



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

To,

Chief Resident Engineer  
UMDS JV Consultants (Mincinsult, CEC and Jers)  
Punjab Intermediated Cities Improvement Investment Program (PICIIIP)  
NCB-Works / PICIIIP-04: Road Upgradation , Lot-04: Construction of Flyover in Sialkot.  
(United Wire)

Reference # CED/TFL **4766** (Dr. Usman Akmal)

Dated: 08-03-2024

Reference of the request letter # CRE/UMDS-JV/LOT-4/SKT/178

Dated: 01-03-2024

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

Date of Test 19-03-2024

Gauge length 640 mm

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

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa		
1	12.70 (1/2")	780.0	782.0	18000	176.58	20200	198.16	199	>3.50	xx
2	12.70 (1/2")	780.0	784.0	17800	174.62	20300	199.14	198	>3.50	xx
3	12.70 (1/2")	780.0	784.0	17600	172.66	20100	197.18	199	>3.50	xx
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	

**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.**

Note:

- 1- You can See your reports On Internet in the following web site  
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Chief Resident Engineer  
UMDS JV Consultants (Mincinsult, CEC and Jers)  
Punjab Intermediated Cities Improvement Investment Program (PICIP)  
NCB-Works / PICIP-04: Road Upgradation , Lot-04: Construction of Flyover in Sialkot.  
(United Wire)

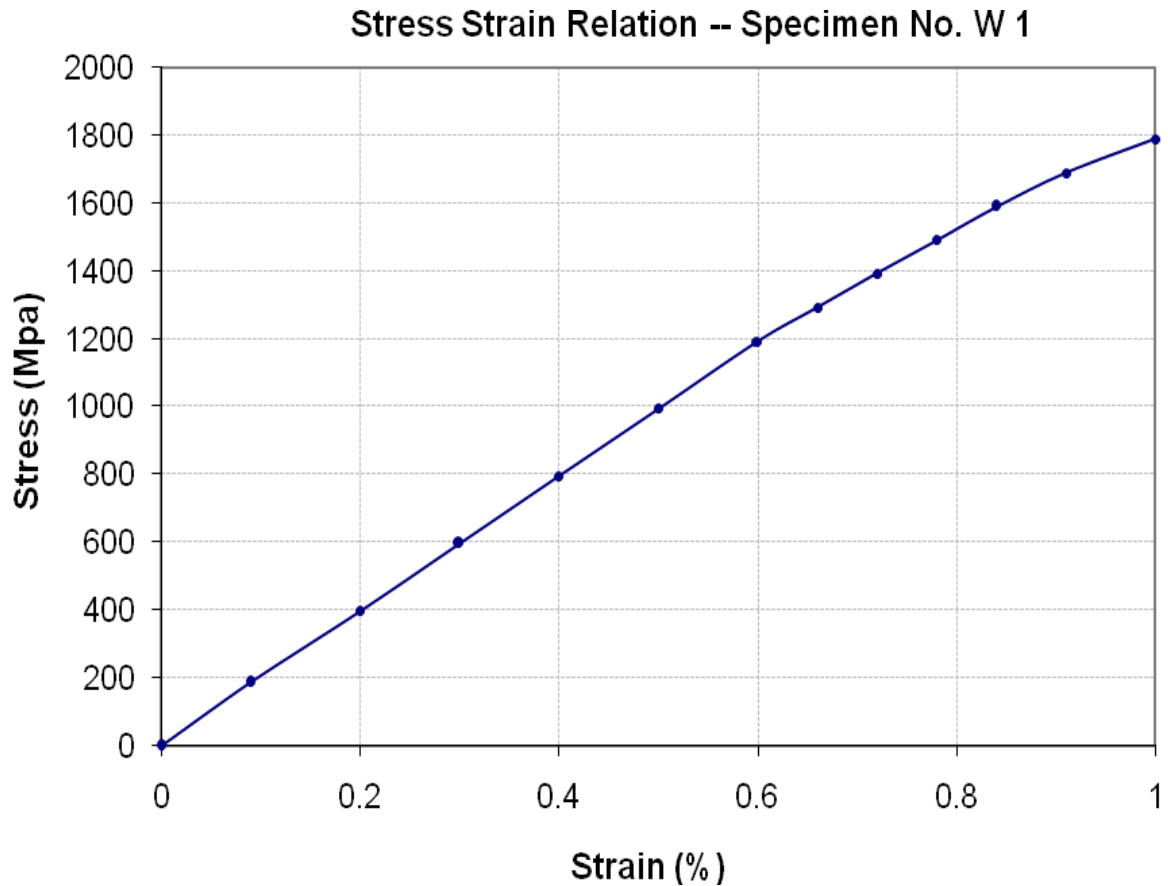
Reference # CED/TFL **4766** (Dr. Usman Akmal)

Dated: 08-03-2024

Reference of the request letter # CRE/UMDS-JV/LOT-4/SKT/178

Dated: 01-03-2024

**Graph** (Page – 2/4)



**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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To,

Chief Resident Engineer  
UMDS JV Consultants (Mincinsult, CEC and Jers)  
Punjab Intermediated Cities Improvement Investment Program (PICIIP)  
NCB-Works / PICIIP-04: Road Upgradation , Lot-04: Construction of Flyover in Sialkot.  
(United Wire)

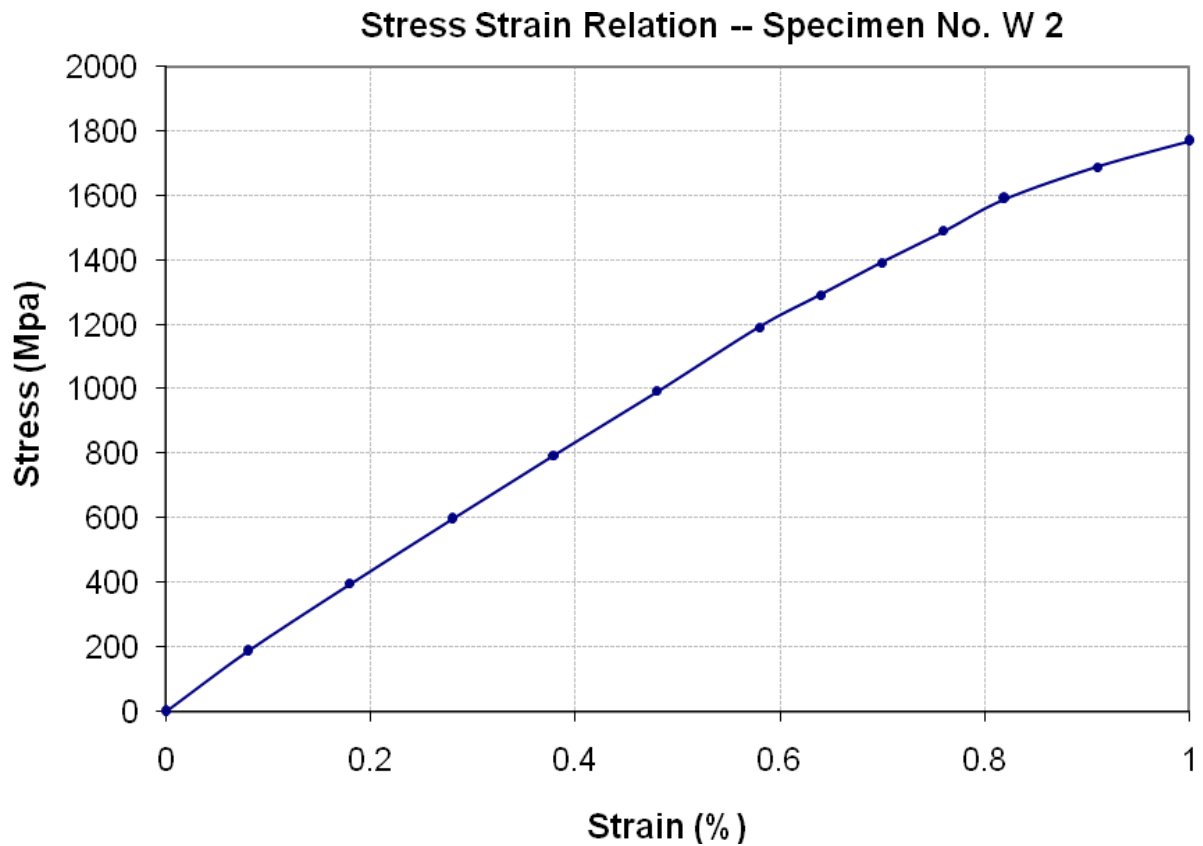
Reference # CED/TFL **4766** (Dr. Usman Akmal)

Dated: 08-03-2024

Reference of the request letter # CRE/UMDS-JV/LOT-4/SKT/178

Dated: 01-03-2024

**Graph** (Page – 3/4)



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**UET Lahore, Pakistan.**

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**Test Floor Laboratory**  
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To,

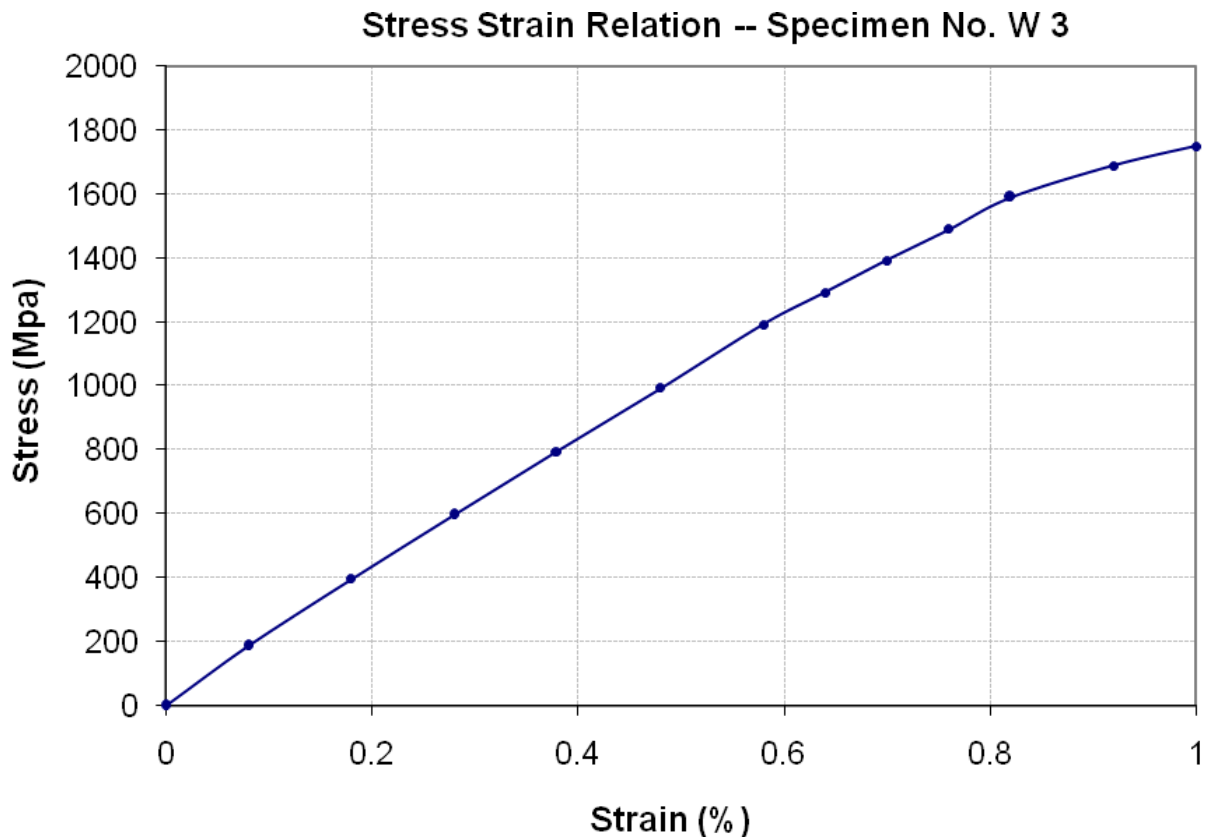
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(United Wire)

Reference # CED/TFL **4766** (Dr. Usman Akmal)

Dated: 08-03-2024

Reference of the request letter # CRE/UMDS-JV/LOT-4/SKT/178 Dated: 01-03-2024

**Graph** (Page – 4/4)



**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,

Development Engineer  
 University of The Punjab  
 Construction of New Academic Block at Hailey College of Banking and Finance at  
 A.I.C, University of The Punjab, Lahore.

Reference # CED/TFL **4788** (Dr. Usman Akmal)  
 Reference of the request letter # D-3640-DE

Dated: 14-03-2024  
 Dated: 13-03-2024

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

Date of Test 19-03-2024  
 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 <sup>2</sup> )		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	0.383	3	0.379	0.11	0.113	3080	4690	61800	60240	94000	91800	1.20	15.0	
2	0.383	3	0.379	0.11	0.113	3080	4660	61800	60240	93400	91200	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

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To,  
 Director  
 Innovative (R) Construction Company  
 “Bilal Poultry Arif Wala Road.”

Reference # CED/TFL **4789** (Dr. Usman Akmal)  
 Reference of the request letter # ICL/KA/PW/0324/01

Dated: 14-03-2024  
 Dated: 14-03-2024

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

Date of Test 19-03-2024  
 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 <sup>2</sup> )		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	0.377	3	0.375	0.11	0.111	3590	5100	72000	71460	102200	101600	1.30	16.3	
2	0.374	3	0.374	0.11	0.110	3540	5050	71000	70900	101200	101200	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one samples for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

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To,

Asstt. Executive Engineer  
Project Civil Engineer  
Pak PWD Sahiwal  
“Construction of Capacity Building of Field Offices of Election Commission of Pakistan  
at Sahiwal (REC & DEC Block and Strong Room)

Reference # CED/TFL **4793** (Dr. Usman Akmal)  
Reference of the request letter # AEE-I/PCD/SWL/182

Dated: 14-03-2024  
Dated: 07-03-2024

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

Date of Test 19-03-2024  
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 <sup>2</sup> )		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	0.371	3	0.373	0.11	0.109	3360	4760	67400	67890	95400	96200	1.40	17.5	
2	0.368	3	0.371	0.11	0.108	3330	4690	66800	67830	94000	95600	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one samples for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

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**University of Engineering and Technology Lahore, 54890**  
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To,

Resident Engineer  
PAVRON  
MKTG Bajaur  
Improvement / Up Gradation of Road Mohmand Ghat-Khar-Timergara.  
(Mohmand-Boundry) – Khar (Bajaur) - Tor Ghundai - Timaergara (Lower Dir) Including  
Existing / New By-Passes.

Reference # CED/TFL **4794** (Dr. Usman Akmal)

Dated: 14-03-2024

Reference of the request letter # RE/TDP/2024/973

Dated: 11-05-2023

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

Date of Test 19-03-2024

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 <sup>2</sup> )		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	0.401	10	9.84	0.12	0.118	3820	4910	70180	71430	90205	91900	1.10	13.8	
2	0.407	10	9.92	0.12	0.120	4080	5170	74956	75080	94982	95200	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
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  
PAVRON  
MKTG Bajaur  
Improvement / Up Gradation of Road Mohmand Ghat-Khar-Timergara.  
(Mohmand-Boundry) – Khar (Bajaur) - Tor Ghundai - Timaergara (Lower Dir) Including  
Existing / New By-Passes.

Reference # CED/TFL **4794** (Dr. Usman Akmal)

Dated: 14-03-2024

Reference of the request letter # RE/TDP/2024/973

Dated: 11-05-2023

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

Date of Test 19-03-2024

Gauge length 8 inches

Description Plain Steel Bar Tensile Test

Sr. No.	Weight (kg/m)	Diameter/ size		Area (mm <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (MPa) Actual	Ultimate Stress (MPa) Actual	Elongation (inch)	% Elongation	Remarks
		Nominal (mm)	Actual (mm)	Nominal	Actual							
1	7.597	36	35.10	-----	967.7	45800	62800	464	637	1.80	22.5	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile test</b>												
Bend Test												

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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To,  
M/s Prime Steel Re-Rolling Mills  
Sheikhupura

Reference # CED/TFL **4795** (Dr. Usman Akmal)  
Reference of the request letter # Nil

Dated: 15-03-2024  
Dated: 15-05-2023

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

Date of Test 19-03-2024  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in <sup>2</sup> )		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	0.385	3	0.379	0.11	0.113	3160	4710	63400	61630	94400	91900	0.90	11.3	Prime Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
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**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

Ref: CED/TFL/03/4800

Dated: 18-03-2024

Date of Calibration: 19-03-2024

To

**Project Manager**  
**Sitara Developers (Pvt) Ltd.**  
**Construction of SGC Housing Project at Gutwala Faisalabad.**

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/03/4800) (Page – 1/1)

Reference to your Letter No. SGC/UIA/83, dated: 16/03/2024 on the subject cited above. One Hydraulic Jack (Jack No. 054 G300, Pump No. B-2, 952) as received by us has been calibrated. The results are tabulated as under:

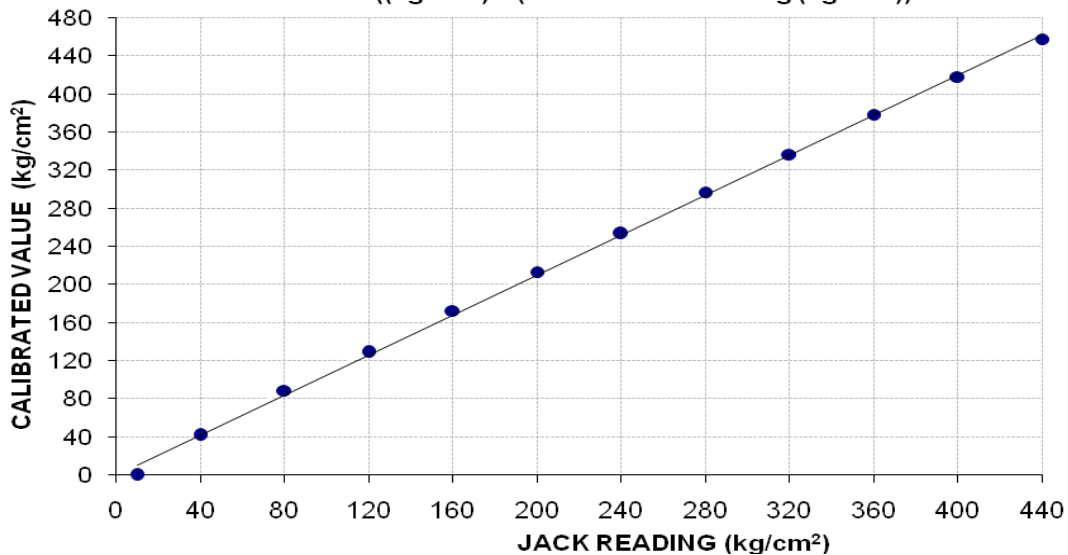
**Total Range : Zero - 1000 (kg/cm<sup>2</sup>)**  
**Calibrated Range : Zero - 440 (kg/cm<sup>2</sup>)**

Hydraulic Jack Reading (kg/cm <sup>2</sup> )	10	40	80	120	160	200	240	280	320	360	400	440
Calibrated Load (kg)	0	16000	34200	49600	66400	82000	97600	114200	129600	145600	160800	176200
Calibrated Pressure (kg/cm <sup>2</sup> )	0	42	89	129	173	213	254	297	337	378	418	458

The Ram Area of Jack = 384.78 cm<sup>2</sup>

**Calibration Curve For Jack No. 054 G-300**

Calibrated Value ((kg/cm<sup>2</sup>) = (1.050 x Jack Reading (kg/cm<sup>2</sup>)) + 0.306



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**Pakistan. Ph: 92-42-99029202**

To,  
Dy Dir Infra  
Defence Housing Authority, Gujranwala  
“Executive Block Mosque”

Reference # CED/TFL **4801** (Dr. Usman Akmal)

Dated: 18-03-2024

Reference of the request letter # 111/3/DD/Dev/Exec Block Masque/06

Dated: 15-03-2024

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

Date of Test 19-03-2024

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 <sup>2</sup> )		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	0.375	3	0.375	0.11	0.110	4380	5100	87800	87530	102200	102000	0.90	11.3	AF Steel
2	0.376	3	0.375	0.11	0.110	4300	4940	86200	85820	99000	98600	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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To,  
The Project Manager,  
HIGH-Q Constructions.  
Construction of HIGH-Q Mall at 3-A, GulbergII, Lahore.

Reference # CED/TFL **4802** (Dr. Usman Akmal)  
Reference of the request letter # QC/HQ/CIVIL/197

Dated: 18-03-2024  
Dated: 18-03-2024

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

Date of Test 19-03-2024  
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 <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (mm)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.411	10	9.96	0.12	0.121	3890	5250	71466	70940	96451	95800	1.00	12.5	
2	0.416	10	10.02	0.12	0.122	3940	5300	72384	71070	97370	95600	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
10mm Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

- 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](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.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

To,  
Dy Dir Infra  
Defence Housing Authority, Gujranwala  
“Const of InnoVista Technology Zone.”

Reference # CED/TFL **4803** (Dr. Usman Akmal)

Dated: 18-03-2024

Reference of the request letter # 111/3/DD/Dev/Soft Tech Park/06`

Dated: 05-03-2024

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

Date of Test 19-03-2024

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 <sup>2</sup> )		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	0.378	3	0.376	0.11	0.111	3640	5010	73000	72280	100400	99500	0.90	11.3	FF Steel	
2	0.385	3	0.380	0.11	0.113	3690	5100	74000	71880	102200	99400	1.10	13.8		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
<b>Note: only two samples for tensile and one sample for bend test</b>															
Bend Test															
#3 Bar Bend Test Through 180° is Satisfactory															

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

- 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](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,

Engr. Umar Waleed  
Prime Builders & Developers  
Construction of Apartment Building at 45-B Gulberg III, Lahore

Reference # CED/TFL **4807** (Dr. Usman Akmal)  
Reference of the request letter # PRIME/A/45-B/24

Dated: 18-03-2024  
Dated: 18-03-2024

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

Date of Test 19-03-2024  
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 <sup>2</sup> )		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	0.383	3	0.379	0.11	0.113	3670	5680	73600	71870	113900	111300	1.00	12.5	
2	0.378	3	0.376	0.11	0.111	3620	5660	72600	71720	113500	112200	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratories**  
**UET Lahore, Pakistan.**

Note:

- 1- You can See your reports On Internet in the following web site  
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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,

Assistant Executive Engineer-II  
 CCD, Pak.PWD. Gujranwala  
 (Establishment of Building for Store / Kots at NHMP Training College Sheikhpura  
 (Phase III)(Depost Work).

Reference # CED/TFL **4809** (Dr. Usman Akmal)

Dated: 18-03-2024

Reference of the request letter # AEE/CCD/GA/Work/NHMP/P-III/Lab/19Dated: 14-03-2024

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

Date of Test 19-03-2024

Gauge length 8 inches

Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in <sup>2</sup> )		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	0.367	3	0.370	0.11	0.108	3210	4710	64400	65630	94400	96300	1.20	15.0	
2	0.368	3	0.371	0.11	0.108	3210	4710	64400	65470	94400	96100	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile test</b>														
Bend Test														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

- 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](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.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples





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

Ref: CED/TFL/03/4810

Dated: 18-03-2023

Date of Test: 19-03-2023

To,

**M/S Bemsol Private Limited**  
**Lahore**

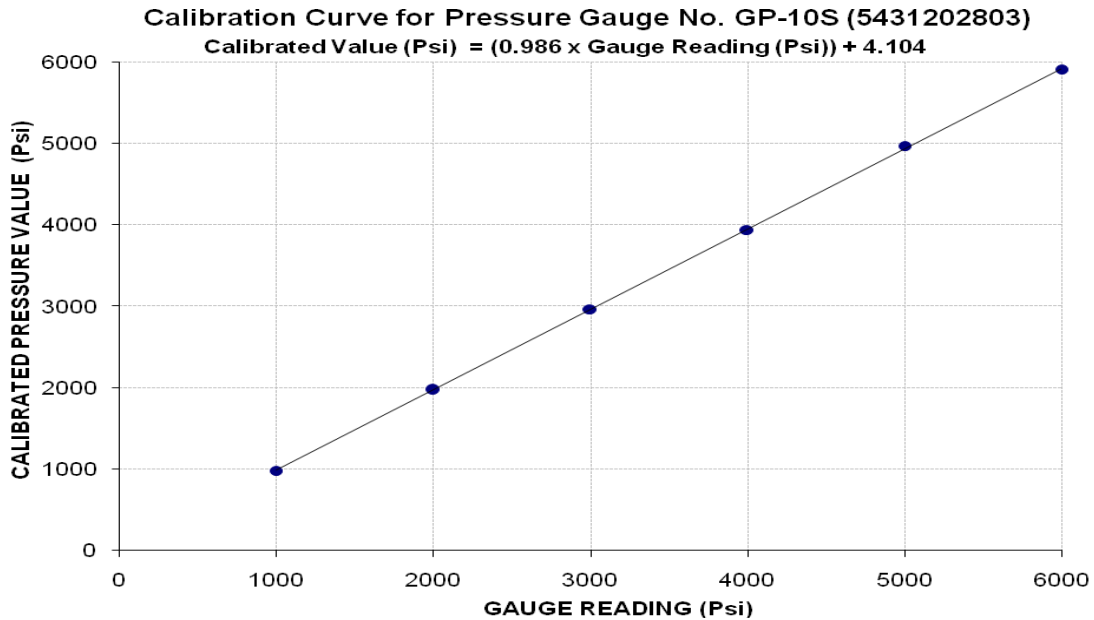
Subject: - **CALIBRATION OF PRESSURE GAUGE (MARK: TFL/02/2743)** (Page # 1/1)

Reference to your Letter No. BPL/UET/202403182, Dated: 18/03/2023 on the subject cited above. One Pressure Gauge No. GP-10S (5431202803), Make ENERPAC as received by us has been calibrated. The results are tabulated as under:

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

Pressure Gauge Reading (Psi)	1000	2000	3000	4000	5000	6000	7000
Calibrated Load (kg)	13700	27500	41300	54800	69200	82300	96000
Calibrated Pressure (Psi)	984	1975	2967	3936	4971	5912	6896

The Ram Area for Calibration = 198 cm<sup>2</sup>



**I/C Testing Laboratories**  
**UET Lahore, Pakistan.**

Note:

- 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](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.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



**STRUCTURAL ENGINEERING DIVISION**  
**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  
 Narowal  
 (Blance Work of Revamping of All DHQ / 15 THQ Hospitals in Punjab One at DHQ Hospital Narowal.)

Reference # CED/TFL **4812** (Dr. Usman Akmal)  
 Reference of the request letter # 282/NL

Dated: 18-03-2024  
 Dated: 11-05-2023

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

Date of Test 19-03-2024  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in <sup>2</sup> )		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	0.371	3/8	0.373	0.11	0.109	3260	4710	65400	65900	94400	95300	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one sample for bend test</b>														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

- 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](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,

M/S Rafique & Brothers  
Sialkot

“CA No. CEA-CZ-17/2024 - Const of 8 x Sldrs Flats (G+3), 23FF, HQ 8 Div at SIK”

Reference # CED/TFL **4816** (Dr. Usman Akmal)

Dated: 18-03-2024

Reference of the request letter # 24/10

Dated: 18-03-2024

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

Date of Test 19-03-2024

Gauge length 8 inches

Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in <sup>2</sup> )		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	0.380	3	0.377	0.11	0.112	3640	5270	73000	71840	105600	104100	1.00	12.5	
2	0.377	3	0.376	0.11	0.111	3590	5200	72000	71330	104200	103400	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile test</b>														
Bend Test														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

- 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](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.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

To,

Dy Dir Infra  
Defence Housing Authority, Gujranwala  
"4 Marla and 8 Marla Comm Plaza."

Reference # CED/TFL **4817** (Dr. Usman Akmal)

Dated: 19-03-2024

Reference of the request letter # 111/3/DD/Dev/04 Marla Plaza/03

Dated: 16-03-2024

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

Date of Test 19-03-2024

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 <sup>2</sup> )		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	0.366	3	0.370	0.11	0.108	3520	4760	70600	72060	95400	97500	1.20	15.0	Sheikhoo Steel	
2	0.363	3	0.368	0.11	0.107	3490	4710	70000	72180	94400	97500	1.00	12.5		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
<b>Note: only two samples for tensile and one sample for bend test</b>															
Bend Test															
#3 Bar Bend Test Through 180° is Satisfactory															

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

- 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](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  
PEAS Consulting (Pvt) Ltd.  
Dualization of Khuzdar – Kuchlak Section of National Highway (N-25) Section-1  
(km 00+000 to km51+120)

Reference # CED/TFL **4819** (Dr. M Rizwan Riaz)

Dated: 19-03-2024

Reference of the request letter # RE/PEAS/NHA/K-K N-25/SEC-I/172

Dated: 18-03-2024

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

Date of Test 25-03-2024

Gauge length 640 mm

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

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa		
1	12.70 (1/2")	780.0	787.0	17700	173.64	19100	187.37	198	>3.50	24892
2	12.70 (1/2")	780.0	787.0	17700	173.64	19200	188.35	199	>3.50	24899
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
<b>Only two samples for Test</b>										

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 Laboratories**  
**UET Lahore, Pakistan.**

Note:

- 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](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  
PEAS Consulting (Pvt) Ltd.  
Dualization of Khuzdar – Kuchlak Section of National Highway (N-25) Section-1  
(km 00+000 to km51+120)

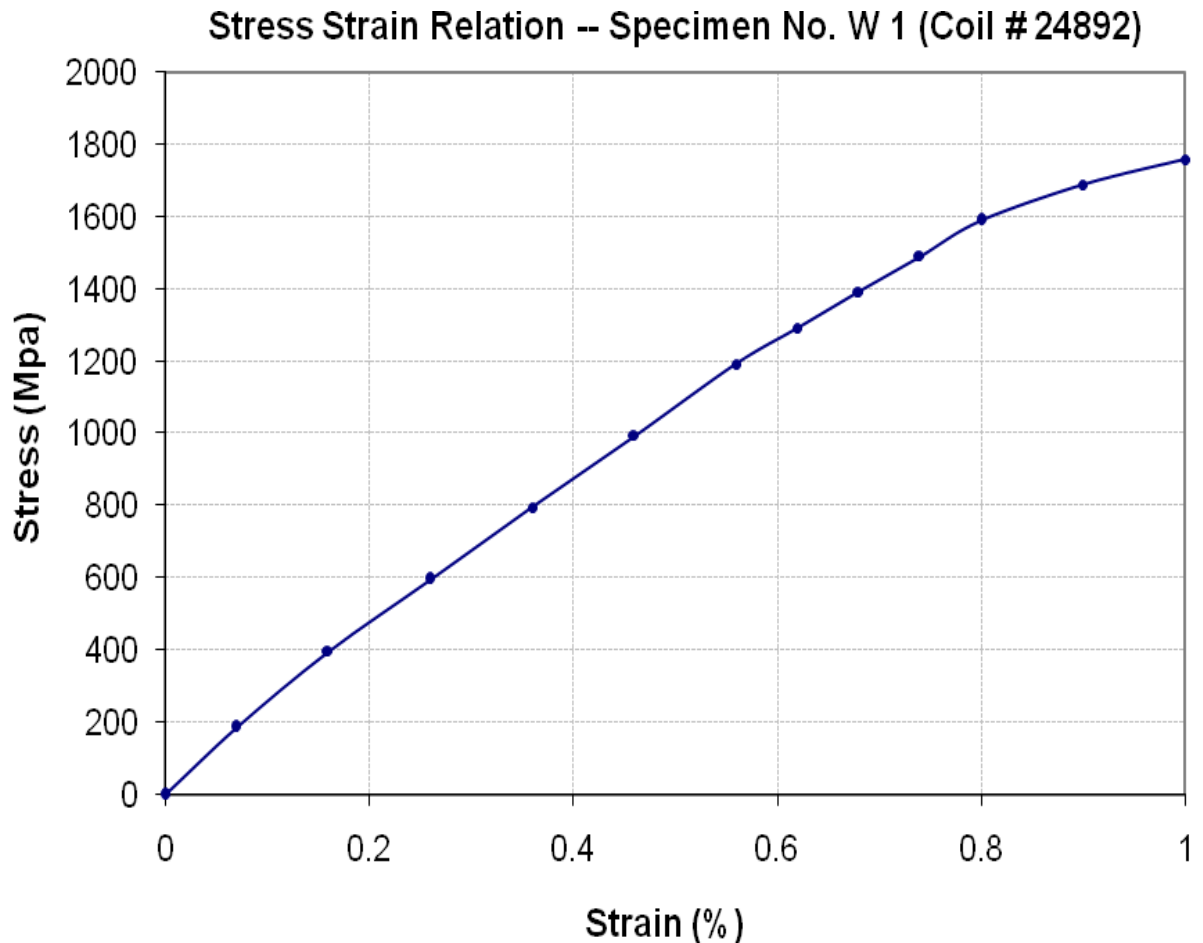
Reference # CED/TFL **4819** (Dr. M Rizwan Riaz)

