Haroon Ur Reshid
A/Xen, GE (A) Const LRC

Test Performed By: **Dr. /Engr.** **Ubaid A Mughal**

Client Reference: **6000/ XY /E6**
Dated: **07-01-2019**

SOM Lab Ref: **98 (Page-1/1)**
Dated: **09-01-2019**

Test: **Tension Test & Bend Test**

Test Specification: **ASTM-A-615**

Guage Length: **8 inch**

Sample Type: **Deformed Bar (Karachi 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	2.796	8	1.023	0.79	0.822	24.99	38.94	69780	67060	108710	104480	1.60	8.0	20.0	
2	2.770	8	1.018	0.79	0.814	24.59	39.06	68640	66620	109050	105840	1.40	8.0	17.5	
3	1.574	6	0.768	0.44	0.463	13.40	20.85	67190	63850	104490	99300	1.60	8.0	20.0	
4	1.569	6	0.766	0.44	0.461	13.91	20.54	69750	66570	102960	98270	1.60	8.0	20.0	
5	1.066	5	0.631	0.31	0.313	10.01	14.97	71220	70540	106540	105510	1.30	8.0	16.3	
6	1.059	5	0.629	0.31	0.311	10.09	15.04	71800	71570	106970	106630	1.20	8.0	15.0	
7	0.664	4	0.498	0.20	0.195	5.88	8.89	64860	66530	98020	100530	1.10	8.0	13.8	
8	0.662	4	0.498	0.20	0.195	5.91	8.89	65200	66870	98020	100530	1.20	8.0	15.0	
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BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 6	Sample bend through 180 degrees Satisfactorily without any crack
# 5	Sample bend through 180 degrees Satisfactorily without any crack
# 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

Dr. Nouman Farid **Test Performed By:** Dr. /Engr. **Ubaid A Mughal**

Executive Director, Noor Care Hospital, Rajanpur

Client Reference: nil **SOM Lab Ref:** 99(Page-1/1)

Dated: 07-01-2019 **Dated:** 09-01-2019

Test: Tension Test & Bend Test **Test Specification:** ASTM-A-615 Deformed

Gauge Length: 8 inch **Sample Type:** 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	2.692	8	1.004	0.79	0.791	29.97	37.61	83670	83560	105010	104880	1.30	8.0	16.3	
2	1.464	6	0.740	0.44	0.430	15.60	20.05	78180	80000	100500	102840	1.10	8.0	13.8	
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BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 6	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Four Samples Received and Tested

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

Engr. Ubaid-ur-Rehman **Test Performed By:** **Dr. /Engr. Ubaid A Mughal**

Resident Engineer, Cardiology, Multan Residency, Multan

Client Reference: **RE/AZEA/Multan/414** **SOM Lab Ref:** **100(Page-1/2)**

Dated: **07-01-2019** **Dated:** **09-01-2019**

Test: **Tension Test & Bend Test** **Test Specification:** **ASTM-A-615 Deformed Bar (Pak Iron)**

Gauge Length: **8 inch** **Sample Type:**

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	2.625	8	0.991	0.79	0.771	28.61	36.77	79880	81850	102650	105180	1.40	8.0	17.5	
2	2.722	8	1.009	0.79	0.800	31.40	40.16	87650	86560	112120	110720	1.20	8.0	15.0	
3	2.721	8	1.009	0.79	0.800	31.29	40.29	87370	86280	112470	111060	1.10	8.0	13.8	
4	2.662	8	0.998	0.79	0.782	28.87	37.13	80590	81420	103640	104710	1.50	8.0	18.8	
5	1.484	6	0.745	0.44	0.436	16.02	21.20	80320	81060	106280	107250	1.20	8.0	15.0	
6	1.484	6	0.745	0.44	0.436	16.23	21.41	81340	82090	107300	108280	1.30	8.0	16.3	
7	1.493	6	0.748	0.44	0.439	16.31	21.53	81750	81940	107910	108160	1.20	8.0	15.0	
8	1.498	6	0.748	0.44	0.440	16.31	21.63	81750	81750	108420	108420	1.40	8.0	17.5	
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BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 6	Sample bend through 180 degrees Satisfactorily without any crack
# 6	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Twelve Samples Received and Tested

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

Engr. Ubaid-ur-Rehman **Test Performed By:** Dr. /Engr. **Ubaid A Mughal**

Resident Engineer, Cardiology, Multan Residency, Multan

Client Reference: **RE/AZEA/Multan/414** **SOM Lab Ref:** **100(Page-2/2)**

Dated: **07-01-2019** **Dated:** **09-01-2019**

Test: **Tension Test & Bend Test** **Test Specification:** **ASTM-A-615**

Gauge Length: **8 inch** **Sample Type:** **Deformed Bar(Pak Iron)**

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	0.651	4	0.493	0.20	0.191	5.47	8.66	60370	63210	95550	100050	1.30	8.0	16.3	
2	0.650	4	0.493	0.20	0.191	5.68	8.69	62610	65560	95770	100290	1.10	8.0	13.8	
3	0.652	4	0.494	0.20	0.192	5.61	8.94	61830	64400	98580	102690	1.30	8.0	16.3	
4	0.648	4	0.492	0.20	0.190	5.40	8.56	59580	62710	94420	99390	1.10	8.0	13.8	
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BEND TEST:

# 4	Sample bend through 180 degrees Satisfactorily without any crack
# 4	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Six Samples Received and Tested

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

Muneeb Shahzad Butt **Test Performed By:** **Dr. /Engr.** **M rizwan Riaz**

Head of Civil Department , A. J. Corporation (Const. of Bulk Oil Depot at Mehmood Kot)

Client Reference: **AJC/BEL/2203/09** **SOM Lab Ref:** **101 (Page-1/1)**

Dated: **09-01-2019** **Dated:** **09-01-2019**

Test: **Tension Test & Bend Test** **Test Specification:** **ASTM-A-615 Deformed**

Gauge Length: **8 inch** **Sample Type:** **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	1.497	6	0.748	0.44	0.440	14.63	21.05	73320	73320	105510	105510	1.20	8.0	15.0	
2	1.497	6	0.748	0.44	0.440	14.44	20.61	72400	72400	103310	103310	1.00	8.0	12.5	
3	1.039	5	0.623	0.31	0.305	11.26	14.93	80140	81450	106250	107990	1.00	8.0	12.5	
4	1.043	5	0.625	0.31	0.307	11.06	14.68	78690	79460	104430	105450	1.10	8.0	13.8	
5	0.665	4	0.498	0.20	0.195	6.01	9.43	66320	68020	103980	106650	1.20	8.0	15.0	
6	0.661	4	0.497	0.20	0.194	6.01	9.45	66320	68370	104200	107430	1.20	8.0	15.0	
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BEND TEST:

# 6	Sample bend through 180 degrees Satisfactorily without any crack
# 5	Sample bend through 180 degrees Satisfactorily without any crack
# 4	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Nine Samples Received and Tested

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

Maj Adnan khalid® **Test Performed By:** Dr. /Engr. **Ubaid A Mughal**

Dy Dir MTL, Const. of OHWT & Tube Well X-Block Ph -III, (M/S N. A. Associates)

Client Reference: 408/241/E/Lab/399 **SOM Lab Ref:** 102(Page-1/2)

Dated: 07-01-2019 **Dated:** 09-01-2019

Test: Tension Test & Bend Test **Test Specification:** ASTM-A-615

Gauge Length: 8 inch **Sample Type:** Deformed Bar (Ittefaq & Mughal 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	2.616	8	0.990	0.79	0.769	29.56	39.09	82530	84780	109140	112120	1.00	8.0	12.5	Ittefaq
2	2.676	8	1.000	0.79	0.786	28.66	36.46	80030	80430	101800	102310	1.00	8.0	12.5	Ittefaq
3	1.038	5	0.623	0.31	0.305	12.33	15.06	87750	89190	107120	108870	1.30	8.0	16.3	Mughal
4	1.069	5	0.632	0.31	0.314	12.64	15.49	89930	88780	110230	108830	1.20	8.0	15.0	Mughal
5	0.672	4	0.501	0.20	0.197	6.75	10.16	74420	75550	112070	113780	1.00	8.0	12.5	Ittefaq
6	0.672	4	0.501	0.20	0.197	6.57	9.89	72510	73610	109040	110700	1.00	8.0	12.5	Ittefaq
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BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 5	Sample bend through 180 degrees Satisfactorily without any crack
# 4	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Nine Samples Received and Tested

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

Maj Adnan khalid® **Test Performed By:** Dr. /Engr. **Ubaid A Mughal**

Dy Dir MTL, Const. of OHWT & Tube Well X-Block Ph -III, (M/S N. A. Associates)

Client Reference: **408/241/E/Lab/401/629** **SOM Lab Ref:** **102(Page-2/2)**

Dated: **09-01-2019** **Dated:** **09-01-2019**

Test: **Tension Test & Bend Test** **Test Specification:** **ASTM-A-615**

Gauge Length: **8 inch** **Sample Type:** **Deformed Bar (Ittefaq 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	1.470	6	0.742	0.44	0.432	15.60	19.78	78180	79620	99130	100960	1.10	8.0	13.8	
2	1.518	6	0.754	0.44	0.446	18.17	21.30	91050	89830	106790	105350	1.10	8.0	13.8	
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BEND TEST:

# 6	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Three Samples Received and Tested

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

Farhan Sajid **Test Performed By:** Dr. /Engr. **Ubaid A Mughal**

Resident Engineer, MASCON Associates, Lahore

Client Reference: **MASC-RE/PG/18/5038** **SOM Lab Ref:** **103 (Page-1/1)**

Dated: **08-01-2019** **Dated:** **09-01-2019**

Test: **Tension Test & Bend Test** **Test Specification:** **ASTM-A-615**

Gauge Length: **8 inch** **Sample Type:** **Deformed Bar (Mughal 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	2.588	8	0.984	0.79	0.761	29.51	36.11	82390	85530	100800	104640	1.30	8.0	16.3	
2	2.573	8	0.981	0.79	0.756	28.85	35.47	80540	84160	99030	103490	1.40	8.0	17.5	
3	1.479	6	0.744	0.44	0.435	15.70	19.29	78690	79590	96670	97780	1.50	8.0	18.8	
4	1.495	6	0.748	0.44	0.439	15.65	19.32	78430	78610	96830	97050	1.50	8.0	18.8	
5	0.658	4	0.496	0.20	0.193	7.77	9.19	85660	88760	101390	105070	1.20	8.0	15.0	
6	0.662	4	0.498	0.20	0.195	7.65	9.04	84310	86470	99710	102260	1.10	8.0	13.8	
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BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 6	Sample bend through 180 degrees Satisfactorily without any crack
# 4	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Nine Samples Received and Tested

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