



# QUARTERLY REPORT BOTTLED WATER QUALITY

(April-June, 2014)



**PAKISTAN COUNCIL OF RESEARCH IN WATER RESOURCES**

Ministry of Science & Technology

Khyban-e-johar, H-8/1, Islamabad.

[www.pcrwr.gov.pk](http://www.pcrwr.gov.pk)

April-June, 2014



## SUMMARY

The poor quality of drinking water has forced a large cross-section of citizens to buy bottled water. However, many of the mineral water companies were found selling contaminated water. To monitor and improve the quality of bottled water, the government of Pakistan through Ministry of Science and Technology has designated the task for quarterly monitoring of bottled/mineral water brands to PCRWR. According to the monitoring report for the quarter April-June, 2014 following is the brief overview of the findings.

### Quarterly Monitoring of Bottled/Mineral Water (Apr-June, 2014)

|                                   |  |   |
|-----------------------------------|--|---|
| <b>No. of Brands Collected</b>    | <b>111</b>   |   |
| <b>No. of Cities Targeted</b>     | <b>14</b><br>(Islamabad, Rawalpindi, Lahore, Faisalabad, Sialkot, Sahiwal, Sargodha, D.G.Khan, Multan, Bahawalpur, Tandojam, Karachi, Quetta, and Peshawar). |   |
| <b>No. of Overall Safe Brands</b> | <b>92</b>  |   |
| <b>Overall Unsafe Brands (19)</b> | <b>Brand Name</b>  | <b>Manufacturer(s)</b>  |
|                                   | <b>Nation</b>  | Hamza Brother 9-km, G.T Road Rachna Town Shahdara Lahore  |
|                                   | <b>Spring Fresh</b>  | A-71/1,Shaniabad F.B Area, Karachi  |
|                                   | <b>Splish Aryana</b>   | Sherjil Foods Industrial Estate ,Multan   |
|                                   | <b>Pure Fresh Water</b>  | NLC by pass Main Khanewal Road, Multan  |
|                                   | <b>New Deep</b>  | S.B Food & Beverages Zakriya Town Bosan Road, Multan  |
|                                   | <b>Fit</b>   | Fit Purification:1-D/1 Old Shujabad Road, Multan  |
|                                   | <b>Alfa Blue</b>   | A Product of Chaudhary Bros Multan E-mail:alfablue14@gmail.com  |
|                                   | <b>Sehat</b>   | Shah Abdul Haq Food(Pvt)Ltd:62-B,Industrial Estate, Multan  |
|                                   | <b>Unique Water</b>  | M. Enterprises L.M.Q Road ,Multan, 03008637336  |
|                                   | <b>Lite Aqua</b>   | Lite Aqua Minerals:D-81 Mahmood Abad, Multan  |
|                                   | <b>Butt</b>  | A product of Azhar & Co. Gulberg -111 Lahore  |
|                                   | <b>Active</b>  | Ali Enterprises :90-E Sabzazar ,Lahore, Pakistan  |
|                                   | <b>Aqua National</b>   | Milli Brother :8-km,G.T Road Shahdara ,Lahore   |
|                                   | <b>Natur Aqua</b>  | Maqbool Industries :G.T Road Shahdara, Lahore   |
|                                   | <b>Cool</b>  | M.T mineral Water Co.B-7,Marghzar Housing Society, Lahore   |
|                                   | <b>Aqua Smart</b>  | Dr. Ramey Homeo Pharma Industry Faisalabad Road, 2 Km Chichawatni, Sahiwal                                      |
|                                   | <b>Pure 99,</b>  | Yasir Enterprises Salman Tower A-15,Mazzanine Floor Opp. Nadra Office Main National Highway Malir city, Karachi |
|                                   | <b>Al Habib</b>  | E-10 Al-Azam Square F.B Block-1, Karachi  |
| <b>Life (Islamabad)</b>           | Life water Industries, Lehtar Road Islamabad , Ph # 051-2504442-3  |   |
| <b>Chemically Safe Brands</b>     | <b>96</b>  |   |

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|  |   |
|--|---|
| <p><b>Chemically Unsafe Brands</b></p>             | <p><b>15</b></p> <p><b><u>Excessive Arsenic (13)</u></b></p> <p>(Nation, Splish Aryana, Pure Fresh Water, New Deep, Fit, Alfa Blue, Sehat, Unique Water, Butt, Active, Aqua National, Natur Aqua, Cool)</p> <p><b><u>Excessive Sodium (2)</u></b></p> <p>(Lite Aqua and Aqua Smart)</p> <p><b><u>Excessive Total Dissolved Solids (TDS) (1)</u></b></p> <p>Aqua Smart</p> |
| <p><b>No. of Microbiologically Safe Brands</b></p> | <p><b>106</b></p>   |
| <p><b>Microbiologically Unsafe Brands</b></p>      | <p><b>05</b></p> <p>(Pure 99, Al Habib, Spring Fresh, Life ( Islamabad) and Lite Aqua)</p>  |



## INTRODUCTION

Drinking water quality is deteriorating continually due to biological contamination from human waste, chemical pollutants from industries and agricultural inputs. Piped water also gets contaminated because pipes are laid very close to sewerage lines or open drains and cause many serious water borne diseases. It was found that 45% of infant deaths have been attributed to diarrhea and about 60% to overall infectious waterborne diseases in Pakistan. According to the World Health Organization (WHO) 25-30% of the diseases are gastro-intestinal in nature. The poor quality of drinking water has forced a large cross-section of citizens to buy bottled water. As a consequence of this expanding market a mushroom growth of bottled water industry in the country is witnessed during the last few years. However, many of the mineral water companies were found selling contaminated water. To monitor and improve the quality of bottled water, the government of Pakistan has designated the PCRWR as focal point agency.

1. Ministry of Science & Technology informed PCRWR Vide U.O. No. 5(21)/2004-ATA-II dated 17.10.2005 that the Cabinet in its meeting under the chairmanship of Prime Minister directed Ministry of Science & Technology to undertake regular survey/samples of bottled/mineral water at source of production, publicize the results on a quarterly basis and follow up with punitive/legal action.
2. Ministry of Science & Technology has assigned the task of quality monitoring of bottled water and publicize the results to PCRWR Vide U.O. No.1(1)/2005-Secy (MoST) dated 8.12.2005.

## PCRWR SAMPLING METHODOLOGY

|                              |  |   |
|------------------------------|--|---|
| No. of Brands Collected      | 111  |   |
| No. of Cities Targeted       | 14 (Islamabad, Rawalpindi, Lahore, Faisalabad, Sialkot, Sahiwal, Sargodha, D.G.Khan, Multan, Bahawalpur, Tandojam, Karachi, Quetta, and Peshawar).   |   |
| Composition of Sampling Team | One Research Officer and Two Laboratory Assistants   |   |
| Sampling Procedure           | Samples of <b>One Hundred and Eleven</b> commercially available brands of mineral/bottled water were collected from local market of fourteen cities of Pakistan. These samples were collected by the senior staff members of National Water Quality Laboratory (NWQL) of PCRWR Head Office and Regional/district Water Quality Laboratories of PCRWR during April-June, 2014. A set of four bottles of each brand was collected and sealed on site. Identification codes were allotted to all the brands according to PCRWR Bottled Water Classification System. |   |
| Transparency                 | Sample No. 1   | Handed over to shopkeeper at the time of sample collection;                               |
|                              | Sample No. 2   | Preserved in the National Water Quality Laboratory of PCRWR, Islamabad for future record. |
|                              | Sample No. 3   | Used for Microbiological Analysis   |
|                              | Sample No. 4   | Used for Physico-chemical Analysis  |

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PCRWR BOTTLED WATER CLASSIFICATION SYSTEM

| Sr. No | Brand Name         | PCRWR Code | City       | Date of Collection | Date of Expiry | Size      | Name & Address of Seller/Shop Keeper                   | Manufacturer's Address   |
|--------|--------------------|------------|------------|--------------------|----------------|-----------|--|--|
| 1      | Gourmet Water      | BWB-01     | Faisalabad | 01/04/2014         | 09/2014        | 0.6 Liter | Gourmet shop Allied Hospital Faisalabad                | Gourmet Foods Gate # 1 Plot 1-5 Sunder Industrial Estate Rawind Sunder Road Lahore               |
| 2      | Aqua Fina          | BWB-02     | Faisalabad | 01/04/2014         | 11/2014        | 0.6 Liter | Madni General store Afshan colony Faisalabad           | P-1590 Samundari Road Nisar Colony Faisalabad  |
| 3      | Al-Saudia          | BWB-03     | Faisalabad | 01/04/2014         | 12/2014        | 0.6 Liter | Madni General store Afshan colony Faisalabad           | Al-Saudia Water Industries 77-K,Gulistan Colony Faisalabad                                       |
| 4      | Nation             | BWB-04     | Faisalabad | 02/04/2014         | -              | 0.6 Liter | Adnan General store Chowk Akbar A bad Faisalabad       | Hamza Brother 9-km,G.T Road Rachna Town Shahdara Lahore  |
| 5      | Nectar (Islamabad) | BWB-05     | Faisalabad | 01/04/2014         | -              | 0.5 Liter | Madni General store Afshan colony Faisalabad           | Plot#14/10 Markaz G-7,Islamabad  |
| 6      | Super Natural      | BWB-06     | Faisalabad | 02/04/2014         | -              | 0.6 Liter | Adnan General store Chowk Akbar bad Faisalabad         | WELL-O(Pvt)Ltd p-958 St#12 Muhammad A bad Faisalabad   |
| 7      | River              | BWB-07     | Faisalabad | 02/04/2014         | -              | 1.5 Liter | Adnan General store Chowk Akbar bad Faisalabad         | California Foods & Beverages Company   |
| 8      | Indus water        | BWB-08     | D.G Khan   | 09/04/2014         | 08/2014        | 0.6 Liter | Gulzar Medical store D.G khan                          | DJ Enterprises:- Suite # 225, Jaskani Commercial Centre Bulakh Sarwar city JamPur Road D.G. Khan |
| 9      | Himalaya Cool      | BWB-09     | D.G Khan   | 09/04/2014         | 11/2014        | 0.6 Liter | New Hasnain Medical store Near civil Hospital D.G Khan | Himalaya Enterprises Balakh Sarwar City JamPur Road D.G.Khan                                     |
| 10     | Springley          | BWB-10     | D.G Khan   | 09/04/2014         | 06/2015        | 0.5 Liter | Umrani Medical store Near DHQ D.G khan                 | Springley a Brand of Qarshi industries(Pvt ) Ltd Hattar Pakistan                                 |
| 11     | Ultra Pak          | BWB-11     | D.G Khan   | 09/04/2014         | 01/2015        | 0.6 Liter | New sunny Medical store D.G Khan                       | Ultra pak water industries Shahzada sultan town near Sufi Khalil CNG Pump D.G. Khan              |
| 12     | Khush Aab          | BWB-12     | Sargodha   | 14/04/2014         | -              | 0.6 Liter | University pharmacy                                    | A Project of University of Sargodha  |
| 13     | Foss               | BWB-13     | Sargodha   | 14/04/2014         | 02/2015        | 0.6 Liter | Madina General Store GBS Sargodha                      | AlFateh Sons E-mail:foss@hotmail.com   |
| 14     | Crystal            | BWB-14     | Sargodha   | 14/04/2014         | 01/2015        | 0.6 Liter | Adnan General store GBS Sargodha                       | Crystal Group:Plot#24,Old Civil lines Mela Mandi Road Sargodha                                   |
| 15     | Hydro life         | BWB-15     | Sargodha   | 14/04/2014         | -              | 0.6 Liter | M. Mansha G.Store (47 Adda) Sargodha                   | -  |

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| Sr. No | Brand Name       | PCRWR Code | City     | Date of Collection | Date of Expiry | Size      | Name & Address of Seller/Shop Keeper   | Manufacturer's Address   |
|--------|------------------|------------|----------|--------------------|----------------|-----------|--|--|
| 16     | Clear            | BWB-16     | Sahiwal  | 27/04/2014         | -              | 0.6 Liter | Hasan Agro Food Hafi Industries173/A, Small Industrial Estate Sahiwal.             | Hasan Agro Food Hafi Industries173/A, Small Industrial Estate Sahiwal.                 |
| 17     | Aqua smart       | BWB-17     | Sahiwal  | 27/04/2014         | -              | 0.6 Liter | Malik tuck shop faisal mover bus stand Sahiwal                                     | Dr. Ramey Homeo Pharma Industry Faisalabad Road, 2 Km Chichawatni, Sahiwal             |
| 18     | Minter           | BWB-18     | Sahiwal  | 27/04/2014         | 07/2014        | 0.6 Liter | Petals Foods:- 561/B VII, Police Line Road Sahiwal 040-4222882                     | Petals Foods:- 561/B VII, Police Line Road Sahiwal 040-4222882                         |
| 19     | Vital happy Life | BWB-19     | Sahiwal  | 27/04/2014         | 12/2014        | 0.6 Liter | Al-Mansoor Consumer Products 7-Km,Multan Road Sahiwal                              | Al-Mansoor Consumer Products 7-Km,Multan Road Sahiwal                                  |
| 20     | Aqua Mashmoom    | BWB-20     | Sahiwal  | 27/04/2014         | 10/2014        | 0.6 Liter | Khan cold drink corner main bus stand Sahiwal                                      | Mashmoom (Pvt) Ltd Plot #153,154 Phase V Industrial Estate Hattar                      |
| 21     | Nestle           | BWB-21     | Tandojam | 14/05/2014         | 09/2015        | 0.5 Liter | Abdul Rahim Book Depot Bakers & General Store Near Railway gate Tandojam Hyderabad | 308,Upper Mall Lahore  |
| 22     | Pearl            | BWB-22     | Tandojam | 14/05/2014         | 02/2015        | 0.5 Liter | Zam Mineral Water Near Ghosia Masjid Tandojam district Hyderabad                   | S.Q.B.S Enterprises:144/6.8 km,Near Toll Plaza Super Highway Jamshoro                  |
| 23     | OSLO             | BWB-23     | Tandojam | 14/05/2014         | 06/2015        | 0.6 Liter | Zam Zam Mineral Water Near Ghosia Masjid Tandojam Hyderabad                        | Oslo International 14,Ramzan Chamber Dr.Bilmoria Street of 1.1 Chandigarh Road Karachi |
| 24     | Nice             | BWB-24     | Tandojam | 14/05/2014         | -              | 0.6 Liter | Zam zam Mineral Water Near Ghosia Masjid Tandojam District Hyderabad               | CS,19/4,Near Fareed Plaza Liaquat Colony Industrial Area Hyderabad                     |
| 25     | Naseeb           | BWB-25     | Tandojam | 15/05/2014         | -              | 0.6 Liter | Anwar Talpur General Store Near Railway Phatak Tandojam district Hyderabad         | -  |
| 26     | Aqua Blue Drops  | BWB-26     | Tandojam | 14/05/2014         | -              | 0.6 Liter | Zam Mineral Water Near Ghosia Masjid Tandojam district Hyderabad                   | Bottled By: So-Safe Water Technology Karachi   |
| 27     | Isberg           | BWB-27     | Sialkot  | 16/05/2014         | 05/2015        | 0.6 Liter | Premier water Refining company Dhabola Roras Road Sialkot                          | Premier water Refining company Dhabola Roras Road Sialkot                              |
| 28     | Eco              | BWB-28     | Sialkot  | 16/05/2014         | 12/2015        | 0.6 Liter | J&J Food Beverages Roras Road Naul Chowk Sialkot                                   | J&J Food Beverages Roras Road Naul Chowk Sialkot                                       |
| 29     | Rise Water       | BWB-29     | Sialkot  | 16/05/2014         | 12/2015        | 0.6 Liter | Pure Foods Sialkot 3-Km Kingra Road Sialkot  | Pure Foods Sialkot 3-Km Kingra Road Sialkot  |

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|--------|--------------|------------|------------|--------------------|----------------|-----------|---|---|
| 30     | Al-Shalal    | BWB-30     | Sialkot    | 16/05/2014         | 12/2014        | 0.6 Liter | AZO Enterprises,14-km Aimanabad Sialkot                             | AZO Enterprises,14-km Aimanabad Sialkot   |
| 31     | Vina         | BWB-31     | Sialkot    | 16/05/2014         | 05/2015        | 0.6 Liter | Al-Sultan Beverages Industries chaprar Road Gul Bahar Kalan Sialkot | Al-Sultan Beverages Industries chaprar Road Gul Bahar Kalan Sialkot   |
| 32     | Aqua Save    | BWB-32     | Sialkot    | 16/05/2014         | 05/2014        | 0.6 Liter | SFS Mineral Water Company Wazirabad Road JalianWala Ugoki Sialkot   | SFS Mineral Water Company Wazirabad Road JalianWala Ugoki Sialkot   |
| 33     | Pineo        | BWB-33     | Bahawalpur | 29/04/2014         | 04/2015        | 1.5 Liter | Hamdard Medical Store opp BUH Bahawalpur                            | Gysing Pak PSIE,Bahawalpur Gysing@live.com  |
| 34     | ARWA         | BWB-34     | Bahawalpur | 29/04/2014         | -              | 0.5 Liter | Usman pharmacy Near Ali Hospital Model Town Bahawalpur              | Aslam Group of Industries:16 km Hasilpur Road Dera Bakha Bahawalpur   |
| 35     | Blu          | BWB-35     | Bahawalpur | 29/04/2014         | 03/2015        | 0.6 Liter | New United Medicos opp (BUH) Bahawalpur                             | Al-Hilal Industries(Pvt)Ltd Sultan Nagar Vehari Road Multan   |
| 36     | Aspen aqua   | BWB-36     | Bahawalpur | 29/04/2014         | 04/2015        | 0.6 Liter | Hamdard Medical Store opp BUH Bahawalpur                            | Gysing Pak DDR-1 PSIE,Bahawalpur  |
| 37     | Waseb Water  | BWB-37     | Bahawalpur | 29/04/2014         | -              | 0.6 Liter | Usman pharmacy Near Ali Hospital Model Town Bahawalpur              | Waseb Pure Water :Bahawalpur Punjab Pakistan E-mail:rana_umair38@yahoo.com                                    |
| 38     | Pure 99      | BWB-38     | Karachi    | 19/05/2014         | -              | 0.6 Liter | Bismillah Bakery RCD Ground Saudabad, Malir Karachi                 | Yasir Enterprises Salman Tower A-15,Mazzanine Floor Opp.Nadra Office Main National Highway Malir city Karachi |
| 39     | Vey          | BWB-39     | Karachi    | 19/05/2014         | 03/2016        | 0.6 Liter | Bismillah Bakery RCD Ground Saudabad, Malir Karachi                 | Fluid Technology Int'l(Pvt)Ltd 424,Bhayani Center Block, M, North Nazimabad, Karachi                          |
| 40     | Crystal life | BWB-40     | Karachi    | 19/05/2014         | 04/2015        | 0.5 Liter | Danish Bakery & General Store Indus Mehran Malir Karachi            | F-75,Gate -2 S.I.T.E Karachi Pakistan   |
| 41     | Jel          | BWB-41     | Karachi    | 19/05/2014         | 12/2015        | 1.5 Liter | Danish Bakery & General Store Indus Mehran Malir Karachi            | Mega Fine Industries Plot#A-92 Malir Industrial Area Malir Karachi  |
| 42     | Aqua Vida    | BWB-42     | Karachi    | 19/05/2014         | -              | 0.6 Liter | Danish Bakery & General Store Indus Mehran Malir Karachi            | Habib Consumer Products(Pvt)Ltd Plot#80-A,B,C Sector 27,Korangi Industrial Area Karachi                       |
| 43     | Miracle      | BWB-43     | Karachi    | 19/05/2014         | -              | 1.5 Liter | Sweet & Nimco Shop # 23, 24 Safora Chowrangi, Karachi               | The Miracle Product(Pvt)Ltd Plot#WSA-23,Block-14,F.B Area Karachi   |
| 44     | Ideal life   | BWB-44     | Karachi    | 19/05/2014         | 12/2014        | 0.6 Liter | New Falcon Medical & General Store, Nehal Hospital, Halaboard       | Plot#B-9/B-1 Office# 37.5 p Chamber Site Karachi  |

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|--------|------------------|------------|------------|--------------------|----------------|-----------|---|--|
|        |                  |            |            |                    |                |           | Karachi   |  |
| 45     | Matrah           | BWB-45     | Karachi    | 20/05/2014         | -              | 0.6 Liter | Waqar Sheeren Shop # 36, 37 Plot # 17 Main Road , Landhi Karachi                    | <a href="mailto:Mathrah.water1@hotmail.com">Mathrah.water1@hotmail.com</a> cell#03442192202            |
| 46     | Al-Massafi       | BWB-46     | Karachi    | 20/05/2014         | -              | 1.5 Liter | Waqar Sheeren Shop # 36, 37 Plot # 17 Main Road , Landhi Karachi                    | Al-Massafi Foods Plot# S-3,S-4, Malir City Karachi   |
| 47     | Al-Habib         | BWB-47     | Karachi    | 20/05/2014         | 12/2016        | 0.6 Liter | Ibrahim general store, Landhi hospital ,Karachi                                     | E-10 Al-Azam Square F.B Block-1 Karachi  |
| 48     | Nain             | BWB-48     | Karachi    | 20/05/2014         | -              | 0.6 Liter | Haroon Medical Store Landhi Karachi # 22  | Cell#0321-2582372 ,0313-1017839  |
| 49     | Sea breeze       | BWB-49     | Karachi    | 20/05/2014         | 12/2015        | 0.6 Liter | Haroon Medical Store Landhi Karachi # 22  | Time Enterprises <a href="mailto:Saebreezeewater@yahoo.com">Saebreezeewater@yahoo.com</a> 0300-2272199 |
| 50     | Orion            | BWB-50     | Karachi    | 20/05/2014         | 12/2014        | 0.6 Liter | Akhtar Super General Store Gulistane Johar, Karachi                                 | Orion Foods Site E-1,Suite #2,Defance View Phase-II, Karachi   |
| 51     | Friends Life     | BWB-51     | Karachi    | 20/05/2014         | -              | 1.5 Liter | Super General Store Safora Goth, Karachi  | Q.N Traders Metroville,S.I.T.E Karachi   |
| 52     | Spring fresh     | BWB-52     | Karachi    | 20/05/2014         | 12/2015        | 0.6 Liter | Super General Store Safora Goth, Karachi  | A-71/1,Shaniabad F.B Area Karachi  |
| 53     | Water plus       | BWB-53     | Islamabad  | 22/05/2014         | 12/2014        | 0.5 Liter | Zeshan and Yaqoob, Plot # 235,Street 6 I-9/2, Islamabad                             | Plot # 235,St # 6,I-9/2, Industrial Area Islamabad   |
| 54     | Deosai           | BWB-54     | Islamabad  | 22/05/2014         | 10/2014        | 1.5 Liter | Margalla foods & Beverages, plot # 32,Khayaban-e-johar Industrial Area I-9/2,Isb    | Margalla foods & Beverages, plot # 32,Khayaban-e-johar Industrial Area I-9/2,Isb                       |
| 55     | Verbena          | BWB-55     | Rawalpindi | 28/05/2014         | -              | 6 Liter   | Hannan General Store Siddique Chowk, Rawalpindi                                     | Vizor Pharma (Pvt)Ltd.82,Lalazar Estate, Rawalpindi  |
| 56     | Life (Islamabad) | BWB-56     | Islamabad  | 28/05/2014         | 02/2015        | 0.6 Liter | -   | Life water Industries, Lehrar Road Islamabad , Ph # 051-2504442-3                                      |
| 57     | Hydra            | BWB-57     | Islamabad  | 22/05/2014         | -              | 1.5 Liter | Plot # 31-A,Service Road I-9/2 Industrial Area Islamabad                            | Plot # 31-A, I-9 Industrial Area Islamabad   |
| 58     | Venora           | BWB-58     | Islamabad  | 22/05/2014         | 08/2014        | 0.6 Liter | Plot # 238, I-9/3, Islamabad  | Plot # 238, I-9/3, Islamabad   |
| 59     | Water pack       | BWB-59     | Islamabad  | 28/05/2014         | 12/2015        | 0.6 Liter | -   | Al-Saudia International , Burma town Lehrar Road Islamabad   |
| 60     | Ultra blue       | BWB-60     | Rawalpindi | 29/05/2014         | 08/2015        | 0.6 Liter | Faisal Variety Store, Noori Mosque Z-B-292/Sector 3 Khayaban-e-Sir Syed, Rawalpindi | Ultra Blue , Main G.T Road near police line Rawat , Islamabad Pakistan                                 |
| 61     | Valley           | BWB-61     | Islamabad  | 27/05/2014         | 12/2014        | 1.5       | Plot # 277, Street  | Plot # 277, Street # 1, I-   |



