



STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
M/S Bodla Builders (Pvt) Ltd
DHA Main Office, Multan
(Business Hub, DHA Multan)

Reference # CED/TFL **36817** (Dr. Qasim Khan)
Reference of the request letter # Nil

Dated: 03-08-2021
Dated: 03-08-2021

Tension Test Report (Page -1/1)

Date of Test 06-08-2021
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	4.213	10	1.256	1.27	1.238	42400	53200	73600	75460	92400	94700	1.80	22.5	
2	4.219	10	1.257	1.27	1.240	42600	53600	74000	75720	93100	95300	1.60	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#10 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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STRUCTURAL ENGINEERING DIVISION
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To,
 Executive Engineer PWD
 PHE Division Kotli
 Under water Supply Scheme THQ Charhoi District Kotli

Reference # CED/TFL **36820** (Dr. M Rizwan Riaz)
 Reference of the request letter # 948-52 XEN/PWD/PHE

Dated: 03-08-2021
 Dated: 10-07-2021

Tension Test Report (Page – 1/3)

Date of Test 06-08-2021
 Gauge length 2 inches
 Description G.I Pipe Steel Strip Tensile and Bend Test

Sr. No.	Designation		Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(inch)		(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	MS Pipe	4	26.10x4.30	112.23	3800	4500	332	393	0.60	30.00	
2			26.20x4.25	111.35	3900	4400	344	388	0.60	30.00	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
Only Two Samples for Tensile and One Sample for Bend Test											
Bend Test											
Strip Taken from G.I Pipe (4") Bend Test Through 180° is Satisfactory											

I/C Testing Laboratories
UET Lahore, Pakistan.

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To,
Executive Engineer PWD
PHE Division Kotli
Under water Supply Scheme THQ Charhoi District Kotli

Reference # CED/TFL **36820** (Dr. M Rizwan Riaz)
Reference of the request letter # 948-52 XEN/PWD/PHE

Dated: 03-08-2021
Dated: 10-07-2021

Seamless/Flattening Test Report (Page – 2/3)

Date of Test 06-08-2021
Description G.I Pipe Seamless Test as per ASTM-A53-02

Sr. No.	Designation	Test Type	Observation/Results
1	Pipe 4"	Ductility	No crack was observed
		Soundness	No evidence of lamination noticed
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
Only One Sample for Test			

I/C Testing Laboratories
UET Lahore, Pakistan.

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To,
Executive Engineer PWD
PHE Division Kotli
Under water Supply Scheme THQ Charhoi District Kotli

Reference # CED/TFL **36820** (Dr. M Rizwan Riaz)
Reference of the request letter # 948-52 XEN/PWD/PHE

Dated: 03-08-2021
Dated: 10-07-2021

Weight & Size Test Report (Page – 3/3)

Date of Test 06-08-2021
Description G.I Pipe Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	External Diameter	Internal Diameter	Wall Thickness	Remark
	(inch)	(g)	(mm)	(kg/m)	(mm)	(mm)	(mm)	
1	4	701	59.70	11.74	103.20	94.60	4.30	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
Only One Sample for Test								

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UET Lahore, Pakistan.

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Test Floor Laboratory
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To,
 Resident Engineer-2
 ACES (Pvt) Ltd
 Site Office Sector-U, DHA Multan

Reference # CED/TFL **36829** (Dr. M Rizwan Riaz)
 Reference of the request letter # ACES-DHAM-SEC-U-370

Dated: 05-08-2021
 Dated: 04-08-2021

Tension Test Report (Page -1/1)

Date of Test 06-08-2021
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (mm)		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.398	10	9.80	0.12	0.117	3400	4700	62464	64120	86347	88700	1.30	16.3	SJ Steel
2	0.389	10	9.69	0.12	0.114	3400	4700	62464	65520	86347	90600	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only two samples for tensile and one sample for bend test

Bend Test

10mm Dia Bar Bend Test Through 180° is Satisfactory

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 Resident Engineer-2
 ACES (Pvt) Ltd
 Site Office Sector-U, DHA Multan

Reference # CED/TFL **36830** (Dr. M Rizwan Riaz)
 Reference of the request letter # ACES-DHAM-SEC-U-371

Dated: 05-08-2021
 Dated: 04-08-2021

Tension Test Report (Page -1/1)

Date of Test 06-08-2021
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A496

Sr. No.	Weight	Diameter/ Size (mm)		Area (mm ²)		Yield load	Breaking Load	Yield Stress (Mpa)		Ultimate Stress (Mpa)		Remarks
	(kg/m)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	
1	0.210	6	5.84	32.30	26.79	900	1300	273	330	395	476	Ali Brothers Steel
2	0.224	6	6.02	32.30	28.49	1200	1800	364	413	547	620	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test												
Bend Test												
6mm Dia Bar Bend Test Through 180° is Satisfactory												

