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/103366/18-05

Report No: NDT/RT/180305-01/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	TWI Technology (SEA) Sdn. Bhd.	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	WPS Development	Film Manufacturer/Type :	FUJI 100(class II)
	WPS/EITI/2018-001	Density :	2.0-3.5
		Sensitivity:	0.33mm(5 wires visible)
Material:	SA 106 Gr.B	Source to Object Distance :	168.3mm
		Source Side of Object to Film Distance:	(10.97+3)mm
Welding Process :	SMAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Section IX ; 2017 Edition.	Radiographic Technique :	DWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	02 April 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
Muhammad Dzulhelme Razali 931026-06-5175 6G	13.97	3	168.3	10.97	0 - 1	NRI	Accept	
					1 - 2	Con	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: 03 April 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/103366/18-05

Report No: NDT/RT/180305-02/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	TWI Technology (SEA) Sdn. Bhd.	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	WPS Development	Film Manufacturer/Type :	FUJI 100(class II)
	WPS/EITI/2018-002	Density :	2.0-3.5
		Sensitivity:	0.33mm(5 wires visible)
Material:	SA 106 Gr.B	Source to Object Distance :	168.3mm
		Source Side of Object to Film Distance:	(10.97+3)mm
Welding Process :	GMAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Section IX ; 2017 Edition.	Radiographic Technique :	DWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	02 April 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
Muhammad Dzulhelme Razali 931026-06-5175 6G	13.97	3	168.3	10.97	0 - 1	NRI	Accept	
					1 - 2	SI	Accept	
					2 - 0	SI	Reject	

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: 03 April 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/103366/18-05

Report No: NDT/RT/180305-03/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	TWI Technology (SEA) Sdn. Bhd.	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	WPS Development	Film Manufacturer/Type :	FUJI 100(class II)
	WPS/EITI/2018-004	Density :	2.0-3.5
		Sensitivity:	0.33mm(5 wires visible)
Material:	SA 106 Gr.B	Source to Object Distance :	168.3mm
		Source Side of Object to Film Distance:	(10.97+3)mm
Welding Process :	SMAW / FCAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Section IX ; 2017 Edition	Radiographic Technique :	DWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	02 April 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
Muhammad Dzulhelme Razali 931026-06-5175 6G	13.97	3	168.3	10.97	0 - 1	SI	Reject	
					1 - 2	SI	Accept	
					2 - 0	LP	Reject	

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: 03 April 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/103366/18-05

Report No: NDT/RT/180305-04/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	TWI Technology (SEA) Sdn. Bhd.	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	WPS Development	Film Manufacturer/Type :	FUJI 100(class II)
	WPS/EITI/2018-003	Density :	2.0-3.5
		Sensitivity:	0.33mm(5 wires visible)
Material:	SA 106 Gr.B	Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(60.3)mm
Welding Process :	GTAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Section IX ; 2017 Edition.	Radiographic Technique :	DWDI
		Film Viewing Technique :	Double Wall Viewing
Examination Date:	02 April 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
Muhammad Dzulhelme Razali 931026-06-5175								
TP - 1 6G	8.54	3	60.3	5.54	X	NRI	Accept	
					Y	Por	Accept	
TP - 2 6G	8.54	3	60.3	5.54	X	NRI	Accept	
					Y	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		Client Representative:
Interpreted & Evaluated By:	Amat Hamidi - NDT Lev.II	NUSANTARA TECHNOLOGIES SDN. BHD. * (187753-D) * NDT Division	Name:
Date:	03 April 2018		Date:

NUSATEK

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
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Our Ref. : NT/103366/18-05

Report No: NDT/RT/180305-05/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	TWI Technology (SEA) Sdn. Bhd.	Procedure No:	NT/RT/ASME Rev 7.0
		IQI type :	ASTM 1B
Project :	WPS Development	Film Manufacturer/Type :	FUJI 100(class II)
	WPS/EITI/2018-003	Density :	2.0-3.5
		Sensitivity:	0.33mm(5 wires visible)
Material:	SA 106 Gr.B	Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(60.3)mm
Welding Process :	GTAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME Section IX ; 2017 Edition.	Radiographic Technique :	DWDI
		Film Viewing Technique :	Double Wall Viewing
Examination Date:	02 April 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
Muhammad Dzulhelme Razali 931026-06-5175								
TP - 3 6G	8.54	3	60.3	5.54	X	NRI	Accept	
					Y	NRI	Accept	
TP - 4 6G	8.54	3	60.3	5.54	X	NRI	Accept	
					Y	Uc	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		Client Representative:
Interpreted & Evaluated By:	Amat Hamidi - NDT Lev.II	NUSANTARA TECHNOLOGIES SDN. BHD. NDT Division (187753-D)	
Date:	03 April 2018		Name: Date: