NEW MEXICO ENVIRONMENT DEPARTMENT VOLUNTARY REMEDIATION AGREEMENT

I. Introduction

This Voluntary Remediation Agreement ("Agreement") is entered into voluntarily by MW Development LLC, represented by Hugo Hinojosa, President/CEO, who is duly authorized and appointed ("Participant") and the secretary of the New Mexico Environment Department ("Department"), or his or her designee, pursuant to the Voluntary Remediation Act, NMSA 1978, Sections 74-4G-1 to -12 (1997, as amended through 2006), and the New Mexico Voluntary Remediation Regulations (20.6.3 NMAC). The purpose of this Agreement is to detail the obligations and functions of each party relevant to the remediation to be conducted at the Copper Pointe - Unit A-1 and Unit C ("Site"), located at 10500 Copper Avenue NE in Albuquerque, under the Voluntary Remediation Program (VRP Site No. 53201001).

The activities conducted by the Participant under this Agreement are subject to approval by the Department. The activities conducted by the Participant shall be consistent with this Agreement, all applicable laws and regulations, and any pertinent guidance documents. The Participant shall employ sound scientific, engineering, and construction practices in the voluntary remediation activities at this Site.

II. Statement of Eligibility

The secretary or his designee has determined that the application, consisting of a Phase I Environmental Site Assessment, and Preliminary VRP Work Plan, submitted by the Participant to the Department on March 31, 2020, is complete, and that the Participant is eligible to enter into this Agreement in accordance with NMSA 1978, Section 74-4G-5 (1997) and 20.6.3.200.A NMAC.

III. Parties Bound

This Agreement shall apply to and be binding upon the Participant, its officers, managing agents, directors, principals, partners, employees, receivers, trustees, agents, parents, subsidiaries and affiliates, and upon the Department, its employees, and agents. The Participant has submitted with the application a signed Declaration of Ability and Intent as set forth in 20.6.3.200.B(2) NMAC. No change in ownership, corporate, or partnership status shall in any way alter the Participant's status or responsibilities under this Agreement unless the Participant or Department terminates this Agreement in accordance with 20.6.3.300.H NMAC.

The Participant shall provide a copy of this Agreement to any subsequent owners or successors before ownership rights are transferred. The Participant shall provide a copy of this Agreement to all contractors, subcontractors, laboratories, and consultants or other parties, which are retained by the Participant, to conduct any work under this Agreement, within 14 days after the effective date of this Agreement or within 14 days of the date of retaining their services.

IV. Designated Project Manager

On or before the effective date of this Agreement, the Department shall designate a project manager. The Primary Applicant specified on the Voluntary Remediation Program Application

will function as the project manager for the Participant. Each project manager shall be responsible for overseeing the implementation of this Agreement. The Department project manager will be the Department-designated representative at the Site. To the maximum extent possible, communications between the Participant and Department and all documents (including reports, approvals, and other correspondence) concerning the activities performed pursuant to the terms and conditions of this Agreement shall be directed through the project managers. During implementation of this Agreement, the project managers shall, whenever possible, operate by consensus and shall attempt in good faith to resolve disputes informally through discussion of the issues. Each party has the right to change its respective project manager by notifying the other party in writing at least five days prior to the change.

V. Definitions

"Site" means the area described in the Voluntary Remediation Application. This description is attached and incorporated herein as Exhibit 1. All other terms used are defined in NMSA 1978, Section 74-4G-3 (1997) and 20.6.3.7 NMAC.

VI. Addresses for All Correspondence

Documents, including reports, approvals, notifications, disapprovals, and other correspondence to be submitted under this Agreement, may be sent by certified mail, first class mail, hand delivery, overnight mail, or by courier service to the following addresses or to such addresses as the Participant or Department designates in writing.

Documents to be submitted to the Department should be sent to:

Mailing Address:

Savannah Richards

Ground Water Quality Bureau

New Mexico Environment Department

P.O. Box 5469

Santa Fe, NM 87502

E-mail: savannah.richards@state.nm.us

Phone number: (505) 827-3253 Fax number: (505) 827-2965 **Physical Address:**

Savannah Richards

Ground Water Quality Bureau

New Mexico Environment Department

1190 St. Francis Drive Santa Fe, NM 87505

Documents to be submitted to the Participant should be sent to:

Mailing Address:

Hugo Hinojosa

MW Development

190 Central Park Square #301 Los Alamos, NM 87544 <u>Physical Address:</u>

Hugo Hinojosa MW Development

190 Central Park Square #301

Los Alamos, NM 87544

VII. Compliance with Applicable Laws

All work undertaken by the Participant pursuant to this Agreement shall be performed in compliance with all applicable federal, state and local laws, ordinances and regulations, including,

but not limited to all Occupational Safety and Health Administration, Department of Transportation, Resource Conservation and Recovery Act, New Mexico Water Quality Control Commission, and New Mexico Environmental Improvement Board Petroleum Storage Tank regulations. In the event of a conflict between federal, state, or local laws, ordinances, or regulations, the Participant shall comply with the most stringent of such laws, ordinances, or regulations, unless provided otherwise in writing by the Department or other appropriate regulatory personnel with jurisdiction over such laws, ordinances, and regulations. Where it is determined that a permit is required under federal, state or local laws, ordinances, or regulations, the Participant shall submit timely and complete applications and take all other actions necessary to obtain all such permits or approvals. The Participant shall be responsible for obtaining all permits that are necessary for the performance of the work hereunder, and for all ongoing or proposed Site activities, and for all ongoing or proposed facility operations.

VIII. Performance Standards and Associated Requirements

The Participant has submitted with its application to the Department a preliminary work plan describing the proposed voluntary remediation activities as they are currently envisioned as being submitted in a final voluntary remediation work plan, which includes a description of the known and suspected contaminants to be addressed by the proposed voluntary remediation activities. This preliminary work plan was prepared pursuant to 20.6.3.200.B NMAC. A copy of the preliminary work plan is attached and incorporated herein as Exhibit 2.

The contaminants covered by this Agreement are described as follows:

• <u>Indoor Air</u>: Volatile organic compounds (VOCs) including Trichloroethene, 1,1-Dichloroethene, cis-1,2-Dichloroethene, trans-1,2-Dichloroethene, and Vinyl Chloride

Voluntary remediation activities undertaken pursuant to this Agreement shall achieve the following standards or risk-based levels:

• New Mexico Environment Department Risk Assessment Guidance for Site Investigations and Remediation, June 2019

It is understood that the parties may wish to modify the list of contaminants and the media in which the contaminants are located, as covered by this Agreement, as additional information about the Site is developed. The Department may approve such changes through approval of work plans and other submittals provided by the Participant during the course of undertaking voluntary remediation activities.

IX. Access

To the extent that the Site or other areas where work is to be performed hereunder are presently owned or controlled by parties other than those bound by this Agreement, the Participant shall obtain or shall use its best efforts to obtain access agreements from the present owners. Best efforts shall include, at a minimum, certified letters from Participant to the present owners of such properties requesting access agreements to permit the Participant, Department, and their authorized

representatives' access to such property. Such agreements shall provide access for the Department and authorized representatives of the Department, as specified below. In the event that such access agreements are not obtained, the Participant shall so notify the Department, which may then, at its discretion, assist the Participant in gaining access.

The Participant shall provide authorized representatives of the Department access to the Site and other areas where work is to be performed at all reasonable times. Such access shall be related solely to the work being performed on the Site pursuant to this Agreement and may include, but is not limited to: inspecting and copying of Site and facility records; reviewing the progress of the Participant in carrying out the terms of this Agreement; conducting such tests, inspections, and sampling as the Department may deem necessary; using a camera, sound recording, or other documentary type equipment for field activities; and verifying the data submitted to the Department by the Participant hereunder. Prior to conducting remediation activities, the Participant shall provide a minimum of 72 hours' notice to the Department to allow observation of Site activities and to allow the Department's authorized representatives to collect split samples, at the Department's discretion. The Participant shall permit the Department's authorized representatives to inspect and copy all records, files, photographs, documents, and other writings, including all sampling and monitoring data, which pertain to this Agreement and over which the Participant exercises authority.

X. <u>Deliverables and Submittal Schedule</u>

A. Final Voluntary Remediation Work Plan

In accordance with 20.6.3.400 NMAC, the Participant shall submit to the Department a proposed final voluntary remediation work plan, detailing investigation and remediation activities to be undertaken to achieve the performance standards described in Section VIII of this Agreement. At a minimum, the final work plan must include the elements listed in 20.6.3.400.B NMAC.

Submittal Schedule:

The proposed final work plan shall be submitted by the Participant no later than 45 days after this Agreement has been signed.

If the work plan is to be prepared in phases, the work plan for the first phase shall be submitted no later than 45 days after this Agreement has been signed. Following completion, to the Department's satisfaction, of the work which is the subject of the final work plan for the first phase, the Department may require submission of one or more proposed final work plans for subsequent phases.

Department Review:

The secretary or his designee shall review and approve, approve with conditions, or disapprove a proposed final work plan within 45 days of receipt. Written notice shall be made of any conditions or deficiencies. If the secretary or his designee disapproves a final work plan, the Participant may be granted an opportunity to submit a revised version, as determined by the secretary or his designee.

Modification of Voluntary Remediation Work Plan:

The approved final voluntary remediation work plan may be modified at the request of the Participant and/or the Department, with both parties' approval, in accordance with 20.6.3.400.D NMAC.

B. Periodic Status Reports

The Participant shall submit periodic status reports, which detail activities completed for the reporting period and those planned for the upcoming reporting period, to the Department for the duration of this Agreement. The status report shall identify any proposed variances to the approved work plan and describe interim progress on implementation of the work plan, including analytical results of any sampling, water level measurements, Site maps or photos, as appropriate.

Submittal Schedule:

The first status report shall be submitted by the Participant no later than 90 days after this Agreement has been signed. Subsequent status reports shall be submitted on a quarterly basis until the completion report is submitted to the Department.

C. Voluntary Remediation Completion Report

In accordance with 20.6.3.500.B NMAC, following the completion of Site voluntary remediation activities, the Participant shall demonstrate to the Department that Site conditions meet the applicable standards specified in Section VIII of this Agreement by submitting to the Department a voluntary remediation completion report. The content of the completion report is detailed in 20.6.3.500.B NMAC. The report shall be submitted to the Department with the legal description of the affected property, and with an Affidavit of Completion of Voluntary Remediation signed by the Participant that indicates that remediation is complete, in accordance with this Agreement and applicable regulations and guidance.

Submittal Schedule:

The voluntary remediation completion report shall be submitted to the Department within 90 days following completion of voluntary remediation activities.

Department Review:

The Department shall review and determine the sufficiency of a completion report within 45 days of receipt. If the secretary or his designee does not approve the completion report, the secretary or his designee shall either issue a finding that the Participant is not in compliance with the Agreement and terminate the Agreement, or advise the Participant in writing of data gaps in the report. The Participant shall correct any identified data gaps and resubmit the completion report within 30 days of receipt of notice of data gaps.

XI. Certificate of Completion

If the secretary or his designee approves the voluntary remediation completion report, the secretary or his designee will issue either a Certificate of Completion or a Conditional Certificate of

Completion, as appropriate, pursuant to NMSA 1978, Section 74-4G-7 (1997) and 20.6.3.500.B NMAC. If a Conditional Certificate of Completion is issued, the Department shall conduct audits to ensure that all engineering controls, remediation systems, post-closure care, and affirmations of future non-residential land use are being maintained appropriately. These audits shall be performed at least every other year for the first 10 years following the issuance of the Conditional Certificate of Completion, and every five years thereafter. If, during the course of such an audit, the Department finds that any of the monitoring requirements, engineering controls, remediation systems, post-closure care, or affirmations of future non-residential land use are not being properly maintained such that the performance standards described in Section VIII of this Agreement are no longer being met, the Department may revoke the Conditional Certificate of Completion and initiate an enforcement action.

No Certificate of Completion or Conditional Certificate of Completion shall be issued to a Participant who has not paid invoiced oversight costs in full to the Department.

XII. Covenant Not to Sue

Pursuant to NMSA 1978, Section 74-4G-8 (1997) and 20.6.3.600 NMAC, after the secretary or his designee issues the Certificate of Completion or Conditional Certificate of Completion, the secretary or his designee shall provide a covenant not to sue to a purchaser or prospective purchaser of the Site that did not contribute to the Site contamination, for any direct liability, including future liability, for claims based upon the contamination covered by the Agreement and over which the Department has authority. Except as may be provided under federal law or as may be agreed to by a federal government entity, the covenant not to sue shall not release or otherwise apply to claims by the federal government for claims based on federal law. Except as may be agreed to by another department or agency of the state, the covenant not to sue shall not release or otherwise apply to claims of any other office, department, or agency of the state. Except as may be agreed to by a third party, the covenant not to sue shall not release or otherwise affect a person's liability to third parties.

XIII. Dispute Resolution

This section shall apply to any dispute arising under any section of this Agreement, unless specifically excepted. Dispute resolution shall be conducted in accordance with 20.6.3.300.I NMAC.

XIV. Reservation of Rights

The Department and Participant reserve all rights and defenses they may have pursuant to any available legal authority unless expressly waived herein. The Department expressly reserves the right to take any action, including any enforcement action, to address any release not covered by this Agreement, including any release that occurs after issuance of the Certificate of Completion or any release of a contaminant not covered by the voluntary remediation agreement. The secretary's covenant not to sue shall not apply to any such release.

Nothing herein is intended to release, discharge, or in any way affect any claims, causes of action or demands in law or equity which the parties may have against any person, firm, partnership or corporation not a party to this Agreement for any liability it may have arising out of, or relating in

any way to the generation, storage, treatment, handling, transportation, release or disposal of any materials, hazardous substances, hazardous waste, contaminants or pollutants at, to, or from the Site. The parties to this Agreement expressly reserve all rights, claims, demands, and causes of action they have against any and all other persons and entities who are not parties to this Agreement, and as to each other for matters not covered hereby.

The Participant reserves the right to seek contribution, indemnity, or any other available remedy against any person other than the Department found to be responsible or liable for contribution, indemnity or otherwise for any amounts which have been or will be expended by the Participant in connection with the Site.

XV. Enforcement Shield

Pursuant to the provisions of 20.6.3.300.A NMAC, the secretary will not initiate any enforcement action, including an administrative or judicial action, against a Participant for the contamination or release thereof, or for the activity that results in the contamination or release thereof, if the contamination is the subject of an Agreement pursuant to 20.6.3 NMAC. However, this Section shall not be a bar to any enforcement action if the Agreement is not finalized, if the Agreement is terminated or rescinded, or if the Participant does not successfully initiate or implement the Agreement within a reasonable time under the schedules set forth in this Agreement and approved work plans.

XVI. Oversight Costs

The Participant agrees to reimburse the Department for all of its costs associated with oversight and implementation of this Agreement in accordance with 20.6.3.300.J NMAC. These costs shall include those described in 20.6.3.300.J NMAC, as well as long-term oversight performed by the Department, as described in 20.6.3.500.B(5) NMAC, if a Conditional Certificate of Completion is issued.

Oversight will be invoiced based on actual hours of staff oversight, at a variable rate beginning at \$90.00 per hour. The hourly rate is calculated and updated on November 1 of each year, following a 30 calendar day public comment period. Travel and per diem costs will be invoiced at state-designated rates. Sampling and analysis costs will be invoiced at actual cost plus indirect overhead rate.

The Department will track all costs to the Department for review and oversight activities related to the Site and provide quarterly (or more often at the discretion of the Department) invoices per this Agreement for said costs. The Participant shall pay these invoiced costs to the Department within 30 calendar days after the date that the Participant receives notice that these costs are due and owed. If payment is not made within 30 days, the Department may terminate this Agreement and bring an action to collect the amount owed and the costs of bringing the collection action. If the Department prevails in such collection action, the Participant shall pay the Department's reasonable attorneys' fees and costs incurred in the collection action.

In the event that this Agreement is terminated for any reason, the Participant agrees to reimburse the Department for all costs incurred or obligated by the Department before the date of notice of termination of the Agreement.

XVII. Notice of Bankruptcy

As soon as Participant has knowledge of its intention to file bankruptcy, or no later than seven days prior to the actual filing of a voluntary bankruptcy petition, Participant shall notify the Department of its intention to file a bankruptcy petition. In the case of an involuntary bankruptcy petition, Participant shall give notice to the Department as soon as it acquires knowledge of such petition.

XVIII. Indemnification

The Participant shall defend, indemnify, and hold harmless the Department and the State of New Mexico from all actions, proceedings, claims, demands, costs, damages, attorneys' fees, and all other liabilities and expenses of any kind from any source which may arise out of the performance of this Agreement, caused by the negligent act or failure to act of the Participant, its officers, employees, servants, subcontractors or agents, or if caused by the actions of any client of the Participant resulting in injury or damage to persons or property during the time when the Participant or any officer, agent, employee, servant or subcontractor thereof has or is performing services pursuant to this Agreement.

XIX. Effective Date and Subsequent Modification

The Agreement shall become final and effective upon being signed by both the secretary or his designee and the Participant. The effective date of the Agreement shall be the later date of signature by either the secretary or his designee or the Participant. This Agreement may be amended only by mutual agreement of the Department and the Participant. Amendments shall be in writing and shall be effective upon being signed by both the secretary or his designee and the Participant.

XX. <u>Termination</u>

As provided for in 20.6.3.300.H NMAC, if an Agreement is not reached between an applicant and the secretary or his designee on or before the 30th calendar day after the secretary or his designee determines an applicant to be eligible pursuant 20.6.3.200 and 20.6.3.300 NMAC, the applicant or the secretary or his designee may withdraw from the negotiations. The Participant may terminate the voluntary remediation Agreement upon 60 calendar days' written notice via certified mail, return receipt requested to the Department. The secretary or his designee may terminate this Agreement upon finding that the Participant is not in compliance with this Agreement. Notice of termination will be made to the Participant via certified mail, return receipt requested, and facts supporting the rationale for termination shall be set forth in the notification. The Department's costs incurred or obligated before the date the notice of termination is received are recoverable by the Department under the Agreement if the Agreement is terminated.

XXI. Complete Agreement

This Agreement contains the entire Agreement of the parties.

XXII. Applicable Law

This Agreement shall be governed by and construed in accordance with the laws of the State of

New Mexico.

The provisions of this Agreement shall be satisfied when the Department gives the Participant written notice in the form of a Certificate of Completion that the Participant has demonstrated to the secretary's satisfaction that the terms of this Agreement have been completed, including the selection and implementation of a remedial action, when appropriate.

Nothing in this Agreement shall restrict the State of New Mexico from seeking other appropriate relief to protect human health or the environment from contamination at or from this Site if not remediated in accordance with this Agreement.



Signatures

Participant(s)	:		
		Name:	
(Signa	ature of authorized representative)		(Print or type)
Date:			
New Mexico	Environment Department:		
		Name:	
(Secre	etary or designee)		(Print or type)
Date:			
Enclosures:	Exhibit 1: Legal Description of F		
	Exhibit 2: Preliminary Work Plan	n	

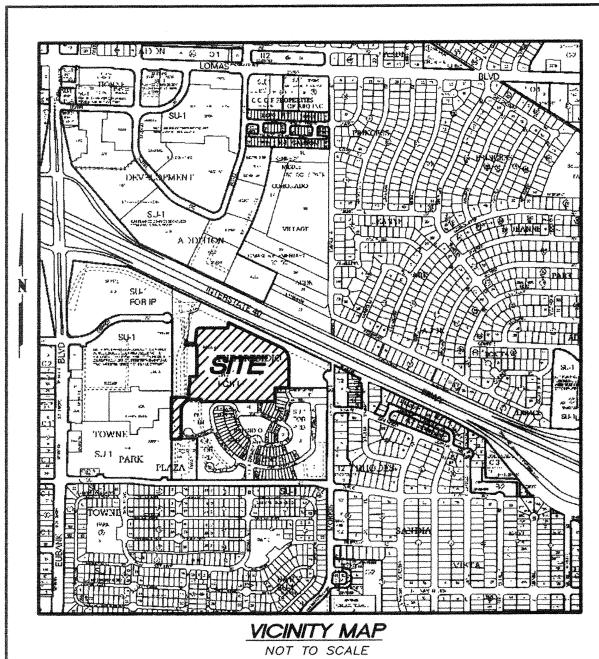
NEW MEXICO ENVIRONMENT DEPARTMENT VOLUNTARY REMEDIATION AGREEMENT

EXHIBIT 1

Legal Description of Property

Copper Pointe - Unit A-1 and Unit C VRP Site No. 53201001

The site is a 13.5 acre parcel located at 10500 Copper Avenue NE, Albuquerque, New Mexico, more particularly described as first amendment and restated condominium plat of Copper Pointe Condominium comprising all of Tract 5 Copper Pointe Subdivision situated within section 21, township 10 north, range 4 east, Albuquerque, Bernallilo County, New Mexico. The full legal description is included on the following Condominium Plat Map.



KEYED EASEMENTS

- 1 Private Access Easement per Plat Filed 5-1-2001, Volume 2001C, Folio 124.
- Public Sanitary Sewer Easement per Plat Filed 5-1-2001, Volume (2) Public Sanitary Se 2001C, Folio 124.
- 7' Public Utility Easement per Plat Filed 5-1-2001, Volume
- Public Utility Easement per Plat Filed 5-1-2001, Volume 2001C, Folio 124.
- 10' Public Service Company of New Mexico Easement per Document 5) Filed 5-12-1971, Book Misc. 213, Page 816-817.
- 6 Ingress, Egress and Utilities Easement per Document Filed 10-24-2000, Book A11, Page 4868.
- Permanent Easement for Public Storm Sewer and Waterline per Document Filed 12-29-2000, Book A13, Page 7742.
- 8 20' Public Sanitary Sewer Easement granted to the City of Albuquerque per Plat Filed 3-19-2007, Volume 2007C, Folio 69.
- 9 25' Public Sanitary Sewer and Waterline Easement per Plat Filed 3-19-2007, Volume 2007C, Folio 69.
- 20' Private Storm Drain Easement per Plat Filed 3-19-2007, Volume 2007C, Folio 69.
- 15' Private Storm Drain Easement per Plat Filed 3-19-2007, Volume 2007C, Folio 69.
- Private Easement for Vehicular, Pedestrian Access and Underground Utilities per Document Filed 10-20-2006, Book A126,
- 10' Public Utility Easement per Plat Filed 10-10-2008, Volume 2008C, Folio 224.
- 35' x 15' Public Water Meter Easement granted to the (14) Albuquerque Bernalillo County Water Utility Authority per Plat Filed 10-10-2008, Volume 2008C, Folio 224.
- 10.5' portion of 75' Drainage and Utility Easement as shown on survey prepared by New Mexico Surveying Company Filed 3-17-97, Volume 97S, Folio 25.
- 10.5' portion of 20' Permanent Easement for Public Waterline per Document Filed 12-29-2000, Book A13, Page 7743.
- Mutual Access and Parking Easement per Document filed 5-1-2001, Book A18, Page 8538, and refiled 6-7-2001, Book A20, Page 4474.

FLOOD ZONE DETERMINATION

The subject property (as shown hereon) lies within Zone "X" (areas determined to be outside 0.2% annual chance flood plain) in accordance with the National Flood Insurance Program Rate Map No. 35001C0359 G, Effective Date September 26, 2008.

LEGAL DESCRIPTION - TRACT 5. COPPER POINTE SUBDIVISION

That certain parcel of land situate within Section 21, Township 10 North, Range 4 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico, comprising all of Tract 5, Copper Pointe Subdivision, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on October 10, 2008, in Volume 2008C, Folio 224, and being more particularly described by survey performed by Russ P. Hugg, New Mexico Professional Surveyor Number 9750 using New Mexico State Plane Grid Bearings (Central Zone - NAD 83) and ground distances as

Beginning at the Southeast corner of the parcel herein described, said point being the Southwest corner of Tract 4, Copper Pointe Subdivision, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on October 10, 2008, in Volume 2008C, Folio 224, and also being on the Northerly boundary line of The Presidio, Unit 2, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on June 7, 2007, in Volume 2007C, Folio 158, from whence the Albuquerque Control Survey Station "14-J22" bears N 46'31'34" E, 4247.26 feet distant; Thence along said Northerly boundary line of The Presidio, Unit 2, for the following seven (7) courses,

N 89'46'13" W, 131.86 feet to a point; Thence, S 0013'47" W, 130.00 feet to a point; Thence,

N 89'46'13" W. 696.06 feet to a point; Thence,

N 00°13'47" E,

S 00'14'09" W.

N 89°45'30" W,

N 0014'09" E,

N 89'46'13" W, 85.15 feet to a point of curvature; Thence,

20.00 feet to a point; Thence,

157.07 feet on the arc of a curve to the left Southwesterly, (said curve having a radius of 100.00 feet, a central angle of 89*59'38" and a chord which bears S45"13'58" W, 141.41 feet) to a point of tangency; Thence,

> 275.32 feet to a point, said point being on the Northerly boundary line of Lot 4A, Towne Park Plaza, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on January 29, 2001, in Volume 2001C, Folio 36; Thence,

96.00 feet along said Northerly boundary line of said Lot 4A, Towne Park Plaza, to the Southwest corner of the parcel herein described, said point being the Northwest corner of said Lot 4A, Towne Park Plaza, and also being on the Easterly boundary line of Tract B-3A-1, Towne Park Plaza, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on January 29, 2001, in Volume 2001C, Folio 36; Thence,

395.29 feet to a point, said point being on the Westerly boundary line of Tract B-ZA-1, Towne Park Plaza, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on July 9, 2003, in Volume 2003C, Folio 204, and also being a point on the Southerly boundary line of Tract B-1A-1, Towne Park Plaza, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on July 9, 2003, in Volume 2003C, Folio 204; Thence,

162.51 feet along said Southerly boundary line of Tract B-1A-1, Towne Park Plaza, to a S 89'46'13" E, point, said point being the Southeast corner of said Tract B-1A-1, Towne Park Plaza; Thence along the Easterly boundary line of said Tract B-1A-1, Towne Park Plaza, for the following eight (8) courses,

78.04 feet to a point of curvature; Thence, N 0043'34" E, 19.64 feet on the arc of a curve to the right Northeasterly,

(said curve having a radius of 38.00 feet, a central angle of 29°36'52" and a chord which bears N15°02'00" E, 19.42 feet) to a point of reverse curvature; Thence,

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Northeasterly. 25.83 feet on the arc of a curve to the left (said curve having a radius of 50.00 feet, a central angle of 29°35'47" and a chord which bears N15°02'33" E, 25.54 feet) to a point of tangency; Thence,

N 0014'39" E, 71.73 feet to a point; Thence,

S 89°45'30" E, 63.93 feet to a point; Thence,

N 00°14'39" E, 294.21 feet to a point; Thence,

N 89'45'21" W, 109.92 feet to a point on curve; Thence,

Northeasterly,

48.05 feet on the arc of a curve to the left (said curve having a radius of 538.59 feet, a central angle of 05°06'42" and a chord which bears N16'47'39" E, 48.04 feet) to a point of non-tangent compound curvature and Northwest corner of the parcel herein described, said point being on the Westerly boundary line of Tract 1, Copper Pointe Subdivision, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on October 10, 2008, in Volume 2008C, Folio 224; Thence along the Southerly boundary line of said Tract 1, Copper Pointe Subdivision, for the following six (6) courses,

45.38 feet on the arc of a curve to the left Southeasterly, (said curve having a radius of 25.00 feet, a central angle of 103°59'39" and a chord which bears \$37.45'31" E, 39.40 feet) to a point of tangency; Thence,

47.35 feet to a point of curvature; Thence, S 89'45'21" E,

17.47 feet on the arc of a curve to the left Northeasterly, (said curve having a radius of 15.00 feet, a central angle of 66°44'04" and a chord which bears N56°52'37" E, 16.50 feet) to a point of tangency; Thence,

N 04°22'54" E, 105.27 feet to a point of curvature; Thence,

44.93 feet on the arc of a curve to the right Northeasterly, (said curve having a radius of 30.00 feet, a central angle of 85°48'09" and a chord which bears N4716'59" E, 40.84 feet) to a

point of tangency; Thence,

269.13 feet to a point, said point being the S 89'48'57" E, Southeast corner of said Tract 1, Copper Pointe Subdivision; Thence along the Easterly boundary line of said Tract 1, Copper Pointe Subdivision, for the following two (2)

N 00'11'03" E, 38.00 feet to a point; Thence,

courses.

N 24°57'56" E, 12.83 feet to a point, said point being on the Southerly boundary line of said Tract 4, Copper Pointe Subdivision; Thence along said Southerly boundary line of said Tract 4, Copper Pointe Subdivision, for the following

S 64°51'04" E. 545.44 feet to a point of curvature; Thence,

three (3) courses,

147.66 feet on the arc of a curve to the Southeasterly, right (said curve having a radius of 130.00 feet, a central angle of 65°04'51" and a chord which bears \$321838" E, 139.85

feet) to a point of tangency; Thence,

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No.

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SHEET 1 OF 12

100 P. HUGOS

P R O F ...

S 0013'47" W, 256.48 feet to the point of beginning of the parcel herein described.

Said parcel contains 13.5261 acres (589,197 square feet), more or

FIRST AMENDMENT TO AMENDED AND RESTATED CONDOMINIUM PLAT OF

COPPER POINTE CONDOMINIUM COMPRISING ALL OF

TRACT 5 COPPER POINTE SUBDIVISION SITUATE WITHIN

SECTION 21, TOWNSHIP 10 NORTH, RANGE 4 EAST NEW MEXICO PRINCIPAL MERIDIAN CITY OF ALBUQUERQUE BERNALILLO COUNTY, NEW MEXICO

SEPTEMBER 2012

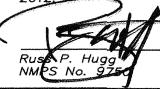
GENERAL NOTES

- Bearings are New Mexico State Plane Grid Bearings (Central Zone - NAD 83) originated at the Albuquerque Control Survey Station "14-J22"
- Distances are ground.
- Vertical Datum is based upon the Albuquerque Control Survey Station "14-J22", Elevation = 5576.441 (NAVD 1988)
- Supplemental Field surveys of the building interior were performed during the month's of May, June and November, 2011.
- Documents used in the preparation of this survey:
 - Plat entitled "PLAT OF COPPER POINTE SUBDIVISION, BEING A REPLAT OF TRACT B, THE PRESIDIO, WITHIN SECTION 21, TOWNSHIP 10 NORTH, RANGE 4 EAST, NEW MEXICO PRINCIPAL MERIDIAN, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, FEBRUARY, 2008", filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on October 10, 2008, in Volume 2008Č, Folio 224.
 - Amended and Restated Condominium Plat entitled "AMENDED AND RESTATED CONDOMINIUM PLAT OF COPPER POINTE CONDOMINIUM, COMPRISING ALL OF TRACT 5. COPPER POINTE SUBDIVISION SITUATE WITHIN SECTION 21, TOWNSHIP 10 NORTH, RANGE 4 EAST, NEW MEXICO PRINCIPAL MERIDIAN, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on July 27, 2010, as Document Number 2010075208.
 - Amended and Restated Condominium Declaration for Copper Pointe Condominium, filed for record on July 30, 2010, as Document No. 2010076902, records of Bernalillo County, New Mexico (Restated Condominium Declaration).
 - First Amendment to Amended and Restated Condominium Declaration for Copper Pointe Condominium, filed for record concurrently herewith (First Amendment to the Restated Condominium Declaration).
 - Title Report prepared for this property by Commonwealth Land Title,Insurance Company Commitment for Title Insurance No. 6218004410, dated July 6, 2010.
- Unit square footages for Units I and J were computed from building plans provided by Rick Bennett Architects. The Units are defined by horizontal and vertical planes only.
- This First Amendment amends the Amended and Restated Condominium Plat for the purpose of subdividing Unit A into Unit A-1, Unit I and Unit J, increasing the size of Unit D, now identified as Unit D-1 and allocating appurtenant Common Elements and Limited Common Elements. The Condominium now consists of ten (10) Units identified as Unit A-1, Unit B, Unit C, Unit D-1, Unit E, Unit F, Unit G, Unit H, Unit I and Unit J. This First Amendment also describes the Development Rights Area identified as "RDR Lower Level Area", "RDR Upper Level Area" "RDR Walkway Area".

SURVEYOR'S CERTIFICATION

I, Russ P. Hugg, New Mexico Professional Surveyor Number 9750, hereby certify that this Amended and Restated Condominium Plat replaces all prior Plats and was prepared from an actual ground survey performed by me or under my supervision; that I am responsible for this survey; that this survey is true and correct to the best of my knowledge and belief; and that this Amended and Restated Condominium Plat and the field survey upon which it is based meet the Minimum Standards for Surveying in New Mexico and contains all the information required by Section 47-7B-9, N.M.S.A. 1978, and that this Amended and Restated Condominium Plat is not a land division or subdivision as defined in the New Mexico Subdivision Act and is a survey of one existing tract. IN WITNESS WHEREOF, this certificate is executed at Albuquerque, New Mexico, on this 18th day of September,

9384 Valley View Drive N.W. Albuquerque, New Mexico 87114 Fax: 505-897-3377



Consulting Surveyors

Phone: 505-897-3366

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110248_9-18-12. DWG

LEGAL DESCRIPTION - RESERVED DEVELOPMENT RIGHTS AREA (RDR AREA)

That certain parcel of land situate within Section 21, Township That certain parcel of land situate within Section 21, Iownship 10 North, Range 4 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico, comprising all of Tract 5, Copper Pointe Subdivision, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on October 10, 2008, in Volume 2008C, Folio 224, and being more particularly described by survey performed by Russ P. Hugg, New Mexico Professional Surveyor Number 9750 using New Mexico State Plane Grid Regrings (Central Zone — NAD 83) and ground distances as Grid Bearings (Central Zone - NAD 83) and ground distances as

Beginning at the Southeast corner of the parcel herein described, said point being the Southwest corner of Tract 4, Copper Pointe Subdivision, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on October 10, 2008, in Volume 2008C, Folic 224, and also being on the Northerly boundary line of The Presidio, Unit 2, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on June 7, 2007, in Volume 2007C, Folio 158, from whence the Albuquerque Control Survey Station "14-J22" bears N 46'31'34" E, 4247.26 feet distant; Thence along said Northerly boundary line of The Presidio, Unit 2, for

the following seven (7) courses, N 89'46'13" W, 131.86 feet to a point; Thence, S 00°13'47" W. 130.00 feet to a point: Thence, N 89'46'13" W, 696.06 feet to a point; Thence,

S 89°46'13" E,

N 0073'34" E.

S 89°45'30" E,

Northeasterly,

N 0073'47" E, 20.00 feet to a point; Thence,

N 89'46'13" W. 85.15 feet to a point of curvature; Thence, 157.07 feet on the arc of a curve to the left Southwesterly.

(said curve having a radius of 100.00 feet, a central angle of 89*59'38" and a chord which bears \$4573'58" W, 141.41 feet) to a point of tangency; Thence,

S 0074'09" W. 275.32 feet to a point, said point being or the Northerly boundary line of Lot 4A, Towne Park Plaza, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on January 29, 2001, in Volume 2001C, Folio 36; Thence,

96.00 feet along said Northerly boundary line of said Lot 4A, Towne Park Plaza, to the Southwest corner of the parcel herein N 89'45'30" W, described, said point being the Northwest corner of said Lot 4A, Towne Park Plaza, and also being on the Easterly boundary line of Tract B-3A-1, Towne Park Plaza, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernaillo County, New Mexico, on January 29, 2001, in Volume 2001C, Folio 36; Thence,

N 0074'09" E, 395.29 feet to a point, said point being on the Westerly boundary line of Tract B—2A—1, Towne Park Plaza, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on July 9, 2003, in Volume 2003C, Folio 204, and also being a point on the Southerly boundary line of Trac B-1A-1, Towne Park Plaza, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on July 9, 2003, in Volume 2003C, Folio 204; Thence,

162.51 feet along said Southerly boundary line of Tract B-1A-1, Towne Park Plaza, to a point, said point being the Southeast corner of said Tract B-1A-1, Towne Park Plaza; Thence along the Easterly boundary line of said Tract B-1A-1, Towne Park Plaza, for the following eight (8) courses.

78.04 feet to a point of curvature; Thence, 19.64 feet on the arc of a curve to the right (said curve having a radius of 38.00 feet, a central angle of 29'36'52" and a chord which bears N15'02'00" E, 19.42 feet) to a point of reverse curvature; Thence,

25.83 feet on the arc of a curve to the left Northeasterly, (said curve having a radius of 50.00 feet, a central angle of 29'35'47" and a chord which bears N15'02'33" E, 25.54 feet) to a

63.93 feet to a point; Thence,

point of tangency: Thence. N 00"14'39" E, 71.73 feet to a point; Thence,

N 00°14'39" E. 294.21 feet to a point; Thence, N 89"45'21" W. 109.92 feet to a point on curve; Thence

48.05 feet on the arc of a curve to the left Northeasterly. (said curve having a radius of 538.59 feet, a central angle of 05°06'42" and a chord bears N16'47'39" E, 48.04 feet) to point of non-tangent compound curvature and Northwest corner of the parcel herein described, said point being on the Westerly boundary line of Tract 1, Copper Pointe Subdivision, as the same is shown and designated on said plat filed for record the office of the County Clerk of Bernaillo County, New Mexico, on October 10, 2008, in Volume 2008C, Folio 224; Thence along the

six (6) courses, Southeasterly, 45.38 feet on the arc of a curve to the left (said curve having a radius of 25.00 feet, a central angle of 103°59'39" and a chord which bears \$37.45'31" E, 39.40 feet) to a

Southerly boundary line of said Tract 1,

Copper Pointe Subdivision, for the following

point of tangency; Thence, S 89'45'21" E. 47.35 feet to a point of curvature; Thence,

17.47 feet on the arc of a curve to the left Northeasterly, (said curve having a radius of 15.00 feet. a central angle of 66°44'04" and a chord which bears N56'52'37" E, 16.50 feet) to a point of tangency; Thence,

105.27 feet to a point of curvature: Thence, N 04'22'54" E.