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 Manager Construction
 Orient Electronics (Pvt) Ltd
 Construction of Orient Square Hotel Tower Johar Town

Reference # CED/TFL **36831** (Dr. M Rizwan Riaz) Dated: 05-08-2021
 Reference of the request letter # OSH-SO/UET/KamranTest-Retest/050821-31 Dated: 05-08-2021

Tension Test Report (Page -1/1)

Date of Test 06-08-2021
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.406	3	0.390	0.11	0.119	3300	5100	66200	60930	102200	94200	1.30	16.3	
2	0.407	3	0.391	0.11	0.120	3600	5100	72200	66250	102200	93900	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 GM
 Ittefaq Building Solutions (Pvt) Ltd
 Fouji Fresh n Freeze at sahiwal

Reference # CED/TFL **36832** (Dr. M Rizwan Riaz)
 Reference of the request letter # IBS/CED/FFF-01

Dated: 05-08-2021
 Dated: 05-08-2021

Tension Test Report (Page -1/1)

Date of Test 06-08-2021
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.404	3	0.389	0.11	0.119	3700	5700	74200	68620	114300	105700	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
M/S NLC Engineers – Tijaarat Developers (Jv)
Lahore
(Construction of PEC Regional Office, Lahore)

Reference # CED/TFL **36835** (Dr. M Rizwan Riaz)
Reference of the request letter # 901/NLC-TD(JV)/PEC/276-A

Dated: 05-08-2021
Dated: 30-07-2021

Tension Test Report (Page -1/1)

Date of Test 06-08-2021
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.374	3	0.374	0.11	0.110	3600	5700	72200	72130	114300	114300	1.00	12.5	AA Steel
2	0.374	3	0.374	0.11	0.110	3700	5700	74200	74210	114300	114400	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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Ref: CED/TFL/08/36836

Dated: 06-08-2021

Date of Test: 06-08-2021

To,
M/S Baba Mughal Hussain Drilling Company
Lahore

Subject: - **CALIBRATION OF PRESSURE GAUGE (MARK: TFL/08/36836)** (Page # 1/1)

Reference to your Letter No. Nil, Dated: 06/08/2021 on the subject cited above. One Pressure Gauge as received by us has been calibrated. The results are tabulated as under:

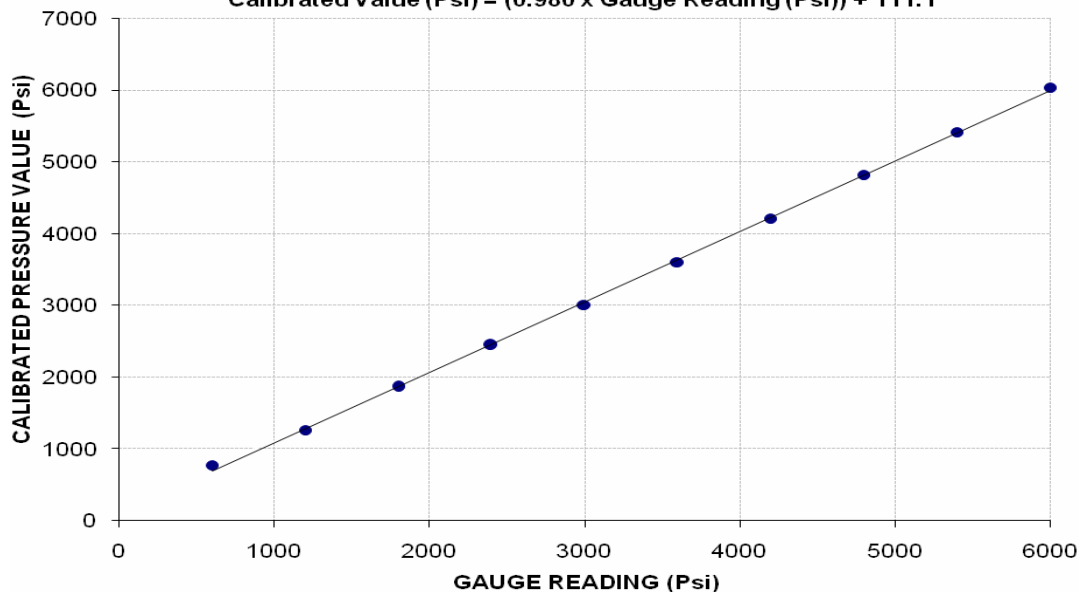
Total Range : Zero - 10000 (Psi)
Calibrated Range : Zero - 6000 (Psi)

