

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: 1601217

REFERENCE NO: GC6-3-70

SAMPLE DESCRIPTION:

Canisters E4224
54502
E3360
54071

DATE SAMPLED: 1/7/16-1/8/16

DATE RECEIVED: 01/12/16

DATE ANALYZED: 01/13/16

SAMPLE LOCATION:

Highlands Community
Pool Parking Lot

ANALYZED BY: Yang Song

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: 1/15/16

Approved By: 

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

LAB NO: 1601217

Location: Highlands Pool

ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS AND RESULTS

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

| | | | |
|-------------------------|----------------|----------------|--------------------|
| Sample Date | 01/07/16 | 01/07/16 | |
| Canister | E4224 | 54502 | |
| Sampling Location | Highlands Pool | Highlands Pool | Ambient Air |
| Total NMOC, ppbC | 1590 | 1100 | 100-700 ppbC |

| Compound | Conc. (ppbv) | Conc. (ppbv) | Conc. (ppbv) |
|------------------------|---------------------|---------------------|---------------------|
| ethylene | 0.1 | 0.1 | 0.7-4.1 |
| acetylene | 0.3 | 0.3 | |
| propane | 44.0 | 29.5 | 0.4-5.0 |
| propylene | <0.1 | <0.1 | 0.2-0.7 |
| isobutane | 4.9 | 3.3 | 0.2-0.9 |
| n-butane | 5.5 | 3.8 | 0.3-1.7 |
| 1-butene | <0.1 | <0.1 | 0.1-0.3 |
| trans-2-butene | N.D. | N.D. | |
| cis-2-butene | <0.1 | <0.1 | |
| isopentane | 2.1 | 1.7 | |
| 1-pentene | <0.1 | N.D. | |
| n-pentane | 8.4 | 11.5 | 0.1-0.6 |
| isoprene | <0.1 | <0.1 | |
| trans-2-pentene | N.D. | N.D. | |
| cis-2-pentene | N.D. | <0.1 | |
| 2,2-dimethylbutane | <0.1 | <0.1 | |
| cyclopentane | 0.1 | <0.1 | |
| 2,3-dimethylbutane | <0.1 | <0.1 | |
| 2-methylpentane | 0.3 | 0.2 | |
| 3-methylpentane | 0.2 | 0.1 | |
| 1-hexene | <0.1 | N.D. | <0.1-0.1 |
| n-hexane | 0.4 | 0.3 | 0.1-0.2 |
| methylcyclopentane | 0.3 | 0.2 | |
| 2,4-dimethylpentane | <0.1 | <0.1 | |
| benzene | 0.2 | 0.2 | 0.1-0.5 |
| cyclohexane | 0.3 | 0.2 | |
| 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 | 0.1 | 0.1-0.2 |
| methylcyclohexane | 0.3 | 0.2 | |
| 2,3,4-trimethylpentane | <0.1 | <0.1 | |
| toluene | 0.9 | 1.2 | 0.1-0.6 |
| 2-methylheptane | <0.1 | <0.1 | |

LAB NO: 1601217

Location: Highlands Pool

ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS AND RESULTS

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

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|-------------------------|----------------------------|----------------------------|----------------------------|
| Sample Date | 01/07/16 | 01/07/16 | |
| Canister | E4224 | 54502 | |
| Sampling Location | Highlands Pool | Highlands Pool | Ambient Air |
| Total NMOC, ppbC | 1590 | 1100 | 100-700 ppbC |
| <u>Compound</u> | <u>Conc. (ppbv)</u> | <u>Conc. (ppbv)</u> | <u>Conc. (ppbv)</u> |
| 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 | N.D. | |
| m-ethyltoluene | <0.1 | <0.1 | |
| p-ethyltoluene | <0.1 | <0.1 | |
| 1,3,5-trimethylbenzene | <0.1 | <0.1 | |
| o-ethyltoluene | <0.1 | 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

LAB NO: 1601217

Location: Highlands Pool

ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS AND RESULTS

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

| | | | |
|-------------------------|----------------|----------------|--------------------|
| Sample Date | 01/08/16 | 01/08/16 | |
| Canister | E3360 | 54071 | |
| Sampling Location | Highlands Pool | Highlands Pool | Ambient Air |
| Total NMOC, ppbC | 194 | 1250 | 100-700 ppbC |

| <u>Compound</u> | <u>Conc. (ppbv)</u> | <u>Conc. (ppbv)</u> | <u>Conc. (ppbv)</u> |
|------------------------|----------------------------|----------------------------|----------------------------|
| ethylene | <0.1 | 0.2 | 0.7-4.1 |
| acetylene | 0.2 | 0.5 | |
| propane | 4.3 | 33.8 | 0.4-5.0 |
| propylene | <0.1 | <0.1 | 0.2-0.7 |
| isobutane | 0.5 | 3.8 | 0.2-0.9 |
| n-butane | 0.6 | 4.3 | 0.3-1.7 |
| 1-butene | <0.1 | <0.1 | 0.1-0.3 |
| trans-2-butene | <0.1 | N.D. | |
| cis-2-butene | N.D. | N.D. | |
| isopentane | 0.5 | 2.2 | |
| 1-pentene | <0.1 | <0.1 | |
| n-pentane | 5.1 | 11.8 | 0.1-0.6 |
| isoprene | <0.1 | <0.1 | |
| trans-2-pentene | N.D. | <0.1 | |
| 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 | <0.1 | 0.3 | |
| 3-methylpentane | <0.1 | 0.2 | |
| 1-hexene | <0.1 | <0.1 | <0.1-0.1 |
| n-hexane | <0.1 | 0.3 | 0.1-0.2 |
| methylcyclopentane | <0.1 | 0.3 | |
| 2,4-dimethylpentane | <0.1 | <0.1 | |
| benzene | <0.1 | 0.2 | 0.1-0.5 |
| cyclohexane | <0.1 | 0.2 | |
| 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 | 0.1 | 0.1-0.2 |
| methylcyclohexane | <0.1 | 0.3 | |
| 2,3,4-trimethylpentane | <0.1 | <0.1 | |
| toluene | 0.5 | 1.3 | 0.1-0.6 |
| 2-methylheptane | <0.1 | <0.1 | |

LAB NO: 1601217

Location: Highlands Pool

ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS AND RESULTS

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Flame Ionization Detection (FID)

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|-------------------------|----------------|----------------|--------------------|
| Sample Date | 01/08/16 | 01/08/16 | |
| Canister | E3360 | 54071 | |
| Sampling Location | Highlands Pool | Highlands Pool | Ambient Air |
| Total NMOC, ppbC | 194 | 1250 | 100-700 ppbC |

| <u>Compound</u> | <u>Conc. (ppbv)</u> | <u>Conc. (ppbv)</u> | <u>Conc. (ppbv)</u> |
|------------------------|----------------------------|----------------------------|----------------------------|
| 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 | N.D. | <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 | N.D. | <0.1 | |
| n-decane | N.D. | <0.1 | <0.1-0.1 |
| 1,2,3-trimethylbenzene | <0.1 | <0.1 | |
| m-diethylbenzene | N.D. | <0.1 | |
| p-diethylbenzene | <0.1 | <0.1 | |
| n-undecane | <0.1 | <0.1 | <0.1 |
| n-dodecane | N.D. | <0.1 | <0.1 |

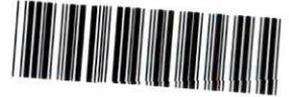
NMOC = Non-Methane Organic Compounds

N.D. = Not Detected

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

DISTRICT
 INVOICE
 LAP A
LABOR

WO #: 1601217



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: 12/31/15 *1-8-16 SW*
 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: Sumner Wilson Date: 1/8/16 Time: 12:30

REQUESTED ANALYSIS: PAMS analysis

| City/Location | Can# | Start day / time/ duration | Start vac | End vac |
|---------------------|-------|----------------------------|-----------|---------|
| Highlands Community | E4224 | 1-7-16/1855/5 min | -30 | -2 |
| Highlands Community | 54502 | 1-7-16/1939/5 min | -30 | -2 |
| Highlands Community | E3360 | 1-8-16/0002/5 min | -30 | -2 |
| Highlands Community | 54071 | 1-8-16/0037/5 min | -30 | 0 |
| | | | | |

| Relinquished by | Received by | Firm/Agency | Date | Time |
|-------------------------|-------------|-------------|---------|-------|
| Sumner Wilson <i>SW</i> | <i>JL</i> | SCAQMD Lab | 1/12/16 | 16:22 |
| | | | | |
| | | | | |

Remarks: Samples collected by passive sampling via the XonTech 912 triggered by the Thermo 55i NMHC.
 Trigger is set to 20ppm
 Highlands community pool parking lot. Address: 12378 High Glen Way, Northridge CA 91326 (across from 12377)