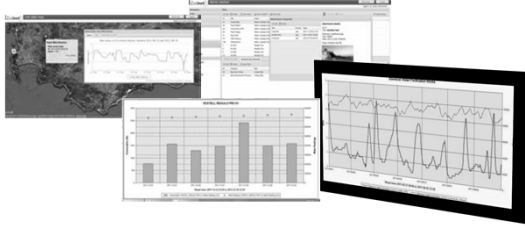



Web based Data Acquisition, Display and Analysis



Presented By: Ronnie Mckenzie
WRP Consulting (Pty) Ltd




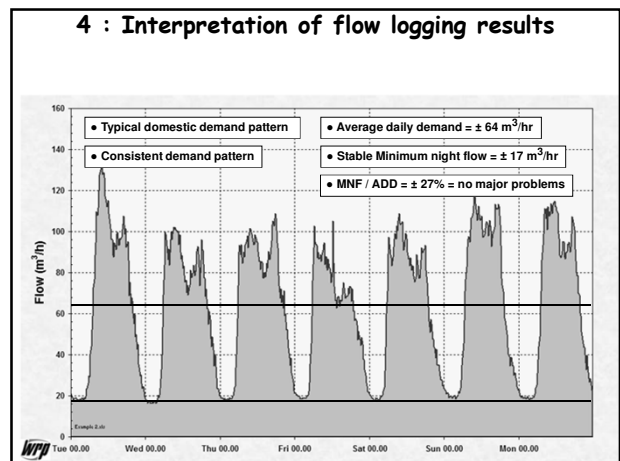
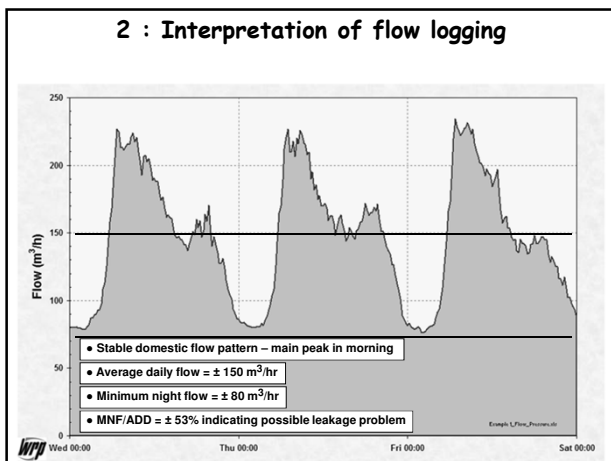
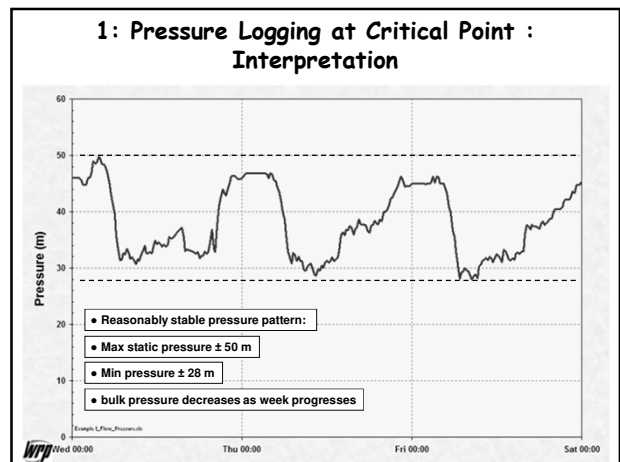
Data Logging of Pressure and Flow

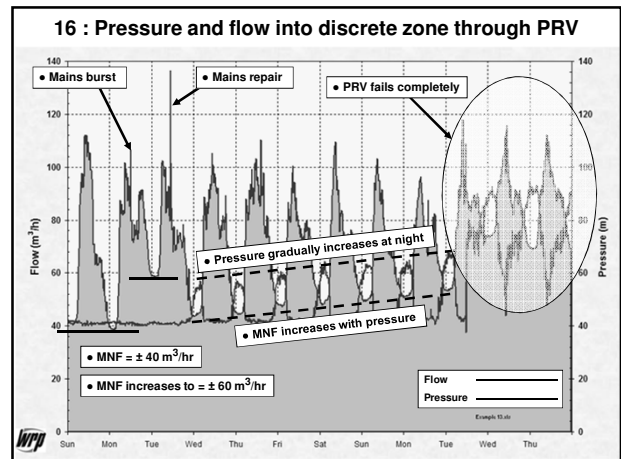
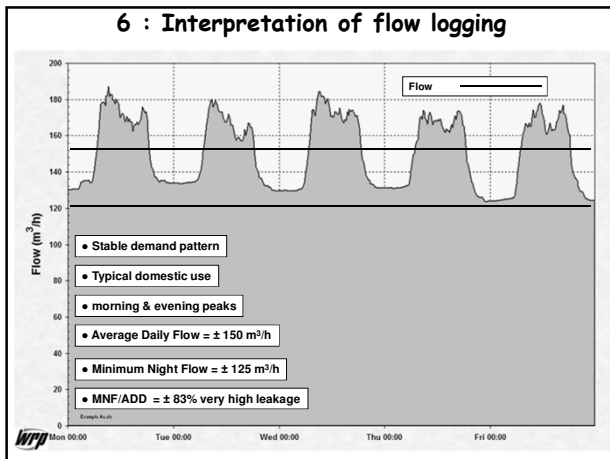
Why do we Log?

Water Demand Management - To obtain a record of water pressure and flows

Flows:

- To analyse the flow pattern through a pipeline
- To determine the minimum night flow to a zone
- To size new meter / PRV installations
- To analyse pressure and flow relationships



Zednet Facility

- Displays index values (meter readings).
- Displays daily consumption.
- Displays Flow Profile.
- Export any of the above in CSV, SHEF or HYDSTRA Formats.
- Print, Email or Save as PDF, Jpeg, PNG File

Introduction to Zednet

- Internet Based Data Acquisition, Hosting and Analysis Platform.
- Displays tabular and graphical information of recorded data.
- Can receive information from any data logger / base station.
- Developed and Maintained by WRP Consulting Engineers with software team based in Cape Town

Zednet SA: Live data map

Channel data: INLET FLOW

Most recent data at: 2013-04-24 11:00:00
 reading: 14796316.000
 value: 1680.000 m³
 7 day max: 2290.000 m³
 7 day min: 520.000 m³
 7 day avg: 1335.858 m³
 7 day sum: 225760.000 m³

Zednet SA: Admin section

ID	Site	Client	Type	Geo
51	Bay Hotel	Water Leakage Summit	AMR	The Bay
47	Camps Bay	Water Leakage Summit	PRV Chamber	The Bay
49	Camps Bay MTN	Water Leakage Summit	PRV Chamber	The Bay
75	CBD Harbour	Water Leakage Summit	Water Purification Wor...	Cape Tow

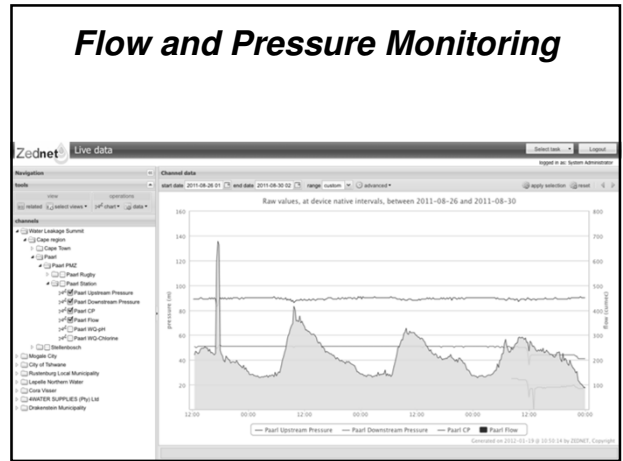
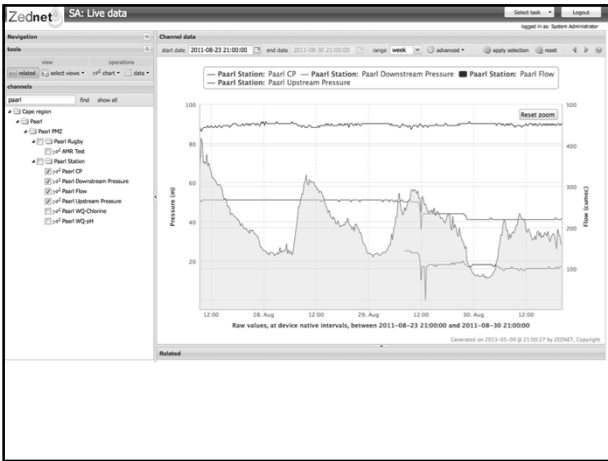
Attachments: Camps Bay

Title	Format	Date
Inspection report	.pdf	2011-11-30 22:
Installation photograph	.jpg	2011-12-04 13:
Schematic of site	.pdf	2012-01-09 00:

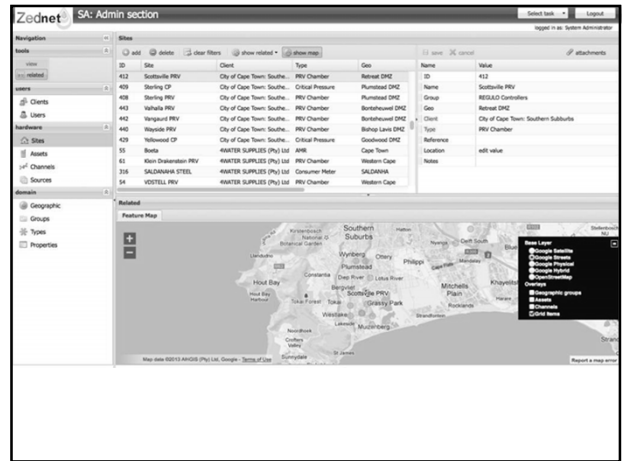
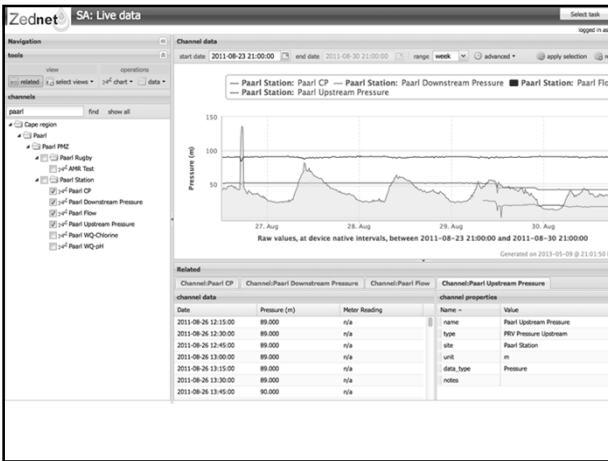
Attachment details

ID: 8
 Title: Installation photograph
 Filename: 12.jpg
 Size: 839kB
 Date: 2011-12-04 13:06:08

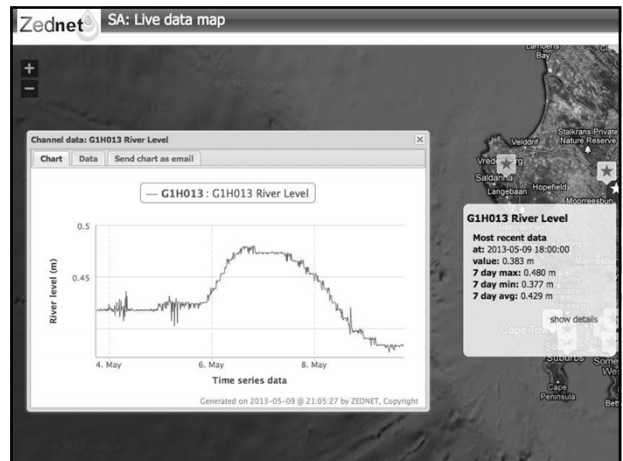
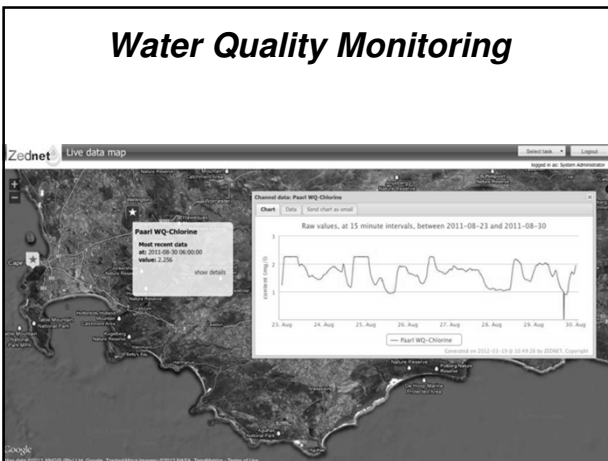
Notes: Another test file



Flow and Pressure Monitoring



Water Quality Monitoring



1	Site: Kellogg's	Channel: S Unvrt: m3												
2	Datetime	Value	Meter Reading											
3	2012/12/31 00:00	174.9	188032.9											
4	2013/01/01 00:00	219.1	189232											
5	2013/01/02 00:00	225.9	188457.9											
6	2013/01/03 00:00	196.4	188654.3											
7	2013/01/04 00:00	205.6	188859.9											
8	2013/01/05 00:00	223.1	189089											
9	2013/01/06 00:00	197.8	189280.8											
10	2013/01/07 00:00	238.3	189519.1											
11	2013/01/08 00:00	221.1	189740.2											
12	2013/01/09 00:00	238.6	189978.8											
13	2013/01/10 00:00	306.7	190285.5											
14	2013/01/11 00:00	253.7	190539.2											
15	2013/01/12 00:00	150	190689.2											
16	2013/01/13 00:00	133.8	190923											
17	2013/01/14 00:00	172	190995											
18	2013/01/15 00:00	216.6	191211.6											
19	2013/01/16 00:00	269.9	191481.5											
20	2013/01/17 00:00	249.8	191731.3											
21	2013/01/18 00:00	240.1	191971.4											
22	2013/01/19 00:00	225.1	192196.5											
23	2013/01/20 00:00	204.4	192400.9											
24	2013/01/21 00:00	124.4	192525.3											
25	2013/01/22 00:00	939	192864.3											
26														



