

# Tennessee Department of Environment and Conservation Division of Water Resources William R. Snodgrass Tennessee Tower,

312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243 1-888-891-8332 (TDEC)

Phase II Small Municipal Separate Storm Sewer System (MS4) Annual Report

#### 1. MS4 Information

	Na	ame of MS4: Shelby County		MS4 Permit Number: TNS075663						
	Co	ontact Person: Chris Masin, P.E.		Email Address: cl	nris.masin@shelb	ycountytn.go	ov			
	Te	elephone: (901) 222-7705	nwater							
	Ma	ailing Address: 6463 Haley Road								
	Ci	ty: Memphis	ZIP code: 3813	4						
	Wh	at is the current population of your	MS4? <u>119,024</u>							
		at is the reporting period for this ar	30 <u>2021</u>							
2.	Dis	charges to Waterbodies with Unav	ailable Parameters	or Exceptional Tenn	essee Waters (Se	ection 3.1)				
		ously referred ated to 03(d) list /dwr/)? If yes,	⊠ Yes	□ No						
	В.	Are there established and approvement was tennessees total maximum da MS4 discharges in your jurisdiction		⊠ Yes	□No					
	C.	Does your MS4 discharge to any <a href="http://environment-online.tn.gov:8080">http://environment-online.tn.gov:8080</a> attach a list.		⊠ Yes	□ No					
	D.	Are you implementing specific Be discharges to waterbodies with ur specific practices: Public Education and Elimination, Post-Construction Staff has received traing in illicit deserged seed to report any of the seed of the	navailable paramete on, Construction Ins n BMP inspection, a ischarge detection a n instructed to sear	ers or ETWs? If yes pection, Illicit Discha and Municipal Good and erosion prevent ch for issues while p	describe the arge Detection Housekeeping. ion and performing their	⊠ Yes	□No			
3.	<u>Puk</u>	olic Education/Outreach and Involv	ement/Participation	(Sections 4.2.1 and	4.2.2)					
	A.	Have you developed a Public Info	rmation and Educat	tion plan (PIE)?		⊠ Yes	☐ No			
	В.	Is your public education program Spots? If yes, describe the specifieducation program: Siltation, E. C.	fic pollutants and/or	sources targeted by		⊠ Yes	□No			
	C.	Do you have a webpage dedicate link/URL: www.shelbycountytn.go	provide a	⊠ Yes	□ No					
	D.	Summarize how you advertise an	d publicize your put	olic education, outre	ach, involvement	and participa	ation			

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opportunities: Email, Flyers, Newspapers and website

- E. Summarize the public education, outreach, involvement and participation activities you completed during this reporting period: Hosted Muddy Water Blues event at Shelby Farms where stormwater professionals could view installed sediment protection and erosion control measures
- F. Summarize any specific successful outcome(s) (e.g., citizen involvement, pollutant reduction, water quality improvement, etc.) fully or partially attributable to your public education and participation program during this reporting period: <a href="Provided education to over 60 members of the public">Provided education to over 60 members of the public</a>

4.	Illic	cit Discharge Detection and Elimination (Section 4.2.3)												
	A.	Have you developed and do you continue to update a storm sewer system map that shows the location of system outfalls where the municipal storm sewer system discharges into waters of the state or conveyances owned or operated by another MS4?	⊠ Yes	□ No										
	B.	If yes, does the map include inputs into the storm sewer collection system, such as the inlets, catch basins, drop structures or other defined contributing points to the sewershed of that outfall, and general direction of stormwater flow?	⊠Yes	□ No										
	C.	How many outfalls have you identified in your storm sewer system? Approx. 2,665												
	D.	Do you have an ordinance, or other regulatory mechanism, that prohibits non- stormwater discharges into your storm sewer system?	⊠Yes	□No										
	E.	Have you implemented a plan to detect, identify and eliminate non-stormwater discharges, including illegal disposal, throughout the storm sewer system? If yes, provide a summary: Provide multiple venues for reporting problems and then investigating them	⊠ Yes	□ No										
	F.	How many illicit discharge related complaints were received this reporting period? 23												
	G.	How many illicit discharge investigations were performed this reporting period? 23												
	H.	addressed and	/or											
5.	Co	nstruction Site Stormwater Runoff Pollutant Control (Section 4.2.4)												
	A.	Do you have an ordinance or other regulatory mechanism requiring:												
		Construction site operators to implement appropriate erosion prevention and sediment control BMPs consistent with those described in the TDEC EPSC Handbook?	⊠ Yes	□ No										
		Construction site operators to control wastes such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste?	⊠ Yes	□No										
		Design storm and special conditions for unavailable parameters waters or Exceptional Tennessee Waters consistent with those of the current Tennessee Construction General Permit (TNR100000)?	⊠ Yes	□ No										
	B.	Do you have specific procedures for construction site plan (including erosion prevention and sediment BMPs) review and approval?	⊠ Yes	□No										
	C.	Do you have sanctions to enforce compliance?	⊠ Yes	□ No										
	D.	Do you hold pre-construction meetings with operators of priority construction activities and inspect priority construction sites at least monthly?	⊠ Yes	□ No										

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E. How many construction sites disturbing at least one acre or greater were active in your jurisdiction this reporting

		period? 45									
	F.	How many active priority and non-priority construction sites were inspected this reporting p	eriod? <u>45</u>								
	G.	How many construction related complaints were received this reporting period? 34									
6.	Pe	rmanent Stormwater Management at New Development and Redevelopment Projects (Sec	<u>tion 4.2.5)</u>								
	A.	Do you have a regulatory mechanism (e.g. ordinance) requiring permanent stormwater pollutant removal for development and redevelopment projects? If no, have you submitted an Implementation Plan to the Division?	⊠ Yes ⊠ Yes	□ No							
	B.	Do you have an ordinance or other regulatory mechanism requiring:	_	_							
		Site plan review and approval of new and re-development projects?	⊠ Yes	□No							
		A process to ensure stormwater control measures (SCMs) are properly installed and maintained?	⊠ Yes	□No							
		Permanent water quality riparian buffers? If yes, specify requirements: 30 feet from top of bank (TOB) minimum, 50 feet for drainage areas from 100 to 5,000 acres; 100 feet for drainage areas between 5,000 and 20,000 acres; 200 feet for drainage areas between 20,000 acres and 100,000 acres and 250 feet for streams having a drainage area greater than 100,000 acres.	⊠ Yes	□No							
	C.	What is the threshold for development and redevelopment project plans plan review (e.g., disturbing greater than one acre, etc.)? All projects submitted to the Land Use Control Bohomes on sites on four acres or more submitted to Memphis and Shelby County Code Enterprise Code Code Code Code Code Code Code Cod	oard and individ	-							
	D.	How many development and redevelopment project plans were reviewed for this reporting	period? <u>29</u>								
	E.	How many development and redevelopment project plans were approved? 23									
	F.	How many permanent stormwater related complaints were received this reporting period?	<u>8</u>								
	G.	How many enforcement actions were taken to address improper installation or maintenance	ce? <u>7</u>								
	H.	Do you have a system to inventory and track the status of all public and private SCMs installed on development and redevelopment projects?	⊠ Yes	□No							
	I.	Does your program include an off-site stormwater mitigation or payment into public stormwater fund? If yes, specify	☐ Yes	⊠ No							
7.	Sto	rmwater Management for Municipal Operations (Section 4.2.6)									
	A.	As applicable, have stormwater related operation and maintenance plans that include informaintenance activities, schedules and the proper disposal of waste from structural and no controls been developed and implemented at the following municipal operations:									
		Streets, roads, highways?	⊠ Yes	□No							
		Municipal parking lots?	⊠ Yes	□No							
		Maintenance and storage yards?	⊠ Yes	□No							
		Fleet or maintenance shops with outdoor storage areas?	⊠ Yes	□No							
		Salt and storage locations?	⊠ Yes	□No							
		Snow disposal areas?	⊠ Yes	□No							

