

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

To,
Deputy CRE
Zeeruk International (Pvt) Ltd
Lahore Sialkot Motorway Project

Reference # CED/TFL **34335** (Dr. Qasim Khan)

Reference of the request letter # LSMP/DCRE/2019/1292

Dated: 17-12-2019

Tension Test Report (Page – 1/1)

Date of Test 30-12-2019

Gauge length

Description Mesh Wire & Tension Wire Tensile Test

Sr. No.	Diameter of Single Wire	Breaking Load	Remarks
	(mm)	(kN)	
1	3.10	4.05	Mesh Wire
2	3.10	3.85	Wiesii wiie
3	3.20	8.05	Tension
4	3.20	7.70	Wire
-	-	-	
-	-	-	
-	-	-	
-	-	-	
	Only Four	Samples for Test	•

I/C Testing Laboratoires UET Lahore, Pakistan.

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

To, M/S SA-RA Group Lahore

(Procurement of Plant, Design, Supply, Installatio, Testing and Commission of 220 kV Double Circuit Transmission Line on Rail Conductor from D.I Khan to Zhob)(Approx. 220km)

Reference # CED/TFL **34346**, **379** (Dr. Qasim Khan) Dated: 19-12-2019 Reference of the request letter # MIG/2019/1095 Dated: 13-12-2019

Tension Test Report (Page – 1/3)

Date of Test 30-12-2019 Gauge length 2 inches

Description Stubs 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
			(mm)	(mm^2)	(kg)	(kg)	(MPa)	(MPa)	(in)	%	
1	EA Type	1501501211	31.80x12.00	381.60	15000	21600	385.61	555.28	0.70	35.00	
2	Stubs	150x150x12H	31.80x12.00	381.60	15100	21400	388.18	550.14	0.90	45.00	
3	EA Type 150-1214		31.60x12.00	379.20	16600	22300	429.45	576.91	0.80	40.00	
4	Stubs	150x150x12H	31.60x12.00	379.20	15700	21500	406.16	556.21	0.80	40.00	
5	EG Type	150 150 1611	31.80x16.10	511.98	21600	29100	413.88	557.58	0.90	45.00	
6	Stubs	150x150x16H	31.80x16.10	511.98	20700	28500	396.63	546.09	1.00	50.00	
		Only	Six Samples fo	or Tensile	and Six	Sample	for Bend	Test			
											ı
				Bend	l Test						

Strip Taken from EA Type Stubs (150x150x12H) Test Through 180° is Satisfactory

Strip Taken from EA Type Stubs (150x150x12H) Test Through 180° is Satisfactory

Strip Taken from EA Type Stubs (150x150x12H) Test Through 180° is Satisfactory

Strip Taken from EA Type Stubs (150x150x12H) Test Through 180° is Satisfactory

Strip Taken from EG Type Stubs (150x150x16H) Test Through 180° is Satisfactory

Strip Taken from EG Type Stubs (150x150x16H) Test Through 180° is Satisfactory

Witness by Ahsan Mubashir (Asst. Manager (T/L Design) NTDC)

I/C Testing Laboratoires UET Lahore, Pakistan.

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To, M/S SA-RA Group Lahore

(Procurement of Plant, Design, Supply, Installatio, Testing and Commission of 220 kV Double Circuit Transmission Line on Rail Conductor from D.I Khan to Zhob)(Approx. 220km)

Reference # CED/TFL **34346**, **379** (Dr. Qasim Khan) Dated: 19-12-2019 Reference of the request letter # MIG/2019/1095 Dated: 13-12-2019

Tension Test Report (Page – 2/3)

Date of Test 30-12-2019 Gauge length 2 inches

Description Stubs 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
			(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(in)	%	
1	EG Type	1501501611	31.60x16.10	508.76	21500	28800	414.57	555.33	0.90	45.00	
2	Stubs	150x150x16H	31.70x16.10	510.37	21000	29300	403.65	563.19	0.90	45.00	
3	JKD/TJK	200-200-1611	31.80x16.10	511.98	21900	29300	419.62	561.41	0.90	45.00	
4	Stubs	200x200x16H	31.80x16.10	511.98	22000	29300	421.54	561.41	0.90	45.00	
5	JKD/TJK	2002001611	31.80x16.10	511.98	21600	28700	413.88	549.92	0.80	40.00	
6	Stubs	200x200x16H	31.80x16.10	511.98	22000	29600	421.54	567.16	0.90	45.00	
		Only	Six Samples fo	r Tensile	and Six	Samples	for Bend	l Test			
											·
l				Bend	l Test						

