

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

**MONITORING & ANALYSIS**  
**REPORT OF LABORATORY ANALYSIS**


<b>TO:</b> Cher Snyder Assistant DEO Engineering and Compliance	<b>LABORATORY NO:</b> <u>1602909</u>
	<b>REFERENCE NO:</b> <u>GC6-3-73</u>
<b>SAMPLE DESCRIPTION:</b> Triggered Samples	<b>DATE SAMPLED:</b> <u>01/27/16</u>
Canisters 54699 E0151 E4303	<b>DATE RECEIVED:</b> <u>01/29/16</u>
54663 54695 54604	<b>DATE ANALYZED:</b> <u>02/02/16</u>
E4229 54618	
<b>SAMPLE LOCATION:</b> Highlands Community Pool Parking Lot	<b>ANALYZED BY:</b> <u>Yang Song</u>
	<b>REQUESTED BY:</b> <u>Sumner Wilson</u>

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**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: 2/5/16 Approved By:   
Rudy Eden, Sr. Manager  
Laboratory Services Branch  
(909) 396-2391

**LAB NO: 1602909****Location: Highlands Community****ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS AND RESULTS**

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

Sample Date	01/27/16	01/27/16	
Canister	54699	54663	
<b>Sampling Location</b>	<b>Highlands Community</b>	<b>Highlands Community</b>	<b>Ambient Air</b>
	<b>Pool Pool Parking Lot</b>	<b>Pool Pool Parking Lot</b>	
<b>Total NMOC, ppbC</b>	480	1880	100-700 ppbC

<u>Compound</u>	<u>Conc. (ppbv)</u>	<u>Conc. (ppbv)</u>	<u>Conc. (ppbv)</u>
ethylene	0.2	0.2	0.7-4.1
acetylene	0.3	0.4	
propane	15	63	0.4-5.0
propylene	<0.1	<0.1	0.2-0.7
isobutane	1.8	7.5	0.2-0.9
n-butane	2.2	8.9	0.3-1.7
1-butene	<0.1	<0.1	0.1-0.3
trans-2-butene	<0.1	<0.1	
cis-2-butene	<0.1	<0.1	
isopentane	1.2	3.1	
1-pentene	<0.1	<0.1	
n-pentane	0.9	2.2	0.1-0.6
isoprene	<0.1	<0.1	
trans-2-pentene	N.D.	N.D.	
cis-2-pentene	N.D.	N.D.	
2,2-dimethylbutane	<0.1	<0.1	
cyclopentane	<0.1	0.2	
2,3-dimethylbutane	<0.1	0.1	
2-methylpentane	0.1	0.5	
3-methylpentane	<0.1	0.3	
1-hexene	N.D.	<0.1	<0.1-0.1
n-hexane	0.1	0.5	0.1-0.2
methylcyclopentane	0.1	0.5	
2,4-dimethylpentane	<0.1	<0.1	
benzene	0.1	0.3	0.1-0.5
cyclohexane	0.1	0.4	
2-methylhexane	<0.1	<0.1	
2,3-dimethylpentane	<0.1	<0.1	
3-methylhexane	<0.1	0.1	
2,2,4-trimethylpentane	<0.1	0.1	
n-heptane	<0.1	0.2	0.1-0.2
methylcyclohexane	0.1	0.5	

**LAB NO: 1602909****Location: Highlands Community****ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS AND RESULTS**

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

Sample Date	01/27/16	01/27/16	
Canister	54699	54663	
<b>Sampling Location</b>	<b>Highlands Community Pool Pool Parking Lot</b>	<b>Highlands Community Pool Pool Parking Lot</b>	<b>Ambient Air</b>
<b>Total NMOC, ppbC</b>	480	1880	100-700 ppbC
<b><u>Compound</u></b>	<b><u>Conc. (ppbv)</u></b>	<b><u>Conc. (ppbv)</u></b>	<b><u>Conc. (ppbv)</u></b>
2,3,4-trimethylpentane	<0.1	<0.1	
toluene	0.2	0.4	0.1-0.6
2-methylheptane	<0.1	<0.1	
3-methylheptane	<0.1	<0.1	
n-octane	<0.1	<0.1	<0.1-0.3
ethylbenzene	<0.1	<0.1	0.1-0.2
m+p-xylenes	0.3	0.1	0.1-0.2
styrene	<0.1	<0.1	<0.1-0.2
o-xylene	<0.1	<0.1	0.1-0.2
n-nonane	0.2	<0.1	<0.1-0.1
isopropylbenzene	<0.1	<0.1	
n-propylbenzene	<0.1	<0.1	
m-ethyltoluene	<0.1	<0.1	
p-ethyltoluene	<0.1	N.D.	
1,3,5-trimethylbenzene	<0.1	<0.1	
o-ethyltoluene	<0.1	<0.1	
1,2,4-trimethylbenzene	<0.1	<0.1	
n-decane	<0.1	<0.1	<0.1-0.1
1,2,3-trimethylbenzene	<0.1	<0.1	
m-diethylbenzene	<0.1	<0.1	
p-diethylbenzene	<0.1	<0.1	
n-undecane	<0.1	<0.1	<0.1
n-dodecane	N.D.	<0.1	<0.1

NMOC = Non-Methane Organic Compounds

N.D. = Not Detected

**LAB NO: 1602909**

**Location: Highlands Community**

**ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS AND RESULTS**

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

Sample Date	01/27/16	01/27/16	
Canister	E4229	E0151	
<b>Sampling Location</b>	<b>Highlands Community Pool Pool Parking Lot</b>	<b>Highlands Community Pool Pool Parking Lot</b>	<b>Ambient Air</b>
<b>Total NMOC, ppbC</b>	2090	6500	100-700 ppbC

<b><u>Compound</u></b>	<b><u>Conc. (ppbv)</u></b>	<b><u>Conc. (ppbv)</u></b>	<b><u>Conc. (ppbv)</u></b>
ethylene	0.1	0.2	0.7-4.1
acetylene	0.3	0.4	
propane	69	216	0.4-5.0
propylene	<0.1	<0.1	0.2-0.7
isobutane	8.2	25	0.2-0.9
n-butane	9.7	30	0.3-1.7
1-butene	<0.1	0.3	0.1-0.3
trans-2-butene	<0.1	<0.1	
cis-2-butene	N.D.	<0.1	
isopentane	3.1	9.3	
1-pentene	<0.1	<0.1	
n-pentane	2.5	7.2	0.1-0.6
isoprene	<0.1	<0.1	
trans-2-pentene	N.D.	<0.1	
cis-2-pentene	N.D.	<0.1	
2,2-dimethylbutane	<0.1	0.2	
cyclopentane	0.2	0.6	
2,3-dimethylbutane	0.1	0.3	
2-methylpentane	0.5	1.6	
3-methylpentane	0.3	0.9	
1-hexene	<0.1	<0.1	<0.1-0.1
n-hexane	0.5	1.7	0.1-0.2
methylcyclopentane	0.5	1.5	
2,4-dimethylpentane	<0.1	<0.1	
benzene	0.3	0.8	0.1-0.5
cyclohexane	0.4	1.4	
2-methylhexane	0.1	0.3	
2,3-dimethylpentane	<0.1	0.1	
3-methylhexane	0.1	0.3	
2,2,4-trimethylpentane	0.1	0.3	
n-heptane	0.2	0.5	0.1-0.2
methylcyclohexane	0.5	1.5	

**LAB NO: 1602909****Location: Highlands Community****ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS AND RESULTS**

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

Sample Date	01/27/16	01/27/16	
Canister	E4229	E0151	
<b>Sampling Location</b>	<b>Highlands Community Pool Pool Parking Lot</b>	<b>Highlands Community Pool Pool Parking Lot</b>	<b>Ambient Air</b>
<b>Total NMOC, ppbC</b>	2090	6500	100-700 ppbC
<b><u>Compound</u></b>	<b><u>Conc. (ppbv)</u></b>	<b><u>Conc. (ppbv)</u></b>	<b><u>Conc. (ppbv)</u></b>
2,3,4-trimethylpentane	<0.1	<0.1	
toluene	0.4	1.1	0.1-0.6
2-methylheptane	<0.1	0.2	
3-methylheptane	<0.1	<0.1	
n-octane	<0.1	0.2	<0.1-0.3
ethylbenzene	<0.1	<0.1	0.1-0.2
m+p-xylenes	0.1	0.4	0.1-0.2
styrene	<0.1	<0.1	<0.1-0.2
o-xylene	<0.1	<0.1	0.1-0.2
n-nonane	<0.1	0.1	<0.1-0.1
isopropylbenzene	<0.1	<0.1	
n-propylbenzene	<0.1	<0.1	
m-ethyltoluene	<0.1	<0.1	
p-ethyltoluene	<0.1	<0.1	
1,3,5-trimethylbenzene	<0.1	<0.1	
o-ethyltoluene	<0.1	<0.1	
1,2,4-trimethylbenzene	<0.1	<0.1	
n-decane	<0.1	<0.1	<0.1-0.1
1,2,3-trimethylbenzene	<0.1	<0.1	
m-diethylbenzene	<0.1	<0.1	
p-diethylbenzene	<0.1	<0.1	
n-undecane	<0.1	<0.1	<0.1
n-dodecane	<0.1	<0.1	<0.1

NMOC = Non-Methane Organic Compounds

N.D. = Not Detected

**LAB NO: 1602909****Location: Highlands Community****ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS AND RESULTS**

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

Sample Date	01/27/16	01/27/16	
Canister	54695	54618	
<b>Sampling Location</b>	<b>Highlands Community Pool Pool Parking Lot</b>	<b>Highlands Community Pool Pool Parking Lot</b>	<b>Ambient Air</b>
<b>Total NMOC, ppbC</b>	6730	2310	100-700 ppbC

<b>Compound</b>	<b>Conc. (ppbv)</b>	<b>Conc. (ppbv)</b>	<b>Conc. (ppbv)</b>
ethylene	0.7	0.5	0.7-4.1
acetylene	0.5	0.5	
propane	225	77	0.4-5.0
propylene	0.1	0.1	0.2-0.7
isobutane	27	9.2	0.2-0.9
n-butane	32	11	0.3-1.7
1-butene	0.3	<0.1	0.1-0.3
trans-2-butene	<0.1	<0.1	
cis-2-butene	<0.1	<0.1	
isopentane	10	4.2	
1-pentene	<0.1	<0.1	
n-pentane	7.9	3.6	0.1-0.6
isoprene	<0.1	<0.1	
trans-2-pentene	N.D.	<0.1	
cis-2-pentene	N.D.	<0.1	
2,2-dimethylbutane	0.3	<0.1	
cyclopentane	0.6	0.2	
2,3-dimethylbutane	0.4	0.1	
2-methylpentane	1.7	0.6	
3-methylpentane	1.0	0.3	
1-hexene	<0.1	<0.1	<0.1-0.1
n-hexane	1.8	0.6	0.1-0.2
methylcyclopentane	1.6	0.6	
2,4-dimethylpentane	<0.1	<0.1	
benzene	0.9	0.4	0.1-0.5
cyclohexane	1.5	0.5	
2-methylhexane	0.3	0.1	
2,3-dimethylpentane	0.1	<0.1	
3-methylhexane	0.4	0.1	
2,2,4-trimethylpentane	0.4	0.1	
n-heptane	0.6	0.2	0.1-0.2
methylcyclohexane	1.6	0.5	

**LAB NO: 1602909**

**Location: Highlands Community**

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Sample Date	01/27/16	01/27/16	
Canister	54695	54618	
<b>Sampling Location</b>	<b>Highlands Community Pool Pool Parking Lot</b>	<b>Highlands Community Pool Pool Parking Lot</b>	<b>Ambient Air</b>
<b>Total NMOC, ppbC</b>	6730	2310	100-700 ppbC

