

To,

STRUCTURAL ENGINEERING DIVISION

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

Manager Civil Nishat Mills Limited Dyeing & Finishing Plant, Lahore "Construction of Fabric Godown Extension Unit 35" Reference # CED/TFL <u>**3497** (Dr. Usman Akmal)</u> Reference of the request letter # NDF/FGST/005

Dated: 20-06-2023 Dated: 19-06-2023

Tension Test Report (Page -1/1)

Date of Test

21-06-2023P

Gauge length Description

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

| Sr. No. | Weight | Si | neter/ ize nm) | | ·ea 1 ²) | Yield load | Breaking Load | | Stress si) | Ultimat (p | e Stress si) | Elongation | % Elongation | Remarks |
|---------|----------|---------|----------------------|---------|-------------------------|------------|------------------|---------|---------------|---------------|-----------------|------------|--------------|----------------|
| S | (lbs/ft) | Nominal | Actual | Nominal | Actual | (kg) | (kg) | Nominal | Actual | Nominal | Actual | (inch) | 3 % | Ro |
| 1 | 0.422 | 10 | 10.10 | 0.12 | 0.124 | 4000 | 5500 | 73487 | 71000 | 101044 | 97700 | 1.40 | 17.5 | el |
| 2 | 0.423 | 10 | 10.11 | 0.12 | 0.124 | 3900 | 5500 | 71650 | 69120 | 101044 | 97500 | 1.30 | 16.3 | Sheikhoo Steel |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | ikho |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | She |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| | | | N | ote: on | ly two s | amples f | or tensile | and one | sample f | for bend t | est | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | Bend T | est | | | | | | |
| 10r | nm Dia | Bar Be | nd Test | Throug | h 180° i | s Satisfac | ctory | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
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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.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

.To,

Project Manager Guarantee Engineers (Pvt) Ltd Construction Hyundai Residential Project at FIEDMC, M3 Industrial Estate Faisalabad

Reference # CED/TFL **<u>3498</u>** (Dr. M Kashif) Reference of the request letter # HNH/GE/ST/015 Dated: 20-06-2023 Dated: 13-06-2023

Tension Test Report (Page -1/1)

Date of Test Gauge length Description 21-06-2023 8 inches Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No. | Weight | Si | neter/ ze m) | | rea 1 ²) | Yield load | Breaking Load | | Stress si) | | te Stress si) | Elongation | % Elongation | Remarks |
|---------|----------|---------|--------------------|---------|-------------------------|------------|------------------|---------|---------------|---------|------------------|------------|--------------|---------|
| S | (lbs/ft) | Nominal | Actual | Nominal | | | Actual | Nominal | Actual | (inch) | % E | Re | | |
| 1 | 0.375 | 10 | 9.52 | 0.12 | 0.110 | 3500 | 5400 | 64301 | 69930 | 99207 | 107900 | 1.30 | 16.3 | |
| 2 | 0.372 | 10 | 9.48 | 0.12 | 0.109 | 3200 | 5300 | 58789 | 64510 | 97370 | 106900 | 1.30 | 16.3 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| | | | N | ote: on | ly two s | amples f | or tensile | and one | sample f | or bend | test | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | Bend T | est | | | | | | |
| 10r | nm Dia I | Bar Bei | nd Test | Throug | h 180° i | s Satisfac | ctory | | | | | | | |
| | | | | | | | | | | | | | | |

I/C Testing Laboratoires UET Lahore, Pakistan.

Note:

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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 Project Manager Shifa Development Services Pvt Ltd Under Construction Site of Shifa National Hospital Opposite Al-Qadir Garden, Lahore Sheikhupura Road, Faisalabad

Reference # CED/TFL <u>**3501** (Dr. M Kashif)</u> Reference of the request letter # SNHF/SDS/ST/17 Dated: 20-06-2023 Dated: 20-06-2023

Tension Test Report(Page -1/1)Date of Test21-06-2023Gauge length8 inchesDescriptionDeformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No. | Weight | Si | neter/ ze ch) | | ·ea 1 ²) | Yield load | Breaking Load | | Stress si) | | e Stress si) | Elongation | % Elongation | Remarks |
|------------|----------|---------|---------------------|---------|-------------------------|------------|------------------|---------|---------------|-----------|-----------------|------------|--------------|---------|
| S 2 | (lbs/ft) | Nominal | Actual | Nominal | | | Actual | (inch) | % E | R | | | | |
| 1 | 0.381 | 3/8 | 0.377 | 0.11 | 0.112 | 3400 | 5100 | 68200 | 66970 | 102200 | 100500 | 1.30 | 16.3 | E |
| 2 | 0.374 | 3/8 | 0.374 | 0.11 | 0.110 | 3000 | 5000 | 60200 | 60160 | 100200 | 100300 | 1.30 | 16.3 | SGI |
| - | - | - | - | - | | | - | - | - | | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| | | | N | ote: on | y two s | amples f | or tensile | and one | sample f | or bend t | test | | | |
| | | | | | | | Bend T | 'est | | | | | | |
| 3/8 | " Dia Ba | ar Bend | Test Th | nrough | 180° is S | Satisfacto | | | | | | | | |
| | | | | | | | | | | | | | | |

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,

Chairman Eagle Developers Project of City Galleria Gujranwala.

Reference # CED/TFL <u>**3507** (Dr. M Kashif)</u> Reference of the request letter # Nil Dated: 20-06-2023 Dated: 20-06-2023

Tension Test Report(Page -1/1)Date of Test21-06-2023Gauge length8 inchesDescriptionDeformed Steel Bar Tensile Test as per ASTM-A615

| Sr. No. | Weight | | neter/ ze | | rea 1 ²) | 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) | 3 % | Rc |
| 1 | 0.400 | 3 | 0.387 | 0.11 | 0.118 | 3500 | 4900 | 70200 | 65590 | 98200 | 91900 | 1.10 | 13.8 | |
| 2 | 0.402 | 3 | 0.388 | 0.11 | 0.118 | 3700 | 5000 | 74200 | 69050 | 100200 | 93400 | 1.10 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| | | | | | Not | e: only t | wo samp | les for ter | nsile test | 1 | r | 1 | [| |
| | | | | | | | DandT | | | | | | | |
| | | | | | | | Bend T | est | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

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 Goraya Builders

Reference # CED/TFL <u>**3508** (Dr. M Kashif)</u> Reference of the request letter # Nil Dated: 20-06-2023 Dated: 20-06-2023

Tension Test Report(Page -1/1)Date of Test21-06-2023

Gauge length Description 21-06-20238 inchesDeformed Steel Bar Tensile Test as per ASTM-A615

| Sr. No. | Weight | | neter/ ze | | ·ea 1 ²) | Yield load | Breaking Load | | Stress si) | | e Stress si) | Elongation | % Elongation | Remarks |
|---------|----------|----------------|------------------|---------|-------------------------|------------|------------------|------------|---------------|---------|-----------------|------------|--------------|---------|
| | (lbs/ft) | Nominal (#) | Actual (inch) | Nominal | Actual | (kg) | (kg) | Nominal | Actual | Nominal | Actual | (inch) | 3 % | R |
| 1 | 0.375 | 3 | 0.374 | 0.11 | 0.110 | 3000 | 5000 | 60200 | 60060 | 100200 | 100100 | 1.30 | 16.3 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| | | | | | No | te: only o | one samp | le for ten | sile test | 1 | | T | | |
| | | | | | | | | | | | | | | |
| | | | | | | | Bend T | est | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

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

2. The above results pertain to sample /samples supplied to this laboratory.





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

To,

M/S Zikria Construction Company Lahore (Construction of Beaconhouse School Campus D Block Gulberg Green Islamabad)

| Reference # CED/TFL 3509 (Dr. M Kashif) |
|-----------------------------------------|
| Reference of the request letter # Nil |

Dated: 20-06-2023 Dated: 20-06-2023

Tension Test Report(Page -1/1)

