Bruker pXRF Handheld

Initializing the device

- Login to the computer using the login information on top of the computer keyboard.
 First, turn on the instrument. To do this press the button on top of the device screen and hold it for a few seconds (Figure 1).



Figure 1. Bruker pXRF Handheld instrument

3. Click on Bruker RemoteCtrl in the computer screen (Figure 2). You will use this program to control the device from the computer while measuring your samples.



Figure 2. Bruker Remote Ctrl program

4. Go to File Connect. A window will appear that will show the device number Ex. 900G7838. Select it and click Ok (Figure 3).

Manuals

User Manual, S1 TITAN, Tracer 5, CTX

Accessories Manual

pXRF Sample Cup Disassembler Guide

Data

Bruker pXRF Upload Template

Safety

Radiation Safety Manual

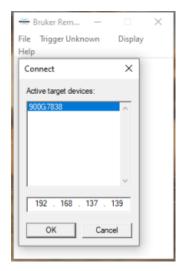


Figure 3. Connecting the device to the computer.

5. A login window will appear on the screen, login using the info on top of the computer keyboard (Figure 4).

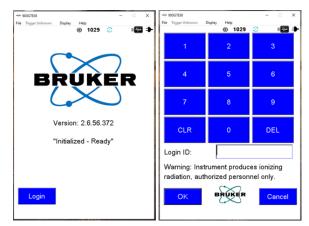


Figure 4. Login screen in Bruker Remote Control

6. A pop up message will appear after logging in that tells you the gun's configuration just click ${\bf O}$ ${\bf K}$ (Figure 5).



Figure 5. Configuration window when initializing the device.

7. When the device is connected, your screen should look like Figure 6. The device will say **Not Armed** when the x-ray is not active and the device will say **Ready to Test** when the x-ray is active.

le Trigger Pull (F6.) Display Help	1029 📀 🛛 া 🖶 🕈	File Trigger Unknown Display Hel	1028 📀 🛛 া 🔤 🗄				
Not Ar	med	Ready to Test					
APPLICATION GeoExploration	SETTINGS	APPLICATION GeoExploration	SETTINGS				
METHOD Oxide3phase	DISPLAY (None)	METHOD Oxide3phase	DISPLAY (None)				
Came	era	Can	hera				
Utilities Edit I	nfo Logoff	Utilities Edit	Info Logoff				

Figure 6. pXRF initial screen. Left: X-ray is not active. Right: X-ray is active

Exporting Data

Utilities

1. Click on the bottom left of the main screen. After you click on **Utilities** the following window will appear on the screen (Figure 7).

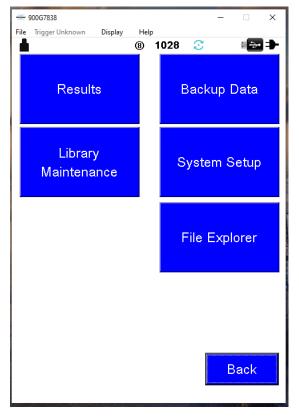


Figure 7. Utilities Window.

2. Click on Backup Data.

IMPORTANT: Never select Move as that will move the data from the internal memory into the computer, therefore deleting it from the device.

- 3. Save to Archive instead of USB by changing the following (Figure 8).
- 4. Click the blue down arrow and change the selected file from \USB to \ARCHIVE

Your Data File Destination Location should look like Figure 8.

Data File Destination Location: \ARCHIVE\Data\Backup-dd-mm-yyyy

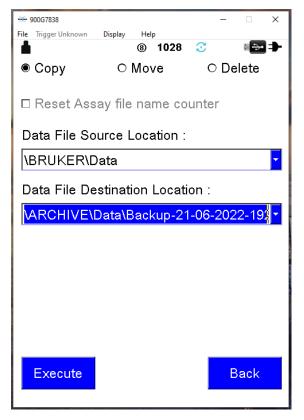


Figure 8. Backup Data.



6. Close Bruker RemoteCtrl.

Bruker Instrument Tools

After you backup the data go to Bruker Instrument Tools icon in the computer's initial window (Figure 9).



