

CLIENT: Pacific South East, Inc.
5990 Vista de la Luz
Woodland Hills, CA, 91367
Contact: Irwan Hiuriono

Test Report No: RJ3325

Issue Date: June 26, 2014

SAMPLE ID: Solid lumber specimens identified by the client as "Thermo Mahogany".

SAMPLING DETAIL: Test samples were submitted to the laboratory directly by the client. No special sampling conditions or sample preparation were observed by QAI.

DATE OF RECEIPT: Samples were received at QAI on June 16, 2014

TESTING PERIOD: June 25, 2014

AUTHORIZATION: Signed Work Order by MB-2014-061601.

TEST PROCEDURE: Modified ASTM D 3034-00 (Reapproved for 2011), Section 5.1, "Method A – Center-Point Flexure Test"

TEST RESULTS: The average bending strength (MOR) for five test thermo mahogany test specimens was 11,730 psi. See subsequent pages for additional test results.

Prepared By

**Signed for and on behalf of
QAI Laboratories, Inc.**



Alex Rubow
Physical Testing Technician

Chris Scoville, M. Sc.
Operations Manager

Method A – Center-Point Flexure Test, Modified ASTM D 3043, Section 5.1:

Test Procedure: A conventional compression testing machine was used to apply and measure a load at mid-span of a small flexure specimen (24” x 2” wide x 1” thick). The test proceeded at a constant deflection rate of 0.121 in/min until specimen failure occurred. The test specimens were conditioned to constant mass at 73° F with a relative humidity of 50%. Test specimens were cut down to a two inch width. Specimen width and thickness measurement were recorded prior to testing. The end supports were capable of freely compensating for warp of the test specimen by turning laterally in a plane perpendicular to the specimen length so as to apply load uniformly across its width. A loading block having a 2 inch diameter was used during this test.

Results: Average Max Load 722.48 lbs. (Reference Appendix, Figure 1)

	<i>Thickness</i>	<i>Width</i>	<i>EI</i>	<i>Slope</i>	<i>MM</i>	<i>Max Load</i>	<i>Span</i>	<i>MOI</i>	<i>MOE</i>	<i>MOR</i>	<i>WML</i>
N	(in)	(in)	(psi*in ⁴)	lb/in	(lb-in)	(lbs)	(in)	(in ⁴)	(psi)	(psi)	(lb-in)
1	0.989	1.986	496,183	2236.7	3,210	583.6	22	0.16	3,099,239	9,915	77.6
2	0.978	1.987	482,123	2173.4	6,370	1158.2	22	0.155	3,112,610	20,110	537
3	0.99	1.987	474,690	2139.9	2,603	473.3	22	0.161	2,954,526	8,020	51.8
4	0.99	1.988	499,228	2250.5	2,274	595.3	22	0.161	3,105,691	7,002	79.2
5	0.99	1.985	471,127	2123.8	4,411	802	22	0.161	2,935,304	13,604	152.5
Average	0.9874	1.987	484,670	2184.9	3,774	722.5	22	0.159	3,041,474	11,730	179.6

Abbreviations Key:

EI = Specimen Stiffness (Including thickness effects)

MM = Maximum Bending Moment

MOI = Moment of Inertia

MOE = Modulus of Elasticity (Stiffness)

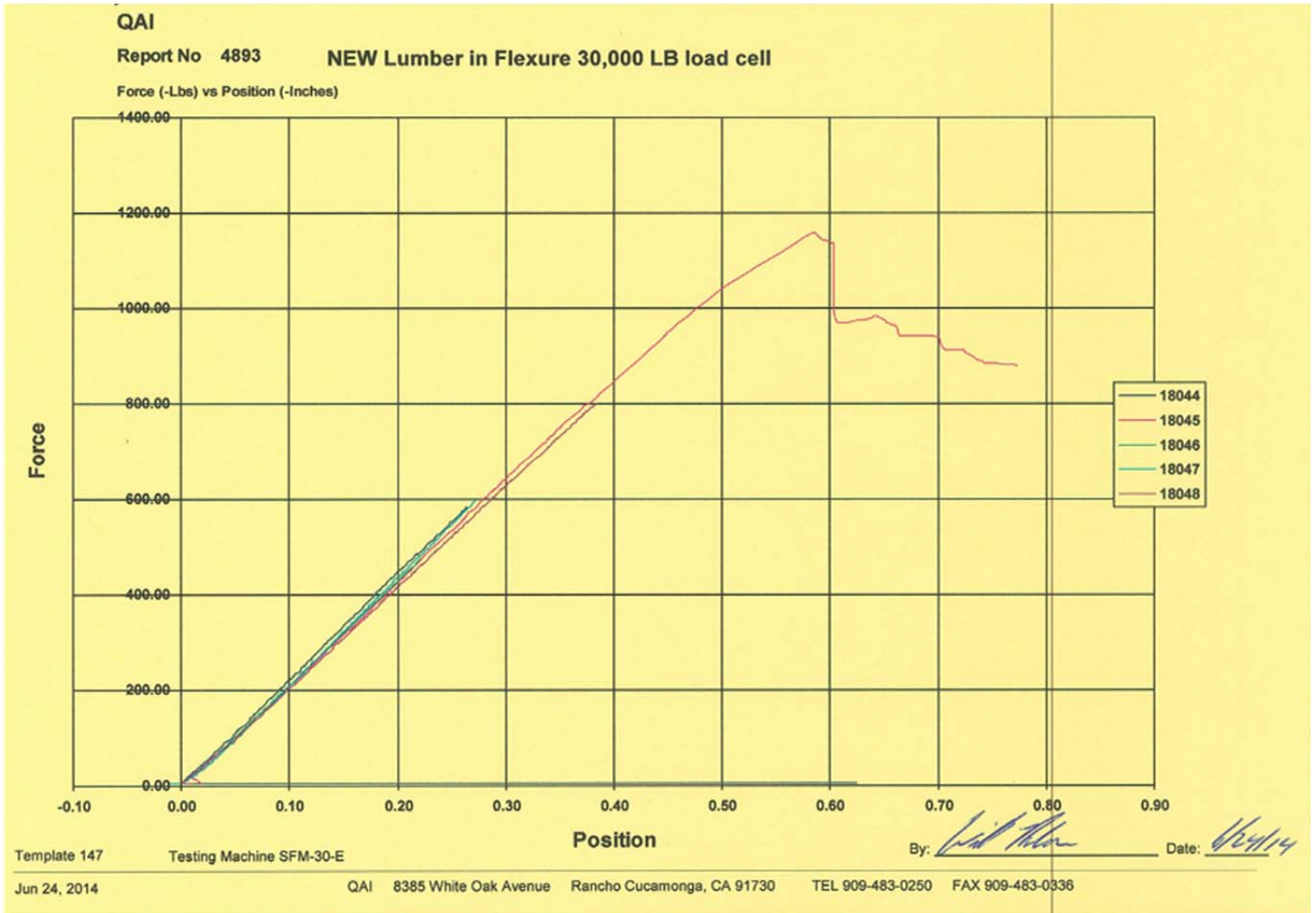
MOR = Modulus of Rupture (Bending Strength)

WML = Work to Maximum Load

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Appendix:

Figure 1 – Load vs. Deflection for Bending Test Specimens



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