Date of Test Gauge length Description 21-06-2023 8 inches Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No. | Weight | Diam Si | | | ·ea 1 ²) | Yield load | Breaking Load | | Stress si) | Ultimat (p | | Elongation | % Elongation | Remarks |
|---------|----------|----------------|------------------|---------|-------------------------|------------|------------------|---------|---------------|---------------|--------|------------|--------------|---------|
| S | (lbs/ft) | Nominal (#) | Actual (inch) | Nominal | Actual | (kg) | (kg) | Nominal | Actual | Nominal | Actual | (inch) | % E | Re |
| 1 | 0.384 | 3 | 0.379 | 0.11 | 0.113 | 3200 | 5000 | 64200 | 62560 | 100200 | 97800 | 1.50 | 18.8 | |
| 2 | 0.381 | 3 | 0.377 | 0.11 | 0.112 | 3400 | 5000 | 68200 | 66980 | 100200 | 98500 | 1.40 | 17.5 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| | | | N | ote: on | ly two s | amples f | or tensile | and one | sample f | for bend t | est | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | Bend T | est | | | | | | |
| #3 | Bar Ben | d Test 🛛 | Fhrough | 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,

Engineer Representative Osmani & Company (Pvt) Ltd Construction of Greenfield Aerodrome for General Aviation Activities at Muridke

Reference # CED/TFL 3510 (Dr. M Kashif)Dated: 20-06-2023Reference of the request letter # OCL/CAA/MAD-ER/01-2K23/24 Dated: 18-06-2023

Tension Test Report (Page -1/1)

Date of Test21-06-2023Gauge length8 inchesDescriptionDeformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No. | Weight | Diam Si | neter/ ze | | rea 1 ²) | 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 | Re |
| 1 | 0.392 | 3 | 0.383 | 0.11 | 0.115 | 2900 | 4600 | 58200 | 55470 | 92200 | 88000 | 1.60 | 20.0 | ne |
| 2 | 0.401 | 3 | 0.388 | 0.11 | 0.118 | 2900 | 4700 | 58200 | 54190 | 94200 | 87900 | 1.50 | 18.8 | Prime Supreme Steel |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | ne Sup Steel |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | Priı |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| | | | 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 [| Fhrough | n 180° is | s Satisfa | ctory | | | | | | | | |
| | | | | | | | | | | | | | | |

I/C Testing Laboratoires UET Lahore, Pakistan.

Note:

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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/06/3511, 3521

Dated: 20-06-2023

Dated: 21-06-2023

То

M/S China Gezhouba Group Company Limited CGGC Dasu Hydropower Project Management in Pakistan Dasu Hydropower Project.

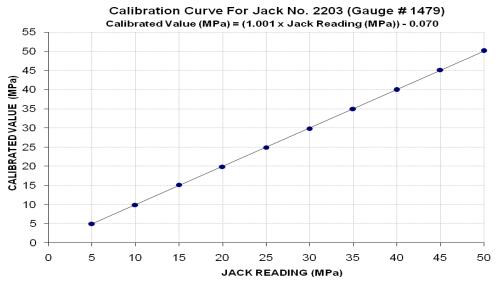
Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/06/3511) (Page -1/7)

Reference to your Letter No. Nil, dated: 20/06/2023 on the subject cited above. One Hydraulic Jack (Jack No. 2203, Gauge No. 1479) as received by us has been calibrated. The results are tabulated as under:

| Total Range : | Zero - | 60 (MPa) |
|--------------------|--------|----------|
| Calibrated Range : | Zero - | 50 (MPa) |

| Hydraulic Jack Reading (MPa) | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---------------------------------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| Calibrated Load (kg) | 15200 | 30200 | 46000 | 60400 | 75600 | 90600 | 106200 | 121400 | 137200 | 152200 |
| Calibrated Pressure (Mpa) | 5.00 | 9.94 | 15.14 | 19.88 | 24.88 | 29.82 | 34.95 | 39.95 | 45.15 | 50.09 |

The Ram Area of Jack = 298 cm^2



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/06/3511, 3521

Dated: 20-06-2023

Dated: 21-06-2023

То

M/S China Gezhouba Group Company Limited CGGC Dasu Hydropower Project Management in Pakistan Dasu Hydropower Project.

