

Hardy BBT Limited,  
2227 Douglas Road,  
BURNABY, B.C.  
V5C 5A9



**Hardy BBT Limited**  
CONSULTING ENGINEERING & ENVIRONMENTAL SERVICES

TELEPHONE: (604) 294-3811  
FAX: (604) 294-4664

### FAX TRANSMITTAL

Number of pages following this cover sheet is: \_\_\_\_\_  
Please contact the sender if this transmission is incomplete

DATE: DEC 23/91

CLIENT FAX #: 270-0451

CLIENT PHONE #: \_\_\_\_\_

ATTENTION: MR. VIC BARBER

AT: XYPEX

FROM: P. McGRATH SENT BY: \_\_\_\_\_

HARDY FILE # VA 01618 Paper Copy to Follow: \_\_\_\_\_

COMMENTS: \_\_\_\_\_

VIC

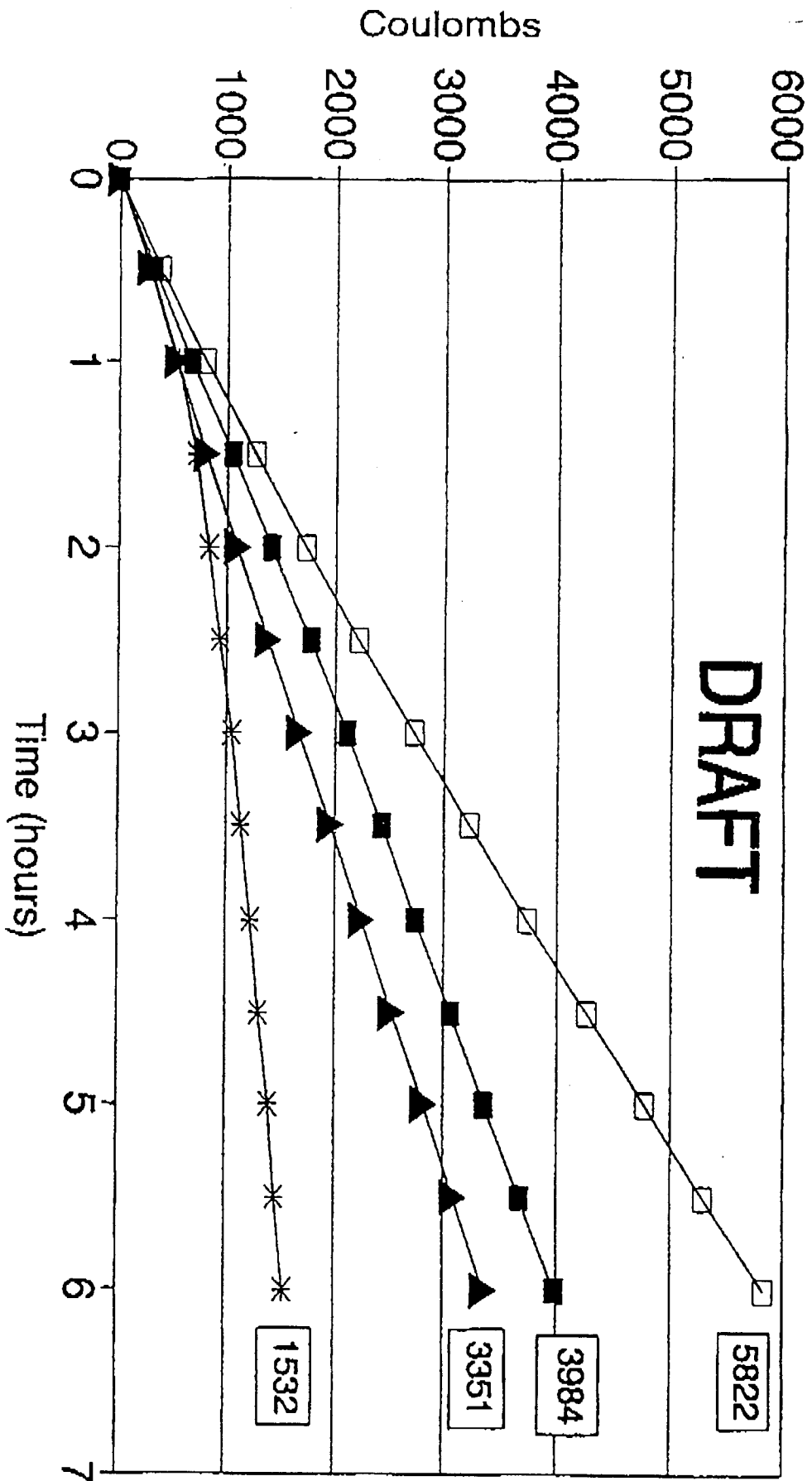
• Attached are preliminary test results of the Rapid Chloride Permeability test.

• If results are correct then the data suggests an optimum dosage at which chloride permeability is quite low.

• Please call to discuss.

XYPEX - RAPID CHLORIDE PERMEABILITY  
(AASHTO T277-83)

DRAFT





CONCRETE TEST REPORT

CERTIFIED CONCRETE TESTING LABORATORY IN ACCORDANCE WITH STD A283

OFFICE PROJECT NO. VAG1619

TO XYPEX CHEMICAL CORPORATION 13731 MAYFIELD PLACE RICHMOND, B.C. V6V 2G9

CLIENT CC XYPEX CHEMICAL CORPORATION (1) DIVISION COPY (1)

RECEIVED OCT 28 1991

ATTN: MR. D'ARCY MAINWARING

PROJECT TESTING OF CONCRETE STRENGTHS

SET NO. 8 NO. OF SPECIMENS 4 DATE RECEIVED 31. Sep. 26 DATE CAST 31. Sep. 23

Table with 9 columns: IDENTIFICATION NUMBER, DATE TESTED, AGE AT TEST (DAYS), AVERAGE DIAMETER OR SIDE (mm x mm), AVERAGE LENGTH OR SPAN (mm), MAXIMUM LOAD (kN), AVERAGE CROSS-SECTIONAL AREA (m²), COMPRESSIVE STRENGTH (MPa), TYPE OF FRACTURE. Rows A-D show test results for specimens aged 3, 7, 28, and 28 days.

Table with 3 columns: PROPERTY, VALUE, UNIT. Includes SPEC. STRENGTH (20.00 MPa), CEMENT TYPE, CEMENT CONTENT (kg/m³), AGGREGATE SIZE (mm), ADMIXTURE, SUPPLIER, MIX NO. (MX20), CONCRETE TEMP, AIR TEMP, CAST TIME, CAST BY (CLIENT), MOLD TYPE, INITIAL CURING TEMP, SLUMP (90 mm), AIR CONTENT (%), DENSITY, PLASTIC (kg/m³), HARDENED (kg/m³), LOCATION (REFERENCE #1, CAST IN AFTERNOON), COMMENTS.

TEST METHOD: CSA CAN 3 A23.2

Page 1 END OF REPORT

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\*\*TYPE OF FRACTURE REQ'D WHEN CYLINDER FAILS TO MEET SPECIFIED 28 DAY STRENGTH.

PER [Signature]

Reporting of these test results constitutes a testing service only. Engineering interpretation or evaluation of the test results is provided only on written request.



CONCRETE TEST REPORT

OFFICE PROJECT NO. VA01618

CLIENT CC XYPEX CHEMICAL CORPORATION (1) DIVISION COPY (1)

TO XYPEX CHEMICAL CORPORATION 13731 MAYFIELD PLACE RICHMOND, B.C. V6V 2G9

ATTN: MR. D'ARCY MAINWARING

PROJECT TESTING OF CONCRETE STRENGTHS

SET NO. 9 NO. OF SPECIMENS 4 DATE RECEIVED 91.Sep.26 DATE CAST 91.Sep.23

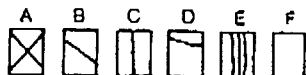
Table with 9 columns: IDENTIFICATION NUMBER, DATE TESTED, AGE AT TEST (DAYS), AVERAGE DIAMETER OR SIDE (mm), AVERAGE LENGTH OR SPAN (mm), MAXIMUM LOAD (kN), AVERAGE CROSS-SECTIONAL AREA (m²), COMPRESSIVE STRENGTH (MPa), TYPE OF FRACTURE. Rows A-D show test results for specimens aged 3, 7, 28, and 28 days.

Form containing material and test details: SPEC. STRENGTH 20.00 MPa, CONCRETE TEMP, CEMENT TYPE, AIR TEMP, AGGREGATE SIZE, CAST BY CLIENT, MIX NO. MX20, LOCATION: REFERENCE #2 (2%), etc.

TEST METHOD: CSA CAN 3 A23#2

Page 1 END OF REPORT

Hardy BBT Limited



\*\*TYPE OF FRACTURE REQ'D WHEN CYLINDER FAILS TO MEET SPECIFIED 28 DAY STRENGTH.

