

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

To.

Muhammad Rajab

QA/QC, Material Expert - Kacchi Canal Remaining Works Consultants

MM Pakistan (Pvt) Ltd

Kachhi Canal Project – Contract KC-06B (3R) Construction of Mian Canal and Distribution System (Earth Work, Structures and Lining of Main Canal & Distributaries) from RD 1252+000 to RD 1286+000

(WMI)

Reference # CED/TFL 1098 (Engr. Amina Rajput)

Dated: 21-03-2022 Reference of the request letter # KCP (QA/QC) KC-6B (3R)/UET/04 Dated: 20-03-2022

**Tension Test Report** (Page -1/3)

Date of Test 28-03-2022 Gauge length 640 mm

Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield st clause	0		king ngth e (6.2)	Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa	%	Rema
1	12.70 (1/2")	775.0	779.0	17400	170.69	19600	192.28	199	>3.50	XX
2	12.70 (1/2")	775.0	787.0	17200	168.73	19500	191.30	198	>3.50	XX
-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

Only two samples for Test

### Note:

- 1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM A416a
- 2. Load versus percentage strain graphs are attached

I/C Testing Laboratoires UET Lahore, Pakistan.

- 1- You can See your reports On Internet in the following web site http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\_reports
- 2. The above results pertain to sample /samples supplied to this laboratory.
- Sealed sample / Unsealed sample / Marked sample/Signed Samples

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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,

Muhammad Rajab

QA/QC, Material Expert - Kacchi Canal Remaining Works Consultants

MM Pakistan (Pvt) Ltd

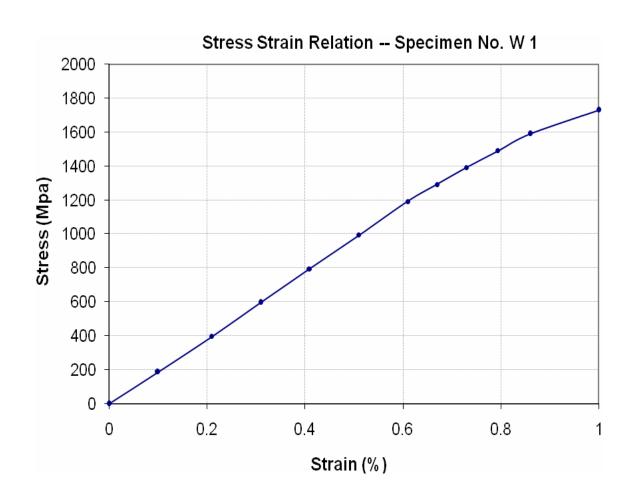
Kachhi Canal Project – Contract KC-06B (3R) Construction of Mian Canal and Distribution System (Earth Work, Structures and Lining of Main Canal & Distributaries) from RD 1252+000 to RD 1286+000

(WMI)

Reference # CED/TFL <u>1098</u> (Engr. Amina Rajput)
Reference of the request letter # KCP (QA/QC) KC-6B (3R)/UET/04

Dated: 21-03-2022 Dated: 20-03-2022

## **Graph** (Page – 2/3)



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,

Muhammad Rajab

QA/QC, Material Expert – Kacchi Canal Remaining Works Consultants

MM Pakistan (Pvt) Ltd

Kachhi Canal Project – Contract KC-06B (3R) Construction of Mian Canal and Distribution System (Earth Work, Structures and Lining of Main Canal & Distributaries) from RD 1252+000 to RD 1286+000

(WMI)

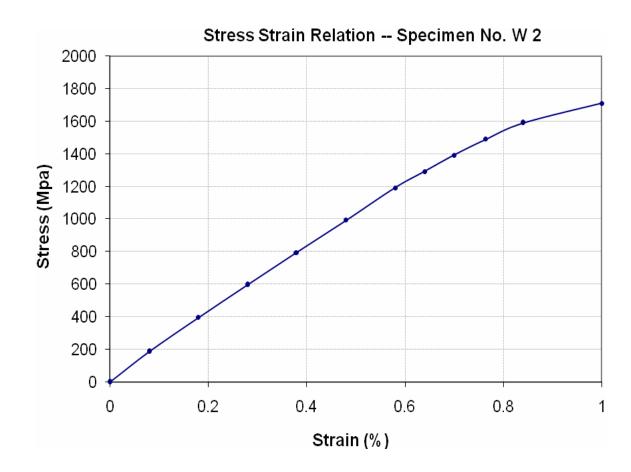
Reference # CED/TFL <u>1098 (Engr. Amina Rajput)</u>

