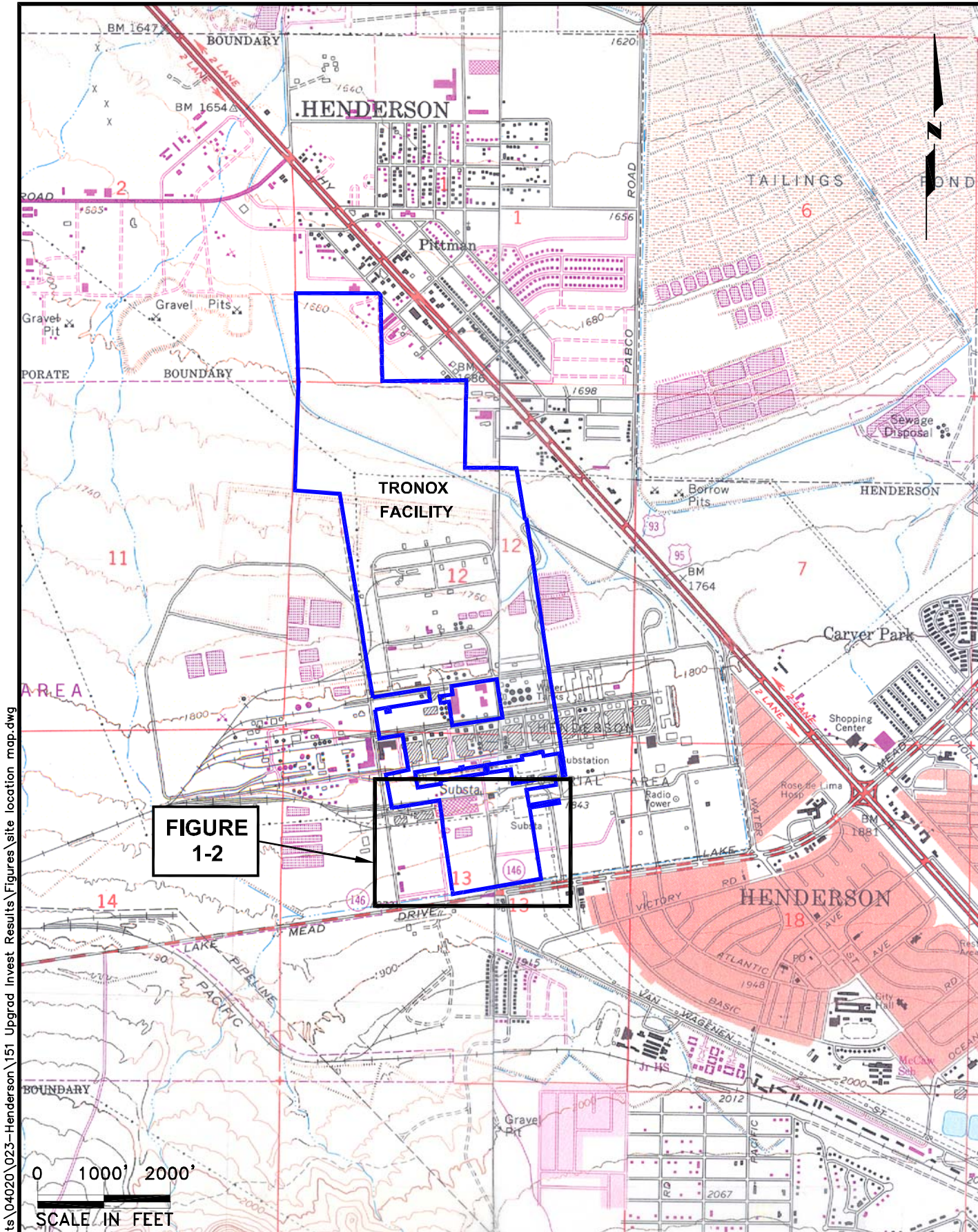


Figures



FILENAME: J:\2006 Projects\04020\023-Henderson\151 Upgrad Invest Results\Figures\site location map.dwg

SOURCE: USGS 7.5 Minute Topographic Quadrangle, Las Vegas SE, Nevada, 1967, Photorevised 1984
 Henderson, Nevada, 1970, Photorevised 1983

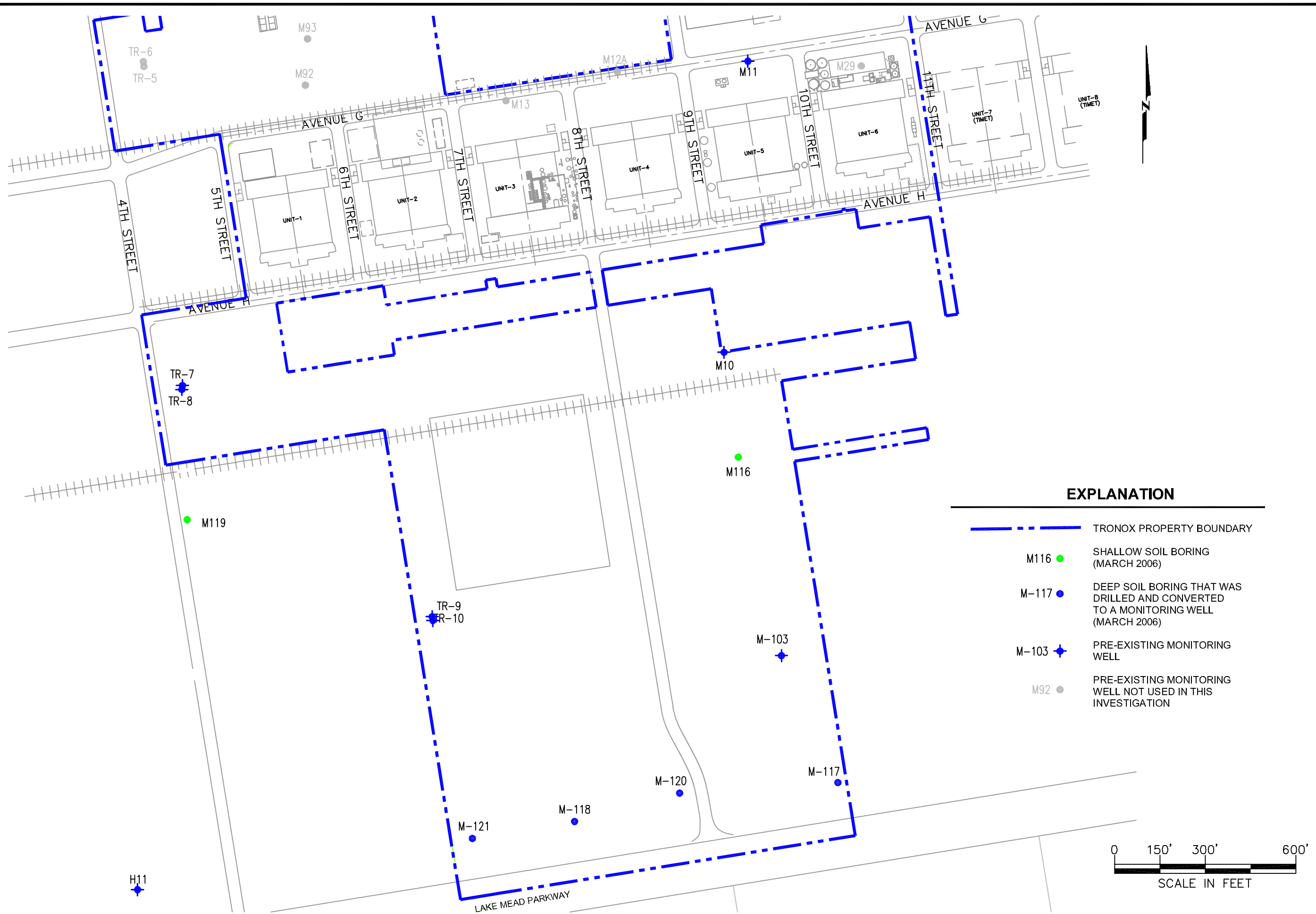
NEVADA

TRONOX

QUADRANGLE LOCATION

SITE LOCATION MAP			FIGURE NUMBER:
Upgradient Investigation Tronox Facility Henderson, Nevada			1-1
DRAWN BY: M. Scop	DATE: 9/18/2006	PROJECT NUMBER: 04020-023-151	SHEET NUMBER:

FILENAME: j:\2006 Projects\04020\023-Henderson\151 Upgrad Invest Results\Figures\Upgradient investigation base.dwg



EXPLANATION

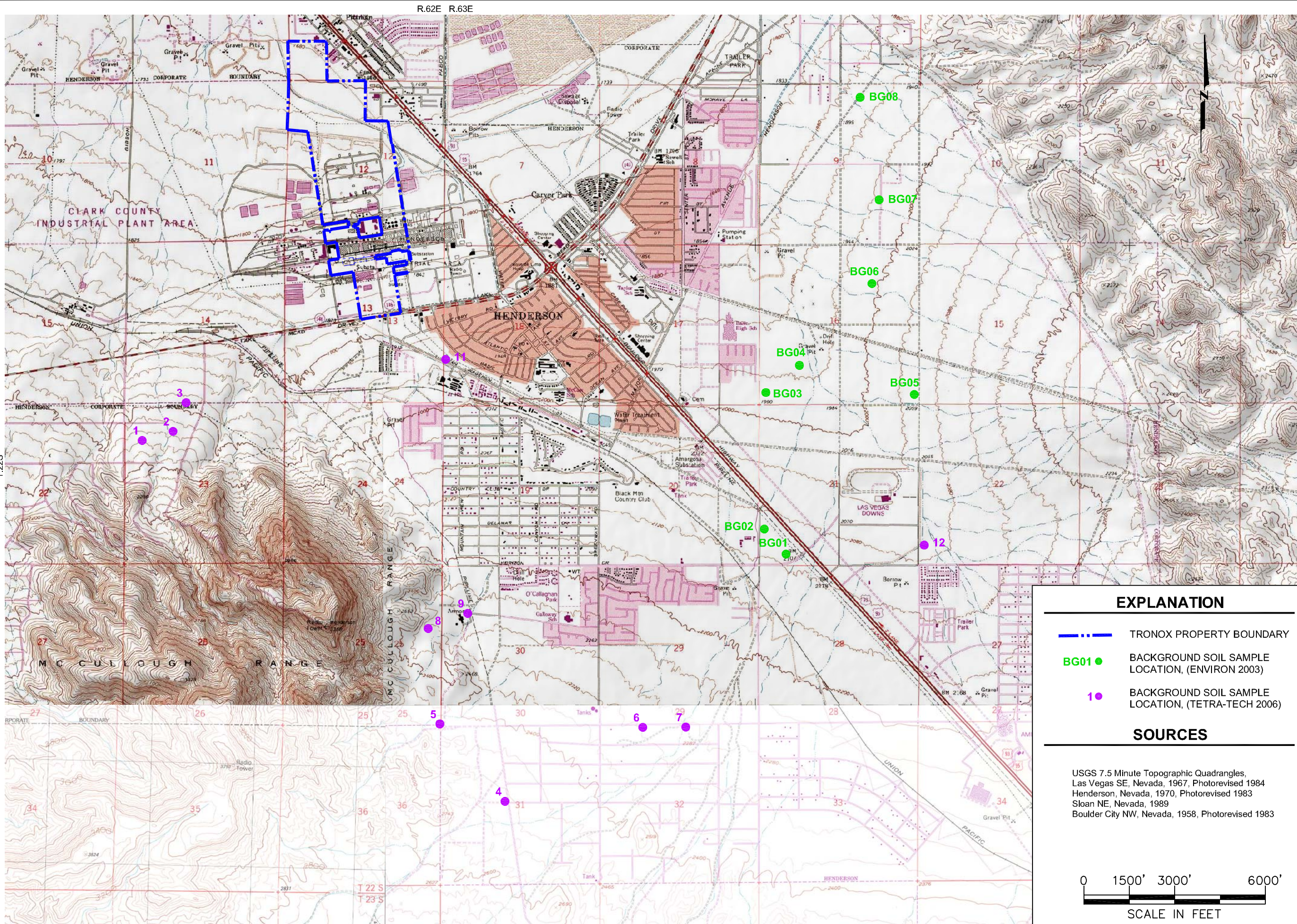
- - - - - TRONOX PROPERTY BOUNDARY
- M116 SHALLOW SOIL BORING (MARCH 2006)
- M-117 DEEP SOIL BORING THAT WAS DRILLED AND CONVERTED TO A MONITORING WELL (MARCH 2006)
- ◆ M-103 PRE-EXISTING MONITORING WELL
- M92 PRE-EXISTING MONITORING WELL NOT USED IN THIS INVESTIGATION

DESIGNED BY:	NO.:	DESCRIPTION:	DATE:	BY:
B. Ho				
DRAWN BY:				
M. Scop				
CHECKED BY:				
B. Ho				
APPROVED BY:				
D. Gerry				



<p>LOCATION OF SOIL BORING AND MONITORING WELLS Upgradient Investigation Tronox Facility Henderson, Nevada</p>		SCALE:	PROJECT NUMBER:
		as noted	04020-023-151
		DATE:	
		9/18/2006	

FIGURE NUMBER:
1-2
SHEET NUMBER:
X



EXPLANATION

- - - TRONOX PROPERTY BOUNDARY
- BG01 BACKGROUND SOIL SAMPLE LOCATION, (ENVIRON 2003)
- 1 BACKGROUND SOIL SAMPLE LOCATION, (TETRA-TECH 2006)

SOURCES

USGS 7.5 Minute Topographic Quadrangles,
 Las Vegas SE, Nevada, 1967, Photorevised 1984
 Henderson, Nevada, 1970, Photorevised 1983
 Sloan NE, Nevada, 1989
 Boulder City NW, Nevada, 1958, Photorevised 1983

0 1500' 3000' 6000'
 SCALE IN FEET

DESIGNED BY:	NO.:	DESCRIPTION:	DATE:	BY:
B. Ho				
DRAWN BY:				
M. Scop				
CHECKED BY:				
B. Ho				
APPROVED BY:				
D. Gerry				

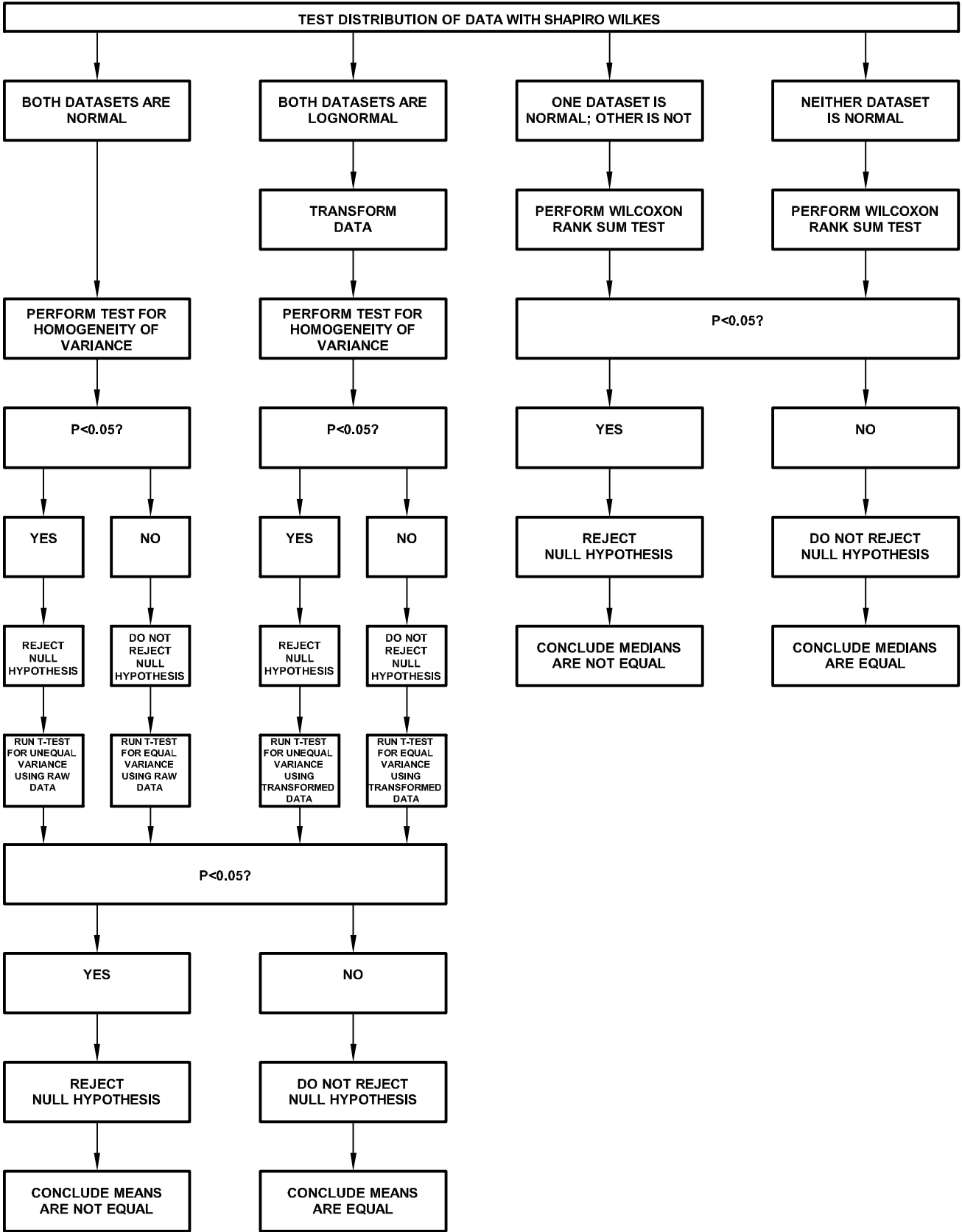


BACKGROUND SOIL SAMPLE LOCATIONS FOR THE HENDERSON AREA
 Upgradient Investigation
 Tronox Facility
 Henderson, Nevada

SCALE: 1" = 3000'
 DATE: 9/13/2006
 PROJECT NUMBER: 04020-023-151

FIGURE NUMBER:
2-1

SHEET NUMBER:
 X



FILENAME: flowchart.dwg



FLOWCHART FOR STATISTICAL COMPARISONS PROCESS

Upgradient Investigation
Tronox Facility
Henderson, Nevada

FIGURE NUMBER:

3-1

DRAWN BY:

M. Scop

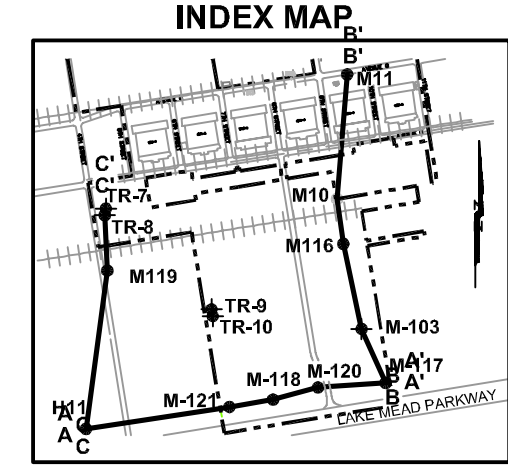
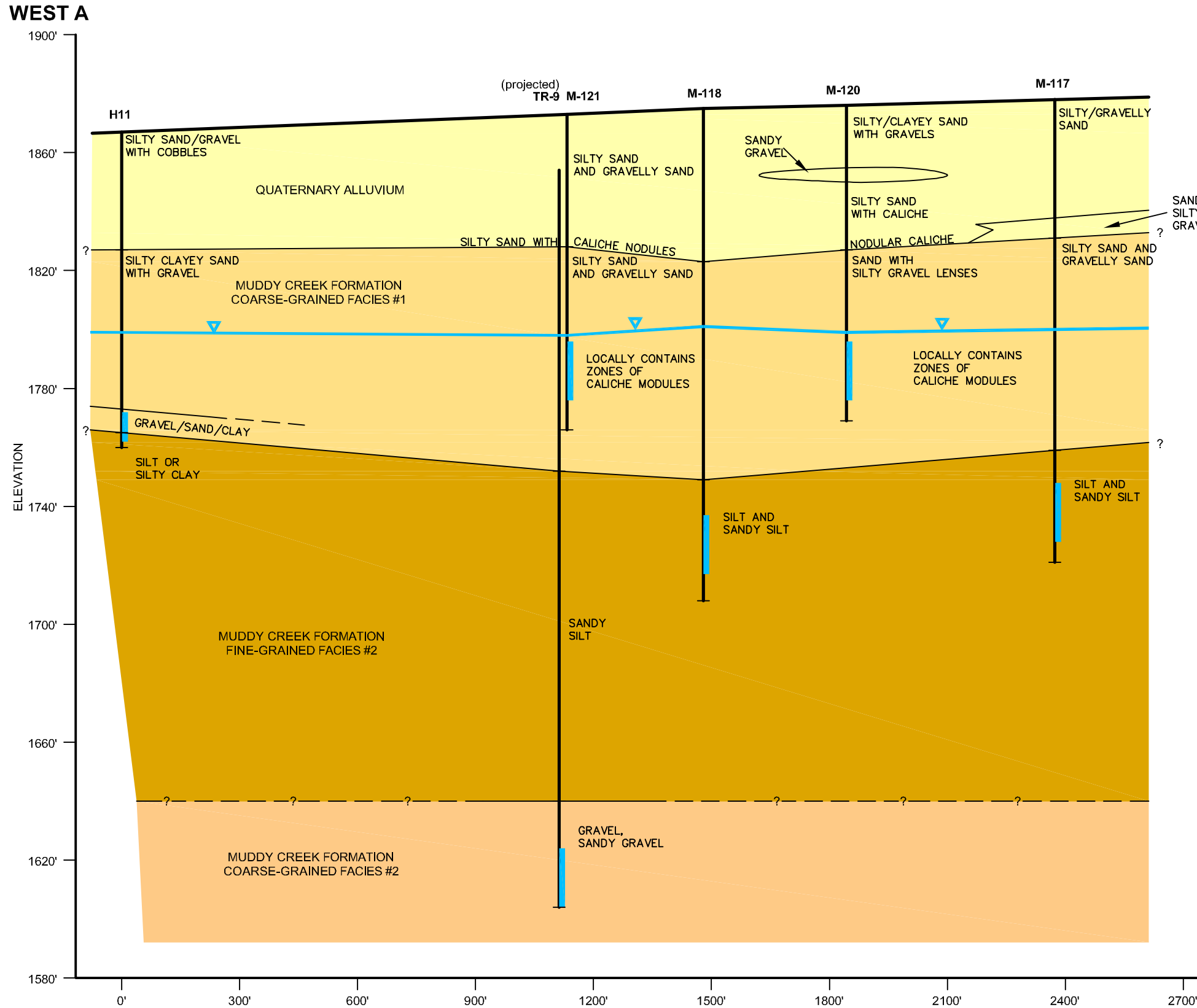
DATE:

9/13/2006

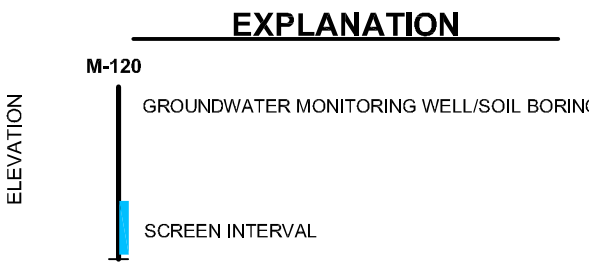
PROJECT NUMBER:

04020-023-152

SHEET NUMBER:



A' EAST



- QUATERNARY ALLUVIUM
- MUDDY CREEK FORMATION FINE-GRAINED FACIES #1
- MUDDY CREEK FORMATION COARSE-GRAINED FACIES #1
- MUDDY CREEK FORMATION FINE-GRAINED FACIES #2
- MUDDY CREEK FORMATION COARSE-GRAINED FACIES #2

REVISIONS	
NO.	DESCRIPTION

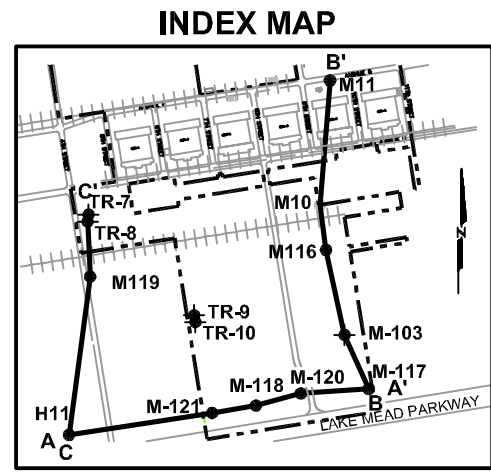
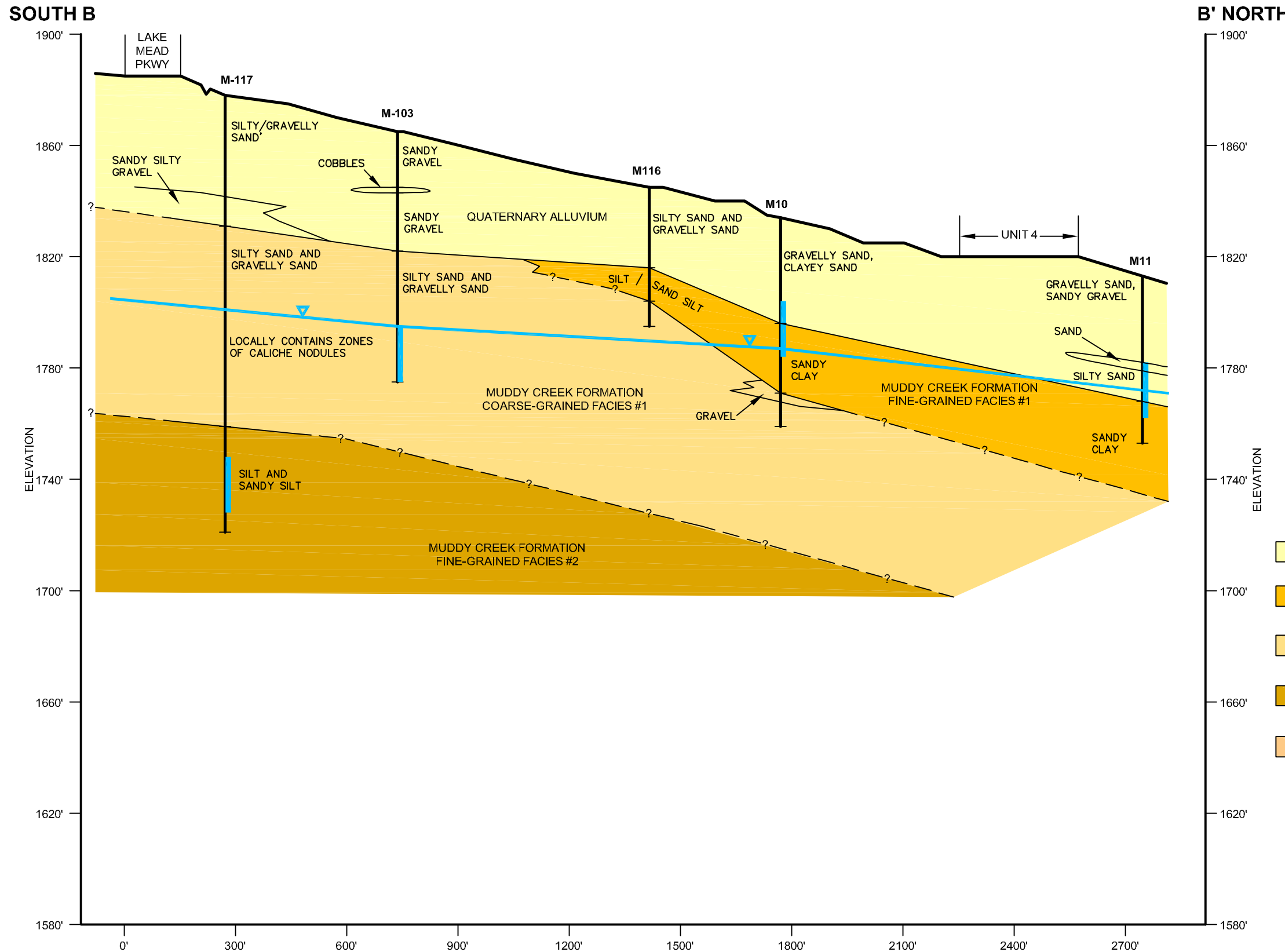
WEST - EAST HYDROGEOLOGICAL CROSS-SECTION A-A'

Upgradient Investigation
Tronox Facility
Henderson, Nevada

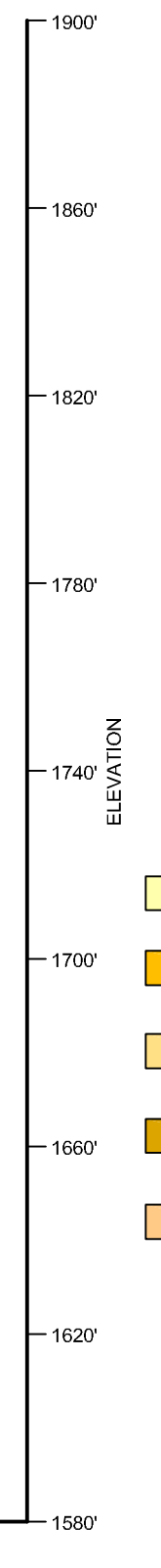
SCALE:	DATE:	PROJECT NUMBER:
as noted	9/18/2006	04020-023-151

FIGURE NUMBER:
4-1
SHEET NUMBER:
X

FILENAME: j:\2006 Projects\04020\023-Henderson\151 Upgrad Invest Results\Figures\Xsec B.dwg



B' NORTH



EXPLANATION

- M-116 GROUNDWATER MONITORING WELL/SOIL BORING
- SCREEN INTERVAL
- QUATERNARY ALLUVIUM
- MUDDY CREEK FORMATION FINE-GRAINED FACIES #1
- MUDDY CREEK FORMATION COARSE-GRAINED FACIES #1
- MUDDY CREEK FORMATION FINE-GRAINED FACIES #2
- MUDDY CREEK FORMATION COARSE-GRAINED FACIES #2

REVISIONS		NO.:	DESCRIPTION:	DATE:	BY:
DESIGNED BY:	B. Ho	DRAWN BY:	M. Scop	CHECKED BY:	B. Ho
APPROVED BY:	D. Gerry				



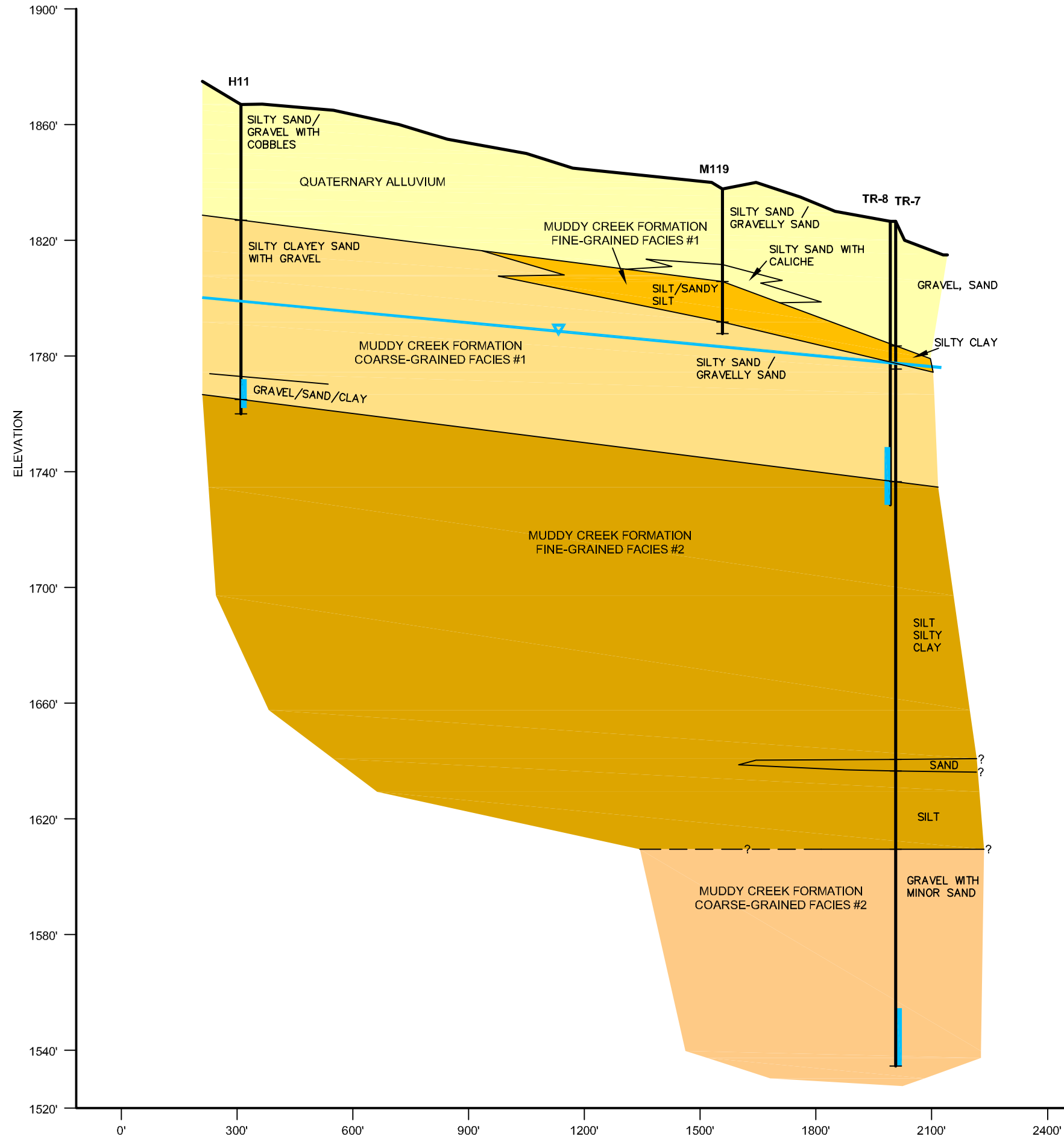
SOUTH - NORTH HYDROGEOLOGICAL CROSS-SECTION B-B'
 Upgradient Investigation
 Tronox Facility
 Henderson, Nevada

SCALE:	as noted	DATE:	9/18/2006	PROJECT NUMBER:	04020-023-151
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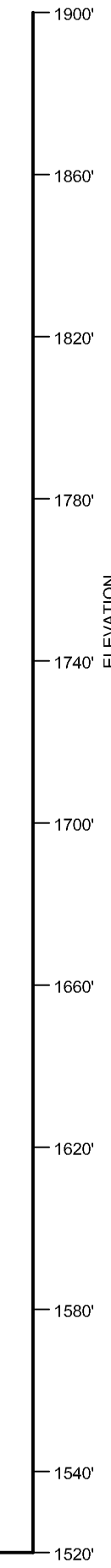
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SHEET NUMBER:	X

FILENAME: J:\2006 Projects\04020\023-Henderson\151 Upgrad Invest Results\Figures\Xsec C.dwg

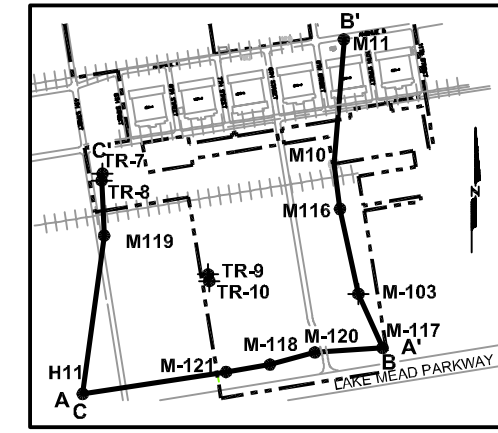
SOUTH C



C' NORTH



INDEX MAP



EXPLANATION

- QUATERNARY ALLUVIUM
 - MUDDY CREEK FORMATION FINE-GRAINED FACIES #1
 - MUDDY CREEK FORMATION COARSE-GRAINED FACIES #1
 - MUDDY CREEK FORMATION FINE-GRAINED FACIES #2
 - MUDDY CREEK FORMATION COARSE-GRAINED FACIES #2
- WELL M-119:**
- GROUNDWATER MONITORING WELL/SOIL BORING
 - SCREEN INTERVAL

DESIGNED BY:		REVISIONS	
B. Ho	NO.:	DESCRIPTION:	DATE:
M. Scoop	NO.:	DESCRIPTION:	DATE:
B. Ho	NO.:	DESCRIPTION:	DATE:
D. Gerry	NO.:	DESCRIPTION:	DATE:



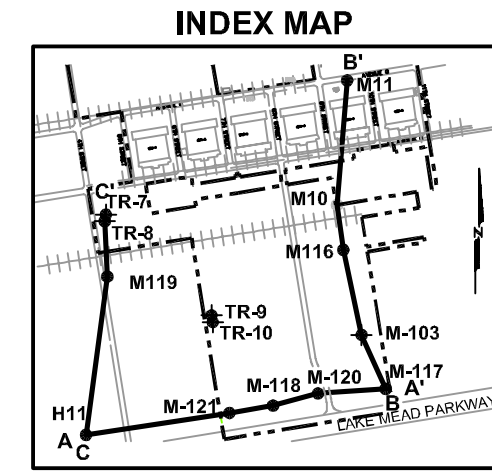
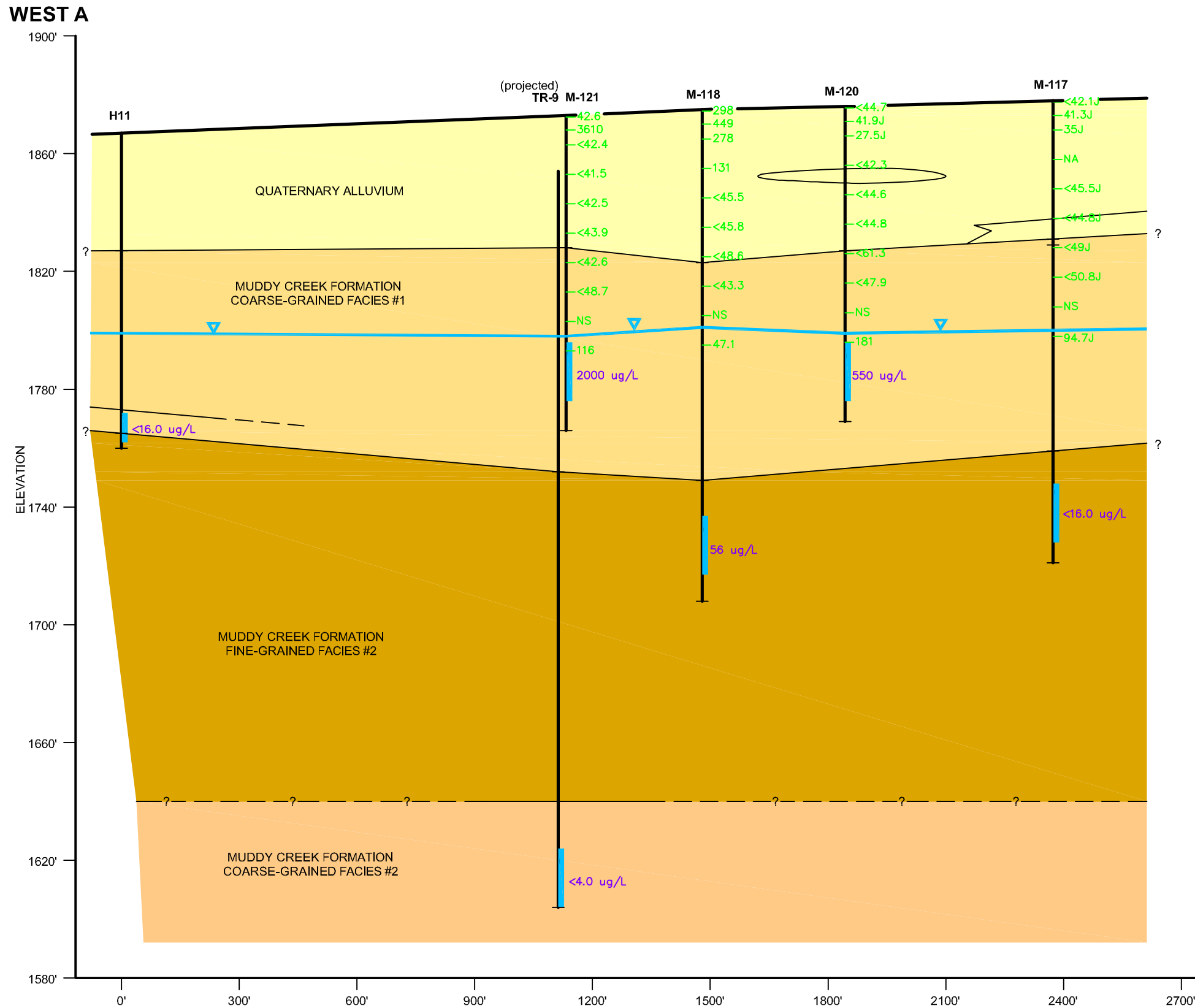
SOUTH - NORTH HYDROGEOLOGICAL CROSS-SECTION C-C'

Upgradient Investigation
Tronox Facility
Henderson, Nevada

SCALE: as noted
DATE: 9/18/2006
PROJECT NUMBER: 04020-023-151

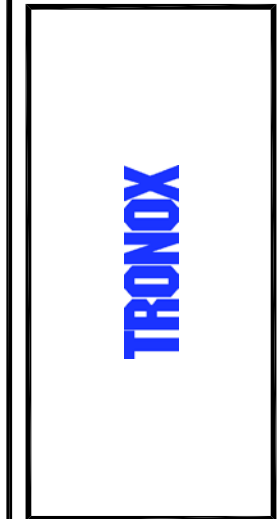
FIGURE NUMBER:
4-3
SHEET NUMBER:
X

FILENAME: j:\2006 Projects\04020\023-Henderson\151 Upgrad Invest Results\Figures\Xsec a perc.dwg



- EXPLANATION**
- M-120
- GROUNDWATER MONITORING WELL/SOIL BORING
- SCREEN INTERVAL
- 181 PERCHLORATE CONCENTRATION IN SOIL (ug/kg)
- 550 PERCHLORATE CONCENTRATION IN GROUNDWATER
- J ESTIMATED VALUE; CONCENTRATION WAS LESS THAN THE LABORATORY'S QUANTITATION LIMIT.
- < PERCHLORATE WAS NOT DETECTED AT CONCENTRATIONS LESS THAN THE VALUE SHOWN.
- NS NOT SAMPLED
- NA NOT ANALYZED
- QUATERNARY ALLUVIUM
- MUDDY CREEK FORMATION FINE-GRAINED FACIES #1
- MUDDY CREEK FORMATION COARSE-GRAINED FACIES #1
- MUDDY CREEK FORMATION FINE-GRAINED FACIES #2
- MUDDY CREEK FORMATION COARSE-GRAINED FACIES #2

DESIGNED BY:	NO.:	DESCRIPTION:	DATE:	BY:
B. Ho				
DRAWN BY:				
M. Scop				
CHECKED BY:				
B. Ho				
APPROVED BY:				
D. Gerry				



PERCHLORATE IN THE SUBSURFACE CROSS-SECTION A-A'

Upgradient Investigation
Tronox Facility
Henderson, Nevada

SCALE: as noted

DATE: 9/18/2006

PROJECT NUMBER: 04020-023-151

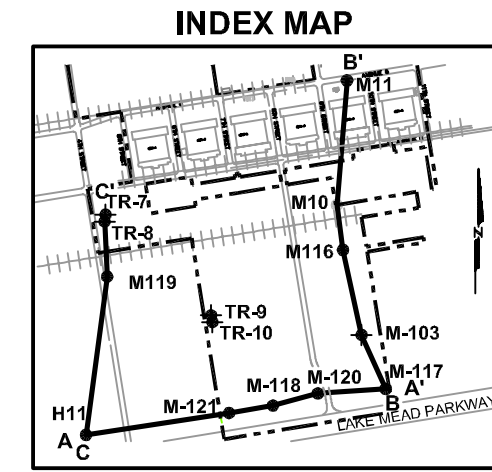
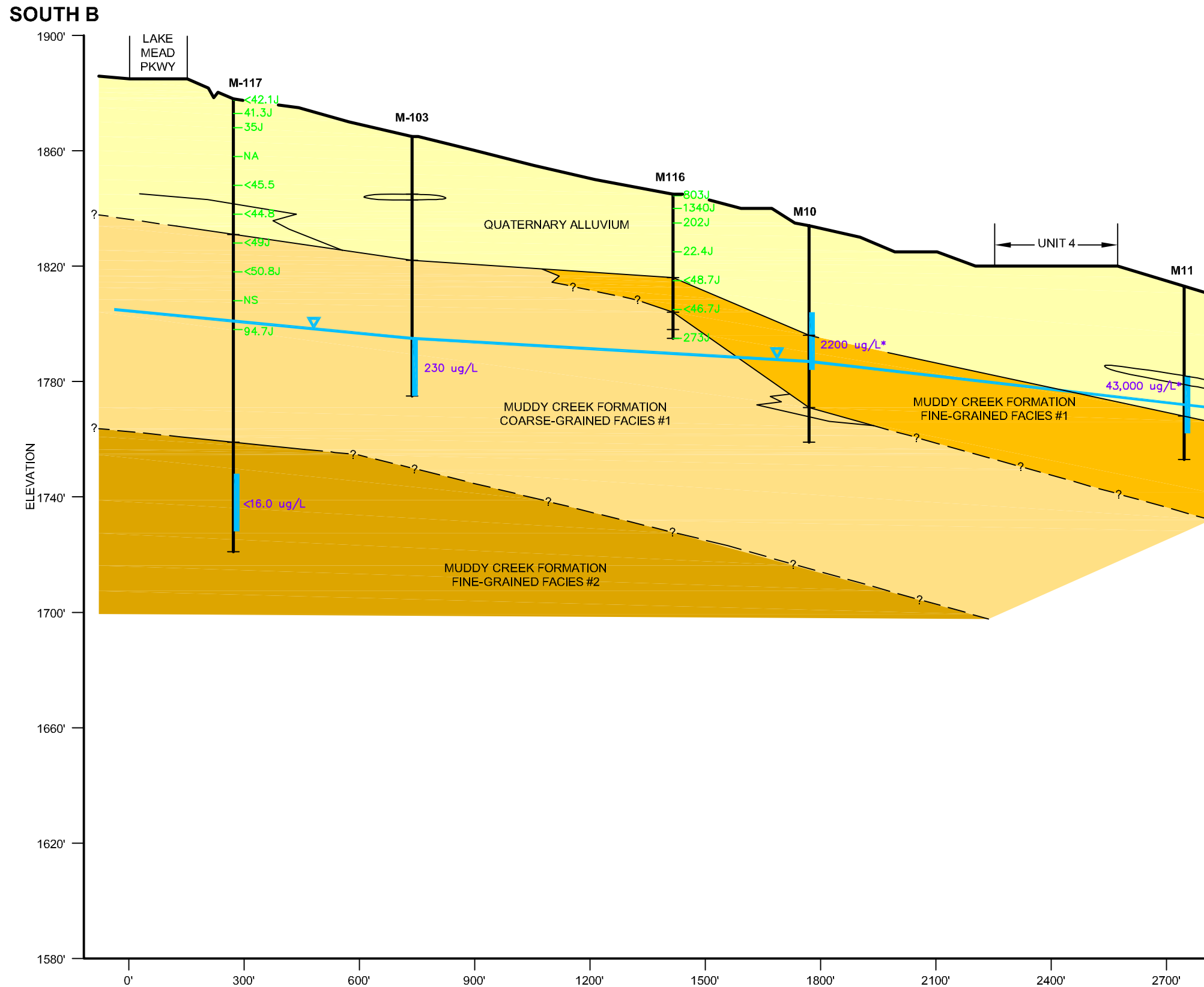
FIGURE NUMBER:

4-4

SHEET NUMBER:

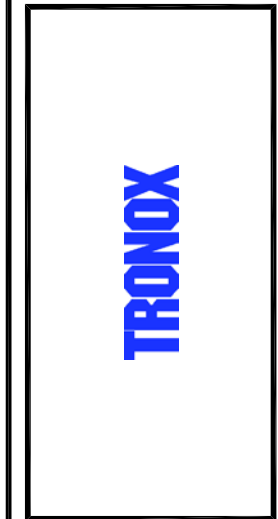
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FILENAME: j:\2006 Projects\04020\023-Henderson\151 Upgrad Invest Results\Figures\Xsec B per.c.dwg



- EXPLANATION**
- M-116 GROUNDWATER MONITORING WELL/SOIL BORING
 - SCREEN INTERVAL
 - 41.3 PERCHLORATE CONCENTRATION IN SOIL (ug/kg)
 - 230 PERCHLORATE CONCENTRATION IN GROUNDWATER
 - J ESTIMATED VALUE; CONCENTRATION WAS LESS THAN THE LABORATORY'S QUANTITATION LIMIT.
 - < PERCHLORATE WAS NOT DETECTED AT CONCENTRATIONS LESS THAN THE VALUE SHOWN.
 - NS NOT SAMPLED
 - NA NOT ANALYZED
 - * DATA FROM ENSR, 2006b
 - QUATERNARY ALLUVIUM
 - MUDDY CREEK FORMATION FINE-GRAINED FACIES #1
 - MUDDY CREEK FORMATION COARSE-GRAINED FACIES #1
 - MUDDY CREEK FORMATION FINE-GRAINED FACIES #2
 - MUDDY CREEK FORMATION COARSE-GRAINED FACIES #2

DESIGNED BY:	NO.:	DESCRIPTION:	DATE:	BY:
B. Ho				
DRAWN BY:				
M. Scop				
CHECKED BY:				
B. Ho				
APPROVED BY:				
D. Gerry				



PERCHLORATE IN THE SUBSURFACE CROSS-SECTION B-B'

Upgradient Investigation
Tronox Facility
Henderson, Nevada

DATE: 9/18/2006
PROJECT NUMBER: 04020-023-151

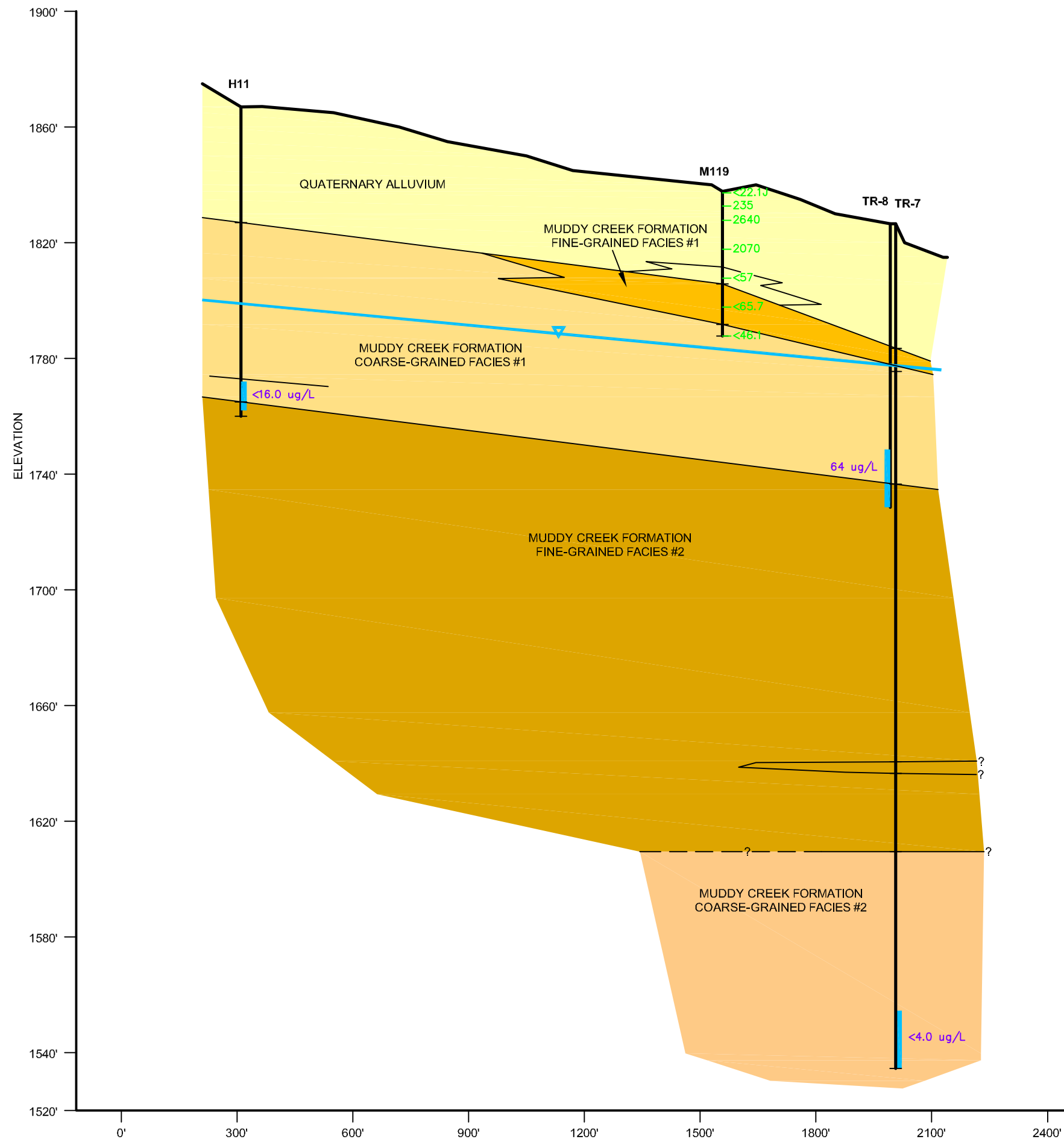
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FIGURE NUMBER:
4-5

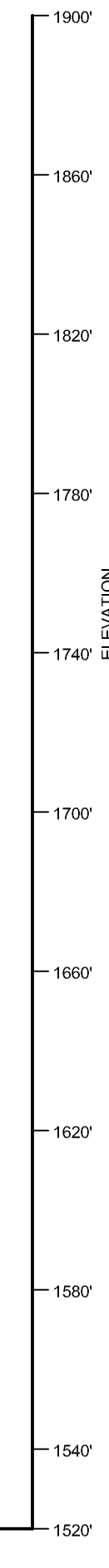
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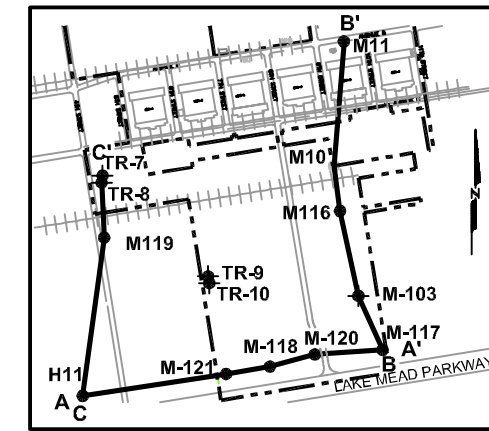
SOUTH C



C' NORTH



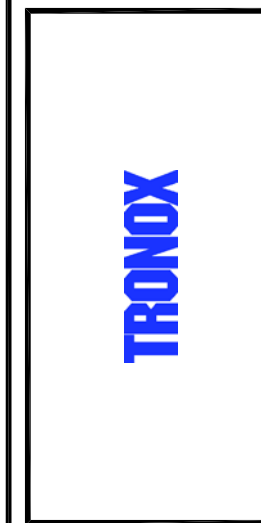
INDEX MAP



EXPLANATION

- GROUNDWATER MONITORING WELL/SOIL BORING
- SCREEN INTERVAL
- 235 PERCHLORATE CONCENTRATION IN SOIL (ug/kg)
- 64 PERCHLORATE CONCENTRATION IN GROUNDWATER
- J ESTIMATED VALUE; CONCENTRATION WAS LESS THAN THE LABORATORY'S QUANTITATION LIMIT.
- < PERCHLORATE WAS NOT DETECTED AT CONCENTRATIONS LESS THAN THE VALUE SHOWN.
- NS NOT SAMPLED
- NA NOT ANALYZED
- QUATERNARY ALLUVIUM
- MUDDY CREEK FORMATION FINE-GRAINED FACIES #1
- MUDDY CREEK FORMATION COARSE-GRAINED FACIES #1
- MUDDY CREEK FORMATION FINE-GRAINED FACIES #2
- MUDDY CREEK FORMATION COARSE-GRAINED FACIES #2

DESIGNED BY:		REVISIONS	
B. Ho	NO.:	DESCRIPTION:	DATE:
M. Scoop	NO.:	DESCRIPTION:	DATE:
B. Ho	NO.:	DESCRIPTION:	DATE:
D. Gerry	NO.:	DESCRIPTION:	DATE:



PERCHLORATE IN THE SUBSURFACE CROSS-SECTION C-C'

Upgradient Investigation
Tronox Facility
Henderson, Nevada

DATE: 9/18/2006
PROJECT NUMBER: 04020-023-151

FIGURE NUMBER:
4-6

SHEET NUMBER:
X

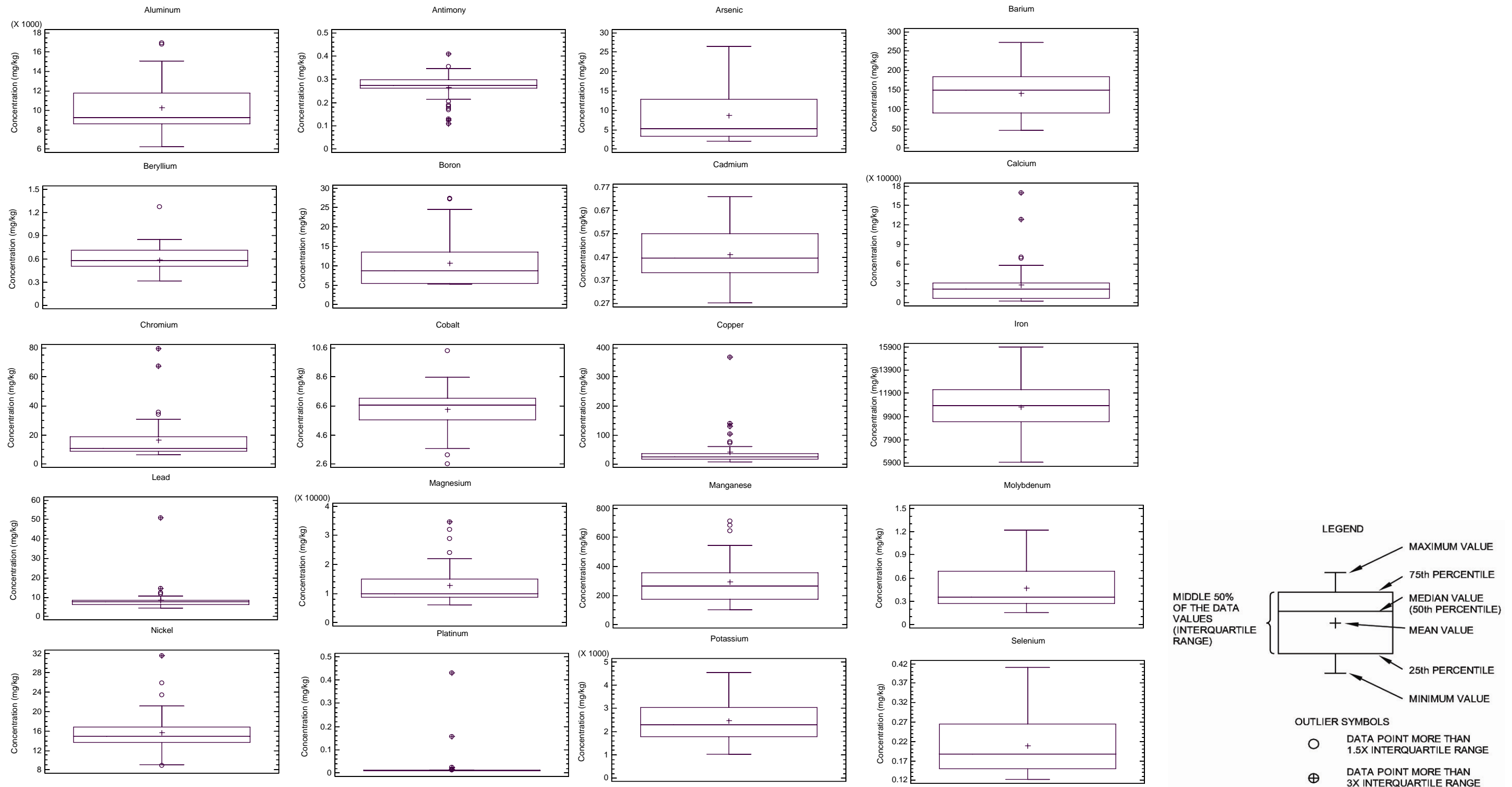


Figure 4-7. Box and whisker plots for metals and perchlorate in soils

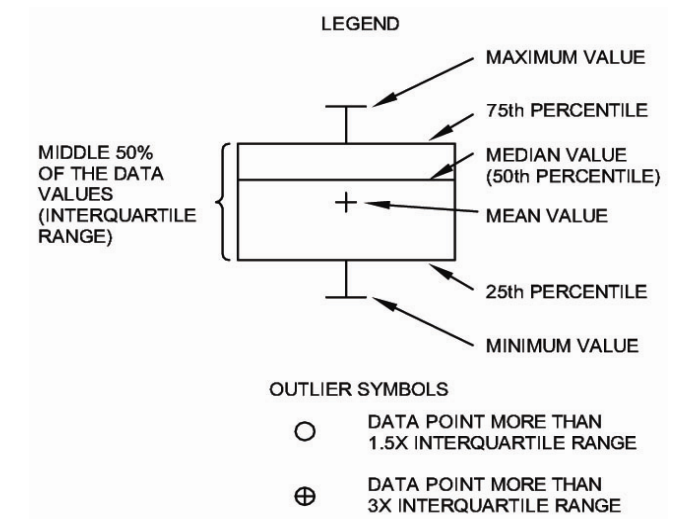
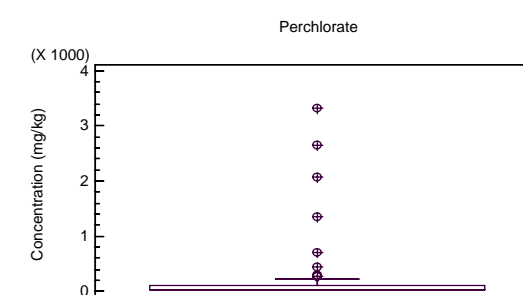
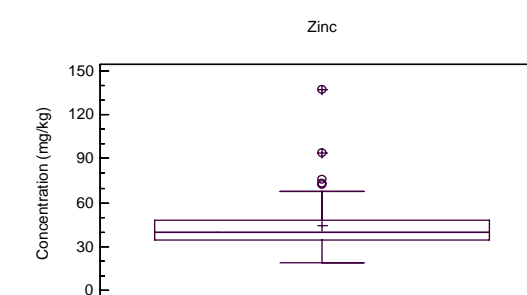
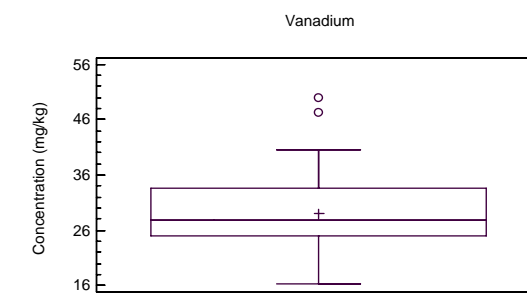
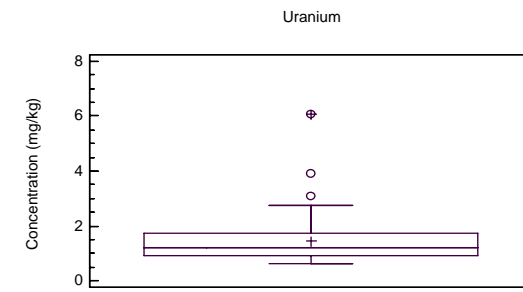
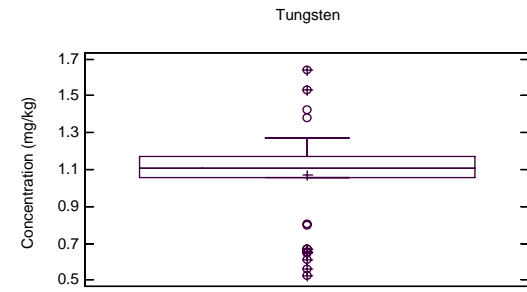
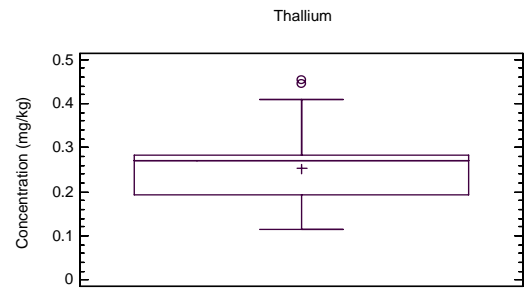
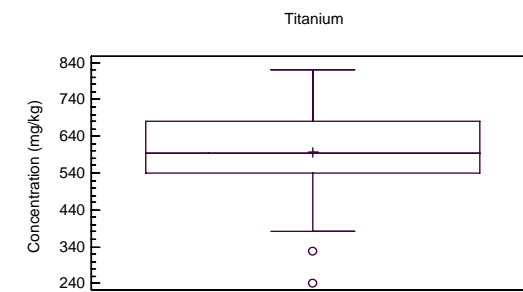
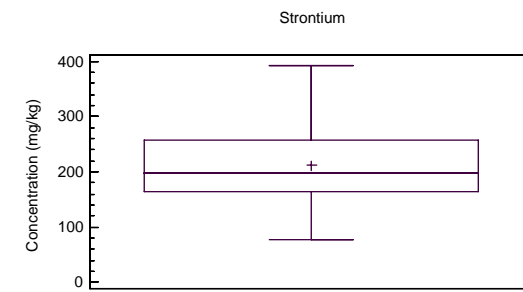
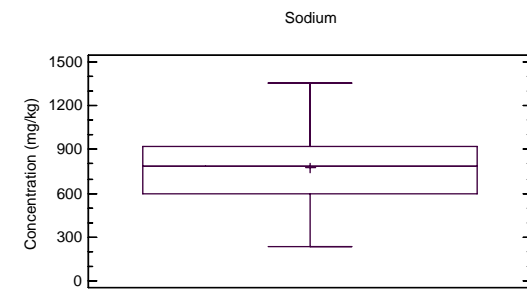
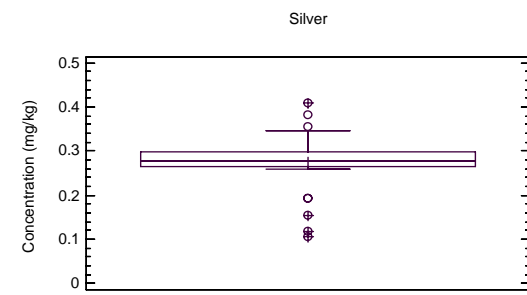


