

*"Environmental & Energy Solutions, Inc.  
is now Ardent Group, Inc."*

July 09, 2021

Mr. Paul Costello  
Ginivan Group, LLC  
17 Summer Path Way  
Pembroke, MA 02359

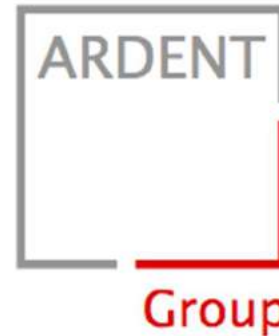
RE: Town of Medfield  
National Pollutant Discharge Elimination System (NPDES)  
FY2021 MS4 Compliance Assistance  
**Ardent** File ECLP-1382

Mr. Costello:

Ardent Group, Inc. (**Ardent**) is pleased to present this summary of Town of Medfield Outfall Sampling Activities. Dry weather screening and sampling was conducted at a selection of outfalls and manways. The dry weather screening consisted of a series of qualitative field observations along with field and/or lab analysis of selected water quality parameters where outfalls were discharging during dry weather.

Outfall sampling was completed on June 11, 2021. Weather was sunny and dry with temperatures around 70 degrees Fahrenheit. **Ardent** was accompanied by Mr. Joe Gorman, Town of Medfield Department of Public Works, during the sampling event.

A review of Table 1 reveals that a total of three outfalls and 4 manways were inspected. One of the outfalls was found to be dry and therefore could not be sampled. Physical parameters were measured using a YSI Meter meter and a Hach flow meter. Samples collected were analyzed for Total Suspended Solids, E.coli, Coliform, Enterococci, Ammonia, Chlorine, Phosphorous, Surfactants, and Salinity.



590 Summer Street  
Rockland, MA 02370  
781/982-9929  
[www.ardentgroupinc.com](http://www.ardentgroupinc.com)



**TABLE 1 – June 2021 Outfall Field Screening**

SCREEN	OF-414	OF-280	DMH-407	DMH-411
pH	7.50	6.96	7.17	6.96
Temperature (°C)	17.96	17.45	16.34	14.93
Specific Conductance (uS/cm)	352	259	949	812
Dissolved Oxygen (%)	83.1	52.5	98.1	88.7
Dissolved Oxygen (mg/L)	7.86	5*	9.59	8.92
Turbidity (NTU)	3.48	0.0	2.85	2.12
Flow (ft./sec.)	0.24	0.06	DNR	0.07
Analysis	Yes	Yes	Yes	Yes
Notes	-2" depth, clear of sediment	-6" depth, clear of sediment -DO mg/L value approximated due to error in field recording	-1" depth -Not deep enough to collect flow measurement	-3" depth, clear of sediment

**TABLE 1 – June 2021 Outfall Field Screening continued**

SCREEN	DMH-262	OF-209	DMH-781
pH	6.81	Dry	6.35
Temperature (°C)	16.36	Dry	10.52
Specific Conductance (uS/cm)	559	Dry	214
Dissolved Oxygen (%)	86.2	Dry	78.6
Dissolved Oxygen (mg/L)	8.43	Dry	8.71
Turbidity (NTU)	1.60	Dry	0.0
Flow (ft./sec.)	0.05		DNR
Analysis	Yes	No	Yes
Notes	-6" depth, some sediment present -Algal mass present	Dry	-1.5" depth -Not deep enough to collect flow measurement

Attached hereto find the following documentation:

- ° Sample Log
- ° Laboratory Certificates of Analyses
- ° Photos

Thank you for the opportunity to be of service in this matter. If you have any questions, please feel free to contact the firm.

Sincerely,

Ardent Group, Inc.

