

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

To, M/S China Gezhouba Group Company Limited Construction of Mohmand Dam Hydropower Project (M/s K&S Enterprises)

Reference # CED/TFL **33947** (Dr. Waseem Abbas)

Reference of the request letter # MDSYS-026

Dated: 03-10-2019

Dated: 01-10-2019

Tension Test Report (Page – 1/3)

Date of Test 09-10-2019

Gauge length -----

Description Wire Mesh Tensile and Bend Test as per ASTM A1064

Sr. No.	Diameter /	Size (mm)	Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Reduced Area	% Reduction of Area	Marks				
	Nominal	Measured	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(mm ²)	% R					
1	6	5.90	27.340	1120	1880	401.88	674.58	11.341	58.5					
2	6	5.90	27.340	920	1560	330.11	559.76	15.205	44.4					
3	8	7.90	49.017	2600	3640	520.35	728.49	29.706	39.4					
4	8	7.90	49.017	2600	3600	520.35	720.49	21.237	56.7					
•	-	-	-	•	-	-	ı	-	•					
•	-	-	-	-	-	-	-	-	-					
		Note: only	four sam	ples for ter	nsile and two	sample f	for bend te	est						
				Ber	nd Test									
Wire Mesh 6mm Dia Bend Test Through 180° is Satisfactory														
Wire N	Wire Mesh 8mm Dia Bend Test Through 180° is Satisfactory													
			whe Mesh offin Dia Bend Test Through 180 is Satisfactory											

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

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Reference # CED/TFL **33947** (Dr. Waseem Abbas)

Reference of the request letter # MDSYS-026

Dated: 03-10-2019

Dated: 01-10-2019

Weld Test Report (Page – 2/3)
Date of Test 09-10-2019

Gauge length ------

Description Wire Mesh Weld Load Test

Sr. No	Wire Size (mm)	Breaking Load (kg)	Remarks
1	6	920	Bar Failure
2	8	280	Weld Failure
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
	Note: on	ly two samples for tes	st

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To, M/S China Gezhouba Group Company Limited Construction of Mohmand Dam Hydropower Project (M/s K&S Enterprises)

Reference # CED/TFL **33947** (Dr. Waseem Abbas)

Reference of the request letter # MDSYS-026

Dated: 03-10-2019

Dated: 01-10-2019

Size Test Report (Page - 3/3)Date of Test 09-10-2019

Gauge length ------

Description Wire Mesh Size Test

	ation	G	rid Size	ured ter of re	k
Sr. No.	Designation	Length	Width	Measured Diameter of Wire	Remark
	(mm)	(mm)	(mm)	(mm)	
1	6	98.80	99.30	5.90	
2	8	97.00	98.20	7.90	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
	(Only Two S	Samples for Tes	t	

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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 China Gezhouba Group Company Limited Construction of Mohmand Dam Hydropower Project (M/s Kashmir Art & Steel)

Reference # CED/TFL **33948** (Dr. Waseem Abbas)

Reference of the request letter # MDSYS-027

Dated: 03-10-2019

Dated: 01-10-2019

Tension Test Report (Page – 1/3)

Date of Test 09-10-2019

Gauge length ------

Description Wire Mesh Tensile and Bend Test as per ASTM A1064

Sr. No.	Diameter /	Size (mm)	Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Reduced Area	% Reduction of Area	Marks			
	Nominal	Measured	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(mm ²)	% R				
1	6	5.90	27.340	1120	1680	401.88	602.82	20.831	23.8				
2	6	5.90	27.340	1080	1520	387.52	545.40	18.857	31.0				
3	8	7.70	46.566	2040	2960	429.76	623.58	16.260	65.1				
4	8	7.70	46.566	2120	3000	446.62	632.00	15.205	67.3				
•	-	-	-	•	-	-	ı	-	•				
ı	-	-	-	ı	-	-	•	-	•				
		Note: only	four sam	ples for ter	nsile and two	sample f	for bend te	est					
				Ber	nd Test								
Wire N	Wire Mesh 6mm Dia Bend Test Through 180° is Satisfactory												
Wire N	Wire Mesh 8mm Dia Bend Test Through 180° is Satisfactory												
	The fire of the fire for the edge for the ed												

I/C Testing Laboratoires UET Lahore, Pakistan.

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To, M/S China Gezhouba Group Company Limited Construction of Mohmand Dam Hydropower Project (M/s Kashmir Art & Steel)

Reference # CED/TFL **33948** (Dr. Waseem Abbas)

Reference of the request letter # MDSYS-027

Dated: 03-10-2019

Dated: 01-10-2019

Weld Test Report (Page – 2/3)

Date of Test 09-10-2019

Gauge length -----

Description Wire Mesh Weld Load Test

Sr. No	Wire Size (mm)	Breaking Load (kg)	Remarks
1	6	280	Weld Failure
2	8	900	Weld Failure
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
	Note: on	ly two samples for te	st

I/C Testing Laboratoires UET Lahore, Pakistan.

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To, M/S China Gezhouba Group Company Limited Construction of Mohmand Dam Hydropower Project (M/s Kashmir Art & Steel)

Reference # CED/TFL **33948** (Dr. Waseem Abbas)

Reference of the request letter # MDSYS-027

Dated: 03-10-2019

Dated: 01-10-2019

Size Test Report (Page – 3/3) Date of Test 09-10-2019

Gauge length -----

Description Wire Mesh Size Test

	ation	G	rid Size	ured ter of re	ķ
Sr. No.	Designation	Length	Width	Measured Diameter of Wire	Remark
	(mm)	(mm)	(mm)	(mm)	
1	6	98.00	103.50	5.90	
2	8	99.00	101.20	7.70	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
	(Only Two S	Samples for Tes	t	

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

Ref: <u>CED/TFL/10/33954</u> Dated: <u>04-10-2019</u>

Dated of Test: 09-10-2019

To, Addl. Deputy Manager Civil P.C Pole Plant GEPCO Chicho Ki Mallain SKP

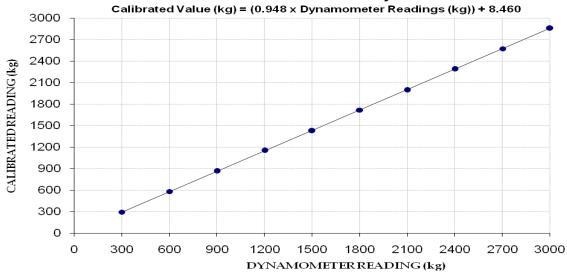
Subject: - CALIBRATION OF DYNAMOMETER (MARK: TFL/10/33954)

Ref: Your letter No. 2683, dated: 02/10/2019 on the subject cited above. One Dynamometer as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 5000 (kg) Calibrated Range : Zero - 300 (kg)

Dynamometer Reading	300	600	900	1200	1500	1800	2100	2400	2700	3000	
Calibrated Dandings	(kN)	2.88	5.67	8.47	11.29	13.99	16.83	19.56	22.44	25.21	28.01
Calibrated Readings	(kg)	293	578	863	1150	1426	1715	1994	2287	2570	2855

Calibration Curve for Dynamometer



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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 Defence Housing Authority.
Lahore Cantt
(Infra Dev Works Ph-IX Prism (Pkg-II, III & IV), DHA Ph-IX)(M/s NLC)

Reference # CED/TFL **33973** (Dr. Waseem Abbas) Dated: 08-10-2019 Reference of the request letter # 408/241/E/Lab/731/1601 Dated: 07-10-2019

Tension Test Report (Page -1/1)

Date of Test 09-10-2019 Gauge length 8 inches

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

Sr. No.	Weight	Meigan Diameter/size			rea 1 ²)	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	0.373	3	0.374	0.11	0.110	3300	4800	66200	66360	96200	96600	1.00	12.5	el
2	0.377	3	0.376	0.11	0.111	3400	4900	68200	67560	98200	97400	1.10	13.8	S.J Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	S.
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			No	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend	test		l	
							Bend T	est						
#3	Bar Ben	d Test	Through	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,

Senior Resident Engineer

ProMag Pvt Ltrd

Develoment of Main Trunk Sewer - DHA Multan

(Kisan Steel)

Reference # CED/TFL **33974** (Dr. Waseem Abbas)

Reference of the request letter # CRE/Sec-D/320

Dated: 08-10-2019

Dated: 23-09-2019

Tension Test Report (Page -1/1)

Date of Test 09-10-2019 Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A496

Sr. No. m) Weight	Si	neter/ ze m)	Area (mm²)		Yield load	Breaking Load		Stress pa)		e Stress pa)	Remarks	
S	(Kg/m)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	Re
1	0.357	6	7.61	32.30	45.50	1900	2700	577	410	820	582	
2	0.376	6	7.81	32.30	47.87	1900	2800	577	389	850	574	
3	0.385	8	7.90	51.60	49.04	1600	2200	304	320	418	440	
4	0.379	8	7.84	51.60	48.33	1600	2200	304	325	418	447	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
		No	ote: onl	y four	samples	s for tens	ile and tv	vo sampl	es for be	nd test		
						Beno	d Test					
6m	m Dia B	ar Beno	d Test T	`hrough	180° is	Satisfact	ory					
8m	m Dia B	ar Bend	d Test T	hrough	180° is	Satisfact	ory					

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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,

Senior Resident Engineer

ProMag Pvt Ltrd

Develoment of Main Trunk Sewer - DHA Multan

(Kisan Steel)

Reference # CED/TFL **33975**, **978** (Dr. Waseem Abbas)

Reference of the request letter # CRE/Sec-D/324

Dated: 08-10-2019

Dated: 26-09-2019

Tension Test Report (Page -1/2)

Date of Test 09-10-2019 Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A496

Sr. No. Weight		Diameter/ Size (mm)		Area (mm²)		Yield load	Breaking Load	Yield Stress (Mpa)			e Stress pa)	Remarks
S	(Kg/m)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	R
1	0.269	5	6.60	19.40	34.26	1400	1900	708	401	961	544	
2	0.271	5	6.62	19.40	34.46	1400	1900	708	399	961	541	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	•	-	-	-	•	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	•	-	-	-	-	-	-	-	-	-	-	
		N	lote: on	ly two	sample	s for tens	sile and o	ne sampl	e for ben	d test		
						Bend	d Test					
5m	m Dia B	ar Beno	d Test T	hrough	180° is	Satisfact	ory					

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, Senior Resident Engineer ProMag Pvt Ltrd Develoment of Main Trunk Sewer - DHA Multan (Kisan Steel)

Reference # CED/TFL **33975**, **978** (Dr. Waseem Abbas)

Reference of the request letter # CRE/Sec-D/324

Dated: 08-10-2019

Dated: 26-09-2019

Tension Test Report (Page -2/2)

Date of Test 09-10-2019 Gauge length 8 inches

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

Sr. No.	Weight	Si	neter/ ize um)		rea 1 ²)	Yield load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
S	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	З%	Re
1	0.414	10	10.00	0.12	0.122	4800	6000	88184	86910	110230	108700	0.75	9.4	
2	0.412	10	9.98	0.12	0.121	4700	5900	86347	85460	108393	107300	0.75	9.4	
-	-	-	-	•	-	-	-	•	-	-	-	-	ı	
-	-	-	-	•	-	-	-	•	-	-	-	-	ı	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			N	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend t	test			
							Bend T	est						
101	nm Dia	Bar Bei	nd Test	Throug	h 180° i	s Satisfac	ctory							

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LAHOR:

STRUCTURAL ENGINEERING DIVISION

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

To,

Senior Resident Engineer

ProMag Pvt Ltrd

Develoment of Sector A (Sewerage Work) - DHA Multan

(Usman Steel)