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|--------|---------------|------------|------------|--------------------|----------------|-----------|---|--|
|        |               |            |            |                    |                | Liter     | # 1, I-9/3 Industrial Area , Islamabad  | 9/3 Industrial Area , Islamabad  |
| 62     | Ice berg      | BWB-62     | Rawalpindi | 27/05/2014         | 04/2015        | 0.6 Liter | Al-Saba Chemical Opposite Holy Family Hospital, Rawalpindi                          | GM Foods & Beverages, Suite No 16/62, Saddar Rawalpindi                        |
| 63     | Refresh Water | BWB-63     | Rawalpindi | 29/05/2014         | 04/2015        | 0.5 Liter | Faisal Variety Store, Noori Mosque Z-B-292/Sector 3 Khayaban-e-Sir Syed, Rawalpindi | T & S Islamabad , office # 1, Main Hall Pindori Road ,Main khana Dak Islamabad |
| 64     | Water Empire  | BWB-64     | Rawalpindi | 29/05/2014         | 04/2015        | 0.5 Liter | Faisal Variety Store, Noori Mosque Z-B-292/Sector 3 Khayaban-e-Sir Syed, Rawalpindi | Plot # 8, St # 4,I-10/3, Industrial Area, Islamabad                            |
| 65     | Deep spring   | BWB-65     | Rawalpindi | 29/05/2014         | -              | 0.5 Liter | New China Markete Shope No. 6 near Sky Ways Bus Stand Faizabad Rawalpindi           | Plot # 226, St # 7,I-9/2, Industrial Area ,Islamabad                           |
| 66     | Mount         | BWB-66     | Rawalpindi | 29/05/2014         | 02/2015        | 0.6 Liter | New China Markete Shope No. 6 near Sky Ways Bus Stand Faizabad Rawalpindi           | RAR & Brothers National Park Area, Islamabad                                   |
| 67     | BERG          | BWB-67     | Rawalpindi | 27/05/2014         | 6/2014         | 0.6 Liter | Al-Saba Chemical Opposite Holy Family Hospital, Rawalpindi                          | M-1851/2,St # 12, Iqbal Pura (Mittar Pura) Rawalpindi                          |
| 68     | Lite Wave     | BWB-68     | Rawalpindi | 29/05/2014         | -              | 0.6 Liter | New China Markete Shope No. 6 near Sky Ways Bus Stand Faizabad Rawalpindi           | Lite Wave, Ph # 051-2517193  |
| 69     | A.R water     | BWB-69     | Rawalpindi | 28/05/2014         | 01/2015        | 0.6 Liter | Akbar Shopping Center Faizabad ,Rawalpindi  | Plot # 18, Mian Road RCCI Industrial Estate Rawat, Islamabad                   |
| 70     | Maple Dew     | BWB-70     | Rawalpindi | 28/05/2014         | 06/2015        | 0.5 Liter | Falcon Bakers, Khayaban-e-Sir Syed, Rawalpindi                                      | Maple Associates, Park Road, Islamabad Ph 051-2552424                          |
| 71     | Aqua splash   | BWB-71     | Peshawar   | 26/05/2014         | 04/2015        | 0.6 Liter | (Euro International) 192-A, Industrial Estate Hayatabad Peshawar                    | (Euro International) 192-A, Industrial Estate Hayatabad, Peshawar              |
| 72     | Aquatic fresh | BWB-72     | Peshawar   | 26/05/2014         | 05/2015        | 0.6 Liter | Royal Food Industries Plot-1/C Industrial Estate Jamrud Road Peshawar               | Royal Food Industries Plot-1/C Industrial Estate Jamrud Road Peshawar          |
| 73     | Moya Mineral  | BWB-73     | Peshawar   | 26/05/2014         | 04/2016        | 0.6 Liter | Al-Saudia Enterprises 580/B Main Gulberg Peshawar Cantt                             | Al-Saudia Enterprises 580/B Main Gulberg Peshawar Cantt                        |
| 74     | Natural Aqua  | BWB-74     | Peshawar   | 26/05/2014         | 07/2015        | 0.6 Liter | RG enterprises Plot#1 41-A Industrial Estate Hayatabad                              | RG enterprises Plot#1 41-A Industrial Estate Hayatabad, Peshawar               |

PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



| Sr. No | Brand Name       | PCRWR Code | City     | Date of Collection | Date of Expiry | Size      | Name & Address of Seller/Shop Keeper                   | Manufacturer's Address  |
|--------|------------------|------------|----------|--------------------|----------------|-----------|--|---|
|        |                  |            |          |                    |                |           | Peshawar   |   |
| 75     | NEBRASKA         | BWB-75     | Peshawar | 26/05/2014         | -              | 0.6 Liter | 12-C Industrial Estate Hayatabad Peshawar              | 12-C Industrial Estate Hayatabad, Peshawar                                    |
| 76     | Nectar (Multan)  | BWB-76     | Multan   | 22/05/2014         | -              | 0.6 Liter | Farhan Ali express Tuck shop, Vehari road Multan       | E-mail: nectarenterprises@live.com 0300-6324373                               |
| 77     | Splish Aryana    | BWB-77     | Multan   | 23/05/2014         | -              | 0.6 Liter | Data tuck shop, general bus stand, Multan              | Sherjil Foods Industrial Estate, Multan                                       |
| 78     | Pure Fresh Water | BWB-78     | Multan   | 26/05/2014         | 12/2014        | 0.6 Liter | Mushtaq Drink Corner Vehari Chowk Multan               | NLC by pass Main Khanewal Road, Multan  |
| 79     | New Everest      | BWB-79     | Multan   | 26/05/2014         | 03/2015        | 0.5 Liter | Gulfam Ahmed Mushtaq drink corner Vehari Chowk, Multan | Faisal Beverages (Pvt)Ltd E-mail:f.bpakistan@yahoo.com                        |
| 80     | New Deep         | BWB-80     | Multan   | 26/05/2014         | -              | 0.6 Liter | Nasir hameed drink corner general bus stand, Multan    | S.B Food & Beverages Zakriya Town Bosan Road, Multan                          |
| 81     | Fit              | BWB-81     | Multan   | 22/05/2014         | -              | 0.6 Liter | Mr. Ali The real dairies, Old Shujabad Road, Multan    | Fit Purification:1-D/1 Old Shujabad Road, Multan                              |
| 82     | Aqua 7           | BWB-82     | Multan   | 22/05/2014         | 01/2015        | 0.6 Liter | Souk Super Store Bosan Road Multan                     | Pulse International 4,H.T.E.Z Old Road, Multan                                |
| 83     | Alfa Blue        | BWB-83     | Multan   | 22/05/2014         | -              | 0.6 Liter | Data Tuck Shop, General Bus Stand, Multan              | A Product of Chaudhary Bros Multan E-mail:alfablue14@gmail.com                |
| 84     | Sehat            | BWB-84     | Multan   | 23/05/2014         | -              | 1.5 Liter | Shafiq Cold Drink Corner, Vehari Chowk, Multan         | Shah Abdul Haq Food(Pvt)Ltd:62-B,Industrial Estate, Multan                    |
| 85     | Nice Pure        | BWB-85     | Multan   | 23/05/2014         | -              | 0.6 Liter | Nasir Hameed Drink Corner General Bus Stand, Multan    | Al-Khair Trading Co.  |
| 86     | Unique Water     | BWB-86     | Multan   | 23/05/2014         | -              | 1.5 Liter | Faisal Movers Tuck Shop, Multan                        | M. Enterprises L.M.Q Road Multan, 03008637336                                 |
| 87     | Lite Aqua        | BWB-87     | Multan   | 22/05/2014         | 03/2015        | 0.6 Liter | Ali Raza Drink Corner Chowk Shah Abbas Multan          | Lite Aqua Minerals:D-81 Mahmood Abad, Multan                                  |
| 88     | Oasis            | BWB-88     | Multan   | 26/05/2014         | 04/2014        | 1.5 Liter | Faisal Movers Tuck Shop, Multan                        | All Water Care Services:M.A Jinnah Road Bodhla Town Near Qasori Chowk, Multan |
| 89     | Aqua Hygienic    | BWB-89     | Quetta   | 28/05/2014         | -              | 1.5 Liter | Zauhras: Plot# 2,St#12 Faisal Town Brewery Road Quetta | Zauhras: Plot# 2,St#12 Faisal Town Brewery Road, Quetta                       |
| 90     | Aqua Spring      | BWB-90     | Quetta   | 28/05/2014         | -              | 1.5 Liter | Hafsa Foods Industries main kirani Road Quetta         | Hafsa Foods Industries main kirani Road, Quetta                               |
| 91     | AFRA             | BWB-91     | Quetta   | 28/05/2014         | -              | 1.5 Liter | -  | Tower Market Hakeem Habib Road, Hyderabad                                     |
| 92     | Kinely           | BWB-92     | Lahore   | 30/05/2014         | -              | 1.5 Liter | Sarwar Sweet Shop Addah Plot Stop Raiwind              | Coca cola Beverages Pakistan Ltd.(CCBPL)5-E,11 Gulberg 111,Lahore             |

PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



| Sr. No | Brand Name          | PCRWR Code | City   | Date of Collection | Date of Expiry | Size      | Name & Address of Seller/Shop Keeper                         | Manufacturer's Address   |
|--------|---------------------|------------|--------|--------------------|----------------|-----------|--|--|
|        |                     |            |        |                    |                |           | Road Lahore  |  |
| 93     | Murree Sparkletts   | BWB-93     | Lahore | 30/05/2014         | -              | 1.5 Liter | A-one Bakery B - Block Sher Shah Colony Raiwind Road Lahore  | Murree Sparkletts:(A Division of Murree Brewery Co.Ltd) Plot#10/2,Phase 111 Hattar     |
| 94     | Aqua Safe           | BWB-94     | Lahore | 29/05/2014         | 02/2015        | 1.5 Liter | Ishaq Pan Shop Outside the Railway Station Lahore            | Aqua Safe Pakistan(Pvt)Ltd 96-mclead Road, Lahore                                      |
| 95     | Aftab Qarshi        | BWB-95     | Lahore | 30/05/2014         | -              | 1.5 Liter | New Nasar Sweets and Bakers Pind Raiwind Lahore              | Aftab Qarshi Herbal Laboratories Water Division Muzamil Town 20-km Multan Road, Lahore |
| 96     | Aqua Dew            | BWB-96     | Lahore | 29/05/2014         | 03/2015        | 0.6 Liter | Ali paan Sabaza Shop Zaar Lahore                             | Mustafa & Hamza Foods:N-Block Sabzazar, Lahore Cell#03214443731                        |
| 97     | Natural Dew         | BWB-97     | Lahore | 29/05/2014         | 12/2014        | 0.6 Liter | Shani Paan Shop Chuburji Chowk Lahore                        | Rana Industries:1067-A,Block Sabzazar Scheme Near Bijli Ghar Stop Multan Road, Lahore  |
| 98     | Life (Lahore)       | BWB-98     | Lahore | 29/05/2014         | 04/2015        | 0.6 Liter | Hafiz Pan Shop Outside the Railway Station Lahore            | Sheroz Industries Lahore :Helpline 0322-4227964  |
| 99     | Butt                | BWB-99     | Lahore | 30/05/2014         | -              | 1.5 Liter | Butt Sweets Thokar Niaz Baig to Raiwind Road Lahore          | A product of Azhar & Co. Gulberg -111 Lahore   |
| 100    | Natural Drops       | BWB-100    | Lahore | 30/05/2014         | -              | 1.5 Liter | Ansar Dogar Store Bhutta Pind Raiwind Road Lahore            | Natural Drops Head office Contact:0320-4226011   |
| 101    | Qaswa               | BWB-101    | Lahore | 30/05/2014         | -              | 1.5 Liter | Noshai Pan Shop Bhutta Pind stop Raiwind Road Lahore         | Y.B Foods(Pvt)Ltd 320-A Huma Block main Boulevard Allama Iqbal Town, Lahore            |
| 102    | Dewan Water Express | BWB-102    | Lahore | 30/05/2014         | -              | 1.5 Liter | Jahangir Medical Store Defense Road Mohlanwal Lahore         | Dewan Foods:168,Shah Jamal Lahore E-mail; accounts @dewanfoods.com                     |
| 103    | Aqua RO-7           | BWB-103    | Lahore | 30/05/2014         | 06/2014        | 1.5 Liter | Orange Bakery D- Block Sher Shah Colony Raiwind Road Lahore  | Waqar Haider Brother:Qadir Gaba Market 78,Mclead Road, Lahore                          |
| 104    | Sufi                | BWB-104    | Lahore | 29/05/2014         | -              | 1.5 Liter | Billa Pan Shop Lari Addah Badami Bagh Lahore                 | Hadayat food Stuffs Industries(Pvt)Ltd 1-B,Garden Block Garden town, Lahore Pakistan   |
| 105    | Active              | BWB-105    | Lahore | 29/05/2014         | 02/2015        | 1.5 Liter | Khan General Store Adjacent to PARCO pump Niazi Addah Lahore | Ali Enterprises :90-E Sabzazar, Lahore Pakistan  |
| 106    | Sparkle             | BWB-106    | Lahore | 30/05/2014         | 05/2015        | 1.5 Liter | Orange Bakery D- Block Sher Shah Colony Raiwind Road Lahore  | Pro Health Beverages (Pvt)Ltd.11-km Multan road, Lahore                                |
| 107    | Aqua National       | BWB-107    | Lahore | 29/05/2014         | 08/2015        | 1.5       | Ali Paan Shop Samanabad                                      | Milli Brother :8-km,G.T Road Shahdara, Lahore  |

PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



| Sr. No | Brand Name        | PCRWR Code | City   | Date of Collection | Date of Expiry | Size      | Name & Address of Seller/Shop Keeper                        | Manufacturer's Address  |
|--------|-------------------|------------|--------|--------------------|----------------|-----------|---|---|
|        |                   |            |        |                    |                | Liter     | Chowk Lahore  |   |
| 108    | Effort            | BWB-108    | Lahore | 30/05/2014         | -              | 1.5 Liter | Jahangir Medical Store Defense Road Mohlanwal Lahore        | Effort Corporation 83-A, Shadman 11, Lahore Pakistan E-mail: effort_Corp@gmail.com      |
| 109    | Kisan Better Life | BWB-109    | Lahore | 30/05/2014         | -              | 1.5 Liter | Orange Bakery D- Block Sher Shah Colony Raiwind Road Lahore | Faisalabad Oil Refinery (Pvt)Ltd <a href="http://www.kisan.com.pk">www.kisan.com.pk</a> |
| 110    | Natur Aqua        | BWB-110    | Lahore | 29/05/2014         | 08/2015        | 1.5 Liter | Orange Bakery D- Block Sher Shah Colony Raiwind Road Lahore | Maqbool Industries :G.T Road Shahdara, Lahore   |
| 111    | Cool              | BWB-111    | Lahore | 29/05/2014         | 08/2015        | 1.5 Liter | Iqbal Paan Shop Lari Addah Badami Bagh Lahore               | M.T mineral Water Co.B-7, Marghzar Housing Society, Lahore                              |

WATER QUALITY PARAMETERS AND METHODS USED FOR ANALYSIS

| Sr. # | PARAMETERS                              | ANALYTICAL METHOD  |
|-------|---|--|
| 1.    | Alkalinity (mg/l as CaCO <sub>3</sub> ) | 2320, Standard method (2005) APHA                                    |
| 2.    | Arsenic (ppb)                           | AAS Vario 6, Analytik Jena AG  |
| 3.    | Bicarbonate                             | 2320, Standard method (2005) APHA                                    |
| 4.    | Calcium (mg/l)                          | 3500-Ca-D, Standard Method (2005) APHA                               |
| 5.    | Carbonate (mg/l)                        | 2320, Standard method (2005)   |
| 6.    | Chloride (mg/l)                         | Titration (Silver Nitrate), Standard Method (2005) APHA              |
| 7.    | Color (TCU)                             | Sensory Test   |
| 8.    | Conductivity (μS/cm)                    | E.C meter, Hach-44600-00, USA  |
| 9.    | Hardness (mg/l)                         | EDTA Titration, Standard Method (2005) APHA                          |
| 10.   | Magnesium (mg/l)                        | 2340-C, Standard Method (2005) APHA                                  |
| 11.   | Nitrate Nitrogen (mg/l)                 | Cd. Reduction (Hach-8171) by Spectrophotometer                       |
| 12.   | Odor                                    | Sensory Test   |
| 13.   | pH                                      | pH Meter, Hanna Instrument, Model 8519, Italy                        |
| 14.   | Potassium (mg/l)                        | Flame photometer PFP7, UK  |
| 15.   | Sodium (mg/l)                           | Flame photometer PFP7, UK  |
| 16.   | Sulfate (mg/l)                          | SulfaVer4 (Hach-8051) by Spectrophotometer                           |
| 17.   | Phosphate (mg/l)                        | 8190 and 8048 (Hach)   |
| 18.   | Taste                                   | Sensory Test   |
| 19.   | TDS (mg/l)                              | 2540C, Standard method (2005) APHA                                   |
| 20.   | Turbidity (NTU)                         | Turbidity Meter, Lamotte, Model 2008, USA                            |
| 21.   | Fluoride (mg/l)                         | 4500-F C. ion-Selective Electrode Method Standard method (2005) APHA |
| 22.   | Iron (mg/l)                             | FerroVer method (HACH Cat. 21057-69)                                 |
| 23.   | Total Coliforms (MPN/100ml)             | 9221-B,C&D, Standard Methods (2005) APHA                             |
| 24.   | E. Coli (MPN/100ml)                     | 9221-B,C&D, Standard Methods (2005) APHA                             |

WATER QUALITY PERMISSIBLE LIMITS FOR BOTTLED WATER

| Sr. | Parameter | Units | Permissible Limits |
|-----|-----------|-------|--------------------|
|-----|-----------|-------|--------------------|

## PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



| #   |                 |           | WHO       | IBWA | PSQCA           |
|-----|-----------------|-----------|-----------|------|-----------------|
| 1.  | Alkalinity      | (mg/l)    | NGVS      | NGVS | NGVS            |
| 2.  | Bicarbonate     | (mg/l)    | NGVS      | NGVS | NGVS            |
| 3.  | Calcium         | (mg/l)    | NGVS      | NGVS | 100             |
| 4.  | Carbonate       | (mg/l)    | NGVS      | NGVS | NGVS            |
| 5.  | Chloride        | (mg/l)    | 250       | 250  | 250             |
| 6.  | Co lour         | (TCU)     | 15        | NGVS | 5               |
| 7.  | Conductivity    | (µS/cm)   | NGVS      | NGVS | NGVS            |
| 8.  | Fluoride        | (mg/l)    | 1.5       | 3    | 0.7             |
| 9.  | Hardness        | (mg/l)    | NGVS      | NGVS | NGVS            |
| 10  | Iron            | (mg/l)    | 0.3       | 0.3  | 0.3             |
| 11. | Magnesium       | (mg/l)    | NGVS      | NGVS | 50              |
| 12. | Odor            | -         | Odorless  | NGVS | Unobjectionable |
| 13. | Nitrate-N       | (mg/l)    | 10        | 10   | 10              |
| 14. | pH              | -         | 6.5-8.5   | NGVS | 6.5-8.5         |
| 15. | Potassium       | (mg/l)    | NGVS      | NGVS | 10              |
| 16. | Sodium          | (mg/l)    | 200       | NGVS | 50              |
| 17. | Sulfate         | (mg/l)    | 250       | 250  | 250             |
| 18. | Taste           | -         | Unobject. | NGVS | Unobjectionable |
| 19. | TDS             | (mg/l)    | 1000      | 500  | 500             |
| 20. | Turbidity       | (NTU)     | 5         | NGVS | 0.5             |
| 21. | Phosphate       | (mg/l)    | NGVS      | NGVS | NGVS            |
| 22. | Arsenic         | ppb       | 10        | 10   | 10              |
| 23. | Total Coliforms | MPN/100ml | 0         | 0    | 0               |
| 24. | E-Coli          | MPN/100ml | 0         | 0    | 0               |

**WHO** World Health Organization  
**IBWA** International Bottled Water Association  
**PSQCA** Pakistan Standards and Quality Control Authority

### SUMMARY OF RESULTS OF PCRWR MONITORING

#### CONTAMINANTS OF POTENTIAL CONCERNS FOUND IN BOTTLED WATER BRANDS

| Arsenic: Safe Limit : 10 parts per billion (ppb) |                  |         |                       |      |         |
|--|------------------|---------|-----------------------|------|---------|
| Sr. No   | Brand Name       | Code    | City of Manufacturing | Unit | Results |
| 1.   | Nation           | BWB-04  | Lahore                | ppb  | 30      |
| 2.   | Splish Aryana    | BWB-77  | Multan                | ppb  | 14      |
| 3.   | Pure Fresh Water | BWB-78  | Multan                | ppb  | 14      |
| 4.   | New Deep         | BWB-80  | Multan                | ppb  | 20      |
| 5.   | Fit              | BWB-81  | Multan                | ppb  | 14      |
| 6.   | Alfa Blue        | BWB-83  | Multan                | ppb  | 14      |
| 7.   | Sehat            | BWB-84  | Multan                | ppb  | 24      |
| 8.   | Unique Water     | BWB-86  | Multan                | ppb  | 16      |
| 9.   | Butt             | BWB-99  | Lahore                | ppb  | 18      |
| 10.  | Active           | BWB-105 | Lahore                | ppb  | 27      |
| 11.  | Aqua National    | BWB-107 | Lahore                | ppb  | 38      |
| 12.  | Natur Aqua       | BWB-110 | Lahore                | ppb  | 14      |
| 13.  | Cool             | BWB-111 | Lahore                | ppb  | 62      |

PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



| Sodium ( Safe Limit : 50 parts per million (ppm)) |            |        |                       |      |         |
|---|------------|--------|-----------------------|------|---------|
| Sr. No  | Brand Name | Code   | City of Manufacturing | Unit | Results |
| 1.  | Aqua Smart | BWB-17 | Sahiwal               | ppm  | 120     |
| 2.  | Lite Aqua  | BWB-87 | Multan                | ppm  | 80      |

| Total Dissolved Solids: TDS ( Safe Limit : 500 parts per million (ppm)) |            |        |                       |      |         |
|---|------------|--------|-----------------------|------|---------|
| Sr. No  | Brand Name | Code   | City of Manufacturing | Unit | Results |
| 1.  | Aqua Smart | BWB-17 | Sahiwal               | ppm  | 589     |

| BACTERIOLOGICAL: (Total Coliforms , Fecal Coliforms & E Coli) (Safe Limit: 0/100ml) |                  |        |                             |                     |
|---|------------------|--------|-----------------------------|---------------------|
| Sr. No  | Brand Name       | Code   | Results                     |                     |
|   |                  |        | Total Coliforms (MPN/100ml) | E. Coli (MPN/100ml) |
| 1.  | Pure 99          | BWB-38 | 04                          | Nil                 |
| 2.  | Al-Habib         | BWB-47 | 05                          | Nil                 |
| 3.  | Spring fresh     | BWB-52 | 02                          | Nil                 |
| 4.  | Life (Islamabad) | BWB-56 | 06                          | Nil                 |
| 5.  | Lite Aqua        | BWB-87 | 02                          | Nil                 |

PCRWR TESTING: SAFE BRANDS

| Sr. No | Brand Name         | Code   | Quality (Safe/Unsafe) |                 |
|--------|--------------------|--------|-----------------------|-----------------|
|        |                    |        | Chemical              | Microbiological |
| 1.     | Gourmet Water      | BWB-01 | Safe                  | Safe            |
| 2.     | Aqua Fina          | BWB-02 | Safe                  | Safe            |
| 3.     | Al-Saudia          | BWB-03 | Safe                  | Safe            |
| 4.     | Nectar (Islamabad) | BWB-05 | Safe                  | Safe            |
| 5.     | Super Natural      | BWB-06 | Safe                  | Safe            |
| 6.     | River              | BWB-07 | Safe                  | Safe            |
| 7.     | Indus water        | BWB-08 | Safe                  | Safe            |
| 8.     | Himalaya Cool      | BWB-09 | Safe                  | Safe            |
| 9.     | Springley          | BWB-10 | Safe                  | Safe            |
| 10.    | Ultra Pak          | BWB-11 | Safe                  | Safe            |
| 11.    | Khush Aab          | BWB-12 | Safe                  | Safe            |
| 12.    | Foss               | BWB-13 | Safe                  | Safe            |
| 13.    | Crystal            | BWB-14 | Safe                  | Safe            |
| 14.    | Hydro life         | BWB-15 | Safe                  | Safe            |
| 15.    | Clear              | BWB-16 | Safe                  | Safe            |
| 16.    | Minter             | BWB-18 | Safe                  | Safe            |
| 17.    | Vital happy Life   | BWB-19 | Safe                  | Safe            |
| 18.    | Aqua Mashmoom      | BWB-20 | Safe                  | Safe            |
| 19.    | Nestle             | BWB-21 | Safe                  | Safe            |
| 20.    | Pearl              | BWB-22 | Safe                  | Safe            |
| 21.    | OSLO               | BWB-23 | Safe                  | Safe            |
| 22.    | Nice               | BWB-24 | Safe                  | Safe            |
| 23.    | Naseeb             | BWB-25 | Safe                  | Safe            |
| 24.    | Aqua Blue Drops    | BWB-26 | Safe                  | Safe            |
| 25.    | Isberg             | BWB-27 | Safe                  | Safe            |

PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



| Sr. No | Brand Name       | Code   | Quality (Safe/Unsafe) |                 |
|--------|------------------|--------|-----------------------|-----------------|
|        |                  |        | Chemical              | Microbiological |
| 26.    | Eco              | BWB-28 | Safe                  | Safe            |
| 27.    | Rise Water       | BWB-29 | Safe                  | Safe            |
| 28.    | Al-Shalal        | BWB-30 | Safe                  | Safe            |
| 29.    | Vina             | BWB-31 | Safe                  | Safe            |
| 30.    | Aqua Save        | BWB-32 | Safe                  | Safe            |
| 31.    | Pineo            | BWB-33 | Safe                  | Safe            |
| 32.    | ARWA             | BWB-34 | Safe                  | Safe            |
| 33.    | Blu              | BWB-35 | Safe                  | Safe            |
| 34.    | Aspen aqua       | BWB-36 | Safe                  | Safe            |
| 35.    | Waseb Water      | BWB-37 | Safe                  | Safe            |
| 36.    | Vey              | BWB-39 | Safe                  | Safe            |
| 37.    | Crystal life     | BWB-40 | Safe                  | Safe            |
| 38.    | Jel              | BWB-41 | Safe                  | Safe            |
| 39.    | Aqua Vida        | BWB-42 | Safe                  | Safe            |
| 40.    | Miracle          | BWB-43 | Safe                  | Safe            |
| 41.    | Ideal life       | BWB-44 | Safe                  | Safe            |
| 42.    | Matrah           | BWB-45 | Safe                  | Safe            |
| 43.    | Al-Massafi       | BWB-46 | Safe                  | Safe            |
| 44.    | Nain             | BWB-48 | Safe                  | Safe            |
| 45.    | Sea breeze       | BWB-49 | Safe                  | Safe            |
| 46.    | Orion            | BWB-50 | Safe                  | Safe            |
| 47.    | Friends Life     | BWB-51 | Safe                  | Safe            |
| 48.    | Water plus       | BWB-53 | Safe                  | Safe            |
| 49.    | Deosai           | BWB-54 | Safe                  | Safe            |
| 50.    | Verbena          | BWB-55 | Safe                  | Safe            |
| 51.    | Hydra            | BWB-57 | Safe                  | Safe            |
| 52.    | Venora           | BWB-58 | Safe                  | Safe            |
| 53.    | Water pack       | BWB-59 | Safe                  | Safe            |
| 54.    | Ultra blue       | BWB-60 | Safe                  | Safe            |
| 55.    | Valley           | BWB-61 | Safe                  | Safe            |
| 56.    | Ice berg         | BWB-62 | Safe                  | Safe            |
| 57.    | Refresh Water    | BWB-63 | Safe                  | Safe            |
| 58.    | Water Empire     | BWB-64 | Safe                  | Safe            |
| 59.    | Deep spring      | BWB-65 | Safe                  | Safe            |
| 60.    | Mount            | BWB-66 | Safe                  | Safe            |
| 61.    | BERG             | BWB-67 | Safe                  | Safe            |
| 62.    | Lite Wave        | BWB-68 | Safe                  | Safe            |
| 63.    | A.R water        | BWB-69 | Safe                  | Safe            |
| 64.    | Maple Dew        | BWB-70 | Safe                  | Safe            |
| 65.    | Aqua splash      | BWB-71 | Safe                  | Safe            |
| 66.    | Aquatic fresh    | BWB-72 | Safe                  | Safe            |
| 67.    | Moya Mineral     | BWB-73 | Safe                  | Safe            |
| 68.    | Natural Aqua     | BWB-74 | Safe                  | Safe            |
| 69.    | NEBRASKA         | BWB-75 | Safe                  | Safe            |
| 70.    | Nectar ( Multan) | BWB-76 | Safe                  | Safe            |
| 71.    | New Everest      | BWB-77 | Safe                  | Safe            |
| 72.    | Aqua 7           | BWB-80 | Safe                  | Safe            |
| 73.    | Nice Pure        | BWB-83 | Safe                  | Safe            |

PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



| Sr. No | Brand Name          | Code    | Quality (Safe/Unsafe) |                 |
|--------|---------------------|---------|-----------------------|-----------------|
|        |                     |         | Chemical              | Microbiological |
| 74.    | Oasis               | BWB-86  | Safe                  | Safe            |
| 75.    | Aqua Hygienic       | BWB-89  | Safe                  | Safe            |
| 76.    | Aqua Spring         | BWB-90  | Safe                  | Safe            |
| 77.    | AFRA                | BWB-91  | Safe                  | Safe            |
| 78.    | Kinely              | BWB-92  | Safe                  | Safe            |
| 79.    | Murree Sparklette   | BWB-93  | Safe                  | Safe            |
| 80.    | Aqua Safe           | BWB-94  | Safe                  | Safe            |
| 81.    | Aftab Qarshi        | BWB-95  | Safe                  | Safe            |
| 82.    | Aqua Dew            | BWB-96  | Safe                  | Safe            |
| 83.    | Natural Dew         | BWB-97  | Safe                  | Safe            |
| 84.    | Life (Lahore)       | BWB-98  | Safe                  | Safe            |
| 85.    | Natural Drops       | BWB-99  | Safe                  | Safe            |
| 86.    | Qaswa               | BWB-101 | Safe                  | Safe            |
| 87.    | Dewan Water Express | BWB-102 | Safe                  | Safe            |
| 88.    | Aqua RO-7           | BWB-103 | Safe                  | Safe            |
| 89.    | Sufi                | BWB-104 | Safe                  | Safe            |
| 90.    | Sparkle             | BWB-105 | Safe                  | Safe            |
| 91.    | Effort              | BWB-107 | Safe                  | Safe            |
| 92.    | Kisan Better Life   | BWB-109 | Safe                  | Safe            |

PCRWR TESTING: UNSAFE BRANDS

| Sr. No | Brand Name       | Code   | Address/ Manufacturer   | Quality (Safe/Unsafe) |                 |
|--------|------------------|--------|---|-----------------------|-----------------|
|        |                  |        |   | Chemical              | Microbiological |
| 1.     | Nation           | BWB-04 | Hamza Brother 9-km,G.T Road Rachna Town Shahdara Lahore   | Unsafe                | Safe            |
| 2.     | Aqua smart       | BWB-17 | Dr. Ramey Homeo Pharma Industry Faisalabad Road, 2 Km Chichawatni, Sahiwal                                      | Unsafe                | Safe            |
| 3.     | Pure 99          | BWB-38 | Yasir Enterprises Salman Tower A-15,Mazzanine Floor Opp. Nadra Office Main National Highway Malir city, Karachi | Safe                  | Unsafe          |
| 4.     | Al-Habib         | BWB-47 | E-10 Al-Azam Square F.B Block-1, Karachi  | Safe                  | Unsafe          |
| 5.     | Spring fresh     | BWB-52 | A-71/1,Shaniabad F.B Area, Karachi  | Safe                  | Unsafe          |
| 6.     | Life (Islamabad) | BWB-56 | Life water Industries, Lehtrar Road Islamabad , Ph # 051-2504442-3  | Safe                  | Unsafe          |
| 7.     | Splish Aryana    | BWB-77 | Sherjil Foods Industrial Estate ,Multan   | Unsafe                | Safe            |
| 8.     | Pure Fresh Water | BWB-78 | NLC by pass Main Khanewal Road, Multan  | Unsafe                | Safe            |
| 9.     | New Deep         | BWB-80 | S.B Food & Beverages Zakriya Town Bosan Road, Multan  | Unsafe                | Safe            |
| 10.    | Fit              | BWB-81 | Fit Purification:1-D/1 Old Shujabad Road, Multan  | Unsafe                | Safe            |
| 11.    | Alfa Blue        | BWB-83 | A Product of Chaudhary Bros Multan E-mail:alfablue14@gmail.com  | Unsafe                | Safe            |



PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



| Sr. No | Brand Name    | Code    | Address/ Manufacturer                                      | Quality (Safe/Unsafe) |                 |
|--------|---------------|---------|--|-----------------------|-----------------|
|        |               |         |  | Chemical              | Microbiological |
| 12.    | Sehat         | BWB-84  | Shah Abdul Haq Food(Pvt)Ltd:62-B,Industrial Estate, Multan | Unsafe                | Safe            |
| 13.    | Unique Water  | BWB-86  | M. Enterprises L.M.Q Road ,Multan, 03008637336             | Unsafe                | Safe            |
| 14.    | Lite Aqua     | BWB-87  | Lite Aqua Minerals:D-81 Mahmood Abad, Multan               | Unsafe                | Unsafe          |
| 15.    | Butt          | BWB-99  | A product of Azhar & Co. Gulberg -111 Lahore               | Unsafe                | Safe            |
| 16.    | Active        | BWB-105 | Ali Enterprises :90-E Sabzazar ,Lahore, Pakistan           | Unsafe                | Safe            |
| 17.    | Aqua National | BWB-107 | Milli Brother :8-km,G.T Road Shahdara ,Lahore              | Unsafe                | Safe            |
| 18.    | Natur Aqua    | BWB-110 | Maqbool Industries :G.T Road Shahdara, Lahore              | Unsafe                | Safe            |
| 19.    | Cool          | BWB-111 | M.T mineral Water Co.B-7,Marghzar Housing Society, Lahore  | Unsafe                | Safe            |

MARKET CONSISTENCY IN TWO NEIGHBORING QUARTERS

| Sr. No | Consistent Brands  | New Brands      | Unavailable Brands |
|--------|--------------------|-----------------|--------------------|
| 1.     | Ultra Pack         | Aqua Fina       | Bless              |
| 2.     | Springley          | Al-Saudia       | First Water        |
| 3.     | Indus Water        | Nation          | Drizzling          |
| 4.     | Sea Breeze         | Super Natural   | IQRA FINU          |
| 5.     | Spring Fresh       | River           | Best Water         |
| 6.     | Aqua Vida          | Himalaya Cool   | Aab- e-Kech        |
| 7.     | Orion              | Khush Aab       | Crystal Maya       |
| 8.     | Al-Massafi         | Foss            | Sunlay             |
| 9.     | Jel                | Crystal         | Snow Drop          |
| 10.    | Ideal Life         | Hydro life      | Athar              |
| 11.    | Al-Shalal          | Pearl           | Natural            |
| 12.    | VINA               | OSLO            | Standard           |
| 13.    | Rise Water         | Nice            | Legend             |
| 14.    | Aqua Save          | Naseeb          | Doce               |
| 15.    | Isberg             | Aqua Blue Drops | Jami Water         |
| 16.    | Aqua Hygienic      | Eco             | Premier            |
| 17.    | AFRA               | Pineo           | Blu'in             |
| 18.    | Natural Aqwah      | ARWA            | Al-Sana            |
| 19.    | Aqua Splash        | Blu             | Higen H2O          |
| 20.    | Aquatic Fresh      | Aspen aqua      | Aqua Anza          |
| 21.    | Moya Mineral Water | Waseb           | Fit                |
| 22.    | Nebraska           | Pure 99         | Fresh Life         |
| 23.    | Butt               | Vey             |                    |
| 24.    | Cool               | Crystal life    |                    |
| 25.    | Kinley             | Miracle         |                    |
| 26.    | Nestle             | Matrah          |                    |
| 27.    | Gourmet            | Al-Habib        |                    |
| 28.    | Aqua RO7           | Nain            |                    |
| 29.    | Kisan Batter Life  | Friends life    |                    |

## PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



|     |                    |                  |  |
|-----|--------------------|------------------|--|
| 30. | Sufi               | Water plus       |  |
| 31. | Effort             | Deosai           |  |
| 32. | Aqua National      | Life (Islamabad) |  |
| 33. | Aftab Qarshi       | Venora           |  |
| 34. | Mashmoom Aqua      | Water pack       |  |
| 35. | Sparkle            | Ultra blue       |  |
| 36. | Nectar (Islamabad) | Valley           |  |
| 37. | Lite Aqua          | Ice berg         |  |
| 38. | Murree Sparklette  | Water Empire     |  |
| 39. | Nectar (Multan)    | Deep spring      |  |
| 40. | Hydra              | Mount            |  |
| 41. | Verbena            | BERG             |  |
| 42. | Refresh Water      | Lite Wave        |  |
| 43. | Minter             | A.R water        |  |
| 44. | Aqua Smart         | Maple Dew        |  |
| 45. | Clear              | Splish Aryana    |  |
| 46. | Vital Happy Life   | Pure Fresh Water |  |
| 47. |                    | New Everest      |  |
| 48. |                    | New Deep         |  |
| 49. |                    | Fit              |  |
| 50. |                    | Aqua 7           |  |
| 51. |                    | Alfa Blue        |  |
| 52. |                    | Sehat            |  |
| 53. |                    | Nice Pure        |  |
| 54. |                    | Unique Water     |  |
| 55. |                    | Oasis            |  |
| 56. |                    | Aqua Spring      |  |
| 57. |                    | Aqua Safe        |  |
| 58. |                    | Aqua Dew         |  |
| 59. |                    | Natural Dew      |  |
| 60. |                    | Life( Lahore)    |  |
| 61. |                    | Natural Drops    |  |
| 62. |                    | Qaswa            |  |
| 63. |                    | Water Express    |  |
| 64. |                    | Active           |  |
| 65. |                    | Natur Aqua       |  |

### DISEASE POTENTIAL FROM CONTAMINATED BOTTLED WATER

| Sr. No | Contaminant                          | Diseases Impacts   |
|--------|--------------------------------------|--|
| 1.     | <b>Bacteriological Contamination</b> | Cholera, Diarrhea, Dysentery, Hepatitis, Typhoid   |
| 2.     | <b>Arsenic</b>                       | Cancer (lungs, bladder, skin, prostate, kidney, nose and liver), diabetes kidney diseases, hypertension, heart diseases, birth defects, black foot diseases. |
| 3.     | <b>Sodium</b>                        | Hypertension   |



**CONCLUSIONS**

| Sr. No | Item  | Conclusion |           |
|--------|---|------------|-----------|
|        |   | No.        | % age     |
| 1.     | <b>Total No. of Brands Collected</b>          | <b>111</b> | <b>-</b>  |
| 2.     | <b>Overall safe brands</b>                    | <b>92</b>  | <b>83</b> |
| 3.     | <b>No. of overall unsafe brands</b>           | <b>19</b>  | <b>17</b> |
| 4.     | <b>No. of Chemically safe brands</b>          | <b>96</b>  | <b>86</b> |
| 5.     | <b>No. of Chemically unsafe brands</b>        | <b>15</b>  | <b>14</b> |
| 6.     | <b>No. of Microbiologically safe brands</b>   | <b>106</b> | <b>95</b> |
| 7.     | <b>No. of Microbiologically unsafe brands</b> | <b>05</b>  | <b>5</b>  |
| 8.     | <b>No. of Consistent brands in Market</b>     | <b>46</b>  | <b>41</b> |
| 9.     | <b>No. of brands disappeared from market</b>  | <b>22</b>  | <b>20</b> |
| 10.    | <b>No. of new brands</b>                      | <b>65</b>  | <b>59</b> |

Detailed water quality status of each bottled water brand is available at **Annexure-1**



Annexure-1

Chemical and Microbiological Quality of Bottled/Mineral Water Brands

| Brand Name                    | Brand Code | Turbidity | pH        | EC    | TDS | Ca  | Mg  | Hard | HCO <sub>3</sub> | CO <sub>3</sub> | Cl  | Na  | F    | PO <sub>4</sub> | Fe   | K   | NO <sub>3</sub> | SO <sub>4</sub> | As   | * Microbiological Contaminants |                 |            |
|-------------------------------|------------|-----------|-----------|-------|-----|-----|-----|------|------------------|-----------------|-----|-----|------|-----------------|------|-----|-----------------|-----------------|------|--------------------------------|-----------------|------------|
| PSQCA Bottled Water Standards | -          | 0.5       | 6.5 - 8.5 | NGVS  | 500 | 100 | 50  | NGVS | NGVS             | NGVS            | 250 | 50  | 0.7  | NGVS            | 0.3  | 10  | 10              | 250             | 10   | Total Coli forms 0/100 ml      | E-Coli 0/100 ml |            |
| Detection Limits              | -          | 0.2       | 0.02      | 0.287 | -   | 2   | 1   | 5    | 5                | 5               | 2   | 1   | 0.03 | 0.03            | 0.03 | 0.2 | 0.06            | 0.4             | 0.1  | -                              | -               |            |
| Units                         | -          | NTU       |           | µS/cm | ppm | ppm | ppm | ppm  | ppm              | Ppm             | ppm | ppm | ppm  | ppm             | ppm  | ppm | ppm             | ppm             | ppm  | ppb                            | MPN /100ml      | MPN /100ml |
| Gourmet Water                 | BWB-01     | BDL       | 7.34      | 384   | 211 | 40  | 12  | 150  | 50               | Nil             | 67  | 14  | 0.08 | BDL             | BDL  | BDL | BDL             | 28              | 0.15 | Nil                            | Nil             |            |
| Aqua Fina                     | BWB-02     | BDL       | 7.76      | 220   | 121 | 40  | 17  | 80   | 20               | Nil             | 25  | 13  | 0.08 | BDL             | BDL  | 1   | BDL             | 52              | BDL  | Nil                            | Nil             |            |
| Al-Saudia                     | BWB-03     | BDL       | 7.00      | 516   | 284 | 40  | 24  | 200  | 65               | Nil             | 93  | 18  | 0.07 | BDL             | BDL  | 1   | 2               | 25              | BDL  | Nil                            | Nil             |            |
| Nation                        | BWB-04     | BDL       | 7.75      | 475   | 261 | 40  | 15  | 160  | 185              | Nil             | 13  | 44  | BDL  | BDL             | BDL  | 2.4 | 0.5             | 37              | 30   | Nil                            | Nil             |            |
| Nectar (Islamabad)            | BWB-05     | BDL       | 7.00      | 263   | 145 | 8   | 6   | 45   | 40               | Nil             | 34  | 25  | 0.22 | BDL             | BDL  | 1.2 | 2               | 10              | 0.35 | Nil                            | Nil             |            |
| Super Natural                 | BWB-06     | BDL       | 7.08      | 248   | 136 | 8   | 9   | 55   | 45               | Nil             | 30  | 20  | 0.13 | BDL             | BDL  | 0.3 | 1               | 18              | 1.4  | Nil                            | Nil             |            |
| River                         | BWB-07     | BDL       | 7.20      | 478   | 263 | 40  | 24  | 200  | 50               | Nil             | 68  | 18  | 0.13 | BDL             | BDL  | 1   | 1               | 57              | BDL  | Nil                            | Nil             |            |
| Indus water                   | BWB-08     | BDL       | 8.06      | 389   | 214 | 40  | 12  | 150  | 125              | Nil             | 7   | 16  | 0.40 | BDL             | BDL  | 4.1 | 1               | 44              | 1    | Nil                            | Nil             |            |
| Himalaya Cool                 | BWB-09     | BDL       | 7.34      | 229   | 126 | 36  | 2   | 100  | 95               | Nil             | 2   | 12  | 0.19 | BDL             | BDL  | 1.9 | BDL             | 19              | BDL  | Nil                            | Nil             |            |
| Springley                     | BWB-10     | BDL       | 7.74      | 533   | 304 | 80  | 12  | 250  | 255              | Nil             | 8   | 17  | 0.34 | BDL             | BDL  | 1   | 3               | 19              | 0.2  | Nil                            | Nil             |            |
| Ultra Pak                     | BWB-11     | BDL       | 7.09      | 313   | 172 | 18  | 13  | 100  | 65               | Nil             | 22  | 23  | 0.15 | BDL             | BDL  | 0.5 | 0.5             | 39              | BDL  | Nil                            | Nil             |            |
| Khush Aab                     | BWB-12     | BDL       | 7.41      | 352   | 194 | 40  | 10  | 140  | 60               | Nil             | 50  | 9   | 0.13 | BDL             | BDL  | BDL | BDL             | 29              | BDL  | Nil                            | Nil             |            |
| Foss                          | BWB-13     | BDL       | 7.20      | 328   | 180 | 40  | 7   | 130  | 70               | Nil             | 27  | 9   | 0.19 | BDL             | BDL  | 0.2 | BDL             | 24              | 2.3  | Nil                            | Nil             |            |
| Crystal                       | BWB-14     | BDL       | 6.92      | 508   | 279 | 40  | 19  | 180  | 80               | Nil             | 68  | 20  | 0.12 | BDL             | BDL  | 1   | 3               | 19              | BDL  | Nil                            | Nil             |            |
| Hydro life                    | BWB-15     | BDL       | 7.24      | 370   | 204 | 40  | 10  | 140  | 25               | Nil             | 67  | 20  | 0.11 | BDL             | BDL  | 1   | 0.5             | 48              | BDL  | Nil                            | Nil             |            |

The highlighted results indicate the concentration level beyond the PSQCA Bottled Water Standards.

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|                  |        |     |      |      |     |    |    |     |     |     |    |     |      |     |     |     |     |     |     |     |     |
|------------------|--------|-----|------|------|-----|----|----|-----|-----|-----|----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|
| Clear            | BWB-16 | BDL | 7.24 | 375  | 206 | 52 | 5  | 150 | 45  | Nil | 65 | 16  | 0.13 | BDL | BDL | 6   | BDL | 39  | BDL | Nil | Nil |
| Aqua smart       | BWB-17 | BDL | 7.96 | 1070 | 589 | 64 | 17 | 230 | 175 | Nil | 87 | 120 | 0.69 | BDL | BDL | 8   | BDL | 154 | 2.5 | Nil | Nil |
| Minter           | BWB-18 | BDL | 7.35 | 252  | 139 | 28 | 7  | 100 | 60  | Nil | 33 | 12  | BDL  | BDL | BDL | 2   | BDL | 10  | 6   | Nil | Nil |
| Vital happy Life | BWB-19 | BDL | 7.20 | 310  | 171 | 40 | 12 | 150 | 40  | Nil | 80 | 10  | 0.17 | BDL | BDL | 1.7 | BDL | 10  | BDL | Nil | Nil |
| Aqua Mashmoom    | BWB-20 | BDL | 7.87 | 451  | 248 | 56 | 11 | 185 | 200 | Nil | 5  | 13  | 0.26 | BDL | BDL | 1   | 3   | 14  | BDL | Nil | Nil |
| Nestle           | BWB-21 | BDL | 7.19 | 417  | 229 | 40 | 17 | 170 | 45  | Nil | 86 | 8   | 0.26 | BDL | BDL | BDL | BDL | 23  | 0.2 | Nil | Nil |
| Pearl            | BWB-22 | BDL | 7.31 | 359  | 197 | 40 | 12 | 150 | 50  | Nil | 55 | 12  | 0.10 | BDL | BDL | 4.2 | BDL | 35  | BDL | Nil | Nil |
| OSLO             | BWB-23 | BDL | 7.41 | 380  | 209 | 40 | 2  | 110 | 50  | Nil | 68 | 30  | 0.03 | BDL | BDL | 5   | 1   | 25  | BDL | Nil | Nil |
| Nice             | BWB-24 | BDL | 7.42 | 405  | 223 | 36 | 12 | 140 | 65  | Nil | 61 | 30  | 0.17 | BDL | BDL | 1.4 | BDL | 39  | BDL | Nil | Nil |
| Naseeb           | BWB-25 | BDL | 6.82 | 356  | 196 | 50 | 2  | 135 | 50  | Nil | 72 | 20  | BDL  | BDL | BDL | 1   | BDL | 12  | BDL | Nil | Nil |
| Aqua Blue Drops  | BWB-26 | BDL | 6.86 | 506  | 278 | 48 | 32 | 250 | 75  | Nil | 97 | 9   | 0.12 | BDL | BDL | 0.8 | 0.5 | 31  | BDL | Nil | Nil |
| Isberg           | BWB-27 | BDL | 7.56 | 312  | 172 | 40 | 12 | 150 | 90  | Nil | 28 | 5   | 0.49 | BDL | BDL | 2.1 | BDL | 24  | 5   | Nil | Nil |
| Eco              | BWB-28 | BDL | 6.80 | 353  | 194 | 40 | 2  | 110 | 75  | Nil | 36 | 15  | 0.10 | BDL | BDL | 1   | BDL | 27  | 1   | Nil | Nil |
| Rise Water       | BWB-29 | BDL | 7.04 | 403  | 222 | 52 | 5  | 150 | 55  | Nil | 74 | 17  | 0.18 | BDL | BDL | 1.8 | BDL | 20  | BDL | Nil | Nil |
| Al-Shalal        | BWB-30 | BDL | 7.62 | 446  | 245 | 52 | 17 | 200 | 240 | Nil | 4  | 16  | 0.44 | BDL | BDL | 3.5 | BDL | 3   | 7   | Nil | Nil |
| Vina             | BWB-31 | BDL | 7.08 | 315  | 173 | 40 | 5  | 120 | 45  | Nil | 33 | 11  | 0.10 | BDL | BDL | BDL | BDL | 49  | BDL | Nil | Nil |
| Aqua Save        | BWB-32 | BDL | 7.18 | 328  | 180 | 36 | 15 | 150 | 40  | Nil | 52 | 5   | 0.13 | BDL | BDL | BDL | BDL | 38  | 0.5 | Nil | Nil |
| Pineo            | BWB-33 | BDL | 7.24 | 394  | 217 | 40 | 12 | 150 | 150 | Nil | 20 | 25  | 0.09 | BDL | BDL | 2.3 | BDL | 21  | 10  | Nil | Nil |
| ARWA             | BWB-34 | BDL | 6.99 | 409  | 225 | 40 | 12 | 150 | 50  | Nil | 55 | 25  | 0.28 | BDL | BDL | 1.9 | BDL | 68  | 1   | Nil | Nil |
| Blu              | BWB-35 | BDL | 7.01 | 355  | 195 | 40 | 12 | 150 | 35  | Nil | 62 | 10  | 0.12 | BDL | BDL | 0.3 | BDL | 42  | 1   | Nil | Nil |
| Aspen aqua       | BWB-36 | BDL | 7.36 | 377  | 207 | 40 | 13 | 155 | 65  | Nil | 49 | 12  | 0.11 | BDL | BDL | 0.5 | BDL | 28  | 1   | Nil | Nil |
| Waseb            | BWB-37 | BDL | 7.54 | 448  | 246 | 50 | 15 | 185 | 200 | Nil | 6  | 20  | 0.09 | BDL | BDL | 1   | BDL | 33  | 10  | Nil | Nil |
| Pure 99          | BWB-38 | BDL | 7.60 | 236  | 130 | 20 | 10 | 90  | 55  | Nil | 18 | 10  | 0.11 | BDL | BDL | 0.4 | 5   | 14  | 0.5 | 04  | Nil |
| Vey              | BWB-39 | BDL | 7.09 | 275  | 151 | 36 | 7  | 120 | 35  | Nil | 56 | 14  | 0.07 | BDL | BDL | 0.5 | BDL | 27  | BDL | Nil | Nil |
| Crystal life     | BWB-40 | BDL | 7.54 | 234  | 129 | 40 | 2  | 110 | 25  | Nil | 56 | 8   | 0.10 | BDL | BDL | BDL | BDL | 17  | BDL | Nil | Nil |
| Jel              | BWB-41 | BDL | 6.72 | 504  | 277 | 20 | 36 | 200 | 75  | Nil | 88 | 25  | 0.18 | BDL | BDL | 1.2 | BDL | 44  | 1   | Nil | Nil |

The highlighted results indicate the concentration level beyond the PSQCA Bottled Water Standards.

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|                  |        |     |      |     |     |    |    |     |     |     |     |    |      |     |     |     |     |    |      |     |     |
|------------------|--------|-----|------|-----|-----|----|----|-----|-----|-----|-----|----|------|-----|-----|-----|-----|----|------|-----|-----|
| Aqua Vida        | BWB-42 | BDL | 7.02 | 329 | 181 | 24 | 12 | 110 | 40  | Nil | 47  | 12 | 0.04 | BDL | BDL | BDL | BDL | 30 | 0.2  | Nil | Nil |
| Miracle          | BWB-43 | BDL | 7.11 | 347 | 191 | 40 | 5  | 120 | 90  | Nil | 39  | 30 | 0.21 | BDL | BDL | 6.5 | BDL | 33 | 0.3  | Nil | Nil |
| Ideal life       | BWB-44 | BDL | 6.82 | 468 | 257 | 20 | 24 | 150 | 25  | Nil | 82  | 24 | BDL  | BDL | BDL | 0.5 | 3   | 31 | 0.7  | Nil | Nil |
| Matrah           | BWB-45 | BDL | 6.72 | 345 | 190 | 44 | 5  | 130 | 40  | Nil | 71  | 24 | 0.10 | BDL | BDL | 0.5 | 1   | 25 | BDL  | Nil | Nil |
| Al-Massafi       | BWB-46 | BDL | 6.96 | 328 | 180 | 8  | 22 | 110 | 45  | Nil | 58  | 15 | BDL  | BDL | BDL | 3.2 | 1   | 14 | BDL  | Nil | Nil |
| Al-Habib         | BWB-47 | BDL | 7.35 | 408 | 224 | 40 | 5  | 120 | 90  | Nil | 51  | 40 | 0.39 | BDL | BDL | 2.7 | 3   | 24 | 0.1  | 05  | Nil |
| Nain             | BWB-48 | BDL | 8.02 | 319 | 175 | 40 | 10 | 140 | 30  | Nil | 60  | 10 | 0.09 | BDL | BDL | 0.9 | BDL | 42 | BDL  | Nil | Nil |
| Sea breeze       | BWB-49 | BDL | 6.69 | 453 | 249 | 32 | 17 | 150 | 70  | Nil | 42  | 18 | 0.19 | BDL | BDL | 1.3 | 2   | 55 | BDL  | Nil | Nil |
| Orion            | BWB-50 | BDL | 7.56 | 900 | 495 | 40 | 49 | 300 | 100 | Nil | 137 | 45 | 0.43 | BDL | BDL | 2   | 6   | 66 | 0.5  | Nil | Nil |
| Friends life     | BWB-51 | BDL | 7.06 | 135 | 74  | 4  | 2  | 20  | 25  | Nil | 24  | 22 | 0.16 | BDL | BDL | BDL | BDL | 6  | BDL  | Nil | Nil |
| Spring fresh     | BWB-52 | BDL | 6.63 | 307 | 169 | 20 | 15 | 110 | 65  | Nil | 56  | 25 | 0.05 | BDL | BDL | 0.5 | 0.5 | 11 | 0.2  | 02  | Nil |
| Water plus       | BWB-53 | BDL | 7.02 | 499 | 274 | 60 | 12 | 200 | 190 | Nil | 12  | 13 | 0.11 | BDL | BDL | 0.6 | 3   | 25 | BDL  | Nil | Nil |
| DEOSAI           | BWB-54 | BDL | 6.54 | 366 | 201 | 40 | 12 | 150 | 45  | Nil | 58  | 12 | 0.38 | BDL | BDL | BDL | 0.5 | 33 | BDL  | Nil | Nil |
| Verbena          | BWB-55 | BDL | 6.55 | 441 | 243 | 65 | 9  | 200 | 60  | Nil | 70  | 11 | 0.13 | BDL | BDL | 1   | 1   | 41 | BDL  | Nil | Nil |
| Life (Islamabad) | BWB-56 | BDL | 7.32 | 262 | 144 | 40 | 5  | 120 | 90  | Nil | 4   | 13 | 0.18 | BDL | BDL | 1.8 | 1   | 39 | BDL  | 06  | Nil |
| Hydra            | BWB-57 | BDL | 7.38 | 337 | 185 | 36 | 12 | 140 | 155 | Nil | 7   | 20 | 0.15 | BDL | BDL | 2.1 | 1   | 12 | 0.2  | Nil | Nil |
| Venora           | BWB-58 | BDL | 7.45 | 291 | 160 | 40 | 5  | 120 | 105 | Nil | 11  | 17 | 0.15 | BDL | BDL | 0.5 | 3   | 18 | 0.2  | Nil | Nil |
| Water pack       | BWB-59 | BDL | 6.69 | 333 | 183 | 40 | 12 | 150 | 45  | Nil | 11  | 10 | 0.13 | BDL | BDL | 0.3 | 1   | 98 | BDL  | Nil | Nil |
| Ultra blue       | BWB-60 | BDL | 7.30 | 594 | 327 | 76 | 7  | 220 | 235 | Nil | 20  | 30 | 0.14 | BDL | BDL | 3   | 2   | 9  | BDL  | Nil | Nil |
| Valley           | BWB-61 | BDL | 7.11 | 257 | 141 | 40 | 5  | 120 | 115 | Nil | 4   | 13 | 0.12 | BDL | BDL | 1.0 | 1   | 17 | BDL  | Nil | Nil |
| Ice berg         | BWB-62 | BDL | 7.34 | 361 | 199 | 40 | 12 | 150 | 135 | Nil | 9   | 20 | 0.23 | BDL | BDL | 1   | 2   | 27 | BDL  | Nil | Nil |
| Refresh Water    | BWB-63 | BDL | 7.28 | 393 | 216 | 44 | 22 | 200 | 165 | Nil | 6   | 10 | 0.20 | BDL | BDL | 2.5 | 1   | 26 | BDL  | Nil | Nil |
| Water Empire     | BWB-64 | BDL | 6.80 | 349 | 192 | 40 | 12 | 150 | 85  | Nil | 48  | 14 | 0.10 | BDL | BDL | 0.3 | 1   | 10 | 0.52 | Nil | Nil |
| Deep spring      | BWB-65 | BDL | 7.78 | 390 | 215 | 65 | 7  | 190 | 165 | Nil | 9   | 14 | 0.24 | BDL | BDL | 0.3 | 2   | 16 | BDL  | Nil | Nil |
| Mount            | BWB-66 | BDL | 7.50 | 402 | 221 | 56 | 7  | 170 | 180 | Nil | 8   | 14 | 0.22 | BDL | BDL | 0.3 | 2   | 21 | BDL  | Nil | Nil |
| BERG             | BWB-67 | BDL | 7.01 | 624 | 243 | 52 | 29 | 250 | 150 | Nil | 57  | 34 | 0.44 | BDL | BDL | 0.3 | 7   | 47 | BDL  | Nil | Nil |

The highlighted results indicate the concentration level beyond the PSQCA Bottled Water Standards.

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PCRWR QUARTERLY REPORT-BOTTLED WATER QUALITY



|                  |        |     |      |     |     |    |    |     |     |     |     |    |      |     |     |     |     |    |     |     |     |
|------------------|--------|-----|------|-----|-----|----|----|-----|-----|-----|-----|----|------|-----|-----|-----|-----|----|-----|-----|-----|
| Lite Wave        | BWB-68 | BDL | 7.00 | 394 | 217 | 40 | 24 | 200 | 175 | Nil | 8   | 17 | 0.05 | BDL | BDL | 0.3 | 4   | 17 | BDL | Nil | Nil |
| A.R water        | BWB-69 | BDL | 6.55 | 626 | 344 | 44 | 22 | 200 | 50  | Nil | 136 | 34 | 0.28 | BDL | BDL | 1   | BDL | 47 | BDL | Nil | Nil |
| Maple Dew        | BWB-70 | BDL | 6.62 | 273 | 150 | 20 | 12 | 100 | 50  | Nil | 27  | 18 | 0.10 | BDL | BDL | 0.6 | 3   | 32 | BDL | Nil | Nil |
| Aqua splash      | BWB-71 | BDL | 7.01 | 366 | 201 | 40 | 12 | 150 | 35  | Nil | 57  | 8  | 0.10 | BDL | BDL | 0.5 | 2   | 37 | BDL | Nil | Nil |
| Aquatic fresh    | BWB-72 | BDL | 7.41 | 532 | 293 | 40 | 36 | 250 | 165 | Nil | 34  | 15 | 0.28 | BDL | BDL | 1.7 | 8   | 34 | BDL | Nil | Nil |
| Moya Mineral     | BWB-73 | BDL | 6.90 | 253 | 139 | 32 | 10 | 120 | 60  | Nil | 30  | 5  | 0.09 | BDL | BDL | 0.2 | 1   | 19 | BDL | Nil | Nil |
| Natural Aqwah    | BWB-74 | BDL | 8.20 | 326 | 179 | 20 | 24 | 150 | 140 | Nil | 5   | 15 | 0.24 | BDL | BDL | 1.2 | 4   | 30 | BDL | Nil | Nil |
| NEBRASKA         | BWB-75 | BDL | 6.80 | 417 | 229 | 44 | 10 | 150 | 40  | Nil | 67  | 8  | BDL  | BDL | BDL | 0.5 | 0.5 | 37 | BDL | Nil | Nil |
| Nectar (Multan)  | BWB-76 | BDL | 7.61 | 282 | 155 | 36 | 2  | 100 | 50  | Nil | 57  | 25 | BDL  | BDL | BDL | 1.2 | BDL | 14 | 5   | Nil | Nil |
| Splish Aryana    | BWB-77 | BDL | 8.26 | 373 | 205 | 20 | 12 | 100 | 140 | Nil | 8   | 45 | 0.18 | BDL | BDL | 0.9 | BDL | 49 | 14  | Nil | Nil |
| Pure Fresh Water | BWB-78 | BDL | 8.22 | 257 | 141 | 24 | 10 | 100 | 120 | Nil | 8   | 18 | BDL  | BDL | BDL | 0.4 | BDL | 19 | 14  | Nil | Nil |
| New Everest      | BWB-79 | BDL | 8.02 | 378 | 208 | 18 | 13 | 100 | 100 | Nil | 26  | 36 | BDL  | BDL | BDL | 0.4 | BDL | 28 | 10  | Nil | Nil |
| New Deep         | BWB-80 | BDL | 8.05 | 499 | 274 | 56 | 15 | 200 | 215 | Nil | 9   | 36 | 0.15 | BDL | BDL | 0.4 | BDL | 57 | 20  | Nil | Nil |
| Fit              | BWB-81 | BDL | 8.13 | 427 | 235 | 40 | 2  | 110 | 140 | Nil | 10  | 40 | 0.16 | BDL | BDL | 0.4 | BDL | 43 | 14  | Nil | Nil |
| Aqua 7           | BWB-82 | BDL | 7.46 | 313 | 172 | 28 | 7  | 100 | 120 | Nil | 20  | 40 | 0.09 | BDL | BDL | 1.2 | BDL | 27 | 1   | Nil | Nil |
| Alfa Blue        | BWB-83 | BDL | 7.52 | 393 | 216 | 20 | 12 | 100 | 120 | Nil | 24  | 40 | 0.14 | BDL | BDL | 1.2 | BDL | 48 | 14  | Nil | Nil |
| Sehat            | BWB-84 | BDL | 7.34 | 285 | 157 | 24 | 12 | 110 | 110 | Nil | 20  | 25 | 0.08 | BDL | BDL | 1   | BDL | 17 | 24  | Nil | Nil |
| Nice Pure        | BWB-85 | BDL | 7.71 | 366 | 201 | 40 | 2  | 110 | 130 | Nil | 12  | 35 | 0.21 | BDL | BDL | 1.1 | BDL | 44 | 6   | Nil | Nil |
| Unique Water     | BWB-86 | BDL | 7.81 | 411 | 226 | 56 | 15 | 200 | 190 | Nil | 10  | 20 | 0.17 | BDL | BDL | 1   | BDL | 23 | 16  | Nil | Nil |
| Lite Aqua        | BWB-87 | BDL | 8.22 | 905 | 498 | 80 | 24 | 300 | 130 | Nil | 155 | 80 | 0.26 | BDL | BDL | 4   | BDL | 98 | 6   | 02  | Nil |

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|                   |         |     |      |     |     |    |    |     |     |     |    |    |      |     |     |     |     |    |     |     |     |
|-------------------|---------|-----|------|-----|-----|----|----|-----|-----|-----|----|----|------|-----|-----|-----|-----|----|-----|-----|-----|
| Oasis             | BWB-88  | BDL | 7.95 | 328 | 180 | 40 | 5  | 120 | 120 | Nil | 18 | 20 | 0.05 | BDL | BDL | BDL | 1   | 19 | 2   | Nil | Nil |
| Aqua Hygienic     | BWB-89  | BDL | 7.75 | 313 | 172 | 36 | 5  | 110 | 140 | Nil | 20 | 32 | BDL  | BDL | BDL | 0.5 | BDL | 13 | 0.3 | Nil | Nil |
| Aqua Spring       | BWB-90  | BDL | 7.50 | 350 | 193 | 40 | 12 | 150 | 150 | Nil | 20 | 22 | 0.42 | BDL | BDL | 0.4 | 1   | 19 | 1   | Nil | Nil |
| AFRA              | BWB-91  | BDL | 7.39 | 484 | 266 | 40 | 12 | 150 | 155 | Nil | 40 | 45 | BDL  | BDL | BDL | 2.5 | 2   | 27 | 3   | Nil | Nil |
| Kinely            | BWB-92  | BDL | 6.52 | 541 | 298 | 60 | 24 | 250 | 180 | Nil | 66 | 25 | 0.07 | BDL | BDL | 2.2 | BDL | 25 | 1   | Nil | Nil |
| Murree Sparklette | BWB-93  | BDL | 7.39 | 383 | 211 | 40 | 15 | 160 | 140 | Nil | 12 | 15 | BDL  | BDL | BDL | 2.1 | 2   | 19 | 0.5 | Nil | Nil |
| Aqua Safe         | BWB-94  | BDL | 7.36 | 467 | 257 | 40 | 19 | 180 | 110 | Nil | 60 | 45 | BDL  | BDL | BDL | 2.5 | BDL | 56 | 1.5 | Nil | Nil |
| Aftab Qarshi      | BWB-95  | BDL | 6.75 | 386 | 212 | 56 | 12 | 190 | 70  | Nil | 86 | 5  | BDL  | BDL | BDL | BDL | BDL | 21 | 4   | Nil | Nil |
| Aqua Dew          | BWB-96  | BDL | 7.26 | 525 | 289 | 64 | 10 | 200 | 100 | Nil | 96 | 35 | BDL  | BDL | BDL | 2   | BDL | 24 | 1   | Nil | Nil |
| Natural Dew       | BWB-97  | BDL | 7.36 | 383 | 211 | 40 | 12 | 150 | 100 | Nil | 36 | 20 | BDL  | BDL | BDL | 1   | BDL | 27 | 2   | Nil | Nil |
| Life (Lahore)     | BWB-98  | BDL | 7.80 | 360 | 198 | 44 | 12 | 160 | 170 | Nil | 24 | 20 | BDL  | BDL | BDL | 1   | BDL | 10 | 9   | Nil | Nil |
| Butt              | BWB-99  | BDL | 6.61 | 405 | 223 | 40 | 15 | 160 | 100 | Nil | 80 | 17 | 0.80 | BDL | BDL | 2.2 | BDL | 4  | 18  | Nil | Nil |
| Natural Drops     | BWB-100 | BDL | 7.50 | 448 | 246 | 36 | 2  | 100 | 100 | Nil | 50 | 44 | 0.19 | BDL | BDL | 2   | BDL | 35 | 5   | Nil | Nil |
| Qaswa             | BWB-101 | BDL | 6.90 | 334 | 184 | 40 | 2  | 110 | 90  | Nil | 52 | 34 | 0.29 | BDL | BDL | 1   | BDL | 20 | 3   | Nil | Nil |
| Water Express     | BWB-102 | BDL | 6.98 | 285 | 157 | 40 | 2  | 110 | 80  | Nil | 48 | 20 | BDL  | BDL | BDL | 0.8 | BDL | 11 | 1   | Nil | Nil |
| Aqua RO-7         | BWB-103 | BDL | 7.04 | 420 | 231 | 40 | 19 | 180 | 130 | Nil | 40 | 12 | BDL  | BDL | BDL | BDL | BDL | 33 | 6   | Nil | Nil |
| Sufi              | BWB-104 | BDL | 7.31 | 360 | 198 | 40 | 17 | 170 | 100 | Nil | 48 | 8  | BDL  | BDL | BDL | BDL | BDL | 22 | BDL | Nil | Nil |
| Active            | BWB-105 | BDL | 7.62 | 481 | 265 | 44 | 12 | 160 | 130 | Nil | 36 | 8  | 0.16 | BDL | BDL | 1   | BDL | 36 | 27  | Nil | Nil |
| Sparkle           | BWB-106 | BDL | 7.84 | 454 | 250 | 40 | 17 | 170 | 70  | Nil | 96 | 20 | 0.14 | BDL | BDL | 0.2 | BDL | 28 | 10  | Nil | Nil |
| Aqua National     | BWB-107 | BDL | 7.44 | 282 | 155 | 40 | 12 | 150 | 120 | Nil | 20 | 6  | BDL  | BDL | BDL | 1.2 | BDL | 19 | 38  | Nil | Nil |
| Effort            | BWB-108 | BDL | 6.80 | 335 | 184 | 40 | 15 | 160 | 130 | Nil | 20 | 2  | BDL  | BDL | BDL | 0.2 | BDL | 21 | 1   | Nil | Nil |
| Kisan Better Life | BWB-109 | BDL | 7.36 | 375 | 206 | 40 | 13 | 155 | 140 | Nil | 24 | 16 | BDL  | BDL | BDL | 0.5 | BDL | 32 | 0.3 | Nil | Nil |
| Natur Aqua        | BWB-110 | BDL | 7.82 | 519 | 285 | 40 | 17 | 170 | 160 | Nil | 40 | 3  | 0.07 | BDL | BDL | 2   | BDL | 42 | 14  | Nil | Nil |
| Cool              | BWB-111 | BDL | 7.70 | 552 | 287 | 40 | 24 | 200 | 210 | Nil | 50 | 35 | BDL  | BDL | BDL | 4.2 | BDL | 16 | 62  | Nil | Nil |

NGVS =No Guideline Value Set

BDL = Below Detection Limits

\* Microbiological results have also been verified by IDEXX (Quanti-Tray/2000 USA) and Membrane Filtration (CFU/100ml, 9222-B&D APHA) Methods.

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