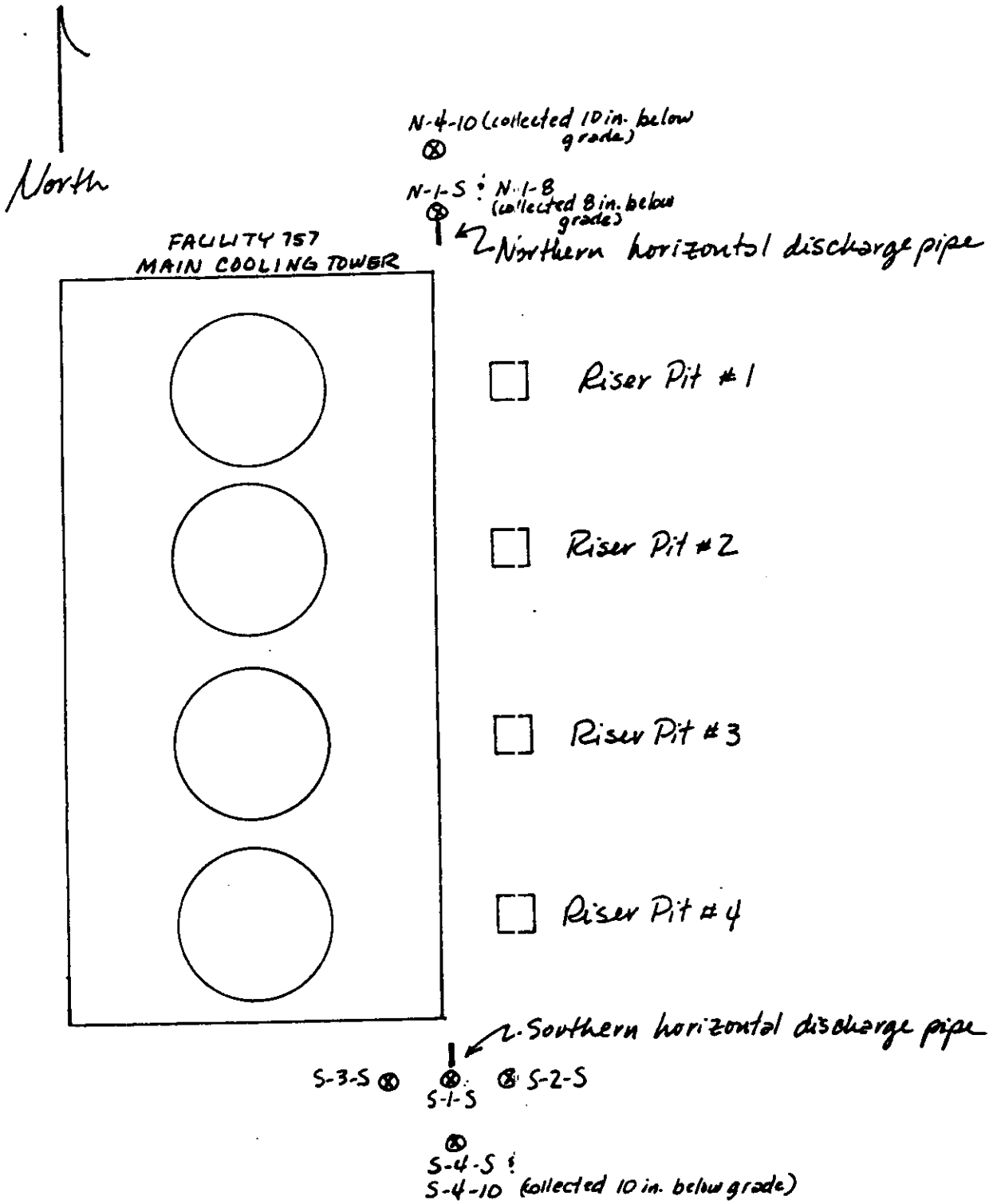
Plan Map

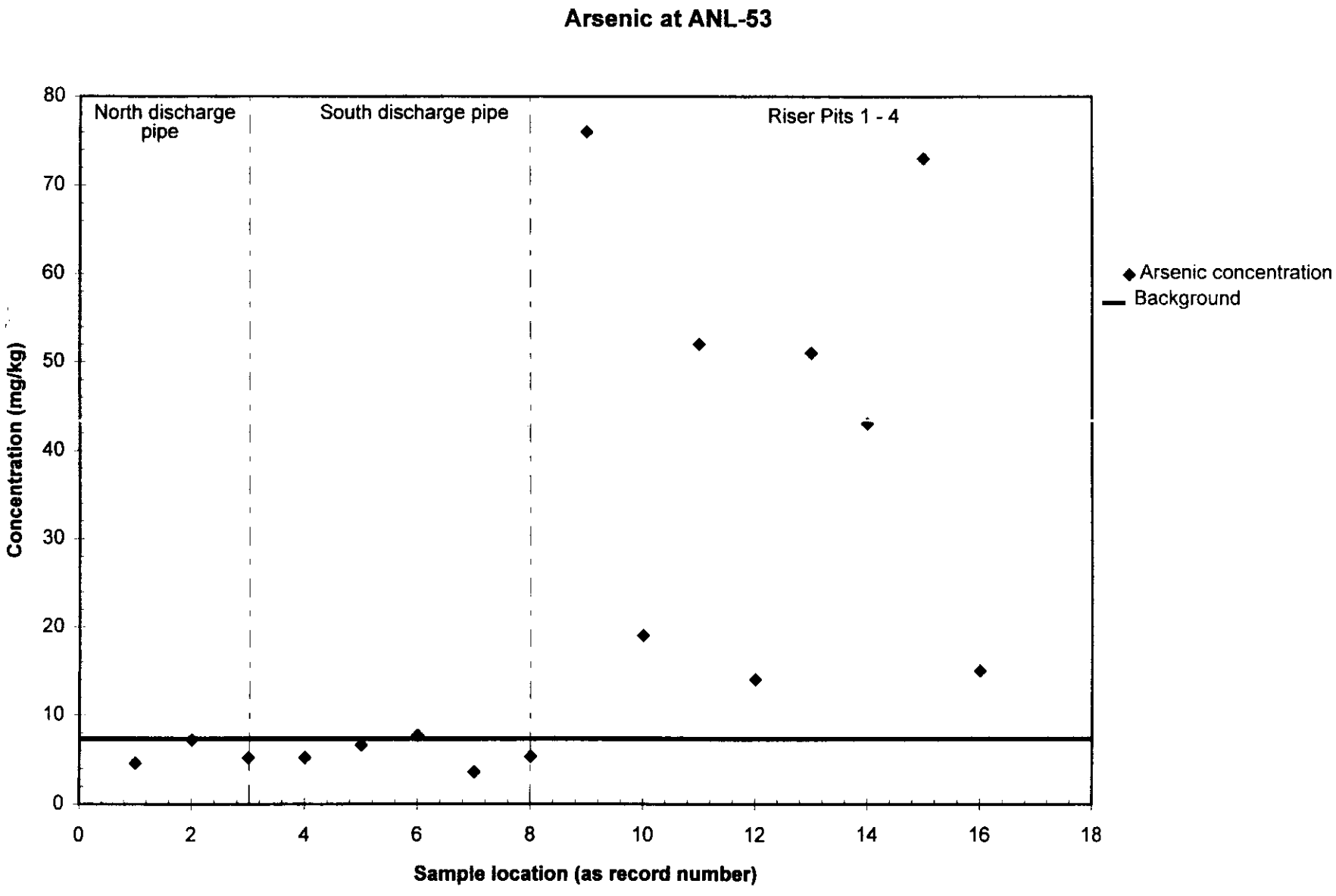


