SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT 21865 Copley Dr., Diamond Bar, CA 91765-4182

MONITORING & ANALYSIS REPORT OF LABORATORY ANALYSIS

TO:	Jason Low, Ph.D. Atmospheric Measurements Manager	LABORATORY NO:	1614210	
	Science and Technology Advancement	REFERENCE NO:	GC6-3-96	
SAMI	PLE DESCRIPTION: 24 hour sample	DATE SAMPLED:	05/21/16	
	Canister # 54036	DATE RECEIVED:	05/23/16	
SAMI	PLE LOCATION:	DATE ANALYZED:	05/23/16	
	Porter Ranch Castlebay Elementary	ANALYZED BY:	Yang Song	
	School	REQUESTED BY:	Sumner Wilson	

ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS AND RESULTS

Volatile Organic Compounds (VOC) by Gas Chromatography(GC) and Flame Ionization Detection (FID)

Note: See attached for speciated results.

Date Approved: 525/16 Approved By:

Solomon Teffera, Acting Sr. Manager

Laboratory Services Branch

(909) 396-2199

<u>LAB NO: 1614210</u> <u>Location: Porter Ranch/Castlebay Elem</u>

ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS AND RESULTS

Quantitation of Organic Compounds by Gas Chromatography(GC) and Flame Ionization Detection (FID)

Total NMOC, ppbC 38 1000-700 ppbC Compound ethylene Conc. (ppbv) Conc. (ppbv) ethylene 0.5 0.7-4.1 acetylene 0.4 0.7-4.1 propane 0.9 0.4-5.0 propylene 0.1 0.2-0.7 isobutane 0.1 0.2-0.9 n-butane 0.3 0.3-1.7 1-butene <0.1 0.1-0.3 trans-2-butene <0.1 0.1-0.3 trans-2-butene <0.1 0.1-0.3 trans-2-butene <0.1 0.1-0.3 trans-2-butene <0.1 0.1-0.3 isopentane <0.1 0.1-0.6 isoprene <0.1 0.1-0.6 2,3-diimethylbutane <t< th=""><th>Sample Date Canister Sampling Location</th><th>05/21/16 54036 Porter Ranch/Castlebay Elem</th><th colspan="3">Ambient Air</th></t<>	Sample Date Canister Sampling Location	05/21/16 54036 Porter Ranch/Castlebay Elem	Ambient Air		
ethylene	Total NMOC, ppbC	38		100-700 ppbC	
acetylene propane propane 0.9 0.9 0.4-5.0 propylene 0.1 0.2-0.7 isobutane 0.1 0.2-0.9 n-butane 1-butene 0.3 1-butene 0.1 trans-2-butene cis-2-butene 0.8 1-pentene 0.8 1-pentene 0.2 0.1 isopernat 0.2 0.1-0.6 isoperne 0.1 trans-2-pentene 0.1 trans-2-pentene 0.1 cis-2-pentene 0.1 2,2-dimethylbutane 2,2-dimethylbutane 2,3-dimethylpentane 0.1 3-methylcyclopentane 2,4-dimethylpentane 0.1 2,4-dimethylpentane 0.1 2,3-dimethylpentane 0.1 0,1-0.2 methylcyclopentane 0,1 2,4-dimethylpentane 0,1 2,3-dimethylpentane 0,1 0,1-0.2 methylcyclopentane 0,1 2,4-dimethylpentane 0,1 2,3-dimethylpentane 0,1 0,1-0.2 methylcyclopentane 0,1 2,4-dimethylpentane 0,1 2-methylpentane 0,1	Compound	Conc. (ppbv)		Conc. (ppbv)	
propane 0.9 0.4-5.0 propylene 0.1 0.2-0.7 isobutane 0.1 0.2-0.9 n-butane 0.3 0.3-1.7 1-butene <0.1 0.1-0.3 trans-2-butene <0.1 0.1-0.3 trans-2-butene <0.1 0.8 1-pentane 0.8 0.1-0.6 isopenate <0.1 0.1-0.6 isoprene <0.1 0.1-0.6 isoprente <0.1 0.1-0.6	ethylene	0.5			0.7-4.1
Description	acetylene	0.4			
isobutane	propane	0.9			0.4-5.0
n-butane 0.3 0.3-1.7 1-butene <0.1	propylene	0.1			0.2 - 0.7
1-butene	isobutane	0.1			0.2 - 0.9
trans-2-butene cis-2-butene isopentane 1-pentene n-pentane 1-pentene n-pentane 0.2 0.1 n-pentane 0.2 0.1-0.6 isoprene trans-2-pentene cis-2-pentene cis-2-pentene cis-2-pentene 2,2-dimethylbutane cyclopentane 2,3-dimethylbutane 2-methylpentane 3-methylpentane 1-hexene n-hexane explication of the state of	n-butane	0.3			0.3-1.7
cis-2-butene <0.1	1-butene	< 0.1			0.1-0.3
1-pentene 0.8 1-pentene 0.2 0.1-0.6 n-pentane 0.2 0.1-0.6 isoprene <0.1 trans-2-pentene <0.1 cis-2-pentene <0.1 2,2-dimethylbutane <0.1 2,3-dimethylbutane <0.1 2-methylpentane <0.1 3-methylpentane <0.1 1-hexene <0.1 <0.1-0.1 n-hexane <0.1 0.1-0.2 methylcyclopentane <0.1 2,4-dimethylpentane <0.1 benzene <0.1 0.1-0.5 cyclohexane <0.1 2-methylpentane <0.1 2,3-dimethylpentane <0.1 2,4-dimethylpentane <0.1 2,4-dimethylpentane <0.1 2,3-dimethylpentane <0.1 2,3-dimethylpentane <0.1 2,3-dimethylpentane <0.1 3-methylhexane <0.1 2,2,4-trimethylpentane <0.1 n-heptane <0.1 0.1-0.2	trans-2-butene	< 0.1			
1-pentene <0.1	cis-2-butene	< 0.1			
n-pentane 0.2 0.1-0.6	isopentane	0.8			
isoprene	1-pentene	< 0.1			
trans-2-pentene cis-2-pentene 2,2-dimethylbutane cyclopentane 2,3-dimethylbutane 2,3-dimethylbutane 2,3-dimethylpentane 3-methylpentane 1-hexene 1-hexene 1-hexane 1-	n-pentane	0.2			0.1-0.6
cis-2-pentene <0.1	isoprene	< 0.1			
2,2-dimethylbutane <0.1	trans-2-pentene	< 0.1			
cyclopentane <0.1	cis-2-pentene	< 0.1			
2,3-dimethylbutane <0.1	2,2-dimethylbutane	< 0.1			
2-methylpentane <0.1	cyclopentane	< 0.1			
3-methylpentane <0.1	2,3-dimethylbutane	< 0.1			
1-hexene <0.1	2-methylpentane	< 0.1			
n-hexane	3-methylpentane	< 0.1			
methylcyclopentane <0.1	1-hexene	< 0.1			< 0.1-0.1
2,4-dimethylpentane <0.1	n-hexane	< 0.1			0.1-0.2
benzene <0.1 0.1-0.5 cyclohexane <0.1 2-methylhexane <0.1 2,3-dimethylpentane <0.1 3-methylhexane <0.1 2,2,4-trimethylpentane <0.1 n-heptane <0.1 0.1-0.2	methylcyclopentane	< 0.1			
cyclohexane <0.1		< 0.1			
2-methylhexane <0.1	benzene	< 0.1			0.1-0.5
2,3-dimethylpentane <0.1	cyclohexane	< 0.1			
3-methylhexane <0.1 2,2,4-trimethylpentane <0.1 n-heptane <0.1 0.1-0.2	2-methylhexane	< 0.1			
2,2,4-trimethylpentane <0.1 n-heptane <0.1 0.1-0.2	2,3-dimethylpentane	< 0.1			
n-heptane <0.1 0.1-0.2	3-methylhexane	< 0.1			
n-heptane <0.1 0.1-0.2		< 0.1			
methylcyclohexane <0.1	n-heptane	< 0.1			0.1-0.2
1	methylcyclohexane	< 0.1			