Dated: 19-03-2024

Reference of the request letter # RE/PEAS/NHA/K-K N-25/SEC-I/172

Dated: 18-03-2024

**Graph** (Page – 2/3)



**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

- 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](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  
PEAS Consulting (Pvt) Ltd.  
Dualization of Khuzdar – Kuchlak Section of National Highway (N-25) Section-1  
(km 00+000 to km51+120)

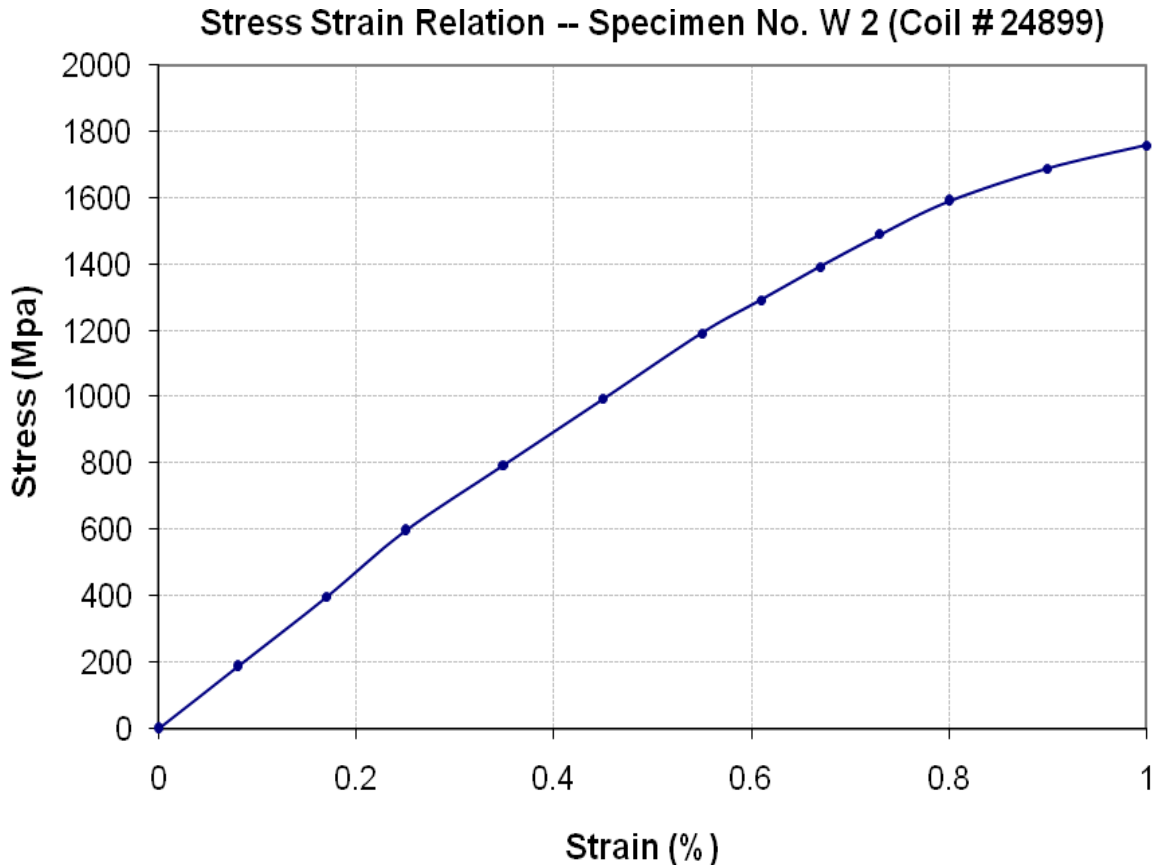
Reference # CED/TFL **4819** (Dr. M Rizwan Riaz)

Dated: 19-03-2024

Reference of the request letter # RE/PEAS/NHA/K-K N-25/SEC-I/172

Dated: 18-03-2024

**Graph** (Page – 3/3)



**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

- 1- You can See your reports On Internet in the following web site  
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