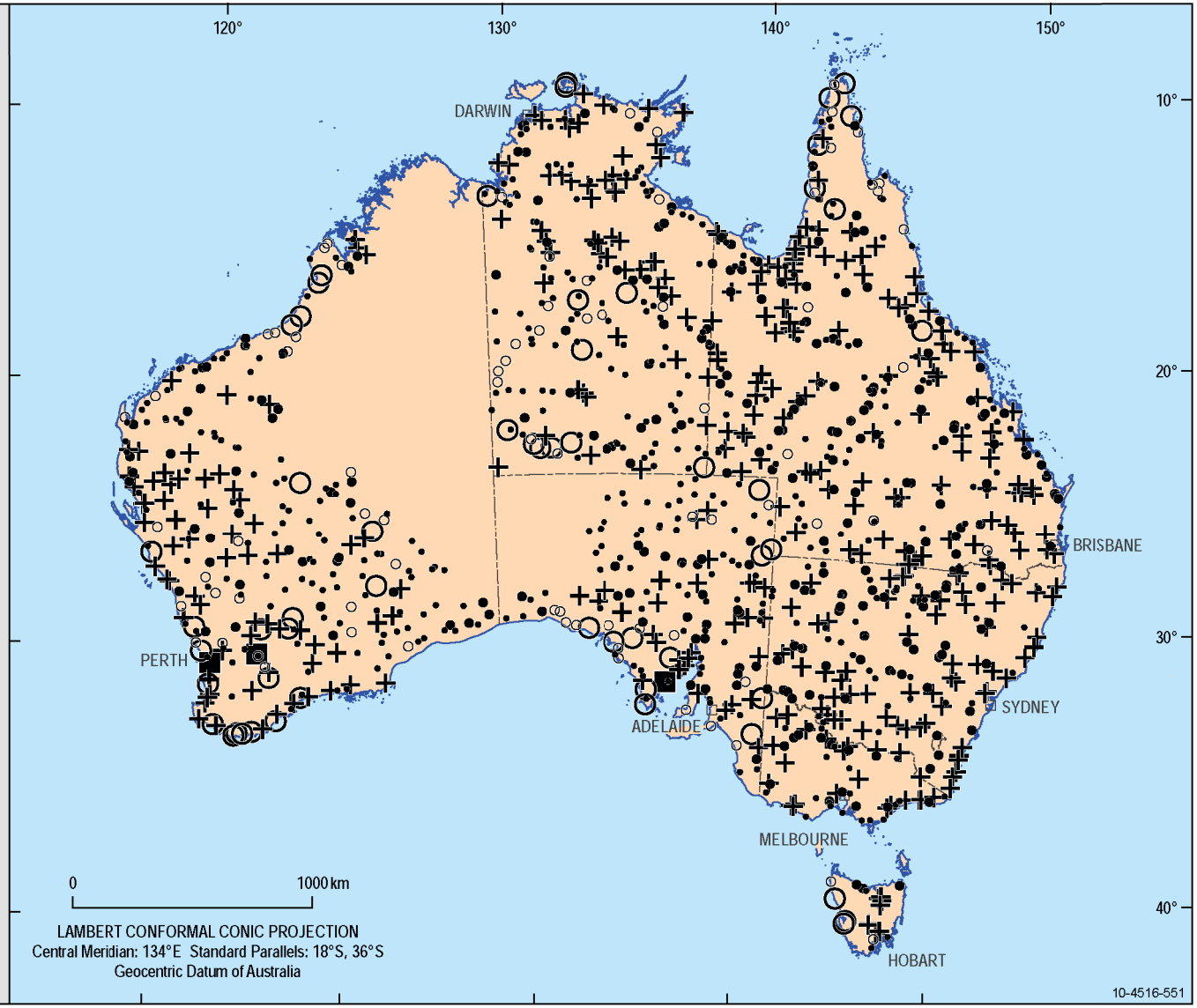
25%: *0.3 mg/kg*

Lower Fence: *0.1 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

In

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1179

Maximum: *0.24 mg/kg*

Upper Fence: *N/A**

75%: *0.04 mg/kg*

Median: *0.03 mg/kg*

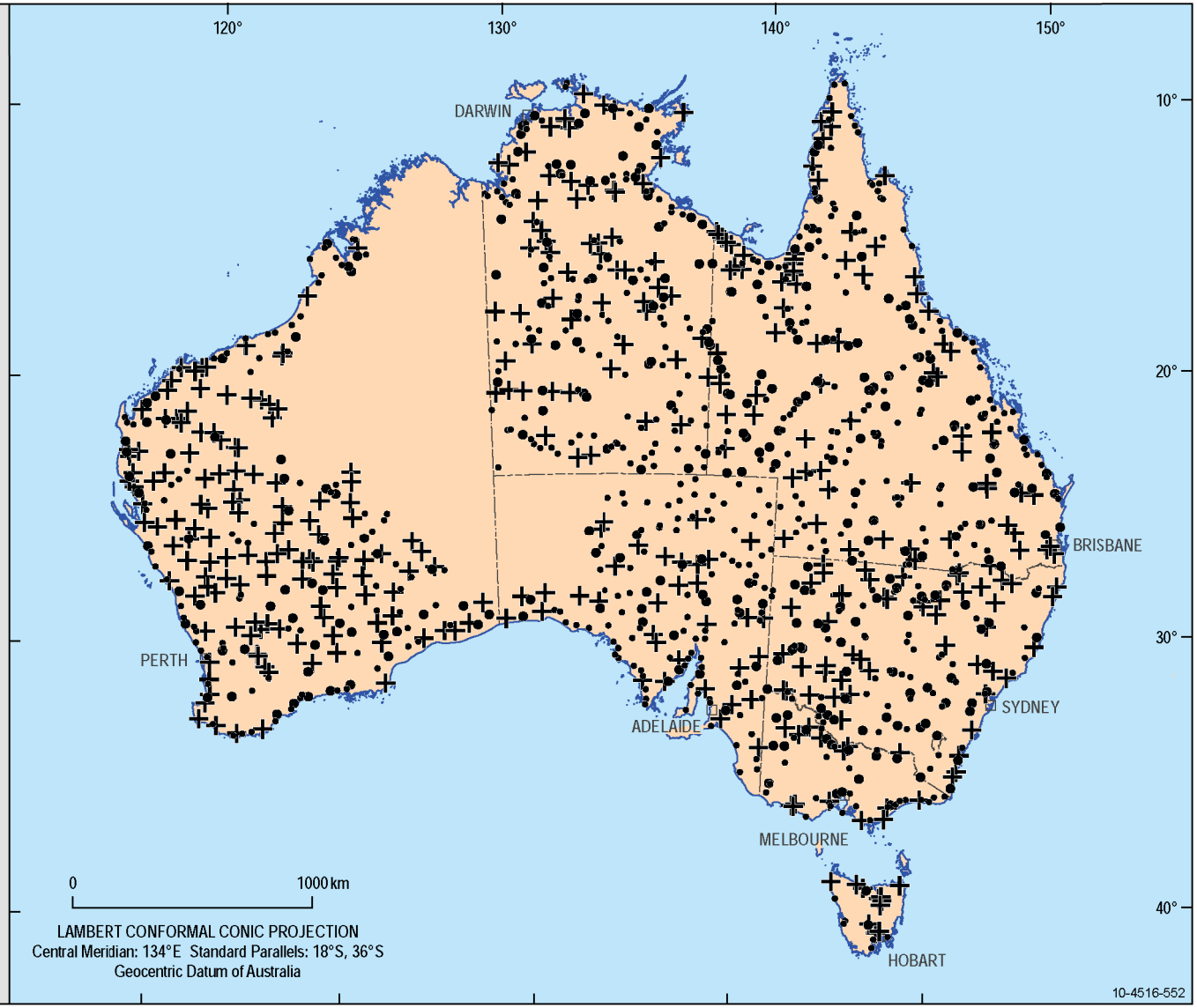
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

K

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 100 mg/kg
N: 1179

Maximum: *26900 mg/kg*

Upper Fence: *N/A**

75%: *4800 mg/kg*

Median: *2500 mg/kg*

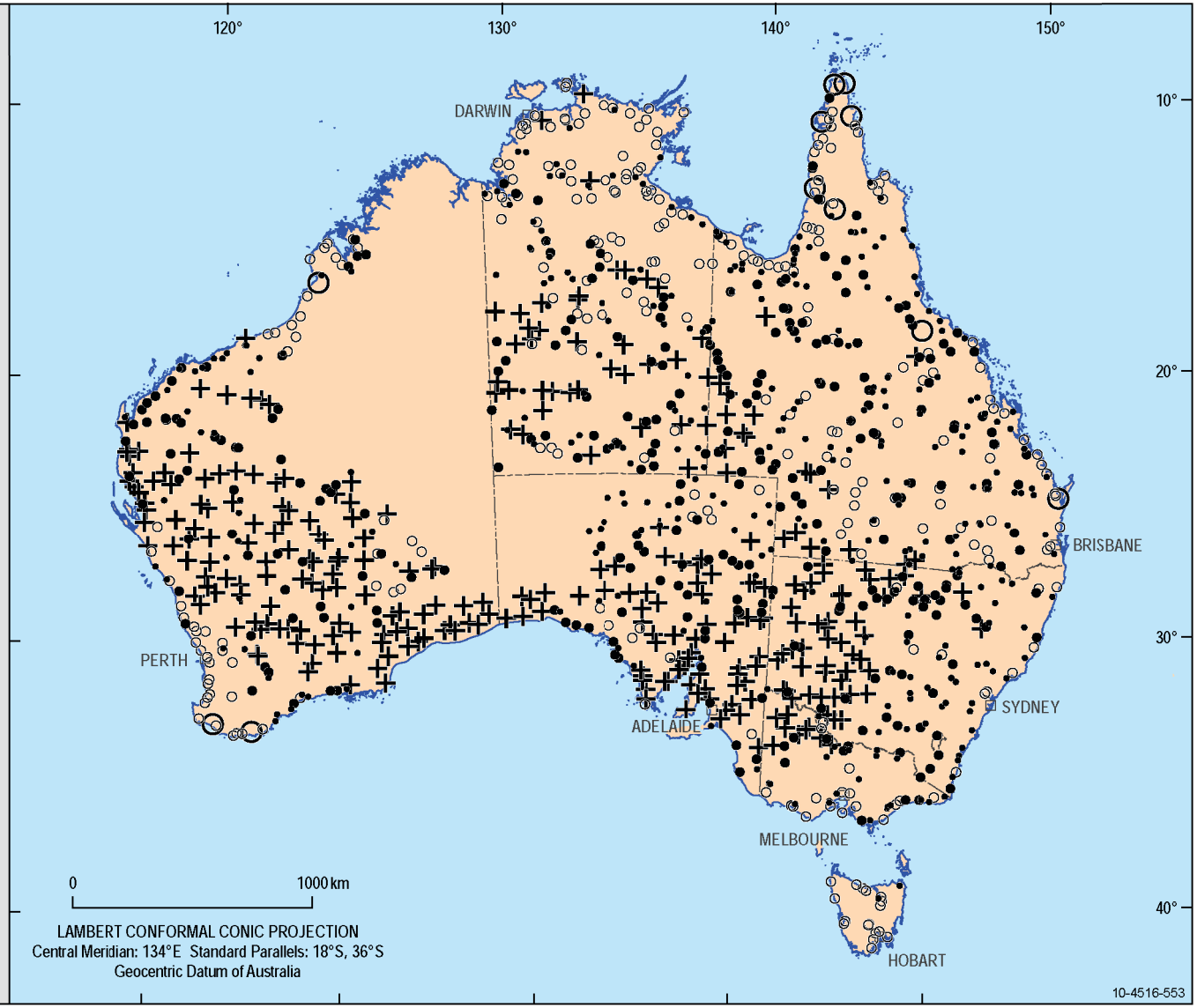
25%: *1300 mg/kg*

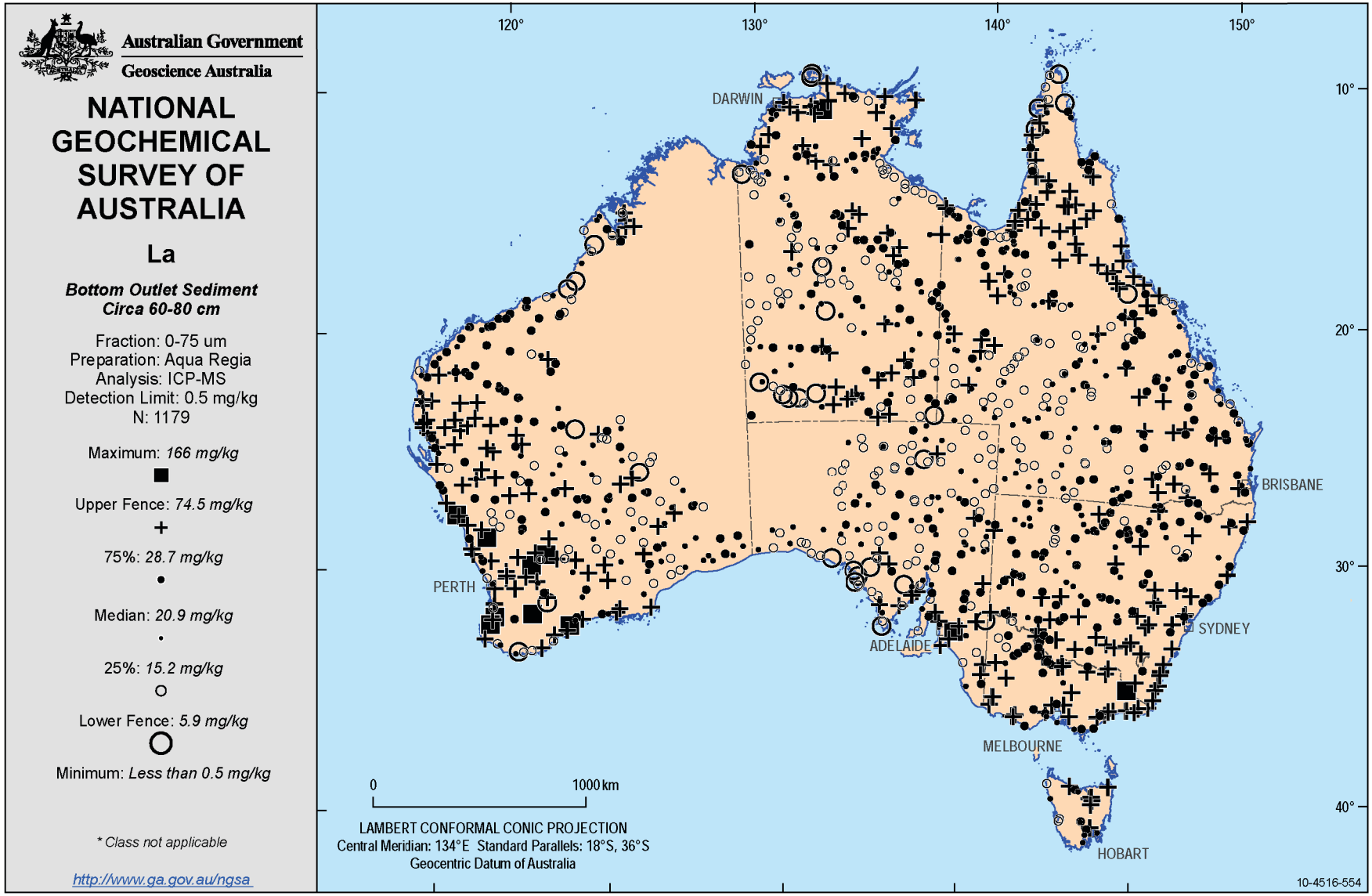
Lower Fence: *182 mg/kg*

Minimum: *Less than 100 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
La
Bottom Outlet Sediment
Circa 60-80 cm
Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.5 mg/kg
N: 1179
Maximum: 166 mg/kg
Upper Fence: 74.5 mg/kg
75%: 28.7 mg/kg
Median: 20.9 mg/kg
25%: 15.2 mg/kg
Lower Fence: 5.9 mg/kg
Minimum: Less than 0.5 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
BRISBANE
SYDNEY
MELBOURNE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-554

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Li

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *86.5 mg/kg*

Upper Fence: *66.7 mg/kg*

75%: *16.5 mg/kg*

Median: *10.9 mg/kg*

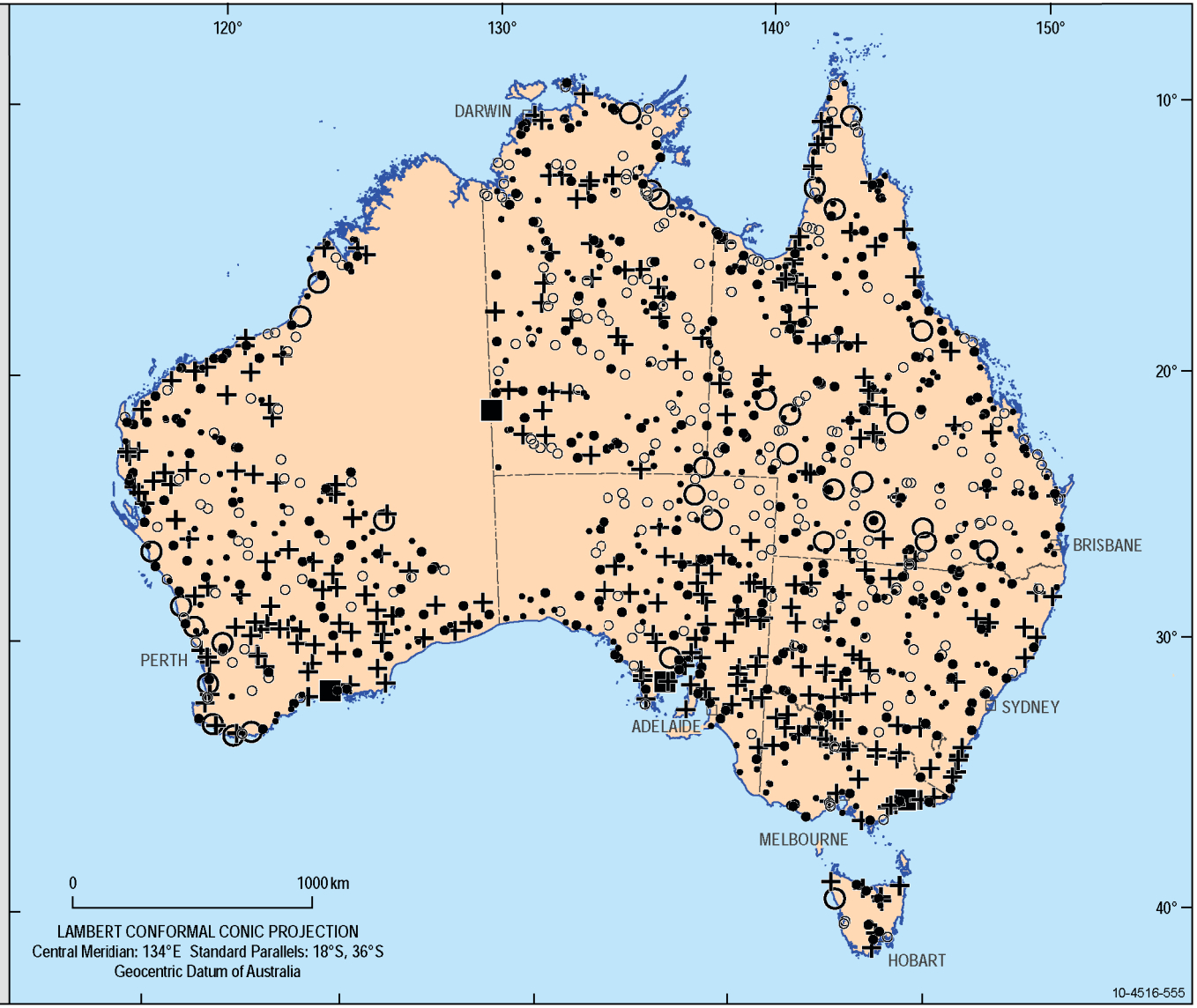
25%: *6.5 mg/kg*

Lower Fence: *1.6 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Lu

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *0.6 mg/kg*

Upper Fence: *N/A**

75%: *0.2 mg/kg*

Median: *0.1 mg/kg*

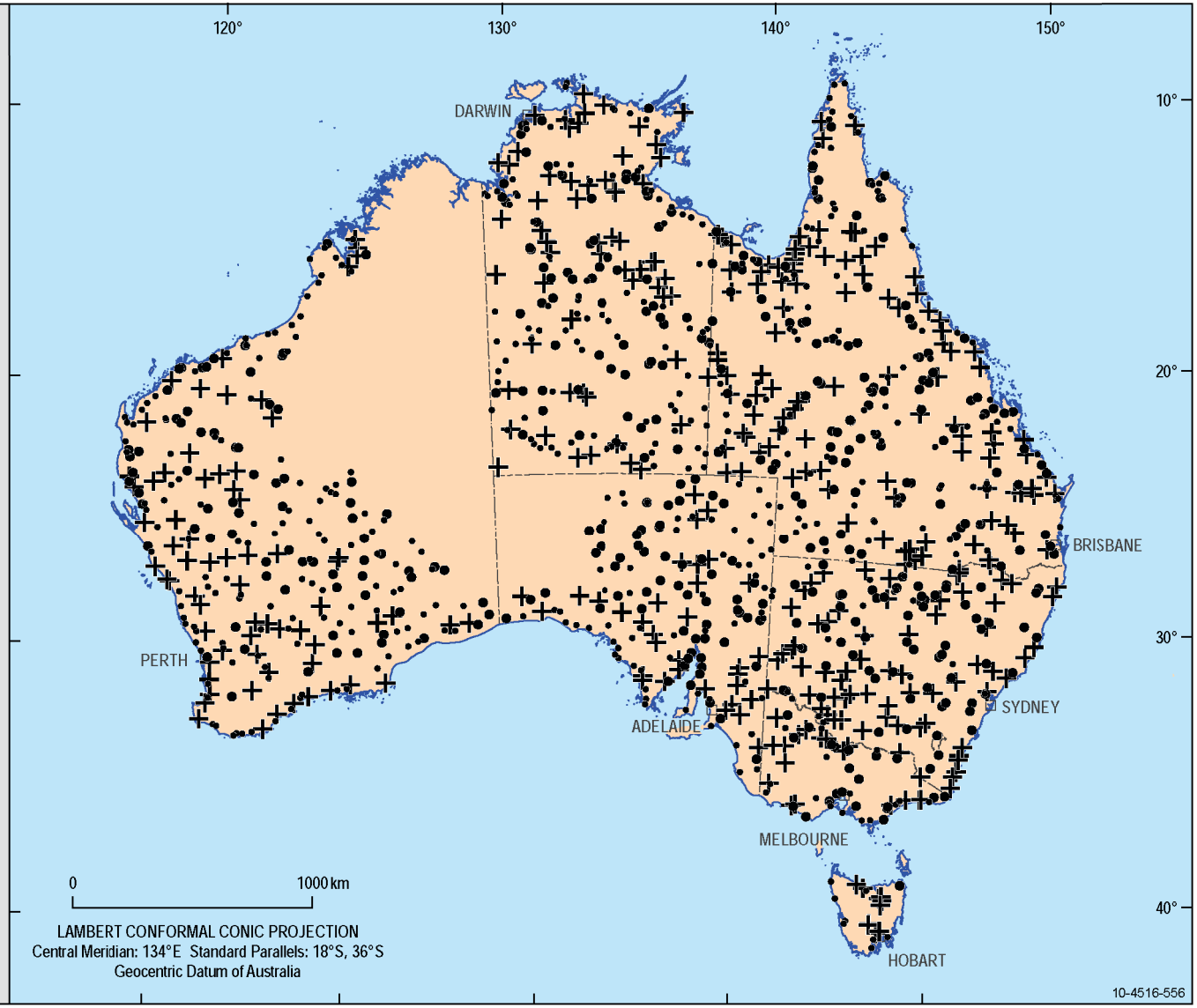
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Mg

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 100 mg/kg
N: 1179

Maximum: *51300 mg/kg*

Upper Fence: *34225 mg/kg*

75%: *5900 mg/kg*

Median: *3400 mg/kg*

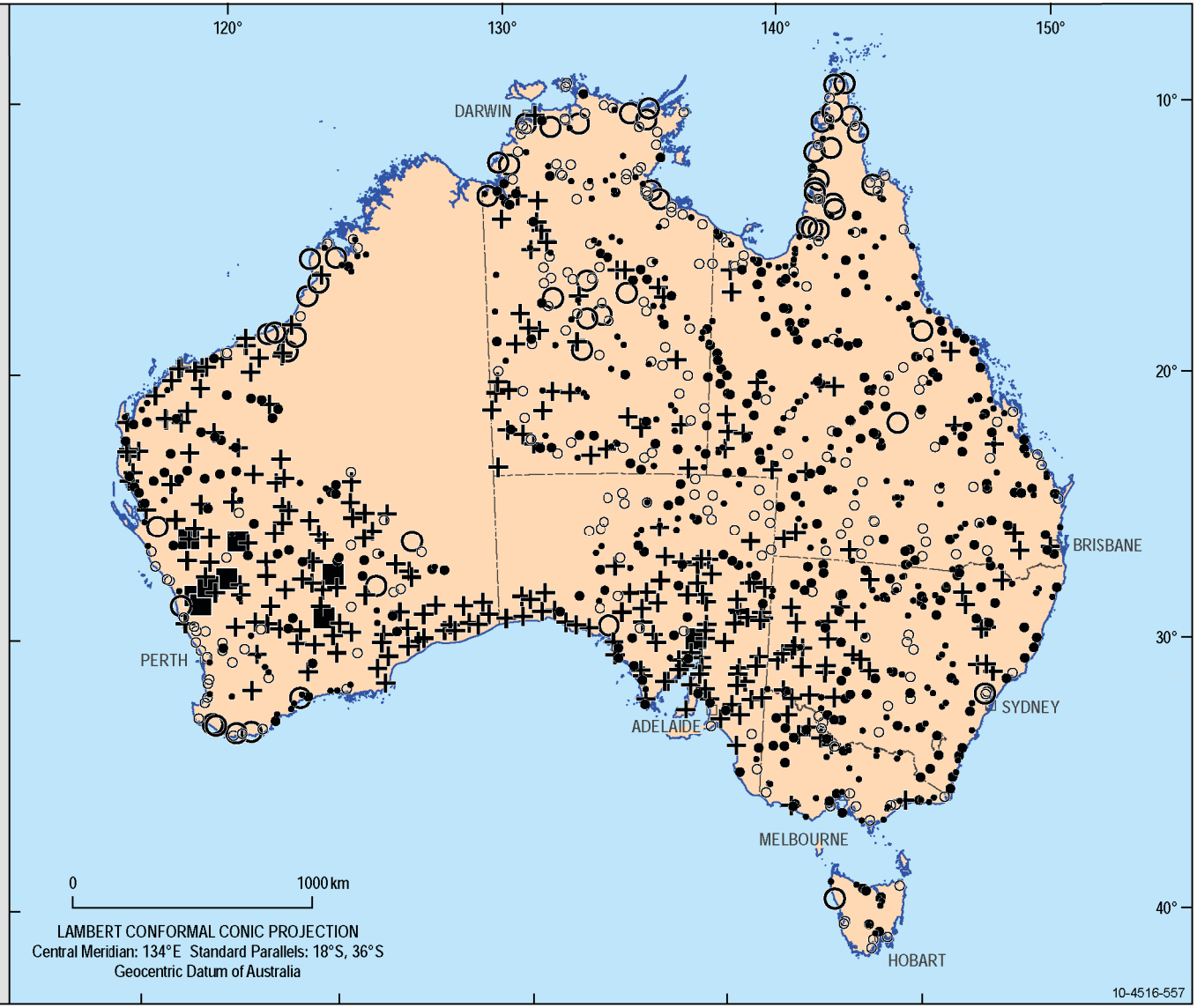
25%: *1800 mg/kg*

Lower Fence: *302 mg/kg*

Minimum: *Less than 100 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Mn

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 1 mg/kg
N: 1179

Maximum: *5380 mg/kg*

Upper Fence: *3225 mg/kg*

75%: *605 mg/kg*

Median: *380 mg/kg*

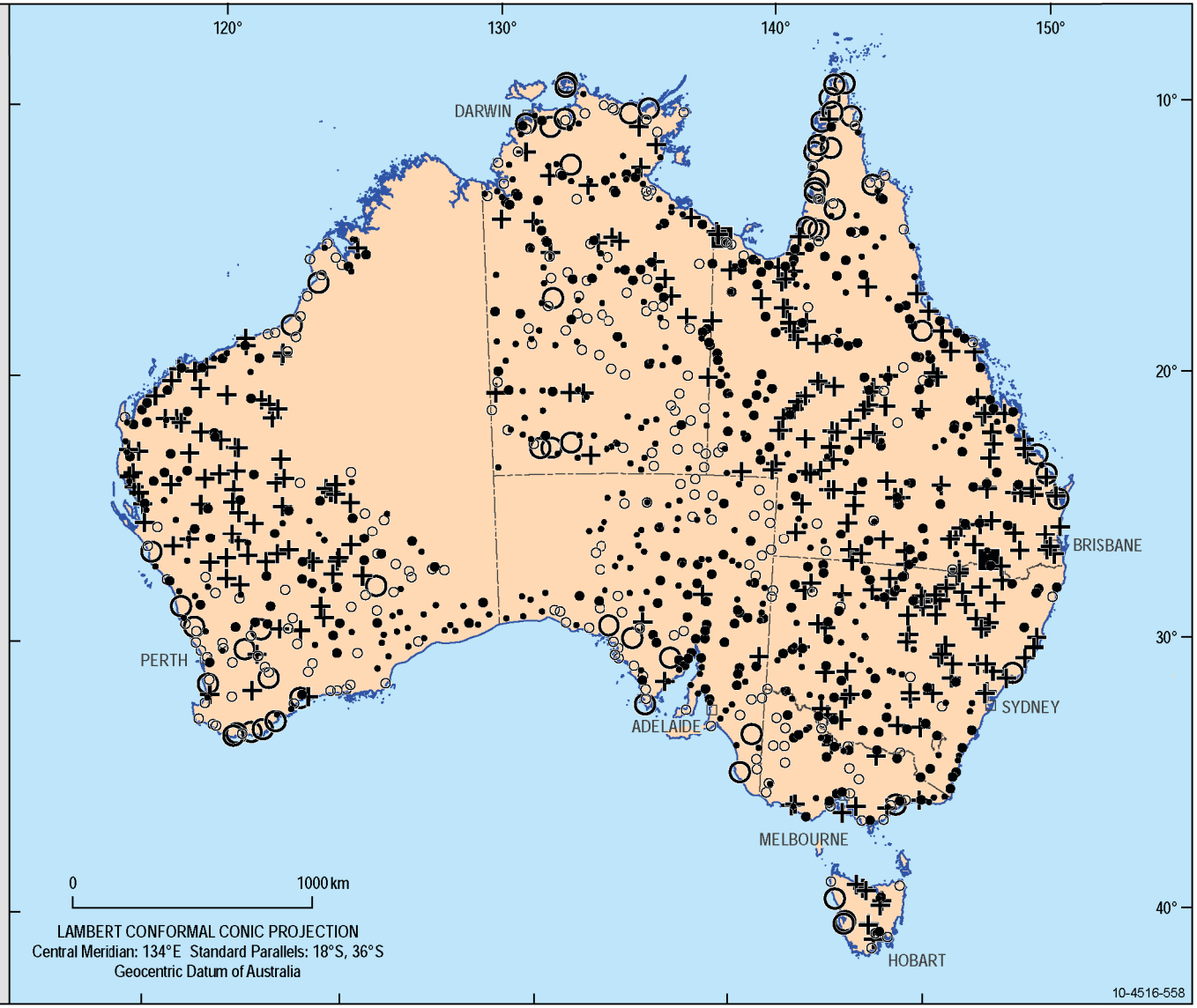
25%: *198 mg/kg*

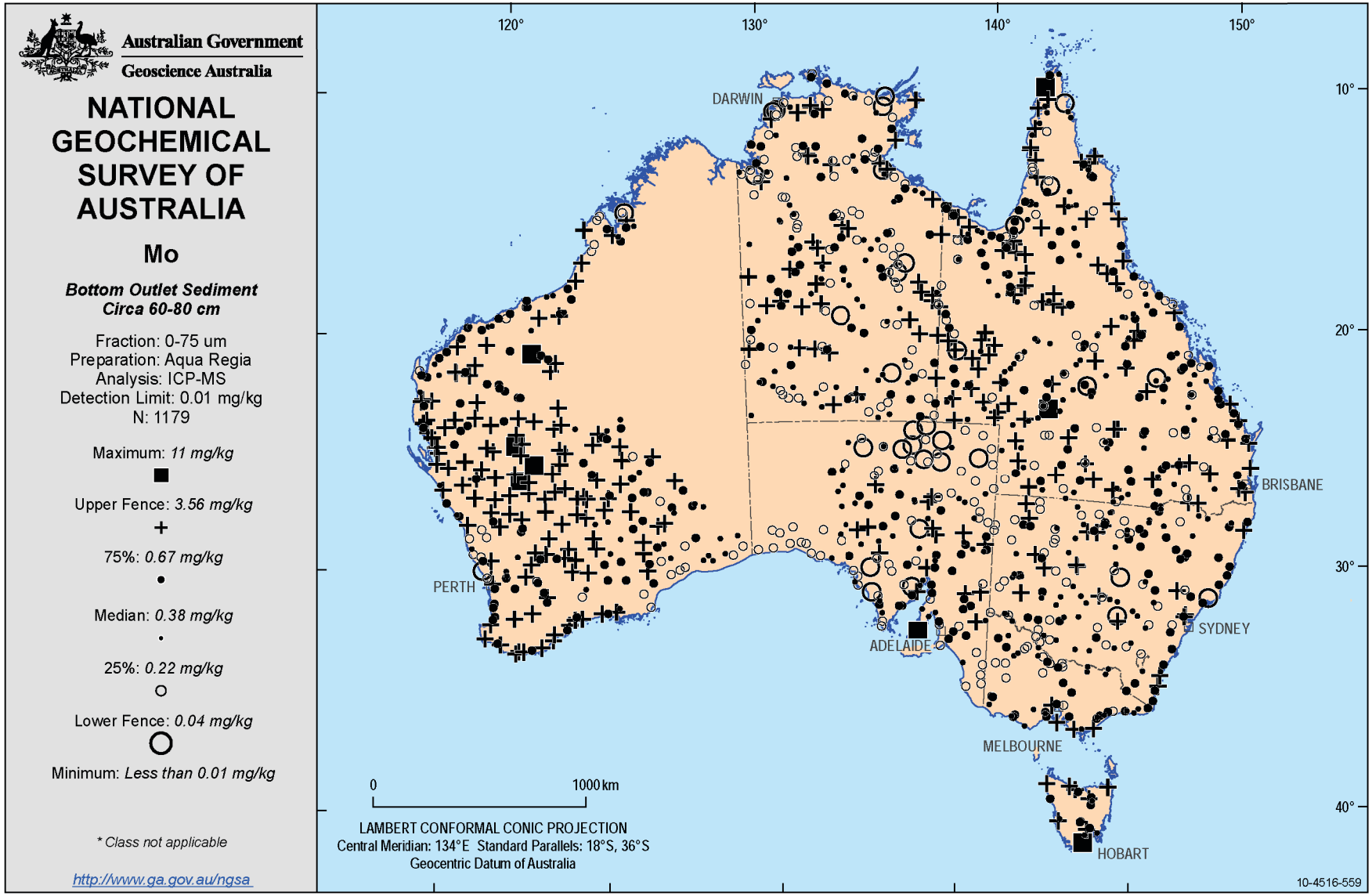
Lower Fence: *37 mg/kg*

Minimum: *1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Mo
Bottom Outlet Sediment
Circa 60-80 cm
Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1179
Maximum: 11 mg/kg
Upper Fence: 3.56 mg/kg
75%: 0.67 mg/kg
Median: 0.38 mg/kg
25%: 0.22 mg/kg
Lower Fence: 0.04 mg/kg
Minimum: Less than 0.01 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
MELBOURNE
SYDNEY
BRISBANE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-559

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Na

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 10 mg/kg
N: 1179

Maximum: *36700 mg/kg*

Upper Fence: *N/A**

75%: *1980 mg/kg*

Median: *490 mg/kg*

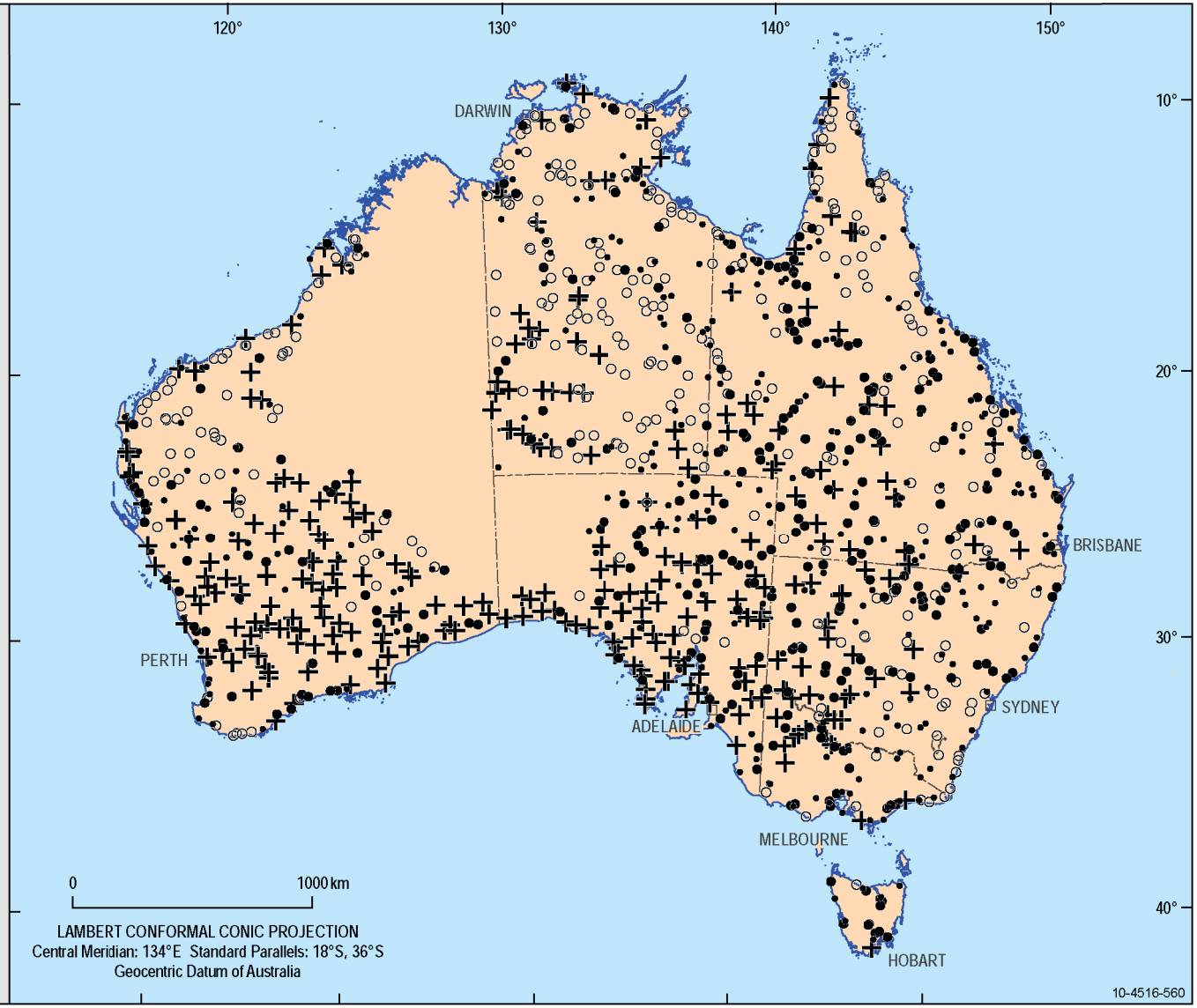
25%: *170 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 10 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Nb

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *6.5 mg/kg*

Upper Fence: *4.4 mg/kg*

75%: *0.3 mg/kg*

Median: *0.2 mg/kg*

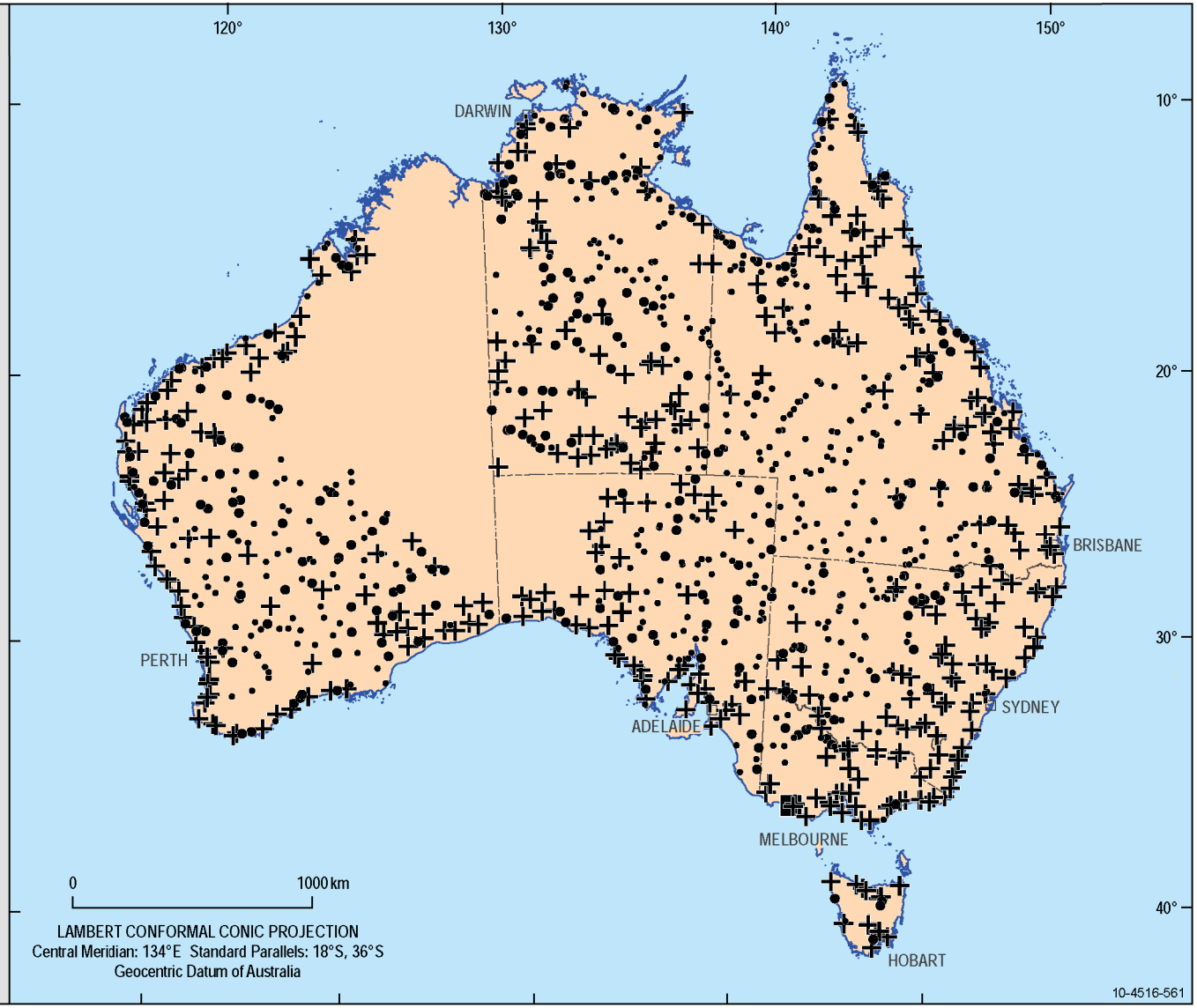
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Nd

