

Laboratory **Quality Control Laboratory, IOCL, Barauni Refinery, P.O. Barauni Oil Refinery, Dist. Begusarai, Bihar**

Accreditation Standard **ISO/IEC 17025: 2005**

Discipline **Chemical Testing** **Issue Date** **29.07.2015**

Certificate Number **T-0492** **Valid Until** **28.07.2017**

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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.	PETROLEUM			
1.	SRN MS SKO HSD FO	Density	IS 1448 (Part 16): 1990 (RA 2007)	0.650 g/ml to 1.150 g/ml
2.	SRN MS SKO HSD	Distillation	IS 1448 (Part 18): 1991 (RA 2006)	30 °C to 360 °C
3.	MS	RON	IS 1448 (Part 27): 1960 (RA 2003)	65 to 100
		MON	IS 1448 (Part 26): 1960 (RA 2003)	65 to 100
		Existing Gum	IS 1448 (Part 29): 2004	20 g/m ³ to 40 g/m ³
		Induction Period	IS 1448 (Part 47): 1962 (RA 2003)	14 min to 360 min
		Anti Knocking Index	IS 1448 (Part 26/27): 1960 (RA 2003)	45 to 90
		Benzene	ASTM D 3606: 2008	0.5 % vol to 1.0 % vol
4.	Naphtha	Aromatics	IS 1448 (Part 23): 2004	4 % vol to 15 % vol
		Olefin	IS 1448 (Part 23): 2004	0.2 % vol to 1.5 % vol

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5.	HSD	Cetane Index	ASTM D 4737: 2008	44 to 52
		Cetane No	IS 1448 (Part 9): 1960 (RA 2002)	35 to 55
6.	SKO HSD FO	Flash Point	IS 1448 (Part 20): 1998 IS 1448 (Part 20): 2004 IS 1448 (Part 20/21): 1992 (RA 2003)	20 °C to 49 °C 50 °C to 180 °C
		Pour Point	IS 1448 (Part 10): 1970 (RA 2003)	(-) 9 °C to (+) 60 °C
		Rambottom Carbon Residue	IS 1448 (Part 8): 1967 (RA 2003)	0.1 % wt to 10.0 % wt
7.	HSD FO	Kinematic Viscosity	IS 1448 (Part 25): 1976 (RA 2007)	2.0 cSt to 20 cSt @ 40 °C 15 cSt to 400 cSt @ 50 °C
		Water Content	IS 1448 (Part 40): 1987 (RA 2006)	0.05 v % to 25.0 v %
		Sulphur	ASTM D-4294 (RA 2010)	5 mg/l to 150 mg/l 0.00050 w % to 0.25 w %
8.	FO	Water Content	IS 1448 (Part 40): 1987 (RA 2006)	0.05 v % to 25.0 v %
9.	Naphtha MS HSD SKO	Sulphur	ASTM D-4294 (RA 2010)	5 mg/l to 150 mg/l 0.00050 w % to 0.25 w %
10.	SRN	Roe	IS 1448 (Part 29): 2004	(1 mg to 5 mg)/100 ml
11.	MS SRN	RVP	IS 1448 (Part 39): 1967 (RA 2003)	30 kPa to 70 kPa
12.	MS SKO HSD	Copper Corrosion	IS 1448 (Part 15): 2004	1a to 4c Rating

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II. POLLUTION & EFFLUENTS				
1.	Effluent	pH	IS 3025 (Part 11): 1983 (RA 2006)	4.0 to 12.0
		TSS	IS 3025 (Part 17): 1984 (RA 1996)	10 mg/l to 50 mg/l
		Oil Content	IS 3025 (Part 39): 1991 (RA 2003)	4 mg/l to 200 mg/l
		BOD	IS 3025 (Part 44): 1993 (RA 2003)	10 mg/l to 1000 mg/l
		COD	IS 3025 (Part 58): 2006	5 mg/l to 500 mg/l

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