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

To,
Project Manager
M.R Electric Concern (Pvt) Ltd
Transmission Scheme for Dispersal of Power from Neelum-Jhelum Hydropower Project.
Construction of 500 kV Double Circuit Quad Bundle Transmission Line from Dinga to 500 kV Gakkhar Substation (65 km)
Reference # CED/TFL **35273** (Dr. Qasim Khan) Dated: 26-08-2020
Reference of the request letter # MREC/T.NO 3217(R-3)-1C-PhaseII -(LOT II)-2017/PO-210B Dated: 17-08-2020

Tension Test Report (Page – 1/1)

Date of Test 02-09-2020
Gauge length 2 inches
Description Tower Erection Material (Angle) 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)	(mm^2)	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	50x50x5	23.60x4.45	105.02	4700	6400	439.03	597.83	0.50	25.00	
2		23.60x4.45	105.02	4600	6300	429.69	588.49	0.50	25.00	
3	62x62x5	23.55x4.80	113.04	4700	6300	407.88	546.74	0.50	25.00	
4		23.70x5.10	120.87	5100	7200	413.92	584.36	0.50	25.00	
5	85x85x6	23.70x6.40	151.68	6100	8300	394.52	536.81	0.55	27.50	
6		23.70x6.60	156.42	6300	8600	395.11	539.36	0.55	27.50	
Only Six Samples for Tensile and Three Samples for Bend Test										
Bend Test										
Strip Taken from Tower Erection Material (Angle)(50x50x5mm) Bend Test Through 180º is Satisfactory										
Strip Taken from Tower Erection Material (Angle)(62x62x5mm) Bend Test Through 180º is Satisfactory										
Strip Taken from Tower Erection Material (Angle)(85x85x6mm) Bend Test Through 180º is Satisfactory										

Witness by Engr. Pohoo Sootahar (NESPAK) and Faisal Hayat (M.R.E.C)

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
M/S Buraq IT Solution
Guy Met Tower Metrological

Reference # CED/TFL **35283** (Dr. Ali Ahmed) Dated: 27-08-2020
Reference of the request letter # Nil Dated: 27-08-2020

Tension Test Report (Page – 1/1)

Date of Test 02-09-2020
Gauge length 2 inches
Description MS Plate & Structural 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
	(mm)		(mm)	(mm^2)	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	Steel Pipe	37.50x2.50	26.30x2.60	68.38	3100	4000	444.74	573.85	0.70	35.00	
2			26.30x2.60	68.38	3100	3900	444.74	559.51	0.75	37.50	
-	-	-	-	-	-	-	-	-	-	-	
-		-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-		-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-		-	-	-	-	-	-	-	-	-	

Only Two Samples for Tensile and One Sample for Bend Test

Bend Test

Strip Taken from Steel Pipe (37.50x2.50mm) Bend Test Through 180º is Satisfactory

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UET Lahore, Pakistan.

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

To,
Resident Engineer
Dar Engineering
Punjab Agriculture Food and Durg Authority's Science Enclave, Lahore Pakistan

Reference # CED/TFL **35287** (Dr. Ali Ahmed) Dated: 27-08-2020
Reference of the request letter # DB-78/DAR/RE/ME/2020/0227 Dated: 27-08-2020

Tension Test Report (Page – 1/1)

Date of Test 02-09-2020
Gauge length 2 inches
Description MS Plate & Structural Pipe Steel Strip Tensile Test as per ASTM A-36

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	MS Plate	5mm	24.30x5.00	121.50	4200	6200	339.11	500.59	0.65	32.50	N.I Traders
2			24.30x5.00	121.50	4400	6200	355.26	500.59	0.60	30.00	
3	Structural Pipe	4"x6"x5mm	24.30x5.20	126.36	4300	6400	333.83	496.87	0.65	32.50	Bashir Pipes
4			24.30x5.20	126.36	4400	6500	341.60	504.63	0.60	30.00	
-	-	-	-	-	-	-	-	-	-	-	
-		-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-		-	-	-	-	-	-	-	-	-	
Only Four Samples for Tensile Test											
Bend Test											

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

To,
RE, VO-2 (M-2)
ACC-Prime Jv
Construction of Additional Lanes on M-2 from Ravi Toll Plaza Faizpur Interchange Lahore

Reference # CED/TFL **35291** (Dr. Ali Ahmed) Dated: 28-08-2020
Reference of the request letter # RE/VO2-M2/LAB/390 Dated: 28-08-2020

Tension Test Report (Page – 1/2)

Date of Test 02-09-2020
Gauge length -------
Description Fence Wire Tensile Test

Sr. No.	Diameter Wire	Breaking Load		Remarks
	(Swg)	(kg)	(kN)	
1	**10**	**580**	**5.69**	
2	**10**	**560**	**5.49**	
3	**11**	**390**	**3.83**	
4	**11**	**380**	**3.73**	
-	-	-	-	
-	-	-	-	
-	-	-	-	
Only Four Samples for Test				

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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,
RE, VO-2 (M-2)
ACC-Prime Jv
Construction of Additional Lanes on M-2 from Ravi Toll Plaza Faizpur Interchange Lahore

Reference # CED/TFL **35291** (Dr. Ali Ahmed) Dated: 28-08-2020
Reference of the request letter # RE/VO2-M2/LAB/390 Dated: 28-08-2020

Size Test Report (Page – 2/2)

Date of Test 02-09-2020
Gauge length -------
Description Fence Wire Size Test

Sr. No.	Diameter Wire		Remarks
	Nominal (Swg)	Measured (mm)	
1	10	3.25	
2	11	2.95	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
Only Two Samples for Test			

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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 M. Yousaf & Company
Lahore
(Construction of TCF Secondary School Malloki, Kasur.)

Reference # CED/TFL **35300** (Dr. Ali Ahmed) Dated: 01-09-2019
Reference of the request letter # M.Y/UET/2020-004 Dated: 20-08-2019

Tension Test Report (Page -1/1)

Date of Test 02-09-2020
Gauge length 8 inches
Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (inch)		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.368	3/8	0.371	0.11	0.108	3100	4700	62200	63150	94200	95800	1.20	15.0	
2	0.366	3/8	0.370	0.11	0.108	3100	4800	62200	63550	96200	98400	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile test														
Bend Test														

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Pakistan. Ph: 92-42-99029202

To,
M.E
AS Enterprises
Style Textile Manga / Style Textile Rewind
(AA Associates)(Agha Steel))

Reference # CED/TFL **35302** (Dr. Ali Ahmed) Dated: 01-09-2020
Reference of the request letter # USD/ASE/24 Dated: 01-09-2020

Tension Test Report (Page -1/1)

Date of Test 02-09-2020
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (mm)		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.420	10	10.07	0.12	0.123	4400	5600	80835	78560	102881	100000	0.80	10.0	
2	0.414	10	10.00	0.12	0.122	4500	5600	82673	81480	102881	101400	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
10mm Dia Bar Bend Test Through 180º is Satisfactory														

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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,
Jr. Engineer (Civil), SWP
Pakistan Atomic Energy Commission
D.G. Khan
(M/s B.H.C & Brothers, D.G.Khan)

Reference # CED/TFL **35307, 309** (Dr. Ali Ahmed) Dated: 02-09-2020
Reference of the request letter # SWP/W(2388)/2019/437 Dated: 28-08-2020

Tension Test Report (Page -1/1)

Date of Test 02-09-2020
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.380	3	0.377	0.11	0.112	3700	5000	74200	73000	100200	98700	1.10	13.8	
2	0.384	3	0.379	0.11	0.113	3800	5200	76200	74290	104200	101700	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														

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Pakistan. Ph: 92-42-99029202

To,
Jr. Engineer (Civil), SWP
Pakistan Atomic Energy Commission
D.G. Khan
(M/s A.A Const. Co. Muzaffargarh)

Reference # CED/TFL **35308, 310** (Dr. Ali Ahmed) Dated: 02-09-2020
Reference of the request letter # SWP/W(2315)/2018 Dated: 28-08-2020

Tension Test Report (Page -1/1)

Date of Test 02-09-2020
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.377	3	0.376	0.11	0.111	3400	4500	68200	67580	90200	89500	1.10	13.8	
2	0.377	3	0.375	0.11	0.111	3300	4600	66200	65690	92200	91600	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														

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