Figure 9. Bruker Instrument Tools program

Device Tools Windows Help Figure 10. Connect the device to Bruker Instrument Tools. Figure 10. Connect the device to Bruker Instrument Tools. The connect Select 900G7838 and click Connect (Figure 10) Connect X Network Connection Active Remote Connection: Name IP Address 900G7838 192.168.137.139	😁 Bruker In	strument	Tools - 1.8.0.13	6		
ice Connect Select 900G7838 and click Connect (Figure 10 1). Connect X Network Connection Active Remote Connection: Name IP Address	Device	Tools	Windows	Help		
ice Connect Select 900G7838 and click Connect (Figure 1) 1). Connect X Network Connection Active Remote Connection: Name IP Address						
1). Connect X Network Connection Active Remote Connection: Name IP Address	Figure 10.	Connect t	he device to Bru	ıker Instrume	ent Tools.	
1). Connect X Network Connection Active Remote Connection: Name IP Address						
1). Connect X Network Connection Active Remote Connection: Name IP Address						
Connect X Network Connection Active Remote Connection: Name IP Address		nnect	Select 900G	7838	and click Cor	nnect (Figure 1
Network Connection Active Remote Connection: Name IP Address	 <i>.</i>					
Active Remote Connection: Name IP Address	Connect				×	
Name IP Address	Network Conr	nection				
	A	ote Conne	ction:			
900G7838 192.168.137.139	Active Rem					
		IP	Address			
	Name					
	Name					
	Name					
	Name					
	Name					
	Name					

1.

Figure 11. Connect window.

Connect

Cancel

2. After you are connected in ${\bf Bruker}$ instrument tools on the left side of the screen you will see a folder that says ${\bf ARCHIVE}$

3. Open the **ARCHIVE** folder and you will see a screen like figure 12.

Name	Size	Туре	Date Modified
Data		File Fold	1/21/2021 10:49 AM
lost+found		File Fold	6/21/2022 1:38 PM
restore		File Fold	7/15/2020 8:58 AM
	Figure 12. /	Archive f	older

4. Go to **Data Open** the most recent backup (Figure 13).

Size	Туре	Date Modified
	File Fold	6/14/2022 8:42 PM
	File Fold	6/18/2022 2:15 AM
	File Fold	6/18/2022 8:05 PM
	File Fold	6/19/2022 12:43 AM
	File Fold	6/19/2022 1:53 AM
	File Fold	6/20/2022 1:17 AM
	File Fold	6/21/2022 8:39 PM
	Size	File Fold File Fold File Fold File Fold File Fold File Fold

Figure 13. Data folder

5. Select the file called **GeoExploration.tsv** (Figure 14)

Name	Size	Туре	Date Modified
Results.csv	214 KB	Microsoft	6/21/2022 3:39 AM
GeoExploration.tsv	142 KB	TSV File	6/21/2022 3:39 AM
00165-GeoExploration.pdz	27 KB	PDZ File	6/21/2022 3:39 AM
00164-GeoExploration.pdz	27 KB	PDZ File	6/21/2022 3:38 AM
00163-GeoExploration.pdz	27 KB	PDZ File	6/21/2022 3:35 AM
00162-GeoExploration.pdz	27 KB	PDZ File	6/21/2022 3:33 AM
00161-GeoExploration.pdz	27 KB	PDZ File	6/21/2022 3:31 AM
00160-GeoExploration.pdz	27 KB	PDZ File	6/21/2022 3:29 AM
00159-GeoExploration.pdz	27 KB	PDZ File	6/21/2022 3:26 AM
00158-GeoExploration.pdz	27 KB	PDZ File	6/21/2022 3:25 AM
00157-GeoExploration.pdz	27 KB	PDZ File	6/21/2022 3:16 AM
00156-GeoExploration.pdz	27 KR	PD7 File	6/21/2022 3·14 AM

Figure 14. GeoExploration file inside the backup folder.

6. Copy the GeoExploration.tsv file by right-clicking the file name and selecting copy from the dropdown menu.

7. Without exiting the program find the folder you want to place the data in the bottom window (Figure 15).



8. After you find the folder right-click the selected folder and select **Paste** from the dropdown menu.

efresh 🚘 Faider Up 🚡 Download 🛞 HIVE:/Data//Backag-21-06-2022-1835					
900G7838	Name		Type	Date Modified	
Application Data					
ARCHIVE	C Results cov			6/21/2022 3:39 AM	
v Data	GeeExploration.tov		TSVFile	6/21/2022 3:39 AM	
Backup-14-06-2022-184131	200165-GeoExploration.pdz		PDZFile	6/21/2022 3:30 AM	
Backup-15-06-2022-001551	200164-GeoExploration.pdg			6(21)2022 3.38 AM	
Backup-18-06-2022-180537	200163-GeoExploration.pdz		PDZFile	6/21/2022 3.35 AM	
Backup-18-06-2022-224310	200162-GeoExploration.pdz		PDZFile	6/21/2022 3:33 AM	
-Backup-15-06-2022-235316	200161-GeoExploration.pdg		PDZ File	6(21)2022 3:31 AM	
Backup-19-06-2022-231705	200160-GeoExploration.pdz		P02File	6(21)2022 3:29 AM	
Backup-21-06-2022-183918	200159-GeoExploration.pdz		PDZFile	6/21/2022 3:25 AM	
losiHound restore	200150-GeoExploration.pdg		POZ File	6(21)2022 3:25 AM	
PENADE'S	200157-GeoExploration.pdg	2788	P02File	6/21/2022 3 16 AM	
RELIXER	200156-GeoExploration.pdz		PDZ File	6/21/2022 3 14 AM	
LBOOT	00155-GeoExploration.pdz		PDZ File	6(21)2022 3 12 AM	
My Documents	200154-GeoExploration.pdg	27×8	PDZ File	6/21/2022 3 10 AM	
Neteok	200153 GeoExploration.pdg	27.68	POZFile	6/21/2022 3:08 AM	
Program Files	00152-GeoExploration.pdz	27.60	PDZ File	6/21/2022 3:06 AM	
Recycled	200151-GeoExploration.pdg	27 KB	PDZ File	6/21/2022 3 DI AM	
Temp	200150 GeoExploration.pdg		PO2 File	6/01/2022 3:02 AM	
US8 Drive	200149-GeoExploration.pdg			6/21/2022 3:00 AM	
	20014b-GeoFanloration orde			6(21/2022 2 58 AM	
	200147 GeoExploration.pdg		POZFile	6/21/2022 2:55 AM	
	200145-GeoEpoloration.pdg		POZFile	6/21/2022 2:53 AM	
	BOILAS-Coop and organism order			6/21/2022 2 49 AM	
I/CLEVELAND(DATA) (81) I/NOVARUPTA(VOL1) (71) I/CLEVELAND(VOL2) (73)	1 Rottel-Co-Optoration.pdg	27.68	POZFile	621/2022.249 AM	
 INCREMENTATION INCREMENTATION 					
Indvanov navou (v.)					
v scratch					
>					
> 📒 BCV					
> Curation					
> - Entertainment					
> - HazComm					
> - Headshot Posters					

Figure 15. Copy GeoExploration file and paste in to a folder in Windows(C:/)

Opening the file in Excel

1. Open Excel.



Figure 16. Excel Data window Select From Text in the left.

You will be prompted to your computer saved folders and you can select the folder where you saved the **GeoExploration.tsv** file.

- 3. Once you find the folder select All Files in the bottom right (Figure 17).
- 4. Then select the GeoExploration.tsv file and click Import. (Figure 17).

> * 🛧 📙 « VOL4 (\\CI	EVELAND) (W:) > scratch > BCV	ע פֿע גע Searc	ch BCV
Organize 👻 New folder			lii • 💷 🔞
Music	Name	Date modified	Туре
Pictures	06-16-2022	6/17/2022 8:26 PM	Microsoft Excel C
Videos	06-19-2022	6/19/2022 1:53 AM	TSV File
Windows (C:)	06-19-2022	6/19/2022 2:03 AM	Microsoft Excel W
	06-20-2022	6/20/2022 12:11 AM	TSV File
TUSERS (\\CLEVELAND) (R:)	Artax Man_Spectra7_en	1/5/2017 12:56 PM	Microsoft Edge P
🛫 DATA (\\CLEVELAND) (S:)	Artax User Manual	5/31/2018 12:47 PM	Microsoft Edge P
🛫 VOL1 (\\NOVARUPTA) (T:)	Commercial Regulator Build	1/8/2020 4:23 PM	Microsoft Word D
👳 VOL2 (\\CLEVELAND) (U:)	GeoExploration	6/21/2022 7:32 PM	TSV File
VOL3 (\\NOVARUPTA) (V:)	Periodic Table and X-ray Energies	9/29/2014 11:32 AM	Microsoft Edge P
VOL4 (\\CLEVELAND) (W:)	pXRF SAFETY	6/14/2022 9:03 PM	Microsoft PowerP
scratch	Safety Video Readme.txt	10/19/2021 11:02 AM	Text Document
Staten	XRF Safety Training	5/27/2016 10:25 AM	Microsoft Edge P
💣 Network	v <	_	,
File name: G	eoExploration	All Files	~

