

Conversation with Thomas Bryce

iMessage Message sent 4/10/2017 10:29:25 AM

Are you still able to help me tomorrow in St Albans? Let's plan on 9:00 at the same meeting spot.

iMessage Message received from Thomas Bryce 4/10/2017 10:30:09 AM

Still available to help out tomorrow, will see you then/there.

iMessage Message sent 4/10/2017 9:20:15 PM

Please bring more distilled water.

iMessage Message received from Thomas Bryce 4/10/2017 9:23:28 PM

Will do

4/11/2017

iMessage Message sent 4/11/2017 8:00:41 AM

As I am running late getting stuff together I wonder if you could go to the hardware store in St. Albans and pick up a few things? Plumbers putty. A piece of angle steel like you installed at JBT06, and a line level

iMessage Message received from Thomas Bryce 4/11/2017 8:03:25 AM

I'm running a little late as well I probably won't be up there for another hour but could grab that

4/18/2017

iMessage Message sent 4/18/2017 8:51:45 AM

Running late (again). Please get started on sampling if you beat me there.

iMessage Message sent 4/18/2017 8:52:27 AM

Could you pick up like 3 containers of plumbers putty on your way. And water if needed.

iMessage Message received from Thomas Bryce 4/18/2017 8:54:40 AM

Sure thing - you might beat me I probably won't be out there till 11,m (rock river sampling)

iMessage Message sent 4/18/2017 8:55:36 AM

Oh boy. Well I have no conflicts tonight if the day runs long.

iMessage Message received from Thomas Bryce 4/18/2017 8:58:35 AM

Same, I'll check in with you on my way back from the river

iMessage Message received from Thomas Bryce 4/18/2017 10:51:38 AM

Leaving hardware store now, where should I meet you?

iMessage Message sent 4/18/2017 10:52:34 AM

5

iMessage Message received from Thomas Bryce 4/18/2017 10:52:48 AM

Ok

iMessage Message sent 4/18/2017 10:53:20 AM

Just got off exit

iMessage Message sent 4/18/2017 11:00:32 AM

Actually 6! Bring out plumbers putty and go ahead and start sampling

iMessage Message received from Thomas Bryce 4/18/2017 11:01:13 AM

Will do

iMessage Message sent 4/18/2017 3:59:53 PM

Keep sampling man. I need to take a call.

iMessage Message received from Thomas Bryce 4/18/2017 4:01:08 PM

All I have left is 11, just finished 7 and 16

iMessage Message sent 4/18/2017 4:12:57 PM

Ok. Work on 11 and I'll try to meet you there.

iMessage Message received from Thomas Bryce 4/18/2017 4:14:46 PM

Sounds good

iMessage Message received from Thomas Bryce 4/18/2017 5:00:13 PM

Finished at 11, where do you need me at the moment?

iMessage Message sent 4/18/2017 5:02:37 PM

Are you still out in the field?

iMessage Message received from Thomas Bryce 4/18/2017 5:02:50 PM

Yup

iMessage Message sent 4/18/2017 5:03:06 PM

I will head out.

iMessage Message received from Thomas Bryce 4/18/2017 5:03:31 PM

Cool, I see you now

4/25/2017

iMessage Message received from Thomas Bryce 4/25/2017 8:42:47 AM

Can't get into jbt06, different lock?

iMessage Message sent 4/25/2017 8:44:07 AM

No. Huh. Not sure what to think mL

iMessage Message sent 4/25/2017 8:44:15 AM

Try again

iMessage Message sent 4/25/2017 8:44:31 AM

If absolutely necessary, break in

iMessage Message received from Thomas Bryce 4/25/2017 9:15:29 AM

I had to pop the lock off I apologize but it's an easy fix

iMessage Message sent 4/25/2017 9:16:17 AM

Fine. Put a concrete block on top if you have to, to hold the lid down

iMessage Message received from Thomas Bryce 4/25/2017 9:17:29 AM

Will do

iMessage Message received from Thomas Bryce 4/25/2017 10:48:33 AM

Rest of the sites are looking good, no lock problems at all either. Will text you from 11 and 14 when I reset the modems

iMessage Message received from Thomas Bryce 4/25/2017 1:03:58 PM

Reset the modem at 11

iMessage Message received from Thomas Bryce 4/25/2017 1:52:23 PM

Reset modem at 14

iMessage Message sent 4/25/2017 2:14:10 PM

Hold at 14 for a minute... difficulty connecting

iMessage Message sent 4/25/2017 2:23:47 PM

All set. Thanks.

iMessage Message received from Thomas Bryce 4/25/2017 2:24:36 PM

Awesome, all good at 11 too?

iMessage Message sent 4/25/2017 2:24:54 PM

Yes

5/2/2017

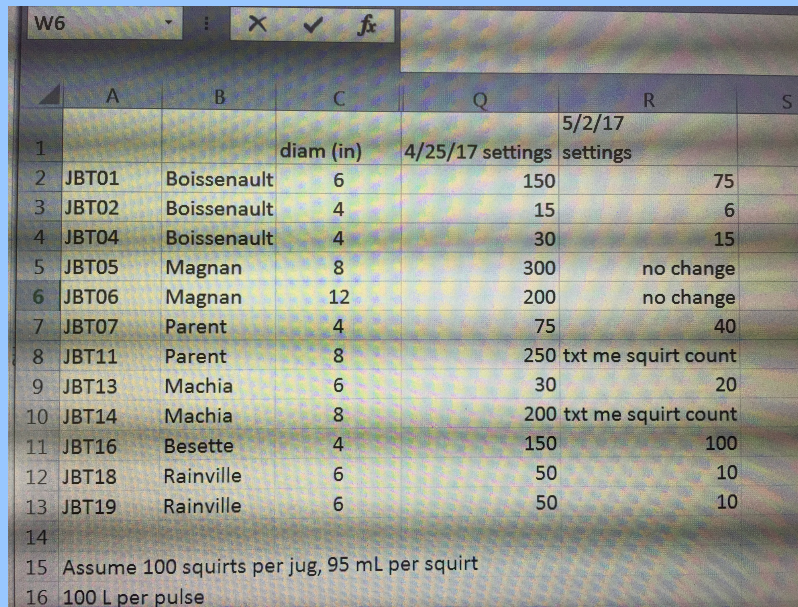
iMessage Message sent 5/2/2017 11:50:21 AM