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1179

Maximum: *104 mg/kg*

Upper Fence: *57.58 mg/kg*

75%: *25.1 mg/kg*

Median: *19 mg/kg*

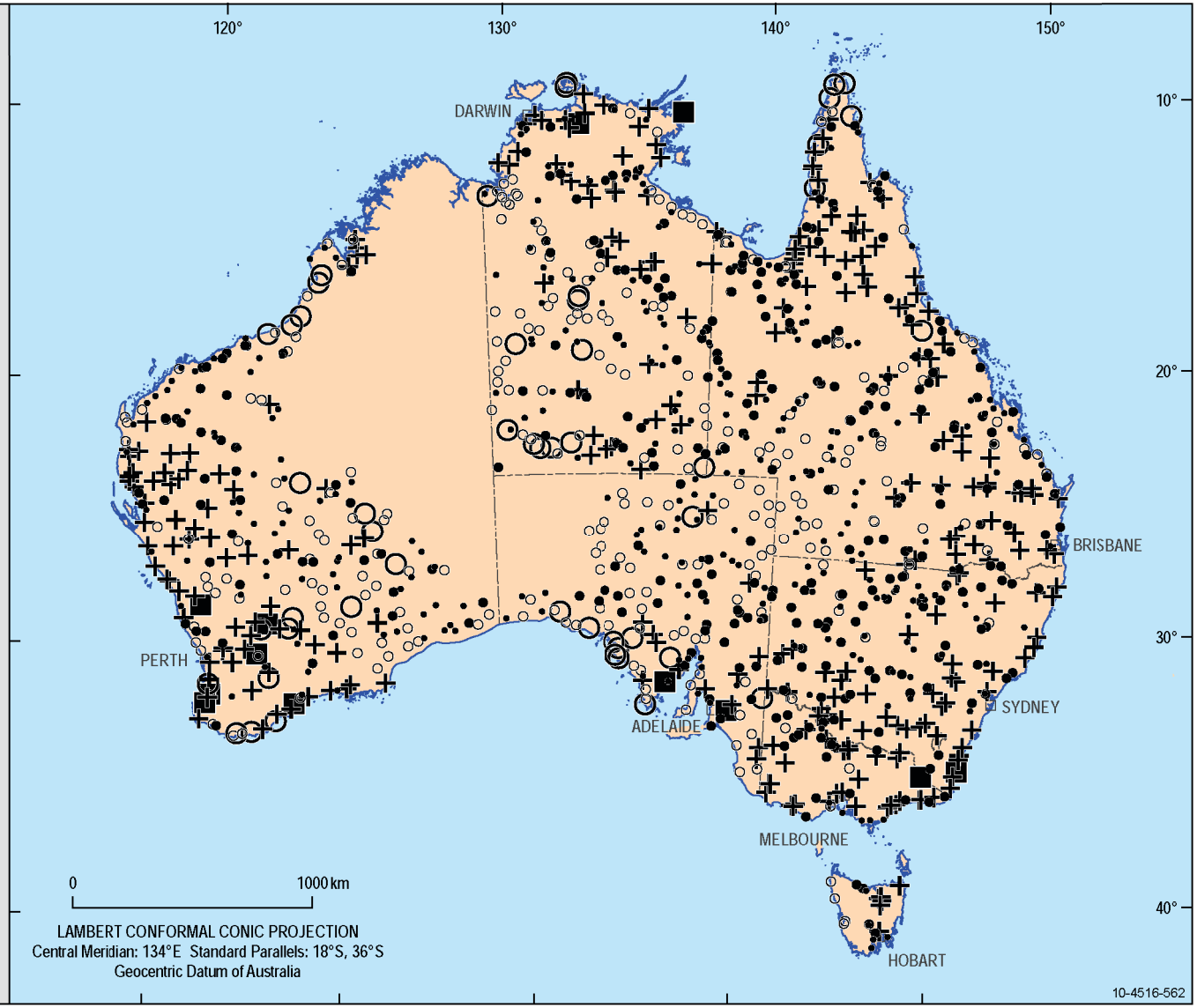
25%: *14.6 mg/kg*

Lower Fence: *6.48 mg/kg*

Minimum: *0.09 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ni

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *554 mg/kg*

Upper Fence: *90.2 mg/kg*

75%: *25.1 mg/kg*

Median: *16.9 mg/kg*

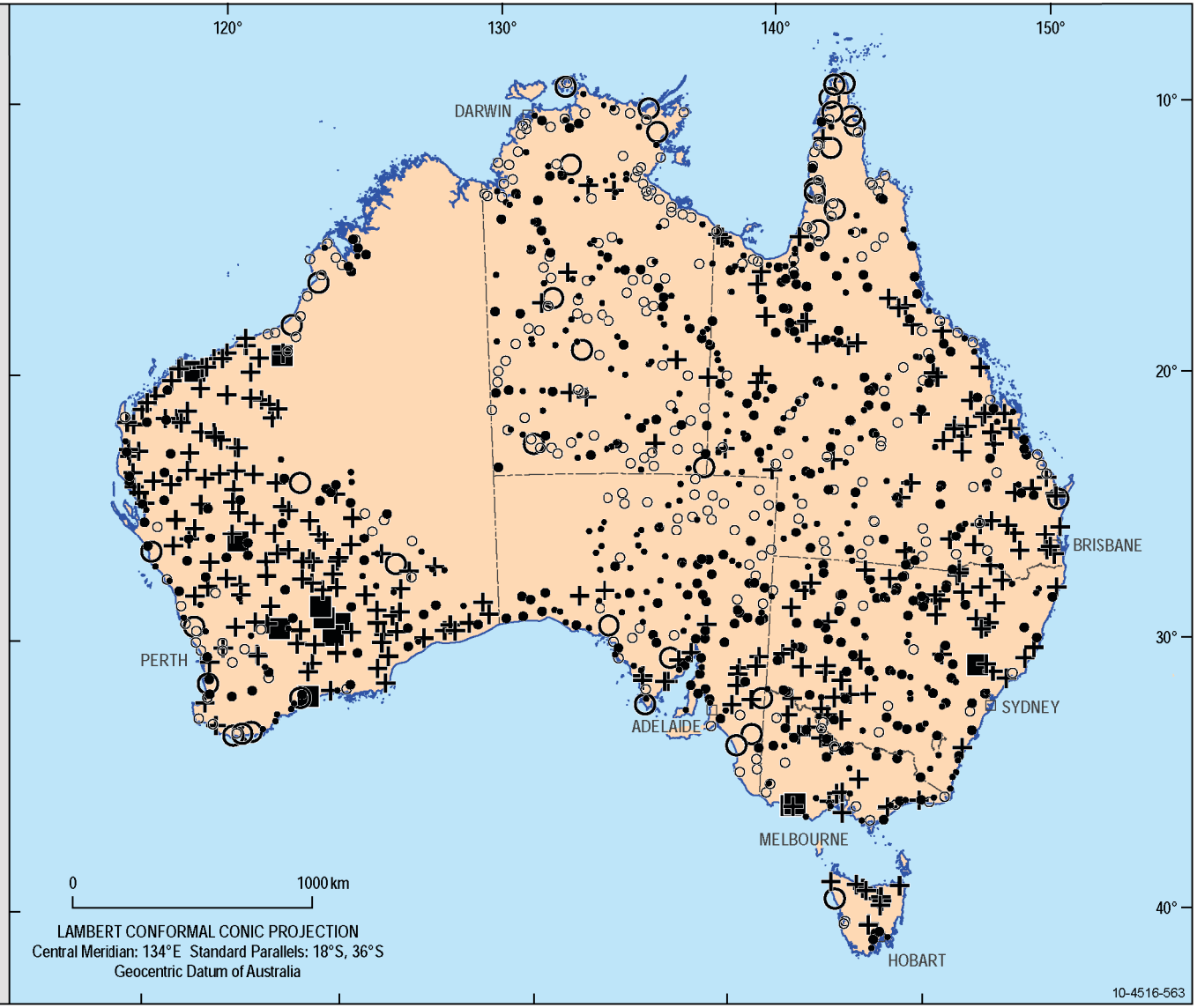
25%: *10.7 mg/kg*

Lower Fence: *3 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Pb

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1179

Maximum: *146 mg/kg*

Upper Fence: *36.06 mg/kg*

75%: *14.1 mg/kg*

Median: *10.5 mg/kg*

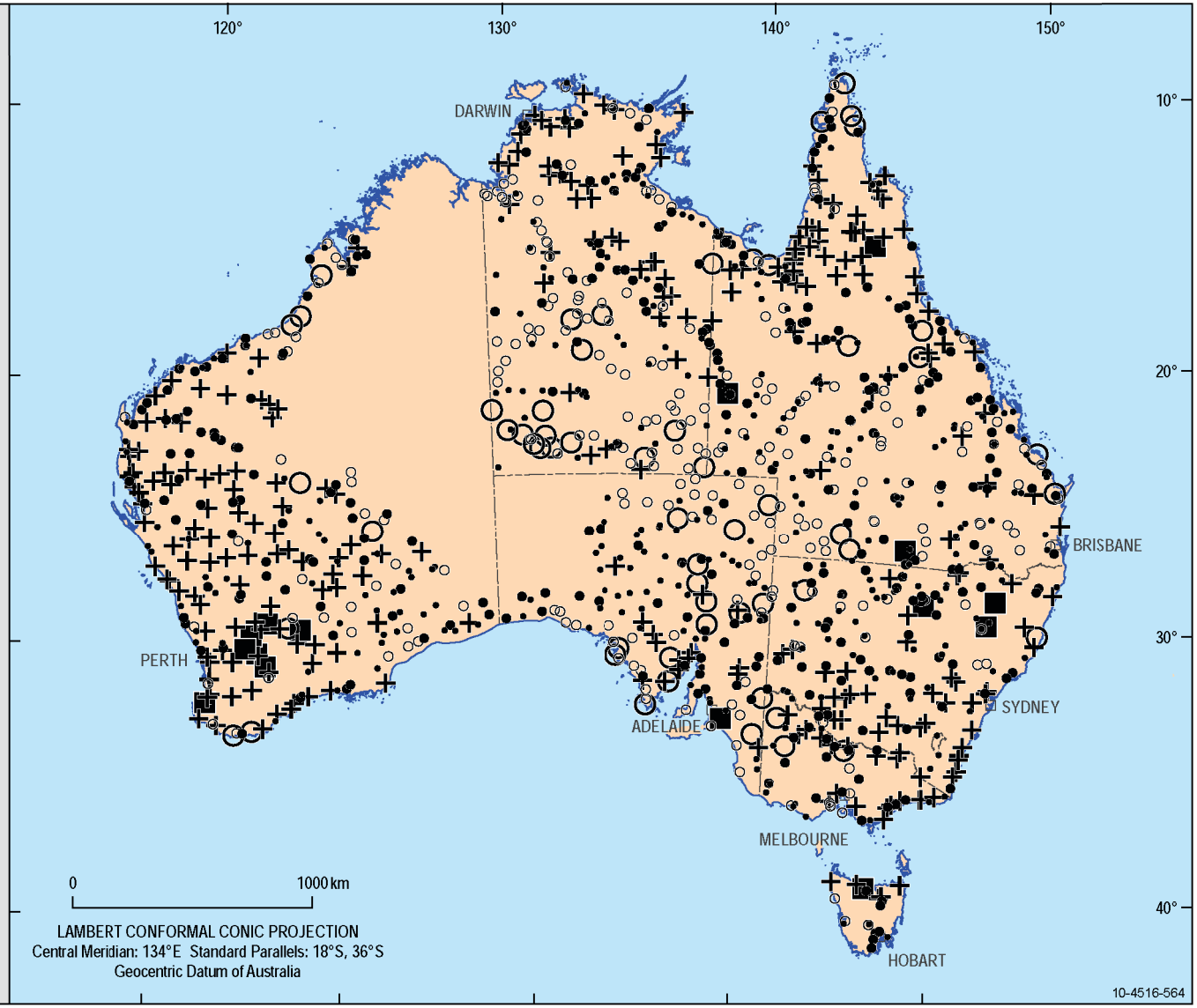
25%: *7.54 mg/kg*

Lower Fence: *2.95 mg/kg*

Minimum: *0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Pr

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *30.1 mg/kg*

Upper Fence: *15.1 mg/kg*

75%: *6.6 mg/kg*

Median: *4.9 mg/kg*

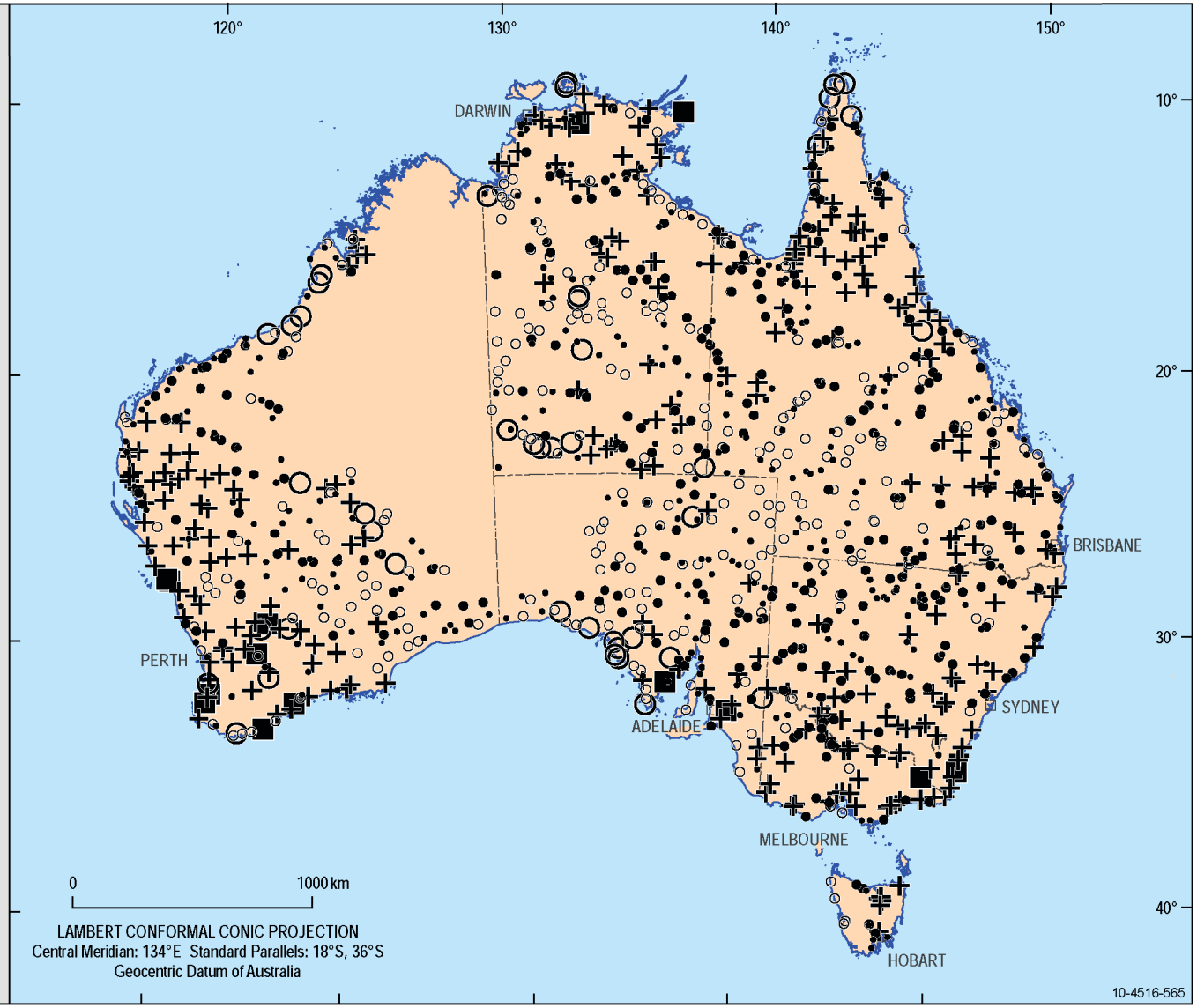
25%: *3.8 mg/kg*

Lower Fence: *1.7 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Rb

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *108 mg/kg*

Upper Fence: *N/A**

75%: *32.4 mg/kg*

Median: *21.1 mg/kg*

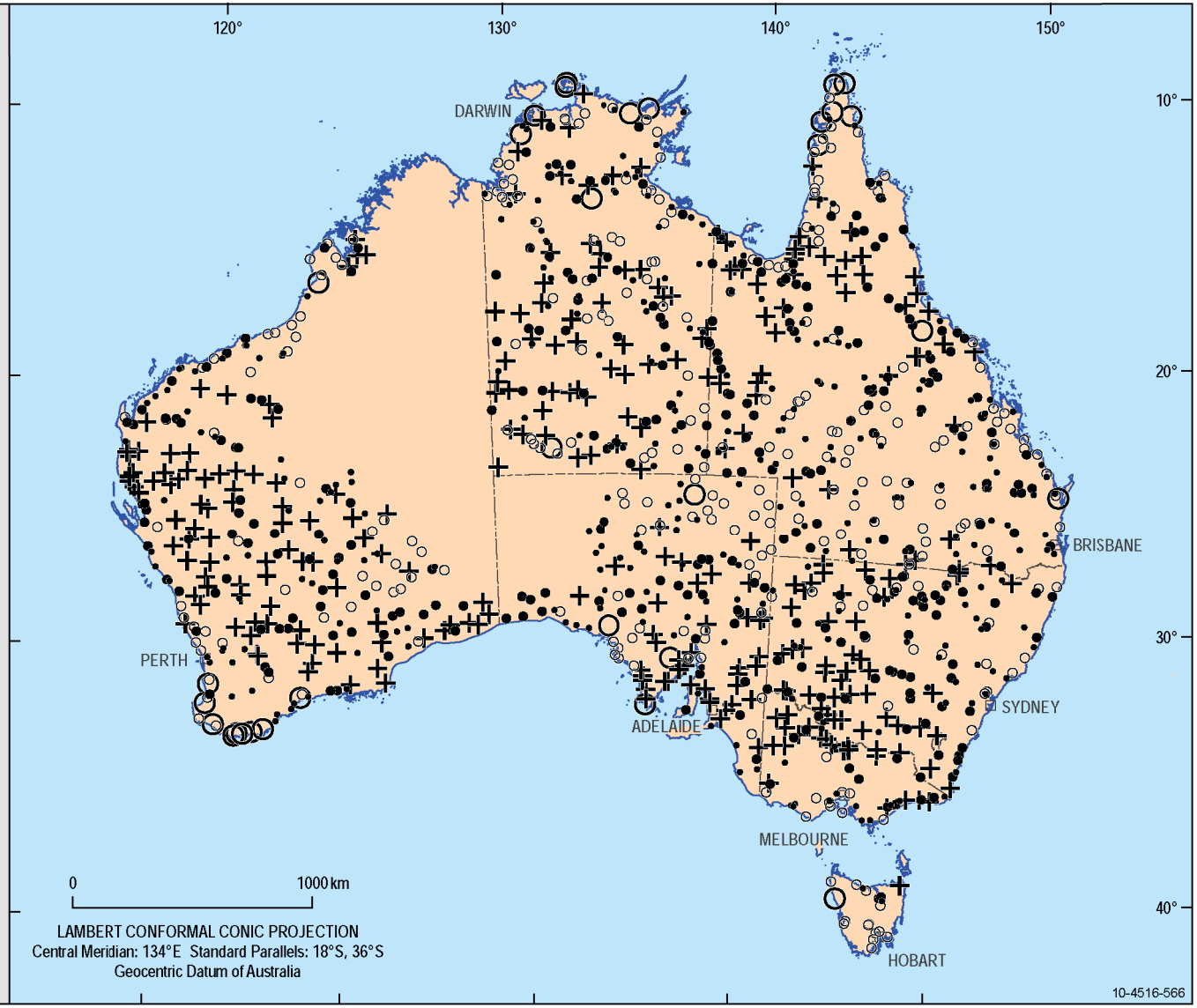
25%: *13.4 mg/kg*

Lower Fence: *3.6 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Re

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1179

Maximum: *0.062 mg/kg*

Upper Fence: *0.016 mg/kg*

75%: *0.002 mg/kg*

Median: *N/A**

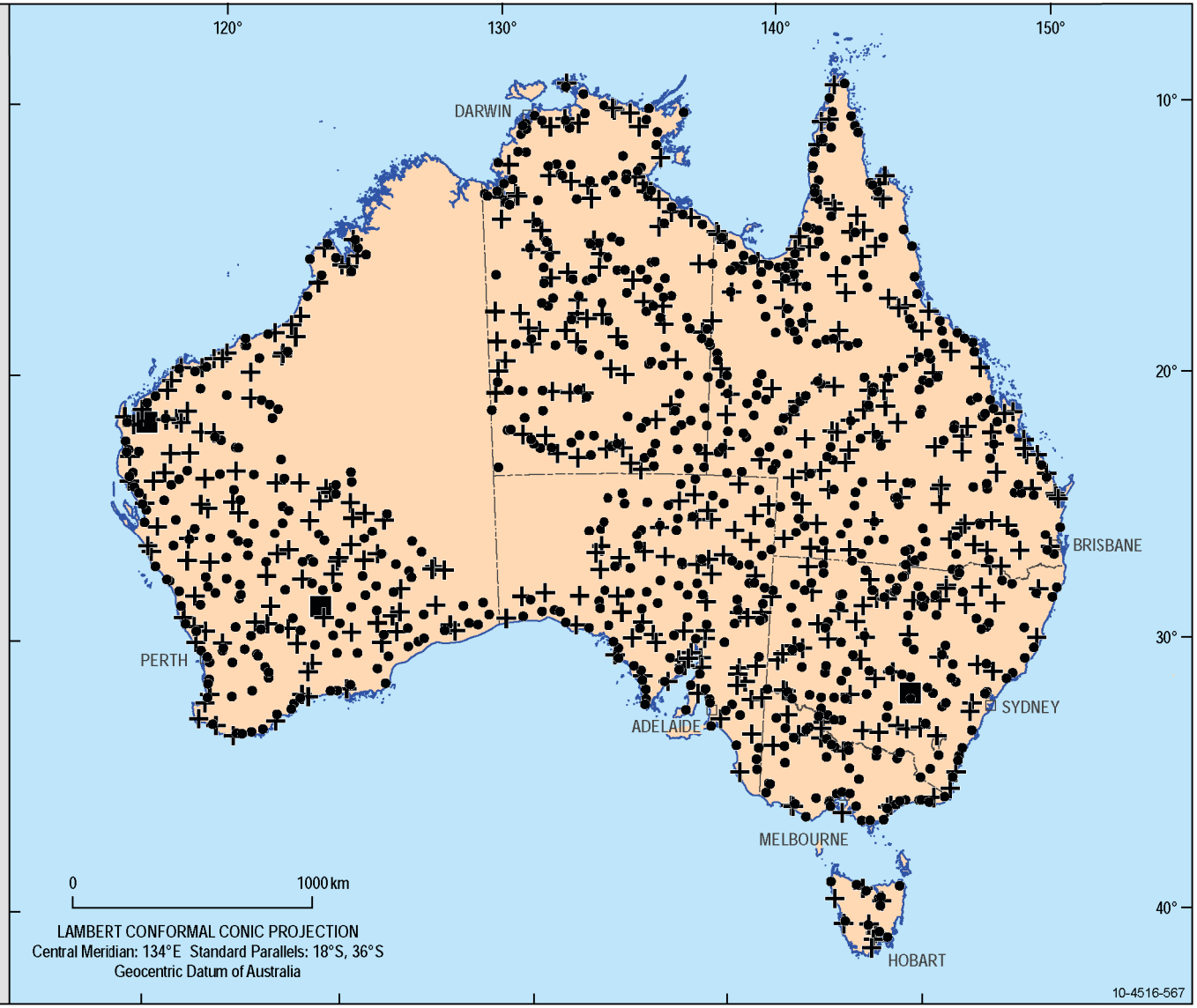
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Sb

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1179

Maximum: *54.8 mg/kg*

Upper Fence: *1.09 mg/kg*

75%: *0.26 mg/kg*

Median: *0.16 mg/kg*

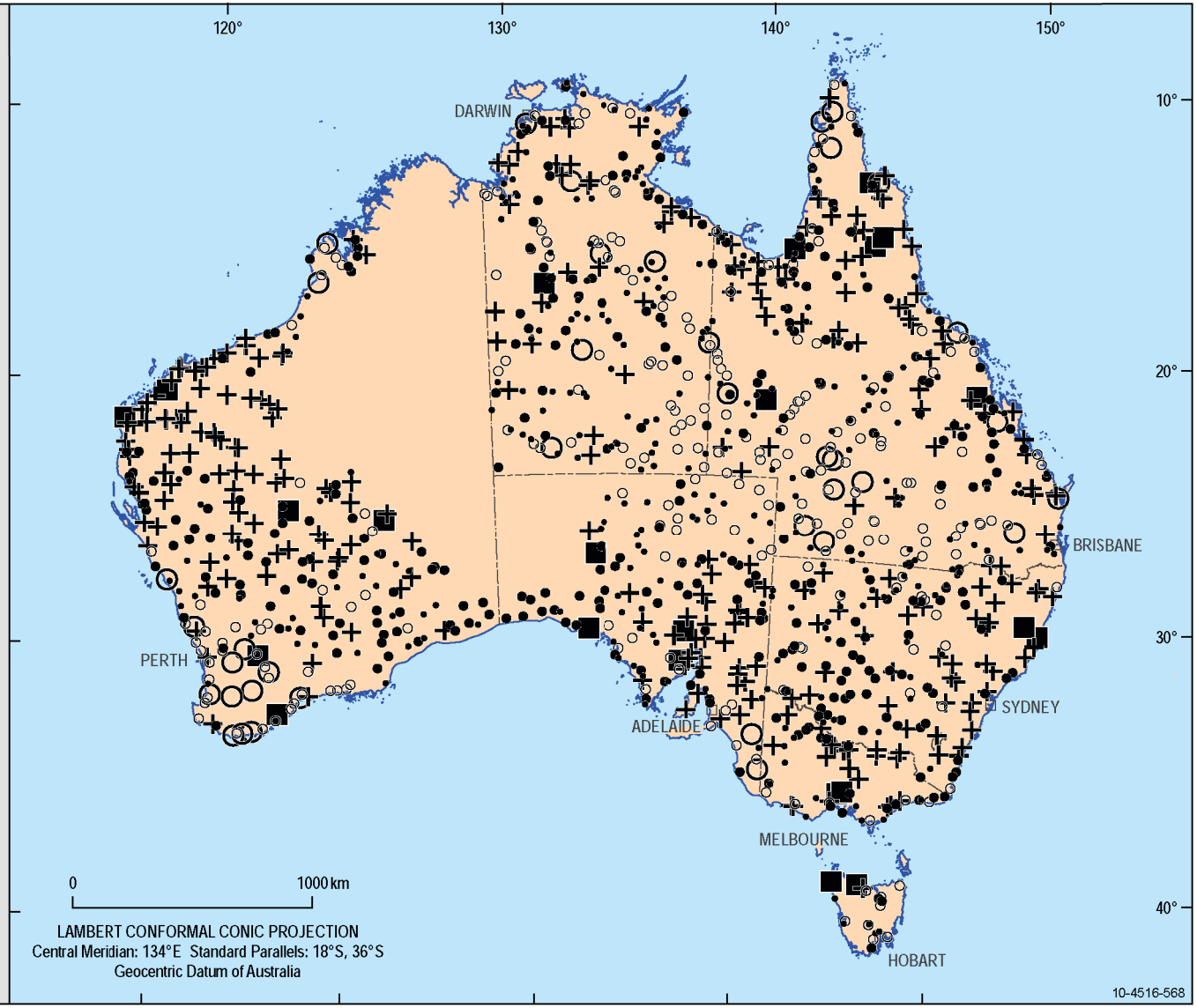
25%: *0.1 mg/kg*

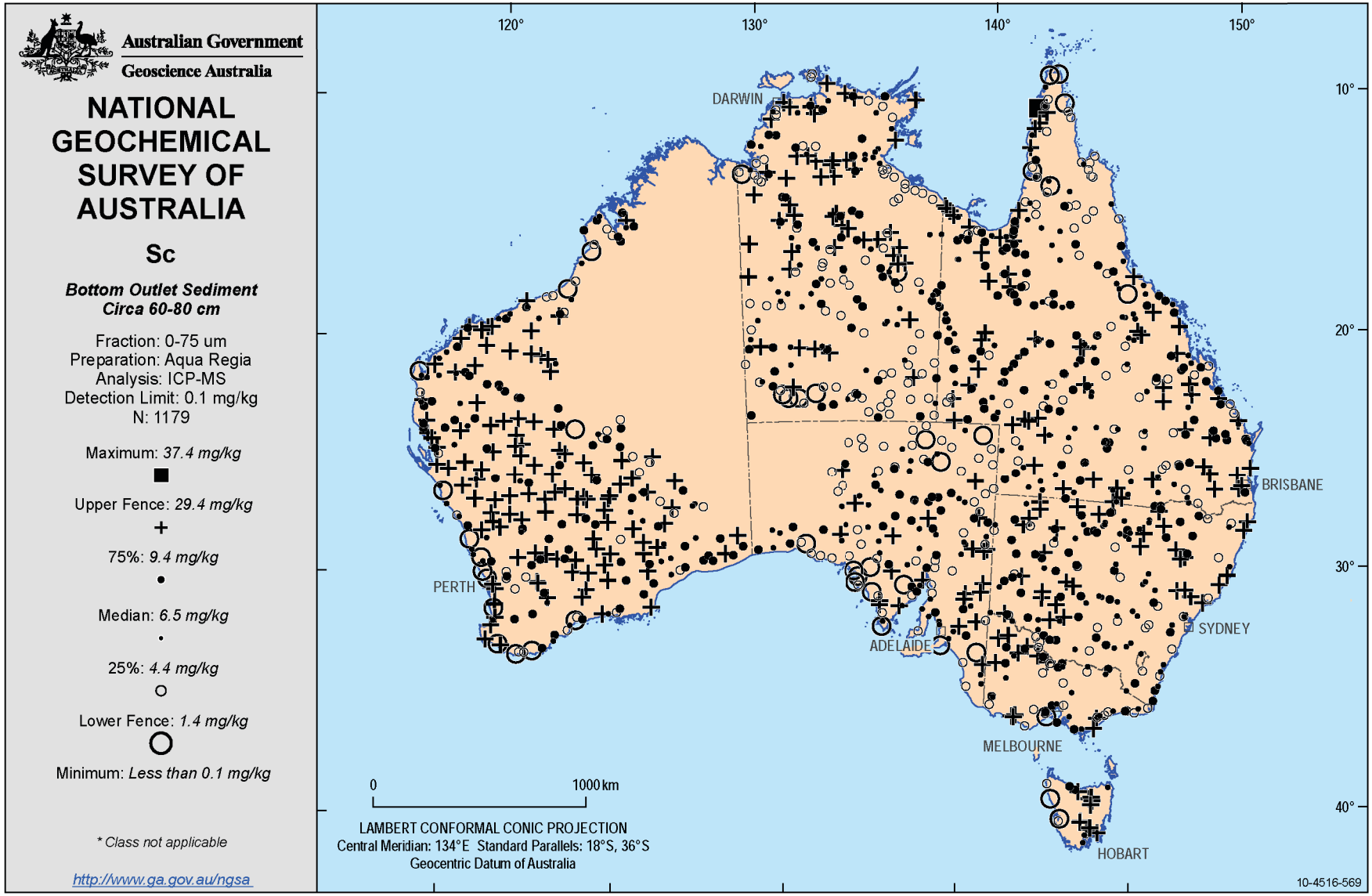
Lower Fence: *0.02 mg/kg*

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Sc
Bottom Outlet Sediment
Circa 60-80 cm
Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179
Maximum: 37.4 mg/kg
Upper Fence: 29.4 mg/kg
75%: 9.4 mg/kg
Median: 6.5 mg/kg
25%: 4.4 mg/kg
Lower Fence: 1.4 mg/kg
Minimum: Less than 0.1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
BRISBANE
SYDNEY
MELBOURNE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-569

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Se

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1186

Maximum: *4.36 mg/kg*

Upper Fence: *1.07 mg/kg*

75%: *0.17 mg/kg*

Median: *0.09 mg/kg*

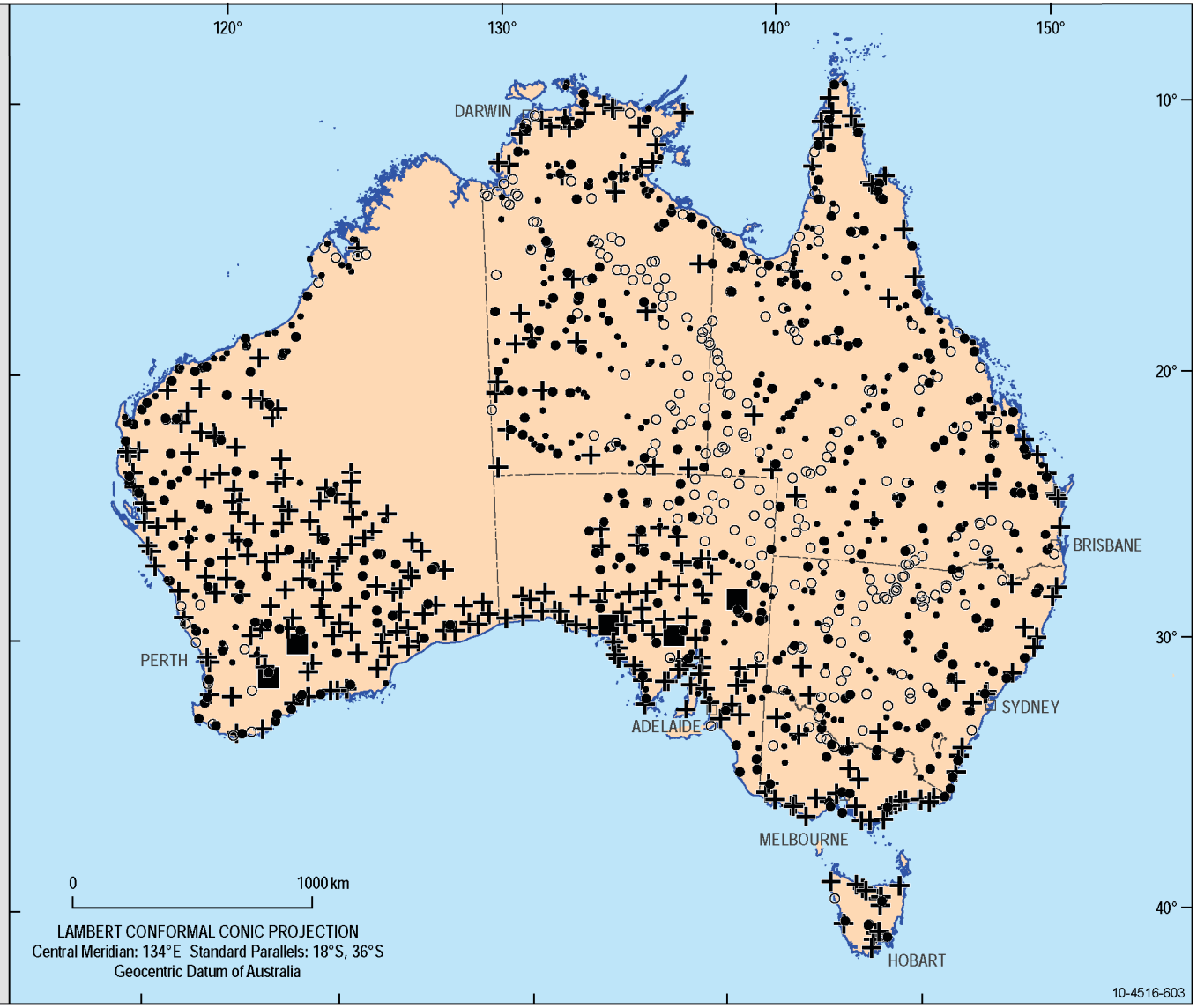
25%: *0.05 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Sm

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *19 mg/kg*

Upper Fence: *11.3 mg/kg*

75%: *5.1 mg/kg*

Median: *3.9 mg/kg*

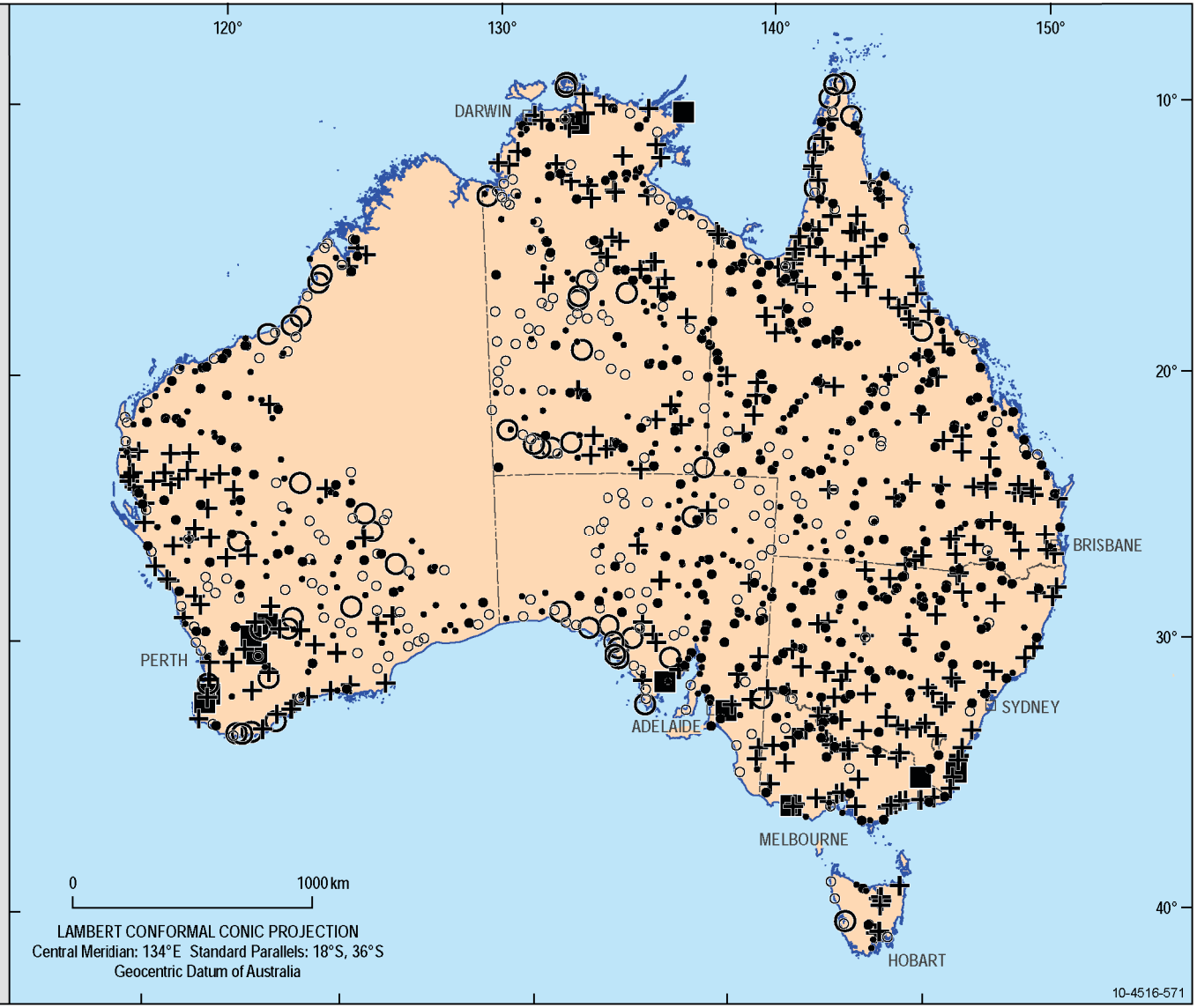
25%: *3 mg/kg*

Lower Fence: *1.4 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Sn

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.05 mg/kg
N: 1179

Maximum: *20.1 mg/kg*

Upper Fence: *3.44 mg/kg*

75%: *1.39 mg/kg*

Median: *1.07 mg/kg*

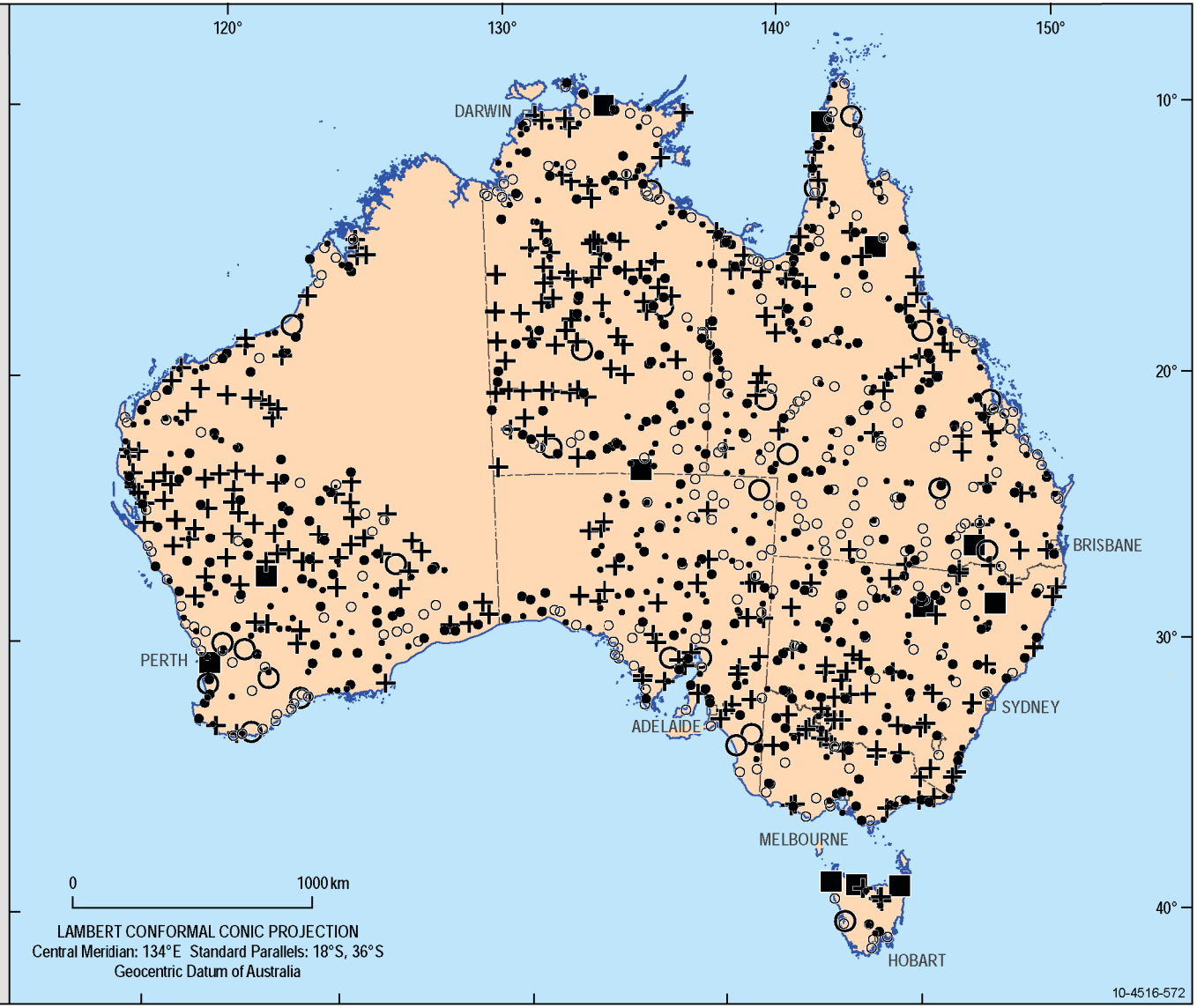
25%: *0.76 mg/kg*

Lower Fence: *0.31 mg/kg*

Minimum: *Less than 0.05 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Sr

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.5 mg/kg
N: 1179

Maximum: *Greater than 1000 mg/kg*

Upper Fence: *743.1 mg/kg*

75%: *85.2 mg/kg*

Median: *40.9 mg/kg*

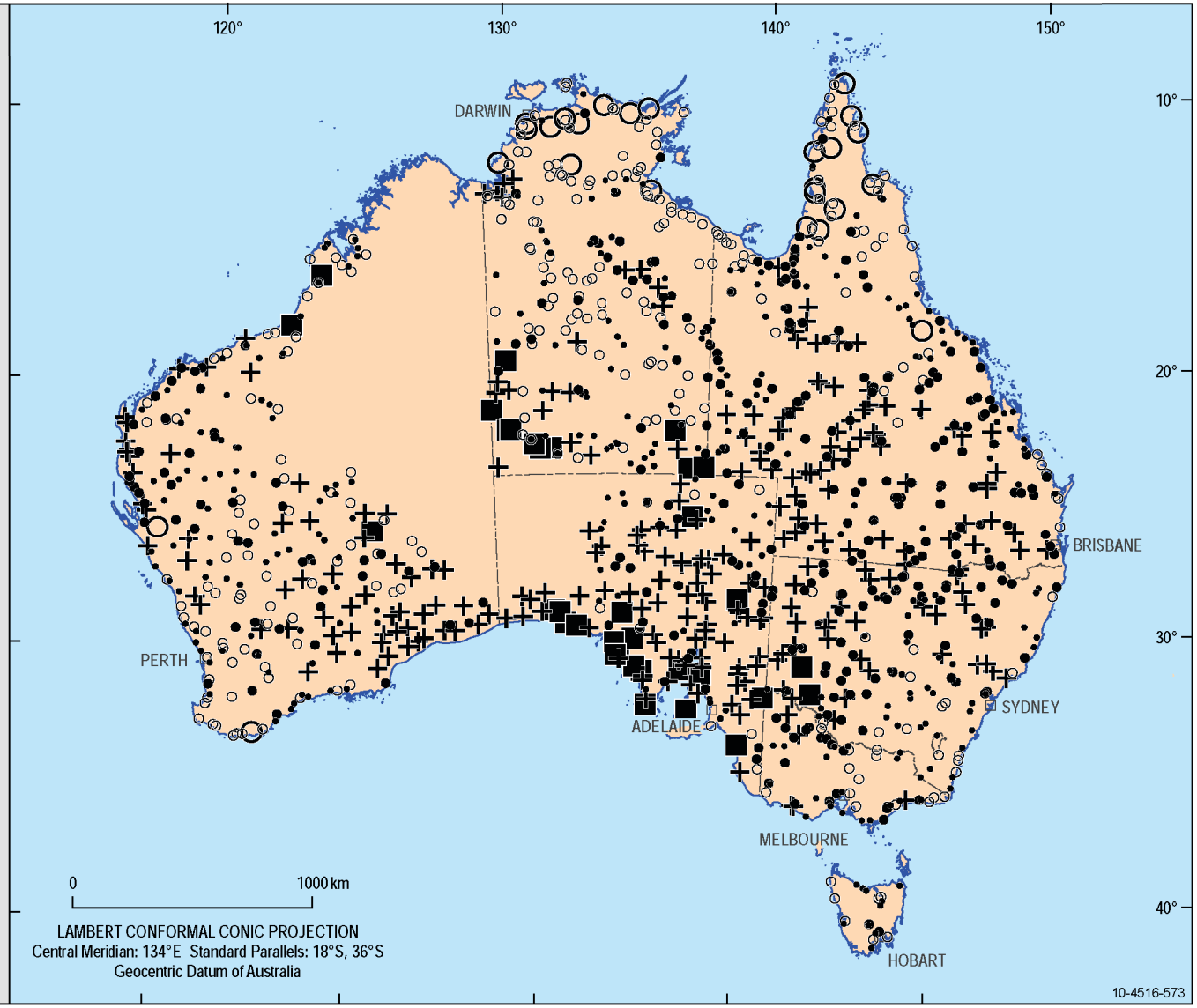
25%: *20.1 mg/kg*

Lower Fence: *2.3 mg/kg*

Minimum: *Less than 0.5 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Tb

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *1.9 mg/kg*

Upper Fence: *1.7 mg/kg*

75%: *0.6 mg/kg*

Median: *0.4 mg/kg*

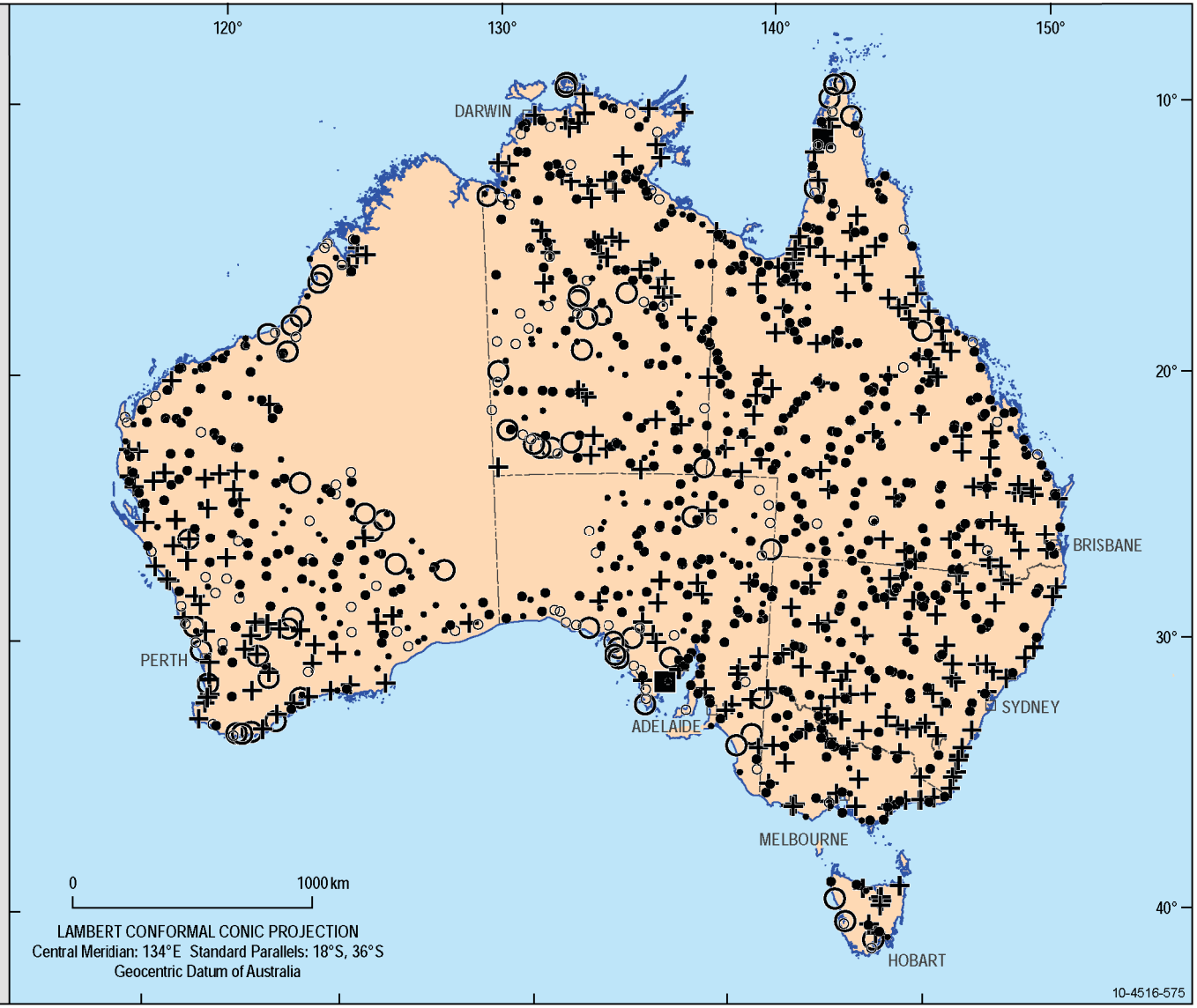
25%: *0.3 mg/kg*

Lower Fence: *0.1 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Te

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1179

Maximum: *0.28 mg/kg*

Upper Fence: *N/A**

75%: *0.05 mg/kg*

Median: *0.03 mg/kg*

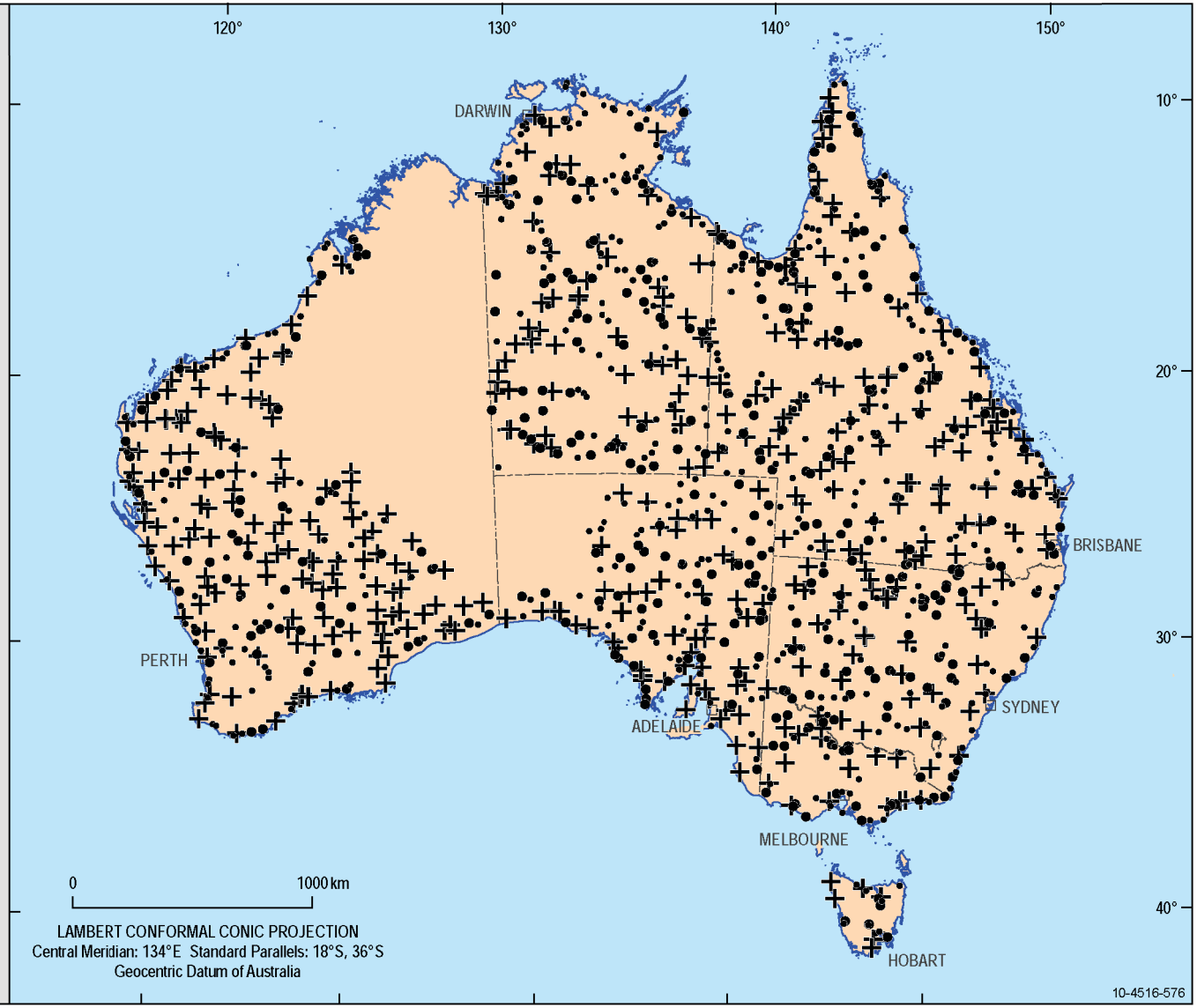
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Th

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *69.2 mg/kg*

Upper Fence: *29.1 mg/kg*

75%: *9.5 mg/kg*

Median: *6.6 mg/kg*

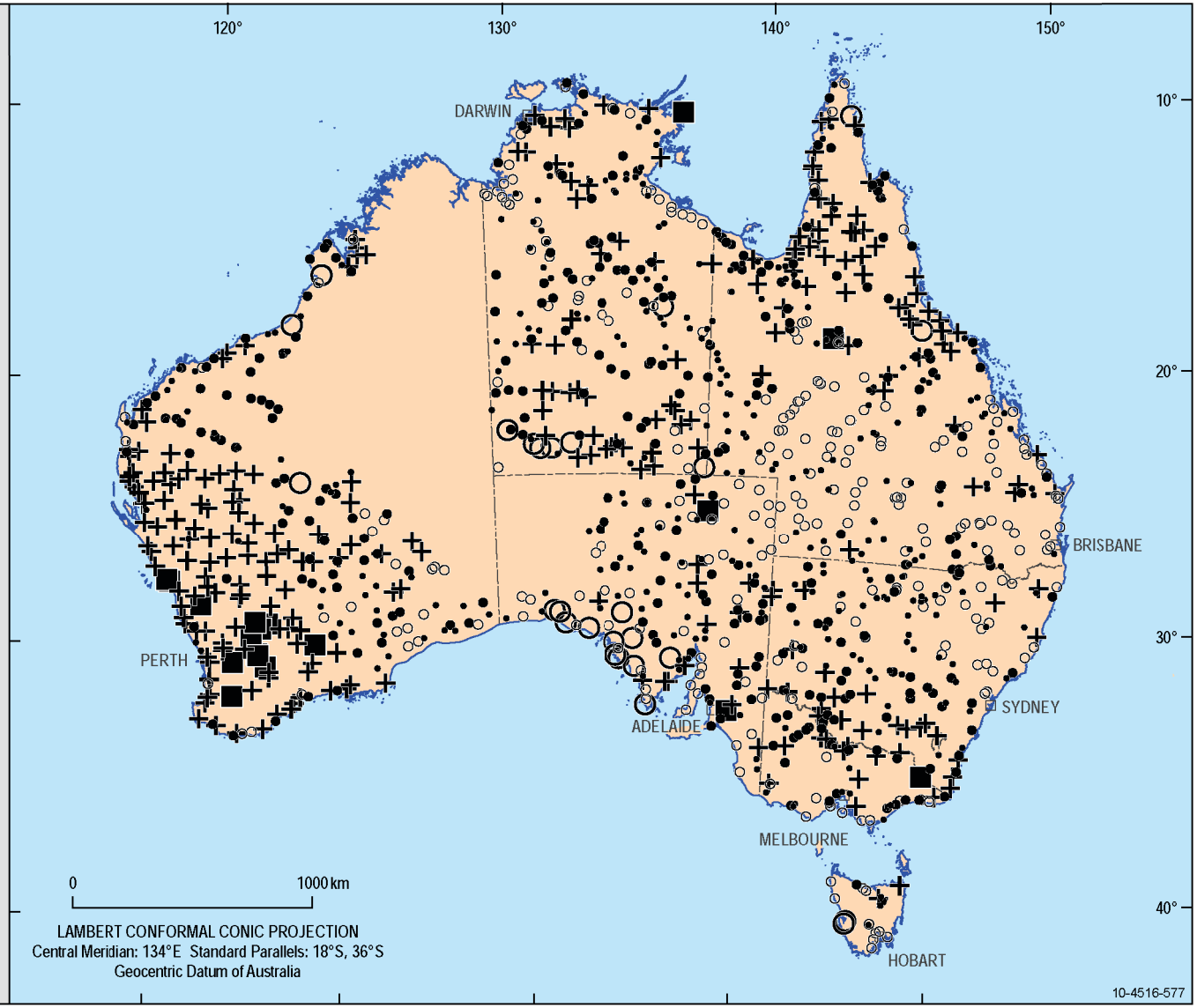
25%: *4.5 mg/kg*

Lower Fence: *1.5 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Tl

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1179

Maximum: *0.57 mg/kg*

Upper Fence: *N/A**

75%: *0.21 mg/kg*

Median: *0.14 mg/kg*

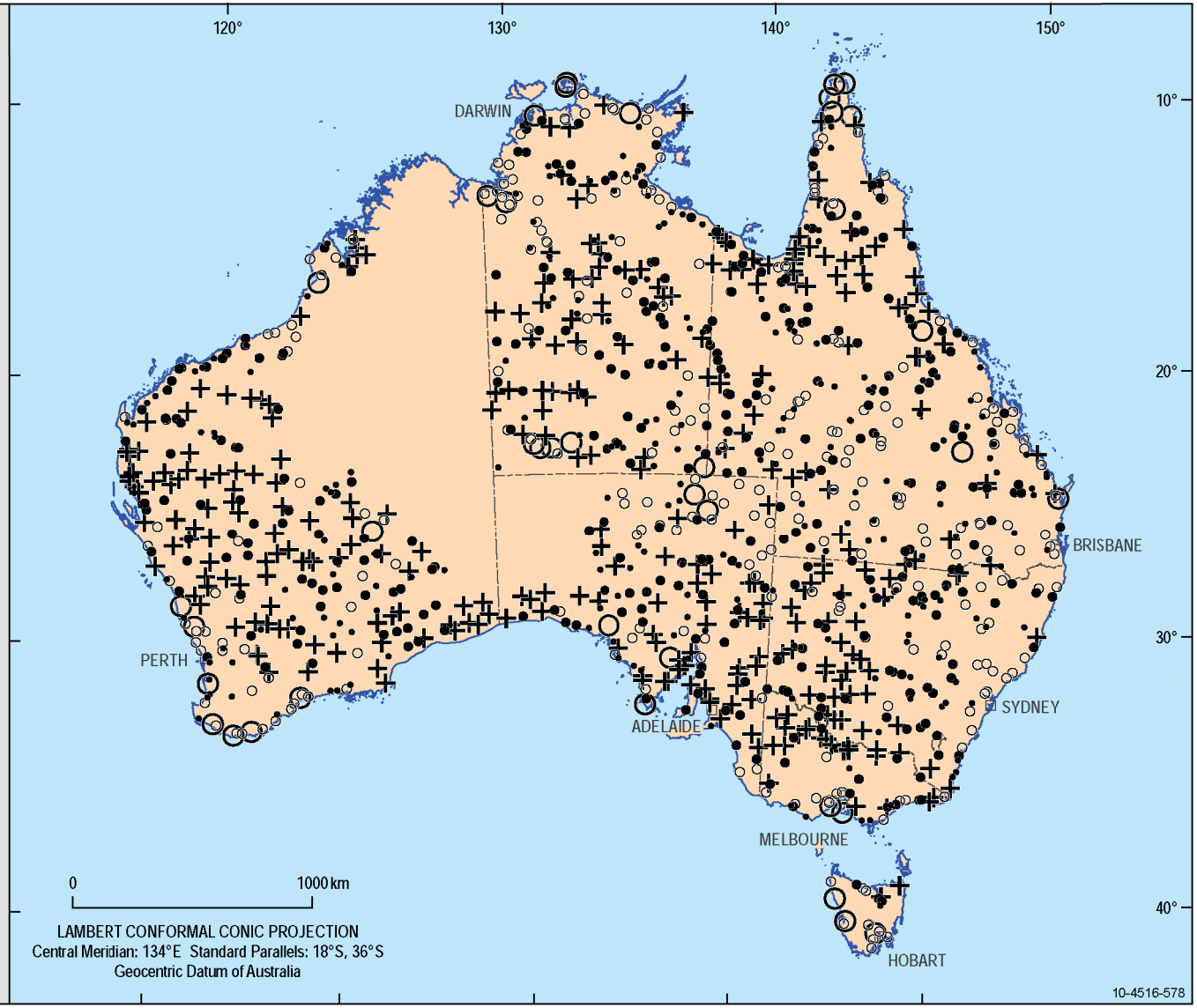
25%: *0.1 mg/kg*

Lower Fence: *0.03 mg/kg*

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Tm

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *0.7 mg/kg*

Upper Fence: *0.6 mg/kg*

75%: *0.2 mg/kg*

Median: *0.2 mg/kg*

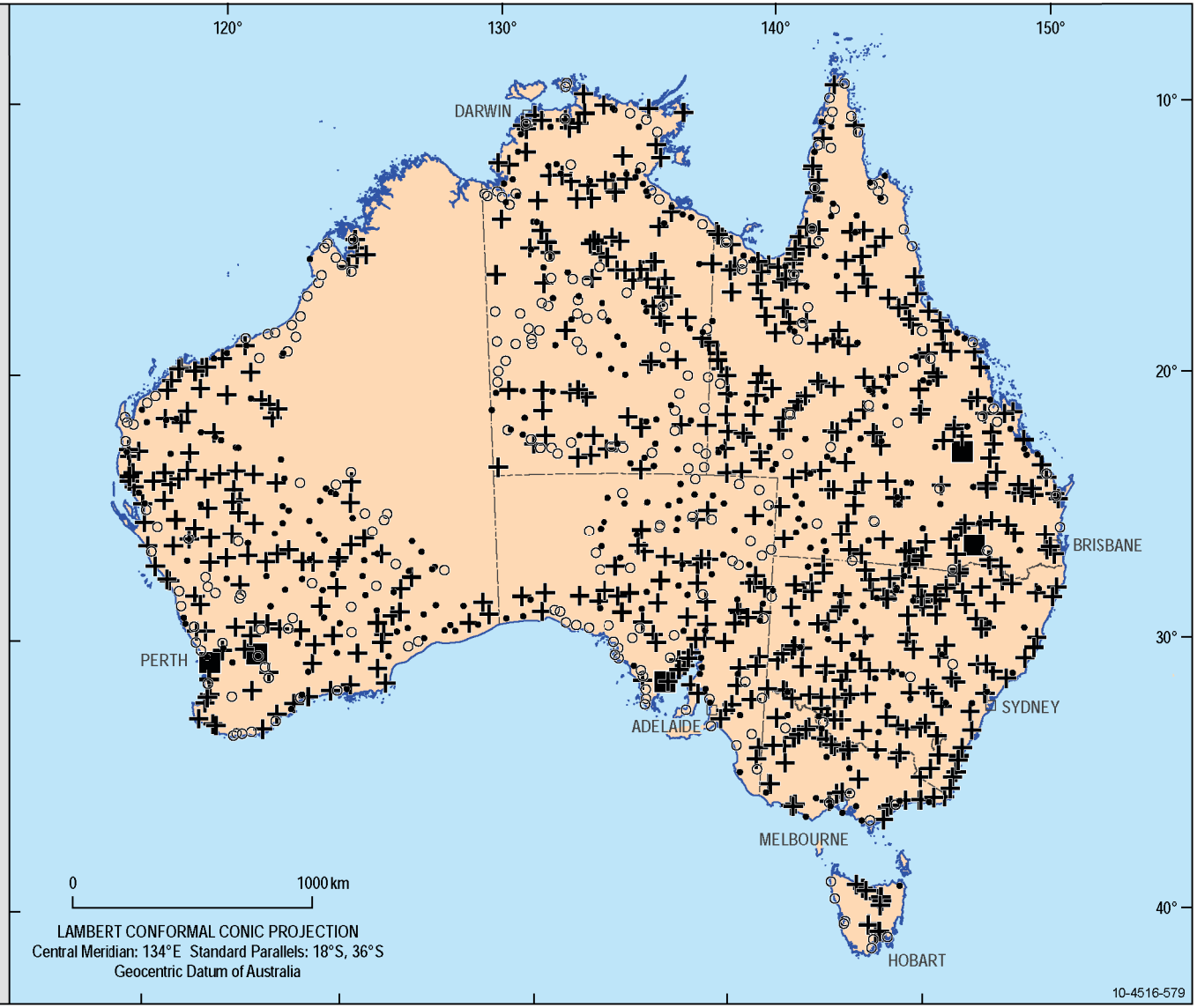
25%: *0.1 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

U

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *25.7 mg/kg*

Upper Fence: *10.7 mg/kg*

75%: *1.9 mg/kg*

Median: *1 mg/kg*

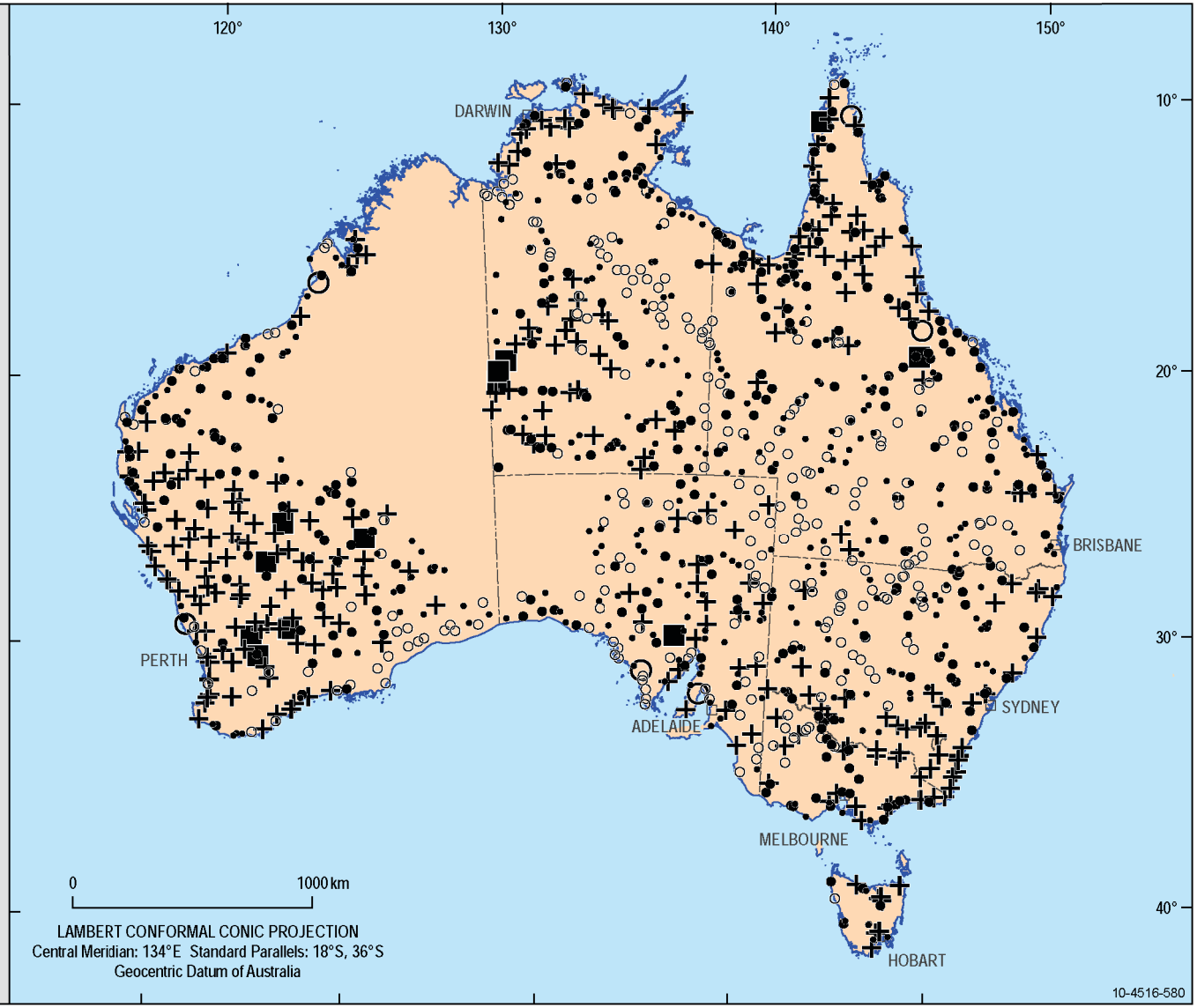
25%: *0.6 mg/kg*

Lower Fence: *0.1 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

V

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 1 mg/kg
N: 1179

Maximum: *237 mg/kg*

Upper Fence: *201 mg/kg*

75%: *74 mg/kg*

Median: *54 mg/kg*

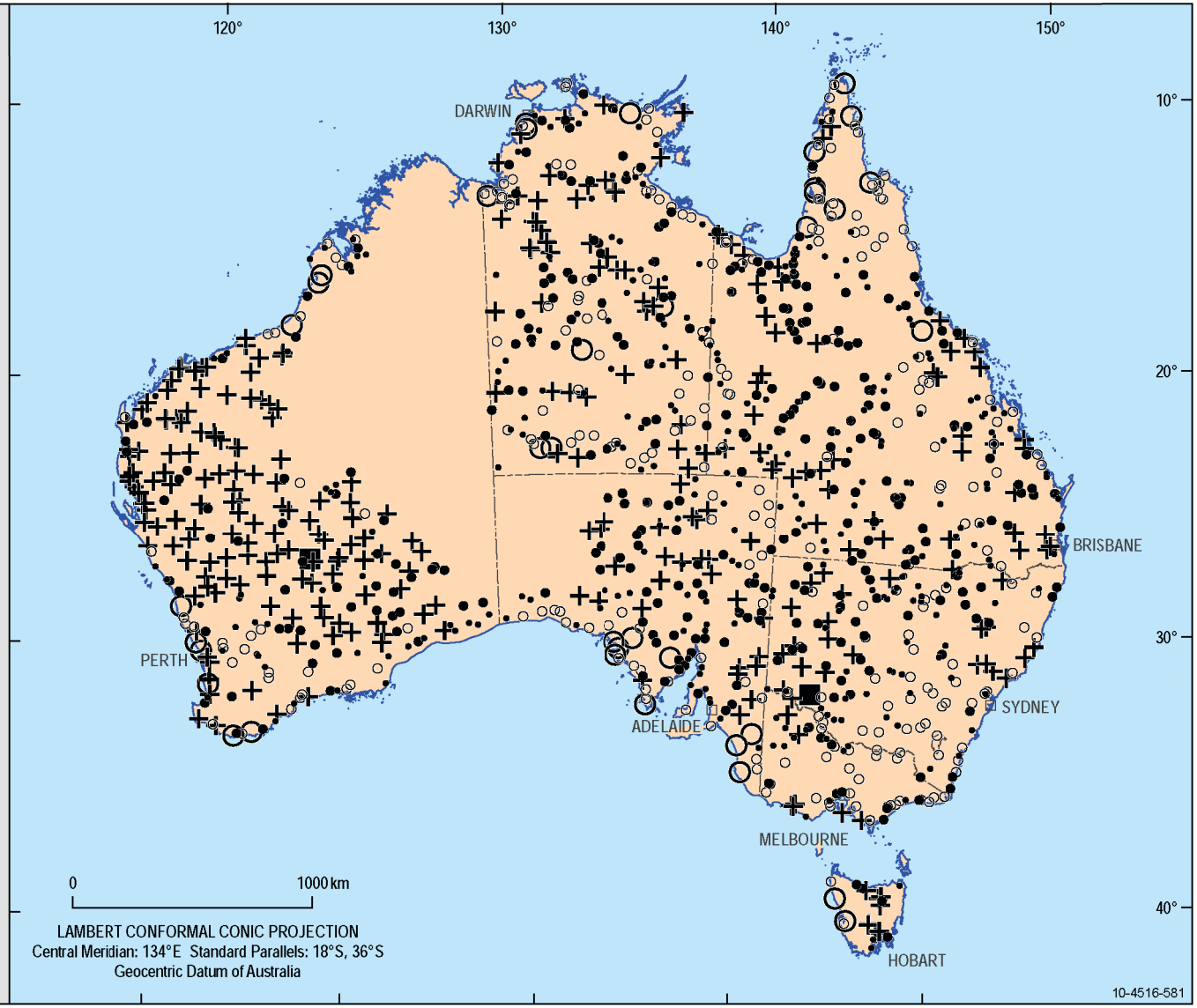
25%: *38 mg/kg*

Lower Fence: *14 mg/kg*

Minimum: *1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

W

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *34.2 mg/kg*

Upper Fence: *Less than 0.1 mg/kg*

75%: *N/A**

Median: *N/A**

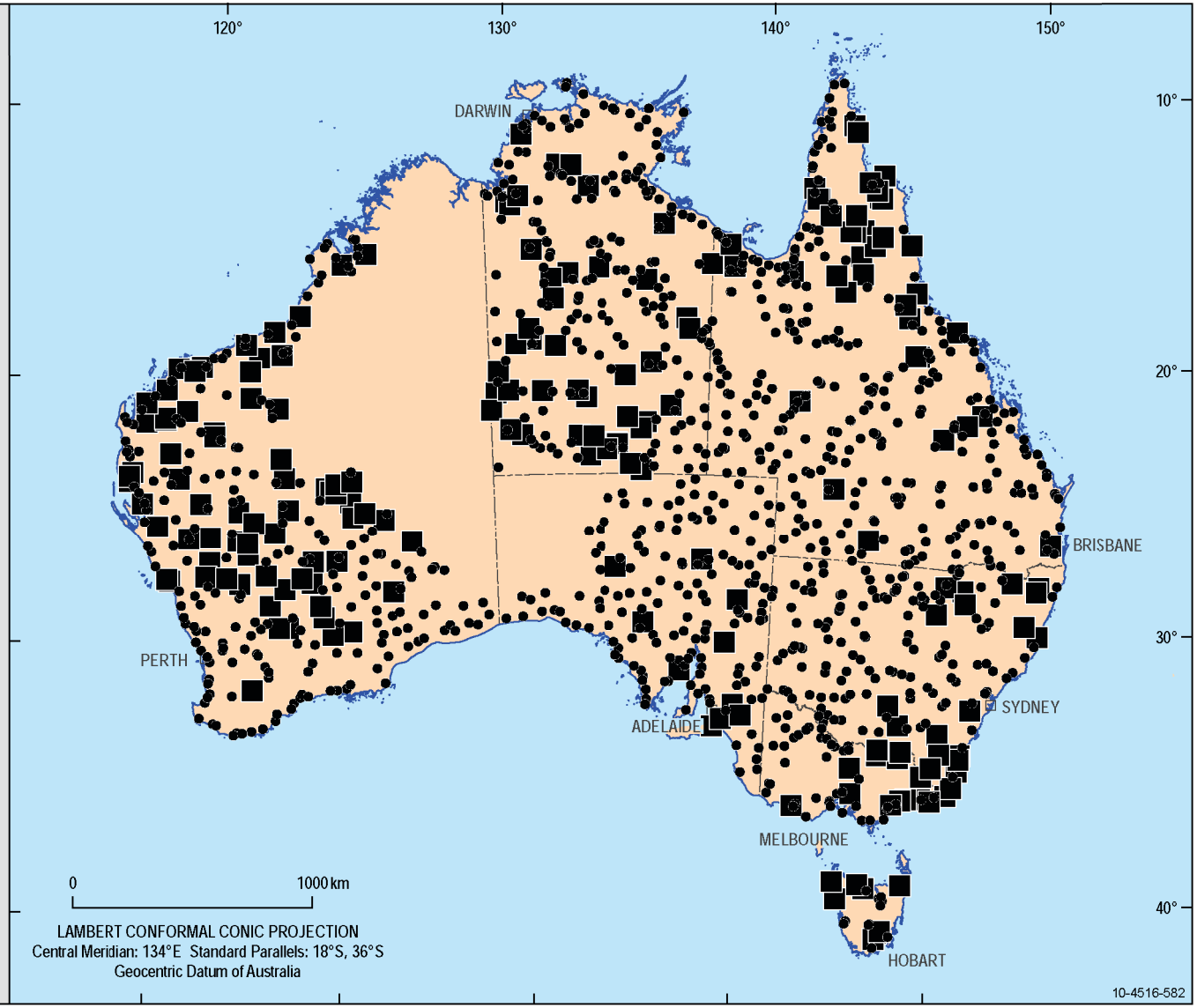
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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Y

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1179

Maximum: *57.2 mg/kg*

Upper Fence: *35.27 mg/kg*

75%: *15.8 mg/kg*

Median: *12.4 mg/kg*

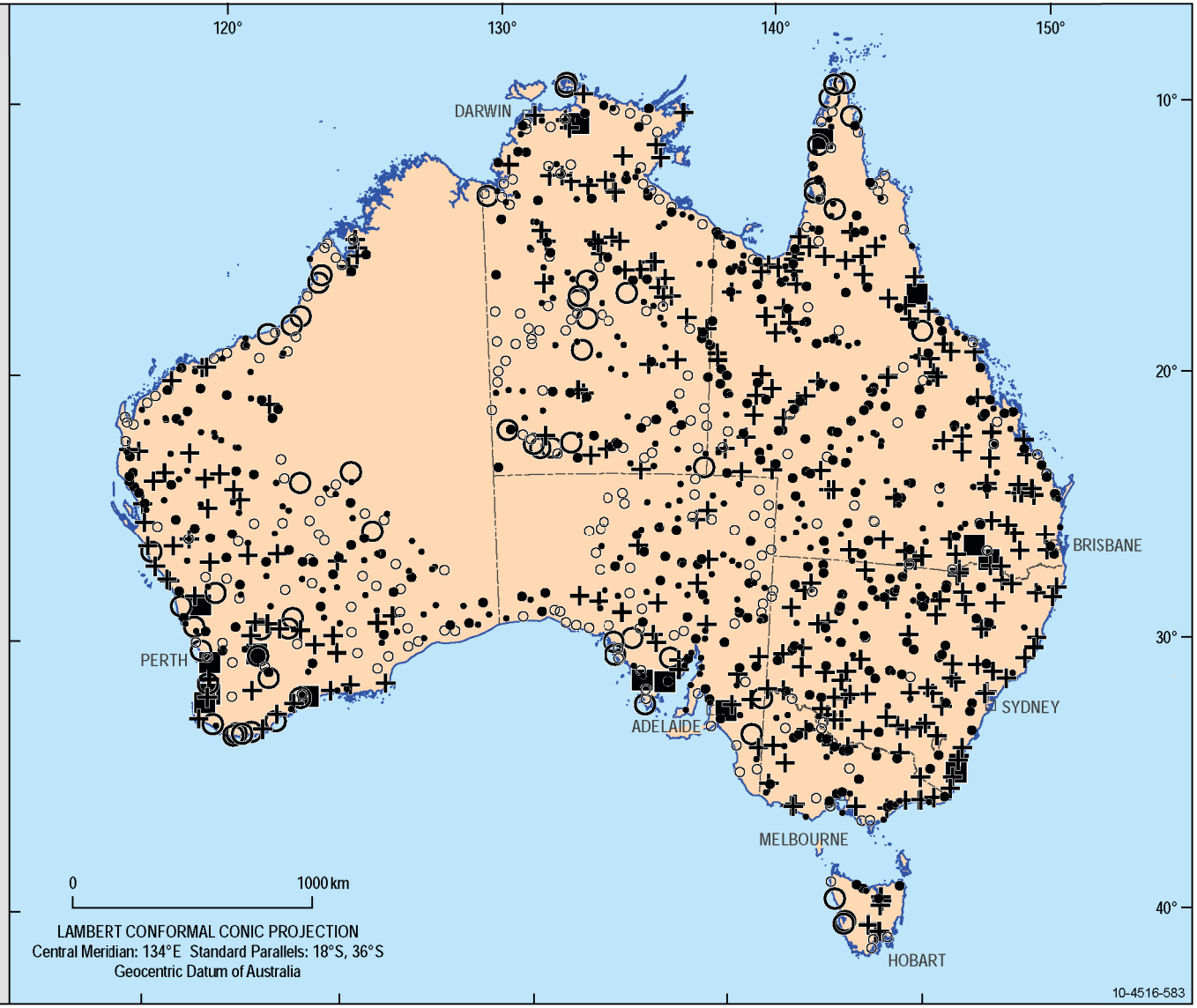
25%: *9.25 mg/kg*

Lower Fence: *4.14 mg/kg*

Minimum: *0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Yb

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *4.4 mg/kg*

Upper Fence: *2.7 mg/kg*

75%: *1.2 mg/kg*

Median: *0.9 mg/kg*

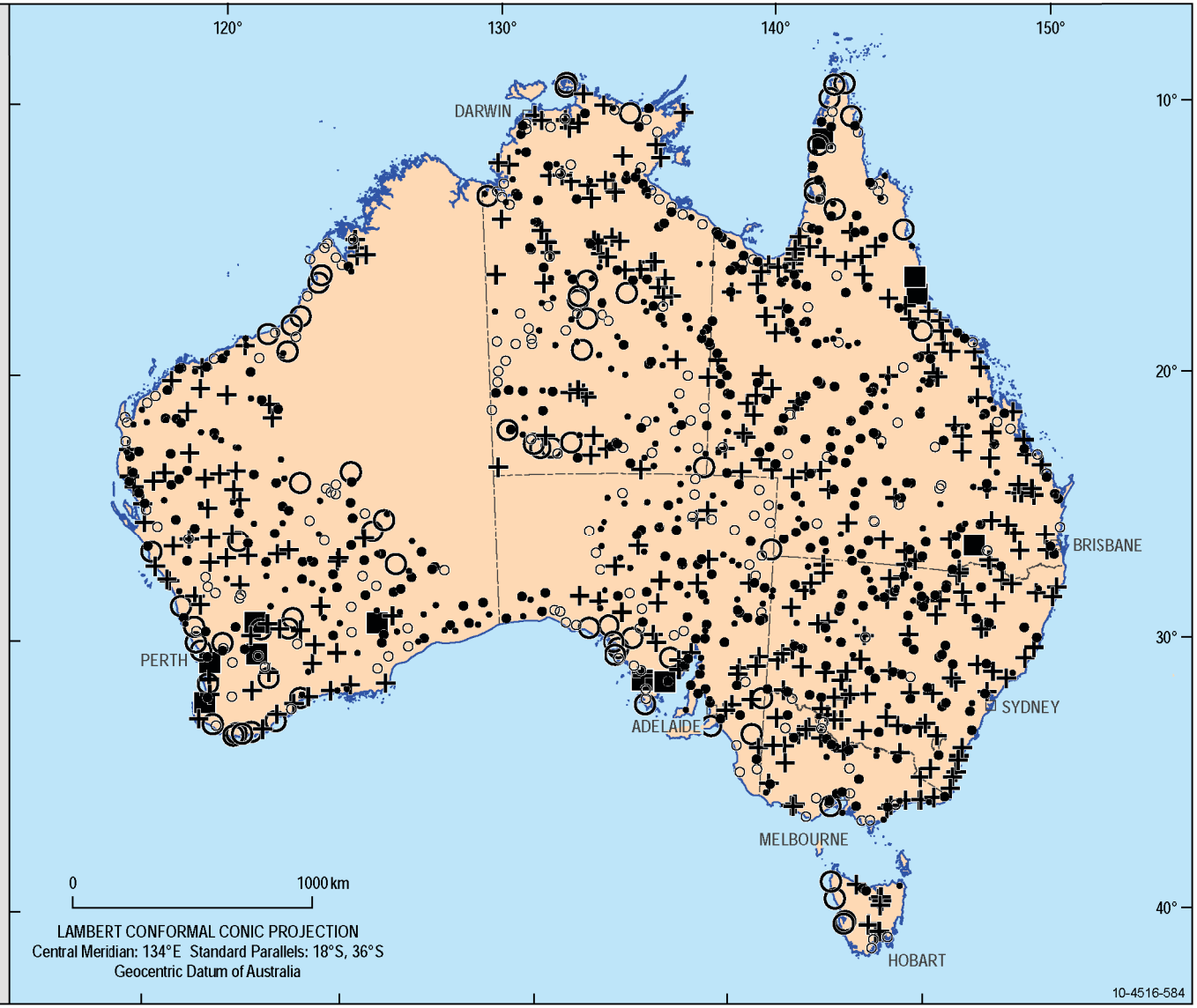
25%: *0.7 mg/kg*

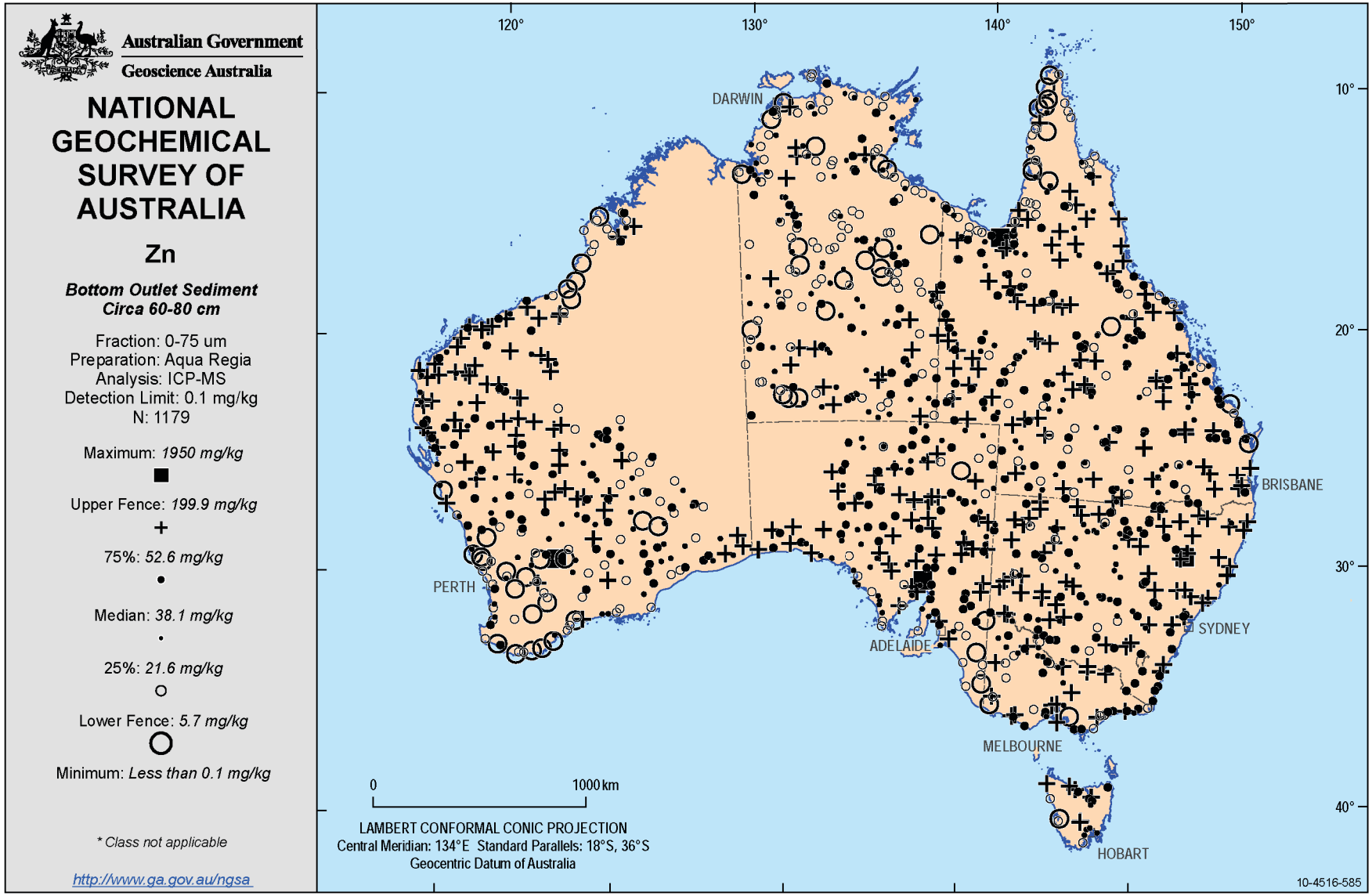
Lower Fence: *0.3 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa

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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Zn
Bottom Outlet Sediment
Circa 60-80 cm
Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179
Maximum: 1950 mg/kg
Upper Fence: 199.9 mg/kg
75%: 52.6 mg/kg
Median: 38.1 mg/kg
25%: 21.6 mg/kg
Lower Fence: 5.7 mg/kg
Minimum: Less than 0.1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
MELBOURNE
SYDNEY
BRISBANE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-585

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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Zr

Bottom Outlet Sediment
Circa 60-80 cm

Fraction: 0-75 um
Preparation: Aqua Regia
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1179

Maximum: *155 mg/kg*

Upper Fence: *55.2 mg/kg*

75%: *10 mg/kg*

Median: *6.1 mg/kg*

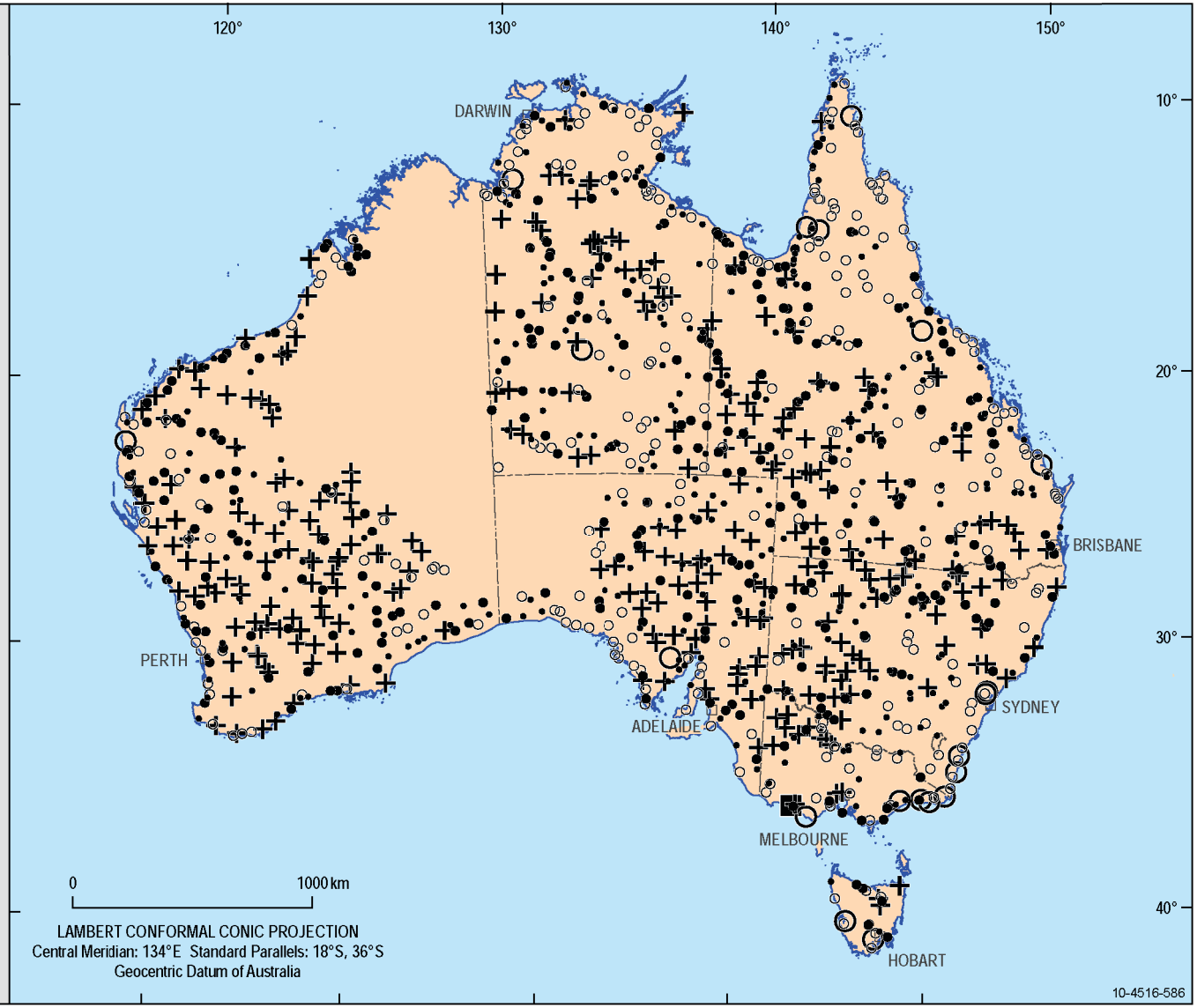
25%: *3.2 mg/kg*

Lower Fence: *0.6 mg/kg*

Minimum: *Less than 0.1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



MOBILE METAL ION™ CONTENT MAPS

(analyses courtesy of SGS Minerals Services)

Table 4. List of maps showing the concentrations and distributions of elements as determined after Mobile Metal Ion (MMI™) digestion (analyses courtesy of SGS Minerals Services).

Element	Depth	Fraction	Preparation	Analysis
Ag	TOS	<2 mm	MMI™	ICP-MS
Al	TOS	<2 mm	MMI™	ICP-MS
As	TOS	<2 mm	MMI™	ICP-MS
Au	TOS	<2 mm	MMI™	ICP-MS
Ba	TOS	<2 mm	MMI™	ICP-MS
Bi	TOS	<2 mm	MMI™	ICP-MS
Ca	TOS	<2 mm	MMI™	ICP-MS
Cd	TOS	<2 mm	MMI™	ICP-MS
Ce	TOS	<2 mm	MMI™	ICP-MS
Co	TOS	<2 mm	MMI™	ICP-MS
Cr	TOS	<2 mm	MMI™	ICP-MS
Cs	TOS	<2 mm	MMI™	ICP-MS
Cu	TOS	<2 mm	MMI™	ICP-MS
Dy	TOS	<2 mm	MMI™	ICP-MS
Er	TOS	<2 mm	MMI™	ICP-MS
Eu	TOS	<2 mm	MMI™	ICP-MS
Fe	TOS	<2 mm	MMI™	ICP-MS
Ga	TOS	<2 mm	MMI™	ICP-MS
Gd	TOS	<2 mm	MMI™	ICP-MS
Hg	TOS	<2 mm	MMI™	ICP-MS
K	TOS	<2 mm	MMI™	ICP-MS
La	TOS	<2 mm	MMI™	ICP-MS
Li	TOS	<2 mm	MMI™	ICP-MS
Mg	TOS	<2 mm	MMI™	ICP-MS
Mn	TOS	<2 mm	MMI™	ICP-MS
Mo	TOS	<2 mm	MMI™	ICP-MS
Nb	TOS	<2 mm	MMI™	ICP-MS
Nd	TOS	<2 mm	MMI™	ICP-MS
Ni	TOS	<2 mm	MMI™	ICP-MS
P	TOS	<2 mm	MMI™	ICP-MS
Pb	TOS	<2 mm	MMI™	ICP-MS
Pd	TOS	<2 mm	MMI™	ICP-MS
Pr	TOS	<2 mm	MMI™	ICP-MS
Rb	TOS	<2 mm	MMI™	ICP-MS
Sb	TOS	<2 mm	MMI™	ICP-MS
Sc	TOS	<2 mm	MMI™	ICP-MS
Se	TOS	<2 mm	MMI™	ICP-MS
Sm	TOS	<2 mm	MMI™	ICP-MS
Sn	TOS	<2 mm	MMI™	ICP-MS
Sr	TOS	<2 mm	MMI™	ICP-MS
Ta	TOS	<2 mm	MMI™	ICP-MS
Tb	TOS	<2 mm	MMI™	ICP-MS
Te	TOS	<2 mm	MMI™	ICP-MS

Element	Depth	Fraction	Preparation	Analysis
Th	TOS	<2 mm	MMI™	ICP-MS
Ti	TOS	<2 mm	MMI™	ICP-MS
Tl	TOS	<2 mm	MMI™	ICP-MS
U	TOS	<2 mm	MMI™	ICP-MS
V	TOS	<2 mm	MMI™	ICP-MS
W	TOS	<2 mm	MMI™	ICP-MS
Y	TOS	<2 mm	MMI™	ICP-MS
Yb	TOS	<2 mm	MMI™	ICP-MS
Zn	TOS	<2 mm	MMI™	ICP-MS
Zr	TOS	<2 mm	MMI™	ICP-MS

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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ag

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191

Maximum: *0.302 mg/kg*

Upper Fence: *0.142 mg/kg*

75%: *0.011 mg/kg*

Median: *0.005 mg/kg*

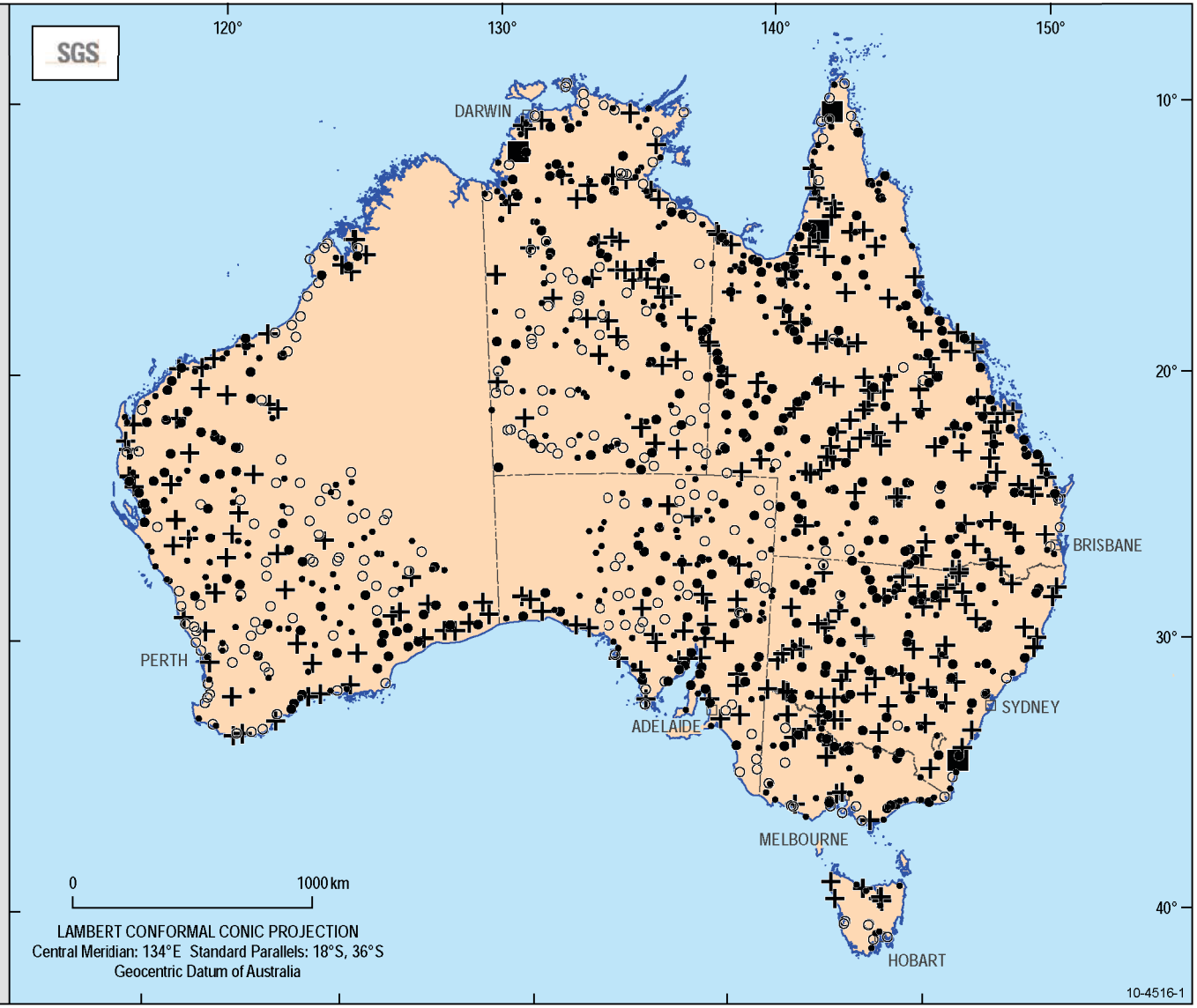
25%: *0.002 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Al

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 1 mg/kg
N: 1191

Maximum: *453 mg/kg*

Upper Fence: *186 mg/kg*

75%: *26 mg/kg*

Median: *12 mg/kg*

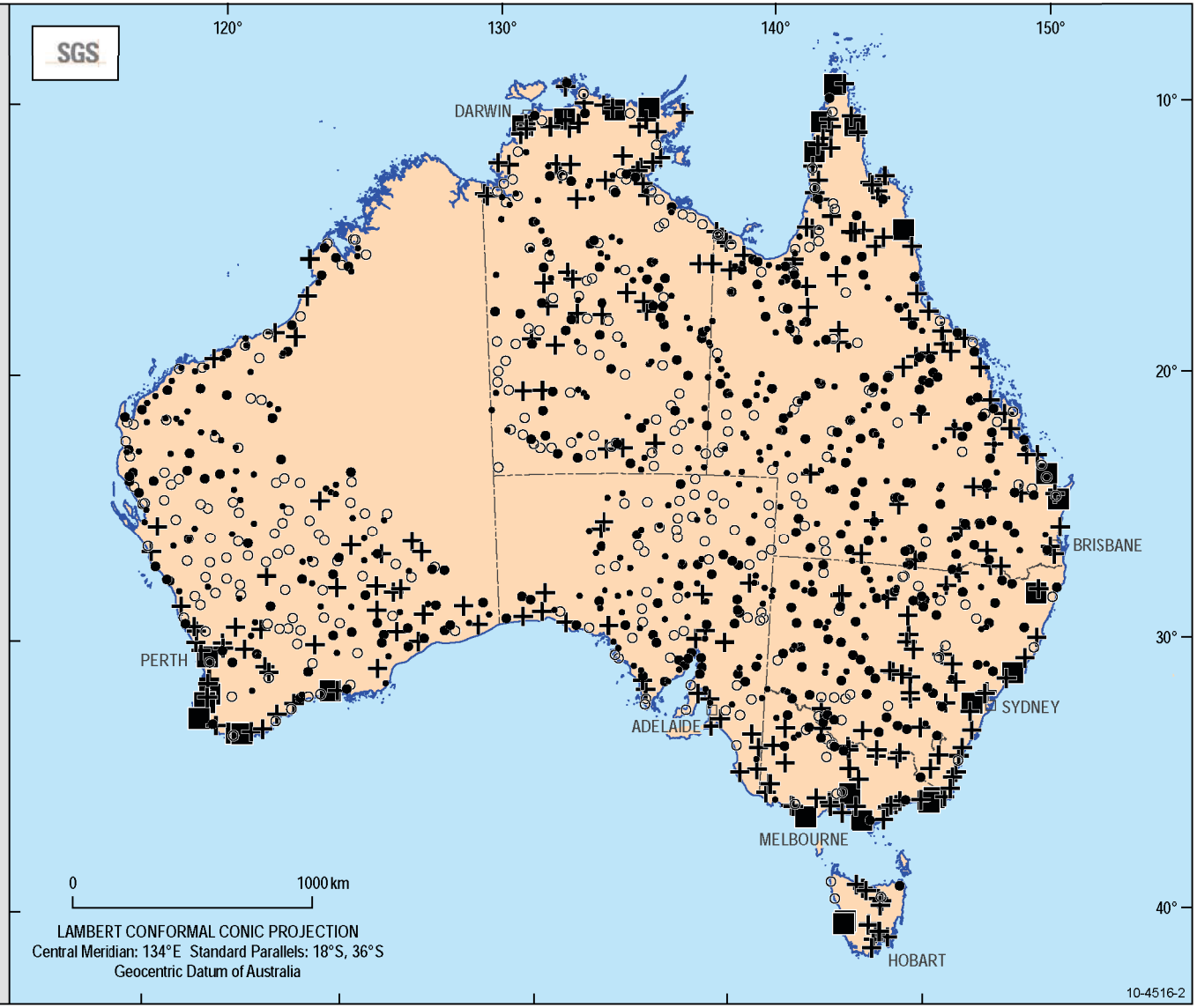
25%: *7 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

As

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1191

Maximum: *1.98 mg/kg*

Upper Fence: *0.03 mg/kg*

75%: *0.01 mg/kg*

Median: *N/A**

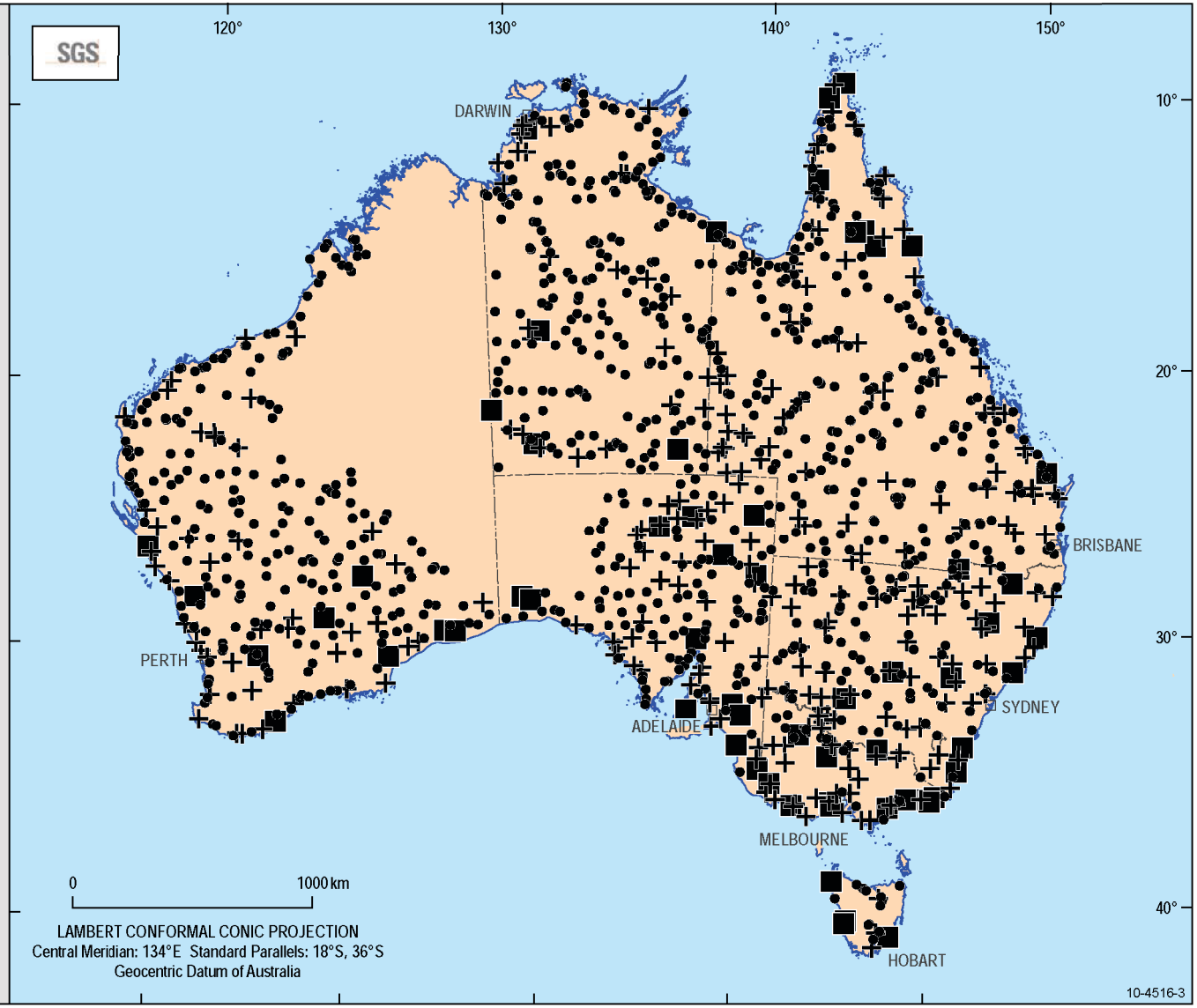
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Au

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.0001 mg/kg
N: 1191

Maximum: *0.0198 mg/kg*

Upper Fence: *0.0158 mg/kg*

75%: *0.0005 mg/kg*

Median: *0.0002 mg/kg*

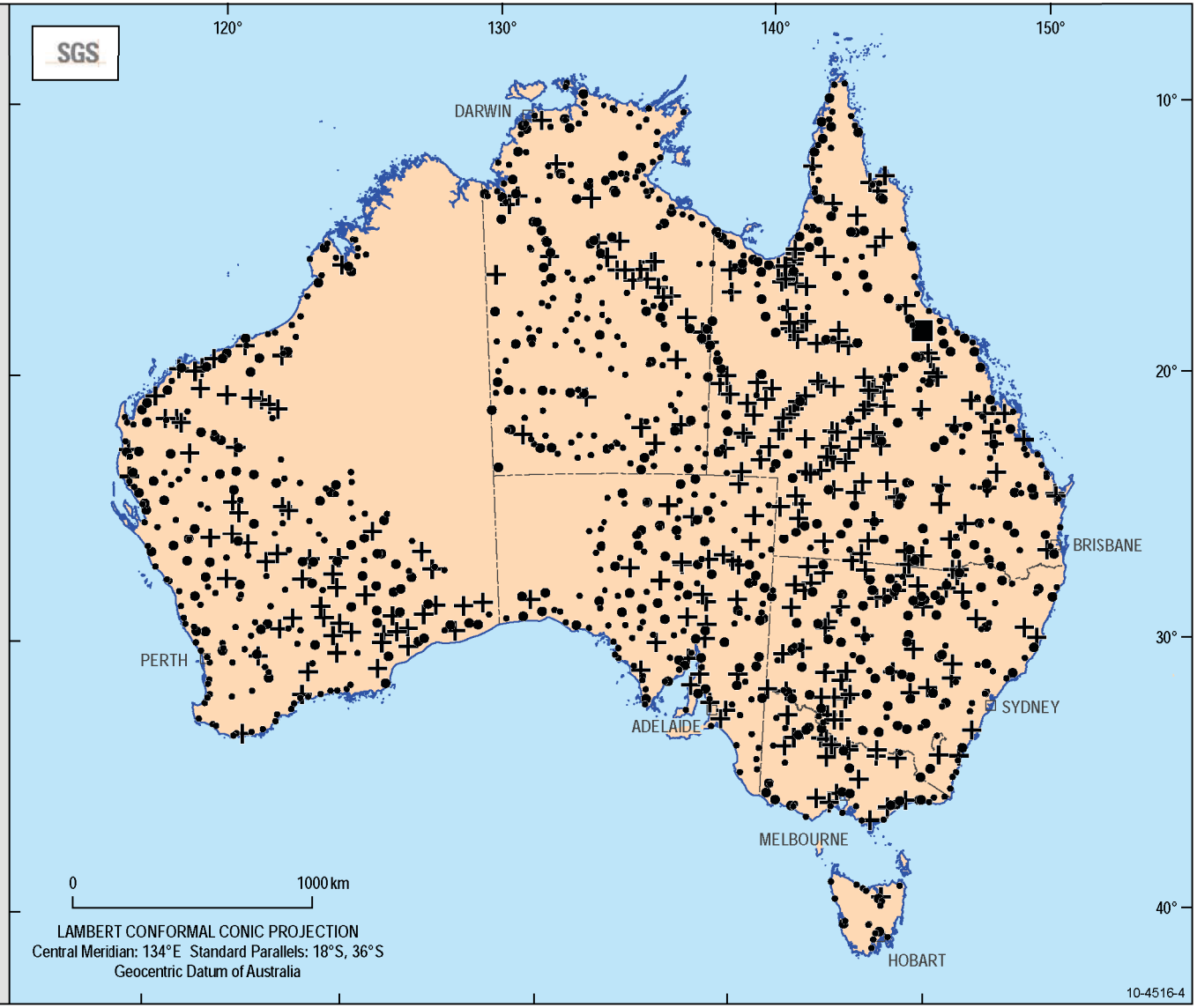
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.0001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ba

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1191

Maximum: *15.3 mg/kg*

Upper Fence: *N/A**

75%: *1.74 mg/kg*

Median: *0.87 mg/kg*

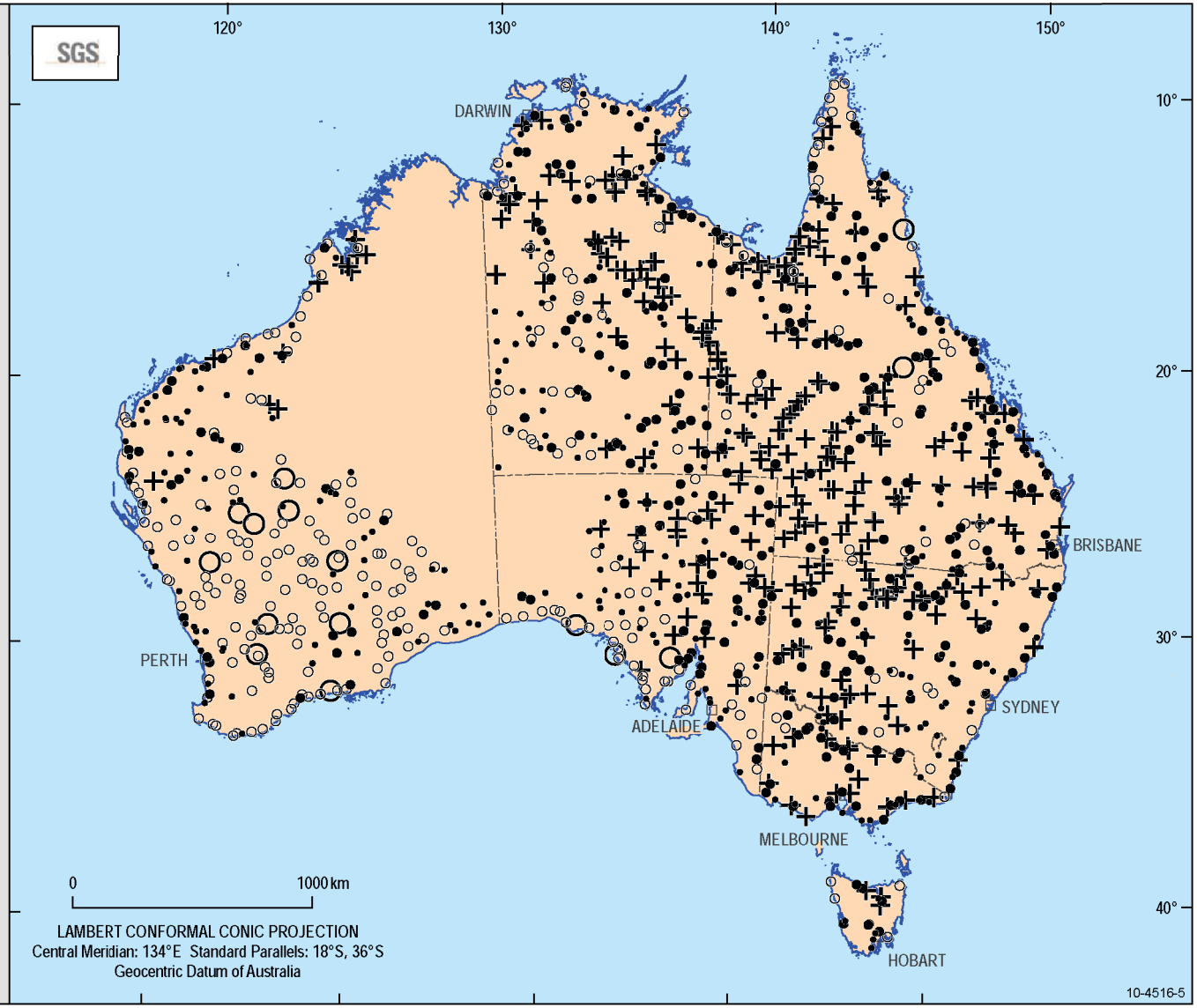
25%: *0.39 mg/kg*

Lower Fence: *0.04 mg/kg*

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Bi

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191

Maximum: *0.016 mg/kg*

Upper Fence: *Less than 0.001 mg/kg*

75%: *N/A**

Median: *N/A**

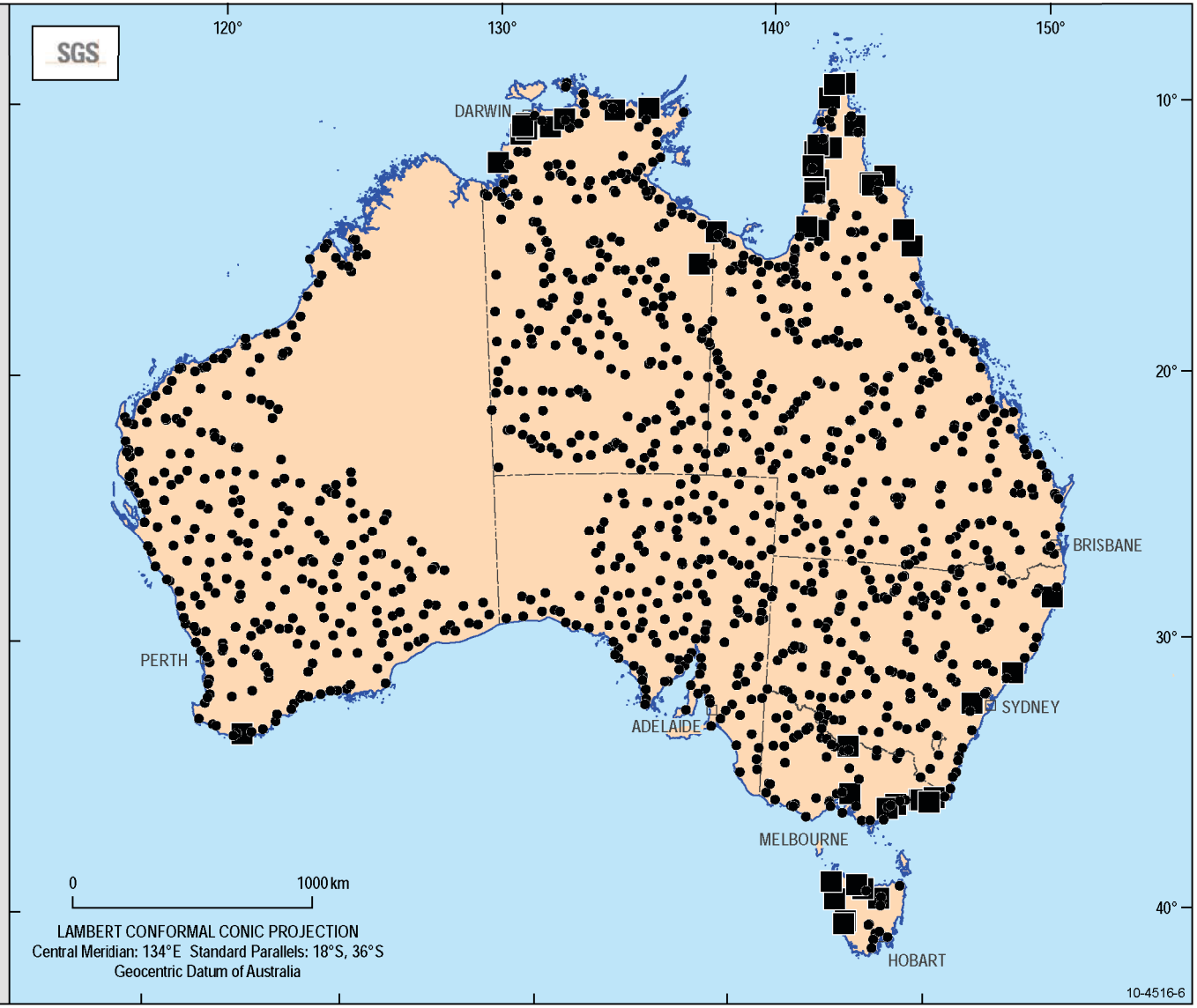
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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Ca

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 10 mg/kg
N: 1191

Maximum: *3680 mg/kg*

Upper Fence: *2272 mg/kg*

75%: *560 mg/kg*

Median: *390 mg/kg*

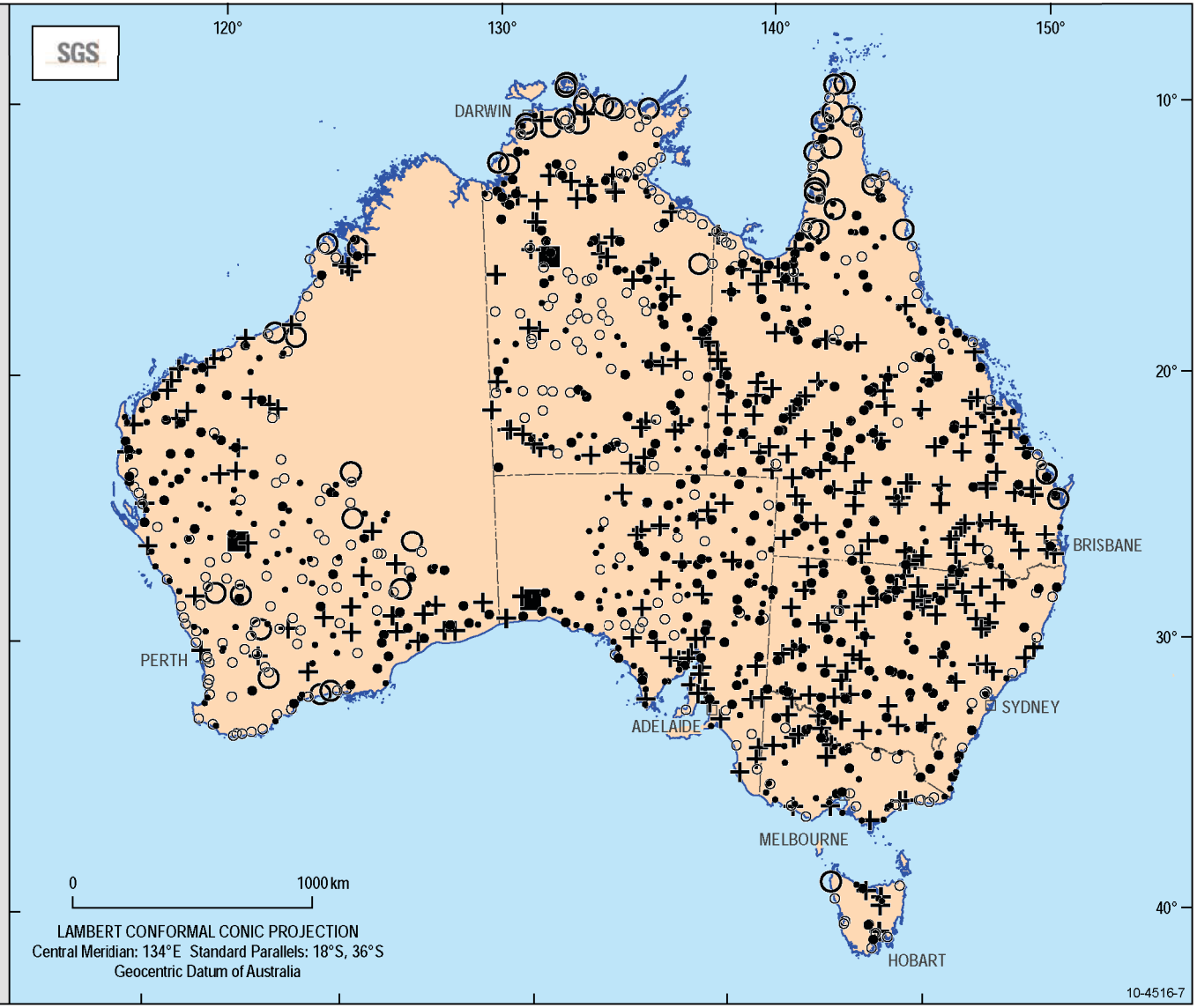
25%: *220 mg/kg*

Lower Fence: *54 mg/kg*

Minimum: *Less than 10 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Cd

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191

Maximum: *1.75 mg/kg*

Upper Fence: *0.086 mg/kg*

75%: *0.009 mg/kg*

Median: *0.005 mg/kg*

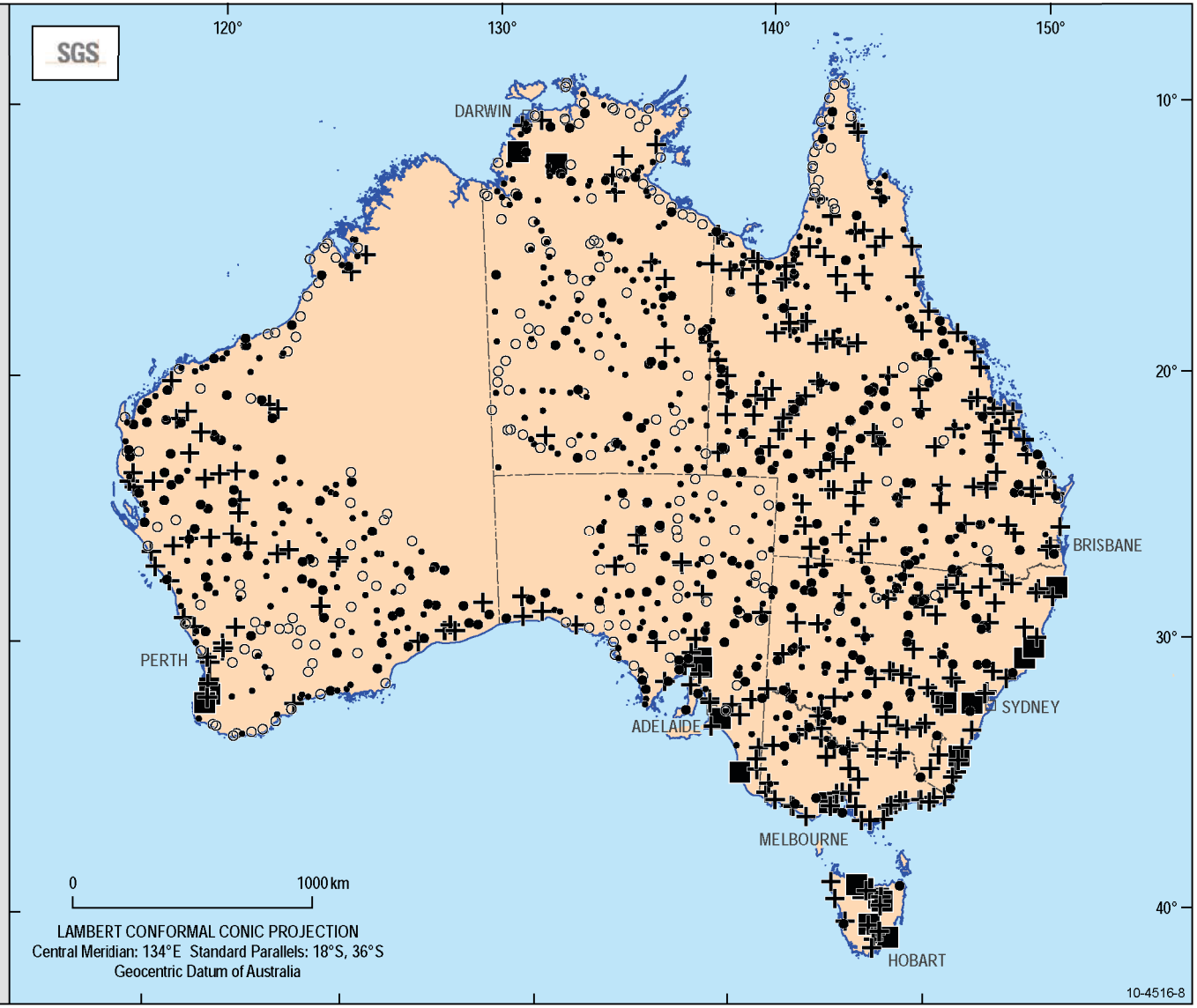
25%: *0.002 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ce

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.005 mg/kg
N: 1191

Maximum: *12.1 mg/kg*

Upper Fence: *N/A**

75%: *0.429 mg/kg*

Median: *0.101 mg/kg*

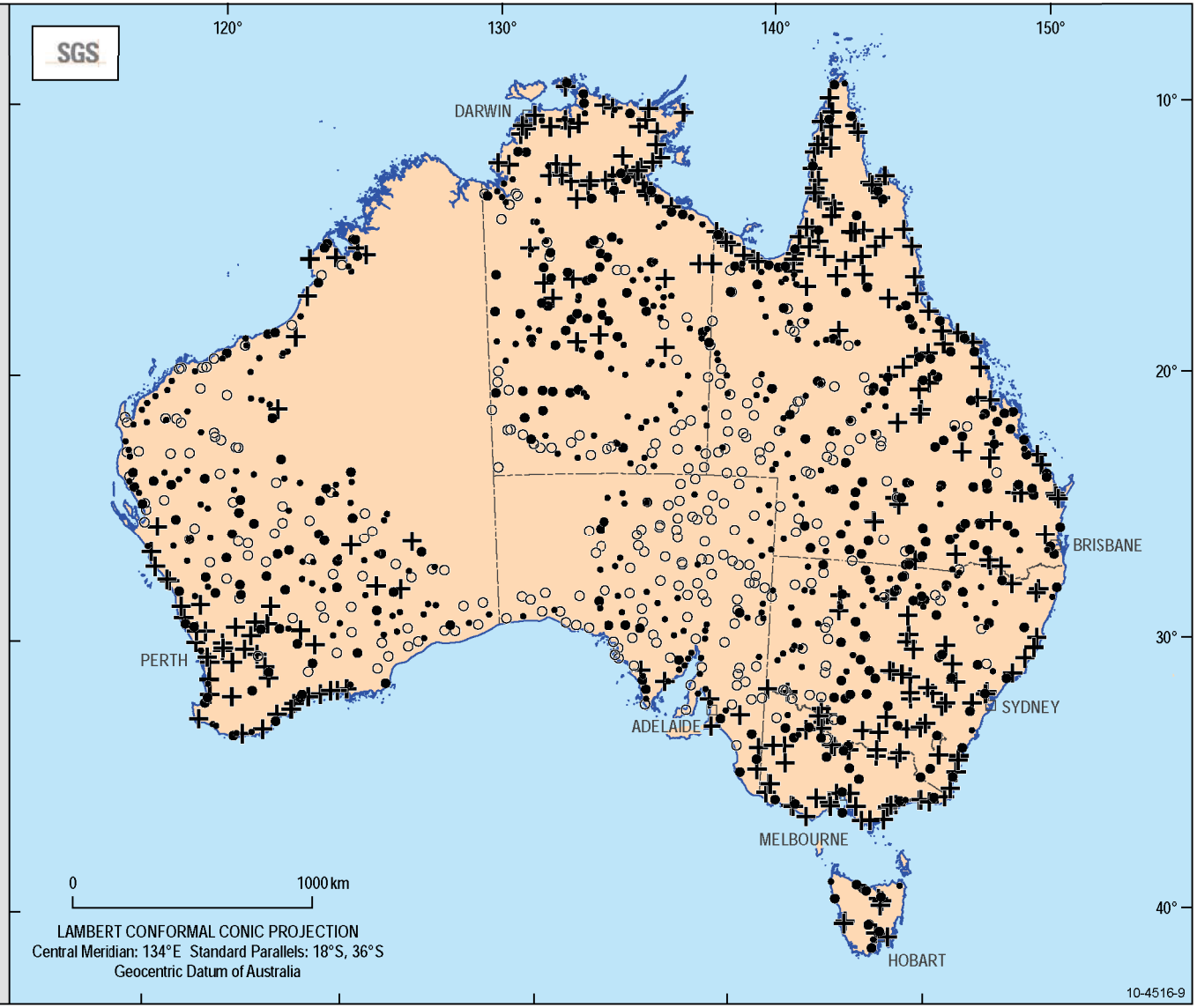
25%: *0.019 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.005 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Co

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.005 mg/kg
N: 1191

Maximum: *2.58 mg/kg*

Upper Fence: *2.443 mg/kg*

75%: *0.328 mg/kg*

Median: *0.178 mg/kg*

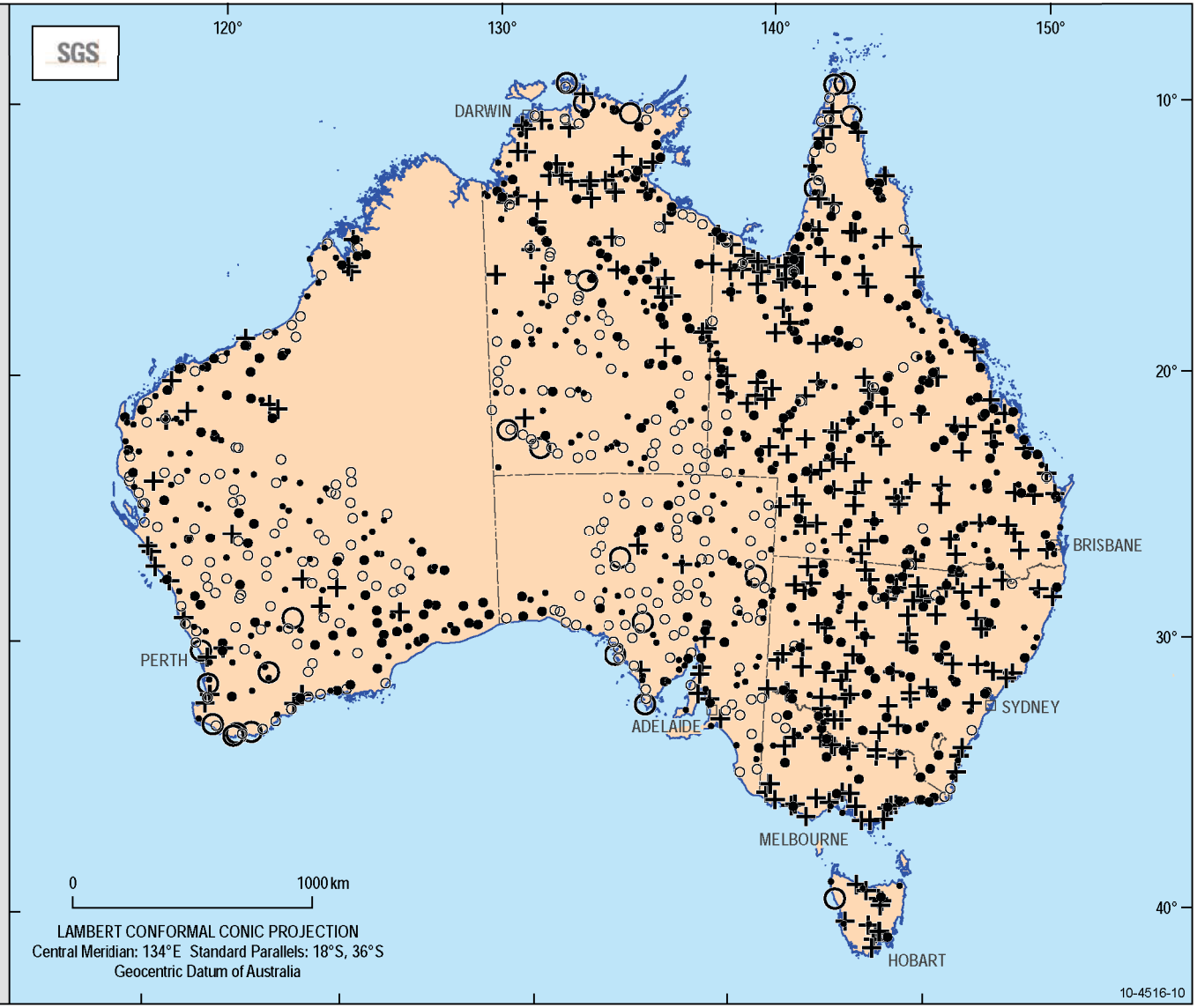
25%: *0.086 mg/kg*

Lower Fence: *0.012 mg/kg*

Minimum: *Less than 0.005 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Cr

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191

Maximum: *2.55 mg/kg*

Upper Fence: *0.776 mg/kg*

75%: *0.057 mg/kg*

Median: *0.024 mg/kg*

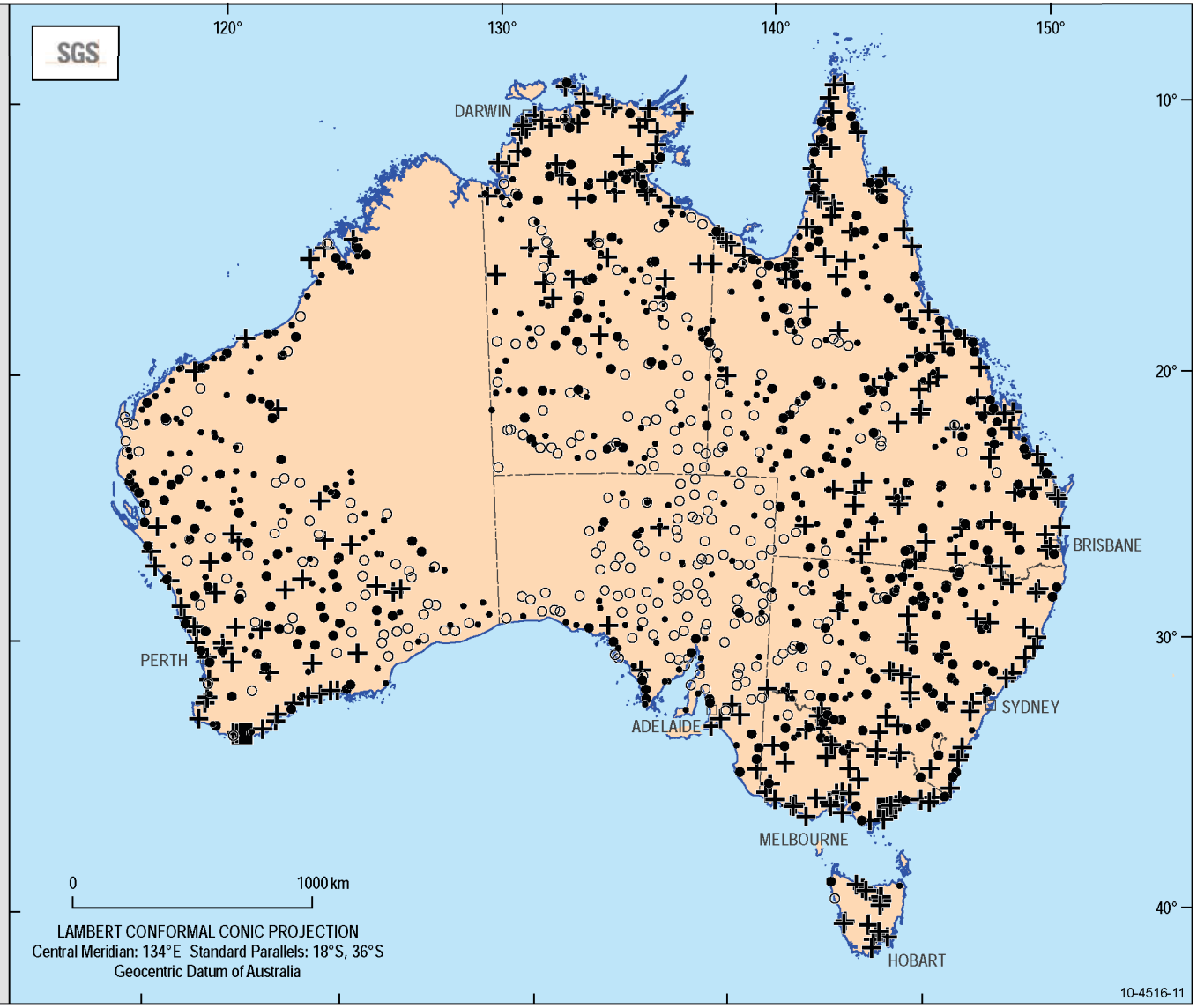
25%: *0.01 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Cs

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.0005 mg/kg
N: 1191

Maximum: *1.83 mg/kg*

Upper Fence: *0.1326 mg/kg*

75%: *0.0229 mg/kg*

Median: *0.0118 mg/kg*

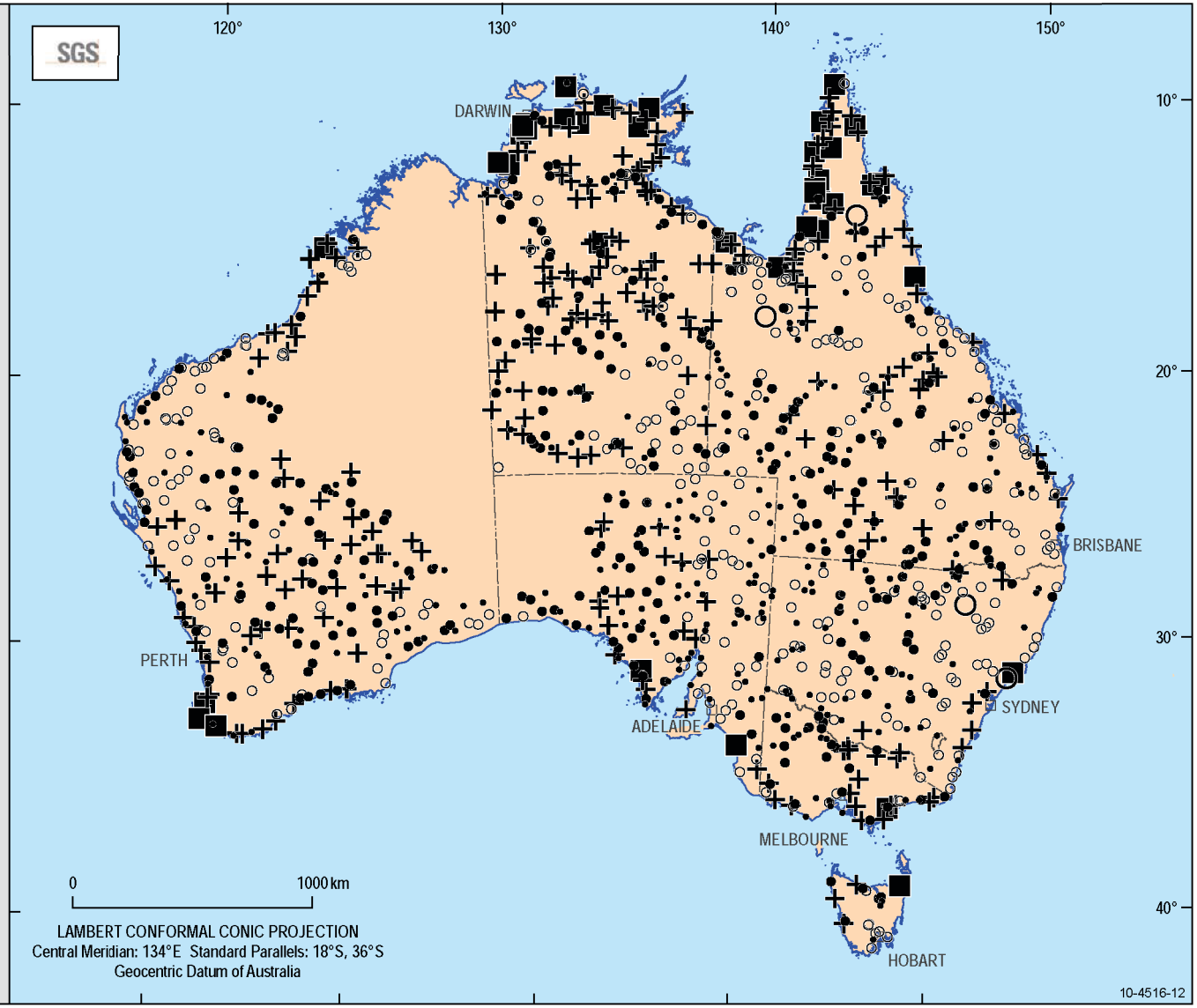
25%: *0.0071 mg/kg*

Lower Fence: *0.0012 mg/kg*

Minimum: *Less than 0.0005 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Cu

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1191

Maximum: *30.5 mg/kg*

Upper Fence: *9.89 mg/kg*

75%: *1.59 mg/kg*

Median: *0.96 mg/kg*

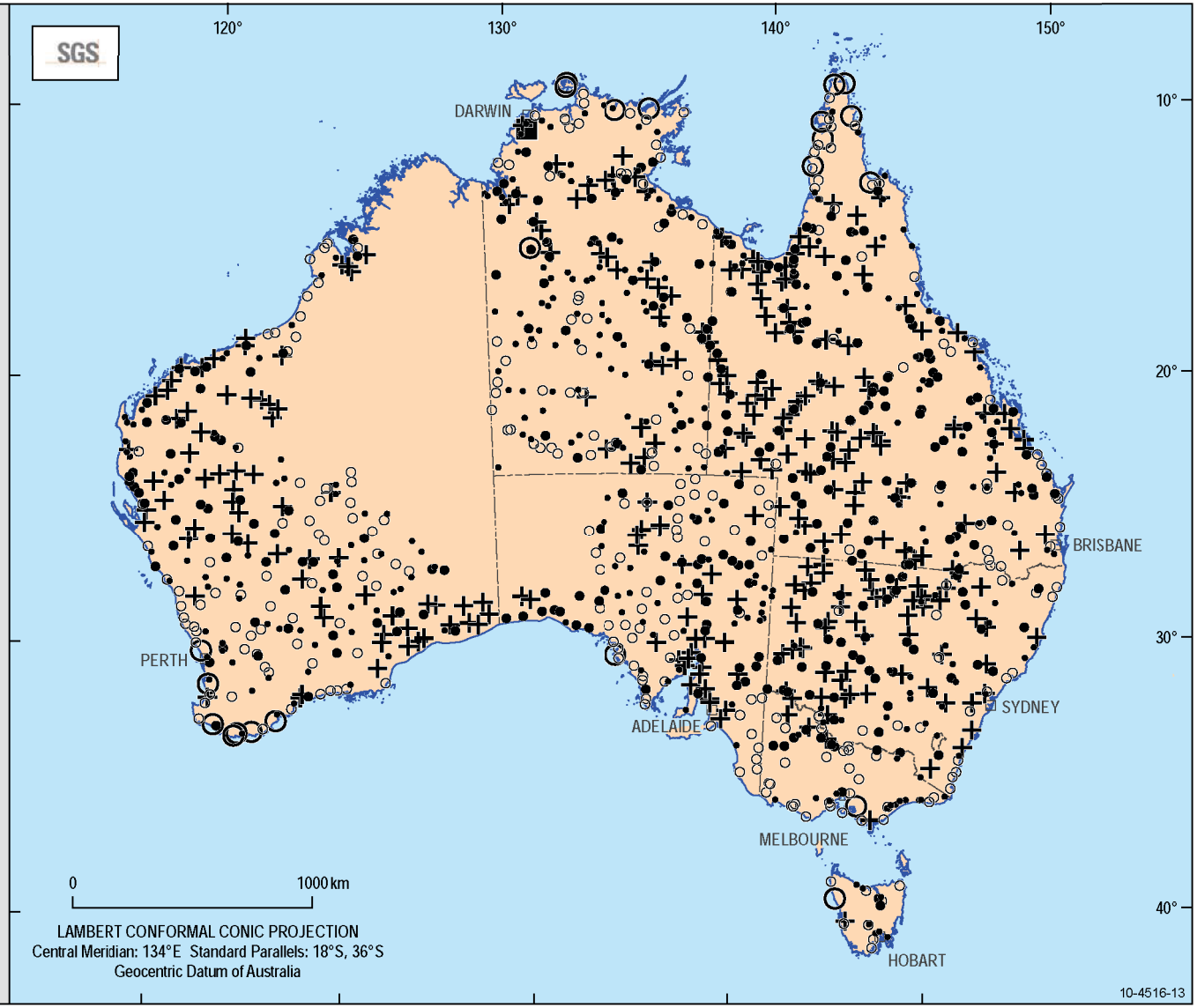
25%: *0.47 mg/kg*

Lower Fence: *0.08 mg/kg*

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Dy

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191

Maximum: *1.49 mg/kg*

Upper Fence: *N/A**

75%: *0.079 mg/kg*

Median: *0.023 mg/kg*

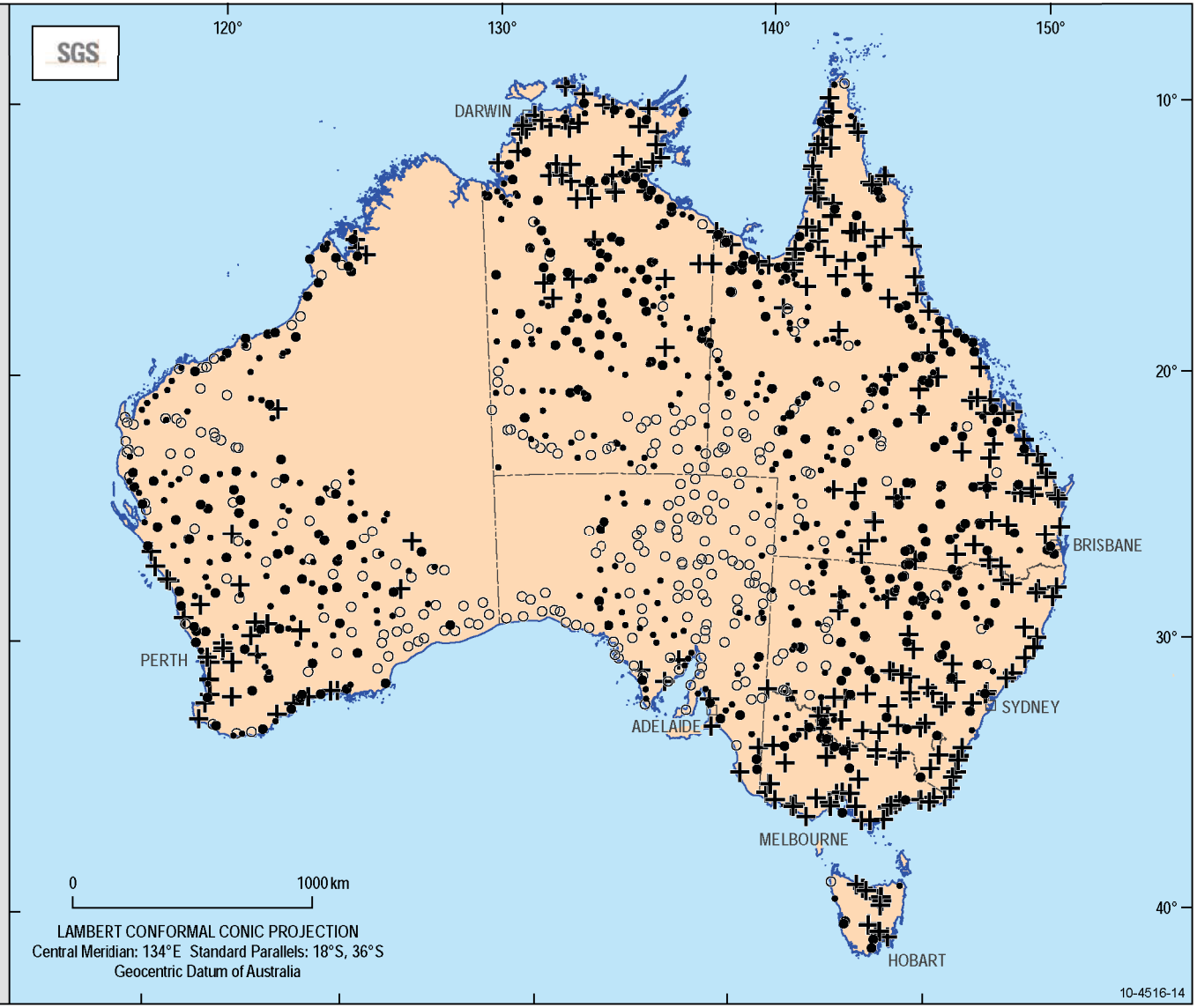
25%: *0.008 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Er

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.0005 mg/kg
N: 1191

Maximum: *2.23 mg/kg*

Upper Fence: *1.0315 mg/kg*

75%: *0.0385 mg/kg*

Median: *0.0112 mg/kg*

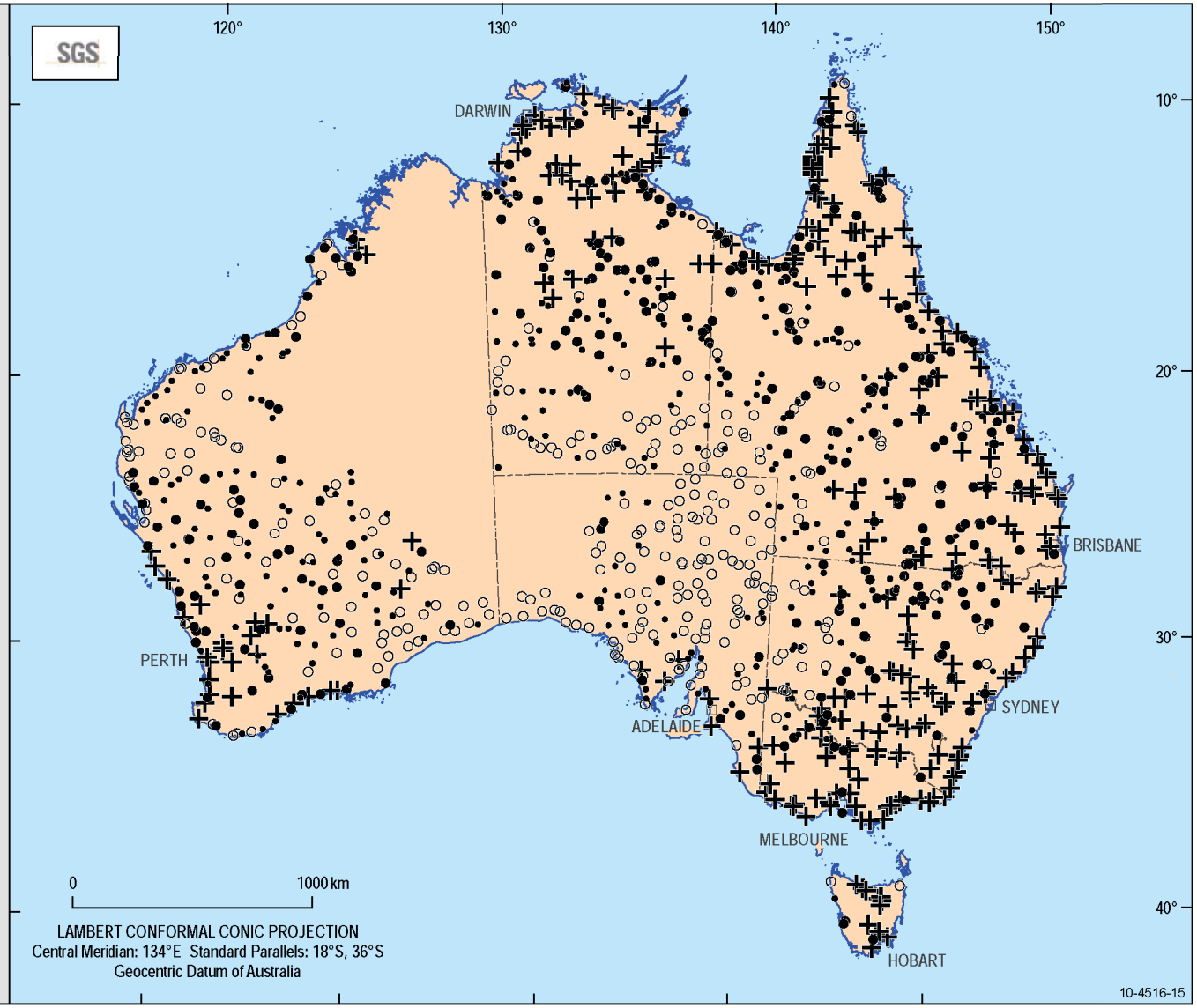
25%: *0.0043 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.0005 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Eu

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.0005 mg/kg
N: 1191

Maximum: *0.359 mg/kg*

Upper Fence: *N/A**

75%: *0.0206 mg/kg*

Median: *0.0067 mg/kg*

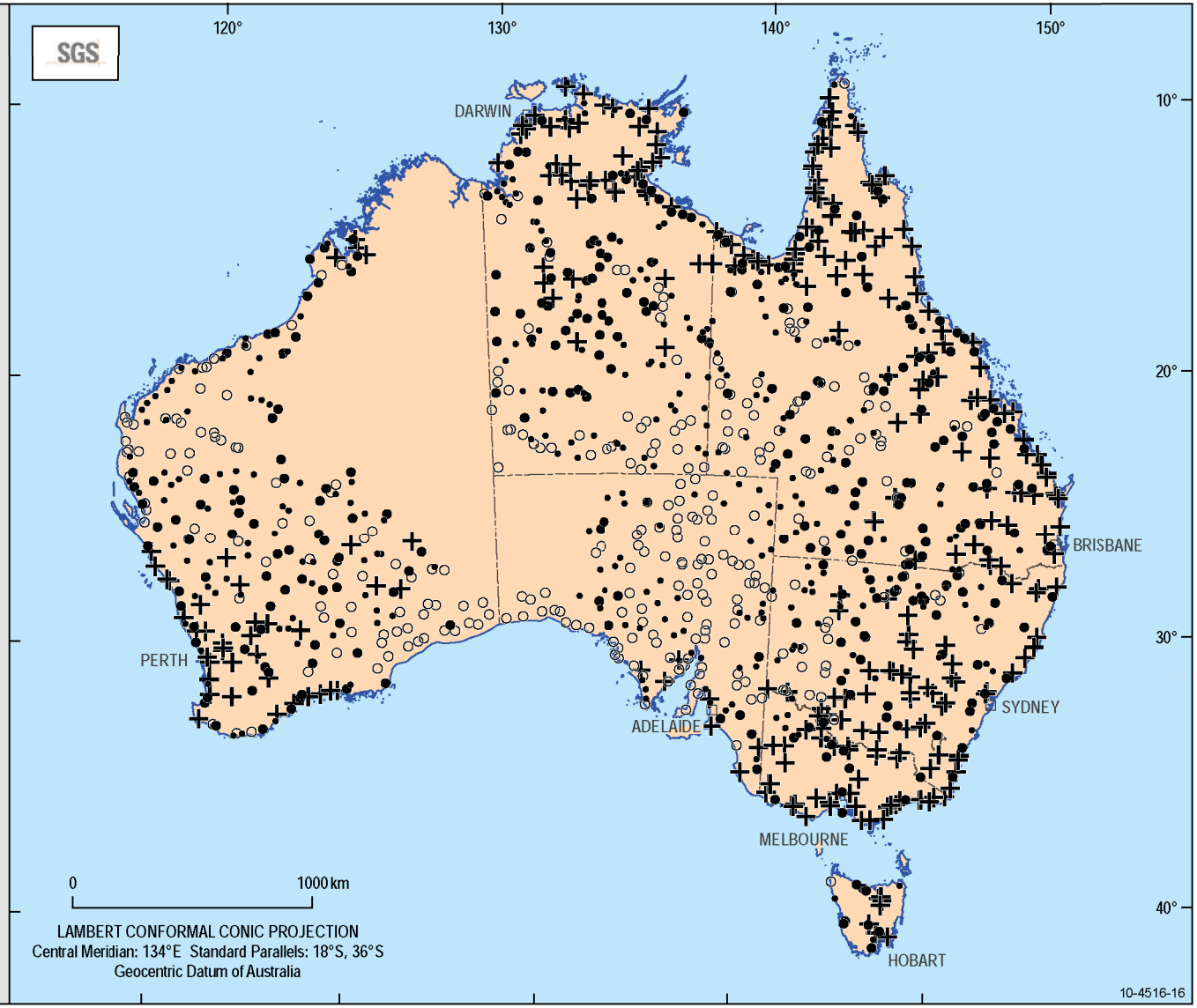
25%: *0.0016 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.0005 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Fe

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 1 mg/kg
N: 1191

Maximum: *555 mg/kg*

Upper Fence: *215 mg/kg*

75%: *13 mg/kg*

Median: *4 mg/kg*

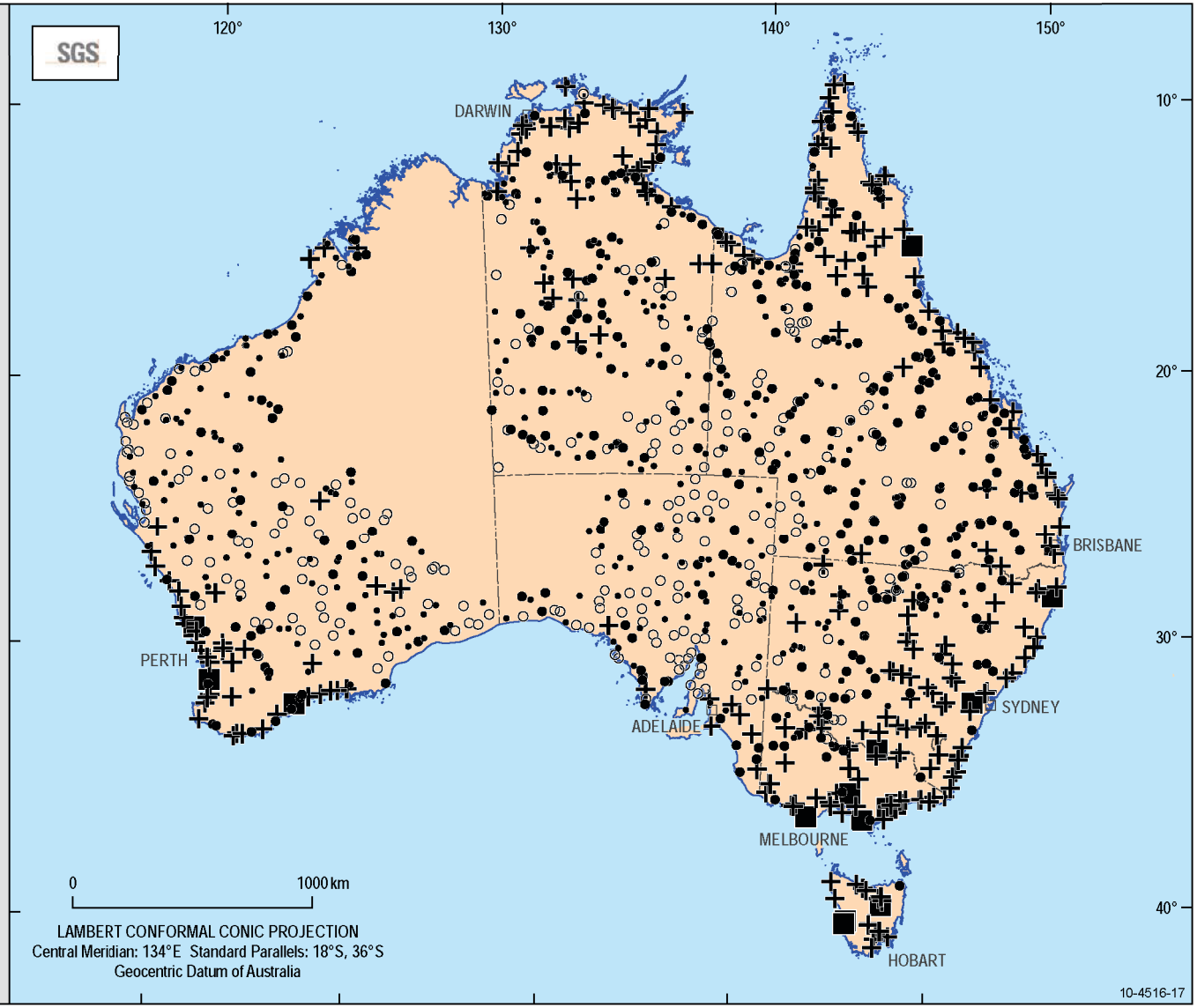
25%: *2 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 1 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ga

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191

Maximum: *0.685 mg/kg*

Upper Fence: *0.345 mg/kg*

75%: *0.046 mg/kg*

Median: *0.025 mg/kg*

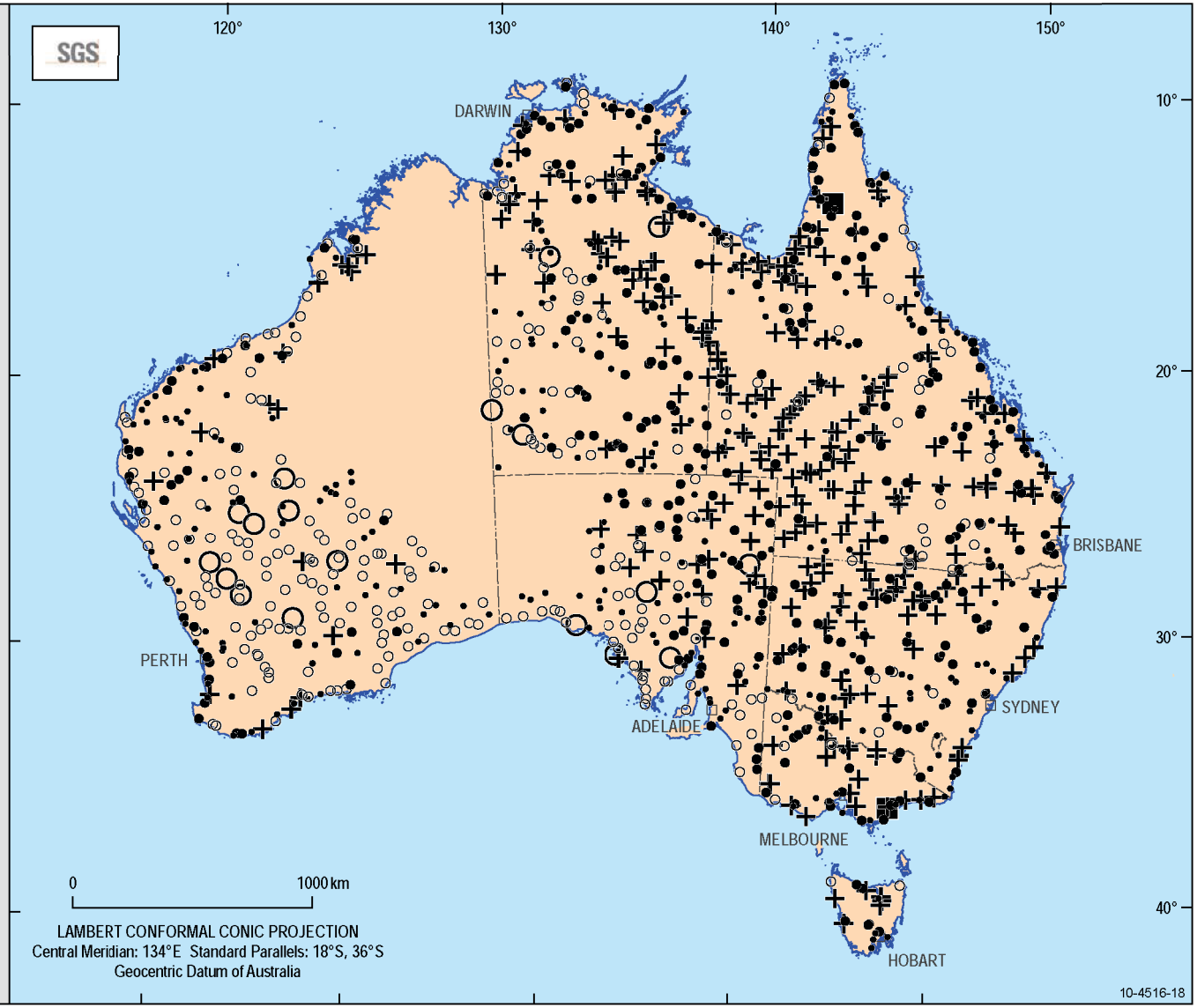
25%: *0.012 mg/kg*

Lower Fence: *0.002 mg/kg*

Minimum: *Less than 0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Gd

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191

Maximum: *1.61 mg/kg*

Upper Fence: *N/A**

75%: *0.096 mg/kg*

Median: *0.029 mg/kg*

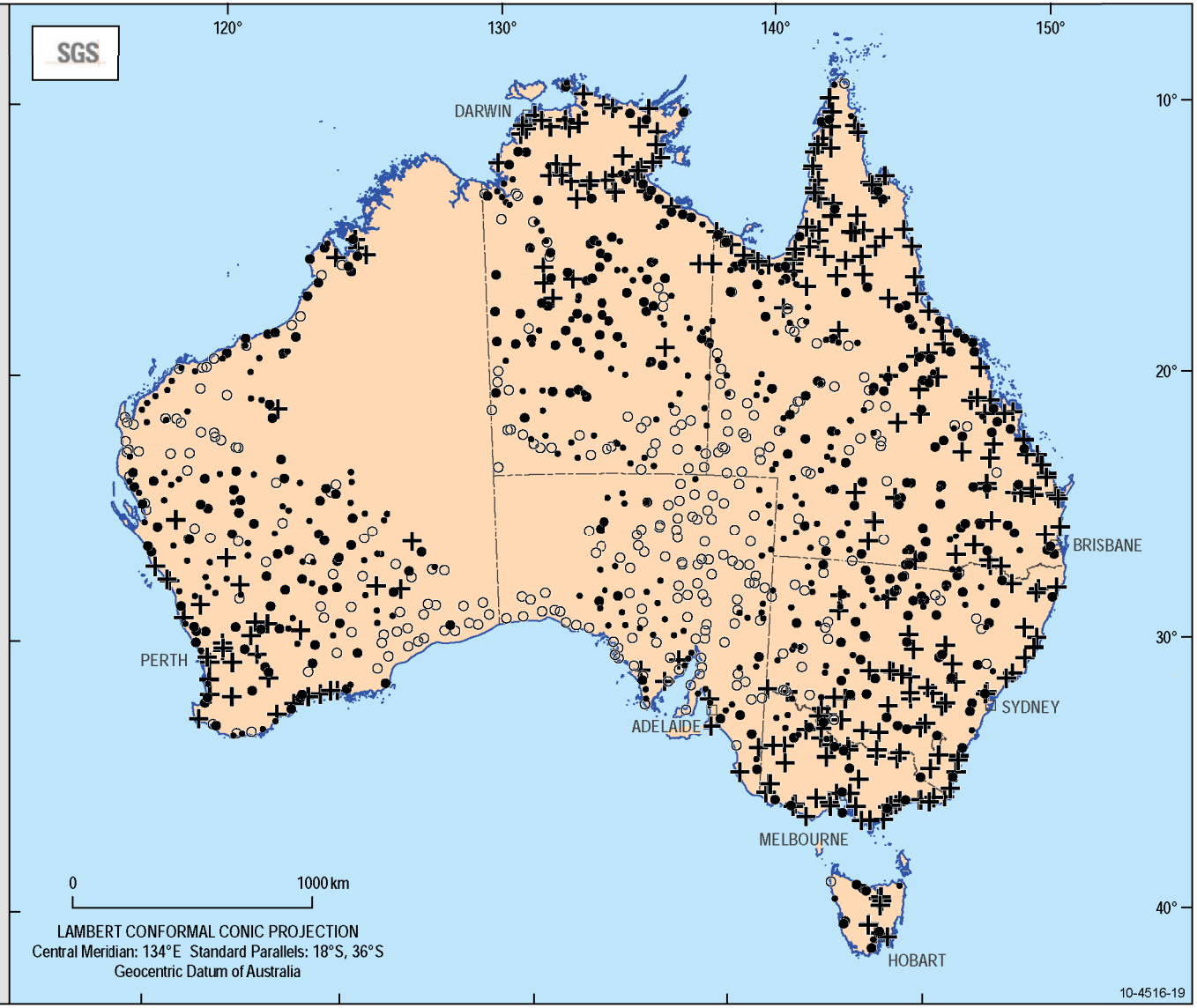
25%: *0.008 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Hg

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191

Maximum: *0.101 mg/kg*

Upper Fence: *Less than 0.001 mg/kg*

75%: *N/A**

Median: *N/A**

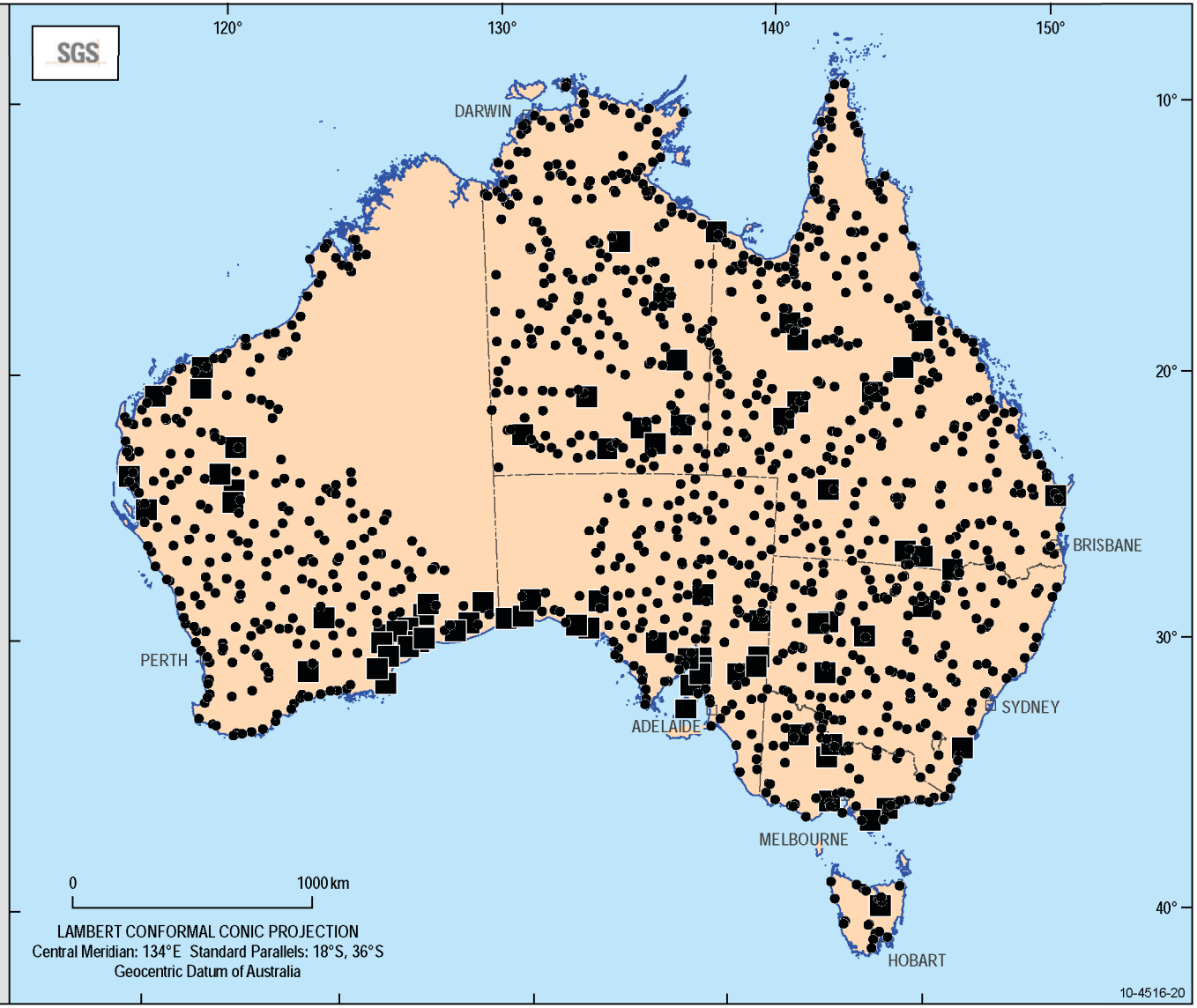
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

