



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
 Public Health Engg: Sub Division,
 Khushab
 (Construction of Sedimentation Tank, Provision of Sweet Water at Wildlife Park
 Jauharabad District Khushab.)

Reference # CED/TFL **6663** (Dr. M Rizwan Riaz)
 Reference of the request letter # 31/KHB

Dated: 06-03-2025
 Dated: 15-01-2025

Tension Test Report (Page -1/1)

Date of Test 07-03-2025
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in ²)		Yield load (kN)	Breaking Load (kN)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.364	3/8	0.369	0.11	0.107	40.20	50.70	82200	84450	103600	106600	1.10	13.8	
2	0.364	3/8	0.369	0.11	0.107	41.50	51.70	84800	87030	105600	108500	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile test														
Bend Test														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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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

Ref: CED/TFL/02/6660

Dated: 05-03-2025

Dated of Test: 07-03-2025

To

Municipal Officer (Infrastructure)
Municipal Committee
Chishtian
(Sewerage and Tuff in City Chishtian District Bahawalnagar)

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76]**

Reference to your letter No. MC/CTN/MO(I) 1839, dated 20.01.2025 on the subject cited above. One R.C.C. Pipe 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
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Lbs/Linear foot/foot	Lbs/Linear foot/foot
1	18	7.73	7.28	23.10	17.96	2.57	7200	9000	1456	1820

I/C Testing Laboratoires
UET Lahore, Pakistan.

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

To,

Ashaq Ali Shah
Resident Engineer, NESPAK
Construction of Flyover at Khawaja Corporation Chowk at Adyala Road Rawalpindi.
(WMI)

Reference # CED/TFL **6641** (Dr. M Rizwan Riaz)

Dated: 28-02-2025

Reference of the request letter # KCF/AAS/19

Dated: 11-02-2025

Tension Test Report (Page -1/5)

Date of Test 07-03-2025

Gauge length 600 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	780.0	17300	169.71	19600	192.28	199	>3.50	xx
2	12.70 (1/2")	780.0	781.0	17700	173.64	19500	191.30	199	>3.50	xx
3	12.70 (1/2")	780.0	781.0	18000	176.58	19800	194.24	198	>3.50	xx
4	12.70 (1/2")	780.0	780.0	18000	176.58	19600	192.28	199	>3.50	xx
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	

Only four 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 Laboratories
UET Lahore, Pakistan.

Note:

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
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To,
 Ghazanfar Ali
 Project Manager, Ittefaq Building Solution Pvt. Ltd.
 Extension of Production Hall Unit-2, Servis Global Footwear Ltd. Muridke.

Reference # CED/TFL **6667** (Dr. M Rizwan Riaz)
 Reference of the request letter # IBS/SGLF/PHU2

Dated: 06-03-2025
 Dated: 06-03-2025

Tension Test Report (Page -1/1)

Date of Test 07-03-2025
 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	0.360	10	9.33	0.12	0.106	3360	5010	61729	69940	92042	104300	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample 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.

Note:

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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
Construction of Rawalpindi Ring Road (38.3 km) Main Carriageway (MCW) from
Baanth (N-5) to Thalian (M-2).

Reference # CED/TFL **6637** (Dr. M Rizwan Riaz)

Dated: 28-02-2025

Reference of the request letter # 4713/RRR/IUK/25/188

Dated: 27-02-2025

Tension Test Report (Page -1/4)

Date of Test 07-03-2025

Gauge length 600 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	785.0	17800	174.62	19100	187.37	199	>3.50	26358
2	12.70 (1/2")	780.0	784.0	17600	172.66	18800	184.43	198	>3.50	26361
3	12.70 (1/2")	780.0	787.0	18100	177.56	19400	190.31	198	>3.50	26364
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	

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.

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Test Floor Laboratory
Department of Civil Engineering
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To,

Resident Engineer
NESPAK

Construction of Rawalpindi Ring Road (38.3 km) Main Carriageway (MCW) from
Baanth (N-5) to Thalian (M-2).

