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/103512/18-07

Report No: NDT/RT/180400-01/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Seremban Engineering Berhad
Project :	17/01575 LCSY Fuji Oil
Material:	SA 312 TP 316L
Welding Process :	GTAW
Examination Code :	ASME V
Acceptance Code:	ASME Sect. VIII Div.1 : 2017 Ed.
Examination Date:	13 April 2018

Procedure No:	NT/RT/ASME REV 7.0
IQI type :	ASTM 1A
Film Manufacturer/Type :	FUJI 100(class II)
Density :	2.0-3.5
Sensitivity:	0.20mm(2 wires visible)
Source to Object Distance :	114.3mm
Source Side of Object to Film Distance:	(6.02+3)mm
No of Radiograph(exposure) :	Single Exposure
No. of Film Each Cassette :	1 Film
Radiographic Technique :	DWSI
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
FD-6 (DE631)								
S4 RS (WN-75)	9.02	3	114.3	6.02	0 - 1	NRI	Accept	
					1 - 2	NRI	Accept	AR
					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: 14 April 2018

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

Client Representative:

Name:

Date:

NUSATEK

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
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Our Ref. : NT/103512/18-07

Report No: NDT/RT/180400-04/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Seremban Engineering Berhad	Procedure No:	NT/RT/ASME REV 7.0
		IQI type :	ASTM 1B
Project :	17/1513PCYC	Film Manufacturer/Type :	FUJI 100(class II)
	Air Receiver (2000L)	Density :	2.0-3.5
		Sensitivity:	0.33mm(5 wires visible)
Material:	SA 516. Gr.70	Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(9.53+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 Ed.	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	13 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
CS1/LS1-T1 (WN-196)	12.53	3	–	9.53	0 - 1	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. NDT Division (187753-D)	Name:
Date:	14 April 2018		Date:

NUSATEK

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
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Our Ref. : NT/103512/18-07

Report No: NDT/RT/180400-05/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Seremban Engineering Berhad	Procedure No:	NT/RT/ASME REV 7.0
		IQI type :	ASTM 1B
Project :	17/1513PCYC Air Receiver (2000L)	Film Manufacturer/Type :	FUJI 100(class II)
		Density :	2.0-3.5
		Sensitivity:	0.33mm(5 wires visible)
Material:	SA 516. Gr.71	Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(9.53+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 Ed.	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	13 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
CS2/LS1-T1 (WN-196)	12.53	3	–	9.53	0 - 1	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		Client Representative:
Interpreted & Evaluated By:	Amat Hamidi - NDT Lev.II	NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D) NDT Division	Name:
Date:	14 April 2018		Date:

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
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Our Ref. : NT/103512/18-07

Report No: NDT/RT/180400-06/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Seremban Engineering Berhad
Project :	17/1513PCYC Air Receiver (2000L)
Material:	SA 516. Gr.72
Welding Process :	GTAW
Examination Code :	ASME V
Acceptance Code:	ASME Sect. VIII Div.1 : 2017 Ed.
Examination Date:	13 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 :	400mm
Source Side of Object to Film Distance:	(9.53+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
LS-1	12.53	3	–	9.53	0 - 1	Por	Accept	
(WN-196)					1 - 2	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: 14 April 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/103512/18-07

Report No: NDT/RT/180400-02/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Seremban Engineering Berhad	Procedure No:	NT/RT/ASME REV 7.0
		IQI type :	ASTM 1B
Project :	17/01567/PNKT Dispenser Tank	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0-3.5
		Sensitivity:	0.33mm(5 wires visible)
Material:	SA 240 Gr 316L	Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(12+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 Ed.	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	13 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
TK11/215/006/01/Tank 1								
SLS 4 R2 (WN-92)	15	3	–	12	1 - 2	Por	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		Client Representative:
Interpreted & Evaluated By:	Amat Hamidi - NDT Lev.II		Name:
Date:	14 April 2018		Date:

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

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
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Our Ref. : NT/103512/18-07

Report No: NDT/RT/180400-03/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Seremban Engineering Berhad	Procedure No:	NT/RT/ASME REV 7.0
		IQI type :	ASTM 1B
Project :	17/01567/PNKT Dispenser Tank	Film Manufacturer/Type :	FUJI 50(class I)
		Density :	2.0-3.5
		Sensitivity:	0.33mm(5 wires visible)
Material:	SA 240 Gr 316L	Source to Object Distance :	400mm
		Source Side of Object to Film Distance:	(12+3)mm
Welding Process :	GTAW / 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 Ed.	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	13 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
TK11/215/006/01/Tank 1								
SCS 1 R2 (WN-75/192)	15	3	–	12	16 - 17	Por	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		Client Representative:
Interpreted & Evaluated By:	Amat Hamidi - NDT Lev.II	NUSANTARA TECHNOLOGIES SDN. BHD. NDT Division (187753-D)	Name:
Date:	14 April 2018		Date:

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
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Our Ref. : NT/103512/18-07

Report No: NDT/RT/180400-07/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Seremban Engineering Berhad
Project :	18/01728PCYC Sludge Filter 1
Material:	S 275 JR
Welding Process :	FCAW
Examination Code :	ASME V
Acceptance Code:	ASME Sect. VIII Div.1 : 2017 Ed.
Examination Date:	13 April 2018

Procedure No:	NT/RT/ASME REV 7.0
IQI type :	ASTM 1A
Film Manufacturer/Type :	FUJI 100(class II)
Density :	2.0-3.5
Sensitivity:	0.20mm(2 wires visible)
Source to Object Distance :	400mm
Source Side of Object to Film Distance:	(6+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
(TK 408)								
Joint 1 (WN-119)	9	3	–	6	0 - 1	SI	Reject	
					1 - 2	SI	Reject	
					2 - 3	Por	Reject	
					3 - 4	Por	Reject	
					4 - 5	SI	Reject	
					5 - 6	SI / Por	Reject	
					6 - 7	SI	Reject	
					7 - 8	SI	Reject	
					8 - 9	SI	Reject	
					9 - 10	SI	Reject	

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: Amal Hamidi - NDT Lev.II

Date: 14 April 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/103512/18-07

Report No: NDT/RT/180400-07/18

Radiographic Examination Result

Weld Reference (Welder No)	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
(TK 408)								
Joint 1 (WN-119)	9	3	–	6	10 - 11	SI	Reject	
					11 - 12	Por / SI	Reject	
					12 - 13	Por / SI	Reject	
					13 - 14	Por / SI	Reject	
					14 - 15	Por / SI	Reject	
					15 - 16	Por	Reject	
					16 - 17	Por / SI	Reject	

End of Report

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