## APPENDIX A – SAMPLE LOG

**ARDENT GROUP, INC.**  
**SAMPLING LOG**

<b>PROJECT:</b>		
Project: ECLP-1382 TOWN OF MEDFIELD	Exploration Date: 06/11/21	Precipitation: None
Page: 1 of 1	Sub Contractor: None	Temperature (F°): 70
Methodology: IDDE	Equipment: Sampling	Sun: Sunny
Ardent Personnel: BXT, PFC	Snow Cover: None	Run Off: None

Last Rain: 06/07

WATER QUALITY:							
Outfall ID:	OF-414	OF-280	DMH-407	DMH-411	DMH-262	OF-209	DMH-781
pH:	7.50	6.96	7.17	6.96	6.81		6.35
Temperature (°C):	17.96	17.45	16.34	14.93	16.36		10.52
Conductance (us/cm):	352	259	949	812	559		214
DO (%):	83.1	52.5	98.1	88.7	86.2		78.6
DO (mg/L):	7.86	52.5	9.59	8.92	8.43		8.71
Turbidity (NTU):	3.48	0.0	2.85	2.12	1.60		0.0
Flow (feet/sec):	0.24	0.06	DNR*	0.07	0.05		DNR*
Salinity (ppt):	Laboratory	Laboratory	Laboratory	Laboratory	Laboratory		Laboratory
Analyses:	TSS, P, NH3, Bacteria*, Surfactants, Cl	TSS, P, NH3, Bacteria*, Surfactants, Cl	TSS, P, NH3, Bacteria*, Surfactants, Cl	TSS, P, NH3, Bacteria*, Surfactants, Cl	TSS, P, NH3, Bacteria*, Surfactants, Cl	TSS, P, NH3, Bacteria*, Surfactants, Cl	TSS, P, NH3, Bacteria*, Surfactants, Cl
Notes:	2" depth plve clear of sediment	6" depth clear of stone	21" depth	~ 3" depth - no sediment	~ 6" depth - some sediment - bio-mass present		~ 1.5" depth

OPK

WATER QUALITY:							
Outfall ID:							
pH:							
Temperature (°C):							
Conductance (us/cm):							
DO (%):							
DO (mg/L):							
Turbidity (NTU):							
Flow:							
Salinity (ppt):							
Analyses:	TSS, P, NH3, Bacteria*, Surfactants, Cl	TSS, P, NH3, Bacteria*, Surfactants, Cl					
Notes:							

**NOTES:**  
 \* Sampling equipment includes: Lutron TU 2016 Turbidity Meter, Long-reach sampler w/ dedicated bottle, YSI Meter  
 \* Bacteria testing includes Total coliform, E. Coli, Fecal Coliform, Enterococci

\* - Too shallow to measure

OF-209

**APPENDIX B – CERTIFICATE OF ANALYSIS**

June 23, 2021

Brent Tardiff  
Environmental & Energy Solutions, Inc.  
22 Industrial Boulevard, Suite F  
Hanson, MA 02341

Project Location: Town of Medfield  
Client Job Number:  
Project Number: ECLP-1118  
Laboratory Work Order Number: 21F0708

Enclosed are results of analyses for samples received by the laboratory on June 11, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Raymond J. McCarthy  
Project Manager

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

 Environmental & Energy Solutions, Inc.  
 22 Industrial Boulevard, Suite F  
 Hanson, MA 02341  
 ATTN: Brent Tardiff

REPORT DATE: 6/23/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: ECLP-1118

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 21F0708

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Town of Medfield

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
OF-414	21F0708-01	Waste Water		ENTEROLERT SM 21-22 4500 P E SM 5540C SM 9223B - COLILERT SM19-22 4500 NH3 C SM21-22 2540D SM21-22 4500 CL G SM2520B	MA M-CT007/CT PH-0618/NY11301  MA M-RI010/CT PH-0740/NY11673/+ Additional
OF-280	21F0708-02	Waste Water		ENTEROLERT SM 21-22 4500 P E SM 5540C SM 9223B - COLILERT SM19-22 4500 NH3 C SM21-22 2540D SM21-22 4500 CL G SM2520B	MA M-CT007/CT PH-0618/NY11301  MA M-RI010/CT PH-0740/NY11673/+ Additional
DMH-407	21F0708-03	Waste Water		ENTEROLERT SM 21-22 4500 P E SM 5540C SM 9223B - COLILERT SM19-22 4500 NH3 C SM21-22 2540D SM21-22 4500 CL G SM2520B	MA M-CT007/CT PH-0618/NY11301  MA M-RI010/CT PH-0740/NY11673/+ Additional



