WEINGARTEN REALTY

2600 Citadel Plaza Drive, Suite 125
Houston, TX 77008
713.866.6000 Main
713.866.6049 Fax
www.weingarten.com

Mr. Gabe Stivala, P.G
Cardno ATC
701 University Drive, Suite 200
Sacramento, CA 95825

SUBJECT **Sub-Slab Vapor and Indoor Air Assessment Report**
Exterior Additional Soil and Soil Vapor Assessment Work Plan
Dry Clean 580 and Adjacent Retail Units
3735 East Castro Valley Boulevard
Alameda County LOP No. RO 3097

Dear Mr. Stivala:

I have reviewed and approved the subject report. Please submit it to the regulatory agencies listed in the distribution section of the report. Should any of the agencies require it, I am prepared to declare, under penalty of perjury, that to the best of my knowledge, the information contained in the report is true and correct.

Sincerely,

Charles Gurney

Weingarten Realty Investors

2600 Citadel Plaza Drive, Suite 300

Houston, Texas 77008

Date: 5-4-15

May 4, 2015
Cardno 2863.R01

Cardno ATC

701 University Ave
Suite 200
Sacramento, CA 95825

Phone +1 916 339 0477
Fax +1 916 339 0484
www.cardno.com

www.cardnoatc.com

Ms. Karel Detterman
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

SUBJECT **Sub-Slab Vapor and Indoor Air Assessment Report**
Dry Clean 580 and Adjacent Retail Units
3735 East Castro Valley Boulevard, Castro Valley, California
Alameda County LOP No. RO 3097

Ms. Detterman:

On behalf of Weingarten Realty Investors (Weingarten), Cardno ATC conducted sub-slab vapor and indoor and outdoor air assessment at the subject site and two adjacent retail units. The work was conducted in accordance with Cardno ATC's *Indoor Air Quality Assessment and Additional Sub-Slab Work Plan* (Scope of Work) and *Sub-Slab Vapor and Indoor Air Assessment Work Plan Addendum* (Work Plan) (Cardno ATC, 2014a; 2014b). The Scope of Work and Work Plan were revised in response to comments from Alameda County Environmental Health (ACEH). The ACEH approved the Scope of Work and Work Plan, upon contingent submittals, in electronic correspondence dated January 8, 2015 (Appendix A).

SITE DESCRIPTION

The site is located in the 580 Market Place Shopping Center in Castro Valley, California (Plate 1). A Generalized Site Plan illustrating the layout of pertinent areas of the shopping center is included as Plate 2. The assessment targets include the Dry Clean 580 facility, the adjacent Verizon and AT&T retail outlets, and the parking lot southeast of the buildings.

APPLICABLE SCREENING LEVELS

For the sub-slab vapor investigation, Cardno ATC compared the analytical results to calculated screening levels based on the San Francisco Bay Regional Water Quality Control Board's Summary Table E3, 2013 Environmental Screening Levels (ESLs) for Commercial/Industrial Indoor Air (CRWQCB-SFB, 2013), and a default attenuation factor of 0.05. For the indoor air investigation, Cardno ATC used the ESLs for Commercial/Industrial Indoor Air, the California Department of Toxic Substance Control (DTSC) Human Health Risk Assessment (HHRA) HERO Health Note Number 3, dated July 14, 2014, and United States Environmental Protection Agency (EPA) Region 9 Interim TCE Indoor Air Response Action Levels for Commercial TCE Inhalation Exposure from Vapor Intrusion (EPA, 2014).

SUB-SLAB VAPOR ASSESSMENT

The sub-slab vapor assessment was conducted in accordance with the Scope of Work and Work Plan (Cardno ATC, 2014a; 2014b), the protocols included in Appendix B, a site-specific safety plan, and applicable regulatory guidelines under the advisement of a professional geologist. Well locations are shown on Plate 2.

Pre-Field Activities

Prior to site mobilization for vapor assessment activities, Cardno ATC visited the site to check for subsurface obstructions and to mark the proposed locations. Underground Service Alert (USA), Alameda County and the respective tenants were notified at least 48 hours prior to the onset of field activities. Permits were not required for sub-slab well installation.

Well Installation and Sampling

On March 4, 2015, Cardno ATC installed six sub-slab vapor wells at the site using Vapor Pin™ devices distributed by Cox-Colvin & Associates, Inc. (Cox-Colvin). Vapor Pin™ installation protocols are included in the Cox-Colvin Standard Operation Procedure in Appendix B. In the Dry Clean 580 unit, four sub-slab Vapor Pins (SS-1R, SS-2, SS-3 and SS-4) were installed and one sub-slab Vapor Pin was installed in each of the adjacent units, Verizon (SSV-1) and AT&T (SSA-1). Sub-slab well SS-1R, in the Dry Clean 580 unit, is the replacement well for the former sub-slab well, SS3.

On March 4, 2015, Cardno ATC purged and sampled sub-slab vapor wells SS-1R, SS-2 through SS-4, SSV-1, and SSA-1. A duplicate sample was collected from well SS-1R. A purge volume test was not performed on the wells because the volume of the Summa™ canister is several times greater than the volume of the sub-slab vapor well system (vapor pin and tubing). To avoid extensive purging, Cardno ATC applied the three volume default purge from each sub-slab well prior to sample collection.

To assess potential leaks in the sampling equipment, a purging and sampling manifold was connected to each well prior to purging and sampling. Cardno ATC then applied a vacuum of approximately 15 to 22 inches of mercury (in Hg) to the sample collection system and turned off the vacuum pump. The sampling manifold and tubing held the applied vacuum for five minutes at each well.

To further assess the potential for leaks in the vapor pin system, a shroud was placed over the well and Summa™ canister. Helium was introduced into the shroud and maintained at a constant concentration (approximately 10%), as measured on a helium meter. Real-time helium screening was performed in the field by drawing sub-slab vapor from the well into a Tedlar bag via a lung-box and screening the contents of the Tedlar bag with a helium meter. The concentration of helium in the sample divided by the concentration of helium in the shroud provides a measure of the proportion of the sample attributable to leakage. Leaked air that comprises less than 5% of the sample is considered insignificant (DTSC, 2012). Helium was detected in select Tedlar bag samples at concentrations up to 125 ppmv (0.0125%), indicating there was a slight leak in the vapor pin system or sampling tubing; however, the respective concentrations did not exceed DTSC guidance for leakage (0.125% of leaked vapor). Field data sheets are included in Appendix C. Photographs of the sample equipment are included in Appendix D.

Laboratory Analyses

Cardno ATC submitted sub-slab vapor samples for analysis to a California state-certified laboratory, under COC protocol. Laboratory analytical reports are included in Appendix E. Sub-slab vapor analytical results and methods are summarized in Tables 1A through 1D.

Results

The leak detection compound (helium) was detected in samples from sub-slab wells SS-1R, SS-2 through SS-4, SSV-1, and SSA-1 by laboratory analyses at concentrations up to 0.0548%. With a helium concentration of 10% within the shroud, the respective concentrations indicate a calculated volume of leaked vapor of 0.0055%. The volume of leaked vapor indicates that the following reported concentrations are representative of actual sub-slab vapor conditions.

- PCE was reported at 390 µg/m³ (SS-1R), 350 µg/m³ (SS-4), and 110 µg/m³ (SSV-1), above the sub-slab guidance concentration (42 µg/m³) as calculated using the commercial/industrial ESL (2.1 µg/m³) and an attenuation factor of 0.05.
- TCE was reported at 62 µg/m³ (SS-4), above the sub-slab guidance concentration (60 µg/m³) as calculated using the commercial/industrial ESL (3.0 µg/m³) and an attenuation factor of 0.05.

- HVOCs were detected in the sub-slab vapor samples, including vinyl chloride, carbon tetrachloride, chloroform, and chloromethane (among others). Concentrations were reported below the sub-slab guidance concentration as calculated using the respective commercial/industrial ESL and an attenuation factor of 0.05.
- Petroleum hydrocarbons including MTBE, BTEX, naphthalene, ethanol, and other VOCs were also reported at concentrations below the sub-slab guidance concentration as calculated using the commercial/industrial ESL and an attenuation factor of 0.05.

INDOOR AND OUTDOOR AIR SAMPLING – DRYCLEAN 580, VERIZON, AND AT&T UNITS

Pre-Sampling Activities

Cardno ATC negotiated access with each of the unit owners and tenants of Dryclean 580 unit, and the two adjacent buildings, Verizon, and AT&T. Cardno ATC prepared a fact sheet dated December 2014 summarizing relevant information. The fact sheet was distributed to the 580 Market Place Shopping Center tenants, the County, and property owners. Copies of the fact sheets are included in Appendix F.

Unit Inspection and Survey

On February 25, 2015, a unit inspection and chemical inventory survey was conducted to identify consumer and household products such as cleaners, aerosol deodorants, and similar products that may contain volatile compounds that could interfere with the sample analysis, and to identify sample locations for the indoor and outdoor background air quality assessment.

Upon conclusion of the tenant inspection and survey activities, Cardno ATC staff completed building survey and indoor air monitoring forms. A copy of the building survey and indoor air monitoring forms are included in Appendix G.

Identification and Removal of Chemical Products

During the meeting with the tenants of the Dry Clean 580, Verizon, and AT&T units on February 25, 2015, Cardno ATC conducted a visual inventory of the products stored in the units that could affect the indoor air results. The tenants were provided instructions regarding removal of products or storage and nonuse of products and chemicals, until completion of the assessment. Cardno ATC identified numerous chemical products (spot removers, etc.) stored in the Dryclean 580 unit. The products were surveyed, removed from the active dry cleaning area, and stored in airtight plastic containers (Appendix F). Two 5-gallon drums containing the main dry cleaning product used during business operations could not be removed.

HVAC System Evaluation

Cardno ATC attempted to identify and evaluate how the respective HVAC units were operated before and during the sample event. The operator of the Dryclean 580 unit indicated that he does not operate the HVAC unit. The back door near the dry cleaning equipment is left open during business hours. The tenants in the Verizon and AT&T units indicated that they did not know the specifications of the HVAC units and do not change thermostat or run-time settings.

Air Sample Collection

The indoor air, outdoor air, and quality assurance (QA) samples were collected in 6-liter Summa™ canisters that were supplied and individually-certified clean by the analytical laboratory. Each canister was fitted with a regulator that was individually-certified clean and was calibrated by the laboratory to ensure air sample collection over a 24-hour period. The initial vacuum of each canister was verified to be between 25 and 30 inches of mercury. Indoor and outdoor air sampling locations are shown on Plate 2. Air samples were collected at the following locations:

- From March 4 to March 5, 2015, two indoor air samples (IA1 and IA2) and one duplicate sample (IA1 Dup) were collected from DryClean 580. Samples were collected at 4 to 5 feet above the floor in the central area of the building and southeast area of the building (Plate 2).
- From March 4 to March 5, 2015, two indoor air samples (IAV1 and IAV2) were collected from the Verizon unit. Samples were collected at 4 to 5 feet above the floor in the customer service area of the building and southeast corner of the building (Plate 2).
- From March 4 to March 5, 2015, one indoor air sample (IAA1) was collected from the AT&T unit. The sample was collected at 4 to 5 feet above the floor in southeast corner of the building (Plate 2).
- From March 4 to March 5, 2015, one outdoor air sample was collected 6 feet above ground level. The sample (OA1) was collected on the southeastern side of the building, behind all three units.
- Photographs of each canister, showing the identification tag and vacuum gauge were taken at the beginning of sampling and prior to removal to monitor and record air intake progress (Appendix D). Field forms taken during the sample collection are included in Appendix C. Canister vacuums were again recorded at the end of sample collection. Final canister vacuums were 3 to 6 inches of mercury upon termination of sampling.

The air samples were identified using the following designation system:

- IA indicates the sample matrix is indoor air.
- OA indicates the sample matrix is outside air.
- DUP indicates a duplicate sample.

Results from these events are summarized in Tables 2A through 2D.

Indoor Air Sampling Results – DryClean 580

Laboratory analytical results for this event are summarized in Tables 2A through 2D and select results are illustrated on Plate 5 and Plate 6. The analytical results from the indoor air samples collected between March 4, and March 5, 2015:

- TCE was reported in indoor air at concentrations ranging from 0.25 to 3.5 µg/m³, which exceed the ESL (3.0 µg/m³). The concentrations do not exceed the Interim TCE indoor air response action levels for urgent response (21 and 24 µg/m³) or accelerated response (7 and 8 µg/m³).
- Carbon tetrachloride was reported in indoor air at concentrations ranging from 0.41 to 0.43 µg/m³, which exceed the ESL (0.29 µg/m³).
- TPHg was reported at 9,100 µg/m³ (IA1) and 12,000 µg/m³ (IA1 Dup) which exceed the ESL (2,500 µg/m³).
- Benzene was reported at concentrations ranging from 1.1 µg/m³ (IA2) to 1.3 µg/m³ (IA1), which exceed the ESL (0.42 µg/m³).
- PCE, TCA, chloroform, and chloromethane (among other HVOCs and VOCs) were reported in the indoor air samples from the Dryclean 580 unit at concentrations below their respective ESLs and Action Levels.

Indoor Air Sampling Results – Adjacent Units

Laboratory analytical results for this event are summarized in Tables 2A through 2D and select results are illustrated on Plate 5 and Plate 6. The analytical results from the indoor air samples collected on March 4, 2015 indicated that:

- TPHg was reported above the laboratory reporting limit at concentrations of 610 µg/m³ in sample IAV2, and 680 µg/m³ in sample IAA1. These concentrations are below the ESL (2,500 µg/m³).
- Benzene was reported at concentrations ranging from 1.5 µg/m³ in sample IAV1 to 1.9 µg/m³ in sample IAA1, above the ESL (0.42 µg/m³).
- Carbon tetrachloride was reported in indoor air at concentrations ranging from 0.43 to 0.46 µg/m³, which exceed the ESL (0.29 µg/m³).
- PCE, TCE, TCA, chloroform, and chloromethane (among other HVOCs and VOCs) were reported in the indoor air samples from the adjacent units at concentrations below their respective ESLs and Action Levels.

Outdoor Air Sampling Results

The analytical results from the outdoor air samples collected on March 4, 2015 indicated that:

- TPHg was not reported above the laboratory reporting limit.
- Benzene was reported at a concentration of 1.7 µg/m³. The reported background outdoor air concentration for benzene exceeds the ESL.

- Carbon tetrachloride was reported at a concentration of 0.46 µg/m³. The reported background outdoor air concentration for carbon tetrachloride exceeds the ESL.
- Toluene, ethylbenzene, total xylenes, and naphthalene (among other HVOCs and VOCs) were reported at concentrations above laboratory reporting limits.

Background Outdoor Air Quality

Cardno ATC obtained outdoor air quality data from the Bay Area Air Quality Management District (BAAQMD) for two stations nearest to the site. The BAAQMD stations providing data are located in East Oakland and Livermore, California. Air quality data for select VOCs and HVOCs from February 2010 through December 2014 are summarized on Tables 2A through 2C.

The background outdoor air quality data indicate the following:

- The average background concentrations for methylene chloride (0.65 µg/m³, 0.70 µg/m³) are higher than the reported concentrations in the indoor air samples.
- The average background PCE concentrations (0.11 µg/m³, 0.17 µg/m³) were below but similar to the reported indoor air concentrations (0.43 µg/m³ to1.5 µg/m³).
- The average TCE concentrations (0.01 µg/m³, 0.05 µg/m³) are less than the reported indoor air concentrations (0.25 µg/m³ to 3.5 µg/m³).
- The average carbon tetrachloride concentrations (0.67 µg/m³, 0.66 µg/m³) are higher than the reported indoor air concentrations (0.41 µg/m³ to 0.46 µg/m³). The carbon tetrachloride concentration in the outdoor air sample (0.46 µg/m³) is similar to the reported indoor air concentrations.

CONCLUSIONS AND RECOMMENDATIONS

The purpose of the work was to assess concentrations of HVOCs and fuel hydrocarbons in sub-slab soil vapor beneath the commercial units and indoor air evaluate potential risks to tenants, workers, or patrons posed by potential intrusion of soil vapor to indoor air.

Based on the results of the current investigation, Cardno ATC concludes the following:

- HVOCs are present in sub-slab vapor, including methylene chloride, PCE, TCE, and vinyl chloride (among other compounds). Of these compounds PCE and TCE exceeded the sub-slab guidance concentration as calculated using the commercial/industrial ESL and an attenuation factor of 0.05. Reported concentrations for all other compounds were below the sub-slab guidance concentrations as calculated using the commercial/industrial ESL and an attenuation factor of 0.05.

- Petroleum hydrocarbons including MTBE, BTEX, naphthalene, and ethanol are present in sub-slab vapor. Reported concentrations did not exceed ESLs for soil vapor the sub-slab guidance concentrations as calculated using the commercial/industrial ESL and an attenuation factor of 0.05.
- HVOCs, including methylene chlorine, PCE, TCE (among other compounds) were present in reportable concentrations in the indoor air samples. Of these compounds, only TCE exceeded the commercial and industrial ESL. However, TCE concentrations did not exceed, the TCE Health Risk screening level (DTSC 2014) or the Interim Health Risk Screening Level.
- Reported TPHg concentrations in indoor air exceeded the commercial and industrial ESL, however indoor air concentrations are greater than the reported sub-slab soil vapor concentrations. Sub-slab TPHg concentrations are below the sub-slab guidance concentrations as calculated using the commercial/industrial ESL and an attenuation factor of 0.05.
- Reported HVOC concentrations in indoor air are below or similar to the background concentrations reported by the BAAQMD for the nearest monitoring stations (East Oakland, Livermore, California).
- Reported carbon tetrachloride concentrations in indoor air are similar below concentrations reported in the outdoor air sample and background outdoor air samples reported by the BAAQMD.
- Benzene concentrations in indoor air were below or similar to concentrations in the outdoor air sample and background outdoor air reported by the BAAQMD.

Cardno ATC concludes that the current indoor air quality at the Dry Clean 580 facility and adjacent units does not pose an immediate health risk to commercial occupants or patrons. Cardno ATC recommends an additional sampling event during third quarter 2015 to evaluate potential seasonal variations and also recommends additional evaluation of the HVAC systems in the respective commercial units.

LIMITATIONS

For documents cited that were not generated by Cardno ATC, the data taken from those documents is used “as is” and is assumed to be accurate. Cardno ATC does not guarantee the accuracy of this data and makes no warranties for the referenced work performed nor the inferences or conclusions stated in these documents. This document and the work performed have been undertaken in good faith, with due diligence and with the expertise, experience, capability, and specialized knowledge necessary to perform the work in a good and workmanlike manner and within all accepted standards pertaining to providers of environmental services in California at the time of investigation. No soil engineering or geotechnical references are implied or should be inferred. The evaluation of the geologic conditions at the site for this investigation is made from a limited number of data points. Subsurface conditions may vary away from these data points.

Please contact Mr. Gabe Stivala, Cardno ATC's Senior Project Manager for this site, at (916) 923-1097 or at gabe.stivala@cardno.com or with any questions regarding this report.

Sincerely,

Matthew T. Herman
Project Manager
for Cardno
707 766 2000
Email: matt.herman@cardno.com

Gabe Stivala
Senior Project Manager
for Cardno ATC
916 923 1097
Email: gabe.stivala@cardno.com

Enclosures:

References

Acronym List

Plate 1	Site Vicinity Map
Plate 2	Generalized Site Plan
Plate 3	Select HVOC Concentrations in Sub-Slab Vapor
Plate 4	Select Hydrocarbon Concentrations in Sub-Slab Vapor
Plate 5	Select HVOC Concentrations in Indoor and Outdoor Air
Plate 6	Select Hydrocarbon Concentrations in Indoor and Outdoor Air

Table 1A	Sub-Slab Soil Vapor Analytical Results – HVOCs
Table 1B	Sub-Slab Soil Vapor Analytical Results – HVOCs
Table 1C	Sub-Slab Soil Vapor Analytical Results – Atmospheric Gases and Hydrocarbons
Table 1D	Sub-Slab Soil Vapor Analytical Results – VOCs
Table 2A	Indoor Air and Outdoor Air Analytical Results – HVOCs
Table 2B	Indoor Air and Outdoor Air Analytical Results – HVOCs
Table 2C	Indoor Air and Outdoor Air Analytical Results – Atmospheric Gases and Hydrocarbons
Table 2D	Indoor Air and Outdoor Air Analytical Results – VOCs

Appendix A	Correspondence
Appendix B	Protocols
Appendix C	Field Data Sheets
Appendix D	Photos
Appendix E	Laboratory Analytical Reports
Appendix F	Fact Sheet
Appendix G	Building Survey and Indoor Air Monitoring Forms

REFERENCES

California Regional Water Quality Control Board, San Francisco Bay Region (CRWQCB-SFB). December 2013. *Screening for Environmental Concerns at Sites with Indoor Air and Soil Gas*.

Cardno ATC. December 5, 2014a. *Sub-Slab Vapor and Indoor Air Assessment Work Plan Addendum, 580 Market Place Shopping Center, Castro Valley, California, Alameda County LPO Order No. 3097.*

Cardno ATC. December 19, 2014b. *Indoor Air Quality Assessment and Additional Sub-Slab Work Plan, 580 Market Place Shopping Center, Castro Valley, California, Alameda County LPO Order No. 3097.*

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

Department of Toxic Substances Control of the California Environmental Protection Agency, Department of Toxic Substances Control, California Regional Water Quality Control Board, Los Angeles Region and San Francisco Region; jointly issued (DTSC). April 2012. *Advisory – Active Soil Gas Investigations*.

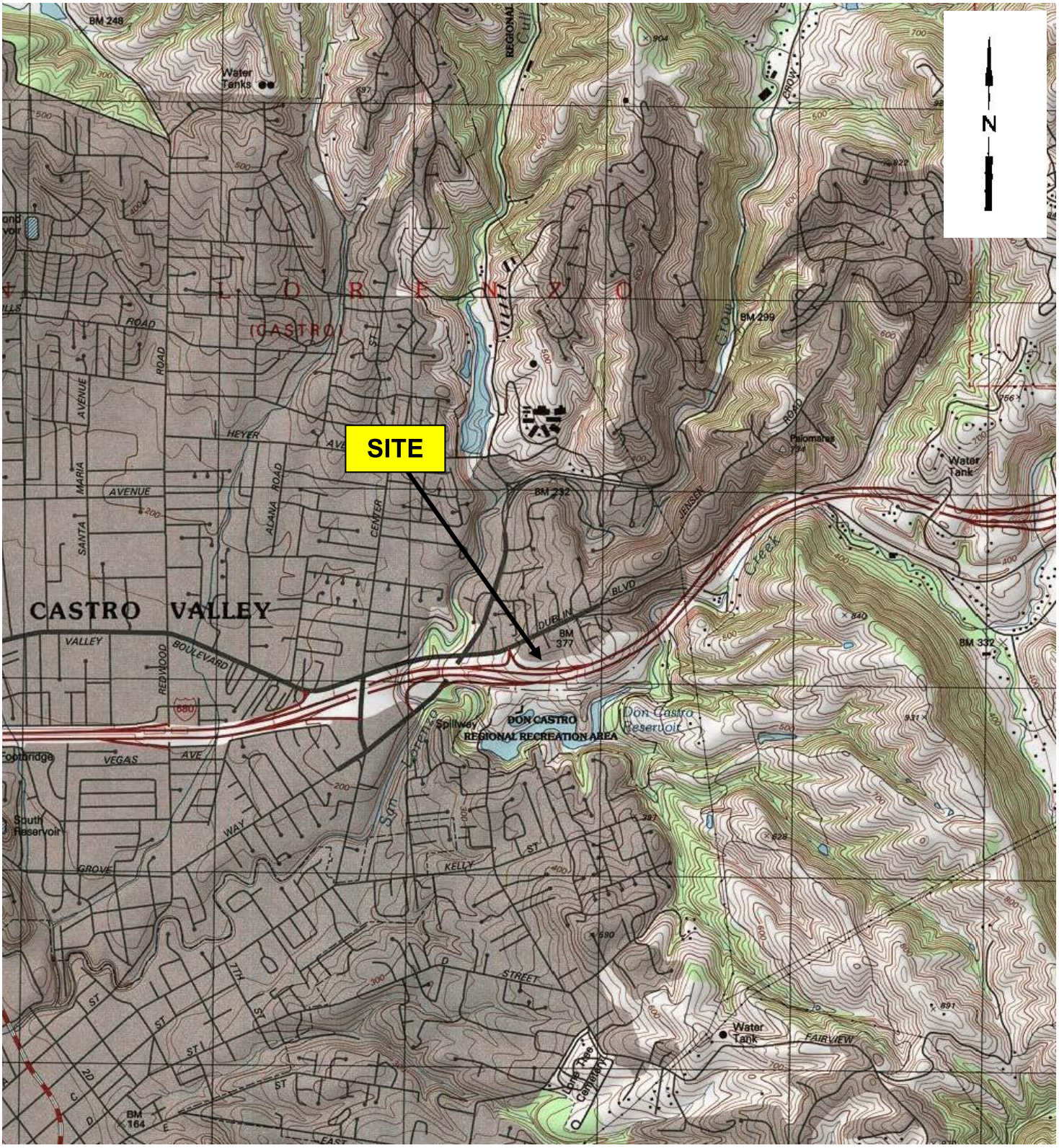
Department of Toxic Substances Control of the California Environmental Protection Agency (DTSC). March 2013. *Frequently Asked Questions. 2012 Advisory – Active Soil Gas Investigations* (ASGI, 2013).

Department of Toxic Substances Control of the California Environmental Protection Agency (DTSC). July 2014. Office of Human and Ecological Risk, *Human Health Risk Assessment Note Number 3.*

United States Environmental Protection Agency. July 2014. *EPA Region 9 Response Action Levels and Recommendations to Address Near-term Inhalation Exposures to TCE in Air from Subsurface Vapor Intrusion.*

ACRONYM LIST

µg/L	Micrograms per liter
µs	Microsiemens
1,2-DCA	1,2-dichloroethane
acfm	Actual cubic feet per minute
AS	Air sparge
bgs	Below ground surface
BTEX	Benzene, toluene, ethylbenzene, and total xylenes
CEQA	California Environmental Quality Act
cfm	Cubic feet per minute
COC	Chain of Custody
CPT	Cone Penetration (Penetrometer) Test
DIPE	Di-isopropyl ether
DO	Dissolved oxygen
DOT	Department of Transportation
DPE	Dual-phase extraction
DTW	Depth to water
EDB	1,2-dibromoethane
EPA	Environmental Protection Agency
ESL	Environmental screening level
ETBE	Ethyl tertiary butyl ether
FID	Flame-ionization detector
fpm	Feet per minute
GAC	Granular activated carbon
gpd	Gallons per day
gpm	Gallons per minute
GWPTS	Groundwater pump and treat system
HVOC	Halogenated volatile organic compound
J	Estimated value between MDL and PQL (RL)
LEL	Lower explosive limit
LPC	Liquid-phase carbon
LRP	Liquid-ring pump
LUFT	Leaking underground fuel tank
LUST	Leaking underground storage tank
MCL	Maximum contaminant level
MDL	Method detection limit
mg/kg	Milligrams per kilogram
mg/L	Milligrams per liter
mg/m^3	Milligrams per cubic meter
MPE	Multi-phase extraction
MRL	Method reporting limit
msl	Mean sea level
MTBE	Methyl tertiary butyl ether
MTCA	Model Toxics Control Act
NAI	Natural attenuation indicators
NAPL	Non-aqueous phase liquid
NEPA	National Environmental Policy Act
NGVD	National Geodetic Vertical Datum
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
ORP	Oxidation-reduction potential
OSHA	Occupational Safety and Health Administration
OVA	Organic vapor analyzer
P&ID	Process & Instrumentation Diagram
PAH	Polycyclic aromatic hydrocarbon
PCB	Polychlorinated biphenyl
PCE	Tetrachloroethene or perchloroethylene
PID	Photo-ionization detector
PLC	Programmable logic control
POTW	Publicly owned treatment works
ppmv	Parts per million by volume
PQL	Practical quantitation limit
psi	Pounds per square inch
PVC	Polyvinyl chloride
QA/QC	Quality assurance/quality control
RBSL	Risk-based screening levels
RCRA	Resource Conservation and Recovery Act
RL	Reporting limit
scfm	Standard cubic feet per minute
SSTL	Site-specific target level
STLC	Soluble threshold limit concentration
SVE	Soil vapor extraction
SVOC	Semivolatile organic compound
TAME	Tertiary amyl methyl ether
TBA	Tertiary butyl alcohol
TCE	Trichloroethene
TOC	Top of well casing elevation; datum is msl
TOG	Total oil and grease
TPHd	Total petroleum hydrocarbons as diesel
TPHg	Total petroleum hydrocarbons as gasoline
TPHmo	Total petroleum hydrocarbons as motor oil
TPHs	Total petroleum hydrocarbons as stoddard solvent
TRPH	Total recoverable petroleum hydrocarbons
UCL	Upper confidence level
USCS	Unified Soil Classification System
USGS	United States Geologic Survey
UST	Underground storage tank
VCP	Voluntary Cleanup Program
VOC	Volatile organic compound
VPC	Vapor-phase carbon



SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP
CASTRO VALLEY QUADRANGLE, CALIFORNIA, DATED 1968, PHOTOREVISED 1987.

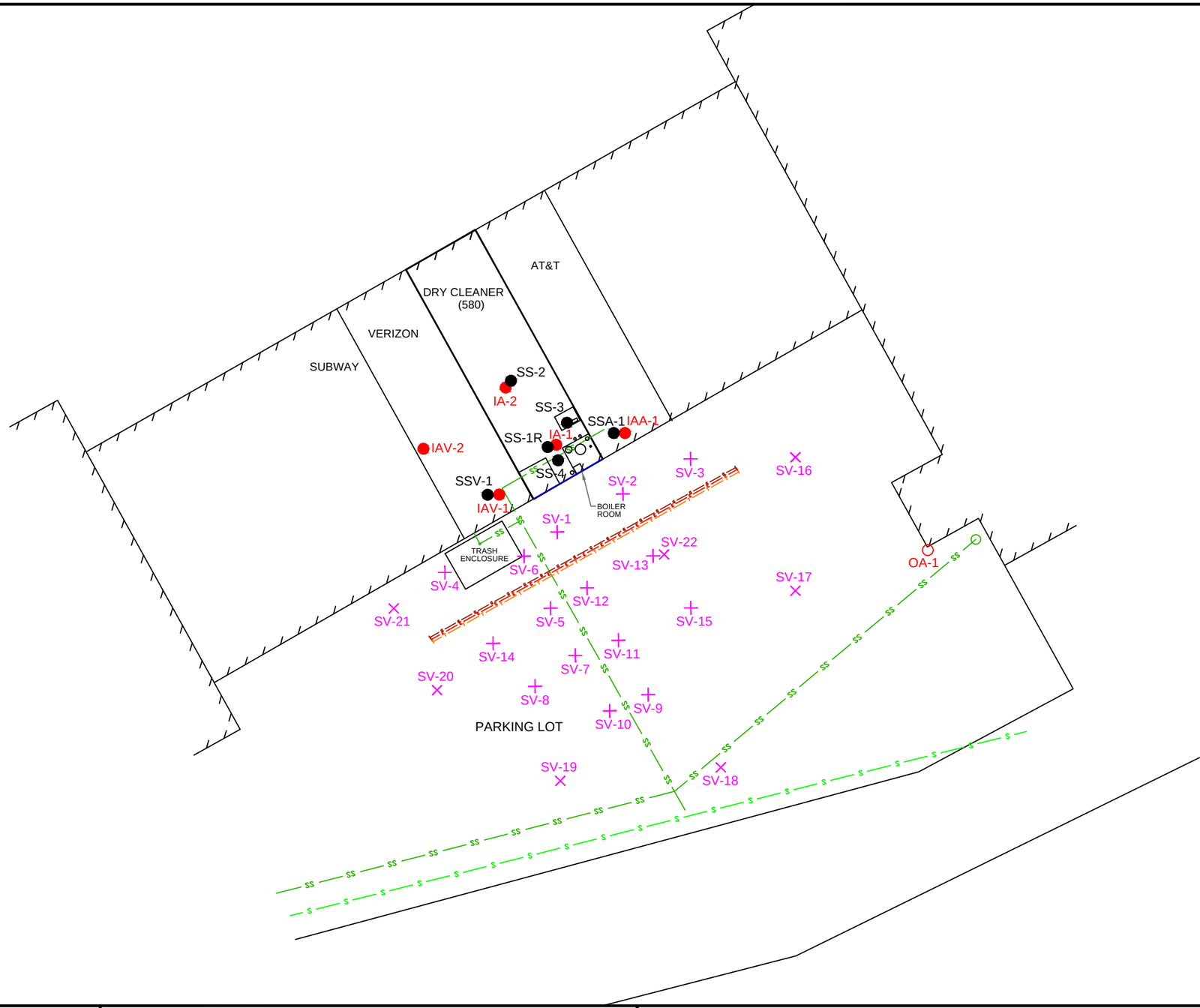
FIGURE 1

SITE VICINITY MAP

580 MARKET PLACE SHOPPING CENTER
3735-4065 EAST CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA 94552

Cardno ATC
Shaping the Future
1117 Lone Palm Ave, Ste 201B
Modesto, CA 95351
(209) 579-2221

PROJECT NO: 075.75356.0002		
DESIGNED BY: JK	SCALE: 1:24,000	REVIEWED BY: JH
DRAWN BY: JK	DATE: 10/12	FILE: LOCATION



APPROXIMATE SCALE

0 30 60 Feet

FN 28630002 R01

Cardno ATC

Shaping the Future

GENERALIZED SITE PLAN

DRY CLEAN 580
3735 E. Castro Valley Boulevard
Castro Valley, CA

EXPLANATION

- SS-4 — Sub-Slab Vapor Wells
- SV-15 — Soil Vapor Sampling Well
- SV-22 — Proposed Soil Vapor Sampling Well
- IAA-1 — Indoor Air Sample
- OA-1 — Outdoor Air Sample
- G — G — Gas Line
- E — E — Electric Line
- T — T — Telephone Line
- SS — SS — Sanitary Sewer
- S — S — Storm Sewer

PROJECT NO.
2863

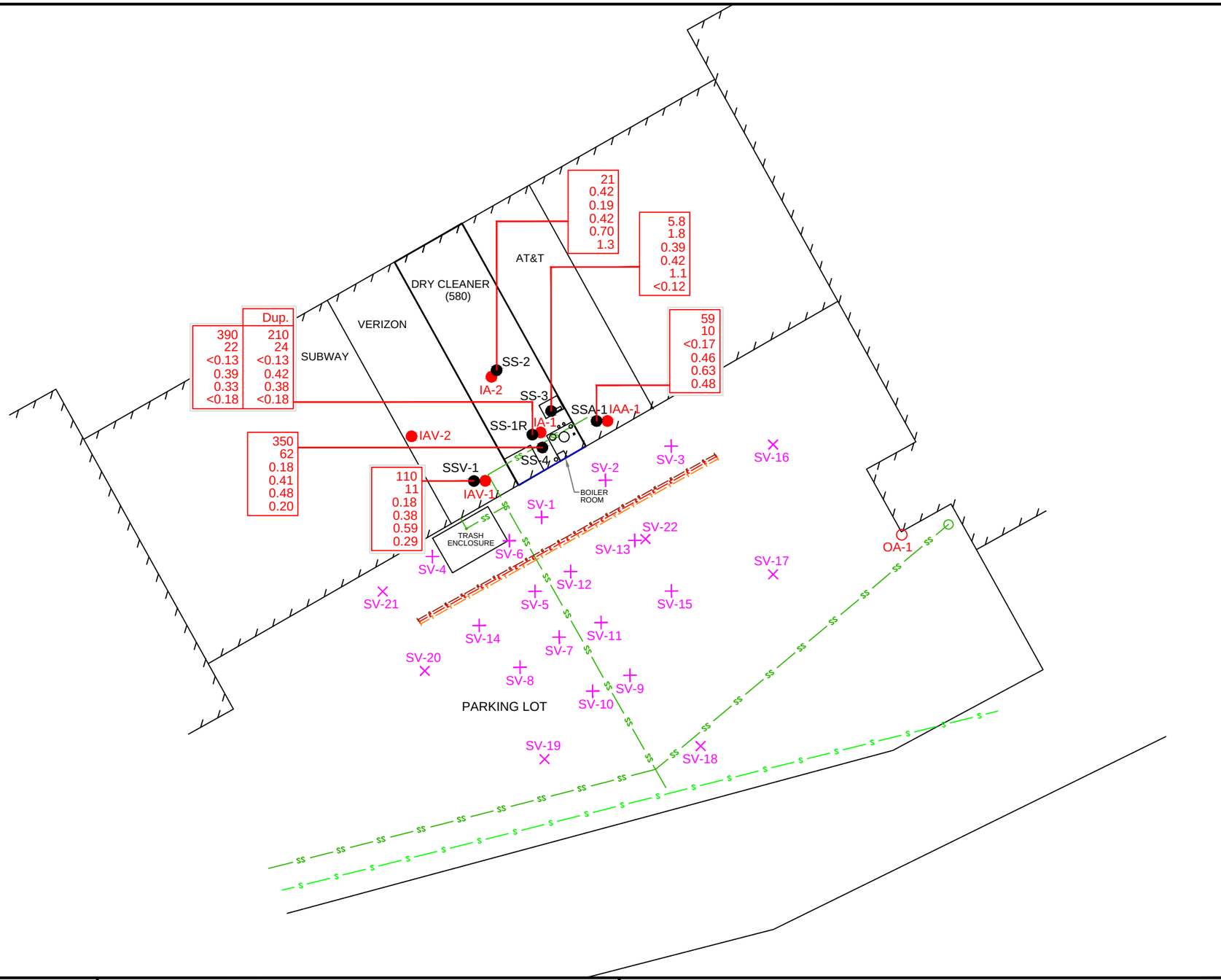
PLATE
2

Analyte Concentrations in ug/m^3
Sampled March 4 and 5, 2015

Tetrachloroethene
Trichloroethene
Methylene chloride
Carbon tetrachloride
Chloromethane
Chloroform

< Less than the Stated Laboratory Reporting Limit

ug/m^3 Micrograms per Meter Cubed



APPROXIMATE SCALE

0 30 60 Feet

FN 28630002 R01

Cardno ATC
Shaping the Future

SELECT HVOC CONCENTRATIONS IN SUB-SLAB VAPOR March 4 and 5, 2015

DRY CLEAN 580
3735 E. Castro Valley Boulevard
Castro Valley, CA

EXPLANATION

- SS-4 Sub-Slab Vapor Wells
- SV-15 Soil Vapor Sampling Well
- SV-22 Proposed Soil Vapor Sampling Well
- IAA-1 Indoor Air Sample
- OA-1 Outdoor Air Sample
- Gas Line
- Electric Line
- Telephone Line
- Sanitary Sewer
- Storm Sewer

PROJECT NO. 2863

PLATE 3

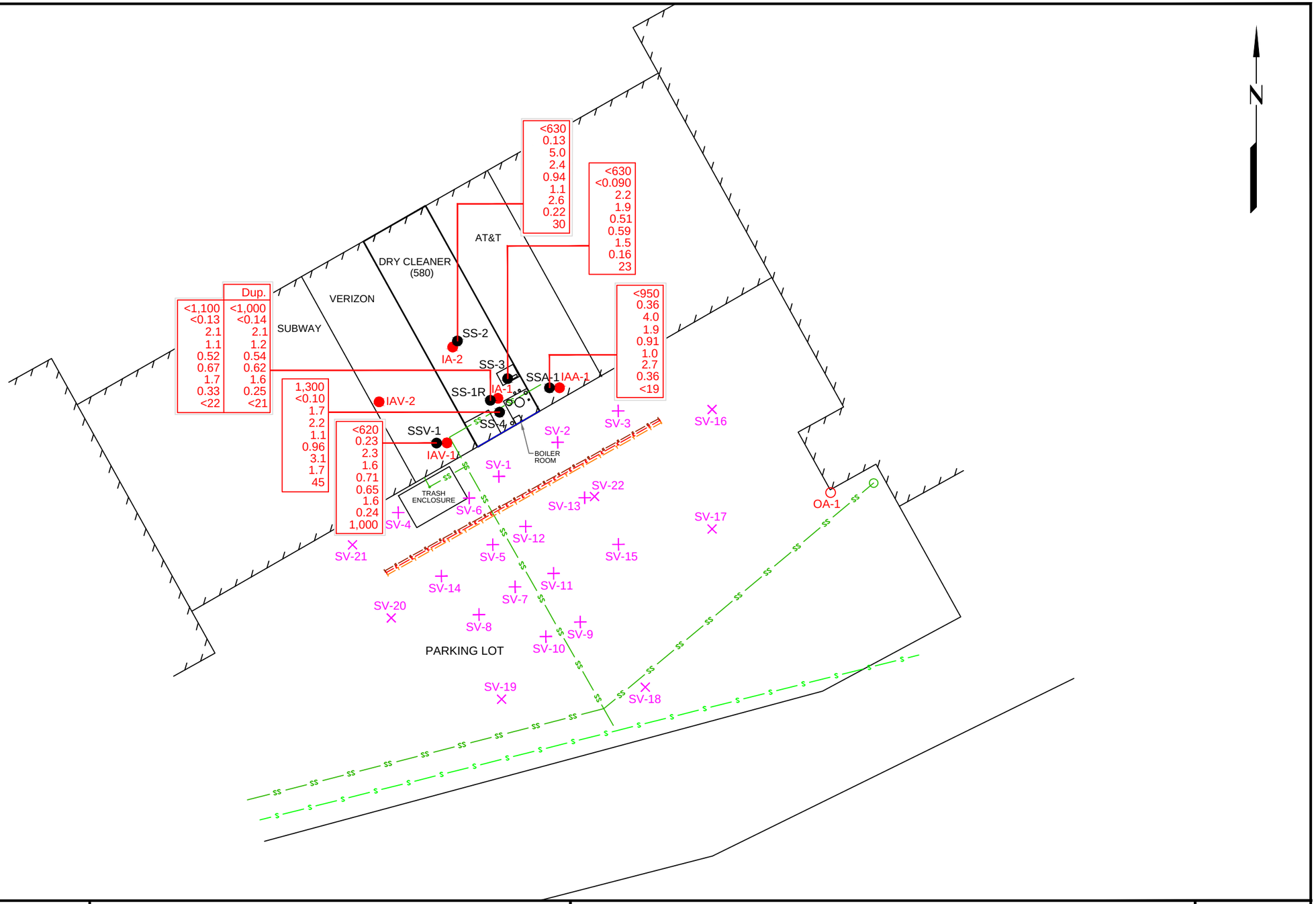
Analyte Concentrations in ug/m^3
Sampled March 4 and 5, 2015

Total Petroleum Hydrocarbons as gasoline
Methyl Tertiary Butyl Ether
Benzene
Toluene
Ethylbenzene
0-xylenes
Pm-xylenes
Naphthalene
Ethanol

< Less than the Stated Laboratory Reporting Limit

ug/m^3 Micrograms per Meter Cubed

c Concentration exceeds calibration limit.



APPROXIMATE SCALE

0 30 60 Feet

FN 28630002 R01

Cardno ATC
Shaping the Future

SELECT HYDROCARBON CONCENTRATIONS IN SUB-SLAB VAPOR March 4 and 5, 2015

DRY CLEAN 580
3735 E. Castro Valley Boulevard
Castro Valley, CA

EXPLANATION

- SS-4 Sub-Slab Vapor Wells
- SV-15 Soil Vapor Sampling Well
- SV-22 Proposed Soil Vapor Sampling Well
- IAA-1 Indoor Air Sample
- OA-1 Outdoor Air Sample
- Gas Line
- Electric Line
- Telephone Line
- Sanitary Sewer
- Storm Sewer

PROJECT NO. 2863

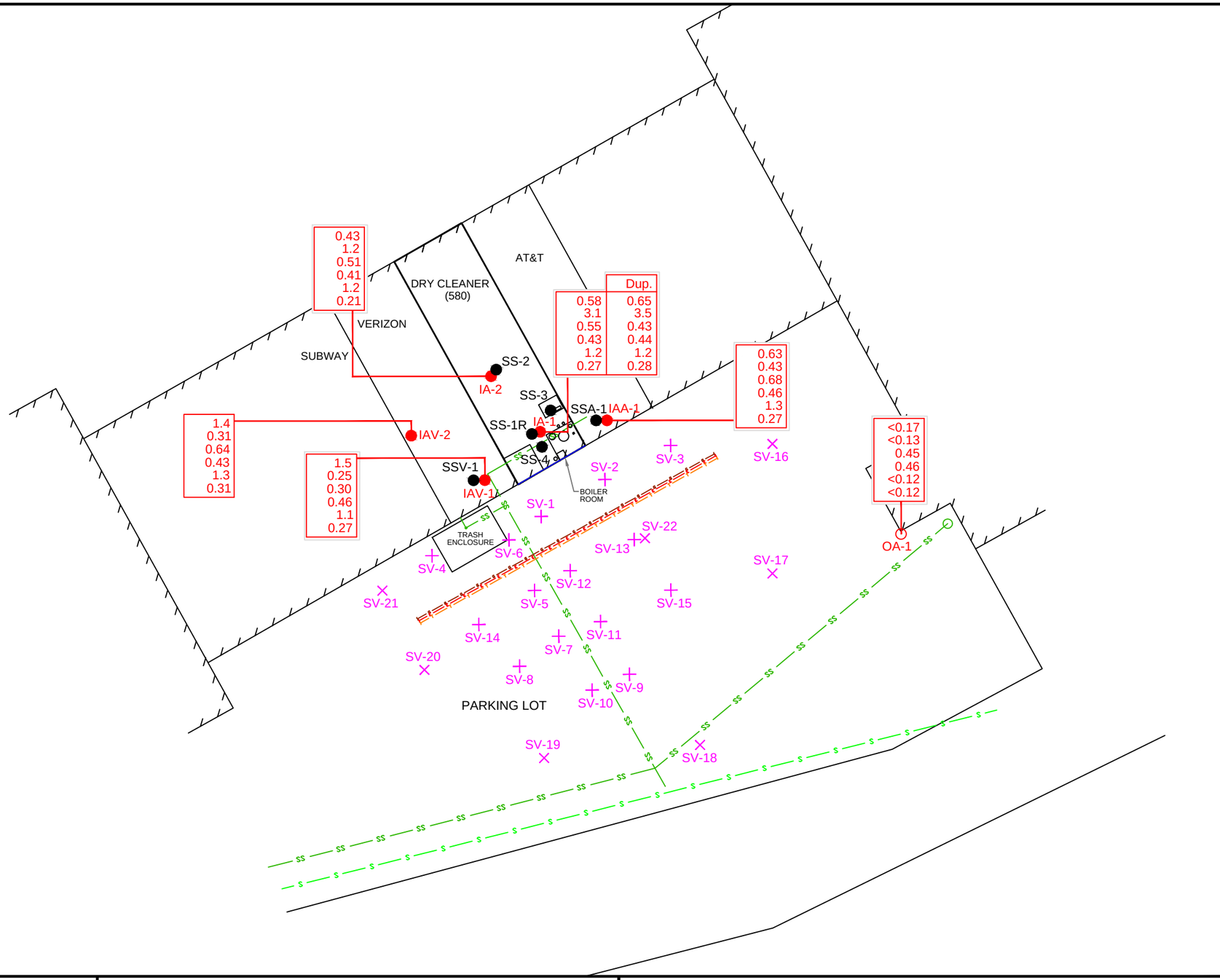
PLATE 4

Analyte Concentrations in ug/m^3
Sampled March 4 and 5, 2015

Tetrachloroethene
Trichloroethene
Methylene chloride
Carbon tetrachloride
Chloromethane
Chloroform

< Less than the Stated Laboratory Reporting Limit

ug/m^3 Micrograms per Meter Cubed



APPROXIMATE SCALE

0 30 60 Feet

FN 28630002 R01

Cardno ATC
Shaping the Future

SELECT HVOC CONCENTRATIONS IN INDOOR AND OUTDOOR AIR March 4 and 5, 2015

DRY CLEAN 580
3735 E. Castro Valley Boulevard
Castro Valley, CA

EXPLANATION

- SS-4 Sub-Slab Vapor Wells
- SV-15 Soil Vapor Sampling Well
- SV-22 Proposed Soil Vapor Sampling Well
- IAA-1 Indoor Air Sample
- OA-1 Outdoor Air Sample
- Gas Line
- Electric Line
- Telephone Line
- Sanitary Sewer
- Storm Sewer

PROJECT NO. 2863

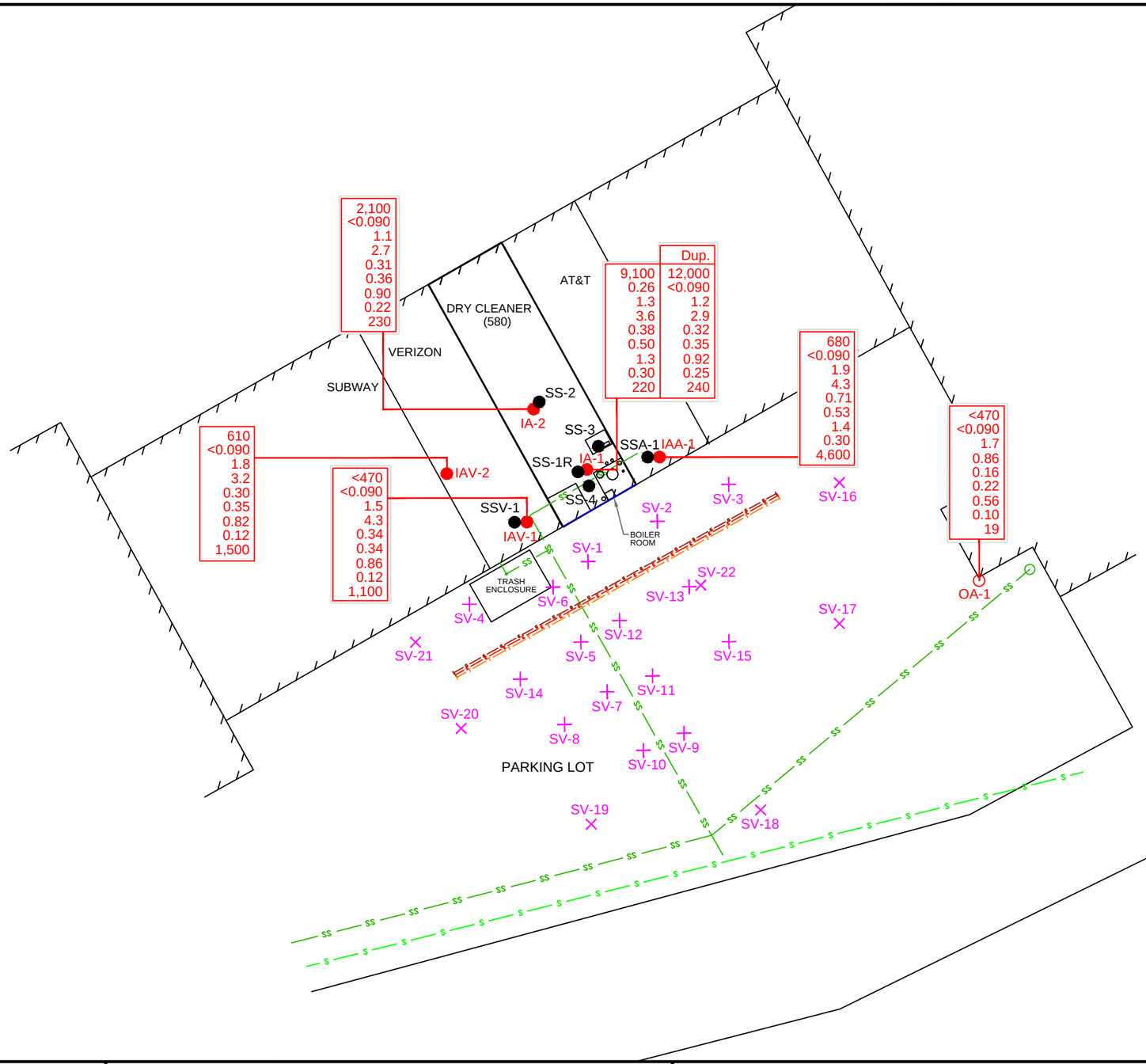
PLATE 5

Analyte Concentrations in ug/m^3
Sampled March 4 and 5, 2015

Total Petroleum Hydrocarbons as gasoline
Methyl Tertiary Butyl Ether
Benzene
Toluene
Ethylbenzene
0-xylenes
Pm-xylenes
Naphthalene
Ethanol

< Less than the Stated Laboratory Reporting Limit

ug/m^3 Micrograms per Meter Cubed



APPROXIMATE SCALE

0 30 60 Feet

FN 28630002 R01

Cardno ATC
Shaping the Future

SELECT HYDROCARBON CONCENTRATIONS IN INDOOR AND OUTDOOR AIR March 4 and 5, 2015

DRY CLEAN 580
3735 E. Castro Valley Boulevard
Castro Valley, CA

EXPLANATION

- SS-4 Sub-Slab Vapor Wells
- SV-15 Soil Vapor Sampling Well
- SV-22 Proposed Soil Vapor Sampling Well
- IAA-1 Indoor Air Sample
- OA-1 Outdoor Air Sample
- Gas Line
- Electric Line
- Telephone Line
- Sanitary Sewer
- Storm Sewer

PROJECT NO. 2863

PLATE 6

TABLE 1A
SUB-SLAB SOIL VAPOR ANALYTICAL RESULTS - HVOCs
Dry Clean 580
3735 East Castro Valley Boulevard
Castro Valley, California

Sample ID	Date	Dichlorodifluoro-methane (µg/m³)		Methylene Chloride (µg/m³)		Tetrachloro-ethene (µg/m³)		Trichloro-ethene (µg/m³)		1,1,1-Trichloroethane (µg/m³)		1,1,2-Trichloro-1,2,2-Trifluoroethane (µg/m³)		Trichlorofluoro-methane (µg/m³)		Vinyl Chloride (µg/m³)		Add'l HVOCs (µg/m³)
		EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15/ EPA TO-15 SIM
Environmental Screening Levels, Ambient and Indoor Air, Table E-3 (December 2013)																		
Commercial/Industrial		---	---	26	26	2.1	2.1	3.0	3.0	22,000	22,000	---	---	---	---	0.16	0.16	---
Calculated Sub-Slab (b)		---	---	520	520	42	42	60	60	440,000	440,000	---	---	---	---	3.2	3.2	---
SS-1R	03/04/15	<5.7	2.0	<40	<0.13	**390**	c	19	22	<6.2	<0.20	<26	0.51	<13	1.2	<2.9	<0.037	ND
SS-1R Dup	03/04/15	<5.4	2.1	<38	<0.13	**210**	c	14	24	<5.9	<0.20	<25	0.52	<12	1.1	<2.8	<0.038	ND
SS-2	03/04/15	<3.3	2.1	<23	0.19	9.4	21	<3.6	0.42	<3.7	<0.19	<16	0.54	<7.6	1.2	<1.7	0.049	ND
SS-3	03/04/15	<3.3	2.0	<23	0.39	<4.6	5.8	<3.6	1.8	<3.7	<0.14	<16	0.51	<7.6	1.1	<1.7	0.032	ND
SS-4	03/04/15	<3.5	1.8	<24	0.18	**350**	c	**62**	c	<3.8	<0.15	<16	0.50	<7.9	1.0	<1.8	0.041	ND
SSV-1	03/04/15	<3.3	2.1	<23	0.18	**110**	c	5.4	11	<3.7	<0.19	<15	0.53	<7.5	1.3	<1.7	0.10	ND
SSA-1	03/04/15	<5.0	2.3	<35	<0.17	59	c	8.0	10	<5.5	<0.26	<23	0.55	<11	1.2	<2.6	0.21	ND

Notes:

TPHg	=	Total petroleum hydrocarbons as gasoline.
MTBE	=	Methyl tertiary butyl ether.
TBA	=	Tertiary butyl alcohol.
Add'l VOCs	=	Additional volatile organic compounds.
SCAQMD	=	South Coast Air Quality Management District.
ASTM	=	American Society of Testing and Materials.
EPA	=	Environmental Protection Agency.
% V	=	Percent by volume.
in Hg	=	Inches of mercury.
µg/m³	=	Micrograms per meter cubed.
ND	=	Not detected.
<	=	Less than the stated laboratory reporting limit.
---	=	Not applicable/Not specified.
a	=	Value for total xylenes.
b	=	Protective sub-slab concentration calculated using the DTSC default attenuation factor of 0.05.
c	=	Concentration exceeds calibration limit.

TABLE 1B
SUB-SLAB SOIL VAPOR ANALYTICAL RESULTS - HVOCs
Dry Clean 580
3735 East Castro Valley Boulevard
Castro Valley, California

Sample ID	Date	Bromodichloromethane (µg/m³)		Carbon Tetrachloride (µg/m³)		Chlorobenzene (µg/m³)		Chloroethane (µg/m³)		Chloroform (µg/m³)		Chloromethane (µg/m³)		c-1,2-Dichloroethene (µg/m³)		t-1,2-Dichloroethene (µg/m³)	
		EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM
Environmental Screening Levels, Ambient and Indoor Air, Table E-3 (December 2013)																	
Commercial/Industrial		0.33	0.33	0.29	0.29	4,400	4,400	130,000	130,000	2.3	2.3	390	390	31	31	260	260
Calculated Sub-Slab (b)		6.6	6.6	5.8	5.8	88,000	88,000	2,600,000	2,600,000	46	46	7,800	7,800	620	620	5,200	5,200
SS-1R	03/04/15	<7.7	<0.24	<7.2	0.39	<5.3	<0.17	<3.0	<0.096	<5.6	<0.18	<2.4	0.33	<4.5	<0.16	<4.5	<0.16
SS-1R Dup	03/04/15	<7.3	<0.25	<6.9	0.42	<5.0	<0.17	<2.9	<0.099	<5.3	<0.18	<2.3	0.38	<4.3	<0.17	<4.3	<0.17
SS-2	03/04/15	<4.5	<0.24	<4.2	0.42	<3.1	<0.16	<1.8	<0.094	<3.3	1.3	<1.4	0.70	<2.7	<0.16	<2.7	<0.16
SS-3	03/04/15	<4.5	<0.17	<4.2	0.42	<3.1	<0.12	<1.8	<0.066	<3.3	<0.12	1.4	1.1	<2.7	<0.11	<2.7	<0.11
SS-4	03/04/15	<4.7	<0.19	<4.4	0.41	<3.2	<0.13	<1.8	<0.075	<3.4	0.20	<1.4	0.48	<2.8	<0.13	<2.8	<0.13
SSV-1	03/04/15	<4.5	<0.23	<4.2	0.38	<3.1	<0.16	<1.8	<0.092	<3.3	0.29	<1.4	0.59	<2.7	<0.16	<2.7	<0.16
SSA-1	03/04/15	<6.8	<0.32	<6.4	0.46	<4.7	<0.22	<2.7	<0.13	<5.0	0.48	<2.1	0.63	<4.0	<0.22	<4.0	<0.22

Notes:

TPHg	=	Total petroleum hydrocarbons as gasoline.
MTBE	=	Methyl tertiary butyl ether.
TBA	=	Tertiary butyl alcohol.
Add'l VOCs	=	Additional volatile organic compounds.
SCAQMD	=	South Coast Air Quality Management District.
ASTM	=	American Society of Testing and Materials.
EPA	=	Environmental Protection Agency.
% V	=	Percent by volume.
in Hg	=	Inches of mercury.
µg/m³	=	Micrograms per meter cubed.
ND	=	Not detected.
<	=	Less than the stated laboratory reporting limit.
---	=	Not applicable/Not specified.
a	=	Value for total xylenes.
b	=	Protective sub-slab concentration calculated using the DTSC default attenuation factor of 0.05.
c	=	Concentration exceeds calibration limit.

TABLE 1C
SUB-SLAB SOIL VAPOR ANALYTICAL RESULTS - ATMOSPHERIC GASES AND HYDROCARBONS
Dry Clean 580
3735 East Castro Valley Boulevard
Castro Valley, California

Sample ID	Date	Methane (%V) SCAQMD 25.1M	Carbon Dioxide (%V) SCAQMD 25.1M	Oxygen + Argon (%V) SCAQMD 25.1M	Helium (%V) ASTM D-1946 (M)	Vacuum (in Hg) Meter Reading	TPHg (µg/m³) GC/MS C6-C12 as Gasoline	MTBE (µg/m³) EPA TO-15	MTBE (µg/m³) EPA TO-15 SIM	Benzene (µg/m³) EPA TO-15	Benzene (µg/m³) EPA TO-15 SIM	Toluene (µg/m³) EPA TO-15	Toluene (µg/m³) EPA TO-15 SIM	Ethylbenzene (µg/m³) EPA TO-15	Ethylbenzene (µg/m³) EPA TO-15 SIM	o-Xylenes (µg/m³) EPA TO-15	o-Xylenes (µg/m³) EPA TO-15 SIM	pm-Xylenes (µg/m³) EPA TO-15	pm-Xylenes (µg/m³) EPA TO-15 SIM	TBA (µg/m³) EPA TO-15	Naphthalene (µg/m³) EPA TO-15	Naphthalene (µg/m³) EPA TO-15 SIM	Ethanol (µg/m³) EPA TO-15
Environmental Screening Levels, Ambient and Indoor Air, Table E-3 (December 2013)																							
Commercial/Industrial		---	---	---	---	---	2,500	47	47	0.42	0.42	1,300	1,300	4.9	4.9	440a	440a	440a	440a	---	0.36	0.36	---
Calculated Sub-Slab (b		---	---	---	---	---	50,000	940	940	8.4	8.4	26,000	26,000	98	98	8,800a	8,800a	8,800a	8,800a	---	7.2	7.2	---
SS-1R	03/04/15	0.00014	0.12	22	0.0548	-4.60	<1,100	<17	<0.13	<3.7	2.1	<4.3	1.1	<5.0	0.52	<5.0	0.67	<20	1.7	<14	<60	0.33	<22
SS-1R Dup	03/04/15	0.00013	0.12	22	0.0252	-6.30	<1,000	<16	<0.14	<3.5	2.1	<4.1	1.2	<4.7	0.54	<4.7	0.62	<19	1.6	<13	<57	0.25	<21
SS-2	03/04/15	0.00012	0.036	22	<0.0100	-6.00	<630	<9.7	0.13	3.5	5.0	4.6	2.4	<2.9	0.94	<2.9	1.1	<12	2.6	<8.2	<35	0.22	30
SS-3	03/04/15	0.00017	0.035	22	<0.0100	-4.40	<630	<9.7	<0.090	<2.2	2.2	3.0	1.9	<2.9	0.51	<2.9	0.59	<12	1.5	<8.2	<35	0.16	23
SS-4	03/04/15	0.00016	0.020	22	0.0195	-5.90	1,300	<10	<0.10	<2.2	1.7	4.0	2.2	<3.0	1.1	<3.0	0.96	<12	3.1	<8.5	<37	1.7	45
SSV-1	03/04/15	0.00015	0.0073	22	0.0458	-4.20	<620	<9.7	0.23	<2.1	2.3	<2.5	1.6	<2.9	0.71	<2.9	0.65	<12	1.6	10	<35	0.24	1,000
SSA-1	03/04/15	0.00016	0.0089	22	0.0182	-7.40	<950	<15	0.36	<3.2	4.0	<3.8	1.9	<4.4	0.91	<4.4	1.0	<18	2.7	<12	<53	0.36	<19

Notes:

TPHg	=	Total petroleum hydrocarbons as gasoline.
MTBE	=	Methyl tertiary butyl ether.
TBA	=	Tertiary butyl alcohol.
Add'l VOCs	=	Additional volatile organic compounds.
SCAQMD	=	South Coast Air Quality Management District.
ASTM	=	American Society of Testing and Materials.
EPA	=	Environmental Protection Agency.
% V	=	Percent by volume.
in Hg	=	Inches of mercury.
µg/m³	=	Micrograms per meter cubed.
ND	=	Not detected.
<	=	Less than the stated laboratory reporting limit.
---	=	Not applicable/Not specified.
a	=	Value for total xylenes.
b	=	Protective sub-slab concentration calculated using the DTSC default attenuation factor of 0.05.
c	=	Concentration exceeds calibration limit.

TABLE 1D
SUB-SLAB SOIL VAPOR ANALYTICAL RESULTS - VOCs
Dry Clean 580
3735 East Castro Valley Boulevard
Castro Valley, California

Sample ID	Date	Acetone	Bromomethane		2-Butanone		1,3-Butadiene	1,1-Diflouroethane	4-Ethyltoluene		1,3,5-Trimethyl-benzene		1,2,4-Trimethyl-benzene		Hexane	Styrene		Additional VOCs
		(µg/m^3)	(µg/m^3)		(µg/m^3)		(µg/m^3)	(µg/m^3)	(µg/m^3)		(µg/m^3)		(µg/m^3)		(µg/m^3)	(µg/m^3)		(µg/m^3)
		EPA TO-15	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15 SIM	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15/ EPA TO-15 SIM
Environmental Screening Levels, Ambient and Indoor Air, Table E-3 (December 2013)																		
Commercial/Industrial		140,000	22	22	---	---	---	---	---	---	---	---	---	---	---	3,900	3,900	---
Calculated Sub-Slab (b)		2,800,000	440	440	---	---	---	---	---	---	---	---	---	---	---	78,000	78,000	---
SS-1R	03/04/15	46	<4.4	<0.14	<10	<2.1	<0.080	<0.98	<5.6	0.50	<5.6	0.31	<17	1.1	<0.51	<15	<0.15	ND
SS-1R Dup	03/04/15	40	<4.2	<0.15	<9.6	<2.2	<0.083	1.0	<5.4	0.48	<5.4	0.29	<16	1.1	<0.53	<14	<0.16	ND
SS-2	03/04/15	40	<2.6	0.25	19	2.9	<0.079	<0.96	<3.3	0.51	<3.3	0.31	<10	1.3	0.53	<8.6	0.32	ND
SS-3	03/04/15	52	<2.6	<0.097	7.9	3.7	<0.055	<0.68	<3.3	0.28	<3.3	0.17	<10	0.62	0.55	<8.6	0.31	ND
SS-4	03/04/15	71	<2.7	<0.11	20	4.8	0.097	<0.76	<3.4	0.81	<3.4	0.56	<10	1.7	0.82	<8.9	0.20	ND
SSV-1	03/04/15	77	<2.6	<0.14	8.2	7.3	<0.077	7.8	<3.3	0.46	<3.3	0.26	<9.9	0.92	0.57	<8.6	0.67	ND
SSA-1	03/04/15	56	<3.9	<0.19	<9.0	6.3	<0.11	<1.3	<5.0	0.71	<5.0	0.45	<15	1.4	0.84	<13	0.20	ND

Notes:

TPHg	=	Total petroleum hydrocarbons as gasoline.
MTBE	=	Methyl tertiary butyl ether.
TBA	=	Tertiary butyl alcohol.
Add'l VOCs	=	Additional volatile organic compounds.
SCAQMD	=	South Coast Air Quality Management District.
ASTM	=	American Society of Testing and Materials.
EPA	=	Environmental Protection Agency.
% V	=	Percent by volume.
in Hg	=	Inches of mercury.
µg/m³	=	Micrograms per meter cubed.
ND	=	Not detected.
<	=	Less than the stated laboratory reporting limit.
---	=	Not applicable/Not specified.
a	=	Value for total xylenes.
b	=	Protective sub-slab concentration calculated using the DTSC default attenuation factor of 0.05.
c	=	Concentration exceeds calibration limit.

TABLE 2A
INDOOR AIR ANALYTICAL RESULTS - HVOCs
Dry Clean 580
3735 East Castro Valley Boulevard
Castro Valley, California

Sample ID	Date	Dichlorodifluoro-methane (µg/m³)		Methylene Chloride (µg/m³)		Tetrachloro-ethene (µg/m³)		Trichloro-ethene (µg/m³)		1,1,1-Trichloroethane (µg/m³)		1,1,2-Trichloro-1,2,2-Trifluoroethane (µg/m³)		Trichlorofluoro-methane (µg/m³)		Vinyl Chloride (µg/m³)		Add'l HVOCs (µg/m³)
		EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15/ EPA TO-15 SIM
Environmental Screening Levels, Ambient and Indoor Air, Table E-3 (December 2013)																		
Commercial/Industrial		---	---	26	26	2.1	2.1	3.0	3.0	22,000	22,000	---	---	---	---	0.16	0.16	---
Human Health Risk Assessment Note Number 3 (DTSC, 2014)																		
Industrial		---	---	12	12	2.08	2.08	---	---	4,380	4,380	---	---	---	---	0.157	0.157	---
Interim TCE Indoor Air Response Action Levels (EPA, 2014)																		
Commercial/Industrial Accelerated Response Action Level																		
8-hour Work Day		---	---	---	---	---	---	8	8	---	---	---	---	---	---	---	---	---
10-hour Work Day		---	---	---	---	---	---	7	7	---	---	---	---	---	---	---	---	---
Commercial/Industrial Urgent Response Action Level																		
8-hour Work Day		---	---	---	---	---	---	24	24	---	---	---	---	---	---	---	---	---
10-hour Work Day		---	---	---	---	---	---	21	21	---	---	---	---	---	---	---	---	---
Background Outdoor Air																		
Livermore (BAAQMD)																		
Minimum		---	---	0	0	0	0	0	0	---	---	---	---	---	---	---	---	---
Average		---	---	0.65	0.65	0.11	0.11	0.0098	0.0098	---	---	---	---	---	---	---	---	---
Maximum		---	---	4.14	4.14	2.11	2.11	0.11	0.11	---	---	---	---	---	---	---	---	---
East Oakland (BAAQMD)																		
Minimum		---	---	0	0	0	0	0	0	---	---	---	---	---	---	---	---	---
Average		---	---	0.70	0.70	0.17	0.17	0.05	0.05	---	---	---	---	---	---	---	---	---
Maximum		---	---	7.71	7.71	0.82	0.82	1.45	1.45	---	---	---	---	---	---	---	---	---
Dry Clean 580 Unit																		
IA1	03/05/15	2.9	1.9	<17	0.55	**<3.4**	0.58	**3.0**	**3.1**	<2.7	0.14	<11	0.51	<5.6	1.1	**<1.3**	<0.026	ND
IA1 Dup	03/05/15	2.9	2.0	<17	0.43	**<3.4**	0.65	**3.5**	**3.5**	<2.7	0.16	<11	0.52	<5.6	1.1	**<1.3**	<0.026	ND
IA2	03/05/15	2.9	1.9	<17	0.51	**<3.4**	0.43	<2.7	1.2	<2.7	<0.14	<11	0.51	<5.6	1.0	**<1.3**	<0.026	ND
Verizon																		
3935 East Castro Valley Boulevard																		
IAV1	03/05/15	2.9	2.0	<17	0.30	**<3.4**	1.5	<2.7	0.25	<2.7	<0.14	<11	0.40	<5.6	1.1	**<1.3**	<0.026	ND
IAV2	03/05/15	2.8	1.9	<17	0.64	**<3.4**	1.4	<2.7	0.31	<2.7	<0.14	<11	0.52	<5.6	1.1	**<1.3**	<0.026	ND
AT&T																		
3949 East Castro Valley Boulevard																		
IAA1	03/05/15	2.9	2.0	<17	0.68	**<3.4**	0.63	<2.7	0.43	<2.7	<0.14	<11	0.53	<5.6	1.1	**<1.3**	<0.026	ND
Outdoor Air																		
OA1	03/05/15	2.9	2.0	<17	0.45	**<3.4**	<0.17	<2.7	<0.13	<2.7	<0.14	<11	0.53	<5.6	1.1	**<1.3**	<0.026	ND

TABLE 2A
INDOOR AIR ANALYTICAL RESULTS - HVOCs
Dry Clean 580
3735 East Castro Valley Boulevard
Castro Valley, California

Notes:

TPHg	=	Total petroleum hydrocarbons as gasoline.
MTBE	=	Methyl tertiary butyl ether.
TBA	=	Tertiary butyl alcohol.
Add'l VOCs	=	Additional volatile organic compounds.
SCAQMD	=	South Coast Air Quality Management District.
ASTM	=	American Society of Testing and Materials.
EPA	=	Environmental Protection Agency.
% V	=	Percent by volume.
in Hg	=	Inches of mercury.
µg/m³	=	Micrograms per meter cubed.
ND	=	Not detected.
<	=	Less than the stated laboratory reporting limit.
---	=	Not applicable/Not specified.

TABLE 2B
INDOOR AIR ANALYTICAL RESULTS - HVOCs
Dry Clean 580
3735 East Castro Valley Boulevard
Castro Valley, California

Sample ID	Date	Bromodichloromethane (µg/m^3)		Carbon Tetrachloride (µg/m^3)		Chlorobenzene (µg/m^3)		Chloroethane (µg/m^3)		Chloroform (µg/m^3)		Chloromethane (µg/m^3)		c-1,2-Dichloroethene (µg/m^3)		t-1,2-Dichloroethene (µg/m^3)	
		EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM
Environmental Screening Levels, Ambient and Indoor Air, Table E-3 (December 2013)																	
Commercial/Industrial		0.33	0.33	0.29	0.29	4,400	4,400	130,000	130,000	2.3	2.3	390	390	31	31	260	260
Human Health Risk Assessment Note Number 3 (DTSC, 2014)																	
Industrial		370	370	175	175	---	---	---	---	---	---	---	---	31	31	---	---
Background Outdoor Air																	
Livermore (BAAQMD)																	
Minimum		---	---	0.37	0.37	---	---	---	---	---	---	---	---	---	---	---	---
Average		---	---	0.67	0.67	---	---	---	---	---	---	---	---	---	---	---	---
Maximum		---	---	1.22	1.22	---	---	---	---	---	---	---	---	---	---	---	---
East Oakland (BAAQMD)																	
Minimum		---	---	0.35	0.35	---	---	---	---	---	---	---	---	---	---	---	---
Average		---	---	0.67	0.67	---	---	---	---	---	---	---	---	---	---	---	---
Maximum		---	---	1.38	1.38	---	---	---	---	---	---	---	---	---	---	---	---
Dry Clean 580 Unit																	
IA1	03/05/15	**<3.4**	**<0.17**	**<3.1**	**0.43**	<2.3	<0.12	<1.3	<0.066	**<2.4**	0.27	1.6	1.2	<2.0	<0.099	<2.0	<0.099
IA1 Dup	03/05/15	**<3.4**	**<0.17**	**<3.1**	**0.44**	<2.3	<0.12	<1.3	<0.066	**<2.4**	0.28	1.6	1.2	<2.0	<0.099	<2.0	<0.099
IA2	03/05/15	**<3.4**	**<0.17**	**<3.1**	**0.41**	<2.3	<0.12	<1.3	<0.066	**<2.4**	0.21	1.6	1.2	<2.0	<0.099	<2.0	<0.099
Verizon																	
3935 East Castro Valley Boulevard																	
IAV1	03/05/15	**<3.4**	**<0.17**	**<3.1**	**0.46**	<2.3	<0.12	<1.3	<0.066	**<2.4**	0.27	1.6	1.1	<2.0	<0.099	<2.0	<0.099
IAV2	03/05/15	**<3.4**	**<0.17**	**<3.1**	**0.43**	<2.3	<0.12	<1.3	<0.066	**<2.4**	0.31	1.7	1.3	<2.0	<0.099	<2.0	<0.099
AT&T																	
3949 East Castro Valley Boulevard																	
IAA1	03/05/15	**<3.4**	**<0.17**	**<3.1**	**0.46**	<2.3	<0.12	<1.3	<0.066	**<2.4**	0.27	1.9	1.3	<2.0	<0.099	<2.0	<0.099
Outdoor Air																	
OA1	03/05/15	**<3.4**	**<0.17**	**<3.1**	**0.46**	<2.3	<0.12	<1.3	<0.066	**<2.4**	<0.12	1.6	<0.12	<2.0	<0.099	<2.0	<0.099

TABLE 2B
INDOOR AIR ANALYTICAL RESULTS - HVOCs
Dry Clean 580
3735 East Castro Valley Boulevard
Castro Valley, California

Notes:

TPHg	=	Total petroleum hydrocarbons as gasoline.
MTBE	=	Methyl tertiary butyl ether.
TBA	=	Tertiary butyl alcohol.
Add'l VOCs	=	Additional volatile organic compounds.
SCAQMD	=	South Coast Air Quality Management District.
ASTM	=	American Society of Testing and Materials.
EPA	=	Environmental Protection Agency.
% V	=	Percent by volume.
in Hg	=	Inches of mercury.
µg/m³	=	Micrograms per meter cubed.
ND	=	Not detected.
<	=	Less than the stated laboratory reporting limit.
---	=	Not applicable/Not specified.
a	=	Value for total xylenes.

TABLE 2C
INDOOR AIR ANALYTICAL RESULTS - ATMOSPHERIC GASES AND HYDROCARBONS
Dry Clean 580
3735 East Castro Valley Boulevard
Castro Valley, California

Sample ID	Date	Methane (%V) SCAQMD 25.1M	Carbon Dioxide (%V) SCAQMD 25.1M	Oxygen + Argon (%V) SCAQMD 25.1M	TPHg ($\mu g/m^3$) GC/MS C6-C12 as Gasoline	MTBE ($\mu g/m^3$) EPA TO-15	MTBE ($\mu g/m^3$) EPA TO-15 SIM	Benzene ($\mu g/m^3$) EPA TO-15	Benzene ($\mu g/m^3$) EPA TO-15 SIM	Toluene ($\mu g/m^3$) EPA TO-15	Toluene ($\mu g/m^3$) EPA TO-15 SIM	Ethylbenzene ($\mu g/m^3$) EPA TO-15	Ethylbenzene ($\mu g/m^3$) EPA TO-15 SIM	o-Xylenes ($\mu g/m^3$) EPA TO-15	o-Xylenes ($\mu g/m^3$) EPA TO-15 SIM	pm-Xylenes ($\mu g/m^3$) EPA TO-15	pm-Xylenes ($\mu g/m^3$) EPA TO-15 SIM	TBA ($\mu g/m^3$) EPA TO-15	Naphthalene ($\mu g/m^3$) EPA TO-15	Naphthalene ($\mu g/m^3$) EPA TO-15 SIM	Ethanol ($\mu g/m^3$) EPA TO-15
Environmental Screening Levels, Ambient and Indoor Air, Table E-3 (December 2013)																					
Commercial/Industrial		---	---	---	2,500	47	47	0.42	0.42	1,300	1,300	4.9	4.9	440a	440a	440a	440a	---	0.36	0.36	---
Background Outdoor Air																					
Livermore (BAAQMD)																					
Minimum		---	---	---	---	---	---	0.11	0.11	---	---	---	---	---	---	---	---	---	---	---	---
Average		---	---	---	---	---	---	0.71	0.71	---	---	---	---	---	---	---	---	---	---	---	---
Maximum		---	---	---	---	---	---	2.63	2.63	---	---	---	---	---	---	---	---	---	---	---	---
East Oakland (BAAQMD)																					
Minimum		---	---	---	---	---	---	0	0	---	---	---	---	---	---	---	---	---	---	---	---
Average		---	---	---	---	---	---	0.95	0.95	---	---	---	---	---	---	---	---	---	---	---	---
Maximum		---	---	---	---	---	---	4.03	4.03	---	---	---	---	---	---	---	---	---	---	---	---
Dry Clean 580 Unit																					
IA1	03/05/15	0.00019	0.043	22	**9,100**	<7.2	0.26	**1.8**	**1.3**	5.1	3.6	<2.2	0.38	<2.2	0.50	<8.7	1.3	<6.1	**<26**	0.30	220
IA1 Dup	03/05/15	0.00018	0.043	22	**12,000**	<7.2	<0.090	**<1.6**	**1.2**	3.8	2.9	<2.2	0.32	<2.2	0.35	<8.7	0.92	<6.1	**<26**	0.25	240
IA2	03/05/15	0.00018	0.041	22	2,100	<7.2	<0.090	**<1.6**	**1.1**	3.3	2.7	<2.2	0.31	<2.2	0.36	<8.7	0.90	<6.1	**<26**	0.22	230
Verizon																					
3935 East Castro Valley Boulevard																					
IAV1	03/05/15	0.00019	0.049	22	<470	<7.2	<0.090	**<1.6**	**1.5**	5.0	4.3	<2.2	0.34	<2.2	0.34	<8.7	0.86	<6.1	**<26**	0.12	1,100
IAV2	03/05/15	0.00019	0.050	22	610	<7.2	<0.090	**2.0**	**1.8**	3.7	3.2	2.2	0.30	<2.2	0.35	<8.7	0.82	<6.1	**<26**	0.12	1,500
AT&T																					
3949 East Castro Valley Boulevard																					
IAA1	03/05/15	0.00019	0.070	22	680	<7.2	<0.090	**2.0**	**1.9**	5.2	4.3	<2.2	0.71	<2.2	0.53	<8.7	1.4	<6.1	**<26**	0.30	4,600
Outdoor Air																					
OA1	03/05/15	0.00018	0.038	22	<470	<7.2	<0.090	**1.9**	**1.7**	<1.9	0.86	<2.2	0.16	<2.2	0.22	<8.7	0.56	<6.1	**<26**	0.10	19

Notes:

TPHg	=	Total petroleum hydrocarbons as gasoline.
MTBE	=	Methyl tertiary butyl ether.
TBA	=	Tertiary butyl alcohol.
Add'l VOCs	=	Additional volatile organic compounds.
SCAQMD	=	South Coast Air Quality Management District.
ASTM	=	American Society of Testing and Materials.
EPA	=	Environmental Protection Agency.
% V	=	Percent by volume.
in Hg	=	Inches of mercury.
$\mu g/m^3$	=	Micrograms per meter cubed.
ND	=	Not detected.
<	=	Less than the stated laboratory reporting limit.
---	=	Not applicable/Not specified.
a	=	Value for total xylenes.

TABLE 2D
INDOOR AIR ANALYTICAL RESULTS - VOCs
Dry Clean 580
3735 East Castro Valley Boulevard
Castro Valley, California

Sample ID	Date	Acetone	Bromomethane		2-Butanone		1,3-Butadiene	1,1-Diflouroethane	4-Ethyltoluene		1,3,5-Trimethyl-benzene		1,2,4-Trimethyl-benzene		Hexane	Styrene		Additional VOCs
		(µg/m^3)	(µg/m^3)		(µg/m^3)		(µg/m^3)	(µg/m^3)	(µg/m^3)		(µg/m^3)		(µg/m^3)		(µg/m^3)	(µg/m^3)		(µg/m^3)
		EPA TO-15	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15 SIM	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15 SIM	EPA TO-15	EPA TO-15 SIM	EPA TO-15/ EPA TO-15 SIM
Environmental Screening Levels, Ambient and Indoor Air, Table E-3 (December 2013)																		
Commercial/Industrial		140,000	22	22	---	---	---	---	---	---	---	---	---	---	---	3,900	3,900	---
Background Outdoor Air																		
Livermore (BAAQMD)																		
Minimum		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Average		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
East Oakland (BAAQMD)																		
Minimum		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Average		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dry Clean 580 Unit																		
IA1	03/05/15	25	<1.9	<0.097	<4.4	<1.5	0.17	<0.68	<2.5	<0.25	<2.5	0.12	<7.4	0.55	0.63	<6.4	0.16	ND
IA1 Dup	03/05/15	25	<1.9	<0.097	<4.4	<1.5	0.14	<0.68	<2.5	<0.25	<2.5	<0.12	<7.4	0.46	<0.35	<6.4	0.16	ND
IA2	03/05/15	25	<1.9	<0.097	<4.4	<1.5	0.14	<0.68	<2.5	<0.25	<2.5	<0.12	<7.4	0.42	0.39	<6.4	0.15	ND
Verizon																		
3935 East Castro Valley Boulevard																		
IAV1	03/05/15	29	<1.9	<0.097	<4.4	<1.5	0.18	4.5	<2.5	<0.25	<2.5	<0.12	<7.4	0.39	<0.35	<6.4	0.59	ND
IAV2	03/05/15	29	<1.9	<0.097	<4.4	<1.5	0.24	3.5	<2.5	<0.25	<2.5	<0.12	<7.4	0.43	<0.35	<6.4	0.49	ND
AT&T																		
3949 East Castro Valley Boulevard																		
IAA1	03/05/15	43	<1.9	<0.097	<4.4	1.7	1.1	<0.68	<2.5	<0.25	<2.5	0.12	<7.4	0.54	0.48	<6.4	0.67	ND
Outdoor Air																		
OA1	03/05/15	14	<1.9	8.0	<4.4	<1.5	0.059	<0.68	<2.5	<0.25	<2.5	<0.12	<7.4	0.32	<0.35	<6.4	<0.11	ND

TABLE 2D
INDOOR AIR ANALYTICAL RESULTS - VOCs
Dry Clean 580
3735 East Castro Valley Boulevard
Castro Valley, California

Notes:

MTBE	=	Methyl tertiary butyl ether.
TBA	=	Tertiary butyl alcohol.
Add'l VOCs	=	Additional volatile organic compounds.
SCAQMD	=	South Coast Air Quality Management District.
ASTM	=	American Society of Testing and Materials.
EPA	=	Environmental Protection Agency.
% V	=	Percent by volume.
in Hg	=	Inches of mercury.
µg/m³	=	Micrograms per meter cubed.
ND	=	Not detected.
<	=	Less than the stated laboratory reporting limit.
---	=	Not applicable/Not specified.
a	=	Value for total xylenes.

APPENDIX A

CORRESPONDENCE

From:	Detterman, Karel, Env. Health
To:	"gabe stivala"
Cc:	Charles Gurney; Roe, Dilan, Env. Health
Subject:	RE: RO3097 SCP Program 580 Market Place Shopping Center, East Castro Valley Boulevard, Castro Valley, CA
Date:	Thursday, January 08, 2015 4:55:03 PM
Attachments:	Attachment_1_and_ftpUploadInstructions_2014-05-15.pdf

Hello Gabe:

Alameda County Environmental Health (ACEH) staff has reviewed the Site Cleanup Program (SCP) case file for the above-referenced site including the recently submitted document entitled "*Sub-Slab Vapor and Indoor Air Work Plan Addendum,*" dated December 5, 2014 (Addendum). The Addendum was revised in response to ACEH Directive Letter dated November 17, 2014 for the *Scope of Work for the Indoor Air Quality Assessment and Additional Sub-Slab Sampling* (Scope of Work) e-mailed to ACEH on October 31, 2014. The Scope of Work was submitted as a Work Plan in response to ACEH's September 30, 2014 Directive Letter. Thank you for submitting the documents.

Approval of the Addendum is contingent upon submittal of the following documents to ACEH:

1. Finalization of the October 31, 2014 Scope of Work and submittal to ACEH and Geotracker;
2. Word document of the *Fact Sheet* included in the Addendum. A brief description of the work outlined in the Addendum should be included the *Next Steps* section of the *Fact Sheet*;
3. Word documents of the four letters: *Notification to Tenants, Letter to Occupants/Owner, Fact Sheet for VOCs in Household Products*, and *Instructions to Occupants*, found in Appendix C, *Indoor Air Sampling*, California Department of Toxic Substances Control's "*Vapor Intrusion Public Participation Advisory*," dated March 2012. The four letters should each be revised to reflect tenant names, addresses, and commercial use instead of residential use.

ACEH will finalize and distribute the Fact Sheet to addresses in the immediate vicinity and Notifications to the Dry Cleaner and the two adjacent tenants.

TECHNICAL REPORT REQUEST

- **January 23, 2015 –** Word document of the Fact Sheet and Word document Notifications to the two adjacent tenants e-mailed to karel.detterman@acgov.org

Please upload the requested document to the ACEH ftp site (Attention: Karel Detterman), and to the State Water Resources Control Board's Geotracker website, in accordance with Attachment 1 and the following specified file naming convention and schedule:

- **February 13, 2015 –** *Indoor Air Quality Assessment and Additional Sub-Slab Work Plan*
  File to be named: RO3097_WP_R_yyyy-mm-dd

Thank you,

Karel Detterman, PG
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
Direct: 510.567.6708
Fax: 510.337.9335
Email: karel.detterman@acgov.org

APPENDIX B

PROTOCOLS

Cardno ERI
Soil Vapor Sampling Well Installation and Sampling Field Protocol

Preliminary Activities

Prior to the onset of field activities at the site, Cardno ERI obtains the appropriate permit(s) from the governing agency(s). Advance notification is made as required by the agency(s) prior to the start of work. Cardno ERI marks the borehole locations and contacts the local one call utility locating service at least 48 hours prior to the start of work to mark buried utilities. Borehole locations may also be checked for buried utilities by a private geophysical surveyor. Prior to drilling, the borehole location is cleared in accordance with the client's procedures. Fieldwork is conducted under the advisement of a registered professional geologist and in accordance with an updated site-specific safety plan prepared for the project, which is available at the job site during field activities.

Well Construction

The borehole is advanced to the desired depth using either a direct-push rig, hand auger, or air vacuum rig. Lithologic conditions are recorded on a boring log during borehole advancement, and select soil matrix sampling may be conducted based on soil characteristics.

Each soil vapor sampling (SVS) well is constructed using inert screen material attached to $^1/_8$- to ¼-inch outer diameter inert tubing. A gas-tight vacuum fitting or valve is attached to the top of each length of tubing using a female compression fitting. Each screen is set within a minimum of a 12-inch thick appropriately sized sand pack, with a minimum of 3 inches of sand pack above the top of the screen. A minimum of 4 inches of dry granular bentonite is set above each screen and associated sand pack. In SVS wells with multiple and separate casings and screens, the annular space between the top of the dry granular bentonite above the deep screen and the bottom of the sand pack associated with the shallow screen is sealed with a minimum of 18 inches of hydrated bentonite. The remainder of the annular space of the well is sealed with hydrated bentonite to 1 foot below ground surface. Wellheads are finished with traffic-rated well boxes set in concrete flush with the surrounding grade. No glues, chemical cements, or solvents are used in well construction.

A boring log is completed with the construction details for each well, including the materials of construction, depth of the borehole, screen length, and annular seal thickness.

Soil Vapor Sampling

Samples are collected using a soil vapor purging and sampling manifold consisting of a flow regulator, vacuum gauges, vacuum pump, shroud, and laboratory-prepared, gas-tight, opaque containers such as Summa™ canisters. Samples may also be collected using a syringe and analyzed by a mobile laboratory. Prior to use, Summa™ canisters are checked to ensure they are under the laboratory induced vacuum between 31 and 25 inches of mercury (in. Hg). New inert tubing is used to purge and sample each well. Prior to purging and sampling each SVS well, the sampling manifold is connected to the gas-tight vacuum fitting or valve at the wellhead, and the downstream tubing and fittings are vacuum tested at approximately 24 to 28 in. Hg. Purging and sampling are conducted only on SVS wells when the tubing and fittings hold the applied vacuum for 5 minutes per vacuum gauge reading.

When required, Cardno ERI conducts a purge volume versus constituent concentration test on at least one SVS well prior to purging and sampling activities. The purge volume test well is selected based on the location of the anticipated source of chemical constituents at the site and on the location of anticipated maximum soil vapor concentrations based on lithologic conditions. If the SVS well has been in place for more than 1 week, it is assumed that soil vapor in the sand pack has equilibrated with the surrounding soil, and only the screen and tubing volumes are included in the purge volume calculation. If the SVS well has been in place for less than 1 week, the volume of the sand pack around the screen is included in the purge volume calculation. A photo-ionization detector (PID) or on-site mobile laboratory is used to evaluate concentrations of chemical constituents in the vapor stream after 1, 3,

and 10 volumes of vapor have been purged from the SVS well. Purging is conducted at a rate of 100 to 200 milliliters per minute (ml/min). The purge volume exhibiting the highest concentration is the volume of vapor purged from each SVS well prior to sampling. If the three separate purge volumes produce equal concentrations a default of 3 purge volumes is extracted prior to sampling.

Prior to sampling, a helium leak test is performed at each SVS well, including a summa canister and its fittings, to check for leaks in the SVS annulus. To assess the potential for leaks in the SVS well annulus, a shroud is placed over the SVS well and summa canister and the shroud is filled with a measured amount of helium. Helium screening is performed in the field by drawing soil gas into a Tedlar bag via a lung-box and screening the contents of the Tedlar bag with a helium meter. The concentration of helium in the sample divided by the concentration of helium in the shroud provides a measure of the proportion of the sample attributable to leakage. A leak that comprises less than 5% of the sample is insignificant. Helium screening is also performed using laboratory analysis of the contents of the summa canister collected under the shroud. Sampling is conducted at approximately the same rate of purging, at 100 to 200 ml/min. Soil vapor samples are submitted under chain-of-custody protocol for the specified laboratory analyses.

At a minimum, weather conditions (temperature, barometric pressure and precipitation), the sampling flow rate, the purge volume, the helium leak detection percentage results, the sample canister identification number, the method of sample collection, and the vacuum of the sampling canister at the start and end of sample collection (if applicable) are recorded on a log for each SVS well purged and sampled.

Decontamination Procedures

If soil samples are collected, Cardno ERI or the contracted driller decontaminates the soil sampling equipment between each sampling interval using a non-phosphate solution, followed by a minimum of two tap water rinses. De-ionized water may be used for the final rinse. Downhole drilling equipment is steam-cleaned or triple-rinsed prior to advancing each borehole.

Waste Treatment and Disposal

Soil cuttings generated from the well installation are stored on site in labeled, Department of Transportation-approved, 55-gallon drums or other appropriate storage container. The soil is removed from the site and transported under manifest to a client- and regulatory-approved facility for recycling or disposal. Decontamination water is stored on site in labeled, regulatory-approved storage containers, and is subsequently transported under manifest to a client- and regulatory-approved facility for disposal or treated with a permitted mobile or fixed-base carbon treatment system.

APPENDIX C

FIELD DATA SHEETS

Cardno ATC Project # 75.75354.0002
3735 E. Castro Valley Boulvevard, Castro Valley, CA

Sub-Slab Point Sampling

Well ID: SS-1R **Date** 3/4/15

	Start (time)	End (time)	Inches Hg	Flow Setting (cc/min)	Helium
Shut In Test	1300	1305	15/15	—	—
Purge	1306	1306.5	—	100 cc/min	He: 10 % under shroud, 50 ppm leak
Sample	1308	1325	30/5	50 cc/min	He: 10 % maintained during sample collection
Duplicate	1308	1327	30/5	50 cc/min	He: 10 % maintained during sample collection

3 PV

Sample: SS-1R Summa ID# LC832

Flow Regulator ID# AD50

Slab Thickness (Inchs): 4.5"

splitter # 53

Duplicate: SS-1R Summa ID# LC635

Flow Regulator ID# AD44

Cardno ATC Project # 75.75354.0002
3735 E. Castro Valley Boulvevard, Castro Valley, CA

Sub-Slab Point Sampling

Well ID: SS-2 **Date** 3/4/15

	Start (time)	End (time)	Inches Hg	Flow Setting (cc/min)	Helium
Shut In Test	1355	1400	15/15	—	—
Purge	1400	1400.5	—	100 cc/min	He: 10 % under shroud, 100 ppm leak
Sample	1401	1418	30/5	50 cc/min	He: 10 % maintained during sample collection
Duplicate					He: ____ % maintained during sample collection

3 PV

Sample: SS-2 Summa ID# LC034 Slab Thickness (Inchs): 6"

Flow Regulator ID# AD148"

Duplicate: _____ Summa ID# _____

Flow Regulator ID# _____

Cardno ATC Project # 75.75354.0002
3735 E. Castro Valley Boulvevard, Castro Valley, CA

Sub-Slab Point Sampling

Well ID: SS-3 **Date** 3/4/15

	Start (time)	End (time)	Inches Hg	Flow Setting (cc/min)	Helium
Shut In Test	1335	1340	18/18	—	—
Purge	1340	1349	—	100 cc/min	He: 10 % under shroud, 75 ppm leak
Sample	1341	1353	10/5	50 cc/min	He: 10 % maintained during sample collection
Duplicate					He: ____% maintained during sample collection

3 PV

Sample: SS-3 Summa ID# LC1003 Slab Thickness (Inchs): 5"

Flow Regulator ID# AD59

Duplicate: _____ Summa ID# _____

Flow Regulator ID# _____

Cardno ATC Project # 75.75354.0002
3735 E. Castro Valley Boulvevard, Castro Valley, CA

Sub-Slab Point Sampling

Well ID: SS-4 **Date** 3/4/15

	Start (time)	End (time)	Inches Hg	Flow Setting (cc/min)	Helium
Shut In Test	1229	1234	20/20	—	—
Purge	1234	1234.5	—	100cc/min	He: 10 % under shroud, 100 ppm leak
Sample	1238	1255	30/5	50 cc/min	He: 10 % maintained during sample collection
Duplicate					He: _____ % maintained during sample collection

3 Purge Vol

Sample: SS-4 Summa ID# LC987 Slab Thickness (Inchs): 6"

Flow Regulator ID# AD40

Duplicate: _____ Summa ID# _____

Flow Regulator ID# _____

Cardno ATC Project # 75.75354.0002
3735 E. Castro Valley Boulvevard, Castro Valley, CA

Sub-Slab Point Sampling

Well ID: SSA-1 **Date** 3/4/15

	Start (time)	End (time)	Inches Hg	Flow Setting (cc/min)	Helium
Shut In Test	1458	1503	22/22	—	
Purge	1503	1503.5	—	100 cc/min	He: 10 % under shroud, 125 ppm leak
Sample	1504	1525	30/5	50 cc/min	He: 10 % maintained during sample collection
Duplicate					He: ____ % maintained during sample collection

3 PV

Sample: SSA-1 Summa ID# LL135 Slab Thickness (Inchs): 6"

Flow Regulator ID# AD02

Duplicate: Summa ID# _____

Flow Regulator ID# _____

Cardno ATC Project # 75.75354.0002
3735 E. Castro Valley Boulvevard, Castro Valley, CA

Sub-Slab Point Sampling

Well ID: SSV-1 **Date** 3/4/15

	Start (time)	End (time)	Inches Hg	Flow Setting (cc/min)	Helium
Shut In Test	1430	1435	19/19	—	—
Purge	1435	1435.5	—	100 cc/min	He: 10 % under shroud, 75 ppm leak
Sample	1436	1455	30/5	50 cc/min	He: 10 % maintained during sample collection
Duplicate					He: ____ % maintained during sample collection

3 PV

Sample: SSV-1 Summa ID# LC.937

Flow Regulator ID# AD45

Slab Thickness (Inchs): 3"

Duplicate: Summa ID# _____

Flow Regulator ID# _____

580 Market Place
3735 - 4065 East Castro Valley Blvd
Castro Valley, CA
Cardno ATC Project No. 075.75354.0002

Indoor Air Data Sheet

Sample Point ID: IA1

Summa ID# D909

Flow Regulator ID# FC160

		Date	Inches Hg	Barometric Pr. (in/Hg)	Temperature / F°	PPM
Start Time	1531	3/4/15	30	29.75	73 °F	0.177
End Time	1350	3/5/15	3	29.90	86.6 °F	0.123

Comments: 3/4/15 @ 1535, MiniRae measured outside air, infront of business, @ 0.000 ppm.
3/5/15 @ 1356, MiniRae measured outside air, infront of business, @ 0.000 ppm. At the same date & time MiniRae measurement = 3.52 ppm @ location approx. 20' inside business from front door.

Sample Point ID: IA1-DUP

Summa ID# D632

Flow Regulator ID# FC314

		Date	Inches Hg	Barometric Pr. (in/Hg)	Temperature / F°	PPM
Start Time	1531	3/4/15	30	29.75	73°F	0.160
End Time	1350	3/5/15	5	29.90	86.3°F	0.123

Comments:

Spliter #: 61

580 Market Place
3735 - 4065 East Castro Valley Blvd
Castro Valley, CA
Cardno ATC Project No. 075.75354.0002

Indoor Air Data Sheet

Sample Point ID: IA 2

Summa ID# D848

Flow Regulator ID# FC 375

		Date	Inches Hg	Barometric Pr. (in/Hg)	Temperature / F°	PPM
Start Time	1531	3/4/15	30	29.75	73 °F	0.175
End Time	1420	3/5/15	6	29.90	86.3°F	1.373

Comments: 3/4/15 @ 1535 Mini Rae measured outside air, infront of business, @ 0.000ppm.
3/5/15 @ 1425 Mini Rae measured outside air, infront of business, @ 0.000 ppm.

Sample Point ID: ~~NA~~

Summa ID# NA

Flow Regulator ID# NA

		Date	Inches Hg	Barometric Pr. (in/Hg)	Temperature / F°	PPM
Start Time						
End Time						

Comments:

Spliter #: NA

580 Market Place
3735 - 4065 East Castro Valley Blvd
Castro Valley, CA
Cardno ATC Project No. 075.75354.0002

Indoor Air Data Sheet

Sample Point ID: IAV 1 **Summa ID#** D093 **Flow Regulator ID#** FC 262

		Date	Inches Hg	Barometric Pr. (in/Hg)	Temperature / F°	PPM
Start Time	1532	3/4/15	31	29.75	77.3 °F	0.045
End Time	1344	3/5/15	4	29.91	76.2 °F	0.000

Comments: Pressure gauge glass broken on delivery, still holding required pressure. Summa location in back room, most southern portion of building. 3/4/15 @ 1535 MiniRae measured outside air, infront of business, @ 0.000 ppm. 3/5/15 @ 1348 MiniRae measured outside air, infront of business, @ 0.000 ppm.

Sample Point ID: IAV2 **Summa ID#** D820 **Flow Regulator ID#** FC 343

		Date	Inches Hg	Barometric Pr. (in/Hg)	Temperature / F°	PPM
Start Time	1532	3/4/15	32	29.75	76.9 °F	0.030
End Time	1526	3/5/15	7	29.91	75.9 °F	0.042

Comments: Summa location in southwestern corner of front room (i.e., northern room of business) approx. 40' from front door of business.

Spliter #: NA

580 Market Place
3735 - 4065 East Castro Valley Blvd
Castro Valley, CA
Cardno ATC Project No. 075.75354.0002

Indoor Air Data Sheet

Sample Point ID: IAA1

Summa ID# D563

Flow Regulator ID# FC171

		Date	Inches Hg	Barometric Pr. (in/Hg)	Temperature / F°	PPM
Start Time	1533	3/4/15	30	29.75	76.2 °F	0.107
End Time	1358	3/5/15	5	29.90	83.1 °F	2.56

Comments: 3/4/15 @ 1535 MiniRae measured outside air, infront of business, @ 0.000ppm.
3/5/15 @ 1355 MiniRae measured outside air, infront of business, @ 0.000ppm.

Sample Point ID: NA

Summa ID# NA

Flow Regulator ID# NA

		Date	Inches Hg	Barometric Pr. (in/Hg)	Temperature / F°	PPM
Start Time						
End Time						

Comments:

Spliter #: NA

580 Market Place
3735 - 4065 East Castro Valley Blvd
Castro Valley, CA
Cardno ATC Project No. 075.75354.0002

Outdoor Air Data Sheet

Sample Point ID: OA1

Summa ID# D851 (6L)

Flow Regulator ID# FC23

		Date	Inches Hg	Barometric Pr. (in/Hg)	Temperature / F°	Wind Speed (MPH)	PPM
Start Time	1534	3/4/15	32	29.75	77 °F	0.9 mph	0.0
End Time	1338	3/5/15	5	29.91	83 °F	0.7 mph	0.0

Comments:

APPENDIX D

PHOTOS

Cardno ERI
Shaping the Future

PHOTOGRAPHS
580 Market Place
Castro Valley, California

Project No.
2863

APPENDIX D

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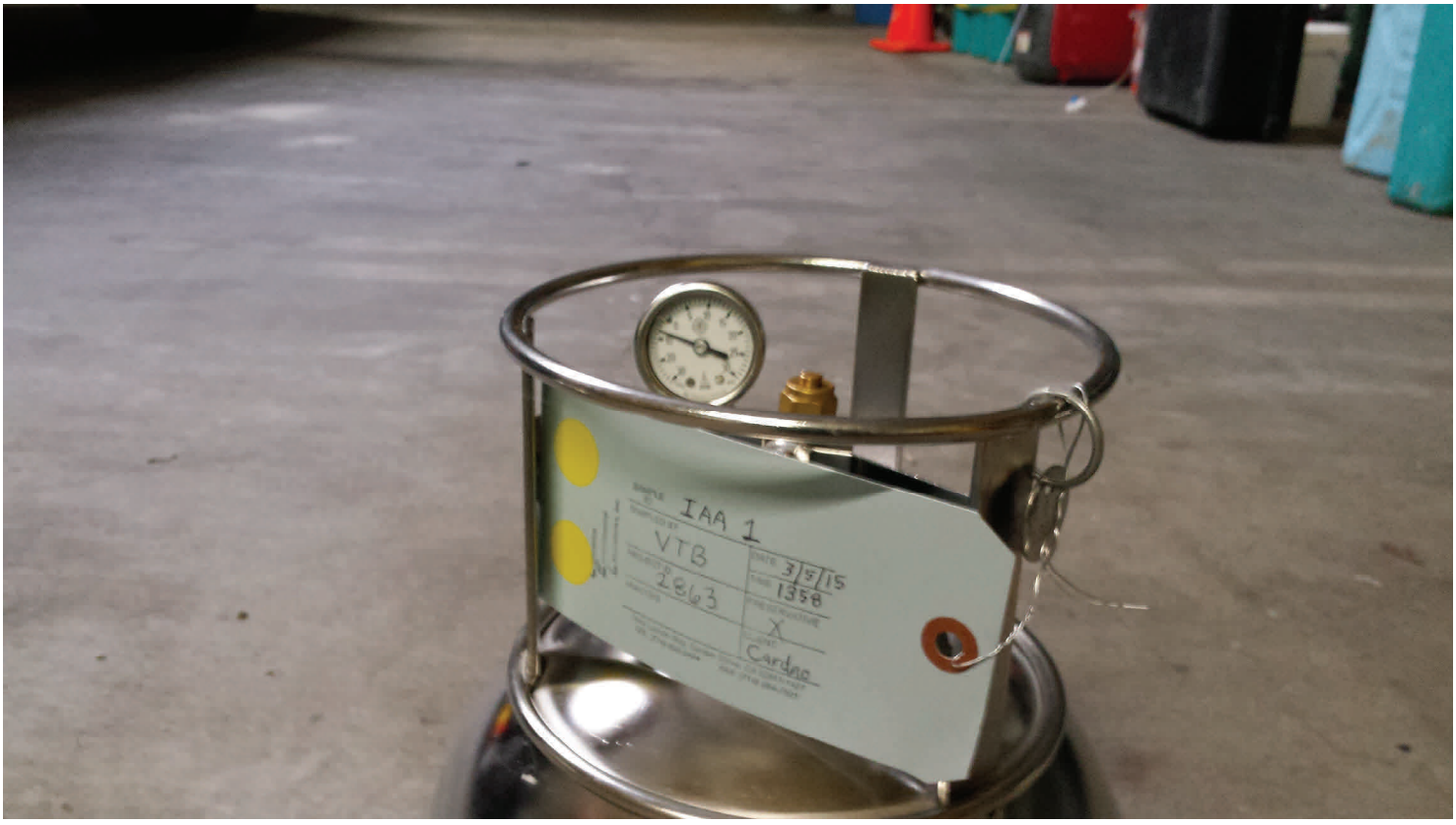
580 Market Place
Castro Valley, California

Project No.
2863

APPENDIX D

Cardno ERI Shaping the Future	PHOTOGRAPHS 580 Market Place Castro Valley, California	**Project No.** 2863 APPENDIX D



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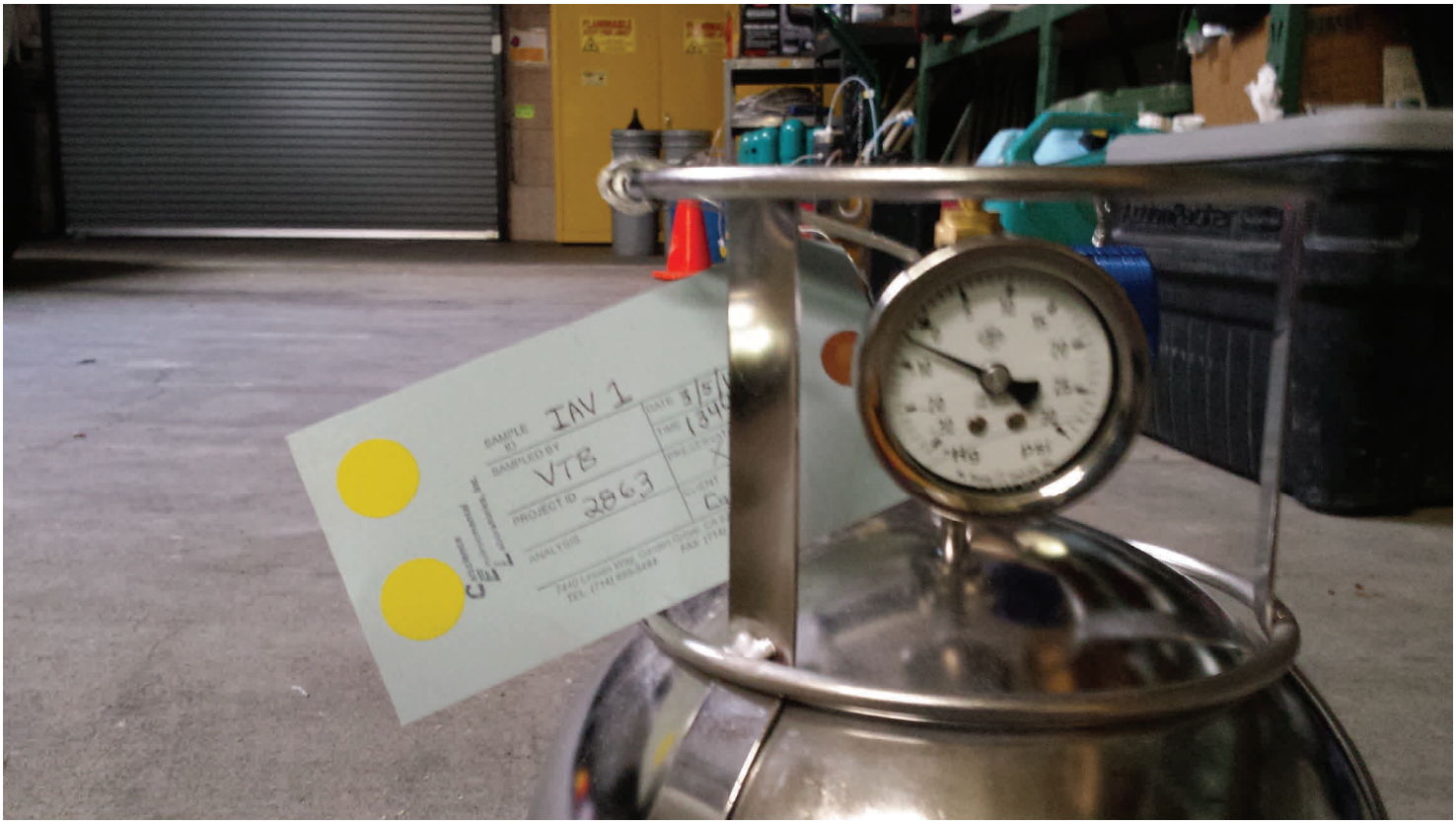
Shaping the Future

PHOTOGRAPHS
580 Market Place
Castro Valley, California

Project No.
2863

APPENDIX D

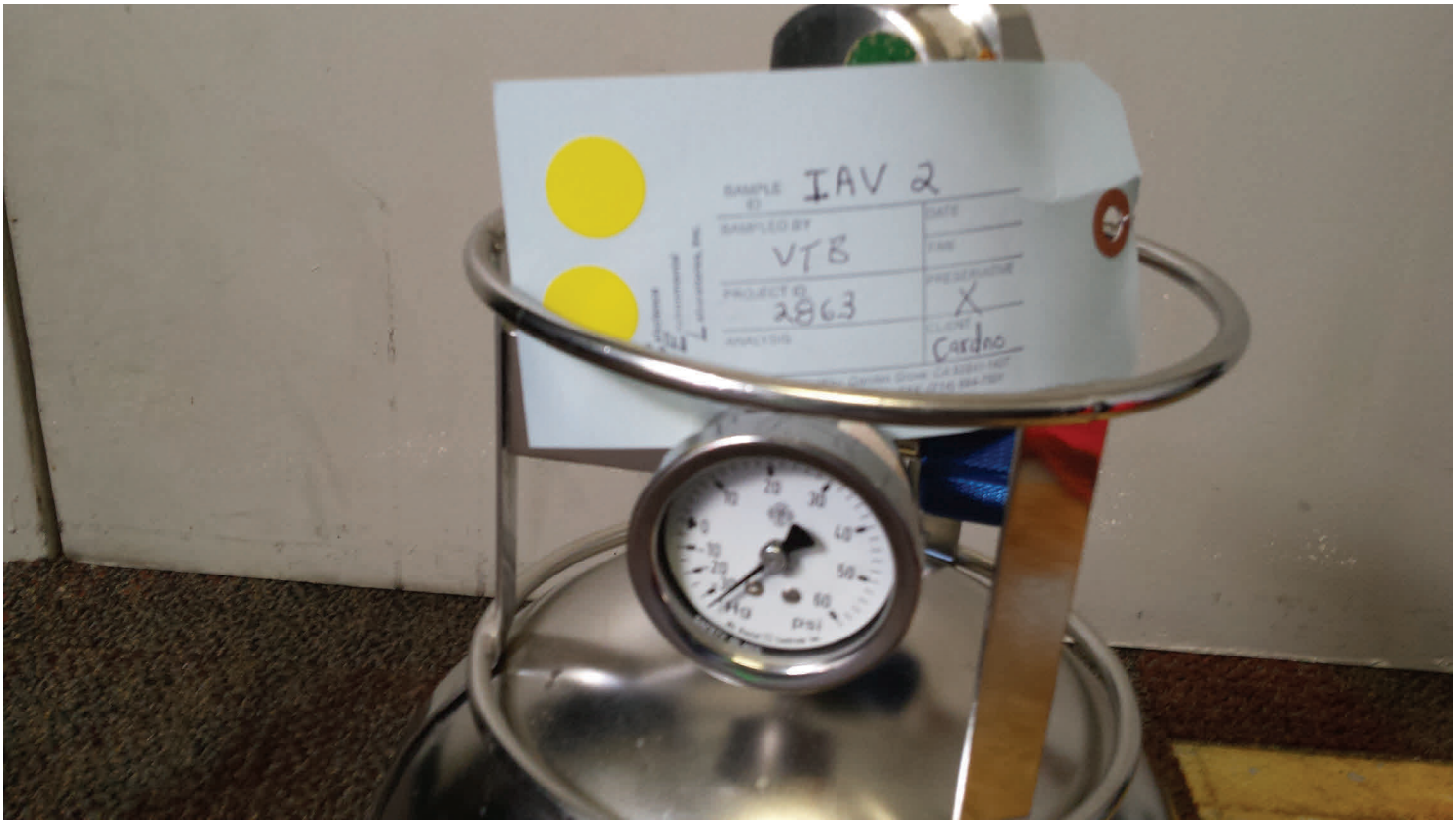


Cardno ERI
Shaping the Future

PHOTOGRAPHS
580 Market Place
Castro Valley, California

Project No.
2863

APPENDIX D



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PHOTOGRAPHS
580 Market Place
Castro Valley, California

Project No.
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APPENDIX D

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PHOTOGRAPHS
580 Market Place
Castro Valley, California

Project No.
2863

APPENDIX D

APPENDIX E

LABORATORY ANALYTICAL REPORTS

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WORK ORDER NUMBER: 15-03-0437

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Cardno ERI

Client Project Name: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002

Attention: Gabe Stivala
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Amanda Porter

Approved for release on 03/16/2015 by:
Amanda Porter
Project Manager

ResultLink

Email your PM

ACCREDITED IN ACCORDANCE WITH nelac

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Work Order Number: 15-03-0437

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Work Order Narrative

Work Order: 15-03-0437 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 03/06/15. They were assigned to Work Order 15-03-0437.

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.

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: ASTM D-1946 (M)
Units: %v

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-1R	**15-03-0437-1-A**	**03/04/15 13:25**	**Air**	**GC 55**	**N/A**	**03/12/15 13:03**	**150312L01**

Parameter	Result	RL	DF	Qualifiers
Helium	0.0548	0.0229	2.29	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-1R DUP	**15-03-0437-2-A**	**03/04/15 13:27**	**Air**	**GC 55**	**N/A**	**03/12/15 13:46**	**150312L01**

Parameter	Result	RL	DF	Qualifiers
Helium	0.0252	0.0218	2.18	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-2	**15-03-0437-3-A**	**03/04/15 14:18**	**Air**	**GC 55**	**N/A**	**03/06/15 13:36**	**150306L01**

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-3	**15-03-0437-4-A**	**03/04/15 13:53**	**Air**	**GC 55**	**N/A**	**03/06/15 13:53**	**150306L01**

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-4	**15-03-0437-5-A**	**03/04/15 12:55**	**Air**	**GC 55**	**N/A**	**03/06/15 14:14**	**150306L01**

Parameter	Result	RL	DF	Qualifiers
Helium	0.0195	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SSV-1	**15-03-0437-6-A**	**03/04/15 14:55**	**Air**	**GC 55**	**N/A**	**03/06/15 15:18**	**150306L01**

Parameter	Result	RL	DF	Qualifiers
Helium	0.0458	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SSA-1	**15-03-0437-7-A**	**03/04/15 15:25**	**Air**	**GC 55**	**N/A**	**03/06/15 16:05**	**150306L01**

Parameter	Result	RL	DF	Qualifiers
Helium	0.0182	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-872-771**	**N/A**	**Air**	**GC 55**	**N/A**	**03/06/15 10:12**	**150306L01**

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1.00	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: ASTM D-1946 (M)
Units: %v

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-872-773**	**N/A**	**Air**	**GC 55**	**N/A**	**03/12/15 10:01**	**150312L01**

Parameter	Result	RL	DF	Qualifiers
Helium	ND	0.0100	1.00	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-1R	**15-03-0437-1-A**	**03/04/15 13:25**	**Air**	**GC/MS K**	**N/A**	**03/12/15 18:23**	**150312L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	46	11	2.29	
Benzene	ND	3.7	2.29	
Benzyl Chloride	ND	18	2.29	
Bromodichloromethane	ND	7.7	2.29	
Bromoform	ND	12	2.29	
Bromomethane	ND	4.4	2.29	
2-Butanone	ND	10	2.29	
Carbon Disulfide	ND	14	2.29	
Carbon Tetrachloride	ND	7.2	2.29	
Chlorobenzene	ND	5.3	2.29	
Chloroethane	ND	3.0	2.29	
Chloroform	ND	5.6	2.29	
Chloromethane	ND	2.4	2.29	
Dibromochloromethane	ND	9.8	2.29	
Dichlorodifluoromethane	ND	5.7	2.29	
Diisopropyl Ether (DIPE)	ND	19	2.29	
1,1-Dichloroethane	ND	4.6	2.29	
1,1-Dichloroethene	ND	4.5	2.29	
1,2-Dibromoethane	ND	8.8	2.29	
Dichlorotetrafluoroethane	ND	32	2.29	
1,2-Dichlorobenzene	ND	6.9	2.29	
1,2-Dichloroethane	ND	4.6	2.29	
1,2-Dichloropropane	ND	5.3	2.29	
1,3-Dichlorobenzene	ND	6.9	2.29	
1,4-Dichlorobenzene	ND	6.9	2.29	
c-1,3-Dichloropropene	ND	5.2	2.29	
c-1,2-Dichloroethene	ND	4.5	2.29	
t-1,2-Dichloroethene	ND	4.5	2.29	
t-1,3-Dichloropropene	ND	10	2.29	
Ethanol	ND	22	2.29	
Ethyl-t-Butyl Ether (ETBE)	ND	19	2.29	
Ethylbenzene	ND	5.0	2.29	
4-Ethyltoluene	ND	5.6	2.29	
Hexachloro-1,3-Butadiene	ND	37	2.29	
2-Hexanone	ND	14	2.29	

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

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Analytical Report

Cardno ERI		Date Received:	03/06/15
601 North McDowell Blvd.		Work Order:	15-03-0437
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Parameter	Result	RL	DF	Qualifiers
Methyl-t-Butyl Ether (MTBE)	ND	17	2.29	
Methylene Chloride	ND	40	2.29	
4-Methyl-2-Pentanone	ND	14	2.29	
Naphthalene	ND	60	2.29	
o-Xylene	ND	5.0	2.29	
p/m-Xylene	ND	20	2.29	
Styrene	ND	15	2.29	
Tert-Amyl-Methyl Ether (TAME)	ND	19	2.29	
Tert-Butyl Alcohol (TBA)	ND	14	2.29	
Tetrachloroethene	390	7.8	2.29	
Toluene	ND	4.3	2.29	
Trichloroethene	19	6.2	2.29	
Trichlorofluoromethane	ND	13	2.29	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	26	2.29	
1,1,1-Trichloroethane	ND	6.2	2.29	
1,1,2-Trichloroethane	ND	6.2	2.29	
1,3,5-Trimethylbenzene	ND	5.6	2.29	
1,1,2,2-Tetrachloroethane	ND	16	2.29	
1,2,4-Trimethylbenzene	ND	17	2.29	
1,2,4-Trichlorobenzene	ND	34	2.29	
Vinyl Acetate	ND	16	2.29	
Vinyl Chloride	ND	2.9	2.29	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	68-134	
1,2-Dichloroethane-d4	106	67-133	
Toluene-d8	100	70-130	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-1R DUP	**15-03-0437-2-A**	**03/04/15 13:27**	**Air**	**GC/MS K**	**N/A**	**03/12/15 19:13**	**150312L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	40	10	2.18	
Benzene	ND	3.5	2.18	
Benzyl Chloride	ND	17	2.18	
Bromodichloromethane	ND	7.3	2.18	
Bromoform	ND	11	2.18	
Bromomethane	ND	4.2	2.18	
2-Butanone	ND	9.6	2.18	
Carbon Disulfide	ND	14	2.18	
Carbon Tetrachloride	ND	6.9	2.18	
Chlorobenzene	ND	5.0	2.18	
Chloroethane	ND	2.9	2.18	
Chloroform	ND	5.3	2.18	
Chloromethane	ND	2.3	2.18	
Dibromochloromethane	ND	9.3	2.18	
Dichlorodifluoromethane	ND	5.4	2.18	
Diisopropyl Ether (DIPE)	ND	18	2.18	
1,1-Dichloroethane	ND	4.4	2.18	
1,1-Dichloroethene	ND	4.3	2.18	
1,2-Dibromoethane	ND	8.4	2.18	
Dichlorotetrafluoroethane	ND	30	2.18	
1,2-Dichlorobenzene	ND	6.6	2.18	
1,2-Dichloroethane	ND	4.4	2.18	
1,2-Dichloropropane	ND	5.0	2.18	
1,3-Dichlorobenzene	ND	6.6	2.18	
1,4-Dichlorobenzene	ND	6.6	2.18	
c-1,3-Dichloropropene	ND	4.9	2.18	
c-1,2-Dichloroethene	ND	4.3	2.18	
t-1,2-Dichloroethene	ND	4.3	2.18	
t-1,3-Dichloropropene	ND	9.9	2.18	
Ethanol	ND	21	2.18	
Ethyl-t-Butyl Ether (ETBE)	ND	18	2.18	
Ethylbenzene	ND	4.7	2.18	
4-Ethyltoluene	ND	5.4	2.18	
Hexachloro-1,3-Butadiene	ND	35	2.18	
2-Hexanone	ND	13	2.18	

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

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Analytical Report

Cardno ERI		Date Received:	03/06/15
601 North McDowell Blvd.		Work Order:	15-03-0437
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 4 of 17

Parameter	Result	RL	DF	Qualifiers
Methyl-t-Butyl Ether (MTBE)	ND	16	2.18	
Methylene Chloride	ND	38	2.18	
4-Methyl-2-Pentanone	ND	13	2.18	
Naphthalene	ND	57	2.18	
o-Xylene	ND	4.7	2.18	
p/m-Xylene	ND	19	2.18	
Styrene	ND	14	2.18	
Tert-Amyl-Methyl Ether (TAME)	ND	18	2.18	
Tert-Butyl Alcohol (TBA)	ND	13	2.18	
Tetrachloroethene	210	7.4	2.18	
Toluene	ND	4.1	2.18	
Trichloroethene	14	5.9	2.18	
Trichlorofluoromethane	ND	12	2.18	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	25	2.18	
1,1,1-Trichloroethane	ND	5.9	2.18	
1,1,2-Trichloroethane	ND	5.9	2.18	
1,3,5-Trimethylbenzene	ND	5.4	2.18	
1,1,2,2-Tetrachloroethane	ND	15	2.18	
1,2,4-Trimethylbenzene	ND	16	2.18	
1,2,4-Trichlorobenzene	ND	32	2.18	
Vinyl Acetate	ND	15	2.18	
Vinyl Chloride	ND	2.8	2.18	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	68-134	
1,2-Dichloroethane-d4	106	67-133	
Toluene-d8	102	70-130	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-2	**15-03-0437-3-A**	**03/04/15 14:18**	**Air**	**GC/MS K**	**N/A**	**03/12/15 20:02**	**150312L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	40	6.4	1.35	
Benzene	3.5	2.2	1.35	
Benzyl Chloride	ND	10	1.35	
Bromodichloromethane	ND	4.5	1.35	
Bromoform	ND	7.0	1.35	
Bromomethane	ND	2.6	1.35	
2-Butanone	19	6.0	1.35	
Carbon Disulfide	ND	8.4	1.35	
Carbon Tetrachloride	ND	4.2	1.35	
Chlorobenzene	ND	3.1	1.35	
Chloroethane	ND	1.8	1.35	
Chloroform	ND	3.3	1.35	
Chloromethane	ND	1.4	1.35	
Dibromochloromethane	ND	5.8	1.35	
Dichlorodifluoromethane	ND	3.3	1.35	
Diisopropyl Ether (DIPE)	ND	11	1.35	
1,1-Dichloroethane	ND	2.7	1.35	
1,1-Dichloroethene	ND	2.7	1.35	
1,2-Dibromoethane	ND	5.2	1.35	
Dichlorotetrafluoroethane	ND	19	1.35	
1,2-Dichlorobenzene	ND	4.1	1.35	
1,2-Dichloroethane	ND	2.7	1.35	
1,2-Dichloropropane	ND	3.1	1.35	
1,3-Dichlorobenzene	ND	4.1	1.35	
1,4-Dichlorobenzene	ND	4.1	1.35	
c-1,3-Dichloropropene	ND	3.1	1.35	
c-1,2-Dichloroethene	ND	2.7	1.35	
t-1,2-Dichloroethene	ND	2.7	1.35	
t-1,3-Dichloropropene	ND	6.1	1.35	
Ethanol	30	13	1.35	
Ethyl-t-Butyl Ether (ETBE)	ND	11	1.35	
Ethylbenzene	ND	2.9	1.35	
4-Ethyltoluene	ND	3.3	1.35	
Hexachloro-1,3-Butadiene	ND	22	1.35	
2-Hexanone	ND	8.3	1.35	

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

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Analytical Report

Cardno ERI		Date Received:	03/06/15
601 North McDowell Blvd.		Work Order:	15-03-0437
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 6 of 17

Parameter	Result	RL	DF	Qualifiers
Methyl-t-Butyl Ether (MTBE)	ND	9.7	1.35	
Methylene Chloride	ND	23	1.35	
4-Methyl-2-Pentanone	ND	8.3	1.35	
Naphthalene	ND	35	1.35	
o-Xylene	ND	2.9	1.35	
p/m-Xylene	ND	12	1.35	
Styrene	ND	8.6	1.35	
Tert-Amyl-Methyl Ether (TAME)	ND	11	1.35	
Tert-Butyl Alcohol (TBA)	ND	8.2	1.35	
Tetrachloroethene	9.4	4.6	1.35	
Toluene	4.6	2.5	1.35	
Trichloroethene	ND	3.6	1.35	
Trichlorofluoromethane	ND	7.6	1.35	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	16	1.35	
1,1,1-Trichloroethane	ND	3.7	1.35	
1,1,2-Trichloroethane	ND	3.7	1.35	
1,3,5-Trimethylbenzene	ND	3.3	1.35	
1,1,2,2-Tetrachloroethane	ND	9.3	1.35	
1,2,4-Trimethylbenzene	ND	10	1.35	
1,2,4-Trichlorobenzene	ND	20	1.35	
Vinyl Acetate	ND	9.5	1.35	
Vinyl Chloride	ND	1.7	1.35	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	68-134	
1,2-Dichloroethane-d4	107	67-133	
Toluene-d8	101	70-130	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-3	**15-03-0437-4-A**	**03/04/15 13:53**	**Air**	**GC/MS K**	**N/A**	**03/12/15 20:52**	**150312L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	52	6.4	1.35	
Benzene	ND	2.2	1.35	
Benzyl Chloride	ND	10	1.35	
Bromodichloromethane	ND	4.5	1.35	
Bromoform	ND	7.0	1.35	
Bromomethane	ND	2.6	1.35	
2-Butanone	7.9	6.0	1.35	
Carbon Disulfide	ND	8.4	1.35	
Carbon Tetrachloride	ND	4.2	1.35	
Chlorobenzene	ND	3.1	1.35	
Chloroethane	ND	1.8	1.35	
Chloroform	ND	3.3	1.35	
Chloromethane	1.4	1.4	1.35	
Dibromochloromethane	ND	5.8	1.35	
Dichlorodifluoromethane	ND	3.3	1.35	
Diisopropyl Ether (DIPE)	ND	11	1.35	
1,1-Dichloroethane	ND	2.7	1.35	
1,1-Dichloroethene	ND	2.7	1.35	
1,2-Dibromoethane	ND	5.2	1.35	
Dichlorotetrafluoroethane	ND	19	1.35	
1,2-Dichlorobenzene	ND	4.1	1.35	
1,2-Dichloroethane	ND	2.7	1.35	
1,2-Dichloropropane	ND	3.1	1.35	
1,3-Dichlorobenzene	ND	4.1	1.35	
1,4-Dichlorobenzene	ND	4.1	1.35	
c-1,3-Dichloropropene	ND	3.1	1.35	
c-1,2-Dichloroethene	ND	2.7	1.35	
t-1,2-Dichloroethene	ND	2.7	1.35	
t-1,3-Dichloropropene	ND	6.1	1.35	
Ethanol	23	13	1.35	
Ethyl-t-Butyl Ether (ETBE)	ND	11	1.35	
Ethylbenzene	ND	2.9	1.35	
4-Ethyltoluene	ND	3.3	1.35	
Hexachloro-1,3-Butadiene	ND	22	1.35	
2-Hexanone	ND	8.3	1.35	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Parameter	Result	RL	DF	Qualifiers
Methyl-t-Butyl Ether (MTBE)	ND	9.7	1.35	
Methylene Chloride	ND	23	1.35	
4-Methyl-2-Pentanone	ND	8.3	1.35	
Naphthalene	ND	35	1.35	
o-Xylene	ND	2.9	1.35	
p/m-Xylene	ND	12	1.35	
Styrene	ND	8.6	1.35	
Tert-Amyl-Methyl Ether (TAME)	ND	11	1.35	
Tert-Butyl Alcohol (TBA)	ND	8.2	1.35	
Tetrachloroethene	ND	4.6	1.35	
Toluene	3.0	2.5	1.35	
Trichloroethene	ND	3.6	1.35	
Trichlorofluoromethane	ND	7.6	1.35	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	16	1.35	
1,1,1-Trichloroethane	ND	3.7	1.35	
1,1,2-Trichloroethane	ND	3.7	1.35	
1,3,5-Trimethylbenzene	ND	3.3	1.35	
1,1,2,2-Tetrachloroethane	ND	9.3	1.35	
1,2,4-Trimethylbenzene	ND	10	1.35	
1,2,4-Trichlorobenzene	ND	20	1.35	
Vinyl Acetate	ND	9.5	1.35	
Vinyl Chloride	ND	1.7	1.35	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	68-134	
1,2-Dichloroethane-d4	107	67-133	
Toluene-d8	101	70-130	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-4	**15-03-0437-5-A**	**03/04/15 12:55**	**Air**	**GC/MS K**	**N/A**	**03/12/15 21:41**	**150312L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	71	6.7	1.40	
Benzene	ND	2.2	1.40	
Benzyl Chloride	ND	11	1.40	
Bromodichloromethane	ND	4.7	1.40	
Bromoform	ND	7.2	1.40	
Bromomethane	ND	2.7	1.40	
2-Butanone	20	6.2	1.40	
Carbon Disulfide	ND	8.7	1.40	
Carbon Tetrachloride	ND	4.4	1.40	
Chlorobenzene	ND	3.2	1.40	
Chloroethane	ND	1.8	1.40	
Chloroform	ND	3.4	1.40	
Chloromethane	ND	1.4	1.40	
Dibromochloromethane	ND	6.0	1.40	
Dichlorodifluoromethane	ND	3.5	1.40	
Diisopropyl Ether (DIPE)	ND	12	1.40	
1,1-Dichloroethane	ND	2.8	1.40	
1,1-Dichloroethene	ND	2.8	1.40	
1,2-Dibromoethane	ND	5.4	1.40	
Dichlorotetrafluoroethane	ND	20	1.40	
1,2-Dichlorobenzene	ND	4.2	1.40	
1,2-Dichloroethane	ND	2.8	1.40	
1,2-Dichloropropane	ND	3.2	1.40	
1,3-Dichlorobenzene	ND	4.2	1.40	
1,4-Dichlorobenzene	ND	4.2	1.40	
c-1,3-Dichloropropene	ND	3.2	1.40	
c-1,2-Dichloroethene	ND	2.8	1.40	
t-1,2-Dichloroethene	ND	2.8	1.40	
t-1,3-Dichloropropene	ND	6.4	1.40	
Ethanol	45	13	1.40	
Ethyl-t-Butyl Ether (ETBE)	ND	12	1.40	
Ethylbenzene	ND	3.0	1.40	
4-Ethyltoluene	ND	3.4	1.40	
Hexachloro-1,3-Butadiene	ND	22	1.40	
2-Hexanone	ND	8.6	1.40	

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

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Analytical Report

Cardno ERI		Date Received:	03/06/15
601 North McDowell Blvd.		Work Order:	15-03-0437
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 10 of 17

Parameter	Result	RL	DF	Qualifiers
Methyl-t-Butyl Ether (MTBE)	ND	10	1.40	
Methylene Chloride	ND	24	1.40	
4-Methyl-2-Pentanone	ND	8.6	1.40	
Naphthalene	ND	37	1.40	
o-Xylene	ND	3.0	1.40	
p/m-Xylene	ND	12	1.40	
Styrene	ND	8.9	1.40	
Tert-Amyl-Methyl Ether (TAME)	ND	12	1.40	
Tert-Butyl Alcohol (TBA)	ND	8.5	1.40	
Tetrachloroethene	350	4.7	1.40	
Toluene	4.0	2.6	1.40	
Trichloroethene	62	3.8	1.40	
Trichlorofluoromethane	ND	7.9	1.40	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	16	1.40	
1,1,1-Trichloroethane	ND	3.8	1.40	
1,1,2-Trichloroethane	ND	3.8	1.40	
1,3,5-Trimethylbenzene	ND	3.4	1.40	
1,1,2,2-Tetrachloroethane	ND	9.6	1.40	
1,2,4-Trimethylbenzene	ND	10	1.40	
1,2,4-Trichlorobenzene	ND	21	1.40	
Vinyl Acetate	ND	9.9	1.40	
Vinyl Chloride	ND	1.8	1.40	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	68-134	
1,2-Dichloroethane-d4	106	67-133	
Toluene-d8	101	70-130	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SSV-1	**15-03-0437-6-A**	**03/04/15 14:55**	**Air**	**GC/MS K**	**N/A**	**03/12/15 22:31**	**150312L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	77	6.4	1.34	
Benzene	ND	2.1	1.34	
Benzyl Chloride	ND	10	1.34	
Bromodichloromethane	ND	4.5	1.34	
Bromoform	ND	6.9	1.34	
Bromomethane	ND	2.6	1.34	
2-Butanone	8.2	5.9	1.34	
Carbon Disulfide	ND	8.3	1.34	
Carbon Tetrachloride	ND	4.2	1.34	
Chlorobenzene	ND	3.1	1.34	
Chloroethane	ND	1.8	1.34	
Chloroform	ND	3.3	1.34	
Chloromethane	ND	1.4	1.34	
Dibromochloromethane	ND	5.7	1.34	
Dichlorodifluoromethane	ND	3.3	1.34	
Diisopropyl Ether (DIPE)	ND	11	1.34	
1,1-Dichloroethane	ND	2.7	1.34	
1,1-Dichloroethene	ND	2.7	1.34	
1,2-Dibromoethane	ND	5.1	1.34	
Dichlorotetrafluoroethane	ND	19	1.34	
1,2-Dichlorobenzene	ND	4.0	1.34	
1,2-Dichloroethane	ND	2.7	1.34	
1,2-Dichloropropane	ND	3.1	1.34	
1,3-Dichlorobenzene	ND	4.0	1.34	
1,4-Dichlorobenzene	ND	4.0	1.34	
c-1,3-Dichloropropene	ND	3.0	1.34	
c-1,2-Dichloroethene	ND	2.7	1.34	
t-1,2-Dichloroethene	ND	2.7	1.34	
t-1,3-Dichloropropene	ND	6.1	1.34	
Ethyl-t-Butyl Ether (ETBE)	ND	11	1.34	
Ethylbenzene	ND	2.9	1.34	
4-Ethyltoluene	ND	3.3	1.34	
Hexachloro-1,3-Butadiene	ND	21	1.34	
2-Hexanone	ND	8.2	1.34	
Methyl-t-Butyl Ether (MTBE)	ND	9.7	1.34	

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

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Analytical Report

Cardno ERI		Date Received:	03/06/15
601 North McDowell Blvd.		Work Order:	15-03-0437
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 12 of 17

Parameter	Result	RL	DF	Qualifiers
Methylene Chloride	ND	23	1.34	
4-Methyl-2-Pentanone	ND	8.2	1.34	
Naphthalene	ND	35	1.34	
o-Xylene	ND	2.9	1.34	
p/m-Xylene	ND	12	1.34	
Styrene	ND	8.6	1.34	
Tert-Amyl-Methyl Ether (TAME)	ND	11	1.34	
Tert-Butyl Alcohol (TBA)	10	8.1	1.34	
Tetrachloroethene	110	4.5	1.34	
Toluene	ND	2.5	1.34	
Trichloroethene	5.4	3.6	1.34	
Trichlorofluoromethane	ND	7.5	1.34	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	15	1.34	
1,1,1-Trichloroethane	ND	3.7	1.34	
1,1,2-Trichloroethane	ND	3.7	1.34	
1,3,5-Trimethylbenzene	ND	3.3	1.34	
1,1,2,2-Tetrachloroethane	ND	9.2	1.34	
1,2,4-Trimethylbenzene	ND	9.9	1.34	
1,2,4-Trichlorobenzene	ND	20	1.34	
Vinyl Acetate	ND	9.4	1.34	
Vinyl Chloride	ND	1.7	1.34	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	68-134	
1,2-Dichloroethane-d4	107	67-133	
Toluene-d8	102	70-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SSV-1	**15-03-0437-6-A**	**03/04/15 14:55**	**Air**	**GC/MS AA**	**N/A**	**03/14/15 01:50**	**150313L03**

Parameter	Result	RL	DF	Qualifiers
Ethanol	1000	25	2.68	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	104	68-134	
1,2-Dichloroethane-d4	103	67-133	
Toluene-d8	101	70-130	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SSA-1	**15-03-0437-7-A**	**03/04/15 15:25**	**Air**	**GC/MS K**	**N/A**	**03/12/15 23:21**	**150312L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	56	9.6	2.03	
Benzene	ND	3.2	2.03	
Benzyl Chloride	ND	16	2.03	
Bromodichloromethane	ND	6.8	2.03	
Bromoform	ND	10	2.03	
Bromomethane	ND	3.9	2.03	
2-Butanone	ND	9.0	2.03	
Carbon Disulfide	ND	13	2.03	
Carbon Tetrachloride	ND	6.4	2.03	
Chlorobenzene	ND	4.7	2.03	
Chloroethane	ND	2.7	2.03	
Chloroform	ND	5.0	2.03	
Chloromethane	ND	2.1	2.03	
Dibromochloromethane	ND	8.6	2.03	
Dichlorodifluoromethane	ND	5.0	2.03	
Diisopropyl Ether (DIPE)	ND	17	2.03	
1,1-Dichloroethane	ND	4.1	2.03	
1,1-Dichloroethene	ND	4.0	2.03	
1,2-Dibromoethane	ND	7.8	2.03	
Dichlorotetrafluoroethane	ND	28	2.03	
1,2-Dichlorobenzene	ND	6.1	2.03	
1,2-Dichloroethane	ND	4.1	2.03	
1,2-Dichloropropane	ND	4.7	2.03	
1,3-Dichlorobenzene	ND	6.1	2.03	
1,4-Dichlorobenzene	ND	6.1	2.03	
c-1,3-Dichloropropene	ND	4.6	2.03	
c-1,2-Dichloroethene	ND	4.0	2.03	
t-1,2-Dichloroethene	ND	4.0	2.03	
t-1,3-Dichloropropene	ND	9.2	2.03	
Ethanol	ND	19	2.03	
Ethyl-t-Butyl Ether (ETBE)	ND	17	2.03	
Ethylbenzene	ND	4.4	2.03	
4-Ethyltoluene	ND	5.0	2.03	
Hexachloro-1,3-Butadiene	ND	32	2.03	
2-Hexanone	ND	12	2.03	

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

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Analytical Report

Cardno ERI	Date Received:	03/06/15
601 North McDowell Blvd.	Work Order:	15-03-0437
Petaluma, CA 94954-2312	Preparation:	N/A
	Method:	EPA TO-15
	Units:	ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Parameter	Result	RL	DF	Qualifiers
Methyl-t-Butyl Ether (MTBE)	ND	15	2.03	
Methylene Chloride	ND	35	2.03	
4-Methyl-2-Pentanone	ND	12	2.03	
Naphthalene	ND	53	2.03	
o-Xylene	ND	4.4	2.03	
p/m-Xylene	ND	18	2.03	
Styrene	ND	13	2.03	
Tert-Amyl-Methyl Ether (TAME)	ND	17	2.03	
Tert-Butyl Alcohol (TBA)	ND	12	2.03	
Tetrachloroethene	59	6.9	2.03	
Toluene	ND	3.8	2.03	
Trichloroethene	8.0	5.5	2.03	
Trichlorofluoromethane	ND	11	2.03	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	23	2.03	
1,1,1-Trichloroethane	ND	5.5	2.03	
1,1,2-Trichloroethane	ND	5.5	2.03	
1,3,5-Trimethylbenzene	ND	5.0	2.03	
1,1,2,2-Tetrachloroethane	ND	14	2.03	
1,2,4-Trimethylbenzene	ND	15	2.03	
1,2,4-Trichlorobenzene	ND	30	2.03	
Vinyl Acetate	ND	14	2.03	
Vinyl Chloride	ND	2.6	2.03	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	68-134	
1,2-Dichloroethane-d4	107	67-133	
Toluene-d8	101	70-130	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**095-01-021-15055**	**N/A**	**Air**	**GC/MS K**	**N/A**	**03/12/15 17:21**	**150312L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	4.8	1.00	
Benzene	ND	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	ND	4.4	1.00	
Carbon Disulfide	ND	6.2	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	ND	2.4	1.00	
Chloromethane	ND	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
Dichlorodifluoromethane	ND	2.5	1.00	
Diisopropyl Ether (DIPE)	ND	8.4	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Ethanol	ND	9.4	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1.00	
Ethylbenzene	ND	2.2	1.00	
4-Ethyltoluene	ND	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	
2-Hexanone	ND	6.1	1.00	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Parameter	Result	RL	DF	Qualifiers
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	ND	6.1	1.00	
Naphthalene	ND	26	1.00	
o-Xylene	ND	2.2	1.00	
p/m-Xylene	ND	8.7	1.00	
Styrene	ND	6.4	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1.00	
Tert-Butyl Alcohol (TBA)	ND	6.1	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	ND	1.9	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
1,3,5-Trimethylbenzene	ND	2.5	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
1,2,4-Trimethylbenzene	ND	7.4	1.00	
1,2,4-Trichlorobenzene	ND	15	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	68-134	
1,2-Dichloroethane-d4	106	67-133	
Toluene-d8	102	70-130	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**095-01-021-15063**	**N/A**	**Air**	**GC/MS AA**	**N/A**	**03/13/15 13:16**	**150313L03**

Parameter	Result	RL	DF	Qualifiers
Ethanol	ND	9.4	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	68-134	
1,2-Dichloroethane-d4	100	67-133	
Toluene-d8	102	70-130	

Return to Contents

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-1R	**15-03-0437-1-A**	**03/04/15 13:25**	**Air**	**GC/MS DD**	**N/A**	**03/06/15 20:17**	**150306L01**

Parameter	Result	RL	DF	Qualifiers
1,2-Dibromoethane	ND	0.28	1.45	
Dichlorotetrafluoroethane	ND	0.25	1.45	
1,2-Dichloropropane	ND	0.17	1.45	
Bromomethane	ND	0.14	1.45	
c-1,3-Dichloropropene	ND	0.16	1.45	
t-1,3-Dichloropropene	ND	0.16	1.45	
1,1,1-Trichloroethane	ND	0.20	1.45	
1,1,2,2-Tetrachloroethane	ND	0.25	1.45	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.51	0.28	1.45	
1,1,2-Trichloroethane	ND	0.20	1.45	
1,1-Dichloroethane	ND	0.15	1.45	
1,1-Dichloroethene	ND	0.14	1.45	
1,1-Difluoroethane	ND	0.98	1.45	
1,2,4-Trichlorobenzene	ND	0.27	1.45	
1,2,4-Trimethylbenzene	1.1	0.36	1.45	
1,2-Dichlorobenzene	ND	0.22	1.45	
1,2-Dichloroethane	ND	0.15	1.45	
1,3,5-Trimethylbenzene	0.31	0.18	1.45	
1,3-Dichlorobenzene	ND	0.22	1.45	
1,4-Dichlorobenzene	ND	0.22	1.45	
1,4-Dioxane	ND	1.3	1.45	
2-Butanone	ND	2.1	1.45	
4-Ethyltoluene	0.50	0.36	1.45	
Benzene	2.1	0.12	1.45	
Bromodichloromethane	ND	0.24	1.45	
Carbon Disulfide	ND	2.3	1.45	
Carbon Tetrachloride	0.39	0.091	1.45	
Chlorobenzene	ND	0.17	1.45	
Chloroethane	ND	0.096	1.45	
Chloroform	ND	0.18	1.45	
Chloromethane	0.33	0.075	1.45	
Dibromochloromethane	ND	0.31	1.45	
Dichlorodifluoromethane	2.0	0.18	1.45	
Ethylbenzene	0.52	0.16	1.45	
Hexachloro-1,3-Butadiene	ND	0.39	1.45	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Parameter	Result	RL	DF	Qualifiers
Hexane	ND	0.51	1.45	
Methyl-t-Butyl Ether (MTBE)	ND	0.13	1.45	
Methylene Chloride	ND	0.13	1.45	
Naphthalene	0.33	0.076	1.45	
Toluene	1.1	0.27	1.45	
Trichloroethene	22	0.19	1.45	
Trichlorofluoromethane	1.2	0.20	1.45	
Vinyl Chloride	ND	0.037	1.45	
c-1,2-Dichloroethene	ND	0.14	1.45	
o-Xylene	0.67	0.16	1.45	
p/m-Xylene	1.7	0.16	1.45	
t-1,2-Dichloroethene	ND	0.14	1.45	
1,3-Butadiene	ND	0.080	1.45	
1,2,3-Trichlorobenzene	ND	0.27	1.45	
1,2,3-Trichloropropane	ND	0.22	1.45	
Styrene	ND	0.15	1.45	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	93	37-163	
1,4-Bromofluorobenzene	102	45-153	
Toluene-d8	92	73-121	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-1R DUP	**15-03-0437-2-A**	**03/04/15 13:27**	**Air**	**GC/MS DD**	**N/A**	**03/06/15 21:17**	**150306L01**

