To,

Laboratory Manager
China Gezhouba Group Company Ltd.
300 MW Balakot Hydro Power Project

Reference # CED/TFL **7625** (Dr. M. Kashif) Dated: 09-10-2025
Reference of the request letter # CGGC/BHPP/Lab-2025/048 Dated: 07-08-2025

Tension Test Report (Page -1/2)

Date of Test 14-10-2025
Gauge length 600 mm
Description Steel Strand Tensile Test as per ASTM A-416

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/1000m)	(kg/1000m)	(kg)	(kN)	(kg)	(kN)	GPa		
1	**15.24 (0.6")**	**1102.0**	**1117.0**	**24900**	**244.27**	**27400**	**268.79**	**202**	**>3.50**	**YPW169 - SJ/25052**
-	-	-	-	-	-	-	-	-	-	-
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-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
Only one sample 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

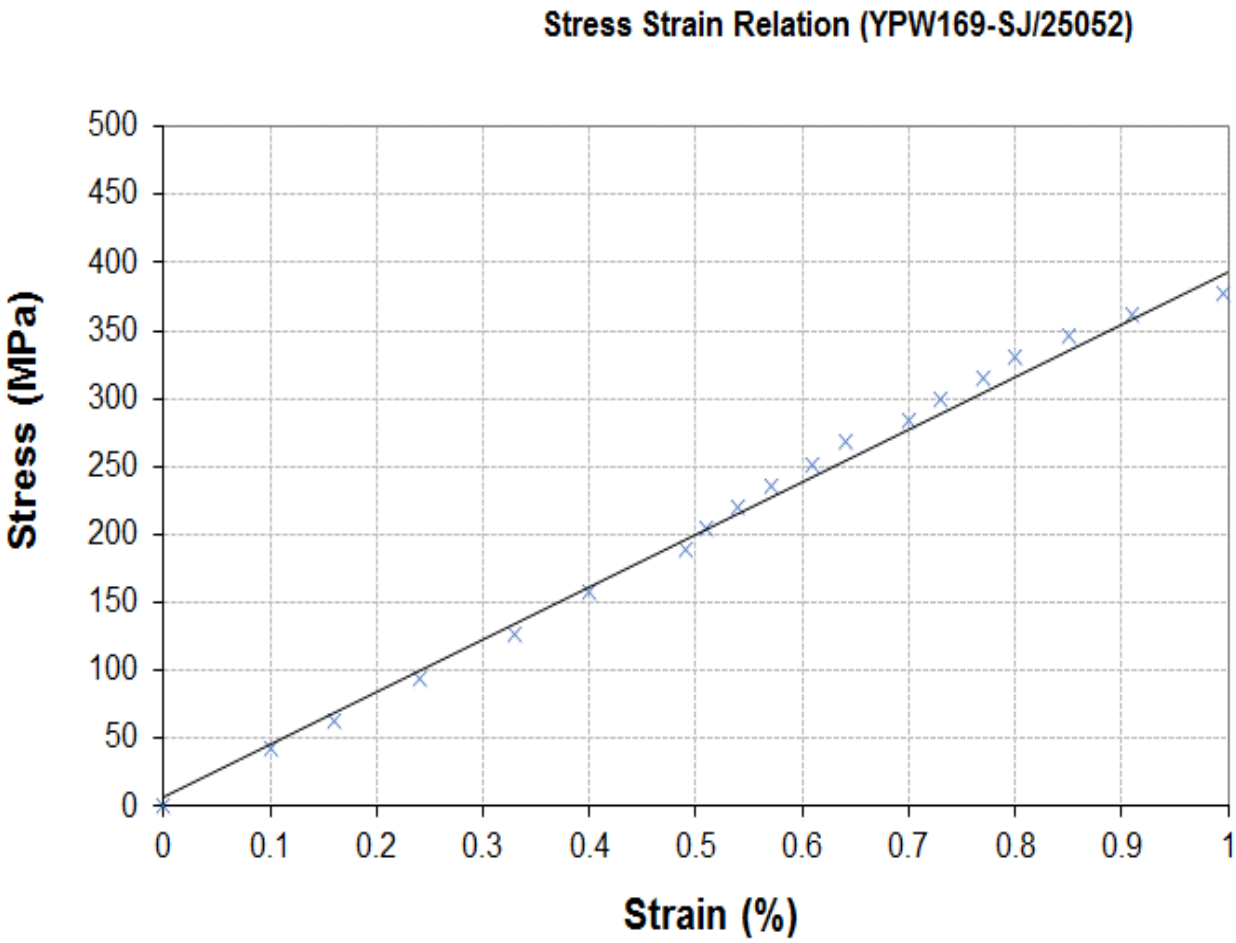
Test Performed and Verified by:

To,

Laboratory Manager
China Gezhouba Group Company Ltd.
300 MW Balakot Hydro Power Project

Reference # CED/TFL **7625** (Dr. M. Kashif) Dated: 09-10-2025
Reference of the request letter # CGGC/BHPP/Lab-2025/048 Dated: 07-08-2025

Graph (Page – 2/2)



Test Performed and Verified by:

To,

Executive Engineer
Highway Division, Mandi Bahauddin
Restoration of Mandi Bahauddin Near Rawalpindi (Taken Length = 2.70 KM), District Mandi Bahuddin

Reference # CED/TFL **7626** (Dr. Rizwan Azam) Dated: 10-10-2025
Reference of the request letter # 1023DB Dated: 10-05-2025

Tension Test Report (Page-1/1)

Date of Test 14-10-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	**0.365**	**3**	**0.369**	**0.110**	**0.1072**	**3210**	**4810**	**64317**	**65983**	**96375**	**98871**	**1.3**	**16.3**	-
2	**4.347**	**10**	**1.275**	**1.270**	**1.2772**	**37200**	**50800**	**64558**	**64193**	**88160**	**87661**	**1.6**	**20.0**	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Only 2 Samples for Tensile and 2 Samples for Bend test

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory
10 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Mr. Kashif Shahzad (Manager-Technical)
Gharibwal Cement Ltd.
-

Reference # CED/TFL **7627** (Dr. Rizwan Azam) Dated: 13-10-2025
Reference of the request letter # GCL/Purchase/UET/21 Dated: 08-10-2025

Tension Test Report (Page-1/3)

Date of Test 14-10-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (mm)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.382	10	0.378	0.120	0.1123	3720	4940	68324	73019	90731	96966	1.1	13.8	Heat # 688
2	0.384	10	0.379	0.120	0.1127	3720	4910	68324	72750	90180	96022	1.2	15.0	Heat # 688
3	0.412	10	0.393	0.120	0.121	4250	5350	78058	77400	98262	97433	0.9	11.3	Heat # 689
4	0.408	10	0.391	0.120	0.1199	4280	5350	78609	78698	98262	98372	1.1	13.8	Heat # 689
5	4.238	32	1.2592	1.250	1.2453	41400	54400	72996	73270	95918	96278	1.2	15	Heat # 712
6	4.210	32	1.2551	1.250	1.2372	41400	54200	72996	73751	95565	96553	1.7	21.25	Heat # 712
Note: Only 6 Samples for Tensile and 3 Samples for Bend test														

Bend Test
10mm Bar Bend Test Through 180 Degree is Satisfactory
10mm Bar Bend Test Through 180 Degree is Satisfactory
32mm Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Mr. Kashif Shahzad (Manager-Technical)
Gharibwal Cement Ltd.
-

Reference # CED/TFL **7627** (Dr. Rizwan Azam) Dated: 13-10-2025
Reference of the request letter # GCL/Purchase/UET/21 Dated: 08-10-2025

Tension Test Report

Date of Test 14-10-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (mm)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
7	4.207	32	1.255	1.250	1.2363	45600	58800	80402	81291	103676	104822	1.4	17.5	Heat # 713
8	4.228	32	1.258	1.250	1.2423	45200	58200	79697	80192	102618	103256	1.5	18.8	Heat # 713
9	4.307	32	1.269	1.250	1.2655	45000	59400	79344	78370	104734	103448	1.6	20.0	Heat # 714
10	4.232	32	1.258	1.250	1.2435	41400	56600	72996	73380	99797	100321	1.5	18.8	Heat # 714
11	4.158	32	1.2473	1.250	1.2218	40600	56200	71586	73236	99092	101376	1.5	18.75	Heat # 716
12	4.127	32	1.2426	1.250	1.2126	40200	56000	70881	73066	98739	101784	1.6	20	Heat # 716
Note: Only 6 Samples for Tensile and 3 Samples for Bend test														

Bend Test
32mm Bar Bend Test Through 180 Degree is Satisfactory
32mm Bar Bend Test Through 180 Degree is Satisfactory
32mm Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Mr. Kashif Shahzad (Manager-Technical)
Gharibwal Cement Ltd.
-

Reference # CED/TFL **7627** (Dr. Rizwan Azam) Dated: 13-10-2025
Reference of the request letter # GCL/Purchase/UET/21 Dated: 08-10-2025

Tension Test Report

Date of Test 14-10-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (mm)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
13	4.133	32	1.244	1.250	1.2146	40600	55400	71586	73673	97681	100529	1.5	18.8	Heat # 717
14	4.151	32	1.246	1.250	1.2197	40800	55400	71939	73724	97681	100106	1.6	20.0	Heat # 717
15	4.120	32	1.242	1.250	1.2106	36600	50200	64533	66631	88513	91390	1.7	21.3	Heat # 3028
16	4.134	32	1.244	1.250	1.2147	36600	50400	64533	66406	88865	91445	1.6	20.0	Heat # 3028
17	4.198	32	1.2533	1.250	1.2337	33400	51400	58891	59670	90628	91828	1.7	21.25	Heat # 3035
18	4.112	32	1.2403	1.250	1.2082	34800	51200	61359	63483	90276	93400	1.8	22.5	Heat # 3035
Note: Only 6 Samples for Tensile and 3 Samples for Bend test														

Bend Test
32mm Bar Bend Test Through 180 Degree is Satisfactory
32mm Bar Bend Test Through 180 Degree is Satisfactory
32mm Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Mr. Umer Karimi (Lead Engineer)
Building Standards Ltd.
-

Reference # CED/TFL **7628** (Dr. Rizwan Azam) Dated: 13-10-2025
Reference of the request letter # BS/251013-052 Dated: 13-10-2025

Tension Test Report (Page-1/1)

Date of Test 14-10-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (mm)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)		
1	**0.357**	**10**	**0.366**	**0.120**	**0.105**	**33.20**	**42.70**	**62172**	**71079**	**79963**	**91418**	**1.4**	**17.5**	**Mughal**
2	**0.368**	**10**	**0.371**	**0.120**	**0.108**	**32.50**	**46.00**	**60861**	**67613**	**86142**	**95698**	**1.5**	**18.8**	**Moiz**
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Only 2 Samples for Tensile and 0 Samples for Bend test

Bend Test

Test Performed and Verified by:

To,

Engr. Farrukh Alvi (Deputy General Manager Works)
Habib Rafiq Engineering (Pvt.) Ltd.
101 Tower, Lahore.
Witness by: Mr. M. Irfan (QC Engineer HRL)

Reference # CED/TFL **7629-32** (Dr. M. Kashif) Dated: 13-10-2025
Reference of the request letter # HRLE/SKG/2025/SPT/Slab5/239 Dated: 13-10-2025

Tension Test Report (Page -1/1)

Date of Test 14-10-2025
Gauge length 600 mm
Description Steel Strand Tensile Test as per ASTM A-416

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		% Elongation	Remarks / Coil No.
	(mm)	(kg/1000m)	(kg/1000m)	(kg)	(kN)	(kg)	(kN)		
1	**12.70 (1/2")**	**780.0**	**788.0**	**17300**	**169.71**	**19700**	**193.26**	**>3.50**	**xx**
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-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
Only one sample 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

Test Performed and Verified by:

To,

Mr. Ghulam Abbas (XEN)
GE (Army)-II LRC
Construction of 8xE Type Flats (G=3), Block No.2 at PMAD Colony Lahore
(Ground Flood Slab and 1st Floor Column)

Reference # CED/TFL **7633** (Dr. Syed Asad Ali Gillani) Dated: 14-10-2025
Reference of the request letter # 6003/89/E6 Dated: 13-10-2025

Tension Test Report

(Page-1/1)

Date of Test 14-10-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.377	3	0.376	0.110	0.1108	26.20	37.20	53524	53131	75996	75438	1.9	23.8	3/8"
2	0.375	3	0.375	0.110	0.1102	26.00	36.70	53115	52995	74974	74805	1.5	18.8	3/8"
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

M/s Al-Rehman Developers

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Reference # CED/TFL **7637-3{**(Dr. M Kashif) Dated: 14-10-2025

Reference of the request letter # Nil Dated: 14-10-2025

Tension Test Report (Page-1/1)

Date of Test 15-10-2025

Gauge Length 8 inches

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

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)		
1	**0.369**	**3**	**0.372**	**0.110**	**0.1085**	**33.00**	**47.50**	**67416**	**68339**	**97038**	**98366**	**1.3**	**16.3**	-
2	**0.365**	**3**	**0.369**	**0.110**	**0.1072**	**32.00**	**46.70**	**65373**	**67081**	**95403**	**97896**	**1.3**	**16.3**	-
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Mr. Nouman Bashir (Site Supervisor)
Ameersons Enineering and Management (Pvt.) Ltd.
Syed Muratab Ali Road, Gulberg-II, Lahore
(Mughal Steel)

Reference # CED/TFL **7639** (Dr. M Kashif) Dated: 15-10-2025
Reference of the request letter # Nil Dated: 15-10-2025

Tension Test Report (Page-1/1)

Date of Test 15-10-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)		
1	**0.367**	**3**	**0.371**	**0.110**	**0.1079**	**38.00**	**46.70**	**77630**	**79168**	**95403**	**97293**	**1.1**	**13.8**	-
2	**0.368**	**3**	**0.371**	**0.110**	**0.1081**	**34.70**	**44.00**	**70889**	**72159**	**89888**	**91499**	**1.1**	**13.8**	-
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Only 2 Samples for Tensile and 1 Samples for Bend test

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by: