



No.C-14011/CPCB/PT-30/Water/G7

Date: 30<sup>th</sup> April, 2014

**LABORATORY DIVISION - WATER LABORATORY**  
**30<sup>th</sup> PROFICIENCY TESTING PROGRAMME - METAL - DECEMBER, 2013**

**REPORT**

**Laboratory Address : The Laboratory Incharge**  
**Maharashtra Pollution Control Board,**  
**Regional Office Laboratory**  
**A-4/1, Behind Dhoot Hospital, MIDC - Chikalhana**  
**AURANGABAD - 431 005**

**Laboratory Code : 67**

S.No.	Test Parameter	Unit	Sample	Reference Value	SD (NIQR Basis)	Lab's result	Lower Accept. Limit	Higher Accept. Limit	Robust Z-score	Remarks (Y/N/NR)
1.	IRON	mg/l	A	1.11	0.13	1.11	0.86	1.36	0.00	Y
			B	3.34	0.42	3.31	2.50	4.18	0.28	Y
2.	CADMIUM	mg/l	A	0.34	0.04	0.38	0.27	0.41	0.99	Y
			B	0.93	0.06	0.97	0.80	1.06	0.97	Y
3.	COPPER	mg/l	A	1.07	0.09	1.10	0.88	1.26	-1.00	Y
			B	4.31	0.23	4.50	3.95	4.79	0.77	Y
4.	NICKEL	mg/l	A	1.13	0.09	1.02	0.94	1.31	-1.24	Y
			B	3.34	0.26	3.00	2.81	3.87	-1.28	Y
5.	LEAD	mg/l	A	1.67	0.22	1.79	1.24	2.10	0.54	Y
			B	3.34	0.31	3.47	2.72	3.96	0.40	Y
6.	MAGNESE (Mn) mg/l	mg/l	A	0.54	0.06	0.56	0.43	0.65	0.32	Y
			B	3.30	0.23	3.31	2.84	3.75	0.06	Y
<b>Overall performance in %</b>									<b>100.0</b>	

Note: Acceptable limits are fixed based on **Reference value** (Median)  $\pm$  2 **Standard Deviation** (NIQR basis) i.e. within  $\pm$  2 **Z Scores** values for both sample A & B individually.

**IQR** (Inter Quartile Range) =  $Q3 - Q1$ ;      **Q1** = 1<sup>st</sup> Quartile;      **Q3** = 3<sup>rd</sup> Quartile  
**NIQR** (Normalized IQR) =  $IQR \times 0.7413$  = 1 Standard Deviation  
**Z Score** = (Observed value - Reference Value) / 1 Standard Deviation  
**Y** - Within Acceptable Limit;      **N** - Not within acceptable limit;      **NR** - Not Reported

(Dr. P. K. Behera)  
Scientist 'C' &  
I/c. Water Lab

ARC file  
4/06/14