3 Calcite Business Centre, 151 Industrial Road
Whitehorse, Yukon Y1A 2V3
Phone (867) 668-6463 Fax (867) 633-4882
www.accessconsulting.ca

Memorandum

To: Minto Explorations Ltd.

From: Anthony Bier, Access Consulting Group (ACG)

CC: Scott Keesey

Date: March 25, 2015

Re: Minto and McGinty Creek 2014 Hydrology Update

1 INTRODUCTION

The Minto Mine (Minto) Environment Department maintains a network of hydrometric stations as part of its regular monitoring of surface water hydrological conditions in Minto and McGinty Creeks (Figure 1). Minto personnel conduct regular discrete discharge measurements and maintenance at the stations where Solinst Levelogger and Barometric Loggers are utilized to capture continuous stage records. Access Consulting Group (ACG) has been retained to process these data into discharge records for the 2014 season, as it has for previous years, utilizing Aquarius Time-Series management software. This memorandum presents the methods of observations and data processing along with the results of the 2014 monitoring program.

In general, 2014 was a challenging water year, especially in McGinty Creek where already small streams were reduced to some of the lowest flows observed since monitoring began. The result was that multiple staff gauges went dry necessitating repositioning some stations. Both Minto and McGinty Creek had lower than average flows in 2014.

2 METHODS

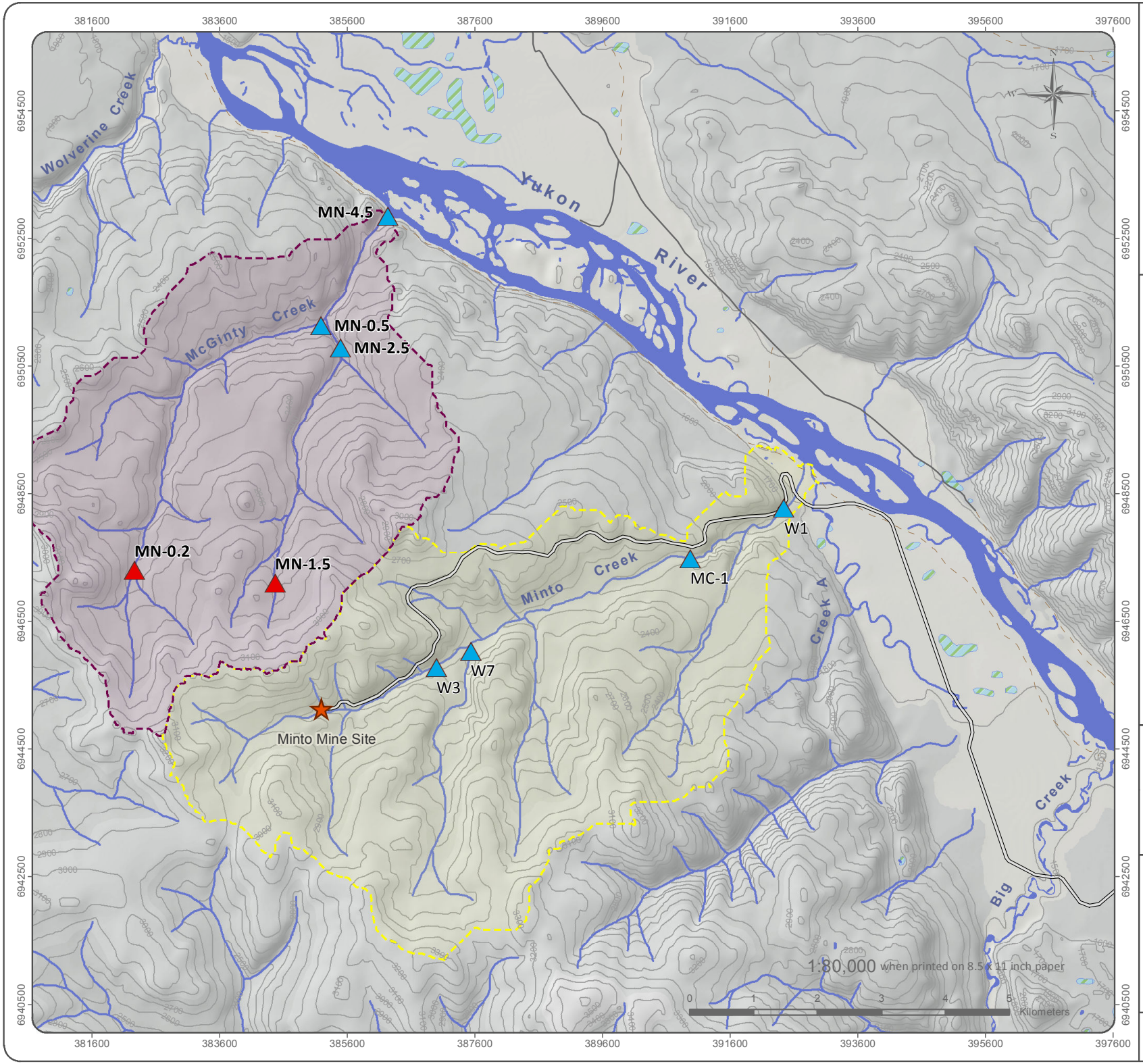
Hydrometric data are collected and managed throughout the open water season by Minto on both Minto and McGinty Creeks. Minto utilizes the Velocity-Area method of discharge calculation and measures velocity using a Hach FH950 handheld electromagnetic flow meter. Minto staff work closely with ACG to ensure they are adhering to best practices. Measurements are conducted manually and paired with staff gauge observations and site photographs. In general, multiple visits per month occur on Minto Creek and monthly visits on McGinty Creek during the open water season.

These data are checked for entry and calculation errors and suspicious measurements by Minto after field personnel have entered measurements into a calculation spreadsheet. Paired Solinst Leveloggers and Barologgers are utilized to collect the continuous stage record. All rating measurements are provided to ACG along with the raw Solinst logger records to be processed.

All measurements are entered into a master spreadsheet and .CSV files are created which include date, time, staff gauge height and discharge measured. These rating measurements are then imported into Aquatic Informatics' Aquarius Time-Series (Aquarius) data management software and a rating curve is built. Suspicious measurements are verified against photos and field notes (e.g. if they differ greatly from the stage-discharge relationship). This can be due to the effects of ice or other changing control conditions. Rating curve development thus considers which measurements should be included and when and where shifts to the rating are appropriate. All measurements within the continuous period are included in the hydrographs (Appendix A). Rating curve shifts are used at some Minto sites where appropriate.

Barometrically compensated Solinst water level data were imported into Aquarius software from .CSV files which are exported from Solinst software following compensation. Aquarius allows for adjustment of the Solinst record to match the staff gauge observations, for development of rating curves with the field data, and for automatic processing of continuous discharge records. This preserves the raw data in an easy to reference format and changes can be made to the data at any time which then cascade through the various time series. For example, at new sites, rating curves may improve after several seasons and alter a previous year's continuous record as high or low ends of the rating curve become well defined. Stage time series are adjusted for drift, offset and erroneous data are deleted or excluded from discharge computation if they are deemed ice affected. The rating curve is automatically applied to the continuous stage record for a specified time period to create the continuous discharge time series.

Data for the 2014 season are presented in this memo. For comparison, where data are available, a summary of recent historic data is included. Hydrographs for 2014 are included in Appendix A while discrete discharge measurements are included in Appendix B.