PER [Signature]

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OFFICE  
PROJECT NO. VA01618

CLIENT CC XYPEX CHEMICAL CORPORATION (1)  
DIVISION COPY (1)

TO  
XYPEX CHEMICAL CORPORATION  
13731 MAYFIELD PLACE  
RICHMOND, B.C.  
V6V 2G9

ATTN: MR. D'ARCY MAINWARING

PROJECT TESTING OF CONCRETE STRENGTHS

SET NO. 10 NO. OF SPECIMENS 4 DATE RECEIVED 91.Sep.26 DATE CAST 31.Sep.23

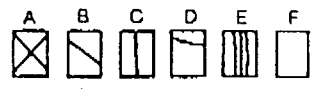
JENTI-FICATION NUMBER	DATE TESTED	AGE AT TEST (DAYS)	AVERAGE DIAMETER (mm) OR SIDE (mm x mm)	AVERAGE LENGTH OR SPAN (mm)	MAXIMUM LOAD (KN)	AVERAGE CROSS-SECTIONAL AREA (m²)	COMPRESSIVE STRENGTH (MPa)	TYPE OF FRACTURE **
A	Sep. 26	3	152.6	305.2	240	0.01829	13.1	
B	Sep. 30	7	152.6	305.2	397	0.01829	21.7	
C	Oct. 21	28	152.6	305.2	534	0.01829	29.2	
D	Oct. 21	28	152.6	305.2	558	0.01829	30.5	

SPEC. STRENGTH	20.00 MPa	CONCRETE TEMP	°C	SLUMP	175 mm
CEMENT TYPE		AIR TEMP	°C	AIR CONTENT	%
WATER-CEMENT RATIO	kg/m³	CAST TIME		DENSITY	
AGGREGATE SIZE	mm	CAST BY	CLIENT	PLASTIC	kg/m³
ADMIXTURE		MOLD TYPE		HARDENED	kg/m³
SUPPLIER		INITIAL CURING TEMP: MAXIMUM	°C	MINIMUM	°C
MIX NO.	MX20	LOCATION:	REFERENCE #3 (3.0%)		
TRUCK NO.		COMMENTS:			
TICKET NO.					
BATCH TIME					
LOAD VOLUME	m³				
CUMULATIVE VOL.	m³				

TEST METHOD: CSA CAN 3 A23#2

Page 1 END OF REPORT

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\*\*TYPE OF FRACTURE REQ'D WHEN CYLINDER FAILS TO MEET SPECIFIED 28 DAY STRENGTH.

PER *P. M. [Signature]*

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**CONCRETE TEST REPORT**

OFFICE  
PROJECT NO. VA01618

CLIENT CC XYPEX CHEMICAL CORPORATION (1)  
DIVISION COPY (1)

TO  
XYPEX CHEMICAL CORPORATION  
13731 MAYFIELD PLACE  
RICHMOND, B.C.  
V6V 2G9

ATTN: MR. D'ARCY MAINWARING

PROJECT TESTING OF CONCRETE STRENGTHS

SET NO. 11 NO. OF SPECIMENS 4 DATE RECEIVED 91.Sep.26 DATE CAST 91.Sep.23

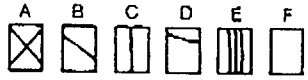
IDENTIFICATION NUMBER	DATE TESTED	AGE AT TEST (DAYS)	AVERAGE DIAMETER (mm) OR SIDE (mm x mm)	AVERAGE LENGTH OR SPAN (mm)	MAXIMUM LOAD (kN)	AVERAGE CROSS-SECTIONAL AREA (m <sup>2</sup> )	COMPRESSIVE STRENGTH (MPa)	TYPE OF FRACTURE **
A	Sep.26	3	152.6	305.2	248	0.01829	13.6	
B	Sep.30	7	152.6	305.2	445	0.01829	24.3	
C	Oct.21	28	152.6	305.2	615	0.01829	33.6	
D	Oct.21	28	152.6	305.2	612	0.01829	33.5	

SPEC. STRENGTH	20.00 MPa	CONCRETE TEMP	°C	SLUMP	150 mm
CEMENT TYPE		AIR TEMP	°C	AIR CONTENT	%
CEMENT CONTENT	kg/m <sup>3</sup>	CAST TIME		DENSITY	
AGGREGATE SIZE	mm	CAST BY	CLIENT	PLASTIC	kg/m <sup>3</sup>
ADMIXTURE		MOLD TYPE		HARDENED	kg/m <sup>3</sup>
SUPPLIER		INITIAL CURING TEMP: MAXIMUM	°C	MINIMUM	°C
MIX NO.	MX20	LOCATION:	REFERENCE #4 (4%)		
TRUCK NO.		COMMENTS:			
TICKEY NO					
BATCH TIME					
LOAD VOLUME	m <sup>3</sup>				
CUMULATIVE VOL.	m <sup>3</sup>				

TEST METHOD: CSA CAN 3 A23#2

Page 1 END OF REPORT

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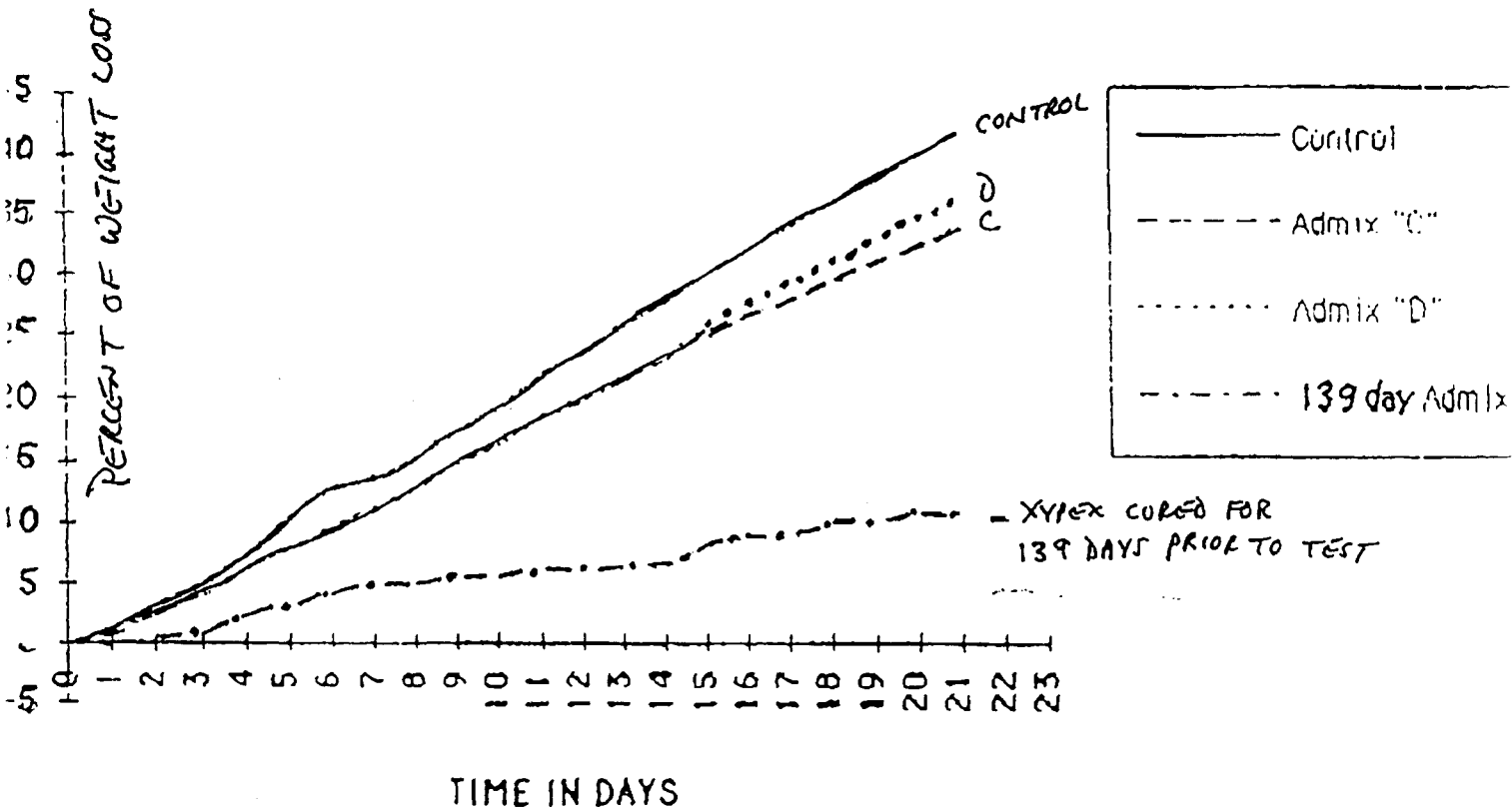
\*\*TYPE OF FRACTURE REQ'D WHEN CYLINDER FAILS TO MEET SPECIFIED 28 DAY STRENGTH.

PER *P. McKeown*

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# 25-DAY CURE

25-DAY CURE ACID COMPARISON TEST - 7% H<sub>2</sub>SO<sub>4</sub> SOLUTION  
PH .7



40 DAY CURE ACID COMPARISON - 7% H<sub>2</sub>SO<sub>4</sub> Ph .7

