

AI TAKAMUL COMPANY FOR ENGINEERING TESTS AND PROFESSIONAL SAFETY LIMITED

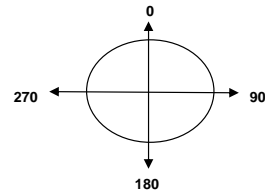
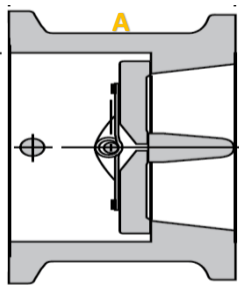
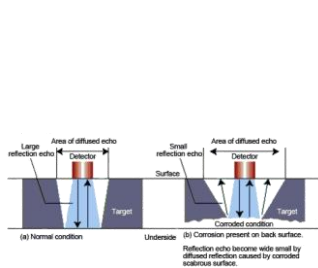
Basra, North Rumaila, Quality Control Yard - Iraq



CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION WITNESS PRESSURE TEST

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	HALLIBURTON	REPORT NO.:	QC-24-09-TSS-NDT-155
LOCATION:	TSS YARD	STANDARD:	ASTM E709 & ASTM E797 & AP6A, ASME B31.1
WORK ORDER #	*****		
DATE OF INSPECTION:	Thursday, September 19, 2024	INSPECTION. DUE DATE:	Tuesday, March 18, 2025
TYPE OF INSPECTION:	VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING & WITNESS PRESSURE TEST		
DESCRIPTION:	CHECK VALVE 3" 600 CL (FLAPPER VALVE)	SERIAL NO:	122
Pump NO :	13119220	CAL DUE DATE:	19.AUG.2025
Pressure Gauge NO.:	468080	CAL DUE DATE:	19.JUN.2025



ONLINE TRACEABILITY

* ALL READINGS IN MM
**MINIMUM THICKNESS PROVIDED BY CUSTOMER

POINTS	THICKNESS AT POSITION		MINIMUM THICKNESS PROVIDED BY CUSTOMER
	A		
0°	19.45	10.16 MM 0.400 INCHES	
90°	20.65		
180°	20.03		
270°	19.42		

INSPECTION RESULT

VT & MPI	Accepted	According to ASTM E709
UT	Accepted	According to ASTM E 797

Inspection Evaluation

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709

U.T-The Above Item Was Found Acceptable As Per ASTM E797

BODY PRESSURE TEST- The Above Item was Pressure Tested up to 100 Psi A low Pressure Hold for 5 Minutes And Maximum Working pressure 1440 Psi Hold 18 Minutes Leak was Found while testing & Pressure Was Stable According To Chart Recorder

FLAPPER PRESSURE TEST- The Above Item was Pressure Tested up to 100 Psi A low Pressure Hold for 5 Minutes And Maximum Working pressure 1440 Psi Hold 18 Minutes Leak was Found while testing & Pressure Was Stable According To Chart Recorder

INSPECTION EQUIPMENT DETAILS

TECHNICAL DETAILS

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	14-Oct-24	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	16-Oct-24		Magnaflux	220602	JUN,2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	14-Oct-24	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	15-Oct-24		Magnaflux	220605	JULY,2025
ASTM Test Block:	1657	CAL DUE DATE	14-Oct-24	Concentration of 7HF:		1.2 to 2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3620 lux						

PERSON DETAILS

REVIEW BY

INSPECTOR NAME:	M. Shalwan Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:		INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN	
SIGNATURE & STAMP:				DATE:	

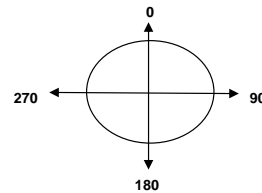
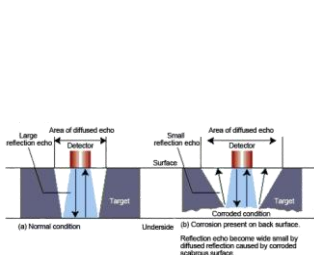
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CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION WITNESS PRESSURE TEST

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	HALLIBURTON	REPORT NO.:	QC-24-09-TSS-NDT-156
LOCATION:	TSS YARD	STANDARD:	ASTM E709 & ASTM E797 & AP6A, ASME B31.1
WORK ORDER #	*****		
DATE OF INSPECTION:	Thursday, September 19, 2024	INSPECTION. DUE DATE:	Tuesday, March 18, 2025
TYPE OF INSPECTION:	VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING & WITNESS PRESSURE TEST		
DESCRIPTION:	FLANGE: 3" 600 CL X 3" 206 WING	SERIAL NO:	P59168-4
Pump NO :	13119220	CAL DUE DATE:	19.AUG.2025
Pressure Gauge NO.:	468080	CAL DUE DATE:	19.JUN.2025



