

Laboratory Tata Steel Limited, FAMD Sukinda, Chemical Laboratory,
PO – Kalaringatta, Dist- Jajpur, Odisha

Accreditation Standard ISO/IEC 17025: 2005

Discipline Chemical Testing **Issue Date** 31.03.2015

Certificate Number T-3345 **Valid Until** 30.03.2017

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I.	ORES & MINERALS			
1.	Chromium Ore	SiO ₂	TSL/LAB/SOP/01/13 Issue No.01 Issue Date: 10.09.2013	0.10 % to 70.0 %
		Al ₂ O ₃	TSL/LAB/SOP/01/13 Issue No.01 Issue Date: 10.09.2013	1.0 % to 35.0 %
		Cr ₂ O ₃	TSL/LAB/SOP/01/13 Issue No.01 Issue Date: 10.09.2013	1.0 % to 68.40 %
		Fe	TSL/LAB/SOP/01/13 Issue No.01 Issue Date: 10.09.2013	1.0 % to 50.0 %
		Mn	TSL/LAB/SOP/01/13 Issue No.01 Issue Date: 10.09.2013	0.01 % to 5.0 %
		CaO	TSL/LAB/SOP/01/13 Issue No.01 Issue Date: 10.09.2013	0.01 % to 5.0 %
		MgO	TSL/LAB/SOP/01/13 Issue No.01 Issue Date: 10.09.2013	0.01 % to 35.0 %
		TiO ₂	TSL/LAB/SOP/01/13 Issue No.01 Issue Date: 10.09.2013	0.01 % to 2.0 %
		Ni	TSL/LAB/SOP/01/13 Issue No.01 Issue Date: 10.09.2013	0.01 % to 2.0 %
		V ₂ O ₅	TSL/LAB/SOP/01/13 Issue No.01 Issue Date: 10.09.2013	0.01 % to 1.0 %
		P	TSL/LAB/SOP/01/13 Issue No.01 Issue Date: 10.09.2013	0.001 % to 1.0 %

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	Chromium Ore	S	TSL/LAB/SOP/01/13 Issue No.01 Issue Date: 10.09.2013	0.001 % to 1.0 %
		K ₂ O	TSL/LAB/SOP/01/13 Issue No.01 Issue Date: 10.09.2013	0.001 % to 1.0 %
2.	Manganese Ore	SiO ₂	TSL/LAB/SOP/02/13 Issue No.01 Issue Date: 10.09.2013	0.10 % to 50.0 %
		Al ₂ O ₃	TSL/LAB/SOP/02/13 Issue No.01 Issue Date: 10.09.2013	0.20 % to 25.0 %
		Fe	TSL/LAB/SOP/02/13 Issue No.01 IssueDate:10.09.2013	0.50 % to 50.0 %
		Mn	TSL/LAB/SOP/02/13 Issue No.01 IssueDate:10.09.2013	0.20 % to 65.0 %
		CaO	TSL/LAB/SOP/02/13 Issue No.01 Issue Date: 10.09.2013	0.01 % to 25.0 %
		MgO	TSL/LAB/SOP/02/13 Issue No.01 IssueDate:10.09.2013	0.01 % to 25.0 %
		TiO ₂	TSL/LAB/SOP/02/13 Issue No.01 IssueDate:10.09.2013	0.01 % to 6.0 %
		P	TSL/LAB/SOP/02/13 Issue No.01 IssueDate:10.09.2013	0.001 % to 1.0 %
		S	TSL/LAB/SOP/02/13 Issue No.01 IssueDate:10.09.2013	0.001 % to 1.0 %