Reference of the request letter # KCP (QA/QC) KC-6B (3R)/UET/04

Dated: 21-03-2022

Dated: 20-03-2022

## **Graph** (Page – 3/3)



I/C Testing Laboratoires UET Lahore, Pakistan.

- 1- You can See your reports On Internet in the following web site http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\_reports
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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 Imperium Hospitality (Pvt) Limited Gulberg II, Lahore

Reference # CED/TFL <u>1119 (Dr. Rizwan Azam)</u>

Reference of the request letter # IHPL/Steel/0187

Dated: 24-03-2022

Dated: 22-03-2022

**Tension Test Report** (Page -1/1)

Date of Test 28-03-2022 Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight		neter/ ze	Ar (ir	rea 1 <sup>2</sup> )	Yield load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.385	3	0.379	0.11	0.113	3980	5120	79800	77560	102600	99800	1.10	13.8	
2	0.387	3	0.381	0.11	0.114	4080	5050	81800	78960	101200	97800	1.00	12.5	PCS
3	0.382	3	0.378	0.11	0.112	3940	5100	79000	77350	102200	100200	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	_	-	-	-	-	-	-	
			Not	te: only	three s	amples f	or tensile	and two	samples	for bend	test			
							Bend T	est						
#3	Bar Ben	d Test	Through	180° is	s Satisfa	ctory								

#3 Bar Bend Test Through 180° is Satisfactory

Witness by Engr. Rafi Ullah (IHPL)

I/C Testing Laboratoires UET Lahore, Pakistan.

- 1- You can See your reports On Internet in the following web site http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\_reports
- 2. The above results pertain to sample /samples supplied to this laboratory.
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# Test Floor Laboratory Department of Civil Engineering University of Engineering and Technology Lahore, 54890 Pakistan, Ph: 92-42-99029202

To, Manager Monitoring & Coordination Shajar Roads Limited Dualization of Sheikhupura - Gujranwala Road

Reference # CED/TFL 1125 (Dr. Rizwan Azam)

Reference of the request letter # MMC/SRL/SGRP/186

Dated: 25-03-2022

Dated: 24-03-2022

**Tension Test Report** (Page -1/1)

Date of Test 28-03-2022 Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight		neter/ ze		rea 1 <sup>2</sup> )	Yield load	Breaking Load		Stress si)		te Stress si)	Elongation	% Elongation	Remarks
S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	Re
1	0.364	3	0.369	0.11	0.107	4350	5520	87200	89620	110700	113800	1.00	12.5	Batala Steel
2	0.353	3	0.364	0.11	0.104	4280	5370	85800	90800	107600	114000	0.80	10.0	Bat Ste
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	_	-	-	-	-	-	-	
-	-	-	-	-	-	-	_	-	-	-	-	-	-	
-	-	-	-	-	-	-	_	-	-	-	-	-	-	
			No	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend	test			
		·		·		·	Bend T	`est	·	·	·			
#3	Bar Ben	d Test	Through	180° is	s Satisfa	ictory								

I/C Testing Laboratoires UET Lahore, Pakistan.

- 1- You can See your reports On Internet in the following web site http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\_reports
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# Test Floor Laboratory Department of Civil Engineering University of Engineering and Technology Lahore, 54890 Pakistan. Ph: 92-42-99029202

To,
Resident Engineer
AZ Engineering Associates
Establishment of Mother & Child Block, Teching Hospital, Dera Ghazi Khan

Reference # CED/TFL <u>1126 (Dr. Rizwan Azam)</u> Dated: 25-03-2022 Reference of the request letter # RE/AZEA/DGK/022 Dated: 22-03-2022

