

Teton Stoneflies 2022  
WYNDD-Tronstad 307-766-3115

Date: 10 Aug 2022

Time: Arrived: 12:35 Departed: 4:00 Collectors: AT, SH, TP

Stream: Skillet Location Description: \_\_\_\_\_

Coordinates: N 43.83953 W - 112.75655 Datum: NAD 83

Elevation: 2913 m ft Site name on GPS: Skillet

Water quality (Recorded with a YSI Pro Plus Multitprobe)

Parameter	Value	Units
Water temperature	<u>8.6</u>	°C
Barometric pressure	<u>556.6</u>	mmHg
DO	<u>87.0</u>	% saturation
DO	<u>10.11</u>	mg/L
Specific conductivity (SPC)	<u>3.3</u>	µS/cm
Conductivity	<u>2.3</u>	µS/cm
pH	<u>7.37</u>	
ORP		mV
Air temp		°C

Last calibrated: 8/8 DO: 8/10

Photos taken: Site ☒ Temp Probe ☒

Weather: Blue Sky day

Substrate type: Cobble + Boulder

3 Surbers collected: ☒

Biofilm rank: Little Medium Green

Microbes collected: ☒

Turbidity 12.0 NTU

Pfankuck Index

	Excellent	Good	Fair	Poor	Score	Notes
Angularity	Lots of edges (1)	Some edges, some round (2)	Rounded edges (3)	All round (4)	<u>2</u>	
Brightness (Dull = biofilm)	Most surfaces dull (1)	Mostly dull, <35% bright (2)	50/50 dull & bright (3)	Mostly bright, >65% (4)	<u>3.5</u>	<u>3.547</u>
Scour	<5% evidence of scour (6)	5-30% of bed scoured (12)	30-50% of bed scoured (18)	>50% of bed scoured (24)	<u>24</u>	
Consolidation of substrate	Tightly packed (2)	Moderately packed (4)	Mostly loose (6)	Totally loose, easily moved (8)	<u>6</u>	
Aquatic Veg	Abundant veg, moss in swift water (1)	Common veg or algae, lots in pools (2)	Spotty, in backwater or seasonal algae (3)	Perennial types, very scarce or absent (4)	<u>3</u>	

Deployed Temp logger number: 10972587 Coordinates: UTM's: N \_\_\_\_\_ W - \_\_\_\_\_

Retrieved Temp logger number: 20571723 Notes: Totally buried

Description of logger location: Just downstream of boulder on southside, logger on north side

Photo numbers of temp logger placement: \_\_\_\_\_

Suspended Solids:

Filter number	<u>#1</u>	<u>#2</u>	<u>#3</u>
Volume filtered (mL)	<u>210</u>	<u>170</u>	<u>200</u>

Nutrient samples collected: ☒

DOC collected: ☒

Chl a collected: ☒

Algae collected: ☒

Stream Profile: (left edge)

\*looking down stream\*

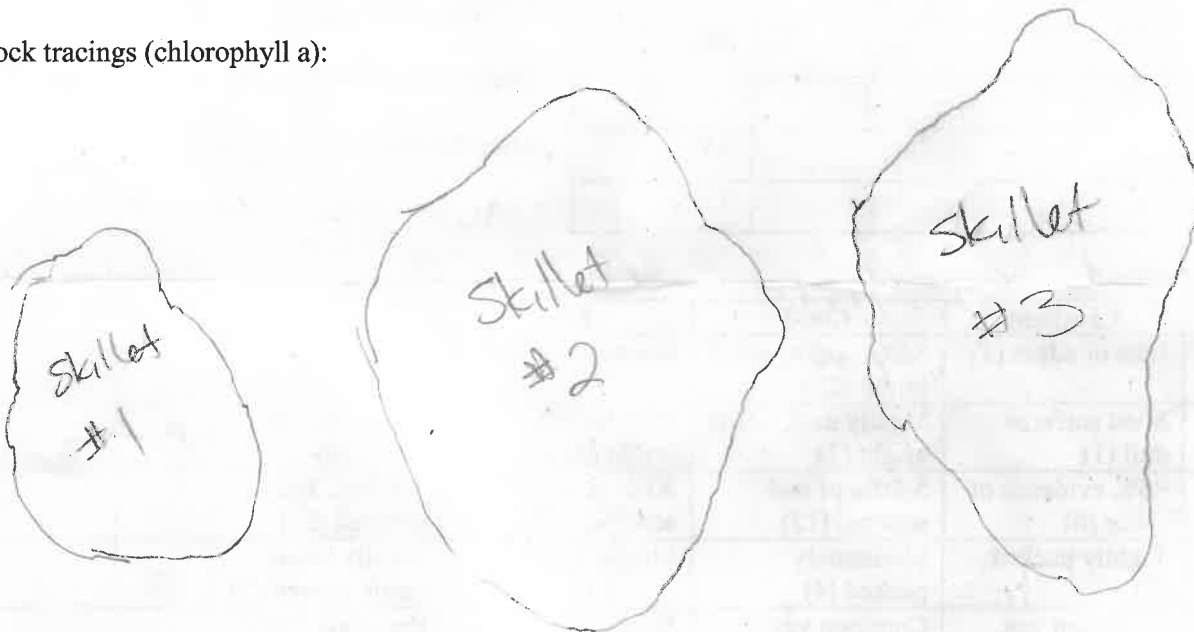
(right edge)

Distance (cm)	0	60	120	180	140	200	260	320	340				
Depth (cm)	4	2	2	5	9	8	22	9	6				

Flow:

Replicate	Distance (yds)	Time (sec)
1	4.7	4
2	↓	3
3	↓	4

3 Rock tracings (chlorophyll a):



Notes:

logger is completely buried under cobble  
more water than last year  
Scott took photos of a rock we could install  
a pressure transducer in.

Teton Stoneflies 2022  
WYNDD-Tronstad 307-766-3115

Date: 8 Aug 2022

Time: Arrived: 19:30 Departed: \_\_\_\_\_ Collectors: AT, SH, DF + TP

Stream: S. Alaska Basin Location Description: At Deb's campsite

Coordinates: N 43.69276 W - 110.85851 Datum: NAD83

Elevation: 2881 m Site name on GPS: S AK Fly Seep

Water quality (Recorded with a YSI Pro Plus Multprobe)

Parameter	Value	Units
Water temperature	<u>2.0</u>	°C
Barometric pressure	<u>545.0</u>	mmHg
DO	<u>84.3</u>	% saturation
DO	<u>11.59</u>	mg/L
Specific conductivity (SPC)	<u>208.3</u>	µS/cm
Conductivity	<u>116.7</u>	µS/cm
pH	<u>7.99</u>	
ORP		mV
Air temp	<u>WARM</u>	°C

Last calibrated: 8/7 DO: 8/8

Photos taken: Site ☒ Temp Probe ☒

Weather: Sunny

Substrate type: Cobble

3 Surbers collected: ☒

Biofilm rank: Little Medium Green

Microbes collected: ☒

Slope 3°

Aspect 345°

Turbidity = 4.01 NTU

Pfankuck Index

	Excellent	Good	Fair	Poor	Score	Notes
Angularity	Lots of edges (1)	Some edges, some round (2)	Rounded edges (3)	All round (4)	<u>2</u>	
Brightness (Dull = biofilm)	Most surfaces dull (1)	Mostly dull, <35% bright (2)	50/50 dull & bright (3)	Mostly bright, >65% (4)	<u>3</u>	
Scour	<5% evidence of scour (6)	5-30% of bed scoured (12)	30-50% of bed scoured (18)	>50% of bed scoured (24)	<u>6</u>	
Consolidation of substrate	Tightly packed (2)	Moderately packed (4)	Mostly loose (6)	Totally loose, easily moved (8)	<u>6</u>	
Aquatic Veg	Abundant veg, moss in swift water (1)	Common veg or algae, lots in pools (2)	Spotty, in backwater or seasonal algae (3)	Perennial types, very scarce or absent (4)	<u>1</u>	