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	Manganese Ore	K ₂ O	TSL/LAB/SOP/02/13 Issue No.01 Issue Date: 10.09.2013	0.01 % to 10.0 %
3.	Pyroxenite	SiO ₂	TSL/LAB/SOP/03/13 Issue No.01 Issue Date: 10.09.2013	20.0 % to 70.0 %
		Al ₂ O ₃	TSL/LAB/SOP/03/13 Issue No.01 Issue Date: 10.09.2013	0.05 % to 20.0 %
		Cr ₂ O ₃	TSL/LAB/SOP/03/13 Issue No.01 Issue Date: 10.09.2013	0.01 % to 10.0 %
		Fe	TSL/LAB/SOP/03/13 Issue No.01 Issue Date: 10.09.2013	0.10 % to 20.0 %
		Mn	TSL/LAB/SOP/03/13 Issue No.01 Issue Date: 10.09.2013	0.01 % to 5.0 %
		CaO	TSL/LAB/SOP/03/13 Issue No.01 Issue Date: 10.09.2013	0.01 % to 20.0 %
		MgO	TSL/LAB/SOP/03/13 Issue No.01 IssueDate:10.09.2013	0.01 % to 50.0 %
		TiO ₂	TSL/LAB/SOP/03/13 Issue No.01 Issue Date: 10.09.2013	0.001 % to 2.0 %
		Ni	TSL/LAB/SOP/03/13 Issue No.01 Issue Date: 10.09.2013	0.001 % to 1.0 %
		P	TSL/LAB/SOP/03/13 Issue No.01 Issue Date: 10.09.2013	0.001 % to 1.0 %

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	Pyroxenite	K ₂ O	TSL/LAB/SOP/03/13 Issue No.01 Issue Date: 10.09.2013	0.001 % to 2.0 %
4.	Dolomite	SiO ₂	TSL/LAB/SOP/04/13 Issue No.01 Issue Date: 10.09.2013	0.01 % to 70.0 %
		Al ₂ O ₃	TSL/LAB/SOP/04/13 Issue No.01 Issue Date: 10.09.2013	0.01 % to 30.0 %
		Fe ₂ O ₃	TSL/LAB/SOP/04/13 Issue No.01 Issue Date: 10.09.2013	0.01 % to 10.0 %
		Mn	TSL/LAB/SOP/04/13 Issue No.01 Issue Date: 10.09.2013	0.001 % to 1.0 %
		CaO	TSL/LAB/SOP/04/13 Issue No.01 Issue Date: 10.09.2013	0.50 % to 56.0 %
		MgO	TSL/LAB/SOP/04/13 Issue No.01 Issue Date: 10.09.2013	0.50 % to 56.0 %
		P	TSL/LAB/SOP/04/13 Issue No.01 Issue Date:10.09.2013	0.001 % to 1.0 %
		S	TSL/LAB/SOP/04/13 Issue No.01 Issue Date: 10.09.2013	0.001 % to 1.0 %
		K ₂ O	TSL/LAB/SOP/04/13 Issue No.01 Issue Date: 10.09.2013	0.001 % to 2.0 %
		LOI	IS 1760 (Part 1): 1991 (RA 2001)	20.0 % to 50.0 %

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5.	Limestone	SiO ₂	TSL/LAB/SOP/05/13 Issue No.01 Issue Date: 10.09.2013	0.01 % to 70.0 %
		Al ₂ O ₃	TSL/LAB/SOP/05/13 Issue No.01 Issue Date: 10.09.2013	0.01 % to 30.0 %
		Fe ₂ O ₃	TSL/LAB/SOP/05/13 Issue No.01 Issue Date: 10.09.2013	0.01 % to 10.0 %
		Mn	TSL/LAB/SOP/05/13 Issue No.01 Issue Date: 10.09.2013	0.001 % to 1.0 %
		CaO	TSL/LAB/SOP/05/13 Issue No.01 Issue Date: 10.09.2013	0.50 % to 56.0 %
		MgO	TSL/LAB/SOP/05/13 Issue No.01 Issue Date: 10.09.2013	0.50 % to 56.0 %
		TiO ₂	TSL/LAB/SOP/05/13 Issue No.01 Issue Date: 10.09.2013	0.001 % to 2.0 %
		P	TSL/LAB/SOP/05/13 Issue No.01 Issue Date: 10.09.2013	0.001 % to 1.0 %
		S	TSL/LAB/SOP/05/13 Issue No.01 Issue Date: 10.09.2013	0.001 % to 1.0 %
		K ₂ O	TSL/LAB/SOP/05/13 Issue No.01 Issue Date: 10.09.2013	0.001 % to 2.0 %
	LOI	IS 1760 (Part 1): 1991 (RA 2001)	20.0 % to 50.0 %	

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