AMMONIA, NITROGEN

■Method: 10205

Reference: EPA Hach Company TNTplus 830/ 831/ 832, Revision 2.0, 2008 (Spectrophotometric Measurement of Ammonia-Nitrogen and Total Kjeldahl Nitrogen (TKN) in Water and Wastewater

■Method: 4500-NH3 F. (Phenate Method)

Reference: "Standard Methods for the Examination of Water and Wastewater" 22nd Edition, 2012

Sample Source	Sample Date	Analysis Date	DR 6000 Reading	Dilution	Result (mg/L)	Kit Used	Kit Used (Lot #)	ABS-%T	Analyst
SF	4-12-18	4-19-18	43.1	100%	43.1	HR	18016	1.854/1.4	AJ
	4-13		52.0		52.0 o			2.225/.6	
	4-14		55.0		55.0 o			2.347/.5	
	4-15		44.5		44.5			1.911/1.2	
	4-16		49.2		49.2 o			2.106/.8	
	4-17		57.3		57.3 o			2.444/.4	
	4-18		58.0		58.0 o			2.474/.3	
dup	4-18		58.0		58.0 o			2.473/.3	
PF	4-18		9.08	1-10	90.8			.446/35.8	
SF re-do	4-13		4.79		47.9	HR	18016	.269/53.9	
*	4-14		5.35		53.5			.292/51.1	
	4-16		4.84		48.4			.270/53.7	
	4-17		5.31		53.1			.290/51.3	
	4-18		~~59.7~~ 5.97		59.7 58.8			.317/48.2	
dup	4-18		5.80		58.0			.310/48.9	
H_2O	4-19		.038	100%	.038	ULR	17268	.099/79.5	
H_2O dup			.037		.037			.098/79.8	
Std			10.2		10.2 10.4	HR	18016	.494/32.1	
Std dup			10.6		10.6			.509/31.0	
* Matrix			28.4		28.4 28.4			1.246/5.7	
* Matrix dup			28.4		28.4			1.245/5.7	
Ic	4-19	4-20	9.87	1-10	98.7	HR	18016		AJ
PD			5.37		53.7				
IG	4-20		9.61		96.1				
NG			6.00		60.0				
SG			6.14		61.4				

Comments:

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CAT 17 1110 LOT A7191

AMMONIA, NITROGEN

■Method: 10205

Reference: EPA Hach Company TNTplus 830/ 831/ 832, Revision 2.0, 2008 (Spectrophotometric Measurement of Ammonia-Nitrogen and Total Kjeldahl Nitrogen (TKN) in Water and Wastewater

■Method: 4500-NH3 F. (Phenate Method)

Reference: "Standard Methods for the Examination of Water and Wastewater" 22nd Edition, 2012

Sample Source	Sample Date	Analysis Date	DR 6000 Reading	Dilution	Result (mg/L)	Kit Used	Kit Used (Lot #)	ABS-%T	Analyst
IG	5-2-18	5-2	91.6	100%	91.6	UHR			[illegible]
NG	↓	↓	62.1	↓	62.1	↓			↓
SG	↓	↓	62.6	↓	62.6	↓			↓
~~SF~~		~~5-3~~							
Alex Lawn Service	5-3-18	5-3	1.82	100%	1.82	LR			[illegible]
* SF	4-26-18	↓	48.1	100%	48.1	UHR	18071		↓
↓	4-27	↓	43.2u	↓	43.2u	↓	↓	.401/39.8	↓
↓	4-28	↓	51.5	↓	51.5	↓	↓	.455/35.1	↓
↓	4-29	↓	40.5u	↓	40.5u	↓	↓	.382/41.5	↓
↓	4-30	↓	38.3u	↓	38.3u	↓	↓	.368/42.9	↓
↓	5-1	↓	46.7u	↓	46.7u	↓	↓	.424/37.7	↓
↓	5-2	↓	55.3	↓	55.3 → 54.8	↓	↓	.481/33.1	↓
↓ dup	5-2	↓	54.4	↓	54.4	↓	↓	.475/33.5	↓
PF	5-2	↓	99.1	~~1-10~~ 100%	99.1	↓	↓	.771/16.9	↓
SF re-do	4-27	↓	49.1 o	100%	49.1 o	HR	18080	2.105/.8	↓
↓	4-29	↓	42.3	↓	42.3	↓	↓	1.821/1.5	↓
↓	4-30	↓	38.8	↓	38.8	↓	↓	1.675/2.1	↓
↓	5-1	↓	48.8 o	↓	48.8 o	↓	↓	2.090/.8	↓
o ↓	4-27	↓	5.12	1-10	51.2	HR	↓	.282/52.2	↓
↓	5-1	↓	4.68	↓	46.8	↓	↓	.264/54.4	↓
H_2O	5-3	↓	.022	100%	.022	ULR	17268	.083/82.5	↓
H_2O dup	↓	↓	.023	↓	.023	↓	↓	.084/82.4	↓
Std	↓	↓	8.69	↓	8.69	HR	18080	.430/37.1	↓
Std dup	↓	↓	8.67	↓	8.67	↓	↓	.429/37.2	↓
* ~~Matrix~~	↓	↓	~~44.6u~~	↓	~~44.6~~	~~UHR~~	~~18071~~	~~.410/38.9~~ ~~.401/7.9~~	↓
* ~~Matrix dup~~	↓	↓	~~43.7u~~	↓	~~43.7u~~	↓	↓	~~.404/39.5~~ ~~.392/10.2~~	↓
Std redo	↓	↓	9.03	↓	9.03	HR	18080	.444/36.0	↓
↓ dup ↓	↓	↓	8.83	↓	8.83	↓	↓	.436/36.7	↓
o ~~Matrix redo~~	↓	↓	~~24.1~~	↓	~~24.1~~ → 24.7	↓	↓	~~1.067/8.6~~	↓
o ~~Matrix dup~~ ↓	↓	↓	~~24.5~~	↓	~~24.5~~	↓	↓	~~1.085/8.2~~	↓

Comments:

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CAT 1479110 LOT A7191

* didn't report/chart as pipette was not dispensing correctly — B 5.7.18
(see next sheet)

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AMMONIA, NITROGEN

■Method: 10205

Reference: EPA Hach Company TNTplus 830/ 831/ 832, Revision 2.0, 2008 (Spectrophotometric Measurement of Ammonia-Nitrogen and Total Kjeldahl Nitrogen (TKN) in Water and Wastewater

■Method: 4500-NH3 F. (Phenate Method)

Reference: "Standard Methods for the Examination of Water and Wastewater" 22nd Edition, 2012

Cut 1479110 Lot A7191

Sample Source	Sample Date	Analysis Date	DR 6000 Reading	Dilution	Result (mg/L)	Kit Used	Kit Used (Lot #)	ABS-%T	Analyst
Amp Std	5-3-18	5-3	9 u	100%	41.9 u	UHR	18071	.392/40.6	[illegible]
Std redo	5-3		10.4		10.4 10.4	HR	18080	.503/31.4	
Std dup			10.4		10.4			.501/31.6	
Ampoule Std			49.8		49.8	UHR	18071	.444/36.0	
IC	5-2		93.1		93.1				
PD			54.3		54.3				
IG	5-3		84.1		84.1				
NG			59.8		59.8				
NS			59.4		59.4				
Matrix redo			28.7		28.7	HR	18080	1.257/5.5	
Matrix dup			29.2		29.2			1.278/5.3	
IC	5-3	5-4	105	100%	105	UHR	18071		[illegible]
PD			66.6		66.6				
IG	5-4		87.3		87.3				
NG			66.2		66.2				
SG			65.8		65.8				JRS
IC		5/5/18 HB	100		100				
PD		5/5/18 JRS	61.8		61.8				
IG	5/5/18		90.6		90.6				
NG			67.4		67.4				
SG			65.3		65.3				
Inf C	5-5-18	5-6-18	82.9	100%	82.9	UHR	18071		[illegible]
Eff C			57.7		57.7				
Inf G	5-6-18		74.4		74.4				
N			55.4		55.4				
S			53.5		53.5				
IC	5-6	5-7	75.2	100%	75.2	UHR	18071		[illegible]
PD			41.7 u		41.7 u				
IG	5-7		90.9		90.9				
NG			41.7 u		41.7				

Comments:

40.9 u 40.9 u

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SG

AMMONIA, NITROGEN

■Method: 10205

Reference: EPA Hach Company TNTplus 830/ 831/ 832, Revision 2.0, 2008 (Spectrophotometric Measurement of Ammonia-Nitrogen and Total Kjeldahl Nitrogen (TKN) in Water and Wastewater

■Method: 4500-NH3 F. (Phenate Method)

Reference: "Standard Methods for the Examination of Water and Wastewater" 22nd Edition, 2012

Sample Source	Sample Date	Analysis Date	DR 6000 Reading	Dilution	Result (mg/L)	Kit Used	Kit Used (Lot #)	ABS-%T	Analyst
SF	5-3-18	5-10-18	48.9 OR	100%	—	HR	18080		KT
	5-4		59.5 OR		—	HR			
	5-5		52.3 OR		—	HR			
	5-6		40.5 UR		—	UHR	18071		
	5-7		37.4 UR		—	UHR			
	5-8		45.3 UR		—	UHR			
dup	5-~~4~~ 5 KT		53.1		—	HR	18080		
rerun	5-3		59.8		59.8	UHR	18071		
SF	5-4		53.8		53.8				
	5-5		53.1		53.1				
	5-9		37.0		—	UHR			
PF	5-9		95.79 VB ~~95.7~~		95.7	UHR			
SF dup	5-4		58.4		58.4	UHR			
rerun SF	5-6		41.4		41.4	HR	18080		
	5-7		43.7		43.7	HR			
	5-8		52.9		—	HR			
rerun	5-8		5.38	1-10	53.8	HR			
	5-4		56.2	100%	56.2	UHR	18071		
	5-4 dup		56.1		56.1	UHR			
rerun	5-9		48.2	OR	—	HR	18080		
H2O	5-10-18		-.002		-.002	ULR	17348		
H2O dup	5-10-18		.003	UR	.003	ULR	17348		
Stnd 10	5-10-18		9.99		9.99	HR	18080		
dup Stnd 10	5-10		10.1		10.1	HR			
SF rerun	5-9		4.58	1-10	45.8	HR			
Matrix			24.1	100%	24.1				
Matrix	used 5-9	1-10	24.9		24.9				

Comments:

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5.4.18 average of all 4 = 56.125 mg/L
- VB

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Cat 1479110 A7191

also sent to keystone for quarterly check - VB

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