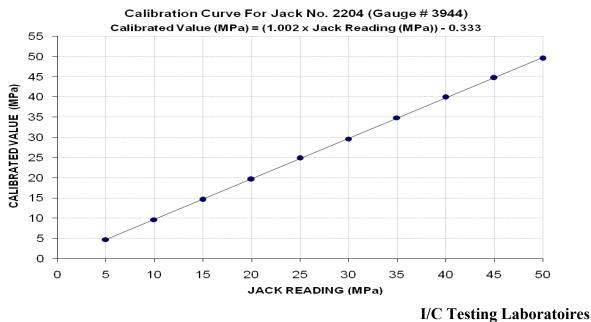
Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/06/3511) (Page -2/7)

Reference to your Letter No. Nil, dated: 20/06/2023 on the subject cited above. One Hydraulic Jack (Jack No. 2204, Gauge No. 3944) as received by us has been calibrated. The results are tabulated as under:

| Total Range : | Zero - | 60 (MPa) |
|--------------------|--------|----------|
| Calibrated Range : | Zero - | 50 (MPa) |

| Hydraulic Jack Reading (MPa) | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---------------------------------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| Calibrated Load (kg) | 14400 | 29200 | 44400 | 59600 | 75600 | 90000 | 106000 | 121400 | 136000 | 150600 |
| Calibrated Pressure (Mpa) | 4.74 | 9.61 | 14.61 | 19.61 | 24.88 | 29.62 | 34.88 | 39.95 | 44.76 | 49.56 |

The Ram Area of Jack = 298 cm^2



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



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

Ref: CED/TFL/06/3511, 3521

Dated: 20-06-2023

Dated: 21-06-2023

То

M/S China Gezhouba Group Company Limited CGGC Dasu Hydropower Project Management in Pakistan Dasu Hydropower Project.

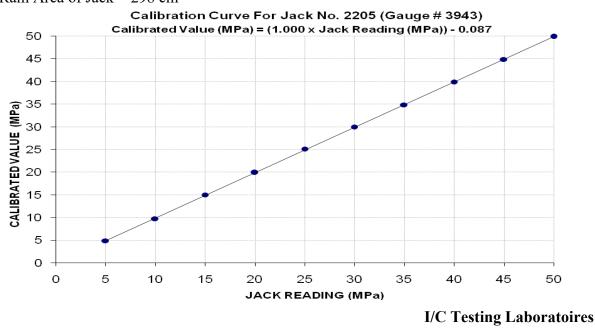
Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/06/3511) (Page -3/7)

Reference to your Letter No. Nil, dated: 20/06/2023 on the subject cited above. One Hydraulic Jack (Jack No. 2205, Gauge No. 3943) as received by us has been calibrated. The results are tabulated as under:

| Total Range : | Zero - | 60 (MPa) |
|--------------------|--------|----------|
| Calibrated Range : | Zero - | 50 (MPa) |

| Hydraulic Jack Reading (MPa) | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---------------------------------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| Calibrated Load (kg) | 14800 | 29600 | 45600 | 60600 | 76400 | 91200 | 106000 | 121400 | 136400 | 151600 |
| Calibrated Pressure (Mpa) | 4.87 | 9.74 | 15.01 | 19.94 | 25.14 | 30.01 | 34.88 | 39.95 | 44.89 | 49.89 |

The Ram Area of Jack = 298 cm^2



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

Ref: CED/TFL/06/3511, 3521

Dated: 20-06-2023

Dated: 21-06-2023

То

M/S China Gezhouba Group Company Limited CGGC Dasu Hydropower Project Management in Pakistan Dasu Hydropower Project.