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 Environmental & Energy Solutions, Inc.  
 22 Industrial Boulevard, Suite F  
 Hanson, MA 02341  
 ATTN: Brent Tardiff

REPORT DATE: 6/23/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: ECLP-1118

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 21F0708

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Town of Medfield

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
DMH-411	21F0708-04	Waste Water		ENTEROLERT SM 21-22 4500 P E SM 5540C SM 9223B - COLILERT SM19-22 4500 NH3 C SM21-22 2540D SM21-22 4500 CL G SM2520B	MA M-CT007/CT PH-0618/NY11301  MA M-RI010/CT PH-0740/NY11673/+ Additional
DMH-262	21F0708-05	Waste Water		ENTEROLERT SM 21-22 4500 P E SM 5540C SM 9223B - COLILERT SM19-22 4500 NH3 C SM21-22 2540D SM21-22 4500 CL G SM2520B	MA M-CT007/CT PH-0618/NY11301  MA M-RI010/CT PH-0740/NY11673/+ Additional
DMH-781	21F0708-06	Waste Water		ENTEROLERT SM 21-22 4500 P E SM 5540C SM 9223B - COLILERT SM19-22 4500 NH3 C SM21-22 2540D SM21-22 4500 CL G SM2520B	MA M-CT007/CT PH-0618/NY11301  MA M-RI010/CT PH-0740/NY11673/+ Additional

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington  
Technical Representative

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

**Field Sample #: OF-414**

Sampled: 6/11/2021 10:00

**Sample ID: 21F0708-01**

Sample Matrix: Waste Water

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	ND	0.30	mg/L	1		SM19-22 4500 NH3 C	6/15/21	6/15/21 14:44	IS
Chlorine, Residual	ND	0.020	mg/L	1		SM21-22 4500 CL G	6/11/21	6/11/21 22:20	DJM
Coliform, Fecal	6.3	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:45	CB2
Coliform, Total	550	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:55	CB2
Phosphorus, Total	0.14	0.050	mg/L	1		SM 21-22 4500 P E	6/14/21	6/15/21 13:31	EC
Total Suspended Solids	4.4	1.0	mg/L	1		SM21-22 2540D	6/14/21	6/14/21 12:00	LL
E. Coli	1.0	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:55	CB2
Enterococci	Absent	1.0	present/absent	1		ENTEROLERT	6/11/21	6/11/21 17:15	CB2

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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Sampled: 6/11/2021 10:00

**Field Sample #: OF-414**

**Sample ID: 21F0708-01**

Sample Matrix: Waste Water

**Conventional Chemistry Parameters by EPA/PHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Salinity	ND	0.1	ppt	1		SM2520B		6/23/21 0:00	NET

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

**Field Sample #: OF-414**

Sampled: 6/11/2021 10:00

**Sample ID: 21F0708-01**

Sample Matrix: Waste Water

**SM5540 C-11**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
MBAS	< 0.05	0.05	mg/L	1		SM5540 C-11	6/11/21	6/11/21 22:31	PEL

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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

**Field Sample #: OF-280**

Sampled: 6/11/2021 10:15

**Sample ID: 21F0708-02**

Sample Matrix: Waste Water

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	0.53	0.30	mg/L	1		SM19-22 4500 NH3 C	6/15/21	6/15/21 14:44	IS
Chlorine, Residual	ND	0.020	mg/L	1		SM21-22 4500 CL G	6/11/21	6/11/21 22:20	DJM
Coliform, Fecal	3.1	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:45	CB2
Coliform, Total	670	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:55	CB2
Phosphorus, Total	ND	0.050	mg/L	1		SM 21-22 4500 P E	6/14/21	6/15/21 13:33	EC
Total Suspended Solids	ND	1.0	mg/L	1		SM21-22 2540D	6/14/21	6/14/21 12:00	LL
E. Coli	6.3	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:55	CB2
Enterococci	Absent	1.0	present/absent	1		ENTEROLERT	6/11/21	6/11/21 17:15	CB2