**Tension Test Report** (Page -1/1)

Date of Test 28-03-2022 Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight		neter/ ze		rea n²)	Yield load	Breaking Load		Stress si)		te Stress si)	Elongation	% Elongation	Remarks
S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.383	3	0.379	0.11	0.113	3980	5320	79800	77940	106600	104200	1.20	15.0	FF steel
2	0.382	3	0.378	0.11	0.112	4030	5320	80800	79150	106600	104500	1.40	17.5	FF Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	-	-	1	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	_	-	-	-	
-	-	-	-	-	-	-	-	-	_	_	-	-	-	
			N	ote: onl	ly two s	amples f	or tensile	and one	sample f	for bend t	test			
							Bend T	est						
#3	Bar Ben	d Test	Γhrough	180° is	s Satisfa	ctory								

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, Sub Divisional Officer Buildings Sub Division Shujabad

(Up-Gradation Rehabilitation and Construction of Govt. Girls Primary School, Basti Kalroo UC-03 Multan)

Reference # CED/TFL <u>1127 (Dr. Rizwan Azam)</u> Reference of the request letter # 800/Shujabad

**Tension Test Report** (Page -1/2)

Date of Test 28-03-2022 Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Si	neter/ ze ch)		rea n²)	Yield load	Breaking Load		Stress si)		te Stress si)	Elongation	% Elongation	Remarks
S	(lbs/ft)	Nominal	Actual			(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	<b>3</b> %	Re
1	0.377	3/8	0.376	0.11	0.111	4130	4860	82800	82060	97400	96600	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			N	ote: on	ly one s	sample fo	r tensile	and one	sample f	or bend t	est	1	1	
3/8	" Dia Ba	ır Bend	Test Th	rough	180° is 9	Satisfacto	Bend T	est						

I/C Testing Laboratoires UET Lahore, Pakistan.

Dated: 25-03-2022

Dated: 08-03-2022

- 1- You can See your reports On Internet in the following web site http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\_reports
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# Test Floor Laboratory Department of Civil Engineering University of Engineering and Technology Lahore, 54890 Pakistan. Ph: 92-42-99029202

To, Sub Divisional Officer Buildings Sub Division Shujabad

(Strengthening of BHU's in The Punjab Phase-II One at Khoja Tehsil Shujabad

Reference # CED/TFL <u>1127 (Dr. Rizwan Azam)</u>
Reference of the request letter # 801/Shujabad

Dated: 25-03-2022

Dated: 08-03-2022

**Tension Test Report** (Page -2/2)

Date of Test 28-03-2022 Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Si	neter/ ize ch)		rea n²)	Yield load	Breaking Load		Stress si)		te Stress si)	Elongation	% Elongation	Remarks
<b>3</b> 2	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.381	3/8	0.378	0.11	0.112	3840	5120	77000	75530	102600	100800	1.50	18.8	
-	-	ı	-	ı	-	-	-	1	-	-	-	-	-	
-	-	ı	-	ı	-	-	-	1	-	-	-	-	-	
-	•	ı	-	ı	-	-	-	ı	-	-	-	-	-	
-	-	1	-	ı	-	-	-	1	-	-	-	-	-	
-	-	1	-	1	-	-	-	-	-	-	-	-	-	
			N	ote: on	ly one s	sample fo	or tensile	and one	sample f	or bend t	est	1	1	
							Bend T	est						
3/8	" Dia Ba	ır Bend	Test Th	rough	180° is \$	Satisfacto	ry							

I/C Testing Laboratoires UET Lahore, Pakistan.

- 1- You can See your reports On Internet in the following web site http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\_reports
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# Test Floor Laboratory Department of Civil Engineering University of Engineering and Technology Lahore, 54890 Pakistan. Ph: 92-42-99029202

To, Chief Technical Officer Sabcon Associates (Pvt) Ltd Construction of Commercial Building at 388A Gulberg III, Lahore