Reference # CED/TFL **33976** (Dr. Qasim Khan) Dated: 08-10-2019 Reference of the request letter # CRE/Sec-D/330 Dated: 03-10-2019

Tension Test Report (Page -1/2)

Date of Test 09-10-2019 Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A496

Sr. No.	Weight	Si	neter/ ze m)		rea m²)	Yield load	Breaking Load		Stress pa)		e Stress pa)	Remarks
S	(Kg/m)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	R
1	0.208	5	5.81	19.40	26.51	880	1200	445	326	607	444	
2	0.202	5	5.72	19.40	25.68	840	1240	425	321	627	474	
3	0.253	6	6.40	32.30	32.20	1120	1880	340	341	571	573	
4	0.255	6	6.43	32.30	32.46	1120	1920	340	339	583	580	
5	0.366	8	7.70	51.60	46.56	1640	2280	312	346	433	480	
6	0.369	8	7.73	51.60	46.96	1680	2280	319	351	433	476	
		No	ote: onl	y six sa	mples f	for tensil	e and thr	ee sampl	es for be	nd test		
	Bend Test											
5m	m Dia B	ar Beno	d Test T	hrough	180° is	Satisfact	ory					
6m	6mm Dia Bar Bend Test Through 180° is Satisfactory											
8m	mm Dia 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, Senior Resident Engineer ProMag Pvt Ltrd

Develoment of Sector A (Sewerage Work) - DHA Multan

(AF Steel)

Reference # CED/TFL **33976** (Dr. Qasim Khan) Dated: 08-10-2019 Reference of the request letter # CRE/Sec-D/330 Dated: 03-10-2019

Tension Test Report (Page -2/2)

Date of Test 09-10-2019 Gauge length 8 inches

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

1 0.384 3 0.379 0.11 0.113 3300 5000 66200 64500 100200 97800 1.20 15.0 2 0.382 3 0.378 0.11 0.112 3200 5000 64200 62770 100200 98100 1.00 12.5 - - - - - - - - -	Sr. No.	M Diameter/ Size			rea n²)	Yield load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks	
2 0.382 3 0.378 0.11 0.112 3200 5000 64200 62770 100200 98100 1.00 12.5 - </th <th>S</th> <th>(lbs/ft)</th> <th>Nominal (#)</th> <th>Actual (inch)</th> <th>Nominal</th> <th>Actual</th> <th>(kg)</th> <th>(kg)</th> <th>Nominal</th> <th>Actual</th> <th>Nominal</th> <th>Actual</th> <th>(inch)</th> <th>3 %</th> <th>Re</th>	S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	3 %	Re
	1	0.384	3	0.379	0.11	0.113	3300	5000	66200	64500	100200	97800	1.20	15.0	
- - - - - - - - - -	2	0.382	3	0.378	0.11	0.112	3200	5000	64200	62770	100200	98100	1.00	12.5	
- - - - - - - - - -	-	-	-	-	•	-	-	-	-	-	-	•	-	1	
Note: only two samples for tensile and one sample for bend test	-	•	•	-	•	-	-	-	-	-	-	•	-	1	
Note: only two samples for tensile and one sample for bend test	-	-	-	-	•	-	-	-	-	-	-	•	-	•	
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		Note: only two samples for tensile and one sample for bend test													
Bend Test #3 Bar Bend Test Through 180° is Satisfactory	#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

Ref: CED/TFL/10/33979 Dated: 08-10-19

Dated of Test: <u>09-10-19</u>

To Resident Engineer-II (Min-CEC Joint Venture) Khyber Pakhtunkhwa Provincial Roads Improvement Project (KP-PRIP)

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/10/33979) (Page -1/2)