MINTO MINE

SURFACE WATER HYDROLOGY

FIGURE 1
MINTO AND MCGINTY CREEK HYDROMETRIC MONITORING NETWORK

- Water Quality Station with Discharge Measurements
- Hydrometric Station
- Minto Access Road
- Limited-use road
- Trail
- Contours (ft)
- Watercourse
- Minto Creek Catchment
- McGinty Creek Catchment
- Waterbody
- Wetland

capstone MINTO MINE
OPERATED BY MINTO EXPLORATIONS LTD.

ACCESS

D:\Project\AllProjects\Minto\gis\mxd\Phase_5-6\Permitting\YESAB\02-Baseline-Appendices\Surface-Hydrology\MintoMcGintyHydrometricMonitoring_20140226.mxd
(Last edited by: mducharme;3/24/2015/15:34 PM)

3 MINTO CREEK

The Minto Creek hydrological monitoring program includes four hydrometric stations on Minto Creek, three of which are on the main stem (W1, W3 and MC-1) and one on a small tributary, W7 (Figure 1). The W7 station was established on a southern tributary which joins the main creek just below W3. The three main stem monitoring stations are all below the mine site and include W3 (the regulated flume below the Water Storage Pond dam), MC-1 (mid-catchment) and W1 (lower Minto Creek above the road crossing and approximately 1 km upstream of the confluence with the Yukon River) (Figure 1). Mean monthly flows are presented below in separate sections for each station with a brief discussion. The annual hydrographs are included in Appendix A and discrete measurements and observations carried out by the Minto Environmental Team in 2014 are presented in Appendix B.

3.1 STATION W3 - FLUME BELOW WATER STORAGE POND DAM

Water level is continuously monitored in the flume which is approximately 500m from the toe of the Minto Water Storage Pond dam via a Solinst Levelogger in combination with a barometric logger. Frequent observations by Minto staff (minimum weekly) allow for correction of the level logger to the actual height of water in the flume and confirmation of the manufacturer specified stage-discharge relationship. This provides a record with a high degree of accuracy. Figure 2 (Appendix A) shows the hydrograph for the 2014 season and Table 1 summarizes the continuous data as mean monthly flows. Note that for the period in March when there is a large stage peak, the discharge was linearly interpolated as it was reported in the field notes that the flume was backed up and levels were not indicative of the actual discharge. The winter stage record was interpolated using the discrete stage observations.

Table 1 – Mean monthly discharge (m^3/s), Minto Creek at W3

	Month											
Year	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
2011						0.005	0.005	0.006	0.005			
2012						0.003	0.004	0.004	0.004			
2013						<0.001	<0.001	0.002	0.003	0.003	0.006	0.004
2014	0.003	0.006	0.006	0.057	0.086	0.003	0.003	0.003	0.004			

3.2 STATION MC-1 - MINTO CREEK MID-CATCHMENT

Hydrometric station MC-1 is located between the flume at W3 and is just upstream of the canyon on lower Minto Creek. This site is characterized by shallow channel slope and slower moving water above the control of the canyon. Figure 3 (Appendix A) shows the discharge time series for the 2014 open water season and Table 2 summarizes these data as mean monthly flows.

The mean monthly discharge has been updated for previous years in Table 2 as the rating curve becomes better defined. MC-1 also experiences a later summer shift which is likely due to aggradation of the channel. This

seasonal shift from the base rating curve appears consistently, but is not exactly the same from year to year. Minto staff report that MC-1 freezes to ground in winter.

Table 2 – Mean monthly discharge (m^3/s), Minto Creek at MC-1

	Month				
Year	**May**	**Jun**	**Jul**	**Aug**	**Sep**
2012	0.179	0.065	0.052	0.041	0.108
2013	0.358	0.085	0.103	0.044	0.089
2014	0.187	0.028	0.031	0.036	0.038

Note: Grey numbers indicate estimate due to incomplete data.

3.3 STATION W1 – LOWER MINTO CREEK ABOVE ROAD CROSSING

The 2014 continuous discharge record for Minto Creek at W1 extends from late May through early October (Figure 4, Appendix A). The discharge time series was cut off in early October due to daily ice formation causing large fluctuations in stage and inaccurate discharge calculations. Mean monthly flows in 2014 were lower than the previous two years (Table 3). It is suspected that those measurements which do not fall on the time series are due to a changing control with aggradation at low flow. There are not sufficient data to define that shift at this time. It is important to note that May 2014 is calculated from incomplete data (less than 50% coverage).

Table 3 – Mean Monthly Discharge (m^3/s), Minto Creek at W1

	Month				
Year	**May**	**Jun**	**Jul**	**Aug**	**Sep**
2012	0.269	0.073	0.052	0.051	0.078
2013	0.485	0.064	0.065	0.044	0.085
2014	0.138	0.022	0.020	0.014	0.020

Note: Grey numbers indicate estimate due to incomplete data.

3.4 STATION W7 - TRIBUTARY OF MINTO CREEK

A staff gauge was established on this tributary of Minto Creek in the summer of 2013. This site is located on the most upstream of the southern tributaries meeting the main channel of Minto Creek below W3 (Figure 1). W7 had been a regularly monitored surface water quality station for a number of years prior to installation of the hydrometric station. The first staff gauge observation occurred on August 11th, 2013 and there were two rating measurements in 2013, one in August and one in September. The 2013 level record extended from August to late October (at which time it became ice affected). In 2014 the station was found to have been damaged by ice. The stilling well was repositioned in June, but the staff gauge was out of the water for most of the season. Small mountain streams are challenging sites from which to obtain continuous data and this site is a strong candidate for an artificial control such a V-notch weir. The ease of access will allow for the frequent maintenance

requirements of artificial controls. Table 4 presents the discrete measurements gathered in 2013 and 2014. The stage record from late June to October is shown in Figure 5 but note that it is adjusted to a single stage observation (Appendix A) and is not comparable to 2013 given that the staff gauge was moved. It is included only to show relative variation.

Table 4 – Discrete measurements at Minto Creek W7 in 2013 and 2014

Date	Time	Stage (m)	Discharge (m^3/s)
Jul-13-2013	14:25	-	0.013
Aug-17-2013	15:57	0.11	-
Aug-24-2013	14:45	0.145	0.031
Sep-06-2013	15:21	0.134	0.019
Oct-21-2013	6:10	0.185	0.006
May-16-2014	12:47	-	0.045
Jun-03-2014	13:30	-0.032	0.042
Jul-26-2014	12:11	-	0.027
Aug-17-2014	12:19	0.11	0.015
Sep-20-2014	12:27	0.166	0.02
10/10/2014	16:10	0.194	0.038

4 MCGINTY CREEK

McGinty Creek has two main sub-catchments which each have two water quality monitoring stations, one just above the confluence and one near the headwaters. MN-4.5 is located on the main stem below the confluence of the tributaries near the mouth; just above the Yukon River (Figure 1). MN-0.5 and MN-0.2 are the lower and upper stations on the west tributary, respectively. MN-2.5 and MN-1.5 are the lower and upper stations on the east tributary, respectively.

4.1 STATION MN-4.5 - MCGINTY CREEK NEAR THE MOUTH

MN-4.5, situated near the mouth of McGinty Creek, is similar in catchment area to Minto Creek, but exhibits consistently higher flows than Minto Creek. Datalogger data from 2014 extends from mid-May to late September when ice formation begins (Figure 6, Appendix A).

Table 5 summarizes the monthly mean values from the continuous record with earlier years values having been refined with further rating development. Discrete measurements conducted in 2014 are also included in Appendix B. It is likely that the true mean flow in June 2014 was much higher, but limited by the data available.

Table 5 – Mean monthly discharge (m^3/s), McGinty Creek at MN-4.5

	Month					
Year	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**
2011	-	0.444	0.093	0.125	0.134	0.068
2012	0.212	0.230	0.180	0.082	0.053	0.165
2013	-	-	0.054	0.103	0.093	0.116
2014		0.230	0.041	0.037	0.026	0.046

Note: Grey numbers indicate estimate due to incomplete data.

4.2 STATION MN-2.5 - EAST TRIBUTARY OF MCGINTY CREEK

The average discrete flow measurement in 2014 at MN-2.5 was 0.016 m^3/s compared to a historical average of 0.024 m^3/s since monitoring began in 2012. The Solinst Levelogger was deployed June 3rd, 2014 and downloaded July 16th, 2014. A subsequent visit found the logger frozen into the stilling well and it was left in place. Rating measurements in 2014 did not appear to fall on previous attempts at creating a rating curve. Photos from June shows substantial ice persists around the staff gauge. With the short record that is potentially ice affected no continuous data is presented. Spot measurements are included below (Table 6Table 6 – Discrete measurements at MN-2.5 2012 to2014). The June-July stage record is shown in Figure 7 (Appendix A).

Given the continued difficulties with this site, ACG recommends that the measurement reach for this station be reassessed and if necessary, that the control be modified or the station be relocated. One approach may be to fly over the creek in early June and identify a stable section of the creek that is expected to become ice free earlier in the season. It may be that continuous discharge is not possible on this creek given the physical and climatic challenges.

Table 6 – Discrete measurements at MN-2.5 2012 to2014

Date	Time	Stage (m)	Discharge (m^3/s)
06-Aug-2012	12:42	-	0.018
07-Sep-2012	12:19	0.335	0.027
07-Oct-2012	13:15	0.486	0.024
27-May-2013	12:40	-	0.079
17-Jun-2013	13:55	0.452	0.026
15-Jul-2013	16:52	0.432	0.009
11-Aug-2013	14:38	0.422	0.019
28-Aug-2013	17:17	0.44	0.027
16-Oct-2013	15:02	0.487	0.028
16-May-2014	14:20	-	0.032
03-Jun-2014	11:58	0.245	0.013

26-Jul-2014	13:05	0.308	0.011
20-Sep-2014	13:20	0.305	0.012
11-Oct-2014	11:35	0.382	0.012

4.3 STATION MN-0.5 - WEST TRIBUTARY OF MCGINTY CREEK

MN-0.5 has similar challenges to MN-2.5 with stage changing drastically and occasionally in an unexpected way. The mean measured discharge in 2014 was 0.031 m^3/s compared with the mean including 2012-2014 of 0.059 m^3/s. The staff gauge was dry in May and June and the station was moved to the wetted part of the channel thereafter. The first stage observation was taken in August.

Table 7 below includes discrete measurements from 2013 and 2014 and a stage hydrograph is included in Appendix A (Figure 8). Similar to other sites, it appears that ice formation begins to affect the stage around September 22nd. Also note that only the August-September level was adjusted and that the period prior to the logger going dry has not been adjusted. The June-July period, then, is included only to show relative changes and event and does not correspond to any staff gauge. The gap in the middle is the period in which the logger was dry preventing alignment with the "new" stage. The data is considered insufficient to derive discharge.

Table 7 – Discrete Measurements at MN-0.5 in 2013 and 2014

Date	Time	Stage (m)	Discharge (m^3/s)
27-May-2013	11:40	-	0.137
17-Jun-2013	12:05	0.4	0.03
15-Jul-2013	16:52	0.091	0.027
11-Aug-2013	13:05	-0.02	0.035
28-Aug-2013	16:20	-	0.057
16-Oct-2013	14:20	0.118	0.031
16-May-2014	12:47	-	0.045
03-Jun-2014	13:30	-0.032	0.042
26-Jul-2014	12:11	-	0.027
17-Aug-2014	12:19	0.11	0.015
20-Sep-2014	12:27	0.166	0.02
10-Oct-2014	16:10	0.194	0.038

4.4 STATION MN-0.2 AND MN-1.5 MCGINTY CREEK HEADWATERS

These sites generally exhibit very low flows; observations for 2014 are included in Appendix B. MN-0.2 is near the headwaters of the west sub-catchment of McGinty Creek and has an average measured flow in the open

water season of 0.002 m^3/s. MN-1.5 is near the headwaters of the eastern sub-catchment of McGinty Creek and has an average measured flow during the open water season of 0.004 m^3/s. The mean flow at MN-0.2 and MN-1.5 were 0.0004 m^3/s and 0.0024 m^3/s in 2014, respectively. All measurements are included in Appendix B.

At MN-0.2 a measurement of 0.009 m^3/s in July was excluded as it was not in line with historic flows and the field notes indicated it was not taken in the same location. It is however included in Appendix B.

5 CLOSURE

ACG trusts that this review of the 2014 hydrometric data collected at Minto meets the needs of Minto Explorations Ltd. ACG is able to provide continuous data in CSV format on any time step which Minto or their consultants may require. This is a quick and easy request for ACG to execute at any time. Lastly, ACG thanks Minto for the opportunity to continue to support your hydrometric monitoring program.

_____

Anthony Bier, MSc, EPt
Hydrologist
Access Consulting Group

APPENDIX A

HYDROGRAPHS 2014

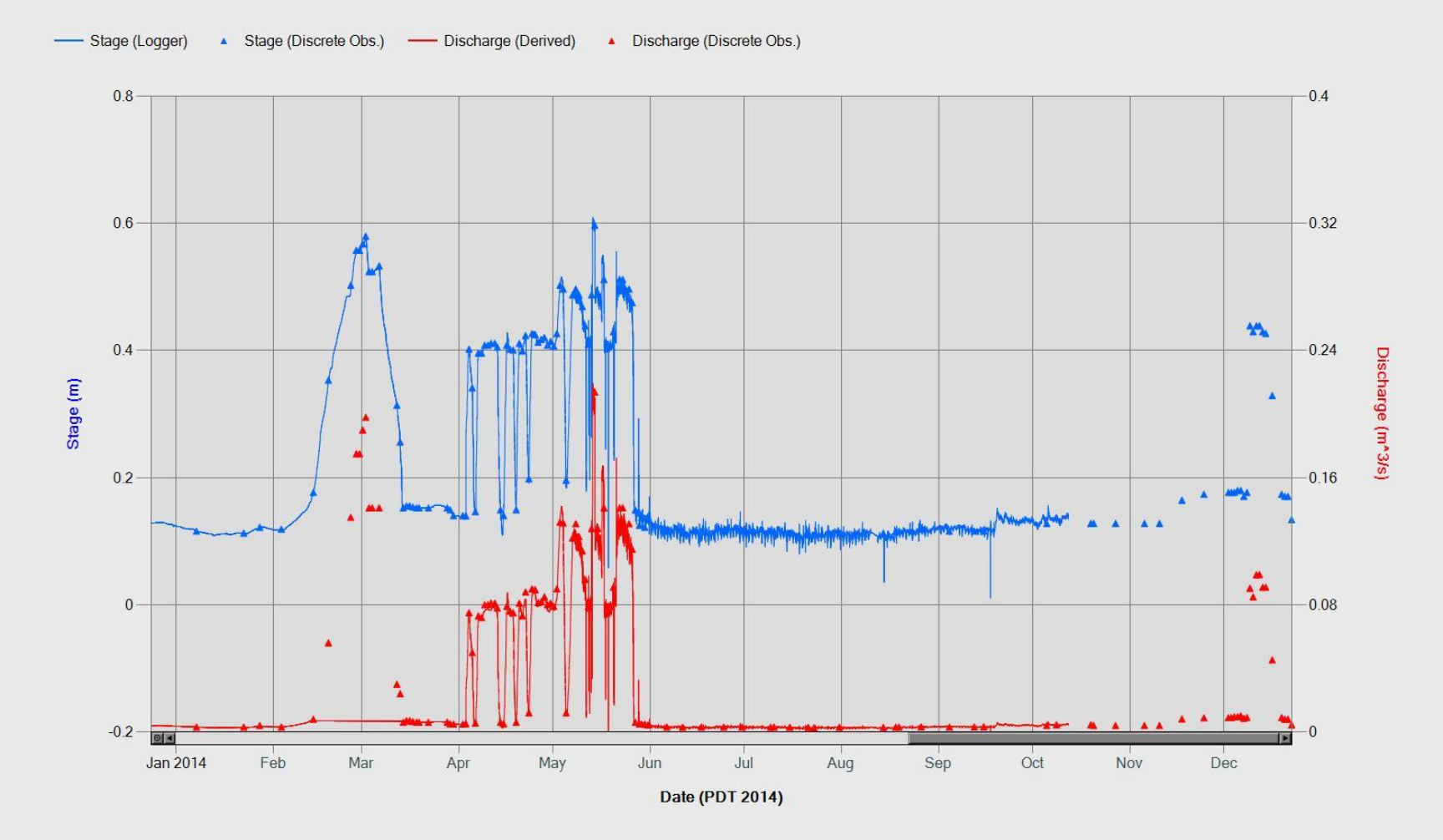


Figure 2 - Flume at W3 2014 hydrograph

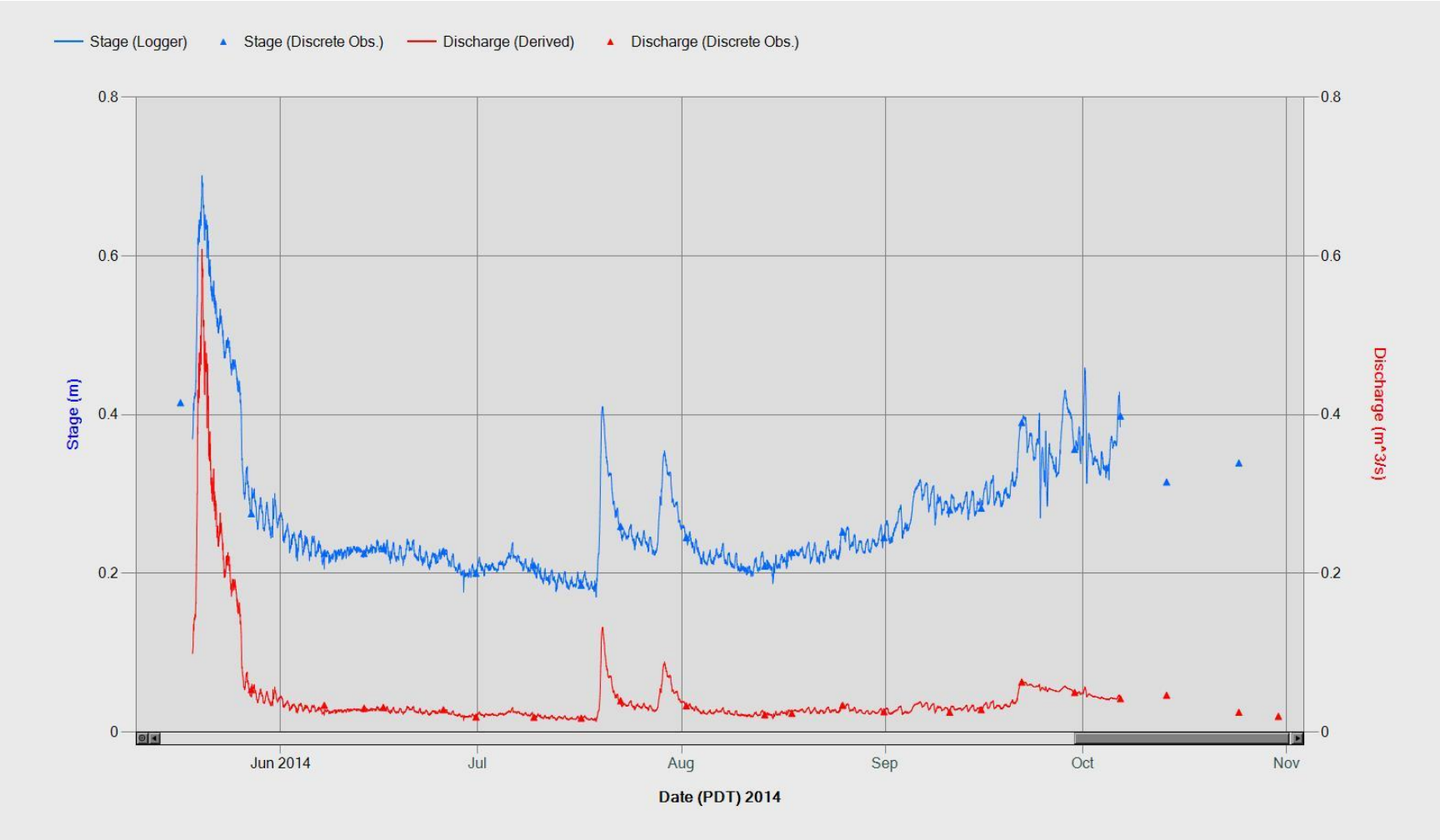


Figure 3 - Minto Creek at MC-1 2014 open water season hydrograph

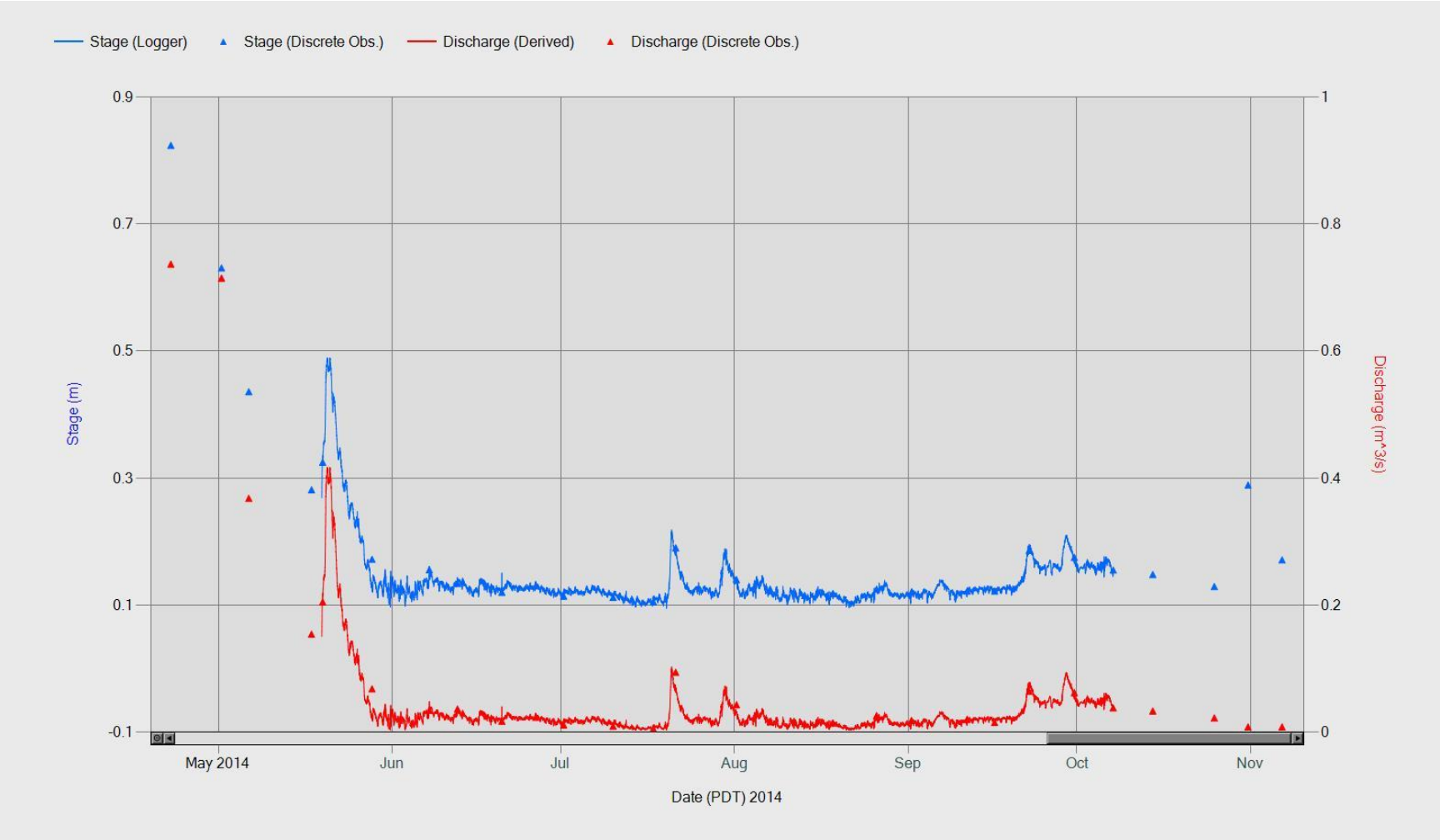


Figure 4 – Minto Creek at W1 2014 open water season hydrograph

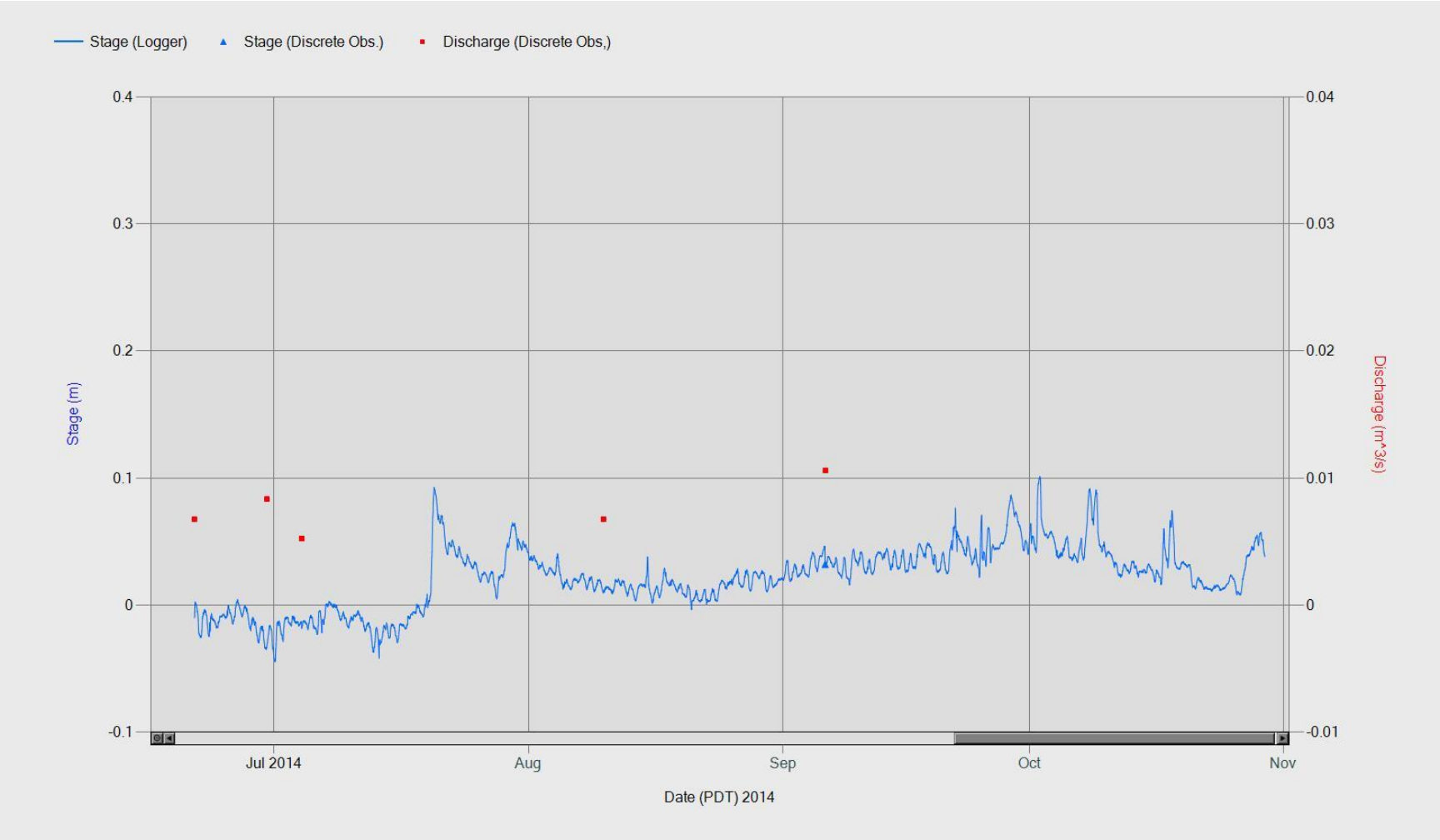


Figure 5 - Minto Creek at W7 2014 open water season hydrograph

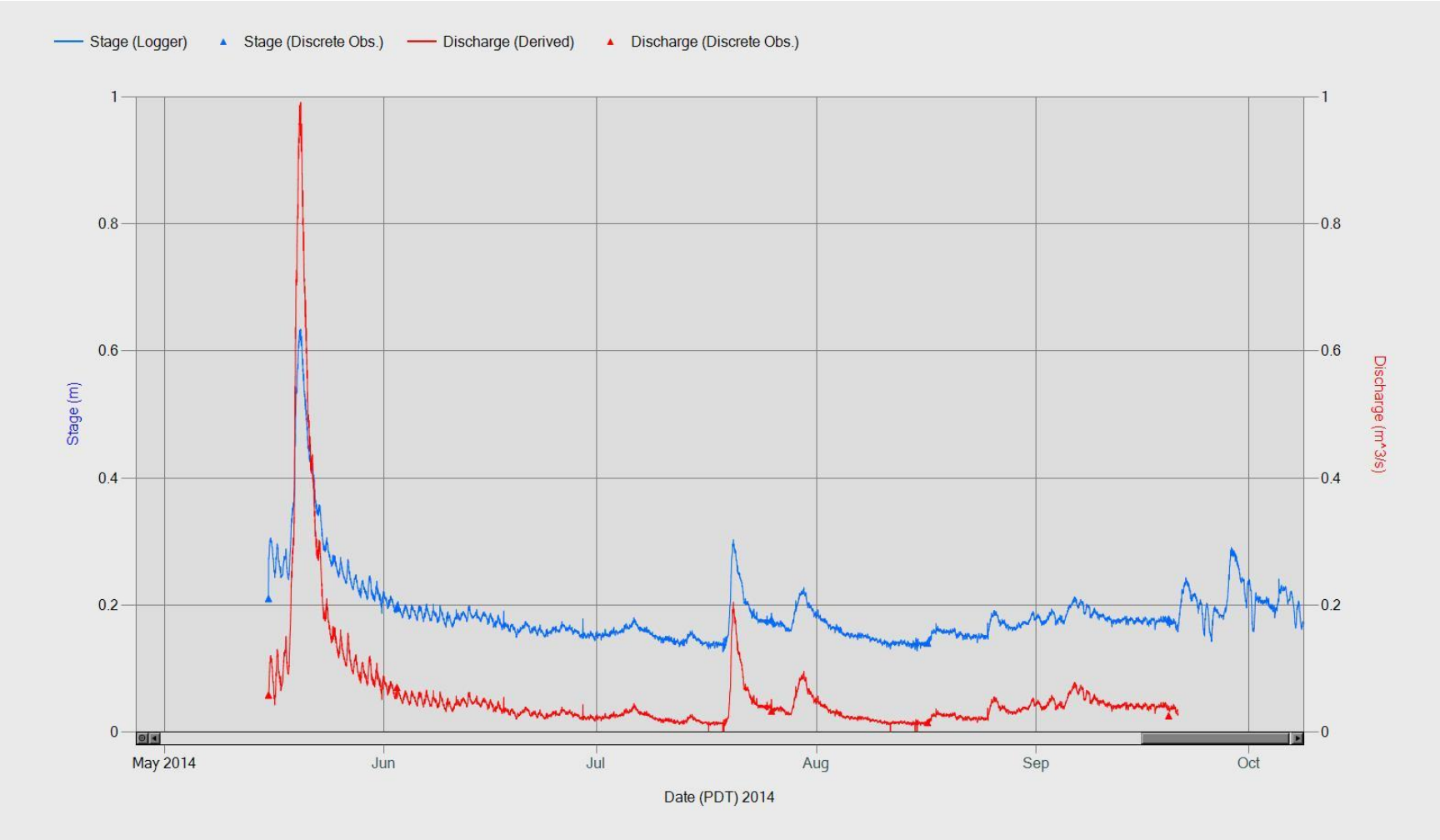


Figure 6 – McGinty Creek at MN-4.5 2014 open water season hydrograph

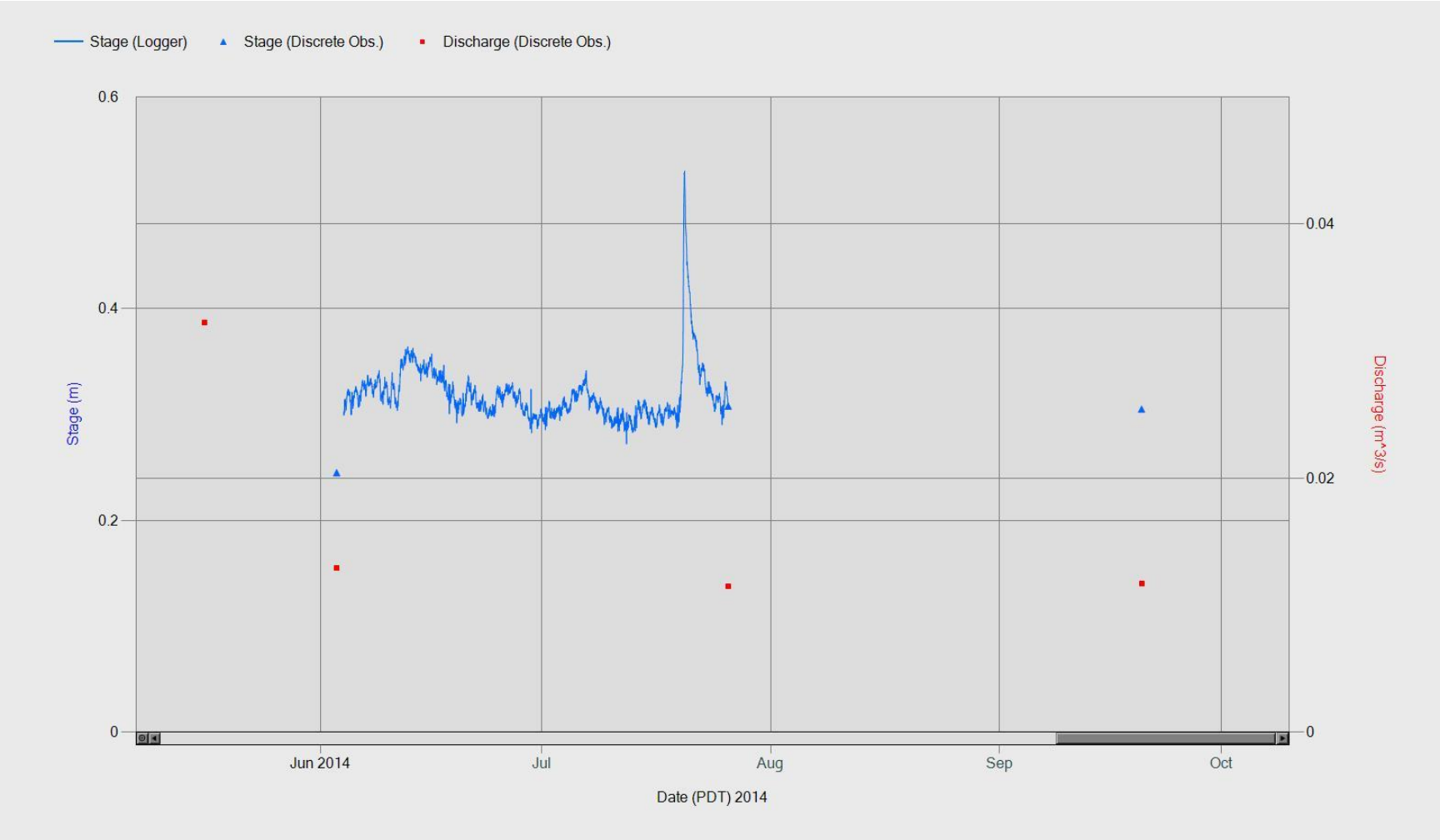


Figure 7 – McGinty Creek at MN-2.5 2014 open water season hydrograph

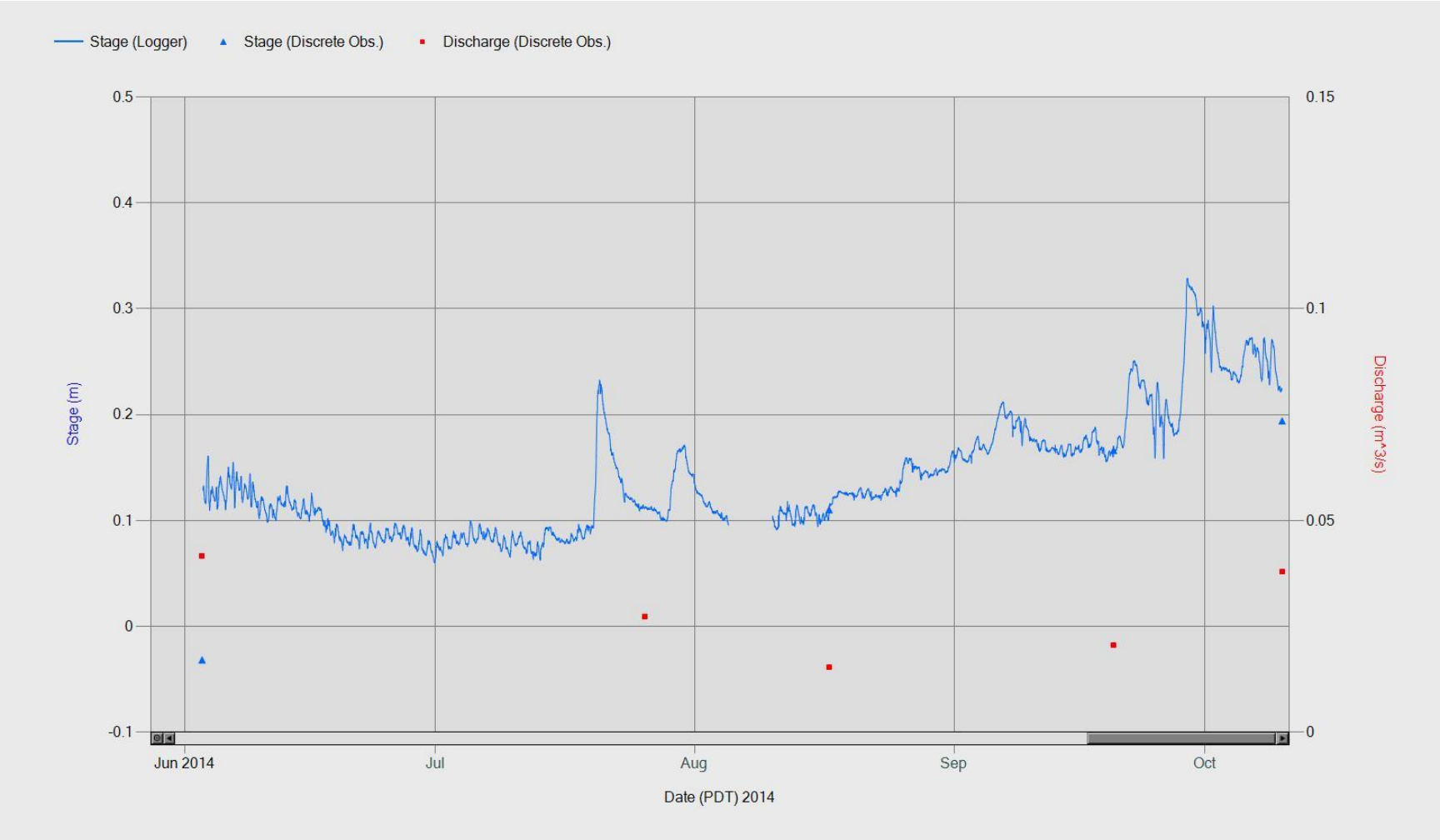


Figure 8 – McGinty Creek at MN-0.5 2014 open water season hydrograph

APPENDIX B

DISCRETE DISCHARGE MEASUREMENTS 2014

W1			
Date	Time	Stage (m)	Discharge (m^3/s)
22/04/2014	14:30	0.825	0.737
01/05/2014	15:07	0.650	0.715
06/05/2014	11:40	0.440	0.368
17/05/2014	16:22	0.295	0.154
19/05/2014	16:00	0.325	0.205
28/05/2014	11:01	0.172	0.068
07/06/2014	15:58	0.141	0.034
12/06/2014	16:48	0.134	0.036
20/06/2014	14:29	0.120	0.017
26/06/2014	15:51	0.130	0.023
01/07/2014	14:46	0.114	0.011
10/07/2014	10:15	0.112	0.009
17/07/2014	14:27	0.150	0.005
21/07/2014	14:27	0.200	0.094
01/08/2014	10:22	0.140	0.043
07/08/2014	10:21	0.125	0.016
13/08/2014	14:07	0.118	0.013
18/08/2014	15:22	0.118	0.014
26/08/2014	9:42	0.128	0.026
01/09/2014	14:32	0.120	0.018
11/09/2014	13:22	0.125	0.020
16/09/2014	10:46	0.128	0.015
22/09/2014	14:40	0.188	0.064
30/09/2014	15:45	0.175	0.062
07/10/2014	14:17	0.155	0.038
14/10/2014	15:26	0.148	0.033
25/10/2014	14:40	0.129	0.022
31/10/2014	14:55	0.289	0.008
06/11/2014	16:33	0.171	0.008
11/11/2014	14:42	0.115	-
12/12/2014	13:00	-	0.038

MC-1			
Date	Time	Stage (m)	Discharge (m^3/s)
17/06/2014	14:05	0.231	0.031
26/06/2014	17:11	0.228	0.028
01/07/2014	16:03	0.2	0.019
10/07/2014	11:39	0.21	0.018

W3			
Date	Time	Stage (m)	Discharge (m^3/s)
07/01/2014	10:40	0.116	0.003
22/01/2014	11:50	0.113	0.003
27/01/2014	14:45	0.122	0.004
03/02/2014	12:00	0.119	0.003
13/02/2014	16:30	0.177	0.008
18/02/2014	12:00	0.354	0.056
24/02/2014	10:30	0.488	0
25/02/2014	9:45	0.488	0
25/02/2014	15:00	0.503	0.135
27/02/2014	9:30	0.558	0.175
28/02/2014	10:30	0.558	0.175