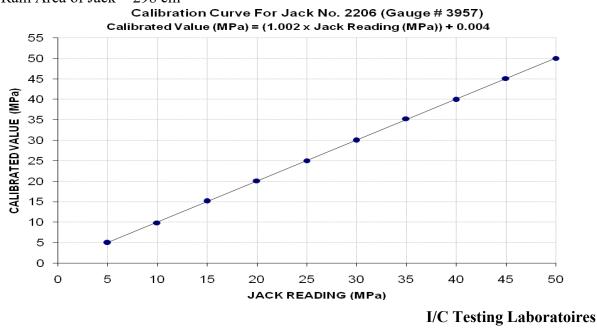
Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/06/3511) (Page -4/7)

Reference to your Letter No. Nil, dated: 20/06/2023 on the subject cited above. One Hydraulic Jack (Jack No. 2206, Gauge No. 3957) as received by us has been calibrated. The results are tabulated as under:

| Total Range : | Zero - | 60 (MPa) |
|--------------------|--------|----------|
| Calibrated Range : | Zero - | 50 (MPa) |

| Hydraulic Jack Reading (MPa) | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---------------------------------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| Calibrated Load (kg) | 15200 | 30000 | 46000 | 61200 | 76000 | 91200 | 107200 | 121400 | 137200 | 152000 |
| Calibrated Pressure (Mpa) | 5.00 | 9.87 | 15.14 | 20.14 | 25.01 | 30.01 | 35.28 | 39.95 | 45.15 | 50.02 |

The Ram Area of Jack = 298 cm^2



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



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

Ref: CED/TFL/06/3511, 3521

Dated: 20-06-2023

Dated: 21-06-2023

То

M/S China Gezhouba Group Company Limited CGGC Dasu Hydropower Project Management in Pakistan Dasu Hydropower Project.

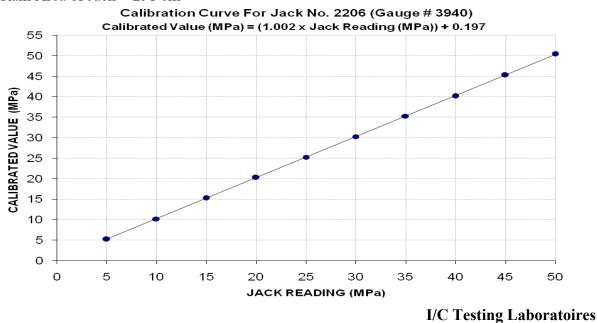
Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/06/3511) (Page -5/7)

Reference to your Letter No. Nil, dated: 20/06/2023 on the subject cited above. One Hydraulic Jack (Jack No. 2206, Gauge No. 3940) as received by us has been calibrated. The results are tabulated as under:

| Total Range : | Zero - | 60 (MPa) |
|--------------------|--------|----------|
| Calibrated Range : | Zero - | 50 (MPa) |

| Hydraulic Jack Reading (MPa) | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---------------------------------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| Calibrated Load (kg) | 15800 | 31000 | 46400 | 61600 | 76800 | 92000 | 107200 | 122000 | 137600 | 153200 |
| Calibrated Pressure (Mpa) | 5.20 | 10.20 | 15.27 | 20.27 | 25.27 | 30.28 | 35.28 | 40.15 | 45.28 | 50.42 |

The Ram Area of Jack = 298 cm^2



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



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

Ref: CED/TFL/06/3511, 3521

Dated: 20-06-2023

Dated: 21-06-2023

То

M/S China Gezhouba Group Company Limited CGGC Dasu Hydropower Project Management in Pakistan Dasu Hydropower Project.

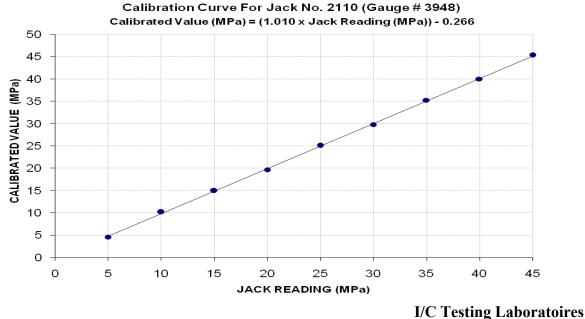
Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/06/3511) (Page -6/7)

Reference to your Letter No. Nil, dated: 20/06/2023 on the subject cited above. One Hydraulic Jack (Jack No. 2110, Gauge No. 3948) as received by us has been calibrated. The results are tabulated as under:

| Total Range : | Zero - | 60 (MPa) |
|--------------------|--------|----------|
| Calibrated Range : | Zero - | 45 (MPa) |

| Hydraulic Jack Reading (MPa) | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
|---------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| Calibrated Load (kg) | 2400 | 5300 | 7800 | 10250 | 13050 | 15500 | 18350 | 20850 | 23600 |
| Calibrated Pressure (Mpa) | 4.61 | 10.18 | 14.98 | 19.69 | 25.07 | 29.78 | 35.25 | 40.05 | 45.34 |

The Ram Area of Jack = 51.05 cm^2



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

Ref: CED/TFL/06/3511, 3521

Dated: 20-06-2023

Dated: 21-06-2023

То

M/S China Gezhouba Group Company Limited CGGC Dasu Hydropower Project Management in Pakistan Dasu Hydropower Project.

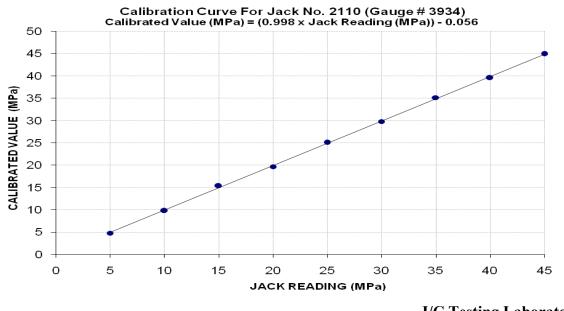
Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/06/3511) (Page -7/7)

Reference to your Letter No. Nil, dated: 20/06/2023 on the subject cited above. One Hydraulic Jack (Jack No. 2110, Gauge No. 3934) as received by us has been calibrated. The results are tabulated as under:

| Total Range : | Zero - | 60 (MPa) |
|--------------------|--------|----------|
| Calibrated Range : | Zero - | 45 (MPa) |

| Hydraulic Jack Reading (MPa) | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
|---------------------------------|------|------|-------|-------|-------|-------|-------|-------|-------|
| Calibrated Load (kg) | 2500 | 5100 | 8000 | 10250 | 13050 | 15500 | 18300 | 20600 | 23400 |
| Calibrated Pressure (Mpa) | 4.80 | 9.80 | 15.37 | 19.69 | 25.07 | 29.78 | 35.16 | 39.57 | 44.95 |

The Ram Area of Jack = 51.05 cm^2



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



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

To,

M/S M. Saleem Construction Company Sheikhupura (Extension (Goods Store) Dyeing Unit.)

Reference # CED/TFL <u>**3512** (Dr. Ali Ahmed)</u> Reference of the request letter # Nil Dated: 21-06-2023 Dated: 20-06-2023

Tension Test Report(Page -1/1)

Date of Test Gauge length Description 21-06-2023 8 inches Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No. | Weight | Diam Si | | | ·ea 1 ²) | Yield load | Breaking Load | Yield Stress (psi) | | | e Stress si) | Elongation | % Elongation | Remarks |
|---------|----------|----------------|------------------|---------|-------------------------|------------|------------------|-----------------------|----------|-----------|-----------------|------------|--------------|---------|
| S | (lbs/ft) | Nominal (#) | Actual (inch) | Nominal | Actual | (kg) | (kg) | Nominal | Actual | Nominal | Actual | (inch) | % E | R |
| 1 | 0.373 | 3 | 0.373 | 0.11 | 0.110 | 3400 | 4900 | 68200 | 68410 | 98200 | 98600 | 1.20 | 15.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| | | | N | ote: on | ly one s | sample fo | or tensile | and one | sample f | or bend t | est | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | Bend T | est | | | | | | |
| #3 | Bar Ben | d Test [| Through | 180° is | s Satisfa | ctory | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

