



Lab/Cor, Inc.

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Analysis Report Cover
Final Report

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A Professional Service Corporation in the Northwest

Job Number: 080018 SEA
Client: ABC Environmental Company
Address: 123 Laboratory Ave.
Anytown, WA 98000
Project Name: LT2ESWTR
Project No.: 01-04-2008
PO Number:
PWS ID: WA5200001
Reference No.:

Report Number: 080018R01
Report Date: 3/11/2008

Enclosed please find results for samples submitted to our laboratory. A list of samples and analyses follows:

Lab/Cor Sample #	Client Sample # and Description	Analysis	Analysis Notes	Date Received:
080018 - S1	PH01 - Pump House 01	Crypto-Giardia, EPA 1622/ 1623		1/4/2008
080018 - S2	PH02 - Pump House 01	Crypto-Giardia, EPA 1622/ 1623		1/4/2008

Crypto-Giardia, EPA 1622/ 1623 - LT2ESWTR Upon arrival, the sample temperature and condition were recorded. The sample was then refrigerated until it could be processed via elution (<96 hrs). Once the sample was ready for processing, the appropriate elution technique was selected to assist oocyst/ cyst recovery from the filter membrane (Filta-Max Xpress, Envirochek, Envirochek HV). The eluant was then concentrated using centrifugation (RCF ~1500x g - ~2000x g) where all but 5ml of supernatant and pellet were removed. Immunomagnetic antigen-antibody separation was then performed on the remaining pellet (≤ 0.5ml) in order to separate the organisms of interest from non-specific interferences.

Well slides were prepared for each individual sample and subsample in addition to a positive and negative control. Oocysts/ cysts were then characterized and identified using FITC, DAPI and DIC capabilities. Sample dilutions and filter fractions were taken into consideration when determining the total number of reportable oocysts/ cysts. Final results are reported in Oocysts and Cysts per Liter.

Matrix Spike: A field duplicate was submitted alongside the initial field sample. The field duplicate was spiked with a known concentration of gamma-irradiated organisms and was processed using the same preparation and analysis techniques as the field sample(s).

Subsamples: An additional pellet analysis was performed for every 0.5ml of packed pellet exceeding the initial pellet. Additional pellet analyses were terminated once the packed pellet volume exceeded 2.0 ml. If the packed pellet volume was >2.0ml, additional pellets were performed at the clients discretion.

Additional Filter: In the event a filter becomes clogged and/ or ≥ 10L of source water could not be filtered, an additional filter was used to facilitate filtration. Sample filtration was terminated once the initial filter yielded ≥2ml of packed pellet with >5L of source water being filtered, or the second filter clogged.

Turbidity: EPA Method 180.1 was used to measure sample turbidity. A LaMotte 2020, tungsten lamp turbidity meter was used to analyze the sample. Multiple aliquots were measured and the average result reported in NTU.

Disclaimer The results reported relate only to the samples tested or analyzed. Interpretation of these results is the sole responsibility of the client.

If further clarification of these results is needed, please call us. Thank you for allowing the staff at Lab/Cor, Inc. the opportunity to provide you with the analytical services.

Sincerely,


Derk Wipprecht
Analyst

Cryptosporidium/ Giardia Analysis Results

Job Number: 080018
Client: ABC Environmental Company
Project Name: LT2ESWTR
Project No.: 01-04-2008
PWS ID: WA5200001

Report Number: 080018R01
Date Received: 1/4/2008

Lab/Cor Sample No.: S1
Client Sample No.: PH01
Description: Pump House 01
Sample Vol. Filtered (L): 10.5
Sample Note:

Analysis Date: 1/4/2008
Analyst: DW
ReSample: N
Orig. Sample Collection Date:
Lab Resample Explanation:

Facility ID: TP01
Sample Point ID: SP01
Date Sampled: 1/3/2008
Sample Time: 7:00
Sample Temp.: 12.5 C
Sample Type: Field
Collection Mode: F
Receipt Temp.: 5.6 C
Sample Purpose: New Sample
Turbidity: 45.86

Report Parameters	FA Positive Organisms	
	Cryptosporidium Oocysts	Giardia Cysts
No. of organisms observed in Field Sample	2	0
No. of organisms observed in Matrix Spike		
No. of organisms spiked in Matrix Spike		
MS % Recovery		
Concentration (Organisms/ L)	0.190	0.000

Quality Control Parameters	FA Positive Organisms	
	Cryptosporidium Oocysts	Giardia Cysts
No. of organisms observed in Method Blank	0	0
No. of organisms observed in OPR	65	39
No. of organisms spiked in OPR	99	100
OPR % Recovery	65.66%	39.00%
Negative/ Positive Control	Pass	

Cryptosporidium/ Giardia Analysis Results

Job Number: 080018
Client: ABC Environmental Company
Project Name: LT2ESWTR
Project No.: 01-04-2008
PWS ID: WA5200001

Report Number: 080018R01
Date Received: 1/4/2008

Lab/Cor Sample No.: S2
Client Sample No.: PH02
Description: Pump House 01
Sample Vol. Filtered (L): 10.5
Sample Note:

Analysis Date: 1/4/2008
Analyst: DW
ReSample: N
Orig. Sample Collection Date:
Lab Resample Explanation:

Facility ID: TP01
Sample Point ID: SP01
Date Sampled: 1/3/2008
Sample Time: 7:00
Sample Temp.: 12.5 C
Sample Type: MS
Collection Mode: F
Receipt Temp.: 5.6 C
Sample Purpose: New Sample
Turbidity: 45.86

Report Parameters	FA Positive Organisms	
	Cryptosporidium Oocysts	Giardia Cysts
No. of organisms observed in Field Sample	2	0
No. of organisms observed in Matrix Spike	67	56
No. of organisms spiked in Matrix Spike	97	100
MS % Recovery	67.01%	56.00%
Concentration (Organisms/ L)		

Quality Control Parameters	FA Positive Organisms	
	Cryptosporidium Oocysts	Giardia Cysts
No. of organisms observed in Method Blank	0	0
No. of organisms observed in OPR	65	39
No. of organisms spiked in OPR	99	100
OPR % Recovery	65.66%	39.00%
Negative/ Positive Control	Pass	

Reviewed by:


 Derk Wipprecht
 Analyst