

HABIBULLAH BHUTTO

Test Performed By:

Dr. /Engr.

Asad Ali Gillani

WRDSP Consultants.Zhob(Balochistan Water Resources Development Sector Project)(ICB-01)

Client Reference: 4078/061/HAB/01/ICB-01/1018

Dated: 27-02-2023

SOM Lab Ref: CED/SOM/1982(Page-1/6)

Dated: 24-03-2023

Test: Tension Test & Bend Test

Test Specification: ASTM-A 615

Sample Type: M S Deformed Bar (Agha Steel)

Gauge Length: 200 mm

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	kg/m	mm	mm	mm ²	mm ²	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.825	25	24.90	491	487	235.20	317.20	479	483	646	652	37.5	200	18.8	
2	3.859	25	25.02	491	492	234.50	317.50	478	478	647	646	37.5	200	18.8	
3	2.245	20	19.08	314	286	146.00	190.50	465	511	606	666	37.5	200	18.8	
4	2.251	20	19.11	314	287	148.50	193.50	473	518	616	675	30.0	200	15.0	
5	1.577	16	15.99	201	201	98.70	131.50	491	492	654	655	32.5	200	16.3	
6	1.575	16	15.98	201	201	97.20	131.70	483	485	655	657	35.0	200	17.5	
7	0.993	12	12.69	113	126	54.70	70.20	484	433	621	556	27.5	200	13.8	
8	1.000	12	12.74	113	127	55.20	70.20	488	434	621	552	25.0	200	12.5	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

25mm	Sample bend through 180 degrees Satisfactorily without any crack	<p>Note:-</p> <p>Only Twelve Samples Received and Tested</p>
20mm	Sample bend through 180 degrees Satisfactorily without any crack	
16mm	Sample bend through 180 degrees Satisfactorily without any crack	
12mm	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

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Test Performed By:

Dr. /Engr.

Asad Ali Gillani

WRDSP Consultants.Zhob(Balochistan Water Resources Development Sector Project)(ICB-01)

Client Reference: 4078/061/HAB/01/ICB-01/1018

Dated: 27-02-2023

SOM Lab Ref: CED/SOM/1982(Page-2/6)

Dated: 24-03-2023

Test: Tension Test & Bend Test

Test Specification:

ASTM-A 615

Sample Type: M S Deformed Bar (Faizan Steel)

Gauge Length:

200 mm

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	kg/m	mm	mm	mm ²	mm ²	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.840	25	24.95	491	489	236.70	328.50	482	485	669	672	35.0	200	17.5	
2	3.845	25	24.97	491	490	235.00	339.50	479	480	692	694	27.5	200	13.8	
3	2.174	20	18.78	314	277	172.50	206.50	549	623	657	746	30.0	200	15.0	
4	2.175	20	18.78	314	277	171.50	205.50	546	619	654	742	25.0	200	12.5	
5	1.554	16	15.88	201	198	101.10	135.20	503	511	672	684	32.5	200	16.3	
6	1.556	16	15.88	201	198	99.90	134.00	497	505	666	677	27.5	200	13.8	
7	0.889	12	12.01	113	113	57.50	78.00	508	508	690	689	30.0	200	15.0	
8	0.894	12	12.04	113	114	56.20	78.50	497	494	694	690	30.0	200	15.0	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

25mm	Sample bend through 180 degrees Satisfactorily without any crack	<p>Note:-</p> <p>Only Twelve Samples Received and Tested</p>
20mm	Sample bend through 180 degrees Satisfactorily without any crack	
16mm	Sample bend through 180 degrees Satisfactorily without any crack	
12mm	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

HABIBULLAH BHUTTO

Test Performed By: Dr. /Engr. Asad Ali Gillani

WRDSP Consultants.Zhob(Balochistan Water Resources Development Sector Project)(ICB-01)

Client Reference: 4078/061/HAB/01/ICB-01/1018

Dated: 27-02-2023

SOM Lab Ref: CED/SOM/1982(Page-3/6)

Dated: 24-03-2023

Test: Tension Test & Bend Test

Test Specification: ASTM-A 615

Sample Type: M S Deformed Bar (Naveena Steel)

