

BSL**SPECTRO LAB****&****METALLURGICAL TESTING CENTRE**

(A Unit of BSL Castings Pvt. Ltd.)

(NABL ACCREDITED LAB)

CERTIFICATE NO.
1452 & T-1453

WORKS & OFFICE :
 PLOT NO. 263, SECTOR-24
 FARIDABAD-121005 (INDIA)
 Fax No. : +91-129-4065535
 Ph. No. : 4065531, 4065532
 E-mail : castings@bsltd.net

TEST REPORT

BSL/SPECTRO/5.10F-01/01/00

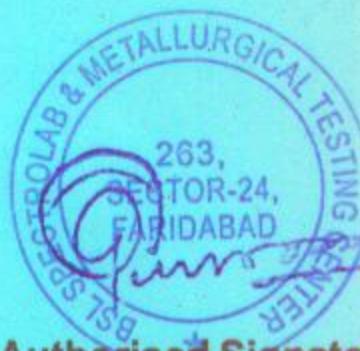
dto:	M/s. Nov Sara India (P) Ltd. 7/1, Pritam Road, Unit - II, Dehra Dun - 248001	Report No.	149823	D.O.T. :	16.08.2010
Sample Description	Sample No. - 5103, Heat No. - S-471 A	Ref. No.	Nil	D.O.R. :	14.08.2010
				J.O. No. :	46123

RESULTS

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

Sample ID; J.O.No. - 46123/4

<u>Element</u>	<u>%</u>
Carbon	0.068
Silicon	0.126
Sulphur	0.017
Phosphorus	0.038
Manganese	0.431
Nickel	<0.05
Chromium	<0.05
Molybdenum	<0.05
Vanadium	<0.04
Copper	0.071
Tungsten	<0.02
Cobalt	<0.03
Aluminium	0.019
Titanium	<0.02
Iron	99.16


Checked ByAuthorised Signatory
(Q.M. / T.M.)

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.



SHARU STEELS (P) LTD.

B-48 & D-251, Phase-VII, Focal Point, LUDHIANA - 141 010.

E-mail : info@sharusteels.com

E-mail : sharusteels@connect2.dsl.net

QUALITY ASSURANCE DEPARTMENT

METALLURGICAL TEST REPORT

F-QCD-03



Customer
Address

NOV SARA INDIA PRIVATE LIMITED
DEHRADUN UTTRAKHAND

Date

27-08-2010

TEST RESULTS

CERTIFICATE NO.:

GRADE:

SIZE:

SAMPLE NO.:

HEAT NO.:

COLOUR CODE:

QTY/NO. OF BARS

MULTIPLE/FIX LENGTH

1431/08-2010

SAE 1008

65 MM

2

S 471

YELLOW

A. CHEMICAL ANALYSIS :

C	Mn	S	P	Si	Ni	Cr	Mo	V	Al	Cu.	Ti	B
---	----	---	---	----	----	----	----	---	----	-----	----	---

Spec : Low-High

0.08	0.48	0.022	0.026	0.19						0.023		
------	------	-------	-------	------	--	--	--	--	--	-------	--	--

Obtained

B. METALLOGRAPHIC CHARACTERISTICS :

Inclusion Rating :

A	B	C	D
Thin	Thick	Thin	Thick
Thin	Thick	Thin	Thick

(In accordance with IS : 4163) 1.5 1.0 1.0 1.5

Grain Size : High Low

(In accordance with IS : 4748)

7

C. MACRO RESULTS :

(In accordance with ASTM E-381)

D. JOMINY HARDENABILITY : (In accordance with IS : 3848)

E. OTHER SPECIAL TESTS :

F. MECHANICAL PROPERTIES :

Tensile Strength	Yield Strength	% Elongation	% Area Reduction	Impact	Horizontal/	Hardness	High/	Low
------------------	----------------	--------------	------------------	--------	-------------	----------	-------	-----

6680 M.

REMARKS :

For any Quality related issue please contact

Mr. Karanpal Singh (Technical Director)

Mobile : 98141-31288

Mr. J. P. Singh (Manager Q/C & Mkt.)

Mobile : 98550-82559

CHECKED BY

Approved By :

AUTHORISED SIGNATORY