Figure 17. Finding the GeoExploration file

5. A window will open showing you a preview of the file and you have to click Load. (Figure 18)

File Origin			elimiter			Data Type Dete					
65001: U	Inicode (UTF-8)	· ·	fab		•	Based on first	200 rows	•		C	•
File #	DateTime	Operator	Latitude	Longitude	Altitude	Application	Method	CalFile1	CalFile2	Include	
1	6/15/2022 4:26:00 AM	Supervisor	0	0	0	GeoExploration	Oxide3phase	Oxide3phase	Oxide3phase		1
2	6/16/2022 12:08:00 AM	Supervisor	0	0	0	GeoExploration	Oxide3phase	Oxide3phase	Oxide3phase		
3	6/16/2022 12:16:00 AM	Supervisor	0	0	0	GeoExploration	Oxide3phase*	Oxide3phase	Oxide3phase		
- 4	6/16/2022 12:22:00 AM	Supervisor	0	0	0	GeoExploration	Oxide3phase	Oxide3phase	Oxide3phase		
5	6/16/2022 12:29:00 AM	Supervisor	0	0	0	GeoExploration	Oxide3phase	Oxide3phase	Oxide3phase		
6	6/16/2022 12:34:00 AM	Supervisor	0	0	0	GeoExploration	Oxide3phase	Oxide3phase	Oxide3phase		
7	6/16/2022 12:36:00 AM	Supervisor	0	0	0	GeoExploration	Oxide3phase	Oxide3phase	Oxide3phase		
8	6/16/2022 12:38:00 AM	Supervisor	0	0	0	GeoExploration	Oxide3phase	Oxide3phase	Oxide3phase		
9	6/16/2022 12:43:00 AM	Supervisor	0	0	0	GeoExploration	Oxide3phase	Oxide3phase	Oxide3phase		
20	6/16/2022 12:45:00 AM	Supervisor	0	0	0	GeoExploration	Oxide3phase	Oxide3phase	Oxide3phase		
11	6/16/2022 12:48:00 AM	Supervisor	0	0	0	GeoExploration	Oxide3phase	Oxide3phase	Oxide3phase		
12	6/16/2022 12:50:00 AM	Supervisor	0	0	0	GeoExploration	Oxide3phase	Oxide3phase	Oxide3phase		
23	6/16/2022 12:53:00 AM	Supervisor	0	0	0	GeoExploration	Oxide3phase	Oxide3phase	Oxide3phase		
14	6/16/2022 12:55:00 AM	Supervisor	0	0	0	GeoExploration	Oxide3phase	Oxide3phase	Oxide3phase		
15	6/16/2022 12:57:00 AM	Supervisor	0	0	0	GeoExploration	Oxide3phase	Oxide3phase	Oxide3phase		
16	6/16/2022 1:01:00 AM	Supervisor	0	0	0	GeoExploration	Oxide3phase	Oxide3phase	Oxide3phase		
17	6/16/2022 1:05:00 AM	Supervisor	0	0	0	GeoExploration	Oxide3phase	Oxide3phase	Oxide3phase		
18	6/16/2022 1:07:00 AM	Supervisor	0	0	0	GeoExploration	Oxide3phase	Oxide3phase	Oxide3phase		ι.
19	6/16/2022 1:21:00 AM	Supervisor	0	0	0	GeoExploration	Oxide3phase	Oxide3phase	Oxide3phase		
20	6/16/2022 1:22:00 AM	Supervisor	0	0	0	GeoExploration	Oxide3phase	Oxide3phase	Oxide3phase		
3	_									>	
`										/	1