Jbt01=75, jbt02=6, jbt04=15

iMessage Message received from Thomas Bryce 5/2/2017 11:50:58 AM

Thanks

iMessage Message sent 5/2/2017 12:09:45 PM



	A	B	C	Q	R	S
1			diam (in)	4/25/17 settings	5/2/17 settings	
2	JBT01	Boissenault	6	150	75	
3	JBT02	Boissenault	4	15	6	
4	JBT04	Boissenault	4	30	15	
5	JBT05	Magnan	8	300	no change	
6	JBT06	Magnan	12	200	no change	
7	JBT07	Parent	4	75	40	
8	JBT11	Parent	8	250	txt me squirt count	
9	JBT13	Machia	6	30	20	
10	JBT14	Machia	8	200	txt me squirt count	
11	JBT16	Besette	4	150	100	
12	JBT18	Rainville	6	50	10	
13	JBT19	Rainville	6	50	10	
14						
15	Assume 100 squirts per jug, 95 mL per squirt					
16	100 L per pulse					

iMessage Message received from Thomas Bryce 5/2/2017 1:55:48 PM

Squirt count at 14 is 63,100,1 after 192 pulses. About to reset modem

iMessage Message received from Thomas Bryce 5/2/2017 1:56:13 PM

Pacing is at 250 currently

iMessage Message sent 5/2/2017 1:59:36 PM

About 6L in the carboy? Please drop it down to 200.

iMessage Message received from Thomas Bryce 5/2/2017 2:02:10 PM

6 liters on the dot. Will adjust pacing now

iMessage Message sent 5/2/2017 2:11:54 PM

Great. I made a change on the modem. Maybe it will help.

iMessage Message received from Thomas Bryce 5/2/2017 2:28:10 PM

Let's hope. At 14 now - reading 73,100,1 after 72 pulses ; 10 liters ; pacing is at 200

iMessage Message sent 5/2/2017 2:29:19 PM

At JBT11?

iMessage Message received from Thomas Bryce 5/2/2017 2:29:33 PM

At 14

iMessage Message sent 5/2/2017 2:30:08 PM

Oh, but you gave me 14 counts 1/2 hour ago...

iMessage Message received from Thomas Bryce 5/2/2017 2:30:45 PM

Oh damn that's my bad I meant 11

iMessage Message sent 5/2/2017 2:44:28 PM

No big deal. Do not cycle power at 14. I managed to connect and change the modem settings. Let me calc settings for 14.

iMessage Message sent 5/2/2017 2:44:43 PM

Does it look like 14 overflowed.

iMessage Message sent 5/2/2017 2:44:51 PM

Sorry phone calls....

iMessage Message received from Thomas Bryce 5/2/2017 2:46:08 PM

Ok sorry about the typo error. And 14 did not overflow but was up to 10 L.

iMessage Message sent 5/2/2017 2:50:15 PM

Please drop pacing at 14 from 200 to 150. Then we need to adjust sample volume. Do you have your acid jug?

iMessage Message received from Thomas Bryce 5/2/2017 2:51:07 PM

I don't have the acid jug on me. About to drop pacing now

iMessage Message sent 5/2/2017 2:53:05 PM

Ok. Our sample delivery is off. If it had gone to 100 squirts it would have overflowed. So we need to calibrate. Please go to manual settings, calibrate sampler, then pick a volume you can roughly measure. Could chose 100 and try to fill two tubes.

iMessage Message received from Thomas Bryce 5/2/2017 2:56:05 PM

No problem, just calibrated it to 100

iMessage Message sent 5/2/2017 2:56:30 PM

Did it overfill at first?

iMessage Message received from Thomas Bryce 5/2/2017 2:57:22 PM

No

iMessage Message sent 5/2/2017 2:58:38 PM

Shit! I wonder why it is overfilling then. Please try again and tell the sampler it delivered 120, so it dials it back a little.

iMessage Message received from Thomas Bryce 5/2/2017 2:59:52 PM

Done

iMessage Message sent 5/2/2017 3:00:05 PM

Super.

iMessage Message received from Thomas Bryce 5/2/2017 3:00:44 PM

Glad to help. That was my last station for the day - cranked it out in about 6 hours.

iMessage Message sent 5/2/2017 3:01:24 PM

Righteous! Did 18 and 19 look OK? Which fields smelled like manure?

iMessage Message received from Thomas Bryce 5/2/2017 3:02:47 PM

18 and 19 looked just fine. 1, 2, 4, 5, 6 and 7 smelled of manure. The rest were either fairly covered and no sign of spreading

iMessage Message sent 5/2/2017 3:05:25 PM

Excellent. I made a change on the Jbt11 modem.

iMessage Message received from Thomas Bryce 5/2/2017 4:03:20 PM

Great sounds good. Will scan and send my field notes your way

5/8/2017

SMS Message sent 5/8/2017 9:03:45 AM

Hi Thomas. So we have a ton of samples at the JBT stations. Five stations are on bottle 3, four on bottle 2, and two are on bottle 4. Actually the 2 on bottle 4 (JBT18 & JBT19) completed sampling yesterday so now we have a data gap.
I am wondering if you want to sample some of the stations today and the remainder tomorrow...

iMessage Message received from Thomas Bryce 5/8/2017 12:42:06 PM

Hi Dave thanks for the heads up - I won't have time today to get out there since I'm tree planting in Bakersfield, would I be able to split the days tomorrow and Wednesday?

iMessage Message received from Thomas Bryce 5/8/2017 12:42:31 PM

Also could you email me the template for our labels? Just ran out and wanted to print more off today when I get a chance

iMessage Message sent 5/8/2017 12:45:05 PM

Yes, and yes. Sorry you ran out already. I will send a list of priorities for sampling (JBT18&19 especially) along with pacing suggestions

iMessage Message received from Thomas Bryce 5/8/2017 12:47:06 PM

Great much appreciated and no worries! I'll keep you posted with my ventures tomorrow. Thanks for the sampling info

5/9/2017

iMessage Message sent 5/9/2017 12:34:10 PM

How is it looking up there)

iMessage Message received from Thomas Bryce 5/9/2017 12:35:56 PM

Looking good! Really murky at 1 2 and 4. Lots of samples too. Got an extra hand with me so it's going fast. Stations are looking fine and no infestation etc.

iMessage Message sent 5/9/2017 12:38:58 PM

Good. Did you get the paving settings I sent?

iMessage Message received from Thomas Bryce 5/9/2017 12:40:10 PM

I did, settings are changed to what they should be for the week

iMessage Message sent 5/9/2017 12:41:15 PM

Great. Let me know what the existing settings are st 5 & 6..

iMessage Message received from Thomas Bryce 5/9/2017 12:43:47 PM

Will do

iMessage Message received from Thomas Bryce 5/9/2017 4:43:54 PM

Pacing at 06 is 250

iMessage Message sent 5/9/2017 4:45:18 PM

Great

iMessage Message received from Thomas Bryce 5/9/2017 4:45:47 PM

Going to 05 now, last one of the day, manages to get all the sites done

iMessage Message sent 5/9/2017 4:46:37 PM

Excellent! Had any obviously overflowed?

iMessage Message received from Thomas Bryce 5/9/2017 4:47:46 PM

Nope, all carboys seemed to be filled to capacity or less depending on the site. Definitely low on filters though

iMessage Message sent 5/9/2017 4:49:10 PM

Ok, filters supplied by the lab as part of our agreement. So please ask for more when you drop off samples.

iMessage Message received from Thomas Bryce 5/9/2017 4:50:09 PM

Great will do

iMessage Message received from Thomas Bryce 5/9/2017 4:52:26 PM

600 at 05

iMessage Message sent 5/9/2017 4:57:09 PM

Ok. Let's change that to 450.

iMessage Message received from Thomas Bryce 5/9/2017 4:58:57 PM

Got it

5/16/2017

iMessage Message sent 5/16/2017 8:31:28 AM

Hi Thomas. Our server decided to crash last night, so I have not been able to check the recent sampling data. I think some of the settings should be reduced, but I cannot give you numbers at the moment. Have you started sampling?

iMessage Message received from Thomas Bryce 5/16/2017 8:34:41 AM

Hi Dave thanks for the heads up - still in Burlington grabbing some bottles from the lab but heading up to the sites in an hour

iMessage Message sent 5/16/2017 8:45:04 AM

Ok. Let me know when you get to the stations. Maybe I can get this fixed. Start with Jbt01 through Jbt04.

iMessage Message received from Thomas Bryce 5/16/2017 8:56:36 AM

Will do

iMessage Message received from Thomas Bryce 5/16/2017 10:23:10 AM

Just pulled up to the 01 02 04 site

iMessage Message received from Thomas Bryce 5/16/2017 10:47:01 AM

At 04 right now going to start sampling

iMessage Message sent 5/16/2017 10:49:57 AM

Ok. I've got a workaround. Hang on a minute

iMessage Message received from Thomas Bryce 5/16/2017 10:50:19 AM

No problem

iMessage Message sent 5/16/2017 10:53:18 AM

1=80, 2=6, 4=15

iMessage Message sent 5/16/2017 10:53:29 AM

Watch for the others in a table

iMessage Message received from Thomas Bryce 5/16/2017 10:54:04 AM

Awesome thanks

iMessage Message sent 5/16/2017 11:21:02 AM

	5/9/17 settings	5/16/17 settings
JBT01	120	80
JBT02	10	6
JBT04	24	15
JBT05	450	200
JBT06	250	125
JBT07	60	40
JBT11	250	100
JBT13	30	25
JBT14	200	150
JBT16	150	125
JBT18	30	25
JBT19	30	25

iMessage Message sent 5/16/2017 11:21:48 AM

Please remember to include carboy numbers in the sample IDs on the label and chain of custody form.

iMessage Message received from Thomas Bryce 5/16/2017 11:22:05 AM

Got it

iMessage Message sent 5/16/2017 11:22:34 AM

Also, PLEASE take a water level reading at JBT05 as we reviewed. In the box...

iMessage Message sent 5/16/2017 11:22:55 AM

Shit, I meant JBT06

iMessage Message received from Thomas Bryce 5/16/2017 11:23:26 AM

Will do, will report back later

iMessage Message received from Thomas Bryce 5/16/2017 1:37:25 PM



iMessage Message sent 5/16/2017 1:38:24 PM

Holy hell! That is amazing. Does it smell like manure?

iMessage Message received from Thomas Bryce 5/16/2017 1:38:58 PM

Smells all of manure, probably one of the worst samples I've ever seen

iMessage Message sent 5/16/2017 1:40:57 PM

Please take multiple photos. If you can, take a flash photo inside the manhole.

iMessage Message sent 5/16/2017 1:41:18 PM

Not sure what to do about TDP. I want to call Dan N.

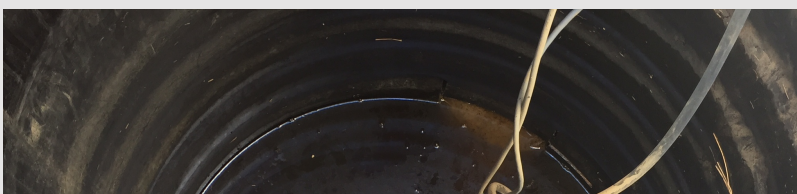
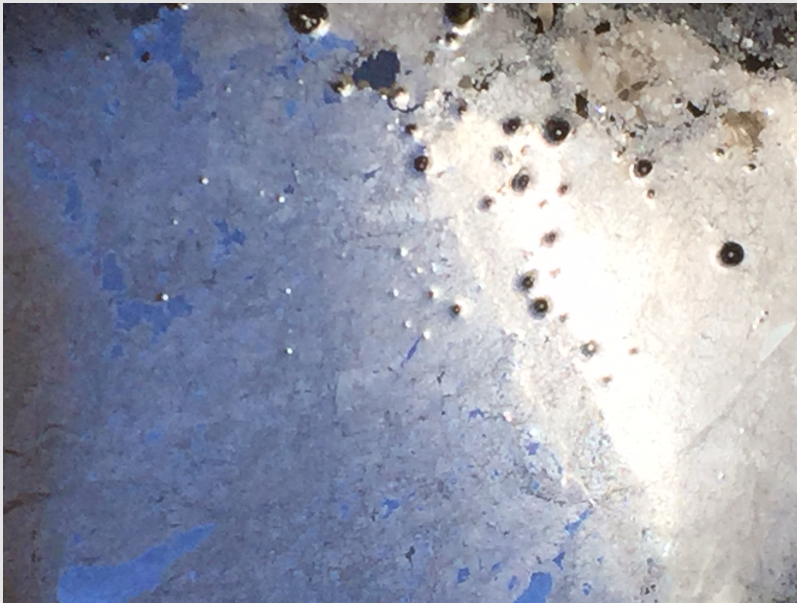
iMessage Message received from Thomas Bryce 5/16/2017 1:41:44 PM

Ok sounds good and will do

iMessage Message sent 5/16/2017 1:48:15 PM

I can't get any Dans at the lab to answer. How much can you squeeze through in one filter if you try using multiple filters and let it settle a bit?

iMessage Message received from Thomas Bryce 5/16/2017 1:48:19 PM



iMessage Message sent 5/16/2017 1:49:54 PM

Kind of hard to tell. Your first photo was pretty good though.

iMessage Message received from Thomas Bryce 5/16/2017 1:50:00 PM

Can't all, physically too thick to get through with maximum effort

iMessage Message received from Thomas Bryce 5/16/2017 1:50:15 PM

And yea it's murky as hell and bubbling that's about all I could see

iMessage Message sent 5/16/2017 1:51:30 PM

Please take a sample for TDP analysis and write on the label and COC
"could not field filter. Requires filtration.

iMessage Message received from Thomas Bryce 5/16/2017 1:51:52 PM

Thanks will do

5/23/2017

iMessage Message received from Thomas Bryce 5/23/2017 8:10:02 AM

Heading up to the stations within the hour for whenever you're ready to
send me pacing numbers

iMessage Message sent 5/23/2017 8:18:29 AM

	5/9/17 settings	5/16/17 settings	5/23/2017 settings
JBT01	120	80	75
JBT02	10	6	6
JBT04	24	15	14
JBT05	450	200	100
JBT06	250	125	100
JBT07	60	40	30
JBT11	250	100	50
JBT13	30	25	20
JBT14	200	150	125
JBT16	150	125	125
JBT18	30	25	15
JBT19	30	25	13

Assume 100 squirts per jug, 95 mL per squirt
100 L per pulse
equate max with 2.5 carboys, 25 L sample, or ~250 100ML sq

iMessage Message received from Thomas Bryce 5/23/2017 8:45:59 AM

Thanks

5/25/2017

iMessage Message sent 5/25/2017 12:07:35 PM

I need those forms Thomas. Thanks.

iMessage Message sent 5/25/2017 12:12:44 PM

Feel free to just copy them and send me the hardcopies in the mail if that is easier.

iMessage Message received from Thomas Bryce 5/25/2017 12:26:54 PM

Sorry for the delay..Have them scanned but large file, will probably just upload it to google drive and share that way if that's easy for you?

iMessage Message received from Thomas Bryce 5/25/2017 1:29:28 PM

Just emailed the field notes - confirm that it opens

5/29/2017

iMessage Message sent 5/29/2017 6:09:13 PM

Hi Thomas. What are you thinking about the weather tomorrow? Are you planning to sample or do you want to postpone until Wednesday? If you sample tomorrow, you might want an early start to avoid possible afternoon T storms. Let me know and I'll send settings.

iMessage Message received from Thomas Bryce 5/29/2017 6:11:34 PM

Hi Dave, thanks for checking in - was planning on going tomorrow early anyway since my Wednesday is pretty booked up, shouldn't take me too long to do. Also we're you able to access the google drive for the scanned field notes?

iMessage Message sent 5/29/2017 6:17:38 PM

Great. I will send setting changes. I think I got the notes but have not looked at them yet.

iMessage Message sent 5/29/2017 8:12:04 PM

	5/9/17 settings	5/16/17 settings	5/23/2017 settings	5/30/2017 settings
JBT01	120	80	75	75
JBT02	10	6	6	6
JBT04	24	15	14	14
JBT05	450	200	100	100
JBT06	250	125	100	80
JBT07	60	40	30	30
JBT11	250	100	50	25
JBT13	30	25	20	20
JBT14	200	150	125	125
JBT16	150	125	125	120
JBT18	30	25	15	7
JBT19	30	25	13	6
Assume 100 squirts per jug, 95 mL per squirt				
100 L per pulse				
equate max with 2.5 carboys, 25 L sample, or ~250 100ML squirts				

iMessage Message received from Thomas Bryce 5/29/2017 8:59:09 PM

Thanks

5/30/2017

iMessage Message received from Thomas Bryce 5/30/2017 11:27:31 AM

For JBT 06:

05/30

$D_h = 26 + 28.5 = 54.5$

$D_n = 57$

$D_w = 57 - 54.5 = 2.5$

iMessage Message sent 5/30/2017 11:59:01 AM

Have you left this station?

iMessage Message sent 5/30/2017 12:00:13 PM

We are reading a little low, but I cannot connect to the modem to calibrate. If your time allows, it would be good to cycle power on the modem and measure level again

iMessage Message sent 5/30/2017 12:01:10 PM

I take it back. Connection is going through.
Any surprises out there?

iMessage Message received from Thomas Bryce 5/30/2017 12:02:51 PM

Ok cool no problem - and no surprises so far, samples are looking clear and measurements in carboys are matching squirt counts

iMessage Message sent 5/30/2017 12:10:13 PM

Excellent

iMessage Message sent 5/30/2017 4:48:01 PM

Yes, the sampling forms all came through Google docs. Thanks.

iMessage Message received from Thomas Bryce 5/30/2017 5:30:58 PM

No problem glad to hear

6/6/2017

iMessage Message sent 6/6/2017 8:39:53 AM

Are you sampling today or waiting for tomorrow?

iMessage Message received from Thomas Bryce 6/6/2017 8:41:31 AM

I was thinking of doing a split between today and tomorrow if possible - we're meeting our new AmeriCorps later this morning and wanted to show him some of the sampling process (will be a later start)

iMessage Message sent 6/6/2017 8:42:59 AM

Ok. I will send pacing settings shortly.

iMessage Message received from Thomas Bryce 6/6/2017 8:43:12 AM

Thanks, will keep you in the loop

iMessage Message sent 6/6/2017 10:47:48 AM

	5/9/17	5/16/17	5/23/2017	5/30/2017	6/6/2017
	settings	settings	settings	settings	settings
JBT01	120	80	75	75	75
JBT02	10	6	6	6	5
JBT04	24	15	14	14	14
JBT05	450	200	100	100	100
JBT06	250	125	100	80	40
JBT07	60	40	30	30	25
JBT11	250	100	50	25	15
JBT13	30	25	20	20	15
JBT14	200	150	125	125	80
JBT16	150	125	125	120	70
JBT18	30	25	15	7	5
JBT19	30	25	13	6	5

Assume 100 squirts per jug, 95 mL per squirt
100 L per pulse
equate max with 2.5 carboys, 25 L sample, or ~250 100ML squirts

iMessage Message sent 6/6/2017 10:52:38 AM

Thomas. Two weird things. No sample marks from JBT19. Thinking you forgot to start the sampler. So make that one a priority today, plus JBT18 to keep them paired. Also, JBT05 flow metering is problematic. Last Friday I set the carboy 1 aside for you , reprogrammed the sampler, and put carboy 2 in the first position. So process carboy 1 and 2. I also have it spitting small volume samples on the floor and very 15 minutes in the empty carboy 4 position. Don't worry about carboy 4. Justin trying to suspend sediment and make air bubbles in th manhole on the sampler purge cycle.

iMessage Message received from Thomas Bryce 6/6/2017 11:17:47 AM

Thanks for the heads up I'll make sure to do 18 and 19 today

iMessage Message received from Thomas Bryce 6/6/2017 12:43:51 PM

19 has been run now, 18 sampled and took a combined samples of the 2 carboys at 5. Weather is getting worse so I'm gonna split the rest of the sampling for tomorrow

iMessage Message sent 6/6/2017 12:52:12 PM

Good. Was 18 just not started r was their a malfunction ?

iMessage Message received from Thomas Bryce 6/6/2017 12:53:49 PM

It could've been not run by accident, didn't see any error notifications

6/7/2017

iMessage Message received from Thomas Bryce 6/7/2017 10:58:31 AM

For JBT06:

$D_h = 21 + 28.5 = 49.5$

$D_n = 57$

$D_w = 57 - 49.5 = 7.5$

iMessage Message sent 6/7/2017 12:32:05 PM

We are 5 mm high now, opposite of last week. I am connecting now to calibrate.
How are the other stations looking?

iMessage Message received from Thomas Bryce 6/7/2017 12:38:40 PM

Sounds good - other stations are looking fine. Clean samples, sampler displays matching with carboy volumes

iMessage Message received from Thomas Bryce 6/7/2017 1:06:35 PM



SMS Message sent 6/7/2017 2:07:39 PM

Manure odor?
If not too late, please take picture of the sample in a glass vial

iMessage Message received from Thomas Bryce 6/7/2017 2:17:21 PM

Just a little smell but nothing like previous weeks, and will send a pic in vile shortly

iMessage Message received from Thomas Bryce 6/7/2017 3:55:17 PM



iMessage Message sent 6/7/2017 4:14:27 PM

Thanks

6/12/2017

iMessage Message sent 6/12/2017 6:10:24 PM

A few items for tomorrow:
Please check desiccant in all the ISCO blue boxes and change if necessary.
Yellow/orange is good.
Please clear weeds shading solar panels and see if you can get more light
on JBT2 and 7.
Write down any recently applied manure.
Please call me when you are at JBT05 to walk through a programming
change.

iMessage Message sent 6/12/2017 6:10:45 PM

Here are the settings.

iMessage Message sent 6/12/2017 6:11:37 PM

	6/6/2017 settings	6/13/2017 settings
JBT01	75	75
JBT02	5	4
JBT04	14	14
JBT05	100	60
JBT06	40	30
JBT07	25	25
JBT11	15	8
JBT13	15	15
JBT14	80	80
JBT16	70	55
JBT18	5	3
JBT19	5	3

Assume 100 squirts per jug, 95 mL per squirt
100 L per pulse
equate max with 2.5 carboys, 25 L sample, or ~2

iMessage Message received from Thomas Bryce 6/12/2017 6:35:50 PM

Thanks will do!

6/13/2017

iMessage Message received from Thomas Bryce 6/13/2017 11:09:16 AM

Dw = 2.5 at JbT06

Outlet pipe: 6.5 liters at 10.35 sec

6/16/2017

iMessage Message received from Thomas Bryce 6/16/2017 10:58:14 AM

Hey Dave - I have an AmeriCorps training all day Tuesday/Wednesday next week, would you recommend I sample Monday?

iMessage Message sent 6/16/2017 3:37:05 PM

Yes. Thank you. I will send settings Sunday night. Will need to do another bucket measurement at Jbt06, cycle power at 13, and see if there is any way to get better sun on 2. It might better at this stage to aim the panel at the field even though that is like northwest.

iMessage Message received from Thomas Bryce 6/16/2017 6:24:43 PM

Sounds good, I'll make sure to take care of all that. Will touch base soon

6/19/2017

iMessage Message sent 6/19/2017 8:08:04 AM

Are you going to try to go for it today or wait until Thursday? You might be alright today until late afternoon though no guarantees. Just carboy 1 at all stations

iMessage Message received from Thomas Bryce 6/19/2017 8:10:48 AM

Yea I was thinking of holding off until Thursday due to the weather just in case - that ok with you?

iMessage Message sent 6/19/2017 8:12:14 AM

Yes

iMessage Message received from Thomas Bryce 6/19/2017 8:22:08 AM

Great, will talk soon

6/21/2017

iMessage Message sent 6/21/2017 11:22:10 PM

	8/1/2017	8/3/2017	8/8/2017	sampling note
JBT01	50	no change	50	ok
JBT02	4	no change	4	ok
JBT04	10	no change	10	ok
JBT05	250	125	125	ok (process carboy on bench as #1
JBT06	250	no change	125	insufficient sample (dump and rinse)
JBT07	45	no change	25	insufficient sample (dump and rinse)
JBT11	100	no change	50	insufficient sample (dump and rinse)
JBT13	15	no change	15	ok
JBT14	100	no change	80	ok
JBT16	25	no change	10	insufficient sample (dump and rinse)
JBT18	15	no change	15	ok
JBT19	25	no change	25	ok

No TN samples needed this round unless manure applied on hayfields
At all sites, observe outlet for flow and record
At JBT06, measure 1) average velocity in pipe, 2) carefully measure pipe depth, 3) water level at point above weir, 4) record exact time
Leave your gear (flowmeter, churnsplitter, and filter apparatus, etc) at JBT05
Send in your forms and invoice please
Thank you!

iMessage Message sent 6/21/2017 11:22:59 PM

Sorry for the late text. Was concerned I'd forget to do it tomorrow morning. Please call after you have cycled power on 13.

6/22/2017

iMessage Message received from Thomas Bryce 6/22/2017 10:33:17 AM

No problem I'll be sure to do so. For JBT06:

06/22

$$Dw = 57 - (25 + 28.5) = 3.5$$

$$\text{Flow} = 6.5 \text{ L/10 sec}$$

6/24/2017

iMessage Message sent 6/24/2017 8:42:23 PM

Hello Tom. We had high flows attached the JBT stations in the last couple rains. Since they were set for low flow summer conditions, several have already filled all four carboys and have stopped. There are a lot of samples to process. I am wondering if you could sample on Monday this week so our down time is as short as possible.

iMessage Message received from Thomas Bryce 6/24/2017 11:11:44 PM

Hi Dave, no problem I'll be out there Monday - will keep you posted

6/25/2017

iMessage Message received from Thomas Bryce 6/25/2017 4:05:26 PM

Hi Dave, I know sampling is pressing but would I be able to sample between tomorrow and Tuesday? I realized I don't have enough bottles for four carboys per site and gotta put in a new order and I have an appointment I gotta make in Williston at 2

6/26/2017

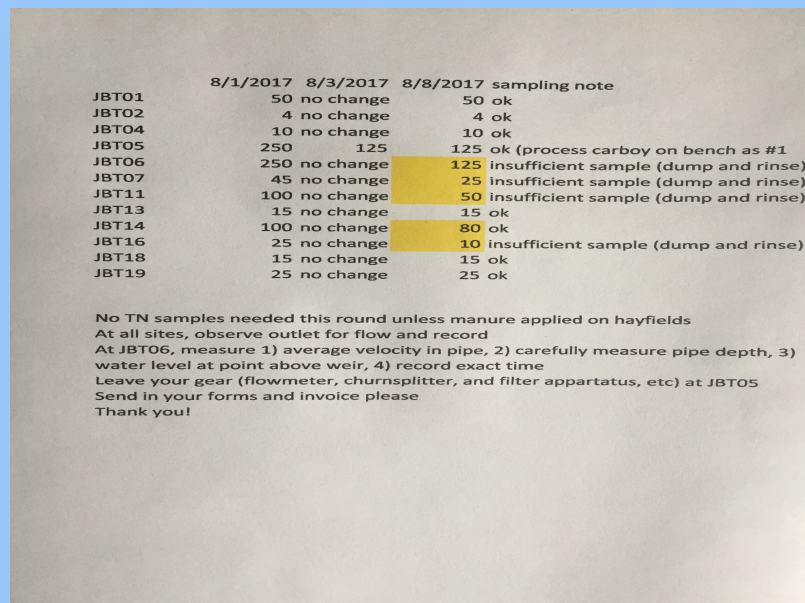
iMessage Message sent 6/26/2017 8:07:19 AM

I forgot to respond yesterday. It would be good to start where the samplers are stopped. I can send the list. Are you up there yet?

iMessage Message received from Thomas Bryce 6/26/2017 8:07:58 AM

No worries and not yet, will probably head there in an hour

iMessage Message sent 6/26/2017 9:23:22 AM



	8/1/2017	8/3/2017	8/8/2017	sampling note
JBT01	50	no change	50	ok
JBT02	4	no change	4	ok
JBT04	10	no change	10	ok
JBT05	250	125	125	ok (process carboy on bench as #1
JBT06	250	no change	125	insufficient sample (dump and rinse)
JBT07	45	no change	25	insufficient sample (dump and rinse)
JBT11	100	no change	50	insufficient sample (dump and rinse)
JBT13	15	no change	15	ok
JBT14	100	no change	80	ok
JBT16	25	no change	10	insufficient sample (dump and rinse)
JBT18	15	no change	15	ok
JBT19	25	no change	25	ok

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At all sites, observe outlet for flow and record
At JBT06, measure 1) average velocity in pipe, 2) carefully measure pipe depth, 3) water level at point above weir, 4) record exact time
Leave your gear (flowmeter, churnsplitter, and filter apparatus, etc) at JBT05
Send in your forms and invoice please
Thank you!

iMessage Message received from Thomas Bryce 6/26/2017 9:24:19 AM

Thanks will do

iMessage Message received from Thomas Bryce 6/26/2017 11:21:11 AM

Power cycled at JBT07

iMessage Message received from Thomas Bryce 6/26/2017 12:10:52 PM

Repositioned the solar panel on 02, is there any reserve power or way to reboot the sampler?

iMessage Message sent 6/26/2017 12:43:01 PM

Just try disconnecting the alligator clips at the battery. Wait a few minutes. Then reconnect and let me know what lights come on on the sun saver.

iMessage Message received from Thomas Bryce 6/26/2017 12:43:57 PM

Ok will do

iMessage Message received from Thomas Bryce 6/26/2017 12:53:47 PM

Battery status yellow light came on, charging status is blinking and the flow meter and sampler both rebooted

6/27/2017

iMessage Message received from Thomas Bryce 6/27/2017 12:25:27 PM

At JBT06:

06/27/17

$Dw = 57 - (21 + 28.5) = 7.5$
Flow = 6 L / 10 sec

iMessage Message received from Thomas Bryce 6/27/2017 12:34:18 PM

I will probably run out of viles again today at the pace I'm going - is it possible to combine carboys to reduce the amount of viles submitted even if all carboys are full at a station

iMessage Message sent 6/27/2017 12:35:22 PM

No, but you could take some full carboys with you for processing back at the lab

iMessage Message received from Thomas Bryce 6/27/2017 12:37:14 PM

Damn that's a lot of water to carry out, I was not prepared for this

iMessage Message received from Thomas Bryce 6/27/2017 12:42:46 PM

1 carboy or all 4 carboys from each station? There's a storm rolling in and I have 18 19 11 and 13 and 14 left

iMessage Message sent 6/27/2017 2:12:11 PM

Phone died. I will calm in a minute

iMessage Message received from Thomas Bryce 6/27/2017 2:13:36 PM

No problem

7/5/2017

iMessage Message received from Thomas Bryce 7/5/2017 9:06:49 AM

Got all the supplies at the lab, green mountain messenger was successful

iMessage Message received from Thomas Bryce 7/5/2017 10:23:30 AM

When you get a chance could you send me the flow pacing settings?
Walking out to 13 and 14 now

iMessage Message sent 7/5/2017 12:26:20 PM

Assume 100 squirts per jug, 95 mL per squirt
100 L per pulse
equates max with 2.5 carboys, 25 L sample, or ~250 100mL squirts

	6/6/2017	6/13/2017	6/22/17	6/26/17	6/30/17	7/5/2017
	settings	settings	settings	settings	(interim)	
JB101	75	75	75	75	75	75
JB102	5	4	4	6	6	6
JB104	14	14	10	12	12	12
JB105	100	60	60	80	200	200
JB106	40	30	30	50	250	250
JB107	25	25	25	30	90	90
JB111	15	8	5	6	160	160
JB113	15	15	15	15	15	15
JB114	80	80	80	120	120	120
JB116	70	55	45	50	50	50
JB118	5	3	2 no change	8	25	25
JB119	5	3	2 no change	8	25	25

iMessage Message received from Thomas Bryce 7/5/2017 2:20:35 PM

At JBT06:

07/05/17

$Dw = 57 - (22.5 + 28.5) = 6$

$Flow = 3.5 \text{ L} / 2.4 \text{ sec} = 1.46 \text{ L/s} = 87.5 \text{ L/min}$

iMessage Message sent 7/5/2017 3:39:39 PM

Got it. Starting to look a little better. Would you say this was a good flow measurement?

I think I should try to get an old propeller velocity meter up there and you could do a quick measurement that way. I could leave it in the shelter. The volume measurement last Friday was real rough due to the flow rate and the water level in the ditch.

iMessage Message received from Thomas Bryce 7/5/2017 4:11:36 PM

I would say it was a relatively accurate flow for the way we've been conducting the measurement - that would be great if you were able to get that meter

7/7/2017

iMessage Message sent 7/7/2017 1:57:40 PM

I want to send you printed labels. What address?

7/10/2017

iMessage Message received from Thomas Bryce 7/10/2017 2:23:11 PM

Hey Dave, got the labels in my mail just wanted to confirm receipt for you

iMessage Message sent 7/10/2017 2:35:55 PM

Thank you. Will send settings tonight:

iMessage Message received from Thomas Bryce 7/10/2017 4:19:58 PM

Perfect sounds good

7/11/2017

iMessage Message sent 7/11/2017 8:27:03 AM

	8/1/2017	8/3/2017	8/8/2017	sampling note
JBT01	50	no change	50	ok
JBT02	4	no change	4	ok
JBT04	10	no change	10	ok
JBT05	250	125	125	ok (process carboy on bench as #1
JBT06	250	no change	125	insufficient sample (dump and rinse)
JBT07	45	no change	25	insufficient sample (dump and rinse)
JBT11	100	no change	50	insufficient sample (dump and rinse)
JBT13	15	no change	15	ok
JBT14	100	no change	80	ok
JBT16	25	no change	10	insufficient sample (dump and rinse)
JBT18	15	no change	15	ok
JBT19	25	no change	25	ok

No TN samples needed this round unless manure applied on hayfields
At all sites, observe outlet for flow and record
At JBT06, measure 1) average velocity in pipe, 2) carefully measure pipe depth, 3) water level at point above weir, 4) record exact time
Leave your gear (flowmeter, churnsplitter, and filter apparatus, etc) at JBT05
Send in your forms and invoice please
Thank you!

iMessage Message received from Thomas Bryce 7/11/2017 12:06:44 PM

For JBT06:

07/11

$$Dw = 57 - (7.5 + 28.5) = 21$$

Flow = N/A (outlet pipe submerged)

iMessage Message sent 7/11/2017 2:32:00 PM

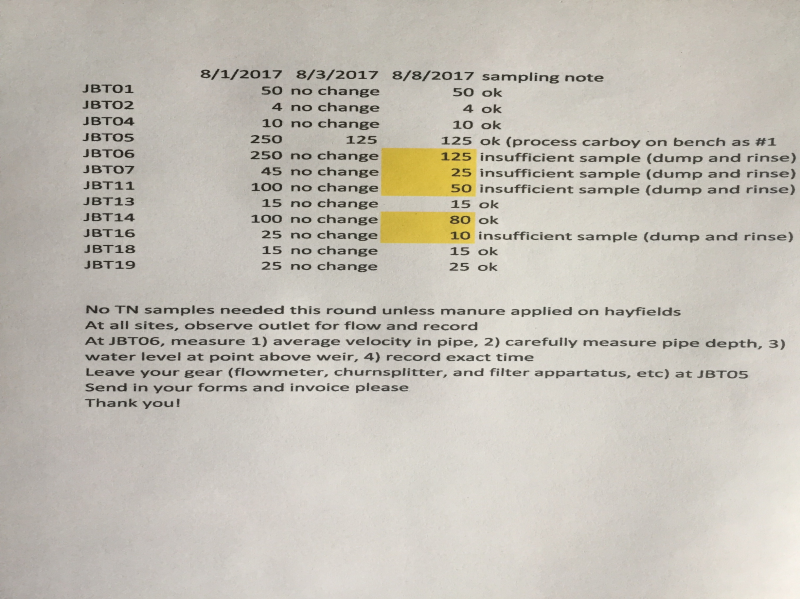
We can drop it off at the lab at 8 or 8:30 tomorrow. Does that work for you.

iMessage Message received from Thomas Bryce 7/11/2017 2:37:59 PM

That works, I'll be there to pick it up shortly after

7/18/2017

iMessage Message sent 7/18/2017 8:27:08 AM



	8/1/2017	8/3/2017	8/8/2017	sampling note
JBT01	50	no change	50	ok
JBT02	4	no change	4	ok
JBT04	10	no change	10	ok
JBT05	250	125	125	ok (process carboy on bench as #1
JBT06	250	no change	125	insufficient sample (dump and rinse)
JBT07	45	no change	25	insufficient sample (dump and rinse)
JBT11	100	no change	50	insufficient sample (dump and rinse)
JBT13	15	no change	15	ok
JBT14	100	no change	80	ok
JBT16	25	no change	10	insufficient sample (dump and rinse)
JBT18	15	no change	15	ok
JBT19	25	no change	25	ok

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water level at point above weir, 4) record exact time
Leave your gear (flowmeter, churnsplitter, and filter apparatus, etc) at JBT05
Send in your forms and invoice please
Thank you!

iMessage Message received from Thomas Bryce 7/18/2017 8:46:00 AM

Sounds good will do, thanks Dave

iMessage Message received from Thomas Bryce 7/18/2017 12:27:41 PM

7/18

$Dw = 57 - (21.5 + 28.5) = 7$

Flow = .51 mph = .741 ft/s @ 12:00pm

Pipe depth = .41

iMessage Message received from Thomas Bryce 7/18/2017 12:27:51 PM

Battery dead at JBT04

7/23/2017

iMessage Message received from Thomas Bryce 7/23/2017 4:14:16 PM

Hey Dave just wanted to give you the heads up I'll be out of town Tuesday
and will have to push back tile drain sampling till Wednesday

iMessage Message sent 7/23/2017 5:35:51 PM

Ok. Good. I am in Wyoming but will send pacing.

iMessage Message received from Thomas Bryce 7/23/2017 6:39:16 PM

Thanks sounds good, enjoy your time in Wyoming

iMessage Message sent 7/23/2017 7:12:42 PM

I put up a second, small solar panel at JBT02 and 4 to try to solve the power problem. And I restarted the JBT04 sampler.

7/26/2017

iMessage Message received from Thomas Bryce 7/26/2017 8:59:07 AM

When you get a chance could you send me the flow pacing?

iMessage Message sent 7/26/2017 9:17:38 AM

Turns out I do not have enough internet connection to do this.

iMessage Message sent 7/26/2017 9:17:50 AM

Let me check the VT weather.

iMessage Message sent 7/26/2017 9:21:13 AM

Right. Cannot do that either. All I can do is text. So, what does the weather forecast say for this week? Unless there is a lot of rain, my sense is the drains are drying up and we need to reduce the settings.

iMessage Message received from Thomas Bryce 7/26/2017 9:23:06 AM

No problem, it looks like it may rain a little tonight but looking sunny in the forecast the next week

iMessage Message received from Thomas Bryce 7/26/2017 9:23:14 AM



iMessage Message sent 7/26/2017 9:26:19 AM

Thomas. Unless a station has 2 or more full bottles, I recommend cutting the setting in half and documenting the new setting.

iMessage Message sent 7/26/2017 9:26:56 AM

I recommend checking the outlet pipes to confirm whether they are flowing.

iMessage Message received from Thomas Bryce 7/26/2017 9:39:51 AM

Not a problem I'll be sure to do so

7/31/2017

iMessage Message sent 7/31/2017 5:18:57 PM

Are you sampling tomorrow or Wednesday?

iMessage Message received from Thomas Bryce 7/31/2017 5:19:21 PM

I was planning for tomorrow

iMessage Message sent 7/31/2017 5:24:18 PM

Ok. Flow is way down now.

iMessage Message received from Thomas Bryce 7/31/2017 5:25:09 PM

I figured since it's so dry, keep pacing the same?

iMessage Message sent 7/31/2017 5:28:47 PM

I think we need to drop the settings across the board. There may be barely enough to process at some stations. Could you send me the pacing settings you applied last week?

iMessage Message received from Thomas Bryce 7/31/2017 5:46:21 PM

No problem - will send you those shortly I have them written down in the binder

iMessage Message received from Thomas Bryce 7/31/2017 8:20:35 PM

Pacing settings 07/26/17

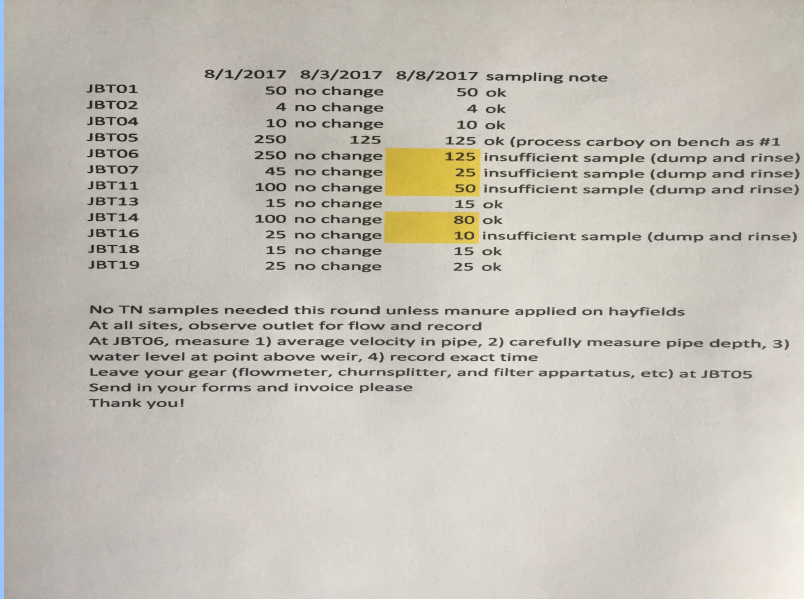
JBT05: 250
JBT06: 350
JBT04: 12
JBT01: 100
JBT02: 6
JBT16: 50
JBT07: 90
JBT18: 30
JBT19: 35
JBT11: 200
JBT13: 15
JBT14: 150

iMessage Message received from Thomas Bryce 7/31/2017 8:20:53 PM

I don't think I changed anything since most carboys were at most 3 liters

8/1/2017

iMessage Message sent 8/1/2017 8:52:48 AM



	8/1/2017	8/3/2017	8/8/2017	sampling note
JBT01	50	no change	50	ok
JBT02	4	no change	4	ok
JBT04	10	no change	10	ok
JBT05	250	125	125	ok (process carboy on bench as #1
JBT06	250	no change	125	insufficient sample (dump and rinse)
JBT07	45	no change	25	insufficient sample (dump and rinse)
JBT11	100	no change	50	insufficient sample (dump and rinse)
JBT13	15	no change	15	ok
JBT14	100	no change	80	ok
JBT16	25	no change	10	insufficient sample (dump and rinse)
JBT18	15	no change	15	ok
JBT19	25	no change	25	ok

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At JBT06, measure 1) average velocity in pipe, 2) carefully measure pipe depth, 3)
water level at point above weir, 4) record exact time
Leave your gear (flowmeter, churnsplitter, and filter apparatus, etc) at JBT05
Send in your forms and invoice please
Thank you!

iMessage Message sent 8/1/2017 8:54:56 AM

Hi Thomas. Here are the new settings. To clarify, we need to reduce the settings as the flow rate declines so that we still get a good sample. Some of these stations are now taking squirts more than 24 hours apart, which is too long.

iMessage Message sent 8/1/2017 8:56:45 AM

Please look at the outfall pipes and note on the form whether they are flowing.

iMessage Message received from Thomas Bryce 8/1/2017 9:08:58 AM

Thanks Dave will do, I assume some of these carboys will have very little sample to process then?

iMessage Message sent 8/1/2017 9:25:51 AM

Yes. Just do your best. Try not to get the dregs of the bottle.

iMessage Message received from Thomas Bryce 8/1/2017 11:15:18 AM

There's a decent sized crack forming in the nozzle of the churn splitter, would you be able to order a new one? Making it work for the moment

iMessage Message sent 8/1/2017 11:26:43 AM

I think I might have a spare. Let me check.

iMessage Message received from Thomas Bryce 8/1/2017 2:24:14 PM

At JBT06:

Not enough sample to process, 3 out of 100 bottle 1,

$Dw = 57 - (28 + 28.5) = 0.5$

Flow = 13.33 L/min @2:18pm

iMessage Message received from Thomas Bryce 8/1/2017 2:24:40 PM

Will probably have to call it after JBT05, I'm getting roasted out in the sun here

iMessage Message sent 8/1/2017 2:41:19 PM

Ok. At JBT06, did it just look like a trickle over the weir notch? The PT was reading almost zero so I just want to make sure it looked like several mm of flow. Your measurement is just shy of 1/4 inch. Sound close?

iMessage Message received from Thomas Bryce 8/1/2017 2:42:34 PM

Yes definitely some trickle over the weir - sounds pretty close to me

iMessage Message received from Thomas Bryce 8/1/2017 2:42:55 PM

All pacing settings are changed as well

iMessage Message sent 8/1/2017 2:44:56 PM

Great. Thanks. I found a Spout. It is not the kind I like but it will work. I will leave it at one of the stations. If you leave the splitter at 5 I will put it on.

iMessage Message received from Thomas Bryce 8/1/2017 2:45:47 PM

Perfect sounds good, I'll leave the splitter at 5 then

8/3/2017

iMessage Message sent 8/3/2017 9:39:31 AM

Hi Thomas. Start to finish how long do you think it takes you to do a sampling run of the tile drain sites, with trip to the lab even etc.? Working on a proposal and this could help. Thanks.

iMessage Message received from Thomas Bryce 8/3/2017 10:06:15 AM

Hi Dave, on average I'd say it would take me 7-8 hours including the post processing/paperwork and a delivery trip to UVM. Really depends on the weather or if I have extra hands out there with me

iMessage Message sent 8/3/2017 10:23:30 AM

Perfect. Thanks.

8/7/2017

iMessage Message sent 8/7/2017 10:14:52 PM

Barely enough sample at some sites now and not enough at others. But it is raining in St. Albans now. So I need to check in AM and send pacings.

iMessage Message received from Thomas Bryce 8/7/2017 10:23:33 PM

Ok no problem, sounds good

8/8/2017

iMessage Message sent 8/8/2017 8:54:23 AM

	8/1/2017	8/3/2017	8/8/2017	sampling note
JBT01	50	no change	50	ok
JBT02	4	no change	4	ok
JBT04	10	no change	10	ok
JBT05	250	125	125	ok (process carboy on bench as #1
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Send in your forms and invoice please
Thank you!

iMessage Message received from Thomas Bryce 8/8/2017 9:03:59 AM

Thanks Dave should be a straight forward sampling day, will be sure to leave the equipment at JBT05 when I'm done

iMessage Message sent 8/8/2017 9:12:27 AM

Great. Very low sample volumes all around because pipes are nearly dry.

iMessage Message received from Thomas Bryce 8/8/2017 12:27:19 PM

At JBT06:

08/08/17

Dw = $57 - (37 + 28.5) = -8.5$

Flow = 0 @ 12:25pm

iMessage Message sent 8/8/2017 1:11:11 PM

No flow out the end so no leaks?

iMessage Message received from Thomas Bryce 8/8/2017 1:37:35 PM

No leaks and no flow out the outlet pipe or over the weir

iMessage Message sent 8/8/2017 2:01:59 PM

Good. Thanks.

9/25/2017

iMessage Message sent 9/25/2017 9:19:17 AM

Loved "Are you still able to help me tomorrow in St Albans? Let's plan on 9:00 at the same meeting spot."

iMessage Message sent 9/25/2017 9:21:30 AM

Loved "Jbt01=75, jbt02=6, jbt04=15"