<b>Compound</b>	<b>Conc. (ppbv)</b>	<b>Conc. (ppbv)</b>	<b>Conc. (ppbv)</b>
2,3,4-trimethylpentane	<0.1	<0.1	
toluene	1.2	0.6	0.1-0.6
2-methylheptane	0.2	<0.1	
3-methylheptane	<0.1	<0.1	
n-octane	0.2	<0.1	<0.1-0.3
ethylbenzene	<0.1	<0.1	0.1-0.2
m+p-xylenes	0.4	0.2	0.1-0.2
styrene	<0.1	<0.1	<0.1-0.2
o-xylene	<0.1	<0.1	0.1-0.2
n-nonane	<0.1	<0.1	<0.1-0.1
isopropylbenzene	<0.1	<0.1	
n-propylbenzene	<0.1	<0.1	
m-ethyltoluene	<0.1	<0.1	
p-ethyltoluene	<0.1	<0.1	
1,3,5-trimethylbenzene	<0.1	<0.1	
o-ethyltoluene	<0.1	<0.1	
1,2,4-trimethylbenzene	<0.1	<0.1	
n-decane	<0.1	<0.1	<0.1-0.1
1,2,3-trimethylbenzene	<0.1	<0.1	
m-diethylbenzene	<0.1	<0.1	
p-diethylbenzene	<0.1	<0.1	
n-undecane	<0.1	<0.1	<0.1
n-dodecane	<0.1	N.D.	<0.1

NMOC = Non-Methane Organic Compounds

N.D. = Not Detected

**LAB NO: 1602909**

**Location: Highlands Community**

**ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS AND RESULTS**

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

Sample Date	01/27/16	01/27/16	
Canister	E4303	54604	
<b>Sampling Location</b>	<b>Highlands Community Pool Pool Parking Lot</b>	<b>Highlands Community Pool Pool Parking Lot</b>	<b>Ambient Air</b>
<b>Total NMOC, ppbC</b>	1550	1520	100-700 ppbC

<b><u>Compound</u></b>	<b><u>Conc. (ppbv)</u></b>	<b><u>Conc. (ppbv)</u></b>	<b><u>Conc. (ppbv)</u></b>
ethylene	0.3	0.2	0.7-4.1
acetylene	0.4	0.3	
propane	51	45	0.4-5.0
propylene	<0.1	<0.1	0.2-0.7
isobutane	6.2	5.4	0.2-0.9
n-butane	7.3	6.4	0.3-1.7
1-butene	<0.1	<0.1	0.1-0.3
trans-2-butene	N.D.	<0.1	
cis-2-butene	<0.1	<0.1	
isopentane	2.9	3.4	
1-pentene	<0.1	<0.1	
n-pentane	2.6	20	0.1-0.6
isoprene	<0.1	<0.1	
trans-2-pentene	<0.1	N.D.	
cis-2-pentene	N.D.	N.D.	
2,2-dimethylbutane	<0.1	<0.1	
cyclopentane	0.1	0.1	
2,3-dimethylbutane	<0.1	<0.1	
2-methylpentane	0.4	0.4	
3-methylpentane	0.2	0.2	
1-hexene	<0.1	<0.1	<0.1-0.1
n-hexane	0.4	0.4	0.1-0.2
methylcyclopentane	0.4	0.4	
2,4-dimethylpentane	<0.1	<0.1	
benzene	0.3	0.2	0.1-0.5
cyclohexane	0.3	0.3	
2-methylhexane	<0.1	0.1	
2,3-dimethylpentane	<0.1	<0.1	
3-methylhexane	<0.1	0.1	
2,2,4-trimethylpentane	0.1	0.1	
n-heptane	0.1	0.2	0.1-0.2
methylcyclohexane	0.4	0.3	



**LAB NO: 1602909**

**Location: Highlands Community**

**ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS AND RESULTS**

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

Sample Date	01/27/16	01/27/16	
Canister	E4303	54604	
<b>Sampling Location</b>	<b>Highlands Community Pool Pool Parking Lot</b>	<b>Highlands Community Pool Pool Parking Lot</b>	<b>Ambient Air</b>
<b>Total NMOC, ppbC</b>	1550	1520	100-700 ppbC

<b>Compound</b>	<b>Conc. (ppbv)</b>	<b>Conc. (ppbv)</b>	<b>Conc. (ppbv)</b>
2,3,4-trimethylpentane	<0.1	<0.1	
toluene	0.5	1.9	0.1-0.6
2-methylheptane	<0.1	<0.1	
3-methylheptane	<0.1	<0.1	
n-octane	<0.1	<0.1	<0.1-0.3
ethylbenzene	<0.1	<0.1	0.1-0.2
m+p-xylenes	0.1	<0.1	0.1-0.2
styrene	<0.1	<0.1	<0.1-0.2
o-xylene	<0.1	<0.1	0.1-0.2
n-nonane	<0.1	<0.1	<0.1-0.1
isopropylbenzene	<0.1	<0.1	
n-propylbenzene	<0.1	0.3	
m-ethyltoluene	<0.1	<0.1	
p-ethyltoluene	<0.1	<0.1	
1,3,5-trimethylbenzene	<0.1	<0.1	
o-ethyltoluene	N.D.	N.D.	
1,2,4-trimethylbenzene	<0.1	<0.1	
n-decane	<0.1	<0.1	<0.1-0.1
1,2,3-trimethylbenzene	<0.1	<0.1	
m-diethylbenzene	<0.1	<0.1	
p-diethylbenzene	<0.1	<0.1	
n-undecane	<0.1	<0.1	<0.1
n-dodecane	<0.1	<0.1	<0.1

NMOC = Non-Methane Organic Compounds

N.D. = Not Detected

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT  
SAMPLE ANALYSIS REQUEST**

DISTRICT  
 INVOICE  
 LAP AUD  
LABORATC

WO #: 1602909



TO: SCAQMD LAB:  OTHER:

SOURCE NAME: Southern California Gas Co. I.D. No. \_\_\_\_\_

Source Address: 12801 Tampa Ave City: Porter Ranch

Mailing Address: \_\_\_\_\_ City: \_\_\_\_\_ Zip: 91326

Contact Person: \_\_\_\_\_ Title: \_\_\_\_\_ Tel: \_\_\_\_\_

Analysis Requested by: Sumner Wilson Date: 1/27/16

Approved by: Jason Low Office: \_\_\_\_\_ Budget #: 44716

REASON REQUESTED: Court/Hearing Board  Permit Pending  Hazardous/Toxic Spill

Suspected Violation Rule(s) \_\_\_\_\_ Other

Sample Collected by: Robert Wimmer Date: 1/28/16 Time: 12:30

**REQUESTED ANALYSIS: PAMS analysis**

City/Location	Can#	Start day / time/ duration	Start vac	End vac
Highlands Community	54699	1-27-16 / 15:50 / 5 min	<-30	-3
Highlands Community	54663	1-27-16 / 16:28 / 5 min	<-30	-6
Highlands Community	E4229	1-27-16 / 17:07 / 5 min	<-30	-4
Highlands Community	E0151	1-27-16 / 17:43 / 5 min	<-30	-4
Highlands Community	54695	1-27-16 / 18:19 / 5 min	<-30	-1
Highlands Community	54618	1-27-16 / 18:56 / 5 min	-26	+1
Highlands Community	E4303	1-27-16 / 20:06 / 5 min	<-30	-2
Highlands Community	54604	1-27-16 / 20:42 / 5 min	<-30	-4

Relinquished by	Received by	Firm/Agency	Date	Time
R Wimmer	S Boddeker	Special Monitoring	1-28-16	1700
S Boddeker		SCAQMD Lab	1-29-16	0950

Remarks: Samples collected by passive sampling via the XonTech 912 triggered by the Thermo 55i NMHC.

Trigger is set to 35ppm

Highlands community pool parking lot. Address: 12378 High Glen Way, Northridge CA 91326 (across from 12377)