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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Sampled: 6/11/2021 10:15

**Field Sample #: OF-280**
**Sample ID: 21F0708-02**

Sample Matrix: Waste Water

**Conventional Chemistry Parameters by EPA/PHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Salinity	ND	0.1	ppt	1		SM2520B		6/23/21 0:00	NET

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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

**Field Sample #: OF-280**

Sampled: 6/11/2021 10:15

**Sample ID: 21F0708-02**

Sample Matrix: Waste Water

**SM5540 C-11**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
MBAS	< 0.05	0.05	mg/L	1		SM5540 C-11	6/11/21	6/11/21 22:32	PEL



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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

**Field Sample #: DMH-407**

Sampled: 6/11/2021 10:40

**Sample ID: 21F0708-03**

Sample Matrix: Waste Water

**Conventional Chemistry Parameters by EPA/PHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	ND	0.30	mg/L	1		SM19-22 4500 NH3 C	6/15/21	6/15/21 14:44	IS
Chlorine, Residual	ND	0.020	mg/L	1		SM21-22 4500 CL G	6/11/21	6/11/21 22:20	DJM
Coliform, Fecal	66	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:45	CB2
Coliform, Total	1000	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:55	CB2
Phosphorus, Total	ND	0.050	mg/L	1		SM 21-22 4500 P E	6/14/21	6/15/21 13:35	EC
Total Suspended Solids	1.2	1.0	mg/L	1		SM21-22 2540D	6/14/21	6/14/21 12:00	LL
E. Coli	30	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:55	CB2
Enterococci	Present	1.0	present/absent	1		ENTEROLERT	6/11/21	6/11/21 17:15	CB2

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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Sampled: 6/11/2021 10:40

**Field Sample #: DMH-407**
**Sample ID: 21F0708-03**

Sample Matrix: Waste Water

**Conventional Chemistry Parameters by EPA/PHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Salinity	ND	0.1	ppt	1		SM2520B		6/23/21 0:00	NET

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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

**Field Sample #: DMH-407**

Sampled: 6/11/2021 10:40

**Sample ID: 21F0708-03**

Sample Matrix: Waste Water

**SM5540 C-11**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
MBAS	< 0.05	0.05	mg/L	1		SM5540 C-11	6/11/21	6/11/21 22:33	PEL

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Sampled: 6/11/2021 11:15

Field Sample #: DMH-411

Sample ID: 21F0708-04

Sample Matrix: Waste Water

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	ND	0.30	mg/L	1		SM19-22 4500 NH3 C	6/15/21	6/15/21 14:44	IS
Chlorine, Residual	ND	0.020	mg/L	1		SM21-22 4500 CL G	6/11/21	6/11/21 22:20	DJM
Coliform, Fecal	60	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:45	CB2
Coliform, Total	1000	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:55	CB2
Phosphorus, Total	ND	0.050	mg/L	1		SM 21-22 4500 P E	6/14/21	6/15/21 13:37	EC
Total Suspended Solids	5.6	1.0	mg/L	1		SM21-22 2540D	6/14/21	6/14/21 12:00	LL
E. Coli	2.0	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:55	CB2
Enterococci	Present	1.0	present/absent	1		ENTEROLERT	6/11/21	6/11/21 17:15	CB2

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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

**Field Sample #: DMH-411**

Sampled: 6/11/2021 11:15

**Sample ID: 21F0708-04**

Sample Matrix: Waste Water

**Conventional Chemistry Parameters by EPA/PHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Salinity	ND	0.1	ppt	1		SM2520B		6/23/21 0:00	NET

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

**Field Sample #: DMH-411**

Sampled: 6/11/2021 11:15

**Sample ID: 21F0708-04**

Sample Matrix: Waste Water

**SM5540 C-11**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
MBAS	< 0.05	0.05	mg/L	1		SM5540 C-11	6/11/21	6/11/21 22:34	PEL

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Sampled: 6/11/2021 11:40

Field Sample #: DMH-262

Sample ID: 21F0708-05

Sample Matrix: Waste Water

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	ND	0.30	mg/L	1		SM19-22 4500 NH3 C	6/15/21	6/15/21 14:44	IS
Chlorine, Residual	ND	0.020	mg/L	1		SM21-22 4500 CL G	6/11/21	6/11/21 22:20	DJM
Coliform, Fecal	50	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:45	CB2
Coliform, Total	1000	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:55	CB2
Phosphorus, Total	0.092	0.050	mg/L	1		SM 21-22 4500 P E	6/14/21	6/15/21 13:39	EC
Total Suspended Solids	6.4	1.0	mg/L	1		SM21-22 2540D	6/14/21	6/14/21 12:00	LL
E. Coli	21	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:55	CB2
Enterococci	Present	1.0	present/absent	1		ENTEROLERT	6/11/21	6/11/21 17:15	CB2

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

**Field Sample #: DMH-262**

Sampled: 6/11/2021 11:40

**Sample ID: 21F0708-05**

Sample Matrix: Waste Water

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Salinity	ND	0.1	ppt	1		SM2520B		6/23/21 0:00	NET



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

**Field Sample #: DMH-262**

Sampled: 6/11/2021 11:40

**Sample ID: 21F0708-05**

Sample Matrix: Waste Water

**SM5540 C-11**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
MBAS	< 0.05	0.05	mg/L	1		SM5540 C-11	6/11/21	6/11/21 22:34	PEL

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Sampled: 6/11/2021 12:15

Field Sample #: DMH-781

Sample ID: 21F0708-06

Sample Matrix: Waste Water

**Conventional Chemistry Parameters by EPA/PHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	ND	0.30	mg/L	1		SM19-22 4500 NH3 C	6/15/21	6/15/21 14:44	IS
Chlorine, Residual	ND	0.020	mg/L	1		SM21-22 4500 CL G	6/11/21	6/11/21 22:20	DJM
Coliform, Fecal	ND	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:45	CB2
Coliform, Total	ND	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:55	CB2
Phosphorus, Total	ND	0.050	mg/L	1		SM 21-22 4500 P E	6/14/21	6/15/21 13:41	EC
Total Suspended Solids	1.0	1.0	mg/L	1		SM21-22 2540D	6/14/21	6/14/21 12:00	LL
Enterococci	Absent	1.0	present/absent	1		ENTEROLERT	6/11/21	6/11/21 17:15	CB2

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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

**Field Sample #: DMH-781**

Sampled: 6/11/2021 12:15

**Sample ID: 21F0708-06**

Sample Matrix: Waste Water

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Salinity	ND	0.1	ppt	1		SM2520B		6/23/21 0:00	NET

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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

**Field Sample #: DMH-781**

Sampled: 6/11/2021 12:15

**Sample ID: 21F0708-06**

Sample Matrix: Waste Water

**SM5540 C-11**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
MBAS	< 0.05	0.05	mg/L	1		SM5540 C-11	6/11/21	6/11/21 22:35	PEL

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**Sample Extraction Data**
**ENTEROLERT**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21F0708-01 [OF-414]	B283851	100	100	06/11/21
21F0708-02 [OF-280]	B283851	100	100	06/11/21
21F0708-03 [DMH-407]	B283851	100	100	06/11/21
21F0708-04 [DMH-411]	B283851	100	100	06/11/21
21F0708-05 [DMH-262]	B283851	100	100	06/11/21
21F0708-06 [DMH-781]	B283851	100	100	06/11/21

**SM 21-22 4500 P E**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21F0708-01 [OF-414]	B283936	50.0	50.0	06/14/21
21F0708-02 [OF-280]	B283936	50.0	50.0	06/14/21
21F0708-03 [DMH-407]	B283936	50.0	50.0	06/14/21
21F0708-04 [DMH-411]	B283936	50.0	50.0	06/14/21
21F0708-05 [DMH-262]	B283936	50.0	50.0	06/14/21
21F0708-06 [DMH-781]	B283936	50.0	50.0	06/14/21

**SM 9223B - COLILERT**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21F0708-01 [OF-414]	B283852	100	100	06/11/21
21F0708-02 [OF-280]	B283852	100	100	06/11/21
21F0708-03 [DMH-407]	B283852	100	100	06/11/21
21F0708-04 [DMH-411]	B283852	100	100	06/11/21
21F0708-05 [DMH-262]	B283852	100	100	06/11/21
21F0708-06 [DMH-781]	B283852	100	100	06/11/21

**SM 9223B - COLILERT**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21F0708-01 [OF-414]	B283853	100	100	06/11/21
21F0708-02 [OF-280]	B283853	100	100	06/11/21
21F0708-03 [DMH-407]	B283853	100	100	06/11/21
21F0708-04 [DMH-411]	B283853	100	100	06/11/21
21F0708-05 [DMH-262]	B283853	100	100	06/11/21
21F0708-06 [DMH-781]	B283853	100	100	06/11/21

**SM19-22 4500 NH3 C**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21F0708-01 [OF-414]	B283999	100	100	06/15/21
21F0708-02 [OF-280]	B283999	100	100	06/15/21
21F0708-03 [DMH-407]	B283999	100	100	06/15/21
21F0708-04 [DMH-411]	B283999	100	100	06/15/21
21F0708-05 [DMH-262]	B283999	100	100	06/15/21
21F0708-06 [DMH-781]	B283999	100	100	06/15/21

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**Sample Extraction Data**
**SM21-22 2540D**

Lab Number [Field ID]	Batch	Initial [mL]	Date
21F0708-01 [OF-414]	B283888	500	06/14/21
21F0708-02 [OF-280]	B283888	500	06/14/21
21F0708-03 [DMH-407]	B283888	500	06/14/21
21F0708-04 [DMH-411]	B283888	500	06/14/21
21F0708-05 [DMH-262]	B283888	500	06/14/21
21F0708-06 [DMH-781]	B283888	500	06/14/21

**SM21-22 4500 CL G**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21F0708-01 [OF-414]	B283866	100	100	06/11/21
21F0708-02 [OF-280]	B283866	100	100	06/11/21
21F0708-03 [DMH-407]	B283866	100	100	06/11/21
21F0708-04 [DMH-411]	B283866	100	100	06/11/21
21F0708-05 [DMH-262]	B283866	100	100	06/11/21
21F0708-06 [DMH-781]	B283866	100	100	06/11/21

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**QUALITY CONTROL**
**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B283851 - ENTEROLERT</b>										
<b>Blank (B283851-BLK1)</b> Prepared & Analyzed: 06/11/21										
Enterococci	Absent	1.0	present/absent							
<b>Batch B283852 - SM 9223B - COLILERT</b>										
<b>Blank (B283852-BLK1)</b> Prepared & Analyzed: 06/11/21										
Coliform, Total	ND	1.0	MPN/100 mL							
<b>Batch B283853 - SM 9223B - COLILERT</b>										
<b>Blank (B283853-BLK1)</b> Prepared & Analyzed: 06/11/21										
Coliform, Fecal	ND	1.0	MPN/100 mL							
<b>Batch B283866 - SM21-22 4500 CL G</b>										
<b>Blank (B283866-BLK1)</b> Prepared & Analyzed: 06/11/21										
Chlorine, Residual	ND	0.020	mg/L							
<b>LCS (B283866-BS1)</b> Prepared & Analyzed: 06/11/21										
Chlorine, Residual	0.74	0.020	mg/L	0.663		111	80.3-122			
<b>LCS Dup (B283866-BSD1)</b> Prepared & Analyzed: 06/11/21										
Chlorine, Residual	0.75	0.020	mg/L	0.663		113	80.3-122	1.61	10.7	
<b>Duplicate (B283866-DUP1)</b> Source: 21F0708-06 Prepared & Analyzed: 06/11/21										
Chlorine, Residual	ND	0.020	mg/L			ND		NC	27.6	
<b>Matrix Spike (B283866-MS1)</b> Source: 21F0708-06 Prepared & Analyzed: 06/11/21										
Chlorine, Residual	0.32	0.020	mg/L	0.300	ND	106	10-169			
<b>Batch B283888 - SM21-22 2540D</b>										
<b>Blank (B283888-BLK1)</b> Prepared & Analyzed: 06/14/21										
Total Suspended Solids	ND	2.5	mg/L							
<b>LCS (B283888-BS1)</b> Prepared & Analyzed: 06/14/21										
Total Suspended Solids	208	5.0	mg/L	200		104	53.8-124			
<b>Batch B283936 - SM 21-22 4500 P E</b>										
<b>Blank (B283936-BLK1)</b> Prepared: 06/14/21 Analyzed: 06/15/21										
Phosphorus, Total	ND	0.050	mg/L							

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**QUALITY CONTROL**
**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B283936 - SM 21-22 4500 P E</b>										
<b>LCS (B283936-BS1)</b>				Prepared: 06/14/21 Analyzed: 06/15/21						
Phosphorus, Total	0.18	0.050	mg/L	0.167		107	76.5-122			
<b>LCS Dup (B283936-BSD1)</b>				Prepared: 06/14/21 Analyzed: 06/15/21						
Phosphorus, Total	0.18	0.050	mg/L	0.167		110	76.5-122	1.90	12.6	
<b>Batch B283999 - SM19-22 4500 NH3 C</b>										
<b>Blank (B283999-BLK1)</b>				Prepared & Analyzed: 06/15/21						
Ammonia as N	ND	0.30	mg/L							
<b>LCS (B283999-BS1)</b>				Prepared & Analyzed: 06/15/21						
Ammonia as N	5.3	0.30	mg/L	5.00		106	86.2-110			
<b>LCS Dup (B283999-BSD1)</b>				Prepared & Analyzed: 06/15/21						
Ammonia as N	5.0	0.30	mg/L	5.00		101	86.2-110	5.21	10	
<b>Duplicate (B283999-DUP2)</b>				<b>Source: 21F0708-06</b> Prepared & Analyzed: 06/15/21						
Ammonia as N	ND	0.30	mg/L		ND			NC	26.7	
<b>Matrix Spike (B283999-MS2)</b>				<b>Source: 21F0708-06</b> Prepared & Analyzed: 06/15/21						
Ammonia as N	1.9	0.30	mg/L	2.00	ND	93.0	56.2-136			



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**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b>SM 21-22 4500 PE in Water</b>	
Phosphorus, Total	CT,MA,NH,NY,RI,NC,ME,VA
<b>SM 9223B - COLILERT in Water</b>	
Coliform, Fecal	MA,CT,RI,ME
E. Coli	MA,CT,RI
<b>SM19-22 4500 NH3 C in Water</b>	
Ammonia as N	NY,MA,CT,RI,VA,NC,ME
<b>SM21-22 2540D in Water</b>	
Total Suspended Solids	CT,MA,NH,NY,RI,NC,ME,VA
<b>SM21-22 4500 CL G in Water</b>	
Chlorine, Residual	CT,MA,RI,ME

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Public Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

### CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Company: **Pace Analytical**

Address: **Arden Group, Inc.**

Report To: **590 Summer St., Rockwood  
P.O. Box 100, Rockwood, TN 37870**

Copy To: **peaceanalytical@ardengroupinc.com**

Billing Information:

Site: **Arden Group, Inc.**

Email To:

Site Collection Info/Address: **Arden Group, Inc.**

State: **MA** County/City: **Medfield**

Time Zone Collected: **EST**

Compliance Monitoring?  
 Yes  No

DW PWS ID #: \_\_\_\_\_  
DW Location Code: \_\_\_\_\_

Immediately Packed on Ice:  
 Yes  No

Field Filtered (if applicable):  
 Yes  No

Analysis: \_\_\_\_\_

Turnaround Date Required:  
Rush:  Same Day  Next Day  
 2 Day  3 Day  4 Day  5 Day  
(Expedite Charges Apply)

Sample Disposal:  
 Dispose as appropriate  Return  
 Archive: \_\_\_\_\_  
 Hold: \_\_\_\_\_

\* Matrix Codes (insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Res CI	# of Ctns
			Date	Time		
OF-414	WW	G	06/11	10:00		7
OF-280				10:15		7
DMH-407				10:40		7
DMH-411				11:15		7
DMH-262				11:40		7
DMH-781				12:15		7

Customer Remarks / Special Conditions / Possible Hazards: **Wet Blue Dry None**

Type of Ice Used: **Wet Blue Dry None**

Packing Material Used: \_\_\_\_\_

Radiation sample(s) screened (<500 cpm): **Y N NA**

Date/Time: **06/11/21 1:00** Received by/Company: (Signature)

Date/Time: **6/11/21 4:30** Received by/Company: (Signature)

Date/Time: **6/11/21 5:35** Received by/Company: (Signature)

LAB USE ONLY - Affix Workorder/Login Label Here or List Pace Workorder Number or MITL Log-In Number Here

**21F0708**

ALL SHADED AREAS are for LAB USE ONLY

Container Preservative Type: **2 V U U U U U U U U U U**

Lab Project Manager: \_\_\_\_\_  
\*\* Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses

Analyses	Res	CI	# of Ctns
Total Phosphorus	X		7
TSS	X		7
E. coli & total coliform	X		7
Fecal Coliform	X		7
Surfactants	X		7
Enterococci	X		7
Ammonia	X		7
Chlorine - free + total	X		7
Salinity	X		7

Lab Profile/Line: \_\_\_\_\_

Lab Sample Receipt Checklist:  
Custody Seals Present/Intact **Y N NA**  
Custody Signatures Present **Y N NA**  
Collector Signatures Present **Y N NA**  
Bottles Intact **Y N NA**  
Correct Bottles **Y N NA**  
Sufficient Volume **Y N NA**  
Samples Received on Ice **Y N NA**  
VOA - Headspace Acceptable **Y N NA**  
USDA Regulated Soils **Y N NA**  
Samples in Holding Time **Y N NA**  
Residual Chlorine Present **Y N NA**  
Cl Strips: \_\_\_\_\_  
Sample OK Acceptable **Y N NA**  
pH Strips: \_\_\_\_\_  
Sulfide Present **Y N NA**  
Lead Acetate Strips: \_\_\_\_\_  
LAB USE ONLY:  
Lab Sample # / Comments: \_\_\_\_\_

SHORT HOLDS PRESENT (<72 hours): **Y N NA**

Lab Tracking #: **2674710**

Samples received via: **FEDEX UPS Client Courier**

Date/Time: **6/11/21 1:00**

Date/Time: **6/11/21 4:30**

Date/Time: **6/11/21 5:35**

Lab Sample Temperature Info

Temp Blank Received: **Y N NA**

Therm ID# **S**

Cooler 1 Temp Upon Receipt: **5.3, 5.7**

Cooler 1 Therm Corr. Factor: **OC**

Cooler 1 Corrected Temp: **OC**

Comments: \_\_\_\_\_

Temp Blank Received: **Y N NA**

Therm ID# **S**

Cooler 1 Temp Upon Receipt: **5.3, 5.7**

Cooler 1 Therm Corr. Factor: **OC**

Cooler 1 Corrected Temp: **OC**

Comments: \_\_\_\_\_

Table #

Acctnum

Template

Prelogin

PM

PB

Non-Conformance(s): **YES / NO**

Page: \_\_\_\_\_ of: \_\_\_\_\_

## **APPENDIX C – PHOTOGRAPHS**



OF-414

OF-280



DMH-407



DMH-414



DMH-262



DMH-781