REPORT OF TEST

SGS U.S. Testing Company Inc.

1341 North 108th East Avenue
Tulsa, OK 74116
Tel: 918-437-8333
Fax: 918-437-8487

CLIENT: H.J. Born Stone Company
R.R. #3 Box 312
Arkansas City, KS 67005

Attn: Sharon Born

SUBJECT: ASTM C 880 Flexural Strength of Dimension Stone.

REFERENCE: Letter.

SAMPLE ID: Samples identified as "CW BL" was received from the client on 4/17/00. Samples were received in good condition.

PROCEDURE: The material was tested for Flexural Strength in the dry condition in accordance with ASTM C880-96. No revisions to this report will be allowed after 90 days of the report date.

RESULTS: See test data and results on the following page.

TEST DATE: 5/15/00.

CONCLUSION: There is no requirement for Flexural Strength Limestone Dimension Stone by ASTM C 568-96, Standard Specification of Limestone Dimension Stone.

Signed for the Company

Eric Hundley, Engineer
Engineering & Fire Technology Dept.

Dale E. Holloway
Tulsa Branch Director

SGS U.S. Testing Company Inc.

Report No.: 140007-14
Client: H.L. Born Stone Co., KS
Date: 5/30/00

REPORT OF TEST

TEST RESULTS:

ASTM C 880 – Flexural Strength

Sample: **"CW BL"** Cottonwood Bottom Ledge/Chase County

Specimen	Width (in)	Thickness (in)	Ultimate Load (lbs)	Flexural Strength (Psi)
1	4.040	1.321	527	673
2	3.977	1.319	526	684
3	4.080	1.238	559	805
4	3.973	1.318	606	791
Average	-	-	-	**738 Psi**
Average	-	-	-	**5.09 Mpa**

Requirements: Not Applicable.

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End of Report

SGS U.S. Testing Company Inc.

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Report No.: 140007-11
Date: 5/30/00

REPORT OF TEST

CLIENT: H.J. Born Stone Company
R.R. #3 Box 312
Arkansas City, KS 67005

Attn: Sharon Born

SUBJECT: ASTM C 241 Abrasion Resistance of Dimension Stone.

REFERENCE: Letter.

SAMPLE ID: Samples identified as "CW BL" was received from the client on 4/17/00. The samples were received in good condition.

PROCEDURE: The material was tested for Abrasion Resistance in accordance with ASTM C 241-90. No revisions to this report will be allowed after 90 days of the report date.

RESULTS: See test data and results on the following page.

TEST DATE: 5/8/00.

CONCLUSION: The material tested does not meet the minimum requirements of ASTM C568-96 for Abrasion Resistance of Limestone Dimension Stone.

Eric Hundley, Engineer
Engineering & Fire Technology Dept.

Signed for the Company
Dale E. Holloway
Tulsa Branch Director

SGS U.S. Testing Company Inc.

Report No.: 140007-11
Client: H.L. Born Stone Co., KS
Date: 5/30/00

REPORT OF TEST

TEST RESULTS:

ASTM C 241- Abrasion Resistance

Samples: "CW BL" Cottonwood Bottom Ledge/Chase County

Specimen	Bulk Specific Gravity	Average Weight (g)	Weight Loss (g)	Abrasion Index ($H_{a,b}$)
1	2.116	135.67	6.329	3.56
2	2.124	141.36	5.909	3.83
3	2.125	136.84	5.872	3.85
Average	2.122			**3.75**

Requirements:

ASTM C 568-96, Density Limestone Dimension Stone

Abrasion Resistance: 10.0 $H_{a,b}$, minimum

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End of Report

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SGS U.S. Testing Company Inc.

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CLIENT: H.J. Born Stone Company
R.R. #3 Box 312
Arkansas City, KS 67005

Attn: Sharon Born

SUBJECT: ASTM C 170 Compressive Strength of Dimension Stone.

REFERENCE: Letter.

SAMPLE ID: Samples identified as "CW BL" were received from the client on 4/17/00. The samples were received in good condition.

PROCEDURE: The material was tested for Compressive Strength in accordance with ASTM C 170-90. No revisions to this report will be allowed 90 days after the report date.

RESULTS: See test data and results on the following page.

TEST DATE: 5/8/00.

CONCLUSION: The material tested meets the minimum requirements of ASTM C 568-96 for Compressive Strength of Medium Density Limestone Dimension Stone.

Eric Hundley, Engineer
Engineering & Fire Technology Dept.

Signed for the Company
Dale E. Holloway
Tulsa Branch Director

SGS U.S. Testing Company Inc.

REPORT OF TEST

Client: H.L. Born Stone Co., KS

Report No.: 140007-8
Date: 5/30/00

TEST RESULTS:

ASTM C 170 – Compressive Strength

Samples: **"CW BL"** Cottonwood Bottom Ledge/Chase County

Specimen	Width (in)	Length (in)	Ultimate Load (lbs)	Compressive Strength (Psi)
1	1.916	2.057	22267	5653
2	1.956	1.939	19050	5024
3	2.039	2.044	23222	5573
4	2.079	2.022	26123	6217
5	1.963	2.058	20508	5078
Average	-	-	-	**5509 Psi**
Average	-	-	-	**37.98 MPa**

Requirements:

ASTM C568-96, Medium Density Limestone Dimension Stone

Compressive Strength: 4000 Psi, minimum.

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End of Report

REPORT OF TEST

SGS U.S. Testing Company Inc.

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CLIENT: H.J. Born Stone Company
R.R. #3 Box 312
Arkansas City, KS 67005

Attn: Sharon Born

SUBJECT: ASTM C 99 Modulus of Rupture of Dimension Stone.

REFERENCE: Letter.

SAMPLE ID: Samples identified as "CW BL" was received from the client on 4/17/00. The samples were received in good condition.

PROCEDURE: The material was tested for Modulus of Rupture in accordance with ASTM C 99-97. No revisions to this report will be allowed after 90 days of the report date.

RESULTS: See test data and results on the following page.

TEST DATE: 5/8/00.

CONCLUSION: The material tested meets the minimum requirements of ASTM C 568-96 for Modulus of Rupture of Limestone Dimension Stone.

Eric Hundley, Engineer
Engineering & Fire Technology Dept.

Signed for the Company
Dale E. Holloway
Tulsa Branch Director

SGS U.S. Testing Company Inc.

REPORT OF TEST

Client: H.J. Born Stone Co., KS

TEST RESULTS:

ASTM C 99 Modulus of Rupture

Samples: "CW BL" Cottonwood Bottom Ledge/ Chase County

Specimen	Width of Material (in)	Thickness of Material (in)	Ultimate Load (lbs)	Modulus of Rupture (Psi)
1	4.041	2.538	2203	889
2	4.020	2.563	2492	991
3	4.031	2.553	2384	953
4	3.980	2.597	2419	947
5	4.012	2.555	2413	968
Average	-	-	-	**949 Psi**
Average	-	-	-	**6.55 MPa**

Requirements:

ASTM C 568-96, Medium Density Limestone Dimension Stone

Modulus of Rupture: 500 Psi, minimum

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End of Report

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CLIENT: H.J. Born Stone Company
R.R. #3 Box 312
Arkansas City, KS 67005

Attn: Sharon Born

SUBJECT: ASTM C 97 Water Absorption and Specific Gravity of Dimension Stone.

REFERENCE: Letter.

SAMPLE ID: Samples identified as "CW BL" were received from the client on 4/17/00. The samples were received in good condition.

PROCEDURE: The material was tested for Water Absorption, Density, and Specific Gravity in accordance with ASTM C 97-96. No revisions to this report will be allowed after 90 days of the report date.

RESULTS: See test data and results on the following page.

TEST DATE: 5/8/00.

CONCLUSION: The material tested meets the minimum requirements of ASTM C 568-96 for Water Absorption of Low Density Limestone Dimension Stone.

The material tested meets the minimum requirements of ASTM C 568-96 for Low Density of Limestone Dimension Stone.

Eric Hundley, Engineer
Engineering & Fire Technology Dept.

Signed for the Company
Dale E. Holloway
Tulsa Branch Manager

SGS U.S. Testing Company Inc.

Report No. 140007-2
Client: H.J. Born Stone Company, KS
Date: 5/30/00

REPORT OF TEST

TEST RESULTS:

ASTM C 97 – Absorption and Specific Gravity

Samples: "CW BL" Cottonwood Botton Ledge/Chase County

Specimen	Wet Weight (g)	Dry Weight (g)	Volume (cm^3)	Density (lb/ft^3)	Specific Gravity	Absorption (%)
1	283.96	262.81	124.10	132.15	2.118	8.05
2	292.27	270.86	127.08	133.00	2.131	7.90
3	291.11	267.12	128.57	129.64	2.078	8.98
Average	-	-	-	**131.59**	**2.109**	**8.31**

Requirements:

ASTM C 568-96, Low Density Limestone Dimension Stone

Absorption: 12.0%, maximum
Density: 110 lb/ft^3, minimum

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End of Report