

**BSL****SPECTRO LAB****METALLURGICAL TESTING CENTRE**(A Unit of BSL Castings Pvt. Ltd.)  
(NABL ACCREDITED LAB)**&**CERTIFICATE NO.  
T - 1452 & T - 1453WORKS & OFFICE :  
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FARIDABAD-121005 (INDIA)  
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BSL/SPECTRO/5.10F-01/01/00

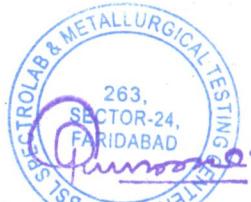
Issued to :	M/s. Nov Sara India (P) Ltd. 7/1, Pritam Road, Unit - II, Dehra Dun - 248001	Report No.	166605	D.O.T. :	11.04.2011
		Ref. No.	Nil	D.O.R. :	09.04.2011
Sample Description	Sample No. - 5921, Heat No. - D-0914,			J.O. No. :	50353

**RESULTS****Chemical Analysis** (Fe Base - LAS)  
Protocol : ASTM E 1507 (By O.E.S)

Sample ID: J.O.No. - 50353/3

Element	%
Carbon	0.071
Silicon	0.502
Sulphur	0.021
Phosphorus	0.035
Manganese	0.796
Nickel	10.15
Chromium	16.40
Molybdenum	2.036
Vanadium	<0.04
Copper	0.271
Tungsten	<0.02
Cobalt	0.180
Aluminium	0.042
Magnesium	<0.01
Titanium	<0.02
Iron	69.48

Checked By

Authorised Signatory  
(Q.M. / T.M.)

Note : 1. The result listed refer only to the tested samples and applicable parameters, Endorsement of product is neither inferred nor implied.  
 2. Total Liability of our Laboratory is limited to the invoiced amount. No liability will be accepted after the sample is taken back.  
 3. \*Not Covered under NABL Scope.  
 4. This report can not be used as an evidence in a court of law.  
 5. Samples will be destroyed after 15 days.  
 6. Any Complaints about this report should be communicated within 7 days of issue of this report.  
 7. This report shall not be reproduced except in full, without the written permission of the Laboratory.



715-  
KESRI STEELS  
LIMITED

MATERIAL TEST CERTIFICATE

TC NO-KSL-2018/10-11	Date : 09.03.2011	Customer : M/S NOV SARA
Heat No. D-0914		DHERADUN
Specification:- AISI -316	P.O. No.:	Invoice No: 715 & 716 Date 07.03.2011

SL. NO.	ITEM DESCRIPTION & DRAWING NO.	QUANTITY NOS
1	ROUND 56 MM	23

CHEMICAL COMPOSITION

PERCENT	C	Mn	Si	P	S	Cr	Ni	Mo	Cu	Ti	Al	V	
AS PER SPEC.	Min. (%)					16.00	10.00	2.00					
	Max. (%)	0.080	2.00	1.00	0.045	0.030	18.00	14.00	3.00				
Actual Value		0.059	1.44	0.49	0.032	0.019	16.31	10.17	2.09				

HEAT TREATMENT

Condition	Temp. C	Soaking Time Hrs.	Cooling Medium
		-	

PHYSICAL PROPERTIES

MECHANICAL PROPERTIES	Y.S. N/mm <sup>2</sup>	U.T.S. N/mm <sup>2</sup>	ELONG % GL mm	REDN IN AREA %	BEND	HARDNESS BHN	IMPACT (Joules)
AS PER SPEC.	Min.						
	Max.						
Actual Value							

We hereby certify that the items mentioned above have been tested and inspected in our presence and are found to be in accordance with the drawing, specifications, and purchase order.

REMARK

The Steel has been made by Electric Furnace which is fully killed by Al & Si. It has fine grain structure.

Sign of the Inspecting Officer

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Sign of the Chief of Quality Control

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