NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
No. 5, Jalan Anggerik Mokara 31/45, Seksyen 31, Kota Kemuning, 40460 Shah Alam, Selangor Darul Ehsan, Malaysia.
Tel: 03-5122 9766/7/8 Fax: 03-5122 8766/7 E-mail: info@nusatek.com

Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-27/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1A
Project :	Neste Singapore	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
Material:	SA 204 304	Sensitivity:	0.20mm(2 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(4+3)mm
Welding Process :	GTAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
W/O: 11484 Buffer Tank								
CW1 SP (W048)	7	3	–	4	0 - 1	NRI	Accept	
CW2 SP (W048)	7	3	–	4	0 - 1	NRI	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	UN : 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	Client Representative:	
Interpreted & Evaluated By:	M.Nazib - NDT Lev.II	Name:	
Date:	12 June 2018	Date:	

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-26/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd
Project :	Desmet Enigela, Italy
Material:	A240 GR 304
Welding Process :	GTAW
Examination Code :	ASME V
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition
Examination Date:	11 June 2018

Procedure No:	NT/RT/ASME Rev 7.0
IQI type :	ASTM 1A
Film Manufacturer/Type :	FUJI 50(class I)
Density :	2.0 - 3.5
Sensitivity:	0.20mm(2 wires visible)
Source to Object Distance :	400mm
Source Side of Object to Film Distance:	(4+3)mm
No of Radiograph(exposure) :	Single Exposure
No. of Film Each Cassette :	1 Film
Radiographic Technique :	SWSI
Film Viewing Technique :	Single Wall 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
Shell Buffer Tank BT-2								
CW2/LW1 (W002)	7	3	–	4	0 - 1	NRI	Accept	
LW1 (W002)	7	3	–	4	0 - 1	NRI	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	*NRI : No Relevant Indication*	*UN : 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	Client Representative:
Interpreted & Evaluated By:	M.Nazib - NDT Lev.II	Name:
Date:	12 June 2018	Date:

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D) NDT Division

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-25/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1A
Project :	Desmet Enigela, Italy	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
Material:	A240 GR 304	Sensitivity:	0.20mm(2 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(4+3)mm
Welding Process :	GTAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
Shell Buffer Tank BT-1								
CW1 (W002)	7	3	–	4	0 - 1	NRI	Accept	
LW1 (W002)	7	3	–	4	0 - 1	NRI	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	UN : 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: M.Nazib - NDT Lev.II

Date: 12 June 2018

Client Representative:

Name:

Date:

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-24/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	Desmet Enigela, Italy	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
Material:	A240 GR 304	Sensitivity:	0.33mm(5 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(6+3)mm
Welding Process :	FCAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
Shell RPWD 616B2								
CW4/LW3 (W012)	9	3	–	6	0 - 1	NRI	Accept	
LW2 (W012)	9	3	–	6	0 - 1	NRI	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	UN : 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: M.Nazib - NDT Lev.II

Date: 12 June 2018

NUSANTARA TECHNOLOGIES SDN. BHD. NDT Division (187753-D)

Client Representative:

Name:

Date:

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-23/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	Desmet Enigela, Italy	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
Material:	A240 GR 304	Sensitivity:	0.33mm(5 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(6+3)mm
Welding Process :	FCAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
Shell RPWD 616B1								
CW4/LW3 (W012)	9	3	–	6	0 - 1	NRI	Accept	
LW2 (W012)	9	3	–	6	0 - 1	NRI	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	UN : 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

Client Representative:

Interpreted & Evaluated By: M.Nazib - NDT Lev.II

Name:

Date: 12 June 2018

Date:

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-19/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	Yanbu5-C1	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
Material:	SA 516 Gr 70	Sensitivity:	0.33mm(5 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(8+3)mm
Welding Process :	FCAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
PLHD 1850/120/34 Item: W1016A-1 PV-7224								
CW1/LW1 (W012)	11	3	–	8	0 - 1	NRI	Accept	
LW1/CW2 (W012)	11	3	–	8	0 - 1	NRI	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	UN : 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: M.Nazib - NDT Lev.II

Date: 12 June 2018

Client Representative:

Name:

Date:

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-20/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	Yanbu5-C1	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
Material:	SA 516 Gr 70	Sensitivity:	0.33mm(5 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(8+3)mm
Welding Process :	FCAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
PLHD 1850/120/34 Item: W1016A-1 PV-7224								
CW2/LW2 (W012)	11	3	–	8	0 - 1	LF	Reject	

End of Report

Legend:

TI : Tungsten Inclusion	*NRI : No Relevant Indication*	*UN : 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		Client Representative:
Interpreted & Evaluated By:	M.Nazib - NDT Lev.II		Name:
Date:	12 June 2018		Date:

NUSANTARA TECHNOLOGIES SDN. BHD. NDT Division

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-22/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	Yanbu5-C1	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
Material:	SA 516 Gr 70	Sensitivity:	0.33mm(5 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(8+3)mm
Welding Process :	FCAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
PLHD 1850/120/34 Item: W1016A-2 PV-7225								
CW1/LW1 (W012)	11	3	--	8	0 - 1	NRI	Accept	
LW1/CW2 (W012)	11	3	--	8	0 - 1	NRI	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	UN : 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: M.Nazib - NDT Lev.II

Date: 12 June 2018

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D) NDT Division

Client Representative:

Name:

Date:

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-21/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	Yanbu5-C1	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
Material:	SA 516 Gr 70	Sensitivity:	0.33mm(5 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(8+3)mm
Welding Process :	FCAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
PLHD 1850/120/34 Item: W1016A-2 PV-7225								
CW2/LW2 (W012)	11	3	–	8	0 - 1	NRI	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	UN : 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: M.Nazib - NDT Lev.II

Date: 12 June 2018

Client Representative:

Name:

Date:

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-01/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	Desmet Enigela, Italy	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
Material:	A240 GR 304	Sensitivity:	0.33mm(5 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(10+3)mm
Welding Process :	FCAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
Shell PLVD 2000/18 616A1								
CW3/LW2 (W012)	13	3	–	10	0 - 1	Por	Accept	
CW2/LW2 (W012)	13	3	–	10	0 - 1	NRI	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	UN : 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	Client Representative:	
Interpreted & Evaluated By:	M.Nazib - NDT Lev.II	Name:	
Date:	12 June 2018	Date:	

NUSANTARA TECHNOLOGIES SDN. BHD. * (187753-D) * NDT Division

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-02/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd
Project :	Desmet Enigela, Italy
Material:	A240 GR 304
Welding Process :	FCAW
Examination Code :	ASME V
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition
Examination Date:	11 June 2018

Procedure No:	NT/RT/ASME Rev 7.0
IQI type :	ASTM 1B
Film Manufacturer/Type :	FUJI 50(class I)
Density :	2.0 - 3.5
Sensitivity:	0.33mm(5 wires visible)
Source to Object Distance :	400mm
Source Side of Object to Film Distance:	(10+3)mm
No of Radiograph(exposure) :	Single Exposure
No. of Film Each Cassette :	1 Film
Radiographic Technique :	SWSI
Film Viewing Technique :	Single Wall 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
Shell PLVD 2000/18 616A1								
LW9 (W012)	13	3	–	10	0 - 1	NRI	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	UN : 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: M.Nazib - NDT Lev.II

Date: 12 June 2018

NUSANTARA TECHNOLOGIES SDN. BHD. NDT Division (187753-D)

Client Representative:

Name:

Date:

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-03/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	Desmet Enigela, Italy	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
Material:	A240 GR 304	Sensitivity:	0.33mm(5 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(10+3)mm
Welding Process :	FCAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
Shell PLVD 2000/18 616A2								
CW3/LW2 (W012)	13	3	--	10	0 - 1	NRI	Accept	
CW2/LW2 (W012)	13	3	--	10	0 - 1	NRI	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	UN : 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: M.Nazib - NDT Lev.II

Date: 12 June 2018

NUSANTARA TECHNOLOGIES SDN. BHD. * (187753-D) * NDT Division

Client Representative:

Name:

Date:

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
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Tel: 03-5122 9766/7/8 Fax: 03-5122 8766/7 E-mail: info@nusatek.com

Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-04/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	Desmet Enigela, Italy	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
Material:	A240 GR 304	Sensitivity:	0.33mm(5 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(10+3)mm
Welding Process :	FCAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
Shell PLVD 2000/18 616A2								
LW9 (W012)	13	3	–	10	0 - 1	NRI	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	UN : 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: M.Nazib - NDT Lev.II

Date: 12 June 2018

NUSANTARA TECHNOLOGIES SDN. BHD. NDT Division

Client Representative:

Name:

Date:

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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-05/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	Desmet Enigela, Italy	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
Material:	A240 GR 304	Sensitivity:	0.33mm(5 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(10+3)mm
Welding Process :	FCAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
Shell PLVD 2000/18 616A3								
CW3/LW2 (W012)	13	3	–	10	0 - 1	Por	Accept	
CW2/LW2 (W012)	13	3	–	10	0 - 1	Por	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	UN : 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		Client Representative:
Interpreted & Evaluated By:	M.Nazib - NDT Lev.II		Name:
Date:	12 June 2018		Date:

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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-06/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	Desmet Enigela, Italy	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
Material:	A240 GR 304	Sensitivity:	0.33mm(5 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(10+3)mm
Welding Process :	FCAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
Shell PLVD 2000/18 616A3								
LW9 (W012)	13	3	–	10	0 - 1	NRI	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	UN : 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		Client Representative:
Interpreted & Evaluated By:	M.Nazib - NDT Lev.II		Name:
Date:	12 June 2018		Date:

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D) NDT Division

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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-07/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	Desmet Enigela, Italy	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
Material:	A240 GR 304	Sensitivity:	0.33mm(5 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(10+3)mm
Welding Process :	FCAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
Shell PLVD 2000/18 616A4								
LW9 (W012)	13	3	–	10	0 - 1	NRI	Accept	
CW2/LW2 (W012)	13	3	–	10	0 - 1	NRI	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	UN : 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		Client Representative:
Interpreted & Evaluated By:	M.Nazib - NDT Lev.II		Name:
Date:	12 June 2018		Date:

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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-08/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
Project :	Desmet Enigela, Italy	IQI type :	ASTM 1B
Material:	A240 GR 304	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
		Sensitivity:	0.33mm(5 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(10+3)mm
Welding Process :	FCAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
Shell PLVD 2000/18 616A4								
CW3/LW2 (W012)	13	3	–	10	0 - 1	LF	Reject	

End of Report

Legend:

TI : Tungsten Inclusion	*NRI : No Relevant Indication*	*UN : 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	Client Representative:	
Interpreted & Evaluated By:	M.Nazib - NDT Lev.II	Name:	
Date:	12 June 2018	Date:	

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D) NDT Division

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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-10/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	Desmet Enigela, Italy	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
Material:	A240 GR 304	Sensitivity:	0.33mm(5 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(10+3)mm
Welding Process :	FCAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
Shell PLVD 2000/18 616A6								
CW3/LW2 (W005)	13	3	—	10	0 - 1	LF	Reject	

End of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	UN : 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		Client Representative:
Interpreted & Evaluated By:	M.Nazib - NDT Lev.II		Name:
Date:	12 June 2018		Date:

NUSANTARA TECHNOLOGIES SDN. BHD. * (187753-D) * NDT Division

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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-09/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd
Project :	Desmet Enigela, Italy
Material:	A240 GR 304
Welding Process :	FCAW
Examination Code :	ASME V
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition
Examination Date:	11 June 2018

Procedure No:	NT/RT/ASME Rev 7.0
IQI type :	ASTM 1B
Film Manufacturer/Type :	FUJI 50(class I)
Density :	2.0 - 3.5
Sensitivity:	0.33mm(5 wires visible)
Source to Object Distance :	400mm
Source Side of Object to Film Distance:	(10+3)mm
No of Radiograph(exposure) :	Single Exposure
No. of Film Each Cassette :	1 Film
Radiographic Technique :	SWSI
Film Viewing Technique :	Single Wall 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
Shell PLVD 2000/18 616A6								
LW9 (W005)	13	3	–	10	0 - 1	NRI	Accept	
CW2/LW2 (W005)	13	3	–	10	0 - 1	NRI	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	UN : 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:	M.Nazib - NDT Lev.II
Date:	12 June 2018

Client Representative:

Name:
Date:

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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-11/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	Desmet Enigela, Italy	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
Material:	A240 GR 304	Sensitivity:	0.33mm(5 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(10+3)mm
Welding Process :	FCAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
Shell PLVD 2000/18 616A7								
LW9 (W005)	13	3	–	10	0 - 1	NRI	Accept	
CW2/LW1 (W005)	13	3	–	10	0 - 1	NRI	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	*NRI : No Relevant Indication*	*UN : 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		Client Representative:
Interpreted & Evaluated By:	M.Nazib - NDT Lev.II		Name:
Date:	12 June 2018		Date:

NUSANTARA TECHNOLOGIES SDN. BHD. NDT Division (187753-D)

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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-12/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	Desmet Enigela, Italy	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
Material:	A240 GR 304	Sensitivity:	0.33mm(5 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(10+3)mm
Welding Process :	FCAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
Shell PLVD 2000/18 616A7								
CW2/LW2 (W005)	13	3	–	10	0 - 1	LF / Por	Reject	

End of Report

Legend:

TI : Tungsten Inclusion	*NRI : No Relevant Indication*	*UN : 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		Client Representative:
Interpreted & Evaluated By:	M.Nazib - NDT Lev.II		
Date:	12 June 2018		Name: Date:

NUSANTARA TECHNOLOGIES SDN. BHD. * (187753-D) * NDT Division

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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-14/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	Desmet Enigela, Italy	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
Material:	A240 GR 304	Sensitivity:	0.33mm(5 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(10+3)mm
Welding Process :	FCAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
Shell PLVD 2000/18 616A8								
LW9 (W005)	13	3	–	10	0 - 1	NRI	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	*NRI : No Relevant Indication*	*UN : 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		Client Representative:
Interpreted & Evaluated By:	M.Nazib - NDT Lev.II		Name:
Date:	12 June 2018		Date:

NUSANTARA TECHNOLOGIES SDN. BHD. * (187753-D) * NDT Division

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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-13/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	Desmet Enigela, Italy	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
Material:	A240 GR 304	Sensitivity:	0.33mm(5 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(10+3)mm
Welding Process :	FCAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
Shell PLVD 2000/18 616A8								
CW2/LW1 (W005)	13	3	–	10	0 - 1	NRI	Accept	
CW2/LW2 (W005)	13	3	–	10	0 - 1	Por	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	UN : 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: M.Nazib - NDT Lev.II

Date: 12 June 2018

NUSANTARA TECHNOLOGIES SDN. BHD. * (187753-D) * NDT Division

Client Representative:

Name:

Date:

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
No. 5, Jalan Anggerik Mokara 31/45, Seksyen 31, Kota Kemuning, 40460 Shah Alam, Selangor Darul Ehsan, Malaysia.
Tel: 03-5122 9766/7/8 Fax: 03-5122 8766/7 E-mail: info@nusatek.com

Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-16/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	Desmet Enigela, Italy	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
Material:	A240 GR 304	Sensitivity:	0.33mm(5 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(10+3)mm
Welding Process :	FCAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
Shell PLVD 2000/18 616A9								
LW9 (W005)	13	3	–	10	0 - 1	NRI	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	*NRI : No Relevant Indication*	*UN : 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		Client Representative:
Interpreted & Evaluated By:	M.Nazib - NDT Lev.II		Name:
Date:	12 June 2018		Date:

NUSANTARA TECHNOLOGIES SDN. BHD. * (187753-D) * NDT Division

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
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Tel: 03-5122 9766/7/8 Fax: 03-5122 8766/7 E-mail: info@nusatek.com

Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-15/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	Desmet Enigela, Italy	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
Material:	A240 GR 304	Sensitivity:	0.33mm(5 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(10+3)mm
Welding Process :	FCAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
Shell PLVD 2000/18 616A9								
CW2/LW1 (W005)	13	3	–	10	0 - 1	NRI	Accept	
CW2/LW2 (W005)	13	3	–	10	0 - 1	NRI	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	UN : 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		Client Representative:
Interpreted & Evaluated By:	M.Nazib - NDT Lev.II		Name:
Date:	12 June 2018		Date:

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D) NDT Division

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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-18/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	Desmet Enigela, Italy	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0 - 3.5
Material:	A240 GR 304	Sensitivity:	0.33mm(5 wires visible)
		Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(10+3)mm
Welding Process :	FCAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	11 June 2018	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
Shell PLVD 2000/18 616A5								
LW9 (W012)	13	3	–	10	0 - 1	Por	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	UN : 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: M.Nazib - NDT Lev.II

Date: 12 June 2018

NUSANTARA TECHNOLOGIES SDN BHD (187753-D) NDT Division

Client Representative:

Name:

Date:

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
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Our Ref. : NT/103902/18-27

Report No: NDT/RT/180702-17/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	PMI-Technology Sdn Bhd
Project :	Desmet Enigela, Italy
Material:	A240 GR 304
Welding Process :	FCAW
Examination Code :	ASME V
Acceptance Code:	ASME Sect VIII Div 1 , 2017 Edition
Examination Date:	11 June 2018

Procedure No:	NT/RT/ASME Rev 7.0
IQI type :	ASTM 1B
Film Manufacturer/Type :	FUJI 50(class I)
Density :	2.0 - 3.5
Sensitivity:	0.33mm(5 wires visible)
Source to Object Distance :	400mm
Source Side of Object to Film Distance:	(10+3)mm
No of Radiograph(exposure) :	Single Exposure
No. of Film Each Cassette :	1 Film
Radiographic Technique :	SWSI
Film Viewing Technique :	Single Wall 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
Shell PLVD 2000/18 616A5								
CW2/LW1 (W012)	13	3	–	10	0 - 1	Por	Accept	
CW2/LW2 (W012)	13	3	–	10	0 - 1	NRI	Accept	

End of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	UN : 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: M.Nazib - NDT Lev.II

Date: 12 June 2018

Client Representative:

Name:

Date: