

18-May-2016

Roger Bellas Pennsylvania DEP Bureau of Air Quality 12th Floor RCSOB 400 Market Street Harrisburg, PA 17105

Tel: (570) 826-2511 Fax:

Re: Mid Valley School- 4/28/2016

Work Order: 16041065

Dear Roger,

ALS Environmental received 6 samples on 29-Apr-2016 12:04 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 11.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

R ob Nieman

Electronically approved by: Rob Nieman

Rob Nieman Project Manager

> ADDRESS 4388 Glendale Milford Rd Cincinnati, Ohio 45242- | PHONE (513) 733-5336 | FAX (513) 733-5347 ALS GROUP USA, CORP. Part of the ALS Group An ALS Limited Company

Environmental 🐊

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RIGHT SOLUTIONS RIGHT PARTNER

Date: 18-May-16

Client:	Pennsylvania DEP Bureau of Air Quality
Project:	Mid Valley School- 4/28/2016
Work Order:	16041065

Work Order Sample Summary

Lab Samp ID <u>Client Sample ID</u>	<u>Matrix</u>	Tag Number	Collection Date	Date Received	Hold
16041065-01 MVH042816-1 / Red	Air		4/28/2016	4/29/2016 12:04	
16041065-02 MVH042816-2 / Blue	Air		4/28/2016	4/29/2016 12:04	
16041065-03 MVH042816-3 / Green	Air		4/28/2016	4/29/2016 12:04	
16041065-04 MVH042816-4 / Orange	Air		4/28/2016	4/29/2016 12:04	
16041065-05 MVH042816-5 / Yellow	Air		4/28/2016	4/29/2016 12:04	
16041065-06 MVH042816-Summa	Air		4/28/2016	4/29/2016 12:04	

ALS Enviro	nmental			Date	: 18-May-16				
Client: Project:	Pennsylvania DEP Bu Mid Valley School- 4	-	y	Work Order: 16041065					
				Analytical R	Results				
Lab ID:	16041065-01A		Co	Delection Date: 4/28/2016					
Client Sample ID	: MVH042816-1 / R	ed		Matrix: AIR					
Analyses									
AMMONIA BY NIC			Method: N6015	Air Volume (L): 96.413	Analyst: ALST				
Date Analyzed: 5/1	0/2016	µg/sample	Reporting Limit µg/sample	ug/m3	ppb				
Ammonia		ND	1.2	<12	<18				
	10041005 024								
Lab ID:	16041065-02A	Lee e	C	bllection Date: 4/28/2016					
Client Sample ID	: MVH042816-2 / B	lue		Matrix: AIR					
Analyses									
ALDEHYDES BY	HPLC		Method: ETO-11	Air Volume (L): 215.85	Analyst: JMB				
Date Analyzed: 5/1	4/2016 01:55		Reporting Limit						
		µg/sample	µg/sample	ug/m3	ppb				
Acetaldehyde Acrolein		ND ND	0.20	<0.93 <0.93	<0.51 <0.40				
Formaldehyde		0.20	0.20	<u> </u>	0.76				
Lab ID:	16041065-03A		C	Dilection Date: 4/28/2016					
	• MVH042816-3 / G	raan		Matrix: AIR					
Analyses									
METHANOL BY N			Method: N2000	Air Volume (L): 7.195	Analyst: MHW				
Date Analyzed: 5/4	/2016	ua/comple	Reporting Limit µg/sample		pph				
Methanol		µg/sample	µg/sample 10	ug/m3 <1,400	ppb <1,100				
	10041005 044	שאי			\$1,100				
Lab ID:	16041065-04A		Co	ollection Date: 4/28/2016					
Client Sample ID	: MVH042816-4 / O	range		Matrix: AIR					
Analyses									
METHYLAMINE B	BY OSHA 40		Method: O40	Air Volume (L): 21.585	Analyst: JMB				
Date Analyzed: 5/5	/2016 16:22		Reporting Limit						
		µg/sample	µg/sample	ug/m3	ppb				
Methylamine		ND	2.5	<120	<91				

Note:

Client:	Pennsylvania DEP Bureau of Air Quality	Work Order: 16041065
Project:	Mid Valley School- 4/28/2016	
		Analytical Results

Lab ID:	16041065-05A	Collection Date: 4/28/2016
Client Sample ID:	MVH042816-5 / Yellow	Matrix: AIR

Analyses

AMINE(S) BY OSHA PV2060 MOD.		Method: 02060	Air Volume (L): 21.585	Analyst: MHW
Date Analyzed: 5/17/2016		Reporting Limit		
	µg/sample	µg/sample	ug/m3	ppb
Triethylamine	ND	10	<460	<110

Client:	Pennsylvania DEP Bureau of Air Quality
Work Order:	16041065
Project:	Mid Valley School- 4/28/2016

QC BATCH REPORT

Batch ID: 35	695 Instrument ID: GC	:1		Metho	d: N2000						
MBLK	Sample ID: MBLK-35695-3569	5			ι	Jnits: µg/sa	mple	Analysi	s Date: 5/4	/2016	
Client ID:		Run ID:	GC1_1	60504A	Se	qNo: 12749	34	Prep Date: 5/4	4/2016	DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Methanol		ND	10								
LCS	Sample ID: LCS-35695-35695				ι	Jnits: µg/sa	mple	Analysi	s Date: 5/4	/2016	
Client ID:		Run ID:	GC1_1	60504A	Se	qNo: 12749	35	Prep Date: 5/4	4/2016	DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Methanol		75.28	10	79.1	0	95.2	64.1-145	;	0		
LCSD	Sample ID: LCSD-35695-3569	5			L	Jnits: µg/sa	mple	Analysi	s Date: 5/4	/2016	
Client ID:		Run ID:	GC1_1	60504A		qNo: 12749	•	Prep Date: 5/4	4/2016	DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Methanol		72.99	10	79.1	0	92.3	64.1-145	75.2	8 3.09	20	
The follow in	ig samples were analyzed in this	batch:	16	6041065-034	١						

Client: Work Orde Project:	er: 160	nsylvania DEP B 041065 d Valley School-			У				QC	BATC	H REI	PORT
Batch ID: 358	899	Instrument ID: G	C5		Metho	d: O2060						
MBLK Client ID:	Sample ID:	MBLK-35899-3589): GC5_16	60517A		Units: µg/sa i eqNo: 12829		Analysis Prep Date: 5/10	Date: 5/1	7/2016 DF: 1	
Analyte			Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Triethylamine			ND	10								
LCS Client ID:	Sample ID:	LCS-35899-35899): GC5_16	0517A		Units: µg/sa i eqNo: 12829	•	Analysis Prep Date: 5/16	Date: 5/1	7/2016 DF: 1	
Analyte			Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Triethylamine			78.05	10	90.75		0 86	70-130	0			_
LCSD Client ID:	Sample ID:	LCSD-35899-3589		D: GC5_16	60517A		Units: µg/sa i eqNo: 12829	•	Analysis Prep Date: 5/16	Date: 5/1	7/2016 DF: 1	
Analyte			Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Triethylamine			121.7	10	90.75		0 134	70-130	78.05	43.7	20	SR

The following samples were analyzed in this batch:

16041065-05A

Client:	Pennsylvania DEP Bureau of Air Quality
Work Order:	16041065
Project:	Mid Valley School- 4/28/2016

QC BATCH REPORT

Batch ID: 35832 Instrument ID: HPLC2 Method: ETO-11

MBLK	Sample ID:	MBLK-35832-358	32			I	Jnits	: µg/sar	nple	Analysis	Date: 5/14	/2016 01:	55 AM
Client ID:			Run	ID: HPLC2	_160514A			: 12819		Prep Date: 5/11		DF: 1	
Analyte			Result	PQL	SPK Val	SPK Ref Value	C	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Acetaldehyde			ND	0.20									
Formaldehyde	•		ND	0.20									
LCS	Sample ID:	LCS-35832-35832	2			I	Jnits	: µg/sar	nple	Analysis	Date: 5/14	/2016 01:	55 AM
Client ID:			Run	ID: HPLC2	_160514A		SeqNo: 1281948			Prep Date: 5/11	DF: 1		
Analyte			Result	PQL	SPK Val	SPK Ref Value	c	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Acetaldehyde			1.452	0.20	2	()	72.6	61.5-120	0 0			
Formaldehyde	•		2.134	0.20	2	()	107	70-130	0			
LCSD	Sample ID:	LCSD-35832-358	32			I	Jnits	: µg/sar	nple	Analysis	Date: 5/14	/2016 01:	55 AM
Client ID:			Run	ID: HPLC2	_160514A			: 12819	•	Prep Date: 5/11		DF: 1	
Analyte			Result	PQL	SPK Val	SPK Ref Value	c	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Acetaldehyde			1.476	0.20	2	C)	73.8	61.5-120) 1.452	1.61	20	
Formaldehyde)		2.255	0.20	2	()	113	70-130	2.134	5.55	20	

The following samples were analyzed in this batch:

16041065-02A

Client:Pennsylvania DEP Bureau of Air QualityWork Order:16041065Project:Mid Valley School- 4/28/2016

QC BATCH REPORT

Batch ID: R128659 Instrument ID: HPLC1 Method: O40

MBLK	Sample ID: MB-R128659-R128659		Units: µg/sample			Analysis Date: 5/5/2016 04:22 PM				
Client ID:	Ru	un ID: HPLC1	_160505A	Seq	No: 12764	13	Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Methylamine	ND	2.5								
LCS	Sample ID: LCS-R128659-R128659			U	nits: µg/saı	nple	Analysis	s Date: 5/5/	2016 04:22	2 PM
Client ID:	Ru	un ID: HPLC1	_160505A	Seq	No: 12764	14	Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Methylamine	7.458	2.5	9.175	0	81.3	9.88-161	(D		
LCSD	Sample ID: LCSD-R128659-R128659			U	nits: µg/saı	nple	Analysis	s Date: 5/5/	2016 04:22	2 PM
Client ID:	Ru	un ID: HPLC1	_160505A		No: 12764	-	Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Methylamine	6.924	2.5	9.175	0	75.5	9.88-161	7.458	8 7.43	20	
The following	g samples were analyzed in this batch:	1	6041065-04/	ł						

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Work Order: Project:	Pennsylvania DEP Bureau 16041065 Mid Valley School- 4/28/		llity				QC	ВАТС	H REI	PORT
Batch ID: R128758	Instrument ID: SUB		Metho	d: N6015						
MBLK Sam	ole ID: MB-R128758-R128758	Run ID: SUB	1605110		Units: µg/sample SeqNo: 1277942			is Date: 5/1	0/2016 DF: 1	
Analyte	Resu		_	SPK Ref Value	%REC	Control Limit	Prep Date: RPD Ref Value	%RPD	RPD Limit	Qual
Ammonia	NE	D 1.2	2							
LCS Sam	ole ID: LCS-R128758-R128758	Run ID: SUB	_160511A		Inits: µg/sa qNo: 12779		Analys Prep Date:	is Date: 5/1	0/2016 DF: 1	
Analyte	Resu	lt PQI	_ SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ammonia	23	3 1.2	2 24.3	0	94.7	74.3-115.2	2	0		
The following sam	ples were analyzed in this batc	:h:	16041065-01/	4						

Client: Project: WorkOrder:	Pennsylvania DEP Bureau of Air Quality Mid Valley School- 4/28/2016 16041065	QUALIFIERS, ACRONYMS, UNITS					
Qualifier	Description						
*	Value exceeds Regulatory Limit						
а	Not accredited						
В	Analyte detected in the associated Method Blank above the Rep	orting Limit					
E	Value above quantitation range						
Н	Analyzed outside of Holding Time						
J	Analyte detected below quantitation limit						
n	Not offered for accreditation						
ND	Not Detected at the Reporting Limit						
0	Sample amount is > 4 times amount spiked						
Р	Dual Column results percent difference $> 40\%$						
R	RPD above laboratory control limit						
S	Spike Recovery outside laboratory control limits						
U	Analyzed but not detected above the MDL						
Acronym	Description						
DUP	Method Duplicate						
E	EPA Method						
LCS	Laboratory Control Sample						
LCSD	Laboratory Control Sample Duplicate						
MBLK	Method Blank						
MDL	Method Detection Limit						
MQL	Method Quantitation Limit						
MS	Matrix Spike						
MSD	Matrix Spike Duplicate						
PDS	Post Digestion Spike						
PQL	Practical Quantitaion Limit						
SDL	Sample Detection Limit						
SW	SW-846 Method						
Units Reported	d Description						
µg/samp	ble						
ppbv							

ppm

Sample Receipt Checklist

Client Name:	PADEP	-HARRISBURG			Date/Time	Received:	29-Apr-16	<u>5 12:04</u>	
Work Order:	<u>160410</u>	<u>65</u>			Received b	y:	<u>RDN</u>		
Checklist compl	•	R ob N ieman ^{eSignature}	30-Apr-16	3	Reviewed by:	R ob Nier eSignature	man		03-May-16 Date
Matrices: Carrier name:	<u>FedE</u> >	<u>×</u>							
Shipping contail	ner/coole	r in good condition?	Yes	✓	No 🗌	Not Pres	ent		
Custody seals in	ntact on s	shipping container/cooler?	Yes		No 🗌	Not Pres	ent 🔽		
Custody seals in	ntact on s	sample bottles?	Yes	✓	No 🗌	Not Pres	ent		
Chain of custod	ly present	?	Yes	✓	No 🗌				
Chain of custod	ly signed	when relinquished and received?	Yes	✓	No 🗌				
Chain of custod	ly agrees	with sample labels?	Yes	✓	No 🗌				
Samples in prop	per contai	iner/bottle?	Yes	✓	No 🗌				
Sample contain	ers intact	?	Yes	✓	No 🗌				
Sufficient samp	le volume	e for indicated test?	Yes	✓	No 🗌				
All samples rece	eived with	nin holding time?	Yes	✓	No 🗌				
Container/Temp	o Blank te	mperature in compliance?	Yes	✓	No 🗌				
Temperature(s)	/Thermor	neter(s):	<u>13.3</u>						
Cooler(s)/Kit(s):	:							[
Water - VOA via	als have z	zero headspace?	Yes		No 🔳	No VOA viak	s submitted		
Water - pH acce	eptable up	oon receipt?	Yes		No 📃	N/A			
pH adjusted? pH adjusted by:			Yes -		No 📃	N/A			
Login Notes:									

Client Contacted: Contacted By:	Date Contacted: Regarding:	Person Contacted:
Comments:		
CorrectiveAction:		

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