Acknowledgement

I owe heartfelt gratitude and deep sense of appreciation to Prof. Syed I. Hasnain, supervisor of my research work who has not only introduced but also sensitized me towards the need to study the precious water resources of Himalaya. I acknowledge his knowledge and wisdom, which nurtured this project into a definite direction and shape.

I thank Dr. A.L. Ramanathan, Associate Professor, and Prof. V. Subramanian, SES who helped me generously in all possible way in my research work.

Dean, SES is thankfully acknowledged for providing necessary facilities to carry out the research work in the School.

Working with labmates Dr. Sarfaraz, Dr. Jose, Dr. Rajesh, Negi, Shresth, Anurag, Shruti, Meenakshi and Permanand was a wonderful experience in the lab. I sincerely thank them all, for helping me at various stages of my research work.

I thank Imaran Khan and Sanjay for their help in lab assistance.

Mr. B. D. Sharma and Mr. Venkat are thanked for helping me in carrying out AAS and XRD analysis during my research work.

I gratefully acknowledge the priceless and timely helped rendered by Dr. S. Balachandran and Raju U. Gadpayle, during preparation of manuscript.

I appreciate the company of my friends Bala, Bharat, Swarna, Kritika, Rajesh, Negi, Raju & Raza in JMU, and would cherished the memories of each and every moments enjoyed with them.

Staying in Jhelum Hostel had been a fantastic and learning experience. I profoundly thank all the floormates and entire team of SSD for their lively and spirited company
in the hostel.
Financial assistance by UGC, in the form of SRF is duly acknowledged.

I sincerely acknowledge the help rendered by my youngest brother Kailash, who
accompanied me all through the remote and difficult terrains of my study area in all
the sampling periods.

Finally, I owe my gratitude to my entire family for their constant encouragement,
unconditional support and unending faith in me. The moral and mental persuasion by
each and every member of my family culminated in accomplishing this project.

Jagdish Chandra