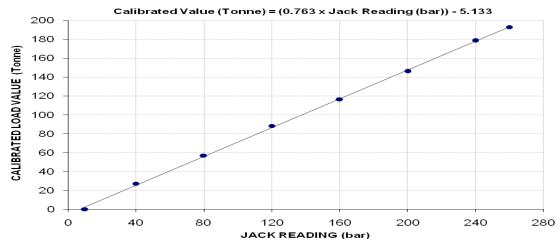
Reference to your Letter No. JV Min-CEC/PRIP/RE-II/HHR/2019/279, dated: 01/10/2019 on the subject cited above. One Hydraulic Jack (Jack No 409, Gauge No. SF 409) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 1000 (bar) Calibrated Range : Zero - 260 (bar)

Hydraulic Jack Reading (bar)			40	80	120	160	200	240	260
Calibrated Load	(kg)	0	27000	56800	88200	116400	146000	178600	193000
Cambrated Load	(Tonne)	0	27.00	56.80	88.20	116.40	146.00	178.60	193.00
Calibrated Pressure (bar)			36.08	75.89	117.85	155.53	195.08	238.64	257.88

The Ram Area of Jack = 733.975 cm²

Calibration Curve For Jack No. 409



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

Ref: CED/TFL/10/33979 Dated: 08-10-19

Dated of Test: <u>09-10-19</u>

To Resident Engineer-II (Min-CEC Joint Venture) Khyber Pakhtunkhwa Provincial Roads Improvement Project (KP-PRIP)

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/10/33979) (Page -2/2)

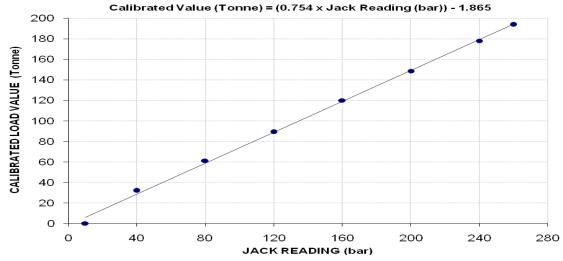
Reference to your Letter No. JV Min-CEC/PRIP/RE-II/HHR/2019/279, dated: 01/10/2019 on the subject cited above. One Hydraulic Jack (Jack No 410, Gauge No. SF 410) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 1000 (bar) Calibrated Range : Zero - 260 (bar)

Hydraulic Jack Reading (bar)			40	80	120	160	200	240	260
Calibrated Load	(kg)	0	32000	61200	89200	120000	148600	178000	193800
Cambrated Load	(Tonne)	0	32.00	61.20	89.20	120.00	148.60	178.00	193.80
Calibrated Pressure (bar)			42.76	81.77	119.18	160.34	198.55	237.83	258.95

The Ram Area of Jack = 733.975 cm^2

Calibration Curve For Jack No. 410



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,

Material Engineer

Defence Housing Authority

Bahawalpur Cantonment

(M/s Kingcrete Builders Lahore)

Reference # CED/TFL **33980** (Dr. Waseem Abbas)

Reference of the request letter # 160/QC/MTL

Dated: 08-10-2019

Dated: 03-10-2019

Tension Test Report (Page -1/1)

Date of Test 09-10-2019 Gauge length 8 inches

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

r. No.	Diameter/ Area (in²) Size Size Size Size Size Size Size Size								Elongation	Elongation Elongation	Remarks			
S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.376	3	0.375	0.11	0.110	3300	4900	66200	65900	98200	97900	1.10	13.8	Kamran Steel
2	0.376	3	0.375	0.11	0.110	3200	5100	64200	63900	102200	101900	1.00	12.5	City Steel UAE
3	0.373	3	0.373	0.11	0.110	3100	4800	62200	62370	96200	96600	1.20	15.0	Moiz Steel
4	0.376	3	0.375	0.11	0.110	4200	5700	84200	83850	114300	113800	0.80	10.0	Amreli Steel
5	0.371	3	0.373	0.11	0.109	3900	4900	78200	78800	98200	99100	0.90	11.3	Mughal Supreme
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			N	ote: or	ly five	sample	s for ter	sile and	five sam	ples for b	end test	1	1	
"	#3 Bar Bend Test Through 180° is Satisfactory													
#3	Bar Ben	d Test	Throug	h 180°	is Satis	factory								
#3	#3 Bar Bend Test Through 180° is Satisfactory													
#3	#3 Bar Bend Test Through 180° is Satisfactory													
#3	Bar Ben	d Test	Throug	h 180°	is Satis	factory								
				.c. (2.TE										