Figure 18. Data Preview

6. Click **load** and the data will be exported to excel and should look like Figure 19.

								569 D	refe														
	e	[] larma	er with Piret bid		m C	Dippe	nie:	Reade	Fer .	First Cell	- 2	Filter Baldon	-	00000			00000	00000	00000			_	_
et e	lostie	History	Duplicate		4 6			D Red R	~ □	Left Coli				M M M M M									
100	ce bbie	Sh-Convet.	to Renne	Incert C	ipot fidno	" Cillular		Rock	None 🗆	and state	Columns			REAR					22222				
	milei .		Deals	5408		red Table De				is this						-							
			V 54																				
									1.1.1			1.1.1		~	1.1		M	N	0			0	
en e	÷.,	and in a	0000000		Local and	1 1 1 1 1 1 1	54 X 844		Mathead		Calificat	Californi	V Inches	d in American	a lineed	100 x 10				A March C	1010 - 01		1
-		1/11/202240				0						e Onlewis			-	70.7			0 None	_	0.54		1
		6/16/2022 04				0	0 Gen	and read to re	Oxide let	have 1	Dairie Johns	e OsideJohr				20 N			d Nene		0 No		
		6/16/2022 0:				0						e OsideJohr				20 N			0 None		0 No		
		6/16/2022 01				0						e Ouideácha				99.5			0 10000		0.00		
	5	6/16/2022 00	19 Supervisor			0	D Geol	tipleator	Cudetp	hase i	Chodesphar	e Ouidesphu	se			90 N	668		0 None		0 No		
		6/16/2022 01	A Supervisor			0	0 Geol	-	Oxide3e	Not 1	Oxide Sphere	e Ondetchy	14			20 N	6.04		© None		0 No	**	
	7	6/16/2022 00	16 Supervisor			0	0 Geol	Inclosed for	Oxide3p	hape i	Oxide3phas	e OsideJohr	14			20 N	0.04		None		0 No		
	8	6/16/2022 05	18 Supervisor			0	0 Geo	Exploration	Oxide3p	hape	Oxide3phar	e Ouldeapha	10			90 N	004		0 None		0 No		
		6/16/2022 00	tà Supervisor			0	D Geol	isplacation	Cuidelp	hace i	Civide Johan	e Ouideliphu	6.8			90 N	004		0 None		0 No	68	
	10	6/16/2022 04	5 Supervisor			0	D Geal	palestor	Codete	Nase 1	Distribution	e Outletchu	58			20 N	100		07664		0.74		
		6/16/2022 09				0	0 Geol	Exploration	Oxide3p	have 1	Oxide3phas	e OsideSphy	96			20 N			0 None		0 No		
	12	6/16/2022 05	0 Supervisor			0	0 Ged	Exploration	Oxide3p	hape	Oxide3phas	e Oside3phi	14			20 N			O None		0 No		
		6/16/2022 05				0		Exploration				e Ouidelipha				90 N			0 Nose		0 No		
5		6/16/2022 00				0		(apletation				e Ouidelpha				90 N			07004		0.04		
		6/16/2022.00				0		Diplenition				e Ovidetphy				20 N			0 None		0 Ne		
		6/16/202213				0		Exploration				e Oslde3ph				- 90 N			Ø None		0 No		
		6/16/2022 15				0		Capiloration				e Oside3pha				90 N			Ø None		0 No		
		6/16/2022 11				0		Exploration				e Ouideàpha				- 90 N			0 Note		0.No		
		4/16/202210				0		paleator				e Outlesphi				90 N			0 None		0.54		
		6/16/202215				0		Diploration				e Osidetphy				- 90 N			Ø None		0 Ne		
2		6/16/202215				0		Exploration				e Oside3phi				90 N			0 None		0 No		
4		6/16/2022 11				0		Exploration				e Osideliphi				90 N			0 None		0 No		
		6/16/2022 11				0		isplection				e Ouideliphi				90 N			0 None		0 No		
		6/16/202210				0		Digiteration				e Owiesphy				20.7			0 7698		0.74		
		6/16/20221:				0		Exploration				e Oside3phi				20 N			0 None		0 No		
		6/16/20221:				0		Exploration				e Oside3pha				90 N			0 None		0 No		
		6/16/2022 15				0						e Ouideapha				90 N			0 None		0 No		
-	28	6/36/2022 13	to supervisor			0	D Geol	repression of	Codetp	ase)	crossing	e Ouidesphi	58			90.7	648		07004		0.74		

Figure 19. Exported file from pXRF gun.

7. Go to Uservol K_Inorganic_Geochemistry pXRF 393 Raw Data (Figure 20).

8. Open the most recent data and check the latest sample taken under File # EX. last file # was 209.

9. Go back to your new exported data file and delete all the samples before that last **File #** EX. total file number is from 1 to 309. Then delete 1 to 209. Only save sample 210 to 309.

	Oute modified	304	504									
Co-think	6/18/20212.02 PM	Filefulder										
Staff,Scientiat Research Flans	618/3022254/PM 6/10/3022802.000	Fichidar Fichidar										
nh Pana Adom	4/12/302 542 MM	Fields Debils					Name	^	Date modified	Type		üne.
ourse for scientists	AOS/302 National	Fields					THE TAX		Dave movement	1984	1.1	
then Realand	6/18/2022 B/1 PM	Filefulder					Old drafts	Matheode	6/21/2022 7-52 AM	File folder		
desired a firm	6/20/2022 613 AM	Ender						inesious				
	6/10/302 11-M-BM	File bilder				N	pXRF 393		6/21/2022 11:02 PM	f File folder		
	4/11/0802 10-12 AM	File folder					Weekly rep	orts	6/21/2022 7:51 AM	File folder		
8	616252124EAM	Fielder				2	DS Store		6/16/2022 9/28 PM	DS. STORE F		
	6/10/2022 19:52 AM	Filefulder			-							
	4/15/2022 10-32 AM	Filefalder					Geocherr	vistry Weekly Report 6-18 - Copy	6/18/2022 3:40 PM	Microsoft V	Nord D	
manhola	6/10/352 10:32 AM	Fielder					(i) Test Math	h-K-Geochemistry et JR TW J	6/20/2022 1:50 PM	Microsoft V	Manual D.	
A	6/10/3021211AM	Tie Mér		_				in our namely of A IWI.				
	4/01/0022 738 AM	Filefulder Citefulder					DS_Store		6/21/2022 7:45 PM			
	6/18/2022 640 PM	File folder					di Text Meth-	K-Geochemistry dt JR TW JR	6/20/2022 1:48 PM	Microsoft V	Word D	100
	6/18/2022 2/0 AM	Filefulder					and the second second	///////////////////////////////////////				
	619/302246PM	Filefulder										
	6/18/2022 1-07 AM	File bilder										
alition 200 Reporting Films	470302151144	Förhölar Förhölar										
nition 2005poting film												
20 Departing Film							16899			034	248	
Steparting Files							📑 older f		6/21/2022 9/03 AM	Filefolder	NR	
											518	
hei							📑 older f	ata	6/21/2022 9/03 AM	Filefolder	507	
							Raw D	ata	6/21/2022 9:03 AM 6/21/2022 7:50 PM	File folder File folder		
film							elder f Rav D 05,5 C-55	ata Nore p 202 pXRF reduction sheet trial	6/21/2022 9/03 AM 6/21/2022 7:50 PM 6/19/2022 1:48 AM	File folder File folder DS_STORE File	418	
							iderf Fav D ∪05,5 ©5D; © _0er	ata Nore p 202 pXRF reduction sheet trial	6/21/2022 9:03 AM 6/21/2022 7:50 PM 6/19/2022 1:48 AM 6/10/2022 1:54 PM	File folder File folder DS, STORE File Microsoft Docel W	418	
ibe:							East D D D D D D D D D D D D D D D D D D D	ata litore p 202 pXRF reduction sheet trial recotest Calibration workbook 393	6/21/2022 9/03 JAM 6/21/2022 7:50 PM 6/19/2022 1:48 JAM 6/10/2022 3:54 PM 6/21/2022 9/02 JAM	File folder File folder DS_STORE File Microsoft Dool W Microsoft Excel W	418 412 418	
							elder f Rav D 05,5 Chen Chen Chen Chen Chen Chen	ata itore p 393 p085 reduction sheet trial reostret Calibration workbeek 393 nostrat Calibration workbeek 393	6/21/2022 9/03 AM 6/21/2022 7/50 PM 6/19/2022 1/48 AM 6/19/2022 3/54 PM 6/21/2022 3/54 PM 6/21/2022 9/02 AM 6/19/2022 6/01 PM	File folder File folder DS,STORE File Microsoft Excel W Microsoft Excel W Microsoft Excel W	418 412 418 418 412 418	
Fibei							ekker f Faw D. 055x	ata ilore p. 303 p395 mduction sheet trial motost Calibration workbook 393 path_CLEANNG _DATA_CLEANNG	6/21/2022 9:03 AM 6/21/2022 7:59 PM 6/19/2022 7:59 PM 6/19/2022 3:54 PM 6/21/2022 3:54 PM 6/21/2022 8:02 AM 6/19/2022 6:01 PM 6/19/2022 6:01 PM	File folder File folder DS_STORE File Microsoft Excel W Microsoft Excel W Microsoft Excel W Microsoft Excel W	418 412 418 418 412 418	
he							ekter f Faw D 0, 05,5 0, -55a 0, Oten 0, 0395 0, 0355 0, 0550	eta Nove p 202 p029 reduction sheet trial mostart Calibration workbook 203 _DATA_CLEANING _DATA_CLEANING os	6/21/2022 9:03 AM 6/21/2022 7:59 PM 6/79/2022 1:48 AM 6/79/2022 1:48 AM 6/79/2022 5:54 PM 6/21/2022 6:01 PM 6/79/2022 6:01 PM 6/79/2022 6:02 PM	File folder File folder DS_STORE File Microsoft Excel W Microsoft Excel W Microsoft Excel W	418 412 418 418 418 418 418	
ng Fdisi 							ekter f Fav D 0, 05,5 0, 045,5 0, 045,5 0, 0455 0, 0000000000000000000000000000000000	ata Nove p 200 p039 neduction sheet trial nootast Calibration workbook 303 potatctLeANNG :.patactLeANNG execute Calibration workbook 303 up	6(21/2022 903 AM 6(21/2022 750 PM 6(78)/2022 548 AM 6(78)/2022 548 AM 6(78)/2022 554 PM 6(78)/2022 501 PM 6(78)/2022 501 PM 6(78)/2022 502 PM 6(78)/2022 502 PM 6(21/2022 549 PM 6(21/2022 1162 PM	File folder File folder DS_STORE File Microsoft Excel W Microsoft Excel W Microsoft Excel C Microsoft Excel C DS_STORE File	418 412 418 412 412 412 712 2018	
Spectra (Sa							6146 f Far D -55,5 655,5 655,5 655,5 655,5 7 .55,5 655,5 7 .55,5 655,5 7 .55,5 7	eta Nove p 202 p029 reduction sheet trial mostart Calibration workbook 203 _DATA_CLEANING _DATA_CLEANING os	6(21/2022 903 AM 6(21/2022 7:58 PM 6(19)/2022 1-68 AM 6(19)/2022 1-68 AM 6(19)/2022 1-64 PM 6(21/2022 902 AM 6(19)/2022 0:01 PM 6(19)/2022 0:01 PM 6(19)/2022 0:02 PM 6(21/2022 7:48 PM	File folder File folder DS_STORE File Microsoft Excel W Microsoft Excel W Microsoft Excel W DS_STORE File Microsoft Excel W	418 412 418 412 412 412 712 2018	

Figure 20. Save the data to Uservol under the following folders.

10. Save the data in the format **mm-dd-yyyy-hh-mm** (month-day-year-hour-minute) Was this a recommended file naming format? This format is hard to understand (Why is hour or minute needed? And why use month first?) or sorting the files by name. Perhaps PXRF YYYY-MM-DD?

11. Save the file to Uservol K_Inorganic_Geochemistry PXRF 393 Raw Data (Fig ure 20) for Exp 393.

LIMS Component Table

PLAC	СЕНО	LDER until t	he new PXRF components and data structure is defined
AN AL YSIS	TA BLE	NAME	ABOUT TEXT
PX RF	S A M PLE	Ехр	Exp: expedition number
PX RF	S A M PLE	Site	Site: site number
PX RF	S A M PLE	Hole	Hole: hole number
PX RF	S A M PLE	Core	Core: core number
PX RF	S A M PLE	Туре	Type: type indicates the coring tool used to recover the core (typical types are F, H, R, X).
PX RF	S A M PLE	Sect	Sect: section number
PX RF	S A M PLE	A/W	A/W: archive (A) or working (W) section half.
PX RF	S A M PLE	text_id	Text_ID: automatically generated database identifier for a sample, also carried on the printed labels. This identifier is guaranteed to be unique across all samples.

PX RF	S A M PLE	sample_n umber	Sample Number: automatically generated database identifier for a sample. This is the primary key of the SAMPLE table.
PX RF	S A M PLE	label_id	Label identifier: automatically generated, human readable name for a sample that is printed on labels. This name is not guaranteed unique across all samples.
PX RF	S A M PLE	sample_n ame	Sample name: short name that may be specified for a sample. You can use an advanced filter to narrow your search by this parameter.
PX RF	S A M PLE	x_sample _state	Sample state: Single-character identifier always set to "W" for samples; standards can vary.
PX RF	S A M PLE	x_project	Project: similar in scope to the expedition number, the difference being that the project is the current cruise, whereas expedition could refer to material/results obtained on previous cruises
PX RF	S A M PLE	x_capt_loc	Captured location: "captured location," this field is usually null and is unnecessary because any sample captured on the JR has a sample_number ending in 1, and GCR ending in 2
PX RF	S A M PLE	location	Location: location that sample was taken; this field is usually null and is unnecessary because any sample captured on the JR has a sample_number ending in 1, and GCR ending in 2
PX RF	S A M PLE	x_samplin g_tool	Sampling tool: sampling tool used to take the sample (e.g., syringe, spatula)
PX RF	S A M PLE	changed_ by	Changed by: username of account used to make a change to a sample record
PX RF	S A M PLE	changed_ on	Changed on: date/time stamp for change made to a sample record
PX RF	S A M PLE	sample_t ype	Sample type: type of sample from a predefined list (e.g., HOLE, CORE, LIQ)
PX RF	S A M PLE	x_offset	Offset (m): top offset of sample from top of parent sample, expressed in meters.
PX RF	S A M PLE	x_offset_ cm	Offset (cm): top offset of sample from top of parent sample, expressed in centimeters. This is a calculated field (offset, converted to cm)
PX RF	S A M PLE	x_bottom _offset_cm	Bottom offset (cm): bottom offset of sample from top of parent sample, expressed in centimeters. This is a calculated field (offset + length, converted to cm)
PX RF	S A M PLE	x_diamet er	Diameter (cm): diameter of sample, usually applied only to CORE, SECT, SHLF, and WRND samples; however this field is null on both Exp. 390 and 393, so it is no longer populated by Sample Master
PX RF	S A M PLE	x_orig_len	Original length (m): field for the original length of a sample; not always (or reliably) populated
PX RF	S A M PLE	x_length	Length (m): field for the length of a sample [as entered upon creation]
PX RF	S A M PLE	x_length_ cm	Length (cm): field for the length of a sample. This is a calculated field (length, converted to cm).