Introduction to AMR

- **AMR – Automatic Meter Reading**
- **Meter readings are taken automatically at a pre determined frequency and communicated to a base station via Radio / Cell phone Technology.**



Technolog Cello 6

- Two pulse inputs.
- User replaceable battery, typical life 5 years.
- Data transmission intervals: 4 hourly, daily, weekly, monthly.



Technolog Cello 6

- Easy to install
- Automatic 'gap' filling.
- Automatic clock adjustment
- Supports SMS and GPRS communication
Simple step-by-step setup Wizard



AMR Installations



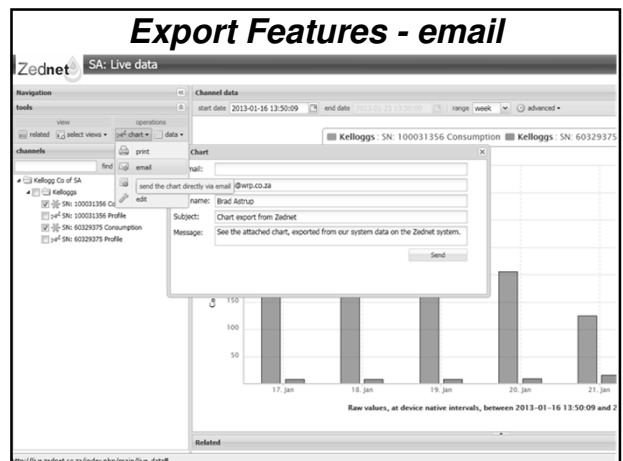
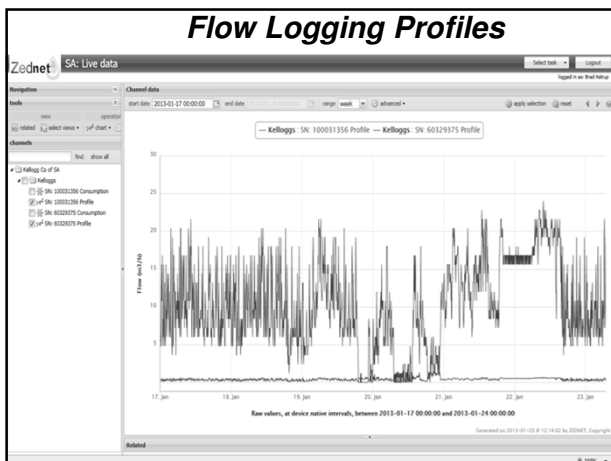
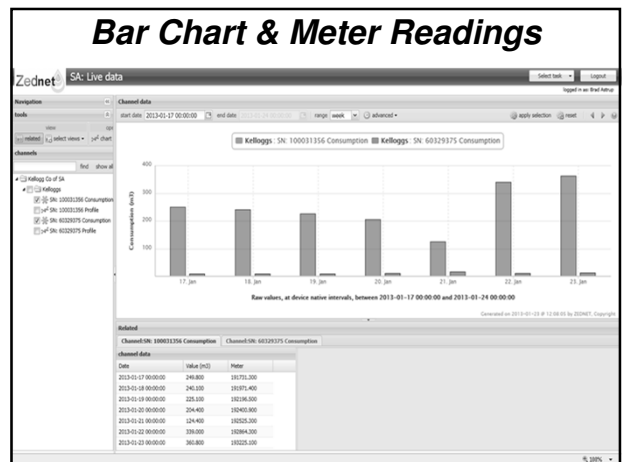
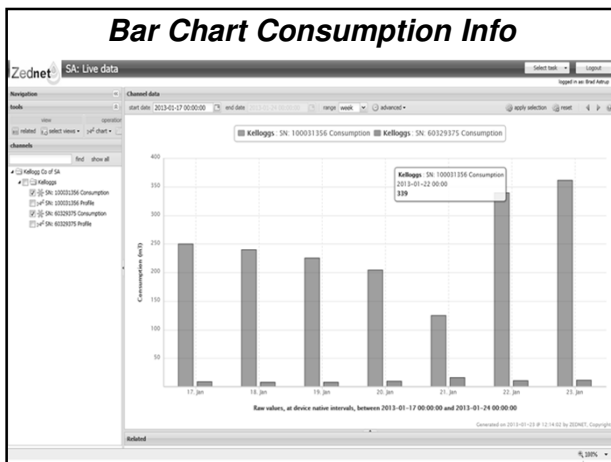
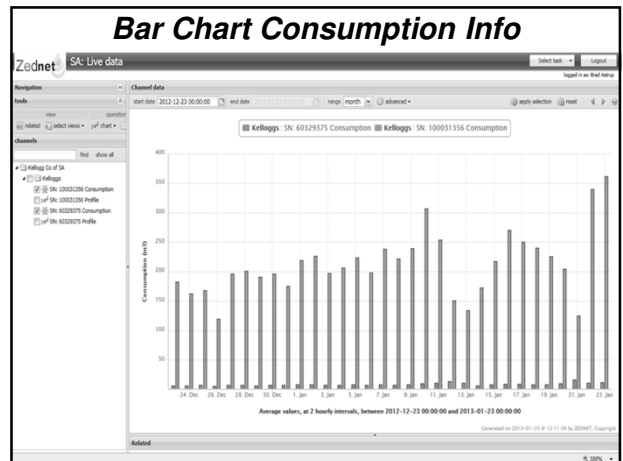
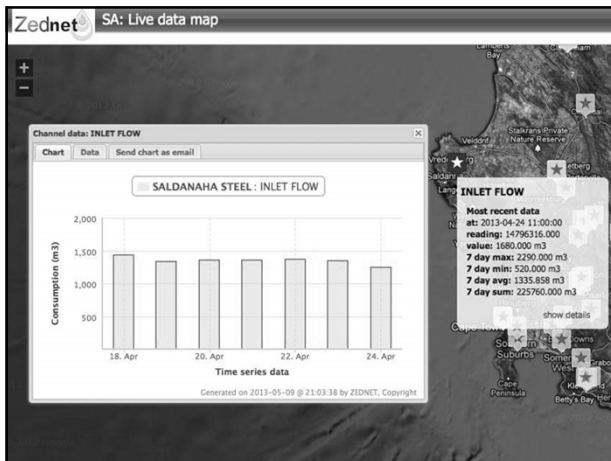
AMR Installations

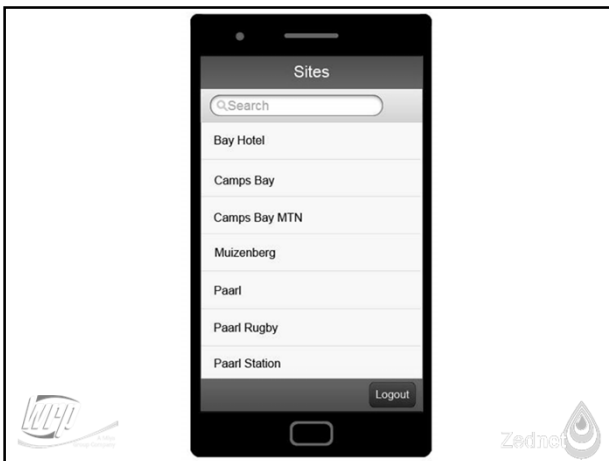
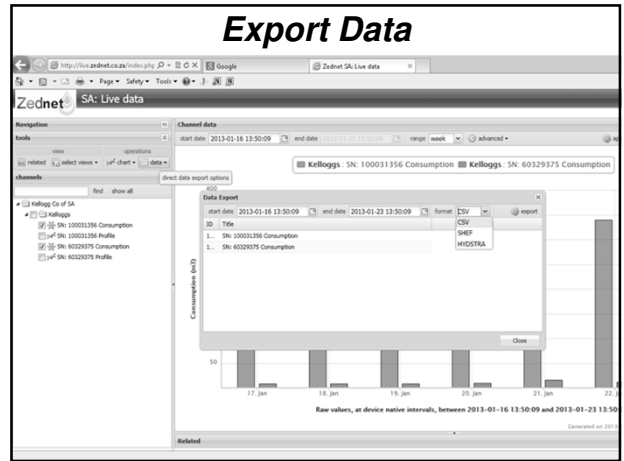


AMR Installations



AMR Installations







Date	Flow (cumec)
2013-04-26 12:30:00	219.840
2013-04-26 12:45:00	235.200
2013-04-26 13:00:00	230.880
2013-04-26 13:15:00	225.120
2013-04-26 13:30:00	228.960
2013-04-26 13:45:00	227.920
2013-04-26 14:00:00	228.460
2013-04-26 14:15:00	218.960
2013-04-26 14:30:00	223.220

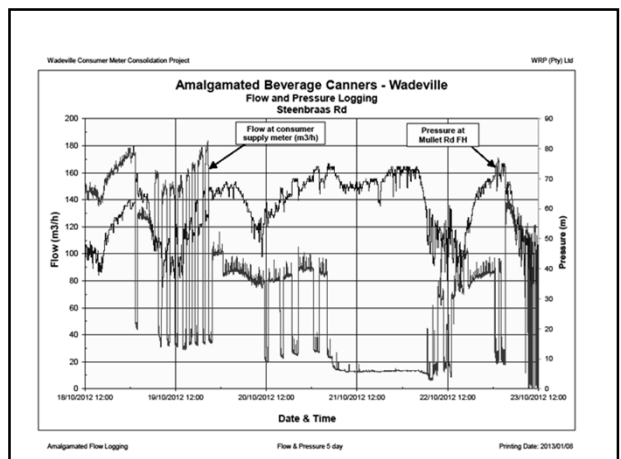
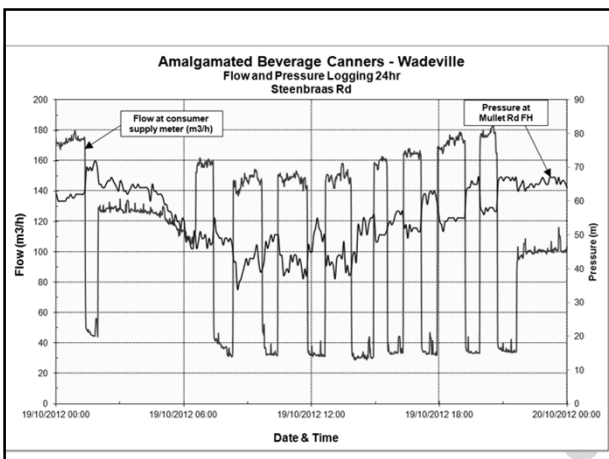
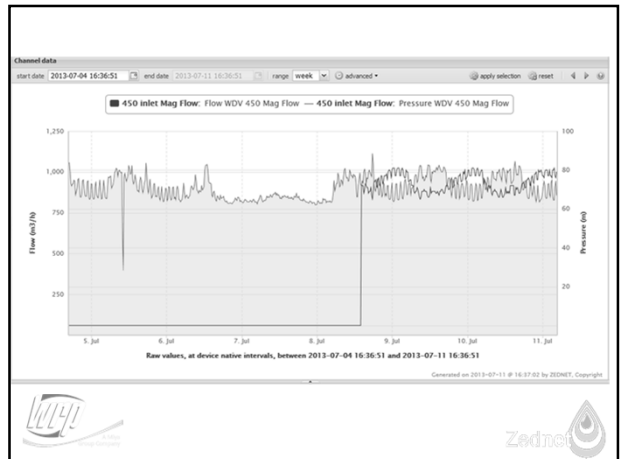
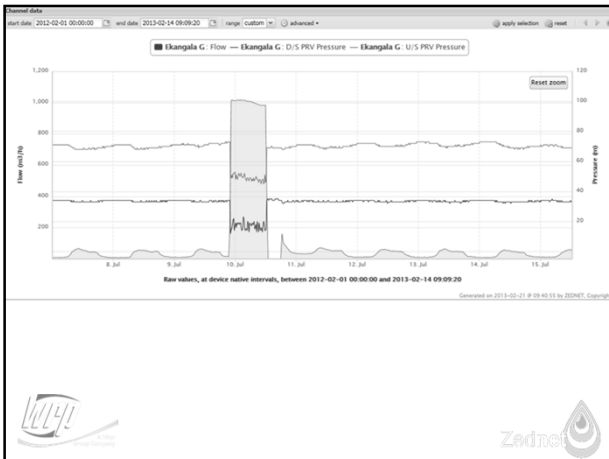
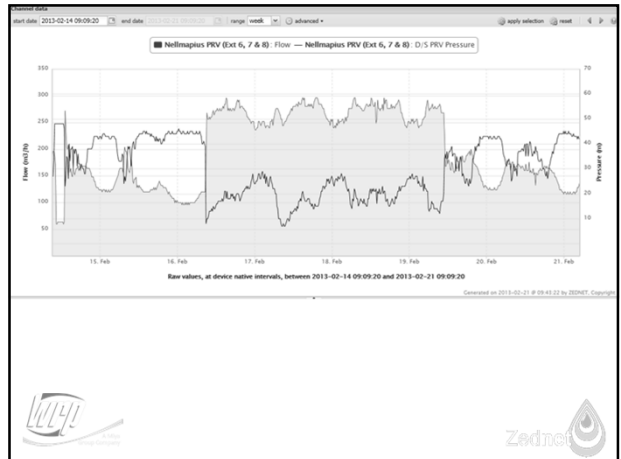
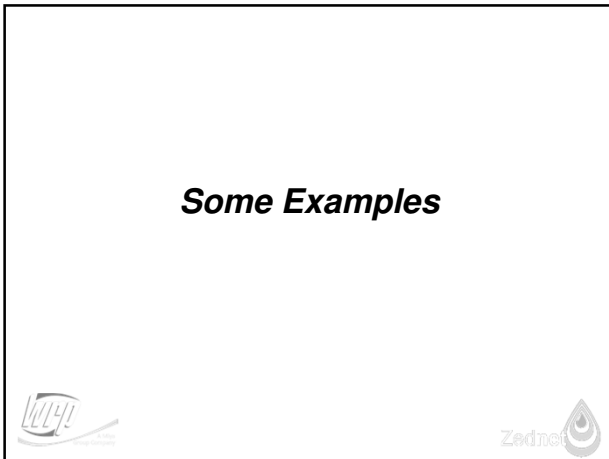
Most recent data	2013-04-25 21:00:00
Value	151.200 cumec
7 day max	677.760 cumec
7 day min	76.320
7 day avg	203.262