Gauge Reading (Psi)	600	1200	1800	2400	3000	3600	4200	4800	5400	6000
Calibrated Load (k g)	10800	17600	26000	34100	41900	50200	58600	67100	75400	84000
Calibrated Pressure (Psi)	776	1264	1868	2450	3010	3606	4209	4820	5416	6034

The Ram Area use for Calibration = 198 cm²

Calibration Curve for Pressure Gauge

Calibrated Value (Psi) = (0.980 x Gauge Reading (Psi)) + 111.1



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To,
Commercial Officer
Al Fazal Engineering Pakistan
NTDC 500kV Grid Station Faisalabad
WAPDA – NESPAK – Netracon Technologies (Pvt) Ltd

Reference # CED/TFL **36839** (Dr. M Rizwan Riaz)
Reference of the request letter # ALF-21-08-0008

Dated: 06-08-2021
Dated: 06-08-2021

Tension Test Report (Page – 1/1)

Date of Test 06-08-2021
Gauge length 2 inches
Description Sheet Strip Tensile Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(mm)	(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	2	24.55x2.00	49.10	4800	5100	959	1019	0.20	10.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only One Sample for Tensile Test										
Bend Test										

I/C Testing Laboratories
UET Lahore, Pakistan.

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Ref: CED/TFL/08/36840

Dated: 06-08-2021

Dated of Test: 06-08-2021

To

M/S ZKB - Reliable (JV)

Procurement of Works for Sahiwal Water and Sanitation - Lot-4: South Zone Trunk Main Sewer Effluent Pumping Station and Allied Works (PICIP)

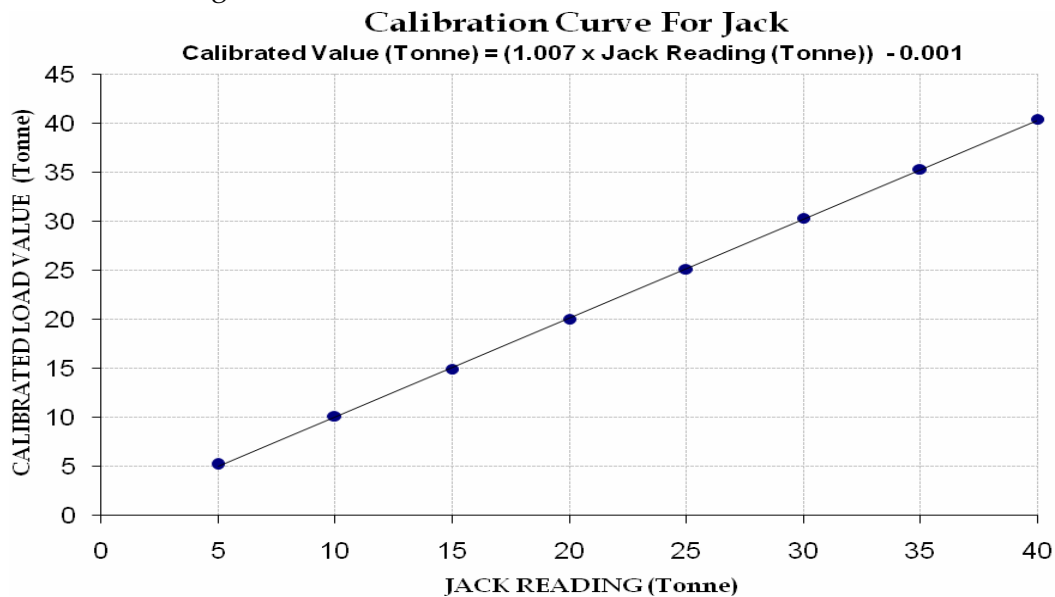
Subject: - CALIBRATION OF HYDRAULIC JACK WITH GAUGE
(MARK: TFL/08/36840)

Reference to your Letter No. ZKB-RES(JV)/Sahiwal/Lot-4/PICIP/2021/01, Dated: 09/07/2021 on the subject cited above. One Hydraulic Jack with Gauge as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 50 (Tonne)
Calibrated Range : Zero - 40 (Tonne)

Hydraulic Jack Reading (Tonne)		5	10	15	20	25	30	35	40
Calibrated Load	kg	5200	10150	14950	20000	25100	30300	35300	40400
	Tonne	5.20	10.15	14.95	20.00	25.10	30.30	35.30	40.40

1 Tonne = 1000 kg



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