

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

MONITORING & ANALYSIS
REPORT OF LABORATORY ANALYSIS

TO: Cher Snyder
Assistant DEO
Engineering and Compliance

LABORATORY NO: 1604230

REFERENCE NO: GC7-117-116

SAMPLE DESCRIPTION:

Triggered Samples
Canister: 54130 E3734
54313 54619
54724 54680

DATE SAMPLED: 02/10/16

DATE RECEIVED: 02/11/16

DATE ANALYZED: 02/17/16

SAMPLE LOCATION:

Highlands Community
Pool Parking Lot

ANALYZED BY: Brian Sinajon


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: 3/24/16

Approved By: 
Rudy Eden, Sr. Manager
Laboratory Services Branch
(909) 396-2391

LAB NO: 1604230

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 | 02/10/16 | 02/10/16 | |
| Canister | 54130 | 54313 | |
| Sampling Location | Highlands Community | Highlands Community | Ambient Air |
| | Pool Parking Lot | Pool Parking Lot | |
| Total NMOC, ppbC | 2240 | 5280 | 100-700 ppbC |

| <u>Compound</u> | <u>Conc. (ppbv)</u> | <u>Conc. (ppbv)</u> | <u>Conc. (ppbv)</u> |
|------------------------|---------------------|---------------------|---------------------|
| ethylene | 0.3 | 0.3 | 0.7-4.1 |
| acetylene | 0.4 | 0.4 | |
| propane | 78 | 185 | 0.4-5.0 |
| propylene | 0.3 | 0.2 | 0.2-0.7 |
| isobutane | 9.6 | 23 | 0.2-0.9 |
| n-butane | 11 | 27 | 0.3-1.7 |
| 1-butene | 0.1 | <0.1 | 0.1-0.3 |
| trans-2-butene | <0.1 | <0.1 | |
| cis-2-butene | N.D. | N.D. | |
| isopentane | 5.2 | 8.7 | |
| 1-pentene | <0.1 | <0.1 | |
| n-pentane | 3.3 | 6.6 | 0.1-0.6 |
| isoprene | 0.4 | 0.2 | |
| trans-2-pentene | N.D. | N.D. | |
| cis-2-pentene | N.D. | N.D. | |
| 2,2-dimethylbutane | 0.1 | 0.2 | |
| cyclopentane | 0.2 | 0.5 | |
| 2,3-dimethylbutane | 0.1 | 0.3 | |
| 2-methylpentane | 0.7 | 1.5 | |
| 3-methylpentane | 0.4 | 0.8 | |
| 1-hexene | <0.1 | N.D. | <0.1-0.1 |
| n-hexane | 0.6 | 1.5 | 0.1-0.2 |
| methylcyclopentane | 0.6 | 1.4 | |
| 2,4-dimethylpentane | <0.1 | <0.1 | |
| benzene | 0.4 | 0.8 | 0.1-0.5 |
| cyclohexane | 0.5 | 1.3 | |
| 2-methylhexane | 0.2 | 0.3 | |
| 2,3-dimethylpentane | <0.1 | 0.1 | |
| 3-methylhexane | 0.2 | 0.4 | |
| 2,2,4-trimethylpentane | 0.2 | 0.3 | |
| n-heptane | 0.2 | 0.5 | 0.1-0.2 |
| methylcyclohexane | 0.6 | 1.5 | |

LAB NO: 1604230

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 | 02/10/16 | 02/10/16 | |
| Canister | 54130 | 54313 | |
| Sampling Location | Highlands Community | Highlands Community | Ambient Air |
| | Pool Parking Lot | Pool Parking Lot | |
| Total NMOC, ppbC | 2240 | 5280 | 100-700 ppbC |
| <u>Compound</u> | <u>Conc. (ppbv)</u> | <u>Conc. (ppbv)</u> | <u>Conc. (ppbv)</u> |
| 2,3,4-trimethylpentane | <0.1 | <0.1 | |
| toluene | 0.8 | 1.2 | 0.1-0.6 |
| 2-methylheptane | <0.1 | 0.1 | |
| 3-methylheptane | <0.1 | <0.1 | |
| n-octane | 0.1 | 0.3 | <0.1-0.3 |
| ethylbenzene | <0.1 | <0.1 | 0.1-0.2 |
| m+p-xylenes | 0.1 | 0.3 | 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 | N.D. | <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 | N.D. | N.D. | |
| p-diethylbenzene | N.D. | N.D. | |
| n-undecane | <0.1 | <0.1 | <0.1 |
| n-dodecane | N.D. | N.D. | <0.1 |

NMOC = Non-Methane Organic Compounds

N.D. = Not Detected

LAB NO: 1604230

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 | 02/10/16 | 02/10/16 | |
| Canister | 54724 | E3734 | |
| Sampling Location | Highlands Community | Highlands Community | Ambient Air |
| | Pool Parking Lot | Pool Parking Lot | |
| Total NMOC, ppbC | 3470 | 3760 | 100-700 ppbC |

| <u>Compound</u> | <u>Conc. (ppbv)</u> | <u>Conc. (ppbv)</u> | <u>Conc. (ppbv)</u> |
|------------------------|----------------------------|----------------------------|----------------------------|
| ethylene | 0.3 | 0.4 | 0.7-4.1 |
| acetylene | 0.3 | 0.5 | |
| propane | 121 | 131 | 0.4-5.0 |
| propylene | 0.1 | 0.2 | 0.2-0.7 |
| isobutane | 15 | 16 | 0.2-0.9 |
| n-butane | 18 | 20 | 0.3-1.7 |
| 1-butene | <0.1 | <0.1 | 0.1-0.3 |
| trans-2-butene | <0.1 | <0.1 | |
| cis-2-butene | N.D. | N.D. | |
| isopentane | 6.1 | 6.8 | |
| 1-pentene | <0.1 | <0.1 | |
| n-pentane | 4.9 | 7.8 | 0.1-0.6 |
| isoprene | 0.1 | 0.2 | |
| trans-2-pentene | N.D. | N.D. | |
| cis-2-pentene | N.D. | <0.1 | |
| 2,2-dimethylbutane | 0.2 | 0.2 | |
| cyclopentane | 0.3 | 0.4 | |
| 2,3-dimethylbutane | 0.2 | 0.2 | |
| 2-methylpentane | 1.0 | 1.1 | |
| 3-methylpentane | 0.5 | 0.7 | |
| 1-hexene | N.D. | N.D. | <0.1-0.1 |
| n-hexane | 1.0 | 1.1 | 0.1-0.2 |
| methylcyclopentane | 0.9 | 1.0 | |
| 2,4-dimethylpentane | <0.1 | <0.1 | |
| benzene | 0.5 | 0.6 | 0.1-0.5 |
| cyclohexane | 0.8 | 0.9 | |
| 2-methylhexane | 0.2 | 0.2 | |
| 2,3-dimethylpentane | <0.1 | 0.1 | |
| 3-methylhexane | 0.2 | 0.3 | |
| 2,2,4-trimethylpentane | 0.2 | 0.3 | |
| n-heptane | 0.3 | 0.4 | 0.1-0.2 |
| methylcyclohexane | 1.0 | 1.1 | |

LAB NO: 1604230

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 | 02/10/16 | 02/10/16 | |
| Canister | 54724 | E3734 | |
| Sampling Location | Highlands Community | Highlands Community | Ambient Air |
| | Pool Parking Lot | Pool Parking Lot | |
| Total NMOC, ppbC | 3470 | 3760 | 100-700 ppbC |

| <u>Compound</u> | <u>Conc. (ppbv)</u> | <u>Conc. (ppbv)</u> | <u>Conc. (ppbv)</u> |
|------------------------|----------------------------|----------------------------|----------------------------|
| 2,3,4-trimethylpentane | <0.1 | <0.1 | |
| toluene | 0.9 | 1.3 | 0.1-0.6 |
| 2-methylheptane | <0.1 | 0.1 | |
| 3-methylheptane | <0.1 | <0.1 | |
| n-octane | 0.2 | 0.2 | <0.1-0.3 |
| ethylbenzene | <0.1 | <0.1 | 0.1-0.2 |
| m+p-xylenes | 0.2 | 0.3 | 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 | N.D. | <0.1 | <0.1 |

NMOC = Non-Methane Organic Compounds

N.D. = Not Detected

LAB NO: 1604230

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 | 02/10/16 | 02/10/16 | |
| Canister | 54619 | 54680 | |
| Sampling Location | Highlands Community | Highlands Community | Ambient Air |
| | Pool Parking Lot | Pool Parking Lot | |
| Total NMOC, ppbC | 13400 | 7070 | 100-700 ppbC |

| <u>Compound</u> | <u>Conc. (ppbv)</u> | <u>Conc. (ppbv)</u> | <u>Conc. (ppbv)</u> |
|------------------------|---------------------|---------------------|---------------------|
| ethylene | 0.3 | 0.2 | 0.7-4.1 |
| acetylene | 0.4 | 0.4 | |
| propane | 458 | 248 | 0.4-5.0 |
| propylene | 0.2 | 0.1 | 0.2-0.7 |
| isobutane | 57 | 30 | 0.2-0.9 |
| n-butane | 68 | 36 | 0.3-1.7 |
| 1-butene | <0.1 | <0.1 | 0.1-0.3 |
| trans-2-butene | <0.1 | <0.1 | |
| cis-2-butene | N.D. | N.D. | |
| isopentane | 21 | 12 | |
| 1-pentene | <0.1 | <0.1 | |
| n-pentane | 20 | 13 | 0.1-0.6 |
| isoprene | <0.1 | <0.1 | |
| trans-2-pentene | N.D. | N.D. | |
| cis-2-pentene | <0.1 | <0.1 | |
| 2,2-dimethylbutane | 0.5 | 0.3 | |
| cyclopentane | 1.3 | 0.7 | |
| 2,3-dimethylbutane | 0.7 | 0.4 | |
| 2-methylpentane | 3.5 | 1.9 | |
| 3-methylpentane | 2.1 | 1.1 | |
| 1-hexene | N.D. | N.D. | <0.1-0.1 |
| n-hexane | 3.7 | 2.0 | 0.1-0.2 |
| methylcyclopentane | 3.4 | 1.9 | |
| 2,4-dimethylpentane | 0.2 | 0.1 | |
| benzene | 2.0 | 1.1 | 0.1-0.5 |
| cyclohexane | 3.3 | 1.8 | |
| 2-methylhexane | 0.7 | 0.4 | |
| 2,3-dimethylpentane | 0.3 | 0.2 | |
| 3-methylhexane | 0.8 | 0.5 | |
| 2,2,4-trimethylpentane | 0.8 | 0.4 | |
| n-heptane | 1.3 | 0.7 | 0.1-0.2 |
| methylcyclohexane | 3.9 | 2.1 | |

LAB NO: 1604230

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 | 02/10/16 | 02/10/16 | |
| Canister | 54619 | 54680 | |
| Sampling Location | Highlands Community | Highlands Community | Ambient Air |
| | Pool Parking Lot | Pool Parking Lot | |
| Total NMOC, ppbC | 13400 | 7070 | 100-700 ppbC |
| <u>Compound</u> | <u>Conc. (ppbv)</u> | <u>Conc. (ppbv)</u> | <u>Conc. (ppbv)</u> |
| 2,3,4-trimethylpentane | <0.1 | <0.1 | |
| toluene | 2.9 | 1.8 | 0.1-0.6 |
| 2-methylheptane | 0.3 | 0.2 | |
| 3-methylheptane | 0.2 | 0.1 | |
| n-octane | 0.7 | 0.4 | <0.1-0.3 |
| ethylbenzene | 0.2 | 0.1 | 0.1-0.2 |
| m+p-xylenes | 1.0 | 0.5 | 0.1-0.2 |
| styrene | 0.1 | <0.1 | <0.1-0.2 |
| o-xylene | 0.2 | 0.1 | 0.1-0.2 |
| n-nonane | 0.3 | 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

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

DISTRICT
 INVOICE
 LAP AU
LABORAT

WO #: 1604230



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: 2/11/16
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: R. Wimmer/Q. Zhou Date: 2/11/16 Time: 10:25

REQUESTED ANALYSIS: PAMS analysis

| City/Location | Can# | Start day / time/ duration | Start vac | End vac |
|---------------------|-------|----------------------------|-----------|---------|
| Highlands Community | 54130 | 2-10-16 / 15:54 / 5 min | -30" | 0 |
| Highlands Community | 54313 | 2-10-16 / 16:36 / 5 min | -30" | -4" |
| Highlands Community | 54724 | 2-10-16 / 17:12 / 5 min | -30" | -3" |
| Highlands Community | E3734 | 2-10-16 / 17:59 / 5 min | -30" | -5" |
| Highlands Community | 54619 | 2-10-16 / 18:35 / 5 min | -30" | 0 |
| Highlands Community | 54680 | 2-10-16 / 19:18 / 5 min | -30" | -3" |

| Relinquished by | Received by | Firm/Agency | Date | Time |
|------------------|------------------------|-------------|---------|-------|
| <i>zhongjian</i> | <i>John McLaughlin</i> | SCAQMD Lab | 2/11/16 | 13:40 |
| | | | | |
| | | | | |

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)