K

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191

Maximum: *1040 mg/kg*

Upper Fence: *690.6 mg/kg*

75%: *134 mg/kg*

Median: *82.2 mg/kg*

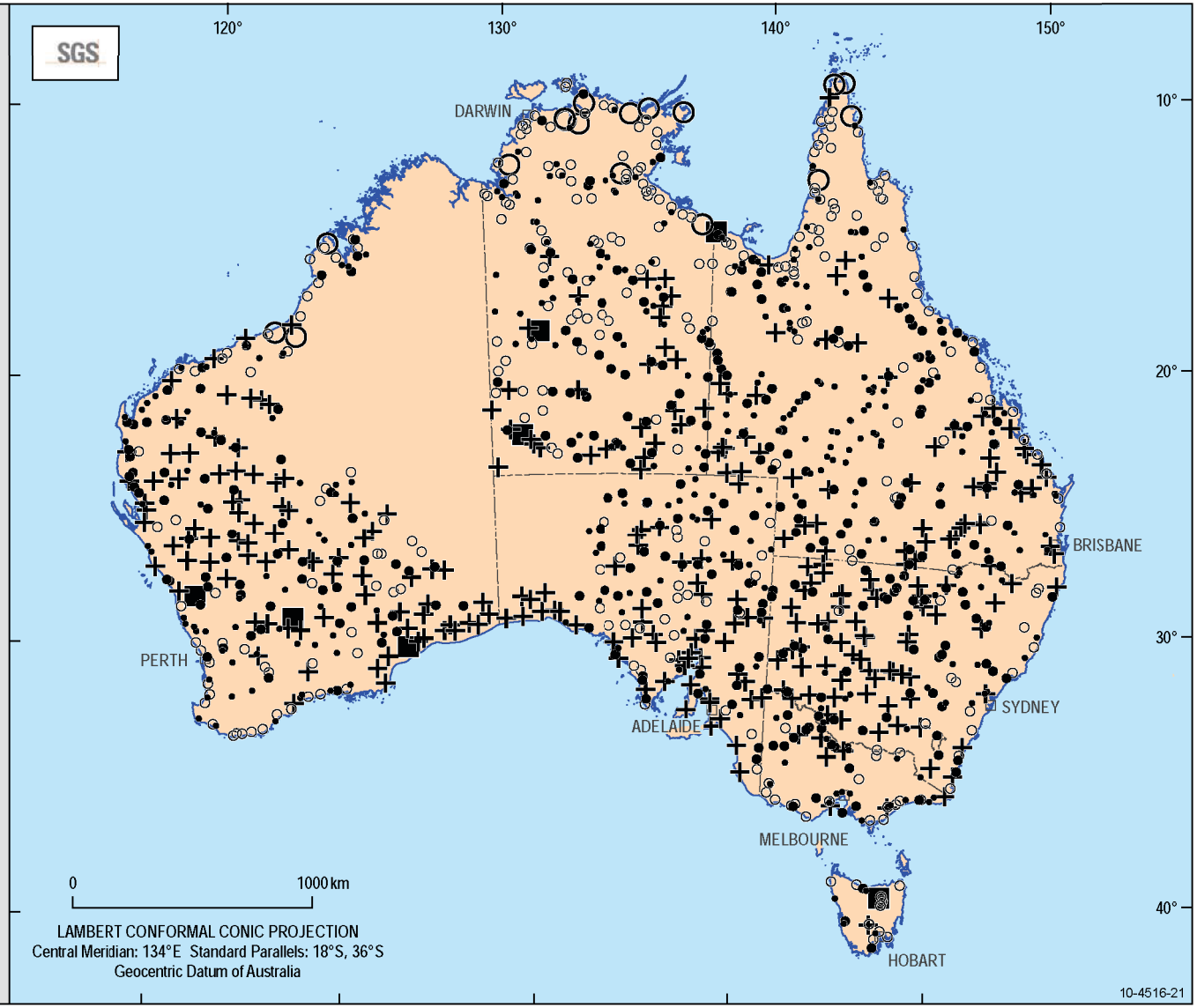
25%: *44.9 mg/kg*

Lower Fence: *8.7 mg/kg*

Minimum: *1.2 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

La

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191

Maximum: *3.31 mg/kg*

Upper Fence: *N/A**

75%: *0.123 mg/kg*

Median: *0.027 mg/kg*

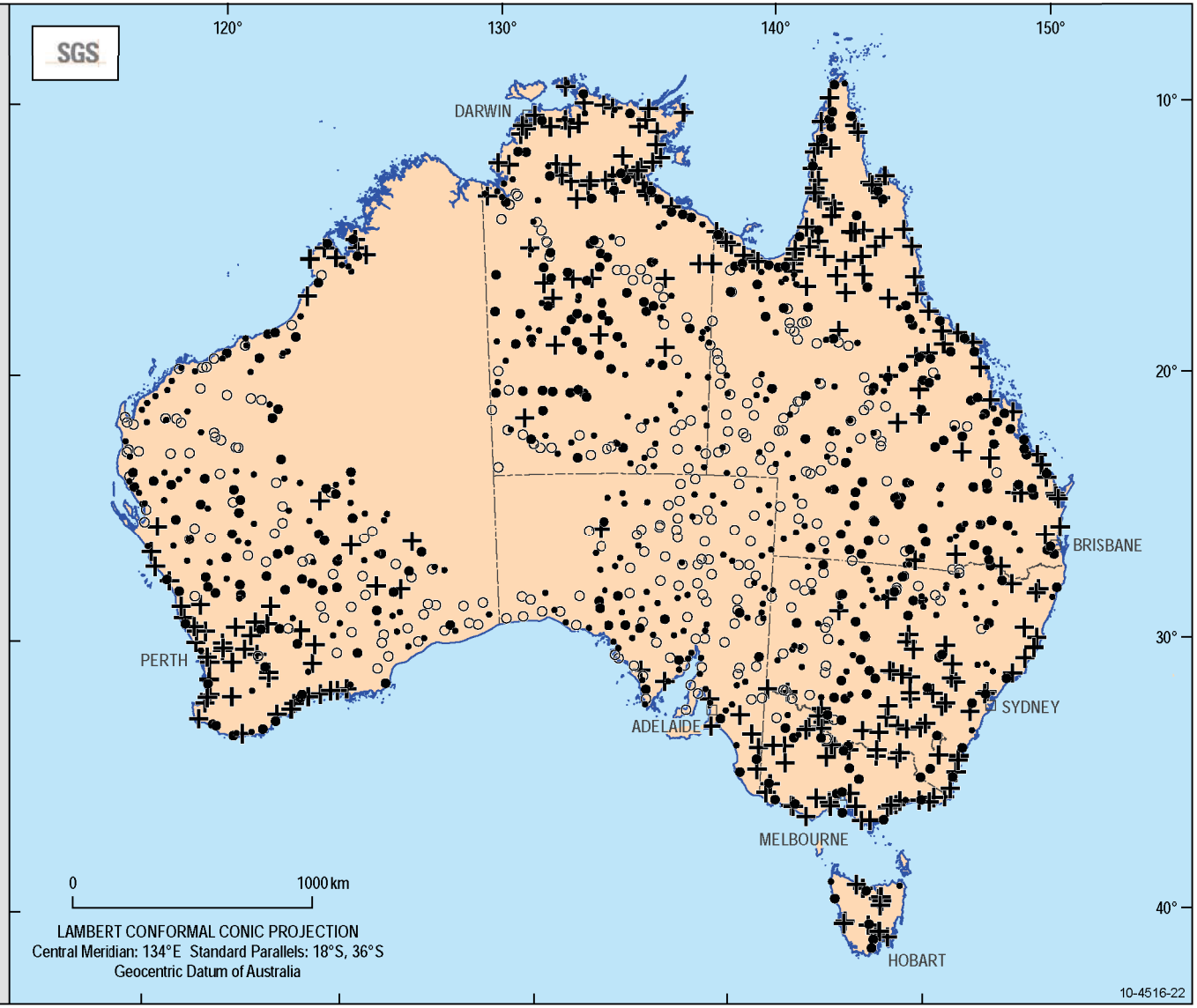
25%: *0.005 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Li

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191

Maximum: *0.788 mg/kg*

Upper Fence: *0.398 mg/kg*

75%: *0.019 mg/kg*

Median: *0.008 mg/kg*

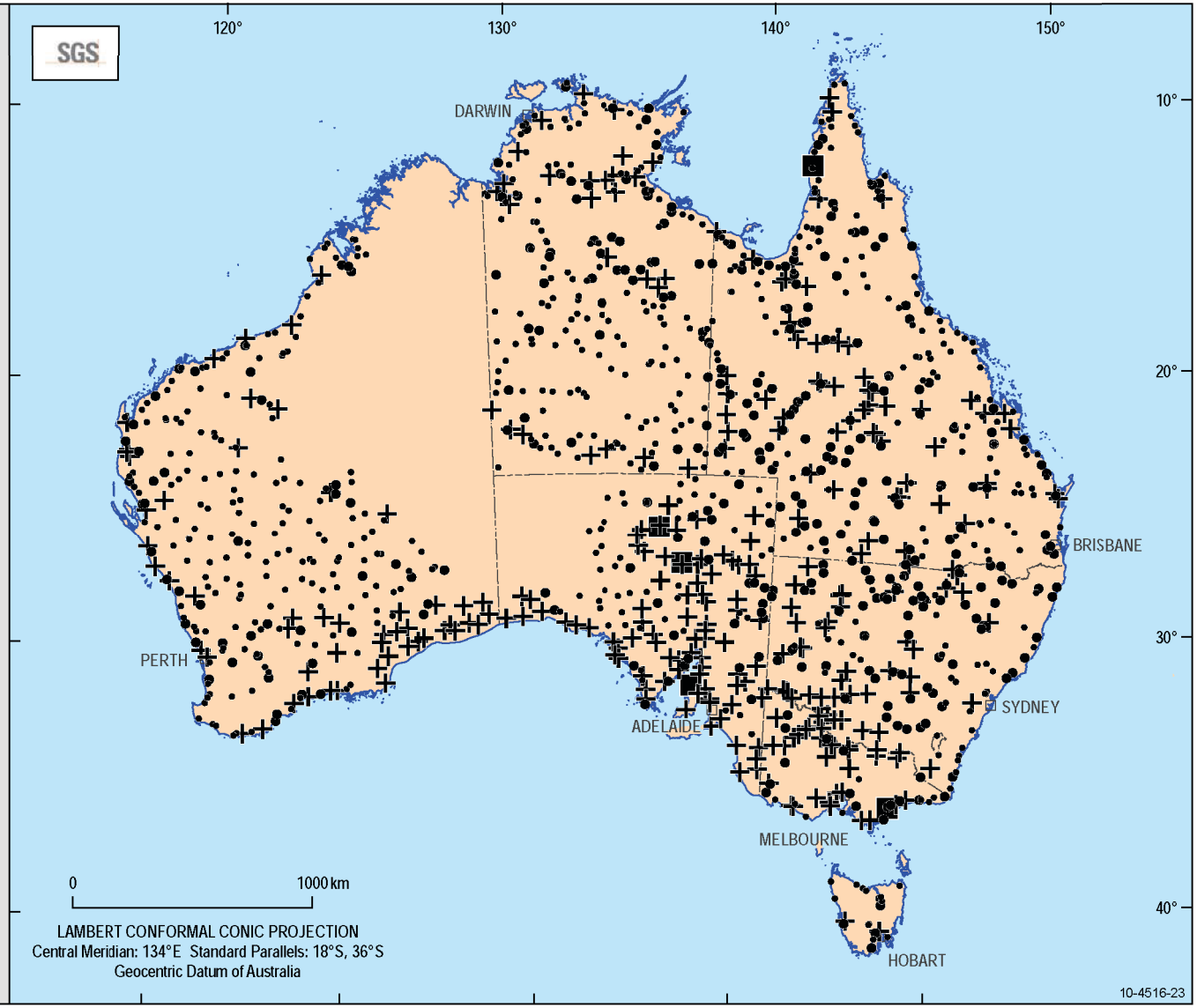
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.005 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Mg

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 1 mg/kg
N: 1191

Maximum: *2920 mg/kg*

Upper Fence: *1877 mg/kg*

75%: *261 mg/kg*

Median: *140 mg/kg*

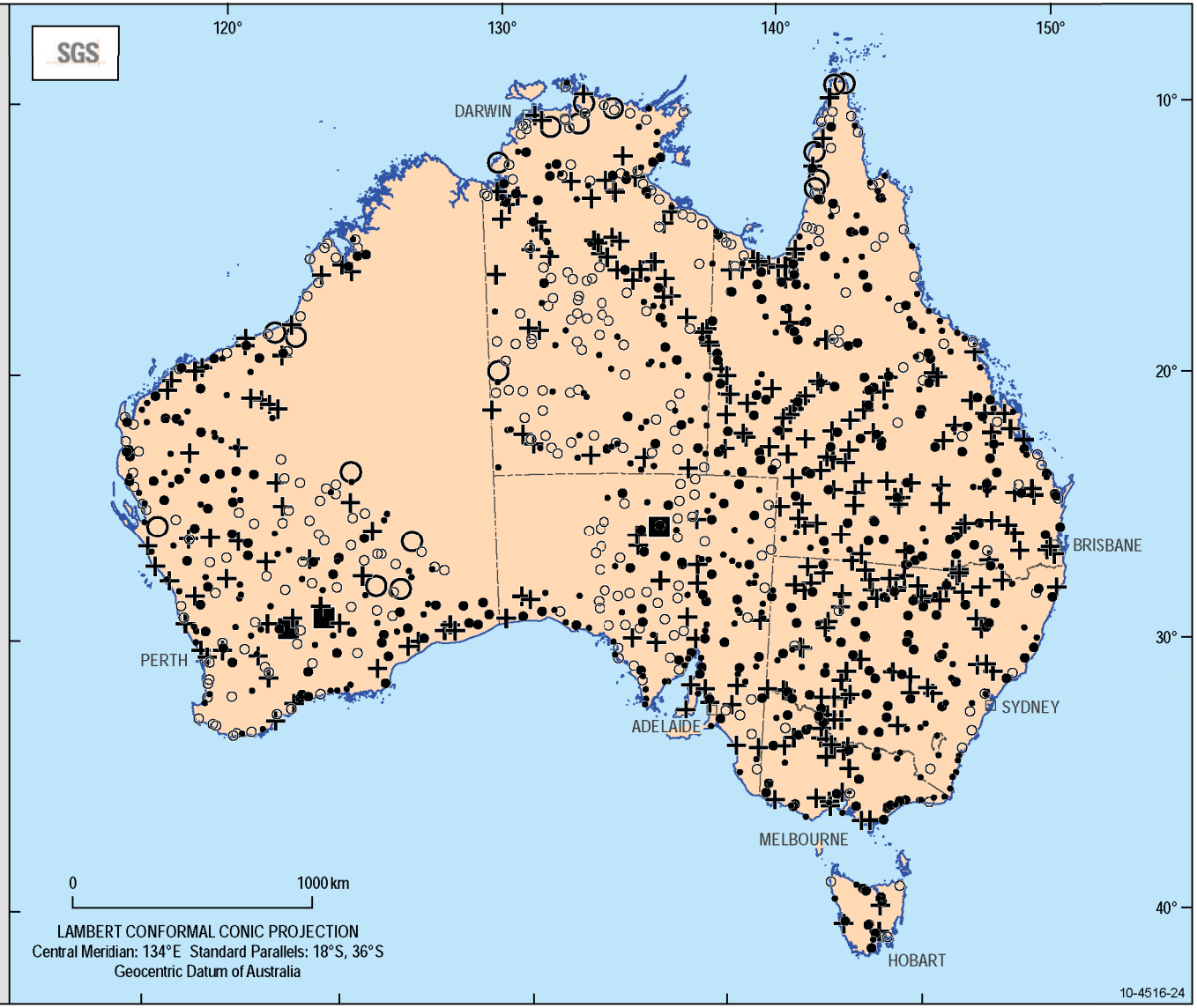
25%: *70 mg/kg*

Lower Fence: *10 mg/kg*

Minimum: *2 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Mn

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.005 mg/kg
N: 1191

Maximum: *59.7 mg/kg*

Upper Fence: *56.733 mg/kg*

75%: *8.16 mg/kg*

Median: *3.99 mg/kg*

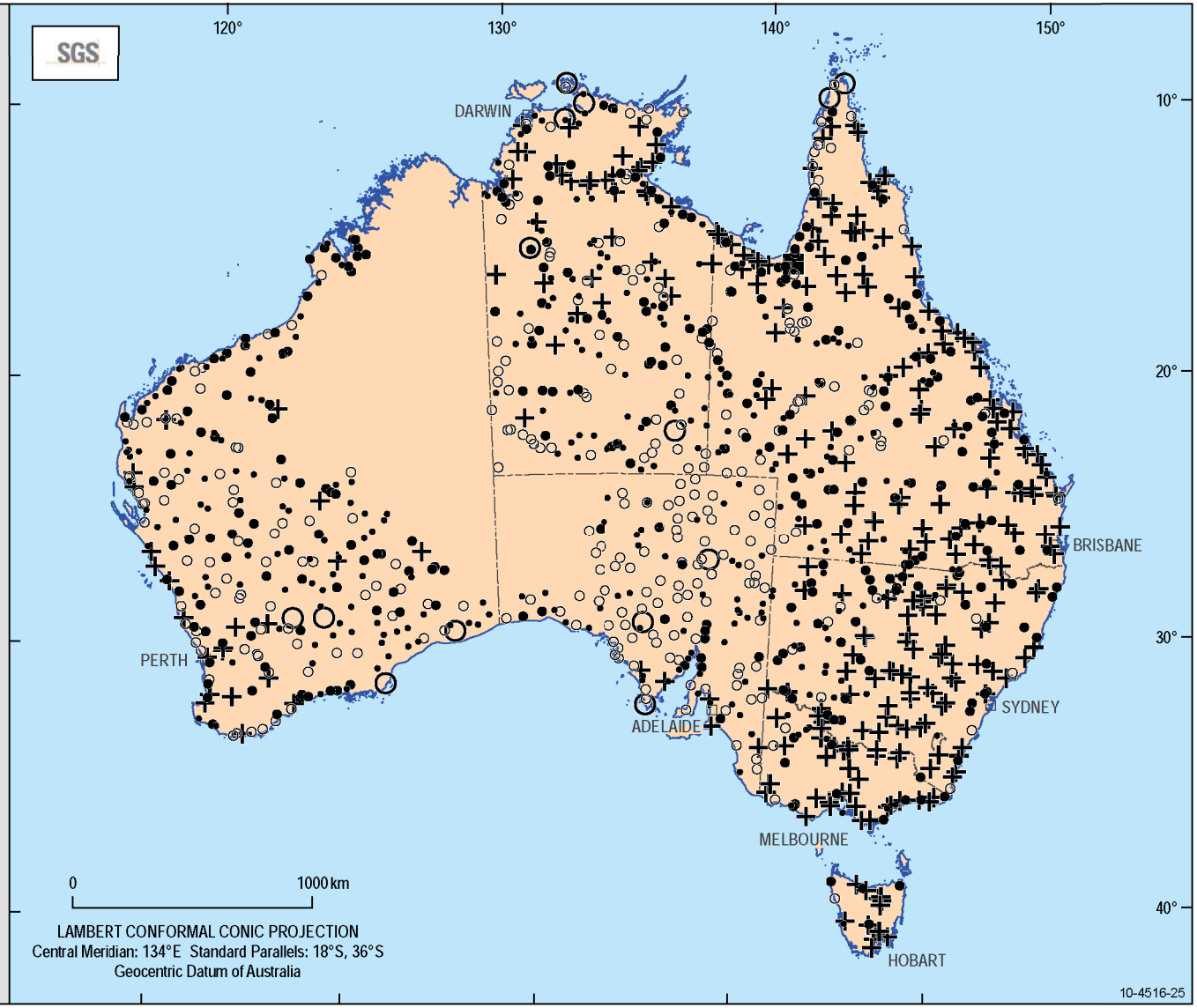
25%: *2.24 mg/kg*

Lower Fence: *0.322 mg/kg*

Minimum: *0.079 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Mo

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.005 mg/kg
N: 1191

Maximum: *0.276 mg/kg*

Upper Fence: *0.126 mg/kg*

75%: *0.012 mg/kg*

Median: *0.007 mg/kg*

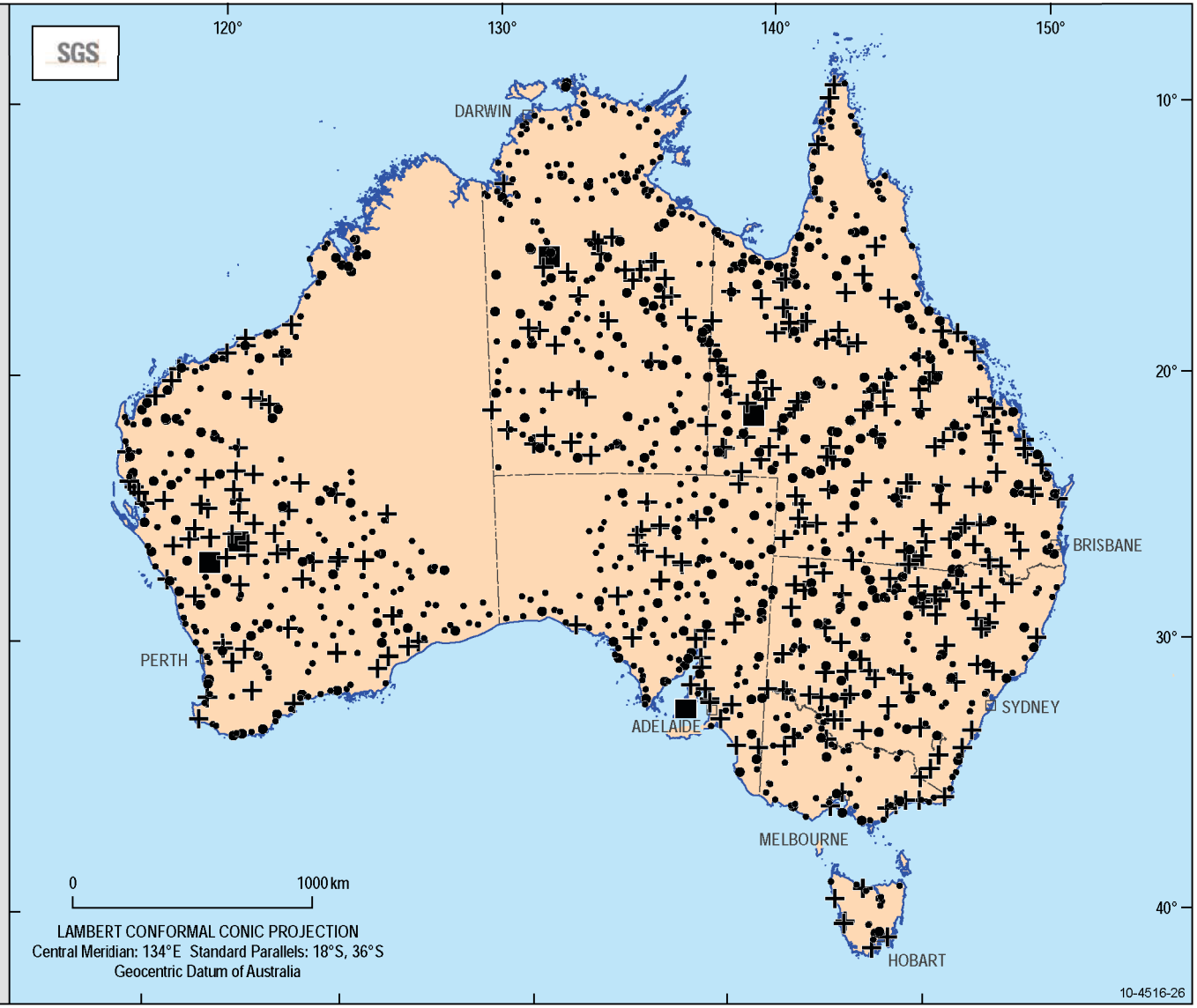
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.005 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Nb

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.0005 mg/kg
N: 1191

Maximum: *1.46 mg/kg*

Upper Fence: *0.0033 mg/kg*

75%: *0.0007 mg/kg*

Median: *N/A**

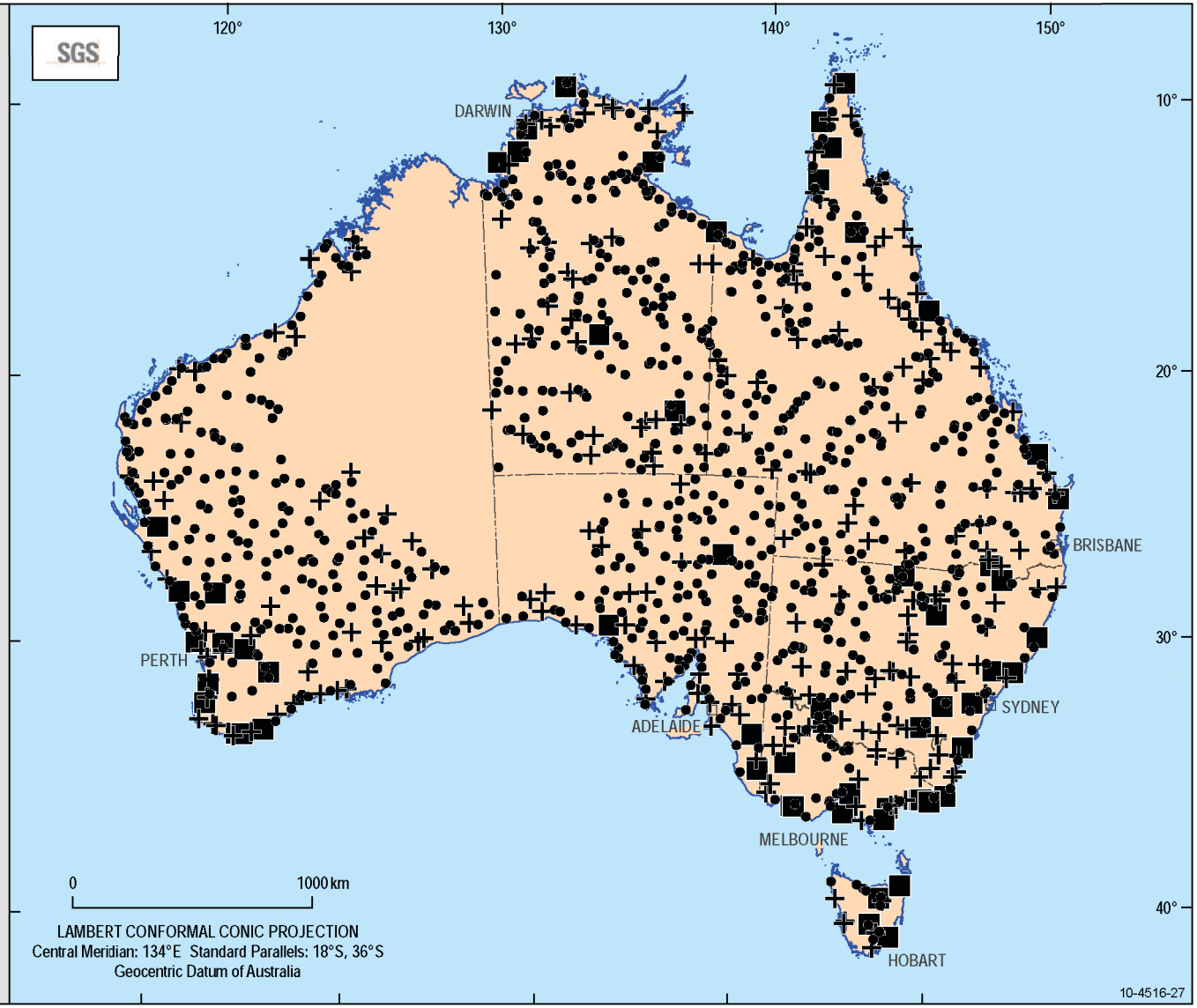
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.0005 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Nd

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191

Maximum: *6.87 mg/kg*

Upper Fence: *N/A**

75%: *0.344 mg/kg*

Median: *0.092 mg/kg*

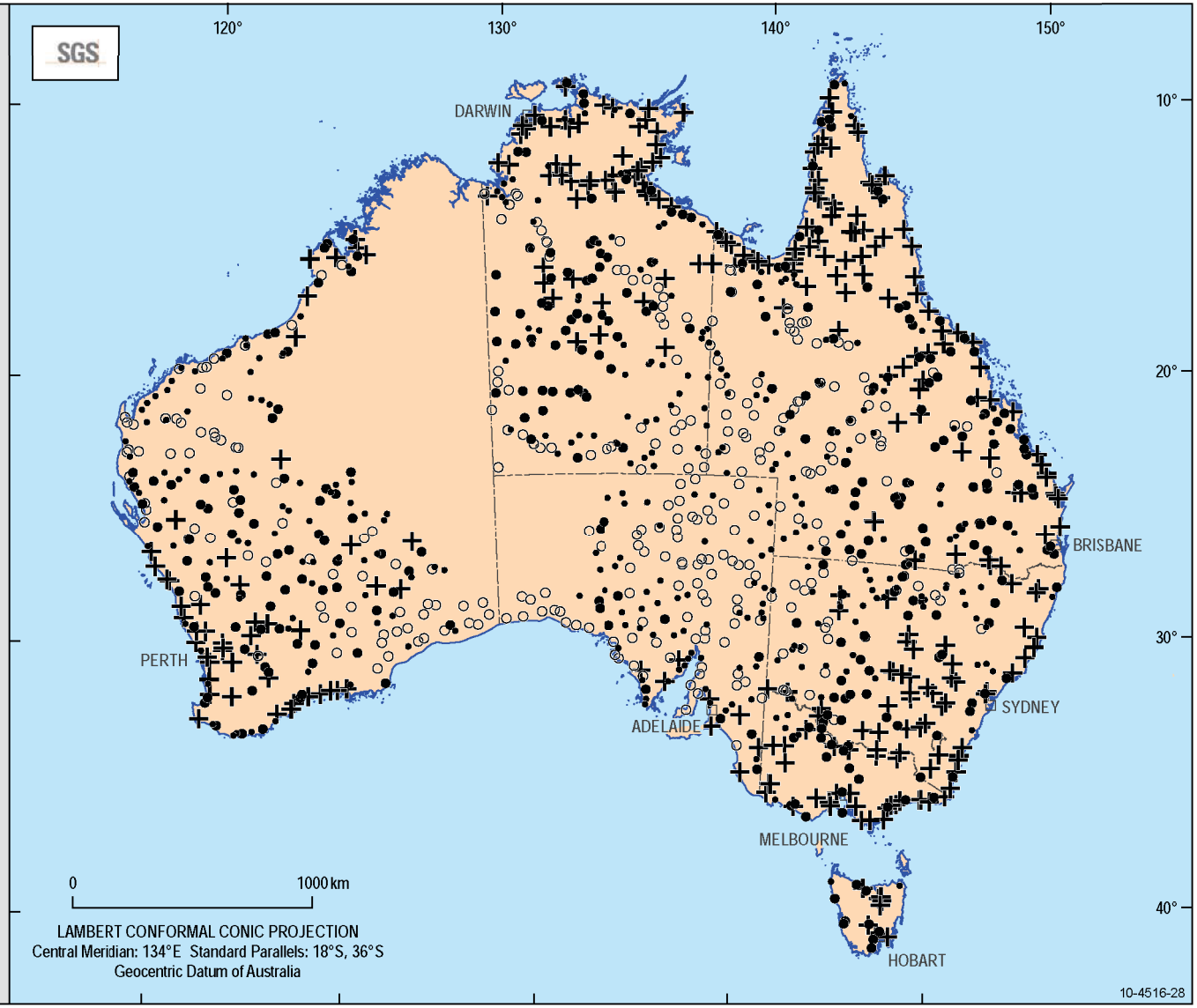
25%: *0.012 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ni

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.005 mg/kg
N: 1191

Maximum: *16.1 mg/kg*

Upper Fence: *10.546 mg/kg*

75%: *0.914 mg/kg*

Median: *0.411 mg/kg*

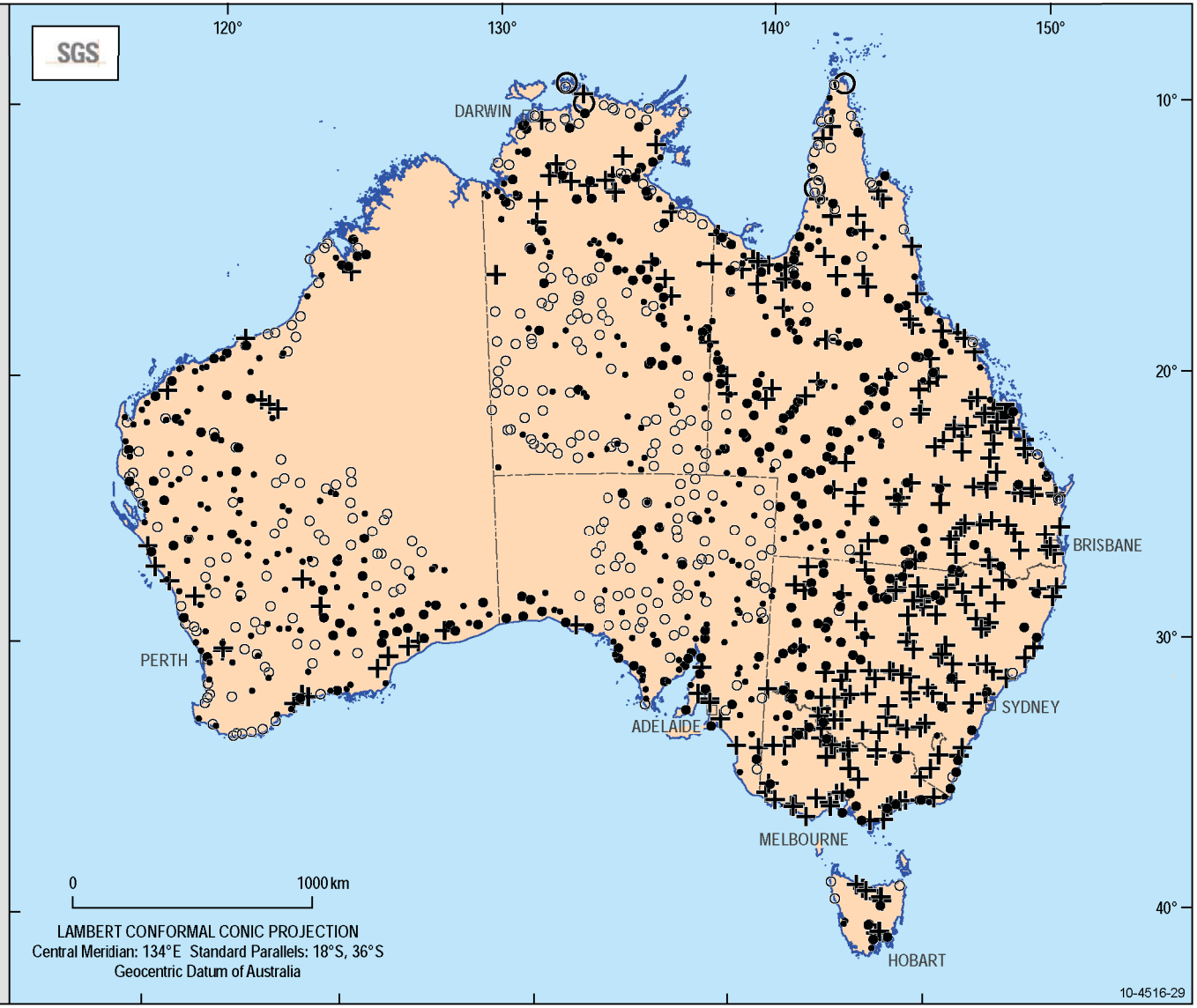
25%: *0.179 mg/kg*

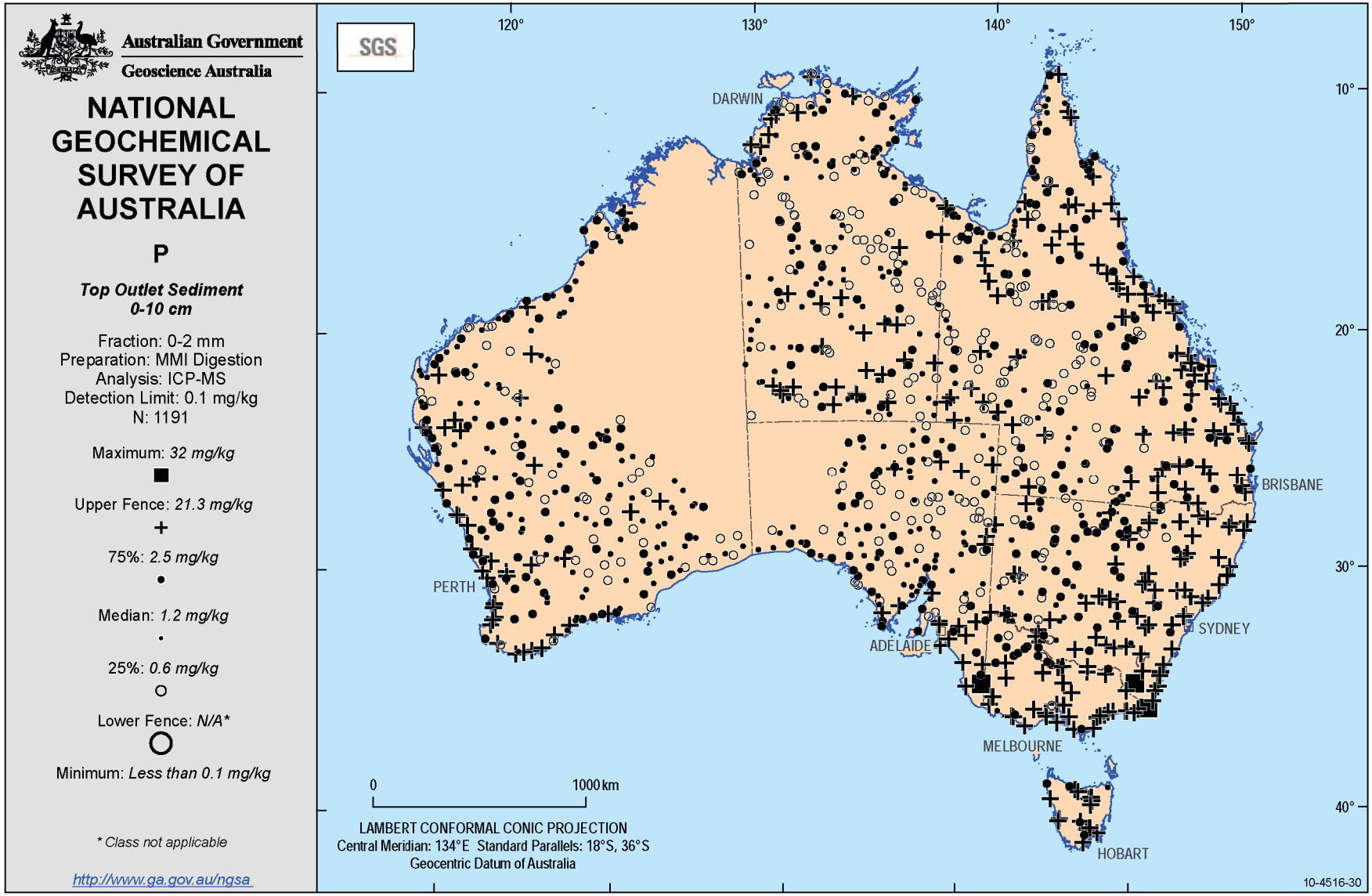
Lower Fence: *0.016 mg/kg*

Minimum: *0.006 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
P
Top Outlet Sediment
0-10 cm
Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.1 mg/kg
N: 1191
Maximum: 32 mg/kg
Upper Fence: 21.3 mg/kg
75%: 2.5 mg/kg
Median: 1.2 mg/kg
25%: 0.6 mg/kg
Lower Fence: N/A*
Minimum: Less than 0.1 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
SGS
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
PERTH
ADELAIDE
MELBOURNE
SYDNEY
BRISBANE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-30

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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Pb

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1191

Maximum: *5.89 mg/kg*

Upper Fence: *1.42 mg/kg*

75%: *0.11 mg/kg*

Median: *0.04 mg/kg*

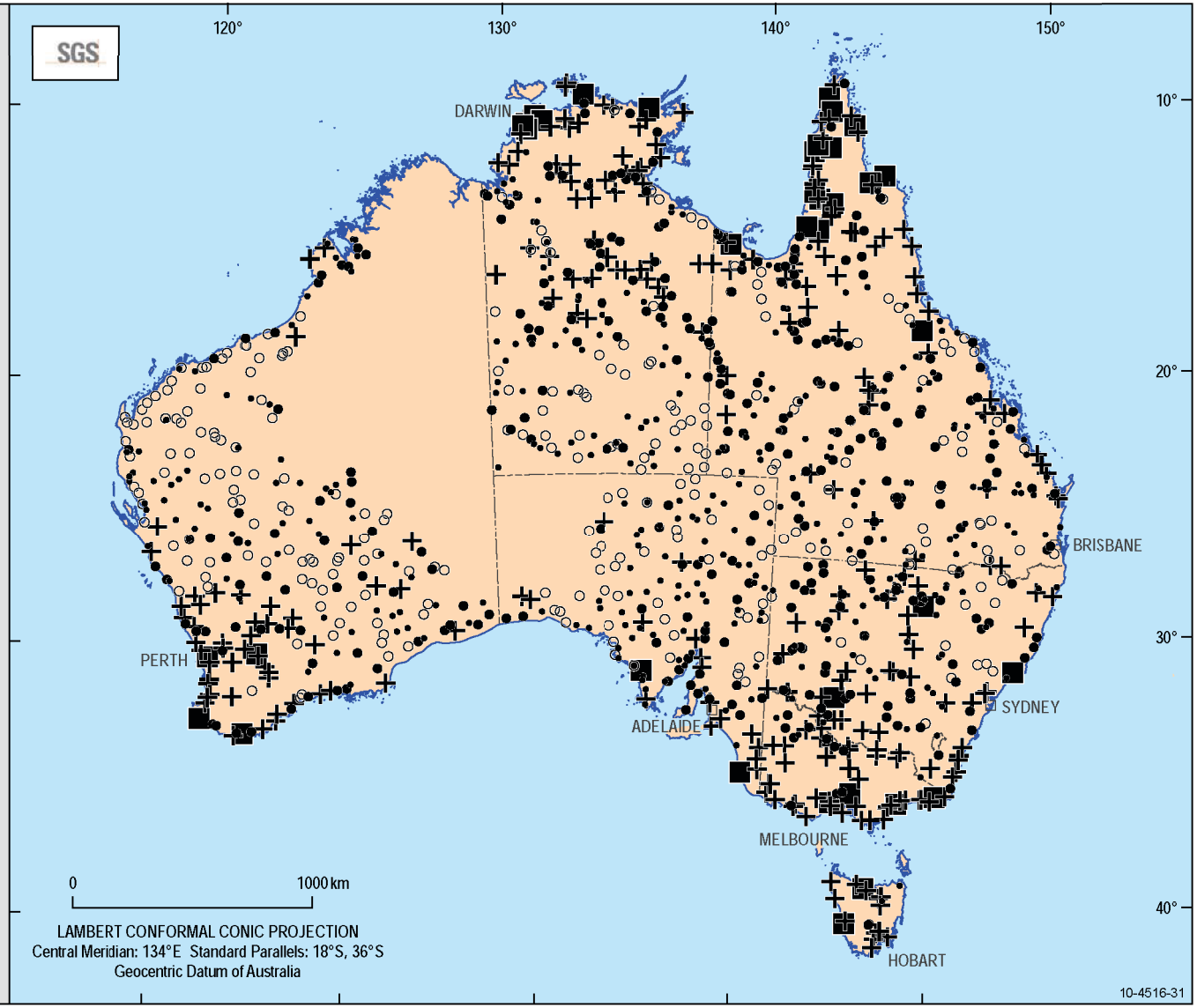
25%: *0.02 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Pd

