

**Laboratory Reference: CAN12W1873**

## ***ADHESION AGENT TEST REPORT***

**ATTENTION:**
**Ray Georgey**

CLIENT: Otech Australia  
 CLIENT REFERENCE: 0.7pph with Winstone Aggregates – Pukekawa Quarry  
 ADHESION AGENT: Otech AGGBIND-75<sup>®</sup> liquid adhesion agent  
 ADHESION AGENT SOURCE: Supplied by Fulton Hogan Canterbury Bitumen Plant in May 2011  
 AGGREGATE SAMPLED BY: Soane Asi on 16 March 2012  
 TEST METHOD USED: MWD B301-89T  
 TESTED BY: Kim Pratt on 2/05/2012

**RESULTS:**

<b>AGGREGATE SOURCE</b>	<b>AGENT QUANTITY (PPH BY VOLUME)</b>	<b>TEST RESULT</b>	<b>TEST CRITERION</b>
Winstone Aggregates - Pukekawa Quarry North Waikato	0.7	<b>87</b>	0.45
		Spec : 80 min	Spec : 2 max

**NOTE:** *TNZ M/13: 1989 - SPECIFICATION FOR ADHESION AGENTS* states that the sieved chip sample shall comply with the requirements of ALD/AGD ratio and ALD for grade 3 chip specified in TNZ M/6. This has not been verified for this aggregate.

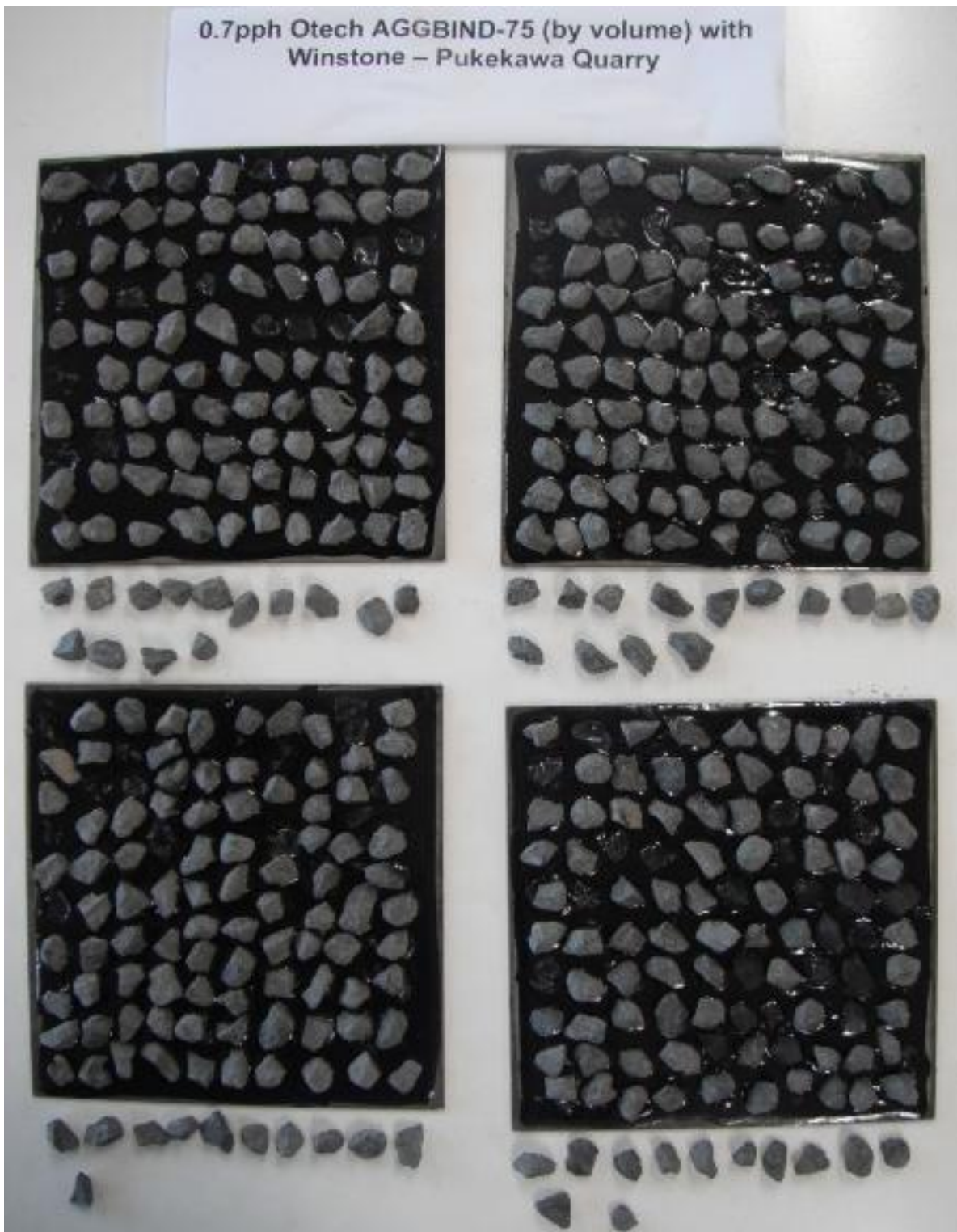
Test performed using: Grade 3 chip of basalt origin  
 Chip sieved between 13.2 & 9.5mm sieves and washed in deionised water  
 180/200 Penetration Grade Bitumen (Lab Ref. CAN12B-0060)  
 Adhesion agent set up time was 2.5 hours  
 Test temperature of 25°C

Report Issued By: Kim Pratt on 4/05/2012

Report Checked By:

  
 Bitumen Laboratory Supervisor

Disclaimer: These test results apply to the samples as received by the Laboratory. No liability will be accepted by the Laboratory for any misrepresentation with respect to the sampling of material for testing and/or the use of these test results.



**Figure 1.** Photograph showing test plates with 180/200 bitumen and 0.7pph Otech AGGBIND-75<sup>®</sup> (by volume) after test was performed. Winstone Aggregates – Pukekawa Quarry Grade 3 chip that was dislodged is arranged below the plates.