<u>LAB NO: 1614210</u> <u>Location: Porter Ranch/Castlebay Elem</u>

ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS AND RESULTS

Quantitation of Organic Compounds by Gas Chromatography(GC) and Flame Ionization Detection (FID)

05/21/16

~	00.21/10		
Canister	54036		
Sampling Location	Porter Ranch/Castlebay Elem	An	nbient Air
Total NMOC, ppbC	38	100	-700 ppbC
Total Miloc, ppac	30	100	-700 ppoc
Compound	Conc. (ppbv)	Co	nc. (ppbv)
2,3,4-trimethylpentane	< 0.1		
toluene	0.1		0.1-0.6
2-methylheptane	< 0.1		
3-methylheptane	< 0.1		
n-octane	< 0.1		< 0.1-0.3
ethylbenzene	< 0.1		0.1-0.2
m+p-xylenes	< 0.1		0.1-0.2
styrene	< 0.1		< 0.1-0.2
o-xylene	< 0.1		0.1-0.2
n-nonane	< 0.1		< 0.1-0.1
isopropylbenzene	< 0.1		
n-propylbenzene	< 0.1		
m-ethyltoluene	< 0.1		
p-ethyltoluene	<0.1		
1,3,5-trimethylbenzene	< 0.1		
o-ethyltoluene	< 0.1		
1,2,4-trimethylbenzene	<0.1		
n-decane	< 0.1		< 0.1-0.1
1,2,3-trimethylbenzene	< 0.1		
m-diethylbenzene	< 0.1		
p-diethylbenzene	< 0.1		
n-undecane	< 0.1		< 0.1
n-dodecane	< 0.1		< 0.1

NMOC = Non-Methane Organic Compounds N.D. = Not Detected

Sample Date

WO #: 1614210

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT SAMPLE ANALYSIS REQUEST



O: SCAQMD LAB:	OTHER:				
OURCE NAME:	Southern Cali	fornia Gas Co	i.D. N	lo.	
Source Address: 12801 Tampa Ave		11.	City:	Porter Ran	ch
		(City: Zip: 91320		91326
nalysis Requested by:	Sumner V	Vilson	Date:	5/23/16	
pproved by: Jasor	Low O	Office:		Budget #: 44716	
EASON REQUESTED: G Suspected Violation		_			
ample Collected by:			5/23/16 PAMS analysis	Time:	10:00am
City/Location	Can#	7.0	/ time/ duration	Start vac	End Press
Porter Ranch / Castlebay E	em 54036	5/21/16 /	00:00 / 24 hours	-30"	+13.5
:					
Relinquished by	Received	by	Firm/Agency	Date	Time
Zhougian	Ningging f	Pan	SCAQMD Lab	12:036	> 5/23/16
emarks: 1:3 scheduled samples fro astlebay Lane Charter School – 190 ight sampler, sn 4671					