Deployed Temp logger number: 20571725 Coordinates: UTM's: N same as above

Retrieved Temp logger number: 21101990 Notes: Label did not hold up

Description of logger location: Same

Photo numbers of temp logger placement: None

Suspended Solids:

Filter number	<u>1</u>	<u>2</u>	<u>3</u>
Volume filtered (mL)	<u>1000</u>	<u>1000</u>	<u>1000</u>

Nutrient samples collected: ☒

DOC collected: ☒

Chl a collected: ☒

Algae collected: ☒

Turbidity ☒

Date: 8 Aug 2022

Stream Profile: (left edge)

\*looking down stream\*

(right edge)

Distance (cm)	0	10	20	30	40	50	60	70	80
Depth (cm)	5	8	14	11	12	6	2	2	1

Flow:

Replicate	Distance (yds)	Time (sec)
1	6.1	7.8
2	6.1	8.1
3	6.1	10.5

3 Rock tracings (chlorophyll a):



Notes:

This site looks the same as every year.

Maybe a little more water

Surrounding geology metamorphic, RG is limestone



**Teton Stoneflies 2022**  
WYNDD-Tronstad 307-766-3115

Date: 8 Aug 2022

Time: Arrived: 3:55 Departed: 5:15 Collectors: AI, SA, TP

Stream: SF Teton Creeks Location Description: Below Buck Peak

Coordinates: N 43.69083 W - 110.84093 Datum: NAD83

Elevation: 3008 m Site name on GPS: SF Teton

Water quality (Recorded with a YSI Pro Plus Multitprobe)

Parameter	Value	Units
Water temperature	<u>17.2</u>	°C
Barometric pressure	<u>536.7</u>	mmHg
DO	<u>71.0</u>	% saturation
DO	<u>6.84</u>	mg/L
Specific conductivity (SPC)	<u>71.6</u>	µS/cm
Conductivity	<u>60.9</u>	µS/cm
pH	<u>8.04</u>	
ORP		mV
Air temp		°C

Last calibrated: 8/7 DO: 8/8

Photos taken: Site      Temp Probe ☒

Weather: Blue sky day

Substrate type: Cobble

3 Surbers collected: ☒

Biofilm rank: Little Medium Green

Microbes collected: ☒

Slope = 4°  
Aspect 260° Turbidity = 1.27 NTU

**Pfankuck Index**

	Excellent	Good	Fair	Poor	Score	Notes
<b>Angularity</b>	Lots of edges (1)	Some edges, some round (2)	Rounded edges (3)	All round (4)	<u>3</u>	
<b>Brightness</b> (Dull = biofilm)	Most surfaces dull (1)	Mostly dull, <35% bright (2)	50/50 dull & bright (3)	Mostly bright, >65% (4)	<u>4</u>	
<b>Scour</b>	<5% evidence of scour (6)	5-30% of bed scoured (12)	30-50% of bed scoured (18)	>50% of bed scoured (24)	<u>6</u>	
<b>Consolidation of substrate</b>	Tightly packed (2)	Moderately packed (4)	Mostly loose (6)	Totally loose, easily moved (8)	<u>6</u>	
<b>Aquatic Veg</b>	Abundant veg, moss in swift water (1)	Common veg or algae, lots in pools (2)	Spotty, in backwater or seasonal algae (3)	Perennial types, very scarce or absent (4)	<u>3</u>	

Deployed Temp logger number: 20571724 Coordinates: UTM: N Same as above W -     

Retrieved Temp logger number: 20416500 Notes:     

Description of logger location: In Pool, upstream of bedrock exposed

Photo numbers of temp logger placement:     

**Suspended Solids:**

Filter number	#1	#2	#3
Volume filtered (mL)	<u>1,000</u>	<u>1,000</u>	<u>1000</u>

Nutrient samples collected: ☒

DOC collected: ☒

Chl a collected: ☒

Algae collected: ☒

Stream Profile: (left edge)

\*looking down stream\*

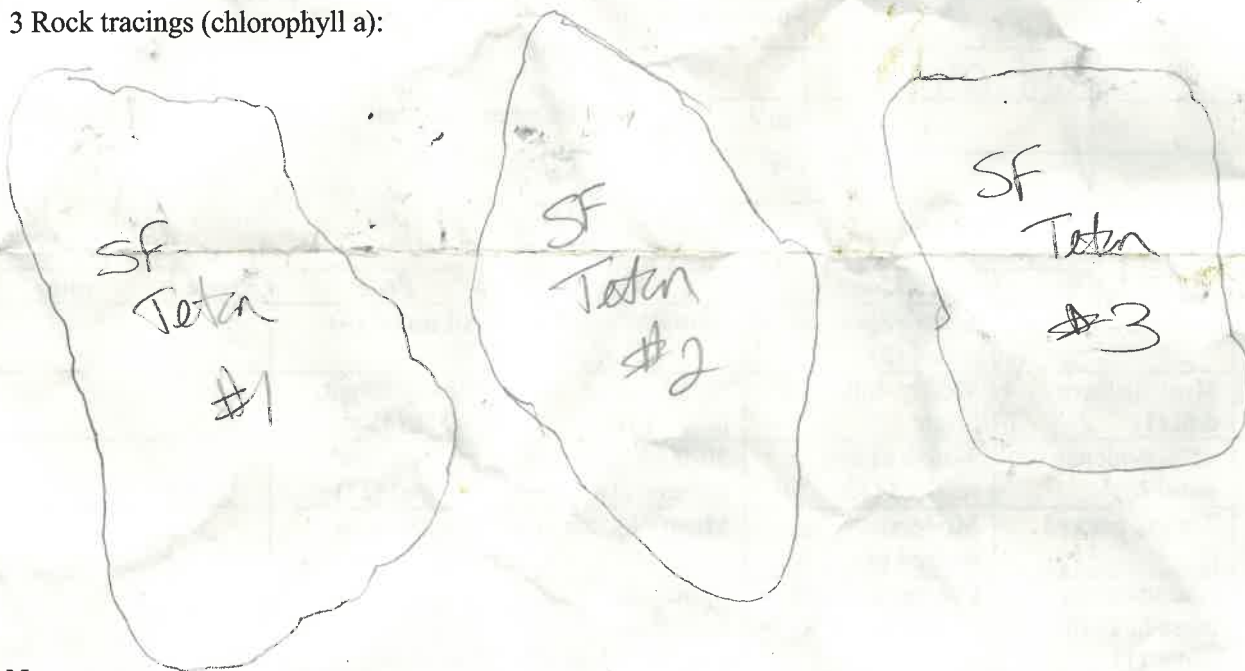
(right edge)

Distance (cm)	0	20	40	60	80	100			
Depth (cm)	7	3	14	15	8	3			

Flow:

Replicate	Distance (yds)	Time (sec)
1	4	9.77
2	4	8.30
3	4	7.38

3 Rock tracings (chlorophyll a):



Notes:

Site looks the same, Megacys & Tipulidae.

Teton Stoneflies 2022  
WYNDD-Tronstad 307-766-3115

Date: 7 Aug 2022

Time: Arrived: 12:15 Departed: 2:20 Collectors: LT, SH, DF, TP

Stream: Wind Cave Location Description: Outside cave mouth

Coordinates: N \_\_\_\_\_ W \_\_\_\_\_ Datum: \_\_\_\_\_

Elevation: \_\_\_\_\_ ft Site name on GPS: \_\_\_\_\_

Water quality (Recorded with a YSI Pro Plus Multiprobe)

Parameter	Value	Units
Water temperature	<u>2.9</u>	°C
Barometric pressure	<u>561.4</u>	mmHg
DO	<u>87.0</u>	% saturation
DO	<u>11.70</u>	mg/L
Specific conductivity (SPC)	<u>100.9</u>	µS/cm
Conductivity	<u>87.3</u>	µS/cm
pH	<u>7.72</u>	
ORP		mV
Air temp		°C

Last calibrated: 8/3 DO: 8/7

Photos taken: Site \_\_\_\_\_ Temp Probe \_\_\_\_\_

Weather: Partly Cloudy

Substrate type: Tobble

3 Surbers collected: ☒

Biofilm rank: Little Medium Green

Microbes collected: ☒

Turbidity 7.64 NTU

Pfankuck Index

	Excellent	Good	Fair	Poor	Score	Notes
Angularity	Lots of edges (1)	Some edges, some round (2)	Rounded edges (3)	All round (4)	<u>2</u>	<u>Bedrock</u>
Brightness (Dull = biofilm)	Most surfaces dull (1)	Mostly dull, <35% bright (2)	50/50 dull & bright (3)	Mostly bright, >65% (4)	<u>3</u>	<u>Moss</u>
Scour	<5% evidence of scour (6)	5-30% of bed scoured (12)	30-50% of bed scoured (18)	>50% of bed scoured (24)	<u>20</u>	
Consolidation of substrate	Tightly packed (2)	Moderately packed (4)	Mostly loose (6)	Totally loose, easily moved (8)	<u>6</u>	<u>Lots of bedrock but some rocks loose</u>
Aquatic Veg	Abundant veg, moss in swift water (1)	Common veg or algae, lots in pools (2)	Spotty, in backwater or seasonal algae (3)	Perennial types, very scarce or absent (4)	<u>1</u>	

Deployed Temp logger number: 20571722 Coordinates: UTM's: N \_\_\_\_\_ W - \_\_\_\_\_

Retrieved Temp logger number: C Notes: \_\_\_\_\_

Description of logger location: \_\_\_\_\_

Photo numbers of temp logger placement: Could not find temp logger. Flood in June. Realigned stream

Suspended Solids:

Filter number	#1	#2	#3
Volume filtered (mL)	<u>430</u>	<u>370</u>	<u>450</u>

430

Nutrient samples collected: ☒

DOC collected: ☒

Chl a collected: ☒

Algae collected: ☒

ANB: ☒

**Teton Stoneflies 2022**

WYNDD-Tronstad 307-766-3115

Date: \_\_\_\_\_

Stream Profile: *5 m upstream of usual spot*  
(left edge) \*looking down stream\*

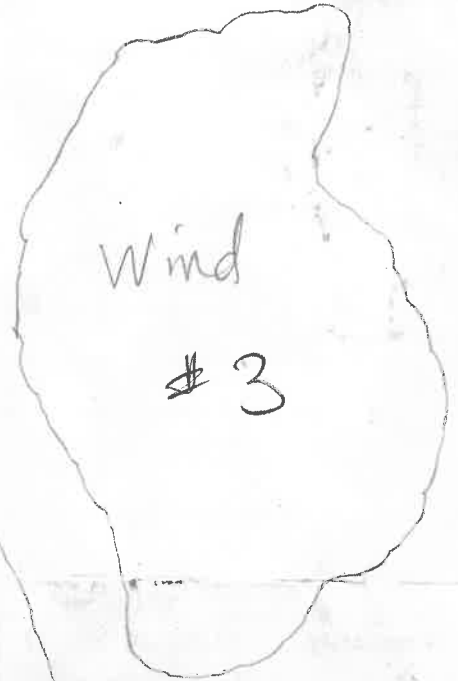
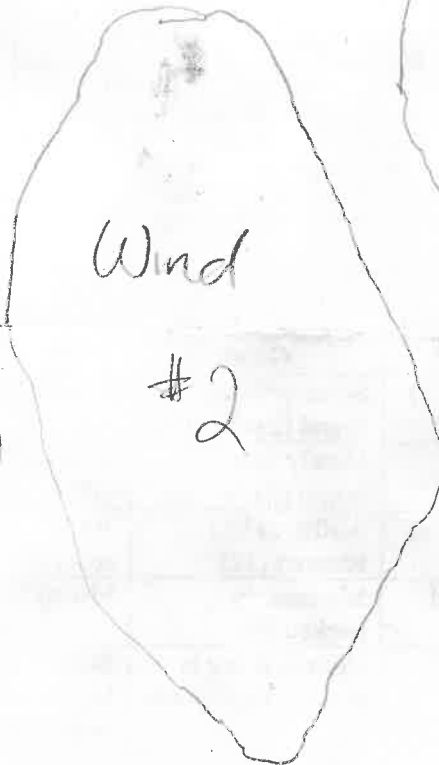
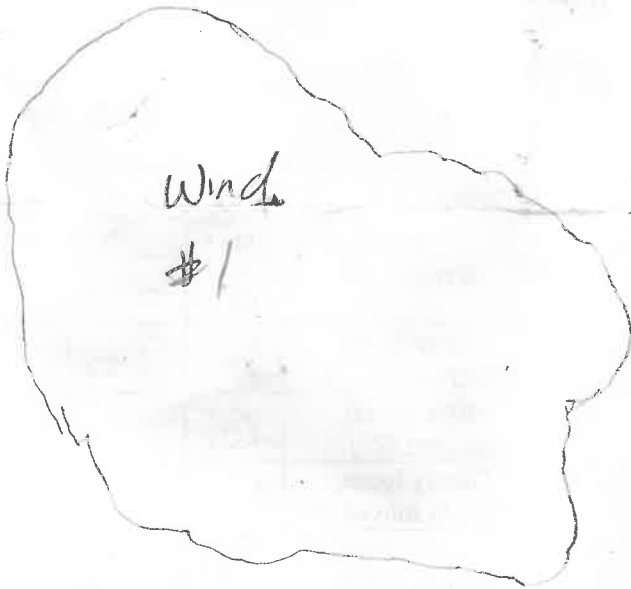
(right edge)

Distance (cm)	0	.5	1	1.5	2	2.5	3.0	3.3	
Depth (cm)	3	3	7	15	0	5	5	9	

Flow:

Replicate	Distance (yds)	Time (sec)
1	9.9	7.74
2	9.9	10.35
3	9.9	6.40

3 Rock tracings (chlorophyll a):



Notes:

Can't find logger. Stream totally re-arranged. Looks like a huge flood occur. Maybe at the same time Yellowstone flooded. Lots of moved boulders + trees in stream. Flow also higher than normal. Logger likely buried. Scott placed new logger. Placed mid-slope below boulders in pool, right side of stream. Some filamentous algae on rocks.

Wear helmets. Rocks falling



Teton Stoneflies 2022  
WYNDD-Tronstad 307-766-3115

Date: 9 Aug 2022

Time: Arrived: 11:30 Departed: 13:00 Collectors: D. b (Sola)

Stream: South Cascade icy seep Location Description: Most sampling ~40-50m  
als of seep

Coordinates: N \_\_\_\_\_ W - \_\_\_\_\_ Datum: \_\_\_\_\_

Elevation: \_\_\_\_\_ ft Site name on GPS: \_\_\_\_\_

Water quality (Recorded with a YSI Pro Plus Multitprobe)

Parameter	Value	Units
Water temperature	0.6	°C
Barometric pressure	528	mmHg
DO	102	% saturation
DO	10.2	mg/L
Specific conductivity (SPC)	176	µS/cm
Conductivity	94	µS/cm
pH	7.8	
ORP	95	mV
Air temp	warm!	°C

ORP/cond/pH  
Last calibrated: 2 days DO: today  
Photos taken: Site ☒ Temp Probe ☒  
Weather: Sunny + calm!  
Substrate type: same ol' loose rocks w/  
3 Surbers collected: ☒ + 1 for same fines on top  
Biofilm rank: Little Medium Green  
Microbes collected: ☒ N=3  
Turbidity 25.9 NTU

Pfankuck Index

	Excellent	Good	Fair	Poor	Score	Notes
Angularity	Lots of edges (1)	Some edges, some round (2)	Rounded edges (3)	All round (4)	1	
Brightness (Dull = biofilm)	Most surfaces dull (1)	Mostly dull, <35% bright (2)	50/50 dull & bright (3)	Mostly bright, >65% (4)	4	
Scour	<5% evidence of scour (6)	5-30% of bed scoured (12)	30-50% of bed scoured (18)	>50% of bed scoured (24)	12	much more scour than
Consolidation of substrate	Tightly packed (2)	Moderately packed (4)	Mostly loose (6)	Totally loose, easily moved (8)	6	other icy seeps
Aquatic Veg	Abundant veg, moss in swift water (1)	Common veg or algae, lots in pools (2)	Spotty, in backwater or seasonal algae (3)	Perennial types, very scarce or absent (4)	4	prob snow melt, rocks moving

Deployed Temp logger number: 10972588 Coordinates: UTM: N \_\_\_\_\_ W - \_\_\_\_\_  
Retrieved Temp logger number: 21101991 Notes: looked more like the one from 2017 @ seep but no luck!!  
Description of logger location: will send photos + description  
Photo numbers of temp logger placement: yes - my iPhone / cloud

Suspended Solids:

Filter number	1	2	3
Volume filtered (mL)	300	250	200

Nutrient samples collected: N=2  
DOC collected: N=1  
Chl a collected: ☒  
Algae collected: ☒ N=3  
Algae still in a habit of tearing easily - check for broken bits!

Date: 9 Aug 2022

Stream Profile: (left edge)

\*looking down stream\*

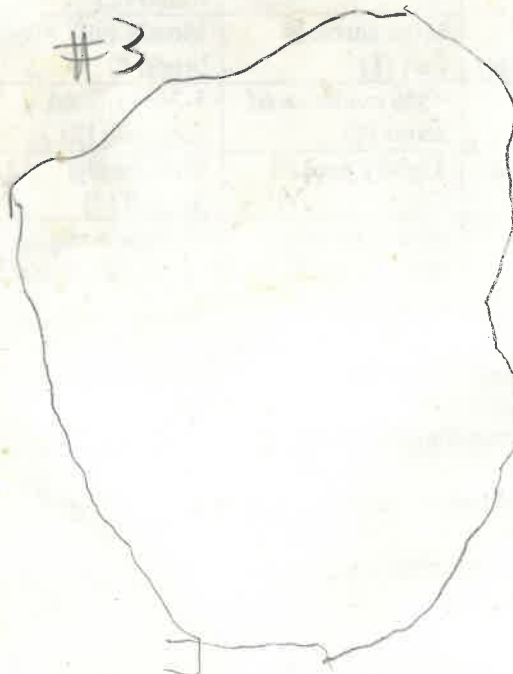
(right edge)

Distance (m)	0.0	0.3	0.6	1.0	1.05				
Depth (cm)	0	10	8	1	0				

Flow:

Replicate	Distance (m)	Time (sec)
1	7	11.6
2	7	9.7
3	7	11.0

3 Rock tracings (chlorophyll a):



Notes:

Lushab compass:

aspect: just about true magnetic North!

slope: ~4° on avg

Scint vial w/white label: for turbidity

Just N case:

took a 100ml filtered sample in 100ml vial

Teton Stoneflies 2022  
WYNDD-Tronstad 307-766-3115

Date: 11 Aug 2022

Time: Arrived: 13:00 Departed: \_\_\_\_\_ Collectors: LT + SA

Stream: Middle Teton Location Description: Same site

Coordinates: N \_\_\_\_\_ W - \_\_\_\_\_ Datum: \_\_\_\_\_

Elevation: \_\_\_\_\_ ft Site name on GPS: \_\_\_\_\_

Water quality (Recorded with a YSI Pro Plus Multitprobe)

Parameter	Value	Units
Water temperature	<u>2.8</u>	°C
Barometric pressure	<u>540.0</u>	mmHg
DO	<u>77.0</u>	% saturation
DO	<u>10.38</u>	mg/L
Specific conductivity (SPC)	<u>3.3</u>	µS/cm
Conductivity	<u>1.8</u>	µS/cm
pH	<u>5.89</u>	
ORP		mV
Air temp		°C

Last calibrated: 8/8 DO: 8/11

Photos taken: Site ☒ Temp Probe \_\_\_\_\_

Weather: Partly Cloudy

Substrate type: Cobble + Boulder

3 Surbers collected: ☒

Biofilm rank: Little Medium Green

Microbes collected: \_\_\_\_\_

Turbidity = 14.3 NTU

Pfankuck Index

	Excellent	Good	Fair	Poor	Score	Notes
Angularity	Lots of edges (1)	Some edges, some round (2)	Rounded edges (3)	All round (4)	<u>2</u>	
Brightness (Dull = biofilm)	Most surfaces dull (1)	Mostly dull, <35% bright (2)	50/50 dull & bright (3)	Mostly bright, >65% (4)	<u>4</u>	
Scour	<5% evidence of scour (6)	5-30% of bed scoured (12)	30-50% of bed scoured (18)	>50% of bed scoured (24)	<u>18</u>	
Consolidation of substrate	Tightly packed (2)	Moderately packed (4)	Mostly loose (6)	Totally loose, easily moved (8)	<u>8</u>	
Aquatic Veg	Abundant veg, moss in swift water (1)	Common veg or algae, lots in pools (2)	Spotty, in backwater or seasonal algae (3)	Perennial types, very scarce or absent (4)	<u>3</u>	

Deployed Temp logger number: 10767841 Coordinates: UTM's: N \_\_\_\_\_ W - \_\_\_\_\_

Retrieved Temp logger number: 2101992 Notes: \_\_\_\_\_

Description of logger location: \_\_\_\_\_

Photo numbers of temp logger placement: \_\_\_\_\_

Suspended Solids:

Filter number	<u>#1</u>	<u>#2</u>	<u>#3</u>
Volume filtered (mL)	<u>300</u>	<u>300</u>	<u>300</u>

Nutrient samples collected: ☒

DOC collected: ☒

Chl a collected: \_\_\_\_\_

Algae collected: \_\_\_\_\_

Stream Profile: (left edge)

\*looking down stream\*

(right edge)

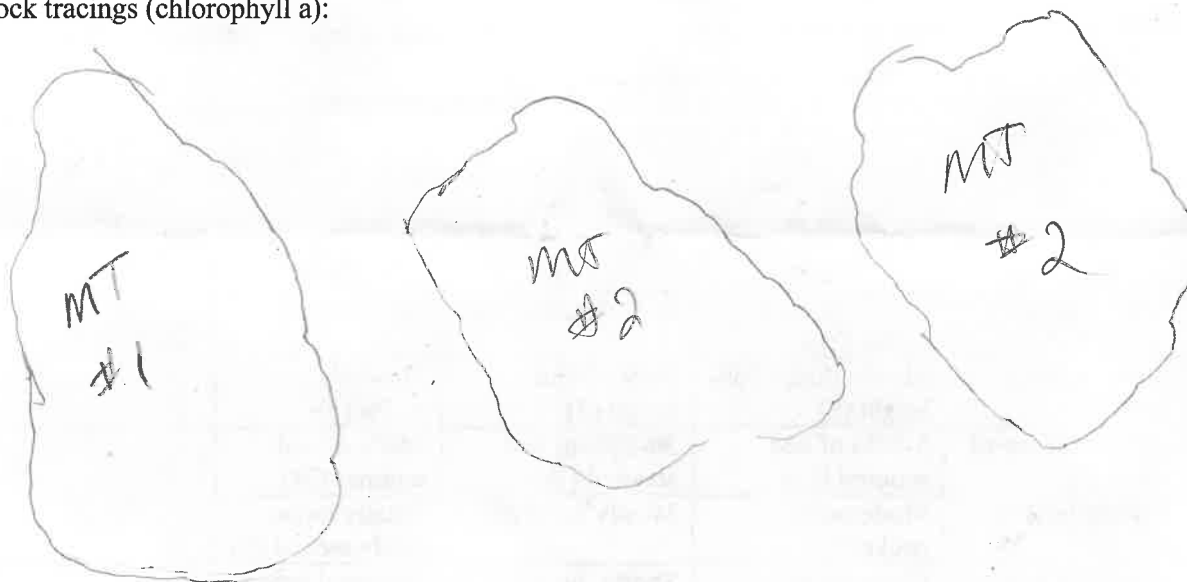
Distance (cm)									
Depth (cm)									

Flow:

Replicate	Distance (yds)	Time (sec)
1		
2		
3		

8.9 m wide stream  
at temp logger

3 Rock tracings (chlorophyll a):



Notes:

Installing Pressure transducer at Claudhvil  
w/ NPS Physical Sciences today (Toni, Joey, Jared + Mod)  
Lots of mudges here. High flow. Skipped  
profile + velocity to help drill into rocks for  
level logger



**Teton Stoneflies 2022**  
WYNDD-Tronstad 307-766-3115

Date: 11 Aug 2022

Time: Arrived: 12:30 Departed: \_\_\_\_\_ Collectors: DF, IE, AE Scott got logger

Stream: Cladwell Dome Location Description: \_\_\_\_\_

Coordinates: N \_\_\_\_\_ W - \_\_\_\_\_ Datum: \_\_\_\_\_

Elevation: \_\_\_\_\_ ft Site name on GPS: \_\_\_\_\_

Water quality (Recorded with a YSI Pro Plus Multitprobe)

Parameter	Value	Units
Water temperature	<u>4.5</u>	°C
Barometric pressure	<u>544.8</u>	mmHg
DO	<u>84.6</u>	% saturation
DO	<u>10.93</u>	mg/L
Specific conductivity (SPC)	<u>10.6</u>	µS/cm
Conductivity	<u>6.4</u>	µS/cm
pH	<u>6.67</u>	
ORP		mV
Air temp	<u>(warm)</u>	°C

Last calibrated: 8/8 DO: 8/11

Photos taken: Site \_\_\_\_\_ Temp Probe \_\_\_\_\_

Weather: Partly Cloudy

Substrate type: Cobble + boulder

3 Surbers collected: \_\_\_\_\_

Biofilm rank: Little Medium Green

Microbes collected: N=3 \* seen on back

Turbidity 7.13 NTU

**Pfankuck Index**

	Excellent	Good	Fair	Poor	Score	Notes
Angularity	Lots of edges (1)	Some edges, some round (2)	Rounded edges (3)	All round (4)	<u>2</u>	
Brightness (Dull = biofilm)	Most surfaces dull (1)	Mostly dull, <35% bright (2)	50/50 dull & bright (3)	Mostly bright, >65% (4)	<u>4</u>	
Scour	<5% evidence of scour (6)	5-30% of bed scoured (12)	30-50% of bed scoured (18)	>50% of bed scoured (24)	<u>6</u>	
Consolidation of substrate	Tightly packed (2)	Moderately packed (4)	Mostly loose (6)	Totally loose, easily moved (8)	<u>4</u>	
Aquatic Veg	Abundant veg, moss in swift water (1)	Common veg or algae, lots in pools (2)	Spotty, in backwater or seasonal algae (3)	Perennial types, very scarce or absent (4)	<u>2</u>	<u>lots moss in slow H<sub>2</sub>O.</u>

Deployed Temp logger number: 21101991 Coordinates: UTM's: N \_\_\_\_\_ W - \_\_\_\_\_

Retrieved Temp logger number: 20416497 Notes: (5:00)

Description of logger location: B/w large boulder mid stream + stripped rock on west side

Photo numbers of temp logger placement: \_\_\_\_\_

**Suspended Solids:**

Filter number	1	2	3
Volume filtered (mL)	<u>280</u>	<u>240</u>	<u>250</u>

Nutrient samples collected: N=2 + +

DOC collected: N=1 N=1

Chl a collected: N=3 - Anita

Algae collected: N=3

Date: 11 Aug 2022

Stream Profile: (left edge) 0.5

\*looking down stream\*

(right edge) R

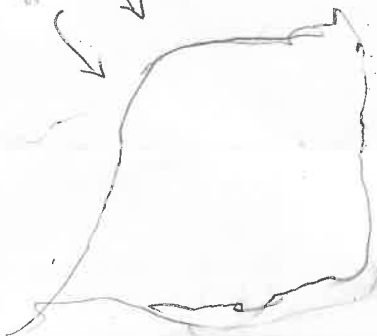
Distance (cm)	0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	5.0	5.5	6.0	7.0	7.3
Depth (cm)	5	16	16	15	4	2	2	6	0	5	6	7	1	

Flow:

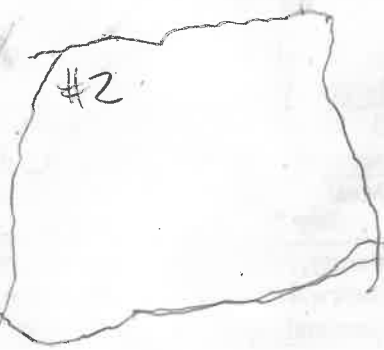
Replicate	Distance (yds)	Time (sec)
1	4	3.5
2	4	3.4
3	4	5.2

3 Rock tracings (chlorophyll a):

#1



#2



#3



Notes:

No nitrile gloves were in the microbe bag here. Did 'em w/ bare hands but as careful as possible.

Also: 3<sup>rd</sup> wal only had <1 mL of RNA Later (others had 2 mL), so put much less of the slurry in that one.

Teton Stoneflies 2022  
WYNDD-Tronstad 307-766-3115

Date: 12 Aug 2022

Time: Arrived: 11:30 Departed: \_\_\_\_\_ Collectors: AT + SA

Stream: Delta Lake Inlet Location Description: \_\_\_\_\_

Coordinates: N \_\_\_\_\_ W - \_\_\_\_\_ Datum: \_\_\_\_\_

Elevation: \_\_\_\_\_ ft Site name on GPS: \_\_\_\_\_

Water quality (Recorded with a YSI Pro Plus Multprobe)

Parameter	Value	Units
Water temperature	<u>2.5</u>	°C
Barometric pressure	<u>554.3</u>	mmHg
DO	<u>83.3</u>	% saturation
DO	<u>11.19</u>	mg/L
Specific conductivity (SPC)	<u>8.1</u>	µS/cm
Conductivity	<u>4.6</u>	µS/cm
pH	<u>8.23</u>	
ORP		mV
Air temp		°C

Last calibrated: 8/8 DO: 8/12

Photos taken: Site ☒ Temp Probe ☒

Weather: Partly Cloudy

Substrate type: Cobble

3 Surbers collected: ☒

Biofilm rank: Little ☒ Medium ☒ Green

Microbes collected: ☒

Turbidity 20.4 NTU

Pfankuck Index

	Excellent	Good	Fair	Poor	Score	Notes
Angularity	Lots of edges (1)	Some edges, some round (2)	Rounded edges (3)	All round (4)	<u>2</u>	
Brightness (Dull = biofilm)	Most surfaces dull (1)	Mostly dull, <35% bright (2)	50/50 dull & bright (3)	Mostly bright, >65% (4)	<u>4</u>	
Scour	<5% evidence of scour (6)	5-30% of bed scoured (12)	30-50% of bed scoured (18)	>50% of bed scoured (24)	<u>6</u>	
Consolidation of substrate	Tightly packed (2)	Moderately packed (4)	Mostly loose (6)	Totally loose, easily moved (8)	<u>5</u>	
Aquatic Veg	Abundant veg, moss in swift water (1)	Common veg or algae, lots in pools (2)	Spotty, in backwater or seasonal algae (3)	Perennial types, very scarce or absent (4)	<u>1</u>	

Deployed Temp logger number: 20475521 Coordinates: UTM: N \_\_\_\_\_ W - \_\_\_\_\_

Retrieved Temp logger number: 21101989 Notes: \_\_\_\_\_

Description of logger location: Below boulder, under log on south side

Photo numbers of temp logger placement: Moved logger to our little trail to sample stream

Suspended Solids:

Filter number	<u>#1</u>	<u>#2</u>	<u>#3</u>
Volume filtered (mL)	<u>300</u>	<u>300</u>	<u>300</u>

Nutrient samples collected: ☒

DOC collected: ☒

Chl a collected: ☒

Algae collected: ☒

Stream Profile: (left edge)

\*looking down stream\*

(right edge)

Distance (cm)	0	30	60	90	120	150	165				
Depth (cm)	14	18	24	24	28	21	12				

Flow:

Replicate	Distance (yds)	Time (sec)
1	5.0	4.06
2	↓	3.95
3	↓	5.11

3 Rock tracings (chlorophyll a):



Notes:

High flow. Loggers blown out and moved downstream. Placed at the spot we sample at.



**Teton Stoneflies 2022**  
WYNDD-Tronstad 307-766-3115

Date: 12 Aug 2022

Time: Arrived: 12:50 Departed: \_\_\_\_\_ Collectors: DF, AE, IE

Stream: N. Fork Teton Creek Location Description: same old!

Coordinates: N \_\_\_\_\_ W - \_\_\_\_\_ Datum: \_\_\_\_\_

Elevation: \_\_\_\_\_ ft Site name on GPS: \_\_\_\_\_

Water quality (Recorded with a YSI Pro Plus Multitprobe)

Parameter	Value	Units
Water temperature	<u>12.0</u>	°C
Barometric pressure	<u>540</u>	mmHg
DO	<u>100</u>	% saturation
DO	<u>7.7</u>	mg/L
Specific conductivity (SPC)	<u>12.8</u>	µS/cm
Conductivity	<u>9.8</u>	µS/cm
pH	<u>7.5</u>	
ORP	<u>-157</u>	mV
Air temp		°C

→ 4 days  
Last calibrated: now DO: now  
Photos taken: Site ☒ Temp Probe ☒  
Weather: cloudy light rain  
Substrate type: (same)

3 Surbers collected: ☒  
Biofilm rank: Little ☒ Medium ☒ Green

Microbes collected: N=3 (Anna)  
Turbidity = 6.04 NTU

**Pfankuck Index**

	Excellent	Good	Fair	Poor	Score	Notes
<b>Angularity</b>	Lots of edges (1)	Some edges, some round (2)	Rounded edges (3)	All round (4)	<u>1</u>	
<b>Brightness</b> (Dull = biofilm)	Most surfaces dull (1)	Mostly dull, <35% bright (2)	50/50 dull & bright (3)	Mostly bright, >65% (4)	<u>2</u>	
<b>Scour</b>	<5% evidence of scour (6)	5-30% of bed scoured (12)	30-50% of bed scoured (18)	>50% of bed scoured (24)	<u>6</u>	
<b>Consolidation of substrate</b>	Tightly packed (2)	Moderately packed (4)	Mostly loose (6)	Totally loose, easily moved (8)	<u>2</u>	
<b>Aquatic Veg</b>	Abundant veg, moss in swift water (1)	Common veg or algae, lots in pools (2)	Spotty, in backwater or seasonal algae (3)	Perennial types, very scarce or absent (4)	<u>2</u>	<u>moss in slow</u>

Deployed Temp logger number: 20571721 Coordinates: UTM's: N \_\_\_\_\_ W - \_\_\_\_\_

Retrieved Temp logger number: 20475520 Notes: \_\_\_\_\_

Description of logger location: \_\_\_\_\_

Photo numbers of temp logger placement: \_\_\_\_\_

**Suspended Solids:**

Filter number	1	2	3
Volume filtered (mL)	<u>305</u>	<u>180</u>	<u>180</u>

Nutrient samples collected: N=2 + NH4

DOC collected: N=1

Chl a collected: N=3

Algae collected: N=3

rain/hail storm in between

Date: Aug 12, 2022

Stream Profile: (left edge)

\*looking down stream\*

(right edge)

Distance (cm)	0	.3m	.6m	.9	1.1				
Depth (cm)	0	18	10	15	0				

Flow:

Replicate	Distance (yds) <i>meters</i>	Time (sec)
1	5m	14.4
2	5m	14.0
3	5m	11.6

3 Rock tracings (chlorophyll a):

Notes:

⊗ no nitrile gloves in rubabe  
pack - worked w/ hands in Smelter w/ hart-pales!

Teton Stoneflies 2022  
WYNDD-Tronstad 307-766-3115

Date: 13 Aug 2022

Time: Arrived: 2:15 Departed: \_\_\_\_\_ Collectors: AT, SH, Anna Eichert

Stream: Grizzly Location Description: Isabella Erigo

Coordinates: N 43.79752 W - 110.80718 Datum: NAD83

Elevation: 2970 am Site name on GPS: Griz

Water quality (Recorded with a YSI Pro Plus Multitprobe)

Parameter	Value	Units
Water temperature	<u>13.4</u>	°C
Barometric pressure	<u>538.9</u>	mmHg
DO	<u>110.7</u>	% saturation
DO	<u>11.50</u>	mg/L
Specific conductivity (SPC)	<u>19.5</u>	µS/cm
Conductivity	<u>15.2</u>	µS/cm
pH	<u>7.70</u>	
ORP		mV
Air temp		°C

Last calibrated: 8/8 DO: 8/13

Photos taken: Site \_\_\_\_\_ Temp Probe \_\_\_\_\_

Weather: Partly Cloudy, some rain

Substrate type: Cobble, gravel

3 Surbers collected: \_\_\_\_\_

Biofilm rank: Little Medium Green

Microbes collected: ✓

Turbidity 0.79 NTU

Pfankuck Index

	Excellent	Good	Fair	Poor	Score	Notes
Angularity	Lots of edges (1)	Some edges, some round (2)	Rounded edges (3)	All round (4)	<u>2</u>	
Brightness (Dull = biofilm)	Most surfaces dull (1)	Mostly dull, <35% bright (2)	50/50 dull & bright (3)	Mostly bright, >65% (4)	<u>1</u>	
Scour	<5% evidence of scour (6)	5-30% of bed scoured (12)	30-50% of bed scoured (18)	>50% of bed scoured (24)	<u>6</u>	
Consolidation of substrate	Tightly packed (2)	Moderately packed (4)	Mostly loose (6)	Totally loose, easily moved (8)	<u>2</u>	
Aquatic Veg	Abundant veg, moss in swift water (1)	Common veg or algae, lots in pools (2)	Spotty, in backwater or seasonal algae (3)	Perennial types, very scarce or absent (4)	<u>1</u>	<u>lots of moss</u>

Deployed Temp logger number: 20416497 Coordinates: UTM: N \_\_\_\_\_ W - \_\_\_\_\_

Retrieved Temp logger number: 20861406 Notes: \_\_\_\_\_

Description of logger location: \_\_\_\_\_

Photo numbers of temp logger placement: Photos taken with SH phone

Suspended Solids:

Filter number	<u>#1</u>	<u>#2</u>	<u>#3</u>
Volume filtered (mL)	<u>550</u>	<u>550</u>	<u>500</u>

Nutrient samples collected: ✓

DOC collected: ✓

Chl a collected: ✓

Algae collected: ✓

Stream Profile: (left edge)

\*looking down stream\*

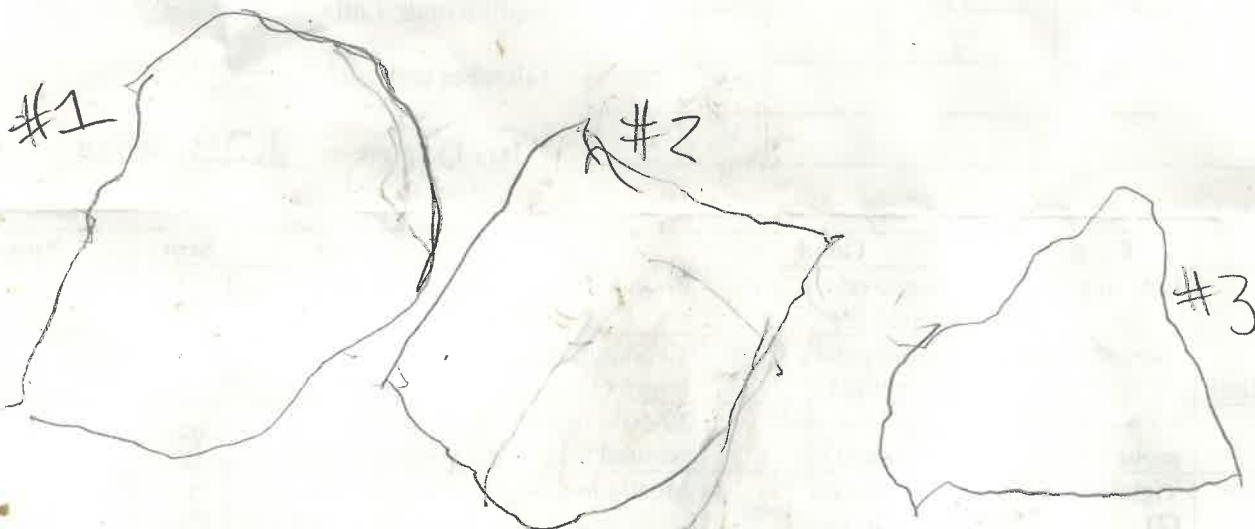
(right edge)

Distance (cm)	0	10	20	30	40	50			
Depth (cm)	1	4	3	6	6	7			

Flow:

Replicate	Distance (yds)	Time (sec)
1	5.0	10.23
2	5.0	9.72
3	5.0	14.62

3 Rock tracings (chlorophyll a):



Notes:



Teton Stoneflies 2022  
WYNDD-Tronstad 307-766-3115

Date: 14 Aug 2022

Time: Arrived: 9:00 Departed: \_\_\_\_\_ Collectors: \_\_\_\_\_

Stream: Gusher Location Description: \_\_\_\_\_

Coordinates: N 43.79369 W - 110.77846 Datum: NAD83

Elevation: 2550 ft Site name on GPS: \_\_\_\_\_

Water quality (Recorded with a YSI Pro Plus Multprobe)

Parameter	Value	Units
Water temperature	<u>3.1</u>	°C
Barometric pressure	<u>567.5</u>	mmHg
DO	<u>86.1</u>	% saturation
DO	<u>11.53</u>	mg/L
Specific conductivity (SPC)	<u>32.6</u>	µS/cm
Conductivity	<u>19.2</u>	µS/cm
pH	<u>7.22</u>	
ORP		mV
Air temp		°C

Last calibrated: 8/8 DO: 8/14

Photos taken: Site ☒ Temp Probe ☒

Weather: Overcast, Rain last night

Substrate type: Cobble, boulders

3 Surbers collected: ☒

Biofilm rank: Little Medium Green

Microbes collected: ☒

Turbidity: 1.98 NTU

Pfankuck Index

	Excellent	Good	Fair	Poor	Score	Notes
Angularity	Lots of edges (1)	Some edges, some round (2)	Rounded edges (3)	All round (4)	<u>1</u>	
Brightness (Dull = biofilm)	Most surfaces dull (1)	Mostly dull, <35% bright (2)	50/50 dull & bright (3)	Mostly bright, >65% (4)	<u>1</u>	
Scour	<5% evidence of scour (6)	5-30% of bed scoured (12)	30-50% of bed scoured (18)	>50% of bed scoured (24)	<u>6</u>	
Consolidation of substrate	Tightly packed (2)	Moderately packed (4)	Mostly loose (6)	Totally loose, easily moved (8)	<u>6</u>	
Aquatic Veg	Abundant veg, moss in swift water (1)	Common veg or algae, lots in pools (2)	Spotty, in backwater or seasonal algae (3)	Perennial types, very scarce or absent (4)	<u>1</u>	<u>Moss</u>

Deployed Temp logger number: \_\_\_\_\_ Coordinates: UTM: N \_\_\_\_\_ W - \_\_\_\_\_

Retrieved Temp logger number: 21101988 Notes: \_\_\_\_\_

Description of logger location: \_\_\_\_\_

Photo numbers of temp logger placement: \_\_\_\_\_

Suspended Solids:

Filter number	#1	#2	#3
Volume filtered (mL)	<u>600</u>	<u>775</u>	<u>550</u>

Nutrient samples collected: ☒

DOC collected: ☒

Chl a collected: ☒

Algae collected: ☒

Stream Profile: (left edge)

\*looking down stream\*

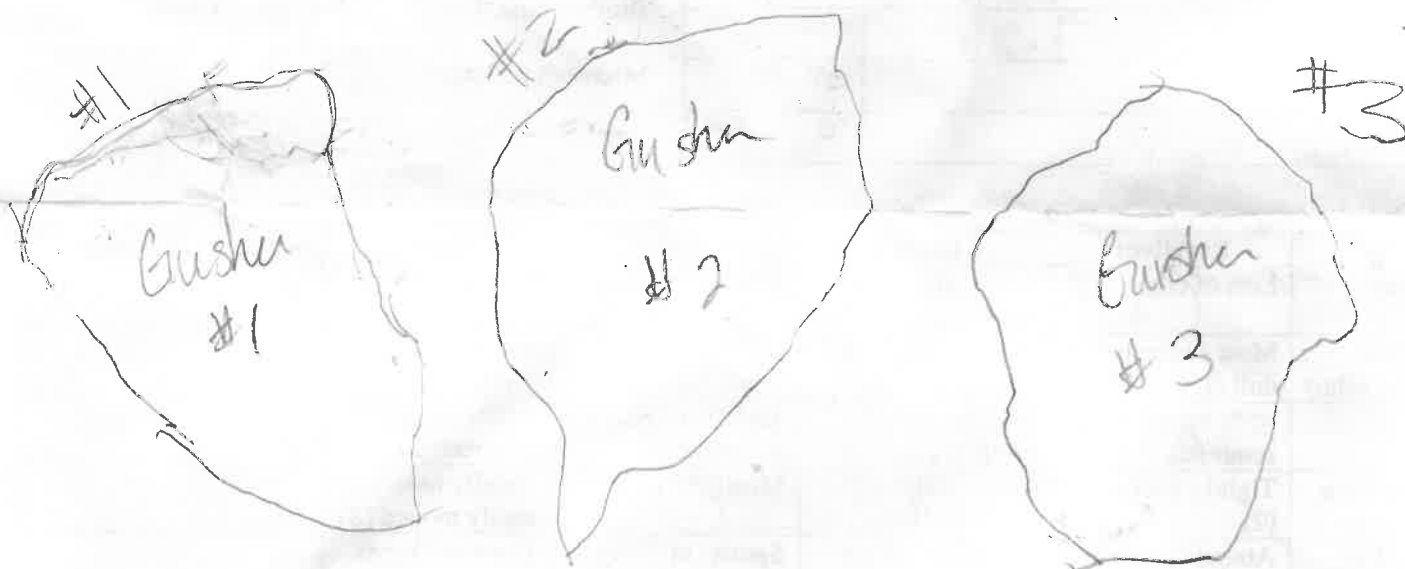
(right edge)

Distance (cm)	0	60	120	180	240	300	360	420	480
Depth (cm)	1	0	6	12	7	7	16	12	5

Flow:

Replicate	Distance (yds)	Time (sec)
1		
2		
3		

3 Rock tracings (chlorophyll a):



Notes:

Heavy rain last night. Flows a little higher this year. Observed *Lednia* + *Zepeda*.  
Found logjam

Teton Stoneflies 2022  
WYNDD-Tronstad 307-766-3115

Date: 13 Aug 2022

Time: Arrived: 16:30 Departed: Collectors: JT, SA, JE, AE

Stream: Paintbrush Location Description:

Coordinates: N 43.78543 W - 110.79361 Datum: NAD83

Elevation: 2801 ft Site name on GPS: Paintbrush

Water quality (Recorded with a YSI Pro Plus Multprobe)

Parameter	Value	Units
Water temperature	8.2	°C
Barometric pressure	549.8	mmHg
DO	77.1	% saturation
DO	9.09	mg/L
Specific conductivity (SPC)	42.7	µS/cm
Conductivity	29.0	µS/cm
pH	6.76	
ORP		mV
Air temp		°C

Last calibrated: 8/8 DO: 8/13

Photos taken: Site ☒ Temp Probe ☒

Weather: Cloudy

Substrate type: Cobble, sand

3 Surbers collected: ☒

Biofilm rank: Little Medium Green

Microbes collected: ☒

Turbidity 3.58 ntu

Pfankuck Index

	Excellent	Good	Fair	Poor	Score	Notes
Angularity	Lots of edges (1)	Some edges, some round (2)	Rounded edges (3)	All round (4)	1	
Brightness (Dull = biofilm)	Most surfaces dull (1)	Mostly dull, <35% bright (2)	50/50 dull & bright (3)	Mostly bright, >65% (4)	2	
Scour	<5% evidence of scour (6)	5-30% of bed scoured (12)	30-50% of bed scoured (18)	>50% of bed scoured (24)	12	
Consolidation of substrate	Tightly packed (2)	Moderately packed (4)	Mostly loose (6)	Totally loose, easily moved (8)	6	
Aquatic Veg	Abundant veg, moss in swift water (1)	Common veg or algae, lots in pools (2)	Spotty, in backwater or seasonal algae (3)	Perennial types, very scarce or absent (4)	1	

Deployed Temp logger number: 21101992 Coordinates: UTM: N W -

Retrieved Temp logger number: 20861405 Notes:

Description of logger location:

Photo numbers of temp logger placement:

Suspended Solids:

Filter number	#1	#2	#3
Volume filtered (mL)	450	525	550

Nutrient samples collected: ☒

DOC collected: ☒

Chl a collected: ☒

Algae collected: ☒

Stream Profile: (left edge)

\*looking down stream\*

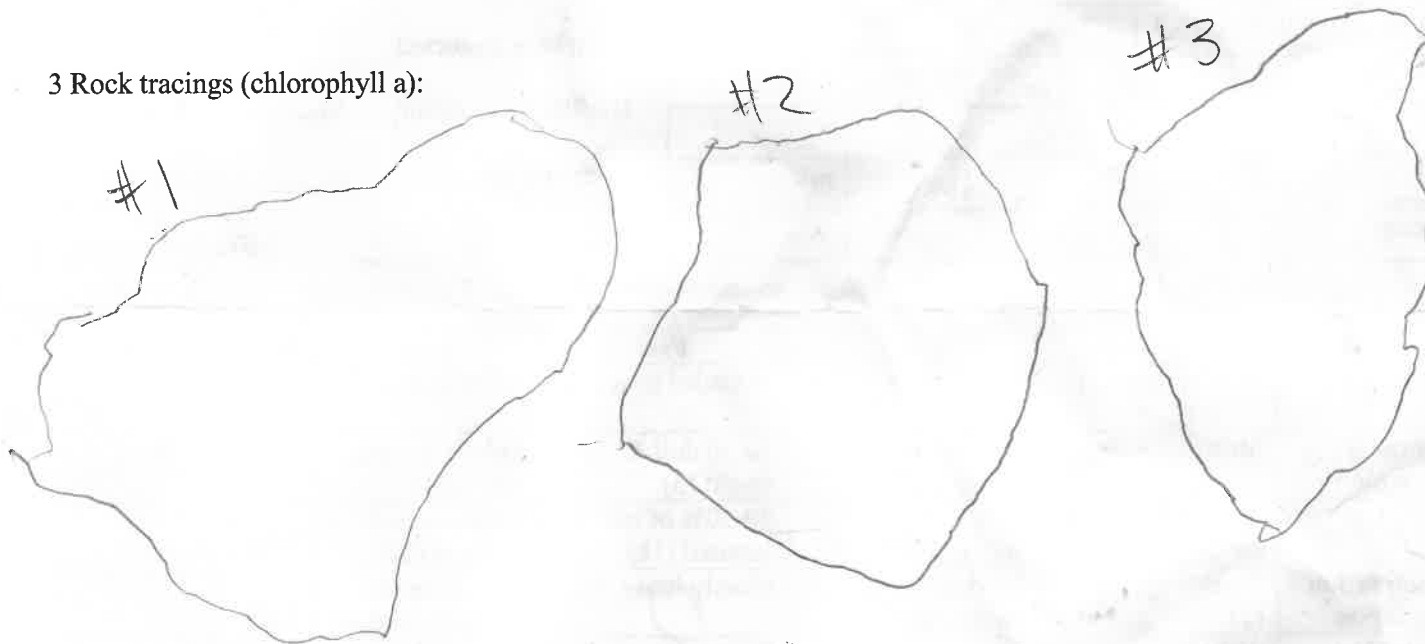
(right edge)

Distance (cm)	0	10	20	30	40	50	60	70	
Depth (cm)	5	2	7	8	4	2	2	1	

Flow:

Replicate	Distance (yds)	Time (sec)
1	5.0	16.43
2	5.0	15.79
3	5.0	20.42

3 Rock tracings (chlorophyll a):



Notes:

Flowing this year. Had Rain the last week.  
 Snowfields upstream.  
 very few aquatic inverts