Strip Taken from EG Type Stubs (150x150x16H) Test Through 180° is Satisfactory

Strip Taken from EG Type Stubs (150x150x16H) Test Through 180° is Satisfactory

Strip Taken from JKD/TJK Type Stubs (200x200x16H) Test Through 180° is Satisfactory

Strip Taken from JKD/TJK Type Stubs (200x200x16H) Test Through 180° is Satisfactory

Strip Taken from JKD/TJK Type Stubs (200x200x16H) Test Through 180° is Satisfactory

Strip Taken from JKD/TJK Type Stubs (200x200x16H) Test Through 180° is Satisfactory

Witness by Ahsan Mubashir (Asst. Manager (T/L Design) NTDC)

I/C Testing Laboratoires UET Lahore, Pakistan.

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To, M/S SA-RA Group Lahore

(Procurement of Plant, Design, Supply, Installatio, Testing and Commission of 220 kV Double Circuit Transmission Line on Rail Conductor from D.I Khan to Zhob)(Approx. 220km)

Reference # CED/TFL **34346**, **379** (Dr. Qasim Khan)

Reference of the request letter # MIG/2019/1095

Dated: 19-12-2019

Dated: 13-12-2019

Weight &Size Test Report (Page – 3/3)

Date of Test 30-12-2019

Gauge length -----

Description Stubs Weight and Size Test

Sr. No.	Designation		Weight	Length	Weight per Unit Length	L-1	L-2	Thickness	Remark
			(g)	(cm)	(kg/m)	(mm)	(mm)	(mm)	
1	EA Type Stubs	150x150x12H	16600	61.10	27.17	150.00	150.20	12.10	
2	EG Type Stubs	150x150x16H	21500	61.00	35.25	150.00	150.20	16.20	
3	JKD/TJK Stubs	200x200x16H	29000	61.00	47.54	200.00	200.20	16.20	
-	-	-	-	-	-	-	-	-	
-			-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
		Oı	nly Three	Samples	for Test				
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Witness by Ahsan Mubashir (Asst. Manager (T/L Design) NTDC)

I/C Testing Laboratoires UET Lahore, Pakistan.

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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 Model Steel Pvt Ltd Lahore

Reference # CED/TFL **34351** (Dr. Qasim Khan)

Reference of the request letter # Nil

Dated: 20-12-2019

Dated: 20-12-2019

Tension Test Report (Page – 1/2)

Date of Test 30-12-2019 Gauge length 2 inches

Description Angle Iron Steel Strip Tensile and Bend Test as per ASTM A36

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	Elongation	Remarks
		(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(in)	%	
1	A 1 . T	23.40x4.10	95.94	3400	6600	347.65	674.86	0.60	30.00	
2	Angle Iron	23.40x4.10	95.94	4000	6600	409.01	674.86	0.60	30.00	
-		-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
		Only Two Sai	mples for	Tensile a	and One S	ample fo	r Bend 7	Test		
				Bend	Test					

Strip Taken from Angle Iron Bend Test Through 180° is Satisfactory

I/C Testing Laboratoires UET Lahore, Pakistan.

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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 Model Steel Pvt Ltd Lahore

Reference # CED/TFL **34351** (Dr. Qasim Khan)

Reference of the request letter # Nil

Dated: 20-12-2019

Dated: 20-12-2019

Weight &Size Test Report (Page – 2/2)

Date of Test 30-12-2019

Gauge length -----

Description Angle Iron Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	L-1	L-2	Thickness	Remark
		(g)	(cm)	(kg/m)	(mm)	(mm)	(mm)	
1	Angle Iron	2000	64.60	3.10	48.80	48.60	4.10	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
		(Only Two	Sample fo	r Test			

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To,
Deputy CRE
Zeeruk International (Pvt) Ltd
Lahore Sialkot Motorway Project

Reference # CED/TFL **34355** (Dr. Safeer Abbas) Dated: 23-12-2019 Reference of the request letter # LSM/RE-II/St/19/808 Dated: 23-12-2019

Tension Test Report (Page – 1/1)

Date of Test 30-12-2019 Gauge length 2 inches

Description Galvanized Steel W-Beam & Galvanized Steel Post Strip Tensile Test

Sr. No.	Designation	(m) Size of Strip	X Section Area	(kg)	(ga) Breaking Load	(kg/cm ²)	Oltimate Stress	(ni)	% Elongation	Remarks
1	C. LW.D.	2.58x0.275	0.71	2600	3500	3665	4933	0.65	32.50	
2	Steel W-Beam	2.58x0.275	0.71	2700	3600	3805	5074	0.55	27.50	
3	C4LW D	2.58x0.275	0.71	2500	3500	3524	4933	0.60	30.00	
4	Steel W-Beam	2.58x0.275	0.71	2700	3600	3805	5074	0.60	30.00	
5	Charl Dags	2.58x0.715	1.84	6900	9400	3740	5096	0.65	32.50	
6	Steel Post	2.58x0.715	1.84	6900	9500	3740	5150	0.65	32.50	
7	Charl Dags	2.58x0.715	1.84	6800	9400	3686	5096	0.70	35.00	
8	Steel Post	2.58x0.715	1.84	6800	9300	3686	5041	0.60	30.00	
			Only Ei	ght Sampl	les for Ten	sile Test				-
				Bend	l Test					

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Ref: CED/TFL/12/34370 Dated: 24-12-19

Dated of Test: 30-12-2019

To M/S Baba Mughal Hussain Drilling Co Lahore

Subject: - CALIBRATION OF PRESSURE GAUGE (MARK: TFL/12/34370)

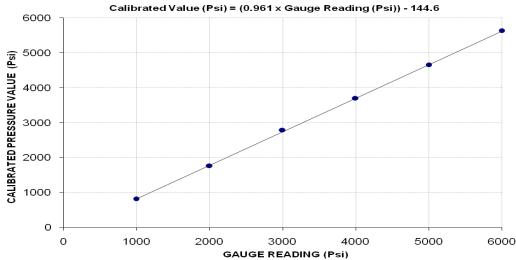
Reference to your Letter No. 100, dated: 24/12/2019 on the subject cited above. One Pressure Gauge as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 8600 (Psi) Calibrated Range : Zero - 6000 (Psi)

Pressure Gauge Reading (Psi)	1000	2000	3000	4000	5000	6000
Calibrated Load (kg)	11300	24500	38700	51400	64700	78300
Calibrated Pressure (Psi)	811.72	1759.92	2779.95	3692.23	4647.62	5624.55

The Ram Area of Calibration = 198 cm^2

Calibration Curve for Pressure Gauge



I/C Testing Laboratoires UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION

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

To,
Senior Manager Project
Project Management Unit Chaman (CT-1)
National Logistics Cell
Care Signal Centre Chaman (Balochistan)
Construction of Border Crossing Facility Chaman Project (Ibrahim Nizami)

Reference # CED/TFL **34372** (Dr. Qasim Khan)

Reference of the request letter # 607/BCF Chaman/NLC

Dated: 24-12-2019

Dated: 23-12-2019

Tension Test Report (Page – 1/1)

Date of Test 30-12-2019

Gauge length -----

Description G.I Wire Tensile Test

Sr. No.	Diameter of Single Wire	Breaking Load	Remarks
	(mm)	(kN)	
1	4.00	5.15	
2	4.00	5.27	
3	4.00	5.47	
4	4.00	5.45	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
	Only Four Sa	amples for Test	

I/C Testing Laboratoires UET Lahore, Pakistan.

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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 SA-RA Group Lahore

(Procurement of Plant, Design, Supply, Installatio, Testing and Commission of 220 kV Double

Circuit Transmission Line on Rail Conductor from D.I Khan to Zhob)(Approx. 220km)
Reference # CED/TFL **34380** (Dr. Qasim Khan)
Dated: 26-12-2019
Reference of the request letter # MIG/2019/1095
Dated: 13-12-2019

Tension Test Report (Page -1/1)

Date of Test 30-12-2019

Gauge length 25 cm
Description Copper Wire Tensile Test

Sr. No.	Weight		neter/ ize	Ar	rea m²)	Yield load	Breaking Load	Yield Stress (kg/mm²)	Ultimate Stress (kg/mm²)	Elongation	% Elongation	Remarks
	(kg/m)	Nominal (mm)	Actual (mm)	Nominal	Actual	(kg)	(kg)	Actual	Actual	(cm)	%	
1	0.264	6.50	6.54		33.6		840		25	1.20	4.8	
-	•	-	-	-	-	-	-	-	-	-	-	
-	•	-	-	-	-	-	-	-	-	-	-	
-	•	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
					Note: o	nly one sa	mple for	tensile tes	t			
						Ber	nd Test					

Witness by Ahsan Mubashir (Asst. Manager (T/L Design) NTDC)

I/C Testing Laboratoires UET Lahore, Pakistan.

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

Ref: <u>CED/TFL/12/34382</u> Dated: <u>26-12-18</u>

Dated of Test: 30-12-18

To
M/S YASCON
GE (Svcs) Sialkot
Mumtaz Ahmed
(Sites: CA no. CEA/CZ- 114/2019

CEA/CZ-107/2019 (AD Lines))

Subject: TESTING OF R.C.C. PIPE [ASTM-C76] (Page -1/3)

Reference to your letter No. YAS/UET/05/11, dated 26.12.2019 on the subject cited above. Three R.C.C. Pipes as received by us has been tested. The results are tabulated as under.

Sr. No	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	Proof Stress	Ultimate Stress
	(mm)	(m)	(m)	(mm)	(mm)	(mm)	(kg)	(kg)	N/m/mm	N/m/mm
1	228.6 (9")	2.378	2.210	285.00	231.90	26.55	4000	5000	76.57	95.71
2	304.8 (12")	2.362	2.210	400.00	296.80	51.60	11000	13500	164.52	201.90
3	381 (15")	2.369	2.225	490.00	362.64	63.68	13700	20200	166.57	245.59

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To, M/S YASCON GE (Svcs) Sialkot Mumtaz Ahmed

(Sites: CA no. CEA/CZ- 114/2019

CEA/CZ- 107/2019 (AD Lines))

Reference # CED/TFL **34382** (Dr. Waseem Abbass)

Reference of the request letter # YAS/UET/05/11

Dated: 26-12-2019

Dated: 26-12-2019

Tension Test Report (Page -2/3)

Date of Test 30-12-2019 Gauge length 8 inches

Description Steel Bar (From RCC Pipe) Tensile Test

Sr. No.	Weight	Si	neter/ ze m)		rea n²)	Yield load	Breaking Load		Stress osi)	St	mate ress osi)	Elongation	Elongation	Pipe Diameter
S	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	Pipe
1	0.159		0.244		0.047	1000	1280		47070		60300	1.50	18.8	12"
2	0.187		0.265		0.055	1080	1560		43300		62600	1.30	16.3	15"
3	0.113		0.205		0.033	880	1160		58630		77300	1.20	15.0	9"
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	-	-	-	-	-	-	-	-	-	-	-	-	-	
				1	Note	: only th	ree samp	les for to	ensile test	t		1	<u>-</u>	
							Bend To	est						

I/C Testing Laboratoires UET Lahore, Pakistan.

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Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To M/S YASCON GE (Svcs) Sialkot Mumtaz Ahmed

(Sites: CA no. CEA/CZ- 114/2019

CEA/CZ- 107/2019 (AD Lines))

Reference # CED/TFL **34382** (Dr. Waseem Abbass)

Reference of the request letter # YAS/UET/05/11

Dated: 26-12-2019

Dated: 26-12-2019

Test Report(Page -3/3)

Date of Test 30-12-2019 Description RCC Pipe

Sr. No.	(mm) Nominal Size	No. Steel Bar in Length	No. Steel Ring	Remark
1	228.6 (9")	6	10	
2	304.8 (12")	6	24	
3	381 (15")	6	24	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
Note: only three Pipe test				

I/C Testing Laboratoires UET Lahore, Pakistan.

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