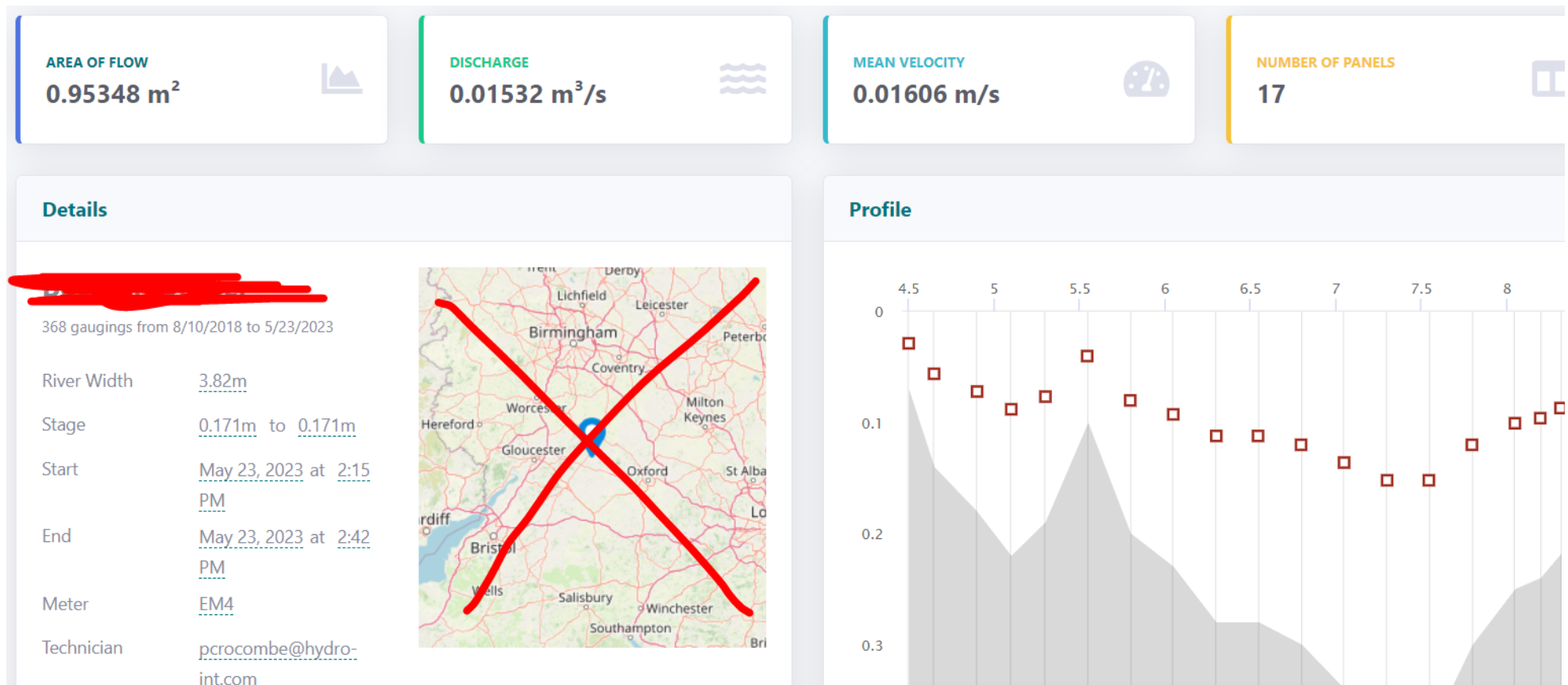


**Subject:** RE: PO for processing - Taff Bargoed velocity sensor instalment 31277013  
**Date:** Friday, 26 May 2023 at 10:13:31 Central European Summer Time  
**From:** Peter Crocombe  
**To:** Catherine Wilson, Daniel Walker  
**CC:** Guglielmo Sonnino Sorisio, James Lofty  
**Attachments:** image005.png, image006.png, image007.png, image008.jpg, image009.jpg, image010.png, image011.png

Hi Catherine,

Apologies, yesterday ran away from me! Please see below screenshots of the data on our website done through the app:



Calculation  
Method

Mean

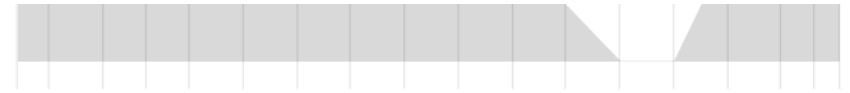
Seconds

50

Sample  
Strategy

0.6

0.4



#	Dist. (m)	Depth (m)	Meter Depth (m)	Revs	Velocity (m/s)	Area (m <sup>2</sup> )	Flow (m <sup>3</sup> /s)
1	4.500	0.070	0.028	0	0.00000	0.157500	0.000000
2	4.650	0.140	0.056	0.011	0.01100	0.015750	0.000087
3	4.900	0.180	0.072	0.042	0.04200	0.040000	0.001060
4	5.100	0.220	0.088	0.034	0.03400	0.040000	0.001520
5	5.300	0.190	0.076	0.038	0.03800	0.041000	0.001476
6	5.550	0.100	0.040	0.039	0.03900	0.036250	0.001396
7	5.800	0.200	0.080	0.034	0.03400	0.037500	0.001369
8	6.050	0.230	0.092	0.027	0.02700	0.053750	0.001639
9	6.300	0.280	0.112	0.03	0.03000	0.063750	0.001817
10	6.550	0.280	0.112	0.023	0.02300	0.070000	0.001855
11	6.800	0.300	0.120	0.022	0.02200	0.072500	0.001631
12	7.050	0.340	0.136	0.008	0.00800	0.080000	0.001200

13	<u>7.300</u>	<u>0.380</u>	<u>0.152</u>	<u>-0.02</u>	-0.02000	0.090000	-0.000540
14	<u>7.550</u>	<u>0.380</u>	<u>0.152</u>	<u>-0.006</u>	-0.00600	0.095000	-0.001235
15	<u>7.800</u>	<u>0.300</u>	<u>0.120</u>	<u>-0.006</u>	-0.00600	0.085000	-0.000510
16	<u>8.050</u>	<u>0.250</u>	<u>0.100</u>	<u>-0.024</u>	-0.02400	0.068750	-0.001031
17	<u>8.200</u>	<u>0.240</u>	<u>0.096</u>	<u>-0.016</u>	-0.01600	0.036750	-0.000735
18	<u>8.320</u>	<u>0.218</u>	<u>0.087</u>	<u>0</u>	0.00000	0.027480	-0.000220

Any queries just let me know!

Many thanks

**Peter Crocombe BSc (Hons)**

Regional Data Manager (North & Wales)

Hydro-Logic Services (International) Ltd.

• Office: 01885 485858

• Mobile: 07976968037

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Think Before You Print



**From:** Catherine Wilson <WilsonCA@cardiff.ac.uk>

**Sent:** Thursday, May 25, 2023 11:13 AM

**To:** Peter Crocombe <pcrocombe@hydro-int.com>; Daniel Walker <dwalker@hydro-int.com>

**Cc:** Guglielmo Sonnino Sorisio <SonninoSorisioG@cardiff.ac.uk>; James Lofty <LoftyJ@cardiff.ac.uk>

**Subject:** Re: PO for processing - Taff Bargoed velocity sensor instalment 31277013

Hi Peter

Great to meet you too. You and Tom did a very good job. Thanks for the survey data.

Please can you send the point velocity data? I am only missing one column of data - its the second or third vertical interval from the RHB. But if you have it all digitally, that would be helpful.

Thanks in advance.

best wishes

Catherine

---

**From:** Peter Crocombe <[pcrocombe@hydro-int.com](mailto:pcrocombe@hydro-int.com)>

**Sent:** 24 May 2023 15:22

**To:** Catherine Wilson <[WilsonCA@cardiff.ac.uk](mailto:WilsonCA@cardiff.ac.uk)>; Daniel Walker <[dwalker@hydro-int.com](mailto:dwalker@hydro-int.com)>

**Cc:** Guglielmo Sonnino Sorisio <[SonninoSorisioG@cardiff.ac.uk](mailto:SonninoSorisioG@cardiff.ac.uk)>; James Lofty <[LoftyJ@cardiff.ac.uk](mailto:LoftyJ@cardiff.ac.uk)>

**Subject:** RE: PO for processing - Taff Bargoed velocity sensor instalment 31277013

Hi Catherine,

Great to meet you all yesterday and hope you're happy with the equipment. I've written up the survey results and attached to this email.

I've included the raw data, but also created a graph with water depth at the time of the survey for visual reference.

Many thanks

**Peter Crocombe BSc (Hons)**  
Regional Data Manager (North & Wales)  
Hydro-Logic Services (International) Ltd.

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- Mobile: 07976968037

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**From:** Catherine Wilson <[WilsonCA@cardiff.ac.uk](mailto:WilsonCA@cardiff.ac.uk)>

**Sent:** Thursday, May 18, 2023 6:46 PM

**To:** Peter Crocombe <[pcrocombe@hydro-int.com](mailto:pcrocombe@hydro-int.com)>; Daniel Walker <[dwalker@hydro-int.com](mailto:dwalker@hydro-int.com)>

**Cc:** Guglielmo Sonnino Sorisio <[SonninoSorisioG@cardiff.ac.uk](mailto:SonninoSorisioG@cardiff.ac.uk)>; James Lofty <[LoftyJ@cardiff.ac.uk](mailto:LoftyJ@cardiff.ac.uk)>

**Subject:** Re: PO for processing - Taff Bargoed velocity sensor instalment 31277013

Hello Peter

Great. No worries. Many thanks.

See you at 10 am on Tuesday.

All the best  
Catherine

---

**From:** Peter Crocombe <[pcrocombe@hydro-int.com](mailto:pcrocombe@hydro-int.com)>

**Sent:** 18 May 2023 14:28

**To:** Catherine Wilson <[WilsonCA@cardiff.ac.uk](mailto:WilsonCA@cardiff.ac.uk)>; Daniel Walker <[dwalker@hydro-int.com](mailto:dwalker@hydro-int.com)>  
**Cc:** Guglielmo Sonnino Sorisio <[SonninoSorisioG@cardiff.ac.uk](mailto:SonninoSorisioG@cardiff.ac.uk)>; James Lofty <[LoftyJ@cardiff.ac.uk](mailto:LoftyJ@cardiff.ac.uk)>  
**Subject:** RE: PO for processing - Taff Bargoed velocity sensor instalment 31277013

Afternoon Catherine,

Apologies I'm only just getting back to you.

Please see attached our RAMS for installing the monitoring equipment on Tuesday 23<sup>rd</sup> May.

I look forward to meeting you.

Many thanks

**Peter Crocombe BSc (Hons)**

Regional Data Manager (North & Wales)

Hydro-Logic Services (International) Ltd.

• **Office:** 01885 485858

• **Mobile:** 07976968037

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**From:** Catherine Wilson <[WilsonCA@cardiff.ac.uk](mailto:WilsonCA@cardiff.ac.uk)>

**Sent:** Wednesday, May 17, 2023 11:15 AM

**To:** Daniel Walker <[dwalker@hydro-int.com](mailto:dwalker@hydro-int.com)>

**Cc:** Guglielmo Sonnino Sorisio <[SonninoSorisioG@cardiff.ac.uk](mailto:SonninoSorisioG@cardiff.ac.uk)>; James Lofty <[LoftyJ@cardiff.ac.uk](mailto:LoftyJ@cardiff.ac.uk)>; Peter Crocombe <[pcrocombe@hydro-int.com](mailto:pcrocombe@hydro-int.com)>

**Subject:** Re: PO for processing - Taff Bargoed velocity sensor instalment 31277013

You don't often get email from [wilsonca@cardiff.ac.uk](mailto:wilsonca@cardiff.ac.uk). [Learn why this is important](#)

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Hi Peter

Look forward to meeting you at the fieldsite.