Figure 4-7 (Continued). Box and whisker plots for metals and perchlorate in soils

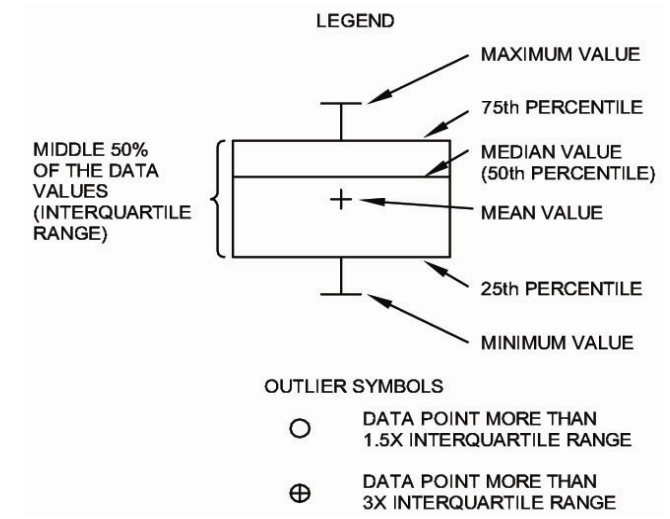
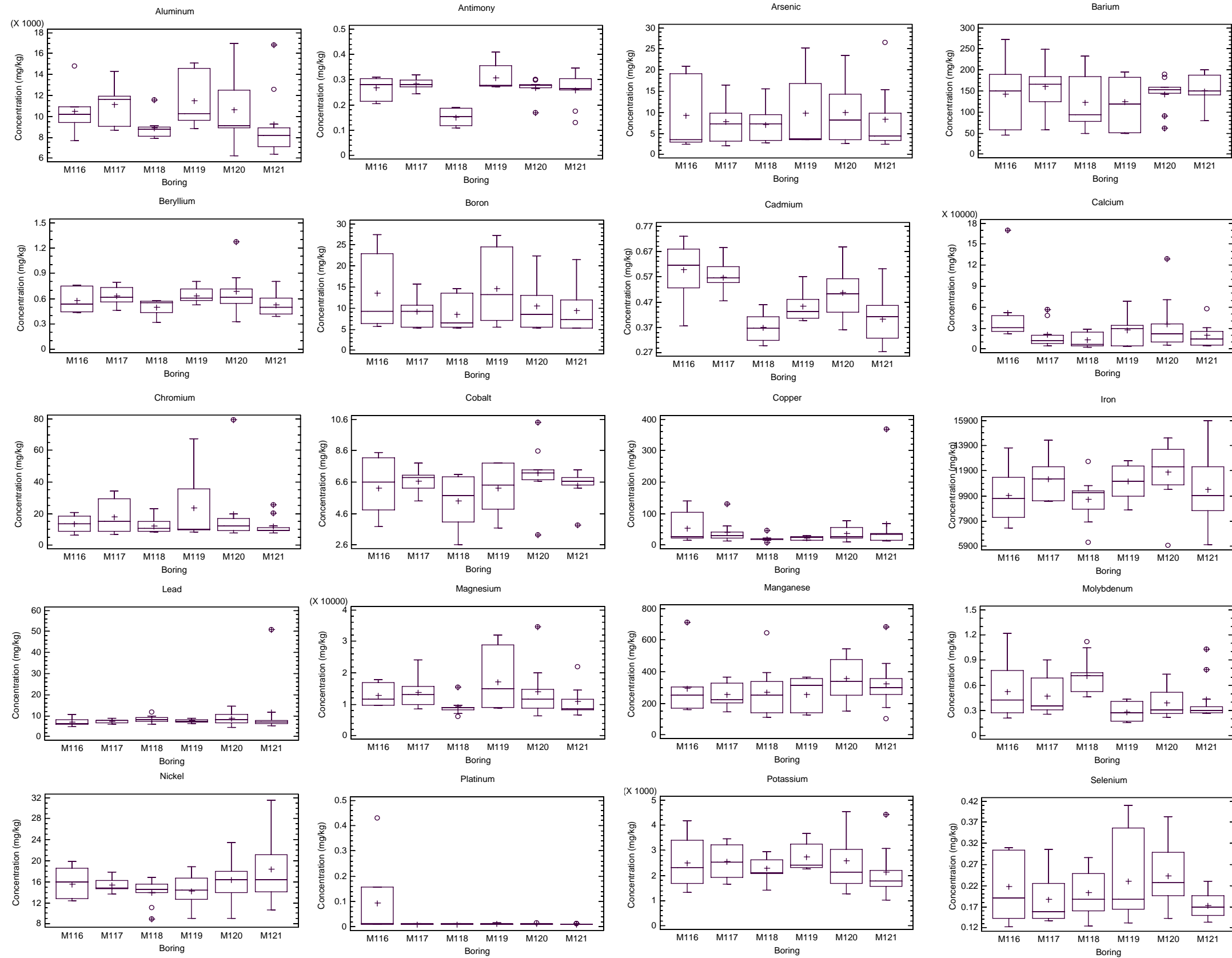


Figure 4-8. Box and whisker plots for metals and perchlorate grouped by boring

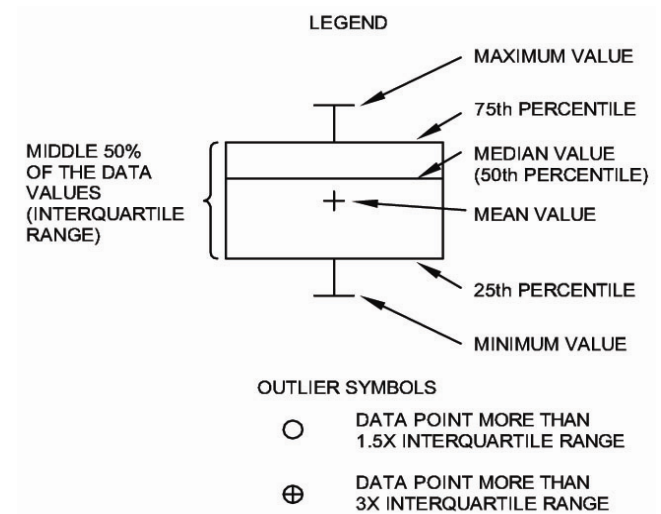
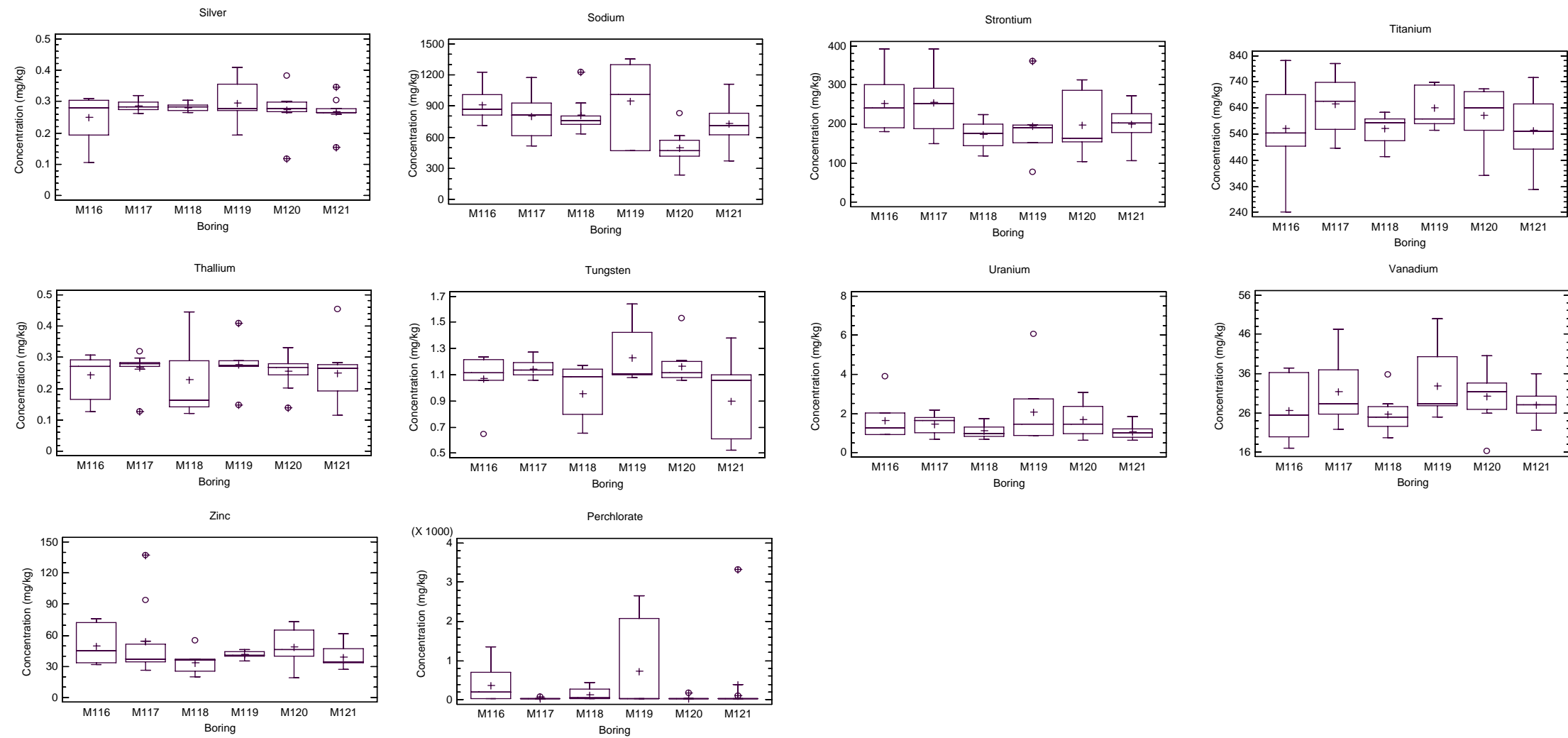


Figure 4-8 (Continued). Box and whisker plots for metals and perchlorate grouped by boring

