



**Metro
Testing
Laboratories
Ltd.**

Materials
Consulting
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July 3, 2003

File #4332

Xypex Chemical Corporation
13731 Mayfield Place
Richmond, B.C.
V6V 2G9

Attn: Mr. Vic Barber

Subject: Bond Pull-Off Testing - Xypex Mega-Mix I and Mega-Mix II

On May 23, 2003, Metro Testing Laboratories Ltd. (MTL) was at the Xypex Richmond Plant to conduct Bond Pull-Off Testing of twelve (12) pre-made samples. The samples were made up using Xypex Megamix I and Xypex Megamix II applied to concrete substrate with various surface preparation methods. The test method and resulting bond strengths are as follows.

Test Method - Testing was conducted by attaching a 4" square steel plate to the sample surface using an epoxy adhesive. A tensile load was applied to the plate perpendicular to the sample surface until failure occurred. The load was applied using a calibrated hydraulic ram and frame combination. The effective area was calculated using nominal sample dimensions.

Test Observations - Upon bond failure, the ultimate load achieved and failure mode was recorded. The bond strength results can be summarized as follows.

Material Tested	Substrate Preparation	Average Bond Strength
Megamix I	Pressure washed concrete block	1.54 MPa (220 psi)
	Xypex Concentrate (1 day cure)	1.24 MPa (180 psi)
	Xypex Concentrate (4 day cure)	1.18 MPa (170 psi)
Megamix II	Pressure washed concrete	2.25 MPa (330 psi)


The individual test results are provided in the attached Technical Report.

We trust the testing provided meets your requirements and if you have any questions, please do not hesitate to call.

Yours truly,

Metro Testing Laboratories Ltd.


Curtis Syrnyk


reviewed by: William Toy, P.Eng.

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METRO TESTING LABORATORIES LTD.**Technical Report**

Client: Xypex Chemical Corporation
 13731 Mayfield Place
 Richmond, B.C.
 V6V 2G9

File # 4332
 Date: July 3, 2003

Attn: Mr. Vic Barber

Subject: **Bond Pull-Off Testing Xypex Mega-Mix I and Mega-Mix II**

MATERIAL TESTED	SUBSTRATE SURFACE PREPERATION	BOND STRENGTH	FAILURE TYPE
Megamix I	Pressure washed concrete block.	1.48 MPa	60% product, 40% epoxy.
		1.60 MPa	100% substrate failure.
	Xypex Concentrate applied to concrete block and cured for 1 day.	1.18 MPa	15% product, 85% substrate surface.
		1.30 MPa	80% product, 20% substrate surface.
	Xypex Concentrate applied to concrete block and cured for 4 days.	1.18 MPa	10% product, 90% between product and substrate.
		1.18 MPa	5% product, 95% between product and substrate.
Megamix II	Pressure washed concrete pad.	2.02 MPa	85% product, 15% substrate surface.
		2.48 MPa	100% epoxy.
		2.19 MPa	95% product, 5% substrate surface.
		2.30 MPa	85% product, 15% substrate surface
		2.42 MPa	80% product, 15% epoxy, 5% substrate surface.
		2.07 MPa	40% product, 40% epoxy, 20% substrate surface.

Notes:

- MTL Jack # 121-2 and gauge #2000 and #5000 were used to complete the testing reported above.
- Nominal dimensions used to calculate the resulting bond strength was 100mm x 100mm.
- Test samples were prepared and cured by client.

Per:


 Curtis Syrnky

METRO TESTING LABORATORIES LTD.**RAM/GAUGE CALIBRATION**

DATE:

APR. 3/02

RAM MODEL No.:

RH-121

GAUGE TYPE:

2,000 PSI

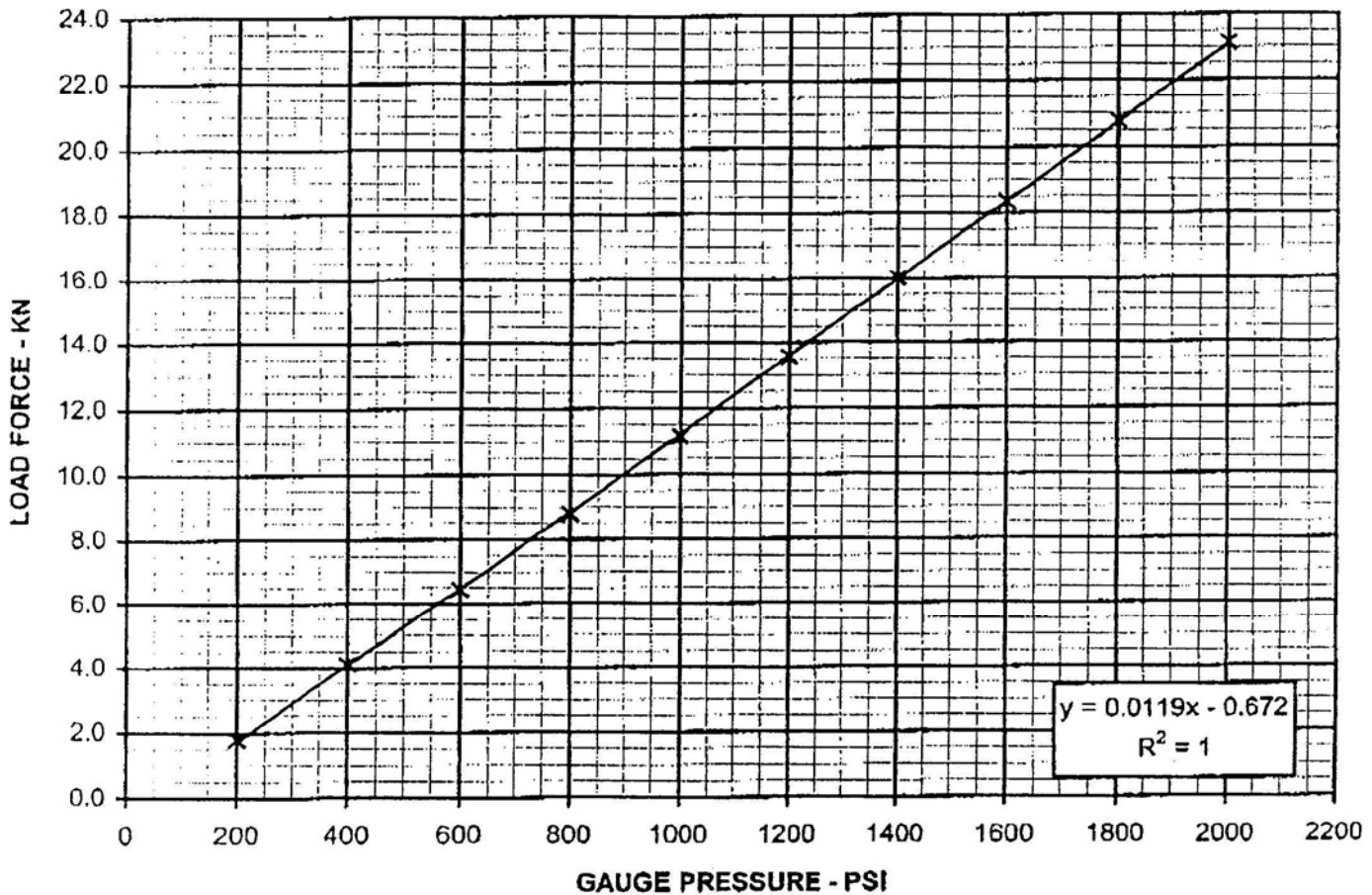
REFERENCE:

GAUGE # 2000 (MTL)

RAM # 121-2 (MTL)

CALIBRATED BY:

C.S.



GAUGE READING - PSI	READING/LOAD FROM CALIBRATION INSTRUMENT				AVERAGE - KN
	TRIAL 1 - LBS	TRIAL 2 - LBS	TRIAL 3 - LBS	TRIAL - AVE	
200	404	403	397	401	1.8
400	930	915	922	922	4.1
600	1456	1443	1440	1446	6.4
800	1982	1968	1973	1974	8.8
1000	2516	2500	2505	2507	11.2
1200	3046	3041	3047	3045	13.5
1400	3598	3588	3608	3597	16.0
1600	4127	4111	4129	4122	18.3
1800	4672	4658	4676	4669	20.8
2000	5207	5187	5199	5198	23.1

NOTES:

CALIBRATION CONDUCTED USING 10000 LB ARTECK LOAD CELL - S/N 549512.

CERTIFIED BY:

CURTIS SYRNYK

METRO TESTING LABORATORIES LTD.**RAM/GAUGE CALIBRATION**

DATE:

APR. 3/02

RAM MODEL No.:

RH-121

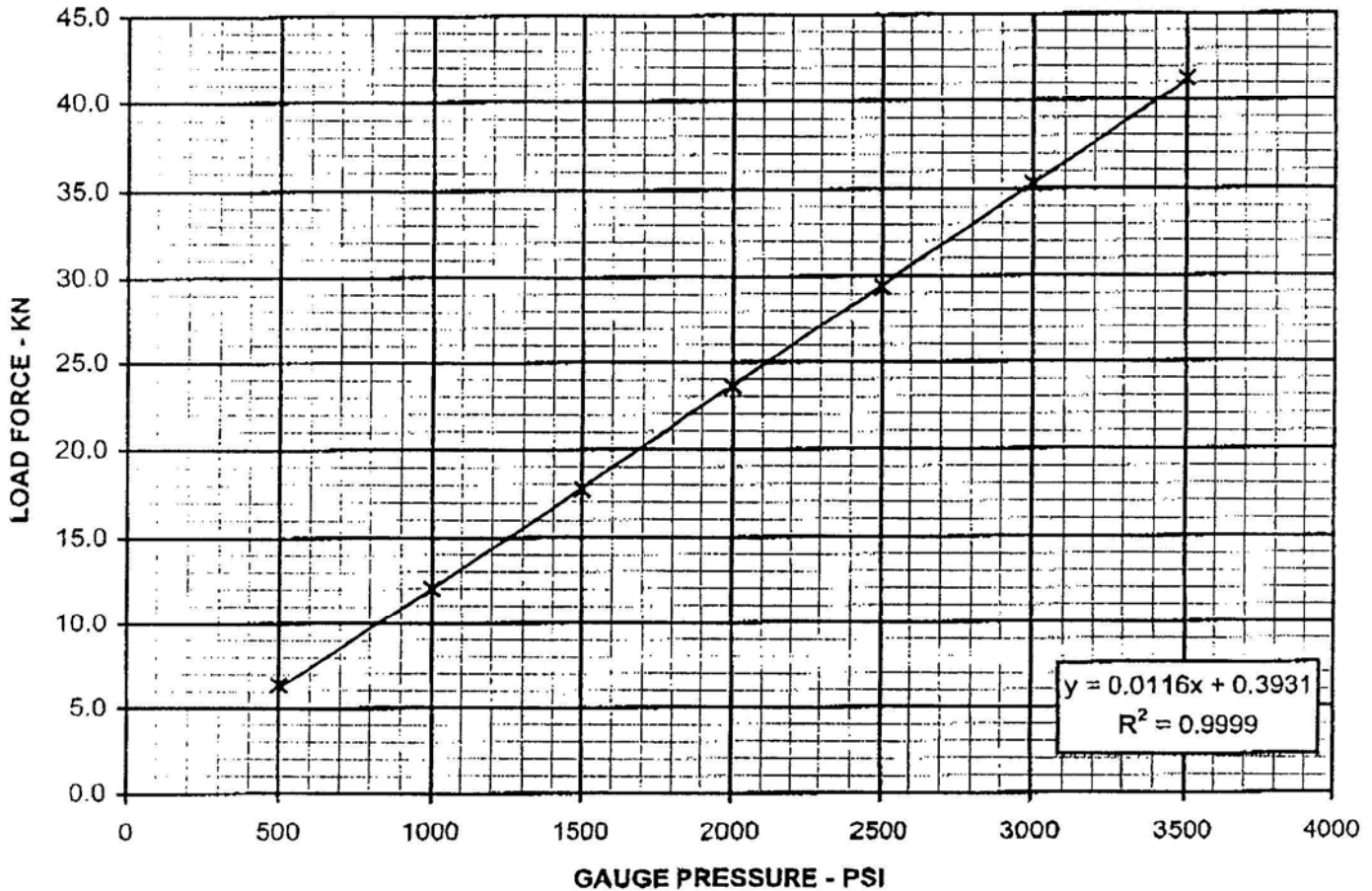
GAUGE TYPE:

5,000 PSI

REFERENCE: GAUGE # 5000 (MTL)
RAM # 121-2 (MTL)

CALIBRATED BY:

C.S.



GAUGE READING - PSI	READING/LOAD FROM CALIBRATION INSTRUMENT				AVERAGE - KN
	TRIAL 1 - LBS	TRIAL 2 - LBS	TRIAL 3 - LBS	TRIAL - AVE	
500	1412	1445	1439	1432	6.4
1000	2695	2701	2698	2698	12.0
1500	3978	3989	3992	3988	17.7
2000	5280	5314	5309	5301	23.6
2500	6578	6607	6603	6596	29.3
3000	7903	7940	7930	7924	35.2
3500	9249	9300	9278	9276	41.3

NOTES: CALIBRATION CONDUCTED USING 10000 LB ARTECK LOAD CELL - S/N 549512.

CERTIFIED BY:

CURTIS SYRNYK

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