



# NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)

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Our Ref. : NT/103479/18-06

Page No: 1 of 1

Report No: I NDT/RT/180367-06/18

## RADIOGRAPHIC EXAMINATION REPORT

### Client and Testing Particulars

Client :	Recron (M) Sdn Bhd	Procedure No:	NT/RT/ASME Rev. 7.0
Project :	HTM Piping	IQI type :	ASTM 1B
Material:	Carbon Steel	Film Manufacturer/Type :	FUJI 100(class II)
Welding Process :	GTAW	Density :	2.0 - 3.5
Examination Code :	ASME V	Sensitivity:	0.33mm(5 wires visible)
Acceptance Code:	ASME B31.3	Source to Object Distance :	114.3mm
Examination Date:	10 April 2018	Source Side of Object to Film Distance:	(7+3)mm
		No of Radiograph(exposure) :	Single Exposure
		No. of Film Each Cassette :	1 Film
		Radiographic Technique :	DWSI
		Film Viewing Technique :	Single Viewing
		Source Type/Size :	Iridium192 (3.2mm)
		Location Markers :	Film Side

### Radiographic Examination Result

Weld Reference (Welder No)	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
Pump Area								
JT - 237	10	3	114.3	7	0 - 1	NRI	Accept	
					1 - 2	NRI	Accept	
					2 - 0	NRI	Accept	

End of Report

### Legend:

Ti: Tungsten Inclusion	NRI: No Relevant Indication	Uc: Undercut	Por: Porosity	WT: Weld Thickness
SI: Slag Inclusion	LP: Lack of Penetration	Con: Concavity	BT: Burn Through	RT: Reinforcement Thickness
LF: Lack of Fusion	EP: Excess Penetration	AR: Artifact	Sur: Surface	

### Personnel Particulars

Radiographer : Emirsham - NDT Lev. II

Interpreted & Evaluated By: Amat Hamidi - NDT Lev. II

Date: 11 April 2018



Client Representative:

Name:  
Date:



Our Ref. : NT/103479/18-06

Page No: 1 of 1

Report No: †NDT/RT/180367-05/18

### RADIOGRAPHIC EXAMINATION REPORT

#### Client and Testing Particulars

Client :	Recron (M) Sdn Bhd	Procedure No:	NT/RT/ASME Rev. 7.0
Project :	HTM Piping	IQI type :	ASTM 1B
Material:	Carbon Steel	Film Manufacturer/Type :	FUJI 100(class II)
Welding Process :	GTAW	Density :	2.0 - 3.5
Examination Code :	ASME V	Sensitivity:	0.33mm(5 wires visible)
Acceptance Code:	ASME B31.3	Source to Object Distance :	114.3mm
Examination Date:	10 April 2018	Source Side of Object to Film Distance:	(7+3)mm
		No of Radiograph(exposure) :	Single Exposure
		No. of Film Each Cassette :	1 Film
		Radiographic Technique :	DWSI
		Film Viewing Technique :	Single Viewing
		Source Type/Size :	Iridium192 (3.2mm)
		Location Markers :	Film Side

#### Radiographic Examination Result

Weld Reference (Welder No)	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
Pump Area								
JT - 229	10	3	114.3	7	0 - 1	NRI	Accept	
					1 - 2	NRI	Accept	
					2 - 0	NRI	Accept	
JT - 230	10	3	114.3	7	0 - 1	Con	Accept	
					1 - 2	NRI	Accept	
					2 - 0	NRI	Accept	

End of Report

#### Legend:

TI: Tungsten Inclusion	NRI: No Relevant Indication	Uo: Undercut	Por: Porosity	WT: Weld Thickness
SI: Slag Inclusion	LP: Lack of Penetration	Con: Concavity	BT: Burn Through	RT: Reinforcement Thickness
LF: Lack of Fusion	EP: Excess Penetration	AR: Artifact	Sur: Surface	

#### Personnel Particulars

Radiographer : Emirsham - NDT Lev. II

Interpreted & Evaluated By: Amat Hamidi - NDT Lev. II

Date: 11 April 2018



Client Representative:

Name:

Date:



### RADIOGRAPHIC EXAMINATION REPORT

#### Client and Testing Particulars

Client :	Recron (M) Sdn Bhd	Procedure No:	NT/RT/ASME Rev. 7.0
Project :	HTM Piping	IQI type :	ASTM 1B
Material:	Carbon Steel	Film Manufacturer/Type :	FUJI 100(class II)
Welding Process :	GTAW	Density :	2.0 - 3.5
Examination Code :	ASME V	Sensitivity:	0.33mm(5 wires visible)
Acceptance Code:	ASME B31.3	Source to Object Distance :	114.3mm
Examination Date:	10 April 2018	Source Side of Object to Film Distance:	(7+3)mm
		No of Radiograph(exposure) :	Single Exposure
		No. of Film Each Cassette :	1 Film
		Radiographic Technique :	DWSI
		Film Viewing Technique :	Single Viewing
		Source Type/Size :	Iridium192 (3.2mm)
		Location Markers :	Film Side

#### Radiographic Examination Result

Weld Reference (Welder No)	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
Pump Area								
JT - 223	10	3	114.3	7	0 - 1	Por	Accept	
					1 - 2	Por	Accept	
					2 - 0	Por	Accept	
JT - 224	10	3	114.3	7	0 - 1	NRI	Accept	
					1 - 2	NR!	Accept	
					2 - 0	NRI	Accept	

Continue Next Page

#### Legend:

TI: Tungsten Inclusion	NRI: No Relevant Indication	Uc: Undercut	Por: Porosity	WT: Weld Thickness
SI: Slag Inclusion	LP: Lack of Penetration	Con: Concavity	BT: Burn Through	RT: Reinforcement Thickness
LF: Lack of Fusion	EP: Excess Penetration	AR: Artifact	Sur: Surface	

#### Personnel Particulars

Radiographer : Emirsham - NDT Lev. II

Interpreted & Evaluated By: Amat Hamidi - NDT Lev. II

Date: 11 April 2018



Client Representative:

Name:

Date:



Our Ref.: NT/103479/18-06

Page No: 2 of 2

Report No: NDT/RT/180367-04/18

Radiographic Examination Result

Weld Reference (Welder No)	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
Pump Area								
JT - 225	10	3	114.3	7	0 - 1	Por	Accept	
					1 - 2	NRI	Accept	
					2 - 0	NRI	Accept	
JT - 226	10	3	114.3	7	0 - 1	Por	Accept	
					1 - 2	NRI	Accept	
					2 - 0	NRI	Accept	
JT - 227	10	3	114.3	7	0 - 1	NRI	Accept	
					1 - 2	NRI	Accept	
					2 - 0	NRI	Accept	
JT - 228	10	3	114.3	7	0 - 1	NRI	Accept	
					1 - 2	NRI	Accept	
					2 - 0	NRI	Accept	

End of Report





Our Ref. : NT/103479/18-06

Page No: 1 of 1  
 Report No: † NDT/RT/180367-03/18

## RADIOGRAPHIC EXAMINATION REPORT

### Client and Testing Particulars

Client : Recron (M) Sdn Bhd	Procedure No: NT/RT/ASME Rev. 7.0
Project : HTM Piping	IQI type : ASTM 1B
Material: Carbon Steel	Film Manufacturer/Type : FUJI 100(class II)
Welding Process : GTAW	Density : 2.0 - 3.5
Examination Code : ASME V	Sensitivity: 0.33mm(5 wires visible)
Acceptance Code: ASME B31.3	Source to Object Distance : 141.3mm
Examination Date: 10 April 2018	Source Side of Object to Film Distance: (7+3)mm
	No of Radiograph(exposure) : Single Exposure
	No. of Film Each Cassette : 1 Film
	Radiographic Technique : DWSI
	Film Viewing Technique : Single Viewing
	Source Type/Size : Iridium192 (3.2mm)
	Location Markers : Film Side

### Radiographic Examination Result

Weld Reference (Welder No)	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
Pump Area								
JT - 128	10	3	141.3	7	0 - 1	NRI	Accept	
					1 - 2	Inc	Reject	
					2 - 0	NRI	Accept	

End of Report

#### Legend:

TI: Tungsten Inclusion	NRI: No Relevant Indication	Uc: Undercut	Por: Porosity	WT: Weld Thickness
SI: Slag Inclusion	LP: Lack of Penetration	Con: Concavity	BT: Burn Through	RT: Reinforcement Thickness
LF: Lack of Fusion	EP: Excess Penetration	AR: Artifact	Sur: Surface	

### Personnel Particulars

Radiographer : Emirsham - NDT Lev. II

Interpreted & Evaluated By: Amat Hamidi - NDT Lev. II

Date: 11 April 2018



Client Representative:

Name:

Date:



Our Ref. : NT/103479/18-06

Page No: 1 of 1  
 Report No: NDT/RT/180367-02/18

## RADIOGRAPHIC EXAMINATION REPORT

### Client and Testing Particulars

Client : Recron (M) Sdn Bhd Project : HTM Piping Material: Carbon Steel Welding Process : GTAW Examination Code : ASME V Acceptance Code: ASME B31.3 Examination Date: 10 April 2018	Procedure No: NT/RT/ASME Rev. 7.0 IQI type : ASTM 1B Film Manufacturer/Type : FUJI 100(class II) Density : 2.0 - 3.5 Sensitivity: 0.33mm(5 wires visible) Source to Object Distance : 141.3mm Source Side of Object to Film Distance: (7+3)mm No of Radiograph(exposure) : Single Exposure No. of Film Each Cassette : 1 Film Radiographic Technique : DWSI Film Viewing Technique : Single Viewing Source Type/Size : Iridium192 (3.2mm) Location Markers : Film Side
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### Radiographic Examination Result

Weld Reference (Welder No)	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
Pump Area								
JT - 127	10	3	141.3	7	0 - 1	NRI	Accept	
					1 - 2	NRI	Accept	
					2 - 0	NRI	Accept	

End of Report

#### Legend:

TI : Tungsten Inclusion	NRI: No Relevant Indication	Uc: Undercut	Por: Porosity	WT: Weld Thickness
SI: Slag Inclusion	LP: Lack of Penetration	Con: Concavity	BT: Burn Through	RT: Reinforcement Thickness
LF: Lack of Fusion	EP: Excess Penetration	AR: Artifact	Sur: Surface	

### Personnel Particulars

Radiographer : Emirsham - NDT Lev. II  
 Interpreted & Evaluated By: Amat Hamidi - NDT Lev. II  
 Date: 11 April 2018



Client Representative:  
 Name:  
 Date:



Our Ref.: NT/103479/18-06

Page No: 1 of 1  
 Report No: I NDT/RT/180367-01/18

## RADIOGRAPHIC EXAMINATION REPORT

### Client and Testing Particulars

Client :	Recron (M) Sdn Bhd	Procedure No:	NT/RT/ASME Rev. 7.0
Project :	HTM Piping	IQI type :	ASTM 1B
Material:	Carbon Steel	Film Manufacturer/Type :	FUJI 100(class II)
Welding Process :	GTAW	Density :	2.0 - 3.5
Examination Code :	ASME V	Sensitivity:	0.33mm(5 wires visible)
Acceptance Code:	ASME B31.3	Source to Object Distance :	141.3mm
Examination Date:	10 April 2018	Source Side of Object to Film Distance:	(7+3)mm
		No of Radiograph(exposure) :	Single Exposure
		No. of Film Each Cassette :	1 Film
		Radiographic Technique :	DWSI
		Film Viewing Technique :	Single Viewing
		Source Type/Size :	Iridium192 (3.2mm)
		Location Markers :	Film Side

### Radiographic Examination Result

Weld Reference (Welder No)	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
<b>Pump Area</b>								
JT - 125	10	3	141.3	7	0 - 1	NRI	Accept	
					1 - 2	NRI	Accept	
					2 - 0	NRI	Accept	
JT - 126	10	3	141.3	7	0 - 1	EP	Accept	
					1 - 2	NRI	Accept	
					2 - 0	Por	Accept	

\_\_\_\_\_ End of Report \_\_\_\_\_

**Legend:**

TI: Tungsten Inclusion	NRI: No Relevant Indication	Uc: Undercut	Por: Porosity	WT: Weld Thickness
SI: Slag Inclusion	LP: Lack of Penetration	Con: Concavity	BT: Burn Through	RT: Reinforcement Thickness
LF: Lack of Fusion	EP: Excess Penetration	AR: Artifact	Sur: Surface	

### Personnel Particulars

Radiographer : Emirsham - NDT Lev. II  
 Interpreted & Evaluated By: Amat Hamidi - NDT Lev. II  
 Date: 11 April 2018



Client Representative:  
 Name:  
 Date: