April 21, 2017

Ms. Kit Soo
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Subject: **Submittal Acknowledgement Statement**
Interim Mitigation Measures Results
10700 MacArthur Blvd., Oakland, California
AEI Project # 365948
Toxics Case No. RO0002580

Dear Ms. Soo:

I have read and acknowledge the content, recommendations and/or conclusions contained in the attached document or report submitted on my behalf to ACDEH's FTP server and the State Water Resources Control Board's GeoTracker website.

If you have any questions or need additional information, please do not hesitate to call Mr. Jonathan Kasirer at (310) 270-8339, or Mr. Jeremy Smith with AEI Consultants at (925) 746-6028.

Sincerely,

WAC Enterprises FHS, LLC
8245 W. 4th Street,
Los Angeles, California 90048

AEI Consultants
Environmental & Engineering Services
2500 Camino Diablo, Walnut Creek, CA 94597
Tel: 925.746.6000 Fax: 925.746.6099

April 21, 2017

Ms. Kit Soo
Alameda County Department of Environmental Health
1131 Harbor Parkway
Alameda, California 94502

Re: Interim Mitigation Measures Results
Former Young's Cleaners
10700 MacArthur Boulevard, Oakland, California
AEI Project No. 365948
Toxics Case No RO0002580

Dear Kit Soo:

On behalf of WAC Enterprises FHS, LLC, AEI Consultants (AEI) is pleased to present the partial implementation of the *Vapor Intrusion Mitigation Plan Addendum* (VIMP Addendum) dated April 7, 2017 addressing environmental concerns at the former Young's Cleaners at 10700 MacArthur Boulevard in Oakland, California ("the Site"). This document presents the implementation of the Tier I interim mitigation measures implemented in the storeroom area at the Site and the resulting confirmation indoor air sampling which was conducted in the storeroom and equipment room housing the Soil Vapor Extraction and Treatment (SVET) and Sub-slab depressurization (SSD) systems.

Implementation of Interim Mitigation Measures
On April 10, 2017, AEI performed the Tier I interim mitigation measures for the storeroom and equipment room as outlined in the VIMP Addendum. These measures included the following:

- The equipment room is ventilated by an exhaust fan installed above the door frame. This fan is normally operated continuously to keep equipment within the room cool. To aid in the identification of vapor intrusion in the equipment room, the ventilation fan was turned off to reduce the potential negative pressure within the room generated by the exhaust fan.
- Inspecting the SSD and SVET system piping within the equipment room for leaks which may be present, which could be a source of VOCs to building air. Verify that all sample ports, valves, and other system openings are closed as appropriate and not venting to indoor air.

- AEI will inspect the integrity of the floor within the equipment and store room for obvious cracks and/or penetrations.

AEI did not observe obvious cracks or other sources of VOC-affected soil vapor from entering the equipment room.

Confirmation Indoor Air Sampling

On April 14, 2017, following the implementation of the interim mitigation measures outlined above and the evaluation of the heating, ventilation, and air conditioning system (HVAC) evaluation presented in the April 14, 2017 *HVAC Evaluation Results at Rainbow Apparel Suite and Storeroom*, AEI collected two confirmation indoor air samples. Sample IA-3 was collected from within the storeroom at the same location used during previous sampling events. Sample IA-8 was collected from within the equipment room, which has not been sampled previously.

Indoor air samples IA-3 and IA-8 were collected from within the breathing zone (4 to 6 feet above ground surface) using evacuated six-liter, laboratory-supplied evacuated canisters, equipped with flow regulators to allow for the collection of samples over a 24-hour period. The collected air samples were analyzed for select VOCs including tetrachloroethylene (PCE), trichloroethylene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), and vinyl chloride (VC) using US EPA Testing Method TO-15 SIM.

Table 1 presents a summary of the indoor air samples collected as part of this confirmation sampling event as well as historical indoor air sampling events. Laboratory analytical results are included as Appendix A. The indoor air sample analytical results were compared to Environmental Screening Levels[1] (ESL) under a commercial use scenario for PCE (2.1 µg/m^3), TCE (3.0 µg/m^3), cis-1,2-DCE (35 µg/m^3), and trans-1,2-DCE (350 µg/m^3). Additionally, TCE results were compared to the DTSC accelerated (7.0 µg/m^3) or urgent (21 µg/m^3) response levels[2]. The results can be summarized as follows:

- Indoor air sample IA-3 collected from within the storeroom area yielded significantly lower VOC concentrations than the March 15,2017 sampling event. PCE, TCE, and cis-1,2-DCE were detected at concentrations of 27 µg/m^3, 2.2 µg/m^3, and 0.91 µg/m^3 respectively. The PCE concentration observed represents a reduction of approximately one-third, from a detection of 69.2 observed in March to the 27 observed in April following the HVAC modifications. However, the PCE concentration observed remains

[1] ESLs developed by the California Regional Water Quality Control Board, San Francisco Bay Region, issued February 2016, Rev. 3.
[2] California Department of Toxic Substances Control Human Health Risk Assessment Note No. 5, August 23, 2014.

above the commercial exposure ESL. TCE and cis-1,2-DCE concentrations saw similar reductions and remain both below their respective commercial ESLs.

- Indoor air sample IA-8 was collected from within the equipment room. PCE, TCE, cis-1,2-DCE, and trans-1,2-DCE were present in the indoor air collected from IA-8 at concentrations of 310 µg/m^3, 27 µg/m^3, 9.4 µg/m^3, and 0.51 µg/m^3 respectively. The observed concentrations of cis-1,2-DCE trans-1,2-DCE did not exceed their applicable commercial exposure ESLs. Concentrations of both PCE and TCE each exceed their applicable commercial exposure ESLs. Additionally, the observed TCE exceeds both the accelerate and urgent response levels.

The California Regional Water Quality Control Board, San Francisco Bay Region in their October 16, 2014 draft *Interim Framework for Assessment of Vapor Intrusion at TCE-Contaminated Sites in the San Francisco Bay Region*. The framework outlines the following response:

- If TCE is equal to or less than accelerated response, "…routine periodic confirmation sampling or monitoring…" is appropriate.
- If the TCE concentration is greater than the accelerated response, "…early or interim response measures be evaluated and implemented quickly, within a few of weeks."

Sample IA-8, which exceeded both the accelerated and urgent response levels for TCE, was collected from within the equipment room. The equipment room is only accessed to perform operation and maintenance activities on the SVET and SSD systems. Access to the equipment room is controlled by a locked door, and only the Property Manager and AEI retain keys. Because the equipment room is access controlled, no immediate mitigation measures were deemed necessary to mitigate potential exposure to TCE contaminated vapors.

Based on the preliminary results provided in this report, AEI recommends the following modified Tier 2 measures be conducted within the equipment room. AEI proposes to identify the source of VOCs within the equipment room using a field screening tool, such the FROG-4000™, a portable gas chromatograph with photoionization detector. Identifying the preferential vapor migration pathways or breaches in the integrity of the SVET system and conveyance piping will allow for the immediate sealing or repair of the identified issue. If warranted, modifications to the SVET and/or SSDS systems may be performed to further protect indoor air quality. Following these measures, AEI recommends an additional round of indoor air sampling be conducted within the storeroom and equipment room to confirm that these measures improved indoor air quality. If the results of the additional indoor air testing show that further improvements are necessary to lower VOC concentrations in indoor air, the previously proposed Tier 2 measures would be implemented.

Implementation Schedule

AEI is prepared to perform the modified Tier 2 measures including the further evaluation using the FROG-4000™ or equivalent, repairs/improvements as identified, and confirmation sampling the week of April 24, 2017. The activities and results of the additional sampling will be submitted to the DEH by Friday May 5, 2017.

Closing

As reported in the *Interim Vapor Intrusion Mitigation Plan Implementation, Revision 1* dated April 20, 2017, indoor air samples collected from adjacent tenant spaces, indicate that the current vapor intrusion mitigation measures are sufficient to protect indoor air quality, with VOC concentrations below their respective ESLs for the protection of commercial workers within the Shoe Palace tenant space and the Rainbow Apparel tenant space. AEI continues to recommend approval the Shoe Palace tenant space for occupancy. The proposed additional measures to address the indoor air quality within the storeroom and equipment room will only further reduce VOC concentration within the Shoe Palace and Rainbow Apparel tenant spaces.

AEI appreciates working with the DEH on this important project. Please contact the undersigned at (925) 746-6000 if you have any questions regarding the contents of this technical memorandum.

Sincerely,
AEI Consultants

Jonathan E. Sanders
Project Engineer

Trent A. Weise, P.E.
Vice President

REGISTERED PROFESSIONAL ENGINEER
TRENT A. WEISE
No. C84480
Exp. 6/17
CIVIL
STATE OF CALIFORNIA

Encl:
Table 1 – Summary of Indoor Air Analytical Results

Figure 1 – Site Plan
Figure 2 – PCE in Indoor Air

Appendix A –Laboratory Analytical Reports

TABLES

TABLE 1
SUMMARY OF INDOOR AIR SAMPLE ANALYTICAL DATA
Former Young's Cleaners
1070 MacArthur Blvd, Oakland, CA

Sample ID	Date	PCE ($\mu g/m^3$)	TCE ($\mu g/m^3$)	c-1,2-DCE ($\mu g/m^3$)	t-1,2 DCE ($\mu g/m^3$)	VC ($\mu g/m^3$)
Comparison Values						
	ESL	2.1	3.0	35	350	0.16
	DTSC Accelerated Response	---	7.0	---	---	---
	DTSC Urgent Response	---	21	---	---	---
IA-1	8/23/2016	3.4	0.23	<0.40	<0.40	<0.013
	12/13/2016	1.3	0.15	<0.04	<0.04	<0.03
	3/15/2017	0.851	<0.107	<0.0793	<0.0793	<0.0511
IA-2	8/23/2016	4.1	0.21	<0.40	<0.40	<0.013
	12/13/2016	0.31	<0.05	<0.04	0.16	<0.03
	3/15/2017	0.930	<0.107	<0.0793	<0.0793	<0.0511
IA-3	12/13/2016	7.7	1.7	1.5	0.16	0.05
	3/15/2017	69.2	6.13	1.97	<0.0793	<0.0511
	4/14/2017	27	2.2	0.91	<0.40	<0.013
IA-4	12/13/2016	0.48	0.08	0.06	0.13	<0.03
	3/15/2017	1.45	0.163	<0.0793	<0.0793	<0.0511
IA-5	12/13/2016	1.1	0.43	<0.099	0.15	<0.026
	3/15/2017	1.39	<0.321	<0.238	<0.238	<0.153
IA-6	12/13/2016	1.2	0.45	0.32	0.56	0.16
	3/15/2017	1.83	0.161	<0.0793	<0.0793	<0.0511
IA-7	3/15/2017	1.26	<0.321	<0.238	<0.238	<0.153
IA-8	4/14/2017	310	27	9.4	0.51	<0.013
AMB-1	8/23/2016	<0.069	<0.027	<0.40	<0.40	<0.013
	12/13/2016	<0.17	<0.13	<0.099	<0.099	<0.026
	3/15/2017	0.250	<0.107	<0.0793	<0.0793	<0.0511

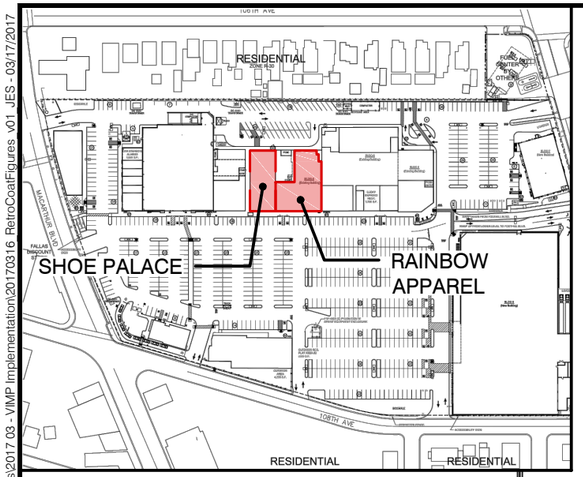
Notes:

	Newly reported data
$\mu g/m^3$	micrograms per cubic meter
c-1,2-DCE	cis-1,2-Dichloroethene
PCE	Tetrachloroethene
t-1,2-DCE	trans-1,2-Dichloroethene
TCE	Trichloroethene
VC	vinyl chloride

Comparison Values

ESL	Environmental Screening Level for commercial land use; RWQCB February 2016 (Rev.3)
DTSC Accelerated Response	Human Health Risk Assessment Note Number 5; August 23, 2014 based on a 10-hour work day under a commercial scenario.
DTSC Urgent Response	Human Health Risk Assessment Note Number 5; August 23, 2014 based on a 10-hour work day under a commercial scenario.

FIGURES



AMW-1

SS/VM-2

IA-7

SS/VM-1

IA-6

IA-2

IA-3

SS/VM-10

IA-5

SS/VM-5

SS/VM-9

AMW-6R

SS/VM-3

SS/VM-6

IA-1

SS/VM-8

IA-4

SS/VM-7

SS/VM-4

LEGEND

- Interior Fixture
- SVET & SDS Equipment Location
- Groundwater Monitoring Well
- Soil Vapor/Sub-slab Vapor Monitoring Point
- Indoor Air Sample Location

N

0 16 32 APPROXIMATE SCALE IN FEET

AEI Consultants
San Jose, California

SITE PLAN

10700 MacArthur Blvd
Oakland, California

FIGURE 1
Project No. 261829

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P:\Company\eds Projects\365000 Series\365948 Oakland, CA\SM\Deliverables\2017 Q4 - Interim WMP Implementation\20170316 RetroCoatFigures v01 JES - 04/21/2017

IA-7		
Date	PCE (µg/m^3)	TCE (µg/m^3)
03/15/17	1.26	<0.321

IA-8		
Date	PCE (µg/m^3)	TCE (µg/m^3)
04/14/17	310	27

IA-3		
Date	PCE (µg/m^3)	TCE (µg/m^3)
12/13/16	7.7	1.7
03/15/17	69.2	6.13
04/14/17	27	2.2

IA-6		
Date	PCE (µg/m^3)	TCE (µg/m^3)
12/13/16	1.2	0.45
03/15/17	1.83	0.161

IA-2		
Date	PCE (µg/m^3)	TCE (µg/m^3)
08/23/16	4.1	0.21
12/13/16	0.31	<0.05
03/15/17	0.930	<0.107

IA-5		
Date	PCE (µg/m^3)	TCE (µg/m^3)
12/13/16	1.1	0.43
03/15/17	1.39	<0.321

IA-1		
Date	PCE (µg/m^3)	TCE (µg/m^3)
08/23/16	3.4	0.23
12/13/16	1.3	0.15
03/15/17	0.851	<0.107

IA-4		
Date	PCE (µg/m^3)	TCE (µg/m^3)
12/13/16	0.48	0.08
03/15/17	1.45	0.163

AMB-01*		
Date	PCE (µg/m^3)	TCE (µg/m^3)
08/23/16	<0.069	<0.027
12/13/16	<0.17	<0.13
03/15/17	0.250	<0.107

AMW-8
AMW-1
AMW-6R
IA-1
IA-2
IA-3
IA-4
IA-5
IA-6
IA-7
IA-8
SS/VM-1
SS/VM-2
SS/VM-3
SS/VM-4
SS/VM-5
SS/VM-6
SS/VM-7
SS/VM-8
SS/VM-9
SS/VM-10

LEGEND

- Interior Fixture
- SVET & SSD Systems Equipment Room
- Groundwater Monitoring Well
- Soil Vapor/Sub-slab Vapor Monitoring Point
- Indoor Air Sample Location
- Tenant Improvement Excavation

N

0 16 32 APPROXIMATE SCALE IN FEET

AEI Consultants
San Jose, California

PCE AND TCE IN INDOOR AIR

10700 MacArthur Blvd
Oakland, California

FIGURE 2
Project No. 261829

APPENDIX A

LABORATORY ANALYTICAL REPORTS

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1704679

Report Created for: AEI Consultants

2500 Camino Diablo, Ste.#200
Walnut Creek, CA 94597

Project Contact: Jeremy Smith
Project P.O.: 123336
Project Name: 365948; Foothill Square

Project Received: 04/14/2017

Analytical Report reviewed & approved for release on 04/19/2017 by:

Angela Rydelius,
Laboratory Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: AEI Consultants
Project: 365948; Foothill Square
WorkOrder: 1704679

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

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Case Narrative

Client: AEI Consultants
Project: 365948; Foothill Square

Work Order: 1704679
April 19, 2017

TO-15 ANALYSIS

All summa canisters are EVACUATED 5 days after the reporting of the results. Please call or email if a longer retention time is required.

In an effort to attain the lowest reporting limits possible for the majority of the TO-15 target list, high level compounds may be analyzed using EPA Method 8260B.

Polymer (Tedlar) bags are not recommended for TO15 samples. The disadvantages are listed in Appendix B of the DTSC Active Soil Gas Advisory of July 2015.

McCampbell Analytical, Inc.
"When Quality Counts"

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Analytical Report

Client: AEI Consultants
Date Received: 4/14/17 17:40
Date Prepared: 4/17/17
Project: 365948; Foothill Square

WorkOrder: 1704679
Extraction Method: TO15
Analytical Method: TO15
Unit: µg/m³

Volatile Organic Compounds

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
IA-3	1704679-001A	Indoor Air	04/14/2017 14:23	GC24	137418

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.82	13.82	AK

Analytes	Result	RL	DF	Date Analyzed
cis-1,2-Dichloroethene	**0.91**	0.40	1	04/17/2017 22:29
trans-1,2-Dichloroethene	ND	0.40	1	04/17/2017 22:29
Tetrachloroethene	**27**	0.069	1	04/17/2017 22:29
Trichloroethene	**2.2**	0.027	1	04/17/2017 22:29
Vinyl Chloride	ND	0.013	1	04/17/2017 22:29

Surrogates	REC (%)	Limits	
1,2-DCA-d4	78	70-130	04/17/2017 22:29
Toluene-d8	100	70-130	04/17/2017 22:29
4-BFB	99	70-130	04/17/2017 22:29

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
IA-8	1704679-002A	Indoor Air	04/14/2017 14:22	GC24	137418

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
13.32	13.32	AK

Analytes	Result	RL	DF	Date Analyzed
cis-1,2-Dichloroethene	**9.4**	0.40	1	04/17/2017 23:25
trans-1,2-Dichloroethene	**0.51**	0.40	1	04/17/2017 23:25
Tetrachloroethene	**310**	1.7	25	04/17/2017 20:00
Trichloroethene	**27**	0.027	1	04/17/2017 23:25
Vinyl Chloride	ND	0.013	1	04/17/2017 23:25

Surrogates	REC (%)	Limits	
1,2-DCA-d4	79	70-130	04/17/2017 23:25
Toluene-d8	102	70-130	04/17/2017 23:25
4-BFB	98	70-130	04/17/2017 23:25

(Cont.)

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	AEI Consultants	**WorkOrder:**	1704679
Date Received:	4/14/17 17:40	**Extraction Method:**	TO15
Date Prepared:	4/17/17	**Analytical Method:**	TO15
Project:	365948; Foothill Square	**Unit:**	µg/m³

Volatile Organic Compounds

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
AMB-1	**1704679-003A**	**Indoor Air**	**04/14/2017 14:31**	**GC24**	**137418**

Initial Pressure (psia)	Final Pressure (psia)	Analyst(s)
14.00	**14.00**	**AK**

Analytes	Result	RL	DF	Date Analyzed
cis-1,2-Dichloroethene	ND	0.40	1	04/17/2017 21:34
trans-1,2-Dichloroethene	ND	0.40	1	04/17/2017 21:34
Tetrachloroethene	**0.092**	0.069	1	04/17/2017 21:34
Trichloroethene	ND	0.027	1	04/17/2017 21:34
Vinyl Chloride	ND	0.013	1	04/17/2017 21:34
Surrogates	**REC (%)**	**Limits**		
1,2-DCA-d4	82	70-130		04/17/2017 21:34
Toluene-d8	100	70-130		04/17/2017 21:34
4-BFB	96	70-130		04/17/2017 21:34

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1704679
Date Prepared:	4/17/17	**BatchID:**	137418
Date Analyzed:	4/17/17	**Extraction Method:**	TO15
Instrument:	GC24	**Analytical Method:**	TO15
Matrix:	Indoor Air	**Unit:**	µg/m³
Project:	365948; Foothill Square	**Sample ID:**	MB/LCS-137418

QC Summary Report for TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	9.90	6.0	12	-	83	60-140
Acrolein	ND	10.8	0.58	11.65	-	93	60-140
Acrylonitrile	ND	11.5	0.22	11	-	105	60-140
tert-Amyl methyl ether (TAME)	ND	21.0	0.42	21	-	100	60-140
Benzene	ND	17.4	0.032	16	-	109	60-140
Benzyl chloride	ND	26.9	0.53	26.5	-	102	60-140
Bromodichloromethane	ND	38.2	0.0070	35	-	109	60-140
Bromoform	ND	62.6	1.1	52.5	-	119	60-140
Bromomethane	ND	18.8	0.39	19.5	-	97	60-140
1,3-Butadiene	ND	10.7	0.22	11	-	97	60-140
2-Butanone (MEK)	ND	14.9	7.5	15	-	99	60-140
t-Butyl alcohol (TBA)	ND	13.6	6.2	15.5	-	88	60-140
Carbon Disulfide	ND	15.3	0.32	16	-	96	60-140
Carbon Tetrachloride	ND	37.2	0.0064	32	-	116	60-140
Chlorobenzene	ND	25.0	0.47	23.5	-	106	60-140
Chloroethane	ND	8.38	0.27	13.5	-	62	60-140
Chloroform	ND	22.7	0.025	24.5	-	93	60-140
Chloromethane	ND	9.89	0.21	10.5	-	94	60-140
Cyclohexane	ND	16.8	1.8	17.5	-	96	60-140
Dibromochloromethane	ND	54.0	0.87	43.5	-	124	60-140
1,2-Dibromo-3-chloropropane	ND	52.4	0.050	49	-	107	60-140
1,2-Dibromoethane (EDB)	ND	43.9	0.0078	39	-	112	60-140
1,2-Dichlorobenzene	ND	33.9	0.61	30.5	-	111	60-140
1,3-Dichlorobenzene	ND	33.8	0.61	30.5	-	111	60-140
1,4-Dichlorobenzene	ND	33.3	0.030	30.5	-	109	60-140
Dichlorodifluoromethane	ND	22.3	0.50	25	-	89	60-140
1,1-Dichloroethane	ND	21.7	0.41	20.5	-	106	60-140
1,2-Dichloroethane (1,2-DCA)	ND	15.6	0.0041	20.5	-	76	60-140
1,1-Dichloroethene	ND	18.4	0.10	20	-	92	60-140
cis-1,2-Dichloroethene	ND	19.7	0.40	20	-	98	60-140
trans-1,2-Dichloroethene	ND	19.7	0.40	20	-	99	60-140
1,2-Dichloropropane	ND	24.7	0.0047	23.5	-	105	60-140
cis-1,3-Dichloropropene	ND	26.2	0.12	23	-	114	60-140
trans-1,3-Dichloropropene	ND	24.2	0.12	23	-	105	60-140
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	31.8	0.71	35.5	-	90	60-140
Diisopropyl ether (DIPE)	ND	19.3	0.42	21	-	92	60-140
1,4-Dioxane	ND	21.7	0.018	18.5	-	117	60-140

(Cont.)

QA/QC Officer

McCampbell Analytical, Inc.
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Quality Control Report

Client:	AEI Consultants	**WorkOrder:**	1704679
Date Prepared:	4/17/17	**BatchID:**	137418
Date Analyzed:	4/17/17	**Extraction Method:**	TO15
Instrument:	GC24	**Analytical Method:**	TO15
Matrix:	Indoor Air	**Unit:**	µg/m³
Project:	365948; Foothill Square	**Sample ID:**	MB/LCS-137418

QC Summary Report for TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Ethyl acetate	ND	17.2	0.92	18.5	-	93	60-140
Ethyl tert-butyl ether (ETBE)	ND	19.0	0.42	21	-	91	60-140
Ethylbenzene	ND	23.5	0.44	22	-	107	60-140
4-Ethyltoluene	ND	27.4	0.50	25	-	110	60-140
Freon 113	ND	37.7	0.78	39	-	97	60-140
Heptane	ND	21.1	2.1	21	-	100	60-140
Hexachlorobutadiene	ND	59.7	1.1	54	-	111	60-140
Hexane	ND	17.0	1.8	18	-	94	60-140
2-Hexanone	ND	16.6	0.42	21	-	79	60-140
4-Methyl-2-pentanone (MIBK)	ND	21.0	0.42	21	-	100	60-140
Methyl-t-butyl ether (MTBE)	ND	17.2	0.37	18.5	-	93	60-140
Methylene chloride	ND	16.0	0.88	17.5	-	91	60-140
Methyl methacrylate	ND	23.2	0.42	20.8	-	111	60-140
Naphthalene	ND	59.0	0.050	53	-	111	60-140
Propene	ND	ND	8.8	8.5	-	83	60-140
Styrene	ND	24.2	0.43	21.5	-	112	60-140
1,1,1,2-Tetrachloroethane	ND	41.2	0.0070	35	-	118	60-140
1,1,2,2-Tetrachloroethane	ND	40.8	0.0070	35	-	116	60-140
Tetrachloroethene	ND	36.0	0.069	34.5	-	104	60-140
Tetrahydrofuran	ND	12.9	0.60	15	-	86	60-140
Toluene	ND	20.3	0.38	19	-	107	60-140
1,2,4-Trichlorobenzene	ND	46.0	0.75	37.5	-	123	60-140
1,1,1-Trichloroethane	ND	28.0	0.55	27.5	-	102	60-140
1,1,2-Trichloroethane	ND	29.6	0.0055	27.5	-	108	60-140
Trichloroethene	ND	28.3	0.027	27.5	-	103	60-140
Trichlorofluoromethane	ND	28.8	0.57	28.5	-	101	60-140
1,2,4-Trimethylbenzene	ND	27.8	0.50	25	-	111	60-140
1,3,5-Trimethylbenzene	ND	26.7	0.50	25	-	107	60-140
Vinyl Acetate	ND	18.2	1.8	18	-	101	60-140
Vinyl Chloride	ND	12.0	0.013	13	-	92	60-140
Xylenes, Total	ND	78.8	1.3	66	-	119	60-140
Surrogate Recovery							
1,2-DCA-d4	82.94	79.1		100	83	79	70-130
Toluene-d8	99.4	101		100	99	101	70-130
4-BFB	95.8	99.1		100	96	99	70-130

QA/QC Officer

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Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1704679 **ClientCode: AEL**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Jeremy Smith
AEI Consultants
2500 Camino Diablo, Ste.#200
Walnut Creek, CA 94597
(925) 283-6000 FAX: (925) 944-2895

Email: jasmith@aeiconsultants.com
cc/3rd Party:
PO: 123336
ProjectNo: 365948; Foothill Square

Bill to:
Accounts Payable
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
AccountsPayable@AEIConsultants.com

Requested TAT: **5 days;**

Date Received: **04/14/2017**
Date Logged: **04/14/2017**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1704679-001	IA-3	Indoor Air	4/14/2017 14:23	☐	A	A										
1704679-002	IA-8	Indoor Air	4/14/2017 14:22	☐		A										
1704679-003	AMB-1	Indoor Air	4/14/2017 14:31	☐		A										

Test Legend:

1	PREDF REPORT	2	TO15_SCAN-SIM_Indoor(ug/m3)	3		4	
5		6		7		8	
9		10		11		12	

Prepared by: Tina Perez

The following SampIDs: 001A, 002A, 003A contain testgroup TO15_INDOOR.

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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WORK ORDER SUMMARY

Client Name: AEI CONSULTANTS
Client Contact: Jeremy Smith
Contact's Email: jasmith@aeiconsultants.com

Project: 365948; Foothill Square
Comments:

Work Order: 1704679
QC Level: LEVEL 2
Date Logged: 4/14/2017

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1704679-001A	IA-3	Indoor Air	TO15 for Indoor Air (Scan-SIM)	1	6L Summa	☐	4/14/2017 14:23	3 days		☐	
1704679-002A	IA-8	Indoor Air	TO15 for Indoor Air (Scan-SIM)	1	6L Summa	☐	4/14/2017 14:22	3 days		☐	
1704679-003A	AMB-1	Indoor Air	TO15 for Indoor Air (Scan-SIM)	1	6L Summa	☐	4/14/2017 14:31	3 days		☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

Summa COC

MAI Work Order # 1704679

RUSH

McCAMPBELL ANALYTICAL, INC.

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CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush | 2 Day Rush | 3 Day Rush | ● STD | Quote #
J-Flag / MDL | ESL | Cleanup Approved | Bottle Order #
Delivery Format: PDF ● | GeoTracker EDF ● | EDD | Write On (DW) | EQuIS

Report To: Jeremy Smith — Bill To: AEI Consultants
Company: AEI Consultants
Email: jasmith@aeiconsultants.com
Alt Email: Tele: 925-746-6000
Project Name: Foothill Square — Project#: 365948
Project Location: 10700 MacArthur Boulevard — PO # 123336
Sampler Signature: Nate Bork

Analysis Requested

Helium Shroud SN#

Leak Check Default is IPA

Notes: Please specify units if different than default: VOCs is reported in µg/m³, fixed is reported in %.

SAMPLE ID Location / Field Point	Sampling Start Date	Sampling Start Time	End Time	Canister SN#	Sample Kit / Manifold #	VOCs TO-15 (µg/m³) - See Notes	8010 by TO-15 (µg/m³)	TPH(g) (µg/m³)	LEED: (inc. 4PCH, Formaldehyde, CO, Total VOCs)	Fixed Gas (CO_2, Methane, Ethane, Ethylene, Acetylene,Propane, CO) %	Fixed Gas: (O_2, N_2) %	APH: Aliphatic and/or Aromatic (circle one) µg/m³	Helium Leak Check %	Leak Check (IPA, Norflorane, 1,1-difluroethane) µg/m³			Matrix: Soilgas	Matrix: Indoor Air		Canister Pressure / Vacuum: Initial	Canister Pressure / Vacuum: Final
IA-3	4/14/17	1424	1423	929	—	●												X		-30+	-5
IA-8	4/14/17	1421	1422	1963	—	●														-30+	-4
AMB-1	4/14/17	1430	1431	1959	—	●														-30	-3

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
Nate Bork	4/14/17	1720		4/14/17	17:40

Comments / Instructions: Please only report PCE, TCE, cis/Trans-1,2-DCE, Vinyl chloride

Page ___ of ___

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Sample Receipt Checklist

Client Name: **AEI Consultants**
Project Name: **365948; Foothill Square**

WorkOrder №: **1704679** Matrix: Indoor Air
Carrier: Client Drop-In

Date and Time Received: **4/14/2017 17:40**
Date Logged: **4/14/2017**
Received by: Tina Perez
Logged by: Tina Perez

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐
Chain of custody signed when relinquished and received?	Yes	☑	No	☐
Chain of custody agrees with sample labels?	Yes	☑	No	☐
Sample IDs noted by Client on COC?	Yes	☑	No	☐
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐
Sampler's name noted on COC?	Yes	☑	No	☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	NA ☑
Shipping container/cooler in good condition?	Yes	☑	No	☐	
Samples in proper containers/bottles?	Yes	☑	No	☐	
Sample containers intact?	Yes	☑	No	☐	
Sufficient sample volume for indicated test?	Yes	☑	No	☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	NA ☐
Sample/Temp Blank temperature		Temp:			NA ☑
Water - VOA vials have zero headspace / no bubbles?	Yes	☐	No	☐	NA ☑
Sample labels checked for correct preservation?	Yes	☑	No	☐	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA ☑
Samples Received on Ice?	Yes	☐	No	☑	

UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes	☐	No	☐	NA ☑
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes	☐	No	☐	NA ☑

Comments:

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL ACCREDITATION

Is hereby granted to

McCampbell Analytical, Inc.

1534 Willow Pass Road

Pittsburg, CA 94565

Scope of the certificate is limited to the
"Fields of Testing"
which accompany this Certificate.

Continued accredited status depends on successful completion of on-site inspection, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **1644**

Expiration Date: **10/31/2017**

Effective Date: **11/1/2015**

Sacramento, California
subject to forfeiture or revocation

Christine Sotelo, Chief
Environmental Laboratory Accreditation Program