Reference # CED/TFL <u>1128 (Dr. Rizwan Azam)</u>

Reference of the request letter # SABCON/2022/CTO/08

Dated: 25-03-2022

Dated: 24-03-2022

**Tension Test Report** (Page -1/1)

Date of Test 28-03-2022 Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight		neter/ ze		rea 1 <sup>2</sup> )	Yield load	Breaking Load		Stress si)		te Stress si)	Elongation	% Elongation	Remarks
S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	<b>3</b> %	Re
1	0.373	3	0.374	0.11	0.110	3770	5470	75600	75750	109600	110000	1.20	15.0	FF Steel
2	0.374	3	0.374	0.11	0.110	3890	5470	78000	78010	109600	109700	1.20	15.0	F
-	ī	ı	ı	1	-	-	-	-	-	-	-	-	ı	
-	ı	ı	ı	ı	-	-	-	•	-	-	-	-	ı	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			No	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend t	test			
							Bend T	est						
#3	Bar Ben	d Test	Γhrough	180° is	s Satisfa	ctory								

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, Assistant Director-I Building Research Station Lahore

(M/s Union Steel Industries, D-36, S.I.T.E. Manghopir Road, Karachi)

Reference # CED/TFL <u>1130 (Dr. Rizwan Azam)</u>

Reference of the request letter # 154-R/746

Dated: 25-03-2022

Dated: 21-03-2022

**Tension Test Report** (Page -1/1)

Date of Test 28-03-2022 Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight		neter/ ze		rea n²)	Yield load	Breaking Load		Stress si)	Ultimat (p	e Stress si)	Elongation	% Elongation	Remarks
<b>3</b> 2	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	₩ E	R
1	0.368	3	0.371	0.11	0.108	4030	5220	80800	82050	104600	106300	1.00	12.5	
-	ı	1	ı	ı	-	-	1	1	-	-	1	-	-	
-	ı	ı	ı	ı	-	-	ı	ı	-	-	ı	-	-	
-	ı	ı	ı	ı	-	-	ı	ı	-	-	ı	-	-	
-	ı	ı	ı	ı	-	-	ı	ı	-	-	ı	-	-	
-	1	-	1	-	-	-	•	-	-	-	-	-	-	
			N	ote: on	ly one s	sample fo	r tensile	and one	sample f	or bend t	est	ı	T	I
							D 15							
112	D D	1.00 5	E1 1	1000:	G .: C		Bend T	est						
#3	Bar Ben	d Test	Ihrough	1 180° 18	s Satisfa	ctory								

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,
Engr Khurram Elhi
M/S Pak-Turk Maarif International Schools & Colleges
Pakturk Maarif School Middle for Boys Islamapura Lahore

Reference # CED/TFL <u>1131 (Dr. Rizwan Azam)</u>
Reference of the request letter # Nil

Dated: 25-03-2022 Dated: 25-03-2022

**Tension Test Report** (Page -1/1)

Date of Test 28-03-2022 Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight		neter/ ze		rea 1 <sup>2</sup> )	Yield load	Breaking Load		Stress si)		te Stress si)	Elongation	% Elongation	Remarks
S	(lbs/ft)	Nominal (#)	Actual (inch)			(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	<b>3</b> %	R
1	0.390	3	0.382	0.11	0.115	3980	5250	79800	76540	105200	101000	1.20	15.0	
2	0.387	3	0.380	0.11	0.114	4180	5450	83800	81050	109200	105700	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			No	te: onl	y two sa	amples fo	r tensile	and two	samples	for bend	test			
							Bend T	est						
#3	Bar Ben	d Test	Through	180° is	s Satisfa	ctory								

Witness by Engr. Karram Elhi (Civil Engr.)

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, Manager Procurement Ravi Construction Company Northern Bottling (Private) Limited

Reference # CED/TFL <u>1132 (Dr. Rizwan Azam)</u>
Reference of the request letter # UET/RCC/110/22
Dated: 25-03-2022

**Tension Test Report** (Page -1/1)

Date of Test 28-03-2022 Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight		neter/ ze		rea n²)	Yield load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	<b>I</b> %	Re
1	0.376	3	0.375	0.11	0.110	3670	5420	73600	73280	108600	108300	1.30	16.3	
2	0.370	3	0.372	0.11	0.109	3790	5320	76000	76740	106600	107800	1.40	17.5	
-	ī	-	-	ı	-	ı	-	-	-	-	-	-	ı	
-	-	-	-	-	-	-	-	-	-	-	-	1	-	
-	-	-	-	-	-	-	-	-	-	-	-	1	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			N	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend t	test			
							Bend T	'est						
#3	Bar Ben	d Test	Through	n 180° is	s Satisfa	ctory								

I/C Testing Laboratoires UET Lahore, Pakistan.