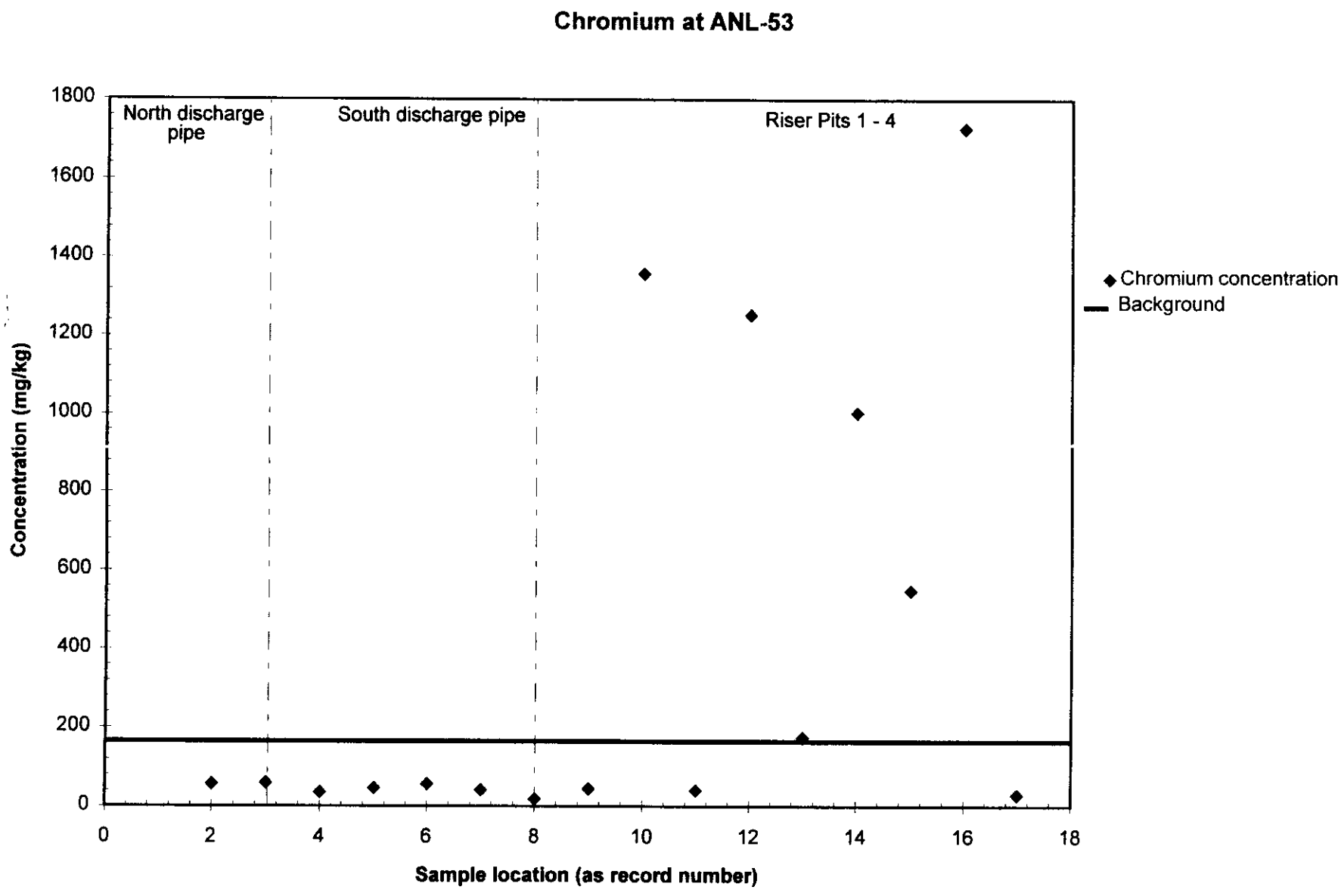
Plan View of Main Cooling Tower and Riser Pits

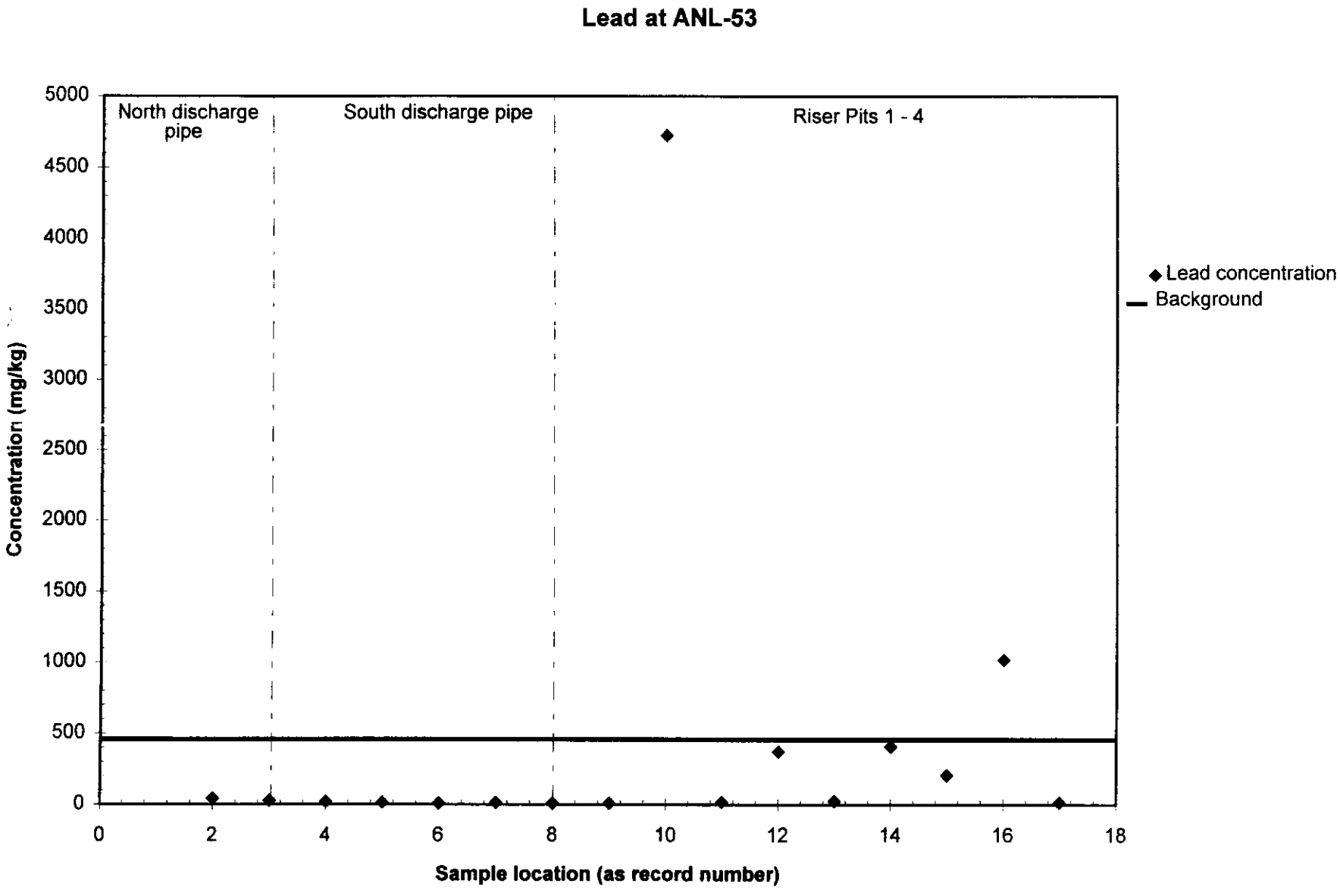
⊗ Surface soil sampling point

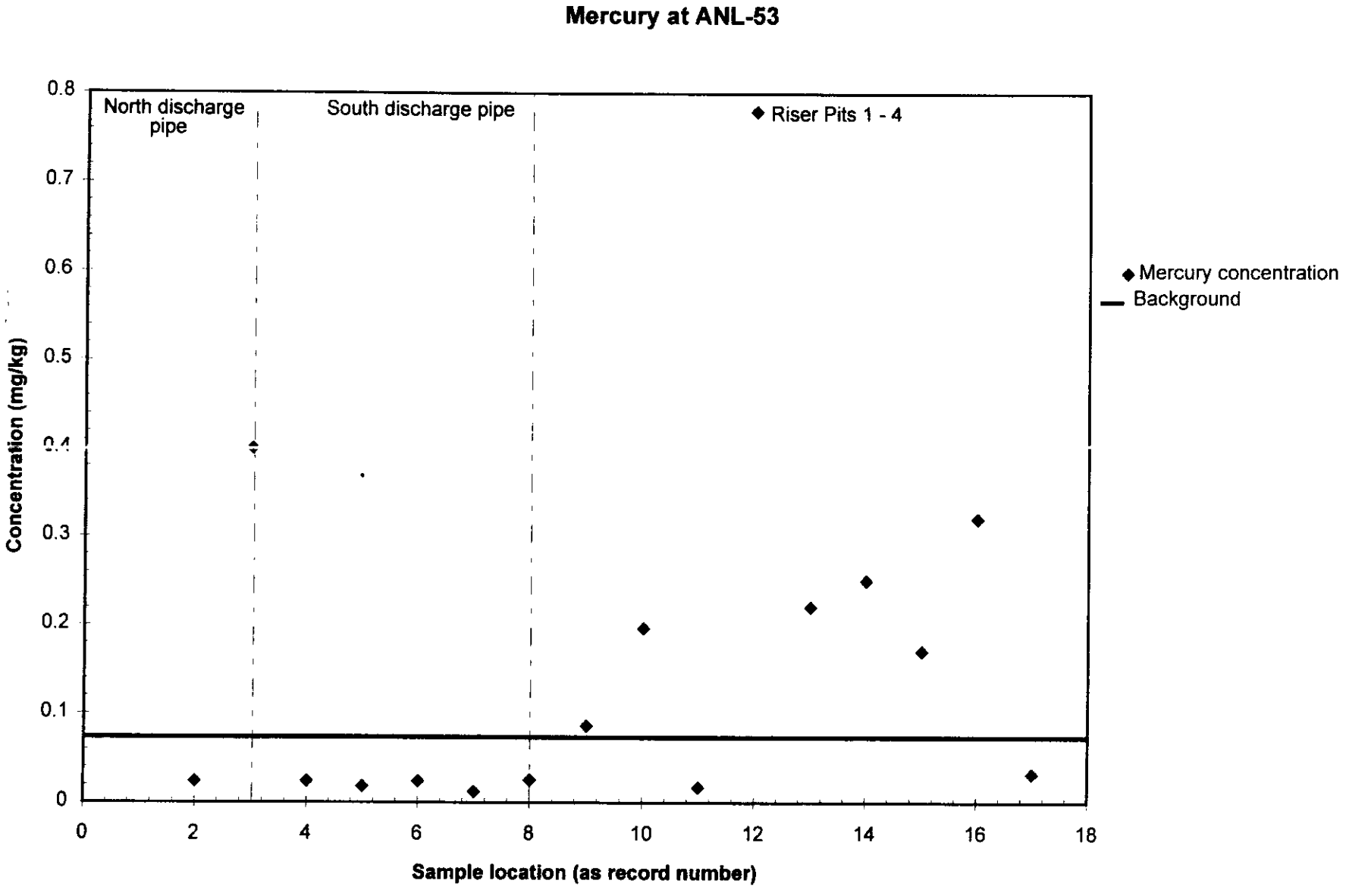
1 sq = 5'

Scatter Plots of All Data


Arsenic at ANL-53
North discharge pipe
South discharge pipe
Riser Pits 1 - 4
Arsenic concentration
Background
Concentration (mg/kg)
Sample location (as record number)
0
10
20
30
40
50
60
70
80
0
2
4
6
8
10
12
14
16
18


Chromium at ANL-53
North discharge pipe
South discharge pipe
Riser Pits 1 - 4
Chromium concentration
Background
Concentration (mg/kg)
Sample location (as record number)
1800
1600
1400
1200
1000
800
600
400
200
0
0
2
4
6
8
10
12
14
16
18


Lead at ANL-53
North discharge pipe
South discharge pipe
Riser Pits 1 - 4
Lead concentration
Background
Concentration (mg/kg)
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
0
2
4
6
8
10
12
14
16
18
Sample location (as record number)


Mercury at ANL-53
North discharge pipe
South discharge pipe
Riser Pits 1 - 4
Mercury concentration
Background
Concentration (mg/kg)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
2
4
6
8
10
12
14
16
18
Sample location (as record number)

Screening Tables

Type	Loc	Compound	Units	Max Concent	Background	Det/Samp Above Bkg	Pct Above Backgrnd	Detects/ Samples	Pct of Total
ANL-53	SOUTH	Arsenic	MG/KG	7.7	7.4	1/5	20.00	5/5	100.00
ANL-53	SOUTH	Chromium	MG/KG	56	50	1/5	20.00	5/5	100.00
ANL-53	SOUTH	Hexavalent Chromium	MG/KG	0		0/5	.00	0/5	.00
ANL-53	SOUTH	Lead	MG/KG	13.9	23	0/5	.00	5/5	100.00
ANL-53	SOUTH	Mercury	MG/KG	.086	.074	1/5	20.00	5/5	100.00

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Statistics for COC by Pathway

RISER PITS SOUTH DISCHARGE COMBINED DATA SET (GROUNDWATER) mg/kg or pci/g						
Compound	**UCL**	**Average**	**Max**	**Number of Samples**	**INEL[a] 95%/95%**	**Value Used in Risk Assessment[b]**
Arsenic	8.05	5.68	7.7	5	7.4	8.05
Chromium	77.68	38.09	56	5	50	56
Mercury	.1369	.025	.086	5	.074	.086

a INEL-94/0250 Revision 1, August 1996, Rood S. M., Harris G. A., White G. J.
b Smallest concentration of UCL or Max value from data set.
Eliminated Contaminant eliminated because UCL or Max value is less than 95%/95% value.

RISER PITS SOUTH DISCHARGE COMBINED DATA SET (RES-INT 0-10') mg/kg or pci/g						
Compound	**UCL**	**Average**	**Max**	**Number of Samples**	**INEL[a] 95%/95%**	**Value Used in Risk Assessment[b]**
Arsenic	8.05	5.68	7.7	5	7.4	8.05
Chromium	77.68	38.09	56	5	50	56
Mercury	.1369	.025	086	5	.074	.086

a INEL-94/0250 Revision 1, August 1996, Rood S. M., Harris G. A., White G. J.

b Smallest concentration of UCL or Max value from data set.

Eliminated Contaminant eliminated because UCL or Max value is less than 95%/95% value.

RISER PITS SOUTH DISCHARGE COMBINED DATA SET (SURFACE 0-.5') mg/kg or pci/g						
Compound	**UCL**	**Average**	**Max**	**Number of Samples**	**INEL[a] 95%/95%**	**Value Used in Risk Assessment[b]**
Arsenic	8.05	5.68	7.7	5	7.4	8.05
Chromium	77.68	38.09	56	5	50	56
Mercury	.1369	.025	.086	5	.074	.086

a INEL-94/0250 Revision 1, August 1996, Rood S. M., Harris G. A., White G. J.
b Smallest concentration of UCL or Max value from data set.
Eliminated Contaminant eliminated because UCL or Max value is less than 95%/95% value.

Combined Data Set

Sample No.	Lab Samp ID	Analysis	Compound	Concentration	Rad Uncert.	Units	Q Flags	Matrix	Type Location	Location	Depth Range(ft)	Sample Date
S-1-S	S-1-S	INORG	Arsenic	5.2		mg/kg		SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.5	31-JUL-89
S-2-S	S-2-S	INORG	Arsenic	6.6		mg/kg		SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.5	31-JUL-89
S-3-S	S-3-S	INORG	Arsenic	7.7		mg/kg		SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.5	31-JUL-89
S-4-S	S-4-S	INORG	Arsenic	3.6		mg/kg		SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.5	31-JUL-89
S-4-10	S-4-10	INORG	Arsenic	5.3		mg/kg		SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.83	31-JUL-89
S-1-S	S-1-S	INORG	Chromium	46		mg/kg		SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.5	31-JUL-89
S-4-S	S-4-S	INORG	Chromium	18		mg/kg		SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.5	31-JUL-89
S-4-10	S-4-10	INORG	Chromium	44		mg/kg		SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.83	31-JUL-89
S-2-S	S-2-S	INORG	Chromium	56		mg/kg		SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.5	31-JUL-89
S-3-S	S-3-S	INORG	Chromium	41		mg/kg		SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.5	31-JUL-89
S-4-S	S-4-S	INORG	Hexavalent Chromium	.2		mg/kg	U	SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.5	31-JUL-89
S-2-S	S-2-S	INORG	Hexavalent Chromium	.2		mg/kg	U	SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.5	31-JUL-89
S-1-S	S-1-S	INORG	Hexavalent Chromium	.2		mg/kg	U	SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.5	31-JUL-89
S-3-S	S-3-S	INORG	Hexavalent Chromium	.2		mg/kg	U	SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.5	31-JUL-89
S-4-10	S-4-10	INORG	Hexavalent Chromium	.2		mg/kg	U	SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.83	31-JUL-89
S-1-S	S-1-S	INORG	Lead	13.4		mg/kg		SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.5	31-JUL-89
S-3-S	S-3-S	INORG	Lead	13.9		mg/kg		SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.5	31-JUL-89
S-4-10	S-4-10	INORG	Lead	7.9		mg/kg		SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.83	31-JUL-89
S-4-S	S-4-S	INORG	Lead	7.8		mg/kg		SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.5	31-JUL-89
S-2-S	S-2-S	INORG	Lead	9.4		mg/kg		SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.5	31-JUL-89
S-1-S	S-1-S	INORG	Mercury	.018		mg/kg		SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.5	31-JUL-89
S-3-S	S-3-S	INORG	Mercury	.012		mg/kg		SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.5	31-JUL-89
S-4-S	S-4-S	INORG	Mercury	.025		mg/kg		SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.5	31-JUL-89
S-4-10	S-4-10	INORG	Mercury	.086		mg/kg		SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.83	31-JUL-89
S-2-S	S-2-S	INORG	Mercury	.024		mg/kg		SOIL	ANL-53 SOUTH	DISCHARGE PIPE SOUTH	0-0.5	31-JUL-89

25 rows selected.

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