Witness by Kashif (NESPAK)

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, Chief Executive KS & Associates

Setting up of New Branch of MCB Bank & Regional Office at Muzaffargarh

Reference # CED/TFL **33981** (Dr. Waseem Abbas) Dated: 08-10-2019 Reference of the request letter # KSA/MCB-MZFG/18/OC-12 Dated: 08-10-2019

Tension Test Report (Page -1/1)

Date of Test 09-10-2019 Gauge length 8 inches

Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight		neter/ ze	Aı (iı	rea n²)	Yield load	Breaking Load		Stress si)	Ultimate Stress (psi)		Elongation	% Elongation	Remarks
S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	Re
1	0.413	3	0.393	0.11	0.122	4100	5400	82200	74370	108200	98000	0.90	11.3	
2	0.410	3	0.392	0.11	0.120	4100	5400	82200	75010	108200	98800	0.80	10.0	
-	•	-	-	•	-	-	-	-	-	-	•	-	-	
-	•	•	-	1	-	-	-	-	-	-	•	-	-	
	•	-	-	•	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Note: only two samples for tensile test													
	Bend Test													

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 China Electric Power Equipment and Technology Co., Ltd
Pak Matiari-Lahore Transmission Company (Pvt) Ltd
+660kV Matiari-Lahore HVDC Transmission Project Lot-06

Reference # CED/TFL **33982** (Dr. Safeer Abbas)

Reference of the request letter # CET/HVDC/RSP/LOT-6

Dated: 09-10-2019

Dated: 08-10-2019

Tension Test Report (Page – 1/3)

Date of Test 09-10-2019

Description Steel Wire Rope Tensile Test

Sr. No.	Diameter	Measured weight	Breaking	Remarks / Coil No.	
	(mm)	(kg/km)	(kN)	(kg)	Rema
1	11	573.26	81.50	8310	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
		Only one s	sample for Test		

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 China Electric Power Equipment and Technology Co., Ltd
Pak Matiari-Lahore Transmission Company (Pvt) Ltd
+660kV Matiari-Lahore HVDC Transmission Project Lot-06

Reference # CED/TFL **33982** (Dr. Safeer Abbas)

Reference of the request letter # CET/HVDC/RSP/LOT-6

Dated: 09-10-2019

Dated: 08-10-2019

Tension Test Report (Page - 2/3)

Date of Test 09-10-2019

Description Steel Wire Rope Tensile Test

Sr. No.	Diameter	Measured weight	Breaking	Remarks / Coil No.		
	(mm)	(kg/km)	(kN)	(kg)	Rema	
1	16	885.71	138.50	14120		
-	-	-	-	-		
-	-	-	-	-		
-	-	-	-	-		
-	-	-	-	-		
-	-	-	-	-		
		Only one	sample for Test			

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 China Electric Power Equipment and Technology Co., Ltd
Pak Matiari-Lahore Transmission Company (Pvt) Ltd
+660kV Matiari-Lahore HVDC Transmission Project Lot-06

Reference # CED/TFL **33982** (Dr. Safeer Abbas)

Reference of the request letter # CET/HVDC/RSP/LOT-6

Dated: 09-10-2019

Dated: 08-10-2019

Tension Test Report (Page – 3/3)

Date of Test 09-10-2019

Description Steel Wire Rope Tensile Test

Sr. No.	Diameter	Measured weight	Breaking	Remarks / Coil No.	
	(mm)	(kg/km)	(kN)	(kg)	Rema
1	22	1847.42	259.00	26400	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
		Only one	sample for Test		

I/C Testing Laboratoires UET Lahore, Pakistan.

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