



**WINSTONE**  
AGGREGATES

12th December 2006

Auckland Regional Council  
Private Bag 92 012  
Auckland.

**Attention: Naveen Kumar, Water Resources Section**

**Re: Three Kings Quarry De-watering Consent 12977**

Dear Naveen

As required by Condition 7 of the above resource consent, please find enclosed records of groundwater level measurements for the period of 1 September to 30 November 2006.

Please note that the groundwater level within bore 2B was not measure over this period. This is because access to bore 2B has not been possible as the quarry floor around the bore has been flooded since April 2006. Bore 5B has been taken as the quarry reference bore until bore 2B is able to be read.

I trust all is in order. Please contact the undersigned if any further information or clarification is required.

Yours faithfully  
for **Winstone Aggregates**

  
Michael Harris  
Engineering Geologist.

THREE KINGS GROUNDWATER LEVEL RECORD SHEET

| Date      | BH 1B  | BH 2B  | BH 5B  | BH 6A  | BH 6B  | BH 6C  | BH 7   | BH 10a  |
|-----------|--------|--------|--------|--------|--------|--------|--------|---------|
| 20-Sep-06 | 9.20   | 37.02  |        | 36.26  | 46.21  | 41.14  | 37.29  | 28.44   |
| 18-Oct-06 | 8.99   | 37.23  | 42.00  | 32.58  | 37.65  | 41.50  | 40.17  | 28.71   |
| 15-Nov-06 | 9.02   | 37.20  | 41.70  | 32.56  | 37.45  | 41.34  | 37.57  | 29.49   |
|           |        |        | 41.87  | 32.68  | 37.57  | 41.22  | 37.42  | 29.79   |
|           |        |        | 36.39  | 46.11  | 41.37  | 40.11  | 40.11  | 50.97   |
| Date      | BH 10b | BH 11b | BH 12a | BH 12b | BH 13a | BH 13c | BH 16  | BH 17   |
| 20-Sep-06 | 8.12   | 72.64  | 7.75   | 72.24  | 21.15  | 51.08  | 66.21  |         |
| 18-Oct-06 | 8.12   | 72.64  | 7.75   | 72.24  | 20.98  | 51.25  | 66.21  | 41.70   |
| 15-Nov-06 | 8.17   | 72.59  | 7.80   | 72.19  | 21.21  | 51.02  | 66.21  | 41.40   |
|           |        |        |        |        | 5.13   | 67.00  | 48.69  | 41.39   |
|           |        |        |        |        | 10.47  | 61.70  | 51.45  | 36.49   |
| Date      | BH 18A | BH 18B | BH 19A | BH 19B | BH 20  | BH 20a | BH 21  | BH 22   |
| 20-Sep-06 | 47.18  | 37.32  | 38.45  | 46.05  | 43.83  | 36.22  | 38.45  |         |
| 18-Oct-06 | 47.13  | 37.37  | 38.37  | 46.13  | 43.54  | 36.51  | 38.45  | 34.02   |
| 15-Nov-06 | 46.91  | 37.59  | 38.28  | 46.22  | 43.68  | 36.37  | 38.45  | 34.02   |
|           |        |        |        |        | 1.14   | 55.52  | 34.98  | 34.14   |
|           |        |        |        |        | 1.23   | 55.43  | 37.15  | 41.10   |
|           |        |        |        |        | 1.17   | 55.49  | 37.41  | 41.22   |
| Date      | BH 22a | BH 23  | BH 23a | BH 24  | BH 24a | BH 25  | BH 25a | BH 25b1 |
| 20-Sep-06 | 9.96   | 65.18  | 5.6    | 51.60  | 6.16   | 51.18  | 21.06  |         |
| 18-Oct-06 | 9.75   | 65.38  | 5.61   | 51.59  | 6.15   | 51.19  | 20.97  | 9.74    |
| 15-Nov-06 | 10.80  | 64.34  | 5.58   | 51.62  | 6.17   | 51.17  | 20.96  | 9.53    |
|           |        |        |        |        | 0.30   | 62.46  | 38.49  | 10.70   |
|           |        |        |        |        | 0.32   | 62.44  | 49.70  | 10.58   |
|           |        |        |        |        | 0.29   | 62.47  | 49.91  | 49.59   |
| Date      | BH25b2 | BH 26  | BH 26a | BH 27  | BH28a  | BH28b  | BH29   | BH30    |
| 20-Sep-06 |        |        |        |        |        |        |        |         |
| 18-Oct-06 | 9.09   | 52.48  | 52.02  | 59.07  | 5.20   | 54.21  | 0      | 8.66    |
| 15-Nov-06 | 8.63   | 52.02  | 59.11  | 59.11  | 5.19   | 54.22  | 0      | 8.58    |
|           |        |        |        |        | 6.75   | 51.40  | 53.48  | 58.02   |
|           |        |        |        |        | 4.43   | 3.90   | 52.95  | 17.05   |
|           |        |        |        |        | 6.71   | 49.60  | 8.62   | 16.94   |
|           |        |        |        |        | 49.60  | 49.60  | 57.98  | 55.17   |
| Date      | BH31a  | BH31b  | BH32   | BH33   | BH34   | BH35a  | BH35b  | BH36a   |
| 20-Sep-06 | 15.46  | 49.05  | 13.12  | 50.41  | 3.98   | 54.68  | 3.07   | 50.04   |
| 18-Oct-06 | 15.54  | 49.13  | 13.18  | 50.47  | 3.76   | 54.90  | 3.17   | 55.27   |
| 15-Nov-06 |        |        |        |        | 3.87   | 54.79  | 3.28   | 58.69   |
|           |        |        |        |        | 8.82   | 56.99  | 49.88  | 58.71   |
|           |        |        |        |        | 16.38  | 49.93  | 10.99  | 7.82    |
|           |        |        |        |        | 16.38  | 49.88  | 55.27  | 7.91    |
|           |        |        |        |        | 58.62  | 58.62  | 58.62  | 58.62   |
| Date      | BH36b  | BH37a  | BH37b  | BH38a  | BH38b  | BH39a  | BH39b  | BH40a   |
| 20-Sep-06 | 7.54   | 58.09  | 3.56   | 53.98  | 3.73   | 53.87  | 3.96   | 57.07   |
| 18-Oct-06 | 7.50   | 59.03  | 3.6    | 53.94  | 3.75   | 53.85  | 3.96   | 57.07   |
| 15-Nov-06 | 7.55   | 58.98  | 3.73   | 53.81  | 3.81   | 53.79  | 4.6    | 57.08   |
|           |        |        |        |        | 53.88  | 4.96   | 54.98  | 56.23   |
|           |        |        |        |        | 53.51  | 7.01   | 5.90   | 9.73    |
|           |        |        |        |        | 61.82  | 61.81  | 61.59  | 61.59   |
| Date      | BH40b  |        |        |        |        |        |        |         |
| 20-Sep-06 | 7.59   | 63.77  |        |        |        |        |        |         |
| 18-Oct-06 | 7.63   | 63.73  |        |        |        |        |        |         |
| 15-Nov-06 | 7.78   | 63.58  |        |        |        |        |        |         |

Locations of boreholes are marked on the attached plan

Waterlevels within standpipe piezometers are expressed as depth below surface levels (first column) and as elevations above sea level (second column).

Waterlevels within pneumatic piezometers are expressed as head of water above piezometer tip (first column) and as elevations above sea level (second column).