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/103658/18-06

Report No: NDT/RT/180531-01/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Winner Aircon Eng Sdn Bhd	Procedure No:	NT/RT/ASME Rev 6.0
		IQI type :	ASTM 1B
Project :	1 Blok Pejabat Komersil Mengandungi 11 Tingkat Pejabat, 2 Tingkat Komersil Dan 2 Tingkat Besment Di Atas Plot 2C4(Lot 19), Persint 2, Putrajaya	Film Manufacturer/Type :	FUJI 100(class II)
		Density :	2.0 - 3.5
		Sensitivity:	0.33mm(5 wires visible)
		Source to Object Distance :	323.9mm
Material:	Carbon Steel	Source Side of Object to Film Distance:	(6.9+3)mm
Welding Process :	GTAW/SMAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	ASME V	No. of Film Each Cassette :	1 Film
Acceptance Code:	ASME B31.3 -Cat D -2013	Radiographic Technique :	DWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	16 May 2018	Source Type/Size :	Iridium192 (3.2mm)
		Location Markers :	Film Side

Radiographic Examination Result

Weld Reference	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
CHW Pipe From GDC to C24								
CHWS - WJ 1	9.9	3	323.9	6.9	0 - 1	Por	Accept	
					1 - 2	Por	Accept	
					2 - 3	Por	Accept	
					3 - 0	SI	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 : M.Farid - NDT Lev. II

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

Date: 17 May 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/103658/18-06

Report No: NDT/RT/180531-02/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Winner Aircon Eng Sdn Bhd
Project :	1 Blok Pejabat Komersil Mengandungi 11 Tingkat Pejabat, 2 Tingkat Komersil Dan 2 Tingkat Besment Di Atas Plot 2C4(Lot 19), Persint 2, Putrajaya
Material:	Carbon Steel
Welding Process :	GTAW/SMAW
Examination Code :	ASME V
Acceptance Code:	ASME B31.3 -Cat D -2013
Examination Date:	16 May 2018

Procedure No:	NT/RT/ASME Rev 6.0
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 :	219.1mm
Source Side of Object to Film Distance:	(6.9+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	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
CHW Pipe From GDC to 2C4								
CHWS - WJ 8	9.9	3	219.1	6.9	0 - 1	Por	Accept	
					1 - 2	Por	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 :	M.Farid - NDT Lev. II		Client Representative:
Interpreted & Evaluated By:	M.Khairul - NDT Lev.II	NUSANTARA TECHNOLOGIES SDN. BHD. NDT Division (187753-D)	
Date:	17 May 2018		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/103658/18-06

Report No: NDT/RT/180531-03/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Winner Aircon Eng Sdn Bhd
Project :	1 Blok Pejabat Komersil Mengandungi 11 Tingkat Pejabat, 2 Tingkat Komersil Dan 2 Tingkat Besment Di Atas Plot 2C4(Lot 19), Persint 2, Putrajaya
Material:	Carbon Steel
Welding Process :	GTAW/SMAW
Examination Code :	ASME V
Acceptance Code:	ASME B31.3 -Cat D -2013
Examination Date:	16 May 2018

Procedure No:	NT/RT/ASME Rev 6.0
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 :	323.9mm
Source Side of Object to Film Distance:	(6.9+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	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
CHW Pipe From 2C4 to GDC								
CHWR - WJ 10	9.9	3	323.9	6.9	0 - 1	Por	Accept	
					1 - 2	Por	Accept	
					2 - 3	Por	Accept	
					3 - 0	SI	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 : M.Farid - NDT Lev. II

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

Date: 17 May 2018

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

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/103658/18-06

Report No: NDT/RT/180531-04/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Winner Aircon Eng Sdn Bhd
Project :	1 Blok Pejabat Komersil Mengandungi 11 Tingkat Pejabat, 2 Tingkat Komersil Dan 2 Tingkat Besment Di Atas Plot 2C4(Lot 19), Persint 2, Putrajaya
Material:	Carbon Steel
Welding Process :	GTAW/SMAW
Examination Code :	ASME V
Acceptance Code:	ASME B31.3 -Cat D -2013
Examination Date:	16 May 2018

Procedure No:	NT/RT/ASME Rev 6.0
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 :	219.1mm
Source Side of Object to Film Distance:	(6.9+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	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
CHW Pipe From 2C4 to GDC								
CHWR - WJ 11	9.9	3	219.1	6.9	0 - 1	NRI	Accept	
					1 - 2	Por	Accept	
					2 - 0	Por	Accept	
CHWR - WJ 13	9.9	3	219.1	6.9	0 - 1	SI/Por	Accept	
					1 - 2	Por	Accept	
					2 - 0	Con	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 : M.Farid - NDT Lev. II

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

Date: 17 May 2018

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

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.
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Our Ref. : NT/103658/18-06

Report No: NDT/RT/180531-05/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client : Winner Aircon Eng Sdn Bhd

Project : 1 Blok Pejabat Komersil Mengandungi 11 Tingkat Pejabat, 2 Tingkat Komersil Dan 2 Tingkat Besment Di Atas Plot 2C4(Lot 19), Persint 2, Putrajaya

Material: Carbon Steel
Welding Process : GTAW/SMAW
Examination Code : ASME V
Acceptance Code: ASME B31.3 -Cat D -2013

Examination Date: 17 May 2018

Procedure No: NT/RT/ASME Rev 6.0
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 : 219.1mm
Source Side of Object to Film Distance: (6.9+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	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
CHW Pipe From 2C4 to GDC								
CHWR - WJ 14	9.9	3	219.1	6.9	0 - 1	NRI	Accept	
					1 - 2	Por	Accept	
					2 - 0	Con	Accept	
CHWR - WJ 17	9.9	3	219.1	6.9	0 - 1	Por	Accept	
					1 - 2	SI	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 : M.Farid - NDT Lev. II

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

Date: 18 May 2018

NUSANTARA TECHNOLOGIES SDN BHD NDT Division (187753-D)

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.
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Our Ref. : NT/103658/18-06

Report No: NDT/RT/180531-06/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Winner Aircon Eng Sdn Bhd
Project :	1 Blok Pejabat Komersil Mengandungi 11 Tingkat Pejabat, 2 Tingkat Komersil Dan 2 Tingkat Besment Di Atas Plot 2C4(Lot 19), Persint 2, Putrajaya
Material:	Carbon Steel
Welding Process :	GTAW/SMAW
Examination Code :	ASME V
Acceptance Code:	ASME B31.3 -Cat D -2013
Examination Date:	17 May 2018

Procedure No:	NT/RT/ASME Rev 6.0
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 :	219.1mm
Source Side of Object to Film Distance:	(6.9+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	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
CHW Pipe From GDC to 2C4								
CHWS - WJ 3	9.9	3	219.1	6.9	0 - 1	NRI	Accept	
					1 - 2	Con	Accept	
					2 - 0	Con	Accept	
CHWS - WJ 7	9.9	3	219.1	6.9	0 - 1	NRI	Accept	
					1 - 2	NRI	Accept	
					2 - 0	Con	Accept	
CHWS - WJ 18	9.9	3	219.1	6.9	0 - 1	Con	Accept	
					1 - 2	Por	Accept	
					2 - 0	Por	Accept	

Legend:

End of Report

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 :	M.Farid - NDT Lev. II	Client Representative:
Interpreted & Evaluated By:	M.Khairul - NDT Lev.II	
Date:	18 May 2018	Name: Date:

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