- 1- You can See your reports On Internet in the following web site http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\_reports
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- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

# AHOTE

## STRUCTURAL ENGINEERING DIVISION

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

To,
Resident Engineer
NESPAK
Dualization of Lilla Interchange (M-2) via P.D. Khan to Jhlum
(WMI)

Reference # CED/TFL <u>1133 (Dr. Rizwan Azam)</u> Dated: 25-03-2022 Reference of the request letter # NESPAK/RE/JH/22/56 Dated: 21-03-2022

**Tension Test Report** (Page -1/4)

Date of Test 28-03-2022 Gauge length 640 mm

Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield st clause		stre	iking ngth e (6.2)	Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa	0%	Rema
1	12.70 (1/2")	775.0	776.0	17300	169.71	19000	186.39	198	>3.50	xx
2	12.70 (1/2")	775.0	779.0	17200	168.73	18800	184.43	199	<3.50 Not ok	xx
2	12.70 (1/2")	775.0	779.0	17100	167.75	19000	186.39	199	>3.50	XX
-	-	-	-	1	-	-	-	-	ı	-
-	-	-	-	1	-	-	-	-	ı	-
-	-	-	-	-	-	-	-	-	-	-

Only three samples for Test

### Note:

- 1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM A416a
- 2. Load versus percentage strain graphs are attached

I/C Testing Laboratoires UET Lahore, Pakistan.

- 1- You can See your reports On Internet in the following web site http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\_reports
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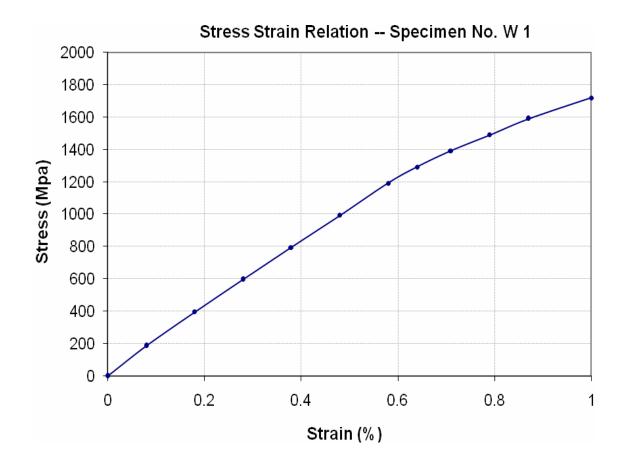
## STRUCTURAL ENGINEERING DIVISION

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

To,
Resident Engineer
NESPAK
Dualization of Lilla Interchange (M-2) via P.D. Khan to Jhlum
(WMI)

Reference # CED/TFL <u>1133 (Dr. Rizwan Azam)</u>
Reference of the request letter # NESPAK/RE/JH/22/56

**Graph** (Page -2/4)



I/C Testing Laboratoires UET Lahore, Pakistan.

Dated: 25-03-2022

Dated: 21-03-2022

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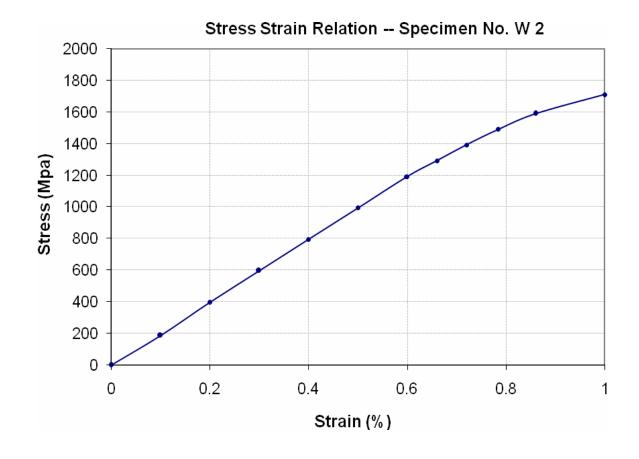
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**Graph** (Page – 3/4)



I/C Testing Laboratoires UET Lahore, Pakistan.

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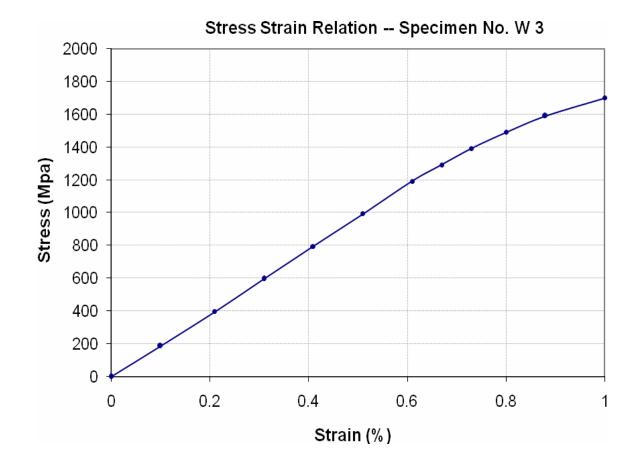
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**Graph** (Page – 4/4)



I/C Testing Laboratoires UET Lahore, Pakistan.

Dated: 25-03-2022

Dated: 21-03-2022

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

To, Project Engineer Defence Housing Authority, Gujranwala

Reference # CED/TFL 1142 (Dr. Rizwan Azam)

Reference of the request letter # 111/15/AD/RS/Pkg-2B/196

Dated: 28-03-2022

Dated: 24-03-2022

**Tension Test Report** (Page -1/1)

Date of Test 28-03-2022 Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight		neter/ ze		rea 1 <sup>2</sup> )	Yield load	Breaking Load		Stress si)		te Stress si)	Elongation	% Elongation	Remarks
<b>3</b> 2	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	Э %	R
1	4.208	10	1.255	1.27	1.237	36000	56800	62500	64150	98600	101300	1.30	16.3	eel
2	4.230	10	1.258	1.27	1.243	34200	52400	59400	60620	91000	92900	1.50	18.8	Batala Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	Bata
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			No	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend	test			
							Bend T	est						
#10	) Bar Be	nd Test	Throug	gh 180°	is Satist	factory								

Witness by Amir Shehzad (Lab. Tech. DHA Gujranwala)

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,
Director Projects
Innovative (R) Construction Company
Construction of NBS Warehouse Building at Quaid-e-Azam Industrial Estate, Kot Lakhpat,
Lahore

Reference # CED/TFL <u>1144 (Dr. Asad Ali)</u>

Reference of the request letter # ICL/NBS-WGH/0322/01

Dated: 28-03-2022

Dated: 28-03-2022

**Tension Test Report** (Page -1/1)

Date of Test 28-03-2022 Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in²)		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)	% E	R
1	0.384	3	0.379	0.11	0.113	3770	5150	75600	73540	103200	100500	1.20	15.0	
2	0.383	3	0.379	0.11	0.113	3820	5150	76600	74730	103200	100800	1.50	18.8	
-	-	1	ı	1	-	-	-	-	-	-	-	-	-	
-	-	ı	ı	ı	-	-	-	-	-	-	-	-	-	
-	-	ı	ı	ı	-	-	-	-	-	-	-	-	-	
-	_	-	-	-	-	-	-	_	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
							Bend T	est						
#3 Bar Bend Test Through 180° is Satisfactory														

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 Pearl One Residencies
Bridgeway Developers
Pilling at Pearl One Residencies by Bridgeway Developers 26 Block-C M.M Alam Road
Gulberg III Lahore

Reference # CED/TFL <u>1145 (Dr. Rizwan Azam)</u>

Reference of the request letter # Nil

Dated: 28-03-2022

**Tension Test Report** (Page -1/1)

Date of Test 28-03-2022 Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in²)		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)	% E	Ř.
1	0.377	3	0.375	0.11	0.111	4200	5250	84200	83630	105200	104600	0.80	10.0	a m
-	-		-	-	-	-	-	-	-	-	-	-	-	Batala Premium
-	-	-	-	-	-	-	-	-	-	-	-	-	-	Pr
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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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Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

I/C Testing Laboratoires UET Lahore, Pakistan.

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