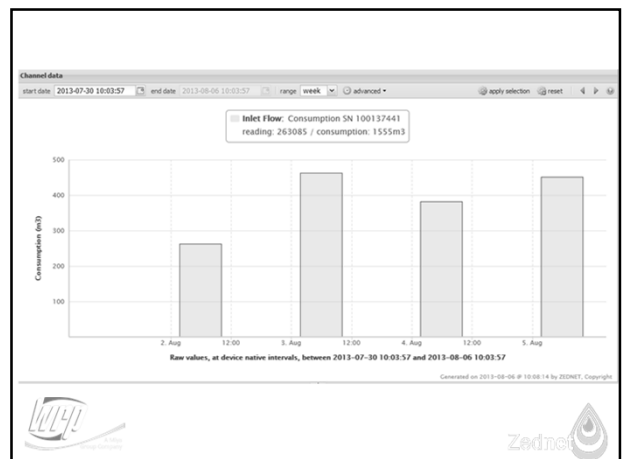
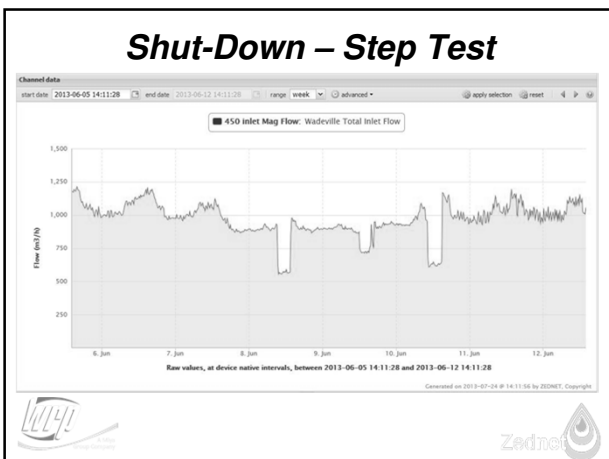
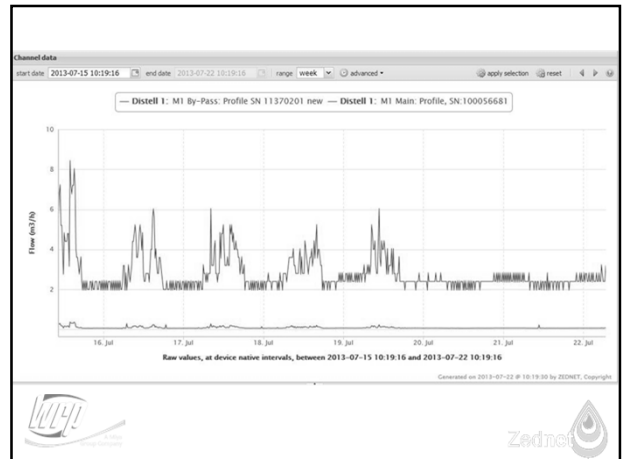
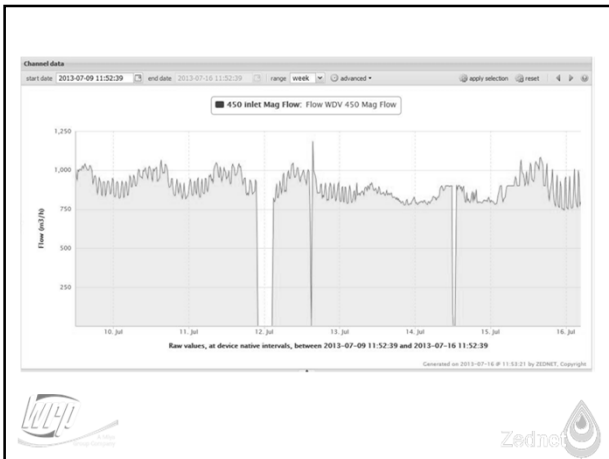
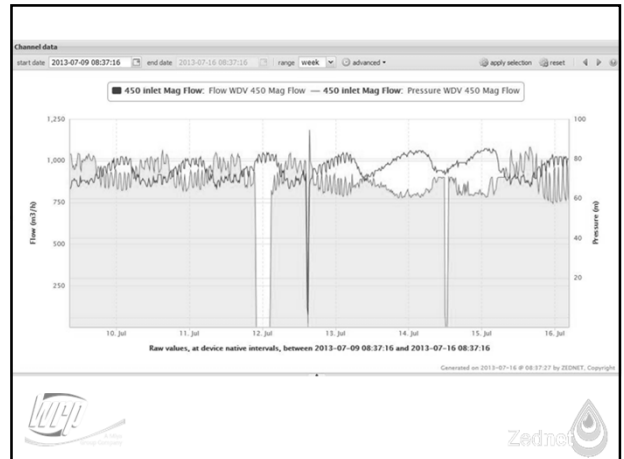
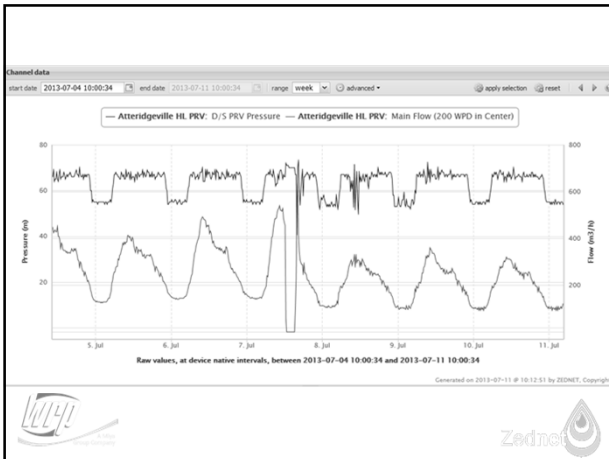
Name	Paarl Flow
Type	Zone Flows
Site	Paarl Station
Unit	cumec
Data Type	Flow