Parameter	Result	RL	DF	Qualifiers
1,2-Dibromoethane	ND	0.29	1.50	
Dichlorotetrafluoroethane	ND	0.26	1.50	
1,2-Dichloropropane	ND	0.17	1.50	
Bromomethane	ND	0.15	1.50	
c-1,3-Dichloropropene	ND	0.17	1.50	
t-1,3-Dichloropropene	ND	0.17	1.50	
1,1,1-Trichloroethane	ND	0.20	1.50	
1,1,2,2-Tetrachloroethane	ND	0.26	1.50	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.52	0.29	1.50	
1,1,2-Trichloroethane	ND	0.20	1.50	
1,1-Dichloroethane	ND	0.15	1.50	
1,1-Dichloroethene	ND	0.15	1.50	
1,1-Difluoroethane	1.0	1.0	1.50	
1,2,4-Trichlorobenzene	ND	0.28	1.50	
1,2,4-Trimethylbenzene	1.1	0.37	1.50	
1,2-Dichlorobenzene	ND	0.23	1.50	
1,2-Dichloroethane	ND	0.15	1.50	
1,3,5-Trimethylbenzene	0.29	0.18	1.50	
1,3-Dichlorobenzene	ND	0.23	1.50	
1,4-Dichlorobenzene	ND	0.23	1.50	
1,4-Dioxane	ND	1.4	1.50	
2-Butanone	ND	2.2	1.50	
4-Ethyltoluene	0.48	0.37	1.50	
Benzene	2.1	0.12	1.50	
Bromodichloromethane	ND	0.25	1.50	
Carbon Disulfide	ND	2.3	1.50	
Carbon Tetrachloride	0.42	0.094	1.50	
Chlorobenzene	ND	0.17	1.50	
Chloroethane	ND	0.099	1.50	
Chloroform	ND	0.18	1.50	
Chloromethane	0.38	0.077	1.50	
Dibromochloromethane	ND	0.32	1.50	
Dichlorodifluoromethane	2.1	0.19	1.50	
Ethylbenzene	0.54	0.16	1.50	
Hexachloro-1,3-Butadiene	ND	0.40	1.50	

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

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Analytical Report

Cardno ERI		Date Received:	03/06/15
601 North McDowell Blvd.		Work Order:	15-03-0437
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15 SIM
		Units:	ug/m3
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 4 of 18

Parameter	Result	RL	DF	Qualifiers
Hexane	ND	0.53	1.50	
Methyl-t-Butyl Ether (MTBE)	ND	0.14	1.50	
Methylene Chloride	ND	0.13	1.50	
Naphthalene	0.25	0.079	1.50	
Toluene	1.2	0.28	1.50	
Trichloroethene	24	0.20	1.50	
Trichlorofluoromethane	1.1	0.21	1.50	
Vinyl Chloride	ND	0.038	1.50	
c-1,2-Dichloroethene	0.17	0.15	1.50	
o-Xylene	0.62	0.16	1.50	
p/m-Xylene	1.6	0.16	1.50	
t-1,2-Dichloroethene	ND	0.15	1.50	
1,3-Butadiene	ND	0.083	1.50	
1,2,3-Trichlorobenzene	ND	0.28	1.50	
1,2,3-Trichloropropane	ND	0.23	1.50	
Styrene	ND	0.16	1.50	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	90	37-163	
1,4-Bromofluorobenzene	100	45-153	
Toluene-d8	95	73-121	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-2	**15-03-0437-3-A**	**03/04/15 14:18**	**Air**	**GC/MS DD**	**N/A**	**03/06/15 22:15**	**150306L01**

Parameter	Result	RL	DF	Qualifiers
1,2-Dibromoethane	ND	0.27	1.42	
Dichlorotetrafluoroethane	ND	0.25	1.42	
1,2-Dichloropropane	ND	0.16	1.42	
Bromomethane	0.25	0.14	1.42	
c-1,3-Dichloropropene	ND	0.16	1.42	
t-1,3-Dichloropropene	ND	0.16	1.42	
1,1,1-Trichloroethane	ND	0.19	1.42	
1,1,2,2-Tetrachloroethane	ND	0.24	1.42	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.54	0.27	1.42	
1,1,2-Trichloroethane	ND	0.19	1.42	
1,1-Dichloroethane	ND	0.14	1.42	
1,1-Dichloroethene	ND	0.14	1.42	
1,1-Difluoroethane	ND	0.96	1.42	
1,2,4-Trichlorobenzene	ND	0.26	1.42	
1,2,4-Trimethylbenzene	1.3	0.35	1.42	
1,2-Dichlorobenzene	ND	0.21	1.42	
1,2-Dichloroethane	ND	0.14	1.42	
1,3,5-Trimethylbenzene	0.31	0.17	1.42	
1,3-Dichlorobenzene	ND	0.21	1.42	
1,4-Dichlorobenzene	ND	0.21	1.42	
1,4-Dioxane	ND	1.3	1.42	
2-Butanone	2.9	2.1	1.42	
4-Ethyltoluene	0.51	0.35	1.42	
Benzene	5.0	0.11	1.42	
Bromodichloromethane	ND	0.24	1.42	
Carbon Disulfide	ND	2.2	1.42	
Carbon Tetrachloride	0.42	0.089	1.42	
Chlorobenzene	ND	0.16	1.42	
Chloroethane	ND	0.094	1.42	
Chloroform	1.3	0.17	1.42	
Chloromethane	0.70	0.073	1.42	
Dibromochloromethane	ND	0.30	1.42	
Dichlorodifluoromethane	2.1	0.18	1.42	
Ethylbenzene	0.94	0.15	1.42	
Hexachloro-1,3-Butadiene	ND	0.38	1.42	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Parameter	Result	RL	DF	Qualifiers
Hexane	0.53	0.50	1.42	
Methyl-t-Butyl Ether (MTBE)	0.13	0.13	1.42	
Methylene Chloride	0.19	0.12	1.42	
Naphthalene	0.22	0.074	1.42	
Tetrachloroethene	21	0.24	1.42	
Toluene	2.4	0.27	1.42	
Trichloroethene	0.42	0.19	1.42	
Trichlorofluoromethane	1.2	0.20	1.42	
Vinyl Chloride	0.049	0.036	1.42	
c-1,2-Dichloroethene	ND	0.14	1.42	
o-Xylene	1.1	0.15	1.42	
p/m-Xylene	2.6	0.15	1.42	
t-1,2-Dichloroethene	ND	0.14	1.42	
1,3-Butadiene	ND	0.079	1.42	
1,2,3-Trichlorobenzene	ND	0.26	1.42	
1,2,3-Trichloropropane	ND	0.21	1.42	
Styrene	0.32	0.15	1.42	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	91	37-163	
1,4-Bromofluorobenzene	102	45-153	
Toluene-d8	94	73-121	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-3	**15-03-0437-4-A**	**03/04/15 13:53**	**Air**	**GC/MS DD**	**N/A**	**03/06/15 23:12**	**150306L01**

Parameter	Result	RL	DF	Qualifiers
1,2-Dibromoethane	ND	0.19	1.00	
Dichlorotetrafluoroethane	ND	0.17	1.00	
1,2-Dichloropropane	ND	0.12	1.00	
Bromomethane	ND	0.097	1.00	
c-1,3-Dichloropropene	ND	0.11	1.00	
t-1,3-Dichloropropene	ND	0.11	1.00	
1,1,1-Trichloroethane	ND	0.14	1.00	
1,1,2,2-Tetrachloroethane	ND	0.17	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.51	0.19	1.00	
1,1,2-Trichloroethane	ND	0.14	1.00	
1,1-Dichloroethane	ND	0.10	1.00	
1,1-Dichloroethene	ND	0.099	1.00	
1,1-Difluoroethane	ND	0.68	1.00	
1,2,4-Trichlorobenzene	ND	0.19	1.00	
1,2,4-Trimethylbenzene	0.62	0.25	1.00	
1,2-Dichlorobenzene	ND	0.15	1.00	
1,2-Dichloroethane	ND	0.10	1.00	
1,3,5-Trimethylbenzene	0.17	0.12	1.00	
1,3-Dichlorobenzene	ND	0.15	1.00	
1,4-Dichlorobenzene	ND	0.15	1.00	
1,4-Dioxane	ND	0.90	1.00	
2-Butanone	3.7	1.5	1.00	
4-Ethyltoluene	0.28	0.25	1.00	
Benzene	2.2	0.080	1.00	
Bromodichloromethane	ND	0.17	1.00	
Carbon Disulfide	ND	1.6	1.00	
Carbon Tetrachloride	0.42	0.063	1.00	
Chlorobenzene	ND	0.12	1.00	
Chloroethane	ND	0.066	1.00	
Chloroform	ND	0.12	1.00	
Chloromethane	1.1	0.052	1.00	
Dibromochloromethane	ND	0.21	1.00	
Dichlorodifluoromethane	2.0	0.12	1.00	
Ethylbenzene	0.51	0.11	1.00	
Hexachloro-1,3-Butadiene	ND	0.27	1.00	

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

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Analytical Report

Cardno ERI		Date Received:	03/06/15
601 North McDowell Blvd.		Work Order:	15-03-0437
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15 SIM
		Units:	ug/m3
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 8 of 18

Parameter	Result	RL	DF	Qualifiers
Hexane	0.55	0.35	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.090	1.00	
Methylene Chloride	0.39	0.087	1.00	
Naphthalene	0.16	0.052	1.00	
Tetrachloroethene	5.8	0.17	1.00	
Toluene	1.9	0.19	1.00	
Trichloroethene	1.8	0.13	1.00	
Trichlorofluoromethane	1.1	0.14	1.00	
Vinyl Chloride	0.032	0.026	1.00	
c-1,2-Dichloroethene	0.21	0.099	1.00	
o-Xylene	0.59	0.11	1.00	
p/m-Xylene	1.5	0.11	1.00	
t-1,2-Dichloroethene	ND	0.099	1.00	
1,3-Butadiene	ND	0.055	1.00	
1,2,3-Trichlorobenzene	ND	0.19	1.00	
1,2,3-Trichloropropane	ND	0.15	1.00	
Styrene	0.31	0.11	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	91	37-163	
1,4-Bromofluorobenzene	97	45-153	
Toluene-d8	98	73-121	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-4	**15-03-0437-5-A**	**03/04/15 12:55**	**Air**	**GC/MS DD**	**N/A**	**03/07/15 10:29**	**150306L01**

Parameter	Result	RL	DF	Qualifiers
1,2-Dibromoethane	ND	0.22	1.13	
Dichlorotetrafluoroethane	ND	0.20	1.13	
1,2-Dichloropropane	ND	0.13	1.13	
Bromomethane	ND	0.11	1.13	
c-1,3-Dichloropropene	ND	0.13	1.13	
t-1,3-Dichloropropene	ND	0.13	1.13	
1,1,1-Trichloroethane	ND	0.15	1.13	
1,1,2,2-Tetrachloroethane	ND	0.19	1.13	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.50	0.22	1.13	
1,1,2-Trichloroethane	ND	0.15	1.13	
1,1-Dichloroethane	ND	0.11	1.13	
1,1-Dichloroethene	ND	0.11	1.13	
1,1-Difluoroethane	ND	0.76	1.13	
1,2,4-Trichlorobenzene	ND	0.21	1.13	
1,2,4-Trimethylbenzene	1.7	0.28	1.13	
1,2-Dichlorobenzene	ND	0.17	1.13	
1,2-Dichloroethane	ND	0.11	1.13	
1,3,5-Trimethylbenzene	0.56	0.14	1.13	
1,3-Dichlorobenzene	ND	0.17	1.13	
1,4-Dichlorobenzene	ND	0.17	1.13	
1,4-Dioxane	ND	1.0	1.13	
2-Butanone	4.8	1.7	1.13	
4-Ethyltoluene	0.81	0.28	1.13	
Benzene	1.7	0.090	1.13	
Bromodichloromethane	ND	0.19	1.13	
Carbon Disulfide	ND	1.8	1.13	
Carbon Tetrachloride	0.41	0.071	1.13	
Chlorobenzene	ND	0.13	1.13	
Chloroethane	ND	0.075	1.13	
Chloroform	0.20	0.14	1.13	
Chloromethane	0.48	0.058	1.13	
Dibromochloromethane	ND	0.24	1.13	
Dichlorodifluoromethane	1.8	0.14	1.13	
Ethylbenzene	1.1	0.12	1.13	
Hexachloro-1,3-Butadiene	ND	0.30	1.13	

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

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Analytical Report

Cardno ERI		Date Received:	03/06/15
601 North McDowell Blvd.		Work Order:	15-03-0437
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15 SIM
		Units:	ug/m3
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 10 of 18

Parameter	Result	RL	DF	Qualifiers
Hexane	0.82	0.40	1.13	
Methyl-t-Butyl Ether (MTBE)	ND	0.10	1.13	
Methylene Chloride	0.18	0.098	1.13	
Naphthalene	1.7	0.059	1.13	
Toluene	2.2	0.21	1.13	
Trichlorofluoromethane	1.0	0.16	1.13	
Vinyl Chloride	0.041	0.029	1.13	
c-1,2-Dichloroethene	1.9	0.11	1.13	
o-Xylene	0.96	0.12	1.13	
p/m-Xylene	3.1	0.12	1.13	
t-1,2-Dichloroethene	0.37	0.11	1.13	
1,3-Butadiene	0.097	0.062	1.13	
1,2,3-Trichlorobenzene	ND	0.21	1.13	
1,2,3-Trichloropropane	ND	0.17	1.13	
Styrene	0.20	0.12	1.13	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	89	37-163	
1,4-Bromofluorobenzene	107	45-153	
Toluene-d8	101	73-121	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SSV-1	**15-03-0437-6-A**	**03/04/15 14:55**	**Air**	**GC/MS DD**	**N/A**	**03/07/15 19:00**	**150307L01**

Parameter	Result	RL	DF	Qualifiers
1,2-Dibromoethane	ND	0.27	1.40	
Dichlorotetrafluoroethane	ND	0.24	1.40	
1,2-Dichloropropane	ND	0.16	1.40	
Bromomethane	ND	0.14	1.40	
c-1,3-Dichloropropene	ND	0.16	1.40	
t-1,3-Dichloropropene	ND	0.16	1.40	
1,1,1-Trichloroethane	ND	0.19	1.40	
1,1,2,2-Tetrachloroethane	ND	0.24	1.40	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.53	0.27	1.40	
1,1,2-Trichloroethane	ND	0.19	1.40	
1,1-Dichloroethane	ND	0.14	1.40	
1,1-Dichloroethene	ND	0.14	1.40	
1,1-Difluoroethane	7.8	0.95	1.40	
1,2,4-Trichlorobenzene	ND	0.26	1.40	
1,2,4-Trimethylbenzene	0.92	0.34	1.40	
1,2-Dichlorobenzene	ND	0.21	1.40	
1,2-Dichloroethane	ND	0.14	1.40	
1,3,5-Trimethylbenzene	0.26	0.17	1.40	
1,3-Dichlorobenzene	ND	0.21	1.40	
1,4-Dichlorobenzene	ND	0.21	1.40	
1,4-Dioxane	ND	1.3	1.40	
2-Butanone	7.3	2.1	1.40	
4-Ethyltoluene	0.46	0.34	1.40	
Benzene	2.3	0.11	1.40	
Bromodichloromethane	ND	0.23	1.40	
Carbon Disulfide	ND	2.2	1.40	
Carbon Tetrachloride	0.38	0.088	1.40	
Chlorobenzene	ND	0.16	1.40	
Chloroethane	ND	0.092	1.40	
Chloroform	0.29	0.17	1.40	
Chloromethane	0.59	0.072	1.40	
Dibromochloromethane	ND	0.30	1.40	
Dichlorodifluoromethane	2.1	0.17	1.40	
Ethylbenzene	0.71	0.15	1.40	
Hexachloro-1,3-Butadiene	ND	0.37	1.40	

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

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Analytical Report

Cardno ERI		Date Received:	03/06/15
601 North McDowell Blvd.		Work Order:	15-03-0437
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15 SIM
		Units:	ug/m3
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 12 of 18

Parameter	Result	RL	DF	Qualifiers
Hexane	0.57	0.49	1.40	
Methyl-t-Butyl Ether (MTBE)	0.23	0.13	1.40	
Methylene Chloride	0.18	0.12	1.40	
Naphthalene	0.24	0.073	1.40	
Toluene	1.6	0.26	1.40	
Trichloroethene	11	0.19	1.40	
Trichlorofluoromethane	1.3	0.20	1.40	
Vinyl Chloride	0.10	0.036	1.40	
c-1,2-Dichloroethene	ND	0.14	1.40	
o-Xylene	0.65	0.15	1.40	
p/m-Xylene	1.6	0.15	1.40	
t-1,2-Dichloroethene	ND	0.14	1.40	
1,3-Butadiene	ND	0.077	1.40	
1,2,3-Trichlorobenzene	ND	0.26	1.40	
1,2,3-Trichloropropane	ND	0.21	1.40	
Styrene	0.67	0.15	1.40	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	91	37-163	
1,4-Bromofluorobenzene	99	45-153	
Toluene-d8	97	73-121	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SSA-1	**15-03-0437-7-A**	**03/04/15 15:25**	**Air**	**GC/MS DD**	**N/A**	**03/07/15 20:00**	**150307L01**

Parameter	Result	RL	DF	Qualifiers
1,2-Dibromoethane	ND	0.37	1.91	
Dichlorotetrafluoroethane	ND	0.33	1.91	
1,2-Dichloropropane	ND	0.22	1.91	
Bromomethane	ND	0.19	1.91	
c-1,3-Dichloropropene	ND	0.22	1.91	
t-1,3-Dichloropropene	ND	0.22	1.91	
1,1,1-Trichloroethane	ND	0.26	1.91	
1,1,2,2-Tetrachloroethane	ND	0.33	1.91	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.55	0.37	1.91	
1,1,2-Trichloroethane	ND	0.26	1.91	
1,1-Dichloroethane	ND	0.19	1.91	
1,1-Dichloroethene	ND	0.19	1.91	
1,1-Difluoroethane	ND	1.3	1.91	
1,2,4-Trichlorobenzene	ND	0.35	1.91	
1,2,4-Trimethylbenzene	1.4	0.47	1.91	
1,2-Dichlorobenzene	ND	0.29	1.91	
1,2-Dichloroethane	ND	0.19	1.91	
1,3,5-Trimethylbenzene	0.45	0.23	1.91	
1,3-Dichlorobenzene	ND	0.29	1.91	
1,4-Dichlorobenzene	ND	0.29	1.91	
1,4-Dioxane	ND	1.7	1.91	
2-Butanone	6.3	2.8	1.91	
4-Ethyltoluene	0.71	0.47	1.91	
Benzene	4.0	0.15	1.91	
Bromodichloromethane	ND	0.32	1.91	
Carbon Disulfide	ND	3.0	1.91	
Carbon Tetrachloride	0.46	0.12	1.91	
Chlorobenzene	ND	0.22	1.91	
Chloroethane	ND	0.13	1.91	
Chloroform	0.48	0.23	1.91	
Chloromethane	0.63	0.099	1.91	
Dibromochloromethane	ND	0.41	1.91	
Dichlorodifluoromethane	2.3	0.24	1.91	
Ethylbenzene	0.91	0.21	1.91	
Hexachloro-1,3-Butadiene	ND	0.51	1.91	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Parameter	Result	RL	DF	Qualifiers
Hexane	0.84	0.67	1.91	
Methyl-t-Butyl Ether (MTBE)	0.36	0.17	1.91	
Methylene Chloride	ND	0.17	1.91	
Naphthalene	0.36	0.10	1.91	
Toluene	1.9	0.36	1.91	
Trichloroethene	10	0.26	1.91	
Trichlorofluoromethane	1.2	0.27	1.91	
Vinyl Chloride	0.21	0.049	1.91	
c-1,2-Dichloroethene	ND	0.19	1.91	
o-Xylene	1.0	0.21	1.91	
p/m-Xylene	2.7	0.21	1.91	
t-1,2-Dichloroethene	ND	0.19	1.91	
1,3-Butadiene	ND	0.11	1.91	
1,2,3-Trichlorobenzene	ND	0.35	1.91	
1,2,3-Trichloropropane	ND	0.29	1.91	
Styrene	0.20	0.20	1.91	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	93	37-163	
1,4-Bromofluorobenzene	99	45-153	
Toluene-d8	99	73-121	

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

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Analytical Report

Cardno ERI		Date Received:	03/06/15
601 North McDowell Blvd.		Work Order:	15-03-0437
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15 SIM
		Units:	ug/m3
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002		Page 15 of 18	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-214-164**	**N/A**	**Air**	**GC/MS DD**	**N/A**	**03/06/15 19:18**	**150306L01**

Parameter	Result	RL	DF	Qualifiers
1,2-Dibromoethane	ND	0.19	1.00	
Dichlorotetrafluoroethane	ND	0.17	1.00	
1,2-Dichloropropane	ND	0.12	1.00	
Bromomethane	ND	0.097	1.00	
c-1,3-Dichloropropene	ND	0.11	1.00	
t-1,3-Dichloropropene	ND	0.11	1.00	
1,1,1-Trichloroethane	ND	0.14	1.00	
1,1,2,2-Tetrachloroethane	ND	0.17	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.19	1.00	
1,1,2-Trichloroethane	ND	0.14	1.00	
1,1-Dichloroethane	ND	0.10	1.00	
1,1-Dichloroethene	ND	0.099	1.00	
1,1-Difluoroethane	ND	0.68	1.00	
1,2,4-Trichlorobenzene	ND	0.19	1.00	
1,2,4-Trimethylbenzene	ND	0.25	1.00	
1,2-Dichlorobenzene	ND	0.15	1.00	
1,2-Dichloroethane	ND	0.10	1.00	
1,3,5-Trimethylbenzene	ND	0.12	1.00	
1,3-Dichlorobenzene	ND	0.15	1.00	
1,4-Dichlorobenzene	ND	0.15	1.00	
1,4-Dioxane	ND	0.90	1.00	
2-Butanone	ND	1.5	1.00	
4-Ethyltoluene	ND	0.25	1.00	
Benzene	ND	0.080	1.00	
Bromodichloromethane	ND	0.17	1.00	
Carbon Disulfide	ND	1.6	1.00	
Carbon Tetrachloride	ND	0.063	1.00	
Chlorobenzene	ND	0.12	1.00	
Chloroethane	ND	0.066	1.00	
Chloroform	ND	0.12	1.00	
Chloromethane	ND	0.052	1.00	
Dibromochloromethane	ND	0.21	1.00	
Dichlorodifluoromethane	ND	0.12	1.00	
Ethylbenzene	ND	0.11	1.00	
Hexachloro-1,3-Butadiene	ND	0.27	1.00	

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

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Analytical Report

Cardno ERI		Date Received:	03/06/15
601 North McDowell Blvd.		Work Order:	15-03-0437
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15 SIM
		Units:	ug/m3
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 16 of 18

Parameter	Result	RL	DF	Qualifiers
Hexane	ND	0.35	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.090	1.00	
Methylene Chloride	ND	0.087	1.00	
Naphthalene	ND	0.052	1.00	
Tetrachloroethene	ND	0.17	1.00	
Toluene	ND	0.19	1.00	
Trichloroethene	ND	0.13	1.00	
Trichlorofluoromethane	ND	0.14	1.00	
Vinyl Chloride	ND	0.026	1.00	
c-1,2-Dichloroethene	ND	0.099	1.00	
o-Xylene	ND	0.11	1.00	
p/m-Xylene	ND	0.11	1.00	
t-1,2-Dichloroethene	ND	0.099	1.00	
1,3-Butadiene	ND	0.055	1.00	
1,2,3-Trichlorobenzene	ND	0.19	1.00	
1,2,3-Trichloropropane	ND	0.15	1.00	
Styrene	ND	0.11	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	96	37-163	
1,4-Bromofluorobenzene	94	45-153	
Toluene-d8	94	73-121	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-214-172**	**N/A**	**Air**	**GC/MS DD**	**N/A**	**03/07/15 17:58**	**150307L01**

Parameter	Result	RL	DF	Qualifiers
1,2-Dibromoethane	ND	0.19	1.00	
Dichlorotetrafluoroethane	ND	0.17	1.00	
1,2-Dichloropropane	ND	0.12	1.00	
Bromomethane	ND	0.097	1.00	
c-1,3-Dichloropropene	ND	0.11	1.00	
t-1,3-Dichloropropene	ND	0.11	1.00	
1,1,1-Trichloroethane	ND	0.14	1.00	
1,1,2,2-Tetrachloroethane	ND	0.17	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.19	1.00	
1,1,2-Trichloroethane	ND	0.14	1.00	
1,1-Dichloroethane	ND	0.10	1.00	
1,1-Dichloroethene	ND	0.099	1.00	
1,1-Difluoroethane	ND	0.68	1.00	
1,2,4-Trichlorobenzene	ND	0.19	1.00	
1,2,4-Trimethylbenzene	ND	0.25	1.00	
1,2-Dichlorobenzene	ND	0.15	1.00	
1,2-Dichloroethane	ND	0.10	1.00	
1,3,5-Trimethylbenzene	ND	0.12	1.00	
1,3-Dichlorobenzene	ND	0.15	1.00	
1,4-Dichlorobenzene	ND	0.15	1.00	
1,4-Dioxane	ND	0.90	1.00	
2-Butanone	ND	1.5	1.00	
4-Ethyltoluene	ND	0.25	1.00	
Benzene	ND	0.080	1.00	
Bromodichloromethane	ND	0.17	1.00	
Carbon Disulfide	ND	1.6	1.00	
Carbon Tetrachloride	ND	0.063	1.00	
Chlorobenzene	ND	0.12	1.00	
Chloroethane	ND	0.066	1.00	
Chloroform	ND	0.12	1.00	
Chloromethane	ND	0.052	1.00	
Dibromochloromethane	ND	0.21	1.00	
Dichlorodifluoromethane	ND	0.12	1.00	
Ethylbenzene	ND	0.11	1.00	
Hexachloro-1,3-Butadiene	ND	0.27	1.00	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Parameter	Result	RL	DF	Qualifiers
Hexane	ND	0.35	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.090	1.00	
Methylene Chloride	ND	0.087	1.00	
Naphthalene	ND	0.052	1.00	
Toluene	ND	0.19	1.00	
Trichloroethene	ND	0.13	1.00	
Trichlorofluoromethane	ND	0.14	1.00	
Vinyl Chloride	ND	0.026	1.00	
c-1,2-Dichloroethene	ND	0.099	1.00	
o-Xylene	ND	0.11	1.00	
p/m-Xylene	ND	0.11	1.00	
t-1,2-Dichloroethene	ND	0.099	1.00	
1,3-Butadiene	ND	0.055	1.00	
1,2,3-Trichlorobenzene	ND	0.19	1.00	
1,2,3-Trichloropropane	ND	0.15	1.00	
Styrene	ND	0.11	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	94	37-163	
1,4-Bromofluorobenzene	92	45-153	
Toluene-d8	94	73-121	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: GC/MS C6-C12 AS GASOLINE
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-1R	**15-03-0437-1-A**	**03/04/15 13:25**	**Air**	**GC/MS K**	**N/A**	**03/12/15 18:23**	**G150312L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline (C6-C12)	ND	1100	2.29	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	105	50-150	
1,4-Bromofluorobenzene	100	50-150	
Toluene-d8	103	50-150	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-1R DUP	**15-03-0437-2-A**	**03/04/15 13:27**	**Air**	**GC/MS K**	**N/A**	**03/12/15 19:13**	**G150312L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline (C6-C12)	ND	1000	2.18	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	105	50-150	
1,4-Bromofluorobenzene	98	50-150	
Toluene-d8	105	50-150	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-2	**15-03-0437-3-A**	**03/04/15 14:18**	**Air**	**GC/MS K**	**N/A**	**03/12/15 20:02**	**G150312L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline (C6-C12)	ND	630	1.35	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	106	50-150	
1,4-Bromofluorobenzene	98	50-150	
Toluene-d8	105	50-150	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: GC/MS C6-C12 AS GASOLINE
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-3	**15-03-0437-4-A**	**03/04/15 13:53**	**Air**	**GC/MS K**	**N/A**	**03/12/15 20:52**	**G150312L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline (C6-C12)	ND	630	1.35	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	106	50-150	
1,4-Bromofluorobenzene	96	50-150	
Toluene-d8	105	50-150	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-4	**15-03-0437-5-A**	**03/04/15 12:55**	**Air**	**GC/MS K**	**N/A**	**03/12/15 21:41**	**G150312L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline (C6-C12)	1300	650	1.40	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	105	50-150	
1,4-Bromofluorobenzene	98	50-150	
Toluene-d8	104	50-150	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SSV-1	**15-03-0437-6-A**	**03/04/15 14:55**	**Air**	**GC/MS K**	**N/A**	**03/12/15 22:31**	**G150312L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline (C6-C12)	ND	620	1.34	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	105	50-150	
1,4-Bromofluorobenzene	100	50-150	
Toluene-d8	106	50-150	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: GC/MS C6-C12 AS GASOLINE
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SSA-1	**15-03-0437-7-A**	**03/04/15 15:25**	**Air**	**GC/MS K**	**N/A**	**03/12/15 23:21**	**G150312L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline (C6-C12)	ND	950	2.03	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	105	50-150	
1,4-Bromofluorobenzene	97	50-150	
Toluene-d8	105	50-150	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-16-014-83**	**N/A**	**Air**	**GC/MS K**	**N/A**	**03/12/15 17:21**	**G150312L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline (C6-C12)	ND	470	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	105	50-150	
1,4-Bromofluorobenzene	99	50-150	
Toluene-d8	105	50-150	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: SCAQMD 25.1M
Units: %v

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-1R	**15-03-0437-1-A**	**03/04/15 13:25**	**Air**	**GC 65**	**N/A**	**03/06/15 12:14**	**150306L01**

Parameter	Result	RL	DF	Qualifiers
Oxygen (+ Argon)	22	0.50	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-1R DUP	**15-03-0437-2-A**	**03/04/15 13:27**	**Air**	**GC 65**	**N/A**	**03/06/15 12:33**	**150306L01**

Parameter	Result	RL	DF	Qualifiers
Oxygen (+ Argon)	22	0.50	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-2	**15-03-0437-3-A**	**03/04/15 14:18**	**Air**	**GC 65**	**N/A**	**03/06/15 12:53**	**150306L01**

Parameter	Result	RL	DF	Qualifiers
Oxygen (+ Argon)	22	0.50	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-3	**15-03-0437-4-A**	**03/04/15 13:53**	**Air**	**GC 65**	**N/A**	**03/06/15 13:12**	**150306L01**

Parameter	Result	RL	DF	Qualifiers
Oxygen (+ Argon)	22	0.50	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-4	**15-03-0437-5-A**	**03/04/15 12:55**	**Air**	**GC 65**	**N/A**	**03/06/15 13:51**	**150306L01**

Parameter	Result	RL	DF	Qualifiers
Oxygen (+ Argon)	22	0.50	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SSV-1	**15-03-0437-6-A**	**03/04/15 14:55**	**Air**	**GC 65**	**N/A**	**03/06/15 14:30**	**150306L01**

Parameter	Result	RL	DF	Qualifiers
Oxygen (+ Argon)	22	0.50	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SSA-1	**15-03-0437-7-A**	**03/04/15 15:25**	**Air**	**GC 65**	**N/A**	**03/06/15 14:49**	**150306L01**

Parameter	Result	RL	DF	Qualifiers
Oxygen (+ Argon)	22	0.50	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-192-663**	**N/A**	**Air**	**GC 65**	**N/A**	**03/06/15 10:52**	**150306L01**

Parameter	Result	RL	DF	Qualifiers
Oxygen (+ Argon)	ND	0.50	1.00	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: SCAQMD 25.1M
Units: %

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-1R	**15-03-0437-1-A**	**03/04/15 13:25**	**Air**	**GC 14**	**N/A**	**03/06/15 18:38**	**150306L02**

Parameter	Result	RL	DF	Qualifiers
Methane	0.00014	0.00010	1.00	
Carbon Dioxide	0.12	0.00010	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-1R DUP	**15-03-0437-2-A**	**03/04/15 13:27**	**Air**	**GC 14**	**N/A**	**03/06/15 18:56**	**150306L02**

Parameter	Result	RL	DF	Qualifiers
Methane	0.00013	0.00010	1.00	
Carbon Dioxide	0.12	0.00010	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-2	**15-03-0437-3-A**	**03/04/15 14:18**	**Air**	**GC 14**	**N/A**	**03/06/15 16:43**	**150306L02**

Parameter	Result	RL	DF	Qualifiers
Methane	0.00012	0.00010	1.00	
Carbon Dioxide	0.036	0.00010	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-3	**15-03-0437-4-A**	**03/04/15 13:53**	**Air**	**GC 14**	**N/A**	**03/06/15 17:02**	**150306L02**

Parameter	Result	RL	DF	Qualifiers
Methane	0.00017	0.00010	1.00	
Carbon Dioxide	0.035	0.00010	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-4	**15-03-0437-5-A**	**03/04/15 12:55**	**Air**	**GC 14**	**N/A**	**03/06/15 17:21**	**150306L02**

Parameter	Result	RL	DF	Qualifiers
Methane	0.00016	0.00010	1.00	
Carbon Dioxide	0.020	0.00010	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SSV-1	**15-03-0437-6-A**	**03/04/15 14:55**	**Air**	**GC 14**	**N/A**	**03/06/15 17:40**	**150306L02**

Parameter	Result	RL	DF	Qualifiers
Methane	0.00015	0.00010	1.00	
Carbon Dioxide	0.0073	0.00010	1.00	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: SCAQMD 25.1M
Units: %

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SSA-1	**15-03-0437-7-A**	**03/04/15 15:25**	**Air**	**GC 14**	**N/A**	**03/06/15 17:59**	**150306L02**

Parameter	Result	RL	DF	Qualifiers
Methane	0.00016	0.00010	1.00	
Carbon Dioxide	0.0089	0.00010	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-194-816**	**N/A**	**Air**	**GC 14**	**N/A**	**03/06/15 10:13**	**150306L02**

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.00010	1.00	
Carbon Dioxide	ND	0.00010	1.00	

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

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Quality Control - LCS/LCSD

Cardno ERI		Date Received:	03/06/15
601 North McDowell Blvd.		Work Order:	15-03-0437
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	ASTM D-1946 (M)
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 1 of 13

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-872-771	**LCS**	**Air**	**GC 55**	**N/A**	**03/06/15 09:28**	**150306L01**
099-12-872-771	**LCSD**	**Air**	**GC 55**	**N/A**	**03/06/15 09:49**	**150306L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Helium	1.000	0.8979	90	1.019	102	80-120	13	0-30	
Hydrogen	1.000	0.8414	84	0.9531	95	80-120	12	0-30	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Cardno ERI	Date Received: 03/06/15
601 North McDowell Blvd.	Work Order: 15-03-0437
Petaluma, CA 94954-2312	Preparation: N/A
	Method: ASTM D-1946 (M)
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002	Page 2 of 13

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-872-773	**LCS**	**Air**	**GC 55**	**N/A**	**03/12/15 09:20**	**150312L01**
099-12-872-773	**LCSD**	**Air**	**GC 55**	**N/A**	**03/12/15 09:40**	**150312L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Helium	1.000	0.8968	90	1.010	101	80-120	12	0-30	
Hydrogen	1.000	0.8397	84	0.9441	94	80-120	12	0-30	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-021-15055	**LCS**	**Air**	**GC/MS K**	**N/A**	**03/12/15 12:25**	**150312L01**
095-01-021-15055	**LCSD**	**Air**	**GC/MS K**	**N/A**	**03/12/15 13:15**	**150312L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	59.39	69.96	118	70.69	119	67-133	56-144	1	0-30	
Benzene	79.87	82.70	104	81.94	103	70-130	60-140	1	0-30	
Benzyl Chloride	129.4	113.8	88	105.6	82	38-158	18-178	7	0-30	
Bromodichloromethane	167.5	181.1	108	179.8	107	70-130	60-140	1	0-30	
Bromoform	258.4	312.9	121	305.9	118	63-147	49-161	2	0-30	
Bromomethane	97.08	113.4	117	113.9	117	70-139	58-150	0	0-30	
2-Butanone	73.73	78.41	106	77.96	106	66-132	55-143	1	0-30	
Carbon Disulfide	77.85	99.32	128	98.97	127	68-146	55-159	0	0-30	
Carbon Tetrachloride	157.3	156.2	99	156.3	99	70-136	59-147	0	0-30	
Chlorobenzene	115.1	113.2	98	112.1	97	70-130	60-140	1	0-30	
Chloroethane	65.96	75.17	114	74.94	114	65-149	51-163	0	0-30	
Chloroform	122.1	127.1	104	126.6	104	70-130	60-140	0	0-30	
Chloromethane	51.63	60.78	118	60.70	118	69-141	57-153	0	0-30	
Dibromochloromethane	213.0	222.5	104	224.0	105	70-138	59-149	1	0-30	
Dichlorodifluoromethane	123.6	127.7	103	128.9	104	67-139	55-151	1	0-30	
Diisopropyl Ether (DIPE)	104.5	101.1	97	100.2	96	63-130	52-141	1	0-30	
1,1-Dichloroethane	101.2	104.0	103	104.2	103	70-130	60-140	0	0-30	
1,1-Dichloroethene	99.12	121.6	123	120.4	121	70-135	59-146	1	0-30	
1,2-Dibromoethane	192.1	197.3	103	198.1	103	70-133	60-144	0	0-30	
Dichlorotetrafluoroethane	174.8	158.2	91	158.9	91	51-135	37-149	0	0-30	
1,2-Dichlorobenzene	150.3	135.2	90	125.3	83	48-138	33-153	8	0-30	
1,2-Dichloroethane	101.2	103.9	103	103.5	102	70-132	60-142	0	0-30	
1,2-Dichloropropane	115.5	120.0	104	118.2	102	70-130	60-140	1	0-30	
1,3-Dichlorobenzene	150.3	154.1	103	145.9	97	56-134	43-147	5	0-30	
1,4-Dichlorobenzene	150.3	151.0	100	141.6	94	52-136	38-150	6	0-30	
c-1,3-Dichloropropene	113.5	123.0	108	121.3	107	70-130	60-140	1	0-30	
c-1,2-Dichloroethene	99.12	97.08	98	96.34	97	70-130	60-140	1	0-30	
t-1,2-Dichloroethene	99.12	101.5	102	101.7	103	70-130	60-140	0	0-30	
t-1,3-Dichloropropene	113.5	132.6	117	130.2	115	70-147	57-160	2	0-30	
Ethanol	188.4	211.8	112	210.8	112	37-139	20-156	0	0-30	
Ethyl-t-Butyl Ether (ETBE)	104.5	98.36	94	98.90	95	67-130	56-140	1	0-30	
Ethylbenzene	108.6	107.8	99	106.4	98	70-130	60-140	1	0-30	
4-Ethyltoluene	122.9	126.7	103	122.7	100	68-130	58-140	3	0-30	
Hexachloro-1,3-Butadiene	266.6	211.8	79	221.1	83	44-146	27-163	4	0-30	
2-Hexanone	102.4	105.9	103	106.1	104	70-136	59-147	0	0-30	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Methyl-t-Butyl Ether (MTBE)	90.13	89.57	99	89.09	99	68-130	58-140	1	0-30	
Methylene Chloride	86.84	103.4	119	103.9	120	69-130	59-140	0	0-30	
4-Methyl-2-Pentanone	102.4	111.4	109	108.5	106	70-130	60-140	3	0-30	
Naphthalene	131.1	86.74	66	86.71	66	24-144	4-164	0	0-30	
o-Xylene	108.6	109.0	100	106.8	98	69-130	59-140	2	0-30	
p/m-Xylene	217.1	226.5	104	225.3	104	70-132	60-142	1	0-30	
Styrene	106.5	105.3	99	102.1	96	65-131	54-142	3	0-30	
Tert-Amyl-Methyl Ether (TAME)	104.5	97.44	93	97.82	94	69-130	59-140	0	0-30	
Tert-Butyl Alcohol (TBA)	151.6	168.5	111	169.0	112	66-144	53-157	0	0-30	
Tetrachloroethene	169.6	178.3	105	179.7	106	70-130	60-140	1	0-30	
Toluene	94.21	93.56	99	94.14	100	70-130	60-140	1	0-30	
Trichloroethene	134.3	145.5	108	144.4	107	70-130	60-140	1	0-30	
Trichlorofluoromethane	140.5	156.9	112	156.5	111	63-141	50-154	0	0-30	
1,1,2-Trichloro-1,2,2-Trifluoroethane	191.6	234.2	122	233.8	122	70-136	59-147	0	0-30	
1,1,1-Trichloroethane	136.4	129.5	95	129.0	95	70-130	60-140	0	0-30	
1,1,2-Trichloroethane	136.4	145.1	106	141.8	104	70-130	60-140	2	0-30	
1,3,5-Trimethylbenzene	122.9	121.1	99	115.1	94	62-130	51-141	5	0-30	
1,1,2,2-Tetrachloroethane	171.6	171.9	100	168.1	98	63-130	52-141	2	0-30	
1,2,4-Trimethylbenzene	122.9	126.6	103	121.0	98	60-132	48-144	5	0-30	
1,2,4-Trichlorobenzene	185.5	131.8	71	133.1	72	31-151	11-171	1	0-30	
Vinyl Acetate	88.03	57.90	66	57.63	65	58-130	46-142	0	0-30	
Vinyl Chloride	63.91	72.49	113	72.79	114	70-134	59-145	0	0-30	

Total number of LCS compounds: 57
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Cardno ERI		Date Received:	03/06/15
601 North McDowell Blvd.		Work Order:	15-03-0437
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-021-15063	**LCS**	**Air**	**GC/MS AA**	**N/A**	**03/13/15 11:41**	**150313L03**
095-01-021-15063	**LCSD**	**Air**	**GC/MS AA**	**N/A**	**03/13/15 12:28**	**150313L03**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	59.39	53.25	90	53.16	90	67-133	56-144	0	0-30	
Benzene	79.87	74.39	93	75.50	95	70-130	60-140	1	0-30	
Benzyl Chloride	129.4	144.9	112	138.9	107	38-158	18-178	4	0-30	
Bromodichloromethane	167.5	161.3	96	158.9	95	70-130	60-140	1	0-30	
Bromoform	258.4	239.1	93	231.0	89	63-147	49-161	3	0-30	
Bromomethane	97.08	89.04	92	86.92	90	70-139	58-150	2	0-30	
2-Butanone	73.73	66.83	91	68.21	93	66-132	55-143	2	0-30	
Carbon Disulfide	77.85	75.12	96	75.15	97	68-146	55-159	0	0-30	
Carbon Tetrachloride	157.3	150.2	95	146.0	93	70-136	59-147	3	0-30	
Chlorobenzene	115.1	103.4	90	102.8	89	70-130	60-140	1	0-30	
Chloroethane	65.96	56.94	86	56.90	86	65-149	51-163	0	0-30	
Chloroform	122.1	112.7	92	110.4	90	70-130	60-140	2	0-30	
Chloromethane	51.63	46.43	90	46.76	91	69-141	57-153	1	0-30	
Dibromochloromethane	213.0	199.1	93	193.9	91	70-138	59-149	3	0-30	
Dichlorodifluoromethane	123.6	113.3	92	108.2	88	67-139	55-151	5	0-30	
Diisopropyl Ether (DIPE)	104.5	89.31	85	90.31	86	63-130	52-141	1	0-30	
1,1-Dichloroethane	101.2	89.48	88	89.87	89	70-130	60-140	0	0-30	
1,1-Dichloroethene	99.12	94.90	96	93.11	94	70-135	59-146	2	0-30	
1,2-Dibromoethane	192.1	180.7	94	178.7	93	70-133	60-144	1	0-30	
Dichlorotetrafluoroethane	174.8	130.5	75	126.4	72	51-135	37-149	3	0-30	
1,2-Dichlorobenzene	150.3	143.6	96	138.9	92	48-138	33-153	3	0-30	
1,2-Dichloroethane	101.2	92.28	91	92.45	91	70-132	60-142	0	0-30	
1,2-Dichloropropane	115.5	105.4	91	106.0	92	70-130	60-140	1	0-30	
1,3-Dichlorobenzene	150.3	142.0	94	137.5	91	56-134	43-147	3	0-30	
1,4-Dichlorobenzene	150.3	143.6	96	140.3	93	52-136	38-150	2	0-30	
c-1,3-Dichloropropene	113.5	113.9	100	114.8	101	70-130	60-140	1	0-30	
c-1,2-Dichloroethene	99.12	86.98	88	88.40	89	70-130	60-140	2	0-30	
t-1,2-Dichloroethene	99.12	83.67	84	84.90	86	70-130	60-140	1	0-30	
t-1,3-Dichloropropene	113.5	126.5	111	124.9	110	70-147	57-160	1	0-30	
Ethanol	188.4	155.9	83	164.0	87	37-139	20-156	5	0-30	
Ethyl-t-Butyl Ether (ETBE)	104.5	81.77	78	83.21	80	67-130	56-140	2	0-30	
Ethylbenzene	108.6	99.15	91	97.74	90	70-130	60-140	1	0-30	
4-Ethyltoluene	122.9	118.0	96	115.5	94	68-130	58-140	2	0-30	
Hexachloro-1,3-Butadiene	266.6	205.5	77	202.5	76	44-146	27-163	1	0-30	
2-Hexanone	102.4	96.91	95	97.88	96	70-136	59-147	1	0-30	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Methyl-t-Butyl Ether (MTBE)	90.13	74.96	83	76.25	85	68-130	58-140	2	0-30	
Methylene Chloride	86.84	78.41	90	77.09	89	69-130	59-140	2	0-30	
4-Methyl-2-Pentanone	102.4	97.34	95	99.08	97	70-130	60-140	2	0-30	
Naphthalene	131.1	118.7	91	118.5	90	24-144	4-164	0	0-30	
o-Xylene	108.6	99.81	92	96.25	89	69-130	59-140	4	0-30	
p/m-Xylene	217.1	199.9	92	195.3	90	70-132	60-142	2	0-30	
Styrene	106.5	97.22	91	96.78	91	65-131	54-142	0	0-30	
Tert-Amyl-Methyl Ether (TAME)	104.5	81.69	78	82.47	79	69-130	59-140	1	0-30	
Tert-Butyl Alcohol (TBA)	151.6	115.0	76	125.0	82	66-144	53-157	8	0-30	
Tetrachloroethene	169.6	148.5	88	148.2	87	70-130	60-140	0	0-30	
Toluene	94.21	86.70	92	86.74	92	70-130	60-140	0	0-30	
Trichloroethene	134.3	118.7	88	118.8	88	70-130	60-140	0	0-30	
Trichlorofluoromethane	140.5	114.2	81	110.4	79	63-141	50-154	3	0-30	
1,1,2-Trichloro-1,2,2-Trifluoroethane	191.6	180.6	94	178.1	93	70-136	59-147	1	0-30	
1,1,1-Trichloroethane	136.4	120.1	88	118.2	87	70-130	60-140	2	0-30	
1,1,2-Trichloroethane	136.4	130.2	95	130.7	96	70-130	60-140	0	0-30	
1,3,5-Trimethylbenzene	122.9	115.5	94	112.1	91	62-130	51-141	3	0-30	
1,1,2,2-Tetrachloroethane	171.6	161.9	94	157.8	92	63-130	52-141	3	0-30	
1,2,4-Trimethylbenzene	122.9	117.3	95	112.6	92	60-132	48-144	4	0-30	
1,2,4-Trichlorobenzene	185.5	162.3	87	163.2	88	31-151	11-171	1	0-30	
Vinyl Acetate	88.03	75.34	86	76.54	87	58-130	46-142	2	0-30	
Vinyl Chloride	63.91	57.26	90	57.44	90	70-134	59-145	0	0-30	

Total number of LCS compounds: 57
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Cardno ERI		Date Received:	03/06/15
601 North McDowell Blvd.		Work Order:	15-03-0437
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15 SIM
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 7 of 13

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-214-164	**LCS**	**Air**	**GC/MS DD**	**N/A**	**03/06/15 16:33**	**150306L01**
099-15-214-164	**LCSD**	**Air**	**GC/MS DD**	**N/A**	**03/06/15 17:25**	**150306L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
1,2-Dibromoethane	3.842	3.472	90	3.645	95	50-150	33-167	5	0-30	
Dichlorotetrafluoroethane	3.495	2.776	79	3.048	87	50-150	33-167	9	0-30	
1,2-Dichloropropane	2.311	2.182	94	2.071	90	50-150	33-167	5	0-30	
Bromomethane	1.942	1.557	80	1.634	84	50-150	33-167	5	0-30	
c-1,3-Dichloropropene	2.269	2.196	97	2.120	93	50-150	33-167	4	0-30	
t-1,3-Dichloropropene	2.269	2.442	108	2.327	103	50-150	33-167	5	0-30	
1,1,1-Trichloroethane	2.728	2.551	94	2.442	90	50-150	33-167	4	0-30	
1,1,2,2-Tetrachloroethane	3.433	3.025	88	3.105	90	50-150	33-167	3	0-30	
1,1,2-Trichloro-1,2,2-Trifluoroethane	3.832	3.306	86	3.365	88	50-150	33-167	2	0-30	
1,1,2-Trichloroethane	2.728	2.570	94	2.482	91	27-171	3-195	3	0-38	
1,1-Dichloroethane	2.024	1.753	87	1.799	89	50-150	33-167	3	0-30	
1,1-Dichloroethene	1.982	1.755	89	1.794	90	50-150	33-167	2	0-30	
1,1-Difluoroethane	1.351	1.274	94	1.306	97	50-150	33-167	2	0-30	
1,2,4-Trichlorobenzene	3.711	2.923	79	2.921	79	50-150	33-167	0	0-30	
1,2,4-Trimethylbenzene	2.458	1.967	80	1.977	80	50-150	33-167	0	0-30	
1,2-Dichlorobenzene	3.006	2.607	87	2.629	87	50-150	33-167	1	0-30	
1,2-Dichloroethane	2.024	1.681	83	1.786	88	28-166	5-189	6	0-40	
1,3,5-Trimethylbenzene	2.458	2.185	89	2.172	88	50-150	33-167	1	0-30	
1,3-Dichlorobenzene	3.006	2.598	86	2.625	87	50-150	33-167	1	0-30	
1,4-Dichlorobenzene	3.006	2.639	88	2.607	87	50-150	33-167	1	0-30	
1,4-Dioxane	1.802	1.745	97	1.604	89	60-140	47-153	8	0-30	
4-Ethyltoluene	2.458	2.042	83	2.014	82	50-150	33-167	1	0-30	
Benzene	1.597	1.467	92	1.392	87	27-153	6-174	5	0-34	
Bromodichloromethane	3.350	3.116	93	3.010	90	50-150	33-167	3	0-30	
Carbon Tetrachloride	3.146	2.832	90	2.732	87	7-187	0-217	4	0-31	
Chlorobenzene	2.302	2.050	89	2.120	92	50-150	33-167	3	0-30	
Chloroethane	1.319	1.144	87	1.190	90	50-150	33-167	4	0-30	
Chloroform	2.441	2.057	84	2.136	87	50-150	33-167	4	0-30	
Chloromethane	1.033	0.9522	92	0.9904	96	50-150	33-167	4	0-30	
Dibromochloromethane	4.259	3.972	93	4.164	98	50-150	33-167	5	0-30	
Dichlorodifluoromethane	2.473	2.166	88	2.218	90	50-150	33-167	2	0-30	
Ethylbenzene	2.171	2.014	93	2.026	93	27-153	6-174	1	0-46	
Hexachloro-1,3-Butadiene	5.333	4.090	77	4.039	76	50-150	33-167	1	0-30	
Methyl-t-Butyl Ether (MTBE)	1.803	1.450	80	1.515	84	50-150	33-167	4	0-30	
Methylene Chloride	1.737	1.451	84	1.495	86	50-150	33-167	3	0-30	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Cardno ERI		Date Received:	03/06/15
601 North McDowell Blvd.		Work Order:	15-03-0437
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15 SIM

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Naphthalene	2.621	2.033	78	1.996	76	50-150	33-167	2	0-30	
Tetrachloroethene	3.391	3.039	90	3.076	91	34-154	14-174	1	0-33	
Toluene	1.884	1.673	89	1.754	93	28-154	7-175	5	0-42	
Trichloroethene	2.687	2.498	93	2.394	89	43-139	27-155	4	0-31	
Trichlorofluoromethane	2.809	2.357	84	2.442	87	50-150	33-167	4	0-30	
Vinyl Chloride	1.278	1.110	87	1.154	90	44-140	28-156	4	0-33	
c-1,2-Dichloroethene	1.982	1.702	86	1.777	90	35-165	13-187	4	0-35	
o-Xylene	2.171	1.993	92	2.033	94	22-160	0-183	2	0-48	
p/m-Xylene	4.342	4.018	93	4.088	94	21-165	0-189	2	0-51	
t-1,2-Dichloroethene	1.982	1.695	86	1.743	88	50-150	33-167	3	0-30	
1,2,3-Trichlorobenzene	3.711	2.993	81	3.003	81	50-150	33-167	0	0-30	
1,2,3-Trichloropropane	3.015	2.762	92	2.827	94	50-150	33-167	2	0-30	
Styrene	2.130	1.969	92	1.922	90	50-150	33-167	2	0-30	

Total number of LCS compounds: 48
Total number of ME compounds: 0
Total number of ME compounds allowed: 2
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15 SIM

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-214-172	**LCS**	**Air**	**GC/MS DD**	**N/A**	**03/07/15 15:12**	**150307L01**
099-15-214-172	**LCSD**	**Air**	**GC/MS DD**	**N/A**	**03/07/15 16:06**	**150307L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
1,2-Dibromoethane	3.842	3.678	96	3.672	96	50-150	33-167	0	0-30	
Dichlorotetrafluoroethane	3.495	2.652	76	2.563	73	50-150	33-167	3	0-30	
1,2-Dichloropropane	2.311	2.177	94	2.117	92	50-150	33-167	3	0-30	
Bromomethane	1.942	1.952	101	1.761	91	50-150	33-167	10	0-30	
c-1,3-Dichloropropene	2.269	2.513	111	2.162	95	50-150	33-167	15	0-30	
t-1,3-Dichloropropene	2.269	3.050	134	2.533	112	50-150	33-167	18	0-30	
1,1,1-Trichloroethane	2.728	2.412	88	2.426	89	50-150	33-167	1	0-30	
1,1,2,2-Tetrachloroethane	3.433	3.133	91	3.112	91	50-150	33-167	1	0-30	
1,1,2-Trichloro-1,2,2-Trifluoroethane	3.832	3.804	99	3.737	98	50-150	33-167	2	0-30	
1,1,2-Trichloroethane	2.728	2.724	100	2.526	93	27-171	3-195	8	0-38	
1,1-Dichloroethane	2.024	1.896	94	1.918	95	50-150	33-167	1	0-30	
1,1-Dichloroethene	1.982	2.067	104	2.041	103	50-150	33-167	1	0-30	
1,1-Difluoroethane	1.351	1.574	117	1.485	110	50-150	33-167	6	0-30	
1,2,4-Trichlorobenzene	3.711	2.845	77	2.957	80	50-150	33-167	4	0-30	
1,2,4-Trimethylbenzene	2.458	2.064	84	2.087	85	50-150	33-167	1	0-30	
1,2-Dichlorobenzene	3.006	2.677	89	2.746	91	50-150	33-167	3	0-30	
1,2-Dichloroethane	2.024	1.869	92	1.847	91	28-166	5-189	1	0-40	
1,3,5-Trimethylbenzene	2.458	2.318	94	2.292	93	50-150	33-167	1	0-30	
1,3-Dichlorobenzene	3.006	2.697	90	2.770	92	50-150	33-167	3	0-30	
1,4-Dichlorobenzene	3.006	2.738	91	2.774	92	50-150	33-167	1	0-30	
1,4-Dioxane	1.802	1.393	77	1.355	75	60-140	47-153	3	0-30	
4-Ethyltoluene	2.458	2.169	88	2.108	86	50-150	33-167	3	0-30	
Benzene	1.597	1.523	95	1.478	92	27-153	6-174	3	0-34	
Bromodichloromethane	3.350	3.188	95	3.110	93	50-150	33-167	2	0-30	
Carbon Tetrachloride	3.146	2.819	90	2.791	89	7-187	0-217	1	0-31	
Chlorobenzene	2.302	2.155	94	2.194	95	50-150	33-167	2	0-30	
Chloroethane	1.319	1.272	96	1.197	91	50-150	33-167	6	0-30	
Chloroform	2.441	2.209	90	2.332	96	50-150	33-167	5	0-30	
Chloromethane	1.033	1.122	109	1.054	102	50-150	33-167	6	0-30	
Dibromochloromethane	4.259	4.118	97	4.208	99	50-150	33-167	2	0-30	
Dichlorodifluoromethane	2.473	2.161	87	2.338	95	50-150	33-167	8	0-30	
Ethylbenzene	2.171	2.143	99	2.092	96	27-153	6-174	2	0-46	
Hexachloro-1,3-Butadiene	5.333	4.111	77	4.313	81	50-150	33-167	5	0-30	
Methyl-t-Butyl Ether (MTBE)	1.803	1.643	91	1.646	91	50-150	33-167	0	0-30	
Methylene Chloride	1.737	1.667	96	1.638	94	50-150	33-167	2	0-30	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: EPA TO-15 SIM

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Naphthalene	2.621	1.840	70	1.848	71	50-150	33-167	0	0-30	
Tetrachloroethene	3.391	3.108	92	3.209	95	34-154	14-174	3	0-33	
Toluene	1.884	1.861	99	1.840	98	28-154	7-175	1	0-42	
Trichloroethene	2.687	2.489	93	2.497	93	43-139	27-155	0	0-31	
Trichlorofluoromethane	2.809	2.477	88	2.482	88	50-150	33-167	0	0-30	
Vinyl Chloride	1.278	1.242	97	1.186	93	44-140	28-156	5	0-33	
c-1,2-Dichloroethene	1.982	1.888	95	1.843	93	35-165	13-187	2	0-35	
o-Xylene	2.171	2.107	97	2.065	95	22-160	0-183	2	0-48	
p/m-Xylene	4.342	4.265	98	4.181	96	21-165	0-189	2	0-51	
t-1,2-Dichloroethene	1.982	1.819	92	1.789	90	50-150	33-167	2	0-30	
1,2,3-Trichlorobenzene	3.711	2.999	81	3.078	83	50-150	33-167	3	0-30	
1,2,3-Trichloropropane	3.015	2.931	97	2.897	96	50-150	33-167	1	0-30	
Styrene	2.130	2.142	101	2.007	94	50-150	33-167	6	0-30	

Total number of LCS compounds: 48
Total number of ME compounds: 0
Total number of ME compounds allowed: 2
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Date Received: 03/06/15
Work Order: 15-03-0437
Preparation: N/A
Method: GC/MS C6-C12 AS GASOLINE

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-16-014-83	**LCS**	**Air**	**GC/MS K**	**N/A**	**03/12/15 14:05**	**G150312L01**
099-16-014-83	**LCSD**	**Air**	**GC/MS K**	**N/A**	**03/12/15 14:55**	**G150312L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline (C6-C12)	4663	3995	86	3968	85	50-150	1	0-30	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Cardno ERI	Date Received: 03/06/15
601 North McDowell Blvd.	Work Order: 15-03-0437
Petaluma, CA 94954-2312	Preparation: N/A
	Method: SCAQMD 25.1M
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002	Page 12 of 13

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-192-663	**LCS**	**Air**	**GC 65**	**N/A**	**03/06/15 10:15**	**150306L01**
099-12-192-663	**LCSD**	**Air**	**GC 65**	**N/A**	**03/06/15 10:33**	**150306L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Oxygen (+ Argon)	4.010	4.160	104	4.122	103	80-120	1	0-20	
Nitrogen	69.50	69.63	100	69.18	100	80-120	1	0-20	
Methane	4.500	4.351	97	4.326	96	80-120	1	0-20	
Carbon Monoxide	6.990	6.719	96	6.674	95	80-120	1	0-20	
Carbon Dioxide	15.00	14.80	99	14.77	98	80-120	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Cardno ERI	Date Received: 03/06/15
601 North McDowell Blvd.	Work Order: 15-03-0437
Petaluma, CA 94954-2312	Preparation: N/A
	Method: SCAQMD 25.1M
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002	Page 13 of 13

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-194-816	**LCS**	**Air**	**GC 14**	**N/A**	**03/06/15 09:30**	**150306L02**
099-12-194-816	**LCSD**	**Air**	**GC 14**	**N/A**	**03/06/15 09:51**	**150306L02**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Methane	0.01000	0.009259	93	0.009787	98	80-120	6	0-20	
Carbon Dioxide	0.01040	0.009161	88	0.009813	94	80-120	7	0-20	
Carbon Monoxide	0.01010	0.008674	86	0.009175	91	80-120	6	0-20	
TGNMO	0.03000	0.02795	93	0.02980	99	80-120	6	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Summa Canister Vacuum Summary

Work Order: 15-03-0437 Page 1 of 1

Sample Name	Vacuum Out	Vacuum In	Equipment	Description
SS-1R	-29.60 in Hg	-4.60 in Hg	LC832	Summa Canister 1L
SS-1R DUP	-29.60 in Hg	-6.30 in Hg	LC635	Summa Canister 1L
SS-2	-29.60 in Hg	-6.00 in Hg	LC034	Summa Canister 1L
SS-3	-29.60 in Hg	-4.40 in Hg	LC1003	Summa Canister 1L
SS-4	-29.60 in Hg	-5.90 in Hg	LC987	Summa Canister 1L
SSV-1	-29.60 in Hg	-4.20 in Hg	LC937	Summa Canister 1L
SSA-1	-29.60 in Hg	-7.40 in Hg	LC135	Summa Canister 1L
TRIP BLANK	11.00 psi	12.70 psi	LC889	Summa Canister 1L

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Sample Analysis Summary Report

Work Order: 15-03-0437 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
ASTM D-1946 (M)	N/A	929	GC 55	2
ASTM D-1946 (M)	N/A	982	GC 55	2
EPA TO-15	N/A	888	GC/MS AA	2
EPA TO-15	N/A	953	GC/MS K	2
EPA TO-15 SIM	N/A	460	GC/MS DD	2
GC/MS C6-C12 AS GASOLINE	N/A	953	GC/MS K	2
SCAQMD 25.1M	N/A	834	GC 14	2
SCAQMD 25.1M	N/A	834	GC 65	2
SCAQMD 25.1M	N/A	929	GC 14	2
SCAQMD 25.1M	N/A	929	GC 65	2
SCAQMD 25.1M	N/A	982	GC 65	2

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Glossary of Terms and Qualifiers

Work Order: 15-03-0437 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.
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.

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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.

AIR CHAIN-OF-CUSTODY RECORD

WO NO. / LAB USE ONLY: **15-03-0437**

DATE: 03/05/2015

PAGE: 1 OF 1

LABORATORY CLIENT: Cardno ATC	CLIENT PROJECT NAME / NO.: **580 Market Place Shopping Center / Cardno ATC Project # 075.75354.0002**
ADDRESS: 2400 Camino Ramon, Suite 360	P.O. NO.:
CITY: San Ramon STATE: CA ZIP: 94583	PROJECT CONTACT: Gabe Stivala
TEL: (707) 766-2000 E-MAIL: gabe.stivala@cardno.com	LAB CONTACT OR QUOTE NO.:
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"): ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS ☐ STANDARD	PROJECT ADDRESS: 3735-4065 East Castro Valley Boulevard
EDD: ☒ COELT EDF ☐ OTHER UNITS:	SAMPLER(S): (PRINT) NADYA VICENTE
	CITY: Castro Valley STATE: CA ZIP: 94552

SPECIAL INSTRUCTIONS:

***ASTMD-1946 = He (% Volume)** ***SCAQMD 25.1 = CO2, O2, and CH4 (% Volume)**
***TO-15 Scan includes VOCs (full scan), BTEX, chlorinated volatile organic compounds**
***Report final vacuum readings**
***Reporting Limits - ug/m^3**
***Report Lowest dilution possible**
***Global ID = T10000004345**

LAB USE ONLY	SAMPLE ID	FIELD ID / POINT OF COLLECTION	MATRIX	SAMPLING EQUIPMENT			START SAMPLING INFORMATION			STOP SAMPLING INFORMATION			REQUESTED ANALYSES				
			Indoor (I) Soil Vap. (SV) Ambient (A)	Media ID	Canister Size 6L or 1L	Flow Controller ID	Date	Time (24 hr clock)	Canister Pressure (in Hg)	Date	Time (24 hr clock)	Canister Pressure (in Hg)	TO-15 Scan	GC/MS TPHg (C6-C12)	CO2, O2, CH4,Ar	TO-15 SIM	He (ASTMD-1946)
1	SS-1R	SS-1R	SV	LC832	1L	AD50	3/4/2015	1308	30	3/4/2015	1325	5	X	X	X	X	X
2	SS-1R DUP	SS-1R	SV	LC635	1L	AD44	3/4/2015	1308	30	3/4/2015	1327	5	X	X	X	X	X
3	SS-2	SS-2	SV	LC034	1L	AD148	3/4/2015	1401	30	3/4/2015	1418	5	X	X	X	X	X
4	SS-3	SS-3	SV	LC1003	1L	AD59	3/4/2015	1341	10	3/4/2015	1353	5	X	X	X	X	X
5	SS-4	SS-4	SV	LC987	1L	AD40	3/4/2015	1238	30	3/4/2015	1255	5	X	X	X	X	X
6	SSV-1	SSV-1	SV	LC937	1L	AD45	3/4/2015	1436	30	3/4/2015	1455	5	X	X	X	X	X
7	SSA-1	SSA-1	SV	LC135	1L	AD02	3/4/2015	1504	30	3/4/2015	1525	5	X	X	X	X	X

Relinquished by: (Signature)	Received by: (Signature/Affiliation) Tom O'Malley ECI	Date: 3/5/15	Time: 1025
Relinquished by: (Signature) Tom O'Malley TO 680 3/5/15 1730	Received by: (Signature/Affiliation) ECI	Date: 03/06/15	Time: 1630
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

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GSO

800-322-5555 www.gso.com

15-03-0437

Ship From
CAL SCIENCE- CONCORD
ALAN KEMP
5063 COMMERCIAL CIRCLE
#H
CONCORD, CA 94520

Ship To
CEL
SAMPLE RECEIVING
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD: $0.00
Weight: 0 lb(s)
Reference:
CARDNO ERI
Delivery Instructions:

Signature Type: REQUIRED

Tracking #: 527153384

NPS

ORC **A**
GARDEN GROVE

D92845A

34934296

Print Date: 3/5/2015 2:55 PM

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer. Securely attach this label to your package, do not cover the barcode.

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WORK ORDER #: 15-03-0437

SAMPLE RECEIPT FORM

Box 1 of 1

CLIENT: Cardno ATC DATE: 03/06/15

TEMPERATURE: Thermometer ID: SC4 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature ____.____ °C + 0.2 °C (CF) = ____.____ °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.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☑ Air ☐ Filter **Checked by:** 3W

CUSTODY SEALS INTACT:

☑ Box ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A **Checked by:** 3W

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present **Checked by:** 3W

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☐	☑	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Aqueous: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☑Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** 3W

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** [illegible]

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** 3W

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WORK ORDER #: 15-03-0437

SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:

- ☐ **Sample(s) NOT RECEIVED but listed on COC**
- ☑ **Sample(s) received but NOT LISTED on COC**
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☐ **Sample label(s) do not match COC** – Note in comments
  - ☐ **Sample ID**
  - ☐ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☐ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
- ☐ **Sample container(s) not labeled**
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

Comments:

(-8) TRIP BLANK (Can ID: LC889) not listed on CoC.

HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	Analysis

Comments: _____

*Transferred at Client's request.

Initial / Date: JW 03/06/15

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WORK ORDER NUMBER: 15-03-0588

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Cardno ERI

Client Project Name: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002

Attention: Gabe Stivala
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Amanda Porter

Approved for release on 03/16/2015 by:
Amanda Porter
Project Manager

ResultLink

Email your PM

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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Work Order Narrative

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 03/07/15. They were assigned to Work Order 15-03-0588.

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.

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IA1	**15-03-0588-1-A**	**03/05/15 13:50**	**Air**	**GC/MS K**	**N/A**	**03/13/15 00:15**	**150312L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	25	4.8	1.00	
Benzene	1.8	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	ND	4.4	1.00	
Carbon Disulfide	ND	6.2	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	ND	2.4	1.00	
Chloromethane	1.6	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
Dichlorodifluoromethane	2.9	2.5	1.00	
Diisopropyl Ether (DIPE)	ND	8.4	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Ethanol	220	9.4	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1.00	
Ethylbenzene	ND	2.2	1.00	
4-Ethyltoluene	ND	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	
2-Hexanone	ND	6.1	1.00	

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

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Analytical Report

Cardno ERI		Date Received:	03/07/15
601 North McDowell Blvd.		Work Order:	15-03-0588
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 2 of 16

Parameter	Result	RL	DF	Qualifiers
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	ND	6.1	1.00	
Naphthalene	ND	26	1.00	
o-Xylene	ND	2.2	1.00	
p/m-Xylene	ND	8.7	1.00	
Styrene	ND	6.4	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1.00	
Tert-Butyl Alcohol (TBA)	ND	6.1	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	5.1	1.9	1.00	
Trichloroethene	3.0	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
1,3,5-Trimethylbenzene	ND	2.5	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
1,2,4-Trimethylbenzene	ND	7.4	1.00	
1,2,4-Trichlorobenzene	ND	15	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	68-134	
1,2-Dichloroethane-d4	107	67-133	
Toluene-d8	101	70-130	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IA1 Dup	**15-03-0588-2-A**	**03/05/15 13:50**	**Air**	**GC/MS K**	**N/A**	**03/13/15 01:07**	**150312L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	25	4.8	1.00	
Benzene	ND	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	ND	4.4	1.00	
Carbon Disulfide	ND	6.2	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	ND	2.4	1.00	
Chloromethane	1.6	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
Dichlorodifluoromethane	2.9	2.5	1.00	
Diisopropyl Ether (DIPE)	ND	8.4	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Ethanol	240	9.4	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1.00	
Ethylbenzene	ND	2.2	1.00	
4-Ethyltoluene	ND	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	
2-Hexanone	ND	6.1	1.00	

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

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Analytical Report

Cardno ERI		Date Received:	03/07/15
601 North McDowell Blvd.		Work Order:	15-03-0588
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 4 of 16

Parameter	Result	RL	DF	Qualifiers
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	ND	6.1	1.00	
Naphthalene	ND	26	1.00	
o-Xylene	ND	2.2	1.00	
p/m-Xylene	ND	8.7	1.00	
Styrene	ND	6.4	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1.00	
Tert-Butyl Alcohol (TBA)	ND	6.1	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	3.8	1.9	1.00	
Trichloroethene	3.5	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
1,3,5-Trimethylbenzene	ND	2.5	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
1,2,4-Trimethylbenzene	ND	7.4	1.00	
1,2,4-Trichlorobenzene	ND	15	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	68-134	
1,2-Dichloroethane-d4	105	67-133	
Toluene-d8	98	70-130	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IA2	**15-03-0588-3-A**	**03/05/15 14:20**	**Air**	**GC/MS K**	**N/A**	**03/13/15 01:56**	**150312L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	25	4.8	1.00	
Benzene	ND	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	ND	4.4	1.00	
Carbon Disulfide	ND	6.2	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	ND	2.4	1.00	
Chloromethane	1.6	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
Dichlorodifluoromethane	2.9	2.5	1.00	
Diisopropyl Ether (DIPE)	ND	8.4	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Ethanol	230	9.4	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1.00	
Ethylbenzene	ND	2.2	1.00	
4-Ethyltoluene	ND	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	
2-Hexanone	ND	6.1	1.00	

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

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Analytical Report

Cardno ERI		Date Received:	03/07/15
601 North McDowell Blvd.		Work Order:	15-03-0588
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 6 of 16

Parameter	Result	RL	DF	Qualifiers
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	ND	6.1	1.00	
Naphthalene	ND	26	1.00	
o-Xylene	ND	2.2	1.00	
p/m-Xylene	ND	8.7	1.00	
Styrene	ND	6.4	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1.00	
Tert-Butyl Alcohol (TBA)	ND	6.1	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	3.3	1.9	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
1,3,5-Trimethylbenzene	ND	2.5	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
1,2,4-Trimethylbenzene	ND	7.4	1.00	
1,2,4-Trichlorobenzene	ND	15	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	68-134	
1,2-Dichloroethane-d4	105	67-133	
Toluene-d8	100	70-130	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IAV1	**15-03-0588-4-A**	**03/05/15 13:44**	**Air**	**GC/MS K**	**N/A**	**03/13/15 02:45**	**150312L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	29	4.8	1.00	
Benzene	ND	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	ND	4.4	1.00	
Carbon Disulfide	ND	6.2	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	ND	2.4	1.00	
Chloromethane	1.6	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
Dichlorodifluoromethane	2.9	2.5	1.00	
Diisopropyl Ether (DIPE)	ND	8.4	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1.00	
Ethylbenzene	ND	2.2	1.00	
4-Ethyltoluene	ND	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	
2-Hexanone	ND	6.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	

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

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Analytical Report

Cardno ERI		Date Received:	03/07/15
601 North McDowell Blvd.		Work Order:	15-03-0588
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 8 of 16

Parameter	Result	RL	DF	Qualifiers
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	ND	6.1	1.00	
Naphthalene	ND	26	1.00	
o-Xylene	ND	2.2	1.00	
p/m-Xylene	ND	8.7	1.00	
Styrene	ND	6.4	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1.00	
Tert-Butyl Alcohol (TBA)	ND	6.1	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	5.0	1.9	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
1,3,5-Trimethylbenzene	ND	2.5	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
1,2,4-Trimethylbenzene	ND	7.4	1.00	
1,2,4-Trichlorobenzene	ND	15	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	68-134	
1,2-Dichloroethane-d4	106	67-133	
Toluene-d8	101	70-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IAV1	**15-03-0588-4-A**	**03/05/15 13:44**	**Air**	**GC/MS K**	**N/A**	**03/13/15 07:18**	**150312L01**

Parameter	Result	RL	DF	Qualifiers
Ethanol	1100	38	4.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	68-134	
1,2-Dichloroethane-d4	107	67-133	
Toluene-d8	103	70-130	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IAV2	**15-03-0588-5-A**	**03/05/15 15:26**	**Air**	**GC/MS K**	**N/A**	**03/13/15 03:37**	**150312L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	29	4.8	1.00	
Benzene	2.0	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	ND	4.4	1.00	
Carbon Disulfide	ND	6.2	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	ND	2.4	1.00	
Chloromethane	1.7	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
Dichlorodifluoromethane	2.8	2.5	1.00	
Diisopropyl Ether (DIPE)	ND	8.4	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1.00	
Ethylbenzene	ND	2.2	1.00	
4-Ethyltoluene	ND	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	
2-Hexanone	ND	6.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	

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

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Analytical Report

Cardno ERI		Date Received:	03/07/15
601 North McDowell Blvd.		Work Order:	15-03-0588
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 10 of 16

Parameter	Result	RL	DF	Qualifiers
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	ND	6.1	1.00	
Naphthalene	ND	26	1.00	
o-Xylene	ND	2.2	1.00	
p/m-Xylene	ND	8.7	1.00	
Styrene	ND	6.4	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1.00	
Tert-Butyl Alcohol (TBA)	ND	6.1	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	3.7	1.9	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
1,3,5-Trimethylbenzene	ND	2.5	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
1,2,4-Trimethylbenzene	ND	7.4	1.00	
1,2,4-Trichlorobenzene	ND	15	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	68-134	
1,2-Dichloroethane-d4	108	67-133	
Toluene-d8	100	70-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IAV2	**15-03-0588-5-A**	**03/05/15 15:26**	**Air**	**GC/MS K**	**N/A**	**03/13/15 08:04**	**150312L01**

Parameter	Result	RL	DF	Qualifiers
Ethanol	1500	47	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	68-134	
1,2-Dichloroethane-d4	106	67-133	
Toluene-d8	102	70-130	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IAA1	**15-03-0588-6-A**	**03/05/15 13:58**	**Air**	**GC/MS K**	**N/A**	**03/13/15 04:30**	**150312L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	43	4.8	1.00	
Benzene	2.0	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	ND	4.4	1.00	
Carbon Disulfide	ND	6.2	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	ND	2.4	1.00	
Chloromethane	1.9	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
Dichlorodifluoromethane	2.9	2.5	1.00	
Diisopropyl Ether (DIPE)	ND	8.4	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1.00	
Ethylbenzene	ND	2.2	1.00	
4-Ethyltoluene	ND	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	
2-Hexanone	ND	6.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Parameter	Result	RL	DF	Qualifiers
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	ND	6.1	1.00	
Naphthalene	ND	26	1.00	
o-Xylene	ND	2.2	1.00	
p/m-Xylene	ND	8.7	1.00	
Styrene	ND	6.4	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1.00	
Tert-Butyl Alcohol (TBA)	ND	6.1	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	5.2	1.9	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
1,3,5-Trimethylbenzene	ND	2.5	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
1,2,4-Trimethylbenzene	ND	7.4	1.00	
1,2,4-Trichlorobenzene	ND	15	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	68-134	
1,2-Dichloroethane-d4	107	67-133	
Toluene-d8	101	70-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IAA1	**15-03-0588-6-A**	**03/05/15 13:58**	**Air**	**GC/MS K**	**N/A**	**03/13/15 08:51**	**150312L01**

Parameter	Result	RL	DF	Qualifiers
Ethanol	4600	94	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	68-134	
1,2-Dichloroethane-d4	108	67-133	
Toluene-d8	108	70-130	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OA1	**15-03-0588-7-A**	**03/05/15 13:38**	**Air**	**GC/MS K**	**N/A**	**03/13/15 05:22**	**150312L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	14	4.8	1.00	
Benzene	1.9	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	ND	4.4	1.00	
Carbon Disulfide	ND	6.2	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	ND	2.4	1.00	
Chloromethane	1.6	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
Dichlorodifluoromethane	2.9	2.5	1.00	
Diisopropyl Ether (DIPE)	ND	8.4	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Ethanol	19	9.4	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1.00	
Ethylbenzene	ND	2.2	1.00	
4-Ethyltoluene	ND	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	
2-Hexanone	ND	6.1	1.00	

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

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Analytical Report

Cardno ERI		Date Received:	03/07/15
601 North McDowell Blvd.		Work Order:	15-03-0588
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 14 of 16

Parameter	Result	RL	DF	Qualifiers
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	ND	6.1	1.00	
Naphthalene	ND	26	1.00	
o-Xylene	ND	2.2	1.00	
p/m-Xylene	ND	8.7	1.00	
Styrene	ND	6.4	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1.00	
Tert-Butyl Alcohol (TBA)	ND	6.1	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	ND	1.9	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
1,3,5-Trimethylbenzene	ND	2.5	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
1,2,4-Trimethylbenzene	ND	7.4	1.00	
1,2,4-Trichlorobenzene	ND	15	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	68-134	
1,2-Dichloroethane-d4	107	67-133	
Toluene-d8	103	70-130	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**095-01-021-15055**	**N/A**	**Air**	**GC/MS K**	**N/A**	**03/12/15 17:21**	**150312L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	4.8	1.00	
Benzene	ND	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	ND	4.4	1.00	
Carbon Disulfide	ND	6.2	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	ND	2.4	1.00	
Chloromethane	ND	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
Dichlorodifluoromethane	ND	2.5	1.00	
Diisopropyl Ether (DIPE)	ND	8.4	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Ethanol	ND	9.4	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1.00	
Ethylbenzene	ND	2.2	1.00	
4-Ethyltoluene	ND	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	
2-Hexanone	ND	6.1	1.00	

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

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Analytical Report

Cardno ERI		Date Received:	03/07/15
601 North McDowell Blvd.		Work Order:	15-03-0588
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 16 of 16

Parameter	Result	RL	DF	Qualifiers
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	ND	6.1	1.00	
Naphthalene	ND	26	1.00	
o-Xylene	ND	2.2	1.00	
p/m-Xylene	ND	8.7	1.00	
Styrene	ND	6.4	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1.00	
Tert-Butyl Alcohol (TBA)	ND	6.1	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	ND	1.9	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
1,3,5-Trimethylbenzene	ND	2.5	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
1,2,4-Trimethylbenzene	ND	7.4	1.00	
1,2,4-Trichlorobenzene	ND	15	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	68-134	
1,2-Dichloroethane-d4	106	67-133	
Toluene-d8	102	70-130	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IA1	**15-03-0588-1-A**	**03/05/15 13:50**	**Air**	**GC/MS DD**	**N/A**	**03/09/15 17:29**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
1,2-Dibromoethane	ND	0.19	1.00	
Dichlorotetrafluoroethane	ND	0.17	1.00	
1,2-Dichloropropane	ND	0.12	1.00	
Bromomethane	ND	0.097	1.00	
c-1,3-Dichloropropene	ND	0.11	1.00	
t-1,3-Dichloropropene	ND	0.11	1.00	
1,1,1-Trichloroethane	0.14	0.14	1.00	
1,1,2,2-Tetrachloroethane	ND	0.17	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.51	0.19	1.00	
1,1,2-Trichloroethane	ND	0.14	1.00	
1,1-Dichloroethane	ND	0.10	1.00	
1,1-Dichloroethene	ND	0.099	1.00	
1,1-Difluoroethane	ND	0.68	1.00	
1,2,4-Trichlorobenzene	ND	0.19	1.00	
1,2,4-Trimethylbenzene	0.55	0.25	1.00	
1,2-Dichlorobenzene	ND	0.15	1.00	
1,2-Dichloroethane	ND	0.10	1.00	
1,3,5-Trimethylbenzene	0.12	0.12	1.00	
1,3-Dichlorobenzene	ND	0.15	1.00	
1,4-Dichlorobenzene	ND	0.15	1.00	
1,4-Dioxane	ND	0.90	1.00	
2-Butanone	ND	1.5	1.00	
4-Ethyltoluene	ND	0.25	1.00	
Benzene	1.3	0.080	1.00	
Bromodichloromethane	ND	0.17	1.00	
Carbon Disulfide	ND	1.6	1.00	
Carbon Tetrachloride	0.43	0.063	1.00	
Chlorobenzene	ND	0.12	1.00	
Chloroethane	ND	0.066	1.00	
Chloroform	0.27	0.12	1.00	
Chloromethane	1.2	0.052	1.00	
Dibromochloromethane	ND	0.21	1.00	
Dichlorodifluoromethane	1.9	0.12	1.00	
Ethylbenzene	0.38	0.11	1.00	
Hexachloro-1,3-Butadiene	ND	0.27	1.00	

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

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Analytical Report

Cardno ERI		Date Received:	03/07/15
601 North McDowell Blvd.		Work Order:	15-03-0588
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15 SIM
		Units:	ug/m3
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 2 of 16

Parameter	Result	RL	DF	Qualifiers
Hexane	0.63	0.35	1.00	
Methyl-t-Butyl Ether (MTBE)	0.26	0.090	1.00	
Methylene Chloride	0.55	0.087	1.00	
Naphthalene	0.30	0.052	1.00	
Tetrachloroethene	0.58	0.17	1.00	
Toluene	3.6	0.19	1.00	
Trichloroethene	3.1	0.13	1.00	
Trichlorofluoromethane	1.1	0.14	1.00	
Vinyl Chloride	ND	0.026	1.00	
c-1,2-Dichloroethene	ND	0.099	1.00	
o-Xylene	0.50	0.11	1.00	
p/m-Xylene	1.3	0.11	1.00	
t-1,2-Dichloroethene	ND	0.099	1.00	
1,3-Butadiene	0.17	0.055	1.00	
1,2,3-Trichlorobenzene	ND	0.19	1.00	
1,2,3-Trichloropropane	ND	0.15	1.00	
Styrene	0.16	0.11	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	93	37-163	
1,4-Bromofluorobenzene	96	45-153	
Toluene-d8	96	73-121	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IA1 Dup	**15-03-0588-2-A**	**03/05/15 13:50**	**Air**	**GC/MS DD**	**N/A**	**03/09/15 18:25**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
1,2-Dibromoethane	ND	0.19	1.00	
Dichlorotetrafluoroethane	ND	0.17	1.00	
1,2-Dichloropropane	ND	0.12	1.00	
Bromomethane	ND	0.097	1.00	
c-1,3-Dichloropropene	ND	0.11	1.00	
t-1,3-Dichloropropene	ND	0.11	1.00	
1,1,1-Trichloroethane	0.16	0.14	1.00	
1,1,2,2-Tetrachloroethane	ND	0.17	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.52	0.19	1.00	
1,1,2-Trichloroethane	ND	0.14	1.00	
1,1-Dichloroethane	ND	0.10	1.00	
1,1-Dichloroethene	ND	0.099	1.00	
1,1-Difluoroethane	ND	0.68	1.00	
1,2,4-Trichlorobenzene	ND	0.19	1.00	
1,2,4-Trimethylbenzene	0.46	0.25	1.00	
1,2-Dichlorobenzene	ND	0.15	1.00	
1,2-Dichloroethane	ND	0.10	1.00	
1,3,5-Trimethylbenzene	ND	0.12	1.00	
1,3-Dichlorobenzene	ND	0.15	1.00	
1,4-Dichlorobenzene	ND	0.15	1.00	
1,4-Dioxane	ND	0.90	1.00	
2-Butanone	ND	1.5	1.00	
4-Ethyltoluene	ND	0.25	1.00	
Benzene	1.2	0.080	1.00	
Bromodichloromethane	ND	0.17	1.00	
Carbon Disulfide	ND	1.6	1.00	
Carbon Tetrachloride	0.44	0.063	1.00	
Chlorobenzene	ND	0.12	1.00	
Chloroethane	ND	0.066	1.00	
Chloroform	0.28	0.12	1.00	
Chloromethane	1.2	0.052	1.00	
Dibromochloromethane	ND	0.21	1.00	
Dichlorodifluoromethane	2.0	0.12	1.00	
Ethylbenzene	0.32	0.11	1.00	
Hexachloro-1,3-Butadiene	ND	0.27	1.00	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Parameter	Result	RL	DF	Qualifiers
Hexane	ND	0.35	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.090	1.00	
Methylene Chloride	0.43	0.087	1.00	
Naphthalene	0.25	0.052	1.00	
Tetrachloroethene	0.65	0.17	1.00	
Toluene	2.9	0.19	1.00	
Trichloroethene	3.5	0.13	1.00	
Trichlorofluoromethane	1.1	0.14	1.00	
Vinyl Chloride	ND	0.026	1.00	
c-1,2-Dichloroethene	ND	0.099	1.00	
o-Xylene	0.35	0.11	1.00	
p/m-Xylene	0.92	0.11	1.00	
t-1,2-Dichloroethene	ND	0.099	1.00	
1,3-Butadiene	0.14	0.055	1.00	
1,2,3-Trichlorobenzene	ND	0.19	1.00	
1,2,3-Trichloropropane	ND	0.15	1.00	
Styrene	0.16	0.11	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	89	37-163	
1,4-Bromofluorobenzene	95	45-153	
Toluene-d8	100	73-121	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IA2	**15-03-0588-3-A**	**03/05/15 14:20**	**Air**	**GC/MS DD**	**N/A**	**03/09/15 19:18**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
1,2-Dibromoethane	ND	0.19	1.00	
Dichlorotetrafluoroethane	ND	0.17	1.00	
1,2-Dichloropropane	ND	0.12	1.00	
Bromomethane	ND	0.097	1.00	
c-1,3-Dichloropropene	ND	0.11	1.00	
t-1,3-Dichloropropene	ND	0.11	1.00	
1,1,1-Trichloroethane	ND	0.14	1.00	
1,1,2,2-Tetrachloroethane	ND	0.17	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.51	0.19	1.00	
1,1,2-Trichloroethane	ND	0.14	1.00	
1,1-Dichloroethane	ND	0.10	1.00	
1,1-Dichloroethene	ND	0.099	1.00	
1,1-Difluoroethane	0.86	0.68	1.00	
1,2,4-Trichlorobenzene	ND	0.19	1.00	
1,2,4-Trimethylbenzene	0.42	0.25	1.00	
1,2-Dichlorobenzene	ND	0.15	1.00	
1,2-Dichloroethane	ND	0.10	1.00	
1,3,5-Trimethylbenzene	ND	0.12	1.00	
1,3-Dichlorobenzene	ND	0.15	1.00	
1,4-Dichlorobenzene	ND	0.15	1.00	
1,4-Dioxane	ND	0.90	1.00	
2-Butanone	ND	1.5	1.00	
4-Ethyltoluene	ND	0.25	1.00	
Benzene	1.1	0.080	1.00	
Bromodichloromethane	ND	0.17	1.00	
Carbon Disulfide	ND	1.6	1.00	
Carbon Tetrachloride	0.41	0.063	1.00	
Chlorobenzene	ND	0.12	1.00	
Chloroethane	ND	0.066	1.00	
Chloroform	0.21	0.12	1.00	
Chloromethane	1.2	0.052	1.00	
Dibromochloromethane	ND	0.21	1.00	
Dichlorodifluoromethane	1.9	0.12	1.00	
Ethylbenzene	0.31	0.11	1.00	
Hexachloro-1,3-Butadiene	ND	0.27	1.00	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Parameter	Result	RL	DF	Qualifiers
Hexane	0.39	0.35	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.090	1.00	
Methylene Chloride	0.51	0.087	1.00	
Naphthalene	0.22	0.052	1.00	
Tetrachloroethene	0.43	0.17	1.00	
Toluene	2.7	0.19	1.00	
Trichloroethene	1.2	0.13	1.00	
Trichlorofluoromethane	1.0	0.14	1.00	
Vinyl Chloride	ND	0.026	1.00	
c-1,2-Dichloroethene	ND	0.099	1.00	
o-Xylene	0.36	0.11	1.00	
p/m-Xylene	0.90	0.11	1.00	
t-1,2-Dichloroethene	ND	0.099	1.00	
1,3-Butadiene	0.14	0.055	1.00	
1,2,3-Trichlorobenzene	ND	0.19	1.00	
1,2,3-Trichloropropane	ND	0.15	1.00	
Styrene	0.15	0.11	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	89	37-163	
1,4-Bromofluorobenzene	97	45-153	
Toluene-d8	97	73-121	

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

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Analytical Report

Cardno ERI		Date Received:	03/07/15
601 North McDowell Blvd.		Work Order:	15-03-0588
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15 SIM
		Units:	ug/m3
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 7 of 16

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IAV1	**15-03-0588-4-A**	**03/05/15 13:44**	**Air**	**GC/MS DD**	**N/A**	**03/09/15 20:12**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
1,2-Dibromoethane	ND	0.19	1.00	
Dichlorotetrafluoroethane	ND	0.17	1.00	
1,2-Dichloropropane	ND	0.12	1.00	
Bromomethane	ND	0.097	1.00	
c-1,3-Dichloropropene	ND	0.11	1.00	
t-1,3-Dichloropropene	ND	0.11	1.00	
1,1,1-Trichloroethane	ND	0.14	1.00	
1,1,2,2-Tetrachloroethane	ND	0.17	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.40	0.19	1.00	
1,1,2-Trichloroethane	ND	0.14	1.00	
1,1-Dichloroethane	ND	0.10	1.00	
1,1-Dichloroethene	ND	0.099	1.00	
1,1-Difluoroethane	4.5	0.68	1.00	
1,2,4-Trichlorobenzene	ND	0.19	1.00	
1,2,4-Trimethylbenzene	0.39	0.25	1.00	
1,2-Dichlorobenzene	ND	0.15	1.00	
1,2-Dichloroethane	ND	0.10	1.00	
1,3,5-Trimethylbenzene	ND	0.12	1.00	
1,3-Dichlorobenzene	ND	0.15	1.00	
1,4-Dichlorobenzene	ND	0.15	1.00	
1,4-Dioxane	ND	0.90	1.00	
2-Butanone	ND	1.5	1.00	
4-Ethyltoluene	ND	0.25	1.00	
Benzene	1.5	0.080	1.00	
Bromodichloromethane	ND	0.17	1.00	
Carbon Disulfide	ND	1.6	1.00	
Carbon Tetrachloride	0.46	0.063	1.00	
Chlorobenzene	ND	0.12	1.00	
Chloroethane	ND	0.066	1.00	
Chloroform	0.27	0.12	1.00	
Chloromethane	1.1	0.052	1.00	
Dibromochloromethane	ND	0.21	1.00	
Dichlorodifluoromethane	2.0	0.12	1.00	
Ethylbenzene	0.34	0.11	1.00	
Hexachloro-1,3-Butadiene	ND	0.27	1.00	

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

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Analytical Report

Cardno ERI		Date Received:	03/07/15
601 North McDowell Blvd.		Work Order:	15-03-0588
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15 SIM
		Units:	ug/m3
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 8 of 16

Parameter	Result	RL	DF	Qualifiers
Hexane	ND	0.35	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.090	1.00	
Methylene Chloride	0.30	0.087	1.00	
Naphthalene	0.12	0.052	1.00	
Tetrachloroethene	1.5	0.17	1.00	
Toluene	4.3	0.19	1.00	
Trichloroethene	0.25	0.13	1.00	
Trichlorofluoromethane	1.1	0.14	1.00	
Vinyl Chloride	ND	0.026	1.00	
c-1,2-Dichloroethene	ND	0.099	1.00	
o-Xylene	0.34	0.11	1.00	
p/m-Xylene	0.86	0.11	1.00	
t-1,2-Dichloroethene	ND	0.099	1.00	
1,3-Butadiene	0.18	0.055	1.00	
1,2,3-Trichlorobenzene	ND	0.19	1.00	
1,2,3-Trichloropropane	ND	0.15	1.00	
Styrene	0.59	0.11	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	89	37-163	
1,4-Bromofluorobenzene	96	45-153	
Toluene-d8	106	73-121	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IAV2	**15-03-0588-5-A**	**03/05/15 15:26**	**Air**	**GC/MS DD**	**N/A**	**03/09/15 21:07**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
1,2-Dibromoethane	ND	0.19	1.00	
Dichlorotetrafluoroethane	ND	0.17	1.00	
1,2-Dichloropropane	ND	0.12	1.00	
Bromomethane	ND	0.097	1.00	
c-1,3-Dichloropropene	ND	0.11	1.00	
t-1,3-Dichloropropene	ND	0.11	1.00	
1,1,1-Trichloroethane	ND	0.14	1.00	
1,1,2,2-Tetrachloroethane	ND	0.17	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.52	0.19	1.00	
1,1,2-Trichloroethane	ND	0.14	1.00	
1,1-Dichloroethane	ND	0.10	1.00	
1,1-Dichloroethene	ND	0.099	1.00	
1,1-Difluoroethane	3.5	0.68	1.00	
1,2,4-Trichlorobenzene	ND	0.19	1.00	
1,2,4-Trimethylbenzene	0.43	0.25	1.00	
1,2-Dichlorobenzene	ND	0.15	1.00	
1,2-Dichloroethane	ND	0.10	1.00	
1,3,5-Trimethylbenzene	ND	0.12	1.00	
1,3-Dichlorobenzene	ND	0.15	1.00	
1,4-Dichlorobenzene	ND	0.15	1.00	
1,4-Dioxane	ND	0.90	1.00	
2-Butanone	ND	1.5	1.00	
4-Ethyltoluene	ND	0.25	1.00	
Benzene	1.8	0.080	1.00	
Bromodichloromethane	ND	0.17	1.00	
Carbon Disulfide	ND	1.6	1.00	
Carbon Tetrachloride	0.43	0.063	1.00	
Chlorobenzene	ND	0.12	1.00	
Chloroethane	ND	0.066	1.00	
Chloroform	0.31	0.12	1.00	
Chloromethane	1.3	0.052	1.00	
Dibromochloromethane	ND	0.21	1.00	
Dichlorodifluoromethane	1.9	0.12	1.00	
Ethylbenzene	0.30	0.11	1.00	
Hexachloro-1,3-Butadiene	ND	0.27	1.00	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Parameter	Result	RL	DF	Qualifiers
Hexane	ND	0.35	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.090	1.00	
Methylene Chloride	0.64	0.087	1.00	
Naphthalene	0.12	0.052	1.00	
Tetrachloroethene	1.4	0.17	1.00	
Toluene	3.2	0.19	1.00	
Trichloroethene	0.31	0.13	1.00	
Trichlorofluoromethane	1.1	0.14	1.00	
Vinyl Chloride	ND	0.026	1.00	
c-1,2-Dichloroethene	ND	0.099	1.00	
o-Xylene	0.35	0.11	1.00	
p/m-Xylene	0.82	0.11	1.00	
t-1,2-Dichloroethene	ND	0.099	1.00	
1,3-Butadiene	0.24	0.055	1.00	
1,2,3-Trichlorobenzene	ND	0.19	1.00	
1,2,3-Trichloropropane	ND	0.15	1.00	
Styrene	0.49	0.11	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	87	37-163	
1,4-Bromofluorobenzene	98	45-153	
Toluene-d8	97	73-121	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IAA1	**15-03-0588-6-A**	**03/05/15 13:58**	**Air**	**GC/MS DD**	**N/A**	**03/09/15 22:03**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
1,2-Dibromoethane	ND	0.19	1.00	
Dichlorotetrafluoroethane	ND	0.17	1.00	
1,2-Dichloropropane	ND	0.12	1.00	
Bromomethane	ND	0.097	1.00	
c-1,3-Dichloropropene	ND	0.11	1.00	
t-1,3-Dichloropropene	ND	0.11	1.00	
1,1,1-Trichloroethane	ND	0.14	1.00	
1,1,2,2-Tetrachloroethane	ND	0.17	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.53	0.19	1.00	
1,1,2-Trichloroethane	ND	0.14	1.00	
1,1-Dichloroethane	ND	0.10	1.00	
1,1-Dichloroethene	ND	0.099	1.00	
1,1-Difluoroethane	ND	0.68	1.00	
1,2,4-Trichlorobenzene	ND	0.19	1.00	
1,2,4-Trimethylbenzene	0.54	0.25	1.00	
1,2-Dichlorobenzene	ND	0.15	1.00	
1,2-Dichloroethane	ND	0.10	1.00	
1,3,5-Trimethylbenzene	0.12	0.12	1.00	
1,3-Dichlorobenzene	ND	0.15	1.00	
1,4-Dichlorobenzene	ND	0.15	1.00	
1,4-Dioxane	ND	0.90	1.00	
2-Butanone	1.7	1.5	1.00	
4-Ethyltoluene	ND	0.25	1.00	
Benzene	1.9	0.080	1.00	
Bromodichloromethane	ND	0.17	1.00	
Carbon Disulfide	ND	1.6	1.00	
Carbon Tetrachloride	0.46	0.063	1.00	
Chlorobenzene	ND	0.12	1.00	
Chloroethane	ND	0.066	1.00	
Chloroform	0.27	0.12	1.00	
Chloromethane	1.3	0.052	1.00	
Dibromochloromethane	ND	0.21	1.00	
Dichlorodifluoromethane	2.0	0.12	1.00	
Ethylbenzene	0.71	0.11	1.00	
Hexachloro-1,3-Butadiene	ND	0.27	1.00	

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

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Analytical Report

Cardno ERI		Date Received:	03/07/15
601 North McDowell Blvd.		Work Order:	15-03-0588
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15 SIM
		Units:	ug/m3
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 12 of 16

Parameter	Result	RL	DF	Qualifiers
Hexane	0.48	0.35	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.090	1.00	
Methylene Chloride	0.68	0.087	1.00	
Naphthalene	0.30	0.052	1.00	
Tetrachloroethene	0.63	0.17	1.00	
Toluene	4.3	0.19	1.00	
Trichloroethene	0.43	0.13	1.00	
Trichlorofluoromethane	1.1	0.14	1.00	
Vinyl Chloride	ND	0.026	1.00	
c-1,2-Dichloroethene	ND	0.099	1.00	
o-Xylene	0.53	0.11	1.00	
p/m-Xylene	1.4	0.11	1.00	
t-1,2-Dichloroethene	ND	0.099	1.00	
1,3-Butadiene	1.1	0.055	1.00	
1,2,3-Trichlorobenzene	ND	0.19	1.00	
1,2,3-Trichloropropane	ND	0.15	1.00	
Styrene	0.67	0.11	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	91	37-163	
1,4-Bromofluorobenzene	99	45-153	
Toluene-d8	106	73-121	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OA1	**15-03-0588-7-A**	**03/05/15 13:38**	**Air**	**GC/MS DD**	**N/A**	**03/09/15 22:58**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
1,2-Dibromoethane	ND	0.19	1.00	
Dichlorotetrafluoroethane	ND	0.17	1.00	
1,2-Dichloropropane	ND	0.12	1.00	
Bromomethane	ND	0.097	1.00	
c-1,3-Dichloropropene	ND	0.11	1.00	
t-1,3-Dichloropropene	ND	0.11	1.00	
1,1,1-Trichloroethane	ND	0.14	1.00	
1,1,2,2-Tetrachloroethane	ND	0.17	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.53	0.19	1.00	
1,1,2-Trichloroethane	ND	0.14	1.00	
1,1-Dichloroethane	ND	0.10	1.00	
1,1-Dichloroethene	ND	0.099	1.00	
1,1-Difluoroethane	ND	0.68	1.00	
1,2,4-Trichlorobenzene	ND	0.19	1.00	
1,2,4-Trimethylbenzene	0.32	0.25	1.00	
1,2-Dichlorobenzene	ND	0.15	1.00	
1,2-Dichloroethane	ND	0.10	1.00	
1,3,5-Trimethylbenzene	ND	0.12	1.00	
1,3-Dichlorobenzene	ND	0.15	1.00	
1,4-Dichlorobenzene	ND	0.15	1.00	
1,4-Dioxane	ND	0.90	1.00	
2-Butanone	ND	1.5	1.00	
4-Ethyltoluene	ND	0.25	1.00	
Acetone	8.0	1.2	1.00	
Benzene	1.7	0.080	1.00	
Bromodichloromethane	ND	0.17	1.00	
Carbon Disulfide	ND	1.6	1.00	
Carbon Tetrachloride	0.46	0.063	1.00	
Chlorobenzene	ND	0.12	1.00	
Chloroethane	ND	0.066	1.00	
Chloroform	ND	0.12	1.00	
Chloromethane	1.2	0.052	1.00	
Dibromochloromethane	ND	0.21	1.00	
Dichlorodifluoromethane	2.0	0.12	1.00	
Ethylbenzene	0.16	0.11	1.00	

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

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Analytical Report

Cardno ERI		Date Received:	03/07/15
601 North McDowell Blvd.		Work Order:	15-03-0588
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15 SIM
		Units:	ug/m3
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 14 of 16

Parameter	Result	RL	DF	Qualifiers
Hexachloro-1,3-Butadiene	ND	0.27	1.00	
Hexane	ND	0.35	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.090	1.00	
Methylene Chloride	0.45	0.087	1.00	
Naphthalene	0.10	0.052	1.00	
Tetrachloroethene	ND	0.17	1.00	
Toluene	0.86	0.19	1.00	
Trichloroethene	ND	0.13	1.00	
Trichlorofluoromethane	1.1	0.14	1.00	
Vinyl Chloride	ND	0.026	1.00	
c-1,2-Dichloroethene	ND	0.099	1.00	
o-Xylene	0.22	0.11	1.00	
p/m-Xylene	0.56	0.11	1.00	
t-1,2-Dichloroethene	ND	0.099	1.00	
1,3-Butadiene	0.059	0.055	1.00	
1,2,3-Trichlorobenzene	ND	0.19	1.00	
1,2,3-Trichloropropane	ND	0.15	1.00	
Styrene	ND	0.11	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	90	37-163	
1,4-Bromofluorobenzene	99	45-153	
Toluene-d8	93	73-121	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-214-166**	**N/A**	**Air**	**GC/MS DD**	**N/A**	**03/09/15 16:35**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
1,2-Dibromoethane	ND	0.19	1.00	
Dichlorotetrafluoroethane	ND	0.17	1.00	
1,2-Dichloropropane	ND	0.12	1.00	
Bromomethane	ND	0.097	1.00	
c-1,3-Dichloropropene	ND	0.11	1.00	
t-1,3-Dichloropropene	ND	0.11	1.00	
1,1,1-Trichloroethane	ND	0.14	1.00	
1,1,2,2-Tetrachloroethane	ND	0.17	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.19	1.00	
1,1,2-Trichloroethane	ND	0.14	1.00	
1,1-Dichloroethane	ND	0.10	1.00	
1,1-Dichloroethene	ND	0.099	1.00	
1,1-Difluoroethane	ND	0.68	1.00	
1,2,4-Trichlorobenzene	ND	0.19	1.00	
1,2,4-Trimethylbenzene	ND	0.25	1.00	
1,2-Dichlorobenzene	ND	0.15	1.00	
1,2-Dichloroethane	ND	0.10	1.00	
1,3,5-Trimethylbenzene	ND	0.12	1.00	
1,3-Dichlorobenzene	ND	0.15	1.00	
1,4-Dichlorobenzene	ND	0.15	1.00	
1,4-Dioxane	ND	0.90	1.00	
2-Butanone	ND	1.5	1.00	
4-Ethyltoluene	ND	0.25	1.00	
Acetone	ND	1.2	1.00	
Benzene	ND	0.080	1.00	
Bromodichloromethane	ND	0.17	1.00	
Carbon Disulfide	ND	1.6	1.00	
Carbon Tetrachloride	ND	0.063	1.00	
Chlorobenzene	ND	0.12	1.00	
Chloroethane	ND	0.066	1.00	
Chloroform	ND	0.12	1.00	
Chloromethane	ND	0.052	1.00	
Dibromochloromethane	ND	0.21	1.00	
Dichlorodifluoromethane	ND	0.12	1.00	
Ethylbenzene	ND	0.11	1.00	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: EPA TO-15 SIM
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Parameter	Result	RL	DF	Qualifiers
Hexachloro-1,3-Butadiene	ND	0.27	1.00	
Hexane	ND	0.35	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.090	1.00	
Methylene Chloride	ND	0.087	1.00	
Naphthalene	ND	0.052	1.00	
Tetrachloroethene	ND	0.17	1.00	
Toluene	ND	0.19	1.00	
Trichloroethene	ND	0.13	1.00	
Trichlorofluoromethane	ND	0.14	1.00	
Vinyl Chloride	ND	0.026	1.00	
c-1,2-Dichloroethene	ND	0.099	1.00	
o-Xylene	ND	0.11	1.00	
p/m-Xylene	ND	0.11	1.00	
t-1,2-Dichloroethene	ND	0.099	1.00	
1,3-Butadiene	ND	0.055	1.00	
1,2,3-Trichlorobenzene	ND	0.19	1.00	
1,2,3-Trichloropropane	ND	0.15	1.00	
Styrene	ND	0.11	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	94	37-163	
1,4-Bromofluorobenzene	91	45-153	
Toluene-d8	102	73-121	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: GC/MS C6-C12 AS GASOLINE
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IA1	**15-03-0588-1-A**	**03/05/15 13:50**	**Air**	**GC/MS K**	**N/A**	**03/13/15 00:15**	**G150312L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline (C6-C12)	9100	470	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	105	50-150	
1,4-Bromofluorobenzene	98	50-150	
Toluene-d8	104	50-150	

IA1 Dup	**15-03-0588-2-A**	**03/05/15 13:50**	**Air**	**GC/MS K**	**N/A**	**03/13/15 01:07**	**G150312L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline (C6-C12)	12000	470	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	103	50-150	
1,4-Bromofluorobenzene	99	50-150	
Toluene-d8	102	50-150	

IA2	**15-03-0588-3-A**	**03/05/15 14:20**	**Air**	**GC/MS K**	**N/A**	**03/13/15 01:56**	**G150312L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline (C6-C12)	2100	470	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	104	50-150	
1,4-Bromofluorobenzene	98	50-150	
Toluene-d8	104	50-150	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: GC/MS C6-C12 AS GASOLINE
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IAV1	**15-03-0588-4-A**	**03/05/15 13:44**	**Air**	**GC/MS K**	**N/A**	**03/13/15 02:45**	**G150312L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline (C6-C12)	ND	470	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	105	50-150	
1,4-Bromofluorobenzene	97	50-150	
Toluene-d8	105	50-150	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IAV2	**15-03-0588-5-A**	**03/05/15 15:26**	**Air**	**GC/MS K**	**N/A**	**03/13/15 03:37**	**G150312L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline (C6-C12)	610	470	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	106	50-150	
1,4-Bromofluorobenzene	94	50-150	
Toluene-d8	104	50-150	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IAA1	**15-03-0588-6-A**	**03/05/15 13:58**	**Air**	**GC/MS K**	**N/A**	**03/13/15 04:30**	**G150312L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline (C6-C12)	680	470	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	106	50-150	
1,4-Bromofluorobenzene	97	50-150	
Toluene-d8	104	50-150	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: GC/MS C6-C12 AS GASOLINE
Units: ug/m3

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OA1	**15-03-0588-7-A**	**03/05/15 13:38**	**Air**	**GC/MS K**	**N/A**	**03/13/15 05:22**	**G150312L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline (C6-C12)	ND	470	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	106	50-150	
1,4-Bromofluorobenzene	95	50-150	
Toluene-d8	106	50-150	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-16-014-83**	**N/A**	**Air**	**GC/MS K**	**N/A**	**03/12/15 17:21**	**G150312L01**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline (C6-C12)	ND	470	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	105	50-150	
1,4-Bromofluorobenzene	99	50-150	
Toluene-d8	105	50-150	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: SCAQMD 25.1M
Units: %v

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IA1	**15-03-0588-1-A**	**03/05/15 13:50**	**Air**	**GC 65**	**N/A**	**03/09/15 10:41**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
Oxygen (+ Argon)	22	0.50	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IA1 Dup	**15-03-0588-2-A**	**03/05/15 13:50**	**Air**	**GC 65**	**N/A**	**03/09/15 10:59**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
Oxygen (+ Argon)	22	0.50	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IA2	**15-03-0588-3-A**	**03/05/15 14:20**	**Air**	**GC 65**	**N/A**	**03/09/15 11:19**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
Oxygen (+ Argon)	22	0.50	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IAV1	**15-03-0588-4-A**	**03/05/15 13:44**	**Air**	**GC 65**	**N/A**	**03/09/15 11:42**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
Oxygen (+ Argon)	22	0.50	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IAV2	**15-03-0588-5-A**	**03/05/15 15:26**	**Air**	**GC 65**	**N/A**	**03/09/15 12:10**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
Oxygen (+ Argon)	22	0.50	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IAA1	**15-03-0588-6-A**	**03/05/15 13:58**	**Air**	**GC 65**	**N/A**	**03/09/15 12:30**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
Oxygen (+ Argon)	22	0.50	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OA1	**15-03-0588-7-A**	**03/05/15 13:38**	**Air**	**GC 65**	**N/A**	**03/09/15 12:49**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
Oxygen (+ Argon)	22	0.50	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-192-662**	**N/A**	**Air**	**GC 65**	**N/A**	**03/09/15 10:22**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
Oxygen (+ Argon)	ND	0.50	1.00	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: SCAQMD 25.1M
Units: %

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IA1	**15-03-0588-1-A**	**03/05/15 13:50**	**Air**	**GC 14**	**N/A**	**03/09/15 09:31**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
Methane	0.00019	0.00010	1.00	
Carbon Dioxide	0.043	0.00010	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IA1 Dup	**15-03-0588-2-A**	**03/05/15 13:50**	**Air**	**GC 14**	**N/A**	**03/09/15 09:51**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
Methane	0.00018	0.00010	1.00	
Carbon Dioxide	0.043	0.00010	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IA2	**15-03-0588-3-A**	**03/05/15 14:20**	**Air**	**GC 14**	**N/A**	**03/09/15 10:19**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
Methane	0.00018	0.00010	1.00	
Carbon Dioxide	0.041	0.00010	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IAV1	**15-03-0588-4-A**	**03/05/15 13:44**	**Air**	**GC 14**	**N/A**	**03/09/15 10:41**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
Methane	0.00019	0.00010	1.00	
Carbon Dioxide	0.049	0.00010	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IAV2	**15-03-0588-5-A**	**03/05/15 15:26**	**Air**	**GC 14**	**N/A**	**03/09/15 11:08**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
Methane	0.00019	0.00010	1.00	
Carbon Dioxide	0.050	0.00010	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IAA1	**15-03-0588-6-A**	**03/05/15 13:58**	**Air**	**GC 14**	**N/A**	**03/09/15 11:28**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
Methane	0.00019	0.00010	1.00	
Carbon Dioxide	0.070	0.00010	1.00	

