







# 1) Introduction

This procedure specifies the requirement of Quality Assurance for **Identification of materials** during the project order processing.

## 2) Scope

To carry out **Positive Material identification**, using **X-Ray Fluorescent (XRF)** Technology. It is to measure the concentration of elements without causing any damage to the component being examined.

## 3) Equipment

The equipment used is **Thermo Fisher Scientific Niton XL2-202218 Analyzer** for verification of elements composition in various types of materials. The instrument is a fully portable analyzer with an integrated computer, within the INNOV-X DELTA DS-2000 SN 500185 analysis program for display / view spectra and save data.

General Metals Analysis can measure different elements regardless of concentration basing on the testing scheme **1 hit x material heat**.





## 4) Testing Procedure

After checking the instrument proper calibration, place probe on the material / sample to be tested and press the trigger keeping the probe on the sample / material during the entire measurement. The display will indicate the composition on each element in percentage with deviation and also the common alloy detected, i.e. 316/ 304/ etc. Measurements will be stored in the Instrument memory. Stored measurement data can be printed for evaluation and reporting.

#### 5) Traceability

Spot or area tested could be identified by reference pictures or as per applicable specification.

## 6) Reporting

All tests shall be provided according to the last revision of the company standard inspection report format (see point No. 10 below)





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7) )valveIT - PMI Certificate Sample



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#### **PMI Test Certificate**

XL2-202218	
Reading No	39
Mode	General Metals
Time	2023-11-24 08:00
Duration	8.74
Units	%
Sigma Value	2
Sequence	Final
Alloy1	SS-316 : *2.45
SAMPLE	DFV300.UPN10.DI.SS.E+SQ
HEAT	H2021
LOT	SFAX SWRO 100 MLD
BATCH	220926012022140
MISC	POS.19 (OC)
Ele	% +/- ±2σ

No	2.234	+/-	0.055
Zr	0.165	+/-	0.016
Cu	0.233	+/-	0.103
Ni	*9.235	+/-	0.375
Co	0.628	+/-	0.292
e	70.040	+/-	0.537
Cr	17.094	+/-	0.302

Verified by valveIT OA/OC Dept.:

