

KETTLE / GRANBY RIVERS

Project No. : 9023F055

Requested by: R. W. Nichols, P.Eng.
Senior Hydraulic Engineer
Special Projects Section
File No.: FPM-4

Code No. : 112055

Field Book No.: 2558

The field survey was carried out in favourable conditions by a 4-9 man crew, under the supervision of T. M. Dignan.

SURVEY LOGISTICS:

Reach No. 1 (Kettle River - East) *DOWNSTREAM CASCADE FALLS*

Sixteen cross sections located and run on the reach extending from the International Boundary, upstream 5.6 kilometres to the abandoned Powerhouse at Cascade Falls.

Reach No. 2 (Kettle River - West) *UPSTREAM CASCADE FALLS*

Sixty five cross sections were located and run on the reach extending from Cascade Falls, upstream 35.6 kilometres to the International Border Crossing at Carsons.

Reach No. 3 (Granby River @ Grand Forks)

Twenty seven cross sections were located and run on the reach extending from the confluence with Kettle River, upstream 12.0 kilometres to Niagara.

High water marks, as established by Special Projects in 1990 and 1986, were located and levelled. Additional high water elevations for 1980 thru 1990 were obtained from the private records of Mr J. Tully of Grand Forks. Geodetic elevations were also obtained for Water Survey of Canada Gauge 08NN002 located on the Granby River near Cross section 9, Gauge 08NN024 located on the Kettle River at Cross section 34, and Gauge 08NN012 located on Christina Creek @ Hwy 3 Bridge.

Vertical control was established by differential levelling, in combination with reciprocal height traversing using a total station theodolite. Cross section and topographic data were obtained using a total station theodolite and recorded on disc labelled 2558-D1.

DATUM:

Ground positions for cross sections were located and identified in the field on BC65 Mapsheets produced by Ministry of Crown Lands for Project No. 87-084, Scale = 1:5000. Coordinates are arbitrary with assigned values of N500000.0 and E30000.0.

Elevations are in metres and referred to Canadian Geodetic Datum as listed in Vertical Control Data Publication Quad. No. 49118, revision No. 2 dated October 1982.

Elevations for British Columbia Control Survey Posts within project area obtained from Data Bank listing dated September 1990.

DATA RETURNS:

Special Projects Section: Volume 1 thru 3, containing:

- Waterlevel Profile statement and plot- Hscale 1:20000 Vscale 1:2000
- Profile statements and Plots for all cross sections.
- listing of GR data for project
- copy of Dwg. No. 91-07-01 thru 91-07-09
- photographs at cross sections and channel anomalies.
- Elevation and photographs of HWM reference points obtained by SPS in 1986 and 1990.
- reduced copy of 'As Constructed' Ministry of Highways Bridge Dwgs.

1 volume labelled - OUT COPY , containing:

- Waterlevel Profile statement and plot- Hscale 1:20000 Vscale 1:2000
- Profile statements and Plots for all cross sections.
- listing of GR data for project
- copy of Dwg. No. 91-07-01 thru 91-07-09
- 3.5 inch disc with decimal and non decimal GR's

Technical Support Section: Volume 1 thru 3, containing complete project data on file.

Data reduced, compiled and plotted using PC/VAX and HP Table plotter by B. C. Boyd.



T. M. Dignan,
Party Chief
Technical Support Section

April 10, 1991