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

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Analytical Report

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: SCAQMD 25.1M
Units: %

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OA1	**15-03-0588-7-A**	**03/05/15 13:38**	**Air**	**GC 14**	**N/A**	**03/09/15 11:49**	**150309L01**

Parameter	Result	RL	DF	Qualifiers
Methane	0.00018	0.00010	1.00	
Carbon Dioxide	0.038	0.00010	1.00	

Method Blank	099-12-194-817	N/A	Air	GC 14	N/A	03/09/15 09:08	150309L01

Parameter	Result	RL	DF	Qualifiers
Methane	ND	0.00010	1.00	
Carbon Dioxide	ND	0.00010	1.00	

Return to Contents

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

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Quality Control - LCS/LCSD

Cardno ERI		Date Received:	03/07/15
601 North McDowell Blvd.		Work Order:	15-03-0588
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-021-15055	**LCS**	**Air**	**GC/MS K**	**N/A**	**03/12/15 12:25**	**150312L01**
095-01-021-15055	**LCSD**	**Air**	**GC/MS K**	**N/A**	**03/12/15 13:15**	**150312L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	59.39	69.96	118	70.69	119	67-133	56-144	1	0-30	
Benzene	79.87	82.70	104	81.94	103	70-130	60-140	1	0-30	
Benzyl Chloride	129.4	113.8	88	105.6	82	38-158	18-178	7	0-30	
Bromodichloromethane	167.5	181.1	108	179.8	107	70-130	60-140	1	0-30	
Bromoform	258.4	312.9	121	305.9	118	63-147	49-161	2	0-30	
Bromomethane	97.08	113.4	117	113.9	117	70-139	58-150	0	0-30	
2-Butanone	73.73	78.41	106	77.96	106	66-132	55-143	1	0-30	
Carbon Disulfide	77.85	99.32	128	98.97	127	68-146	55-159	0	0-30	
Carbon Tetrachloride	157.3	156.2	99	156.3	99	70-136	59-147	0	0-30	
Chlorobenzene	115.1	113.2	98	112.1	97	70-130	60-140	1	0-30	
Chloroethane	65.96	75.17	114	74.94	114	65-149	51-163	0	0-30	
Chloroform	122.1	127.1	104	126.6	104	70-130	60-140	0	0-30	
Chloromethane	51.63	60.78	118	60.70	118	69-141	57-153	0	0-30	
Dibromochloromethane	213.0	222.5	104	224.0	105	70-138	59-149	1	0-30	
Dichlorodifluoromethane	123.6	127.7	103	128.9	104	67-139	55-151	1	0-30	
Diisopropyl Ether (DIPE)	104.5	101.1	97	100.2	96	63-130	52-141	1	0-30	
1,1-Dichloroethane	101.2	104.0	103	104.2	103	70-130	60-140	0	0-30	
1,1-Dichloroethene	99.12	121.6	123	120.4	121	70-135	59-146	1	0-30	
1,2-Dibromoethane	192.1	197.3	103	198.1	103	70-133	60-144	0	0-30	
Dichlorotetrafluoroethane	174.8	158.2	91	158.9	91	51-135	37-149	0	0-30	
1,2-Dichlorobenzene	150.3	135.2	90	125.3	83	48-138	33-153	8	0-30	
1,2-Dichloroethane	101.2	103.9	103	103.5	102	70-132	60-142	0	0-30	
1,2-Dichloropropane	115.5	120.0	104	118.2	102	70-130	60-140	1	0-30	
1,3-Dichlorobenzene	150.3	154.1	103	145.9	97	56-134	43-147	5	0-30	
1,4-Dichlorobenzene	150.3	151.0	100	141.6	94	52-136	38-150	6	0-30	
c-1,3-Dichloropropene	113.5	123.0	108	121.3	107	70-130	60-140	1	0-30	
c-1,2-Dichloroethene	99.12	97.08	98	96.34	97	70-130	60-140	1	0-30	
t-1,2-Dichloroethene	99.12	101.5	102	101.7	103	70-130	60-140	0	0-30	
t-1,3-Dichloropropene	113.5	132.6	117	130.2	115	70-147	57-160	2	0-30	
Ethanol	188.4	211.8	112	210.8	112	37-139	20-156	0	0-30	
Ethyl-t-Butyl Ether (ETBE)	104.5	98.36	94	98.90	95	67-130	56-140	1	0-30	
Ethylbenzene	108.6	107.8	99	106.4	98	70-130	60-140	1	0-30	
4-Ethyltoluene	122.9	126.7	103	122.7	100	68-130	58-140	3	0-30	
Hexachloro-1,3-Butadiene	266.6	211.8	79	221.1	83	44-146	27-163	4	0-30	
2-Hexanone	102.4	105.9	103	106.1	104	70-136	59-147	0	0-30	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Cardno ERI	Date Received:	03/07/15
601 North McDowell Blvd.	Work Order:	15-03-0588
Petaluma, CA 94954-2312	Preparation:	N/A
	Method:	EPA TO-15

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Methyl-t-Butyl Ether (MTBE)	90.13	89.57	99	89.09	99	68-130	58-140	1	0-30	
Methylene Chloride	86.84	103.4	119	103.9	120	69-130	59-140	0	0-30	
4-Methyl-2-Pentanone	102.4	111.4	109	108.5	106	70-130	60-140	3	0-30	
Naphthalene	131.1	86.74	66	86.71	66	24-144	4-164	0	0-30	
o-Xylene	108.6	109.0	100	106.8	98	69-130	59-140	2	0-30	
p/m-Xylene	217.1	226.5	104	225.3	104	70-132	60-142	1	0-30	
Styrene	106.5	105.3	99	102.1	96	65-131	54-142	3	0-30	
Tert-Amyl-Methyl Ether (TAME)	104.5	97.44	93	97.82	94	69-130	59-140	0	0-30	
Tert-Butyl Alcohol (TBA)	151.6	168.5	111	169.0	112	66-144	53-157	0	0-30	
Tetrachloroethene	169.6	178.3	105	179.7	106	70-130	60-140	1	0-30	
Toluene	94.21	93.56	99	94.14	100	70-130	60-140	1	0-30	
Trichloroethene	134.3	145.5	108	144.4	107	70-130	60-140	1	0-30	
Trichlorofluoromethane	140.5	156.9	112	156.5	111	63-141	50-154	0	0-30	
1,1,2-Trichloro-1,2,2-Trifluoroethane	191.6	234.2	122	233.8	122	70-136	59-147	0	0-30	
1,1,1-Trichloroethane	136.4	129.5	95	129.0	95	70-130	60-140	0	0-30	
1,1,2-Trichloroethane	136.4	145.1	106	141.8	104	70-130	60-140	2	0-30	
1,3,5-Trimethylbenzene	122.9	121.1	99	115.1	94	62-130	51-141	5	0-30	
1,1,2,2-Tetrachloroethane	171.6	171.9	100	168.1	98	63-130	52-141	2	0-30	
1,2,4-Trimethylbenzene	122.9	126.6	103	121.0	98	60-132	48-144	5	0-30	
1,2,4-Trichlorobenzene	185.5	131.8	71	133.1	72	31-151	11-171	1	0-30	
Vinyl Acetate	88.03	57.90	66	57.63	65	58-130	46-142	0	0-30	
Vinyl Chloride	63.91	72.49	113	72.79	114	70-134	59-145	0	0-30	

Total number of LCS compounds: 57
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Cardno ERI		Date Received:	03/07/15
601 North McDowell Blvd.		Work Order:	15-03-0588
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	EPA TO-15 SIM
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 3 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-214-166	**LCS**	**Air**	**GC/MS DD**	**N/A**	**03/09/15 14:01**	**150309L01**
099-15-214-166	**LCSD**	**Air**	**GC/MS DD**	**N/A**	**03/09/15 14:51**	**150309L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
1,2-Dibromoethane	3.842	3.087	80	3.314	86	50-150	33-167	7	0-30	
Dichlorotetrafluoroethane	3.495	2.367	68	2.074	59	50-150	33-167	13	0-30	
1,2-Dichloropropane	2.311	1.891	82	2.074	90	50-150	33-167	9	0-30	
Bromomethane	1.942	1.661	86	1.489	77	50-150	33-167	11	0-30	
c-1,3-Dichloropropene	2.269	1.940	85	2.158	95	50-150	33-167	11	0-30	
t-1,3-Dichloropropene	2.269	2.273	100	2.558	113	50-150	33-167	12	0-30	
1,1,1-Trichloroethane	2.728	2.133	78	2.346	86	50-150	33-167	10	0-30	
1,1,2,2-Tetrachloroethane	3.433	2.893	84	2.790	81	50-150	33-167	4	0-30	
1,1,2-Trichloro-1,2,2-Trifluoroethane	3.832	3.331	87	3.365	88	50-150	33-167	1	0-30	
1,1,2-Trichloroethane	2.728	2.240	82	2.479	91	27-171	3-195	10	0-38	
1,1-Dichloroethane	2.024	1.704	84	1.742	86	50-150	33-167	2	0-30	
1,1-Dichloroethene	1.982	1.878	95	1.809	91	50-150	33-167	4	0-30	
1,1-Difluoroethane	1.351	1.333	99	1.370	101	50-150	33-167	3	0-30	
1,2,4-Trichlorobenzene	3.711	3.007	81	3.168	85	50-150	33-167	5	0-30	
1,2,4-Trimethylbenzene	2.458	1.930	79	1.906	78	50-150	33-167	1	0-30	
1,2-Dichlorobenzene	3.006	2.537	84	2.551	85	50-150	33-167	1	0-30	
1,2-Dichloroethane	2.024	1.629	80	1.645	81	28-166	5-189	1	0-40	
1,3,5-Trimethylbenzene	2.458	2.162	88	2.113	86	50-150	33-167	2	0-30	
1,3-Dichlorobenzene	3.006	2.609	87	2.607	87	50-150	33-167	0	0-30	
1,4-Dichlorobenzene	3.006	2.594	86	2.610	87	50-150	33-167	1	0-30	
1,4-Dioxane	1.802	1.292	72	1.376	76	60-140	47-153	6	0-30	
4-Ethyltoluene	2.458	2.063	84	1.987	81	50-150	33-167	4	0-30	
Benzene	1.597	1.350	85	1.474	92	27-153	6-174	9	0-34	
Bromodichloromethane	3.350	2.751	82	2.978	89	50-150	33-167	8	0-30	
Carbon Tetrachloride	3.146	2.452	78	2.650	84	7-187	0-217	8	0-31	
Chlorobenzene	2.302	2.026	88	2.022	88	50-150	33-167	0	0-30	
Chloroethane	1.319	1.112	84	1.027	78	50-150	33-167	8	0-30	
Chloroform	2.441	2.076	85	1.963	80	50-150	33-167	6	0-30	
Chloromethane	1.033	1.007	98	0.8997	87	50-150	33-167	11	0-30	
Dibromochloromethane	4.259	3.508	82	3.801	89	50-150	33-167	8	0-30	
Dichlorodifluoromethane	2.473	2.041	83	1.903	77	50-150	33-167	7	0-30	
Ethylbenzene	2.171	2.044	94	1.931	89	27-153	6-174	6	0-46	
Hexachloro-1,3-Butadiene	5.333	4.298	81	4.573	86	50-150	33-167	6	0-30	
Methyl-t-Butyl Ether (MTBE)	1.803	1.575	87	1.646	91	50-150	33-167	4	0-30	
Methylene Chloride	1.737	1.514	87	1.480	85	50-150	33-167	2	0-30	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: EPA TO-15 SIM

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Naphthalene	2.621	1.802	69	1.837	70	50-150	33-167	2	0-30	
Tetrachloroethene	3.391	2.877	85	3.045	90	34-154	14-174	6	0-33	
Toluene	1.884	1.536	82	1.700	90	28-154	7-175	10	0-42	
Trichloroethene	2.687	2.244	84	2.454	91	43-139	27-155	9	0-31	
Trichlorofluoromethane	2.809	2.143	76	2.170	77	50-150	33-167	1	0-30	
Vinyl Chloride	1.278	1.112	87	1.019	80	44-140	28-156	9	0-33	
c-1,2-Dichloroethene	1.982	1.655	83	1.650	83	35-165	13-187	0	0-35	
o-Xylene	2.171	1.994	92	1.907	88	22-160	0-183	4	0-48	
p/m-Xylene	4.342	4.013	92	3.900	90	21-165	0-189	3	0-51	
t-1,2-Dichloroethene	1.982	1.636	83	1.621	82	50-150	33-167	1	0-30	
1,2,3-Trichlorobenzene	3.711	3.184	86	3.323	90	50-150	33-167	4	0-30	
1,2,3-Trichloropropane	3.015	2.715	90	2.651	88	50-150	33-167	2	0-30	
Styrene	2.130	2.085	98	1.924	90	50-150	33-167	8	0-30	

Total number of LCS compounds: 48
Total number of ME compounds: 0
Total number of ME compounds allowed: 2
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Cardno ERI
601 North McDowell Blvd.
Petaluma, CA 94954-2312

Project: 580 Market Place Shopping Center / Cardno ATC
Project #075.75354.0002

Date Received: 03/07/15
Work Order: 15-03-0588
Preparation: N/A
Method: GC/MS C6-C12 AS GASOLINE

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-16-014-83	**LCS**	**Air**	**GC/MS K**	**N/A**	**03/12/15 14:05**	**G150312L01**
099-16-014-83	**LCSD**	**Air**	**GC/MS K**	**N/A**	**03/12/15 14:55**	**G150312L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline (C6-C12)	4663	3995	86	3968	85	50-150	1	0-30	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Cardno ERI		Date Received:	03/07/15
601 North McDowell Blvd.		Work Order:	15-03-0588
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	SCAQMD 25.1M
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 6 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-192-662	**LCS**	**Air**	**GC 65**	**N/A**	**03/09/15 09:43**	**150309L01**
099-12-192-662	**LCSD**	**Air**	**GC 65**	**N/A**	**03/09/15 10:05**	**150309L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Oxygen (+ Argon)	4.010	4.133	103	4.129	103	80-120	0	0-20	
Nitrogen	69.50	69.29	100	69.19	100	80-120	0	0-20	
Methane	4.500	4.333	96	4.327	96	80-120	0	0-20	
Carbon Monoxide	6.990	6.691	96	6.678	96	80-120	0	0-20	
Carbon Dioxide	15.00	14.79	99	14.76	98	80-120	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Cardno ERI		Date Received:	03/07/15
601 North McDowell Blvd.		Work Order:	15-03-0588
Petaluma, CA 94954-2312		Preparation:	N/A
		Method:	SCAQMD 25.1M
Project: 580 Market Place Shopping Center / Cardno ATC Project #075.75354.0002			Page 7 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-194-817	**LCS**	**Air**	**GC 14**	**N/A**	**03/09/15 08:27**	**150309L01**
099-12-194-817	**LCSD**	**Air**	**GC 14**	**N/A**	**03/09/15 08:48**	**150309L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Methane	0.01000	0.009051	91	0.009377	94	80-120	4	0-20	
Carbon Dioxide	0.01040	0.008877	85	0.009690	93	80-120	9	0-20	
Carbon Monoxide	0.01010	0.008461	84	0.008792	87	80-120	4	0-20	
TGNMO	0.03000	0.02726	91	0.02824	94	80-120	4	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Summa Canister Vacuum Summary

Work Order: 15-03-0588 Page 1 of 1

Sample Name	Vacuum Out	Vacuum In	Equipment	Description
IA1	-29.80 in Hg	0.30 psi	D909	Summa Canister 6L
IA1 Dup	-29.70 in Hg	-3.80 in Hg	D632	Summa Canister 6L
IA2	-29.70 in Hg	-4.60 in Hg	D848	Summa Canister 6L
IAV1	-29.70 in Hg	-4.50 in Hg	D093	Summa Canister 6L
IAV2	-29.70 in Hg	-4.30 in Hg	D820	Summa Canister 6L
IAA1	-29.70 in Hg	-4.40 in Hg	D563	Summa Canister 6L
OA1	-29.70 in Hg	-3.50 in Hg	D851	Summa Canister 6L

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Sample Analysis Summary Report

Work Order: 15-03-0588 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA TO-15	N/A	953	GC/MS K	2
EPA TO-15 SIM	N/A	460	GC/MS DD	2
GC/MS C6-C12 AS GASOLINE	N/A	953	GC/MS K	2
SCAQMD 25.1M	N/A	834	GC 14	2
SCAQMD 25.1M	N/A	834	GC 65	2

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Glossary of Terms and Qualifiers

Work Order: 15-03-0588 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.
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.

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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.

AIR CHAIN-OF-CUSTODY RECORD

WO NO. / LAB USE ONLY: **15-03-0588**

DATE: 03/06/2015

PAGE: 1 OF 1

LABORATORY CLIENT: Cardno ATC	CLIENT PROJECT NAME / NO.: 580 Market Place Shopping Center / Cardno ATC Project # 075.75354.0002
ADDRESS: 2400 Camino Ramon, Suite 360	P.O. NO.:
CITY: San Ramon STATE: CA ZIP: 94583	PROJECT CONTACT: Gabe Stivala
TEL: (707) 766-2000 E-MAIL: gabe.stivala@cardno.com	LAB CONTACT OR QUOTE NO.:
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"): ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS ☐ STANDARD	PROJECT ADDRESS: 3735-4065 East Castro Valley Boulevard
EDD: ☒ COELT EDF ☐ OTHER UNITS:	SAMPLER(S): (PRINT) Vince Battaglia
	CITY: Castro Valley STATE: CA ZIP: 94552

SPECIAL INSTRUCTIONS:

***SCAQMD 25.1 = CO2, O2, and CH4 (% Volume)**
15 Scan includes VOCs (full scan), BTEX, chlorinated volatile organic compounds
***Report final vacuum readings**
***Reporting Limits - ug/m^3**
***Report Lowest dilution possible**
***Global ID = T10000004345**

***TO-**

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	FIELD ID / POINT OF COLLECTION	MATRIX: Indoor (I) Soil Vap. (SV) Ambient (A)	SAMPLING EQUIPMENT: Media ID	Canister Size 6L or 1L	Flow Controller ID	START SAMPLING INFORMATION: Date	Time (24 hr clock)	Canister Pressure (in Hg)	STOP SAMPLING INFORMATION: Date	Time (24 hr clock)	Canister Pressure (in Hg)	TO-15 Scan	TPHg (C6-C12) by TO-15	CO_2, O_2, CH_4,Ar	TO-15 SIM	
1	IA1	IA1	I	D909	6L	FC160	3/4/2015	1531	30	3/5/2015	1350	3	X	X	X	X	
2	IA1 Dup	IA1	I	D632	6L	FC314	3/4/2015	1531	30	3/5/2015	1350	5	X	X	X	X	
3	IA2	IA2	I	D848	6L	FC375	3/4/2015	1531	30	3/5/2015	1420	6	X	X	X	X	
4	IAV1	IAV1	I	D093	6L	FC262	3/4/2015	1532	31	3/5/2015	1344	4	X	X	X	X	
5	IAV2	IAV2	I	D820	6L	FC343	3/4/2015	1532	30	3/5/2015	1526	7	X	X	X	X	
6	IAA1	IAA1	I	D563	6L	FC171	3/4/2015	1533	30	3/5/2015	1358	5	X	X	X	X	
7	OA1	OA1	A	D851	6L	FC23	3/4/2015	1534	32	3/5/2015	1338	5	X	X	X	X	

Relinquished by: (Signature) Vint Battaglia 3/6/15	Received by: (Signature/Affiliation) Tom O'Malley ECI	Date: 3/6/15	Time: 0955
Relinquished by: (Signature) Tom O'Malley TOGO 3/6/15 1730	Received by: (Signature/Affiliation) ECI	Date: 03/07/15	Time: 0920
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

2014-07-01 Revision

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Ship To
CEL
SAMPLE RECEIVING
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD: $0.00
Weight: 0 lb(s)
Reference:
CARDNO ERI
Delivery Instructions:

Signature Type: REQUIRED

Tracking #: 527164508

SDS

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GARDEN GROVE

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34981108

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Ship To
CEL
SAMPLE RECEIVING
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD: $0.00
Weight: 0 lb(s)
Reference:
CARDNO ERI
Delivery Instructions:

Signature Type: REQUIRED

Tracking #: 527164509

SDS

ORC
GARDEN GROVE

A

D92845A

34981109

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Package 2 of 2

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WORK ORDER #: 15-03-0588

SAMPLE RECEIPT FORM

Cooler 6 of 6

CLIENT: Cardno ATC

DATE: 03 / / 15

TEMPERATURE: Thermometer ID: SC4 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature ____.____ °C + 0.2 °C (CF) = ____.____ °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.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☑ Air ☐ Filter Checked by: ZT

CUSTODY SEALS INTACT:

☐ Cooler ☑ Box ☐ No (Not Intact) ☐ Not Present ☐ N/A Checked by: ZT

☐ Sample ☐ _____ ☐ No (Not Intact) ☑ Not Present Checked by: 965

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Aqueous: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☑Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** 965

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** ZT

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** ZT

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APPENDIX F

FACT SHEET

Fact Sheet on Environmental Assessment

580 Market Place Shopping Center
3937 Castro Valley Boulevard,
Castro Valley, Alameda County
ACEH File No. RO0003097

This fact sheet is being provided to describe site background, past work to investigate site contamination, next steps, the oversight process for the site, and how you can obtain more information.

December 2014

Summary
The Alameda County Environmental Health Department (ACEH) is issuing this fact sheet to inform you of ongoing investigation work at the Dryclean 580 facility (site), which is located in the 580 Market Place Shopping Center, at 3937 East Castro Valley Boulevard, Castro Valley, California (Figure 1). The purpose of the investigation work is to gather more information on the nature and extent of contamination on site and, if necessary, off site. This fact sheet contains information concerning site background, results of recent investigations, and planned investigation activities, and information contacts. A glossary of certain terms also is included.

Background
The subject site is an active dry cleaning facility located within the 580 Market Place Shopping Center, north of Interstate 580, southeast of East Castro Valley Boulevard, and west of Chaparral Lane in the City of Castro Valley. The site was developed as part of a 10.21 acre retail shopping center in 1990. Dryclean 580 has operated at 3937 East Castro Valley Boulevard since 1990. From 1990 to at least 1997, the dry cleaning equipment used the chlorinated dry cleaning chemical tetrachloroethene (PCE) or 'perc'. As early as the year 2000, the dry cleaning at the site discontinued the use of PCE as a solvent and replaced it with a non-chlorinated hydrocarbon-based solvent. Current surrounding land use is commercial within the 580 Market Place Shopping Center.

Recent Investigation Activities
Environmental investigations were performed at the site from 1994 to 2014. The investigations identified the presence of PCE and its breakdown products (collectively known as volatile organic compounds (VOCs) in both soil and soil vapor at levels greater than applicable regulatory agency screening levels. The main VOCs of concern at the site consist of PCE, trichloroethene (TCE), and vinyl chloride. Additionally, petroleum hydrocarbons including benzene and naphthalene have been detected. Concentrations of these compounds exceeding applicable regulatory agency screening levels were found in soil vapor to a depth of 11 feet below ground surface (bgs) and in soil to a depth of 15 feet bgs. The presence of these chemicals at concentrations exceeding regulatory screening levels does not indicate that adverse impacts to human health or the environment are necessarily occurring, but rather that additional evaluation is warranted.

VOCs are able to move in the environment, from soil to groundwater, from groundwater to soil, and from groundwater or soil to air. The groundwater in this area is not used for drinking water or other household/industrial purposes. Of particular interest is the potential for movement of VOCs into the inside of buildings where people could be exposed to contaminated indoor air. This process is called vapor intrusion into indoor air.

The data indicate that the highest concentrations of PCE in soil vapor and soil occur in an area near the back side (south side) of the facility, and extend beneath the two immediately adjacent shopping center units as well as a portion of the rear parking/loading area. Soil vapor data collected along sewer laterals indicate the possibility that contamination has migrated along these pathways.

Fact Sheet on Environmental Assessment

3937 Castro Valley Boulevard, Castro Valley

December 2014

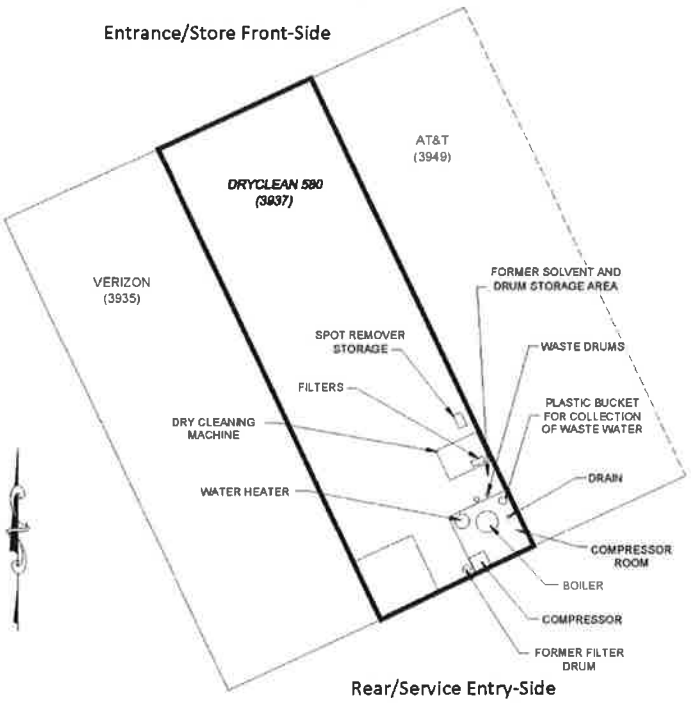


FIGURE 2

Next Steps

Because more information is needed, an investigation is currently being planned to further delineate the extent of VOCs in soil, soil vapor, subslab gas, and indoor air at the site. This investigation will include collection subsurface samples including soil vapor, soil and groundwater samples vicinity of the Dryclean 580 and neighboring units (Figure 2). Vapor monitoring wells may also be installed to allow for evaluation of concentration trends over time. Also, indoor air samples will be collected from the dry cleaning facility and the adjacent neighboring units to evaluate vapor intrusion risks.

Timeline

As noted above, additional investigation is currently being planned. A work plan for the work is being reviewed by the ACEH as of December 2014. It is anticipated that field work may be implemented in late December 2014 or early as January 2015 and a report documenting the results will be completed in the February 2014. Following the additional investigation, some cleanup may be needed.

If cleanup appears to be necessary, a Corrective Action Plan (CAP) will be prepared, and another fact sheet will be mailed before additional work is started.

Glossary of Terms

Soil Vapor – Soil vapor refers to the air that is present in the open spaces between soil particles between the ground surface and the water table. It includes air (primarily oxygen and nitrogen, like above ground), water vapor, and occasionally pollutants.

Subslab Gas – Subslab gas refers to the air that is present in the open spaces between soil particles and backfill material immediately beneath a building slab. It includes air (primarily oxygen and nitrogen, like above ground), water vapor, and occasionally pollutants.

Volatile organic compounds (VOCs) – VOCs are organic liquids, including many common solvents that readily evaporate at temperatures normally found at ground surface and at shallow depths. Many VOCs are known human carcinogens. Examples of VOC usage include dry cleaning solvent, carburetor cleaner, brake cleaner, and paint solvents.

How to Get More Information

We invite you to comment on this project. All written and verbal comments received by Alameda County Environmental Health will be considered if received by January 2, 2014.

There are several ways that interested parties will be informed of future work. First, information repositories are being established where reports, data, work plans, and other materials can be viewed. One is the Alameda County Environmental Health Department's website at http://www.acgov.org/aceh/index.htm, where the electronic files for the case are available on-line.

For More Information
Please contact any of the following individuals with any questions or concerns you may have:

Karel Detterman, ACEH Case Manager
510-567-6708, karel.detterman@acgov.org

Gabe Stivala, Cardno ATC, Environmental Consultant,
916-386-3870,

APPENDIX G

BUILDING SURVEY AND INDOOR AIR MONITORING FORMS

APPENDIX L - BUILDING SURVEY FORM

Preparer's Name: JB Bibbitt Date/Time Prepared: 02/25/2015
Affiliation: CARDNO ERI Phone Number: 707 332 8804

Occupant Information

Occupant Name: DRY CLEAN S&O Interviewed: ☒ Yes ☐ No
Mailing Address: 580 MARKET PLACE CENTER
City: CASTRO VALLEY State: CA Zip Code: _____
Phone: _____ Email: _____

Owner/Landlord Information (Check if same as occupant ☐)

~~Occupant~~ Name: WEINGARTEN REALTY INVESTORS Interviewed: ☐ Yes ☒ No
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Phone: _____ Email: _____

Building Type (Check appropriate boxes)

☐ Residential ☐ Residential Duplex ☐ Apartment Building ☐ Mobile Home ☐ Commercial (office)
☐ Commercial (warehouse) ☒ Industrial ☐ Strip Mall ☐ Split Level ☐ Church ☐ School
Dry cleaner Building

Building Characteristics

Approximate Building Age (years): _____ Number of Stories: 1
Approximate Building Area (square feet): _____ Number of Elevators: 0

Foundation Type (Check appropriate boxes)

☒ Slab-on-Grade ☐ Crawl Space ☐ Basement

Basement Characteristics (Check appropriate boxes)

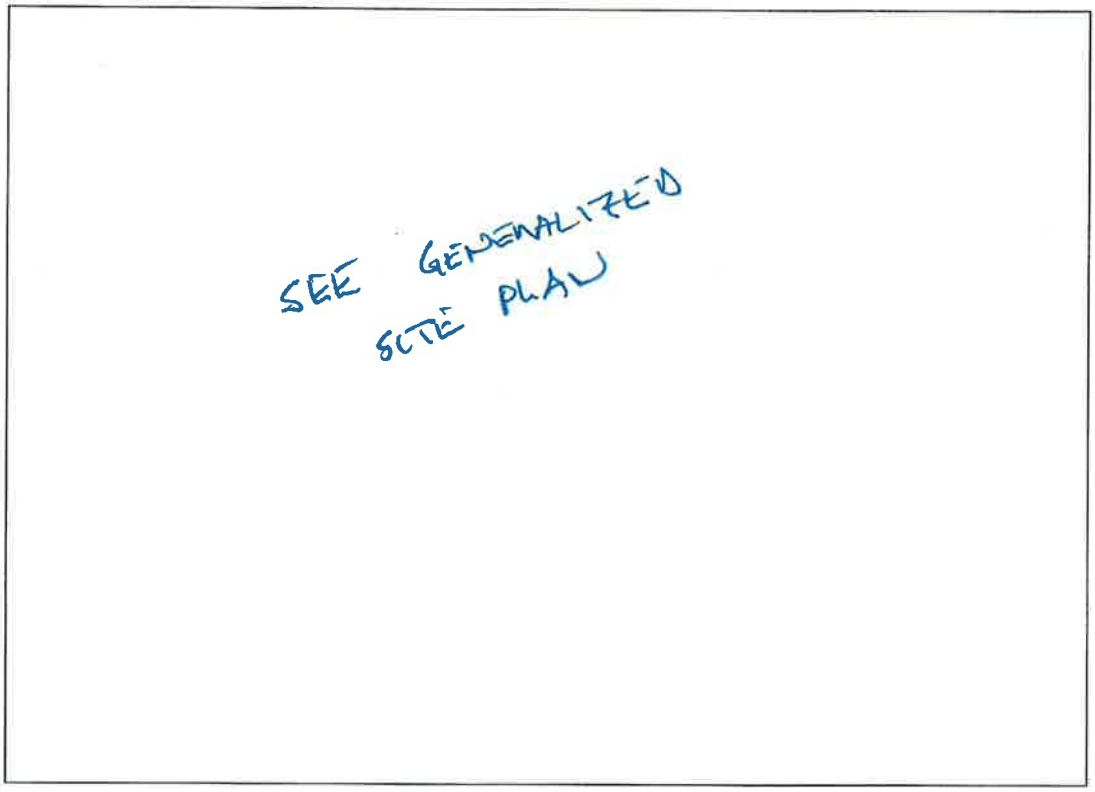
☐ Dirt Floor ☐ Sealed ☐ Wet Surfaces ☐ Sump Pump ☐ Concrete Cracks ☐ Floor Drains

Factors Influencing Indoor Air Quality

Is there an attached garage?	☐ Yes ☒ No		
Is there smoking in the building?	☐ Yes ☒ No		
Is there new carpet or furniture?	☐ Yes ☒ No	Describe:	
Have clothes or drapes been recently dry cleaned?	☒ Yes ☐ No	Describe:	dry cleaner / laundry
Has painting or staining been done with the last six months?	☐ Yes ☒ No	Describe:	
Has the building been recently remodeled?	☐ Yes ☒ No	Describe:	
Has the building ever had a fire?	☐ Yes ☒ No		
Is there a hobby or craft area in the building?	☐ Yes ☒ No	Describe:	
Is gun cleaner stored in the building?	☐ Yes ☒ No		
Is there a fuel oil tank on the property?	☐ Yes ☒ No		
Is there a septic tank on the property?	☐ Yes ☒ No		
Has the building been fumigated or sprayed for pests recently?	☐ Yes ☒ No	Describe:	
Do any building occupants use solvents at work?	☒ Yes ☐ No	Describe:	dry cleaner

Sampling Locations

Draw the general floor plan of the building and denote locations of sample collection. Indicate locations of doors, windows, indoor air contaminant sources and field instrument readings.



Primary Type of Energy Used (Check appropriate boxes)

☑ Natural Gas ☐ Fuel Oil ☐ Propane ☒ Electricity ☐ Wood ☐ Kerosene

Meteorological Conditions

Describe the general weather conditions during the indoor air sampling event.

CALM ; SUNNY

General Comments

Provide any other information that may be of importance in understanding the indoor air quality of this building.

HVAC not operated; open back door cooler

APPENDIX M – BUILDING SCREENING FORM

Occupant of Building DRY CLEAN 580

Address 580 MARKET PLACE CENTER

City CASTRO VALLEY, CA

Field Investigator J. B. BOBBETT Date 02.25.2015

Field Instrument Reading	Measurement Location (Ambient Air, Foundation Opening, or Consumer Product)	If Consumer Product, Potential Volatile Ingredients
- - -	STREET PRO 12 oz bottle	
	Blood, egg, perspiration	
- - -	RUST GO 12 oz bottle	
	corrosive - poison	
	hydrofluoric acid;	
	ammonia bifluoride	
2-4 ppmv	Fulton Biker work - spray paint	
	xylene barium sulfate	
	propane n-butane	
	petroleum solvent	
- - -	Yellow GO Dye stripper 1 qt	
	titanium sulfate	
	sulfuric acid	
	citric acid	
	ammonium bisulfide	
- - -	CALEX TEFLON 1 gal	

Comments:
BACK DOOR KEPT OPEN, no obvious hc odor
AMBIENT AIR: 4-8 ppmv PID

APPENDIX M – BUILDING SCREENING FORM

Occupant of Building: Dry clean 550

Address: 550 Market Place Center

City: CASTRO VALLEY, CA

Field Investigator: J. B. Babbitt Date: 2.25.2015

Field Instrument Reading	Measurement Location (Ambient Air, Foundation Opening, or Consumer Product)	If Consumer Product, Potential Volatile Ingredients
4-10 ppmv	CALED Hydroclean P.O.G.	
	Dry side POG for hydrocarbon solvent	
	hexane	
	aliphatic hydrocarbon	
	2-4 methyl pentanediol	
	petroleum hydrocarbon	
4-10 ppmv	STREETER Spray spotter 1 gal	
---	cleaner's supply Slick Rail Cleaner	
	for vegetable wax, pet. wax	
	KOH, ammonium hydroxide	
4-6 ppmv	Rodex anti-fraction silicon spray	
	propane, butane, heptane	
	polydimethyl siloxane	
---	Ex-It odor control Fabric Softener	
	iso propanol, cationic	
---	Bright Line spot out 1 gal	
	3% elemental phosphorous	

Comments:

APPENDIX M – BUILDING SCREENING FORM

Occupant of Building: Dry Clean 580

Address: 580 Market Place Center

City: CASTRO VALLEY CA

Field Investigator: J B Babbitt Date: 2-25-2015

Field Instrument Reading	Measurement Location (Ambient Air, Foundation Opening, or Consumer Product)	If Consumer Product, Potential Volatile Ingredients
12-18 ppm	Exxon DF 2000 2 5 gal drums	
	(naptha)	
- - -	2-1 Formula	
- - -	555 Silk spotter	
	oily base PCE	
- - -	Aquanol neutral lubricant	
- - -	Levelor leveling Agent	
- - -	Revour enzyme digester	
- - -	Sparkle	
- - -	Formula 409	
6-8 ppm	WD-40	
- - -	Blue K-25	
- - -	Unipress, Unisol	
- - -	Bleach	
- - -	Ammonia	
- - -	Ajax	
- - -	organic hand cleaner	

Comments: