Appendix F

Hazards and Hazardous Materials Reports

APPENDIX F-1

PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT

PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT

General Aviation Improvement Program Areas

John Wayne Airport

Costa Mesa, California

Prepared for:

John Wayne Airport
3160 Airway Avenue
Costa Mesa, California 92626

Prepared by:

Amec Foster Wheeler Environment & Infrastructure, Inc.
121 Innovation Drive, Suite 200
Irvine, California 92617-3094
(949) 642-0245

December 14, 2016

Project No. IR13164420

PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT
General Aviation Improvement Program Areas
John Wayne Airport
Costa Mesa, California

December 14, 2016
Project IR13164420

This report was prepared by the staff of Amec Foster Wheeler Environment & Infrastructure, Inc., under the supervision of the Engineer(s) and/or Geologist(s) whose seal(s) and signature(s) appear hereon.

The findings, recommendations, specifications, or professional opinions are presented within the limits described by the client, in accordance with generally accepted professional engineering and geologic practice. No warranty is expressed or implied.

Rachel A. Mills, PG
Technical Professional III - Geology

Duane G. Paul, PG, CHG
Senior Associate Hydrogeologist

TABLE OF CONTENTS

TABLES

FIGURES

TABLE OF CONTENTS
(Continued)

APPENDIXES

LIST OF ACRONYMS

Amec Foster Wheeler	Amec Foster Wheeler Environment & Infrastructure, Inc.
ASTM	American Society for Testing and Materials
County	County of Orange
1,1-DCE	1,1-dichloroethene
DOT	California Department of Transportation
DTSC	California Department of Toxic Substances Control
ELAP	California Environmental Laboratory Accreditation Program
EPA	United States Environmental Protection Agency
ESLs	Environmental Screening Levels
ESA	environmental site assessment
FBOs	fixed base operators
GAIP	General Aviation Improvement Program
InterPhase	InterPhase Environmental, Inc.
JWA	John Wayne Airport
µg/kg	micrograms per kilogram
µg/L	micrograms per liter
mg/kg	milligrams per kilogram
ppmv	parts per million by volume
PCE	tetrachloroethene
PID	photoionization detector
RLs	reporting limits
RSLs	Regional Screening Levels
RWQCB	California Regional Water Quality Control Board
site	John Wayne Airport, Orange County, California
TCE	trichloroethene
TPH	total petroleum hydrocarbons
USCS	Unified Soil Classification System
VOCs	volatile organic compounds

PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT
General Aviation Improvement Program (GAIP) Areas
John Wayne Airport
Costa Mesa, California

1.0 INTRODUCTION

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) conducted a Phase II Environmental Site Assessment (ESA) to assess shallow subsurface conditions in planned General Aviation Improved Program (GAIP) development/redevelopment areas at John Wayne Airport (JWA) in Orange County, California (the site; Figure 1). As shown on Figure 1, these areas include hangar and tie down areas operated by the County of Orange (County) and tenant leasehold and fixed based operators including Signature (East and West), Executive Hangar, South Coast Hangar, and Atlantic Aviation.

1.1 PURPOSE

The purpose of the Phase II ESA was to evaluate potential impacts to soil and soil vapor in the FBO areas for general planning purposes before implementation of GAIP development/redevelopment activities at the site. The information obtained will also provide a baseline of environmental data for future tenant operations in these areas. The Phase II ESA was conducted in accordance with the terms and conditions of our agreement with JWA Authority (280-280-1900-ENV2) and under JWA's authorization for this work (Task Order 3F-05) dated July 1, 2016.

1.2 SCOPE OF WORK

The scope of work included:

- marking and conducting a geophysical survey to clear 54 planned hand auger drilling locations in the proposed FBO East and FBO West development/redevelopment areas;
- completing hand auger drilling and soil sampling to a depth of approximately 6 feet at each location to assess lithologic conditions and evaluate potential impacts to soil; and
- installing and sampling 53 soil vapor probes to evaluate potential impacts to shallow soil vapor beneath the site.

Soil samples were collected from a depth of approximately 2 feet at each location and were submitted for laboratory analysis of volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH), and Title 22 Metals. Soil vapor probes were placed at depth between

approximately 5 and 6 feet below ground surface and soil vapor samples were collected and submitted for laboratory analysis of VOCs and TPH.

On the east side of the airfield, nine of the shallow soil and soil vapor sampling borings (SB1 through SB5, SB7, SB12, SB36, and SB38) were placed in the Signature East facility leasehold (Figure 2). Ten of the borings (SB6, SB8 through SB11, and SB13 through SB17) were located in the Executive Hangar facility leasehold area (Figure 3). Two borings (SB18 and SB19) were located in the South Coast Hangar leasehold area (Figure 3). Five of the borings (SB20 through SB24) were located in an area that is operated by the County (Figure 3). The remaining 13 borings on the eastern side of the airfield (SB25 through SB35, SB37, and SB39) were located in the Atlantic Aviation leasehold area (Figure 4).

On the west side of the airfield, five borings were located in an area leased by Signature (SB49 through SB53) (Figure 5). The remaining 10 borings were located in the area maintained and operated by the County (SB40 through SB48, and SB54) (Figure 5).

The borehole utility clearance was conducted on August 17, 2016. The hand auger drilling, soil sampling, and soil vapor probe installation and sampling program was completed between August 22 and August 31, 2016.

1.3 DEVIATIONS FROM PLANNED SCOPE OF WORK

Deviations from the planned scope of work included encountering refusal at one location (SB52) due to what appeared to be an irrigation line located at a depth of approximately 2.5 feet. A vapor probe was not installed at that location. With the exception of the vapor probe installation and soil vapor sampling at SB52, the site assessment activities were conducted in accordance with the scope of work presented in Task Order 3F-05.

2.0 BACKGROUND

The site is situated at an elevation of approximately 50 feet above mean sea level and is relatively flat-lying. Numerous environmental assessments have been conducted at JWA and have included collection of soil, soil vapor, and groundwater data. This information was summarized and presented on a plan view drawing of JWA and its immediate vicinity titled "Previous Assessment Summary" prepared by Amec Foster Wheeler and dated April 12, 2016.

The proposed GAIP includes the demolition and new construction of selected hangars and buildings in the FBO areas located on the east and west sides of the airfield at JWA. Based on summarized data provided in the "Previous Assessment Summary" and our review of the proposed new building footprints, demolition areas, and replacement of hangars provided by

JWA, Amec Foster Wheeler placed the boring locations to spatially distribute the sampling data within and outside the footprint of potential future buildings and general operation areas.

3.0 METHODS OF INVESTIGATION

The investigative methods implemented to complete the Phase II ESA are described below.

3.1 PRE-FIELD ACTIVITIES

The following pre-field activities were performed before implementing the field program:

- Prepared a site-specific health and safety plan.
- Notified Underground Service Alert of the planned drilling work.
- Retained Subsurface Surveys, Inc. of Carlsbad, California to conduct a geophysical survey and utility clearance at the planned drilling locations. The geophysical survey report is included in Appendix A.
- Retained and coordinated with subcontractors for the drilling, soil vapor sampling, and laboratory analyses.

Permitting for the soil boring and vapor probe installation work was not required by the OCHCA because the borings were less than 50 feet deep and did not encounter groundwater.

3.2 SOIL BORING, SOIL SAMPLING, SOIL VAPOR PROBE INSTALLATION, AND SAMPLING AND ANALYSES

Amec Foster Wheeler subcontracted InterPhase Environmental, Inc. (InterPhase) to advance 53 borings to a total depth of approximately 6 feet and install temporary soil vapor probes at the locations shown on Figures 2 through 5. As noted in Section 1.3, we planned to complete 54 borings as temporary soil vapor probes; however, one boring could not be advanced past a depth of 2.5 feet because of refusal on what appeared to be an irrigation pipe.

Hand augering, soil sampling, and soil vapor probe installation were performed on August 22 through 26, 2016. Soil vapor sampling was performed August 29 through 31, 2016. At each location, the concrete or asphalt surface material was cored with a concrete coring machine and then the boring was advanced with a hand auger. A soil sample was collected at a depth of approximately 2 feet at each location using a slide hammer lined with a 6-inch long brass sleeve to collect and contain the soil sample for laboratory analysis. The soil samples were submitted for laboratory analysis of VOCs and oxygenates using United States Environmental Protection Agency (EPA) Method 8260B, TPH (carbon chain speciation) using EPA Method 8015 Modified, and Title 22 Metals using EPA Method 6010B/7471A. Soil was also collected in resealable plastic bags for the purposes of describing lithology and photoionization detector (PID) screening for VOCs.

The soil samples were prepared for laboratory analysis by sealing each end of the sample with Teflon sheeting and plastic end caps. The soil samples were labeled, placed in resealable plastic bags, placed in an ice-chilled sample cooler, and transported under chain-of-custody to Eurofins Calscience, Inc., a California State Environmental Laboratory Accreditation Program (California ELAP)-accredited laboratory located in Garden Grove, California. Copies of the laboratory reports and chain-of-custody records are included in Appendix B.

The soil cores were logged by a California-licensed Professional Geologist following the visual-manual procedures of American Society for Testing and Materials (ASTM) International Standard D2488 for guidance; these procedures are based on the Unified Soil Classification System (USCS). Color, moisture content, grain size, and other pertinent soil characteristics were recorded on boring logs. Soil was screened in the field for the potential presence of VOCs using a PID. Copies of the soil boring logs, which include details for the soil vapor probes, are included in Appendix C.

At 53 of the boring locations, a temporary soil vapor probe was installed between a depth of approximately 5 and 6 feet after the boring was advanced to the target depth of 6 feet. The planned depth for the top of each soil vapor probe was approximately 5 feet. Each probe consisted of ¼-inch diameter Teflon™ tubing connected to a 6-inch long porous filter tip. A filter pack of #3 Monterey sand was placed from approximately six inches below to approximately six inches above the mid-point of the probe filter tip. After setting each probe and placing the filter sand, the annular space between the tubing and the boring sidewall was backfilled with dry granular bentonite to a level approximately one foot above the top of the filter pack. The annular space above the dry bentonite was filled to ground surface with granular bentonite that was hydrated in place with potable water in approximate 1-foot lifts to provide a seal.

InterPhase subcontracted A&R Laboratories to provide an on-site mobile laboratory and technician to collect and analyze a soil vapor sample from each probe for VOCs using EPA Method 8260B and for TPH using EPA Method 8015M (carbon chain range C4-C16). Soil vapor sampling was conducted in general accordance with the Department of Toxic Substances Control/Regional Water Quality Control Board (DTSC/RWQCB) “Advisory – Active Soil Gas Investigations” dated July 2015. The volume of the tubing, probe filter tip, glass syringe, and dry annular space in the sand pack was calculated and three purge volumes were removed and a soil vapor sample was collected and analyzed. A pre-cleaned 50 milliliter gas-tight glass syringe was used to collect each sample. Before purging, a cloth soaked with isopropanol was placed at the soil vapor sampling point to serve as a leak check compound to evaluate the integrity of the annular seal and connections between the sampling point and

glass sample syringe. All soil vapor samples were collected after three purge volumes were removed from the soil vapor probes.

Following soil gas sampling, the Teflon™ tubing and vapor probe were removed from the boring and the remaining voids were backfilled with bentonite that was hydrated in place in approximate one foot lifts. The surface at these locations were capped with concrete dyed black to match the existing surface.

The hand auger equipment was cleaned before its initial use. The reusable downhole soil sampling equipment was cleaned between soil sample intervals with Alconox wash water and double-rinsed with purified water.

The decontamination water and soil cuttings from borehole drilling were placed in separate 55-gallon Department of Transportation (DOT)-approved drums. Five drums of soil and one drum of decon water were accumulated during the field program. Each drum was labeled with a description of the content, date generated, and contact information. The drums were temporarily stored adjacent to the waste lockers near the southern Biffy dump pending receipt of the soil sampling results. After receiving and reviewing the analytical results, and as indicated by JWA staff, the water was disposed of into the Biffy Dump and soil was spread on the vacant lot between the commercial fuel farm and Fire Station #33 on the west side of the airfield.

4.0 FINDINGS

The findings of the Phase II ESA field program are described below.

4.1 GEOPHYSICAL SURVEY

On August 17, 2016, Subsurface Surveys conducted a geophysical survey and utility clearance at the planned drilling locations using a combination of electromagnetic induction, magnetometry, and ground penetrating radar methods, and utility locating equipment with line tracing capabilities. As subsurface features (i.e. common or expected features based on utility drawings and/or surface indicators) were identified during the geophysical survey, they were marked with paint. No anomalies (i.e. unusual or unexplainable features) were identified during the geophysical survey. The methods, findings, and limitations of the geophysical survey were summarized by Subsurface Surveys in a report included in Appendix A.

4.2 SITE GEOLOGY AND HYDROGEOLOGY

Geologic materials encountered at the site consist of interbedded and relatively fine-grained sediments including silty sand and sandy silt underlying the pavement materials to a depth of approximately 6 feet.

During hand augering and sampling, visual or olfactory indicators of petroleum hydrocarbons or VOCs were not observed in the soils encountered in any of the borings. PID measurements, which were collected at depths between approximately 1 and 3 feet and between 5 and 6 feet at each location, were relatively low (less than 3 parts per million by volume [ppmv]), with the exception of PID measurements from the shallow soils at SB1, SB17, SB20, and SB38, which ranged from 7.5 ppmv at SB20 to 43.7 ppmv at SB38. The PID measurements were recorded on the soil boring logs, which are provided in Appendix C.

Groundwater was not encountered during hand augering. Based on water level measurements obtained from monitoring wells at the nearby Old Fuel Farm area, groundwater occurs at a depth of approximately 30 to 32 feet, and shallow groundwater beneath the site flows toward the west northwest.

4.3 ANALYTICAL RESULTS FOR SOIL SAMPLES

The analytical results for TPH, VOCs, and metals in soil samples collected during the field program are summarized below.

4.3.1 TPH

The reported TPH concentrations in soil samples are presented in Table 1 and summarized below.

- TPH in the carbon range C6-C18 was not detected at or above the respective reporting limit concentrations in any of the 54 soil samples collected.
- TPH in the carbon chain range C19-C20 was detected in samples from two of the borings, at concentrations ranging from 5.1 to 18 milligrams per kilogram (mg/kg). The highest concentration of C19-C20 was detected in the sample collected from SB17.
- TPH in the carbon chain range C21-C22 was detected in samples from three of the borings, at concentrations ranging from 8.3 to 13 mg/kg. The highest concentration of C21-C22 was detected in the sample collected from SB17.
- TPH in the carbon chain range C23-C24 was detected in five soil samples and ranged in concentration from 5.6 to 39 mg/kg. The highest concentration of C23-C24 was detected in the soil sample collected from SB12.
- TPH in the carbon chain range C25-C28 was detected in eight soil samples and ranged in concentration from 7.9 to 440 mg/kg. The highest concentration of C25-C28 was detected in the soil sample collected from SB1.
- TPH in the carbon chain range C29-C32 was detected in 19 soil samples and ranged in concentration from 5.0 to 1,000 mg/kg. The highest concentration of C29-C32 was detected in the soil sample collected from SB1.

- TPH in the carbon chain range C33-C36 was detected in 22 soil samples and ranged in concentration from 6.4 to 1,800 mg/kg. The highest concentration of C33-C36 was detected in the soil sample collected from SB1.

- TPH in the carbon chain range C37-C40 was detected in 20 soil samples and ranged in concentration from 6.0 to 1,100 mg/kg. The highest concentration of C37-C40 was detected in the soil sample collected from SB1.

- TPH in the carbon chain range C41-C44 was detected in seven soil samples and ranged in concentration from 6.7 to 840 mg/kg. The highest concentration of C41-C44 was detected in the soil sample collected from SB1.

The reported TPH concentrations were compared to environmental screening levels (ESLs) published by the San Francisco Bay RWQCB for direct exposure to soils containing TPH constituents (gasoline, diesel fuel, and motor oil) under the commercial/industrial construction worker exposure scenario. Where detected, the TPH concentrations in soil samples collected and analyzed from SB1 through SB54 are two or more orders of magnitude lower than the published ESL values for TPH for the commercial/industrial construction worker exposure scenario (Table 1).

4.3.2 VOCs

The reported VOC concentrations in soil samples are presented in Table 2 and summarized below:

- Tetrachloroethene (PCE) was detected in one soil sample collected from SB5 at a concentration of 3.4 micrograms per kilogram (µg/kg).

- Toluene was detected in one soil sample collected from SB20 at a concentration of 1.1 µg/kg.

- 2-Butanone was detected in one soil sample collected from SB28 at a concentration of 71 µg/kg.

- Acetone was detected in 12 of the soil samples ranging in concentration from 46 to 83 µg/kg. The highest detection of acetone was detected in the soil sample collected from SB20. Acetone is a common laboratory contaminant.

As listed in Table 2, the reported VOC concentrations in soil were compared to industrial screening levels for VOCs as listed in the U.S. EPA Region 9 Table (also known as Regional Screening Levels [RSLs]) updated May 2016 (U.S. EPA, May 2016), and alternative recommended soil vapor screening values in accordance with DTSC Human Health Risk Assessment Note #3 (DTSC, June 2016). Where detected, the VOCs concentrations reported

in soil were below their respective industrial RSLs and/or DTSC alternate risk-based screening values (Table 2).

4.3.3 Metals

The reported metals concentrations in soil samples are presented in Table 3. Various metals were detected above the laboratory reporting limits (RLs) in each of the soil samples collected at the site. The reported metals concentrations were compared to their respective RSLs for industrial soils (Table 3).

With the exception of arsenic, the detected metals concentrations did not exceed their respective RSLs as summarized below. Arsenic was detected in most of the soil samples submitted for analysis at concentrations ranging between 1.17 and 8.96 mg/kg. The highest concentration was detected in SB31 at 2 feet bgs, which is above the industrial RSL of 3 mg/kg. However, this risk-based screening level for arsenic and the reported concentrations are less than the regional background concentration established by DTSC for southern California soils of 12 mg/kg (DTSC, 2009).

4.4 Analytical Results for Soil Vapor Samples

The analytical results for TPH and VOCs in soil samples collected during the field program are presented in Table 4 and are summarized below.

4.4.1 TPH

The TPH in the carbon range C6-C14 was not detected at or above the laboratory reporting limit concentration in any of the soil vapor samples collected.

4.4.2 VOCs

The reported VOC concentrations in soil vapor samples are presented in Table 4. In summary, VOCs were detected in seven of the 53 primary soil vapor samples. As presented in Table 4, the reported VOCs concentrations were compared to RSLs for soil vapor as listed in the EPA Region 9 Composite Worker Ambient Air Table (U.S. EPA, May 2016), and alternative recommended soil vapor screening values in accordance with DTSC Human Health Risk Assessment Note #3 (DTSC, July 2016). The reported detections of VOCs in the soil vapor samples are presented and compared to their respective RSL values below:

- 1,1-Dichloroethene (1,1-DCE) was detected in two soil samples collected from SB49 and SB54 at concentrations of 0.17 and 0.14 micrograms per liter (µg/L), respectively. The detected concentrations of 1,1-DCE were below the DTSC alternate screening value of 310 µg/L.

- PCE was detected in five soil vapor samples with concentrations ranging from 0.050J to 0.45 µg/L. The detected concentrations of PCE were below the DTSC alternate screening value of 2.1 µg/L.

- Trichloroethene (TCE) was detected in one soil sample collected from SB49 at a concentration of 0.24 µg/L. The detected concentration of TCE was below the industrial RSL of 3.0 µg/L.

- Toluene was detected in one sample collected from SB13 at a concentration of 0.060J µg/L. The detected concentration of toluene was below the DTSC alternate screening value of 1,300 µg/L.

5.0 SUMMARY

No significant impacts to soil or soil vapor were observed during field work or detected by laboratory analyses of samples from borings SB1 through SB54 drilled and sampled for the proposed GAIP area at JWA.

TPH concentrations in the carbon chain range C19-C44 were reported in 26 of 54 soil samples. However, all reported TPH concentrations were well below published ESL values for the commercial/industrial construction worker exposure scenario.

Relatively sporadic and low concentrations of VOCs were reported in soil samples collected and included acetone in 12 of the 54 soil samples at concentrations ranging from 46 to 83 µg/kg, one detection of PCE at a concentration of 3.4 µg/kg in SB5, one detection of toluene at a concentration of 1.1 mg/kg in SB20, and one detection of 2-butanone at a concentration of 71 mg/kg in SB28. Where detected, the VOCs concentrations reported in soil were below their respective industrial RSLs and/or DTSC alternate risk-based screening values.

Metals detected in soil samples were all below the RSL values except for arsenic, which was detected concentrations above the RSL of 3.0 mg/kg in 28 of 54 soil samples. However, both the reported concentrations and the risk-based RSL value are less than the regional background concentration of 12 mg/kg established by DTSC for southern California soils (DTSC, 2009). As such, the arsenic concentrations are not considered significant.

Similar to the soil sampling results, relatively sporadic and low concentrations of VOCs were reported in soil vapor samples and included: PCE detections in 5 soil vapor samples that ranged from 0.050J to 0.45 µg/L; 1,1-DCE in the soil vapor samples from SB49 and SB54 at concentrations of 0.17 and 0.14 µg/L, respectively; TCE at a concentration of 0.24 µg/l in the sample from SB49 ; and toluene at a concentration of the 0.060J in the sample SB13. Where detected, the VOCs concentrations reported in soil vapor were below their respective industrial RSLs and/or DTSC alternate risk-based screening values.

6.0 USER RELIANCE AND LIMITATIONS

The limited Phase II ESA has been completed for the use of JWA. No other person or organization shall rely upon any part of the report without the prior written consent of Amec Foster Wheeler. JWA may not release parts of the report but may release the whole report to third parties; however, in doing so, JWA shall indemnify and defend Amec Foster Wheeler from and against all claims arising out of or in conjunction with such use or reliance by a third party. Additionally, any third party in using this report agrees that it shall have no legal recourse against Amec Foster Wheeler.

This report is intended to provide Amec Foster Wheeler's interpretation of the data derived from samples collected for this project at specific locations and times. The findings presented herein do not constitute a warranty, guarantee, or positive assertion as to the presence, absence, or extent of hazardous materials at the site.

7.0 REFERENCES

Amec Foster Wheeler, 2016, Previous Assessment Summary, Plan View Figure prepared for John Wayne Airport, April 12.

ASTM, 2009. ASTM Standard, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure), ASTM International Standard Designation D 2488-09a, July.

Cal/EPA, DTSC, Los Angeles and San Francisco Regional Water Quality Control Boards, 2015, Advisory – Active Soil Gas Investigations, July.

Department of Toxic Substances Control (DTSC), 2011, Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance), California Environmental Protection Agency, October.

DTSC/Regional Water Quality Control Board, 2015, Advisory – Active Soil Gas Investigations, July.

DTSC, 2016, Human Health Risk Assessment Note 3: DTSC- modified Screening Levels (DTSC-SLs), June.

San Francisco Bay Regional Water Quality Control Board, 2016, Environmental Screening Levels, February.

U.S.EPA, 2016, Region 9, Regional Screening Levels for Chemical Contaminants at Superfund Sites (Industrial Table), May.

TABLES

TABLE 1

SUMMARY OF TOTAL PETROLEUM HYDROCARBONS IN SOIL
General Aviation Improvement Program (GAIP)
John Wayne Airport
Costa Mesa, California

Concentrations reported in milligrams per kilogram (mg/kg)

Sample Location	Depth (ft bgs)	Sample Date	EPA Method 8015B[1]															
			C6	C7	C8	C9-C10	C11-C12	C13-C14	C15-C16	C17-C18	C19-C20	C21-C22	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C41-C44	C6-C44 Total
SB1	2	8/22/2016	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	**440**	**1000**	**1800**	**1100**	**840**	**5300**
SB2	2	8/22/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	**7.9**	**20**	**58**	**58**	**83**	**46**	**280**
SB3	2	8/22/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB4	2	8/22/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	**5.1**	**8.8**	**9.6**	**19**	**43**	**38**	**53**	**29**	**210**
SB5	2	8/22/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB6	2	8/22/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB7	2	8/22/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	**7.3**	**6.7**	(ND <5.0)	(ND <5.0)	**27**
SB8	2	8/22/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB9	2	8/23/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB10	2	8/22/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB11	2	8/22/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB12	2	8/22/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	**8.3**	**7.0**	**39**	**92**	**110**	**96**	**59**	**410**
SB13	2	8/23/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	**6.4**	(ND <5.0)	(ND <5.0)	**14**
SB14	2	8/23/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	**6.1**	**10**	**9.2**	(ND <5.0)	**30**
SB15	2	8/23/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB16	2	8/23/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	**6.2**	**7.9**	(ND <5.0)	(ND <5.0)	**23**
SB17	2	8/23/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	**18**	**13**	**12**	**9.4**	**10**	**12**	**6.0**	(ND <5.0)	**81**
SB18	2	8/26/2016	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	**240**	**290**	**270**	(ND <120)	**970**
SB19	2	8/23/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB20	2	8/26/2016	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	(ND <120)	**200**	**310**	**220**	(ND <120)	**830**
SB21	2	8/23/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	**7.9**	**17**	**29**	**25**	**16**	**96**
SB22	2	8/23/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB23	2	8/23/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB24	2	8/23/2016	(ND <25)	(ND <25)	(ND <25)	(ND <25)	(ND <25)	(ND <25)	(ND <25)	(ND <25)	(ND <25)	(ND <25)	(ND <25)	(ND <25)	**52**	**81**	**61**	(ND <25)	**2200**
SB25	2	8/24/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB26	2	8/24/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	**13**	**17**	**9.9**	(ND <5.0)	**46**

TABLE 1

SUMMARY OF TOTAL PETROLEUM HYDROCARBONS IN SOIL
General Aviation Improvement Program (GAIP)
John Wayne Airport
Costa Mesa, California

Concentrations reported in milligrams per kilogram (mg/kg)

Sample Location	Depth (ft bgs)	Sample Date	EPA Method 8015B[1]															
			C6	C7	C8	C9-C10	C11-C12	C13-C14	C15-C16	C17-C18	C19-C20	C21-C22	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C41-C44	C6-C44 Total
SB27	2	8/24/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	**9.0**	(ND <5.0)	(ND <5.0)	**11**
SB28	2	8/24/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	**9.0**	**15**	**17**	(ND <5.0)	**45**
SB29	2	8/24/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB30	2	8/24/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB31	2	8/24/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	**6.6**	(ND <5.0)	**12**
SB32	3	8/26/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	**7.9**	**7.5**	(ND <5.0)	**22**
SB33	2	8/24/2016	(ND <25)	(ND <25)	(ND <25)	(ND <25)	(ND <25)	(ND <25)	(ND <25)	(ND <25)	(ND <25)	(ND <25)	(ND <25)	**42**	**95**	**180**	**230**	**64**	**640**
SB34	2	8/24/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	**5.6**	**11**	**28**	**59**	**79**	**6.7**	**190**
SB35	2	8/24/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB36	2	8/24/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB37	2	8/25/2016	(ND <5.1)	(ND <5.1)	(ND <5.1)	(ND <5.1)	(ND <5.1)	(ND <5.1)	(ND <5.1)	(ND <5.1)	(ND <5.1)	(ND <5.1)	(ND <5.1)	(ND <5.1)	(ND <5.1)	(ND <5.1)	(ND <5.1)	(ND <5.1)	(ND <5.0)
SB38	2	8/24/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	**5.8**	**12**	**15**	(ND <5.0)	**36**
SB39	2	8/24/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	**5.0**	**13**	**18**	(ND <5.0)	**38**
SB40	2	8/25/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	**11**
SB41	2	8/25/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB42	2	8/25/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB43	2	8/25/2016	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <5.0)
SB44	2	8/25/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	**7.6**	**15**	**7.7**	(ND <5.0)	**35**
SB45	2	8/25/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB46	2	8/25/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB47	2	8/25/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	**12**
SB48	2	8/25/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB49	2	8/25/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB50	2	8/25/2016	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <4.9)	(ND <5.0)
SB51	2	8/25/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB52	2	8/25/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)

TABLE 1

SUMMARY OF TOTAL PETROLEUM HYDROCARBONS IN SOIL
General Aviation Improvement Program (GAIP)
John Wayne Airport
Costa Mesa, California

Concentrations reported in milligrams per kilogram (mg/kg)

Sample Location	Depth (ft bgs)	Sample Date	EPA Method 8015B[1]															
			C6	C7	C8	C9-C10	C11-C12	C13-C14	C15-C16	C17-C18	C19-C20	C21-C22	C23-C24	C25-C28	C29-C32	C33-C36	C37-C40	C41-C44	C6-C44 Total
SB53	2	8/25/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)
SB54	2	8/26/2016	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	(ND <5.0)	**6.3**	(ND <5.0)	**8.2**

Approximate Carbon Chain Ranges for Fuel Hydrocarbons and Environmental Screening Levels for Soil

TPH gasoline	**C6-C12**
Com./Ind. Construction Worker ESL[2]	**2,800 mg/kg**
Jet Fuel	**C8-C18**
TPH diesel	**C10-C28**
Com./Ind. Construction Worker ESL[2]	**880 mg/kg**
TPH motor oil	**C20-C35**
Com./Ind. Construction Worker ESL[2]	**32,000 mg/kg**

Notes
1. All samples were analyzed for Total Petroleum Hydrocarbons (TPH) carbon chain range C6-C44 using United States Environmental Protection Agency (EPA) Method 8015B modifiec
2. Environmental screening level (ESL) concentrations for commercial/industrial construction worker exposure scenario (San Francisco Bay RWQCB, February 2016)

Abbreviations
ft bgs = feet below ground surface
ND = not detected at or above laboratory reporting limit shown in parentheses

TABLE 2

SUMMARY OF VOLATILE ORGANIC COMPOUNDS IN SOIL
General Aviation Improvement Program (GAIP)
John Wayne Airport
Costa Mesa, California

Concentrations in micrograms per kilogram (µg/kg)

Sample Location	Depth (ft bgs)	Sample Date	EPA Method 8260B[1]			
			Acetone	2-Butanone	PCE	Toluene
SB1	2	8/22/2016	ND	ND	ND	ND
SB2	2	8/22/2016	**72**	ND	ND	ND
SB3	2	8/22/2016	ND	ND	ND	ND
SB4	2	8/22/2016	ND	ND	ND	ND
SB5	2	8/22/2016	ND	ND	**3.4**	ND
SB6	2	8/22/2016	ND	ND	ND	ND
SB7	2	8/22/2016	ND	ND	ND	ND
SB8	2	8/22/2016	**56**	ND	ND	ND
SB9	2	8/23/2016	ND	ND	ND	ND
SB10	2	8/22/2016	ND	ND	ND	ND
SB11	2	8/22/2016	ND	ND	ND	ND
SB12	2	8/22/2016	ND	ND	ND	ND
SB13	2	8/23/2016	ND	ND	ND	ND
SB14	2	8/23/2016	ND	ND	ND	ND
SB15	2	8/23/2016	**46**	ND	ND	ND
SB16	2	8/23/2016	ND	ND	ND	ND
SB17	2	8/23/2016	ND	ND	ND	ND
SB18	2	8/26/2016	**65**	ND	ND	ND
SB19	2	8/23/2016	**50**	ND	ND	ND
SB20	2	8/26/2016	**83**	ND	ND	**1.1**
SB21	2	8/23/2016	ND	ND	ND	ND
SB22	2	8/23/2016	**65**	ND	ND	ND
SB23	2	8/23/2016	**53**	ND	ND	ND
SB24	2	8/23/2016	**54**	ND	ND	ND
SB25	2	8/24/2016	ND	ND	ND	ND
SB26	2	8/24/2016	ND	ND	ND	ND
SB27	2	8/24/2016	ND	ND	ND	ND
SB28	2	8/24/2016	ND	**71**	ND	ND
SB29	2	8/24/2016	ND	ND	ND	ND
SB30	2	8/24/2016	ND	ND	ND	ND
SB31	2	8/24/2016	ND	ND	ND	ND
SB32	3	8/26/2016	ND	ND	ND	ND
SB33	2	8/24/2016	ND	ND	ND	ND
SB34	2	8/24/2016	**54**	ND	ND	ND
SB35	2	8/24/2016	ND	ND	ND	ND
SB36	2	8/24/2016	ND	ND	ND	ND
SB37	2	8/25/2016	ND	ND	ND	ND

TABLE 2

SUMMARY OF VOLATILE ORGANIC COMPOUNDS IN SOIL
General Aviation Improvement Program (GAIP)
John Wayne Airport
Costa Mesa, California

Concentrations in micrograms per kilogram (µg/kg)

Sample Location	Depth (ft bgs)	Sample Date	EPA Method 8260B[1]			
			Acetone	2-Butanone	PCE	Toluene
SB38	2	8/24/2016	ND	ND	ND	ND
SB39	2	8/24/2016	ND	ND	ND	ND
SB40	2	8/25/2016	ND	ND	ND	ND
SB41	2	8/25/2016	ND	ND	ND	ND
SB42	2	8/25/2016	ND	ND	ND	ND
SB43	2	8/25/2016	ND	ND	ND	ND
SB44	2	8/25/2016	ND	ND	ND	ND
SB45	2	8/25/2016	ND	ND	ND	ND
SB46	2	8/25/2016	ND	ND	ND	ND
SB47	2	8/25/2016	ND	ND	ND	ND
SB48	2	8/25/2016	ND	ND	ND	ND
SB49	2	8/25/2016	**46**	ND	ND	ND
SB50	2	8/25/2016	ND	ND	ND	ND
SB51	2	8/25/2016	ND	ND	ND	ND
SB52	2	8/25/2016	**73**	ND	ND	ND
SB53	2	8/25/2016	ND	ND	ND	ND
SB54	2	8/26/2016	ND	ND	ND	ND
Industrial RSL[2]			**670,000,000**	**--**	**(2,700)**	**(5,400,000)**

Notes
1. Volatile Organic Compounds (VOCs) were analyzed using United States Environmental Protection Agency (EPA) Method 8260B. VOC analytes not listed here were not detected. For a complete list of EPA 8260B analytes, please see attached laboratory reports.

2. The screening level presented is the most conservative screening level of either the Industrial Regional Screening Level (RSL) Table (U.S. EPA, May 2016) for industrial soil or the DTSC recommended alternative value for each constituent (DTSC, June 2016). DTSC recommended values are shown in parentheses.

Abbreviations
ft bgs = feet below ground surface
ND = not detected
PCE = tetrachloroethene

TABLE 3

SUMMARY OF METALS IN SOIL
General Aviation Improvement Program (GAIP)
John Wayne Airport
Costa Mesa, California

Concentrations reported in milligrams per kilogram (mg/kg)

Sample Location	Depth (ft bgs)	Sample Date	EPA Method 6010B/7471A [1]															
			Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
SB1	2	8/22/2016	(ND <0.761)	**2.93**	**45.2**	(ND <0.254)	(ND <0.508)	**11.4**	**4.90**	**9.31**	**22.7**	**0.500**	**10.9**	(ND <0.761)	(ND <0.254)	(ND <0.761)	**21.8**	**27.3**	(ND <0.0794)
SB2	2	8/22/2016	(ND <0.743)	**4.56**	**56.1**	**0.286**	(ND <0.495)	**10.7**	**8.08**	**11.4**	**7.89**	(ND <0.248)	**8.44**	(ND <0.743)	(ND <0.248)	(ND <0.743)	**22.8**	**37.2**	(ND <0.0877)
SB3	2	8/22/2016	(ND <0.750)	**3.46**	**60.1**	**0.386**	(ND <0.500)	**13.5**	**7.33**	**7.08**	**6.69**	(ND <0.250)	**10.6**	(ND <0.750)	(ND <0.250)	(ND <0.750)	**26.0**	**32.4**	(ND <0.0833)
SB4	2	8/22/2016	(ND <0.754)	**5.14**	**64.3**	**0.464**	(ND <0.503)	**15.3**	**15.9**	**9.87**	**8.21**	(ND <0.251)	**12.3**	(ND <0.754)	(ND <0.251)	(ND <0.754)	**32.5**	**38.5**	(ND <0.0794)
SB5	2	8/22/2016	(ND <0.758)	**2.23**	**46.5**	(ND <0.253)	(ND <0.505)	**9.92**	**6.04**	**6.92**	**4.99**	(ND <0.253)	**6.24**	(ND <0.758)	(ND <0.253)	(ND <0.758)	**18.9**	**25.2**	(ND <0.0794)
SB6	2	8/22/2016	**0.738**	**2.11**	**51.2**	(ND <0.245)	(ND <0.490)	**8.87**	**4.65**	**5.10**	**4.62**	(ND <0.245)	**6.05**	(ND <0.735)	(ND <0.245)	(ND <0.735)	**16.2**	**20.7**	(ND <0.0877)
SB7	2	8/22/2016	(ND <0.761)	**1.44**	**42.2**	(ND <0.254)	(ND <0.508)	**7.16**	**4.18**	**3.97**	**3.62**	(ND <0.254)	**4.80**	(ND <0.761)	(ND <0.254)	(ND <0.761)	**14.3**	**17.5**	(ND <0.0794)
SB8	2	8/22/2016	(ND <0.765)	**2.95**	**46.1**	**0.285**	(ND <0.510)	**10.1**	**6.63**	**6.07**	**5.54**	(ND <0.255)	**7.59**	(ND <0.765)	(ND <0.255)	(ND <0.765)	**21.4**	**26.4**	(ND <0.0794)
SB9	2	8/23/2016	(ND <0.785)	**2.70**	**42.0**	(ND <0.262)	(ND <0.524)	**9.04**	**4.84**	**8.41**	**5.08**	(ND <0.262)	**5.19**	(ND <0.785)	(ND <0.262)	(ND <0.785)	**20.6**	**21.8**	(ND <0.0820)
SB10	2	8/22/2016	(ND <0.777)	**2.10**	**40.5**	(ND <0.259)	(ND <0.518)	**8.14**	**5.93**	**5.86**	**4.66**	(ND <0.259)	**4.67**	(ND <0.777)	(ND <0.259)	(ND <0.777)	**16.3**	**22.0**	(ND <0.0877)
SB11	2	8/22/2016	(ND <0.781)	**2.95**	**64.1**	**0.310**	(ND <0.521)	**10.3**	**5.74**	**6.06**	**5.30**	(ND <0.260)	**8.29**	(ND <0.781)	(ND <0.260)	(ND <0.781)	**21.2**	**29.5**	(ND <0.0847)
SB12	2	8/22/2016	(ND <0.781)	**4.20**	**83.6**	(ND <0.260)	(ND <0.521)	**7.41**	**3.54**	**6.66**	**5.29**	(ND <0.260)	**5.15**	(ND <0.781)	(ND <0.260)	(ND <0.781)	**15.4**	**22.9**	(ND <0.0794)
SB13	2	8/23/2016	(ND <0.758)	**3.13**	**51.3**	**0.256**	(ND <0.505)	**8.87**	**6.70**	**16.9**	**4.38**	(ND <0.253)	**5.81**	(ND <0.758)	(ND <0.253)	(ND <0.758)	**20.4**	**21.1**	(ND <0.0847)
SB14	2	8/23/2016	(ND <0.739)	**3.54**	**38.1**	(ND <0.246)	(ND <0.493)	**9.92**	**5.77**	**7.96**	**5.20**	**0.251**	**5.26**	(ND <0.739)	(ND <0.246)	(ND <0.739)	**21.9**	**22.7**	(ND <0.0806)
SB15	2	8/23/2016	(ND <0.773)	**5.07**	**53.7**	**0.440**	(ND <0.515)	**16.4**	**7.04**	**9.04**	**6.73**	(ND <0.258)	**10.2**	(ND <0.773)	(ND <0.258)	(ND <0.773)	**31.6**	**34.8**	(ND <0.0806)
SB16	2	8/23/2016	(ND <0.777)	**3.91**	**47.3**	**0.307**	(ND <0.518)	**10.7**	**6.31**	**6.78**	**5.42**	(ND <0.259)	**6.78**	(ND <0.777)	(ND <0.259)	(ND <0.777)	**24.5**	**24.8**	(ND <0.0820)
SB17	2	8/23/2016	(ND <0.769)	**6.12**	**75.2**	**0.508**	(ND <0.513)	**17.8**	**10.2**	**11.6**	**8.64**	(ND <0.256)	**12.2**	(ND <0.769)	(ND <0.256)	(ND <0.769)	**35.0**	**40.3**	(ND <0.0820)
SB18	2	8/26/2016	(ND <0.732)	**7.54**	**70.9**	(ND <0.244)	**0.493**	**12.2**	**4.77**	**12.1**	**7.26**	**1.16**	**10.5**	(ND <0.732)	(ND <0.244)	(ND <0.732)	**21.8**	**47.1**	(ND <0.0847)
SB19	2	8/23/2016	(ND <0.785)	**3.84**	**56.7**	**0.395**	(ND <0.524)	**13.3**	**11.1**	**8.45**	**6.39**	(ND <0.262)	**8.66**	(ND <0.785)	(ND <0.262)	(ND <0.785)	**29.0**	**30.1**	(ND <0.0847)
SB20	2	8/26/2016	(ND <0.750)	**6.37**	**62.6**	(ND <0.250)	(ND <0.500)	**8.35**	**3.55**	**10.2**	**5.55**	**0.553**	**6.34**	(ND <0.750)	(ND <0.250)	(ND <0.750)	**17.6**	**35.4**	(ND <0.0833)
SB21	2	8/23/2016	**0.839**	**5.38**	**52.0**	**0.333**	(ND <0.495)	**12.0**	**6.65**	**8.49**	**6.70**	(ND <0.248)	**7.87**	(ND <0.743)	(ND <0.248)	(ND <0.743)	**25.8**	**42.9**	(ND <0.0806)
SB22	2	8/23/2016	(ND <0.735)	**3.11**	**57.4**	**0.317**	(ND <0.490)	**12.0**	**6.90**	**6.10**	**5.35**	(ND <0.245)	**7.44**	(ND <0.735)	(ND <0.245)	(ND <0.735)	**24.3**	**25.0**	(ND <0.0806)
SB23	2	8/23/2016	**1.01**	**3.69**	**50.8**	**0.322**	(ND <0.478)	**12.2**	**6.25**	**7.96**	**5.57**	**0.247**	**6.19**	(ND <0.718)	(ND <0.239)	(ND <0.718)	**24.4**	**26.4**	(ND <0.0806)

TABLE 3

SUMMARY OF METALS IN SOIL
General Aviation Improvement Program (GAIP)
John Wayne Airport
Costa Mesa, California

Concentrations reported in milligrams per kilogram (mg/kg)

Sample Location	Depth (ft bgs)	Sample Date	EPA Method 6010B/7471A [1]															
			Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
SB24	2	8/23/2016	(ND <0.732)	**4.51**	**55.0**	**0.360**	(ND <0.488)	**14.6**	**13.9**	**8.89**	**6.85**	(ND <0.244)	**9.67**	(ND <0.732)	(ND <0.244)	(ND <0.732)	**28.5**	**30.9**	(ND <0.0862)
SB25	2	8/24/2016	**0.970**	**3.51**	**66.0**	**0.343**	(ND <0.488)	**12.4**	**6.38**	**7.42**	**5.82**	(ND <0.244)	**7.75**	(ND <0.732)	(ND <0.244)	(ND <0.732)	**27.0**	**27.1**	(ND <0.0833)
SB26	2	8/24/2016	(ND <0.785)	**3.45**	**47.0**	**0.311**	(ND <0.524)	**7.06**	**5.40**	**6.87**	**6.19**	(ND <0.262)	**5.75**	(ND <0.785)	(ND <0.262)	(ND <0.785)	**19.3**	**23.2**	(ND <0.0877)
SB27	2	8/24/2016	(ND <0.761)	**3.96**	**41.6**	**0.350**	(ND <0.508)	**11.8**	**6.95**	**6.99**	**5.66**	(ND <0.254)	**8.19**	(ND <0.761)	(ND <0.254)	(ND <0.761)	**26.0**	**26.9**	(ND <0.0833)
SB28	2	8/24/2016	(ND <0.789)	**5.30**	**111**	(ND <0.263)	(ND <0.526)	**11.6**	**8.55**	**14.8**	**5.20**	(ND <0.263)	**7.75**	(ND <0.789)	(ND <0.263)	(ND <0.789)	**28.0**	**35.2**	(ND <0.0862)
SB29	2	8/24/2016	**0.929**	**3.50**	**50.2**	**0.262**	(ND <0.518)	**10.9**	**8.24**	**6.55**	**5.49**	**0.346**	**5.80**	(ND <0.777)	(ND <0.259)	(ND <0.777)	**23.9**	**22.0**	(ND <0.0794)
SB30	2	8/24/2016	**1.47**	**5.49**	**51.5**	**0.443**	(ND <0.515)	**14.2**	**8.75**	**8.01**	**6.90**	(ND <0.258)	**9.39**	(ND <0.773)	(ND <0.258)	(ND <0.773)	**31.8**	**30.9**	(ND <0.0794)
SB31	2	8/24/2016	(ND <0.789)	**8.96**	**117**	**0.859**	(ND <0.526)	**23.9**	**13.2**	**17.2**	**12.2**	(ND <0.263)	**17.6**	(ND <0.789)	(ND <0.263)	(ND <0.789)	**55.4**	**55.2**	(ND <0.0794)
SB32	3	8/26/2016	(ND <0.721)	**1.38**	**65.1**	**0.428**	(ND <0.481)	**11.9**	**7.90**	**7.78**	**4.72**	(ND <0.240)	**8.97**	(ND <0.721)	(ND <0.240)	(ND <0.721)	**29.2**	**35.2**	(ND <0.0833)
SB33	2	8/24/2016	(ND <0.765)	**4.96**	**127**	(ND <0.255)	(ND <0.510)	**8.39**	**7.26**	**15.2**	**4.92**	(ND <0.255)	**7.03**	(ND <0.765)	(ND <0.255)	(ND <0.765)	**25.2**	**34.6**	(ND <0.0847)
SB34	2	8/24/2016	(ND <0.773)	**4.61**	**67.7**	**0.354**	(ND <0.515)	**14.5**	**6.65**	**8.53**	**7.29**	(ND <0.258)	**9.42**	(ND <0.773)	(ND <0.258)	(ND <0.773)	**28.0**	**32.3**	(ND <0.0820)
SB35	2	8/24/2016	**0.799**	**6.04**	**72.2**	**0.528**	(ND <0.518)	**16.2**	**9.14**	**8.92**	**7.60**	(ND <0.259)	**9.69**	(ND <0.777)	(ND <0.259)	(ND <0.777)	**35.1**	**35.4**	(ND <0.0794)
SB36	2	8/24/2016	(ND <0.714)	**2.96**	**52.8**	**0.305**	(ND <0.476)	**11.9**	**7.34**	**5.81**	**5.42**	(ND <0.238)	**6.47**	(ND <0.714)	(ND <0.238)	(ND <0.714)	**23.3**	**22.7**	(ND <0.0794)
SB37	2	8/25/2016	(ND <0.781)	(ND <0.781	**60.1**	**0.351**	(ND <0.521)	**10.2**	**6.57**	**7.52**	**3.47**	(ND <0.260)	**9.30**	(ND <0.781)	(ND <0.260)	(ND <0.781)	**23.1**	**35.5**	(ND <0.0806)
SB38	2	8/24/2016	(ND <0.789)	**4.44**	**45.9**	**0.322**	(ND <0.526)	**12.3**	**6.57**	**6.73**	**5.19**	(ND <0.263)	**8.23**	(ND <0.789)	(ND <0.263)	(ND <0.789)	**26.2**	**25.6**	(ND <0.0847)
SB39	2	8/24/2016	(ND <0.777)	**2.93**	**48.6**	(ND <0.259)	(ND <0.518)	**10.9**	**7.41**	**6.92**	**4.73**	(ND <0.259)	**5.99**	(ND <0.777)	(ND <0.259)	(ND <0.777)	**21.4**	**21.7**	(ND <0.0794)
SB40	2	8/25/2016	(ND <0.765)	(ND <0.765	**54.6**	**0.324**	(ND <0.510)	**10.2**	**6.08**	**8.00**	**4.74**	(ND <0.255)	**7.41**	(ND <0.765)	(ND <0.255)	(ND <0.765)	**23.0**	**31.5**	(ND <0.0877)
SB41	2	8/25/2016	(ND <0.750)	**3.85**	**69.6**	**0.292**	(ND <0.500)	**10.9**	**34.9**	**9.37**	**5.01**	(ND <0.250)	**8.84**	(ND <0.750)	(ND <0.250)	(ND <0.750)	**23.8**	**35.3**	(ND <0.0794)
SB42	2	8/25/2016	(ND <0.743)	**2.77**	**53.6**	**0.293**	(ND <0.495)	**10.6**	**6.34**	**9.33**	**14.7**	(ND <0.248)	**7.70**	(ND <0.743)	(ND <0.248)	(ND <0.743)	**23.8**	**31.7**	(ND <0.0820)
SB43	2	8/25/2016	(ND <0.777)	(ND <0.777	**50.4**	**0.310**	(ND <0.518)	**11.2**	**14.3**	**8.22**	**3.79**	(ND <0.259)	**8.26**	(ND <0.777)	(ND <0.259)	(ND <0.777)	**24.4**	**29.3**	(ND <0.0862)
SB44	2	8/25/2016	(ND <0.728)	**1.17**	**46.0**	**0.252**	(ND <0.485)	**10.2**	**7.57**	**10.7**	**12.0**	(ND <0.243)	**7.42**	(ND <0.728)	(ND <0.243)	(ND <0.728)	**23.0**	**30.5**	(ND <0.0962)
SB45	2	8/25/2016	(ND <0.765)	(ND <0.765	**27.5**	(ND <0.255)	(ND <0.510)	**5.52**	**3.95**	**4.15**	**2.30**	(ND <0.255)	**3.96**	(ND <0.765)	(ND <0.255)	(ND <0.765)	**13.5**	**17.9**	(ND <0.0806)
SB46	2	8/25/2016	(ND <0.754)	(ND <0.754	**56.6**	**0.377**	(ND <0.503)	**11.1**	**6.92**	**6.49**	**3.58**	(ND <0.251)	**8.98**	(ND <0.754)	(ND <0.251)	(ND <0.754)	**27.6**	**31.6**	(ND <0.0806)

TABLE 3

SUMMARY OF METALS IN SOIL
General Aviation Improvement Program (GAIP)
John Wayne Airport
Costa Mesa, California

Concentrations reported in milligrams per kilogram (mg/kg)

Sample Location	Depth (ft bgs)	Sample Date	EPA Method 6010B/7471A [1]															
			Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
SB47	2	8/25/2016	(ND <0.761)	**1.08**	**75.0**	(ND <0.254)	(ND <0.508)	**7.61**	**12.9**	**10.1**	**3.02**	(ND <0.254)	**5.80**	(ND <0.761)	(ND <0.254)	(ND <0.761)	**19.0**	**27.6**	(ND <0.0833)
SB48	2	8/25/2016	(ND <0.739)	**0.984**	**72.4**	**0.413**	(ND <0.493)	**13.3**	**8.51**	**6.81**	**3.97**	(ND <0.246)	**11.10**	(ND <0.739)	(ND <0.246)	(ND <0.739)	**29.5**	**36.5**	(ND <0.0833)
SB49	2	8/25/2016	(ND <0.739)	(ND <0.739	**46.2**	**0.275**	(ND <0.493)	**9.72**	**5.36**	**7.60**	**5.42**	(ND <0.246)	**6.39**	(ND <0.739)	(ND <0.246)	(ND <0.739)	**20.2**	**26.9**	(ND <0.0862)
SB50	2	8/25/2016	(ND <0.735)	**0.955**	**60.8**	**0.327**	(ND <0.490)	**10.5**	**7.12**	**6.57**	**4.03**	(ND <0.245)	**8.19**	(ND <0.735)	(ND <0.245)	(ND <0.735)	**22.8**	**29.8**	(ND <0.0806)
SB51	2	8/25/2016	(ND <0.721)	(ND <0.721	**60.3**	**0.349**	(ND <0.481)	**10.5**	**5.39**	**6.44**	**3.39**	(ND <0.240)	**7.35**	(ND <0.721)	(ND <0.240)	(ND <0.721)	**20.7**	**27.1**	(ND <0.0847)
SB52	2	8/25/2016	(ND <0.721)	**0.782**	**81.1**	**0.655**	**0.486**	**19.7**	**12.1**	**12.0**	**6.24**	(ND <0.240)	**13.7**	(ND <0.721)	(ND <0.240)	(ND <0.721)	**46.4**	**49.3**	(ND <0.0877)
SB53	2	8/25/2016	(ND <0.769)	(ND <0.769	**53.6**	**0.322**	(ND <0.513)	**10.9**	**6.62**	**8.15**	**4.43**	(ND <0.256)	**7.70**	(ND <0.769)	(ND <0.256)	(ND <0.769)	**24.1**	**28.5**	(ND <0.0820)
SB54	2	8/26/2016	(ND <0.750)	**2.99**	**58.7**	(ND <0.250)	(ND <0.500)	**5.56**	**3.59**	**7.38**	**4.42**	**0.327**	**5.56**	(ND <0.750)	(ND <0.250)	(ND <0.750)	**13.7**	**27.9**	(ND <0.0862)
Industrial RSL [2]			470	3.0	220,000	(210)	980	(170,000)	350	47,000	(320)	5,800	(3,100)	5,800	5,800	12	(1,000)	350,000	(4.5)

Notes
1. All samples analyzed using United States Environmental Protection Agency (EPA) Method 6010B for each constituent except mercury (EPA Method 7471A). For a list of analytes not detected in any of the samples; see analytical reports attached.

2. The screening level presented is the most conservative screening level of either the Industrial Regional Screening Level (RSL) Table (U.S. EPA, May 2016) for industrial soil or the DTSC recommended alternative value for each constituent (DTSC, June 2016). DTSC recommended values are shown in parentheses.

Abbreviations
ft bgs = feet below ground surface
ND = not detected at or above laboratory reporting limit shown in parentheses

TABLE 4

SUMMARY OF TOTAL PETROLEUM HYDROCARBONS AND VOLATILE ORGANIC COMPOUNDS IN SOIL VAPOR
General Aviation Improvement Program (GAIP)
John Wayne Airport
Costa Mesa, California

Results in micrograms per liter (µg/L) EPA Method 8260B[1]

Soil Vapor Probe Location	Depth (ft bgs)	Purge Volume (Liters)	Date	TPH (C4-C16)	1,1-DCE	PCE	TCE	Toluene
SB1	5.5	3	8/29/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB2	5	3	8/29/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB3	5	3	8/29/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB4	5	3	8/29/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB5	5	3	8/29/2016	(ND < 25.0)	(ND < 0.050)	**0.050 J**	(ND < 0.050)	(ND < 0.050)
SB6	5	3	8/29/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB7	5	3	8/29/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB8	5	3	8/29/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB9	5	3	8/29/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB10	5	3	8/29/2016	(ND < 25.0)	(ND < 0.050)	**0.060 J**	(ND < 0.050)	(ND < 0.050)
SB11	5	3	8/29/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB12	5	3	8/29/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB13	5	3	8/29/2016	(ND < 25.0)	(ND < 0.050)	**0.12**	(ND < 0.050)	**0.060 J**
SB14	5	3	8/29/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB15	5	3	8/29/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB15 DUP	5	3	8/29/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB16	5	3	8/29/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB16 DUP	5	3	8/29/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB17	5	3	8/29/2016	(ND < 25.0)	(ND < 0.050)	**0.23**	(ND < 0.050)	(ND < 0.050)
SB18	5	3	8/30/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB19	5	3	8/29/2016	(ND < 25.0)	(ND < 0.050)	**0.45**	(ND < 0.050)	(ND < 0.050)
SB20	5	3	8/30/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB21	5	3	8/30/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB22	5	3	8/30/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB-23	5	3	8/30/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)

TABLE 4

SUMMARY OF TOTAL PETROLEUM HYDROCARBONS AND VOLATILE ORGANIC COMPOUNDS IN SOIL VAPOR
General Aviation Improvement Program (GAIP)
John Wayne Airport
Costa Mesa, California

Results in micrograms per liter (µg/L) EPA Method 8260B[1]

Soil Vapor Probe Location	Depth (ft bgs)	Purge Volume (Liters)	Date	TPH (C4-C16)	1,1-DCE	PCE	TCE	Toluene
SB-24	5	3	8/30/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB-25	5	33	8/30/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB-26	5	3	8/30/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB-27	5	3	8/30/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB-28	5	3	8/30/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB28 DUP	5	3	8/30/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB29	5	3	8/30/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB30	5	3	8/30/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB31	5	3	8/30/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB32	5	3	8/30/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB33	5	3	8/30/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB34	5	3	8/30/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB35	5	3	8/30/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB36	5	3	8/30/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB36 DUP	5	3	8/30/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB37	5	3	8/31/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB-38	5	3	8/31/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB39	5	3	8/31/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB40	5	3	8/31/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB-41	5	3	8/31/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB42	5	3	8/31/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB43	5	3	8/31/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB44	5	3	8/31/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB45	5	3	8/31/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB46	5	3	8/31/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)

TABLE 4

SUMMARY OF TOTAL PETROLEUM HYDROCARBONS AND VOLATILE ORGANIC COMPOUNDS IN SOIL VAPOR
General Aviation Improvement Program (GAIP)
John Wayne Airport
Costa Mesa, California

Results in micrograms per liter (µg/L) EPA Method 8260B[1]

Soil Vapor Probe Location	Depth (ft bgs)	Purge Volume (Liters)	Date	TPH (C4-C16)	1,1-DCE	PCE	TCE	Toluene
SB46 DUP	5	3	8/31/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB47	5	3	8/31/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB48	5	3	8/31/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB49	5	3	8/31/2016	(ND < 25.0)	**0.17**	(ND < 0.050)	**0.24**	(ND < 0.050)
SB50	5	3	8/31/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB51	5	3	8/31/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB53	5	3	8/31/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB53 DUP	5	3	8/31/2016	(ND < 25.0)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
SB54	5	3	8/31/2016	(ND < 25.0)	**0.14**	(ND < 0.050)	(ND < 0.050)	(ND < 0.050)
Industrial Regional Screening Levels (RSLs)[2]				**--**	(310)	(2.1)	3.0	(1,300)

Notes

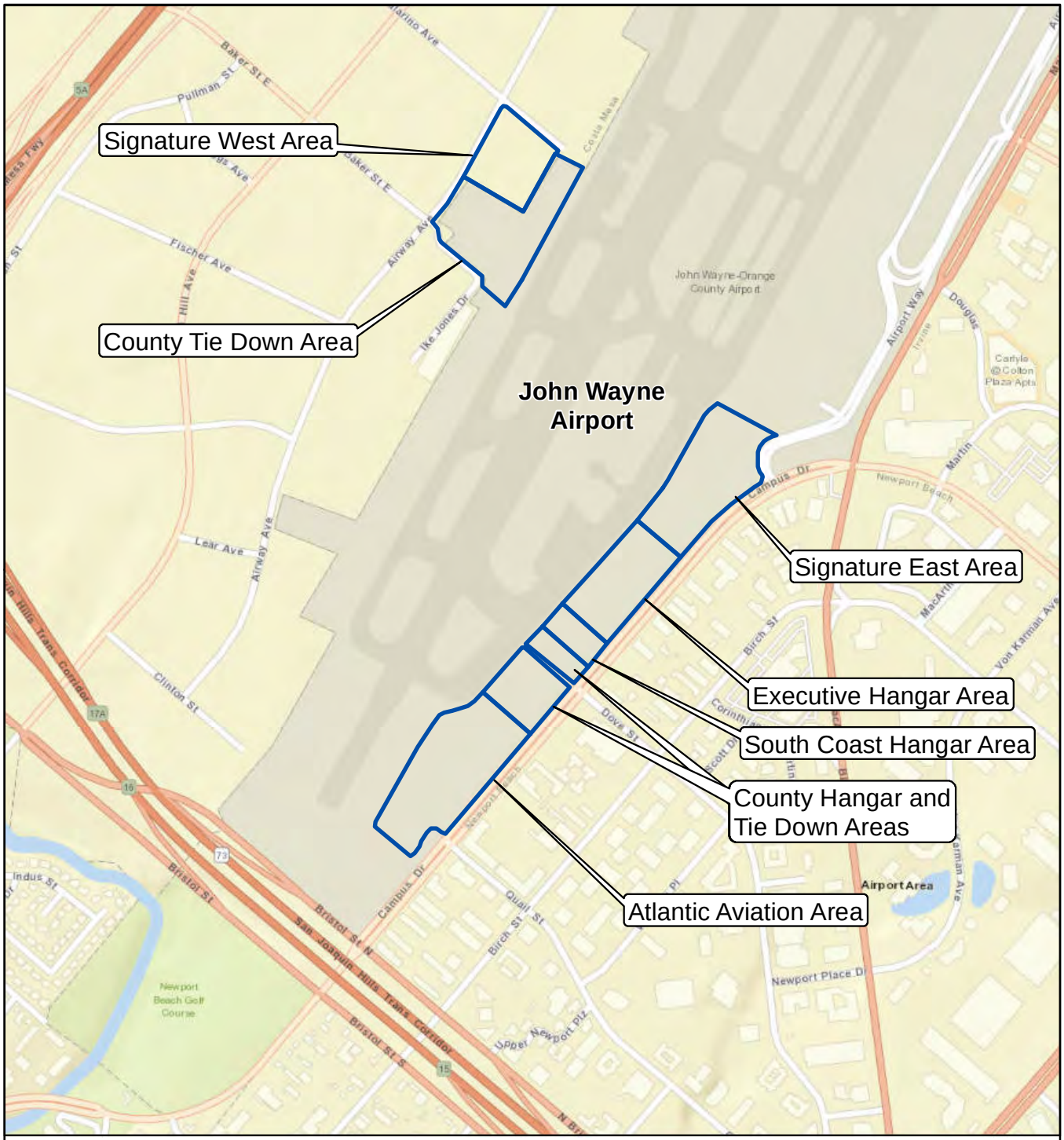
1. Volatile Organic Compounds (VOCs) were analyzed using United States Environmental Protection Agency (EPA) Method 8260B. VOC analytes not listed here were not detected. For a complete list of EPA 8260B analytes, please see attached laboratory reports.

2. The Industrial Regional Screening Levels (in µg/L) are from the EPA Region 9 - Composite Worker Ambient Air Table (U.S. EPA, May 2016), unless DTSC recommends an alternate value (DTSC, June 2016). DTSC recommended values are shown in parentheses. RSLs were adjusted for a default (DTSC, October 2011) attenuation factor for commercial buildings by multiplying the air RSLs by 1000 (representing a soil vapor-to-indoor air attenuation of 0.001).The soil vapor screening levels presented are protective of boh existing and future buildings.

Abbreviations

ft bgs = feet below ground surface
ND = not detected
DUP = duplicate sample
"--" = RSL not established for constituent
1,1-DCE = 1,1- Dichloroethene
PCE = Tetrachloroethene
TCE = Trichloroethene
J = detected between the reporting limit and method detection limit, concentration estimated

FIGURES



N

0 500 1,000

Approximate Scale in Feet

Basemap modified from aerial photo provided by Esri, DigitalGlobe, GeoEye, Earthstar Geographics, USGS, AEX, Getmapping, and the GIS User Community.

SITE LOCATION MAP
John Wayne Airport
Orange County, California

amec foster wheeler

Date: 10/26/2016	Project No.: IR13164420	Figure 1
Submitted By: rm	Drawn By: pah	

Path: Y:\IR\13164420\esri\Site_Assessment_Sampling_tb_Site Location.mxd

Basemap modified from aerial photo provided by Esri, DigitalGlobe, GeoEye, Earthstar Geographics, USGS, AEX, Getmapping, and the GIS User Community.

Explanation

- Sample location
- Proposed and existing redevelopment area

SAMPLE LOCATIONS
SIGNATURE EAST AREA
John Wayne Airport
Orange County, California

amec foster wheeler

Date: 10/26/2016	Project No.: IR13164420	Figure 2
Submitted By: rm	Drawn By: pah	

Path: Y:\IR13164420\esri\Site_Assessment_Sampling_tb_Sample_Locations_Signature East.mxd

Basemap modified from aerial photo provided by Esri, DigitalGlobe, GeoEye, Earthstar Geographics, USGS, AEX, Getmapping, and the GIS User Community.

Explanation

- Sample location
- Proposed and existing redevelopment area

SAMPLE LOCATIONS EXECUTIVE HANGAR, SOUTH COAST HANGAR, AND COUNTY HANGAR AND TIE DOWN AREAS

John Wayne Airport
Orange County, California

amec foster wheeler

Date: 10/26/2016	Project No.: IR13164420	Figure 3
Submitted By: rm	Drawn By: pah	

Path: Y:\IR13164420\esri\Site_Assessment_Sampling_tb_Sample_Locations_Executive.mxd

Basemap modified from aerial photo provided by Esri, DigitalGlobe, GeoEye, Earthstar Geographics, USGS, AEX, Getmapping, and the GIS User Community.

Explanation

- Sample location
- Proposed and existing redevelopment area

SAMPLE LOCATIONS
ATLANTIC AVIATION AREA
John Wayne Airport
Orange County, California

amec foster wheeler

Date: 10/05/2016	Project No.: IR13164420	Figure 4
Submitted By: rm	Drawn By: pah	

Path: Y:\IR13164420\esri\Site_Assessment_Sampling_tb_Sample_Locations_Atlantic.mxd

Basemap modified from aerial photo provided by Esri, DigitalGlobe, GeoEye, Earthstar Geographics, USGS, AEX, Getmapping, and the GIS User Community.

Explanation

- Sample location
- Proposed and existing redevelopment area

SAMPLE LOCATIONS SIGNATURE WEST AND COUNTY TIE DOWN AREAS John Wayne Airport Orange County, California

amec foster wheeler

Date: 10/26/2016	Project No.: IR13164420	Figure 5
Submitted By: rm	Drawn By: pah	

Path: Y:\IR13164420\esri\Site_Assessment_Sampling_tb_Sample_Locations_Signature West.mxd

APPENDIX A

Geophysical Survey Report (Subsurface Surveys, Inc.)

SubSurface Surveys
& Associates, Inc.
An Applied Geophysical Company

2075 Corte Del Nogal, Suite W
Carlsbad, CA 92011
Office: (760) 476-0492
Fax: (760) 476-0493

August 22, 2016

AMEC Foster Wheeler
John Wayne Airport
18601 Airport Way
Santa Ana, CA

Project No. 16-379

Attn: Duane Paul

Re: Geophysical Investigation, borehole clearance, John Wayne Airport, 18601 Airport Way, Santa Ana, CA

This report is to present the results of our geophysical survey carried out over the John Wayne Airport located at 18601 Airport Way in Santa Ana, California (Figure 1). The survey was performed over a two day period, August 17 and 18, 2016, and its purpose was to locate and identify, insofar as possible, the existence of any pipes, conduits, utilities, and other underground obstructions within the vicinity of fifty-four (54) proposed boreholes scheduled for drilling.

A combination of electromagnetic induction (EM), magnetometry, and ground penetrating radar (GPR) was applied to the search. A utility locator with line tracing capabilities was also brought to the field and used where risers exist onto which a signal could be impressed and traced.

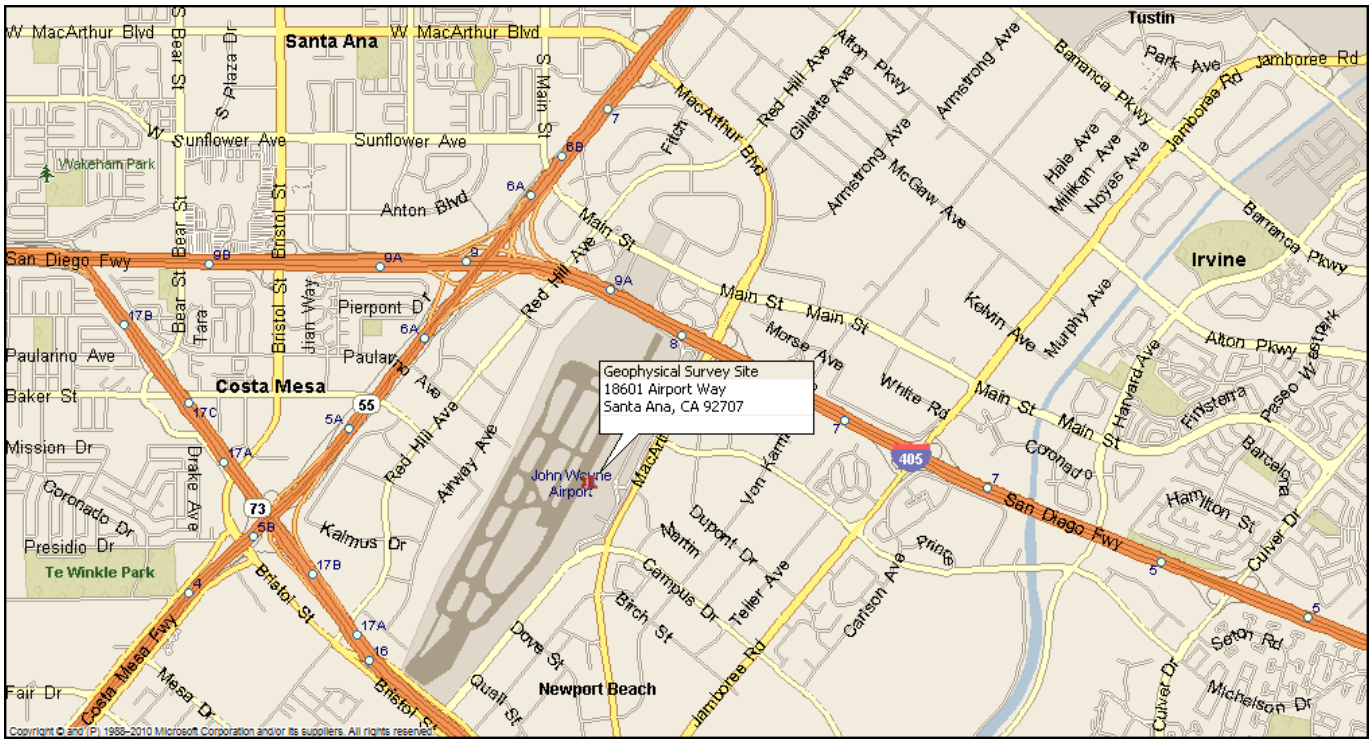


FIGURE 1 – Site location map

Survey Design – The areas to be surveyed were identified in the field by the client. It included fifty-four (54) proposed boreholes spread over the entire airport property consisting of an asphalt parking lot, tarmac, and hangars.

In site situations and survey objectives such as this, the best use of time is achieved by systematically free-traversing with the instruments while monitoring them continuously to determine which responses are significant and due to true subsurface targets, and which are due to other non-target or above-ground features and must be ignored. Where applicable, the EM devices, magnetic gradiometer, and GPR were traversed systematically over the survey areas in multiple, organized directions. Other traverses were taken for detailing and confirmation where anomalous conditions were found.

In addition, the line tracers were used to impress signals onto pipes, generally through accessible risers and tracer wires when present, to delineate the lines' locations and orientations. The instruments were also used in passive mode, configured to detect 60 Hz electrical signals and other common radio-frequency signals.

Hard copy of the EM data was not acquired, that is, discrete readings on the nodes of a grid were not recorded that could be put into a contoured map format. Rather, the instruments' meters were read continuously, and in real-time, during each traverse. This free-traversing method allowed for immediate detection of anomalous objects and facilitated the opportunity to investigate them further, without the need to first download and process data in the office. The lack of hard copy for EM data sets does not degrade the quality of the survey in any way. Hard copy merely provides a basis for report documentation of these geophysical fields, if such documentation is needed.

A Fischer M-Scope was used for the EM sampling and a Sensors & Software Noggin Ground Penetrating Radar unit with a 500 MHz antenna produced the radar images. A Metrotech 9890 and RIDGID SR-60 SeekTech utility locator rounded out the tools applied.

Brief Description of the Geophysical Methods Applied – The M-Scope device energizes the ground by producing an alternating primary magnetic field with AC current in a transmitting coil. If conducting materials are within the area of influence of the primary field, AC eddy currents are induced to flow in the conductors. A receiving coil senses the secondary magnetic field produced by these eddy currents, and outputs the response as anomalous conditions. The strength of the secondary field is a function of the conductivity of the object, say a pipe, tank or cluster of drums, its size, and its depth and position relative to the instrument's two coils. Conductive objects, to a depth of approximately 7 feet below ground surface (bgs) for the M-Scope are sensed. The device is also somewhat focused; that is, it is more sensitive to conductors below the instrument than they are to conductors off to the side.

The line locator is used to passively detect energized high voltage electric lines and electrical conduit (50-60 Hz), VLF signals (14-22 kHz), as well as to actively trace other utilities. Where risers are present, the utility locator transmitter can be connected directly to the object, and a signal (9.8-82 kHz) is sent traveling along the conductor, pipe, conduit, etc. In the absence of a riser, the transmitter can be used to impress an input signal on the utility by induction. In either case, the receiver unit is tuned to the input signal, and is used to actively trace the signal along the pipe's surface projection.

The GPR instrument beams energy into the ground from its transducer/antenna, in the form of electromagnetic waves. A portion of this energy is reflected back to the antenna at a boundary in the subsurface across which there is an electrical contrast. The instrument produces a continuous record of the reflected energy as the antenna is traversed across the ground surface. The greater the electrical contrast, the higher the amplitude of the returned energy. The radar wave travels at a velocity unique to the material properties of the ground being investigated, and when these velocities are known, the two-

way travel times can be converted to depth. The depth of penetration and image resolution produced are a function of ground electrical conductivity and dielectric constant.

Interpretation and Conclusions - The interpretation took place in real time as the survey progressed, and accordingly, the findings of our investigation were verbally relayed to the client, and further documented with site photographs (Figures 2-55).

Utilities detected within the survey area were marked out in chalk spray paint using industry standard colors: red for electric, blue for water, green for sewer, and white for unknown. Additionally, a soil disturbance measuring 7'x8' in diameter was detected with GPR near proposed borehole 17. Pink spray paint was used to mark the boundaries of the anomaly (Figure 18).

Once completed, the proposed boreholes were spray-painted with a white circle and yellow "SSS" to indicate that Subsurface Surveys personnel had investigated them. Please refer to the attached photos for location and orientation of items detected in the survey.

Limitations and Further Recommendations - It should be understood that limitations inherent in geophysical instruments and/or surveying techniques exist at all sites, and nearly all sites exhibit conditions under which such might not perform optimally. Consequently, the detection of buried objects in all circumstances **cannot be guaranteed**. Such limitations are numerous and include, but are not limited to, rebar-reinforced ground cover, abrupt changes in ground cover type, above-ground obstacles preventing full traverses or traverses in one direction only, above-ground conductive objects interfering with instrument signal, nearby power lines or EM transmitters, highly conductive background soil conditions, limited GPR penetration, non-metallic targets, shallower or larger objects shielding deeper or smaller targets, tracing signal jumping from one line to another, and inaccessible risers, cleanouts, valve boxes, and manholes. If one or more geophysical instrument is rendered ineffective and cannot be utilized, the quality of the survey can be somewhat degraded.

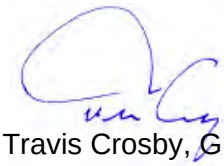
For the above reasons, and in the interest of maximum safety, we encourage our clients to take advantage of Underground Service Alert (USA), Dig Alert, or other similar services, when possible. Furthermore, we recommend hand auguring and the use of a drilling method known as air knifing or vacuum extraction, when feasible or if applicable to this project. These methods may significantly limit damage to underground pipes, conduits, and utilities that might not have been detectable during the course of this survey. Please bear in mind, that geophysical surveying is only one of several levels of protection that is available to our clients.

SubSurface Surveys may include maps in some reports. While they are an accurate general representation of the site and our findings, they are not of engineering quality (i.e., measured and mapped by a licensed land surveyor).

SubSurface Surveys and Associates makes no guarantee either expressed or implied regarding the accuracy of the findings and interpretations present. And, in no event will SubSurface Surveys and Associates be liable for any direct, indirect, special, incidental, or consequential damages resulting from interpretations and opinions presented herewith.

All data generated on this project are in confidential file in this office, and are available for review by authorized persons at any time. The opportunity to participate in this investigation is very much appreciated. Please call, if there are questions.

Daniel L. Matticks, MS
Staff Geophysicist



Travis Crosby, GP# 1044
Senior Geophysicist

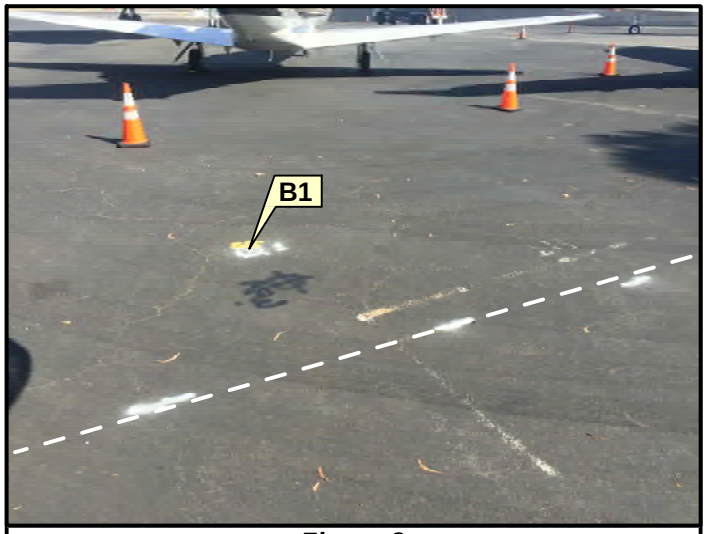


Figure 2

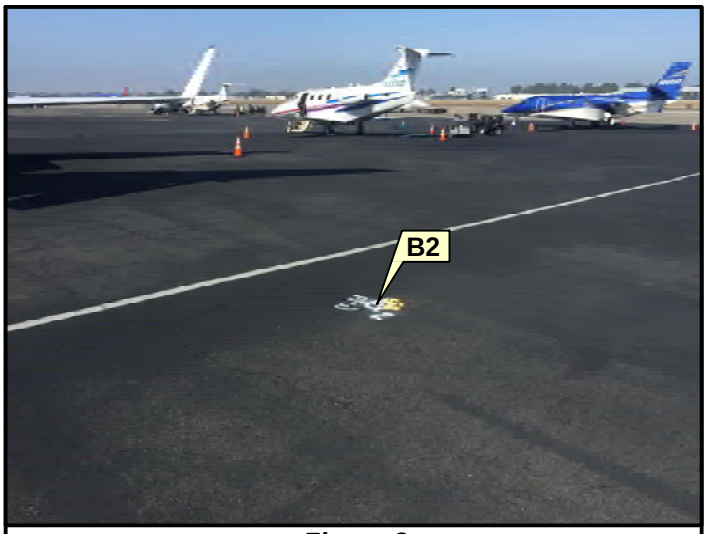


Figure 3

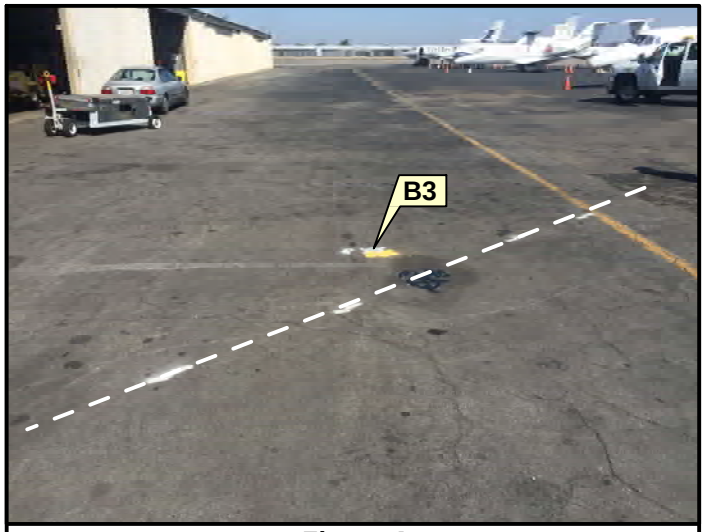


Figure 4

Figure 5

Figure 6

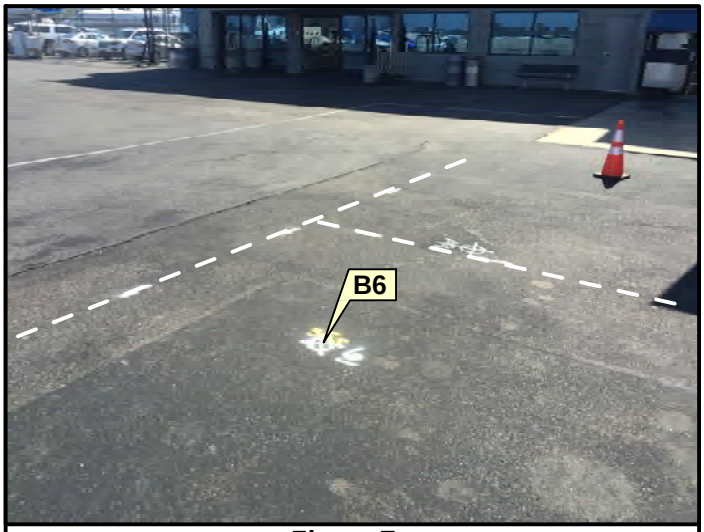


Figure 7

Sub Surface Surveys	SITE: **John Wayne Airport** **18601 Airport Way** **Santa Ana, California**	TITLE: **Borehole Photographs**	SURVEY DATE: **August 17 & 18, 2016**
		PREPARED FOR: **AMEC Foster Wheeler**	SSS PROJECT NO: **16-379**

Figure 8

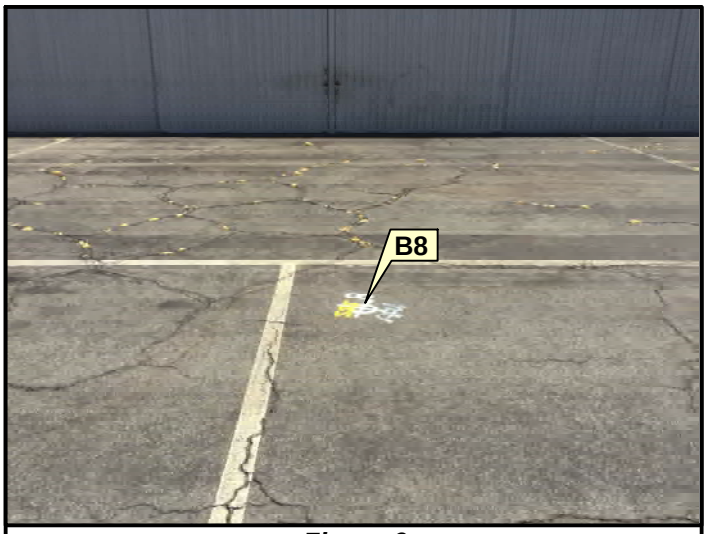


Figure 9

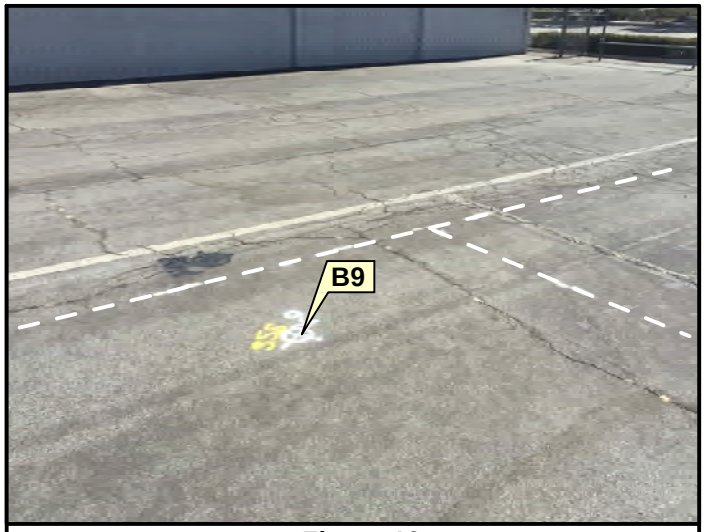


Figure 10

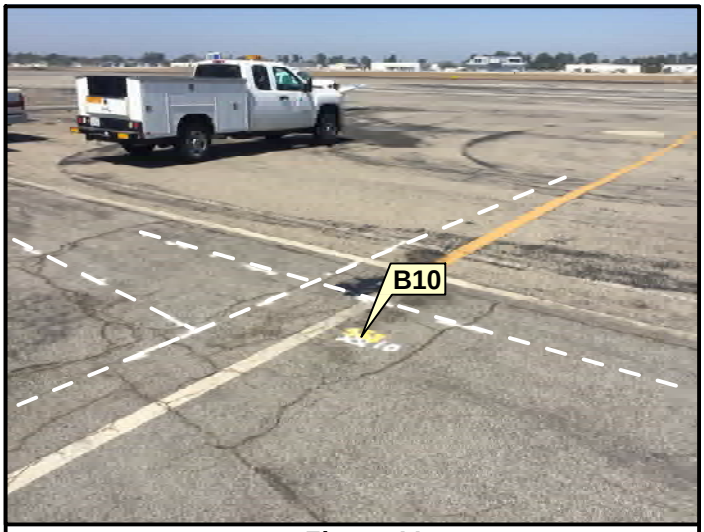


Figure 11

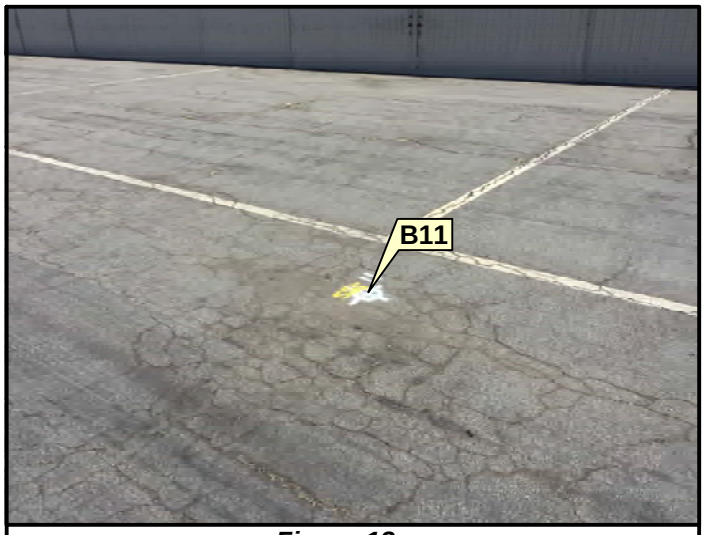


Figure 12

Figure 13

Sub Surface Surveys	SITE: **John Wayne Airport** **18601 Airport Way** **Santa Ana, California**	TITLE: **Borehole Photographs**	SURVEY DATE: **August 17 & 18, 2016**
		PREPARED FOR: **AMEC Foster Wheeler**	SSS PROJECT NO: **16-379**

Figure 14

Figure 15

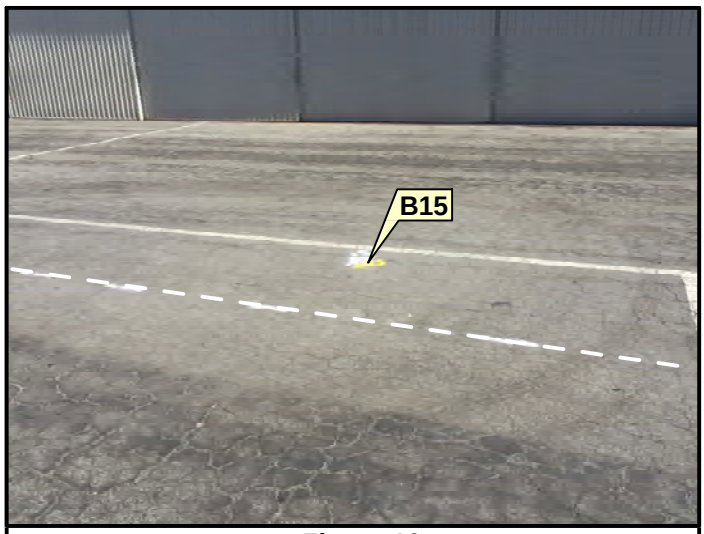


Figure 16

Figure 17

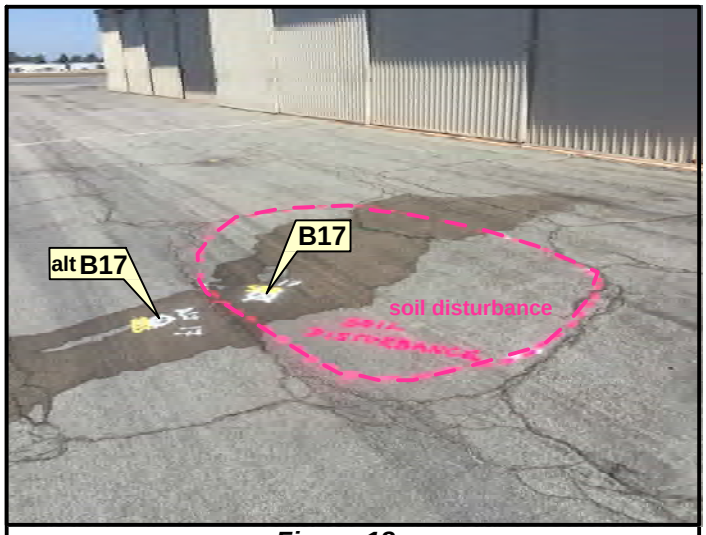


Figure 18

Figure 19

Sub Surface Surveys	SITE: **John Wayne Airport** **18601 Airport Way** **Santa Ana, California**	TITLE: **Borehole Photographs**	SURVEY DATE: **August 17 & 18, 2016**
		PREPARED FOR: **AMEC Foster Wheeler**	SSS PROJECT NO: **16-379**

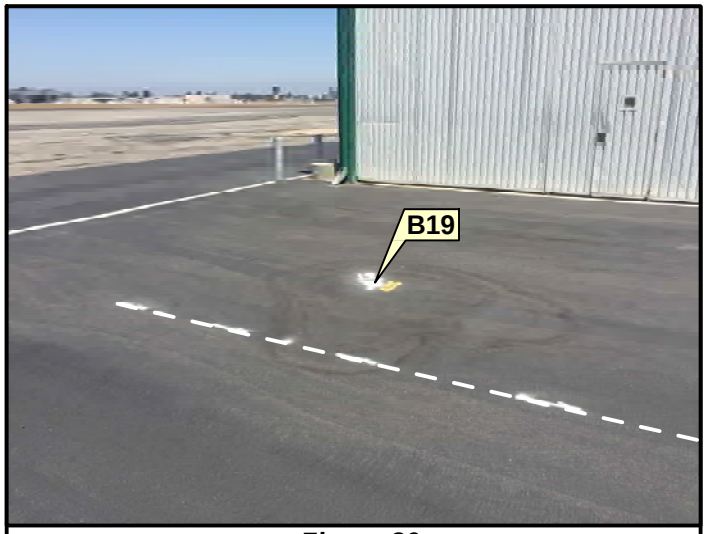


Figure 20

Figure 21

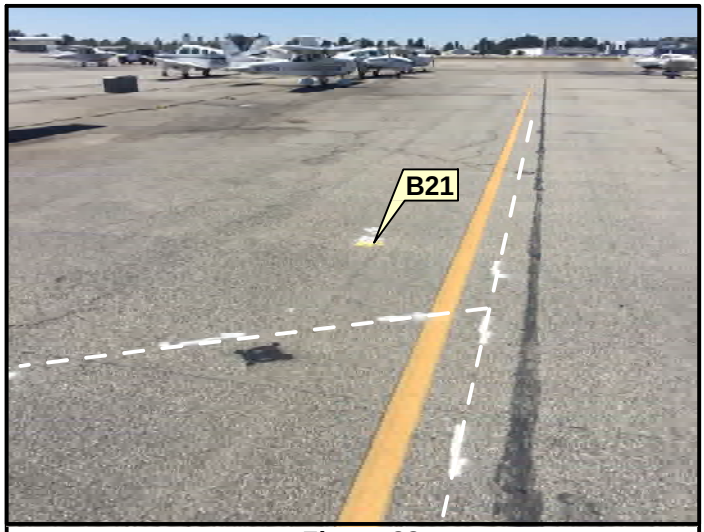


Figure 22

Figure 23

Figure 24

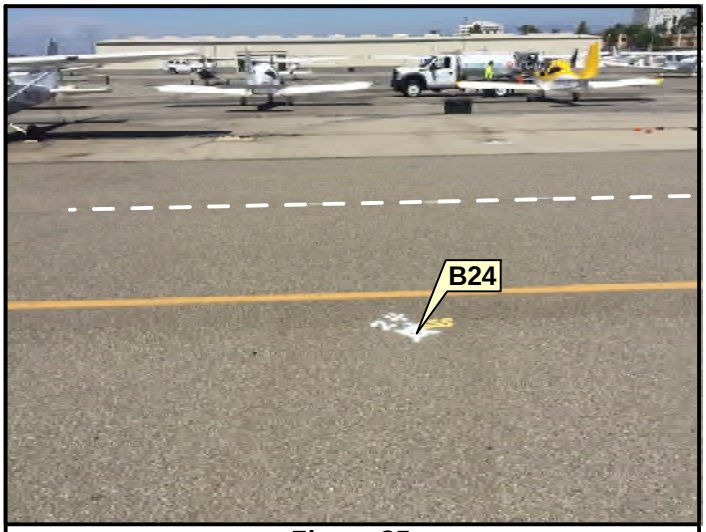


Figure 25

Sub Surface Surveys	SITE: **John Wayne Airport** **18601 Airport Way** **Santa Ana, California**	TITLE: **Borehole Photographs**	SURVEY DATE: **August 17 & 18, 2016**
		PREPARED FOR: **AMEC Foster Wheeler**	SSS PROJECT NO: **16-379**

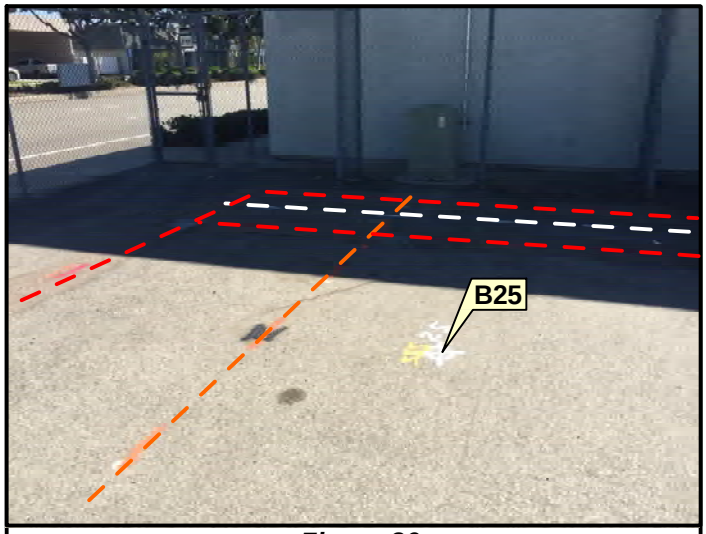


Figure 26

Figure 27

Figure 28

Figure 29

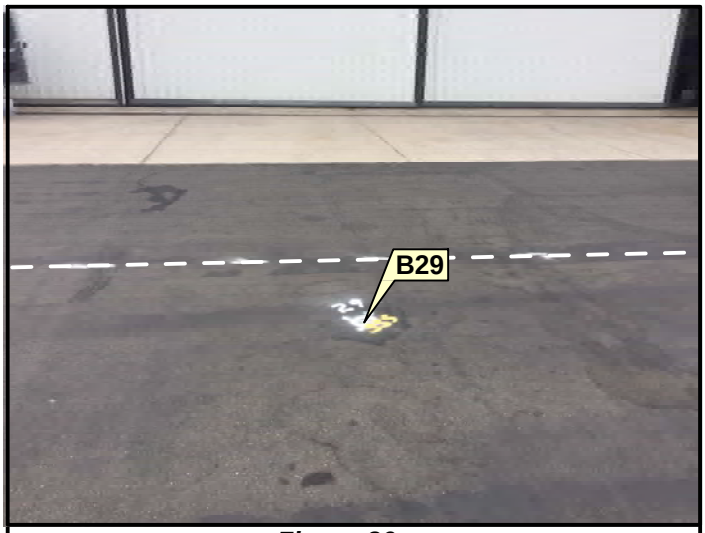


Figure 30

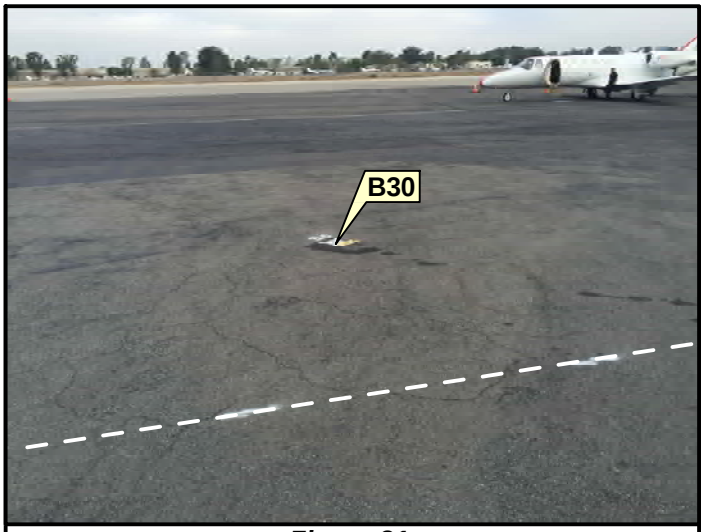


Figure 31

Sub Surface Surveys	SITE: **John Wayne Airport** **18601 Airport Way** **Santa Ana, California**	TITLE: **Borehole Photographs**	SURVEY DATE: **August 17 & 18, 2016**
		PREPARED FOR: **AMEC Foster Wheeler**	SSS PROJECT NO: **16-379**

Figure 32

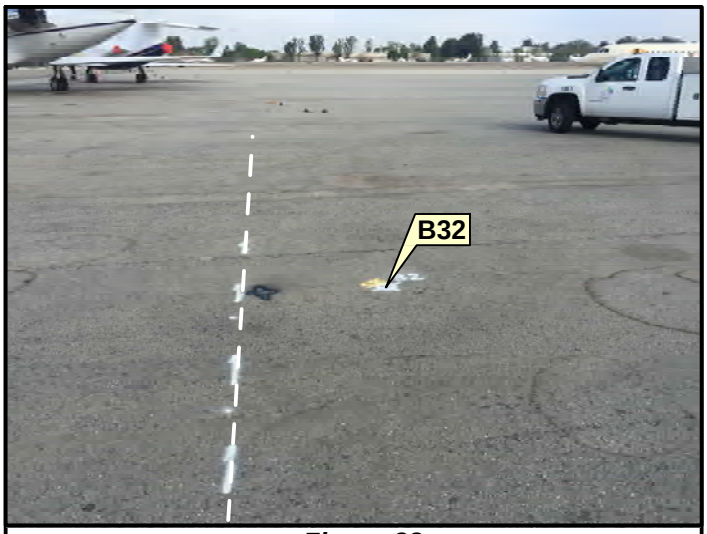


Figure 33

Figure 34

Figure 35

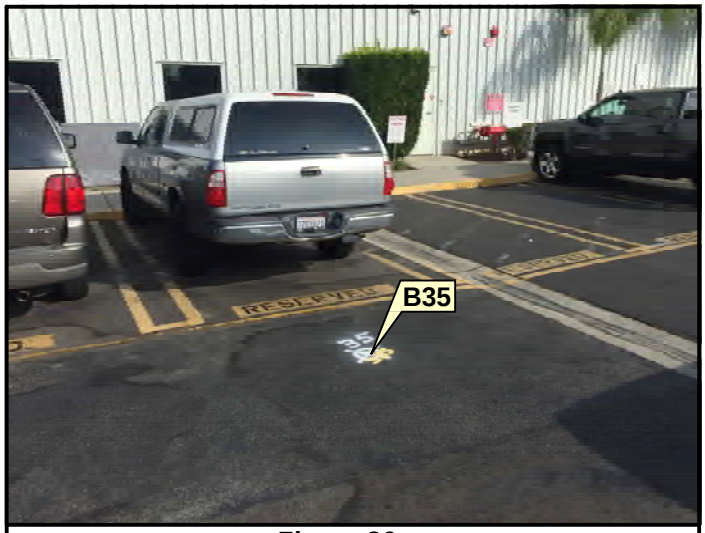


Figure 36

Figure 37

Sub Surface Surveys	SITE: **John Wayne Airport** **18601 Airport Way** **Santa Ana, California**	TITLE: **Borehole Photographs**	SURVEY DATE: **August 17 & 18, 2016**
		PREPARED FOR: **AMEC Foster Wheeler**	SSS PROJECT NO: **16-379**

Figure 38

Figure 39

Figure 40

Figure 41

Figure 42

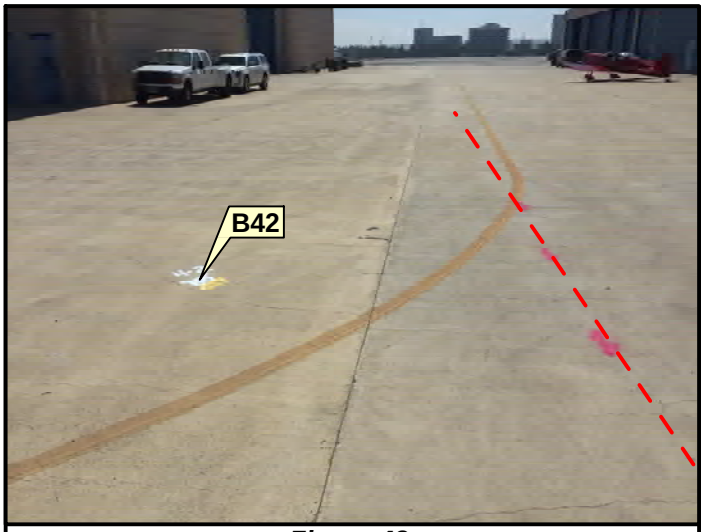


Figure 43

Sub Surface Surveys	SITE: **John Wayne Airport** **18601 Airport Way** **Santa Ana, California**	TITLE: **Borehole Photographs**	SURVEY DATE: **August 17 & 18, 2016**
		PREPARED FOR: **AMEC Foster Wheeler**	SSS PROJECT NO: **16-379**

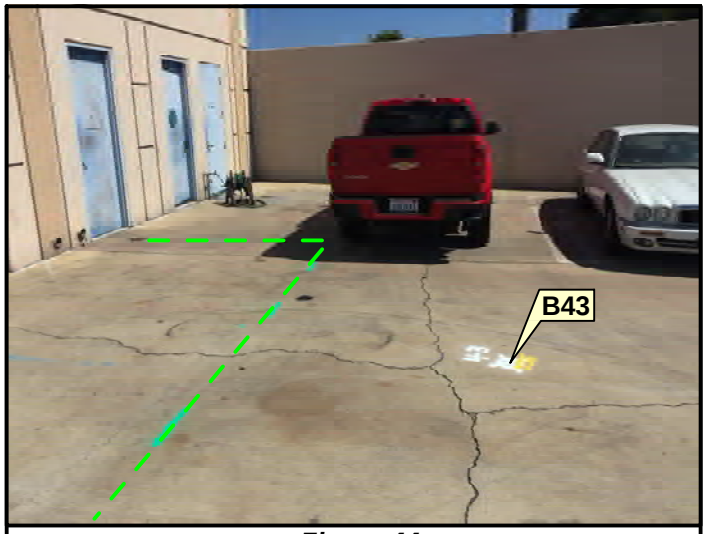


Figure 44

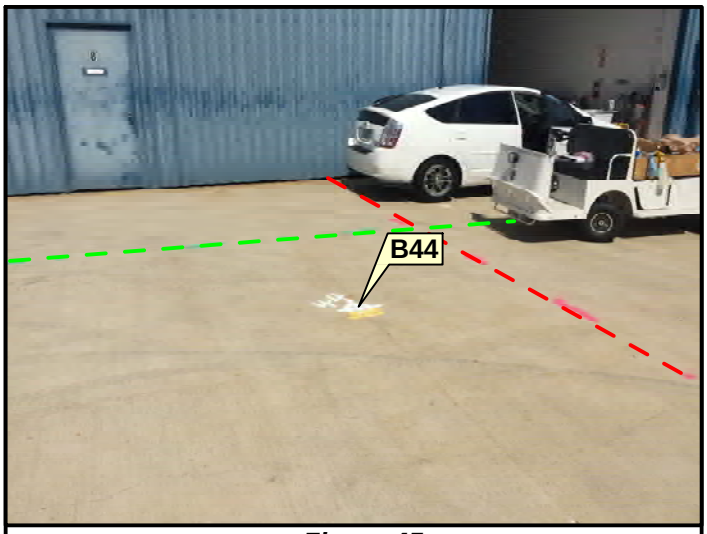


Figure 45

Figure 46

Figure 47

Figure 48

Figure 49

Sub Surface Surveys	SITE: **John Wayne Airport** **18601 Airport Way** **Santa Ana, California**	TITLE: **Borehole Photographs**	SURVEY DATE: **August 17 & 18, 2016**
		PREPARED FOR: **AMEC Foster Wheeler**	SSS PROJECT NO: **16-379**

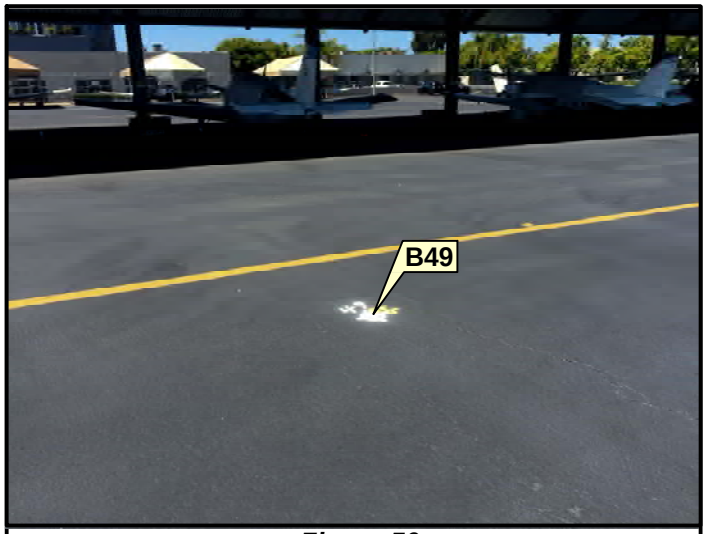


Figure 50

Figure 51

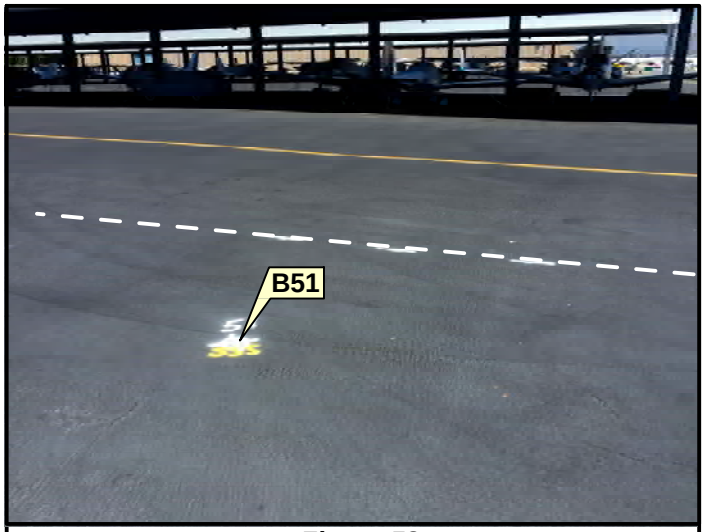


Figure 52

Figure 53

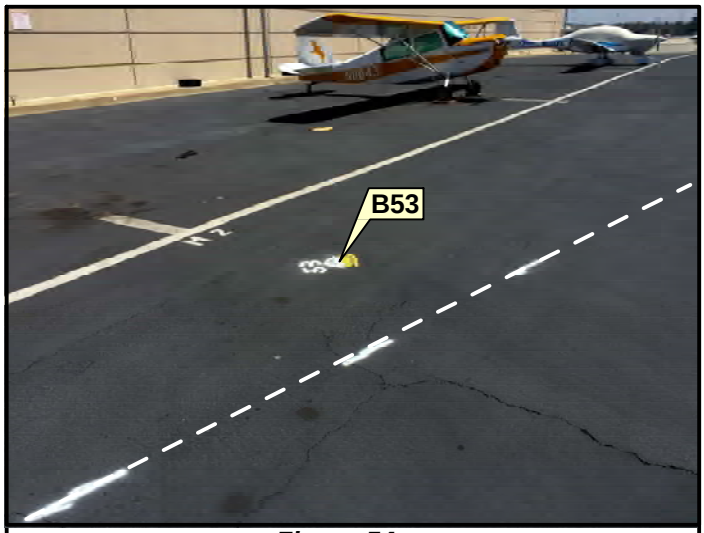


Figure 54

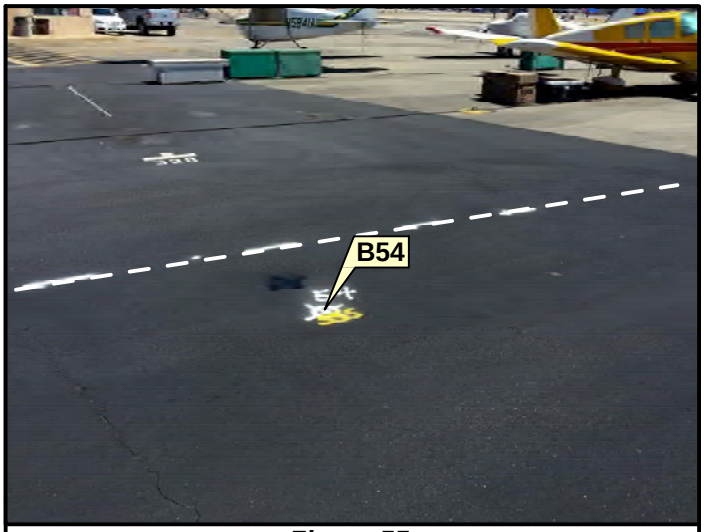


Figure 55

Sub Surface Surveys	SITE: **John Wayne Airport** **18601 Airport Way** **Santa Ana, California**	TITLE: **Borehole Photographs**	SURVEY DATE: **August 17 & 18, 2016**
		PREPARED FOR: **AMEC Foster Wheeler**	SSS PROJECT NO: **16-379**

APPENDIX B

Laboratory Reports and Chain-of-Custody Records

eurofins | Calscience

WORK ORDER NUMBER: 16-08-1682

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Amec Foster Wheeler Environment & Infrastructure,

Client Project Name: John Wayne Airport (JWA) / IR13164420

Attention: Duane Paul
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 09/07/2016 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

eurofins | Calscience

Contents

Client Project Name: John Wayne Airport (JWA) / IR13164420
Work Order Number: 16-08-1682

eurofins | Calscience

Work Order Narrative

Work Order: 16-08-1682 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 08/23/16. They were assigned to Work Order 16-08-1682.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Return to Contents

eurofins | Calscience

Sample Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1682
		Project Name:	John Wayne Airport (JWA) / IR13164420
		PO Number:	
		Date/Time Received:	08/23/16 17:10
		Number of Containers:	44
Attn:	Duane Paul		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
GAIP-SB9-2	16-08-1682-1	08/23/16 08:55	4	Solid
GAIP-SB13-2	16-08-1682-2	08/23/16 09:25	4	Solid
GAIP-SB14-2	16-08-1682-3	08/23/16 09:50	4	Solid
GAIP-SB15-2	16-08-1682-4	08/23/16 10:25	4	Solid
GAIP-SB16-2	16-08-1682-5	08/23/16 10:50	4	Solid
GAIP-SB17-2	16-08-1682-6	08/23/16 11:15	4	Solid
GAIP-SB19-2	16-08-1682-7	08/23/16 13:30	4	Solid
GAIP-SB21-2	16-08-1682-8	08/23/16 14:25	4	Solid
GAIP-SB22-2	16-08-1682-9	08/23/16 14:45	4	Solid
GAIP-SB23-2	16-08-1682-10	08/23/16 15:05	4	Solid
GAIP-SB24-2	16-08-1682-11	08/23/16 15:30	4	Solid

Return to Contents

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1682
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/23/16
Attn:	Duane Paul		Page 1 of 5

Client SampleID Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP-SB9-2 (16-08-1682-1)						
Arsenic	2.70		0.785	mg/kg	EPA 6010B	EPA 3050B
Barium	42.0		0.524	mg/kg	EPA 6010B	EPA 3050B
Chromium	9.04		0.262	mg/kg	EPA 6010B	EPA 3050B
Cobalt	4.84		0.262	mg/kg	EPA 6010B	EPA 3050B
Copper	8.41		0.524	mg/kg	EPA 6010B	EPA 3050B
Lead	5.08		0.524	mg/kg	EPA 6010B	EPA 3050B
Nickel	5.19		0.262	mg/kg	EPA 6010B	EPA 3050B
Vanadium	20.6		0.262	mg/kg	EPA 6010B	EPA 3050B
Zinc	21.8		1.05	mg/kg	EPA 6010B	EPA 3050B
GAIP-SB13-2 (16-08-1682-2)						
Arsenic	3.13		0.758	mg/kg	EPA 6010B	EPA 3050B
Barium	51.3		0.505	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.256		0.253	mg/kg	EPA 6010B	EPA 3050B
Chromium	8.87		0.253	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.70		0.253	mg/kg	EPA 6010B	EPA 3050B
Copper	16.9		0.505	mg/kg	EPA 6010B	EPA 3050B
Lead	4.38		0.505	mg/kg	EPA 6010B	EPA 3050B
Nickel	5.81		0.253	mg/kg	EPA 6010B	EPA 3050B
Vanadium	20.4		0.253	mg/kg	EPA 6010B	EPA 3050B
Zinc	21.1		1.01	mg/kg	EPA 6010B	EPA 3050B
C33-C36	6.4		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	14		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
GAIP-SB14-2 (16-08-1682-3)						
Arsenic	3.54		0.739	mg/kg	EPA 6010B	EPA 3050B
Barium	38.1		0.493	mg/kg	EPA 6010B	EPA 3050B
Chromium	9.92		0.246	mg/kg	EPA 6010B	EPA 3050B
Cobalt	5.77		0.246	mg/kg	EPA 6010B	EPA 3050B
Copper	7.96		0.493	mg/kg	EPA 6010B	EPA 3050B
Lead	5.20		0.493	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.251		0.246	mg/kg	EPA 6010B	EPA 3050B
Nickel	5.26		0.246	mg/kg	EPA 6010B	EPA 3050B
Vanadium	21.9		0.246	mg/kg	EPA 6010B	EPA 3050B
Zinc	22.7		0.985	mg/kg	EPA 6010B	EPA 3050B
C29-C32	6.1		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	10		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	9.2		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	30		5.0	mg/kg	EPA 8015B (M)	EPA 3550B

* MDL is shown

Return to Contents

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1682
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/23/16
Attn:	Duane Paul		Page 2 of 5

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP-SB15-2 (16-08-1682-4)						
Arsenic	5.07		0.773	mg/kg	EPA 6010B	EPA 3050B
Barium	53.7		0.515	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.440		0.258	mg/kg	EPA 6010B	EPA 3050B
Chromium	16.4		0.258	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.04		0.258	mg/kg	EPA 6010B	EPA 3050B
Copper	9.04		0.515	mg/kg	EPA 6010B	EPA 3050B
Lead	6.73		0.515	mg/kg	EPA 6010B	EPA 3050B
Nickel	10.2		0.258	mg/kg	EPA 6010B	EPA 3050B
Vanadium	31.6		0.258	mg/kg	EPA 6010B	EPA 3050B
Zinc	34.8		1.03	mg/kg	EPA 6010B	EPA 3050B
Acetone	46		40	ug/kg	EPA 8260B	EPA 5035
GAIP-SB16-2 (16-08-1682-5)						
Arsenic	3.91		0.777	mg/kg	EPA 6010B	EPA 3050B
Barium	47.3		0.518	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.307		0.259	mg/kg	EPA 6010B	EPA 3050B
Chromium	10.7		0.259	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.31		0.259	mg/kg	EPA 6010B	EPA 3050B
Copper	6.78		0.518	mg/kg	EPA 6010B	EPA 3050B
Lead	5.42		0.518	mg/kg	EPA 6010B	EPA 3050B
Nickel	6.78		0.259	mg/kg	EPA 6010B	EPA 3050B
Vanadium	24.5		0.259	mg/kg	EPA 6010B	EPA 3050B
Zinc	24.8		1.04	mg/kg	EPA 6010B	EPA 3050B
C29-C32	6.2		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	7.9		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	23		5.0	mg/kg	EPA 8015B (M)	EPA 3550B

Return to Contents

* MDL is shown

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1682
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/23/16
Attn:	Duane Paul		Page 3 of 5

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP-SB17-2 (16-08-1682-6)						
Arsenic	6.12		0.769	mg/kg	EPA 6010B	EPA 3050B
Barium	75.2		0.513	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.508		0.256	mg/kg	EPA 6010B	EPA 3050B
Chromium	17.8		0.256	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.2		0.256	mg/kg	EPA 6010B	EPA 3050B
Copper	11.6		0.513	mg/kg	EPA 6010B	EPA 3050B
Lead	8.64		0.513	mg/kg	EPA 6010B	EPA 3050B
Nickel	12.2		0.256	mg/kg	EPA 6010B	EPA 3050B
Vanadium	35.0		0.256	mg/kg	EPA 6010B	EPA 3050B
Zinc	40.3		1.03	mg/kg	EPA 6010B	EPA 3050B
C19-C20	18		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C21-C22	13		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C23-C24	12		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	9.4		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	10		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	12		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	6.0		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	81		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
GAIP-SB19-2 (16-08-1682-7)						
Arsenic	3.84		0.785	mg/kg	EPA 6010B	EPA 3050B
Barium	56.7		0.524	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.395		0.262	mg/kg	EPA 6010B	EPA 3050B
Chromium	13.3		0.262	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.1		0.262	mg/kg	EPA 6010B	EPA 3050B
Copper	8.45		0.524	mg/kg	EPA 6010B	EPA 3050B
Lead	6.39		0.524	mg/kg	EPA 6010B	EPA 3050B
Nickel	8.66		0.262	mg/kg	EPA 6010B	EPA 3050B
Vanadium	29.0		0.262	mg/kg	EPA 6010B	EPA 3050B
Zinc	30.1		1.05	mg/kg	EPA 6010B	EPA 3050B
Acetone	50		42	ug/kg	EPA 8260B	EPA 5035

Return to Contents

* MDL is shown

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1682
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/23/16
Attn:	Duane Paul		Page 4 of 5

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP-SB21-2 (16-08-1682-8)						
Antimony	0.839		0.743	mg/kg	EPA 6010B	EPA 3050B
Arsenic	5.38		0.743	mg/kg	EPA 6010B	EPA 3050B
Barium	52.0		0.495	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.333		0.248	mg/kg	EPA 6010B	EPA 3050B
Chromium	12.0		0.248	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.65		0.248	mg/kg	EPA 6010B	EPA 3050B
Copper	8.49		0.495	mg/kg	EPA 6010B	EPA 3050B
Lead	6.70		0.495	mg/kg	EPA 6010B	EPA 3050B
Nickel	7.87		0.248	mg/kg	EPA 6010B	EPA 3050B
Vanadium	25.8		0.248	mg/kg	EPA 6010B	EPA 3050B
Zinc	42.9		0.990	mg/kg	EPA 6010B	EPA 3050B
C25-C28	7.9		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	17		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	29		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	25		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C41-C44	16		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	96		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
GAIP-SB22-2 (16-08-1682-9)						
Arsenic	3.11		0.735	mg/kg	EPA 6010B	EPA 3050B
Barium	57.4		0.490	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.317		0.245	mg/kg	EPA 6010B	EPA 3050B
Chromium	12.0		0.245	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.90		0.245	mg/kg	EPA 6010B	EPA 3050B
Copper	6.10		0.490	mg/kg	EPA 6010B	EPA 3050B
Lead	5.35		0.490	mg/kg	EPA 6010B	EPA 3050B
Nickel	7.44		0.245	mg/kg	EPA 6010B	EPA 3050B
Vanadium	24.3		0.245	mg/kg	EPA 6010B	EPA 3050B
Zinc	25.0		0.980	mg/kg	EPA 6010B	EPA 3050B
Acetone	65		42	ug/kg	EPA 8260B	EPA 5035

Return to Contents

* MDL is shown

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1682
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/23/16
Attn:	Duane Paul		Page 5 of 5

Client SampleID Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP-SB23-2 (16-08-1682-10)						
Antimony	1.01		0.718	mg/kg	EPA 6010B	EPA 3050B
Arsenic	3.69		0.718	mg/kg	EPA 6010B	EPA 3050B
Barium	50.8		0.478	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.322		0.239	mg/kg	EPA 6010B	EPA 3050B
Chromium	12.2		0.239	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.25		0.239	mg/kg	EPA 6010B	EPA 3050B
Copper	7.96		0.478	mg/kg	EPA 6010B	EPA 3050B
Lead	5.57		0.478	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.247		0.239	mg/kg	EPA 6010B	EPA 3050B
Nickel	6.19		0.239	mg/kg	EPA 6010B	EPA 3050B
Vanadium	24.4		0.239	mg/kg	EPA 6010B	EPA 3050B
Zinc	26.4		0.957	mg/kg	EPA 6010B	EPA 3050B
Acetone	53		43	ug/kg	EPA 8260B	EPA 5035
GAIP-SB24-2 (16-08-1682-11)						
Arsenic	4.51		0.732	mg/kg	EPA 6010B	EPA 3050B
Barium	55.0		0.488	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.360		0.244	mg/kg	EPA 6010B	EPA 3050B
Chromium	14.6		0.244	mg/kg	EPA 6010B	EPA 3050B
Cobalt	13.9		0.244	mg/kg	EPA 6010B	EPA 3050B
Copper	8.89		0.488	mg/kg	EPA 6010B	EPA 3050B
Lead	6.85		0.488	mg/kg	EPA 6010B	EPA 3050B
Nickel	9.67		0.244	mg/kg	EPA 6010B	EPA 3050B
Vanadium	28.5		0.244	mg/kg	EPA 6010B	EPA 3050B
Zinc	30.9		0.976	mg/kg	EPA 6010B	EPA 3050B
C29-C32	52		25	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	81		25	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	61		25	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	2200		25	mg/kg	EPA 8015B (M)	EPA 3550B
Acetone	54		44	ug/kg	EPA 8260B	EPA 5035

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

* MDL is shown

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB9-2	**16-08-1682-1-A**	**08/23/16 08:55**	**Solid**	**GC 48**	**08/25/16**	**08/26/16 19:07**	**160825B08**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	83	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB13-2	**16-08-1682-2-A**	**08/23/16 09:25**	**Solid**	**GC 48**	**08/25/16**	**08/26/16 19:23**	**160825B08**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	6.4	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	14	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	77	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB14-2	**16-08-1682-3-A**	**08/23/16 09:50**	**Solid**	**GC 48**	**08/25/16**	**08/26/16 19:38**	**160825B08**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	6.1	5.0	1.00	
C33-C36	10	5.0	1.00	
C37-C40	9.2	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	30	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	75	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	08/23/16
121 Innovation Drive, Suite 200		Work Order:	16-08-1682
Irvine, CA 92617-3094		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
		Units:	mg/kg
Project: John Wayne Airport (JWA) / IR13164420			Page 4 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB15-2	**16-08-1682-4-A**	**08/23/16 10:25**	**Solid**	**GC 48**	**08/25/16**	**08/26/16 19:53**	**160825B08**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	78	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB16-2	**16-08-1682-5-A**	**08/23/16 10:50**	**Solid**	**GC 48**	**08/25/16**	**08/26/16 20:09**	**160825B08**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	6.2	5.0	1.00	
C33-C36	7.9	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	23	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	77	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB17-2	**16-08-1682-6-A**	**08/23/16 11:15**	**Solid**	**GC 48**	**08/25/16**	**08/26/16 20:24**	**160825B08**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	18	5.0	1.00	
C21-C22	13	5.0	1.00	
C23-C24	12	5.0	1.00	
C25-C28	9.4	5.0	1.00	
C29-C32	10	5.0	1.00	
C33-C36	12	5.0	1.00	
C37-C40	6.0	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	81	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	77	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB19-2	**16-08-1682-7-A**	**08/23/16 13:30**	**Solid**	**GC 48**	**08/25/16**	**08/26/16 20:40**	**160825B08**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	76	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB21-2	**16-08-1682-8-A**	**08/23/16 14:25**	**Solid**	**GC 48**	**08/25/16**	**08/26/16 21:10**	**160825B08**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	7.9	5.0	1.00	
C29-C32	17	5.0	1.00	
C33-C36	29	5.0	1.00	
C37-C40	25	5.0	1.00	
C41-C44	16	5.0	1.00	
C6-C44 Total	96	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	77	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB22-2	**16-08-1682-9-A**	**08/23/16 14:45**	**Solid**	**GC 48**	**08/25/16**	**08/26/16 21:26**	**160825B08**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	79	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB23-2	**16-08-1682-10-A**	**08/23/16 15:05**	**Solid**	**GC 48**	**08/25/16**	**08/26/16 21:41**	**160825B08**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	74	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB24-2	**16-08-1682-11-A**	**08/23/16 15:30**	**Solid**	**GC 48**	**08/25/16**	**08/26/16 21:56**	**160825B08**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	25	5.00	
C7	ND	25	5.00	
C8	ND	25	5.00	
C9-C10	ND	25	5.00	
C11-C12	ND	25	5.00	
C13-C14	ND	25	5.00	
C15-C16	ND	25	5.00	
C17-C18	ND	25	5.00	
C19-C20	ND	25	5.00	
C21-C22	ND	25	5.00	
C23-C24	ND	25	5.00	
C25-C28	ND	25	5.00	
C29-C32	52	25	5.00	
C33-C36	81	25	5.00	
C37-C40	61	25	5.00	
C41-C44	ND	25	5.00	
C6-C44 Total	2200	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	77	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-490-2240**	**N/A**	**Solid**	**GC 48**	**08/25/16**	**08/26/16 15:32**	**160825B08**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	75	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB9-2	**16-08-1682-1-A**	**08/23/16 08:55**	**Solid**	**ICP 8300**	**08/26/16**	**08/29/16 17:03**	**160826L04**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.785	1.05	
Arsenic	2.70	0.785	1.05	
Barium	42.0	0.524	1.05	
Beryllium	ND	0.262	1.05	
Cadmium	ND	0.524	1.05	
Chromium	9.04	0.262	1.05	
Cobalt	4.84	0.262	1.05	
Copper	8.41	0.524	1.05	
Lead	5.08	0.524	1.05	
Molybdenum	ND	0.262	1.05	
Nickel	5.19	0.262	1.05	
Selenium	ND	0.785	1.05	
Silver	ND	0.262	1.05	
Thallium	ND	0.785	1.05	
Vanadium	20.6	0.262	1.05	
Zinc	21.8	1.05	1.05	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 2 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB13-2	**16-08-1682-2-A**	**08/23/16 09:25**	**Solid**	**ICP 8300**	**08/26/16**	**08/29/16 17:08**	**160826L04**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.758	1.01	
Arsenic	3.13	0.758	1.01	
Barium	51.3	0.505	1.01	
Beryllium	0.256	0.253	1.01	
Cadmium	ND	0.505	1.01	
Chromium	8.87	0.253	1.01	
Cobalt	6.70	0.253	1.01	
Copper	16.9	0.505	1.01	
Lead	4.38	0.505	1.01	
Molybdenum	ND	0.253	1.01	
Nickel	5.81	0.253	1.01	
Selenium	ND	0.758	1.01	
Silver	ND	0.253	1.01	
Thallium	ND	0.758	1.01	
Vanadium	20.4	0.253	1.01	
Zinc	21.1	1.01	1.01	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 3 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB14-2	**16-08-1682-3-A**	**08/23/16 09:50**	**Solid**	**ICP 8300**	**08/26/16**	**08/29/16 17:09**	**160826L04**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.739	0.985	
Arsenic	3.54	0.739	0.985	
Barium	38.1	0.493	0.985	
Beryllium	ND	0.246	0.985	
Cadmium	ND	0.493	0.985	
Chromium	9.92	0.246	0.985	
Cobalt	5.77	0.246	0.985	
Copper	7.96	0.493	0.985	
Lead	5.20	0.493	0.985	
Molybdenum	0.251	0.246	0.985	
Nickel	5.26	0.246	0.985	
Selenium	ND	0.739	0.985	
Silver	ND	0.246	0.985	
Thallium	ND	0.739	0.985	
Vanadium	21.9	0.246	0.985	
Zinc	22.7	0.985	0.985	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 4 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB15-2	**16-08-1682-4-A**	**08/23/16 10:25**	**Solid**	**ICP 8300**	**08/26/16**	**08/29/16 17:11**	**160826L04**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.773	1.03	
Arsenic	5.07	0.773	1.03	
Barium	53.7	0.515	1.03	
Beryllium	0.440	0.258	1.03	
Cadmium	ND	0.515	1.03	
Chromium	16.4	0.258	1.03	
Cobalt	7.04	0.258	1.03	
Copper	9.04	0.515	1.03	
Lead	6.73	0.515	1.03	
Molybdenum	ND	0.258	1.03	
Nickel	10.2	0.258	1.03	
Selenium	ND	0.773	1.03	
Silver	ND	0.258	1.03	
Thallium	ND	0.773	1.03	
Vanadium	31.6	0.258	1.03	
Zinc	34.8	1.03	1.03	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB16-2	**16-08-1682-5-A**	**08/23/16 10:50**	**Solid**	**ICP 8300**	**08/26/16**	**08/29/16 17:16**	**160826L04**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.777	1.04	
Arsenic	3.91	0.777	1.04	
Barium	47.3	0.518	1.04	
Beryllium	0.307	0.259	1.04	
Cadmium	ND	0.518	1.04	
Chromium	10.7	0.259	1.04	
Cobalt	6.31	0.259	1.04	
Copper	6.78	0.518	1.04	
Lead	5.42	0.518	1.04	
Molybdenum	ND	0.259	1.04	
Nickel	6.78	0.259	1.04	
Selenium	ND	0.777	1.04	
Silver	ND	0.259	1.04	
Thallium	ND	0.777	1.04	
Vanadium	24.5	0.259	1.04	
Zinc	24.8	1.04	1.04	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 6 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB17-2	**16-08-1682-6-A**	**08/23/16 11:15**	**Solid**	**ICP 8300**	**08/26/16**	**08/29/16 17:18**	**160826L04**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.769	1.03	
Arsenic	6.12	0.769	1.03	
Barium	75.2	0.513	1.03	
Beryllium	0.508	0.256	1.03	
Cadmium	ND	0.513	1.03	
Chromium	17.8	0.256	1.03	
Cobalt	10.2	0.256	1.03	
Copper	11.6	0.513	1.03	
Lead	8.64	0.513	1.03	
Molybdenum	ND	0.256	1.03	
Nickel	12.2	0.256	1.03	
Selenium	ND	0.769	1.03	
Silver	ND	0.256	1.03	
Thallium	ND	0.769	1.03	
Vanadium	35.0	0.256	1.03	
Zinc	40.3	1.03	1.03	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB19-2	**16-08-1682-7-A**	**08/23/16 13:30**	**Solid**	**ICP 8300**	**08/26/16**	**08/29/16 17:19**	**160826L04**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.785	1.05	
Arsenic	3.84	0.785	1.05	
Barium	56.7	0.524	1.05	
Beryllium	0.395	0.262	1.05	
Cadmium	ND	0.524	1.05	
Chromium	13.3	0.262	1.05	
Cobalt	11.1	0.262	1.05	
Copper	8.45	0.524	1.05	
Lead	6.39	0.524	1.05	
Molybdenum	ND	0.262	1.05	
Nickel	8.66	0.262	1.05	
Selenium	ND	0.785	1.05	
Silver	ND	0.262	1.05	
Thallium	ND	0.785	1.05	
Vanadium	29.0	0.262	1.05	
Zinc	30.1	1.05	1.05	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB21-2	**16-08-1682-8-A**	**08/23/16 14:25**	**Solid**	**ICP 8300**	**08/26/16**	**08/29/16 17:21**	**160826L04**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.839	0.743	0.990	
Arsenic	5.38	0.743	0.990	
Barium	52.0	0.495	0.990	
Beryllium	0.333	0.248	0.990	
Cadmium	ND	0.495	0.990	
Chromium	12.0	0.248	0.990	
Cobalt	6.65	0.248	0.990	
Copper	8.49	0.495	0.990	
Lead	6.70	0.495	0.990	
Molybdenum	ND	0.248	0.990	
Nickel	7.87	0.248	0.990	
Selenium	ND	0.743	0.990	
Silver	ND	0.248	0.990	
Thallium	ND	0.743	0.990	
Vanadium	25.8	0.248	0.990	
Zinc	42.9	0.990	0.990	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB22-2	**16-08-1682-9-A**	**08/23/16 14:45**	**Solid**	**ICP 8300**	**08/26/16**	**08/29/16 17:22**	**160826L04**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.735	0.980	
Arsenic	3.11	0.735	0.980	
Barium	57.4	0.490	0.980	
Beryllium	0.317	0.245	0.980	
Cadmium	ND	0.490	0.980	
Chromium	12.0	0.245	0.980	
Cobalt	6.90	0.245	0.980	
Copper	6.10	0.490	0.980	
Lead	5.35	0.490	0.980	
Molybdenum	ND	0.245	0.980	
Nickel	7.44	0.245	0.980	
Selenium	ND	0.735	0.980	
Silver	ND	0.245	0.980	
Thallium	ND	0.735	0.980	
Vanadium	24.3	0.245	0.980	
Zinc	25.0	0.980	0.980	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB23-2	**16-08-1682-10-A**	**08/23/16 15:05**	**Solid**	**ICP 8300**	**08/26/16**	**08/29/16 17:24**	**160826L04**

Parameter	Result	RL	DF	Qualifiers
Antimony	1.01	0.718	0.957	
Arsenic	3.69	0.718	0.957	
Barium	50.8	0.478	0.957	
Beryllium	0.322	0.239	0.957	
Cadmium	ND	0.478	0.957	
Chromium	12.2	0.239	0.957	
Cobalt	6.25	0.239	0.957	
Copper	7.96	0.478	0.957	
Lead	5.57	0.478	0.957	
Molybdenum	0.247	0.239	0.957	
Nickel	6.19	0.239	0.957	
Selenium	ND	0.718	0.957	
Silver	ND	0.239	0.957	
Thallium	ND	0.718	0.957	
Vanadium	24.4	0.239	0.957	
Zinc	26.4	0.957	0.957	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 11 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB24-2	**16-08-1682-11-A**	**08/23/16 15:30**	**Solid**	**ICP 8300**	**08/26/16**	**08/29/16 17:26**	**160826L04**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.732	0.976	
Arsenic	4.51	0.732	0.976	
Barium	55.0	0.488	0.976	
Beryllium	0.360	0.244	0.976	
Cadmium	ND	0.488	0.976	
Chromium	14.6	0.244	0.976	
Cobalt	13.9	0.244	0.976	
Copper	8.89	0.488	0.976	
Lead	6.85	0.488	0.976	
Molybdenum	ND	0.244	0.976	
Nickel	9.67	0.244	0.976	
Selenium	ND	0.732	0.976	
Silver	ND	0.244	0.976	
Thallium	ND	0.732	0.976	
Vanadium	28.5	0.244	0.976	
Zinc	30.9	0.976	0.976	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-23150**	**N/A**	**Solid**	**ICP 8300**	**08/26/16**	**08/29/16 12:15**	**160826L04**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.761	1.02	
Arsenic	ND	0.761	1.02	
Barium	ND	0.508	1.02	
Beryllium	ND	0.254	1.02	
Cadmium	ND	0.508	1.02	
Chromium	ND	0.254	1.02	
Cobalt	ND	0.254	1.02	
Copper	ND	0.508	1.02	
Lead	ND	0.508	1.02	
Molybdenum	ND	0.254	1.02	
Nickel	ND	0.254	1.02	
Selenium	ND	0.761	1.02	
Silver	ND	0.254	1.02	
Thallium	ND	0.761	1.02	
Vanadium	ND	0.254	1.02	
Zinc	ND	1.02	1.02	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Project: John Wayne Airport (JWA) / IR13164420

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB9-2	**16-08-1682-1-A**	**08/23/16 08:55**	**Solid**	**Mercury 04**	**08/29/16**	**08/29/16 22:58**	**160829L07**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0820	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB13-2	**16-08-1682-2-A**	**08/23/16 09:25**	**Solid**	**Mercury 04**	**08/29/16**	**08/29/16 23:05**	**160829L07**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0847	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB14-2	**16-08-1682-3-A**	**08/23/16 09:50**	**Solid**	**Mercury 04**	**08/29/16**	**08/29/16 23:07**	**160829L07**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0806	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB15-2	**16-08-1682-4-A**	**08/23/16 10:25**	**Solid**	**Mercury 04**	**08/29/16**	**08/29/16 23:09**	**160829L07**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0806	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB16-2	**16-08-1682-5-A**	**08/23/16 10:50**	**Solid**	**Mercury 04**	**08/29/16**	**08/29/16 23:11**	**160829L07**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0820	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB17-2	**16-08-1682-6-A**	**08/23/16 11:15**	**Solid**	**Mercury 04**	**08/29/16**	**08/29/16 23:14**	**160829L07**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0820	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB19-2	**16-08-1682-7-A**	**08/23/16 13:30**	**Solid**	**Mercury 04**	**08/29/16**	**08/29/16 23:16**	**160829L07**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0847	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB21-2	**16-08-1682-8-A**	**08/23/16 14:25**	**Solid**	**Mercury 04**	**08/29/16**	**08/29/16 23:23**	**160829L07**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0806	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB22-2	**16-08-1682-9-A**	**08/23/16 14:45**	**Solid**	**Mercury 04**	**08/29/16**	**08/29/16 23:25**	**160829L07**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0806	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB23-2	**16-08-1682-10-A**	**08/23/16 15:05**	**Solid**	**Mercury 04**	**08/29/16**	**08/29/16 23:27**	**160829L07**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0806	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB24-2	**16-08-1682-11-A**	**08/23/16 15:30**	**Solid**	**Mercury 04**	**08/29/16**	**08/29/16 23:29**	**160829L07**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0862	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-16-272-2473**	**N/A**	**Solid**	**Mercury 04**	**08/29/16**	**08/29/16 22:49**	**160829L07**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0833	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB9-2	**16-08-1682-1-C**	**08/23/16 08:55**	**Solid**	**GC/MS QQ**	**08/23/16**	**08/25/16 14:34**	**160825L012**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	44	1.00	
Benzene	ND	0.89	1.00	
Bromobenzene	ND	0.89	1.00	
Bromochloromethane	ND	1.8	1.00	
Bromodichloromethane	ND	0.89	1.00	
Bromoform	ND	4.4	1.00	
Bromomethane	ND	18	1.00	
2-Butanone	ND	18	1.00	
n-Butylbenzene	ND	0.89	1.00	
sec-Butylbenzene	ND	0.89	1.00	
tert-Butylbenzene	ND	0.89	1.00	
Carbon Disulfide	ND	8.9	1.00	
Carbon Tetrachloride	ND	0.89	1.00	
Chlorobenzene	ND	0.89	1.00	
Chloroethane	ND	1.8	1.00	
Chloroform	ND	0.89	1.00	
Chloromethane	ND	18	1.00	
2-Chlorotoluene	ND	0.89	1.00	
4-Chlorotoluene	ND	0.89	1.00	
Dibromochloromethane	ND	1.8	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.4	1.00	
1,2-Dibromoethane	ND	0.89	1.00	
Dibromomethane	ND	0.89	1.00	
1,2-Dichlorobenzene	ND	0.89	1.00	
1,3-Dichlorobenzene	ND	0.89	1.00	
1,4-Dichlorobenzene	ND	0.89	1.00	
Dichlorodifluoromethane	ND	1.8	1.00	
1,1-Dichloroethane	ND	0.89	1.00	
1,2-Dichloroethane	ND	0.89	1.00	
1,1-Dichloroethene	ND	0.89	1.00	
c-1,2-Dichloroethene	ND	0.89	1.00	
t-1,2-Dichloroethene	ND	0.89	1.00	
1,2-Dichloropropane	ND	0.89	1.00	
1,3-Dichloropropane	ND	0.89	1.00	
2,2-Dichloropropane	ND	4.4	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.8	1.00	
c-1,3-Dichloropropene	ND	0.89	1.00	
t-1,3-Dichloropropene	ND	1.8	1.00	
Ethylbenzene	ND	0.89	1.00	
2-Hexanone	ND	18	1.00	
Isopropylbenzene	ND	0.89	1.00	
p-Isopropyltoluene	ND	0.89	1.00	
Methylene Chloride	ND	8.9	1.00	
4-Methyl-2-Pentanone	ND	18	1.00	
Naphthalene	ND	8.9	1.00	
n-Propylbenzene	ND	1.8	1.00	
Styrene	ND	0.89	1.00	
1,1,1,2-Tetrachloroethane	ND	0.89	1.00	
1,1,2,2-Tetrachloroethane	ND	1.8	1.00	
Tetrachloroethene	ND	0.89	1.00	
Toluene	ND	0.89	1.00	
1,2,3-Trichlorobenzene	ND	1.8	1.00	
1,2,4-Trichlorobenzene	ND	1.8	1.00	
1,1,1-Trichloroethane	ND	0.89	1.00	
1,1,2-Trichloroethane	ND	0.89	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.9	1.00	
Trichloroethene	ND	1.8	1.00	
Trichlorofluoromethane	ND	8.9	1.00	
1,2,3-Trichloropropane	ND	1.8	1.00	
1,2,4-Trimethylbenzene	ND	1.8	1.00	
1,3,5-Trimethylbenzene	ND	1.8	1.00	
Vinyl Acetate	ND	8.9	1.00	
Vinyl Chloride	ND	0.89	1.00	
p/m-Xylene	ND	1.8	1.00	
o-Xylene	ND	0.89	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	1.00	
Tert-Butyl Alcohol (TBA)	ND	18	1.00	
Diisopropyl Ether (DIPE)	ND	0.89	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.89	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.89	1.00	
Ethanol	ND	440	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/23/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1682
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 3 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	110	79-133	
1,2-Dichloroethane-d4	128	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB13-2	**16-08-1682-2-C**	**08/23/16 09:25**	**Solid**	**GC/MS QQ**	**08/23/16**	**08/25/16 15:03**	**160825L012**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	50	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	20	1.00	
2-Butanone	ND	20	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	2.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.0	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	20	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	20	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	20	1.00	
Diisopropyl Ether (DIPE)	ND	1.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	1.00	
Ethanol	ND	500	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/23/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1682
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 6 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	112	79-133	
1,2-Dichloroethane-d4	129	71-155	
Toluene-d8	101	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 7 of 36

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB14-2	**16-08-1682-3-C**	**08/23/16 09:50**	**Solid**	**GC/MS QQ**	**08/23/16**	**08/25/16 15:32**	**160825L012**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	41	1.00	
Benzene	ND	0.83	1.00	
Bromobenzene	ND	0.83	1.00	
Bromochloromethane	ND	1.7	1.00	
Bromodichloromethane	ND	0.83	1.00	
Bromoform	ND	4.1	1.00	
Bromomethane	ND	17	1.00	
2-Butanone	ND	17	1.00	
n-Butylbenzene	ND	0.83	1.00	
sec-Butylbenzene	ND	0.83	1.00	
tert-Butylbenzene	ND	0.83	1.00	
Carbon Disulfide	ND	8.3	1.00	
Carbon Tetrachloride	ND	0.83	1.00	
Chlorobenzene	ND	0.83	1.00	
Chloroethane	ND	1.7	1.00	
Chloroform	ND	0.83	1.00	
Chloromethane	ND	17	1.00	
2-Chlorotoluene	ND	0.83	1.00	
4-Chlorotoluene	ND	0.83	1.00	
Dibromochloromethane	ND	1.7	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.1	1.00	
1,2-Dibromoethane	ND	0.83	1.00	
Dibromomethane	ND	0.83	1.00	
1,2-Dichlorobenzene	ND	0.83	1.00	
1,3-Dichlorobenzene	ND	0.83	1.00	
1,4-Dichlorobenzene	ND	0.83	1.00	
Dichlorodifluoromethane	ND	1.7	1.00	
1,1-Dichloroethane	ND	0.83	1.00	
1,2-Dichloroethane	ND	0.83	1.00	
1,1-Dichloroethene	ND	0.83	1.00	
c-1,2-Dichloroethene	ND	0.83	1.00	
t-1,2-Dichloroethene	ND	0.83	1.00	
1,2-Dichloropropane	ND	0.83	1.00	
1,3-Dichloropropane	ND	0.83	1.00	
2,2-Dichloropropane	ND	4.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.7	1.00	
c-1,3-Dichloropropene	ND	0.83	1.00	
t-1,3-Dichloropropene	ND	1.7	1.00	
Ethylbenzene	ND	0.83	1.00	
2-Hexanone	ND	17	1.00	
Isopropylbenzene	ND	0.83	1.00	
p-Isopropyltoluene	ND	0.83	1.00	
Methylene Chloride	ND	8.3	1.00	
4-Methyl-2-Pentanone	ND	17	1.00	
Naphthalene	ND	8.3	1.00	
n-Propylbenzene	ND	1.7	1.00	
Styrene	ND	0.83	1.00	
1,1,1,2-Tetrachloroethane	ND	0.83	1.00	
1,1,2,2-Tetrachloroethane	ND	1.7	1.00	
Tetrachloroethene	ND	0.83	1.00	
Toluene	ND	0.83	1.00	
1,2,3-Trichlorobenzene	ND	1.7	1.00	
1,2,4-Trichlorobenzene	ND	1.7	1.00	
1,1,1-Trichloroethane	ND	0.83	1.00	
1,1,2-Trichloroethane	ND	0.83	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.3	1.00	
Trichloroethene	ND	1.7	1.00	
Trichlorofluoromethane	ND	8.3	1.00	
1,2,3-Trichloropropane	ND	1.7	1.00	
1,2,4-Trimethylbenzene	ND	1.7	1.00	
1,3,5-Trimethylbenzene	ND	1.7	1.00	
Vinyl Acetate	ND	8.3	1.00	
Vinyl Chloride	ND	0.83	1.00	
p/m-Xylene	ND	1.7	1.00	
o-Xylene	ND	0.83	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	1.00	
Tert-Butyl Alcohol (TBA)	ND	17	1.00	
Diisopropyl Ether (DIPE)	ND	0.83	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.83	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.83	1.00	
Ethanol	ND	410	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/23/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1682
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 9 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	111	79-133	
1,2-Dichloroethane-d4	130	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 10 of 36

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB15-2	**16-08-1682-4-C**	**08/23/16 10:25**	**Solid**	**GC/MS QQ**	**08/23/16**	**08/25/16 16:01**	**160825L012**

Parameter	Result	RL	DF	Qualifiers
Acetone	46	40	1.00	
Benzene	ND	0.80	1.00	
Bromobenzene	ND	0.80	1.00	
Bromochloromethane	ND	1.6	1.00	
Bromodichloromethane	ND	0.80	1.00	
Bromoform	ND	4.0	1.00	
Bromomethane	ND	16	1.00	
2-Butanone	ND	16	1.00	
n-Butylbenzene	ND	0.80	1.00	
sec-Butylbenzene	ND	0.80	1.00	
tert-Butylbenzene	ND	0.80	1.00	
Carbon Disulfide	ND	8.0	1.00	
Carbon Tetrachloride	ND	0.80	1.00	
Chlorobenzene	ND	0.80	1.00	
Chloroethane	ND	1.6	1.00	
Chloroform	ND	0.80	1.00	
Chloromethane	ND	16	1.00	
2-Chlorotoluene	ND	0.80	1.00	
4-Chlorotoluene	ND	0.80	1.00	
Dibromochloromethane	ND	1.6	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.0	1.00	
1,2-Dibromoethane	ND	0.80	1.00	
Dibromomethane	ND	0.80	1.00	
1,2-Dichlorobenzene	ND	0.80	1.00	
1,3-Dichlorobenzene	ND	0.80	1.00	
1,4-Dichlorobenzene	ND	0.80	1.00	
Dichlorodifluoromethane	ND	1.6	1.00	
1,1-Dichloroethane	ND	0.80	1.00	
1,2-Dichloroethane	ND	0.80	1.00	
1,1-Dichloroethene	ND	0.80	1.00	
c-1,2-Dichloroethene	ND	0.80	1.00	
t-1,2-Dichloroethene	ND	0.80	1.00	
1,2-Dichloropropane	ND	0.80	1.00	
1,3-Dichloropropane	ND	0.80	1.00	
2,2-Dichloropropane	ND	4.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.6	1.00	
c-1,3-Dichloropropene	ND	0.80	1.00	
t-1,3-Dichloropropene	ND	1.6	1.00	
Ethylbenzene	ND	0.80	1.00	
2-Hexanone	ND	16	1.00	
Isopropylbenzene	ND	0.80	1.00	
p-Isopropyltoluene	ND	0.80	1.00	
Methylene Chloride	ND	8.0	1.00	
4-Methyl-2-Pentanone	ND	16	1.00	
Naphthalene	ND	8.0	1.00	
n-Propylbenzene	ND	1.6	1.00	
Styrene	ND	0.80	1.00	
1,1,1,2-Tetrachloroethane	ND	0.80	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	1.00	
Tetrachloroethene	ND	0.80	1.00	
Toluene	ND	0.80	1.00	
1,2,3-Trichlorobenzene	ND	1.6	1.00	
1,2,4-Trichlorobenzene	ND	1.6	1.00	
1,1,1-Trichloroethane	ND	0.80	1.00	
1,1,2-Trichloroethane	ND	0.80	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.0	1.00	
Trichloroethene	ND	1.6	1.00	
Trichlorofluoromethane	ND	8.0	1.00	
1,2,3-Trichloropropane	ND	1.6	1.00	
1,2,4-Trimethylbenzene	ND	1.6	1.00	
1,3,5-Trimethylbenzene	ND	1.6	1.00	
Vinyl Acetate	ND	8.0	1.00	
Vinyl Chloride	ND	0.80	1.00	
p/m-Xylene	ND	1.6	1.00	
o-Xylene	ND	0.80	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	1.00	
Tert-Butyl Alcohol (TBA)	ND	16	1.00	
Diisopropyl Ether (DIPE)	ND	0.80	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.80	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.80	1.00	
Ethanol	ND	400	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/23/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1682
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 12 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	112	79-133	
1,2-Dichloroethane-d4	129	71-155	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB16-2	**16-08-1682-5-C**	**08/23/16 10:50**	**Solid**	**GC/MS QQ**	**08/23/16**	**08/25/16 16:30**	**160825L012**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	40	1.00	
Benzene	ND	0.81	1.00	
Bromobenzene	ND	0.81	1.00	
Bromochloromethane	ND	1.6	1.00	
Bromodichloromethane	ND	0.81	1.00	
Bromoform	ND	4.0	1.00	
Bromomethane	ND	16	1.00	
2-Butanone	ND	16	1.00	
n-Butylbenzene	ND	0.81	1.00	
sec-Butylbenzene	ND	0.81	1.00	
tert-Butylbenzene	ND	0.81	1.00	
Carbon Disulfide	ND	8.1	1.00	
Carbon Tetrachloride	ND	0.81	1.00	
Chlorobenzene	ND	0.81	1.00	
Chloroethane	ND	1.6	1.00	
Chloroform	ND	0.81	1.00	
Chloromethane	ND	16	1.00	
2-Chlorotoluene	ND	0.81	1.00	
4-Chlorotoluene	ND	0.81	1.00	
Dibromochloromethane	ND	1.6	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.0	1.00	
1,2-Dibromoethane	ND	0.81	1.00	
Dibromomethane	ND	0.81	1.00	
1,2-Dichlorobenzene	ND	0.81	1.00	
1,3-Dichlorobenzene	ND	0.81	1.00	
1,4-Dichlorobenzene	ND	0.81	1.00	
Dichlorodifluoromethane	ND	1.6	1.00	
1,1-Dichloroethane	ND	0.81	1.00	
1,2-Dichloroethane	ND	0.81	1.00	
1,1-Dichloroethene	ND	0.81	1.00	
c-1,2-Dichloroethene	ND	0.81	1.00	
t-1,2-Dichloroethene	ND	0.81	1.00	
1,2-Dichloropropane	ND	0.81	1.00	
1,3-Dichloropropane	ND	0.81	1.00	
2,2-Dichloropropane	ND	4.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.6	1.00	
c-1,3-Dichloropropene	ND	0.81	1.00	
t-1,3-Dichloropropene	ND	1.6	1.00	
Ethylbenzene	ND	0.81	1.00	
2-Hexanone	ND	16	1.00	
Isopropylbenzene	ND	0.81	1.00	
p-Isopropyltoluene	ND	0.81	1.00	
Methylene Chloride	ND	8.1	1.00	
4-Methyl-2-Pentanone	ND	16	1.00	
Naphthalene	ND	8.1	1.00	
n-Propylbenzene	ND	1.6	1.00	
Styrene	ND	0.81	1.00	
1,1,1,2-Tetrachloroethane	ND	0.81	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	1.00	
Tetrachloroethene	ND	0.81	1.00	
Toluene	ND	0.81	1.00	
1,2,3-Trichlorobenzene	ND	1.6	1.00	
1,2,4-Trichlorobenzene	ND	1.6	1.00	
1,1,1-Trichloroethane	ND	0.81	1.00	
1,1,2-Trichloroethane	ND	0.81	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.1	1.00	
Trichloroethene	ND	1.6	1.00	
Trichlorofluoromethane	ND	8.1	1.00	
1,2,3-Trichloropropane	ND	1.6	1.00	
1,2,4-Trimethylbenzene	ND	1.6	1.00	
1,3,5-Trimethylbenzene	ND	1.6	1.00	
Vinyl Acetate	ND	8.1	1.00	
Vinyl Chloride	ND	0.81	1.00	
p/m-Xylene	ND	1.6	1.00	
o-Xylene	ND	0.81	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	1.00	
Tert-Butyl Alcohol (TBA)	ND	16	1.00	
Diisopropyl Ether (DIPE)	ND	0.81	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.81	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.81	1.00	
Ethanol	ND	400	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/23/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1682
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 15 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	110	79-133	
1,2-Dichloroethane-d4	124	71-155	
Toluene-d8	101	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB17-2	**16-08-1682-6-C**	**08/23/16 11:15**	**Solid**	**GC/MS QQ**	**08/23/16**	**08/25/16 16:59**	**160825L012**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	39	1.00	
Benzene	ND	0.78	1.00	
Bromobenzene	ND	0.78	1.00	
Bromochloromethane	ND	1.6	1.00	
Bromodichloromethane	ND	0.78	1.00	
Bromoform	ND	3.9	1.00	
Bromomethane	ND	16	1.00	
2-Butanone	ND	16	1.00	
n-Butylbenzene	ND	0.78	1.00	
sec-Butylbenzene	ND	0.78	1.00	
tert-Butylbenzene	ND	0.78	1.00	
Carbon Disulfide	ND	7.8	1.00	
Carbon Tetrachloride	ND	0.78	1.00	
Chlorobenzene	ND	0.78	1.00	
Chloroethane	ND	1.6	1.00	
Chloroform	ND	0.78	1.00	
Chloromethane	ND	16	1.00	
2-Chlorotoluene	ND	0.78	1.00	
4-Chlorotoluene	ND	0.78	1.00	
Dibromochloromethane	ND	1.6	1.00	
1,2-Dibromo-3-Chloropropane	ND	3.9	1.00	
1,2-Dibromoethane	ND	0.78	1.00	
Dibromomethane	ND	0.78	1.00	
1,2-Dichlorobenzene	ND	0.78	1.00	
1,3-Dichlorobenzene	ND	0.78	1.00	
1,4-Dichlorobenzene	ND	0.78	1.00	
Dichlorodifluoromethane	ND	1.6	1.00	
1,1-Dichloroethane	ND	0.78	1.00	
1,2-Dichloroethane	ND	0.78	1.00	
1,1-Dichloroethene	ND	0.78	1.00	
c-1,2-Dichloroethene	ND	0.78	1.00	
t-1,2-Dichloroethene	ND	0.78	1.00	
1,2-Dichloropropane	ND	0.78	1.00	
1,3-Dichloropropane	ND	0.78	1.00	
2,2-Dichloropropane	ND	3.9	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.6	1.00	
c-1,3-Dichloropropene	ND	0.78	1.00	
t-1,3-Dichloropropene	ND	1.6	1.00	
Ethylbenzene	ND	0.78	1.00	
2-Hexanone	ND	16	1.00	
Isopropylbenzene	ND	0.78	1.00	
p-Isopropyltoluene	ND	0.78	1.00	
Methylene Chloride	ND	7.8	1.00	
4-Methyl-2-Pentanone	ND	16	1.00	
Naphthalene	ND	7.8	1.00	
n-Propylbenzene	ND	1.6	1.00	
Styrene	ND	0.78	1.00	
1,1,1,2-Tetrachloroethane	ND	0.78	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	1.00	
Tetrachloroethene	ND	0.78	1.00	
Toluene	ND	0.78	1.00	
1,2,3-Trichlorobenzene	ND	1.6	1.00	
1,2,4-Trichlorobenzene	ND	1.6	1.00	
1,1,1-Trichloroethane	ND	0.78	1.00	
1,1,2-Trichloroethane	ND	0.78	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.8	1.00	
Trichloroethene	ND	1.6	1.00	
Trichlorofluoromethane	ND	7.8	1.00	
1,2,3-Trichloropropane	ND	1.6	1.00	
1,2,4-Trimethylbenzene	ND	1.6	1.00	
1,3,5-Trimethylbenzene	ND	1.6	1.00	
Vinyl Acetate	ND	7.8	1.00	
Vinyl Chloride	ND	0.78	1.00	
p/m-Xylene	ND	1.6	1.00	
o-Xylene	ND	0.78	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	1.00	
Tert-Butyl Alcohol (TBA)	ND	16	1.00	
Diisopropyl Ether (DIPE)	ND	0.78	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.78	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.78	1.00	
Ethanol	ND	390	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/23/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1682
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 18 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	109	79-133	
1,2-Dichloroethane-d4	129	71-155	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB19-2	**16-08-1682-7-C**	**08/23/16 13:30**	**Solid**	**GC/MS QQ**	**08/23/16**	**08/25/16 17:28**	**160825L012**

Parameter	Result	RL	DF	Qualifiers
Acetone	50	42	1.00	
Benzene	ND	0.84	1.00	
Bromobenzene	ND	0.84	1.00	
Bromochloromethane	ND	1.7	1.00	
Bromodichloromethane	ND	0.84	1.00	
Bromoform	ND	4.2	1.00	
Bromomethane	ND	17	1.00	
2-Butanone	ND	17	1.00	
n-Butylbenzene	ND	0.84	1.00	
sec-Butylbenzene	ND	0.84	1.00	
tert-Butylbenzene	ND	0.84	1.00	
Carbon Disulfide	ND	8.4	1.00	
Carbon Tetrachloride	ND	0.84	1.00	
Chlorobenzene	ND	0.84	1.00	
Chloroethane	ND	1.7	1.00	
Chloroform	ND	0.84	1.00	
Chloromethane	ND	17	1.00	
2-Chlorotoluene	ND	0.84	1.00	
4-Chlorotoluene	ND	0.84	1.00	
Dibromochloromethane	ND	1.7	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.2	1.00	
1,2-Dibromoethane	ND	0.84	1.00	
Dibromomethane	ND	0.84	1.00	
1,2-Dichlorobenzene	ND	0.84	1.00	
1,3-Dichlorobenzene	ND	0.84	1.00	
1,4-Dichlorobenzene	ND	0.84	1.00	
Dichlorodifluoromethane	ND	1.7	1.00	
1,1-Dichloroethane	ND	0.84	1.00	
1,2-Dichloroethane	ND	0.84	1.00	
1,1-Dichloroethene	ND	0.84	1.00	
c-1,2-Dichloroethene	ND	0.84	1.00	
t-1,2-Dichloroethene	ND	0.84	1.00	
1,2-Dichloropropane	ND	0.84	1.00	
1,3-Dichloropropane	ND	0.84	1.00	
2,2-Dichloropropane	ND	4.2	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.7	1.00	
c-1,3-Dichloropropene	ND	0.84	1.00	
t-1,3-Dichloropropene	ND	1.7	1.00	
Ethylbenzene	ND	0.84	1.00	
2-Hexanone	ND	17	1.00	
Isopropylbenzene	ND	0.84	1.00	
p-Isopropyltoluene	ND	0.84	1.00	
Methylene Chloride	ND	8.4	1.00	
4-Methyl-2-Pentanone	ND	17	1.00	
Naphthalene	ND	8.4	1.00	
n-Propylbenzene	ND	1.7	1.00	
Styrene	ND	0.84	1.00	
1,1,1,2-Tetrachloroethane	ND	0.84	1.00	
1,1,2,2-Tetrachloroethane	ND	1.7	1.00	
Tetrachloroethene	ND	0.84	1.00	
Toluene	ND	0.84	1.00	
1,2,3-Trichlorobenzene	ND	1.7	1.00	
1,2,4-Trichlorobenzene	ND	1.7	1.00	
1,1,1-Trichloroethane	ND	0.84	1.00	
1,1,2-Trichloroethane	ND	0.84	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.4	1.00	
Trichloroethene	ND	1.7	1.00	
Trichlorofluoromethane	ND	8.4	1.00	
1,2,3-Trichloropropane	ND	1.7	1.00	
1,2,4-Trimethylbenzene	ND	1.7	1.00	
1,3,5-Trimethylbenzene	ND	1.7	1.00	
Vinyl Acetate	ND	8.4	1.00	
Vinyl Chloride	ND	0.84	1.00	
p/m-Xylene	ND	1.7	1.00	
o-Xylene	ND	0.84	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	1.00	
Tert-Butyl Alcohol (TBA)	ND	17	1.00	
Diisopropyl Ether (DIPE)	ND	0.84	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.84	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.84	1.00	
Ethanol	ND	420	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/23/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1682
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 21 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	108	79-133	
1,2-Dichloroethane-d4	124	71-155	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB21-2	**16-08-1682-8-C**	**08/23/16 14:25**	**Solid**	**GC/MS QQ**	**08/23/16**	**08/25/16 17:57**	**160825L012**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	47	1.00	
Benzene	ND	0.93	1.00	
Bromobenzene	ND	0.93	1.00	
Bromochloromethane	ND	1.9	1.00	
Bromodichloromethane	ND	0.93	1.00	
Bromoform	ND	4.7	1.00	
Bromomethane	ND	19	1.00	
2-Butanone	ND	19	1.00	
n-Butylbenzene	ND	0.93	1.00	
sec-Butylbenzene	ND	0.93	1.00	
tert-Butylbenzene	ND	0.93	1.00	
Carbon Disulfide	ND	9.3	1.00	
Carbon Tetrachloride	ND	0.93	1.00	
Chlorobenzene	ND	0.93	1.00	
Chloroethane	ND	1.9	1.00	
Chloroform	ND	0.93	1.00	
Chloromethane	ND	19	1.00	
2-Chlorotoluene	ND	0.93	1.00	
4-Chlorotoluene	ND	0.93	1.00	
Dibromochloromethane	ND	1.9	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.7	1.00	
1,2-Dibromoethane	ND	0.93	1.00	
Dibromomethane	ND	0.93	1.00	
1,2-Dichlorobenzene	ND	0.93	1.00	
1,3-Dichlorobenzene	ND	0.93	1.00	
1,4-Dichlorobenzene	ND	0.93	1.00	
Dichlorodifluoromethane	ND	1.9	1.00	
1,1-Dichloroethane	ND	0.93	1.00	
1,2-Dichloroethane	ND	0.93	1.00	
1,1-Dichloroethene	ND	0.93	1.00	
c-1,2-Dichloroethene	ND	0.93	1.00	
t-1,2-Dichloroethene	ND	0.93	1.00	
1,2-Dichloropropane	ND	0.93	1.00	
1,3-Dichloropropane	ND	0.93	1.00	
2,2-Dichloropropane	ND	4.7	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.9	1.00	
c-1,3-Dichloropropene	ND	0.93	1.00	
t-1,3-Dichloropropene	ND	1.9	1.00	
Ethylbenzene	ND	0.93	1.00	
2-Hexanone	ND	19	1.00	
Isopropylbenzene	ND	0.93	1.00	
p-Isopropyltoluene	ND	0.93	1.00	
Methylene Chloride	ND	9.3	1.00	
4-Methyl-2-Pentanone	ND	19	1.00	
Naphthalene	ND	9.3	1.00	
n-Propylbenzene	ND	1.9	1.00	
Styrene	ND	0.93	1.00	
1,1,1,2-Tetrachloroethane	ND	0.93	1.00	
1,1,2,2-Tetrachloroethane	ND	1.9	1.00	
Tetrachloroethene	ND	0.93	1.00	
Toluene	ND	0.93	1.00	
1,2,3-Trichlorobenzene	ND	1.9	1.00	
1,2,4-Trichlorobenzene	ND	1.9	1.00	
1,1,1-Trichloroethane	ND	0.93	1.00	
1,1,2-Trichloroethane	ND	0.93	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.3	1.00	
Trichloroethene	ND	1.9	1.00	
Trichlorofluoromethane	ND	9.3	1.00	
1,2,3-Trichloropropane	ND	1.9	1.00	
1,2,4-Trimethylbenzene	ND	1.9	1.00	
1,3,5-Trimethylbenzene	ND	1.9	1.00	
Vinyl Acetate	ND	9.3	1.00	
Vinyl Chloride	ND	0.93	1.00	
p/m-Xylene	ND	1.9	1.00	
o-Xylene	ND	0.93	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.9	1.00	
Tert-Butyl Alcohol (TBA)	ND	19	1.00	
Diisopropyl Ether (DIPE)	ND	0.93	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.93	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.93	1.00	
Ethanol	ND	470	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/23/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1682
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 24 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	111	79-133	
1,2-Dichloroethane-d4	130	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB22-2	**16-08-1682-9-C**	**08/23/16 14:45**	**Solid**	**GC/MS QQ**	**08/23/16**	**08/25/16 18:26**	**160825L012**

Parameter	Result	RL	DF	Qualifiers
Acetone	65	42	1.00	
Benzene	ND	0.83	1.00	
Bromobenzene	ND	0.83	1.00	
Bromochloromethane	ND	1.7	1.00	
Bromodichloromethane	ND	0.83	1.00	
Bromoform	ND	4.2	1.00	
Bromomethane	ND	17	1.00	
2-Butanone	ND	17	1.00	
n-Butylbenzene	ND	0.83	1.00	
sec-Butylbenzene	ND	0.83	1.00	
tert-Butylbenzene	ND	0.83	1.00	
Carbon Disulfide	ND	8.3	1.00	
Carbon Tetrachloride	ND	0.83	1.00	
Chlorobenzene	ND	0.83	1.00	
Chloroethane	ND	1.7	1.00	
Chloroform	ND	0.83	1.00	
Chloromethane	ND	17	1.00	
2-Chlorotoluene	ND	0.83	1.00	
4-Chlorotoluene	ND	0.83	1.00	
Dibromochloromethane	ND	1.7	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.2	1.00	
1,2-Dibromoethane	ND	0.83	1.00	
Dibromomethane	ND	0.83	1.00	
1,2-Dichlorobenzene	ND	0.83	1.00	
1,3-Dichlorobenzene	ND	0.83	1.00	
1,4-Dichlorobenzene	ND	0.83	1.00	
Dichlorodifluoromethane	ND	1.7	1.00	
1,1-Dichloroethane	ND	0.83	1.00	
1,2-Dichloroethane	ND	0.83	1.00	
1,1-Dichloroethene	ND	0.83	1.00	
c-1,2-Dichloroethene	ND	0.83	1.00	
t-1,2-Dichloroethene	ND	0.83	1.00	
1,2-Dichloropropane	ND	0.83	1.00	
1,3-Dichloropropane	ND	0.83	1.00	
2,2-Dichloropropane	ND	4.2	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.7	1.00	
c-1,3-Dichloropropene	ND	0.83	1.00	
t-1,3-Dichloropropene	ND	1.7	1.00	
Ethylbenzene	ND	0.83	1.00	
2-Hexanone	ND	17	1.00	
Isopropylbenzene	ND	0.83	1.00	
p-Isopropyltoluene	ND	0.83	1.00	
Methylene Chloride	ND	8.3	1.00	
4-Methyl-2-Pentanone	ND	17	1.00	
Naphthalene	ND	8.3	1.00	
n-Propylbenzene	ND	1.7	1.00	
Styrene	ND	0.83	1.00	
1,1,1,2-Tetrachloroethane	ND	0.83	1.00	
1,1,2,2-Tetrachloroethane	ND	1.7	1.00	
Tetrachloroethene	ND	0.83	1.00	
Toluene	ND	0.83	1.00	
1,2,3-Trichlorobenzene	ND	1.7	1.00	
1,2,4-Trichlorobenzene	ND	1.7	1.00	
1,1,1-Trichloroethane	ND	0.83	1.00	
1,1,2-Trichloroethane	ND	0.83	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.3	1.00	
Trichloroethene	ND	1.7	1.00	
Trichlorofluoromethane	ND	8.3	1.00	
1,2,3-Trichloropropane	ND	1.7	1.00	
1,2,4-Trimethylbenzene	ND	1.7	1.00	
1,3,5-Trimethylbenzene	ND	1.7	1.00	
Vinyl Acetate	ND	8.3	1.00	
Vinyl Chloride	ND	0.83	1.00	
p/m-Xylene	ND	1.7	1.00	
o-Xylene	ND	0.83	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	1.00	
Tert-Butyl Alcohol (TBA)	ND	17	1.00	
Diisopropyl Ether (DIPE)	ND	0.83	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.83	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.83	1.00	
Ethanol	ND	420	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/23/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1682
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 27 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	108	79-133	
1,2-Dichloroethane-d4	122	71-155	
Toluene-d8	98	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB23-2	**16-08-1682-10-C**	**08/23/16 15:05**	**Solid**	**GC/MS QQ**	**08/23/16**	**08/25/16 18:55**	**160825L012**

Parameter	Result	RL	DF	Qualifiers
Acetone	53	43	1.00	
Benzene	ND	0.86	1.00	
Bromobenzene	ND	0.86	1.00	
Bromochloromethane	ND	1.7	1.00	
Bromodichloromethane	ND	0.86	1.00	
Bromoform	ND	4.3	1.00	
Bromomethane	ND	17	1.00	
2-Butanone	ND	17	1.00	
n-Butylbenzene	ND	0.86	1.00	
sec-Butylbenzene	ND	0.86	1.00	
tert-Butylbenzene	ND	0.86	1.00	
Carbon Disulfide	ND	8.6	1.00	
Carbon Tetrachloride	ND	0.86	1.00	
Chlorobenzene	ND	0.86	1.00	
Chloroethane	ND	1.7	1.00	
Chloroform	ND	0.86	1.00	
Chloromethane	ND	17	1.00	
2-Chlorotoluene	ND	0.86	1.00	
4-Chlorotoluene	ND	0.86	1.00	
Dibromochloromethane	ND	1.7	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.3	1.00	
1,2-Dibromoethane	ND	0.86	1.00	
Dibromomethane	ND	0.86	1.00	
1,2-Dichlorobenzene	ND	0.86	1.00	
1,3-Dichlorobenzene	ND	0.86	1.00	
1,4-Dichlorobenzene	ND	0.86	1.00	
Dichlorodifluoromethane	ND	1.7	1.00	
1,1-Dichloroethane	ND	0.86	1.00	
1,2-Dichloroethane	ND	0.86	1.00	
1,1-Dichloroethene	ND	0.86	1.00	
c-1,2-Dichloroethene	ND	0.86	1.00	
t-1,2-Dichloroethene	ND	0.86	1.00	
1,2-Dichloropropane	ND	0.86	1.00	
1,3-Dichloropropane	ND	0.86	1.00	
2,2-Dichloropropane	ND	4.3	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.7	1.00	
c-1,3-Dichloropropene	ND	0.86	1.00	
t-1,3-Dichloropropene	ND	1.7	1.00	
Ethylbenzene	ND	0.86	1.00	
2-Hexanone	ND	17	1.00	
Isopropylbenzene	ND	0.86	1.00	
p-Isopropyltoluene	ND	0.86	1.00	
Methylene Chloride	ND	8.6	1.00	
4-Methyl-2-Pentanone	ND	17	1.00	
Naphthalene	ND	8.6	1.00	
n-Propylbenzene	ND	1.7	1.00	
Styrene	ND	0.86	1.00	
1,1,1,2-Tetrachloroethane	ND	0.86	1.00	
1,1,2,2-Tetrachloroethane	ND	1.7	1.00	
Tetrachloroethene	ND	0.86	1.00	
Toluene	ND	0.86	1.00	
1,2,3-Trichlorobenzene	ND	1.7	1.00	
1,2,4-Trichlorobenzene	ND	1.7	1.00	
1,1,1-Trichloroethane	ND	0.86	1.00	
1,1,2-Trichloroethane	ND	0.86	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.6	1.00	
Trichloroethene	ND	1.7	1.00	
Trichlorofluoromethane	ND	8.6	1.00	
1,2,3-Trichloropropane	ND	1.7	1.00	
1,2,4-Trimethylbenzene	ND	1.7	1.00	
1,3,5-Trimethylbenzene	ND	1.7	1.00	
Vinyl Acetate	ND	8.6	1.00	
Vinyl Chloride	ND	0.86	1.00	
p/m-Xylene	ND	1.7	1.00	
o-Xylene	ND	0.86	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	1.00	
Tert-Butyl Alcohol (TBA)	ND	17	1.00	
Diisopropyl Ether (DIPE)	ND	0.86	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.86	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.86	1.00	
Ethanol	ND	430	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/23/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1682
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 30 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	109	79-133	
1,2-Dichloroethane-d4	123	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB24-2	**16-08-1682-11-C**	**08/23/16 15:30**	**Solid**	**GC/MS QQ**	**08/23/16**	**08/25/16 19:24**	**160825L012**

Parameter	Result	RL	DF	Qualifiers
Acetone	54	44	1.00	
Benzene	ND	0.88	1.00	
Bromobenzene	ND	0.88	1.00	
Bromochloromethane	ND	1.8	1.00	
Bromodichloromethane	ND	0.88	1.00	
Bromoform	ND	4.4	1.00	
Bromomethane	ND	18	1.00	
2-Butanone	ND	18	1.00	
n-Butylbenzene	ND	0.88	1.00	
sec-Butylbenzene	ND	0.88	1.00	
tert-Butylbenzene	ND	0.88	1.00	
Carbon Disulfide	ND	8.8	1.00	
Carbon Tetrachloride	ND	0.88	1.00	
Chlorobenzene	ND	0.88	1.00	
Chloroethane	ND	1.8	1.00	
Chloroform	ND	0.88	1.00	
Chloromethane	ND	18	1.00	
2-Chlorotoluene	ND	0.88	1.00	
4-Chlorotoluene	ND	0.88	1.00	
Dibromochloromethane	ND	1.8	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.4	1.00	
1,2-Dibromoethane	ND	0.88	1.00	
Dibromomethane	ND	0.88	1.00	
1,2-Dichlorobenzene	ND	0.88	1.00	
1,3-Dichlorobenzene	ND	0.88	1.00	
1,4-Dichlorobenzene	ND	0.88	1.00	
Dichlorodifluoromethane	ND	1.8	1.00	
1,1-Dichloroethane	ND	0.88	1.00	
1,2-Dichloroethane	ND	0.88	1.00	
1,1-Dichloroethene	ND	0.88	1.00	
c-1,2-Dichloroethene	ND	0.88	1.00	
t-1,2-Dichloroethene	ND	0.88	1.00	
1,2-Dichloropropane	ND	0.88	1.00	
1,3-Dichloropropane	ND	0.88	1.00	
2,2-Dichloropropane	ND	4.4	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.8	1.00	
c-1,3-Dichloropropene	ND	0.88	1.00	
t-1,3-Dichloropropene	ND	1.8	1.00	
Ethylbenzene	ND	0.88	1.00	
2-Hexanone	ND	18	1.00	
Isopropylbenzene	ND	0.88	1.00	
p-Isopropyltoluene	ND	0.88	1.00	
Methylene Chloride	ND	8.8	1.00	
4-Methyl-2-Pentanone	ND	18	1.00	
Naphthalene	ND	8.8	1.00	
n-Propylbenzene	ND	1.8	1.00	
Styrene	ND	0.88	1.00	
1,1,1,2-Tetrachloroethane	ND	0.88	1.00	
1,1,2,2-Tetrachloroethane	ND	1.8	1.00	
Tetrachloroethene	ND	0.88	1.00	
Toluene	ND	0.88	1.00	
1,2,3-Trichlorobenzene	ND	1.8	1.00	
1,2,4-Trichlorobenzene	ND	1.8	1.00	
1,1,1-Trichloroethane	ND	0.88	1.00	
1,1,2-Trichloroethane	ND	0.88	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.8	1.00	
Trichloroethene	ND	1.8	1.00	
Trichlorofluoromethane	ND	8.8	1.00	
1,2,3-Trichloropropane	ND	1.8	1.00	
1,2,4-Trimethylbenzene	ND	1.8	1.00	
1,3,5-Trimethylbenzene	ND	1.8	1.00	
Vinyl Acetate	ND	8.8	1.00	
Vinyl Chloride	ND	0.88	1.00	
p/m-Xylene	ND	1.8	1.00	
o-Xylene	ND	0.88	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	1.00	
Tert-Butyl Alcohol (TBA)	ND	18	1.00	
Diisopropyl Ether (DIPE)	ND	0.88	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.88	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.88	1.00	
Ethanol	ND	440	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/23/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1682
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 33 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	109	79-133	
1,2-Dichloroethane-d4	126	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**095-01-025-27917**	**N/A**	**Solid**	**GC/MS QQ**	**08/25/16**	**08/25/16 11:11**	**160825L012**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	50	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	20	1.00	
2-Butanone	ND	20	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	2.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.0	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	20	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	20	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	20	1.00	
Diisopropyl Ether (DIPE)	ND	1.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	1.00	
Ethanol	ND	500	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/23/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1682
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 36 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	107	79-133	
1,2-Dichloroethane-d4	116	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/23/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1682
Irvine, CA 92617-3094	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
Project: John Wayne Airport (JWA) / IR13164420		Page 1 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-08-1698-4	**Sample**	**Solid**	**GC 48**	**08/25/16**	**08/26/16 16:33**	**160825S08**
16-08-1698-4	**Matrix Spike**	**Solid**	**GC 48**	**08/25/16**	**08/26/16 16:02**	**160825S08**
16-08-1698-4	**Matrix Spike Duplicate**	**Solid**	**GC 48**	**08/25/16**	**08/26/16 16:18**	**160825S08**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	5.212	400.0	449.0	111	445.4	110	64-130	1	0-15	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 3050B
Method: EPA 6010B

Project: John Wayne Airport (JWA) / IR13164420

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
GAIP-SB9-2	**Sample**	**Solid**	**ICP 8300**	**08/26/16**	**08/29/16 17:03**	**160826S04**
GAIP-SB9-2	**Matrix Spike**	**Solid**	**ICP 8300**	**08/26/16**	**08/29/16 17:04**	**160826S04**
GAIP-SB9-2	**Matrix Spike Duplicate**	**Solid**	**ICP 8300**	**08/26/16**	**08/29/16 17:06**	**160826S04**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	9.209	37	7.265	29	50-115	24	0-20	3,4
Arsenic	2.697	25.00	28.21	102	26.36	95	75-125	7	0-20	
Barium	41.97	25.00	69.43	110	64.87	92	75-125	7	0-20	
Beryllium	ND	25.00	26.67	107	25.12	100	75-125	6	0-20	
Cadmium	ND	25.00	27.89	112	26.02	104	75-125	7	0-20	
Chromium	9.036	25.00	37.12	112	34.41	101	75-125	8	0-20	
Cobalt	4.840	25.00	32.72	112	30.64	103	75-125	7	0-20	
Copper	8.407	25.00	36.31	112	33.47	100	75-125	8	0-20	
Lead	5.077	25.00	30.19	100	28.08	92	75-125	7	0-20	
Molybdenum	ND	25.00	24.03	96	22.14	89	75-125	8	0-20	
Nickel	5.193	25.00	32.64	110	30.61	102	75-125	6	0-20	
Selenium	ND	25.00	22.27	89	21.37	85	75-125	4	0-20	
Silver	ND	12.50	13.57	109	12.68	101	75-125	7	0-20	
Thallium	ND	25.00	22.70	91	14.15	57	75-125	46	0-20	3,4
Vanadium	20.58	25.00	48.60	112	44.07	94	75-125	10	0-20	
Zinc	21.79	25.00	48.44	107	45.55	95	75-125	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/23/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1682
Irvine, CA 92617-3094	Preparation:	EPA 7471A Total
	Method:	EPA 7471A
Project: John Wayne Airport (JWA) / IR13164420		Page 3 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
GAIP-SB9-2	**Sample**	**Solid**	**Mercury 04**	**08/29/16**	**08/29/16 22:58**	**160829S07**
GAIP-SB9-2	**Matrix Spike**	**Solid**	**Mercury 04**	**08/29/16**	**08/29/16 23:00**	**160829S07**
GAIP-SB9-2	**Matrix Spike Duplicate**	**Solid**	**Mercury 04**	**08/29/16**	**08/29/16 23:03**	**160829S07**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.7000	84	0.7077	85	71-137	1	0-14	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/23/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1682
Irvine, CA 92617-3094	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
Project: John Wayne Airport (JWA) / IR13164420		Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-490-2240	**LCS**	**Solid**	**GC 48**	**08/25/16**	**08/26/16 15:47**	**160825B08**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Diesel	400.0	420.1	105	75-123	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/23/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1682
Irvine, CA 92617-3094	Preparation:	EPA 3050B
	Method:	EPA 6010B
Project: John Wayne Airport (JWA) / IR13164420		Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-23150	**LCS**	**Solid**	**ICP 8300**	**08/26/16**	**08/29/16 12:16**	**160826L04**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	26.98	108	80-120	73-127	
Arsenic	25.00	26.45	106	80-120	73-127	
Barium	25.00	26.66	107	80-120	73-127	
Beryllium	25.00	25.44	102	80-120	73-127	
Cadmium	25.00	26.79	107	80-120	73-127	
Chromium	25.00	26.88	108	80-120	73-127	
Cobalt	25.00	27.09	108	80-120	73-127	
Copper	25.00	27.45	110	80-120	73-127	
Lead	25.00	27.11	108	80-120	73-127	
Molybdenum	25.00	27.48	110	80-120	73-127	
Nickel	25.00	26.05	104	80-120	73-127	
Selenium	25.00	25.81	103	80-120	73-127	
Silver	12.50	13.26	106	80-120	73-127	
Thallium	25.00	27.77	111	80-120	73-127	
Vanadium	25.00	26.25	105	80-120	73-127	
Zinc	25.00	27.35	109	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/23/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1682
Irvine, CA 92617-3094	Preparation:	EPA 7471A Total
	Method:	EPA 7471A
Project: John Wayne Airport (JWA) / IR13164420		Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-2473	**LCS**	**Solid**	**Mercury 04**	**08/29/16**	**08/29/16 22:56**	**160829L07**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.8350	0.9724	116	85-121	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/23/16
Work Order: 16-08-1682
Preparation: EPA 5035
Method: EPA 8260B

Project: John Wayne Airport (JWA) / IR13164420

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-025-27917	**LCS**	**Solid**	**GC/MS QQ**	**08/25/16**	**08/25/16 09:32**	**160825L012**
095-01-025-27917	**LCSD**	**Solid**	**GC/MS QQ**	**08/25/16**	**08/25/16 10:01**	**160825L012**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	50.00	45.81	92	45.73	91	80-120	73-127	0	0-20	
Carbon Tetrachloride	50.00	60.88	122	58.14	116	65-137	53-149	5	0-20	
Chlorobenzene	50.00	51.81	104	50.92	102	80-120	73-127	2	0-20	
1,2-Dibromoethane	50.00	52.51	105	51.64	103	80-120	73-127	2	0-20	
1,2-Dichlorobenzene	50.00	51.20	102	50.60	101	80-120	73-127	1	0-20	
1,2-Dichloroethane	50.00	55.13	110	54.91	110	80-120	73-127	0	0-20	
1,1-Dichloroethene	50.00	43.48	87	41.67	83	68-128	58-138	4	0-20	
Ethylbenzene	50.00	54.71	109	52.71	105	80-120	73-127	4	0-20	
Toluene	50.00	51.34	103	50.79	102	80-120	73-127	1	0-20	
Trichloroethene	50.00	54.02	108	52.23	104	80-120	73-127	3	0-20	
Vinyl Chloride	50.00	60.41	121	57.56	115	67-127	57-137	5	0-20	
p/m-Xylene	100.0	118.0	118	112.9	113	75-125	67-133	4	0-25	
o-Xylene	50.00	60.53	121	58.14	116	75-125	67-133	4	0-25	
Methyl-t-Butyl Ether (MTBE)	50.00	49.21	98	48.89	98	70-124	61-133	1	0-20	
Tert-Butyl Alcohol (TBA)	250.0	229.9	92	235.6	94	73-121	65-129	2	0-20	
Diisopropyl Ether (DIPE)	50.00	37.71	75	37.13	74	69-129	59-139	2	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	42.90	86	42.21	84	70-124	61-133	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	47.81	96	47.85	96	74-122	66-130	0	0-20	
Ethanol	500.0	471.1	94	434.9	87	51-135	37-149	8	0-27	

Total number of LCS compounds: 19
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Sample Analysis Summary Report

Work Order: 16-08-1682 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3050B	935	ICP 8300	1
EPA 7471A	EPA 7471A Total	868	Mercury 04	1
EPA 8015B (M)	EPA 3550B	682	GC 48	1
EPA 8260B	EPA 5035	486	GC/MS QQ	2

Return to Contents

eurofins | Calscience

Glossary of Terms and Qualifiers

Work Order: 16-08-1682 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN-OF-CUSTODY RECORD

DATE: 8/23/16
PAGE: 1 OF 2

WO NO. / LAB USE ONLY: **16-08-1682**

LABORATORY CLIENT: Amec Foster Wheeler
ADDRESS: 121 Innovation Dr. Ste. 200
CITY: Irvine STATE: CA ZIP: 92617
TEL: (949) 642-0245 E-MAIL: duane.paul@amecfw.com

CLIENT PROJECT NAME / NO.: John Wayne Airport (JWA) IR1316442O
PROJECT CONTACT: Duane Paul
GLOBAL ID:
LOG CODE:
P.O. NO.:
LAB CONTACT OR QUOTE NO.: Stephen Nowak
SAMPLER(S): (PRINT) Rachel Mills

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

EDD:
☐ COELT EDF ☐ OTHER

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH(g) ☐ GRO	TPH(d) ☐ DRO	TPH ☐ C6-C36 ☒ C6-C44	TPH _____	BTEX / MTBE ☐ 8260 ☐ _____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☒ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6
1	GAIP-SB9-2	8/23/16	0855	S	4	X	X				X			X	X						X	
2	GAIP-SB13-2		0925			X	X				X			X	X						X	
3	GAIP-SB14-2		0950			X	X				X			X	X						X	
4	GAIP-SB15-2		1025			X	X				X			X	X						X	
5	GAIP-SB16-2		1050			X	X				X			X	X						X	
6	GAIP-SB17-2		1115			X	X				X			X	X						X	
7	~~GAIP-SB18-2~~ RM																					
8	GAIP-SB19-2		1330			X	X				X			X	X						X	
9	~~GAIP-SB20-2~~ RM																					
10	GAIP-SB21-2		1425			X	X				X			X	X						X	

Relinquished by: (Signature) Rachel Mills — Received by: (Signature/Affiliation) Jeong - ECD — Date: 8/23/16 — Time: 1610
Relinquished by: (Signature) Jeong — Received by: (Signature/Affiliation) Dannyle EQ — Date: 8/23/16 — Time: 1710
Relinquished by: (Signature) — Received by: (Signature/Affiliation) — Date: — Time:

8/23/16

2015-05-13 Revision

Return to Contents

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN-OF-CUSTODY RECORD

DATE: 8/23/16
PAGE: 2 OF 2

WO NO. / LAB USE ONLY: 16-08-1682

LABORATORY CLIENT: Amec Foster Wheeler
ADDRESS: 121 Innovation Dr. Ste. 200
CITY: Irvine STATE: CA ZIP: 92617
TEL: (949)642-0245 E-MAIL: duane.paul@amecfw.com

CLIENT PROJECT NAME / NO.: John Wayne Airport (JWA) IR131644420
PROJECT CONTACT: Duane Paul
GLOBAL ID:
LOG CODE:
P.O. NO.:
LAB CONTACT OR QUOTE NO.: Stephen Nowak
SAMPLER(S): (PRINT) Rachel Mills

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

EDD:
☐ COELT EDF ☐ OTHER

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH(g) GRO	TPH(d) DRO	TPH C6-C36 C6-C44	TPH	BTEX / MTBE 8260	VOCs (8260)	Oxygenates (8260)	Prep (5035) En Core Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs 8270 8270 SIM	T22 Metals 6010/747X 6020/747X	Cr(VI) 7196 7199 218.6
9	GAIP-SB22-2	8/23/16	1445	S	4	X	X				X			X	X						X	
10	GAIP-SB23-2	↓	1505	↓	↓	X	X				X			X	X						X	
11	GAIP-SB24-2	↓	1530	↓	↓	X	X				X			X	X						X	

Relinquished by: (Signature) Rachel Mills	Received by: (Signature/Affiliation) ECT	Date: 8/23/16	Time: 1610
Relinquished by: (Signature)	Received by: (Signature/Affiliation) Dannyle ECT	Date: 8/23/16	Time: 1710
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

2014-07-01 Revision

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 16-08- 1682

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: AMEC FOSTER WHEELER

DATE: 08 / 23 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 2.9 °C (w/ CF): 2.9 °C; ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: BAS

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/A Checked by: BAS

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/A Checked by: 1069

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☑ Sleeve (9) ☐ EnCores® (____) ☑ TerraCores® (3) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1069

Reviewed by: 1069

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 16-08-1766

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Amec Foster Wheeler Environment & Infrastructure,

Client Project Name: John Wayne Airport (JWA) / IR13164420

Attention: Duane Paul
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 09/07/2016 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

eurofins | Calscience

Contents

Client Project Name: John Wayne Airport (JWA) / IR13164420
Work Order Number: 16-08-1766

eurofins | Calscience

Work Order Narrative

Work Order: 16-08-1766 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 08/24/16. They were assigned to Work Order 16-08-1766.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Return to Contents

eurofins | Calscience

Sample Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1766
		Project Name:	John Wayne Airport (JWA) / IR13164420
		PO Number:	
		Date/Time Received:	08/24/16 16:53
		Number of Containers:	52
Attn:	Duane Paul		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
GAIP_SB25-2	16-08-1766-1	08/24/16 07:45	4	Solid
GAIP_SB26-2	16-08-1766-2	08/24/16 08:10	4	Solid
GAIP_SB27-2	16-08-1766-3	08/24/16 08:35	4	Solid
GAIP_SB28-2	16-08-1766-4	08/24/16 09:00	4	Solid
GAIP_SB29-2	16-08-1766-5	08/24/16 09:55	4	Solid
GAIP_SB30-2	16-08-1766-6	08/24/16 10:25	4	Solid
GAIP_SB31-2	16-08-1766-7	08/24/16 10:45	4	Solid
GAIP_SB33-2	16-08-1766-8	08/24/16 11:50	4	Solid
GAIP_SB34-2	16-08-1766-9	08/24/16 12:55	4	Solid
GAIP_SB35-2	16-08-1766-10	08/24/16 13:30	4	Solid
GAIP_SB36-2	16-08-1766-11	08/24/16 13:50	4	Solid
GAIP_SB38-2	16-08-1766-12	08/24/16 14:30	4	Solid
GAIP_SB39-2	16-08-1766-13	08/24/16 15:05	4	Solid

Return to Contents

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1766
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/24/16
Attn:	Duane Paul		Page 1 of 6

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP_SB25-2 (16-08-1766-1)						
Antimony	0.970		0.732	mg/kg	EPA 6010B	EPA 3050B
Arsenic	3.51		0.732	mg/kg	EPA 6010B	EPA 3050B
Barium	66.0		0.488	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.343		0.244	mg/kg	EPA 6010B	EPA 3050B
Chromium	12.4		0.244	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.38		0.244	mg/kg	EPA 6010B	EPA 3050B
Copper	7.42		0.488	mg/kg	EPA 6010B	EPA 3050B
Lead	5.82		0.488	mg/kg	EPA 6010B	EPA 3050B
Nickel	7.75		0.244	mg/kg	EPA 6010B	EPA 3050B
Vanadium	27.0		0.244	mg/kg	EPA 6010B	EPA 3050B
Zinc	27.1		0.976	mg/kg	EPA 6010B	EPA 3050B
GAIP_SB26-2 (16-08-1766-2)						
Arsenic	3.45		0.785	mg/kg	EPA 6010B	EPA 3050B
Barium	47.0		0.524	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.311		0.262	mg/kg	EPA 6010B	EPA 3050B
Chromium	7.06		0.262	mg/kg	EPA 6010B	EPA 3050B
Cobalt	5.40		0.262	mg/kg	EPA 6010B	EPA 3050B
Copper	6.87		0.524	mg/kg	EPA 6010B	EPA 3050B
Lead	6.19		0.524	mg/kg	EPA 6010B	EPA 3050B
Nickel	5.75		0.262	mg/kg	EPA 6010B	EPA 3050B
Vanadium	19.3		0.262	mg/kg	EPA 6010B	EPA 3050B
Zinc	23.2		1.05	mg/kg	EPA 6010B	EPA 3050B
C29-C32	13		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	17		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	9.9		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	46		5.0	mg/kg	EPA 8015B (M)	EPA 3550B

Return to Contents

* MDL is shown

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1766
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/24/16
Attn:	Duane Paul		Page 2 of 6

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP_SB27-2 (16-08-1766-3)						
Arsenic	3.96		0.761	mg/kg	EPA 6010B	EPA 3050B
Barium	41.6		0.508	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.350		0.254	mg/kg	EPA 6010B	EPA 3050B
Chromium	11.8		0.254	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.95		0.254	mg/kg	EPA 6010B	EPA 3050B
Copper	6.99		0.508	mg/kg	EPA 6010B	EPA 3050B
Lead	5.66		0.508	mg/kg	EPA 6010B	EPA 3050B
Nickel	8.19		0.254	mg/kg	EPA 6010B	EPA 3050B
Vanadium	26.0		0.254	mg/kg	EPA 6010B	EPA 3050B
Zinc	26.9		1.02	mg/kg	EPA 6010B	EPA 3050B
C33-C36	9.0		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	11		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
GAIP_SB28-2 (16-08-1766-4)						
Arsenic	5.30		0.789	mg/kg	EPA 6010B	EPA 3050B
Barium	111		0.526	mg/kg	EPA 6010B	EPA 3050B
Chromium	11.6		0.263	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.55		0.263	mg/kg	EPA 6010B	EPA 3050B
Copper	14.8		0.526	mg/kg	EPA 6010B	EPA 3050B
Lead	5.20		0.526	mg/kg	EPA 6010B	EPA 3050B
Nickel	7.75		0.263	mg/kg	EPA 6010B	EPA 3050B
Vanadium	28.0		0.263	mg/kg	EPA 6010B	EPA 3050B
Zinc	35.2		1.05	mg/kg	EPA 6010B	EPA 3050B
C29-C32	9.0		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	15		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	17		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	45		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
2-Butanone	71		22	ug/kg	EPA 8260B	EPA 5035

Return to Contents

* MDL is shown

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1766
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/24/16
Attn:	Duane Paul		Page 3 of 6

Client SampleID Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP_SB29-2 (16-08-1766-5)						
Antimony	0.929		0.777	mg/kg	EPA 6010B	EPA 3050B
Arsenic	3.50		0.777	mg/kg	EPA 6010B	EPA 3050B
Barium	50.2		0.518	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.262		0.259	mg/kg	EPA 6010B	EPA 3050B
Chromium	10.9		0.259	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.24		0.259	mg/kg	EPA 6010B	EPA 3050B
Copper	6.55		0.518	mg/kg	EPA 6010B	EPA 3050B
Lead	5.49		0.518	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.346		0.259	mg/kg	EPA 6010B	EPA 3050B
Nickel	5.80		0.259	mg/kg	EPA 6010B	EPA 3050B
Vanadium	23.9		0.259	mg/kg	EPA 6010B	EPA 3050B
Zinc	22.0		1.04	mg/kg	EPA 6010B	EPA 3050B
GAIP_SB30-2 (16-08-1766-6)						
Antimony	1.47		0.773	mg/kg	EPA 6010B	EPA 3050B
Arsenic	5.49		0.773	mg/kg	EPA 6010B	EPA 3050B
Barium	51.5		0.515	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.443		0.258	mg/kg	EPA 6010B	EPA 3050B
Chromium	14.2		0.258	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.75		0.258	mg/kg	EPA 6010B	EPA 3050B
Copper	8.01		0.515	mg/kg	EPA 6010B	EPA 3050B
Lead	6.90		0.515	mg/kg	EPA 6010B	EPA 3050B
Nickel	9.39		0.258	mg/kg	EPA 6010B	EPA 3050B
Vanadium	31.8		0.258	mg/kg	EPA 6010B	EPA 3050B
Zinc	30.9		1.03	mg/kg	EPA 6010B	EPA 3050B
GAIP_SB31-2 (16-08-1766-7)						
Arsenic	8.96		0.789	mg/kg	EPA 6010B	EPA 3050B
Barium	117		0.526	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.859		0.263	mg/kg	EPA 6010B	EPA 3050B
Chromium	23.9		0.263	mg/kg	EPA 6010B	EPA 3050B
Cobalt	13.2		0.263	mg/kg	EPA 6010B	EPA 3050B
Copper	17.2		0.526	mg/kg	EPA 6010B	EPA 3050B
Lead	12.2		0.526	mg/kg	EPA 6010B	EPA 3050B
Nickel	17.6		0.263	mg/kg	EPA 6010B	EPA 3050B
Vanadium	55.4		0.263	mg/kg	EPA 6010B	EPA 3050B
Zinc	55.2		1.05	mg/kg	EPA 6010B	EPA 3050B
C37-C40	6.6		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	12		5.0	mg/kg	EPA 8015B (M)	EPA 3550B

* MDL is shown

Return to Contents

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1766
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/24/16
Attn:	Duane Paul		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP_SB33-2 (16-08-1766-8)						
Arsenic	4.96		0.765	mg/kg	EPA 6010B	EPA 3050B
Barium	127		0.510	mg/kg	EPA 6010B	EPA 3050B
Chromium	8.39		0.255	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.26		0.255	mg/kg	EPA 6010B	EPA 3050B
Copper	15.2		0.510	mg/kg	EPA 6010B	EPA 3050B
Lead	4.92		0.510	mg/kg	EPA 6010B	EPA 3050B
Nickel	7.03		0.255	mg/kg	EPA 6010B	EPA 3050B
Vanadium	25.2		0.255	mg/kg	EPA 6010B	EPA 3050B
Zinc	34.6		1.02	mg/kg	EPA 6010B	EPA 3050B
C25-C28	42		25	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	95		25	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	180		25	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	230		25	mg/kg	EPA 8015B (M)	EPA 3550B
C41-C44	64		25	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	640		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
GAIP_SB34-2 (16-08-1766-9)						
Arsenic	4.61		0.773	mg/kg	EPA 6010B	EPA 3050B
Barium	67.7		0.515	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.354		0.258	mg/kg	EPA 6010B	EPA 3050B
Chromium	14.5		0.258	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.65		0.258	mg/kg	EPA 6010B	EPA 3050B
Copper	8.53		0.515	mg/kg	EPA 6010B	EPA 3050B
Lead	7.29		0.515	mg/kg	EPA 6010B	EPA 3050B
Nickel	9.42		0.258	mg/kg	EPA 6010B	EPA 3050B
Vanadium	28.0		0.258	mg/kg	EPA 6010B	EPA 3050B
Zinc	32.3		1.03	mg/kg	EPA 6010B	EPA 3050B
C23-C24	5.6		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	11		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	28		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	59		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	79		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C41-C44	6.7		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	190		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
Acetone	54		46	ug/kg	EPA 8260B	EPA 5035

Return to Contents

* MDL is shown

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1766
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/24/16
Attn:	Duane Paul		Page 5 of 6

Client SampleID Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP_SB35-2 (16-08-1766-10)						
Antimony	0.799		0.777	mg/kg	EPA 6010B	EPA 3050B
Arsenic	6.04		0.777	mg/kg	EPA 6010B	EPA 3050B
Barium	72.2		0.518	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.528		0.259	mg/kg	EPA 6010B	EPA 3050B
Chromium	16.2		0.259	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.14		0.259	mg/kg	EPA 6010B	EPA 3050B
Copper	8.92		0.518	mg/kg	EPA 6010B	EPA 3050B
Lead	7.60		0.518	mg/kg	EPA 6010B	EPA 3050B
Nickel	9.69		0.259	mg/kg	EPA 6010B	EPA 3050B
Vanadium	35.1		0.259	mg/kg	EPA 6010B	EPA 3050B
Zinc	35.4		1.04	mg/kg	EPA 6010B	EPA 3050B
GAIP_SB36-2 (16-08-1766-11)						
Arsenic	2.96		0.714	mg/kg	EPA 6010B	EPA 3050B
Barium	52.8		0.476	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.305		0.238	mg/kg	EPA 6010B	EPA 3050B
Chromium	11.9		0.238	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.34		0.238	mg/kg	EPA 6010B	EPA 3050B
Copper	5.81		0.476	mg/kg	EPA 6010B	EPA 3050B
Lead	5.42		0.476	mg/kg	EPA 6010B	EPA 3050B
Nickel	6.47		0.238	mg/kg	EPA 6010B	EPA 3050B
Vanadium	23.3		0.238	mg/kg	EPA 6010B	EPA 3050B
Zinc	22.7		0.952	mg/kg	EPA 6010B	EPA 3050B
GAIP_SB38-2 (16-08-1766-12)						
Arsenic	4.44		0.789	mg/kg	EPA 6010B	EPA 3050B
Barium	45.9		0.526	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.322		0.263	mg/kg	EPA 6010B	EPA 3050B
Chromium	12.3		0.263	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.57		0.263	mg/kg	EPA 6010B	EPA 3050B
Copper	6.73		0.526	mg/kg	EPA 6010B	EPA 3050B
Lead	5.19		0.526	mg/kg	EPA 6010B	EPA 3050B
Nickel	8.23		0.263	mg/kg	EPA 6010B	EPA 3050B
Vanadium	26.2		0.263	mg/kg	EPA 6010B	EPA 3050B
Zinc	25.6		1.05	mg/kg	EPA 6010B	EPA 3050B
C29-C32	5.8		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	12		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	15		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	36		5.0	mg/kg	EPA 8015B (M)	EPA 3550B

* MDL is shown

Return to Contents

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1766
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/24/16
Attn:	Duane Paul		Page 6 of 6

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP_SB39-2 (16-08-1766-13)						
Arsenic	2.93		0.777	mg/kg	EPA 6010B	EPA 3050B
Barium	48.6		0.518	mg/kg	EPA 6010B	EPA 3050B
Chromium	10.9		0.259	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.41		0.259	mg/kg	EPA 6010B	EPA 3050B
Copper	6.92		0.518	mg/kg	EPA 6010B	EPA 3050B
Lead	4.73		0.518	mg/kg	EPA 6010B	EPA 3050B
Nickel	5.99		0.259	mg/kg	EPA 6010B	EPA 3050B
Vanadium	21.4		0.259	mg/kg	EPA 6010B	EPA 3050B
Zinc	21.7		1.04	mg/kg	EPA 6010B	EPA 3050B
C29-C32	5.0		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	13		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	18		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	38		5.0	mg/kg	EPA 8015B (M)	EPA 3550B

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

* MDL is shown

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB25-2	**16-08-1766-1-A**	**08/24/16 07:45**	**Solid**	**GC 48**	**08/26/16**	**08/26/16 23:30**	**160826B06**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	79	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB26-2	**16-08-1766-2-A**	**08/24/16 08:10**	**Solid**	**GC 48**	**08/26/16**	**08/26/16 23:45**	**160826B06**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	13	5.0	1.00	
C33-C36	17	5.0	1.00	
C37-C40	9.9	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	46	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	76	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB27-2	**16-08-1766-3-A**	**08/24/16 08:35**	**Solid**	**GC 48**	**08/26/16**	**08/27/16 00:00**	**160826B06**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	9.0	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	11	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	77	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB28-2	**16-08-1766-4-A**	**08/24/16 09:00**	**Solid**	**GC 48**	**08/26/16**	**08/27/16 00:16**	**160826B06**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	9.0	5.0	1.00	
C33-C36	15	5.0	1.00	
C37-C40	17	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	45	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	78	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB29-2	**16-08-1766-5-A**	**08/24/16 09:55**	**Solid**	**GC 48**	**08/26/16**	**08/27/16 00:31**	**160826B06**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	85	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB30-2	**16-08-1766-6-A**	**08/24/16 10:25**	**Solid**	**GC 48**	**08/26/16**	**08/27/16 00:47**	**160826B06**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	78	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB31-2	**16-08-1766-7-A**	**08/24/16 10:45**	**Solid**	**GC 48**	**08/26/16**	**08/27/16 01:02**	**160826B06**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	6.6	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	12	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	80	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB33-2	**16-08-1766-8-A**	**08/24/16 11:50**	**Solid**	**GC 48**	**08/26/16**	**08/27/16 01:18**	**160826B06**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	25	5.00	
C7	ND	25	5.00	
C8	ND	25	5.00	
C9-C10	ND	25	5.00	
C11-C12	ND	25	5.00	
C13-C14	ND	25	5.00	
C15-C16	ND	25	5.00	
C17-C18	ND	25	5.00	
C19-C20	ND	25	5.00	
C21-C22	ND	25	5.00	
C23-C24	ND	25	5.00	
C25-C28	42	25	5.00	
C29-C32	95	25	5.00	
C33-C36	180	25	5.00	
C37-C40	230	25	5.00	
C41-C44	64	25	5.00	
C6-C44 Total	640	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	77	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB34-2	**16-08-1766-9-A**	**08/24/16 12:55**	**Solid**	**GC 48**	**08/26/16**	**08/27/16 01:33**	**160826B06**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	5.6	5.0	1.00	
C25-C28	11	5.0	1.00	
C29-C32	28	5.0	1.00	
C33-C36	59	5.0	1.00	
C37-C40	79	5.0	1.00	
C41-C44	6.7	5.0	1.00	
C6-C44 Total	190	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	78	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB35-2	**16-08-1766-10-A**	**08/24/16 13:30**	**Solid**	**GC 48**	**08/26/16**	**08/29/16 23:12**	**160826B06**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	90	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB36-2	**16-08-1766-11-A**	**08/24/16 13:50**	**Solid**	**GC 48**	**08/26/16**	**08/27/16 02:19**	**160826B06**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	80	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB38-2	**16-08-1766-12-A**	**08/24/16 14:30**	**Solid**	**GC 48**	**08/26/16**	**08/27/16 02:35**	**160826B06**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	5.8	5.0	1.00	
C33-C36	12	5.0	1.00	
C37-C40	15	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	36	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	79	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB39-2	**16-08-1766-13-A**	**08/24/16 15:05**	**Solid**	**GC 48**	**08/26/16**	**08/27/16 02:50**	**160826B06**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	5.0	5.0	1.00	
C33-C36	13	5.0	1.00	
C37-C40	18	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	38	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	82	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 14 of 14

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-490-2242**	**N/A**	**Solid**	**GC 48**	**08/26/16**	**08/26/16 22:28**	**160826B06**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	77	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB25-2	**16-08-1766-1-A**	**08/24/16 07:45**	**Solid**	**ICP 8300**	**08/27/16**	**08/29/16 18:17**	**160827L05**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.970	0.732	0.976	
Arsenic	3.51	0.732	0.976	
Barium	66.0	0.488	0.976	
Beryllium	0.343	0.244	0.976	
Cadmium	ND	0.488	0.976	
Chromium	12.4	0.244	0.976	
Cobalt	6.38	0.244	0.976	
Copper	7.42	0.488	0.976	
Lead	5.82	0.488	0.976	
Molybdenum	ND	0.244	0.976	
Nickel	7.75	0.244	0.976	
Selenium	ND	0.732	0.976	
Silver	ND	0.244	0.976	
Thallium	ND	0.732	0.976	
Vanadium	27.0	0.244	0.976	
Zinc	27.1	0.976	0.976	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 2 of 14

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB26-2	**16-08-1766-2-A**	**08/24/16 08:10**	**Solid**	**ICP 8300**	**08/27/16**	**08/29/16 18:22**	**160827L05**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.785	1.05	
Arsenic	3.45	0.785	1.05	
Barium	47.0	0.524	1.05	
Beryllium	0.311	0.262	1.05	
Cadmium	ND	0.524	1.05	
Chromium	7.06	0.262	1.05	
Cobalt	5.40	0.262	1.05	
Copper	6.87	0.524	1.05	
Lead	6.19	0.524	1.05	
Molybdenum	ND	0.262	1.05	
Nickel	5.75	0.262	1.05	
Selenium	ND	0.785	1.05	
Silver	ND	0.262	1.05	
Thallium	ND	0.785	1.05	
Vanadium	19.3	0.262	1.05	
Zinc	23.2	1.05	1.05	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 3 of 14

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB27-2	**16-08-1766-3-A**	**08/24/16 08:35**	**Solid**	**ICP 8300**	**08/27/16**	**08/29/16 18:24**	**160827L05**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.761	1.02	
Arsenic	3.96	0.761	1.02	
Barium	41.6	0.508	1.02	
Beryllium	0.350	0.254	1.02	
Cadmium	ND	0.508	1.02	
Chromium	11.8	0.254	1.02	
Cobalt	6.95	0.254	1.02	
Copper	6.99	0.508	1.02	
Lead	5.66	0.508	1.02	
Molybdenum	ND	0.254	1.02	
Nickel	8.19	0.254	1.02	
Selenium	ND	0.761	1.02	
Silver	ND	0.254	1.02	
Thallium	ND	0.761	1.02	
Vanadium	26.0	0.254	1.02	
Zinc	26.9	1.02	1.02	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 4 of 14

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB28-2	**16-08-1766-4-A**	**08/24/16 09:00**	**Solid**	**ICP 8300**	**08/27/16**	**08/29/16 18:25**	**160827L05**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.789	1.05	
Arsenic	5.30	0.789	1.05	
Barium	111	0.526	1.05	
Beryllium	ND	0.263	1.05	
Cadmium	ND	0.526	1.05	
Chromium	11.6	0.263	1.05	
Cobalt	8.55	0.263	1.05	
Copper	14.8	0.526	1.05	
Lead	5.20	0.526	1.05	
Molybdenum	ND	0.263	1.05	
Nickel	7.75	0.263	1.05	
Selenium	ND	0.789	1.05	
Silver	ND	0.263	1.05	
Thallium	ND	0.789	1.05	
Vanadium	28.0	0.263	1.05	
Zinc	35.2	1.05	1.05	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB29-2	**16-08-1766-5-A**	**08/24/16 09:55**	**Solid**	**ICP 8300**	**08/27/16**	**08/29/16 18:27**	**160827L05**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.929	0.777	1.04	
Arsenic	3.50	0.777	1.04	
Barium	50.2	0.518	1.04	
Beryllium	0.262	0.259	1.04	
Cadmium	ND	0.518	1.04	
Chromium	10.9	0.259	1.04	
Cobalt	8.24	0.259	1.04	
Copper	6.55	0.518	1.04	
Lead	5.49	0.518	1.04	
Molybdenum	0.346	0.259	1.04	
Nickel	5.80	0.259	1.04	
Selenium	ND	0.777	1.04	
Silver	ND	0.259	1.04	
Thallium	ND	0.777	1.04	
Vanadium	23.9	0.259	1.04	
Zinc	22.0	1.04	1.04	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB30-2	**16-08-1766-6-A**	**08/24/16 10:25**	**Solid**	**ICP 8300**	**08/27/16**	**08/29/16 18:29**	**160827L05**

Parameter	Result	RL	DF	Qualifiers
Antimony	1.47	0.773	1.03	
Arsenic	5.49	0.773	1.03	
Barium	51.5	0.515	1.03	
Beryllium	0.443	0.258	1.03	
Cadmium	ND	0.515	1.03	
Chromium	14.2	0.258	1.03	
Cobalt	8.75	0.258	1.03	
Copper	8.01	0.515	1.03	
Lead	6.90	0.515	1.03	
Molybdenum	ND	0.258	1.03	
Nickel	9.39	0.258	1.03	
Selenium	ND	0.773	1.03	
Silver	ND	0.258	1.03	
Thallium	ND	0.773	1.03	
Vanadium	31.8	0.258	1.03	
Zinc	30.9	1.03	1.03	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 7 of 14

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB31-2	**16-08-1766-7-A**	**08/24/16 10:45**	**Solid**	**ICP 8300**	**08/27/16**	**08/29/16 18:30**	**160827L05**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.789	1.05	
Arsenic	8.96	0.789	1.05	
Barium	117	0.526	1.05	
Beryllium	0.859	0.263	1.05	
Cadmium	ND	0.526	1.05	
Chromium	23.9	0.263	1.05	
Cobalt	13.2	0.263	1.05	
Copper	17.2	0.526	1.05	
Lead	12.2	0.526	1.05	
Molybdenum	ND	0.263	1.05	
Nickel	17.6	0.263	1.05	
Selenium	ND	0.789	1.05	
Silver	ND	0.263	1.05	
Thallium	ND	0.789	1.05	
Vanadium	55.4	0.263	1.05	
Zinc	55.2	1.05	1.05	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB33-2	**16-08-1766-8-A**	**08/24/16 11:50**	**Solid**	**ICP 8300**	**08/27/16**	**08/29/16 18:35**	**160827L05**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.765	1.02	
Arsenic	4.96	0.765	1.02	
Barium	127	0.510	1.02	
Beryllium	ND	0.255	1.02	
Cadmium	ND	0.510	1.02	
Chromium	8.39	0.255	1.02	
Cobalt	7.26	0.255	1.02	
Copper	15.2	0.510	1.02	
Lead	4.92	0.510	1.02	
Molybdenum	ND	0.255	1.02	
Nickel	7.03	0.255	1.02	
Selenium	ND	0.765	1.02	
Silver	ND	0.255	1.02	
Thallium	ND	0.765	1.02	
Vanadium	25.2	0.255	1.02	
Zinc	34.6	1.02	1.02	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB34-2	**16-08-1766-9-A**	**08/24/16 12:55**	**Solid**	**ICP 8300**	**08/27/16**	**08/29/16 18:37**	**160827L05**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.773	1.03	
Arsenic	4.61	0.773	1.03	
Barium	67.7	0.515	1.03	
Beryllium	0.354	0.258	1.03	
Cadmium	ND	0.515	1.03	
Chromium	14.5	0.258	1.03	
Cobalt	6.65	0.258	1.03	
Copper	8.53	0.515	1.03	
Lead	7.29	0.515	1.03	
Molybdenum	ND	0.258	1.03	
Nickel	9.42	0.258	1.03	
Selenium	ND	0.773	1.03	
Silver	ND	0.258	1.03	
Thallium	ND	0.773	1.03	
Vanadium	28.0	0.258	1.03	
Zinc	32.3	1.03	1.03	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB35-2	**16-08-1766-10-A**	**08/24/16 13:30**	**Solid**	**ICP 8300**	**08/27/16**	**08/29/16 18:39**	**160827L05**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.799	0.777	1.04	
Arsenic	6.04	0.777	1.04	
Barium	72.2	0.518	1.04	
Beryllium	0.528	0.259	1.04	
Cadmium	ND	0.518	1.04	
Chromium	16.2	0.259	1.04	
Cobalt	9.14	0.259	1.04	
Copper	8.92	0.518	1.04	
Lead	7.60	0.518	1.04	
Molybdenum	ND	0.259	1.04	
Nickel	9.69	0.259	1.04	
Selenium	ND	0.777	1.04	
Silver	ND	0.259	1.04	
Thallium	ND	0.777	1.04	
Vanadium	35.1	0.259	1.04	
Zinc	35.4	1.04	1.04	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB36-2	**16-08-1766-11-A**	**08/24/16 13:50**	**Solid**	**ICP 8300**	**08/27/16**	**08/29/16 18:40**	**160827L05**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.714	0.952	
Arsenic	2.96	0.714	0.952	
Barium	52.8	0.476	0.952	
Beryllium	0.305	0.238	0.952	
Cadmium	ND	0.476	0.952	
Chromium	11.9	0.238	0.952	
Cobalt	7.34	0.238	0.952	
Copper	5.81	0.476	0.952	
Lead	5.42	0.476	0.952	
Molybdenum	ND	0.238	0.952	
Nickel	6.47	0.238	0.952	
Selenium	ND	0.714	0.952	
Silver	ND	0.238	0.952	
Thallium	ND	0.714	0.952	
Vanadium	23.3	0.238	0.952	
Zinc	22.7	0.952	0.952	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB38-2	**16-08-1766-12-A**	**08/24/16 14:30**	**Solid**	**ICP 8300**	**08/27/16**	**08/29/16 18:42**	**160827L05**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.789	1.05	
Arsenic	4.44	0.789	1.05	
Barium	45.9	0.526	1.05	
Beryllium	0.322	0.263	1.05	
Cadmium	ND	0.526	1.05	
Chromium	12.3	0.263	1.05	
Cobalt	6.57	0.263	1.05	
Copper	6.73	0.526	1.05	
Lead	5.19	0.526	1.05	
Molybdenum	ND	0.263	1.05	
Nickel	8.23	0.263	1.05	
Selenium	ND	0.789	1.05	
Silver	ND	0.263	1.05	
Thallium	ND	0.789	1.05	
Vanadium	26.2	0.263	1.05	
Zinc	25.6	1.05	1.05	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 13 of 14

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB39-2	**16-08-1766-13-A**	**08/24/16 15:05**	**Solid**	**ICP 8300**	**08/27/16**	**08/29/16 18:44**	**160827L05**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.777	1.04	
Arsenic	2.93	0.777	1.04	
Barium	48.6	0.518	1.04	
Beryllium	ND	0.259	1.04	
Cadmium	ND	0.518	1.04	
Chromium	10.9	0.259	1.04	
Cobalt	7.41	0.259	1.04	
Copper	6.92	0.518	1.04	
Lead	4.73	0.518	1.04	
Molybdenum	ND	0.259	1.04	
Nickel	5.99	0.259	1.04	
Selenium	ND	0.777	1.04	
Silver	ND	0.259	1.04	
Thallium	ND	0.777	1.04	
Vanadium	21.4	0.259	1.04	
Zinc	21.7	1.04	1.04	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-23152**	**N/A**	**Solid**	**ICP 8300**	**08/27/16**	**08/29/16 16:56**	**160827L05**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.765	1.02	
Arsenic	ND	0.765	1.02	
Barium	ND	0.510	1.02	
Beryllium	ND	0.255	1.02	
Cadmium	ND	0.510	1.02	
Chromium	ND	0.255	1.02	
Cobalt	ND	0.255	1.02	
Copper	ND	0.510	1.02	
Lead	ND	0.510	1.02	
Molybdenum	ND	0.255	1.02	
Nickel	ND	0.255	1.02	
Selenium	ND	0.765	1.02	
Silver	ND	0.255	1.02	
Thallium	ND	0.765	1.02	
Vanadium	ND	0.255	1.02	
Zinc	ND	1.02	1.02	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Project: John Wayne Airport (JWA) / IR13164420

Date Received:	08/24/16
Work Order:	16-08-1766
Preparation:	EPA 7471A Total
Method:	EPA 7471A
Units:	mg/kg
	Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB25-2	**16-08-1766-1-A**	**08/24/16 07:45**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:22**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0833	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB26-2	**16-08-1766-2-A**	**08/24/16 08:10**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:24**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0877	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB27-2	**16-08-1766-3-A**	**08/24/16 08:35**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:26**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0833	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB28-2	**16-08-1766-4-A**	**08/24/16 09:00**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:29**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0862	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB29-2	**16-08-1766-5-A**	**08/24/16 09:55**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:31**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0794	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB30-2	**16-08-1766-6-A**	**08/24/16 10:25**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:33**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0794	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB31-2	**16-08-1766-7-A**	**08/24/16 10:45**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:40**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0794	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB33-2	**16-08-1766-8-A**	**08/24/16 11:50**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:42**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0847	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Project: John Wayne Airport (JWA) / IR13164420

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB34-2	**16-08-1766-9-A**	**08/24/16 12:55**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:44**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0820	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB35-2	**16-08-1766-10-A**	**08/24/16 13:30**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:47**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0794	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB36-2	**16-08-1766-11-A**	**08/24/16 13:50**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:49**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0794	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB38-2	**16-08-1766-12-A**	**08/24/16 14:30**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:51**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0847	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB39-2	**16-08-1766-13-A**	**08/24/16 15:05**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:53**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0794	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-16-272-2474**	**N/A**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:13**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0877	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB25-2	**16-08-1766-1-D**	**08/24/16 07:45**	**Solid**	**GC/MS GGG**	**08/24/16**	**08/25/16 23:57**	**160825L031**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	37	1.00	
Benzene	ND	0.75	1.00	
Bromobenzene	ND	0.75	1.00	
Bromochloromethane	ND	1.5	1.00	
Bromodichloromethane	ND	0.75	1.00	
Bromoform	ND	3.7	1.00	
Bromomethane	ND	15	1.00	
2-Butanone	ND	15	1.00	
n-Butylbenzene	ND	0.75	1.00	
sec-Butylbenzene	ND	0.75	1.00	
tert-Butylbenzene	ND	0.75	1.00	
Carbon Disulfide	ND	7.5	1.00	
Carbon Tetrachloride	ND	0.75	1.00	
Chlorobenzene	ND	0.75	1.00	
Chloroethane	ND	1.5	1.00	
Chloroform	ND	0.75	1.00	
Chloromethane	ND	15	1.00	
2-Chlorotoluene	ND	0.75	1.00	
4-Chlorotoluene	ND	0.75	1.00	
Dibromochloromethane	ND	1.5	1.00	
1,2-Dibromo-3-Chloropropane	ND	3.7	1.00	
1,2-Dibromoethane	ND	0.75	1.00	
Dibromomethane	ND	0.75	1.00	
1,2-Dichlorobenzene	ND	0.75	1.00	
1,3-Dichlorobenzene	ND	0.75	1.00	
1,4-Dichlorobenzene	ND	0.75	1.00	
Dichlorodifluoromethane	ND	1.5	1.00	
1,1-Dichloroethane	ND	0.75	1.00	
1,2-Dichloroethane	ND	0.75	1.00	
1,1-Dichloroethene	ND	0.75	1.00	
c-1,2-Dichloroethene	ND	0.75	1.00	
t-1,2-Dichloroethene	ND	0.75	1.00	
1,2-Dichloropropane	ND	0.75	1.00	
1,3-Dichloropropane	ND	0.75	1.00	
2,2-Dichloropropane	ND	3.7	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.5	1.00	
c-1,3-Dichloropropene	ND	0.75	1.00	
t-1,3-Dichloropropene	ND	1.5	1.00	
Ethylbenzene	ND	0.75	1.00	
2-Hexanone	ND	15	1.00	
Isopropylbenzene	ND	0.75	1.00	
p-Isopropyltoluene	ND	0.75	1.00	
Methylene Chloride	ND	7.5	1.00	
4-Methyl-2-Pentanone	ND	15	1.00	
Naphthalene	ND	7.5	1.00	
n-Propylbenzene	ND	1.5	1.00	
Styrene	ND	0.75	1.00	
1,1,1,2-Tetrachloroethane	ND	0.75	1.00	
1,1,2,2-Tetrachloroethane	ND	1.5	1.00	
Tetrachloroethene	ND	0.75	1.00	
Toluene	ND	0.75	1.00	
1,2,3-Trichlorobenzene	ND	1.5	1.00	
1,2,4-Trichlorobenzene	ND	1.5	1.00	
1,1,1-Trichloroethane	ND	0.75	1.00	
1,1,2-Trichloroethane	ND	0.75	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.5	1.00	
Trichloroethene	ND	1.5	1.00	
Trichlorofluoromethane	ND	7.5	1.00	
1,2,3-Trichloropropane	ND	1.5	1.00	
1,2,4-Trimethylbenzene	ND	1.5	1.00	
1,3,5-Trimethylbenzene	ND	1.5	1.00	
Vinyl Acetate	ND	7.5	1.00	
Vinyl Chloride	ND	0.75	1.00	
p/m-Xylene	ND	1.5	1.00	
o-Xylene	ND	0.75	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.5	1.00	
Tert-Butyl Alcohol (TBA)	ND	15	1.00	
Diisopropyl Ether (DIPE)	ND	0.75	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.75	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.75	1.00	
Ethanol	ND	370	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	90	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/24/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1766
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 3 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	94	79-133	
1,2-Dichloroethane-d4	108	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 4 of 45

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB26-2	**16-08-1766-2-C**	**08/24/16 08:10**	**Solid**	**GC/MS GGG**	**08/24/16**	**08/25/16 17:41**	**160825L031**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	51	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.1	1.00	
Bromomethane	ND	20	1.00	
2-Butanone	ND	20	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.1	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	2.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	5.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received:	08/24/16
Work Order:	16-08-1766
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.0	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	20	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	20	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	20	1.00	
Diisopropyl Ether (DIPE)	ND	1.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	1.00	
Ethanol	ND	510	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	92	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/24/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1766
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 6 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	93	79-133	
1,2-Dichloroethane-d4	106	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 7 of 45

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB27-2	**16-08-1766-3-C**	**08/24/16 08:35**	**Solid**	**GC/MS GGG**	**08/24/16**	**08/25/16 18:08**	**160825L031**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	38	1.00	
Benzene	ND	0.77	1.00	
Bromobenzene	ND	0.77	1.00	
Bromochloromethane	ND	1.5	1.00	
Bromodichloromethane	ND	0.77	1.00	
Bromoform	ND	3.8	1.00	
Bromomethane	ND	15	1.00	
2-Butanone	ND	15	1.00	
n-Butylbenzene	ND	0.77	1.00	
sec-Butylbenzene	ND	0.77	1.00	
tert-Butylbenzene	ND	0.77	1.00	
Carbon Disulfide	ND	7.7	1.00	
Carbon Tetrachloride	ND	0.77	1.00	
Chlorobenzene	ND	0.77	1.00	
Chloroethane	ND	1.5	1.00	
Chloroform	ND	0.77	1.00	
Chloromethane	ND	15	1.00	
2-Chlorotoluene	ND	0.77	1.00	
4-Chlorotoluene	ND	0.77	1.00	
Dibromochloromethane	ND	1.5	1.00	
1,2-Dibromo-3-Chloropropane	ND	3.8	1.00	
1,2-Dibromoethane	ND	0.77	1.00	
Dibromomethane	ND	0.77	1.00	
1,2-Dichlorobenzene	ND	0.77	1.00	
1,3-Dichlorobenzene	ND	0.77	1.00	
1,4-Dichlorobenzene	ND	0.77	1.00	
Dichlorodifluoromethane	ND	1.5	1.00	
1,1-Dichloroethane	ND	0.77	1.00	
1,2-Dichloroethane	ND	0.77	1.00	
1,1-Dichloroethene	ND	0.77	1.00	
c-1,2-Dichloroethene	ND	0.77	1.00	
t-1,2-Dichloroethene	ND	0.77	1.00	
1,2-Dichloropropane	ND	0.77	1.00	
1,3-Dichloropropane	ND	0.77	1.00	
2,2-Dichloropropane	ND	3.8	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.5	1.00	
c-1,3-Dichloropropene	ND	0.77	1.00	
t-1,3-Dichloropropene	ND	1.5	1.00	
Ethylbenzene	ND	0.77	1.00	
2-Hexanone	ND	15	1.00	
Isopropylbenzene	ND	0.77	1.00	
p-Isopropyltoluene	ND	0.77	1.00	
Methylene Chloride	ND	7.7	1.00	
4-Methyl-2-Pentanone	ND	15	1.00	
Naphthalene	ND	7.7	1.00	
n-Propylbenzene	ND	1.5	1.00	
Styrene	ND	0.77	1.00	
1,1,1,2-Tetrachloroethane	ND	0.77	1.00	
1,1,2,2-Tetrachloroethane	ND	1.5	1.00	
Tetrachloroethene	ND	0.77	1.00	
Toluene	ND	0.77	1.00	
1,2,3-Trichlorobenzene	ND	1.5	1.00	
1,2,4-Trichlorobenzene	ND	1.5	1.00	
1,1,1-Trichloroethane	ND	0.77	1.00	
1,1,2-Trichloroethane	ND	0.77	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.7	1.00	
Trichloroethene	ND	1.5	1.00	
Trichlorofluoromethane	ND	7.7	1.00	
1,2,3-Trichloropropane	ND	1.5	1.00	
1,2,4-Trimethylbenzene	ND	1.5	1.00	
1,3,5-Trimethylbenzene	ND	1.5	1.00	
Vinyl Acetate	ND	7.7	1.00	
Vinyl Chloride	ND	0.77	1.00	
p/m-Xylene	ND	1.5	1.00	
o-Xylene	ND	0.77	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.5	1.00	
Tert-Butyl Alcohol (TBA)	ND	15	1.00	
Diisopropyl Ether (DIPE)	ND	0.77	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.77	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.77	1.00	
Ethanol	ND	380	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	92	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/24/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1766
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 9 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	93	79-133	
1,2-Dichloroethane-d4	106	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB28-2	**16-08-1766-4-D**	**08/24/16 09:00**	**Solid**	**GC/MS BB**	**08/24/16**	**08/26/16 15:39**	**160826L005**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	1.1	1.00	
Bromobenzene	ND	1.1	1.00	
Bromochloromethane	ND	2.2	1.00	
Bromodichloromethane	ND	1.1	1.00	
Bromoform	ND	5.4	1.00	
Bromomethane	ND	22	1.00	
2-Butanone	71	22	1.00	
n-Butylbenzene	ND	1.1	1.00	
sec-Butylbenzene	ND	1.1	1.00	
tert-Butylbenzene	ND	1.1	1.00	
Carbon Disulfide	ND	11	1.00	
Carbon Tetrachloride	ND	1.1	1.00	
Chlorobenzene	ND	1.1	1.00	
Chloroethane	ND	2.2	1.00	
Chloroform	ND	1.1	1.00	
Chloromethane	ND	22	1.00	
2-Chlorotoluene	ND	1.1	1.00	
4-Chlorotoluene	ND	1.1	1.00	
Dibromochloromethane	ND	2.2	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.4	1.00	
1,2-Dibromoethane	ND	1.1	1.00	
Dibromomethane	ND	1.1	1.00	
1,2-Dichlorobenzene	ND	1.1	1.00	
1,3-Dichlorobenzene	ND	1.1	1.00	
1,4-Dichlorobenzene	ND	1.1	1.00	
Dichlorodifluoromethane	ND	2.2	1.00	
1,1-Dichloroethane	ND	1.1	1.00	
1,2-Dichloroethane	ND	1.1	1.00	
1,1-Dichloroethene	ND	1.1	1.00	
c-1,2-Dichloroethene	ND	1.1	1.00	
t-1,2-Dichloroethene	ND	1.1	1.00	
1,2-Dichloropropane	ND	1.1	1.00	
1,3-Dichloropropane	ND	1.1	1.00	
2,2-Dichloropropane	ND	5.4	1.00	
1,1-Dichloropropene	ND	2.2	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received:	08/24/16
Work Order:	16-08-1766
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
c-1,3-Dichloropropene	ND	1.1	1.00	
t-1,3-Dichloropropene	ND	2.2	1.00	
Ethylbenzene	ND	1.1	1.00	
2-Hexanone	ND	22	1.00	
Isopropylbenzene	ND	1.1	1.00	
p-Isopropyltoluene	ND	1.1	1.00	
Methylene Chloride	ND	11	1.00	
4-Methyl-2-Pentanone	ND	22	1.00	
Naphthalene	ND	11	1.00	
n-Propylbenzene	ND	2.2	1.00	
Styrene	ND	1.1	1.00	
1,1,1,2-Tetrachloroethane	ND	1.1	1.00	
1,1,2,2-Tetrachloroethane	ND	2.2	1.00	
Tetrachloroethene	ND	1.1	1.00	
Toluene	ND	1.1	1.00	
1,2,3-Trichlorobenzene	ND	2.2	1.00	
1,2,4-Trichlorobenzene	ND	2.2	1.00	
1,1,1-Trichloroethane	ND	1.1	1.00	
1,1,2-Trichloroethane	ND	1.1	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
Trichloroethene	ND	2.2	1.00	
Trichlorofluoromethane	ND	11	1.00	
1,2,3-Trichloropropane	ND	2.2	1.00	
1,2,4-Trimethylbenzene	ND	2.2	1.00	
1,3,5-Trimethylbenzene	ND	2.2	1.00	
Vinyl Acetate	ND	11	1.00	
Vinyl Chloride	ND	1.1	1.00	
p/m-Xylene	ND	2.2	1.00	
o-Xylene	ND	1.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.2	1.00	
Tert-Butyl Alcohol (TBA)	ND	22	1.00	
Diisopropyl Ether (DIPE)	ND	1.1	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	1.1	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	1.1	1.00	
Ethanol	ND	540	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	80-120	
Dibromofluoromethane	103	79-133	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/24/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1766
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 12 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	110	71-155	
Toluene-d8	97	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB28-2	**16-08-1766-4-E**	**08/24/16 09:00**	**Solid**	**GC/MS BB**	**08/24/16**	**08/26/16 16:12**	**160826L006**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	2300	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	80-120	
Dibromofluoromethane	100	79-133	
1,2-Dichloroethane-d4	97	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB29-2	**16-08-1766-5-C**	**08/24/16 09:55**	**Solid**	**GC/MS GGG**	**08/24/16**	**08/25/16 19:02**	**160825L031**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	43	1.00	
Benzene	ND	0.87	1.00	
Bromobenzene	ND	0.87	1.00	
Bromochloromethane	ND	1.7	1.00	
Bromodichloromethane	ND	0.87	1.00	
Bromoform	ND	4.3	1.00	
Bromomethane	ND	17	1.00	
2-Butanone	ND	17	1.00	
n-Butylbenzene	ND	0.87	1.00	
sec-Butylbenzene	ND	0.87	1.00	
tert-Butylbenzene	ND	0.87	1.00	
Carbon Disulfide	ND	8.7	1.00	
Carbon Tetrachloride	ND	0.87	1.00	
Chlorobenzene	ND	0.87	1.00	
Chloroethane	ND	1.7	1.00	
Chloroform	ND	0.87	1.00	
Chloromethane	ND	17	1.00	
2-Chlorotoluene	ND	0.87	1.00	
4-Chlorotoluene	ND	0.87	1.00	
Dibromochloromethane	ND	1.7	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.3	1.00	
1,2-Dibromoethane	ND	0.87	1.00	
Dibromomethane	ND	0.87	1.00	
1,2-Dichlorobenzene	ND	0.87	1.00	
1,3-Dichlorobenzene	ND	0.87	1.00	
1,4-Dichlorobenzene	ND	0.87	1.00	
Dichlorodifluoromethane	ND	1.7	1.00	
1,1-Dichloroethane	ND	0.87	1.00	
1,2-Dichloroethane	ND	0.87	1.00	
1,1-Dichloroethene	ND	0.87	1.00	
c-1,2-Dichloroethene	ND	0.87	1.00	
t-1,2-Dichloroethene	ND	0.87	1.00	
1,2-Dichloropropane	ND	0.87	1.00	
1,3-Dichloropropane	ND	0.87	1.00	
2,2-Dichloropropane	ND	4.3	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received:	08/24/16
Work Order:	16-08-1766
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.7	1.00	
c-1,3-Dichloropropene	ND	0.87	1.00	
t-1,3-Dichloropropene	ND	1.7	1.00	
Ethylbenzene	ND	0.87	1.00	
2-Hexanone	ND	17	1.00	
Isopropylbenzene	ND	0.87	1.00	
p-Isopropyltoluene	ND	0.87	1.00	
Methylene Chloride	ND	8.7	1.00	
4-Methyl-2-Pentanone	ND	17	1.00	
Naphthalene	ND	8.7	1.00	
n-Propylbenzene	ND	1.7	1.00	
Styrene	ND	0.87	1.00	
1,1,1,2-Tetrachloroethane	ND	0.87	1.00	
1,1,2,2-Tetrachloroethane	ND	1.7	1.00	
Tetrachloroethene	ND	0.87	1.00	
Toluene	ND	0.87	1.00	
1,2,3-Trichlorobenzene	ND	1.7	1.00	
1,2,4-Trichlorobenzene	ND	1.7	1.00	
1,1,1-Trichloroethane	ND	0.87	1.00	
1,1,2-Trichloroethane	ND	0.87	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.7	1.00	
Trichloroethene	ND	1.7	1.00	
Trichlorofluoromethane	ND	8.7	1.00	
1,2,3-Trichloropropane	ND	1.7	1.00	
1,2,4-Trimethylbenzene	ND	1.7	1.00	
1,3,5-Trimethylbenzene	ND	1.7	1.00	
Vinyl Acetate	ND	8.7	1.00	
Vinyl Chloride	ND	0.87	1.00	
p/m-Xylene	ND	1.7	1.00	
o-Xylene	ND	0.87	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	1.00	
Tert-Butyl Alcohol (TBA)	ND	17	1.00	
Diisopropyl Ether (DIPE)	ND	0.87	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.87	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.87	1.00	
Ethanol	ND	430	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	92	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/24/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1766
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 15 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	93	79-133	
1,2-Dichloroethane-d4	106	71-155	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB30-2	**16-08-1766-6-C**	**08/24/16 10:25**	**Solid**	**GC/MS GGG**	**08/24/16**	**08/25/16 19:29**	**160825L031**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	44	1.00	
Benzene	ND	0.88	1.00	
Bromobenzene	ND	0.88	1.00	
Bromochloromethane	ND	1.8	1.00	
Bromodichloromethane	ND	0.88	1.00	
Bromoform	ND	4.4	1.00	
Bromomethane	ND	18	1.00	
2-Butanone	ND	18	1.00	
n-Butylbenzene	ND	0.88	1.00	
sec-Butylbenzene	ND	0.88	1.00	
tert-Butylbenzene	ND	0.88	1.00	
Carbon Disulfide	ND	8.8	1.00	
Carbon Tetrachloride	ND	0.88	1.00	
Chlorobenzene	ND	0.88	1.00	
Chloroethane	ND	1.8	1.00	
Chloroform	ND	0.88	1.00	
Chloromethane	ND	18	1.00	
2-Chlorotoluene	ND	0.88	1.00	
4-Chlorotoluene	ND	0.88	1.00	
Dibromochloromethane	ND	1.8	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.4	1.00	
1,2-Dibromoethane	ND	0.88	1.00	
Dibromomethane	ND	0.88	1.00	
1,2-Dichlorobenzene	ND	0.88	1.00	
1,3-Dichlorobenzene	ND	0.88	1.00	
1,4-Dichlorobenzene	ND	0.88	1.00	
Dichlorodifluoromethane	ND	1.8	1.00	
1,1-Dichloroethane	ND	0.88	1.00	
1,2-Dichloroethane	ND	0.88	1.00	
1,1-Dichloroethene	ND	0.88	1.00	
c-1,2-Dichloroethene	ND	0.88	1.00	
t-1,2-Dichloroethene	ND	0.88	1.00	
1,2-Dichloropropane	ND	0.88	1.00	
1,3-Dichloropropane	ND	0.88	1.00	
2,2-Dichloropropane	ND	4.4	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received:	08/24/16
Work Order:	16-08-1766
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 17 of 45

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.8	1.00	
c-1,3-Dichloropropene	ND	0.88	1.00	
t-1,3-Dichloropropene	ND	1.8	1.00	
Ethylbenzene	ND	0.88	1.00	
2-Hexanone	ND	18	1.00	
Isopropylbenzene	ND	0.88	1.00	
p-Isopropyltoluene	ND	0.88	1.00	
Methylene Chloride	ND	8.8	1.00	
4-Methyl-2-Pentanone	ND	18	1.00	
Naphthalene	ND	8.8	1.00	
n-Propylbenzene	ND	1.8	1.00	
Styrene	ND	0.88	1.00	
1,1,1,2-Tetrachloroethane	ND	0.88	1.00	
1,1,2,2-Tetrachloroethane	ND	1.8	1.00	
Tetrachloroethene	ND	0.88	1.00	
Toluene	ND	0.88	1.00	
1,2,3-Trichlorobenzene	ND	1.8	1.00	
1,2,4-Trichlorobenzene	ND	1.8	1.00	
1,1,1-Trichloroethane	ND	0.88	1.00	
1,1,2-Trichloroethane	ND	0.88	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.8	1.00	
Trichloroethene	ND	1.8	1.00	
Trichlorofluoromethane	ND	8.8	1.00	
1,2,3-Trichloropropane	ND	1.8	1.00	
1,2,4-Trimethylbenzene	ND	1.8	1.00	
1,3,5-Trimethylbenzene	ND	1.8	1.00	
Vinyl Acetate	ND	8.8	1.00	
Vinyl Chloride	ND	0.88	1.00	
p/m-Xylene	ND	1.8	1.00	
o-Xylene	ND	0.88	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	1.00	
Tert-Butyl Alcohol (TBA)	ND	18	1.00	
Diisopropyl Ether (DIPE)	ND	0.88	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.88	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.88	1.00	
Ethanol	ND	440	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	90	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/24/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1766
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 18 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	92	79-133	
1,2-Dichloroethane-d4	105	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB31-2	**16-08-1766-7-C**	**08/24/16 10:45**	**Solid**	**GC/MS GGG**	**08/24/16**	**08/25/16 19:56**	**160825L031**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	43	1.00	
Benzene	ND	0.86	1.00	
Bromobenzene	ND	0.86	1.00	
Bromochloromethane	ND	1.7	1.00	
Bromodichloromethane	ND	0.86	1.00	
Bromoform	ND	4.3	1.00	
Bromomethane	ND	17	1.00	
2-Butanone	ND	17	1.00	
n-Butylbenzene	ND	0.86	1.00	
sec-Butylbenzene	ND	0.86	1.00	
tert-Butylbenzene	ND	0.86	1.00	
Carbon Disulfide	ND	8.6	1.00	
Carbon Tetrachloride	ND	0.86	1.00	
Chlorobenzene	ND	0.86	1.00	
Chloroethane	ND	1.7	1.00	
Chloroform	ND	0.86	1.00	
Chloromethane	ND	17	1.00	
2-Chlorotoluene	ND	0.86	1.00	
4-Chlorotoluene	ND	0.86	1.00	
Dibromochloromethane	ND	1.7	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.3	1.00	
1,2-Dibromoethane	ND	0.86	1.00	
Dibromomethane	ND	0.86	1.00	
1,2-Dichlorobenzene	ND	0.86	1.00	
1,3-Dichlorobenzene	ND	0.86	1.00	
1,4-Dichlorobenzene	ND	0.86	1.00	
Dichlorodifluoromethane	ND	1.7	1.00	
1,1-Dichloroethane	ND	0.86	1.00	
1,2-Dichloroethane	ND	0.86	1.00	
1,1-Dichloroethene	ND	0.86	1.00	
c-1,2-Dichloroethene	ND	0.86	1.00	
t-1,2-Dichloroethene	ND	0.86	1.00	
1,2-Dichloropropane	ND	0.86	1.00	
1,3-Dichloropropane	ND	0.86	1.00	
2,2-Dichloropropane	ND	4.3	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received:	08/24/16
Work Order:	16-08-1766
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.7	1.00	
c-1,3-Dichloropropene	ND	0.86	1.00	
t-1,3-Dichloropropene	ND	1.7	1.00	
Ethylbenzene	ND	0.86	1.00	
2-Hexanone	ND	17	1.00	
Isopropylbenzene	ND	0.86	1.00	
p-Isopropyltoluene	ND	0.86	1.00	
Methylene Chloride	ND	8.6	1.00	
4-Methyl-2-Pentanone	ND	17	1.00	
Naphthalene	ND	8.6	1.00	
n-Propylbenzene	ND	1.7	1.00	
Styrene	ND	0.86	1.00	
1,1,1,2-Tetrachloroethane	ND	0.86	1.00	
1,1,2,2-Tetrachloroethane	ND	1.7	1.00	
Tetrachloroethene	ND	0.86	1.00	
Toluene	ND	0.86	1.00	
1,2,3-Trichlorobenzene	ND	1.7	1.00	
1,2,4-Trichlorobenzene	ND	1.7	1.00	
1,1,1-Trichloroethane	ND	0.86	1.00	
1,1,2-Trichloroethane	ND	0.86	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.6	1.00	
Trichloroethene	ND	1.7	1.00	
Trichlorofluoromethane	ND	8.6	1.00	
1,2,3-Trichloropropane	ND	1.7	1.00	
1,2,4-Trimethylbenzene	ND	1.7	1.00	
1,3,5-Trimethylbenzene	ND	1.7	1.00	
Vinyl Acetate	ND	8.6	1.00	
Vinyl Chloride	ND	0.86	1.00	
p/m-Xylene	ND	1.7	1.00	
o-Xylene	ND	0.86	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	1.00	
Tert-Butyl Alcohol (TBA)	ND	17	1.00	
Diisopropyl Ether (DIPE)	ND	0.86	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.86	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.86	1.00	
Ethanol	ND	430	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	93	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/24/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1766
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 21 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	95	79-133	
1,2-Dichloroethane-d4	110	71-155	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB33-2	**16-08-1766-8-C**	**08/24/16 11:50**	**Solid**	**GC/MS GGG**	**08/24/16**	**08/25/16 20:22**	**160825L031**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	40	1.00	
Benzene	ND	0.80	1.00	
Bromobenzene	ND	0.80	1.00	
Bromochloromethane	ND	1.6	1.00	
Bromodichloromethane	ND	0.80	1.00	
Bromoform	ND	4.0	1.00	
Bromomethane	ND	16	1.00	
2-Butanone	ND	16	1.00	
n-Butylbenzene	ND	0.80	1.00	
sec-Butylbenzene	ND	0.80	1.00	
tert-Butylbenzene	ND	0.80	1.00	
Carbon Disulfide	ND	8.0	1.00	
Carbon Tetrachloride	ND	0.80	1.00	
Chlorobenzene	ND	0.80	1.00	
Chloroethane	ND	1.6	1.00	
Chloroform	ND	0.80	1.00	
Chloromethane	ND	16	1.00	
2-Chlorotoluene	ND	0.80	1.00	
4-Chlorotoluene	ND	0.80	1.00	
Dibromochloromethane	ND	1.6	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.0	1.00	
1,2-Dibromoethane	ND	0.80	1.00	
Dibromomethane	ND	0.80	1.00	
1,2-Dichlorobenzene	ND	0.80	1.00	
1,3-Dichlorobenzene	ND	0.80	1.00	
1,4-Dichlorobenzene	ND	0.80	1.00	
Dichlorodifluoromethane	ND	1.6	1.00	
1,1-Dichloroethane	ND	0.80	1.00	
1,2-Dichloroethane	ND	0.80	1.00	
1,1-Dichloroethene	ND	0.80	1.00	
c-1,2-Dichloroethene	ND	0.80	1.00	
t-1,2-Dichloroethene	ND	0.80	1.00	
1,2-Dichloropropane	ND	0.80	1.00	
1,3-Dichloropropane	ND	0.80	1.00	
2,2-Dichloropropane	ND	4.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received:	08/24/16
Work Order:	16-08-1766
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.6	1.00	
c-1,3-Dichloropropene	ND	0.80	1.00	
t-1,3-Dichloropropene	ND	1.6	1.00	
Ethylbenzene	ND	0.80	1.00	
2-Hexanone	ND	16	1.00	
Isopropylbenzene	ND	0.80	1.00	
p-Isopropyltoluene	ND	0.80	1.00	
Methylene Chloride	ND	8.0	1.00	
4-Methyl-2-Pentanone	ND	16	1.00	
Naphthalene	ND	8.0	1.00	
n-Propylbenzene	ND	1.6	1.00	
Styrene	ND	0.80	1.00	
1,1,1,2-Tetrachloroethane	ND	0.80	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	1.00	
Tetrachloroethene	ND	0.80	1.00	
Toluene	ND	0.80	1.00	
1,2,3-Trichlorobenzene	ND	1.6	1.00	
1,2,4-Trichlorobenzene	ND	1.6	1.00	
1,1,1-Trichloroethane	ND	0.80	1.00	
1,1,2-Trichloroethane	ND	0.80	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.0	1.00	
Trichloroethene	ND	1.6	1.00	
Trichlorofluoromethane	ND	8.0	1.00	
1,2,3-Trichloropropane	ND	1.6	1.00	
1,2,4-Trimethylbenzene	ND	1.6	1.00	
1,3,5-Trimethylbenzene	ND	1.6	1.00	
Vinyl Acetate	ND	8.0	1.00	
Vinyl Chloride	ND	0.80	1.00	
p/m-Xylene	ND	1.6	1.00	
o-Xylene	ND	0.80	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	1.00	
Tert-Butyl Alcohol (TBA)	ND	16	1.00	
Diisopropyl Ether (DIPE)	ND	0.80	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.80	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.80	1.00	
Ethanol	ND	400	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	89	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/24/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1766
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 24 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	95	79-133	
1,2-Dichloroethane-d4	108	71-155	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB34-2	**16-08-1766-9-C**	**08/24/16 12:55**	**Solid**	**GC/MS GGG**	**08/24/16**	**08/25/16 20:49**	**160825L031**

Parameter	Result	RL	DF	Qualifiers
Acetone	54	46	1.00	
Benzene	ND	0.92	1.00	
Bromobenzene	ND	0.92	1.00	
Bromochloromethane	ND	1.8	1.00	
Bromodichloromethane	ND	0.92	1.00	
Bromoform	ND	4.6	1.00	
Bromomethane	ND	18	1.00	
2-Butanone	ND	18	1.00	
n-Butylbenzene	ND	0.92	1.00	
sec-Butylbenzene	ND	0.92	1.00	
tert-Butylbenzene	ND	0.92	1.00	
Carbon Disulfide	ND	9.2	1.00	
Carbon Tetrachloride	ND	0.92	1.00	
Chlorobenzene	ND	0.92	1.00	
Chloroethane	ND	1.8	1.00	
Chloroform	ND	0.92	1.00	
Chloromethane	ND	18	1.00	
2-Chlorotoluene	ND	0.92	1.00	
4-Chlorotoluene	ND	0.92	1.00	
Dibromochloromethane	ND	1.8	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.6	1.00	
1,2-Dibromoethane	ND	0.92	1.00	
Dibromomethane	ND	0.92	1.00	
1,2-Dichlorobenzene	ND	0.92	1.00	
1,3-Dichlorobenzene	ND	0.92	1.00	
1,4-Dichlorobenzene	ND	0.92	1.00	
Dichlorodifluoromethane	ND	1.8	1.00	
1,1-Dichloroethane	ND	0.92	1.00	
1,2-Dichloroethane	ND	0.92	1.00	
1,1-Dichloroethene	ND	0.92	1.00	
c-1,2-Dichloroethene	ND	0.92	1.00	
t-1,2-Dichloroethene	ND	0.92	1.00	
1,2-Dichloropropane	ND	0.92	1.00	
1,3-Dichloropropane	ND	0.92	1.00	
2,2-Dichloropropane	ND	4.6	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received:	08/24/16
Work Order:	16-08-1766
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.8	1.00	
c-1,3-Dichloropropene	ND	0.92	1.00	
t-1,3-Dichloropropene	ND	1.8	1.00	
Ethylbenzene	ND	0.92	1.00	
2-Hexanone	ND	18	1.00	
Isopropylbenzene	ND	0.92	1.00	
p-Isopropyltoluene	ND	0.92	1.00	
Methylene Chloride	ND	9.2	1.00	
4-Methyl-2-Pentanone	ND	18	1.00	
Naphthalene	ND	9.2	1.00	
n-Propylbenzene	ND	1.8	1.00	
Styrene	ND	0.92	1.00	
1,1,1,2-Tetrachloroethane	ND	0.92	1.00	
1,1,2,2-Tetrachloroethane	ND	1.8	1.00	
Tetrachloroethene	ND	0.92	1.00	
Toluene	ND	0.92	1.00	
1,2,3-Trichlorobenzene	ND	1.8	1.00	
1,2,4-Trichlorobenzene	ND	1.8	1.00	
1,1,1-Trichloroethane	ND	0.92	1.00	
1,1,2-Trichloroethane	ND	0.92	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.2	1.00	
Trichloroethene	ND	1.8	1.00	
Trichlorofluoromethane	ND	9.2	1.00	
1,2,3-Trichloropropane	ND	1.8	1.00	
1,2,4-Trimethylbenzene	ND	1.8	1.00	
1,3,5-Trimethylbenzene	ND	1.8	1.00	
Vinyl Acetate	ND	9.2	1.00	
Vinyl Chloride	ND	0.92	1.00	
p/m-Xylene	ND	1.8	1.00	
o-Xylene	ND	0.92	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	1.00	
Tert-Butyl Alcohol (TBA)	ND	18	1.00	
Diisopropyl Ether (DIPE)	ND	0.92	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.92	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.92	1.00	
Ethanol	ND	460	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	91	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/24/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1766
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 27 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	95	79-133	
1,2-Dichloroethane-d4	109	71-155	
Toluene-d8	98	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB35-2	**16-08-1766-10-C**	**08/24/16 13:30**	**Solid**	**GC/MS GGG**	**08/24/16**	**08/25/16 21:16**	**160825L031**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	45	1.00	
Benzene	ND	0.89	1.00	
Bromobenzene	ND	0.89	1.00	
Bromochloromethane	ND	1.8	1.00	
Bromodichloromethane	ND	0.89	1.00	
Bromoform	ND	4.5	1.00	
Bromomethane	ND	18	1.00	
2-Butanone	ND	18	1.00	
n-Butylbenzene	ND	0.89	1.00	
sec-Butylbenzene	ND	0.89	1.00	
tert-Butylbenzene	ND	0.89	1.00	
Carbon Disulfide	ND	8.9	1.00	
Carbon Tetrachloride	ND	0.89	1.00	
Chlorobenzene	ND	0.89	1.00	
Chloroethane	ND	1.8	1.00	
Chloroform	ND	0.89	1.00	
Chloromethane	ND	18	1.00	
2-Chlorotoluene	ND	0.89	1.00	
4-Chlorotoluene	ND	0.89	1.00	
Dibromochloromethane	ND	1.8	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.5	1.00	
1,2-Dibromoethane	ND	0.89	1.00	
Dibromomethane	ND	0.89	1.00	
1,2-Dichlorobenzene	ND	0.89	1.00	
1,3-Dichlorobenzene	ND	0.89	1.00	
1,4-Dichlorobenzene	ND	0.89	1.00	
Dichlorodifluoromethane	ND	1.8	1.00	
1,1-Dichloroethane	ND	0.89	1.00	
1,2-Dichloroethane	ND	0.89	1.00	
1,1-Dichloroethene	ND	0.89	1.00	
c-1,2-Dichloroethene	ND	0.89	1.00	
t-1,2-Dichloroethene	ND	0.89	1.00	
1,2-Dichloropropane	ND	0.89	1.00	
1,3-Dichloropropane	ND	0.89	1.00	
2,2-Dichloropropane	ND	4.5	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received:	08/24/16
Work Order:	16-08-1766
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.8	1.00	
c-1,3-Dichloropropene	ND	0.89	1.00	
t-1,3-Dichloropropene	ND	1.8	1.00	
Ethylbenzene	ND	0.89	1.00	
2-Hexanone	ND	18	1.00	
Isopropylbenzene	ND	0.89	1.00	
p-Isopropyltoluene	ND	0.89	1.00	
Methylene Chloride	ND	8.9	1.00	
4-Methyl-2-Pentanone	ND	18	1.00	
Naphthalene	ND	8.9	1.00	
n-Propylbenzene	ND	1.8	1.00	
Styrene	ND	0.89	1.00	
1,1,1,2-Tetrachloroethane	ND	0.89	1.00	
1,1,2,2-Tetrachloroethane	ND	1.8	1.00	
Tetrachloroethene	ND	0.89	1.00	
Toluene	ND	0.89	1.00	
1,2,3-Trichlorobenzene	ND	1.8	1.00	
1,2,4-Trichlorobenzene	ND	1.8	1.00	
1,1,1-Trichloroethane	ND	0.89	1.00	
1,1,2-Trichloroethane	ND	0.89	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.9	1.00	
Trichloroethene	ND	1.8	1.00	
Trichlorofluoromethane	ND	8.9	1.00	
1,2,3-Trichloropropane	ND	1.8	1.00	
1,2,4-Trimethylbenzene	ND	1.8	1.00	
1,3,5-Trimethylbenzene	ND	1.8	1.00	
Vinyl Acetate	ND	8.9	1.00	
Vinyl Chloride	ND	0.89	1.00	
p/m-Xylene	ND	1.8	1.00	
o-Xylene	ND	0.89	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	1.00	
Tert-Butyl Alcohol (TBA)	ND	18	1.00	
Diisopropyl Ether (DIPE)	ND	0.89	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.89	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.89	1.00	
Ethanol	ND	450	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	92	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/24/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1766
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 30 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	94	79-133	
1,2-Dichloroethane-d4	108	71-155	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB36-2	**16-08-1766-11-C**	**08/24/16 13:50**	**Solid**	**GC/MS GGG**	**08/24/16**	**08/25/16 21:43**	**160825L031**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	40	1.00	
Benzene	ND	0.79	1.00	
Bromobenzene	ND	0.79	1.00	
Bromochloromethane	ND	1.6	1.00	
Bromodichloromethane	ND	0.79	1.00	
Bromoform	ND	4.0	1.00	
Bromomethane	ND	16	1.00	
2-Butanone	ND	16	1.00	
n-Butylbenzene	ND	0.79	1.00	
sec-Butylbenzene	ND	0.79	1.00	
tert-Butylbenzene	ND	0.79	1.00	
Carbon Disulfide	ND	7.9	1.00	
Carbon Tetrachloride	ND	0.79	1.00	
Chlorobenzene	ND	0.79	1.00	
Chloroethane	ND	1.6	1.00	
Chloroform	ND	0.79	1.00	
Chloromethane	ND	16	1.00	
2-Chlorotoluene	ND	0.79	1.00	
4-Chlorotoluene	ND	0.79	1.00	
Dibromochloromethane	ND	1.6	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.0	1.00	
1,2-Dibromoethane	ND	0.79	1.00	
Dibromomethane	ND	0.79	1.00	
1,2-Dichlorobenzene	ND	0.79	1.00	
1,3-Dichlorobenzene	ND	0.79	1.00	
1,4-Dichlorobenzene	ND	0.79	1.00	
Dichlorodifluoromethane	ND	1.6	1.00	
1,1-Dichloroethane	ND	0.79	1.00	
1,2-Dichloroethane	ND	0.79	1.00	
1,1-Dichloroethene	ND	0.79	1.00	
c-1,2-Dichloroethene	ND	0.79	1.00	
t-1,2-Dichloroethene	ND	0.79	1.00	
1,2-Dichloropropane	ND	0.79	1.00	
1,3-Dichloropropane	ND	0.79	1.00	
2,2-Dichloropropane	ND	4.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received:	08/24/16
Work Order:	16-08-1766
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.6	1.00	
c-1,3-Dichloropropene	ND	0.79	1.00	
t-1,3-Dichloropropene	ND	1.6	1.00	
Ethylbenzene	ND	0.79	1.00	
2-Hexanone	ND	16	1.00	
Isopropylbenzene	ND	0.79	1.00	
p-Isopropyltoluene	ND	0.79	1.00	
Methylene Chloride	ND	7.9	1.00	
4-Methyl-2-Pentanone	ND	16	1.00	
Naphthalene	ND	7.9	1.00	
n-Propylbenzene	ND	1.6	1.00	
Styrene	ND	0.79	1.00	
1,1,1,2-Tetrachloroethane	ND	0.79	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	1.00	
Tetrachloroethene	ND	0.79	1.00	
Toluene	ND	0.79	1.00	
1,2,3-Trichlorobenzene	ND	1.6	1.00	
1,2,4-Trichlorobenzene	ND	1.6	1.00	
1,1,1-Trichloroethane	ND	0.79	1.00	
1,1,2-Trichloroethane	ND	0.79	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.9	1.00	
Trichloroethene	ND	1.6	1.00	
Trichlorofluoromethane	ND	7.9	1.00	
1,2,3-Trichloropropane	ND	1.6	1.00	
1,2,4-Trimethylbenzene	ND	1.6	1.00	
1,3,5-Trimethylbenzene	ND	1.6	1.00	
Vinyl Acetate	ND	7.9	1.00	
Vinyl Chloride	ND	0.79	1.00	
p/m-Xylene	ND	1.6	1.00	
o-Xylene	ND	0.79	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	1.00	
Tert-Butyl Alcohol (TBA)	ND	16	1.00	
Diisopropyl Ether (DIPE)	ND	0.79	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.79	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.79	1.00	
Ethanol	ND	400	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	91	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/24/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1766
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 33 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	93	79-133	
1,2-Dichloroethane-d4	109	71-155	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB38-2	**16-08-1766-12-C**	**08/24/16 14:30**	**Solid**	**GC/MS GGG**	**08/24/16**	**08/25/16 22:10**	**160825L031**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	41	1.00	
Benzene	ND	0.81	1.00	
Bromobenzene	ND	0.81	1.00	
Bromochloromethane	ND	1.6	1.00	
Bromodichloromethane	ND	0.81	1.00	
Bromoform	ND	4.1	1.00	
Bromomethane	ND	16	1.00	
2-Butanone	ND	16	1.00	
n-Butylbenzene	ND	0.81	1.00	
sec-Butylbenzene	ND	0.81	1.00	
tert-Butylbenzene	ND	0.81	1.00	
Carbon Disulfide	ND	8.1	1.00	
Carbon Tetrachloride	ND	0.81	1.00	
Chlorobenzene	ND	0.81	1.00	
Chloroethane	ND	1.6	1.00	
Chloroform	ND	0.81	1.00	
Chloromethane	ND	16	1.00	
2-Chlorotoluene	ND	0.81	1.00	
4-Chlorotoluene	ND	0.81	1.00	
Dibromochloromethane	ND	1.6	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.1	1.00	
1,2-Dibromoethane	ND	0.81	1.00	
Dibromomethane	ND	0.81	1.00	
1,2-Dichlorobenzene	ND	0.81	1.00	
1,3-Dichlorobenzene	ND	0.81	1.00	
1,4-Dichlorobenzene	ND	0.81	1.00	
Dichlorodifluoromethane	ND	1.6	1.00	
1,1-Dichloroethane	ND	0.81	1.00	
1,2-Dichloroethane	ND	0.81	1.00	
1,1-Dichloroethene	ND	0.81	1.00	
c-1,2-Dichloroethene	ND	0.81	1.00	
t-1,2-Dichloroethene	ND	0.81	1.00	
1,2-Dichloropropane	ND	0.81	1.00	
1,3-Dichloropropane	ND	0.81	1.00	
2,2-Dichloropropane	ND	4.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.6	1.00	
c-1,3-Dichloropropene	ND	0.81	1.00	
t-1,3-Dichloropropene	ND	1.6	1.00	
Ethylbenzene	ND	0.81	1.00	
2-Hexanone	ND	16	1.00	
Isopropylbenzene	ND	0.81	1.00	
p-Isopropyltoluene	ND	0.81	1.00	
Methylene Chloride	ND	8.1	1.00	
4-Methyl-2-Pentanone	ND	16	1.00	
Naphthalene	ND	8.1	1.00	
n-Propylbenzene	ND	1.6	1.00	
Styrene	ND	0.81	1.00	
1,1,1,2-Tetrachloroethane	ND	0.81	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	1.00	
Tetrachloroethene	ND	0.81	1.00	
Toluene	ND	0.81	1.00	
1,2,3-Trichlorobenzene	ND	1.6	1.00	
1,2,4-Trichlorobenzene	ND	1.6	1.00	
1,1,1-Trichloroethane	ND	0.81	1.00	
1,1,2-Trichloroethane	ND	0.81	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.1	1.00	
Trichloroethene	ND	1.6	1.00	
Trichlorofluoromethane	ND	8.1	1.00	
1,2,3-Trichloropropane	ND	1.6	1.00	
1,2,4-Trimethylbenzene	ND	1.6	1.00	
1,3,5-Trimethylbenzene	ND	1.6	1.00	
Vinyl Acetate	ND	8.1	1.00	
Vinyl Chloride	ND	0.81	1.00	
p/m-Xylene	ND	1.6	1.00	
o-Xylene	ND	0.81	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	1.00	
Tert-Butyl Alcohol (TBA)	ND	16	1.00	
Diisopropyl Ether (DIPE)	ND	0.81	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.81	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.81	1.00	
Ethanol	ND	410	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	93	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/24/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1766
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 36 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	96	79-133	
1,2-Dichloroethane-d4	110	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP_SB39-2	**16-08-1766-13-C**	**08/24/16 15:05**	**Solid**	**GC/MS GGG**	**08/24/16**	**08/25/16 22:37**	**160825L031**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	39	1.00	
Benzene	ND	0.78	1.00	
Bromobenzene	ND	0.78	1.00	
Bromochloromethane	ND	1.6	1.00	
Bromodichloromethane	ND	0.78	1.00	
Bromoform	ND	3.9	1.00	
Bromomethane	ND	16	1.00	
2-Butanone	ND	16	1.00	
n-Butylbenzene	ND	0.78	1.00	
sec-Butylbenzene	ND	0.78	1.00	
tert-Butylbenzene	ND	0.78	1.00	
Carbon Disulfide	ND	7.8	1.00	
Carbon Tetrachloride	ND	0.78	1.00	
Chlorobenzene	ND	0.78	1.00	
Chloroethane	ND	1.6	1.00	
Chloroform	ND	0.78	1.00	
Chloromethane	ND	16	1.00	
2-Chlorotoluene	ND	0.78	1.00	
4-Chlorotoluene	ND	0.78	1.00	
Dibromochloromethane	ND	1.6	1.00	
1,2-Dibromo-3-Chloropropane	ND	3.9	1.00	
1,2-Dibromoethane	ND	0.78	1.00	
Dibromomethane	ND	0.78	1.00	
1,2-Dichlorobenzene	ND	0.78	1.00	
1,3-Dichlorobenzene	ND	0.78	1.00	
1,4-Dichlorobenzene	ND	0.78	1.00	
Dichlorodifluoromethane	ND	1.6	1.00	
1,1-Dichloroethane	ND	0.78	1.00	
1,2-Dichloroethane	ND	0.78	1.00	
1,1-Dichloroethene	ND	0.78	1.00	
c-1,2-Dichloroethene	ND	0.78	1.00	
t-1,2-Dichloroethene	ND	0.78	1.00	
1,2-Dichloropropane	ND	0.78	1.00	
1,3-Dichloropropane	ND	0.78	1.00	
2,2-Dichloropropane	ND	3.9	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received:	08/24/16
Work Order:	16-08-1766
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.6	1.00	
c-1,3-Dichloropropene	ND	0.78	1.00	
t-1,3-Dichloropropene	ND	1.6	1.00	
Ethylbenzene	ND	0.78	1.00	
2-Hexanone	ND	16	1.00	
Isopropylbenzene	ND	0.78	1.00	
p-Isopropyltoluene	ND	0.78	1.00	
Methylene Chloride	ND	7.8	1.00	
4-Methyl-2-Pentanone	ND	16	1.00	
Naphthalene	ND	7.8	1.00	
n-Propylbenzene	ND	1.6	1.00	
Styrene	ND	0.78	1.00	
1,1,1,2-Tetrachloroethane	ND	0.78	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	1.00	
Tetrachloroethene	ND	0.78	1.00	
Toluene	ND	0.78	1.00	
1,2,3-Trichlorobenzene	ND	1.6	1.00	
1,2,4-Trichlorobenzene	ND	1.6	1.00	
1,1,1-Trichloroethane	ND	0.78	1.00	
1,1,2-Trichloroethane	ND	0.78	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.8	1.00	
Trichloroethene	ND	1.6	1.00	
Trichlorofluoromethane	ND	7.8	1.00	
1,2,3-Trichloropropane	ND	1.6	1.00	
1,2,4-Trimethylbenzene	ND	1.6	1.00	
1,3,5-Trimethylbenzene	ND	1.6	1.00	
Vinyl Acetate	ND	7.8	1.00	
Vinyl Chloride	ND	0.78	1.00	
p/m-Xylene	ND	1.6	1.00	
o-Xylene	ND	0.78	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	1.00	
Tert-Butyl Alcohol (TBA)	ND	16	1.00	
Diisopropyl Ether (DIPE)	ND	0.78	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.78	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.78	1.00	
Ethanol	ND	390	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	88	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/24/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1766
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 39 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	98	79-133	
1,2-Dichloroethane-d4	110	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**095-01-025-27918**	**N/A**	**Solid**	**GC/MS GGG**	**08/25/16**	**08/25/16 16:48**	**160825L031**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	50	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	20	1.00	
2-Butanone	ND	20	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	2.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.0	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	20	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	20	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	20	1.00	
Diisopropyl Ether (DIPE)	ND	1.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	1.00	
Ethanol	ND	500	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	93	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/24/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1766
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 42 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	91	79-133	
1,2-Dichloroethane-d4	100	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**095-01-025-27920**	**N/A**	**Solid**	**GC/MS BB**	**08/26/16**	**08/26/16 14:45**	**160826L005**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	20	1.00	
2-Butanone	ND	20	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	2.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	
1,1-Dichloropropene	ND	2.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	20	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	20	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	20	1.00	
Diisopropyl Ether (DIPE)	ND	1.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	1.00	
Ethanol	ND	500	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	98	79-133	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	98	71-155	
Toluene-d8	100	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**095-01-025-27925**	**N/A**	**Solid**	**GC/MS BB**	**08/26/16**	**08/26/16 15:12**	**160826L006**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	5000	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	101	79-133	
1,2-Dichloroethane-d4	100	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/24/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1766
Irvine, CA 92617-3094	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
Project: John Wayne Airport (JWA) / IR13164420		Page 1 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
GAIP_SB25-2	**Sample**	**Solid**	**GC 48**	**08/26/16**	**08/26/16 23:30**	**160826S06**
GAIP_SB25-2	**Matrix Spike**	**Solid**	**GC 48**	**08/26/16**	**08/26/16 22:58**	**160826S06**
GAIP_SB25-2	**Matrix Spike Duplicate**	**Solid**	**GC 48**	**08/26/16**	**08/26/16 23:14**	**160826S06**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	452.5	113	437.3	109	64-130	3	0-15	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 3050B
Method: EPA 6010B

Project: John Wayne Airport (JWA) / IR13164420

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
GAIP_SB25-2	**Sample**	**Solid**	**ICP 8300**	**08/27/16**	**08/29/16 18:17**	**160827S05**
GAIP_SB25-2	**Matrix Spike**	**Solid**	**ICP 8300**	**08/27/16**	**08/29/16 18:19**	**160827S05**
GAIP_SB25-2	**Matrix Spike Duplicate**	**Solid**	**ICP 8300**	**08/27/16**	**08/29/16 18:21**	**160827S05**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	0.9699	25.00	7.780	27	9.295	33	50-115	18	0-20	3
Arsenic	3.511	25.00	29.51	104	28.87	101	75-125	2	0-20	
Barium	66.05	25.00	105.8	159	96.61	122	75-125	9	0-20	3
Beryllium	0.3427	25.00	26.47	104	27.14	107	75-125	3	0-20	
Cadmium	ND	25.00	26.98	108	27.47	110	75-125	2	0-20	
Chromium	12.40	25.00	39.34	108	39.78	110	75-125	1	0-20	
Cobalt	6.379	25.00	33.74	109	33.83	110	75-125	0	0-20	
Copper	7.418	25.00	35.60	113	36.06	115	75-125	1	0-20	
Lead	5.816	25.00	30.60	99	30.42	98	75-125	1	0-20	
Molybdenum	ND	25.00	22.00	88	22.68	91	75-125	3	0-20	
Nickel	7.753	25.00	34.94	109	34.71	108	75-125	1	0-20	
Selenium	ND	25.00	22.14	89	22.14	89	75-125	0	0-20	
Silver	ND	12.50	13.55	108	13.95	112	75-125	3	0-20	
Thallium	ND	25.00	14.04	56	16.60	66	75-125	17	0-20	3
Vanadium	27.05	25.00	55.22	113	54.01	108	75-125	2	0-20	
Zinc	27.08	25.00	55.07	112	54.68	110	75-125	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: John Wayne Airport (JWA) / IR13164420

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
GAIP_SB25-2	**Sample**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:22**	**160830S01**
GAIP_SB25-2	**Matrix Spike**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:17**	**160830S01**
GAIP_SB25-2	**Matrix Spike Duplicate**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:20**	**160830S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.7891	95	0.7573	91	71-137	4	0-14	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/24/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1766
Irvine, CA 92617-3094	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
Project: John Wayne Airport (JWA) / IR13164420		Page 1 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-490-2242	**LCS**	**Solid**	**GC 48**	**08/26/16**	**08/26/16 22:43**	**160826B06**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Diesel	400.0	414.0	103	75-123	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/24/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1766
Irvine, CA 92617-3094	Preparation:	EPA 3050B
	Method:	EPA 6010B
Project: John Wayne Airport (JWA) / IR13164420		Page 2 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-23152	**LCS**	**Solid**	**ICP 8300**	**08/27/16**	**08/29/16 16:58**	**160827L05**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	24.14	97	80-120	73-127	
Arsenic	25.00	23.20	93	80-120	73-127	
Barium	25.00	25.33	101	80-120	73-127	
Beryllium	25.00	24.54	98	80-120	73-127	
Cadmium	25.00	24.91	100	80-120	73-127	
Chromium	25.00	26.16	105	80-120	73-127	
Cobalt	25.00	25.67	103	80-120	73-127	
Copper	25.00	27.26	109	80-120	73-127	
Lead	25.00	24.68	99	80-120	73-127	
Molybdenum	25.00	24.26	97	80-120	73-127	
Nickel	25.00	24.79	99	80-120	73-127	
Selenium	25.00	22.86	91	80-120	73-127	
Silver	12.50	12.98	104	80-120	73-127	
Thallium	25.00	25.35	101	80-120	73-127	
Vanadium	25.00	25.59	102	80-120	73-127	
Zinc	25.00	24.58	98	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/24/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1766
Irvine, CA 92617-3094	Preparation:	EPA 7471A Total
	Method:	EPA 7471A
Project: John Wayne Airport (JWA) / IR13164420		Page 3 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-2474	**LCS**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:15**	**160830L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.8350	0.7200	86	85-121	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B

Project: John Wayne Airport (JWA) / IR13164420

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-025-27920	**LCS**	**Solid**	**GC/MS BB**	**08/26/16**	**08/26/16 13:12**	**160826L005**
095-01-025-27920	**LCSD**	**Solid**	**GC/MS BB**	**08/26/16**	**08/26/16 13:45**	**160826L005**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	50.00	51.77	104	50.90	102	80-120	73-127	2	0-20	
Carbon Tetrachloride	50.00	54.57	109	53.35	107	65-137	53-149	2	0-20	
Chlorobenzene	50.00	51.84	104	50.72	101	80-120	73-127	2	0-20	
1,2-Dibromoethane	50.00	51.96	104	51.44	103	80-120	73-127	1	0-20	
1,2-Dichlorobenzene	50.00	52.12	104	50.64	101	80-120	73-127	3	0-20	
1,2-Dichloroethane	50.00	49.16	98	48.68	97	80-120	73-127	1	0-20	
1,1-Dichloroethene	50.00	58.14	116	56.39	113	68-128	58-138	3	0-20	
Ethylbenzene	50.00	52.36	105	51.09	102	80-120	73-127	2	0-20	
Toluene	50.00	53.29	107	52.01	104	80-120	73-127	2	0-20	
Trichloroethene	50.00	53.51	107	52.13	104	80-120	73-127	3	0-20	
Vinyl Chloride	50.00	55.18	110	53.59	107	67-127	57-137	3	0-20	
p/m-Xylene	100.0	105.4	105	102.7	103	75-125	67-133	3	0-25	
o-Xylene	50.00	52.98	106	51.58	103	75-125	67-133	3	0-25	
Methyl-t-Butyl Ether (MTBE)	50.00	50.31	101	49.92	100	70-124	61-133	1	0-20	
Tert-Butyl Alcohol (TBA)	250.0	250.8	100	251.9	101	73-121	65-129	0	0-20	
Diisopropyl Ether (DIPE)	50.00	51.56	103	49.95	100	69-129	59-139	3	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	50.59	101	49.46	99	70-124	61-133	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	49.59	99	49.20	98	74-122	66-130	1	0-20	
Ethanol	500.0	623.1	125	559.0	112	51-135	37-149	11	0-27	

Total number of LCS compounds: 19
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS/LCSD

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B

Project: John Wayne Airport (JWA) / IR13164420

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-025-27925	**LCS**	**Solid**	**GC/MS BB**	**08/26/16**	**08/26/16 13:12**	**160826L006**
095-01-025-27925	**LCSD**	**Solid**	**GC/MS BB**	**08/26/16**	**08/26/16 13:45**	**160826L006**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	50.00	51.77	104	50.90	102	80-120	73-127	2	0-20	
Carbon Tetrachloride	50.00	54.57	109	53.35	107	65-137	53-149	2	0-20	
Chlorobenzene	50.00	51.84	104	50.72	101	80-120	73-127	2	0-20	
1,2-Dibromoethane	50.00	51.96	104	51.44	103	80-120	73-127	1	0-20	
1,2-Dichlorobenzene	50.00	52.12	104	50.64	101	80-120	73-127	3	0-20	
1,2-Dichloroethane	50.00	49.16	98	48.68	97	80-120	73-127	1	0-20	
1,1-Dichloroethene	50.00	58.14	116	56.39	113	68-128	58-138	3	0-20	
Ethylbenzene	50.00	52.36	105	51.09	102	80-120	73-127	2	0-20	
Toluene	50.00	53.29	107	52.01	104	80-120	73-127	2	0-20	
Trichloroethene	50.00	53.51	107	52.13	104	80-120	73-127	3	0-20	
Vinyl Chloride	50.00	55.18	110	53.59	107	67-127	57-137	3	0-20	
p/m-Xylene	100.0	105.4	105	102.7	103	75-125	67-133	3	0-25	
o-Xylene	50.00	52.98	106	51.58	103	75-125	67-133	3	0-25	
Methyl-t-Butyl Ether (MTBE)	50.00	50.31	101	49.92	100	70-124	61-133	1	0-20	
Tert-Butyl Alcohol (TBA)	250.0	250.8	100	251.9	101	73-121	65-129	0	0-20	
Diisopropyl Ether (DIPE)	50.00	51.56	103	49.95	100	69-129	59-139	3	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	50.59	101	49.46	99	70-124	61-133	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	49.59	99	49.20	98	74-122	66-130	1	0-20	
Ethanol	500.0	623.1	125	559.0	112	51-135	37-149	11	0-27	

Total number of LCS compounds: 19
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS/LCSD

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/24/16
Work Order: 16-08-1766
Preparation: EPA 5035
Method: EPA 8260B

Project: John Wayne Airport (JWA) / IR13164420

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-025-27918	**LCS**	**Solid**	**GC/MS GGG**	**08/25/16**	**08/25/16 15:01**	**160825L031**
095-01-025-27918	**LCSD**	**Solid**	**GC/MS GGG**	**08/25/16**	**08/25/16 15:27**	**160825L031**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	50.00	50.73	101	49.40	99	80-120	73-127	3	0-20	
Carbon Tetrachloride	50.00	49.81	100	48.46	97	65-137	53-149	3	0-20	
Chlorobenzene	50.00	53.92	108	53.02	106	80-120	73-127	2	0-20	
1,2-Dibromoethane	50.00	54.54	109	54.43	109	80-120	73-127	0	0-20	
1,2-Dichlorobenzene	50.00	55.97	112	55.63	111	80-120	73-127	1	0-20	
1,2-Dichloroethane	50.00	52.11	104	51.31	103	80-120	73-127	2	0-20	
1,1-Dichloroethene	50.00	40.02	80	38.96	78	68-128	58-138	3	0-20	
Ethylbenzene	50.00	55.16	110	53.67	107	80-120	73-127	3	0-20	
Toluene	50.00	52.22	104	51.44	103	80-120	73-127	1	0-20	
Trichloroethene	50.00	51.99	104	50.57	101	80-120	73-127	3	0-20	
Vinyl Chloride	50.00	49.72	99	49.02	98	67-127	57-137	1	0-20	
p/m-Xylene	100.0	112.8	113	110.5	110	75-125	67-133	2	0-25	
o-Xylene	50.00	56.45	113	55.40	111	75-125	67-133	2	0-25	
Methyl-t-Butyl Ether (MTBE)	50.00	47.30	95	46.80	94	70-124	61-133	1	0-20	
Tert-Butyl Alcohol (TBA)	250.0	254.9	102	254.5	102	73-121	65-129	0	0-20	
Diisopropyl Ether (DIPE)	50.00	49.18	98	48.90	98	69-129	59-139	1	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	48.06	96	46.93	94	70-124	61-133	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	50.95	102	50.18	100	74-122	66-130	2	0-20	
Ethanol	500.0	541.8	108	564.7	113	51-135	37-149	4	0-27	

Total number of LCS compounds: 19
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Sample Analysis Summary Report

Work Order: 16-08-1766 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3050B	935	ICP 8300	1
EPA 7471A	EPA 7471A Total	868	Mercury 04	1
EPA 8015B (M)	EPA 3550B	972	GC 48	1
EPA 8260B	EPA 5035	1023	GC/MS GGG	2
EPA 8260B	EPA 5035	1055	GC/MS BB	2

Return to Contents

eurofins | Calscience

Glossary of Terms and Qualifiers

Work Order: 16-08-1766 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN-OF-CUSTODY RECORD

WO NO. / LAB USE ONLY: **16-08-1766**

DATE: 8/24/16
PAGE: 1 OF 2

LABORATORY CLIENT: Amec Foster Wheeler
ADDRESS: 121 Innovation Dr. Ste. 200
CITY: Irvine STATE: CA ZIP: 92617
TEL: (949)642-0245 E-MAIL: duane.paul@amecfw.com

CLIENT PROJECT NAME / NO.: John Wayne Airport (JWA) IR13164420
PROJECT CONTACT: Duane Paul
P.O. NO.:
LAB CONTACT OR QUOTE NO.: Stephen Nowak
GLOBAL ID:
LOG CODE:
SAMPLER(S): (PRINT) Rachel Mills

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

EDD:
☐ COELT EDF ☐ OTHER

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH(g) ☐ GRO	TPH(d) ☐ DRO	TPH ☐ C6-C36 ☒ C6-C44	TPH ____	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☒ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6				
1	GAIP-SB25-2	8/24/16	0745	S	4	X	X				X			X	X						X				
2	GAIP-SB26-2	"	0810	"	"	X	X				X			X	X						X				
3	GAIP-SB27-2	"	0835	"	"	X	X				X			X	X						X				
4	GAIP-SB28-2	"	0906	"	"	X	X				X			X	X						X				
5	GAIP-SB29-2	"	0955	"	"	X	X				X			X	X						X				
6	GAIP-SB30-2	"	1025	"	"	X	X				X			X	X						X				
7	GAIP-SB31-2	"	1045	"	"	X	X				X			X	X						X				
8	GAIP-SB33-2	"	1150	"	"	X	X				X			X	X						X				
9	GAIP-SB34-2	"	1255	"	"	X	X				X			X	X						X				
10	GAIP-SB35-2	"	1330	"	"	X	X				X			X	X						X				

Relinquished by: (Signature) Rachel Mills	Received by: (Signature/Affiliation)	Date: 8/24/16	Time: 1550
Relinquished by: (Signature)	Received by: (Signature/Affiliation) pannyle EUC	Date: 8-24-16	Time: 1653
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

2015-05-13 Revision

Return to Contents

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN-OF-CUSTODY RECORD

WO NO. / LAB USE ONLY: 16-08-1766

DATE: 8/24/16
PAGE: 2 OF 2

LABORATORY CLIENT: Amec Foster Wheeler
ADDRESS: 121 Innovation Dr. Ste. 200
CITY: Irvine STATE: CA ZIP: 92617
TEL: (949)6420245 E-MAIL: duane.paul@amecfw.com

CLIENT PROJECT NAME / NO.: John Wayne Airport (JWA) IR13164420
PROJECT CONTACT: Duane Paul
GLOBAL ID:
LOG CODE:
P.O. NO.:
LAB CONTACT OR QUOTE NO.: Stephen Nowak
SAMPLER(S): (PRINT) Rachel Mills

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

EDD:
☐ COELT EDF ☐ OTHER

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH(g) GRO	TPH(d) DRO	TPH C6-C36 / C6-C44	TPH	BTEX / MTBE 8260	VOCs (8260)	Oxygenates (8260)	Prep (5035) En Core Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs 8270 8270 SIM	T22 Metals 6010/747X 6020/747X	Cr(VI) 7196 7199 218.6
11	GAIP-SB36-2	8/24/16	1350	S	4	X	X				X			X	X						X	
12	GAIP-SB38-2	↓	1430	↓	↓	X	X				X			X	X						X	
13	GAIP-SB39-2	↓	1505	↓	↓	X	X				X			X	X						X	

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Rachel Mills		8/24/16	1550
		Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	8-24-16	1653
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

2015-05-13 Revision

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 16-08- 1766

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: AMEC

DATE: 08 / 24 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 3.8 °C (w/ CF): 3.8 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 659

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 659

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1053

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☑ Sleeve (5) ☐ EnCores® (_____) ☑ TerraCores® (3) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1053

Reviewed by: 1017

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 16-08-1869

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Amec Foster Wheeler Environment & Infrastructure,

Client Project Name: John Wayne Airport (JWA) / IR13164420

Attention: Duane Paul
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 09/07/2016 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

eurofins | Calscience

Contents

Client Project Name: John Wayne Airport (JWA) / IR13164420
Work Order Number: 16-08-1869

eurofins | Calscience

Work Order Narrative

Work Order: 16-08-1869 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 08/25/16. They were assigned to Work Order 16-08-1869.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Return to Contents

eurofins | Calscience

Sample Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1869
		Project Name:	John Wayne Airport (JWA) / IR13164420
		PO Number:	
		Date/Time Received:	08/25/16 16:30
		Number of Containers:	60
Attn:	Duane Paul		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
GAIP-SB37-2	16-08-1869-1	08/25/16 07:15	4	Solid
GAIP-SB40-2	16-08-1869-2	08/25/16 08:00	4	Solid
GAIP-SB41-2	16-08-1869-3	08/25/16 08:35	4	Solid
GAIP-SB42-2	16-08-1869-4	08/25/16 09:00	4	Solid
GAIP-SB43-2	16-08-1869-5	08/25/16 09:30	4	Solid
GAIP-SB44-2	16-08-1869-6	08/25/16 09:55	4	Solid
GAIP-SB45-2	16-08-1869-7	08/25/16 10:25	4	Solid
GAIP-SB46-2	16-08-1869-8	08/25/16 10:55	4	Solid
GAIP-SB47-2	16-08-1869-9	08/25/16 11:25	4	Solid
GAIP-SB48-2	16-08-1869-10	08/25/16 11:55	4	Solid
GAIP-SB49-2	16-08-1869-11	08/25/16 12:20	4	Solid
GAIP-SB50-2	16-08-1869-12	08/25/16 13:15	4	Solid
GAIP-SB51-2	16-08-1869-13	08/25/16 13:35	4	Solid
GAIP-SB52-2	16-08-1869-14	08/25/16 14:00	4	Solid
GAIP-SB53-2	16-08-1869-15	08/25/16 14:30	4	Solid

Return to Contents

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1869
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/25/16
Attn:	Duane Paul		Page 1 of 5

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP-SB37-2 (16-08-1869-1)						
Barium	60.1		0.521	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.351		0.260	mg/kg	EPA 6010B	EPA 3050B
Chromium	10.2		0.260	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.57		0.260	mg/kg	EPA 6010B	EPA 3050B
Copper	7.52		0.521	mg/kg	EPA 6010B	EPA 3050B
Lead	3.47		0.521	mg/kg	EPA 6010B	EPA 3050B
Nickel	9.30		0.260	mg/kg	EPA 6010B	EPA 3050B
Vanadium	23.1		0.260	mg/kg	EPA 6010B	EPA 3050B
Zinc	35.5		1.04	mg/kg	EPA 6010B	EPA 3050B
GAIP-SB40-2 (16-08-1869-2)						
Barium	54.6		0.510	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.324		0.255	mg/kg	EPA 6010B	EPA 3050B
Chromium	10.2		0.255	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.08		0.255	mg/kg	EPA 6010B	EPA 3050B
Copper	8.00		0.510	mg/kg	EPA 6010B	EPA 3050B
Lead	4.74		0.510	mg/kg	EPA 6010B	EPA 3050B
Nickel	7.41		0.255	mg/kg	EPA 6010B	EPA 3050B
Vanadium	23.0		0.255	mg/kg	EPA 6010B	EPA 3050B
Zinc	31.5		1.02	mg/kg	EPA 6010B	EPA 3050B
C6-C44 Total	11		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
GAIP-SB41-2 (16-08-1869-3)						
Arsenic	3.85		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	69.6		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.292		0.250	mg/kg	EPA 6010B	EPA 3050B
Chromium	10.9		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	34.9		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	9.37		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	5.01		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	8.84		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	23.8		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	35.3		1.00	mg/kg	EPA 6010B	EPA 3050B

Return to Contents

* MDL is shown

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1869
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/25/16
Attn:	Duane Paul		Page 2 of 5

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP-SB42-2 (16-08-1869-4)						
Arsenic	2.77		0.743	mg/kg	EPA 6010B	EPA 3050B
Barium	53.6		0.495	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.293		0.248	mg/kg	EPA 6010B	EPA 3050B
Chromium	10.6		0.248	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.34		0.248	mg/kg	EPA 6010B	EPA 3050B
Copper	9.33		0.495	mg/kg	EPA 6010B	EPA 3050B
Lead	14.7		0.495	mg/kg	EPA 6010B	EPA 3050B
Nickel	7.70		0.248	mg/kg	EPA 6010B	EPA 3050B
Vanadium	23.8		0.248	mg/kg	EPA 6010B	EPA 3050B
Zinc	31.7		0.990	mg/kg	EPA 6010B	EPA 3050B
GAIP-SB43-2 (16-08-1869-5)						
Barium	50.4		0.518	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.310		0.259	mg/kg	EPA 6010B	EPA 3050B
Chromium	11.2		0.259	mg/kg	EPA 6010B	EPA 3050B
Cobalt	14.3		0.259	mg/kg	EPA 6010B	EPA 3050B
Copper	8.22		0.518	mg/kg	EPA 6010B	EPA 3050B
Lead	3.79		0.518	mg/kg	EPA 6010B	EPA 3050B
Nickel	8.26		0.259	mg/kg	EPA 6010B	EPA 3050B
Vanadium	24.4		0.259	mg/kg	EPA 6010B	EPA 3050B
Zinc	29.3		1.04	mg/kg	EPA 6010B	EPA 3050B
GAIP-SB44-2 (16-08-1869-6)						
Arsenic	1.17		0.728	mg/kg	EPA 6010B	EPA 3050B
Barium	46.0		0.485	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.252		0.243	mg/kg	EPA 6010B	EPA 3050B
Chromium	10.2		0.243	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.57		0.243	mg/kg	EPA 6010B	EPA 3050B
Copper	10.7		0.485	mg/kg	EPA 6010B	EPA 3050B
Lead	12.0		0.485	mg/kg	EPA 6010B	EPA 3050B
Nickel	7.42		0.243	mg/kg	EPA 6010B	EPA 3050B
Vanadium	23.0		0.243	mg/kg	EPA 6010B	EPA 3050B
Zinc	30.5		0.971	mg/kg	EPA 6010B	EPA 3050B
C29-C32	7.6		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	15		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	7.7		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	35		5.0	mg/kg	EPA 8015B (M)	EPA 3550B

Return to Contents

* MDL is shown

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1869
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/25/16
Attn:	Duane Paul		Page 3 of 5

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP-SB45-2 (16-08-1869-7)						
Barium	27.5		0.510	mg/kg	EPA 6010B	EPA 3050B
Chromium	5.52		0.255	mg/kg	EPA 6010B	EPA 3050B
Cobalt	3.95		0.255	mg/kg	EPA 6010B	EPA 3050B
Copper	4.15		0.510	mg/kg	EPA 6010B	EPA 3050B
Lead	2.30		0.510	mg/kg	EPA 6010B	EPA 3050B
Nickel	3.96		0.255	mg/kg	EPA 6010B	EPA 3050B
Vanadium	13.5		0.255	mg/kg	EPA 6010B	EPA 3050B
Zinc	17.9		1.02	mg/kg	EPA 6010B	EPA 3050B
GAIP-SB46-2 (16-08-1869-8)						
Barium	56.6		0.503	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.377		0.251	mg/kg	EPA 6010B	EPA 3050B
Chromium	11.1		0.251	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.92		0.251	mg/kg	EPA 6010B	EPA 3050B
Copper	6.49		0.503	mg/kg	EPA 6010B	EPA 3050B
Lead	3.58		0.503	mg/kg	EPA 6010B	EPA 3050B
Nickel	8.98		0.251	mg/kg	EPA 6010B	EPA 3050B
Vanadium	27.6		0.251	mg/kg	EPA 6010B	EPA 3050B
Zinc	31.6		1.01	mg/kg	EPA 6010B	EPA 3050B
GAIP-SB47-2 (16-08-1869-9)						
Arsenic	1.08		0.761	mg/kg	EPA 6010B	EPA 3050B
Barium	75.0		0.508	mg/kg	EPA 6010B	EPA 3050B
Chromium	7.61		0.254	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.9		0.254	mg/kg	EPA 6010B	EPA 3050B
Copper	10.1		0.508	mg/kg	EPA 6010B	EPA 3050B
Lead	3.02		0.508	mg/kg	EPA 6010B	EPA 3050B
Nickel	5.80		0.254	mg/kg	EPA 6010B	EPA 3050B
Vanadium	19.0		0.254	mg/kg	EPA 6010B	EPA 3050B
Zinc	27.6		1.02	mg/kg	EPA 6010B	EPA 3050B
C6-C44 Total	12		5.0	mg/kg	EPA 8015B (M)	EPA 3550B

Return to Contents

* MDL is shown

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1869
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/25/16
Attn:	Duane Paul		Page 4 of 5

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP-SB48-2 (16-08-1869-10)						
Arsenic	0.984		0.739	mg/kg	EPA 6010B	EPA 3050B
Barium	72.4		0.493	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.413		0.246	mg/kg	EPA 6010B	EPA 3050B
Chromium	13.3		0.246	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.51		0.246	mg/kg	EPA 6010B	EPA 3050B
Copper	6.81		0.493	mg/kg	EPA 6010B	EPA 3050B
Lead	3.97		0.493	mg/kg	EPA 6010B	EPA 3050B
Nickel	11.1		0.246	mg/kg	EPA 6010B	EPA 3050B
Vanadium	29.5		0.246	mg/kg	EPA 6010B	EPA 3050B
Zinc	36.5		0.985	mg/kg	EPA 6010B	EPA 3050B
GAIP-SB49-2 (16-08-1869-11)						
Barium	46.2		0.493	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.275		0.246	mg/kg	EPA 6010B	EPA 3050B
Chromium	9.72		0.246	mg/kg	EPA 6010B	EPA 3050B
Cobalt	5.36		0.246	mg/kg	EPA 6010B	EPA 3050B
Copper	7.60		0.493	mg/kg	EPA 6010B	EPA 3050B
Lead	5.42		0.493	mg/kg	EPA 6010B	EPA 3050B
Nickel	6.39		0.246	mg/kg	EPA 6010B	EPA 3050B
Vanadium	20.2		0.246	mg/kg	EPA 6010B	EPA 3050B
Zinc	26.9		0.985	mg/kg	EPA 6010B	EPA 3050B
Acetone	46		45	ug/kg	EPA 8260B	EPA 5035
GAIP-SB50-2 (16-08-1869-12)						
Arsenic	0.955		0.735	mg/kg	EPA 6010B	EPA 3050B
Barium	60.8		0.490	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.327		0.245	mg/kg	EPA 6010B	EPA 3050B
Chromium	10.5		0.245	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.12		0.245	mg/kg	EPA 6010B	EPA 3050B
Copper	6.57		0.490	mg/kg	EPA 6010B	EPA 3050B
Lead	4.03		0.490	mg/kg	EPA 6010B	EPA 3050B
Nickel	8.19		0.245	mg/kg	EPA 6010B	EPA 3050B
Vanadium	22.8		0.245	mg/kg	EPA 6010B	EPA 3050B
Zinc	29.8		0.980	mg/kg	EPA 6010B	EPA 3050B

Return to Contents

* MDL is shown

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1869
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/25/16
Attn:	Duane Paul		Page 5 of 5

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP-SB51-2 (16-08-1869-13)						
Barium	60.3		0.481	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.349		0.240	mg/kg	EPA 6010B	EPA 3050B
Chromium	10.5		0.240	mg/kg	EPA 6010B	EPA 3050B
Cobalt	5.39		0.240	mg/kg	EPA 6010B	EPA 3050B
Copper	6.44		0.481	mg/kg	EPA 6010B	EPA 3050B
Lead	3.39		0.481	mg/kg	EPA 6010B	EPA 3050B
Nickel	7.35		0.240	mg/kg	EPA 6010B	EPA 3050B
Vanadium	20.7		0.240	mg/kg	EPA 6010B	EPA 3050B
Zinc	27.1		0.962	mg/kg	EPA 6010B	EPA 3050B
GAIP-SB52-2 (16-08-1869-14)						
Arsenic	0.782		0.721	mg/kg	EPA 6010B	EPA 3050B
Barium	81.1		0.481	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.655		0.240	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.486		0.481	mg/kg	EPA 6010B	EPA 3050B
Chromium	19.7		0.240	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.1		0.240	mg/kg	EPA 6010B	EPA 3050B
Copper	12.0		0.481	mg/kg	EPA 6010B	EPA 3050B
Lead	6.24		0.481	mg/kg	EPA 6010B	EPA 3050B
Nickel	13.7		0.240	mg/kg	EPA 6010B	EPA 3050B
Vanadium	46.4		0.240	mg/kg	EPA 6010B	EPA 3050B
Zinc	49.3		0.962	mg/kg	EPA 6010B	EPA 3050B
Acetone	73		42	ug/kg	EPA 8260B	EPA 5035
GAIP-SB53-2 (16-08-1869-15)						
Barium	53.6		0.513	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.322		0.256	mg/kg	EPA 6010B	EPA 3050B
Chromium	10.9		0.256	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.62		0.256	mg/kg	EPA 6010B	EPA 3050B
Copper	8.15		0.513	mg/kg	EPA 6010B	EPA 3050B
Lead	4.43		0.513	mg/kg	EPA 6010B	EPA 3050B
Nickel	7.70		0.256	mg/kg	EPA 6010B	EPA 3050B
Vanadium	24.1		0.256	mg/kg	EPA 6010B	EPA 3050B
Zinc	28.5		1.03	mg/kg	EPA 6010B	EPA 3050B

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

* MDL is shown

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB37-2	**16-08-1869-1-A**	**08/25/16 07:15**	**Solid**	**GC 46**	**08/27/16**	**08/29/16 19:52**	**160827B01**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.1	1.00	
C7	ND	5.1	1.00	
C8	ND	5.1	1.00	
C9-C10	ND	5.1	1.00	
C11-C12	ND	5.1	1.00	
C13-C14	ND	5.1	1.00	
C15-C16	ND	5.1	1.00	
C17-C18	ND	5.1	1.00	
C19-C20	ND	5.1	1.00	
C21-C22	ND	5.1	1.00	
C23-C24	ND	5.1	1.00	
C25-C28	ND	5.1	1.00	
C29-C32	ND	5.1	1.00	
C33-C36	ND	5.1	1.00	
C37-C40	ND	5.1	1.00	
C41-C44	ND	5.1	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	73	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB40-2	**16-08-1869-2-A**	**08/25/16 08:00**	**Solid**	**GC 46**	**08/27/16**	**08/29/16 20:09**	**160827B01**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	11	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	70	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB41-2	**16-08-1869-3-A**	**08/25/16 08:35**	**Solid**	**GC 46**	**08/27/16**	**08/29/16 20:27**	**160827B01**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	64	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB42-2	**16-08-1869-4-A**	**08/25/16 09:00**	**Solid**	**GC 46**	**08/27/16**	**08/29/16 20:44**	**160827B01**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	71	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB43-2	**16-08-1869-5-A**	**08/25/16 09:30**	**Solid**	**GC 46**	**08/27/16**	**08/30/16 01:38**	**160827B01**

Parameter	Result	RL	DF	Qualifiers
C6	ND	4.9	1.00	
C7	ND	4.9	1.00	
C8	ND	4.9	1.00	
C9-C10	ND	4.9	1.00	
C11-C12	ND	4.9	1.00	
C13-C14	ND	4.9	1.00	
C15-C16	ND	4.9	1.00	
C17-C18	ND	4.9	1.00	
C19-C20	ND	4.9	1.00	
C21-C22	ND	4.9	1.00	
C23-C24	ND	4.9	1.00	
C25-C28	ND	4.9	1.00	
C29-C32	ND	4.9	1.00	
C33-C36	ND	4.9	1.00	
C37-C40	ND	4.9	1.00	
C41-C44	ND	4.9	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	64	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB44-2	**16-08-1869-6-A**	**08/25/16 09:55**	**Solid**	**GC 46**	**08/27/16**	**08/30/16 04:14**	**160827B01**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	7.6	5.0	1.00	
C33-C36	15	5.0	1.00	
C37-C40	7.7	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	35	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	61	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB45-2	**16-08-1869-7-A**	**08/25/16 10:25**	**Solid**	**GC 46**	**08/27/16**	**08/30/16 01:55**	**160827B01**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	63	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB46-2	**16-08-1869-8-A**	**08/25/16 10:55**	**Solid**	**GC 46**	**08/27/16**	**08/30/16 02:12**	**160827B01**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	61	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB47-2	**16-08-1869-9-A**	**08/25/16 11:25**	**Solid**	**GC 46**	**08/27/16**	**08/30/16 04:48**	**160827B01**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	12	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	66	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB48-2	**16-08-1869-10-A**	**08/25/16 11:55**	**Solid**	**GC 46**	**08/27/16**	**08/30/16 02:30**	**160827B01**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	62	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB49-2	**16-08-1869-11-A**	**08/25/16 12:20**	**Solid**	**GC 46**	**08/27/16**	**08/30/16 02:47**	**160827B01**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	63	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB50-2	**16-08-1869-12-A**	**08/25/16 13:15**	**Solid**	**GC 46**	**08/27/16**	**08/30/16 03:04**	**160827B01**

Parameter	Result	RL	DF	Qualifiers
C6	ND	4.9	1.00	
C7	ND	4.9	1.00	
C8	ND	4.9	1.00	
C9-C10	ND	4.9	1.00	
C11-C12	ND	4.9	1.00	
C13-C14	ND	4.9	1.00	
C15-C16	ND	4.9	1.00	
C17-C18	ND	4.9	1.00	
C19-C20	ND	4.9	1.00	
C21-C22	ND	4.9	1.00	
C23-C24	ND	4.9	1.00	
C25-C28	ND	4.9	1.00	
C29-C32	ND	4.9	1.00	
C33-C36	ND	4.9	1.00	
C37-C40	ND	4.9	1.00	
C41-C44	ND	4.9	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	70	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB51-2	**16-08-1869-13-A**	**08/25/16 13:35**	**Solid**	**GC 46**	**08/27/16**	**08/30/16 03:22**	**160827B01**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	70	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB52-2	**16-08-1869-14-A**	**08/25/16 14:00**	**Solid**	**GC 46**	**08/27/16**	**08/30/16 03:39**	**160827B01**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	64	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB53-2	**16-08-1869-15-A**	**08/25/16 14:30**	**Solid**	**GC 46**	**08/27/16**	**08/30/16 03:56**	**160827B01**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	64	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-490-2243**	**N/A**	**Solid**	**GC 46**	**08/27/16**	**08/29/16 17:07**	**160827B01**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	81	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB37-2	**16-08-1869-1-A**	**08/25/16 07:15**	**Solid**	**ICP 7300**	**08/31/16**	**09/01/16 12:49**	**160831L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.781	1.04	
Arsenic	ND	0.781	1.04	
Barium	60.1	0.521	1.04	
Beryllium	0.351	0.260	1.04	
Cadmium	ND	0.521	1.04	
Chromium	10.2	0.260	1.04	
Cobalt	6.57	0.260	1.04	
Copper	7.52	0.521	1.04	
Lead	3.47	0.521	1.04	
Molybdenum	ND	0.260	1.04	
Nickel	9.30	0.260	1.04	
Selenium	ND	0.781	1.04	
Silver	ND	0.260	1.04	
Thallium	ND	0.781	1.04	
Vanadium	23.1	0.260	1.04	
Zinc	35.5	1.04	1.04	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB40-2	**16-08-1869-2-A**	**08/25/16 08:00**	**Solid**	**ICP 7300**	**08/31/16**	**09/01/16 12:50**	**160831L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.765	1.02	
Arsenic	ND	0.765	1.02	
Barium	54.6	0.510	1.02	
Beryllium	0.324	0.255	1.02	
Cadmium	ND	0.510	1.02	
Chromium	10.2	0.255	1.02	
Cobalt	6.08	0.255	1.02	
Copper	8.00	0.510	1.02	
Lead	4.74	0.510	1.02	
Molybdenum	ND	0.255	1.02	
Nickel	7.41	0.255	1.02	
Selenium	ND	0.765	1.02	
Silver	ND	0.255	1.02	
Thallium	ND	0.765	1.02	
Vanadium	23.0	0.255	1.02	
Zinc	31.5	1.02	1.02	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 3 of 16

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB41-2	**16-08-1869-3-A**	**08/25/16 08:35**	**Solid**	**ICP 7300**	**08/31/16**	**09/01/16 12:54**	**160831L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	3.85	0.750	1.00	
Barium	69.6	0.500	1.00	
Beryllium	0.292	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	10.9	0.250	1.00	
Cobalt	34.9	0.250	1.00	
Copper	9.37	0.500	1.00	
Lead	5.01	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	8.84	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	23.8	0.250	1.00	
Zinc	35.3	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 4 of 16

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB42-2	**16-08-1869-4-A**	**08/25/16 09:00**	**Solid**	**ICP 7300**	**08/31/16**	**09/01/16 12:55**	**160831L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.743	0.990	
Arsenic	2.77	0.743	0.990	
Barium	53.6	0.495	0.990	
Beryllium	0.293	0.248	0.990	
Cadmium	ND	0.495	0.990	
Chromium	10.6	0.248	0.990	
Cobalt	6.34	0.248	0.990	
Copper	9.33	0.495	0.990	
Lead	14.7	0.495	0.990	
Molybdenum	ND	0.248	0.990	
Nickel	7.70	0.248	0.990	
Selenium	ND	0.743	0.990	
Silver	ND	0.248	0.990	
Thallium	ND	0.743	0.990	
Vanadium	23.8	0.248	0.990	
Zinc	31.7	0.990	0.990	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 5 of 16

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB43-2	**16-08-1869-5-A**	**08/25/16 09:30**	**Solid**	**ICP 7300**	**08/31/16**	**09/01/16 12:56**	**160831L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.777	1.04	
Arsenic	ND	0.777	1.04	
Barium	50.4	0.518	1.04	
Beryllium	0.310	0.259	1.04	
Cadmium	ND	0.518	1.04	
Chromium	11.2	0.259	1.04	
Cobalt	14.3	0.259	1.04	
Copper	8.22	0.518	1.04	
Lead	3.79	0.518	1.04	
Molybdenum	ND	0.259	1.04	
Nickel	8.26	0.259	1.04	
Selenium	ND	0.777	1.04	
Silver	ND	0.259	1.04	
Thallium	ND	0.777	1.04	
Vanadium	24.4	0.259	1.04	
Zinc	29.3	1.04	1.04	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB44-2	**16-08-1869-6-A**	**08/25/16 09:55**	**Solid**	**ICP 7300**	**08/31/16**	**09/01/16 12:58**	**160831L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.728	0.971	
Arsenic	1.17	0.728	0.971	
Barium	46.0	0.485	0.971	
Beryllium	0.252	0.243	0.971	
Cadmium	ND	0.485	0.971	
Chromium	10.2	0.243	0.971	
Cobalt	7.57	0.243	0.971	
Copper	10.7	0.485	0.971	
Lead	12.0	0.485	0.971	
Molybdenum	ND	0.243	0.971	
Nickel	7.42	0.243	0.971	
Selenium	ND	0.728	0.971	
Silver	ND	0.243	0.971	
Thallium	ND	0.728	0.971	
Vanadium	23.0	0.243	0.971	
Zinc	30.5	0.971	0.971	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB45-2	**16-08-1869-7-A**	**08/25/16 10:25**	**Solid**	**ICP 7300**	**08/31/16**	**09/01/16 12:59**	**160831L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.765	1.02	
Arsenic	ND	0.765	1.02	
Barium	27.5	0.510	1.02	
Beryllium	ND	0.255	1.02	
Cadmium	ND	0.510	1.02	
Chromium	5.52	0.255	1.02	
Cobalt	3.95	0.255	1.02	
Copper	4.15	0.510	1.02	
Lead	2.30	0.510	1.02	
Molybdenum	ND	0.255	1.02	
Nickel	3.96	0.255	1.02	
Selenium	ND	0.765	1.02	
Silver	ND	0.255	1.02	
Thallium	ND	0.765	1.02	
Vanadium	13.5	0.255	1.02	
Zinc	17.9	1.02	1.02	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB46-2	**16-08-1869-8-A**	**08/25/16 10:55**	**Solid**	**ICP 7300**	**08/31/16**	**09/01/16 13:00**	**160831L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.754	1.01	
Arsenic	ND	0.754	1.01	
Barium	56.6	0.503	1.01	
Beryllium	0.377	0.251	1.01	
Cadmium	ND	0.503	1.01	
Chromium	11.1	0.251	1.01	
Cobalt	6.92	0.251	1.01	
Copper	6.49	0.503	1.01	
Lead	3.58	0.503	1.01	
Molybdenum	ND	0.251	1.01	
Nickel	8.98	0.251	1.01	
Selenium	ND	0.754	1.01	
Silver	ND	0.251	1.01	
Thallium	ND	0.754	1.01	
Vanadium	27.6	0.251	1.01	
Zinc	31.6	1.01	1.01	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 9 of 16

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB47-2	**16-08-1869-9-A**	**08/25/16 11:25**	**Solid**	**ICP 7300**	**08/31/16**	**09/01/16 13:01**	**160831L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.761	1.02	
Arsenic	1.08	0.761	1.02	
Barium	75.0	0.508	1.02	
Beryllium	ND	0.254	1.02	
Cadmium	ND	0.508	1.02	
Chromium	7.61	0.254	1.02	
Cobalt	12.9	0.254	1.02	
Copper	10.1	0.508	1.02	
Lead	3.02	0.508	1.02	
Molybdenum	ND	0.254	1.02	
Nickel	5.80	0.254	1.02	
Selenium	ND	0.761	1.02	
Silver	ND	0.254	1.02	
Thallium	ND	0.761	1.02	
Vanadium	19.0	0.254	1.02	
Zinc	27.6	1.02	1.02	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 10 of 16

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB48-2	**16-08-1869-10-A**	**08/25/16 11:55**	**Solid**	**ICP 7300**	**08/31/16**	**09/01/16 13:02**	**160831L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.739	0.985	
Arsenic	0.984	0.739	0.985	
Barium	72.4	0.493	0.985	
Beryllium	0.413	0.246	0.985	
Cadmium	ND	0.493	0.985	
Chromium	13.3	0.246	0.985	
Cobalt	8.51	0.246	0.985	
Copper	6.81	0.493	0.985	
Lead	3.97	0.493	0.985	
Molybdenum	ND	0.246	0.985	
Nickel	11.1	0.246	0.985	
Selenium	ND	0.739	0.985	
Silver	ND	0.246	0.985	
Thallium	ND	0.739	0.985	
Vanadium	29.5	0.246	0.985	
Zinc	36.5	0.985	0.985	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 11 of 16

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB49-2	**16-08-1869-11-A**	**08/25/16 12:20**	**Solid**	**ICP 7300**	**08/31/16**	**09/01/16 13:03**	**160831L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.739	0.985	
Arsenic	ND	0.739	0.985	
Barium	46.2	0.493	0.985	
Beryllium	0.275	0.246	0.985	
Cadmium	ND	0.493	0.985	
Chromium	9.72	0.246	0.985	
Cobalt	5.36	0.246	0.985	
Copper	7.60	0.493	0.985	
Lead	5.42	0.493	0.985	
Molybdenum	ND	0.246	0.985	
Nickel	6.39	0.246	0.985	
Selenium	ND	0.739	0.985	
Silver	ND	0.246	0.985	
Thallium	ND	0.739	0.985	
Vanadium	20.2	0.246	0.985	
Zinc	26.9	0.985	0.985	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 12 of 16

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB50-2	**16-08-1869-12-A**	**08/25/16 13:15**	**Solid**	**ICP 7300**	**08/31/16**	**09/01/16 13:05**	**160831L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.735	0.980	
Arsenic	0.955	0.735	0.980	
Barium	60.8	0.490	0.980	
Beryllium	0.327	0.245	0.980	
Cadmium	ND	0.490	0.980	
Chromium	10.5	0.245	0.980	
Cobalt	7.12	0.245	0.980	
Copper	6.57	0.490	0.980	
Lead	4.03	0.490	0.980	
Molybdenum	ND	0.245	0.980	
Nickel	8.19	0.245	0.980	
Selenium	ND	0.735	0.980	
Silver	ND	0.245	0.980	
Thallium	ND	0.735	0.980	
Vanadium	22.8	0.245	0.980	
Zinc	29.8	0.980	0.980	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 13 of 16

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB51-2	**16-08-1869-13-A**	**08/25/16 13:35**	**Solid**	**ICP 7300**	**08/31/16**	**09/01/16 13:08**	**160831L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.721	0.962	
Arsenic	ND	0.721	0.962	
Barium	60.3	0.481	0.962	
Beryllium	0.349	0.240	0.962	
Cadmium	ND	0.481	0.962	
Chromium	10.5	0.240	0.962	
Cobalt	5.39	0.240	0.962	
Copper	6.44	0.481	0.962	
Lead	3.39	0.481	0.962	
Molybdenum	ND	0.240	0.962	
Nickel	7.35	0.240	0.962	
Selenium	ND	0.721	0.962	
Silver	ND	0.240	0.962	
Thallium	ND	0.721	0.962	
Vanadium	20.7	0.240	0.962	
Zinc	27.1	0.962	0.962	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB52-2	**16-08-1869-14-A**	**08/25/16 14:00**	**Solid**	**ICP 7300**	**08/31/16**	**09/01/16 13:10**	**160831L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.721	0.962	
Arsenic	0.782	0.721	0.962	
Barium	81.1	0.481	0.962	
Beryllium	0.655	0.240	0.962	
Cadmium	0.486	0.481	0.962	
Chromium	19.7	0.240	0.962	
Cobalt	12.1	0.240	0.962	
Copper	12.0	0.481	0.962	
Lead	6.24	0.481	0.962	
Molybdenum	ND	0.240	0.962	
Nickel	13.7	0.240	0.962	
Selenium	ND	0.721	0.962	
Silver	ND	0.240	0.962	
Thallium	ND	0.721	0.962	
Vanadium	46.4	0.240	0.962	
Zinc	49.3	0.962	0.962	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 15 of 16

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB53-2	**16-08-1869-15-A**	**08/25/16 14:30**	**Solid**	**ICP 7300**	**08/31/16**	**09/01/16 13:11**	**160831L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.769	1.03	
Arsenic	ND	0.769	1.03	
Barium	53.6	0.513	1.03	
Beryllium	0.322	0.256	1.03	
Cadmium	ND	0.513	1.03	
Chromium	10.9	0.256	1.03	
Cobalt	6.62	0.256	1.03	
Copper	8.15	0.513	1.03	
Lead	4.43	0.513	1.03	
Molybdenum	ND	0.256	1.03	
Nickel	7.70	0.256	1.03	
Selenium	ND	0.769	1.03	
Silver	ND	0.256	1.03	
Thallium	ND	0.769	1.03	
Vanadium	24.1	0.256	1.03	
Zinc	28.5	1.03	1.03	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-23169**	**N/A**	**Solid**	**ICP 7300**	**08/31/16**	**09/01/16 11:34**	**160831L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.739	0.985	
Arsenic	ND	0.739	0.985	
Barium	ND	0.493	0.985	
Beryllium	ND	0.246	0.985	
Cadmium	ND	0.493	0.985	
Chromium	ND	0.246	0.985	
Cobalt	ND	0.246	0.985	
Copper	ND	0.493	0.985	
Lead	ND	0.493	0.985	
Molybdenum	ND	0.246	0.985	
Nickel	ND	0.246	0.985	
Selenium	ND	0.739	0.985	
Silver	ND	0.246	0.985	
Thallium	ND	0.739	0.985	
Vanadium	ND	0.246	0.985	
Zinc	ND	0.985	0.985	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Project: John Wayne Airport (JWA) / IR13164420

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB37-2	**16-08-1869-1-A**	**08/25/16 07:15**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:19**	**160901L03**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0806	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB40-2	**16-08-1869-2-A**	**08/25/16 08:00**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:21**	**160901L03**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0877	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB41-2	**16-08-1869-3-A**	**08/25/16 08:35**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:24**	**160901L03**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0794	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB42-2	**16-08-1869-4-A**	**08/25/16 09:00**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:26**	**160901L03**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0820	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB43-2	**16-08-1869-5-A**	**08/25/16 09:30**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:28**	**160901L03**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0862	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB44-2	**16-08-1869-6-A**	**08/25/16 09:55**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:30**	**160901L03**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0962	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB45-2	**16-08-1869-7-A**	**08/25/16 10:25**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:37**	**160901L03**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0806	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB46-2	**16-08-1869-8-A**	**08/25/16 10:55**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:39**	**160901L03**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0806	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Project: John Wayne Airport (JWA) / IR13164420

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB47-2	**16-08-1869-9-A**	**08/25/16 11:25**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:42**	**160901L03**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0833	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB48-2	**16-08-1869-10-A**	**08/25/16 11:55**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:44**	**160901L03**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0833	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB49-2	**16-08-1869-11-A**	**08/25/16 12:20**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:46**	**160901L03**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0862	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB50-2	**16-08-1869-12-A**	**08/25/16 13:15**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:48**	**160901L03**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0806	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB51-2	**16-08-1869-13-A**	**08/25/16 13:35**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:51**	**160901L03**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0847	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB52-2	**16-08-1869-14-A**	**08/25/16 14:00**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:53**	**160901L03**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0877	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB53-2	**16-08-1869-15-A**	**08/25/16 14:30**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:55**	**160901L03**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0820	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-16-272-2486**	**N/A**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:10**	**160901L03**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0862	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB37-2	**16-08-1869-1-C**	**08/25/16 07:15**	**Solid**	**GC/MS W**	**08/25/16**	**08/29/16 15:47**	**160829L034**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	39	1.00	
Benzene	ND	0.79	1.00	
Bromobenzene	ND	0.79	1.00	
Bromochloromethane	ND	1.6	1.00	
Bromodichloromethane	ND	0.79	1.00	
Bromoform	ND	3.9	1.00	
Bromomethane	ND	16	1.00	
2-Butanone	ND	16	1.00	
n-Butylbenzene	ND	0.79	1.00	
sec-Butylbenzene	ND	0.79	1.00	
tert-Butylbenzene	ND	0.79	1.00	
Carbon Disulfide	ND	7.9	1.00	
Carbon Tetrachloride	ND	0.79	1.00	
Chlorobenzene	ND	0.79	1.00	
Chloroethane	ND	1.6	1.00	
Chloroform	ND	0.79	1.00	
Chloromethane	ND	16	1.00	
2-Chlorotoluene	ND	0.79	1.00	
4-Chlorotoluene	ND	0.79	1.00	
Dibromochloromethane	ND	1.6	1.00	
1,2-Dibromo-3-Chloropropane	ND	3.9	1.00	
1,2-Dibromoethane	ND	0.79	1.00	
Dibromomethane	ND	0.79	1.00	
1,2-Dichlorobenzene	ND	0.79	1.00	
1,3-Dichlorobenzene	ND	0.79	1.00	
1,4-Dichlorobenzene	ND	0.79	1.00	
Dichlorodifluoromethane	ND	1.6	1.00	
1,1-Dichloroethane	ND	0.79	1.00	
1,2-Dichloroethane	ND	0.79	1.00	
1,1-Dichloroethene	ND	0.79	1.00	
c-1,2-Dichloroethene	ND	0.79	1.00	
t-1,2-Dichloroethene	ND	0.79	1.00	
1,2-Dichloropropane	ND	0.79	1.00	
1,3-Dichloropropane	ND	0.79	1.00	
2,2-Dichloropropane	ND	3.9	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.6	1.00	
c-1,3-Dichloropropene	ND	0.79	1.00	
t-1,3-Dichloropropene	ND	1.6	1.00	
Ethylbenzene	ND	0.79	1.00	
2-Hexanone	ND	16	1.00	
Isopropylbenzene	ND	0.79	1.00	
p-Isopropyltoluene	ND	0.79	1.00	
Methylene Chloride	ND	7.9	1.00	
4-Methyl-2-Pentanone	ND	16	1.00	
Naphthalene	ND	7.9	1.00	
n-Propylbenzene	ND	1.6	1.00	
Styrene	ND	0.79	1.00	
1,1,1,2-Tetrachloroethane	ND	0.79	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	1.00	
Tetrachloroethene	ND	0.79	1.00	
Toluene	ND	0.79	1.00	
1,2,3-Trichlorobenzene	ND	1.6	1.00	
1,2,4-Trichlorobenzene	ND	1.6	1.00	
1,1,1-Trichloroethane	ND	0.79	1.00	
1,1,2-Trichloroethane	ND	0.79	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.9	1.00	
Trichloroethene	ND	1.6	1.00	
Trichlorofluoromethane	ND	7.9	1.00	
1,2,3-Trichloropropane	ND	1.6	1.00	
1,2,4-Trimethylbenzene	ND	1.6	1.00	
1,3,5-Trimethylbenzene	ND	1.6	1.00	
Vinyl Acetate	ND	7.9	1.00	
Vinyl Chloride	ND	0.79	1.00	
p/m-Xylene	ND	1.6	1.00	
o-Xylene	ND	0.79	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	1.00	
Tert-Butyl Alcohol (TBA)	ND	16	1.00	
Diisopropyl Ether (DIPE)	ND	0.79	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.79	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.79	1.00	
Ethanol	ND	390	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 3 of 54

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	109	79-133	
1,2-Dichloroethane-d4	121	71-155	
Toluene-d8	102	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 4 of 54

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB40-2	**16-08-1869-2-C**	**08/25/16 08:00**	**Solid**	**GC/MS QQ**	**08/25/16**	**08/30/16 12:37**	**160830L009**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	51	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.1	1.00	
Bromomethane	ND	20	1.00	
2-Butanone	ND	20	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.1	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	2.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	5.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received:	08/25/16
Work Order:	16-08-1869
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.0	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	20	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	20	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	20	1.00	
Diisopropyl Ether (DIPE)	ND	1.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	1.00	
Ethanol	ND	510	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 6 of 54

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	113	79-133	
1,2-Dichloroethane-d4	117	71-155	
Toluene-d8	101	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB41-2	**16-08-1869-3-D**	**08/25/16 08:35**	**Solid**	**GC/MS QQ**	**08/25/16**	**08/30/16 14:04**	**160830L009**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	39	1.00	
Benzene	ND	0.78	1.00	
Bromobenzene	ND	0.78	1.00	
Bromochloromethane	ND	1.6	1.00	
Bromodichloromethane	ND	0.78	1.00	
Bromoform	ND	3.9	1.00	
Bromomethane	ND	16	1.00	
2-Butanone	ND	16	1.00	
n-Butylbenzene	ND	0.78	1.00	
sec-Butylbenzene	ND	0.78	1.00	
tert-Butylbenzene	ND	0.78	1.00	
Carbon Disulfide	ND	7.8	1.00	
Carbon Tetrachloride	ND	0.78	1.00	
Chlorobenzene	ND	0.78	1.00	
Chloroethane	ND	1.6	1.00	
Chloroform	ND	0.78	1.00	
Chloromethane	ND	16	1.00	
2-Chlorotoluene	ND	0.78	1.00	
4-Chlorotoluene	ND	0.78	1.00	
Dibromochloromethane	ND	1.6	1.00	
1,2-Dibromo-3-Chloropropane	ND	3.9	1.00	
1,2-Dibromoethane	ND	0.78	1.00	
Dibromomethane	ND	0.78	1.00	
1,2-Dichlorobenzene	ND	0.78	1.00	
1,3-Dichlorobenzene	ND	0.78	1.00	
1,4-Dichlorobenzene	ND	0.78	1.00	
Dichlorodifluoromethane	ND	1.6	1.00	
1,1-Dichloroethane	ND	0.78	1.00	
1,2-Dichloroethane	ND	0.78	1.00	
1,1-Dichloroethene	ND	0.78	1.00	
c-1,2-Dichloroethene	ND	0.78	1.00	
t-1,2-Dichloroethene	ND	0.78	1.00	
1,2-Dichloropropane	ND	0.78	1.00	
1,3-Dichloropropane	ND	0.78	1.00	
2,2-Dichloropropane	ND	3.9	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.6	1.00	
c-1,3-Dichloropropene	ND	0.78	1.00	
t-1,3-Dichloropropene	ND	1.6	1.00	
Ethylbenzene	ND	0.78	1.00	
2-Hexanone	ND	16	1.00	
Isopropylbenzene	ND	0.78	1.00	
p-Isopropyltoluene	ND	0.78	1.00	
Methylene Chloride	ND	7.8	1.00	
4-Methyl-2-Pentanone	ND	16	1.00	
Naphthalene	ND	7.8	1.00	
n-Propylbenzene	ND	1.6	1.00	
Styrene	ND	0.78	1.00	
1,1,1,2-Tetrachloroethane	ND	0.78	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	1.00	
Tetrachloroethene	ND	0.78	1.00	
Toluene	ND	0.78	1.00	
1,2,3-Trichlorobenzene	ND	1.6	1.00	
1,2,4-Trichlorobenzene	ND	1.6	1.00	
1,1,1-Trichloroethane	ND	0.78	1.00	
1,1,2-Trichloroethane	ND	0.78	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.8	1.00	
Trichloroethene	ND	1.6	1.00	
Trichlorofluoromethane	ND	7.8	1.00	
1,2,3-Trichloropropane	ND	1.6	1.00	
1,2,4-Trimethylbenzene	ND	1.6	1.00	
1,3,5-Trimethylbenzene	ND	1.6	1.00	
Vinyl Acetate	ND	7.8	1.00	
Vinyl Chloride	ND	0.78	1.00	
p/m-Xylene	ND	1.6	1.00	
o-Xylene	ND	0.78	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	1.00	
Tert-Butyl Alcohol (TBA)	ND	16	1.00	
Diisopropyl Ether (DIPE)	ND	0.78	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.78	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.78	1.00	
Ethanol	ND	390	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 9 of 54

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	111	79-133	
1,2-Dichloroethane-d4	125	71-155	
Toluene-d8	101	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 10 of 54

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB42-2	**16-08-1869-4-C**	**08/25/16 09:00**	**Solid**	**GC/MS W**	**08/25/16**	**08/29/16 16:41**	**160829L034**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	42	1.00	
Benzene	ND	0.84	1.00	
Bromobenzene	ND	0.84	1.00	
Bromochloromethane	ND	1.7	1.00	
Bromodichloromethane	ND	0.84	1.00	
Bromoform	ND	4.2	1.00	
Bromomethane	ND	17	1.00	
2-Butanone	ND	17	1.00	
n-Butylbenzene	ND	0.84	1.00	
sec-Butylbenzene	ND	0.84	1.00	
tert-Butylbenzene	ND	0.84	1.00	
Carbon Disulfide	ND	8.4	1.00	
Carbon Tetrachloride	ND	0.84	1.00	
Chlorobenzene	ND	0.84	1.00	
Chloroethane	ND	1.7	1.00	
Chloroform	ND	0.84	1.00	
Chloromethane	ND	17	1.00	
2-Chlorotoluene	ND	0.84	1.00	
4-Chlorotoluene	ND	0.84	1.00	
Dibromochloromethane	ND	1.7	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.2	1.00	
1,2-Dibromoethane	ND	0.84	1.00	
Dibromomethane	ND	0.84	1.00	
1,2-Dichlorobenzene	ND	0.84	1.00	
1,3-Dichlorobenzene	ND	0.84	1.00	
1,4-Dichlorobenzene	ND	0.84	1.00	
Dichlorodifluoromethane	ND	1.7	1.00	
1,1-Dichloroethane	ND	0.84	1.00	
1,2-Dichloroethane	ND	0.84	1.00	
1,1-Dichloroethene	ND	0.84	1.00	
c-1,2-Dichloroethene	ND	0.84	1.00	
t-1,2-Dichloroethene	ND	0.84	1.00	
1,2-Dichloropropane	ND	0.84	1.00	
1,3-Dichloropropane	ND	0.84	1.00	
2,2-Dichloropropane	ND	4.2	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received:	08/25/16
Work Order:	16-08-1869
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.7	1.00	
c-1,3-Dichloropropene	ND	0.84	1.00	
t-1,3-Dichloropropene	ND	1.7	1.00	
Ethylbenzene	ND	0.84	1.00	
2-Hexanone	ND	17	1.00	
Isopropylbenzene	ND	0.84	1.00	
p-Isopropyltoluene	ND	0.84	1.00	
Methylene Chloride	ND	8.4	1.00	
4-Methyl-2-Pentanone	ND	17	1.00	
Naphthalene	ND	8.4	1.00	
n-Propylbenzene	ND	1.7	1.00	
Styrene	ND	0.84	1.00	
1,1,1,2-Tetrachloroethane	ND	0.84	1.00	
1,1,2,2-Tetrachloroethane	ND	1.7	1.00	
Tetrachloroethene	ND	0.84	1.00	
Toluene	ND	0.84	1.00	
1,2,3-Trichlorobenzene	ND	1.7	1.00	
1,2,4-Trichlorobenzene	ND	1.7	1.00	
1,1,1-Trichloroethane	ND	0.84	1.00	
1,1,2-Trichloroethane	ND	0.84	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.4	1.00	
Trichloroethene	ND	1.7	1.00	
Trichlorofluoromethane	ND	8.4	1.00	
1,2,3-Trichloropropane	ND	1.7	1.00	
1,2,4-Trimethylbenzene	ND	1.7	1.00	
1,3,5-Trimethylbenzene	ND	1.7	1.00	
Vinyl Acetate	ND	8.4	1.00	
Vinyl Chloride	ND	0.84	1.00	
p/m-Xylene	ND	1.7	1.00	
o-Xylene	ND	0.84	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	1.00	
Tert-Butyl Alcohol (TBA)	ND	17	1.00	
Diisopropyl Ether (DIPE)	ND	0.84	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.84	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.84	1.00	
Ethanol	ND	420	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 12 of 54

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	110	79-133	
1,2-Dichloroethane-d4	126	71-155	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 13 of 54

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB43-2	**16-08-1869-5-D**	**08/25/16 09:30**	**Solid**	**GC/MS QQ**	**08/25/16**	**08/30/16 14:33**	**160830L009**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	39	1.00	
Benzene	ND	0.78	1.00	
Bromobenzene	ND	0.78	1.00	
Bromochloromethane	ND	1.6	1.00	
Bromodichloromethane	ND	0.78	1.00	
Bromoform	ND	3.9	1.00	
Bromomethane	ND	16	1.00	
2-Butanone	ND	16	1.00	
n-Butylbenzene	ND	0.78	1.00	
sec-Butylbenzene	ND	0.78	1.00	
tert-Butylbenzene	ND	0.78	1.00	
Carbon Disulfide	ND	7.8	1.00	
Carbon Tetrachloride	ND	0.78	1.00	
Chlorobenzene	ND	0.78	1.00	
Chloroethane	ND	1.6	1.00	
Chloroform	ND	0.78	1.00	
Chloromethane	ND	16	1.00	
2-Chlorotoluene	ND	0.78	1.00	
4-Chlorotoluene	ND	0.78	1.00	
Dibromochloromethane	ND	1.6	1.00	
1,2-Dibromo-3-Chloropropane	ND	3.9	1.00	
1,2-Dibromoethane	ND	0.78	1.00	
Dibromomethane	ND	0.78	1.00	
1,2-Dichlorobenzene	ND	0.78	1.00	
1,3-Dichlorobenzene	ND	0.78	1.00	
1,4-Dichlorobenzene	ND	0.78	1.00	
Dichlorodifluoromethane	ND	1.6	1.00	
1,1-Dichloroethane	ND	0.78	1.00	
1,2-Dichloroethane	ND	0.78	1.00	
1,1-Dichloroethene	ND	0.78	1.00	
c-1,2-Dichloroethene	ND	0.78	1.00	
t-1,2-Dichloroethene	ND	0.78	1.00	
1,2-Dichloropropane	ND	0.78	1.00	
1,3-Dichloropropane	ND	0.78	1.00	
2,2-Dichloropropane	ND	3.9	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.6	1.00	
c-1,3-Dichloropropene	ND	0.78	1.00	
t-1,3-Dichloropropene	ND	1.6	1.00	
Ethylbenzene	ND	0.78	1.00	
2-Hexanone	ND	16	1.00	
Isopropylbenzene	ND	0.78	1.00	
p-Isopropyltoluene	ND	0.78	1.00	
Methylene Chloride	ND	7.8	1.00	
4-Methyl-2-Pentanone	ND	16	1.00	
Naphthalene	ND	7.8	1.00	
n-Propylbenzene	ND	1.6	1.00	
Styrene	ND	0.78	1.00	
1,1,1,2-Tetrachloroethane	ND	0.78	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	1.00	
Tetrachloroethene	ND	0.78	1.00	
Toluene	ND	0.78	1.00	
1,2,3-Trichlorobenzene	ND	1.6	1.00	
1,2,4-Trichlorobenzene	ND	1.6	1.00	
1,1,1-Trichloroethane	ND	0.78	1.00	
1,1,2-Trichloroethane	ND	0.78	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.8	1.00	
Trichloroethene	ND	1.6	1.00	
Trichlorofluoromethane	ND	7.8	1.00	
1,2,3-Trichloropropane	ND	1.6	1.00	
1,2,4-Trimethylbenzene	ND	1.6	1.00	
1,3,5-Trimethylbenzene	ND	1.6	1.00	
Vinyl Acetate	ND	7.8	1.00	
Vinyl Chloride	ND	0.78	1.00	
p/m-Xylene	ND	1.6	1.00	
o-Xylene	ND	0.78	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	1.00	
Tert-Butyl Alcohol (TBA)	ND	16	1.00	
Diisopropyl Ether (DIPE)	ND	0.78	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.78	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.78	1.00	
Ethanol	ND	390	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 15 of 54

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	111	79-133	
1,2-Dichloroethane-d4	123	71-155	
Toluene-d8	102	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 16 of 54

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB44-2	**16-08-1869-6-C**	**08/25/16 09:55**	**Solid**	**GC/MS W**	**08/25/16**	**08/29/16 17:34**	**160829L034**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	43	1.00	
Benzene	ND	0.85	1.00	
Bromobenzene	ND	0.85	1.00	
Bromochloromethane	ND	1.7	1.00	
Bromodichloromethane	ND	0.85	1.00	
Bromoform	ND	4.3	1.00	
Bromomethane	ND	17	1.00	
2-Butanone	ND	17	1.00	
n-Butylbenzene	ND	0.85	1.00	
sec-Butylbenzene	ND	0.85	1.00	
tert-Butylbenzene	ND	0.85	1.00	
Carbon Disulfide	ND	8.5	1.00	
Carbon Tetrachloride	ND	0.85	1.00	
Chlorobenzene	ND	0.85	1.00	
Chloroethane	ND	1.7	1.00	
Chloroform	ND	0.85	1.00	
Chloromethane	ND	17	1.00	
2-Chlorotoluene	ND	0.85	1.00	
4-Chlorotoluene	ND	0.85	1.00	
Dibromochloromethane	ND	1.7	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.3	1.00	
1,2-Dibromoethane	ND	0.85	1.00	
Dibromomethane	ND	0.85	1.00	
1,2-Dichlorobenzene	ND	0.85	1.00	
1,3-Dichlorobenzene	ND	0.85	1.00	
1,4-Dichlorobenzene	ND	0.85	1.00	
Dichlorodifluoromethane	ND	1.7	1.00	
1,1-Dichloroethane	ND	0.85	1.00	
1,2-Dichloroethane	ND	0.85	1.00	
1,1-Dichloroethene	ND	0.85	1.00	
c-1,2-Dichloroethene	ND	0.85	1.00	
t-1,2-Dichloroethene	ND	0.85	1.00	
1,2-Dichloropropane	ND	0.85	1.00	
1,3-Dichloropropane	ND	0.85	1.00	
2,2-Dichloropropane	ND	4.3	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.7	1.00	
c-1,3-Dichloropropene	ND	0.85	1.00	
t-1,3-Dichloropropene	ND	1.7	1.00	
Ethylbenzene	ND	0.85	1.00	
2-Hexanone	ND	17	1.00	
Isopropylbenzene	ND	0.85	1.00	
p-Isopropyltoluene	ND	0.85	1.00	
Methylene Chloride	ND	8.5	1.00	
4-Methyl-2-Pentanone	ND	17	1.00	
Naphthalene	ND	8.5	1.00	
n-Propylbenzene	ND	1.7	1.00	
Styrene	ND	0.85	1.00	
1,1,1,2-Tetrachloroethane	ND	0.85	1.00	
1,1,2,2-Tetrachloroethane	ND	1.7	1.00	
Tetrachloroethene	ND	0.85	1.00	
Toluene	ND	0.85	1.00	
1,2,3-Trichlorobenzene	ND	1.7	1.00	
1,2,4-Trichlorobenzene	ND	1.7	1.00	
1,1,1-Trichloroethane	ND	0.85	1.00	
1,1,2-Trichloroethane	ND	0.85	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.5	1.00	
Trichloroethene	ND	1.7	1.00	
Trichlorofluoromethane	ND	8.5	1.00	
1,2,3-Trichloropropane	ND	1.7	1.00	
1,2,4-Trimethylbenzene	ND	1.7	1.00	
1,3,5-Trimethylbenzene	ND	1.7	1.00	
Vinyl Acetate	ND	8.5	1.00	
Vinyl Chloride	ND	0.85	1.00	
p/m-Xylene	ND	1.7	1.00	
o-Xylene	ND	0.85	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	1.00	
Tert-Butyl Alcohol (TBA)	ND	17	1.00	
Diisopropyl Ether (DIPE)	ND	0.85	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.85	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.85	1.00	
Ethanol	ND	430	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 18 of 54

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	111	79-133	
1,2-Dichloroethane-d4	127	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB45-2	**16-08-1869-7-C**	**08/25/16 10:25**	**Solid**	**GC/MS W**	**08/25/16**	**08/29/16 18:01**	**160829L034**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	42	1.00	
Benzene	ND	0.84	1.00	
Bromobenzene	ND	0.84	1.00	
Bromochloromethane	ND	1.7	1.00	
Bromodichloromethane	ND	0.84	1.00	
Bromoform	ND	4.2	1.00	
Bromomethane	ND	17	1.00	
2-Butanone	ND	17	1.00	
n-Butylbenzene	ND	0.84	1.00	
sec-Butylbenzene	ND	0.84	1.00	
tert-Butylbenzene	ND	0.84	1.00	
Carbon Disulfide	ND	8.4	1.00	
Carbon Tetrachloride	ND	0.84	1.00	
Chlorobenzene	ND	0.84	1.00	
Chloroethane	ND	1.7	1.00	
Chloroform	ND	0.84	1.00	
Chloromethane	ND	17	1.00	
2-Chlorotoluene	ND	0.84	1.00	
4-Chlorotoluene	ND	0.84	1.00	
Dibromochloromethane	ND	1.7	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.2	1.00	
1,2-Dibromoethane	ND	0.84	1.00	
Dibromomethane	ND	0.84	1.00	
1,2-Dichlorobenzene	ND	0.84	1.00	
1,3-Dichlorobenzene	ND	0.84	1.00	
1,4-Dichlorobenzene	ND	0.84	1.00	
Dichlorodifluoromethane	ND	1.7	1.00	
1,1-Dichloroethane	ND	0.84	1.00	
1,2-Dichloroethane	ND	0.84	1.00	
1,1-Dichloroethene	ND	0.84	1.00	
c-1,2-Dichloroethene	ND	0.84	1.00	
t-1,2-Dichloroethene	ND	0.84	1.00	
1,2-Dichloropropane	ND	0.84	1.00	
1,3-Dichloropropane	ND	0.84	1.00	
2,2-Dichloropropane	ND	4.2	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received:	08/25/16
Work Order:	16-08-1869
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.7	1.00	
c-1,3-Dichloropropene	ND	0.84	1.00	
t-1,3-Dichloropropene	ND	1.7	1.00	
Ethylbenzene	ND	0.84	1.00	
2-Hexanone	ND	17	1.00	
Isopropylbenzene	ND	0.84	1.00	
p-Isopropyltoluene	ND	0.84	1.00	
Methylene Chloride	ND	8.4	1.00	
4-Methyl-2-Pentanone	ND	17	1.00	
Naphthalene	ND	8.4	1.00	
n-Propylbenzene	ND	1.7	1.00	
Styrene	ND	0.84	1.00	
1,1,1,2-Tetrachloroethane	ND	0.84	1.00	
1,1,2,2-Tetrachloroethane	ND	1.7	1.00	
Tetrachloroethene	ND	0.84	1.00	
Toluene	ND	0.84	1.00	
1,2,3-Trichlorobenzene	ND	1.7	1.00	
1,2,4-Trichlorobenzene	ND	1.7	1.00	
1,1,1-Trichloroethane	ND	0.84	1.00	
1,1,2-Trichloroethane	ND	0.84	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.4	1.00	
Trichloroethene	ND	1.7	1.00	
Trichlorofluoromethane	ND	8.4	1.00	
1,2,3-Trichloropropane	ND	1.7	1.00	
1,2,4-Trimethylbenzene	ND	1.7	1.00	
1,3,5-Trimethylbenzene	ND	1.7	1.00	
Vinyl Acetate	ND	8.4	1.00	
Vinyl Chloride	ND	0.84	1.00	
p/m-Xylene	ND	1.7	1.00	
o-Xylene	ND	0.84	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	1.00	
Tert-Butyl Alcohol (TBA)	ND	17	1.00	
Diisopropyl Ether (DIPE)	ND	0.84	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.84	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.84	1.00	
Ethanol	ND	420	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 21 of 54

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	108	79-133	
1,2-Dichloroethane-d4	125	71-155	
Toluene-d8	104	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB46-2	**16-08-1869-8-C**	**08/25/16 10:55**	**Solid**	**GC/MS W**	**08/25/16**	**08/29/16 18:28**	**160829L034**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	36	1.00	
Benzene	ND	0.73	1.00	
Bromobenzene	ND	0.73	1.00	
Bromochloromethane	ND	1.5	1.00	
Bromodichloromethane	ND	0.73	1.00	
Bromoform	ND	3.6	1.00	
Bromomethane	ND	15	1.00	
2-Butanone	ND	15	1.00	
n-Butylbenzene	ND	0.73	1.00	
sec-Butylbenzene	ND	0.73	1.00	
tert-Butylbenzene	ND	0.73	1.00	
Carbon Disulfide	ND	7.3	1.00	
Carbon Tetrachloride	ND	0.73	1.00	
Chlorobenzene	ND	0.73	1.00	
Chloroethane	ND	1.5	1.00	
Chloroform	ND	0.73	1.00	
Chloromethane	ND	15	1.00	
2-Chlorotoluene	ND	0.73	1.00	
4-Chlorotoluene	ND	0.73	1.00	
Dibromochloromethane	ND	1.5	1.00	
1,2-Dibromo-3-Chloropropane	ND	3.6	1.00	
1,2-Dibromoethane	ND	0.73	1.00	
Dibromomethane	ND	0.73	1.00	
1,2-Dichlorobenzene	ND	0.73	1.00	
1,3-Dichlorobenzene	ND	0.73	1.00	
1,4-Dichlorobenzene	ND	0.73	1.00	
Dichlorodifluoromethane	ND	1.5	1.00	
1,1-Dichloroethane	ND	0.73	1.00	
1,2-Dichloroethane	ND	0.73	1.00	
1,1-Dichloroethene	ND	0.73	1.00	
c-1,2-Dichloroethene	ND	0.73	1.00	
t-1,2-Dichloroethene	ND	0.73	1.00	
1,2-Dichloropropane	ND	0.73	1.00	
1,3-Dichloropropane	ND	0.73	1.00	
2,2-Dichloropropane	ND	3.6	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.5	1.00	
c-1,3-Dichloropropene	ND	0.73	1.00	
t-1,3-Dichloropropene	ND	1.5	1.00	
Ethylbenzene	ND	0.73	1.00	
2-Hexanone	ND	15	1.00	
Isopropylbenzene	ND	0.73	1.00	
p-Isopropyltoluene	ND	0.73	1.00	
Methylene Chloride	ND	7.3	1.00	
4-Methyl-2-Pentanone	ND	15	1.00	
Naphthalene	ND	7.3	1.00	
n-Propylbenzene	ND	1.5	1.00	
Styrene	ND	0.73	1.00	
1,1,1,2-Tetrachloroethane	ND	0.73	1.00	
1,1,2,2-Tetrachloroethane	ND	1.5	1.00	
Tetrachloroethene	ND	0.73	1.00	
Toluene	ND	0.73	1.00	
1,2,3-Trichlorobenzene	ND	1.5	1.00	
1,2,4-Trichlorobenzene	ND	1.5	1.00	
1,1,1-Trichloroethane	ND	0.73	1.00	
1,1,2-Trichloroethane	ND	0.73	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.3	1.00	
Trichloroethene	ND	1.5	1.00	
Trichlorofluoromethane	ND	7.3	1.00	
1,2,3-Trichloropropane	ND	1.5	1.00	
1,2,4-Trimethylbenzene	ND	1.5	1.00	
1,3,5-Trimethylbenzene	ND	1.5	1.00	
Vinyl Acetate	ND	7.3	1.00	
Vinyl Chloride	ND	0.73	1.00	
p/m-Xylene	ND	1.5	1.00	
o-Xylene	ND	0.73	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.5	1.00	
Tert-Butyl Alcohol (TBA)	ND	15	1.00	
Diisopropyl Ether (DIPE)	ND	0.73	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.73	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.73	1.00	
Ethanol	ND	360	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 24 of 54

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	110	79-133	
1,2-Dichloroethane-d4	130	71-155	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB47-2	**16-08-1869-9-C**	**08/25/16 11:25**	**Solid**	**GC/MS W**	**08/25/16**	**08/29/16 18:54**	**160829L034**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	37	1.00	
Benzene	ND	0.74	1.00	
Bromobenzene	ND	0.74	1.00	
Bromochloromethane	ND	1.5	1.00	
Bromodichloromethane	ND	0.74	1.00	
Bromoform	ND	3.7	1.00	
Bromomethane	ND	15	1.00	
2-Butanone	ND	15	1.00	
n-Butylbenzene	ND	0.74	1.00	
sec-Butylbenzene	ND	0.74	1.00	
tert-Butylbenzene	ND	0.74	1.00	
Carbon Disulfide	ND	7.4	1.00	
Carbon Tetrachloride	ND	0.74	1.00	
Chlorobenzene	ND	0.74	1.00	
Chloroethane	ND	1.5	1.00	
Chloroform	ND	0.74	1.00	
Chloromethane	ND	15	1.00	
2-Chlorotoluene	ND	0.74	1.00	
4-Chlorotoluene	ND	0.74	1.00	
Dibromochloromethane	ND	1.5	1.00	
1,2-Dibromo-3-Chloropropane	ND	3.7	1.00	
1,2-Dibromoethane	ND	0.74	1.00	
Dibromomethane	ND	0.74	1.00	
1,2-Dichlorobenzene	ND	0.74	1.00	
1,3-Dichlorobenzene	ND	0.74	1.00	
1,4-Dichlorobenzene	ND	0.74	1.00	
Dichlorodifluoromethane	ND	1.5	1.00	
1,1-Dichloroethane	ND	0.74	1.00	
1,2-Dichloroethane	ND	0.74	1.00	
1,1-Dichloroethene	ND	0.74	1.00	
c-1,2-Dichloroethene	ND	0.74	1.00	
t-1,2-Dichloroethene	ND	0.74	1.00	
1,2-Dichloropropane	ND	0.74	1.00	
1,3-Dichloropropane	ND	0.74	1.00	
2,2-Dichloropropane	ND	3.7	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.5	1.00	
c-1,3-Dichloropropene	ND	0.74	1.00	
t-1,3-Dichloropropene	ND	1.5	1.00	
Ethylbenzene	ND	0.74	1.00	
2-Hexanone	ND	15	1.00	
Isopropylbenzene	ND	0.74	1.00	
p-Isopropyltoluene	ND	0.74	1.00	
Methylene Chloride	ND	7.4	1.00	
4-Methyl-2-Pentanone	ND	15	1.00	
Naphthalene	ND	7.4	1.00	
n-Propylbenzene	ND	1.5	1.00	
Styrene	ND	0.74	1.00	
1,1,1,2-Tetrachloroethane	ND	0.74	1.00	
1,1,2,2-Tetrachloroethane	ND	1.5	1.00	
Tetrachloroethene	ND	0.74	1.00	
Toluene	ND	0.74	1.00	
1,2,3-Trichlorobenzene	ND	1.5	1.00	
1,2,4-Trichlorobenzene	ND	1.5	1.00	
1,1,1-Trichloroethane	ND	0.74	1.00	
1,1,2-Trichloroethane	ND	0.74	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.4	1.00	
Trichloroethene	ND	1.5	1.00	
Trichlorofluoromethane	ND	7.4	1.00	
1,2,3-Trichloropropane	ND	1.5	1.00	
1,2,4-Trimethylbenzene	ND	1.5	1.00	
1,3,5-Trimethylbenzene	ND	1.5	1.00	
Vinyl Acetate	ND	7.4	1.00	
Vinyl Chloride	ND	0.74	1.00	
p/m-Xylene	ND	1.5	1.00	
o-Xylene	ND	0.74	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.5	1.00	
Tert-Butyl Alcohol (TBA)	ND	15	1.00	
Diisopropyl Ether (DIPE)	ND	0.74	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.74	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.74	1.00	
Ethanol	ND	370	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 27 of 54

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	110	79-133	
1,2-Dichloroethane-d4	127	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB48-2	**16-08-1869-10-C**	**08/25/16 11:55**	**Solid**	**GC/MS W**	**08/25/16**	**08/29/16 19:21**	**160829L034**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	40	1.00	
Benzene	ND	0.81	1.00	
Bromobenzene	ND	0.81	1.00	
Bromochloromethane	ND	1.6	1.00	
Bromodichloromethane	ND	0.81	1.00	
Bromoform	ND	4.0	1.00	
Bromomethane	ND	16	1.00	
2-Butanone	ND	16	1.00	
n-Butylbenzene	ND	0.81	1.00	
sec-Butylbenzene	ND	0.81	1.00	
tert-Butylbenzene	ND	0.81	1.00	
Carbon Disulfide	ND	8.1	1.00	
Carbon Tetrachloride	ND	0.81	1.00	
Chlorobenzene	ND	0.81	1.00	
Chloroethane	ND	1.6	1.00	
Chloroform	ND	0.81	1.00	
Chloromethane	ND	16	1.00	
2-Chlorotoluene	ND	0.81	1.00	
4-Chlorotoluene	ND	0.81	1.00	
Dibromochloromethane	ND	1.6	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.0	1.00	
1,2-Dibromoethane	ND	0.81	1.00	
Dibromomethane	ND	0.81	1.00	
1,2-Dichlorobenzene	ND	0.81	1.00	
1,3-Dichlorobenzene	ND	0.81	1.00	
1,4-Dichlorobenzene	ND	0.81	1.00	
Dichlorodifluoromethane	ND	1.6	1.00	
1,1-Dichloroethane	ND	0.81	1.00	
1,2-Dichloroethane	ND	0.81	1.00	
1,1-Dichloroethene	ND	0.81	1.00	
c-1,2-Dichloroethene	ND	0.81	1.00	
t-1,2-Dichloroethene	ND	0.81	1.00	
1,2-Dichloropropane	ND	0.81	1.00	
1,3-Dichloropropane	ND	0.81	1.00	
2,2-Dichloropropane	ND	4.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received:	08/25/16
Work Order:	16-08-1869
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.6	1.00	
c-1,3-Dichloropropene	ND	0.81	1.00	
t-1,3-Dichloropropene	ND	1.6	1.00	
Ethylbenzene	ND	0.81	1.00	
2-Hexanone	ND	16	1.00	
Isopropylbenzene	ND	0.81	1.00	
p-Isopropyltoluene	ND	0.81	1.00	
Methylene Chloride	ND	8.1	1.00	
4-Methyl-2-Pentanone	ND	16	1.00	
Naphthalene	ND	8.1	1.00	
n-Propylbenzene	ND	1.6	1.00	
Styrene	ND	0.81	1.00	
1,1,1,2-Tetrachloroethane	ND	0.81	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	1.00	
Tetrachloroethene	ND	0.81	1.00	
Toluene	ND	0.81	1.00	
1,2,3-Trichlorobenzene	ND	1.6	1.00	
1,2,4-Trichlorobenzene	ND	1.6	1.00	
1,1,1-Trichloroethane	ND	0.81	1.00	
1,1,2-Trichloroethane	ND	0.81	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.1	1.00	
Trichloroethene	ND	1.6	1.00	
Trichlorofluoromethane	ND	8.1	1.00	
1,2,3-Trichloropropane	ND	1.6	1.00	
1,2,4-Trimethylbenzene	ND	1.6	1.00	
1,3,5-Trimethylbenzene	ND	1.6	1.00	
Vinyl Acetate	ND	8.1	1.00	
Vinyl Chloride	ND	0.81	1.00	
p/m-Xylene	ND	1.6	1.00	
o-Xylene	ND	0.81	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	1.00	
Tert-Butyl Alcohol (TBA)	ND	16	1.00	
Diisopropyl Ether (DIPE)	ND	0.81	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.81	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.81	1.00	
Ethanol	ND	400	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 30 of 54

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	111	79-133	
1,2-Dichloroethane-d4	127	71-155	
Toluene-d8	101	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB49-2	**16-08-1869-11-C**	**08/25/16 12:20**	**Solid**	**GC/MS W**	**08/25/16**	**08/29/16 19:48**	**160829L034**

Parameter	Result	RL	DF	Qualifiers
Acetone	46	45	1.00	
Benzene	ND	0.90	1.00	
Bromobenzene	ND	0.90	1.00	
Bromochloromethane	ND	1.8	1.00	
Bromodichloromethane	ND	0.90	1.00	
Bromoform	ND	4.5	1.00	
Bromomethane	ND	18	1.00	
2-Butanone	ND	18	1.00	
n-Butylbenzene	ND	0.90	1.00	
sec-Butylbenzene	ND	0.90	1.00	
tert-Butylbenzene	ND	0.90	1.00	
Carbon Disulfide	ND	9.0	1.00	
Carbon Tetrachloride	ND	0.90	1.00	
Chlorobenzene	ND	0.90	1.00	
Chloroethane	ND	1.8	1.00	
Chloroform	ND	0.90	1.00	
Chloromethane	ND	18	1.00	
2-Chlorotoluene	ND	0.90	1.00	
4-Chlorotoluene	ND	0.90	1.00	
Dibromochloromethane	ND	1.8	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.5	1.00	
1,2-Dibromoethane	ND	0.90	1.00	
Dibromomethane	ND	0.90	1.00	
1,2-Dichlorobenzene	ND	0.90	1.00	
1,3-Dichlorobenzene	ND	0.90	1.00	
1,4-Dichlorobenzene	ND	0.90	1.00	
Dichlorodifluoromethane	ND	1.8	1.00	
1,1-Dichloroethane	ND	0.90	1.00	
1,2-Dichloroethane	ND	0.90	1.00	
1,1-Dichloroethene	ND	0.90	1.00	
c-1,2-Dichloroethene	ND	0.90	1.00	
t-1,2-Dichloroethene	ND	0.90	1.00	
1,2-Dichloropropane	ND	0.90	1.00	
1,3-Dichloropropane	ND	0.90	1.00	
2,2-Dichloropropane	ND	4.5	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 32 of 54

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.8	1.00	
c-1,3-Dichloropropene	ND	0.90	1.00	
t-1,3-Dichloropropene	ND	1.8	1.00	
Ethylbenzene	ND	0.90	1.00	
2-Hexanone	ND	18	1.00	
Isopropylbenzene	ND	0.90	1.00	
p-Isopropyltoluene	ND	0.90	1.00	
Methylene Chloride	ND	9.0	1.00	
4-Methyl-2-Pentanone	ND	18	1.00	
Naphthalene	ND	9.0	1.00	
n-Propylbenzene	ND	1.8	1.00	
Styrene	ND	0.90	1.00	
1,1,1,2-Tetrachloroethane	ND	0.90	1.00	
1,1,2,2-Tetrachloroethane	ND	1.8	1.00	
Tetrachloroethene	ND	0.90	1.00	
Toluene	ND	0.90	1.00	
1,2,3-Trichlorobenzene	ND	1.8	1.00	
1,2,4-Trichlorobenzene	ND	1.8	1.00	
1,1,1-Trichloroethane	ND	0.90	1.00	
1,1,2-Trichloroethane	ND	0.90	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.0	1.00	
Trichloroethene	ND	1.8	1.00	
Trichlorofluoromethane	ND	9.0	1.00	
1,2,3-Trichloropropane	ND	1.8	1.00	
1,2,4-Trimethylbenzene	ND	1.8	1.00	
1,3,5-Trimethylbenzene	ND	1.8	1.00	
Vinyl Acetate	ND	9.0	1.00	
Vinyl Chloride	ND	0.90	1.00	
p/m-Xylene	ND	1.8	1.00	
o-Xylene	ND	0.90	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	1.00	
Tert-Butyl Alcohol (TBA)	ND	18	1.00	
Diisopropyl Ether (DIPE)	ND	0.90	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.90	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.90	1.00	
Ethanol	ND	450	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 33 of 54

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	112	79-133	
1,2-Dichloroethane-d4	131	71-155	
Toluene-d8	102	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB50-2	**16-08-1869-12-C**	**08/25/16 13:15**	**Solid**	**GC/MS QQ**	**08/25/16**	**08/30/16 13:06**	**160830L009**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	40	1.00	
Benzene	ND	0.79	1.00	
Bromobenzene	ND	0.79	1.00	
Bromochloromethane	ND	1.6	1.00	
Bromodichloromethane	ND	0.79	1.00	
Bromoform	ND	4.0	1.00	
Bromomethane	ND	16	1.00	
2-Butanone	ND	16	1.00	
n-Butylbenzene	ND	0.79	1.00	
sec-Butylbenzene	ND	0.79	1.00	
tert-Butylbenzene	ND	0.79	1.00	
Carbon Disulfide	ND	7.9	1.00	
Carbon Tetrachloride	ND	0.79	1.00	
Chlorobenzene	ND	0.79	1.00	
Chloroethane	ND	1.6	1.00	
Chloroform	ND	0.79	1.00	
Chloromethane	ND	16	1.00	
2-Chlorotoluene	ND	0.79	1.00	
4-Chlorotoluene	ND	0.79	1.00	
Dibromochloromethane	ND	1.6	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.0	1.00	
1,2-Dibromoethane	ND	0.79	1.00	
Dibromomethane	ND	0.79	1.00	
1,2-Dichlorobenzene	ND	0.79	1.00	
1,3-Dichlorobenzene	ND	0.79	1.00	
1,4-Dichlorobenzene	ND	0.79	1.00	
Dichlorodifluoromethane	ND	1.6	1.00	
1,1-Dichloroethane	ND	0.79	1.00	
1,2-Dichloroethane	ND	0.79	1.00	
1,1-Dichloroethene	ND	0.79	1.00	
c-1,2-Dichloroethene	ND	0.79	1.00	
t-1,2-Dichloroethene	ND	0.79	1.00	
1,2-Dichloropropane	ND	0.79	1.00	
1,3-Dichloropropane	ND	0.79	1.00	
2,2-Dichloropropane	ND	4.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.6	1.00	
c-1,3-Dichloropropene	ND	0.79	1.00	
t-1,3-Dichloropropene	ND	1.6	1.00	
Ethylbenzene	ND	0.79	1.00	
2-Hexanone	ND	16	1.00	
Isopropylbenzene	ND	0.79	1.00	
p-Isopropyltoluene	ND	0.79	1.00	
Methylene Chloride	ND	7.9	1.00	
4-Methyl-2-Pentanone	ND	16	1.00	
Naphthalene	ND	7.9	1.00	
n-Propylbenzene	ND	1.6	1.00	
Styrene	ND	0.79	1.00	
1,1,1,2-Tetrachloroethane	ND	0.79	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	1.00	
Tetrachloroethene	ND	0.79	1.00	
Toluene	ND	0.79	1.00	
1,2,3-Trichlorobenzene	ND	1.6	1.00	
1,2,4-Trichlorobenzene	ND	1.6	1.00	
1,1,1-Trichloroethane	ND	0.79	1.00	
1,1,2-Trichloroethane	ND	0.79	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.9	1.00	
Trichloroethene	ND	1.6	1.00	
Trichlorofluoromethane	ND	7.9	1.00	
1,2,3-Trichloropropane	ND	1.6	1.00	
1,2,4-Trimethylbenzene	ND	1.6	1.00	
1,3,5-Trimethylbenzene	ND	1.6	1.00	
Vinyl Acetate	ND	7.9	1.00	
Vinyl Chloride	ND	0.79	1.00	
p/m-Xylene	ND	1.6	1.00	
o-Xylene	ND	0.79	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	1.00	
Tert-Butyl Alcohol (TBA)	ND	16	1.00	
Diisopropyl Ether (DIPE)	ND	0.79	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.79	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.79	1.00	
Ethanol	ND	400	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 36 of 54

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	108	79-133	
1,2-Dichloroethane-d4	115	71-155	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB51-2	**16-08-1869-13-C**	**08/25/16 13:35**	**Solid**	**GC/MS QQ**	**08/25/16**	**08/29/16 17:52**	**160829L016**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	39	1.00	
Benzene	ND	0.78	1.00	
Bromobenzene	ND	0.78	1.00	
Bromochloromethane	ND	1.6	1.00	
Bromodichloromethane	ND	0.78	1.00	
Bromoform	ND	3.9	1.00	
Bromomethane	ND	16	1.00	
2-Butanone	ND	16	1.00	
n-Butylbenzene	ND	0.78	1.00	
sec-Butylbenzene	ND	0.78	1.00	
tert-Butylbenzene	ND	0.78	1.00	
Carbon Disulfide	ND	7.8	1.00	
Carbon Tetrachloride	ND	0.78	1.00	
Chlorobenzene	ND	0.78	1.00	
Chloroethane	ND	1.6	1.00	
Chloroform	ND	0.78	1.00	
Chloromethane	ND	16	1.00	
2-Chlorotoluene	ND	0.78	1.00	
4-Chlorotoluene	ND	0.78	1.00	
Dibromochloromethane	ND	1.6	1.00	
1,2-Dibromo-3-Chloropropane	ND	3.9	1.00	
1,2-Dibromoethane	ND	0.78	1.00	
Dibromomethane	ND	0.78	1.00	
1,2-Dichlorobenzene	ND	0.78	1.00	
1,3-Dichlorobenzene	ND	0.78	1.00	
1,4-Dichlorobenzene	ND	0.78	1.00	
Dichlorodifluoromethane	ND	1.6	1.00	
1,1-Dichloroethane	ND	0.78	1.00	
1,2-Dichloroethane	ND	0.78	1.00	
1,1-Dichloroethene	ND	0.78	1.00	
c-1,2-Dichloroethene	ND	0.78	1.00	
t-1,2-Dichloroethene	ND	0.78	1.00	
1,2-Dichloropropane	ND	0.78	1.00	
1,3-Dichloropropane	ND	0.78	1.00	
2,2-Dichloropropane	ND	3.9	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.6	1.00	
c-1,3-Dichloropropene	ND	0.78	1.00	
t-1,3-Dichloropropene	ND	1.6	1.00	
Ethylbenzene	ND	0.78	1.00	
2-Hexanone	ND	16	1.00	
Isopropylbenzene	ND	0.78	1.00	
p-Isopropyltoluene	ND	0.78	1.00	
Methylene Chloride	ND	7.8	1.00	
4-Methyl-2-Pentanone	ND	16	1.00	
Naphthalene	ND	7.8	1.00	
n-Propylbenzene	ND	1.6	1.00	
Styrene	ND	0.78	1.00	
1,1,1,2-Tetrachloroethane	ND	0.78	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	1.00	
Tetrachloroethene	ND	0.78	1.00	
Toluene	ND	0.78	1.00	
1,2,3-Trichlorobenzene	ND	1.6	1.00	
1,2,4-Trichlorobenzene	ND	1.6	1.00	
1,1,1-Trichloroethane	ND	0.78	1.00	
1,1,2-Trichloroethane	ND	0.78	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.8	1.00	
Trichloroethene	ND	1.6	1.00	
Trichlorofluoromethane	ND	7.8	1.00	
1,2,3-Trichloropropane	ND	1.6	1.00	
1,2,4-Trimethylbenzene	ND	1.6	1.00	
1,3,5-Trimethylbenzene	ND	1.6	1.00	
Vinyl Acetate	ND	7.8	1.00	
Vinyl Chloride	ND	0.78	1.00	
p/m-Xylene	ND	1.6	1.00	
o-Xylene	ND	0.78	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	1.00	
Tert-Butyl Alcohol (TBA)	ND	16	1.00	
Diisopropyl Ether (DIPE)	ND	0.78	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.78	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.78	1.00	
Ethanol	ND	390	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 39 of 54

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	109	79-133	
1,2-Dichloroethane-d4	119	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB52-2	**16-08-1869-14-C**	**08/25/16 14:00**	**Solid**	**GC/MS QQ**	**08/25/16**	**08/29/16 18:21**	**160829L016**

Parameter	Result	RL	DF	Qualifiers
Acetone	73	42	1.00	
Benzene	ND	0.83	1.00	
Bromobenzene	ND	0.83	1.00	
Bromochloromethane	ND	1.7	1.00	
Bromodichloromethane	ND	0.83	1.00	
Bromoform	ND	4.2	1.00	
Bromomethane	ND	17	1.00	
2-Butanone	ND	17	1.00	
n-Butylbenzene	ND	0.83	1.00	
sec-Butylbenzene	ND	0.83	1.00	
tert-Butylbenzene	ND	0.83	1.00	
Carbon Disulfide	ND	8.3	1.00	
Carbon Tetrachloride	ND	0.83	1.00	
Chlorobenzene	ND	0.83	1.00	
Chloroethane	ND	1.7	1.00	
Chloroform	ND	0.83	1.00	
Chloromethane	ND	17	1.00	
2-Chlorotoluene	ND	0.83	1.00	
4-Chlorotoluene	ND	0.83	1.00	
Dibromochloromethane	ND	1.7	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.2	1.00	
1,2-Dibromoethane	ND	0.83	1.00	
Dibromomethane	ND	0.83	1.00	
1,2-Dichlorobenzene	ND	0.83	1.00	
1,3-Dichlorobenzene	ND	0.83	1.00	
1,4-Dichlorobenzene	ND	0.83	1.00	
Dichlorodifluoromethane	ND	1.7	1.00	
1,1-Dichloroethane	ND	0.83	1.00	
1,2-Dichloroethane	ND	0.83	1.00	
1,1-Dichloroethene	ND	0.83	1.00	
c-1,2-Dichloroethene	ND	0.83	1.00	
t-1,2-Dichloroethene	ND	0.83	1.00	
1,2-Dichloropropane	ND	0.83	1.00	
1,3-Dichloropropane	ND	0.83	1.00	
2,2-Dichloropropane	ND	4.2	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received:	08/25/16
Work Order:	16-08-1869
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.7	1.00	
c-1,3-Dichloropropene	ND	0.83	1.00	
t-1,3-Dichloropropene	ND	1.7	1.00	
Ethylbenzene	ND	0.83	1.00	
2-Hexanone	ND	17	1.00	
Isopropylbenzene	ND	0.83	1.00	
p-Isopropyltoluene	ND	0.83	1.00	
Methylene Chloride	ND	8.3	1.00	
4-Methyl-2-Pentanone	ND	17	1.00	
Naphthalene	ND	8.3	1.00	
n-Propylbenzene	ND	1.7	1.00	
Styrene	ND	0.83	1.00	
1,1,1,2-Tetrachloroethane	ND	0.83	1.00	
1,1,2,2-Tetrachloroethane	ND	1.7	1.00	
Tetrachloroethene	ND	0.83	1.00	
Toluene	ND	0.83	1.00	
1,2,3-Trichlorobenzene	ND	1.7	1.00	
1,2,4-Trichlorobenzene	ND	1.7	1.00	
1,1,1-Trichloroethane	ND	0.83	1.00	
1,1,2-Trichloroethane	ND	0.83	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.3	1.00	
Trichloroethene	ND	1.7	1.00	
Trichlorofluoromethane	ND	8.3	1.00	
1,2,3-Trichloropropane	ND	1.7	1.00	
1,2,4-Trimethylbenzene	ND	1.7	1.00	
1,3,5-Trimethylbenzene	ND	1.7	1.00	
Vinyl Acetate	ND	8.3	1.00	
Vinyl Chloride	ND	0.83	1.00	
p/m-Xylene	ND	1.7	1.00	
o-Xylene	ND	0.83	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	1.00	
Tert-Butyl Alcohol (TBA)	ND	17	1.00	
Diisopropyl Ether (DIPE)	ND	0.83	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.83	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.83	1.00	
Ethanol	ND	420	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 42 of 54

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	108	79-133	
1,2-Dichloroethane-d4	117	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB53-2	**16-08-1869-15-C**	**08/25/16 14:30**	**Solid**	**GC/MS QQ**	**08/25/16**	**08/29/16 18:50**	**160829L016**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	49	1.00	
Benzene	ND	0.97	1.00	
Bromobenzene	ND	0.97	1.00	
Bromochloromethane	ND	1.9	1.00	
Bromodichloromethane	ND	0.97	1.00	
Bromoform	ND	4.9	1.00	
Bromomethane	ND	19	1.00	
2-Butanone	ND	19	1.00	
n-Butylbenzene	ND	0.97	1.00	
sec-Butylbenzene	ND	0.97	1.00	
tert-Butylbenzene	ND	0.97	1.00	
Carbon Disulfide	ND	9.7	1.00	
Carbon Tetrachloride	ND	0.97	1.00	
Chlorobenzene	ND	0.97	1.00	
Chloroethane	ND	1.9	1.00	
Chloroform	ND	0.97	1.00	
Chloromethane	ND	19	1.00	
2-Chlorotoluene	ND	0.97	1.00	
4-Chlorotoluene	ND	0.97	1.00	
Dibromochloromethane	ND	1.9	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.9	1.00	
1,2-Dibromoethane	ND	0.97	1.00	
Dibromomethane	ND	0.97	1.00	
1,2-Dichlorobenzene	ND	0.97	1.00	
1,3-Dichlorobenzene	ND	0.97	1.00	
1,4-Dichlorobenzene	ND	0.97	1.00	
Dichlorodifluoromethane	ND	1.9	1.00	
1,1-Dichloroethane	ND	0.97	1.00	
1,2-Dichloroethane	ND	0.97	1.00	
1,1-Dichloroethene	ND	0.97	1.00	
c-1,2-Dichloroethene	ND	0.97	1.00	
t-1,2-Dichloroethene	ND	0.97	1.00	
1,2-Dichloropropane	ND	0.97	1.00	
1,3-Dichloropropane	ND	0.97	1.00	
2,2-Dichloropropane	ND	4.9	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.9	1.00	
c-1,3-Dichloropropene	ND	0.97	1.00	
t-1,3-Dichloropropene	ND	1.9	1.00	
Ethylbenzene	ND	0.97	1.00	
2-Hexanone	ND	19	1.00	
Isopropylbenzene	ND	0.97	1.00	
p-Isopropyltoluene	ND	0.97	1.00	
Methylene Chloride	ND	9.7	1.00	
4-Methyl-2-Pentanone	ND	19	1.00	
Naphthalene	ND	9.7	1.00	
n-Propylbenzene	ND	1.9	1.00	
Styrene	ND	0.97	1.00	
1,1,1,2-Tetrachloroethane	ND	0.97	1.00	
1,1,2,2-Tetrachloroethane	ND	1.9	1.00	
Tetrachloroethene	ND	0.97	1.00	
Toluene	ND	0.97	1.00	
1,2,3-Trichlorobenzene	ND	1.9	1.00	
1,2,4-Trichlorobenzene	ND	1.9	1.00	
1,1,1-Trichloroethane	ND	0.97	1.00	
1,1,2-Trichloroethane	ND	0.97	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.7	1.00	
Trichloroethene	ND	1.9	1.00	
Trichlorofluoromethane	ND	9.7	1.00	
1,2,3-Trichloropropane	ND	1.9	1.00	
1,2,4-Trimethylbenzene	ND	1.9	1.00	
1,3,5-Trimethylbenzene	ND	1.9	1.00	
Vinyl Acetate	ND	9.7	1.00	
Vinyl Chloride	ND	0.97	1.00	
p/m-Xylene	ND	1.9	1.00	
o-Xylene	ND	0.97	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.9	1.00	
Tert-Butyl Alcohol (TBA)	ND	19	1.00	
Diisopropyl Ether (DIPE)	ND	0.97	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.97	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.97	1.00	
Ethanol	ND	490	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 45 of 54

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	106	79-133	
1,2-Dichloroethane-d4	118	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**095-01-025-27927**	**N/A**	**Solid**	**GC/MS QQ**	**08/29/16**	**08/29/16 14:00**	**160829L016**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	50	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	20	1.00	
2-Butanone	ND	20	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	2.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.0	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	20	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	20	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	20	1.00	
Diisopropyl Ether (DIPE)	ND	1.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	1.00	
Ethanol	ND	500	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 48 of 54

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	106	79-133	
1,2-Dichloroethane-d4	111	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**095-01-025-27931**	**N/A**	**Solid**	**GC/MS W**	**08/29/16**	**08/29/16 14:27**	**160829L034**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	50	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	20	1.00	
2-Butanone	ND	20	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	2.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.0	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	20	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	20	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	20	1.00	
Diisopropyl Ether (DIPE)	ND	1.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	1.00	
Ethanol	ND	500	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 51 of 54

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	106	79-133	
1,2-Dichloroethane-d4	118	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**095-01-025-27932**	**N/A**	**Solid**	**GC/MS QQ**	**08/30/16**	**08/30/16 11:31**	**160830L009**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	50	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	20	1.00	
2-Butanone	ND	20	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	2.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.0	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	20	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	20	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	20	1.00	
Diisopropyl Ether (DIPE)	ND	1.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	1.00	
Ethanol	ND	500	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 54 of 54

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	108	79-133	
1,2-Dichloroethane-d4	109	71-155	
Toluene-d8	98	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
Project: John Wayne Airport (JWA) / IR13164420		Page 1 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-08-1952-4	**Sample**	**Solid**	**GC 46**	**08/27/16**	**08/29/16 19:08**	**160827S01**
16-08-1952-4	**Matrix Spike**	**Solid**	**GC 46**	**08/27/16**	**08/29/16 17:42**	**160827S01**
16-08-1952-4	**Matrix Spike Duplicate**	**Solid**	**GC 46**	**08/27/16**	**08/29/16 17:59**	**160827S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	9.375	400.0	370.0	90	398.7	97	64-130	7	0-15	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 3050B
Method: EPA 6010B

Project: John Wayne Airport (JWA) / IR13164420

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
GAIP-SB43-2	**Sample**	**Solid**	**ICP 7300**	**08/31/16**	**09/01/16 12:56**	**160831S03**
GAIP-SB43-2	**Matrix Spike**	**Solid**	**ICP 7300**	**08/31/16**	**09/01/16 12:47**	**160831S03**
GAIP-SB43-2	**Matrix Spike Duplicate**	**Solid**	**ICP 7300**	**08/31/16**	**09/01/16 12:48**	**160831S03**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	10.07	40	10.43	42	50-115	4	0-20	3
Arsenic	ND	25.00	26.93	108	26.57	106	75-125	1	0-20	
Barium	50.38	25.00	74.92	98	82.74	129	75-125	10	0-20	3
Beryllium	0.3097	25.00	27.16	107	26.36	104	75-125	3	0-20	
Cadmium	ND	25.00	27.71	111	26.81	107	75-125	3	0-20	
Chromium	11.24	25.00	38.69	110	36.85	102	75-125	5	0-20	
Cobalt	14.31	25.00	38.99	99	39.75	102	75-125	2	0-20	
Copper	8.216	25.00	35.68	110	37.76	118	75-125	6	0-20	
Lead	3.791	25.00	31.11	109	29.70	104	75-125	5	0-20	
Molybdenum	ND	25.00	24.38	98	23.84	95	75-125	2	0-20	
Nickel	8.262	25.00	35.46	109	33.83	102	75-125	5	0-20	
Selenium	ND	25.00	25.63	103	25.46	102	75-125	1	0-20	
Silver	ND	12.50	13.53	108	12.91	103	75-125	5	0-20	
Thallium	ND	25.00	25.94	104	25.31	101	75-125	2	0-20	
Vanadium	24.37	25.00	51.27	108	49.32	100	75-125	4	0-20	
Zinc	29.32	25.00	58.68	117	55.97	107	75-125	5	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Project: John Wayne Airport (JWA) / IR13164420

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 7471A Total
Method: EPA 7471A
Page 3 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
GAIP-SB43-2	**Sample**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:28**	**160901S03**
GAIP-SB43-2	**Matrix Spike**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:15**	**160901S03**
GAIP-SB43-2	**Matrix Spike Duplicate**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:17**	**160901S03**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.6636	79	0.6887	82	71-137	4	0-14	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
Project: John Wayne Airport (JWA) / IR13164420		Page 1 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-490-2243	**LCS**	**Solid**	**GC 46**	**08/27/16**	**08/29/16 17:24**	**160827B01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Diesel	400.0	386.5	97	75-123	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 3050B
	Method:	EPA 6010B
Project: John Wayne Airport (JWA) / IR13164420		Page 2 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-23169	**LCS**	**Solid**	**ICP 7300**	**08/31/16**	**09/01/16 11:35**	**160831L03**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	21.36	85	80-120	73-127	
Arsenic	25.00	24.06	96	80-120	73-127	
Barium	25.00	26.04	104	80-120	73-127	
Beryllium	25.00	23.53	94	80-120	73-127	
Cadmium	25.00	25.25	101	80-120	73-127	
Chromium	25.00	25.80	103	80-120	73-127	
Cobalt	25.00	26.48	106	80-120	73-127	
Copper	25.00	26.03	104	80-120	73-127	
Lead	25.00	26.28	105	80-120	73-127	
Molybdenum	25.00	24.61	98	80-120	73-127	
Nickel	25.00	26.38	106	80-120	73-127	
Selenium	25.00	22.91	92	80-120	73-127	
Silver	12.50	12.75	102	80-120	73-127	
Thallium	25.00	25.56	102	80-120	73-127	
Vanadium	25.00	24.60	98	80-120	73-127	
Zinc	25.00	25.46	102	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/25/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1869
Irvine, CA 92617-3094	Preparation:	EPA 7471A Total
	Method:	EPA 7471A
Project: John Wayne Airport (JWA) / IR13164420		Page 3 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-2486	**LCS**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:12**	**160901L03**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.8350	0.8446	101	85-121	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B

Project: John Wayne Airport (JWA) / IR13164420

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-025-27931	**LCS**	**Solid**	**GC/MS W**	**08/29/16**	**08/29/16 11:36**	**160829L034**
095-01-025-27931	**LCSD**	**Solid**	**GC/MS W**	**08/29/16**	**08/29/16 12:02**	**160829L034**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	50.00	44.21	88	45.83	92	80-120	73-127	4	0-20	
Carbon Tetrachloride	50.00	62.22	124	63.70	127	65-137	53-149	2	0-20	
Chlorobenzene	50.00	44.04	88	45.15	90	80-120	73-127	2	0-20	
1,2-Dibromoethane	50.00	45.12	90	48.48	97	80-120	73-127	7	0-20	
1,2-Dichlorobenzene	50.00	42.32	85	44.58	89	80-120	73-127	5	0-20	
1,2-Dichloroethane	50.00	48.89	98	51.09	102	80-120	73-127	4	0-20	
1,1-Dichloroethene	50.00	52.34	105	54.56	109	68-128	58-138	4	0-20	
Ethylbenzene	50.00	44.25	89	46.40	93	80-120	73-127	5	0-20	
Toluene	50.00	44.91	90	45.86	92	80-120	73-127	2	0-20	
Trichloroethene	50.00	48.74	97	48.81	98	80-120	73-127	0	0-20	
Vinyl Chloride	50.00	49.63	99	50.13	100	67-127	57-137	1	0-20	
p/m-Xylene	100.0	88.55	89	92.60	93	75-125	67-133	4	0-25	
o-Xylene	50.00	45.09	90	47.39	95	75-125	67-133	5	0-25	
Methyl-t-Butyl Ether (MTBE)	50.00	43.11	86	45.44	91	70-124	61-133	5	0-20	
Tert-Butyl Alcohol (TBA)	250.0	219.5	88	238.3	95	73-121	65-129	8	0-20	
Diisopropyl Ether (DIPE)	50.00	41.60	83	44.73	89	69-129	59-139	7	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	39.36	79	42.43	85	70-124	61-133	8	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	40.51	81	42.68	85	74-122	66-130	5	0-20	
Ethanol	500.0	388.8	78	409.3	82	51-135	37-149	5	0-27	

Total number of LCS compounds: 19
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B

Project: John Wayne Airport (JWA) / IR13164420

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-025-27927	**LCS**	**Solid**	**GC/MS QQ**	**08/29/16**	**08/29/16 12:21**	**160829L016**
095-01-025-27927	**LCSD**	**Solid**	**GC/MS QQ**	**08/29/16**	**08/29/16 12:50**	**160829L016**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	50.00	46.09	92	46.84	94	80-120	73-127	2	0-20	
Carbon Tetrachloride	50.00	50.95	102	50.99	102	65-137	53-149	0	0-20	
Chlorobenzene	50.00	46.30	93	46.66	93	80-120	73-127	1	0-20	
1,2-Dibromoethane	50.00	49.03	98	50.54	101	80-120	73-127	3	0-20	
1,2-Dichlorobenzene	50.00	46.78	94	46.37	93	80-120	73-127	1	0-20	
1,2-Dichloroethane	50.00	46.35	93	48.78	98	80-120	73-127	5	0-20	
1,1-Dichloroethene	50.00	39.60	79	39.84	80	68-128	58-138	1	0-20	
Ethylbenzene	50.00	49.89	100	50.70	101	80-120	73-127	2	0-20	
Toluene	50.00	47.97	96	49.25	99	80-120	73-127	3	0-20	
Trichloroethene	50.00	48.07	96	49.31	99	80-120	73-127	3	0-20	
Vinyl Chloride	50.00	48.39	97	53.28	107	67-127	57-137	10	0-20	
p/m-Xylene	100.0	104.6	105	105.0	105	75-125	67-133	0	0-25	
o-Xylene	50.00	53.94	108	55.06	110	75-125	67-133	2	0-25	
Methyl-t-Butyl Ether (MTBE)	50.00	44.93	90	47.93	96	70-124	61-133	6	0-20	
Tert-Butyl Alcohol (TBA)	250.0	208.2	83	222.5	89	73-121	65-129	7	0-20	
Diisopropyl Ether (DIPE)	50.00	45.72	91	47.22	94	69-129	59-139	3	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	46.66	93	49.33	99	70-124	61-133	6	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	47.95	96	50.71	101	74-122	66-130	6	0-20	
Ethanol	500.0	383.2	77	416.9	83	51-135	37-149	8	0-27	

Total number of LCS compounds: 19
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS/LCSD

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/25/16
Work Order: 16-08-1869
Preparation: EPA 5035
Method: EPA 8260B

Project: John Wayne Airport (JWA) / IR13164420

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-025-27932	**LCS**	**Solid**	**GC/MS QQ**	**08/30/16**	**08/30/16 09:40**	**160830L009**
095-01-025-27932	**LCSD**	**Solid**	**GC/MS QQ**	**08/30/16**	**08/30/16 10:09**	**160830L009**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	50.00	48.92	98	47.46	95	80-120	73-127	3	0-20	
Carbon Tetrachloride	50.00	55.29	111	51.95	104	65-137	53-149	6	0-20	
Chlorobenzene	50.00	49.46	99	47.38	95	80-120	73-127	4	0-20	
1,2-Dibromoethane	50.00	47.25	94	47.98	96	80-120	73-127	2	0-20	
1,2-Dichlorobenzene	50.00	47.39	95	46.45	93	80-120	73-127	2	0-20	
1,2-Dichloroethane	50.00	48.14	96	47.44	95	80-120	73-127	1	0-20	
1,1-Dichloroethene	50.00	41.95	84	40.87	82	68-128	58-138	3	0-20	
Ethylbenzene	50.00	53.67	107	51.41	103	80-120	73-127	4	0-20	
Toluene	50.00	51.72	103	49.60	99	80-120	73-127	4	0-20	
Trichloroethene	50.00	52.46	105	49.45	99	80-120	73-127	6	0-20	
Vinyl Chloride	50.00	54.83	110	55.35	111	67-127	57-137	1	0-20	
p/m-Xylene	100.0	110.4	110	106.8	107	75-125	67-133	3	0-25	
o-Xylene	50.00	56.96	114	55.68	111	75-125	67-133	2	0-25	
Methyl-t-Butyl Ether (MTBE)	50.00	45.23	90	46.58	93	70-124	61-133	3	0-20	
Tert-Butyl Alcohol (TBA)	250.0	234.5	94	225.8	90	73-121	65-129	4	0-20	
Diisopropyl Ether (DIPE)	50.00	47.34	95	47.57	95	69-129	59-139	0	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	48.19	96	48.87	98	70-124	61-133	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	49.50	99	49.24	98	74-122	66-130	1	0-20	
Ethanol	500.0	527.9	106	502.9	101	51-135	37-149	5	0-27	

Total number of LCS compounds: 19
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Sample Analysis Summary Report

Work Order: 16-08-1869 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3050B	935	ICP 7300	1
EPA 7471A	EPA 7471A Total	776	Mercury 04	1
EPA 8015B (M)	EPA 3550B	972	GC 46	1
EPA 8260B	EPA 5035	316	GC/MS W	2
EPA 8260B	EPA 5035	486	GC/MS QQ	2

Return to Contents

eurofins | Calscience

Glossary of Terms and Qualifiers

Work Order: 16-08-1869 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN-OF-CUSTODY RECORD

WO NO. / LAB USE ONLY: **16-08-1869**

DATE: 8/25/16
PAGE: 1 OF 2

LABORATORY CLIENT: Amec Foster Wheeler
ADDRESS: 121 Innovation Dr. Ste. 200
CITY: Irvine STATE: CA ZIP: 92617
TEL: (949)642-0245 E-MAIL: duane.paul@amecfw.com
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD
EDD:
☐ COELT EDF ☐ OTHER
SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NO.: John Wayne Airport (JWA) IR13164420
PROJECT CONTACT: Duane Paul
GLOBAL ID:
LOG CODE:
P.O. NO.:
LAB CONTACT OR QUOTE NO.: Stephen Nowak
SAMPLER(S): (PRINT) Rachel Mills

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH(g) ☐ GRO	TPH(d) ☐ DRO	TPH ☐ C6-C36 ☒ C6-C44	TPH ____	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☒ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6
1	GAIP-SB37-2	8/25/16	0715	S	4	X	X				X			X	X						X	
2	GAIP-SB40-2		0800			X	X				X			X	X						X	
3	GAIP-SB41-2		0835			X	X				X			X	X						X	
4	GAIP-SB42-2		0900			X	X				X			X	X						X	
5	GAIP-SB43-2		0930			X	X				X			X	X						X	
6	GAIP-SB44-2		0955			X	X				X			X	X						X	
7	GAIP-SB45-2		1025			X	X				X			X	X						X	
8	GAIP-SB46-2		1055			X	X				X			X	X						X	
9	GAIP-SB47-2		1125			X	X				X			X	X						X	
10	GAIP-SB48-2		1155			X	X				X			X	X						X	

Relinquished by: (Signature) Rachel Mills	Received by: (Signature/Affiliation)	Date: 8-25-16	Time: 1520
Relinquished by: (Signature)	Received by: (Signature/Affiliation) Danny G ECL	Date: 8-25-16	Time: 1630
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

2014-07-01 Revision

Return to Contents

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN-OF-CUSTODY RECORD

DATE: 8/25/16
PAGE: 2 OF 2

WO NO. / LAB USE ONLY: 16-08-1869

LABORATORY CLIENT: Amec Foster Wheeler
ADDRESS: 121 Innovation Dr. Ste. 200
CITY: Irvine STATE: CA ZIP: 92617
TEL: 949)6420245 E-MAIL: duane.paul@amecfw.com

CLIENT PROJECT NAME / NO.: SWA IR131644420
PROJECT CONTACT: Duane Paul
GLOBAL ID:
LOG CODE:
P.O. NO.:
LAB CONTACT OR QUOTE NO.: Stephen Nowak
SAMPLER(S): (PRINT) Rachel Mills

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

EDD:
☐ COELT EDF ☐ OTHER

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH(g) ☐ GRO	TPH(d) ☐ DRO	TPH ☐ C6-C36 ☒ C6-C44	TPH ____	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☒ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6
11	GAIP-SB49-2	8/25/16	1220	S	4	X	X				X			X	X						X	
12	GAIP-SB50-2	"	1315	"	"	X	X				X			X	X						X	
13	GAIP-SB51-2	"	1335	"	"	X	X				X			X	X						X	
14	GAIP-SB52-2	"	1400	"	"	X	X				X			X	X						X	
15	GAIP-SB53-2	"	1430	"	"	X	X				X			X	X						X	

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Rachel Mills		8/25/16	1520
	Danny Le ECL	8-25-16	1630
		Date:	Time:

2014-07-01 Revision

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 16-08- 1869

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: AMEC

DATE: 08 / 25 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 2.7 °C (w/ CF): 2.7 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 659

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 659

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1053

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☑ Sleeve (5) ☐ EnCores® (_____) ☑ TerraCores® (3) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1053

Reviewed by: 826

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 16-08-1952

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Amec Foster Wheeler Environment & Infrastructure,

Client Project Name: John Wayne Airport (JWA) / IR13164420

Attention: Duane Paul
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 09/08/2016 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

eurofins | Calscience

Contents

Client Project Name: John Wayne Airport (JWA) / IR13164420
Work Order Number: 16-08-1952

eurofins | Calscience

Work Order Narrative

Work Order: 16-08-1952 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 08/26/16. They were assigned to Work Order 16-08-1952.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Return to Contents

eurofins | Calscience

Sample Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1952
		Project Name:	John Wayne Airport (JWA) / IR13164420
		PO Number:	
		Date/Time Received:	08/26/16 13:05
		Number of Containers:	28
Attn:	Duane Paul		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
GAIP-SB18-2	16-08-1952-1	08/26/16 08:15	4	Solid
GAIP-SB20-2	16-08-1952-2	08/26/16 08:55	4	Solid
GAIP-SB32-3	16-08-1952-3	08/26/16 10:30	4	Solid
GAIP-SB54-2	16-08-1952-4	08/26/16 11:20	4	Solid
GAIP-IDWdecon	16-08-1952-5	08/26/16 11:35	7	Aqueous
GAIP-QCEB1	16-08-1952-6	08/26/16 11:45	5	Aqueous

Return to Contents

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1952
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/26/16
Attn:	Duane Paul		Page 1 of 3

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP-SB18-2 (16-08-1952-1)						
Arsenic	7.54		0.732	mg/kg	EPA 6010B	EPA 3050B
Barium	70.9		0.488	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.493		0.488	mg/kg	EPA 6010B	EPA 3050B
Chromium	12.2		0.244	mg/kg	EPA 6010B	EPA 3050B
Cobalt	4.77		0.244	mg/kg	EPA 6010B	EPA 3050B
Copper	12.1		0.488	mg/kg	EPA 6010B	EPA 3050B
Lead	7.26		0.488	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.16		0.244	mg/kg	EPA 6010B	EPA 3050B
Nickel	10.5		0.244	mg/kg	EPA 6010B	EPA 3050B
Vanadium	21.8		0.244	mg/kg	EPA 6010B	EPA 3050B
Zinc	47.1		0.976	mg/kg	EPA 6010B	EPA 3050B
C29-C32	240		120	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	290		120	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	270		120	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	970		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
Acetone	65		50	ug/kg	EPA 8260B	EPA 5035
GAIP-SB20-2 (16-08-1952-2)						
Arsenic	6.37		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	62.6		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	8.35		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	3.55		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	10.2		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	5.55		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.553		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	6.34		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	17.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	35.4		1.00	mg/kg	EPA 6010B	EPA 3050B
C29-C32	200		120	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	310		120	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	220		120	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	830		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
Acetone	83		50	ug/kg	EPA 8260B	EPA 5035
Toluene	1.1		1.0	ug/kg	EPA 8260B	EPA 5035

Return to Contents

* MDL is shown

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1952
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/26/16
Attn:	Duane Paul		Page 2 of 3

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP-SB32-3 (16-08-1952-3)						
Arsenic	1.38		0.721	mg/kg	EPA 6010B	EPA 3050B
Barium	65.1		0.481	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.428		0.240	mg/kg	EPA 6010B	EPA 3050B
Chromium	11.9		0.240	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.90		0.240	mg/kg	EPA 6010B	EPA 3050B
Copper	7.78		0.481	mg/kg	EPA 6010B	EPA 3050B
Lead	4.72		0.481	mg/kg	EPA 6010B	EPA 3050B
Nickel	8.97		0.240	mg/kg	EPA 6010B	EPA 3050B
Vanadium	29.2		0.240	mg/kg	EPA 6010B	EPA 3050B
Zinc	35.2		0.962	mg/kg	EPA 6010B	EPA 3050B
C33-C36	7.9		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	7.5		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	22		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
GAIP-SB54-2 (16-08-1952-4)						
Arsenic	2.99		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	58.7		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	5.56		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	3.59		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	7.38		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	4.42		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.327		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	5.56		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	13.7		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	27.9		1.00	mg/kg	EPA 6010B	EPA 3050B
C37-C40	6.3		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	8.2		5.0	mg/kg	EPA 8015B (M)	EPA 3550B

Return to Contents

* MDL is shown

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1952
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/26/16
Attn:	Duane Paul		Page 3 of 3

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP-IDWdecon (16-08-1952-5)						
Barium	1.86		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Beryllium	0.0127		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Chromium	0.349		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cobalt	0.217		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	0.510		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Lead	0.134		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Nickel	0.252		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.592		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	1.16		0.0100	mg/L	EPA 6010B	EPA 3010A Total
C21-C22	170		100	ug/L	EPA 8015B (M)	EPA 3510C
C23-C24	110		100	ug/L	EPA 8015B (M)	EPA 3510C
C6-C44 Total	520		100	ug/L	EPA 8015B (M)	EPA 3510C

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

* MDL is shown

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/26/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1952
Irvine, CA 92617-3094	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
	Units:	mg/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 1 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB18-2	**16-08-1952-1-A**	**08/26/16 08:15**	**Solid**	**GC 46**	**08/27/16**	**08/29/16 18:17**	**160827B01**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	120	25.0	
C7	ND	120	25.0	
C8	ND	120	25.0	
C9-C10	ND	120	25.0	
C11-C12	ND	120	25.0	
C13-C14	ND	120	25.0	
C15-C16	ND	120	25.0	
C17-C18	ND	120	25.0	
C19-C20	ND	120	25.0	
C21-C22	ND	120	25.0	
C23-C24	ND	120	25.0	
C25-C28	ND	120	25.0	
C29-C32	240	120	25.0	
C33-C36	290	120	25.0	
C37-C40	270	120	25.0	
C41-C44	ND	120	25.0	
C6-C44 Total	970	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	80	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB20-2	**16-08-1952-2-A**	**08/26/16 08:55**	**Solid**	**GC 46**	**08/27/16**	**08/29/16 18:34**	**160827B01**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	120	25.0	
C7	ND	120	25.0	
C8	ND	120	25.0	
C9-C10	ND	120	25.0	
C11-C12	ND	120	25.0	
C13-C14	ND	120	25.0	
C15-C16	ND	120	25.0	
C17-C18	ND	120	25.0	
C19-C20	ND	120	25.0	
C21-C22	ND	120	25.0	
C23-C24	ND	120	25.0	
C25-C28	ND	120	25.0	
C29-C32	200	120	25.0	
C33-C36	310	120	25.0	
C37-C40	220	120	25.0	
C41-C44	ND	120	25.0	
C6-C44 Total	830	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	76	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB32-3	**16-08-1952-3-A**	**08/26/16 10:30**	**Solid**	**GC 46**	**08/27/16**	**08/29/16 18:51**	**160827B01**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	7.9	5.0	1.00	
C37-C40	7.5	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	22	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	76	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB54-2	**16-08-1952-4-A**	**08/26/16 11:20**	**Solid**	**GC 46**	**08/27/16**	**08/29/16 19:08**	**160827B01**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	6.3	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	8.2	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	61	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-490-2243**	**N/A**	**Solid**	**GC 46**	**08/27/16**	**08/29/16 17:07**	**160827B01**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	81	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: ug/L

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-IDWdecon	**16-08-1952-5-G**	**08/26/16 11:35**	**Aqueous**	**GC 48**	**08/30/16**	**08/30/16 15:27**	**160830B01A**

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	100	1.00	
C7	ND	100	1.00	
C8	ND	100	1.00	
C9-C10	ND	100	1.00	
C11-C12	ND	100	1.00	
C13-C14	ND	100	1.00	
C15-C16	ND	100	1.00	
C17-C18	ND	100	1.00	
C19-C20	ND	100	1.00	
C21-C22	170	100	1.00	
C23-C24	110	100	1.00	
C25-C28	ND	100	1.00	
C29-C32	ND	100	1.00	
C33-C36	ND	100	1.00	
C37-C40	ND	100	1.00	
C41-C44	ND	100	1.00	
C6-C44 Total	520	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	82	68-140	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: ug/L

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-498-398**	**N/A**	**Aqueous**	**GC 48**	**08/30/16**	**08/30/16 13:53**	**160830B01A**

Parameter	Result	RL	DF	Qualifiers
C6	ND	100	1.00	
C7	ND	100	1.00	
C8	ND	100	1.00	
C9-C10	ND	100	1.00	
C11-C12	ND	100	1.00	
C13-C14	ND	100	1.00	
C15-C16	ND	100	1.00	
C17-C18	ND	100	1.00	
C19-C20	ND	100	1.00	
C21-C22	ND	100	1.00	
C23-C24	ND	100	1.00	
C25-C28	ND	100	1.00	
C29-C32	ND	100	1.00	
C33-C36	ND	100	1.00	
C37-C40	ND	100	1.00	
C41-C44	ND	100	1.00	
C6-C44 Total	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	80	68-140	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB18-2	**16-08-1952-1-A**	**08/26/16 08:15**	**Solid**	**ICP 7300**	**09/01/16**	**09/02/16 14:43**	**160901L06**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.732	0.976	
Arsenic	7.54	0.732	0.976	
Barium	70.9	0.488	0.976	
Beryllium	ND	0.244	0.976	
Cadmium	0.493	0.488	0.976	
Chromium	12.2	0.244	0.976	
Cobalt	4.77	0.244	0.976	
Copper	12.1	0.488	0.976	
Lead	7.26	0.488	0.976	
Molybdenum	1.16	0.244	0.976	
Nickel	10.5	0.244	0.976	
Selenium	ND	0.732	0.976	
Silver	ND	0.244	0.976	
Thallium	ND	0.732	0.976	
Vanadium	21.8	0.244	0.976	
Zinc	47.1	0.976	0.976	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB20-2	**16-08-1952-2-A**	**08/26/16 08:55**	**Solid**	**ICP 7300**	**09/01/16**	**09/02/16 14:44**	**160901L06**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	6.37	0.750	1.00	
Barium	62.6	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	8.35	0.250	1.00	
Cobalt	3.55	0.250	1.00	
Copper	10.2	0.500	1.00	
Lead	5.55	0.500	1.00	
Molybdenum	0.553	0.250	1.00	
Nickel	6.34	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	17.6	0.250	1.00	
Zinc	35.4	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 3 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB32-3	**16-08-1952-3-A**	**08/26/16 10:30**	**Solid**	**ICP 7300**	**09/01/16**	**09/02/16 14:48**	**160901L06**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.721	0.962	
Arsenic	1.38	0.721	0.962	
Barium	65.1	0.481	0.962	
Beryllium	0.428	0.240	0.962	
Cadmium	ND	0.481	0.962	
Chromium	11.9	0.240	0.962	
Cobalt	7.90	0.240	0.962	
Copper	7.78	0.481	0.962	
Lead	4.72	0.481	0.962	
Molybdenum	ND	0.240	0.962	
Nickel	8.97	0.240	0.962	
Selenium	ND	0.721	0.962	
Silver	ND	0.240	0.962	
Thallium	ND	0.721	0.962	
Vanadium	29.2	0.240	0.962	
Zinc	35.2	0.962	0.962	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB54-2	**16-08-1952-4-A**	**08/26/16 11:20**	**Solid**	**ICP 7300**	**09/01/16**	**09/02/16 14:49**	**160901L06**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	2.99	0.750	1.00	
Barium	58.7	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	5.56	0.250	1.00	
Cobalt	3.59	0.250	1.00	
Copper	7.38	0.500	1.00	
Lead	4.42	0.500	1.00	
Molybdenum	0.327	0.250	1.00	
Nickel	5.56	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	13.7	0.250	1.00	
Zinc	27.9	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-23181**	**N/A**	**Solid**	**ICP 7300**	**09/01/16**	**09/02/16 12:10**	**160901L06**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	ND	0.750	1.00	
Barium	ND	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	ND	0.250	1.00	
Cobalt	ND	0.250	1.00	
Copper	ND	0.500	1.00	
Lead	ND	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	ND	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	ND	0.250	1.00	
Zinc	ND	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-IDWdecon	**16-08-1952-5-F**	**08/26/16 11:35**	**Aqueous**	**ICP 7300**	**09/01/16**	**09/02/16 10:42**	**160831LA4**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	ND	0.0100	1.00	
Barium	1.86	0.0100	1.00	
Beryllium	0.0127	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	0.349	0.0100	1.00	
Cobalt	0.217	0.0100	1.00	
Copper	0.510	0.0100	1.00	
Lead	0.134	0.0100	1.00	
Molybdenum	ND	0.0100	1.00	
Nickel	0.252	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.592	0.0100	1.00	
Zinc	1.16	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-003-16002**	**N/A**	**Aqueous**	**ICP 7300**	**08/31/16**	**09/01/16 10:43**	**160831LA4**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	ND	0.0100	1.00	
Barium	ND	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	ND	0.0100	1.00	
Cobalt	ND	0.0100	1.00	
Copper	ND	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	ND	0.0100	1.00	
Nickel	ND	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	ND	0.0100	1.00	
Zinc	ND	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 7470A Total
Method: EPA 7470A
Units: mg/L

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-IDWdecon	**16-08-1952-5-F**	**08/26/16 11:35**	**Aqueous**	**Mercury 04**	**09/01/16**	**09/02/16 12:44**	**160901LA2**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-04-008-7964**	**N/A**	**Aqueous**	**Mercury 05**	**09/01/16**	**09/01/16 17:32**	**160901LA2**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Project: John Wayne Airport (JWA) / IR13164420

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB18-2	**16-08-1952-1-A**	**08/26/16 08:15**	**Solid**	**Mercury 05**	**09/01/16**	**09/02/16 12:54**	**160901L03**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0847	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB20-2	**16-08-1952-2-A**	**08/26/16 08:55**	**Solid**	**Mercury 05**	**09/01/16**	**09/02/16 12:57**	**160901L03**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0833	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB32-3	**16-08-1952-3-A**	**08/26/16 10:30**	**Solid**	**Mercury 05**	**09/01/16**	**09/02/16 12:59**	**160901L03**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0833	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB54-2	**16-08-1952-4-A**	**08/26/16 11:20**	**Solid**	**Mercury 05**	**09/01/16**	**09/02/16 13:01**	**160901L03**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0862	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-16-272-2486**	**N/A**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:10**	**160901L03**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0862	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-IDWdecon	**16-08-1952-5-B**	**08/26/16 11:35**	**Aqueous**	**GC/MS V V**	**08/30/16**	**08/30/16 16:09**	**160830L010**

Comment(s): - The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	100	5.00	
Benzene	ND	2.5	5.00	
Bromobenzene	ND	5.0	5.00	
Bromochloromethane	ND	5.0	5.00	
Bromodichloromethane	ND	5.0	5.00	
Bromoform	ND	5.0	5.00	
Bromomethane	ND	50	5.00	
2-Butanone	ND	50	5.00	
n-Butylbenzene	ND	5.0	5.00	
sec-Butylbenzene	ND	5.0	5.00	
tert-Butylbenzene	ND	5.0	5.00	
Carbon Disulfide	ND	50	5.00	
Carbon Tetrachloride	ND	2.5	5.00	
Chlorobenzene	ND	5.0	5.00	
Chloroethane	ND	25	5.00	
Chloroform	ND	5.0	5.00	
Chloromethane	ND	50	5.00	
2-Chlorotoluene	ND	5.0	5.00	
4-Chlorotoluene	ND	5.0	5.00	
Dibromochloromethane	ND	5.0	5.00	
1,2-Dibromo-3-Chloropropane	ND	25	5.00	
1,2-Dibromoethane	ND	5.0	5.00	
Dibromomethane	ND	5.0	5.00	
1,2-Dichlorobenzene	ND	5.0	5.00	
1,3-Dichlorobenzene	ND	5.0	5.00	
1,4-Dichlorobenzene	ND	5.0	5.00	
Dichlorodifluoromethane	ND	5.0	5.00	
1,1-Dichloroethane	ND	5.0	5.00	
1,2-Dichloroethane	ND	2.5	5.00	
1,1-Dichloroethene	ND	5.0	5.00	
c-1,2-Dichloroethene	ND	5.0	5.00	
t-1,2-Dichloroethene	ND	5.0	5.00	
1,2-Dichloropropane	ND	5.0	5.00	
1,3-Dichloropropane	ND	5.0	5.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received:	08/26/16
Work Order:	16-08-1952
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
2,2-Dichloropropane	ND	5.0	5.00	
1,1-Dichloropropene	ND	5.0	5.00	
c-1,3-Dichloropropene	ND	2.5	5.00	
t-1,3-Dichloropropene	ND	2.5	5.00	
Ethylbenzene	ND	5.0	5.00	
2-Hexanone	ND	50	5.00	
Isopropylbenzene	ND	5.0	5.00	
p-Isopropyltoluene	ND	5.0	5.00	
Methylene Chloride	ND	50	5.00	
4-Methyl-2-Pentanone	ND	50	5.00	
Naphthalene	ND	50	5.00	
n-Propylbenzene	ND	5.0	5.00	
Styrene	ND	5.0	5.00	
1,1,1,2-Tetrachloroethane	ND	5.0	5.00	
1,1,2,2-Tetrachloroethane	ND	5.0	5.00	
Tetrachloroethene	ND	5.0	5.00	
Toluene	ND	5.0	5.00	
1,2,3-Trichlorobenzene	ND	5.0	5.00	
1,2,4-Trichlorobenzene	ND	5.0	5.00	
1,1,1-Trichloroethane	ND	5.0	5.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	5.00	
1,1,2-Trichloroethane	ND	5.0	5.00	
Trichloroethene	ND	5.0	5.00	
Trichlorofluoromethane	ND	50	5.00	
1,2,3-Trichloropropane	ND	25	5.00	
1,2,4-Trimethylbenzene	ND	5.0	5.00	
1,3,5-Trimethylbenzene	ND	5.0	5.00	
Vinyl Acetate	ND	50	5.00	
Vinyl Chloride	ND	2.5	5.00	
p/m-Xylene	ND	5.0	5.00	
o-Xylene	ND	5.0	5.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	5.00	
Tert-Butyl Alcohol (TBA)	ND	50	5.00	
Diisopropyl Ether (DIPE)	ND	10	5.00	
Ethyl-t-Butyl Ether (ETBE)	ND	10	5.00	
Tert-Amyl-Methyl Ether (TAME)	ND	10	5.00	
Ethanol	ND	500	5.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/26/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1952
Irvine, CA 92617-3094	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: John Wayne Airport (JWA) / IR13164420		Page 3 of 12

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	91	80-120	
Dibromofluoromethane	108	78-126	
1,2-Dichloroethane-d4	104	75-135	
Toluene-d8	97	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-QCEB1	**16-08-1952-6-A**	**08/26/16 11:45**	**Aqueous**	**GC/MS Z**	**08/27/16**	**08/28/16 03:51**	**160827L020**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	1.00	
Diisopropyl Ether (DIPE)	ND	2.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1.00	
Ethanol	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/26/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1952
Irvine, CA 92617-3094	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: John Wayne Airport (JWA) / IR13164420		Page 6 of 12

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	102	78-126	
1,2-Dichloroethane-d4	100	75-135	
Toluene-d8	98	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-001-21240**	**N/A**	**Aqueous**	**GC/MS Z**	**08/27/16**	**08/28/16 03:23**	**160827L020**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	1.00	
Diisopropyl Ether (DIPE)	ND	2.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1.00	
Ethanol	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/26/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1952
Irvine, CA 92617-3094	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: John Wayne Airport (JWA) / IR13164420		Page 9 of 12

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	105	78-126	
1,2-Dichloroethane-d4	98	75-135	
Toluene-d8	98	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-001-21236**	**N/A**	**Aqueous**	**GC/MS V V**	**08/30/16**	**08/30/16 12:23**	**160830L010**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	1.00	
Diisopropyl Ether (DIPE)	ND	2.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1.00	
Ethanol	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	93	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/26/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1952
Irvine, CA 92617-3094	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: John Wayne Airport (JWA) / IR13164420		Page 12 of 12

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	100	78-126	
1,2-Dichloroethane-d4	100	75-135	
Toluene-d8	98	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB18-2	**16-08-1952-1-C**	**08/26/16 08:15**	**Solid**	**GC/MS QQ**	**08/26/16**	**08/29/16 14:58**	**160829L016**

Parameter	Result	RL	DF	Qualifiers
Acetone	65	50	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	20	1.00	
2-Butanone	ND	20	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	2.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received:	08/26/16
Work Order:	16-08-1952
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.0	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	20	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	20	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	20	1.00	
Diisopropyl Ether (DIPE)	ND	1.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	1.00	
Ethanol	ND	500	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/26/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1952
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 3 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	112	79-133	
1,2-Dichloroethane-d4	119	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB20-2	**16-08-1952-2-C**	**08/26/16 08:55**	**Solid**	**GC/MS QQ**	**08/26/16**	**08/29/16 15:27**	**160829L016**

Parameter	Result	RL	DF	Qualifiers
Acetone	83	50	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	20	1.00	
2-Butanone	ND	20	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	2.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received:	08/26/16
Work Order:	16-08-1952
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.0	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	20	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	20	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	1.1	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	20	1.00	
Diisopropyl Ether (DIPE)	ND	1.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	1.00	
Ethanol	ND	500	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	91	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/26/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1952
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 6 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	110	79-133	
1,2-Dichloroethane-d4	119	71-155	
Toluene-d8	97	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB32-3	**16-08-1952-3-C**	**08/26/16 10:30**	**Solid**	**GC/MS QQ**	**08/26/16**	**08/29/16 15:56**	**160829L016**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	39	1.00	
Benzene	ND	0.78	1.00	
Bromobenzene	ND	0.78	1.00	
Bromochloromethane	ND	1.6	1.00	
Bromodichloromethane	ND	0.78	1.00	
Bromoform	ND	3.9	1.00	
Bromomethane	ND	16	1.00	
2-Butanone	ND	16	1.00	
n-Butylbenzene	ND	0.78	1.00	
sec-Butylbenzene	ND	0.78	1.00	
tert-Butylbenzene	ND	0.78	1.00	
Carbon Disulfide	ND	7.8	1.00	
Carbon Tetrachloride	ND	0.78	1.00	
Chlorobenzene	ND	0.78	1.00	
Chloroethane	ND	1.6	1.00	
Chloroform	ND	0.78	1.00	
Chloromethane	ND	16	1.00	
2-Chlorotoluene	ND	0.78	1.00	
4-Chlorotoluene	ND	0.78	1.00	
Dibromochloromethane	ND	1.6	1.00	
1,2-Dibromo-3-Chloropropane	ND	3.9	1.00	
1,2-Dibromoethane	ND	0.78	1.00	
Dibromomethane	ND	0.78	1.00	
1,2-Dichlorobenzene	ND	0.78	1.00	
1,3-Dichlorobenzene	ND	0.78	1.00	
1,4-Dichlorobenzene	ND	0.78	1.00	
Dichlorodifluoromethane	ND	1.6	1.00	
1,1-Dichloroethane	ND	0.78	1.00	
1,2-Dichloroethane	ND	0.78	1.00	
1,1-Dichloroethene	ND	0.78	1.00	
c-1,2-Dichloroethene	ND	0.78	1.00	
t-1,2-Dichloroethene	ND	0.78	1.00	
1,2-Dichloropropane	ND	0.78	1.00	
1,3-Dichloropropane	ND	0.78	1.00	
2,2-Dichloropropane	ND	3.9	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.6	1.00	
c-1,3-Dichloropropene	ND	0.78	1.00	
t-1,3-Dichloropropene	ND	1.6	1.00	
Ethylbenzene	ND	0.78	1.00	
2-Hexanone	ND	16	1.00	
Isopropylbenzene	ND	0.78	1.00	
p-Isopropyltoluene	ND	0.78	1.00	
Methylene Chloride	ND	7.8	1.00	
4-Methyl-2-Pentanone	ND	16	1.00	
Naphthalene	ND	7.8	1.00	
n-Propylbenzene	ND	1.6	1.00	
Styrene	ND	0.78	1.00	
1,1,1,2-Tetrachloroethane	ND	0.78	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	1.00	
Tetrachloroethene	ND	0.78	1.00	
Toluene	ND	0.78	1.00	
1,2,3-Trichlorobenzene	ND	1.6	1.00	
1,2,4-Trichlorobenzene	ND	1.6	1.00	
1,1,1-Trichloroethane	ND	0.78	1.00	
1,1,2-Trichloroethane	ND	0.78	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.8	1.00	
Trichloroethene	ND	1.6	1.00	
Trichlorofluoromethane	ND	7.8	1.00	
1,2,3-Trichloropropane	ND	1.6	1.00	
1,2,4-Trimethylbenzene	ND	1.6	1.00	
1,3,5-Trimethylbenzene	ND	1.6	1.00	
Vinyl Acetate	ND	7.8	1.00	
Vinyl Chloride	ND	0.78	1.00	
p/m-Xylene	ND	1.6	1.00	
o-Xylene	ND	0.78	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	1.00	
Tert-Butyl Alcohol (TBA)	ND	16	1.00	
Diisopropyl Ether (DIPE)	ND	0.78	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.78	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.78	1.00	
Ethanol	ND	390	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/26/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1952
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 9 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	106	79-133	
1,2-Dichloroethane-d4	112	71-155	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB54-2	**16-08-1952-4-C**	**08/26/16 11:20**	**Solid**	**GC/MS QQ**	**08/26/16**	**08/29/16 16:25**	**160829L016**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	51	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.1	1.00	
Bromomethane	ND	20	1.00	
2-Butanone	ND	20	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.1	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	2.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	5.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received:	08/26/16
Work Order:	16-08-1952
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.0	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	20	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	20	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	20	1.00	
Diisopropyl Ether (DIPE)	ND	1.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	1.00	
Ethanol	ND	510	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	92	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/26/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1952
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 12 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	106	79-133	
1,2-Dichloroethane-d4	116	71-155	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**095-01-025-27927**	**N/A**	**Solid**	**GC/MS QQ**	**08/29/16**	**08/29/16 14:00**	**160829L016**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	50	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	20	1.00	
2-Butanone	ND	20	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	2.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.0	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	20	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	20	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	20	1.00	
Diisopropyl Ether (DIPE)	ND	1.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	1.00	
Ethanol	ND	500	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/26/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1952
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 15 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	106	79-133	
1,2-Dichloroethane-d4	111	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/26/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1952
Irvine, CA 92617-3094	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
Project: John Wayne Airport (JWA) / IR13164420		Page 1 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
GAIP-SB54-2	**Sample**	**Solid**	**GC 46**	**08/27/16**	**08/29/16 19:08**	**160827S01**
GAIP-SB54-2	**Matrix Spike**	**Solid**	**GC 46**	**08/27/16**	**08/29/16 17:42**	**160827S01**
GAIP-SB54-2	**Matrix Spike Duplicate**	**Solid**	**GC 46**	**08/27/16**	**08/29/16 17:59**	**160827S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	9.375	400.0	370.0	90	398.7	97	64-130	7	0-15	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 3050B
Method: EPA 6010B

Project: John Wayne Airport (JWA) / IR13164420

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-08-1642-33	**Sample**	**Filter**	**ICP 7300**	**09/01/16**	**09/02/16 13:36**	**160901S06**
16-08-1642-33	**Matrix Spike**	**Filter**	**ICP 7300**	**09/01/16**	**09/02/16 13:18**	**160901S06**
16-08-1642-33	**Matrix Spike Duplicate**	**Filter**	**ICP 7300**	**09/01/16**	**09/02/16 13:19**	**160901S06**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	60.00	59.96	100	59.86	100	50-115	0	0-20	
Arsenic	ND	60.00	59.81	100	61.45	102	75-125	3	0-20	
Barium	5.199	60.00	78.06	121	81.28	127	75-125	4	0-20	3
Beryllium	ND	60.00	61.47	102	61.73	103	75-125	0	0-20	
Cadmium	ND	60.00	62.38	104	61.61	103	75-125	1	0-20	
Chromium	0.9733	60.00	64.90	107	64.01	105	75-125	1	0-20	
Cobalt	ND	60.00	65.90	110	65.10	108	75-125	1	0-20	
Copper	64.77	60.00	121.7	95	124.2	99	75-125	2	0-20	
Lead	ND	60.00	64.71	108	65.16	109	75-125	1	0-20	
Molybdenum	ND	60.00	62.25	104	63.01	105	75-125	1	0-20	
Nickel	ND	60.00	66.35	111	65.19	109	75-125	2	0-20	
Selenium	ND	60.00	58.96	98	59.15	99	75-125	0	0-20	
Silver	ND	30.00	31.61	105	31.14	104	75-125	1	0-20	
Thallium	ND	60.00	49.86	83	50.10	83	75-125	0	0-20	
Vanadium	ND	60.00	61.66	103	60.34	101	75-125	2	0-20	
Zinc	13.93	60.00	79.38	109	83.92	117	75-125	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 3010A Total
Method: EPA 6010B

Project: John Wayne Airport (JWA) / IR13164420

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-08-2164-2	**Sample**	**Aqueous**	**ICP 7300**	**08/31/16**	**09/01/16 10:49**	**160831SA4**
16-08-2164-2	**Matrix Spike**	**Aqueous**	**ICP 7300**	**08/31/16**	**09/01/16 10:50**	**160831SA4**
16-08-2164-2	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**08/31/16**	**09/01/16 10:52**	**160831SA4**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.5000	0.4807	96	0.4843	97	72-132	1	0-10	
Arsenic	ND	0.5000	0.5160	103	0.4960	99	80-140	4	0-11	
Barium	0.03857	0.5000	0.5600	104	0.5853	109	87-123	4	0-6	
Beryllium	ND	0.5000	0.5019	100	0.4987	100	89-119	1	0-8	
Cadmium	ND	0.5000	0.5151	103	0.4886	98	82-124	5	0-7	
Chromium	0.03874	0.5000	0.5409	100	0.5130	95	86-122	5	0-8	
Cobalt	ND	0.5000	0.5276	106	0.5004	100	83-125	5	0-7	
Copper	ND	0.5000	0.5115	102	0.4887	98	78-126	5	0-7	
Lead	ND	0.5000	0.5031	101	0.4823	96	84-120	4	0-7	
Molybdenum	0.01786	0.5000	0.5115	99	0.4931	95	78-126	4	0-7	
Nickel	ND	0.5000	0.5290	106	0.5035	101	84-120	5	0-7	
Selenium	ND	0.5000	0.5096	102	0.4847	97	79-127	5	0-9	
Silver	ND	0.2500	0.2623	105	0.2752	110	86-128	5	0-7	
Thallium	ND	0.5000	0.5105	102	0.4948	99	79-121	3	0-8	
Vanadium	0.01764	0.5000	0.5247	101	0.4977	96	88-118	5	0-7	
Zinc	0.03783	0.5000	0.5431	101	0.5123	95	89-131	6	0-8	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Project: John Wayne Airport (JWA) / IR13164420

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 7470A Total
Method: EPA 7470A
Page 4 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-08-2238-1	**Sample**	**Aqueous**	**Mercury 05**	**09/01/16**	**09/01/16 17:58**	**160901SA2**
16-08-2238-1	**Matrix Spike**	**Aqueous**	**Mercury 05**	**09/01/16**	**09/01/16 17:54**	**160901SA2**
16-08-2238-1	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 05**	**09/01/16**	**09/01/16 17:56**	**160901SA2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.01046	105	0.01104	110	55-133	5	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Project: John Wayne Airport (JWA) / IR13164420

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 7471A Total
Method: EPA 7471A
Page 5 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-08-1869-5	**Sample**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:28**	**160901S03**
16-08-1869-5	**Matrix Spike**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:15**	**160901S03**
16-08-1869-5	**Matrix Spike Duplicate**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:17**	**160901S03**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.6636	79	0.6887	82	71-137	4	0-14	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 5030C
Method: EPA 8260B

Project: John Wayne Airport (JWA) / IR13164420

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-08-1948-2	**Sample**	**Aqueous**	**GC/MS V V**	**08/30/16**	**08/30/16 12:51**	**160830S006**
16-08-1948-2	**Matrix Spike**	**Aqueous**	**GC/MS V V**	**08/30/16**	**08/30/16 13:48**	**160830S006**
16-08-1948-2	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS V V**	**08/30/16**	**08/30/16 14:16**	**160830S006**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	50.00	52.06	104	51.67	103	74-122	1	0-21	
Carbon Tetrachloride	ND	50.00	53.37	107	53.22	106	60-144	0	0-21	
Chlorobenzene	ND	50.00	51.47	103	51.57	103	73-120	0	0-22	
1,2-Dibromoethane	ND	50.00	51.67	103	51.71	103	80-122	0	0-20	
1,2-Dichlorobenzene	ND	50.00	53.20	106	54.14	108	70-120	2	0-26	
1,2-Dichloroethane	ND	50.00	49.78	100	48.76	98	64-142	2	0-20	
1,1-Dichloroethene	ND	50.00	57.15	114	59.15	118	52-136	3	0-21	
Ethylbenzene	ND	50.00	57.21	114	56.54	113	77-125	1	0-24	
Toluene	ND	50.00	54.39	109	53.20	106	72-126	2	0-23	
Trichloroethene	ND	50.00	50.26	101	49.04	98	74-128	2	0-22	
Vinyl Chloride	ND	50.00	49.57	99	48.46	97	67-133	2	0-20	
p/m-Xylene	ND	100.0	125.1	125	123.1	123	63-129	2	0-25	
o-Xylene	ND	50.00	60.03	120	59.83	120	62-128	0	0-24	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	50.88	102	52.40	105	68-134	3	0-21	
Tert-Butyl Alcohol (TBA)	ND	250.0	277.6	111	293.2	117	65-143	5	0-30	
Diisopropyl Ether (DIPE)	ND	50.00	49.41	99	50.15	100	61-139	1	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	50.00	51.35	103	52.76	106	64-136	3	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	50.00	54.51	109	54.65	109	67-133	0	0-20	
Ethanol	ND	500.0	472.0	94	472.1	94	34-178	0	0-58	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - PDS/PDSD

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 3050B
Method: EPA 6010B

Project: John Wayne Airport (JWA) / IR13164420

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
16-08-1642-33	**Sample**	**Filter**	**ICP 7300**	**09/01/16 00:00**	**09/02/16 13:36**	**160901S06**
16-08-1642-33	**PDS**	**Filter**	**ICP 7300**	**09/01/16 00:00**	**09/06/16 17:16**	**160901S06**
16-08-1642-33	**PDSD**	**Filter**	**ICP 7300**	**09/01/16 00:00**	**09/06/16 17:17**	**160901S06**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	PDSD Conc.	PDSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	60.00	58.37	97	56.37	94	75-125	3	0-20	
Arsenic	ND	60.00	60.11	100	59.98	100	75-125	0	0-20	
Barium	5.199	60.00	67.54	104	67.85	104	75-125	0	0-20	
Beryllium	ND	60.00	59.54	99	59.36	99	75-125	0	0-20	
Cadmium	ND	60.00	60.21	100	60.60	101	75-125	1	0-20	
Chromium	0.9733	60.00	62.19	102	62.71	103	75-125	1	0-20	
Cobalt	ND	60.00	62.72	105	63.11	105	75-125	1	0-20	
Copper	64.77	60.00	125.6	101	125.6	101	75-125	0	0-20	
Lead	ND	60.00	64.25	107	63.39	106	75-125	1	0-20	
Molybdenum	ND	60.00	61.96	103	60.60	101	75-125	2	0-20	
Nickel	ND	60.00	64.75	108	66.09	110	75-125	2	0-20	
Selenium	ND	60.00	58.98	98	57.77	96	75-125	2	0-20	
Silver	ND	30.00	28.78	96	29.08	97	75-125	1	0-20	
Thallium	ND	60.00	64.74	108	64.60	108	75-125	0	0-20	
Vanadium	ND	60.00	58.52	98	59.09	98	75-125	1	0-20	
Zinc	13.93	60.00	72.78	98	72.84	98	75-125	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/26/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1952
Irvine, CA 92617-3094	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
Project: John Wayne Airport (JWA) / IR13164420		Page 1 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-490-2243	**LCS**	**Solid**	**GC 46**	**08/27/16**	**08/29/16 17:24**	**160827B01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Diesel	400.0	386.5	97	75-123	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Project: John Wayne Airport (JWA) / IR13164420

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 3510C
Method: EPA 8015B (M)

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-498-398	**LCS**	**Aqueous**	**GC 48**	**08/30/16**	**08/30/16 14:25**	**160830B01A**
099-15-498-398	**LCSD**	**Aqueous**	**GC 48**	**08/30/16**	**08/30/16 14:40**	**160830B01A**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	4000	4335	108	4354	109	75-117	0	0-13	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/26/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1952
Irvine, CA 92617-3094	Preparation:	EPA 3050B
	Method:	EPA 6010B
Project: John Wayne Airport (JWA) / IR13164420		Page 3 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-23181	**LCS**	**Solid**	**ICP 7300**	**09/01/16**	**09/02/16 12:11**	**160901L06**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	25.37	101	80-120	73-127	
Arsenic	25.00	25.29	101	80-120	73-127	
Barium	25.00	27.67	111	80-120	73-127	
Beryllium	25.00	24.33	97	80-120	73-127	
Cadmium	25.00	26.00	104	80-120	73-127	
Chromium	25.00	26.33	105	80-120	73-127	
Cobalt	25.00	27.35	109	80-120	73-127	
Copper	25.00	26.48	106	80-120	73-127	
Lead	25.00	26.83	107	80-120	73-127	
Molybdenum	25.00	25.74	103	80-120	73-127	
Nickel	25.00	27.28	109	80-120	73-127	
Selenium	25.00	24.43	98	80-120	73-127	
Silver	12.50	13.03	104	80-120	73-127	
Thallium	25.00	26.74	107	80-120	73-127	
Vanadium	25.00	25.25	101	80-120	73-127	
Zinc	25.00	26.55	106	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/26/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1952
Irvine, CA 92617-3094	Preparation:	EPA 3010A Total
	Method:	EPA 6010B
Project: John Wayne Airport (JWA) / IR13164420		Page 4 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-003-16002	**LCS**	**Aqueous**	**ICP 7300**	**08/31/16**	**09/01/16 10:44**	**160831LA4**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.5000	0.4929	99	80-120	73-127	
Arsenic	0.5000	0.4925	98	80-120	73-127	
Barium	0.5000	0.4787	96	80-120	73-127	
Beryllium	0.5000	0.5003	100	80-120	73-127	
Cadmium	0.5000	0.5065	101	80-120	73-127	
Chromium	0.5000	0.4999	100	80-120	73-127	
Cobalt	0.5000	0.5159	103	80-120	73-127	
Copper	0.5000	0.5077	102	80-120	73-127	
Lead	0.5000	0.5226	105	80-120	73-127	
Molybdenum	0.5000	0.4810	96	80-120	73-127	
Nickel	0.5000	0.5355	107	80-120	73-127	
Selenium	0.5000	0.4795	96	80-120	73-127	
Silver	0.2500	0.2406	96	80-120	73-127	
Thallium	0.5000	0.5197	104	80-120	73-127	
Vanadium	0.5000	0.4738	95	80-120	73-127	
Zinc	0.5000	0.5266	105	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/26/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1952
Irvine, CA 92617-3094	Preparation:	EPA 7470A Total
	Method:	EPA 7470A
Project: John Wayne Airport (JWA) / IR13164420		Page 5 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7964	**LCS**	**Aqueous**	**Mercury 05**	**09/01/16**	**09/01/16 17:36**	**160901LA2**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.009461	95	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/26/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1952
Irvine, CA 92617-3094	Preparation:	EPA 7471A Total
	Method:	EPA 7471A
Project: John Wayne Airport (JWA) / IR13164420		Page 6 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-2486	**LCS**	**Solid**	**Mercury 04**	**09/01/16**	**09/01/16 14:12**	**160901L03**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.8350	0.8446	101	85-121	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 5030C
Method: EPA 8260B

Project: John Wayne Airport (JWA) / IR13164420

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-001-21240	**LCS**	**Aqueous**	**GC/MS Z**	**08/27/16**	**08/28/16 01:30**	**160827L020**
099-14-001-21240	**LCSD**	**Aqueous**	**GC/MS Z**	**08/27/16**	**08/28/16 01:58**	**160827L020**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	50.00	45.39	91	45.67	91	80-120	73-127	1	0-20	
Carbon Tetrachloride	50.00	57.43	115	57.43	115	67-139	55-151	0	0-20	
Chlorobenzene	50.00	50.92	102	50.87	102	78-120	71-127	0	0-20	
1,2-Dibromoethane	50.00	49.61	99	49.83	100	80-120	73-127	0	0-20	
1,2-Dichlorobenzene	50.00	51.82	104	52.13	104	63-129	52-140	1	0-20	
1,2-Dichloroethane	50.00	49.03	98	47.45	95	70-130	60-140	3	0-20	
1,1-Dichloroethene	50.00	42.14	84	42.36	85	66-126	56-136	1	0-20	
Ethylbenzene	50.00	50.22	100	50.24	100	80-123	73-130	0	0-20	
Toluene	50.00	49.86	100	49.23	98	80-120	73-127	1	0-20	
Trichloroethene	50.00	48.28	97	48.31	97	80-122	73-129	0	0-20	
Vinyl Chloride	50.00	64.24	128	65.29	131	70-130	60-140	2	0-20	ME
p/m-Xylene	100.0	102.4	102	102.0	102	75-123	67-131	0	0-20	
o-Xylene	50.00	53.11	106	52.83	106	74-122	66-130	1	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	43.68	87	43.28	87	69-129	59-139	1	0-20	
Tert-Butyl Alcohol (TBA)	250.0	285.2	114	290.0	116	69-129	59-139	2	0-20	
Diisopropyl Ether (DIPE)	50.00	51.16	102	50.58	101	68-128	58-138	1	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	44.18	88	43.85	88	63-135	51-147	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	44.12	88	42.13	84	67-133	56-144	5	0-20	
Ethanol	500.0	587.2	117	608.1	122	42-168	21-189	3	0-20	

Total number of LCS compounds: 19
Total number of ME compounds: 1
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 5030C
Method: EPA 8260B

Project: John Wayne Airport (JWA) / IR13164420

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-001-21236	**LCS**	**Aqueous**	**GC/MS V V**	**08/30/16**	**08/30/16 11:27**	**160830L010**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	50.00	44.15	88	80-120	73-127	
Carbon Tetrachloride	50.00	45.97	92	67-139	55-151	
Chlorobenzene	50.00	44.60	89	78-120	71-127	
1,2-Dibromoethane	50.00	46.08	92	80-120	73-127	
1,2-Dichlorobenzene	50.00	46.89	94	63-129	52-140	
1,2-Dichloroethane	50.00	43.73	87	70-130	60-140	
1,1-Dichloroethene	50.00	38.29	77	66-126	56-136	
Ethylbenzene	50.00	48.68	97	80-123	73-130	
Toluene	50.00	45.47	91	80-120	73-127	
Trichloroethene	50.00	43.82	88	80-122	73-129	
Vinyl Chloride	50.00	46.23	92	70-130	60-140	
p/m-Xylene	100.0	106.7	107	75-123	67-131	
o-Xylene	50.00	51.67	103	74-122	66-130	
Methyl-t-Butyl Ether (MTBE)	50.00	47.22	94	69-129	59-139	
Tert-Butyl Alcohol (TBA)	250.0	236.7	95	69-129	59-139	
Diisopropyl Ether (DIPE)	50.00	44.17	88	68-128	58-138	
Ethyl-t-Butyl Ether (ETBE)	50.00	48.14	96	63-135	51-147	
Tert-Amyl-Methyl Ether (TAME)	50.00	49.94	100	67-133	56-144	
Ethanol	500.0	423.5	85	42-168	21-189	

Total number of LCS compounds: 19
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/26/16
Work Order: 16-08-1952
Preparation: EPA 5035
Method: EPA 8260B

Project: John Wayne Airport (JWA) / IR13164420

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-025-27927	**LCS**	**Solid**	**GC/MS QQ**	**08/29/16**	**08/29/16 12:21**	**160829L016**
095-01-025-27927	**LCSD**	**Solid**	**GC/MS QQ**	**08/29/16**	**08/29/16 12:50**	**160829L016**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	50.00	46.09	92	46.84	94	80-120	73-127	2	0-20	
Carbon Tetrachloride	50.00	50.95	102	50.99	102	65-137	53-149	0	0-20	
Chlorobenzene	50.00	46.30	93	46.66	93	80-120	73-127	1	0-20	
1,2-Dibromoethane	50.00	49.03	98	50.54	101	80-120	73-127	3	0-20	
1,2-Dichlorobenzene	50.00	46.78	94	46.37	93	80-120	73-127	1	0-20	
1,2-Dichloroethane	50.00	46.35	93	48.78	98	80-120	73-127	5	0-20	
1,1-Dichloroethene	50.00	39.60	79	39.84	80	68-128	58-138	1	0-20	
Ethylbenzene	50.00	49.89	100	50.70	101	80-120	73-127	2	0-20	
Toluene	50.00	47.97	96	49.25	99	80-120	73-127	3	0-20	
Trichloroethene	50.00	48.07	96	49.31	99	80-120	73-127	3	0-20	
Vinyl Chloride	50.00	48.39	97	53.28	107	67-127	57-137	10	0-20	
p/m-Xylene	100.0	104.6	105	105.0	105	75-125	67-133	0	0-25	
o-Xylene	50.00	53.94	108	55.06	110	75-125	67-133	2	0-25	
Methyl-t-Butyl Ether (MTBE)	50.00	44.93	90	47.93	96	70-124	61-133	6	0-20	
Tert-Butyl Alcohol (TBA)	250.0	208.2	83	222.5	89	73-121	65-129	7	0-20	
Diisopropyl Ether (DIPE)	50.00	45.72	91	47.22	94	69-129	59-139	3	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	46.66	93	49.33	99	70-124	61-133	6	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	47.95	96	50.71	101	74-122	66-130	6	0-20	
Ethanol	500.0	383.2	77	416.9	83	51-135	37-149	8	0-27	

Total number of LCS compounds: 19
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Sample Analysis Summary Report

Work Order: 16-08-1952 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3010A Total	935	ICP 7300	1
EPA 6010B	EPA 3050B	935	ICP 7300	1
EPA 7470A	EPA 7470A Total	776	Mercury 04	1
EPA 7471A	EPA 7471A Total	776	Mercury 05	1
EPA 8015B (M)	EPA 3510C	682	GC 48	1
EPA 8015B (M)	EPA 3550B	972	GC 46	1
EPA 8260B	EPA 5035	486	GC/MS QQ	2
EPA 8260B	EPA 5030C	986	GC/MS Z	2
EPA 8260B	EPA 5030C	1073	GC/MS V V	2

Return to Contents

eurofins | Calscience

Glossary of Terms and Qualifiers

Work Order: 16-08-1952 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN-OF-CUSTODY RECORD

WO NO. / LAB USE ONLY: **16-08-1952**

DATE: 8/26/16
PAGE: 1 OF 1

LABORATORY CLIENT: Amec Foster Wheeler
ADDRESS: 121 Innovation Dr. Ste. 200
CITY: Irvine STATE: CA ZIP: 92617
TEL: (949)642-0245 E-MAIL:
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"): ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD
EDD: ☐ COELT EDF ☐ OTHER
SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NO.: John Wayne Airport (JWA) IR13164420
PROJECT CONTACT: Duane Paul
GLOBAL ID: LOG CODE:
P.O. NO.:
LAB CONTACT OR QUOTE NO.: Stephen Nowak
SAMPLER(S): (PRINT) Rachel Mills, Ed Arnitz

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH(g) GRO	TPH(d) DRO	TPH C6-C36 / C6-C44	TPH ____	BTEX / MTBE 8260 ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) En Core Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs 8270 8270 SIM	T22 Metals 6010/747X 6020/747X	Cr(VI) 7196 7199 218.6
1	GAIP-SB18-2	8/26/16	0815	S	4	X	X				X			X	X						X	
2	GAIP-SB20-2		0855	S	4	X	X				X			X	X						X	
3	GAIP-SB32-3		1030	S	4	X	X				X			X	X						X	
4	GAIP-SB54-2		1120	S	4	X	X				X			X	X						X	
5	GAIP-IDWdecon		1135	DW	7	X	X				X			X	X						X	
6	GAIP-ACER1		1145	DW	5		X							X								

Relinquished by: (Signature) Rachel Mills	Received by: (Signature/Affiliation) Eei	Date: 8/26/16	Time: 1208
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 8/26/16	Time: 1305
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

2014-07-01 Revision

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 16-08- 1952

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: AMEC

DATE: 08 / 26 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 3.8 °C (w/ CF): 3.8 °C; ☐ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 678

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 678

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1053

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☑	☐
☑ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☑ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☑ 250PB**n** ☐ 500AGB ☑ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☑ Sleeve (5) ☐ EnCores® (_____) ☑ TerraCores® (3) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1053

Reviewed by: 802

eurofins | Calscience

WORK ORDER NUMBER: 16-08- 1952

SAMPLE ANOMALY REPORT

DATE: 08 / 26 / 2016

SAMPLES, CONTAINERS, AND LABELS:

Comments

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☐ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☐ Improper container(s) used (list analysis)
- ☐ Improper preservative used (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☐ Client sample label(s) do not match COC (comment)
  - ☐ Project information
  - ☐ Client sample ID
  - ☐ Sampling date and/or time
  - ☐ Number of container(s)
  - ☐ Requested analysis
- ☐ Sample container(s) compromised (comment)
  - ☐ Broken
  - ☐ Water present in sample container
- ☐ Air sample container(s) compromised (comment)
  - ☐ Flat
  - ☐ Very low in volume
  - ☐ Leaking (not transferred; duplicate bag submitted)
  - ☐ Leaking (transferred into ECI Tedlar™ bags*)
  - ☐ Leaking (transferred into client's Tedlar™ bags*)

* Transferred at client's request.

MISCELLANEOUS: (Describe)

Comments

HEADSPACE:

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**
5	C,D,E	5			

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Comments: _____

Reported by: 1053

Reviewed by: SDL

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

Return to Contents

eurofins | Calscience

Supplemental Report 1

The original report has been revised/corrected.

WORK ORDER NUMBER: 16-08-1590

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Amec Foster Wheeler Environment & Infrastructure,

Client Project Name: John Wayne Airport (JWA) / IR13164420

Attention: Duane Paul
121 Innovation Drive
Suite 200
Irvine, CA 92617-3094

Approved for release on 09/09/2016 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

eurofins | Calscience

Contents

Client Project Name: John Wayne Airport (JWA) / IR13164420
Work Order Number: 16-08-1590

eurofins | Calscience

Work Order Narrative

Work Order: 16-08-1590 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 08/22/16. They were assigned to Work Order 16-08-1590.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Return to Contents

eurofins | Calscience

Sample Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1590
		Project Name:	John Wayne Airport (JWA) / IR13164420
		PO Number:	
		Date/Time Received:	08/22/16 17:15
		Number of Containers:	44
Attn:	Duane Paul		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
GAIP-SB1-2	16-08-1590-1	08/22/16 08:15	4	Solid
GAIP-SB2-2	16-08-1590-2	08/22/16 09:05	4	Solid
GAIP-SB3-2	16-08-1590-3	08/22/16 09:45	4	Solid
GAIP-SB4-2	16-08-1590-4	08/22/16 10:15	4	Solid
GAIP-SB5-2	16-08-1590-5	08/22/16 11:20	4	Solid
GAIP-SB6-2	16-08-1590-6	08/22/16 11:55	4	Solid
GAIP-SB7-2	16-08-1590-7	08/22/16 12:25	4	Solid
GAIP-SB8-2	16-08-1590-8	08/22/16 13:10	4	Solid
GAIP-SB10-2	16-08-1590-9	08/22/16 14:05	4	Solid
GAIP-SB11-2	16-08-1590-10	08/22/16 14:30	4	Solid
GAIP-SB12-2	16-08-1590-11	08/22/16 15:15	4	Solid

Return to Contents

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1590
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/22/16
Attn:	Duane Paul		

Client SampleID Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP-SB1-2 (16-08-1590-1)						
Arsenic	2.93		0.761	mg/kg	EPA 6010B	EPA 3050B
Barium	45.2		0.508	mg/kg	EPA 6010B	EPA 3050B
Chromium	11.4		0.254	mg/kg	EPA 6010B	EPA 3050B
Cobalt	4.90		0.254	mg/kg	EPA 6010B	EPA 3050B
Copper	9.31		0.508	mg/kg	EPA 6010B	EPA 3050B
Lead	22.7		0.508	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.500		0.254	mg/kg	EPA 6010B	EPA 3050B
Nickel	10.9		0.254	mg/kg	EPA 6010B	EPA 3050B
Vanadium	21.8		0.254	mg/kg	EPA 6010B	EPA 3050B
Zinc	27.3		1.02	mg/kg	EPA 6010B	EPA 3050B
C25-C28	440		120	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	1000		120	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	1800		120	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	1100		120	mg/kg	EPA 8015B (M)	EPA 3550B
C41-C44	840		120	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	5300		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
GAIP-SB2-2 (16-08-1590-2)						
Arsenic	4.56		0.743	mg/kg	EPA 6010B	EPA 3050B
Barium	56.1		0.495	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.286		0.248	mg/kg	EPA 6010B	EPA 3050B
Chromium	10.7		0.248	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.08		0.248	mg/kg	EPA 6010B	EPA 3050B
Copper	11.4		0.495	mg/kg	EPA 6010B	EPA 3050B
Lead	7.89		0.495	mg/kg	EPA 6010B	EPA 3050B
Nickel	8.44		0.248	mg/kg	EPA 6010B	EPA 3050B
Vanadium	22.8		0.248	mg/kg	EPA 6010B	EPA 3050B
Zinc	37.2		0.990	mg/kg	EPA 6010B	EPA 3050B
C23-C24	7.9		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	20		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	58		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	58		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	83		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C41-C44	46		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	280		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
Acetone	72		45	ug/kg	EPA 8260B	EPA 5035

Return to Contents

* MDL is shown

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1590
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/22/16
Attn:	Duane Paul		Page 2 of 5

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP-SB3-2 (16-08-1590-3)						
Arsenic	3.46		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	60.1		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.386		0.250	mg/kg	EPA 6010B	EPA 3050B
Chromium	13.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.33		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	7.08		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	6.69		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	10.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	26.0		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	32.4		1.00	mg/kg	EPA 6010B	EPA 3050B
GAIP-SB4-2 (16-08-1590-4)						
Arsenic	5.14		0.754	mg/kg	EPA 6010B	EPA 3050B
Barium	64.3		0.503	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.464		0.251	mg/kg	EPA 6010B	EPA 3050B
Chromium	15.3		0.251	mg/kg	EPA 6010B	EPA 3050B
Cobalt	15.9		0.251	mg/kg	EPA 6010B	EPA 3050B
Copper	9.87		0.503	mg/kg	EPA 6010B	EPA 3050B
Lead	8.21		0.503	mg/kg	EPA 6010B	EPA 3050B
Nickel	12.3		0.251	mg/kg	EPA 6010B	EPA 3050B
Vanadium	32.5		0.251	mg/kg	EPA 6010B	EPA 3050B
Zinc	38.5		1.01	mg/kg	EPA 6010B	EPA 3050B
C19-C20	5.1		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C21-C22	8.8		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C23-C24	9.6		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	19		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	43		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	38		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	53		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C41-C44	29		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	210		5.0	mg/kg	EPA 8015B (M)	EPA 3550B

Return to Contents

* MDL is shown

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1590
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/22/16
Attn:	Duane Paul		Page 3 of 5

Client SampleID Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP-SB5-2 (16-08-1590-5)						
Arsenic	2.23		0.758	mg/kg	EPA 6010B	EPA 3050B
Barium	46.5		0.505	mg/kg	EPA 6010B	EPA 3050B
Chromium	9.92		0.253	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.04		0.253	mg/kg	EPA 6010B	EPA 3050B
Copper	6.92		0.505	mg/kg	EPA 6010B	EPA 3050B
Lead	4.99		0.505	mg/kg	EPA 6010B	EPA 3050B
Nickel	6.24		0.253	mg/kg	EPA 6010B	EPA 3050B
Vanadium	18.9		0.253	mg/kg	EPA 6010B	EPA 3050B
Zinc	25.2		1.01	mg/kg	EPA 6010B	EPA 3050B
Tetrachloroethene	3.4		1.0	ug/kg	EPA 8260B	EPA 5035
GAIP-SB6-2 (16-08-1590-6)						
Antimony	0.738		0.735	mg/kg	EPA 6010B	EPA 3050B
Arsenic	2.11		0.735	mg/kg	EPA 6010B	EPA 3050B
Barium	51.2		0.490	mg/kg	EPA 6010B	EPA 3050B
Chromium	8.87		0.245	mg/kg	EPA 6010B	EPA 3050B
Cobalt	4.65		0.245	mg/kg	EPA 6010B	EPA 3050B
Copper	5.10		0.490	mg/kg	EPA 6010B	EPA 3050B
Lead	4.62		0.490	mg/kg	EPA 6010B	EPA 3050B
Nickel	6.05		0.245	mg/kg	EPA 6010B	EPA 3050B
Vanadium	16.2		0.245	mg/kg	EPA 6010B	EPA 3050B
Zinc	20.7		0.980	mg/kg	EPA 6010B	EPA 3050B
GAIP-SB7-2 (16-08-1590-7)						
Arsenic	1.44		0.761	mg/kg	EPA 6010B	EPA 3050B
Barium	42.2		0.508	mg/kg	EPA 6010B	EPA 3050B
Chromium	7.16		0.254	mg/kg	EPA 6010B	EPA 3050B
Cobalt	4.18		0.254	mg/kg	EPA 6010B	EPA 3050B
Copper	3.97		0.508	mg/kg	EPA 6010B	EPA 3050B
Lead	3.62		0.508	mg/kg	EPA 6010B	EPA 3050B
Nickel	4.80		0.254	mg/kg	EPA 6010B	EPA 3050B
Vanadium	14.3		0.254	mg/kg	EPA 6010B	EPA 3050B
Zinc	17.5		1.02	mg/kg	EPA 6010B	EPA 3050B
C29-C32	7.3		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	6.7		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	27		5.0	mg/kg	EPA 8015B (M)	EPA 3550B

Return to Contents

* MDL is shown

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1590
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/22/16
Attn:	Duane Paul		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP-SB8-2 (16-08-1590-8)						
Arsenic	2.95		0.765	mg/kg	EPA 6010B	EPA 3050B
Barium	46.1		0.510	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.285		0.255	mg/kg	EPA 6010B	EPA 3050B
Chromium	10.1		0.255	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.63		0.255	mg/kg	EPA 6010B	EPA 3050B
Copper	6.07		0.510	mg/kg	EPA 6010B	EPA 3050B
Lead	5.54		0.510	mg/kg	EPA 6010B	EPA 3050B
Nickel	7.59		0.255	mg/kg	EPA 6010B	EPA 3050B
Vanadium	21.4		0.255	mg/kg	EPA 6010B	EPA 3050B
Zinc	26.4		1.02	mg/kg	EPA 6010B	EPA 3050B
Acetone	56		51	ug/kg	EPA 8260B	EPA 5035
GAIP-SB10-2 (16-08-1590-9)						
Arsenic	2.10		0.777	mg/kg	EPA 6010B	EPA 3050B
Barium	40.5		0.518	mg/kg	EPA 6010B	EPA 3050B
Chromium	8.14		0.259	mg/kg	EPA 6010B	EPA 3050B
Cobalt	5.93		0.259	mg/kg	EPA 6010B	EPA 3050B
Copper	5.86		0.518	mg/kg	EPA 6010B	EPA 3050B
Lead	4.66		0.518	mg/kg	EPA 6010B	EPA 3050B
Nickel	4.67		0.259	mg/kg	EPA 6010B	EPA 3050B
Vanadium	16.3		0.259	mg/kg	EPA 6010B	EPA 3050B
Zinc	22.0		1.04	mg/kg	EPA 6010B	EPA 3050B
GAIP-SB11-2 (16-08-1590-10)						
Arsenic	2.95		0.781	mg/kg	EPA 6010B	EPA 3050B
Barium	64.1		0.521	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.310		0.260	mg/kg	EPA 6010B	EPA 3050B
Chromium	10.3		0.260	mg/kg	EPA 6010B	EPA 3050B
Cobalt	5.74		0.260	mg/kg	EPA 6010B	EPA 3050B
Copper	6.06		0.521	mg/kg	EPA 6010B	EPA 3050B
Lead	5.30		0.521	mg/kg	EPA 6010B	EPA 3050B
Nickel	8.29		0.260	mg/kg	EPA 6010B	EPA 3050B
Vanadium	21.2		0.260	mg/kg	EPA 6010B	EPA 3050B
Zinc	29.5		1.04	mg/kg	EPA 6010B	EPA 3050B

Return to Contents

* MDL is shown

eurofins | Calscience

Detections Summary

Client:	Amec Foster Wheeler Environment & Infrastructure, 121 Innovation Drive, Suite 200 Irvine, CA 92617-3094	Work Order:	16-08-1590
		Project Name:	John Wayne Airport (JWA) / IR13164420
		Received:	08/22/16
Attn:	Duane Paul		Page 5 of 5

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
GAIP-SB12-2 (16-08-1590-11)						
Arsenic	4.20		0.781	mg/kg	EPA 6010B	EPA 3050B
Barium	83.6		0.521	mg/kg	EPA 6010B	EPA 3050B
Chromium	7.41		0.260	mg/kg	EPA 6010B	EPA 3050B
Cobalt	3.54		0.260	mg/kg	EPA 6010B	EPA 3050B
Copper	6.66		0.521	mg/kg	EPA 6010B	EPA 3050B
Lead	5.29		0.521	mg/kg	EPA 6010B	EPA 3050B
Nickel	5.15		0.260	mg/kg	EPA 6010B	EPA 3050B
Vanadium	15.4		0.260	mg/kg	EPA 6010B	EPA 3050B
Zinc	22.9		1.04	mg/kg	EPA 6010B	EPA 3050B
C21-C22	8.3		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C23-C24	7.0		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C25-C28	39		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C29-C32	92		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C33-C36	110		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C37-C40	96		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C41-C44	59		5.0	mg/kg	EPA 8015B (M)	EPA 3550B
C6-C44 Total	410		5.0	mg/kg	EPA 8015B (M)	EPA 3550B

Return to Contents

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB1-2	**16-08-1590-1-A**	**08/22/16 08:15**	**Solid**	**GC 48**	**08/25/16**	**08/25/16 20:36**	**160825B07**

Parameter	Result	RL	DF	Qualifiers
C6	ND	120	25.0	
C7	ND	120	25.0	
C8	ND	120	25.0	
C9-C10	ND	120	25.0	
C11-C12	ND	120	25.0	
C13-C14	ND	120	25.0	
C15-C16	ND	120	25.0	
C17-C18	ND	120	25.0	
C19-C20	ND	120	25.0	
C21-C22	ND	120	25.0	
C23-C24	ND	120	25.0	
C25-C28	440	120	25.0	
C29-C32	1000	120	25.0	
C33-C36	1800	120	25.0	
C37-C40	1100	120	25.0	
C41-C44	840	120	25.0	
C6-C44 Total	5300	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	72	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB2-2	**16-08-1590-2-A**	**08/22/16 09:05**	**Solid**	**GC 48**	**08/25/16**	**08/25/16 20:51**	**160825B07**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	7.9	5.0	1.00	
C25-C28	20	5.0	1.00	
C29-C32	58	5.0	1.00	
C33-C36	58	5.0	1.00	
C37-C40	83	5.0	1.00	
C41-C44	46	5.0	1.00	
C6-C44 Total	280	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	81	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB3-2	**16-08-1590-3-A**	**08/22/16 09:45**	**Solid**	**GC 48**	**08/25/16**	**08/26/16 14:45**	**160825B07**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	74	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB4-2	**16-08-1590-4-A**	**08/22/16 10:15**	**Solid**	**GC 48**	**08/25/16**	**08/25/16 21:21**	**160825B07**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	5.1	5.0	1.00	
C21-C22	8.8	5.0	1.00	
C23-C24	9.6	5.0	1.00	
C25-C28	19	5.0	1.00	
C29-C32	43	5.0	1.00	
C33-C36	38	5.0	1.00	
C37-C40	53	5.0	1.00	
C41-C44	29	5.0	1.00	
C6-C44 Total	210	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	81	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 5 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB5-2	**16-08-1590-5-A**	**08/22/16 11:20**	**Solid**	**GC 48**	**08/25/16**	**08/25/16 22:07**	**160825B07**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	81	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB6-2	**16-08-1590-6-A**	**08/22/16 11:55**	**Solid**	**GC 48**	**08/25/16**	**08/25/16 22:23**	**160825B07**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	81	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB7-2	**16-08-1590-7-A**	**08/22/16 12:25**	**Solid**	**GC 48**	**08/25/16**	**08/25/16 22:38**	**160825B07**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	7.3	5.0	1.00	
C33-C36	6.7	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	27	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	83	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB8-2	**16-08-1590-8-A**	**08/22/16 13:10**	**Solid**	**GC 48**	**08/25/16**	**08/25/16 22:53**	**160825B07**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	79	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB10-2	**16-08-1590-9-A**	**08/22/16 14:05**	**Solid**	**GC 48**	**08/25/16**	**08/25/16 19:35**	**160825B07**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	73	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB11-2	**16-08-1590-10-A**	**08/22/16 14:30**	**Solid**	**GC 48**	**08/25/16**	**08/25/16 19:50**	**160825B07**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	79	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,		Date Received:	08/22/16
121 Innovation Drive, Suite 200		Work Order:	16-08-1590
Irvine, CA 92617-3094		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
		Units:	mg/kg
Project: John Wayne Airport (JWA) / IR13164420			Page 11 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB12-2	**16-08-1590-11-A**	**08/22/16 15:15**	**Solid**	**GC 48**	**08/25/16**	**08/25/16 20:20**	**160825B07**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	8.3	5.0	1.00	
C23-C24	7.0	5.0	1.00	
C25-C28	39	5.0	1.00	
C29-C32	92	5.0	1.00	
C33-C36	110	5.0	1.00	
C37-C40	96	5.0	1.00	
C41-C44	59	5.0	1.00	
C6-C44 Total	410	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	75	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-490-2238**	**N/A**	**Solid**	**GC 47**	**08/25/16**	**08/25/16 16:26**	**160825B07**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	108	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB1-2	**16-08-1590-1-A**	**08/22/16 08:15**	**Solid**	**ICP 8300**	**08/25/16**	**08/26/16 15:05**	**160825L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.761	1.02	
Arsenic	2.93	0.761	1.02	
Barium	45.2	0.508	1.02	
Beryllium	ND	0.254	1.02	
Cadmium	ND	0.508	1.02	
Chromium	11.4	0.254	1.02	
Cobalt	4.90	0.254	1.02	
Copper	9.31	0.508	1.02	
Lead	22.7	0.508	1.02	
Molybdenum	0.500	0.254	1.02	
Nickel	10.9	0.254	1.02	
Selenium	ND	0.761	1.02	
Silver	ND	0.254	1.02	
Thallium	ND	0.761	1.02	
Vanadium	21.8	0.254	1.02	
Zinc	27.3	1.02	1.02	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB2-2	**16-08-1590-2-A**	**08/22/16 09:05**	**Solid**	**ICP 8300**	**08/25/16**	**08/26/16 15:10**	**160825L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.743	0.990	
Arsenic	4.56	0.743	0.990	
Barium	56.1	0.495	0.990	
Beryllium	0.286	0.248	0.990	
Cadmium	ND	0.495	0.990	
Chromium	10.7	0.248	0.990	
Cobalt	8.08	0.248	0.990	
Copper	11.4	0.495	0.990	
Lead	7.89	0.495	0.990	
Molybdenum	ND	0.248	0.990	
Nickel	8.44	0.248	0.990	
Selenium	ND	0.743	0.990	
Silver	ND	0.248	0.990	
Thallium	ND	0.743	0.990	
Vanadium	22.8	0.248	0.990	
Zinc	37.2	0.990	0.990	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 3 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB3-2	**16-08-1590-3-A**	**08/22/16 09:45**	**Solid**	**ICP 8300**	**08/25/16**	**08/26/16 15:12**	**160825L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	3.46	0.750	1.00	
Barium	60.1	0.500	1.00	
Beryllium	0.386	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	13.5	0.250	1.00	
Cobalt	7.33	0.250	1.00	
Copper	7.08	0.500	1.00	
Lead	6.69	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	10.6	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	26.0	0.250	1.00	
Zinc	32.4	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB4-2	**16-08-1590-4-A**	**08/22/16 10:15**	**Solid**	**ICP 8300**	**08/25/16**	**08/26/16 15:14**	**160825L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.754	1.01	
Arsenic	5.14	0.754	1.01	
Barium	64.3	0.503	1.01	
Beryllium	0.464	0.251	1.01	
Cadmium	ND	0.503	1.01	
Chromium	15.3	0.251	1.01	
Cobalt	15.9	0.251	1.01	
Copper	9.87	0.503	1.01	
Lead	8.21	0.503	1.01	
Molybdenum	ND	0.251	1.01	
Nickel	12.3	0.251	1.01	
Selenium	ND	0.754	1.01	
Silver	ND	0.251	1.01	
Thallium	ND	0.754	1.01	
Vanadium	32.5	0.251	1.01	
Zinc	38.5	1.01	1.01	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB5-2	**16-08-1590-5-A**	**08/22/16 11:20**	**Solid**	**ICP 8300**	**08/25/16**	**08/26/16 15:15**	**160825L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.758	1.01	
Arsenic	2.23	0.758	1.01	
Barium	46.5	0.505	1.01	
Beryllium	ND	0.253	1.01	
Cadmium	ND	0.505	1.01	
Chromium	9.92	0.253	1.01	
Cobalt	6.04	0.253	1.01	
Copper	6.92	0.505	1.01	
Lead	4.99	0.505	1.01	
Molybdenum	ND	0.253	1.01	
Nickel	6.24	0.253	1.01	
Selenium	ND	0.758	1.01	
Silver	ND	0.253	1.01	
Thallium	ND	0.758	1.01	
Vanadium	18.9	0.253	1.01	
Zinc	25.2	1.01	1.01	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB6-2	**16-08-1590-6-A**	**08/22/16 11:55**	**Solid**	**ICP 8300**	**08/25/16**	**08/26/16 15:17**	**160825L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.738	0.735	0.980	
Arsenic	2.11	0.735	0.980	
Barium	51.2	0.490	0.980	
Beryllium	ND	0.245	0.980	
Cadmium	ND	0.490	0.980	
Chromium	8.87	0.245	0.980	
Cobalt	4.65	0.245	0.980	
Copper	5.10	0.490	0.980	
Lead	4.62	0.490	0.980	
Molybdenum	ND	0.245	0.980	
Nickel	6.05	0.245	0.980	
Selenium	ND	0.735	0.980	
Silver	ND	0.245	0.980	
Thallium	ND	0.735	0.980	
Vanadium	16.2	0.245	0.980	
Zinc	20.7	0.980	0.980	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB7-2	**16-08-1590-7-A**	**08/22/16 12:25**	**Solid**	**ICP 8300**	**08/25/16**	**08/26/16 15:22**	**160825L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.761	1.02	
Arsenic	1.44	0.761	1.02	
Barium	42.2	0.508	1.02	
Beryllium	ND	0.254	1.02	
Cadmium	ND	0.508	1.02	
Chromium	7.16	0.254	1.02	
Cobalt	4.18	0.254	1.02	
Copper	3.97	0.508	1.02	
Lead	3.62	0.508	1.02	
Molybdenum	ND	0.254	1.02	
Nickel	4.80	0.254	1.02	
Selenium	ND	0.761	1.02	
Silver	ND	0.254	1.02	
Thallium	ND	0.761	1.02	
Vanadium	14.3	0.254	1.02	
Zinc	17.5	1.02	1.02	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB8-2	**16-08-1590-8-A**	**08/22/16 13:10**	**Solid**	**ICP 8300**	**08/25/16**	**08/26/16 15:24**	**160825L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.765	1.02	
Arsenic	2.95	0.765	1.02	
Barium	46.1	0.510	1.02	
Beryllium	0.285	0.255	1.02	
Cadmium	ND	0.510	1.02	
Chromium	10.1	0.255	1.02	
Cobalt	6.63	0.255	1.02	
Copper	6.07	0.510	1.02	
Lead	5.54	0.510	1.02	
Molybdenum	ND	0.255	1.02	
Nickel	7.59	0.255	1.02	
Selenium	ND	0.765	1.02	
Silver	ND	0.255	1.02	
Thallium	ND	0.765	1.02	
Vanadium	21.4	0.255	1.02	
Zinc	26.4	1.02	1.02	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB10-2	**16-08-1590-9-A**	**08/22/16 14:05**	**Solid**	**ICP 8300**	**08/25/16**	**08/26/16 15:25**	**160825L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.777	1.04	
Arsenic	2.10	0.777	1.04	
Barium	40.5	0.518	1.04	
Beryllium	ND	0.259	1.04	
Cadmium	ND	0.518	1.04	
Chromium	8.14	0.259	1.04	
Cobalt	5.93	0.259	1.04	
Copper	5.86	0.518	1.04	
Lead	4.66	0.518	1.04	
Molybdenum	ND	0.259	1.04	
Nickel	4.67	0.259	1.04	
Selenium	ND	0.777	1.04	
Silver	ND	0.259	1.04	
Thallium	ND	0.777	1.04	
Vanadium	16.3	0.259	1.04	
Zinc	22.0	1.04	1.04	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB11-2	**16-08-1590-10-A**	**08/22/16 14:30**	**Solid**	**ICP 8300**	**08/25/16**	**08/26/16 15:27**	**160825L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.781	1.04	
Arsenic	2.95	0.781	1.04	
Barium	64.1	0.521	1.04	
Beryllium	0.310	0.260	1.04	
Cadmium	ND	0.521	1.04	
Chromium	10.3	0.260	1.04	
Cobalt	5.74	0.260	1.04	
Copper	6.06	0.521	1.04	
Lead	5.30	0.521	1.04	
Molybdenum	ND	0.260	1.04	
Nickel	8.29	0.260	1.04	
Selenium	ND	0.781	1.04	
Silver	ND	0.260	1.04	
Thallium	ND	0.781	1.04	
Vanadium	21.2	0.260	1.04	
Zinc	29.5	1.04	1.04	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB12-2	**16-08-1590-11-A**	**08/22/16 15:15**	**Solid**	**ICP 8300**	**08/25/16**	**08/26/16 15:29**	**160825L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.781	1.04	
Arsenic	4.20	0.781	1.04	
Barium	83.6	0.521	1.04	
Beryllium	ND	0.260	1.04	
Cadmium	ND	0.521	1.04	
Chromium	7.41	0.260	1.04	
Cobalt	3.54	0.260	1.04	
Copper	6.66	0.521	1.04	
Lead	5.29	0.521	1.04	
Molybdenum	ND	0.260	1.04	
Nickel	5.15	0.260	1.04	
Selenium	ND	0.781	1.04	
Silver	ND	0.260	1.04	
Thallium	ND	0.781	1.04	
Vanadium	15.4	0.260	1.04	
Zinc	22.9	1.04	1.04	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-23144**	**N/A**	**Solid**	**ICP 8300**	**08/25/16**	**08/26/16 13:21**	**160825L03**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.761	1.02	
Arsenic	ND	0.761	1.02	
Barium	ND	0.508	1.02	
Beryllium	ND	0.254	1.02	
Cadmium	ND	0.508	1.02	
Chromium	ND	0.254	1.02	
Cobalt	ND	0.254	1.02	
Copper	ND	0.508	1.02	
Lead	ND	0.508	1.02	
Molybdenum	ND	0.254	1.02	
Nickel	ND	0.254	1.02	
Selenium	ND	0.761	1.02	
Silver	ND	0.254	1.02	
Thallium	ND	0.761	1.02	
Vanadium	ND	0.254	1.02	
Zinc	ND	1.02	1.02	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Project: John Wayne Airport (JWA) / IR13164420

Date Received:	08/22/16
Work Order:	16-08-1590
Preparation:	EPA 7471A Total
Method:	EPA 7471A
Units:	mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB1-2	**16-08-1590-1-A**	**08/22/16 08:15**	**Solid**	**Mercury 04**	**08/26/16**	**08/26/16 19:10**	**160826L05**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0794	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB2-2	**16-08-1590-2-A**	**08/22/16 09:05**	**Solid**	**Mercury 04**	**08/26/16**	**08/26/16 19:12**	**160826L05**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0877	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB3-2	**16-08-1590-3-A**	**08/22/16 09:45**	**Solid**	**Mercury 04**	**08/26/16**	**08/26/16 19:14**	**160826L05**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0833	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB4-2	**16-08-1590-4-A**	**08/22/16 10:15**	**Solid**	**Mercury 04**	**08/26/16**	**08/26/16 19:17**	**160826L05**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0794	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB5-2	**16-08-1590-5-A**	**08/22/16 11:20**	**Solid**	**Mercury 04**	**08/26/16**	**08/26/16 19:23**	**160826L05**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0794	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB6-2	**16-08-1590-6-A**	**08/22/16 11:55**	**Solid**	**Mercury 04**	**08/26/16**	**08/26/16 19:26**	**160826L05**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0877	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB7-2	**16-08-1590-7-A**	**08/22/16 12:25**	**Solid**	**Mercury 04**	**08/26/16**	**08/26/16 19:28**	**160826L05**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0794	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB8-2	**16-08-1590-8-A**	**08/22/16 13:10**	**Solid**	**Mercury 04**	**08/26/16**	**08/26/16 19:30**	**160826L05**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0794	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB10-2	**16-08-1590-9-A**	**08/22/16 14:05**	**Solid**	**Mercury 04**	**08/26/16**	**08/26/16 19:32**	**160826L05**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0877	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB11-2	**16-08-1590-10-A**	**08/22/16 14:30**	**Solid**	**Mercury 04**	**08/26/16**	**08/26/16 19:34**	**160826L05**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0847	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB12-2	**16-08-1590-11-A**	**08/22/16 15:15**	**Solid**	**Mercury 04**	**08/26/16**	**08/26/16 19:37**	**160826L05**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0794	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-16-272-2466**	**N/A**	**Solid**	**Mercury 05**	**08/26/16**	**08/26/16 19:34**	**160826L05**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0833	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB1-2	**16-08-1590-1-C**	**08/22/16 08:15**	**Solid**	**GC/MS QQ**	**08/22/16**	**08/24/16 12:24**	**160824L013**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	51	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.1	1.00	
Bromomethane	ND	20	1.00	
2-Butanone	ND	20	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.1	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	2.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	5.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.0	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	20	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	20	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	20	1.00	
Diisopropyl Ether (DIPE)	ND	1.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	1.00	
Ethanol	ND	510	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	91	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/22/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1590
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 3 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	110	79-133	
1,2-Dichloroethane-d4	121	71-155	
Toluene-d8	98	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 4 of 36

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB2-2	**16-08-1590-2-C**	**08/22/16 09:05**	**Solid**	**GC/MS QQ**	**08/22/16**	**08/24/16 12:53**	**160824L013**

Parameter	Result	RL	DF	Qualifiers
Acetone	72	45	1.00	
Benzene	ND	0.89	1.00	
Bromobenzene	ND	0.89	1.00	
Bromochloromethane	ND	1.8	1.00	
Bromodichloromethane	ND	0.89	1.00	
Bromoform	ND	4.5	1.00	
Bromomethane	ND	18	1.00	
2-Butanone	ND	18	1.00	
n-Butylbenzene	ND	0.89	1.00	
sec-Butylbenzene	ND	0.89	1.00	
tert-Butylbenzene	ND	0.89	1.00	
Carbon Disulfide	ND	8.9	1.00	
Carbon Tetrachloride	ND	0.89	1.00	
Chlorobenzene	ND	0.89	1.00	
Chloroethane	ND	1.8	1.00	
Chloroform	ND	0.89	1.00	
Chloromethane	ND	18	1.00	
2-Chlorotoluene	ND	0.89	1.00	
4-Chlorotoluene	ND	0.89	1.00	
Dibromochloromethane	ND	1.8	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.5	1.00	
1,2-Dibromoethane	ND	0.89	1.00	
Dibromomethane	ND	0.89	1.00	
1,2-Dichlorobenzene	ND	0.89	1.00	
1,3-Dichlorobenzene	ND	0.89	1.00	
1,4-Dichlorobenzene	ND	0.89	1.00	
Dichlorodifluoromethane	ND	1.8	1.00	
1,1-Dichloroethane	ND	0.89	1.00	
1,2-Dichloroethane	ND	0.89	1.00	
1,1-Dichloroethene	ND	0.89	1.00	
c-1,2-Dichloroethene	ND	0.89	1.00	
t-1,2-Dichloroethene	ND	0.89	1.00	
1,2-Dichloropropane	ND	0.89	1.00	
1,3-Dichloropropane	ND	0.89	1.00	
2,2-Dichloropropane	ND	4.5	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.8	1.00	
c-1,3-Dichloropropene	ND	0.89	1.00	
t-1,3-Dichloropropene	ND	1.8	1.00	
Ethylbenzene	ND	0.89	1.00	
2-Hexanone	ND	18	1.00	
Isopropylbenzene	ND	0.89	1.00	
p-Isopropyltoluene	ND	0.89	1.00	
Methylene Chloride	ND	8.9	1.00	
4-Methyl-2-Pentanone	ND	18	1.00	
Naphthalene	ND	8.9	1.00	
n-Propylbenzene	ND	1.8	1.00	
Styrene	ND	0.89	1.00	
1,1,1,2-Tetrachloroethane	ND	0.89	1.00	
1,1,2,2-Tetrachloroethane	ND	1.8	1.00	
Tetrachloroethene	ND	0.89	1.00	
Toluene	ND	0.89	1.00	
1,2,3-Trichlorobenzene	ND	1.8	1.00	
1,2,4-Trichlorobenzene	ND	1.8	1.00	
1,1,1-Trichloroethane	ND	0.89	1.00	
1,1,2-Trichloroethane	ND	0.89	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.9	1.00	
Trichloroethene	ND	1.8	1.00	
Trichlorofluoromethane	ND	8.9	1.00	
1,2,3-Trichloropropane	ND	1.8	1.00	
1,2,4-Trimethylbenzene	ND	1.8	1.00	
1,3,5-Trimethylbenzene	ND	1.8	1.00	
Vinyl Acetate	ND	8.9	1.00	
Vinyl Chloride	ND	0.89	1.00	
p/m-Xylene	ND	1.8	1.00	
o-Xylene	ND	0.89	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	1.00	
Tert-Butyl Alcohol (TBA)	ND	18	1.00	
Diisopropyl Ether (DIPE)	ND	0.89	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.89	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.89	1.00	
Ethanol	ND	450	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/22/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1590
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 6 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	107	79-133	
1,2-Dichloroethane-d4	120	71-155	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 7 of 36

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB3-2	**16-08-1590-3-C**	**08/22/16 09:45**	**Solid**	**GC/MS QQ**	**08/22/16**	**08/24/16 13:22**	**160824L013**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	48	1.00	
Benzene	ND	0.96	1.00	
Bromobenzene	ND	0.96	1.00	
Bromochloromethane	ND	1.9	1.00	
Bromodichloromethane	ND	0.96	1.00	
Bromoform	ND	4.8	1.00	
Bromomethane	ND	19	1.00	
2-Butanone	ND	19	1.00	
n-Butylbenzene	ND	0.96	1.00	
sec-Butylbenzene	ND	0.96	1.00	
tert-Butylbenzene	ND	0.96	1.00	
Carbon Disulfide	ND	9.6	1.00	
Carbon Tetrachloride	ND	0.96	1.00	
Chlorobenzene	ND	0.96	1.00	
Chloroethane	ND	1.9	1.00	
Chloroform	ND	0.96	1.00	
Chloromethane	ND	19	1.00	
2-Chlorotoluene	ND	0.96	1.00	
4-Chlorotoluene	ND	0.96	1.00	
Dibromochloromethane	ND	1.9	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.8	1.00	
1,2-Dibromoethane	ND	0.96	1.00	
Dibromomethane	ND	0.96	1.00	
1,2-Dichlorobenzene	ND	0.96	1.00	
1,3-Dichlorobenzene	ND	0.96	1.00	
1,4-Dichlorobenzene	ND	0.96	1.00	
Dichlorodifluoromethane	ND	1.9	1.00	
1,1-Dichloroethane	ND	0.96	1.00	
1,2-Dichloroethane	ND	0.96	1.00	
1,1-Dichloroethene	ND	0.96	1.00	
c-1,2-Dichloroethene	ND	0.96	1.00	
t-1,2-Dichloroethene	ND	0.96	1.00	
1,2-Dichloropropane	ND	0.96	1.00	
1,3-Dichloropropane	ND	0.96	1.00	
2,2-Dichloropropane	ND	4.8	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.9	1.00	
c-1,3-Dichloropropene	ND	0.96	1.00	
t-1,3-Dichloropropene	ND	1.9	1.00	
Ethylbenzene	ND	0.96	1.00	
2-Hexanone	ND	19	1.00	
Isopropylbenzene	ND	0.96	1.00	
p-Isopropyltoluene	ND	0.96	1.00	
Methylene Chloride	ND	9.6	1.00	
4-Methyl-2-Pentanone	ND	19	1.00	
Naphthalene	ND	9.6	1.00	
n-Propylbenzene	ND	1.9	1.00	
Styrene	ND	0.96	1.00	
1,1,1,2-Tetrachloroethane	ND	0.96	1.00	
1,1,2,2-Tetrachloroethane	ND	1.9	1.00	
Tetrachloroethene	ND	0.96	1.00	
Toluene	ND	0.96	1.00	
1,2,3-Trichlorobenzene	ND	1.9	1.00	
1,2,4-Trichlorobenzene	ND	1.9	1.00	
1,1,1-Trichloroethane	ND	0.96	1.00	
1,1,2-Trichloroethane	ND	0.96	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.6	1.00	
Trichloroethene	ND	1.9	1.00	
Trichlorofluoromethane	ND	9.6	1.00	
1,2,3-Trichloropropane	ND	1.9	1.00	
1,2,4-Trimethylbenzene	ND	1.9	1.00	
1,3,5-Trimethylbenzene	ND	1.9	1.00	
Vinyl Acetate	ND	9.6	1.00	
Vinyl Chloride	ND	0.96	1.00	
p/m-Xylene	ND	1.9	1.00	
o-Xylene	ND	0.96	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.9	1.00	
Tert-Butyl Alcohol (TBA)	ND	19	1.00	
Diisopropyl Ether (DIPE)	ND	0.96	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.96	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.96	1.00	
Ethanol	ND	480	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/22/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1590
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 9 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	103	79-133	
1,2-Dichloroethane-d4	118	71-155	
Toluene-d8	97	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB4-2	**16-08-1590-4-C**	**08/22/16 10:15**	**Solid**	**GC/MS QQ**	**08/22/16**	**08/24/16 14:49**	**160824L013**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	48	1.00	
Benzene	ND	0.96	1.00	
Bromobenzene	ND	0.96	1.00	
Bromochloromethane	ND	1.9	1.00	
Bromodichloromethane	ND	0.96	1.00	
Bromoform	ND	4.8	1.00	
Bromomethane	ND	19	1.00	
2-Butanone	ND	19	1.00	
n-Butylbenzene	ND	0.96	1.00	
sec-Butylbenzene	ND	0.96	1.00	
tert-Butylbenzene	ND	0.96	1.00	
Carbon Disulfide	ND	9.6	1.00	
Carbon Tetrachloride	ND	0.96	1.00	
Chlorobenzene	ND	0.96	1.00	
Chloroethane	ND	1.9	1.00	
Chloroform	ND	0.96	1.00	
Chloromethane	ND	19	1.00	
2-Chlorotoluene	ND	0.96	1.00	
4-Chlorotoluene	ND	0.96	1.00	
Dibromochloromethane	ND	1.9	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.8	1.00	
1,2-Dibromoethane	ND	0.96	1.00	
Dibromomethane	ND	0.96	1.00	
1,2-Dichlorobenzene	ND	0.96	1.00	
1,3-Dichlorobenzene	ND	0.96	1.00	
1,4-Dichlorobenzene	ND	0.96	1.00	
Dichlorodifluoromethane	ND	1.9	1.00	
1,1-Dichloroethane	ND	0.96	1.00	
1,2-Dichloroethane	ND	0.96	1.00	
1,1-Dichloroethene	ND	0.96	1.00	
c-1,2-Dichloroethene	ND	0.96	1.00	
t-1,2-Dichloroethene	ND	0.96	1.00	
1,2-Dichloropropane	ND	0.96	1.00	
1,3-Dichloropropane	ND	0.96	1.00	
2,2-Dichloropropane	ND	4.8	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.9	1.00	
c-1,3-Dichloropropene	ND	0.96	1.00	
t-1,3-Dichloropropene	ND	1.9	1.00	
Ethylbenzene	ND	0.96	1.00	
2-Hexanone	ND	19	1.00	
Isopropylbenzene	ND	0.96	1.00	
p-Isopropyltoluene	ND	0.96	1.00	
Methylene Chloride	ND	9.6	1.00	
4-Methyl-2-Pentanone	ND	19	1.00	
Naphthalene	ND	9.6	1.00	
n-Propylbenzene	ND	1.9	1.00	
Styrene	ND	0.96	1.00	
1,1,1,2-Tetrachloroethane	ND	0.96	1.00	
1,1,2,2-Tetrachloroethane	ND	1.9	1.00	
Tetrachloroethene	ND	0.96	1.00	
Toluene	ND	0.96	1.00	
1,2,3-Trichlorobenzene	ND	1.9	1.00	
1,2,4-Trichlorobenzene	ND	1.9	1.00	
1,1,1-Trichloroethane	ND	0.96	1.00	
1,1,2-Trichloroethane	ND	0.96	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.6	1.00	
Trichloroethene	ND	1.9	1.00	
Trichlorofluoromethane	ND	9.6	1.00	
1,2,3-Trichloropropane	ND	1.9	1.00	
1,2,4-Trimethylbenzene	ND	1.9	1.00	
1,3,5-Trimethylbenzene	ND	1.9	1.00	
Vinyl Acetate	ND	9.6	1.00	
Vinyl Chloride	ND	0.96	1.00	
p/m-Xylene	ND	1.9	1.00	
o-Xylene	ND	0.96	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.9	1.00	
Tert-Butyl Alcohol (TBA)	ND	19	1.00	
Diisopropyl Ether (DIPE)	ND	0.96	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.96	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.96	1.00	
Ethanol	ND	480	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/22/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1590
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 12 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	104	79-133	
1,2-Dichloroethane-d4	121	71-155	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420 Page 13 of 36

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB5-2	**16-08-1590-5-C**	**08/22/16 11:20**	**Solid**	**GC/MS QQ**	**08/22/16**	**08/24/16 15:18**	**160824L013**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	52	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.1	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	21	1.00	
2-Butanone	ND	21	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.1	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	21	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.1	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.2	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	2.1	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	5.2	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.1	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.1	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	21	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	21	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.1	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.1	1.00	
Tetrachloroethene	3.4	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.1	1.00	
1,2,4-Trichlorobenzene	ND	2.1	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.1	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.1	1.00	
1,2,4-Trimethylbenzene	ND	2.1	1.00	
1,3,5-Trimethylbenzene	ND	2.1	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.1	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.1	1.00	
Tert-Butyl Alcohol (TBA)	ND	21	1.00	
Diisopropyl Ether (DIPE)	ND	1.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	1.00	
Ethanol	ND	520	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/22/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1590
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 15 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	112	79-133	
1,2-Dichloroethane-d4	125	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB6-2	**16-08-1590-6-C**	**08/22/16 11:55**	**Solid**	**GC/MS QQ**	**08/22/16**	**08/24/16 15:47**	**160824L013**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	50	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	20	1.00	
2-Butanone	ND	20	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	2.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.0	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	20	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	20	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	20	1.00	
Diisopropyl Ether (DIPE)	ND	1.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	1.00	
Ethanol	ND	500	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/22/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1590
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 18 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	110	79-133	
1,2-Dichloroethane-d4	124	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB7-2	**16-08-1590-7-C**	**08/22/16 12:25**	**Solid**	**GC/MS QQ**	**08/22/16**	**08/24/16 16:45**	**160824L013**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	54	1.00	
Benzene	ND	1.1	1.00	
Bromobenzene	ND	1.1	1.00	
Bromochloromethane	ND	2.2	1.00	
Bromodichloromethane	ND	1.1	1.00	
Bromoform	ND	5.4	1.00	
Bromomethane	ND	22	1.00	
2-Butanone	ND	22	1.00	
n-Butylbenzene	ND	1.1	1.00	
sec-Butylbenzene	ND	1.1	1.00	
tert-Butylbenzene	ND	1.1	1.00	
Carbon Disulfide	ND	11	1.00	
Carbon Tetrachloride	ND	1.1	1.00	
Chlorobenzene	ND	1.1	1.00	
Chloroethane	ND	2.2	1.00	
Chloroform	ND	1.1	1.00	
Chloromethane	ND	22	1.00	
2-Chlorotoluene	ND	1.1	1.00	
4-Chlorotoluene	ND	1.1	1.00	
Dibromochloromethane	ND	2.2	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.4	1.00	
1,2-Dibromoethane	ND	1.1	1.00	
Dibromomethane	ND	1.1	1.00	
1,2-Dichlorobenzene	ND	1.1	1.00	
1,3-Dichlorobenzene	ND	1.1	1.00	
1,4-Dichlorobenzene	ND	1.1	1.00	
Dichlorodifluoromethane	ND	2.2	1.00	
1,1-Dichloroethane	ND	1.1	1.00	
1,2-Dichloroethane	ND	1.1	1.00	
1,1-Dichloroethene	ND	1.1	1.00	
c-1,2-Dichloroethene	ND	1.1	1.00	
t-1,2-Dichloroethene	ND	1.1	1.00	
1,2-Dichloropropane	ND	1.1	1.00	
1,3-Dichloropropane	ND	1.1	1.00	
2,2-Dichloropropane	ND	5.4	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.2	1.00	
c-1,3-Dichloropropene	ND	1.1	1.00	
t-1,3-Dichloropropene	ND	2.2	1.00	
Ethylbenzene	ND	1.1	1.00	
2-Hexanone	ND	22	1.00	
Isopropylbenzene	ND	1.1	1.00	
p-Isopropyltoluene	ND	1.1	1.00	
Methylene Chloride	ND	11	1.00	
4-Methyl-2-Pentanone	ND	22	1.00	
Naphthalene	ND	11	1.00	
n-Propylbenzene	ND	2.2	1.00	
Styrene	ND	1.1	1.00	
1,1,1,2-Tetrachloroethane	ND	1.1	1.00	
1,1,2,2-Tetrachloroethane	ND	2.2	1.00	
Tetrachloroethene	ND	1.1	1.00	
Toluene	ND	1.1	1.00	
1,2,3-Trichlorobenzene	ND	2.2	1.00	
1,2,4-Trichlorobenzene	ND	2.2	1.00	
1,1,1-Trichloroethane	ND	1.1	1.00	
1,1,2-Trichloroethane	ND	1.1	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
Trichloroethene	ND	2.2	1.00	
Trichlorofluoromethane	ND	11	1.00	
1,2,3-Trichloropropane	ND	2.2	1.00	
1,2,4-Trimethylbenzene	ND	2.2	1.00	
1,3,5-Trimethylbenzene	ND	2.2	1.00	
Vinyl Acetate	ND	11	1.00	
Vinyl Chloride	ND	1.1	1.00	
p/m-Xylene	ND	2.2	1.00	
o-Xylene	ND	1.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.2	1.00	
Tert-Butyl Alcohol (TBA)	ND	22	1.00	
Diisopropyl Ether (DIPE)	ND	1.1	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	1.1	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	1.1	1.00	
Ethanol	ND	540	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/22/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1590
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 21 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	109	79-133	
1,2-Dichloroethane-d4	127	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB8-2	**16-08-1590-8-C**	**08/22/16 13:10**	**Solid**	**GC/MS QQ**	**08/22/16**	**08/24/16 17:14**	**160824L013**

Parameter	Result	RL	DF	Qualifiers
Acetone	56	51	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.1	1.00	
Bromomethane	ND	20	1.00	
2-Butanone	ND	20	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.1	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	2.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	5.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.0	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	20	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	20	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	20	1.00	
Diisopropyl Ether (DIPE)	ND	1.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	1.00	
Ethanol	ND	510	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/22/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1590
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 24 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	106	79-133	
1,2-Dichloroethane-d4	121	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB10-2	**16-08-1590-9-C**	**08/22/16 14:05**	**Solid**	**GC/MS QQ**	**08/22/16**	**08/24/16 17:43**	**160824L013**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	44	1.00	
Benzene	ND	0.88	1.00	
Bromobenzene	ND	0.88	1.00	
Bromochloromethane	ND	1.8	1.00	
Bromodichloromethane	ND	0.88	1.00	
Bromoform	ND	4.4	1.00	
Bromomethane	ND	18	1.00	
2-Butanone	ND	18	1.00	
n-Butylbenzene	ND	0.88	1.00	
sec-Butylbenzene	ND	0.88	1.00	
tert-Butylbenzene	ND	0.88	1.00	
Carbon Disulfide	ND	8.8	1.00	
Carbon Tetrachloride	ND	0.88	1.00	
Chlorobenzene	ND	0.88	1.00	
Chloroethane	ND	1.8	1.00	
Chloroform	ND	0.88	1.00	
Chloromethane	ND	18	1.00	
2-Chlorotoluene	ND	0.88	1.00	
4-Chlorotoluene	ND	0.88	1.00	
Dibromochloromethane	ND	1.8	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.4	1.00	
1,2-Dibromoethane	ND	0.88	1.00	
Dibromomethane	ND	0.88	1.00	
1,2-Dichlorobenzene	ND	0.88	1.00	
1,3-Dichlorobenzene	ND	0.88	1.00	
1,4-Dichlorobenzene	ND	0.88	1.00	
Dichlorodifluoromethane	ND	1.8	1.00	
1,1-Dichloroethane	ND	0.88	1.00	
1,2-Dichloroethane	ND	0.88	1.00	
1,1-Dichloroethene	ND	0.88	1.00	
c-1,2-Dichloroethene	ND	0.88	1.00	
t-1,2-Dichloroethene	ND	0.88	1.00	
1,2-Dichloropropane	ND	0.88	1.00	
1,3-Dichloropropane	ND	0.88	1.00	
2,2-Dichloropropane	ND	4.4	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.8	1.00	
c-1,3-Dichloropropene	ND	0.88	1.00	
t-1,3-Dichloropropene	ND	1.8	1.00	
Ethylbenzene	ND	0.88	1.00	
2-Hexanone	ND	18	1.00	
Isopropylbenzene	ND	0.88	1.00	
p-Isopropyltoluene	ND	0.88	1.00	
Methylene Chloride	ND	8.8	1.00	
4-Methyl-2-Pentanone	ND	18	1.00	
Naphthalene	ND	8.8	1.00	
n-Propylbenzene	ND	1.8	1.00	
Styrene	ND	0.88	1.00	
1,1,1,2-Tetrachloroethane	ND	0.88	1.00	
1,1,2,2-Tetrachloroethane	ND	1.8	1.00	
Tetrachloroethene	ND	0.88	1.00	
Toluene	ND	0.88	1.00	
1,2,3-Trichlorobenzene	ND	1.8	1.00	
1,2,4-Trichlorobenzene	ND	1.8	1.00	
1,1,1-Trichloroethane	ND	0.88	1.00	
1,1,2-Trichloroethane	ND	0.88	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.8	1.00	
Trichloroethene	ND	1.8	1.00	
Trichlorofluoromethane	ND	8.8	1.00	
1,2,3-Trichloropropane	ND	1.8	1.00	
1,2,4-Trimethylbenzene	ND	1.8	1.00	
1,3,5-Trimethylbenzene	ND	1.8	1.00	
Vinyl Acetate	ND	8.8	1.00	
Vinyl Chloride	ND	0.88	1.00	
p/m-Xylene	ND	1.8	1.00	
o-Xylene	ND	0.88	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	1.00	
Tert-Butyl Alcohol (TBA)	ND	18	1.00	
Diisopropyl Ether (DIPE)	ND	0.88	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.88	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.88	1.00	
Ethanol	ND	440	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/22/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1590
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 27 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	112	79-133	
1,2-Dichloroethane-d4	126	71-155	
Toluene-d8	102	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB11-2	**16-08-1590-10-C**	**08/22/16 14:30**	**Solid**	**GC/MS QQ**	**08/22/16**	**08/24/16 18:12**	**160824L013**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	42	1.00	
Benzene	ND	0.83	1.00	
Bromobenzene	ND	0.83	1.00	
Bromochloromethane	ND	1.7	1.00	
Bromodichloromethane	ND	0.83	1.00	
Bromoform	ND	4.2	1.00	
Bromomethane	ND	17	1.00	
2-Butanone	ND	17	1.00	
n-Butylbenzene	ND	0.83	1.00	
sec-Butylbenzene	ND	0.83	1.00	
tert-Butylbenzene	ND	0.83	1.00	
Carbon Disulfide	ND	8.3	1.00	
Carbon Tetrachloride	ND	0.83	1.00	
Chlorobenzene	ND	0.83	1.00	
Chloroethane	ND	1.7	1.00	
Chloroform	ND	0.83	1.00	
Chloromethane	ND	17	1.00	
2-Chlorotoluene	ND	0.83	1.00	
4-Chlorotoluene	ND	0.83	1.00	
Dibromochloromethane	ND	1.7	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.2	1.00	
1,2-Dibromoethane	ND	0.83	1.00	
Dibromomethane	ND	0.83	1.00	
1,2-Dichlorobenzene	ND	0.83	1.00	
1,3-Dichlorobenzene	ND	0.83	1.00	
1,4-Dichlorobenzene	ND	0.83	1.00	
Dichlorodifluoromethane	ND	1.7	1.00	
1,1-Dichloroethane	ND	0.83	1.00	
1,2-Dichloroethane	ND	0.83	1.00	
1,1-Dichloroethene	ND	0.83	1.00	
c-1,2-Dichloroethene	ND	0.83	1.00	
t-1,2-Dichloroethene	ND	0.83	1.00	
1,2-Dichloropropane	ND	0.83	1.00	
1,3-Dichloropropane	ND	0.83	1.00	
2,2-Dichloropropane	ND	4.2	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.7	1.00	
c-1,3-Dichloropropene	ND	0.83	1.00	
t-1,3-Dichloropropene	ND	1.7	1.00	
Ethylbenzene	ND	0.83	1.00	
2-Hexanone	ND	17	1.00	
Isopropylbenzene	ND	0.83	1.00	
p-Isopropyltoluene	ND	0.83	1.00	
Methylene Chloride	ND	8.3	1.00	
4-Methyl-2-Pentanone	ND	17	1.00	
Naphthalene	ND	8.3	1.00	
n-Propylbenzene	ND	1.7	1.00	
Styrene	ND	0.83	1.00	
1,1,1,2-Tetrachloroethane	ND	0.83	1.00	
1,1,2,2-Tetrachloroethane	ND	1.7	1.00	
Tetrachloroethene	ND	0.83	1.00	
Toluene	ND	0.83	1.00	
1,2,3-Trichlorobenzene	ND	1.7	1.00	
1,2,4-Trichlorobenzene	ND	1.7	1.00	
1,1,1-Trichloroethane	ND	0.83	1.00	
1,1,2-Trichloroethane	ND	0.83	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.3	1.00	
Trichloroethene	ND	1.7	1.00	
Trichlorofluoromethane	ND	8.3	1.00	
1,2,3-Trichloropropane	ND	1.7	1.00	
1,2,4-Trimethylbenzene	ND	1.7	1.00	
1,3,5-Trimethylbenzene	ND	1.7	1.00	
Vinyl Acetate	ND	8.3	1.00	
Vinyl Chloride	ND	0.83	1.00	
p/m-Xylene	ND	1.7	1.00	
o-Xylene	ND	0.83	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	1.00	
Tert-Butyl Alcohol (TBA)	ND	17	1.00	
Diisopropyl Ether (DIPE)	ND	0.83	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	0.83	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	0.83	1.00	
Ethanol	ND	420	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/22/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1590
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 30 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	105	79-133	
1,2-Dichloroethane-d4	125	71-155	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GAIP-SB12-2	**16-08-1590-11-C**	**08/22/16 15:15**	**Solid**	**GC/MS QQ**	**08/22/16**	**08/24/16 18:41**	**160824L013**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	52	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.1	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	21	1.00	
2-Butanone	ND	21	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.1	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	21	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.1	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.2	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	2.1	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	5.2	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.1	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.1	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	21	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	21	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.1	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.1	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.1	1.00	
1,2,4-Trichlorobenzene	ND	2.1	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.1	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.1	1.00	
1,2,4-Trimethylbenzene	ND	2.1	1.00	
1,3,5-Trimethylbenzene	ND	2.1	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.1	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.1	1.00	
Tert-Butyl Alcohol (TBA)	ND	21	1.00	
Diisopropyl Ether (DIPE)	ND	1.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	1.00	
Ethanol	ND	520	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/22/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1590
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 33 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	110	79-133	
1,2-Dichloroethane-d4	128	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**095-01-025-27914**	**N/A**	**Solid**	**GC/MS QQ**	**08/24/16**	**08/24/16 11:24**	**160824L013**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	50	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	20	1.00	
2-Butanone	ND	20	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	2.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: John Wayne Airport (JWA) / IR13164420

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.0	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	20	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	20	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	
Tert-Butyl Alcohol (TBA)	ND	20	1.00	
Diisopropyl Ether (DIPE)	ND	1.0	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	1.00	
Ethanol	ND	500	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/22/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1590
Irvine, CA 92617-3094	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: John Wayne Airport (JWA) / IR13164420		Page 36 of 36

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	107	79-133	
1,2-Dichloroethane-d4	115	71-155	
Toluene-d8	98	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/22/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1590
Irvine, CA 92617-3094	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
Project: John Wayne Airport (JWA) / IR13164420		Page 1 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-08-1559-4	**Sample**	**Solid**	**GC 47**	**08/25/16**	**08/25/16 17:32**	**160825S07**
16-08-1559-4	**Matrix Spike**	**Solid**	**GC 47**	**08/25/16**	**08/25/16 16:59**	**160825S07**
16-08-1559-4	**Matrix Spike Duplicate**	**Solid**	**GC 47**	**08/25/16**	**08/25/16 17:16**	**160825S07**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	478.7	120	501.6	125	64-130	5	0-15	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3050B
Method: EPA 6010B

Project: John Wayne Airport (JWA) / IR13164420

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
GAIP-SB1-2	**Sample**	**Solid**	**ICP 8300**	**08/25/16**	**08/26/16 15:05**	**160825S03**
GAIP-SB1-2	**Matrix Spike**	**Solid**	**ICP 8300**	**08/25/16**	**08/26/16 15:07**	**160825S03**
GAIP-SB1-2	**Matrix Spike Duplicate**	**Solid**	**ICP 8300**	**08/25/16**	**08/26/16 15:09**	**160825S03**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	10.29	41	10.05	40	50-115	2	0-20	3
Arsenic	2.930	25.00	27.06	97	27.67	99	75-125	2	0-20	
Barium	45.21	25.00	71.00	103	68.29	92	75-125	4	0-20	
Beryllium	ND	25.00	26.29	105	26.12	104	75-125	1	0-20	
Cadmium	ND	25.00	27.18	109	27.20	109	75-125	0	0-20	
Chromium	11.38	25.00	37.42	104	36.14	99	75-125	3	0-20	
Cobalt	4.895	25.00	31.83	108	31.61	107	75-125	1	0-20	
Copper	9.311	25.00	35.65	105	34.70	102	75-125	3	0-20	
Lead	22.68	25.00	46.88	97	91.45	275	75-125	64	0-20	3,4
Molybdenum	0.5005	25.00	23.71	93	23.73	93	75-125	0	0-20	
Nickel	10.89	25.00	39.03	113	38.56	111	75-125	1	0-20	
Selenium	ND	25.00	23.80	95	23.01	92	75-125	3	0-20	
Silver	ND	12.50	12.45	100	12.86	103	75-125	3	0-20	
Thallium	ND	25.00	14.62	58	14.39	58	75-125	2	0-20	3
Vanadium	21.84	25.00	47.28	102	46.29	98	75-125	2	0-20	
Zinc	27.29	25.00	52.96	103	51.96	99	75-125	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/22/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1590
Irvine, CA 92617-3094	Preparation:	EPA 7471A Total
	Method:	EPA 7471A
Project: John Wayne Airport (JWA) / IR13164420		Page 3 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-08-1384-41	**Sample**	**Solid**	**Mercury 05**	**08/26/16**	**08/26/16 19:38**	**160826S05**
16-08-1384-41	**Matrix Spike**	**Solid**	**Mercury 05**	**08/26/16**	**08/26/16 19:40**	**160826S05**
16-08-1384-41	**Matrix Spike Duplicate**	**Solid**	**Mercury 05**	**08/26/16**	**08/26/16 19:47**	**160826S05**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.6302	75	0.7139	85	80-120	12	0-15	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - PDS/PDSD

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 3050B
Method: EPA 6010B

Project: John Wayne Airport (JWA) / IR13164420

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
GAIP-SB1-2	**Sample**	**Solid**	**ICP 8300**	**08/25/16 00:00**	**08/26/16 15:05**	**160825S03**
GAIP-SB1-2	**PDS**	**Solid**	**ICP 8300**	**08/25/16 00:00**	**08/29/16 16:30**	**160825S03**
GAIP-SB1-2	**PDSD**	**Solid**	**ICP 8300**	**08/25/16 00:00**	**08/29/16 16:31**	**160825S03**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	PDSD Conc.	PDSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	22.09	88	22.92	92	75-125	4	0-20	
Arsenic	2.930	25.00	26.11	93	26.92	96	75-125	3	0-20	
Barium	45.21	25.00	72.86	111	72.82	110	75-125	0	0-20	
Beryllium	ND	25.00	24.38	98	24.74	99	75-125	1	0-20	
Cadmium	ND	25.00	25.48	102	25.63	103	75-125	1	0-20	
Chromium	11.38	25.00	37.26	104	37.39	104	75-125	0	0-20	
Cobalt	4.895	25.00	30.48	102	30.71	103	75-125	1	0-20	
Copper	9.311	25.00	35.94	107	36.03	107	75-125	0	0-20	
Lead	22.68	25.00	44.02	85	44.36	87	75-125	1	0-20	
Molybdenum	0.5005	25.00	23.46	92	23.56	92	75-125	0	0-20	
Nickel	10.89	25.00	35.16	97	35.42	98	75-125	1	0-20	
Selenium	ND	25.00	22.63	91	22.81	91	75-125	1	0-20	
Silver	ND	12.50	12.60	101	12.68	101	75-125	1	0-20	
Thallium	ND	25.00	21.99	88	21.26	85	75-125	3	0-20	
Vanadium	21.84	25.00	49.10	109	49.14	109	75-125	0	0-20	
Zinc	27.29	25.00	52.15	99	52.67	102	75-125	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - PDS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/22/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1590
Irvine, CA 92617-3094	Preparation:	EPA 7471A Total
	Method:	EPA 7471A
Project: John Wayne Airport (JWA) / IR13164420		Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
16-08-1384-41	**Sample**	**Solid**	**Mercury 05**	**08/26/16 00:00**	**08/26/16 19:38**	**160826S05**
16-08-1384-41	**PDS**	**Solid**	**Mercury 05**	**08/26/16 00:00**	**08/26/16 20:02**	**160826S05**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Mercury	ND	0.8350	0.6753	81	75-125	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/22/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1590
Irvine, CA 92617-3094	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
Project: John Wayne Airport (JWA) / IR13164420		Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-490-2238	**LCS**	**Solid**	**GC 47**	**08/25/16**	**08/25/16 16:42**	**160825B07**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Diesel	400.0	461.2	115	75-123	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/22/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1590
Irvine, CA 92617-3094	Preparation:	EPA 3050B
	Method:	EPA 6010B
Project: John Wayne Airport (JWA) / IR13164420		Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-23144	**LCS**	**Solid**	**ICP 8300**	**08/25/16**	**08/26/16 13:22**	**160825L03**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	23.76	95	80-120	73-127	
Arsenic	25.00	23.58	94	80-120	73-127	
Barium	25.00	25.57	102	80-120	73-127	
Beryllium	25.00	23.66	95	80-120	73-127	
Cadmium	25.00	25.71	103	80-120	73-127	
Chromium	25.00	26.08	104	80-120	73-127	
Cobalt	25.00	26.36	105	80-120	73-127	
Copper	25.00	26.07	104	80-120	73-127	
Lead	25.00	26.12	104	80-120	73-127	
Molybdenum	25.00	24.72	99	80-120	73-127	
Nickel	25.00	26.20	105	80-120	73-127	
Selenium	25.00	23.91	96	80-120	73-127	
Silver	12.50	12.45	100	80-120	73-127	
Thallium	25.00	25.54	102	80-120	73-127	
Vanadium	25.00	25.52	102	80-120	73-127	
Zinc	25.00	25.95	104	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Amec Foster Wheeler Environment & Infrastructure,	Date Received:	08/22/16
121 Innovation Drive, Suite 200	Work Order:	16-08-1590
Irvine, CA 92617-3094	Preparation:	EPA 7471A Total
	Method:	EPA 7471A
Project: John Wayne Airport (JWA) / IR13164420		Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-2466	**LCS**	**Solid**	**Mercury 05**	**08/26/16**	**08/26/16 19:36**	**160826L05**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.8350	0.8335	100	85-121	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Amec Foster Wheeler Environment & Infrastructure,
121 Innovation Drive, Suite 200
Irvine, CA 92617-3094

Date Received: 08/22/16
Work Order: 16-08-1590
Preparation: EPA 5035
Method: EPA 8260B

Project: John Wayne Airport (JWA) / IR13164420

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-025-27914	**LCS**	**Solid**	**GC/MS QQ**	**08/24/16**	**08/24/16 09:43**	**160824L013**
095-01-025-27914	**LCSD**	**Solid**	**GC/MS QQ**	**08/24/16**	**08/24/16 10:11**	**160824L013**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	50.00	42.29	85	42.93	86	80-120	73-127	2	0-20	
Carbon Tetrachloride	50.00	56.51	113	55.17	110	65-137	53-149	2	0-20	
Chlorobenzene	50.00	47.56	95	47.17	94	80-120	73-127	1	0-20	
1,2-Dibromoethane	50.00	49.80	100	50.31	101	80-120	73-127	1	0-20	
1,2-Dichlorobenzene	50.00	46.99	94	47.04	94	80-120	73-127	0	0-20	
1,2-Dichloroethane	50.00	51.88	104	51.86	104	80-120	73-127	0	0-20	
1,1-Dichloroethene	50.00	41.61	83	40.55	81	68-128	58-138	3	0-20	
Ethylbenzene	50.00	49.63	99	49.22	98	80-120	73-127	1	0-20	
Toluene	50.00	47.06	94	47.08	94	80-120	73-127	0	0-20	
Trichloroethene	50.00	49.90	100	48.70	97	80-120	73-127	2	0-20	
Vinyl Chloride	50.00	56.19	112	56.80	114	67-127	57-137	1	0-20	
p/m-Xylene	100.0	107.3	107	105.8	106	75-125	67-133	1	0-25	
o-Xylene	50.00	55.03	110	54.95	110	75-125	67-133	0	0-25	
Methyl-t-Butyl Ether (MTBE)	50.00	47.93	96	48.59	97	70-124	61-133	1	0-20	
Tert-Butyl Alcohol (TBA)	250.0	212.6	85	213.9	86	73-121	65-129	1	0-20	
Diisopropyl Ether (DIPE)	50.00	36.52	73	36.54	73	69-129	59-139	0	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	41.20	82	41.43	83	70-124	61-133	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	45.61	91	46.01	92	74-122	66-130	1	0-20	
Ethanol	500.0	418.4	84	400.0	80	51-135	37-149	4	0-27	

Total number of LCS compounds: 19
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Sample Analysis Summary Report

Work Order: 16-08-1590 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3050B	935	ICP 8300	1
EPA 7471A	EPA 7471A Total	868	Mercury 04	1
EPA 8015B (M)	EPA 3550B	972	GC 48	1
EPA 8260B	EPA 5035	486	GC/MS QQ	2

Return to Contents

eurofins | Calscience

Glossary of Terms and Qualifiers

Work Order: 16-08-1590 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN-OF-CUSTODY RECORD

WO NO. / LAB USE ONLY: **16-08-1590**

DATE: 8/22/16
PAGE: 1 OF 2

LABORATORY CLIENT: Amec Foster Wheeler
ADDRESS: 121 Innovation Dr. Ste. 200
CITY: Irvine STATE: CA ZIP: 92617
TEL: (949)642-0245 E-MAIL: duane.paul@amecfw.com

CLIENT PROJECT NAME / NO.: John Wayne Airport (JWA) IR13164420
PROJECT CONTACT: Duane Paul
GLOBAL ID:
LOG CODE:
P.O. NO.:
LAB CONTACT OR QUOTE NO.: Stephen Nowak
SAMPLER(S): (PRINT) Rachel Mills, Jorge Perez

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

EDD:
☐ COELT EDF ☐ OTHER

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH(g) GRO	TPH(d) DRO	TPH C6-C36 C6-C44	TPH ____	BTEX / MTBE 8260 ____	VOCs (8260) + Naphthalene	Oxygenates (8260)	Prep (5035) En Core Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs 8270 8270 SIM	T22 Metals 6010/747X 6020/747X	Cr(VI) 7196 7199 218.6
1	GAIP-SB1-2	8/22/16	0815	S	4	X	X				X			X	X						X	
2	GAIP-SB2-2		0905			X	X				X			X	X						X	
3	GAIP-SB3-2		0945			X	X				X			X	X						X	
4	GAIP-SB4-2		1015			X	X				X			X	X						X	
5	GAIP-SB5-2		1120			X	X				X			X	X						X	
6	GAIP-SB6-2		1155			X	X				X			X	X						X	
7	GAIP-SB7-2		1225			X	X				X			X	X						X	
8	GAIP-SB8-2		1310			X	X				X			X	X						X	
9	GAIP-SB10-2		1405			X	X				X			X	X						X	
10	GAIP-SB11-2		1430			X	X				X			X	X						X	

Relinquished by: (Signature) Rachel Mills	Received by: (Signature/Affiliation) ECI	Date: 8/22/16	Time: 1600
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 8/22/16	Time: 1715
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

2014-07-01 Revision

Return to Contents

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN-OF-CUSTODY RECORD

WO NO. / LAB USE ONLY: 16-08-1590

DATE: 8/22/16
PAGE: 2 OF 2

LABORATORY CLIENT: Amec Foster Wheeler
ADDRESS: 121 Innovation Dr. Ste. 200
CITY: Irvine STATE: CA ZIP: 92617
TEL: (949)642-0245 E-MAIL: duane.paul@amecfw.com

CLIENT PROJECT NAME / NO.: John Wayne Airport (JWA) IR13164420
PROJECT CONTACT: Duane Paul
GLOBAL ID:
LOG CODE:
P.O. NO.:
LAB CONTACT OR QUOTE NO.: Stephen Nowak
SAMPLER(S): (PRINT) Rachel Mills, Jorge Perez

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

EDD:
☐ COELT EDF ☐ OTHER

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☒ C6-C44	TPH ____	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☒ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6
11	GAIP-SB12-2	8/22/16	1515	S	4	X	X				X			X	X						X	

Relinquished by: (Signature) Rachel Mills — Received by: (Signature/Affiliation) EQ — Date: 8/22/16 — Time: 1600

Relinquished by: (Signature) — Received by: (Signature/Affiliation) EQ — Date: 8/22/16 — Time: 1715

Relinquished by: (Signature) — Received by: (Signature/Affiliation) — Date: — Time:

2014-07-01 Revision

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 16-08- 1590

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: AMEC

DATE: 08 / 22 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 3.1 °C (w/ CF): 3.1 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 671

CUSTODY SEAL:

Cooler	☐ Present and Intact	☐ Present but Not Intact	☑ Not Present	☐ N/A	Checked by: 671
Sample(s)	☐ Present and Intact	☐ Present but Not Intact	☑ Not Present	☐ N/A	Checked by: SM6

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☐	☑	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☑ Sleeve (5) ☐ EnCores® (_____) ☑ TerraCores® (3) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: SM6

Reviewed by: 659

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 16-08 Page 86 of 89

SAMPLE ANOMALY REPORT

DATE: 08 / 22 / 2016

SAMPLES, CONTAINERS, AND LABELS:

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☐ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☐ Improper container(s) used (list analysis)
- ☐ Improper preservative used (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☑ Client sample label(s) do not match COC (comment)
  - ☐ Project information
  - ☑ Client sample ID
  - ☐ Sampling date and/or time
  - ☐ Number of container(s)
  - ☐ Requested analysis
- ☐ Sample container(s) compromised (comment)
  - ☐ Broken
  - ☐ Water present in sample container
- ☐ Air sample container(s) compromised (comment)
  - ☐ Flat
  - ☐ Very low in volume
  - ☐ Leaking (not transferred; duplicate bag submitted)
  - ☐ Leaking (transferred into ECI Tedlar™ bags*)
  - ☐ Leaking (transferred into client's Tedlar™ bags*)

* Transferred at client's request.

Comments

(-4) labeled as GAIP-SB4-3½ date/time matched.

MISCELLANEOUS: (Describe)

Comments

HEADSPACE:

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Comments: _____

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

Reported by: _____

Reviewed by: _____

2015-03-16 Revision

Return to Contents

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CASE NARRATIVE

Authorized Signature Name / Title (print)	Ken Zheng, President
Signature / Date	Ken Zheng, President 09/06/2016 12:59:59
Laboratory Job No. (Certificate of Analysis No.)	1608-00265
Project Name / No.	John Wayne Airport, Santa Ana
Dates Sampled (from/to)	08/29/16 To 08/29/16
Dates Received (from/to)	08/29/16 To 08/29/16
Dates Reported (from/to)	09/06/16 To 9/6/2016
Chains of Custody Received	Yes

Comments:

Subcontracting

Organic Analyses

No analyses sub-contracted

Sample Condition(s)

All samples intact

Positive Results (Organic Compounds)

Sample	Analyte	Result	Qual	Units	RL	Sample	Analyte	Result	Qual	Units	RL
GAIP-SB5-SV5	Tetrachloroethene	*0.050*	J	µg/L	0.10	GAIP-SB10-SV5	Tetrachloroethene	*0.060*	J	µg/L	0.10
GAIP-SB13-SV5	Tetrachloroethene	0.12		µg/L	0.10	GAIP-SB13-SV5	Toluene	*0.060*	J	µg/L	0.10
GAIP-SB17-SV5	Tetrachloroethene	0.23		µg/L	0.10	GAIP-SB19-SV5	Tetrachloroethene	0.45		µg/L	0.10

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 001 GAIP-SB1-SV5 1/2 — Date & Time Sampled: 08/29/16 @ 7:50
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/29/16	8:05	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/29/16	8:05	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/29/16	8:05	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	8:05	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	8:05	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	8:05	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	8:05	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	8:05	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	8:05	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	8:05	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	8:05	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 001 GAIP-SB1-SV5 1/2 — Date & Time Sampled: 08/29/16 @ 7:50
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	8:05	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/29/16	8:05	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	8:05	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	8:05	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 001 GAIP-SB1-SV5 1/2								Date & Time Sampled: 08/29/16 @ 7:50		
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	8:05	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	8:05	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/29/16	8:05	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	8:05	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:05	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	8:05	KZ
[VOC Surrogates]										
Dibromofluoromethane	105		%REC	EPA 8260B			70-130	08/29/16	8:05	KZ
Toluene-D8	87		%REC	EPA 8260B			70-130	08/29/16	8:05	KZ
Bromofluorobenzene	89		%REC	EPA 8260B			70-130	08/29/16	8:05	KZ
Sample: 002 GAIP-SB12-SV5								Date & Time Sampled: 08/29/16 @ 8:16		
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/29/16	8:28	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/29/16	8:28	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/29/16	8:28	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 002 GAIP-SB12-SV5 Date & Time Sampled: 08/29/16 @ 8:16
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	8:28	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	8:28	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	8:28	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	8:28	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	8:28	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	8:28	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	8:28	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	8:28	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 002 GAIP-SB12-SV5 Date & Time Sampled: 08/29/16 @ 8:16
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	8:28	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/29/16	8:28	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	8:28	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	8:28	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 002 GAIP-SB12-SV5							Date & Time Sampled:	08/29/16	@	8:16
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	8:28	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	8:28	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/29/16	8:28	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	8:28	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:28	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	8:28	KZ
[VOC Surrogates]										
Dibromofluoromethane	105		%REC	EPA 8260B			70-130	08/29/16	8:28	KZ
Toluene-D8	90		%REC	EPA 8260B			70-130	08/29/16	8:28	KZ
Bromofluorobenzene	92		%REC	EPA 8260B			70-130	08/29/16	8:28	KZ
Sample: 003 GAIP-SB4-SV5							Date & Time Sampled:	08/29/16	@	8:37
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/29/16	8:52	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/29/16	8:52	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/29/16	8:52	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	8:52	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 003 GAIP-SB4-SV5 Date & Time Sampled: 08/29/16 @ 8:37
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	8:52	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	8:52	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	8:52	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	8:52	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	8:52	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	8:52	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	8:52	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 003 GAIP-SB4-SV5 Date & Time Sampled: 08/29/16 @ 8:37
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	8:52	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/29/16	8:52	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	8:52	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	8:52	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	8:52	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	8:52	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 003 GAIP-SB4-SV5						Date & Time Sampled:		08/29/16	@	8:37
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/29/16	8:52	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	8:52	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	8:52	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	8:52	KZ
[VOC Surrogates]										
Dibromofluoromethane	103		%REC	EPA 8260B			70-130	08/29/16	8:52	KZ
Toluene-D8	85		%REC	EPA 8260B			70-130	08/29/16	8:52	KZ
Bromofluorobenzene	89		%REC	EPA 8260B			70-130	08/29/16	8:52	KZ
Sample: 004 GAIP-SB3-SV5						Date & Time Sampled:		08/29/16	@	9:00
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/29/16	9:15	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/29/16	9:15	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/29/16	9:15	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	9:15	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	9:15	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	9:15	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 004 GAIP-SB3-SV5 Date & Time Sampled: 08/29/16 @ 9:00
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	9:15	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	9:15	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	9:15	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	9:15	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	9:15	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 004 GAIP-SB3-SV5 Date & Time Sampled: 08/29/16 @ 9:00
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	9:15	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/29/16	9:15	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	9:15	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	9:15	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	9:15	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	9:15	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/29/16	9:15	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	9:15	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:15	KZ
[VOC Vapor Sampling Tracer]										

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 004 GAIP-SB3-SV5							Date & Time Sampled:	08/29/16	@	9:00
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	9:15	KZ
[VOC Surrogates]										
Dibromofluoromethane	105		%REC	EPA 8260B			70-130	08/29/16	9:15	KZ
Toluene-D8	80		%REC	EPA 8260B			70-130	08/29/16	9:15	KZ
Bromofluorobenzene	89		%REC	EPA 8260B			70-130	08/29/16	9:15	KZ
Sample: 005 GAIP-SB2-SV5							Date & Time Sampled:	08/29/16	@	9:22
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/29/16	9:38	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/29/16	9:38	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/29/16	9:38	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	9:38	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	9:38	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	9:38	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	9:38	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	9:38	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 005 GAIP-SB2-SV5 Date & Time Sampled: 08/29/16 @ 9:22
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	9:38	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	9:38	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	9:38	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
Dichlorodifluoromethane	<0.050		ug/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	9:38	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 005 GAIP-SB2-SV5 Date & Time Sampled: 08/29/16 @ 9:22
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/29/16	9:38	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	9:38	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	9:38	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	9:38	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	9:38	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/29/16	9:38	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	9:38	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	9:38	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	9:38	KZ
[VOC Surrogates]										
Dibromofluoromethane	107		%REC	EPA 8260B			70-130	08/29/16	9:38	KZ
Toluene-D8	81		%REC	EPA 8260B			70-130	08/29/16	9:38	KZ
Bromofluorobenzene	93		%REC	EPA 8260B			70-130	08/29/16	9:38	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 006 GAIP-SB7-SV5 Date & Time Sampled: 08/29/16 @ 9:45
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/29/16	10:01	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/29/16	10:01	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/29/16	10:01	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	10:01	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	10:01	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	10:01	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	10:01	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	10:01	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	10:01	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	10:01	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	10:01	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 006 GAIP-SB7-SV5 Date & Time Sampled: 08/29/16 @ 9:45
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	10:01	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/29/16	10:01	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	10:01	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	10:01	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 006 GAIP-SB7-SV5							Date & Time Sampled:	08/29/16	@	9:45
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	10:01	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	10:01	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/29/16	10:01	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	10:01	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:01	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	10:01	KZ
[VOC Surrogates]										
Dibromofluoromethane	113		%REC	EPA 8260B			70-130	08/29/16	10:01	KZ
Toluene-D8	76		%REC	EPA 8260B			70-130	08/29/16	10:01	KZ
Bromofluorobenzene	100		%REC	EPA 8260B			70-130	08/29/16	10:01	KZ
Sample: 007 GAIP-SB5-SV5							Date & Time Sampled:	08/29/16	@	10:01
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/29/16	10:24	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/29/16	10:24	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 007 GAIP-SB5-SV5 Date & Time Sampled: 08/29/16 @ 10:01
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/29/16	10:24	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	10:24	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	10:24	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	10:24	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	10:24	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	10:24	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	10:24	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	10:24	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	10:24	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 007 GAIP-SB5-SV5 Date & Time Sampled: 08/29/16 @ 10:01
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	10:24	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/29/16	10:24	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	10:24	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	10:24	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
Tetrachloroethene	*0.050*	J	µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 007 GAIP-SB5-SV5							Date & Time Sampled:	08/29/16	@	10:01
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	10:24	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	10:24	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/29/16	10:24	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	10:24	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:24	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	10:24	KZ
[VOC Surrogates]										
Dibromofluoromethane	88		%REC	EPA 8260B			70-130	08/29/16	10:24	KZ
Toluene-D8	89		%REC	EPA 8260B			70-130	08/29/16	10:24	KZ
Bromofluorobenzene	94		%REC	EPA 8260B			70-130	08/29/16	10:24	KZ
Sample: 008 GAIP-SB9-SV5							Date & Time Sampled:	08/29/16	@	10:32
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/29/16	10:47	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/29/16	10:47	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/29/16	10:47	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 008 GAIP-SB9-SV5 Date & Time Sampled: 08/29/16 @ 10:32
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	10:47	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	10:47	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	10:47	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	10:47	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	10:47	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	10:47	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	10:47	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	10:47	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 008 GAIP-SB9-SV5 Date & Time Sampled: 08/29/16 @ 10:32
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	10:47	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/29/16	10:47	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	10:47	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	10:47	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	10:47	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	10:47	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 008 GAIP-SB9-SV5							Date & Time Sampled:	08/29/16	@	10:32
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/29/16	10:47	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	10:47	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	10:47	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	10:47	KZ
[VOC Surrogates]										
Dibromofluoromethane	106		%REC	EPA 8260B			70-130	08/29/16	10:47	KZ
Toluene-D8	95		%REC	EPA 8260B			70-130	08/29/16	10:47	KZ
Bromofluorobenzene	101		%REC	EPA 8260B			70-130	08/29/16	10:47	KZ
Sample: 009 GAIP-SB6-SV5							Date & Time Sampled:	08/29/16	@	10:53
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/29/16	11:10	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/29/16	11:10	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/29/16	11:10	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	11:10	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	11:10	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	11:10	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 009 GAIP-SB6-SV5 Date & Time Sampled: 08/29/16 @ 10:53
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	11:10	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	11:10	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	11:10	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	11:10	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	11:10	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 009 GAIP-SB6-SV5 Date & Time Sampled: 08/29/16 @ 10:53
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	11:10	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/29/16	11:10	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	11:10	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	11:10	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	11:10	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	11:10	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/29/16	11:10	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	11:10	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:10	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 009 GAIP-SB6-SV5							Date & Time Sampled:	08/29/16	@	10:53
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	11:10	KZ
[VOC Surrogates]										
Dibromofluoromethane	124		%REC	EPA 8260B			70-130	08/29/16	11:10	KZ
Toluene-D8	83		%REC	EPA 8260B			70-130	08/29/16	11:10	KZ
Bromofluorobenzene	121		%REC	EPA 8260B			70-130	08/29/16	11:10	KZ
Sample: 010 GAIP-SB8-SV5							Date & Time Sampled:	08/29/16	@	11:17
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/29/16	11:52	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/29/16	11:52	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/29/16	11:52	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	11:52	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	11:52	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	11:52	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	11:52	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	11:52	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 010 GAIP-SB8-SV5 Date & Time Sampled: 08/29/16 @ 11:17
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	11:52	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	11:52	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	11:52	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	11:52	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 010 GAIP-SB8-SV5 Date & Time Sampled: 08/29/16 @ 11:17
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/29/16	11:52	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	11:52	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	11:52	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	11:52	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	11:52	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/29/16	11:52	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	11:52	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	11:52	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	11:52	KZ
[VOC Surrogates]										
Dibromofluoromethane	115		%REC	EPA 8260B			70-130	08/29/16	11:52	KZ
Toluene-D8	74		%REC	EPA 8260B			70-130	08/29/16	11:52	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 010 GAIP-SB8-SV5							Date & Time Sampled:	08/29/16	@	11:17
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Bromofluorobenzene	88		%REC	EPA 8260B			70-130	08/29/16	11:52	KZ
Sample: 011 GAIP-SB10-SV5							Date & Time Sampled:	08/29/16	@	11:59
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/29/16	12:15	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/29/16	12:15	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/29/16	12:15	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	12:15	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	12:15	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	12:15	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	12:15	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	12:15	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	12:15	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 011 GAIP-SB10-SV5 Date & Time Sampled: 08/29/16 @ 11:59
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	12:15	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	12:15	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	12:15	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/29/16	12:15	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	12:15	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	12:15	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 011 GAIP-SB10-SV5							Date & Time Sampled:	08/29/16	@	11:59
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Tetrachloroethene	*0.060*	J	µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	12:15	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	12:15	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/29/16	12:15	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	12:15	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:15	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	12:15	KZ
[VOC Surrogates]										
Dibromofluoromethane	127		%REC	EPA 8260B			70-130	08/29/16	12:15	KZ
Toluene-D8	73		%REC	EPA 8260B			70-130	08/29/16	12:15	KZ
Bromofluorobenzene	91		%REC	EPA 8260B			70-130	08/29/16	12:15	KZ
Sample: 012 GAIP-SB13-SV5							Date & Time Sampled:	08/29/16	@	12:25
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 012 GAIP-SB13-SV5 Date & Time Sampled: 08/29/16 @ 12:25
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/29/16	12:45	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/29/16	12:45	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/29/16	12:45	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	12:45	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	12:45	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	12:45	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	12:45	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	12:45	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	12:45	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	12:45	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	12:45	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 012 GAIP-SB13-SV5 Date & Time Sampled: 08/29/16 @ 12:25
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	12:45	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/29/16	12:45	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	12:45	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	12:45	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
Tetrachloroethene	0.12		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 012 GAIP-SB13-SV5							Date & Time Sampled:	08/29/16	@ 12:25	
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Toluene	*0.060*	J	µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	12:45	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	12:45	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/29/16	12:45	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	12:45	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	12:45	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	12:45	KZ
[VOC Surrogates]										
Dibromofluoromethane	104		%REC	EPA 8260B			70-130	08/29/16	12:45	KZ
Toluene-D8	74		%REC	EPA 8260B			70-130	08/29/16	12:45	KZ
Bromofluorobenzene	86		%REC	EPA 8260B			70-130	08/29/16	12:45	KZ
Sample: 013 GAIP-SB11-SV5							Date & Time Sampled:	08/29/16	@ 13:07	
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/29/16	1:16	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/29/16	1:16	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/29/16	1:16	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 013 GAIP-SB11-SV5 Date & Time Sampled: 08/29/16 @ 13:07
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	1:16	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	1:16	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	1:16	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	1:16	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	1:16	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	1:16	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	1:16	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	1:16	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 013 GAIP-SB11-SV5 Date & Time Sampled: 08/29/16 @ 13:07
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	1:16	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/29/16	1:16	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	1:16	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	1:16	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 013 GAIP-SB11-SV5							Date & Time Sampled:	08/29/16	@	13:07
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	1:16	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	1:16	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/29/16	1:16	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	1:16	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:16	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	1:16	KZ
[VOC Surrogates]										
Dibromofluoromethane	71		%REC	EPA 8260B			70-130	08/29/16	1:16	KZ
Toluene-D8	76		%REC	EPA 8260B			70-130	08/29/16	1:16	KZ
Bromofluorobenzene	80		%REC	EPA 8260B			70-130	08/29/16	1:16	KZ
Sample: 014 GAIP-SB14-SV5							Date & Time Sampled:	08/29/16	@	13:34
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/29/16	1:45	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/29/16	1:45	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/29/16	1:45	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	1:45	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 014 GAIP-SB14-SV5 Date & Time Sampled: 08/29/16 @ 13:34
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	1:45	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	1:45	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	1:45	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	1:45	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	1:45	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	1:45	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	1:45	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 014 GAIP-SB14-SV5 Date & Time Sampled: 08/29/16 @ 13:34
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	1:45	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/29/16	1:45	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	1:45	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	1:45	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	1:45	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	1:45	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 014 GAIP-SB14-SV5							Date & Time Sampled:	08/29/16	@	13:34
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/29/16	1:45	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	1:45	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	1:45	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	1:45	KZ
[VOC Surrogates]										
Dibromofluoromethane	111		%REC	EPA 8260B			70-130	08/29/16	1:45	KZ
Toluene-D8	92		%REC	EPA 8260B			70-130	08/29/16	1:45	KZ
Bromofluorobenzene	90		%REC	EPA 8260B			70-130	08/29/16	1:45	KZ
Sample: 015 GAIP-SB15-SV5							Date & Time Sampled:	08/29/16	@	14:17
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/29/16	2:19	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/29/16	2:19	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/29/16	2:19	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	2:19	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	2:19	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	2:19	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 015 GAIP-SB15-SV5 Date & Time Sampled: 08/29/16 @ 14:17
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	2:19	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	2:19	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	2:19	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	2:19	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	2:19	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 015 GAIP-SB15-SV5 Date & Time Sampled: 08/29/16 @ 14:17
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	2:19	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/29/16	2:19	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	2:19	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	2:19	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	2:19	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	2:19	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/29/16	2:19	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	2:19	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:19	KZ
[VOC Vapor Sampling Tracer]										

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 015 GAIP-SB15-SV5							Date & Time Sampled:	08/29/16	@	14:17
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	2:19	KZ
[VOC Surrogates]										
Dibromofluoromethane	107		%REC	EPA 8260B			70-130	08/29/16	2:19	KZ
Toluene-D8	85		%REC	EPA 8260B			70-130	08/29/16	2:19	KZ
Bromofluorobenzene	82		%REC	EPA 8260B			70-130	08/29/16	2:19	KZ
Sample: 016 GAIP-SB15-SV5-DUP							Date & Time Sampled:	08/29/16	@	14:07
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/29/16	2:44	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/29/16	2:44	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/29/16	2:44	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	2:44	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	2:44	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	2:44	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	2:44	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	2:44	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 016 GAIP-SB15-SV5-DUP — Date & Time Sampled: 08/29/16 @ 14:07
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	2:44	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	2:44	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	2:44	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	2:44	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 016 GAIP-SB15-SV5-DUP — Date & Time Sampled: 08/29/16 @ 14:07
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/29/16	2:44	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	2:44	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	2:44	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	2:44	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	2:44	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/29/16	2:44	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	2:44	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	2:44	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	2:44	KZ
[VOC Surrogates]										
Dibromofluoromethane	125		%REC	EPA 8260B			70-130	08/29/16	2:44	KZ
Toluene-D8	86		%REC	EPA 8260B			70-130	08/29/16	2:44	KZ
Bromofluorobenzene	93		%REC	EPA 8260B			70-130	08/29/16	2:44	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 017 GAIP-SB16-SV5 Date & Time Sampled: 08/29/16 @ 15:01
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/29/16	3:07	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/29/16	3:07	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/29/16	3:07	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	3:07	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	3:07	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	3:07	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	3:07	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	3:07	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	3:07	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	3:07	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	3:07	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 017 GAIP-SB16-SV5 Date & Time Sampled: 08/29/16 @ 15:01
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	3:07	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/29/16	3:07	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	3:07	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	3:07	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 017 GAIP-SB16-SV5							Date & Time Sampled:	08/29/16	@	15:01
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	3:07	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	3:07	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/29/16	3:07	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	3:07	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:07	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	3:07	KZ
[VOC Surrogates]										
Dibromofluoromethane	128		%REC	EPA 8260B			70-130	08/29/16	3:07	KZ
Toluene-D8	95		%REC	EPA 8260B			70-130	08/29/16	3:07	KZ
Bromofluorobenzene	116		%REC	EPA 8260B			70-130	08/29/16	3:07	KZ
Sample: 018 GAIP-SB16-SV5-DUP							Date & Time Sampled:	08/29/16	@	15:27
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/29/16	3:49	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/29/16	3:49	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 018 GAIP-SB16-SV5-DUP — Date & Time Sampled: 08/29/16 @ 15:27
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/29/16	3:49	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	3:49	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	3:49	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	3:49	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	3:49	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	3:49	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	3:49	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	3:49	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	3:49	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 018 GAIP-SB16-SV5-DUP — Date & Time Sampled: 08/29/16 @ 15:27
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	3:49	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/29/16	3:49	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	3:49	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	3:49	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 018 GAIP-SB16-SV5-DUP								Date & Time Sampled: 08/29/16 @ 15:27		
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	3:49	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	3:49	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/29/16	3:49	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	3:49	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	3:49	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	3:49	KZ
[VOC Surrogates]										
Dibromofluoromethane	94		%REC	EPA 8260B			70-130	08/29/16	3:49	KZ
Toluene-D8	74		%REC	EPA 8260B			70-130	08/29/16	3:49	KZ
Bromofluorobenzene	93		%REC	EPA 8260B			70-130	08/29/16	3:49	KZ
Sample: 019 GAIP-SB17-SV5								Date & Time Sampled: 08/29/16 @ 15:54		
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/29/16	4:12	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/29/16	4:12	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/29/16	4:12	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 019 GAIP-SB17-SV5 Date & Time Sampled: 08/29/16 @ 15:54
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	4:12	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	4:12	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	4:12	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	4:12	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	4:12	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	4:12	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	4:12	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	4:12	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 019 GAIP-SB17-SV5 Date & Time Sampled: 08/29/16 @ 15:54
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	4:12	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/29/16	4:12	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	4:12	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	4:12	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
Tetrachloroethene	0.23		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	4:12	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	4:12	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 019 GAIP-SB17-SV5								Date & Time Sampled:	08/29/16 @	15:54
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/29/16	4:12	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	4:12	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:12	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	4:12	KZ
[VOC Surrogates]										
Dibromofluoromethane	121		%REC	EPA 8260B			70-130	08/29/16	4:12	KZ
Toluene-D8	87		%REC	EPA 8260B			70-130	08/29/16	4:12	KZ
Bromofluorobenzene	79		%REC	EPA 8260B			70-130	08/29/16	4:12	KZ
Sample: 020 GAIP-SB19-SV5								Date & Time Sampled:	08/29/16 @	16:20
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/29/16	4:35	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/29/16	4:35	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/29/16	4:35	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	4:35	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	4:35	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	4:35	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 020 GAIP-SB19-SV5 Date & Time Sampled: 08/29/16 @ 16:20
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	4:35	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	4:35	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	4:35	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	4:35	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	4:35	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 020 GAIP-SB19-SV5 Date & Time Sampled: 08/29/16 @ 16:20
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	4:35	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/29/16	4:35	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	4:35	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/29/16	4:35	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
Tetrachloroethene	0.45		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/29/16	4:35	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	4:35	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/29/16	4:35	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/29/16	4:35	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/29/16	4:35	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00265

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/29/16
Invoice No.	77092
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 020 GAIP-SB19-SV5								Date & Time Sampled:	08/29/16 @	16:20
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/29/16	4:35	KZ
[VOC Surrogates]										
Dibromofluoromethane	97		%REC	EPA 8260B			70-130	08/29/16	4:35	KZ
Toluene-D8	75		%REC	EPA 8260B			70-130	08/29/16	4:35	KZ
Bromofluorobenzene	108		%REC	EPA 8260B			70-130	08/29/16	4:35	KZ

Respectfully Submitted: Ken Zheng

Ken Zheng - President

QUALIFIERS

B = Detected in the associated Method Blank at a concentration above the routine RL.
B1 = BOD dilution water is over specifications . The reported result may be biased high.
D = Surrogate recoveries are not calculated due to sample dilution.
E = Estimated value; Value exceeds calibration level of instrument.
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference.
J = Analyte concentration detected between RL and MDL.
Q = One or more quality control criteria did not meet specifications. See Comments for further explanation.
S = Customer provided specification limit exceeded.

ABBREVIATIONS

DF = Dilution Factor
RL = Reporting Limit, Adjusted by DF
MDL = Method Detection Limit, Adjusted by DF
Qual = Qualifier
Tech = Technician

As regulatory limits change frequently, A & R Laboratories advises the recipient of this report to confirm such limits with the appropriate federal, state, or local authorities before acting in reliance on the regulatory limits provided.

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTAIRO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

QUALITY CONTROL DATA REPORT

INTERPHASE
LOS ANGELES, CA 90040

1608-00265

Date Reported	**09/06/2016**
Date Received	**08/29/2016**
Date Sampled	**08/29/2016**
Invoice No.	**77092**
Customer #	**1567**
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Method # EPA 8260B
QC Reference # 58152 Date Analyzed: 8/29/2016 Technician: KZ
Samples 001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020

Results	LCS %REC	LCS %DUP	LCS %RPD	Control Ranges LCS %REC	LCS %RPD
1,1-Dichloroethene	91	98	7	70 - 130	0 - 25
Benzene	92	102	10	70 - 130	0 - 25
Chlorobenzene	93	101	8	70 - 130	0 - 25
Toluene	94	96	2	70 - 130	0 - 25
Trichloroethene	88	97	9	70 - 130	0 - 25

Method # LUFT GCMS
QC Reference # 58170 Date Analyzed: 8/29/2016 Technician: KZ
Samples 001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020

Results	LCS %REC	LCS %DUP	LCS %RPD	Control Ranges LCS %REC	LCS %RPD
C4-C12	97	92	5	70 - 130	0 - 25

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTAIRO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

QUALITY CONTROL DATA REPORT

INTERPHASE

1608-00265

Date Reported 09/06/2016
Date Received 08/29/2016
Date Sampled 08/29/2016

Project: John Wayne Airport, Santa Ana

Method blank results

Ref	Test Name	Result	Qualif	Units	MDL	Ref	Test Name	Result	Qualif	Units	MDL
58152	Acetone	<5.0		µg/L	5.0		2-Hexanone	<0.50		µg/L	0.50
	t-Amyl Methyl Ether (TAME)	<0.050		µg/L	0.050		Isopropylbenzene	<0.050		µg/L	0.050
	Benzene	<0.036		µg/L	0.036		4-Isopropyltoluene	<0.050		µg/L	0.050
	Bromobenzene	<0.050		µg/L	0.050		Methylene Chloride	<0.05		µg/L	0.05
	Bromochloromethane	<0.050		µg/L	0.050		4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	0.50
	Bromodichloromethane	<0.050		µg/L	0.050		Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	0.050
	Bromoform	<0.050		µg/L	0.050		Naphthalene	<0.032		µg/L	0.032
	Bromomethane	<0.10		µg/L	0.10		n-Propylbenzene	<0.050		µg/L	0.050
	t-Butanol (TBA)	<0.50		µg/L	0.50		Styrene	<0.050		µg/L	0.050
	2-Butanone (MEK)	<0.50		µg/L	0.50		1,1,1,2-Tetrachloroethane	<0.050		µg/L	0.050
	n-Butylbenzene	<0.050		µg/L	0.050		1,1,2,2-Tetrachloroethane	<0.05		µg/L	0.05
	sec-Butylbenzene	<0.050		µg/L	0.050		Tetrachloroethene	<0.050		µg/L	0.050
	tert-Butylbenzene	<0.050		µg/L	0.050		Toluene	<0.050		µg/L	0.050
	Carbon Disulfide	<0.50		µg/L	0.50		1,2,3-Trichlorobenzene	<0.050		µg/L	0.050
	Carbon Tetrachloride	<0.025		µg/L	0.025		1,2,4-Trichlorobenzene	<0.050		µg/L	0.050
	Chlorobenzene	<0.050		µg/L	0.050		1,1,1-Trichloroethane	<0.050		µg/L	0.050
	Chloroethane	<0.050		µg/L	0.050		1,1,2-Trichloroethane	<0.050		µg/L	0.050
	Chloroform	<0.050		µg/L	0.050		Trichloroethene	<0.050		µg/L	0.050
	Chloromethane	<0.10		µg/L	0.10		1,2,3-Trichloropropane	<0.020		µg/L	0.020
	2-Chlorotoluene	<0.050		µg/L	0.050		Trichlorofluoromethane	<0.050		µg/L	0.050
	4-Chlorotoluene	<0.050		µg/L	0.050		Trichlorotrifluoroethane	<0.10		µg/L	0.10
	Dibromochloromethane	<0.050		µg/L	0.050		1,2,4-Trimethylbenzene	<0.050		µg/L	0.050
	1,2-Dibromoethane (EDB)	<0.020		µg/L	0.020		1,3,5-Trimethylbenzene	<0.050		µg/L	0.050
	1,2-Dibromo-3-Chloropropane	<0.020		µg/L	0.020		Vinyl Chloride	<0.013		µg/L	0.013
	Dibromomethane	<0.050		µg/L	0.050		m,p-Xylenes	<0.10		µg/L	0.10
	1,2-Dichlorobenzene	<0.050		µg/L	0.050		o-Xylene	<0.050		µg/L	0.050
	1,3-Dichlorobenzene	<0.050		µg/L	0.050		Isopropanol (IPA)	<0.50		µg/L	0.50
	1,4-Dichlorobenzene	<0.050		µg/L	0.050	58170	C4-C16	<5		µg/L	5
	Dichlorodifluoromethane	<0.050		µg/L	0.050						
	1,1-Dichloroethane	<0.050		µg/L	0.050						
	1,2-Dichloroethane	<0.050		µg/L	0.050						
	1,1-Dichloroethene	<0.050		µg/L	0.050						
	cis-1,2-Dichloroethene	<0.050		µg/L	0.050						
	trans-1,2-Dichloroethene	<0.050		µg/L	0.050						
	1,2-Dichloropropane	<0.050		µg/L	0.050						
	1,3-Dichloropropane	<0.050		µg/L	0.050						
	2,2-Dichloropropane	<0.050		µg/L	0.050						
	1,1-Dichloropropene	<0.050		µg/L	0.050						
	cis-1,3-Dichloropropene	<0.050		µg/L	0.050						
	trans-1,3-Dichloropropene	<0.050		µg/L	0.050						
	Diisopropyl Ether (DiPE)	<0.050		µg/L	0.050						
	Ethylbenzene	<0.050		µg/L	0.050						
	Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	0.050						
	Hexachlorobutadiene	<0.050		µg/L	0.050						

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTAIRO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

QUALITY CONTROL DATA REPORT

1608-00265

INTERPHASE

Date Reported	**09/06/2016**
Date Received	**08/29/2016**
Date Sampled	**08/29/2016**

Project: John Wayne Airport, Santa Ana

Respectfully Submitted: Ken Zheng

Ken Zheng - President

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.

ARL
A & R Laboratories
1650 S. Grove Ave., Ste C, Ontario, CA 91761
Tel: 951-779-0310 / 909-781-6335 Fax: 951-779-0344
E-mail: office@arlaboratories.com

CHAIN OF CUSTODY

A & R Work Order #: 1608-265

Client Name: Interphase
E-mail: office@interphaseenvironmental.com
Address: 6200 Peach Tree St, Los Angeles CA 90040
Report Attention: ROSE W. | Phone #: (323) 278-7700 | Fax #: (323) 278-7707 | Sampled By: Ken
Project No./ Name:
Project Site: John Wayne Airport.

☐ Chilled ☒ Intact ☐ Seal

Turn Around Time Requested: ☐ Rush 8 12 24 48 Hours ☐ Normal MOBILE

Lab # (Lab use)	Client Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserve	No., type* & size of container	EPA8260B (VOCs & Oxygenates)	EPA8260B(BTEX & Oxygenates)	LUFT / 8015 (Gasoline)	LUFT / 8015 (Diesel)	EPA8081A (Organochlorine Pesticides)	EPA 8082 (PCBs)	EPA 8015M (Carbon Chain C4-C40)	EPA 6010B/7000 (CAM 17 Metals)	Micro: Plate Cnt., Coliform, E-Coli	Remarks
-1	GAIP-SB1-SV5½	8/29/16	7:50	Air		250ml G	X		X							3PV
-2	GAIP-SB12-SV5		8:16													
-3	-SB4		8:37													
-4	-SB3		9:00													
-5	-SB2		9:22													
-6	-SB7		9:45													
-7	-SB5		10:01													
-8	-SB9		10:32													
-9	-SB6		10:53													
-10	-SB8		11:17													
-11	-SB10		11:59													
-12	-SB13		12:25													
-13	-SB11		13:07													
-14	-SB14		13:34													
-15	-SB15		14:17													

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Rachel Mills	Amec.	8/29/16	16:59				
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
					A & R	8/29/16	16:59

Note: Samples are discarded 30 days after results are reported unless other arrangements are made.

Matrix Code: DW=Drinking Water; GW=Ground Water; WW=Waste Water; SD=Solid Waste; SL=Sludge; SS=Soil/Sediment; AR=Air; PP=Pure Product

Preservative Code: IC=Ice; HC=HCl; HN=HNO_3; SH=NaOH; ST=$Na_2S_2O_3$; HS=H_2SO_4

* Sample Container Types: T=Tedlar Air Bag; G=Glass Container; ST= Steel Tube; B= Brass Tube; P=Plastic Bottle; V=VOA Vial; E= EnCore

A & R Laboratories
1650 S. Grove Ave., Ste C, Ontario, CA 91761
Tel: 951-779-0310 / 909-781-6335 Fax: 951-779-0344
E-mail: office@arlaboratories.com

CHAIN OF CUSTODY

A & R Work Order #: 1608-265

Client Name: Interphase
E-mail: office@interphaseenvironmental.com
Address: 6200 Peach Tree st. Los Angeles CA 90040
Report Attention: ROSE W. Phone #: (323)278-7700 Fax: # (323)278-7707
Sampled By: Ken
Project No./ Name:
Project Site: John Wayne Airport

☐ Chilled ☒ Intact ☐ Seal

Turn Around Time Requested: ☐ Rush 8 12 24 48 Hours ☐ Normal MOBILE

Lab # (Lab use)	Client Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserve	No., type* & size of container	EPA8260B (VOCs & Oxygenates)	EPA8260B(BTEX & Oxygenates)	LUFT / 8015 (Gasoline)	LUFT / 8015 (Diesel)	EPA8081A (Organochlorine Pesticides)	EPA 8082 (PCBs)	EPA 8015M (Carbon Chain C4-C40)	EPA 6010B/7000 (CAM 17 Metals)	Micro: Plate Cnt., Coliform, E-Coli	Remarks
-16	GA2P-SB15-SV5	8/29/16	14:17	Air		250ml 6T	X		X							3PV
-17	-SB16		15:01													
-18	-SB-16 DUP	DUP	15:27													
-19	-SB-17		15:54													
-20	-SB-19		16:20													

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Rachel Mills	Amec	8/29/16	16:59				
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
					AR	8/29/16	16:59

Note: Samples are discarded 30 days after results are reported unless other arrangements are made.

Matrix Code: DW=Drinking Water; GW=Ground Water; WW=Waste Water; SD=Solid Waste; SL=Sludge; SS=Soil/Sediment; AR=Air; PP=Pure Product

Preservative Code: IC=Ice; HC=HCl; HN=HNO_3; SH=NaOH; ST=$Na_2S_2O_3$; HS=H_2SO_4

* Sample Container Types: T=Tedlar Air Bag; G=Glass Container; ST= Steel Tube; B= Brass Tube; P=Plastic Bottle; V=VOA Vial; E= EnCore

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CASE NARRATIVE

Authorized Signature Name / Title (print)	Ken Zheng, President
Signature / Date	Ken Zheng, President 09/06/2016 13:00:23
Laboratory Job No. (Certificate of Analysis No.)	1608-00266
Project Name / No.	John Wayne Airport, Santa Ana
Dates Sampled (from/to)	08/30/16 To 08/30/16
Dates Received (from/to)	08/30/16 To 08/30/16
Dates Reported (from/to)	09/06/16 To 9/6/2016
Chains of Custody Received	Yes

Comments:

Subcontracting

Organic Analyses

No analyses sub-contracted

Sample Condition(s)

All samples intact

Positive Results (Organic Compounds)

Sample	Analyte	Result	Qual	Units	RL	Sample	Analyte	Result	Qual	Units	RL

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 001 GAIP-SB18-SV5 Date & Time Sampled: 08/30/16 @ 7:45
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/30/16	8:00	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/30/16	8:00	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/30/16	8:00	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	8:00	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	8:00	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	8:00	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	8:00	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	8:00	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	8:00	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	8:00	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	8:00	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 001 GAIP-SB18-SV5 Date & Time Sampled: 08/30/16 @ 7:45
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	8:00	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/30/16	8:00	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	8:00	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	8:00	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 001 GAIP-SB18-SV5							Date & Time Sampled:	08/30/16	@	7:45
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	8:00	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	8:00	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/30/16	8:00	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	8:00	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:00	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	8:00	KZ
[VOC Surrogates]										
Dibromofluoromethane	86		%REC	EPA 8260B			70-130	08/30/16	8:00	KZ
Toluene-D8	90		%REC	EPA 8260B			70-130	08/30/16	8:00	KZ
Bromofluorobenzene	82		%REC	EPA 8260B			70-130	08/30/16	8:00	KZ
Sample: 002 GAIP-SB20-SV5							Date & Time Sampled:	08/30/16	@	8:19
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/30/16	8:40	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/30/16	8:40	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/30/16	8:40	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 002 GAIP-SB20-SV5 Date & Time Sampled: 08/30/16 @ 8:19
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	8:40	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	8:40	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	8:40	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	8:40	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	8:40	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	8:40	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	8:40	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	8:40	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 002 GAIP-SB20-SV5 Date & Time Sampled: 08/30/16 @ 8:19
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	8:40	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/30/16	8:40	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	8:40	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	8:40	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 002 GAIP-SB20-SV5							Date & Time Sampled:	08/30/16	@	8:19
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	8:40	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	8:40	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/30/16	8:40	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	8:40	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	8:40	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	8:40	KZ
[VOC Surrogates]										
Dibromofluoromethane	88		%REC	EPA 8260B			70-130	08/30/16	8:40	KZ
Toluene-D8	84		%REC	EPA 8260B			70-130	08/30/16	8:40	KZ
Bromofluorobenzene	77		%REC	EPA 8260B			70-130	08/30/16	8:40	KZ
Sample: 003 GAIP-SB21-SV5							Date & Time Sampled:	08/30/16	@	8:50
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/30/16	9:06	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/30/16	9:06	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/30/16	9:06	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	9:06	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 003 GAIP-SB21-SV5 Date & Time Sampled: 08/30/16 @ 8:50
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	9:06	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	9:06	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	9:06	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	9:06	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	9:06	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	9:06	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	9:06	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 003 GAIP-SB21-SV5 Date & Time Sampled: 08/30/16 @ 8:50
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	9:06	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/30/16	9:06	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	9:06	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	9:06	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	9:06	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	9:06	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 003 GAIP-SB21-SV5						Date & Time Sampled:		08/30/16	@	8:50
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/30/16	9:06	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	9:06	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:06	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	9:06	KZ
[VOC Surrogates]										
Dibromofluoromethane	80		%REC	EPA 8260B			70-130	08/30/16	9:06	KZ
Toluene-D8	100		%REC	EPA 8260B			70-130	08/30/16	9:06	KZ
Bromofluorobenzene	69		%REC	EPA 8260B			70-130	08/30/16	9:06	KZ
Sample: 004 GAIP-SB24-SV5						Date & Time Sampled:		08/30/16	@	9:32
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/30/16	9:47	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/30/16	9:47	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/30/16	9:47	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	9:47	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	9:47	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	9:47	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 004 GAIP-SB24-SV5 Date & Time Sampled: 08/30/16 @ 9:32
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	9:47	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	9:47	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	9:47	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	9:47	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	9:47	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 004 GAIP-SB24-SV5 Date & Time Sampled: 08/30/16 @ 9:32
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	9:47	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/30/16	9:47	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	9:47	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	9:47	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	9:47	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	9:47	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/30/16	9:47	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	9:47	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	9:47	KZ
[VOC Vapor Sampling Tracer]										

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 004 GAIP-SB24-SV5							Date & Time Sampled:	08/30/16	@	9:32
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	9:47	KZ
[VOC Surrogates]										
Dibromofluoromethane	81		%REC	EPA 8260B			70-130	08/30/16	9:47	KZ
Toluene-D8	97		%REC	EPA 8260B			70-130	08/30/16	9:47	KZ
Bromofluorobenzene	89		%REC	EPA 8260B			70-130	08/30/16	9:47	KZ
Sample: 005 GAIP-SB22-SV5							Date & Time Sampled:	08/30/16	@	10:01
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/30/16	10:11	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/30/16	10:11	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/30/16	10:11	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	10:11	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	10:11	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	10:11	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	10:11	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	10:11	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 005 GAIP-SB22-SV5 Date & Time Sampled: 08/30/16 @ 10:01
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	10:11	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	10:11	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	10:11	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	10:11	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 005 GAIP-SB22-SV5 Date & Time Sampled: 08/30/16 @ 10:01
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/30/16	10:11	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	10:11	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	10:11	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	10:11	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	10:11	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/30/16	10:11	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	10:11	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:11	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	10:11	KZ
[VOC Surrogates]										
Dibromofluoromethane	102		%REC	EPA 8260B			70-130	08/30/16	10:11	KZ
Toluene-D8	85		%REC	EPA 8260B			70-130	08/30/16	10:11	KZ
Bromofluorobenzene	117		%REC	EPA 8260B			70-130	08/30/16	10:11	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 006 GAIP-SB23-SV5 Date & Time Sampled: 08/30/16 @ 10:27
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/30/16	10:39	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/30/16	10:39	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/30/16	10:39	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	10:39	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	10:39	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	10:39	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	10:39	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	10:39	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	10:39	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	10:39	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	10:39	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 006 GAIP-SB23-SV5 Date & Time Sampled: 08/30/16 @ 10:27
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	10:39	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/30/16	10:39	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	10:39	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	10:39	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 006 GAIP-SB23-SV5							Date & Time Sampled:	08/30/16	@	10:27
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	10:39	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	10:39	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/30/16	10:39	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	10:39	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	10:39	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	10:39	KZ
[VOC Surrogates]										
Dibromofluoromethane	124		%REC	EPA 8260B			70-130	08/30/16	10:39	KZ
Toluene-D8	79		%REC	EPA 8260B			70-130	08/30/16	10:39	KZ
Bromofluorobenzene	92		%REC	EPA 8260B			70-130	08/30/16	10:39	KZ
Sample: 007 GAIP-SB25-SV5							Date & Time Sampled:	08/30/16	@	10:53
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/30/16	11:02	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/30/16	11:02	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 007 GAIP-SB25-SV5 Date & Time Sampled: 08/30/16 @ 10:53
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/30/16	11:02	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	11:02	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	11:02	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	11:02	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	11:02	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	11:02	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	11:02	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	11:02	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	11:02	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 007 GAIP-SB25-SV5 Date & Time Sampled: 08/30/16 @ 10:53
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	11:02	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/30/16	11:02	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	11:02	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	11:02	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 007 GAIP-SB25-SV5							Date & Time Sampled:	08/30/16	@	10:53
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	11:02	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	11:02	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/30/16	11:02	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	11:02	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:02	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	11:02	KZ
[VOC Surrogates]										
Dibromofluoromethane	91		%REC	EPA 8260B			70-130	08/30/16	11:02	KZ
Toluene-D8	92		%REC	EPA 8260B			70-130	08/30/16	11:02	KZ
Bromofluorobenzene	114		%REC	EPA 8260B			70-130	08/30/16	11:02	KZ
Sample: 008 GAIP-SB26-SV5							Date & Time Sampled:	08/30/16	@	11:09
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/30/16	11:25	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/30/16	11:25	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/30/16	11:25	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 008 GAIP-SB26-SV5 Date & Time Sampled: 08/30/16 @ 11:09
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	11:25	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	11:25	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	11:25	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	11:25	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	11:25	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	11:25	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	11:25	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	11:25	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 008 GAIP-SB26-SV5 Date & Time Sampled: 08/30/16 @ 11:09
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	11:25	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/30/16	11:25	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	11:25	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	11:25	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	11:25	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	11:25	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 008 GAIP-SB26-SV5							Date & Time Sampled:	08/30/16	@	11:09
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/30/16	11:25	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	11:25	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:25	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	11:25	KZ
[VOC Surrogates]										
Dibromofluoromethane	112		%REC	EPA 8260B			70-130	08/30/16	11:25	KZ
Toluene-D8	97		%REC	EPA 8260B			70-130	08/30/16	11:25	KZ
Bromofluorobenzene	92		%REC	EPA 8260B			70-130	08/30/16	11:25	KZ
Sample: 009 GAIP-SB27-SV5							Date & Time Sampled:	08/30/16	@	11:31
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/30/16	11:49	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/30/16	11:49	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/30/16	11:49	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	11:49	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	11:49	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	11:49	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 009 GAIP-SB27-SV5 Date & Time Sampled: 08/30/16 @ 11:31
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	11:49	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	11:49	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	11:49	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	11:49	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	11:49	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 009 GAIP-SB27-SV5 Date & Time Sampled: 08/30/16 @ 11:31
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	11:49	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/30/16	11:49	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	11:49	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	11:49	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	11:49	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	11:49	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/30/16	11:49	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	11:49	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	11:49	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 009 GAIP-SB27-SV5							Date & Time Sampled:	08/30/16	@	11:31
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	11:49	KZ
[VOC Surrogates]										
Dibromofluoromethane	113		%REC	EPA 8260B			70-130	08/30/16	11:49	KZ
Toluene-D8	80		%REC	EPA 8260B			70-130	08/30/16	11:49	KZ
Bromofluorobenzene	107		%REC	EPA 8260B			70-130	08/30/16	11:49	KZ
Sample: 010 GAIP-SB28-SV5							Date & Time Sampled:	08/30/16	@	11:58
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/30/16	12:12	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/30/16	12:12	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/30/16	12:12	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	12:12	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	12:12	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	12:12	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	12:12	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	12:12	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 010 GAIP-SB28-SV5 Date & Time Sampled: 08/30/16 @ 11:58
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	12:12	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	12:12	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	12:12	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	12:12	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 010 GAIP-SB28-SV5 Date & Time Sampled: 08/30/16 @ 11:58
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/30/16	12:12	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	12:12	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	12:12	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	12:12	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	12:12	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/30/16	12:12	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	12:12	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:12	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	12:12	KZ
[VOC Surrogates]										
Dibromofluoromethane	115		%REC	EPA 8260B			70-130	08/30/16	12:12	KZ
Toluene-D8	100		%REC	EPA 8260B			70-130	08/30/16	12:12	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 010 GAIP-SB28-SV5							Date & Time Sampled:	08/30/16	@	11:58
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Bromofluorobenzene	91		%REC	EPA 8260B			70-130	08/30/16	12:12	KZ
Sample: 011 GAIP-SB28-SV5-DUP							Date & Time Sampled:	08/30/16	@	11:58
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/30/16	12:36	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/30/16	12:36	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/30/16	12:36	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	12:36	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	12:36	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	12:36	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	12:36	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	12:36	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	12:36	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 011 GAIP-SB28-SV5-DUP — Date & Time Sampled: 08/30/16 @ 11:58
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	12:36	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	12:36	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	12:36	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/30/16	12:36	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	12:36	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	12:36	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 011 GAIP-SB28-SV5-DUP								Date & Time Sampled:	08/30/16 @	11:58
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	12:36	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	12:36	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/30/16	12:36	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	12:36	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	12:36	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	12:36	KZ
[VOC Surrogates]										
Dibromofluoromethane	106		%REC	EPA 8260B			70-130	08/30/16	12:36	KZ
Toluene-D8	76		%REC	EPA 8260B			70-130	08/30/16	12:36	KZ
Bromofluorobenzene	126		%REC	EPA 8260B			70-130	08/30/16	12:36	KZ
Sample: 012 GAIP-SB29-SV5								Date & Time Sampled:	08/30/16 @	12:46
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 012 GAIP-SB29-SV5 Date & Time Sampled: 08/30/16 @ 12:46
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/30/16	1:00	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/30/16	1:00	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/30/16	1:00	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	1:00	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	1:00	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	1:00	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	1:00	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	1:00	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	1:00	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	1:00	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	1:00	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 012 GAIP-SB29-SV5 Date & Time Sampled: 08/30/16 @ 12:46
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	1:00	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/30/16	1:00	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	1:00	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	1:00	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 012 GAIP-SB29-SV5							Date & Time Sampled:	08/30/16	@	12:46
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	1:00	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	1:00	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/30/16	1:00	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	1:00	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:00	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	1:00	KZ
[VOC Surrogates]										
Dibromofluoromethane	80		%REC	EPA 8260B			70-130	08/30/16	1:00	KZ
Toluene-D8	86		%REC	EPA 8260B			70-130	08/30/16	1:00	KZ
Bromofluorobenzene	114		%REC	EPA 8260B			70-130	08/30/16	1:00	KZ
Sample: 013 GAIP-SB30-SV5							Date & Time Sampled:	08/30/16	@	13:15
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/30/16	1:29	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/30/16	1:29	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/30/16	1:29	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 013 GAIP-SB30-SV5 Date & Time Sampled: 08/30/16 @ 13:15
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	1:29	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	1:29	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	1:29	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	1:29	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	1:29	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	1:29	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	1:29	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	1:29	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 013 GAIP-SB30-SV5 Date & Time Sampled: 08/30/16 @ 13:15
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	1:29	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/30/16	1:29	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	1:29	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	1:29	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 013 GAIP-SB30-SV5								Date & Time Sampled: 08/30/16 @ 13:15		
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	1:29	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	1:29	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/30/16	1:29	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	1:29	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:29	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	1:29	KZ
[VOC Surrogates]										
Dibromofluoromethane	90		%REC	EPA 8260B			70-130	08/30/16	1:29	KZ
Toluene-D8	101		%REC	EPA 8260B			70-130	08/30/16	1:29	KZ
Bromofluorobenzene	113		%REC	EPA 8260B			70-130	08/30/16	1:29	KZ
Sample: 014 GAIP-SB31-SV5								Date & Time Sampled: 08/30/16 @ 13:38		
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/30/16	1:53	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/30/16	1:53	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/30/16	1:53	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	1:53	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 014 GAIP-SB31-SV5 Date & Time Sampled: 08/30/16 @ 13:38
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	1:53	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	1:53	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	1:53	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	1:53	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	1:53	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	1:53	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	1:53	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 014 GAIP-SB31-SV5 Date & Time Sampled: 08/30/16 @ 13:38
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	1:53	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/30/16	1:53	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	1:53	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	1:53	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	1:53	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	1:53	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 014 GAIP-SB31-SV5							Date & Time Sampled:	08/30/16	@	13:38
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/30/16	1:53	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	1:53	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	1:53	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	1:53	KZ
[VOC Surrogates]										
Dibromofluoromethane	125		%REC	EPA 8260B			70-130	08/30/16	1:53	KZ
Toluene-D8	100		%REC	EPA 8260B			70-130	08/30/16	1:53	KZ
Bromofluorobenzene	73		%REC	EPA 8260B			70-130	08/30/16	1:53	KZ
Sample: 015 GAIP-SB33-SV5							Date & Time Sampled:	08/30/16	@	14:04
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/30/16	2:18	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/30/16	2:18	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/30/16	2:18	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	2:18	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	2:18	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	2:18	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 015 GAIP-SB33-SV5 Date & Time Sampled: 08/30/16 @ 14:04
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	2:18	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	2:18	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	2:18	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	2:18	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	2:18	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 015 GAIP-SB33-SV5 Date & Time Sampled: 08/30/16 @ 14:04
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	2:18	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/30/16	2:18	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	2:18	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	2:18	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	2:18	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	2:18	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/30/16	2:18	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	2:18	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:18	KZ
[VOC Vapor Sampling Tracer]										

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 015 GAIP-SB33-SV5							Date & Time Sampled:	08/30/16	@	14:04
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	2:18	KZ
[VOC Surrogates]										
Dibromofluoromethane	121		%REC	EPA 8260B			70-130	08/30/16	2:18	KZ
Toluene-D8	105		%REC	EPA 8260B			70-130	08/30/16	2:18	KZ
Bromofluorobenzene	103		%REC	EPA 8260B			70-130	08/30/16	2:18	KZ
Sample: 016 GAIP-SB32-SV5							Date & Time Sampled:	08/30/16	@	14:23
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/30/16	2:41	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/30/16	2:41	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/30/16	2:41	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	2:41	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	2:41	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	2:41	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	2:41	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	2:41	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 016 GAIP-SB32-SV5 Date & Time Sampled: 08/30/16 @ 14:23
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	2:41	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	2:41	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	2:41	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	2:41	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 016 GAIP-SB32-SV5 Date & Time Sampled: 08/30/16 @ 14:23
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/30/16	2:41	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	2:41	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	2:41	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	2:41	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	2:41	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/30/16	2:41	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	2:41	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	2:41	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	2:41	KZ
[VOC Surrogates]										
Dibromofluoromethane	100		%REC	EPA 8260B			70-130	08/30/16	2:41	KZ
Toluene-D8	96		%REC	EPA 8260B			70-130	08/30/16	2:41	KZ
Bromofluorobenzene	75		%REC	EPA 8260B			70-130	08/30/16	2:41	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 017 GAIP-SB34-SV5 Date & Time Sampled: 08/30/16 @ 14:50
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/30/16	3:05	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/30/16	3:05	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/30/16	3:05	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	3:05	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	3:05	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	3:05	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	3:05	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	3:05	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	3:05	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	3:05	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	3:05	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 017 GAIP-SB34-SV5 Date & Time Sampled: 08/30/16 @ 14:50
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	3:05	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/30/16	3:05	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	3:05	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	3:05	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 017 GAIP-SB34-SV5							Date & Time Sampled:	08/30/16	@	14:50
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	3:05	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	3:05	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/30/16	3:05	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	3:05	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:05	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	3:05	KZ
[VOC Surrogates]										
Dibromofluoromethane	99		%REC	EPA 8260B			70-130	08/30/16	3:05	KZ
Toluene-D8	89		%REC	EPA 8260B			70-130	08/30/16	3:05	KZ
Bromofluorobenzene	94		%REC	EPA 8260B			70-130	08/30/16	3:05	KZ
Sample: 018 GAIP-SB35-SV5							Date & Time Sampled:	08/30/16	@	15:20
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/30/16	3:39	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/30/16	3:39	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 018 GAIP-SB35-SV5 Date & Time Sampled: 08/30/16 @ 15:20
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/30/16	3:39	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	3:39	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	3:39	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	3:39	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	3:39	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	3:39	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	3:39	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	3:39	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	3:39	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 018 GAIP-SB35-SV5 Date & Time Sampled: 08/30/16 @ 15:20
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	3:39	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/30/16	3:39	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	3:39	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	3:39	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 018 GAIP-SB35-SV5							Date & Time Sampled:	08/30/16	@	15:20
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	3:39	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	3:39	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/30/16	3:39	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	3:39	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	3:39	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	3:39	KZ
[VOC Surrogates]										
Dibromofluoromethane	105		%REC	EPA 8260B			70-130	08/30/16	3:39	KZ
Toluene-D8	111		%REC	EPA 8260B			70-130	08/30/16	3:39	KZ
Bromofluorobenzene	102		%REC	EPA 8260B			70-130	08/30/16	3:39	KZ
Sample: 019 GAIP-SB36-SV5							Date & Time Sampled:	08/30/16	@	15:50
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/30/16	4:02	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/30/16	4:02	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/30/16	4:02	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 019 GAIP-SB36-SV5 Date & Time Sampled: 08/30/16 @ 15:50
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	4:02	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	4:02	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	4:02	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	4:02	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	4:02	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	4:02	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	4:02	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	4:02	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 019 GAIP-SB36-SV5 Date & Time Sampled: 08/30/16 @ 15:50
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	4:02	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/30/16	4:02	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	4:02	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	4:02	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	4:02	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	4:02	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 019 GAIP-SB36-SV5							Date & Time Sampled:	08/30/16	@	15:50
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/30/16	4:02	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	4:02	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:02	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	4:02	KZ
[VOC Surrogates]										
Dibromofluoromethane	120		%REC	EPA 8260B			70-130	08/30/16	4:02	KZ
Toluene-D8	90		%REC	EPA 8260B			70-130	08/30/16	4:02	KZ
Bromofluorobenzene	110		%REC	EPA 8260B			70-130	08/30/16	4:02	KZ
Sample: 020 GAIP-SB36-SV5-DUP							Date & Time Sampled:	08/30/16	@	16:10
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/30/16	4:26	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/30/16	4:26	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/30/16	4:26	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	4:26	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	4:26	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	4:26	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 020 GAIP-SB36-SV5-DUP — Date & Time Sampled: 08/30/16 @ 16:10
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	4:26	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	4:26	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	4:26	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	4:26	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	4:26	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 020 GAIP-SB36-SV5-DUP — Date & Time Sampled: 08/30/16 @ 16:10
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	4:26	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/30/16	4:26	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	4:26	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/30/16	4:26	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/30/16	4:26	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	4:26	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/30/16	4:26	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/30/16	4:26	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/30/16	4:26	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00266

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/30/16
Invoice No.	77093
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 020 GAIP-SB36-SV5-DUP								Date & Time Sampled:	08/30/16 @	16:10
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/30/16	4:26	KZ
[VOC Surrogates]										
Dibromofluoromethane	125		%REC	EPA 8260B			70-130	08/30/16	4:26	KZ
Toluene-D8	80		%REC	EPA 8260B			70-130	08/30/16	4:26	KZ
Bromofluorobenzene	98		%REC	EPA 8260B			70-130	08/30/16	4:26	KZ

Respectfully Submitted: Ken Zheng

Ken Zheng - President

QUALIFIERS

B = Detected in the associated Method Blank at a concentration above the routine RL.
B1 = BOD dilution water is over specifications . The reported result may be biased high.
D = Surrogate recoveries are not calculated due to sample dilution.
E = Estimated value; Value exceeds calibration level of instrument.
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference.
J = Analyte concentration detected between RL and MDL.
Q = One or more quality control criteria did not meet specifications. See Comments for further explanation.
S = Customer provided specification limit exceeded.

ABBREVIATIONS

DF = Dilution Factor
RL = Reporting Limit, Adjusted by DF
MDL = Method Detection Limit, Adjusted by DF
Qual = Qualifier
Tech = Technician

As regulatory limits change frequently, A & R Laboratories advises the recipient of this report to confirm such limits with the appropriate federal, state, or local authorities before acting in reliance on the regulatory limits provided.

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTAIRO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

QUALITY CONTROL DATA REPORT

INTERPHASE
LOS ANGELES, CA 90040

1608-00266

Date Reported	**09/06/2016**
Date Received	**08/30/2016**
Date Sampled	**08/30/2016**
Invoice No.	**77093**
Customer #	**1567**
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Method # EPA 8260B
QC Reference # 58159 Date Analyzed: 8/30/2016 Technician: KZ
Samples 001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020

Results	LCS %REC	LCS %DUP	LCS %RPD	Control Ranges LCS %REC	LCS %RPD
1,1-Dichloroethene	101	94	7	70 - 130	0 - 25
Benzene	99	95	4	70 - 130	0 - 25
Chlorobenzene	98	93	5	70 - 130	0 - 25
Toluene	97	89	8	70 - 130	0 - 25
Trichloroethene	99	90	9	70 - 130	0 - 25

Method # LUFT GCMS
QC Reference # 58175 Date Analyzed: 8/30/2016 Technician: KZ
Samples 001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020

Results	LCS %REC	LCS %DUP	LCS %RPD	Control Ranges LCS %REC	LCS %RPD
C4-C12	94	92	2	70 - 130	0 - 25

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTAIRO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

QUALITY CONTROL DATA REPORT

INTERPHASE

1608-00266

Date Reported 09/06/2016
Date Received 08/30/2016
Date Sampled 08/30/2016

Project: John Wayne Airport, Santa Ana

Method blank results

Ref	Test Name	Result	Qualif	Units	MDL	Ref	Test Name	Result	Qualif	Units	MDL
58159	Acetone	<5.0		µg/L	5.0		2-Hexanone	<0.50		µg/L	0.50
	t-Amyl Methyl Ether (TAME)	<0.050		µg/L	0.050		Isopropylbenzene	<0.050		µg/L	0.050
	Benzene	<0.036		µg/L	0.036		4-Isopropyltoluene	<0.050		µg/L	0.050
	Bromobenzene	<0.050		µg/L	0.050		Methylene Chloride	<0.05		µg/L	0.05
	Bromochloromethane	<0.050		µg/L	0.050		4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	0.50
	Bromodichloromethane	<0.050		µg/L	0.050		Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	0.050
	Bromoform	<0.050		µg/L	0.050		Naphthalene	<0.032		µg/L	0.032
	Bromomethane	<0.10		µg/L	0.10		n-Propylbenzene	<0.050		µg/L	0.050
	t-Butanol (TBA)	<0.50		µg/L	0.50		Styrene	<0.050		µg/L	0.050
	2-Butanone (MEK)	<0.50		µg/L	0.50		1,1,1,2-Tetrachloroethane	<0.050		µg/L	0.050
	n-Butylbenzene	<0.050		µg/L	0.050		1,1,2,2-Tetrachloroethane	<0.05		µg/L	0.05
	sec-Butylbenzene	<0.050		µg/L	0.050		Tetrachloroethene	<0.050		µg/L	0.050
	tert-Butylbenzene	<0.050		µg/L	0.050		Toluene	<0.050		µg/L	0.050
	Carbon Disulfide	<0.50		µg/L	0.50		1,2,3-Trichlorobenzene	<0.050		µg/L	0.050
	Carbon Tetrachloride	<0.025		µg/L	0.025		1,2,4-Trichlorobenzene	<0.050		µg/L	0.050
	Chlorobenzene	<0.050		µg/L	0.050		1,1,1-Trichloroethane	<0.050		µg/L	0.050
	Chloroethane	<0.050		µg/L	0.050		1,1,2-Trichloroethane	<0.050		µg/L	0.050
	Chloroform	<0.050		µg/L	0.050		Trichloroethene	<0.050		µg/L	0.050
	Chloromethane	<0.10		µg/L	0.10		1,2,3-Trichloropropane	<0.020		µg/L	0.020
	2-Chlorotoluene	<0.050		µg/L	0.050		Trichlorofluoromethane	<0.050		µg/L	0.050
	4-Chlorotoluene	<0.050		µg/L	0.050		Trichlorotrifluoroethane	<0.10		µg/L	0.10
	Dibromochloromethane	<0.050		µg/L	0.050		1,2,4-Trimethylbenzene	<0.050		µg/L	0.050
	1,2-Dibromoethane (EDB)	<0.020		µg/L	0.020		1,3,5-Trimethylbenzene	<0.050		µg/L	0.050
	1,2-Dibromo-3-Chloropropane	<0.020		µg/L	0.020		Vinyl Chloride	<0.013		µg/L	0.013
	Dibromomethane	<0.050		µg/L	0.050		m,p-Xylenes	<0.10		µg/L	0.10
	1,2-Dichlorobenzene	<0.050		µg/L	0.050		o-Xylene	<0.050		µg/L	0.050
	1,3-Dichlorobenzene	<0.050		µg/L	0.050		Isopropanol (IPA)	<0.50		µg/L	0.50
	1,4-Dichlorobenzene	<0.050		µg/L	0.050	58175	C4-C16	<5		µg/L	5
	Dichlorodifluoromethane	<0.050		µg/L	0.050						
	1,1-Dichloroethane	<0.050		µg/L	0.050						
	1,2-Dichloroethane	<0.050		µg/L	0.050						
	1,1-Dichloroethene	<0.050		µg/L	0.050						
	cis-1,2-Dichloroethene	<0.050		µg/L	0.050						
	trans-1,2-Dichloroethene	<0.050		µg/L	0.050						
	1,2-Dichloropropane	<0.050		µg/L	0.050						
	1,3-Dichloropropane	<0.050		µg/L	0.050						
	2,2-Dichloropropane	<0.050		µg/L	0.050						
	1,1-Dichloropropene	<0.050		µg/L	0.050						
	cis-1,3-Dichloropropene	<0.050		µg/L	0.050						
	trans-1,3-Dichloropropene	<0.050		µg/L	0.050						
	Diisopropyl Ether (DiPE)	<0.050		µg/L	0.050						
	Ethylbenzene	<0.050		µg/L	0.050						
	Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	0.050						
	Hexachlorobutadiene	<0.050		µg/L	0.050						

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTAIRO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

QUALITY CONTROL DATA REPORT

1608-00266

INTERPHASE

Date Reported	**09/06/2016**
Date Received	**08/30/2016**
Date Sampled	**08/30/2016**

Project: John Wayne Airport, Santa Ana

Respectfully Submitted: Ken Zheng

Ken Zheng - President

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.

A & R Laboratories
1650 S. Grove Ave., Ste C, Ontario, CA 91761
Tel: 951-779-0310 / 909-781-6335 Fax: 951-779-0344
E-mail: office@arlaboratories.com

CHAIN OF CUSTODY

A & R Work Order #: 1608-266

Client Name: Inter phase
E-mail: office@interphaseenvironmental.com
Address: 6200 Peach Tree St. Los Angeles CA 90040
Report Attention | Phone #: (323)275-7700 | Fax #: (323)278-7707 | Sampled By: Ken
Project No./ Name:
Project Site: John Wayne Airport

☐ Chilled ☒ Intact ☐ Seal

Turn Around Time Requested: ☐ Rush 8 12 24 48 Hours ☐ Normal

Lab # (Lab use)	Client Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserve	No., type* & size of container	EPA8260B (VOCs & Oxygenates)	EPA8260B(BTEX & Oxygenates)	LUFT / 8015 (Gasoline)	LUFT / 8015 (Diesel)	EPA8081A (Organochlorine Pesticides)	EPA 8082 (PCBs)	EPA 8015M (Carbon Chain C4-C40)	EPA 6010B/7000 (CAM 17 Metals)	Micro: Plate Cnt., Coliform, E-Coli	Remarks
-1	GAIP-SB18-SV5	8/30/16	7:45	Air		250ml G	X		X							3PV
-2	-SB20-SV5		8:19													
-3	-SB21-SV5		8:50													
-4	-SB24-SV5		9:32													
-5	-SB22-SV5		10:01													
-6	-SB23-SV5		10:27													
-7	-SB25-SV5		10:53													
-8	-SB-26-SV5		11:09													
-9	-SB-27-SV5		11:31													
-10	-SB-28-SV5		11:58													
-11	-SB28-SV5 DUP		11:58													
-12	-SB-29-SV5		12:46													
-13	-SB30-SV5		13:15													
-14	-SB31-SV5		13:38													
-15	-SB33-SV5		14:04													

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Rachel Mello	(Amec)	8/30/16	17:00				
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
				VG	ARL	8/30/16	17:00

Note: Samples are discarded 30 days after results are reported unless other arrangements are made.

Matrix Code: DW=Drinking Water; GW=Ground Water; WW=Waste Water; SD=Solid Waste; SL=Sludge; SS=Soil/Sediment; AR=Air; PP=Pure Product

Preservative Code: IC=Ice; HC=HCl; HN=HNO_3; SH=NaOH; ST=$Na_2S_2O_3$; HS=H_2SO_4

* Sample Container Types: T=Tedlar Air Bag; G=Glass Container; ST= Steel Tube; B= Brass Tube; P=Plastic Bottle; V=VOA Vial; E= EnCore

ARL

A & R Laboratories
1650 S. Grove Ave., Ste C, Ontario, CA 91761
Tel: 951-779-0310 / 909-781-6335 Fax: 951-779-0344
E-mail: office@arlaboratories.com

CHAIN OF CUSTODY

A & R Work Order #: 1608-266

Client Name: Inter Phase
E-mail: office@interphaseenvironmental.com
Address: 6200 Peach Tree, Los Angeles CA 90040
Report Attention | Phone #: (323) 278-7700 | Fax: #: (323) 278-7707 | Sampled By: Ken
Project No./ Name | Project Site: John Wayne Airport

☐ Chilled ☒ Intact ☐ Seal

Turn Around Time Requested: ☐ Rush 8 12 24 48 Hours ☐ Normal

Lab # (Lab use)	Client Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserve	No., type* & size of container	EPA8260B (VOCs & Oxygenates)	EPA8260B(BTEX & Oxygenates)	LUFT / 8015 (Gasoline)	LUFT / 8015 (Diesel)	EPA8081A (Organochlorine Pesticides)	EPA 8082 (PCBs)	EPA 8015M (Carbon Chain C4-C40)	EPA 6010B/7000 (CAM 17 Metals)	Micro: Plate Cnt., Coliform, E-Coli	Remarks
-16	GAIP-SB32-SV5	8/3/16	14:23	Air		250ml G	X		X							3pv
-17	-SB34-SV5		14:50				X		X							
-18	-SB35-SV5		15:20				X		X							
-19	-SB36-SV5		15:50				X		X							
-20	-SB36-SV5	Dup	16:10				X		X							

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Rachel Mell	Amec	8/3/16	17:00				
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
					A&R	8/30/16	17:00

Note: Samples are discarded 30 days after results are reported unless other arrangements are made.

Matrix Code: DW=Drinking Water; GW=Ground Water; WW=Waste Water; SD=Solid Waste; SL=Sludge; SS=Soil/Sediment; AR=Air; PP=Pure Product

Preservative Code: IC=Ice; HC=HCl; HN=HNO_3; SH=NaOH; ST=$Na_2S_2O_3$; HS=H_2SO_4

* Sample Container Types: T=Tedlar Air Bag; G=Glass Container; ST= Steel Tube; B= Brass Tube; P=Plastic Bottle; V=VOA Vial; E= EnCore

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CASE NARRATIVE

Authorized Signature Name / Title (print)	Ken Zheng, President
Signature / Date	Ken Zheng, President 09/06/2016 13:01:03
Laboratory Job No. (Certificate of Analysis No.)	1608-00278
Project Name / No.	John Wayne Airport, Santa Ana
Dates Sampled (from/to)	08/31/16 To 08/31/16
Dates Received (from/to)	08/31/16 To 08/31/16
Dates Reported (from/to)	09/06/16 To 9/6/2016
Chains of Custody Received	Yes

Comments:

Subcontracting

Organic Analyses

No analyses sub-contracted

Sample Condition(s)

All samples intact

Positive Results (Organic Compounds)

Sample	Analyte	Result	Qual	Units	RL	Sample	Analyte	Result	Qual	Units	RL
GAIP-SB54-SV5	1,1-Dichloroethene	0.14		µg/L	0.10	GAIP-SB49-SV5	1,1-Dichloroethene	0.17		µg/L	0.10
GAIP-SB49-SV5	Trichloroethene	0.24		µg/L	0.10						

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 001 GAIP-SB37-SV5 Date & Time Sampled: 08/31/16 @ 8:40
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/31/16	8:59	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/31/16	8:59	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/31/16	8:59	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	8:59	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	8:59	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	8:59	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	8:59	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	8:59	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	8:59	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	8:59	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	8:59	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 001 GAIP-SB37-SV5 Date & Time Sampled: 08/31/16 @ 8:40
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	8:59	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/31/16	8:59	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	8:59	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	8:59	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 001 GAIP-SB37-SV5							Date & Time Sampled:	08/31/16	@	8:40
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	8:59	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	8:59	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/31/16	8:59	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	8:59	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	8:59	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	8:59	KZ
[VOC Surrogates]										
Dibromofluoromethane	113		%REC	EPA 8260B			70-130	08/31/16	8:59	KZ
Toluene-D8	92		%REC	EPA 8260B			70-130	08/31/16	8:59	KZ
Bromofluorobenzene	118		%REC	EPA 8260B			70-130	08/31/16	8:59	KZ
Sample: 002 GAIP-SB39-SV5							Date & Time Sampled:	08/31/16	@	9:33
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/31/16	9:43	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/31/16	9:43	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/31/16	9:43	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 002 GAIP-SB39-SV5 Date & Time Sampled: 08/31/16 @ 9:33
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	9:43	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	9:43	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	9:43	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	9:43	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	9:43	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	9:43	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	9:43	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	9:43	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 002 GAIP-SB39-SV5 Date & Time Sampled: 08/31/16 @ 9:33
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	9:43	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/31/16	9:43	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	9:43	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	9:43	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 002 GAIP-SB39-SV5							Date & Time Sampled:	08/31/16	@	9:33
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	9:43	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	9:43	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/31/16	9:43	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	9:43	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	9:43	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	9:43	KZ
[VOC Surrogates]										
Dibromofluoromethane	115		%REC	EPA 8260B			70-130	08/31/16	9:43	KZ
Toluene-D8	84		%REC	EPA 8260B			70-130	08/31/16	9:43	KZ
Bromofluorobenzene	100		%REC	EPA 8260B			70-130	08/31/16	9:43	KZ
Sample: 003 GAIP-SB38-SV5							Date & Time Sampled:	08/31/16	@	9:55
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/31/16	10:10	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/31/16	10:10	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/31/16	10:10	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	10:10	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 003 GAIP-SB38-SV5 Date & Time Sampled: 08/31/16 @ 9:55
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	10:10	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	10:10	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	10:10	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	10:10	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	10:10	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	10:10	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	10:10	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 003 GAIP-SB38-SV5 Date & Time Sampled: 08/31/16 @ 9:55
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	10:10	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/31/16	10:10	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	10:10	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	10:10	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	10:10	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	10:10	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 003 GAIP-SB38-SV5							Date & Time Sampled:	08/31/16	@	9:55
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/31/16	10:10	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	10:10	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:10	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	10:10	KZ
[VOC Surrogates]										
Dibromofluoromethane	115		%REC	EPA 8260B			70-130	08/31/16	10:10	KZ
Toluene-D8	80		%REC	EPA 8260B			70-130	08/31/16	10:10	KZ
Bromofluorobenzene	104		%REC	EPA 8260B			70-130	08/31/16	10:10	KZ
Sample: 004 GAIP-SB41-SV5							Date & Time Sampled:	08/31/16	@	10:24
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/31/16	10:34	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/31/16	10:34	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/31/16	10:34	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	10:34	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	10:34	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	10:34	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 004 GAIP-SB41-SV5 Date & Time Sampled: 08/31/16 @ 10:24
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	10:34	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	10:34	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	10:34	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	10:34	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	10:34	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 004 GAIP-SB41-SV5 Date & Time Sampled: 08/31/16 @ 10:24
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	10:34	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/31/16	10:34	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	10:34	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	10:34	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	10:34	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	10:34	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/31/16	10:34	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	10:34	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:34	KZ
[VOC Vapor Sampling Tracer]										

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 004 GAIP-SB41-SV5							Date & Time Sampled:	08/31/16	@	10:24
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	10:34	KZ
[VOC Surrogates]										
Dibromofluoromethane	110		%REC	EPA 8260B			70-130	08/31/16	10:34	KZ
Toluene-D8	83		%REC	EPA 8260B			70-130	08/31/16	10:34	KZ
Bromofluorobenzene	101		%REC	EPA 8260B			70-130	08/31/16	10:34	KZ
Sample: 005 GAIP-SB40-SV5							Date & Time Sampled:	08/31/16	@	10:45
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/31/16	10:59	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/31/16	10:59	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/31/16	10:59	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	10:59	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	10:59	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	10:59	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	10:59	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	10:59	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 005 GAIP-SB40-SV5 Date & Time Sampled: 08/31/16 @ 10:45
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	10:59	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	10:59	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	10:59	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	10:59	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 005 GAIP-SB40-SV5 Date & Time Sampled: 08/31/16 @ 10:45
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/31/16	10:59	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	10:59	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	10:59	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	10:59	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	10:59	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/31/16	10:59	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	10:59	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	10:59	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	10:59	KZ
[VOC Surrogates]										
Dibromofluoromethane	98		%REC	EPA 8260B			70-130	08/31/16	10:59	KZ
Toluene-D8	87		%REC	EPA 8260B			70-130	08/31/16	10:59	KZ
Bromofluorobenzene	87		%REC	EPA 8260B			70-130	08/31/16	10:59	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 006 GAIP-SB42-SV5 Date & Time Sampled: 08/31/16 @ 11:10
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/31/16	11:22	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/31/16	11:22	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/31/16	11:22	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	11:22	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	11:22	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	11:22	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	11:22	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	11:22	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	11:22	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	11:22	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	11:22	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 006 GAIP-SB42-SV5 Date & Time Sampled: 08/31/16 @ 11:10
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	11:22	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/31/16	11:22	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	11:22	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	11:22	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 006 GAIP-SB42-SV5							Date & Time Sampled:	08/31/16	@	11:10
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	11:22	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	11:22	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/31/16	11:22	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	11:22	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:22	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	11:22	KZ
[VOC Surrogates]										
Dibromofluoromethane	128		%REC	EPA 8260B			70-130	08/31/16	11:22	KZ
Toluene-D8	84		%REC	EPA 8260B			70-130	08/31/16	11:22	KZ
Bromofluorobenzene	103		%REC	EPA 8260B			70-130	08/31/16	11:22	KZ
Sample: 007 GAIP-SB43-SV5							Date & Time Sampled:	08/31/16	@	11:35
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/31/16	11:50	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/31/16	11:50	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 007 GAIP-SB43-SV5 Date & Time Sampled: 08/31/16 @ 11:35
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/31/16	11:50	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	11:50	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	11:50	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	11:50	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	11:50	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	11:50	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	11:50	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	11:50	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	11:50	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 007 GAIP-SB43-SV5 Date & Time Sampled: 08/31/16 @ 11:35
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	11:50	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/31/16	11:50	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	11:50	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	11:50	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 007 GAIP-SB43-SV5							Date & Time Sampled:	08/31/16	@	11:35
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	11:50	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	11:50	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/31/16	11:50	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	11:50	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	11:50	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	11:50	KZ
[VOC Surrogates]										
Dibromofluoromethane	118		%REC	EPA 8260B			70-130	08/31/16	11:50	KZ
Toluene-D8	90		%REC	EPA 8260B			70-130	08/31/16	11:50	KZ
Bromofluorobenzene	98		%REC	EPA 8260B			70-130	08/31/16	11:50	KZ
Sample: 008 GAIP-SB44-SV5							Date & Time Sampled:	08/31/16	@	12:00
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/31/16	12:13	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/31/16	12:13	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/31/16	12:13	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 008 GAIP-SB44-SV5 Date & Time Sampled: 08/31/16 @ 12:00
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	12:13	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	12:13	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	12:13	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	12:13	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	12:13	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	12:13	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	12:13	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	12:13	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 008 GAIP-SB44-SV5 Date & Time Sampled: 08/31/16 @ 12:00
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	12:13	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/31/16	12:13	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	12:13	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	12:13	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	12:13	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	12:13	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 008 GAIP-SB44-SV5							Date & Time Sampled:	08/31/16	@	12:00
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/31/16	12:13	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	12:13	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:13	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	12:13	KZ
[VOC Surrogates]										
Dibromofluoromethane	124		%REC	EPA 8260B			70-130	08/31/16	12:13	KZ
Toluene-D8	76		%REC	EPA 8260B			70-130	08/31/16	12:13	KZ
Bromofluorobenzene	104		%REC	EPA 8260B			70-130	08/31/16	12:13	KZ
Sample: 009 GAIP-SB45-SV5							Date & Time Sampled:	08/31/16	@	12:20
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/31/16	12:37	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/31/16	12:37	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/31/16	12:37	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	12:37	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	12:37	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	12:37	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 009 GAIP-SB45-SV5 Date & Time Sampled: 08/31/16 @ 12:20
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	12:37	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	12:37	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	12:37	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	12:37	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	12:37	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 009 GAIP-SB45-SV5 Date & Time Sampled: 08/31/16 @ 12:20
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	12:37	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/31/16	12:37	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	12:37	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	12:37	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	12:37	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	12:37	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/31/16	12:37	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	12:37	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	12:37	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 009 GAIP-SB45-SV5							Date & Time Sampled:	08/31/16	@	12:20
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	12:37	KZ
[VOC Surrogates]										
Dibromofluoromethane	121		%REC	EPA 8260B			70-130	08/31/16	12:37	KZ
Toluene-D8	94		%REC	EPA 8260B			70-130	08/31/16	12:37	KZ
Bromofluorobenzene	116		%REC	EPA 8260B			70-130	08/31/16	12:37	KZ
Sample: 010 GAIP-SB46-SV5							Date & Time Sampled:	08/31/16	@	12:50
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/31/16	1:05	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/31/16	1:05	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/31/16	1:05	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	1:05	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	1:05	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	1:05	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	1:05	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	1:05	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 010 GAIP-SB46-SV5 Date & Time Sampled: 08/31/16 @ 12:50
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	1:05	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	1:05	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	1:05	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	1:05	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 010 GAIP-SB46-SV5 Date & Time Sampled: 08/31/16 @ 12:50
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/31/16	1:05	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	1:05	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	1:05	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	1:05	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	1:05	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/31/16	1:05	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	1:05	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:05	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	1:05	KZ
[VOC Surrogates]										
Dibromofluoromethane	73		%REC	EPA 8260B			70-130	08/31/16	1:05	KZ
Toluene-D8	108		%REC	EPA 8260B			70-130	08/31/16	1:05	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 010 GAIP-SB46-SV5							Date & Time Sampled:	08/31/16	@	12:50
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Bromofluorobenzene	76		%REC	EPA 8260B			70-130	08/31/16	1:05	KZ
Sample: 011 GAIP-SB46-SV5-DUP							Date & Time Sampled:	08/31/16	@	13:10
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/31/16	1:28	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/31/16	1:28	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/31/16	1:28	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	1:28	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	1:28	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	1:28	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	1:28	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	1:28	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	1:28	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 011 GAIP-SB46-SV5-DUP — Date & Time Sampled: 08/31/16 @ 13:10
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	1:28	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	1:28	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	1:28	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/31/16	1:28	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	1:28	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	1:28	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 011 GAIP-SB46-SV5-DUP								Date & Time Sampled:	08/31/16 @	13:10
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	1:28	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	1:28	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/31/16	1:28	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	1:28	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:28	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	1:28	KZ
[VOC Surrogates]										
Dibromofluoromethane	74		%REC	EPA 8260B			70-130	08/31/16	1:28	KZ
Toluene-D8	100		%REC	EPA 8260B			70-130	08/31/16	1:28	KZ
Bromofluorobenzene	98		%REC	EPA 8260B			70-130	08/31/16	1:28	KZ
Sample: 012 GAIP-SB47-SV5								Date & Time Sampled:	08/31/16 @	13:40
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 012 GAIP-SB47-SV5 Date & Time Sampled: 08/31/16 @ 13:40
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/31/16	1:52	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/31/16	1:52	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/31/16	1:52	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	1:52	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	1:52	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	1:52	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	1:52	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	1:52	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	1:52	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	1:52	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	1:52	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 012 GAIP-SB47-SV5 Date & Time Sampled: 08/31/16 @ 13:40
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	1:52	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/31/16	1:52	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	1:52	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	1:52	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 012 GAIP-SB47-SV5							Date & Time Sampled:	08/31/16	@	13:40
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	1:52	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	1:52	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/31/16	1:52	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	1:52	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	1:52	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	1:52	KZ
[VOC Surrogates]										
Dibromofluoromethane	93		%REC	EPA 8260B			70-130	08/31/16	1:52	KZ
Toluene-D8	103		%REC	EPA 8260B			70-130	08/31/16	1:52	KZ
Bromofluorobenzene	89		%REC	EPA 8260B			70-130	08/31/16	1:52	KZ
Sample: 013 GAIP-SB48-SV5							Date & Time Sampled:	08/31/16	@	14:05
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/31/16	2:17	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/31/16	2:17	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/31/16	2:17	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 013 GAIP-SB48-SV5 Date & Time Sampled: 08/31/16 @ 14:05
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	2:17	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	2:17	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	2:17	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	2:17	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	2:17	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	2:17	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	2:17	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	2:17	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 013 GAIP-SB48-SV5 Date & Time Sampled: 08/31/16 @ 14:05
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	2:17	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/31/16	2:17	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	2:17	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	2:17	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 013 GAIP-SB48-SV5							Date & Time Sampled:	08/31/16	@	14:05
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	2:17	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	2:17	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/31/16	2:17	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	2:17	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:17	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	2:17	KZ
[VOC Surrogates]										
Dibromofluoromethane	74		%REC	EPA 8260B			70-130	08/31/16	2:17	KZ
Toluene-D8	104		%REC	EPA 8260B			70-130	08/31/16	2:17	KZ
Bromofluorobenzene	89		%REC	EPA 8260B			70-130	08/31/16	2:17	KZ
Sample: 014 GAIP-SB54-SV5							Date & Time Sampled:	08/31/16	@	14:30
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/31/16	2:41	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/31/16	2:41	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/31/16	2:41	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	2:41	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 014 GAIP-SB54-SV5 Date & Time Sampled: 08/31/16 @ 14:30
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	2:41	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	2:41	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	2:41	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	2:41	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	2:41	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	2:41	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	2:41	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
1,1-Dichloroethene	0.14		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 014 GAIP-SB54-SV5 Date & Time Sampled: 08/31/16 @ 14:30
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	2:41	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/31/16	2:41	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	2:41	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	2:41	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	2:41	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	2:41	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 014 GAIP-SB54-SV5							Date & Time Sampled:	08/31/16	@	14:30
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/31/16	2:41	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	2:41	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	2:41	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	2:41	KZ
[VOC Surrogates]										
Dibromofluoromethane	82		%REC	EPA 8260B			70-130	08/31/16	2:41	KZ
Toluene-D8	92		%REC	EPA 8260B			70-130	08/31/16	2:41	KZ
Bromofluorobenzene	108		%REC	EPA 8260B			70-130	08/31/16	2:41	KZ
Sample: 015 GAIP-SB49-SV5							Date & Time Sampled:	08/31/16	@	14:50
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/31/16	3:06	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/31/16	3:06	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/31/16	3:06	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	3:06	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	3:06	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	3:06	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 015 GAIP-SB49-SV5 Date & Time Sampled: 08/31/16 @ 14:50
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	3:06	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	3:06	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	3:06	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	3:06	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	3:06	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
1,1-Dichloroethene	0.17		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 015 GAIP-SB49-SV5 Date & Time Sampled: 08/31/16 @ 14:50
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	3:06	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/31/16	3:06	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	3:06	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	3:06	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
Trichloroethene	0.24		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	3:06	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	3:06	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/31/16	3:06	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	3:06	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:06	KZ
[VOC Vapor Sampling Tracer]										

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 015 GAIP-SB49-SV5							Date & Time Sampled:	08/31/16	@	14:50
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	3:06	KZ
[VOC Surrogates]										
Dibromofluoromethane	88		%REC	EPA 8260B			70-130	08/31/16	3:06	KZ
Toluene-D8	70		%REC	EPA 8260B			70-130	08/31/16	3:06	KZ
Bromofluorobenzene	75		%REC	EPA 8260B			70-130	08/31/16	3:06	KZ
Sample: 016 GAIP-SB50-SV5							Date & Time Sampled:	08/31/16	@	15:20
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/31/16	3:32	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/31/16	3:32	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/31/16	3:32	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	3:32	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	3:32	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	3:32	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	3:32	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	3:32	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 016 GAIP-SB50-SV5 Date & Time Sampled: 08/31/16 @ 15:20
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	3:32	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	3:32	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	3:32	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	3:32	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 016 GAIP-SB50-SV5 Date & Time Sampled: 08/31/16 @ 15:20
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/31/16	3:32	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	3:32	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	3:32	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	3:32	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	3:32	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/31/16	3:32	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	3:32	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:32	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	3:32	KZ
[VOC Surrogates]										
Dibromofluoromethane	113		%REC	EPA 8260B			70-130	08/31/16	3:32	KZ
Toluene-D8	91		%REC	EPA 8260B			70-130	08/31/16	3:32	KZ
Bromofluorobenzene	87		%REC	EPA 8260B			70-130	08/31/16	3:32	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 017 GAIP-SB51-SV5 Date & Time Sampled: 08/31/16 @ 15:40
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/31/16	3:56	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/31/16	3:56	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/31/16	3:56	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	3:56	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	3:56	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	3:56	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	3:56	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	3:56	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	3:56	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	3:56	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	3:56	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 017 GAIP-SB51-SV5 Date & Time Sampled: 08/31/16 @ 15:40
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	3:56	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/31/16	3:56	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	3:56	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	3:56	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 017 GAIP-SB51-SV5							Date & Time Sampled:	08/31/16	@	15:40
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	3:56	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	3:56	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/31/16	3:56	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	3:56	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	3:56	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	3:56	KZ
[VOC Surrogates]										
Dibromofluoromethane	87		%REC	EPA 8260B			70-130	08/31/16	3:56	KZ
Toluene-D8	77		%REC	EPA 8260B			70-130	08/31/16	3:56	KZ
Bromofluorobenzene	81		%REC	EPA 8260B			70-130	08/31/16	3:56	KZ
Sample: 018 GAIP-SB53-SV5							Date & Time Sampled:	08/31/16	@	16:00
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/31/16	4:21	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/31/16	4:21	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 018 GAIP-SB53-SV5 Date & Time Sampled: 08/31/16 @ 16:00
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/31/16	4:21	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	4:21	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	4:21	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	4:21	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	4:21	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	4:21	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	4:21	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	4:21	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	4:21	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 018 GAIP-SB53-SV5 Date & Time Sampled: 08/31/16 @ 16:00
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	4:21	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/31/16	4:21	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	4:21	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	4:21	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 018 GAIP-SB53-SV5							Date & Time Sampled:	08/31/16	@ 16:00	
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
.....continued										
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	4:21	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	4:21	KZ
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/31/16	4:21	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	4:21	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	4:21	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	4:21	KZ
[VOC Surrogates]										
Dibromofluoromethane	106		%REC	EPA 8260B			70-130	08/31/16	4:21	KZ
Toluene-D8	84		%REC	EPA 8260B			70-130	08/31/16	4:21	KZ
Bromofluorobenzene	116		%REC	EPA 8260B			70-130	08/31/16	4:21	KZ
Sample: 019 GAIP-SB53-SV5							Date & Time Sampled:	08/31/16	@ 17:00	
Sample Matrix: Soil Vapor										
Purge Volume Sampled: 3										
[TPH Gasoline by GCMS]										
C4-C16	<25.00		µg/L	LUFT GCMS	5.0	25.00	50	08/31/16	5:13	KZ
[VOCs by GCMS]										
Acetone	<5.0		µg/L	EPA 8260B	1.0	5.00	10	08/31/16	5:13	KZ
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
Benzene	<0.036		µg/L	EPA 8260B	1.0	0.04	0.050	08/31/16	5:13	KZ
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 019 GAIP-SB53-SV5 Date & Time Sampled: 08/31/16 @ 17:00
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	5:13	KZ
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	5:13	KZ
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	5:13	KZ
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	5:13	KZ
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	5:13	KZ
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	5:13	KZ
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	5:13	KZ
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	5:13	KZ
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 019 GAIP-SB53-SV5 Date & Time Sampled: 08/31/16 @ 17:00
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	5:13	KZ
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.05	0.1	08/31/16	5:13	KZ
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	5:13	KZ
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.03	0.050	08/31/16	5:13	KZ
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.02	0.10	08/31/16	5:13	KZ
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
Trichlorotrifluoroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	5:13	KZ

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

1608-00278

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	09/06/16
Date Received	08/31/16
Invoice No.	77095
Cust #	1567
Permit Number	
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Sample: 019 GAIP-SB53-SV5 Date & Time Sampled: 08/31/16 @ 17:00
Sample Matrix: Soil Vapor
Purge Volume Sampled: 3
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
Vinyl Chloride	<0.013		µg/L	EPA 8260B	1.0	0.01	0.050	08/31/16	5:13	KZ
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.10	0.20	08/31/16	5:13	KZ
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.05	0.10	08/31/16	5:13	KZ
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.50	1.0	08/31/16	5:13	KZ
[VOC Surrogates]										
Dibromofluoromethane	92		%REC	EPA 8260B			70-130	08/31/16	5:13	KZ
Toluene-D8	85		%REC	EPA 8260B			70-130	08/31/16	5:13	KZ
Bromofluorobenzene	77		%REC	EPA 8260B			70-130	08/31/16	5:13	KZ

Respectfully Submitted: Ken Zheng

Ken Zheng - President

QUALIFIERS

B = Detected in the associated Method Blank at a concentration above the routine RL.
B1 = BOD dilution water is over specifications . The reported result may be biased high.
D = Surrogate recoveries are not calculated due to sample dilution.
E = Estimated value; Value exceeds calibration level of instrument.
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference.
J = Analyte concentration detected between RL and MDL.
Q = One or more quality control criteria did not meet specifications. See Comments for further explanation.
S = Customer provided specification limit exceeded.

ABBREVIATIONS

DF = Dilution Factor
RL = Reporting Limit, Adjusted by DF
MDL = Method Detection Limit, Adjusted by DF
Qual = Qualifier
Tech = Technician

As regulatory limits change frequently, A & R Laboratories advises the recipient of this report to confirm such limits with the appropriate federal, state, or local authorities before acting in reliance on the regulatory limits provided.

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTAIRO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

QUALITY CONTROL DATA REPORT

INTERPHASE
LOS ANGELES, CA 90040

1608-00278

Date Reported	**09/06/2016**
Date Received	**08/31/2016**
Date Sampled	**08/31/2016**
Invoice No.	**77095**
Customer #	**1567**
Customer P.O.	

Project: John Wayne Airport, Santa Ana

Method # EPA 8260B

QC Reference # 58198 Date Analyzed: 8/31/2016 Technician: KZ

Samples 001 002 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019

Results

	LCS %REC	LCS %DUP	LCS %RPD	Control Ranges LCS %REC	Control Ranges LCS %RPD
1,1-Dichloroethene	93	97	4	70 - 130	0 - 25
Benzene	92	102	10	70 - 130	0 - 25
Chlorobenzene	89	98	9	70 - 130	0 - 25
Toluene	91	96	5	70 - 130	0 - 25
Trichloroethene	92	90	2	70 - 130	0 - 25

QC Reference # 58202 Date Analyzed: 8/31/2016 Technician: KZ

Samples 003

No QC recoveries reported.

Method # LUFT GCMS

QC Reference # 58197 Date Analyzed: 8/31/2016 Technician: KZ

Samples 001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019

Results

	LCS %REC	LCS %DUP	LCS %RPD	Control Ranges LCS %REC	Control Ranges LCS %RPD
C4-C16	90	96	6	70 - 130	0 - 25

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTAIRO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

QUALITY CONTROL DATA REPORT

INTERPHASE

1608-00278

Date Reported 09/06/2016
Date Received 08/31/2016
Date Sampled 08/31/2016

Project: John Wayne Airport, Santa Ana

Method blank results

Ref	Test Name	Result	Qualif	Units	MDL	Ref	Test Name	Result	Qualif	Units	MDL
58197	C4-C16	<5		µg/L	5		Hexachlorobutadiene	<0.050		µg/L	0.050
58198	Acetone	<5.0		µg/L	5.0		2-Hexanone	<0.50		µg/L	0.50
	t-Amyl Methyl Ether (TAME)	<0.050		µg/L	0.050		Isopropylbenzene	<0.050		µg/L	0.050
	Benzene	<0.036		µg/L	0.036		4-Isopropyltoluene	<0.050		µg/L	0.050
	Bromobenzene	<0.050		µg/L	0.050		Methylene Chloride	<0.05		µg/L	0.05
	Bromochloromethane	<0.050		µg/L	0.050		4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	0.50
	Bromodichloromethane	<0.050		µg/L	0.050		Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	0.050
	Bromoform	<0.050		µg/L	0.050		Naphthalene	<0.032		µg/L	0.032
	Bromomethane	<0.10		µg/L	0.10		n-Propylbenzene	<0.050		µg/L	0.050
	t-Butanol (TBA)	<0.50		µg/L	0.50		Styrene	<0.050		µg/L	0.050
	2-Butanone (MEK)	<0.50		µg/L	0.50		1,1,1,2-Tetrachloroethane	<0.050		µg/L	0.050
	n-Butylbenzene	<0.050		µg/L	0.050		1,1,2,2-Tetrachloroethane	<0.05		µg/L	0.05
	sec-Butylbenzene	<0.050		µg/L	0.050		Tetrachloroethene	<0.050		µg/L	0.050
	tert-Butylbenzene	<0.050		µg/L	0.050		Toluene	<0.050		µg/L	0.050
	Carbon Disulfide	<0.50		µg/L	0.50		1,2,3-Trichlorobenzene	<0.050		µg/L	0.050
	Carbon Tetrachloride	<0.025		µg/L	0.025		1,2,4-Trichlorobenzene	<0.050		µg/L	0.050
	Chlorobenzene	<0.050		µg/L	0.050		1,1,1-Trichloroethane	<0.050		µg/L	0.050
	Chloroethane	<0.050		µg/L	0.050		1,1,2-Trichloroethane	<0.050		µg/L	0.050
	Chloroform	<0.050		µg/L	0.050		Trichloroethene	<0.050		µg/L	0.050
	Chloromethane	<0.10		µg/L	0.10		1,2,3-Trichloropropane	<0.020		µg/L	0.020
	2-Chlorotoluene	<0.050		µg/L	0.050		Trichlorofluoromethane	<0.050		µg/L	0.050
	4-Chlorotoluene	<0.050		µg/L	0.050		Trichlorotrifluoroethane	<0.10		µg/L	0.10
	Dibromochloromethane	<0.050		µg/L	0.050		1,2,4-Trimethylbenzene	<0.050		µg/L	0.050
	1,2-Dibromoethane (EDB)	<0.020		µg/L	0.020		1,3,5-Trimethylbenzene	<0.050		µg/L	0.050
	1,2-Dibromo-3-Chloropropane	<0.020		µg/L	0.020		Vinyl Chloride	<0.013		µg/L	0.013
	Dibromomethane	<0.050		µg/L	0.050		m,p-Xylenes	<0.10		µg/L	0.10
	1,2-Dichlorobenzene	<0.050		µg/L	0.050		o-Xylene	<0.050		µg/L	0.050
	1,3-Dichlorobenzene	<0.050		µg/L	0.050		Isopropanol (IPA)	<0.50		µg/L	0.50
	1,4-Dichlorobenzene	<0.050		µg/L	0.050						
	Dichlorodifluoromethane	<0.050		µg/L	0.050						
	1,1-Dichloroethane	<0.050		µg/L	0.050						
	1,2-Dichloroethane	<0.050		µg/L	0.050						
	1,1-Dichloroethene	<0.050		µg/L	0.050						
	cis-1,2-Dichloroethene	<0.050		µg/L	0.050						
	trans-1,2-Dichloroethene	<0.050		µg/L	0.050						
	1,2-Dichloropropane	<0.050		µg/L	0.050						
	1,3-Dichloropropane	<0.050		µg/L	0.050						
	2,2-Dichloropropane	<0.050		µg/L	0.050						
	1,1-Dichloropropene	<0.050		µg/L	0.050						
	cis-1,3-Dichloropropene	<0.050		µg/L	0.050						
	trans-1,3-Dichloropropene	<0.050		µg/L	0.050						
	Diisopropyl Ether (DiPE)	<0.050		µg/L	0.050						
	Ethylbenzene	<0.050		µg/L	0.050						
	Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	0.050						

A & R Laboratories

Formerly Microbac Southern California
1650 S. GROVE AVE., SUITE C
ONTAIRO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

QUALITY CONTROL DATA REPORT

1608-00278

INTERPHASE

Date Reported	**09/06/2016**
Date Received	**08/31/2016**
Date Sampled	**08/31/2016**

Project: John Wayne Airport, Santa Ana

Respectfully Submitted: Ken Zheng

Ken Zheng - President

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.

ARL

A & R Laboratories
1650 S. Grove Ave., Ste C, Ontario, CA 91761
Tel: 951-779-0310 / 909-781-6335 Fax: 951-779-0344
E-mail: office@arlaboratories.com

CHAIN OF CUSTODY

A & R Work Order #: 1608-278

Client Name: Inter phase
E-mail: office@interphaseenvironmental.com
Address: 6200 Peach Tree St Los Angeles CA 90040
Report Attention: ROSE W. | Phone #: (323) 278-7700 | Fax: # (323) 278-7707 | Sampled By: Ken
Project No./ Name:
Project Site: John Wayne Airport

☐ Chilled ☒ Intact ☐ Seal

Turn Around Time Requested: ☐ Rush 8 12 24 48 Hours ☐ Normal MOBILE

Lab # (Lab use)	Client Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserve	No., type* & size of container	EPA8260B (VOCs & Oxygenates)	EPA8260B(BTEX & Oxygenates)	LUFT / 8015 (Gasoline)	LUFT / 8015 (Diesel)	EPA8081A (Organochlorine Pesticides)	EPA 8082 (PCBs)	EPA 8015M (Carbon Chain C4-C40)	EPA 6010B/7000 (CAM 17 Metals)	Micro: Plate Cnt., Coliform, E-Coli	Remarks
-1	GAIP-SB37-SV5	8/31/16		Air		2.5 oml 6T	X		X							3PV
-2	-SB39-															
-3	-SB38-															
-4	-SB41-															
-5	-SB40-															
-6	-SB42-															
-7	-SB43-															
-8	~~-SB44~~															
-9	-SB45-															
-10	-SB46-															
-11	-SB46- DUP															
-12	-SB47-															
-13	-SB48-															
-14	-SB50-															
-15	-SB49-															

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Rachel Mills	(Amec)	8/31/16	16:30				
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
					ARL	8/31/16	16:30

Note: Samples are discarded 30 days after results are reported unless other arrangements are made.

Matrix Code: DW=Drinking Water; GW=Ground Water; WW=Waste Water; SD=Solid Waste; SL=Sludge; SS=Soil/Sediment; AR=Air; PP=Pure Product

Preservative Code: IC=Ice; HC=HCl; HN=HNO_3; SH=NaOH; ST=$Na_2S_2O_3$; HS=H_2SO_4

* Sample Container Types: T=Tedlar Air Bag; G=Glass Container; ST= Steel Tube; B= Brass Tube; P=Plastic Bottle; V=VOA Vial; E= EnCore

ARL

A & R Laboratories
1650 S. Grove Ave., Ste C, Ontario, CA 91761
Tel: 951-779-0310 / 909-781-6335 Fax: 951-779-0344
E-mail: office@arlaboratories.com

CHAIN OF CUSTODY

A & R Work Order #: 1608-278

Client Name: Intr phase
E-mail: Office@interphaseenvironmental.com
Address: 6200 Peach Tree St, Los Angeles CA 90040
Report Attention: ROSE W. Phone #: (323)276-7709 Fax: # (323)278-7707 Sampled By: Ken
Project No./ Name:
Project Site: John Wayne Airport

☐ Chilled ☒ Intact ☐ Seal

Analyses Requested

Turn Around Time Requested
☐ Rush 8 12 24 48 Hours
☐ Normal
MOBILE

Lab # (Lab use)	Client Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserve	No., type* & size of container	EPA8260B (VOCs & Oxygenates)	EPA8260B(BTEX & Oxygenates)	LUFT / 8015 (Gasoline)	LUFT / 8015 (Diesel)	EPA8081A (Organochlorine Pesticides)	EPA 8082 (PCBs)	EPA 8015M (Carbon Chain C4-C40)	EPA 6010B/7000 (CAM 17 Metals)	Micro: Plate Cnt., Coliform, E-Coli	Remarks
16	GA1P-SB50-SV5	8/31/16		Air		250ml G	X		X							3 PV
17	SB51															
18	SB53															
19	SB53	DUP														

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Rachel Mills	(Amec)	8/31/16	16:30				
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
					K2R	8/31/17	16:30

Note: Samples are discarded 30 days after results are reported unless other arrangements are made.

Matrix Code: DW=Drinking Water; GW=Ground Water; WW=Waste Water; SD=Solid Waste; SL=Sludge; SS=Soil/Sediment; AR=Air; PP=Pure Product

Preservative Code: IC=Ice; HC=HCl; HN=HNO_3; SH=NaOH; ST=$Na_2S_2O_3$; HS=H_2SO_4

* Sample Container Types: T=Tedlar Air Bag; G=Glass Container; ST= Steel Tube; B= Brass Tube; P=Plastic Bottle; V=VOA Vial; E= EnCore

APPENDIX C

Soil Boring Logs

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB1**
BORING LOCATION: Signature Flight School	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/22/16 / DATE FINISHED: 8/22/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed; datum is ground surface	PID READING (ppm)	REMARKS
0				Asphalt 12 inches		
1				SILTY SAND (SM): very dark gray (10YR 3/1), moist, ~60% fine sand, ~40% low plasticity fines, trace gravel, subangular up to 1 1/2 inches long		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB1-2				14.9	
3				SANDY SILT (ML): dark brown (7.5YR 3/4), moist, ~60% low plasticity fines, ~40% fine sand, low toughness, soft		PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					5.0	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-6' vapor probe 5'-4 1/2' dry bentonite 4 1/2'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB2**
BORING LOCATION: Signature East	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/22/16 / DATE FINISHED: 8/22/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER / FIRST: NA / COMPL.: NA / 24 HRS.: NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				Asphalt 8-inches		
1				SILTY SAND with GRAVEL (SM): brown (10YR 4/3), moist, ~60% fine to coarse sand, ~20% low plasticity fines, ~20% subangular base gravel, up to 1 1/2-inches long		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB2-2	■			1.0	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					0.9	
				SANDY SILT (ML): dark yellowish brown (10YR 4/6), moist, ~60% low plasticity fines, ~40% fine sand, low toughness, soft, micaceous		PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB3**
BORING LOCATION: Signature East	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/22/16 / DATE FINISHED: 8/22/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed; datum is ground surface	PID READING (ppm)	REMARKS
				Asphalt 8-inches		
1				SILTY SAND with GRAVEL (SM): dark yellowish brown (10YR 4/6), moist, ~60% fine to medium sand, ~20% low plasticity fines, ~20% subangular gravel up to 1-inch long		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB3-2	■			2.3	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4				SANDY SILT (ML): dark yellowish brown (10YR 4/6), moist, ~65% low plasticity fines, ~35% fine sand, low toughness, soft		
5					3.1	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB4**	
BORING LOCATION: Signature East	ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/22/16	DATE FINISHED: 8/22/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0	MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST: NA; COMPL.: NA; 24 HRS.: NA	
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills	
HAMMER WEIGHT: NA; DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul	REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
0				Asphalt 16-inches		
1				SILTY SAND with GRAVEL (SM): very dark brown (7.5YR 2.5/2), moist, ~60% fine to medium sand, ~20% low plasticity fines, ~20% subangular gravel up to 1/2 inch long		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB4-2	■				
3					1.9	PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					1.5	
5				SANDY SILT (ML): very dark brown (7.5YR 2.5/2), moist, ~65% low plasticity fines, ~35% fine to medium sand, low toughness, soft, micaceous		PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs 6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
7						
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB5**
BORING LOCATION:	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/22/16 / DATE FINISHED: 8/22/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER / FIRST: NA / COMPL.: NA / 24 HRS.: NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO.: 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed; datum is ground surface	PID READING (ppm)	REMARKS
0				Asphalt 6-inches		
1				SILTY SAND with GRAVEL (SM): dark yellowish brown (10YR 4/6), moist, ~60% fine to medium sand, ~20% low plasticity fines, ~20% subangular gravel, up to 1-inch long		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB5-2				1.4	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4				SANDY SILT (ML): dark yellowish brown (10YR 4/6), moist, ~60% low plasticity fines, ~40% fine sand, low toughness, soft, micaceous		
5					2.1	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB6**
BORING LOCATION: Executive Hangars	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/22/16 / DATE FINISHED: 8/22/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER / FIRST: NA / COMPL.: NA / 24 HRS.: NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				Asphalt 4-inches		
1				SILTY SAND with GRAVEL (SM): brown (7.5YR 4/2), moist, ~60% fine to medium sand, ~20% low plasticity fines, ~20% subangular gravel up to 1 1/2-inches long		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB6-2				0.9	
3				~70% fine to medium sand, ~30% low plasticity fines		PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					2.7	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB7**
BORING LOCATION: Executive Hangars	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/22/16 / DATE FINISHED: 8/22/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER / FIRST: NA / COMPL.: NA / 24 HRS.: NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				Asphalt 6-inches		
1				SILTY SAND with GRAVEL (SM): brown (7.5YR 4/2), moist, ~60% fine to medium sand, ~25% low plasticity fines, ~15% subangular gravel up to 1 1/2 inches long		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB7-2				1.4	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4				~65% fine to medium sand, ~35% low plasticity fines		
5					1.9	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB8**
BORING LOCATION: Executive Hangars	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/22/16 / DATE FINISHED: 8/22/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER / FIRST: NA / COMPL.: NA / 24 HRS.: NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				Asphalt core ~6-inches		
1				SILTY SAND with GRAVEL (SM): brown (7.5YR 4/2), moist, ~60% fine to medium sand, ~25% low plasticity fines, ~15% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB8-2	■		~70% fine to medium sand, ~30% low plasticity fines	0.8	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5				SANDY SILT (ML): dark yellowish brown (10YR 4/6), moist, ~65% low plasticity fines, ~35% fine sand, low toughness, soft	0.7	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB9**
BORING LOCATION: Executive Hangars	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/22/16 / DATE FINISHED: 8/22/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER / FIRST: NA / COMPL.: NA / 24 HRS.: NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed; datum is ground surface	PID READING (ppm)	REMARKS
0				Asphalt 8-inches		
1				SILTY SAND with GRAVEL (SM): dark yellowish brown (10YR 4/6), moist, ~60% fine to medium sand, ~20% low plasticity fines, ~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB9-2				0.3	
3				~70% fine to medium sand, ~30% low plasticity fines		PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					0.3	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB10**
BORING LOCATION: Executive Hangars	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/22/16 / DATE FINISHED: 8/22/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				Asphalt 2-inches		
1				SILTY SAND with GRAVEL (SM): dark grayish brown (10YR 4/2), moist, ~60% fine to medium sand, ~20% low plasticity fines, ~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB10-2	■		~70% fine to medium sand, ~30% low plasticity fines	1.9	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					1.7	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB11**
BORING LOCATION: Executive Hangars	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/22/16 / DATE FINISHED: 8/22/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				Asphalt core ~4-inches		
1				SILTY SAND with GRAVEL (SM): dark grayish brown (10YR 4/2), moist, ~60% fine to medium sand, ~20% low plasticity fines, ~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB11-2	■		~75% fine to medium sand, ~25% low plasticity fines	1.5	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5				~60% fine to medium sand, ~40% low plasticity fines	1.9	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB12**
BORING LOCATION: Signature Flight School	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/22/16 / DATE FINISHED: 8/22/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				Asphalt 10-inches		
1				SILTY SAND with GRAVEL (SM): dark grayish brown (10YR 4/2), moist, ~60% fine to medium sand, ~20% low plasticity fines, ~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB12-2	■		~75% fine to medium sand, ~25% low plasticity fines	1.2	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5				~60% fine to medium sand, ~40% low plasticity fines	0.6	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' dry bentonite 4 1/2'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)				**Log of Boring No. GAIP-SB13**
BORING LOCATION: Executive Hangars				ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.				DATE STARTED: 8/23/16 / DATE FINISHED: 8/23/16
DRILLING METHOD: hand auger				TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger				DEPTH TO WATER / FIRST: NA / COMPL.: NA / 24 HRS.: NA
SAMPLING METHOD: slide hammer w/ brass sleeve				LOGGED BY: R. Mills
HAMMER WEIGHT: NA	DROP: NA			RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				Asphalt ~3-inches		
1				SILTY SAND (SM): dark yellowish brown (10YR 4/6), moist, ~65% fine to medium sand, ~35% low plasticity fines		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB13-2				0.7	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4				SANDY SILT (ML): dark yellowish brown (10YR 4/6), moist, ~60% low plasticity fines, ~40% fine to medium sand, low toughness, soft		
5					0.6	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB14**	
BORING LOCATION: Executive Hangars	ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/23/16	DATE FINISHED: 8/23/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0	MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER / FIRST: NA	COMPL.: NA / 24 HRS.: NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills	
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul	REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				Asphalt ~4-inches		
1				SILTY SAND (SM): dark yellowish brown (10YR 4/6), moist, ~60% fine sand, ~40% low plasticity fines, trace subangular gravel, slightly micaceous		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB14-2				0.6	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4				SANDY SILT (ML): dark yellowish brown (10YR 4/6), moist, ~70% low plasticity fines, ~30% fine to medium sand, low toughness, soft, slightly micaceous		
5					0.5	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' dry bentonite 4 1/2'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB15**
BORING LOCATION: Executive Hangars	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/23/16 / DATE FINISHED: 8/23/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER / FIRST: NA / COMPL.: NA / 24 HRS.: NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO.: 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				asphalt (4")		
1				SILTY SAND (SM): dark yellowish brown (10YR 4/6), moist, ~60% fine to medium sand, ~40% low plasticity fines, trace subangular gravel, slightly micaceous		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB15 2.0	■			1.3	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4				SANDY SILT (ML): dark yellowish brown (10YR 4/6), moist, ~65% low plasticity fines, ~35% fine to medium sand, low toughness, soft, micaceous		
5					0.5	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB16**
BORING LOCATION: Executive Hangars	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/23/16 / DATE FINISHED: 8/23/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				asphalt (4")		
1				SILTY SAND (SM): dark yellowish brown (10YR 4/6), moist, ~65% fine to medium sand, ~35% low plasticity fines, trace subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB16 2.0	■			0.2	
3				~55% fine to medium sand, ~45% low plasticity fines		PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					0.1	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB17**
BORING LOCATION: Executive Hangars	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/23/16 / DATE FINISHED: 8/23/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION: NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				Asphalt ~4-inches		
1				SILTY SAND with GRAVEL (SM): dark grayish brown (10YR 4/2), moist, ~55% fine to medium sand, ~30% subangular gravel, ~15% low plasticity fines	15.8	Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB17-2	■		SILTY SAND (SM): dark brown (10YR 3/3), ~60% fine to medium sand, ~40% low plasticity fines	4.4 1.0	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5				SANDY SILT (ML): brown (7.5YR 4/2), moist, ~65% low plasticity fines, ~35% fine sand, low toughness, soft	1.0	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB18**
BORING LOCATION: Executive Hangars	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/23/16 / DATE FINISHED: 8/26/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER / FIRST: NA / COMPL.: NA / 24 HRS.: NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed; datum is ground surface	PID READING (ppm)	REMARKS
0				Asphalt 5 1/2-inches		
1				WELL GRADED GRAVEL with SILT (GW-GM): grayish brown (10YR 5/2), moist, ~60% subangular gravel, ~30% fine to medium sand, ~10% low plasticity fines		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB18-2	■		8/26/16 use HSA to overdrill to 2 1/2 ft. to remove rod 5 1/2" - 4': SILTY SAND with GRAVEL (SM): dark grayish brown (10YR 4/2), moist, ~45% fine to medium sand, ~35% subangular gravel, ~20% low plasticity fines	2.1	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4				SILTY SAND (SM): dark yellowish brown (10YR 4/6), moist, ~65% fine to medium sand, ~35% low plasticity fines		
5					0.6	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs 6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
7						
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB19**
BORING LOCATION: Executive Hangars	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/23/16 / DATE FINISHED: 8/23/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER / FIRST: NA / COMPL.: NA / 24 HRS.: NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				asphalt (4")		
1				SILTY SAND with GRAVEL (SM): very dark grayish brown (10YR 3/2), moist, ~60% fine to medium sand, ~20% low plasticity fines,~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB19 2.0				1.4	
3				~70% fine to medium sand, ~30% low plasticity fines		PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5				dark brown (10YR 3/3), ~65% fine to medium sand, ~35% low plasticity fines	0.7	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB20**
BORING LOCATION: Executive Hangars	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/23/16 / DATE FINISHED: 8/26/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
0				Asphalt ~4-inches		
1				SILTY SAND with GRAVEL (SM): dark grayish brown (10YR 4/2), moist, ~40% fine to medium sand, ~35% subangular gravel, ~25% low plasticity fines		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB20-2	■			7.5	
3				black plastic mesh observed at 3 1/2 ft from soil cuttings of HSA rig		PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4				SILTY SAND (SM): dark yellowish brown (10YR 4/6), moist, ~65% fine to medium sand, ~35% low plasticity fines		
5					0.6	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB21**
BORING LOCATION: Signature	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/23/16 / DATE FINISHED: 8/23/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER / FIRST: NA / COMPL.: NA / 24 HRS.: NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO.: 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed; datum is ground surface	PID READING (ppm)	REMARKS
				asphalt (8")		
1				SILTY SAND with GRAVEL (SM): very dark brown (10YR 2/2), moist, ~65% fine to medium sand, ~20% low plasticity fines,~15% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB21 2.0	■		~75% fine to medium sand, ~25% low plasticity fines	1.0	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5				dark yellowish brown (10YR 3/4), ~65% fine to medium sand, ~35% low plasticity fines	0.5	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB22**
BORING LOCATION: Signature	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/23/16 / DATE FINISHED: 8/23/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				asphalt (11")		
1				SILTY SAND with GRAVEL (SM): dark yellowish brown (10YR 4/6), moist, ~60% fine to medium sand, ~20% low plasticity fines,~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB22 2.0	■			0.9	
3				~65% fine to medium sand, ~35% low plasticity fines		PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					0.9	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB23**
BORING LOCATION: Signature	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/23/16 / DATE FINISHED: 8/23/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed; datum is ground surface	PID READING (ppm)	REMARKS
0				asphalt (12")		
1				SILTY SAND with GRAVEL (SM): very dark brown (10YR 2/2), moist, ~65% fine sand, ~20% low plasticity fines,~15% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB23 2.0	■		~75% fine sand, ~25% low plasticity fines	0.8	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					0.9	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB24**
BORING LOCATION: Signature	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/23/16 / DATE FINISHED: 8/23/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				asphalt (8")		
1				SILTY SAND with GRAVEL (SM): very dark grayish brown (10YR 3/2), moist, ~60% fine to medium sand, ~20% low plasticity fines,~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB24 2.0	■		~65% fine to medium sand, ~35% low plasticity fines	0.4	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5				dark yellowish brown (10YR 3/4)	0.8	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB25**
BORING LOCATION: Atlantic Aviation	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/24/16 / DATE FINISHED: 8/24/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed; datum is ground surface	PID READING (ppm)	REMARKS
0				Asphalt 12-inches		
1				SILTY SAND with GRAVEL (SM): dark yellowish brown (10YR 4/6), moist, ~60% fine to medium sand, ~20% low plasticity fines, ~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB25-2	■		SANDY SILT (ML): dark yellowish brown (10YR 4/6), moist, ~60% low plasticity fines, ~40% fine to medium sand, low toughness, soft	0.7	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5				SILTY SAND (SM): brown (10YR 4/3), moist, ~60% fine to medium sand, ~40% low plasticity fines	0.8	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB26**
BORING LOCATION: Atlantic Aviation	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/26/16 / DATE FINISHED: 8/26/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				Asphalt 12-inches		
1				SILTY SAND with GRAVEL (SM): brown (7.5YR 4/2), moist, ~60% fine to medium sand, ~20% low plasticity fines, ~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB26-2			POORLY GRADED SAND (SP): brown (7.5YR 4/2), moist, ~90% fine to coarse sand, ~10% fines	0.9	
3				SANDY SILT (ML): dark yellowish brown (10YR 4/6), moist, ~60% low plasticity fines, ~40% fine to medium sand, low to medium toughness, firm		PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					1.1	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' dry bentonite 4 1/2'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB27**
BORING LOCATION: Atlantic Aviation	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/24/16 / DATE FINISHED: 8/24/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER / FIRST: NA / COMPL.: NA / 24 HRS.: NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				Asphalt 8-inches		
1				SILTY SAND with GRAVEL (SM): dark yellowish brown (10YR 4/6), moist, ~60% fine to medium sand, ~20% low plasticity fines, ~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB27-2	■		~65% fine to medium sand, ~35% low plasticity fines	0.5	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5				SANDY SILT (ML): dark yellowish brown (10YR 4/6), moist, ~60% low plasticity fines, ~40% fine to medium sand, low toughness, firm to soft	0.8	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB28**
BORING LOCATION: Atlantic Aviation	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/24/16 / DATE FINISHED: 8/24/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				asphalt (4")		
1				SILTY SAND with GRAVEL (SM): dark brown (7.5YR 3/2), moist, ~60% fine to medium sand, ~20% low plasticity fines,~20% subangular base gravel up to 1 1/2" long		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB28 2.0	■			0.9	
				~65% fine to medium sand, ~35% low plasticity fines		
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					1.1	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB29**
BORING LOCATION: Atlantic Aviation	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/24/16 / DATE FINISHED: 8/24/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed; datum is ground surface	PID READING (ppm)	REMARKS
				Asphalt 7-inches		
1				SILTY SAND with GRAVEL (SM): brown (10YR 4/3), moist, ~60% fine to medium sand, ~20% low plasticity fines, ~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB29-2	■		~75% fine to medium sand, ~25% low plasticity fines	1.0	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5				~65% fine to medium sand, ~35% low plasticity fines	1.1	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB30**
BORING LOCATION: Atlantic Aviation	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/24/16 / DATE FINISHED: 8/24/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				Asphalt 8-inches		
1				SILTY SAND with GRAVEL (SM): dark yellowish brown (10YR 4/6), moist, ~60% fine to medium sand, ~20% low plasticity fines, ~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB30-2	■		~65% fine to medium sand, ~25% low plasticity fines	1.1	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					1.1	
				SANDY SILT (ML): dark yellowish brown (10YR 4/6), moist, ~65% low plasticity fines, ~35% fine to medium sand, low toughness, firm		PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB31**
BORING LOCATION: Atlantic Aviation	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/24/16 / DATE FINISHED: 8/24/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER / FIRST: NA / COMPL.: NA / 24 HRS.: NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
0				Asphalt 4-inches		
1				SILTY SAND with GRAVEL (SM): dark grayish brown (10YR 4/2), moist, ~60% fine to medium sand, ~25% subangular gravel, ~15% low plasticity fines, gravel up to 2-inches in length, hard hand augering		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB31-2	■		SANDY SILT (ML): dark yellowish brown (10YR 4/6), moist, ~65% low to medium plasticity fines, ~35% fine to medium sand, low toughness, soft	0.8	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5				SILTY SAND (SM): dark brown (7.5YR 3/2), moist, ~70% fine to medium sand, ~30% low plasticity fines	0.6	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs 6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
7						
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB32**
BORING LOCATION: Atlantic Aviation	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/24/16 / DATE FINISHED: 8/26/16
DRILLING METHOD: hand auger and hollow stem auger (HSA)	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger and hollow stem auger (HSA)	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	Sample	Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				Asphalt ~5-inches		
1				SILTY SAND with GRAVEL (SM): dark yellowish brown (10YR 4/2), moist, ~40% fine to medium sand, ~35% subangular gravel, ~25% low plasticity fines Refusal with hand auger at 1 ft bgs.		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2						
3	GAIP-SB32-3	■		SILTY SAND (SM): dark yellowish brown (10YR 4/6), moist, ~60% fine to medium sand, ~40% low plasticity fines	0.6	PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					0.4	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB33**
BORING LOCATION: Atlantic Aviation	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/24/16 / DATE FINISHED: 8/24/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				Asphalt ~4-inches		
1				SILTY SAND with GRAVEL (SM): dark grayish brown (10YR 4/2), moist, ~60% fine to medium sand, ~20% low plasticity fines, ~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB33-2				0.7	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4				dark yellowish brown (10YR 4/6), ~70% fine to medium sand, ~30% low plasticity fines		
5				Black plastic mesh @4 ft.	0.8	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)				**Log of Boring No. GAIP-SB34**
BORING LOCATION: Parking Lot extension at Atlantic				ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.			DATE STARTED: 8/24/16	DATE FINISHED: 8/24/16
DRILLING METHOD: hand auger			TOTAL DEPTH (ft.): 6.0	MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger			DEPTH TO WATER: FIRST NA	COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve			LOGGED BY: R. Mills	
HAMMER WEIGHT: NA	DROP: NA		RESPONSIBLE PROFESSIONAL: D. Paul	REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				asphalt (6")		
1				SILTY SAND with GRAVEL (SM): dark yellowish brown (10YR 3/4), moist, ~60% fine sand, ~20% low plasticity fines, ~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB34 2.0	■		~65% fine sand, ~35% low plasticity fines	0.8	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5				SANDY SILT (ML): dark yellowish brown (10YR 3/6), moist, ~65% low plasticity fines, ~35% fine to medium sand, low toughness, soft	0.5	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB35**
BORING LOCATION: Atlantic Aviation Parking Lot	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/24/16 / DATE FINISHED: 8/24/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER / FIRST: NA / COMPL.: NA / 24 HRS.: NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed; datum is ground surface	PID READING (ppm)	REMARKS
0				asphalt (5")		
1				SILTY SAND with GRAVEL (SM): very dark brown (10YR 2/2), moist, ~60% fine sand, ~20% low plasticity fines,~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB35 2.0			~70% fine sand, ~30% low plasticity fines	1.3	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5				dark yellowish brown (10YR 3/6), ~65% fine to medium sand, ~35% low plasticity fines	0.6	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB36**
BORING LOCATION: Atlantic Aviation Parking Lot	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/24/16 / DATE FINISHED: 8/24/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION: NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				Asphalt ~5-inches		
1				SILTY SAND with GRAVEL (SM): very dark brown (10YR 2/2), moist, ~60% fine to medium sand, ~20% low plasticity fines, ~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB36-2				0.4	
3				dark yellowish brown (10YR 4/6), ~65% fine to medium sand, ~35% low plasticity fines		PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					0.7	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB37**
BORING LOCATION: Atlantic Aviation	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/25/16 / DATE FINISHED: 8/25/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed; datum is ground surface	PID READING (ppm)	REMARKS
0				Asphalt 4-inches		
1				SILTY SAND with GRAVEL (SM): very dark brown (10YR 2/2), moist, ~60% fine to medium sand, ~20% low plasticity fines, ~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB37-2				1.1	
3				~70% fine to medium sand, ~30% low plasticity fines		PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					0.9	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB38**
BORING LOCATION: Signature Flight School Parking Lot	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/24/16 / DATE FINISHED: 8/24/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER / FIRST: NA / COMPL.: NA / 24 HRS.: NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed; datum is ground surface	PID READING (ppm)	REMARKS
0				asphalt (5")		
1				SILTY SAND with GRAVEL (SM): very dark brown (10YR 2/2), moist, ~60% fine sand, ~20% low plasticity fines,~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB38 2.0			~70% fine to medium sand, 30% low plasticity fines	43.7	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5				brown (7.5YR 4/3), ~65% fine to medium sand, ~35% low plasticity fines	0.5	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB39**	
BORING LOCATION: Signature Flight School Parking Lot	ELEVATION AND DATUM: Not surveyed; datum is ground surface	
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/24/16	DATE FINISHED: 8/24/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0	MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER / FIRST: NA	COMPL.: NA / 24 HRS.: NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills	
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul	REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed; datum is ground surface	PID READING (ppm)	REMARKS
0				Asphalt 5-inches		
1				SILTY SAND with GRAVEL (SM): dark brown (7.5YR 3/2), moist, ~60% fine to medium sand, ~20% low plasticity fines, ~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB39-2				1.5	
3				~70% fine to medium sand, ~30% low plasticity fines		PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					0.7	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB40**
BORING LOCATION: Signature West	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/25/16 / DATE FINISHED: 8/25/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				asphalt (5")		
1				SILTY SAND with GRAVEL (SM): very dark grayish brown (10YR 3/2), moist, ~60% fine to medium sand, ~20% low plasticity fines,~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB40 2.0	■		~70% fine to medium sand, ~30% low plasticity fines	1.3	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					0.6	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)				**Log of Boring No. GAIP-SB41**
BORING LOCATION: Signature West				ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.			DATE STARTED: 8/25/16	DATE FINISHED: 8/25/16
DRILLING METHOD: hand auger			TOTAL DEPTH (ft.): 6.0	MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger			DEPTH TO WATER: FIRST NA	COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve			LOGGED BY: R. Mills	
HAMMER WEIGHT: NA	DROP: NA		RESPONSIBLE PROFESSIONAL: D. Paul	REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed; datum is ground surface	PID READING (ppm)	REMARKS
				asphalt (5")		
1				SILTY SAND with GRAVEL (SM): very dark brown (10YR 2/2), moist, ~65% fine to medium sand, ~20% low plasticity fines,~15% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB41 2.0	■		~75% fine to medium sand, ~25% low plasticity fines	0.9	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					1.5	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB42**
BORING LOCATION: Signature West	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/25/16 / DATE FINISHED: 8/25/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				asphalt (5")		
1				SILTY SAND with GRAVEL (SM): very dark brown (10YR 2/2), moist, ~60% fine to medium sand, ~20% low plasticity fines,~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB42 2.0	■		~75% fine sand, ~25% low plasticity fines	1.8	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5				SANDY SILT (ML): dark yellowish brown (10YR 3/4), moist, ~60% low plasticity fines, ~40% fine sand, low toughness, soft	1.2	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB43**
BORING LOCATION: Signature West	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/25/16 / DATE FINISHED: 8/25/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				asphalt (5")		
1				SILTY SAND with GRAVEL (SM): dark yellowish brown (10YR 4/6), moist, ~60% fine to medium sand, ~20% low plasticity fines,~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB43 2.0			~70% fine sand, ~30% low plasticity fines	0.7	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5				~60% fine to medium sand, ~40% low plasticity fines	0.7	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB44**
BORING LOCATION: Signature West	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/25/16 / DATE FINISHED: 8/25/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed; datum is ground surface	PID READING (ppm)	REMARKS
0				asphalt (5")		
1				SILTY SAND with GRAVEL (SM): very dark brown (10YR 2/2), moist, ~60% fine sand, ~20% low plasticity fines,~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB44 2.0			~75% fine sand, ~25% low plasticity fines	2.1	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5				dark yellowish brown (10YR 3/4), ~65% fine to medium sand, ~35% low plasticity fines	0.3	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB45**
BORING LOCATION: Signature West	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/25/16 / DATE FINISHED: 8/25/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed; datum is ground surface	PID READING (ppm)	REMARKS
0				asphalt (5")		
1				SILTY SAND with GRAVEL (SM): dark yellowish brown (10YR 3/6), moist, ~60% fine to medium sand, ~20% low plasticity fines,~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB45 2.0	■		~70% fine sand, ~30% low plasticity fines	1.9	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					1.9	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB46**
BORING LOCATION: Signature West	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/25/16 / DATE FINISHED: 8/25/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed; datum is ground surface	PID READING (ppm)	REMARKS
0				asphalt (5")		
1				SILTY SAND with GRAVEL (SM): dark yellowish brown (10YR 4/6), moist, ~60% fine to medium sand, ~20% low plasticity fines,~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB46 2.0	■		~70% fine to medium sand, ~30% low plasticity fines	1.2	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5				dark brown (7.5YR 3/2), ~65% fine to medium sand, ~35% low plasticity fines	2.6	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB47**
BORING LOCATION: Signature West	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/25/16 / DATE FINISHED: 8/25/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				asphalt (5")		
1				SILTY SAND with GRAVEL (SM): dark yellowish brown (10YR 4/6), moist, ~60% fine to medium sand, ~20% low plasticity fines,~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB47 2.0			~65% fine to medium sand, ~35% low plasticity fines	0.5	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5				~75% fine to medium sand, ~25% low plasticity fines	0.3	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB48**
BORING LOCATION: Signature West	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/25/16 / DATE FINISHED: 8/25/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				asphalt (5")		
1				SILTY SAND with GRAVEL (SM): dark brown (7.5YR 3/2), moist, ~60% fine to medium sand, ~20% low plasticity fines,~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB48 2.0	■		~70% fine to medium sand, ~30% low plasticity fines	0.6	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					0.8	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)				**Log of Boring No. GAIP-SB49**
BORING LOCATION: Signature West				ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.			DATE STARTED: 8/25/16	DATE FINISHED: 8/25/16
DRILLING METHOD: hand auger			TOTAL DEPTH (ft.): 6.0	MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger			DEPTH TO WATER FIRST NA	COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve			LOGGED BY: R. Mills	
HAMMER WEIGHT: NA	DROP: NA		RESPONSIBLE PROFESSIONAL: D. Paul	REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed; datum is ground surface	PID READING (ppm)	REMARKS
				asphalt (6")		
1				SILTY SAND with GRAVEL (SM): dark brown (7.5YR 3/2), moist, ~60% fine to medium sand, ~20% low plasticity fines,~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB49 2.0			~70% fine to medium sand, ~30% low plasticity fines	0.7	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					0.7	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB50**
BORING LOCATION: Signature West	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/25/16 / DATE FINISHED: 8/25/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				asphalt (6")		
1				SILTY SAND with GRAVEL (SM): dark brown (7.5YR 3/2), moist, ~60% fine to medium sand, ~20% low plasticity fines,~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB50 2.0	■		~70% fine to medium sand, ~30% low plasticity fines	0.3	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5				dark yellowish brown (10YR 4/6)	0.3	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB51**
BORING LOCATION: Signature West	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/25/16 / DATE FINISHED: 8/25/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
				asphalt (6")		
1				SILTY SAND with GRAVEL (SM): dark brown (7.5YR 3/2), moist, ~60% fine to medium sand, ~20% low plasticity fines,~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB51 2.0	■		~70% fine to medium sand, ~30% low plasticity fines	1.2	
3						PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5				~60% fine to medium sand, ~40% low plasticity fines	1.7	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB52**
BORING LOCATION: Signature West	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/25/16 / DATE FINISHED: 8/25/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 2.5 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed; datum is ground surface	PID READING (ppm)	REMARKS
0				Asphalt 6-inches		
1				SILTY SAND with GRAVEL (SM): dark yellowish brown (10YR 4/6), moist, ~60% fine to medium sand, ~20% low plasticity fines, ~20% subangular gravel		Hand augered to total depth (TD) of 2.5 ft. below ground surface (bgs)
2	GAIP-SB52-2	■			0.6	
3				Bottom of boring at 2.5' bgs Blue PVC pipe at 2.5 feet bgs (observed). Backfill with bentonite hydrated.		PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5						PID readings are headspace from soil in resealable plastic bags
6						
7						
8						
9						No vapor probe installed in SB52.
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB53**
BORING LOCATION: Signature West	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/25/16 / DATE FINISHED: 8/25/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed; datum is ground surface	PID READING (ppm)	REMARKS
0				asphalt (8")		
1				SILTY SAND with GRAVEL (SM): very dark grayish brown (10YR 3/2), moist, ~60% fine to medium sand, ~20% low plasticity fines, ~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB53 2.0	■			1.6	
3				SANDY SILT (ML): dark yellowish brown (10YR 4/6), moist, ~60% low plasticity fines, ~40% fine to medium sand, low toughness, soft		PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					0.5	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

PROJECT: John Wayne Airport General Aviation Improvement Program (GAIP)	**Log of Boring No. GAIP-SB54**
BORING LOCATION: Signature West	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: InterPhase Environmental, Inc.	DATE STARTED: 8/26/16 / DATE FINISHED: 8/26/16
DRILLING METHOD: hand auger	TOTAL DEPTH (ft.): 6.0 / MEASURING POINT: ground surface
DRILLING EQUIPMENT: hand auger	DEPTH TO WATER: FIRST NA / COMPL. NA / 24 HRS. NA
SAMPLING METHOD: slide hammer w/ brass sleeve	LOGGED BY: R. Mills
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Paul / REG. NO. 6336

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ 6 inches	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	PID READING (ppm)	REMARKS
				Surface Elevation: Not surveyed; datum is ground surface		
0				Asphalt 4-inches		
1				SILTY SAND with GRAVEL (SM): pale brown (10YR 6/3), moist, ~60% fine sand, ~20% low plasticity fines, ~20% subangular gravel		Hand augered to total depth (TD) of 6 ft. below ground surface (bgs)
2	GAIP-SB54-2				2.3	
3				dark yellowish brown (10YR 4/6), ~70% fine to medium sand, ~30% low plasticity fines		PID = MiniRae 3000 photoionization detector calibrated to 100 ppm isobutylene standard
4						
5					1.2	PID readings are headspace from soil in resealable plastic bags
6				Bottom of boring at 6' bgs		
7				6'-5' #3 sand 5 1/2'-5' vapor probe 5'-4 1/2' #3 sand 4 1/2'-4' dry bentonite 4'-3" hydrated bentonite 3"-1" #3 sand 1"-0 thin concrete patch		Following soil gas sampling, the borings were destroyed by removing the teflon tubing, filling the voids with hydrated granular bentonite, and patching the surface to match existing surrounding surface
8						
9						
10						
11						
12						
13						
14						

APPENDIX F-2

HAZARDOUS MATERIALS SURVEY REPORT – SOUTH COAST HANGAR

HAZARDOUS MATERIALS SURVEY REPORT

South Coast Hangar

19401 Campus Drive

General Aviation Improvement Program Project

John Wayne Airport

Costa Mesa, California

Prepared for:

John Wayne Airport
3160 Airway Avenue
Costa Mesa, California 92626

Prepared by:

Amec Foster Wheeler Environment & Infrastructure, Inc.
121 Innovation Drive, Suite 200
Irvine, California 92617-3094
(949) 642-0245

April 3, 2017

Project No. IR13164420

April 3, 2017

Ms. Melinda McCoy
Airport Environmental Engineer
John Wayne Airport, Orange County
3160 Airway Avenue
Costa Mesa, California 92626

Subject: **Hazardous Materials Survey Report**
South Coast Hangar
19401 Campus Drive
Santa Ana, California
Amec Foster Wheeler Project IR13164420

Dear Ms. McCoy:

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has completed a hazardous materials survey in support of the demolition of South Coast Hangar at 19401 Campus Drive, Santa Ana California. The survey included the assessment of suspect asbestos-containing materials (ACM) and lead-based paints (LBP). The attached report presents general project information, survey details, results, our findings and removal and abatement recommendations

Amec Foster Wheeler appreciates the opportunity to assist you on this project. Please contact us should any questions arise regarding this report or, if we may be of further service.

Sincerely,

Amec Foster Wheeler Environment & Infrastructure, Inc.

Don Harman
Senior Engineer
California Asbestos Consultant No. 92-0044
Certified Lead Inspector/Assessor and
Project Monitor No. I-10236

Leonard A. Gilbert, CIH
Senior Scientist

P:_00 OTHER OFFICES\2017\4005 Irvine\2016 Projects\Hanger study\Individual files\SouthCoast Corporate Hanger\Final draft\2017_04_03 HMS_South Coast Hangar.doc

Amec Foster Wheeler Environment & Infrastructure Inc.
121 Innovation Drive, Suite 200
Irvine, CA 92617
(949) 642-0245
(949) 642-4474 (fax)
www.amec.com

Section **Page**

TABLES

FIGURE

APPENDICES

1.0 BACKGROUND

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has completed a hazardous materials survey in support of the planned demolition of South Coast Hangar at 19401 Campus Drive in Santa Ana California. The survey included the assessment of suspect ACM and LBP. Amec Foster Wheeler performed the survey work December 27, 2016.

2.0 PURPOSE

The purpose of the survey was to locate and identify hazardous materials requiring abatement, stabilization, remediation, and/or special handling prior to the demolition of the structure. Our survey included visual observations, material sampling and laboratory analysis of suspect ACM and on site testing of suspect LBP with an X-ray fluorescence (XRF) spectrum analyzer.

The results of the survey can be provided to the project general contractor, asbestos abatement contractor and/or the hazardous materials contractor, for establishing appropriate removal, abatement and handling actions to be implemented before planned demolition of the structure begins as part of the Aviation Improvement Program project. This hazardous materials survey was conducted in accordance with the terms and conditions of our agreement with John Wayne Airport (JWA) Authority (280-280-1900-ENV2) and under JWA's authorization for this work (Task Order 3F-06) dated September 1, 2016.

3.0 BUILDING INFORMATION

The construction is metal frame with sheet metal exterior panels and roof. Typical interior build-out finishes include drywall and joint compound, wall texture, cove base, sheet vinyl flooring, and remnant floor mastic. Figure 1 is a Site Location Map.

4.0 ASBESTOS SURVEY

4.1 REGULATORY INFORMATION

The Federal regulatory definition of ACM is any material containing more than one percent (1%) asbestos. Asbestos waste is not regulated as hazardous waste under the Federal Resource Conservation and Recovery Act (RCRA).

The California regulatory definition of ACM is also any material with more than 1% asbestos. The California Business and Professions Code, requires asbestos abatement contractors to be licensed by the Contractors State License Board (CSLB) and asbestos consultants to be certified by California Division of Occupational Safety and Health (Cal/OSHA).

The California Labor Code requires that any contractor who does "asbestos-related work" that disturbs asbestos-containing construction materials (ACCM) must be licensed by the CSLB and registered with Cal/OSHA. The Cal/OSHA asbestos standard contained in Title 8, CCR Section 1429 defines asbestos containing construction material (ACCM) as any manufactured construction material that contains more than one-tenth of 1 percent (>0.1%) asbestos.

The California Department of Toxic Substance Control (DTSC) classifies asbestos-containing material as hazardous waste if it is "friable" and contains 1.0% or more asbestos. A friable material is one that can be reduced to a powder or dust under hand pressure when dry. DTSC considers non-friable bulk asbestos-containing waste to be nonhazardous regardless of its asbestos content. Friable asbestos wastes with more than 0.1% asbestos and less than 1% asbestos are not required to be handled as hazardous waste.

4.2 SURVEY AND SAMPLING

Amec Foster Wheeler's survey of the building included observation of interior floor, wall, and ceiling finishes, and exterior wall and roof components (to extent access was possible). Mr. Don Harman, a California Certified Asbestos Consultant with Amec Foster Wheeler, performed the survey December 27, 2016. In evaluating the building(s), we used our education, training and experience along with our familiarity with building construction, to identify potential asbestos materials. Our survey included visual observations and sampling of suspect asbestos materials.

The selection of materials to be sampled was based on material homogeneity. A homogeneous material is one that appears to be of the same uniform texture, color, appearance, general use, and condition, and that was applied during the same general time period. Once homogeneous materials were determined, sample locations were selected, and representative samples of the suspect material were collected. A bulk sample across the full depth of the suspect material was obtained.

The samples were collected from readily accessible areas. No intrusive activities for the purpose of obtaining samples, such as breaking through walls and ceilings, were performed. No attempt was made to disassemble mechanical equipment. Inaccessible spaces such as wall voids, building cavities, and mechanical equipment may contain concealed, unreported asbestos that may be revealed during demolition activities.

The samples were labeled and delivered under appropriate chain-of-custody documentation to Forensic Analytical Laboratories (FAL) in Rancho Dominquez, California for microscopic analysis by Polarized Light Microscopy (PLM). The samples were analyzed in general accordance with the United States Environmental Protection Agency (EPA) "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116, July 1993). This method employs PLM coupled with dispersion staining to identify the type and approximate quantity of asbestos present in the sample, if any. FAL is accredited under the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP) (Lab Code 101459) and the State of California Department of Health Services Environmental Laboratory Accreditation Program (ELAP Number 1366).

With respect to the sample analysis, if asbestos is detected in concentrations less than 1%, in California the material may be regulated as ACCM. As such, any PLM sample identified as having less than 1% asbestos must either be re-evaluated by point counting, in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) Asbestos NESHAP Revision, Final Rule (40 Code of Federal Regulations (CFR), Part 61), or must be assumed to be ACCM, and therefore regulated in California. Point counting, determines if the materials known to be less than 1% asbestos (EPA

criteria), are equal to or less than 0.1% asbestos (California criteria) and therefore not regulated with respect to abatement requirements.

4.3 SAMPLE ANALYTICAL RESULTS

A total of 138 bulk samples were collected and delivered to FAL for PLM analyses. When the building material is comprised of two or more layers or substrates, across its full cross-sectional depth, the laboratory will identify and analyze each layer. For this survey the analytical laboratory analyzed 254 substrates.

Of the 254 sample layers analyzed, asbestos was identified in amounts greater than 1% in brown sheet vinyl backing with a terrazzo pattern. Amec Foster Wheeler considers this material as friable when it is disturbed during removal.

Asbestos was identified in amounts less than 1% in three samples associated with the sheet vinyl. These were assumed to be the result of contamination from the backing.

Sample descriptions and the analytical results are provided in Table 1. The brown sheet vinyl backing was determined to contain asbestos in concentrations above California regulatory levels. A total of approximately 82 square feet of the sheet vinyl is located in the restrooms in Hangars 1 and 6. The material is undamaged and friable. A photograph of the material is included in Appendix A. The laboratory analytical data and chain of custody forms are included in Appendix B

5.0 LEAD-BASED PAINT SURVEY

The LBP survey was performed December 2016 by Mr. Don Harman, Amec Foster Wheeler, a California Department of Public Health (CDPH) Certified Lead Inspector, Risk Assessor, and Lead Supervisor. Visual observation and testing of the building's interior and exterior surfaces was performed.

The visual survey of the various areas within the structure was performed to identify painted building components, their general condition, and location and quantity of the painted components. Damaged, loose and flaking paint observed during the survey were noted.

United States Department of Housing and Urban Development (HUD), EPA and California definitions for lead-based paint are any paint with a lead concentration equal to or greater than 1.0 milligram per square centimeter of surface area (≥1 mg/cm^2) when measured by a portable x-ray fluorescence (XRF) spectrum analyzer, or 0.5% by weight (5,000 parts per million [ppm]) when measured by standard analytical methods. XRF results between 0.9 to 1.1 mg/cm^2 are considered by HUD/EPA as inconclusive.

In California, for lead-related construction work, Cal/OSHA requires a risk assessment to determine if employees may be exposed above the action level or permissible exposure limit (PEL). Surface coatings that contain lead at concentrations equal to or exceeding 0.06% lead by weight (600 ppm) are assumed by Cal/OSHA to demonstrate the presence of lead surface coatings that constitute a health hazard to employees engaged in lead-related construction work. As such, appropriate controls and work practices as defined in 8 CCR 1532.1 and 17 CCR 3600 et seq. are mandated, including requirements to use personnel certified by the California Department of Health Services.

5.1 XRF SURVEY

Amec Foster Wheeler performed the LBP survey in general accordance with EPA and US (HUD) guidelines for lead inspections and testing. Testing for LBP was performed onsite using a XRF, with the capability to measure lead content in dry paint films, in the range of 0 to 50 milligrams per square centimeter (mg/cm2). The surfaces tested were selected in general accordance with the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing.

5.2 XRF TEST RESULTS

None of the tested building paints would be considered lead-based paints via XRF testing. Appendix C contains a table which presents the readings from the XRF for painted surfaces. Because of none of the paint was considered to have elevated XRF results, no samples were obtained. Appendix D contains Form 8552 which is required to be submitted to the (CDPH). The report and form must be retained by the client for three years. Amec Foster Wheeler has submitted the form to CDPH.

6.0 RECOMMENDATIONS

6.1 ASBESTOS-CONTAINING MATERIALS

The asbestos materials must be removed from the structure prior to demolition. Any contractor who does "asbestos-related work" that disturbs ACM or ACCM must be licensed by the CSLB and registered with Cal/OSHA.

The abatement work must be performed in compliance with applicable Federal, State and local regulations. A scope of work and work procedures specifically tailored to this project should be prepared and adhered to by the abatement contractor. It is important that the abatement activities be performed by a competent, experienced contractor and the abatement activities be closely monitored.

DTSC classifies asbestos-containing wastes as hazardous waste if they are “friable” and contain 1.0% or more asbestos. DTSC considers non-friable bulk asbestos-containing waste to be nonhazardous regardless of its asbestos content. Waste materials containing less than 1% asbestos may be managed as non-hazardous waste in accordance with DTSC requirements.

The project-derived asbestos wastes could either be segregated as hazardous and non-hazardous and handled separately, or combined and handled together as hazardous. The handling method selected could be based on the costs associated with the labor to segregate the wastes verses the additional disposal fees. It should be noted that disposal

of any hazardous waste does have potential future liabilities should a problem arise with the disposal site. Therefore, the potential increased risk from handling the nonhazardous wastes as hazardous should be considered in the decision making process.

6.2 LEAD-CONTAINING MATERIALS

An XRF survey found no LBP based on the HUD criteria. At the time of the survey paints identified as lead-based and in poor condition (peeling or chipped) were not observed. Cal-OSHA would still require a negative exposure assessment prior to demolition. However, the need for abatement of LBP is currently unlikely.

7.0 LIMITATIONS

Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental, health and safety consultants practicing in this or similar localities at the time of service. Amec Foster Wheeler assumes no liability for any loss, injury, claim, or damages arising directly or indirectly from any use or reliance on this report or the opinions expressed herein. No other warranty, express or implied, is made as to the professional advice included in this report.

Amec Foster Wheeler endeavored to observe existing conditions at the building using generally accepted procedures. There is always a possibility some areas containing asbestos- and lead-containing materials were overlooked, were inaccessible, or are different from those at specific sample locations. Therefore, conditions at every location may not be as anticipated by our field representative. In addition, demolition may uncover altered or differing conditions.

This report has been prepared for the exclusive use of our client. Any use that a third party makes of this report, or any reliance on or decisions made based on it, are the responsibility of the third party. With respect to third parties, Amec Foster Wheeler has no liability or responsibility for losses of any kind whatsoever, including direct or consequential financial effects on transactions or property values, or requirements for follow-up actions and costs. Should additional parties require reliance on this report, written authorization from Amec Foster Wheeler will be required.

TABLES

Table 1
Summary of Asbestos Sample Results
South Coast Hangars
19401 Campus Drive

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Hangar No./ Room No.	Result
1	Drywall, white	1	a	1	1	6/2	ND
2	Drywall, white	1	a	2	1	6/2	ND
3	Drywall, white	1	a	3	1	6/3	ND
4	Joint Compound, white	1	b	1	1	6/2	ND
5	Joint Compound, white	1	b	2	1	6/2	ND
6	Joint Compound, white	1	b	3	1	6/2	ND
7	Wall Texture, white	1	c	1	1	6/2	ND
8	Wall Texture, white	1	c	2	1	6/2	ND
9	Wall Texture, white	1	c	3	1	6/2	ND
10	Cove Base, black	2	ab	1	1	6/2	ND
11	Cove Base, black	2	ab	2	1	6/2	ND
12	Cove Base, black	2	ab	3	1	6/2	ND
13	**Sheet Vinyl, brown terrazo pattern**	**3**	**ab**	**1**	**1**	**6/4**	**Sheet vinyl, ND; backing, Chrysotile 70%; mastic, Chrysotile Trace**
14	Sheet Vinyl, brown terrazo pattern	3	ab	2	1	1/44	Sheet vinyl, ND; backing, Chrysotile Not Analyzed; mastic, Chrysotile Trace
15	Sheet Vinyl, brown terrazo pattern	3	ab	3	1	1/44	Sheet vinyl, ND; backing, Chrysotile Not Analyzed; mastic, Chrysotile Trace
16	Sheet Vinyl, White Terrazo pattern	4	ab	1	1	6/5	ND
17	Sheet Vinyl, White Terrazo pattern	4	ab	2	1	6/5	ND
18	Sheet Vinyl, White Terrazo pattern	4	ab	3	1	6/5	ND

Table 1
Summary of Asbestos Sample Results
South Coast Hangars
19401 Campus Drive

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Hangar No./ Room No.	Result
19	Cove Base white	6	ab	1	1	6/5	ND
20	Cove Base white	6	ab	2	1	6/5	ND
21	Cove Base white	6	ab	3	1	6/5	ND
22	Sheet vinyl, 9x9 pattern white	7	ab	1	1	7/7	ND
23	Sheet vinyl, 9x9 pattern white	7	ab	2	1	7/7	ND
24	Sheet vinyl, 9x9 pattern white	7	ab	3	1	7/7	ND
25	Cove Base black	8	ab	1	1	7/6	ND
26	Cove Base black	8	ab	2	1	7/6	ND
27	Cove Base black	8	ab	3	1	7/6	ND
28	Drywall, white	9	a	1	1	7/9	ND
29	Drywall, white	9	a	2	1	7/9	ND
30	Drywall, white	9	a	3	1	7/9	ND
31	Joint Compound, white	9	b	1	1	7/9	ND
32	Joint Compound, white	9	b	2	1	7/9	ND
33	Joint Compound, white	9	b	3	1	7/9	ND
34	Wall Texture, white	9	c	1	1	7/9	ND
35	Wall Texture, white	9	c	2	1	7/9	ND
36	Wall Texture, white	9	c	3	1	7/9	ND
37	Drywall, white	10	a	1	1	8/11	ND
38	Drywall, white	10	a	2	1	8/11	ND
39	Drywall, white	10	a	3	1	8/11	ND
40	Joint Compound, white	10	b	1	1	8/11	ND
41	Joint Compound, white	10	b	2	1	8/11	ND
42	Joint Compound, white	10	b	3	1	8/11	ND
43	Wall Texture, white	10	c	1	1	8/11	ND
44	Wall Texture, white	10	c	2	1	8/11	ND
45	Wall Texture, white	10	c	3	1	8/11	ND
46	Cove Base, brown	11	ab	1	1	8/10	ND
47	Cove Base, brown	11	ab	2	1	8/10	ND
48	Cove Base, brown	11	ab	3	1	8/10	ND

Table 1
Summary of Asbestos Sample Results
South Coast Hangars
19401 Campus Drive

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Hangar No./ Room No.	Result
49	Drywall, white	12	a	1	1	9/15	ND
50	Drywall, white	12	a	2	1	9/15	ND
51	Drywall, white	12	a	3	1	9/15	ND
52	Joint Compound, white	12	b	1	1	9/17	ND
53	Joint Compound, white	12	b	2	1	9/17	ND
54	Joint Compound, white	12	b	3	1	9/17	ND
55	Wall Texture, white	12	c	1	1	9/17	ND
56	Wall Texture, white	12	c	2	1	9/17	ND
57	Wall Texture, white	12	c	3	1	9/17	ND
58	Cove Base, brown	13	ab	1	1	9/14	ND
59	Cove Base, brown	13	ab	2	1	9/14	ND
60	Cove Base, brown	13	ab	3	1	9/14	ND
61	Sheet vinyl, light gray	14	ab	1	1	9/17	ND
62	Sheet vinyl, light gray	14	ab	2	1	9/17	ND
63	Sheet vinyl, light gray	14	ab	3	1	9/17	ND
64	Remnant mastic	15	a	1	1	9/16	ND
65	Remnant mastic	15	a	2	1	9/16	ND
66	Remnant mastic	15	a	3	1	9/16	ND
67	Drywall, white	16	a	1	1	5,10/22	ND
68	Drywall, white	16	a	2	1	5,10/22	ND
69	Drywall, white	16	a	3	1	5,10/19	ND
70	Joint Compound, white	16	b	1	1	5,10/22	ND
71	Joint Compound, white	16	b	2	1	5,10/20	ND
72	Joint Compound, white	16	b	3	1	5,10/20	ND
73	Wall Texture, white	16	c	1	1	5,10/19	ND
74	Wall Texture, white	16	c	2	1	5,10/19	ND
75	Wall Texture, white	16	c	3	1	5,10/19	ND
76	Cove Base 6" black	17	ab	1	1	5,10/22	ND
77	Cove Base 6" black	17	ab	2	1	5,10/22	ND
78	Cove Base 6" black	17	ab	3	1	5,10/22	ND

Table 1
Summary of Asbestos Sample Results
South Coast Hangars
19401 Campus Drive

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Hangar No./ Room No.	Result
79	Sheet vinyl, gray terrazo pattern	20	ab	1	1	5,10/21	ND
80	Sheet vinyl, gray terrazo pattern	20	ab	2	1	5,10/21	ND
81	Sheet vinyl, gray terrazo pattern	20	ab	3	1	5,10/21	ND
82	Drywall, white	21	a	1	1	4/27	ND
83	Drywall, white	21	a	2	1	4/27	ND
84	Drywall, white	21	a	3	1	4/27	ND
85	Joint compound	21	b	1	1	4/27	ND
86	Joint compound	21	b	2	1	4/27	ND
87	Joint compound	21	b	3	1	4/27	ND
88	Wall Texture, white	21	c	1	1	4/27	ND
89	Wall Texture, white	21	c	2	1	4/27	ND
90	Wall Texture, white	21	c	3	1	4/27	ND
91	Cove base black	22	ab	1	1	4/27	ND
92	Cove base black	22	ab	2	1	4/27	ND
93	Cove base black	22	ab	3	1	4/27	ND
94	Drywall, white	23	a	1	1	3/31	ND
95	Drywall, white	23	a	2	1	3/31	ND
96	Drywall, white	23	a	3	1	3/31	ND
97	Joint Compound, white	23	b	1	1	3/33	ND
98	Joint Compound, white	23	b	2	1	3/33	ND
99	Joint Compound, white	23	b	3	1	3/33	ND
100	Wall Texture, white	23	c	1	1	3/33	ND
101	Wall Texture, white	23	c	2	1	3/33	ND
102	Wall Texture, white	23	c	3	1	3/33	ND
103	Sheet vinyl, brown, mosaic pattern	24	ab	1	1	3/33	ND
104	Sheet vinyl, brown, mosaic pattern	24	ab	2	1	3/33	ND
105	Sheet vinyl, brown, mosaic pattern	24	ab	3	1	3/33	ND
106	Sheet vinyl, beige, triangle pattern	25	ab	1	1	3/36	ND
107	Sheet vinyl, beige, triangle pattern	25	ab	2	1	3/36	ND
108	Sheet vinyl, beige, triangle pattern	25	ab	3	1	3/36	ND

Table 1
Summary of Asbestos Sample Results
South Coast Hangars
19401 Campus Drive

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Hangar No./ Room No.	Result
109	Cove base, black	26	ab	1	1	3/31	ND
110	Cove base, black	26	ab	2	1	3/31	ND
111	Cove base, black	26	ab	3	1	3/31	ND
112	Drywall, white	27	a	1	1	2/37	ND
113	Drywall, white	27	a	2	1	2/37	ND
114	Drywall, white	27	a	3	1	2/37	ND
115	Joint Compound, white	27	b	1	1	3/38	ND
116	Joint Compound, white	27	b	2	1	3/38	ND
117	Joint Compound, white	27	b	3	1	3/38	ND
118	Wall Texture, white	27	c	1	1	3/38	ND
119	Wall Texture, white	27	c	2	1	3/38	ND
120	Wall Texture, white	27	c	3	1	3/38	ND
121	Cove Base, blue	28	ab	1	1	3/38	ND
122	Cove Base, blue	28	ab	2	1	3/38	ND
123	Cove Base, blue	28	ab	3	1	3/38	ND
124	Drywall, white	29	a	1	1	1/42	ND
125	Drywall, white	29	a	2	1	1/42	ND
126	Drywall, white	29	a	3	1	1/42	ND
127	Joint Compound, white	29	b	1	1	1/44	ND
128	Joint Compound, white	29	b	2	1	1/44	ND
129	Joint Compound, white	29	b	3	1	1/44	ND

Table 1
Summary of Asbestos Sample Results
South Coast Hangars
19401 Campus Drive

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Hangar No./ Room No.	Result
130	Wall Texture, white	29	c	1	1	1/44	ND
131	Wall Texture, white	29	c	2	1	1/44	ND
132	Wall Texture, white	29	c	3	1	1/44	ND
133	Cove base, black	30	ab	1	1	1/42	ND
134	Cove base, black	30	ab	2	1	1/42	ND
135	Cove base, black	30	ab	3	1	1/42	ND
136	Cove base, brown	31	ab	1	1	1/41	ND
137	Cove base, brown	31	ab	2	1	1/41	ND
138	Cove base, brown	31	ab	3	1	1/41	ND

Created by: SA
Checked by: DEH/LAG

Table Notes:

1 HM - Homogenous Material: A material that appears to be uniform when properties such as age, color, texture are compared.

2 Layer - When a Homogenous Material has more than one recognizable component each is a layer.

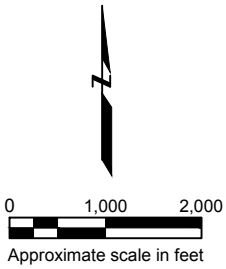
3 Assay - Of the duplicates required by Asbestos Hazard Emgergency Response Act (AHERA), the sequential number, starting at one, assigned each sample up to the required number of samples.

4 Bold type - These samples were determined to contain asbestos in excess of trace amounts.

5 ND - Asbestos was not detected above the method detection limit.

6 Not Analyzed - When any sample of a Homogenous Material is determined to contain asbestos the other samples in that HM are not analyzed.

FIGURE



Basemap modified from Street Map provided by Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., ©OpenStreetMap contributors, and the GIS User Community.

SITE LOCATION MAP
South Coast Hangar
19401 Campus Drive
John Wayne Airport
Orange County, California

amec foster wheeler

Date: 03/31/2017	Project No. IR14164420	Figure 1
Submitted By: dh	Drawn By: pah	

Plot Date: 4/05/2017 2:27:37 PM, Plotted by: pat.herring
Drawing Path: C:\Users\pat.herring\Documents\Projects\IR13164420\acad\Asbestos_Survey_2017-02-16_tb_Site_Location_Maps.dwg

APPENDIX A

PHOTOGRAPH

Amec Foster Wheeler Photo Log

Image No.	Description	Notes
1		Sheet Vinyl, brown terrazzo pattern, backing - Homogenous Material 4 - ACM

APPENDIX B

ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTS

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: B233064
Date Received: 12/30/16
Date Analyzed: 01/09/17
Date Printed: 01/09/17
First Reported: 01/09/17

Job ID/Site: IR13164420.55; John Wayne Airport, SNA/GAIP, SouthCoast Hangars & Executive Hangars
FALI Job ID: 5629-10
Date(s) Collected: 12/27/2016

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
001_1_a	51034335						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
002_1_a	51034336						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
003_1_a	51034337						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
004_1_b	51034338						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
005_1_b	51034339						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
006_1_b	51034340						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
007_1_c	51034341						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
008_1_c	51034342						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
009_1_c	51034343						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
010_2_a	51034344						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
010_2_b	51034345						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
011_2_a	51034346						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
011_2_b	51034347						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
012_2_a	51034348						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
012_2_b	51034349						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
013_3_a	51034350						
Layer: Dark Brown Sheet Flooring			**ND**				
Layer: Fibrous Backing		Chrysotile	**70 %**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (25%)**					
013_3_b	51034351						
Layer: Tan Mastic with Debris		Chrysotile	**Trace**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
014_3_a	51034352						
Comment: Sample not analyzed due to prior positive result in series.							
014_3_b	51034353						
Layer: Tan Mastic with Debris		Chrysotile	**Trace**				
Total Composite Values of Fibrous Components: **Asbestos (Trace)** Cellulose (Trace)							
015_3_a	51034354						
Comment: Sample not analyzed due to prior positive result in series.							
015_3_b	51034355						
Layer: Tan Mastic with Debris		Chrysotile	**Trace**				
Total Composite Values of Fibrous Components: **Asbestos (Trace)** Cellulose (Trace)							
016_4_a	51034356						
Layer: Off-White Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)							
016_4_b	51034357						
Comment: Sample not analyzed. No Mastic detected.							
017_4_a	51034358						
Layer: Off-White Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)							
017_4_b	51034359						
Comment: Sample not analyzed. No Mastic detected.							
018_4_a	51034360						
Layer: Off-White Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)							
018_4_b	51034361						
Comment: Sample not analyzed. No Mastic detected.							
019_6_a	51034362						
Layer: Off-White Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
019_6_b	51034363						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064

Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
020_6_a	51034364						
Layer: Off-White Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
020_6_b	51034365						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
021_6_a	51034366						
Layer: Off-White Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
021_6_b	51034367						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
022_7_a	51034368						
Layer: White Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)		**Asbestos (ND)**					
022_7_b	51034369						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
023_7_a	51034370						
Layer: White Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)		**Asbestos (ND)**					
023_7_b	51034371						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
024_7_a	51034372						
Layer: White Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)		**Asbestos (ND)**					
024_7_b	51034373						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
025_8_a	51034374						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
025_8_b	51034375						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
026_8_a	51034376						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
026_8_b	51034377						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
027_8_a	51034378						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
027_8_b	51034379						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
028_9_a	51034380						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
029_9_a	51034381						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
030_9_a	51034382						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
031_9_b	51034383						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
032_9_b	51034384						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
033_9_b	51034385						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
034_9_c	51034386						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
035_9_c	51034387						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
036_9_c	51034388						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
037_10_a	51034389						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
038_10_a	51034390						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
039_10_a	51034391						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
040_10_b	51034392						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
041_10_b	51034393						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
042_10_b	51034394						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
043_10_c	51034395						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
044_10_c	51034396						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
045_10_c	51034397						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
046_11_a	51034398						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
046_11_b	51034399						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
047_11_a	51034400						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
047_11_b	51034401						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
048_11_a	51034402						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
048_11_b	51034403						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
049_12_a	51034404						
Layer: Tan Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
050_12_a	51034405						
Layer: Tan Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
051_12_a	51034406						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
052_12_b	51034407						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
053_12_b	51034408						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
054_12_b	51034409						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
055_12_c	51034410						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
056_12_c	51034411						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
057_12_c	51034412						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
058_13_a	51034413						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
058_13_b	51034414						
Layer: Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
059_13_a	51034415						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
059_13_b	51034416						
Layer: Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
060_13_a	51034417						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
060_13_b	51034418						
Layer: Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
061_14_a	51034419						
Layer: Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)		**Asbestos (ND)**					
061_14_b	51034420						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
062_14_a	51034421						
Layer: Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)		**Asbestos (ND)**					
062_14_b	51034422						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
063_14_a	51034423						
Layer: Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)		**Asbestos (ND)**					
063_14_b	51034424						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
064_15_a	51034425						
Layer: Brown Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
065_15_a	51034426						
Layer: Brown Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
066_15_a	51034427						
Layer: Brown Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
067_16_a	51034428						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
068_16_a	51034429						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
069_16_a	51034430						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
070_16_b	51034431						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
071_16_b	51034432						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
072_16_b	51034433						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
073_16_c	51034434						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
074_16_c	51034435						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
075_16_c	51034436						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
076_17_a	51034437						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
076_17_b	51034438						
Layer: Beige Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
077_17_a	51034439						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
077_17_b	51034440						
Layer: Beige Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
078_17_a	51034441						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
078_17_b	51034442						
Layer: Beige Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
079_20_a	51034443						
Layer: Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)							
079_20_b	51034444						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
080_20_a	51034445						
Layer: Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)							
080_20_b	51034446						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
081_20_a	51034447						
Layer: Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)							
081_20_b	51034448						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
082_21_a	51034449						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (3 %) Fibrous Glass (Trace)							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064

Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
083_21_a	51034450						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
084_21_a	51034451						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
085_21_b	51034452						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
086_21_b	51034453						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
087_21_b	51034454						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
088_21_c	51034455						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
089_21_c	51034456						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
090_21_c	51034457						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
091_22_a	51034458						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
091_22_b	51034459						
Layer: Clear Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
092_22_a	51034460						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
092_22_b	51034461						
Layer: Tan Mastic			**ND**				
Layer: Clear Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
093_22_a	51034462						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
093_22_b	51034463						
Layer: Clear Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
094_23_a	51034464						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
095_23_a	51034465						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
096_23_a	51034466						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
097_23_b	51034467						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064

Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
098_23_b	51034468						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
099_23_b	51034469						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
100_23_c	51034470						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
101_23_c	51034471						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
102_23_c	51034472						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
103_24_a	51034473						
Layer: Tan Sheet Flooring			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
103_24_b	51034474						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
104_24_a	51034475						
Layer: Tan Sheet Flooring			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
104_24_b	51034476						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
105_24_a	51034477						
Layer: Tan Sheet Flooring			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
105_24_b	51034478						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
106_25_a	51034479						
Layer: Beige Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)							
106_25_b	51034480						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
107_25_a	51034481						
Layer: Beige Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)							
107_25_b	51034482						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
108_25_a	51034483						
Layer: Beige Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)							
108_25_b	51034484						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
109_26_a	51034485						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
109_26_b	51034486						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
110_26_a	51034487						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064

Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
110_26_b	51034488						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
111_26_a	51034489						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
111_26_b	51034490						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
112_27_a	51034491						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
113_27_a	51034492						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
114_27_a	51034493						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
115_27_b	51034494						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
116_27_b	51034495						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
117_27_b	51034496						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
118_27_c	51034497						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
119_27_c	51034498						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
120_27_c	51034499						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
121_28_a	51034500						
Layer: Blue Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
121_28_b	51034501						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
122_28_a	51034502						
Layer: Blue Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
122_28_b	51034503						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
123_28_a	51034504						
Layer: Blue Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
123_28_b	51034505						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
124_29_a	51034506						
Layer: Off-White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
125_29_a	51034507						
Layer: Off-White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
126_29_a	51034508						
Layer: Off-White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
127_29_b	51034509						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
128_29_b	51034510						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
129_29_b	51034511						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
130_29_c	51034512						
Layer: Off-White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
131_29_c	51034513						
Layer: Off-White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
132_29_c	51034514						
Layer: Off-White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
133_30_a	51034515						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
133_30_b	51034516						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
134_30_a	51034517						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Client Name: Amec Foster Wheeler

Report Number: B233064
Date Printed: 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
134_30_b	51034518						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
135_30_a	51034519						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
135_30_b	51034520						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
136_31_a	51034521						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
136_31_b	51034522						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
137_31_a	51034523						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
137_31_b	51034524						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
138_31_a	51034525						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
138_31_b	51034526						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064

Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Analysis Request Form (COC)

Client Name & Address: Amec Foster Wheeler, 6001 Rickenbacker Rd., Los Angeles CA 90040	Client No.:
PO / Job#: IR13164420.55	Date: 12/30/16
Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day	
☐ PCM: ☐ NIOSH 7400A / ☐ NIOSH 7400B ☐ Rotometer	
☒ PLM: ☒ Standard / ☐ Point Count 400 - 1000 / ☐ CARB 435	
Contact: Don Harman	Phone: (818) 324-4391
☐ TEM Air: ☐ AHERA / ☐ Yamate2 / ☐ NIOSH 7402	
☐ TEM Bulk: ☐ Quantitative / ☐ Qualitative / ☐ Chatfield	
E-mail: don.harman@amecfw.com	☐ TEM Water: ☐ Potable / ☐ Non-Potable / ☐ Weight %
☐ TEM Microvac: ☐ Qual / ☐ D5755(str/area) / ☐ D5756(str/mass)	
Site Name: John Wayne Airport	☐ IAQ Particle Identification (PLM LAB) ☐ PLM Opaques/Soot
☐ Particle Identification (TEM LAB) ☐ Special Project	
Site Location: SNA/GAIP	☐ Metals Analysis Matrix: Method: Analytes:
Comments: **See attached COC** South Coast Hangars & Executive Hangars	☐ Silica in Air ☐ w/Gravimetry

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg LPM	Total Time	
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: DEH Date/Time: 12/27-30/16 Shipped Via: ☐ Fed Ex ☐ UPS ☐ US Mail ☐ Courier ☑ Drop Off ☐ Other:

Relinquished By: Don Harman	Relinquished By:	Relinquished By:
Date / Time: 12/30/16	Date / Time:	Date / Time:
Received By: Madonna	Received By:	Received By:
Date / Time: 12/30/16 1:30pm	Date / Time:	Date / Time:
Condition Acceptable? ☐ Yes ☐ No	Condition Acceptable? ☐ Yes ☐ No	Condition Acceptable? ☐ Yes ☐ No

Amec Foster Wheeler E&I

Asbestos Survey Form 04a - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	**SNA/GAIP**
Building Number	South Coast Hangar
Collection Date	12/27/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Hangar / Rm Room No.
001	Dry wall	1	a	1		6/2
002	"	"	"	2		6/2
003	"	"	"	3		6/3
004	Joint Compound	"	b	1		6/2
005	"	"	"	2		"
006	"	"	"	3		"
007	Wall Texture	"	c	1		"
008	"	"	"	2		"
009	"	"	"	3		"
010	Cove Base black.	2	ab	1		"
011	"	"	"	2		"
012	"	"	"	3		"
013	Sheet vinyl, brn Terazo	3	ab	1		6/4

Analysis Requested	PLM
Turnaround Time	One Week

Transmitted From:

AMEC E&I
6001 Rickenbacker Rd., Los Angeles CA 90040
Phone 323.889.5300

Transmitted To:

☑ **Forensic Analytical**
Rancho Dominguez

PO # _____

☐ _____

Analyze to 1st Positve x

Sender's Signature: Don E Haman

Recipient's Signature: Madams 12/30/16 1:51 pm

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	SNA/GAIP
Building Number	South Coast Hangar
Collection Date	12/27/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
014	Sheet Vinyl, brn, Terrazo	3	ab	2		1/44
015	↓ ↓ ↓ ↓	↓	↓	3		1/44
016	white	4	ab	1		6/5
017		↓	↓	2		↓
018	↓ ↓ ↓	↓	↓	3		↓
019	Cove Base, white	6	ab	1		
020	↓ ↓ ↓	↓	↓	2		
021		↓	↓	3		↓
022	Sheet Vinyl, 9x9 pattern white	7	ab	1		~~X~~/7
023	↓ ↓ ↓ ↓	↓	↓	2		↓
024		↓	↓	3		
025	Cove Base black	8	ab	1		7/6
026	↓ ↓ ↓	↓	↓	2		↓
027		↓	↓	3		↓
028	Dry Wall	~~9~~	a	1		7/9
029	↓ ↓	↓	↓	2		↓
030		↓	↓	3		↓
031	Joint Compound	↓	b	1		↓
032	↓ ↓	↓	↓	2		↓
033		↓	↓	3		↓
034	Wall Texture	↓	c	1		7/9

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	8/27/16
Site Name	SNA/GAIP	Submission Date	
Building Number	South Coast Hangar		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
035	Wall Texture	9	c	2		7/9
036	↓ ↓	↓	↓	3		↓
037	Dry Wall	10	a	1		8/11
038	↓ ↓	↓	↓	2		↓
039	↓ ↓	↓	↓	3		↓
040	Joint Compound	↓	b	1		↓
041	↓ ↓	↓	↓	2		↓
042	↓ ↓	↓	↓	3		↓
043	Wall Texture	↓	c	1		↓
044	↓ ↓	↓	↓	2		↓
045	↓ ↓	↓	↓	3		↓
046	Cove Base, brn	11	ab	1		8/10
047	↓ ↓ ↓	↓	↓	2		↓
048	↓ ↓ ↓	↓	↓	3		↓
049	Dry Wall	12	a	1		9/15
050	↓ ↓	↓	↓	2		↓
051	↓ ↓	↓	↓	3		↓
052	Joint Compound	↓	b	1		9/17
053	↓ ↓	↓	↓	2		↓
054	↓ ↓	↓	↓	3		↓
055	Wall Texture	↓	c	1		↓

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	2/27/16
Site Name	SNA/GAIP	Submission Date	
Building Number	South Coast Hangar		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
056	Wall Texture	12	c	2		9/17
057	↓ ↓	↓	↓	3		↓
058	Cove Base, brown	13	ab	1		9/14
059	↓ ↓ ↓	↓	↓	2		↓
060	↓ ↓ ↓	↓	↓	3		↓
061	Sheet Vinyl, lt. gr	14	ab	1		9/17
062	↓ ↓ ↓	↓	↓	2		↓
063	↓ ↓ ↓	↓	d	3		↓
064	Roment Mastic	15	a	1		9/16
065	↓ ↓	↓	↓	2		↓
066	↓ ↓	↓	↓	3		↓
067	Drywall	16	a	1		5,10/22
068	↓	↓	↓	2		↓
069	↓	↓	↓	3		5,10/19
070	Joint Compound	↓	b	1		5/10/22
071	↓ ↓	↓	↓	2		5/10/20
072	↓ ↓	↓	↓	3		5,10/20
073	Wall Texture	↓	c	1		5,10/19
074	↓ ↓	↓	↓	2		↓
075	↓ ↓	↓	↓	3		↓
076	Cove Base 6" black	17	ab	1		5,10/22

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	SNA/GAIP
Building Number	South Coast Hangar
Collection Date	12/27/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
077	Cove Base 6" black	17	ab	2		5,10/22
078	" " "	"	"	3		" "
079	Sheet Vinyl, gray terrazo	20	ab	1		5,10/21
080	" " " "	"	"	2		"
081	" " " "	"	"	3		"
082	Dry wall	21	a	1		4/27
083	" "	"	"	2		"
084	" "	"	"	3		"
085	Joint Compound	"	b	1		"
086	" "	"	"	2		"
087	" "	"	"	3		"
088	Wall Texture	"	c	1		"
089	" "	"	"	2		"
090	" "	"	"	3		"
091	Cove Base black	22	ab	1		"
092	" " "	"	"	2		"
093	" " "	"	"	3		"
094	Dry wall	23	a	1		3/31
095	" "	"	"	2		"
096	" "	"	"	3		"
097	Joint Compound	"	b	1		3/33

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	SNA/GAIP
Building Number	South Coast Hangar
Collection Date	12/27/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
098	Joint Compound	23	b	2		3/33
099	↓ ↓	↓	↓	3		↓
100	Wall Texture		c	1		
101	↓ ↓		↓	2		
102	↓ ↓	↓	↓	3		↓
103	Sheet Vinyl, brown, mosiac pattern	24	ab	1		3/33
104	↓ ↓	↓	↓	2		↓
105	↓ ↓	↓	↓	3		
106	, beige, triangle pattern	25	ab	1		3/36
107	↓ ↓	↓	↓	2		↓
108	↓ ↓	↓	↓	3		
109	Cove base, black	26	ab	1		3/31
110	↓ ↓	↓	↓	2		↓
111	↓ ↓	↓	↓	3		
112	Dry wall	27	a	1		2/37
113	↓ ↓	↓	↓	2		↓
114	↓ ↓	↓	↓	3		
115	Joint Compound		b	1		3/38
116	↓ ↓	↓	↓	2		↓
117	↓ ↓	↓	↓	3		
118	Wall Texture	↓	c	1		↓

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/27/16
Site Name	SNA/GAIP	Submission Date	
Building Number	South Coast Hangar		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
119	Wall Texture	27	c	2		3/38
120	" "	"	"	3		"
121	Cove Base, blue	28	ab	1		
122	" " "	"	"	2		
123	" " "	"	"	3		
124	Dry Wall	29	a	1		1/42
125	" "		"	2		"
126	" "		"	3		"
127	Joint Compound		b	1		1/44
128	" "		"	2		"
129	" "		"	3		"
130	Wall Texture		c	1		"
131	" "		"	2		"
132	" "		"	3		"
133	Cove Base bl.	30	ab	1		1/42
134	" " "	"	"	2		"
135	" " "	"	"	3		"
136	" " " brown	31	"	1		1/41
137	" " "	"	"	2		"
138	" " "	"	"	3		"
~~139~~						

APPENDIX C

PORTABLE X-RAY FLUORESCENCE SPECTRUM ANALYZER READINGS

Portable X-ray Fluorescence Spectrum Analyzer Readings
South Coast Hangars
19401 Campus Drive
Santa Ana, California

Building	Hangar No./ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
South Coast	6/1	2098	N	Hangar Door	Aluminum	Intact	Gray	0	
South Coast	6/1	2099	E	Wall	Concrete	Intact	White	0	
South Coast	6/1	2100	S	Wall	Concrete	Intact	White	0	
South Coast	6/1	2101	W	Column	Wood	Intact	White	0	
South Coast	6/2	2102	N	Wall	Dry Wall	Intact	White	0	
South Coast	6/2	2103	E	Wall	Dry Wall	Intact	White	0	
South Coast	6/2	2104	S	Wall	Dry Wall	Intact	White	0	
South Coast	6/2	2105	W	Wall	Dry Wall	Intact	White	0	
South Coast	6/2	2106		Door Frame	Metal	Intact	Brown	0	
South Coast	6/4	2107	N	Wall	Dry Wall	Intact	White	0	
South Coast	6/4	2108	E	Wall	Dry Wall	Intact	White	0	
South Coast	6/4	2109	S	Wall	Core	Intact	White	0	
South Coast	6/4	2110	W	Wall	Dry Wall	Intact	White	0	
South Coast	6/5	2111	N	Wall	Dry Wall	Intact	White	0	
South Coast	6/5	2112	E	Wall	Core	Intact	White	0	
South Coast	6/5	2113	S	Wall	Dry Wall	Intact	White	0	
South Coast	6/5	2114	W	Wall	Dry Wall	Intact	White	0	
South Coast	6/5	2115		Door Frame	Wood	Intact	White	0	
South Coast	7/6	2116	N	Exterior	Aluminum	Intact	White	0.02	
South Coast	7/6	2117	E	Wall	Concrete	Intact	White	0	
South Coast	7/6	2118	E	Wall	Concrete	Intact	Gray	0.2	
South Coast	7/6	2119	S	Wall	Concrete	Intact	Gray	0	
South Coast	7/6	2120	W	Wall	Concrete	Intact	White	0	
South Coast	7/6	2121		Floor	Concrete	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
South Coast Hangars
19401 Campus Drive
Santa Ana, California

Building	Hangar No./ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
South Coast	7/8	2122	N	Wall	Dry Wall	Intact	White	0	
South Coast	7/8	2123	E	Wall	Dry Wall	Intact	White		
South Coast	7/8	2124	S	Wall	Dry Wall	Intact	White	0	
South Coast	7/8	2125	W	Wall	Concrete	Intact	Gray	0	
South Coast	7/7	2126	N	Wall	Dry Wall	Intact	Gray	0	
South Coast	7/7	2127	E	Wall	Dry Wall	Intact	Gray	0	
South Coast	7/7	2128	S	Wall	Concrete	Intact	Gray	0	
South Coast	7/7	2129	W	Wall	Dry Wall	Intact	Gray	0.02	
South Coast	7/9	2130	N	Wall	Dry Wall	Intact	White	0	
South Coast	7/9	2131	E	Wall	Dry Wall	Intact	White	0	
South Coast	7/9	2132	S	Wall	Dry Wall	Intact	White	0	
South Coast	7/9	2134	W	Wall	Dry Wall	Intact	White	0	
South Coast	7/9	2135		Door Frame	Wood	Intact	Gray	0.01	
South Coast	8/10	2137	N	Wall	Aluminum	Intact	White	0.02	
South Coast	8/10	2138	E	Wall	Concrete	Intact	White	0	
South Coast	8/10	2139	S	Wall	Concrete	Intact	White	0	
South Coast	8/10	2140	W	Wall	Concrete	Intact	White	0	
South Coast	8/11	2141	N	Wall	Dry Wall	Intact	White	0	
South Coast	8/11	2143	E	Wall	Concrete	Intact	White	0	
South Coast	8/11	2144	S	Wall	Dry Wall	Intact	White	0.3	
South Coast	8/11	2145	S	Wall	Dry Wall	Intact	White	0	
South Coast	8/11	2146	W	Wall	Dry Wall	Intact	White	0	
South Coast	8/12	2147	N	Wall	Dry Wall	Intact	White	0	
South Coast	8/12	2148	E	Wall	Dry Wall	Intact	White	0.01	

Portable X-ray Fluorescence Spectrum Analyzer Readings
South Coast Hangars
19401 Campus Drive
Santa Ana, California

Building	Hangar No./ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
South Coast	8/12	2149	S	Wall	Concrete	Intact	White	0	
South Coast	8/12	2150	W	Wall	Dry Wall	Intact	White	0	
South Coast	8/12	2151		Door frame	Metal	Intact	White	0	
South Coast	9/14		N	No Suspect Materials					
South Coast	9/14	2152	E	Wall	Concrete	Intact	White	0	
South Coast	9/14	2153	E	Wall	Concrete	Intact	Gray	0	
South Coast	9/14	2154	E	Wall	Concrete	Intact	Brown	0.1	
South Coast	9/14	2155	S	Wall	Concrete	Intact	White	0	
South Coast	9/14	2156	W	Wall	Concrete	Intact	White	0	
South Coast	9/15	2157	N	Wall	Dry Wall	Intact	White	0	
South Coast	9/15	2158	E	Wall	Dry Wall	Intact	White	0	
South Coast	9/15	2159	S	Wall	Dry Wall	Intact	White	0	
South Coast	9/15	2160	W	Wall	Dry Wall	Intact	White	0	
South Coast	9/16	2161	N	Wall	Dry Wall	Intact	White	0.5	
South Coast	9/16	2162	N	Wall	Dry Wall	Intact	White	0	
South Coast	9/16	2163	N	Wall	Dry Wall	Intact	White	0	
South Coast	9/16	2166	E	Wall	Dry Wall	Intact	White	0	
South Coast	9/16	2167	S	Wall	Concrete	Intact	White	0	
South Coast	9/16	2168	W	Wall	Concrete	Intact	White	0	
South Coast	9/16	2169		Floor	Concrete	Intact	White	0	
South Coast	9/16	2170		Door Frame	Metal	Intact	Brown	0	
South Coast	9/17	2171	N	Wall	Dry Wall	Intact	White	0	
South Coast	9/17	2172	E	Wall	Dry Wall	Intact	White	0	
South Coast	9/17	2173	S	Wall	Concrete	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
South Coast Hangars
19401 Campus Drive
Santa Ana, California

Building	Hangar No./ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
South Coast	9/17	2174	W	Wall	Concrete	Intact	White	0	
South Coast	9/17	2175		Floor	Sheet Vinyl	Intact	Lt Gray	0	
South Coast	9/17	2176		Door Frame	Metal	Intact	Brown	0	
South Coast	10/18		N	No Suspect Materials					
South Coast	10/18	2177	E	Wall	Concrete	Intact	White	0.01	
South Coast	10/18	2178	S	Wall	Concrete	Intact	White	0.01	
South Coast	10/18	2179	W	Wall	Concrete	Intact	White	0	
South Coast	10/18	2180		Floor	Concrete	Intact	White	0.01	
South Coast	10/19	2181	N	Wall	Dry Wall	Intact	White	0	
South Coast	10/19	2182	E	Wall	Concrete	Intact	White	0	
South Coast	10/19	2183	S	Wall	Dry Wall	Intact	White	0.01	
South Coast	10/19	2184	W	Wall	Dry Wall	Intact	White	0	
South Coast	10/20	2185	N	Wall	Dry Wall	Intact	White	0	
South Coast	10/20	2186	E	Wall	Concrete	Intact	White	0	
South Coast	10/20	2187	S	Wall	Concrete	Intact	White	0	
South Coast	10/20	2188	W	Wall	Dry Wall	Intact	White	0	
South Coast	10/20	2189		Door Frame	Metal	Intact	Brown	0	
South Coast	10/21	2190	N	Wall	Dry Wall	Intact	White	0	
South Coast	10/21	2191	E	Wall	Dry Wall	Intact	White	0	
South Coast	10/21	2192	S	Wall	Dry Wall	Intact	White	0	
South Coast	10/21	2193	W	Wall	Dry Wall	Intact	White	0	
South Coast	10/22	2195	N	Wall	Dry Wall	Intact	White	0	
South Coast	10/22	2196	E	Wall	Concrete	Intact	White	0	
South Coast	10/22	2197	S	Wall	Concrete	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
South Coast Hangars
19401 Campus Drive
Santa Ana, California

Building	Hangar No./ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
South Coast	10/22	2198	W	Wall	Dry Wall	Intact	White	0	
South Coast	5/23	2199	N	Wall	Dry Wall	Intact	White	0	
South Coast	5/23	2200	E	Wall	Dry Wall	Intact	White	0	
South Coast	5/23	2201	S	Wall	Dry Wall	Intact	White	0	
South Coast	5/23	2202	W	Wall	Concrete	Peeling	White	0	
South Coast	5/23	2203		Window Frame	Metal	Intact	Black	0	
South Coast	5/23	2204	N	Wall	Dry Wall	Intact	White	0	
South Coast	5/23	2205	E	Wall	Dry Wall	Intact	White	0	
South Coast	5/24	2206	S	Wall	Concrete	Intact	White	0	
South Coast	5/24	2207	W	Wall	Dry Wall	Intact	White	0	
South Coast	5/26	2208	N	Wall	Concrete	Intact	White	0	
South Coast	5/26	2209	E	Wall	Concrete	Intact	White	0	
South Coast	5/26		S	No Suspect Materials					
South Coast	5/26	2211	W	Wall	Concrete	Intact	White	0	
South Coast	5/26	2211	E	Wall	Concrete	Intact	White	0.01	
South Coast	4/27		N	No Suspect Materials					
South Coast	4/27	2212	S	Wall	Concrete	Intact	White	0	
South Coast	4/27	2213	W	Wall	Concrete	Intact	White	0	
South Coast	4/28	2214	N	Wall	Dry Wall	Intact	White	0	
South Coast	4/28	2215	E	Wall	Dry Wall	Intact	White	0	
South Coast	4/28	2216	S	Wall	Concrete	Intact	White	0	
South Coast	4/28	2217	W	Wall	Dry Wall	Intact	White	0	
South Coast	4/28	2218	N	Wall	Dry Wall	Intact	White	0	
South Coast	4/29	2219	E	Wall	Concrete	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
South Coast Hangars
19401 Campus Drive
Santa Ana, California

Building	Hangar No./ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
South Coast	4/29	2220	S	Wall	Dry Wall	Intact	White	0	
South Coast	4/29	2221	W	Wall	Dry Wall	Intact	White	0	
South Coast	4/29	2222		Window Sill	Wood	Intact	White	0	
South Coast	4/30			No Access					
South Coast	3/31	2222.6	N	Wall	NSM				
South Coast	3/31	2223	E	Wall	Concrete	Intact	White	0	
South Coast	3/31	2224	S	Wall	Concrete	Intact	White	0	
South Coast	3/31	2225	W	Wall	Concrete	Intact	White	0	
South Coast	3/31	2226		Floor	Concrete	Intact		0	
South Coast	3/32			No Access					
South Coast	3/33	2227	N	Wall	Dry Wall	Intact	Beige	0	
South Coast	3/33	2228	E	Wall	Dry Wall	Intact	Beige	0	
South Coast	3/33	2229	S	Wall	Concrete	Intact	Beige	0.01	
South Coast	3/33	2230	W	Wall	Dry Wall	Intact	Beige	0	
South Coast	3/33	2231		Floor	Dry Wall	Intact	Beige	0	
South Coast	3/34			No Access					
South Coast	3/35	2232	N	Wall	Dry Wall	Intact	Beige	0	
South Coast	3/35	2233	E	Wall	Dry Wall	Intact	Beige	0	
South Coast	3/35	2234	S	Wall	Concrete	Intact	Beige	0.01	
South Coast	3/35	2235	E	Wall	Concrete	Intact	Beige	0	
South Coast	3/36	2236	N	Wall	Dry Wall	Intact	Beige	0	
South Coast	3/36	2237	E	Wall	Dry Wall	Intact	Beige	0	
South Coast	3/36	2238	S	Wall	Dry Wall	Intact	Beige	0	
South Coast	3/36	2239	W	Wall	Dry Wall	Intact	Beige	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
South Coast Hangars
19401 Campus Drive
Santa Ana, California

Building	Hangar No./ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
South Coast	2/37		N	No Suspect Materials					
South Coast	2/37	2240	E	Wall	Concrete	Intact	White	0	
South Coast	2/37	2241	S	Wall	Concrete	Intact	White	0	
South Coast	2/37	2242	W	Wall	Concrete	Intact	White	0	
South Coast	2/38	2243	N	Wall	Dry Wall	Intact	White	0	
South Coast	2/38	2244	E	Wall	Dry Wall	Intact	White	0	
South Coast	2/38	2245	S	Wall	Dry Wall	Intact	White	0	
South Coast	2/38	2246	W	Wall	Dry Wall	Intact	White	0	
South Coast	2/39	2247	N	Wall	Dry Wall	Intact	Beige	0	
South Coast	2/39	2248	E	Wall	Dry Wall	Intact	Beige	0	
South Coast	2/39	2249	S	Wall	Concrete	Intact	Beige	0	
South Coast	2/39	2250	W	Wall	Dry Wall	Intact	Beige	0	
South Coast	2/40	2251	N	Wall	Dry Wall	Intact	White	0	
South Coast	2/40	2252	E	Wall	Concrete	Intact	White	0	
South Coast	2/40	2253	S	Wall	Concrete	Intact	White	0	
South Coast	2/40	2254	W	Wall	Dry Wall	Intact	White	0	
South Coast	2/40	2255		Door Frame	Metal	Intact	Brown	0	
South Coast	1/41			No Suspect Materials					
South Coast	1/41	2258	E	Wall	Concrete	Intact	White	0	
South Coast	1/41	2259	S	Wall	Concrete	Intact	White	0	
South Coast	1/41	2260	W	Wall	Concrete	Intact	White	0.01	
South Coast	1/42	2261	N	Wall	Dry Wall	Intact	White	0	
South Coast	1/42	2262	E	Wall	Dry Wall	Intact	White	0	
South Coast	1/42	2263	S	Wall	Dry Wall	Intact	White	0.03	

Portable X-ray Fluorescence Spectrum Analyzer Readings
South Coast Hangars
19401 Campus Drive
Santa Ana, California

Building	Hangar No./ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
South Coast	1/42	2264	W	Wall	Dry Wall	Intact	White	0	
South Coast	1/43	2265	N	Wall	Dry Wall	Intact	White	0	
South Coast	1/43	2266	E	Wall	Dry Wall	Intact	White	0	
South Coast	1/43	2267	S	Wall	Concrete	Intact	White	0	
South Coast	1/43	2268	W	Wall	Concrete	Intact	White	0	
South Coast	1/44	2269	N	Wall	Dry Wall	Intact	White	0	
South Coast	1/44	2270	E	Wall	Dry Wall	Intact	White	0	
South Coast	1/44	2271	S	Wall	Concrete	Intact	White	0	
South Coast	1/44	2272	W	Wall	Dry Wall	Intact	White	0	

Created by: SA
Checked by: DEH

APPENDIX D

CDPH FORM 8552

State of California—Health and Human Services Agency | California Department of Public Health

LEAD HAZARD EVALUATION REPORT

Section 1 — Date of Lead Hazard Evaluation December 14, 2016

Section 2 — Type of Lead Hazard Evaluation (Check one box only)

☑ Lead Inspection ☐ Risk assessment ☐ Clearance Inspection ☐ Other (specify) _____

Section 3 — Structure Where Lead Hazard Evaluation Was Conducted

Address [number, street, apartment (if applicable)]	City	County	Zip Code
19401 Campus Drive	Santa Ana	Orange	92707

Construction date (year) of structure	Type of structure	Children living in structure?
1980	☐ Multi-unit building ☐ School or daycare ☐ Single family dwelling ☑ Other Hangar	☐ Yes ☑ No ☐ Don't Know

Section 4 — Owner of Structure (if business/agency, list contact person)

Name	Telephone number
John Wayne Airport, Orange County: Melinda McCoy	949-252-5267

Address [number, street, apartment (if applicable)]	City	State	Zip Code
3160 Airway Ave.	Costa Mesa	CA	92626

Section 5 — Results of Lead Hazard Evaluation (check all that apply)

☑ No lead-based paint detected ☐ Intact lead-based paint detected ☐ Deteriorated lead-based paint detected

☐ No lead hazards detected ☐ Lead-contaminated dust found ☐ Lead-contaminated soil found ☐ Other _____

Section 6 — Individual Conducting Lead Hazard Evaluation

Name	Telephone number
Don Harman	323-889-500

Address [number, street, apartment (if applicable)]	City	State	Zip Code
60001 Rickenbacker Rd.	Los Angeles	CA	90040

CDPH certification number	Signature	Date
10236	Don E. Harman	March 9, 2017

Name and CDPH certification number of any other individuals conducting sampling or testing (if applicable)

Section 7 — Attachments

A. A foundation diagram or sketch of the structure indicating the specifc locations of each lead hazard or presence of lead-based paint;
B. Each testing method, device, and sampling procedure used;
C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector

Second copy and attachments retained by owner

Third copy only (no attachments) mailed or faxed to:

California Department of Public Health
Childhood Lead Poisoning Prevention Branch Reports
850 Marina Bay Parkway, Building P, Third Floor
Richmond, CA 94804-6403
Fax: (510) 620-5656

APPENDIX F-3

HAZARDOUS MATERIALS SURVEY REPORT – EXECUTIVE HANGARS

HAZARDOUS MATERIALS SURVEY REPORT

Executive Hangars

19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive

General Aviation Improvement Program Project

John Wayne Airport

Costa Mesa, California

Prepared for:

John Wayne Airport
3160 Airway Avenue
Costa Mesa, California 92626

Prepared by:

Amec Foster Wheeler Environment & Infrastructure, Inc.
121 Innovation Drive, Suite 200
Irvine, California 92617-3094
(949) 642-0245

April 3, 2017

Project No. IR13164420

April 3, 2017

Ms. Melinda McCoy
Airport Environmental Engineer
John Wayne Airport, Orange County
3160 Airway Avenue
Costa Mesa, California 92626

Subject: **Hazardous Materials Survey Report**
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, California
Amec Foster Wheeler Project IR13164420

Dear Ms. McCoy:

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has completed a hazardous materials survey in support of the demolition of Executive Hangars at 19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive, Santa Ana California. The survey included the assessment of suspect asbestos-containing materials (ACM) and lead-based paints (LBP). The attached report presents general project information, survey details, results, our findings and removal and abatement recommendations

Amec Foster Wheeler appreciates the opportunity to assist you on this project. Please contact us should any questions arise regarding this report or, if we may be of further service.

Sincerely,

Amec Foster Wheeler Environment & Infrastructure, Inc.

Don Harman
Senior Engineer
California Asbestos Consultant No. 92-0044
Certified Lead Inspector/Assessor and
Project Monitor No. I-10236

Leonard A. Gilbert, CIH
Senior Scientist

P:_00 OTHER OFFICES\2017\4005 Irvine\2016 Projects\Hanger study\Individual files\Executive Hangers\Final draft\2017_04_03_HMS Executive Hangars.doc

Amec Foster Wheeler Environment & Infrastructure Inc.
121 Innovation Drive, Suite 200
Irvine, CA 92617
(949) 642-0245
(949) 642-4474 (fax)
www.amec.com

TABLE OF CONTENTS

1.0 BACKGROUND

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has completed a hazardous materials survey in support of the planned demolition of Executive Hangars at 19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive in Santa Ana, California. The survey included the assessment of suspect ACM and LBP. Amec Foster Wheeler performed the survey work from December 27 to 29, 2016.

2.0 PURPOSE

The purpose of the survey was to locate and identify hazardous materials requiring abatement, stabilization, remediation, and/or special handling prior to the demolition of the structure. Our survey included visual observations, material sampling and laboratory analysis of suspect ACM, on site testing of suspect LBP with an X-ray fluorescence (XRF) spectrum analyzer and sampling and analysis of paint for lead content.

The results of the survey can be provided to the project general contractor, asbestos abatement contractor and/or the hazardous materials contractor, for establishing appropriate removal, abatement and handling actions to be implemented before planned demolition of the structure begins as part of the General Aviation Improvement Program project. This hazardous materials survey was conducted in accordance with the terms and conditions of our agreement with John Wayne Airport (JWA) Authority (280-280-1900-ENV2) and under JWA's authorization for this work (Task Order 2F-06) dated September 1, 2016.

3.0 BUILDING INFORMATION

The construction is metal frame with sheet metal exterior panels and roof. Hangar interiors are unfinished. Interiors of the office and restrooms are finished with ceiling tiles, drywall and joint compound, wainscot, cove base and floor tile. Figure 1 is a Site Location Map.

4.0 ASBESTOS SURVEY

4.1 REGULATORY INFORMATION

The Federal regulatory definition of an ACM is any material containing more than one percent (1%) asbestos. Asbestos waste is not regulated as hazardous waste under the Federal Resource Conservation and Recovery Act (RCRA).

The California regulatory definition of ACM is also any material with more than 1% asbestos. The California Business and Professions Code, requires asbestos abatement contractors to be licensed by the Contractors State License Board (CSLB) and asbestos consultants to be certified by California Division of Occupational Safety and Health (Cal/OSHA).

The California Labor Code requires that any contractor who does "asbestos-related work" that disturbs asbestos-containing construction materials (ACCM) must be licensed by the CSLB and registered with Cal/OSHA. The Cal/OSHA asbestos standard contained in Title 8, CCR Section 1429 defines ACCM as any manufactured construction material that contains more than one-tenth of 1 percent (>0.1%) asbestos.

The California Department of Toxic Substance Control (DTSC) classifies asbestos-containing material as hazardous waste if it is "friable" and contains 1.0% or more asbestos. A friable material is one that can be reduced to a powder or dust under hand pressure when dry. DTSC considers non-friable bulk asbestos-containing waste to be nonhazardous regardless of its asbestos content. Friable asbestos wastes with more than 0.1% asbestos and less than 1% asbestos are not required to be handled as hazardous waste.

4.2 SURVEY AND SAMPLING

Amec Foster Wheeler's survey of the building included observation of interior floor, wall, and ceiling finishes, and exterior wall and roof components (to extent access was possible). Mr. Don Harman, a California Certified Asbestos Consultant with Amec Foster Wheeler, performed the survey from December 27 to 29, 2016. In evaluating the building(s), we used our education, training and experience along with our familiarity with building construction, to identify potential asbestos materials. Our survey included visual observations and sampling of suspect asbestos materials.

The selection of materials to be sampled was based on material homogeneity. A homogeneous material is one that appears to be of the same uniform texture, color, appearance, general use, and condition, and that was applied during the same general time period. Once homogeneous materials were determined, sample locations were selected, and representative samples of the suspect material were collected. A bulk sample across the full depth of the suspect material was obtained.

The samples were collected from readily accessible areas. No intrusive activities for the purpose of obtaining samples, such as breaking through walls and ceilings, were performed. No attempt was made to disassemble mechanical equipment. Inaccessible spaces such as wall voids, building cavities, and mechanical equipment may contain concealed, unreported asbestos that may be revealed during demolition activities.

The samples were labeled and delivered under appropriate chain-of-custody documentation to Forensic Analytical Laboratories (FAL) in Rancho Dominquez, California for microscopic analysis by Polarized Light Microscopy (PLM). The samples were analyzed in general accordance with the United States Environmental Agency (EPA) "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116, July 1993). This method employs PLM coupled with dispersion staining to identify the type and approximate quantity of asbestos present in the sample, if any. FAL is accredited under the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP) (Lab Code 101459) and the State of California Department of Health Services Environmental Laboratory Accreditation Program (ELAP Number 1366).

With respect to the sample analysis, if asbestos is detected in concentrations less than 1%, in California the material may be regulated as ACCM. As such, any PLM sample identified as having less than 1% asbestos must either be re-evaluated by point counting, in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) Asbestos NESHAP Revision, Final Rule (40 CFR, Part 61), or must be assumed to be ACCM, and therefore regulated in California. Point counting, determines if the materials known to be less than 1% asbestos (EPA criteria), are equal to or less than

0.1% asbestos (California criteria) and therefore not regulated with respect to abatement requirements.

4.3 SAMPLE ANALYTICAL RESULTS

A total of 87 bulk samples were collected and delivered to FAL for PLM analyses. When the building material is comprised of two or more layers or substrates, across its full cross-sectional depth, the laboratory will identify and analyze each layer. For this survey the analytical laboratory analyzed 141 substrates.

Of the 141 sample layers analyzed, asbestos was identified in amounts greater than 1% in joint compound, floor tile and associated mastic, and remnant floor mastic.

Asbestos was identified in amounts less than 1% in six samples of cove base mastic. The cove base mastic was subsequently analyzed by point counting. Of the point count samples, asbestos was not identified in amounts greater than 0.1% in any of the samples.

Sample descriptions and the analytical results are provided in Table 1. Table 2 identifies those samples and materials determined to contain asbestos in concentrations above California regulatory levels. The homogeneous material (HM), its location(s) within the structure, condition, friability and approximate quantities are also included on Table 2. Room numbers are indicated on Figure 2. The laboratory analytical data and chain of custody forms are included in Appendix A

5.0 LEAD-BASED PAINT SURVEY

LBP survey was performed December 2016 by Don Harman, Amec Foster Wheeler, a California Department of Public Health (CDPH) Certified Lead Inspector, Risk Assessor, and Lead Supervisor. Visual observation and testing of the building's interior and exterior surfaces was performed.

The visual survey of the various areas within the structure was performed to identify painted building components, their general condition, and location and quantity of the painted components. Damaged, loose and flaking paint observed during the survey were noted.

United States Department of Housing and Urban Development (HUD), EPA and California definitions for lead-based paint are any paint with a lead concentration equal to or greater than 1.0 milligram per square centimeter of surface area (≥1 mg/cm^2) when measured by a portable x-ray fluorescence (XRF) spectrum analyzer, or 0.5% by weight (5,000 parts per million [ppm]) when measured by standard analytical methods. XRF results between 0.9 to 1.1 mg/cm^2 are considered by HUD/EPA as inconclusive.

In California, for lead-related construction work, Cal/OSHA requires a risk assessment to determine if employees may be exposed above the action level or permissible exposure limit (PEL). Surface coatings that contain lead at concentrations equal to or exceeding 0.06% lead by weight (600 ppm) are assumed by Cal/OSHA to demonstrate the presence of lead surface coatings that constitute a health hazard to employees engaged in lead-related construction work. As such, appropriate controls and work practices as defined in 8 CCR 1532.1 and 17 CCR 3600 et seq. are mandated, including requirements to use personnel certified by the California Department of Health Services.

5.1 XRF SURVEY

Amec Foster Wheeler performed the LBP survey in general accordance with EPA and US (HUD) guidelines for lead inspections and testing. Testing for LBP was performed onsite using a XRF, with the capability to measure lead content in dry paint films, in the range of 0 to 50 milligrams per square centimeter (mg/cm2). The surfaces tested were selected in general accordance with the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing.

5.2 XRF TEST RESULTS

These XRF test results aid in the selection of the locations for paint chip sampling and analysis. None of the tested building paints would be considered lead-based paints based on the XRF results and all were identified as being in intact condition except for paint peeling from the structure in Hangar 62 and the restrooms. Appendix B contains a Table which presents the readings from the XRF for painted surfaces and ceramic tiles. The paint on the floor on Hangar 62 returned results that were elevated above the low levels observed on other similar materials. Several readings on the sheet metal and structural members were slightly elevated. In addition, ceramic tile glaze in the restrooms returned elevated results.

5.3 PAINT CHIP SURVEY

Sampling areas were selected, based on the results of the XRF survey and a representative paint chip samples of suspect LBP was obtained from the floor and a structural member. While low-level results were returned via XRF for the sheet metal and frame paint, the volume of painted surface be dealt with warranted a sample. The samples obtained in Hangar 62 of the floor and the peeling paint were warranted due to the relatively high results of the XRF.

Samples were collected from readily accessible, representative paint-coated surfaces that were suspected to contain lead. The samples were labeled and appropriate chain-of-custody documentation completed. The samples were delivered to FAL in Rancho Dominquez, California for analysis. The laboratory is accredited by the American Industrial Hygiene Association (AIHA) and has been assigned the accreditation number 101629, and by the State of California Environmental Laboratory Accreditation Program (ELAP Number 1366).

5.4 TEST RESULTS

Three paint chip samples were obtained and delivered to FAL to be analyzed for the presence of lead by EPA methods 3050 and 7420 – Acid Digestion followed by Atomic Absorption Spectrometry (AAS). The results are:

- Sample No. 016 – Gray on structural frame, Hangar 8 – 0.098%
- Sample No. 017 – Gray on floor, Hangar 62 – 1.0%
- Sample No. 018 – Beige, peeling, on floor, Hangar 62 – 0.016%

The paint on the floor of Hangar 62 is LBP. The laboratory analytical data and chain-of-custody documentation are included in Appendix A. Appendix C contains Form 8552

which is required to be submitted to the California Department of Public Health (CDPH). The report and form must be retained by the client for three years. Amec Foster Wheeler has submitted the form to CDPH.

6.0 RECOMMENDATIONS

6.1 ASBESTOS-CONTAINING MATERIALS

The asbestos materials must be removed from the structure prior to demolition. Any contractor who does "asbestos-related work" that disturbs asbestos-containing materials or asbestos-containing construction materials must be licensed by the CSLB and registered with Cal/OSHA.

The abatement work must be performed in compliance with applicable Federal, State and local regulations. A scope of work and work procedures specifically tailored to this project should be prepared and adhered to by the abatement contractor. It is important that the abatement activities be performed by a competent, experienced contractor and the abatement activities be closely monitored.

DTSC classifies asbestos-containing wastes as hazardous waste if they are “friable” and contain 1.0% or more asbestos. DTSC considers non-friable bulk asbestos-containing waste to be nonhazardous regardless of its asbestos content. Waste materials containing less than 1% asbestos may be managed as non-hazardous waste in accordance with DTSC requirements.

The project-derived asbestos wastes could either be segregated as hazardous and non-hazardous and handled separately, or combined and handled together as hazardous. The handling method selected could be based on the costs associated with the labor to segregate the wastes verses the additional disposal fees. It should be noted that disposal of any hazardous waste does have potential future liabilities should a problem arise with the disposal site. Therefore, the potential increased risk from handling the nonhazardous wastes as hazardous should be considered in the decision making process.

6.2 LEAD-CONTAINING MATERIALS

Paints identified as lead-based and in poor condition (peeling or chipped), must be stabilized prior to demolition. Lead-based paints, i.e. paint on the floor of Hangar 62, in good condition may be left in place if exposure to employees and the environment is controlled and the lead-containing waste is properly tested and disposed based on the test results.

Materials other than paint have been tested, via XRF, and found to contain lead in amounts that maybe a source of exposure to workers or may not meet testing limits for disposal. These materials are the ceramic tiles in the restrooms. Employee exposure monitoring and material testing as it relates to disposal are recommended.

7.0 LIMITATIONS

Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental, health and safety consultants practicing in this or similar localities at the time of service. Amec Foster Wheeler assumes no liability for any loss, injury, claim, or damages arising directly or indirectly from any use or reliance on this report or the opinions expressed herein. No other warranty, express or implied, is made as to the professional advice included in this report.

Amec Foster Wheeler endeavored to observe existing conditions at the building using generally accepted procedures. There is always a possibility some areas containing asbestos- and lead-containing materials were overlooked, were inaccessible, or are different from those at specific sample locations. Therefore, conditions at every location may not be as anticipated by our field representative. In addition, demolition may uncover altered or differing conditions.

This report has been prepared for the exclusive use of our client. Any use that a third party makes of this report, or any reliance on or decisions made based on it, are the responsibility of the third party. With respect to third parties, Amec Foster Wheeler has no liability or responsibility for losses of any kind whatsoever, including direct or consequential financial effects on transactions or property values, or requirements for follow-up actions and costs. Should additional parties require reliance on this report, written authorization from Amec Foster Wheeler will be required.

TABLES

Table 1
Summary of Asbestos Sample Results
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, CA
John Wayne Airport

Sample No.	Material Descrption	HM No.	Layer	Assay Number	Level	Building No./Room No.	Result
1	Drywall, white	1	a	1		19441/1	ND
2	Drywall, white	1	a	2		19441/1	ND
3	Drywall, white	1	a	3		19441/1	ND
4	Joint Compound, white	1	b	1		19441/1	ND
5	Joint Compound, white	1	b	2		19441/1	ND
6	Joint Compound, white	1	b	3		19441/1	ND
7	Wall Texture, white	1	c	1		19441/1	ND
8	Wall Texture, white	1	c	2		19441/1	ND
9	Wall Texture, white	1	c	3		19441/1	ND
10	Cove base, gray 6"	2	ab	1		19441/1	ND
11	Cove base, gray 6"	2	ab	2		19441/1	ND
12	Cove base, gray 6"	2	ab	3		19441/1	ND
13	Drywall, White	3	a	1		19341/3	ND
14	Drywall, White	3	a	2		19341/4	ND
15	Drywall, White	3	a	3		19341/4	ND
16	**Joint Compound, white**	**3**	**b**	**1**		**19341/4**	**Chrysotile 2%**
17	Joint Compound, white	3	b	2		19341/4	Not Analyzed
18	Joint Compound, white	3	b	3		19341/4	Not Analyzed
19	Cove Base, 4" beige	4	ab	1		19341/3	Cove base, ND; Mastic, Chrysotile <0.04%

Table 1
Summary of Asbestos Sample Results
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, CA
John Wayne Airport

Sample No.	Material Descrption	HM No.	Layer	Assay Number	Level	Building No./Room No.	Result
20	Cove Base, 4" beige	4	ab	2		19341/3	Cove base, ND; Mastic, Chrysotile <0.04%
21	Cove Base, 4" beige	4	ab	3		19341/3	Cove base, ND; Mastic, Chrysotile <0.04%
22	**Floor Tile, 12"x12", light gray & beige mottled**	**5**	**ab**	**1**		**19341/3**	**Floor tile, ND; Mastic, Chrysotile 2%**
23	Floor Tile, 12"x12", light gray & beige mottled	5	ab	2		19341/3	Floor tile, ND; Mastic, Not Analyzed
24	Floor Tile, 12"x12", light gray & beige mottled	5	ab	3		19341/3	Floor tile, ND; Mastic, Not Analyzed
25	Cove Base, 4" black	6	ab	1		19341/4	Cove base, ND; Mastic, Anthophyllite <0.05%

Table 1
Summary of Asbestos Sample Results
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, CA
John Wayne Airport

Sample No.	Material Descrption	HM No.	Layer	Assay Number	Level	Building No./Room No.	Result
26	Cove Base, 4" black	6	ab	2		19341/4	Cove base, ND; Mastic, Anthophyllite <0.05%
27	Cove Base, 4" black	6	ab	3		19341/4	Cove base, ND; Mastic, Anthophyllite <0.04%
28	**Floor Tile, 9"x9", light gray mottled**	**7**	**ab**	**1**		**19341/4**	**Floor tile, Chrysotile 2%; Mastic, Chrysotile 2%**
29	Floor Tile, 9"x9", light gray mottled	7	ab	2		19341/4	Not Analyzed
30	Floor Tile, 9"x9", light gray mottled	7	ab	3		19341/4	Not Analyzed
31	Particle board & mastic	8	ab	1		19341/5	ND
32	Particle board & mastic	8	ab	2		19341/5	ND
33	Particle board & mastic	8	ab	3		19341/5	ND
34	Drywall	9	a	1		19341/6	ND
35	Drywall	9	a	2		19341/5	ND
36	Drywall	9	a	3		19341/5	ND
37	Joint Compound, white	9	b	1		19341/6	ND

Table 1
Summary of Asbestos Sample Results
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, CA
John Wayne Airport

Sample No.	Material Descrption	HM No.	Layer	Assay Number	Level	Building No./Room No.	Result
38	Joint Compound, white	9	b	2		19341/6	ND
39	Joint Compound, white	9	b	3		19341/6	ND
40	Drywall, white	10	a	1		19351/8	ND
41	Drywall, white	10	a	2		19351/8	ND
42	Drywall, white	10	a	3		19351/8	ND
43	Joint Compound, white	10	ab	1		19351/8	ND
44	Joint Compound, white	10	ab	2		19351/9	ND
45	Joint Compound, white	10	ab	3		19351/11	ND
46	Ceiling Tile	11	ab	1		19351/10	ND
47	Ceiling Tile	11	ab	2		19351/10	ND
48	Ceiling Tile	11	ab	3		19351/10	ND
49	Floor Tile, 12"x12", gray & light gray	12	ab	1		19351/11	ND
50	Floor Tile, 12"x12", gray & light gray	12	ab	2		19351/11	ND
51	Floor Tile, 12"x12", gray & light gray	12	ab	3		19351/11	ND
52	Cove Base, black	13	ab	1		19351/11	ND
53	Cove Base, black	13	ab	2		19351/11	ND
54	Cove Base, black	13	ab	3		19351/11	ND
55	Draywall, white	14	a	1		19365/11	ND
56	Drywall, white	14	a	2		19351/11	ND
57	Drywall, white	14	a	3		19365/12	ND
58	**Joint Compound, white**	**14**	**b**	**1**		**19365/13**	**Chrysotile 2%**

Table 1
Summary of Asbestos Sample Results
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, CA
John Wayne Airport

Sample No.	Material Descrption	HM No.	Layer	Assay Number	Level	Building No./Room No.	Result
59	Joint Compound, white	14	b	2		19365/13	Not Analyzed
60	Joint Compound, white	14	b	3		19365/13	Not Analyzed
61	Cove Base, brown 4"	15	ab	1		19365/12	ND
62	Cove Base, brown 4"	15	ab	2		19365/12	ND
63	Cove Base, brown 4"	15	ab	3		19365/12	ND
64	**Remnant Mastic**	**16**	**a**	**1**		**19365/12**	**Chrysotile 2%**
65	Remnant Mastic	16	a	2		19365/12	Not Analyzed
66	Remnant Mastic	16	a	3		19365/12	Not Analyzed
67	Cove Base, black	17	ab	1		19365/13	ND
68	Cove Base, black	17	ab	2		19365/13	ND
69	Cove Base, black	17	ab	3		19365/13	ND
70	Floor Tile, 12"x12", dark gray	18	ab	1		19365/13	ND
71	Floor Tile, 12"x12", dark gray	18	ab	2		19365/13	ND
72	Floor Tile, 12"x12", dark gray	18	ab	3		19365/13	ND
73	Drywall, white	19	a	1		19365/Hangar 65	ND
74	Drywall, white	19	a	2		19365/Hangar 65	ND
75	Drywall, white	19	a	3		19365/Hangar 65	ND
76	Joint Compound, white	19	b	1		19365/Hangar 65	ND
77	Joint Compound, white	19	b	2		19365/Hangar 65	ND
78	Joint Compound, white	19	b	3		19365/Hangar 65	ND
79	Cove Base, White	20	ab	1		19365/Hangar 65	ND

Table 1
Summary of Asbestos Sample Results
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, CA
John Wayne Airport

Sample No.	Material Descrption	HM No.	Layer	Assay Number	Level	Building No./Room No.	Result
80	Cove Base, White	20	ab	2		19365/Hangar 65	ND
81	Cove Base, White	20	ab	3		19365/Hangar 65	ND
82	Floor Tile, 12"x12" beige	23	ab	1		19365/Hangar 72	ND
83	Floor Tile, 12"x12" beige	23	ab	2		19365/Hangar 72	ND
84	Floor Tile, 12"x12" beige	23	ab	3		19365/Hangar 72	ND
85	Remnant Mastic	24	a	1		Storage 49A	ND
86	Remnant Mastic	24	a	2		Storage 49A	ND
87	Remnant Mastic	24	a	3		Storage 49A	ND

Created by: SA
Checked by: DEH/LAG

Table Notes:

1 HM - Homogenous Material: A material that appears to be uniform when properties such as age, color, texture are compared.

2 Layer - When a Homogenous Material has more than one recognizable component each is a layer.

3 Assay - Of the duplicates required by Asbestos Hazard Emergency Response Act (AHERA), the sequential number, starting at one, assigned each sample up to the required number of samples.

4 Bold type - These samples were determined to contain asbestos in excess of trace amounts

5 ND - Asbestos was not detected above the method detection limit.

6 Not Analyzed - When any sample of a Homogenous Material is determined to contain asbestos the other samples in that HM are not analyzed.

Table 2
Summary of Asbestos-Containing Materials
Executive Hangars, Campus Drive
Santa Ana, California

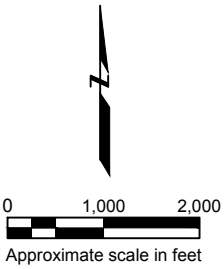
Material, friability, Condition, Homologous Material No.	Location Building/ Room No.	Sample No.	Result	Estimated Quality
Joint Compound, non-friable, good, HM 3b	19341/3 & 4	16	2% Chrysotile,	1,144 square feet
Mastic associated with floor tile, 12”x12”, light gray & beige mottled, non-friable, good, HM 5b	19341/3	5b	2% Chrysotile,	140 square feet
Floor tile, 9”x9”, light gray mottled and mastic, non-friable, good, HM 7ab	19341/4	28	Floor tile, 2% Chrysotile; Mastic, 2% Chrysotile	140 square feet
Joint Compound, non-friable, good, HM 14b	19365/12 & 13	58	2% Chrysotile	976 square feet
Remnant Mastic, non-friable, good, HM 16	19365/12	64	2% Chrysotile	120 square feet

HM = Homogeneous Material area

Created by: DEH
Checked by: LAG

FIGURES

Basemap modified from Street Map provided by Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., ©OpenStreetMap contributors, and the GIS User Community.

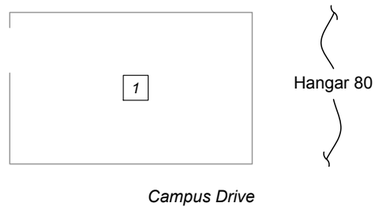


SITE LOCATION MAP
Executive Hangars
19341 through 19361 Campus Drive
John Wayne Airport
Orange County, California

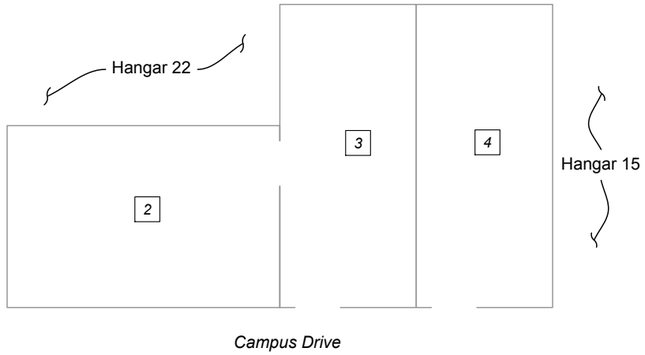
amec foster wheeler

Date: 03/31/2017	Project No. IR14164420	Figure 1
Submitted By: dh	Drawn By: pah	

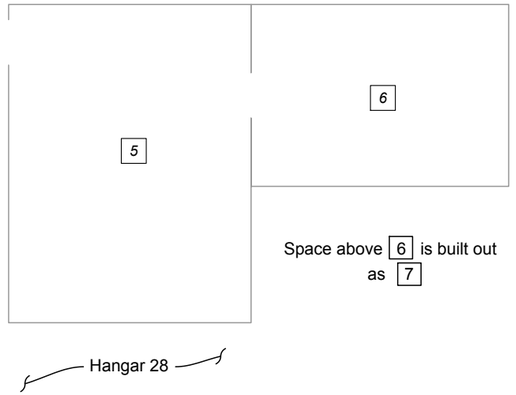
Plot Date: 3/31/2017 4:02:29 PM, Plotted by: pat.herring
Drawing Path: Y:\IR\13164420\acad\Asbestos_Survey_2017-02-16_tb_Site_Location_Maps.dwg



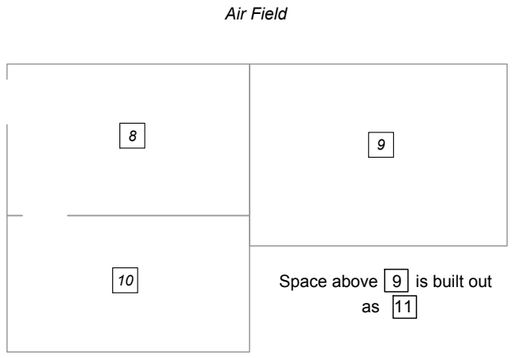
19441 Campus Drive



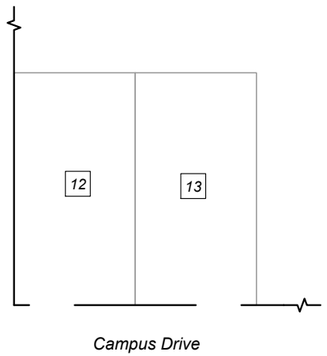
19341 Campus Drive



19341 Campus Drive



19351 Campus Drive

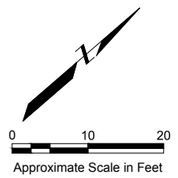


19365 Campus Drive

Explanation

Hangar outline

13 Room number



FLOOR PLAN
Executive Hangars
19341 through 19361 Campus Drive
John Wayne Airport
Orange County, California

amec foster wheeler

Date: 03/31/2017	Project No. IR14164420	Figure 2
Submitted By: dh	Drawn By: pah	

APPENDIX A

PORTABLE X-RAY FLUORESCENCE SPECTRUM ANALYZER RESULTS

Portable X-ray Fluorescence Spectrum Analyzer Readings
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, California

Building	Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
	Storage/2	2325		Door Frame	Wood	Intact	Beige	0.01	
	Storage/3	2327		Door	Wood	Intact	Beige	0.01	
	Restroom/3	2328	N	Wall	Dry Wall	Intact	Beige	0.02	
	Restroom/3	2329	E	Wall	Dry Wall	Intact	Beige	0.01	
	Restroom/3	2330	S	Wall	Dry Wall	Peeling	Beige	0.04	
	Restroom/3	2331	W	Wall	Dry Wall	Intact	Beige	0.02	
	Restroom/3	2332		Wall @ urnial	Ceramic Tile	Intact	Beige	8.5	
	Restroom/3	2333		Stall	Metal	Intact	Beige	0.01	
	Restroom/3	2334		Door Frame	Metal	Intact	Beige	0.03	
	Restroom/3	2335		Door Interior	Metal	Intact	Beige	0.01	
	Restroom/4	2336	N	Wall	Dry Wall	Minor Peeling	Beige	0.11	
	Restroom/4	2337	E	Wall	Dry Wall	Intact	Beige	0.02	
	Restroom/4	2338	S	Wall	Dry Wall	Intact	Beige	0.05	
	Restroom/4	2339	W	Wall	Dry Wall	Minor Peeling	Beige	0.05	
Executive, 19341	Restroom/4	2340		Stall	Metal	Intact	Beige	0.01	
Executive, 19341	Restroom/4	2341		Floor	Vinyl	Intact	Beige	0	
Executive, 19341	Restroom/4	2342		Door Frame	Metal	Intact	Beige	0.01	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, California

Building	Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Executive, 19341	Adjacent to Hangar 28/5	2343	N	Wall	Metal	Intact	Beige	0.07	
Executive, 19341	Adjacent to Hangar 28/5	2344	E	Wall	Metal	Intact	Beige	0.01	
Executive, 19341	Adjacent to Hangar 28/5	2345	S	Wall	Metal	Intact	Beige	0.06	
Executive, 19341	Adjacent to Hangar 28/5	2346	W	Wall	Particle Board	Intact	White	0.01	
Executive, 19341	Adjacent to Hangar 28/5	2347		Door Frame	Metal	Intact	Beige	0.06	
Executive, 19341	Adjacent to Hangar 28/5	2349		Door	Metal	Intact	Blue	0.01	
Executive, 19341	Adjacent to Hangar 28/5	2350		Floor	Cream	Peeling	Gray	0.01	
Executive, 19341	Adjacent to Hangar 28/5	2351		Stair Stringer	Wood	Intact	Brown	0	
Executive, 19341	Adjacent to Hangar 28/6	2352		Door Frame	Metal	Intact	Dark blue	0.01	
Executive, 19341	Adjacent to Hangar 28/6	2353		Door	Wood	Intact	Beige	0	
Executive, 19341	Adjacent to Hangar 28/7	2354		Structural Frame	Metal	Intact	Lt Brown	0.02	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, California

Building	Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Executive, 19341	29/-	2355	N	Hangar Door	Metal	Intact	White	0.08	
Executive, 19341	29/-	2356	E	Wall	Metal	Intact	White	0.07	
Executive, 19341	29/-	2357	S	Wall	Metal	Intact	White	0.14	
Executive, 19341	29/-	2358	W	Floor	Ceramic Tile	Intact	Lt Gray	0.12	
Executive, 19341	30/-	2360	E	Wall	Metal	Intact	White	0	
Executive, 19341	30/-	2361	W	Wall	Metal	Intact	White	0.02	
Executive, 19341	30/-	2362		Floor	Core	Peeling	Black	0.03	
Executive, 19341	30/-	2363		Floor	Core	Peeling	White	0	
Executive, 19341	36/-	2364		Floor	Core	Intact	Lt Gray	0	
Executive, 19341	42/-	2365		Floor	Core	Intact	Lt Gray	0.01	
Executive, 19341	44/-	2366	N	Hanger Door	Metal	Intact	Beige	0.04	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, California

Building	Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Executive, 19341	44/-	2367	E	Wall	Metal	Intact	Beige	0.01	
Executive, 19341	44/-	2368	S	Wall	Metal	Intact	Beige	0.01	
Executive, 19341	44/-	2369	W	Wall	Metal	Intact	Beige	0.01	
Executive, 19341	44/-	2370		Floor	Ceramic Tile	Intact	Gray	0	
Executive, 19341	45/-		N	Hangar Hangar Door , open no access					
Executive, 19341	45/-	2371	E	Wall	Dry Wall	Intact	White	0.12	
Executive, 19341	45/-	2372	S	Wall	Dry Wall	Intact	White	0.04	
Executive, 19341	45/-	2373	W	Wall	Dry Wall	Intact	White	0.02	
Executive, 19341	45/-	2374		Door Runners	Metal	Peeling	Orange	0.04	
Executive, 19341	45/-	2375		Floor	Concrete	Intact	Lt Gray	0	
Executive, 19351	-/8	2376	N	Wall	Dry Wall	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, California

Building	Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Executive, 19351	-/8	2377	E	Door Frame	Wood	Intact	White	0	
Executive, 19351	-/8	2378	E	Door	Wood	Intact	White	0	
Executive, 19351	-/8	2379	S	Door Frame	Metal	Intact	Beige	0.04	
Executive, 19351	-/8	2380	S	Door	Metal	Intact	Blue	0.06	
Executive, 19351	-/8	2381	S	Door	Metal	Intact	Gray	0.03	
Executive, 19351	-/8	2382	W	Wall	Dry Wall	Intact	White	0	
Executive, 19351	-/9	2383	N	Wall	Dry Wall	Intact	White	0	
Executive, 19351	-/9	2384	E	Wall	Dry Wall	Intact	White	0.01	
Executive, 19351	-/9	2385	S	Wall	Dry Wall	Intact	White	0	
Executive, 19351	-/9	2386	W	Wall	Dry Wall	Intact	White	0.04	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, California

Building	Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Executive, 19351	-/10		No Suspect Materials						
Executive, 19351	-/11	2388	N	Wall	Dry Wall	Intact	Orange	0	
Executive, 19351	-/11	2389	E	Wall	Dry Wall	Intact	Orange	0	
Executive, 19351	-/11	2390	S	Wall	Dry Wall	Intact	Orange	0	
Executive, 19351	-/11	2391	W	Wall	Dry Wall	Intact	Orange	0	
Executive, 19351	-/11	2392		Floor	Vinyl	Intact	Gray	0	
Executive, 19351	-/8	2393		Floor	Concrete	Intact	Gray	0.02	
Executive, 19351	47/-	2395		Floor	Concrete	Peeling	Gray	0.02	
Executive, 19351	55/-	2396		Floor	Concrete	Peeling	Lt Gray	0	
Executive, 19365	-/12	2402	N	Wall	Dry Wall	Intact	Beige	0.01	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, California

Building	Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Executive, 19365	-/12	2403	E	Wall	Dry Wall	Intact	Beige	0.07	
Executive, 19365	-/12	2404	S	Wall	Dry Wall	Intact	Beige	0.04	
Executive, 19365	-/12	2405	W	Wall	Dry Wall	Intact	Beige	0.01	
Executive, 19365	-/12	2406		Stall	Metal	Intact	Beige	0.04	
Executive, 19365	-/12	2407		Door Frame	Metal	Intact	Beige	0.03	
Executive, 19365	-/12	2408		Door	Metal	Intact	Beige	0.07	
Executive, 19365	-/13	2409	N	Wall	Dry Wall	Intact	Beige	0.06	
Executive, 19365	-/13	2410			Dry Wall	Intact	Beige	0.01	
Executive, 19365	-/13	2411	S	Wall	Dry Wall	Intact	Beige	0.02	
Executive, 19365	-/13	2412	W	Wall	Dry Wall	Intact	Beige	0.04	
Executive, 19365	-/13	2413		Wall	Ceramic Tile	Intact	White	7.5	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, California

Building	Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Executive, 19365	-/13	2414		Floor	Ceramic Tile	Intact	White	0	
Executive, 19365	-/13	2415		Floor	Vinyl	Intact	Gray	0	
Executive, 19365	-/13	2416		Stall	Metal	Intact	Beige	0.01	
Executive, 19365	-/13	2417		Sink	Porcelain	Intact	White	0.01	
Executive, 19365	-/13	2418		Door Interior	Wood	Intact	Beige	0.01	
Executive, 19365	-/13	2419		Door Frame Exterior	Metal	Intact	Beige	0.05	
Executive, 19365	-/13	2420		Door Exterior	Metal	Intact	Beige	0.01	
Executive, 19365	68/-	2421	N	Hangar Door	Metal	Minor Peeling	Beige	0.06	
Executive, 19365	68/-	2422	E	Wall	Metal	White	Beige	0.02	
Executive, 19365	68/-	2423	S	Wall	Metal	White	Beige	0.01	
Executive, 19365	68/-	2424	W	Wall	Metal	White	Beige	0.05	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, California

Building	Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Executive, 19365	66/-	2425		Floor	Concrete	Intact	Gray	0	
Executive, 19365	65/-	2426		Floor	Concrete	Intact	White	0	
Executive, 19365	66/-	2427	N	Wall	Metal	Intact	White	0.05	
Executive, 19365	66/-	2428	E	Wall	Dry Wall	Intact	White	0	
Executive, 19365	66/-	2429	S	Wall	Dry Wall	Intact	White	0.02	
Executive, 19365	66/-	2430	W	Wall	Dry Wall	Intact	White	0	
Executive, 19365	69/-	2431		Floor	Concrete	Intact	Beige	0.01	
Executive, 19365	69/-	2432		Wall	Metal	Intact	Beige	0	
Executive, 19365	70/-	2433		Floor	Concrete	Intact	Beige	0	
Executive, 19365	72/-	2434		Floor	Vinyl	Intact	Beige	0	
Executive, 19365	61/-	2435		Floor	Concrete	Intact	Gray	0.01	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, California

Building	Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Executive, 19365	62/-	2436	N	Wall	Metal	Peeling	Beige	0.02	
Executive, 19365	62/-	2437	E	Wall	Metal	Peeling	Beige	0.01	
Executive, 19365	62/-	2438	S	Hangar Door	Metal	Peeling	Beige	0.01	
Executive, 19365	62/-	2439	W	Wall	Metal	Peeling	Beige	0.01	
Executive, 19365	62/-	2440		Floor	Concrete	Peeling	Gray	0.23	
Executive, 19365	62/-	2441		Floor	Concrete	Peeling	Gray	0.24	
Executive, 19365	62/-	2442		Floor	Concrete	Peeling	Gray	0.3	
Executive, 19365	63/-	2443		Floor	Concrete	Peeling	Cream	0	
Executive, 19365	64/-	2444		Floor	Concrete	Peeling	Cream	0	
Executive, 19365	64/-	2445		Building Exterior	Metal	Intact	Beige	0.03	
Executive, 19365	60/-	2446	N	Hangar Door	Metal	Intact	White	0.07	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, California

Building	Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Executive, 19365	60/-	2447	E	Wall	Metal	Intact	White	0.1	
Executive, 19365	60/-	2448	S	Wall	Metal	Intact	White	0.03	
Executive, 19365	60/-	2449	W	Wall	Metal	Intact	White	0.01	
Executive, 19365	60/-	2450	Office Exterior	Wall	Wood	Intact	White	0	
Executive, 19365	60/-	2451		Stair Stringer	Wood	Intact	White	0.1	
Executive, 19365	60/-	2452		Stair Tread	Wood	Intact	Red	0	
Executive, 19365	60/-	2453		Building Frame	Metal	Intact	Black	0	
Executive, 19365	56A/-	2454		Floor	Concrete	Intact	Gray	0	
Executive, 19365	56A/-	2455	W	Wall	Wood	Intact	White	0	
Executive, 19365	59/-	2456		Floor	Concrete	Minor Peeling	Lt Gray	0	
Executive, 19365	58/-	2457	N	Hangar Door	Metal	Intact	White	0.02	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, California

Building	Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Executive, 19365	58/-	2458	E	Wall	Metal	Intact	Red	0.01	
Executive, 19365	58/-	2461	S	Wall	Metal	Intact	White	0.02	
Executive, 19365	58/-	2462	E	Wall	Metal	Intact	Blue	0.05	
Executive, 19365	57/-	2463	E	Wall	Metal	Intact	Beige	0.01	
Executive, 19365	57/-	2465		Floor	Concrete	Intact	White	0	
Executive, 19441	82/-	2276	S	Door Frame	Metal	Intact	Red	0	
Executive, 19441	82/-	2278	N	Wall Frame	Metal	Intact	Red	0	
Executive, 19441	82/-	2279	E	Wall Frame	Metal	Intact	Red	0	
Executive, 19441	80/restroom	2280	N	Wall	Fiberglass	Intact	Red	0	
Executive, 19441	80/restroom	2281	E	Wall	Fiberglass	Intact	Red	0	
Executive, 19441	80/restroom	2282	S	Wall	Fiberglass	Intact	Red	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, California

Building	Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Executive, 19441	80/restroom	2283	W	Wall	Fiberglass	Intact	Red	0	
Executive, 19441	80/restroom	2284		Floor	Concrete	Intact	Gray	0	
Executive, 19441	80/restroom	2285		Ceiling	Dry Wall	Intact	White	0	
Executive, 19441	80/restroom	2286		Door Frame	Metal	Intact	White	0	
Executive, 19441	80/restroom	2287		Exterior wall	Metal	Intact	Beige	0	
Executive, 19441	7/-	2288		Floor	Concrete	Intact	Gray	0.01	
Executive, 19441	7/-	2289		Exterior	Metal	Intact	Beige	0.04	
Executive, 19441	2/-	2290		Built-in	Wood	Intact	Beige	0	
Executive, 19441	8/-	2292	S	Hangar Door Frame	Metal	Intact	Gray	0.17	Sample
Executive, 19441	8/-	2293		Floor	Concrete	Intact	Gray	0	
Executive, 19441	8/-	2294	N	Wall	Metal	Intact	White	0.08	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, California

Building	Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Executive, 19441	10/-	2295		Hangar Door	Metal	Intact	Beige	0	
Executive, 19441	9/-	2296		Floor	Concrete	Intact	White	0.01	
Executive, 19441	13/-	2297		Floor	Concrete	Intact	Lt Gray	0	
Executive, 19441	14/-	2298	E	Wall	Metal	Intact	White	0.05	
Executive, 19441	14/-	2299	S	Wall	Metal	Intact	White	0.01	
Executive, 19441	14/-	2300		Floor	Concrete	Intact	Lt Gray	0.07	
Executive, 19441	14/-	2301		Door Frame	Metal	Intact	Beige	0	
Executive, 19441	14/-	2302		Door Interior	Metal	Intact	Beige	0.06	
Executive, 19441	14/-	2303		Door Interior	Metal	Intact	Beige	0	
Executive, 19441	16/-	2304		Floor	Concrete	Intact	Lt Gray	0.01	
Executive, 19441	17/-	2305	N	Hangar wall	Metal	Intact	White	0.03	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, California

Building	Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Executive, 19441	17/-	2306		Frame	Metal	Intact	Gray	0.01	
Executive, 19441	17/-	2307		Floor	Concrete	Intact	Gray	0	
Executive, 19441	20/-	2308		Floor	Concrete	Intact	Gray	0.01	
Executive, 19441	21/-	2309		Floor	Concrete	Intact	White	0	
Executive, 19441	23/-	2310	W	Wall	Metal	Intact	White	0.01	
Executive, 19441	23/-	2311	E	Wall	Metal	Intact	White	0.01	
Executive, 19441	23/-	2312		Floor	Concrete	Intact	Gray	0	
Executive, 19441	24/-	2313	N	Wall	Metal	Intact	White	0.2	
Executive, 19441	24/-	2314	E	Wall	Metal	Intact	White	0.03	
Executive, 19441	24/-	2315	S	Hangar Door	Metal	Intact	White	0.05	
Executive, 19441	24/-	2316	W	Wall	Metal	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Executive Hangars
19321, 19341, 19351, 19361, 19363, 19365 and 19471 Campus Drive
Santa Ana, California

Building	Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Executive, 19441	24/-	2317		Floor	Concrete	Intact	Lt Gray	0	
Executive, 19441	26/-	2318		Floor	Concrete	Intact	White	0.01	
Executive, 19441	26/-	2319		Stripe	Asphalt	Poor	White	0.01	
Executive, 19441	27/-	2320		Floor	Concrete	Poor	Blue	0.01	

APPENDIX B

LABORATORY ANALYTICAL REPORTS AND CHAIN OF CUSTODY DOCUMENTATION

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: B233027
Date Received: 12/30/16
Date Analyzed: 01/08/17
Date Printed: 01/09/17
First Reported: 01/09/17

Job ID/Site: IR13164420.55; SNA/GAIP, Executive Hangars

FALI Job ID: 5629-10

Date(s) Collected:

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
001_1_a	51034000						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
002_1_a	51034001						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
003_1_a	51034002						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
004_1_b	51034003						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
005_1_b	51034004						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
006_1_b	51034005						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
007_1_c	51034006						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
008_1_c	51034007						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233027
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
009_1_c	51034008						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
010_2_a	51034009						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
010_2_b	51034010						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
011_2_a	51034011						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
011_2_b	51034012						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
012_2_a	51034013						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
012_2_b	51034014						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
013_3_a	51034015						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
014_3_a	51034016						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
015_3_a	51034017						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233027

Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
016_3_b	51034018						
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	**2 %**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (Trace)**							
Cellulose (Trace)							
Comment: This comment applies to the Off-White Skimcoat/Joint Compound only: Insufficient material for additional analyses.							
017_3_b	51034019						
Comment: Sample not analyzed due to prior positive result in series.							
018_3_b	51034020						
Comment: Sample not analyzed due to prior positive result in series.							
019_4_a	51034021						
Layer: Beige Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (Trace)							
019_4_b	51034022						
Layer: Off-White Mastic			**ND**				
Layer: Brown Mastic		Anthophyllite	**Trace**				
Total Composite Values of Fibrous Components: **Asbestos (Trace)**							
Cellulose (Trace)							
Comment: This comment applies to the Brown Mastic only: Insufficient material for additional analyses.							
020_4_a	51034023						
Layer: Beige Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (Trace)							
020_4_b	51034024						
Layer: Off-White Mastic			**ND**				
Layer: Brown Mastic		Anthophyllite	**Trace**				
Total Composite Values of Fibrous Components: **Asbestos (Trace)**							
Cellulose (Trace)							
Comment: This comment applies to the Brown Mastic only: Insufficient material for additional analyses.							
021_4_a	51034025						
Layer: Beige Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (Trace)							
021_4_b	51034026						
Layer: Off-White Mastic			**ND**				
Layer: Brown Mastic		Anthophyllite	**Trace**				
Total Composite Values of Fibrous Components: **Asbestos (Trace)**							
Cellulose (Trace)							
Comment: This comment applies to the Brown Mastic only: Insufficient material for additional analyses.							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233027
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
022_5_a	51034027						
Layer: Beige Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
022_5_b	51034028						
Layer: Black/Tan Mastics		Chrysotile	**2 %**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
023_5_a	51034029						
Layer: Beige Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
023_5_b	51034030						
Comment: Sample not analyzed due to prior positive result in series.							
024_5_a	51034031						
Layer: Beige Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
024_5_b	51034032						
Comment: Sample not analyzed due to prior positive result in series.							
025_6_a	51034033						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
025_6_b	51034034						
Layer: Brown Mastic with Debris		Anthophyllite	**Trace**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Synthetic (Trace)		**Asbestos (Trace)**					
026_6_a	51034035						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
026_6_b	51034036						
Layer: Brown Mastic with Debris		Anthophyllite	**Trace**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Synthetic (Trace)		**Asbestos (Trace)**					
027_6_a	51034037						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
027_6_b	51034038						
Layer: Brown Mastic with Debris		Anthophyllite	**Trace**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Synthetic (Trace)		**Asbestos (Trace)**					
028_7_a	51034039						
Layer: Light Grey Tile		Chrysotile	**2 %**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
028_7_b	51034040						
Layer: Black Mastic		Chrysotile	**2 %**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
029_7_a	51034041						
Comment: Sample not analyzed due to prior positive result in series.							
029_7_b	51034042						
Comment: Sample not analyzed due to prior positive result in series.							
030_7_a	51034043						
Comment: Sample not analyzed due to prior positive result in series.							
030_7_b	51034044						
Comment: Sample not analyzed due to prior positive result in series.							
031_8_a	51034045						
Layer: Tan Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (95 %)		**Asbestos (ND)**					
031_8_b	51034046						
Layer: Dark Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
032_8_a	51034047						
Layer: Tan Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (95 %)		**Asbestos (ND)**					
032_8_b	51034048						
Layer: Dark Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
033_8_a	51034049						
Layer: Tan Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (95 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233027

Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
033_8_b	51034050						
Layer: Dark Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
034_9_a	51034051						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (3 %)		**Asbestos (ND)**					
035_9_a	51034052						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (3 %)		**Asbestos (ND)**					
036_9_a	51034053						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (3 %)		**Asbestos (ND)**					
037_9_b	51034054						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
038_9_b	51034055						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
039_9_b	51034056						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
040_10_a	51034057						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
041_10_a	51034058						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
042_10_a	51034059						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233027

Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
043_10_b	51034060						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
044_10_b	51034061						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
045_10_b	51034062						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
046_11_a	51034063						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (75 %) Fibrous Glass (5 %)		**Asbestos (ND)**					
047_11_a	51034064						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (75 %) Fibrous Glass (5 %)		**Asbestos (ND)**					
048_11_a	51034065						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (75 %) Fibrous Glass (5 %)		**Asbestos (ND)**					
049_12_a	51034066						
Layer: Grey Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
049_12_b	51034067						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
050_12_a	51034068						
Layer: Grey Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233027
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
050_12_b	51034069						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
051_12_a	51034070						
Layer: Grey Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
051_12_b	51034071						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
052_13_a	51034072						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
052_13_b	51034073						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
053_13_a	51034074						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
053_13_b	51034075						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
054_13_a	51034076						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
054_13_b	51034077						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
055_14_a	51034078						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (5 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233027

Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
056_14_a	51034079						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (5 %)		**Asbestos (ND)**					
057_14_a	51034080						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (5 %)		**Asbestos (ND)**					
058_14_b	51034081						
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	**2 %**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
059_14_b	51034082						
Comment: Sample not analyzed due to prior positive result in series.							
060_14_b	51034083						
Comment: Sample not analyzed due to prior positive result in series.							
061_15_a	51034084						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
061_15_b	51034085						
Layer: Brown Mastic			**ND**				
Layer: Black Mastic			**ND**				
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
062_15_a	51034086						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
062_15_b	51034087						
Layer: Brown Mastic			**ND**				
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
063_15_a	51034088						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233027
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
063_15_b	51034089						
Layer: Black Mastic			**ND**				
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
064_16_a	51034090						
Layer: Black Mastic		Chrysotile	**2 %**				
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
065_16_a	51034091						
Comment: Sample not analyzed due to prior positive result in series.							
066_16_a	51034092						
Comment: Sample not analyzed due to prior positive result in series.							
067_17_a	51034093						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
067_17_b	51034094						
Layer: Beige Mastic			**ND**				
Layer: Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
068_17_a	51034095						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
068_17_b	51034096						
Layer: Beige Mastic			**ND**				
Layer: Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
069_17_a	51034097						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
069_17_b	51034098						
Layer: Beige Mastic			**ND**				
Layer: Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233027

Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
070_18_a	51034099						
Layer: Grey Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
070_18_b	51034100						
Layer: Tan Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
071_18_a	51034101						
Layer: Grey Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
071_18_b	51034102						
Layer: Tan Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
072_18_a	51034103						
Layer: Grey Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
072_18_b	51034104						
Layer: Tan Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
073_19_a	51034105						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
074_19_a	51034106						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
075_19_a	51034107						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
076_19_b	51034108						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233027

Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
077_19_b	51034109						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
078_19_b	51034110						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
079_20_a	51034111						
Layer: Off-White Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
079_20_b	51034112						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
080_20_a	51034113						
Layer: Off-White Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
080_20_b	51034114						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
081_20_a	51034115						
Layer: Off-White Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
081_20_b	51034116						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
082_23_a	51034117						
Layer: Beige Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
082_23_b	51034118						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233027

Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
083_23_a	51034119						
Layer: Beige Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
083_23_b	51034120						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
084_23_a	51034121						
Layer: Beige Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
084_23_b	51034122						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
085_24_a	51034123						
Layer: Tan Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Synthetic (Trace)		**Asbestos (ND)**					
086_24_a	51034124						
Layer: Tan Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Synthetic (Trace)		**Asbestos (ND)**					
087_24_a	51034125						
Layer: Tan Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Synthetic (Trace)		**Asbestos (ND)**					

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Amec Foster Wheeler E&I

Asbestos Survey Form 04a - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	SNA/GAIP
Building Number	Executive Hangars
Collection Date	12/27-29/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
001	Dry Wall	1	a	1		19441/1
002	" "	"	"	2		"
003	" "	"	"	3		"
004	Joint Compound	"	b	1		"
005	" "	"	"	2		"
006	" "	"	"	3		"
007	Wall Texture	"	c	1		"
008	" "	"	"	2		"
009	" "	"	"	3		"
010	Cove base gx 6"	2	ab	1		"
011	" " "	"	"	2		"
012	" " "	"	"	3		"
013	Dry Wall	3	a	1		19341/3

Analysis Requested	PLM
Turnaround Time	One Week

Transmitted From:

AMEC E&I
6001 Rickenbacker Rd., Los Angeles CA 90040
Phone 323.889.5300

Transmitted To:

Forensic Analytical
Rancho Dominguez

PO # _____

☐ _____

Analyze to 1st Positve x

Sender's Signature: Dan E. Hamra

Recipient's Signature: M Adams 12/30/16 2pm

Asbestos Survey Form 04a - Bulk Sampling Log v3

Total Number of Samples Collected in Building: 86

Form Page 1 *of* _____
Sheet Count _____

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/27-29/16
Site Name	SNA/GAIP	Submission Date	
Building Number	Executive Hangars		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
014	Dry Wall	3	a	2		19341/4
015	" "	"	"	3		↓
016	Joint Compound	"	b	1		"
017	" "	"	"	2		"
018	" "	"	"	3		↓
019	Cove Base 4" beige	4	ab	1		19341/3
020	" " "	"	"	2		"
021	" " "	"	"	3		"
022	Floor tile, 12x12, mottled H.gr/beige	5	ab	1		"
023	" " " " "	"	"	2		"
024	" " " " "	"	"	3		↓
025	Cove Base, 4" black	6	ab	1		19341/4
026	" " "	"	"	2		"
027	" " "	"	"	3		"
028	Floor Tile, 9x9, mottled H.gr.	7	ab	1		"
029	" " "	"	"	2		"
030	" " "	"	"	3		↓
031	Particle board/mastic	8	ab	1		19341/5
032	" "	"	"	2		"
033	" "	"	"	3		↓
034	Dry wall	9	a	1		19341/6

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/27-29/16
Site Name	**SNA/GAIP**	Submission Date	
Building Number	Executive Hangars		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
035	Dry wall	9	a	2		19341/5
036	" "	"	"	3		"
037	Joint Compound		b	1		19341/6
038	" "		"	2		"
039	" "	"	"	3		"
040	Dry Wall	10	a	1		19351/8
041	" "		"	2		"
042	" "		"	3		"
043	Joint Compound		b	1		"
044	" "		"	2		19351/9
045	" "	"	"	3		19351/11
046	Ceiling Tile	11	a	1		19351/10
047	" "		"	2		"
048	" "	"	"	3		"
049	Floor tile, 12x12, gry 3/tgr	12	ab	1		19351/11
050	" " " "		"	2		"
051	" " " "	"	"	3		"
052	Cove base, bl	13	ab	1		"
053	" " "		"	2		"
054	" " "	"	"	3		"
055	Dry Wall	14	a	1		

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/27-29/16
Site Name	**SNA/GAIP**	Submission Date	
Building Number	Executive Hangars		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
056	Dry wall	14	a	2		19365/12
057	" "	"	"	3		"
058	Joint Compound		b	1		19365/13
059	" "		"	2		
060	" "		"	3		
061	Cove Base brown 4"	15	ab	1		19365/12
062	" " "	"	"	2		
063	" " "	"	"	3		
064	Remant Mastic	16	a	1		
065	" "	"	"	2		
066	" "	"	"	3		
067	Cove Base black	17	ab	1		19365/13
068	" " "	"	"	2		
069	" " "	"	"	3		
070	Floor Tile, 12x12 dk. gr.	18	ab	1		
071	" " "	"	"	2		
072	" " "	"	"	3		
073	Dry Wall	19	a	1		19365/Hanger 65
074	" "	"	"	2		
075	" "	"	"	3		
076	Joint Compound	"	b	1		"

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/27-29/16
Site Name	SNA/GAIP	Submission Date	
Building Number	Executive Hangars		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
077	Joint Compound	19	b	2		19365/Hangar 65
078	" "	19	b	3		"
079	Cove Base, white	~~23~~ 20	ab	1		
080	" " "	"	"	2		
081	" " "	"	"	3		"
082	Floor Tile, 12x12 beige	23	ab	1		19365/Hangar 72
083	" " " "	"	"	2		
084	" " " "	"	"	3		"
085	Roman Mastic	24	a	1		Stage 49A
086	" "	"	"	2		"
087	" "	"	"	3		"
088						
089						
090						

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: B233064
Date Received: 12/30/16
Date Analyzed: 01/09/17
Date Printed: 01/09/17
First Reported: 01/09/17

Job ID/Site: IR13164420.55; John Wayne Airport, SNA/GAIP, SouthCoast Hangars & Executive Hangars
FALI Job ID: 5629-10
Date(s) Collected: 12/27/2016

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
001_1_a	51034335						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
002_1_a	51034336						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
003_1_a	51034337						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
004_1_b	51034338						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
005_1_b	51034339						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
006_1_b	51034340						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
007_1_c	51034341						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
008_1_c	51034342						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
009_1_c	51034343						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
010_2_a	51034344						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
010_2_b	51034345						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
011_2_a	51034346						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
011_2_b	51034347						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
012_2_a	51034348						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
012_2_b	51034349						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
013_3_a	51034350						
Layer: Dark Brown Sheet Flooring			**ND**				
Layer: Fibrous Backing		Chrysotile	**70 %**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (25%)**					
013_3_b	51034351						
Layer: Tan Mastic with Debris		Chrysotile	**Trace**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
014_3_a	51034352						
Comment: Sample not analyzed due to prior positive result in series.							
014_3_b	51034353						
Layer: Tan Mastic with Debris		Chrysotile	**Trace**				
Total Composite Values of Fibrous Components: **Asbestos (Trace)** Cellulose (Trace)							
015_3_a	51034354						
Comment: Sample not analyzed due to prior positive result in series.							
015_3_b	51034355						
Layer: Tan Mastic with Debris		Chrysotile	**Trace**				
Total Composite Values of Fibrous Components: **Asbestos (Trace)** Cellulose (Trace)							
016_4_a	51034356						
Layer: Off-White Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)							
016_4_b	51034357						
Comment: Sample not analyzed. No Mastic detected.							
017_4_a	51034358						
Layer: Off-White Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)							
017_4_b	51034359						
Comment: Sample not analyzed. No Mastic detected.							
018_4_a	51034360						
Layer: Off-White Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)							
018_4_b	51034361						
Comment: Sample not analyzed. No Mastic detected.							
019_6_a	51034362						
Layer: Off-White Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
019_6_b	51034363						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064

Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
020_6_a	51034364						
Layer: Off-White Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
020_6_b	51034365						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
021_6_a	51034366						
Layer: Off-White Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
021_6_b	51034367						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
022_7_a	51034368						
Layer: White Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)		**Asbestos (ND)**					
022_7_b	51034369						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
023_7_a	51034370						
Layer: White Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)		**Asbestos (ND)**					
023_7_b	51034371						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
024_7_a	51034372						
Layer: White Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)		**Asbestos (ND)**					
024_7_b	51034373						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
025_8_a	51034374						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
025_8_b	51034375						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
026_8_a	51034376						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
026_8_b	51034377						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
027_8_a	51034378						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
027_8_b	51034379						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
028_9_a	51034380						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
029_9_a	51034381						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
030_9_a	51034382						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
031_9_b	51034383						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
032_9_b	51034384						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
033_9_b	51034385						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
034_9_c	51034386						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
035_9_c	51034387						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
036_9_c	51034388						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
037_10_a	51034389						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
038_10_a	51034390						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
039_10_a	51034391						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
040_10_b	51034392						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
041_10_b	51034393						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
042_10_b	51034394						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
043_10_c	51034395						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
044_10_c	51034396						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
045_10_c	51034397						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
046_11_a	51034398						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
046_11_b	51034399						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
047_11_a	51034400						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
047_11_b	51034401						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
048_11_a	51034402						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
048_11_b	51034403						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
049_12_a	51034404						
Layer: Tan Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
050_12_a	51034405						
Layer: Tan Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
051_12_a	51034406						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
052_12_b	51034407						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
053_12_b	51034408						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
054_12_b	51034409						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
055_12_c	51034410						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
056_12_c	51034411						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
057_12_c	51034412						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
058_13_a	51034413						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
058_13_b	51034414						
Layer: Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
059_13_a	51034415						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
059_13_b	51034416						
Layer: Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
060_13_a	51034417						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
060_13_b	51034418						
Layer: Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
061_14_a	51034419						
Layer: Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)		**Asbestos (ND)**					
061_14_b	51034420						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
062_14_a	51034421						
Layer: Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)		**Asbestos (ND)**					
062_14_b	51034422						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
063_14_a	51034423						
Layer: Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)		**Asbestos (ND)**					
063_14_b	51034424						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
064_15_a	51034425						
Layer: Brown Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
065_15_a	51034426						
Layer: Brown Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
066_15_a	51034427						
Layer: Brown Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
067_16_a	51034428						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
068_16_a	51034429						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
069_16_a	51034430						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
070_16_b	51034431						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
071_16_b	51034432						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
072_16_b	51034433						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
073_16_c	51034434						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
074_16_c	51034435						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
075_16_c	51034436						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
076_17_a	51034437						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
076_17_b	51034438						
Layer: Beige Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
077_17_a	51034439						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
077_17_b	51034440						
Layer: Beige Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
078_17_a	51034441						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
078_17_b	51034442						
Layer: Beige Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
079_20_a	51034443						
Layer: Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)							
079_20_b	51034444						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
080_20_a	51034445						
Layer: Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)							
080_20_b	51034446						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
081_20_a	51034447						
Layer: Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)							
081_20_b	51034448						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
082_21_a	51034449						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (3 %) Fibrous Glass (Trace)							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064

Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
083_21_a	51034450						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
084_21_a	51034451						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
085_21_b	51034452						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
086_21_b	51034453						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
087_21_b	51034454						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
088_21_c	51034455						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
089_21_c	51034456						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
090_21_c	51034457						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
091_22_a	51034458						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
091_22_b	51034459						
Layer: Clear Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
092_22_a	51034460						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
092_22_b	51034461						
Layer: Tan Mastic			**ND**				
Layer: Clear Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
093_22_a	51034462						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
093_22_b	51034463						
Layer: Clear Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
094_23_a	51034464						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
095_23_a	51034465						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
096_23_a	51034466						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
097_23_b	51034467						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064

Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
098_23_b	51034468						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
099_23_b	51034469						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
100_23_c	51034470						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
101_23_c	51034471						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
102_23_c	51034472						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
103_24_a	51034473						
Layer: Tan Sheet Flooring			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
103_24_b	51034474						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
104_24_a	51034475						
Layer: Tan Sheet Flooring			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
104_24_b	51034476						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
105_24_a	51034477						
Layer: Tan Sheet Flooring			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
105_24_b	51034478						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
106_25_a	51034479						
Layer: Beige Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)							
106_25_b	51034480						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
107_25_a	51034481						
Layer: Beige Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)							
107_25_b	51034482						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
108_25_a	51034483						
Layer: Beige Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)							
108_25_b	51034484						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
109_26_a	51034485						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
109_26_b	51034486						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
110_26_a	51034487						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064

Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
110_26_b	51034488						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
111_26_a	51034489						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
111_26_b	51034490						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
112_27_a	51034491						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
113_27_a	51034492						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
114_27_a	51034493						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
115_27_b	51034494						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
116_27_b	51034495						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
117_27_b	51034496						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
118_27_c	51034497						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
119_27_c	51034498						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
120_27_c	51034499						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
121_28_a	51034500						
Layer: Blue Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
121_28_b	51034501						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
122_28_a	51034502						
Layer: Blue Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
122_28_b	51034503						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
123_28_a	51034504						
Layer: Blue Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
123_28_b	51034505						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
124_29_a	51034506						
Layer: Off-White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
125_29_a	51034507						
Layer: Off-White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064
Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
126_29_a	51034508						
Layer: Off-White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
127_29_b	51034509						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
128_29_b	51034510						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
129_29_b	51034511						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
130_29_c	51034512						
Layer: Off-White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
131_29_c	51034513						
Layer: Off-White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
132_29_c	51034514						
Layer: Off-White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
133_30_a	51034515						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
133_30_b	51034516						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
134_30_a	51034517						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Client Name: Amec Foster Wheeler

Report Number: B233064
Date Printed: 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
134_30_b	51034518						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
135_30_a	51034519						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
135_30_b	51034520						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
136_31_a	51034521						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
136_31_b	51034522						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
137_31_a	51034523						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
137_31_b	51034524						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
138_31_a	51034525						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
138_31_b	51034526						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B233064

Client Name: Amec Foster Wheeler **Date Printed:** 01/09/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Analysis Request Form (COC)

Client Name & Address: Amec Foster Wheeler, 6001 Rickenbacker Rd., Los Angeles CA 90040	Client No.:
PO / Job#: IR13164420.55	Date: 12/30/16
Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day	
☐ PCM: ☐ NIOSH 7400A / ☐ NIOSH 7400B ☐ Rotometer	
☒ PLM: ☒ Standard / ☐ Point Count 400 - 1000 / ☐ CARB 435	
Contact: Don Harman	Phone: (818) 324-4391
☐ TEM Air: ☐ AHERA / ☐ Yamate2 / ☐ NIOSH 7402	
☐ TEM Bulk: ☐ Quantitative / ☐ Qualitative / ☐ Chatfield	
E-mail: don.harman@amecfw.com	☐ TEM Water: ☐ Potable / ☐ Non-Potable / ☐ Weight %
☐ TEM Microvac: ☐ Qual / ☐ D5755(str/area) / ☐ D5756(str/mass)	
Site Name: John Wayne Airport	☐ IAQ Particle Identification (PLM LAB) ☐ PLM Opaques/Soot
☐ Particle Identification (TEM LAB) ☐ Special Project	
Site Location: SNA/GAIP	☐ Metals Analysis Matrix: Method: Analytes:
Comments: **See attached COC** South Coast Hangars & Executive Hangars	☐ Silica in Air ☐ w/Gravimetry

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg LPM	Total Time	
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: DEH Date/Time: 12/27-30/16 Shipped Via: ☐ Fed Ex ☐ UPS ☐ US Mail ☐ Courier ☑ Drop Off ☐ Other:

Relinquished By: Don Harman	Relinquished By:	Relinquished By:
Date / Time: 12/30/16	Date / Time:	Date / Time:
Received By: Madonna	Received By:	Received By:
Date / Time: 12/30/16 1:30pm	Date / Time:	Date / Time:
Condition Acceptable? ☐ Yes ☐ No	Condition Acceptable? ☐ Yes ☐ No	Condition Acceptable? ☐ Yes ☐ No

Amec Foster Wheeler E&I

Asbestos Survey Form 04a - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	**SNA/GAIP**
Building Number	South Coast Hangar
Collection Date	12/27/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Hangar / Rm Room No.
001	Dry wall	1	a	1		6/2
002	"	"	"	2		6/2
003	"	"	"	3		6/3
004	Joint Compound	"	b	1		6/2
005	"	"	"	2		"
006	"	"	"	3		"
007	Wall Texture	"	c	1		"
008	"	"	"	2		"
009	"	"	"	3		"
010	Cove Base black.	2	ab	1		"
011	"	"	"	2		"
012	"	"	"	3		"
013	Sheet vinyl, brn Terazo	3	ab	1		6/4

Analysis Requested	PLM
Turnaround Time	One Week

Transmitted From:

AMEC E&I
6001 Rickenbacker Rd., Los Angeles CA 90040
Phone 323.889.5300

Transmitted To:

☑ **Forensic Analytical**
Rancho Dominguez

PO # _____

☐ _____

Analyze to 1st Positve x

Sender's Signature: Don E Haman

Recipient's Signature: Madams 12/30/16 1:51 pm

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	SNA/GAIP
Building Number	South Coast Hangar
Collection Date	12/27/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
014	Sheet Vinyl, brn, Terrazo	3	ab	2		1/44
015	↓ ↓ ↓ ↓	↓	↓	3		1/44
016	white	4	ab	1		6/5
017		↓	↓	2		↓
018	↓ ↓ ↓	↓	↓	3		↓
019	Cove Base, white	6	ab	1		
020	↓ ↓ ↓	↓	↓	2		
021		↓	↓	3		↓
022	Sheet Vinyl, 9x9 pattern white	7	ab	1		~~X~~/7
023	↓ ↓ ↓ ↓	↓	↓	2		↓
024		↓	↓	3		
025	Cove Base black	8	ab	1		7/6
026	↓ ↓ ↓	↓	↓	2		↓
027		↓	↓	3		↓
028	Dry Wall	~~9~~	a	1		7/9
029	↓ ↓	↓	↓	2		↓
030		↓	↓	3		↓
031	Joint Compound	↓	b	1		↓
032	↓ ↓	↓	↓	2		↓
033		↓	↓	3		↓
034	Wall Texture	↓	c	1		7/9

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	8/27/16
Site Name	SNA/GAIP	Submission Date	
Building Number	South Coast Hangar		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
035	Wall Texture	9	c	2		7/9
036	↓ ↓	↓	↓	3		↓
037	Dry Wall	10	a	1		8/11
038	↓ ↓	↓	↓	2		↓
039	↓ ↓	↓	↓	3		↓
040	Joint Compound	↓	b	1		↓
041	↓ ↓	↓	↓	2		↓
042	↓ ↓	↓	↓	3		↓
043	Wall Texture	↓	c	1		↓
044	↓ ↓	↓	↓	2		↓
045	↓ ↓	↓	↓	3		↓
046	Cove Base, brn	11	ab	1		8/10
047	↓ ↓ ↓	↓	↓	2		↓
048	↓ ↓ ↓	↓	↓	3		↓
049	Dry Wall	12	a	1		9/15
050	↓ ↓	↓	↓	2		↓
051	↓ ↓	↓	↓	3		↓
052	Joint Compound	↓	b	1		9/17
053	↓ ↓	↓	↓	2		↓
054	↓ ↓	↓	↓	3		↓
055	Wall Texture	↓	c	1		↓

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	2/27/16
Site Name	SNA/GAIP	Submission Date	
Building Number	South Coast Hangar		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
056	Wall Texture	12	c	2		9/17
057	↓ ↓	↓	↓	3		↓
058	Cove Base, brown	13	ab	1		9/14
059	↓ ↓ ↓	↓	↓	2		↓
060	↓ ↓ ↓	↓	↓	3		↓
061	Sheet Vinyl, lt. gr	14	ab	1		9/17
062	↓ ↓ ↓	↓	↓	2		↓
063	↓ ↓ ↓	↓	d	3		↓
064	Roment Mastic	15	a	1		9/16
065	↓ ↓	↓	↓	2		↓
066	↓ ↓	↓	↓	3		↓
067	Drywall	16	a	1		5,10/22
068	↓	↓	↓	2		↓
069	↓	↓	↓	3		5,10/19
070	Joint Compound	↓	b	1		5/10/22
071	↓ ↓	↓	↓	2		5/10/20
072	↓ ↓	↓	↓	3		5,10/20
073	Wall Texture	↓	c	1		5,10/19
074	↓ ↓	↓	↓	2		↓
075	↓ ↓	↓	↓	3		↓
076	Cove Base 6" black	17	ab	1		5,10/22

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	SNA/GAIP
Building Number	South Coast Hangar
Collection Date	12/27/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
077	Cove Base 6" black	17	ab	2		5,10/22
078	" " "	"	"	3		" "
079	Sheet Vinyl, gray terrazo	20	ab	1		5,10/21
080	" " " "	"	"	2		"
081	" " " "	"	"	3		"
082	Dry wall	21	a	1		4/27
083	" "	"	"	2		"
084	" "	"	"	3		"
085	Joint Compound	"	b	1		"
086	" "	"	"	2		"
087	" "	"	"	3		"
088	Wall Texture	"	c	1		"
089	" "	"	"	2		"
090	" "	"	"	3		"
091	Cove Base black	22	ab	1		"
092	" " "	"	"	2		"
093	" " "	"	"	3		"
094	Dry wall	23	a	1		3/31
095	" "	"	"	2		"
096	" "	"	"	3		"
097	Joint Compound	"	b	1		3/33

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	SNA/GAIP
Building Number	South Coast Hangar
Collection Date	12/27/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
098	Joint Compound	23	b	2		3/33
099	↓ ↓	↓	↓	3		↓
100	Wall Texture		c	1		
101	↓ ↓		↓	2		
102	↓ ↓	↓	↓	3		↓
103	Sheet Vinyl, brown, mosiac pattern	24	ab	1		3/33
104	↓ ↓	↓	↓	2		↓
105	↓ ↓	↓	↓	3		
106	, beige, triangle pattern	25	ab	1		3/36
107	↓ ↓	↓	↓	2		↓
108	↓ ↓	↓	↓	3		
109	Cove base, black	26	ab	1		3/31
110	↓ ↓	↓	↓	2		↓
111	↓ ↓	↓	↓	3		
112	Dry wall	27	a	1		2/37
113	↓ ↓	↓	↓	2		↓
114	↓ ↓	↓	↓	3		
115	Joint Compound		b	1		3/38
116	↓ ↓	↓	↓	2		↓
117	↓ ↓	↓	↓	3		
118	Wall Texture	↓	c	1		↓

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/27/16
Site Name	SNA/GAIP	Submission Date	
Building Number	South Coast Hangar		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
119	Wall Texture	27	c	2		3/38
120	" "	"	"	3		"
121	Cove Base, blue	28	ab	1		
122	" " "	"	"	2		
123	" " "	"	"	3		
124	Dry Wall	29	a	1		1/42
125	" "		"	2		"
126	" "		"	3		"
127	Joint Compound		b	1		1/44
128	" "		"	2		"
129	" "		"	3		"
130	Wall Texture		c	1		"
131	" "		"	2		"
132	" "		"	3		"
133	Cove Base bl.	30	ab	1		1/42
134	" " "	"	"	2		"
135	" " "	"	"	3		"
136	" " " brown	31	"	1		1/41
137	" " "	"	"	2		"
138	" " "	"	"	3		"
~~139~~						

Forensic Analytical LABORATORIES

Metals Analysis of Paints

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: M180405
Date Received: 01/04/17
Date Analyzed: 01/11/17
Date Printed: 01/11/17
First Reported: 01/11/17

Job ID / Site: IR13164420.55; John Wayne Airport, SNA/GAIP
Date(s) Collected: 01/03/17

FALI Job ID: 5629-10
Total Samples Submitted: 18
Total Samples Analyzed: 18

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference
001	LM135564	Pb	0.18	wt%	0.02	EPA 3050B/7000B
002	LM135565	Pb	< 0.006	wt%	0.006	EPA 3050B/7000B
003	LM135566	Pb	0.016	wt%	0.006	EPA 3050B/7000B
004	LM135567	Pb	0.0085	wt%	0.0007	EPA 3050B/7000B
005	LM135568	Pb	0.73	wt%	0.03	EPA 3050B/7000B
006	LM135569	Pb	0.62	wt%	0.03	EPA 3050B/7000B
007	LM135570	Pb	0.57	wt%	0.03	EPA 3050B/7000B
008	LM135571	Pb	1.3	wt%	0.06	EPA 3050B/7000B
009	LM135572	Pb	0.95	wt%	0.06	EPA 3050B/7000B
010	LM135573	Pb	1.2	wt%	0.06	EPA 3050B/7000B
011	LM135574	Pb	0.89	wt%	0.06	EPA 3050B/7000B
012	LM135575	Pb	0.11	wt%	0.007	EPA 3050B/7000B
013	LM135576	Pb	0.62	wt%	0.04	EPA 3050B/7000B
014	LM135577	Pb	0.85	wt%	0.06	EPA 3050B/7000B
015	LM135578	Pb	0.008	wt%	0.006	EPA 3050B/7000B
016	LM135579	Pb	0.098	wt%	0.006	EPA 3050B/7000B
017	LM135580	Pb	1.0	wt%	0.06	EPA 3050B/7000B
018	LM135581	Pb	0.016	wt%	0.006	EPA 3050B/7000B

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Metals Analysis of Paints

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: M180405
Date Received: 01/04/17
Date Analyzed: 01/11/17
Date Printed: 01/11/17
First Reported: 01/11/17

Job ID / Site: IR13164420.55; John Wayne Airport, SNA/GAIP
Date(s) Collected: 01/03/17

FALI Job ID: 5629-10
Total Samples Submitted: 18
Total Samples Analyzed: 18

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference

* The Reporting Limit represents the lowest amount of analyte that the laboratory can confidently detect in the sample, and is not a regulatory level. The Units for the Reporting Limit are the same as the Units for the Final Results.

Beatriz Hinojosa, Laboratory Supervisor, Rancho Dominguez Laboratory

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Analysis Request Form (COC)

Client Name & Address: Amec Foster Wheeler 6001 Rickenbacker Rd. Los Angeles CA 90040	Client No.:
PO / Job#: IR13164420.55	Date: 1/3/17
Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day	
☐ PCM: ☐ NIOSH 7400A / ☐ NIOSH 7400B ☐ Rotometer	
☐ PLM: ☐ Standard / ☐ Point Count 400 - 1000 / ☐ CARB 435	
Contact: Don Harman	Phone: (818) 324-4391
☐ TEM Air: ☐ AHERA / ☐ Yamate2 / ☐ NIOSH 7402 ☐ TEM Bulk: ☐ Quantitative / ☐ Qualitative / ☐ Chatfield ☐ TEM Water: ☐ Potable / ☐ Non-Potable / ☐ Weight % ☐ TEM Microvac: ☐ Qual / ☐ D5755(str/area) / ☐ D5756(str/mass)	
E-mail: don.harman@amecfw.com	
Site Name: John Wayne Airport	☐ IAQ Particle Identification (PLM LAB) ☐ PLM Opaques/Soot ☐ Particle Identification (TEM LAB) ☐ Special Project
Site Location: SNA/GAIP	☒ Metals Analysis Matrix: Paint Method: AA Analytes: Lead in paint or ceramic glaze
Comments: See attached COC 18 samples	☐ Silica in Air ☐ w/Gravimetry

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg LPM	Total Time	
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: DH Date/Time: Shipped Via: ☒ Fed Ex ☐ UPS ☐ US Mail ☐ Courier ☐ Drop Off ☐ Other:

Relinquished By: Don Harman Date / Time: 1/3/17 PM	Relinquished By: Date / Time:	Relinquished By: Date / Time:
Received By: [signature] FE Date / Time: 01/04/17 10:30 Condition Acceptable? ☒ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No

PROJECT NO. IR13-IC4420.55
PROJECT JW Airport
SURVEYOR(S) DEH & IC
DATE 1/13/17

AREA # | AREA NAME / DESCRIPTION | AREA # | AREA NAME / DESCRIPTION

UNIT CODES
1 LF
2 SF
3 SY
4 CI
5 EACH

PERCENTAGES
PAINT | WATER | DUST | OTHER | Q.A.

P - POSITIVE
N - NEGATIVE

SAMPLE #	BLDG / FLOOR	AREA USE	COMP CODE	MATERIAL DESCRIPTION / COLOR	ESTIMATED QUANTITY	UNIT	Result
001				Signature 2A (44 bays) Exterior Frame, beige	837		0.05
002				Stg W A 2 Ext wall	1002		0.50
003				Signature R/R wall & Ceiling, beige	842		0.40
004				Signature R/R ornate title beige L02	847		7.2
005				Atlantic NP2 gray	1289		0.21
006				Atlantic NP1 Door 27 white/cream	1193		0.60
007				Atlantic NP4 East wall white, 1st fl lobby/47, NP4	1615		0.70
008				Atlantic, stair stringer, NP4 white, 1st fl. lobby/47	1622		2.2
009				Atlantic Door white NP4 1st fl lobby Womens R/R/46	1641		1.0
010				Atlantic, NP4, R/R door 2nd fl. lobby. 22 or 23	1451		0.50

01 WATER
02 DUST
03 DOOR, HEADER
04 DOOR, JAM
05 DOOR, CASING
06 STAIR, TREADS
07 STAIR, RISERS
08 STAIR, STRINGER
09 BALUSTER
10 RAILING CAP
11 NEWEL POST
12 WINDOW, HEADER
13 WINDOW, CASING
14 WINDOW, SILL
15 WINDOW, SASH
16 WINDOW, STOPS
17 MULLIONS
18 APRON
19 WINDOW GRATE
20 DOOR GRATE

21 BASEBOARD
22 WALLS
23 WALLS, LOWER
24 WALLS, UPPER
25 CHAIR RAIL
26 DOOR, EXTERIOR
27 EXTERIOR, DOOR CASING
28 EXTERIOR, WINDOW CASING
29 EXTERIOR, WINDOW MULLIONS
30 EXTERIOR, WINDOW SILL
31 THRESHOLD
32 DRIPBORAD
33 LOWER TRIM
34 UPPER TRIM
35 CORNERBOARD
36 SIDING
37 CELLAR WINDOW UNIT
38 _____
39 _____
40 _____

41 FLOOR
42 LOWER RAILING
43 BALUSTER
44 RAILING CAPS
45 SUPPORT COLUMN
46 JOIST
47 UPPER TRIM
48 CEILING
49 RADIATOR
50
51
52
53
54
55
56
57
58
59
60

61
62
63
64
65
66
67
68
69
70
71
72
73

AREA USAGE CODE
1 VOID /CHASE/ CAVITY
2 MECHANICAL
3 STORAGE
4 OCCASIONAL
5 CONTINUOUS

PEELING CODE	SUBSTRATE CODE	CHEWABLE SURFACE	CONTACT CODE	CODE
1 PEELING	1 WOOD	1 YES	1 LOW	1 _____
2 NOT PEELING	2 METAL	2 NO	2 MODERATE	2 _____
3 UNDAMAGED	1 MASONRY		3 HIGH	3 _____
4 CHIPPED	4 DRYWALL			
5 CHALKING	5 PLASTER			

PROJECT NO. 1R 1316 4420.55
PROJECT Jw Airport
SURVEYOR(S) DE/71/SIC
DATE 1/3/17

AREA #	AREA NAME / DESCRIPTION	AREA #	AREA NAME / DESCRIPTION

UNIT CODES: 1 LF, 2 SF, 3 SY, 4 CI, 5 EACH

P - POSITIVE
N - NEGATIVE

PERCENTAGES: PAINT, WATER, DUST, OTHER, Q.A.

SAMPLE #	BLDG / FLOOR		AREA USE	COM'T CODE	MATERIAL DESCRIPTION/COLOR	ESTIMATED QUANTITY		P/N	PAINT	WATER	DUST	OTHER	Q.A.
011					Atlantic, Southwall, NP2 2nd fl lobby / 21	1430	0.70						
12					Atlantic, NP2, ext door, blue 18/36	1547	0.50						
13					Atlantic, NP4, int door white 18/36	1546	0.70						
014					Atlantic, NP 4, door white 7/62	1708	0.70						
15					County Hangar, 19471 [2] column, red shot 2010	2010	0.0						
016					Executive Hangar #8, frame gr 0.17 mg/cm2	2292	0.17						
017					Executive Hangar #6?, floor gr.	2442	0.30						
018					Executive Hangar #6?, peeling on fl., beige	2442	0.30						
						1							

01 WATER
02 DUST
03 DOOR, HEADER
04 DOOR, JAM
05 DOOR, CASING
06 STAIR, TREADS
07 STAIR, RISERS
08 STAIR, STRINGER
09 BALUSTER
10 RAILING CAP
11 NEWEL POST
12 WINDOW, HEADER
13 WINDOW, CASING
14 WINDOW, SILL
15 WINDOW, SASH
16 WINDOW, STOPS
17 MULLIONS
18 APRON
19 WINDOW GRATE
20 DOOR GRATE

21 BASEBOARD
22 WALLS
23 WALLS, LOWER
24 WALLS, UPPER
25 CHAIR RAIL
26 DOOR, EXTERIOR
27 EXTERIOR, DOOR CASING
28 EXTERIOR, WINDOW CASING
29 EXTERIOR, WINDOW MULLIONS
30 EXTERIOR, WINDOW SILL
31 THRESHOLD
32 DRIPBORAD
33 LOWER TRIM
34 UPPER TRIM
35 CORNERBOARD
36 SIDING
37 CELLAR WINDOW UNIT
38 ______
39 ______
40 ______

41 FLOOR
42 LOWER RAILING
43 BALUSTER
44 RAILING CAPS
45 SUPPORT COLUMN
46 JOIST
47 UPPER TRIM
48 CEILING
49 RADIATOR
50
51
52
53
54
55
56
57
58
59
60

61
62
63
64
65
66
67
68
69
70
71
72
73

AREA USAGE CODE
1 VOID /CHASE/ CAVITY
2 MECHANICAL
3 STORAGE
4 OCCASIONAL
5 CONTINUOUS

PEELING CODE
1 PEELING
2 NOT PEELING
3 UNDAMAGED
4 CHIPPED
5 CHAULKING

SUBSTRATE CODE
1 WOOD
2 METAL
3 MASONRY
4 DRYWALL
5 PLASTER

CHEWABLE SURFACE
1 YES
2 NO

CONTACT CODE
1 LOW
2 MODERATE
3 HIGH

CODE
1 ______
2 ______
3 ______

Forensic Analytical LABORATORIES

Amended Report

Bulk Asbestos Material Analysis

(EPA Method 600/R-93/116, Point Count Analysis)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: N009115
Date Received: 02/15/17
Date Analyzed: 02/23/17
Date Printed: 02/24/17

Job ID/Site: IR13164420.55; JWA, Hangars

FALI Job ID: 5629-10
Total Samples Submitted: 21
Total Samples Analyzed: 13

PLM Report Number: N/A

Sample Preparation and Analysis:

Each sample was prepared using the gravimetric technique. A representative subsample was weighed, ashed for eight hours, and reweighed to determine the proportion of the organic component. The ashed residue was ground in concentrated hydrochloric acid, dried and reweighed to determine the acid-soluble component weight percentage. The residual material was analyzed for asbestos using polarized light microscopy. Asbestos quantitation was performed using the semi-quantitative Point Count method following the general guidelines in EPA Method 600/R-93/116. The analytical sensitivity for the method is calculated as the asbestos concentration that results from one point counted in the analysis adjusted using the residual weight of the sample. The limit of detection for this method has not been determined.

Sample ID	Lab Number	Sample Description

301_6_b 51043413 **Brown Mastic**

Point Count Results:

Number of asbestos points counted:	0	Organic weight percentage:	53.91
Number of non-empty points:	1000	Acid-soluble weight percentage	0.44
Percent asbestos in layer:	**< 0.05**	Residual weight percentage:	45.65
Analytical sensitivity (%):	0.05		
Asbestos type(s) detected:	Anthophyllite		

Comment: Asbestos was detected but no points were counted due to counting criteria.

302_6_b 51043414 **Brown Mastic**

Point Count Results:

Number of asbestos points counted:	0	Organic weight percentage:	54.11
Number of non-empty points:	1000	Acid-soluble weight percentage	0.78
Percent asbestos in layer:	**< 0.05**	Residual weight percentage:	45.11
Analytical sensitivity (%):	0.05		
Asbestos type(s) detected:	Chrysotile, Anthophyllite		

Comment: Asbestos was detected but no points were counted due to counting criteria.

303_6_b 51043415 **Brown Mastic**

Point Count Results:

Number of asbestos points counted:	0	Organic weight percentage:	54.67
Number of non-empty points:	1000	Acid-soluble weight percentage	0.65
Percent asbestos in layer:	**< 0.04**	Residual weight percentage:	44.68
Analytical sensitivity (%):	0.04		
Asbestos type(s) detected:	Anthophyllite		

Comment: Asbestos was detected but no points were counted due to counting criteria.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Amended Report

Bulk Asbestos Material Analysis

(EPA Method 600/R-93/116, Point Count Analysis)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: N009115
Date Received: 02/15/17
Date Analyzed: 02/23/17
Date Printed: 02/24/17

Job ID/Site: IR13164420.55; JWA, Hangars

FALI Job ID: 5629-10
Total Samples Submitted: 21
Total Samples Analyzed: 13

PLM Report Number: N/A

Sample Preparation and Analysis:

Each sample was prepared using the gravimetric technique. A representative subsample was weighed, ashed for eight hours, and reweighed to determine the proportion of the organic component. The ashed residue was ground in concentrated hydrochloric acid, dried and reweighed to determine the acid-soluble component weight percentage. The residual material was analyzed for asbestos using polarized light microscopy. Asbestos quantitation was performed using the semi-quantitative Point Count method following the general guidelines in EPA Method 600/R-93/116. The analytical sensitivity for the method is calculated as the asbestos concentration that results from one point counted in the analysis adjusted using the residual weight of the sample. The limit of detection for this method has not been determined.

Sample ID	Lab Number	Sample Description

304_4_b 51043416 **Brown Mastic**

Point Count Results:

Number of asbestos points counted:	0	Organic weight percentage:	54.91
Number of non-empty points:	1000	Acid-soluble weight percentage	2.48
Percent asbestos in layer:	**< 0.04**	Residual weight percentage:	42.61
Analytical sensitivity (%):	0.04		
Asbestos type(s) detected:	Anthophyllite		

Comment: Composite of samples 304, 305 and 306. Asbestos was detected but no points were counted due to counting criteria.

307_32_b 51043419 **White Skimcoat/Joint Compound**

Point Count Results:

Number of asbestos points counted:	3	Organic weight percentage:	7.66
Number of non-empty points:	1000	Acid-soluble weight percentage	43.92
Percent asbestos in layer:	**0.15**	Residual weight percentage:	48.42
Analytical sensitivity (%):	0.05		
Asbestos type(s) detected:	Chrysotile		

Comment:

308_38_b 51043420 **White Skimcoat/Joint Compound**

Comment: Sample not analyzed. White Skimcoat/Joint Compound non-detected for asbestos.

309_38_b 51043421 **White Skimcoat/Joint Compound**

Comment: Sample not analyzed. White Skimcoat/Joint Compound non-detected for asbestos.

310_47_b 51043422 **White Skimcoat/Joint Compound**

Comment: Sample not analyzed. White Skimcoat/Joint Compound non-detected for asbestos.

311_47_b 51043423 **White Skimcoat/Joint Compound**

Comment: Sample not analyzed. White Skimcoat/Joint Compound non-detected for asbestos.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Amended Report

Bulk Asbestos Material Analysis

(EPA Method 600/R-93/116, Point Count Analysis)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: N009115
Date Received: 02/15/17
Date Analyzed: 02/23/17
Date Printed: 02/24/17

Job ID/Site: IR13164420.55; JWA, Hangars

FALI Job ID: 5629-10
Total Samples Submitted: 21
Total Samples Analyzed: 13

PLM Report Number: N/A

Sample Preparation and Analysis:

Each sample was prepared using the gravimetric technique. A representative subsample was weighed, ashed for eight hours, and reweighed to determine the proportion of the organic component. The ashed residue was ground in concentrated hydrochloric acid, dried and reweighed to determine the acid-soluble component weight percentage. The residual material was analyzed for asbestos using polarized light microscopy. Asbestos quantitation was performed using the semi-quantitative Point Count method following the general guidelines in EPA Method 600/R-93/116. The analytical sensitivity for the method is calculated as the asbestos concentration that results from one point counted in the analysis adjusted using the residual weight of the sample. The limit of detection for this method has not been determined.

Sample ID	Lab Number	Sample Description
312_8_a	51043424	**White Plaster**

Point Count Results:

Number of asbestos points counted:	0	Organic weight percentage:	5.09
Number of non-empty points:	1000	Acid-soluble weight percentage	34.95
Percent asbestos in layer:	**< 0.06**	Residual weight percentage:	59.96
Analytical sensitivity (%):	0.06		
Asbestos type(s) detected:	Chrysotile		

Comment: Asbestos was detected but no points were counted due to counting criteria.

313_11_b	51043426	**Brown Mastic**

Point Count Results:

Number of asbestos points counted:	2	Organic weight percentage:	48.20
Number of non-empty points:	1000	Acid-soluble weight percentage	0.66
Percent asbestos in layer:	**0.10**	Residual weight percentage:	51.14
Analytical sensitivity (%):	0.05		
Asbestos type(s) detected:	Chrysotile		

Comment:

314_11_b	51043428	**Brown Mastic**

Point Count Results:

Number of asbestos points counted:	2	Organic weight percentage:	48.28
Number of non-empty points:	1000	Acid-soluble weight percentage	0.10
Percent asbestos in layer:	**0.10**	Residual weight percentage:	51.62
Analytical sensitivity (%):	0.05		
Asbestos type(s) detected:	Chrysotile		

Comment:

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Amended Report

Bulk Asbestos Material Analysis

(EPA Method 600/R-93/116, Point Count Analysis)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: N009115
Date Received: 02/15/17
Date Analyzed: 02/23/17
Date Printed: 02/24/17

Job ID/Site: IR13164420.55; JWA, Hangars

PLM Report Number: N/A

FALI Job ID: 5629-10
Total Samples Submitted: 21
Total Samples Analyzed: 13

Sample Preparation and Analysis:

Each sample was prepared using the gravimetric technique. A representative subsample was weighed, ashed for eight hours, and reweighed to determine the proportion of the organic component. The ashed residue was ground in concentrated hydrochloric acid, dried and reweighed to determine the acid-soluble component weight percentage. The residual material was analyzed for asbestos using polarized light microscopy. Asbestos quantitation was performed using the semi-quantitative Point Count method following the general guidelines in EPA Method 600/R-93/116. The analytical sensitivity for the method is calculated as the asbestos concentration that results from one point counted in the analysis adjusted using the residual weight of the sample. The limit of detection for this method has not been determined.

Sample ID	Lab Number	Sample Description
315_52_a	51043429	**Beige Cementitious Material**

Point Count Results:

Number of asbestos points counted:	0	Organic weight percentage:	6.03
Number of non-empty points:	1000	Acid-soluble weight percentage	26.81
Percent asbestos in layer:	**< 0.07**	Residual weight percentage:	67.16
Analytical sensitivity (%):	0.07		
Asbestos type(s) detected:	Chrysotile		

Comment: Asbestos was detected but no points were counted due to counting criteria.

316_52_a	51043430	**Beige Cementitious Material**

Point Count Results:

Number of asbestos points counted:	0	Organic weight percentage:	7.50
Number of non-empty points:	1000	Acid-soluble weight percentage	30.77
Percent asbestos in layer:	**< 0.06**	Residual weight percentage:	61.73
Analytical sensitivity (%):	0.06		
Asbestos type(s) detected:	Chrysotile		

Comment: Asbestos was detected but no points were counted due to counting criteria.

317_52_a	51043431	**Beige Cementitious Material**

Point Count Results:

Number of asbestos points counted:	0	Organic weight percentage:	5.32
Number of non-empty points:	1000	Acid-soluble weight percentage	27.04
Percent asbestos in layer:	**< 0.07**	Residual weight percentage:	67.64
Analytical sensitivity (%):	0.07		
Asbestos type(s) detected:	Chrysotile		

Comment: Asbestos was detected but no points were counted due to counting criteria.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Amended Report

Bulk Asbestos Material Analysis

(EPA Method 600/R-93/116, Point Count Analysis)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: N009115
Date Received: 02/15/17
Date Analyzed: 02/23/17
Date Printed: 02/24/17

Job ID/Site: IR13164420.55; JWA, Hangars

PLM Report Number: N/A

FALI Job ID: 5629-10
Total Samples Submitted: 21
Total Samples Analyzed: 13

Sample Preparation and Analysis:

Each sample was prepared using the gravimetric technique. A representative subsample was weighed, ashed for eight hours, and reweighed to determine the proportion of the organic component. The ashed residue was ground in concentrated hydrochloric acid, dried and reweighed to determine the acid-soluble component weight percentage. The residual material was analyzed for asbestos using polarized light microscopy. Asbestos quantitation was performed using the semi-quantitative Point Count method following the general guidelines in EPA Method 600/R-93/116. The analytical sensitivity for the method is calculated as the asbestos concentration that results from one point counted in the analysis adjusted using the residual weight of the sample. The limit of detection for this method has not been determined.

Sample ID	Lab Number	Sample Description
318_52_a	51043432	**Off-White Cementitious Material**

Point Count Results:

Number of asbestos points counted:	1	Organic weight percentage:	5.25
Number of non-empty points:	1000	Acid-soluble weight percentage	33.59
Percent asbestos in layer:	**0.06**	Residual weight percentage:	61.16
Analytical sensitivity (%):	0.06		
Asbestos type(s) detected:	Chrysotile		

Comment:

Sample ID	Lab Number	Sample Description
319_52_a	51043433	**Beige Cementitious Material**

Point Count Results:

Number of asbestos points counted:	0	Organic weight percentage:	4.83
Number of non-empty points:	1000	Acid-soluble weight percentage	27.19
Percent asbestos in layer:	**< 0.07**	Residual weight percentage:	67.99
Analytical sensitivity (%):	0.07		
Asbestos type(s) detected:	Chrysotile		

Comment: Asbestos was detected but no points were counted due to counting criteria.

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Analysis Request Form (COC)

Client Name & Address: Amec Foster Wheeler, 6001 Rickenbacker, LA CA 90040

Client No.:

PO / Job#: 1R13164420.55

Date: 2/15/17

Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / (5Day)

☐ PCM: ☐ NIOSH 7400A / ☐ NIOSH 7400B ☐ Rotometer

☐ PLM: ☐ Standard / ☒ Point Count 400 - (1000) / ☐ CARB 435

Contact: Dan Harman

Phone: 323 8895378

E-mail: dan.harman@amecfw.com

☐ TEM Air: ☐ AHERA / ☐ Yamate2 / ☐ NIOSH 7402
☐ TEM Bulk: ☐ Quantitative / ☐ Qualitative / ☐ Chatfield
☐ TEM Water: ☐ Potable / ☐ Non-Potable / ☐ Weight %
☐ TEM Microvac: ☐ Qual / ☐ D5755(str/area) / ☐ D5756(str/mass)

Site Name: JWA.

☐ IAQ Particle Identification (PLM LAB) ☐ PLM Opaques/Soot
☐ Particle Identification (TEM LAB) ☐ Special Project

Site Location: Hangars

☐ Metals Analysis Matrix: Method: Analytes:

Comments:

☐ Silica in Air ☐ w/Gravimetry
☐ Quartz Only

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY: Type	Time On/Off	Avg LPM	Total Time	Sample Area / Air Volume
See attached.			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: DEH Date/Time: 2/15

Shipped Via: ☐ Fed Ex ☐ UPS ☐ US Mail ☐ Courier ☒ Drop Off ☐ Other:

Relinquished By:	Relinquished By:	Relinquished By:
Dan Elkan		
Date / Time: 2/15/17	Date / Time:	Date / Time:
Received By: Carlos D/O	Received By:	Received By:
Date / Time: 02/15/17 11:57	Date / Time:	Date / Time:
Condition Acceptable? ☒ Yes ☐ No	Condition Acceptable? ☐ Yes ☐ No	Condition Acceptable? ☐ Yes ☐ No

Amec Foster Wheeler E&I

Asbestos Survey Form 04a - Bulk Sampling Log

Project Number	1R13164420.55	Collection Date	2/15/17
Site Name	Executive Hangar 19341, NP 234	Submission Date	2/15/17
Building Number			

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
301	CB mastic on b/ CB, brn (25)	6	b	1	Exec	
302	↓ (26)	↓	↓	2	↓	
303	↓ (27)	↓	↓	3	↓	
304	↓ beige beige/brn (19)	4	b	1	↓	
305	↓ (20)	↓	↓	2	↓	
306	↓ (21)	↓	↓	3	↓	
307	Joint compound wh (158)	32	b	1	NP4	16/29
308	↓ (186)	38	b	1	↓	18/35
309	↓ (188)	38	b	2	↓	18/35
310	↓ (228)	47	b	1	↓	20/45
311	↓ (229)	47	b	2	↓	20/45
312	Plaster (052)	8	a	1	NP2	111
313	CB brown (072	11	ab	1	↓	111

Analysis Requested: PLM by 1000 point

Turnaround Time: One Week

Transmitted From:

AMEC E&I
6001 Rickenbacker Rd., Los Angeles CA 90040
Phone 323.889.5300

Transmitted To:

☐ FAL
CA

PO # ______

☐ ______

Analyze to 1st Positve

Sender's Signature: [signature]

Recipient's Signature: [signature] 02/15/17 11:57am

Form Page 1 *of* 2
Sheet Count 2

Asbestos Survey Form 04a - Bulk Sampling Log v3   *Total Number of Samples Collected in Building:* 19

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	1R13164420.55	Collection Date	2/15/17
Site Name	JWA	Submission Date	
Building Number			

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
314	CMU from (072)	11	ab	2	NP2	III
315	Stucco (246)	52	a	1	NP4	SW
316	(248)			2		SE
317	(250)			3		S. Stairwell
318	(251)			4		N. Stairwell
319	(247			5		W central

APPENDIX C

CDPH Form 8552

State of California—Health and Human Services Agency

California Department of Public Health

LEAD HAZARD EVALUATION REPORT

Section 1 — Date of Lead Hazard Evaluation December 14, 2016

Section 2 — Type of Lead Hazard Evaluation (Check one box only)

☑ Lead Inspection ☐ Risk assessment ☐ Clearance Inspection ☐ Other (specify)

Section 3 — Structure Where Lead Hazard Evaluation Was Conducted

Address [number, street, apartment (if applicable)]	City	County	Zip Code
19341 Campus Drive	Santa Ana	Orange	92707

Construction date (year) of structure	Type of structure	Children living in structure?
1950	☐ Multi-unit building ☐ School or daycare ☐ Single family dwelling ☑ Other Hangar	☐ Yes ☑ No ☐ Don't Know

Section 4 — Owner of Structure (if business/agency, list contact person)

Name	Telephone number
John Wayne Airport, Orange County: Melinda McCoy	949-252-5267

Address [number, street, apartment (if applicable)]	City	State	Zip Code
3160 Airway Ave.	Costa Mesa	CA	92626

Section 5 — Results of Lead Hazard Evaluation (check all that apply)

☐ No lead-based paint detected ☑ Intact lead-based paint detected ☐ Deteriorated lead-based paint detected

☐ No lead hazards detected ☐ Lead-contaminated dust found ☐ Lead-contaminated soil found ☐ Other

Section 6 — Individual Conducting Lead Hazard Evaluation

Name	Telephone number
Don Harman	323-889-500

Address [number, street, apartment (if applicable)]	City	State	Zip Code
60001 Rickenbacker Rd.	Los Angeles	CA	90040

CDPH certification number	Signature	Date
10236	Don E Harman	March 9, 2017

Name and CDPH certification number of any other individuals conducting sampling or testing (if applicable)

Section 7 — Attachments

A. A foundation diagram or sketch of the structure indicating the specifc locations of each lead hazard or presence of lead-based paint;
B. Each testing method, device, and sampling procedure used;
C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector

Second copy and attachments retained by owner

Third copy only (no attachments) mailed or faxed to:

California Department of Public Health
Childhood Lead Poisoning Prevention Branch Reports
850 Marina Bay Parkway, Building P, Third Floor
Richmond, CA 94804-6403
Fax: (510) 620-5656

APPENDIX F-4

HAZARDOUS MATERIALS SURVEY REPORT – SIGNATURE FLIGHT SUPPORT

HAZARDOUS MATERIALS SURVEY REPORT

Signature Flight Support

361 Paularino Avenue

General Aviation Improvement Program Project

John Wayne Airport

Costa Mesa, California

Prepared for:

John Wayne Airport
3160 Airway Avenue
Costa Mesa, California 92626

Prepared by:

Amec Foster Wheeler Environment & Infrastructure, Inc.
121 Innovation Drive, Suite 200
Irvine, California 92617-3094
(949) 642-0245

April 3, 2017

Project No. IR13164420

April 3, 2017

Ms. Melinda McCoy
Airport Environmental Engineer
John Wayne Airport, Orange County
3160 Airway Avenue
Costa Mesa, California 92626

Subject: **Hazardous Materials Survey Report**
Signature Flight Support
361 Paularino Avenue
Costa Mesa, California
Amec Foster Wheeler Project IR13164420

Dear Ms. McCoy:

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has completed a hazardous materials survey in support of the demolition of Signature Flight Support at 361 Paularino Avenue, Costa Mesa California. The survey included the assessment of suspect asbestos-containing materials (ACM) and lead-based paints (LBP). The attached report presents general project information, survey details, results, our findings and removal and abatement recommendations

Amec Foster Wheeler appreciates the opportunity to assist you on this project. Please contact us should any questions arise regarding this report or, if we may be of further service.

Sincerely,

Amec Foster Wheeler Environment & Infrastructure, Inc.

Don Harman
Senior Engineer
California Asbestos Consultant No. 92-0044
Certified Lead Inspector/Assessor and
Project Monitor No. I-10236

Leonard A. Gilbert, CIH
Senior Scientist

P:_00 OTHER OFFICES\2017\4005 Irvine\2016 Projects\Hanger study\Individual files\Signature West\Final draft\2017_04_03_HMS Signature Flight Support.doc

Amec Foster Wheeler Environment & Infrastructure Inc.
121 Innovation Drive, Suite 200
Irvine, CA 92617
(949) 642-0245
(949) 642-4474 (fax)
www.amec.com

TABLE OF CONTENTS

1.0 BACKGROUND

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has completed a hazardous materials survey in support of the planned demolition of Signature Flight Support at 361 Paularino Avenue in Santa Ana California. The survey included the assessment of ACM and LBP. Amec Foster Wheeler performed the survey work from December 6 to 9, 2016.

2.0 PURPOSE

The purpose of the survey was to locate and identify hazardous materials requiring abatement, stabilization, remediation, and/or special handling prior to the demolition of the structure. Our survey included visual observations, material sampling and laboratory analysis of suspect ACM, on site testing of suspect LBP with an X-ray fluorescence (XRF) spectrum analyzer and sampling and analysis of paint for lead content.

The results of the survey can be provided to the project general contractor, asbestos abatement contractor and/or the hazardous materials contractor, for establishing appropriate removal, abatement and handling actions to be implemented before planned demolition of the structure begins as part of the General Aviation Improvement Program project. This hazardous materials survey was conducted in accordance with the terms and conditions of our agreement with John Wayne Airport (JWA) Authority (280-280-1900-ENV2) and under JWA's authorization for this work (Task Order 2F-06) dated September 1, 2016.

3.0 BUILDING INFORMATION

There are four separate structures that make up the Signature Flight Support compound at the corner of Paularino Avenue and Airway Avenue. Figure 1 is a Site Location Map. Each building may have been constructed at different times; in order, to identify each building, arbitrary alpha designations were assigned. Figure 2 shows the assigned designation.

All structures are slab on grade, concrete tilt up construction and wood frame roofs. The configuration of the build-out with-in each hangar is generally unique. Typical interior finishes include lay-in ceiling tiles, drywall and joint compound, cove base, vinyl floor tile, sheet vinyl flooring and carpet. In addition, Building D has a two-story office build-out. The roofs of the hangars were not accessible.

4.0 ASBESTOS SURVEY

4.1 REGULATORY INFORMATION

The Federal regulatory definition of ACM is any material containing more than one percent (1%) asbestos. Asbestos waste is not regulated as hazardous waste under the Federal Resource Conservation and Recovery Act (RCRA).

The California regulatory definition of ACM is also any material with more than 1% asbestos. The California Business and Professions Code, requires asbestos abatement contractors to be licensed by the Contractors State License Board (CSLB) and asbestos

consultants to be certified by California Division of Occupational Safety and Health (Cal/OSHA).

The California Labor Code requires that any contractor who does "asbestos-related work" that disturbs asbestos-containing construction materials (ACCM) must be licensed by the CSLB and registered with Cal/OSHA. The Cal/OSHA asbestos standard contained in Title 8, CCR Section 1429 defines ACCM as any manufactured construction material that contains more than one-tenth of 1 percent (>0.1%) asbestos.

The California Department of Toxic Substance Control (DTSC) classifies asbestos-containing material as hazardous waste if it is “friable” and contains 1.0% or more asbestos. A friable material is one that can be reduced to a powder or dust under hand pressure when dry. DTSC considers non-friable bulk asbestos-containing waste to be nonhazardous regardless of its asbestos content. Friable asbestos wastes with more than 0.1% asbestos and less than 1% asbestos are not required to be handled as hazardous waste.

4.2 SURVEY AND SAMPLING

Amec Foster Wheeler’s survey of the building included observation of interior floor, wall, and ceiling finishes, and exterior wall and roof components (to extent access was possible). Mr. Don Harman, a California Certified Asbestos Consultant with Amec Foster Wheeler, performed the survey from December 6 to 9, 2016. In evaluating the building(s), we used our education, training and experience along with our familiarity with building construction, to identify potential asbestos materials. Our survey included visual observations and sampling of suspect asbestos materials.

The selection of materials to be sampled was based on material homogeneity. A homogeneous material is one that appears to be of the same uniform texture, color, appearance, general use, and condition, and that was applied during the same general time period. Once homogeneous materials were determined, sample locations were selected, and representative samples of the suspect material were collected. A bulk sample across the full depth of the suspect material was obtained.

The samples were collected from readily accessible areas. No intrusive activities for the purpose of obtaining samples, such as breaking through walls and ceilings, were performed. No attempt was made to disassemble mechanical equipment. Inaccessible spaces such as wall voids, building cavities, and mechanical equipment may contain concealed, unreported asbestos that may be revealed during demolition activities.

The samples were labeled and delivered under appropriate chain-of-custody documentation to Forensic Analytical Laboratories (FAL) in Rancho Dominquez, California for microscopic analysis by Polarized Light Microscopy (PLM). The samples were analyzed in general accordance with the United States Environmental Agency (EPA) “Method for the Determination of Asbestos in Bulk Building Materials” (EPA/600/R-93/116, July 1993). This method employs PLM coupled with dispersion staining to identify the type and approximate quantity of asbestos present in the sample, if any. FAL is accredited under the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP) (Lab Code 101459) and the State of California Department of Health Services Environmental Laboratory Accreditation Program (ELAP Number 1366).

With respect to the sample analysis, if asbestos is detected in concentrations less than 1%, in California the material may be regulated as ACCM. As such, any PLM sample identified as having less than 1% asbestos must either be re-evaluated by point counting, in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) Asbestos NESHAP Revision, Final Rule (40 CFR, Part 61), or must be assumed to be ACCM, and therefore regulated in California. Point counting, determines if the materials known to be less than 1% asbestos (EPA criteria), are equal to or less than 0.1% asbestos (California criteria) and therefore not regulated with respect to abatement requirements.

4.3 SAMPLE ANALYTICAL RESULTS

A total of 194 bulk samples were collected and delivered to FAL for PLM analyses. When the building material is comprised of two or more layers or substrates, across its full cross-sectional depth, the laboratory will identify and analyze each layer. For this survey the analytical laboratory analyzed 406 substrates.

Of the 406 sample layers analyzed, asbestos was not identified in amounts greater than 1% in the sampled materials. Further, asbestos was not identified in amounts greater than 0.1%.

Sample descriptions and the analytical results are provided in Table 1. Room numbers are indicated on Figures 3 and 4. The laboratory analytical data and chain of custody forms are included in Appendix A

5.0 LEAD-BASED PAINT SURVEY

LBP survey was performed December 2016 by Don Harman, Amec Foster Wheeler, a California Department of Public Health (CDPH) Certified Lead Inspector, Risk Assessor, and Lead Supervisor. Visual observation and testing of the building's interior and exterior surfaces was performed.

The visual survey of the various areas within the structure was performed to identify painted building components, their general condition, and location and quantity of the painted components. Damaged, loose and flaking paint observed during the survey were noted.

United States Department of Housing and Urban Development (HUD), EPA and California definitions for lead-based paint are any paint with a lead concentration equal to or greater than 1.0 milligram per square centimeter of surface area (≥1 mg/cm^2) when measured by a portable x-ray fluorescence (XRF) spectrum analyzer, or 0.5% by weight (5,000 parts per million [ppm]) when measured by standard analytical methods. XRF results between 0.9 to 1.1 mg/cm^2 are considered by HUD/EPA as inconclusive.

In California, for lead-related construction work, Cal/OSHA requires a risk assessment to determine if employees may be exposed above the action level or permissible exposure limit (PEL). Surface coatings that contain lead at concentrations equal to or exceeding 0.06% lead by weight (600 ppm) are assumed by Cal/OSHA to demonstrate the presence of lead surface coatings that constitute a health hazard to employees engaged in lead-related construction work. As such, appropriate controls and work practices as defined in

8 CCR 1532.1 and 17 CCR 3600 et seq. are mandated, including requirements to use personnel certified by the California Department of Health Services.

5.1 XRF SURVEY

Amec Foster Wheeler performed the LBP survey in general accordance with EPA and US (HUD) guidelines for lead inspections and testing. Testing for LBP was performed onsite using a XRF, with the capability to measure lead content in dry paint films, in the range of 0 to 50 milligrams per square centimeter (mg/cm2). The surfaces tested were selected in general accordance with the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing.

5.2 XRF TEST RESULTS

These XRF test results aid in the selection of the locations for paint chip sampling and analysis. None of the tested building paints would be considered lead-based paints based on the XRF results and all were identified as being in intact condition. Appendix B contains a Table which presents the readings from the XRF for painted surfaces. However, several walls in Hangar 1 and 3 returned results that were elevated above the low levels observed on other similar materials. In addition, ceramic tile glaze from Hangar 1 and 3 returned elevated results.

5.3 PAINT CHIP SURVEY

Sampling areas were selected, based on the results of the XRF survey and a representative paint chip sample of suspect lead-based paint (LBP) was obtained from Hangar 3, Room 5 north wall.

The sample (lab sample number 02) was collected from a readily accessible, representative paint-coated surface that as suspected to contain lead. The sample was labeled and appropriate chain-of-custody documentation completed. The sample was delivered to FAL in Rancho Dominquez, California for analysis. The laboratory is accredited by the American Industrial Hygiene Association (AIHA) and has been assigned the accreditation number 101629, and by the State of California Environmental Laboratory Accreditation Program (ELAP Number 1366).

5.4 TEST RESULTS

One paint chip sample was obtained and delivered to FAL to be analyzed for the presence of lead by EPA methods 3050 and 7420 – Acid Digestion followed by Atomic Absorption Spectrometry (AAS). The paint was found to contain <0.006% by weight of lead. The sampled white paint is not lead-based paint. The laboratory analytical data and chain-of-custody documentation are included in Appendix A. Appendix C contains Form 8552 which is required to be submitted to the California Department of Public Health (CDPH). The report and form must be retained by the client for three years. Amec Foster Wheeler has submitted the form to CDPH.

6.0 RECOMMENDATIONS

6.1 ASBESTOS-CONTAINING MATERIALS

Neither ACM nor ACCM were identified in the areas surveyed. Demolition or renovation, may uncover suspect ACM and ACCM, Amec Foster Wheeler recommends these materials be sampled and analyzed and, if confirmed to be ACM or ACCM, managed per applicable regulations and if confirmed to be ACM or ACCM, managed per applicable regulations.

6.2 LEAD-CONTAINING MATERIALS

An XRF and paint chip survey found no LBP based on the HUD criteria. At the time of the survey paints identified as lead-based and in poor condition (peeling or chipped) were not observed. Cal-OSHA would still require a negative exposure assessment prior to demolition. However, the need for abatement of LBP is currently unlikely.

7.0 LIMITATIONS

Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental, health and safety consultants practicing in this or similar localities at the time of service. Amec Foster Wheeler assumes no liability for any loss, injury, claim, or damages arising directly or indirectly from any use or reliance on this report or the opinions expressed herein. No other warranty, express or implied, is made as to the professional advice included in this report.

Amec Foster Wheeler endeavored to observe existing conditions at the building using generally accepted procedures. There is always a possibility some areas containing asbestos- and lead-containing materials were overlooked, were inaccessible, or are different from those at specific sample locations. Therefore, conditions at every location may not be as anticipated by our field representative. In addition, demolition may uncover altered or differing conditions.

This report has been prepared for the exclusive use of our client. Any use that a third party makes of this report, or any reliance on or decisions made based on it, are the responsibility of the third party. With respect to third parties, Amec Foster Wheeler has no liability or responsibility for losses of any kind whatsoever, including direct or consequential financial effects on transactions or property values, or requirements for follow-up actions and costs. Should additional parties require reliance on this report, written authorization from Amec Foster Wheeler will be required.

TABLES

Table 1
Summary of Asbestos Sample Results
Signture Flight Support, Building A
361 Paularino Avenue
John Wayne Aiport

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Hangar No./Room No.	Result
1	Drywall	1	a	1	1	2/2	ND
2	Drywall	1	a	2	1	2/3	ND
3	Drywall	1	a	3	1	2/3	ND
4	Joint Compound	1	b	1	1	2/3	ND
5	Joint Compound	1	b	2	1	2/3	ND
6	Joint Compound	1	b	3	1	2/3	ND
7	Cove base, black, 4"	2	ab	1	1	2/2	ND
8	Cove base, black, 4"	2	ab	2	1	2/2	ND
9	Cove base, black, 4"	2	ab	3	1	2/2	ND
10	Drywall	4	a	1	1	1, 2, 3, /1	ND
11	Drywall	4	a	2	1	1, 2, 3, /9	ND
12	Drywall	4	a	3	1	1, 2, 3, /12	ND
13	Joint Compound	4	b	1	1	1, 2, 3, /1	ND
14	Joint Compound	4	b	2	1	1, 2, 3, /1	ND
15	Joint Compound	4	b	3	1	1, 2, 3, /1	ND
16	Joint Compound	4	b	4	1	1, 2, 3, /9	ND
17	Joint Compound	4	b	5	1	1, 2, 3, /9	ND
18	Joint Compound	4	b	6	1	1, 2, 3, /12	ND
19	Joint Compound	4	b	7	1	1, 2, 3, /12	ND
20	Wall Texture	4	c	1	1	1, 2, 3, /1	ND
21	Wall Texture	4	c	2	1	1, 2, 3, /1	ND
22	Wall Texture	4	c	3	1	1, 2, 3, /1	ND
23	Wall Texture	4	c	4	1	1, 2, 3, /9	ND
24	Wall Texture	4	c	5	1	1, 2, 3, /9	ND
25	Wall Texture	4	c	6	1	1, 2, 3, /12	ND
26	Wall Texture	4	c	7	1	1, 2, 3, /12	ND
27	Paint	5	a	1	1	1, 2, 3, /1	ND
28	Paint	5	a	2	1	1, 2, 3, /9	ND

Table 1
Summary of Asbestos Sample Results
Signture Flight Support, Building A
361 Paularino Avenue
John Wayne Aiport

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Hangar No./Room No.	Result
29	Paint	5	a	3	1	1, 2, 3, /12	ND
30	Drywall	7	a	1	1	3/4	ND
31	Drywall	7	a	2	1	3/5	ND
32	Drywall	7	a	3	1	3/5	ND
33	Ceiling Panel	6	a	1	1	3/4	ND
34	Ceiling Panel	6	a	2	1	3/4	ND
35	Ceiling Panel	6	a	3	1	3/4	ND
36	Joint Compound	7	b	1	1	3/4	ND
37	Joint Compound	7	b	2	1	3/4	ND
38	Joint Compound	7	b	3	1	3/4	ND
39	Joint Compound	7	b	4	1	3/4	ND
40	Joint Compound	7	b	5	1	3/5	ND
41	Wall Texture	7	c	1	1	3/4	ND
42	Wall Texture	7	c	2	1	3/4	ND
43	Wall Texture	7	c	3	1	3/4	ND
44	Cove Base, gray	8	ab	1	1	3/4	ND
45	Cove Base, gray	8	ab	2	1	3/4	ND
46	Cove Base, gray	8	ab	3	1	3/4	ND
47	Drywall	10	a	1	1	1/10	ND
48	Drywall	10	a	2	1	1/11	ND
49	Drywall	10	a	3	1	1/11	ND
50	Joint Compound	10	b	1	1	1/10	ND
51	Joint Compound	10	b	2	1	1/10	ND
52	Joint Compound	10	b	3	1	1/11	ND
53	Wall Texture	10	c	1	1	1/10	ND
54	Wall Texture	10	c	2	1	1/10	ND
55	Wall Texture	10	c	3	1	1/11	ND

Table 1
Summary of Asbestos Sample Results
Signture Flight Support, Building A
361 Paularino Avenue
John Wayne Aiport

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Hangar No./Room No.	Result
56	Cove base, beige 4"	12	ab	1	1	Office & space next to Hangar	ND
57	Cove base, beige 4"	12	ab	2	1	Office & space next to Hangar	ND
58	Cove base, beige 4"	12	ab	3	1	Office & space next to Hangar	ND
59	Floor tile, 12x12, off white	13	a	1	1	Office & space next to Hangar	ND
60	Floor tile, 12x12, off white	13	a	2	1	Office & space next to Hangar	ND
61	Floor tile, 12x12, off white	13	a	3	1	Office & space next to Hangar	ND

Created by: SA
Checked by: DEH

Table Notes:

1 HM - Homogenous Material: A material that appears to be uniform when properties such as age, color, texture are compared.
2 Layer - When a Homogenous Material has more than one recognizable component each is a layer.
3 Assay - Of the duplicates required by Asbesto Hazard Emgerency Response Act (AHERA), the sequential number, starting at one, assigned each sample up to the required number of samples.
4 Bold type - These samples were determined to contain asbestos in excess of trace amounts.
5 ND - Asbestos was not detected above the method detection limit.
6 Not Analyzed - When any sample of a Homogenous Material is determined to contain asbestos the other samples in that HM are not analyzed.

Table 2
Summary of Asbestos Sample Results
Signature Flight Support, Building B
361 Paularino Avenue
Jonh Wayne Airport

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Location	Result
1	Drywall, white	1	a	1	1	Hangar 8	ND
2	Drywall, white	1	a	2	1	Hangar 11	ND
3	Drywall, white	1	a	3	1	Hangar 13	ND
4	Joint Compound, white	1	b	1	1	Hangar 5	ND
5	Joint Compound, white	1	b	2	1	Hangar 6	ND
6	Joint Compound, white	1	b	3	1	Hangar 8	ND
7	Joint Compound, white	1	b	4	1	Hangar 9	ND
8	Joint Compound, white	1	b	5	1	Hangar 11	ND
9	Joint Compound, white	1	b	6	1	Hangar 12	ND
10	Joint Compound, white	1	b	7	1	Hangar 13	ND
11	Wall Texture, white	1	c	1	1	Hangar 6	ND
12	Wall Texture, white	1	c	2	1	Hangar 7	ND
13	Wall Texture, white	1	c	3	1	Hangar 8	ND
14	Wall Texture, white	1	c	4	1	Hangar 9	ND
15	Wall Texture, white	1	c	5	1	Hangar 11	ND
16	Wall Texture, white	1	c	6	1	Hangar 12	ND
17	Wall Texture, white	1	c	7	1	Hangar 13	ND
18	Paint	2	a	1	1	Hangar 8	ND
19	Paint	2	a	2	1	Hangar 11	ND
20	Paint	2	a	3	1	Hangar 13	ND
21	Cove Base, 4", gray	3	ab	1	1	Hangar 12	ND
22	Cove Base, 4", gray	3	ab	2	1	Hangar 12	ND
23	Cove Base, 4", gray	3	ab	3	1	Hangar 12	ND
24	Sheet Vinyl, light gray, terrazo	4	ab	1	1	Men's R/R	ND
25	Sheet Vinyl, light gray, terrazo	4	ab	2	1	Men's R/R	ND
26	Sheet Vinyl, light gray, terrazo	4	ab	3	1	Men's R/R	ND

Created by: SA
Checked by: DEH

Table 2
Summary of Asbestos Sample Results
Signature Flight Support, Building B
361 Paularino Avenue
Jonh Wayne Airport

Table Notes:

1 HM - Homogenous Material: A material that appears to be uniform when properties such as age, color, texture are compared.
2 Layer - When a Homogenous Material has more than one recognizable component each is a layer.
3 Assay - Of the duplicates required by AHERA, the sequential number, starting at one, assigned each sample up to the required number of samples.
4 Bold type - These samples were determined to contain asbestos in excess of trace amounts.
5 ND - Asbestos was not detected above the method detection limit.
6 Not Analyzed - When any sample of a Homogenous Material is determined to contain asbestos the other samples in that HM are not analyzed.
7 R/R - Restroom.

Table 3
Summary of Asbestos Sample Results
Signature Flight Support, Building C
361 Paularino Avenue
John Wayne Airport

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Hangar No./Room No.	Result
1	Drywall, white	1	a	1	1	18/-	ND
2	Drywall, white	1	a	2	1	19/-	ND
3	Drywall, white	1	a	3	1	20/-	ND
4	Joint Compound, white	1	b	1	1	14-15/-	ND
5	Joint Compound, white	1	b	2	1	16/-	ND
6	Joint Compound, white	1	b	3	1	17/-	ND
7	Joint Compound, white	1	b	4	1	18/-	ND
8	Joint Compound, white	1	b	5	1	18/-	ND
9	Joint Compound, white	1	b	6	1	19/-	ND
10	Joint Compound, white	1	b	7	1	20/-	ND
11	Wall Texture, white	1	c	1	1	14-15/-	ND
12	Wall Texture, white	1	c	2	1	16/-	ND
13	Wall Texture, white	1	c	3	1	17/-	ND
14	Wall Texture, white	1	c	4	1	18/-	ND
15	Wall Texture, white	1	c	5	1	18/-	ND
16	Wall Texture, white	1	c	6	1	19/-	ND
17	Wall Texture, white	1	c	7	1	20/-	ND
18	Drywall, white	2	a	1	1	-/1	ND
19	Drywall, white	2	a	2	1	-/1	ND
20	Drywall, white	2	a	3	1	-/5	ND
21	Joint Compound, white	2	a	1	1	-/1	ND
22	Joint Compound, white	2	a	2	1	-/2	ND
23	Joint Compound, white	2	a	3	1	-/3	ND
24	Joint Compound, white	2	a	4	1	-/5	ND
25	Joint Compound, white	2	a	5	1	-/5	ND
26	Wall Texture, white	2	c	1	1	-/1	ND
27	Wall Texture, white	2	c	2	1	-/1	ND
28	Wall Texture, white	2	c	3	1	-/3	ND
29	Wall Texture, white	2	c	4	1	-/5	ND

Table 3
Summary of Asbestos Sample Results
Signature Flight Support, Building C
361 Paularino Avenue
John Wayne Airport

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Hangar No./Room No.	Result
30	Wall Texture, white	2	c	5	1	-/5	ND
31	Cove Base 4' brown	3	ab	1	1	-/1	ND
32	Cove Base 4' brown	3	ab	2	1	-/1	ND
33	Cove Base 4' brown	3	ab	3	1	-/5	ND
34	Caulk, Tilt-up Joint	5	a	1	1	17/-	ND
35	Caulk, Tilt-up Joint	5	a	2	1	18/-	ND
36	Caulk, Tilt-up Joint	5	a	3	1	20/-	ND
37	Paint	6	a	1	1	18/-	ND
38	Paint	6	a	2	1	19/-	ND
39	Paint	6	a	3	1	20/-	ND
40	Ceiling Tile, 2'x4', pin dot issue	7	a	1	1	14-15/-	ND
41	Ceiling Tile, 2'x4', pin dot issue	7	a	2	1	14-15/-	ND
42	Ceiling Tile, 2'x4', pin dot issue	7	a	3	1	14-15/-	ND

Created by: SA
Checked by: DEH

Table Notes:

1 HM - Homogenous Material: A material that appears to be uniform when properties such as age, color, texture are compared.
2 Layer - When a Homogenous Material has more than one recognizable component each is a layer.
3 Assay - Of the duplicates required by AHERA, the sequential number, starting at one, assigned each sample up to the required number of samples.
4 Bold type - These samples were determined to contain asbestos in excess of trace amounts.
5 ND - Asbestos was not detected above the method detection limit.
6 Not Analyzed - When any sample of a Homogenous Material is determined to contain asbestos the other samples in that HM are not analyzed.

Table 4
Summary of Asbestos Sample Results
Signature Flight Support, Building D
361 Paularino Avenue
John Wayne Airport

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Hangar No./Room No.	Results
1	Drywall, white	1	a	1	1	22/-	ND
2	Drywall, white	1	a	2	1	24/-	ND
3	Drywall, white	1	a	3	1	25/-	ND
4	Joint Compound, white	1	b	1	1	22/-	ND
5	Joint Compound, white	1	b	2	1	22/-	ND
6	Joint Compound, white	1	b	3	1	23/-	ND
7	Joint Compound, white	1	b	4	1	23/-	ND
8	Joint Compound, white	1	b	5	1	24/-	ND
9	Joint Compound, white	1	b	6	1	25/-	ND
10	Joint Compound, white	1	b	7	1	26/-	ND
12	Wall texture, white	1	c	1	1	22/-	ND
13	Wall texture, white	1	c	2	1	22/-	ND
14	Wall texture, white	1	c	3	1	23/-	ND
15	Wall texture, white	1	c	4	1	23/-	ND
16	Wall texture, white	1	c	5	1	24/-	ND
17	Wall texture, white	1	c	6	1	25/-	ND
18	Wall texture, white	1	c	7	1	26/-	ND
19	Paint	2	a	1	1	23/-	ND
20	Paint	2	a	2	1	24/-	ND
21	Paint	2	a	3	1	25/-	ND
22	Ceiling Tile, 2'x4', pin dot fissure	7	a	1	1	Offices /2	ND
23	Ceiling Tile, 2'x4', pin dot fissure	7	a	2	1	Offices /2	ND
24	Ceiling Tile, 2'x4', pin dot fissure	7	a	3	1	Offices /8	ND
25	Drywall, white	5	a	1	1	Offices /3	ND
26	Drywall, white	5	a	2	1	Offices /6	ND
27	Drywall, white	5	a	3	1	Offices /9	ND
28	Joint Compound, white	5	b	1	1	Offices/2	ND
29	Joint Compound, white	5	b	2	1	Offices /2	ND
30	Joint Compound, white	5	b	3	1	Offices /2	ND

Table 4
Summary of Asbestos Sample Results
Signature Flight Support, Building D
361 Paularino Avenue
John Wayne Airport

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Hangar No./Room No.	Results
31	Joint Compound, white	5	b	4	1	Offices /8	ND
32	Joint Compound, white	5	b	5	1	Offices /9	ND
33	Wall texture, white	5	c	1	1	Offices /2	ND
34	Wall texture, white	5	c	2	1	Offices /3	ND
35	Wall texture, white	5	c	3	1	Offices /6	ND
36	Wall texture, white	5	c	4	1	Offices /6	ND
37	Wall texture, white	5	c	5	1	Offices /9	ND
38	Core Base, black, 4"	6	ab	1	1	Offices /6	ND
39	Core Base, black, 4"	6	ab	2	1	Offices /8	ND
40	Core Base, black, 4"	6	ab	3	1	Offices /8	ND
41	Sheet Vinyl, gray terrazzo	8	ab	1	1	Offices /8	ND
42	Sheet Vinyl, gray terrazzo	8	ab	2	1	Offices /8	ND
43	Sheet Vinyl, gray terrazzo	8	ab	3	1	Offices /8	ND
44	Floor tile, 12"x12" Black	9	ab	1	1	Offices /2	ND
45	Floor tile, 12"x12" Black	9	ab	2	1	Offices /2	ND
46	Floor tile, 12"x12" Black	9	ab	3	1	Offices /2	ND
47	Ceiling Tile, 2'x4', pin dot fissure	3	a	1	1	26/6/15	ND
48	Ceiling Tile, 2'x4', pin dot fissure	3	a	2	1	26/8/15	ND
49	Ceiling Tile, 2'x4', pin dot fissure	3	a	3	1	26/10/15	ND
50	Drywall, white	4	a	1	1	26/4/15	ND
51	Drywall, white	4	a	2	1	26/8	ND
52	Drywall, white	4	a	3	1	26/9	ND
53	Joint Compound, white	4	b	1	1	26/4	ND
54	Joint Compound, white	4	b	2	1	26/6	ND
55	Joint Compound, white	4	b	3	1	26/8	ND
56	Joint Compound, white	4	b	4	1	26/9	ND
57	Joint Compound, white	4	b	5	1	26/10	ND
58	Wall texture, white	4	c	1	1	26/6	ND
59	Wall texture, white	4	c	2	1	26/7	ND

Table 4
Summary of Asbestos Sample Results
Signature Flight Support, Building D
361 Paularino Avenue
John Wayne Airport

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Hangar No./Room No.	Results
60	Wall texture, white	4	c	3	1	26/8	ND
61	Wall texture, white	4	c	4	1	26/9	ND
62	Wall texture, white	4	c	5	1	26/10	ND
63	Cove base, black, 4"	10	ab	1	1	26/6	ND
64	Cove base, black, 4"	10	ab	2	1	26/9	ND
65	Cove base, black, 4"	10	ab	3	1	26/10	ND

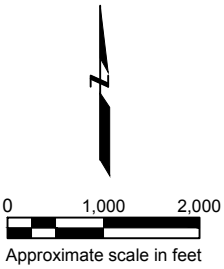
Created by: SA
Checked by: DEH

Table Notes:

1 HM - Homogenous Material: A material that appears to be uniform when properties such as age, color, texture are compared.
2 Layer - When a Homogenous Material has more than one recognizable component each is a layer.
3 Assay - Of the duplicates required by AHERA, the sequential number, starting at one, assigned each sample up to the required number of samples.
4 Bold type - These samples were determined to contain asbestos in excess of trace amounts.
5 ND - Asbestos was not detected above the method detection limit.
6 Not Analyzed - When any sample of a Homogenous Material is determined to contain asbestos the other samples in that HM are not analyzed.
7 Sample No. 11 was intentionally omitted.

FIGURES

Basemap modified from Street Map provided by Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., ©OpenStreetMap contributors, and the GIS User Community.



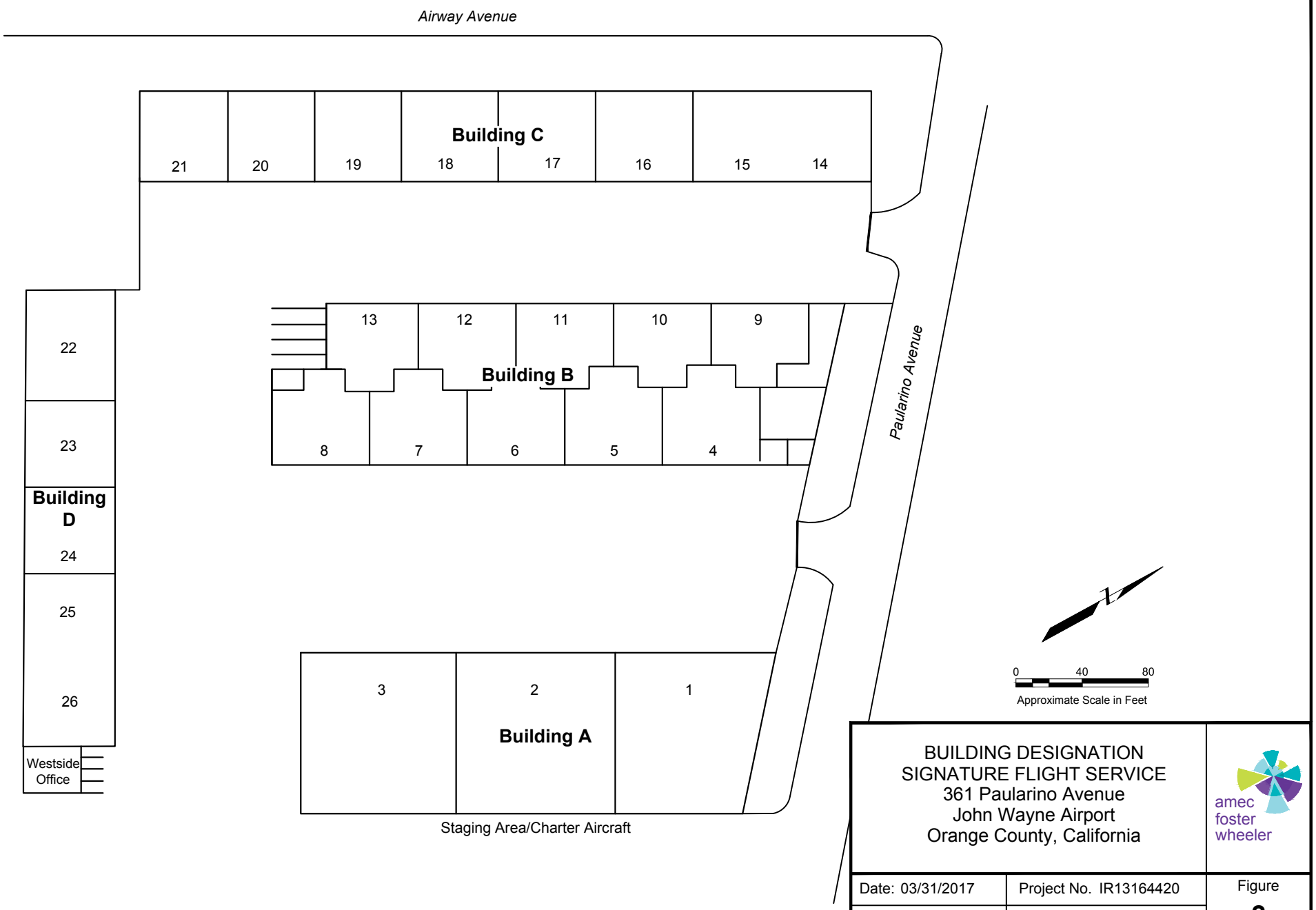
SITE LOCATION MAP
Signature Flight Service
361 Paularino Avenue
John Wayne Airport
Orange County, California

amec foster wheeler

Date: 03/31/2017	Project No. IR14164420	Figure 1
Submitted By: dh	Drawn By: pah	

Plot Date: 3/31/2017 3:21:21 PM, Plotted by: pat.herring
Drawing Path: Y:\IR\13164420\acad\Asbestos_Survey_2017-02-16_tb_Site_Location_Maps.dwg

Plot Date: 3/31/2017 3:29:30 PM, Plotted by: pat.herring
Drawing Path: Y:\IR13164420\ACAD\ASBESTOS_SURVEY_2017-02-16_TB_SIGNATURE-PAULARINO.DWG, Figure 2-Building



BUILDING DESIGNATION
SIGNATURE FLIGHT SERVICE
361 Paularino Avenue
John Wayne Airport
Orange County, California

amec foster wheeler

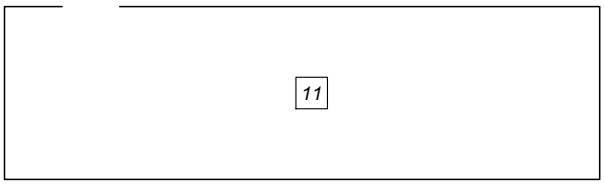
Date: 03/31/2017	Project No. IR13164420	Figure 2
Submitted By: dh	Drawn By: pah	

Explanation

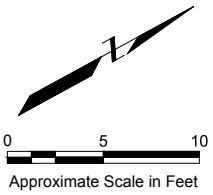
Building outline

11 Room number

First Floor



Second Floor



FLOOR PLAN
HANGAR 26
Signature Flight Service
361 Paularino Avenue
John Wayne Airport
Orange County, California

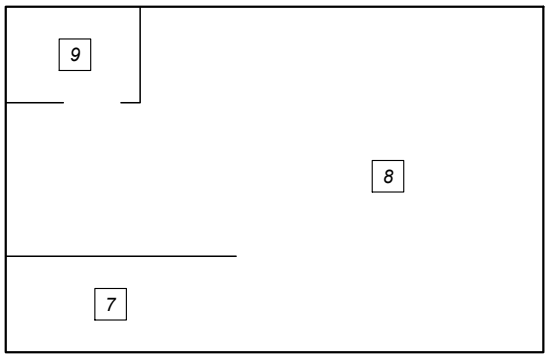
amec foster wheeler

Date: 03/31/2017	Project No. IR14164420	Figure 3
Submitted By: dh	Drawn By: pah	

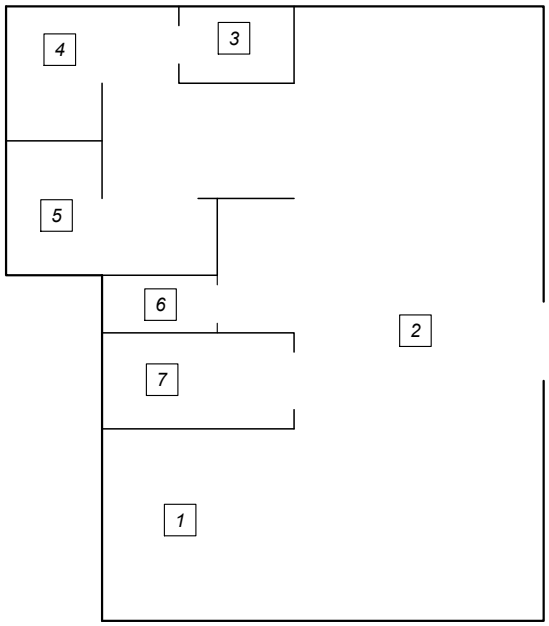
Explanation

Building outline

9 Room number



Second Floor



First Floor

N

0 5 10

Approximate Scale in Feet

FLOOR PLAN
WESTSIDE OFFICE
Signature Flight Service
361 Paularino Avenue
John Wayne Airport
Orange County, California

amec foster wheeler

Date: 03/31/2017	Project No. IR14164420	Figure 4
Submitted By: dh	Drawn By: pah	

Plot Date: 3/31/2017 3:36:34 PM, Plotted by: pat.herring
Drawing Path: Y:\IR\13164420\ACAD\ASBESTOS_SURVEY_2017-02-16_TB_SIGNATURE-PAULARINO.DWG, Figure 4-Office

APPENDIX A

PORTABLE X-RAY FLUORESCENCE SPECTRUM ANALYZER READINGS

Portable X-ray Fluorescence Spectrum Analyzer Readings
Signature Fight Support
361 Paularino Avenue
Costa Mesa, California

Building	Hangar No. or area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature Paularino	13/-	914	N	Wall	Concrete	Intact	White	0	
Signature Paularino	13/-	915	E	Hangar Frame	Metal	Intact	Blue	0	
Signature Paularino	13/-	916	E	Hangar Sheet Metal	Metal	Intact	White	0	
Signature Paularino	13/-	917	E	Pilot Door Interior	Metal	Intact	Blue	0	
Signature Paularino	13/-	918	E	Pilot Door Frame	Metal	Intact	Blue	0.01	
Signature Paularino	13/-	919	S	Wall	Dry Wall	Intact	White	0	
Signature Paularino	13/-	920	W	Wall	Dry Wall	Intact	White	0	
Signature Paularino	13/-	921		Floor	Concrete	Intact	White	0	
Signature Paularino	11/-	924	N	Wall	Dry Wall	Intact	White	0	
Signature Paularino	11/-	925	E	Wall	Dry Wall	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Signature Fight Support
361 Paularino Avenue
Costa Mesa, California

Building	Hangar No. or area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature Paularino	11/-	926	S	Wall	Dry Wall	Intact	White	0	
Signature Paularino	11/-	927	W	Pilots Door Exterior	Metal	Intact	Black	0	
Signature Paularino	11/-	928		Floor	Concrete	Intact	White	0	
Signature Paularino	10/-	929	N	Wall	Dry Wall	Intact	Beige	0	
Signature Paularino	10/-	930	N	Wall	Dry Wall	Intact	White	0	
Signature Paularino	10/-	931	E	Wall	Dry Wall	Intact	Beige	0	
Signature Paularino	10/-	932	E	Wall	Dry Wall	Intact	White	0	
Signature Paularino	10/-	934	S	Wall	Dry Wall	Intact	Beige	0	
Signature Paularino	10/-	935	S	Wall	Dry Wall	Intact	White	0	
Signature Paularino	10/-	936	N	Wall	Dry Wall	Intact	Blue	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Signature Fight Support
361 Paularino Avenue
Costa Mesa, California

Building	Hangar No. or area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature Paularino	10/-	937	E	Wall	Dry Wall	Intact	Blue	0	
Signature Paularino	10/-	938	S	Wall	Dry Wall	Intact	Blue	0	
Signature Paularino	9/-	939	N	Wall	Dry Wall	Intact	Beige	0	
Signature Paularino	9/-	940	E	Wall	Dry Wall	Intact	Beige	0	
Signature Paularino	9/-	941	S	Wall	Dry Wall	Intact	Beige	0	
Signature Paularino	4/-	942	N	Wall	Dry Wall	Intact	Beige	0	
Signature Paularino	4/-	943	E	Floor	Concrete	Intact	Blue	0	
Signature Paularino	4/-	944	S	Wall	Dry Wall	Intact	White	0	
Signature Paularino	4/-	945	W	Wall	Dry Wall	Intact	White	0	
Signature Paularino	2/3	946	N	Wall	Dry Wall	Intact	White	0.01	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Signature Fight Support
361 Paularino Avenue
Costa Mesa, California

Building	Hangar No. or area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature Paularino	2/3	947	E	Wall	Dry Wall	Intact	White	0	
Signature Paularino	2/3	948	S	Wall	Dry Wall	Intact	White	0	
Signature Paularino	2/3	949	W	Wall	Dry Wall	Intact	White	0	
Signature Paularino	2/3	950		Door Interior	Wood	Intact	White	0	
Signature Paularino	2/3	951		Door Frame	Metal	Intact	Brown	0	
Signature Paularino	2/-	981	N	Wall	Dry Wall	Intact	White	0	
Signature Paularino	2/-	982	E	Wall	Dry Wall	Intact	White	0	
Signature Paularino	2/-	983	S	Wall	Dry Wall	Intact	White	0.01	
Signature Paularino	2/-	984	W	Wall	Dry Wall	Intact	White	0.01	
Signature Paularino	3/-	985	N	Wall	Dry Wall	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Signature Fight Support
361 Paularino Avenue
Costa Mesa, California

Building	Hangar No. or area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature Paularino	3/-	986	E	Wall	Concrete	Intact	White	0.01	
Signature Paularino	3/-	987	S	Wall	Dry Wall	Intact	White	0	
Signature Paularino	3/-	988	W	Hangar Frame	Metal	Intact	Blue	0	
Signature Paularino	3/-	989	W	Hangar Steel	Metal	Intact	White	0.01	
Signature Paularino	3/-	990	W	Toilet Door Interior	Metal	Intact	Blue	0	
Signature Paularino	2/3	991	W	Pilots Frame Interior	Metal	Intact	Blue	0	
Signature Paularino	2/3	992		Floor	Concrete	Intact	White	0	
Signature Paularino	3/4	993	N	Wall	Dry Wall	Intact	White	0	
Signature Paularino	3/4	994	E	Wall	Dry Wall	Intact	White	0	
Signature Paularino	3/4	995	S	Wall	Dry Wall	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Signature Fight Support
361 Paularino Avenue
Costa Mesa, California

Building	Hangar No. or area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature Paularino	3/4	998	W	Wall	Dry Wall	Intact	White	0	
Signature Paularino	3/5	999	N	Wall	Dry Wall	Intact	White	0	
Signature Paularino	3/5	1000	E	Wall	Dry Wall	Intact	White	0	
Signature Paularino	3/7	1000.6	N					No paint	
Signature Paularino	3/5	1001	S	Wall	Dry Wall	Intact	White	0.01	
Signature Paularino	3/5	1002	W	Wall	Dry Wall	Intact	White	0.5	Sampled
Signature Paularino	3/5	1003	W	Wall	Dry Wall	Intact	White	0.5	
Signature Paularino	3/6								
Signature Paularino	3/7	1004	E	Wall	Wall	Concrete	White	0	
Signature Paularino	3/7	1005	S	Wall	Dry Wall	Metal	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Signature Fight Support
361 Paularino Avenue
Costa Mesa, California

Building	Hangar No. or area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature Paularino	3/7		W						
Signature Paularino	3/8	1007	N	Wall	Dry Wall	Intact	White	0.01	
Signature Paularino	3/8	1008	E	Wall	Concrete	Intact	White	0	
Signature Paularino	3/8	1010	S	Wall	Dry Wall	Intact	White	0	
Signature Paularino	3/8	1011	W	Wall	Dry Wall	Intact	White	0	
Signature Paularino	3/9	1012	N	Wall	Dry Wall	Intact	White	0	
Signature Paularino	3/9	1013	E	Wall	Concrete	Intact	White	0	
Signature Paularino	3/9	1014	S	Wall	Concrete	Intact	White	0	
Signature Paularino	1/10	1015	N	Wall	Dry Wall	Intact	White	0	
Signature Paularino	1/10	1016	E	Wall	Concrete	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Signature Fight Support
361 Paularino Avenue
Costa Mesa, California

Building	Hangar No. or area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature Paularino	1/10	1017	S	Wall	Dry Wall	Intact	White	0	
Signature Paularino	1/10	1018	W	Wall	Dry Wall	Intact	White	0	
Signature Paularino	1/11	1019	N	Wall	Dry Wall	Intact	White	0	
Signature Paularino	1/11	1020	E	Wall	Concrete	Intact	White	0.01	
Signature Paularino	1/11	1021	S	Wall	Dry Wall	Intact	White	0	
Signature Paularino	1/11	1022	W	Wall	Dry Wall	Intact	White	0	
Signature Paularino	1/12	1023	N	Wall	Dry Wall	Intact	Gray	0.5	
Signature Paularino	1/12	1024	N	Wall	Dry Wall	Intact	Gray	0	
Signature Paularino	1/12	1025	N	Wall	Dry Wall	Intact	Gray	0	
Signature Paularino	1/12	1026	E	Wall	Concrete	Intact	Gray	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Signature Fight Support
361 Paularino Avenue
Costa Mesa, California

Building	Hangar No. or area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature Paularino	1/12	1027	S	Wall	Dry Wall	Intact	Gray	0	
Signature Paularino	1/-	1028	W	Exterior Sheet Metal	Metal	Intact	Blue	0.02	
Signature Paularino	1/-	1029		Pilot Exterior Door	Metal	Intact	Blue	0	
Signature Paularino	1/-	1030		Pilot Exterior Door Frame	Metal	Intact	Blue	0	
Signature Paularino	22-23/-	1035	N	Pilot Door Interior	Metal	Intact	Blue	0	
Signature Paularino	22-23/-	1036	N	Pilot Door Frame	Metal	Intact	Blue	0	
Signature Paularino	22-23/-	1037	N	Pilot Door Exterior	Metal	Crazed	Blue	0	
Signature Paularino	22-23/-	1038	N	Sheet Metal Exterior	Metal	Crazed	Blue	0.01	
Signature Paularino	22-23/-	1039	E	Wall	Dry Wall	Intact	White	0	
Signature Paularino	22-23/-	1040	S	Wall	Concrete	Intact	Beige	0.02	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Signature Fight Support
361 Paularino Avenue
Costa Mesa, California

Building	Hangar No. or area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature Paularino	22-23/-	1041	W	Wall	Concrete	Peeling	Beige	0	
Signature Paularino	24/-	1042	N	Hanger Frame	Metal	Intact	Blue	0	
Signature Paularino	24/-	1043	E	Wall	Concrete	Intact	White	0	
Signature Paularino	24/-	1044	S	Wall	Concrete	Intact	White	0	
Signature Paularino	24/-	1045	W	Wall	Concrete	Intact	White	0	
Signature Paularino	24/-	1046		Floor	Concrete	Intact	White	0	
Signature Paularino	25-26/-	1047	N	Exterior Stripe Rear	Concrete	Intact	Yellow	0	
Signature Paularino	25-26/-	1048	N	Exterior Stripe Front	Concrete	Intact	Yellow	0.03	
Signature Paularino	25-26/-	1049	E	Wall	Concrete	Intact	White	0	
Signature Paularino	25-26/-	1050		Wall	Concrete	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Signature Fight Support
361 Paularino Avenue
Costa Mesa, California

Building	Hangar No. or area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature Paularino	25-26/11	1051	N	Wall	Vinyl	Intact	White	0	
Signature Paularino	25-26/11	1052	E	Wall	Vinyl	Intact	White	0	
Signature Paularino	25-26/11	1053	S	Wall	Vinyl	Intact	White	0	
Signature Paularino	25-26/11	1054	W	Wall	Vinyl	Intact	White	0	
Signature Paularino	25-26/11	1055	N	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/11	1056	E	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/11	1057	S	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/2	1058	N	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/2	1059	E	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/2	1060	S	Wall	Dry Wall	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Signature Fight Support
361 Paularino Avenue
Costa Mesa, California

Building	Hangar No. or area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature Paularino	25-26/2	1061	W	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/3	1062	N	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/3	1063	E	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/3	1064	S	Wall	Dry Wall	Intact	White	0.01	
Signature Paularino	25-26/3	1065	W	Wall	Dry Wall	Intact	White	0	
Signature Paularino	26/3	1066	S	Wall	Ceramic Tile	Intact	Beige	0.01	
Signature Paularino	26/3	1067		Floor	Ceramic Tile	Intact	Light Brown	0.19	
Signature Paularino	26/3	1068		Door Frame	Metal	Intact	Brown	0.03	
Signature Paularino	25-26/4	1069	N	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/4	1070	E	Wall	Dry Wall	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Signature Fight Support
361 Paularino Avenue
Costa Mesa, California

Building	Hangar No. or area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature Paularino	25-26/4	1071	S	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/4	1072	W	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/4	1073	W	Door Frame	Metal	Intact	Brown	0.05	
Signature Paularino	25-26/5	1074	S	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/5	1075	N	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/5	1076	E	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/5	1077	W	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/6	1078	N	Wall	Dry Wall	Intact	White	0.01	
Signature Paularino	25-26/6	1079	E	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/6	1080	S	Wall	Dry Wall	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Signature Fight Support
361 Paularino Avenue
Costa Mesa, California

Building	Hangar No. or area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature Paularino	25-26/6	1081	W	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/6	1082	N	Door Frame	Metal	Intact	Brown	0.03	
Signature Paularino	25-26/7	1083	N	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/7	1084	E	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/7	1085	S	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/7	1086	W	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/8	1087	N	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/8	1088	E	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/8	1089	S	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/8	1090	W	Wall	Dry Wall	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Signature Fight Support
361 Paularino Avenue
Costa Mesa, California

Building	Hangar No. or area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature Paularino	25-26/8	1091	N	Door Frame	Metal	Intact	Brown	0.03	
Signature Paularino	25-26/8	1092	N	Window Frame	Metal	Intact	Brown	0.04	
Signature Paularino	25-26/9	1093	N	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/9	1094	E	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/9	1095	S	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/9	1096	W	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/10	1097	N	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/10	1099	E	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/10	1100	S	Wall	Dry Wall	Intact	White	0	
Signature Paularino	25-26/10	1101	W	Wall	Dry Wall	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Signature Fight Support
361 Paularino Avenue
Costa Mesa, California

Building	Hangar No. or area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature Paularino	25-26/10	1102	N	Door Frame	Metal	Intact	Brown	0.02	
Signature Paularino	25-26/10	1103	N	Window Frame	Metal	Intact	Brown	0.03	
Signature Paularino	26/-	1104		Floor	Concrete	Intact	White	0	
Signature Paularino	25-26/Offices	1105	S	Exterior Wall	Concrete	Intact	Beige	0	Hangar 13 and tilted up
Signature Paularino	26/-	1106	S	Exterior Wall	Concrete	Intact	Beige	0	Hangar 13 and Tilted up
Signature Paularino	26/-	1107		Calibration				1.1	
Signature Paularino	Offices/8	1108	N	Wall	Dry Wall	Intact	White	0	
Signature Paularino	Offices/8	1109	E	Wall	Dry Wall	Intact	White	0	
Signature Paularino	Offices/8	1110	S	Wall	Dry Wall	Intact	White	0	
Signature Paularino	Offices/8	1111	W	Wall	Dry Wall	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Signature Fight Support
361 Paularino Avenue
Costa Mesa, California

Building	Hangar No. or area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature Paularino	Offices/8	1112		Floor	Sheet Vinyl	Intact	Gray	0	
Signature Paularino	Offices/8	1113		Door Frame	Metal	Intact	Brown	0.01	
Signature Paularino	Offices/8	1114		Handrail	Metal	Intact	Blue	0	
Signature Paularino	Offices/2	1123	N	Wall	Dry Wall	Intact	White	0	
Signature Paularino	Offices/2	1124	E	Wall	Dry Wall	Intact	White	0	
Signature Paularino	Offices/2	1125	S	Wall	Dry Wall	Intact	White	0	
Signature Paularino	Offices/2	1126	W	Wall	Dry Wall	Intact	White	0	
Signature Paularino	offices/1	1127	S	Wall	Dry Wall	Intact	White	0	
Signature Paularino	offices/1	1128	W	Wall	Dry Wall	Intact	White	0	
Signature Paularino	Offices/3	1129	W	Wall	Dry Wall	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Signature Fight Support
361 Paularino Avenue
Costa Mesa, California

Building	Hangar No. or area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature Paularino	Offices/3	1130	E	Wall	Dry Wall	Intact	White	0.01	
Signature Paularino	Offices/3	1131	S	Wall	Dry Wall	Intact	White	0	
Signature Paularino	Offices/3	1132	W	Wall	Dry Wall	Intact	White	0	
Signature Paularino	Offices/3	1133	N	Wall	Ceramic Tile	Intact	Cream	19.7	
Signature Paularino	Offices/4	1134	N	Wall	Dry Wall	Intact	White	0	
Signature Paularino	Offices/4	1135	E	Wall	Dry Wall	Intact	White	0	
Signature Paularino	Offices/4	1136	S	Wall	Dry Wall	Intact	White	0	
Signature Paularino	Offices/4	1137	W	Wall	Dry Wall	Intact	White	0	
Signature Paularino	Offices/4	1138	W	Wall	Ceramic Tile	Intact	Blue	10	
Signature Paularino	Offices/4	1139	W	Wall	Ceramic Tile	Intact	Cream	8.6	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Signature Fight Support
361 Paularino Avenue
Costa Mesa, California

Building	Hangar No. or area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature Paularino	Offices/5	1140	N	Wall	Dry Wall	Intact	White	0	
Signature Paularino	Offices/5	1141	E	Wall	Dry Wall	Intact	White	0	
Signature Paularino	Offices/5	1142	S	Wall	Dry Wall	Intact	White	0	
Signature Paularino	Offices/5	1143	W	Wall	Dry Wall	Intact	White	0	
Signature Paularino	Offices/6	1143.1	N	No access door is width of closet				0	
Signature Paularino	Offices/6	1143.2	E	No access door is width of closet				0	
Signature Paularino	Offices/6	1143.3	S	No access door is width of closet				0	
Signature Paularino	Offices/6	1143.4	W	No access door is width of closet				0	
Signature Paularino	Offices/6	1144	W	Door	Wood	Intact	White	0	
Signature Paularino	Offices/6	1145	N	Door Frame	Wood	Intact	White	0.04	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Signature Fight Support
361 Paularino Avenue
Costa Mesa, California

Building	Hangar No. or area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature Paularino	Offices/2	1146	N	Door	Metal	Intact	Light Blue	0.05	
Signature Paularino	Offices/2	1147	N	Door Frame	Metal	Intact	Light Blue	0.03	
Signature Paularino	Offices/2	1151	N	Window Frame	Metal	Intact	Light Blue	0.02	

APPENDIX B

ANALYTICAL REPORTS AND CHAIN OF CUSTODY DOCUMENTATION

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: B232274
Date Received: 12/13/16
Date Analyzed: 12/20/16
Date Printed: 12/20/16
First Reported: 12/20/16

Job ID/Site: IR13164420.55; John Wayne Airport (SNA/GAIP) - Signature West Bldg. C

FALI Job ID: 5629-10

Date(s) Collected: 12/07/2016

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
001_1_a	51030178						
Layer: Light Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (3 %)		**Asbestos (ND)**					
002_1_a	51030179						
Layer: Light Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (3 %)		**Asbestos (ND)**					
003_1_a	51030180						
Layer: Light Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (3 %)		**Asbestos (ND)**					
004_1_b	51030181						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
005_1_b	51030182						
Layer: Drywall Backing			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
006_1_b	51030183						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
007_1_b	51030184						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232274
Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
008_1_b	51030185						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
009_1_b	51030186						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
010_1_b	51030187						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
011_1_c	51030188						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
012_1_c	51030189						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
013_1_c	51030190						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
014_1_c	51030191						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
015_1_c	51030192						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232274

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
016_1_c	51030193						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
017_1_c	51030194						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
018_2_a	51030195						
Layer: Light Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (3 %)		**Asbestos (ND)**					
019_2_a	51030196						
Layer: Light Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (3 %)		**Asbestos (ND)**					
020_2_a	51030197						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (3 %)		**Asbestos (ND)**					
021_2_a	51030198						
Layer: White Non-Fibrous Material			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
022_2_a	51030199						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
023_2_a	51030200						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
024_2_a	51030201						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232274
Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
025_2_a	51030202						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
026_2_c	51030203						
Layer: Backing Drywall			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (15 %)		**Asbestos (ND)**					
027_2_c	51030204						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
028_2_c	51030205						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
029_2_c	51030206						
Layer: Off-White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
030_2_c	51030207						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
031_3_a	51030208						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
031_3_b	51030209						
Layer: Off-White Mastic			**ND**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232274

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
032_3_a	51030210						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
032_3_b	51030211						
Layer: Off-White Mastic			**ND**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
033_3_a	51030212						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
033_3_b	51030213						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
034_5_a	51030214						
Layer: Grey Putty			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
035_5_a	51030215						
Layer: Grey Putty			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
036_5_a	51030216						
Layer: Grey Putty			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
037_6_a	51030217						
Layer: Paint/Coating			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
038_6_a	51030218						
Layer: Paint/Coating			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232274

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
039_6_a	51030219						
Layer: Paint/Coating			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
040_7_a	51031456						
Layer: Off-White Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (70 %) Fibrous Glass (10 %)		**Asbestos (ND)**					
041_7_a	51031457						
Layer: Off-White Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (70 %) Fibrous Glass (10 %)		**Asbestos (ND)**					
042_7_a	51031458						
Layer: Off-White Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (70 %) Fibrous Glass (10 %)		**Asbestos (ND)**					

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Analysis Request Form (COC)

Client Name & Address: Amec Foster Wheeler 6001 Rickenbacker Rd. Los Angeles CA 90040	Client No.:
PO / Job#: IR13164420.55	Date: 12/10/16
Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day	
☐ PCM: ☐ NIOSH 7400A / ☐ NIOSH 7400B ☐ Rotometer	
☒ PLM: ☒ Standard / ☐ Point Count 400 - 1000 / ☐ CARB 435	
Contact: Don Harman	Phone: (818) 324-4391
☐ TEM Air: ☐ AHERA / ☐ Yamate2 / ☐ NIOSH 7402 ☐ TEM Bulk: ☐ Quantitative / ☐ Qualitative / ☐ Chatfield ☐ TEM Water: ☐ Potable / ☐ Non-Potable / ☐ Weight % ☐ TEM Microvac: ☐ Qual / ☐ D5755(str/area) / ☐ D5756(str/mass)	
E-mail: don.harman@amecfw.com	
Site Name: John Wayne Airport	☐ IAQ Particle Identification (PLM LAB) ☐ PLM Opaques/Soot ☐ Particle Identification (TEM LAB) ☐ Special Project
Site Location: SNA/GAIP	☐ Metals Analysis Matrix: Method: Analytes:
Comments: **See attached COC** Signature West. Bldg C	☐ Silica in Air ☐ w/Gravimetry

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg LPM	Total Time	
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: DGH Date/Time: 12/7/16 Shipped Via: ☒ Fed Ex ☐ UPS ☐ US Mail ☐ Courier ☐ Drop Off ☐ Other:

Relinquished By: Don Harman Date / Time: 12/10/16	Relinquished By: Date / Time:	Relinquished By: Date / Time:
Received By: M. Adams Date / Time: 12/13/16 10:37 Am Condition Acceptable? ☒ Yes ☐ No F/E	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No

Amec Foster Wheeler E&I

Asbestos Survey Form 04a - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/7/16
Site Name	**SNA/GAIP**	Submission Date	
Building Number	Signature West Bldg C		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
001	Dry wall	1	a	1	1	H 18
002				2		H 19
003				3		H 20
004	Joint Compound		b	1		H 14-15
005				2		H 16
006				3		H 17
007				4		H 18
008				5		H ~~18~~ 18
009				6		H 19
010				7		H 20
011	Wall Texture		c	1		H 14-15
012				2		H 16
013				3		H 17

Analysis Requested	PLM	Turnaround Time	One Week

Transmitted From:

AMEC E&I
6001 Rickenbacker Rd., Los Angeles CA 90040
Phone 323.889.5300

Transmitted To:

☑ **Forensic Analytical**
Rancho Dominguez

PO # _____

☐ _____

Analyze to 1st Positve x

Sender's Signature _____

Recipient's Signature M Adams 12/13/16 10:37AM PLE

Total Number of Samples Collected in Building: 42

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/7/16
Site Name	SNA/GAIP	Submission Date	
Building Number	Signature West Bldg C		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
014	Wall Texture	1	C	4		H18
015				5		H18
016				6		H19
017				7		H2r
018	Dry wall	2	a	1		1
019				2		1
020				3		5
021	Joint Compound			1		1
022				2		2
023				3		3
024				4		5
025				5		5
026	Wall Texture		C	1		1
027				2		1
028				3		3
029				4		5
030				5		5
031	Cove Base 4" brown	3	ab	1		1
032				2		1
033				3		5
034	Caulk, Tilt-up	5	a	1		17

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/2/16
Site Name	SNA/GAIP	Submission Date	
Building Number	Signature West Bldg C		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
035	Caulk, Tr/f. 4p	5	a	2		18
036	〃 〃	5	a	3		20
037	Paint	6	a	1		H18
038	↓	↓	↓	2		H19
039	↓	↓	↓	3		H20
040	Ceiling Tile 2x4, pinhole fissure	7	a	1		H 147
041	〃 〃 〃 〃 〃	〃	〃	2		〃
042	〃 〃 〃 〃 〃	〃	〃	3		〃

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: B232276
Date Received: 12/13/16
Date Analyzed: 12/20/16
Date Printed: 12/20/16
First Reported: 12/20/16

Job ID/Site: IR13164420.55; John Wayne Airport (SNA/GAIP) - Signature West, Bldg. B

FALI Job ID: 5629-10

Date(s) Collected: 12/07/2016

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
001_1_a	51030264						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
002_1_a	51030265						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
003_1_a	51030266						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
004_1_b	51030267						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
005_1_b	51030268						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
006_1_b	51030269						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
007_1_b	51030270						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232276

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
008_1_b	51030271						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
009_1_b	51030272						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
010_1_b	51030273						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
011_1_c	51030274						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
012_1_c	51030275						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
013_1_c	51030276						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
014_1_c	51030277						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
015_1_c	51030278						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232276

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
016_1_c	51030279						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
017_1_c	51030280						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
018_2_a	51030281						
Layer: Paint/Coating			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
019_2_a	51030282						
Layer: Paint/Coating			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
020_2_a	51030283						
Layer: Paint/Coating			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
021_3_a	51030284						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
021_3_b	51030285						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
022_3_a	51030286						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
022_3_b	51030287						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
023_3_a	51030288						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232276

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
023_3_b	51030289						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (Trace)							
024_4_a	51031459						
Layer: Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)							
024_4_b	51031460						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (Trace)							
025_4_a	51031461						
Layer: Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)							
025_4_b	51031462						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (Trace)							
026_4_a	51031463						
Layer: Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)							
026_4_b	51031464						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (Trace)							

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Analysis Request Form (COC)

Client Name & Address: Amec Foster Wheeler 6001 Rickenbacker Rd. Los Angeles CA 90040	Client No.:
PO / Job#: IR13164420.55	Date: 12/10/16
Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day	
☐ PCM: ☐ NIOSH 7400A / ☐ NIOSH 7400B ☐ Rotometer	
☒ PLM: ☒ Standard / ☐ Point Count 400 - 1000 / ☐ CARB 435	
Contact: Don Harman	Phone: (818) 324-4391
E-mail: don.harman@amecfw.com	
☐ TEM Air: ☐ AHERA / ☐ Yamate2 / ☐ NIOSH 7402 ☐ TEM Bulk: ☐ Quantitative / ☐ Qualitative / ☐ Chatfield ☐ TEM Water: ☐ Potable / ☐ Non-Potable / ☐ Weight % ☐ TEM Microvac: ☐ Qual / ☐ D5755(str/area) / ☐ D5756(str/mass)	
Site Name: John Wayne Airport	☐ IAQ Particle Identification (PLM LAB) ☐ PLM Opaques/Soot ☐ Particle Identification (TEM LAB) ☐ Special Project
Site Location: SNA/GAIP	☐ Metals Analysis Matrix: Method: Analytes:
Comments: See attached COC Signature West, Bldg B	☐ Silica in Air ☐ w/Gravimetry

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg LPM	Total Time	
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: Date/Time: Shipped Via: ☐ Fed Ex ☐ UPS ☐ US Mail ☐ Courier ☐ Drop Off ☐ Other:

Relinquished By: Don Harman	Relinquished By:	Relinquished By:
Date / Time: 12/10/16	Date / Time:	Date / Time:
Received By: Madrid	Received By:	Received By:
Date / Time: 12/13/16 1037AM	Date / Time:	Date / Time:
Condition Acceptable? ☒ Yes ☐ No	Condition Acceptable? ☐ Yes ☐ No	Condition Acceptable? ☐ Yes ☐ No

Amec Foster Wheeler E&I

Asbestos Survey Form 04a - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/7/16
Site Name	**SNA/GAIP**	Submission Date	
Building Number	Signature West Bldg B		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
001	Drywall	1	a	1		H 8
002	"	"	"	2		H 11
003	"	"	"	3		H 13
004	Joint Compound	"	b	1		H5
005	"	"	"	2		H6
006	"	"	"	3		H8
007	"	"	"	4		H9
008	"	"	"	5		H11
009	"	"	"	6		H12
010	"	"	"	7		H13
011	Wall Texture	"	c	1		H6
012	"	"	"	2		H7
013	"	"	"	3		H8

Analysis Requested	PLM	Turnaround Time	One Week

Transmitted From:

AMEC E&I
6001 Rickenbacker Rd., Los Angeles CA 90040
Phone 323.889.5300

Transmitted To:

☑ **Forensic Analytical**
Rancho Dominguez

PO # _____

☐ _____

Analyze to 1st Positve x

Sender's Signature: Don Eldam

Recipient's Signature: _____

Total Number of Samples Collected in Building: 26

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/7/16
Site Name	SNA/GAIP	Submission Date	
Building Number	Signature West, Bldg B		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
014	Wall Texture	1	C	4		H 9
015	"	"	"	5		H 11
016	"	"	"	6		H 12
017	"	"	"	7		H 13
018	Paint	2	G	1		H 8
019	"	"	"	2		H 11
020	"	"	"	3		H 13
021	Cove Base 4" gr	3	ab	1		H 12
022	"	"	"	2		H 12
023	"	"	"	3		H 12
024	Sheet vnyl H. gr. terrazo	4	ab	1		Mens R/R
025	"	"	"	2		"
026	"	"	"	3		"

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: B232277
Date Received: 12/13/16
Date Analyzed: 12/20/16
Date Printed: 12/20/16
First Reported: 12/20/16

Job ID/Site: IR13164420.55; John Wayne Airport (SNA/GAIP) - Signature West, Bldg. D

FALI Job ID: 5629-10

Date(s) Collected: 12/09/2016

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
001_1_a	51030290						
Layer: Light Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (7 %)		**Asbestos (ND)**					
002_1_a	51030291						
Layer: Light Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
003_1_a	51030292						
Layer: Light Pink Drywall			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
004_1_b	51030293						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
005_1_b	51030294						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
006_1_b	51030295						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
007_1_b	51030296						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232277

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
008_1_b	51030297						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
009_1_b	51030298						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
010_1_b	51030299						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
012_1_c	51030300						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
013_1_c	51030301						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
014_1_c	51030302						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
015_1_c	51030303						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
016_1_c	51030304						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232277

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
017_1_c	51030305						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
018_1_c	51030306						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
019_2_a	51030307						
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
020_2_a	51030308						
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
021_2_a	51030309						
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
022_7_a	51030310						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (45 %) Fibrous Glass (35 %)		**Asbestos (ND)**					
023_7_a	51030311						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (45 %) Fibrous Glass (35 %)		**Asbestos (ND)**					
024_7_a	51030312						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (45 %) Fibrous Glass (35 %)		**Asbestos (ND)**					
025_5_c	51030313						
Layer: Tan Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %) Fibrous Glass (2 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232277

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
026_5_c	51030314						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
027_5_c	51030315						
Layer: White Drywall			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
028_5_b	51030316						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
029_5_b	51030317						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
030_5_b	51030318						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
031_5_b	51030319						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
032_5_b	51030320						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
033_5_c	51030321						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232277

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
034_5_c	51030322						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
035_5_c	51030323						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
036_5_c	51030324						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
037_5_c	51030325						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
038_6_a	51030326						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
038_6_b	51030327						
Layer: Beige Mastic			**ND**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
039_6_a	51030328						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
039_6_b	51030329						
Layer: Beige Mastic			**ND**				
Layer: Paint			**ND**				
Layer: Off-White Mastic			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232277

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
040_6_a	51030330						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (Trace)							
040_6_b	51030331						
Layer: Beige Mastic			**ND**				
Layer: Paint			**ND**				
Layer: Off-White Mastic			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (Trace)							
041_8_a	51030332						
Layer: Grey Sheet Flooring			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (Trace)							
041_8_b	51030333						
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (Trace) Fibrous Glass (2 %) Synthetic (45 %)							
042_8_a	51030334						
Layer: Grey Sheet Flooring			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (Trace)							
042_8_b	51030335						
Layer: Fibrous Backing			**ND**				
Layer: Clear Mastic			**ND**				
Layer: Grey Non-Fibrous Material			**ND**				
Layer: Paint			**ND**				
Layer: White Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (Trace) Fibrous Glass (2 %) Synthetic (30 %)							
043_8_a	51030336						
Layer: Grey Sheet Flooring			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (Trace)							
043_8_b	51030337						
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (Trace) Fibrous Glass (2 %) Synthetic (45 %)							
044_9_a	51030338						
Layer: Black Tile			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (Trace)							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232277

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
044_9_b	51030339						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
045_9_a	51030340						
Layer: Black Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
045_9_b	51030341						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
046_9_a	51030342						
Layer: Black Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
046_9_b	51030343						
Layer: Tan Mastic			**ND**				
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
047_3_a	51030344						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
048_3_a	51030345						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
049_3_a	51030346						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
050_4_a	51030347						
Layer: Tan Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (2 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232277

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
051_4_a	51030348						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
052_4_a	51030349						
Layer: White Drywall			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (3 %)		**Asbestos (ND)**					
053_4_b	51030350						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
054_4_b	51030351						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
055_4_b	51030352						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
056_4_b	51030353						
Layer: Drywall Tape			**ND**				
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %)		**Asbestos (ND)**					
057_4_b	51031465						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
058_4_c	51031466						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232277

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
059_4_c	51031467						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
060_4_c	51031468						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
061_4_c	51031469						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
062_4_c	51031470						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
063_10_a	51031471						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
063_10_b	51031472						
Layer: Paint			**ND**				
Layer: White Non-Fibrous Material			**ND**				
Layer: Tan Mastic			**ND**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
064_10_a	51031473						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
064_10_b	51031474						
Layer: Off-White Mastic			**ND**				
Layer: Paint			**ND**				
Layer: Drywall Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232277

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
065_10_a	51031475						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
065_10_b	51031476						
Layer: Off-White Mastic			**ND**				
Layer: Paint			**ND**				
Layer: Tan Mastic			**ND**				
Layer: Paint			**ND**				
Layer: Drywall Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Analysis Request Form (COC)

Client Name & Address: Amec Foster Wheeler, 6001 Rickenbacker Rd., Los Angeles CA 90040	Client No.:
PO / Job#: IR13164420.55	Date: 12/10/16
Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day	
☐ PCM: ☐ NIOSH 7400A / ☐ NIOSH 7400B ☐ Rotometer	
☒ PLM: ☒ Standard / ☐ Point Count 400 - 1000 / ☐ CARB 435	
Contact: Don Harman	Phone: (818) 324-4391
E-mail: don.harman@amecfw.com	☐ TEM Air: ☐ AHERA / ☐ Yamate2 / ☐ NIOSH 7402 ☐ TEM Bulk: ☐ Quantitative / ☐ Qualitative / ☐ Chatfield ☐ TEM Water: ☐ Potable / ☐ Non-Potable / ☐ Weight % ☐ TEM Microvac: ☐ Qual / ☐ D5755(str/area) / ☐ D5756(str/mass)
Site Name: John Wayne Airport	☐ IAQ Particle Identification (PLM LAB) ☐ PLM Opaques/Soot ☐ Particle Identification (TEM LAB) ☐ Special Project
Site Location: SNA/GAIP	☐ Metals Analysis Matrix: Method: Analytes:
Comments: See attached COC Signature West, Bldg D	☐ Silica in Air ☐ w/Gravimetry

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg LPM	Total Time	
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: DEH Date/Time: 12/9/16 Shipped Via: ☒ Fed Ex ☐ UPS ☐ US Mail ☐ Courier ☐ Drop Off ☐ Other:

Relinquished By: Don Harman Date / Time: 12/10/16	Relinquished By: Date / Time:	Relinquished By: Date / Time:
Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No

Amec Foster Wheeler E&I

Asbestos Survey Form 04a - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/9/16
Site Name	**SNA/GAIP**	Submission Date	
Building Number	Signature West, Bldg D		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
001	Drywall	1	a	1	1	H 22
002	"	"	"	2		H 24
003	"	"	"	3		H 25
004	Joint Compound	X 1	b	1		H 22
005	"	"	"	2		H 22
006	"	"	"	3		H 23
007	"	"	"	4		H 23
008	"	"	"	5		H 24
009	"	"	"	6		H 25
010	"	"	"	7		H 26
011 left out						
012	Wall Texture	1	c	1		H22
013	"	"	"	2		H 22
014	"	"	"	3		H23

Analysis Requested	PLM	Turnaround Time	One Week

Transmitted From:

AMEC E&I
6001 Rickenbacker Rd., Los Angeles CA 90040
Phone 323.889.5300

Transmitted To:

☒ **Forensic Analytical**
Rancho Dominguez

PO # _____

☐ _____

Analyze to 1st Positve x

Sender's Signature: Dan E Harmon

Recipient's Signature: _____

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/9/16
Site Name	SNA/GAIP	Submission Date	
Building Number	Signature West, Bldg D		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
015	Wall Texture	1	c	4	1	H23
016	"	"	"	5	"	H24
017	"	"	"	6	"	H25
018	"	"	"	7	"	H26
019	Paint	2	a	1	"	H23
020	"	"	"	2	"	H24
021	"	"	"	3	"	H25
022	Ceiling Tile, 2x4, pindot fissure	~~2~~ 7	a	1	office	~~H26~~ -2
023	"	"	"	2	"	-2
024	"	"	"	3	"	-8
025	Dry wall	* 5	c	1	"	-3
026	"	"	"	2	"	-6
027	"	"	"	3	"	-9
028	Joint Compand	~~*~~ 5	6	1	"	-2
029	"	"	"	2	"	-2
030	"	"	"	3	"	-2
031	"	"	"	4	"	-8
032	"	"	"	5	"	-9
033	Wall Texture	"	c	1	"	-2
034	"	"	"	2	"	-3
035	"	"	"	3	"	-6

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	**SNA/GAIP**
Building Number	Signature West, Bldg D
Collection Date	12/9/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No. (offices)
036	Wall Texture	#5	c	4	1	~~H26~~ - 6
037	" "	"	"	5		" - 9
038	Cove Base b/ 4"	6	ab	1		-6
039	" "	"	"	2		-8
040	" "	"	"	3		-8
041	Sheet Vingl gr. terrazo	8	ab	1		-8
042	" " "	"	"	2		-8
043	" " "	"	"	3		-8
044	~~Cove Base~~ black	9	ab	1		-2
045	" " Floor tile 12x12	"	"	2		-2
046	" " "	"	"	3		-2
047	Ceiling Tile 2x4 pinhole/fissur	3	a	1		H226 - 6
048	" " "	"	"	2		-8
049	" " "	"	"	3		-10
050	Dry Wall	4	a	1		-4
051	" "	"	"	2		-8
052	" "	"	"	3		-9
053	Joint Compound	"	b	1		-4
054	" "	"	"	2		-6
055	" "	"	"	3		-8
056	" "	"	"	4		-9

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/9/16
Site Name	SNA/GAIP	Submission Date	
Building Number	Signature West, Bldg D		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
057	Joint Compound	4	b	5	1	H26 -10
058	Wall Texture		c	~~X~~ 1		-6
059	↓	↓	↓	~~X~~ 2		-7
060				3		-8
061				4		-9
062				5		-10
063	Cove Base block 4"	10	ab	1		-6
064	↓	↓	↓	2		-9
065	↓	↓	↓	3		-10
~~067~~						
~~068~~						
~~069~~						
~~070~~						

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: B232278
Date Received: 12/13/16
Date Analyzed: 12/20/16
Date Printed: 12/20/16
First Reported: 12/20/16

Job ID/Site: IR13164420.55; John Wayne Airport (SNA/GAIP) - Signature West, Bldg. A

FALI Job ID: 5629-10

Date(s) Collected: 12/8/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
001_1_a	51030354						
Layer: Light Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
002_1_a	51030355						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
003_1_a	51030356						
Layer: Light Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
004_1_b	51030357						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
005_1_b	51030358						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
006_1_b	51030359						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
007_2_a	51030360						
Layer: Black Non-Fibrous Material with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232278

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
007_2_b	51030361						
Layer: Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
008_2_a	51030362						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
008_2_b	51030363						
Layer: Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
009_2_a	51030364						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
009_2_b	51030365						
Layer: Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
010_4_a	51030366						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
011_4_a	51030367						
Layer: White Drywall			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
012_4_a	51030368						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (15 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
013_4_b	51030369						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232278

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
014_4_b	51030370						
Layer: Off-White Fibrous Material			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
015_4_b	51030371						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
016_4_b	51030372						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
017_4_b	51030373						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
018_4_b	51030374						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
019_4_b	51030375						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
020_4_c	51030376						
Layer: Off-White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
021_4_c	51030377						
Layer: Off-White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232278
Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
022_4_c	51030378						
Layer: Off-White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
023_4_c	51030379						
Layer: Off-White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
024_4_c	51030380						
Layer: Off-White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
025_4_c	51030381						
Layer: Off-White Texture			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
026_4_c	51030382						
Layer: Off-White Texture			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
027_5_a	51030383						
Layer: Paint with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
028_5_a	51030384						
Layer: Paint with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
029_5_a	51030385						
Layer: Paint with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
030_7_a	51030386						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %) Fibrous Glass (2 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232278

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
031_7_a	51030387						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
032_7_a	51030388						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
033_6_a	51030389						
Layer: Tan Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (95 %)		**Asbestos (ND)**					
034_6_a	51030390						
Layer: Tan Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (95 %)		**Asbestos (ND)**					
035_6_a	51030391						
Layer: Tan Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (95 %)		**Asbestos (ND)**					
036_7_b	51030392						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
037_7_b	51030393						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
038_7_b	51030394						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
039_7_b	51030395						
Layer: Drywall Tape			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232278

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
040_7_b	51030396						
Layer: Drywall Tape			**ND**				
Layer: White Skimcoat/Joint Compounds			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (7 %)		**Asbestos (ND)**					
041_7_c	51030397						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
042_7_c	51030398						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
043_7_c	51030399						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
044_8_a	51030400						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
044_8_b	51030401						
Layer: Tan Mastic			**ND**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
045_8_a	51030402						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
045_8_b	51030403						
Layer: Tan Mastic			**ND**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232278

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
046_8_a	51030404						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
046_8_b	51030405						
Layer: Tan Mastic			**ND**				
Layer: Yellow Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
047_10_a	51030406						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
048_10_a	51030407						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (15 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
049_10_a	51030408						
Layer: White Drywall			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
050_10_b	51030409						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
051_10_b	51030410						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
052_10_b	51030411						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
053_10_c	51030412						
Layer: White Drywall			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232278

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
054_10_c	51030413						
Layer: White Drywall			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
055_10_c	51030414						
Layer: White Drywall			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
056_12_a	51031447						
Layer: Beige Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
056_12_b	51031448						
Layer: Beige Mastic			**ND**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Tan Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
057_12_a	51031449						
Layer: Beige Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
057_12_b	51031450						
Layer: Beige Mastic			**ND**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Tan Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
058_12_a	51031451						
Layer: Beige Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232278

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
058_12_b	51031452						
Layer: Beige Mastic			**ND**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Tan Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
059_13_a	51031453						
Layer: Beige Tile			**ND**				
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
060_13_a	51031454						
Layer: Beige Tile			**ND**				
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
061_13_a	51031455						
Layer: Beige Tile			**ND**				
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Analysis Request Form (COC)

Client Name & Address: Amec Foster Wheeler 6001 Rickenbacker Rd. Los Angeles CA 90040	Client No.:
PO / Job#: IR13164420.55	Date:
Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day	
☐ PCM: ☐ NIOSH 7400A / ☐ NIOSH 7400B ☐ Rotometer	
☒ PLM: ☒ Standard / ☐ Point Count 400 - 1000 / ☐ CARB 435	
Contact: Don Harman	Phone: (818) 324-4391
☐ TEM Air: ☐ AHERA / ☐ Yamate2 / ☐ NIOSH 7402	
E-mail: don.harman@amecfw.com	☐ TEM Bulk: ☐ Quantitative / ☐ Qualitative / ☐ Chatfield ☐ TEM Water: ☐ Potable / ☐ Non-Potable / ☐ Weight % ☐ TEM Microvac: ☐ Qual / ☐ D5755(str/area) / ☐ D5756(str/mass)
Site Name: John Wayne Airport	☐ IAQ Particle Identification (PLM LAB) ☐ PLM Opaques/Soot ☐ Particle Identification (TEM LAB) ☐ Special Project
Site Location: SNA/GAIP	☐ Metals Analysis Matrix: Method: Analytes:
Comments: **See attached COC** Signature West, Bldg A	☐ Silica in Air ☐ w/Gravimetry

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg LPM	Total Time	
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: DCH Date/Time: 12/8/16 Shipped Via: ☒ Fed Ex ☐ UPS ☐ US Mail ☐ Courier ☐ Drop Off ☐ Other:

Relinquished By: Don Harman Date / Time: 12/10/16	Relinquished By: Date / Time:	Relinquished By: Date / Time:
Received By: Madam AE Date / Time: 12/13/16 10:37am Condition Acceptable? ☒ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No

Amec Foster Wheeler E&I

Asbestos Survey Form 04a - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	SNA/GAIP
Building Number	Signature West, Bldg A
Collection Date	12/8/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
001	Drywall, Hanger 2	1	a	1	1	2
002	"		a	2		3
003	"		a	3		3
004	Joint Compound, Hanger 2		b	1		3
005				2		
006				3		
007	Cove base, black, 4" Hanger 2	2	ab	1		2
008				2		
009				3		
010	Drywall, Hanger 1, 2 & 3	4	a	1		1
011		4		2		9
012		4		3		12
013	Joint compound	4	b	1		1

Analysis Requested	PLM
Turnaround Time	One Week

Transmitted From:

AMEC E&I
6001 Rickenbacker Rd., Los Angeles CA 90040
Phone 323.889.5300

Transmitted To:

☐ **Forensic Analytical**
Rancho Dominguez

PO # _____

☐ _____

Analyze to 1st Positve x

Sender's Signature: Don E Harmon

Recipient's Signature: M J Adams 12/13/16 10:37A f/e

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/8/16
Site Name	SNA/GAIP	Submission Date	
Building Number	Signature West, Bldg A		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
014	Joint Compand, Hangar 1, 2 & 3	4	b	2	1	1
015				3		1
016				4		9
017				5		9
018				6		12
019				7		12
020	Wall Textur, Hangar 1, 2 & 3	4	c	1		1
021				2		1
022				3		1
023				4		9
024				5		9
025				6		12
026				7		12
027	Paint, Hangar 1, 2, 3	5	a	1		1
028				2		9
029				3		12
030	Drywall, Hangar 3	7	a	1		4
031				2		5
032				3		5
033	Ceiling Panel, Hangar 3	6	a	1		4
034				2		4

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	SNA/GAIP
Building Number	Signature West Bldg A
Collection Date	12/8/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
035	Ceiling Panel Hangar 3	6	a	3	1	4
036	Joint Compound, Hangar 3	7	b	1		4
037	↓	↓	↓	2		↓
038	↓	↓	↓	3		↓
039	↓	↓	↓	4		↓
040	↓	↓	↓	5		5
041	Wall Texture, Hangar 3	↓	c	1		4
042	↓	↓	↓	2		↓
043	↓	↓	↓	3		↓
044	Cove base gray Hangar 3	8	ab	1		4
045	↓	↓	↓	2		↓
046	↓	↓	↓	3		↓
047	Drywall Hangar 1	10	a	1		10
048	↓	↓	↓	2		11
049	↓	↓	↓	3		11
050	Joint Compound Hangar 1	↓	b	1		10
051	↓	↓	↓	2		10
052	↓	↓	↓	3		11
053	Wall Texture Hangar 1	↓	c	1		10
054	↓	↓	↓	2		10
055	↓	↓	↓	3		11

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/9/16
Site Name	**SNA/GAIP**	Submission Date	
Building Number	Signature West, Bldg A		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
056	Cove base beige 4"	12	ab	1	1	office next to Hangar 1
057	"	"	"	2	"	"
058	"	"	"	3	"	"
059	FT 12X12, offwhite	13	a	1	"	"
060	"	"	"	2	"	"
061	"	"	"	3	"	"

Forensic Analytical LABORATORIES

Metals Analysis of Paints

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: M180405
Date Received: 01/04/17
Date Analyzed: 01/11/17
Date Printed: 01/11/17
First Reported: 01/11/17

Job ID / Site: IR13164420.55; John Wayne Airport, SNA/GAIP
Date(s) Collected: 01/03/17

FALI Job ID: 5629-10
Total Samples Submitted: 18
Total Samples Analyzed: 18

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference
001	LM135564	Pb	0.18	wt%	0.02	EPA 3050B/7000B
002	LM135565	Pb	< 0.006	wt%	0.006	EPA 3050B/7000B
003	LM135566	Pb	0.016	wt%	0.006	EPA 3050B/7000B
004	LM135567	Pb	0.0085	wt%	0.0007	EPA 3050B/7000B
005	LM135568	Pb	0.73	wt%	0.03	EPA 3050B/7000B
006	LM135569	Pb	0.62	wt%	0.03	EPA 3050B/7000B
007	LM135570	Pb	0.57	wt%	0.03	EPA 3050B/7000B
008	LM135571	Pb	1.3	wt%	0.06	EPA 3050B/7000B
009	LM135572	Pb	0.95	wt%	0.06	EPA 3050B/7000B
010	LM135573	Pb	1.2	wt%	0.06	EPA 3050B/7000B
011	LM135574	Pb	0.89	wt%	0.06	EPA 3050B/7000B
012	LM135575	Pb	0.11	wt%	0.007	EPA 3050B/7000B
013	LM135576	Pb	0.62	wt%	0.04	EPA 3050B/7000B
014	LM135577	Pb	0.85	wt%	0.06	EPA 3050B/7000B
015	LM135578	Pb	0.008	wt%	0.006	EPA 3050B/7000B
016	LM135579	Pb	0.098	wt%	0.006	EPA 3050B/7000B
017	LM135580	Pb	1.0	wt%	0.06	EPA 3050B/7000B
018	LM135581	Pb	0.016	wt%	0.006	EPA 3050B/7000B

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Metals Analysis of Paints

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: M180405
Date Received: 01/04/17
Date Analyzed: 01/11/17
Date Printed: 01/11/17
First Reported: 01/11/17

Job ID / Site: IR13164420.55; John Wayne Airport, SNA/GAIP
Date(s) Collected: 01/03/17

FALI Job ID: 5629-10
Total Samples Submitted: 18
Total Samples Analyzed: 18

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference

* The Reporting Limit represents the lowest amount of analyte that the laboratory can confidently detect in the sample, and is not a regulatory level. The Units for the Reporting Limit are the same as the Units for the Final Results.

Beatriz Hinojosa, Laboratory Supervisor, Rancho Dominguez Laboratory

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Analysis Request Form (COC)

Client Name & Address: Amec Foster Wheeler 6001 Rickenbacker Rd. Los Angeles CA 90040	Client No.:
PO / Job#: IR13164420.55	Date: 1/3/17
Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day	
☐ PCM: ☐ NIOSH 7400A / ☐ NIOSH 7400B ☐ Rotometer	
☐ PLM: ☐ Standard / ☐ Point Count 400 - 1000 / ☐ CARB 435	
Contact: Don Harman	Phone: (818) 324-4391
☐ TEM Air: ☐ AHERA / ☐ Yamate2 / ☐ NIOSH 7402 ☐ TEM Bulk: ☐ Quantitative / ☐ Qualitative / ☐ Chatfield ☐ TEM Water: ☐ Potable / ☐ Non-Potable / ☐ Weight % ☐ TEM Microvac: ☐ Qual / ☐ D5755(str/area) / ☐ D5756(str/mass)	
E-mail: don.harman@amecfw.com	
Site Name: John Wayne Airport	☐ IAQ Particle Identification (PLM LAB) ☐ PLM Opaques/Soot ☐ Particle Identification (TEM LAB) ☐ Special Project
Site Location: SNA/GAIP	☒ Metals Analysis Matrix: Paint Method: AA Analytes: Lead in paint or ceramic glaze
Comments: See attached COC 18 samples	☐ Silica in Air ☐ w/Gravimetry

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg LPM	Total Time	
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: DH Date/Time: Shipped Via: ☒ Fed Ex ☐ UPS ☐ US Mail ☐ Courier ☐ Drop Off ☐ Other:

Relinquished By: Don Harman Date / Time: 1/3/17 PM	Relinquished By: Date / Time:	Relinquished By: Date / Time:
Received By: [signature] FE Date / Time: 01/04/17 10:30 Condition Acceptable? ☒ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No

PROJECT NO. IR13-IC4420.55
PROJECT JW Airport
SURVEYOR(S) DEH & IC
DATE 1/13/17

AREA # | AREA NAME / DESCRIPTION | AREA # | AREA NAME / DESCRIPTION

UNIT CODES
1 LF
2 SF
3 SY
4 CI
5 EACH

PERCENTAGES
PAINT | WATER | DUST | OTHER | Q.A.

P - POSITIVE
N - NEGATIVE

SAMPLE #	BLDG / FLOOR	AREA USE	COMP CODE	MATERIAL DESCRIPTION / COLOR	ESTIMATED QUANTITY	UNIT	Result
001				Signature 2A (44 bays) Exterior Frame, beige	837		0.05
002				Stg W A 2 Ext wall	1002		0.50
003				Signature R/R wall & Ceiling, beige	842		0.40
004				Signature R/R ornate title beige L02	847		7.2
005				Atlantic NP2 gray	1289		0.21
006				Atlantic NP1 Door 27 white/cream	1193		0.60
007				Atlantic NP4 East wall white, 1st fl lobby/47, NP4	1615		0.70
008				Atlantic, stair stringer, NP4 white, 1st fl. lobby/47	1622		2.2
009				Atlantic Door white NP4 1st fl lobby Womens R/R/46	1641		1.0
010				Atlantic, NP4, R/R door 2nd fl. lobby. 22 or 23	1451		0.50

01 WATER
02 DUST
03 DOOR, HEADER
04 DOOR, JAM
05 DOOR, CASING
06 STAIR, TREADS
07 STAIR, RISERS
08 STAIR, STRINGER
09 BALUSTER
10 RAILING CAP
11 NEWEL POST
12 WINDOW, HEADER
13 WINDOW, CASING
14 WINDOW, SILL
15 WINDOW, SASH
16 WINDOW, STOPS
17 MULLIONS
18 APRON
19 WINDOW GRATE
20 DOOR GRATE

21 BASEBOARD
22 WALLS
23 WALLS, LOWER
24 WALLS, UPPER
25 CHAIR RAIL
26 DOOR, EXTERIOR
27 EXTERIOR, DOOR CASING
28 EXTERIOR, WINDOW CASING
29 EXTERIOR, WINDOW MULLIONS
30 EXTERIOR, WINDOW SILL
31 THRESHOLD
32 DRIPBORAD
33 LOWER TRIM
34 UPPER TRIM
35 CORNERBOARD
36 SIDING
37 CELLAR WINDOW UNIT
38 _____
39 _____
40 _____

41 FLOOR
42 LOWER RAILING
43 BALUSTER
44 RAILING CAPS
45 SUPPORT COLUMN
46 JOIST
47 UPPER TRIM
48 CEILING
49 RADIATOR
50
51
52
53
54
55
56
57
58
59
60

61
62
63
64
65
66
67
68
69
70
71
72
73

AREA USAGE CODE
1 VOID /CHASE/ CAVITY
2 MECHANICAL
3 STORAGE
4 OCCASIONAL
5 CONTINUOUS

PEELING CODE	SUBSTRATE CODE	CHEWABLE SURFACE	CONTACT CODE	CODE
1 PEELING	1 WOOD	1 YES	1 LOW	1 _____
2 NOT PEELING	2 METAL	2 NO	2 MODERATE	2 _____
3 UNDAMAGED	1 MASONRY		3 HIGH	3 _____
4 CHIPPED	4 DRYWALL			
5 CHALKING	5 PLASTER			

PROJECT NO. 1R 13164420.55
PROJECT JW Airport
SURVEYOR(S) DE71/1C
DATE 1/3/17

AREA #	AREA NAME / DESCRIPTION	AREA #	AREA NAME / DESCRIPTION

UNIT CODES: 1 LF, 2 SF, 3 SY, 4 CI, 5 EACH

P - POSITIVE
N - NEGATIVE

SAMPLE #	BLDG / FLOOR	AREA #	ARE USE	COM'T CODE	MATERIAL DESCRIPTION/COLOR	ESTIMATED QUANTITY		P/N	PERCENTAGES PAINT	WATER	DUST	OTHER	Q.A.
011					Atlantic, Southwall, NPL 2nd fl lobby / 21	1430	0.70						
12					Atlantic, NPL, ext door, blue 18/36	1547	0.50						
13					Atlantic, NP4, int door white 18/36	1546	0.70						
014					Atlantic, NP4 door white 7/62	1708	0.70						
15					County Hangar, 19471 [2] column, red shot 2010	2010	0.0						
016					Executive Hangar #B, frame gr 0.17 mg/cm²	2292	0.17						
017					Executive Hangar #62 floor gr.	2442	0.30						
018					Executive Hangar #62, peeling on fl. beige	2442	0.30						
						1							

01 WATER
02 DUST
03 DOOR, HEADER
04 DOOR, JAM
05 DOOR, CASING
06 STAIR, TREADS
07 STAIR, RISERS
08 STAIR, STRINGER
09 BALUSTER
10 RAILING CAP
11 NEWEL POST
12 WINDOW, HEADER
13 WINDOW, CASING
14 WINDOW, SILL
15 WINDOW, SASH
16 WINDOW, STOPS
17 MULLIONS
18 APRON
19 WINDOW GRATE
20 DOOR GRATE

21 BASEBOARD
22 WALLS
23 WALLS, LOWER
24 WALLS, UPPER
25 CHAIR RAIL
26 DOOR, EXTERIOR
27 EXTERIOR, DOOR CASING
28 EXTERIOR, WINDOW CASING
29 EXTERIOR, WINDOW MULLIONS
30 EXTERIOR, WINDOW SILL
31 THRESHOLD
32 DRIPBORAD
33 LOWER TRIM
34 UPPER TRIM
35 CORNERBOARD
36 SIDING
37 CELLAR WINDOW UNIT
38 ________
39 ________
40 ________

41 FLOOR
42 LOWER RAILING
43 BALUSTER
44 RAILING CAPS
45 SUPPORT COLUMN
46 JOIST
47 UPPER TRIM
48 CEILING
49 RADIATOR
50
51
52
53
54
55
56
57
58
59
60

61
62
63
64
65
66
67
68
69
70
71
72
73

AREA USAGE CODE
1 VOID /CHASE/ CAVITY
2 MECHANICAL
3 STORAGE
4 OCCASIONAL
5 CONTINUOUS

PEELING CODE
1 PEELING
2 NOT PEELING
3 UNDAMAGED
4 CHIPPED
5 CHAULKING

SUBSTRATE CODE
1 WOOD
2 METAL
3 MASONRY
4 DRYWALL
5 PLASTER

CHEWABLE SURFACE
1 YES
2 NO

CONTACT CODE
1 LOW
2 MODERATE
3 HIGH

CODE
1 ________
2 ________
3 ________

APPENDIX C

CDPH Form 8552

State of California—Health and Human Services Agency | California Department of Public Health

LEAD HAZARD EVALUATION REPORT

Section 1 — Date of Lead Hazard Evaluation December 14, 2016

Section 2 — Type of Lead Hazard Evaluation (Check one box only)

☑ Lead Inspection ☐ Risk assessment ☐ Clearance Inspection ☐ Other (specify) _____

Section 3 — Structure Where Lead Hazard Evaluation Was Conducted

Address [number, street, apartment (if applicable)]	City	County	Zip Code
2980 Ariway Ave.	Costa Mesa	Orange	92626

Construction date (year) of structure	Type of structure	Children living in structure?
1980	☐ Multi-unit building ☐ School or daycare ☐ Single family dwelling ☑ Other Hangar	☐ Yes ☑ No ☐ Don't Know

Section 4 — Owner of Structure (if business/agency, list contact person)

Name	Telephone number
John Wayne Airport, Orange County: Melinda McCoy	949-252-5267

Address [number, street, apartment (if applicable)]	City	State	Zip Code
3160 Airway Ave.	Costa Mesa	CA	92626

Section 5 — Results of Lead Hazard Evaluation (check all that apply)

☑ No lead-based paint detected ☐ Intact lead-based paint detected ☐ Deteriorated lead-based paint detected

☐ No lead hazards detected ☐ Lead-contaminated dust found ☐ Lead-contaminated soil found ☐ Other _____

Section 6 — Individual Conducting Lead Hazard Evaluation

Name	Telephone number
Don Harman	323-889-500

Address [number, street, apartment (if applicable)]	City	State	Zip Code
60001 Rickenbacker Rd.	Los Angeles	CA	90040

CDPH certification number	Signature	Date
10236	Don E Harman	March 9, 2017

Name and CDPH certification number of any other individuals conducting sampling or testing (if applicable)

Section 7 — Attachments

A. A foundation diagram or sketch of the structure indicating the specifc locations of each lead hazard or presence of lead-based paint;
B. Each testing method, device, and sampling procedure used;
C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector

Second copy and attachments retained by owner

Third copy only (no attachments) mailed or faxed to:

California Department of Public Health
Childhood Lead Poisoning Prevention Branch Reports
850 Marina Bay Parkway, Building P, Third Floor
Richmond, CA 94804-6403
Fax: (510) 620-5656

APPENDIX F-5

HAZARDOUS MATERIALS SURVEY REPORT – ATLANTIC AVIATION

HAZARDOUS MATERIALS SURVEY REPORT

Atlantic Aviation

19531 & 19711 Campus Drive

General Aviation Improvement Program Project

John Wayne Airport

Costa Mesa, California

Prepared for:

John Wayne Airport
3160 Airway Avenue
Costa Mesa, California 92626

Prepared by:

Amec Foster Wheeler Environment & Infrastructure, Inc.
121 Innovation Drive, Suite 200
Irvine, California 92617-3094
(949) 642-0245

April 3, 2017

Project No. IR13164420

April 3, 2017

Ms. Melinda McCoy
Airport Environmental Engineer
John Wayne Airport, Orange County
3160 Airway Avenue
Costa Mesa, California 92626

Subject: **Hazardous Materials Survey Report**
Atlantic Aviation
19531 & 19711 Campus Drive
Santa Ana, California
Amec Foster Wheeler Project IR13164420

Dear Ms. McCoy:

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has completed a hazardous materials survey in support of the demolition of Atlantic Aviation's four structures at 19531 & 19711 Campus Drive, Santa Ana California. The survey included the assessment of suspect asbestos-containing materials (ACM) and lead-based paints (LBP). The attached report presents general project information, survey details, results, our findings and removal and abatement recommendations

Amec Foster Wheeler appreciates the opportunity to assist you on this project. Please contact us should any questions arise regarding this report or, if we may be of further service.

Sincerely,

Amec Foster Wheeler Environment & Infrastructure, Inc.

Don Harman
Senior Engineer
California Asbestos Consultant No. 92-0044
Certified Lead Inspector/Assessor and
Project Monitor No. I-10236

Leonard A. Gilbert, CIH
Senior Scientist

P:_00 OTHER OFFICES\2017\4005 Irvine\2016 Projects\Hanger study\Individual files\Atlantic NP\Final draft\2017_04_03_HMS_ Atlantic Aviation.doc

Amec Foster Wheeler Environment & Infrastructure Inc.
121 Innovation Drive, Suite 200
Irvine, CA 92617
(949) 642-0245
(949) 642-4474 (fax)
www.amec.com

TABLE OF CONTENTS

1.0 BACKGROUND

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has completed a hazardous materials survey in support of the planned demolition of Atlantic Aviation's for structures at 19531 & 19711 Campus Drive in Santa Ana California. The survey included the assessment of suspect ACM and LBP. Amec Foster Wheeler performed the survey work in December 2016.

2.0 PURPOSE

The purpose of the survey was to locate and identify hazardous materials requiring abatement, stabilization, remediation, and/or special handling prior to the demolition of the structure. Our survey included visual observations, material sampling and laboratory analysis of suspect ACM, on site testing of suspect LBP with an X-ray fluorescence (XRF) spectrum analyzer and sampling and analysis of paint for lead content.

The results of the survey can be provided to the project general contractor, asbestos abatement contractor and/or the hazardous materials contractor, for establishing appropriate removal, abatement and handling actions to be implemented before planned demolition of the structure begins as part of the General Aviation Improvement Program project. This hazardous materials survey was conducted in accordance with the terms and conditions of our agreement with JWA Authority (280-280-1900-ENV2) and under JWA's authorization for this work (Task Order 2F-06) dated September 1, 2016.

3.0 BUILDING INFORMATION

Buildings NP1, NP2 and NP3 included hangars with varying amount of office space built out within the hangar. The hangars are metal frame with sheet metal exterior and roof. The interior offices are frame construction with typical finishes of floor tile, sheet vinyl flooring, dry wall, joint compound and lay-in ceiling tile. Building NP4 is a two story metal frame building built out with office suites. The suites are typically finished with carpet, floor tile, sheet vinyl flooring dry wall, joint compound, ceramic tile, ceiling tile and spray-applied ceiling acoustic material. Figure 1 is a Site Location Map.

4.0 ASBESTOS SURVEY

4.1 REGULATORY INFORMATION

The Federal regulatory definition of an ACM is any material containing more than one percent (1%) asbestos. Asbestos waste is not regulated as hazardous waste under the Federal Resource Conservation and Recovery Act (RCRA).

The California regulatory definition of ACM is also any material with more than 1% asbestos. The California Business and Professions Code, requires asbestos abatement contractors to be licensed by the Contractors State License Board (CSLB) and asbestos consultants to be certified by California Division of Occupational Safety and Health (Cal/OSHA).

The California Labor Code requires that any contractor who does "asbestos-related work" that disturbs asbestos-containing construction materials (ACCM) must be licensed by the

CSLB and registered with Cal/OSHA. The Cal/OSHA asbestos standard contained in Title 8, CCR Section 1429 defines ACCM as any manufactured construction material that contains more than one-tenth of 1 percent (>0.1%) asbestos.

The California Department of Toxic Substance Control (DTSC) classifies asbestos-containing material as hazardous waste if it is "friable" and contains 1.0% or more asbestos. A friable material is one that can be reduced to a powder or dust under hand pressure when dry. DTSC considers non-friable bulk asbestos-containing waste to be nonhazardous regardless of its asbestos content. Friable asbestos wastes with more than 0.1% asbestos and less than 1% asbestos are not required to be handled as hazardous waste.

4.2 SURVEY AND SAMPLING

Amec Foster Wheeler's survey of the building included observation of interior floor, wall, and ceiling finishes, and exterior wall and roof components (to extent access was possible). Mr. Don Harman, a California Certified Asbestos Consultant with Amec Foster Wheeler, performed the survey December 12, 14, 15, 16 and 19, 2016. In evaluating the building(s), we used our education, training and experience along with our familiarity with building construction, to identify potential asbestos materials. Our survey included visual observations and sampling of suspect asbestos materials.

The selection of materials to be sampled was based on material homogeneity. A homogeneous material is one that appears to be of the same uniform texture, color, appearance, general use, and condition, and that was applied during the same general time period. Once homogeneous materials were determined, sample locations were selected, and representative samples of the suspect material were collected. A bulk sample across the full depth of the suspect material was obtained.

The samples were collected from readily accessible areas. No intrusive activities for the purpose of obtaining samples, such as breaking through walls and ceilings, were performed. No attempt was made to disassemble mechanical equipment. Inaccessible spaces such as wall voids, building cavities, and mechanical equipment may contain concealed, unreported asbestos that may be revealed during demolition activities.

The samples were labeled and delivered under appropriate chain-of-custody documentation to Forensic Analytical Laboratories (FAL) in Rancho Dominquez, California for microscopic analysis by Polarized Light Microscopy (PLM). The samples were analyzed in general accordance with the the United States Environmental Agency (EPA) "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116, July 1993). This method employs PLM coupled with dispersion staining to identify the type and approximate quantity of asbestos present in the sample, if any. FAL is accredited under the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP) (Lab Code 101459) and the State of California Department of Health Services Environmental Laboratory Accreditation Program (ELAP Number 1366).

With respect to the sample analysis, if asbestos is detected in concentrations less than 1%, in California the material may be regulated as ACCM. As such, any PLM sample identified as having less than 1% asbestos must either be re-evaluated by point counting, in accordance with the National Emission Standards for Hazardous Air Pollutants

(NESHAP) Asbestos NESHAP Revision, Final Rule (40 Code of Federal Regulations (CFR), Part 61), or must be assumed to be ACCM, and therefore regulated in California. Point counting, determines if the materials known to be less than 1% asbestos (EPA criteria), are equal to or less than 0.1% asbestos (California criteria) and therefore not regulated with respect to abatement requirements.

4.3 SAMPLE ANALYTICAL RESULTS

Bulk samples were collected and delivered to FAL for PLM analyses. When the building material is comprised of two or more layers or substrates, across its full cross-sectional depth, the laboratory will identify and analyze each layer. The following table presents the number of samples collected and the substrates analyzed for each building.

Table 1
Number of Samples Collected and Substrates Analyzed
Buildings NP1, NP2, NP3 and NP4

Building No.	Number of samples collected	Number of substrates analyzed
NP1	20	20
NP2	76	117
NP3	68	128
NP4	312	499

Asbestos was identified in amounts less than 1% in thirteen samples. Samples of joint compound, plaster, cove base mastic, and stucco were subsequently analyzed by point counting. Of the point count samples; asbestos was not identified in amounts greater than 0.1% except for a single sample of joint compound in Building NP4.

Sample descriptions and the analytical results are provided for building NP1, NP2, NP3 and NP4 in Table 2 to 5, respectively. ACM was not identified in Buildings NP1 and NP3. Table 6 and 7 for buildings NP2 and NP4, respectively, identifies those samples and materials determined to contain asbestos in concentrations above California regulatory levels. The homogeneous material (HM), its location(s) within the structure, condition, friability and approximate quantities are also included on the tables. Room numbers are indicated on Figures 2 to 5. The laboratory analytical data and chain of custody forms are included in Appendix A

5.0 LEAD-BASED PAINT SURVEY

LBP survey was performed December 12, 14, 15, 16 and 19, 2016 by Don Harman, Amec Foster Wheeler, a California Department of Public Health (CDPH) Certified Lead Inspector, Risk Assessor, and Lead Supervisor. Visual observation and testing of the building's interior and exterior surfaces was performed.

The visual survey of the various areas within the structure was performed to identify painted building components, their general condition, and location and quantity of the painted components. Damaged, loose and flaking paint observed during the survey were noted.

United States Department of Housing and Urban Development (HUD), EPA and California definitions for lead-based paint are any paint with a lead concentration equal to or greater than 1.0 milligram per square centimeter of surface area (≥1 mg/cm^2) when measured by a portable x-ray fluorescence (XRF) spectrum analyzer, or 0.5% by weight (5,000 parts per million [ppm]) when measured by standard analytical methods. XRF results between 0.9 to 1.1 mg/cm^2 are considered by HUD/EPA as inconclusive.

In California, for lead-related construction work, Cal/OSHA requires a risk assessment to determine if employees may be exposed above the action level or permissible exposure limit (PEL). Surface coatings that contain lead at concentrations equal to or exceeding 0.06% lead by weight (600 ppm) are assumed by Cal/OSHA to demonstrate the presence of lead surface coatings that constitute a health hazard to employees engaged in lead-related construction work. As such, appropriate controls and work practices as defined in 8 CCR 1532.1 and 17 CCR 3600 et seq. are mandated, including requirements to use personnel certified by the California Department of Health Services.

5.1 XRF SURVEY

Amec Foster Wheeler performed the LBP survey in general accordance with EPA and US (HUD) guidelines for lead inspections and testing. Testing for LBP was performed onsite using a XRF, with the capability to measure lead content in dry paint films, in the range of 0 to 50 milligrams per square centimeter (mg/cm2). The surfaces tested were selected in general accordance with the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing.

5.2 XRF TEST RESULTS

With the exception of the stringer for the stairs in the lobby and ceramic tiles in Building NP4, none of the tested building paints or coatings would be considered lead-based. The paint on the stringer was identified as intact condition. Appendix B contains a Table in four parts which presents the readings from the XRF for painted and ceramic tile surfaces. These readings aided in the selection of the locations for paint chip sampling and analysis.

5.3 PAINT CHIP SURVEY

Sampling areas were selected, based on the results of the XRF survey and representative paint chip samples of suspect LBP were obtained. Paint selection was based on elevated readings. The sample locations are described in Table 8.

Samples were collected from readily accessible, representative paint-coated surfaces that were suspected to contain lead. The samples were labeled and appropriate chain-of-custody documentation completed. The samples were delivered to FAL in Rancho Dominquez, California for analysis. The laboratory is accredited by the American Industrial Hygiene Association (AIHA) and has been assigned the accreditation number 101629, and by the State of California Environmental Laboratory Accreditation Program (ELAP Number 1366).

5.4 TEST RESULTS

Ten paint chip samples were obtained and delivered to FAL to be analyzed for the presence of lead by EPA methods 3050 and 7420 – Acid Digestion followed by Atomic Absorption Spectrometry (AAS). All were found to be LBP except for the blue paint on the exterior of the door in Suite 18/ Room 36 of Building NP4. The results of the Lead-Based Paint Analysis are presented in Table 8. The laboratory analytical data and chain-of-custody documentation are included in Appendix A. Appendix C contains Form 8552 which is required to be submitted to the California Department of Public Health (CDPH). The report and form must be retained by the client for three years. Amec Foster Wheeler has submitted the form to CDPH.

6.0 RECOMMENDATIONS

6.1 ASBESTOS-CONTAINING MATERIALS

The asbestos materials must be removed from the structure prior to demolition. Any contractor who does "asbestos-related work" that disturbs asbestos-containing materials or asbestos-containing construction materials must be licensed by the CSLB and registered with Cal/OSHA.

The abatement work must be performed in compliance with applicable Federal, State and local regulations. A scope of work and work procedures specifically tailored to this project should be prepared and adhered to by the abatement contractor. It is important that the abatement activities be performed by a competent, experienced contractor and the abatement activities be closely monitored.

DTSC classifies asbestos-containing wastes as hazardous waste if they are “friable” and contain 1.0% or more asbestos. DTSC considers non-friable bulk asbestos-containing waste to be nonhazardous regardless of its asbestos content. Waste materials containing less than 1% asbestos may be managed as non-hazardous waste in accordance with DTSC requirements.

The project-derived asbestos wastes could either be segregated as hazardous and non-hazardous and handled separately, or combined and handled together as hazardous. The handling method selected could be based on the costs associated with the labor to segregate the wastes verses the additional disposal fees. It should be noted that disposal of any hazardous waste does have potential future liabilities should a problem arise with the disposal site. Therefore, the potential increased risk from handling the nonhazardous wastes as hazardous should be considered in the decision making process.

6.2 LEAD-CONTAINING MATERIALS

Paints identified as lead-based and in poor condition (peeling or chipped), must be stabilized prior to demolition. Paints with similar descriptions and XRF readings to those determined to be LBP via chip sampling/ analysis may be considered LBP as well. Lead-based paints in good condition may be left in place if exposure to employees and the environment is controlled and the lead-containing waste is properly tested and disposed based on the test results.

Ceramic tiles have been tested via XRF and found to contain lead in amounts that maybe a source of exposure to workers or may not meet testing limits for disposal. Employee exposure monitoring and material testing as it relates to disposal are recommended.

7.0 LIMITATIONS

Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental, health and safety consultants practicing in this or similar localities at the time of service. Amec Foster Wheeler assumes no liability for any loss, injury, claim, or damages arising directly or indirectly from any use or reliance on this report or the opinions expressed herein. No other warranty, express or implied, is made as to the professional advice included in this report.

Amec Foster Wheeler endeavored to observe existing conditions at the building using generally accepted procedures. There is always a possibility some areas containing asbestos- and lead-containing materials were overlooked, were inaccessible, or are different from those at specific sample locations. Therefore, conditions at every location may not be as anticipated by our field representative. In addition, demolition may uncover altered or differing conditions.

This report has been prepared for the exclusive use of our client. Any use that a third party makes of this report, or any reliance on or decisions made based on it, are the responsibility of the third party. With respect to third parties, Amec Foster Wheeler has no liability or responsibility for losses of any kind whatsoever, including direct or consequential financial effects on transactions or property values, or requirements for follow-up actions and costs. Should additional parties require reliance on this report, written authorization from Amec Foster Wheeler will be required.

TABLES

Table 2
Summary of Asbestos Sample Results
Altantic Aviation, Building NP1
19711 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.	Result
1	Drywall, white	1	a	1	1	1	ND
2	Drywall, white	1	a	2	1	1	ND
3	Drywall, white	1	a	3	1	1	ND
4	Joint Compound, white	1	b	1	1	1	ND
5	Joint Compound, white	1	b	2	1	1	ND
6	Joint Compound, white	1	b	3	1	1	ND
7	Joint Compound, white	1	b	4	1	1	ND
8	Joint Compound, white	1	b	5	1	1	ND
9	Joint Compound, white	1	b	6	1	1	ND
10	Joint Compound, white	1	b	7	1	1	ND
11	Wall Texture, white	1	c	1	1	1	ND
12	Wall Texture, white	1	c	2	1	1	ND
13	Wall Texture, white	1	c	3	1	1	ND
14	Wall Texture, white	1	c	4	1	1	ND
15	Wall Texture, white	1	c	5	1	1	ND
16	Wall Texture, white	1	c	6	1	1	ND
17	Wall Texture, white	1	c	7	1	1	ND
18	Remnant Carpet Mastic	5	a	1	1	1	ND
19	Remnant Carpet Mastic	5	a	2	1	1	ND
20	Remnant Carpet Mastic	5	a	3	1	1	ND

Created by: SA
Checked by: DEH/LAG

Table Notes:

1 HM - Homogenous Material: A material that appears to be uniform when properties such as age, color, texture are compared.

2 Layer - When a Homogenous Material has more than one recognizable component each is a layer.

3 Assay - Of the duplicates required by Asbestos Hazard Emergency Act (AHERA), the sequential number, starting at one, assigned each sample up to the required number of samples.

4 Bold type - These samples were determined to contain asbestos in excess of trace amounts.

5 ND - Asbestos was not detected above the method detection limit.

6 Not Analyzed - When any sample of a Homogenous Material is determined to contain asbestos the other samples in that HM are not analyzed.

Table 3
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP2
19711 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Room No.	Result
1	Floor Tile, checkered white & black, self adhered	1	a	1	1	1	ND
2	Floor Tile, checkered white & black, self adhered	1	a	2	1	1	ND
3	Floor Tile, checkered white & black, self adhered	1	a	3	1	1	ND
4	Cove Base, black 3"	2	ab	1	1	1	ND
5	Cove Base, black 3"	2	ab	2	1	1	ND
6	Cove Base, black 3"	2	ab	3	1	1	ND
7	Drywall, white	3	a	1	1	2	ND
8	Drywall, white	3	a	2	1	4	ND
9	Drywall, white	3	a	3	1	6	ND
10	Joint Compound, white	3	b	1	1	1	ND
11	**Joint Compound, white**	**3**	**b**	**2**	**1**	**2**	**Chrysotile, 2%**
12	Joint Compound, white	3	b	3	1	2	Not Analyzed
13	Joint Compound, white	3	b	4	1	6	Not Analyzed
14	Joint Compound, white	3	b	5	1	6	Not Analyzed
15	Joint Compound, white	3	b	6	1	8	Not Analyzed
16	Joint Compound, white	3	b	7	1	11	Not Analyzed
17	Wall Texture, white	3	c	1	1	1	ND
18	**Wall Texture, white**	**3**	**c**	**2**	**1**	**2**	**Chrysotile, 2%**
19	Wall Texture, white	3	c	3	1	4	Not Analyzed
20	Wall Texture, white	3	c	4	1	6	Not Analyzed
21	Wall Texture, white	3	c	5	1	6	Not Analyzed
22	Wall Texture, white	3	c	6	1	7	Not Analyzed

Table 3
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP2
19711 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Room No.	Result
23	Wall Texture, white	3	c	7	1	8	Not Analyzed
24	**Spray-applied Ceiling Texture**	**4**	**a**	**1**	**1**	**11**	**Chrysotle, 3%**
25	Spray-applied Ceiling Texture	4	a	2	1	3	Not Analyzed
26	Spray-applied Ceiling Texture	4	a	3	1	11	Not Analyzed
27	Remnart Mastic	5	a	1	1	7	ND
28	Remnart Mastic	5	a	2	1	7	ND
29	Remnart Mastic	5	a	3	1	7	ND
30	Spray-appled Ceiling Texture	4	a	4	1	9	ND
31	Spray-appled Ceiling Texture	4	a	5	1	9	ND
32	**Joint Compound, white**	**6**	**b**	**8**	**1**	**7**	**Chrysotile 2%**
33	Drywall, tan	6	a	1	1	7	ND
34	Drywall, white	6	a	2	1	7	ND
35	**Joint Compound, white**	**6**	**b**	**1**	**1**	**7**	**Chrysotile, 2%**
36	Joint Compound, white	6	b	2	1	7	Not Analyzed
37	Joint Compound, white	6	b	3	1	7	Not Analyzed
38	Joint Compound, white	6	b	4	1	7	Not Analyzed
39	Joint Compound, white	6	b	5	1	7	Not Analyzed
40	Joint Compound, white	6	b	6	1	7	Not Analyzed
41	Joint Compound, white	6	b	7	1	7	Not Analyzed
42	**Wall Texture, white**	**6**	**c**	**1**	**1**	**7**	**Chrysotile 2%**
43	Wall Texture, white	6	c	2	1	7	Not Analyzed
44	Wall Texture, white	6	c	3	1	7	Not Analyzed
45	Wall Texture, white	6	c	4	1	7	Not Analyzed
46	Wall Texture, white	6	c	5	1	7	Not Analyzed
47	Wall Texture, white	6	c	6	1	7	Not Analyzed

Table 3
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP2
19711 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Room No.	Result
48	Wall Texture, white	6	c	7	1	7	Not Analyzed
49	Cove Base, brown	7	ab	1	1	15	ND
50	Cove Base, brown	7	ab	2	1	15	ND
51	Cove Base, brown	7	ab	3	1	15	ND
52	Plaster	8	a	1	1	11	Chrysotile <0.06%
53	Plaster	8	a	2	1	11	ND
54	Plaster	8	a	3	1	11	ND
55	Paint	9	a	1	1	7	ND
56	Paint	9	a	2	1	7	ND
57	Paint	9	a	3	1	7	ND
58	Drywall, white	10	a	1	1	12	ND
59	Drywall, white	10	a	2	1	14	ND
60	Drywall, white	10	a	3	1	15	ND
61	Joint Compound, white	10	b	1	1	13	ND
62	Joint Compound, white	10	b	2	1	13	ND
63	Joint Compound, white	10	b	3	1	14	ND
64	Joint Compound, white	10	b	4	1	15	ND
65	Joint Compound, white	10	b	5	1	15	ND
66	Wall Texture, white	10	c	1	1	12	ND
67	Wall Texture, white	10	c	2	1	12	ND
68	Wall Texture, white	10	c	3	1	12	ND
69	Wall Texture, white	10	c	4	1	14	ND
70	Wall Texture, white	10	c	5	1	15	ND
71	Cove Base, brown, and mastic	11	ab	1	1	11	ND

Table 3
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP2
19711 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Room No.	Result
72	Cove Base, brown, and mastic	11	ab	2	1	11	Cove base, ND; Mastic, Chrysotile, 0.10
73	Cove base, brown, and mastic	11	ab	3	1	11	Cove base, ND; Mastic, Chrysotile, 0.10
74	Cove Base, gray	12	ab	1	1	12	ND
75	Cove Base, gray	12	ab	2	1	12	ND
76	Cove Base, gray	12	ab	3	1	12	ND

Created by: SA
Checked by: DEH/LAG

Table Notes:

1 HM - Homogenous Material: A material that appears to be uniform when properties such as age, color, texture are compared.

2 Layer - When a Homogenous Material has more than one recognizable component each is a layer.

3 Assay - Of the duplicates required by Asbestos Hazard Emergency Response Act (AHERA), the sequential number, starting at one, assigned each sample up to the required number of samples.

4 Bold type - These samples were determined to contain asbestos in excess of trace amounts

5 ND - Asbestos was not detected above the method detection limit.

6 Not Analyzed - When any sample of a Homogenous Material is determined to contain asbestos the other samples in that HM are not analyzed.

Table 4
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP3
19711 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Room No.	Result
1	Cove Base, 4" black	1	ab	1	1	Office/30	ND
2	Cove Base, 4" black	1	ab	2	1	Office/34	ND
3	Cove Base, 4" black	1	ab	3	1	Office/34	ND
4	Drywall, white	2	a	1	1	Office/ 2	ND
5	Drywall, white	2	a	2	1	Office/ 8	ND
6	Drywall, white	2	a	3	1	Office/ 8	ND
7	Joint Compound, white	2	b	1	1	Office/ 2	ND
8	Joint Compound, white	2	b	2	1	Office/ 4	ND
9	Joint Compound, white	2	b	3	1	Office/ 8	ND
10	Joint Compound, white	2	b	4	1	Office/ 19	ND
11	Joint Compound, white	2	b	5	1	Office/ 19	ND
12	Joint Compound, white	2	b	6	1	Office/ 27	ND
13	Joint Compound, white	2	b	7	1	Office/ 30	ND
14	Joint Compound, white	2	b	8	1	Office/ 30	ND
15	Wall Texture, white	2	c	1	1	Office/ 25	ND
16	Wall Texture, white	2	c	2	1	Office/ 27	ND
17	Wall Texture, white	2	c	3	1	Office/ 32	ND
18	Wall Texture, white	2	c	4	1	Office/ 34	ND
19	Wall Texture, white	2	c	5	1	Office/ 34	ND
20	Ceiling Tile, 2'x2'	3	a	1	1	Office/ 4	ND
21	Ceiling Tile, 2'x2'	3	a	2	1	Office/ 4	ND
22	Ceiling Tile, 2'x2'	3	a	3	1	Office/ 8	ND

Table 4
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP3
19711 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Room No.	Result
23	Cove Base, beige 4"	4	ab	1	1	Office/ 2	ND
24	Cove Base, beige 4"	4	ab	2	1	Office/ 2	ND
25	Cove Base, beige 4"	4	ab	3	1	Office/ 8	ND
26	Ceiling Tile, 2'x4'	5	a	1	1	Office/ 11	ND
27	Ceiling Tile, 2'x4'	5	a	2	1	Office/ 11	ND
28	Ceiling Tile, 2'x4'	5	a	3	1	Office/ 14	ND
29	Sheet Vinyl, lt. beige, terrazzo	6	ab	1	1	Office/ 31	ND
30	Sheet Vinyl, lt. beige, terrazzo	6	ab	2	1	Office/ 31	ND
31	Sheet Vinyl, lt. beige, terrazzo	6	ab	3	1	Office/ 31	ND
32	Floor Tile, 12"x12", beige mottled	7	ab	1	1	Office/ 34	ND
33	Floor Tile, 12"x12", beige mottled	7	ab	2	1	Office/ 34	ND
34	Floor Tile, 12"x12", beige mottled	7	ab	3	1	Office/ 34	ND
35	Drywall, white	8	a	1	1	YUM!/ 50	ND
36	Drywall, white	8	a	2	1	YUM!/ 50	ND
37	Drywall, white	8	a	3	1	YUM!/ 51	ND
38	Joint Compound, white	8	b	1	1	YUM!/ 50	ND
39	Joint Compound, white	8	b	2	1	YUM!/ 50	ND
40	Joint Compound, white	8	b	3	1	YUM!/ 50	ND
41	Ceiling Tile, 2'x4'	9	a	1	1	YUM!/ 50	ND
42	Ceiling Tile, 2'x4'	9	a	2	1	YUM!/ 50	ND
43	Ceiling Tile, 2'x4'	9	a	3	1	YUM!/ 50	ND
44	Floor Tile, 12"x12", beige	10	ab	1	1	YUM!/ 49	ND

Table 4
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP3
19711 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Room No.	Result
45	Floor Tile, 12"x12", beige	10	ab	2	1	YUM!/ 49	ND
46	Floor Tile, 12"x12", beige	10	ab	3	1	YUM!/ 49	ND
47	Floor Tile, 12"x12", pink	10	cd	1	1	YUM!/ 49	ND
48	Floor Tile, 12"x12", pink	10	cd	2	1	YUM!/ 49	ND
49	Floor Tile, 12"x12", pink	10	cd	3	1	YUM!/ 49	ND
50	Floor Tile, 12"x12", lt. brown mottled	11	ab	1	1	YUM!/ 50	ND
51	Floor Tile, 12"x12", lt. brown mottled	11	ab	2	1	YUM!/ 50	ND
52	Floor Tile, 12"x12", lt. brown mottled	11	ab	3	1	YUM!/ 50	ND
52	Cove Base, black 4"	12	ab	1	1	YUM!/ 50	ND
53	Cove Base, black 4"	12	ab	1	1	YUM!/ 50	ND
54	Cove Base, black 4"	12	ab	2	1	YUM!/ 50	ND
55	Cove Base, beige 4"	13	ab	3	1	YUM!/ 51	ND
56	Cove Base, beige 4"	13	ab	1	1	YUM!/ 51	ND
57	Cove Base, beige 4"	13	ab	2	1	YUM!/ 51	ND
58	Drywall, white	14	a	3	1	YUM!/ 51	ND
59	Drywall, white	14	a	1	1	Hanger 52	ND
60	Drywall, white	14	a	2	1	Hanger 52	ND
61	Joint Compound, white	14	b	3	1	Hanger 52	ND
62	Joint Compound, white	14	b	1	1	Hanger 52	ND

Table 4
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP3
19711 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Room No.	Result
63	Joint Compound, white	14	b	2	1	Hanger 52	ND
64	Joint Compound, white	14	b	3	1	Hanger 52	ND
65	Joint Compound, white	14	b	4	1	Hanger 52	ND
66	Paint, gray	15	a	5	1	Hanger 52	ND
67	Paint, gray	15	a	1	1	Hanger 52	ND
68	Paint, gray	15	a	2	1	Hanger 52	ND

Created by: SA
Checked by: DEH/LAG

Table Notes:

1 HM - Homogenous Material: A material that appears to be uniform when properties such as age, color, texture are compared.

2 Layer - When a Homogenous Material has more than one recognizable component each is a layer.

3 Assay - Of the duplicates required by AHERA, the sequential number, starting at one, assigned each sample up to the required number of samples.

4 Bold type - These samples were determined to contain asbestos in excess of trace amounts.

5 ND - Asbestos was not detected above the method detection limit.

6 Not Analyzed - When any sample of a Homogenous Material is determined to contain asbestos the other samples in that HM are not analyzed.

7 YUM! - YUM! Brands spaces.

8 Two samples were labeled #52,; the laboratory provided separte anaysis based on the description of the materials on the Chain of

Table 5
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP4
19531 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Space No./Room No.	Result
1	Drywall, white	1	a	1	1	West Coast offices	ND
2	Drywall, white	1	a	2	1	West Coast offices	ND
3	Drywall, white	1	a	3	1	West Coast offices	ND
4	**Joint Compound, white**	**1**	**b**	**1**	**1**	**West Coast offices**	**Chrysotile 2%**
5	Joint Compound, white	1	b	2	1	West Coast offices	Not Analyzed
6	Joint Compound, white	1	b	3	1	West Coast offices	Not Analyzed
7	Ceiling tile 2'x2' tissue	2	a	1	1	West Coast offices	ND
8	Ceiling tile 2'x2' tissue	2	a	2	1	West Coast offices	ND
9	Ceiling tile 2'x2' tissue	2	a	3	1	West Coast offices	ND
10	Drywall, white	3	a	1	2	11/4	ND
11	Drywall, white	3	a	2	2	11/5	ND
12	Drywall, white	3	a	3	2	11/6	ND
13	Joint Compound, white	3	b	1	2	11/4	ND
14	Joint Compound, white	3	b	2	2	11/5	ND
15	Joint Compound, white	3	c	3	2	11/5	ND
16	**Wall Texture, white**	**3**	**c**	**1**	**2**	**11/4**	**Chrysotile 2%**
17	Wall Texture, white	3	c	2	2	11/5	Not Analyzed
18	Wall Texture, white	3	c	3	2	11/6	Not Analyzed
19	Ceiling Tile, 2'x2'	4	a	1	2	11/5	ND
20	Ceiling Tile, 2'x3'	4	a	2	2	11/5	ND
21	Ceiling Tile, 2'x4'	4	a	3	2	11/6	ND
22	**Spray-applied Ceiling Texture**	**5**	**a**	**1**	**2**	**11/4**	**Chrysotile 5%**
23	Spray-applied Ceiling Texture	5	a	2	2	11/5	Not Analyzed

Table 5
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP4
19531 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Space No./Room No.	Result
24	Spray-applied Ceiling Texture	5	a	3	2	11/6	Not Analyzed
25	**Floor Tile, 12"x12" off-white and Mastic**	**6**	**ab**	**1**	**2**	**11/6**	**Floor tile Chrysotile 2%: Mastic ND**
26	Floor Tile, 12"x12" off-white and Mastic	6	ab	2	2	11/6	Floor tile Not Analyzed; Mastic ND
27	Floor Tile, 12"x12" off-white and Mastic	6	ab	3	2	11/6	Floor tile Not Analyzed; Mastic ND
28	Drywall, white	7	a	1	2	4/8	ND
29	Drywall, white	7	a	2	1	4/9	ND
30	Drywall, white	7	a	3	1	4/11	ND
31	Joint Compound, white	7	b	1	1	4/8	ND
32	Joint Compound, white	7	b	2	1	4/9	ND
33	Joint Compound, white	7	b	3	1	4/11	ND
34	Joint Compound, white	7	b	4	1	4/12	ND
35	Joint Compound, white	7	b	5	1	4/12	ND
36	**Wall Texture, white**	**7**	**c**	**1**	**1**	**4/9**	**Chrysotile 2%**
37	Wall Texture, white	7	c	2	1	4/9	Not Analyzed
38	Wall Texture, white	7	c	3	1	4/11	Not Analyzed
39	Wall Texture, white	7	c	4	1	4/11	Not Analyzed
40	Wall Texture, white	7	c	5	1	4/12	Not Analyzed
41	Cove Base, brown	6	ab	1	1	4/8	ND
42	Cove Base, brown	6	ab	2	1	4/8	ND
43	Cove Base, brown	6	ab	3	1	4/11	ND

Table 5
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP4
19531 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Space No./Room No.	Result
44	**Spray-applied Ceiling Texture**	**8**	**a**	**1**	**1**	**4/9**	**Chrysotile 5%**
45	Spray-applied Ceiling Texture	8	a	2	1	4/9	Not Analyzed
46	Spray-applied Ceiling Texture	8	a	3	1	4/9	Not Analyzed
47	Ceiling Tile	9	a	1	1	4/8	ND
48	Ceiling Tile	9	a	2	1	4/9	ND
49	Ceiling Tile	9	a	3	1	4/11	ND
50	Drywall, white	12	a	1	1	12/14	ND
51	Drywall, white	12	a	2	2	12/14	ND
52	Drywall, white	12	a	3	2	12/14	ND
53	Joint Compound, white	12	b	1	2	12/13	ND
54	**Joint Compound, white**	**12**	**b**	**2**	2	**12/13**	**Chrysotile 2%**
55	Joint Compound, white	12	b	2	2	12/14	Not Analyzed
56	Wall Texture, white	12	c	1	2	12/14	ND
57	Wall Texture, white	12	c	2	2	12/14	ND
58	Wall Texture, white	12	c	3	2	12/14	ND
59	Ceiling Tile, 2'x4'	13	a	1	2	12/14	ND
60	Ceiling Tile, 2'x4'	13	a	2	2	12/14	ND
61	Ceiling Tile, 2'x4'	13	a	3	2	12/14	ND
62	**Spray-applied Ceiling Texture**	**14**	**a**	**1**	2	**12/14**	**Chrysotile 5%**
63	Spray-applied Ceiling Texture	14	a	2	2	12/14	Not Analyzed
64	Spray-applied Ceiling Texture	14	a	3	2	12/14	Not Analyzed
65	Cove Base, 4" gray	15	ab	1	2	12/14	ND
67	Cove Base, 4" gray	15	ab	3	2	12/14	ND

Table 5
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP4
19531 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Space No./Room No.	Result
68	Cove Base, 4" gray	15	ab	1	2	12/14	ND
69	Drywall, white	16	a	2	2	13/15	ND
70	Drywall, white	16	a	3	2	13/15	ND
71	Drywall, white	16	a	1	2	13/15	ND
72	Joint Compound, white	16	b	2	2	13/16	Chysotile 0.1%
73	Joint Compound, white	16	b	3	2	13/17	ND
74	Joint Compound, white	16	b	1	2	13/17	ND
75	**Wall Texture, white**	**16**	**c**	**2**	2	**13/17**	**Chrysotile 2%**
76	Wall Texture, white	16	c	3	2	13/15	Not Analyzed
77	Wall Texture, white	16	c	3	2	13/15	Not Analyzed
78	Ceiling Tile, 2'x4'	17	a	1	2	13/15	ND
79	Ceiling Tile, 2x5	17	a	2	2	13/15	ND
80	Ceiling Tile, 2x6	17	a	3	2	13/15	ND
81	**Spray-applied Ceiling Texture**	**18**	**a**	**1**	2	**13/15**	**Chrysotile 5%**
82	Spray-applied Ceiling Texture	18	a	2	2	13/15	Not Analyzed
83	Spray-applied Ceiling Texture	18	a	3	2	13/15	Not Analyzed
84	Cove Base, 4" gray	19	ab	1	2	13/15	ND
85	Cove Base, 4" gray	19	ab	2	2	13/15	ND
86	Cove Base, 4" gray	19	ab	3	2	13/15	ND
87	Ceiling Tile	20	a	1	2	14/20	ND
88	Ceiling Tile	20	a	2	2	14/20	ND
89	Ceiling Tile	20	a	3	2	14/20	ND
90	**Spray-applied Ceiling Texture**	**21**	**a**	**1**	2	**14/20**	**Chrysotile 5%**

Table 5
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP4
19531 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Space No./Room No.	Result
91	Spray-applied Ceiling Texture	21	a	2	2	14/20	Not Analyzed
92	Spray-applied Ceiling Texture	21	a	3	2	14/20	Not Analyzed
93	Cove Base, black	21	ab	1	2	14/18	ND
94	Cove Base, black	22	ab	2	2	14/18	ND
95	Cove Base, black	22	ab	3	2	14/18	ND
96	Cove Base, gray	22A	ab	1	2	14/19	ND
97	Cove Base, gray	22A	ab	2	2	14/19	ND
98	Cove Base, gray	22A	ab	3	2	14/19	ND
99	Drywall, white	23	a	1	2	R/R/22	ND
100	Drywall, white	23	a	2	2	R/R/22	ND
101	Drywall, white	23	a	3	2	R/R/22	ND
102	**Joint Compound, white**	**23**	**b**	**1**	**2**	**R/R/22**	**Chrysotile 2%**
103	Joint Compound, white	23	b	2	2	R/R/22	Not Analyzed
104	Joint Compound, white	23	b	3	2	R/R/22	Not Analyzed
105	Wall Texture, white	23	c	1	2	R/R/22	**Chrysotile 2%**
106	Wall Texture, white	23	c	2	2	R/R/22	Not Analyzed
107	Wall Texture, white	23	c	3	2	R/R/22	Not Analyzed
108	Drywall, white	24	a	1	2	Lobby/21	ND
109	Drywall, white	24	a	2	2	Lobby/21	ND
110	Drywall, white	24	a	3	2	Lobby/21	ND
111	**Joint Compound, white**	**24**	**b**	**1**	**2**	**Lobby/21**	**Chrysotile 2%**
112	Joint Compound, white	24	b	2	2	Lobby/21	Not Analyzed
113	Joint Compound, white	24	b	3	2	Lobby/21	Not Analyzed

Table 5
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP4
19531 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Space No./Room No.	Result
114	**Wall Texture (determined to be Joint Compound) Joint Compound, white**	**24**	**c**	**1**	**2**	**Lobby/21**	**Chyrsotile 2%**
115	**Wall Texture (determined to be Joint Compound) Joint Compound, white**	24	c	2	2	Lobby/21	**Chyrsotile 2%**
116	**Wall Texture (determined to be Joint Compound) Joint Compound, white**	24	c	3	2	Lobby/21	**Chyrsotile 2%**
117	**Spray-applied Ceiling Texture**	**25**	**a**	**1**	**2**	**Lobby/21**	**Chrysotile 5%**
118	Spray-applied Ceiling Texture	25	a	2	2	Lobby/21	Not Analyzed
119	Spray-applied Ceiling Texture	25	a	3	2	Lobby/21	Not Analyzed
120	Drywall, white	26	a	1	2	15/24	ND
121	Drywall, white	26	a	2	2	15/24	ND
122	Drywall, white	26	a	3	2	15/24	ND
123	Joint Compound, white	26	b	1	2	15/24	ND
124	Joint Compound, white	26	b	2	2	15/24	ND
125	Joint Compound, white	26	b	3	2	15/24	ND
126	**Wall Texture, white**	**26**	**c**	**1**	**2**	**15/24**	**Chrysotile 2%**
127	Wall Texture, white	26	c	2	2	15/24	Not Analyzed
128	Wall Texture, white	26	c	3	2	15/24	Not Analyzed

Table 5
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP4
19531 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Space No./Room No.	Result
129	**Cove Base 4" Black**	**27**	**ab**	**1**	**2**	**15/24**	**Cove base and mastic, ND; Joint compound, Chrysotile 2%**
130	**Cove Base 4" Black**	**27**	**ab**	**2**	**2**	**15/24**	**Cove base and mastic, ND; Joint compound, Chrysotile 2%**
131	**Cove Base 4" Black**	**27**	**ab**	**3**	**2**	**15/24**	**Cove base and mastic, ND; Joint compound, Chrysotile 2%**
132	Ceiling Tile 2'x4'	28	a	1	2	15/24	ND
133	Ceiling Tile 2'x4'	28	a	2	2	15/24	ND
134	Ceiling Tile 2'x4'	28	a	3	2	15/24	ND
135	**Spray-applied Ceiling Texture**	**29**	**a**	**1**	**2**	**15/24**	**Chrysotile 5%**
136	Spray-applied Ceiling Texture	29	a	2	2	15/24	Not Analyzed
137	Spray-applied Ceiling Texture	29	a	3	2	15/24	Not Analyzed
138	Drywall, white	30	a	1	2	15A/26	ND
139	Drywall, white	30	a	2	2	15A/26	ND
140	Drywall, white	30	a	3	2	15A/26	ND
141	**Joint Compound, white**	**30**	**b**	**1**	**2**	**15A/26**	**Chrysotile 2%**
142	Joint Compound, white	30	b	2	2	15A/26	Not Analyzed
143	Joint Compound, white	30	b	3	2	15A/26	Not Analyzed
144	Wall Texture, white	30	c	1	2	15A/26	ND
145	Wall Texture, white	30	c	2	2	15A/26	ND

Table 5
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP4
19531 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Space No./Room No.	Result
146	Wall Texture, white	30	c	3	2	15A/26	ND
147	Ceiling Tile	31	a	1	2	15A/26	ND
148	Ceiling Tile	31	a	2	2	15A/27	ND
149	Ceiling Tile	31	a	3	2	15A/27	ND
150	**Spray-applied ceiling texture**	**31A**	**a**	**1**	**2**	**15A/26**	**Chrysotile 5%**
151	Spray-applied ceiling texture	31A	a	2	2	15A/26	Not Analyzed
152	Spray-applied ceiling texture	31A	a	3	2	15A/26	Not Analyzed
153	Drywall, white	32	a	1	2	16/28	ND
154	Drywall, white	32	a	2	2	16/28	ND
155	Drywall, white	32	a	3	2	16/28	ND
156	Joint Compound, white	32	b	1	2	16/29	ND
157	Joint Compound, white	32	b	2	2	16/29	ND
158	**Joint Compound, white**	**32**	**b**	**3**	**2**	**16/29**	**Chrysotile 0.15%**
159	**Wall Texture, white**	**32**	**c**	**1**	**2**	**16/29**	**Chrysotile 2%**
160	Wall Texture, white	32	c	2	2	16/29	Not Analyzed
161	Wall Texture, white	32	c	3	2	16/29	Not Analyzed
162	Ceiling Tile	33	a	1	2	16/29	ND
163	Ceiling Tile	33	a	2	2	16/29	ND
164	Ceiling Tile	33	a	3	2	16/29	ND
165	**Spray-applied Ceiling Texture**	**34**	**a**	**1**	**2**	**16/29**	**Chrysotile 7%**
166	Spray-applied Ceiling Texture	34	a	2	2	16/29	Not Analyzed
167	Spray-applied Ceiling Texture	34	a	3	2	16/29	Not Analyzed
168	Drywall, white	35	a	1	2	17/32	ND

Table 5
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP4
19531 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Space No./Room No.	Result
169	Drywall, white	35	a	2	2	17/32	ND
170	Drywall, white	35	a	3	2	17/32	ND
171	Joint Compound, white	35	b	1	2	17/32	ND
172	**Joint Compound, white**	**35**	**b**	**2**	**2**	**17/32**	**Chrysotile Trace**
173	**Joint Compound, white**	**35**	**b**	**3**	**2**	**17/32**	**Chrysotile 2%**
174	Wall Texture, white	35	c	1	2	17/32	ND
175	Wall Texture, white	35	c	2	2	17/32	ND
176	Wall Texture, white	35	c	3	2	17/32	ND
177	Ceiling Tile	36	a	1	2	17/32	ND
178	Ceiling Tile	36	a	2	2	17/32	ND
179	Ceiling Tile	36	a	3	2	17/32	ND
180	**Spray-applied ceiling texture**	**37**	**a**	**1**	**2**	**17/32**	**Chrysotile 5%**
181	Spray-applied ceiling texture	37	a	2	2	17/32	Not Analyzed
182	Spray-applied ceiling texture	37	a	3	2	17/32	Not Analyzed
183	Drywall, white	38	a	1	2	18/36	ND
184	Drywall, white	38	a	2	2	18/36	ND
185	Drywall, white	38	a	3	2	18/36	ND
186	Joint Compound, white	38	b	1	2	18/35	ND
187	Joint Compound, white	38	b	2	2	18/35	ND
188	Joint Compound, white	38	b	3	2	18/35	ND
189	Wall Texture, white	38	c	1	2	18/35	ND
190	Wall Texture, white	38	c	2	2	18/35	ND
191	Wall Texture, white	38	c	3	2	18/35	ND

Table 5
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP4
19531 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Space No./Room No.	Result
192	Celing Tile	39	a	1	2	18/36	ND
193	Celing Tile	39	a	2	2	18/36	ND
194	Celing Tile	39	a	3	2	18/36	ND
195	**Spray-applied Ceiling Texture**	**40**	**a**	**1**	**2**	**18/36**	**Chrysotile 5%**
196	Spray-applied Ceiling Texture	40	a	2	2	18/36	Not Analyzed
197	Spray-applied Ceiling Texture	40	a	3	2	18/36	Not Analyzed
198	Cove Base	40A	ab	1	2	18/35	ND
199	Cove Base	40A	ab	2	2	18/35	ND
200	Cove Base	40A	ab	3	2	18/35	ND
201	Drywall, white	41	a	1	2	19/39	ND
202	Drywall, white	41	a	2	2	19/39	ND
203	Drywall, white	41	a	3	2	19/39	ND
204	**Joint Compound, white**	**41**	**b**	**1**	**2**	**19/39**	**Chrysotile 2%**
205	Joint Compound, white	41	b	2	2	19/39	Not Analyzed
206	Joint Compound, white	41	b	3	2	19/41	Not Analyzed
207	**Wall Texture, white**	**41**	**c**	**1**	**2**	**19/39**	**Chrysotile 2%**
208	Wall Texture, white	41	c	2	2	19/39	Not Analyzed
209	Wall Texture, white	41	c	3	2	19/39	Not Analyzed
210	**Spray-applied Ceiling Texture**	**42**	**a**	**1**	**2**	**19/40**	**Chrysotile 7%**
211	Spray-applied Ceiling Texture	42	a	2	2	19/40	Not Analyzed
212	Spray-applied Ceiling Texture	42	a	3	2	19/40	Not Analyzed
213	Ceiling Tile	43	a	1	2	19/38	ND
214	Ceiling Tile	43	a	2	2	19/38	ND

Table 5
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP4
19531 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Space No./Room No.	Result
215	Ceiling Tile	43	a	3	2	19/38	ND
216	Cove Base, 4" white	44	ab	1	2	19/41	ND
217	Cove Base, 4" white	44	ab	2	2	19/41	ND
218	Cove Base, 4" white	44	ab	3	2	19/41	ND
219	Cove Base, 4" gray	45	ab	1	2	19/41	ND
220	Cove Base, 4" gray	45	ab	2	2	19/41	ND
221	Cove Base, 4" gray	45	ab	3	2	19/41	ND
222	Acoustic Tile, 1x1 (on wall)	46	a	1	2	19/43	ND
223	Acoustic Tile, 1x1 (on wall)	46	a	2	2	19/43	ND
224	Acoustic Tile, 1x1 (on wall)	46	a	3	2	19/43	ND
225	Drywall, white	47	a	1	2	20/45	ND
226	Drywall, white	47	a	2	2	20/46	ND
227	Drywall, white	47	a	3	2	20/46	ND
228	**Joint Compound, white**	**47**	**b**	**1**	**2**	**20/45**	**Chrysotile Trace**
229	**Joint Compound, white**	**47**	**b**	**2**	**2**	**20/45**	**Chrysotile Trace**
230	**Joint Compound, white**	**47**	**b**	**3**	**2**	**20/46**	**Chrysotile 2%**
231	Wall Texture, white	47	c	1	2	20/45	ND
232	Wall Texture, white	47	c	2	2	20/45	ND
233	Wall Texture, white	47	c	3	2	20/45	ND
234	Ceiling Tile	48	a	1	2	20/45	ND
235	Ceiling Tile	48	a	2	2	20/45	ND
236	Ceiling Tile	48	a	3	2	20/48	ND
237	**Spray-applied Ceiling Texture**	**49**	**a**	**1**	**2**	**20/45**	**Chrysotile 7%**

Table 5
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP4
19531 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Space No./Room No.	Result
238	Spray-applied Ceiling Texture	49	a	2	2	20/45	Not Analyzed
239	Spray-applied Ceiling Texture	49	a	3	2	20/45	Not Analyzed
240	**Mastic, roof penetration, black**	**50**	**a**	**1**	**Roof**		**Chrysotile 3%**
241	Mastic, roof penetration, black	50	a	2	Roof		Not Analyzed
242	Mastic, roof penetration, black	50	a	3	Roof		Not Analyzed
243	Mastic, roof patch, black	51	a	1	Roof		ND
244	Mastic, roof patch, black	51	a	2	Roof		ND
245	Mastic, roof patch, black	51	a	3	Roof		ND
246	Stucco	52	d	1	Exterior	Southwest	Chrysotile <0.07
247	Stucco	52	d	2	Exterior	North Centeral	Chrysotile <0.07
248	Stucco	52	d	3	Exterior	Southeast	Chrysotile <0.06
249	Stucco	52	d	4	Exterior	Southwest	ND
250	Stucco	52	d	5	Exterior	South Stairwell	Chrysotile <0.07
251	Stucco	52	d	6	Exterior	North Stairwell	Chrysotile 0.06%
252	Stucco	52	d	7	Exterior	South	ND
253	Drywall, white	53	a	1	1	Lobby/49	ND
254	Drywall, white	53	a	2	1	Lobby/49	ND
255	Drywall, white	53	a	3	1	Lobby/49	ND
256	**Joint Compound, white**	**53**	**b**	**1**	**1**	**Lobby/49**	**Chrysotile 2%**
257	Joint Compound, white	53	b	2	1	Lobby/49	Not Analyzed

Table 5
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP4
19531 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Space No./Room No.	Result
258	Joint Compound, white	53	b	3	1	Lobby/49	Not Analyzed
259	Wall Texture, white	53	c	1	1	Lobby/48	ND
260	Wall Texture, white	53	c	2	1	Lobby/48	ND
261	Wall Texture, white	53	c	3	1	Lobby/48	ND
262	Drywall, white	54	a	1	1	3/52	ND
263	Drywall, white	54	a	2	1	3/52	ND
264	Drywall, white	54	a	3	1	3/52	ND
265	Joint Compound, white	54	b	1	1	3/52	ND
266	Joint Compound, white	54	b	2	1	3/52	ND
267	Joint Compound, white	54	1	3	1	3/52	ND
268	Wall Texture, white	54	c	1	1	3/51	ND
269	Wall Texture, white	54	c	2	1	3/51	ND
270	Wall Texture, white	54	c	3	1	3/51	ND
271	Cove Base	55	ab	1	1	3/52	ND
272	Cove Base	55	ab	2	1	3/52	ND
273	Cove Base	55	ab	3	1	3/52	ND
274	**Spray-applied Ceiling Texture**	**56**	**a**	**1**	**1**	**3/51**	**Chrysotile 10%**
275	Spray-applied Ceiling Texture	56	a	2	1	3/51	Not Analyzed
276	Spray-applied Ceiling Texture	56	a	3	1	3/51	Not Analyzed
277	Ceiling Tile	57	a	1	1	3/51	ND
278	Ceiling Tile	57	a	2	1	3/51	ND
279	Ceiling Tile	57	a	3	1	3/51	ND
280	Drywall, white	58	a	1	1	7/64	ND

Table 5
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP4
19531 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Space No./Room No.	Result
281	Drywall, white	58	a	2	1	7/64	ND
282	Drywall, white	58	a	3	1	7/64	ND
283	Joint Compound, white	58	b	1	1	7/71	ND
284	Joint Compound, white	58	b	2	1	7/71	ND
285	Joint Compound, white	58	b	3	1	7/71	ND
286	Wall Texture, white, thick	58	c	1	1	7/55	ND
287	Wall Texture, white, thick	58	c	2	1	7/55	ND
288	Wall Texture, white, thick	58	c	3	1	7/55	ND
289	Cove Base 4" gr	59	ab	1	1	7/64	ND
290	Cove Base 4" gr	59	ab	2	1	7/64	ND
291	Cove Base 4" gr	59	ab	3	1	7/64	ND
292	Wall Texture, white, thin	60	a	1	1	7/64	ND
293	Wall Texture, white, thin	60	a	2	1	7/64	ND
294	Wall Texture, white, thin	60	a	3	1	7/64	ND
295	Ceiling Tile	61	a	1	1	7/71	ND
296	Ceiling Tile	61	a	2	1	7/71	ND
297	Ceiling Tile	61	a	3	1	7/71	ND
298	**Spray-applied Ceiling Texture**	**62**	**a**	**1**	**1**	**7/71**	**Chrysotile 10%**
299	Spray-applied Ceiling Texture	62	a	2	1	7/71	Not Analyzed
300	Spray-applied Ceiling Texture	62	a	3	1	7/71	Not Analyzed
301	Drywall, white	63	a	1	1	8/74	ND
302	Drywall, white	63	a	2	1	8/74	ND
303	Drywall, white	63	a	3	1	8/74	ND

Table 5
Summary of Asbestos Sample Results
Atlantic Aviation, Building NP4
19531 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Space No./Room No.	Result
304	Joint Compound, white	63	b	1	1	8/74	ND
305	Joint Compound, white	63	b	2	1	8/74	ND
306	Joint Compound, white	63	b	3	1	8/74	ND
307	Wall Texture, white	63	c	1	1	8/74	ND
308	Wall Texture, white	63	c	2	1	8/74	ND
309	Wall Texture, white	63	c	3	1	8/74	ND
310	Cove Base 4" gr	64	ab	1	1	8/74	ND
311	Cove Base 4" gr	64	ab	2	1	8/74	ND
312	Cove Base 4" gr	64	ab	3	1	8/74	ND

Created by: SA
Checked by: DEH/LAG

Table Notes:

1 HM - Homogenous Material: A material that appears to be uniform when properties such as age, color, texture are compared.
2 Layer - When a Homogenous Material has more than one recognizable component each is a layer.
3 Assay - Of the duplicates required by Asbestos Hazard Emergency Response Act (AHERA), the sequential number, starting at one, assigned each sample up to the required number of samples.
4 Bold type - These samples were determined to contain asbestos in excess of 0.10%.
5 ND - Asbestos was not detected above the method detection limit.
6 Not Analyzed - When any sample of a Homogenous Material is determined to contain asbestos the other samples in that HM are not analyzed.
7 R/R - Restroom.
8 Sample No. 066 was intentionally omitted.

Table 6
Summary of Asbestos-Containing Materials
Building NP2, Atlantic Aviation
19711 Campus Drive
Santa Ana, California

Material	Location	Sample No.	Result	Estimated Quality
Joint Compound and Wall Texture, Friable, Good, HM 3bc	American Aircraft Maintenance offices, hangar and restroom	11, 18, 32, 35 and42	2 % Chrysotile,	17,800 Square feet
Ceiling Texture, Friable, Good, HM 4a	Rooms 1, 3, 9, 10, and 11	24	3% Chrysotile,	2,800 square feet

Created by: DEH
Checked by: LAG

Table 7
Summary of Asbestos-Containing Materials
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Material, Condition, Friability, Homogenous Material No.	Location	Sample No.	Result	Estimated Quality
Joint Compound, non-friable, good, HM 1b	West Coast Offices	4	2% Chrysotile,	768 square feet
Wall Texture, friable, good, HM 3c	Suite 11	16	2% Chrysotile,	1,248 square feet
Spray-applied Ceiling Texture, friable, good, various HMs	Above lay-in ceilings tiles on the first and second floor	22, 44, 62, 81, 90, 117, 135, 150, 165, 180, 195, 210, 237, 274, & 298	5 to 10% Chrysotile	14,552 square feet
Floor tile 12x12, off white, non-friable, good, HM 6a	Suite 11, Room 6	25	2% Chrysotile	144 square feet
Wall Texture, friable, good, HM 7c	Suite 4	36	2% Chrysotile	2,784 square feet
Joint Compound, non-friable, good, HM 12b	Suite 12	54	2% Chrysotile	1,200 square feet
Wall Texture, friable, good, HM 16c	Suite 13	75	2% Chrysotile	1,360 square feet
Joint Compound, non-friable, good, HM 23b	Restrooms 2nd floor, Rooms 22 and 23	102	2% Chrysotile	640 square feet
Joint Compound and Wall Texture, friable, good, HM 24bc	Lobby 2nd floor, Room 21	111 and 114	2% Chrysotile - joint compound , 2% Chrysotile – wall texture	592 square feet
Joint Compound and Wall Texture, friable, good, HM 26bc	Suite 15	126, 129, 130, 131	2% Chrysotile - joint compound , 2% Chrysotile – wall texture	464 square feet

Table 7
Summary of Asbestos-Containing Materials
Building NP4, Atlantic Aviation
Santa Ana, California

Material	Location	Sample No.	Result	Estimated Quality
Joint Compound, non-friable, good, HM 30b	Suite 15A	141	2% Chrysotile	1,376 Square feet
Wall Texture, friable, good, HM 32c *	Suite 16	159	2% Chrysotile	1,760 square feet
Joint Compound, non-friable, good, HM 35b	Suite 17	173	2% Chrysotile	1,648 square feet
Joint Compound and Wall Texture, friable, good, HM 41bc	Suite 19	204, 207	2% Chrysotile - joint compound , 2% Chrysotile – wall texture	2,512 square feet
Joint Compound, non-friable, good, HM 47b	Suite 20	230	2% Chrysotile	1,264 square feet
Mastic, roof penetrations, black, non-friable, good, HM 50a	Roof	240	3% Chrysotile	12 penetrations at approx. 1 foot dia.
Joint Compound, non-friable, good, HM 53b	Lobby 1st floor, Room 49	256	2% Chrysotile	688 square feet

Created by: DEH
Checked by: LAG

Notes:
* The Joint Compound (HM 32b) associated with this Homogenous Material is an ACCM.

Table 8
Summary of Lead-Bassed Paint Analysis
Atlantic Aviation, Buildings NP1, NP2 and NP4
19531 & 19711 Campus Drive
Santa Ana, California

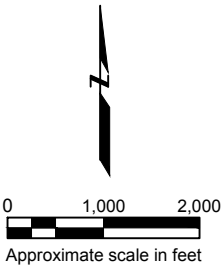
Sample No.	Building No.	Room No./ Location	Component	Color	Sample Result, % by Weight
5	**NP2**	**7**	**Column**	**Gray**	**0.73**
6	**NP1**	**2**	**Door**	**White**	**0.62**
7	**NP4**	**47 (1st floor lobby)**	**East wall**	**White**	**0.57**
8	**NP4**	**47 (1st floor lobby)**	**Stair stringer**	**White**	**1.3**
9	**NP4**	**48 (1st floor women's R/R)**	**Door**	**White**	**0.95**
10	**NP4**	**22 (2nd floor R/R)**	**Door**	**White**	**1.2**
11	**NP4**	**21 (2nd floor lobby)**	**South wall**	**White**	**0.89**
12	NP4	Space 18/Rm 36	Exterior door	Blue	0.11
13	**NP4**	**Space 18/Rm 36**	**Interior door**	**White**	**0.62**
14	**NP4**	**Space 7/ Rm 62**	**Door**	**White**	**0.85**

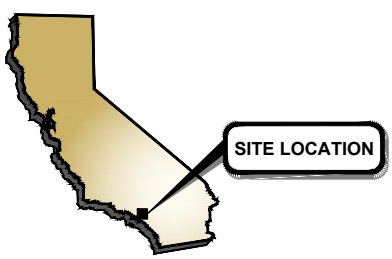
checked by: LAG

Notes:
Bold denotes Lead-based Paint with a lead content in excess of 0.5%
R/R - Restroom

FIGURES

Basemap modified from Street Map provided by Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., ©OpenStreetMap contributors, and the GIS User Community.



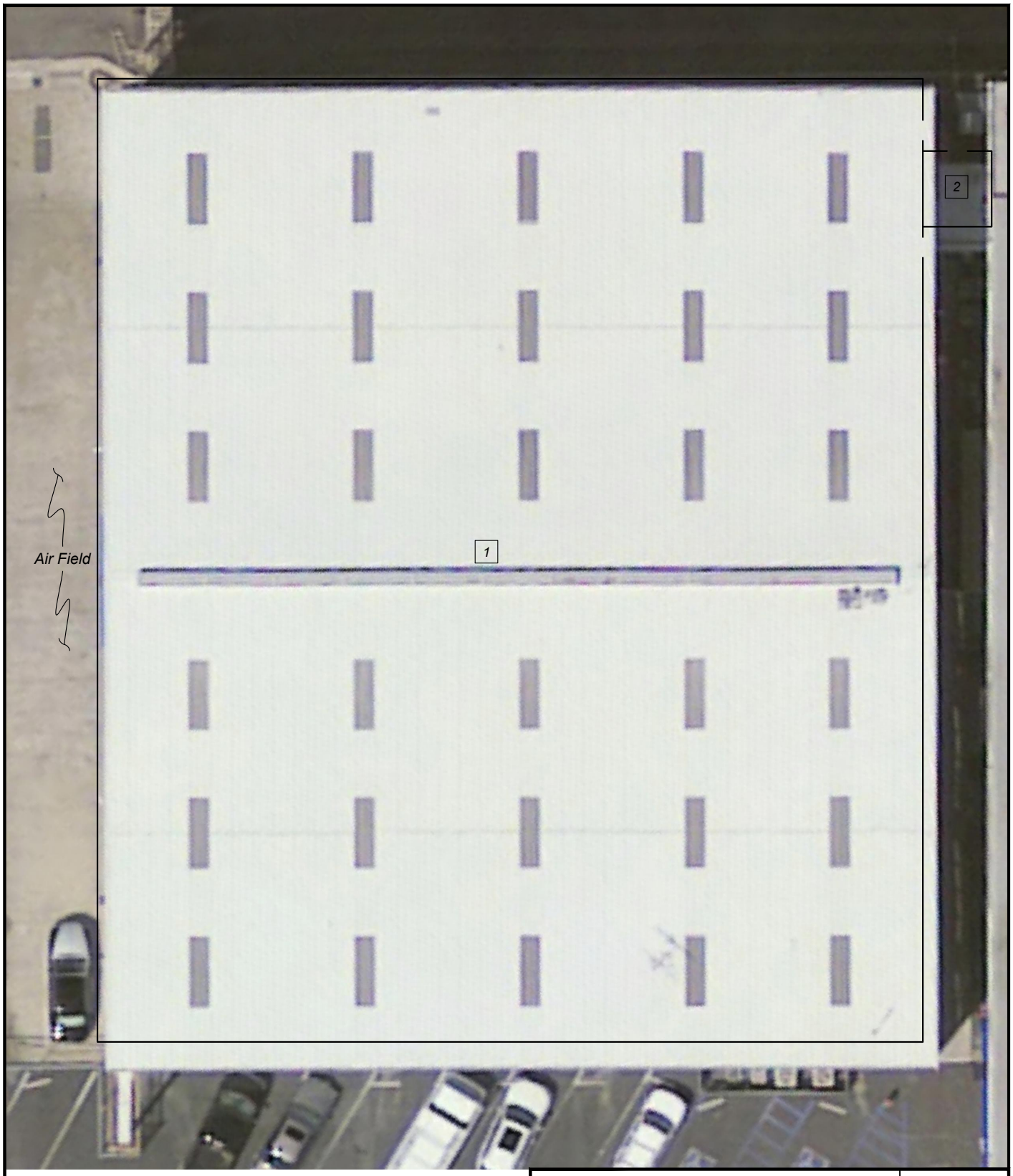


SITE LOCATION MAP
ATLANTIC NP1, NP2, NP3, AND NP4
19711 and 19531 Campus Drive
John Wayne Airport
Orange County, California

amec foster wheeler

Date: 03/31/2017	Project No. IR14164420	Figure 1
Submitted By: dh	Drawn By: pah	

Plot Date: 3/31/2017 12:48:32 PM, Plotted by: pat.herring
Drawing Path: Y:\IR\13164420\acad\Asbestos_Survey_2017-02-16_tb_Site_Location_Maps.dwg



Explanation

Building outline

2 Room number

0 10 20

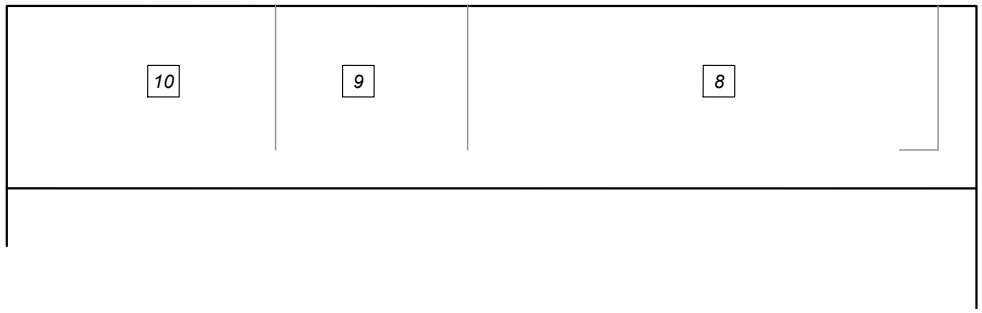
Approximate Scale in Feet

FLOOR PLAN
ATLANTIC NP1
19711 Campus Drive
John Wayne Airport
Orange County, California

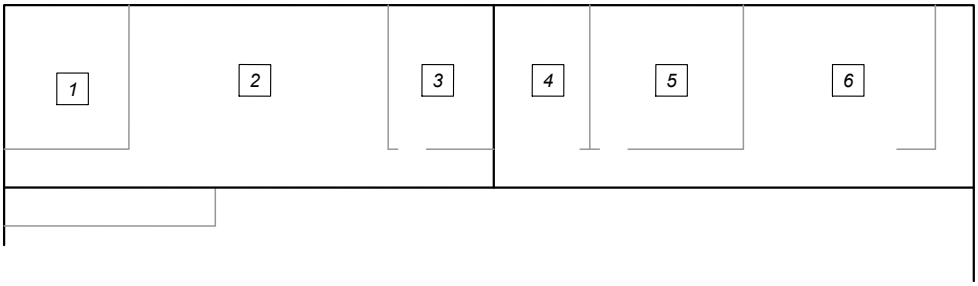
amec foster wheeler

Date: 03/31/2017	Project No. IR14164420	Figure 2
Submitted By: dh	Drawn By: pah	

Plot Date: 3/31/2017 11:22:55 AM, Plotted by: pat.herring
Drawing Path: Y:\IR\13164420\ACAD\ASBESTOS_SURVEY_2017-02-16_TB_ATLANTIC_NP1.DWG, Figure 1-Northside



Second Floor

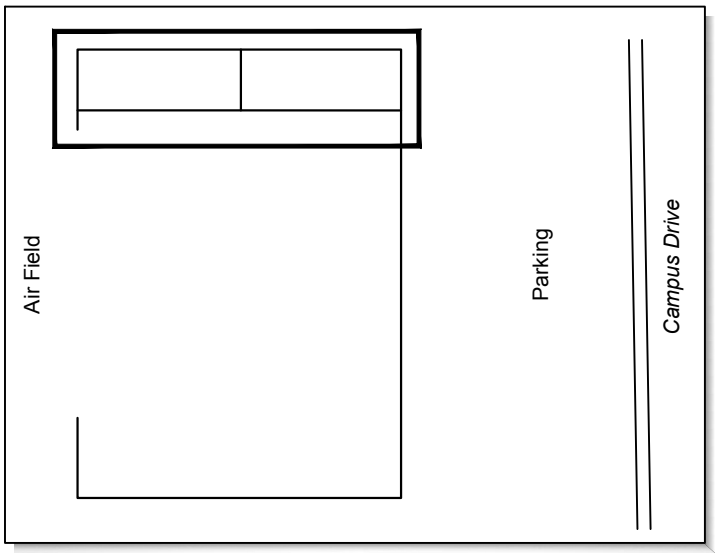


First Floor

Explanation

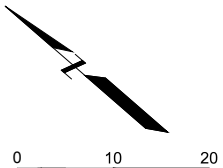
Building outline

8 Room number



Key Map

Not to Scale



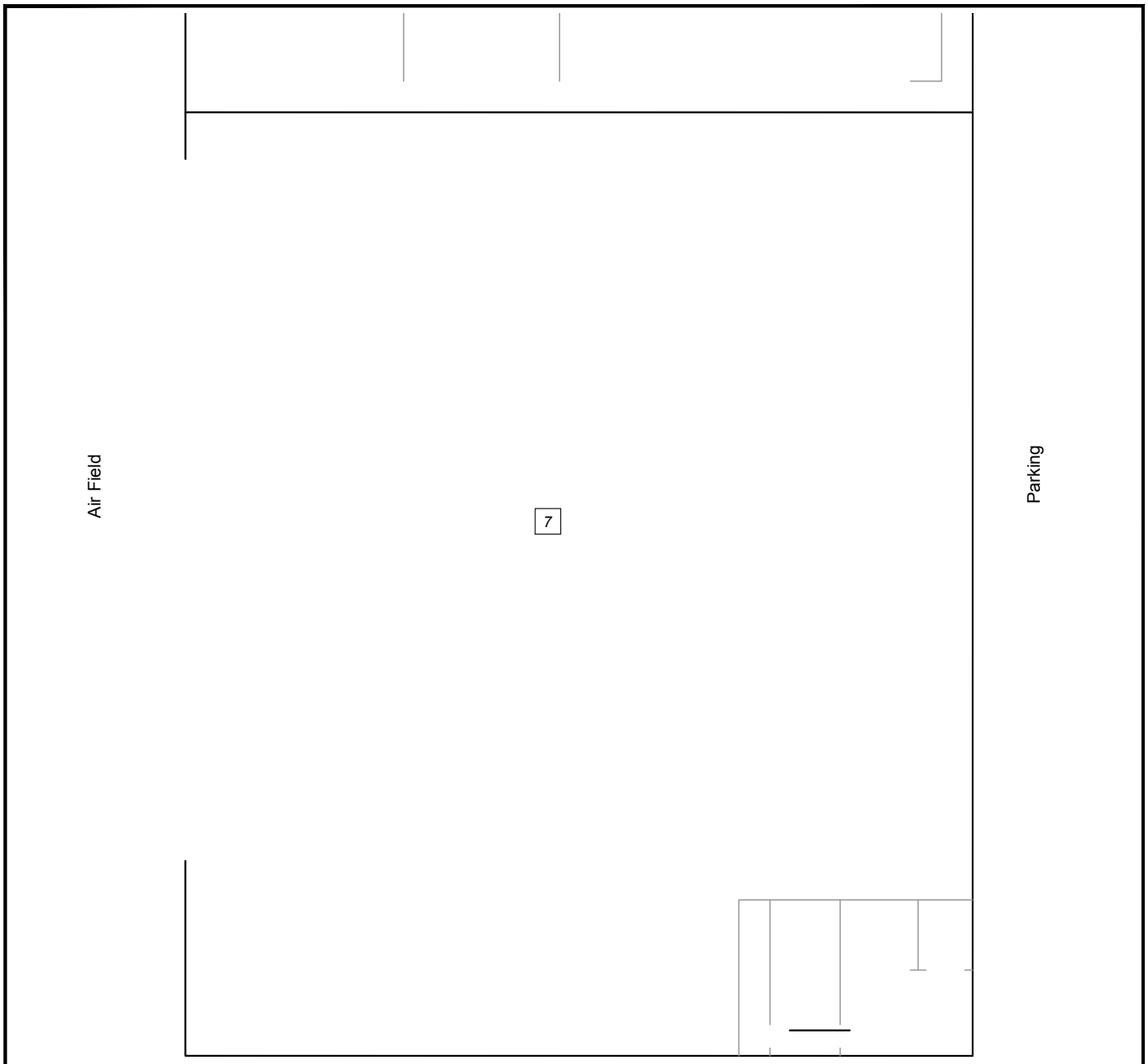
Approximate Scale in Feet

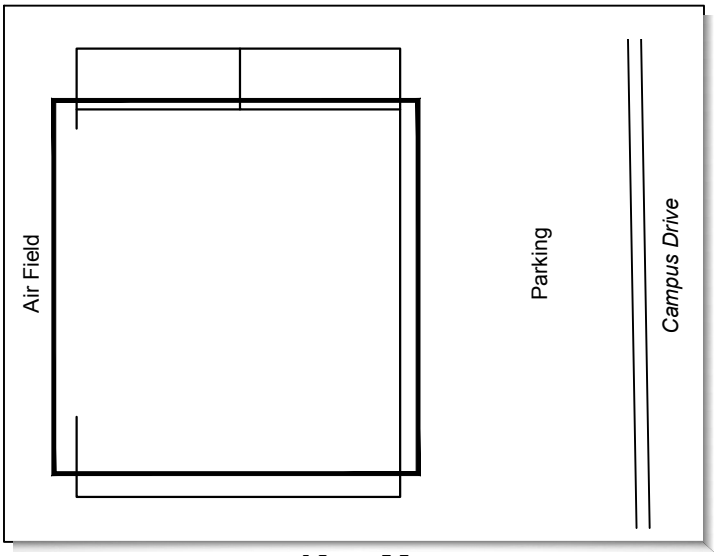
FLOOR PLAN
ATLANTIC NP2
19711 Campus Drive
John Wayne Airport
Orange County, California

amec foster wheeler

Date: 03/31/2017	Project No. IR14164420	Figure 3A
Submitted By: dh	Drawn By: pah	

Plot Date: 3/31/2017 12:19:16 PM, Plotted by: pat.herring
Drawing Path: Y:\IR\13164420\ACAD\ASBESTOS_SURVEY_2017-02-16_TB_ATLANTIC_NP2.DWG, Figure 3A-Northside



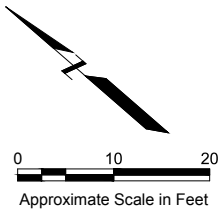


Key Map
Not to Scale

Explanation

Building outline

7 Room number



Approximate Scale in Feet

FLOOR PLAN
ATLANTIC NP2
19711 Campus Drive
John Wayne Airport
Orange County, California

amec foster wheeler

Date: 03/31/2017	Project No. IR14164420	Figure 3B
Submitted By: dh	Drawn By: pah	

Plot Date: 3/31/2017 12:22:19 PM, Plotted by: pat.herring
Drawing Path: Y:\IR\13164420\ACAD\ASBESTOS_SURVEY_2017-02-16_TB_ATLANTIC_NP2.DWG, Figure 3B-Center

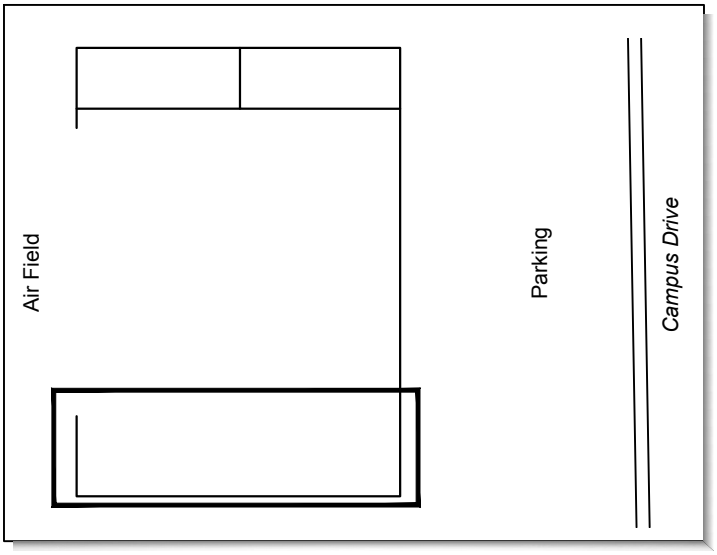
Second Floor

First Floor

Explanation

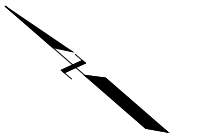
Building outline

11 Room number



Key Map

Not to Scale



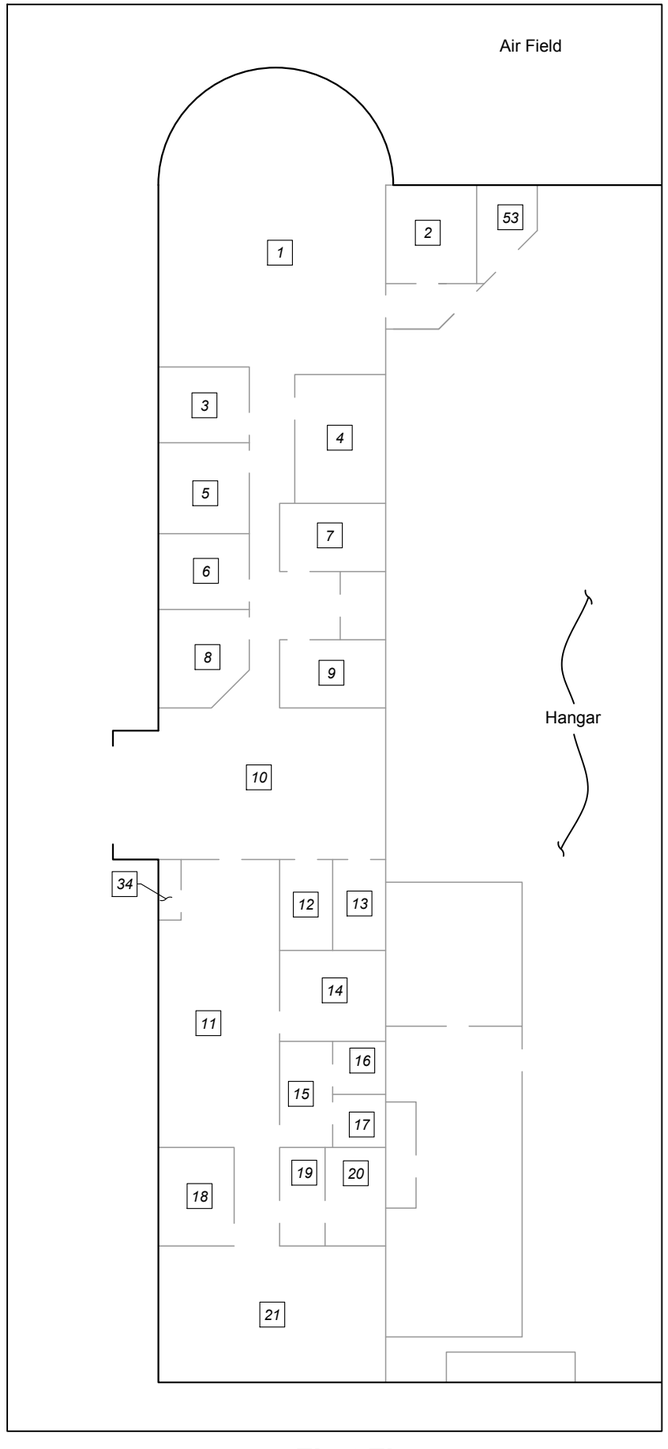
Approximate Scale in Feet

FLOOR PLAN
ATLANTIC NP2
19711 Campus Drive
John Wayne Airport
Orange County, California

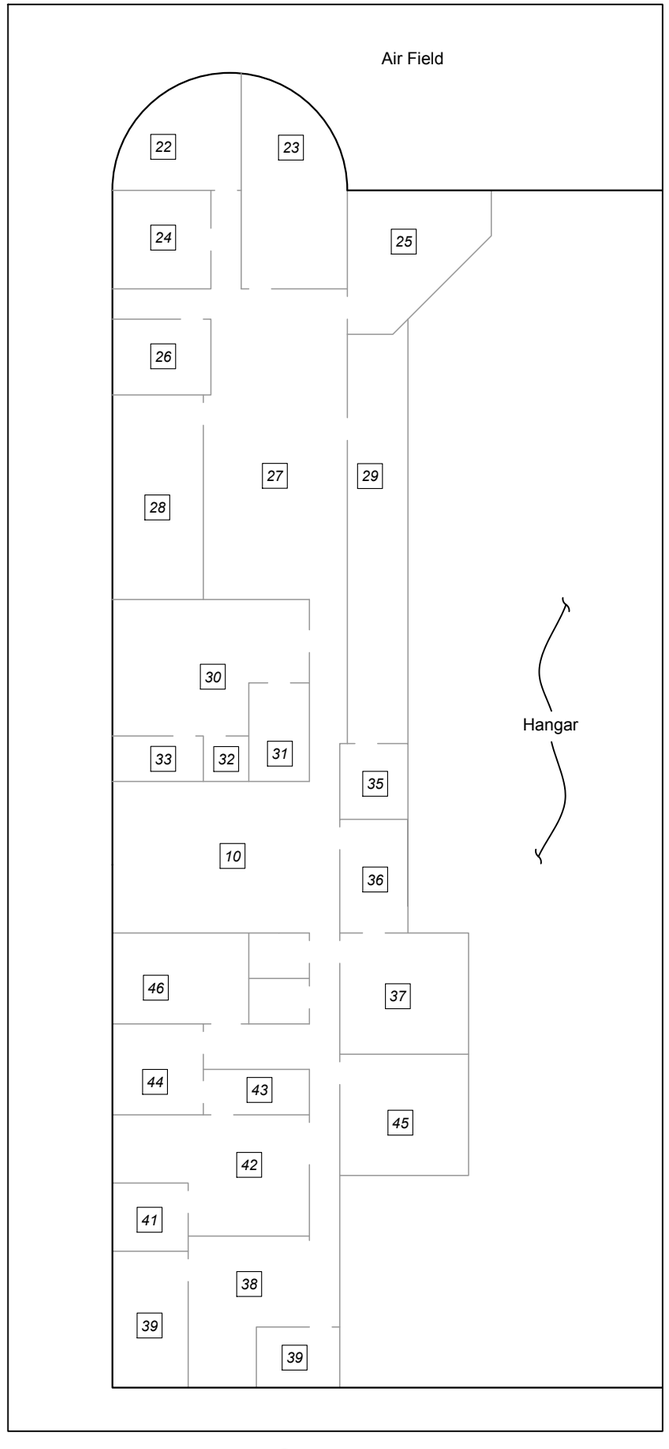
amec foster wheeler

Date: 03/31/2017	Project No. IR14164420	Figure 3C
Submitted By: dh	Drawn By: pah	

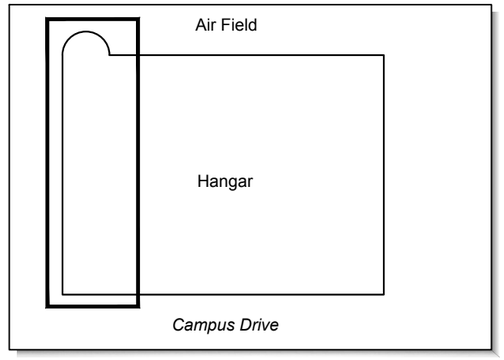
Plot Date: 3/31/2017 12:25:35 PM, Plotted by: pat.herring
Drawing Path: Y:\IR\13164420\ACAD\ASBESTOS_SURVEY_2017-02-16_TB_ATLANTIC_NP2.DWG, Figure 3C-southside



First Floor



Second Floor



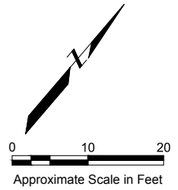
Key Map

1" = 100'

Explanation

Building outline

48 Room number

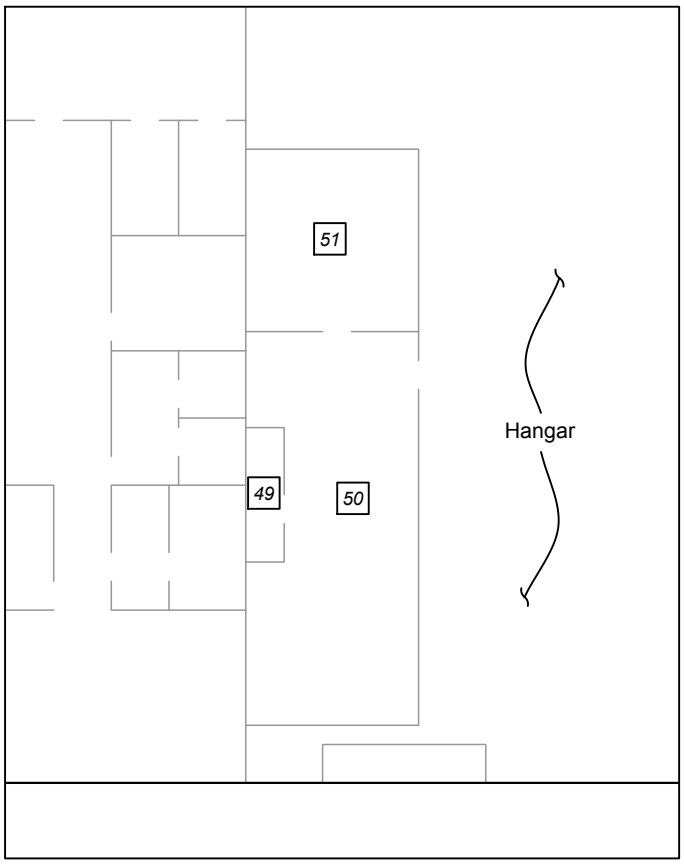


FLOOR PLAN
ATLANTIC NP3
19711 Campus Drive
John Wayne Airport
Orange County, California

amec foster wheeler

Date: 03/31/2017	Project No. IR14164420	Figure 4A
Submitted By: dh	Drawn By: pah	

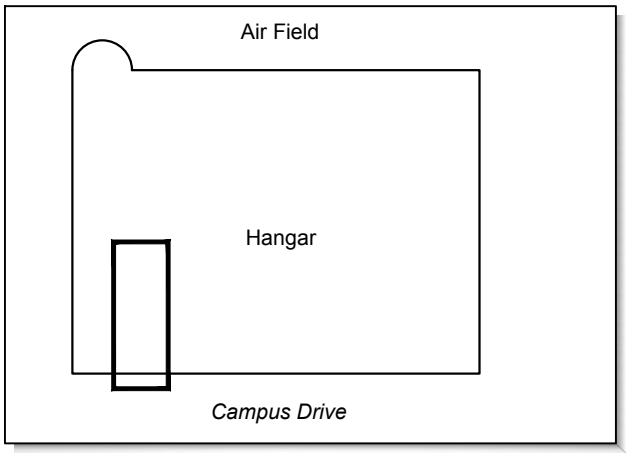
Plot Date: 3/31/2017 12:28:19 PM, Plotted by: pat.herring
Drawing Path: Y:\IR\13164420\ACAD\ASBESTOS_SURVEY_2017-02-16_TB_ATLANTIC_NP3.DWG, Figure 4A



Explanation

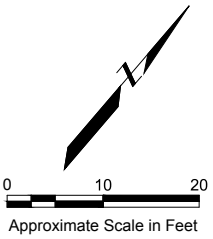
Building outline

51 Room number



Key Map

1" = 100'



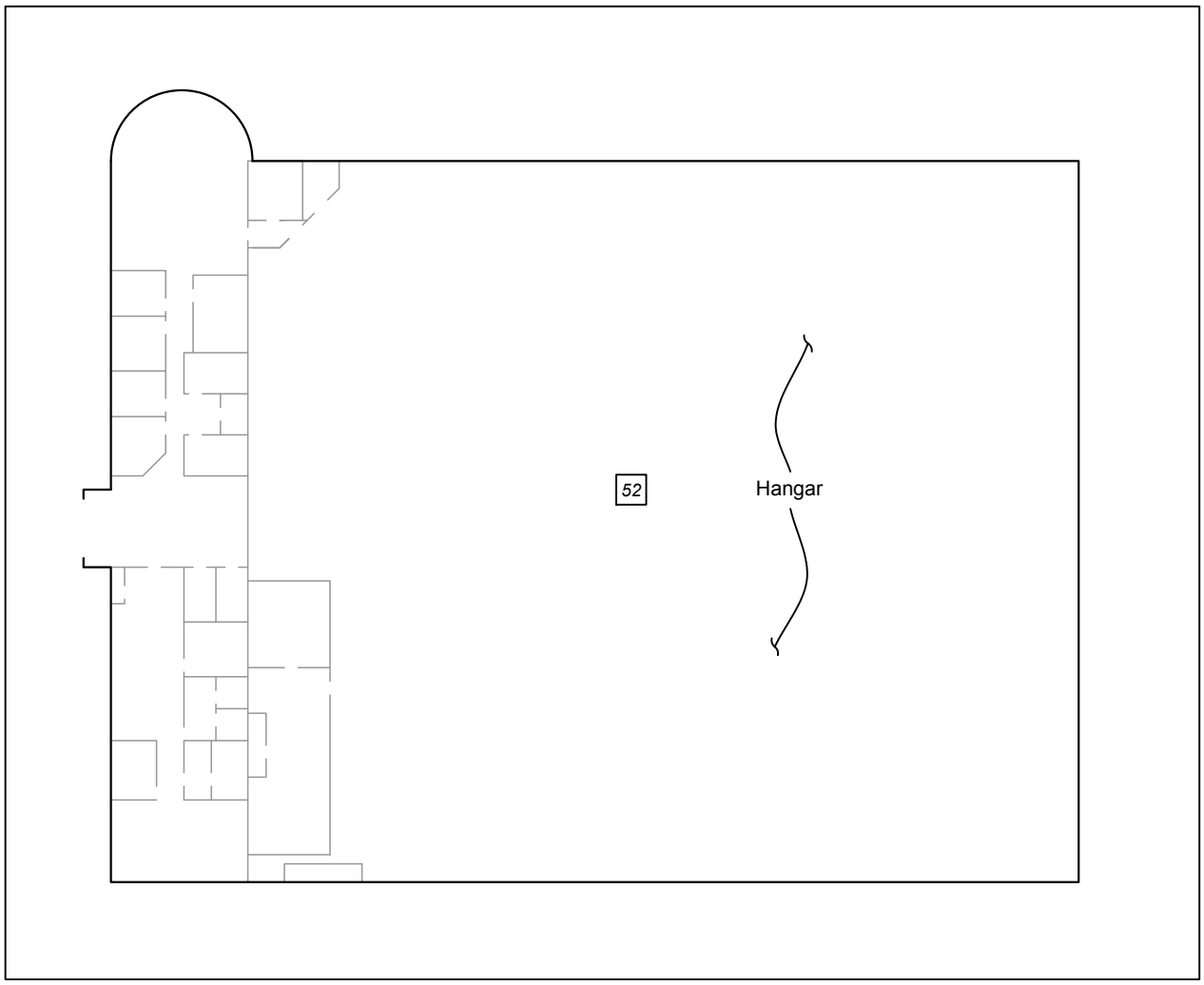
Approximate Scale in Feet

FLOOR PLAN
ATLANTIC NP3
19711 Campus Drive
John Wayne Airport
Orange County, California

amec foster wheeler

Date: 03/31/2017	Project No. IR14164420	Figure 4B
Submitted By: dh	Drawn By: pah	

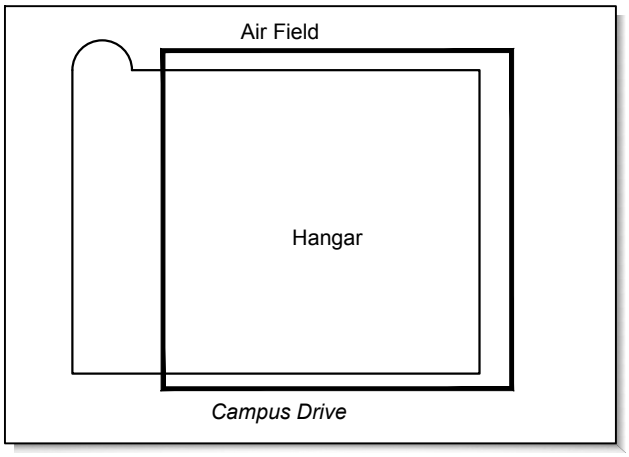
Plot Date: 3/31/2017 12:28:19 PM, Plotted by: pat.herring
Drawing Path: Y:\IR\13164420\ACAD\ASBESTOS_SURVEY_2017-02-16_TB_ATLANTIC_NP3.DWG, Figure 4B



Explanation

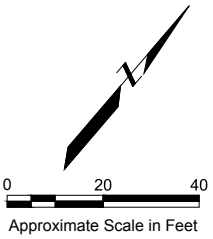
Building outline

52 Room number



Key Map

1" = 100'



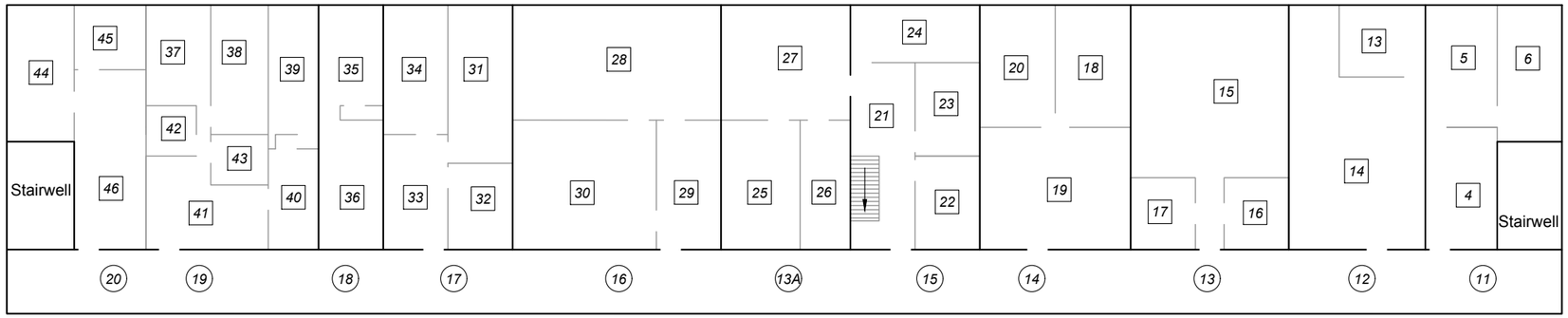
Approximate Scale in Feet

FLOOR PLAN
ATLANTIC NP3
19711 Campus Drive
John Wayne Airport
Orange County, California

amec foster wheeler

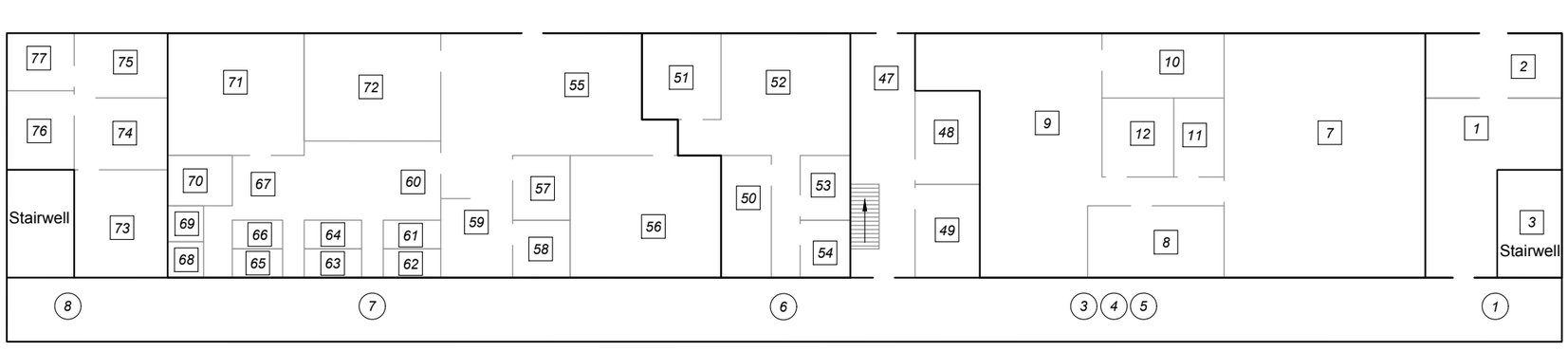
Date: 03/31/2017	Project No. IR14164420	Figure 4C
Submitted By: dh	Drawn By: pah	

Plot Date: 3/31/2017 12:28:19 PM, Plotted by: pat.herring
Drawing Path: Y:\IR\13164420\ACAD\ASBESTOS_SURVEY_2017-02-16_TB_ATLANTIC_NP3.DWG, Figure 4C



Campus Drive

Second Floor



Campus Drive

First Floor

Explanation

- Building outline
- (20) Unit number
- [75] Room number

0 10 20

Approximate Scale in Feet

FLOOR PLAN
ATLANTIC NP4
19531 Campus Drive
John Wayne Airport
Orange County, California

amec foster wheeler

Date: 03/31/2017	Project No. IR14164420	Figure 5
Submitted By: dh	Drawn By: pah	

Plot Date: 3/31/2017 12:46:19 PM, Plotted by: pat.herring
Drawing Path: Y:\IR\13164420\ACAD\ASBESTOS_SURVEY_2017-02-16_TB_ATLANTIC_NP4.DWG, Figure 5

APPENDIX A

ANALYTICAL REPORTS AND CHAIN OF CUSTODY DOCUMENTATION

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: B232444
Date Received: 12/16/16
Date Analyzed: 12/21/16
Date Printed: 12/23/16
First Reported: 12/23/16

Job ID/Site: IR13164420.55; John Wayne Airport (SNA/GAIP) - Atlantic NP1 / West Coast Charter

FALI Job ID: 5629-10

Date(s) Collected: 12/12/2016

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
001_1_a	51030879						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
002_1_a	51030880						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
003_1_a	51030881						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
004_1_b	51030882						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
005_1_b	51030883						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
006_1_b	51030884						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
007_1_b	51030885						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
008_1_b	51030886						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232444

Client Name: Amec Foster Wheeler **Date Printed:** 12/23/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
009_1_b	51030887						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
010_1_b	51030888						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
011_1_c	51030889						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
012_1_c	51030890						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
013_1_c	51030891						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
014_1_c	51030892						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
015_1_c	51030893						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
016_1_c	51030894						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
017_1_c	51030895						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
018_5_a	51030896						
Layer: Black/Tan Mastics			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232444

Client Name: Amec Foster Wheeler **Date Printed:** 12/23/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
019_5_a	51030897						
Layer: Black/Tan Mastics			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
020_5_a	51030898						
Layer: Black/Tan Mastics			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Analysis Request Form (COC)

Client Name & Address: Amec Foster Wheeler 6001 Rickenbacker Rd. Los Angeles CA 90040	Client No.:
PO / Job#: IR13164420.55	Date:
Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day	
☐ PCM: ☐ NIOSH 7400A / ☐ NIOSH 7400B ☐ Rotometer	
☒ PLM: ☒ Standard / ☐ Point Count 400 - 1000 / ☐ CARB 435	
Contact: Don Harman	Phone: (818) 324-4391
☐ TEM Air: ☐ AHERA / ☐ Yamate2 / ☐ NIOSH 7402 ☐ TEM Bulk: ☐ Quantitative / ☐ Qualitative / ☐ Chatfield ☐ TEM Water: ☐ Potable / ☐ Non-Potable / ☐ Weight % ☐ TEM Microvac: ☐ Qual / ☐ D5755(str/area) / ☐ D5756(str/mass)	
E-mail: don.harman@amecfw.com	
Site Name: John Wayne Airport	☐ IAQ Particle Identification (PLM LAB) ☐ PLM Opaques/Soot ☐ Particle Identification (TEM LAB) ☐ Special Project
Site Location: SNA/GAIP	☐ Metals Analysis Matrix: Method: Analytes:
Comments: See attached COC NP1, NP2 & NP4	☐ Silica in Air ☐ w/Gravimetry

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg LPM	Total Time	
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: Date/Time: Shipped Via: ☐ Fec Ex ☐ UPS ☐ US Mail ☐ Courier ☐ Drop Off ☐ Other:

Relinquished By: Don Harman Date / Time: 12/16/16 PM	Relinquished By: Date / Time:	Relinquished By: Date / Time:
Received By: Date / Time: 12/16/16 1:30PM Condition Acceptable? ☒ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No

Amec Foster Wheeler E&I

Asbestos Survey Form 04a - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/12/16
Site Name	**SNA/GAIP**	Submission Date	
Building Number	Atlantic NP1 / West Coast Charter		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
001	Dry Wall	1	a	1		1
002	↓	↓	↓	2		↓
003	↓	↓	↓	3		↓
004	Joint Compound	↓	b	1		↓
005	↓	↓	↓	2		↓
006	↓	↓	↓	3		↓
007	↓	↓	↓	4		↓
008	↓	↓	↓	5		↓
009	↓	↓	↓	6		↓
010	↓	↓	↓	7		↓
011	Wall Texture	↓	c	1		↓
012	↓	↓	↓	2		↓
013	↓	↓	↓	3		↓

Analysis Requested	PLM	Turnaround Time	One Week

Transmitted From:

AMEC E&I
6001 Rickenbacker Rd., Los Angeles CA 90040
Phone 323.889.5300

Transmitted To:

☒ **Forensic Analytical**
Rancho Dominguez

PO # _____

☐ _____

Analyze to 1st Positve x

Sender's Signature Don E Hanna

Recipient's Signature _____

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	
Site Name	**SNA/GAIP**	Submission Date	
Building Number			

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
014	Wall Texture	1	C	4		1
015	"	"	"	5		"
016	"	"	"	6		"
017	"	"	"	7		"
018	Remnant carpet mastic	5**	a	1		"
019	"	"	"	2		"
020	"	"	"	3		"

Forensic Analytical LABORATORIES

Amended Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: B232445
Date Received: 12/16/16
Date Analyzed: 12/22/16
Date Printed: 01/12/17
First Reported: 01/09/17

Job ID/Site: IR13164420.55; John Wayne Airport (SNA/GAIP) - Atlantic NP2

FALI Job ID: 5629-10

Date(s) Collected:

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
001_1_a	51030899						
Layer: Light Grey Tile			**ND**				
Layer: Yellow Adhesive with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
002_1_a	51030900						
Layer: Light Grey Tile			**ND**				
Layer: Yellow Adhesive with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
003_1_a	51030901						
Layer: Black Tile			**ND**				
Layer: Yellow Adhesive with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
004_2_a	51030902						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
004_2_b	51030903						
Layer: Yellow Mastic			**ND**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
005_2_a	51030904						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232445
Client Name: Amec Foster Wheeler **Date Printed:** 01/12/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
005_2_b	51030905						
Layer: Yellow Mastic			**ND**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
006_2_a	51030906						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
006_2_b	51030907						
Layer: Yellow Mastic			**ND**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
007_3_a	51030908						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (3 %)		**Asbestos (ND)**					
008_3_a	51030909						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (3 %)		**Asbestos (ND)**					
009_3_a	51030910						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (3 %)		**Asbestos (ND)**					
010_3_b	51030911						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
011_3_b	51030912						
Layer: White Skimcoat/Joint Compound		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound (top)		Chrysotile	**Trace**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
Comment: This comment applies to the White Skimcoat/Joint Compound (top) only: Insufficient material for additional analyses.							
012_3_b	51030913						
Comment: Sample not analyzed due to prior positive result in series.							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232445

Client Name: Amec Foster Wheeler **Date Printed:** 01/12/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
013_3_b	51030914						
Comment: Sample not analyzed due to prior positive result in series.							
014_3_b	51030915						
Comment: Sample not analyzed due to prior positive result in series.							
015_3_b	51030916						
Comment: Sample not analyzed due to prior positive result in series.							
016_3_b	51030917						
Comment: Sample not analyzed due to prior positive result in series.							
017_3_c	51030918						
Layer: Off-White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
018_3_c	51030919						
Layer: Off-White Texture		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
019_3_c	51030920						
Comment: Sample not analyzed due to prior positive result in series.							
020_3_c	51030921						
Comment: Sample not analyzed due to prior positive result in series.							
021_3_c	51030922						
Comment: Sample not analyzed due to prior positive result in series.							
022_3_c	51030923						
Comment: Sample not analyzed due to prior positive result in series.							
023_3_c	51030924						
Comment: Sample not analyzed due to prior positive result in series.							
024_4_a	51030925						
Layer: Off-White Semi-Fibrous Material		Chrysotile	**3 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (3%)**					
025_4_a	51030926						
Comment: Sample not analyzed due to prior positive result in series.							
026_4_a	51030927						
Comment: Sample not analyzed due to prior positive result in series.							
027_5_a	51030928						
Layer: Tan Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232445
Client Name: Amec Foster Wheeler **Date Printed:** 01/12/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
028_5_a	51030929						
Layer: Tan Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
029_5_a	51030930						
Layer: Tan Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
030_4_a	51030931						
Layer: White Non-Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
031_4_a	51030932						
Layer: White Non-Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
032_6_a	51030933						
Layer: White Skimcoat/Joint Compound		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
Comment: No Drywall detected.							
033_6_a	51030934						
Layer: Tan Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
034_6_a	51030935						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
035_6_b	51030936						
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
036_6_b	51030937						
Comment: Sample not analyzed due to prior positive result in series.							
037_6_b	51030938						
Comment: Sample not analyzed due to prior positive result in series.							
038_6_b	51030939						
Comment: Sample not analyzed due to prior positive result in series.							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232445
Client Name: Amec Foster Wheeler **Date Printed:** 01/12/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
039_6_b	51030940						
Comment: Sample not analyzed due to prior positive result in series.							
040_6_b	51030941						
Comment: Sample not analyzed due to prior positive result in series.							
041_6_b	51030942						
Comment: Sample not analyzed due to prior positive result in series.							
042_6_c	51030943						
Layer: Off-White Texture		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
043_6_c	51030944						
Comment: Sample not analyzed due to prior positive result in series.							
044_6_c	51030945						
Comment: Sample not analyzed due to prior positive result in series.							
045_6_c	51030946						
Comment: Sample not analyzed due to prior positive result in series.							
046_6_c	51030947						
Comment: Sample not analyzed due to prior positive result in series.							
047_6_c	51030948						
Comment: Sample not analyzed due to prior positive result in series.							
048_6_c	51030949						
Comment: Sample not analyzed due to prior positive result in series.							
049_7_a	51030950						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
049_7_b	51030951						
Layer: Tan Mastic			**ND**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
050_7_a	51030952						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
050_7_b	51030953						
Layer: Tan Mastic			**ND**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232445

Client Name: Amec Foster Wheeler **Date Printed:** 01/12/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
051_7_a	51030954						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
051_7_b	51030955						
Layer: Tan Mastic			**ND**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
052_8_a	51030956						
Layer: Grey Plaster			**ND**				
Layer: White Plaster		Chrysotile	**Trace**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					
Comment: This comment applies to the White Plaster only: Insufficient material for additional analyses.							
053_8_a	51030957						
Layer: Grey Plaster			**ND**				
Layer: White Plaster			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
054_8_a	51030958						
Layer: Grey Plaster			**ND**				
Layer: White Plaster			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
055_8_a	51030959						
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
056_9_a	51030960						
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
057_9_a	51030961						
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232445
Client Name: Amec Foster Wheeler **Date Printed:** 01/12/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
058_10_a	51030962						
Layer: Beige Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
059_10_a	51030963						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
060_10_a	51030964						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
061_10_b	51030965						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
062_10_b	51030966						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
063_10_b	51030967						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
064_10_b	51030968						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
065_10_b	51030969						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
066_10_c	51030970						
Layer: Tan Fibrous Material			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232445

Client Name: Amec Foster Wheeler **Date Printed:** 01/12/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
067_10_c	51030971						
Layer: Tan Fibrous Material			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (7 %)		**Asbestos (ND)**					
068_10_c	51030972						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
069_10_c	51030973						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
070_10_c	51030974						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
071_11_a	51031486						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
071_11_b	51031487						
Layer: Beige Mastic			**ND**				
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
072_11_a	51031488						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
072_11_b	51031489						
Layer: Brown Mastic		Chrysotile	**Trace**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					
073_11_a	51031490						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232445

Client Name: Amec Foster Wheeler **Date Printed:** 01/12/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
073_11_b	51031491						
Layer: Brown Mastic		Chrysotile	**Trace**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					
074_12_a	51031492						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
074_12_b	51031493						
Layer: Beige Mastic			**ND**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
075_12_a	51031494						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
075_12_b	51031495						
Layer: Beige Mastic			**ND**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
076_12_a	51031496						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
076_12_b	51031497						
Layer: Beige Mastic			**ND**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Analysis Request Form (COC)

Client Name & Address: Amec Foster Wheeler 6001 Rickenbacker Rd. Los Angeles CA 90040	Client No.:
PO / Job#: IR13164420.55	Date:
Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day	
☐ PCM: ☐ NIOSH 7400A / ☐ NIOSH 7400B ☐ Rotometer	
☒ PLM: ☒ Standard / ☐ Point Count 400 - 1000 / ☐ CARB 435	
Contact: Don Harman	Phone: (818) 324-4391
☐ TEM Air: ☐ AHERA / ☐ Yamate2 / ☐ NIOSH 7402 ☐ TEM Bulk: ☐ Quantitative / ☐ Qualitative / ☐ Chatfield	
E-mail: don.harman@amecfw.com	☐ TEM Water: ☐ Potable / ☐ Non-Potable / ☐ Weight % ☐ TEM Microvac: ☐ Qual / ☐ D5755(str/area) / ☐ D5756(str/mass)
Site Name: John Wayne Airport	☐ IAQ Particle Identification (PLM LAB) ☐ PLM Opaques/Soot ☐ Particle Identification (TEM LAB) ☐ Special Project
Site Location: SNA/GAIP	☐ Metals Analysis Matrix: Method: Analytes:
Comments: See attached COC NP1, NP2 & NP4	☐ Silica in Air ☐ w/Gravimetry

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg LPM	Total Time	
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: Date/Time: Shipped Via: ☐ Fed Ex ☐ UPS ☐ US Mail ☐ Courier ☐ Drop Off ☐ Other:

Relinquished By: Don Harman Date / Time: 12/16/16 PM	Relinquished By: Date / Time.	Relinquished By: Date / Time:
Received By: Date / Time: 12/16/16 1:30 PM Condition Acceptable? ☒ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No

Amec Foster Wheeler E&I

Asbestos Survey Form 04a - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	SNA/GAIP
Building Number	Atlantic NP2
Collection Date	12/12/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
001	Floor tile, checkered Wh & Bl, self adhered	1	a	1	1	1
002				2		
003				3		
004	Cove base bl. 3"	2	ab	1		
005				2		
006				3		
007	Drywall	3	a	1		2
008				2		4
009				3		6
010	Joint Compound		b	1		10
011				2		12
012				3		2
013				4		6

Analysis Requested: PLM

Turnaround Time: One Week

Transmitted From:

AMEC E&I
6001 Rickenbacker Rd., Los Angeles CA 90040
Phone 323.889.5300

Transmitted To:

Forensic Analytical
Rancho Dominguez

PO # _____

☐ _____

Analyze to 1st Positve x

Sender's Signature: Don E Harm

Recipient's Signature: _____

Total Number of Samples Collected in Building: 76

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/12/16
Site Name	SNA/GAIP	Submission Date	
Building Number	Atlantic NP2		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
014	Joint Compound	3	b	5	(6)	6
015				6	(8)	8
016				7	11	11
017	Wall Texture		c	1		1
018				2		2
019				3		4
020				4		6
021				5		6
022				6		7
023				7		8
024	Spray applied ceiling texture	4	a	1		11
025				2		X3
026				3		11
027	Remnant mastic	5	a	1		7
028				2		7
029				3		7
030	Spray applied ceiling textur	4	a	4		9
031		1		5		9
032	DW Hayward	6	a	1		7
033				2		7
034				3		7

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/12/16 - 12/13/16
Site Name	SNA/GAIP	Submission Date	
Building Number	Atlantic NP2		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
035	Joint Compound	6	b	1		7
036				2		
037				3		
038				4		
039				5		
040				6		
041				7		↓
042	Wall Texture		c	1		7
043				2		
044				3		
045				4		
046				5		
047				6		
048				7		↓
049	Cove Base Brown	7	ab	1		15
050				2		
051				3		↓
052	Plaster	8	a	1		11
053				2		
054				3		↓
055	Paint			1		7

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/12/16 - 12/13/16
Site Name	SNA/GAIP	Submission Date	
Building Number	Atlantic NP2		

Sample.#	Material Description	HM No.	Layer	Assay Number	Level	Room No.
056	Paint	9	a	2		17
057	"	9	"	3		"
058	~~Plaster~~ Dry wall	10	a	1		12
059	" "	"	"	2		14
060	" "	"	"	3		15
061	Joint Compound	"	b	1		13
062	" "	"	"	2		13
063	" "	"	"	3		14
064	" "	"	"	4		15
065	" "	"	"	5		15
066	Wall Texture	"	c	1		12
067	" "	"	"	2		"
068	" "	"	"	3		"
069	" "	"	"	4		14
070	" "	"	"	5		15
071	Cove Base Brown	11	ab	1		11
072	" "	"	"	2		"
073	" "	"	"	3		"
074	" " GV	12	ab	1		12
075	" " "	"	"	2		"
076	" " "	"	"	3		"

Forensic Analytical LABORATORIES

Amended Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: B232450
Date Received: 12/16/16
Date Analyzed: 12/22/16
Date Printed: 01/16/17
First Reported: 01/09/17

Job ID/Site: IR13164420.55; John Wayne Airport (SNA/GAIP) - Atlantic NP4

FALI Job ID: 5629-10

Date(s) Collected:

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
001_1_a	51030975						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (20 %) Fibrous Glass (3 %)							
002_1_a	51030976						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (20 %) Fibrous Glass (3 %)							
003_1_a	51030977						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (20 %) Fibrous Glass (3 %)							
004_1_b	51030978						
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound		Chrysotile	**Trace**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (2%)**					
Cellulose (Trace)							
005_1_b	51030979						
Comment: Sample not analyzed due to prior positive result in series.							
006_1_b	51030980						
Comment: Sample not analyzed due to prior positive result in series.							
007_2_a	51030981						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (35 %) Fibrous Glass (45 %)							
008_2_a	51030982						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (35 %) Fibrous Glass (45 %)							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232450

Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
009_2_a	51030983						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
010_3_a	51030984						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
011_3_a	51030985						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
012_3_a	51030986						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (3 %)		**Asbestos (ND)**					
013_3_b	51030987						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (3 %) Comment: No Skimcoat/Joint Compound material detected.		**Asbestos (ND)**					
014_3_b	51030988						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
015_3_b	51030989						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (3 %) Comment: No Skimcoat/Joint Compound material detected.		**Asbestos (ND)**					
016_3_c	51030990						
Layer: Off-White Texture		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
017_3_c	51030991						
Comment: Sample not analyzed due to prior positive result in series.							
018_3_c	51030992						
Comment: Sample not analyzed due to prior positive result in series.							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232450
Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
019_4_a	51030993						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (75 %) Fibrous Glass (5 %)		**Asbestos (ND)**					
020_4_a	51030994						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (75 %) Fibrous Glass (5 %)		**Asbestos (ND)**					
021_4_a	51030995						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (75 %) Fibrous Glass (5 %)		**Asbestos (ND)**					
022_5_a	51030996						
Layer: Off-White Semi-Fibrous Material		Chrysotile	**5 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (5%)**					
023_5_a	51030997						
Comment: Sample not analyzed due to prior positive result in series.							
024_5_a	51030998						
Comment: Sample not analyzed due to prior positive result in series.							
025_6_a	51030999						
Layer: Off-White Tile		Chrysotile	**2 %**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
025_6_b	51031000						
Layer: Yellow Mastic			**ND**				
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
026_6_a	51031001						
Comment: Sample not analyzed due to prior positive result in series.							
026_6_b	51031002						
Layer: Yellow Mastic			**ND**				
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
027_6_a	51031003						
Comment: Sample not analyzed due to prior positive result in series.							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232450
Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
027_6_b	51031004						
Layer: Yellow Mastic			**ND**				
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
028_7_a	51031005						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
029_7_a	51031006						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
030_7_a	51031007						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
031_7_b	51031008						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
032_7_b	51031009						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
033_7_b	51031010						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
034_7_b	51031011						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
035_7_b	51031012						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
036_7_c	51031013						
Layer: Off-White Texture		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232450
Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
037_7_c	51031014						
Comment: Sample not analyzed due to prior positive result in series.							
038_7_c	51031015						
Comment: Sample not analyzed due to prior positive result in series.							
039_7_c	51031016						
Comment: Sample not analyzed due to prior positive result in series.							
040_7_c	51031017						
Comment: Sample not analyzed due to prior positive result in series.							
041_6_a	51031018						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
041_6_b	51031019						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
042_6_a	51031020						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
042_6_b	51031021						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
043_6_a	51031022						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
043_6_b	51031023						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
044_8_a	51031024						
Layer: Off-White Semi-Fibrous Material		Chrysotile	**5 %**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (5%)**					
045_8_a	51031025						
Comment: Sample not analyzed due to prior positive result in series.							
046_8_a	51031026						
Comment: Sample not analyzed due to prior positive result in series.							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232450
Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
047_9_a	51031027						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (70 %) Fibrous Glass (10 %)		**Asbestos (ND)**					
048_9_a	51031028						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (70 %) Fibrous Glass (10 %)		**Asbestos (ND)**					
049_9_a	51031029						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (70 %) Fibrous Glass (10 %)		**Asbestos (ND)**					
050_12_a	51031030						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
051_12_a	51031031						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
052_12_a	51031032						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
053_12_b	51031033						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
054_12_b	51031034						
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
055_12_b	51031035						
Comment: Sample not analyzed due to prior positive result in series.							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232450
Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
056_12_c	51031036						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
057_12_c	51031037						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
058_12_c	51031038						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
059_13_a	51031039						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (75 %) Fibrous Glass (5 %)		**Asbestos (ND)**					
060_13_a	51031040						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (75 %) Fibrous Glass (5 %)		**Asbestos (ND)**					
061_13_a	51031041						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (75 %) Fibrous Glass (5 %)		**Asbestos (ND)**					
062_14_a	51031042						
Layer: Off-White Semi-Fibrous Material		Chrysotile	**5 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (5%)**					
063_14_a	51031043						
Comment: Sample not analyzed due to prior positive result in series.							
064_14_a	51031044						
Comment: Sample not analyzed due to prior positive result in series.							
065_15_a	51031045						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
065_15_b	51031046						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
067_15_a	51031047						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
067_15_b	51031048						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
068_15_a	51031049						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
068_15_b	51031050						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
069_16_a	51031051						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
070_16_a	51031052						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (15 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
071_16_a	51031053						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (15 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
072_16_b	51031054						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
073_16_b	51031055						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232450
Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
074_16_b	51031056						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
075_16_c	51031057						
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					
Comment: This comment applies to the Off-White Skimcoat/Joint Compound only: Insufficient material for additional analyses.							
076_16_c	51031058						
Comment: Sample not analyzed due to prior positive result in series.							
077_16_c	51031059						
Comment: Sample not analyzed due to prior positive result in series.							
078_17_a	51031060						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (75 %) Fibrous Glass (5 %)		**Asbestos (ND)**					
079_17_a	51031061						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (75 %) Fibrous Glass (5 %)		**Asbestos (ND)**					
080_17_a	51031062						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (75 %) Fibrous Glass (5 %)		**Asbestos (ND)**					
081_18_a	51031063						
Layer: Off-White Semi-Fibrous Material		Chrysotile	**5 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (5%)**					
082_18_a	51031064						
Comment: Sample not analyzed due to prior positive result in series.							
083_18_a	51031065						
Comment: Sample not analyzed due to prior positive result in series.							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232450
Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
084_19_a	51031066						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
084_19_b	51031067						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
085_19_a	51031068						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
085_19_b	51031069						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
086_19_a	51031070						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
086_19_b	51031071						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
087_20_a	51031072						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (75 %) Fibrous Glass (5 %)		**Asbestos (ND)**					
088_20_a	51031073						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (75 %) Fibrous Glass (5 %)		**Asbestos (ND)**					
089_20_a	51031074						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (75 %) Fibrous Glass (5 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232450

Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
090_21_a	51031075						
Layer: Off-White Semi-Fibrous Material		Chrysotile	**5 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (5%)**					
091_21_a	51031076						
Comment: Sample not analyzed due to prior positive result in series.							
092_21_a	51031077						
Comment: Sample not analyzed due to prior positive result in series.							
093_22_a	51031078						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
093_22_b	51031079						
Layer: Off-White/Tan Mastics			**ND**				
Layer: Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
094_22_a	51031080						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
094_22_b	51031081						
Layer: Off-White/Tan Mastics			**ND**				
Layer: Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
095_22_a	51031082						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
095_22_b	51031083						
Layer: Off-White/Tan Mastics			**ND**				
Layer: Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
096_22A_a	51031084						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232450

Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
096_22A_b	51031085						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
097_22A_a	51031086						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
097_22A_b	51031087						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
098_22A_a	51031088						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
098_22A_b	51031089						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
099_23_a	51031090						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
100_23_a	51031091						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
101_23_a	51031092						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
102_23_b	51031093						
Layer: Drywall Tape			**ND**				
Layer: White Skimcoat/Joint Compounds			**ND**				
Layer: Paint			**ND**				
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	**2 %**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					
Comment: This comment applies to the Off-White Skimcoat/Joint Compound only: Insufficient material for additional analyses.							
103_23_b	51031094						
Comment: Sample not analyzed due to prior positive result in series.							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232450
Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
104_23_b	51031095						
Comment: Sample not analyzed due to prior positive result in series.							
105_23_c	51031096						
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	**Trace**				
Layer: Paint			**ND**				
Layer: Off-White Texture		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (Trace)** Cellulose (Trace)							
Comment: This comment applies to the Off-White Skimcoat/Joint Compound and Off-White Texture only: Insufficient material for additional analyses.							
106_23_c	51031097						
Comment: Sample not analyzed due to prior positive result in series.							
107_23_c	51031098						
Comment: Sample not analyzed due to prior positive result in series.							
108_24_a	51031099						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace) Fibrous Glass (2 %)							
109_24_a	51031100						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace) Fibrous Glass (2 %)							
110_24_a	51031101						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace) Fibrous Glass (2 %)							
111_24_b	51031102						
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (Trace)** Cellulose (Trace)							
Comment: This comment applies to the Off-White Skimcoat/Joint Compound only: Insufficient material for additional analyses.							
112_24_b	51031103						
Comment: Sample not analyzed due to prior positive result in series.							
113_24_b	51031104						
Comment: Sample not analyzed due to prior positive result in series.							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
114_24_c	51031105						
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (Trace)**							
Cellulose (Trace)							
Comment: This comment applies to the Off-White Skimcoat/Joint Compound only: Insufficient material for additional analyses.							
115_24_c	51031106						
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (Trace)**							
Cellulose (Trace)							
Comment: This comment applies to the Off-White Skimcoat/Joint Compound only: Insufficient material for additional analyses.							
116_24_c	51031107						
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (Trace)**							
Cellulose (Trace)							
Comment: This comment applies to the Off-White Skimcoat/Joint Compound only: Insufficient material for additional analyses.							
117_25_a	51031108						
Layer: Off-White Semi-Fibrous Material		Chrysotile	**5 %**				
Layer: Paint			**ND**				
Layer: White Non-Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (Trace)**							
Cellulose (Trace)							
118_25_a	51031109						
Comment: Sample not analyzed due to prior positive result in series.							
119_25_a	51031110						
Comment: Sample not analyzed due to prior positive result in series.							
120_26_a	51031111						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (20 %) Fibrous Glass (3 %)							
121_26_a	51031112						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (Trace) Fibrous Glass (3 %)							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
122_26_a	51031113						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
123_26_b	51031114						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
124_26_b	51031115						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
125_26_b	51031116						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
126_26_c	51031117						
Layer: Off-White Texture		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
Comment: This comment applies to the Off-White Texture only: Insufficient material for additional analyses.							
127_26_c	51031118						
Comment: Sample not analyzed due to prior positive result in series.							
128_26_c	51031119						
Comment: Sample not analyzed due to prior positive result in series.							
129_27_a	51031120						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
129_27_b	51031121						
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					
130_27_a	51031122						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
130_27_b	51031123						
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					
131_27_a	51031124						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
131_27_b	51031125						
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					
132_28_a	51031126						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (75 %) Fibrous Glass (5 %)		**Asbestos (ND)**					
133_28_a	51031127						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (75 %) Fibrous Glass (5 %)		**Asbestos (ND)**					
134_28_a	51031128						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (75 %) Fibrous Glass (5 %)		**Asbestos (ND)**					
135_29_a	51031129						
Layer: Off-White Semi-Fibrous Material		Chrysotile	**5 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (5%)**					
136_29_a	51031130						
Comment: Sample not analyzed due to prior positive result in series.							
137_29_a	51031131						
Comment: Sample not analyzed due to prior positive result in series.							
138_30_a	51031132						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
139_30_a	51031133						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
140_30_a	51031134						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (3 %)		**Asbestos (ND)**					
141_30_b	51031135						
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	**2 %**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					
Comment: This comment applies to the Off-White Skimcoat/Joint Compound only: Insufficient material for additional analyses.							
142_30_b	51031136						
Comment: Sample not analyzed due to prior positive result in series.							
143_30_b	51031137						
Comment: Sample not analyzed due to prior positive result in series.							
144_30_c	51031138						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
145_30_c	51031139						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
146_30_c	51031140						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
147_31_a	51031141						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (75 %) Fibrous Glass (5 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232450
Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
148_31_a	51031142						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (75 %) Fibrous Glass (5 %)		**Asbestos (ND)**					
149_31_a	51031143						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (75 %) Fibrous Glass (5 %)		**Asbestos (ND)**					
150_31A_a	51031144						
Layer: Off-White Semi-Fibrous Material		Chrysotile	**5 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (5%)**					
151_31A_a	51031145						
Comment: Sample not analyzed due to prior positive result in series.							
152_31A_a	51031146						
Comment: Sample not analyzed due to prior positive result in series.							
153_32_a	51031147						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
154_32_a	51031148						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
155_32_a	51031149						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
156_32_b	51031150						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
157_32_b	51031151						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232450
Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
158_32_b	51031152						
Layer: White Skimcoat/Joint Compound		Chrysotile	**Trace**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (Trace)**							
Cellulose (Trace)							
159_32_c	51031153						
Layer: Off-White Texture		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (2%)**							
Cellulose (Trace)							
160_32_c	51031154						
Comment: Sample not analyzed due to prior positive result in series.							
161_32_c	51031155						
Comment: Sample not analyzed due to prior positive result in series.							
162_33_a	51031156						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (35 %) Fibrous Glass (45 %)							
163_33_a	51031157						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (35 %) Fibrous Glass (45 %)							
164_33_a	51031158						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (35 %) Fibrous Glass (45 %)							
165_34_a	51031159						
Layer: White Semi-Fibrous Material		Chrysotile	**7 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (7%)**							
Cellulose (Trace)							
166_34_a	51031160						
Comment: Sample not analyzed due to prior positive result in series.							
167_34_a	51031161						
Comment: Sample not analyzed due to prior positive result in series.							
168_35_a	51031162						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)**							
Cellulose (Trace) Fibrous Glass (Trace)							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232450
Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
169_35_a	51031163						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
170_35_a	51031164						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
171_35_b	51031165						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
172_35_b	51031166						
Layer: White Skimcoat/Joint Compound		Chrysotile	**Trace**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					
173_35_b	51031167						
Layer: White Skimcoat/Joint Compound		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
174_35_c	51031168						
Layer: Off-White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
175_35_c	51031169						
Layer: Off-White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
176_35_c	51031170						
Layer: Off-White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
177_36_a	51031171						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232450

Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
178_36_a	51031172						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
179_36_a	51031173						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
180_37_a	51031174						
Layer: Off-White Semi-Fibrous Material		Chrysotile	**5 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (5%)**					
181_37_a	51031175						
Comment: Sample not analyzed due to prior positive result in series.							
182_37_a	51031176						
Comment: Sample not analyzed due to prior positive result in series.							
183_38_a	51031177						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
184_38_a	51031178						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
185_38_a	51031179						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
186_38_b	51031180						
Layer: Tan Fibrous Material			**ND**				
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	**Trace**				
Layer: Paint			**ND**				
Layer: Tan Mastic			**ND**				
Layer: Beige Mastic			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (Trace)**					
Comment: This comment applies to the Off-White Skimcoat/Joint Compound only: Insufficient material for additional analyses.							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232450

Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
187_38_b	51031181						
Layer: Paint			**ND**				
Layer: Tan Mastic			**ND**				
Layer: Beige Mastic			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
Comment: No Skimcoat/Joint Compound detected.							
188_38_b	51031182						
Layer: Tan Fibrous Material			**ND**				
Layer: Off-White Skimcoat/Joint Compound		Chrysotile	**Trace**				
Layer: Paint			**ND**				
Layer: Tan Mastic			**ND**				
Layer: Beige Mastic			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (Trace)**					
Comment: This comment applies to the Off-White Skimcoat/Joint Compound only: Insufficient material for additional analyses.							
189_38_c	51031183						
Layer: Drywall Tape			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (25 %)		**Asbestos (ND)**					
190_38_c	51031184						
Layer: Drywall Tape			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (25 %)		**Asbestos (ND)**					
191_38_c	51031185						
Layer: Drywall Tape			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (25 %)		**Asbestos (ND)**					
192_39_a	51031186						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232450
Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
193_39_a	51031187						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
194_39_a	51031188						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
195_40_a	51031189						
Layer: Off-White Semi-Fibrous Material		Chrysotile	**5 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (5%)**					
196_40_a	51031190						
Comment: Sample not analyzed due to prior positive result in series.							
197_40_a	51031191						
Comment: Sample not analyzed due to prior positive result in series.							
198_40A_a	51031192						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
198_40A_b	51031193						
Layer: Tan Mastic			**ND**				
Layer: Beige Mastic			**ND**				
Layer: Paint			**ND**				
Layer: Beige Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (15 %)		**Asbestos (ND)**					
199_40A_a	51031194						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
199_40A_b	51031195						
Layer: Tan Mastic			**ND**				
Layer: Beige Mastic			**ND**				
Layer: Paint			**ND**				
Layer: Beige Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (15 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232450

Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
200_40A_a	51031196						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
200_40A_b	51031197						
Layer: Tan Mastic			**ND**				
Layer: Beige Mastic			**ND**				
Layer: Paint			**ND**				
Layer: Beige Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (15 %)		**Asbestos (ND)**					
201_41_a	51031198						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
202_41_a	51031199						
Layer: Off-White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
203_41_a	51031200						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
204_41_b	51031201						
Layer: White Skimcoat/Joint Compound		Chrysotile	**2 %**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
205_41_b	51031202						
Comment: Sample not analyzed due to prior positive result in series.							
206_41_b	51031203						
Comment: Sample not analyzed due to prior positive result in series.							
207_41_c	51031204						
Layer: Paint			**ND**				
Layer: White Texture		Chrysotile	**2 %**				
Layer: Tan Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (50 %)		**Asbestos (Trace)**					
208_41_c	51031205						
Comment: Sample not analyzed due to prior positive result in series.							
209_41_c	51031206						
Comment: Sample not analyzed due to prior positive result in series.							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232450

Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
210_42_a	51031207						
Layer: White Semi-Fibrous Material		Chrysotile	**7 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (7%)**					
211_42_a	51031208						
Comment: Sample not analyzed due to prior positive result in series.							
212_42_a	51031209						
Comment: Sample not analyzed due to prior positive result in series.							
213_43_a	51031210						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (70 %) Fibrous Glass (10 %)		**Asbestos (ND)**					
214_43_a	51031211						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (70 %) Fibrous Glass (10 %)		**Asbestos (ND)**					
215_43_a	51031212						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (70 %) Fibrous Glass (10 %)		**Asbestos (ND)**					
216_44_a	51031213						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
216_44_b	51031214						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
217_44_a	51031215						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
217_44_b	51031216						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232450
Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
218_44_a	51031217						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
218_44_b	51031218						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
219_45_a	51031219						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
219_45_b	51031220						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
220_45_a	51031221						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
220_45_b	51031222						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
221_45_a	51031223						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
221_45_b	51031224						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
222_46_a	51031225						
Layer: Tan Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (93 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
223_46_a	51031498						
Layer: Tan Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (93 %) Fibrous Glass (2 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232450

Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
224_46_a	51031499						
Layer: Tan Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (93 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
225_47_a	51031500						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
226_47_a	51031501						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
227_47_a	51031502						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
228_47_b	51031503						
Layer: White Skimcoat/Joint Compound		Chrysotile	**Trace**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					
229_47_b	51031504						
Layer: White Skimcoat/Joint Compound		Chrysotile	**Trace**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					
230_47_b	51031505						
Layer: White Skimcoat/Joint Compound		Chrysotile	**Trace**				
Layer: Light Grey Skimcoat/Joint Compound		Chrysotile	**2 %**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					
231_47_c	51031506						
Layer: Paint			**ND**				
Layer: White Texture			**ND**				
Layer: Tan Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (50 %)		**Asbestos (ND)**					
232_47_c	51031507						
Layer: Paint			**ND**				
Layer: White Texture			**ND**				
Layer: Tan Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (50 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232450
Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
233_47_c	51031508						
Layer: Paint			**ND**				
Layer: White Texture			**ND**				
Layer: Tan Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (50 %)		**Asbestos (ND)**					
234_48_a	51031509						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
235_48_a	51031510						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
236_48_a	51031511						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
237_49_a	51031512						
Layer: White Semi-Fibrous Material		Chrysotile	**7 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (7%)**					
238_49_a	51031513						
Comment: Sample not analyzed due to prior positive result in series.							
239_48_a	51031514						
Comment: Sample not analyzed due to prior positive result in series.							
240_50_a	51031515						
Layer: Stones			**ND**				
Layer: Black Semi-Fibrous Tar		Chrysotile	**3 %**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (3%)**					
241_50_a	51031516						
Comment: Sample not analyzed due to prior positive result in series.							
242_50_a	51031517						
Comment: Sample not analyzed due to prior positive result in series.							
243_51_a	51031518						
Layer: Black Semi-Fibrous Tar with Stones			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
244_51_a	51031519						
Layer: Black Semi-Fibrous Tar with Stones			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
245_51_a	51031520						
Layer: Black Semi-Fibrous Tar with Stones			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
246_52_a	51031521						
Layer: Beige Cementitious Material		Chrysotile	**Trace**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					
247_52_a	51031522						
Layer: Beige Cementitious Material		Chrysotile	**Trace**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					
248_52_a	51031523						
Layer: Beige Cementitious Material		Chrysotile	**Trace**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					
249_52_a	51031524						
Layer: Paint			**ND**				
Layer: Grey Cementitious Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
250_52_a	51031525						
Layer: Beige Cementitious Material		Chrysotile	**Trace**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					
251_52_a	51031526						
Layer: Beige Cementitious Material		Chrysotile	**Trace**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (Trace)**					
252_52_a	51031527						
Layer: Beige Cementitious Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Analysis Request Form (COC)

Client Name & Address: Amec Foster Wheeler 6001 Rickenbacker Rd. Los Angeles CA 90040	Client No.:
PO / Job#: IR13164420.55	Date:
Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day	
☐ PCM: ☐ NIOSH 7400A / ☐ NIOSH 7400B ☐ Rotometer	
☒ PLM: ☒ Standard / ☐ Point Count 400 - 1000 / ☐ CARB 435	
Contact: Don Harman	Phone: (818) 324-4391
☐ TEM Air: ☐ AHERA / ☐ Yamate2 / ☐ NIOSH 7402 ☐ TEM Bulk: ☐ Quantitative / ☐ Qualitative / ☐ Chatfield ☐ TEM Water: ☐ Potable / ☐ Non-Potable / ☐ Weight % ☐ TEM Microvac: ☐ Qual / ☐ D5755(str/area) / ☐ D5756(str/mass)	
E-mail: don.harman@amecfw.com	
Site Name: John Wayne Airport	☐ IAQ Particle Identification (PLM LAB) ☐ PLM Opaques/Soot ☐ Particle Identification (TEM LAB) ☐ Special Project
Site Location: SNA/GAIP	☐ Metals Analysis Matrix: Method: Analytes:
Comments: See attached COC NP1, NP2 & NP4	☐ Silica in Air ☐ w/Gravimetry

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg LPM	Total Time	
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: Date/Time: Shipped Via: ☐ Fed Ex ☐ UPS ☐ US Mail ☐ Courier ☐ Drop Off ☐ Other:

Relinquished By: Don Harman Date / Time: 12/16/16 PM	Relinquished By: Date / Time:	Relinquished By: Date / Time:
Received By: Date / Time: 12/16/16 1:30PM Condition Acceptable? ☒ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No

Amec Foster Wheeler E&I

Asbestos Survey Form 04a - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	**SNA/GAIP**
Building Number	Atlantic. NP-4
Collection Date	12/12/16 -
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
001	Dry wall	1	a	1	1	west Coast
002	"	"	"	2	"	"
003	"	"	"	3	"	"
004	Joint Compound	"	b	1	"	"
005	"	"	"	2	"	"
006	"	"	"	3	"	"
007	Ceiling tile 2x2 tissue	2	a	1	"	"
008	"	"	"	2	"	"
009	"	"	"	3	↓	↓
010	Dry wall	3	a	1	2	11/4
011	"	"	"	2		11/5
012	"	"	"	3		11/6
013	Joint Compound	3	b	1		11/4

Analysis Requested: PLM

Turnaround Time: One Week

Transmitted From:

AMEC E&I
6001 Rickenbacker Rd., Los Angeles CA 90040
Phone 323.889.5300

Transmitted To:

☐ **Forensic Analytical**
Rancho Dominguez

PO # _____

☐ _____

Analyze to 1st Positve x

Sender's Signature: Don E Hanna

Recipient's Signature: _____

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	SNA/GAIP
Building Number	Atlantic NP-4
Collection Date	12/13/16
Submission Date	

unit/R#

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
014	Joint Compound	3	b	2	2	11/5
015	"	1	1	3		11/5
016	Wall Texture	3	c	1		11/4
017	"	"	"	2		11/5
018	"	"	"	3		11/6
019	Ceiling Tile 2x4	4	a	1		11/5
020	"	"	"	2		11/5
021	"	"	"	3		11/6
022	~~Text~~ Spray applied ceiling texture	5	a	1		11/4
023	"	"	"	2		11/5
024	"	"	"	3		11/6
025	12x12 Floor tile	6	a	1		11/6
026	"	"	"	2		"
027	"	"	"	3		"
028	Drywall	7	a	1	1	4/8
029	"	"	"	2		4/9
030	"	"	"	3		4/11
031	Joint Compound	7	b	1		4/8
032	"	"	"	2		4/9
033	"	"	"	3		4/11
034	"	"	"	4		4/12

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/13/16
Site Name	**SNA/GAIP**	Submission Date	
Building Number	Atlantic NP4		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
035~~07~~	Joint Compound	7	b	5	1	4/12
036	Wall Texture		c	1		4/9
037				2		4/9
038				3		4/11
039				4		4/11
040				5		4/12
041	Cove base brown	6	ab	1		~~4~~/8
042				2		4/8
043				3		4/11
044	Ceiling Texture	8	a	1		4/9
045				2		
046				3		
047	Ceiling Tile	9	a	1		4/8
048				2		4/9
049				3		4/11
050	Dry wall	12	a	1		12/14
051				2		
052				3		
053	Joint Compound		b	1		12/13
054				2		12/13
055						12/14

Report Number: B232450

Client Name: Amec Foster Wheeler **Date Printed:** 01/16/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	
Site Name	SNA/GAIP	Submission Date	
Building Number	Atlantic NP4		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
056	Wall Tex	12	c	1		12/14
057				2		
058				3		
059	Ceiling Tile 2x4	13	a	1		
060				2		
061				3		
062	Ceilng Texture	14	a	1		
063				2		
064				3		
065	Cove Base 4" gr.	15	ab	1		
067				2		
068				3		
069	Drywall	16	a	1		13/15
070				2		
071				3		
072	Joint Compound		b	1		13/16
073				2		13/17
074				3		13/17
075	Wall Texture		c	1		13/15
076				2		
077				3		

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	
Site Name	SNA/GAIP	Submission Date	
Building Number	Atlantic NP-4		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
078	Ceiling Tile 2x4	17	a	1		13/15
079				2		
080				3		
081	Ceiling Texture	18	a	1		
082				2		
083				3		
084	Cove Base 4" gr	19	ab	1		
085				2		
086				3		
087	Ceiling Tile	20	a	1		14/20
088				2		
089				3		
090	Ceiling Texture	21	a	1		
091				2		
092				3		
093	Cove Base black	22	ab	1		14/18
094				2		
095				3		
096	Cove Base gr	22A	ab	1		4/19
097				2		
098				3		

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	
Site Name	**SNA/GAIP**	Submission Date	
Building Number	Atlantic NPK		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
099	Dry wall	23	a	1	2nd fl	R/R/22
100				2		
101				3		
102	Joint Compound		b	1		
103				2		
104				3		
105	Wall Texture		c	1		
106				2		
107				3		
108	Dry wall	24	a	1		Lobby/21
109				2		
110				3		
111	Joint Compound		b	1		
112				2		
113				3		
114	Wall Textur		c	1		
115				2		
116				3		
117	Ceiling Texture	25	a	1		
118				2		
119				3		

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/
Site Name	SNA/GAIP	Submission Date	
Building Number	Atlantic NP4		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
120	Dry Wall	26	a	1		15/24
121				2		
122				3		
123	Joint Compound		b	1		
124				2		
125				3		
126	Wall Texture		c	1		
127				2		
128				3		
129	Cove Base 4" black	27	ab	1		
130				2		
131				3		
132	Ceiling Tile 2x4	28	a	1		
133				2		
134				3		
135	Ceiling Texture	29	a	1		
136				2		
137				3		
138	Dry Wall	30	a	1		15A/26
139				2		
140				3		

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/13/16
Site Name	SNA/GAIP	Submission Date	
Building Number	Atlantic NP4		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
141	Joint Compound	30	b	1		15A/26
142	"	"	"	2		"
143	"	"	"	3		"
144	Wall Texture	"	c	1		"
145	"	"	"	2		"
146	"	"	"	3		"
147	Ceiling Tile	31	a	1		15A/26
148	"	"	"	2		15A/27
149	"	"	"	3		15A/27
150	Ceiling Texture	31A	a	1		15A/26
151	"	"	"	2		"
152	"	"	"	3		"
153	Dry Wall	32	a	1		16/28
154	"	"	"	2		16/28
155	"	"	"	3		16/28
156	Joint Compound	"	b	1		16/25
157	"	"	"	2		"
158	"	"	"	3		"
159	Wall Texture	"	c	1		"
160	"	"	"	2		"
161	"	"	"	3		"

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	SNA/GAIP
Building Number	Atlantic
Collection Date	12/14/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
162	Ceiling Tile	33	a	1		16/29
163				2		
164				3		
165	Ceiling Texture	34	a	1		
166				2		
167				3		
168	Dry Wall	35	a	1		17/32
169				2		
170				3		
171	Joint Compound		b	1		
172				2		
173				3		
174	Wall Texture		c	1		
175				2		
176				3		
177	Ceiling Tile	36	a	1		
178				2		
179				3		
180	Ceiling Texture	37	a	1		
181				2		
182				3		

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	SNA/GAIP
Building Number	Atlantic NP4
Collection Date	12/15/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
183	Drywall	38	a	1		18/36
184				2		18/36
185				3		18/36
186	Joint Compound		b	1		18/35
187				2		
188				3		
189	Wall Texture		c	1		
190				2		
191				3		
192	Ceiling Tile	39	a	1		18/36
193				2		
194				3		
~~195~~ 195	Ceiling Texture	40	a	1		
196				2		
197				3		
198	Cove Base	40A	ab	1		18/35
199				2		
200				3		
201	~~Duo~~ Drywall	41	a	1		19/39
202				2		
203				3		

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	SNA/GAIP
Building Number	Atlantic NP4
Collection Date	12/15/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
204	Joint Compound	41	b	1		19/39
205				2		"
206				3		19/~~39~~ 41
207	Wall Texture		c	1		19/39
208				2		"
209				3		"
210	Ceiling Texture	42	a	1		19/40
211				2		"
212				3		"
213	Ceiling Tile	43	a	1		19/39
214				2		"
215				3		"
216	Cove Base 4" white	44	ab	1		19/41
217				2		"
218				3		"
219	4" gr	45	ab	1		19/41
220				2		"
221				3		"
222	1x1 acoustic tile (on wall)	46	a	1		19/43
223				2		"
224				3		"

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	SNA/GAIP
Building Number	Atlantic NP4
Collection Date	12/~~16~~ 15/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
225	Drywall	47	a	1		20/45
226	"	"	"	2		20/46
227	"	"	"	3		20/46
228	Joint Compound		b	1		20/45
229	"		"	2		20/45
230	"		"	3		20/46
231	Wall Texture		c	1		20/45
~~35~~ 232	"		"	2		"
233	"		"	3		"
234	Ceiling Tile	48	a	1		20/45
235	"	"	"	2		20/45
236	"	"	"	3		20/48
237	Ceiling Texture	49	a	1		20/45
238	"	"	"	2		"
239	"	"	"	3		"
240	Mastic, Roof Penetration 61	50	a	1	Roof	
241	"	"	"	2	"	
242	"	"	"	3	"	
243	Mastic, Roof Patch 61	51	a	1		
244	"	"	"	2		
245	"	"	"	3	"	

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	SNA/GAIP
Building Number	Atlantic NP4
Collection Date	12/15/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
246	Stucco	52	1	1	~~Exterior~~ Exterior	~~Exterior~~ SW
247				2		N central
248				3		SE
249				4		SW
250				5		S stairwell
251				6		N Stairwell
252				7		S

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: B232817
Date Received: 12/27/16
Date Analyzed: 01/04/17
Date Printed: 01/04/17
First Reported: 01/04/17

Job ID/Site: IR13164420.55; SNA/GAIP, Atlanta NP4

FALI Job ID: 5629-10

Date(s) Collected: 12/16/2016

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
253 _53_a	51032733						
Layer: Off-White Drywall			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (2 %) Fibrous Glass (Trace)							
254 _53_a	51032734						
Layer: Off-White Drywall			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (2 %) Fibrous Glass (Trace)							
255 _53_a	51032735						
Layer: Off-White Drywall			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (2 %) Fibrous Glass (Trace)							
256 _53_b	51032736						
Layer: White Skimcoat/Joint Compound		Chrysotile	**2 %**				
Layer: Paints			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (2%)**					
Cellulose (Trace)							
257 _53_b	51032737						
Comment: Sample not analyzed due to prior positive result in series.							
258 _53_b	51032738						
Comment: Sample not analyzed due to prior positive result in series.							
259 _53_c	51032739						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace)							
260 _53_c	51032740						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace)							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232817
Client Name: Amec Foster Wheeler **Date Printed:** 01/04/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
261 _53_c	51032741						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
262 _54_a	51032742						
Layer: Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
263 _54_a	51032743						
Layer: Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
264 _54_a	51032744						
Layer: Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
265 _54_b	51032745						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
266 _54_b	51032746						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
267 _54_b	51032747						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
268 _54_c	51032748						
Layer: White Texture			**ND**				
Layer: Paints			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
269 _54_c	51032749						
Layer: White Texture			**ND**				
Layer: Paints			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
270 _54_c	51032750						
Layer: White Texture			**ND**				
Layer: Paints			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
271 _55_a	51032751						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
271 _55_b	51032752						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
272 _55_a	51032753						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
272 _55_b	51032754						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
273 _55_a	51032755						
Layer: Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
273 _55_b	51032756						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
274 _56_a	51032757						
Layer: Off-White Semi-Fibrous Material		Chrysotile	**10 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (10%)**					
275 _56_a	51032758						
Comment: Sample not analyzed due to prior positive result in series.							
276 _56_a	51032759						
Comment: Sample not analyzed due to prior positive result in series.							
277 _57_a	51032760						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232817

Client Name: Amec Foster Wheeler **Date Printed:** 01/04/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
278 _57_a	51032761						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
279 _57_a	51032762						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
280 _58_a	51032763						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Comment: No Drywall detected.		**Asbestos (ND)**					
281 _58_a	51032764						
Layer: Off-White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
282 _58_a	51032765						
Layer: Off-White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
283 _58_b	51032766						
Layer: Off-White Drywall			**ND**				
Layer: White Non-Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace) Comment: No Skimcoat/Joint Compound detected.		**Asbestos (ND)**					
284 _58_b	51032767						
Layer: Off-White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %) Fibrous Glass (Trace) Comment: No Skimcoat/Joint Compound detected.		**Asbestos (ND)**					
285 _58_b	51032768						
Layer: Off-White Drywall			**ND**				
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (15 %) Fibrous Glass (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232817

Client Name: Amec Foster Wheeler **Date Printed:** 01/04/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
286_58_c	51032769						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
287 _58_c	51032770						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
288 _58_c	51032771						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
289_59_a	51032772						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
289_59_b	51032773						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
290_59_a	51032774						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
290 _59_b	51032775						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
291_59_a	51032776						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
291_59_b	51032777						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232817
Client Name: Amec Foster Wheeler **Date Printed:** 01/04/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
292_60_a	51032778						
Layer: Brown Fibrous Material			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (75 %)		**Asbestos (ND)**					
293_60_a	51032779						
Layer: Brown Fibrous Material			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (80 %)		**Asbestos (ND)**					
294_60_a	51032780						
Layer: Brown Fibrous Material			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (80 %)		**Asbestos (ND)**					
295_61_a	51032781						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
296_61_a	51032782						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
297_61_a	51032783						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
298_62_a	51032784						
Layer: Off-White Semi-Fibrous Material		Chrysotile	**10 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (10%)**					
299_62_a	51032785						
Comment: Sample not analyzed due to prior positive result in series.							
300_62_a	51032786						
Comment: Sample not analyzed due to prior positive result in series.							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232817

Client Name: Amec Foster Wheeler **Date Printed:** 01/04/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
301_63_a	51032787						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
302_63_a	51032788						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
303_63_a	51032789						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
304_63_b	51032790						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
305_63_b	51032791						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
306_63_b	51032792						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
307_63_c	51032793						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
308_63_c	51032794						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
309_63_c	51032795						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232817

Client Name: Amec Foster Wheeler **Date Printed:** 01/04/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
310_64_a	51032796						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
310_64_b	51032797						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
311_64_a	51032798						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
311_64_b	51032799						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
312_64_a	51032800						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
312_64_b	51032801						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Amec Foster Wheeler E&I

Asbestos Survey Form 04a - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	**SNA/GAIP**
Building Number	Atlantic NP4
Collection Date	12/16/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
253	Dry wall	53	a	1	btf/ lobby	49
254	"	"	"	2	"	"
255	"	"	"	3	"	"
256	Joint Compound	"	b	1	"	49
257	" "	"	"	2	"	"
258	" "	"	"	3	"	"
259	Wall Texture	"	c	1	"	48
260	" "	"	"	2	"	"
261	" "	"	"	3	"	"
262	Dry wall	54	a	1		3/52
263	" "	"	"	2		"
264	" "	"	"	3		"
265	Joint Compound	"	b	1		"

Analysis Requested: PLM

Turnaround Time: One Week

Transmitted From:

AMEC E&I
6001 Rickenbacker Rd., Los Angeles CA 90040
Phone 323.889.5300

Transmitted To:

☒ **Forensic Analytical**
Rancho Dominguez

PO # _____

☐ _____

Analyze to 1st Positve x

Sender's Signature: Don E Hamer

Recipient's Signature: J Carrillo FTE 12/27/16 10:20 AM

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/16/16
Site Name	SNA/GAIP	Submission Date	
Building Number	Atlantic NPP		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
266	Joint Compound	54	b	2		3/52
267	" "	"	"	3		"
268	Wall Texture	"	c	1		3/51
269	" "	"	"	2		"
270	" "	"	"	3		"
271	Cove Base	55	ab	1		3/52
272	" "	"	"	2		"
273	" "	"	"	3		"
274	Ceiling Texture	56	a	1		3/51
275	" "	"	"	2		"
276	" "	"	"	3		"
277	Ceiling Tile	57	a	1		3/51
278	" "	"	"	2		"
279	" "	"	"	3		"
280	Dry Wall	58	a	1		7/64
281	" "	"	"	2		"
282	" "	"	"	3		"
283	Joint Compound	"	b	1		7/71
284	" "	"	"	2		"
285	" "	"	"	3		"
286	Wall Texture, thick	"	c	1		7/55

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/16/16
Site Name	SNA/GAIP	Submission Date	
Building Number	Atlantic NPF		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
287	Wall Texture, thick	58	c	2		7/55
288	" " "	"	"	3		"
289	Cove Base 4" gr	59	a b	1		7/64
290	" "	"	"	2		"
291	" "	"	"	3		"
292	Wall Texture, thin	60	a	1		7/64
293	" " "	"	"	2		"
294	" " "	"	"	3		"
295	Ceiling Tile	61	a	1		7/71
296	" "	"	"	2		"
297	" "	"	"	3		"
298	Ceiling Texture	62	a	1		7/71
299	" "	"	"	2		"
300	" "	"	"	3		"
301	Dry Wall	63	a	1		8/74
302	" "	"	"	2		"
303	" "	"	"	3		"
304	Joint Compound	"	b	1		"
305	" "	"	"	2		"
306	" "	"	"	3		"
307	Wall Texture	"	c	1		"

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/16/16
Site Name	**SNA/GAIP**	Submission Date	
Building Number	Atlantic NP4		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
308	Wall Texture	63	C	2		8/74
309	" "	"	"	3		"
310	Cove Base 4" gr	64	ab	1		
311	" " "	"	"	2		
312	" " "	"	"	3		

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: B232841
Date Received: 12/27/16
Date Analyzed: 01/04/17
Date Printed: 01/04/17
First Reported: 01/04/17

Job ID/Site: IR13164420.55; SNA/GAIP, Atlantic NP3

FALI Job ID: 5629-10

Date(s) Collected: 12/13/2016, 12/19/2016, 12/20/2016

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
001_1_a	51032811						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
001_1_b	51032812						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
002_1_a	51032813						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
002_1_b	51032814						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
003_1_a	51032815						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
003_1_b	51032816						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
004_2_a	51032817						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (5 %)		**Asbestos (ND)**					
005_2_a	51032818						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (5 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232841
Client Name: Amec Foster Wheeler **Date Printed:** 01/04/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
006_2_a	51032819						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (5 %)		**Asbestos (ND)**					
007_2_b	51032820						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
008_2_b	51032821						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
009_2_b	51032822						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
010_2_b	51032823						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
011_2_b	51032824						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
012_2_b	51032825						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
013_2_b	51032826						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
014_2_b	51032827						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232841
Client Name: Amec Foster Wheeler **Date Printed:** 01/04/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
015_2_c	51032828						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
016_2_c	51032829						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
017_2_c	51032830						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
018_2_c	51032831						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
019_2_c	51032832						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
020_3_a	51032833						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
021_3_a	51032834						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
022_3_a	51032835						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
023_4_a	51032836						
Layer: Tan Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232841

Client Name: Amec Foster Wheeler **Date Printed:** 01/04/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
023_4_b	51032837						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
024_4_a	51032838						
Layer: Tan Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
024_4_b	51032839						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
025_4_a	51032840						
Layer: Tan Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
025_4_b	51032841						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
026_5_a	51032842						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
027_5_a	51032843						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
028_5_a	51032844						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
029_6_a	51032845						
Layer: Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232841

Client Name: Amec Foster Wheeler **Date Printed:** 01/04/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
029_6_b	51032846						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
030_6_a	51032847						
Layer: Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)		**Asbestos (ND)**					
030_6_b	51032848						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
031_6_a	51032849						
Layer: Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)		**Asbestos (ND)**					
031_6_b	51032850						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
032_7_a	51032851						
Layer: Beige Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
032_7_b	51032852						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
033_7_a	51032853						
Layer: Beige Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
033_7_b	51032854						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
034_7_a	51032855						
Layer: Beige Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232841

Client Name: Amec Foster Wheeler **Date Printed:** 01/04/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
034_7_b	51032856						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
035_8_a	51032857						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
036_8_a	51032858						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
037_8_a	51032859						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
038_8_b	51032860						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
039_8_b	51032861						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
040_8_b	51032862						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
041_9_a	51032863						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (60 %) Fibrous Glass (20 %)		**Asbestos (ND)**					
042_9_a	51032864						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (60 %) Fibrous Glass (20 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232841
Client Name: Amec Foster Wheeler **Date Printed:** 01/04/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
043_9_a	51032865						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (60 %) Fibrous Glass (20 %)		**Asbestos (ND)**					
044_10_a	51032866						
Layer: Beige Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
044_10_b	51032867						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
045_10_a	51032868						
Layer: Beige Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
045_10_b	51032869						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
046_10_a	51032870						
Layer: Beige Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
046_10_b	51032871						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
047_10_c	51032872						
Layer: Light Pink Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
047_10_d	51032873						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
048_10_c	51032874						
Layer: Light Pink Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232841
Client Name: Amec Foster Wheeler **Date Printed:** 01/04/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
048_10_d	51032875						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
049_10_c	51032876						
Layer: Light Pink Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
049_10_d	51032877						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
050_11_a	51032878						
Layer: Light Brown Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
050_11_b	51032879						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
051_11_a	51032880						
Layer: Light Brown Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
051_11_b	51032881						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
052_11_a	51032882						
Layer: Light Brown Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
052_11_b	51032883						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
052_12_a	51032884						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232841

Client Name: Amec Foster Wheeler **Date Printed:** 01/04/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
052_12_b	51032885						
Layer: Clear Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
053_12_a	51032886						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
053_12_b	51032887						
Layer: Clear Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
054_12_a	51032888						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
054_12_b	51032889						
Layer: Clear Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
055_13_a	51032890						
Layer: Tan Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
055_13_b	51032891						
Layer: Off-White/Tan Mastics			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
056_13_a	51032892						
Layer: Tan Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
056_13_b	51032893						
Layer: Off-White/Tan Mastics			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
057_13_a	51032894						
Layer: Tan Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232841
Client Name: Amec Foster Wheeler **Date Printed:** 01/04/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
057_13_b	51032895						
Layer: Off-White/Tan Mastics			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
058_14_a	51032896						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
059_14_a	51032897						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
060_14_a	51032898						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
061_14_b	51032899						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
062_14_b	51032900						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
063_14_b	51032901						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %) Comment: No Skimcoat/Joint Compound detected.		**Asbestos (ND)**					
064_14_b	51032902						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
065_14_b	51032903						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232841

Client Name: Amec Foster Wheeler **Date Printed:** 01/04/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
066_15_a	51032904						
Layer: Paint/Coating			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
067_15_a	51032905						
Layer: Paint/Coating			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
068_15_a	51032906						
Layer: Paint/Coating			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Amec Foster Wheeler E&I

Asbestos Survey Form 04a - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	SNA/GAIP
Building Number	Atlantic NP3
Collection Date	12/19/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
001	Cove Base 4" black	1	ab	1		Office/30
002	" " "	"	"	2		/34
003	" " "	"	"	3		/34
004	Drywall	2	a	1		/2
005	"	"	"	2		/8
006	"	"	"	3		/8
007	Joint Compound	"	b	1		/2
008	" "	"	"	2		/4
009	" "	"	"	3		/8
010	" "	"	"	4		/19
011	" "	"	"	5		/19
012	" "	"	"	6		/27
013	" "	"	"	7		/30

Analysis Requested	PLM
Turnaround Time	One Week

Transmitted From:

AMEC E&I
6001 Rickenbacker Rd., Los Angeles CA 90040
Phone 323.889.5300

Transmitted To:

☒ **Forensic Analytical**
Rancho Dominguez

PO # _____

☐ _____

Analyze to 1st Positve x

Sender's Signature: Don E Hamer

Recipient's Signature: J Carrillo FE 12/27/16 10:20 AZ

Asbestos Survey Form 04a - Bulk Sampling Log v3

Total Number of Samples Collected in Building: 68

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	SNA/GAIP
Building Number	Atlantic NP3
Collection Date	12/13/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
014	Joint Compound	2	b	8		Office/30
015	Wall Texture		c	1		/25
016				2		/27
017				3		/32
018				4		/34
019				5		/34
020	Ceiling Tile, 2x2	3	a	1		/4
021				2		/4
022				3		/8
023	Cove Base, beige 4"	4	ab	1		/2
024				2		/2
025				3		/8
026	Ceiling Tile, 2x4	5	a	1		/11
027				2		/11
028				3		/14
029	Sheet Vinyl, lt. beige, terrazzo	6	ab	1		/31
030				2		/31
031				3		/31
032	Floor tile 12x12, beige mottled	7	ab	1		/34
033				2		/34
034				3		/34

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/20/16
Site Name	SNA/GAIP	Submission Date	
Building Number	Atlantic NP3		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
035	Drywall	8	a	1		Yum/50
036				2		↓
037				3		/51
038	Joint Compound		b	1		/50
039				2		
040		↓		3		↓
041	Ceiling Tile 2x4	9	a	1		
042				2		
043		↓		3		↓
044	Floor tile, 12x12, beige	10	ab	1		/49
045				2		
046		↓		3		↓
047	, pink	10	cd	1		
048				2		
049	↓	↓	↓	3		↓
050	, lt. brw mottled	11	ab	1		/50
051				2		
052		↓		3		↓
052	Cove Base, black, 4"	12	ab	1		
053				2		
054		↓		3		↓

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	SNA/GAIP
Building Number	Atlantic NP3
Collection Date	12/20/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
055	Cove Base, beige, 4"	13	ab	1		Hangar 51
056	" " "	"	"	2		"
057	" " "	"	"	3		"
058	Drywall	14	a	1		Hangar 52
059	" "	"	"	2		"
060	" "	"	"	3		"
061	Joint Compound	"	b	1		"
062	" "	"	"	2		"
063	" "	"	"	3		"
064	" "	"	"	4		"
065	" "	"	"	5		"
066	Paint, gr	15	a	1		"
067	" "	"	"	2		"
068	" "	"	"	3		"
069						
070						

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: B233023
Date Received: 01/04/17
Date Analyzed: 01/11/17
Date Printed: 01/11/17
First Reported: 01/11/17

Job ID/Site: IR13164420.55; SNA/GAIP, Atlantic NP4

FALI Job ID: 5629-10

Date(s) Collected: 12/13/2016

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
313_10_a	51033994						
Layer: Beige Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
313_10_b	51033995						
Layer: Yellow Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Synthetic (Trace)		**Asbestos (ND)**					
314_10_a	51033996						
Layer: Beige Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
314_10_b	51033997						
Layer: Yellow Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Synthetic (Trace)		**Asbestos (ND)**					
315_10_a	51033998						
Layer: Beige Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
315_10_b	51033999						
Layer: Yellow Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Synthetic (Trace)		**Asbestos (ND)**					

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Analysis Request Form (COC)

Client Name & Address: Amec Foster Wheeler, 6001 Rickenbacker Rd., Los Angeles CA 90040 — Client No.:	PO / Job#: IR13164420.55 — Date:
	Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day (X)
	☐ PCM: ☐ NIOSH 7400A / ☐ NIOSH 7400B ☐ Rotometer
	☒ PLM: ☒ Standard / ☐ Point Count 400 - 1000 / ☐ CARB 435
Contact: Don Harman — Phone: (818) 324-4391	☐ TEM Air: ☐ AHERA / ☐ Yamate2 / ☐ NIOSH 7402 ☐ TEM Bulk: ☐ Quantitative / ☐ Qualitative / ☐ Chatfield ☐ TEM Water: ☐ Potable / ☐ Non-Potable / ☐ Weight % ☐ TEM Microvac: ☐ Qual / ☐ D5755(str/area) / ☐ D5756(str/mass)
E-mail: don.harman@amecfw.com	
Site Name: John Wayne Airport	☐ IAQ Particle Identification (PLM LAB) ☐ PLM Opaques/Soot ☐ Particle Identification (TEM LAB) ☐ Special Project
Site Location: SNA/GAIP	☐ Metals Analysis Matrix: Method: Analytes:
Comments: See attached COC NP1, NP2 & NP4	☐ Silica in Air ☐ w/Gravimetry

Sample ID	Date / Time	Sample Location / Description	Type (For Air Samples Only)	Time On/Off	Avg LPM	Total Time	Sample Area / Air Volume
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: Date/Time: — Shipped Via: ☐ Fed Ex ☐ UPS ☐ US Mail ☐ Courier ☐ Drop Off ☐ Other.

Relinquished By: Don Harman [signature] Date / Time: 12/16/16 PM	Relinquished By: M. adams Date / Time: 12/30/16	Relinquished By: Date / Time:
Received By: M adams Date / Time: 12/16/16 1:30p Condition Acceptable? ☒ Yes ☐ No	Received By: [signature] FLE Date / Time: 01/04/17 10:30am Condition Acceptable? ☒ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No

Amec Foster Wheeler E&I

Asbestos Survey Form 04a - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/13/16
Site Name	**SNA/GAIP**	Submission Date	
Building Number	Atlantic NP4		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
313	Floor tile, 12x12 beige mottled	10	06	1		4/10
314	↓	↓	↓	2		↓
315	↓	↓	↓	3		↓
	re numbered sample					

Analysis Requested	PLM	Turnaround Time	One Week

Transmitted From:

AMEC E&I
6001 Rickenbacker Rd., Los Angeles CA 90040
Phone 323.889.5300

Transmitted To:

☑ **Forensic Analytical**
Rancho Dominguez

PO # ____________

☐ ____________

Analyze to 1st Positve

x

Sender's Signature [signature]

Recipient's Signature [signature] F/E 01/04/17 10:30 AM

Form Page 1 *of* ____
Sheet Count ____

Asbestos Survey Form 04a - Bulk Sampling Log v3 *Total Number of Samples Collected in Building:* 3

Forensic Analytical LABORATORIES

Metals Analysis of Paints

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: M180405
Date Received: 01/04/17
Date Analyzed: 01/11/17
Date Printed: 01/11/17
First Reported: 01/11/17

Job ID / Site: IR13164420.55; John Wayne Airport, SNA/GAIP
Date(s) Collected: 01/03/17

FALI Job ID: 5629-10
Total Samples Submitted: 18
Total Samples Analyzed: 18

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference
001	LM135564	Pb	0.18	wt%	0.02	EPA 3050B/7000B
002	LM135565	Pb	< 0.006	wt%	0.006	EPA 3050B/7000B
003	LM135566	Pb	0.016	wt%	0.006	EPA 3050B/7000B
004	LM135567	Pb	0.0085	wt%	0.0007	EPA 3050B/7000B
005	LM135568	Pb	0.73	wt%	0.03	EPA 3050B/7000B
006	LM135569	Pb	0.62	wt%	0.03	EPA 3050B/7000B
007	LM135570	Pb	0.57	wt%	0.03	EPA 3050B/7000B
008	LM135571	Pb	1.3	wt%	0.06	EPA 3050B/7000B
009	LM135572	Pb	0.95	wt%	0.06	EPA 3050B/7000B
010	LM135573	Pb	1.2	wt%	0.06	EPA 3050B/7000B
011	LM135574	Pb	0.89	wt%	0.06	EPA 3050B/7000B
012	LM135575	Pb	0.11	wt%	0.007	EPA 3050B/7000B
013	LM135576	Pb	0.62	wt%	0.04	EPA 3050B/7000B
014	LM135577	Pb	0.85	wt%	0.06	EPA 3050B/7000B
015	LM135578	Pb	0.008	wt%	0.006	EPA 3050B/7000B
016	LM135579	Pb	0.098	wt%	0.006	EPA 3050B/7000B
017	LM135580	Pb	1.0	wt%	0.06	EPA 3050B/7000B
018	LM135581	Pb	0.016	wt%	0.006	EPA 3050B/7000B

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Metals Analysis of Paints

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: M180405
Date Received: 01/04/17
Date Analyzed: 01/11/17
Date Printed: 01/11/17
First Reported: 01/11/17

Job ID / Site: IR13164420.55; John Wayne Airport, SNA/GAIP
Date(s) Collected: 01/03/17

FALI Job ID: 5629-10
Total Samples Submitted: 18
Total Samples Analyzed: 18

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference

* The Reporting Limit represents the lowest amount of analyte that the laboratory can confidently detect in the sample, and is not a regulatory level. The Units for the Reporting Limit are the same as the Units for the Final Results.

Beatriz Hinojosa, Laboratory Supervisor, Rancho Dominguez Laboratory

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Analysis Request Form (COC)

Client Name & Address: Amec Foster Wheeler 6001 Rickenbacker Rd. Los Angeles CA 90040	Client No.:
PO / Job#: IR13164420.55	Date: 1/3/17
Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day	
☐ PCM: ☐ NIOSH 7400A / ☐ NIOSH 7400B ☐ Rotometer	
☐ PLM: ☐ Standard / ☐ Point Count 400 - 1000 / ☐ CARB 435	
Contact: Don Harman	Phone: (818) 324-4391
☐ TEM Air: ☐ AHERA / ☐ Yamate2 / ☐ NIOSH 7402 ☐ TEM Bulk: ☐ Quantitative / ☐ Qualitative / ☐ Chatfield ☐ TEM Water: ☐ Potable / ☐ Non-Potable / ☐ Weight % ☐ TEM Microvac: ☐ Qual / ☐ D5755(str/area) / ☐ D5756(str/mass)	
E-mail: don.harman@amecfw.com	
Site Name: John Wayne Airport	☐ IAQ Particle Identification (PLM LAB) ☐ PLM Opaques/Soot ☐ Particle Identification (TEM LAB) ☐ Special Project
Site Location: SNA/GAIP	☒ Metals Analysis Matrix: Paint Method: AA Analytes: Lead in paint or ceramic glaze
Comments: See attached COC 18 samples	☐ Silica in Air ☐ w/Gravimetry

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg LPM	Total Time	
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: DH Date/Time: Shipped Via: ☒ Fed Ex ☐ UPS ☐ US Mail ☐ Courier ☐ Drop Off ☐ Other:

Relinquished By: Don Harman Date / Time: 1/3/17 PM	Relinquished By: Date / Time:	Relinquished By: Date / Time:
Received By: [signature] FE Date / Time: 01/04/17 10:30 Condition Acceptable? ☒ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No

PROJECT NO. IR13-IC4420.55
PROJECT JW Airport
SURVEYOR(S) DEH & IC
DATE 1/13/17

AREA # | AREA NAME / DESCRIPTION | AREA # | AREA NAME / DESCRIPTION

UNIT CODES
1 LF
2 SF
3 SY
4 CI
5 EACH

PERCENTAGES
PAINT | WATER | DUST | OTHER | Q.A.

P - POSITIVE
N - NEGATIVE

SAMPLE #	BLDG / FLOOR	AREA USE	COMP CODE	MATERIAL DESCRIPTION / COLOR	ESTIMATED QUANTITY	UNIT	Result
001				Signature 2A (44 bays) Exterior Frame, beige	837		0.05
002				Stg W A 2 Ext wall	1002		0.50
003				Signature R/R wall & Ceiling, beige	842		0.40
004				Signature R/R ornate title beige L02	847		7.2
005				Atlantic NP2 gray	1289		0.21
006				Atlantic NP1 Door 27 white/cream	1193		0.60
007				Atlantic NP4 East wall white, 1st fl lobby/47, NP4	1615		0.70
008				Atlantic, stair stringer, NP4 white, 1st fl. lobby/47	1622		2.2
009				Atlantic Door white NP4 1st fl lobby Womens R/R/46	1641		1.0
010				Atlantic, NP4, R/R door 2nd fl. lobby. 22 or 23	1451		0.50

01 WATER
02 DUST
03 DOOR, HEADER
04 DOOR, JAM
05 DOOR, CASING
06 STAIR, TREADS
07 STAIR, RISERS
08 STAIR, STRINGER
09 BALUSTER
10 RAILING CAP
11 NEWEL POST
12 WINDOW, HEADER
13 WINDOW, CASING
14 WINDOW, SILL
15 WINDOW, SASH
16 WINDOW, STOPS
17 MULLIONS
18 APRON
19 WINDOW GRATE
20 DOOR GRATE

21 BASEBOARD
22 WALLS
23 WALLS, LOWER
24 WALLS, UPPER
25 CHAIR RAIL
26 DOOR, EXTERIOR
27 EXTERIOR, DOOR CASING
28 EXTERIOR, WINDOW CASING
29 EXTERIOR, WINDOW MULLIONS
30 EXTERIOR, WINDOW SILL
31 THRESHOLD
32 DRIPBORAD
33 LOWER TRIM
34 UPPER TRIM
35 CORNERBOARD
36 SIDING
37 CELLAR WINDOW UNIT
38 _____
39 _____
40 _____

41 FLOOR
42 LOWER RAILING
43 BALUSTER
44 RAILING CAPS
45 SUPPORT COLUMN
46 JOIST
47 UPPER TRIM
48 CEILING
49 RADIATOR
50
51
52
53
54
55
56
57
58
59
60

61
62
63
64
65
66
67
68
69
70
71
72
73

AREA USAGE CODE
1 VOID /CHASE/ CAVITY
2 MECHANICAL
3 STORAGE
4 OCCASIONAL
5 CONTINUOUS

PEELING CODE	SUBSTRATE CODE	CHEWABLE SURFACE	CONTACT CODE	CODE
1 PEELING	1 WOOD	1 YES	1 LOW	1 _____
2 NOT PEELING	2 METAL	2 NO	2 MODERATE	2 _____
3 UNDAMAGED	1 MASONRY		3 HIGH	3 _____
4 CHIPPED	4 DRYWALL			
5 CHALKING	5 PLASTER			

PROJECT NO. 1R 1316 4420.35

PROJECT Jw Airport

SURVEYOR(S) DE7/4/C

DATE 1/3/17

AREA #	AREA NAME / DESCRIPTION	AREA #	AREA NAME / DESCRIPTION

UNIT CODES
1 LF
2 SF
3 SY
4 CI
5 EACH

P - POSITIVE
N - NEGATIVE

PERCENTAGES: PAINT, WATER, DUST, OTHER, Q.A.

SAMPLE #	BLDG / FLOOR	AREA #	AREA USE	COM'T CODE	MATERIAL DESCRIPTION/COLOR	ESTIMATED QUANTITY / UNIT CODE	PEELING / SUBSTRATE / CHEWABLE / CONTACT / CODE	P/N	PAINT	WATER	DUST	OTHER	Q.A.
011					Atlantic, Southwall, NPL 2nd fl lobby / 21	1430	0.70						
12					Atlantic, NPL, ext door, blue 18/36	1947	0.50						
13					Atlantic, NP4, int door white 18/36	1546	0.70						
014					Atlantic, NP 4, door white 7/62	1708	0.70						
15					County Hangar, 19471 [2] column, red spot 2010	2010	0.0						
016					Executive Hangar #8, frame gr 0.17 mg/cm²	2292	0.17						
017					Executive Hangar #6½ floor gr.	2442	0.30						
018					Executive Hangar #6½, peeling on fl. beige	2442	0.30						
						1							

01 WATER
02 DUST
03 DOOR, HEADER
04 DOOR, JAM
05 DOOR, CASING
06 STAIR, TREADS
07 STAIR, RISERS
08 STAIR, STRINGER
09 BALUSTER
10 RAILING CAP
11 NEWEL POST
12 WINDOW, HEADER
13 WINDOW, CASING
14 WINDOW, SILL
15 WINDOW, SASH
16 WINDOW, STOPS
17 MULLIONS
18 APRON
19 WINDOW GRATE
20 DOOR GRATE

21 BASEBOARD
22 WALLS
23 WALLS, LOWER
24 WALLS, UPPER
25 CHAIR RAIL
26 DOOR, EXTERIOR
27 EXTERIOR, DOOR CASING
28 EXTERIOR, WINDOW CASING
29 EXTERIOR, WINDOW MULLIONS
30 EXTERIOR, WINDOW SILL
31 THRESHOLD
32 DRIPBORAD
33 LOWER TRIM
34 UPPER TRIM
35 CORNERBOARD
36 SIDING
37 CELLAR WINDOW UNIT
38 ______
39 ______
40 ______

41 FLOOR
42 LOWER RAILING
43 BALUSTER
44 RAILING CAPS
45 SUPPORT COLUMN
46 JOIST
47 UPPER TRIM
48 CEILING
49 RADIATOR
50
51
52
53
54
55
56
57
58
59
60

61
62
63
64
65
66
67
68
69
70
71
72
73

AREA USAGE CODE
1 VOID /CHASE/ CAVITY
2 MECHANICAL
3 STORAGE
4 OCCASIONAL
5 CONTINUOUS

PEELING CODE
1 PEELING
2 NOT PEELING
3 UNDAMAGED
4 CHIPPED
5 CHAULKING

SUBSTRATE CODE
1 WOOD
2 METAL
3 MASONRY
4 DRYWALL
5 PLASTER

CHEWABLE SURFACE
1 YES
2 NO

CONTACT CODE
1 LOW
2 MODERATE
3 HIGH

CODE
1 ______
2 ______
3 ______

Forensic Analytical LABORATORIES

Amended Report

Bulk Asbestos Material Analysis

(EPA Method 600/R-93/116, Point Count Analysis)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: N009115
Date Received: 02/15/17
Date Analyzed: 02/23/17
Date Printed: 02/24/17

Job ID/Site: IR13164420.55; JWA, Hangars

FALI Job ID: 5629-10
Total Samples Submitted: 21
Total Samples Analyzed: 13

PLM Report Number: N/A

Sample Preparation and Analysis:

Each sample was prepared using the gravimetric technique. A representative subsample was weighed, ashed for eight hours, and reweighed to determine the proportion of the organic component. The ashed residue was ground in concentrated hydrochloric acid, dried and reweighed to determine the acid-soluble component weight percentage. The residual material was analyzed for asbestos using polarized light microscopy. Asbestos quantitation was performed using the semi-quantitative Point Count method following the general guidelines in EPA Method 600/R-93/116. The analytical sensitivity for the method is calculated as the asbestos concentration that results from one point counted in the analysis adjusted using the residual weight of the sample. The limit of detection for this method has not been determined.

Sample ID	Lab Number	Sample Description

301_6_b 51043413 **Brown Mastic**

Point Count Results:

Number of asbestos points counted:	0	Organic weight percentage:	53.91
Number of non-empty points:	1000	Acid-soluble weight percentage	0.44
Percent asbestos in layer:	**< 0.05**	Residual weight percentage:	45.65
Analytical sensitivity (%):	0.05		
Asbestos type(s) detected:	Anthophyllite		

Comment: Asbestos was detected but no points were counted due to counting criteria.

302_6_b 51043414 **Brown Mastic**

Point Count Results:

Number of asbestos points counted:	0	Organic weight percentage:	54.11
Number of non-empty points:	1000	Acid-soluble weight percentage	0.78
Percent asbestos in layer:	**< 0.05**	Residual weight percentage:	45.11
Analytical sensitivity (%):	0.05		
Asbestos type(s) detected:	Chrysotile, Anthophyllite		

Comment: Asbestos was detected but no points were counted due to counting criteria.

303_6_b 51043415 **Brown Mastic**

Point Count Results:

Number of asbestos points counted:	0	Organic weight percentage:	54.67
Number of non-empty points:	1000	Acid-soluble weight percentage	0.65
Percent asbestos in layer:	**< 0.04**	Residual weight percentage:	44.68
Analytical sensitivity (%):	0.04		
Asbestos type(s) detected:	Anthophyllite		

Comment: Asbestos was detected but no points were counted due to counting criteria.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Amended Report

Bulk Asbestos Material Analysis

(EPA Method 600/R-93/116, Point Count Analysis)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: N009115
Date Received: 02/15/17
Date Analyzed: 02/23/17
Date Printed: 02/24/17

Job ID/Site: IR13164420.55; JWA, Hangars

FALI Job ID: 5629-10
Total Samples Submitted: 21
Total Samples Analyzed: 13

PLM Report Number: N/A

Sample Preparation and Analysis:

Each sample was prepared using the gravimetric technique. A representative subsample was weighed, ashed for eight hours, and reweighed to determine the proportion of the organic component. The ashed residue was ground in concentrated hydrochloric acid, dried and reweighed to determine the acid-soluble component weight percentage. The residual material was analyzed for asbestos using polarized light microscopy. Asbestos quantitation was performed using the semi-quantitative Point Count method following the general guidelines in EPA Method 600/R-93/116. The analytical sensitivity for the method is calculated as the asbestos concentration that results from one point counted in the analysis adjusted using the residual weight of the sample. The limit of detection for this method has not been determined.

Sample ID	Lab Number	Sample Description

304_4_b 51043416 **Brown Mastic**

Point Count Results:

Number of asbestos points counted:	0	Organic weight percentage:	54.91
Number of non-empty points:	1000	Acid-soluble weight percentage	2.48
Percent asbestos in layer:	**< 0.04**	Residual weight percentage:	42.61
Analytical sensitivity (%):	0.04		
Asbestos type(s) detected:	Anthophyllite		

Comment: Composite of samples 304, 305 and 306. Asbestos was detected but no points were counted due to counting criteria.

307_32_b 51043419 **White Skimcoat/Joint Compound**

Point Count Results:

Number of asbestos points counted:	3	Organic weight percentage:	7.66
Number of non-empty points:	1000	Acid-soluble weight percentage	43.92
Percent asbestos in layer:	**0.15**	Residual weight percentage:	48.42
Analytical sensitivity (%):	0.05		
Asbestos type(s) detected:	Chrysotile		

Comment:

308_38_b 51043420 **White Skimcoat/Joint Compound**

Comment: Sample not analyzed. White Skimcoat/Joint Compound non-detected for asbestos.

309_38_b 51043421 **White Skimcoat/Joint Compound**

Comment: Sample not analyzed. White Skimcoat/Joint Compound non-detected for asbestos.

310_47_b 51043422 **White Skimcoat/Joint Compound**

Comment: Sample not analyzed. White Skimcoat/Joint Compound non-detected for asbestos.

311_47_b 51043423 **White Skimcoat/Joint Compound**

Comment: Sample not analyzed. White Skimcoat/Joint Compound non-detected for asbestos.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Amended Report

Bulk Asbestos Material Analysis

(EPA Method 600/R-93/116, Point Count Analysis)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: N009115
Date Received: 02/15/17
Date Analyzed: 02/23/17
Date Printed: 02/24/17

Job ID/Site: IR13164420.55; JWA, Hangars

FALI Job ID: 5629-10
Total Samples Submitted: 21
Total Samples Analyzed: 13

PLM Report Number: N/A

Sample Preparation and Analysis:

Each sample was prepared using the gravimetric technique. A representative subsample was weighed, ashed for eight hours, and reweighed to determine the proportion of the organic component. The ashed residue was ground in concentrated hydrochloric acid, dried and reweighed to determine the acid-soluble component weight percentage. The residual material was analyzed for asbestos using polarized light microscopy. Asbestos quantitation was performed using the semi-quantitative Point Count method following the general guidelines in EPA Method 600/R-93/116. The analytical sensitivity for the method is calculated as the asbestos concentration that results from one point counted in the analysis adjusted using the residual weight of the sample. The limit of detection for this method has not been determined.

Sample ID	Lab Number	Sample Description
312_8_a	51043424	**White Plaster**

Point Count Results:

Number of asbestos points counted:	0	Organic weight percentage:	5.09
Number of non-empty points:	1000	Acid-soluble weight percentage	34.95
Percent asbestos in layer:	**< 0.06**	Residual weight percentage:	59.96
Analytical sensitivity (%):	0.06		
Asbestos type(s) detected:	Chrysotile		

Comment: Asbestos was detected but no points were counted due to counting criteria.

313_11_b	51043426	**Brown Mastic**

Point Count Results:

Number of asbestos points counted:	2	Organic weight percentage:	48.20
Number of non-empty points:	1000	Acid-soluble weight percentage	0.66
Percent asbestos in layer:	**0.10**	Residual weight percentage:	51.14
Analytical sensitivity (%):	0.05		
Asbestos type(s) detected:	Chrysotile		

Comment:

314_11_b	51043428	**Brown Mastic**

Point Count Results:

Number of asbestos points counted:	2	Organic weight percentage:	48.28
Number of non-empty points:	1000	Acid-soluble weight percentage	0.10
Percent asbestos in layer:	**0.10**	Residual weight percentage:	51.62
Analytical sensitivity (%):	0.05		
Asbestos type(s) detected:	Chrysotile		

Comment:

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Amended Report

Bulk Asbestos Material Analysis

(EPA Method 600/R-93/116, Point Count Analysis)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: N009115
Date Received: 02/15/17
Date Analyzed: 02/23/17
Date Printed: 02/24/17

Job ID/Site: IR13164420.55; JWA, Hangars

PLM Report Number: N/A

FALI Job ID: 5629-10
Total Samples Submitted: 21
Total Samples Analyzed: 13

Sample Preparation and Analysis:

Each sample was prepared using the gravimetric technique. A representative subsample was weighed, ashed for eight hours, and reweighed to determine the proportion of the organic component. The ashed residue was ground in concentrated hydrochloric acid, dried and reweighed to determine the acid-soluble component weight percentage. The residual material was analyzed for asbestos using polarized light microscopy. Asbestos quantitation was performed using the semi-quantitative Point Count method following the general guidelines in EPA Method 600/R-93/116. The analytical sensitivity for the method is calculated as the asbestos concentration that results from one point counted in the analysis adjusted using the residual weight of the sample. The limit of detection for this method has not been determined.

Sample ID	Lab Number	Sample Description
315_52_a	51043429	**Beige Cementitious Material**

Point Count Results:

Number of asbestos points counted:	0	Organic weight percentage:	6.03
Number of non-empty points:	1000	Acid-soluble weight percentage	26.81
Percent asbestos in layer:	**< 0.07**	Residual weight percentage:	67.16
Analytical sensitivity (%):	0.07		
Asbestos type(s) detected:	Chrysotile		

Comment: Asbestos was detected but no points were counted due to counting criteria.

316_52_a	51043430	**Beige Cementitious Material**

Point Count Results:

Number of asbestos points counted:	0	Organic weight percentage:	7.50
Number of non-empty points:	1000	Acid-soluble weight percentage	30.77
Percent asbestos in layer:	**< 0.06**	Residual weight percentage:	61.73
Analytical sensitivity (%):	0.06		
Asbestos type(s) detected:	Chrysotile		

Comment: Asbestos was detected but no points were counted due to counting criteria.

317_52_a	51043431	**Beige Cementitious Material**

Point Count Results:

Number of asbestos points counted:	0	Organic weight percentage:	5.32
Number of non-empty points:	1000	Acid-soluble weight percentage	27.04
Percent asbestos in layer:	**< 0.07**	Residual weight percentage:	67.64
Analytical sensitivity (%):	0.07		
Asbestos type(s) detected:	Chrysotile		

Comment: Asbestos was detected but no points were counted due to counting criteria.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Amended Report

Bulk Asbestos Material Analysis

(EPA Method 600/R-93/116, Point Count Analysis)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: N009115
Date Received: 02/15/17
Date Analyzed: 02/23/17
Date Printed: 02/24/17

Job ID/Site: IR13164420.55; JWA, Hangars

PLM Report Number: N/A

FALI Job ID: 5629-10
Total Samples Submitted: 21
Total Samples Analyzed: 13

Sample Preparation and Analysis:

Each sample was prepared using the gravimetric technique. A representative subsample was weighed, ashed for eight hours, and reweighed to determine the proportion of the organic component. The ashed residue was ground in concentrated hydrochloric acid, dried and reweighed to determine the acid-soluble component weight percentage. The residual material was analyzed for asbestos using polarized light microscopy. Asbestos quantitation was performed using the semi-quantitative Point Count method following the general guidelines in EPA Method 600/R-93/116. The analytical sensitivity for the method is calculated as the asbestos concentration that results from one point counted in the analysis adjusted using the residual weight of the sample. The limit of detection for this method has not been determined.

Sample ID	Lab Number	Sample Description
318_52_a	51043432	**Off-White Cementitious Material**

Point Count Results:

Number of asbestos points counted:	1	Organic weight percentage:	5.25
Number of non-empty points:	1000	Acid-soluble weight percentage	33.59
Percent asbestos in layer:	**0.06**	Residual weight percentage:	61.16
Analytical sensitivity (%):	0.06		
Asbestos type(s) detected:	Chrysotile		

Comment:

Sample ID	Lab Number	Sample Description
319_52_a	51043433	**Beige Cementitious Material**

Point Count Results:

Number of asbestos points counted:	0	Organic weight percentage:	4.83
Number of non-empty points:	1000	Acid-soluble weight percentage	27.19
Percent asbestos in layer:	**< 0.07**	Residual weight percentage:	67.99
Analytical sensitivity (%):	0.07		
Asbestos type(s) detected:	Chrysotile		

Comment: Asbestos was detected but no points were counted due to counting criteria.

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Analysis Request Form (COC)

Client Name & Address: Amec Foster Wheeler, 6001 Rickenbacker, LA CA 90040

Client No.:

PO / Job#: 1R13164420.55

Date: 2/15/17

Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / (5Day)

☐ PCM: ☐ NIOSH 7400A / ☐ NIOSH 7400B ☐ Rotometer

☐ PLM: ☐ Standard / ☒ Point Count 400 - (1000) / ☐ CARB 435

Contact: Dan Harman

Phone: 323 8895378

E-mail: dan.harman@amecfw.com

☐ TEM Air: ☐ AHERA / ☐ Yamate2 / ☐ NIOSH 7402
☐ TEM Bulk: ☐ Quantitative / ☐ Qualitative / ☐ Chatfield
☐ TEM Water: ☐ Potable / ☐ Non-Potable / ☐ Weight %
☐ TEM Microvac: ☐ Qual / ☐ D5755(str/area) / ☐ D5756(str/mass)

Site Name: JWA.

☐ IAQ Particle Identification (PLM LAB) ☐ PLM Opaques/Soot
☐ Particle Identification (TEM LAB) ☐ Special Project

Site Location: Hangars

☐ Metals Analysis Matrix: Method: Analytes:

Comments:

☐ Silica in Air ☐ w/Gravimetry
☐ Quartz Only

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY: Type	Time On/Off	Avg LPM	Total Time	Sample Area / Air Volume
See attached.			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: DEH Date/Time: 2/15

Shipped Via: ☐ Fed Ex ☐ UPS ☐ US Mail ☐ Courier ☒ Drop Off ☐ Other:

Relinquished By:	Relinquished By:	Relinquished By:
Dan Elkan		
Date / Time: 2/15/17	Date / Time:	Date / Time:
Received By: Carlos D/O	Received By:	Received By:
Date / Time: 02/15/17 11:57	Date / Time:	Date / Time:
Condition Acceptable? ☒ Yes ☐ No	Condition Acceptable? ☐ Yes ☐ No	Condition Acceptable? ☐ Yes ☐ No

Amec Foster Wheeler E&I

Asbestos Survey Form 04a - Bulk Sampling Log

Project Number	1R13164420.55	Collection Date	2/5/17
Site Name	Executive Hangar 19341, NP 234	Submission Date	2/15/17
Building Number			

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
301	CB mastic on b/ CB, brn (25)	6	b	1	Exec	
302	↓ (26)	↓	↓	2	↓	
303	↓ (27)	↓	↓	3	↓	
304	↓ beige beige/brn (19)	4	b	1	↓	
305	↓ (20)	↓	↓	2	↓	
306	↓ (21)	↓	↓	3	↓	
307	Joint compound wh (158)	32	b	1	NP4	16/29
308	↓ (186)	38	b	1	↓	18/35
309	↓ (188)	38	b	2	↓	18/35
310	↓ (228)	47	b	1	↓	20/45
311	↓ (229)	47	b	2	↓	20/45
312	Plaster (052)	8	a	1	NP2	11
313	CB brown (072	11	ab	1	↓	11

Analysis Requested	PLM by 1000 point	Turnaround Time	One Week

Transmitted From: *Transmitted To:* *PO #* ____________

AMEC E&I
6001 Rickenbacker Rd., Los Angeles CA 90040
Phone 323.889.5300

☐ FAL ____________ CA ☐ ____________

Analyze to 1st Positve

Sender's Signature [signature]

Recipient's Signature [signature] D/O 02/15/17 11:57am

Asbestos Survey Form 04a - Bulk Sampling Log v3 *Total Number of Samples Collected in Building:* 19

Form Page 1 *of* 2
Sheet Count 2

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	1R13164420.55	Collection Date	2/15/17
Site Name	JWA	Submission Date	
Building Number			

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
314	CMU from (072)	11	ab	2	NP2	III
315	Stucco (246)	52	a	1	NP4	SW
316	(248)			2		SE
317	(250)			3		S. Stairwell
318	(251)			4		N. Stairwell
319	(247			5		W central

APPENDIX B

PORTABLE X-RAY FLUORESCENCE SPECTRUM ANALYZER READINGS

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP1, Atlantic Aviation
19711 Campus Drive
Santa Ana, California

Building	Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP1	2	1173	S	Door at Exterior	Wood	Intact	Cream	0.6	Sampled
Atlantic NP1	2	1174	S	Door at Exterior	Wood	Intact	Cream	0.6	No Paint of Walls
Atlantic NP1	1	1175	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP1	1	1176	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP1	1	1177	E	Building Frame	Metal	Intact	Red	0	Concrete Floor, No paint
Atlantic NP1	1	1178	S	Wall	Metal	Intact	White	0.01	
Atlantic NP1	1	1179	S	Building Frame	Metal	Intact	Red	0	
Atlantic NP1	1	1180	W	Hangar Door Frame	Metal	Intact	Gray	0	
Atlantic NP1	1	1181	W	Wall	Metal	Intact	White	0	
Atlantic NP1	1	1182	W	Wall Exterior	Metal	Intact	White	0	
Atlantic NP1	1	1183	W	Hangar Door Exterior	Metal	Intact	White	0.01	
Atlantic NP1	1	1184	E	Door Frame	Wood	Intact	White	0	
Atlantic NP1	1	1185	E	Door	Wood	Intact	Gray	0	
Atlantic NP1	1	1186	E	Door Frame	Metal	Intact	Red	0	
Atlantic NP1	1	1187	E	Door	Metal	Intact	White	0.01	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP2, Atlantic Aviation
19711 Campus Drive
Santa Ana, California

Building	Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP2	13	1191	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	13	1192	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	13	1193	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	13	1194	W	Wall	Dry Wall	Intact	Red	0	
Atlantic NP2	14	1195	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	14	1198	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	14	1199	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	14	1200	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	15	1201	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	15	1202	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	15	1203	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	15	1204	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	13	1205		Floor	Wood	Intact	Brown	0.3	
Atlantic NP2	12	1206	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	12	1207	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	12	1211	S	Wall	Dry Wall	Intact	White	0.5	
Atlantic NP2	12	1212	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	12	1213	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	12	1214	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	12	1215	N	Door Wall Frame	Wood	Intact	Black	0	
Atlantic NP2	12	1216		Handrail				0	
Atlantic NP2	16	1217	N	Wall	Dry Wall	Intact	White	0.26	
Atlantic NP2	16	1218	N	Wall	Dry Wall	Intact	White	0.3	
Atlantic NP2	16	1219	E	Wall	Dry Wall	Intact	White	0.4	
Atlantic NP2	16	1220	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	16	1221	W	Wall	Dry Wall	Intact	White	0.6	
Atlantic NP2	11	1222	N	Wall	Plaster	Intact	White	0.2	
Atlantic NP2	11	1223	E	Wall	Dry Wall	Intact	White	0.4	
Atlantic NP2	11	1224	S	Wall	Wood	Intact	White	0	
Atlantic NP2	11	1225	W	Wall	Dry Wall	Intact	White	0.04	
Atlantic NP2	11	1226	E	Wall	Metal	Intact	Gray	0.02	
Atlantic NP2	11	1227	E	Wall	Ceramic Tile	Intact	White	7.8	Wainscot
Atlantic NP2	11	1227		Floor	Ceramic Tile	Intact	Brown	5.6	
Atlantic NP2	1	1227	N	Wall	Wood	Intact	White	0	
Atlantic NP2	1	1227	E	Wall	Wood	Intact	White	0	
Atlantic NP2	1	1227	S	Wall	Wood	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP2, Atlantic Aviation
19711 Campus Drive
Santa Ana, California

Atlantic NP2	1	1232	W	Wall	Wood	Intact	White	0	
Atlantic NP2	1	1233		Floor	Vingl Tile	Intact	Black/ White	0	
Atlantic NP2	2	1234	N	Wall	Dry Wall	Intact	White	0.07	
Atlantic NP2	2	1235	E	Wall	Dry Wall	Intact	White	0.03	
Atlantic NP2	2	1236	S	Wall	Dry Wall	Intact	White	0.06	
Atlantic NP2	2	1237	W	Wall	Dry Wall	Intact	White	0.01	
Atlantic NP2	2	1238		Floor	Ceramic Tile	Intact	Gray	0.01	
Atlantic NP2	2	1239		Door Frame	Wood	Intact	White	0	
Atlantic NP2	2	1240		Door	Wood	Intact	White	0	
Atlantic NP2	3	1241	N	Wall	Wood	Intact	White	0.01	
Atlantic NP2	1	1242	E	Wall	Wood	Intact	White	0	
Atlantic NP2	3	1243	S	Wall	Wood	Intact	White	0	
Atlantic NP2	3	1244	W	Wall	Wood	Intact	White	0	
Atlantic NP2	3	1245		Door Frame	Wood	Intact	White	0.15	
Atlantic NP2	3	1246		Door	Wood	Intact	White	0	
Atlantic NP2	3	1247		Counter	Wood	Intact	Black	0	
Atlantic NP2	3	1248		Door Exterior	Wood	Intact	Gray	0	
Atlantic NP2	4	1249	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	4	1251	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	4	1252	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	4	1253	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	4	1254		Wall	Dry Wall	Intact	White	0	
Atlantic NP2	4	1255		Floor	Ceramic Tile	Intact	Mottled Gray	0.01	
Atlantic NP2	4	1256		Door Frame	Wood	Intact	White	0.26	
Atlantic NP2	4	1257		Door	Wood	Intact	White	0	
Atlantic NP2	5	1258	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	5	1259	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	5	1260	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	5	1261	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	5	1262		Door Frame	Wood	Intact	White	0	
Atlantic NP2	6	1263	N	Wall	Dry Wall	Intact	White	0.03	
Atlantic NP2	6	1264	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	6	1265	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	6	1266	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	6	1267	S	Door Frame Exterior	Wood	Intact	White	0.01	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP2, Atlantic Aviation
19711 Campus Drive
Santa Ana, California

Atlantic NP2	6	1268	S	Door Exterior	Wood	Intact	White	0	
Atlantic NP2	8	1269	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	8	1270	N	Wall	Dry Wall	Intact	Orange	0	
Atlantic NP2	8	1271	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	8	1272	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	8	1273	N	Door Frame	Wood	Intact	White	0	
Atlantic NP2	8	1274	N	Door	Wood	Intact	White	0	
Atlantic NP2	9	1276	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	9	1277	E	Wall	Dry Wall	Intact	White	0.02	
Atlantic NP2	9		S	Wall				No Paint	
Atlantic NP2	9	1278	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	9	1280	N	Door Frame	Wood	Intact	White	0	
Atlantic NP2	9	1281	N	Door	Wood	Intact	White	0	
Atlantic NP2	9	1282	N	Floor	Wood	Chipped	Gray	0.04	
Atlantic NP2	7	1283	N	Hangar Door Frame	Metal	Warn	Light Brown	0.01	
Atlantic NP2	7	1284	N	Hangar Door	Sheet Metal	Intact	White	0.01	
Atlantic NP2	7	1285	N	Door	Metal	Intact	Brown	0.01	
Atlantic NP2	7	1286	N	Exterior	Metal	Intact	White	0.02	
Atlantic NP2	7	1287	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP2	7	1288		Floor	Wood	Intact	Gray	0.07	
Atlantic NP2	7	1289	S	Column	Metal	Worn	Gray	0.21	
Atlantic NP2	7	1290	S	Column	Metal	Worn	Gray	0.1	
Atlantic NP2	7	1291	S	Wall	Sheet Metal	Intact	White	0.01	
Atlantic NP2	7	1292	W	Wall	Dry Wall	Intact	White	0.01	
Atlantic NP2	7	1293		Floor	Concrete	Peeling	Gray	0	Epoxy

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP3, Atlantic Aviation
19711 Campus Drive
Santa Ana, California

Building	Area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP3	Offices/1	1754	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/1	1756	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/1	1757		Door Frame	Metal	Intact	White	0	
Atlantic NP3	0ffices/2	1758	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	0ffices/2	1759	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	0ffices/2	1760	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	0ffices/2	1761	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	0ffices/2	1762		Door Frame	Metal	Intact	Black	0	
Atlantic NP3	0ffices/2	1763		Door	Wood	Intact	Black	0	
Atlantic NP3	0ffices/2	1764		Floor	Cream	Intact	Beige	0.01	
Atlantic NP3	0ffices/2	1765		Floor	Cream	Intact	Gray	0.02	
Atlantic NP3	Offices/4	1766	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/4	1767	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/4	1768		Door Frame	Metal	Intact	Black	0	
Atlantic NP3	Offices/4	1770	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/8	1771	S	Wall	Dry Wall	Intact	White	0.1	
Atlantic NP3	Offices/7	1773	N	Wall	Ceramic Tile	Intact	Beige	0.01	
Atlantic NP3	Offices/7	1774	E	Wall	Ceramic Tile	Intact	Black	0.1	
Atlantic NP3	Offices/7	1775		Floor	Ceramic Tile	Intact	Beige	0	
Atlantic NP3	Offices/7	1776		Floor	Ceramic Tile	Intact	Black	0	
Atlantic NP3	Offices/7	1777		Door	Wood	Intact	Black	0	
Atlantic NP3	Offices/7	1778		Door Floor	Metal	Intact	Black	0.01	
Atlantic NP3	Offices/10	1779	N	Wall	Dry Wall	Intact	White	0.01	
Atlantic NP3	Offices/10	1780	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/10	1781	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/10	1782	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/10	1783		Rail	Metal	Intact	Black	0	
Atlantic NP3	Offices/10	1784		Stringer	Metal	Intact	Black	0.02	
Atlantic NP3	Offices/11	1786	N	Wall	Dry Wall	Intact	Red	0.03	
Atlantic NP3	Offices/11	1787	E	Wall	Dry Wall	Intact	White	-0.06	
Atlantic NP3	Offices/11	1788	S	Wall	Dry Wall	Intact	White	0.03	
Atlantic NP3	Offices/11	1789	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/14	1790	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/14	1791	E	Wall	Dry Wall	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP3, Atlantic Aviation
19711 Campus Drive
Santa Ana, California

Building	Area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP3	Offices/14	1792	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/14	1793	W	Wall	Dry Wall	Intact	White	0.01	
Atlantic NP3	Offices/15	1794	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/15	1795	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/15	1796	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/15	1797	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/16	1798	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/16	1799	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/16	1800	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/16	1801	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/17	1802	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/17	1804	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/17	1805	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/17	1806	w	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/17	1807		Floor	Ceramic Tile	Intact	Beige	0.01	
Atlantic NP3	Offices/17	1808		Door		Intact		0	
Atlantic NP3	Offices/18	1810	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/18	1811	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/18	1812	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/18	1813	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/19	1815	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/19	1816	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/19	1817	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/19	1818	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/20	1821	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/20	1822	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/20	1823	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/20	1824	W	Wall	Dry Wall	Intact	White	0.01	
Atlantic NP3	Offices/20	1826		Floor	Ceramic Tile	Intact	Beige	0	
Atlantic NP3	Offices/21	1827	N	Wall	Dry Wall	Intact	Lt green	0	
Atlantic NP3	Offices/21	1828	E	Wall	Dry Wall	Intact	Lt green	0	
Atlantic NP3	Offices/21	1829	S	Wall	Dry Wall	Intact	Lt green	0	
Atlantic NP3	Offices/21	1830	W	Wall	Dry Wall	Intact	Lt green	0	
Atlantic NP3	Offices/22	1839	N	Wall	Dry Wall	Intact	White	0.02	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP3, Atlantic Aviation
19711 Campus Drive
Santa Ana, California

Building	Area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP3	Offices/22	1840	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/22	1841	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/23	1842	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/23	1843	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/23	1844	S	Wall	Dry Wall	Intact	White	0.01	
Atlantic NP3	Offices/23	1847	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/26	1848	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/26	1849	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/26	1850	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/26	1851	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/26	1852		Door Frame	Metal	Intact	White	0	
Atlantic NP3	Offices/25	1853	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/25	1854	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/25	1855	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/25	1856	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/29	1857	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/29	1858	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/29	1859	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/29	1860	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/35	1861	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/35	1862	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/35	1863	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/35	1864	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/27	1865	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/27	1866	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/27	1867	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/27	1869	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/28		N	No Access					
Atlantic NP3	Offices/28	1871	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/28	1872	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/28	1874	W	Wall	Dry Wall	Intact	White	0.01	
Atlantic NP3	Offices/30	1875	N	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/30	1876	E	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/30	1877	S	Wall	Dry Wall	Intact	Blue	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP3, Atlantic Aviation
19711 Campus Drive
Santa Ana, California

Building	Area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP3	Offices/30	1878	W	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/31	1880	N	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/31	1881	E	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/31	1882	S	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/31	1883	W	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/37	1884	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/37	1893	E	Wall	Dry Wall	Intact	White	0.1	
Atlantic NP3	Offices/37	1894	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/37	1895	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/38	1897	N	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/38	1898	E	Wall	Dry Wall	Intact	Beige	0.01	
Atlantic NP3	Offices/38	1899	S	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/38	1900	W	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/39	1903	N	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/39	1904	E	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/39	1905	S	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/39	1906	W	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/40	1907	N	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/40	1908	E	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/40		S	No Access					
Atlantic NP3	Offices/40	1910	W	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/41	1911	N	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/41	1912	E	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/41	1913	S	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/41	1914	W	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/42	1915	N	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/42	1916	E	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/42	1917	S	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/42	1918	W	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/42	1919		Door	Wood	Intact	Black	0	
Atlantic NP3	Offices/42	1920		Door Frame	Metal	Intact	Black	0	
Atlantic NP3	Offices/43	1921	N	Wall	Dry Wall	Intact	Lt Green	0	
Atlantic NP3	Offices/43	1922	E	Wall	Dry Wall	Intact	Lt Green	0	
Atlantic NP3	Offices/43	1923	S	Wall	Dry Wall	Intact	Lt Green	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP3, Atlantic Aviation
19711 Campus Drive
Santa Ana, California

Building	Area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP3	Offices/43	1927	W	Wall	Dry Wall	Intact	Lt Green	0	
Atlantic NP3	Offices/44	1930	N	Wall	Dry Wall	Intact	Lt Green	0	
Atlantic NP3	Offices/44	1931	E	Wall	Dry Wall	Intact	Lt Green	0	
Atlantic NP3	Offices/44	1932	S	Wall	Dry Wall	Intact	Lt Green	0	
Atlantic NP3	Offices/44	1933	W	Wall	Dry Wall	Intact	Lt Green	0	
Atlantic NP3	Offices/45	1934	N	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/45	1935	E	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/45	1936	S	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/45	1937	W	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/45	1938		Window Frame	Wood	Intact	White	0	
Atlantic NP3	Offices/51	1950	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/51	1951	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/51	1952	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/51	1954	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/51	1955		Floor	Vinyl	Intact	Beige	0	
Atlantic NP3	Offices/51	1956		Door Frame	Metal	Intact	Black	0.1	
Atlantic NP3	Offices/51	1957		Door	Wood	Intact	Black	0	
Atlantic NP3	Offices/50	1958	N	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/50	1959	E	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/50	1960	S	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/50	1961	W	Wall	Dry Wall	Intact	Beige	0	
Atlantic NP3	Offices/50	1963	Door		Wood	Intact	Black	0	
Atlantic NP3	Offices/49	1964	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/49	1965	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/49	1967	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/49	1968	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Offices/50	1969		Floor	Vinyl	Intact	Lt Brown	0	
Atlantic NP3	Hangar/52	1970	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Hangar/52	1971		Column	Metal	Intact	Red	0	
Atlantic NP3	Hangar/52	1972		Floor	Concrete	Intact	Lt Gray	0	
Atlantic NP3	Hangar/52	1973	E	Wall	Metal	Intact	Lt Gray	0	
Atlantic NP3	Hangar/52	1974		Door Frame	Metal	Intact	Lt Gray	0	
Atlantic NP3	Hangar/52	1975		Door	Wood	Intact	Lt Gray	0	
Atlantic NP3	Hangar/52	1976		Column	Metal	Intact	Red	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP3, Atlantic Aviation
19711 Campus Drive
Santa Ana, California

Building	Area name/ Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP3	Hangar/52	1977	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP3	Hangar/52	1978		Window	Metal	Intact	White	0	
Atlantic NP3	Hangar/52	1979		Door Frame	Metal	Intact	Black	0	
Atlantic NP3	Hangar/52	1980		Door	Wood	Intact	Black	0	
Atlantic NP3	Hangar/52	1981		Floor Stripe	Wood	Intact	Yellow	0	
Atlantic NP3	Hangar/52	1982		Breaker box	Metal	Intact	Gray	0	
Atlantic NP3	Hangar/52	1983	W	Exterior wall	Metal	Intact	Gray	0	
Atlantic NP3	Hangar/52	1984		Wall	Metal	Intact	Gray	0	
Atlantic NP3	Hangar/52	1985		Cross Brace	Metal	Intact	Red	0	
Atlantic NP3	Offices/47	1986	N	Wall	Ceramic Tile	Intact	Beige	0	
Atlantic NP3	Offices/47	1987		Wall	Ceramic Tile	Intact	Black	0	
Atlantic NP3	Offices/47	1988		Floor	Ceramic Tile	Intact	Black	0.01	
Atlantic NP3	Offices/48	1989		Wall	Ceramic Tile	Intact	Beige	0.02	
Atlantic NP3	Offices/48	1990		Floor	Ceramic Tile	Intact	Beige	0	
Atlantic NP3	Offices/48	1991		Floor	Ceramic Tile	Intact	Gray	0.01	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
	1/1	1156	N	Wall	Dry Wall	Intact	Med Gray	0	
Atlantic NP4	1/1	1157	E	Wall	Dry Wall	Intact	Med Gray	0	
Atlantic NP4	1/1	1158	S	Wall	Dry Wall	Intact	Med Gray	0	
Atlantic NP4	1/1	1159	W	Wall	Wood	Intact	Med Gray	0	
Atlantic NP4	1/1	1160	E	Door	Metal	Intact	Dark Brown	0	
Atlantic NP4	1/1	1161	E	Window Frame	Metal	Intact	Dark Brown	0	
Atlantic NP4	1/1	1162	E	Floor	Ceramic Tile	Intact	White	0.25	
Atlantic NP4	1/1	1164	W	Door Frame	Wood	Intact	Med Gray	0	
Atlantic NP4	1/2	1165	N	Wall	Dry Wall	Intact	Med Gray	0	
Atlantic NP4	1/2	1166	E	Wall	Wood	Intact	Med Gray	0	
Atlantic NP4	1/2	1167	S	Wall	Dry Wall	Intact	Med Gray	0	
Atlantic NP4	1/2	1168	W	Wall	Dry Wall	Intact	Med Gray	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	1/2	1169	W	Door	Metal	Intact	Black	0	
Atlantic NP4	1/2	1170	W	Door Frame	Metal	Intact	Black	0	
Atlantic NP4	1/2	1171	W	Window Frame	Metal	Intact	Dark Brown	0	
Atlantic NP4	1/2	1172	W	Door Exterior	Metal	Intact	Cream	0	
Atlantic NP4	11/4	1301	N	Wall	Dry Wall	Intact	Light Gray	0	
Atlantic NP4	11/4	1302	E	Wall	Dry Wall	Intact	Light Gray	0	
Atlantic NP4	11/4	1303	S	Wall	Dry Wall	Intact	Light Gray	0	
Atlantic NP4	11/4	1304	W	Wall	Dry Wall	Intact	Green	0	
Atlantic NP4	11/5	1305	N	Wall	Dry Wall	Intact	Green	0	
Atlantic NP4	11/5	1306	E	Wall	Dry Wall	Intact	Green	0	
Atlantic NP4	11/5	1307	S	Wall	Dry Wall	Intact	Green	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	11/5	1308	W	Wall	Dry Wall	Intact	Green	0	
Atlantic NP4	11/5	1309		Door Frame	Wood	Intact	White	0	
Atlantic NP4	11/5	1310		Door	Wood	Intact	White	0	
Atlantic NP4	11/6	1311	N	Wall	Dry Wall	Intact	Green	0	
Atlantic NP4	11/6	1312	E	Wall	Dry Wall	Intact	Light Gray	0	
Atlantic NP4	11/6	1313	S	Wall	Dry Wall	Intact	Green	0.01	
Atlantic NP4	11/6	1314	W	Wall	Dry Wall	Intact	Light Green	0	
Atlantic NP4	11/6	1315		Base Board	Wood	Intact	White	0	
Atlantic NP4	11/6	1316		Window Frame	Wood	Intact	White	0	
Atlantic NP4	11/4	1317		Door Exterior	Metal	Intact	Brown	0	
Atlantic NP4	4/7	1326	N	Wall	Wood	Intact	Gray	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	4/7	1327	E	Wall	Wood	Intact	Dark Gray	0	
Atlantic NP4	4/7	1328	S	Wall	Wood	Intact	Gray	0	
Atlantic NP4	4/7	1329	W	Wall	Dry Wall	Intact	Dark Gray	0	
Atlantic NP4	4/7	1330		Door Frame	Metal	Intact	Dark Gray	0	
Atlantic NP4	4/8	1331	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	4/8	1332	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	4/8	1333	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	4/8	1334	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	4/8	1335		Door Frame	Metal	Intact	Black	0	
Atlantic NP4	4/8	1337		Door	Wood	Intact	White	0	
Atlantic NP4	4/9	1338	N	Wall	Dry Wall	Intact	Light Blue	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	4/9	1339	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	4/9	1340	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	4/9	1345	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	4/10	1346	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	4/10	1347	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	4/10	1349	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	4/10	1350	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	4/10	1352		Floor	12x12 Floor Tile	Intact	Beige	0	
Atlantic NP4	4/10	1354		Door Frame	Metal	Intact	Black	0	
Atlantic NP4	4/10	1355		Door	Wood	Intact	White	0	
Atlantic NP4	4/12	1356	N	Wall	Dry Wall	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	4/12	1357	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	4/12	1358	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	4/12	1359	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	4/12	1360	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	4/12	1361	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	4/12	1362		Door Frame	Metal	Intact	Black	0	
Atlantic NP4	4/12	1363		Door	Wood	Intact	White	0	
Atlantic NP4	4 /11	1364	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	4/11	1365	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	4/11	1366	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	4/11	1367	E	Wall	Dry Wall	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	4/11	1368		Door Frame	Metal	Intact	Black	0	
Atlantic NP4	12/14	1381	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	12/14	1382	E	Door Frame	Metal	Intact	Black	0	
Atlantic NP4	12/14	1383	E	Door	Metal	Intact	Black	0	
Atlantic NP4	12/14	1384	S	Wall	Dry Wall	Intact	Red	0	
Atlantic NP4	12/13	1385	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	12/13	1390	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	12/14	1391	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	12/13	1392	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	12/13	1393	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	12/13	1394		Door Frame	Wood	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	12/13	1395		Door	Wood	Intact	White	0	
Atlantic NP4	13/15	1396	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	13/15	1397	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	13/15	1398	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	13/15	1399	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	13/15	1400		Door Frame	Wood	Intact	White	0	
Atlantic NP4	13/15	1401		Door	Wood	Intact	White	0	
Atlantic NP4	13/17	1402	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	13/17	1403	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	13/17	1404	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	13/17	1406	W	Wall	Dry Wall	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	13/16	1407	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	13/16	1408	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	13/16	1409	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	13/16	1410	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	14/19	1411	N	Wall	Wood	Intact	Green	0.03	
Atlantic NP4	14/19	1412	E	Wall	Wood	Intact	Green	0.02	
Atlantic NP4	14/19	1413	S	Wall	Wood	Intact	Green	0.03	
Atlantic NP4	14/19	1415	W	Wall	Wood	Intact	Green	0.08	
Atlantic NP4	14/19	1416	E	Door Interior	Wood	Intact	White	0	
Atlantic NP4	14/19	1417		Door Exterior	Wood	Intact	Blue	0	
Atlantic NP4	14/20	1418	N	Wall	Wood	Intact	White	0.02	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	14/20	1419	E	Wall	Wood	Intact	White	0.02	
Atlantic NP4	14/20	1420	S	Wall	Wood	Intact	White	0	
Atlantic NP4	14/20	1421	W	Wall	Wood	Intact	White	0	
Atlantic NP4	14/18	1422	N	Wall	Wood	Intact	White	0.05	
Atlantic NP4	14/18	1423	E	Wall	Wood	Intact	White	0.02	
Atlantic NP4	14/18	1424	S	Wall	Wood	Intact	White	0.01	
Atlantic NP4	14/18	1425	W	Wall	Wood	Intact	White	0.12	
Atlantic NP4	14/18	1426	W	Wall	Dry Wall	Intact	White	0.05	
Atlantic NP4	Lobby/21	1427	N	Wall	Dry Wall	Intact	White	0.15	
Atlantic NP4	Lobby/21	1428	E	Wall	Dry Wall	Intact	White	0.14	Sampled 011
Atlantic NP4	Lobby/21	1429	S	Wall	Dry Wall	Intact	White	0.6	Sampled 011

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	Lobby/21	1430	S	Wall	Dry Wall	Intact	White	0.7	Sampled 011
Atlantic NP4	Lobby/21	1431	W	Wall	Dry Wall	Intact	White	0.3	
Atlantic NP4	Lobby/21	1438	N	Rail	Dry Wall	Intact	White	0	
Atlantic NP4	Restroom/22	1439	N	Wall	Dry Wall	Intact	White	0.5	
Atlantic NP4	Restroom/22	1440	N	Wall	Dry Wall	Intact	White	0.3	
Atlantic NP4	Restroom/22	1441	E	Wall	Dry Wall	Intact	White	0.02	
Atlantic NP4	Restroom/22	1442	S	Wall	Dry Wall	Intact	White	0.01	
Atlantic NP4	Restroom/22	1443	W	Wall	Dry Wall	Intact	White	0.01	
Atlantic NP4	Restroom/22	1445	N	Wall	Dry Wall	Intact	White	0.17	
Atlantic NP4	Restroom/22	1446		Wall	Ceramic Tile	Intact	Gray	0.13	
Atlantic NP4	Restroom/22	1447		Wall	Ceramic Tile	Intact	Black	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	Restroom/22	1448		Floor	Ceramic Tile	Intact	Light Gray	0	
Atlantic NP4	Restroom/22	1449		Door Frame	Wood	Intact	Light Gray	0.3	
Atlantic NP4	Restroom/22	1450		Door	Wood	Intact	Light Gray	0.4	
Atlantic NP4	Restroom/22	1451		Door	Wood	Intact	Light Gray	0.5	
Atlantic NP4	Restroom/22	1452		Door	Wood	Intact	Light Gray	0.3	
Atlantic NP4	Restroom/23	1454	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	Restroom/23	1455	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	Restroom/23	1456	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	Restroom/23	1457	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	Restroom/23	1458		Wall	Concrete	Intact	Gray	0.03	
Atlantic NP4	Restroom/23	1459		Wall	Concrete	Intact	Black	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	Restroom/23	1460		Floor	Concrete	Intact	Light Gray	0	
Atlantic NP4	Restroom/23	1461		Door Frame	Wood	Intact	Light Gray	0.3	
Atlantic NP4	Restroom/23	1462		Door	Wood	Intact	Light Gray	0.5	
Atlantic NP4	Restroom/23	1463	N	Wall	Dry Wall	Intact	Red	0	
Atlantic NP4	Restroom/23	1464	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	Restroom/23	1465	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	Restroom/23	1466	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	Restroom/23	1467		Window Frame	Wood	Intact	White	0	
Atlantic NP4	Restroom/23	1468		Door Frame	Wood	Intact	White	0.04	
Atlantic NP4	Restroom/23	1469		Door	Wood	Intact	White	0.04	
Atlantic NP4	Restroom/23	1470		Calibration				0.9	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	15A/25	1471	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	15A/25	1472	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	15A/25	1473	S	Wall	Dry Wall	Intact	Blue	0	
Atlantic NP4	15A/25	1476	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	15A/25	1477		Door Frame	Wood	Intact	White	0	
Atlantic NP4	15A/26	1478	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	15A/26		E						No Wall
Atlantic NP4	15A/26	1480	S	Wall	Dry Wall	Intact	Blue	0	
Atlantic NP4	15A/26	1481	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	15A/26	1482		Door Frame	Wood	Intact	White	0	
Atlantic NP4	15A/27	1483	N	Wall	Dry Wall	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	15A/27	1484	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	15A/27	1485	S	Wall	Dry Wall	Intact	Blue	0	
Atlantic NP4	15A/27	1486	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	15A/27	1487		Door	Wood	Intact	White	0	
Atlantic NP4	15A/27	1488		Door Frame	Wood	Intact	White	0	
Atlantic NP4	16/28	1489	N	Wall	Dry Wall	Intact	Light Gray	0	
Atlantic NP4	16/28	1490	E	Wall	Dry Wall	Intact	Light Gray	0	
Atlantic NP4	16/28	1491	S	Wall	Dry Wall	Intact	Light Gray	0	
Atlantic NP4	16/28	1492	S	Wall	Dry Wall	Intact	Light Gray	0	
Atlantic NP4	16/28	1493		Window Frame	Wood	Intact	White	0.03	
Atlantic NP4	16/28	1494		Door Frame	Wood	Intact	White	0.01	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	16/29	1495	N	Wall	Dry Wall	Intact	Light Gray	0	
Atlantic NP4	16/29	1496	E	Wall	Dry Wall	Intact	Light Gray	0	
Atlantic NP4	16/29	1497	S	Wall	Dry Wall	Intact	Light Gray	0	
Atlantic NP4	16/29	1498	W	Wall	Dry Wall	Intact	Light Gray	0	
Atlantic NP4	16/29	1499		Door Frame	Wood	Intact	White	0	
Atlantic NP4	16/29	1500		Door	Wood	Intact	White	0	
Atlantic NP4	16/30	1501	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	16/30	1502	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	16/30	1503	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	16/30	1504	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	16/30	1505		Window Frame	Wood	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	17/33	1512	N	Wall	Dry Wall	Intact	Gray	0	
Atlantic NP4	17/33	1513	E	Door Frame	Metal	Intact	Black	0	
Atlantic NP4	17/33	1514	S	Wall	Dry Wall	Intact	Gray	0	
Atlantic NP4	17/33	1515	W	Wall	Dry Wall	Intact	Gray	0	
Atlantic NP4	17/32	1516	N	Wall	Dry Wall	Intact	Gray	0.02	
Atlantic NP4	17/32	1517	E	Window		Intact	Gray		
Atlantic NP4	17/32	1518	S	Wall	Dry Wall	Intact	Gray	0	
Atlantic NP4	17/32	1519	W	Wall	Dry Wall	Intact	Gray	0	
Atlantic NP4	17/32	1520		Door Frame	Metal	Intact	White	0	
Atlantic NP4	17/32	1521		Door	Wood	Intact	White	0	
Atlantic NP4	17/31	1522	N	Wall	Dry Wall	Intact	Gray	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	17/31	1523	E	Wall	Dry Wall	Intact	Gray	0	
Atlantic NP4	17/31	1524	S	Wall	Dry Wall	Intact	Gray	0	
Atlantic NP4	17/31	1525	W	Wall	Dry Wall	Intact	Gray	0	
Atlantic NP4	17/31	1526		Window Frame	Wood	Intact	White	0	
Atlantic NP4	17/34	1528	N	Wall	Dry Wall	Intact	Gray	0	
Atlantic NP4	17/34	1529	E	Wall	Dry Wall	Intact	Gray	0	
Atlantic NP4	17/34	1530	S	Wall	Dry Wall	Intact	Gray	0.03	
Atlantic NP4	17/34	1531	W	Wall	Dry Wall	Intact	Gray	0.02	
Atlantic NP4	17/34	1532		Door Frame	Metal	Intact	White	0	
Atlantic NP4	17/34	1534		Door	Wood	Intact	White	0	
Atlantic NP4	17/34	1535		Exterior Rail	Metal	Intact	Gray	0.02	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	18/35	1536	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	18/35	1537	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	18/35	1538	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	18/35	1539	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	18/35	1540		Window Frame	Wood	Intact	White	0.02	
Atlantic NP4	18/36	1541	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	18/36	1542	E	Wall above Door	Wood	Intact	White	0.3	
Atlantic NP4	18/36	1543	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	18/36	1544	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	18/36	1545		Interior Door	Wood	Intact	White	0.5	
Atlantic NP4	18/36	1546		Interior Door	Wood	Intact	White	0.7	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	18/36	1547		Exterior Door	Wood	Intact	Blue	0.5	
Atlantic NP4	19/37	1548	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	19/37	1549	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	19/37	1550	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	19/37	1551	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	19/37	1552		Window Frame	Wood	Intact	White	0.03	
Atlantic NP4	19/38	1553	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	19/38	1554	E	Wall	Wood	Intact	Yellow	0	
Atlantic NP4	19/38	1555	S	Wall	Wood	Intact	Yellow	0	
Atlantic NP4	19/38	1556	W	Wall	Dry Wall	Intact	Yellow	0	
Atlantic NP4	19/39	1557	N	Wall	Dry Wall	Intact	White	0.05	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	19/39	1558	E	Wall	Dry Wall	Intact	White	0.01	
Atlantic NP4	19/39	1559	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	19/39	1560	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	19/39	1561		Window Frame	Wood	Intact	White	0.01	
Atlantic NP4	19/39	1562		Door Frame	Wood	Intact	White	0	
Atlantic NP4	19/39	1563		Door	Wood	Intact	White	0	
Atlantic NP4	19/40	1564	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	19/40	1565	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	19/40	1566	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	19/40	1567	W	Wall	Dry Wall	Intact	White	0.09	
Atlantic NP4	19/41	1568	N	Wall	Dry Wall	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	19/41	1569	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	19/41	1570	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	19/41	1571	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	19/42	1572	N	Wall	Dry Wall	Intact	White	0.01	
Atlantic NP4	19/42	1573	E	Wall	Dry Wall	Intact	White	0.03	
Atlantic NP4	19/42	1574	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	19/42	1575	W	Wall	Dry Wall	Intact	White	0.01	
Atlantic NP4	19/42	1576		Door Frame	Wood	Intact	White	0	
Atlantic NP4	19/42	1577		Door	Wood	Intact	White	0	
Atlantic NP4	19/43	1578	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	19/43	1579	E	Wall	Dry Wall	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	19/43	1580	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	19/43	1581	W	Wall	Wood	Intact	White	0	
Atlantic NP4	19/43	1582		Door	Wood	Intact	White	0	
Atlantic NP4	20/44	1590	N	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	20/44	1591	E	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	20/44	1592	S	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	20/44	1593	W	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	20/44	1594		Window	Wood	Intact	White	0.19	
Atlantic NP4	20/44	1595		Window	Wood	Intact	White	0.1	
Atlantic NP4	20/45	1596	N	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	20/45	1597	E	Wall	Dry Wall	Intact	Lt Gray	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	20/45	1598	S	Wall	Dry Wall	Intact	Lt Gray	0.5	
Atlantic NP4	20/45	1599	S	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	20/45	1600	W	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	20/46	1601	N	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	20/46	1602	E	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	20/46	1603	S	Wall	Dry Wall	Intact	Lt Gray	0.1	
Atlantic NP4	20/46	1604	W	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	20/46	1605		Door Frame	Wood	Intact	White	0	
Atlantic NP4	20/46	1607		Door	Wood	Intact	White	0	
Atlantic NP4	1st Foor lobby/47	1614	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	1st Foor lobby/47	1615	E	Wall	Dry Wall	Intact	White	0.7	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	1st Foor lobby/47	1616	E	Wall	Dry Wall	Intact	White	0.5	
Atlantic NP4	1st Foor lobby/47	1617	S	Wall	Dry Wall	Intact	White	0.27	
Atlantic NP4	1st Foor lobby/47	1618	S	Wall	Dry Wall	Intact	White	0.3	
Atlantic NP4	1st Foor lobby/47	1619	W	Wall	Dry Wall	Intact	White	0.5	
Atlantic NP4	1st Foor lobby/47	1620		Stair Rail	Metal	Intact	White	0	
Atlantic NP4	1st Foor lobby/47	1621		Stair Stringer	Metal	Intact	White	2.2	
Atlantic NP4	Restroom/49	1623	N	Wall	Dry Wall	Intact	White	0.2	
Atlantic NP4	Restroom/49	1624	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	Restroom/49	1625	S	Wall	Dry Wall	Intact	White	0.1	
Atlantic NP4	Restroom/49	1626	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	Restroom/49	1627		Counter	Ceramic Tile	Intact	White	0.2	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	Restroom/49	1628		Wall	Ceramic Tile	Intact	Gray	7.5	
Atlantic NP4	Restroom/49	1629		Wall	Ceramic Tile	Intact	Lt Gray	5.2	
Atlantic NP4	Restroom/49	1630		Floor	Ceramic Tile	Intact	Med Gray	0.1	
Atlantic NP4	Restroom/49	1632		Door Frame	Wood	Intact	White	0.3	
Atlantic NP4	Restroom/49	1634		Inner Door	Wood	Intact	White	0.8	
Atlantic NP4	Restroom/48	1635	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	Restroom/48	1636	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	Restroom/48	1637	S	Wall	Dry Wall	Intact	White	0.1	
Atlantic NP4	Restroom/48	1638	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	Restroom/48	1641		Inner Door Frame	Wood	Intact	White	1	
Atlantic NP4	Restroom/48	1642		Outer Door Frame	Wood	Intact	White	0.28	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	Restroom/48	1643		Outer Frame	Wood	Intact	White	0.4	
Atlantic NP4	5/50	1644	N	Wall	Wood	Intact	Lt Blue	0.5	
Atlantic NP4	5/50	1645	N	Wall	Wood	Intact	Lt Blue	0	
Atlantic NP4	5/50	1646	E	Wall	Wood	Intact	Lt Blue	0	
Atlantic NP4	5/50	1647	S	Wall	Wood	Intact	Lt Blue	0.17	
Atlantic NP4	5/50	1648	S	Wall	Wood	Intact	Lt Blue	0.1	
Atlantic NP4	5/50	1649	W	Wall	Wood	Intact	Lt Blue	0	
Atlantic NP4	5/51	1650	N	Wall	Wood	Intact	Lt Blue	0	
Atlantic NP4	5/51	1651	E	Wall	Wood	Intact	Lt Blue	0	
Atlantic NP4	5/51	1652	S	Wall	Wood	Intact	Lt Blue	0	
Atlantic NP4	5/51	1653	W	Wall	Wood	Intact	Lt Blue	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	5/51	1654		Door Frame	Metal	Intact	Black	0	
Atlantic NP4	5/51	1655		Door	Wood	Intact	White	0	
Atlantic NP4	5/52	1658	N	Wall	Dry Wall	Intact	Lt Blue	0.17	
Atlantic NP4	5/52	1659	N	Wall	Dry Wall	Intact	Lt Blue	0	
Atlantic NP4	5/52	1660	N	Wall	Dry Wall	Intact	Lt Blue	0	
Atlantic NP4	5/52	1661	E	Wall	Dry Wall	Intact	Lt Blue	0	
Atlantic NP4	5/52	1662	S	Wall	Dry Wall	Intact	Lt Blue	0	
Atlantic NP4	5/52	1663		Floor	Ceramic Tile	Intact	Lt Gray	0.1	
Atlantic NP4	5/54	1664	N	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	5/54	1665	E	Wall	Dry Wall	Intact	Lt Gray	0.1	
Atlantic NP4	5/54	1666	S	Wall	Dry Wall	Intact	Lt Gray	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	5/54	1667	W	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	5/52	1668	W	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	7/55	1675	N	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	7/55	1676	E	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	7/55	1677	S	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	7/55	1678	W	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	7/55	1679		Floor	Ceramic Tile	Intact	Lt Gray	0.24	
Atlantic NP4	7/52	1680	N	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	7/52	1682	S	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	7/52	1683	W	Wall	Dry Wall	Intact	Lt Gray	0.4	
Atlantic NP4	7/52	1684		Door	Wood	Intact	Lt Gray	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	7/57	1685	N	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	7/57	1686	E	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	7/57	1687	S	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	7/57	1688	W	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	7/57	1689		Door Frame	Wood	Intact	White	0	
Atlantic NP4	7/57	1691		Door	Wood	Intact	White	0	
Atlantic NP4	7/58		All	Wall	Wallpaper			No Paint	
Atlantic NP4	7/59	1693	N	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	7/59	1694	E	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	7/59	1695	S	Wall	Dry Wall	Intact	Lt Gray	0	
Atlantic NP4	7/59	1696	W	Wall	Dry Wall	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	7/59	1697		Floor	Ceramic Tile	Intact	Lt Gray	0.26	
Atlantic NP4	7/60	1701	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	7/60	1702	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	7/60	1703	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	7/60	1704	W	Wall	Dry Wall	Intact	White	0.2	
Atlantic NP4	7/61-64	1705	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	7/61-64	1706	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	7/61-64	1707	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	7/61-64	1708	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	7/65-66	1709	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	7/65-66	1710	E	Wall	Dry Wall	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	7/65-66	1711	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	7/65-66	1712	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	7/65-66	1713		Door frame	Wood	Intact	White	0.2	
Atlantic NP4	7/65-66	1714		Door	Wood	Intact	White	0	
Atlantic NP4	7/68-69	1717	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	7/68-69	1718	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	7/68-69	1719	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	7/68-69	1720	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	7/70	1721	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	7/70	1722	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	7/70	1723	S	Wall	Dry Wall	Intact	White	0	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	7/70	1724	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	7/71	1727	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	7/71	1729	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	7/71	1730	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	7/71	1731	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	7/71	1732		Door	Dry Wall	Wood	White	0	
Atlantic NP4	8/73	1733	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	8/73	1734	E	Wall	Wood	Intact	White	0	
Atlantic NP4	8/73	1735	S	Wall	Wood	Intact	White	0	
Atlantic NP4	8/73	1736	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	8/73	1738		Door	Wood	Intact	White	0.8	

Portable X-ray Fluorescence Spectrum Analyzer Readings
Building NP4, Atlantic Aviation
19531 Campus Drive
Santa Ana, California

Building	Suite/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Atlantic NP4	8/74	1739	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	8/74	1740	E	Wall	Dry Wall	Intact	White	0.1	
Atlantic NP4	8/74	1741	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	8/74	1742	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	8/77	1743	N	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	8/77	1744	E	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	8/77	1745	S	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	8/77	1746	W	Wall	Dry Wall	Intact	White	0	
Atlantic NP4	8/77	1747		Door Frame	Wood	Intact	White	0	
Atlantic NP4	8/77	1750		Door	Wood	Intact	White	0	

APPENDIX C

CDPH Form 8552

State of California—Health and Human Services Agency | California Department of Public Health

LEAD HAZARD EVALUATION REPORT

Section 1 — Date of Lead Hazard Evaluation December 14, 2016

Section 2 — Type of Lead Hazard Evaluation (Check one box only)

☑ Lead Inspection ☐ Risk assessment ☐ Clearance Inspection ☐ Other (specify) _____

Section 3 — Structure Where Lead Hazard Evaluation Was Conducted

Address [number, street, apartment (if applicable)]	City	County	Zip Code
19531 Campus Drive	Santa Ana	Orange	92626

Construction date (year) of structure	Type of structure	Children living in structure?
1955	☐ Multi-unit building ☐ School or daycare ☐ Single family dwelling ☑ Other Hangar	☐ Yes ☑ No ☐ Don't Know

Section 4 — Owner of Structure (if business/agency, list contact person)

Name	Telephone number
John Wayne Airport, Orange County: Melinda McCoy	949-252-5267

Address [number, street, apartment (if applicable)]	City	State	Zip Code
3160 Airway Ave.	Costa Mesa	CA	92626

Section 5 — Results of Lead Hazard Evaluation (check all that apply)

☐ No lead-based paint detected ☑ Intact lead-based paint detected ☐ Deteriorated lead-based paint detected

☐ No lead hazards detected ☐ Lead-contaminated dust found ☐ Lead-contaminated soil found ☐ Other _____

Section 6 — Individual Conducting Lead Hazard Evaluation

Name	Telephone number
Don Harman	323-889-500

Address [number, street, apartment (if applicable)]	City	State	Zip Code
60001 Rickenbacker Rd.	Los Angeles	CA	90040

CDPH certification number	Signature	Date
10236	Don E Harman	March14,2017

Name and CDPH certification number of any other individuals conducting sampling or testing (if applicable)

Section 7 — Attachments

A. A foundation diagram or sketch of the structure indicating the specifc locations of each lead hazard or presence of lead-based paint;
B. Each testing method, device, and sampling procedure used;
C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector

Second copy and attachments retained by owner

Third copy only (no attachments) mailed or faxed to:

California Department of Public Health
Childhood Lead Poisoning Prevention Branch Reports
850 Marina Bay Parkway, Building P, Third Floor
Richmond, CA 94804-6403
Fax: (510) 620-5656

State of California—Health and Human Services Agency

California Department of Public Health

LEAD HAZARD EVALUATION REPORT

Section 1 — Date of Lead Hazard Evaluation December 14, 2016

Section 2 — Type of Lead Hazard Evaluation (Check one box only)

☑ Lead Inspection ☐ Risk assessment ☐ Clearance Inspection ☐ Other (specify) _____

Section 3 — Structure Where Lead Hazard Evaluation Was Conducted

Address [number, street, apartment (if applicable)]	City	County	Zip Code
19711 Campus Drive	Santa Ana	Orange	92626

Construction date (year) of structure	Type of structure	Children living in structure?
1960	☐ Multi-unit building ☐ School or daycare ☐ Single family dwelling ☑ Other Hangar	☐ Yes ☑ No ☐ Don't Know

Section 4 — Owner of Structure (if business/agency, list contact person)

Name	Telephone number
John Wayne Airport, Orange County: Melinda McCoy	949-252-5267

Address [number, street, apartment (if applicable)]	City	State	Zip Code
3160 Airway Ave.	Costa Mesa	CA	92626

Section 5 — Results of Lead Hazard Evaluation (check all that apply)

☐ No lead-based paint detected ☑ Intact lead-based paint detected ☐ Deteriorated lead-based paint detected

☐ No lead hazards detected ☐ Lead-contaminated dust found ☐ Lead-contaminated soil found ☐ Other _____

Section 6 — Individual Conducting Lead Hazard Evaluation

Name	Telephone number
Don Harman	323-889-500

Address [number, street, apartment (if applicable)]	City	State	Zip Code
60001 Rickenbacker Rd.	Los Angeles	CA	90040

CDPH certification number	Signature	Date
10236	Don E Harman	March14,2017

Name and CDPH certification number of any other individuals conducting sampling or testing (if applicable)

Section 7 — Attachments

A. A foundation diagram or sketch of the structure indicating the specifc locations of each lead hazard or presence of lead-based paint;
B. Each testing method, device, and sampling procedure used;
C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector

Second copy and attachments retained by owner

Third copy only (no attachments) mailed or faxed to:

California Department of Public Health
Childhood Lead Poisoning Prevention Branch Reports
850 Marina Bay Parkway, Building P, Third Floor
Richmond, CA 94804-6403
Fax: (510) 620-5656

APPENDIX F-6

HAZARDOUS MATERIALS SURVEY REPORT – JAY'S AIRCRAFT MAINTENANCE

HAZARDOUS MATERIALS SURVEY REPORT

Jay's Aircraft Maintenance

2980 Airway Avenue

General Aviation Improvement Program Project

John Wayne Airport

Costa Mesa, California

Prepared for:

John Wayne Airport
3160 Airway Avenue
Costa Mesa, California 92626

Prepared by:

Amec Foster Wheeler Environment & Infrastructure, Inc.
121 Innovation Drive, Suite 200
Irvine, California 92617-3094
(949) 642-0245

April 3, 2017

Project No. IR13164420

April 3, 2017

Ms. Melinda McCoy
Airport Environmental Engineer
John Wayne Airport, Orange County
3160 Airway Avenue
Costa Mesa, California 92626

Subject: **Hazardous Materials Survey Report**
Jay's Aircraft Maintenance
2980 Airway Avenue
Costa Mesa, California
Amec Foster Wheeler Project IR13164420

Dear Ms. McCoy:

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has completed a hazardous materials survey in support of the demolition of Jay's Aircraft Maintenance at 2980 Airway Avenue, Costa Mesa California. The survey included the assessment of suspect asbestos-containing materials (ACM) and lead-based paints (LBP). The attached report presents general project information, survey details, results, our findings and removal and abatement recommendations

Amec Foster Wheeler appreciates the opportunity to assist you on this project. Please contact us should any questions arise regarding this report or, if we may be of further service.

Sincerely,

Amec Foster Wheeler Environment & Infrastructure, Inc.

Don Harman
Senior Engineer
California Asbestos Consultant No. 92-0044
Certified Lead Inspector/Assessor and
Project Monitor No. I-10236

Leonard A. Gilbert, CIH
Senior Scientist

P:_00 OTHER OFFICES\2017\4005 Irvine\2016 Projects\Hanger study\Individual files\Jay Maintenace\Final draft\2017_04_03_HMS_Jays Maintenance.doc

Amec Foster Wheeler Environment & Infrastructure Inc.
121 Innovation Drive, Suite 200
Irvine, CA 92617
(949) 642-0245
(949) 642-4474 (fax)
www.amec.com

TABLE OF CONTENTS

1.0 BACKGROUND

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has completed a hazardous materials survey in support of the planned demolition of Jay's Aircraft Maintenance at 2980 Airway Avenue in Costa Mesa California. The survey included the assessment of suspect ACM and LBP. Amec Foster Wheeler performed the survey work December 21, 2016.

2.0 PURPOSE

The purpose of the survey was to locate and identify hazardous materials requiring abatement, stabilization, remediation, and/or special handling prior to the demolition of the structure. Our survey included visual observations, material sampling and laboratory analysis of suspect ACM, on site testing of suspect LBP with an X-ray fluorescence (XRF) spectrum analyzer and sampling and analysis of paint for lead content.

The results of the survey can be provided to the project general contractor, asbestos abatement contractor and/or the hazardous materials contractor, for establishing appropriate removal, abatement and handling actions to be implemented before planned demolition of the structure begins as part of the General Aviation Improvement Program project. This hazardous materials survey was conducted in accordance with the terms and conditions of our agreement with John Wayne Airport (JWA) Authority (280-280-1900-ENV2) and under JWA's authorization for this work (Task Order 3F-06) dated September 1, 2016.

3.0 BUILDING INFORMATION

The site contains two buildings that are both steel frame, slab on grade with metal exterior and roof. One structure contains a single hangar for aircraft repair and built-out spaces. Typical build out finishes were drywall and joint compound, wall texture, and floor tile. The other structure is entirely devoted to aircraft storage and repair. Figure 1 is a Site Location Map.

4.0 ASBESTOS SURVEY

4.1 REGULATORY INFORMATION

The Federal regulatory definition of ACM is any material containing more than one percent (1%) asbestos. Asbestos waste is not regulated as hazardous waste under the Federal Resource Conservation and Recovery Act (RCRA).

The California regulatory definition of ACM is also any material with more than 1% asbestos. The California Business and Professions Code, requires asbestos abatement contractors to be licensed by the Contractors State License Board (CSLB) and asbestos consultants to be certified by California Division of Occupational Safety and Health (Cal/OSHA).

The California Labor Code requires that any contractor who does "asbestos-related work" that disturbs asbestos-containing construction materials (ACCM) must be licensed by the CSLB and registered with Cal/OSHA. The Cal/OSHA asbestos standard contained in

Title 8, CCR Section 1429 defines ACCM as any manufactured construction material that contains more than one-tenth of 1 percent (>0.1%) asbestos.

The California Department of Toxic Substance Control (DTSC) classifies asbestos-containing material as hazardous waste if it is "friable" and contains 1.0% or more asbestos. A friable material is one that can be reduced to a powder or dust under hand pressure when dry. DTSC considers non-friable bulk asbestos-containing waste to be nonhazardous regardless of its asbestos content. Friable asbestos wastes with more than 0.1% asbestos and less than 1% asbestos are not required to be handled as hazardous waste.

4.2 SURVEY AND SAMPLING

Amec Foster Wheeler's survey of the building included observation of interior floor, wall, and ceiling finishes, and exterior wall and roof components (to extent access was possible). Mr. Don Harman, a California Certified Asbestos Consultant with Amec Foster Wheeler, performed the survey December 21, 2016. In evaluating the building(s), we used our education, training and experience along with our familiarity with building construction, to identify potential asbestos materials. Our survey included visual observations and sampling of suspect asbestos materials.

The selection of materials to be sampled was based on material homogeneity. A homogeneous material is one that appears to be of the same uniform texture, color, appearance, general use, and condition, and that was applied during the same general time period. Once homogeneous materials were determined, sample locations were selected, and representative samples of the suspect material were collected. A bulk sample across the full depth of the suspect material was obtained.

The samples were collected from readily accessible areas. No intrusive activities for obtaining samples, such as breaking through walls and ceilings, were performed. No attempt was made to disassemble mechanical equipment. Inaccessible spaces such as wall voids, building cavities, and mechanical equipment may contain concealed, unreported asbestos that may be revealed during demolition activities.

The samples were labeled and delivered under appropriate chain-of-custody documentation to Forensic Analytical Laboratories (FAL) in Rancho Dominquez, California for microscopic analysis by Polarized Light Microscopy (PLM). The samples were analyzed in general accordance with the United States Environmental Protection Agency (EPA) "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116, July 1993). This method employs PLM coupled with dispersion staining to identify the type and approximate quantity of asbestos present in the sample, if any. FAL is accredited under the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP) (Lab Code 101459) and the State of California Department of Health Services Environmental Laboratory Accreditation Program (ELAP Number 1366).

With respect to the sample analysis, if asbestos is detected in concentrations less than 1%, in California the material may be regulated as ACCM. As such, any PLM sample identified as having less than 1% asbestos must either be re-evaluated by point counting, in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) Asbestos NESHAP Revision, Final Rule (40 Code of Federal Regulations

(CFR), Part 61), or must be assumed to be ACCM, and therefore regulated in California. Point counting, determines if the materials known to be less than 1% asbestos (EPA criteria), are equal to or less than 0.1% asbestos (California criteria) and therefore not regulated with respect to abatement requirements.

4.3 SAMPLE ANALYTICAL RESULTS

A total of 35 bulk samples were collected and delivered to FAL for PLM analyses. When the building material is comprised of two or more layers or substrates, across its full cross-sectional depth, the laboratory will identify and analyze each layer. For this survey the analytical laboratory analyzed 70 substrates.

Of the 70 sample layers analyzed, asbestos was not identified in amounts greater than 1% in any of the samples. Asbestos was not identified in amounts less than 1% in any of the samples.

Sample descriptions, general locations, and the analytical results are provided in Table 1. Referenced room numbers are indicated on Figure 2. The laboratory analytical data and chain of custody forms are included in Appendix A

5.0 LEAD-BASED PAINT SURVEY

LBP survey was performed December 21, 2016 by Don Harman, Amec Foster Wheeler, a California Department of Public Health (CDPH) Certified Lead Inspector, Risk Assessor, and Lead Supervisor. Visual observation and testing of the building's interior and exterior surfaces was performed.

The visual survey of the various areas within the structure was performed to identify painted building components, their general condition, and location and quantity of the painted components. Damaged, loose and flaking paint observed during the survey were noted.

United State Department of Housing and Urban Development (HUD), EPA and California definitions for lead-based paint are any paint with a lead concentration equal to or greater than 1.0 milligram per square centimeter of surface area (≥1 mg/cm^2) when measured by a portable x-ray fluorescence (XRF) spectrum analyzer, or 0.5% by weight (5,000 parts per million [ppm]) when measured by standard analytical methods. XRF results between 0.9 to 1.1 mg/cm^2 are considered by HUD/EPA as inconclusive.

In California, for lead-related construction work, Cal/OSHA requires a risk assessment to determine if employees may be exposed above the action level or permissible exposure limit (PEL). Surface coatings that contain lead at concentrations equal to or exceeding 0.06% lead by weight (600 ppm) are assumed by Cal/OSHA to demonstrate the presence of lead surface coatings that constitute a health hazard to employees engaged in lead-related construction work. As such, appropriate controls and work practices as defined in 8 CCR 1532.1 and 17 CCR 3600 et seq. are mandated, including requirements to use personnel certified by the California Department of Health Services.

5.1 XRF SURVEY

Amec Foster Wheeler performed the LBP survey in general accordance with EPA and HUD guidelines for lead inspections and testing. Testing for LBP was performed onsite using a XRF, with the capability to measure lead content in dry paint films, in the range of 0 to 50 milligrams per square centimeter (mg/cm2). The surfaces tested were selected in general accordance with the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing.

5.2 XRF TEST RESULTS

None of the tested building paints would be considered lead-based paints via XRF testing. Appendix B contains a table which presents the readings from the XRF for painted surfaces. Because of none of the paint was considered to have elevated XRF results, no samples were obtained. Appendix C contains Form 8552 which is required to be submitted to the CDPH. The report and form must be retained by the client for three years. Amec Foster Wheeler has submitted the form to CDPH.

6.0 RECOMMENDATIONS

6.1 ASBESTOS-CONTAINING MATERIALS

Neither ACM nor ACCM were identified in the areas surveyed. Demolition or renovation; may uncover suspect ACM and ACCM. Amec Foster Wheeler recommends, if found, these materials be sampled and analyzed and, if confirmed to be ACM or ACCM, managed per applicable regulations.

6.2 LEAD-CONTAINING MATERIALS

An XRF survey found no LBP based on the HUD criteria. At the time of the survey paints identified as lead-based and in poor condition (peeling or chipped) were not observed. Cal-OSHA would still require a negative exposure assessment prior to demolition. However, the need for abatement of LBP is currently unlikely.

7.0 LIMITATIONS

Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental, health and safety consultants practicing in this or similar localities at the time of service. Amec Foster Wheeler assumes no liability for any loss, injury, claim, or damages arising directly or indirectly from any use or reliance on this report or the opinions expressed herein. No other warranty, express or implied, is made as to the professional advice included in this report.

Amec Foster Wheeler endeavored to observe existing conditions at the building using generally accepted procedures. There is always a possibility some areas containing asbestos- and lead-containing materials were overlooked, were inaccessible, or are different from those at specific sample locations. Therefore, conditions at every location may not be as anticipated by our field representative. In addition, demolition may uncover altered or differing conditions.

This report has been prepared for the exclusive use of our client. Any use that a third party makes of this report, or any reliance on or decisions made based on it, are the responsibility of the third party. With respect to third parties, Amec Foster Wheeler has no liability or responsibility for losses of any kind whatsoever, including direct or consequential financial effects on transactions or property values, or requirements for follow-up actions and costs. Should additional parties require reliance on this report, written authorization from Amec Foster Wheeler will be required.

TABLES

Table 1
Summary of Asbestos Sample Results
Jay's Maintenance
2980 Airway Avenue, Costa Mesa, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Room No.	Result
1	Drywall, white	1	a	1	1	1	ND
2	Drywall, white	1	a	2	1	2	ND
3	Drywall, white	1	a	3	1	9	ND
4	Joint Compound, white	1	b	1	1	1	ND
5	Joint Compound, white	1	b	2	1	2	ND
6	Joint Compound, white	1	b	3	1	4	ND
7	Joint Compound, white	1	b	4	1	5	ND
8	Joint Compound, white	1	b	5	1	9	ND
9	Wall Texture, white	1	c	1	1	3	ND
10	Wall Texture, white	1	c	2	1	4	ND
11	Wall Texture, white	1	c	3	1	4	ND
12	Wall Texture, white	1	c	4	1	5	ND
13	Wall Texture, white	1	c	5	1	5	ND
14	Cove Base, 4" black	2	ab	1	1	1	ND
15	Cove Base, 4" black	2	ab	2	1	3	ND
16	Cove Base, 4" black	2	ab	3	1	5	ND
17	Floor Tile, 12"x12" gray mottled & Floor Tile, over 12" x 12", gray	3	abcd	1	1	1	ND
18	Floor Tile, 12"x12" gray mottled & Floor Tile, over 12" x 12", gray	3	abcd	2	1	1	ND
19	Floor Tile, 12"x12" gray mottled & Floor Tile, over 12" x 12", gray	3	ab	3	1	2	ND

Table 1
Summary of Asbestos Sample Results
Jay's Maintenance
2980 Airway Avenue, Costa Mesa, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Room No.	Result
20	Floor Tile, 12"x12" black self-adhered	4	a	1	1	3	ND
21	Floor Tile, 12"x12" black self-adhered	4	a	2	1	5	ND
22	Floor Tile, 12"x12" black self-adhered	4	a	3	1	5	ND
23	Cove base, 4" gray	5	ab	1	1	1	ND
24	Cove base, 4" gray	5	ab	2	1	1	ND
25	Cove base, 4" gray	5	ab	3	1	2	ND
26	Drywall, Hangar	6	a	1	1	10	ND
27	Drywall, Hangar	6	a	2	1	10	ND
28	Drywall, Hangar	6	a	3	1	10	ND
29	Joint Compound, Hangar	6	b	1	1	11	ND
30	Joint Compound, Hangar	6	b	2	1	11	ND
31	Joint Compound, Hangar	6	b	3	1	11	ND
32	Joint Compound, Hangar	6	b	4	1	12	ND
33	Joint Compound, Hangar	6	b	5	1	12	ND
34	Joint Compound, Hangar	6	b	6	1	12	ND
35	Joint Compound, Hangar	6	b	7	1	12	ND

Created by: SA
Checked by: DEH/LAG

Table 1
Summary of Asbestos Sample Results
Jay's Maintenance
2980 Airway Avenue, Costa Mesa, CA
John Wayne Airport

Table Notes:

1 HM - Homogenous Material: A material that appears to be uniform when properties such as age, color, texture are compared.

2 Layer - When a Homogenous Material has more than one recognizable component each is a layer.

3 Assay - Of the duplicates required by Asbestos Hazard Emergency Response Act (AHERA), the sequential number, starting at one, assigned each sample up to the required number of samples.

4 Bold type - These samples were determined to contain asbestos in excess of trace amounts.

5 ND - Asbestos was not detected above the method detection limit.

6 Not Analyzed - When any sample of a Homogenous Material is determined to contain asbestos the other samples in that HM are not analyzed.

FIGURES

Basemap modified from Street Map provided by Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., ©OpenStreetMap contributors, and the GIS User Community.

N

0 1,000 2,000

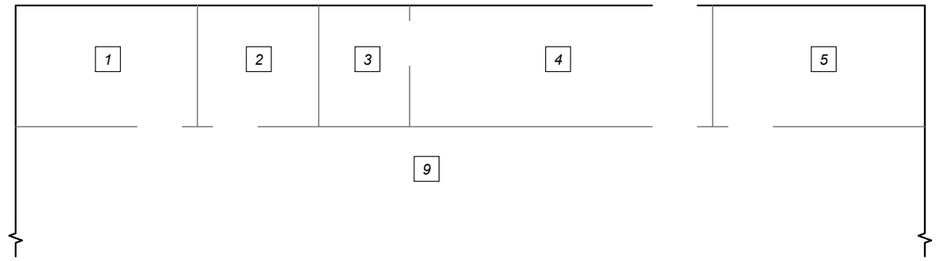
Approximate scale in feet

SITE LOCATION MAP
Jay's Aircraft Maintenance
2980 Airway Avenue
John Wayne Airport
Orange County, California

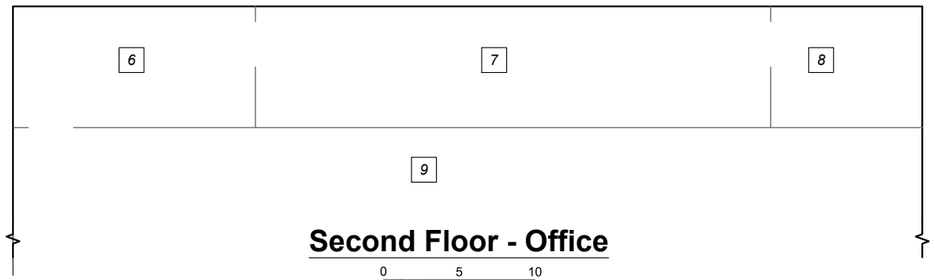
amec foster wheeler

Date: 03/31/2017	Project No. IR14164420	Figure 1
Submitted By: dh	Drawn By: pah	

Plot Date: 3/31/2017 3:50:29 PM, Plotted by: pat.herring
Drawing Path: Y:\IR13164420\acad\Asbestos_Survey_2017-02-16_tb_Site_Location_Maps.dwg



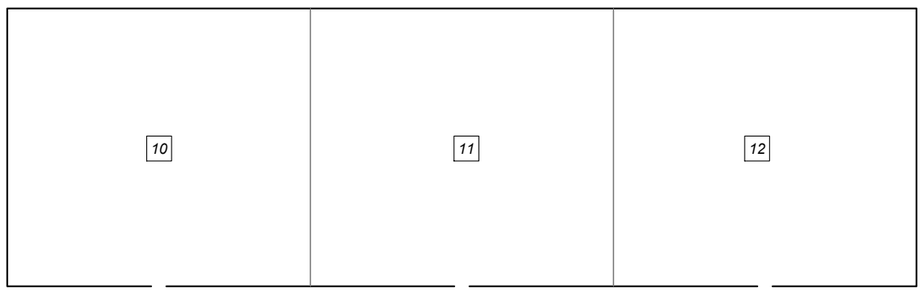
First Floor - Office



Second Floor - Office

0 5 10

Approximate Scale in Feet



Work Area

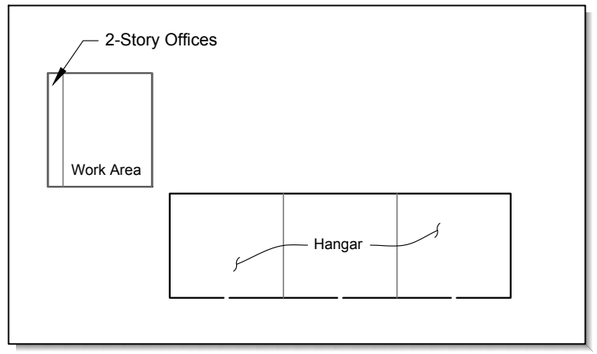
0 15 30

Approximate Scale in Feet

Explanation

Building outline

12 Room number



Key Sketch

0 40 80

Approximate Scale in Feet

N

FLOOR PLAN
Jay's Aircraft Maintenance
2980 Airway Avenue
John Wayne Airport
Orange County, California

amec foster wheeler

Date: 03/31/2017	Project No. IR14164420	Figure 2
Submitted By: dh	Drawn By: pah	

Plot Date: 3/31/2017 3:44:49 PM, Plotted by: pat.herring
Drawing Path: Y:\IR\13164420\ACAD\ASBESTOS_SURVEY_2017-02-16_TB_JAY'S MAINTENANCE.DWG, Figure 2

APPENDIX A

LABORATORY ANALYTICAL REPORTS AND CHAIN OF CUSTODY DOCUMENTATION

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: B232848
Date Received: 12/27/16
Date Analyzed: 01/04/17
Date Printed: 01/04/17
First Reported: 01/04/17

Job ID/Site: IR13164420.55; SNA/GAIP - Jay Maintenance

FALI Job ID: 5629-10

Date(s) Collected: 12/21/2016

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
001_1_a	51032922						
Layer: Tan Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %)		**Asbestos (ND)**					
002_1_a	51032923						
Layer: Tan Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
003_1_a	51032924						
Layer: Off-White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
004_1_b	51032925						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
005_1_b	51032926						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
006_1_b	51032927						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
007_1_b	51032928						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232848

Client Name: Amec Foster Wheeler **Date Printed:** 01/04/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
008_1_b	51032929						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
009_1_c	51032930						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
010_1_c	51032931						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
011_1_c	51032932						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
012_1_c	51032933						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
013_1_c	51032934						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
014_2_a	51032935						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
014_2_b	51032936						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
015_2_a	51032937						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232848

Client Name: Amec Foster Wheeler **Date Printed:** 01/04/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
015_2_b	51032938						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
016_2_a	51032939						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
016_2_b	51032940						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
017_3_a	51032941						
Layer: Grey Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
017_3_b	51032942						
Layer: Tan Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
017_3_c	51032943						
Layer: Grey Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
017_3_d	51032944						
Layer: Tan Mastic			**ND**				
Layer: Grey Non-Fibrous Material			**ND**				
Layer: Paint			**ND**				
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
018_3_a	51032945						
Layer: Grey Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
018_3_b	51032946						
Layer: Tan Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Synthetic (Trace)		**Asbestos (ND)**					
018_3_c	51032947						
Layer: Grey Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232848

Client Name: Amec Foster Wheeler **Date Printed:** 01/04/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
018_3_d	51032948						
Layer: Tan Mastic			**ND**				
Layer: Grey Non-Fibrous Material			**ND**				
Layer: Paint			**ND**				
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
019_3_a	51032949						
Layer: Grey Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
019_3_b	51032950						
Layer: Tan Mastic			**ND**				
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
020_4_a	51032951						
Layer: Black Tile			**ND**				
Layer: Clear Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace) Synthetic (5 %)		**Asbestos (ND)**					
021_4_a	51032952						
Layer: Black Tile			**ND**				
Layer: Clear Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace) Synthetic (5 %)		**Asbestos (ND)**					
022_4_a	51032953						
Layer: Black Tile			**ND**				
Layer: Clear Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace) Synthetic (5 %)		**Asbestos (ND)**					
023_5_a	51032954						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
023_5_b	51032955						
Layer: Clear Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
024_5_a	51032956						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232848

Client Name: Amec Foster Wheeler **Date Printed:** 01/04/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
024_5_b	51032957						
Layer: Clear Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
025_5_a	51032958						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
025_5_b	51032959						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
026_6_a	51032960						
Layer: Off-White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
027_6_a	51032961						
Layer: Off-White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
028_6_a	51032962						
Layer: Off-White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
029_6_b	51032963						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
030_6_b	51032964						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
031_6_b	51032965						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
032_6_b	51032966						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232848

Client Name: Amec Foster Wheeler **Date Printed:** 01/04/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
033_6_b	51032967						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
034_6_b	51032968						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
035_6_b	51032969						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Amec Foster Wheeler E&I

Asbestos Survey Form 04a - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/21/16
Site Name	SNA/GAIP	Submission Date	
Building Number	Jay Maintenance		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
001	Dry wall	1	a	1		1
002	"	"	"	2		2
003	"	"	"	3		9
004	Joint Compound	"	b	1		1
005	"	"	"	2		2
006	"	"	"	3		4
007	"	"	"	4		5
008	"	"	"	5		9
009	Wall Texture	"	c	1		3
010	"	"	"	2		4
011	"	"	"	3		4
012	"	"	"	4		5
013	"	"	"	5		5

Analysis Requested	PLM	Turnaround Time	One Week

Transmitted From:

AMEC E&I
6001 Rickenbacker Rd., Los Angeles CA 90040
Phone 323.889.5300

Transmitted To:

☑ **Forensic Analytical**
Rancho Dominguez

PO # _____

☐ _____

Analyze to 1st Positve x

Sender's Signature: Dan Ham

Recipient's Signature: J. Carrillo FE 12/27/16 10:20 Pm

Asbestos Survey Form 04a - Bulk Sampling Log v3

Total Number of Samples Collected in Building: 35

Form Page 1 *of* 3
Sheet Count _____

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	SNA/GAIP
Building Number	Jays Maintenance
Collection Date	12/21/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
014	Cove Base, 4" black	2	ab	1		1
015				2		3
016				3		5
017	Floor Tile 12x12 gr. mottled	3	abcd	1		1
018				2		1
019				3		2
020	bl. selfadhered	4	a	1		3
021				2		5
022				3		5
023	Cove base 4" gr.	5	ab	1		1
024				2		1
025				3		2
026	Dry Wall, Hangar	6	a	1		10
027				2		
028				3		
029	Joint Compound, Hangar		b	1		11
030				2		
031				3		
032				4		12
033				5		
034				6		

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/21/16
Site Name	SNA/GAIP	Submission Date	
Building Number	Joeys Maintenance		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
035	Joint Compound, Hangar	6	b	7		12

APPENDIX B

PORTABLE X-RAY FLUORESCENCE SPECTRUM ANALYZER READINGS

Portable X-ray Fluorescence Specturm Analyzer Readings
Jay's Maintenance
2980 Airway Avenue
Costa Mesa, California

Building	Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Jay's Maintenance	1	2021	N	Wall	Dry Wall	Intact	White	0	
Jay's Maintenance	1	2022	E	Wall	Dry Wall	Intact	White	0	
Jay's Maintenance	1	2025	S	Wall	Dry Wall	Intact	White	0	
Jay's Maintenance	1	2026	W	Wall	Dry Wall	Intact	White	0	
Jay's Maintenance	1	2027		Floor	Vinyl	Intact	Green mottled	0.01	
Jay's Maintenance	1	2028		Door Frame	Wood	Intact	White	0.02	
Jay's Maintenance	1	2029		Door	Wood	Intact	White	0	
Jay's Maintenance	2	2030	N	Wall	Dry Wall	Intact	White	0	
Jay's Maintenance	2	2031	E	Wall	Dry Wall	Intact	White	0	
Jay's Maintenance	2	2032	S	Wall	Dry Wall	Intact	White	0.01	
Jay's Maintenance	2	2033	W	Wall	Dry Wall	Intact	White	0.01	

Portable X-ray Fluorescence Specturm Analyzer Readings
Jay's Maintenance
2980 Airway Avenue
Costa Mesa, California

Building	Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Jay's Maintenance	3	2035	N	Wall	Dry Wall	Intact	Gray	0	
Jay's Maintenance	3	2036	E	Wall	Dry Wall	Intact	Gray	0	
Jay's Maintenance	3	2037	S	Wall	Dry Wall	Intact	Gray	0	
Jay's Maintenance	3	2038	W	Wall	Dry Wall	Intact	Gray	0	
Jay's Maintenance	3	2041		Door Frame	Metal	Intact	Black	0	
Jay's Maintenance	3	2042		Door	Wood	Intact	Natural	0	
Jay's Maintenance	3	2043		Floor	Vinyl	Intact	Black	0.07	
Jay's Maintenance	4	2045	N	Wall	Dry Wall	Intact	Gray	0	
Jay's Maintenance	4	2046	E	Wall	Dry Wall	Intact	Gray	0	
Jay's Maintenance	4	2047	S	Wall	Dry Wall	Intact	Gray	0	
Jay's Maintenance	4	2048	W	Wall	Dry Wall	Intact	Gray	0	

Portable X-ray Fluorescence Specturm Analyzer Readings
Jay's Maintenance
2980 Airway Avenue
Costa Mesa, California

Building	Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Jay's Maintenance	4	2049		Exterior	Metal	Intact	Black	0	
Jay's Maintenance	5	2050	N	Wall	Dry Wall	Intact	White	0	
Jay's Maintenance	5	2051	E	Wall	Dry Wall	Intact	White	0.01	
Jay's Maintenance	5	2052	S	Wall	Dry Wall	Intact	White	0	
Jay's Maintenance	5	2053	W	Wall	Dry Wall	Intact	White	0	
Jay's Maintenance	5	2054		Floor	Vinyl	Intact	Black	0	
Jay's Maintenance	5	2055		Door Frame	Metal	Intact	Black	0	
Jay's Maintenance	5	2056		Door	Wood	Intact	Natural	0	
Jay's Maintenance	5	2057		Window	Wood	Intact	White	0	
Jay's Maintenance	6	2058	N	Wall	Dry Wall	Intact	White	0	
Jay's Maintenance	6	2059	E	Wall	Dry Wall	Intact	White	0	

Portable X-ray Fluorescence Specturm Analyzer Readings
Jay's Maintenance
2980 Airway Avenue
Costa Mesa, California

Building	Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Jay's Maintenance	6	2060	S	Wall	Dry Wall	Intact	White	0	
Jay's Maintenance	6	2061	W	Wall	Dry Wall	Intact	White	0	
Jay's Maintenance	6	2062		Window Frame	Wood	Intact	White	0	
Jay's Maintenance	7	2063	N	Wall	Dry Wall	Intact	White	0	
Jay's Maintenance	7	2064		Door Frame			Gray	0.04	
Jay's Maintenance	7	2065	S	Wall	Dry Wall	Intact	White	0.02	
Jay's Maintenance	7	2066	W	Wall	Metal	Intact	Gray	0.01	
Jay's Maintenance	7	2067		Building Frame	Metal	Intact	Red	0.1	
Jay's Maintenance	7	2068		Door Frame	Wood	Intact	White	0	
Jay's Maintenance	9	2069	N	Wall	Metal	Intact	White	0.02	
Jay's Maintenance	9	2070		Frame	Metal	Intact	Red	0	

Portable X-ray Fluorescence Specturm Analyzer Readings
Jay's Maintenance
2980 Airway Avenue
Costa Mesa, California

Building	Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Jay's Maintenance	9	2071	E	Wall	Metal	Intact	White	0	
Jay's Maintenance	9	2072	S	Wall	Metal	Intact	White	0.01	
Jay's Maintenance	9	2073	W	Wall	Dry Wall	Intact	Gray	0	
Jay's Maintenance	9	2074		Floor	Concrete	Intact	Black	0.02	
Jay's Maintenance	10	2075	N	Wall	Metal	Intact	White	0	
Jay's Maintenance	10	2076	E	Unfinished	Dry Wall	Intact		no paint	
Jay's Maintenance	10	2077	S	Wall	Metal	Intact	White	0.01	
Jay's Maintenance	10	2078	W	Wall	Metal	Intact	White	0	
Jay's Maintenance	10	2079		Door Frame	Metal	Intact	Brown	0.01	
Jay's Maintenance	10	2080		Building Frame	Metal	Intact	Red	0.01	
Jay's Maintenance	11	2081	N	Wall	Metal	Intact	White	0	

Portable X-ray Fluorescence Specturm Analyzer Readings
Jay's Maintenance
2980 Airway Avenue
Costa Mesa, California

Building	Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Jay's Maintenance	11	2082	E	Dry Wall				no paint	
Jay's Maintenance	11	2083	S	Wall	Metal	Intact	White	0	
Jay's Maintenance	11	2084	W	Dry Wall	No finish			no paint	
Jay's Maintenance	11	2085		Pilot Door Frame	Metal	Intact	Green	0	
Jay's Maintenance	11	2086		Building Frame	Metal	Intact	Red	0	
Jay's Maintenance	11	2087	N	Wall	Metal	Intact	White	0	
Jay's Maintenance	11	2088	S	Wall	Metal	Intact	White	0	
Jay's Maintenance	11	2089		Exterior wall	Metal	Intact	Green	0	

Created by : SA
Cheked by: DEH

APPENDIX C

CDPH Form 8552

State of California—Health and Human Services Agency | California Department of Public Health

LEAD HAZARD EVALUATION REPORT

Section 1 — Date of Lead Hazard Evaluation December 14, 2016

Section 2 — Type of Lead Hazard Evaluation (Check one box only)

☑ Lead Inspection ☐ Risk assessment ☐ Clearance Inspection ☐ Other (specify) _____

Section 3 — Structure Where Lead Hazard Evaluation Was Conducted

Address [number, street, apartment (if applicable)]	City	County	Zip Code
2980 Ariway Ave.	Costa Mesa	Orange	92626

Construction date (year) of structure	Type of structure	Children living in structure?
1980	☐ Multi-unit building ☐ School or daycare ☐ Single family dwelling ☑ Other Hangar	☐ Yes ☑ No ☐ Don't Know

Section 4 — Owner of Structure (if business/agency, list contact person)

Name	Telephone number
John Wayne Airport, Orange County: Melinda McCoy	949-252-5267

Address [number, street, apartment (if applicable)]	City	State	Zip Code
3160 Airway Ave.	Costa Mesa	CA	92626

Section 5 — Results of Lead Hazard Evaluation (check all that apply)

☑ No lead-based paint detected ☐ Intact lead-based paint detected ☐ Deteriorated lead-based paint detected

☐ No lead hazards detected ☐ Lead-contaminated dust found ☐ Lead-contaminated soil found ☐ Other _____

Section 6 — Individual Conducting Lead Hazard Evaluation

Name	Telephone number
Don Harman	323-889-500

Address [number, street, apartment (if applicable)]	City	State	Zip Code
60001 Rickenbacker Rd.	Los Angeles	CA	90040

CDPH certification number	Signature	Date
10236	Don E Harman	March 9, 2017

Name and CDPH certification number of any other individuals conducting sampling or testing (if applicable)

Section 7 — Attachments

A. A foundation diagram or sketch of the structure indicating the specifc locations of each lead hazard or presence of lead-based paint;
B. Each testing method, device, and sampling procedure used;
C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector

Second copy and attachments retained by owner

Third copy only (no attachments) mailed or faxed to:

California Department of Public Health
Childhood Lead Poisoning Prevention Branch Reports
850 Marina Bay Parkway, Building P, Third Floor
Richmond, CA 94804-6403
Fax: (510) 620-5656

APPENDIX F-7

HAZARDOUS MATERIALS SURVEY REPORT – SIGNATURE FLIGHT SUPPORT EAST

HAZARDOUS MATERIALS SURVEY REPORT

Signature Flight Support

19315 Campus Drive

General Aviation Improvement Program Project

John Wayne Airport

Costa Mesa, California

Prepared for:

John Wayne Airport
3160 Airway Avenue
Costa Mesa, California 92626

Prepared by:

Amec Foster Wheeler Environment & Infrastructure, Inc.
121 Innovation Drive, Suite 200
Irvine, California 92617-3094
(949) 642-0245

April 3, 2017

Project No. IR13164420

April 3, 2017

Ms. Melinda McCoy
Airport Environmental Engineer
John Wayne Airport, Orange County
3160 Airway Avenue
Costa Mesa, California 92626

Subject: **Hazardous Materials Survey Report**
Signature Flight Support
19315 Campus Drive
Santa Ana, California
Amec Foster Wheeler Project IR13164420

Dear Ms. McCoy:

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has completed a hazardous materials survey in support of the demolition of Signature Flight Support at 19315 Campus Drive, Santa Ana California. The survey included the assessment of suspect asbestos-containing materials (ACM) and lead-based paints (LBP). The attached report presents general project information, survey details, results, our findings and removal and abatement recommendations

Amec Foster Wheeler appreciates the opportunity to assist you on this project. Please contact us should any questions arise regarding this report or, if we may be of further service.

Sincerely,

Amec Foster Wheeler Environment & Infrastru

Don Harman
Senior Engineer
California Asbestos Consultant No. 92-0044
Certified Lead Inspector/Assessor and
Project Monitor No. I-10236

Leonard A. Gilbert, CIH
Senior Scientist

P:_00 OTHER OFFICES\2017\4005 Irvine\2016 Projects\Hanger study\Individual files\Signature (14 bays)\Final draft\2017_04_03_HMS_Signature East.doc

Amec Foster Wheeler Environment & Infrastructure Inc.
121 Innovation Drive, Suite 200
Irvine, CA 92617
(949) 642-0245
(949) 642-4474 (fax)
www.amec.com

TABLE OF CONTENTS

1.0 BACKGROUND

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has completed a hazardous materials survey in support of the planned demolition of Signature Flight Support at 19315 Campus Drive in Santa Ana California. The survey included the assessment of suspect ACM and LBP. Amec Foster Wheeler performed the survey work December 6, 2016.

2.0 PURPOSE

The purpose of the survey was to locate and identify hazardous materials requiring abatement, stabilization, remediation, and/or special handling prior to the demolition of the structure. Our survey included visual observations, material sampling and laboratory analysis of suspect ACM, on site testing of suspect LBP with an X-ray fluorescence (XRF) spectrum analyzer and sampling and analysis of paint for lead content.

The results of the survey can be provided to the project general contractor, asbestos abatement contractor and/or the hazardous materials contractor, for establishing appropriate removal, abatement and handling actions to be implemented before planned demolition of the structure begins as part of the Aviation Improvement Program project. This hazardous materials survey was conducted in accordance with the terms and conditions of our agreement with John Wayne Airport (JWA) Authority (280-280-1900-ENV2) and under JWA's authorization for this work (Task Order 3F-06) dated September 1, 2016.

3.0 BUILDING INFORMATION

The construction is metal frame with sheet metal exterior panels and roof. Hangar interiors are unfinished. Interiors of the office and restrooms are finished with ceiling tiles, drywall and joint compound, wainscot, cove base and floor tile. Figure 1 is a Site Location Map.

4.0 ASBESTOS SURVEY

4.1 REGULATORY INFORMATION

The Federal regulatory definition of ACM is any material containing more than one percent (1%) asbestos. Asbestos waste is not regulated as hazardous waste under the Federal Resource Conservation and Recovery Act (RCRA).

The California regulatory definition of ACM is also any material with more than 1% asbestos. The California Business and Professions Code, requires asbestos abatement contractors to be licensed by the Contractors State License Board (CSLB) and asbestos consultants to be certified by California Division of Occupational Safety and Health (Cal/OSHA).

The California Labor Code requires that any contractor who does "asbestos-related work" that disturbs asbestos-containing construction materials (ACCM) must be licensed by the CSLB and registered with Cal/OSHA. The Cal/OSHA asbestos standard contained in

Title 8, CCR Section 1429 defines ACCM as any manufactured construction material that contains more than one-tenth of 1 percent (>0.1%) asbestos.

The California Department of Toxic Substance Control (DTSC) classifies asbestos-containing material as hazardous waste if it is "friable" and contains 1.0% or more asbestos. A friable material is one that can be reduced to a powder or dust under hand pressure when dry. DTSC considers non-friable bulk asbestos-containing waste to be nonhazardous regardless of its asbestos content. Friable asbestos wastes with more than 0.1% asbestos and less than 1% asbestos are not required to be handled as hazardous waste.

4.2 SURVEY AND SAMPLING

Amec Foster Wheeler's survey of the building included observation of interior floor, wall, and ceiling finishes, and exterior wall and roof components (to extent access was possible). Mr. Don Harman, a California Certified Asbestos Consultant with Amec Foster Wheeler, performed the survey December 6, 2016. In evaluating the building(s), we used our education, training and experience along with our familiarity with building construction, to identify potential asbestos materials. Our survey included visual observations and sampling of suspect asbestos materials.

The selection of materials to be sampled was based on material homogeneity. A homogeneous material is one that appears to be of the same uniform texture, color, appearance, general use, and condition, and that was applied during the same general time period. Once homogeneous materials were determined, sample locations were selected, and representative samples of the suspect material were collected. A bulk sample across the full depth of the suspect material was obtained.

The samples were collected from readily accessible areas. No intrusive activities for the purpose of obtaining samples, such as breaking through walls and ceilings, were performed. No attempt was made to disassemble mechanical equipment. Inaccessible spaces such as wall voids, building cavities, and mechanical equipment may contain concealed, unreported asbestos that may be revealed during demolition activities.

The samples were labeled and delivered under appropriate chain-of-custody documentation to Forensic Analytical Laboratories (FAL) in Rancho Dominquez, California for microscopic analysis by Polarized Light Microscopy (PLM). The samples were analyzed in general accordance with the United States Environmental Protection Agency (EPA) "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116, July 1993). This method employs PLM coupled with dispersion staining to identify the type and approximate quantity of asbestos present in the sample, if any. FAL is accredited under the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP) (Lab Code 101459) and the State of California Department of Health Services Environmental Laboratory Accreditation Program (ELAP Number 1366).

With respect to the sample analysis, if asbestos is detected in concentrations less than 1%, in California the material may be regulated as ACCM. As such, any PLM sample identified as having less than 1% asbestos must either be re-evaluated by point counting, in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) Asbestos NESHAP Revision, Final Rule (40 Code of Federal Regulations,

(CFR), Part 61), or must be assumed to be ACCM, and therefore regulated in California. Point counting, determines if the materials known to be less than 1% asbestos (EPA criteria), are equal to or less than 0.1% asbestos (California criteria) and therefore not regulated with respect to abatement requirements.

4.3 SAMPLE ANALYTICAL RESULTS

A total of 44 bulk samples were collected and delivered to FAL for PLM analyses. When the building material is comprised of two or more layers or substrates, across its full cross-sectional depth, the laboratory will identify and analyze each layer. For this survey, the analytical laboratory analyzed 80 substrates.

Of the 80 sample layers analyzed, asbestos was identified in amounts greater than 1% in joint compound and the mastic associated with the beige floor tile in the restrooms.

Sample descriptions and the analytical results are provided in Table 1. Table 2 identifies those samples and materials determined to contain asbestos in concentrations above California regulatory levels. The homogeneous material (HM), its location(s) within the structure, condition, friability and approximate quantities are also included on Table 2. Photographs have been included in Appendix A. The laboratory analytical data and chain of custody forms are included in Appendix B.

5.0 LEAD-BASED PAINT SURVEY

LBP survey was performed December 6, 2016 by Don Harman, Amec Foster Wheeler, a California Department of Public Health (CDPH) Certified Lead Inspector, Risk Assessor, and Lead Supervisor. Visual observation and testing of the building's interior and exterior surfaces was performed.

The visual survey of the various areas within the structure was performed to identify painted building components, their general condition, and location and quantity of the painted components. Damaged, loose and flaking paint observed during the survey were noted.

United States Department of Housing and Urban Development (HUD), EPA and California definitions for lead-based paint are any paint with a lead concentration equal to or greater than 1.0 milligram per square centimeter of surface area (≥1 mg/cm^2) when measured by a portable x-ray fluorescence (XRF) spectrum analyzer, or 0.5% by weight (5,000 parts per million [ppm]) when measured by standard analytical methods. XRF results between 0.9 to 1.1 mg/cm^2 are considered by HUD/EPA as inconclusive.

In California, for lead-related construction work, Cal/OSHA requires a risk assessment to determine if employees may be exposed above the action level or permissible exposure limit (PEL). Surface coatings that contain lead at concentrations equal to or exceeding 0.06% lead by weight (600 ppm) are assumed by Cal/OSHA to demonstrate the presence of lead surface coatings that constitute a health hazard to employees engaged in lead-related construction work. As such, appropriate controls and work practices as defined in 8 CCR 1532.1 and 17 CCR 3600 et seq. are mandated, including requirements to use personnel certified by the California Department of Health Services.

5.1 XRF SURVEY

Amec Foster Wheeler performed the LBP survey in general accordance with EPA and US (HUD) guidelines for lead inspections and testing. Testing for LBP was performed onsite using a XRF, with the capability to measure lead content in dry paint films, in the range of 0 to 50 milligrams per square centimeter (mg/cm2). The surfaces tested were selected in general accordance with the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing.

5.2 XRF TEST RESULTS

The XRF test results aid in the selection of the locations for paint chip sampling and analysis. None of the tested building paints would be considered lead-based paints based on the XRF results and all were identified as being in intact condition. Appendix C contains a Table which presents the readings from the XRF for painted surfaces. The paint on the south wall in the restroom in the building at 19341 Campus Drive returned results that were elevated above the low levels observed on other similar materials. In addition, ceramic tile glaze in the restroom returned elevated results.

5.3 PAINT CHIP SURVEY

Sampling areas were selected, based on the results of the XRF survey and representative paint chip samples of suspect LBP were obtained from exterior frame, wall and ceiling, and the ceramic tile in the restroom at 19341 Campus Drive. While low-level results were returned via XRF for the beige frame paint; the volume of painted surface be dealt with warranted a sample.

Samples were collected from readily accessible, representative paint-coated surfaces that were suspected to contain lead. The samples were labeled and appropriate chain-of-custody documentation completed. The samples were delivered to FAL in Rancho Dominquez, California for analysis. The laboratory is accredited by the American Industrial Hygiene Association (AIHA) and has been assigned the accreditation number 101629, and by the State of California Environmental Laboratory Accreditation Program (ELAP Number 1366).

5.4 TEST RESULTS

Two paint chip and one ceramic tile samples were obtained and delivered to FAL to be analyzed for the presence of lead by EPA methods 3050 and 7420 – Acid Digestion followed by Atomic Absorption Spectrometry (AAS). None of the paint was LBP and the ceramic tile was not greater than 0.5%. The results are:

- Sample No. 001 – Beige on exterior frame – 0.18%
- Sample No. 003 – Beige on wall and ceiling – 0.016%
- Sample No. 004 – Beige ceramic tile – 0.0085%

The laboratory analytical data and chain-of-custody documentation are included in Appendix B. Appendix D contains Form 8552 which is required to be submitted to the California Department of Public Health (CDPH). The report and form must be retained by the client for three years. Amec Foster Wheeler has submitted the form to CDPH.

6.0 RECOMMENDATIONS

6.1 ASBESTOS-CONTAINING MATERIALS

The asbestos materials must be removed from the structure prior to demolition. Any contractor who does "asbestos-related work" that disturbs asbestos-containing materials or asbestos-containing construction materials must be licensed by the CSLB and registered with Cal/OSHA.

The abatement work must be performed in compliance with applicable Federal, State and local regulations. A scope of work and work procedures specifically tailored to this project should be prepared and adhered to by the abatement contractor. It is important that the abatement activities be performed by a competent, experienced contractor and the abatement activities be closely monitored.

DTSC classifies asbestos-containing wastes as hazardous waste if they are “friable” and contain 1.0% or more asbestos. DTSC considers non-friable bulk asbestos-containing waste to be nonhazardous regardless of its asbestos content. Waste materials containing less than 1% asbestos may be managed as non-hazardous waste in accordance with DTSC requirements.

The project-derived asbestos wastes could either be segregated as hazardous and non-hazardous and handled separately, or combined and handled together as hazardous. The handling method selected could be based on the costs associated with the labor to segregate the wastes verses the additional disposal fees. It should be noted that disposal of any hazardous waste does have potential future liabilities should a problem arise with the disposal site. Therefore, the potential increased risk from handling the nonhazardous wastes as hazardous should be considered in the decision-making process.

6.2 LEAD-CONTAINING MATERIALS

An XRF and paint chip survey found no LBP based on the HUD criteria. At the time of the survey, paints identified as lead-based and in poor condition (peeling or chipped) were not observed. Cal-OSHA would still require a negative exposure assessment prior to demolition. However, the need for abatement of LBP is currently unlikely.

7.0 LIMITATIONS

Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental, health and safety consultants practicing in this or similar localities at the time of service. Amec Foster Wheeler assumes no liability for any loss, injury, claim, or damages arising directly or indirectly from any use or reliance on this report or the opinions expressed herein. No other warranty, express or implied, is made as to the professional advice included in this report.

Amec Foster Wheeler endeavored to observe existing conditions at the building using generally accepted procedures. There is always a possibility some areas containing asbestos- and lead-containing materials were overlooked, were inaccessible, or are different from those at specific sample locations. Therefore, conditions at every location

may not be as anticipated by our field representative. In addition, demolition may uncover altered or differing conditions.

This report has been prepared for the exclusive use of our client. Any use that a third party makes of this report, or any reliance on or decisions made based on it, are the responsibility of the third party. With respect to third parties, Amec Foster Wheeler has no liability or responsibility for losses of any kind whatsoever, including direct or consequential financial effects on transactions or property values, or requirements for follow-up actions and costs. Should additional parties require reliance on this report, written authorization from Amec Foster Wheeler will be required.

TABLES

Table 1
Summary of Asbestos Sample Results
Signature Flight Services, 19315 Campus Drive
John Wayne Airport

Sample #	Material Description	HM No.	Layer	Assay No.	Level	Location (Hangar or Room)	Result
1	Paint, gray	1	a	1	1	8A	ND
2	Paint, gray	1	a	2	1	8A	ND
3	Paint, gray	1	a	3	1	8A	ND
4	Paint, gray with black	2	a	1	1	9A	ND
5	Paint, gray with black	2	a	2	1	9A	ND
6	Paint, gray with black	2	a	3	1	9A	ND
7	Paint , light gray	3	a	1	1	14A	ND
8	Paint , light gray	3	a	2	1	14A	ND
9	Paint , light gray	3	a	3	1	14A	ND
10	Dry wall, white	4	a	1	1	Employee R/R	ND
11	Dry wall, white	4	a	2	1	Employee R/R	ND
12	Dry wall, white	4	a	3	1	Public R/R	ND
13	**Joint compound, white/cream**	**4**	**b**	**1**	**1**	**Employee R/R**	**Chrysotile, 2%**
14	Joint compound, white/cream	4	b	2	1	Employee R/R	Not Analyzed
15	Joint compound, white/cream	4	b	3	1	Public R/R	Not Analyzed
16	Joint compound, white/cream	4	b	4	1	Public R/R	Not Analyzed
17	Joint compound, white/cream	4	b	5	1	Employee R/R	Not Analyzed
18	Cove base, 4" gray with mastic	6	ab	1	1	Employee R/R	ND
19	Cove base, 4" gray with mastic	6	ab	2	1	Employee R/R	ND
20	Cove base, 4" gray with mastic	6	ab	3	1	Employee R/R	ND
21	**12"x12" Floor tile, beige with blue streak & mastic**	**7**	**ab**	**1**	**1**	**Employee R/R**	**Tile, ND; Mastic, Chrysotile 2%**
22	12"x12" Floor tile, beige with blue streak & mastic	7	ab	2	1	Employee R/R	Tile, ND; Mastic, Not Analyzed
23	12"x12" Floor tile, beige with blue streak & mastic	7	ab	3	1	Public R/R	Tile, ND; Mastic, Not Analyzed
24	Caulk, white	8	a	1	1	3A	ND
25	Caulk, white	8	a	2	1	3A	ND
26	Caulk, white	8	a	3	1	3A	ND
27	Paint, cream color	9	a	1	1	6A	ND
28	Paint, cream color	9	a	2	1	6A	ND
29	Paint, cream color	9	a	3	1	6A	ND
30	Paint, medium gray	10	a	1	1	7A	ND
31	Paint, medium gray	10	a	2	1	7A	ND
32	Paint, medium gray	10	a	3	1	7A	ND
33	Ceiling tile, white, pin dot	11	ab	1	1	Office	ND
34	Ceiling tile, white, pin dot	11	ab	2	1	Office	ND
35	Ceiling tile, white, pin dot	11	ab	3	1	Office	ND
36	Paint, light blue	12	a	1	1	Office	ND
37	Paint, light blue	12	a	2	1	Office	ND
38	Paint, light blue	12	a	3	1	Office	ND

Table 1
Summary of Asbestos Sample Results
Signature Flight Services, 19315 Campus Drive
John Wayne Airport

Sample #	Material Description	HM No.	Layer	Assay No.	Level	Location (Hangar or Room)	Result
39	Dry wall, white	13	a	1	1	Storage	ND
40	Dry wall, white	13	a	2	1	Storage	ND
41	Dry wall, white	13	a	3	1	Storage	ND
42	Joint compound, white	13	b	1	1	Storage	ND
43	Joint compound, white	13	b	2	1	Storage	ND
44	Joint compound, white	13	b	3	1	Storage	ND

Created by: SA
Checked by: DEH/LAG

Table Notes:

1 HM - Homogenous Material: A material that appears to be uniform when properties such as age, color, texture are compared.
2 Layer - When a Homogenous Material has more than one recognizable component each is a layer.
3 Assay - Of the duplicates required by AHERA, the sequential number, starting at one, assigned each sample up to the required number of samples.
4 Bold type - These samples were determined to contain asbestos in excess of trace amounts.
5 ND - Asbestos was not detected above the method detection limit.
6 Not Analyzed - When any sample of a Homogenous Material is determined to contain asbestos the other samples in that HM are not analyzed.
7 R/R - Restroom.

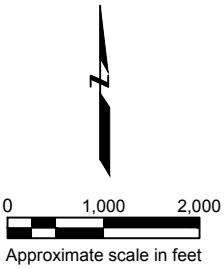
Table 2
Summary of Asbestos-Containing Materials
Signature Flight Support, 19315 Campus Drive
Santa Ana, California

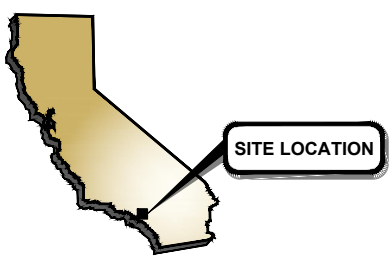
Material, friability, condition	Location	Sample No.	Result	Estimated Quality
Joint compound, non-friable, good	Public and Employee Restroom	13	2% Chrysotile	700 square feet of joint compound combined with drywall
Mastic associated with 12x12 floor tile, beige with blue streak, non-friable, good	Public and Employee Restroom	21	2% Chrysotile	150 square feet

Created by: DEH
Checked by: LAG

FIGURE

Basemap modified from Street Map provided by Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., ©OpenStreetMap contributors, and the GIS User Community.





SITE LOCATION MAP
Signature Flight Service
19301 Campus Drive
John Wayne Airport
Orange County, California

amec foster wheeler

Date: 03/31/2017	Project No. IR14164420	Figure 1
Submitted By: dh	Drawn By: pah	

Plot Date: 4/05/2017 2:24:53 PM, Plotted by: pat.herring
Drawing Path: C:\Users\pat.herring\Documents\Projects\IR13164420\acad\Asbestos_Survey_2017-02-16_tb_Site_Location_Maps.dwg

APPENDIX A

PHOTOGRAPHS

Amec Foster Wheeler Photo Log

Image No.	Description	Notes
1		Asbestos-Containing Joint Compound, Homogenous Material No. 4b

Image No.	Description	Notes
2		Asbestos-Containing Mastic associated with 12x12 Floor tile, beige w/ blue streaks, Homogenous Material No. 7b

APPENDIX B

LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: B232275
Date Received: 12/13/16
Date Analyzed: 12/19/16
Date Printed: 12/20/16
First Reported: 12/20/16

Job ID/Site: IR13164420.55; John Wayne Airport (SNA/GAIP) - Signature (14 bay)

FALI Job ID: 5629-10

Date(s) Collected: 12/06/2016, 12/09/2016

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
001_1_a	51030220						
Layer: Grey Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
002_1_a	51030221						
Layer: Grey Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
003_1_a	51030222						
Layer: Grey Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
004_2_a	51030223						
Layer: Brown Cementitious Material			**ND**				
Layer: Yellow Non-Fibrous Material			**ND**				
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
005_2_a	51030224						
Layer: Brown Cementitious Material			**ND**				
Layer: Yellow Non-Fibrous Material			**ND**				
Layer: Grey Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
006_2_a	51030225						
Layer: Brown Cementitious Material			**ND**				
Layer: Yellow Non-Fibrous Material			**ND**				
Layer: Grey Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
007_3_a	51030226						
Layer: Light Grey Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232275
Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
008_3_a	51030227						
Layer: Light Grey Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
009_3_a	51030228						
Layer: Light Grey Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
010_4_a	51030229						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (7 %)		**Asbestos (ND)**					
011_4_a	51030230						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (7 %)		**Asbestos (ND)**					
012_4_a	51030231						
Layer: White Drywall			**ND**				
Layer: Yellow Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (7 %)		**Asbestos (ND)**					
013_4_b	51030232						
Layer: White Skimcoat/Joint Compound		Chrysotile	**2 %**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
014_4_b	51030233						
Comment: Sample not analyzed due to prior positive result in series.							
015_4_b	51030234						
Comment: Sample not analyzed due to prior positive result in series.							
016_4_b	51030235						
Comment: Sample not analyzed due to prior positive result in series.							
017_4_b	51030236						
Comment: Sample not analyzed due to prior positive result in series.							
018_6_a	51030237						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
018_6_b	51030238						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232275

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
019_6_a	51030239						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
019_6_b	51030240						
Layer: Off-White Mastic			**ND**				
Layer: Black Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
020_6_a	51030241						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
020_6_b	51030242						
Layer: Off-White Mastic			**ND**				
Layer: Black Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
021_7_a	51030243						
Layer: Grey Debris			**ND**				
Layer: Off-White Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
021_7_b	51030244						
Layer: Black/Tan Mastics		Chrysotile	**2 %**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
022_7_a	51030245						
Layer: Grey Debris			**ND**				
Layer: Off-White Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
022_7_b	51030246						
Comment: Sample not analyzed due to prior positive result in series.							
023_7_a	51030247						
Layer: Grey Debris			**ND**				
Layer: Off-White Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
023_7_b	51030248						
Comment: Sample not analyzed due to prior positive result in series.							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232275
Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
024_8_a	51030249						
Layer: Beige Cementitious Material			**ND**				
Layer: White Putty			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
025_8_a	51030250						
Layer: Beige Cementitious Material			**ND**				
Layer: White Putty			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
026_8_a	51030251						
Layer: Beige Cementitious Material			**ND**				
Layer: White Putty			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
027_9_a	51030252						
Layer: Brown Cementitious Material			**ND**				
Layer: White Non-Fibrous Material			**ND**				
Layer: Off-White Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
028_9_a	51030253						
Layer: Brown Cementitious Material			**ND**				
Layer: White Non-Fibrous Material			**ND**				
Layer: Off-White Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
029_9_a	51030254						
Layer: Brown Cementitious Material			**ND**				
Layer: White Non-Fibrous Material			**ND**				
Layer: Off-White Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
030_10_a	51030255						
Layer: Paints			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
031_10_a	51030256						
Layer: Paints			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232275
Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
032_10_a	51030257						
Layer: Paints			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
033_11_a	51030258						
Layer: Tan Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (95 %)		**Asbestos (ND)**					
033_11_b	51030259						
Layer: Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
034_11_a	51030260						
Layer: Tan Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (95 %)		**Asbestos (ND)**					
034_11_b	51030261						
Layer: Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
035_11_a	51030262						
Layer: Tan Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (95 %)		**Asbestos (ND)**					
035_11_b	51030263						
Layer: Brown Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
036_12_a	51031477						
Layer: Brown Cementitious Material			**ND**				
Layer: Blue Paint			**ND**				
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
037_12_a	51031478						
Layer: Brown Cementitious Material			**ND**				
Layer: Blue Paint			**ND**				
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232275

Client Name: Amec Foster Wheeler **Date Printed:** 12/20/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
038_12_a	51031479						
Layer: Brown Cementitious Material			**ND**				
Layer: Blue Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
039_13_a	51031480						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
040_13_a	51031481						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %)		**Asbestos (ND)**					
041_13_a	51031482						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (15 %)		**Asbestos (ND)**					
042_13_b	51031483						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
043_13_b	51031484						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
044_13_b	51031485						
Layer: Off-White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Analysis Request Form (COC)

Client Name & Address: Amec Foster Wheeler 6001 Rickenbacker Rd. Los Angeles CA 90040	Client No.:
PO / Job#: IR13164420.55	Date: 12/10/16
Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day	
☐ PCM: ☐ NIOSH 7400A / ☐ NIOSH 7400B ☐ Rotometer	
☒ PLM: ☒ Standard / ☐ Point Count 400 - 1000 / ☐ CARB 435	
Contact: Don Harman	Phone: (818) 324-4391
☐ TEM Air: ☐ AHERA / ☐ Yamate2 / ☐ NIOSH 7402 ☐ TEM Bulk: ☐ Quantitative / ☐ Qualitative / ☐ Chatfield ☐ TEM Water: ☐ Potable / ☐ Non-Potable / ☐ Weight % ☐ TEM Microvac: ☐ Qual / ☐ D5755(str/area) / ☐ D5756(str/mass)	
E-mail: don.harman@amecfw.com	
Site Name: John Wayne Airport	☐ IAQ Particle Identification (PLM LAB) ☐ PLM Opaques/Soot ☐ Particle Identification (TEM LAB) ☐ Special Project
Site Location: SNA/GAIP	☐ Metals Analysis Matrix: Method: Analytes:
Comments: **See attached COC** Signature (14 bags)	☐ Silica in Air ☐ w/Gravimetry

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg LPM	Total Time	
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: DEH Date/Time: 12/6/16 Shipped Via: ☒ Fed Ex ☐ UPS ☐ US Mail ☐ Courier ☐ Drop Off ☐ Other:

Relinquished By: Don Harman Date / Time: 12/10/16	Relinquished By: Date / Time:	Relinquished By: Date / Time:
Received By: Madrus Date / Time: 12/13/16 10:37am FLE Condition Acceptable? ☒ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No

Amec Foster Wheeler E&I

Asbestos Survey Form 04a - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	SNA/GAIP
Building Number	Signature (14 bays)
Collection Date	12/6/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
001	Paint, gray	1	a	1	1	8~~4~~A
002	↓ ↓	↓	↓	2		↓
003	↓ ↓	↓	↓	3		↓
004	Paint, gray w/ black	2	a	1		9A
005	↓ ↓ ↓	↓	↓	2		↓
006	↓ ↓ ↓	↓	↓	3		↓
007	Paint, lt. gray.	3	a	1		14A
008	↓ ↓	↓	↓	2		↓
009	↓ ↓	↓	↓	3		↓
010	Dry wall, white	4	a	1		Emply. R/R
011	↓ ↓ ↓	↓	↓	2		↓ ↓
012	↓ ↓ ↓	↓	↓	3		Public R/R
013	Joint compound, white/cream	4	b	1	↓	Emply R/R

Analysis Requested: PLM

Turnaround Time: One Week

Transmitted From:

AMEC E&I
6001 Rickenbacker Rd., Los Angeles CA 90040
Phone 323.889.5300

Transmitted To:

☒ **Forensic Analytical**
Rancho Dominguez

PO # _____

☐ _____

Analyze to 1st Positve x

F/E

Sender's Signature: Don E. Hanna

Recipient's Signature: M. Adams 12/13/16 10:37Am

Total Number of Samples Collected in Building: 44

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/6/16
Site Name	SNA/GAIP	Submission Date	
Building Number	Signature (14 bays)		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
014	Joint compound, white/cream	4	b	2	1	Empty R/R
015	"	"	"	3	"	" "
016	"	"	"	4	"	Public R/R
017	"	"	"	5	"	" "
018	Cove base 4" gray w/mastic	6	ab	1	"	Empty R/R
019	"	"	"	2	"	" "
020	"	"	"	3	"	" "
021	12X12 Floor tile beige w/blue streak & marble	7	ab	1	"	" "
022	"	"	"	2	"	" "
023	"	"	"	3	"	Public R/R
024	Caulk, white	8	a	1	"	3A
025	"	"	"	2	"	"
026	"	"	"	3	"	"
027	Paint, cream color	9	a	1	"	6A
028	"	"	"	2	"	"
029	"	"	"	3	"	"
030	Paint, medium gray	10	a	1	"	7A
031	"	"	"	2	"	"
032	"	"	"	3	"	"
033	Ceiling tile, white, pin dot	11	ab	1	"	locked office
034	"	"	"	2	"	"

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.55	Collection Date	12/9/16
Site Name	SNA/GAIP	Submission Date	
Building Number	Signature (14 bays)		

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
035	Ceiling tile, white, pindot	11	a&b	3	1	locked office
036	Paint, lt. blue	12	a	1	↓	↓
037	↓	↓	↓	2	↓	↓
038	↓	↓	↓	3	↓	→
039	Drywall	13	a	1	↓	locked storage
040	↓	↓	↓	2	↓	↓
041	↓	↓	↓	3	↓	↓
042	Joint compound	↓	b	1	↓	↓
043	↓	↓	↓	2	↓	↓
044	↓	↓	↓	3	↓	↓

Forensic Analytical LABORATORIES

Metals Analysis of Paints

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: M180405
Date Received: 01/04/17
Date Analyzed: 01/11/17
Date Printed: 01/11/17
First Reported: 01/11/17

Job ID / Site: IR13164420.55; John Wayne Airport, SNA/GAIP
Date(s) Collected: 01/03/17

FALI Job ID: 5629-10
Total Samples Submitted: 18
Total Samples Analyzed: 18

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference
001	LM135564	Pb	0.18	wt%	0.02	EPA 3050B/7000B
002	LM135565	Pb	< 0.006	wt%	0.006	EPA 3050B/7000B
003	LM135566	Pb	0.016	wt%	0.006	EPA 3050B/7000B
004	LM135567	Pb	0.0085	wt%	0.0007	EPA 3050B/7000B
005	LM135568	Pb	0.73	wt%	0.03	EPA 3050B/7000B
006	LM135569	Pb	0.62	wt%	0.03	EPA 3050B/7000B
007	LM135570	Pb	0.57	wt%	0.03	EPA 3050B/7000B
008	LM135571	Pb	1.3	wt%	0.06	EPA 3050B/7000B
009	LM135572	Pb	0.95	wt%	0.06	EPA 3050B/7000B
010	LM135573	Pb	1.2	wt%	0.06	EPA 3050B/7000B
011	LM135574	Pb	0.89	wt%	0.06	EPA 3050B/7000B
012	LM135575	Pb	0.11	wt%	0.007	EPA 3050B/7000B
013	LM135576	Pb	0.62	wt%	0.04	EPA 3050B/7000B
014	LM135577	Pb	0.85	wt%	0.06	EPA 3050B/7000B
015	LM135578	Pb	0.008	wt%	0.006	EPA 3050B/7000B
016	LM135579	Pb	0.098	wt%	0.006	EPA 3050B/7000B
017	LM135580	Pb	1.0	wt%	0.06	EPA 3050B/7000B
018	LM135581	Pb	0.016	wt%	0.006	EPA 3050B/7000B

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Metals Analysis of Paints

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: M180405
Date Received: 01/04/17
Date Analyzed: 01/11/17
Date Printed: 01/11/17
First Reported: 01/11/17

Job ID / Site: IR13164420.55; John Wayne Airport, SNA/GAIP
Date(s) Collected: 01/03/17

FALI Job ID: 5629-10
Total Samples Submitted: 18
Total Samples Analyzed: 18

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference

* The Reporting Limit represents the lowest amount of analyte that the laboratory can confidently detect in the sample, and is not a regulatory level. The Units for the Reporting Limit are the same as the Units for the Final Results.

Beatriz Hinojosa, Laboratory Supervisor, Rancho Dominguez Laboratory

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Analysis Request Form (COC)

Client Name & Address: Amec Foster Wheeler 6001 Rickenbacker Rd. Los Angeles CA 90040	Client No.:
PO / Job#: IR13164420.55	Date: 1/3/17
Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day	
☐ PCM: ☐ NIOSH 7400A / ☐ NIOSH 7400B ☐ Rotometer	
☐ PLM: ☐ Standard / ☐ Point Count 400 - 1000 / ☐ CARB 435	
Contact: Don Harman	Phone: (818) 324-4391
☐ TEM Air: ☐ AHERA / ☐ Yamate2 / ☐ NIOSH 7402 ☐ TEM Bulk: ☐ Quantitative / ☐ Qualitative / ☐ Chatfield ☐ TEM Water: ☐ Potable / ☐ Non-Potable / ☐ Weight % ☐ TEM Microvac: ☐ Qual / ☐ D5755(str/area) / ☐ D5756(str/mass)	
E-mail: don.harman@amecfw.com	
Site Name: John Wayne Airport	☐ IAQ Particle Identification (PLM LAB) ☐ PLM Opaques/Soot ☐ Particle Identification (TEM LAB) ☐ Special Project
Site Location: SNA/GAIP	☒ Metals Analysis Matrix: Paint Method: AA Analytes: Lead in paint or ceramic glaze
Comments: See attached COC 18 samples	☐ Silica in Air ☐ w/Gravimetry

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg LPM	Total Time	
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: DH Date/Time: Shipped Via: ☒ Fed Ex ☐ UPS ☐ US Mail ☐ Courier ☐ Drop Off ☐ Other:

Relinquished By: Don Harman Date / Time: 1/3/17 PM	Relinquished By: Date / Time:	Relinquished By: Date / Time:
Received By: [signature] FE Date / Time: 01/04/17 10:30 Condition Acceptable? ☒ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No

PROJECT NO. IR13-IC4420.55
PROJECT JW Airport
SURVEYOR(S) DEH & IC
DATE 1/13/17

AREA # | AREA NAME / DESCRIPTION | AREA # | AREA NAME / DESCRIPTION

UNIT CODES
1 LF
2 SF
3 SY
4 CI
5 EACH

PERCENTAGES
PAINT | WATER | DUST | OTHER | Q.A.

P - POSITIVE
N - NEGATIVE

SAMPLE #	BLDG / FLOOR	AREA USE	COMP CODE	MATERIAL DESCRIPTION / COLOR	ESTIMATED QUANTITY	UNIT	Result
001				Signature 2A (44 bays) Exterior Frame, beige	837		0.05
002				Stg W A 2 Ext wall	1002		0.50
003				Signature R/R wall & Ceiling, beige	842		0.40
004				Signature R/R ornate title beige L02	847		7.2
005				Atlantic NP2 gray	1289		0.21
006				Atlantic NP1 Door 27 white/cream	1193		0.60
007				Atlantic NP4 East wall white, 1st fl lobby/47, NP4	1615		0.70
008				Atlantic, stair stringer, NP4 white, 1st fl. lobby/47	1622		2.2
009				Atlantic Door white NP4 1st fl lobby Womens R/R/46	1641		1.0
010				Atlantic, NP4, R/R door 2nd fl. lobby. 22 or 23	1451		0.50

01 WATER
02 DUST
03 DOOR, HEADER
04 DOOR, JAM
05 DOOR, CASING
06 STAIR, TREADS
07 STAIR, RISERS
08 STAIR, STRINGER
09 BALUSTER
10 RAILING CAP
11 NEWEL POST
12 WINDOW, HEADER
13 WINDOW, CASING
14 WINDOW, SILL
15 WINDOW, SASH
16 WINDOW, STOPS
17 MULLIONS
18 APRON
19 WINDOW GRATE
20 DOOR GRATE

21 BASEBOARD
22 WALLS
23 WALLS, LOWER
24 WALLS, UPPER
25 CHAIR RAIL
26 DOOR, EXTERIOR
27 EXTERIOR, DOOR CASING
28 EXTERIOR, WINDOW CASING
29 EXTERIOR, WINDOW MULLIONS
30 EXTERIOR, WINDOW SILL
31 THRESHOLD
32 DRIPBORAD
33 LOWER TRIM
34 UPPER TRIM
35 CORNERBOARD
36 SIDING
37 CELLAR WINDOW UNIT
38 _____
39 _____
40 _____

41 FLOOR
42 LOWER RAILING
43 BALUSTER
44 RAILING CAPS
45 SUPPORT COLUMN
46 JOIST
47 UPPER TRIM
48 CEILING
49 RADIATOR
50
51
52
53
54
55
56
57
58
59
60

61
62
63
64
65
66
67
68
69
70
71
72
73

AREA USAGE CODE
1 VOID /CHASE/ CAVITY
2 MECHANICAL
3 STORAGE
4 OCCASIONAL
5 CONTINUOUS

PEELING CODE	SUBSTRATE CODE	CHEWABLE SURFACE	CONTACT CODE	CODE
1 PEELING	1 WOOD	1 YES	1 LOW	1 _____
2 NOT PEELING	2 METAL	2 NO	2 MODERATE	2 _____
3 UNDAMAGED	1 MASONRY		3 HIGH	3 _____
4 CHIPPED	4 DRYWALL			
5 CHALKING	5 PLASTER			

AREA #	AREA NAME / DESCRIPTION	AREA #	AREA NAME / DESCRIPTION

PROJECT NO. /R 131644420.55

PROJECT Jw Airport

SURVEYOR(S) DE7/4IC

DATE 1/3/17

UNIT CODES
1 LF
2 SF
3 SY
4 CI
5 EACH

P - POSITIVE
N - NEGATIVE

SAMPLE #	BLDG / FLOOR	AREA #	ARE USE	COM'T CODE	MATERIAL DESCRIPTION/COLOR	ESTIMATED QUANTITY		P/N	PERCENTAGES: PAINT	WATER	DUST	OTHER	Q.A.
011					Atlantic, Southwall, NPL 2nd fl lobby / 21	1430	0.70						
12					Atlantic, NPL, ext door, blue 18/36	1547	0.50						
13					Atlantic, NP4, int door white 18/36	1546	0.70						
014					Atlantic, NP4 door white 7/62	1708	0.70						
15					County Hangar, 19471 [2] column, red shot 2010	2010	0.0						
016					Executive Hangar #B, frame gr 0.17 mg/cm²	2292	0.17						
017					Executive Hangar #62 floor gr.	2442	0.30						
018					Executive Hangar #62, peeling on fl., beige	2442	0.30						
						1							

01 WATER
02 DUST
03 DOOR, HEADER
04 DOOR, JAM
05 DOOR, CASING
06 STAIR, TREADS
07 STAIR, RISERS
08 STAIR, STRINGER
09 BALUSTER
10 RAILING CAP
11 NEWEL POST
12 WINDOW, HEADER
13 WINDOW, CASING
14 WINDOW, SILL
15 WINDOW, SASH
16 WINDOW, STOPS
17 MULLIONS
18 APRON
19 WINDOW GRATE
20 DOOR GRATE

21 BASEBOARD
22 WALLS
23 WALLS, LOWER
24 WALLS, UPPER
25 CHAIR RAIL
26 DOOR, EXTERIOR
27 EXTERIOR, DOOR CASING
28 EXTERIOR, WINDOW CASING
29 EXTERIOR, WINDOW MULLIONS
30 EXTERIOR, WINDOW SILL
31 THRESHOLD
32 DRIPBORAD
33 LOWER TRIM
34 UPPER TRIM
35 CORNERBOARD
36 SIDING
37 CELLAR WINDOW UNIT
38 ________
39 ________
40 ________

41 FLOOR
42 LOWER RAILING
43 BALUSTER
44 RAILING CAPS
45 SUPPORT COLUMN
46 JOIST
47 UPPER TRIM
48 CEILING
49 RADIATOR
50
51
52
53
54
55
56
57
58
59
60

61
62
63
64
65
66
67
68
69
70
71
72
73

AREA USAGE CODE
1 VOID /CHASE/ CAVITY
2 MECHANICAL
3 STORAGE
4 OCCASIONAL
5 CONTINUOUS

PEELING CODE
1 PEELING
2 NOT PEELING
3 UNDAMAGED
4 CHIPPED
5 CHAULKING

SUBSTRATE CODE
1 WOOD
2 METAL
3 MASONRY
4 DRYWALL
5 PLASTER

CHEWABLE SURFACE
1 YES
2 NO

CONTACT CODE
1 LOW
2 MODERATE
3 HIGH

CODE
1 ______
2 ______
3 ______

APPENDIX C

PORTABLE X-RAY FLUORESCENCE SPECTRUM ANALYZER READINGS

Hazardous Materials Survey
Signature Campus
Amec Foster Wheeler Project IR13164420

X-ray Fluorescence Spectrum Analyzer Readings
Signature Flight, 19315 Campus Drive
Santa Ana, California

April 3, 2017

Building	Hangar No. or Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature, 19315 Campus Hangars	Public R/R	849	N	2x2 Ceramic Tile Wall	Dry Wall	Intact	Beige	0.06	
Signature, 19315 Campus Hangars	Public R/R	851	E	2x2 Ceramic Tile Wall	Dry Wall	Intact	Beige	0.03	
Signature, 19315 Campus Hangars	Public R/R	852	S	2x2 Ceramic Tile Wall	Dry Wall	Intact	Beige	0.02	
Signature, 19315 Campus Hangars	Public R/R	853	W	2x2 Ceramic Tile Wall	Dry Wall	Intact	Beige	0.02	
Signature, 19315 Campus Hangars	Public R/R	854		Door Ext	Metal	Intact	Beige	0.06	
Signature, 19315 Campus Hangars	Public R/R	855		Door Frame	Metal	Intact	Beige	0.05	
Signature, 19315 Campus Hangars	Office R/R	839	N	Wall	Dry Wall	Intact	Beige	0	
Signature, 19315 Campus Hangars	Office R/R	841	E	Wall	Dry Wall	Intact	Beige	0.03	
Signature, 19315 Campus Hangars	Office R/R	842	S	Wall	Dry Wall	Intact	Beige	0.4	
Signature, 19315 Campus Hangars	Office R/R	843	W	Wall	Dry Wall	Intact	Beige	0.06	
Signature, 19315 Campus Hangars	Office R/R	844		Floor	Vinyl	Intact	Beige	0	
Signature, 19315 Campus Hangars	Office R/R	845		Interior Door	Metal	Intact	Beige	0.01	
Signature, 19315 Campus Hangars	Office R/R	846		Interior Door Frame	Metal	Intact	Beige	0.01	
Signature, 19315 Campus Hangars	Office R/R	847		4x4 Ceramic Tile Wall	Ceramic	Intact	Beige	7.2	

Hazardous Materials Survey
Signature Campus
Amec Foster Wheeler Project IR13164420

X-ray Fluorescence Spectrum Analyzer Readings
Signature Flight, 19315 Campus Drive
Santa Ana, California

April 3, 2017

Building	Hangar No. or Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature, 19315 Campus Hangars	Office R/R	848		2x2 Ceramic Tile Wall	Ceramic	Intact	Beige	0.01	
Signature, 19315 Campus Hangars	Office	838		Exterior Door	Metal	Intact	Beige	0.04	
Signature, 19315 Campus Hangars	9A	827		Frame	Metal	Intact	Brown	0.01	
Signature, 19315 Campus Hangars	9A	828		Wall	Metal	Intact	White	0.01	
Signature, 19315 Campus Hangars	8A	824		Frame	Metal	Intact	Brown	0.01	
Signature, 19315 Campus Hangars	8A	825		Ext Door Frame	Metal	Intact	Beige	0.02	
Signature, 19315 Campus Hangars	8A	826		Floor	Concrete	Minor Peeling	Gray	0.01	
Signature, 19315 Campus Hangars	7A	858		Wall Base	Metal	Intact	Beige	0.06	
Signature, 19315 Campus Hangars	7A	859		Ext Wall @ 7A	Metal	Intact	Beige	0.06	
Signature, 19315 Campus Hangars	6A	856	S	Wall	Metal	Intact	White	0.06	
Signature, 19315 Campus Hangars	6A	857	N	Wall	Metal	Intact	White	0.01	
Signature, 19315 Campus Hangars	2A	837		Frame Ext	Metal	Intact	Beige	0.05	
Signature, 19315 Campus Hangars	14A	833		Wall	Wood	Intact	Beige	0	
Signature, 19315 Campus Hangars	14A	834		Floor	Concrete	Intact	Gray	0.02	

Hazardous Materials Survey
Signature Campus
Amec Foster Wheeler Project IR13164420

X-ray Fluorescence Spectrum Analyzer Readings
Signature Flight, 19315 Campus Drive
Santa Ana, California

April 3, 2017

Building	Hangar No. or Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Signature, 19315 Campus Hangars	14A	835		Hangar Door Frame	Metal	Intact	Beige	0.03	
Signature, 19315 Campus Hangars	14A	836		Exterior	Metal	Intact	Beige	0.03	
Signature, 19315 Campus Hangars	12A	832		Hangar Door Track	Metal	Intact	Yellow	0.05	
Signature, 19315 Campus Hangars	11A	830		Hangar Door	Metal	Intact	Beige	0.02	
Signature, 19315 Campus Hangars	11A	831		Hangar Door Track	Metal	Intact	Gray	0.07	
Signature, 19315 Campus Hangars	10A	829		Frame	Metal	Intact	Brown	0.02	

APPENDIX D

CDPH Form 8552

State of California—Health and Human Services Agency | California Department of Public Health

LEAD HAZARD EVALUATION REPORT

Section 1 — Date of Lead Hazard Evaluation December 14, 2016

Section 2 — Type of Lead Hazard Evaluation (Check one box only)

☑ Lead Inspection ☐ Risk assessment ☐ Clearance Inspection ☐ Other (specify) _____

Section 3 — Structure Where Lead Hazard Evaluation Was Conducted

Address [number, street, apartment (if applicable)]	City	County	Zip Code
19315 Campus Drive	Santa Ana	Orange	92070

Construction date (year) of structure	Type of structure	Children living in structure?
1950	☐ Multi-unit building ☐ School or daycare ☐ Single family dwelling ☑ Other Hangar	☐ Yes ☑ No ☐ Don't Know

Section 4 — Owner of Structure (if business/agency, list contact person)

Name	Telephone number
John Wayne Airport, Orange County: Melinda McCoy	949-252-5267

Address [number, street, apartment (if applicable)]	City	State	Zip Code
3160 Airway Ave.	Costa Mesa	CA	92626

Section 5 — Results of Lead Hazard Evaluation (check all that apply)

☑ No lead-based paint detected ☐ Intact lead-based paint detected ☐ Deteriorated lead-based paint detected

☐ No lead hazards detected ☐ Lead-contaminated dust found ☐ Lead-contaminated soil found ☐ Other _____

Section 6 — Individual Conducting Lead Hazard Evaluation

Name	Telephone number
Don Harman	323-889-500

Address [number, street, apartment (if applicable)]	City	State	Zip Code
60001 Rickenbacker Rd.	Los Angeles	CA	90040

CDPH certification number	Signature	Date
10236	Don E. Harman	March 9, 2017

Name and CDPH certification number of any other individuals conducting sampling or testing (if applicable)

Section 7 — Attachments

A. A foundation diagram or sketch of the structure indicating the specifc locations of each lead hazard or presence of lead-based paint;
B. Each testing method, device, and sampling procedure used;
C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector

Second copy and attachments retained by owner

Third copy only (no attachments) mailed or faxed to:

California Department of Public Health
Childhood Lead Poisoning Prevention Branch Reports
850 Marina Bay Parkway, Building P, Third Floor
Richmond, CA 94804-6403
Fax: (510) 620-5656

APPENDIX F-8

HAZARDOUS MATERIALS SURVEY REPORT – COUNTY HANGARS 7 & 13

HAZARDOUS MATERIALS SURVEY REPORT

County Hangars 7 & 13

19471 Campus Drive

General Aviation Improvement Program Project

John Wayne Airport

Costa Mesa, California

Prepared for:

John Wayne Airport
3160 Airway Avenue
Costa Mesa, California 92626

Prepared by:

Amec Foster Wheeler Environment & Infrastructure, Inc.
121 Innovation Drive, Suite 200
Irvine, California 92617-3094
(949) 642-0245

April 3, 2017

Project No. IR13164420

April 3, 2017

Ms. Melinda McCoy
Airport Environmental Engineer
John Wayne Airport, Orange County
3160 Airway Avenue
Costa Mesa, California 92626

Subject: **Hazardous Materials Survey Report**
County Hangars 7 & 13
19471 Campus Drive
Santa Ana, California
Amec Foster Wheeler Project IR13164420

Dear Ms. McCoy:

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has completed a hazardous materials survey in support of the demolition of County Hangar at 19471 Campus Drive, Santa Ana California. The survey included the assessment of suspect asbestos-containing materials (ACM) and lead-based paints (LBP). The attached report presents general project information, survey details, results, our findings and removal and abatement recommendations

Amec Foster Wheeler appreciates the opportunity to assist you on this project. Please contact us should any questions arise regarding this report or, if we may be of further service.

Sincerely,

Amec Foster Wheeler Environment & Infrastructure, Inc.

Don Harman
Senior Engineer
California Asbestos Consultant No. 92-0044
Certified Lead Inspector/Assessor and
Project Monitor No. I-10236

Leonard A. Gilbert, CIH
Senior Scientist

P:_00 OTHER OFFICES\2017\4005 Irvine\2016 Projects\Hanger study\Individual files\County Hangars\Final draft\2017_04_03 HMS County Hangar.doc

Amec Foster Wheeler Environment & Infrastructure Inc.
121 Innovation Drive, Suite 200
Irvine, CA 92617
(949) 642-0245
(949) 642-4474 (fax)
www.amec.com

TABLE OF CONTENTS

1.0 BACKGROUND

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has completed a hazardous materials survey in support of the planned demolition of County Hangar at 19471 Campus Drive in Santa Ana California. The survey included the assessment of suspect ACM and LBP. Amec Foster Wheeler performed the survey work December 20, 2016.

2.0 PURPOSE

The purpose of the survey was to locate and identify hazardous materials requiring abatement, stabilization, remediation, and/or special handling prior to the demolition of the structure. Our survey included visual observations, material sampling and laboratory analysis of suspect ACM, on site testing of suspect LBP with an X-ray fluorescence (XRF) spectrum analyzer and sampling and analysis of paint for lead content.

The results of the survey can be provided to the project general contractor, asbestos abatement contractor and/or the hazardous materials contractor, for establishing appropriate removal, abatement and handling actions to be implemented before planned demolition of the structure begins as part of the General Aviation Improvement Program project. This hazardous materials survey was conducted in accordance with the terms and conditions of our agreement with John Wayne Airport (JWA) Authority (280-280-1900-ENV2) and under JWA's authorization for this work (Task Order 2F-06) dated September 1, 2016.

3.0 BUILDING INFORMATION

The construction is metal frame with sheet metal exterior panels and roof. Interiors were not finished. Figure 1 is a Site Location Map.

4.0 ASBESTOS SURVEY

4.1 REGULATORY INFORMATION

The Federal regulatory definition of an ACM is any material containing more than one percent (1%) asbestos. Asbestos waste is not regulated as hazardous waste under the Federal Resource Conservation and Recovery Act (RCRA).

The California regulatory definition of ACM is also any material with more than 1% asbestos. The California Business and Professions Code, requires asbestos abatement contractors to be licensed by the Contractors State License Board (CSLB) and asbestos consultants to be certified by California Division of Occupational Safety and Health (Cal/OSHA).

The California Labor Code requires that any contractor who does "asbestos-related work" that disturbs asbestos-containing construction materials (ACCM) must be licensed by the CSLB and registered with Cal/OSHA. The Cal/OSHA asbestos standard contained in Title 8, CCR Section 1429 defines ACCM as any manufactured construction material that contains more than one-tenth of 1 percent (>0.1%) asbestos.

The California Department of Toxic Substance Control (DTSC) classifies asbestos-containing material as hazardous waste if it is "friable" and contains 1.0% or more asbestos. A friable material is one that can be reduced to a powder or dust under hand pressure when dry. DTSC considers non-friable bulk asbestos-containing waste to be nonhazardous regardless of its asbestos content. Friable asbestos wastes with more than 0.1% asbestos and less than 1% asbestos are not required to be handled as hazardous waste.

4.2 SURVEY AND SAMPLING

Amec Foster Wheeler's survey of the building included observation of interior floor, wall, and ceiling finishes, and exterior wall and roof components (to extent access was possible). Mr. Don Harman, a California Certified Asbestos Consultant with Amec Foster Wheeler, performed the survey December 20, 2016. In evaluating the building(s), we used our education, training and experience along with our familiarity with building construction, to identify potential asbestos materials. Our survey included visual observations and sampling of suspect asbestos materials.

The selection of materials to be sampled was based on material homogeneity. A homogeneous material is one that appears to be of the same uniform texture, color, appearance, general use, and condition, and that was applied during the same general time period. Once homogeneous materials were determined, sample locations were selected, and representative samples of the suspect material were collected. A bulk sample across the full depth of the suspect material was obtained.

The samples were collected from readily accessible areas. No intrusive activities for the purpose of obtaining samples, such as breaking through walls and ceilings, were performed. No attempt was made to disassemble mechanical equipment. Inaccessible spaces such as wall voids, building cavities, and mechanical equipment may contain concealed, unreported asbestos that may be revealed during demolition activities.

The samples were labeled and delivered under appropriate chain-of-custody documentation to Forensic Analytical Laboratories (FAL) in Rancho Dominquez, California for microscopic analysis by Polarized Light Microscopy (PLM). The samples were analyzed in general accordance with the United States Environmental Agency (EPA) "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116, July 1993). This method employs PLM coupled with dispersion staining to identify the type and approximate quantity of asbestos present in the sample, if any. FAL is accredited under the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP) (Lab Code 101459) and the State of California Department of Health Services Environmental Laboratory Accreditation Program (ELAP Number 1366).

With respect to the sample analysis, if asbestos is detected in concentrations less than 1%, in California the material may be regulated as ACCM. As such, any PLM sample identified as having less than 1% asbestos must either be re-evaluated by point counting, in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) Asbestos NESHAP Revision, Final Rule (40 Coed of Federal Regulations (CFR), Part 61), or must be assumed to be ACCM, and therefore regulated in California. Point counting, determines if the materials known to be less than 1% asbestos (EPA

criteria), are equal to or less than 0.1% asbestos (California criteria) and therefore not regulated with respect to abatement requirements.

4.3 SAMPLE ANALYTICAL RESULTS

A total of 6 bulk samples were collected and delivered to FAL for PLM analyses. When the building material is comprised of two or more layers or substrates, across its full cross-sectional depth, the laboratory will identify and analyze each layer. For this survey the analytical laboratory analyzed 10 substrates.

Of the 10 sample layers analyzed, asbestos was not identified in amounts greater than 1% in the samples. Asbestos was not identified in amounts less than 1% in any of the samples.

Sample descriptions and the analytical results are provided in Table 1. Room numbers are indicated on Figure 2. The laboratory analytical data and chain of custody forms are included in Appendix A.

5.0 LEAD-BASED PAINT SURVEY

LBP survey was performed December 2016 by Don Harman, Amec Foster Wheeler, a California Department of Public Health (CDPH) Certified Lead Inspector, Risk Assessor, and Lead Supervisor. Visual observation and testing of the building's interior and exterior surfaces was performed.

The visual survey of the various areas within the structure was performed to identify painted building components, their general condition, and location and quantity of the painted components. Damaged, loose and flaking paint observed during the survey were noted.

United States Department of Housing and Urban Development (HUD), EPA and California definitions for lead-based paint are any paint with a lead concentration equal to or greater than 1.0 milligram per square centimeter of surface area (≥1 mg/cm^2) when measured by a portable x-ray fluorescence (XRF) spectrum analyzer, or 0.5% by weight (5,000 parts per million [ppm]) when measured by standard analytical methods. XRF results between 0.9 to 1.1 mg/cm^2 are considered by HUD/EPA as inconclusive.

In California, for lead-related construction work, Cal/OSHA requires a risk assessment to determine if employees may be exposed above the action level or permissible exposure limit (PEL). Surface coatings that contain lead at concentrations equal to or exceeding 0.06% lead by weight (600 ppm) are assumed by Cal/OSHA to demonstrate the presence of lead surface coatings that constitute a health hazard to employees engaged in lead-related construction work. As such, appropriate controls and work practices as defined in 8 CCR 1532.1 and 17 CCR 3600 et seq. are mandated, including requirements to use personnel certified by the California Department of Health Services.

5.1 XRF SURVEY

Amec Foster Wheeler performed the LBP survey in general accordance with EPA and US (HUD) guidelines for lead inspections and testing. Testing for LBP was performed onsite using a XRF, with the capability to measure lead content in dry paint films, in the range of

0 to 50 milligrams per square centimeter (mg/cm2). The surfaces tested were selected in general accordance with the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing.

5.2 XRF TEST RESULTS

These XRF test results aid in the selection of the locations for paint chip sampling and analysis. None of the tested building paints would be considered lead-based paints based on the XRF results and all were identified as being in intact condition. However, the red paint on the frame in this structure is typically suspect paint. Appendix B contains a Table which presents the readings from the XRF for painted surfaces.

5.3 PAINT CHIP SURVEY

Sampling areas were selected and a representative paint chip sample of suspect LBP was obtained of the red paint on the column in Room 2.

The sample was collected from a readily accessible, representative paint-coated surface that was suspected to contain lead. The sample was labeled and appropriate chain-of-custody documentation completed. The sample was delivered to FAL in Rancho Dominquez, California for analysis. The laboratory is accredited by the American Industrial Hygiene Association (AIHA) and has been assigned the accreditation number 101629, and by the State of California Environmental Laboratory Accreditation Program (ELAP Number 1366).

5.4 TEST RESULTS

One paint chip sample (laboratory sample number 015) was obtained and delivered to FAL to be analyzed for the presence of lead by EPA methods 3050 and 7420 – Acid Digestion followed by Atomic Absorption Spectrometry (AAS). The paint was found to contain 0.008% by weight of lead. The sampled red paint is not lead-based paint. The laboratory analytical data and chain-of-custody documentation are included in Appendix A. Appendix C contains Form 8552 which is required to be submitted to the California Department of Public Health (CDPH). The report and form must be retained by the client for three years. Amec Foster Wheeler has submitted the form to CDPH.

6.0 RECOMMENDATIONS

6.1 ASBESTOS-CONTAINING MATERIALS

Neither ACM nor ACCM were identified in the areas surveyed. Demolition or renovation, may uncover suspect ACM and ACCM. Amec Foster Wheeler recommends these materials, if identified, be sampled and analyzed and, if confirmed to be ACM or ACCM, managed per applicable regulations.

6.2 LEAD-CONTAINING MATERIALS

An XRF survey found no LBP based on the HUD criteria. At the time of the survey paints identified as lead-based and in poor condition (peeling or chipped) were not observed. Cal-OSHA would still require a negative exposure assessment prior to demolition. However, the need for abatement of LBP is currently unlikely.

7.0 LIMITATIONS

Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental, health and safety consultants practicing in this or similar localities at the time of service. Amec Foster Wheeler assumes no liability for any loss, injury, claim, or damages arising directly or indirectly from any use or reliance on this report or the opinions expressed herein. No other warranty, express or implied, is made as to the professional advice included in this report.

Amec Foster Wheeler endeavored to observe existing conditions at the building using generally accepted procedures. There is always a possibility some areas containing asbestos- and lead-containing materials were overlooked, were inaccessible, or are different from those at specific sample locations. Therefore, conditions at every location may not be as anticipated by our field representative. In addition, demolition may uncover altered or differing conditions.

This report has been prepared for the exclusive use of our client. Any use that a third party makes of this report, or any reliance on or decisions made based on it, are the responsibility of the third party. With respect to third parties, Amec Foster Wheeler has no liability or responsibility for losses of any kind whatsoever, including direct or consequential financial effects on transactions or property values, or requirements for follow-up actions and costs. Should additional parties require reliance on this report, written authorization from Amec Foster Wheeler will be required.

TABLES

Table 1
Summary of Asbestos Sample Results
County Hangars 7 & 13
19471 Campus Drive, Santa Ana, CA
John Wayne Airport

Sample #	Material Descrption	HM No.	Layer	Assay Number	Level	Room No.	Result
1	Caulk, @ wall	1	a	1	1	1	ND
2	Caulk, @ wall	1	a	2	1	1	ND
3	Caulk, @ wall	1	a	3	1	1	ND
4	Caulk, @ Column	2	a	1	1	2	ND
5	Caulk, @ Column	2	a	2	1	2	ND
6	Caulk, @ Column	2	a	3	1	2	ND

Created by: SA
Checked by: DEH/LAG

Table Notes:

1 HM - Homogenous Material: A material that appears to be uniform when properties such as age, color, texture are compared.

2 Layer - When a Homogenous Material has more than one recognizable component each is a layer.

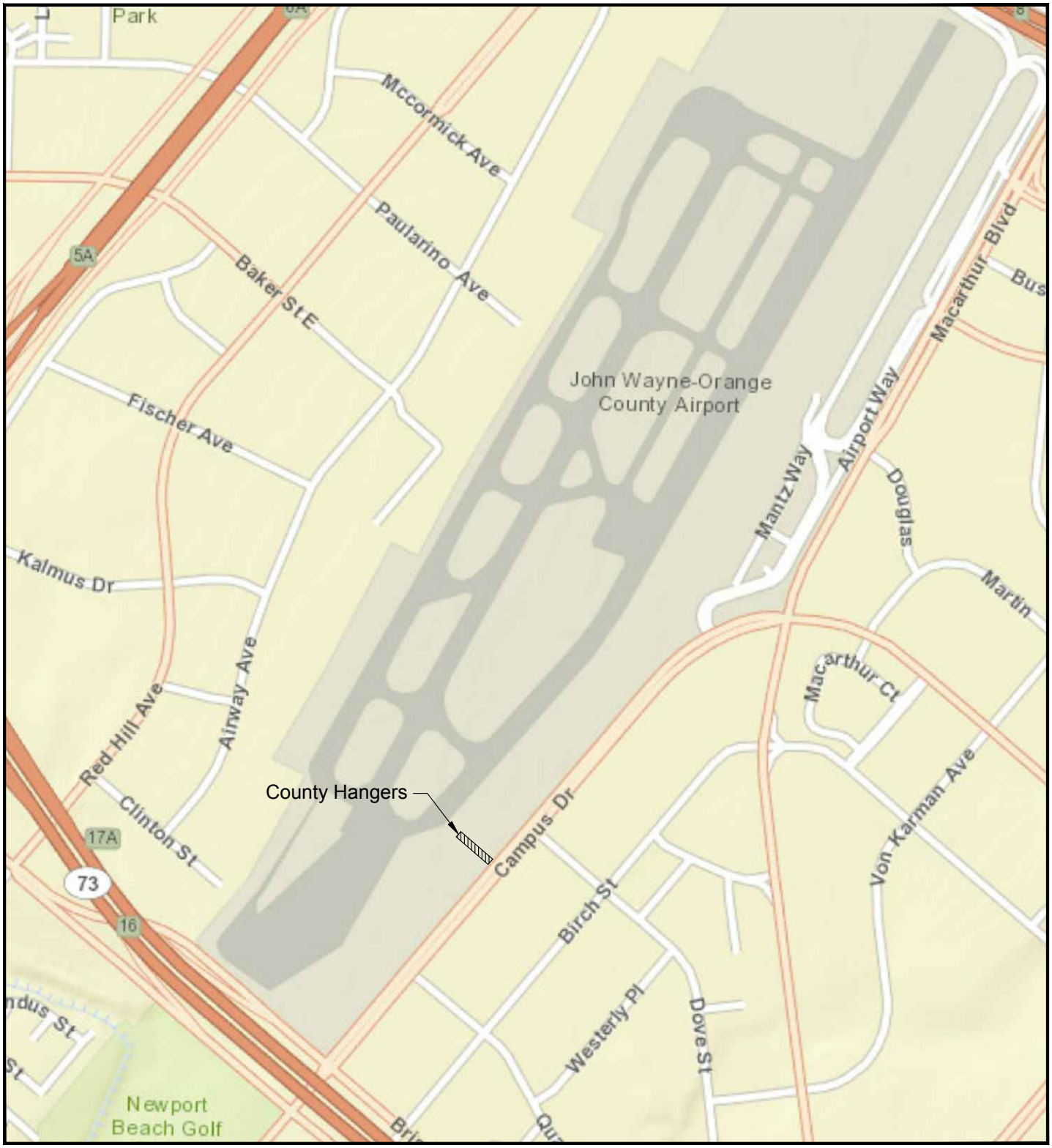
3 Assay - Of the duplicates required by Asbestos Hazard Emergency Respone Act (AHERA), the sequential number, starting at one, assigned each sample up to the required number of samples.

4 Bold type - These samples were determined to contain asbestos in excess of trace amounts.

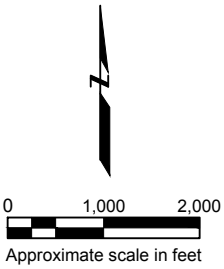
5 ND - Asbestos was not detected above the method detection limit.

6 Not Analyzed - When any sample of a Homogenous Material is determined to contain asbestos the other samples in that HM are not analyzed.

FIGURES



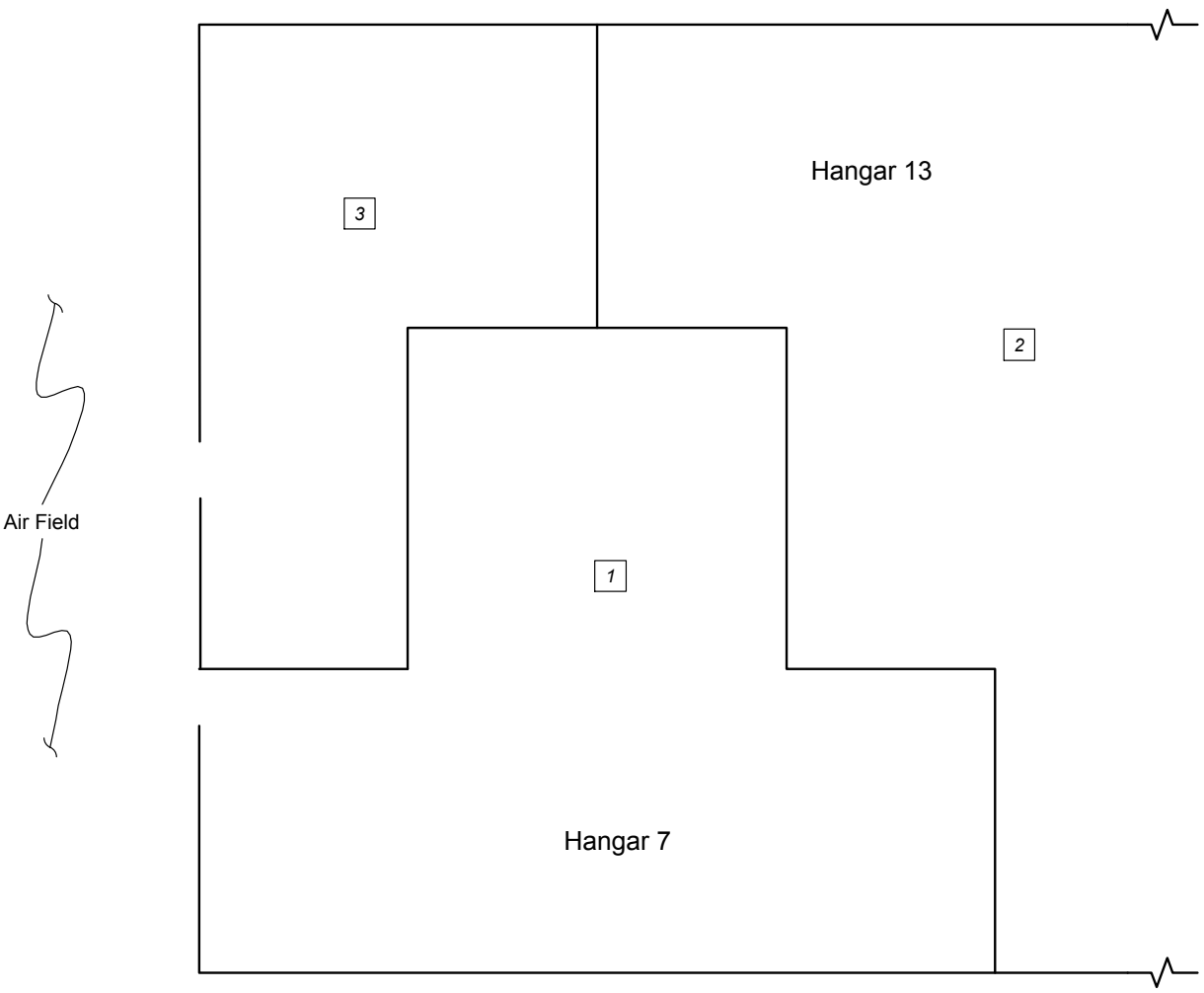
Basemap modified from Street Map provided by Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., ©OpenStreetMap contributors, and the GIS User Community.



SITE LOCATION MAP
County Hangers
John Wayne Airport
Orange County, California

amec foster wheeler

Date: 03/31/2017	Project No. IR13164420	Figure 1
Submitted By: dh	Drawn By: pah	



0 10 20

Approximate Scale in Feet

Explanation

Building outline

3 Room number

FLOOR PLAN
County Hangars
19471 Campus Drive
John Wayne Airport
Orange County, California

amec foster wheeler

Date: 03/31/2017	Project No. IR13164420	Figure 2
Submitted By: dh	Drawn By: pah	

Plot Date: 12/11/2017 2:35:11 PM, Plotted by: pat.herring
Drawing Path: Y:\IR13164420\ACAD\ASBESTOS_SURVEY_2017-02-16_TB_COUNTY HANGAR.DWG, Figure 2-County Hangar

APPENDIX A

LABORATORY ANALYTICAL REPORTS AND CHAIN OF CUSTODY DOCUMENTATION

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: B232850
Date Received: 12/27/16
Date Analyzed: 01/04/17
Date Printed: 01/04/17
First Reported: 01/04/17

Job ID/Site: IR13164420.55; SNA/GAIP, County Hangar, 19471 Campus

FALI Job ID: 5629-10

Date(s) Collected: 12/20/2016

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
001_1_a	51033000						
Layer: Grey Cementitious Material			**ND**				
Layer: Beige Putty			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
002_1_a	51033001						
Layer: Grey Cementitious Material			**ND**				
Layer: Beige Putty			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
003_1_a	51033002						
Layer: Beige Putty			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
004_2_a	51033003						
Layer: Beige Putty			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
005_2_a	51033004						
Layer: Grey Cementitious Material			**ND**				
Layer: Beige Putty			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
006_2_a	51033005						
Layer: Grey Cementitious Material			**ND**				
Layer: Beige Putty			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B232850

Client Name: Amec Foster Wheeler **Date Printed:** 01/04/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Amec Foster Wheeler E&I

Asbestos Survey Form 04a - Bulk Sampling Log

Project Number	IR13164420.55
Site Name	SNA/GAIP
Building Number	County Hangar, 1947 Campus
Collection Date	12/20/16
Submission Date	

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
001	Caulk @ wall	1	a	1		1
002	" "	"	"	2		"
003	" "	"	"	3		"
004	" @ column	2	a	1		2
005	" "	"	"	2		"
006	" "	"	"	3		"

Analysis Requested: PLM

Turnaround Time: One Week

Transmitted From:

AMEC E&I
6001 Rickenbacker Rd., Los Angeles CA 90040
Phone 323.889.5300

Transmitted To:

☒ **Forensic Analytical**
Rancho Dominguez

PO # _____

☐ _____

Analyze to 1st Positve x

Sender's Signature: [signature]

Recipient's Signature: [signature] FLE 12/27/16 10:20

Asbestos Survey Form 04a - Bulk Sampling Log v3

Total Number of Samples Collected in Building: 6

Form Page 1 *of* _____
Sheet Count _____

Forensic Analytical LABORATORIES

Metals Analysis of Paints

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: M180405
Date Received: 01/04/17
Date Analyzed: 01/11/17
Date Printed: 01/11/17
First Reported: 01/11/17

Job ID / Site: IR13164420.55; John Wayne Airport, SNA/GAIP
Date(s) Collected: 01/03/17

FALI Job ID: 5629-10
Total Samples Submitted: 18
Total Samples Analyzed: 18

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference
001	LM135564	Pb	0.18	wt%	0.02	EPA 3050B/7000B
002	LM135565	Pb	< 0.006	wt%	0.006	EPA 3050B/7000B
003	LM135566	Pb	0.016	wt%	0.006	EPA 3050B/7000B
004	LM135567	Pb	0.0085	wt%	0.0007	EPA 3050B/7000B
005	LM135568	Pb	0.73	wt%	0.03	EPA 3050B/7000B
006	LM135569	Pb	0.62	wt%	0.03	EPA 3050B/7000B
007	LM135570	Pb	0.57	wt%	0.03	EPA 3050B/7000B
008	LM135571	Pb	1.3	wt%	0.06	EPA 3050B/7000B
009	LM135572	Pb	0.95	wt%	0.06	EPA 3050B/7000B
010	LM135573	Pb	1.2	wt%	0.06	EPA 3050B/7000B
011	LM135574	Pb	0.89	wt%	0.06	EPA 3050B/7000B
012	LM135575	Pb	0.11	wt%	0.007	EPA 3050B/7000B
013	LM135576	Pb	0.62	wt%	0.04	EPA 3050B/7000B
014	LM135577	Pb	0.85	wt%	0.06	EPA 3050B/7000B
015	LM135578	Pb	0.008	wt%	0.006	EPA 3050B/7000B
016	LM135579	Pb	0.098	wt%	0.006	EPA 3050B/7000B
017	LM135580	Pb	1.0	wt%	0.06	EPA 3050B/7000B
018	LM135581	Pb	0.016	wt%	0.006	EPA 3050B/7000B

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Metals Analysis of Paints

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: M180405
Date Received: 01/04/17
Date Analyzed: 01/11/17
Date Printed: 01/11/17
First Reported: 01/11/17

Job ID / Site: IR13164420.55; John Wayne Airport, SNA/GAIP
Date(s) Collected: 01/03/17

FALI Job ID: 5629-10
Total Samples Submitted: 18
Total Samples Analyzed: 18

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference

* The Reporting Limit represents the lowest amount of analyte that the laboratory can confidently detect in the sample, and is not a regulatory level. The Units for the Reporting Limit are the same as the Units for the Final Results.

Beatriz Hinojosa, Laboratory Supervisor, Rancho Dominguez Laboratory

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical LABORATORIES

Analysis Request Form (COC)

Client Name & Address: Amec Foster Wheeler 6001 Rickenbacker Rd. Los Angeles CA 90040	Client No.:
PO / Job#: IR13164420.55	Date: 1/3/17
Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day	
☐ PCM: ☐ NIOSH 7400A / ☐ NIOSH 7400B ☐ Rotometer	
☐ PLM: ☐ Standard / ☐ Point Count 400 - 1000 / ☐ CARB 435	
Contact: Don Harman	Phone: (818) 324-4391
☐ TEM Air: ☐ AHERA / ☐ Yamate2 / ☐ NIOSH 7402 ☐ TEM Bulk: ☐ Quantitative / ☐ Qualitative / ☐ Chatfield ☐ TEM Water: ☐ Potable / ☐ Non-Potable / ☐ Weight % ☐ TEM Microvac: ☐ Qual / ☐ D5755(str/area) / ☐ D5756(str/mass)	
E-mail: don.harman@amecfw.com	
Site Name: John Wayne Airport	☐ IAQ Particle Identification (PLM LAB) ☐ PLM Opaques/Soot ☐ Particle Identification (TEM LAB) ☐ Special Project
Site Location: SNA/GAIP	☒ Metals Analysis Matrix: Paint Method: AA Analytes: Lead in paint or ceramic glaze
Comments: See attached COC 18 samples	☐ Silica in Air ☐ w/Gravimetry

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg LPM	Total Time	
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: DH Date/Time: Shipped Via: ☒ Fed Ex ☐ UPS ☐ US Mail ☐ Courier ☐ Drop Off ☐ Other:

Relinquished By: Don Harman Date / Time: 1/3/17 PM	Relinquished By: Date / Time:	Relinquished By: Date / Time:
Received By: [signature] FE Date / Time: 01/04/17 10:30 Condition Acceptable? ☒ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No

PROJECT NO. IR13-IC4420.55
PROJECT JW Airport
SURVEYOR(S) DEH & IC
DATE 1/13/17

AREA # | AREA NAME / DESCRIPTION | AREA # | AREA NAME / DESCRIPTION

UNIT CODES
1 LF
2 SF
3 SY
4 CI
5 EACH

PERCENTAGES
PAINT | WATER | DUST | OTHER | Q.A.

P - POSITIVE
N - NEGATIVE

SAMPLE #	BLDG / FLOOR	AREA USE	COMP CODE	MATERIAL DESCRIPTION / COLOR	ESTIMATED QUANTITY	UNIT	Result
001				Signature 2A (44 bays) Exterior Frame, beige	837		0.05
002				Stg W A 2 Ext wall	1002		0.50
003				Signature R/R wall & Ceiling, beige	842		0.40
004				Signature R/R ornate title beige L02	847		7.2
005				Atlantic NP2 gray	1289		0.21
006				Atlantic NP1 Door 27 white/cream	1193		0.60
007				Atlantic NP4 East wall white, 1st fl lobby/47, NP4	1615		0.70
008				Atlantic, stair stringer, NP4 white, 1st fl. lobby/47	1622		2.2
009				Atlantic Door white NP4 1st fl lobby Womens R/R/46	1641		1.0
010				Atlantic, NP4, R/R door 2nd fl. lobby. 22 or 23	1451		0.50

01 WATER
02 DUST
03 DOOR, HEADER
04 DOOR, JAM
05 DOOR, CASING
06 STAIR, TREADS
07 STAIR, RISERS
08 STAIR, STRINGER
09 BALUSTER
10 RAILING CAP
11 NEWEL POST
12 WINDOW, HEADER
13 WINDOW, CASING
14 WINDOW, SILL
15 WINDOW, SASH
16 WINDOW, STOPS
17 MULLIONS
18 APRON
19 WINDOW GRATE
20 DOOR GRATE

21 BASEBOARD
22 WALLS
23 WALLS, LOWER
24 WALLS, UPPER
25 CHAIR RAIL
26 DOOR, EXTERIOR
27 EXTERIOR, DOOR CASING
28 EXTERIOR, WINDOW CASING
29 EXTERIOR, WINDOW MULLIONS
30 EXTERIOR, WINDOW SILL
31 THRESHOLD
32 DRIPBORAD
33 LOWER TRIM
34 UPPER TRIM
35 CORNERBOARD
36 SIDING
37 CELLAR WINDOW UNIT
38 _____
39 _____
40 _____

41 FLOOR
42 LOWER RAILING
43 BALUSTER
44 RAILING CAPS
45 SUPPORT COLUMN
46 JOIST
47 UPPER TRIM
48 CEILING
49 RADIATOR
50
51
52
53
54
55
56
57
58
59
60

61
62
63
64
65
66
67
68
69
70
71
72
73

AREA USAGE CODE
1 VOID /CHASE/ CAVITY
2 MECHANICAL
3 STORAGE
4 OCCASIONAL
5 CONTINUOUS

PEELING CODE	SUBSTRATE CODE	CHEWABLE SURFACE	CONTACT CODE	CODE
1 PEELING	1 WOOD	1 YES	1 LOW	1 _____
2 NOT PEELING	2 METAL	2 NO	2 MODERATE	2 _____
3 UNDAMAGED	1 MASONRY		3 HIGH	3 _____
4 CHIPPED	4 DRYWALL			
5 CHALKING	5 PLASTER			

PROJECT NO. LR 13164420.55

PROJECT JW Airport

SURVEYOR(S) DE71/61C

DATE 1/3/17

AREA #	AREA NAME / DESCRIPTION	AREA #	AREA NAME / DESCRIPTION

UNIT CODES: 1 LF, 2 SF, 3 SY, 4 CI, 5 EACH

P - POSITIVE, N - NEGATIVE

PERCENTAGES: PAINT, WATER, DUST, OTHER, Q.A.

SAMPLE #	BLDG / FLOOR	AREA #	AREA USE	COM'T CODE	MATERIAL DESCRIPTION/COLOR	ESTIMATED QUANTITY	UNIT CODE		P/N	PAINT	WATER	DUST	OTHER	Q.A.
011					Atlantic, Southwall, NP2 2nd fl lobby / 21	143	0	0.70						
12					Atlantic, NP2, ext door, blue 18/36	154	7	0.50						
13					Atlantic, NP4, int door white 18/36	154	6	0.70						
014					Atlantic, NP 4, door white 7/62	170	8	0.70						
15					County Hangar, 19471 [2] column, red spot 2010	201	0	0.0						
016					Executive Hangar #B, frame gr 0.17 mg/cm²	229	2	0.17						
017					Executive Hangar #6½ floor gr.	244	2	0.30						
018					Executive Hangar #6½, peeling on fl. beige	244	2	0.30						
						1								

01 WATER
02 DUST
03 DOOR, HEADER
04 DOOR, JAM
05 DOOR, CASING
06 STAIR, TREADS
07 STAIR, RISERS
08 STAIR, STRINGER
09 BALUSTER
10 RAILING CAP
11 NEWEL POST
12 WINDOW, HEADER
13 WINDOW, CASING
14 WINDOW, SILL
15 WINDOW, SASH
16 WINDOW, STOPS
17 MULLIONS
18 APRON
19 WINDOW GRATE
20 DOOR GRATE

21 BASEBOARD
22 WALLS
23 WALLS, LOWER
24 WALLS, UPPER
25 CHAIR RAIL
26 DOOR, EXTERIOR
27 EXTERIOR, DOOR CASING
28 EXTERIOR, WINDOW CASING
29 EXTERIOR, WINDOW MULLIONS
30 EXTERIOR, WINDOW SILL
31 THRESHOLD
32 DRIPBORAD
33 LOWER TRIM
34 UPPER TRIM
35 CORNERBOARD
36 SIDING
37 CELLAR WINDOW UNIT
38 ______
39 ______
40 ______

41 FLOOR
42 LOWER RAILING
43 BALUSTER
44 RAILING CAPS
45 SUPPORT COLUMN
46 JOIST
47 UPPER TRIM
48 CEILING
49 RADIATOR
50
51
52
53
54
55
56
57
58
59
60

61
62
63
64
65
66
67
68
69
70
71
72
73

AREA USAGE CODE
1 VOID /CHASE/ CAVITY
2 MECHANICAL
3 STORAGE
4 OCCASIONAL
5 CONTINUOUS

PEELING CODE
1 PEELING
2 NOT PEELING
3 UNDAMAGED
4 CHIPPED
5 CHAULKING

SUBSTRATE CODE
1 WOOD
2 METAL
3 MASONRY
4 DRYWALL
5 PLASTER

CHEWABLE SURFACE
1 YES
2 NO

CONTACT CODE
1 LOW
2 MODERATE
3 HIGH

CODE
1 ______
2 ______
3 ______

APPENDIX B

PORTABLE X-RAY FLUORESCENCE SPECTRUM ANALYZER READINGS

Portable X-ray Fluorescence Spectrum Analyzer Readings
County Hangars 7 & 13
19471 Campus Drive
Santa Ana, CA
John Wayne Airport

Building	Room No.	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
19471 Campus	1	1997	N	Wall	Metal	Intact	Gray	0	
19471 Campus	1	1998	E	Wall	Metal	Intact	Gray	0	
19471 Campus	1	1999		Column	Metal	Intact	Red	0	
19471 Campus	1	2000	S	Wall (hangar door)	Metal	Intact	Gray	0	
19471 Campus	1	2001		Hangar Door Frame	Metal	Intact	Galvanized	0	
19471 Campus	1	2002	W	Wall	Metal	Intact	Gray	0	
19471 Campus	1	2003		Door Frame	Metal	Intact	Gray	0	
19471 Campus	1	2004		Door	Metal	Intact	Gray	0	
19471 Campus	1	2005		Exterior wall	Metal	Intact	Cream	0	
19471 Campus	2	2006	N	Wall	Metal	Intact	Gray	0	
19471 Campus	2	2008	E	Hangar Door	Metal	Intact	Gray	0	
19471 Campus	2	2009	S	Wall	Metal	Intact	Gray	0	
19471 Campus	2	2010		Column	Metal	Intact	Red	0	
19471 Campus	2	2011	W	Wall	Metal	Intact	Gray	0	
19471 Campus	3	2012	N	Wall	Metal	Intact	Gray	0	
19471 Campus	3	2017	E	Wall	Metal	Intact	Gray	0	
19471 Campus	3	2018	S	Wall	Metal	Intact	Gray	0	
19471 Campus	3	2019	W	Wall	Metal	Intact	Gray	0	

APPENDIX C

CDPH Form 8552

State of California—Health and Human Services Agency | California Department of Public Health

LEAD HAZARD EVALUATION REPORT

Section 1 — Date of Lead Hazard Evaluation December 14, 2016

Section 2 — Type of Lead Hazard Evaluation (Check one box only)

☑ Lead Inspection ☐ Risk assessment ☐ Clearance Inspection ☐ Other (specify) _____

Section 3 — Structure Where Lead Hazard Evaluation Was Conducted

Address [number, street, apartment (if applicable)]	City	County	Zip Code
19471 Campus Drive	Santa Ana	Orange	92707

Construction date (year) of structure	Type of structure	Children living in structure?
1950	☐ Multi-unit building ☐ School or daycare ☐ Single family dwelling ☑ Other Hangar	☐ Yes ☑ No ☐ Don't Know

Section 4 — Owner of Structure (if business/agency, list contact person)

Name	Telephone number
John Wayne Airport, Orange County: Melinda McCoy	949-252-5267

Address [number, street, apartment (if applicable)]	City	State	Zip Code
3160 Airway Ave.	Costa Mesa	CA	92626

Section 5 — Results of Lead Hazard Evaluation (check all that apply)

☑ No lead-based paint detected ☐ Intact lead-based paint detected ☐ Deteriorated lead-based paint detected

☐ No lead hazards detected ☐ Lead-contaminated dust found ☐ Lead-contaminated soil found ☐ Other _____

Section 6 — Individual Conducting Lead Hazard Evaluation

Name	Telephone number
Don Harman	323-889-500

Address [number, street, apartment (if applicable)]	City	State	Zip Code
60001 Rickenbacker Rd.	Los Angeles	CA	90040

CDPH certification number	Signature	Date
10236	Don E Harman	March 9, 2017

Name and CDPH certification number of any other individuals conducting sampling or testing (if applicable)

Section 7 — Attachments

A. A foundation diagram or sketch of the structure indicating the specifc locations of each lead hazard or presence of lead-based paint;
B. Each testing method, device, and sampling procedure used;
C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector

Second copy and attachments retained by owner

Third copy only (no attachments) mailed or faxed to:

California Department of Public Health
Childhood Lead Poisoning Prevention Branch Reports
850 Marina Bay Parkway, Building P, Third Floor
Richmond, CA 94804-6403
Fax: (510) 620-5656

APPENDIX F-9

HAZARDOUS MATERIALS SURVEY REPORT – ACI JET

HAZARDOUS MATERIALS SURVEY REPORT

ACI Jet

19301 Campus Drive

Santa Ana, California

Prepared for:

John Wayne Airport, Orange County
3160 Airway Avenue
Costa Mesa, California

Prepared by:

Amec Foster Wheeler Environment & Infrastructure, Inc.
121 Innovation Drive, Suite 200
Irvine, California 92617-3094
(949) 642-0245

February 6, 2018

Project No. IR13164420.82

February 6, 2018

Ms. Melinda McCoy
Airport Environmental Engineer
John Wayne Airport, Orange County
3160 Airway Avenue
Costa Mesa, California 92626

Subject: **Hazardous Materials Survey Report**
ACI Jet
19301 Campus Drive
Santa Ana, California
Amec Foster Wheeler Project IR13164420.82

Dear Ms. McCoy:

Amec Foster Wheeler, Environment & Infrastructure, Inc. (Amec Foster Wheeler) has completed a hazardous materials survey in support of the planned potential future modification or demolition of the John Wayne Airport leasehold facility that is occupied by ACI Jet and located at 19301 Campus Drive, Santa Ana California. The survey included the assessment of suspect asbestos-containing materials (ACM) and lead-based paints (LBP). The attached report presents general project information, survey details, results, our findings, and removal and abatement recommendations.

Amec Foster Wheeler appreciates the opportunity to assist you on this project. Please contact us should any questions arise regarding this report or if we may be of further service.

Sincerely,

Amec Foster Wheeler Environment & Infrastructure, Inc.

Don Harman
Senior Engineer
California Asbestos Consultant No. 92-0044
Certified Lead Inspector/Assessor and
Project Monitor No. I-10236

Leonard A. Gilbert, CIH
Senior Scientist

TABLE OF CONTENTS

1.0 BACKGROUND

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has completed a hazardous materials survey in support of the planned potential future modification or demolition of the John Wayne Airport (JWA) leasehold facility occupied by ACI Jet and located at 19301 Campus Drive in Santa Ana California. The survey included the assessment of suspect asbestos-containing materials (ACM) and lead-based paints (LBP). Amec Foster Wheeler performed the survey work in January 2018.

2.0 PURPOSE

The purpose of the survey was to locate and identify hazardous materials requiring abatement, stabilization, remediation, and/or special handling prior to the modification or demolition of the structure. Our survey included visual observations, material sampling and laboratory analysis of suspect ACM, and on site testing of suspect LBP with an X-ray fluorescence (XRF) spectrum analyzer.

The results of the survey can be provided to the project general contractor, asbestos abatement contractor and/or the hazardous materials contractor for establishing appropriate removal, abatement and handling actions to be implemented before modification or demolition of the structure begins as part of the General Aviation Improvement Program project. This hazardous materials survey was conducted in accordance with the terms and conditions of our agreement with JWA Authority (280-280-1900-ENV2) and under Task Order 5L-01 dated September 11, 2017.

3.0 BUILDING INFORMATION

Based on the construction drawings provided to Amec Foster Wheeler, the subject building is an approximate 13,394 square foot (ft^2), two-story structure that was constructed in 1995. The structure contains a north and south wing that are built out with offices. An approximate 25,465 ft^2 hangar is present between the two wings of the building. The building is a slab on grade, concrete tilt up structure with a wood-framed roof. Typical office interior finishes include lay-in ceiling tiles, drywall and joint compound, cove base, vinyl floor tile, sheet vinyl flooring, and carpet. The roof of the hangar portion of the building was not accessible.

4.0 ASBESTOS SURVEY

4.1 REGULATORY INFORMATION

The Federal regulatory definition of an ACM is any material containing more than one percent (1%) asbestos. Asbestos waste is not regulated as hazardous waste under the Federal Resource Conservation and Recovery Act (RCRA).

The California regulatory definition of ACM is also any material with more than 1% asbestos. The California Business and Professions Code, requires asbestos abatement contractors to be licensed by the Contractors State License Board (CSLB) and asbestos consultants to be certified by the California Division of Occupational Safety and Health (Cal/OSHA).

The California Labor Code requires that any contractor who does "asbestos-related work" that disturbs asbestos-containing construction materials (ACCM) must be licensed by the CSLB and registered with Cal/OSHA. The Cal/OSHA asbestos standard contained in Title 8, CCR Section 1529 defines ACCM as any manufactured construction material that contains more than one-tenth of 1 percent (>0.1%) asbestos.

The California Department of Toxic Substance Control (DTSC) classifies asbestos-containing material as hazardous waste if it is “friable” and contains 1.0% or more asbestos. A friable material is one that can be reduced to a powder or dust under hand pressure when dry. DTSC considers non-friable bulk asbestos-containing waste to be nonhazardous regardless of its asbestos content. Friable asbestos wastes with more than 0.1% asbestos and less than 1% asbestos are not required to be handled as hazardous waste.

4.2 SURVEY AND SAMPLING

Amec Foster Wheeler’s survey of the building included observation of interior floor, wall, and ceiling finishes, and exterior wall and roof components (to extent access was possible). Mr. Don Harman, a California Certified Asbestos Consultant with Amec Foster Wheeler, performed the survey in January 2018. In evaluating the building(s), we used our education, training and experience along with our familiarity with building construction, to identify potential asbestos materials. Our survey included visual observations and sampling of suspect asbestos materials.

The selection of materials to be sampled was based on material homogeneity. A homogeneous material is one that appears to be of the same uniform texture, color, appearance, general use, and condition, and that was applied during the same general time period. Once homogeneous materials were determined, sample locations were selected, and representative samples of the suspect material were collected. A bulk sample across the full depth of the suspect material was obtained.

The samples were collected from readily accessible areas. No intrusive activities for the purpose of obtaining samples, such as breaking through walls and ceilings, were performed. No attempt was made to disassemble mechanical equipment. Inaccessible spaces such as wall voids, building cavities, and mechanical equipment may contain concealed, unreported asbestos that may be revealed during demolition activities. The field of the roof was not sampled in order to prevent the possibility of leaks. Mastics associated with roof penetrations, equipment curbs and patches were sampled. In addition, fire doors were observed, but were not sampled so as to not compromise their fire rating.

The samples were labeled and delivered under appropriate chain-of-custody documentation to Forensic Analytical Laboratories (FAL) in Rancho Dominquez, California for microscopic analysis by Polarized Light Microscopy (PLM). The samples were analyzed in general accordance with the United States Environmental Protection Agency (EPA) “Method for the Determination of Asbestos in Bulk Building Materials” (EPA/600/R-93/116, July 1993). This method employs PLM coupled with dispersion staining to identify the type and approximate quantity of asbestos present in the sample, if any. FAL is accredited under the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP) (Lab Code 101459) and the State of

California Department of Health Services Environmental Laboratory Accreditation Program (ELAP Number 1366).

With respect to the sample analysis, if asbestos is detected in concentrations less than 1%, in California the material may be regulated as ACCM. As such, any PLM sample identified as having less than 1% asbestos must either be re-evaluated by point counting, in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) Asbestos NESHAP Revision, Final Rule (40 Code of Federal Regulations [CFR], Part 61), or must be assumed to be ACCM, and therefore regulated in California. Point counting, determines if the materials known to be less than 1% asbestos (EPA criteria), are equal to or less than 0.1% asbestos (California criteria) and therefore not regulated with respect to abatement requirements.

4.2 SAMPLE ANALYTICAL RESULTS

A total of 277 bulk samples were collected and delivered to FAL for PLM analyses. When the building material is comprised of two or more layers or substrates, across its full cross-sectional depth, the laboratory will identify and analyze each layer. For this survey the analytical laboratory analyzed 364 substrates. The sample number, sample description, homogeneous material (HM) number, its location within the structure, the room number where the sample was obtained (arbitrarily assigned during the survey) and the analytical results are provided in Table 1. Table 2 identifies those samples and materials determined to contain asbestos in concentrations above California regulatory levels, condition, friability and approximate quantities are included in Table 2. Figures 2 through 5 show the layout of the four wings at the facility and the room numbers associated with the samples that were collected.

Of the 362 sample layers analyzed, asbestos was identified in amounts greater than 1% in in four of the roof penetration mastics on the north and south wing and curb and patch mastic on the roof on the north wing. Photographs of the roofing materials containing asbestos are included in Appendix A. The laboratory analytical data and chain of custody forms are included in Appendix B.

5.0 LEAD-BASED PAINT SURVEY

The lead-based paint (LBP) survey was performed in January 2018 by Don Harman, Amec Foster Wheeler, a California Department of Public Health (CDPH) Certified Lead Inspector, Risk Assessor, and Lead Supervisor. Visual observation and testing of the building's interior and exterior surfaces was performed.

The visual survey of the various areas within the structure was performed to identify painted building components, their general condition, and location and quantity of the painted components. Damaged, loose and flaking paint observed during the survey were noted.

United States Department of Housing and Urban Development (HUD), EPA and California definitions for lead-based paint are any paint with a lead concentration equal to or greater than 1.0 milligram per square centimeter of surface area (≥1 mg/cm^2) when measured by a portable x-ray fluorescence (XRF) spectrum analyzer, or 0.5% by weight (5,000 parts

per million [ppm]) when measured by standard analytical methods. XRF results between 0.9 to 1.1 mg/cm^2 are considered by HUD/EPA as inconclusive.

In California, for lead-related construction work, Cal/OSHA requires a risk assessment to determine if employees may be exposed above the action level or permissible exposure limit (PEL). Surface coatings that contain lead at concentrations equal to or exceeding 0.06% lead by weight (600 ppm) are assumed by Cal/OSHA to demonstrate the presence of lead surface coatings that constitute a health hazard to employees engaged in lead-related construction work. As such, appropriate controls and work practices as defined in 8 CCR 1532.1 and 17 CCR 3600 et seq. are mandated, including requirements to use personnel certified by the California Department of Health Services.

5.1 XRF SURVEY

Amec Foster Wheeler performed the LBP survey in general accordance with EPA and HUD guidelines for lead inspections and testing. Testing for LBP was performed onsite using a XRF, with the capability to measure lead content in dry paint films, in the range of 0 to 50 mg/cm^2. The surfaces tested were selected in general accordance with the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing.

5.2 XRF TEST RESULTS

None of the tested building paints would be considered lead-based paints according to the HUD XRF criteria. Appendix C contains the field notes and XRF readings from the painted surfaces. These readings typically aid in the selection of the locations for paint chip sampling and analysis. However, because none of the paint readings were greater than 0.2 mg/cm^2, lead-based paint, as defined by HUD, was not suspected and samples were not collected for laboratory analysis. While not considered by HUD as a surface coating, readings of ceramic tiles were taken. The readings on the wall and floor tiles in the restrooms did not exceed 0.23 mg/cm^2; a value that would not warrant sampling for laboratory analysis.

Appendix D contains Form 8552 which is required to be submitted to the California Department of Public Health (CDPH). The report and form must be retained by the client for three years. Amec Foster Wheeler has submitted the form to CDPH.

6.0 RECOMMENDATIONS

6.1 ASBESTOS-CONTAINING MATERIALS

The asbestos materials must be removed from the structure prior to demolition. Any contractor who does "asbestos-related work" that disturbs asbestos-containing materials or asbestos-containing construction materials must be licensed by the CSLB and registered with Cal/OSHA.

The abatement work must be performed in compliance with applicable Federal, State and local regulations. A scope of work and work procedures specifically tailored to this project should be prepared and adhered to by the abatement contractor. It is important that the abatement activities be performed by a competent, experienced contractor and the abatement activities be closely monitored.

DTSC classifies asbestos-containing wastes as hazardous waste if they are “friable” and contain 1.0% or more asbestos. DTSC considers non-friable bulk asbestos-containing waste to be nonhazardous regardless of its asbestos content. Waste materials containing less than 1% asbestos may be managed as non-hazardous waste in accordance with DTSC requirements.

The project-derived asbestos wastes could either be segregated as hazardous and non-hazardous and handled separately, or combined and handled together as hazardous. The handling method selected could be based on the costs associated with the labor to segregate the wastes verses the additional disposal fees. It should be noted that disposal of any hazardous waste does have potential future liabilities should a problem arise with the disposal site. Therefore, the potential increased risk from handling the nonhazardous wastes as hazardous should be considered in the decision making process.

6.2 LEAD-CONTAINING MATERIALS

An XRF survey found no LBP based on the HUD criteria. At the time of the survey paints identified as lead-based and in poor condition (peeling or chipped) were not observed. In addition the XRF survey found only low levels of lead in the ceramic tile glaze. Cal-OSHA would still require a negative exposure assessment prior to demolition. However, the need for abatement of LBP or the ceramic tile is currently unlikely.

7.0 LIMITATIONS

Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental, health and safety consultants practicing in this or similar localities at the time of service. Amec Foster Wheeler assumes no liability for any loss, injury, claim, or damages arising directly or indirectly from any use or reliance on this report or the opinions expressed herein. No other warranty, express or implied, is made as to the professional advice included in this report.

Amec Foster Wheeler endeavored to observe existing conditions at the building using generally accepted procedures. There is always a possibility some areas containing asbestos- and lead-containing materials were overlooked, were inaccessible, or are different from those at specific sample locations. Therefore, conditions at every location may not be as anticipated by our field representative. In addition, demolition may uncover altered or differing conditions.

This report has been prepared for the exclusive use of our client. Any use that a third party makes of this report, or any reliance on or decisions made based on it, are the responsibility of the third party. With respect to third parties, Amec Foster Wheeler has no liability or responsibility for losses of any kind whatsoever, including direct or consequential financial effects on transactions or property values, or requirements for follow-up actions and costs. Should additional parties require reliance on this report, written authorization from Amec Foster Wheeler will be required.

TABLES

Table 1
Summary of Asbestos Sample Results
ACI Jet
19301 Campus Drive
Santa Ana, CA
John Wayne Airport

Sample No.	Material Description	HM No.	Layer	Assay No.	Location	Room Number	Asbestos content
1	Dry wall, new	1	a	1	North, 1st floor	5	ND
2	Dry wall, new	1	a	2	North, 1st floor	8	ND
3	Dry wall, new	1	a	3	North, 1st floor	11	ND
4	Joint compound, new	1	b	1	North, 1st floor	5	ND
5	Joint compound, new	1	b	2	North, 1st floor	8	ND
6	Joint compound, new	1	b	3	North, 1st floor	11	ND
7	Joint compound, new	1	b	4	North, 1st floor	11	ND
8	Joint compound, new	1	b	5	North, 1st floor	13	ND
9	Joint compound, new	1	b	6	North, 2nd floor	25	ND
10	Joint compound, new	1	b	7	North, 2nd floor	31	ND
11	Texture, new	1	c	1	North, 1st floor	5	ND
12	Texture, new	1	c	2	North, 1st floor	10	ND
13	Texture, new	1	c	3	North, 1st floor	10	ND
14	Texture, new	1	c	4	North, 2nd floor	25	ND
15	Texture, new	1	c	5	North, 2nd floor	26	ND
16	Texture, new	1	c	6	North, 2nd floor	31	ND
17	Texture, new	1	c	7	North, 2nd floor	35	ND
18	Cove base mastic (gray cove base)	2	a	1	North, 1st floor	10	ND
19	Cove base mastic (gray cove base)	2	a	2	North, 2nd floor	35	ND
20	Cove base mastic (gray cove base)	2	a	3	North, 1st floor	40	ND
21	Ceiling tile, 2x4, 2x2 pattern	3	a	1	North, 2nd floor	28	ND
22	Ceiling tile, 2x4, 2x2 pattern	3	a	2	North, 2nd floor	33	ND
23	Ceiling tile, 2x4, 2x2 pattern	3	a	3	North, 1st floor	38	ND
24	Sheet vinyl and mastic, light gray	4	ab	1	North, 1st floor	7	ND
25	Sheet vinyl and mastic, light gray	4	ab	2	North, 1st floor	39	ND
26	Sheet vinyl and mastic, light gray	4	ab	3	North, 1st floor	40	ND
27	Sheet vinyl and mastic, medium gray	5	ab	1	North, 1st floor	4	ND
28	Sheet vinyl and mastic, medium gray	5	ab	2	North, 1st floor	5	ND
29	Sheet vinyl and mastic, medium gray	5	ab	3	North, 1st floor	10	ND
30	Ceiling tile, 2x4, smooth	6	a	1	North, 1st floor	5	ND
31	Ceiling tile, 2x4, smooth	6	a	2	North, 1st floor	5	ND
32	Ceiling tile, 2x4, smooth	6	a	3	North, 1st floor	5	ND
33	Cove base mastic (black cove base)	7	a	1	North, 2nd floor	33	ND
34	Cove base mastic (black cove base)	7	a	2	North, 2nd floor	33	ND
35	Cove base mastic (black cove base)	7	a	3	North, 2nd floor	33	ND
36	Floor tile and mastic, 12x12, black	8	ab	1	North, 2nd floor	33	ND
37	Floor tile and mastic, 12x12, black	8	ab	2	North, 2nd floor	33	ND
38	Floor tile and mastic, 12x12, black	8	ab	3	North, 2nd floor	33	ND
39	Ceiling tile, 2x2, black	9	a	1	North, 2nd floor	36	ND
40	Ceiling tile, 2x2, black	9	a	2	North, 2nd floor	36	ND
41	Ceiling tile, 2x2, black	9	a	3	North, 2nd floor	36	ND
42	Ceiling tile, 2x2, cork pattern	10	a	1	North, 2nd floor	24	ND
43	Ceiling tile, 2x2, cork pattern	10	a	2	North, 2nd floor	24	ND
44	Ceiling tile, 2x2, cork pattern	10	a	3	North, 2nd floor	24	ND
45	Duct mastic, gray	11	a	1	North, 1st floor	39	ND
46	Epoxy coating, floor	12	a	1	Hangar	41	ND
47	Epoxy coating, floor	12	a	2	Hangar	41	ND
48	Epoxy coating, floor	12	a	3	Hangar	41	ND
49	Ceiling tile, 2x2, rough	13	a	1	North, 1st floor	10	ND
50	Ceiling tile, 2x2, rough	13	a	2	North, 1st floor	10	ND
51	Ceiling tile, 2x2, rough	13	a	3	North, 1st floor	10	ND
52	Dry wall, old	14	a	1	North, 1st floor	6	ND
53	Dry wall, old	14	a	2	North, 2nd floor	23	ND
54	Dry wall, old	14	a	3	North, 2nd floor	27	ND
55	Joint compound, old	14	b	1	North, 1st floor	2	ND
56	Joint compound, old	14	b	2	North, 1st floor	6	ND
57	Joint compound, old	14	b	3	North, 1st floor	7	ND
58	Joint compound, old	14	b	4	North, 2nd floor	23	ND
59	Joint compound, old	14	b	5	North, 2nd floor	32	ND
60	Joint compound, old	14	b	6	North, 2nd floor	33	ND
61	Joint compound, old	14	b	7	North, 1st floor	40	ND
62	Texture, old	14	c	1	North, 1st floor	7	ND
63	Texture, old	14	c	2	North, 2nd floor	23	ND
64	Texture, old	14	c	3	North, 2nd floor	33	ND

Table 1
Summary of Asbestos Sample Results
ACI Jet
19301 Campus Drive
Santa Ana, CA
John Wayne Airport

Sample No.	Material Description	HM No.	Layer	Assay No.	Location	Room Number	Asbestos content
65	Texture, old	14	c	4	North, 1st floor	38	ND
66	Texture, old	14	c	5	North, 1st floor	38	ND
67	Texture, old	14	c	6	North, 1st floor	40	ND
68	Texture, old	14	c	7	North, 1st floor	42	ND
69	Dry wall	14	a	1	153	60	ND
70	Dry wall	14	a	2	151	63	ND
71	Dry wall	14	a	3	151	64	ND
72	Dry wall	14	a	4	151	71	ND
73	Joint compound	14	b	1	153	60	ND
74	Joint compound	14	b	2	151	70	ND
75	Joint compound	14	b	3	151	71	ND
76	Joint compound	14	b	4	151	72	ND
77	Texture	14	c	1	153	60	ND
78	Texture	14	c	2	151	64	ND
79	Texture	14	c	3	151	70	ND
80	Texture	14	c	4	151	71	ND
81	Texture	14	c	5	151	72	ND
82	Dry wall	14	a	1	150	54	ND
83	Dry wall	14	a	2	150	55	ND
84	Dry wall	14	a	3	150	68	ND
85	Dry wall	14	a	4	150	69	ND
86	Joint compound	14	b	1	150	55	ND
87	Joint compound	14	b	2	150	56	ND
88	Joint compound	14	b	3	150	68	ND
89	Joint compound	14	b	4	150	68	ND
90	Joint compound	14	b	5	150	69	ND
91	Texture	14	c	1	150	54	ND
92	Texture	14	c	2	150	68	ND
93	Texture	14	c	3	150	69	ND
94	Dry wall	14	a	1	155	49	ND
95	Dry wall	14	a	2	155	50	ND
96	Dry wall	14	a	3	155	50	ND
97	Joint compound	14	b	1	155	49	ND
98	Joint compound	14	b	2	155	50	ND
99	Joint compound	14	b	3	155	50	ND
100	Joint compound	14	b	4	155	50	ND
101	Joint compound	14	b	5	155	51	ND
102	Texture	14	c	1	155	49	ND
103	Texture	14	c	2	155	50	ND
104	Dry wall	14	a	1	154	45	ND
105	Dry wall	14	a	2	154	46	ND
106	Dry wall	14	a	3	154	47	ND
107	Joint compound	14	b	1	154	45	ND
108	Joint compound	14	b	2	154	45	ND
109	Joint compound	14	b	3	154	46	ND
110	Joint compound	14	b	4	154	47	ND
111	Texture	14	c	1	154	45	ND
112	Texture	14	c	2	154	46	ND
113	Texture	14	c	3	Lobby, 1st floor	47	ND
114	Dry wall	14	a	1	Lobby, 1st floor	66	ND
115	Dry wall	14	a	2	Lobby, 1st floor	66	ND
116	Dry wall	14	a	3	Lobby, 1st floor	66	ND
117	Joint compound	14	b	1	Lobby, 1st floor	66	ND
118	Joint compound	14	b	2	Lobby, 1st floor	66	ND
119	Joint compound	14	b	3	Lobby, 1st floor	66	ND
120	Joint compound	14	b	4	Lobby, 1st floor	66	ND
121	Texture	14	c	1	Lobby, 1st floor	66	ND
122	Texture	14	c	2	Lobby, 1st floor	66	ND
123	Texture	14	c	3	Lobby, 1st floor	66	ND
124	Ceiling tile, 2x4 (2x2)	16	a	1	155	50	ND
125	Ceiling tile, 2x4 (2x2)	16	a	2	150	67	ND
126	Ceiling tile, 2x4 (2x2)	16	a	3	154	46	ND
127	Ceiling tile 2x2	19	a	1	Lobby, 1st floor	66	ND
128	Cove base mastic	17	a	1	155	49	ND

Table 1
Summary of Asbestos Sample Results
ACI Jet
19301 Campus Drive
Santa Ana, CA
John Wayne Airport

Sample No.	Material Description	HM No.	Layer	Assay No.	Location	Room Number	Asbestos content
129	Cove base mastic	17	a	2	155	50	ND
130	Cove base mastic	17	a	3	153	60	ND
131	Cove base mastic	17	a	1	151	64	ND
132	Cove base mastic	17	a	2	150	68	ND
133	Cove base mastic	17	a	3	151	72	ND
134	Carpet mastic	18	a	1	154	46	ND
135	Carpet mastic	19	a	2	155	50	ND
136	Carpet mastic	20	a	3	150	56	ND
137	Ceiling tile, 2x2	19	a	1	Hall	52	ND
138	Dry wall	14	a	1	Hall	52	ND
139	Dry wall	14	a	2	Hall	52	ND
140	Dry wall	14	a	3	Hall	52	ND
141	Joint compound	14	b	1	Hall	52	ND
142	Joint compound	14	b	2	Hall	52	ND
143	Joint compound	14	b	3	Hall	52	ND
144	Texture	14	c	1	Hall	52	ND
145	Texture	14	c	2	Hall	52	ND
146	Texture	14	c	3	Hall	52	ND
147	Dry wall	14	a	1	Electrical closet, 1st floor	43	ND
148	Dry wall	14	a	2	Storage, east, 1st floor	53	ND
149	Dry wall	14	a	3	Storage, west, 1st floor	108	ND
150	Joint compound	14	b	1	Electrical closet, 1st floor	43	ND
151	Joint compound	14	b	2	Storage, east, 1st floor	53	ND
152	Joint compound	14	b	3	Storage, west, 1st floor	108	ND
153	Dry wall	14	a	1	Break room, 1st floor	59	ND
154	Dry wall	14	a	2	Janitor closet, 1st floor	65	ND
155	Dry wall	14	a	3	Break room, 2nd floor	82	ND
156	Joint compound	14	b	1	Break room, 1st floor	59	ND
157	Joint compound	14	b	2	Janitor closet, 1st floor	65	ND
158	Joint compound	14	b	3	Break room, 2nd floor	82	ND
159	Texture	14	c	1	Break room, 1st floor	59	ND
160	Texture	14	c	2	Janitor closet, 1st floor	65	ND
161	Texture	14	c	3	Break room, 2nd floor	82	ND
162	Floor tile and mastic, 12x12, beige with specks	20	ab	1	Break room, 1st floor	59	ND
163	Floor tile and mastic, 12x12, beige with specks	21	ab	2	Break room, 1st floor	59	ND
164	Floor tile and mastic, 12x12, beige with specks	22	ab	3	Janitor closet, 1st floor	65	ND
165	Dry wall	14	a	1	250	83	ND
166	Dry wall	14	a	2	250	94	ND
167	Dry wall	14	a	3	250	107	ND
168	Joint compound	14	b	1	250	83	ND
169	Joint compound	14	b	2	250	83	ND
170	Joint compound	14	b	3	250	83	ND
171	Joint compound	14	b	4	250	92	ND
172	Joint compound	14	b	5	250	107	ND
173	Texture	14	c	1	250	83	ND
174	Texture	14	c	2	250	83	ND
175	Texture	14	c	3	250	83	ND
176	Texture	14	c	4	250	92	ND
177	Texture	14	c	5	250	95	ND
178	Cove base mastic (gray cove base)	22	a	1	250	83	ND
179	Cove base mastic (gray cove base)	23	a	2	250	92	ND
180	Cove base mastic (gray cove base)	24	a	3	250	94	ND
181	Cove base mastic (black cove base painted white)	23	a	1	152	75	ND
182	Dry wall	14	a	1	152	61	ND
183	Dry wall	14	a	2	152	61	ND
184	Dry wall	14	a	3	152	75	ND
185	Joint compound	14	b	1	152	62	ND
186	Joint compound	14	b	2	152	62	ND
187	Joint compound	14	b	3	152	62	ND
188	Texture	14	c	1	152	61	ND
189	Texture	14	c	2	152	61	ND
190	Texture	14	c	3	152	62	ND
191	Carpet mastic	18	a	1	152	61	ND

Table 1
Summary of Asbestos Sample Results
ACI Jet
19301 Campus Drive
Santa Ana, CA
John Wayne Airport

Sample No.	Material Description	HM No.	Layer	Assay No.	Location	Room Number	Asbestos content
192	Dry wall	14	a	1	Executive suites, 2nd floor	87	ND
193	Dry wall	14	a	2	Executive suites, 2nd floor	97	ND
194	Dry wall	14	a	3	Executive suites, 2nd floor	97	ND
195	Joint compound	14	b	1	Executive suites, 2nd floor	87	ND
196	Joint compound	14	b	2	Executive suites, 2nd floor	87	ND
197	Joint compound	14	b	3	Executive suites, 2nd floor	87	ND
198	Joint compound	14	b	4	Executive suites, 2nd floor	97	ND
199	Joint compound	14	b	5	Executive suites, 2nd floor	97	ND
200	Joint compound	14	b	6	Executive suites, 2nd floor	101	ND
201	Joint compound	14	b	7	Executive suites, 2nd floor	101	ND
202	Texture	14	c	1	Executive suites, 2nd floor	87	ND
203	Texture	14	c	2	Executive suites, 2nd floor	87	ND
204	Texture	14	c	3	Executive suites, 2nd floor	97	ND
205	Texture	14	c	4	Executive suites, 2nd floor	97	ND
206	Texture	14	c	5	Executive suites, 2nd floor	98	ND
207	Texture	14	c	6	Executive suites, 2nd floor	101	ND
208	Texture	14	c	7	Executive suites, 2nd floor	101	ND
209	Dry wall	14	a	1	251	90	ND
210	Dry wall	14	a	2	251	90	ND
211	Dry wall	14	a	3	251	90	ND
212	Joint compound	14	b	1	251	90	ND
213	Joint compound	14	b	2	251	90	ND
214	Joint compound	14	b	3	251	90	ND
215	Texture	14	c	1	251	90	ND
216	Texture	14	c	2	251	90	ND
217	Texture	14	c	3	251	90	ND
218	Dry wall	14	a	1	252	103	ND
219	Dry wall	14	a	2	252	104	ND
220	Dry wall	14	a	3	252	105	ND
221	Joint compound	14	b	1	252	96	ND
222	Joint compound	14	b	2	252	105	ND
223	Joint compound	14	b	3	252	105	ND
224	Texture	14	c	1	252	91	ND
225	Texture	14	c	2	252	103	ND
226	Texture	14	c	3	252	104	ND
227	Dry wall	14	a	1	254	78	ND
228	Dry wall	14	a	2	254	78	ND
229	Dry wall	14	a	3	Janitor closet, 2nd floor	93	ND
230	Joint compound	14	b	1	254	78	ND
231	Joint compound	14	b	2	254	78	ND
232	Joint compound	14	b	3	Janitor closet, 2nd floor	93	ND
233	Texture	14	c	1	254	78	ND
234	Texture	14	c	2	254	78	ND
235	Texture	14	c	3	Janitor closet, 2nd floor	93	ND
236	Dry wall	14	a	1	Hall, 2nd floor	77	ND
237	Dry wall	14	a	2	Hall, 2nd floor	77	ND
238	Dry wall	14	a	3	Hall, 2nd floor	77	ND
239	Joint compound	14	b	1	Hall, 2nd floor	77	ND
240	Joint compound	14	b	2	Hall, 2nd floor	77	ND
241	Joint compound	14	b	3	Hall, 2nd floor	77	ND
242	Texture	14	c	1	Hall, 2nd floor	77	ND
243	Texture	14	c	2	Hall, 2nd floor	77	ND
244	Texture	14	c	3	Hall, 2nd floor	77	ND
245	**Penetration mastic, field**	**23**	**a**	**1**	**South**	**Roof**	**Chrysotile, 2%**
246	Penetration mastic, field	23	a	2	South	Roof	NA
247	Penetration mastic, field	23	a	3	South	Roof	NA
248	Curb mastic	24	a	1	South	Roof	ND
249	Curb mastic	24	a	2	South	Roof	ND
250	Curb mastic	24	a	3	South	Roof	ND
251	Patch mastic	25	a	1	South	Roof	ND
252	Patch mastic	25	a	2	South	Roof	ND
253	Patch mastic	25	a	3	South	Roof	ND
253a	Joint mastic, wall	26	a	1	South	Roof	ND
254	Joint mastic, wall	26	a	2	South	Roof	ND

Table 1
Summary of Asbestos Sample Results
ACI Jet
19301 Campus Drive
Santa Ana, CA
John Wayne Airport

Sample No.	Material Description	HM No.	Layer	Assay No.	Location	Room Number	Asbestos content
255	Joint mastic, wall	26	a	3	South	Roof	ND
256	Penetration mastic, wall	27	a	1	South	Roof	ND
257	Penetration mastic, wall	27	a	2	South	Roof	ND
258	Penetration mastic, wall	27	a	3	South	Roof	ND
259	Duct mastic, gray	28	a	1	South	Roof	ND
260	Duct mastic, gray	28	a	2	South	Roof	ND
261	Duct mastic, gray	28	a	3	South	Roof	ND
262	**Penetration mastic, field**	**29**	**a**	**1**	**North**	**Roof**	**Chrysotile, 2%**
263	Penetration mastic, field	29	a	2	North	Roof	NA
264	Penetration mastic, field	29	a	3	North	Roof	NA
265	Curb mastic	30	a	1	North	Roof	ND
266	Curb mastic	30	a	2	North	Roof	ND
267	**Curb mastic**	**30**	**a**	**3**	**North**	**Roof**	**Chrysotile, 3%**
268	**Patch mastic**	**31**	**a**	**1**	**North**	**Roof**	**Chrysotile, 2%**
269	Patch mastic	31	a	2	North	Roof	NA
270	Patch mastic	31	a	3	North	Roof	NA
271	Joint seal, wall	32	a	1	North	Roof	ND
272	Joint seal, wall	32	a	2	North	Roof	ND
273	Joint seal, wall	32	a	3	North	Roof	ND
274	Curb mastic	33	a	1	North	Roof	ND
275	Curb mastic	33	a	2	North	Roof	ND
276	Curb mastic	33	a	3	North	Roof	ND

Table Notes:

1 HM - Homogenous Material: A material that appears to be uniform when properties such as age, color, texture are compared.

2 Layer - When a Homogenous Material has more than one recognizable component each is a layer.

3 Assay - Of the duplicates required by Asbestos Hazard Emergency Response Act (AHERA), the sequential number, starting at one, assigned each sample up to the required number of samples.

4 Bold type - These samples were determined to contain asbestos in excess of trace amounts.

5 ND - Asbestos was not detected above the method detection limit.

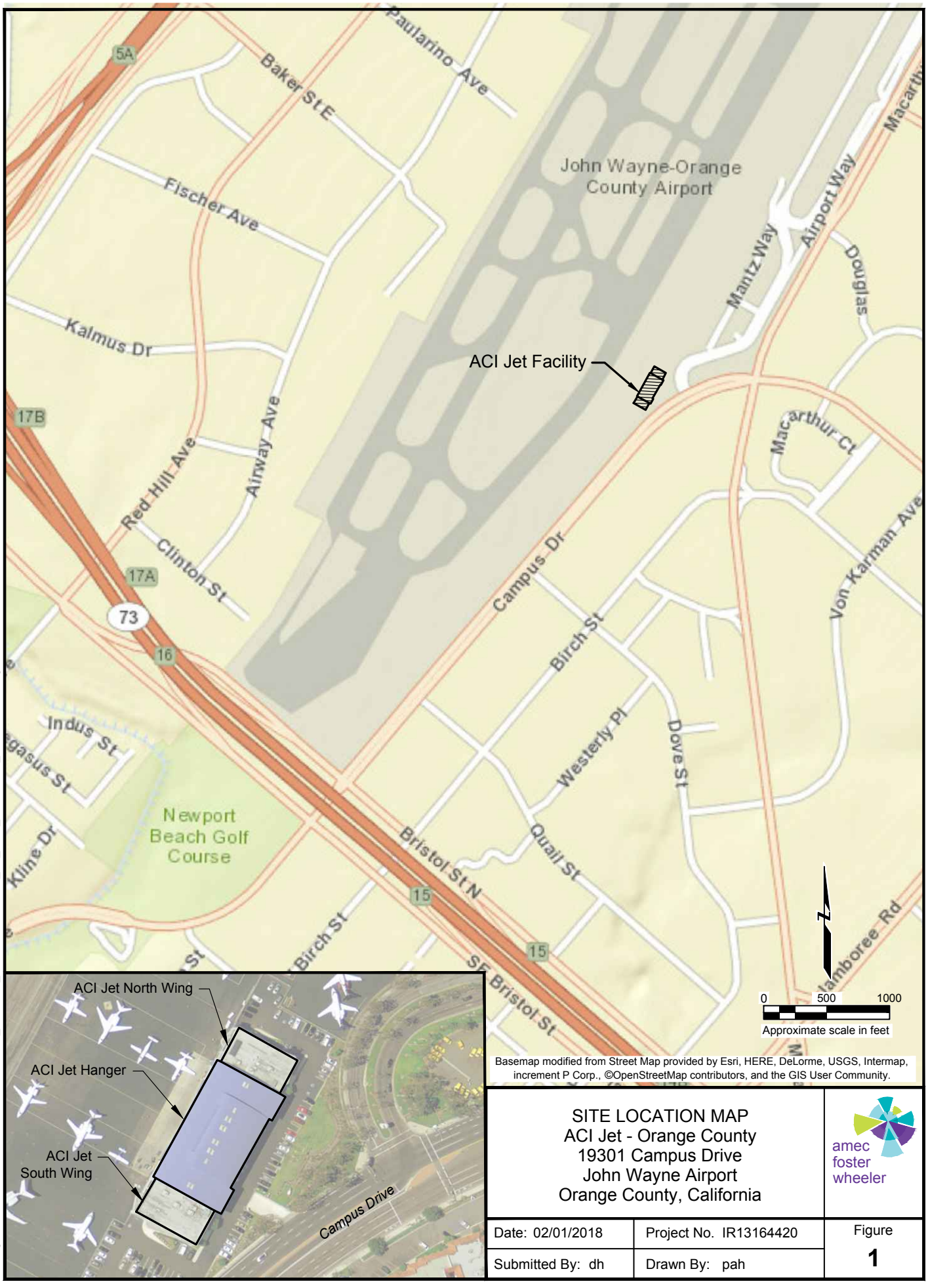
6 NA - When any sample of a Homogenous Material is determined to contain asbestos the other samples in that HM are not analyzed.

Table 2
Summary of Asbestos-Containing Materials
ACI Jet, Campus Drive
Santa Ana, California

Material, friability, Condition, Homologous Material No.	Location	Sample No.	Result	Estimated Quality
Penetration mastic, field; non-friable, good, HM 23a	South wing, roof	245	2% Chrysotile,	35 square feet
Penetration mastic, field; non-friable, good, HM 29a	North wing, roof	262	2% Chrysotile,	35 square feet
Curb mastic, non-friable, good, HM 30a	North wing, roof	267	3% Chrysotile	100 square feet
Patch mastic, non-friable, good, HM 31a	North wing, roof	268	2% Chrysotile	65 square feet

Created by: DEH
Checked by: LAG

FIGURES



Basemap modified from Street Map provided by Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., ©OpenStreetMap contributors, and the GIS User Community.

SITE LOCATION MAP
ACI Jet - Orange County
19301 Campus Drive
John Wayne Airport
Orange County, California

amec foster wheeler

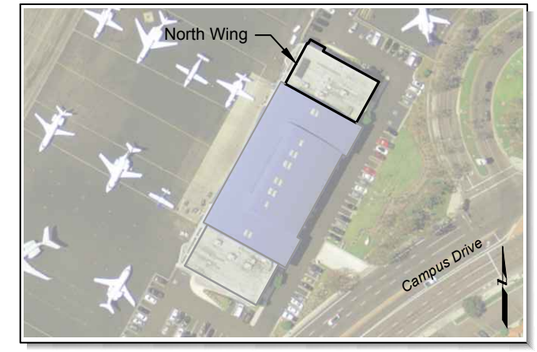
Date: 02/01/2018	Project No. IR13164420	Figure 1
Submitted By: dh	Drawn By: pah	

Plot Date: 2/01/2018 2:58:52 PM, Plotted by: pat.herring
Drawing Path: Y:\IR13164420\ACAD\ASBESTOS_SURVEY_ACI JET FACILITY_TB_SITE_LOCATION_MAP.DWG , Figure 1

Explanation

Building outline

41 Room number



0 100 200

Approximate Scale in Feet

0 5 10

Approximate Scale in Feet

SITE PLAN
North Wing, First Floor
ACI Jet - Orange County
19301 Campus Drive
John Wayne Airport
Orange County, California

amec foster wheeler

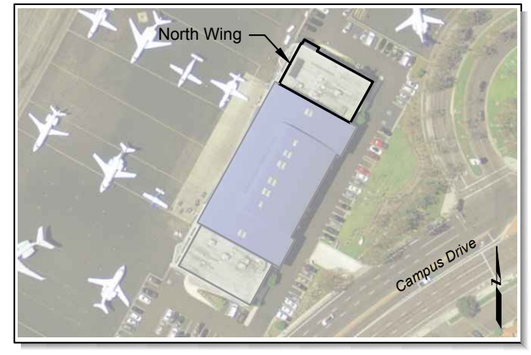
Date: 02/01/2018	Project No. IR13164420	Figure
Submitted By: pah	Drawn By: pah	

Plot Date: 2/02/2018 5:47:47 PM, Plotted by: pat.herring
Drawing Path: Y:\IR13164420\ACAD\ASBESTOS_SURVEY_ACI JET FACILITY_TB_ACI_JET_FACILITY.DWG , North-First floor

Explanation

Building outline

36 Room number



□□□ **S**□□□□□

0 100 200

Approximate Scale in Feet

0 5 10

Approximate Scale in Feet

SITE PLAN
North Wing, Second Floor
ACI Jet - Orange County
19301 Campus Drive
John Wayne Airport
Orange County, California

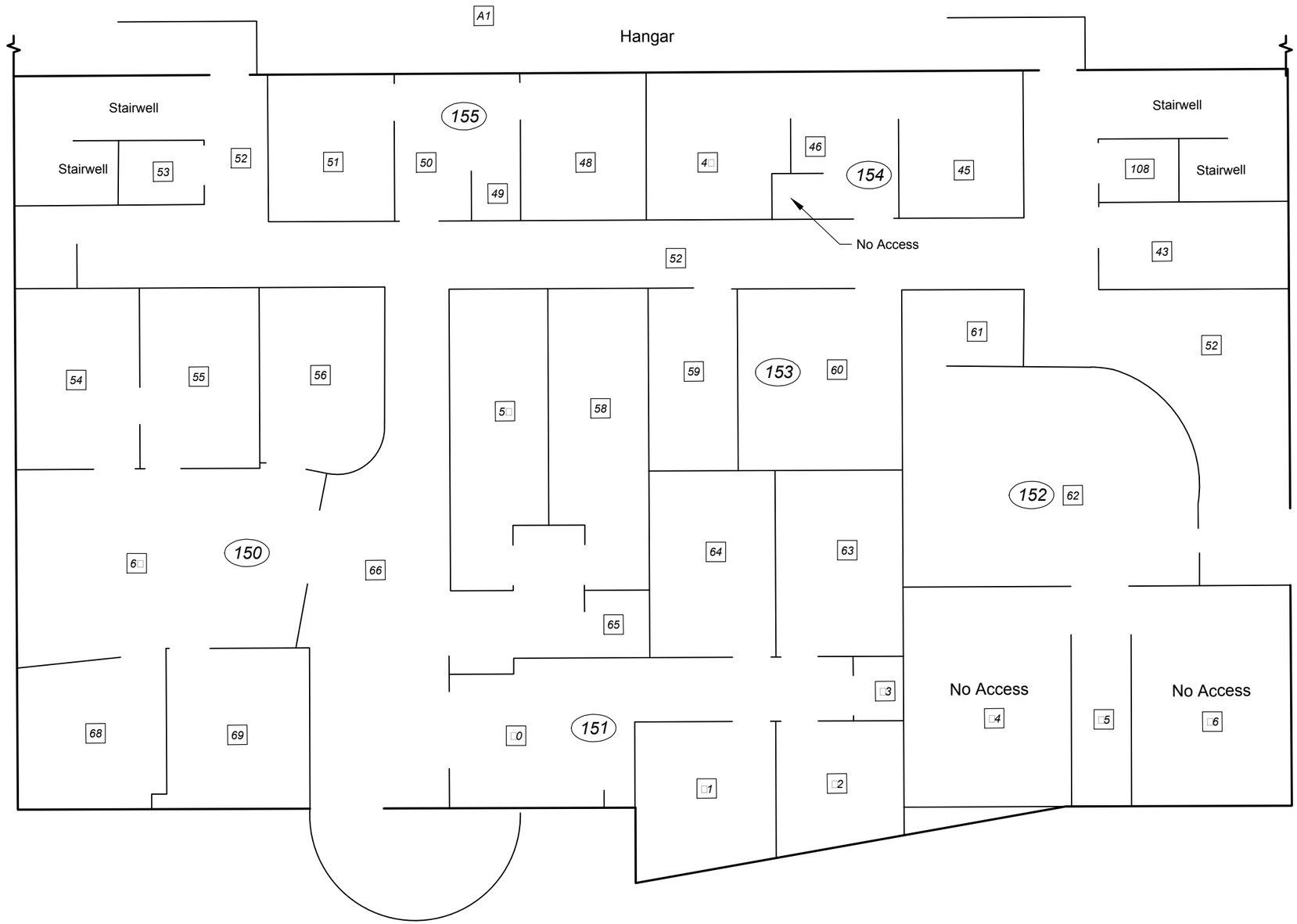
amec foster wheeler

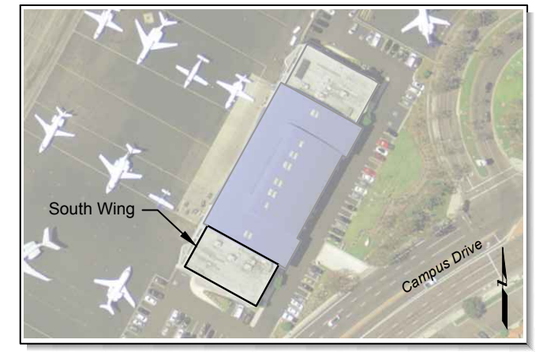
Date: 02/01/2018	Project No. IR13164420	Figure □
Submitted By: pah	Drawn By: pah	

Plot Date: 2/02/2018 5:46:23 PM, Plotted by: pat.herring
Drawing Path: Y:\IR13164420\ACAD\ASBESTOS_SURVEY_ACI JET FACILITY_TB_ACI_JET_FACILITY.DWG , North-Second floor

Explanation

- Building outline
- 108 Room number
- 155 Suite number





0 100 200
Approximate Scale in Feet

0 5 10
Approximate Scale in Feet

SITE PLAN
South Wing, First Floor
ACI Jet - Orange County
19301 Campus Drive
John Wayne Airport
Orange County, California

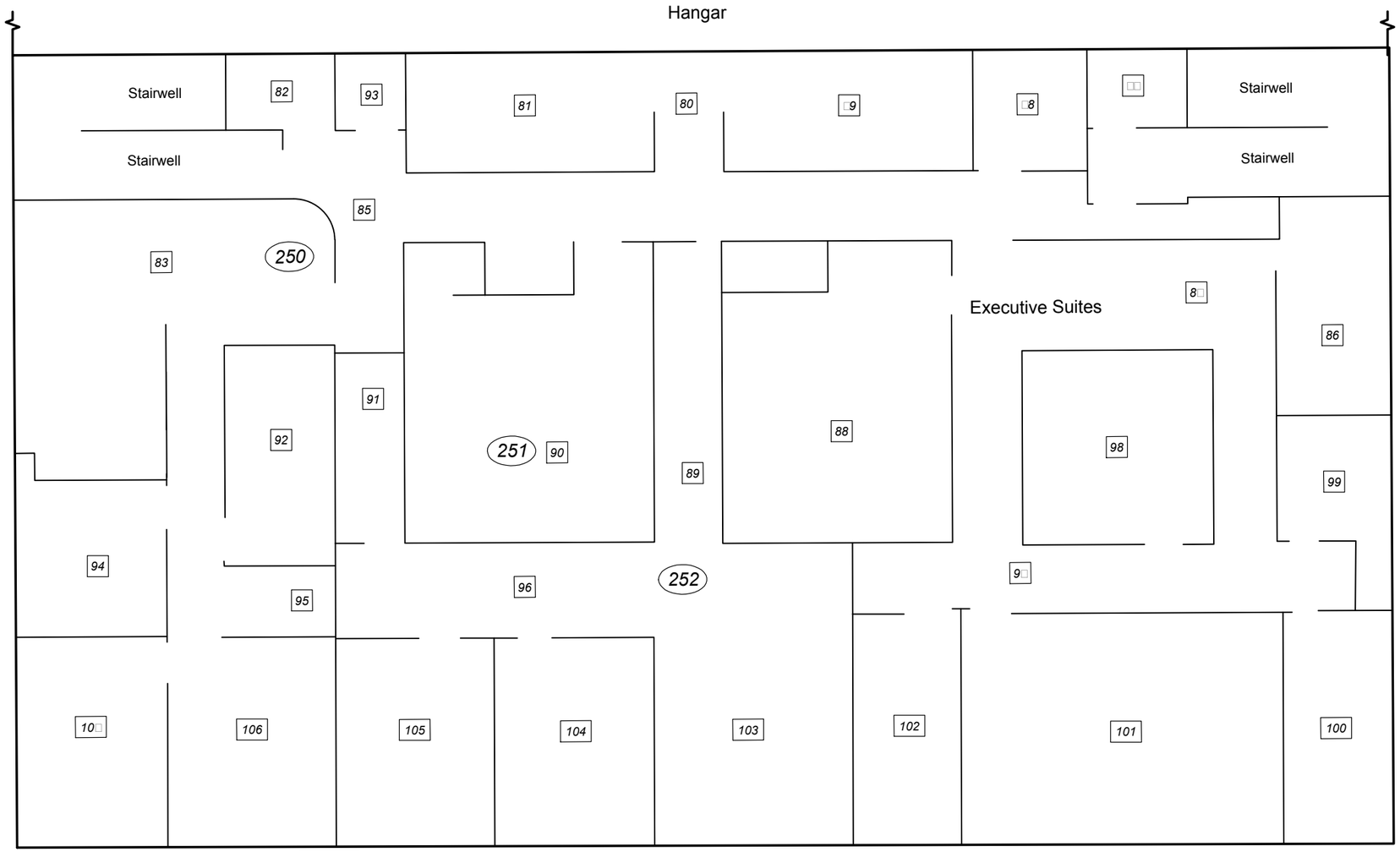
amec foster wheeler

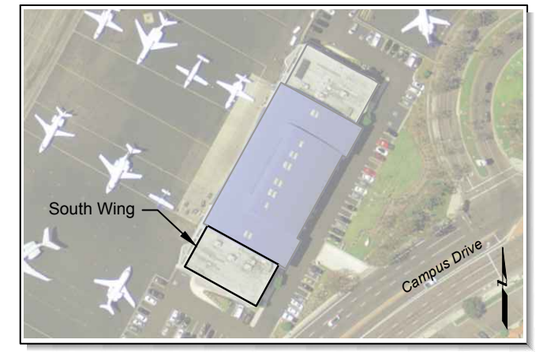
Date: 02/01/2018	Project No. IR13164420	Figure
Submitted By: pah	Drawn By: pah	

Plot Date: 2/02/2018 5:44:25 PM, Plotted by: pat.herring
Drawing Path: Y:\IR13164420\ACAD\ASBESTOS_SURVEY_ACI JET FACILITY_TB_ACI_JET_FACILITY.DWG . South-First floor

Explanation

- Building outline
- 10□ Room number
- (252) Suite number





□□□ S□□□□□

0 100 200

Approximate Scale in Feet

N

0 5 10

Approximate Scale in Feet

SITE PLAN
South Wing, Second Floor
ACI Jet - Orange County
19301 Campus Drive
John Wayne Airport
Orange County, California

amec foster wheeler

Date: 02/01/2018	Project No. IR13164420	Figure □
Submitted By: pah	Drawn By: pah	

Plot Date: 2/02/2018 5:52:55 PM, Plotted by: pat.herring
Drawing Path: Y:\IR13164420\ACAD\ASBESTOS_SURVEY_ACI JET FACILITY_TB_ACI_JET_FACILITY.DWG , South-Second floor

APPENDIX A

PHOTOGRAPHS

Amec Foster Wheeler Photo Log

Image No.	Description	Notes
1		Penetration mastic, South wing roof
2		Penetration mastic, North wing roof

Amec Foster Wheeler Photo Log

Image No.	Description	Notes
3		Curb mastic, North wing roof
4		Patch mastic, North wing roof

APPENDIX B

ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 600/M4-82-020 and 600/R-93-116, Visual Area Estimation)

Amec Foster Wheeler
Don Harman
6001 Rickenbacker Rd.

Los Angeles, CA 90040-3031

Client ID: 5629
Report Number: B252562
Date Received: 01/19/18
Date Analyzed: 01/26/18
Date Printed: 01/26/18
First Reported: 01/26/18

Job ID/Site: IR13164420.82; ACI Jet

FALI Job ID: 5629-10

Date(s) Collected:

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
001_1_a	51114800						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
002_1_a	51114801						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
003_1_a	51114802						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
004_1_b	51114803						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
005_1_b	51114804						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
006_1_b	51114805						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %)		**Asbestos (ND)**					
007_1_b	51114806						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
008_1_b	51114807						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B252562

Client Name: Amec Foster Wheeler **Date Printed:** 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
009_1_b	51114808						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
010_1_b	51114809						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
011_1_c	51114810						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
012-1_c	51114811						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
013_1_c	51114812						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
014_1_c	51114813						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
015_1_c	51114814						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
016_1_c	51114815						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
017_1_c	51114816						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %)		**Asbestos (ND)**					
018_2_a	51114817						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B252562

Client Name: Amec Foster Wheeler **Date Printed:** 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
019_2_a	51114818						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %)		**Asbestos (ND)**					
020_2_a	51114819						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (15 %)		**Asbestos (ND)**					
021_3_a	51114820						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (85 %) Fibrous Glass (5 %)		**Asbestos (ND)**					
022_3_a	51114821						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (85 %) Fibrous Glass (5 %)		**Asbestos (ND)**					
023_3_a	51114822						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (85 %) Fibrous Glass (5 %)		**Asbestos (ND)**					
024_4_a	51114823						
Layer: Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)		**Asbestos (ND)**					
024_4_b	51114824						
Layer: Light Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
025_4_a	51114825						
Layer: Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)		**Asbestos (ND)**					
025_4_b	51114826						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B252562
Client Name: Amec Foster Wheeler **Date Printed:** 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
026_4_a	51114827						
Layer: Light Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (20 %) Fibrous Glass (5 %) Synthetic (10 %)							
026_4_b	51114828						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
027_5_a	51114829						
Layer: Light Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace) Fibrous Glass (5 %) Synthetic (15 %)							
027_5_b	51114830						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
028_5_a	51114831						
Layer: Light Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace) Fibrous Glass (5 %) Synthetic (15 %)							
028_5_b	51114832						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
029_5_a	51114833						
Layer: Light Grey Sheet Flooring			**ND**				
Layer: Fibrous Backing			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace) Fibrous Glass (5 %) Synthetic (15 %)							
029_5_b	51114834						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (Trace)							
030_6_a	51114835						
Layer: White Drywall Panel			**ND**				
Total Composite Values of Fibrous Components: **Asbestos (ND)** Cellulose (20 %) Fibrous Glass (Trace)							

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B252562

Client Name: Amec Foster Wheeler **Date Printed:** 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
031_6_a	51114836						
Layer: White Drywall Panel			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
032_6_a	51114837						
Layer: White Drywall Panel			**ND**				
Total Composite Values of Fibrous Components: Cellulose (20 %) Fibrous Glass (Trace)		**Asbestos (ND)**					
033_7_a	51114838						
Layer: Beige Mastic			**ND**				
Layer: Paint			**ND**				
Layer: White Texture			**ND**				
Layer: Drywall Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %)		**Asbestos (ND)**					
034_7_a	51114839						
Layer: Beige Mastic			**ND**				
Layer: Paint			**ND**				
Layer: White Texture			**ND**				
Layer: Drywall Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %)		**Asbestos (ND)**					
035_7_a	51114840						
Layer: Beige Mastic			**ND**				
Layer: Paint			**ND**				
Layer: White Texture			**ND**				
Layer: Drywall Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %)		**Asbestos (ND)**					
036_8_a	51114841						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
036_8_b	51114842						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
037_8_a	51114843						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B252562

Client Name: Amec Foster Wheeler **Date Printed:** 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
037_8_b	51114844						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
038_8_a	51114845						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
038_8_b	51114846						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
039_9_a	51114847						
Layer: Light Grey Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (45 %) Fibrous Glass (35 %)		**Asbestos (ND)**					
040_9_a	51114848						
Layer: Light Grey Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (45 %) Fibrous Glass (35 %)		**Asbestos (ND)**					
041_9_a	51114849						
Layer: Light Grey Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (45 %) Fibrous Glass (35 %)		**Asbestos (ND)**					
042_10_a	51114850						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (45 %) Fibrous Glass (35 %)		**Asbestos (ND)**					
043_10_a	51114851						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (45 %) Fibrous Glass (35 %)		**Asbestos (ND)**					
044_10_a	51114852						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (45 %) Fibrous Glass (35 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
045_11_a	51114853						
Layer: Grey Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
046_12_a	51114854						
Layer: Grey Coating			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
047_12_a	51114855						
Layer: Grey Coating			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
048_12_a	51114856						
Layer: Grey Coating			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
049_13_a	51114857						
Layer: Light Grey Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %) Fibrous Glass (75 %)		**Asbestos (ND)**					
050_13_a	51114858						
Layer: Light Grey Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %) Fibrous Glass (75 %)		**Asbestos (ND)**					
051_13_a	51114859						
Layer: Light Grey Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %) Fibrous Glass (75 %)		**Asbestos (ND)**					
052_14_a	51114860						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
053_14_a	51114861						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
054_14_a	51114862						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
055_14_b	51114863						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
056_14_b	51114864						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
057_14_b	51114865						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
058_14_b	51114866						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
059_14_b	51114867						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
060_14_b	51114868						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
061_14_b	51114869						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
062_14_c	51114870						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
063_14_c	51114871						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
064_14_c	51114872						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B252562
Client Name: Amec Foster Wheeler **Date Printed:** 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
065-_4_c	51114873						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
066_14_c	51114874						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
067_14_c	51114875						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
068_14_c	51114876						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
069_15_a	51114877						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
070_15_a	51114878						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Comment: No drywall detected.		**Asbestos (ND)**					
071_15_a	51114879						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
072_15_a	51114880						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
073_15_b	51114881						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
074_15_b	51114882						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B252562

Client Name: Amec Foster Wheeler **Date Printed:** 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
075_15_b	51114883						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
076_15_b	51114884						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
077_15_c	51114885						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
078_15_c	51114886						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
079_15_c	51114887						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
080_15_c	51114888						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
081_15_c	51114889						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
082_15_a	51114890						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
083_15_a	51114891						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
084_15_a	51114892						
Layer: Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B252562
Client Name: Amec Foster Wheeler **Date Printed:** 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
085_15_a	51114893						
Layer: Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (7 %)		**Asbestos (ND)**					
086_15_b	51114894						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
087_15_b	51114895						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
088_15_b	51114896						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
089_15_b	51114897						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
090_15_b	51114898						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
091_15_c	51114899						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
092_15_c	51114900						
Layer: Drywall Backing			**ND**				
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Client Name: Amec Foster Wheeler

Report Number: B252562
Date Printed: 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
093_15_c	51114901						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
094_15_a	51114902						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
095_15_a	51114903						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
096_15_a	51114904						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
097_15_b	51114905						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
098_15_b	51114906						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
099_15_b	51114907						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
100_15_b	51114908						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
101_15_b	51114909						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B252562

Client Name: Amec Foster Wheeler **Date Printed:** 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
102_15_c	51114910						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
103_15_c	51114911						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
104_15_a	51114912						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
105_15_a	51114913						
Layer: Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
106_15_a	51114914						
Layer: Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
107_15_b	51114915						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
108_15_b	51114916						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
109_15_b	51114917						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
110_15_b	51114918						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B252562

Client Name: Amec Foster Wheeler **Date Printed:** 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
111_15_c	51114919						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
112_15_c	51114920						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
113_15_c	51114921						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
114_15_a	51114922						
Layer: Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
115_15_a	51114923						
Layer: Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
116_15_a	51114924						
Layer: Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
117_15_b	51114925						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
118_15_b	51114926						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
119_15_b	51114927						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B252562
Client Name: Amec Foster Wheeler **Date Printed:** 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
120_15_b	51114928						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
121_15_c	51114929						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
122_15_c	51114930						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
123_15_c	51114931						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
124_16_a	51114932						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (55 %) Fibrous Glass (25 %)		**Asbestos (ND)**					
125_16_a	51114933						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (55 %) Fibrous Glass (25 %)		**Asbestos (ND)**					
126_16_a	51114934						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (55 %) Fibrous Glass (25 %)		**Asbestos (ND)**					
127_19_a	51114935						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B252562

Client Name: Amec Foster Wheeler **Date Printed:** 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
128_17_a	51114936						
Layer: White Mastic			**ND**				
Layer: Drywall Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (45 %)		**Asbestos (ND)**					
129_17_a	51114937						
Layer: White Mastic			**ND**				
Layer: Drywall Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (30 %)		**Asbestos (ND)**					
130_17_a	51114938						
Layer: White Mastic			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
131_17_a	51114939						
Layer: Off-White Mastic			**ND**				
Layer: Drywall Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (15 %)		**Asbestos (ND)**					
132_17_a	51114940						
Layer: Off-White Mastic			**ND**				
Layer: Drywall Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
133_17_a	51114941						
Layer: Off-White Mastic			**ND**				
Layer: Drywall Backing			**ND**				
Total Composite Values of Fibrous Components: Cellulose (15 %)		**Asbestos (ND)**					
134_18_a	51114942						
Layer: Beige Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Synthetic (Trace)		**Asbestos (ND)**					
135_18_a	51114943						
Layer: Beige Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Synthetic (Trace)		**Asbestos (ND)**					
136_18_a	51114944						
Layer: Beige Mastic with Debris			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Synthetic (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B252562

Client Name: Amec Foster Wheeler **Date Printed:** 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
137_19_a	51114945						
Layer: Beige Fibrous Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)		**Asbestos (ND)**					
138_15_a	51114946						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
139_15_a	51114947						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
140_15_a	51114948						
Layer: Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %)		**Asbestos (ND)**					
141_15_b	51114949						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
142_15_b	51114950						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
143_15_b	51114951						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
144_15_c	51114952						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
145_15_c	51114953						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B252562

Client Name: Amec Foster Wheeler **Date Printed:** 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
146_15_c	51114954						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
147_15_a	51114955						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
148_15_a	51114956						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
149_15_a	51114957						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
150_15_b	51114958						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
151_15_b	51114959						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
152_15_b	51114960						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
153_15_a	51114961						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
154_15_a	51114962						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
155_15_a	51114963						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (3 %) Fibrous Glass (2 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
156_15_b	51114964						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
157_15_b	51114965						
Layer: White Skimcoat/Joint Compound			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
158_15_b	51114966						
Layer: Drywall Tape			**ND**				
Layer: Off-White Skimcoat/Joint Compounds			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (15 %)		**Asbestos (ND)**					
159_15_c	51114967						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
160_15_c	51114968						
Layer: White Texture			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
161_15_c	51114969						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
162_20_a	51114970						
Layer: Off-White Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
162_20_b	51114971						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
163_20_a	51114972						
Layer: Off-White Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Client Name: Amec Foster Wheeler

Report Number: B252562
Date Printed: 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
163_20_b	51114973						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
164_20_a	51114974						
Layer: Beige Tile			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
164_20_b	51114975						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
165_15_a	51114976						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
166_15_a	51114977						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
167_15_a	51114978						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
168_15_b	51114979						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
169_15_b	51114980						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
170_15_b	51114981						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
171_15_b	51114982						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B252562

Client Name: Amec Foster Wheeler **Date Printed:** 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
172_15_b	51114983						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
173_15_c	51114984						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
174_15_c	51114985						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
175_15_c	51114986						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
176_15_c	51114987						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
177_15_c	51114989						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
178_22_a	51114990						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
179_22_a	51114991						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
180_22_a	51114992						
Layer: Beige Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
181_23_a	51114993						
Layer: Off-White Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Client Name: Amec Foster Wheeler

Report Number: B252562
Date Printed: 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
182_15_a	51114994						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
183_15_a	51114995						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
184_15_a	51114996						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
185_15_b	51114997						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
186_15_b	51114998						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
187_15_b	51114999						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
188_15_c	51115000						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
189_15_c	51115001						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
190_15_c	51115002						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
191_18_a	51115003						
Layer: Tan Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Client Name: Amec Foster Wheeler

Report Number: B252562
Date Printed: 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
192_15_a	51115004						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
193_15_a	51115005						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
194_15_a	51115006						
Layer: Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
195_15_b	51115007						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
196_15_b	51115008						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
197_15_b	51115009						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
198_15_b	51115010						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
199_15_b	51115011						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
200_15_b	51115012						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
201_15_b	51115013						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B252562

Client Name: Amec Foster Wheeler **Date Printed:** 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
202_15_c	51115014						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
203_15_c	51115015						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
204_15_c	51115016						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
205_15_c	51115017						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
206_15_c	51115018						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
207_15_c	51115019						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
208_15_c	51115020						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
209_15_a	51115021						
Layer: Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
210_15_a	51115022						
Layer: Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
211_15_a	51115023						
Layer: Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
212_15_b	51115024						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
213_15_b	51115025						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
214_15_b	51115026						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
215_15_c	51115027						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
216_15_c	51115028						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
217_15_c	51115029						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
218_15_a	51115030						
Layer: Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %) Fibrous Glass (2 %)		**Asbestos (ND)**					
219_15_a	51115031						
Layer: Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
220_15_a	51115032						
Layer: Pink Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (2 %)		**Asbestos (ND)**					
221_15_b	51115033						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B252562

Client Name: Amec Foster Wheeler **Date Printed:** 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
222_15_b	51115034						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
223_15_b	51115035						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
224_15_c	51115036						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
225_15_c	51115037						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
226_15_c	51115038						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
227_15_a	51115039						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
228_15_a	51115040						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
229_15_a	51115041						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
230_15_b	51115042						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
231_15_b	51115043						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Client Name: Amec Foster Wheeler

Report Number: B252562
Date Printed: 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
232_15_b	51115044						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
233_15_c	51115045						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
234_15_c	51115046						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
235_15_c	51115047						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
236_15_a	51115048						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
237_15_a	51115049						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
238_15_a	51115050						
Layer: White Drywall			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (Trace)		**Asbestos (ND)**					
239_15_b	51115051						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
240_15_b	51115052						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
241_15_b	51115053						
Layer: White Skimcoat/Joint Compound			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B252562
Client Name: Amec Foster Wheeler **Date Printed:** 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
242_15_c	51115054						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
243_15_c	51115055						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
244_15_c	51115056						
Layer: White Texture			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
245_23_a	51115057						
Layer: Black Mastic		Chrysotile	**2 %**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (2%)**					
246_23_a	51115058						
Comment: Sample not analyzed due to prior positive result in series.							
247_23_a	51115059						
Comment: Sample not analyzed due to prior positive result in series.							
248_24_a	51115060						
Layer: Black Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %)		**Asbestos (ND)**					
249_24_a	51115061						
Layer: Black Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %)		**Asbestos (ND)**					
250_24_a	51115062						
Layer: Black Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %)		**Asbestos (ND)**					
251_25_a	51115063						
Layer: Black Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %)		**Asbestos (ND)**					
252_25_a	51115064						
Layer: Black Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (5 %)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Client Name: Amec Foster Wheeler

Report Number: B252562
Date Printed: 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
253_25_a	51115065						
Layer: Black Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace) Fibrous Glass (5 %)		**Asbestos (ND)**					
253_26_a	51115066						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
254_26_a	51115067						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
255_26_a	51115068						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
256_27_a	51115069						
Layer: Black Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %)		**Asbestos (ND)**					
257_27_a	51115070						
Layer: Black Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %)		**Asbestos (ND)**					
258_27_a	51115071						
Layer: Black Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (10 %)		**Asbestos (ND)**					
259_28_a	51115072						
Layer: Grey Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
260_28_a	51115073						
Layer: Grey Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
261_28_a	51115074						
Layer: Grey Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B252562

Client Name: Amec Foster Wheeler **Date Printed:** 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
262_29_a	51115075						
Layer: Black Mastic		Chrysotile	**2 %**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (2%)**					
263_29_a	51115076						
Comment: Sample not analyzed due to prior positive result in series.							
264_29_a	51115077						
Comment: Sample not analyzed due to prior positive result in series.							
265_30_a	51115078						
Layer: Black Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
266_30_a	51115079						
Layer: Black Mastic			**ND**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (ND)**					
267_30_a	51115080						
Layer: Black Mastic		Chrysotile	**3 %**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (3%)**					
268_31_a	51115081						
Layer: Black Mastic		Chrysotile	**2 %**				
Total Composite Values of Fibrous Components: Cellulose (5 %)		**Asbestos (2%)**					
269_31_a	51115082						
Comment: Sample not analyzed due to prior positive result in series.							
270_31_a	51115083						
Comment: Sample not analyzed due to prior positive result in series.							
271_32_a	51115084						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
272_32_a	51115085						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
273_32_a	51115086						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Report Number: B252562

Client Name: Amec Foster Wheeler **Date Printed:** 01/26/18

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
274_33_a	51115087						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
275_33_a	51115088						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
276_33_a	51115089						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Amec Foster Wheeler E&I

Asbestos Survey Form 04a - Bulk Sampling Log

Project Number	1R 131644420.82	Collection Date	Jan 12, 2018
Site Name	ACI Jet	Submission Date	
Building Number			

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
001	Dry wall, new	1	a	1		5
002	"		"	2		8
003	"		"	3		11
004	Joint compound, new		b	1		5
005	"		"	2		8
006	"		"	3		11
007	"		"	4		11
008	"		"	5		13
009	"		"	6		25
010	"		"	7		~~7~~
011	Texture, new		c	1		~~10~~
012	"		"	2		10
013	"		"	3		~~25~~ 10

Analysis Requested	PLM	Turnaround Time	One Week ✓

Transmitted From:

AMEC E&I
6001 Rickenbacker Rd., Los Angeles CA 90040
Phone 323.889.5300

Transmitted To:

☐ Forensic Analytical / CA

PO # 1R 131644420.82

☐ _____

Analyze to 1st Positve

Sender's Signature: Don E Harman

Recipient's Signature: Adam Carillo FIE 01/19/18 10:14 AM

Asbestos Survey Form 04a - Bulk Sampling Log v3

Total Number of Samples Collected in Building: 276

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.82	Collection Date	Jan. 12, 2018
Site Name	ACI Jet	Submission Date	
Building Number			

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
014	Texture, new	1	c	4		25
015	"	"	"	5		26
016	"	"	"	6		31
017	"	"	"	7		35
018	Cove base mastic (gray CB)	2	a	1		10
019	"	"	"	2		35
020	"	"	"	3		40
021	Ceiling tile, 2x4 (2x2 pattern)	3	a	1		28
022	"	"	"	2		33
023	"	"	"	3		38
024	Sheet vinyl & mastic, lt. gray	4	ab	1		7
025	"	"	"	2		39
026	"	"	"	3		40
027	" med gray, terrazzo	5	ab	1		4
028	"	"	"	2		5
029	"	"	"	3		10
030	Ceiling tile, 2x4 smooth	6	a	1		5
031	"	"	"	2		"
032	"	"	"	3		"
033	Cove base mastic (black CB)	7	a	1		33
034	"	"	"	2		"

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	1R13164420.82	Collection Date	Jan 12, 2018
Site Name	ACI Jet	Submission Date	
Building Number			

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
035	Cove base mastic (black CB)	7	a	3		33
036	Floor tile & mastic, black	8	ab	1		"
037	" " " "	"	"	2		"
038	" " " "	"	"	3		"
039	Ceiling tile, 2x2 bl.	9	a	1		36
040	" " "	"	"	2		"
~~05~~041	" " "	"	"	3		"
042	Ceiling tile, 2x2 cork	10	a	1		24
043	" " "	"	"	2		"
044	" " "	"	"	3		"
045	Duct mastic gray	11	a	1		39
046	Epoxy coating.	12	a	1		41
047	" "	"	"	2		"
048	" "	"	"	3		"
049	Ceiling tile rough (2x2)	13	a	1		16
050	" " "	"	"	2		"
051	" " "	"	"	3		"
052	Dry wall, old	14	a	1		6
053	" " "		"	2		23
054	" " "		"	3		
055	Joint compound, old		b	1		2

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	1R 13164420.8.2	Collection Date	Jan 12, 2018
Site Name	ACI Jet	Submission Date	DEH
Building Number			

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
056	Joint compound, old	14	b	2		6
057				3		7
058				4		23
059				5		32
060				6		33
061				7		40
062	Texture, old		c	1		7
063				2		23
064				3		33
065				4		38
066				5		38
067				6		40
068				7		42
069	Dry wall	15	a	1		60
070				2		63
071				3		64
072				4		71
073	Joint compound	15	b	1		60
074				2		70
075				3		71
076				4		72

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	1R131644.20.82	Collection Date	Jan 15, 2018
Site Name	ACI Jet	Submission Date	
Building Number			

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
077	Texture	15	c	1		60
078				2		64
079				3		70
080				4		71
081				5		72
082	Dry wall	15	a	1		54
083				2		55
084				3		68
085				4		69
086	Joint compound	15	b	1		55
087				2		56
088				3		68
089				4		68
090				5		69
091	Texture	15	c	1		54
092				2		68
093				3		69
094	Dry wall	15	a	1		49
095				2		50
096				3		50
097	Joint Compound	15	b	1		49

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR 13164420.82	Collection Date	Jan 15, 2018
Site Name	ACI Jet	Submission Date	
Building Number			

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
098	Joint compound	15	b	2		50
099	"	"	"	3		50
100	"	"	"	4		50
101	"	"	"	5		51
102	Texture	15	c	1		49
103	"	"	"	2		50
104	Dry wall	15	a	1		45
105	"	"	"	2		46
106	"	"	"	3		47
107	Joint compound	15	b	1		45
108	"	"	"	2		45
109	"	"	"	3		46
110	"	"	"	4		47
111	Texture	15	c	1		45
112	"	"	"	2		46
113	"	"	"	3		47
114	Drywall	15	a	1		66
115	"	"	"	2		66
116	"	"	"	3		66
117	Joint compound	15	b	1		66
118	"	"	"	2		66

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.82	Collection Date	Jan 15, 2018
Site Name	ACI Jet	Submission Date	
Building Number			

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
119	Joint compound	15	b	3		66
120	" "	"	"	4		66
121	Texture	15	c	1		66
122	"	"	"	2		66
123	"	"	"	3		66
124	Ceiling tile, 2x4 (2x2)	16	a	1		50
125	" "	"	"	2		67
126	" "	"	"	3		-
127	Ceiling tile, 2x2	19	a	1		66
128	Cove base mastic	17	a	1		49
129	"	"	"	2		50
130	"	"	"	3		60
131	"	"	"	4		64
132	"	"	"	5		68
133	"	"	"	6		72
134	Carpet mastic	18	a	1		46
135	" "	"	"	2		50
136	" "	"	"	3		56
137	Ceiling tile, 2x2	19	a	2		52
138	Dry wall	15	a	1		52
139	" "	"	"	2		52

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR 13164420.82	Collection Date	Jan 16, 2018
Site Name	ACI Jet	Submission Date	
Building Number			

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
140	Drywall	15	a	3		52
141	Joint compound	15	b	1		52
142	↓	↓	↓	2		↓
143	↓	↓	↓	3		↓
144	Texture	15	c	1		52
145	↓	↓	↓	2		↓
146	↓	↓	↓	3		↓
147	Drywall	15	a	1		43
148	↓	↓	↓	2		53
149	↓	↓	↓	3		108
150	Joint compound	15	b	1		43
151	↓	↓	↓	2		53
152	↓	↓	↓	3		108
153	Drywall	15	a	1		59
154	↓	↓	↓	2		65
155	↓	↓	↓	3		82
156	Joint compound	15	b	1		59
157	↓	↓	↓	2		65
158	↓	↓	↓	3		82
159	Texture	15	c	1		59
160	↓	↓	↓	2		65

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	1R13164420.82	Collection Date	Jan 16, 2018
Site Name	AC1 Jet	Submission Date	
Building Number			

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
161	Texture	15	c	3		82
162	Floor tile, 12x12 beige w/ specs	20	ab	1		59
163	"	"	"	2		59
164	"	"	"	3		65
165	Drywall	15	a	1		83
166	"	"	"	2		94
167	"	"	"	3		107
168	Joint compound	15	b	1		83
169	"	"	"	2		83
170	"	"	"	3		83
171	"	"	"	4		92
172	"	"	"	5		107
173	Texture	15	c	1		83
174	"	"	"	2		83
175	"	"	"	3		83
176	"	"	"	4		92
177	"	"	"	5		95
178	Cove base mastic (gr CB)	22	a	1		83
179	"	"	"	2		92
180	"	"	"	3		94
181	Cove base mastic (blc6 painted wh)	23	a	1		75

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.82	Collection Date	Jan 16, 2018
Site Name	ACI Jet	Submission Date	
Building Number			

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
182	Dry wall	15	a	1		61
183	↓	↓	↓	2		61
184	↓	↓	↓	3		75
185	Joint compound	↓	b	1		62
186	↓	↓	↓	2		62
187	↓	↓	↓	3		62
188	Texture	↓	c	1		61
189	↓	↓	↓	2		61
190	↓	↓	↓	3		62
191	Carpet mastic	18	a	1		61
192	Dry wall	15	a	1		87
193	↓	↓	↓	2		97
194	↓	↓	↓	3		97
195	Joint compound	↓	b	1		87
196	↓	↓	↓	2		87
197	↓	↓	↓	3		87
198	↓	↓	↓	4		97
199	↓	↓	↓	5		97
200	↓	↓	↓	6		101
201	↓	↓	↓	7		101
202	Texture	↓	c	1		87

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR/3164420.82	Collection Date	Jan 16, 2018
Site Name	Ac1 Jet	Submission Date	
Building Number			

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
203	Texture	15	c	2		87
204				3		~~87~~ 97
205				4		97
206				5		98
207				6		~~98~~ 101
208	"			7		101
209	Dry wall	15	a	1		90
210	"			2		90
211	"			3		98
212	Joint compound		b	1		90
213	"			2		90
214	"			3		90
215	Texture		c	1		90
216	"			2		90
217	"			3		90
218	Dry wall		a	1		103
219	"			2		103 ~~4~~
220	"			3		105
221	Joint compound		b	1		96
222	"			2		105
223	"			3		105

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	1R13164420.82	Collection Date	Jan 17, 2018
Site Name	Acl Jet	Submission Date	
Building Number			

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
224	Texture	15	c	1		91
225	"		"	2		103
226	"		"	3		104
227	Dry wall		a	1		78
228	" "		"	2		78
229	" "		"	3		93
230	Joint compound		b	1		78
231	" "		"	2		78
232	" "		"	3		93
233	Texture		c	1		78
234	"		"	2		78
235	"		"	3		93
236	Dry wall		a	1		77
237	" "		"	2		
238	" "		"	3		
239	Joint compound		b	1		
240	" "		"	2		
241	" "		"	3		
242	Texture		c	1		
243	"		"	2		
244	"		"	3		

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR13164420.82	Collection Date	Jan 17 2018
Site Name	ACI Jet	Submission Date	
Building Number			

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
245	Penetration mastic, field	23	a	1	Roof	South
246	" " "	"	"	2	"	"
247	" " "	"	"	3	"	"
248	Curb mastic	24	a	1	"	"
249	" "	"	"	2	"	"
250	" "	"	"	3	"	"
251	Patch mastic	25	a	1	"	"
252	" "	"	"	2	"	"
253	" "	"	"	3	"	"
253	Joint seal	26	a	1	"	"
254	" "	"	"	2	"	"
255	" "	"	"	3	"	"
256	Penetration mastic, wall	27	a	1	"	"
257	" " "	"	"	2	"	"
258	" " "	"	"	3	"	"
259	Duct mastic	28	a	1	"	"
260	" "	"	"	2	"	"
261	" "	"	"	3	"	"
262	Penetration mastic	29	a	1	"	North
263	" "	"	"	2	"	"
264	" "	"	"	3	"	"

Amec Foster Wheeler E&I

Asbestos Survey Form 04b - Bulk Sampling Log

Project Number	IR16164420.82	Collection Date	Jan 17, 2018
Site Name	ACI Jet	Submission Date	
Building Number			

Sample #	Material Description	HM No.	Layer	Assay Number	Level	Room No.
265	Curb mastic	30	a	1	Roof	North
266	" "	"	"	2		
267	" "	"	"	3		
268	Patch mastic	31	a	1		
269	" "	"	"	2		
270	" "	"	"	3		
271	Joint seal	32	a	1		
272	" "	"	"	2		
273	" "	"	"	3		
274	Duct mast	33	a	1		
275	" "	"	"	2		
276	" "	"	"	3		

APPENDIX C

PORTABLE X-RAY FLOURESCENCE SPECTRUM ANALYZER READINGS

Project No. IR13164420.82 Site: Act Jet Inspector: DETI

Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
	192	Calibration					1.1	
1	193	N	window frame	metal	intact	bl	0.0	
1	195	E	stairstring	"	"	gr.	0.0	
1	196	S	Wall	DW	"	wh	0.0	
1	197	W	window sash	metal	"	bl	0.0	
2	-201	NESW	Wall	DW	"	wh	0.0, 0.0	0.0, 0.0
2	202	E	Door frame	metal	"	bl.	0.0	
2	203	E	Door	wood	"	gr	0.0	
3	-208	NESW	wall	DW	"	w/gr/w	0.0, 0.0, 0.01, ac	floor
3	209	E	Door sash	metal	"	bl	0.0	
3	210	E	Door	wood	"	gr	0.0	
39 ~~4~~	-213	NEW	wall	DW	"	wh	0.0, 0.0, 0.02	
39 ~~4~~	214	—	floor	SV	"	lt. gr.	0.0	
4	-218	NESW	Wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
4	219	—	Floor	SV	"	med gr	0.0	
38	-223	NESW	wall	DW, DW, conc, conc	"	wh	0.0, 0.0, 0.0, 0.0	

Project No. IR/3164420.82 Site: ACT Jet Inspector: DEH

Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
38	224	W	Door frame	metal	intact	lt. gr.	0.0	
38	225	W	Door	"	"	"	0.0	
38	226	S	Window frame	"	"	bl.	0.0	
5	-230	N,E,S,W	Wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
7	-235	N,E,SW	Wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
7	236	S	Door frame	metal	"	bl	0.0	
7	237	S	Door	wood	"	gr.	0.0	
10	-243	N,E,S,W	Wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
10	244	W	Door frame	metal	"	lt. gr.	0.0	
10	245	W	Door	"	"	lt. gr.	0.0	
8	-252	NESW	Wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
8	253	N	Wall tile 1x2	vinyl	"	gr.	0.02	
8	254	N	Wall tile 1x2	"	"	wh wavy	0.01	
8	255	-	Floor	Ceramic	"	med gr	0.01	
12	-258	N,E,S,W	Wall	conc, DW, glass, DW	"	gr, wh, clear, wh	0.0, 0.0, -, 0.0	
12	259	N	Window frame	metal	"	bl	0.0	

assume women's R/R is same

135 [14] are the same

Project No. 1R13164420.82 Site: ACI Jet Inspector: DEH

Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
16	-261	NS	Wall	ceramic, conc	intact	beige, gr.	0.08,	0.0
16	262	—	Floor	ceramic	"	beige	0.17	
16	railing to airfield all elements are round, no shot possible blue gr.							
16	263 E	E	Window frame	metal	intact	bl.	0.0	
17	-266	N, E, S	Wall	DW	"	wh		
17	268	E	Door	metal	"	bl	0.0	
17	269	E	Sliding door	wood	"	gr.	0.0	
18	-273	N, E, S, W	Wall	DW	"	w/w/gr/w	0.0, 0.0, 0.0, 0.0	
19	-277	NESW	wall	drywall/conc/DW	"	~~drywall/conc~~ wh/DW	0.0, 0.01, 0.0, 0.0	
20	-281	NESW	wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
20	282	W	Door frame	metal	"	bl.	0.0	
20	283	W	Door	wood	"	gr	0.0	
36	-288	N, E, S, W	wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
35	-291	N, E, W	Wall	DW	"	wh	0.0, 0.0, 0.0	
35	292	S	Wall	glass tile	"	blk wh shades	0.0	
21	-296	NESW	wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	

Project No. 1R13164420.82 Site: Ac1 Set Inspector: DEH

Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
21	297	E	Wall tile 4x4 wh	ceramic	intact	wh	0.01	
21	298	—	Floor tile 12x12	ceramic	"	wh	0.0	
SE Stairwell	-302	N,E,S,W	wall	DW/conc/DW/DW	"	wh	0.0,0.0,0.0,0.0	
4	303	N	Stair stringer	metal	"	gr.	0.0 (radio and tablaw)	
under stair stringer	-307	N,E,S,W	wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
4	308	W	Door frame	metal	"	bl.	0.0	
4	309	W	Door	wood	"	gr.	0.0	
7	310	—	Sink	ceramic	"	wh	0.0	
25	-314	NESW	wall	DW	"	wh	0.0, 0.0, 0.01, 0.0	
21	315	—	Partition	metal	"	wh	0.0	
26	-319	NESW	wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
27	-323	NESW	wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
27	324	W	Door frame	metal	"	bl	0.0	
27	325	W	Door	wood	"	gr.	0.0	
28	-330	NESW	wall	DW	"	wh/wh/wh/bla	0.0, 0.0, 0.0, 0.0	
29	-336	NESW	wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	

Project No. IR13164420.82 Site: ACI Jet. Inspector: DEH

Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
29	~~338~~	E	Window Sam	metal	intact	bl.	0.0	
30	-342	NESW	Wall	DW	intact	wh	0.0, 0.0, 0.0, 0.0	
30	343	S	Door frame	metal	"	~~bl~~	0.0	
30	344	S	Door	wood	"	gr	0.0	
24	-348	NESW	Wall	DW	"	wh	0.0, 0.0, 0.01, 0.0	
31	-352	NESW	Wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
34	-357	NESW	Wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
34	357	E	ladder	metal	"	Red	0.0	
34	358	S	electrical box	"	"	gr.	0.0	
33	~~358~~ -363	NESW	Wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
33	367	—	Floor	Vinyl	"	bl	0.01	
32	-368	NESW	Wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
23	-372	NESW	Wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
23	374	S	Sink	Ceramic	"	wh	0.0	
23	376	—	Floor	~~SV~~	"	ltgr.	0.01	
telephone closet 2nd fl.	-379	ESW	wall	DW	"	wh	0.0, 0.0, 0.0	

Project No. IR/3164420.82 Site: ACI Jet Inspector: DEH

Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
Telephone closet 2nd fl.	380	W	Door frame	metal	intact	gr	0.0	
11	381	N	Door	wood	"	gr	0.0	
37	-386	NE SW	Wall	conc.	"	wh	0.0, 0.0, 0.0, 0.0	
37	387	W	Hangar door	metal	"	blue	0.0	
37	388	W	Floor marking	conc.	"	yellow	0.01	
37	388	N	Curbing	conc.	"	"	0.0	
37	389	—	Floor epoxy	conc.	"	gr	0.0	
37	390	—	"	"	"	H. gr	0.0	
37	391		grnd/tape	"	"	gr	0.0	
37	392	E	Door frame	metal	"	wh	0.0	
37	393	E	Door	metal	"	wh	0.0	
	394	Calibration		1/14			0.9	

Hangar

Project No. 1R13164420.82 Site: Aci Jet Inspector: DEH

Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
~~60~~	399	Calibration 1/15					1.2	
60	-400	NESW	wall	DW	Limited	wh	0.0, 0.0, 0.0, 0.0	
↓	401	S	Door frame	metal	"	bl	0.0	
↓	402	S	Door	wood	"	natural	0.0	
C4	-406	NESW	wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
↓	407	N	Door frame	metal	"	bl	0.0	
71	-411	NESW	wall	DW	"	wh	0.0, 0.0, 0.0, 0.01	
72	-415	NESW	wall	DW	"	gr, wh, wh, wh	0.0, 0.0, 0.0, 0.0	
73	-419	NESW	wall	DW (sidewall)	"	wh	0.0, 0.0, 0.0, 0.0	
63	-423	NESW	wall	DW	"	wh (wgr)	0.0, 0.0, 0.0, 0.0	
54	-427	NESW	wall	DW	"	beige	0.0, 0.0, 0.0, 0.0	
54	428	N	Door frame	metal	"	bl.	0.0	
54	429	N	door	wood	"	natural	0.0	
55	-433	NESW	wall	DW	"	beige	0.0, 0.0, 0.01, 0.0	
56	-443	NESW	wall	DW	"	"	0.01, 0.0, 0.0, 0.0	
67	-448	NESW	wall	DW	"	"	0.0, 0.0, 0.0, 0.0	

Project No. IR13164420.82 Site: ACI Jet Inspector: DEH

Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
68	-452	NESW	wall	DW	Intact	beige	0.0, 0.0, 0.0, 0.0	
67	453	—	floor	Ceramic	"	"	0.12	
69	-457	NESW	wall	DW	"	"	0.0, 0.0, 0.0, 0.02	
48	-461	NESW	wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
49	-466	NESW	wall	DW	"	wh	0.0, 0.0, 0.01, 0.0	
49	-467	S	Door frame	metal	"	bl	0.01	
50	-472	NESW	wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
51	-476	NESW	wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
51	477	W	Door frame	metal	"	bl	0.0	
70	-481	NESW	wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
70	482	—	floor	ceramic	"	beige	0.22	
45	-486	NESW	wall	DW	"	~~beige~~ wh	~~beige~~ 0.0, 0.0, 0.0, 0.0	
46	-490	NESW	wall	DW	"	beige	~~0.01~~ 0.01, 0.0, 0.0, 0.0	
47	-494	NESW	wall	DW	"	beige	0.01, 0.01, 0.0, 0.0	
47	495		Door frame	metal	"	bl.	0.0	
	496	Calibration 1/15					0.9	

Project No. 1R1316442.82 Site: ACI Set Inspector: DETI

Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
	502	Calibration 1/16					1.2	
59	-503	NESW	wall	DW	intact	wh	0.0, 0.0, 0.0, 0.0	
↓	524	-	floor	PT vinyl	"	beige	0.0	
↓	525	-	"	"	"	med gray	0.0	
62	506	N	wall	DW	"	red	0.0	
62	-510	NESW	wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
61	-514	NESW	wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
75	-518	NESW	wall	DW	"	red, wh, wh, wh	0.0, 0.0, 0.0, 0.0	
~~82~~	No paint in	108, 534, 65						
65	-524	NESW	wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
64	525	~~sink~~	sink	ceramic	"	wh	0.0	
↓	526		floor	vinyl	"	beige	0.0	
↓	527		door frame	metal	"	bl	0.0	
82	-530	NESW	wall	DW	"	wh	0.0, 0.0, 0.0	
82	-534	NESW	wall	DW	"	wh	0.0, 0.0, 0.0, 0.0	
	535	-	floor	ceramic	"	beige	0.23	

Project No. IR13/64420.82 Site: ACI Jet Inspector: DEH

Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
58	536		Wall	ceramic	intact	lt. brn	0.02	
	537					bl	0.0	
	538					purple	0.0	
	539					turquoise	0.02	
	540		floor	ceramic		gray	0.01	
last ft. R/R vestib	-545	NESW	wall	DW		wh	0.0, 0.05, 0.0, 0.0	
	-546		floor	ceramic		beige	0.13	
88	-550	NESW	wall	DW	wh	wh, gr, wh	0.0, 0.0, 0.0, 0.0	
87	-554	NESW	wall	DW		wh, wh, gr, wh	0.0, 0.0, 0.0, 0.0	
87	555	N	Door frame	metal		bl	0.0	
87	556	W	Window frame	"		"	0.19	
97	-560	NESW	wall	DW		wh	0.0, 0.0, 0.0, 0.0	
101	-564	NESW	wall	DW		wh, wh, wh, blue	0.0, 0.0, 0.0, 0.0	
102	-569	NESW	wall	DW		wh, wh, wh, gr	0.0, 0.0, 0.0, 0.0	
98	-573	NESW	wall	DW		gr, wh, wh, wh	0.0, 0.0, 0.0, 0.0	
98	574	-	door frame	metal		bl	0.0	

Project No. IR13164.20.82 Site: ACI Jet Inspector: D.EH

Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
100	-578	NESW	wall	DW	intact	wh,wh,wh,wh	0.0,0.0,0.0,0.0	
99	-581	ESW	wall	DW		wh,wh,wh	0.07,0.0,0.0	
86	-585	NESW	wall	DW		wh,wh,gr,wh	0.0,0.0,0.0,0.0	
83	-589	NESW	wall	DW		beige	0.0,0.0,0.0,0.0	
1	590	W	Window frame	metal		bl	0.0	
92	594	NESW	wall	DW		bei,blue,beige,bl	0.0,0.0,0.01,0.0	
55	-599	NESW	wall	DW		E blue beige	0.0,0.0,0.0,0.0	
106	-602	NES	wall	DW		beig,blue,beig	0.0,0.0,0.0	
107	-607	NSW	wall	DW		beige	0.0,0.0,0.0	
94	-613	NESW	wall	DW		beige	0.0,0.0,0.0,0.0	
	614	Calibration 1/16					1.0	
	616	Calibration 1/17					0.9	
96	-620	NESW	wall	DW	intact	wh	0.0,0.0,0.0,0.0	
89	-623	NEW	wall	DW		wh,wh,gr	0.0,0.0,0.0	
91	-628	NESW	wall	DW		wh	0.0,0.0,0.0,0.0	
91	631		floor	vinyl		gr	0.0	

Project No. 1R131644.20.02 Site: ACI Jet Inspector: DEH

Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
103	-633	NESW	wall	DW	intact	wh, wh, wh, gr	0.0, 0.0, 0.0, 0.0	
96	-636	NSW	wall	DW		wh, wh, gr	0.0, 0.0, 0.0	
104	-640	NESW	wall	DW		wh, wh, wh, gr	0.0, 0.0, 0.0, 0.0	
104	641	N	window & door frame	metal		bl	0.0	
105	-645	NESW	wall	DW		wh, wh, gr, wh	0.0, 0.0, 0.0, 0.0	
78	-649	NESW	wall	DW		beige	0.0, 0.0, 0.0, 0.0	
Janitor 2nd fl	-653	NESW	wall	DW		beige	0.0, 0.0, 0.0, 0.0	
77	-657	NESW	wall	DW		wh	0.0, 0.0, 0.0, 0.0	
R/R's. Same								
77	658	S	wall	DW	intact	grn	0.0	
39	659	ceiling	frame	metal		red	0.0	
	660	airside	wall	conc.		beige	0.0	
	661	airside hangar ext.	door	metal		blue	0.0	
	667	exterior airside Southwing	window/door frame	metal		bl	0.0	
	668	airside Northwing exterior	door frame	metal		bl	0.0	
	669	Sheet aside Northwing exterior	window frame	metal		bl	0.0	

Project No. IR13164420.82 Site: ACI Jet Inspector: DEH

Unit/Room	Shot No.	Location	Component	Substrate	Condition	Color	Results	Remarks
	670	street side exterior South wing	wall	conc	intact	beige	0.0	
	671	Street side South wing exterior	window frame	metal	↓	bl	0.01	
	672	Calibration					0.9	

APPENDIX D

CDPH FORM 8552

State of California—Health and Human Services Agency

California Department of Public Health

LEAD HAZARD EVALUATION REPORT

Section 1 — Date of Lead Hazard Evaluation January 12, 2018

Section 2 — Type of Lead Hazard Evaluation (Check one box only)

☑ Lead Inspection ☐ Risk assessment ☐ Clearance Inspection ☐ Other (specify) _____

Section 3 — Structure Where Lead Hazard Evaluation Was Conducted

Address [number, street, apartment (if applicable)]	City	County	Zip Code
19301 Campus Drive	Santa Ana	Orange	92626

Construction date (year) of structure	Type of structure	Children living in structure?
1995	☐ Multi-unit building ☐ School or daycare ☐ Single family dwelling ☑ Other Offices & Hangar	☐ Yes ☑ No ☐ Don't Know

Section 4 — Owner of Structure (if business/agency, list contact person)

Name	Telephone number
John Wayne Airport, Orange County: Melinda McCoy	949-252-5267

Address [number, street, apartment (if applicable)]	City	State	Zip Code
3160 Airway Ave.	Costa Mesa	CA	92626

Section 5 — Results of Lead Hazard Evaluation (check all that apply)

☑ No lead-based paint detected ☐ Intact lead-based paint detected ☐ Deteriorated lead-based paint detected

☐ No lead hazards detected ☐ Lead-contaminated dust found ☐ Lead-contaminated soil found ☐ Other_____

Section 6 — Individual Conducting Lead Hazard Evaluation

Name	Telephone number
Don Harman	323-889-5300

Address [number, street, apartment (if applicable)]	City	State	Zip Code
6001 Rickenbacker Rd.	Los Angeles	CA	90040

CDPH certification number	Signature	Date
10236	Don E. Harman	February 5, 2018

Name and CDPH certification number of any other individuals conducting sampling or testing (if applicable)

Section 7 — Attachments

A. A foundation diagram or sketch of the structure indicating the specifc locations of each lead hazard or presence of lead-based paint;
B. Each testing method, device, and sampling procedure used;
C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector

Second copy and attachments retained by owner

Third copy only (no attachments) mailed or faxed to:

California Department of Public Health
Childhood Lead Poisoning Prevention Branch Reports
850 Marina Bay Parkway, Building P, Third Floor
Richmond, CA 94804-6403
Fax: (510) 620-5656