01/03/2014	10:15	0.568	0.19
02/03/2014	10:00	0.580	0.198
03/03/2014	10:30	0.524	0.141
04/03/2014	10:30	0.524	0.141
06/03/2014	16:30	0.533	0.141
12/03/2014	7:30	0.314	0.03
13/03/2014	9:10	0.256	0.024
14/03/2014	8:20	0.152	0.006
15/03/2014	8:50	0.155	0.007
16/03/2014	9:30	0.155	0.007
17/03/2014	9:30	0.154	0.0065
18/03/2014	14:40	0.152	0.006
19/03/2014	10:20	0.152	0.006
22/03/2014	9:15	0.152	0.006
28/03/2014	9:00	0.152	0.006
29/03/2014	7:45	0.149	0.005
30/03/2014	9:30	0.140	0.0049
02/04/2014	8:30	0.140	0.0049
03/04/2014	7:20	0.140	0.0051
04/04/2014	8:05	0.402	0.075
05/04/2014	8:25	0.341	0.05
06/04/2014	8:15	0.146	0.0055
07/04/2014	6:45	0.396	0.073
08/04/2014	7:20	0.396	0.072
09/04/2014	7:45	0.408	0.08
10/04/2014	8:50	0.408	0.08
11/04/2014	8:30	0.411	0.081

17/07/2014	15:58	0.185	0.017
23/07/2014	16:00	0.259	0.039
02/08/2014	15:52	0.245	0.033
14/08/2014	13:57	0.209	0.022
18/08/2014	16:54	0.226	0.023
26/08/2014	10:25	0.252	0.034
01/09/2014	17:22	0.245	0.025
11/09/2014	16:58	0.28	0.025
16/09/2014	12:11	0.282	0.028
22/09/2014	16:06	0.39	0.063
30/09/2014	17:13	0.356	0.050
07/10/2014	16:17	0.398	0.042
14/10/2014	16:42	0.315	0.046
25/10/2014	16:30	0.339	0.025
31/10/2014	17:00		0.020
06/11/2014	18:05	0.263	0.024

W7			
Date	Time	Stage (m)	Discharge (m^3/s)
16/05/2014	12:47	-	0.045
03/06/2014	13:30	-0.032	0.042
26/07/2014	12:11	-	0.027
17/08/2014	12:19	0.11	0.015
20/09/2014	12:27	0.166	0.020
10/10/2014	16:10	0.194	0.038

MN-4.5			
Date	Time	Stage (m)	Discharge (m^3/s)
16/05/2014	11:19	0.21	0.058
03/06/2014	14:17	0.195	0.070
26/07/2014	10:29	0.277	0.033
17/08/2014	10:53	0.14	0.015
20/09/2014	11:07	0.178	0.025
10/10/2014	13:24	0.186	0.046

MN-0.5			
Date	Time	Stage (m)	Discharge (m^3/s)
16/05/2014	12:47	-	0.045
12/04/2014	13:05	0.411	0.081
13/04/2014	8:30	0.405	0.078
14/04/2014	8:40	0.149	0.006
15/04/2014	8:30	0.140	0.0051
16/04/2014	8:30	0.408	0.079
17/04/2014	8:45	0.402	0.076
18/04/2014	9:15	0.401	0.075
19/04/2014	8:30	0.149	0.006
20/04/2014	8:40	0.411	0.081
21/04/2014	8:00	0.399	0.073
22/04/2014	8:00	0.424	0.088
23/04/2014	9:40	0.198	0.012
24/04/2014	10:00	0.427	0.09
25/04/2014	9:55	0.425	0.0895
26/04/2014	8:45	0.413	0.0813
27/04/2014	8:45	0.418	0.082
28/04/2014	8:30	0.421	0.085
29/04/2014	8:15	0.408	0.08
30/04/2014	8:00	0.415	0.081
01/05/2014	8:10	0.407	0.079
02/05/2014	8:15	0.427	0.09
03/05/2014	8:00	0.503	0.132
04/05/2014	8:00	0.497	0.1315
05/05/2014	6:45	0.196	0.012
07/05/2014	7:50	0.488	0.122
08/05/2014	8:20	0.497	0.131
09/05/2014	9:00	0.488	0.123
10/05/2014	10:15	0.469	0.114
11/05/2014	8:35	0.439	0.096
12/05/2014	8:45	0.410	0.079
13/05/2014	9:40	0.488	0.128
14/05/2014	9:35	0.597	0.214
15/05/2014	8:45	0.491	0.128
17/05/2014	8:30	0.512	0.141
18/05/2014	9:05	0.405	0.078
19/05/2014	9:45	0.408	0.08
20/05/2014	8:30	0.430	0.091
22/05/2014	7:30	0.512	0.141

03/06/2014	13:30	-0.032	0.042
26/07/2014	12:11	-	0.027
17/08/2014	12:19	0.11	0.015
20/09/2014	12:27	0.166	0.020
10/10/2014	16:10	0.194	0.038

MN-0.2			
Date	Time	Stage (m)	Discharge (m^3/s)
14/05/2014	17:01	n/a	0.0004
03/06/2014	-	n/a	0.0003
26/07/2014	15:13	n/a	0.0088
17/08/2014	10:19	n/a	0.0006

MN-2.5			
Date	Time	Stage (m)	Discharge (m^3/s)
16/05/2014	14:20	-	0.032
03/06/2014	11:58	0.245	0.013
26/07/2014	13:05	0.308	0.011
20/09/2014	13:20	0.305	0.012
11/10/2014	11:35	0.382	0.012

MN-1.5			
Date	Time	Stage (m)	Discharge (m^3/s)
16/05/2014	15:44	n/a	0.0036
03/06/2014	10:03	n/a	0.0017
26/07/2014	15:16	n/a	0.0026
17/08/2014	15:18	n/a	0.0016
20/09/2014	14:38	n/a	0.0029
11/10/2014	14:22	n/a	0.0021

23/05/2014	7:45	0.512	0.141
24/05/2014	7:45	0.494	0.121
25/05/2014	8:15	0.497	0.131
26/05/2014	8:15	0.475	0.115
27/05/2014	8:15	0.149	0.006
28/05/2014	14:45	0.125	0.005
29/05/2014	8:15	0.137	0.0049
30/05/2014	8:00	0.122	0.0048
31/05/2014	8:45	0.134	0.0043
06/06/2014	9:30	0.116	0.003
11/06/2014	10:45	0.113	0.0029
17/06/2014	9:00	0.116	0.003
24/06/2014	12:43	0.116	0.003
30/06/2014	8:45	0.116	0.003
09/07/2014	11:20	0.116	0.0029
10/07/2014	13:25	0.116	0.003
15/07/2014	14:15	0.113	0.0029
21/07/2014	11:05	0.110	0.0028
23/07/2014	8:05	0.110	0.0026
31/07/2014	9:50	0.113	0.0029
14/08/2014	9:20	0.113	0.0029
18/08/2014	9:00	0.116	0.003
19/08/2014	9:20	0.116	0.003
26/08/2014	11:10	0.119	0.0031
04/09/2014	10:45	0.116	0.003
12/09/2014	9:20	0.116	0.0031
15/09/2014	9:45	0.116	0.0032
05/10/2014	12:10	0.128	0.004
08/10/2014	14:10	0.137	0.0045
19/10/2014	13:15	0.128	0.0045
20/10/2014	10:40	0.128	0.004
27/10/2014	10:20	0.128	0.004
05/11/2014	15:30	0.128	0.004
10/11/2014	10:40	0.128	0.004
17/11/2014	14:40	0.165	0.0081
24/11/2014	15:05	0.174	0.0088
02/12/2014	10:10	0.177	0.0089
03/12/2014	9:10	0.177	0.0089

04/12/2014	8:20	0.177	0.0095
05/12/2014	9:00	0.180	0.0095
06/12/2014	9:45	0.180	0.01
07/12/2014	9:05	0.171	0.0085
08/12/2014	9:15	0.177	0.0091
09/12/2014	8:00	0.439	0.0904
10/12/2014	8:25	0.430	0.085
11/12/2014	9:15	0.439	0.0989
12/12/2014	9:05	0.439	0.099
13/12/2014	9:40	0.430	0.091
14/12/2014	9:00	0.427	0.091
16/12/2014	10:30	0.329	0.0453
19/12/2014	10:00	0.174	0.009
20/12/2014	9:50	0.171	0.008
21/12/2014	10:25	0.171	0.008
22/12/2014	15:05	0.134	0.0044