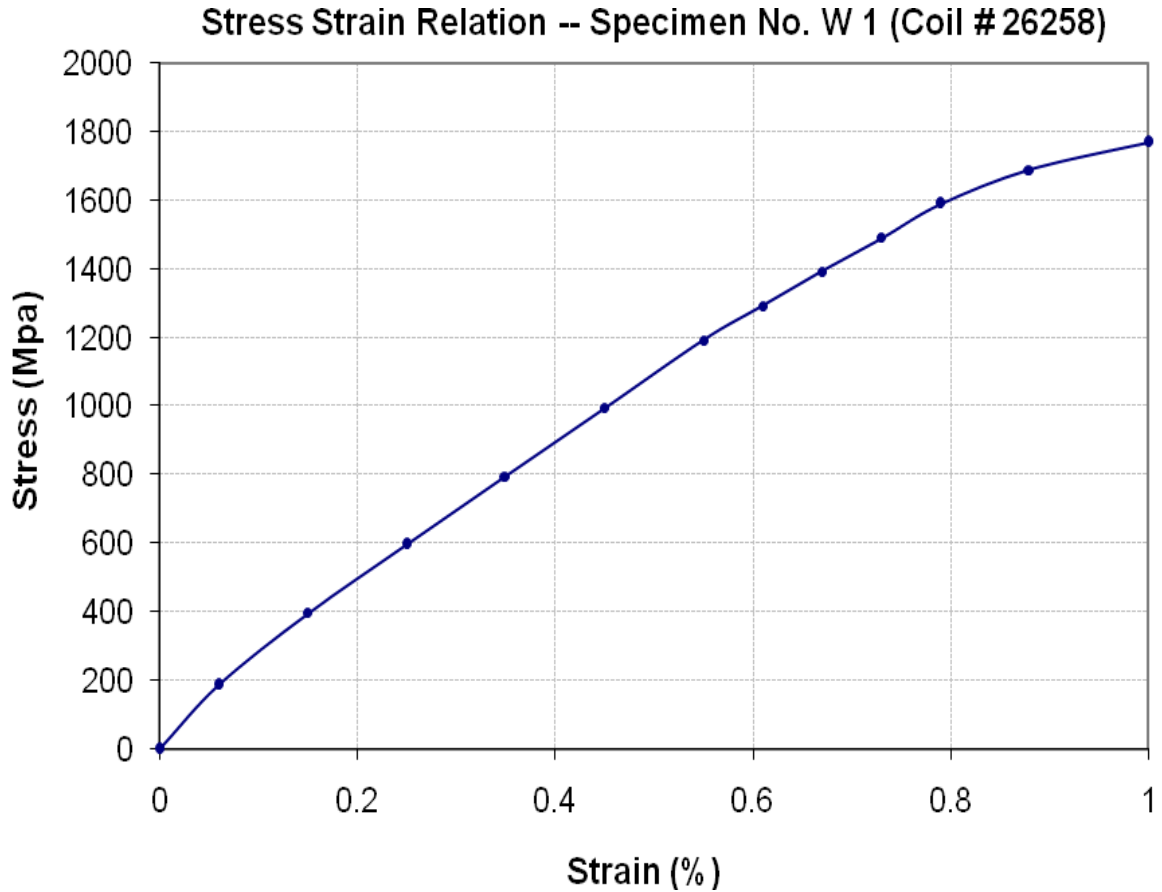
Reference # CED/TFL **6637** (Dr. M Rizwan Riaz)

Dated: 28-02-2025

Reference of the request letter # 4713/RRR/IUK/25/188

Dated: 27-02-2025

Graph (Page – 2/4)



