## **Material Test Report**

COFFER® an AFG bal Company

Heat Code: AFJ

Coffer Corp.

An AFGlobal Company

13770 Industrial Rd. Houston, TX 77015

Sales: (713) 868-4421 Fax: (713) 455-8366

ISO 9001:2008 Certified

PLESA STEEL INC. 5100 WESTHEIMER RD STE 200

Houston, TX 77056

00012015 PO: 392

Sales Order: 148435

Line: 11

Item Code: 0301600101-0020F Qty Shipped: 40

Item Desc: FLG 06.00 0300 WN RF STD A105

NHT COFFR

Supplier: CMC Supplier Heat: 3054889

Spec: ASTM A105/A105M-(14)/ASME SA 105/SA 105M-(15) Section II Part A

Elei	ment (%wt)	Ladle	Product	<b>EPCRA</b>	CAS#	Element (%wt)	Ladle	Product	EPCRA	CAS#
C	Carbon	0.19				: Cr Chromium	0.08		1	7440-47-3
Mn	Manganese	1.00		✓	7439-96-5	Mo Molybdenum	0.02			
P	Phosphorous	0.009				: V Vanadium	0.001			
S	Sulphur	0.011				Cb Columbium	0.003			
Si	Silicon	0.22				C.E.	0.40			
Cu	Copper	0.27		1	7440-50-8	CuNiCrMoV	0.446			
Ni	Nickel	0.07		✓	7440-02-0	CrMo	0.105			
						:				

Mechanical 1	Testing		Other	
Test Lab	SUPPLIER	EF	Y	
Test Bar Size	Sacrificial Piece	Fully Killed	Y	
HBW	159 - 163			
Elg (%)	32	•		
RA (%)	64			
Tensile Specimen Size (in)	.503			
Tensile (ksi)	81			
Yield (ksi)	46.9			
Gauge Length	2	1		
		1		
		•		
		:	4	

Product compliant with NACE MR0175 / ISO 15156 latest edition and flange dimensions to ASME B16.5 -2013

- \* No Weld repair performed.
- \* Ladle Chemical Analysis results are reported from the raw material suppliers MTR.
- \* Tensile taken from a round specimen. Measurement of elongation after fracture.
- \* Yield strength was determined using the .2% offset method.
- \* All material supplied under this order is certified to be free of mercury contamination and no equipment was used in manufacturing, fabrication or testing. mercury bearing
- \* When reported on MTR: Tensile Testing Per ASTM E8; Brinell Hardness Per ASTM E10; Charpy Testing Per ASTM E23
- \* AF Global manufactures materials according to a certified Quality Management System conforming to ISO 9001:2008 and PED 97/23/EC, Annex 1, Section 4.3

The recording of false, fictitious, or fraudulent statement or entries on this document may be punishable as a felony under federal statute.

EPCRA Supplier Notification: This product may contain one or more toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act (Title III of the Superfund Amendments and Reauthorization Act of 1986) and 40 C.F.R. Part 372. Potentially reportable chemicals are indicated with a checkmark in the "EPCRA" column and a Chemical Abstract Services (CAS) registry number is provided for each such chemical in addition to the percent by weight of the chemical present in this product. It is your responsibility alone to determine whether your facility is required to submit a Toxic Release Inventory Report under EPCRA Section 313.

Certification No.:

1223429

Certification Date:

9/15/2015

John Sauceda

This report is issued in compliance with the requirements of EN10204 3.1 / ISO 10474 3.1.b

Rina Sane - Metallurgical Lab Manager