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	Waste disposal, storage, and transfer stations?		☐ No							
B.	Do you have a training program for employees responsible for municipal operations at facilities within the jurisdiction that handle, generate and/or store materials which constitute a potential pollutant of concern for MS4s?	⊠ Yes	□ No							
	If yes, are new applicable employees trained within six months, and existing applicable employees trained and/or retrained within the permit term?	⊠ Yes	□ No							
<u>Rev</u>	viewing and Updating Stormwater Management Programs (Section 4.4)									
A.	Describe any revisions to your program implemented during this reporting period including but not limited to:									
	Modifications or replacement of an ineffective activity/control measure. None Changes to the program as required by the division to satisfy permit requirements. None Information (e.g. additional acreage, outfalls, BMPs) on newly annexed areas and any resprogram. None		s to you							
B.	In preparation for this annual report, have you performed an overall assessment of your stormwater management program effectiveness? If yes, summarize the assessment results, and any modifications and improvements scheduled to be implemented in the next reporting period. Electronic tracking of construction inspections, post-construction BMP sites and municipal site inspections has gone very well. Training of employees using internet classes is not as effective as in-person learning.	⊠ Yes	□No							

8.

9. <u>E</u>	nforcement Response P	lan (Section 4.5)				
Α	enforcement actions	ted an enforcement r s to address non-com -221-1106? If no, exp	pliance, and allows t	cludes progressive the maximum penalties	s ⊠ Yes	□ No
В	<ul> <li>As applicable, identife this reporting period;</li> <li>permanent stormwate</li> </ul>	nstruction, illicit				
	<u>Action</u>	Construction	Permanent Stormwater	<u>Illicit</u> <u>Discharge</u>	<u>In Your E</u>	RP?
Ve	erbal warnings	# <u>16</u>	# <u>8</u>	# <u>23</u>	⊠ Yes	☐ No
W	ritten notices	# <u>5</u>	# <u>7</u>	# <u>4</u>	⊠ Yes	☐ No
	tations with Iministrative penalties	# <u>0</u>	# <u>0</u>	# <u>0</u>	⊠ Yes	□No
St	op work orders	# <u>0</u>	# <u>0</u>	# <u>0</u>	⊠ Yes	☐ No
ар	ithholding of plan provals or other ithorizations	# <u>0</u>	# <u>0</u>	# <u>0</u>	⊠ Yes	□No
Ac	dditional Measures	# <u>O</u>	# <u>0</u>	# <u>0</u> De	escribe:	
C.	Do you track instanc	es of non-complianc	e and related enforce	ement documentation?	⊠ Yes	☐ No
D.	What were the most fence needs mainter	• •	n-compliance instan	ces documented durin	g this reporting	period? <u>Silt</u>
10. <u>N</u>	Monitoring, Recordkeepir	ng and reporting (Sec	ction 5)			
A.	•		, , ,	collection, evaluation o	, .	_
B.	during this reporting p	period. <u>Contracted was the contracted was the contracted and the contracted are the contracted as the contracted are the contracted as the contracted are the contra</u>	vith the University of d area. About 80% o	ning, collection, evaluaned Memphis for \$447,917 of the data has been can spring 2022	.00 to visually a	ssess 300

## 11. Certification

submitted with this report.

C.

If applicable, are monitoring records for activities performed during this reporting period

☐ No

This report must be signed by a ranking elected official or by a duly authorized representative of that person. See signatory requirements in sub-part 6.7.2 of the permit.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Darren Sanders, P.E.	Danen J. Sander	September 30, 2021
Printed Name and Title	Signature	Date

Annual reports must be submitted by September 30 of each calendar year (Section 5.4) to the appropriate Environmental Field Office (EFO), identified in the table below:

EFO	Street Address	City	Zip Code	Telephone
Chattanooga	1301 Riverfront Pkwy, Suite 206	Chattanooga	37402	(423) 634-5745
Columbia	1421 Hampshire Pike	Columbia	38401	(931) 380-3371
Cookeville	1221 South Willow Ave.	Cookeville	38506	(931) 520-6688
Jackson	1625 Hollywood Drive	Jackson	38305	(731) 512-1300
Johnson City	2305 Silverdale Road	Johnson City	37601	(423) 854-5400
Knoxville	3711 Middlebrook Pike	Knoxville	37921	(865) 594-6035
Memphis	8383 Wolf Lake Drive	Bartlett	38133	(901) 371-3000
Nashville	711 R S Gass Boulevard	Nashville	37216	(615) 687-7000

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**Table 2.A.**Waters with Unavailable Parameters

ID	WATER_NAME
TN08010100001 1000	Mississippi River
TN08010100001 2000	Mississippi River
TN08010209001_0100	Todd Creek
TN08010209001_1000	Loosahatchie River
TN08010209002_0100	Unnamed Trib to Loosahatchie River
TN08010209002_0200	Rocky Branch
TN08010209002_0400	Oliver Creek
TN08010209002_0500	Buckhead Creek
TN08010209002_0700	Howard Creek
TN08010209002_1000	Loosahatchie River
TN08010209002 2000	Loosahatchie River
TN08010209004_1000	Loosahatchie River
TN08010209013_0300	East Beaver Creek
TN08010209016_0100	West Beaver Creek
TN08010209016_0200	Middle Beaver Creek
TN08010209016_1000	Beaver Creek
TN08010209021_0100	Jakes Creek
TN08010209021_0110	Bear Creek
TN08010209021_0200	Royster Creek
TN08010209021_0300	North Fork Creek
TN08010209021_0600	Crooked Creek Canal
TN08010209021_0610	Unnamed Trib to Crooked Creek Canal
TN08010209021_1000	Big Creek
TN08010209021_2000	Big Creek
TN08010209021_3000	Big Creek
TN08010210001_0100	Harrington Creek
TN08010210002_2000	Wolf River
TN08010210003_0100	Johnson Creek
TN08010210022_0100	Unnamed Trib to Grays Creek
TN08010210022_0300	Marys Creek
TN08010210022_0350	Marys Creek
TN08010210022 1000	Grays Creek
TN08010210023_0200	Unnamed Trib to Fletcher Creek
TN08010210023_1000	Fletcher Creek
TN0801021100720_0300	Unnamed Trib to Nonconnah Creek
TN0801021100720_0400	Unnamed Trib to Nonconnah Creek
TN0801021100720_0500	Unnamed Trib to Nonconnah Creek
TN0801021100720_2000	Nonconnah Creek
TN0801021100720_3000	Nonconnah Creek

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#### Table 2.B.

Waterbodies where a TMDL has been approved

- 1 Mississippi River Total Maximum Daily Load for Chlordane, Dioxins, and Polychlorinated Biphenyls (PCBs) in the Mississippi River Watershed in Dyer, Lake, Lauderdale, Tiptom and Shelby Counties, Approved 07/25/2008
- 2 Loosahatchie River Total Maximum Daily Loads for Polychlorinated Biphenyls (PCBs) in the Loosahatchie River Watershed in Shelby County. Approved 10/15/2008
- 3 Nonconnah Creek Total Maximum Daily Load for Arsenic in the Nonconnah Creek Watershed (HUC 08010211) in Shelby and Fayette Counties. Approved 06/20/2014
- Wolf River Total Daily Maximum Load for Chlordane, and Polychlorinated Biphenyls (PCBs) in the Wolf River Watershed in Shelby County. Approved 12/13/2007
- Wolf River Total Daily Maximum Load for Dioxins in the Wolf River Watershed in Shelby County. Approved 12/13/2007
- Wolf River Total Daily Maximum Load for Metals in the Wolf River Watershed in Shelby County. Approved 12/13/2007
- 7 Wolf River Total Daily Maximum Load for E. coli in the Wolf River Watershed in Fayette, Hardeman, and Shelby Counties. Approved 11/28/2017

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**Table 2.C.**Exceptional TN Waters (ETWs)

HUC Watershed Waterbody		Waterbody	Basis for Inclusion	From Lat	To Lat	From	To Long
	Name					Long	
8010100	Mississippi	Barnishee Bayou	Meeman Shelby Forest State Natural Area	35.3380	35.3788	-90.0740	-90.0268
8010100	Mississippi	Big Cypress Slough	Meeman Shelby Forest State Natural Area	35.3769	35.3398	-90.0650	-90.0693
8010100	Mississippi	Brinkley Bayou	Shelby Forest State Natural Area	35.3146	35.3375	-90.0825	-90.0746
8010100	Mississippi	Dry Bayou	Meeman Shelby Forest State Natural Area.	35.3199	35.3035	-90.0905	-90.0787
8010100	Mississippi	Eagle Lake	Meeman Shelby Forest State Natural Area.	35.2976	35.2955	-90.0820	-90.0786
8010100	Mississippi	Grassy Lake	Meeman Shelby Forest State Natural Area.	35.3159	35.3196	-90.0805	-90.0767
8010100	Mississippi	Gum Slough	Meeman Shelby Forest State Natural Area.	35.3619	35.3530	-90.0664	-90.0675
8010100	Mississippi	Little Cypress Slough	Meeman Shelby Forest State Natural Area.	35.3599	35.3511	-90.0735	-90.0763
8010100	Mississippi	Marie Lake	Meeman-Shelby Forest State Park.	35.3296	35.3320	-90.0394	-90.0362
8010100	Mississippi	Piersol Lake	Meeman-Shelby Forest State Park.	35.3399	35.3392	-90.0354	-90.0419
8010100	Mississippi	Poplar Tree Lake	Meeman-Shelby Forest State Park.	35.4660	35.4998	-89.9155	-89.9191
8010210	Wolf	Wolf River	State threatened Blue Sucker	35.1836	35.1621	-90.0569	-89.8874

OBJECTID	SITE_ID	LOCATION	DES	ID305B_WATER_NAME	ANALYSIS_1	ANALYSIS_2	ANALYSIS_3
1	BIG1C13.6SH	U/S of Millington STP at Sledge Road	Big Creek/ Sledge Rd	TN08010209021_2000 Big Creek Canal	Eshcerichia Coli	Phosphate	TSS
2	CROOK1C1.3SH	Donnell Rd	Crooked Creek/ Donnell Rd	TN08010209021_0600 Crooked Creek Canal	Eshcerichia Coli	Phosphorus	
3	CCTRIBO.4SC	Millington-Arlington Road	Trib Big Creek/ Mill-Arlington	TN08010209021_0610 Unnamed Trib to Crooked Creek Canal	Eshcerichia Coli		
4	BIG1C15.8SH	Millington-Arlington Road	Big Creek/Mill-Arlington	TN08010209021_3000 Big Creek Canal	Eshcerichia Coli		
5	JAKES000.3SH	Shake Rag Road	Jakes Creek/ Shake Rag	TN08010209021_0100 Jakes Creek	Eshcerichia Coli		
6	BIG1C1.0SH	Fite Road	Big Creek/ Fite Rd	TN08010209021_1000 Big Creek Canal	Eshcerichia Coli	Phosphorous	Nitrate/Nitrite
7	LOOSA10.8T1.3SH	Near Old Millington Road	Trib Loosahatchie/	TN08010209002_0100 Unanamed Trib to Loosahatchie	Eshcerichia Coli		
8	LOOSA008.2SH	Hwy 51	Loosahatchie/ Hwy 51	TN08010209002_1000 Loosahatchie River	Eshcerichia Coli	Phosphorous	TSS
9	TODD001.6SH	Millington Road	Todd Creek/ Millington Rd	TN08010209001_0100 Todd Creek	Eshcerichia Coli	Phosphorous	
10	LOOSA5.0SH	Watkins Road	Loosahatchie/ Watkins	TN08010209001_1000 Loosahatchie River	Eshcerichia Coli	Phosphorous	
, 11	LOOSA1C22.7SH	Brunswick Rd	Loosahatchie/ Brunswick Rd	TN08010209002_2000 Loosahatchie River	Eshcerichia Coli	Phosphorous	TSS
12	MARYS001.0SH	Raleigh-Lagrange Road	Marys Creek/ Ral-LaGrange	TN08010210022_0300 Marys Creek	Eshcerichia Coli	Phosphorous	TSS
13	GRAYS001.7SH	Raleigh Lagrange Rd	Grays Creek/ Ral-LaGange	TN08010210022_1000 Grays Creek	Eshcerichia Coli	Phosphorous	TSS
14	FLETC2.8T0.4SH	Whitten Road	Fletcher Creek/ Whitten Rd	TN08010210023_0200 Unnamed Trib to Flectcher Creek	Eshcerichia Coli	Phosphorous	
15	NONCO018.3T0.9SH	Barnstable Road (Lowrance Road)	Trib Nonconnah/ Lowrance Rd	TN0801021100720_0500 Unnamed Trib to Nonconnah Creek	Eshcerichia Coli	Phosphorous	