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191

Maximum: *0.012 mg/kg*

Upper Fence: *Less than 0.001 mg/kg*

75%: *N/A**

Median: *N/A**

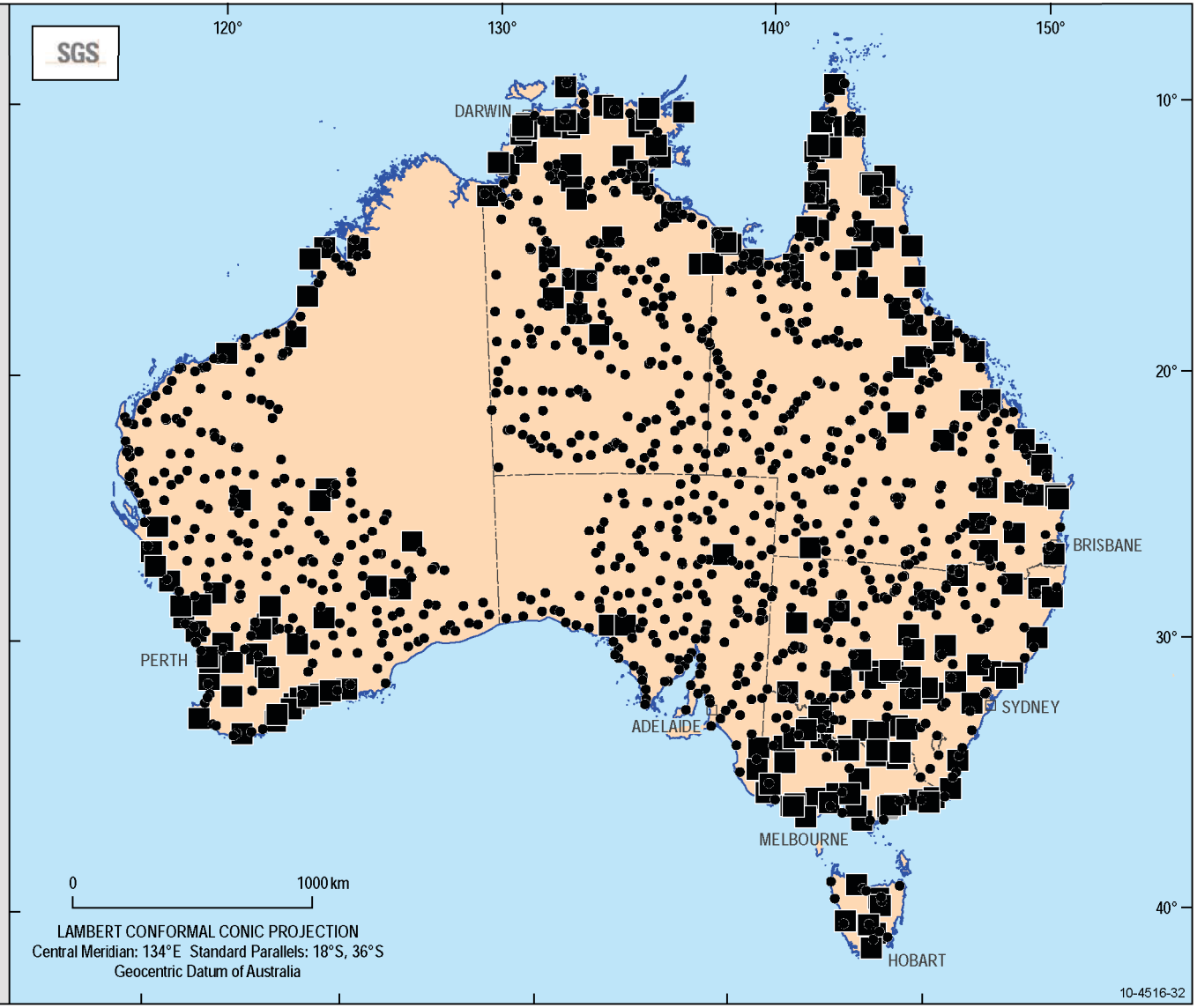
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Pr

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191

Maximum: *1.25 mg/kg*

Upper Fence: *N/A**

75%: *0.063 mg/kg*

Median: *0.016 mg/kg*

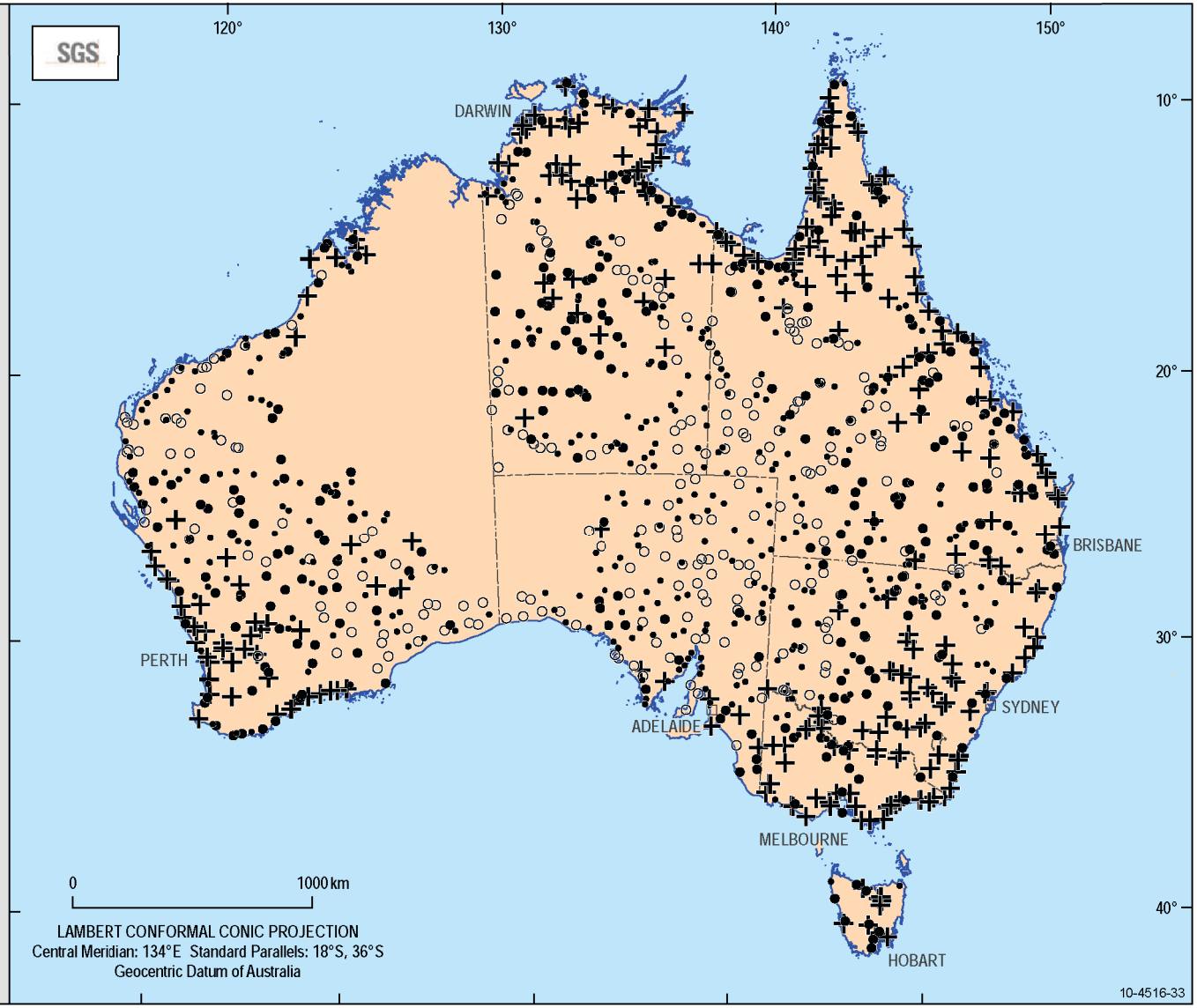
25%: *0.002 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Rb

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.005 mg/kg
N: 1191

Maximum: *2.63 mg/kg*

Upper Fence: *0.761 mg/kg*

75%: *0.182 mg/kg*

Median: *0.107 mg/kg*

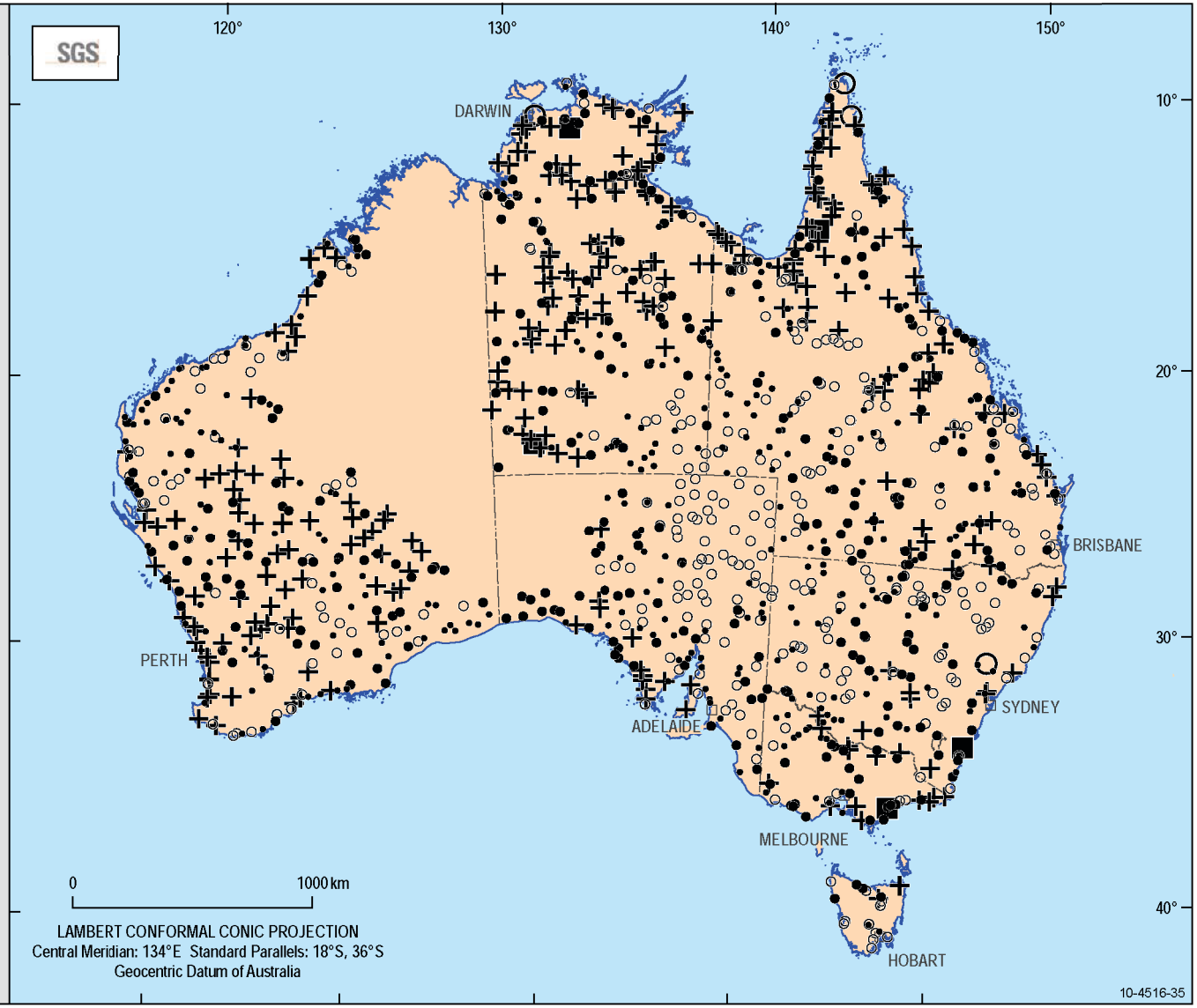
25%: *0.07 mg/kg*

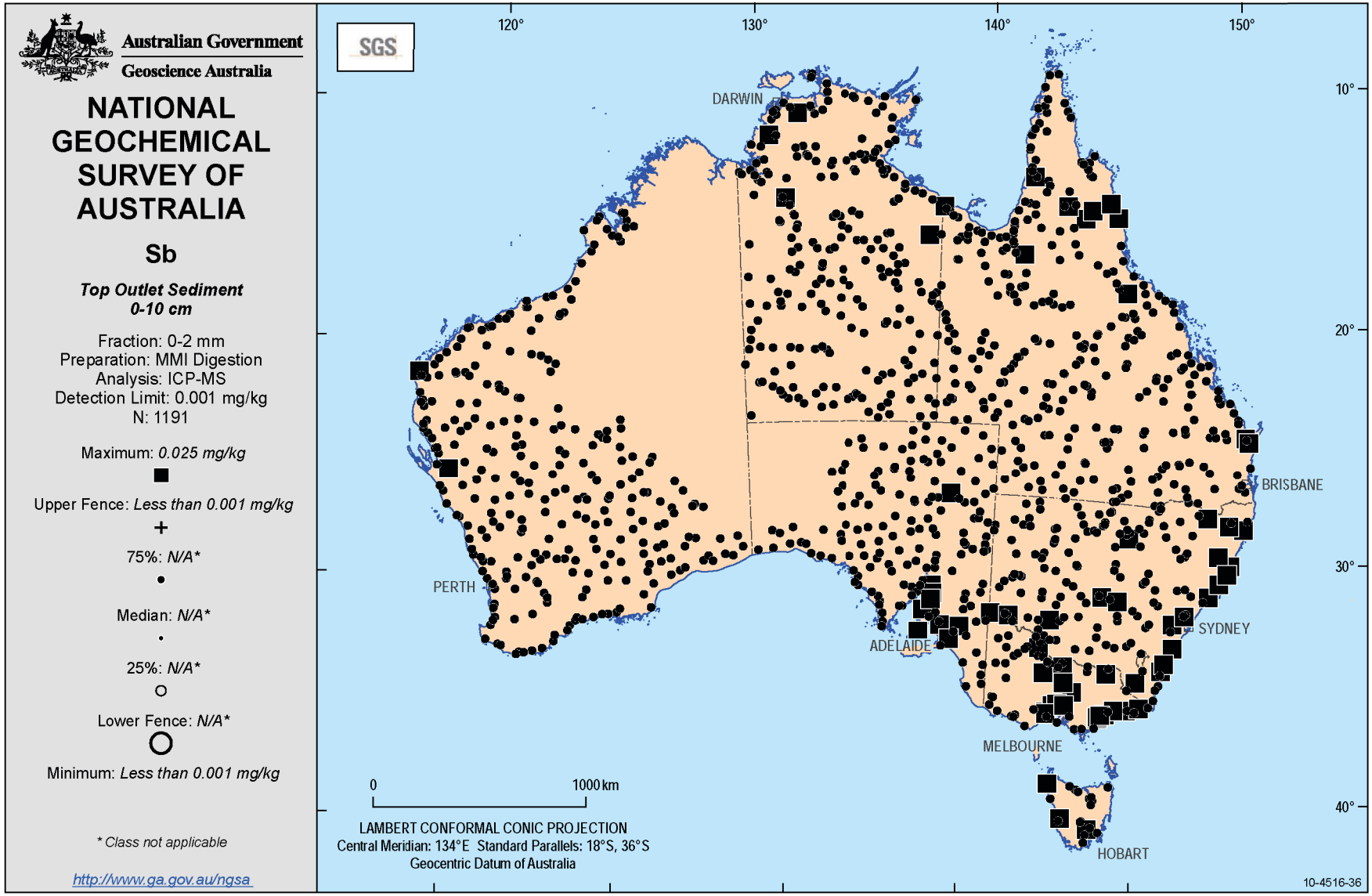
Lower Fence: *0.017 mg/kg*

Minimum: *Less than 0.005 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa




Australian Government
Geoscience Australia
NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA
Sb
Top Outlet Sediment
0-10 cm
Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191
Maximum: 0.025 mg/kg
Upper Fence: Less than 0.001 mg/kg
75%: N/A*
Median: N/A*
25%: N/A*
Lower Fence: N/A*
Minimum: Less than 0.001 mg/kg
* Class not applicable
http://www.ga.gov.au/ngsa
SGS
120°
130°
140°
150°
10°
20°
30°
40°
DARWIN
BRISBANE
PERTH
SYDNEY
ADELAIDE
MELBOURNE
HOBART
0
1000 km
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 18°S, 36°S
Geocentric Datum of Australia
10-4516-36

Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Sc

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.005 mg/kg
N: 1191

Maximum: *6.84 mg/kg*

Upper Fence: *0.642 mg/kg*

75%: *0.023 mg/kg*

Median: *0.008 mg/kg*

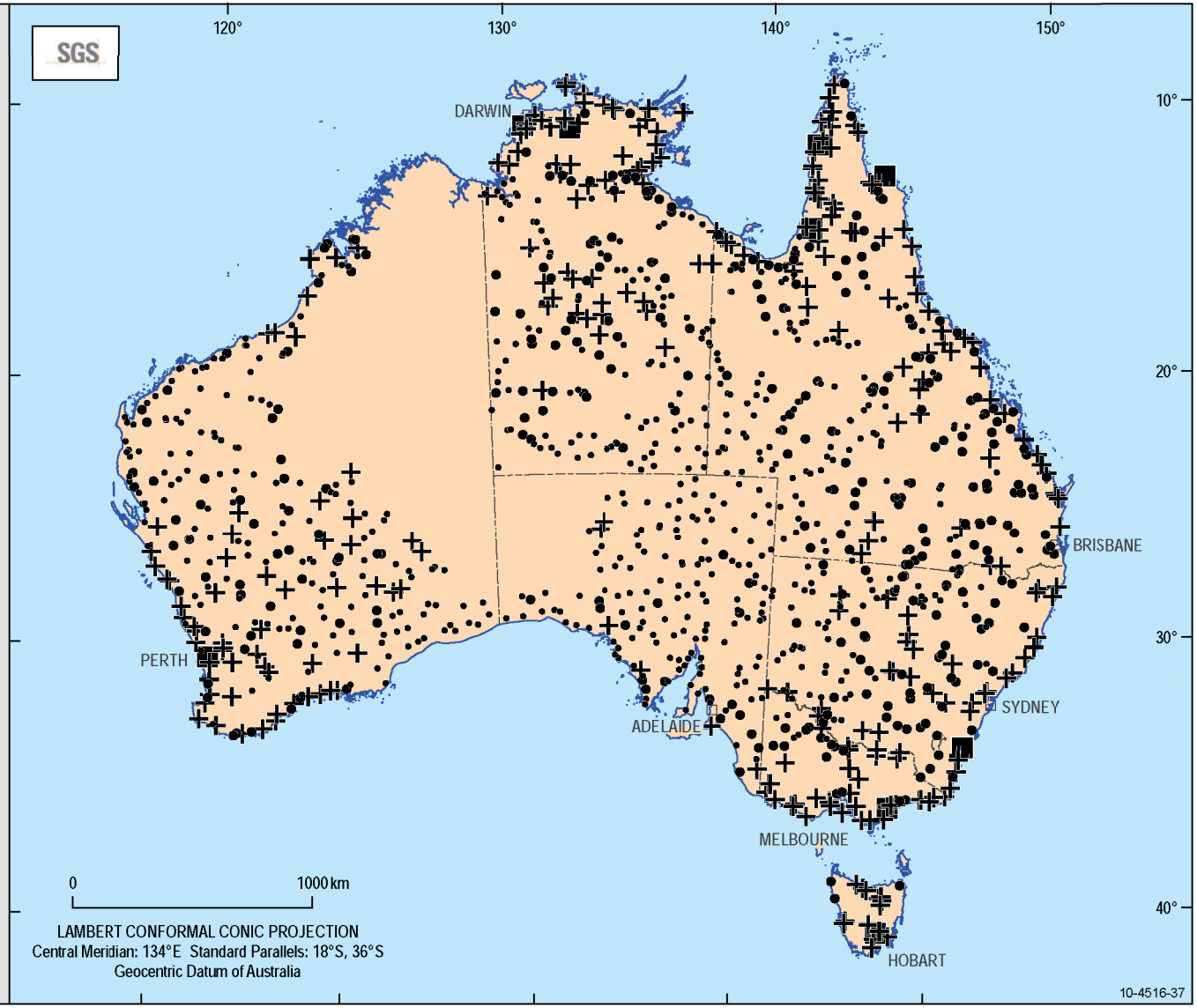
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.005 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Se

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.002 mg/kg
N: 1191

Maximum: *1.28 mg/kg*

Upper Fence: *0.308 mg/kg*

75%: *0.015 mg/kg*

Median: *0.007 mg/kg*

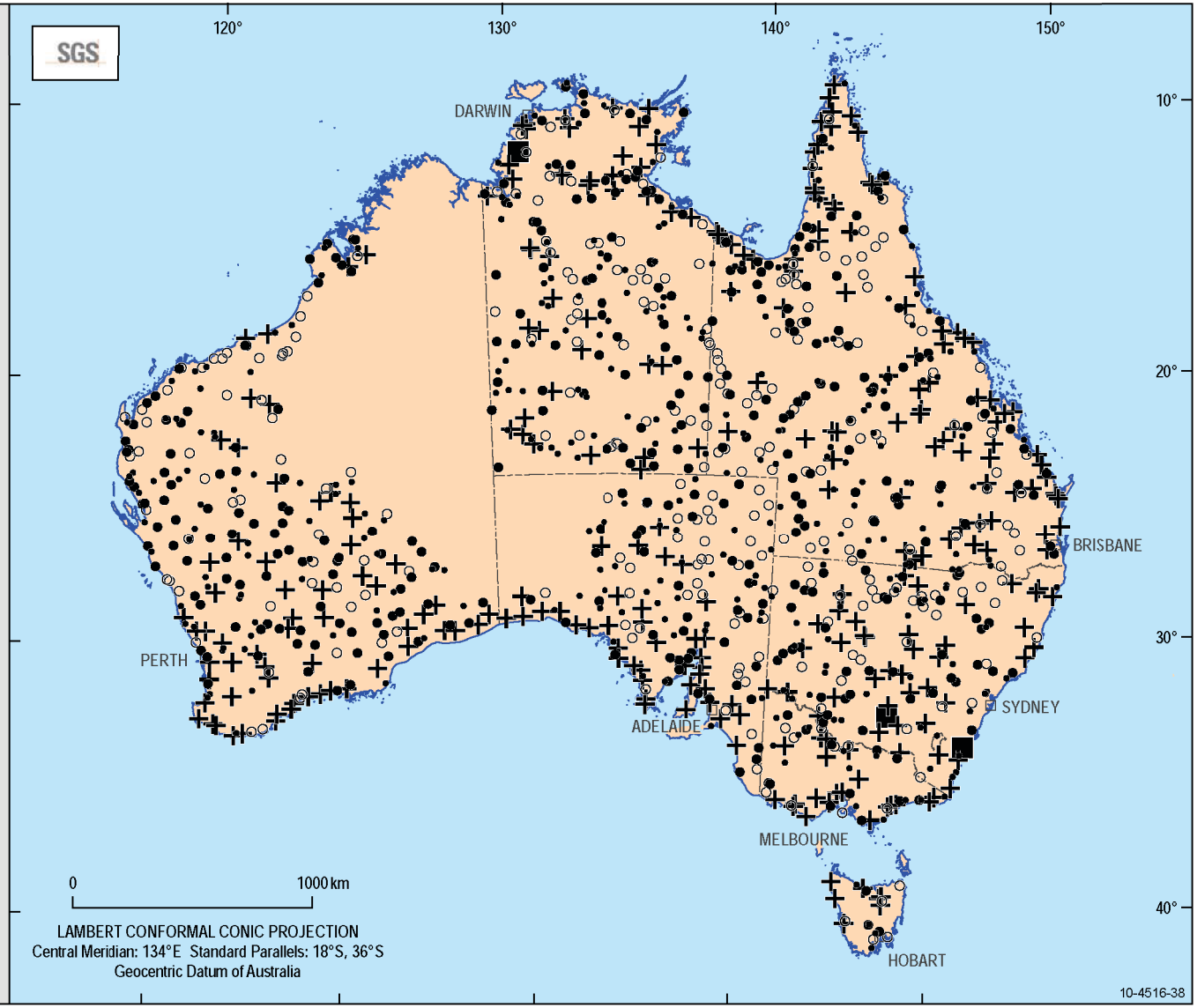
25%: *0.002 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.002 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Sm

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191

Maximum: *1.34 mg/kg*

Upper Fence: *N/A**

75%: *0.083 mg/kg*

Median: *0.025 mg/kg*

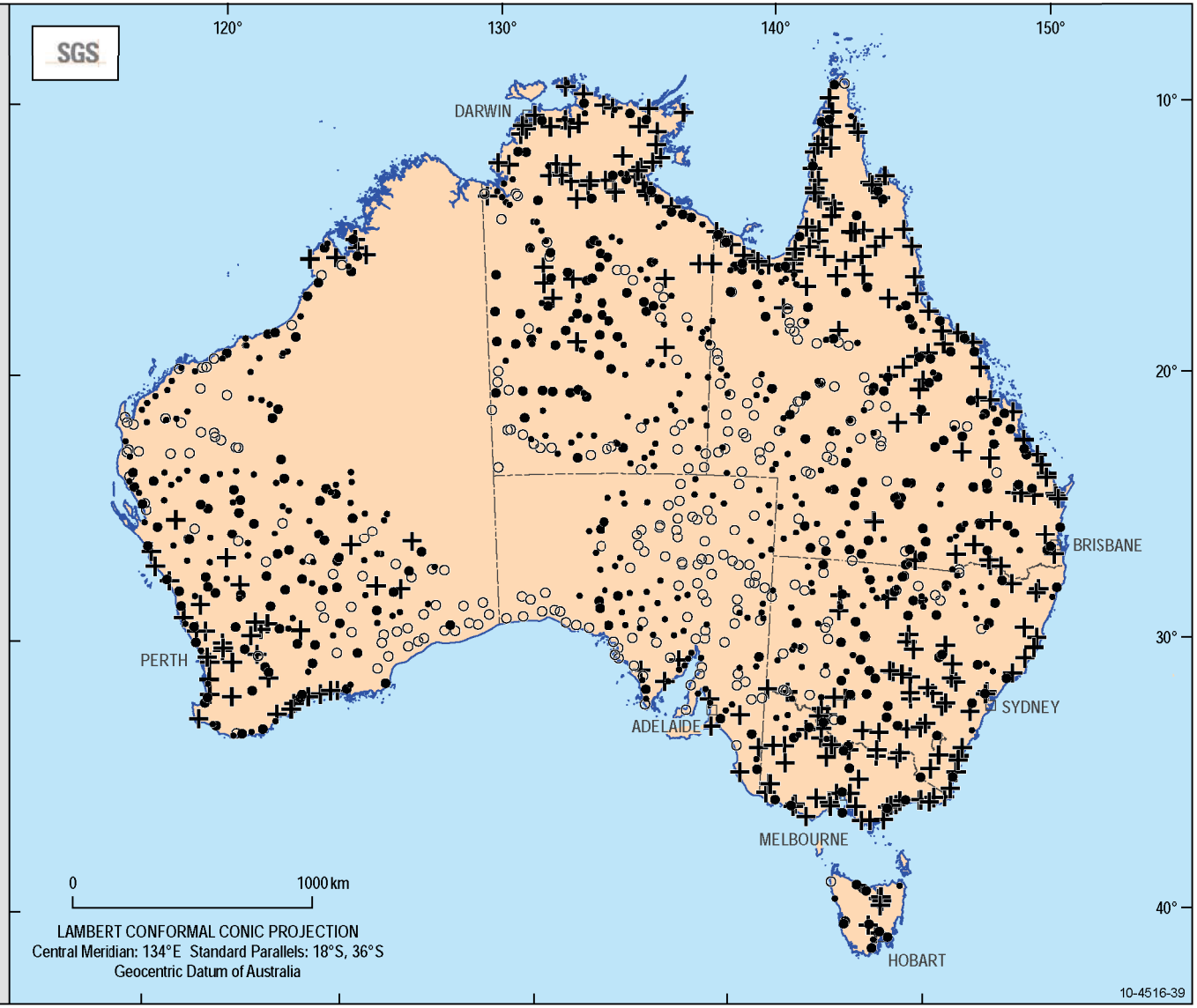
25%: *0.004 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Sn

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191

Maximum: *0.075 mg/kg*

Upper Fence: *Less than 0.001 mg/kg*

75%: *N/A**

Median: *N/A**

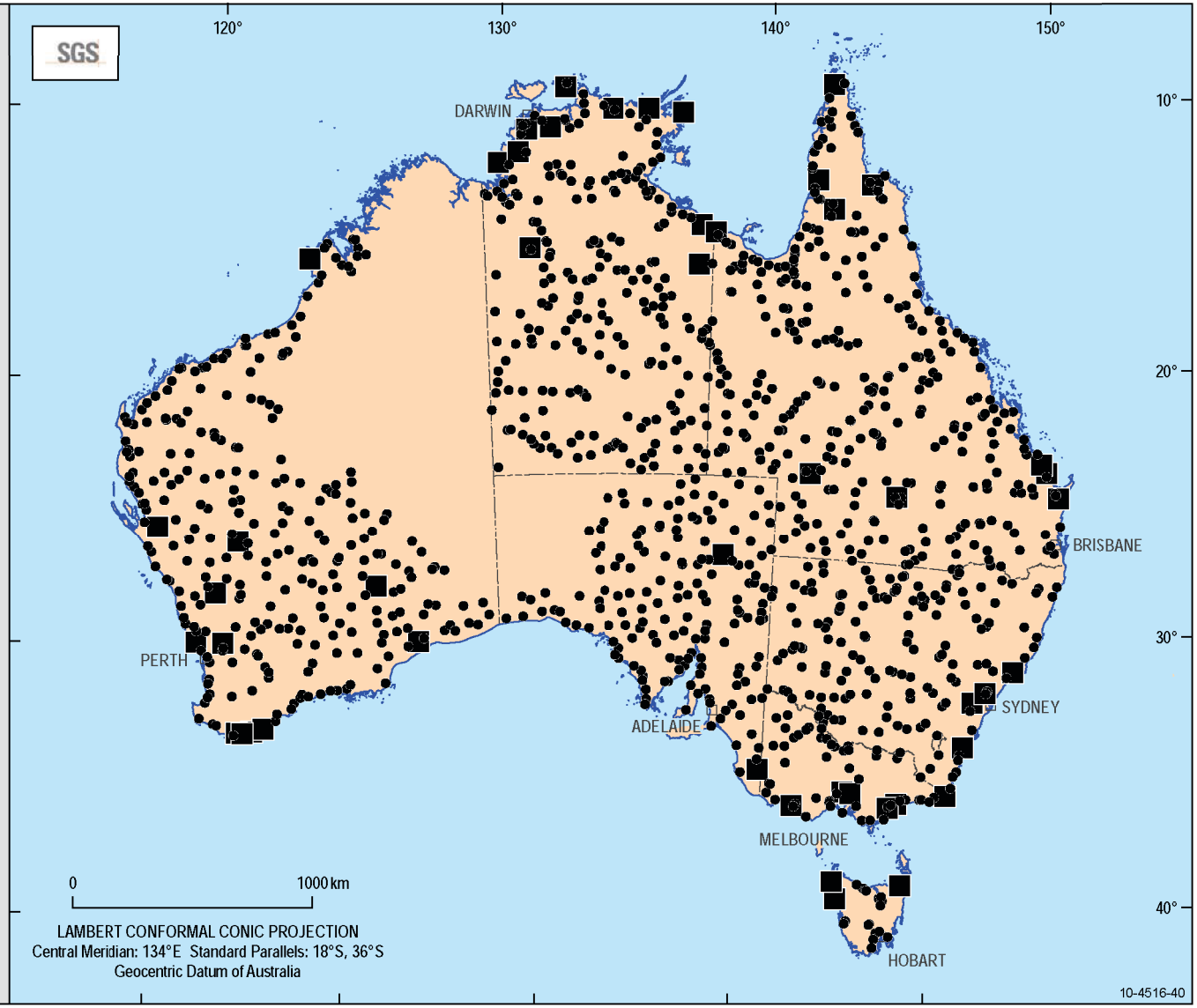
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Sr

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1191

Maximum: *35.6 mg/kg*

Upper Fence: *32.88 mg/kg*

75%: *4.82 mg/kg*

Median: *2.4 mg/kg*

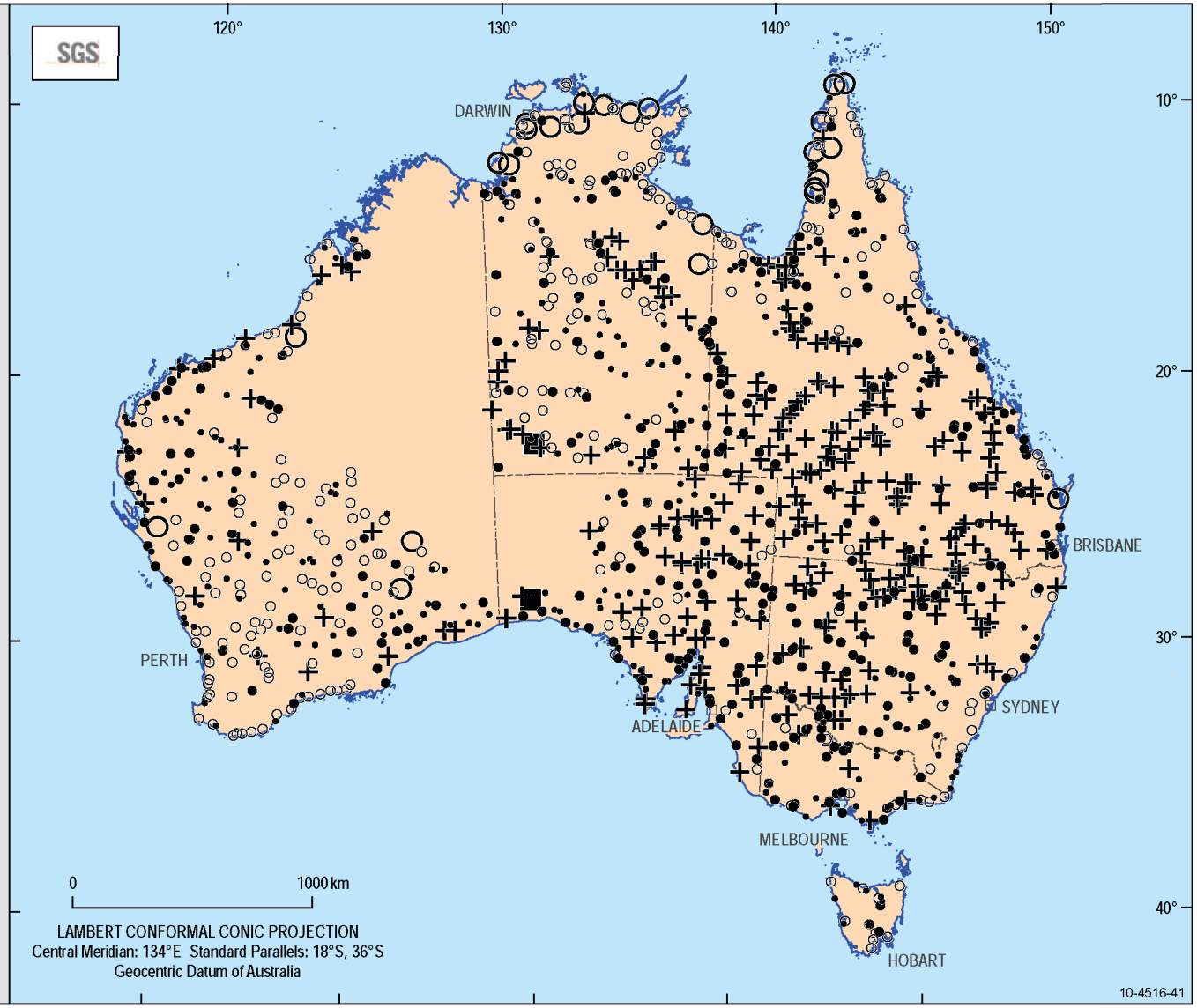
25%: *1.34 mg/kg*

Lower Fence: *0.2 mg/kg*

Minimum: *0.05 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ta

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191

Maximum: *0.07 mg/kg*

Upper Fence: *Less than 0.001 mg/kg*

75%: *N/A**

Median: *N/A**

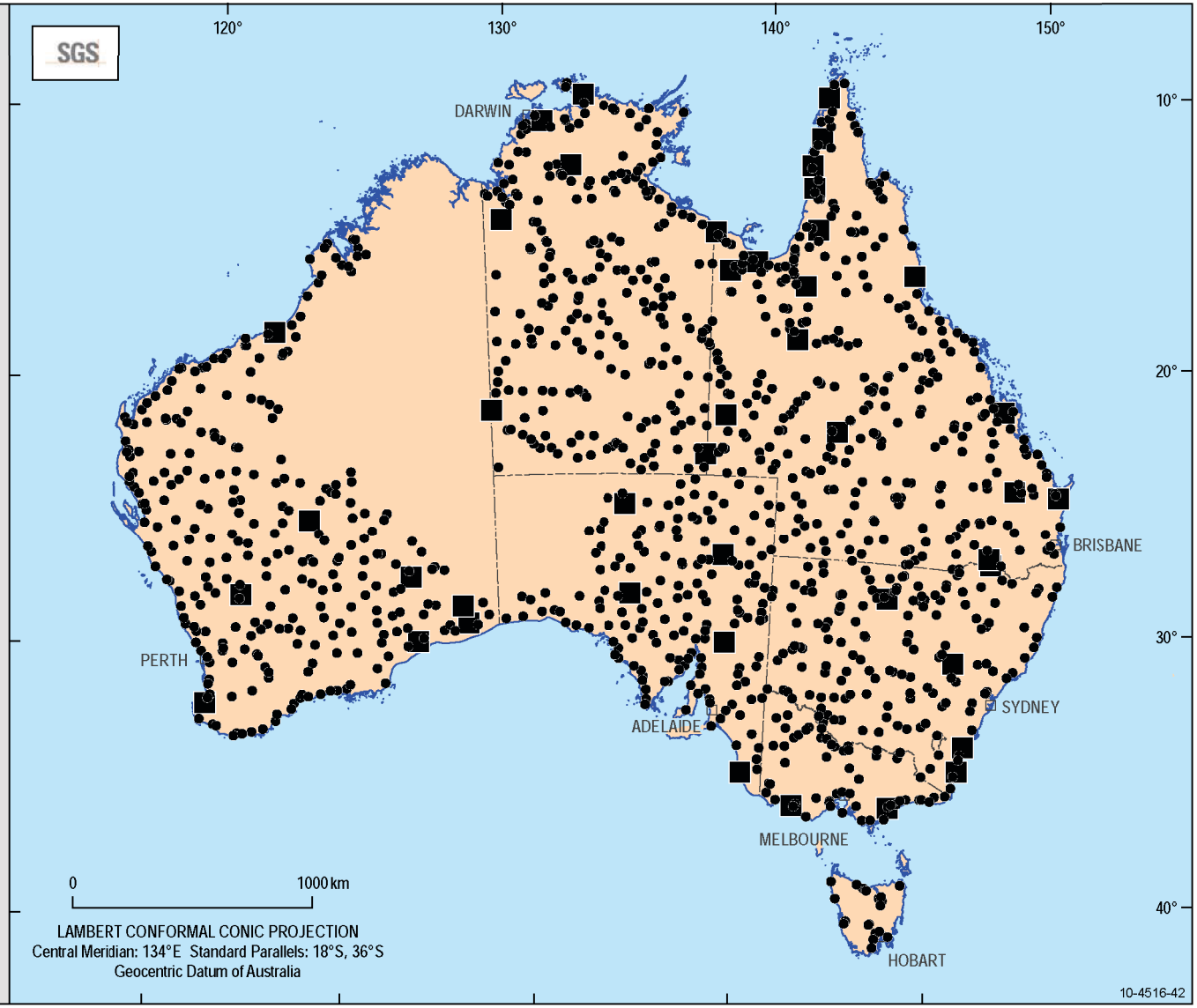
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Tb

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191

Maximum: *0.247 mg/kg*

Upper Fence: *N/A**

75%: *0.014 mg/kg*

Median: *0.004 mg/kg*

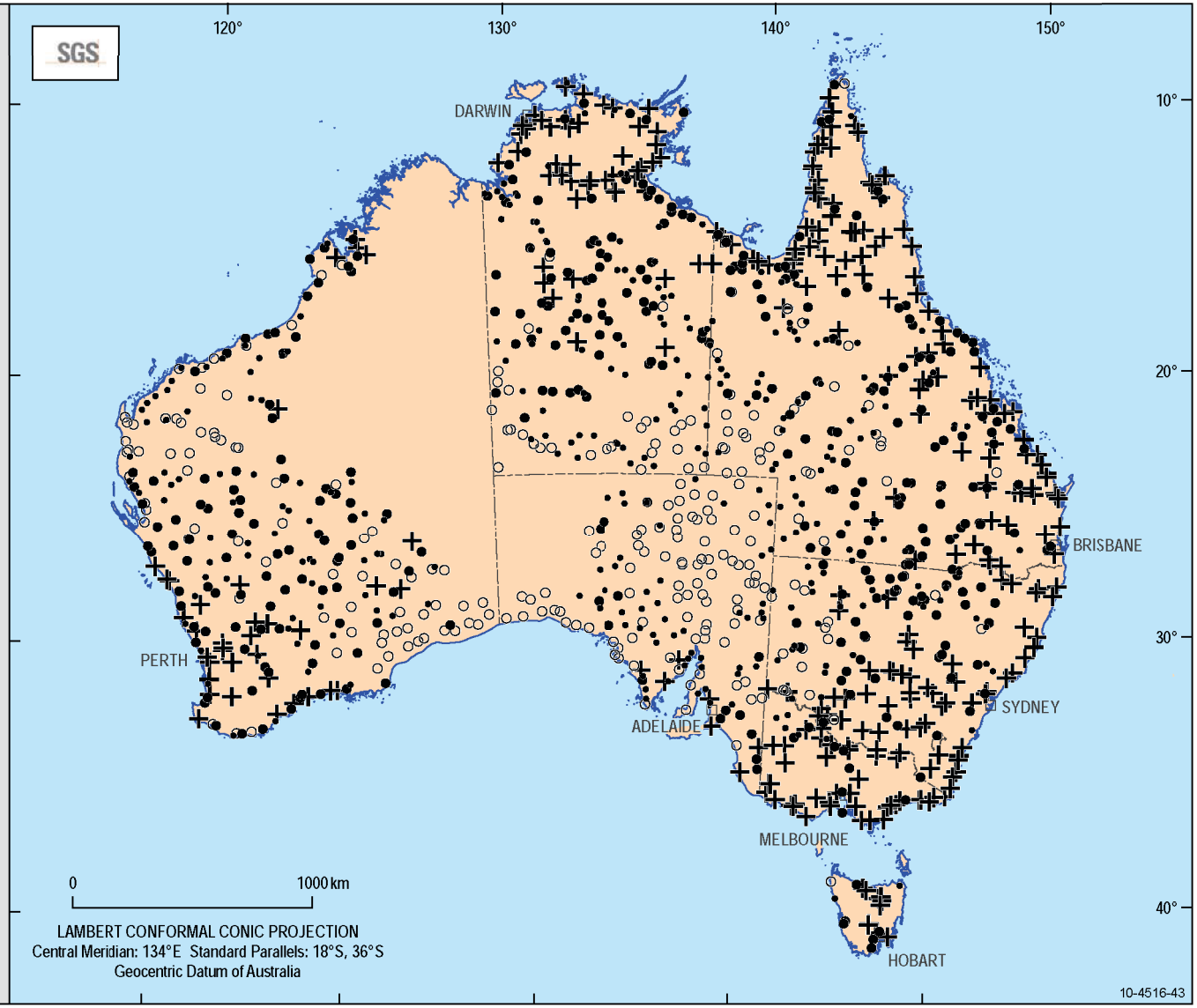
25%: *0.001 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Te

