

REFERENCE RANGES

Dog, Cat, Horse

CLINICAL CHEMISTRY

	Unit	Dog	Cat	Horse
Enzymes 37°C				
ALT (GPT)	U/l	< 88	< 99	< 43
α-Amylase	U/l	< 1650	< 1850	< 50
AP	U/l	< 147	< 65	< 352
AST (GOT)	U/l	< 51	< 58	< 568
Cholinesterase	U/l	1347 - 2269	1000 - 2000	> 2344
CK	U/l	< 200	< 398	< 452
GLDH	U/l	< 8	< 10	< 13
γ-GT	U/l	< 10	< 5	< 44
α-HBDH	U/l	< 65	< 55	< 221
LDH	U/l	< 91	< 108	< 455
Lipase (DGGR)	U/l	< 120	< 26	< 20
Substrates				
Albumin	g/l	25 - 44	26 - 56	25 - 54
(A/G) ratio		> 0.59	> 0.6	-
Bilirubin	μmol/l	< 3.4	< 3.4	8.6 - 59.9
Cholesterol	mmol/l	3.1 - 10.1	1.8 - 3.9	1.8 - 4.7
Total Protein	g/l	54 - 75	57 - 94	55 - 75
Fructosamine	μmol/l	< 374	< 340	< 360
Bile Acids	μmol/l	< 20. postprandial: < 40	< 20. postprandial: < 40	< 12
Globulins	g/l	< 45	< 55	< 51
Glucose	mmol/l	3.05 - 6.1	3.1 - 6.9	3.1 - 5.0
Urea	mmol/l	3.3 - 8.3	5.0 - 11.3	3.3 - 6.7
β-HBS	mmol/l	< 0.6	< 0.6	< 0.6
Creatinine	μmol/l	< 125	< 168	71 - 159
Lactate	mmol/l	0.5 - 3.0	< 1.0	0.5 - 2.0
NEFA	mmol/l	0.1 - 0.5	0.1 - 0.5	0.1 - 0.5
SDMA	μmol/l	< 0.65	< 0.75	< 0.75
Triglyceride	mmol/l	< 3.9	< 1.14	< 0.97
Electrolytes & Minerals				
Calcium	mmol/l	2.3 - 3.0	2.3 - 3.0	2.5 - 3.4
Chloride	mmol/l	96 - 113	110 - 130	95 - 105
Iron	μmol/l	15 - 45	8 - 31	17.9 - 64.5
Potassium (K)	mmol/l	3.5 - 5.1	3.0 - 4.8	2.8 - 4.5
Copper	μmol/l	15.7 - 18.9	13.4 - 16.9	7.9 - 21.0
Magnesium	mmol/l	0.6 - 1.3	0.6 - 1.3	0.5 - 0.9
Manganese	μg/l	< 20	< 20	1.11 - 2.96
Sodium (Na)	mmol/l	140 - 155	145 - 158	125 - 150
Phosphate	mmol/l	0.7 - 1.6	0.8 - 1.9	0.7 - 1.5
Selenium	μg/l	80 - 250	80 - 250	100 - 200
Zinc	μmol/l	7.7 - 19.9	12.2 - 15.3	9.2 - 19.9

Selenium horse: Up to 70 μg/l are marginal, more than 300 μg/l high/critical. Foals and Iceland horses are sometimes well below these levels.