SITE_ID	Sample Date 1	RESULT_11	RESULT_12	RESULT_13	Sample Date 2	RESULT_21	RESULT_22	RESULT_23	Sample Date 3	RESULT_31	RESULT_32	RESULT_33	Sample Date 4	RESULT_41
BIG1C13.6SH	09/16/19	14	0.01	3	10/31/19	1	0.48	90	11/27/19	1	1.33	471	1/27/2020	1
CROOK1C1.3SH	09/16/19	10	0.06		10/31/19	61	0.16		11/27/19	3	0.32		1/27/2020	8
CCTRIBO.4SC	09/16/19	1			10/31/19	5			11/27/19	7			1/27/2020	5
BIG1C15.8SH	09/16/19	24			10/31/19	12			11/27/19	1			1/27/2020	1
JAKES000.3SH	09/16/19	11			10/31/19	1			11/27/19	1			1/27/2020	1
BIG1C1.0SH														
LOOSA10.8T1.3SH														
LOOSA008.2SH														

TODD001.6SH LOOSA5.0SH LOOSA1C22.7SH MARYS001.0SH GRAYS001.7SH FLETC2.8T0.4SH NONCO018.3T0.9SH

SITE_ID	RESULT_42	RESULT_43	Sample Date 5	RESULT_51	RESULT_52	RESULT_53	Sample Date 6	RESULT_61	RESULT_62	RESULT_63	Sample Date 7	RESULT_71	RESULT_72	RESULT_73
BIG1C13.6SH	0.29	48	2/25/2020	9	0.28	94	3/31/2020	12	0.58	206	4/30/2020	25	1.13	143
CROOK1C1.3SH	0.09		2/25/2020	2	0.1		3/31/2020	3	0.13		4/30/2020	7	0.37	
CCTRIBO.4SC			2/25/2020	1			3/31/2020	5			4/30/2020	10		
BIG1C15.8SH			2/25/2020	1			3/31/2020	2			4/30/2020	8		
JAKES000.3SH			2/25/2020	1			3/31/2020	3			4/30/2020	8		
BIG1C1.0SH											4/30/2020	23	0.13	4.2
LOOSA10.8T1.3SH											4/30/2020	8		
LOOSA008.2SH											4/30/2020	15	0.23	88
TODD001.6SH											4/30/2020	12	0.27	
LOOSA5.0SH											4/30/2020	1	0.01	
LOOSA1C22.7SH														

MARYS001.0SH GRAYS001.7SH FLETC2.8T0.4SH NONCO018.3T0.9SH

SITE_ID	Sample Date 8	RESULT_81	RESULT_82	RESULT_83	Sample Date 9	RESULT_91	RESULT_92	RESULT_93	Sample Date 10_1	RESULT_ 101	Sample Date 10_2	RESULT_102	Sample Date 10_3
BIG1C13.6SH	6/3/2020	12	0.15	16	6/17/2020	8	0.12	23	7/15/2020	21	7/27/2020	28	7/29/2020
CROOK1C1.3SH	6/3/2020	5	0.06		6/17/2020	3	0.04		7/15/2020	12	7/27/2020	15	7/29/2020
CCTRIBO.4SC	6/3/2020	6			6/17/2020	4			7/15/2020	14	7/27/2020	20	7/29/2020
BIG1C15.8SH	6/3/2020	3			6/17/2020	1			7/15/2020	8	7/27/2020	11	7/29/2020
JAKES000.3SH	6/3/2020	4			6/17/2020	1			7/15/2020	7	7/27/2020	11	7/29/2020
BIG1C1.0SH	6/3/2020	10	0.02	1	6/17/2020	7	0.04	1.3	7/15/2020	15	7/27/2020	18	7/29/2020
LOOSA10.8T1.3SH	6/3/2020	7			6/17/2020	4			7/15/2020	12	7/27/2020	5	7/29/2020
LOOSA008.2SH	6/3/2020	2	0.04	6	6/17/2020	1	0.04	48	7/15/2020	3	7/27/2020	16	7/29/2020
TODD001.6SH	6/3/2020	7	0.06		6/17/2020	2	0.07		7/15/2020	8	7/27/2020	12	7/29/2020
LOOSA5.0\$H	6/3/2020	1	0.01		6/17/2020	1	0.02		7/15/2020	2	7/27/2020	6	7/29/2020

LOOSA1C22.7SH
MARYS001.0SH
GRAYS001.7SH
FLETC2.8T0.4SH
NONCO018.3T0.9SH

SITE_ID	RESULT_103	Sample Date 10_4	Result 104	Sample Date 10_5	Result_105	Sample Date 10_6	Result_106	Sample Date 11	Result_111	Result_112	Result_113	Sample Date 12	Result_121
BIG1C13.6SH	16	8/3/2020	6	8/6/2020	4	8/10/2020	5	8/17/2020	9	0.93		9/30/2020	6
CROOK1C1.3SH	7	8/3/2020	5	8/6/2020	3	8/10/2020	4	8/17/2020	7			9/30/2020	6
CCTRIBO.4SC	7	8/3/2020	3	8/6/2020	<1	8/10/2020	1	8/17/2020	3			9/30/2020	2
BIG1C15.8SH	6	8/3/2020	12	8/6/2020	8	8/10/2020	10	8/17/2020	12	0.65	22	9/30/2020	10
JAKES000.3SH	2	8/3/2020	<1	8/6/2020	<1	8/10/2020	1	8/17/2020	4			9/30/2020	1
BIG1C1.0SH	8	8/3/2020	5	8/6/2020	3	8/10/2020	4	8/17/2020	9	1.01	1.5	9/30/2020	5
LOOSA10.8T1.3SH	6	8/3/2020	4	8/6/2020	2	8/10/2020	4	8/17/2020	8			9/30/2020	5
LOOSA008.2SH	1	8/3/2020	<1	8/6/2020	<1	8/10/2020	1	8/17/2020	5	0.34	75	9/30/2020	2
TODD001.6SH	3	8/3/2020	2	8/6/2020	<1	8/10/2020	<1	8/17/2020	4	1.3		9/30/2020	2
LOOSA5.0SH	1	8/3/2020	<1	8/6/2020	<1	8/10/2020	<1	8/17/2020	3	0.34		9/30/2020	<1

LOOSA1C22.7SH MARYS001.0SH GRAYS001.7SH FLETC2.8T0.4SH NONCO018.3T0.9SH

SITE_ID	Result_122	Result_123	Sample Date 13	Result_131	Result_132	Result_133	Sample Date 14	Result_141	Result_142	Result_143	Sample Date 15	Result_151	Result_152	Result_153
BIG1C13.6SH	0.38													
CROOK1C1.3SH														
CCTRIBO.4SC														
BIG1C15.8SH	1.02	148												
JAKES000.3SH														
BIG1C1.0SH	0.16	1.8	10/20/2020	6	0.158	2.1	11/10/2020	5	0.351	1.8	1/6/2021	2	0.129	1.5
LOOSA10.8T1.3SH			10/20/2020	5			11/10/2020	3			1/6/2021	0		
LOOSA008.2SH	0.21	50	10/20/2020	7	0.058	10	11/10/2020	6	0.154	5	1/6/2021	6	0.122	16
TODD001.6SH	0.28		10/20/2020	3	0.075		11/10/2020	6	0.333		1/6/2021	5	0.106	
LOOSA5.0SH	0.05		10/20/2020	2	0.013		11/10/2020	7	0.147		1/6/2021	3	0.112	
LOOSA1C22.7SH			10/20/2020	5	0.083	10	11/10/2020	6	0.208	3	1/6/2021	6	0.104	12
MARYS001.0SH			10/20/2020	4	0.069	4	11/10/2020	3	0.029	20	1/6/2021	1	0.047	6
GRAYS001.7SH			10/20/2020	5	0.055	4	11/10/2020	4	0.126	7	1/6/2021	2	0.11	5
FLETC2.8TO.4SH			10/20/2020	8	0.071		11/10/2020	2	0.097		1/6/2021	1	0.06	
NONCO018.3T0.9SH			10/20/2020	9	0.073		11/10/2020	7	0.03		1/6/2021	5	0.049	

SITE_ID	Sample Date 16	Result_161	Result_162	Result_163	Sample Date 17	Result_171	Result_172	Result_173	Sample Date 18	Result_181	Result_182	Result_183	Sample Date 19
BIG1C13.6SH													
CROOK1C1.3SH													
CCTRIBO.4SC													
BIG1C15.8SH													
JAKES000.3SH													. / . /
BIG1C1.0SH	1/29/2021	7	0.102	2.3	3/3/2021	8	0.132	2.7	3/10/2021	10	0.343	3.2	4/9/2021
LOOSA10.8T1.3SH	1/29/2021	6			3/3/2021	7			3/10/2021	6			4/9/2021
LOOSA008.2SH	1/29/2021	10	0.119	31	3/3/2021	15	0.114	41	3/10/2021	13	0.027	25	4/9/2021
TODD001.6SH	1/29/2021	5	0.137		3/3/2021	7	0.15		3/10/2021	5	0.163	,	4/9/2021
LOOSA5.0SH	1/29/2021	3	0.109		3/3/2021	5	0.133		3/10/2021	4	0.108		4/9/2021
LOOSA1C22.7SH	1/29/2021	7	0.102	8	3/3/2021	10	0.119	12	3/10/2021	8	0.035	17	4/9/2021
MARYS001.0SH	1/29/2021	5	0.083	10	3/3/2021	6	0.063	15	3/10/2021	3	0.017	9	4/9/2021
GRAYS001.7SH	1/29/2021	6	0.091	3	3/3/2021	9	0.032	7	3/10/2021	10	<0.010	6	4/9/2021
FLETC2.8T0.4SH	1/29/2021	12	0.095		3/3/2021	15	0.031		3/10/2021	18	0.889		4/9/2021
NONCO018.3T0.9SH	1/29/2021	11	0.097		3/3/2021	17	0.058		3/10/2021	12	<0.010		4/9/2021

SITE_ID	Result_191	Result_192	Result_193	Sample Date 20	Result_201	Result_202	Result_203	Sample Date 21	Result_211	Result_212	Result_213
BIG1C13.6SH											
CROOK1C1.3SH											
CCTRIBO.4SC											
BIG1C15.8SH											
JAKES000.3SH											
BIG1C1.0SH	14	0.304	2.8								
LOOSA10.8T1.3SH	8										
LOOSA008.2SH	17	0.303	59								
TODD001.6SH	10	0.291									
LOOSA5.0SH	5	0.087									
LOOSA1C22.7SH	15	0.227	60	5/25/2021	9	3.1		6/17/2021	18	3.3	
MARYS001.0SH	6	0.059	12	5/25/2021	2			6/17/2021	4		
GRAYS001.7SH	7	0.136	23	5/25/2021	8	0.08	2.2	6/17/2021	21	0.078	10
FLETC2.8TO.4SH	12	0.325		5/25/2021	7	0.063	17	6/17/2021	16	0.261	19
NONCO018.3T0.9SH	6	0.079		5/25/2021	4	0.117		6/17/2021	9	0.038	