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

2. The above results pertain to sample /samples supplied to this laboratory.



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

To,

Chief Technical Officer Sheikhoo Sugar Mills (Steel Division) Anwar Abad Kot Addu, Muzaffargarh

Reference # CED/TFL <u>3515 (Dr. Ali Ahmed)</u> Reference of the request letter #Nil

Tension Test Report (Page -1/2)

Date of Test Gauge length Description

21-06-20238 inchesDeformed Steel Bar Tensile Test as per ASTM-A615

| Sr. No. | Weight | Diam Si | | | rea 1 ²) | Yield load | Breaking Load | Yield Stress (psi) | | Ultimat (p | e Stress si) | Elongation | % Elongation | Remarks |
|---------|----------|----------------|------------------|---------|-------------------------|------------|------------------|-----------------------|-----------|---------------|-----------------|------------|--------------|---------|
| S | (lbs/ft) | Nominal (#) | Actual (inch) | Nominal | Actual | (kg) | (kg) | Nominal | Actual | Nominal | Actual | (inch) | H % | Ro |
| 1 | 0.369 | 3 | 0.372 | 0.11 | 0.108 | 3200 | 4900 | 64200 | 65020 | 98200 | 99600 | 1.60 | 20.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| | | | | | No | te: only o | one samp | le for ten | sile test | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | Bend T | est | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

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
- 2. The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

Dated: 21-06-2023 Dated: 20-06-2023



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

To,

Chief Technical Officer Sheikhoo Sugar Mills (Steel Division) Anwar Abad Kot Addu, Muzaffargarh

Reference # CED/TFL <u>3515 (Dr. Ali Ahmed)</u> Reference of the request letter #Nil Dated: 21-06-2023 Dated: 20-06-2023

Tension Test Report(Page -2/2)

Date of Test Gauge length Description 21-06-2023 8 inches

Deformed Steel Bar Tensile Test as per ASTM-A615

| Weight | Diameter/ Size (mm) | | Area (in²) | | Yield load | Breaking Load | Yield Stress (psi) | | Ultimate Stress (psi) | | Elongation | longation | Remarks |
|-----------------------------------------|--------------------------------------------------------------------|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------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| (lbs/ft) | Nominal | Actual | Nominal | Actual | (kg) | (kg) | Nominal | Actual | Nominal | Actual | (inch) | E % | Ro |
| 4.221 | 32 | 31.93 | 1.25 | 1.241 | 39400 | 53800 | 69489 | 69990 | 94886 | 95600 | 1.60 | 20.0 | |
| 5.329 | 36 | 35.87 | 1.58 | 1.566 | 46800 | 66800 | 65301 | 65850 | 93207 | 94000 | 1.70 | 21.3 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | I | - | - | - | - | - | - | I | I | - | |
| - | - | - | I | - | - | - | - | - | - | I | I | - | |
| Note: only two samples for tensile test | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) | (tJ/sql) 4.221 32 5.329 36 | Image: display black Image: display black (I) Image: display black Image: display black 4.221 32 31.93 5.329 36 35.87 - - - - - - - - - - - - - - - - - - | Image: transmission of transmissi andifference of transmission of transmission of trans | Image: height display="black; splitpin: spl | (III) $IIII$ $IIII$ $IIIII$ $IIIII$ $IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII$ | (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) <t< td=""><td>(1)$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$$(1)$<th< td=""><td>(1) (1) <t< td=""><td>(1) (1) (1)</td><td>(1) (1) (1)</td><td>Image: triangle state stress stres</td><td>Image: state in the state in the</td></t<></td></th<></td></t<> | (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) <th< td=""><td>(1) (1) <t< td=""><td>(1) (1) (1)</td><td>(1) (1) (1)</td><td>Image: triangle state stress stres</td><td>Image: state in the state in the</td></t<></td></th<> | (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) <t< td=""><td>(1) (1) (1)</td><td>(1) (1) (1)</td><td>Image: triangle state stress stres</td><td>Image: state in the state in the</td></t<> | (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) | (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) | Image: triangle state stress stres | Image: state in the |

I/C Testing Laboratoires UET Lahore, Pakistan.

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