I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,

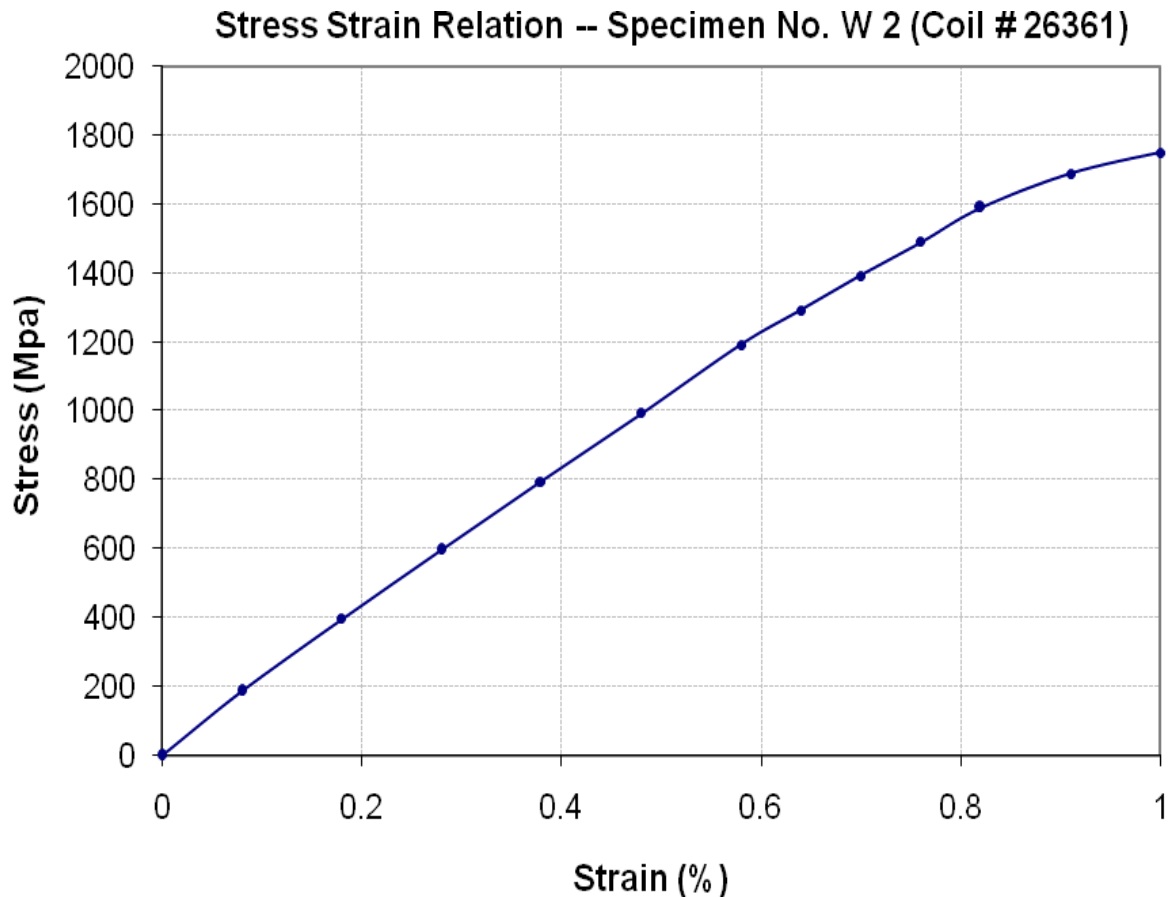
Resident Engineer
NESPAK
Construction of Rawalpindi Ring Road (38.3 km) Main Carriageway (MCW) from
Baanth (N-5) to Thalian (M-2).

Reference # CED/TFL **6637** (Dr. M Rizwan Riaz)
Reference of the request letter # 4713/RRR/IUK/25/188

Dated: 28-02-2025

Dated: 27-02-2025

Graph (Page – 3/4)



I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,

Resident Engineer
NESPAK

Construction of Rawalpindi Ring Road (38.3 km) Main Carriageway (MCW) from
Baanth (N-5) to Thalian (M-2).

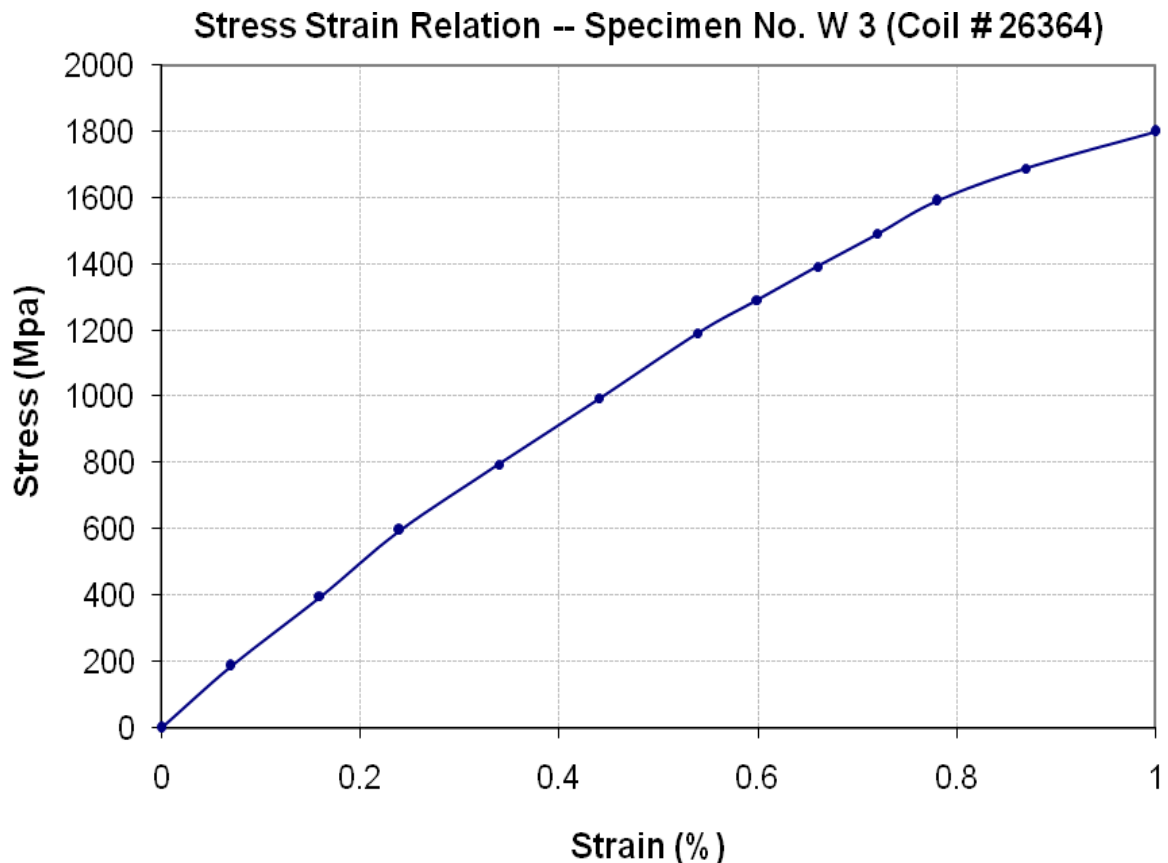
Reference # CED/TFL **6637** (Dr. M Rizwan Riaz)

Dated: 28-02-2025

Reference of the request letter # 4713/RRR/IUK/25/188

Dated: 27-02-2025

Graph (Page – 4/4)



I/C Testing Laboratories
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,

Sub Divisional Officer
Highway Sub Division,
Khushab

(Rehabilitation / Widening / Improvement of Road from 1) Main Bypass Road to Burhan Town. 2) Azmat Colony. 3) Shabbir Colony. 4) Awan Town Jauharabad City Length 2.57 km in District Khushab SGD Programme 7084 (2024-25))

Reference # CED/TFL **6662** (Dr. M Rizwan Riaz)

Dated: 06-03-2025

Reference of the request letter # 193/KHB

Dated: 14-02-2025

Tension Test Report (Page -1/1)

Date of Test 07-03-2025

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	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.353	3	0.363	0.11	0.104	32.50	42.20	66400	70440	86200	91500	1.30	16.3	
2	0.356	3	0.365	0.11	0.105	31.70	45.20	64800	68120	92400	97200	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Engr. Aziz ur Rehman
 ACE-Arts Limited.
 Net Zero Energy Building (ACEIP, DLI-8), Gulberg III Lahore.

Reference # CED/TFL **6666** (Dr. M Rizwan Riaz)

Dated: 06-03-2025

Reference of the request letter # NZEB/ACE/LAB/2025/16

Dated: 04-03-2025

Tension Test Report (Page -1/1)

Date of Test 07-03-2025

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 (kN)	Breaking Load (kN)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.367	3	0.371	0.11	0.108	38.20	49.20	78100	79540	100500	102500	1.20	15.0	Karachi Steel
2	0.367	3	0.371	0.11	0.108	37.50	49.00	76600	78110	100100	102100	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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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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 Engineering Associates Precast (Pvt) Ltd.
Lahore

Reference # CED/TFL **6656** (Dr. M Rizwan Riaz)
Reference of the request letter # Nil

Dated: 05-03-2025

Dated: 05-03-2025

Tension Test Report (Page – 1/1)

Date of Test 07-03-2025
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)		% Elongation	Remarks/ Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)		
1	11.11 (7/16")	580.0	582.0	13500	132.44	14600	143.23	>3.50	xx
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
Only one sample for Test									

I/C Testing Laboratoires
UET Lahore, Pakistan.

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