

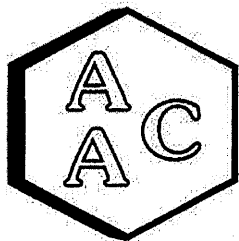
Volatile Organic Compound Analysis Results for Samples Collected in Nuiqsut, Alaska

Sample Location: Nuiqsut Ambient Air Quality Monitoring Station

Date Sample Collected: 3/11/2022

Analysis Conducted by: Atmospheric Analysis & Consulting, Inc.

Analysis Method: EPA Method TO-12/PAMS Protocol by GC/MS/FID



Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report PAMS Calibration Verification Analysis

Initial Calibration Date : 02/11/2022
Standard ID : MS1-020922-01

Instrument ID : MS01
Analysis Date : 03/14/2022
Analyst : RB

Continuing Calibration Verification

Propane	xRF	Daily RF	RPD*
	698	691	1.04

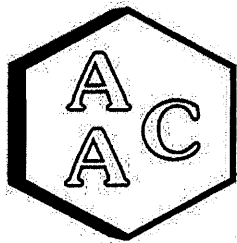
* Must be <10%

Laboratory Control Spike (LCS) / Laboratory Control Spike Duplicate (LCSD)

Propane	Sample Conc. (ppbC)	Spike Added (ppbC)	Recovery (ppbC)		% Recovery**		RPD***
			LCS	LCSD	LCS	LCSD	
			0.00	4.24	4.19	4.18	

** Must be 80-120%

*** Must be <25%



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Quality Control/Quality Assurance Report

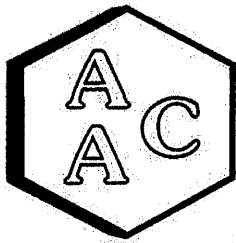
PAMS Method Blank Analysis

Matrix : Air
Units : ppbC

Instrument ID : MS01
Analysis Date : 03/14/2022
Analyst : RB

Analyte	Result	PQL
Ethylene	<PQL	1.0
Acetylene	<PQL	1.0
Ethane	<PQL	1.0
Propylene	<PQL	1.0
Propane	<PQL	1.0
Isobutane	<PQL	1.0
1-Butene	<PQL	1.0
n-Butane	<PQL	1.0
trans-2-Butene	<PQL	1.0
cis-2-Butene	<PQL	1.0
Isopentane	<PQL	1.0
1-Pentene	<PQL	1.0
n-Pentane	<PQL	1.0
Isoprene	<PQL	1.0
trans-2-Pentene	<PQL	1.0
cis-2-Pentene	<PQL	1.0
2,2-Dimethylbutane	<PQL	1.0
Cyclopentane	<PQL	1.0
2,3-Dimethylbutane	<PQL	1.0
2-Methylpentane	<PQL	1.0
3-Methylpentane	<PQL	1.0
1-Hexene	<PQL	1.0
n-Hexane	<PQL	1.0
Methylcyclopentane	<PQL	1.0
2,4-Dimethylpentane	<PQL	1.0
Benzene	<PQL	1.0
Cyclohexane	<PQL	1.0
2-Methylhexane	<PQL	1.0
2,3-Dimethylpentane	<PQL	1.0
3-Methylhexane	<PQL	1.0
2,2,4-Trimethylpentane	<PQL	1.0
n-Heptane	<PQL	1.0
Methylcyclohexane	<PQL	1.0
2,3,4-Trimethylpentane	<PQL	1.0

Analyte	Result	PQL
Toluene	<PQL	1.0
2-Methylheptane	<PQL	1.0
3-Methylheptane	<PQL	1.0
n-Octane	<PQL	1.0
Ethylbenzene	<PQL	1.0
m/p-Xylenes	<PQL	1.0
Styrene	<PQL	1.0
o-Xylene	<PQL	1.0
Nonane	<PQL	1.0
Isopropylbenzene	<PQL	1.0
n-Propylbenzene	<PQL	1.0
m-Ethyltoluene	<PQL	1.0
p-Ethyltoluene	<PQL	1.0
1,3,5-Trimethylbenzene	<PQL	1.0
o-Ethyltoluene	<PQL	1.0
1,2,4-Trimethylbenzene	<PQL	1.0
n-Decane	<PQL	1.0
1,2,3-Trimethylbenzene	<PQL	1.0
m-Diethylbenzene	<PQL	1.0
p-Diethylbenzene	<PQL	1.0
n-Undecane	<PQL	1.0
n-Dodecane	<PQL	1.0
TNMHC (ppbC)	<PQL	20



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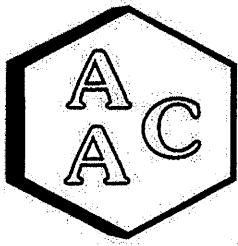
Quality Control/Quality Assurance Report PAMS Duplicate Analysis

AAC ID : 220507-28820
 Matrix : Air
 Units : ppbC

Instrument ID : MS01
 Analysis Date : 03/14/2022
 Analyst : RB

Analyte	Sample Analysis	Sample Duplicate	RPD
Ethylene	<PQL	<PQL	NA
Acetylene	<PQL	<PQL	NA
Ethane	4.69	5.25	11
Propylene	<PQL	<PQL	NA
Propane	2.79	2.96	5.9
Isobutane	<PQL	<PQL	NA
1-Butene	<PQL	<PQL	NA
n-Butane	<PQL	<PQL	NA
trans-2-Butene	<PQL	<PQL	NA
cis-2-Butene	<PQL	<PQL	NA
Isopentane	<PQL	<PQL	NA
1-Pentene	<PQL	<PQL	NA
n-Pentane	<PQL	<PQL	NA
Isoprene	<PQL	<PQL	NA
trans-2-Pentene	<PQL	<PQL	NA
cis-2-Pentene	<PQL	<PQL	NA
2,2-Dimethylbutane	<PQL	<PQL	NA
Cyclopentane	<PQL	<PQL	NA
2,3-Dimethylbutane	<PQL	<PQL	NA
2-Methylpentane	<PQL	<PQL	NA
3-Methylpentane	<PQL	<PQL	NA
1-Hexene	<PQL	<PQL	NA
n-Hexane	<PQL	<PQL	NA
Methylcyclopentane	<PQL	<PQL	NA
2,4-Dimethylpentane	<PQL	<PQL	NA
Benzene	<PQL	<PQL	NA
Cyclohexane	<PQL	<PQL	NA
2-Methylhexane	<PQL	<PQL	NA
2,3-Dimethylpentane	<PQL	<PQL	NA
3-Methylhexane	<PQL	<PQL	NA
2,2,4-Trimethylpentane	<PQL	<PQL	NA
n-Heptane	<PQL	<PQL	NA
Methylcyclohexane	<PQL	<PQL	NA
2,3,4-Trimethylpentane	<PQL	<PQL	NA
Toluene	<PQL	<PQL	NA
2-Methylheptane	<PQL	<PQL	NA
3-Methylheptane	<PQL	<PQL	NA
n-Octane	<PQL	<PQL	NA
Ethylbenzene	<PQL	<PQL	NA
m/p-Xylenes	<PQL	<PQL	NA
Styrene	<PQL	<PQL	NA
o-Xylene	<PQL	<PQL	NA
Nonane	<PQL	<PQL	NA
Isopropylbenzene	<PQL	<PQL	NA
n-Propylbenzene	<PQL	<PQL	NA
m-Ethyltoluene	<PQL	<PQL	NA
p-Ethyltoluene	<PQL	<PQL	NA

Analyte	Sample Analysis	Sample Duplicate	RPD
1,3,5-Trimethylbenzene	<PQL	<PQL	NA
o-Ethyltoluene	<PQL	<PQL	NA
1,2,4-Trimethylbenzene	<PQL	<PQL	NA
n-Decane	<PQL	<PQL	NA
1,2,3-Trimethylbenzene	<PQL	<PQL	NA
m-Diethylbenzene	<PQL	<PQL	NA
p-Diethylbenzene	<PQL	<PQL	NA
n-Undecane	<PQL	<PQL	NA
n-Dodecane	<PQL	<PQL	NA
Total PAMS (ppbC)	7.47	8.20	9.3
TNMHC (ppbC)	30.6	34.9	13



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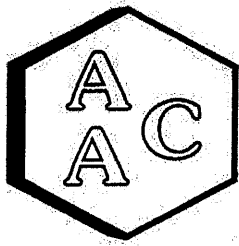
Laboratory Analysis Report

CLIENT : SLR International Corporation
PROJECT NO : 220507
MATRIX : AIR
UNITS : ppb (v/v)

DATE RECEIVED : 03/14/2022
DATE REPORTED : 03/15/2022

HYDROCARBONS (C2-C12) SPECIATED

<i>Client ID</i>		NUI - unlined			Sample Reporting Limit (SRL) (MRLxDFs)	Method Reporting Limit (MRL)
<i>AAC ID</i>		220507-28820				
<i>Date Sampled</i>		03/11/2022				
<i>Date Analyzed</i>		03/14/2022				
<i>Con Dilution Factor</i>		1.56				
	Result	Qualifier	Analysis DF			
Ethylene	<SRL	U	1	0.78	0.50	
Acetylene	<SRL	U	1	0.78	0.50	
Ethane	2.34	U	1	0.78	0.50	
Propylene	<SRL	U	1	0.52	0.33	
Propane	0.93	U	1	0.52	0.33	
Isobutane	<SRL	U	1	0.39	0.25	
1-Butene	<SRL	U	1	0.39	0.25	
n-Butane	<SRL	U	1	0.39	0.25	
trans-2-Butene	<SRL	U	1	0.39	0.25	
cis-2-Butene	<SRL	U	1	0.39	0.25	
Isopentane	<SRL	U	1	0.31	0.20	
1-Pentene	<SRL	U	1	0.31	0.20	
n-Pentane	<SRL	U	1	0.31	0.20	
Isoprene	<SRL	U	1	0.31	0.20	
trans-2-Pentene	<SRL	U	1	0.31	0.20	
cis-2-Pentene	<SRL	U	1	0.31	0.20	
2,2-Dimethylbutane	<SRL	U	1	0.26	0.17	
Cyclopentane	<SRL	U	1	0.31	0.20	
2,3-Dimethylbutane	<SRL	U	1	0.26	0.17	
2-Methylpentane	<SRL	U	1	0.26	0.17	
3-Methylpentane	<SRL	U	1	0.26	0.17	
1-Hexene	<SRL	U	1	0.26	0.17	
n-Hexane	<SRL	U	1	0.26	0.17	
Methylcyclopentane	<SRL	U	1	0.26	0.17	
2,4-Dimethylpentane	<SRL	U	1	0.22	0.14	
Benzene	<SRL	U	1	0.26	0.17	
Cyclohexane	<SRL	U	1	0.26	0.17	
2-Methylhexane	<SRL	U	1	0.22	0.14	
2,3-Dimethylpentane	<SRL	U	1	0.22	0.14	
3-Methylhexane	<SRL	U	1	0.22	0.14	
2,2,4-Trimethylpentane	<SRL	U	1	0.19	0.13	
n-Heptane	<SRL	U	1	0.22	0.14	
Methylcyclohexane	<SRL	U	1	0.22	0.14	
2,3,4-Trimethylpentane	<SRL	U	1	0.19	0.13	



Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : SLR International Corporation
PROJECT NO : 220507
MATRIX : AIR
UNITS : ppb (v/v)

DATE RECEIVED : 03/14/2022
DATE REPORTED : 03/15/2022

HYDROCARBONS (C2-C12) SPECIATED

<i>Client ID</i>	NUI - unlined			Sample Reporting Limit (SRL) (MRLxDFs)	Method Reporting Limit (MRL)
<i>AAC ID</i>	220507-28820				
<i>Date Sampled</i>	03/11/2022				
<i>Date Analyzed</i>	03/14/2022				
<i>Con Dilution Factor</i>	1.56				
	Result	Qualifier	Analysis DF		
Toluene	<SRL	U	1	0.22	0.14
2-Methylheptane	<SRL	U	1	0.19	0.13
3-Methylheptane	<SRL	U	1	0.19	0.13
n-Octane	<SRL	U	1	0.19	0.13
Ethylbenzene	<SRL	U	1	0.19	0.13
m/p-Xylenes	<SRL	U	1	0.19	0.13
Styrene	<SRL	U	1	0.19	0.13
o-Xylene	<SRL	U	1	0.19	0.13
Nonane	<SRL	U	1	0.17	0.11
Isopropylbenzene	<SRL	U	1	0.17	0.11
n-Propylbenzene	<SRL	U	1	0.17	0.11
m-Ethyltoluene	<SRL	U	1	0.17	0.11
p-Ethyltoluene	<SRL	U	1	0.17	0.11
1,3,5-Trimethylbenzene	<SRL	U	1	0.17	0.11
o-Ethyltoluene	<SRL	U	1	0.17	0.11
1,2,4-Trimethylbenzene	<SRL	U	1	0.17	0.11
n-Decane	<SRL	U	1	0.16	0.10
1,2,3-Trimethylbenzene	<SRL	U	1	0.17	0.11
m-Diethylbenzene	<SRL	U	1	0.16	0.10
p-Diethylbenzene	<SRL	U	1	0.16	0.10
n-Undecane	<SRL	U	1	0.14	0.09
n-Dodecane	<SRL	U	1	0.13	0.08

U - Compound was analyzed for, but was not detected at or above the SRL.