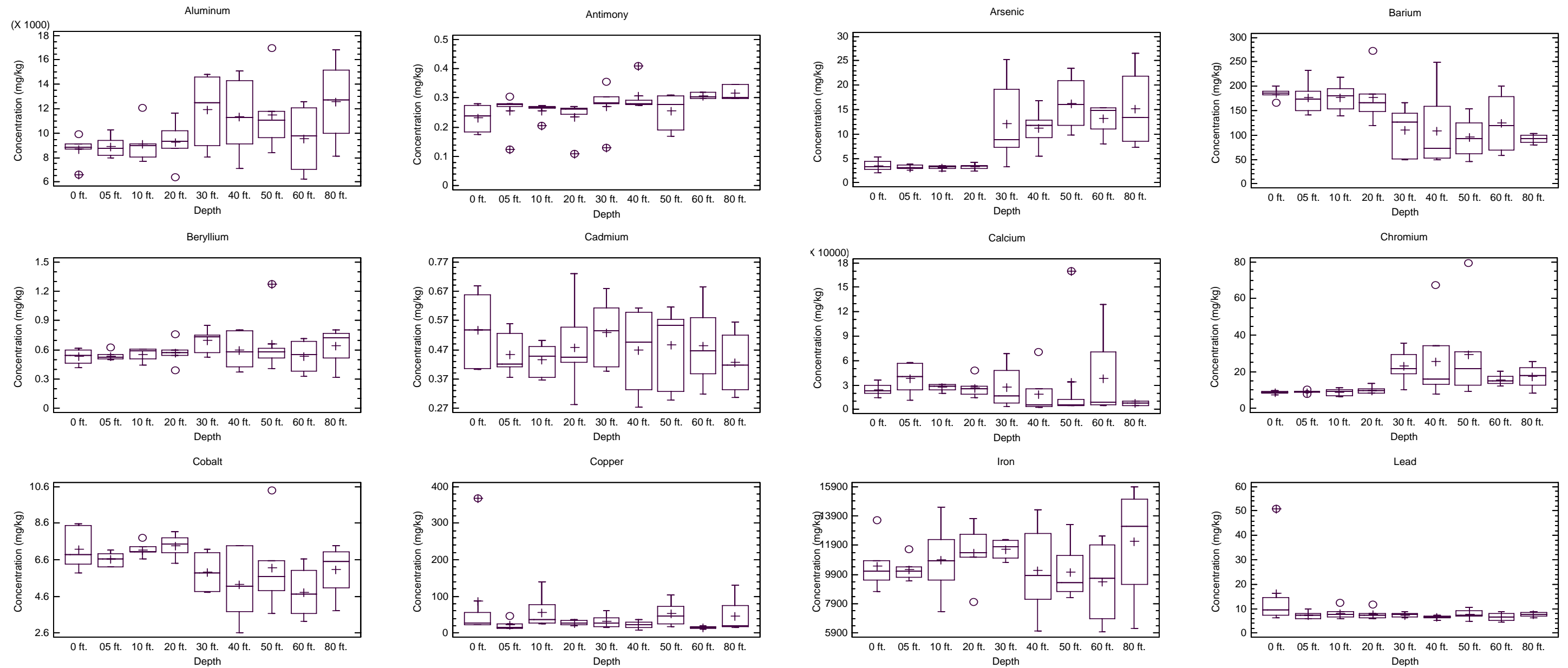


Figure 4-9. Box and whisker plots grouped by sample depth

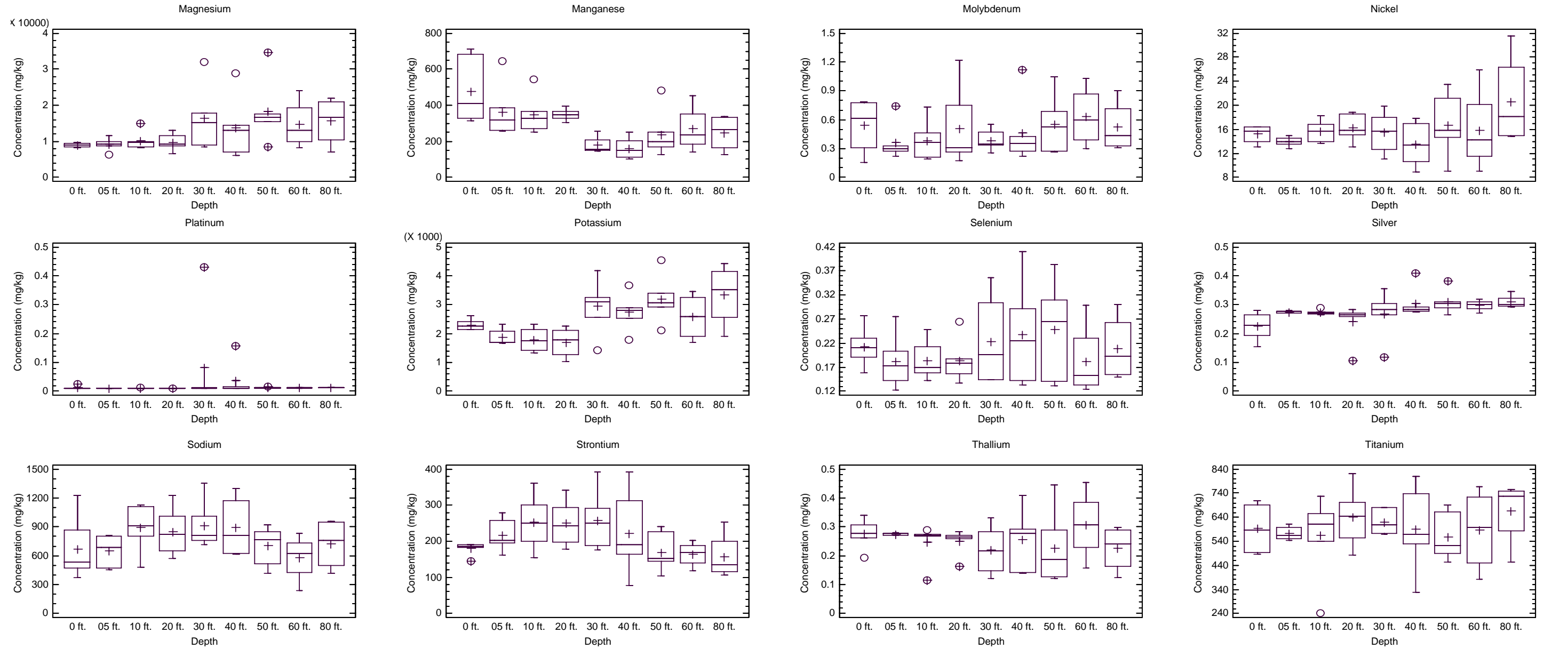


Figure 4-9 (continued). Box and whisker plots grouped by sample depth

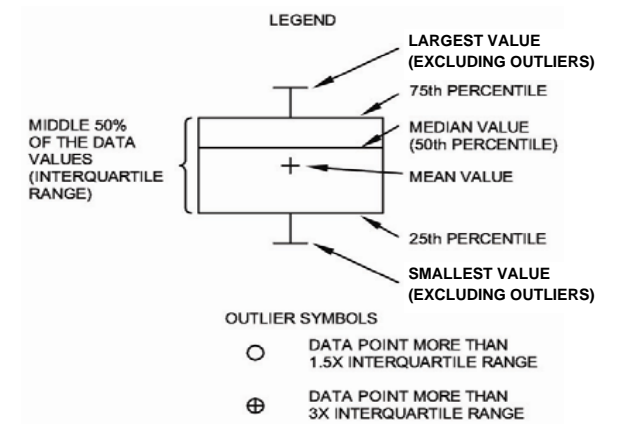
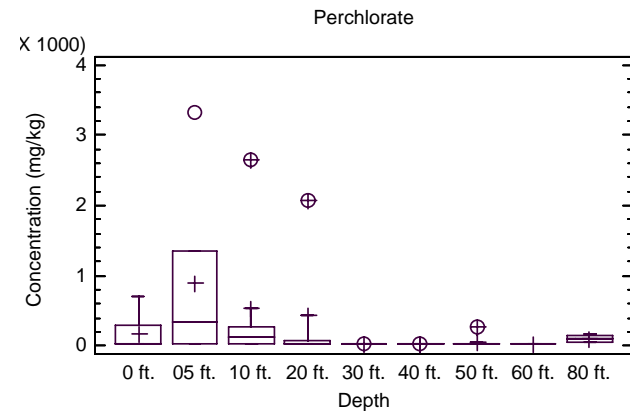
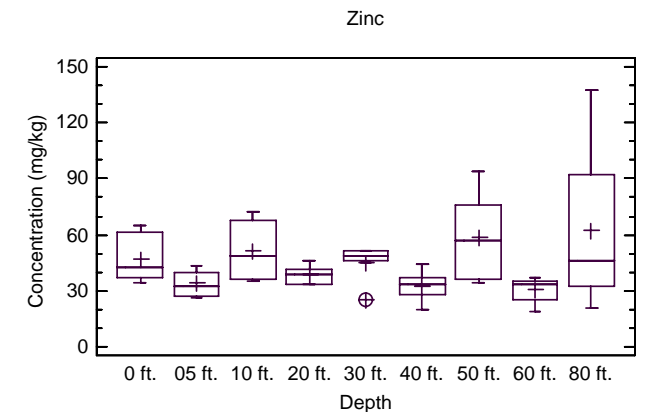
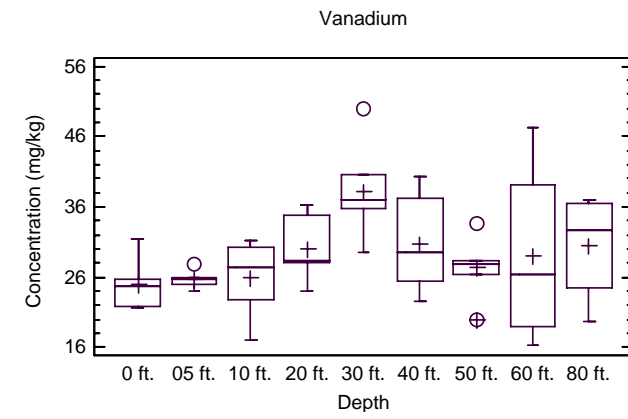
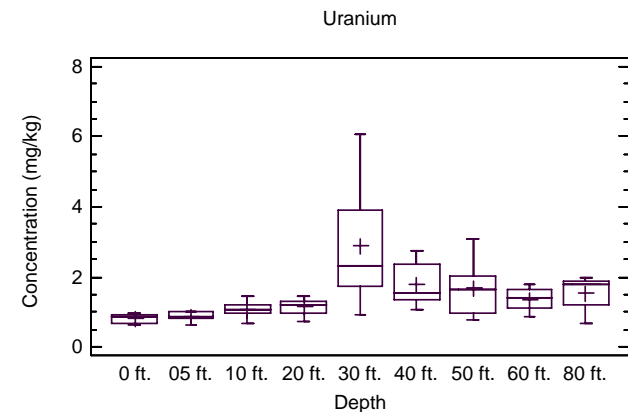
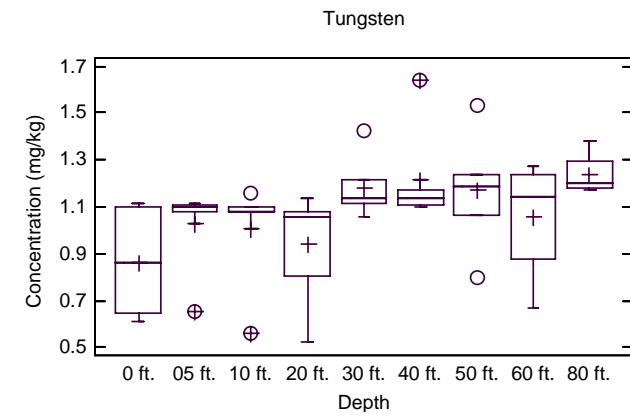


Figure 4-9 (continued). Box and whisker plots grouped by sample depth

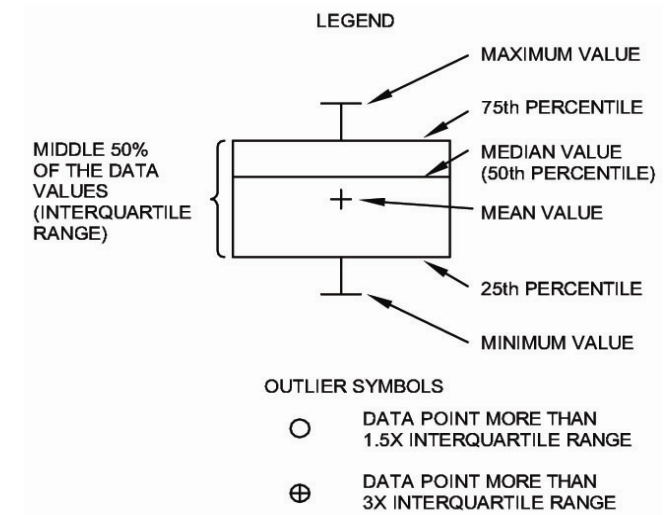
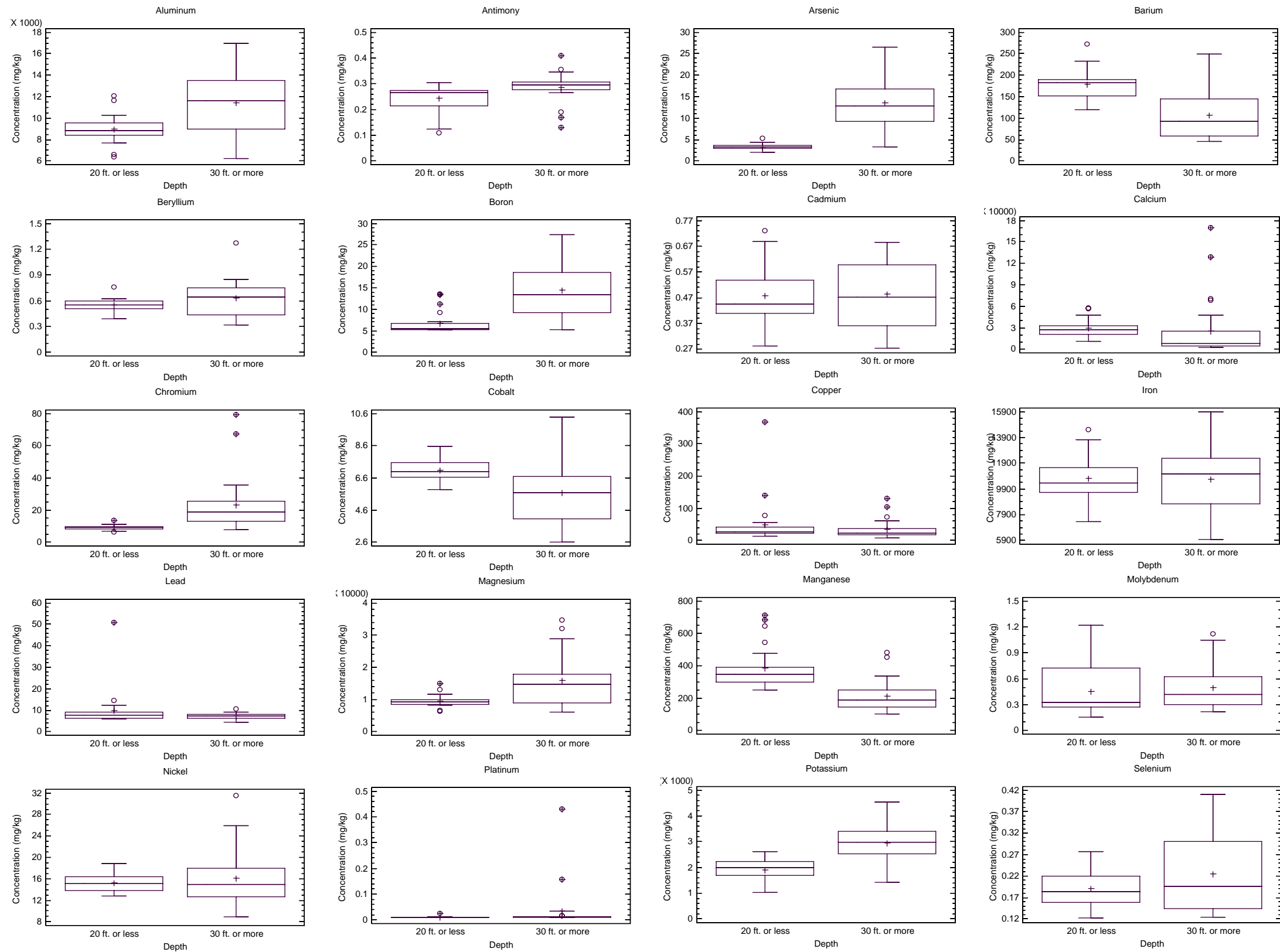


Figure 4-10. Box and whisker plots sample depths less than 20 feet and sample depths greater than 30 feet

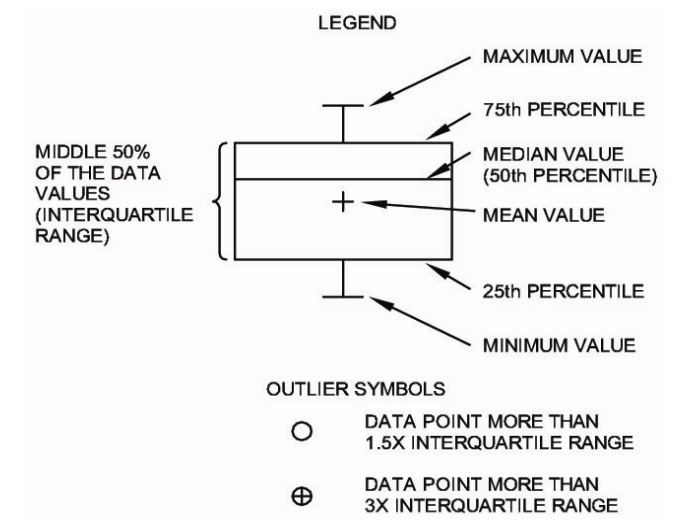
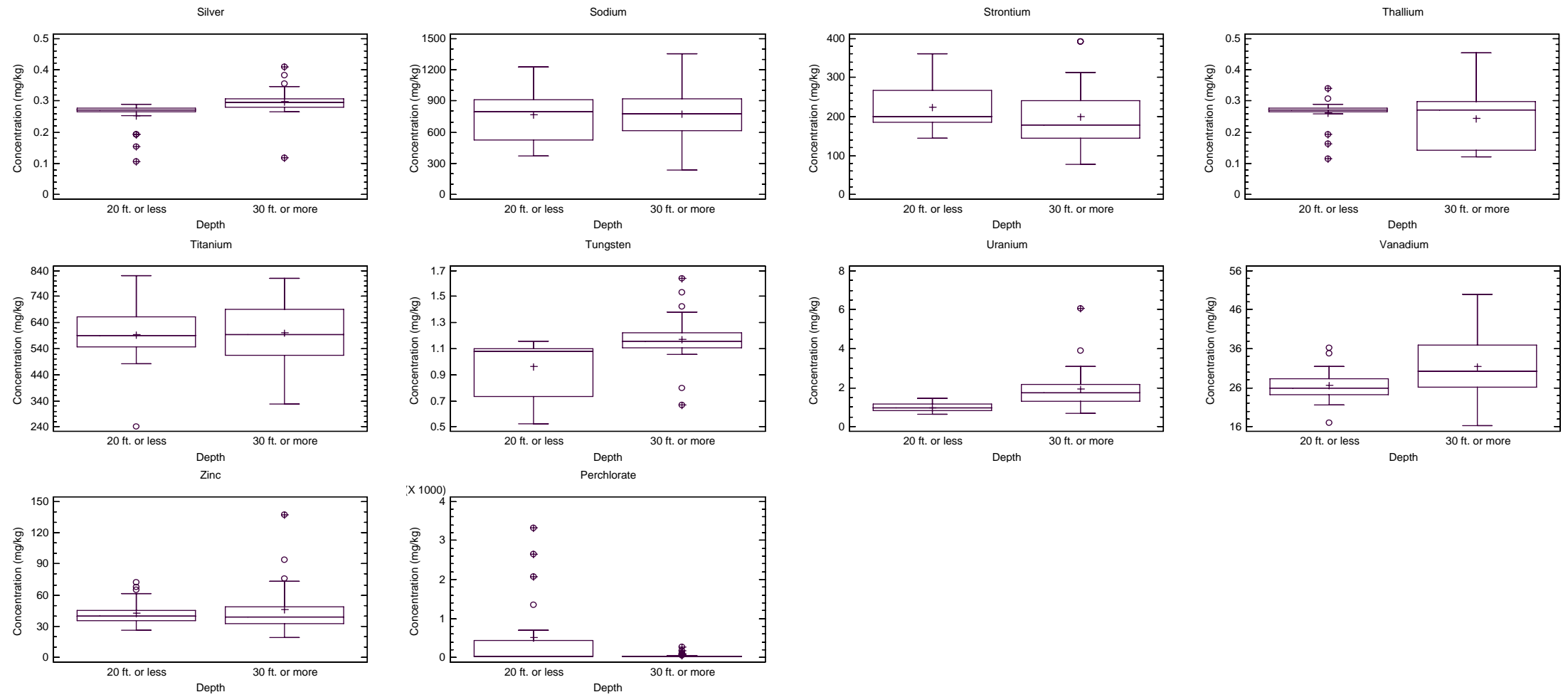