ONLINE TRACEABILITY

* ALL READINGS IN
 **MINIMUM THICKNESS PROVIDED BY CUSTOMER

POINTS	THICKNESS AT POSITION		MINIMUM THICKNESS PROVIDED BY CUSTOMER
	A		
0°	7.47		3.15 MM
90°	7.34		
180°	7.22		
270°	7.36		

INSPECTION RESULT

VT & MPI	Accepted	According to ASTM E709
UT	Accepted	According to ASTM E 797

Inspection Evaluation

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709

Note:MPI Wet Fluorescent inspection Thread With UltraViolet Light

U.T-The Above Item Was Found Acceptable As Per ASTM E797

BODY PRESSURE TEST- The Above Item was Pressure Tested up to 100 Psi A low Pressure Hold for 5 Minutes And Maximum Working pressure 1440 Psi Hold 18 Minutes Leak was Found while testing & Pressure Was Stable According To Chart Recorder

FLAPPER PRESSURE TEST- The Above Item was Pressure Tested up to 100 Psi A low Pressure Hold for 5 Minutes And Maximum Working pressure 1440 Psi Hold 18 Minutes Leak was Found while testing & Pressure Was Stable According To Chart Recorder

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	14-Oct-24	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	16-Oct-24		Magnaflux	220602	JUN,2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	14-Oct-24	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	15-Oct-24		Magnaflux	220605	JULY,2025
ASTM Test Block:	1657	CAL DUE DATE	14-Oct-24	Fluorescent Magnetic Ink 14HF	MANUFACTURE	BATCH NO	EXPIRE DATE
DC COIL:	22650	CAL DUE DATE	15-Oct-24		Magnaflux	220306	March,2025
UV BLACK LIGHT:	1898977	CAL DUE DATE	14-Oct-24	Concentration of 14HF:		0.1 to 0.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3620 lux	UV BLACK LIGHT INTENSITY:	3140 µw/cm ²	Concentration of 7HF:		1.2 to 2.4 ml/100 ml	

PERSON DETAILS

REVIEW BY

INSPECTOR NAME:	M.Shahad Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:		INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN	
SIGNATURE & STAMP:				DATE:	

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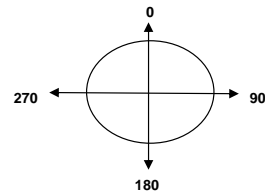
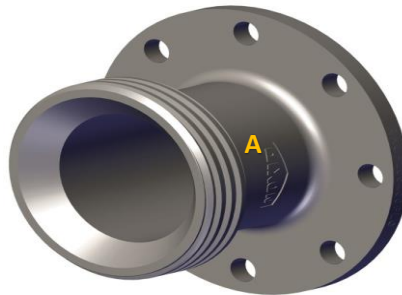
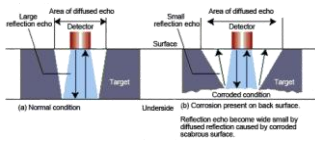
Basra, North Rumaila, Quality Control Yard - Iraq



CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION WITNESS PRESSURE TEST

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	HALLIBURTON	REPORT NO.:	QC-24-09-TSS-NDT-157
LOCATION:	TSS YARD	STANDARD:	ASTM E709 & ASTM E797 & AP6A, ASME B31.1
WORK ORDER #	*****		
DATE OF INSPECTION:	Thursday, September 19, 2024	INSPECTION. DUE DATE:	Tuesday, March 18, 2025
TYPE OF INSPECTION:	VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING & WITNESS PRESSURE TEST		
DESCRIPTION:	FLANGE: 3" 600 CL X 3" 206 THREAD	SERIAL NO:	P58410-2
Pump NO :	13119220	CAL DUE DATE:	19.AUG.2025
Pressure Gauge NO.:	468080	CAL DUE DATE:	19.JUN.2025



ONLINE TRACEABILITY

* ALL READINGS IN MM
**MINIMUM THICKNESS PROVIDED BY CUSTOMER

POINTS	THICKNESS AT POSITION		MINIMUM THICKNESS PROVIDED BY CUSTOMER
	A		
0°	7.81		3.15 MM
90°	7.85		
180°	7.43		
270°	7.73		

INSPECTION RESULT		
VT & MPI	Accepted	According to ASTM E709
UT	Accepted	According to ASTM E 797

Inspection Evaluation

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709

Note:MPI Wet Fluorescent inspection Thread With UltraViolet Light

U.T-The Above Item Was Found Acceptable As Per ASTM E797

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INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	14-Oct-24	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	16-Oct-24		Magnaflux	220602	JUN,2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	14-Oct-24	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	15-Oct-24		Magnaflux	220605	JULY,2025
ASTM Test Block:	1657	CAL DUE DATE	14-Oct-24	Fluorescent Magnetic Ink 14HF	MANUFACTURE	BATCH NO	EXPIRE DATE
DC COIL:	22650	CAL DUE DATE	15-Oct-24		Magnaflux	220306	March,2025
UV BLACK LIGHT:	1898977	CAL DUE DATE	14-Oct-24	Concentration of 14HF:		0.1 to 0.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3620 lux	UV BLACK LIGHT INTENSITY:	3140 µw/cm ²	Concentration of 7HF:		1.2 to 2.4 ml/100 ml	

PERSON DETAILS		REVIEW BY			
INSPECTOR NAME:	M. Shalwan Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:		INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN	
SIGNATURE & STAMP:				DATE:	

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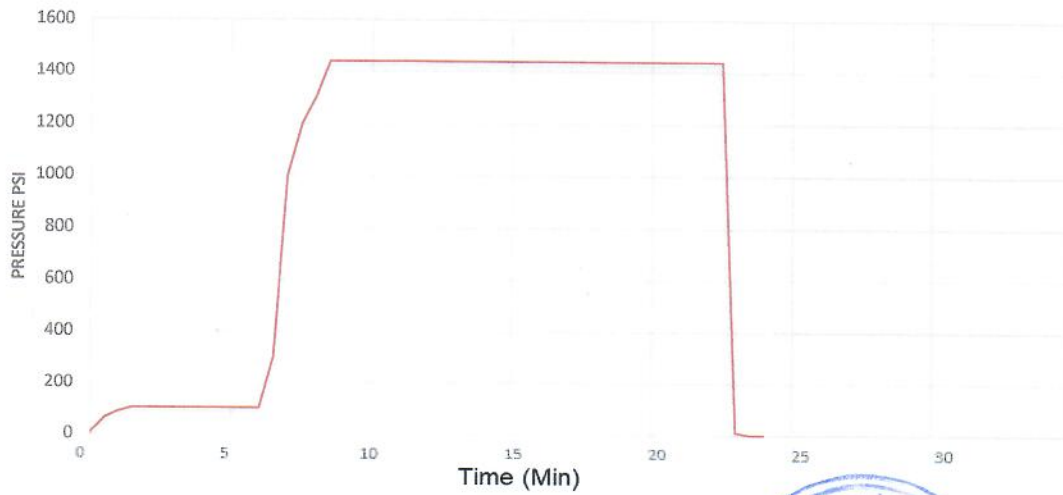


Data Collection Report

Gauge Information	
Serial Number	468080
Model	XP2I
Calibration Date	20-Jun-24
Range	15000 PSI

Run Info	
Start Time	8:00 AM
Stop Time	8:24 AM
Test Date	19-Sep-24
EQ NUMBER	122

READING



TESTED BY : HAIDER EMAD
APPROVED BY: KHALDOON ASAD
COMMENTS: body test

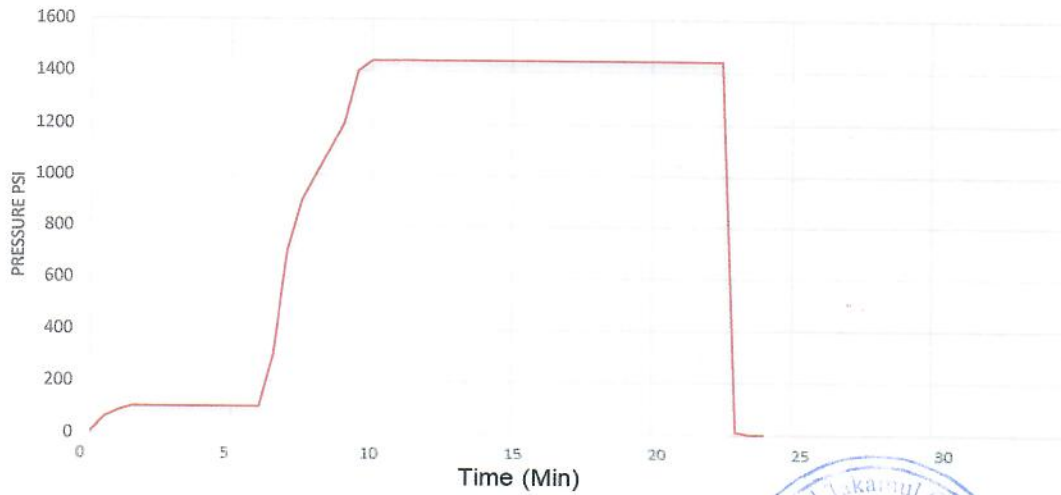


Data Collection Report

Gauge Information	
Serial Number	468080
Model	XP2I
Calibration Date	20-Jun-24
Range	15000 PSI

Run Info	
Start Time	8:30 AM
Stop Time	8:53 AM
Test Date	19-Sep-24
EQ NUMBER	122

READING



TESTED BY : HAIDER EMAD
APPROVED BY: KHALDOON ASAD
COMMENTS: flapper test