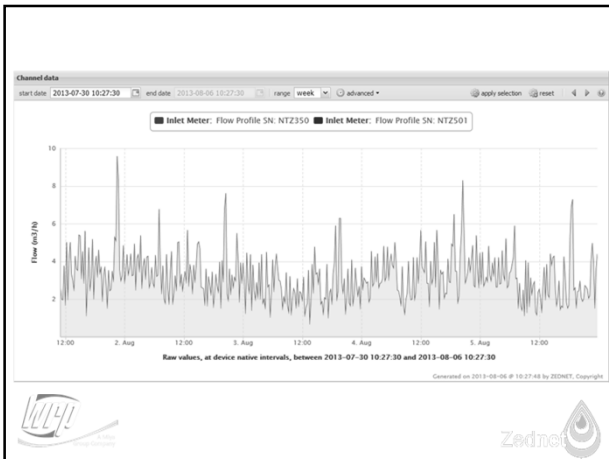
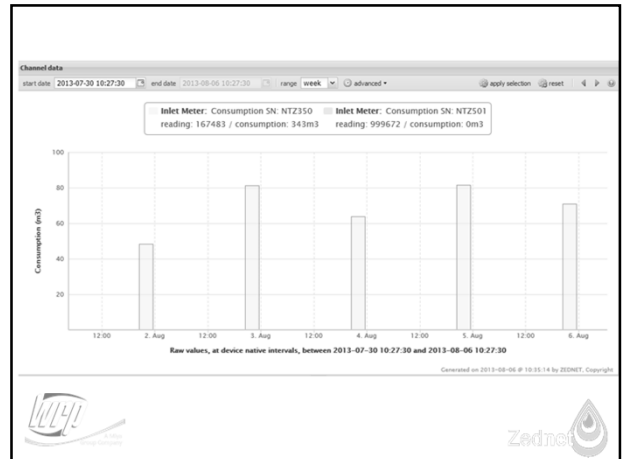


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2013-04-26 12:30:00	219.840
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2013-04-26 13:00:00	230.880
2013-04-26 13:15:00	225.120
2013-04-26 13:30:00	228.960

Some Examples







Thank You
ronniem@wrp.co.za