Figure 4-10 (Continued). Box and whisker plots sample depths less than 20 feet and sample depths greater than 30 feet

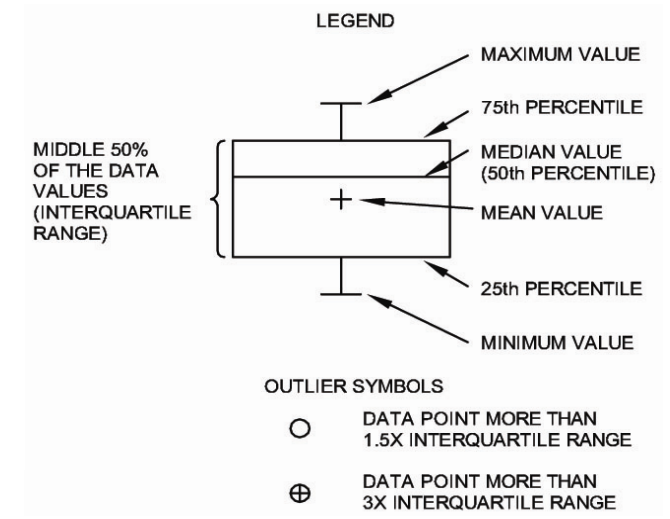
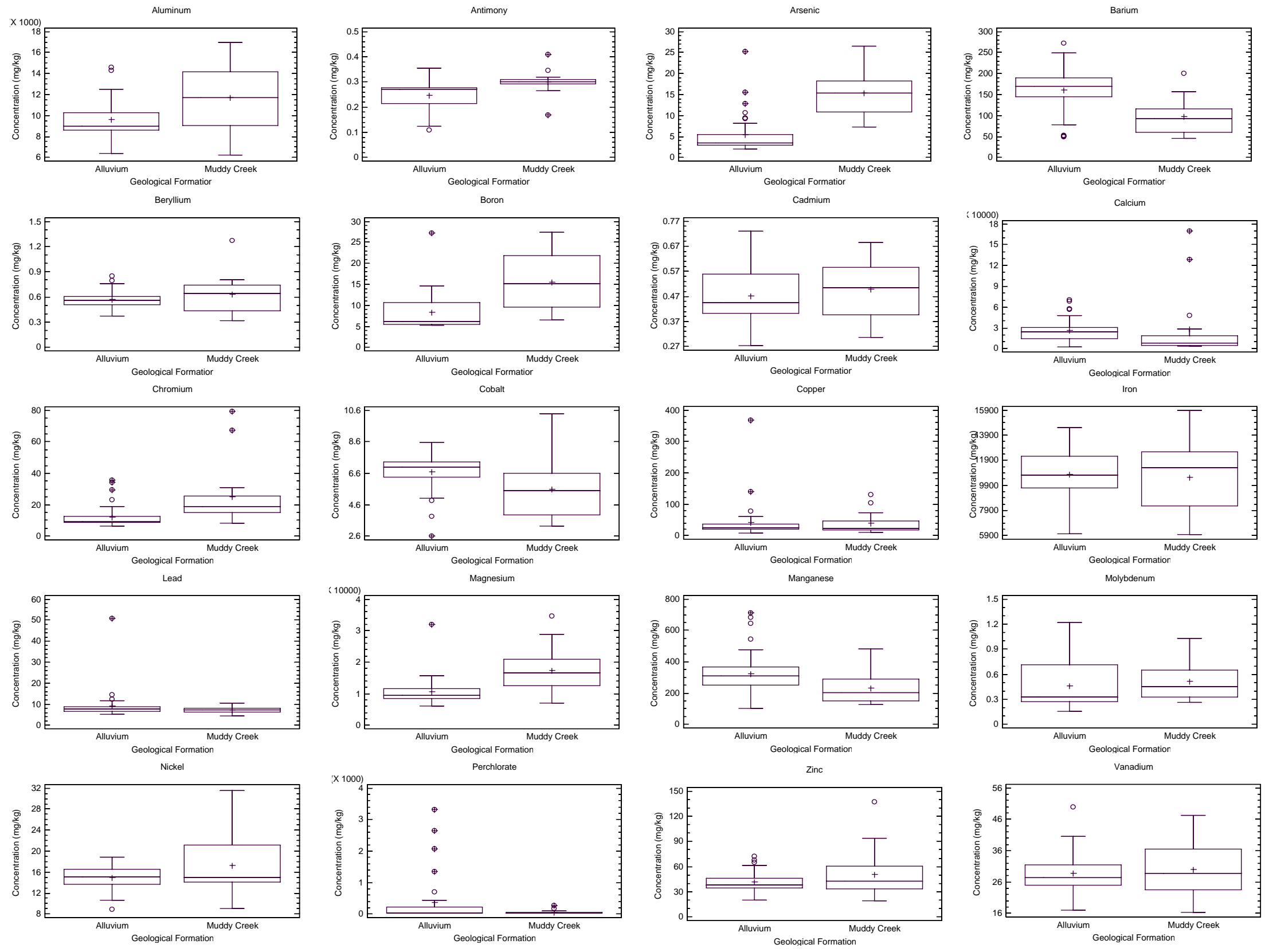


Figure 4-11. Box and whisker plots grouped by geological formation

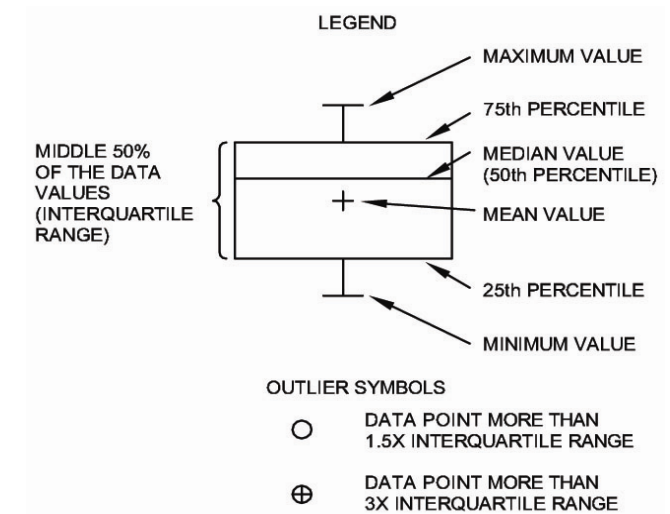
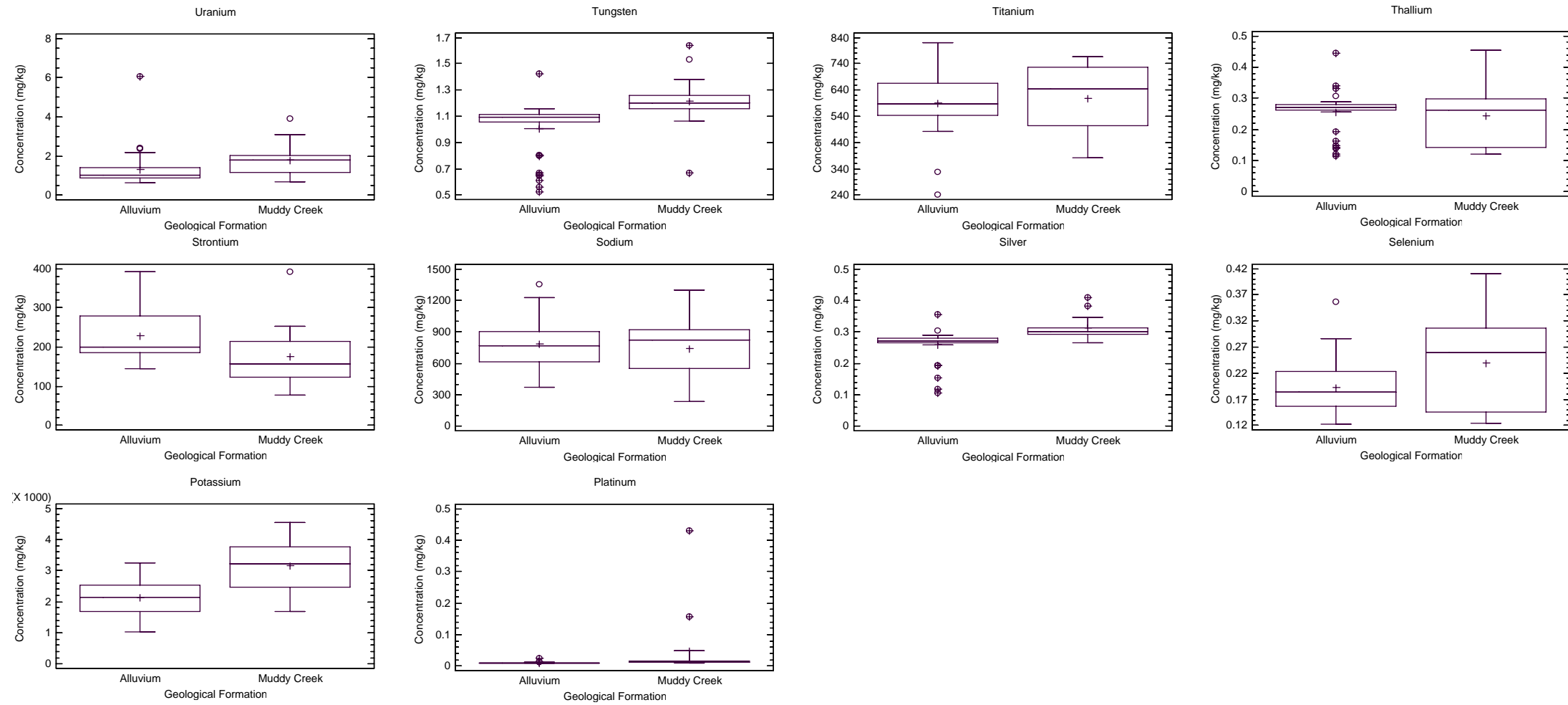


Figure 4-11 (Continued). Box and whisker plots grouped by geological formation

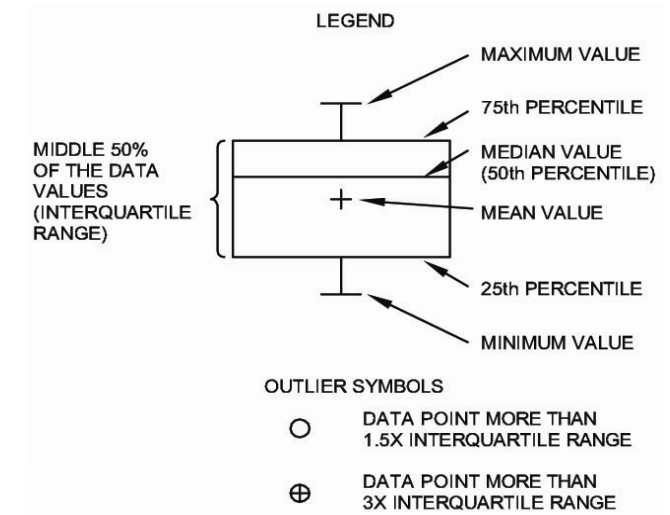
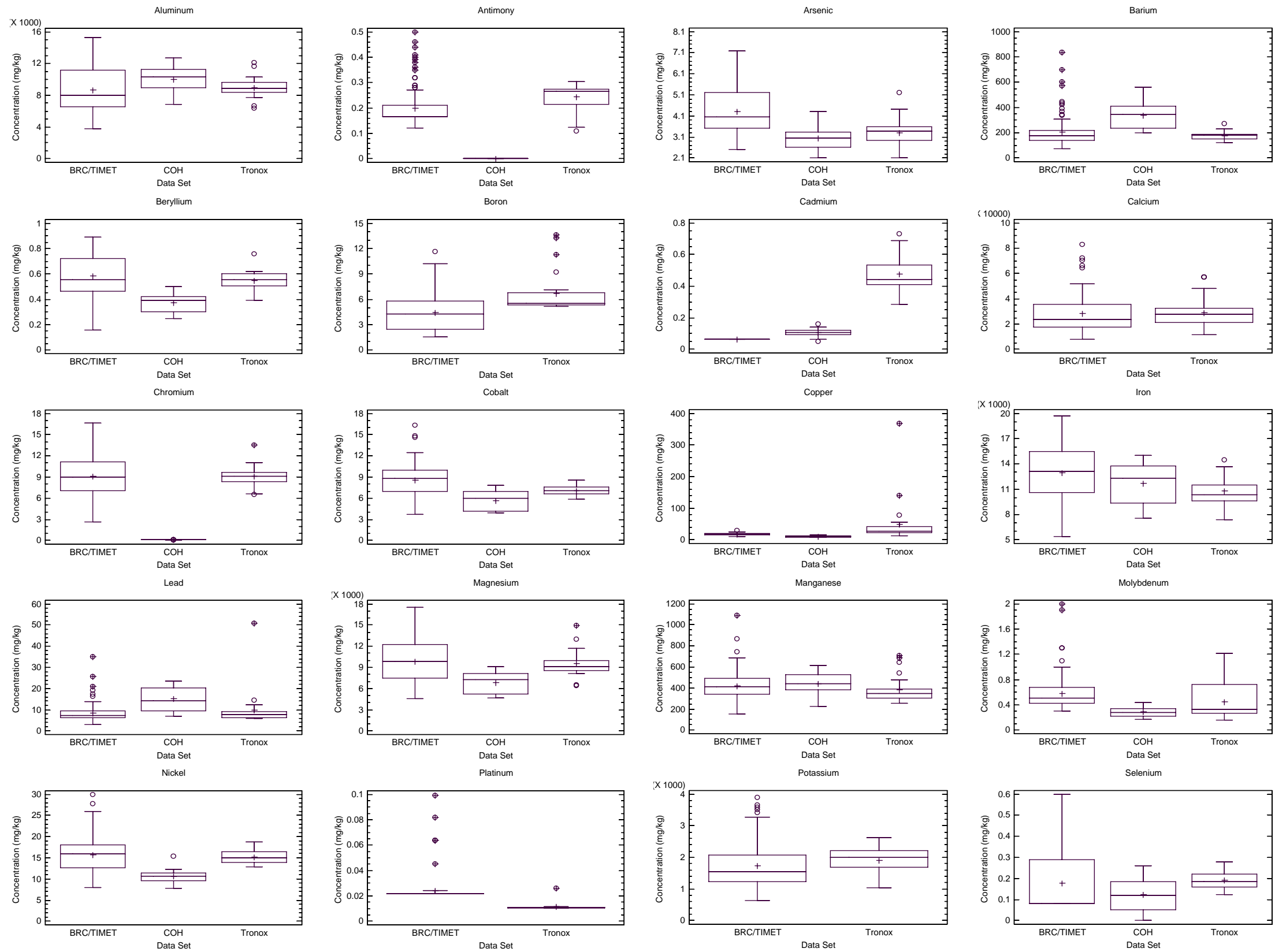


Figure 4-12. Box and whisker plots grouped by dataset

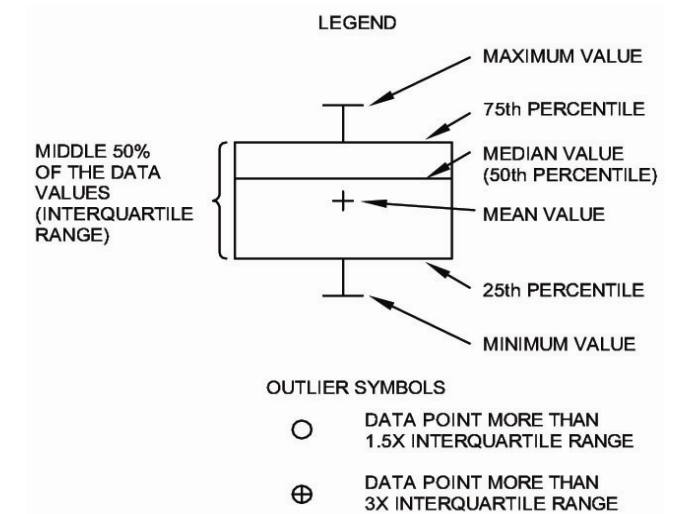
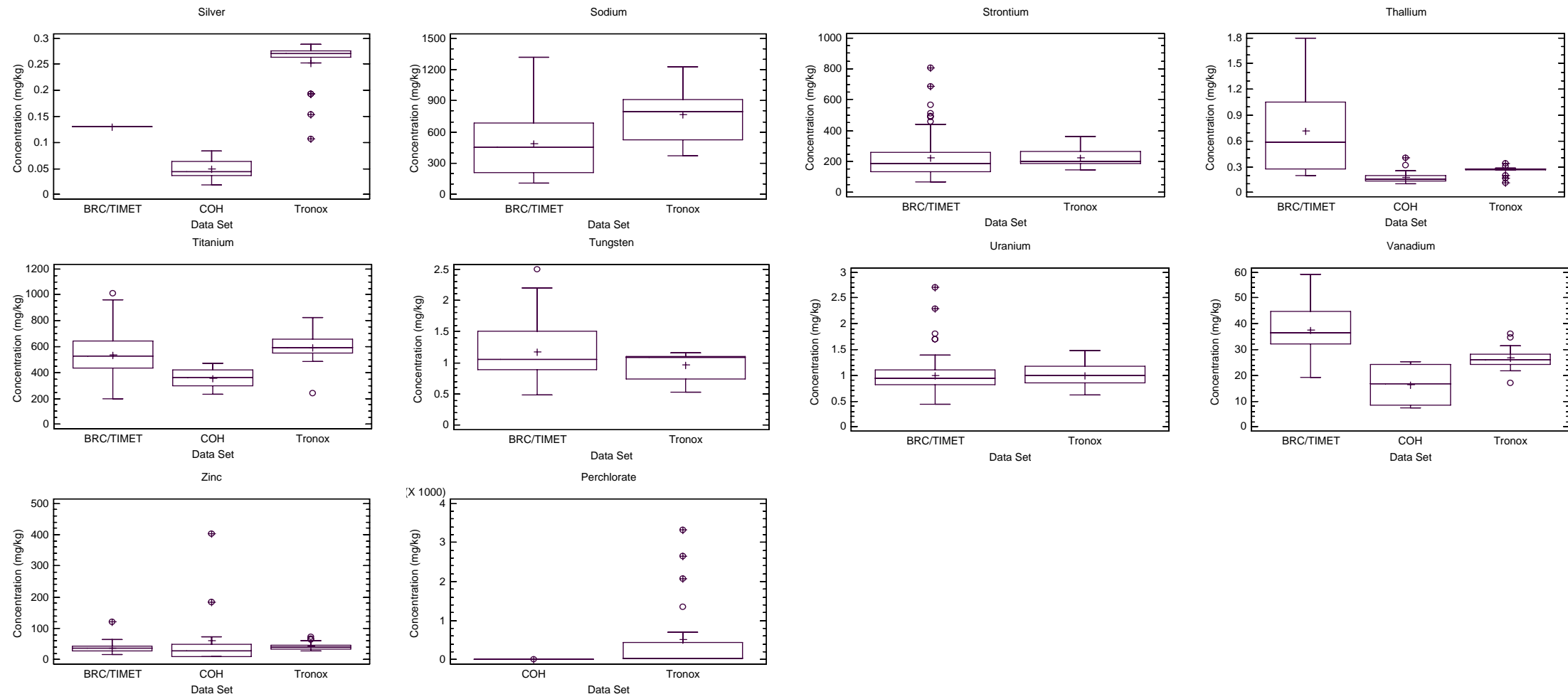


Figure 4-12 (Continued). Box and whisker plots grouped by dataset

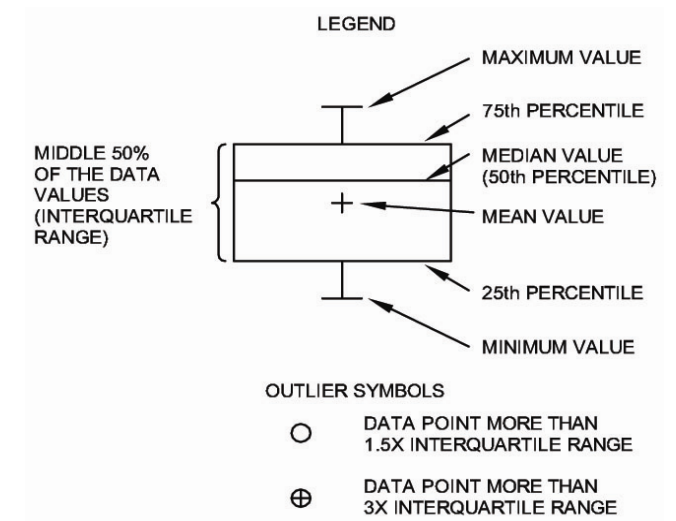
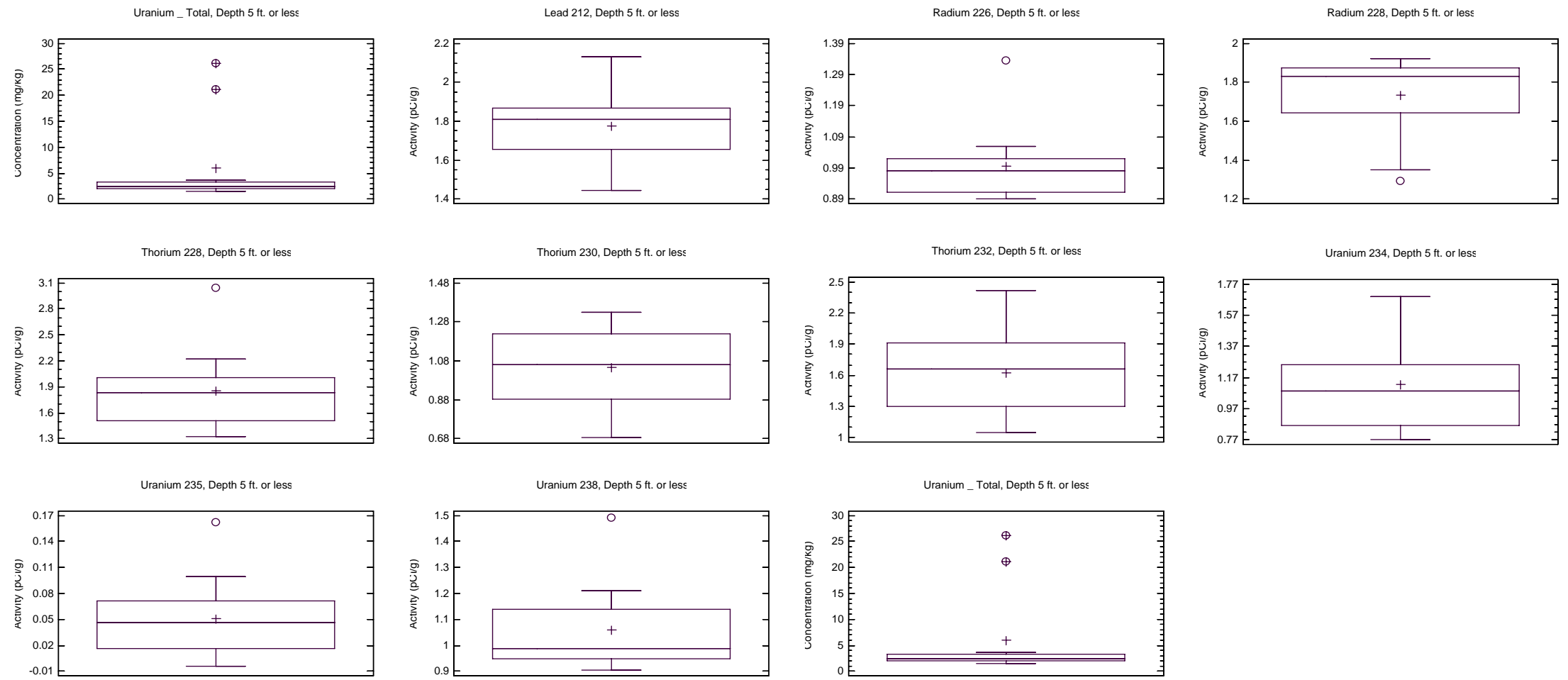


Figure 4-13. Box and whisker plots for individual radionuclides

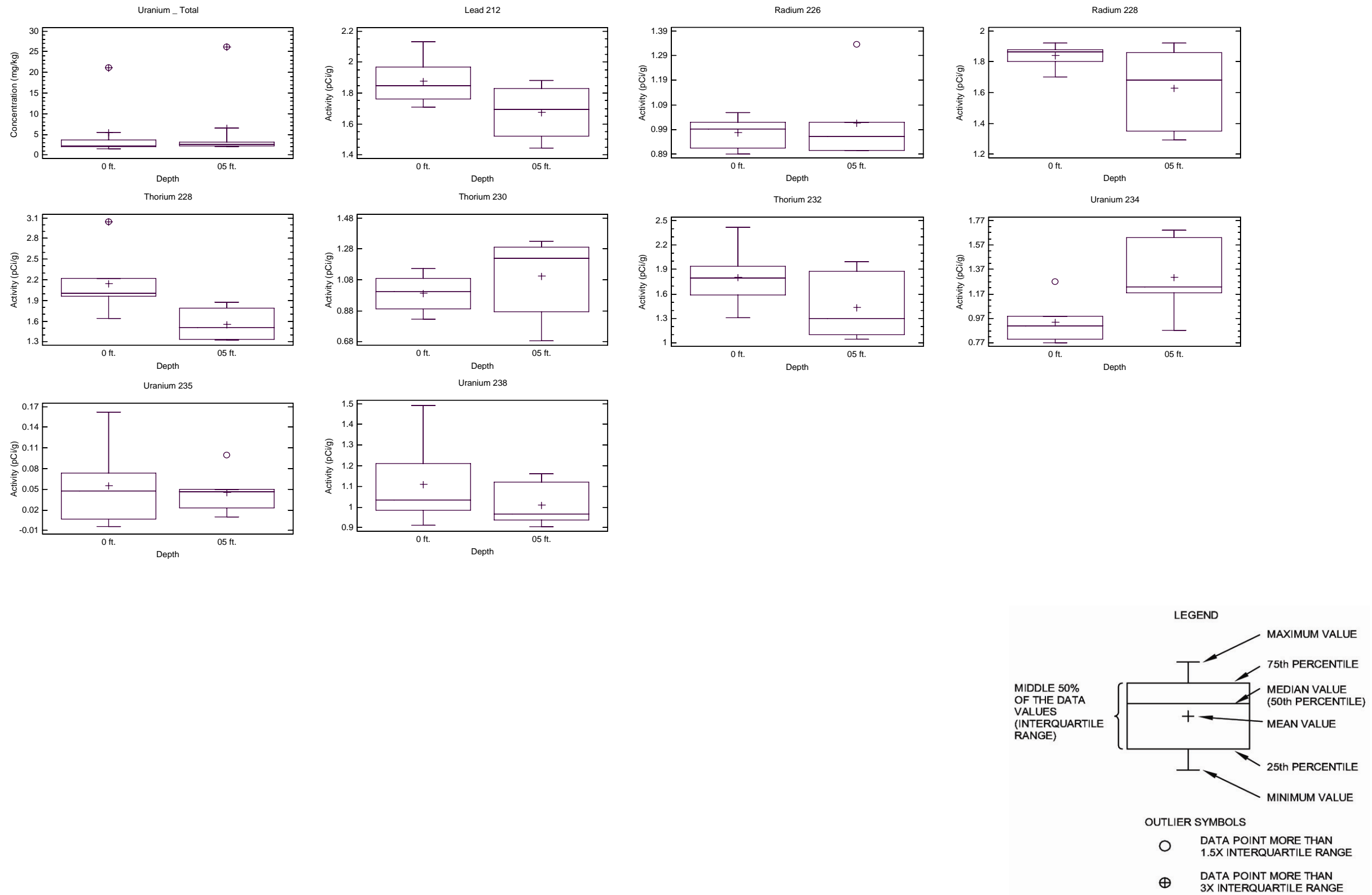


Figure 4-14. Box and whisker plots for activities by sample depth

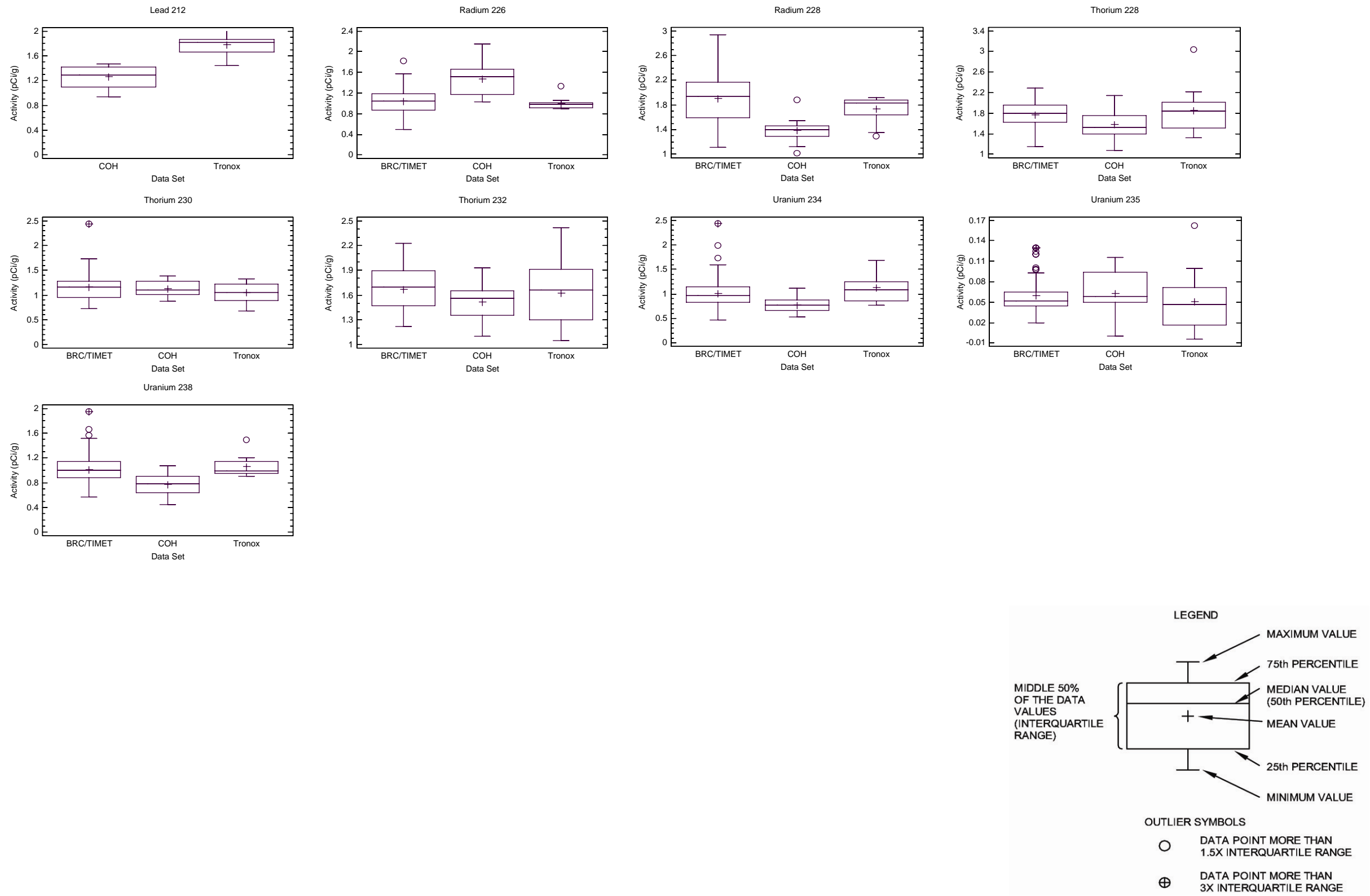


Figure 4-15. Box and whisker plots for activities by dataset