Merthyr CBC have asked for Risk Assessments from Cardiff Uni and from HL for their records/paperwork. Please could you send me something that will suffice?

Many thanks in advance.

best wishes  
Catherine

---

**From:** Daniel Walker <[dwalker@hydro-int.com](mailto:dwalker@hydro-int.com)>

**Sent:** 17 May 2023 09:23

**To:** Catherine Wilson <[WilsonCA@cardiff.ac.uk](mailto:WilsonCA@cardiff.ac.uk)>

**Cc:** Guglielmo Sonnino Sorisio <[SonninoSorisioG@cardiff.ac.uk](mailto:SonninoSorisioG@cardiff.ac.uk)>; James Lofty <[LoftyJ@cardiff.ac.uk](mailto:LoftyJ@cardiff.ac.uk)>; Peter Crocombe <[pcrocombe@hydro-int.com](mailto:pcrocombe@hydro-int.com)>

**Subject:** RE: PO for processing - Taff Bargoed velocity sensor instalment 31277013

Hi Catherine,

Thanks for the PO. I am unable to go, but my colleague Peter Crocombe and Thomas Handley will be going, they can meet you at 10am next Tuesday.

You will need a flash card reader that plugs into a laptop. No software is required.

Kind Regards,  
Daniel

**Daniel Walker** BSc (Hons)

Senior Client Delivery Manager, Hydro-Logic Services (International) Ltd.

Framework suppliers to: Environment Agency, Scottish Water, South-East Water, Severn Trent Water, Welsh Water, SSE, Viridor, The Coal Authority and responsible for over 900 flood warning sites in the UK.

Unit 24, Link Business Centre, Link Way, Malvern, Worcestershire WR14 1UQ

Offices in: Reading, Exeter, Malvern, Sheffield, Stirling, Warrington and Clevedon

Mobile: +44 (0)7585 955812 01885 485851 • Skype: [dwalker@hydro-int.com](mailto:dwalker@hydro-int.com)

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**From:** Catherine Wilson <[WilsonCA@cardiff.ac.uk](mailto:WilsonCA@cardiff.ac.uk)>

**Sent:** Wednesday, May 17, 2023 9:08 AM

**To:** Daniel Walker <[dwalker@hydro-int.com](mailto:dwalker@hydro-int.com)>

**Cc:** Guglielmo Sonnino Sorisio <[SonninoSorisioG@cardiff.ac.uk](mailto:SonninoSorisioG@cardiff.ac.uk)>; James Lofty <[LoftyJ@cardiff.ac.uk](mailto:LoftyJ@cardiff.ac.uk)>

**Subject:** Fw: PO for processing - Taff Bargood velocity sensor instalment 31277013

Hi Dan



Please see below. The PO no is [31277013](#).

For next Tuesday (23rd), let me know a time that you can meet us at the site?

Lets meet at the gate like last time and then go to the stream location where the sensor will be deployed.

Guglielmo and another colleague, Sam, will be with me. Our plan is to learn from you so that we can install the next velocity sensor ourselves.

Please can you let me know details on the software download in advance of meeting next week, so we can check things on site while you are present?

Many thanks.

Best Wishes

Catherine

---

**From:** ENGIN-Finance <[EnginFinance@cardiff.ac.uk](mailto:EnginFinance@cardiff.ac.uk)>

**Sent:** 17 May 2023 08:54

**To:** Catherine Wilson <[WilsonCA@cardiff.ac.uk](mailto:WilsonCA@cardiff.ac.uk)>

**Subject:** FW: PO for processing - Taff Bargoed velocity sensor instalment 31277013

I am pleased to confirm that your requisition has been approved. The PO number, should you need it, is [31277013](#)

Pavlina Petkova

Cardiff University

029 225 14620; 029 208 74427

---

**From:** Catherine Wilson <[WilsonCA@cardiff.ac.uk](mailto:WilsonCA@cardiff.ac.uk)>

**Sent:** Friday, May 12, 2023 3:43 PM

**To:** ENGIN-Finance <[EnginFinance@cardiff.ac.uk](mailto:EnginFinance@cardiff.ac.uk)>

**Cc:** Daniel Walker <[dwalker@hydro-int.com](mailto:dwalker@hydro-int.com)>

**Subject:** PO for processing - Taff Bargoed velocity sensor instalment

Dear Colleagues

Please could you process this PO as soon as you have a moment? (I have been out of office and unable to get this paperwork to you). Really sorry for any inconvenience I have caused.

Attached is the PO and the quote. The quote is also given below this email (I have highlighted the relevant text in yellow). I confirm that I am the PI of the account.

I note that under the Uni regulations I need to provide 3 quotes for costs > £500. I am unable to acquire quotes as this order is for the installation of specialist equipment provided by Hydro-logic and no other company in this field will install another company's equipment due to liability and quality assurance. I tried to include this information on the PO however I could not find a space. Please let me know if you need me to include this information on the paperwork and where.

Many thanks.

Best wishes  
Catherine

---

**From:** Daniel Walker <[dwalker@hydro-int.com](mailto:dwalker@hydro-int.com)>  
**Sent:** 14 April 2023 16:11  
**To:** Catherine Wilson <[WilsonCA@cardiff.ac.uk](mailto:WilsonCA@cardiff.ac.uk)>  
**Subject:** RE: Taff Bargoed velocity sensor instalment

**External email to Cardiff University** - Take care when replying/opening attachments or links.  
**Nid ebost mewnol o Brifysgol Caerdydd yw hwn** - Cymerwch ofal wrth ateb/agor atodiadau neu ddolenni.

Hi Catherine,

The PO you provided included for the equipment with the charger, 2x batteries, Nivus control box and sensor. So, all the kit you need.

The quote I issued last year included for the Timeview element too, see table below. This will be removed and the equipment, as you have already purchased it. Therefore, if we were to install it will be Task 1 and Task 4 to cover the costs, plus fixtures and fittings at £100. This will come to: £2,420.

If you are planning on installing it, all you need to pay for is the site visit (task 1) plus delivery of the equipment, I'd estimate £50-£95. I can check for you next week, so roughly £900.

*Table 3 Site reconnaissance visit with equipment and installation costs*

Task	Item	Unit Cost	No	Total
1	Site Reconnaissance Visit	£823	1	£823
2	Continuous water level / velocity equipment (1 site)	£9,069	1	£9,069
3	Timeview telemetry licence for 2 years	£155	2	£310
4	Installation by HLSI	£1,497	1	£1,497
Total (£) (exc. VAT):				£11,699

The grid reference for the open channel site is SO 08995 04514 and culvert is SO 08881 04571.

Kind Regards,

Daniel

**Daniel Walker** BSc (Hons)

Senior Client Delivery Manager, Hydro-Logic Services (International) Ltd.

Framework suppliers to: Environment Agency, Scottish Water, South-East Water, Severn Trent Water, Welsh Water, SSE, Viridor, The Coal Authority and responsible for over 900 flood warning sites in the UK.

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**From:** Catherine Wilson <[WilsonCA@cardiff.ac.uk](mailto:WilsonCA@cardiff.ac.uk)>  
**Sent:** Friday, April 14, 2023 1:43 PM  
**To:** Daniel Walker <[dwalker@hydro-int.com](mailto:dwalker@hydro-int.com)>  
**Subject:** Taff Bargoed velocity sensor instalment

Hi Dan

Thanks for meeting at the site yesterday and for providing your advice.

I would be grateful if you could send:

1. a quote to install the velocity probe at the open channel site which includes all costs including the 2 batteries and charger.
2. send the grid reference of our selected open channel site and the bridge site.

There is some urgency for the probe to be installed so I would be really grateful if you could do this asap so I can gain approval for the sensor deployment and get the probe installed.

Many thanks in advance.

All the best  
Catherine