Gauge Length: 200 mm

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	kg/m	mm	mm	mm ²	mm ²	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.842	25	24.95	491	489	251.50	326.00	512	515	664	667	35.0	200	17.5	
2	3.831	25	24.93	491	488	253.70	327.70	517	520	668	672	32.5	200	16.3	
3	2.187	20	18.83	314	279	151.70	193.50	483	545	616	695	30.0	200	15.0	
4	2.182	20	18.81	314	278	153.00	194.70	487	551	620	701	32.5	200	16.3	
5	1.563	16	15.92	201	199	106.70	134.00	531	536	666	673	37.5	200	18.8	
6	1.560	16	15.91	201	199	104.70	132.00	521	527	657	665	35.0	200	17.5	
7	0.897	12	12.06	113	114	62.00	75.70	548	543	669	663	27.5	200	13.8	
8	0.895	12	12.05	113	114	62.70	76.20	554	551	674	669	27.5	200	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

25mm	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Twelve Samples Received and Tested
20mm	Sample bend through 180 degrees Satisfactorily without any crack	
16mm	Sample bend through 180 degrees Satisfactorily without any crack	
12mm	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

HABIBULLAH BHUTTO

Test Performed By: Dr. /Engr. Asad Ali Gillani

WRDSP Consultants.Zhob(Balochistan Water Resources Development Sector Project)(NCB-06)

Client Reference: 4078/061/HAB/01/NCB-06/1022

Dated: 27-02-2023

SOM Lab Ref: CED/SOM/1982(Page-4/6)

Dated: 24-03-2023

Test: Tension Test & Bend Test

Test Specification: ASTM-A 615

Sample Type: M S Deformed Bar (Agha Steel)

Gauge Length: 200 mm

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	kg/m	mm	mm	mm ²	mm ²	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.838	25	24.95	491	489	256.00	312.50	522	524	637	640	32.5	200	16.3	
2	3.898	25	25.15	491	497	241.50	324.50	492	487	661	654	32.5	200	16.3	
3	2.255	20	19.12	314	287	149.50	194.50	476	521	619	678	32.5	200	16.3	
4	2.241	20	19.07	314	286	148.50	192.70	473	521	613	675	27.5	200	13.8	
5	1.592	16	16.07	201	203	98.20	130.70	488	485	650	645	32.5	200	16.3	
6	1.588	16	16.05	201	202	96.50	128.70	480	477	640	637	30.0	200	15.0	
7	0.893	12	12.04	113	114	54.50	69.50	482	479	615	611	30.0	200	15.0	
8	0.885	12	11.98	113	113	53.50	70.00	473	475	619	621	30.0	200	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

25mm	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Twelve Samples Received and Tested
20mm	Sample bend through 180 degrees Satisfactorily without any crack	
16mm	Sample bend through 180 degrees Satisfactorily without any crack	
12mm	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

HABIBULLAH BHUTTO

Test Performed By: Dr. /Engr. Asad Ali Gillani

WRDSP Consultants.Zhob(Balochistan Water Resources Development Sector Project)(NCB-06)

Client Reference: 4078/061/HAB/01/NCB-06/1022

Dated: 27-02-2023

SOM Lab Ref: CED/SOM/1982(Page-5/6)

Dated: 24-03-2023

Test: Tension Test & Bend Test

Test Specification: ASTM-A 615

Sample Type: M S Deformed Bar (Faizan Steel)

Gauge Length: 200 mm

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	kg/m	mm	mm	mm ²	mm ²	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.802	25	24.82	491	484	236.50	337.00	482	489	687	697	35.0	200	17.5	
2	3.813	25	24.87	491	486	235.70	336.00	480	486	684	692	35.0	200	17.5	
3	2.172	20	18.77	314	277	174.00	206.70	554	629	658	748	30.0	200	15.0	
4	2.193	20	18.86	314	279	172.00	201.50	547	616	641	722	35.0	200	17.5	
5	1.557	16	15.89	201	198	99.70	133.00	496	503	661	671	27.5	200	13.8	
6	1.565	16	15.93	201	199	99.20	133.20	493	498	662	669	30.0	200	15.0	
7	0.893	12	12.03	113	114	56.20	78.20	497	495	691	688	35.0	200	17.5	
8	0.898	12	12.07	113	114	57.50	79.90	508	503	706	699	32.5	200	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

25mm	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Twelve Samples Received and Tested
20mm	Sample bend through 180 degrees Satisfactorily without any crack	
16mm	Sample bend through 180 degrees Satisfactorily without any crack	
12mm	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

HABIBULLAH BHUTTO

Test Performed By: Dr. /Engr. Asad Ali Gillani

WRDSP Consultants.Zhob(Balochistan Water Resources Development Sector Project)(NCB-06)

Client Reference: 4078/061/HAB/01/NCB-06/1022

Dated: 27-02-2023

SOM Lab Ref: CED/SOM/1982(Page-6/6)

Dated: 24-03-2023

Test: Tension Test & Bend Test

Test Specification: ASTM-A 615

Sample Type: M S Deformed Bar (Naveena Steel)

Gauge Length: 200 mm

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	kg/m	mm	mm	mm ²	mm ²	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.818	25	24.88	491	486	254.20	326.00	518	524	664	671	30.0	200	15.0	
2	3.792	25	24.80	491	483	254.00	328.00	517	526	668	680	30.0	200	15.0	
3	2.188	20	18.84	314	279	152.20	194.70	484	546	620	699	35.0	200	17.5	
4	2.183	20	18.82	314	278	154.70	196.20	492	557	625	706	32.5	200	16.3	
5	1.565	16	15.93	201	199	107.50	133.50	535	540	664	670	32.5	200	16.3	
6	1.567	16	15.94	201	200	107.00	133.20	532	537	662	668	27.5	200	13.8	
7	0.894	12	12.04	113	114	61.70	75.70	546	542	669	665	25.0	200	12.5	
8	0.893	12	12.03	113	114	63.00	77.20	557	555	683	679	25.0	200	12.5	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

25mm	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Twelve Samples Received and Tested
20mm	Sample bend through 180 degrees Satisfactorily without any crack	
16mm	Sample bend through 180 degrees Satisfactorily without any crack	
12mm	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Khalid Mahmood,RE

Test Performed By:

Dr. /Engr. Asad Ali Gillani

DG Khan.(Resident Const. Supervision For Estb Of Dera Ghazi Khan Institute Of Cardiology)

Client Reference: 4161/RE/SFMKB/DGK/931

SOM Lab

Ref: 1979 (Page-1/1)

Dated: 23-03-2023

Dated: 24-03-2023

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (SJ Steel)

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.510	6	0.752	0.44	0.444	15.16	19.22	75980	75300	96320	95450	1.30	8.0	16.3	
2	1.507	6	0.751	0.44	0.443	15.09	19.32	75620	75110	96830	96170	1.20	8.0	15.0	
3	0.669	4	0.501	0.20	0.197	6.39	7.92	70480	71560	87340	88670	1.40	8.0	17.5	
4	0.671	4	0.501	0.20	0.197	6.60	8.05	72730	73840	88800	90160	1.10	8.0	13.8	
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Witnessed By: M. Aamir (Civil Inspector)

BEND TEST:

# 6	Sample bend through 180 degrees Satisfactorily without any crack	<p>Note:-</p> <p>Only Six Samples Received and Tested</p>
# 4	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Muhammad Azhar

Test Performed By:

Dr. /Engr.

Asad Ali Gillani

RE,Barrage, IBC.(Rehabilitation And Modernization Of Islam Bridge)

Client Reference: IBC/RE/UET-75

SOM Lab

Ref:

1980 (Page-1/1)

Dated: 03-03-2023

Dated:

23-03-2023

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.672	4	0.501	0.20	0.197	4.66	6.63	51370	52160	73070	74180	1.20	8.0	15.0	Pak
2	0.674	4	0.502	0.20	0.198	4.79	6.90	52840	53370	76100	76870	1.50	8.0	18.8	Pak
3	0.672	4	0.501	0.20	0.197	4.08	6.14	44970	45650	67670	68700	1.50	8.0	18.8	Pak
4	0.673	4	0.502	0.20	0.198	4.18	5.91	46090	46560	65200	65860	1.60	8.0	20.0	Pak
5	0.671	4	0.501	0.20	0.197	6.22	7.82	68570	69620	86220	87530	1.30	8.0	16.3	Agha
6	0.667	4	0.500	0.20	0.196	6.24	7.85	68800	70200	86560	88320	1.20	8.0	15.0	Agha
7	0.672	4	0.501	0.20	0.197	5.91	7.59	65200	66190	83750	85020	1.40	8.0	17.5	Agha
8	0.672	4	0.501	0.20	0.197	6.39	7.85	70480	71560	86560	87870	1.10	8.0	13.8	Agha
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

# 4(Pak)	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Twelve Samples Received and Tested
# 4(Pak)	Sample bend through 180 degrees Satisfactorily without any crack	
# 4 (Agha)	Sample bend through 180 degrees Satisfactorily without any crack	
# 4 (Agha)	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Hafiz Ozair Ahmad, Dy Dir(QCD)

Test Performed By:

Dr. /Engr.

Asad Ali Gillani

WASA,LDA,Lhr.(Manufactring of R.C.C Manhole Cover WASA L.D.A Lahore)

Client Reference: QCD/533-34

SOM Lab

Ref:

1983 (Page-1/1)

Dated: 21-03-2023

Dated:

24-03-2023

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.671	4	0.501	0.20	0.197	4.61	6.49	50810	51590	71610	72700	1.50	8.0	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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BEND TEST:

# 4	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Two Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Test Performed by: S. Asad Ali Gillani

Maj Adnan Khalid (R)

Dy Dir MTL

DHA Lahore.

(Const of Through Underpass Along Shabir Rd at Avenue-3, DHA Ph-VI) (M/S NLC)

Client Reference: 408/241/32/Lab/36/2827

Dated: 21-03-2023

SOM Laboratory Reference: CED/SOM/1981(Page-1/2)

Dated: 24-03-2023

Test: Compressive Strength Tests

Sample Type: CAT – EYES (10cm x 10cm)

Test Specification: ASTM-D4280

Test Results

Sr. No.	Sample Type	Top Dimensions (mm)	Bottom Dimensions (mm)	Thickness (mm)	Inclination (Degree)	Compression Load (Kg)
1	Cat-Eyes Yellow	68.8 x 39.2	99.4 x 99.4	19.2	28.28°	18760
2	Cat-Eyes Yellow	68.9 x 39.2	99.4 x 99.4	19.3	28.28°	19160
3	Cat-Eyes Yellow	68.8 x 39.2	99.4 x 99.4	19.3	28.28°	19880
4	Cat-Eyes Yellow	68.9 x 39.1	99.4 x 99.4	19.3	28.24°	19960
5	Cat-Eyes Yellow	68.9 x 39.2	99.4 x 99.4	19.2	28.10°	19740

Note: Please always confirm the results of above report on web: www.uet-civil.edu.pk

Test Performed by: S. Asad Ali Gillani

Maj Adnan Khalid (R)

Dy Dir MTL

DHA Lahore.

(Const of Through Underpass Along Shabir Rd at Avenue-3, DHA Ph-VI) (M/S NLC)

Client Reference: 408/241/32/Lab/36/2827

Dated: 21-03-2023

SOM Laboratory Reference: CED/SOM/1981(Page-2/2)

Dated: 24-03-2023

Test: Compressive Strength Tests

Sample Type: CAT – EYES (10cm x 10cm)

Test Specification: ASTM-D4280

Test Results

Sr. No.	Sample Type	Top Dimensions (mm)	Bottom Dimensions (mm)	Thickness (mm)	Inclination (Degree)	Compression Load (Kg)
1	Cat-Eyes White	68.9 x 39.4	99.4 x 99.4	19.4	28.51°	17840
2	Cat-Eyes White	68.9 x 39.4	99.4 x 99.4	19.3	28.36°	18140
3	Cat-Eyes White	68.9 x 39.4	99.4 x 99.4	19.3	28.36°	17430
4	Cat-Eyes White	68.9 x 39.4	99.4 x 99.4	19.4	28.51°	17940
5	Cat-Eyes White	68.9 x 39.4	99.4 x 99.4	19.3	28.36°	18960

Note: Please always confirm the results of above report on web: www.uet-civil.edu.pk