ΡX			
RF	S A M PLE	status	Status: single-character code for the current status of a sample (e.g., active, canceled)
PX RF	S A M PLE	old_status	Old status: single-character code for the previous status of a sample; used by the LIME program to restore a canceled sample
PX RF	S A M PLE	original_s ample	Original sample: field tying a sample below the CORE level to its parent HOLE sample
PX RF	S A M PLE	parent_sa mple	Parent sample: the sample from which this sample was taken (e.g., for PWDR samples, this might be a SHLF or possibly another PWDR)
PX RF	S A M PLE	standard	Standard: T/F field to differentiate between samples (standard=F) and QAQC standards (standard=T)
PX RF	S A M PLE	login_by	Login by: username of account used to create the sample (can be the LIMS itself [e.g., SHLFs created when a SECT is created])
PX RF	S A M PLE	login_date	Login date: creation date of the sample
PX RF	S A M PLE	legacy	Legacy flag: T/F indicator for when a sample is from a previous expedition and is locked /uneditable on this expedition
PX RF	TE ST	test changed_ on	TEST changed on: date/time stamp for a change to a test record.
PX RF	TE ST	test status	TEST status: single-character code for the current status of a test (e.g., active, in process, canceled)
PX RF	TE ST	test old_status	TEST old status: single-character code for the previous status of a test; used by the LIME program to restore a canceled test
PX RF	TE ST	test test_num ber	TEST test number: automatically generated database identifier for a test record. This is the primary key of the TEST table.
PX RF	TE ST	test date_rece ived	TEST date received: date/time stamp for the creation of the test record.
PX RF	TE ST	test instrument	TEST instrument [instrument group]: field that describes the instrument group (most often this applies to loggers with multiple sensors); often obscure (e.g., user_input)
PX RF	TE ST	test analysis	TEST analysis: analysis code associated with this test (foreign key to the ANALYSIS table)
PX RF	TE ST	test x_project	TEST project: similar in scope to the expedition number, the difference being that the project is the current cruise, whereas expedition could refer to material/results obtained on previous cruises
PX RF	TE ST	test sample_n umber	TEST sample number: the sample_number of the sample to which this test record is attached; a foreign key to the SAMPLE table
PX RF	TE ST	Top depth CSF-A (m)	Top depth CSF-A (m): position of observation expressed relative to the top of the hole.
PX RF	TE ST	Bottom depth CSF-A (m)	Bottom depth CSF-A (m): position of observation expressed relative to the top of the hole.
PX RF	TE ST	Top depth CSF-B	Top depth [other] (m): position of observation expressed relative to the top of the hole. The location is presented in a scale selected by the science party or the report user.

PX RF	TE ST	Bottom depth CSF-B (m)	Bottom depth [other] (m): position of observation expressed relative to the top of the hole. The location is presented in a scale selected by the science party or the report user.
PX RF	R E S ULT	datetime	RESULT datetime: date/time stamp for each run
PX RF	R E S ULT	mode	RESULT mode: the calibration selected for the run (e.g., Geochem, Mudrock)
PX RF	R E S ULT	run_numb er	RESULT run number: serial number of the run (incremented by the instrument for each sample)
PX RF	S A M PLE	sample_n ame	SAMPLE sample name: repeated display of the sample label ID from the SAMPLE table
PX RF	R E S ULT	reading	RESULT reading number: human-input run number for each sample
PX RF	R E S ULT	run_spm_ asman_id	RESULT spectrum file ASMAN_ID: serial number of the ASMAN link for the spectral raw data (.SPM) file
PX RF	R E S ULT	run_spm_ filename	RESULT spectrum filename: file name for the spectral raw data (.SPM) file
PX RF	R E S ULT		RESULT main report ASMAN_ID: serial number of the ASMAN link for the reduced data table (.CSV) file
PX RF	R E S ULT	run_main _filename	RESULT main report filename: file name for the reduced data table (.CSV) file
PX RF	R E S ULT	offset (cm)	RESULT offset (cm): position of the observation made, measured relative to the top of a section half.
PX RF	R E S ULT	result comments	RESULT comment: contents of a result parameter with name = "comment," usually shown on reports as "Result comments"