

Form RS1 Piped takes, water meter, datalogger installation/commissioning and verification



Post to:
 Otago Regional Council
 70 Stafford Street
 Private Bag 1954
 Dunedin 9054
 Attn: Environmental Services

or Email to:
 watermetering@orc.govt.nz

Verification Only
 Installation / Commissioning

Phone: 0800 474 082
 www.orc.govt.nz

This form must be completed in full by the equipment installer or verifier and accompanied with photos of the installation.

Consent number:	2003.721.V1
Well number(s):	2003.721
Name of consent holder:	Pigeon Rock Water Supply Company Limited
Address of consent holder:	14/31 Greenlane Road, Remuera, Auckland 1136
GPS location of meter (NZTM format):	Easting: E1300259 Northing: N5002354
GPS location of take (NZTM format):	Easting: E1300259 Northing: N5002354
Location of take:	Approximately 20 metres east of Cornish Point Road, 3 kilometres

Water meter details

Make:	Sensus	Meter size (mm diameter):	100mm
Model:	WPD	Pulse output?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Serial number:	9591128-04	Volume per pulse:	1 m ³ /pulse
(Start) meter reading volume:	173464 m ³ (state units if different)	Type of meter (e.g. electromagnetic, mechanical):	Mechanical
Installer:	-		

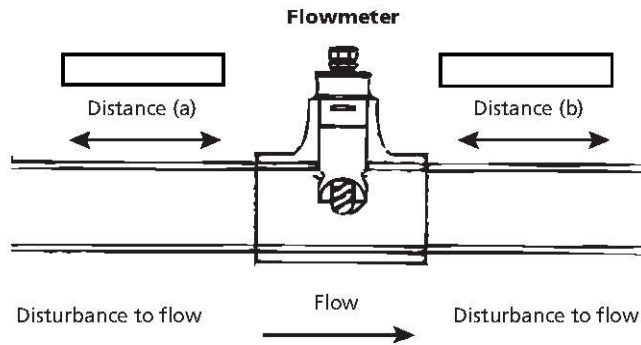
Datalogger details

Installed?	<input checked="" type="radio"/> Yes <input type="radio"/> No	Installer:	Harvest
Make:	Harvest	Model:	not seen
Serial number:	not seen	Telemetry installed for consent compliance?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Data hosted by:	Harvest	Telemetered daily to ORC?	<input checked="" type="radio"/> Yes <input type="radio"/> No

Installation details

Pipe internal/external diameter:	100 mm
Pipe wall thickness:	4.5 mm
Pipe material:	Mild steel
Distance of straight, unobstructed pipe upstream of water meter:	1.526 mm (distance (a) in Figure 1)
Distance of straight, unobstructed pipe downstream of water meter:	1.844 mm (distance (b) in Figure 1)
Is there a straight unobstructed accessible pipe in the system of at least 15 diameters length to verify the flow with a clamp-on water meter?	<input checked="" type="radio"/> Yes <input type="radio"/> No

Figure 1: Installation diagram - Please mark any disturbances upstream of the water meter e.g. pipe size reduction, gate valves, pipe bends. Refer to Figure 2 for an example of a good installation.



Insertion meters only

Insertion depth:	
K-factor:	

Ultrasonic meters only

Transducer size:	
Transducer spacing:	
Transducer mounting:	Please select... (V = Reflect or Z = Direct)

Accuracy details

Do you have a water meter calibration certificate?	<input checked="" type="radio"/> Yes <input type="radio"/> No (If yes, please submit the certificate)
Has the meter been checked against a portable water meter?	<input checked="" type="radio"/> Yes <input type="radio"/> No

Verification details

Is a clamp-on water meter used for verification?	<input checked="" type="radio"/> Yes <input type="radio"/> No If no, describe the method used e.g. reservoir/time calculation, volumetric etc:
Verification flow meter brand and type:	Dynasonic DXNPEFSNN SN: 86827
Last calibration date of the flow meter used for verification:	08/03/2016 ^{YY}

Calibration certificates must be sent in (once) to the Otago Regional Council, after every required calibration

Verification parameters

Pipe diameter (mm):	100	Pipe wall thickness (mm):	4.5
Pipe material:	Mild steel	Location in system where the clamp-on was attached:	500mm downstream of m

Measured flows

Undertake three separate observations, and record and average the results in the table below. Verification flows should be taken at or around the consented flow rate and/or the flow rate the well is usually pumped at. If flows don't verify within 5% a second clamp-on location can/should be attempted.

	Location 1 Observation 1	Location 1 Observation 2	Location 1 Observation 3	Location 2 Observation 1	Location 2 Observation 2	Location 2 Observation 3	Average
Installed meter flow (L/s):	15.92	15.64	15.49				15.68
Verification flow meter (L/s):	16.18	16.14	16.02				16.12
% Difference:	1.58	3.04	3.31				2.64

Certification

(Select one):

- I/we certify that the above water meter/measuring device has been verified and the measured flow is within 5% of the verification device.
- I/we have found that the installed water meter/measuring device deviates more than 5% from the verified flow.

Recommend remedial action:

If unable to be verified at the time of the installation/commission please advise date this will be completed by:
DD / MM / YYYY

I/we certify that the above water meter and datalogger have been installed in accordance with Otago Regional Council and Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 requirements and that:

- a water meter calibration certificate from the manufacturer is attached to this form
- a picture or photo of the installation is attached to this form.

Verified by: **Sam Murray**
Company: **Scottech**

Signed: **Sam Murray** Digitally signed by Sam Murray
Date: 2017.07.21 11:59:53 +12'00'
Date: **21/07/2017**YY

Figure 2: An example of an Ideal installation of a water meter, including obstructions in pipework.