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.01 mg/kg
N: 1191

Maximum: *0.02 mg/kg*

Upper Fence: *Less than 0.01 mg/kg*

75%: *N/A**

Median: *N/A**

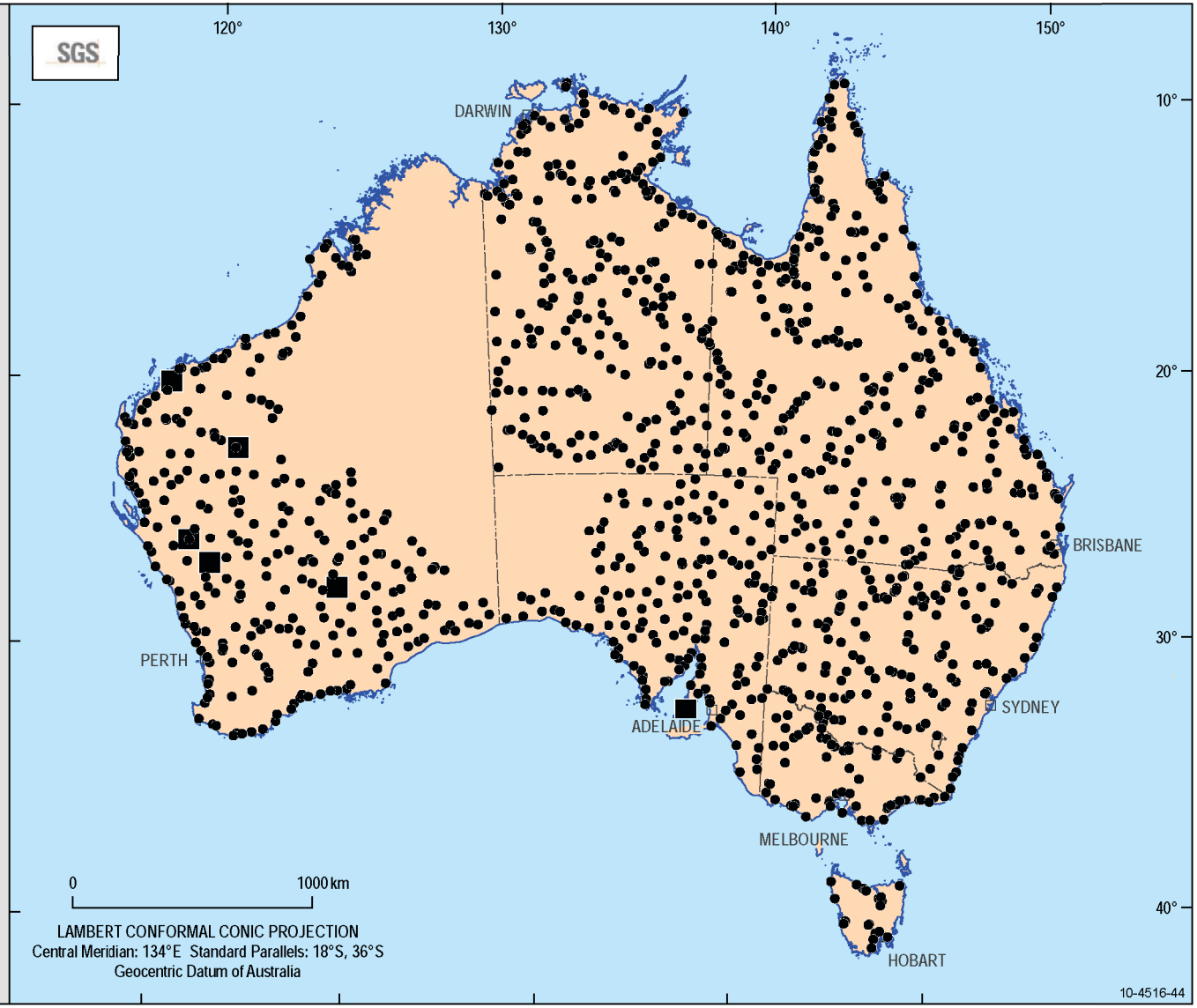
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.01 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



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Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Th

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.0005 mg/kg
N: 1191

Maximum: *3.52 mg/kg*

Upper Fence: *N/A**

75%: *0.104 mg/kg*

Median: *0.021 mg/kg*

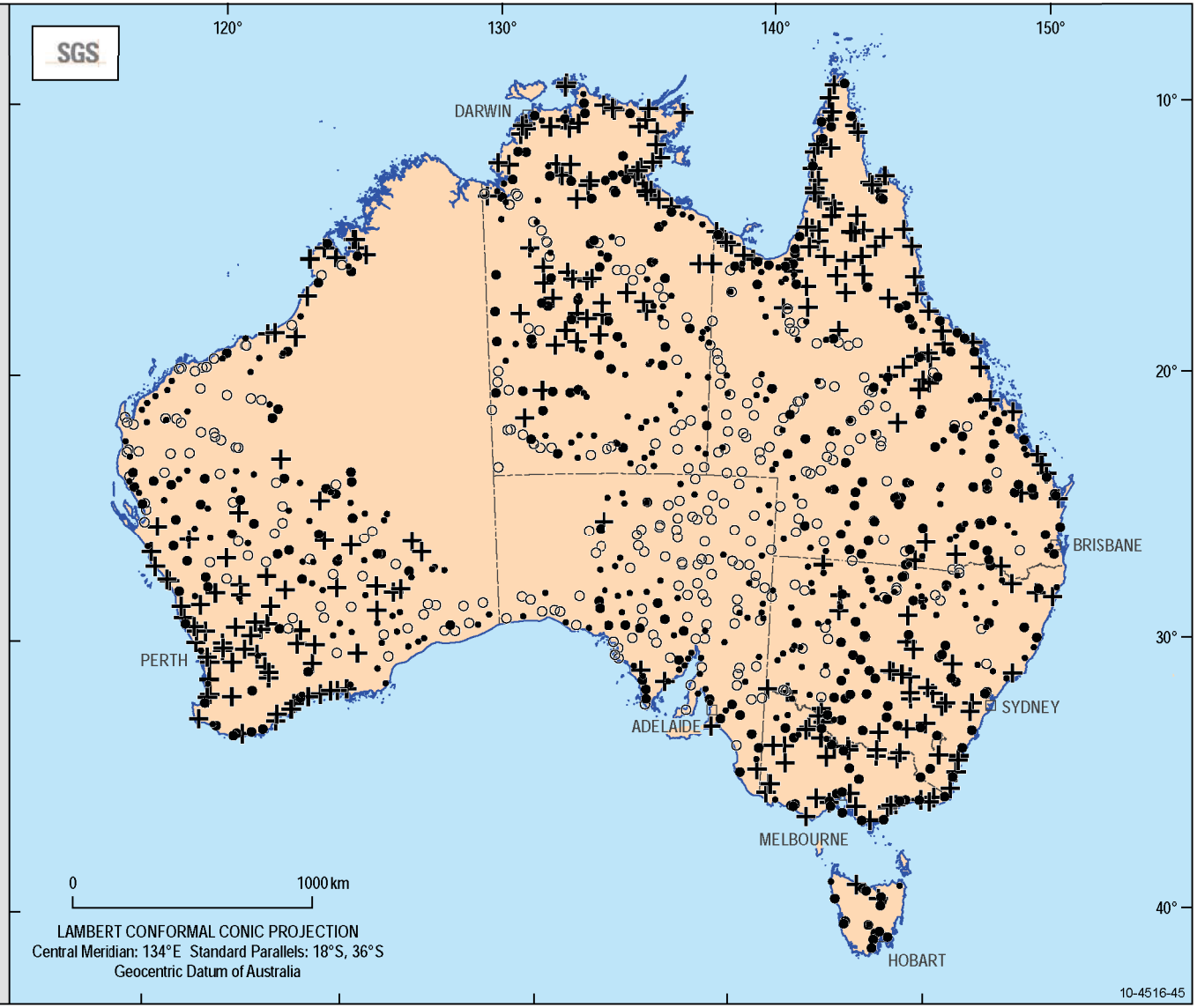
25%: *0.0026 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.0005 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Ti

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.003 mg/kg
N: 1191

Maximum: *26.5 mg/kg*

Upper Fence: *0.32 mg/kg*

75%: *0.04 mg/kg*

Median: *0.019 mg/kg*

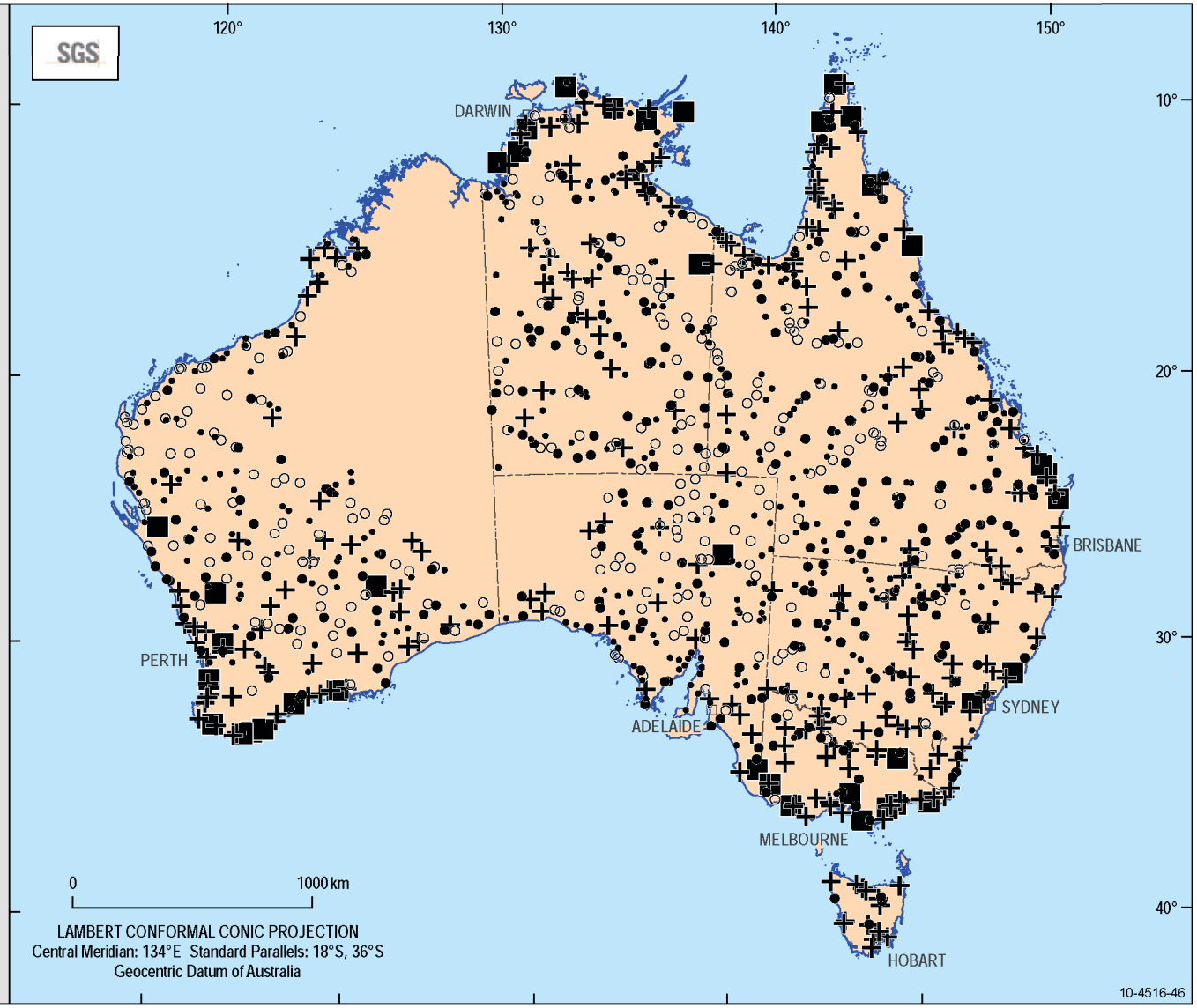
25%: *0.01 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.003 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Tl

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.0005 mg/kg
N: 1191

Maximum: *0.0191 mg/kg*

Upper Fence: *0.0022 mg/kg*

75%: *0.0006 mg/kg*

Median: *N/A**

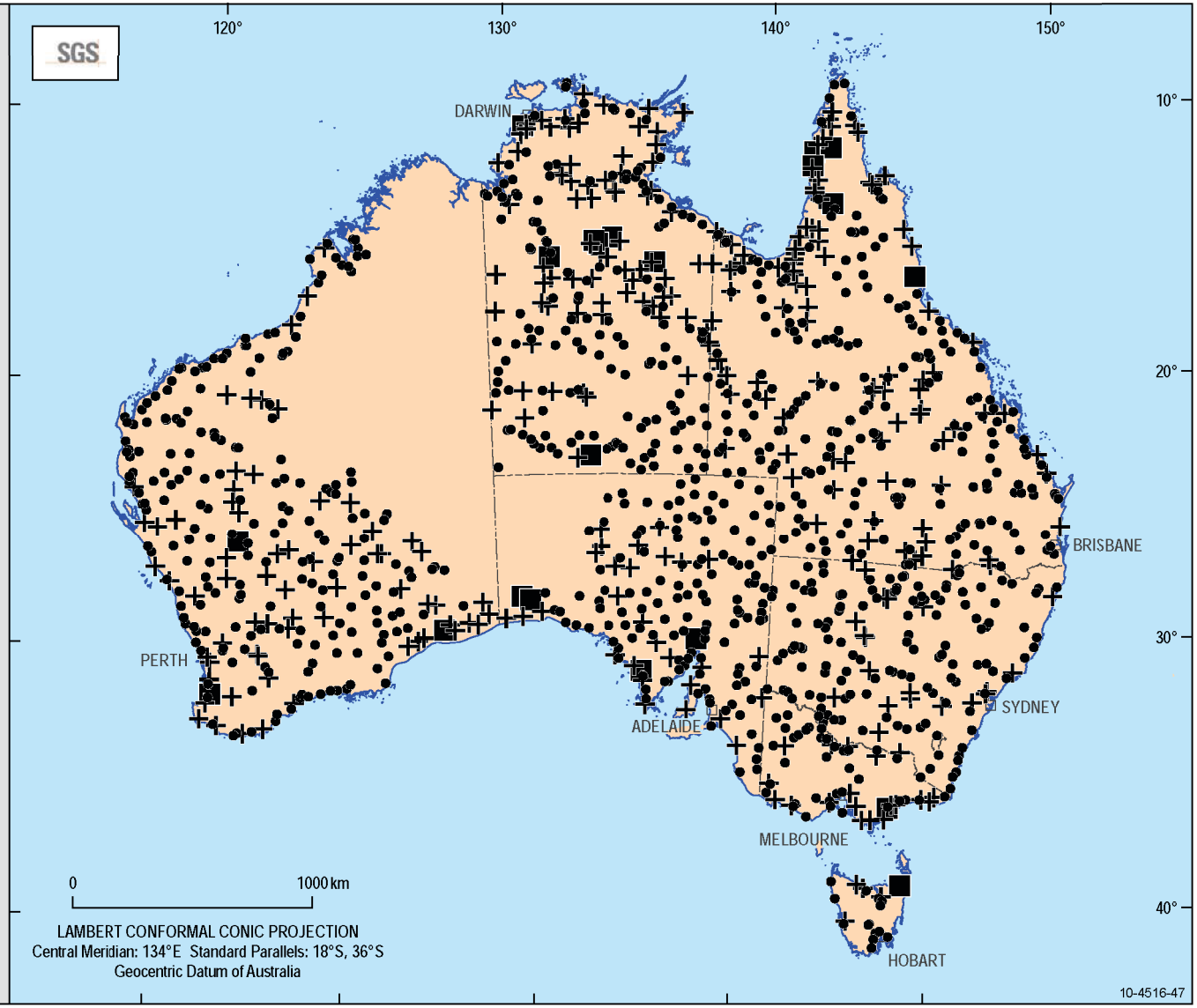
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.0005 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

U

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191

Maximum: *3.49 mg/kg*

Upper Fence: *1.347 mg/kg*

75%: *0.129 mg/kg*

Median: *0.063 mg/kg*

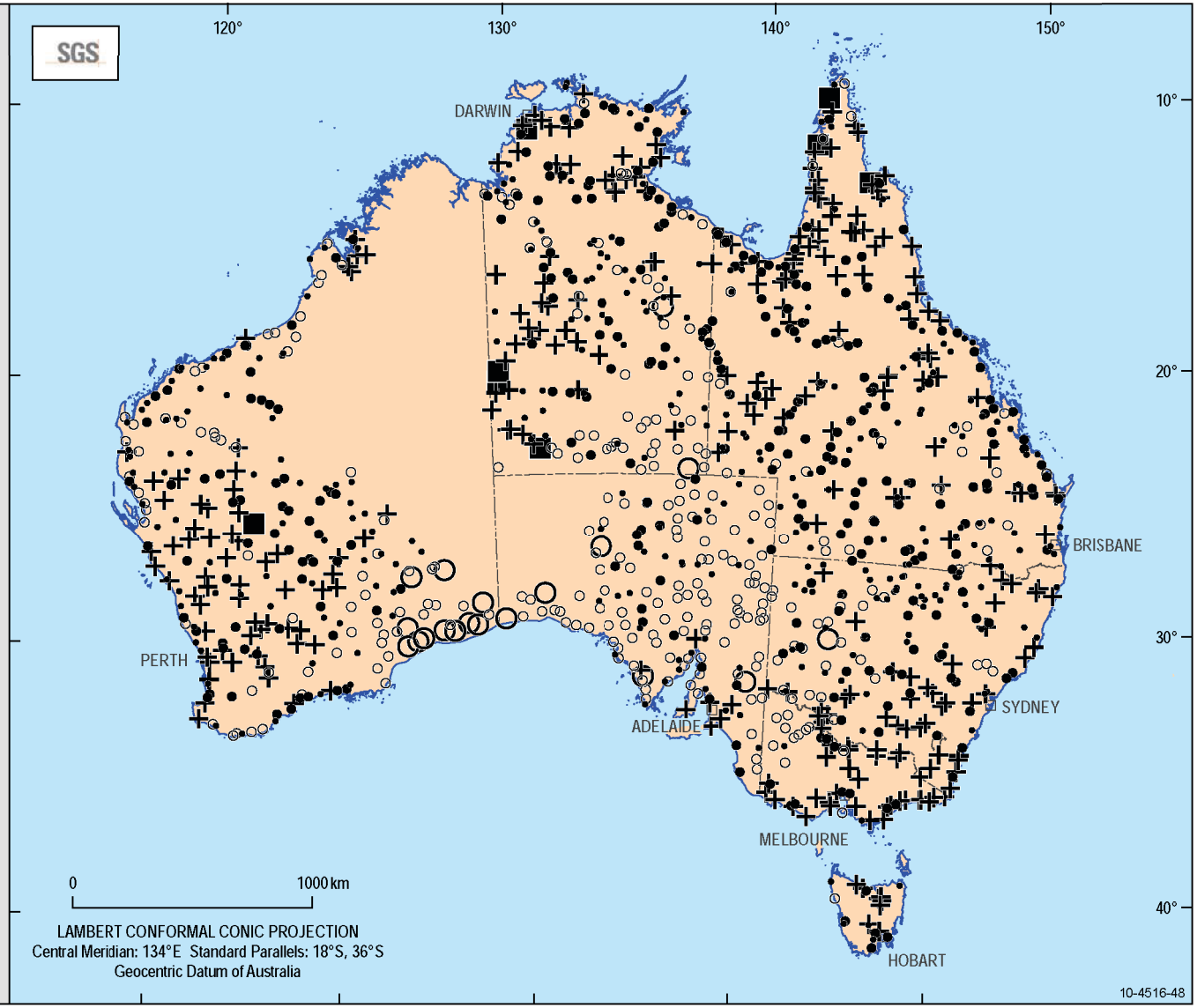
25%: *0.027 mg/kg*

Lower Fence: *0.003 mg/kg*

Minimum: *0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

V

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191

Maximum: *2.61 mg/kg*

Upper Fence: *0.305 mg/kg*

75%: *0.048 mg/kg*

Median: *0.025 mg/kg*

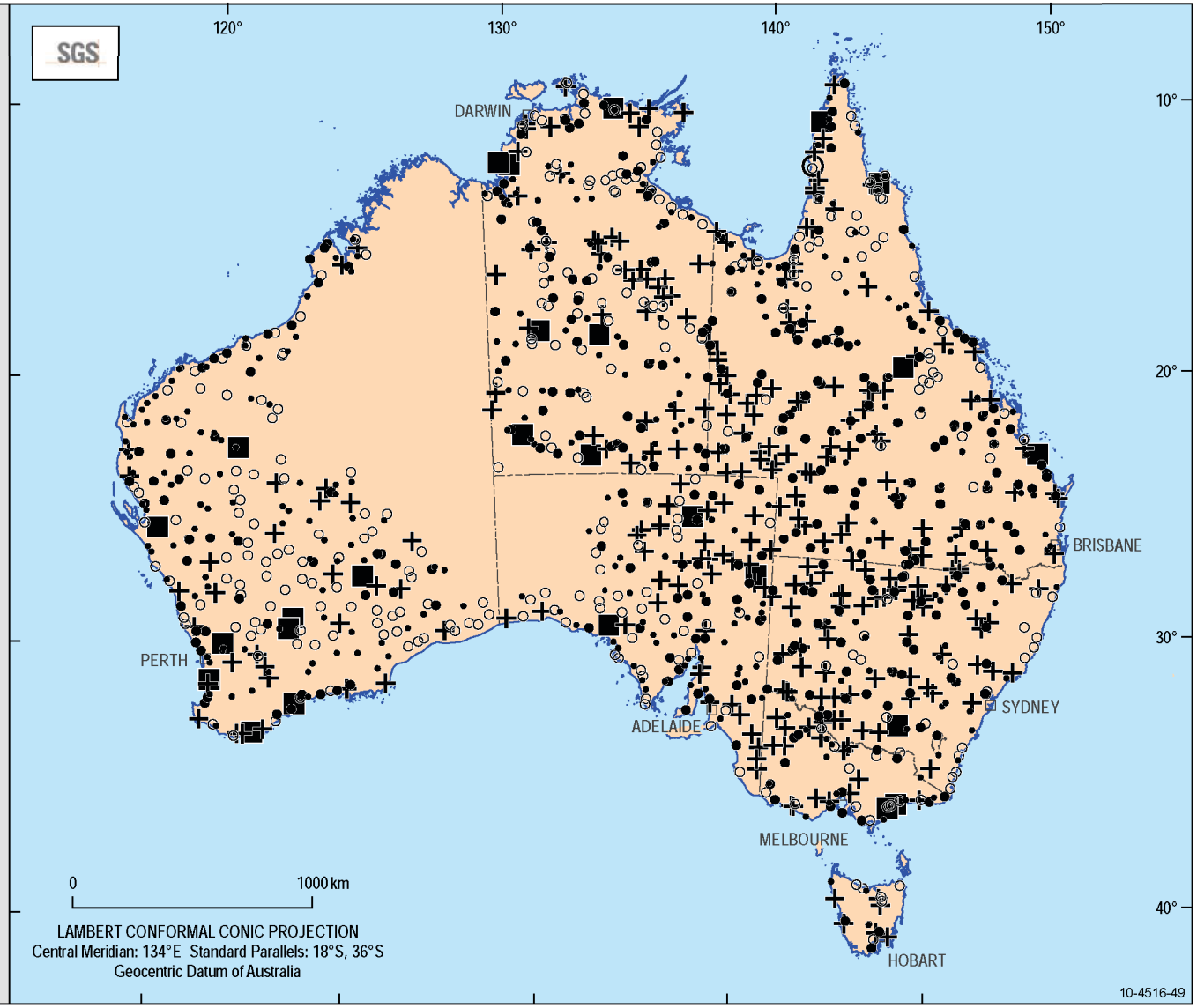
25%: *0.014 mg/kg*

Lower Fence: *0.002 mg/kg*

Minimum: *0.002 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

W

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191

Maximum: *0.059 mg/kg*

Upper Fence: *Less than 0.001 mg/kg*

75%: *N/A**

Median: *N/A**

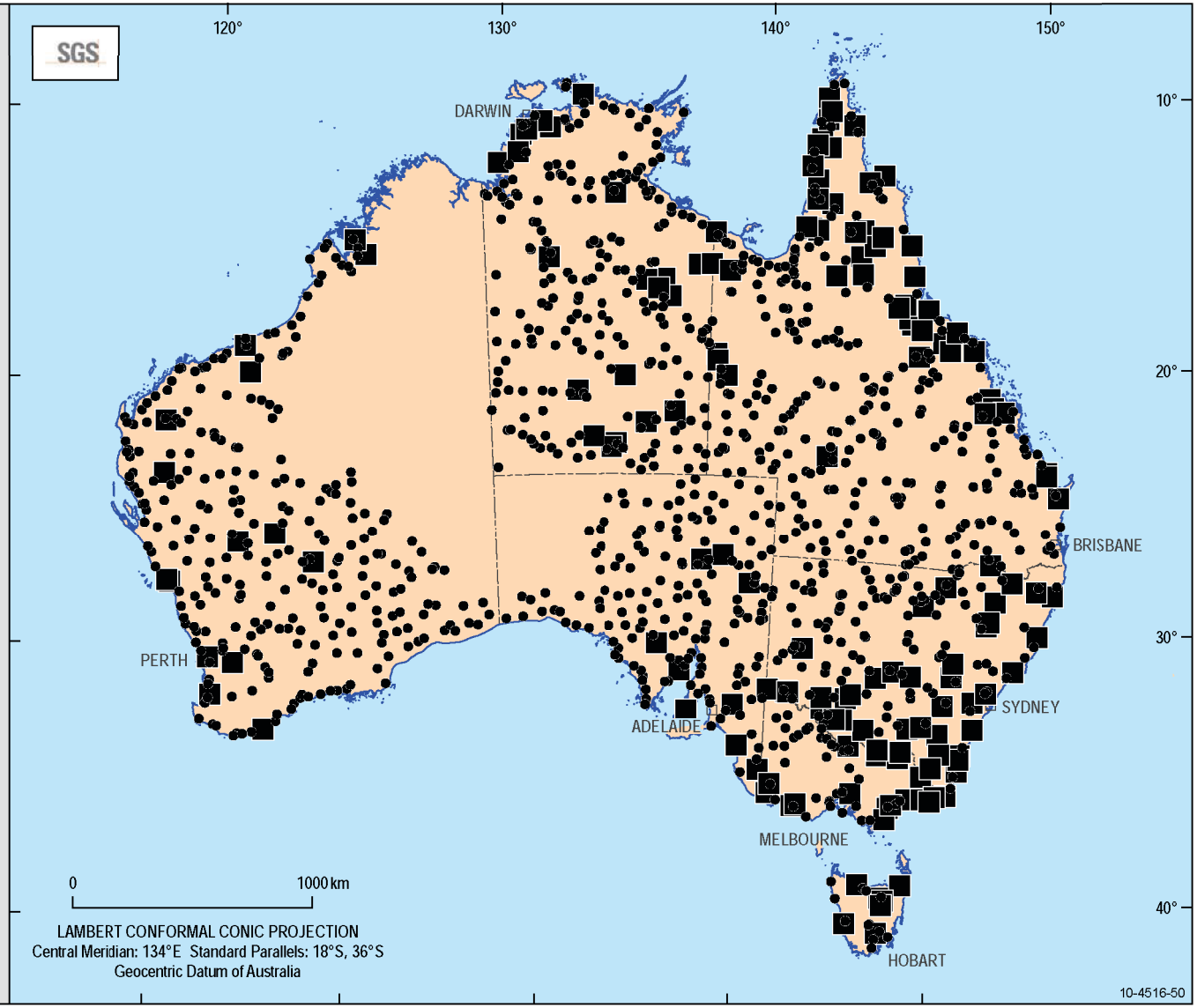
25%: *N/A**

Lower Fence: *N/A**

Minimum: *Less than 0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Y

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.005 mg/kg
N: 1191

Maximum: *4.16 mg/kg*

Upper Fence: *N/A**

75%: *0.337 mg/kg*

Median: *0.098 mg/kg*

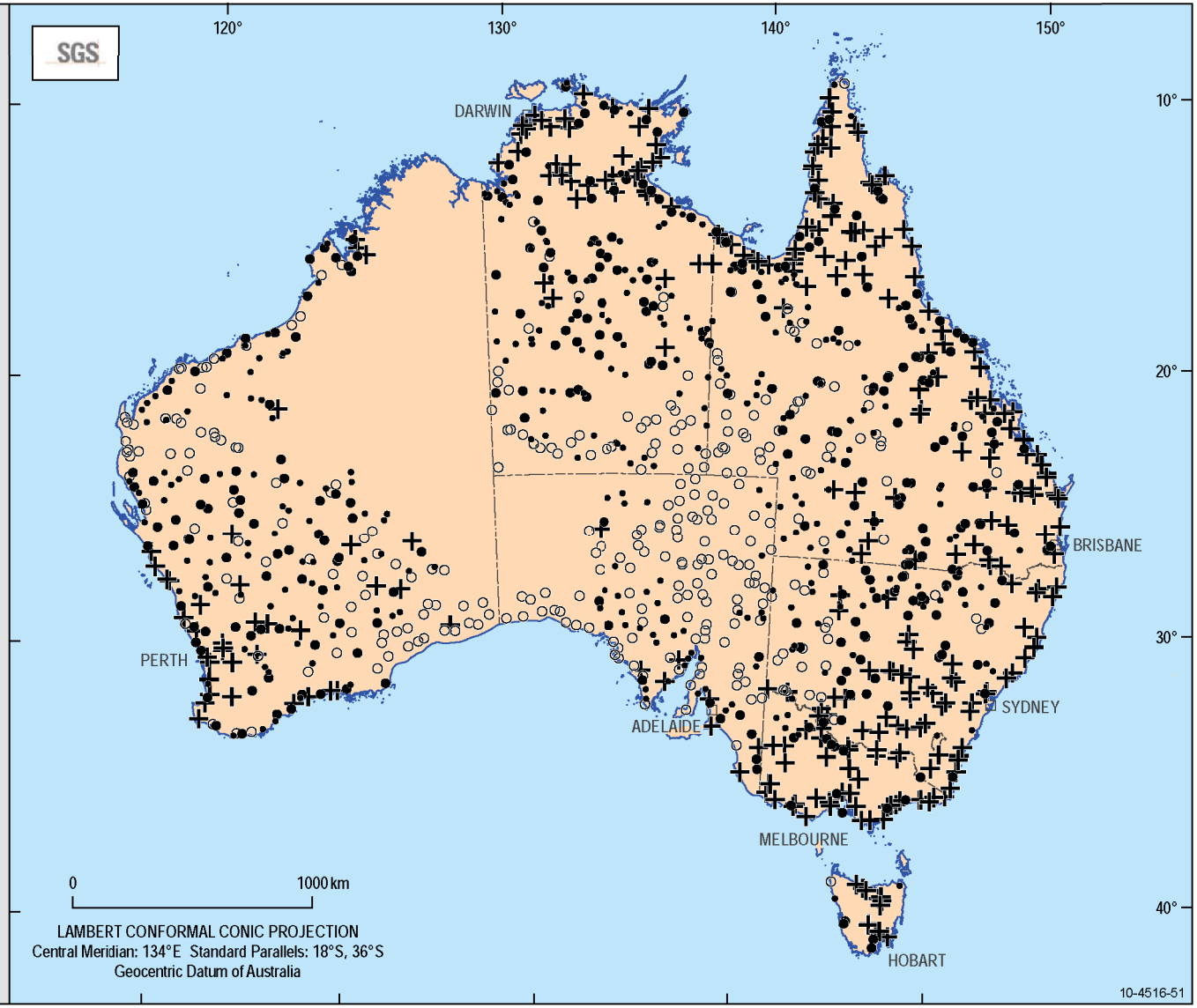
25%: *0.036 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.005 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Yb

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.001 mg/kg
N: 1191

Maximum: *1.56 mg/kg*

Upper Fence: *0.543 mg/kg*

75%: *0.024 mg/kg*

Median: *0.007 mg/kg*

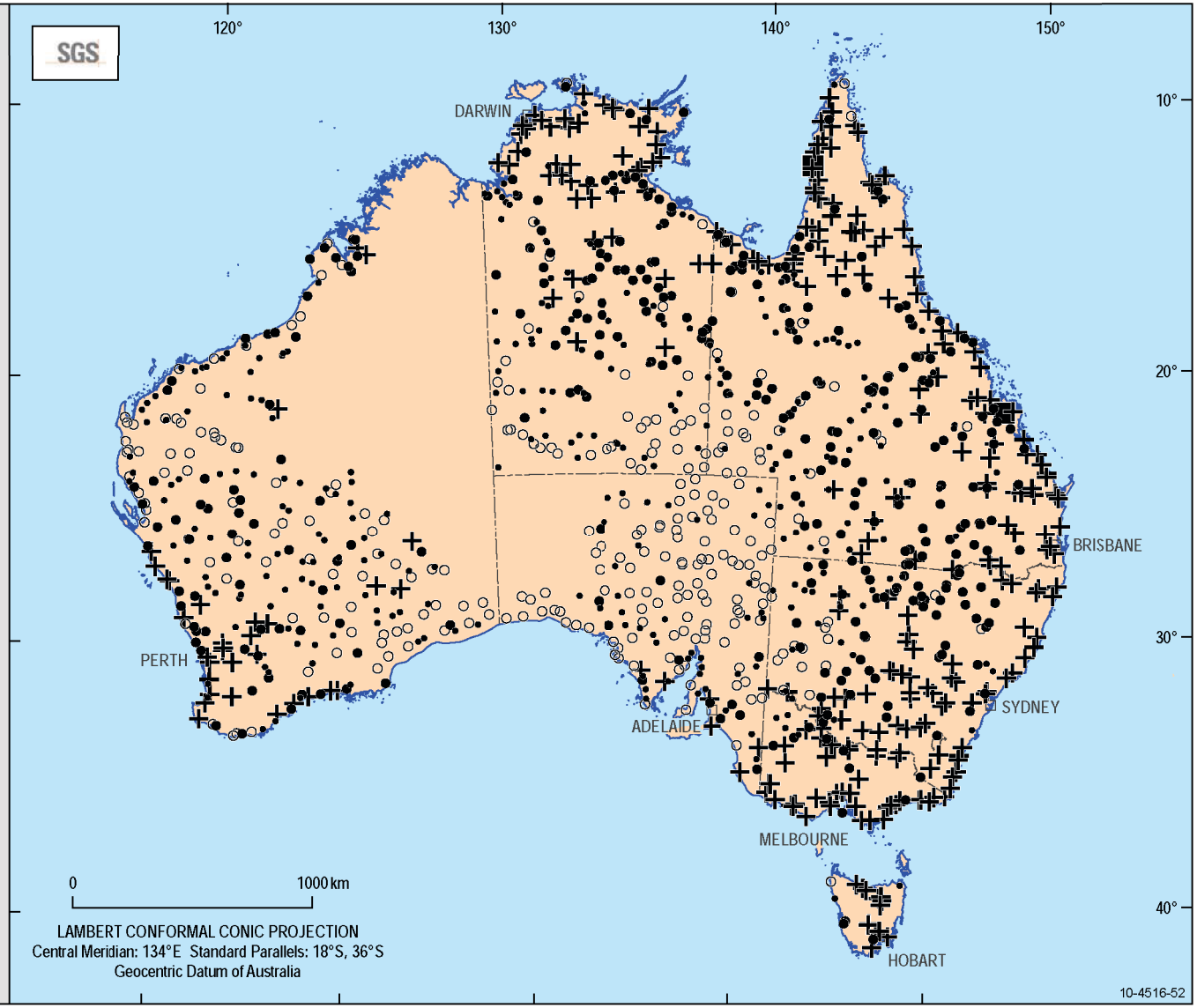
25%: *0.003 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.001 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Zn

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.02 mg/kg
N: 1191

Maximum: *19.5 mg/kg*

Upper Fence: *3.64 mg/kg*

75%: *0.31 mg/kg*

Median: *0.12 mg/kg*

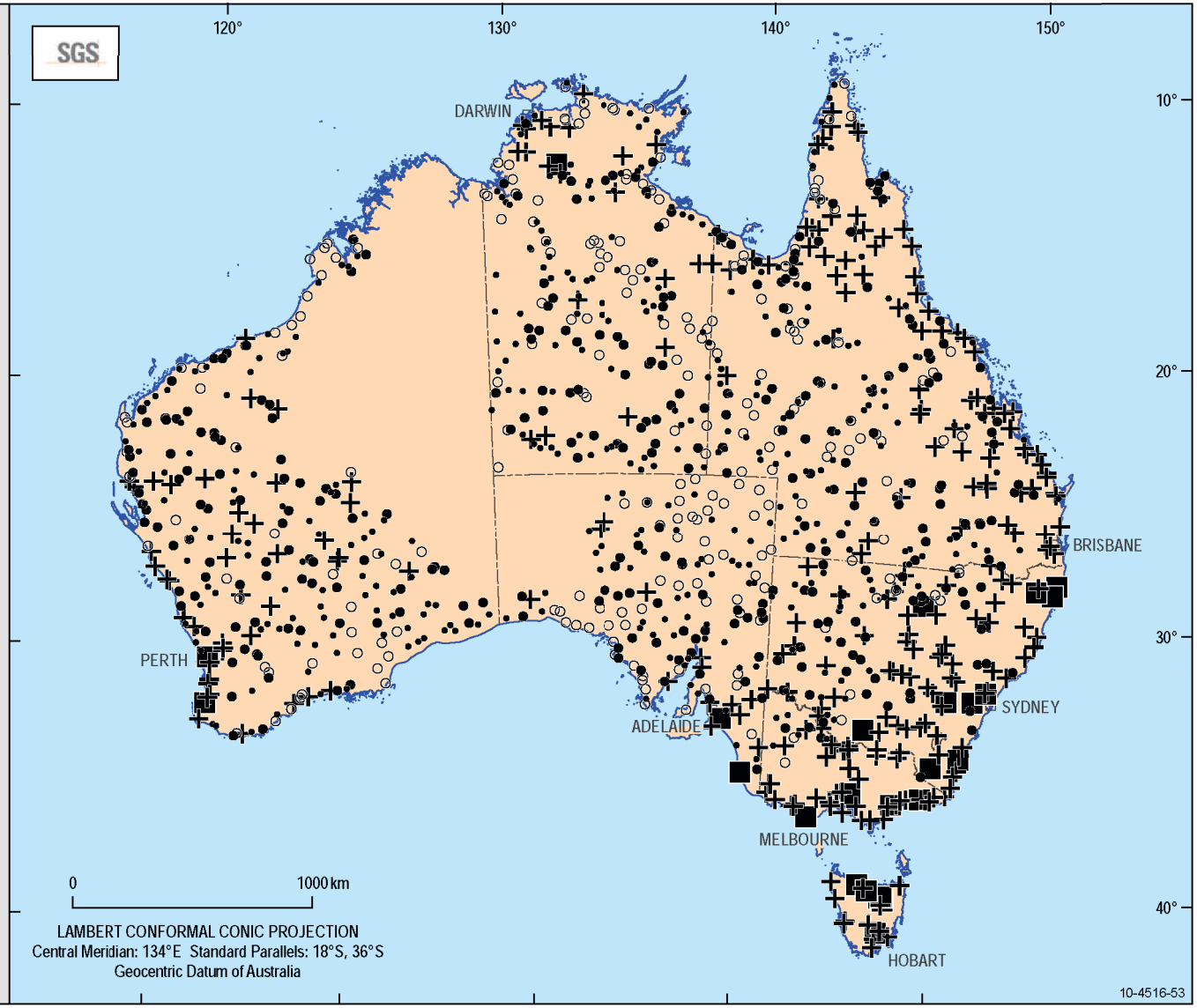
25%: *0.06 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.02 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Australian Government
Geoscience Australia

NATIONAL GEOCHEMICAL SURVEY OF AUSTRALIA

Zr

Top Outlet Sediment
0-10 cm

Fraction: 0-2 mm
Preparation: MMI Digestion
Analysis: ICP-MS
Detection Limit: 0.005 mg/kg
N: 1191

Maximum: *1.69 mg/kg*

Upper Fence: *0.924 mg/kg*

75%: *0.045 mg/kg*

Median: *0.014 mg/kg*

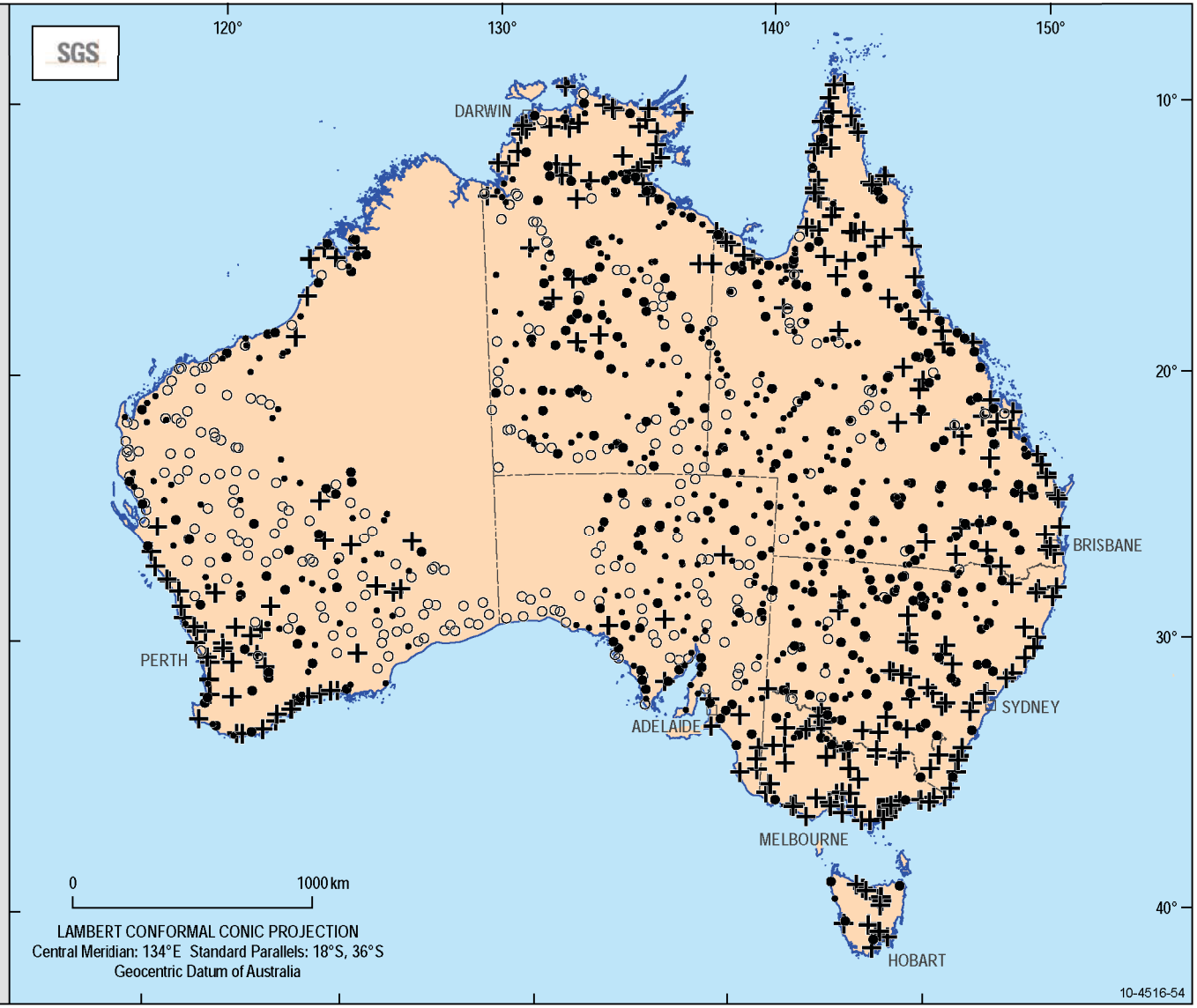
25%: *0.006 mg/kg*

Lower Fence: *N/A**

Minimum: *Less than 0.005 mg/kg*

** Class not applicable*

http://www.ga.gov.au/ngsa



Acknowledgments

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Specifically, as this report symbolises in many ways the culmination of the national Geochemical Survey of Australia project, we would like to thanks the following individuals for their contributions to the project and making the existence of this Atlas possible.

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For assistance and collaboration on various aspects:

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