

(6) 水質（常時観測）

1) 観測目的

ダム撤去により環境が変化すると予測されるダム上下流において、出水時の水の濁り等の現在の発生状況を把握することを目的とする。

2) 観測項目

次の4つの項目を観測する。①水温、②pH、③DO、④濁度

3) 観測時期・頻度

平成25年4月1日～平成26年3月31日の期間において、1時間毎とする。

4) 観測方法

各観測項目の観測方式及び測定範囲を下表に示す。

観測項目	観測方式	測定範囲
水温	半導体センサ	-5～50℃
pH	固定電解液ガラス電極方式	0～14
DO	ガルバニ電極方式	0～20mg/L
濁度	積分球方式及び透過光方式	0～2000FTU

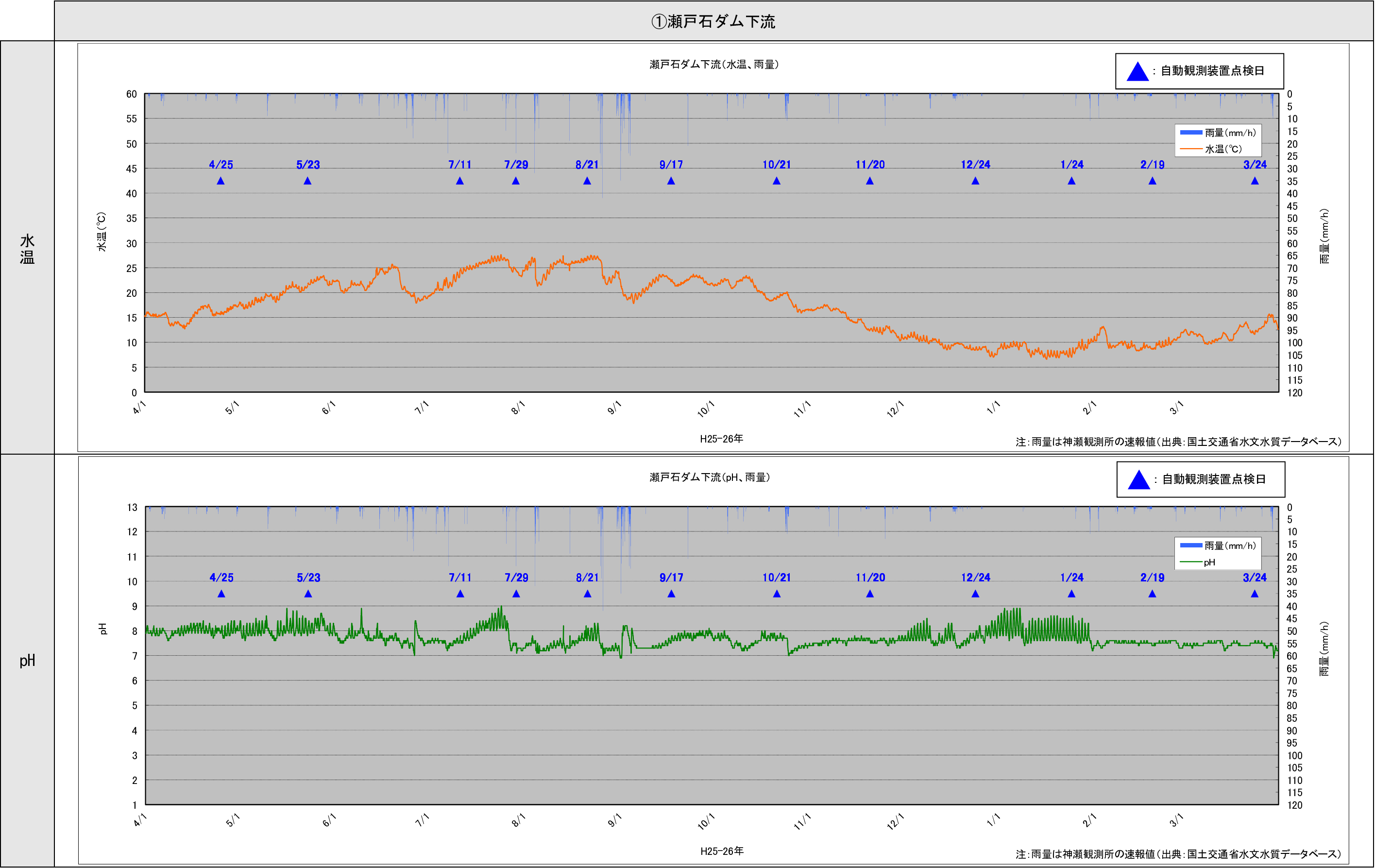
5) 観測地点

次の3地点で観測した。①瀬戸石ダム下流、②道の駅坂本、③横石



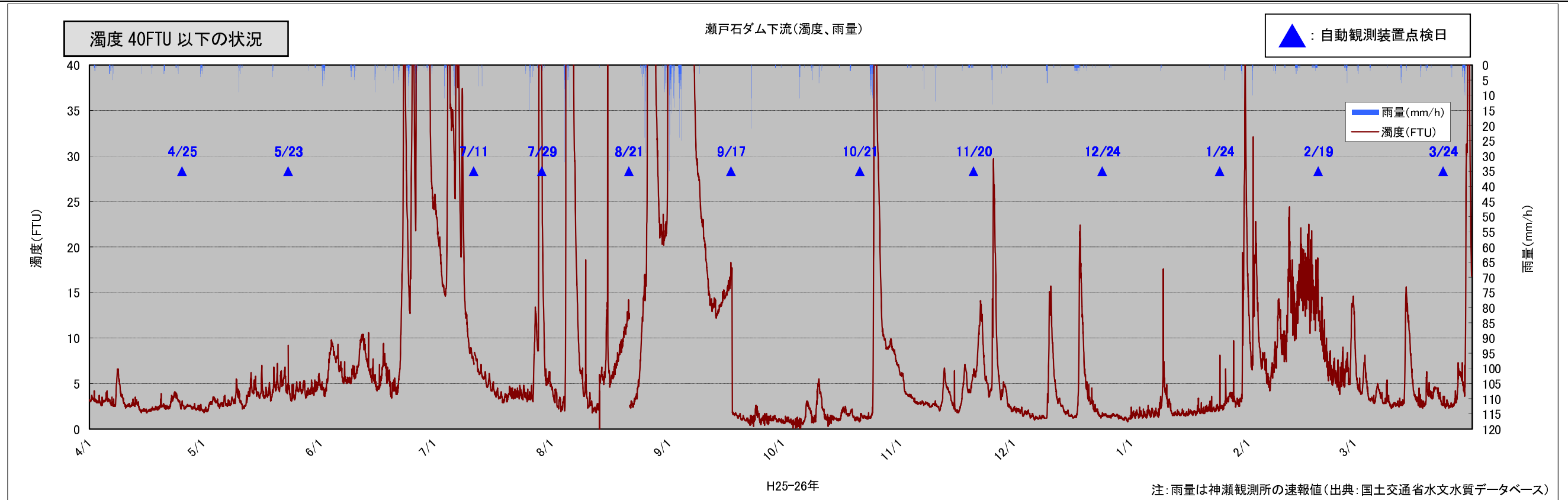
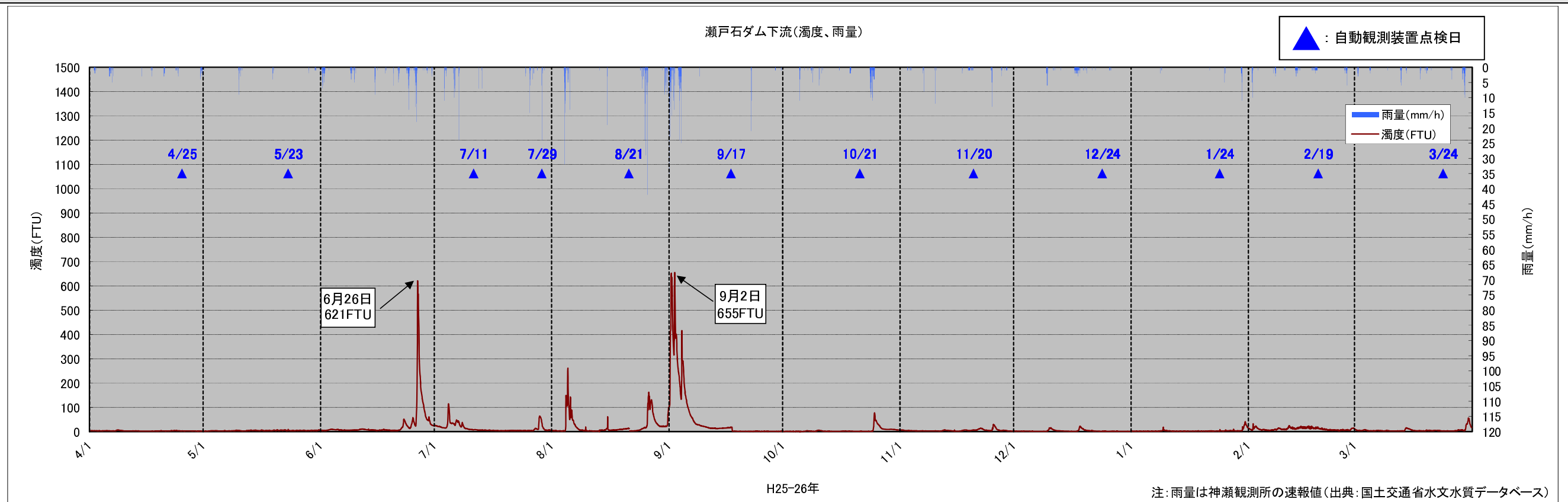
※この地図は、国土地理院発行の2万5千分の1地形図(坂本、中津道)を背景図として使用したものである。

6) 観測結果



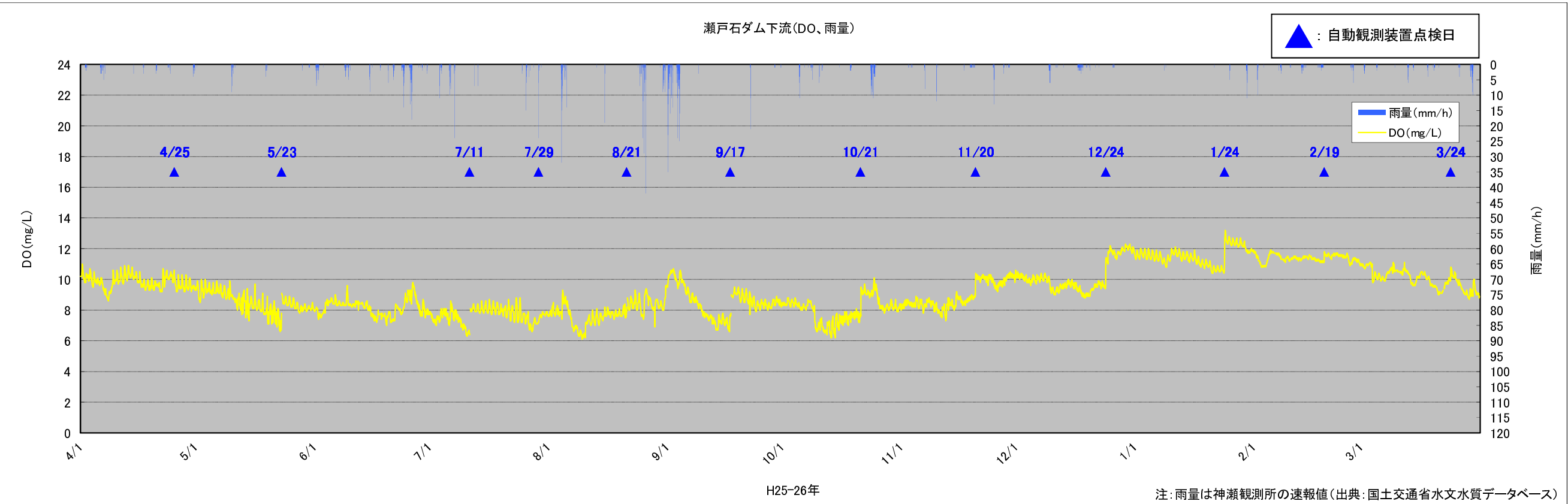
①瀬戸石ダム下流

濁度



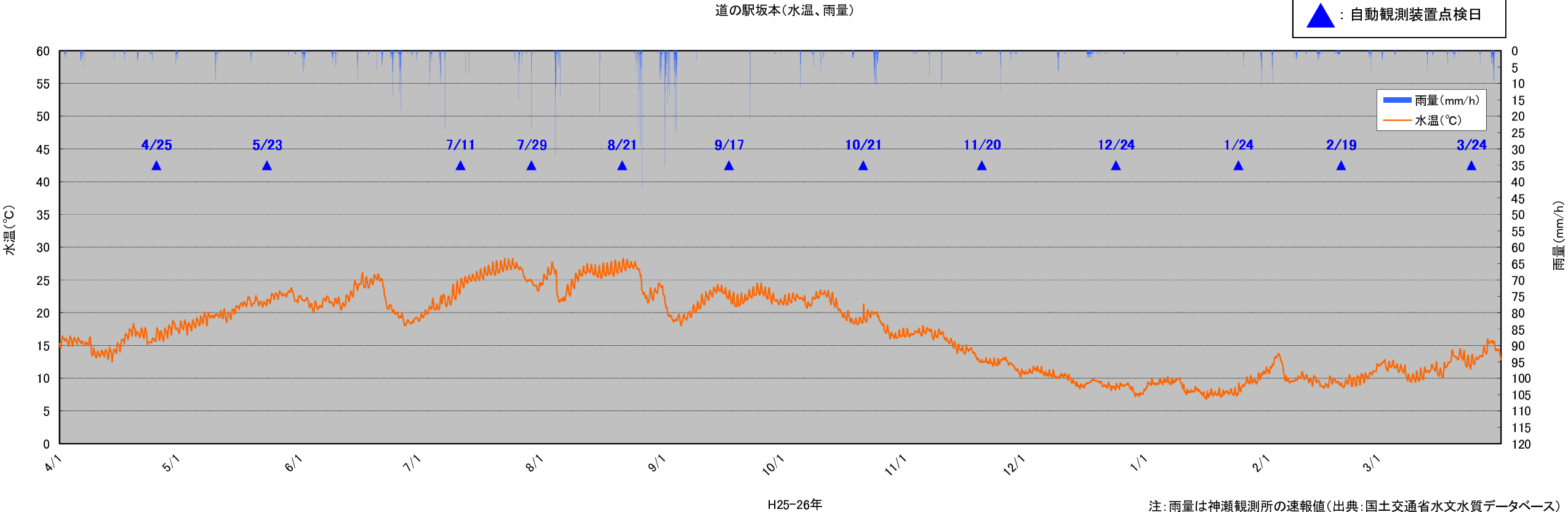
①瀬戸石ダム下流

DO

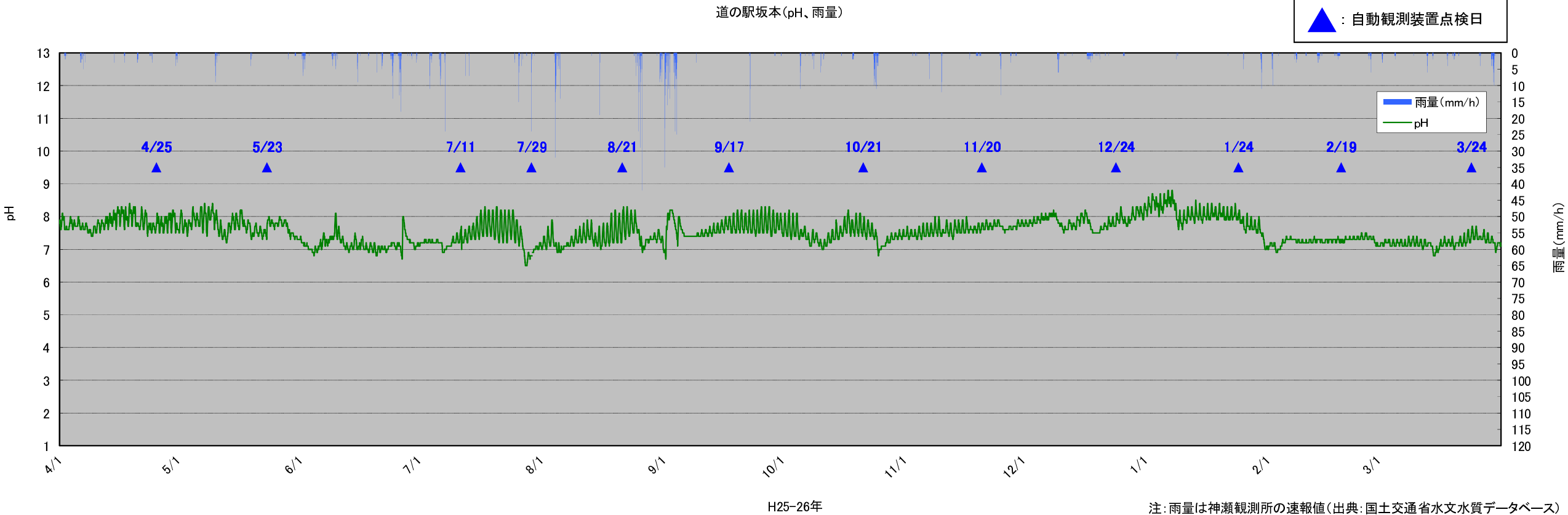


②道の駅坂本

水温

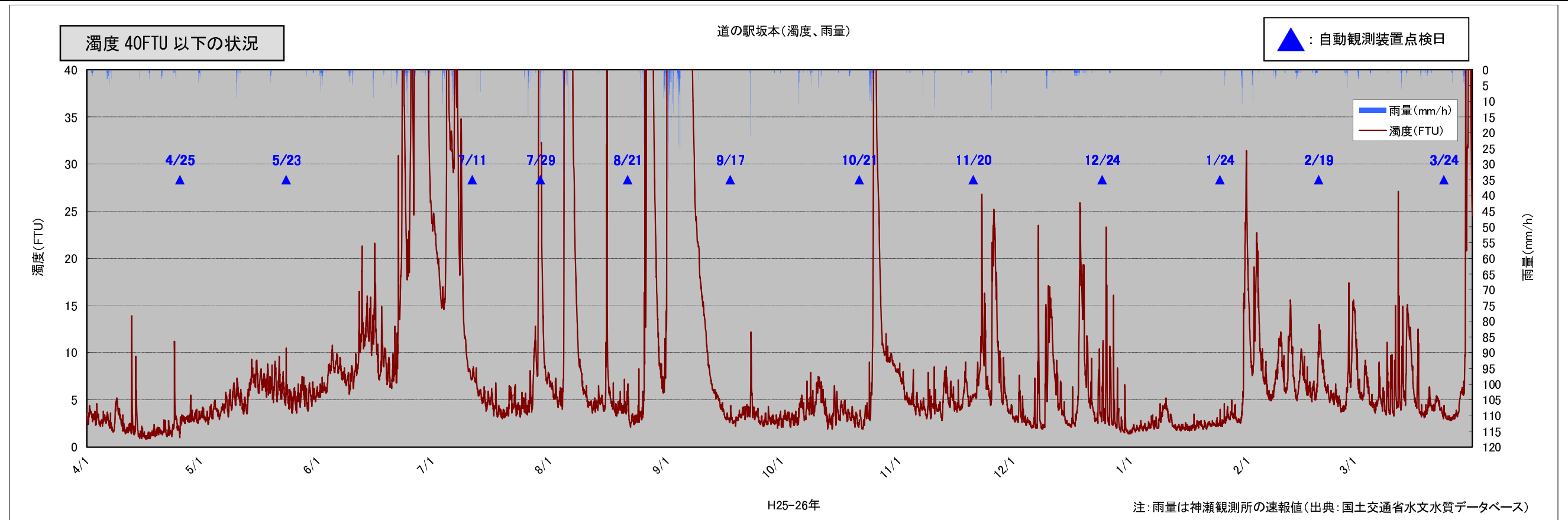
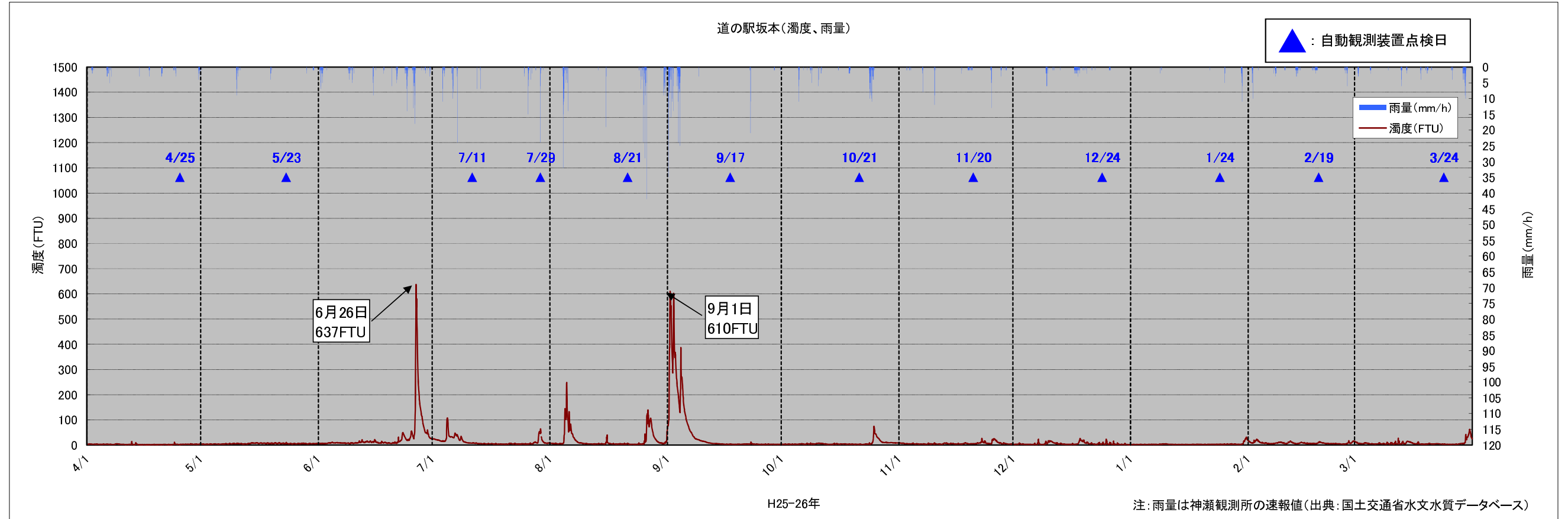


pH



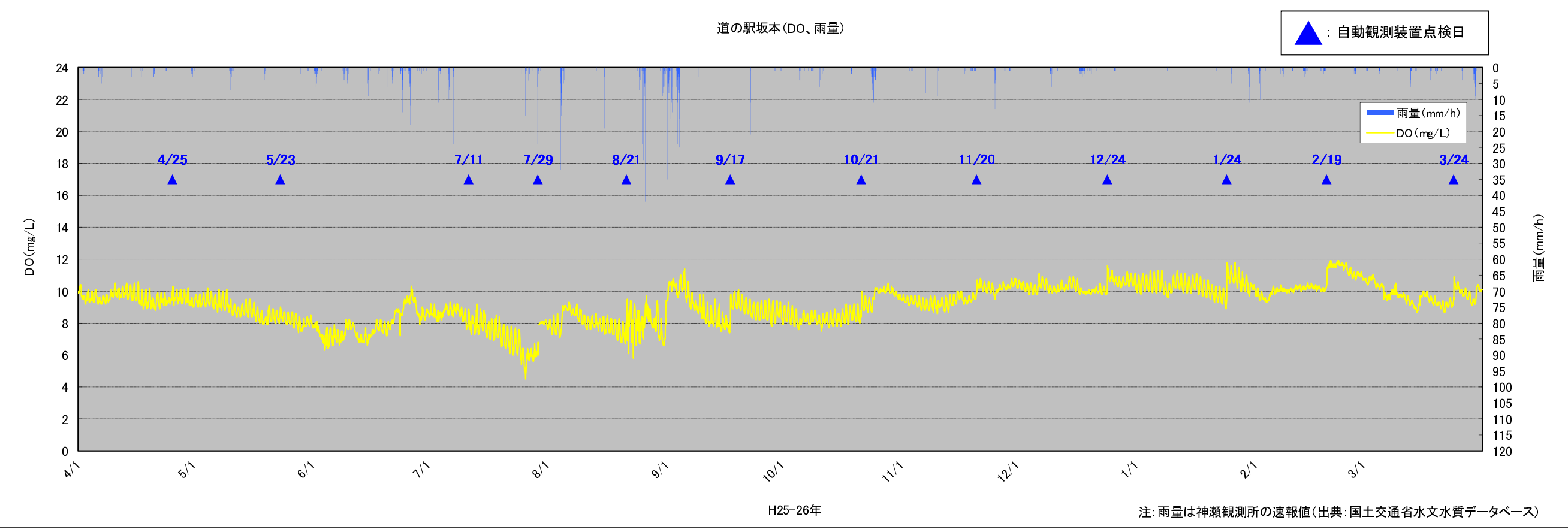
②道の駅坂本

濁度



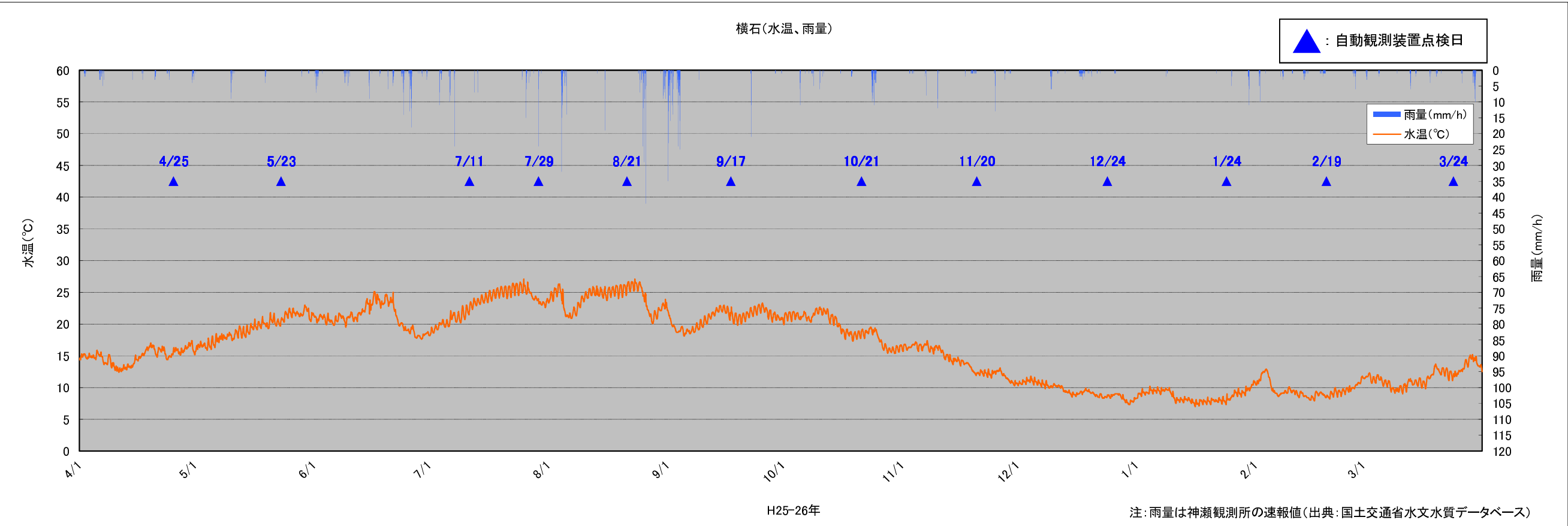
②道の駅坂本

DO

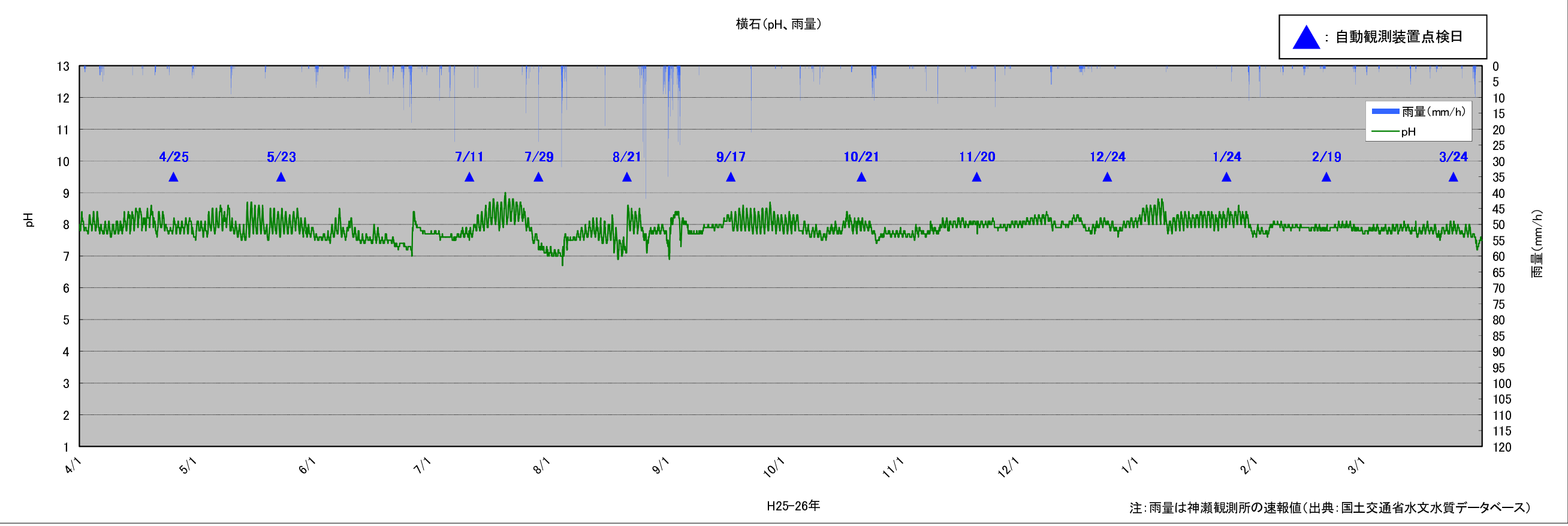


③横石

水温

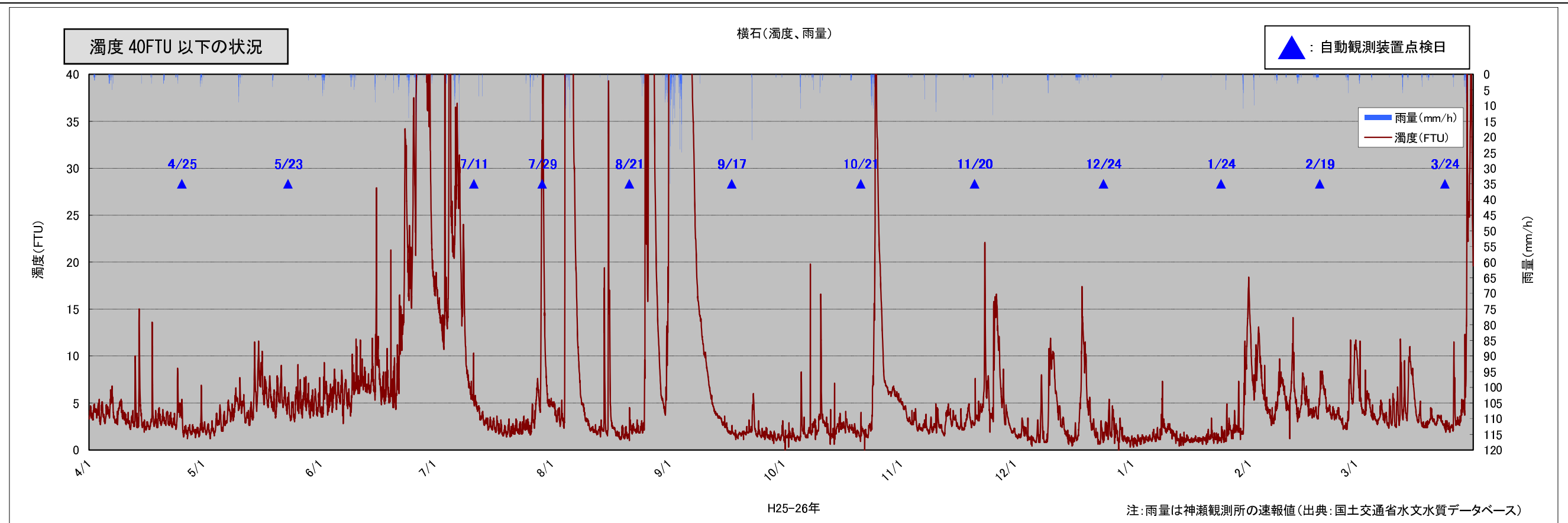
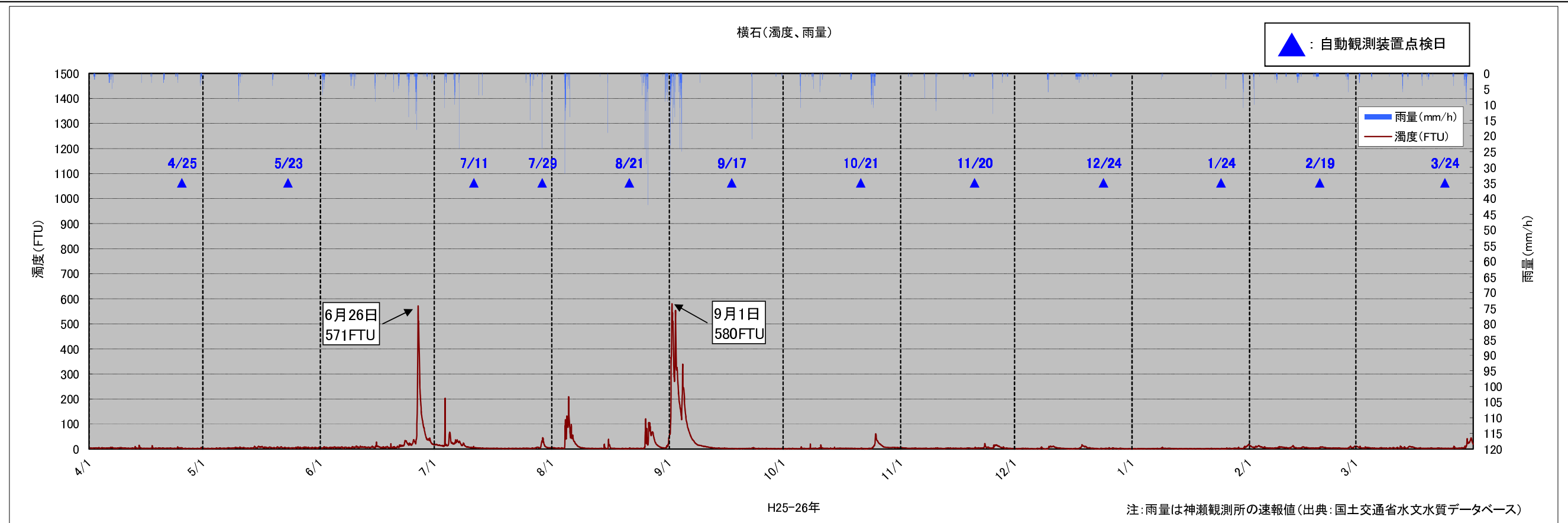


pH



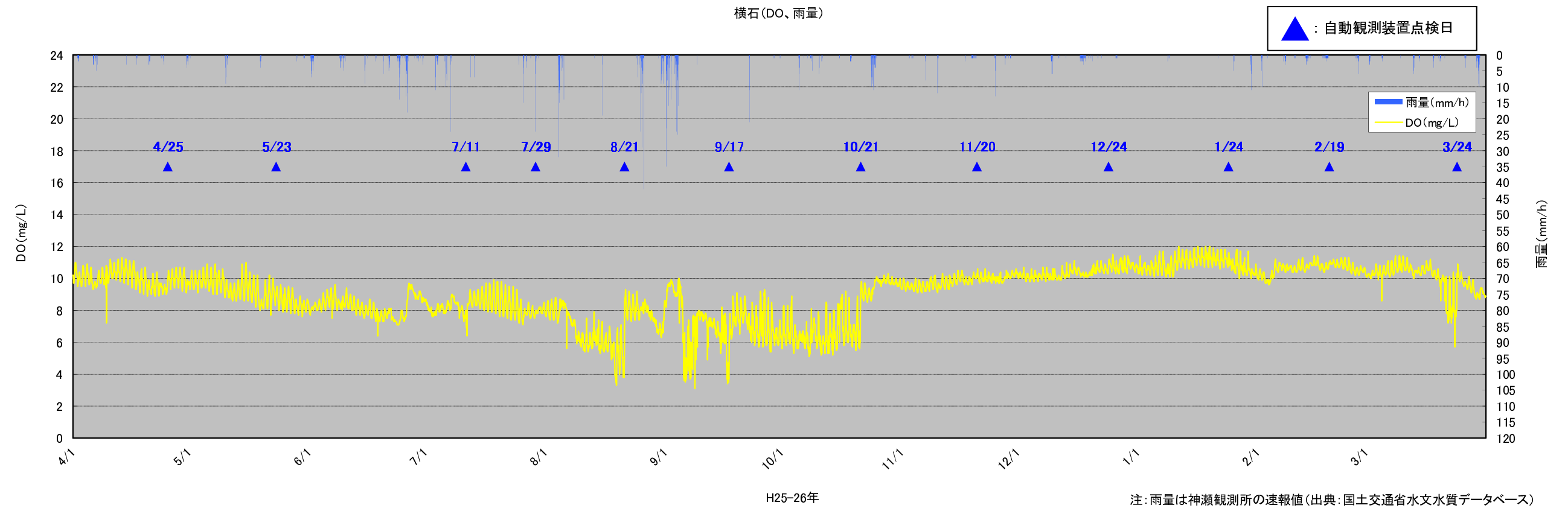
③横石

濁度



③横石

DO



7) 出水時の流量と濁度（FTU）の時間的な変化について（H21～25 年）

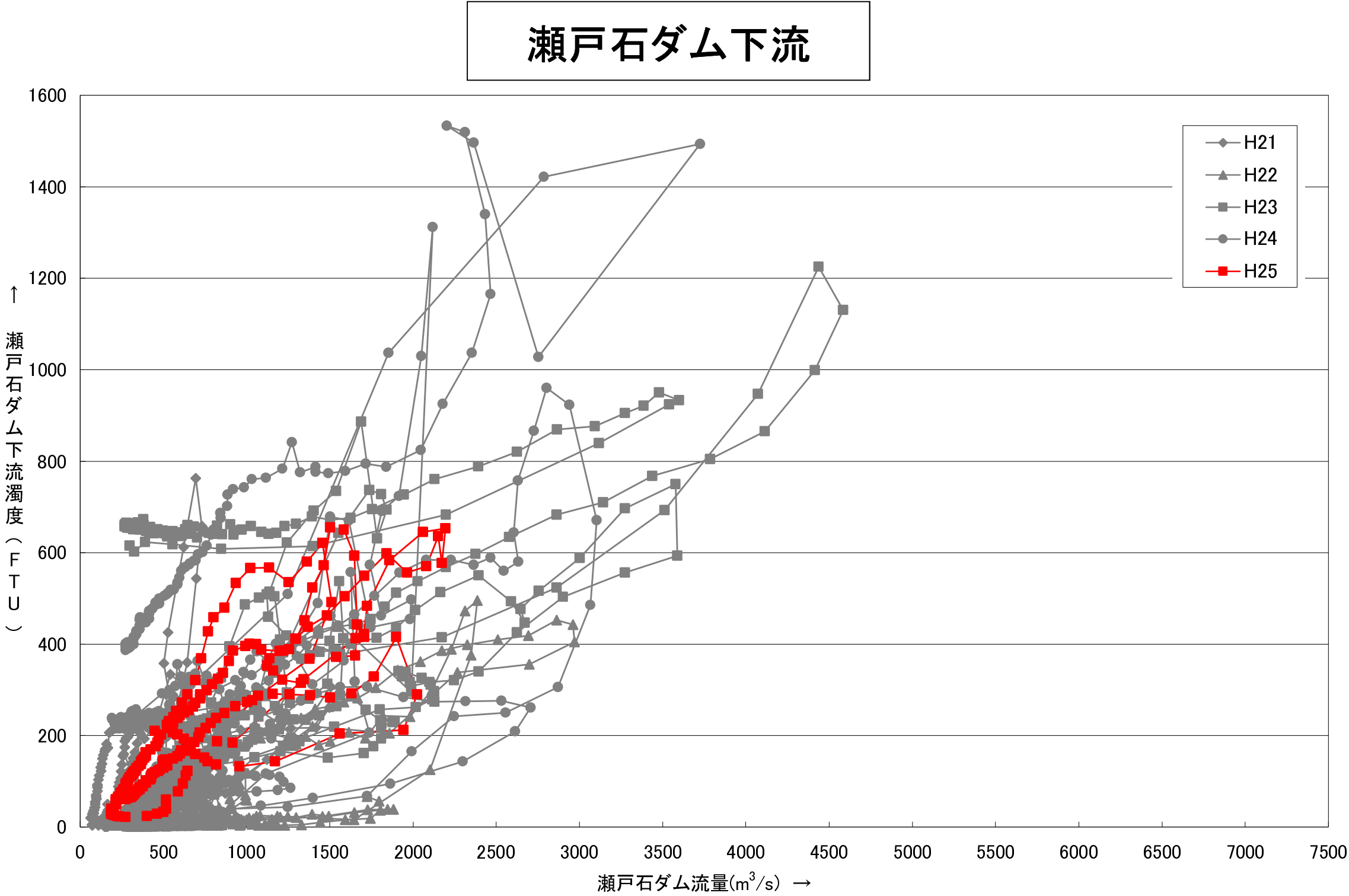
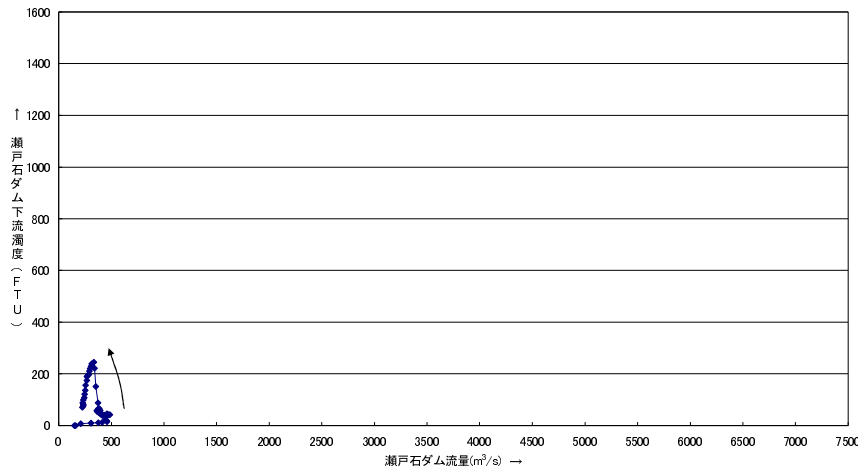


図 出水時の流量と濁度（FTU）の時間的な変化（瀬戸石ダム下流）

瀬戸石ダム下流

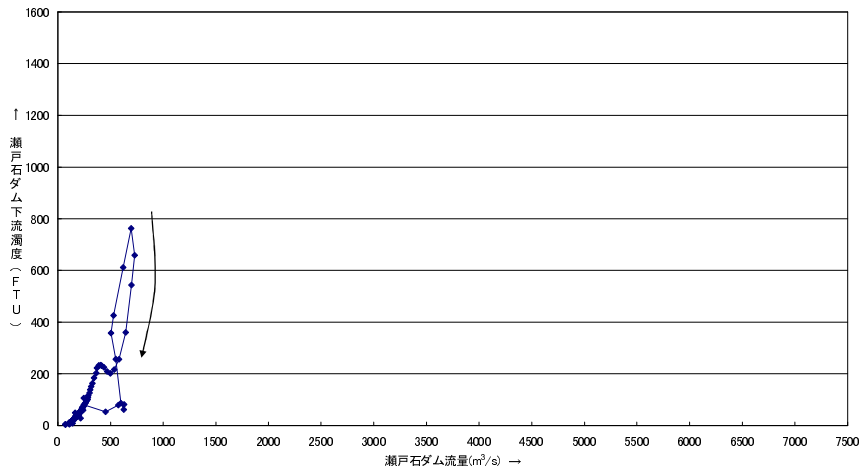
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2009/6/29-7/1



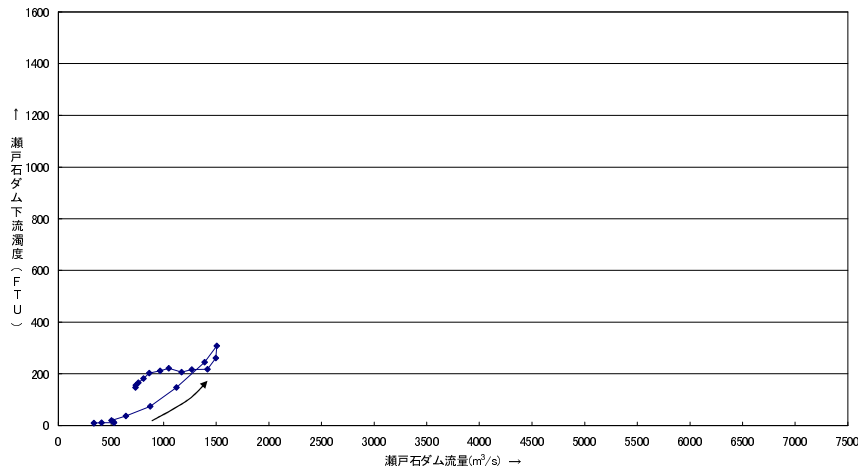
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2009/7/11-7/16



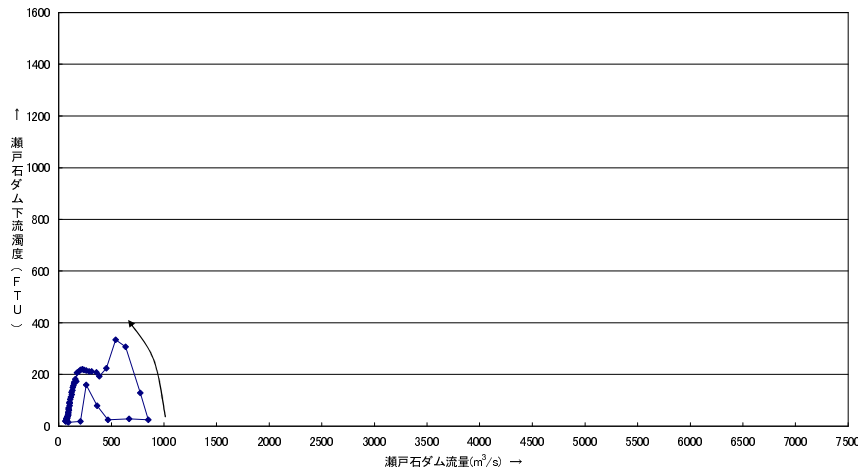
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2009/7/25-7/26



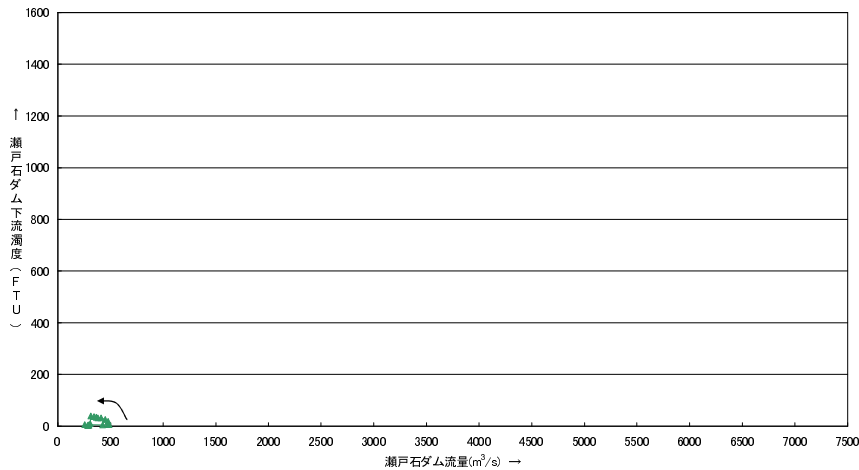
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2009/10/2-10/4



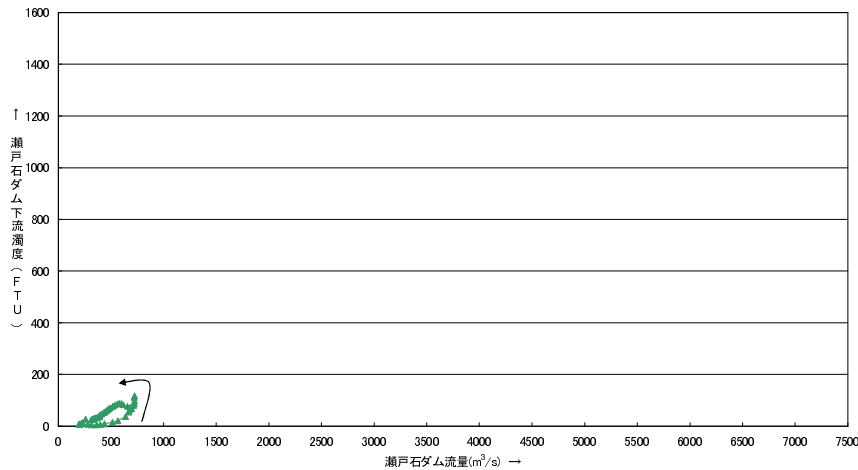
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2010/4/20



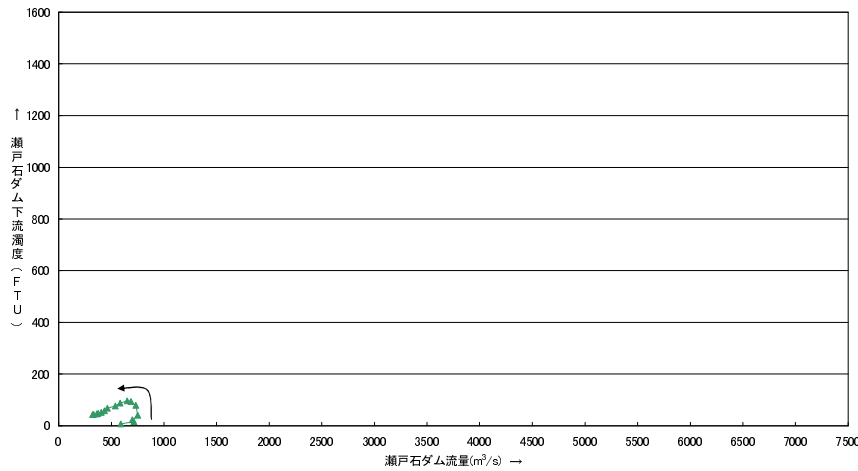
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2010/4/22-4/24



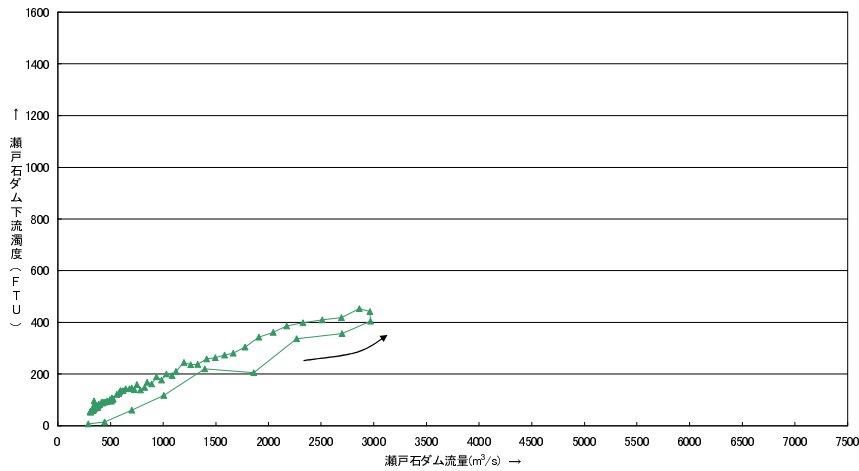
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2010/5/19-5/20



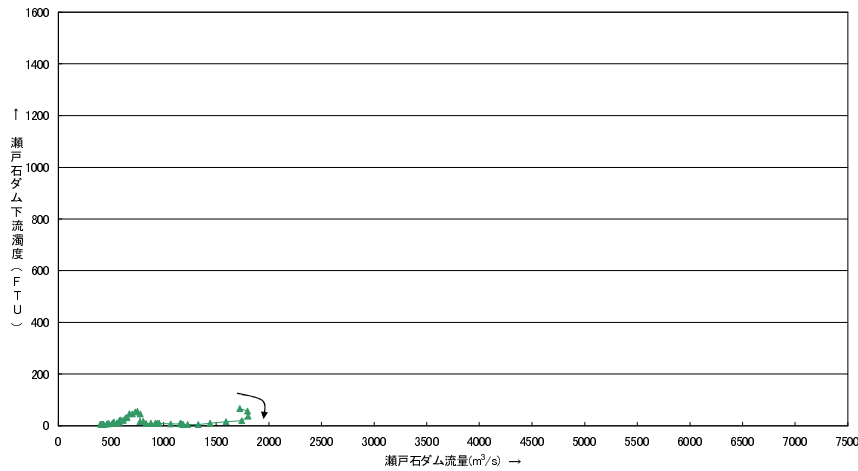
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2010/5/23-5/26



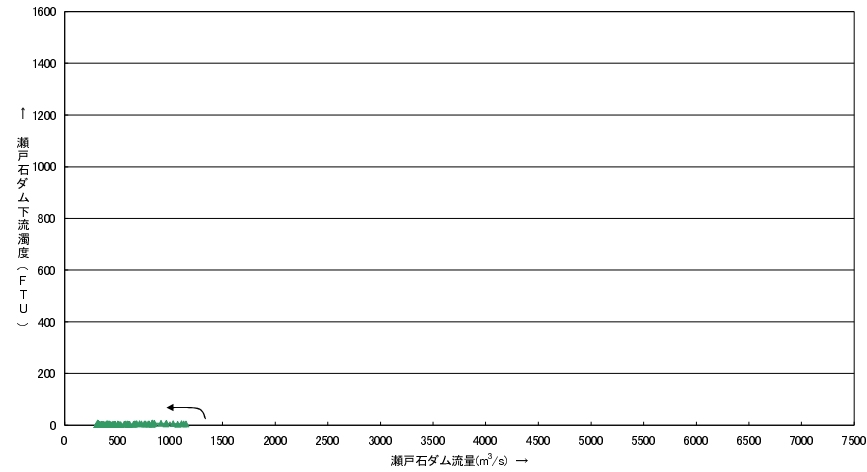
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2010/6/20-6/22



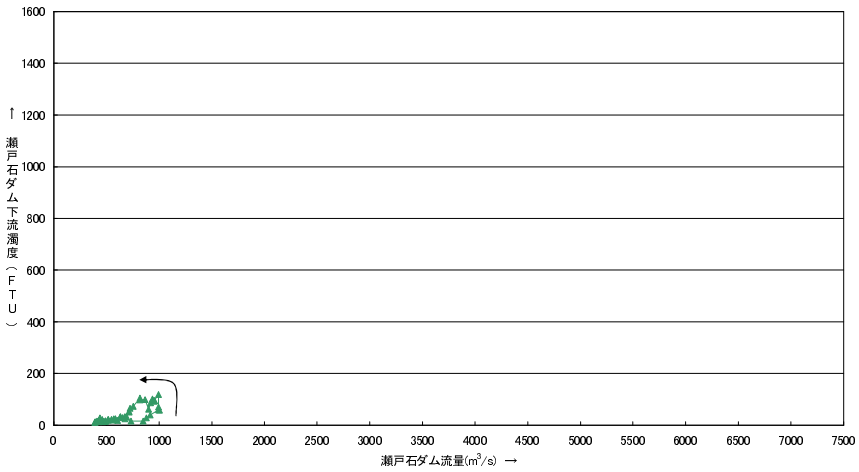
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2010/6/22-6/25



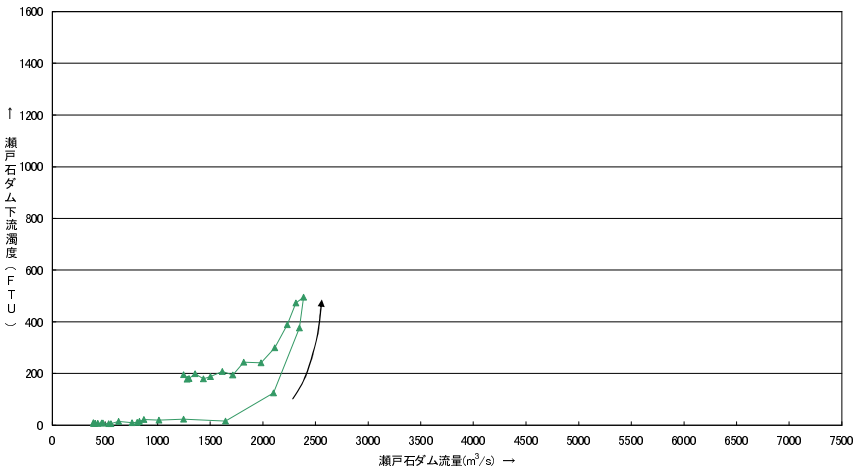
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2010/6/26-6/28



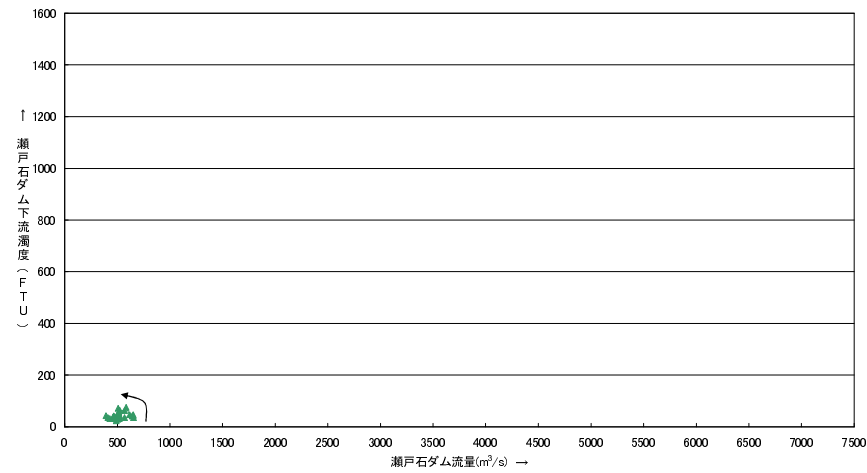
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2010/6/28-6/30



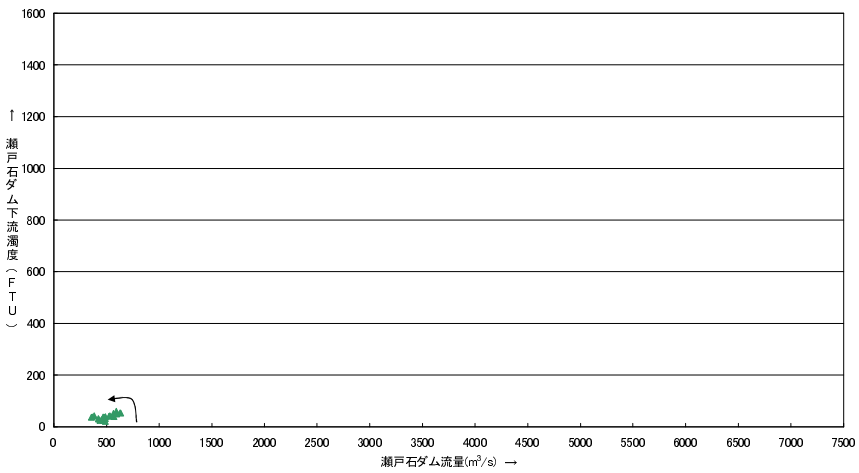
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2010/7/3-7/4



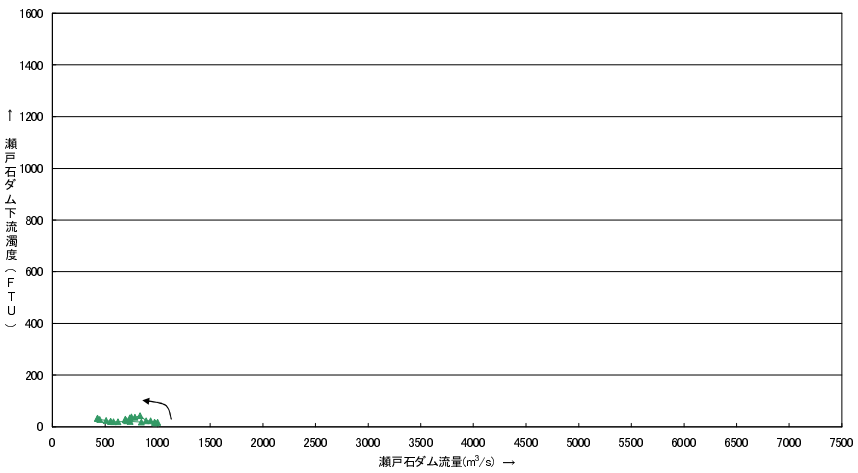
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2010/7/11-7/12



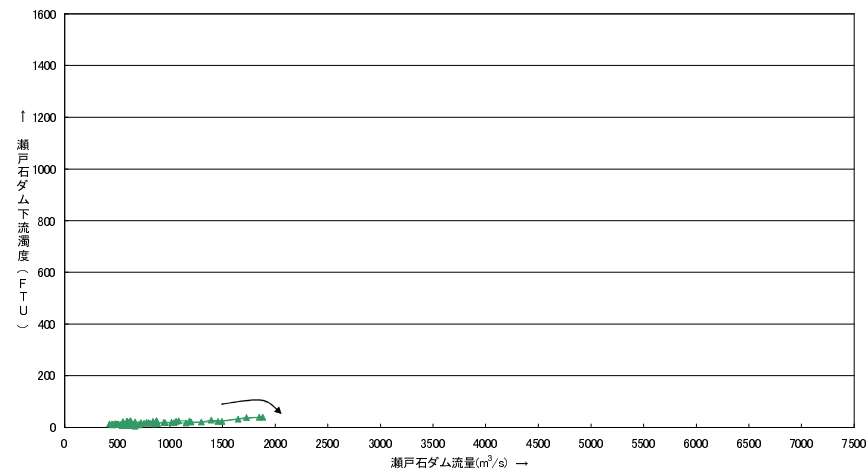
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2010/7/12-7/13



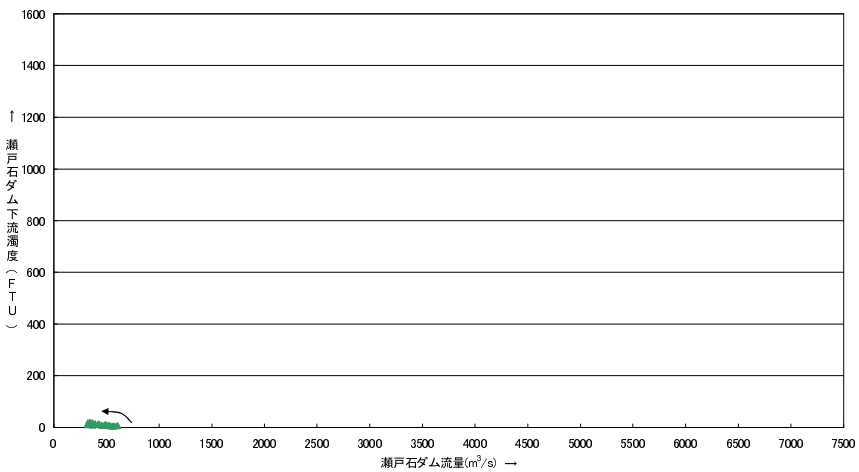
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2010/7/14-7/16



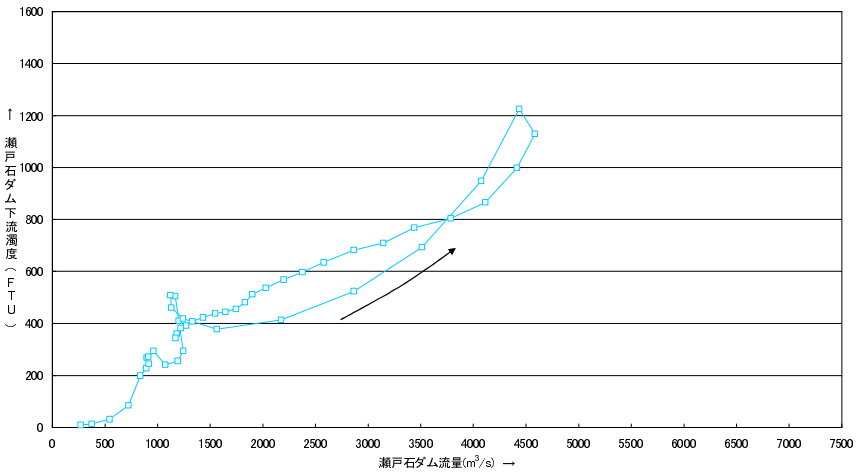
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2010/7/28-7/30

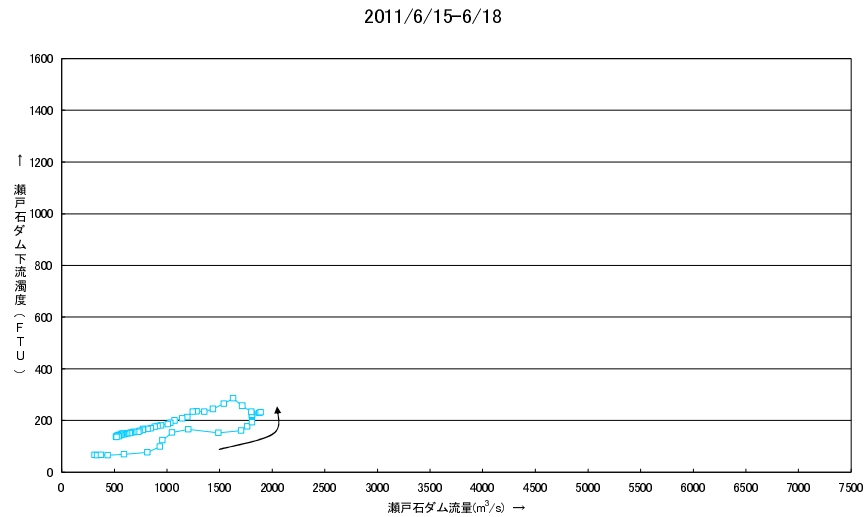


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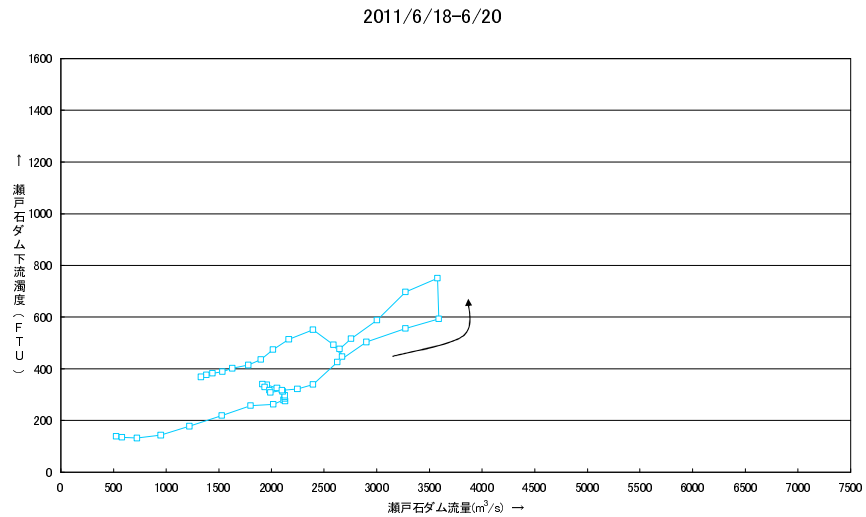
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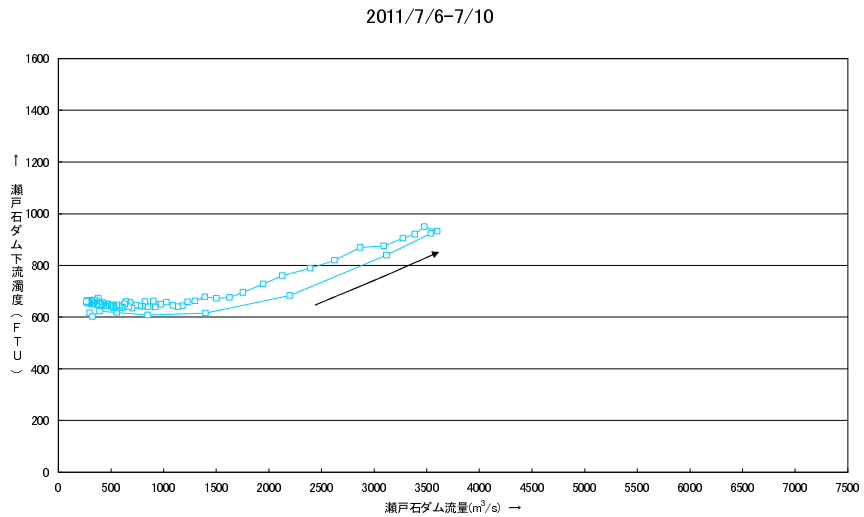
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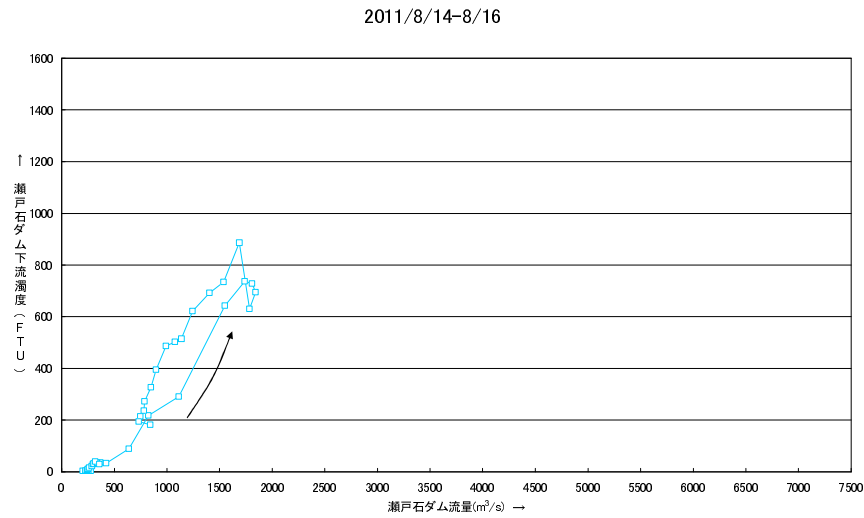
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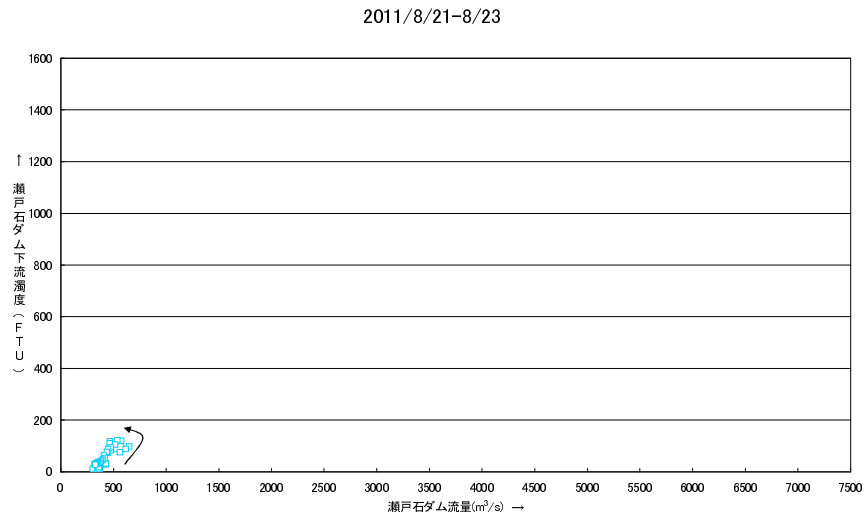
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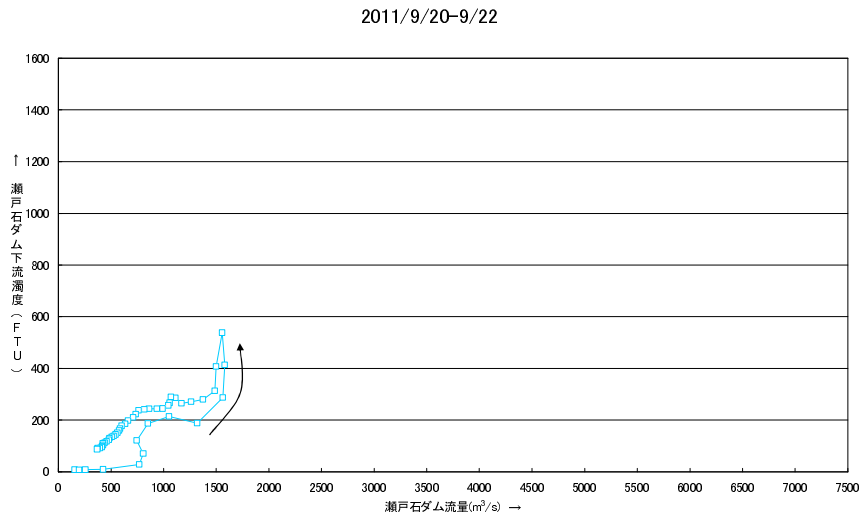
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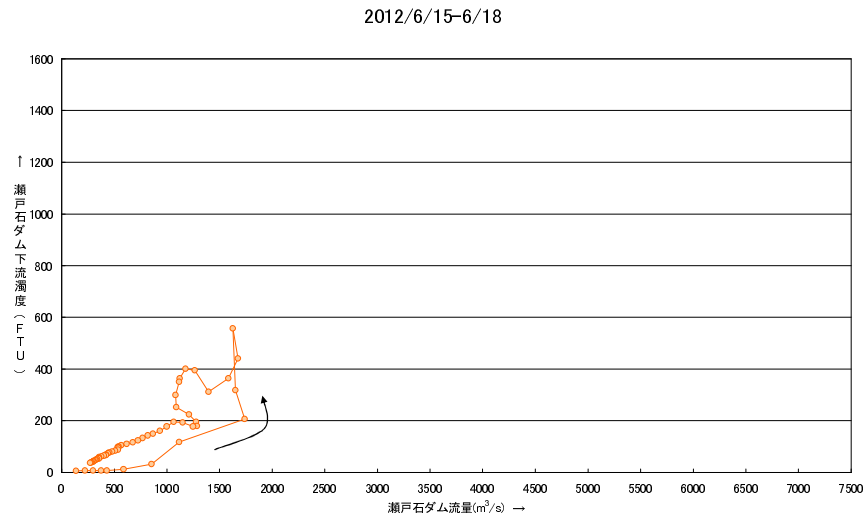
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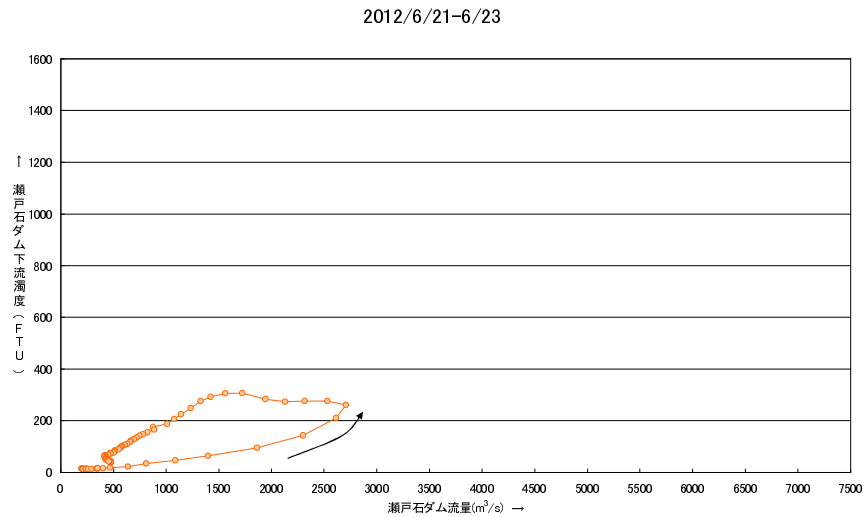
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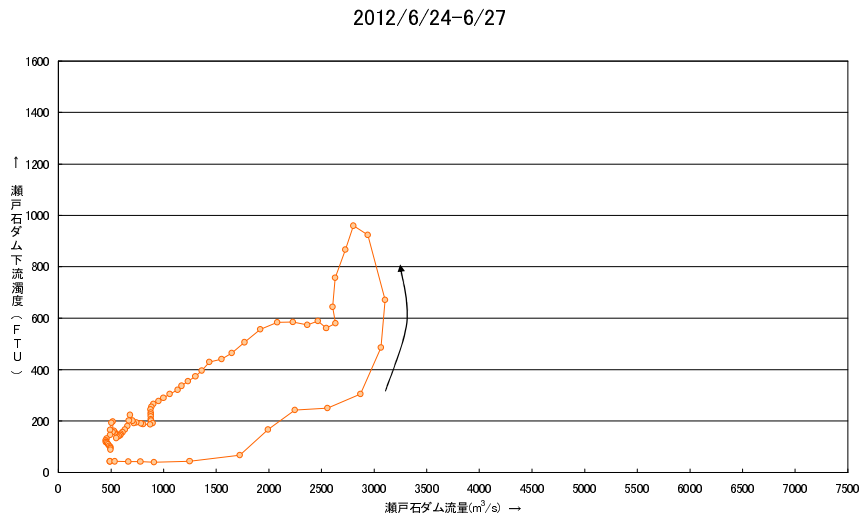
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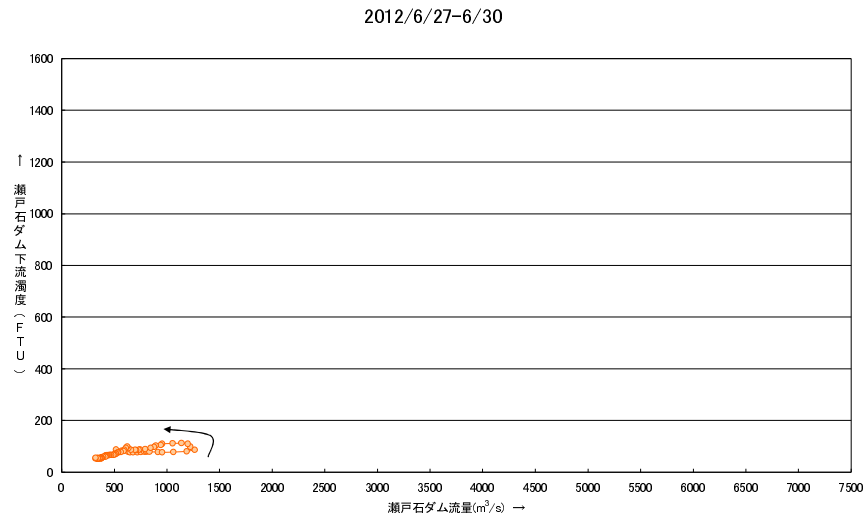
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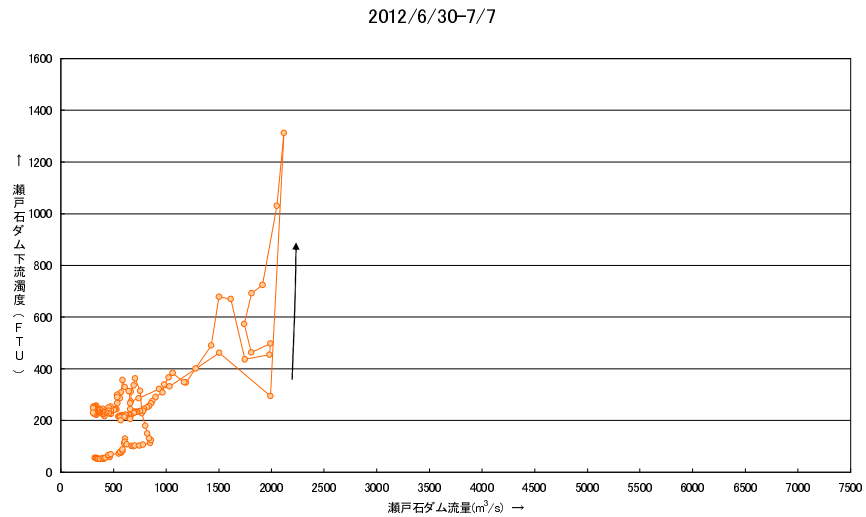
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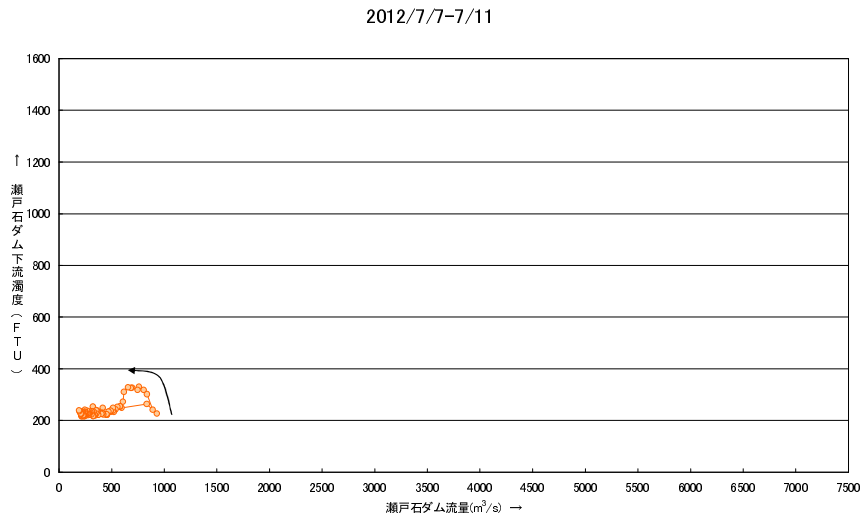
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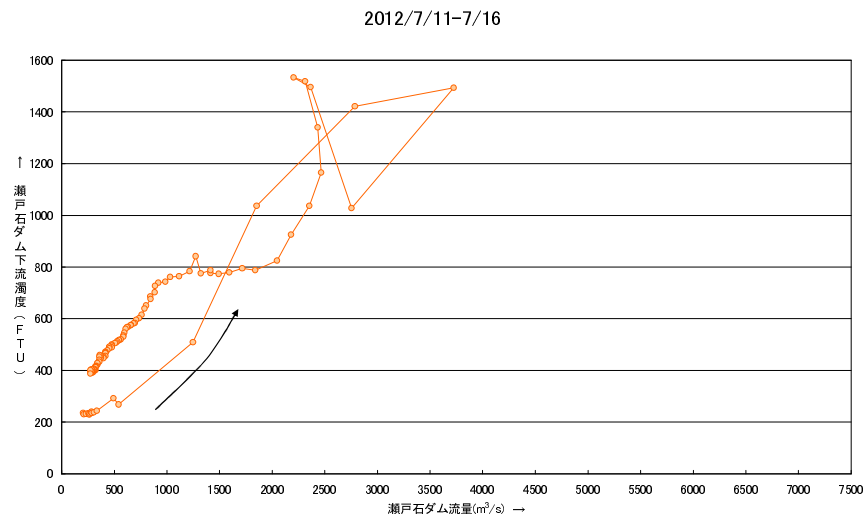
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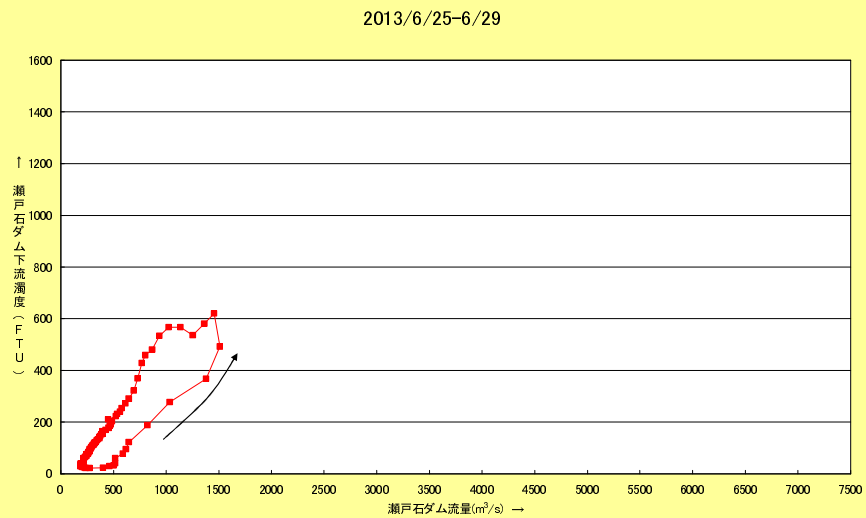
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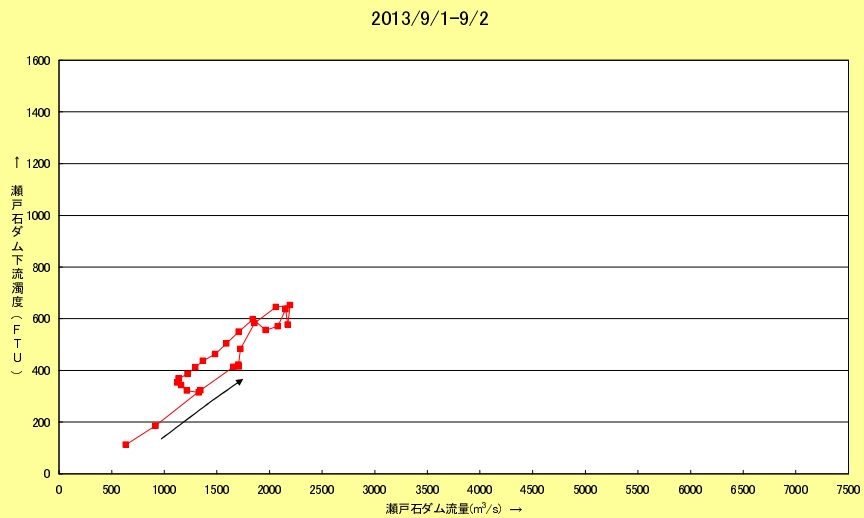
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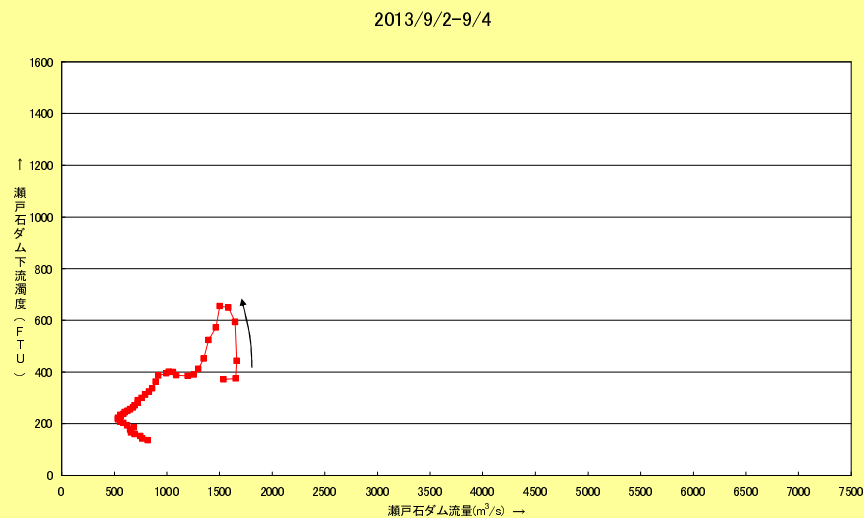
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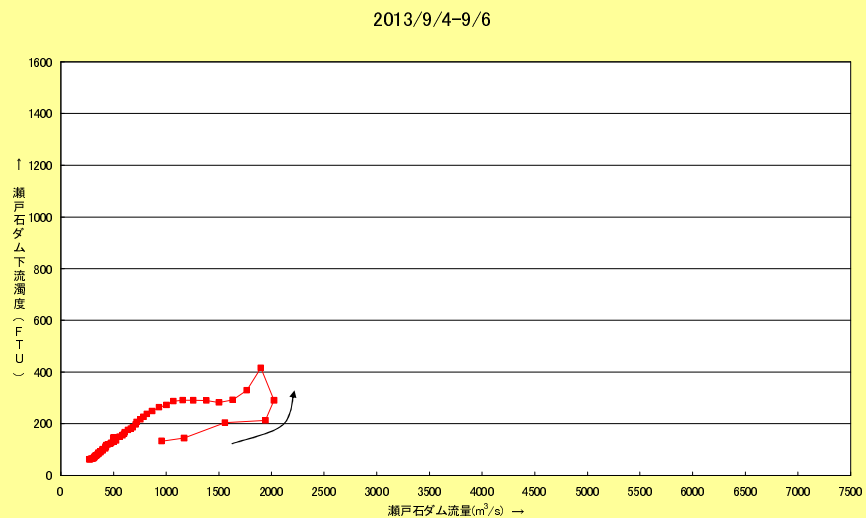
H25②



H25③



H25④



道の駅坂本

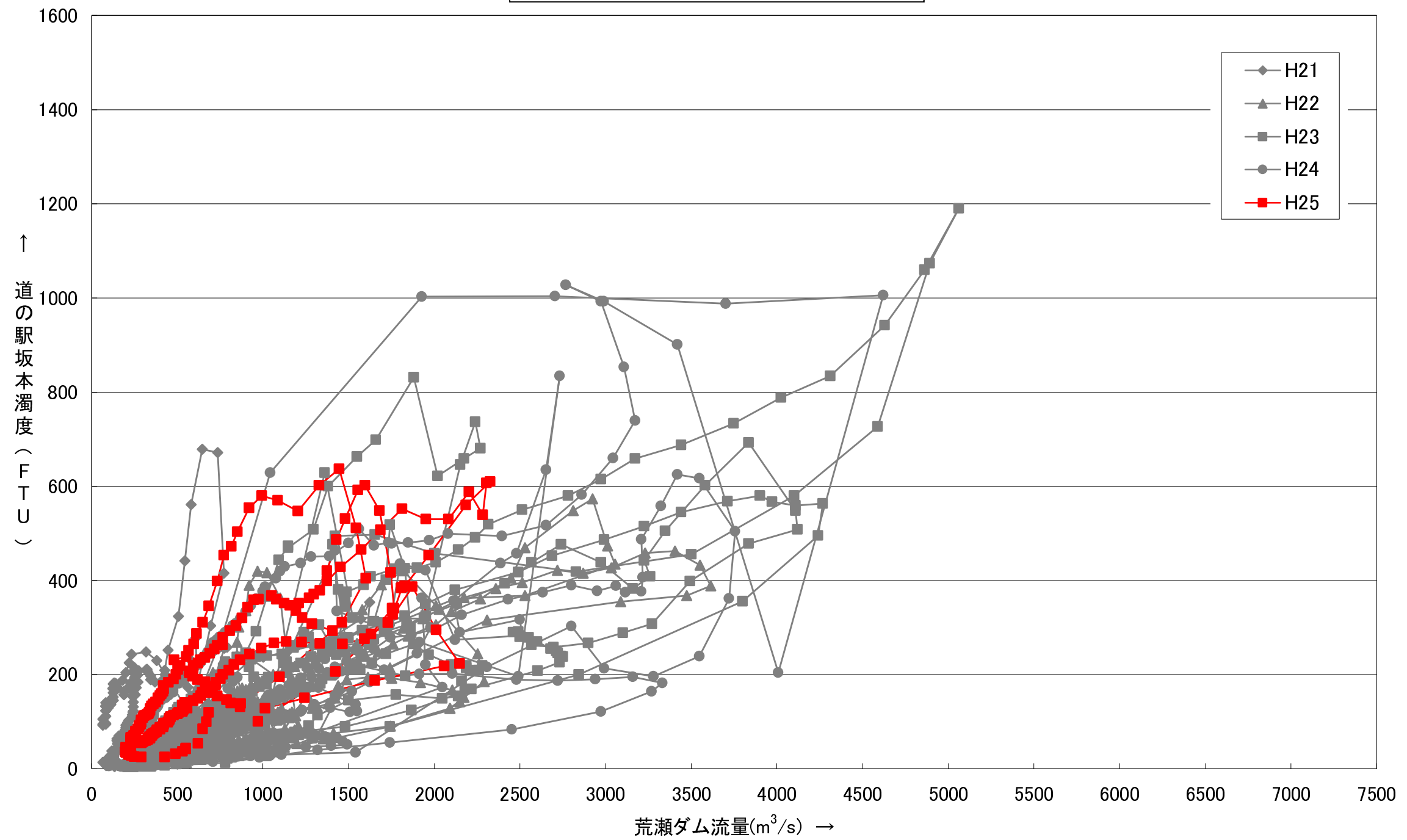
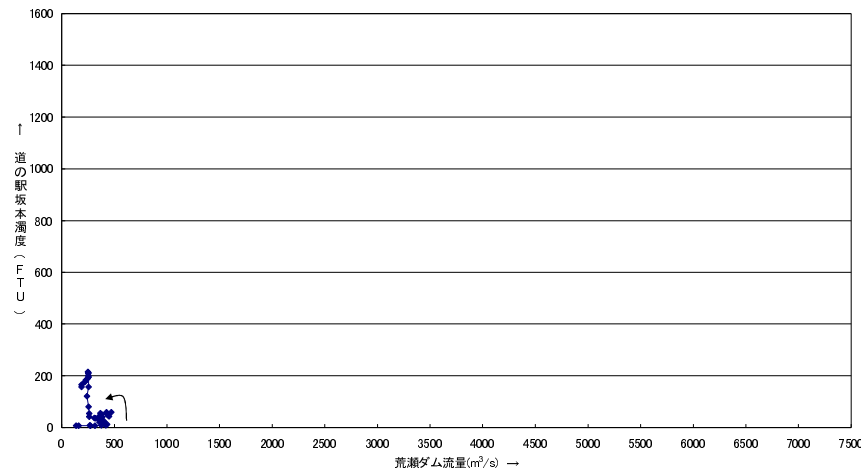


図 出水時の流量と濁度 (FTU) の時間的な変化 (道の駅坂本)

道の駅坂本

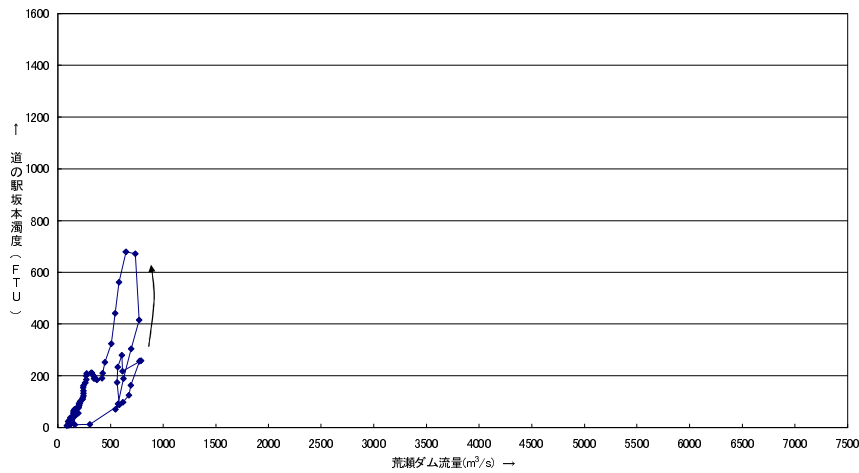
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2009/6/29-7/1



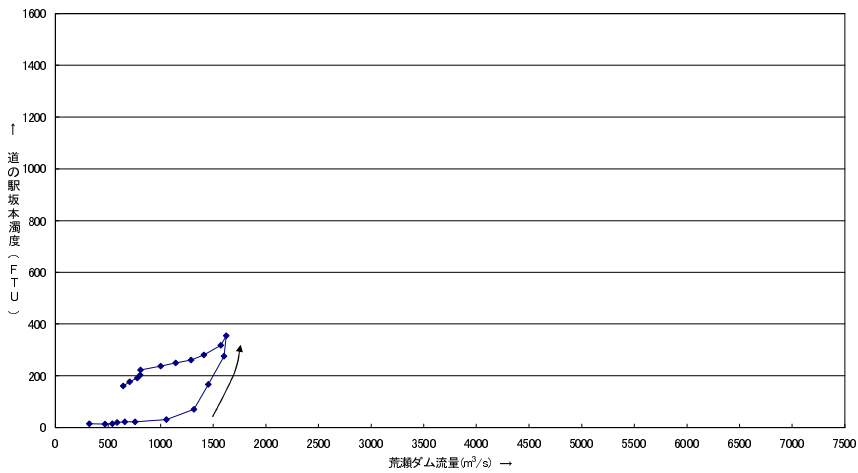
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2009/7/11-7/16



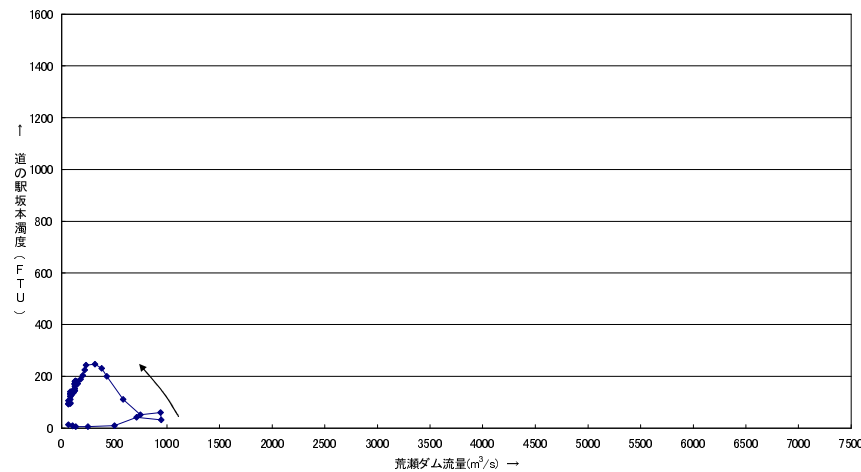
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2009/7/25-7/26



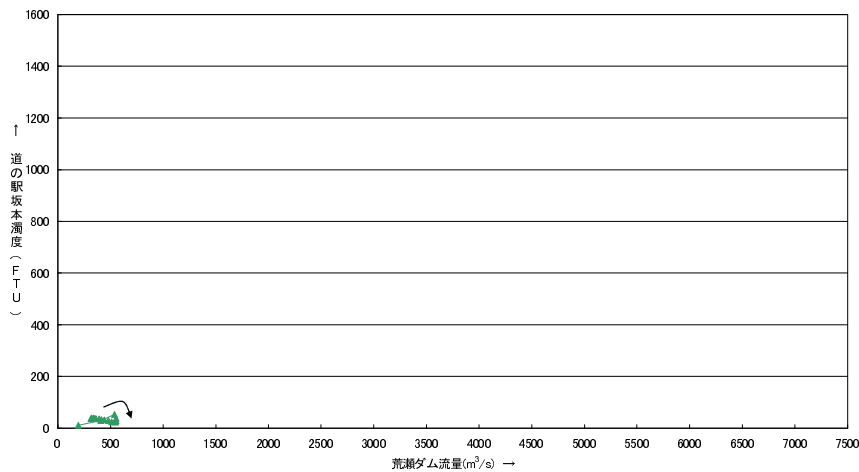
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2009/10/2-10/4



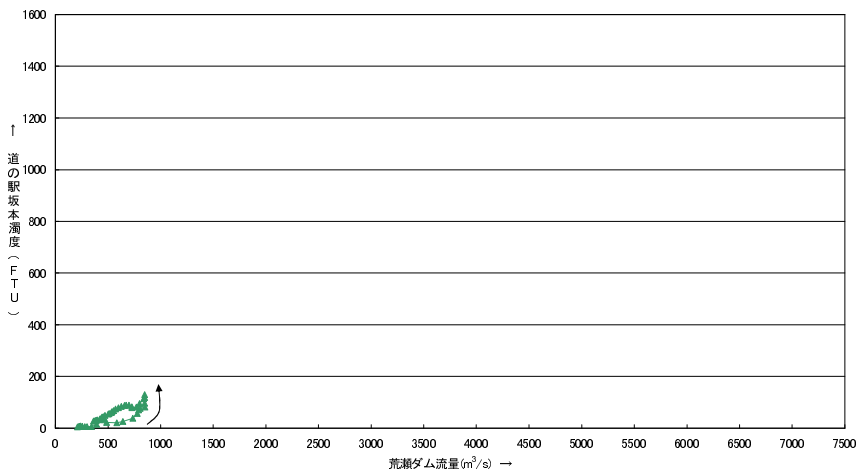
H22①

2010/4/20



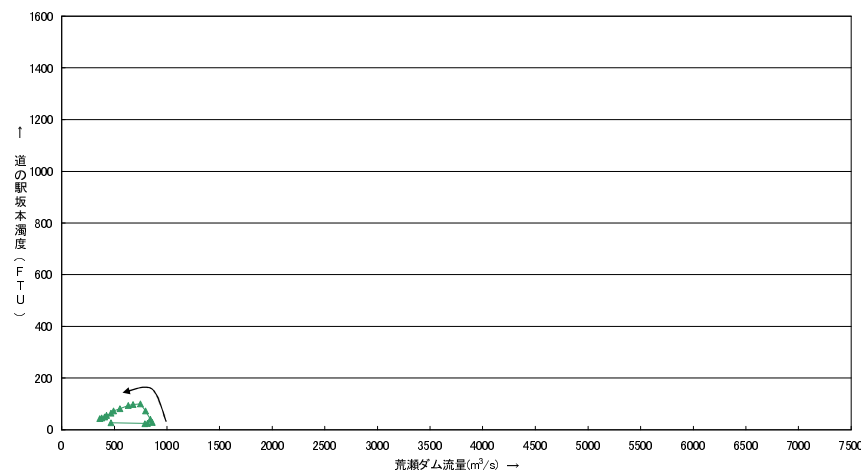
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2010/4/22-4/24



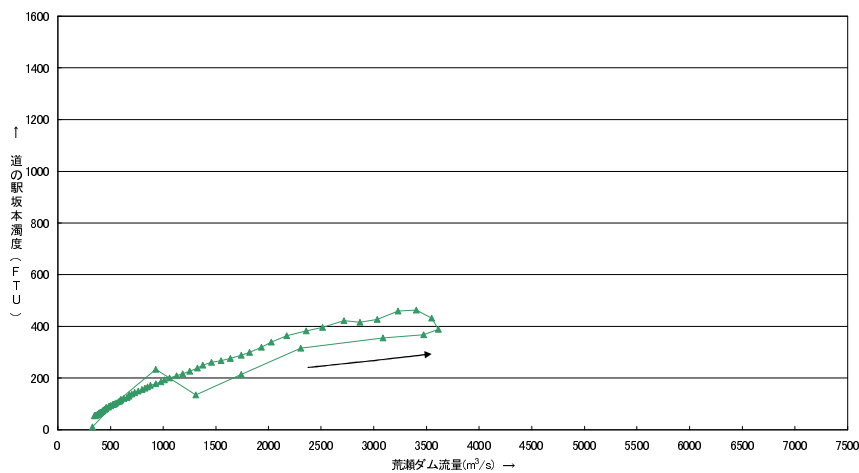
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2010/5/19-5/20



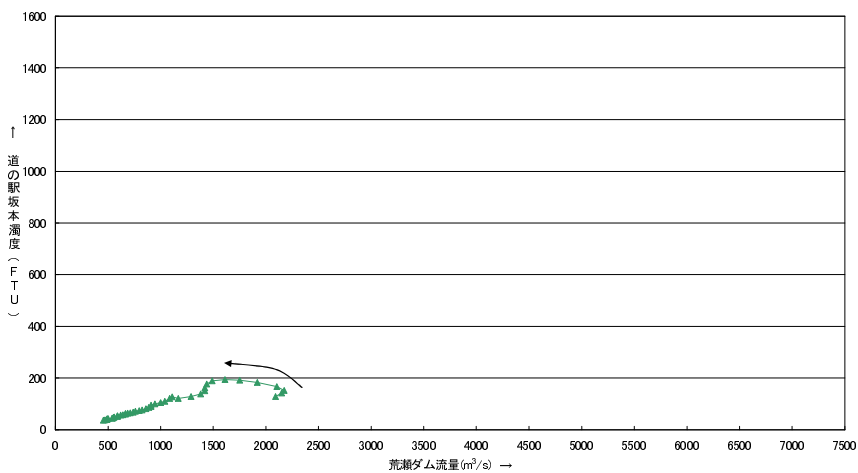
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2010/5/23-5/26



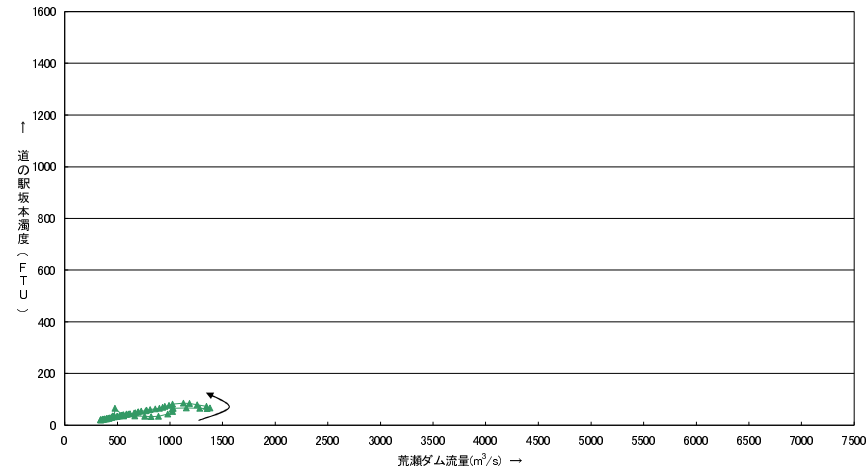
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2010/6/20-6/22



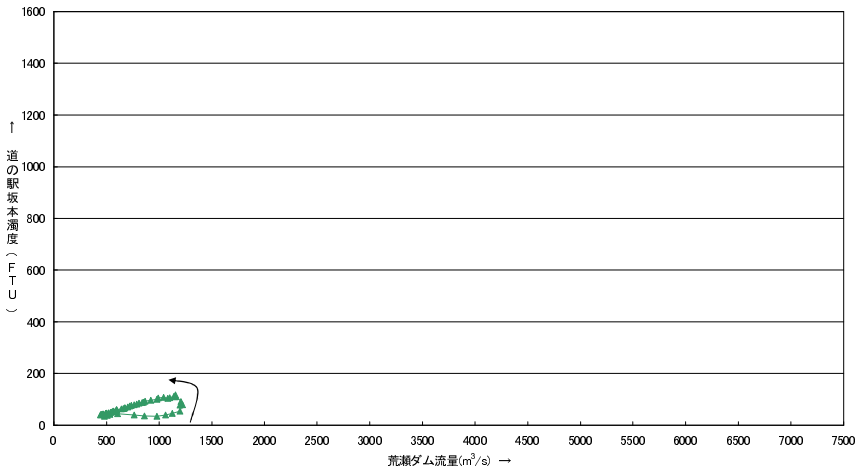
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2010/6/22-6/25



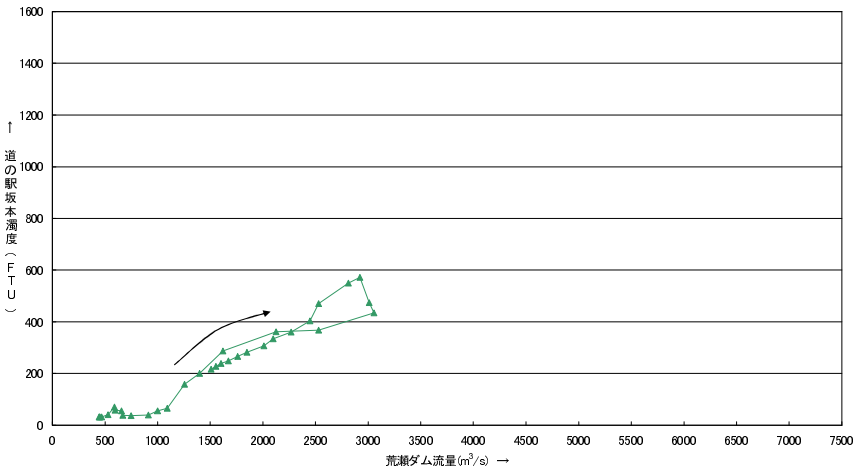
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2010/6/26-6/28



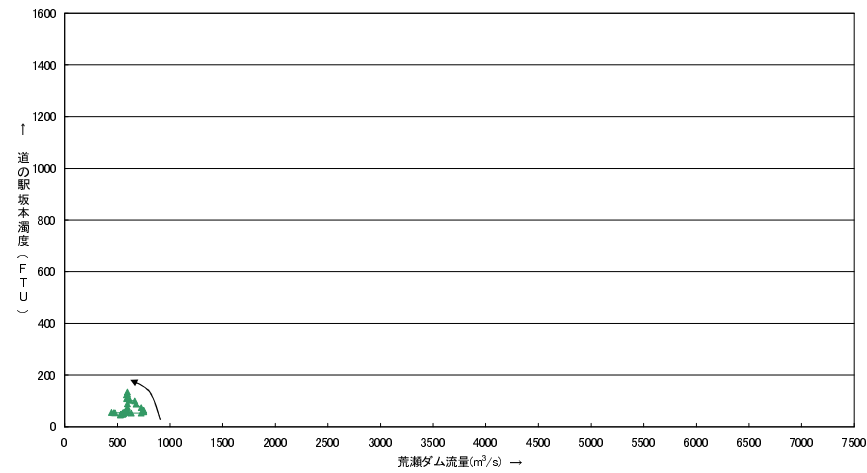
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2010/6/28-6/30



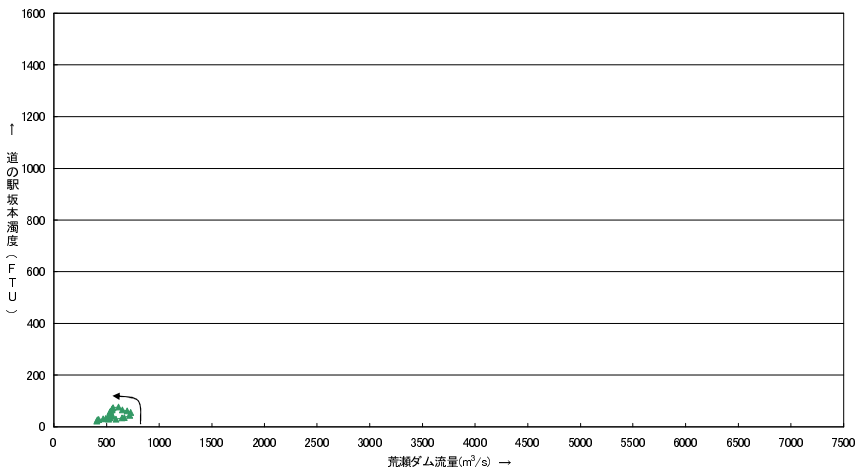
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2010/7/3-7/4



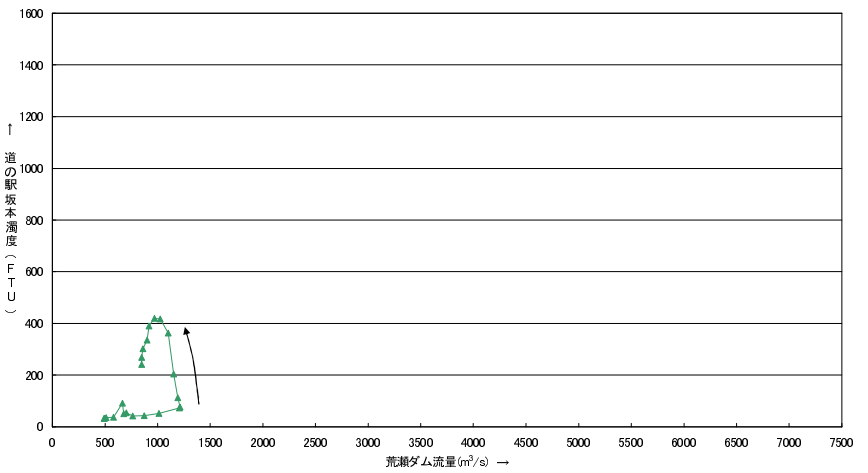
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2010/7/11-7/12



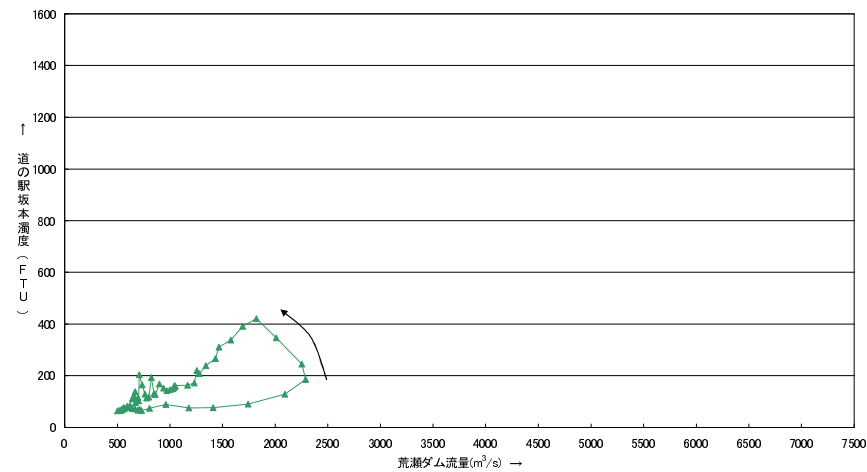
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2010/7/12-7/13



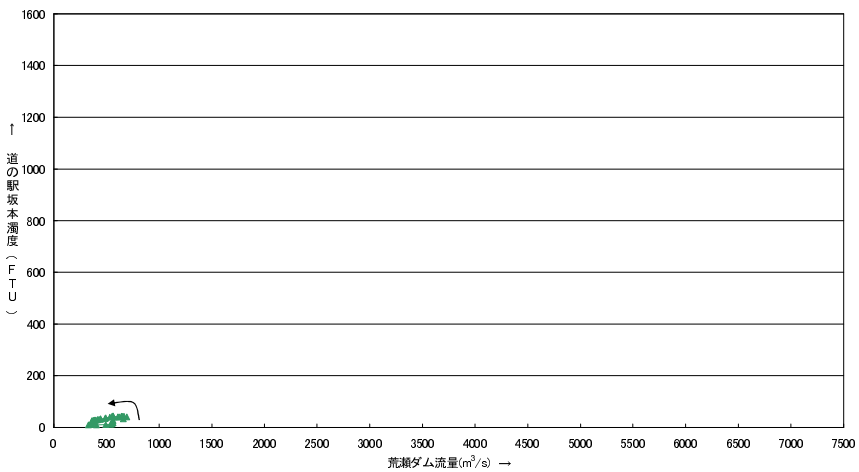
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2010/7/14-7/16



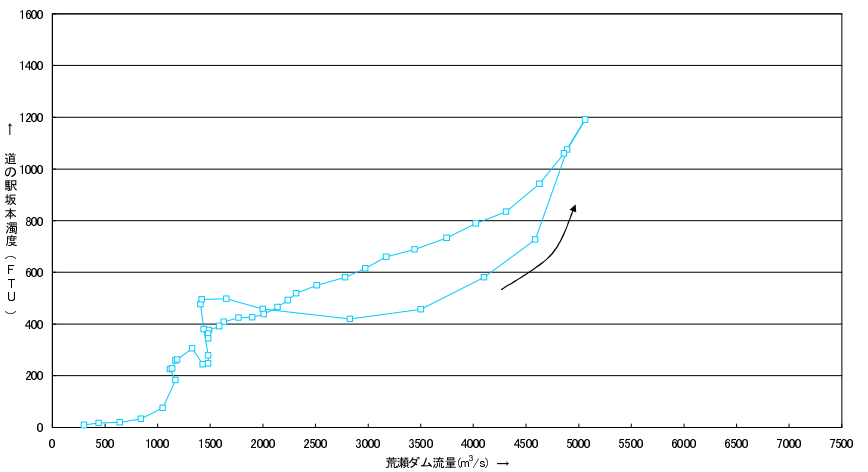
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2010/7/28-7/30

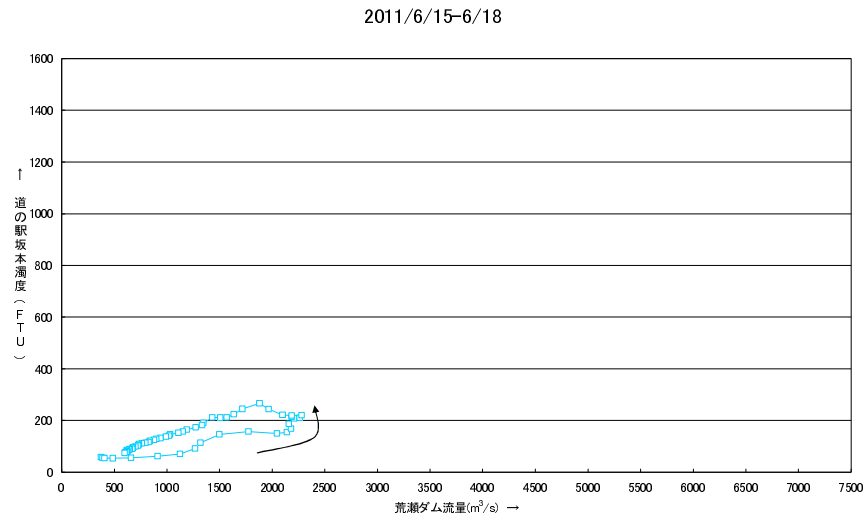


H23①

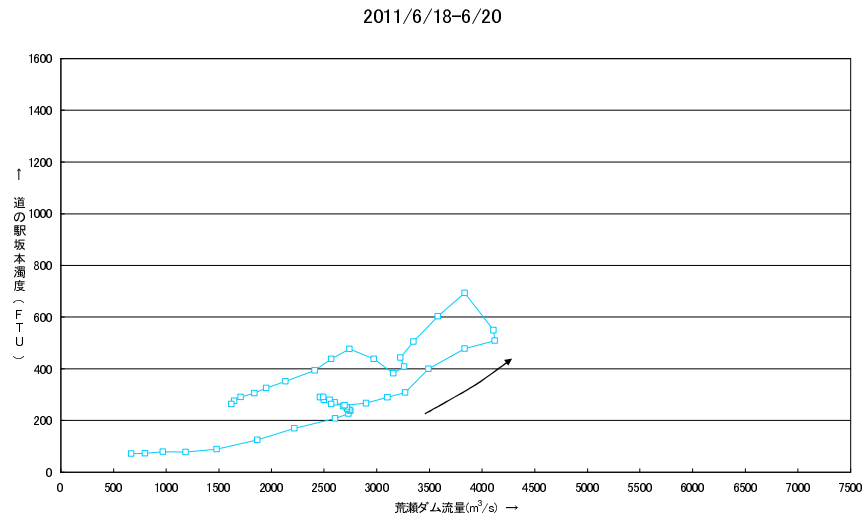
2011/6/10-6/12



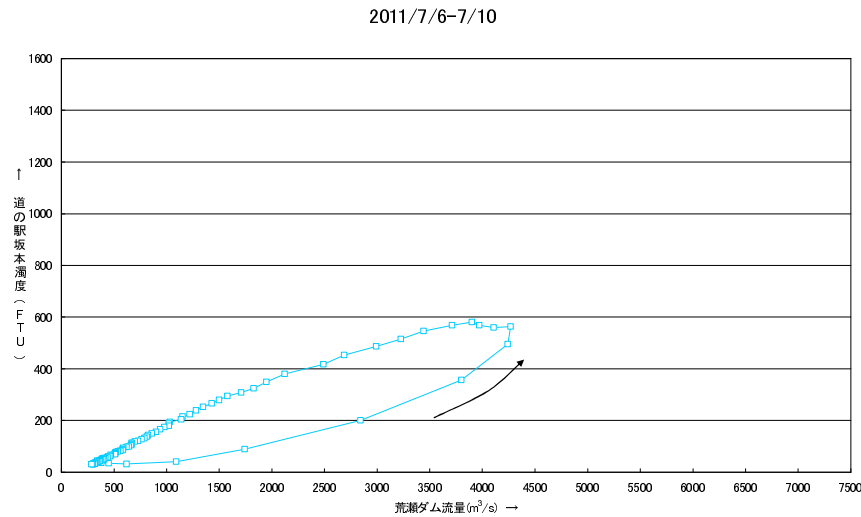
H23②



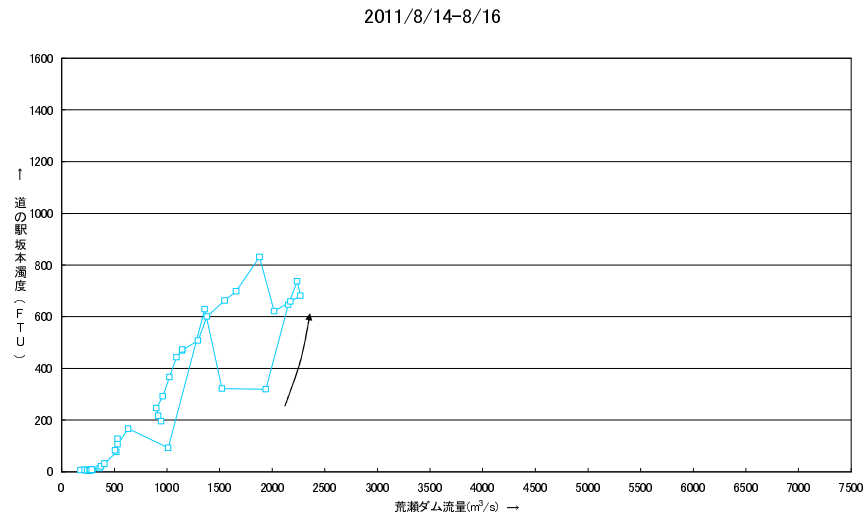
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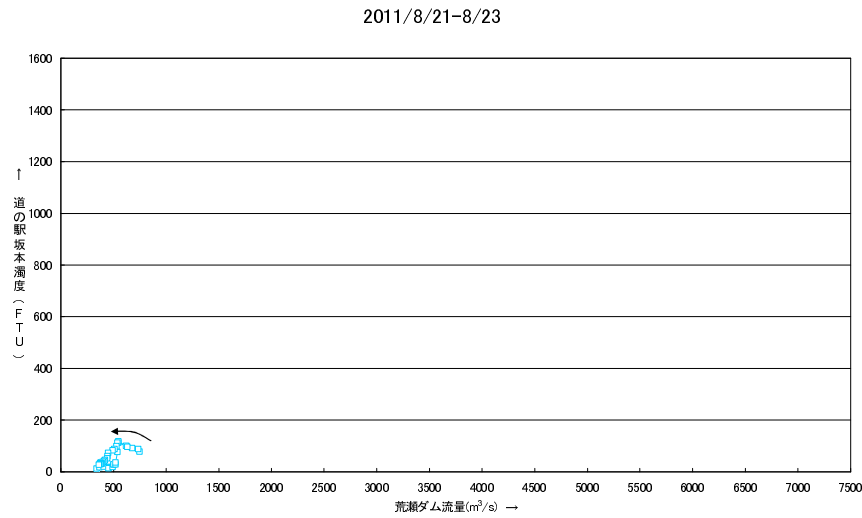
H23④



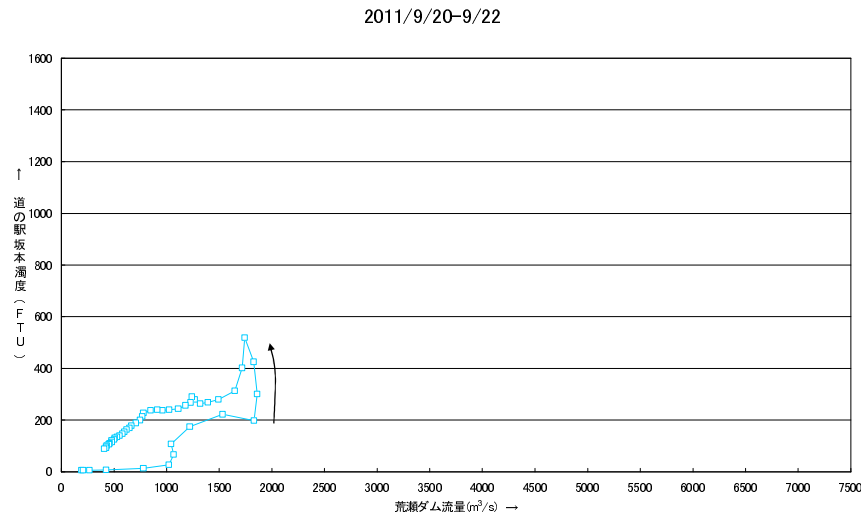
H23⑤



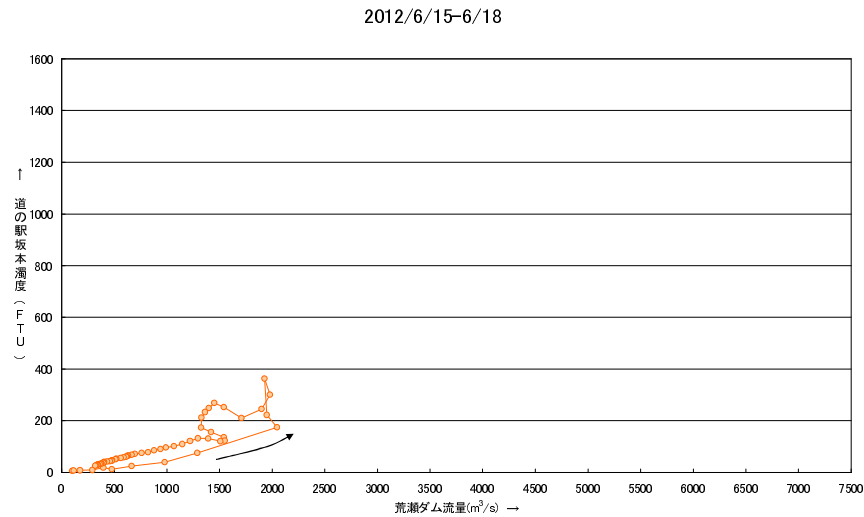
H23⑥



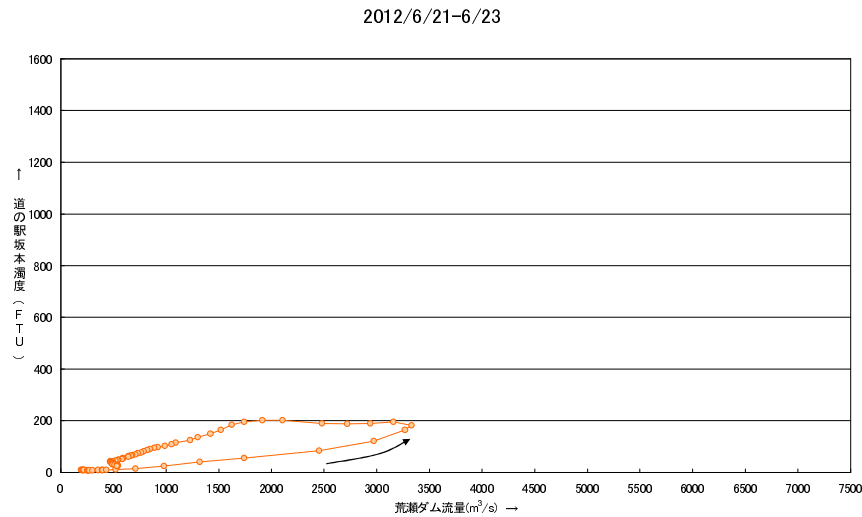
H23⑦



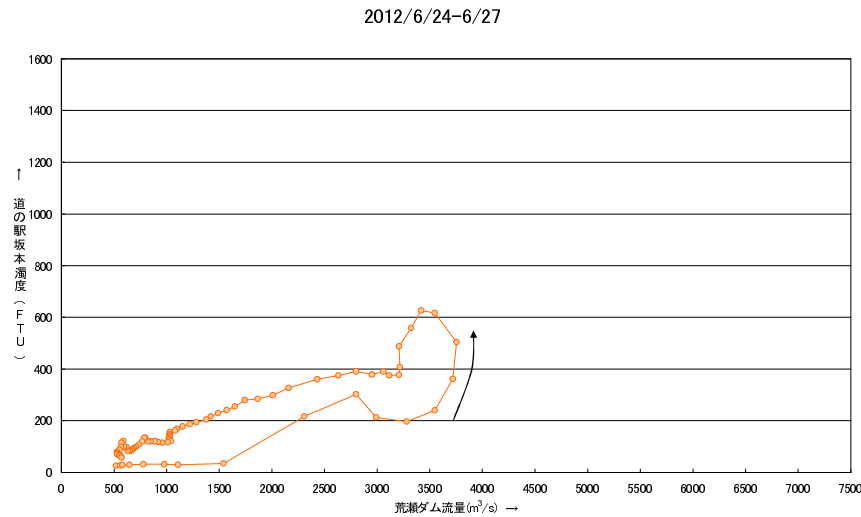
H24①



H24②

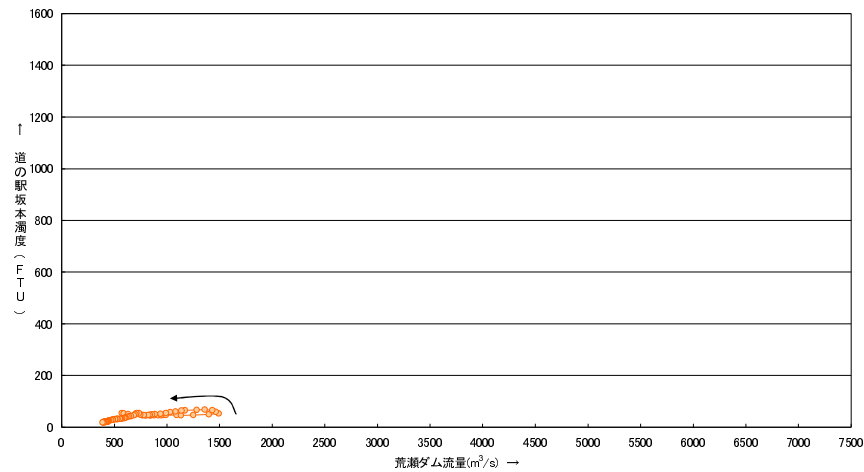


H24③



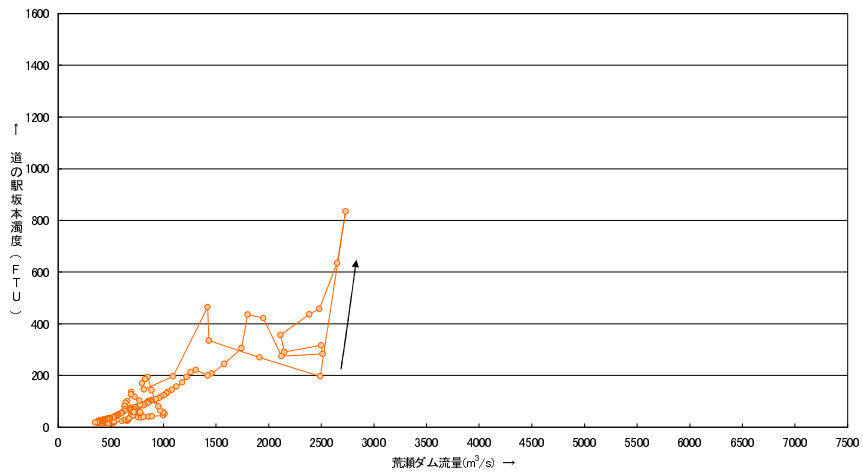
H24④

2012/6/27-6/30



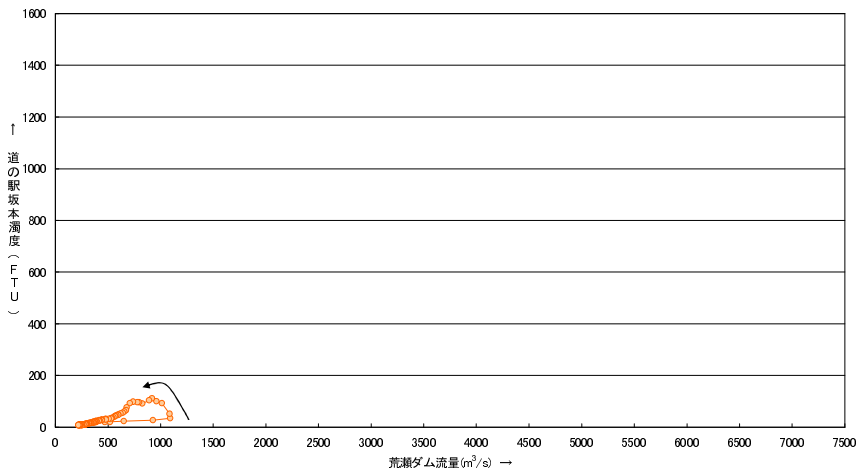
H24⑤

2012/6/30-7/7



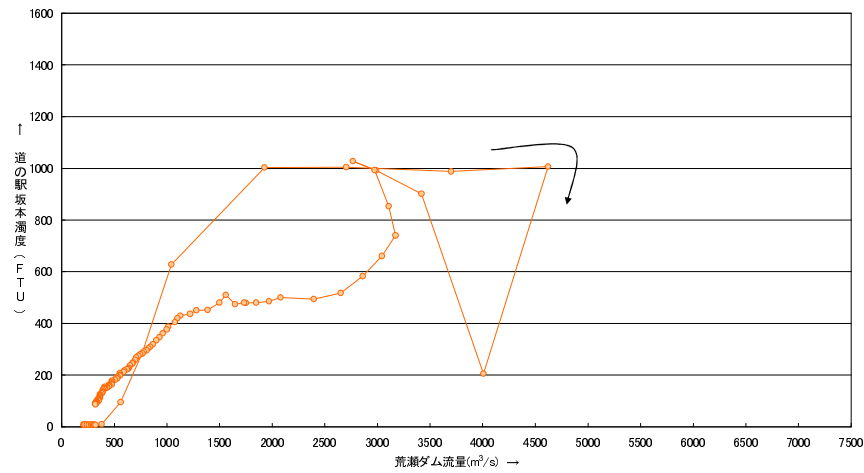
H24⑥

2012/7/7-7/11



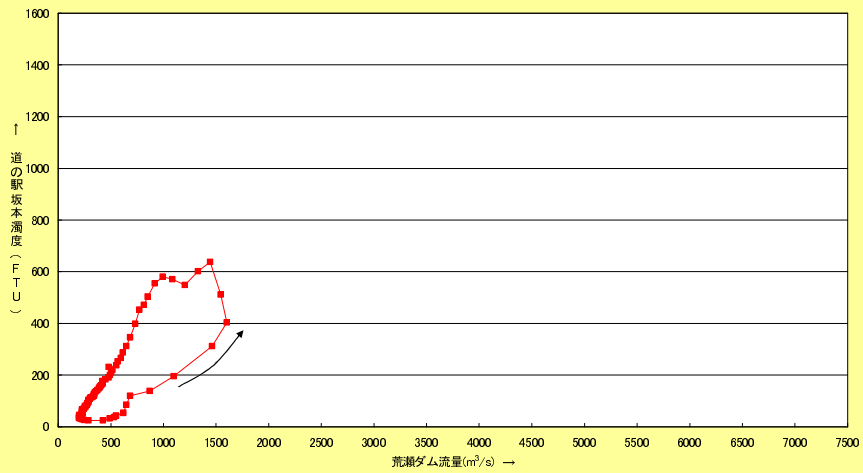
H24⑦

2012/7/11-7/16



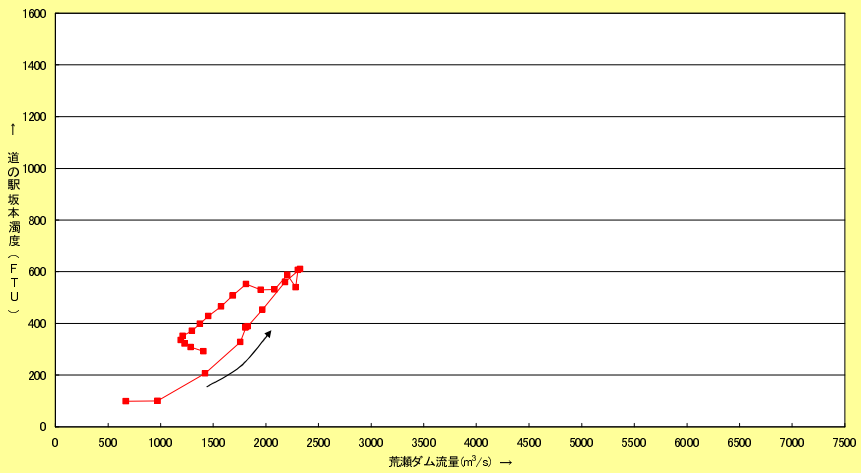
H25①

2013/6/25-6/29



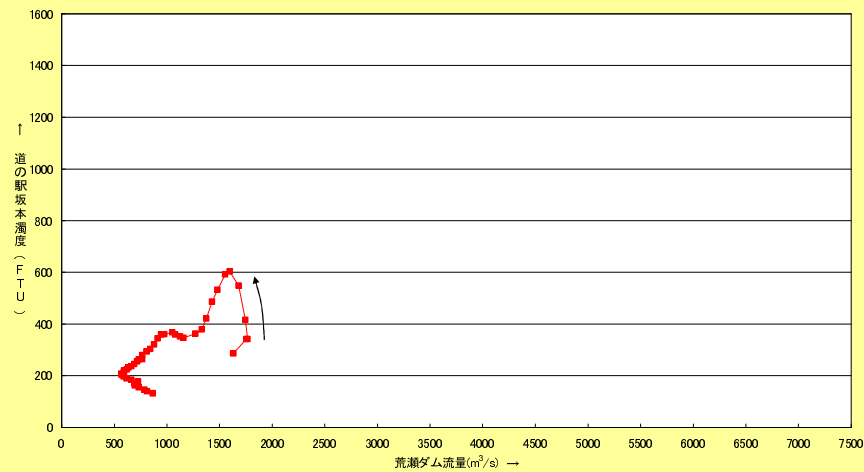
H25②

2013/9/1-9/2



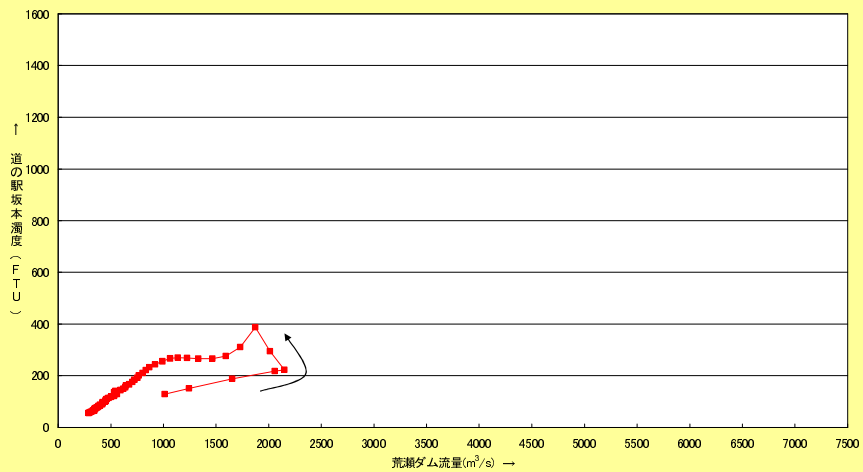
H25③

2013/9/2-9/4



H25④

2013/9/4-9/6



横 石

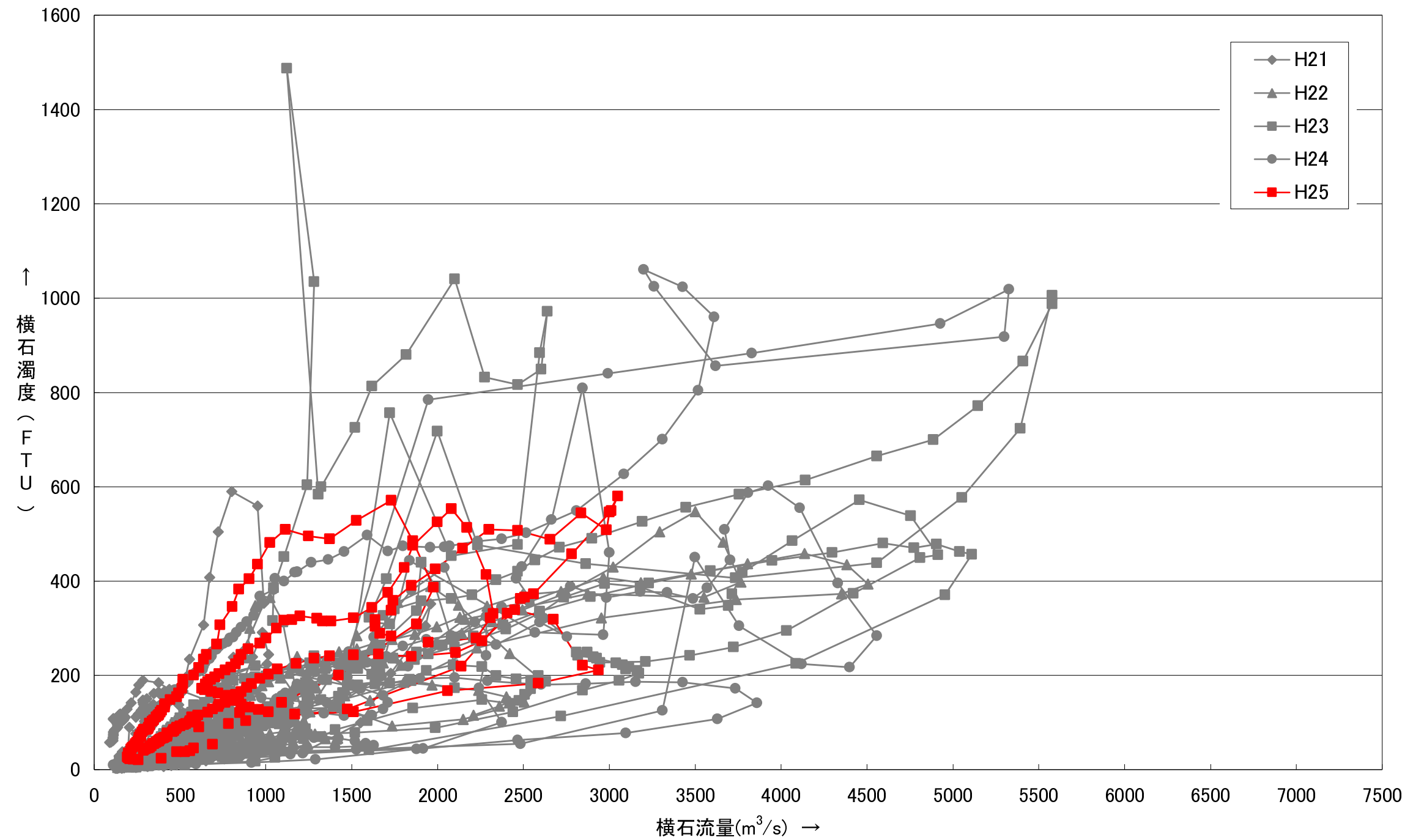
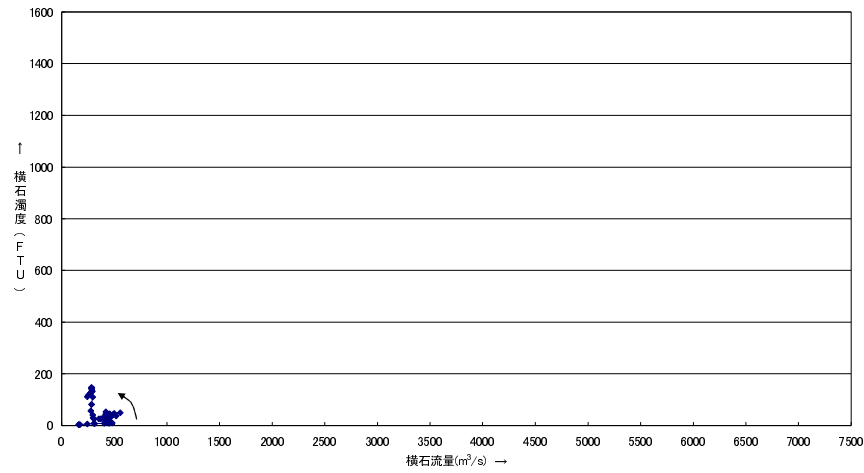


図 出水時の流量と濁度 (FTU) の時間的な変化 (横石)

横石

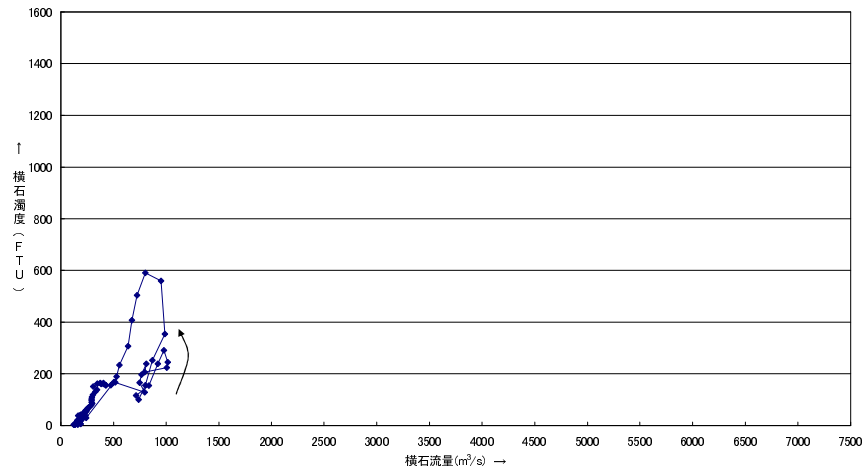
H21①

2009/6/29-7/1



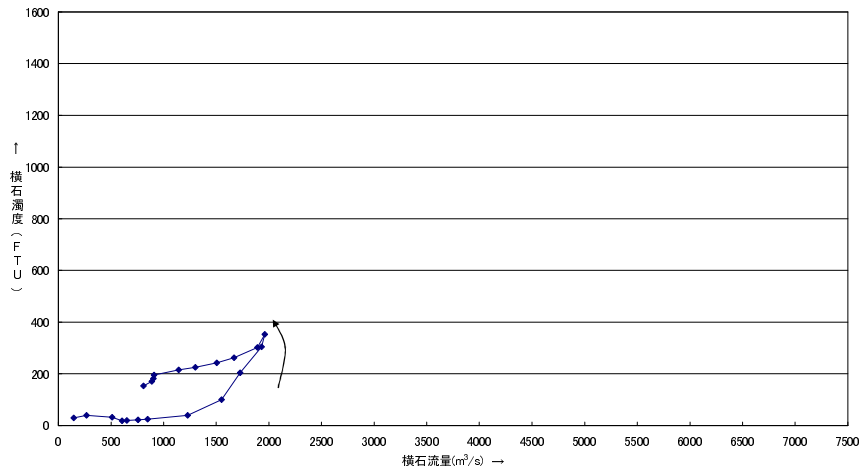
H21②

2009/7/11-7/16



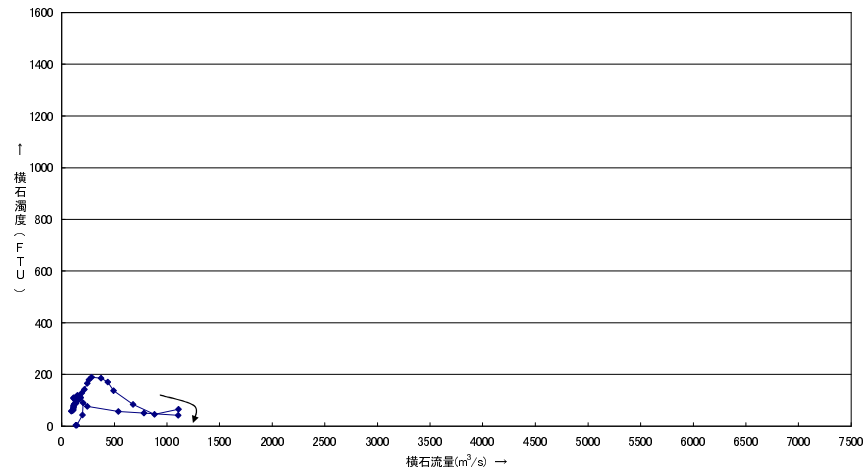
H21③

2009/7/25-7/26



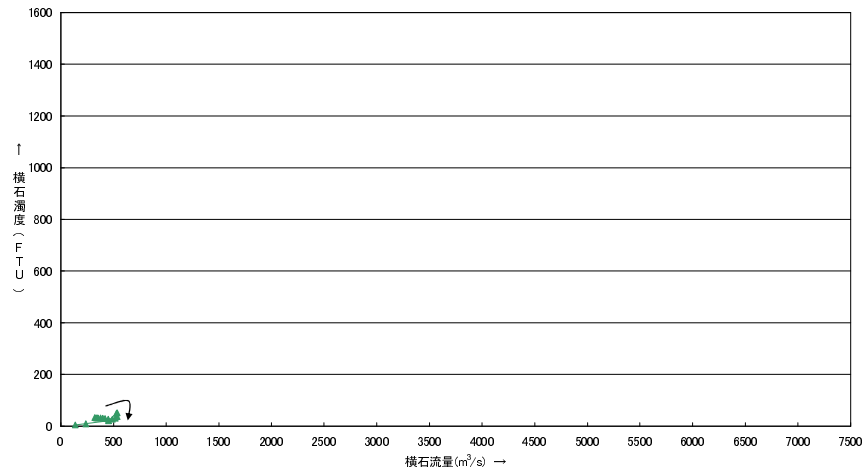
H21④

2009/10/2-10/4



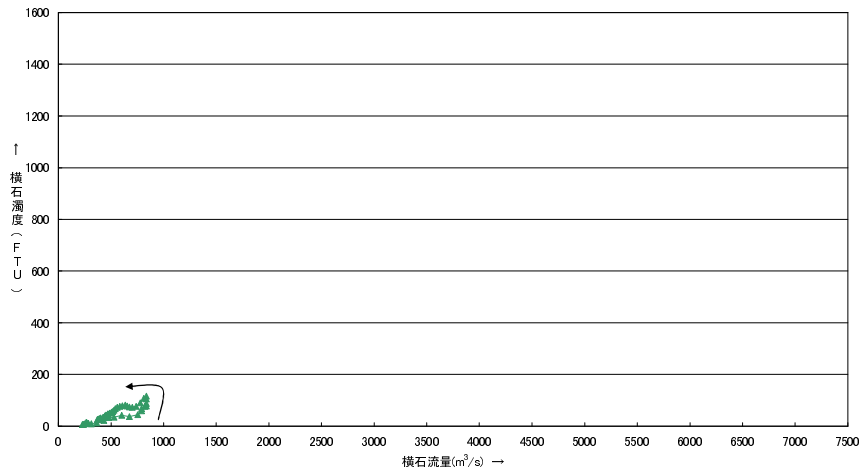
H22①

2010/4/20



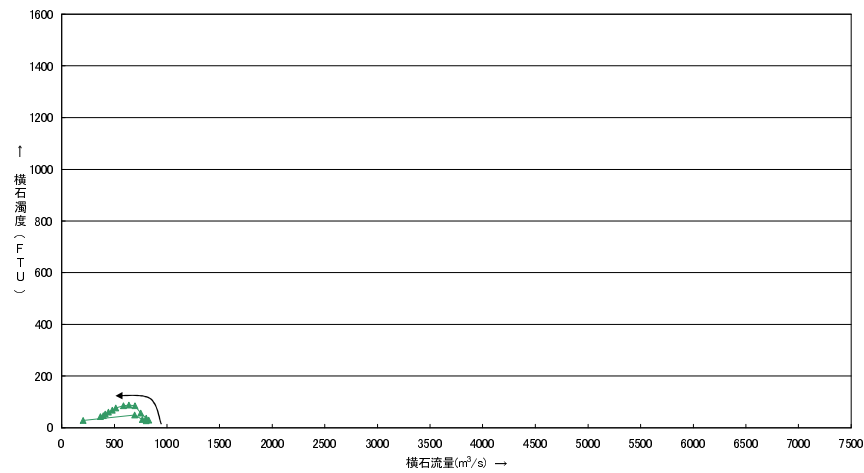
H22②

2010/4/22-4/24



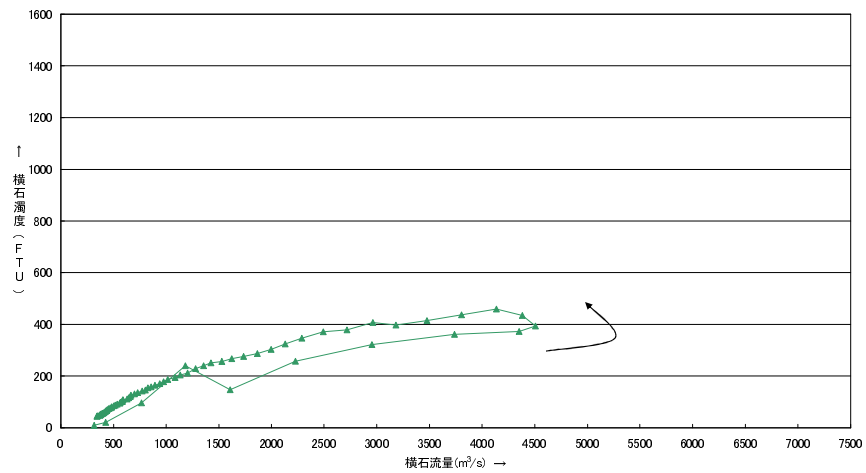
H22③

2010/5/19-5/20



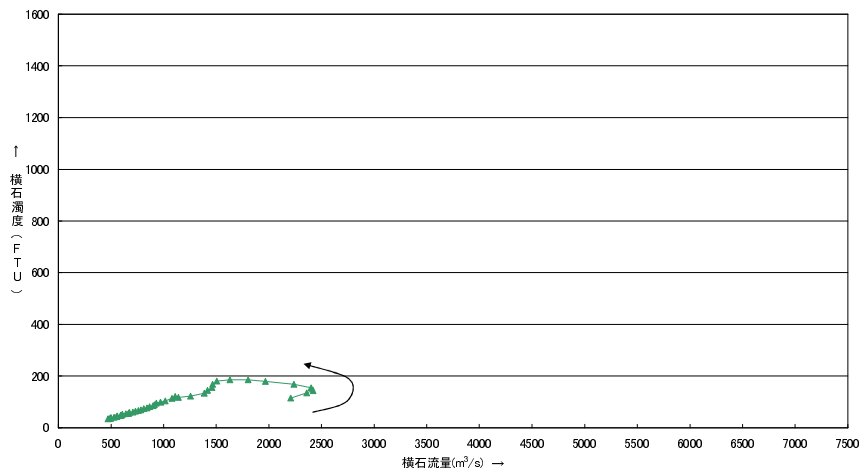
H22④

2010/5/23-5/26

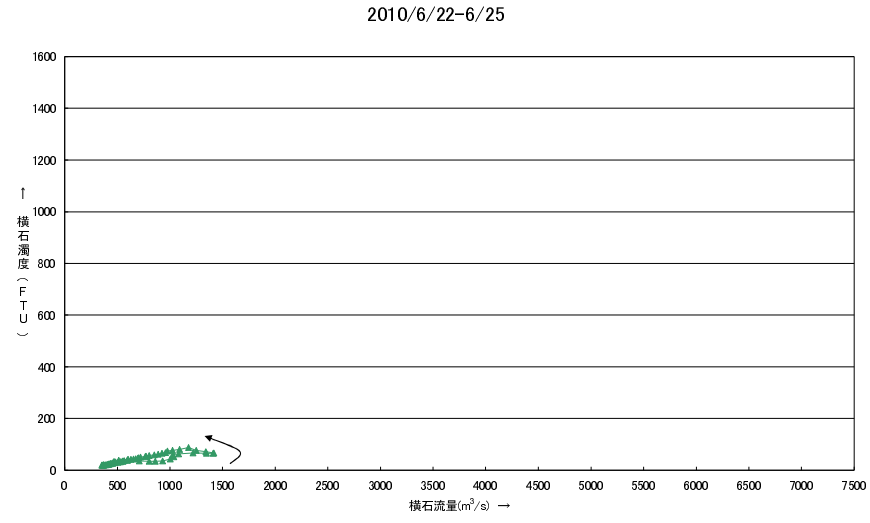


H22⑤

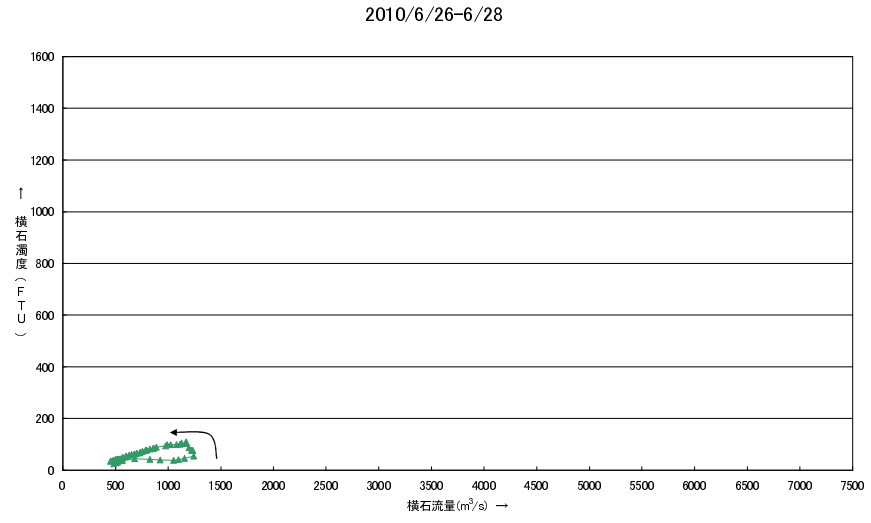
2010/6/20-6/22



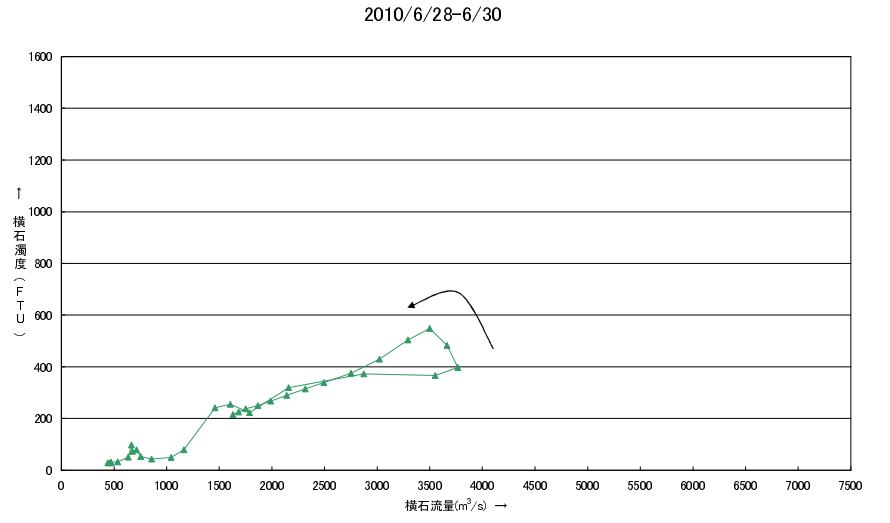
H22⑥



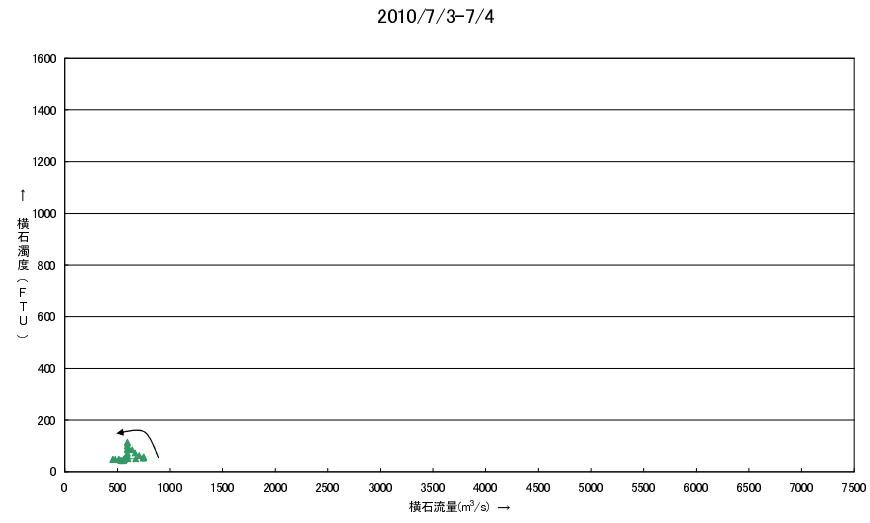
H22⑦



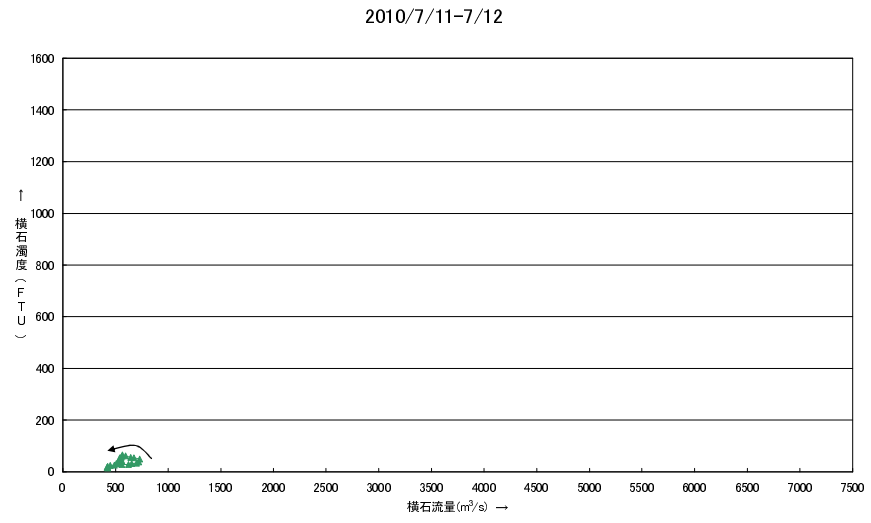
H22⑧



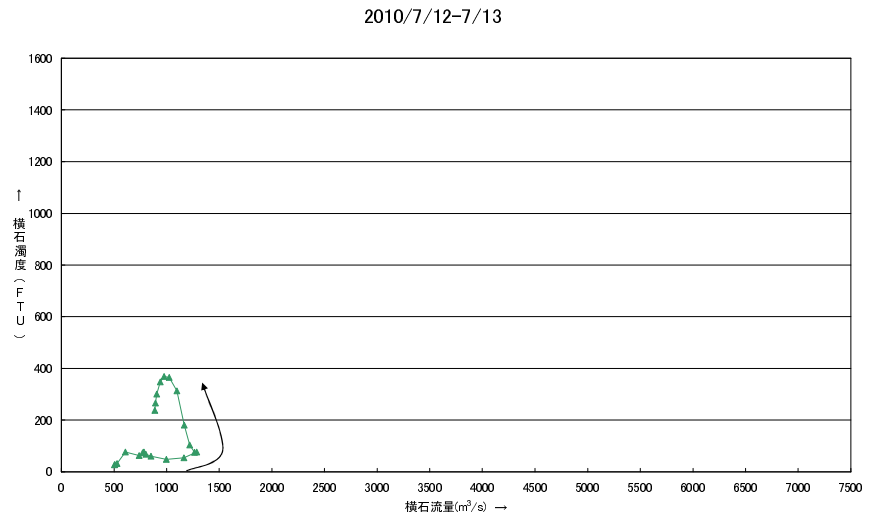
H22⑨



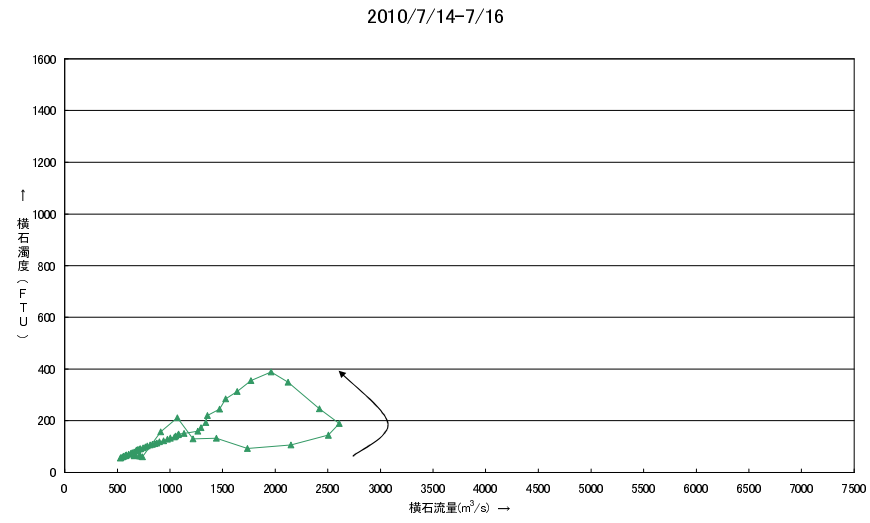
H22⑩



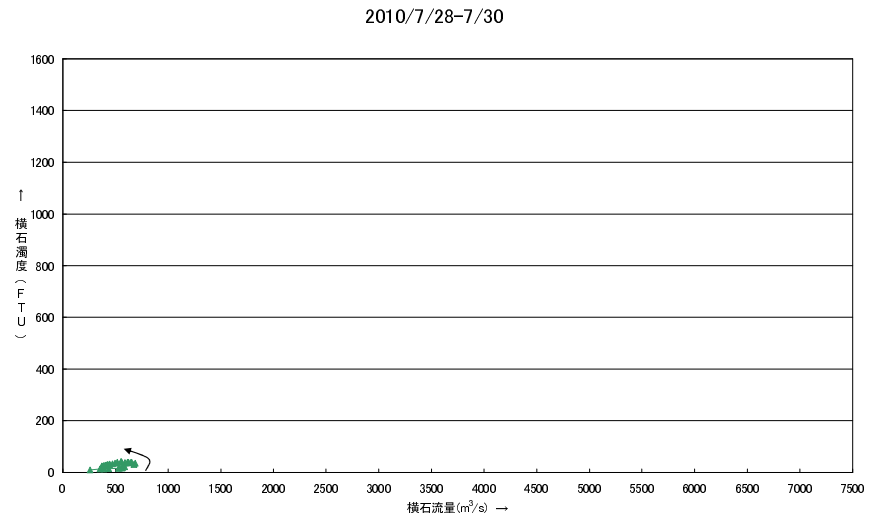
H22⑪



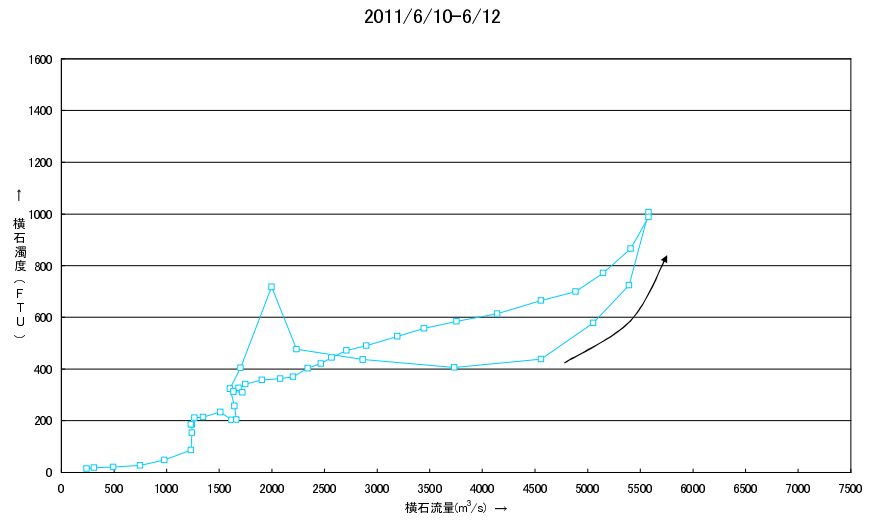
H22⑫



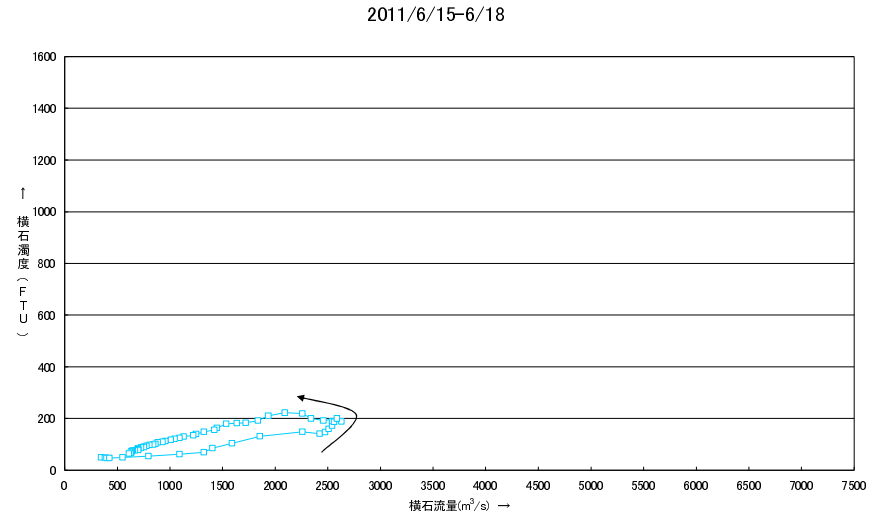
H22⑬



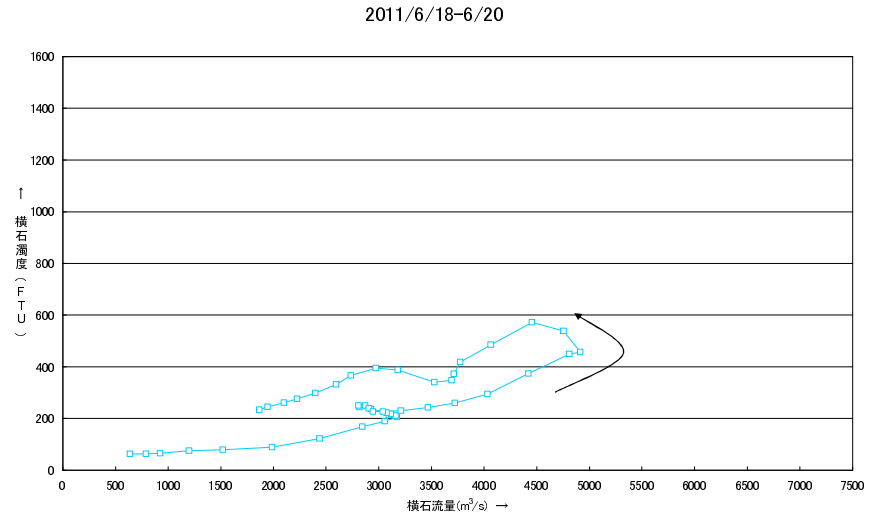
H23①



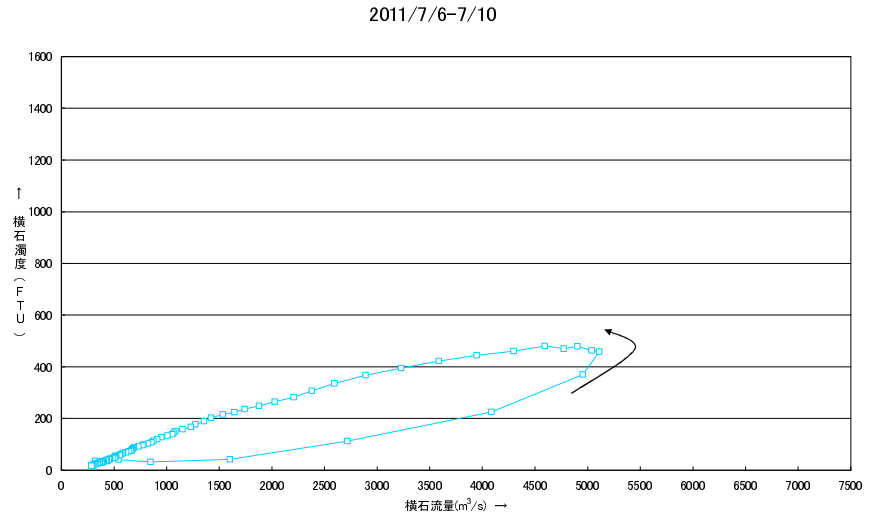
H23②



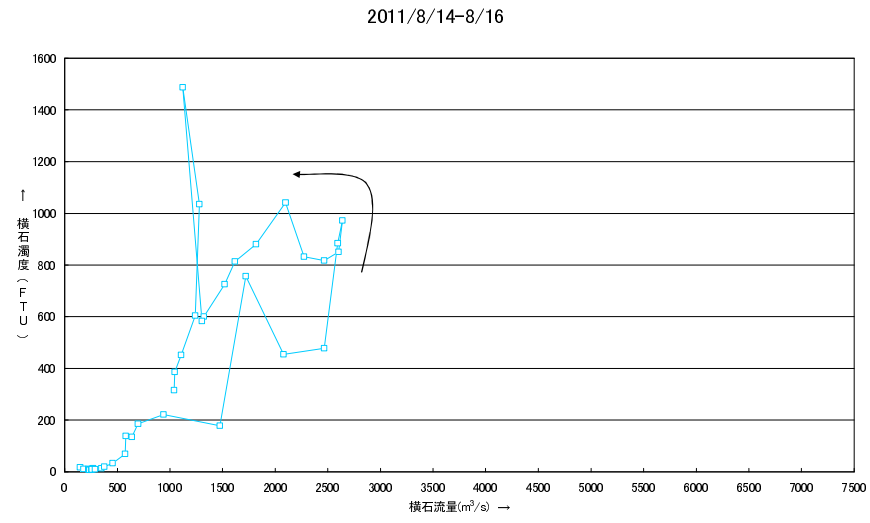
H23③



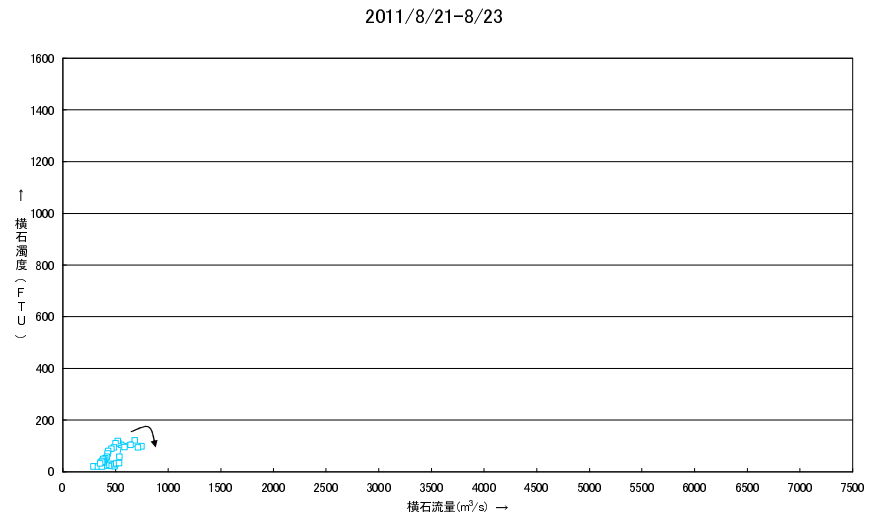
H23④



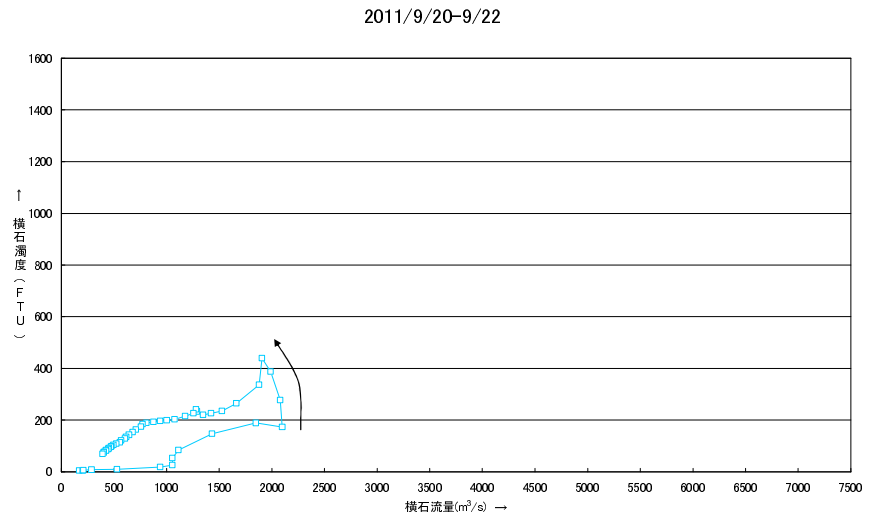
H23⑤



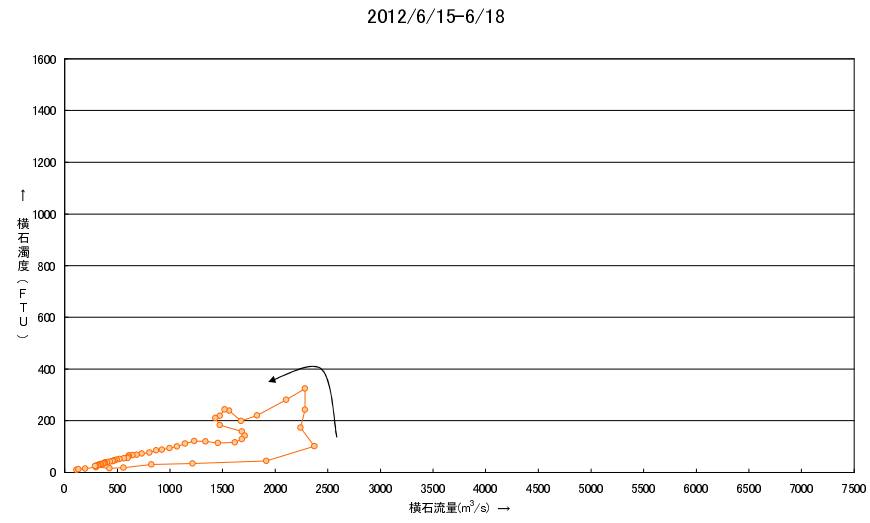
H23⑥



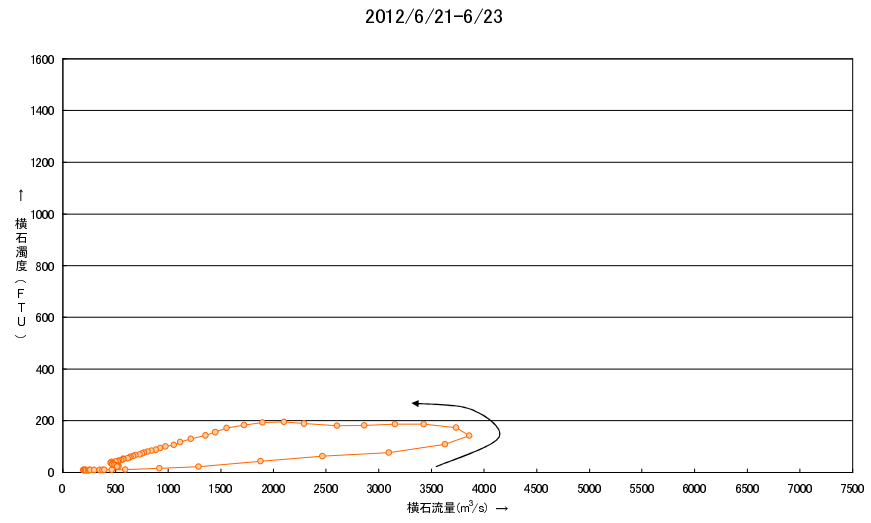
H23⑦



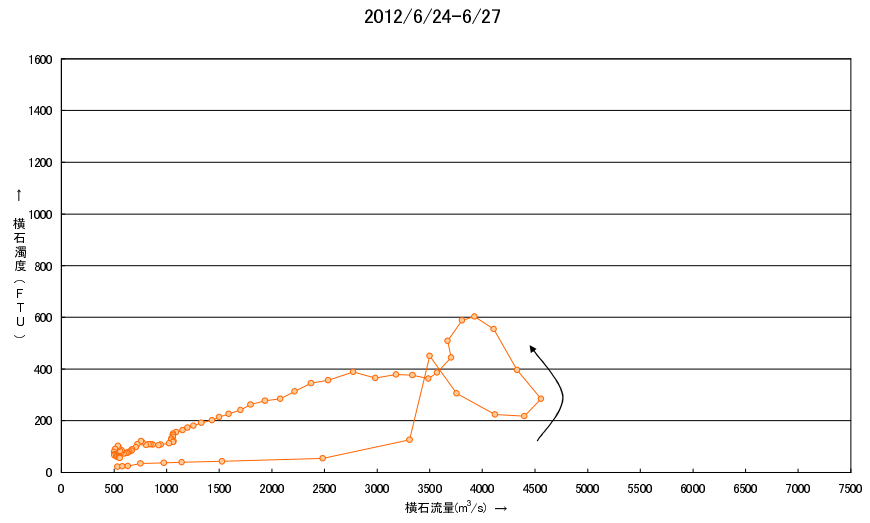
H24①



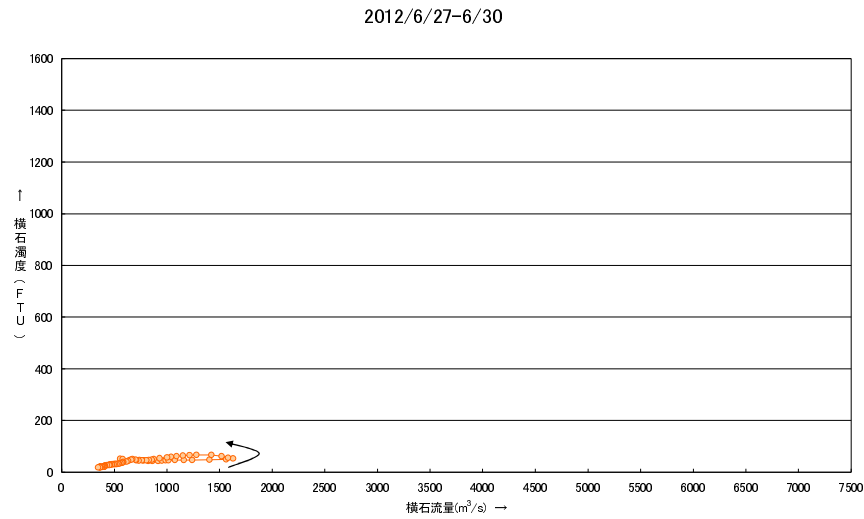
H24②



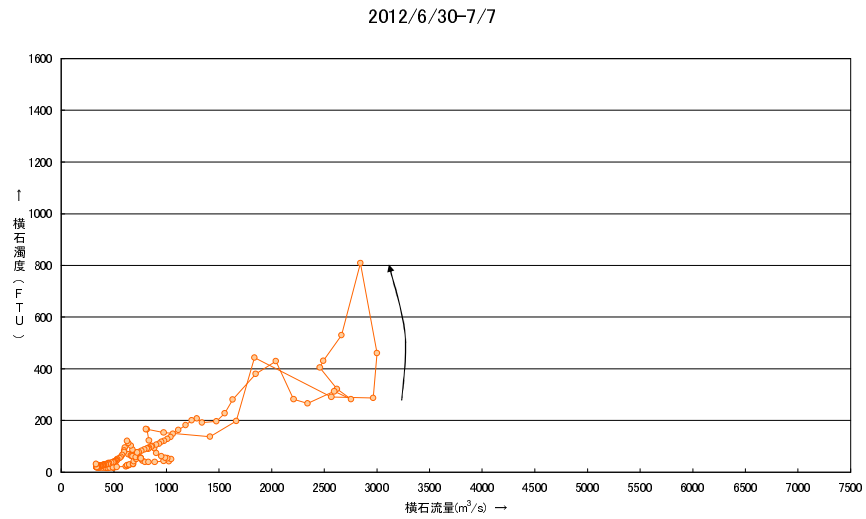
H24③



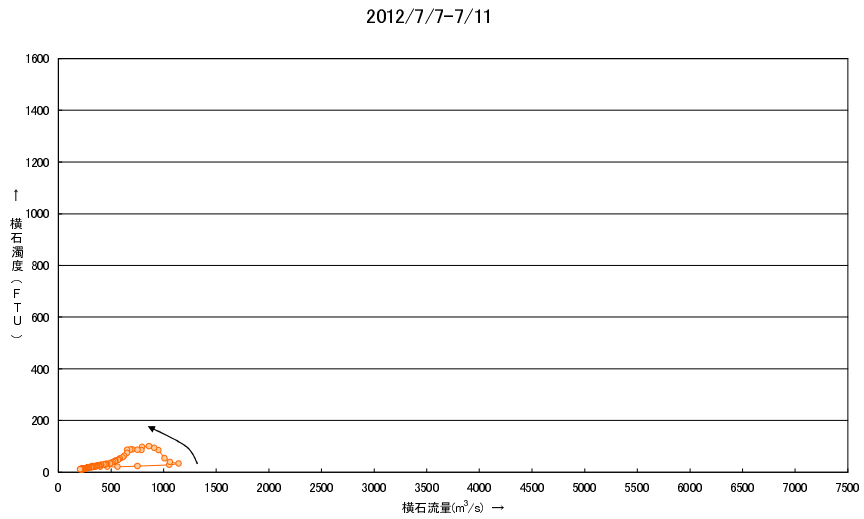
H24④



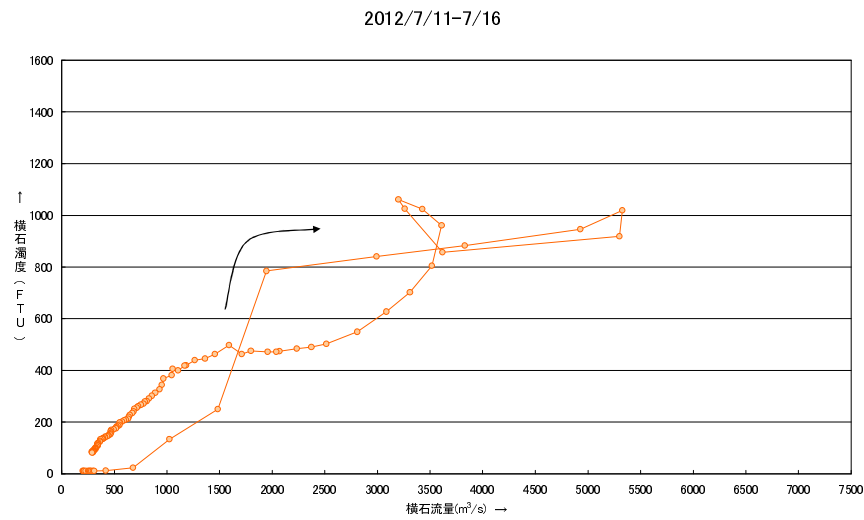
H24⑤



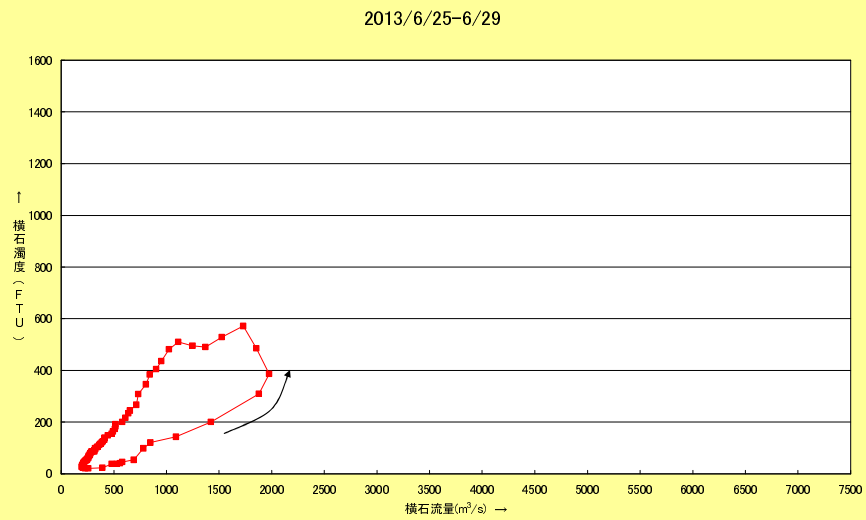
H24⑥



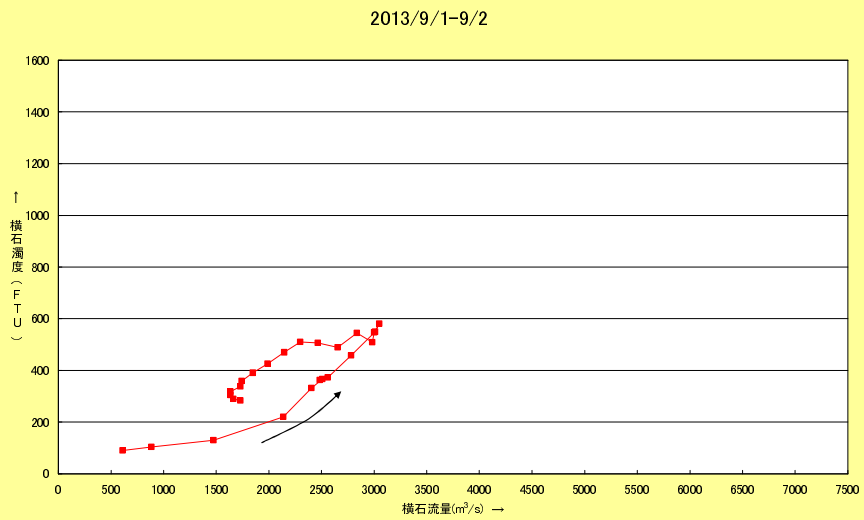
H24⑦



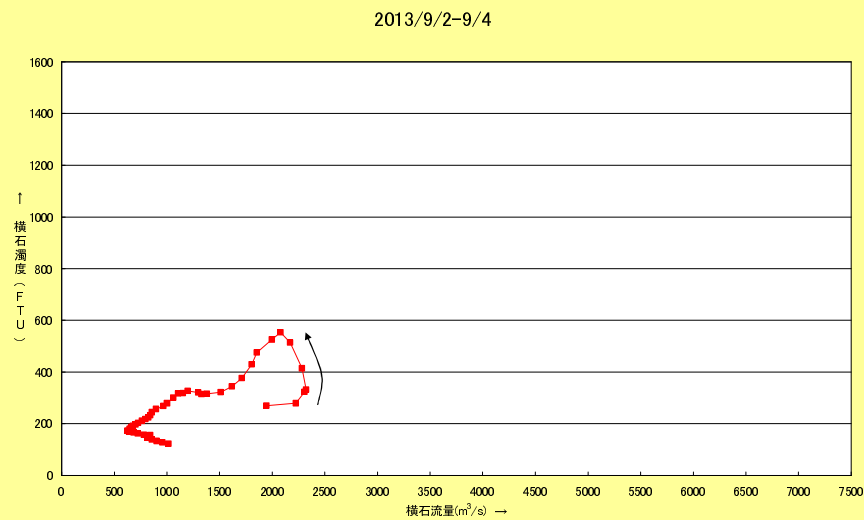
H25①



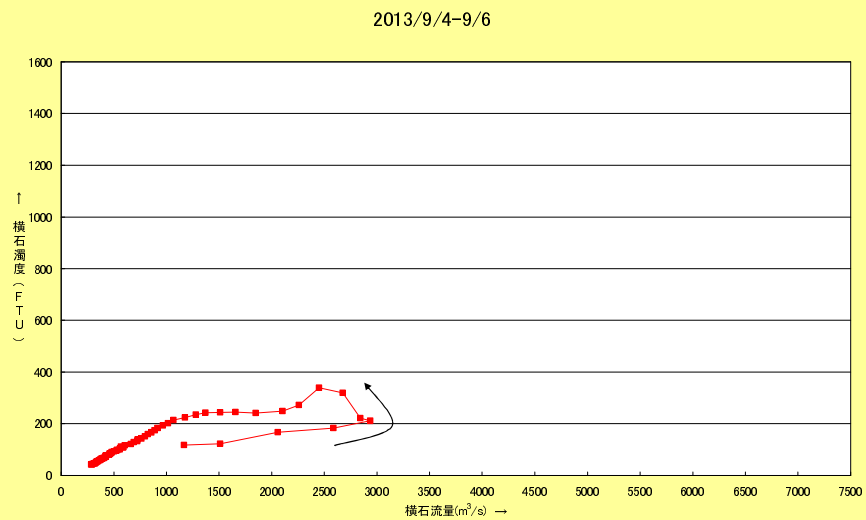
H25②



H25③

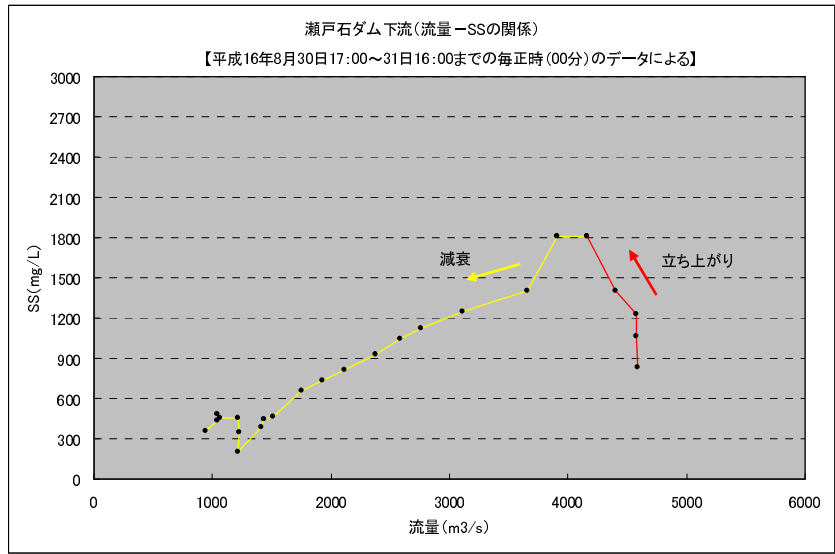


H25④

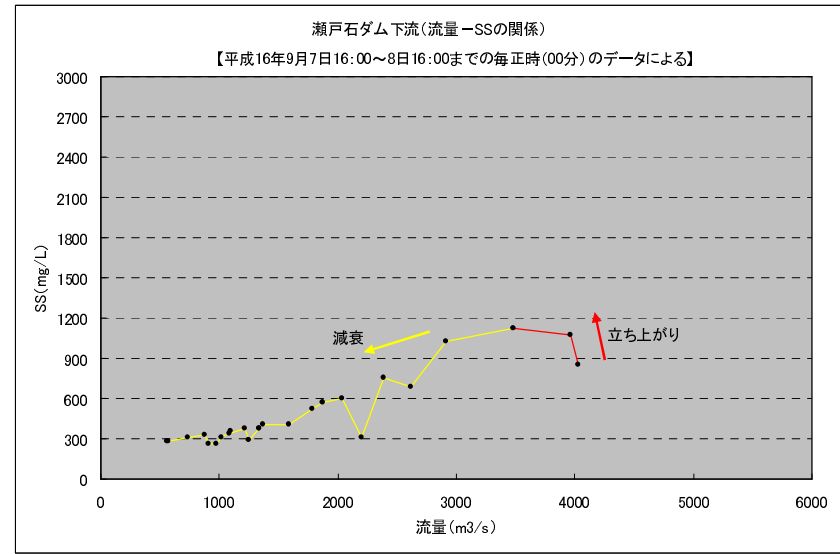


出水時調査時の流量と SS の時間的変化について、平成 22 年度、平成 23 年度及び平成 25 年度のデータを整理した図を以下に示す。全て反時計回りである。

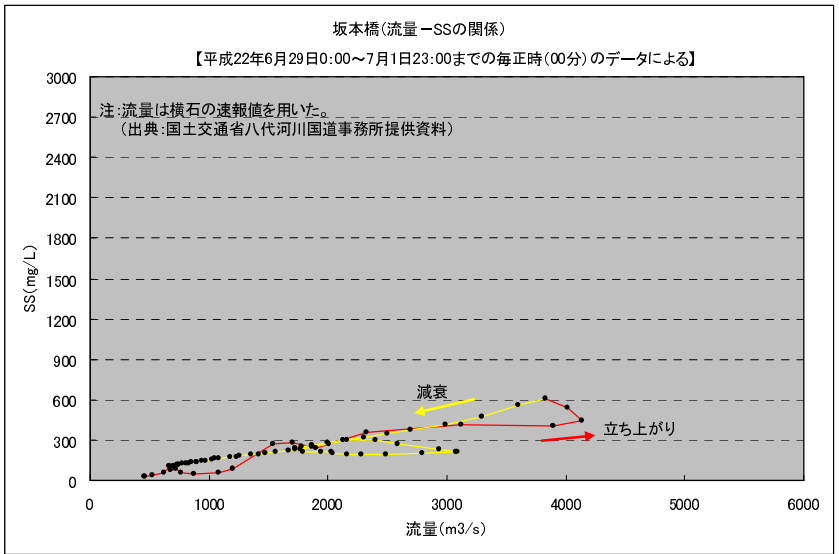
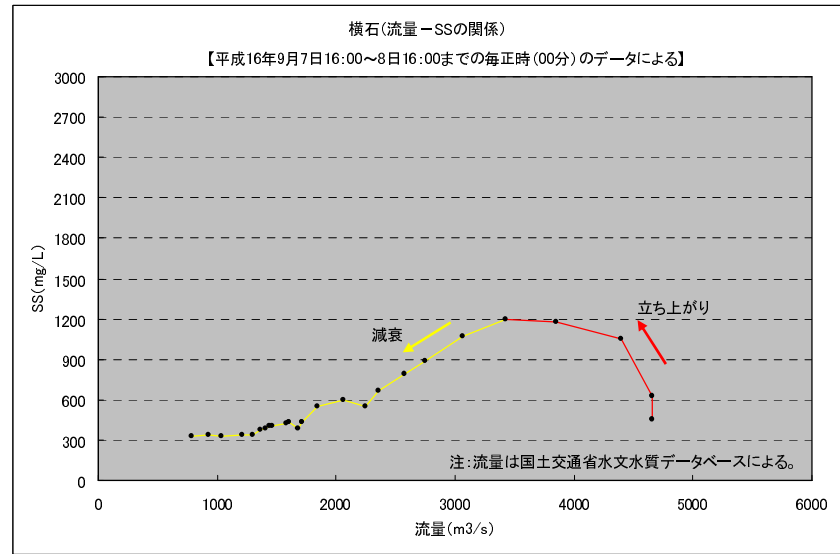
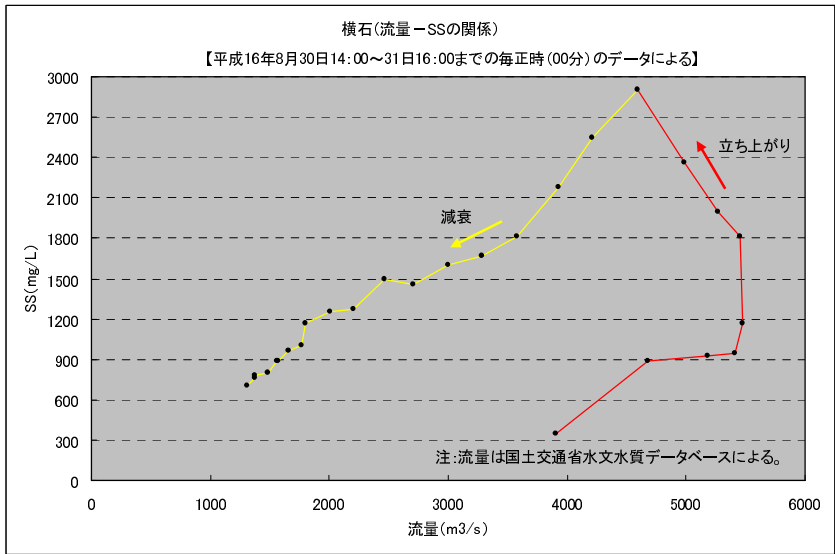
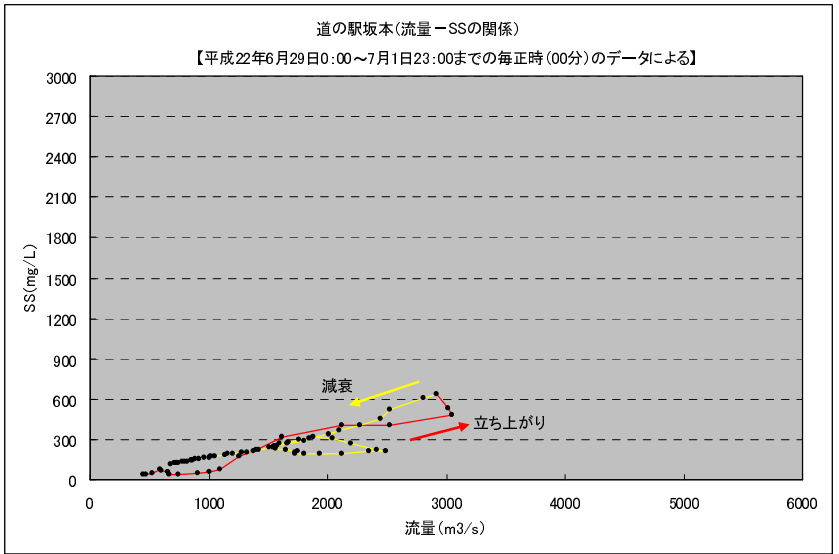
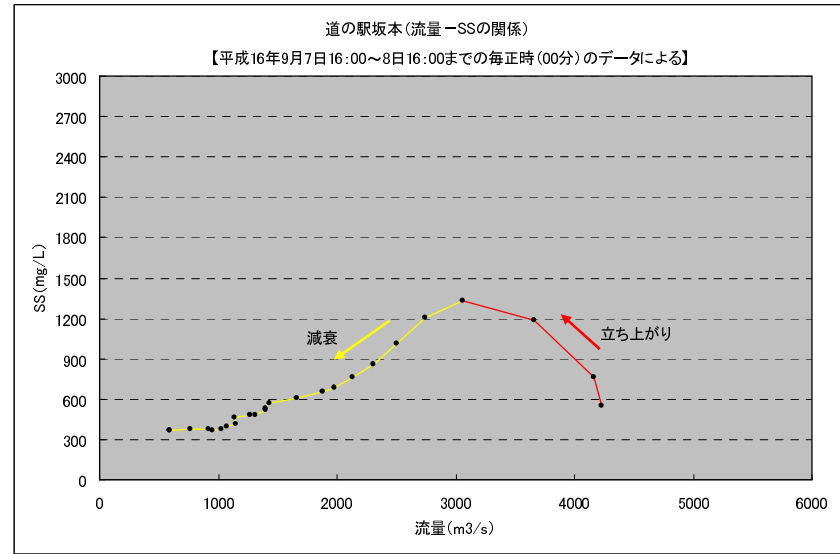
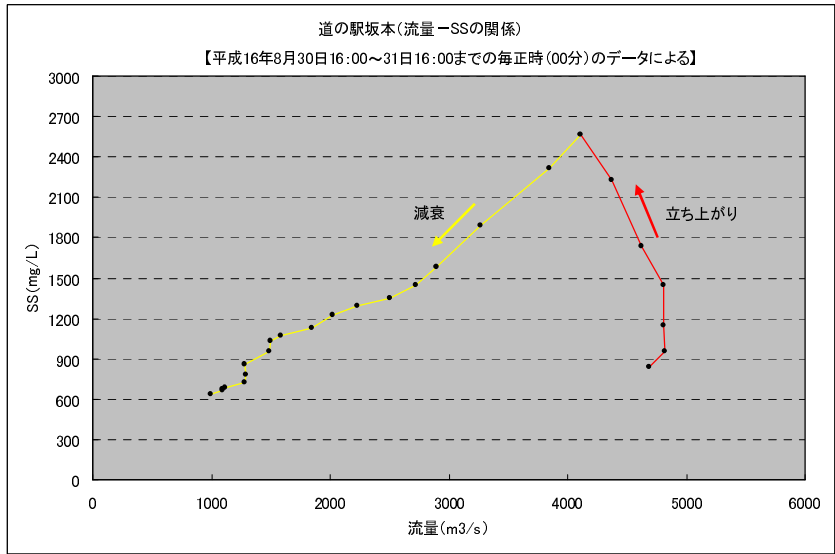
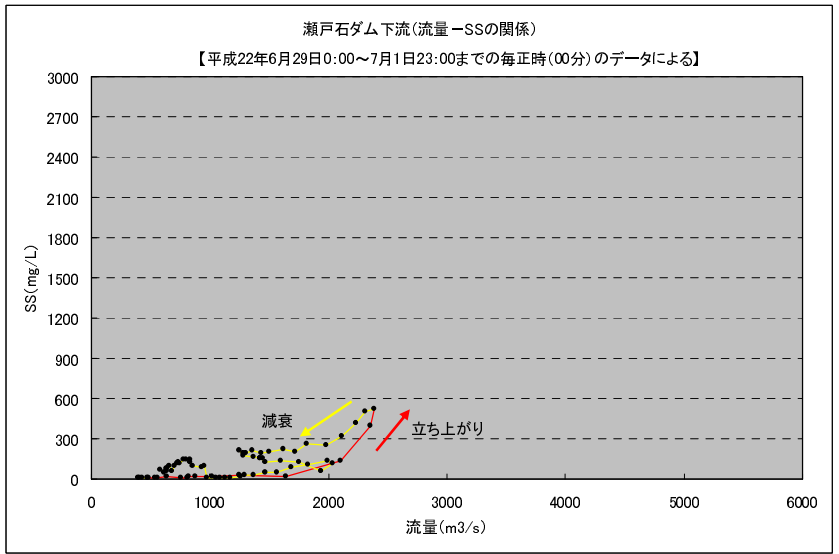
平成 16 年度 第1回 出水時調査結果（平成 16 年 8 月 30 日～31 日）



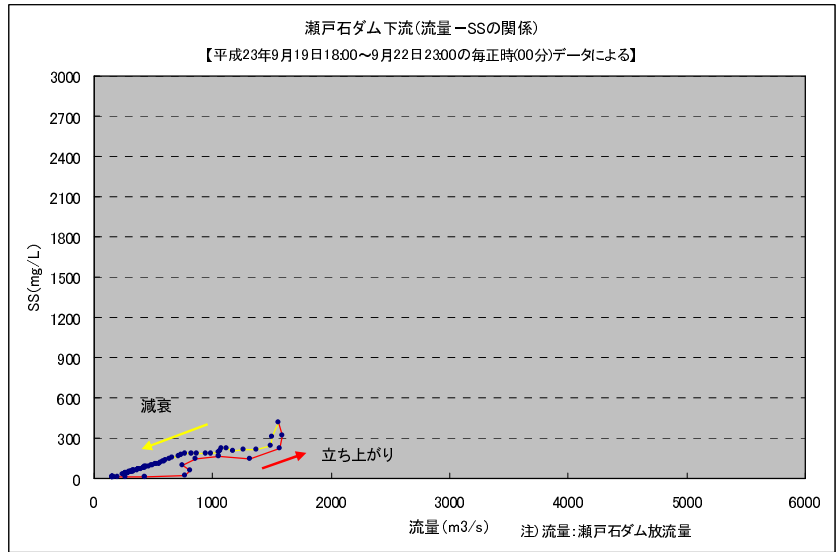
平成 16 年度 第2回 出水時調査結果（平成 16 年 9 月 7 日～8 日）



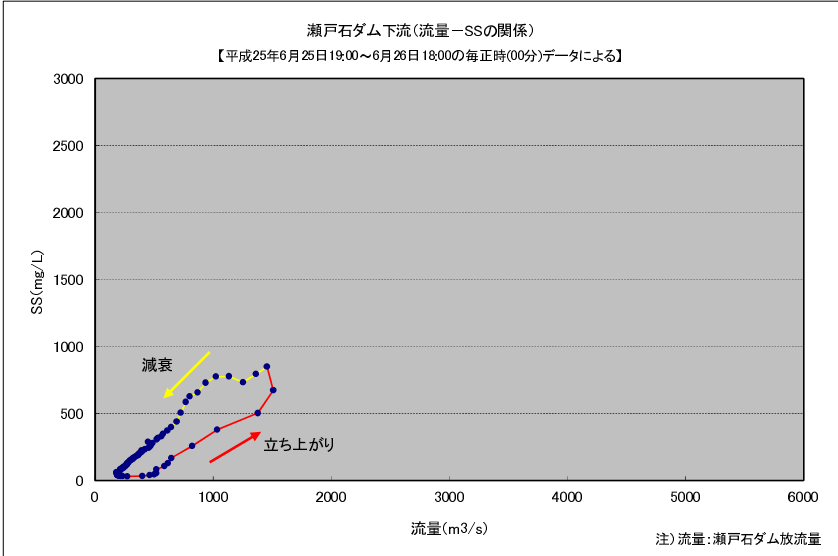
平成 22 年度 出水時調査結果（平成 22 年 6 月 29 日～7 月 1 日）



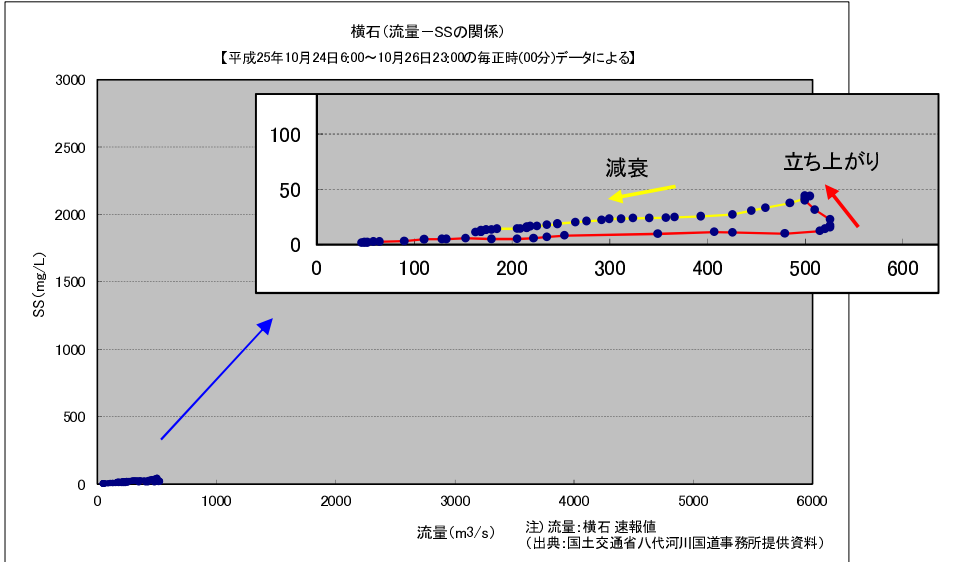
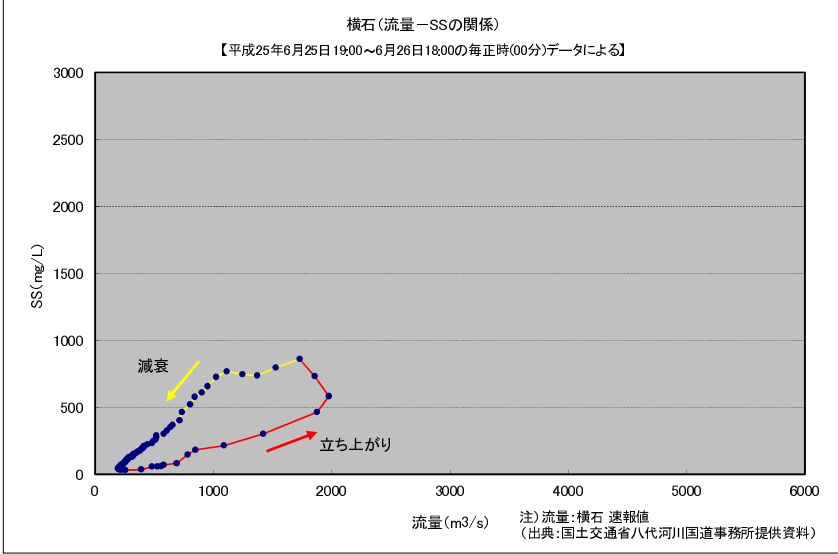
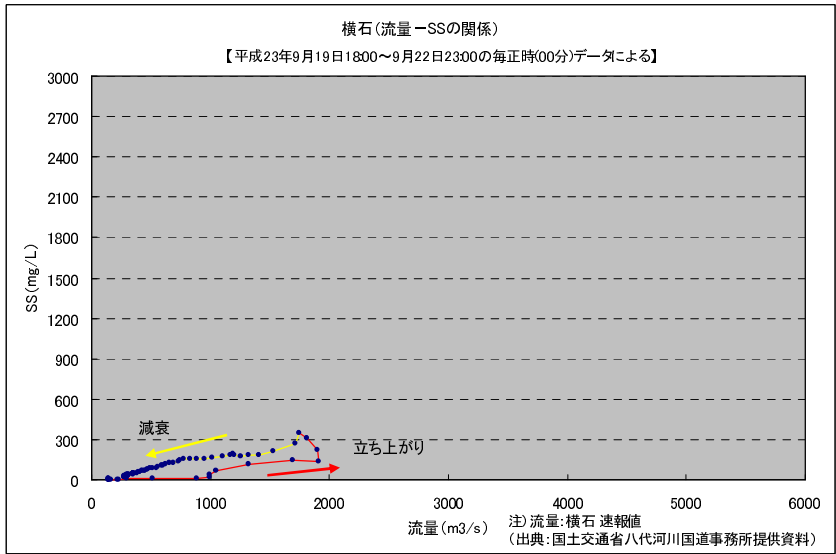
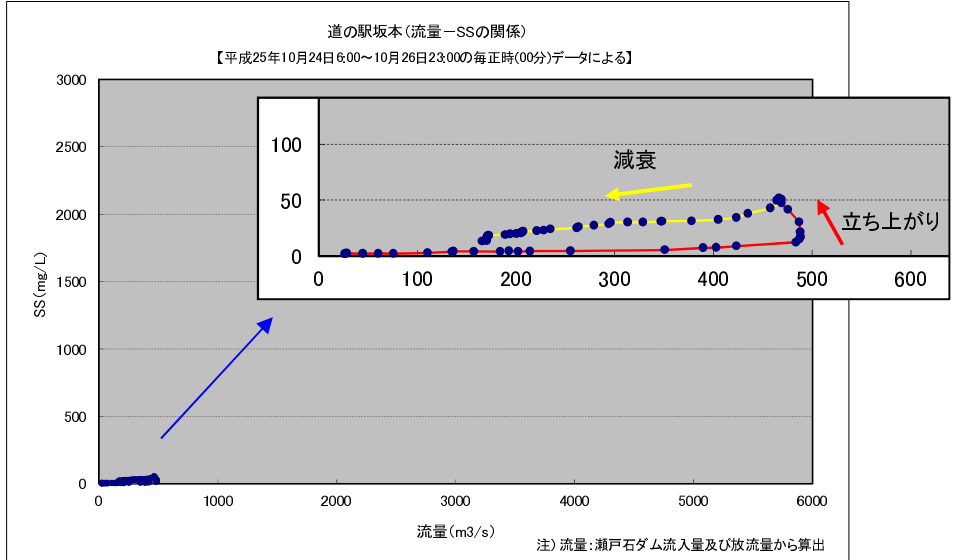
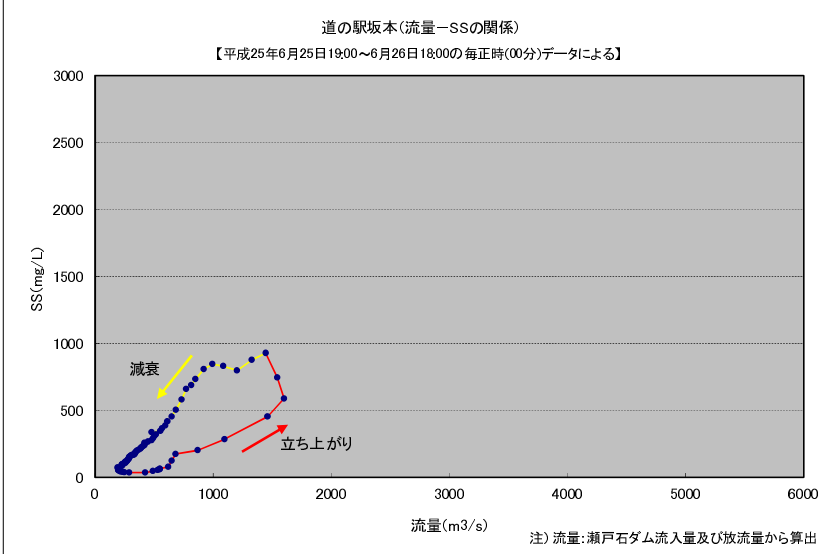
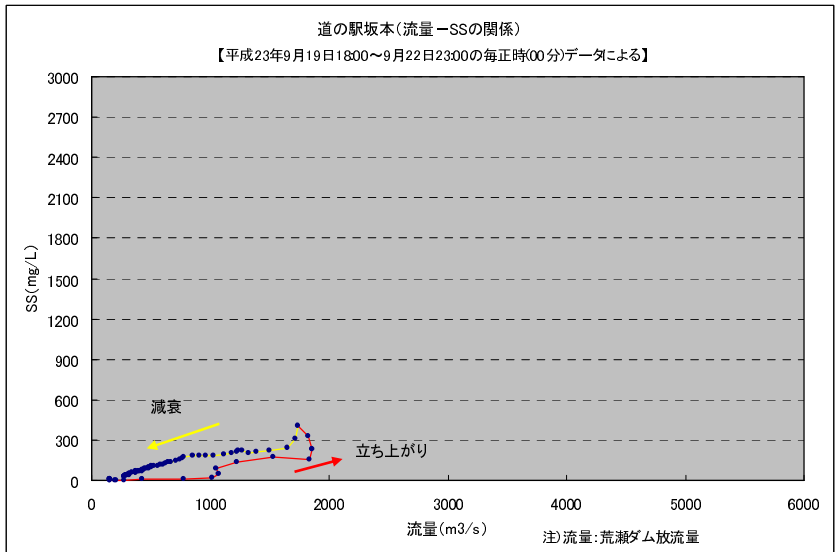
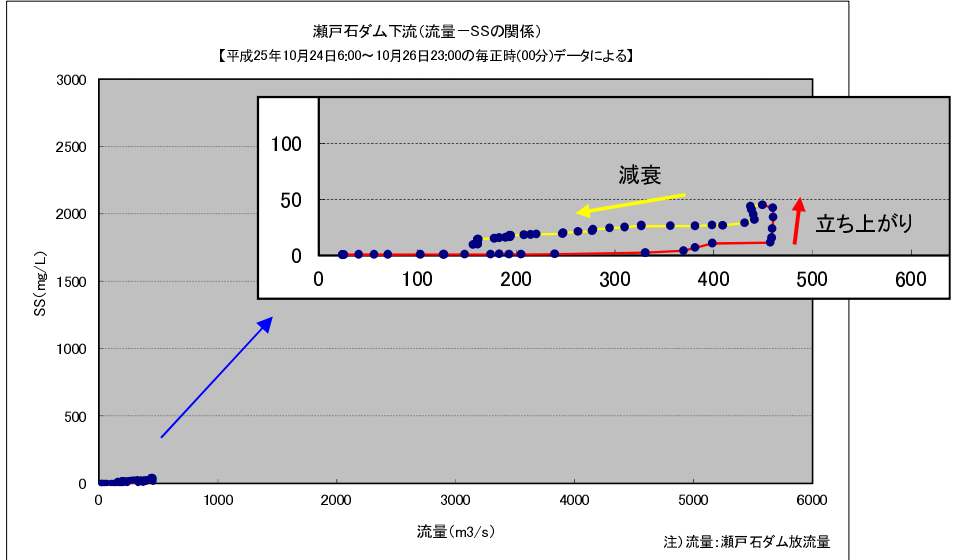
平成 23 年度 出水時調査結果（平成 23 年 9 月 19 日～9 月 22 日）



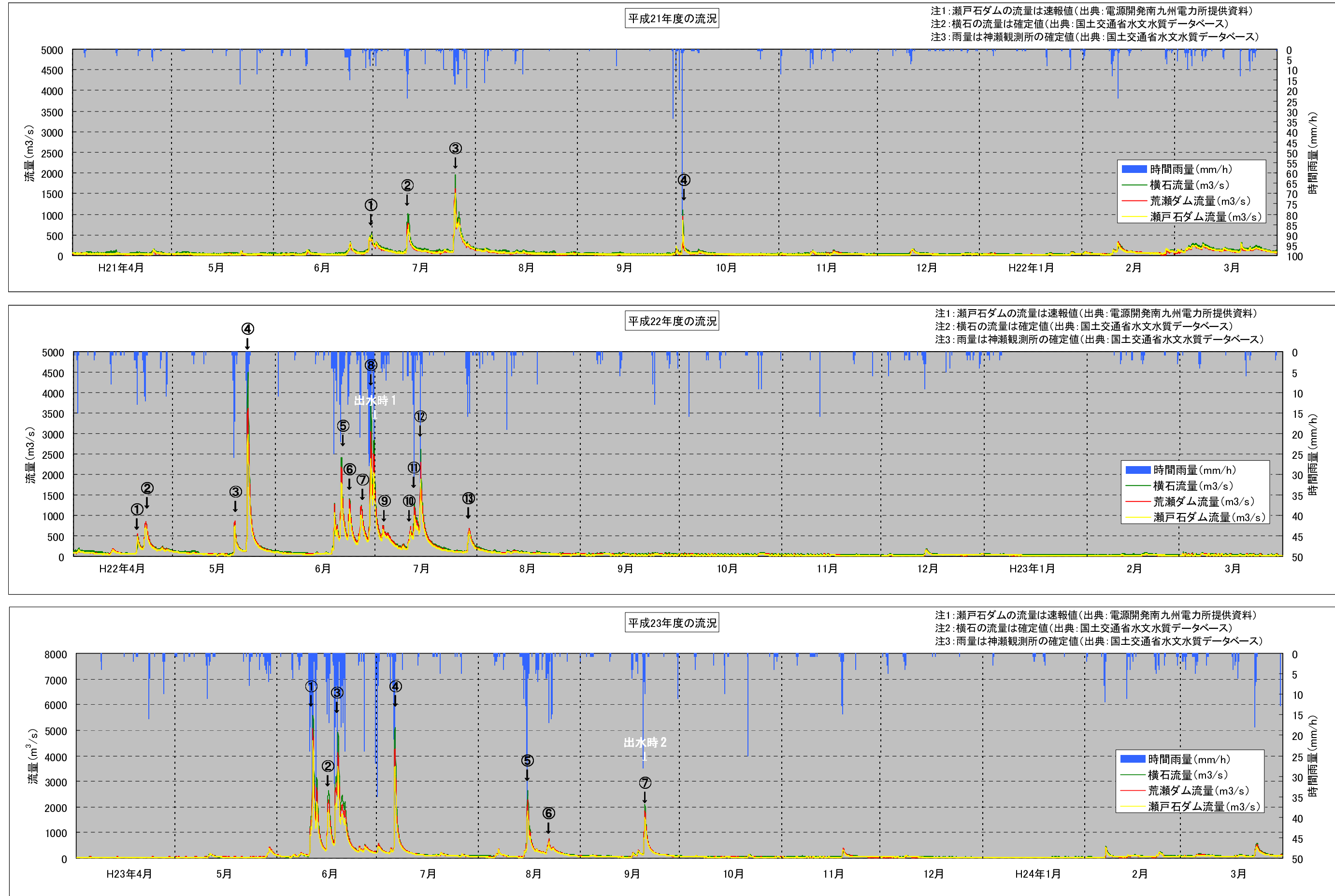
平成 25 年度 出水時調査結果（平成 25 年 6 月 25 日～26 日）



平成 25 年度 出水時調査結果（平成 25 年 10 月 24 日～26 日）

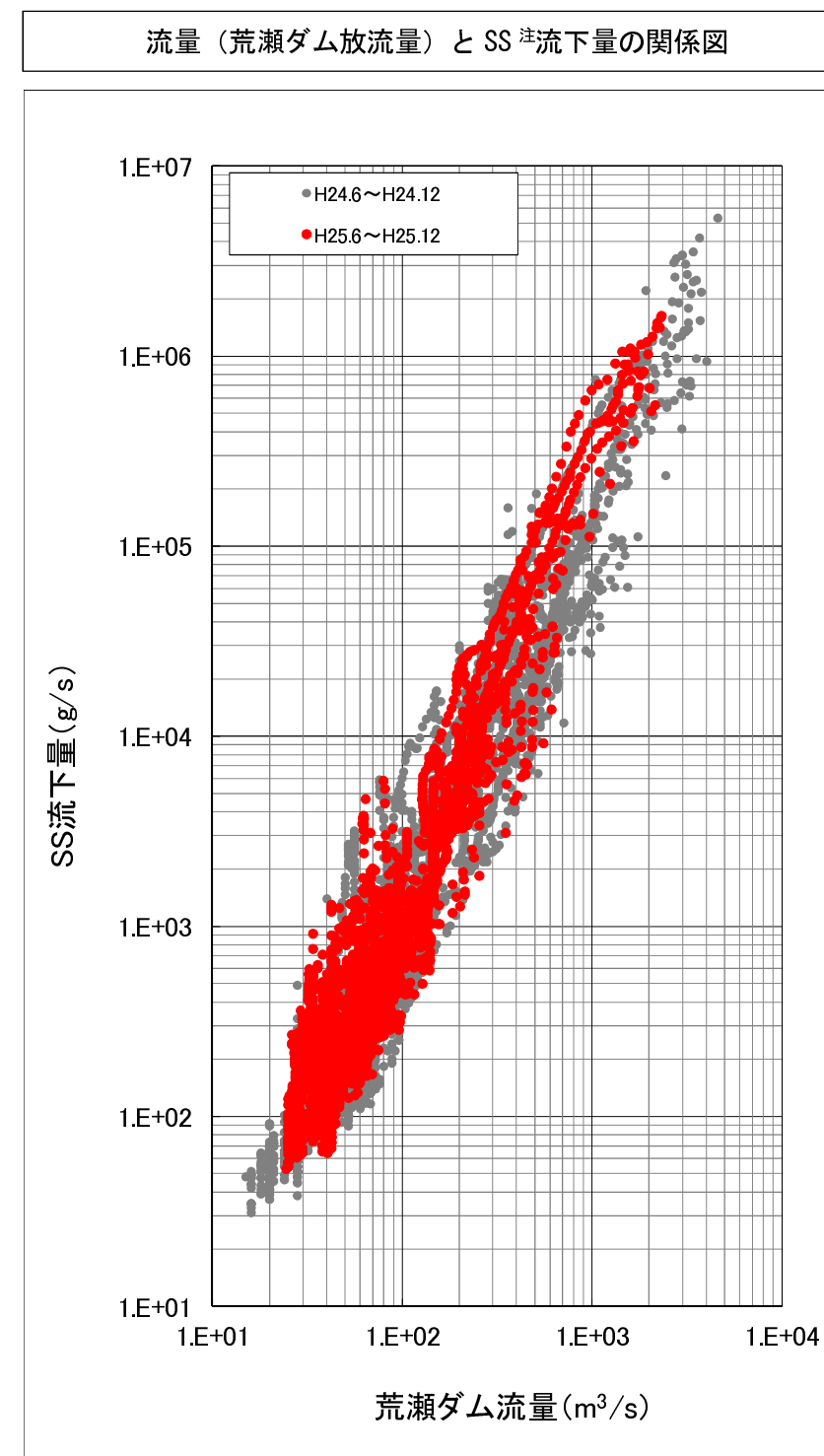
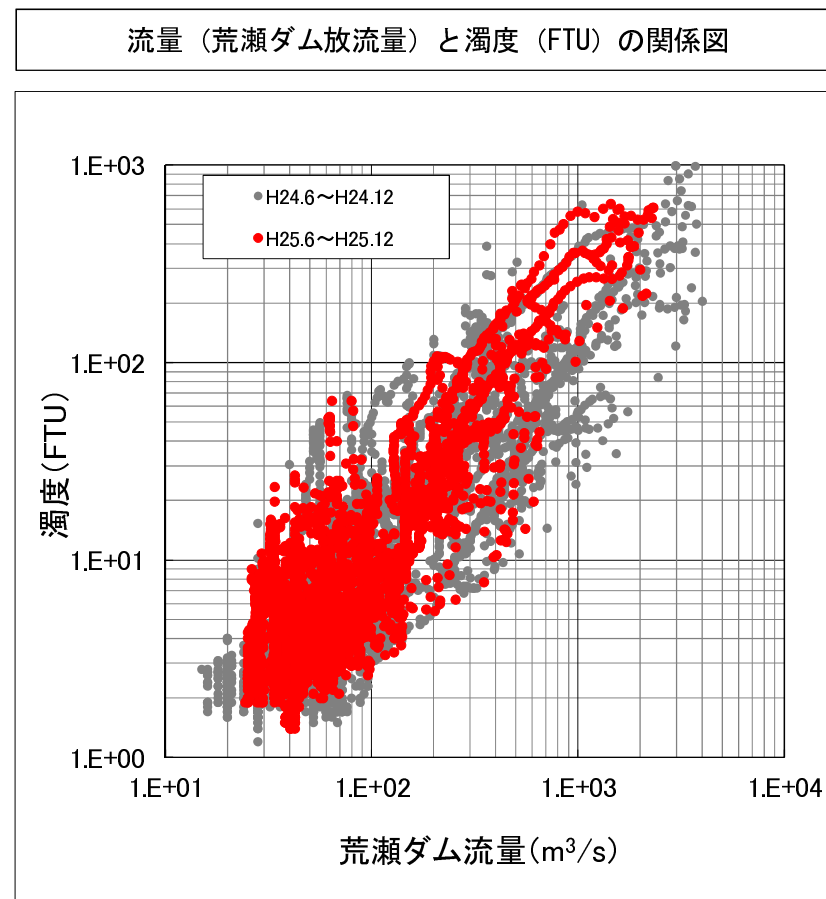


■「7) 出水時の流量と濁度（FTU）の時間的な変化について」に掲載したグラフにおいて、各年度で抽出した出水を以下の図に示した。抽出した出水は丸数字で表しており、7)のグラフの丸数字と対応している。



8) 出水時の道の駅坂本の流量（荒瀬ダム流量）と水質（濁度、SS）の関係について（H25 年度観測）

流量と濁度や SS の関係の平均的な挙動を把握するために、平成 24 年 6～12 月及び平成 25 年 6～12 月の出水時における「流量と濁度(FTU)」及び「流量と SS 流下量」のデータをプロットしたものを下図に示す。



注：濁度から SS への換算は、参考資料 I -61 の回帰式①を用いている。

9) 流量（荒瀬ダム流量）バンド別の SS 流下量