44.93 feet on the arc of a curve to the right Northeasterly, (said curve having a radius of 30.00 feet. a central angle of 85°48'09" and a chord which bears N4776'59" E, 40.84 feet) to a

S 89°48'57" E, 269.13 feet to a point, said point being the Southeast corner of said Tract 1, Copper Pointe Subdivision; Thence along the Easterly boundary line of said Tract 1, Copper Pointe Subdivision, for the following two (2)

N 0071'03" E, 38.00 feet to a point; Thence, N 24'57'56" E, 12.83 feet to a point, said point being on the Southerly boundary line of said Tract 4, Copper Pointe Subdivision; Thence along said Southerly boundary line of said Tract 4, Copper Pointe Subdivision, for the following

three (3) courses,

S 64"51'04" E, 545.44 feet to a point of curvature; Thence, 147.66 feet on the arc of a curve to the Southeasterly, right (said curve having a radius of 130.00 feet, a central angle of 65'04'51" and a chord which bears S32'18'38" E, 139.85

feet) to a point of tangency; Thence, S 0073'47" W. 256.48 feet to the point of beginning of the

Said parcel contains 13.5261 acres gross (589,197 square feet gross), more or less.

LESS AND EXCEPT

That certain parcel of land situate within Section 21, Township 10 North, Range 4 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico, comprising the land encompassed by the ground level exterior face of the building known as Copper Pointe Condominium, being a portion of Tract 5, Copper Pointe Subdivision, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on October 10, 2008, in Volume 2008C, Folio 224, and being more particularly described by survey performed by Russ P. Hugg, New Mexico Professional Surveyor Number 9750 using New Mexico State Plane Grid Bearings (Central Zone - NAD 83) and ground distances rounded to one tenth of a

Beginning at the Southeast corner of the parcel herein described, from whence the Southeast corner of said Tract 5, Copper Pointe Subdivision bears N 87'09'44" E, 323.88 feet distant; Thence,

N 89'46'29" W. 503.8 feet to a point; Thence, S 0072'23" W, 39.7 feet to a point; Thence, N 89'44'31" W. 78.8 feet to the Southwest corner of the parcel herein described; Thence, N 0076'27" E. 62.9 feet to a point; Thence,

S 89'45'37" E, 77.0 feet to a point; Thence, N 0072'23" E. 139.7 feet to a point; Thence, S 89'47'37" E. 20.7 feet to a point; Thence,

N 00°03'44" E, 9.5 feet to a point; Thence, S 89'47'37" E, 0.8 feet to a point: Thence. 23.3 feet to a point: Thence. N 00°03'44" E. S 89"56'16" E, 0.8 feet to a point: Thence,

N 00'03'44" E. 5.2 feet to a point; Thence, N 89'56'16" W. 21.2 feet to a point; Thence, N 0077'59" E. 79.3 feet to a point; Thence,

S 89°42'01" E, 0.5 feet to a point; Thence, 86.3 feet to the Northwest corner of the N 00'08'39" E,

parcel herein described; Thence, S 89'45'40" E. 86.4 feet to a point; Thence, S 00'22'00" W, 1.3 feet to a point: Thence, S 89'38'00" E, 18.8 feet to a point; Thence, S 00'08'22" W, 21.4 feet to a point: Thence.

S 89'39'11" E, 12.8 feet to a point; Thence, S 00'08'22" W, 0.8 feet to a point; Thence, S 89'39'11" E. 32.6 feet to a point; Thence, N 00'20'49" E, 22.3 feet to a point; Thence,

S 89'39'11" E, 18.8 feet to a point; Thence, N 00'20'49" E, 1.5 feet to a point; Thence, S 89'39'11" E, 85.4 feet to a point; Thence,

S 89"26'53" E, 48.4 feet to a point; Thence N 0074'42" E, 0.7 feet to a point: Thence. S 89°45'18" E. 2.0 feet to a point: Thence.

S 0074'42" W. 0.7 feet to a point: Thence S 89°45'18" E, 49.5 feet to a point; Thence, N 0074'42" E. 0.7 feet to a point: Thence. S 89°45'18" E, 2.0 feet to a point: Thence.

S 0074'42" W, 0.7 feet to a point; Thence, S 89°45'18" E, 48.0 feet to a point; Thence, N 0074'42" E. 0.7 feet to a point: Thence.

S 89'45'18" E. 2.0 feet to a point; Thence, S 0014'42" W. 0.7 feet to a point: Thence.

S 89°45'18" E. 48.0 feet to a point; Thence, N 0074'42" E, 0.7 feet to a point; Thence, S 89°45′18" E, 2.0 feet to a point; Thence

S 0014'42" W, 0.7 feet to a point; Thence, S 89'45'18" E, 1.2 feet to a point; Thence, S 0074'42" W. 7.1 feet to a point: Thence,

S 89°45′18" E, 0.9 feet to a point; Thence, 12.4 feet to a point; Thence,

S 37'35'10" W, 0.6 feet to a point; Thence, S 52'24'50" E, 28.1 feet to a point; Thence, N 37'35'10" E, 0.6 feet to a point; Thence, S 52'24'50" E, 12.3 feet to a point; Thence,

S 22'38'08" E, 0.6 feet to a point; Thence, S 89°47'29" E, 6.6 feet to a point; Thence, 1.2 feet to a point; Thence, S 00'21'43" W,

S 89°38'17" E, 0.7 feet to a point; Thence, S 00°21'43" W. 2.0 feet to a point; Thence, N 89'38'17" W. 0.7 feet to a point: Thence.

S 89'38'17" E, 0.7 feet to a point; Thence, 2.0 feet to a point: Thence. S 00'21'43" W. 0.7 feet to a point; Thence, N 89'38'17" W,

S 00°21'43" W. 38.1 feet to a point; Thence,

S 00°21'43" W.

S 89'38'17" E, 0.7 feet to a point; Thence,

39.5 feet to a point; Thence,

S 00°21'43" W, 2.0 feet to a point; Thence,

N 89'38'17" W. 0.7 feet to a point: Thence. S 00'21'43" W. 1.2 feet to a point; Thence,

N 89'41'03" W. 21.8 feet to a point: Thence S 0012'42" W, 3.0 feet to a point; Thence,

0.7 feet to a point: Thence. N 89'41'03" W.

S 0012'42" W. 28.0 feet to a point: Thence. S 89°43'35" E, 0.7 feet to a point; Thence,

S 0072'42" W, 3.1 feet to a point; Thence,

S 89°43'35" E. 21.8 feet to a point; Thence 1.3 feet to a point: Thence.

0.7 feet to a point: Thence. S 89'42'46" E.

S 0077'14" W, 2.0 feet to a point; Thence, N 89'42'46" W. 0.7 feet to a point: Thence.

40.1 feet to a point; Thence, S 0017'14" W,

S 89'42'46" E. 0.5 feet to a point; Thence, S 0071'56" W, 25.6 feet to a point; Thence,

N 89'48'04" W. 1.5 feet to a point; Thence, S 0071'56" W, 115.2 feet to a point; Thence,

S 89'46'43" E, 0.4 feet to a point; Thence, 22.3 feet to the point of beginning of the S 0073'17" W.

Said parcel contains 4.2804 acres (186,454 square feet), more or

LESS THAN EXCEPTING THE FOLLOWING DESCRIBED PARCEL:

That certain parcel of land situate within Section 21, Township 10 North, Range 4 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico, comprising the land containing the volley ball courts for Units D and G being a portion of Tract 5, Copper Points Subdivision as the same is shown and designated on the plat thereof, filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on October 10, 2008 in Volume 2008C, Folio 224 more particularly described by survey performed by Russ P. Hugg, New Mexico Professional Surveyor Number 9750 using New Mexico State Plane Grid Bearings (Central Zone - NAD 83) and ground distances as follows:

Beginning at the Southeast corner of the parcel herein described, whence the Southeast corner of said Tract 5, Copper Pointe
Subdivision, as the same is shown and designated on said plat filed
for record in the office of the County Clerk of Bernalillo County,
New Mexico, on October 10, 2008, in Volume 2008C, Folio 224, and
also being an angle point in the Northerly boundary line of The
Presidio, Unit 2, as the same is shown and designated on said plat
filed for record in the office of the County Clerk of Bernalillo filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on June 7, 2007, in Volume 2007C, Folio 158 bears S 86° 18' 51" E, 596.31 feet distant; Thence,

N 89' 48' 48" W , 84.00 feet to the Southwest corner of the parcel herein described; Thence,

N 00° 11' 12" E , 72.00 feet to the Northwest corner of the

parcel herein described; Thence, S 89° 48' 48" E , 98.00 feet to the Northeast corner of the parcel herein described; Thence,

S 00° 11' 12" W , 14.00 feet to a point; Thence, N 89° 48' 48" W , 14.00 feet to a point; Thence,

S 00° 11' 12" W, 58.00 feet to the point of beginning of the parcel herein described.

Said parcel contains 0.1433 acres (6,242 square feet), more or less.

AND LESS THAN EXCEPTING THE FOLLOWING DESCRIBED PARCEL:

That certain parcel of land situate within Section 21, Township 10 North, Range 4 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico, comprising the land containing the parking area north of the existing building, being a Northerly portion of Tract 5, Copper Points Subdivision as the same is shown and designated on the plat thereof, filled for record in the office of the County Clerk of Bernalillo County, New Mexico, on October 10, 2008 in Volume 2008C. Folio 224 more particularly described by survey performed by Russ P. Hugg, New Mexico Professional Surveyor Number 9750 using New Mexico State Plane Grid bearings and ground distances as follows:

Beginning at the Southwest corner of the parcel herein described, a point on the Westerly line of said Tract 5 whence the Southeast corner of said Tract 5, Copper Pointe Subdivision, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on October 10, 2008, in Volume 2008C, Folio 224, and also being an angle point in the Northerly boundary line of The Presidio, Unit 2, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on June 7, 2007, in Volume 2007C, Folio 158 bears \$56.47.25 E, 881.18 feet distant; Thence,

N 00° 14′ 38" E , 47.82 feet to a point; Thence,

N 89° 45' 21°W, 109.92 feet to a non-tangent point on curve; Thence, Northeasterly , 48.05 feet on the arc of a curve to the left (said curve having a radius of 538.59 feet, a central angle of 05° 06′ 42″ and a chord which bears N 16° 47′ 39″ E, 48.04 feet) to a point of non-tangent

45.38 feet on the arc of a curve to the left (said curve having a radius of 25.00 feet, a central angle of 103° 59' 39" and a chord which bears \$ 37° 45' Southeasterly .

37"E, 16.50 feet) to a point of tangency; Thence,

31"E, 39.40 feet)to a point of tangency; Thence, S 89" 45' 21"E , 47.35 feet to a point of curvature; Thence,

, 17.47 feet on the arc of a curve to the left (said curve having a radius of 15.00 feet, a central angle of 66° 44' 04" and a chord which bears N 56° 52' Northeasterly

N 04° 22' 54"E, 105.27 feet to a point to a point of curvature;

44.93 feet on the arc of a curve to the right (said curve having a radius of 30.00 feet, a central angle of 85° 48' 09" and a chord which bears N 47° 16' 59"E, 40.84 feet) to a point of tangency; Thence, Northeasterly

S 89° 48' 57"E , 269.13 feet to a point; Thence, N 00° 11' 03"E , 38.00 feet to a point; Thence,

FIRST AMENDMENT TO AMENDED AND RESTATED CONDOMINIUM PLAT OF

COPPER POINTE CONDOMINIUM

COMPRISING ALL OF TRACT 5 COPPER POINTE SUBDIVISION

SECTION 21. TOWNSHIP 10 NORTH. RANGE 4 EAST NEW MEXICO PRINCIPAL MERIDIAN CITY OF ALBUQUERQUE BERNALILLO COUNTY, NEW MEXICO

SEPTEMBER 2012

SITUATE WITHIN

N 24° 57' 56"E , 12.83 feet to a point; Thence,

S 64° 51' 04"E, 545.44 feet to a point; Thence,

44.15 feet on the arc of a curve to the right (said curve having a radius of 130.00 feet, a central angle of 19° 27' 41" and a chord which bears \$ 55° 07' 13" E, 43.94 feet) to a non-tangent point on curve and the Southeast corner of the parcel herein described. Thence described: Thence,

N 89° 45' 18"W, 831,97 feet to the point of beginning of the parcel herein described.

Said parcel contains 3.0812 acres (134,218 square feet), more or less.

The Reserved Development Rights Area as described above now contains 6.0212 acres net (262,283 square feet net).

RESERVED DEVELOPMENT RIGHTS

- Right to subdivide any Unit created into additional Units of a size less than the Minimum Unit Size (as defined in the Restated Condominium Declaration), with or without appurtenant Limited Common Elements.
- Right to create Units by combining Units owned by Declarant by relocation of Unit boundaries between existing Units.
- Right to convert any Unit previously created into Common Elements.
- Right to create an additional five (5) Units on the Condominium Property, within portions of the building located on the Condominium Property owned by Declarant and identified on the Plat and Plans attached as RDR Lower Level Area, with or without appurtenant Limited Common Elements and Common Elements.
- Right to create on all or a portion of the Real Estate described as RDR Area up to five (5) additional Units.
- Right to create on all or a portion of the Real Estate described as RDR Walkway Area up to five (5) additional Units to be combined with Unit F or Unit G, or both Unit F and Unit G.
- 7. Right to create an additional five (5) Units on the Condominium Property, within portions of the building located on the Condominium Property owned by Declarant and identified on the Plat and Plans attached as RDR Upper Level Area, with or without appurtenant Limited Common Elements and Common Elements.
- 8. Right to create Common Elements to be used for storage or other uses within any portion of the Condominium Property.
- 9. Right to withdraw all or a portion of the Real Estate described as RDR Area from the Condominium.
- 10. Right to add all or any portion of the real property known as "Tract 1", "Tract 2", "Tract 3" and "Tract 4" as shown on the plat of survey titled: "COPPER POINTE SUBDIVISION (Being a Replat of Tract B, The Presidio), situate within Section 21, Township 10 North, Range 4 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico . . . ", filed in the office of the County Clerk of Bernalillo County, New Mexico on October 10, 2008, in Book 2008C, Page 0224, as Document No. 2008111348 to the Condominium and to create up to twenty—five (25) additional Units or create Common Elements or Limited Common Elements or any combination thereof.
- 11. Right to make improvements in any Limited Common Element in the form of the construction of portals, patios, walls, fences, storage facilities or areas and other improvements.



SHEET 2 OF 12

Consulting Surveyors

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FIRST AMENDMENT TO AMENDED AND RESTATED CONDOMINIUM PLAT OF

COPPER POINTE CONDOMINIUM COMPRISING ALL OF

TRACT 5 COPPER POINTE SUBDIVISION SITUATE WITHIN

SECTION 21, TOWNSHIP 10 NORTH, RANGE 4 EAST NEW MEXICO PRINCIPAL MERIDIAN CITY OF ALBUQUEROUE

BERNALILLO COUNTY, NEW MEXICO
SEPTEMBER 2012

LEGAL DESCRIPTION

RESERVED DEVELOPMENT RIGHTS AREA (RDR WALKWAY AREA)

That certain parcel of land situate within Section 21, Township 10 North, Range 4 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico, comprising the area containing the Second Story Walkway adjacent to and South of Unit F, being a portion of Tract 5, Copper Pointe Subdivision as the same is shown and designated on the plat thereof filed for record in the office of the County Clerk of Bernalillo County, New Mexico on October 10, 2008 in Volume 2008C, Folio 224 more particularly described by survey performed by Russ P. Hugg, New Mexico Professional Surveyor Number 9750 using New Mexico State Plane Grid bearings and ground distances as follows:

Beginning at the Northeast corner of the parcel herein described, said point being a point on the Southerly line of said Unit F whence the Southeast corner of said Tract 5, Copper Pointe Subdivision bears S 55° 56' 15" E, 710.84 feet distant; Thence,

S 00° 25' 00" W , 6.3 feet to a point; Thence,

N 89° 56' 38"W, 47.9 feet to a point; Thence,

S 00° 11' 15"W, 89.9 feet to a point; Thence,

N 89° 56' 16"W, 6.2 feet to a point; Thence,

N 00° 10′ 03"E , 1.0 feet to a point; Thence,

N 89° 49' 58"W . 5.3 feet to a point: Thence.

N 00° 10' 03"E , 8.6 feet to a point; Thence,

S 89° 49' 56"E , 4.7 feet to a point; Thence,

N 00° 10' 03"E , 6.0 feet to a point; Thence,

N 00° 11' 15"E , 80.6 feet to a point; Thence,

S 89° 52' 23"E , 54.67 feet to to the point of beginning of the parcel herein described.

Said parcel contains 992 square feet, more or less.

LEGAL DESCRIPTION

RESERVED DEVELOPMENT RIGHTS AREA (RDR LOWER LEVEL AREA)

That certain parcel of land situate within Section 21, Township 10 North, Range 4 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico, comprising the First Floor Area lying between Units J, I and D-1, being a portion of Tract 5, Copper Pointe Subdivision as the same is shown and designated on the plat thereof filed for record in the office of the County Clerk of Bernalillo County, New Mexico on October 10, 2008 in Volume 2008C, Folio 224 more particularly described by survey performed by Russ P. Hugg, New Mexico Professional Surveyor Number 9750 using New Mexico State Plane Grid bearings and ground distances as follows:

Beginning at the Northwest corner of said Unit A-1 also being the Northeast corner of said Unit J whence the Southeast corner of said Tract 5, Copper Pointe Subdivision bears S 48° 44' 46"E, 529.44 feet distant; Thence,

S 89° 45' 18"E , 26.0 feet to a point; Thence,

S 00° 14' 42"W , 6.9 feet to a point; Thence,

S 89° 45' 18"E , 1.3 feet to a point; Thence,

S 52° 24' 50"E , 12.0 feet to a point; Thence,

N 37° 35' 10"E , 0.2 feet to a point; Thence,

S 52° 24′ 50″E , 28.1 feet to a point; Thence,

S 37° 35' 10"W, 0.2 feet to a point; Thence, S 52° 24' 50"E, 12.0 feet to a point; Thence,

S 22° 38' 08"E , 0.7 feet to a point; Thence,

S 89° 47' 29"E , 6.1 feet to a point; Thence,

S 00° 21' 43"W, 84.4 feet to a point; Thence, S 00° 12' 42"W. 3.8 feet to a point; Thence.

S 89' 41' 03"E , 0.4 feet to a point; Thence,

S 00° 12' 42"W , 28.0 feet to a point; Thence,

N 89° 43' 55"W, 0.4 feet to a point; Thence,

S 00° 12′ 42″W , 3.9 feet to a point; Thence,

S 89° 43′ 35″E , 22.0 feet to a point; Thence,

S 00° 17′ 14″W , 41.7 feet to a point; Thence,

N 89° 45′ 48″W, 125.2 feet to a point; Thence, S 00° 14′ 12″W. 19.5 feet to a point; Thence.

N 89° 45' 48"W, 28.3 feet to a point; Thence,

S 00° 14' 12"W , 62.7 feet to a point; Thence,

S 89" 45' 48"E , 24.1 feet to a point; Thence,

S 00° 14′ 12″W, 80.0 feet to a point; Thence, N 89° 46′ 29″W, 80.0 feet to a point; Thence,

N 00° 14' 29"E , 102.1 feet to a point; Thence,

N 40° 46' 17"W , 16.6 feet to a point; Thence,

N 00° 14' 29"E , 47.0 feet to a point; Thence,

S 89° 45' 31"E , 76.3 feet to a point; Thence,

N 00° 14' 29"E , 89.5 feet to a point; Thence,

S 89° 45′ 31"E , 43.9 feet to a point; Thence,

N 00° 14′ 29″E, 57.2 feet to a point; Thence, S 89° 45′ 31″E. 26.0 feet to a point; Thence.

N 00° 14' 29"E , 54.8 feet to a point; Thence,

S 89* 45' 18"E, 26.0 feet to the point of beginning of the parcel herein described.

Said parcel contains 33,011 square feet, more or less.

LEGAL DESCRIPTION

RESERVED DEVELOPMENT RIGHTS AREA (RDR UPPER LEVEL AREA)

That certain parcel of land situate within Section 21, Township 10 North, Range 4 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico, comprising the Second Floor Area lying between Units J and I, being a portion of Tract 5, Copper Pointe Subdivision as the same is shown and designated on the plat thereof filed for record in the office of the County Clerk of Bernalillo County, New Mexico on October 10, 2008 in Volume 2008C, Folio 224 more particularly described by survey performed by Russ P. Hugg, New Mexico Professional Surveyor Number 9750 using New Mexico State Plane Grid bearings and ground distances as follows:

Beginning at the Northwest corner of said Unit A-1 also being the Northeast corner of said Unit J whence the Southeast corner of said Tract 5, Copper Pointe Subdivision bears S 48° 44' 46"E. 529.44 feet distant; Thence,

S 89° 45' 18"E , 26.0 feet to a point; Thence,

S 00° 14′ 42″W , 6.9 feet to a point; Thence,

S 89° 45' 18"E , 1.3 feet to a point; Thence,

S 52° 24' 50"E , 12.0 feet to a point; Thence,

N 37° 35' 10"E , 0.2 feet to a point; Thence,

S 52° 24' 50"E , 28.1 feet to a point; Thence,

S 37° 35′ 10″W , 0.2 feet to a point; Thence,

S 52* 24' 50"E, 12.0 feet to a point; Thence, S 22* 38' 08"E, 0.7 feet to a point; Thence,

S 89° 47' 29"E , 6.1 feet to a point; Thence,

S 00° 21' 43"W , 84.4 feet to a point; Thence,

N 89° 41' 03"W , 21.9 feet to a point; Thence,

S 00° 12' 42"W , 3.8 feet to a point; Thence,

S 89° 41' 03"E , 0.4 feet to a point; Thence,

S 00° 12′ 42″W, 28.0 feet to a point; Thence, N 89° 43′ 55″W, 0.4 feet to a point; Thence,

S 00° 12' 42"W , 3.9 feet to a point; Thence,

S 89° 43′ 35"E , 21.9 feet to a point; Thence,

S 00° 17′ 14"W , 41.7 feet to a point; Thence,

N 89° 45' 48"W , 93.6 feet to a point; Thence,

S 00° 14' 12"W , 15.5 feet to a point; Thence,

N 89° 45' 48"W , 7.5 feet to a point; Thence,

N 00° 14' 12"E , 15.5 feet to a point; Thence,

S 89° 45′ 48″E , 43.6 feet to a point; Thence,

N 00° 14′ 29″E , 89.5 feet to a point; Thence,

S 89° 45' 31"E, 43.9 feet to a point; Thence, N 00° 14' 29"E, 57.2 feet to a point; Thence,

S 89° 45' 31"E , 26.0 feet to a point; Thence,

N 00° 14' 29″E , 54.8 feet to the point of beginning of the parcel herein described.

Said parcel contains 21,023 square feet, more or less.

AND

That certain parcel of land situate within Section 21, Township 10 North, Range 4 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico, comprising the Second Floor Area lying between Units D-1 and I and South of Unit J, being a portion of Tract 5, Copper Pointe Subdivision as the same is shown and designated on the plat thereof filed for record in the office of the County Clerk of Bernalillo County, New Mexico on October 10, 2008 in Volume 2008C, Folio 224 more particularly described by survey performed by Russ P. Hugg, New Mexico Professional Surveyor Number 9750 using New Mexico State Plane Grid bearings and ground distances as follows:

Beginning at the Southeast corner of said Unit A-1 whence the Southeast corner of said Tract 5, Copper Pointe Subdivision bears S 87° 28′ 50″ E, 325.90 feet distant; Thence,

N 89° 46' 29"W , 226.4 feet to a point; Thence,

N 00° 10' 03"E , 23.5 feet to a point; Thence,

N 44° 49' 57"W , 11.6 feet to a point; Thence,

N 45° 10' 03"E , 15.7 feet to a point; Thence,

S 89' 49' 57"E, 8.0 feet to a point; Thence,

N 00' 10' 03"E, 57.7 feet to a point; Thence,

N 40° 50' 43"W . 18.2 feet to a point; Thence,

N 00° 10' 03"E , 47.3 feet to a point; Thence,

S 89° 45' 31"E , 84.0 feet to a point; Thence,

S 00° 14′ 12″W , 81.4 feet to a point; Thence,

S 00° 14' 12"W , 4.8 feet to a point; Thence,

N 89° 45' 48"W , 5.7 feet to a point: Thence.

S 89° 45' 48"E, 24.1 feet to a point; Thence,

S 00° 14' 12" W , 20.5 feet to a point; Thence,

S 89° 45' 48″E , 5.7 feet to a point; Thence,

S 00° 14′ 12″W , 22.5 feet to a point; Thence,

S 89° 45' 48"E, 42.2 feet to a point; Thence, N 00° 14' 12"E, 1.8 feet to a point; Thence,

S 89° 45' 48″E , 35.1 feet to a point; Thence,

N 00° 14′ 12″E , 7.8 feet to a point; Thence,

S 89° 45' 48″E , 15.5 feet to a point; Thence,

N 00° 14' 12"E, 33.3 feet to a point; Thence,
N 89° 45' 48"W, 65.5 feet to a point; Thence,

N 00° 14' 12"E , 5.0 feet to a point; Thence,

S 89° 45' 48"E , 100.8 feet to a point; Thence,

S 00° 11' 56"W, 80.2 feet to the point of beginning of the parcel herein described.

Said parcel contains 19,804 square feet, more or less.

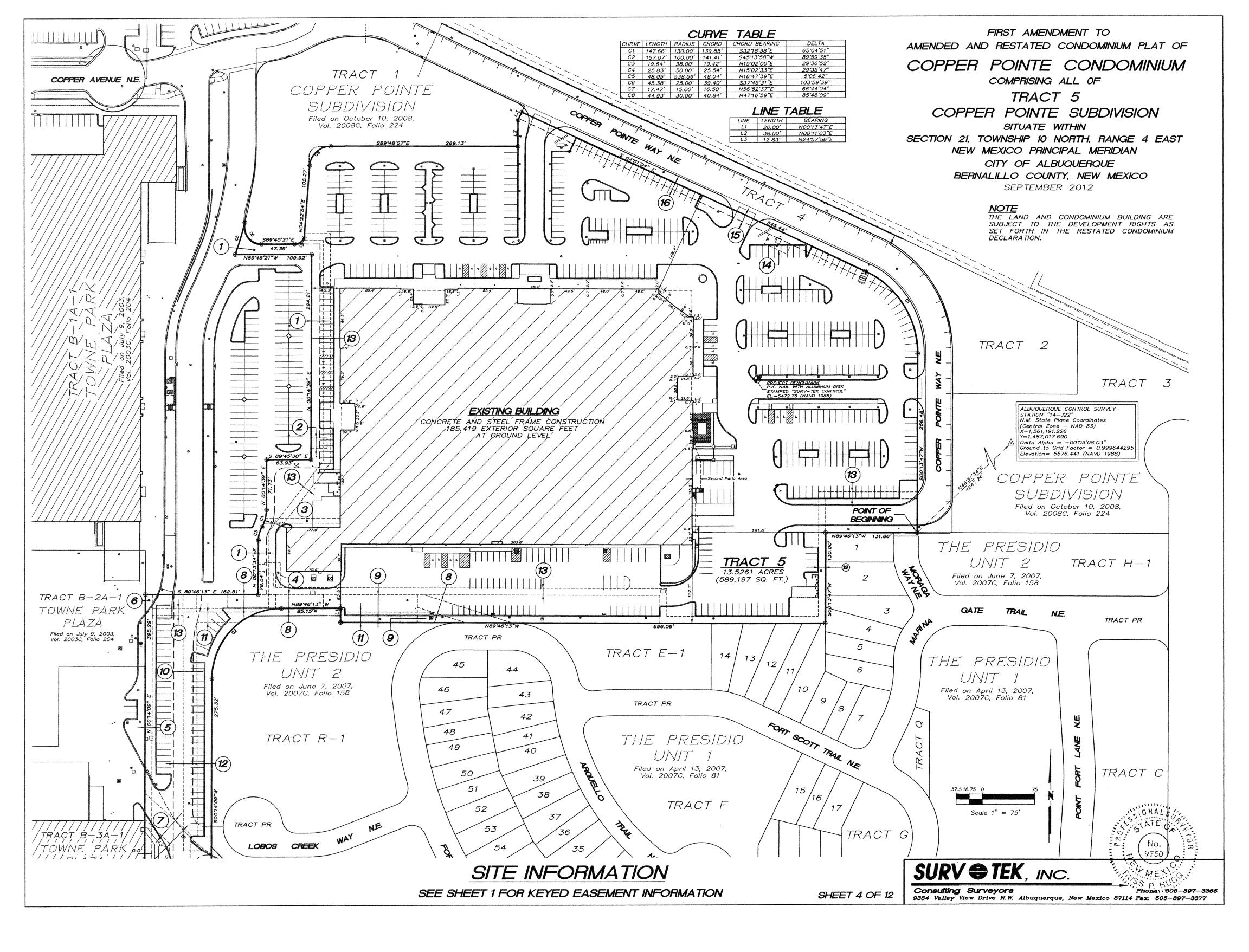
No. 9750

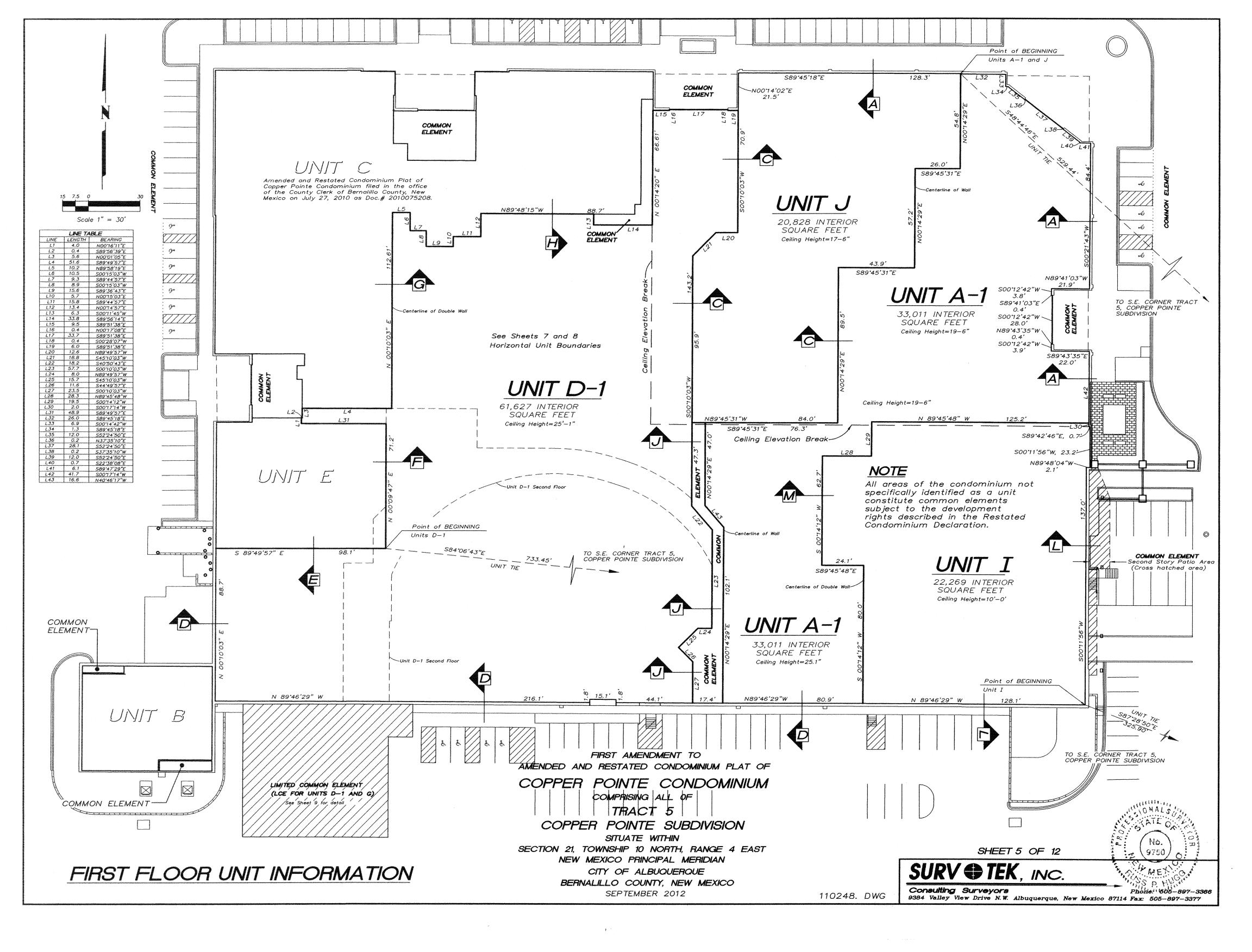
SHEET 3 OF 12

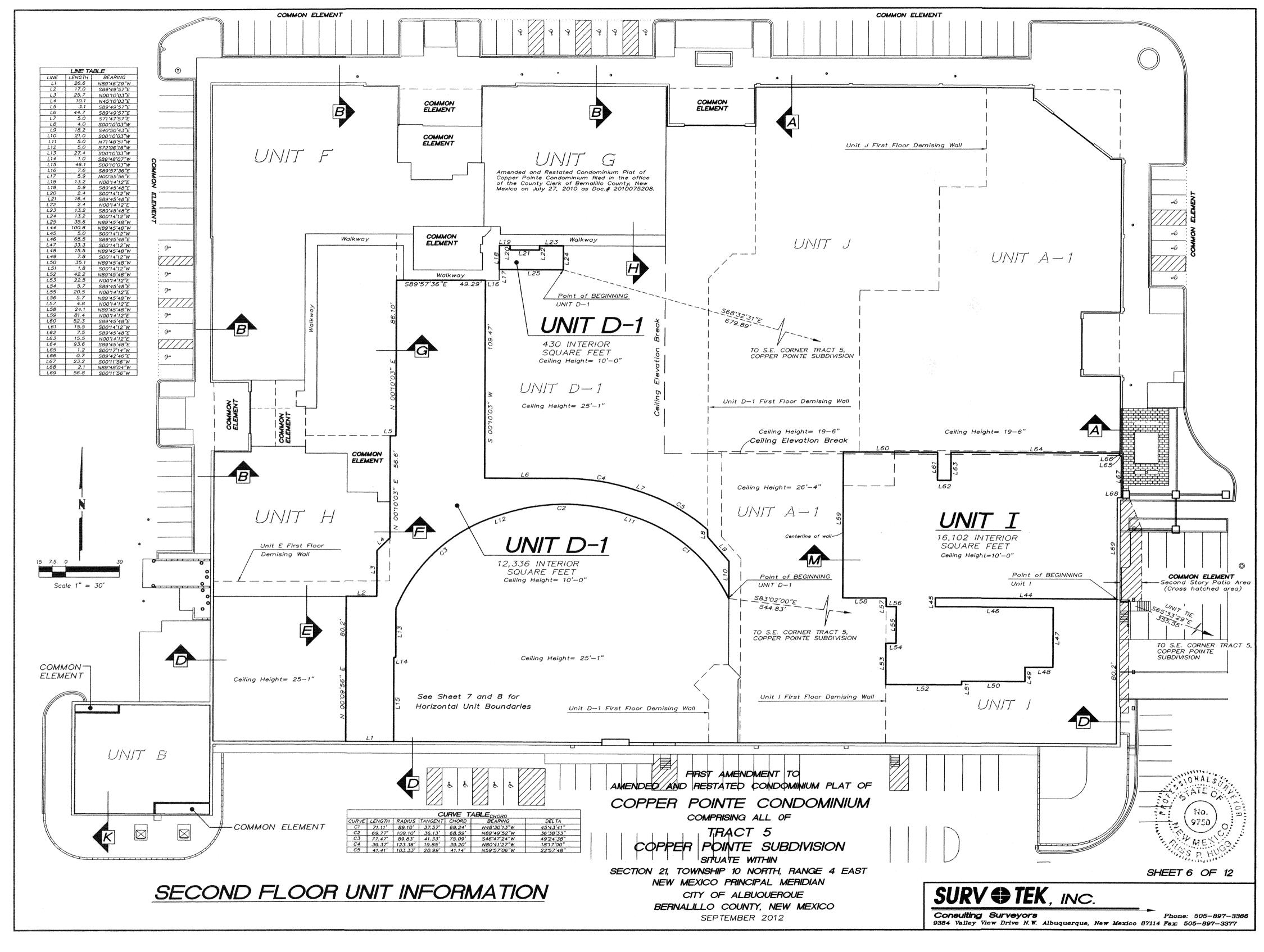
SURV TEK, INC.

Consulting Surveyors

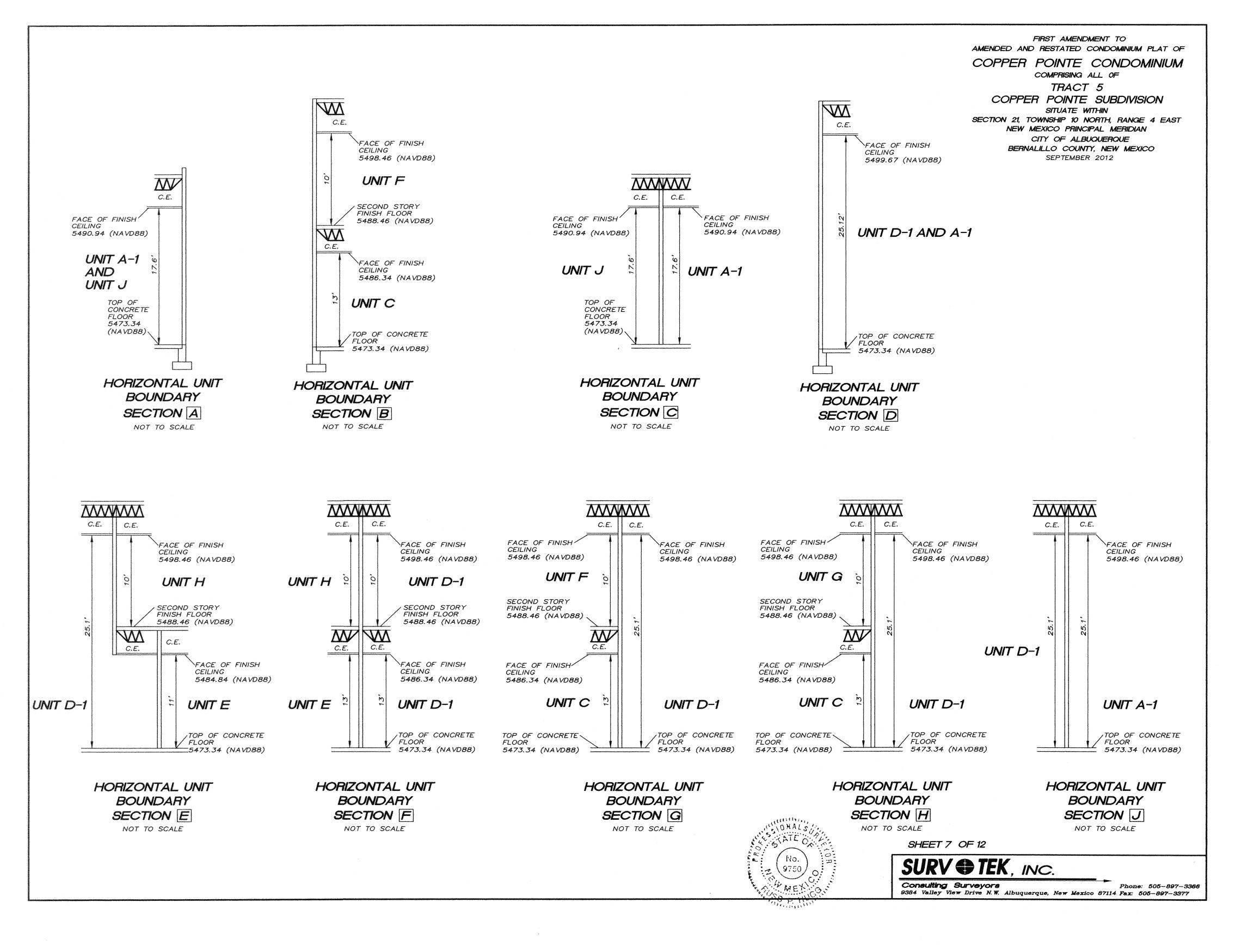
Phone: 505-897-3366
9384 Valley View Drive N.W. Albuquerque, New Mexico 87114 Fax: 505-897-3377







A



FIRST AMENDMENT TO AMENDED AND RESTATED CONDOMINIUM PLAT OF

COPPER POINTE CONDOMINIUM

COMPRISING ALL OF TRACT 5

COPPER POINTE SUBDIVISION

SITUATE WITHIN

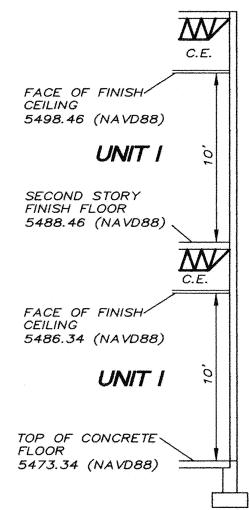
SECTION 21, TOWNSHIP 10 NORTH, RANGE 4 EAST NEW MEXICO PRINCIPAL MERIDIAN

CITY OF ALBUQUEROUE BERNALILLO COUNTY, NEW MEXICO SEPTEMBER 2012

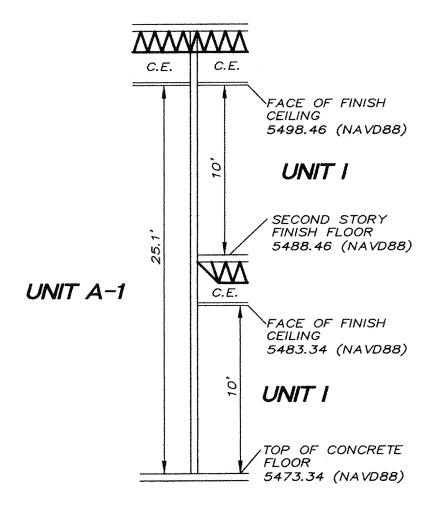
W FACE OF FINISH CEILING 5491.44 (NAVD88) UNIT B TOP OF CONCRETE FLOOR 5473.34 (NAVD88) HORIZONTAL UNIT **BOUNDARY**

SECTION K

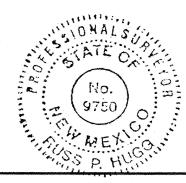
NOT TO SCALE



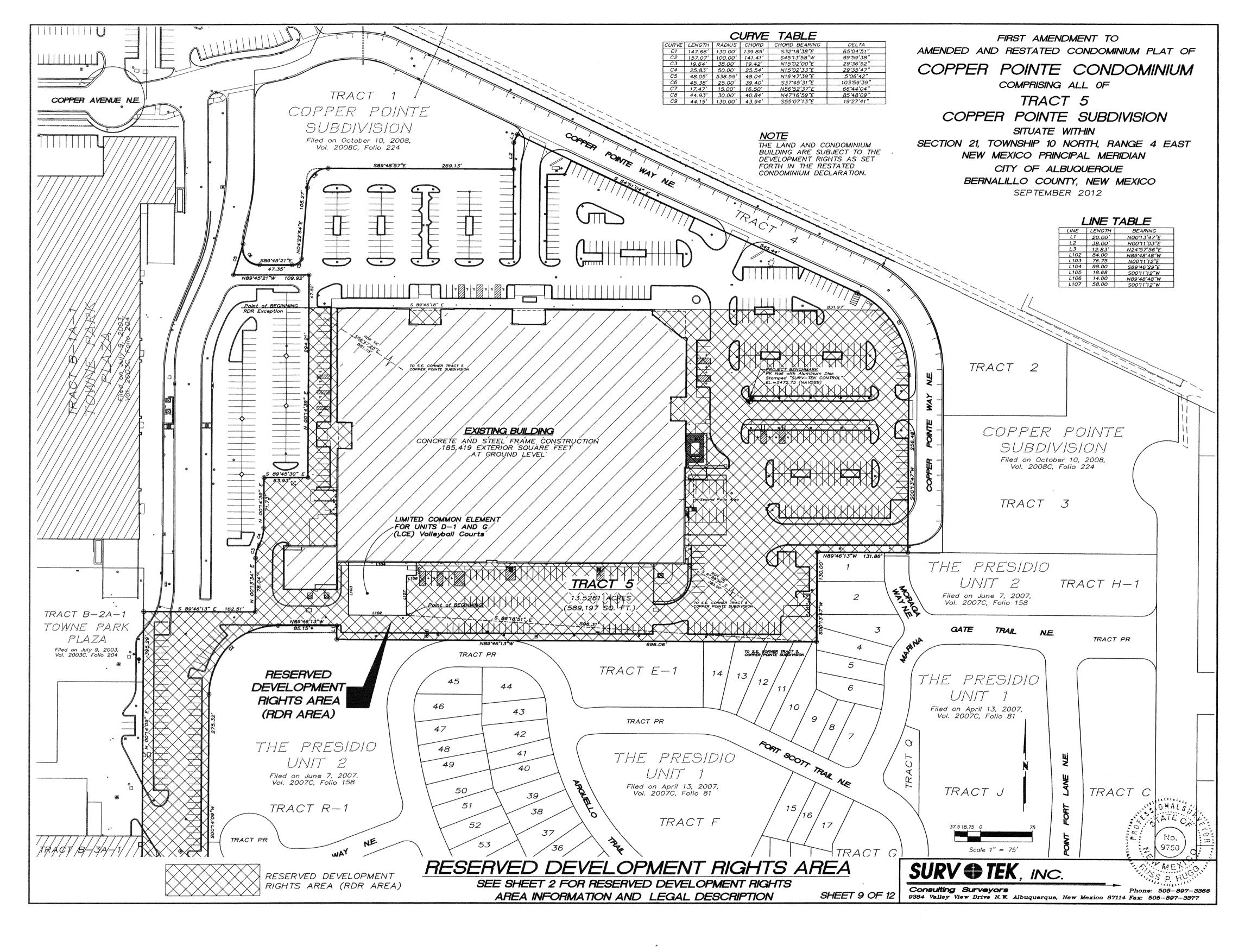
HORIZONTAL UNIT **BOUNDARY** SECTION L NOT TO SCALE

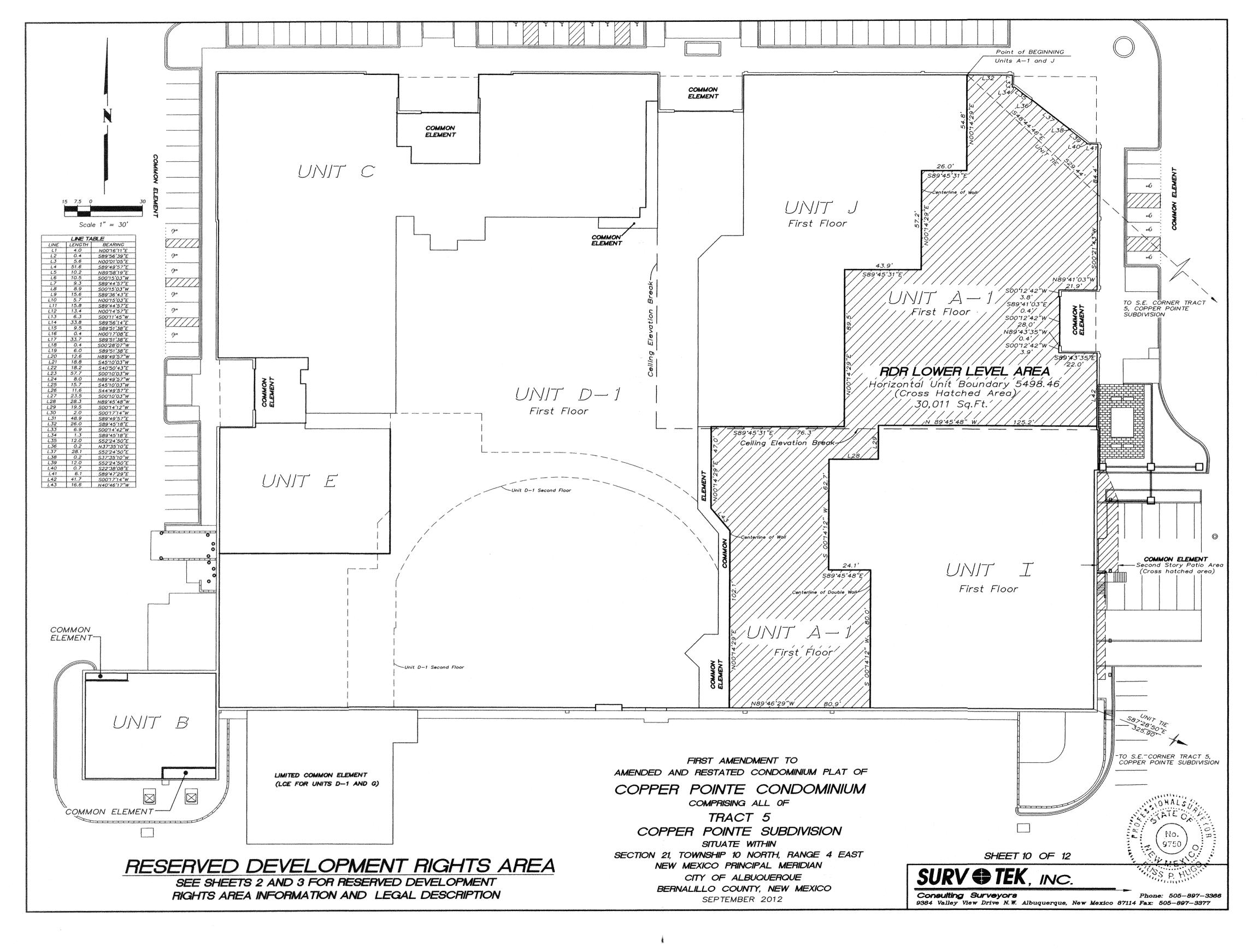


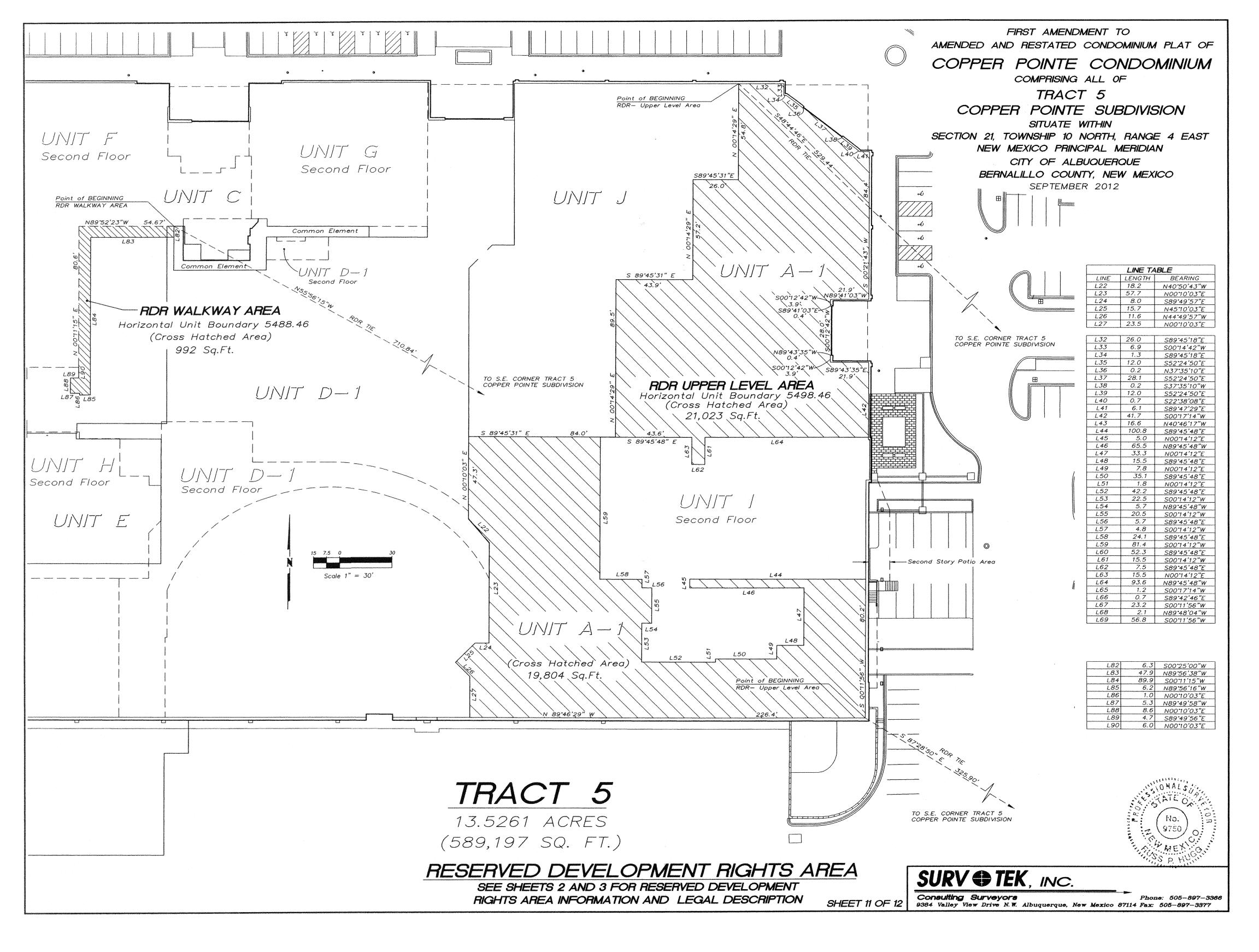
HORIZONTAL UNIT BOUNDARY SECTION M NOT TO SCALE

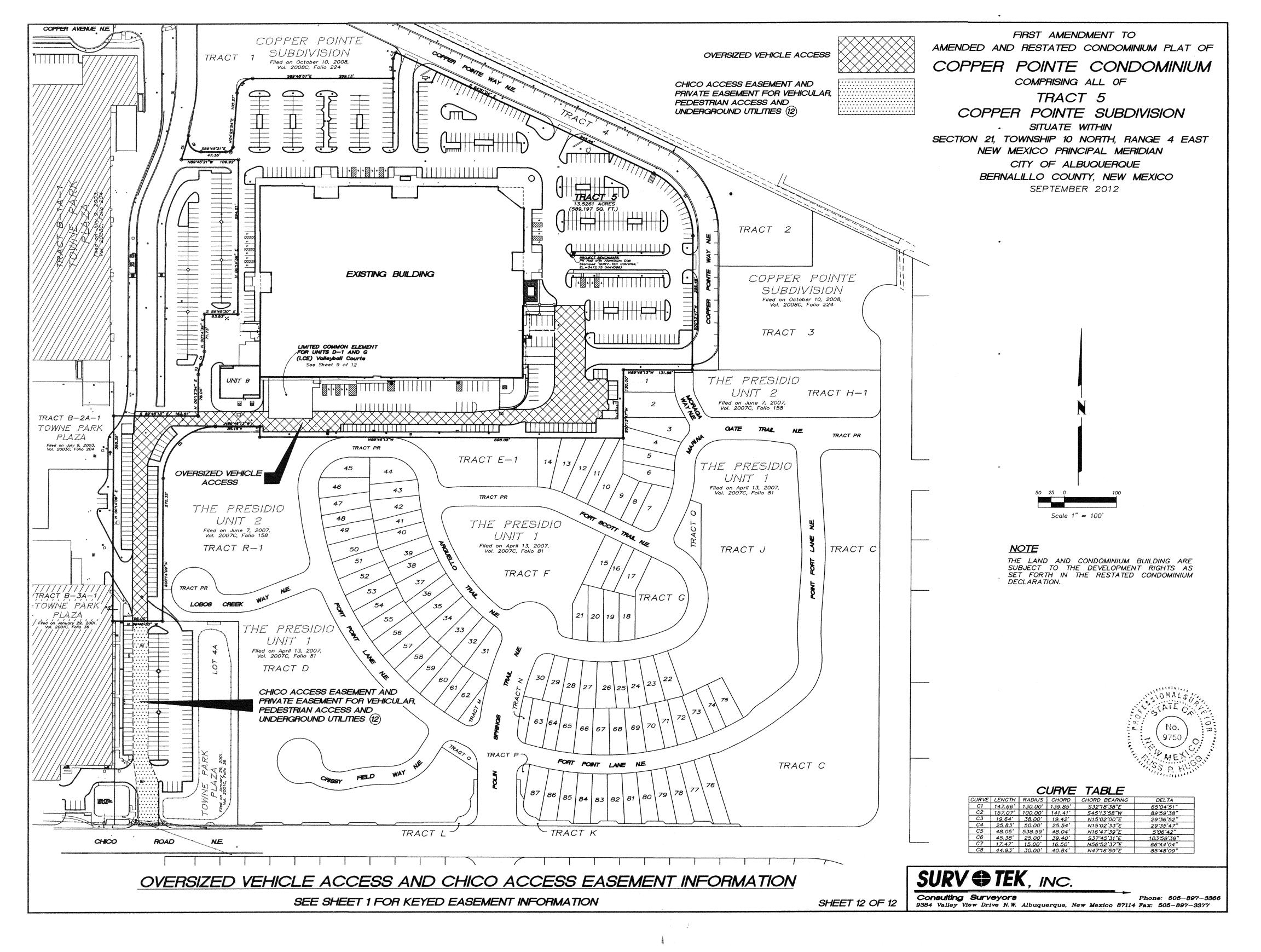


SHEET 8 OF 12









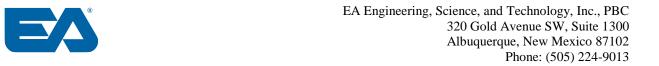
NEW MEXICO ENVIRONMENT DEPARTMENT VOLUNTARY REMEDIATION AGREEMENT

EXHIBIT 2

Preliminary Voluntary Remediation Work Plan

Copper Pointe - Unit A-1 and Unit C VRP Site No. 53201001

(VRP Work Plan provided electronically if document exceeds 10 pages)



VOLUNTARY REMEDIATION PROGRAM WORK PLAN FOR UNIT A-1 AND UNIT 3 10500 COPPER AVENUE NE, ALBUQUERQUE, NEW MEXICO

Prepared for:

New Mexico Environment Department Ground Water Quality Bureau 1190 St. Francis Drive / PO Box 5469 Santa Fe, NM 87502

and

MW Development, LLC 190 Central Park Sq. # 301. Los Alamos, NM 87544

Prepared by:

EA Engineering, Science, and Technology, Inc., PBC 320 Gold Avenue SW, Suite 1300 Albuquerque, New Mexico 87102

March 2020

VOLUNTARY REMEDIATION PROGRAM WORK PLAN FOR UNIT A-1 AND UNIT 3 10500 COPPER AVENUE NE, ALBUQUERQUE, NEW MEXICO

Prepared for:

New Mexico Environment Department Ground Water Quality Bureau 1190 St. Francis Drive / PO Box 5469 Santa Fe, NM 87502

Prepared by:

EA Engineering, Science, and Technology, Inc., PBC 320 Gold Avenue SW, Suite 1300 Albuquerque, New Mexico

Tyler Curley

Date
Project Manager

March 30, 2020

Jay Snyder Date

Senior Hydrogeologist

March 2020

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1.0 SITE BACKGROUND

On behalf of MW Development, LLC., EA Engineering Science and Technology, Inc., PBC (EA) is submitting this Voluntary Remediation Program (VRP) work plan for Unit A-1 and Unit C of Tract 5 of the Copper Pointe subdivision (the site) located at 10500 Copper Avenue, Albuquerque, New Mexico. The VRP work plan addresses the potential vapor intrusion (VI) as outlined in New Mexico Environment Department (NMED) Ground Water Quality Bureau (GWQB) Chief Michelle Hunter's March 11, 2020 letter to Pete Domenici, Jr., Esquire (NEMD 2020). The scope of work described in the work plan includes the following:

- Installation of a heating, ventilation, and cooling (HVAC) system designed to create a positive pressure differential between the indoor air space and the subfloor slab (sub-slab);
- Semi-annual monitoring of the of the indoor air space for contaminants of concern (COCs).

1.1 Site Location

The property is located in northeast Albuquerque, south of Interstate 40 and east of Eubank Boulevard within Section 21, Township 10, Range 4 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico. The property is bordered by parking lots on all sides followed by Copper Avenue and Interstate 40 to the north and other commercial lots to the east and west. To the south, the site is bordered by the Presidio Townhomes and Condos residential neighborhood.

1.2 Site History

According to the Phase 1 Environmental Site Assessment performed by Nova Group for MW Development LLC., commercial development began at the property between 1970 and 1971 (Nova Group 2020). GTE Lenkurt Electronics utilized the facility for electrical circuit board manufacturing, etching, and component degreasing and cleaning until 1986; Siemons Stromberg-Carlson operated the facility between 1986 and 1993. The property was vacant from 1993 until 2006 while environmental investigations and remedial activities were performed. The property was purchased in 2006 and redeveloped for commercial office space in 2008. The property has been in use by commercial tenants since this time (Nova Group 2020). The Nova Group Phase I Environmental Site Assessment is provided in Appendix A.

1.3 Contaminants of Concern

The primary COC at the site is trichloroethene (TCE). Soil contamination was identified at the site in 1993, resulting from the use of chlorinated solvents in the cleaning and degreasing of electrical components. Soil vapor extraction (SVE) activities began in 1995 and were successful in reducing volatile organic compound (VOC) concentrations within the vadose zone until the SVE system was decommissioned in 1997 (Nova Group, 2020). It is believed that relatively high concentrations of TCE (relative to vapor intrusion screening levels [VISLs] established post site closure) remained in site soil after the SVE system was decommissioned.

Air samples collected in Unit A-1 and Unit C in January 2020 (EA 2020 [provided in Appendix B]) indicate that concentrations of TCE are present in indoor air, although below both the Environmental Protection Agency (EPA) Regional Screening Level (RSL) for industrial indoor air and the NMED VISL for industrial indoor air.

2.0 PROPOSED REMEDIAL ACTIVITIES

Mitigation of the potential VI issue will be accomplished through engineering controls. A positive pressure indoor air space will be created via installation of a properly designed heating, ventilation, and cooling (HVAC) system. The HVAC system will be designed to create a pressure gradient from the indoor air to the sub-slab, thereby eliminating the diffusion of TCE into the indoor air space (NMED 2020). The HVAC system will be designed by a certified HVAC engineer and shall be registered as a formal Engineering Control. Maintenance of the HVAC system will be conducted in accordance with the design engineer and will be documented and submitted to the VRP for approval.

3.0 VOLUNTARY REMEDIATION PERFORMANCE STANDARD

The VRP performance standards for this project are based on NMED VISLs for industrial indoor air. The performance standards for TCE and its degradation products are listed in the table below.

Compound	Analytical Method	Performance Standard (NMED VISL)	
Trichloroethene	EPA Method TO-15	$9.83 \mu g/m^3$	
1,1-Dichloroethene	EPA Method TO-15	983 μg/m³	
cis-1,2-Dichloroethene	EPA Method TO-15	NE	
trans-1,2-Dichloroethene	EPA Method TO-15	$295 \mu g/m^3$	
Vinyl Chloride	EPA Method TO-15	$31.3 \mu g/m^3$	
Notes:			
$\mu g/m^3 = microgram per cubic meter.$			
NE = not established.			

4.0 SAMPLING AND ANALYTICAL METHODS

Prior to any field activities, EA will update the site-specific Health and Safety Plan (HASP) in accordance with the requirements of 40 CFR 1910.120. The plan will be comprehensive to cover all activities proposed.

Indoor air monitoring will be performed in accordance with the Quality Assurance Project Plan (QAPP) provided in Section 5.0 below. Indoor air monitoring will be conducted utilizing passive indoor/ambient air samplers provided by Beacon Environmental Services, Inc. (Beacon). The passive absorbent samplers do not require pumps or electricity and can be used to collect a sample over a period of several hours to 30 plus days, providing a time-weighted, average concentration. The indoor air samplers will be installed and left in place for approximately 7 days prior to retrieval. Installation of the passive samplers will be performed in accordance with Beacon's sampling instruction (Appendix C) as follows:

- Remove the sorbent tube from the protective case and sample bag, label the sample bag with the sample location, deployment time and date;
- Remove the brass sample cap from the sorbent tube and install the diffusion cap on the open end of the tube until it will not slide any farther;
- Using heavy duty string or metal wire, suspend the sorbent tube within the breathing zone so the diffusion cap faces down. Record all information on the chain of custody;

- Retrieve the samples after the designated sampling time. Verify the correct sample bag and record the retrieval time and date;
- Remove the diffusion cap from the sorbent tube and replace the brass sample cap;
- Place the tube in the protective case and sample bag for return to Beacon;
- Complete the chain of custody, place all samples and other items in the shipment box and send the samples via express courier to Beacon.

Indoor air monitoring well be conducted at the site on a semi-annual basis within the winter and summer months. Two (2) samples will be collected during each sampling event, one within Unit C (former Brown Mackie College) and 1 within Unit A-1. Air samples will be analyzed for VOCs by EPA method TO-15 and the results for each compound will be reported in nanograms. The calculation of time-weighted average concentrations is performed using validated uptake rates and the following equation as discussed in Beacon's *Technical Memorandum on Chlorosorber – The Passive Sampler to Target Chlorinated Compounds in Air – Vinyl Chloride to Tetrachloroethene* (Beacon 2020), provided in Appendix C.

$$C = \frac{1,000 * M * DF}{U_C * t}$$

And

$$Uc = U \left[\frac{T_s + 273.15}{T_u + 273.15} \right]^{\frac{1}{2}}$$

Where: $C = concentration (\mu g/m^3)$

M = mass (nanograms)

DF = Dilution Factor

U_c = uptake rate (milliliters per minute), corrected

t = sampling time (minutes)

$$\begin{split} U &= compound \ specific \ uptake \ rate \\ T_s &= temperature - sampling \ period \\ T_u &= temperature - uptake \ rate \ study \end{split}$$

Utilizing the methods discussed above the following limits of quantitation (LOQs) and limits of detection (LODs) were determined by Beacon for a 7-day exposure period (Beacon 2020), and are provided in the table below.

	LOQ	LOD		
	7-day exposure	7-day exposure		LOQ Below
Compound	time	time	NMED VISL	VISL?
Trichloroethene	$0.08 \mu g/m^3$	$0.03 \mu g/m^3$	$9.83 \mu g/m^3$	Yes
1,1-Dichloroethene	$0.11 \mu g/m^3$	$0.04 \mu g/m^3$	$983 \mu g/m^{3}$	Yes
cis-1,2-Dichloroethene	$0.07 \mu g/m^3$	$0.03 \mu g/m^3$	NE	Not Applicable
trans-1,2-	$0.07 \mu g/m^3$	$0.03 \mu g/m^3$	$295 \mu g/m^3$	Yes
Dichloroethene				
Vinyl Chloride	$0.09 \mu g/m^3$	$0.04 \mu g/m^3$	$31.3 \mu g/m^3$	Yes

All analytical data will be reported at the limits specified above and will be compared against NMED VISLs for compliance with the VRP performance standard.

5.0 QUALITY ASSURANCE PROJECT PLAN

This section of includes the QAPP for executing the sampling described in Section 5.0. This QAPP includes the required elements of the Guidance Quality Assurance Project Plans (QA/G-5) (EPA 2002) and Guidance on Systematic Planning using the Data Quality Objectives Process (QA/G-4) (EPA 2006b).

5.1 Data Quality Objectives

In summary, the overall data quality objectives (DQOs) for this project are to evaluate if site COCs remain below the NMED VISL for industrial indoor air once the remedy has been initiated.

5.2 Project Management

Project organization, roles and responsibilities, training, record keeping, and documentation are discussed in the subsections that follow.

5.2.1 Project Organization

- Jay Snyder, P.E. Principal Investigator
- Teri McMillan, P.G. Quality Assurance/Quality Control (QA/QC) Manager
- Tyler Curley, P.E. Project Manager and Field Operations Manager
- Elliott Andelman Field Geologist and Health and Safety Coordinator
- Nicole Peterson– Field Engineer

5.2.2 Responsibilities

Principal Investigator – Project direction, scoping, data interpretation, and corrective measures

QA/QC Manager – develop data quality objectives, project action levels, analytical methods, sampling methods, evaluate employee experience and certify they are qualified to work at the site, technical review of report(s), which will include QA/QC of technical data and verification of data usability.

Project Manager – Liaison between client and NMED, work plan preparation, assignment of personnel to appropriate positions, report(s) preparation, including initial evaluation of data usability and data quality, communication with laboratory, coordination of sampling.

Health and Safety Coordinator - Responsible for HASP review and approval.

Field Sampling Crew – Responsible for field sampling and measurement activities in accordance with the approved VRP Work Plan and for implementing proper sampling and sample handling procedures.

5.3 Training Requirements

This section outlines the training and certification required to complete the activities described in this SAP. The following sections describe the requirements for personnel working on site.

Health and Safety Training

Personnel who work on-site are required to meet the Occupational Safety and Health Administration (OSHA) training requirements defined in Title 29 of the Code of Federal Regulations (CFR) Part 1910.120(e). These requirements include: (1) 40 hours of formal off-site instruction; (2) a minimum of 3 days of actual on-site field experience under the supervision of a trained and experienced field supervisor; and (3) 8 hours of annual OSHA refresher training. Field personnel who directly supervise employees engaged in hazardous waste operations must also have at least 8 additional hours of specialized supervisor training. The supervisor training covers health and safety program requirements, training requirements, PPE requirements, spill containment program, and health-hazard monitoring procedures and techniques. Before work begins at a specific hazardous waste project site, personnel will be required to undergo site-specific training that thoroughly covers the following areas:

- Names of personnel and alternates responsible for health and safety at the site;
- Health and safety hazards present on site;
- Selection of the appropriate personal protection levels;
- Correct use of PPE;
- Work practices to minimize risks from hazards;
- Safe use of engineering controls and equipment on site; and
- Contents of the site-specific HASP.

5.4 Documentation and Records

Documentation is critical for evaluating the success of any environmental data collection activity. The following sections discuss the requirements for documenting field activities and for preparing laboratory data packages. This section also describes reports that will be generated as a result of this project.

Field Documentation

Field personnel will use permanently bound field logbooks with sequentially numbered pages to record and document field activities. The logbook will list the contract name and number, the project number, the site name, and the names of subcontractors, the client, and the project manager. At a minimum, the following information will be recorded in the field logbook:

- Names and affiliations of all on-site personnel or visitors;
- Weather conditions during the field activity;
- Summary of daily activities and significant events;
- Notes of conversations with coordinating officials;
- References to other field logbooks or forms that contain specific information;
- Discussions of problems encountered and their resolution;
- Discussions of deviations from the QAPP or other governing documents; and
- Descriptions of all photographs taken.

Reports Generated

Reporting of the VRP field activities and data results is addressed in Section 7.0.

5.5 Data Acquisition

This section describes the requirements for the following:

- Sampling Design
- Field Activities
- Sample Handling and Custody
- Analytical Methods
- Quality Control Sampling
- Equipment Testing, Inspection, and Maintenance
- Instrument Calibration Procedures
- Inspection and Acceptance Requirements for Supplies and Consumables
- Management of Work Plan Deviations

5.6 Sample Design

The sampling design is described in detail in Section 4.0.

5.7 Sampling Method Requirements

Sample method requirements for the project are specified in Section 4.0. A total of 2 samples will be collected during each semi-annual event, one sample each in Unit A-1 and Unit C.

5.8 Sample Handling and Custody Requirements

The following subsections describe sample handling procedures, including sample identification and labeling, documentation, chain of custody, and shipping.

5.8.1 Sample Identification

Each sample collected during site assessment activities will be identified using a unique sample identification (ID) number. The description of the sample type and the monitoring location will be recorded on the chain of custody forms, as well as in the field notes.

Sample IDs will be listed on the sample labels and the chain of custody forms submitted to the laboratory and will be cross-referenced to the point name in permanently bound field logbooks and on field data sheets.

One field duplicate for indoor air samples will be collected during the first sampling event. The duplicate sample will be given an ID similar to the one for the normal sample with a distinct extension. This way, the sample association will be blind to the laboratory. The association between normal and duplicate sample will be noted in the logbook and/or sampling forms.

5.8.2 Sample Labels

A sample label will be affixed to each sample container. The label will be completed with the following information written in indelible ink:

- Project name and location
- Sample identification number
- Date and time of sample collection
- Sample collector's initials

• Analysis required.

5.8.3 Sample Documentation

Documentation during sampling is essential to promote proper sample identification. Field personnel will adhere to the following general guidelines for maintaining field documentation:

- Documentation will be completed in permanent black or blue ink.
- All entries will be legible.
- Errors will be corrected by crossing out the entry with a single line and then dating and initialing the lineout.
- Any serialized documents will be maintained and referenced in the site logbook.
- Unused portions of pages will be crossed out, and each page will be signed and dated.

5.8.4 Chain of Custody

Field personnel will use standard sample custody procedures to maintain and document sample integrity during collection, transportation, storage, and analysis. A sample will be considered to be in custody if one of the following statements applies:

- It is in a person's physical possession or view.
- It is in a secure area with restricted access.
- It is placed in a container and secured with an official seal in such a way that the sample cannot be reached without breaking the seal.

Custody procedures provide an accurate written record that traces the possession of individual samples from the time of collection in the field to the time of acceptance at the laboratory. The chain of custody form will be used to document all samples collected and the analyses requested. Information that the field personnel will record on the form includes:

- Project name and number
- Sampling location
- Name and signature of sampler
- Destination of sample (laboratory name)
- Sample ID
- Date and time of collection
- Number and type of containers filled
- Analyses requested
- Preservatives used (if applicable)
- Filtering (if applicable)
- Signatures of individuals involved in custody transfer, including the date and time of transfer
- Project contact and phone number

Unused lines on the form will be crossed out and field personnel will sign chain of custody forms and the airbill number will be recorded. The form, along with the samples, will be placed in the shipping container provided by the laboratory which will be equipped with a custody seal. Signed airbills will serve as evidence of custody transfer between field personnel and the courier, and between the courier

and the laboratory. Copies of the form and the airbill will be retained and filed by field personnel before the containers are shipped.

The laboratory sample custodian will receive all incoming samples, sign the accompanying chain of custody forms, and will retain copies of the forms as permanent records. The laboratory sample custodian will record all pertinent information concerning the samples, including the persons delivering the samples, the date and time received, sample condition at the time of receipt (sealed, unsealed, or broken container; or other relevant remarks), the sample IDs, and any unique laboratory identification numbers for the samples. When the sample transfer process is complete, the custodian is responsible for maintaining internal logbooks, tracking reports, and other records necessary to maintain custody throughout sample preparation and analysis.

The laboratory will provide a secure storage area for all samples. Access to this area will be restricted to authorized personnel. The custodian will ensure that samples will be properly stored and maintained prior to analysis.

5.9 Analytical Methods

Analytical methods for the project are specified in Section 4.0.

5.10 Quality Control Sampling

The subsections below specify QA/QC protocols for field samples and laboratory samples.

Field Quality Control Samples

No field QC samples are specified for the site assessment activities planned herein.

Duplicate Samples

One duplicate sample will be collected during this investigation during the first sampling event (?) (a 10% frequency of collection).

5.11 Instrument/Equipment Testing, Inspection and Maintenance

All equipment used during the site assessment will be properly tested, inspected, maintained, and calibrated. Samples collected during this investigation will be analyzed only by laboratory equipment.

The laboratory's QA plan and written operating procedures describing specific testing, inspection, maintenance, and calibration procedures for equipment will be followed.

5.12 Instrument Calibration Procedures

Monitoring instruments will not be used on this project.

5.13 Inspection and Acceptance Requirements for Supplies and Consumables

The project manager has the primary responsibility for identifying the types and quantities of supplies and consumables needed to complete the project and is responsible for identifying acceptance criteria for these items.

Supplies and consumables can be received either at EA's office or at a work site. When supplies are received at an office, the project manager or field personnel will sort them according to vendor, check packing slips against purchase orders, and inspect the condition of all supplies before they are accepted for use on a project. If an item does not meet the acceptance criteria, deficiencies will be noted on the packing slip and purchase order and the item will then be returned to the vendor for replacement or repair.

Procedures for receiving supplies and consumables in the field are similar. When supplies are received, the project manager or field personnel will inspect all items against the acceptance criteria. Any deficiencies or problems will be noted in the field logbook, and deficient items will be returned for immediate replacement.

Analytical laboratories are required to provide certified clean containers for all analyses. These containers must meet EPA standards described in *Specifications and Guidance for Obtaining Contaminant-Free Sampling Containers* (EPA, 1992).

5.14 Management of VRP Work Plan Deviations

Minor deviations, including exact sample placement, will be addressed by field crew and the project manager and professional judgment will be utilized. Any deviation from the VRP Work Plan will be detailed in the field notebook and included in the Completion Report to NMED. Any deviation considered significant will be addressed by the field crew, project manager and NMED GWQB Project Managers.

A consensus on correcting the deviation will be achieved prior to executing any work plan changes, if at all possible. It is expected that the NMED GWQB Project Manager or other agency representative will be available for communication during fieldwork. If a situation arises that requires work plan deviation, every attempt will be made to reach an NMED GWQB representative. If attempts are unsuccessful and a deviation from the work plan must be made in a timely manner, the project manager will use professional judgment to adjust work plan specifications as needed.

5.15 Data Validation and Usability

This section describes the procedures that are planned to review and evaluate field and laboratory data. This section also discusses procedures for verifying that the data are sufficient to meet DQOs for the project.

5.15.1 Data Review, Validation and Verification Requirements

For this project, EA will perform data review on 100 percent of the laboratory results. No validation will be performed. Data will be reviewed for holding times, handling and preservation procedures, chain of custody, acceptance within control limits, and to ensure data meet method control limits for project goals.

5.15.2 Laboratory Data Evaluation and Usability

Laboratory personnel will verify analytical data at the time of analysis and reporting and through subsequent reviews of the raw data for any non-conformances to the requirements of the analytical method. Laboratory personnel will make a systematic effort to identify any outliers or errors before they report the data; however, this is unlikely due to the small data set created during each field event. Outliers that result from errors found during data verification will be identified and corrected; outliers that

cannot be attributed to errors in analysis, transcription, or calculation will be clearly identified in the case narrative section of the analytical data package.

All laboratory data will be reviewed to ensure usability. The data evaluation strategy will not be a full data validation process but will determine if the analytical results are within the QC limits set for the project. In this process, the data usability will be assessed. Specifically, sample handling requirements, holding times, duplicate results, and QC control limits will be reviewed.

5.15.3 Reconciliation with DQOs

After environmental data have been reviewed and evaluated in accordance with the procedures described above, the data must be further evaluated to assess whether DQOs have been met.

To the extent possible, EPA's data quality assessment (DQA) process will be followed to verify that the type, quality, and quantity of data collected are appropriate for their intended use. DQA methods and procedures are outlined in EPA's *Data Quality Assessment, A Reviewer's Guide* (EPA, 2006b). The DQA process includes five steps: (1) review the DQOs and sampling design; (2) conduct a preliminary data review; (3) select a statistical test; (4) verify the assumptions of the statistical test; and (5) draw conclusions from the data. In the case of this project, no statistical analysis is planned.

When the five-step DQA process is not completely followed because the DQOs are qualitative, data quality and data usability will be systematically assessed. This assessment will include:

- A review of the sampling design and sampling methods to verify that these were implemented as planned and are adequate to support project objectives,
- A review of project-specific data quality indicators and project reporting limits to evaluate whether acceptance criteria have been met,
- A review of project-specific DQOs to assess whether they have been achieved by the data collected, and
- An evaluation of any limitations associated with the decisions to be made based on the data collected.

The final report for the project will discuss any potential impacts of these reviews on data usability and will clearly define any limitations associated with the data.

5.16 Data Management

Field data will be recorded in the logbook and/or field forms and will be included in the appendices of the Site Investigation report. Analytical data will be received in electronic form and will be summarized, tabulated, analyzed, and provided in the body of the report. The original laboratory data will also be provided in the appendices. As appropriate, some data will be presented graphically. EA will oversee collection of environmental data using the appropriate assessment and audit activities. Any problems encountered during an assessment of field investigation or laboratory activities will require appropriate corrective action to ensure that the problems are resolved.

5.17 Data Evaluation

This section discusses procedures for verifying that the data are sufficient to meet DQOs for the project. Practical quantitation limits for COCs will be sufficiently low that a comparison to the VRP performance standards will be possible. COCs in the indoor air samples will be evaluated against the NMED VISL for industrial indoor air.

6.0 REPORTING

Upon initiation of the selected remedy, notification will be given to NMED VRP via an installation letter report. The report will include the following:

- HVAC installation details;
- HVAC system specification and details from the design engineer;
- Material specification sheets for all HVAC equipment installed;
- Operation and maintenance guidelines as specified by the HVAC engineer;
- and, photographic documentation log.

After each semi-annual monitoring event, EA will review the data from the analytical laboratory and will prepare a letter report describing the results within two weeks of receipt of laboratory data. Data will be compared to the VRP performance standards discussed in section 4.0.

7.0 SCHEDULE

	Public Notice Filed and Posted
	30 Day Public Notice Period Complete
0	Draft Final VRP Work Plan Submitted
45	NMED Comments on Final VRP Work Plan
60	Final VRP Work Plan Cure
90	Commence Field Work
100	Completion Report Submitted

8.0 REFERENCES

Beacon Environmental. 2020. Technical Memorandum – ChloroSorber – The Passive Sampler to Target Chlorinated Compounds in Air – Vinyl Chloride to Tetrachloroethene. February.

- EA Engineering Science and Technology Inc., PBC (EA). 2020. Indoor Air Monitoring Report, Brown Mackie College, 10500 Copper Avenue NE, Albuquerque, NM. February.
- U.S. Environmental Protection Agency (EPA). 1992. Specifications and Guidance for Obtaining Contaminant-Free Sampling Containers. OSWER Directive No. 9240.0-05A. April.
- EPA. 2002. Guidance for Quality Assurance Project Plans. Office of Environmental Information. Washington, DC. EPA QA/G-5 EPA/240/R-02/009. December.

- EPA. 2006a. Data Quality Assessment: A Reviewer's Guide. EPA QA/G-9R, EPA/240/B-06/002, February.
- EPA 2006b. Guidance on Systematic Planning Using the Data Quality Objectives Process EPA QA/G-4, EPA/240/B-06/001. February.
- New Mexico Environment Department (NMED). March 11, 2020 correspondence from Ms. Michelle Hunter, Chief to Mr. Pete Domenici, Jr. Esquire, *Re: Path Forward for Part of Unit A-1 and All of Unit C, Copper pointe, 10500 Copper Avenue, Albuquerque, New Mexico.*
- Nova Group. 2020. Phase 1 Environmental Site Assessment. MW Development LLC/Copper Pointe Business Park 10500 Copper Avenue NE, Albuquerque, NM. February.

APPENDIX A

PHASE I ENVIRONMENTAL SITE ASSESSMENT

(Provided Electronically via CD)

APPENDIX B

INDOOR AIR MONITORING REPORT, BROWN MACKIE COLLEGE



EA Engineering, Science, & Technology, Inc., PBC 320 Gold Avenue SW, Suite 1300 Albuquerque, New Mexico 87102 Phone: (505) 224-9013

February 21, 2020

Mr. Bill Kruger MW Development, LLC 190 Central Park Sq. # 301. Los Alamos, NM 87544

RE: INDOOR AIR MONITORING REPORT, BROWN MACKIE COLLEGE, 10500 COPPER AVENUE NE, ALBUQUERQUE, NM

Dear Mr. Krueger:

EA Engineering, Science, and Technology, Inc., PBC (EA) has conducted an Indoor Air Quality Investigation at the above-referenced site. The investigation was completed as outlined in the *Proposal for Industrial Indoor Air Assessment, Brown Mackie College, 10500 Copper Avenue NE, Albuquerque, New Mexico December 17, 2019.*

Indoor Air Monitoring

EA performed indoor air monitoring on December 18, 2018. Composite air samples were collected over an 8-hour period from the locations shown on Figure 1. Samples were collected utilizing summa canisters and were submitted for analysis of VOC's by Environmental Protection Agency (EPA) Method TO-15 Selective Ion Monitoring (SIM) to Eurofins Air Toxics. A total of 19 indoor air samples and 2 duplication samples (1 within each unit) were collected. In addition, 1 upwind outdoor ambient air sample was collected. Photographic documentation of the sampling locations is provided in Attachment 1. Sampling details for each unit are provided below:

- Unit A-1
 - o 1 sample was collected within the 3,000 square foot cleaning/storage area
 - o 4 samples were collected within the 6,000 square foot open area
- Unit C (former Brown Mackie College)
 - o 14 Samples were collected

6-L Summa[®] canisters with vacuum gauges and 8-hour flow controllers were used to collect the indoor air and outdoor air samples. The canisters were individually certified clean in accordance with EPA Method TO-15SIM and under a vacuum pressure of no less than -24 in. Hg. Each 6-L Summa[®] canister was paired with an associated vacuum gauge and flow controller by the laboratory during the certification process and used at only one location. The flow controllers, which feature a particulate filter and vacuum gauge, were set to 10.5 mL/minute by the analytical laboratory prior to shipping. Immediately prior to sample setup and collection, vacuum readings for each Summa[®] canister were verified with a handheld pressure gauge to assess for potential

leaks during transit from the laboratory to the field. Initial vacuum gauge readings were recorded on the field sampling forms prior to sample collection.

Following the 8-hour collection period, the Summa® canister valves were closed to terminate sample collection. If Summa® canister vacuum gauges reached -5 in. Hg or less before the 8-hour collection period had concluded, or if such a condition was reached in a canister associated with duplicate or split sample sets, the canister valves were closed to terminate sample collection. A total of 4 samples were terminated prior to the conclusion of the 8-hour collection period, with the shortest sample period being approximately 5.75 hours. As with many flow regulating devices that are continuously recalibrated and reused, there are inherent minor discrepancies between the actual flow rate achieved in a field setting and those achieved during the calibration process. Flow regulator ending gauge pressures and sample end times were recorded on the canister identification tags and the field sampling forms. Once sample collection was completed, the canister and flow controllers were disconnected, and a cap was tightened onto the Summa® canister. Pertinent sample information was recorded on the associated chain of custody and the canister was repackaged into the originating box.

The Summa® canisters were packed in the shipping containers provided by the lab, Eurofins Air Toxics, Inc. (Eurofins), and submitted to Eurofins under chain-of-custody for analysis of VOCs including TCE by Modified TO-15 SIM. Copies of field forms are provided in Attachment 2. Copies of the building surveys generated during the indoor air assessment are included in Attachment 3. Analytical laboratory report is provided in Attachment 4.

Indoor Air Monitoring Results

Results of the indoor air monitoring indicate the presence of TCE within Unit A-1 and Unit C. However, while the presence of TCE was detected, it was below the EPA Regional Screening Level (RSL) for Industrial Indoor Air. Laboratory analytical results were compared against both their respective New Mexico Environment Department (NMED) Vapor Intrusion Screening Level (VISL) and EPA RSL and are summarized in Table 1.

Contaminants detected above their respective NMED VISL and EPA RSL include benzene and ethylbenzene. Within Unit A-1, benzene was detected above the EPA RSL in all 5 samples and ethylbenzene was detected above the EPA RSL in 1 sample. Within Unit C, ethylbenzene was detected above the EPA RSL in all 14 samples. There were exceedances of benzene and ethylbenzene within Unit A-1; however, as shown in Photograph 2, Attachment 1, the storage of gasoline powered equipment in open air inside the warehouse is a likely source of these fuel-related contaminants. The exceedances of ethylbenzene within Unit C is likely related to construction activities and removal of carpet as ethylbenzene is commonly used in the production of carpet glue.

Contaminants observed within the outdoor air samples included the fuel-related contaminants benzene, ethylbenzene, toluene, and xylenes. These contaminants are likely a result from vehicle exhaust as the sample was placed near the parking lot and is down wind of Interstate 40. All contaminants observed were below respective standards. TCE was not detected within outdoor air sample.

Conclusions

The primary contaminant of concern, TCE, was not observed above the EPA RSL. While benzene and ethylbenzene were observed above their respective EPA RSL, the presence of these contaminants can likely be explained by the ongoing construction activities and the equipment placed in storage.

If you have any questions, please feel free to contact me a (505) 715-4422.

Sincerely,

Tyler Curley, F.E. Project Manager

Tables: 1 – Summary of Compounds Detected in Air Samples

Figures 1 – Sampling Results

Attachments: 1 – Photographic Documentation

2 - Field Forms

3 – Building Surveys

4 – Laboratory Analytical Reports

References

EA Engineering, Science, and Technology, Inc. (EA). 2019. Proposal for Industrial Air Assessment, Brown Mackie College, 10500 Copper Avenue NE, Albuquerque, NM. December 2019.

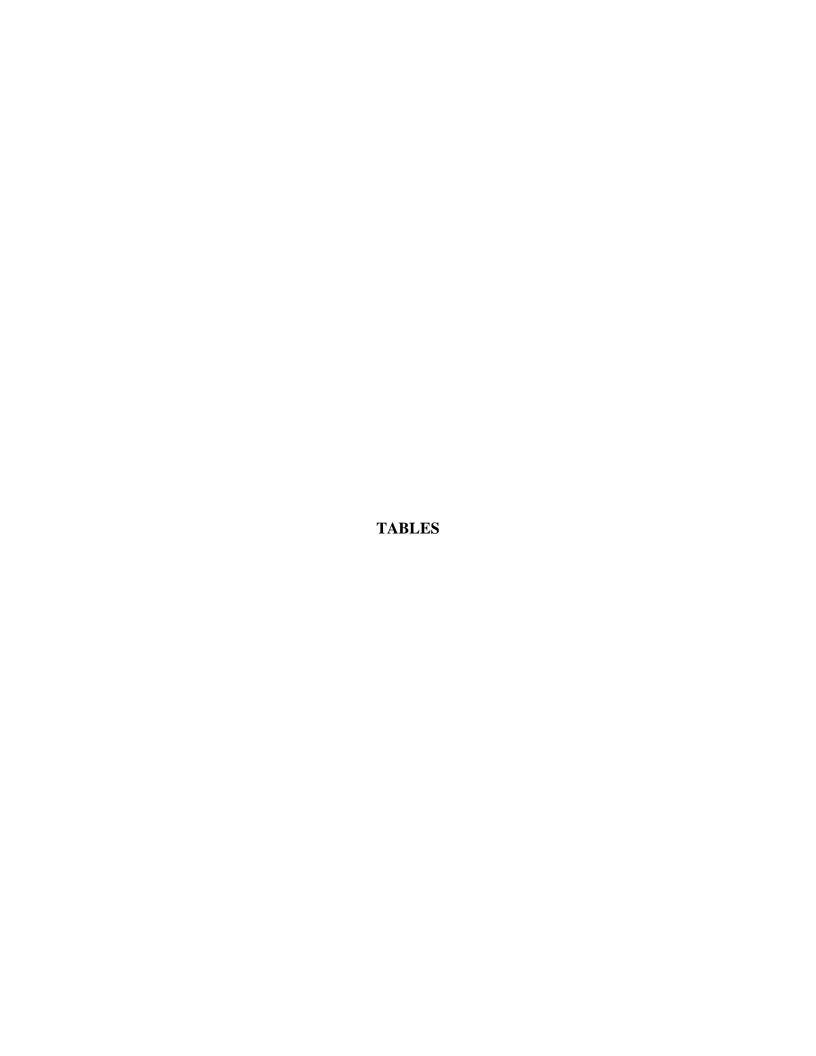


Table 1. Summary of Compounds Detected in Air Samples

												C	ompou	ınd											
Sample Location ID	Date	Freon 11	Ethanol		Freon 113	Acetone	2-Propanol		Hexane	2-Butanone (Methyl Ethyl Ketone)	Cyclohexane	4-Ethyltoluene	1,2,4-Trimethylbenzene	Freon 12	1,1-Dichloroethene	1,1,1-Trichloroethane	Carbon Tetrachloride	Benzene	Trichloroethene	Toluene	Tetrachloroethene	Ethyl Benzene	m,p-Xylene	o-Xylene	Total Xylene
											Unit A														
IA-A-01	1/29/2020	1.5	560	Е		110	680	Е	4	6.6	1.8	1.9	2.0	2.4	0.12	< 0.22	0.47	2.1	1.5	10	< 0.28	8.9	20	6.8	26.8
IA-A-02	1/29/2020	1.5	660	Е		59	260	E	<3.5	<3.0	0.89	1.4	1.4	2.5	0.12	< 0.22	0.46	1.7	1.4	7.7	< 0.27	3.7	11	3.9	14.9
IA-A-03	1/29/2020	1.3	640	Е		110	260	Е	< 3.6	6.7	< 0.71	1.5	1.4	2.4	0.13	< 0.22	0.46	1.6	1.4	7.3	< 0.28		11	3.7	14.7
IA-A-03-D	1/29/2020	1.3	630	Е		71	240	Е	< 3.6	<3.0	0.92	1.2	1.1	2.5	0.12	< 0.22	0.45	1.7	1.4	7.9	0.29	3.7	11	3.7	14.7
IA-A-04	1/29/2020	1.4	670	Е		140	250		< 3.6	6	1	1.3	1.4	2.4	0.11	< 0.22	0.46	1.6	1.3	7	< 0.28	3.5	10	3.6	13.6
IA-A-05	1/29/2020	1.3	620	Е	3.2	60	210	Е	<3.5	<3.0	0.78	1.2	1.2	2.5	0.10	< 0.22	0.47	1.7	1.3	7.3	< 0.27	3.1	9.2	3.1	12.3
											Unit C														
IA-C-01	1/29/2020	<4.0	1100	Е	< 5.4	68	13		<12	<10	<2.4	<3.5	<3.5	2.4	< 0.28	1.2	< 0.28	<1.1	0.88	4	< 0.96	59	310	110	420
IA-C-02	1/29/2020	< 2.8	760	Е	<3.8	84	11		<8.8	8.9	<1.7	<2.5	<2.5	2.4	< 0.20	1.2	< 0.63	0.85	0.86	3.8	< 0.68	59	320	110	430
IA-C-03	1/29/2020	<3.0	1100	Е	<4.2	77	15		< 9.6	9.8	<1.9	<2.7	<2.7	2.3	< 0.21	0.95	< 0.68	1.0	0.90	3.9	< 0.74	58	310	100	410
IA-C-04	1/29/2020	<3.7	1600	Е	< 5.0	64	12		<12	<9.6	<2.2	<3.2	<3.2	2.3	< 0.26	0.85	< 0.82	<1.0	0.83	4.1	< 0.88	60	330	110	440
IA-C-05	1/29/2020	< 2.8	730	Е	<3.9	86	11		<8.9	11	<1.7	<2.5	<2.5	2.3	< 0.20	1.2	< 0.64	0.89	0.96	3.8	< 0.68	53	280	94	374
IA-C-06	1/29/2020	< 2.8	800	Е	< 3.9	48	8.8		<8.9	<7.4	<1.7	<2.5	<2.5	2.4	< 0.20	1.3	< 0.64	0.91	1.5	3.8	< 0.68	55	300	98	398
IA-C-07	1/29/2020	< 2.6	690	Е	<3.5	42	8.2		< 8.1	<6.8	<1.6	<2.3	<2.3	2.4	< 0.18	1.3	< 0.58	0.84	0.96	3.8	< 0.63	58	320	100	420
IA-C-08	1/29/2020	< 2.8	950	Е	<3.8	78	12		<8.8	9.8	<1.7	<2.4	<2.4	2.4	< 0.20	1.4	< 0.63	0.96	1.0	3.9	< 0.68	56	300	100	400
IA-C-08-D	1/29/2020	<2.9	970	Е	<4.0	98	12		< 9.2	<7.7	<1.8	<2.6	< 2.6	2.3	< 0.21	1.2	< 0.66	1.0	0.91	3.5	< 0.71	45	210	73	283
IA-C-09	1/29/2020	< 3.7	1300	Е	< 5.0	44	8.8		<12	< 9.6	<2.2	<3.2	<3.2	2.5	< 0.26	1.4	< 0.82	<1.0	1.0	3.9	< 0.88	54	290	98	388
IA-C-10	1/29/2020	<3.7	1800	Е	< 5.0	83	12		<12	<9.7	<2.3	<3.2	<3.2	2.4	< 0.26	0.94	< 0.83	<1.0	1.0	4.1	< 0.89	56	300	100	400
IA-C-11	1/29/2020	<3.7	1900	Е		42	10		<12	<9.8	<2.3	<3.2	<3.2	2.4	< 0.26	0.87	< 0.83	<1.0	0.95	4.2	< 0.90	53	290	99	389
IA-C-12	1/29/2020	<3.0	1900	Е	<4.1	52	14		<9.3	<7.8	<1.8	<2.6	<2.6	2.3	< 0.21	0.71	< 0.67	1.1	1.1	3.7	< 0.72	43	210	72	282
IA-C-13	1/29/2020	<3.7	1800	Е	< 5.0	37	<8.1		<12	<9.7	<2.3	<3.2	<3.2	2.4	< 0.26	0.70	< 0.83	1.2	1.2	4.3	< 0.90	44	290	72	362
IA-C-14	1/29/2020	<3.8	2900	Е	< 5.2	60	14		<12	<10	<2.4	<3.4	<3.4	2.3	< 0.27	< 0.74	< 0.86	1.2	0.94	4.2	< 0.93	39	190	67	257
										0	utdoor Ai	r													
OA-01	1/29/2020	1.2	3.9		<1.5	9.3	<2.5		<3.5	<3.0	< 0.69	< 0.99	< 0.99	2.3	< 0.080	< 0.22	0.38	0.66	< 0.22	1.2	< 0.27	0.23	0.61	0.25	0.86
EPA RSL		NA	NA		NA	14,000	NA		3100	22,000	26,000	NA	260	NA	280	22,000	2.0	1.6	3.0	22,000	47	4.9	440	440	440
NMED VISLs		NA	NA		NA	15,000	NA		NA	24,600	NA	NA	NA	NA	983	24,600	22.9	17.6	9.83	24,600	197	55.1	492	492	492

Notes:

All units in micrograms per cubic meter.

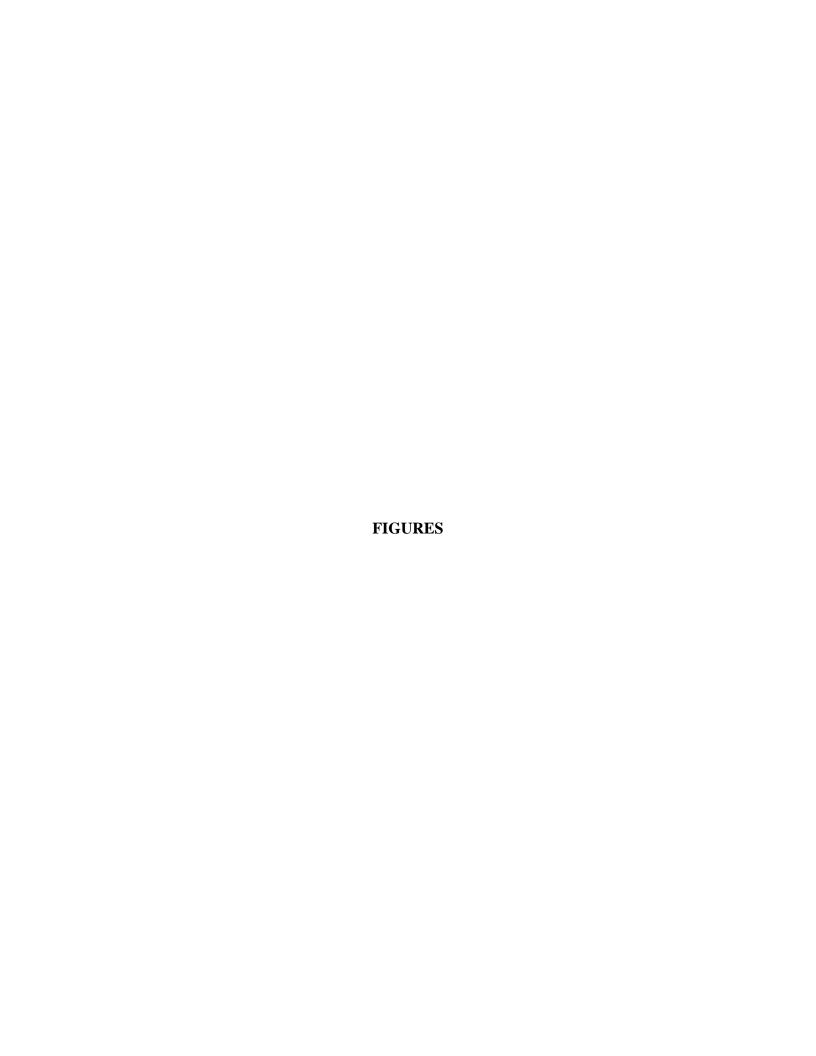
EPA RSL = Evironmental Proctection Agency Regional Screening Level-November 2019

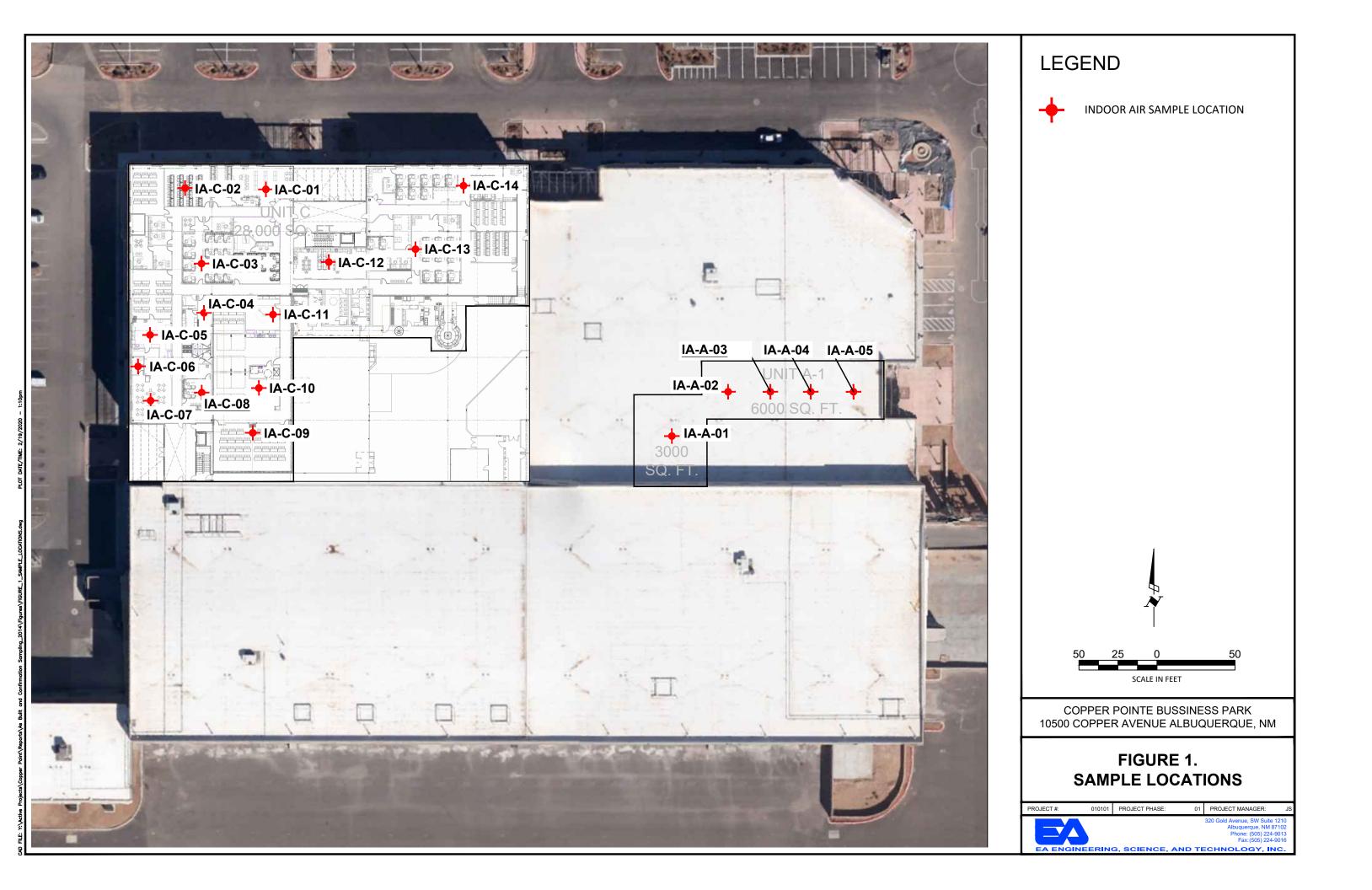
NA = Not Applicable

NMED VISLs = New Mexico Environmental Department Vapor Intrusion Screening Levels-March 2017.

Bold Red values indicate results that exceed the EPA RSL for Industrail Air

[&]quot;<" indicates the compound was not detected above the laboratory reporting limit.









Photograph No. 1 Description: Unit A-1 storage area.



Photograph No. 2 Description: Unit A-1 storage area, gas powered equipment.

Photographic Documentation 10500 Copper Avenue, Albuquerque, New Mexico



Photograph No. 3 Description: Unit A-1 storage area, gas powered equipment.



Photograph No. 4 Description: Unit A-1 storage area, chemical storage.



Photograph No. 5
Description: Unit C chemical storage near IA-C-06.



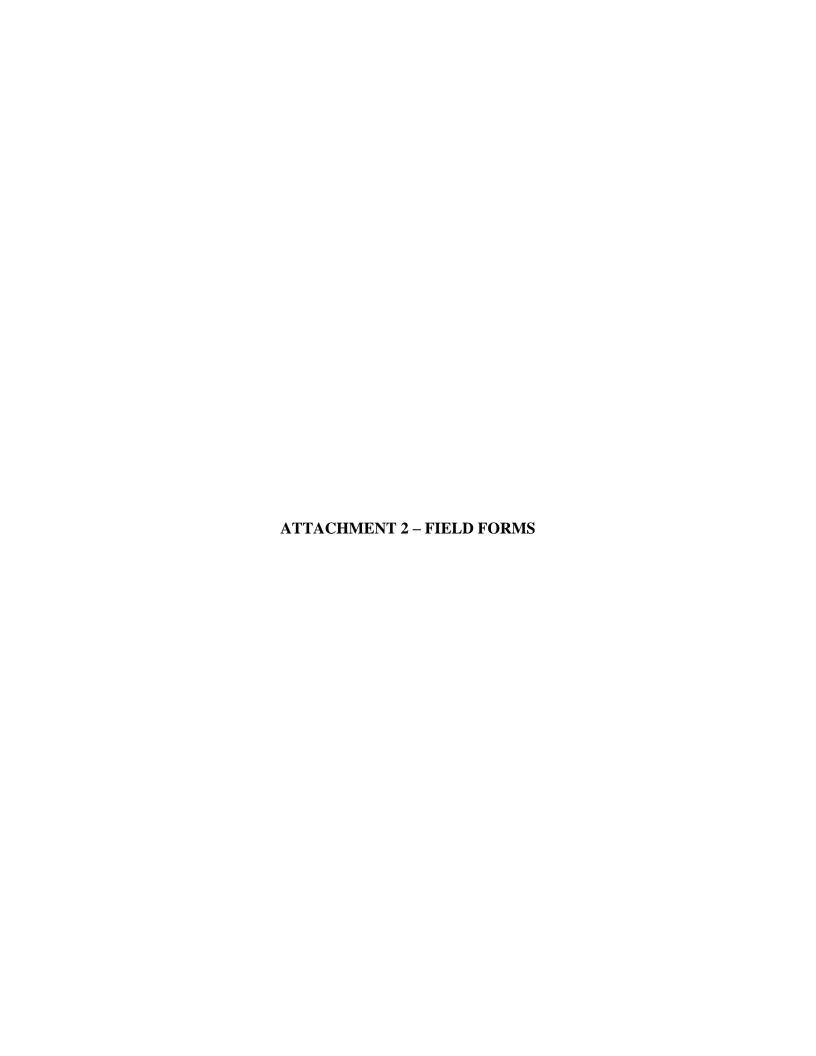
Photograph No. 6
Description: Sample canister for IA-A-01.



Photograph No. 7
Description: Sample canister for IA-C-05.



Photograph No. 8 Description: Sample canister for OA-01.



FIELD	SAMPLING	FORM FOR	WI	ASSESSMENT
4 42-1	DY FIATH THINK		V 1 /	TALILIE SCHOOL VILLE W. I.

	Samplers:	Site ID Copper Point		EA Project #: Client: Site: Description: Vapor	Intrusion Assessment Sampling	
Location ID (Address):	A-01	MANAGE PARTY OF THE STREET	Sample T	ype /Analysis:	Mndoor Air	
Probe Installation Date/Time	:				☐ Sub-Slab	
Slab Thickness:					☐ Outdoor Air	
Helium Leak Check Date/Tin					☐ Crawl Space Air	
He% Shroud He% Tedlar Shut in Check PSI drop in 1 m				e: Yes No	+ +	
	1000		2 aprioate			
Pressure recorded in Inc	hes of Hg			Duplicate		
Summa Sample ID: <u>IA-A-</u>	φ1		Summa S	ample ID:		
Summa Canister ID: 6226	29		Summa C	Canister ID:		
Initial Gauge Pressure: 24,5	nitial Reg. Pressure:	24.5	Initial Gau	uge Pressure:	_ Initial Reg. Pressure:	
Flow Control ID: 24544	and commenced and the commenced comm		Flow Cont	trol ID:		
Flow Control Rate:						
Canister Start Time/Date: 1/3	19/2020 103	5				
Canister End Time/Date: 1/29		35	Canister E	End Time/Date:		

Comments/Observations:

Final Canister Gauge Pressure:

Final Canister Gauge Pressure: _____

FIELD SAMPLING FORM FOR VI ASSESSME	FIEL	DSAMPI	ING	FORM	FOR	VIA	SSESSI	MENT
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®	Samplers:	Site ID	EA Project #: Client:
	EJA/NP	Point	Site: Description: Vapor Intrusion Assessment Sampling

Shut in Check PSI drop in 1 minute: Pressure recorded in Inches of Hg Summa Sample ID: IA-A-Ø2 Summa Canister ID: GUØ 7 Ø Initial Gauge Pressure: 21.5 Initial Reg. Pressure: 21.5 Initial Gauge Flow Control ID: 23747 Flow Control Rate: 11.5 Flow Control Canister Start Time/Date: 1/24/2020 1045 Duplicate: Duplicate: Duplicate: 1/24/2020 Summa Canister Start Time/Date: 1/24/2020 1045 Canister Start Time/Date: 1/24/2020 1045	15 LL TO15 SIM ☐ Yes ☑ No Duplicate
Summa Sample ID: TA-A-\$\pi_2\$ Summa Canister ID: 6U\$\pi_07\$ Summa Canister ID: 5 Initial Reg. Pressure: 15 Initial Gauge Flow Control ID: 23747 Flow Control Rate: 11.5 Canister Start Time/Date: 1/29/2020 1045 Summa Sample ID: 5 Summa Canister Start Time/Date: 1045 Summa Sample ID: 5 Summa Sample ID: 5 Summa Canister Start Time/Date: 1045 Summa Sample ID: 5 Summa Sample ID: 5 Summa Sample ID: 5 Summa Canister Start Time/Date: 1045 Summa Sample ID: 5 Summa Sample ID: 5 Summa Canister Start Time/Date: 1045 Summa Sample ID: 5 Summa Canister Start Time/Date: 1045 Summa Canister Start Time/Date: 1045 Summa Canister Start Time/Date: 1045	Dunlicate
Summa Canister ID: 64676 Summa Can Initial Gauge Pressure: 21.5 Initial Reg. Pressure: 21.5 Initial Gauge Flow Control ID: 23747 Flow Control Flow Control Rate: 11.5 Flow Control Canister Start Time/Date: 1/29/2020 1045 Canister Start	Dahirate
Summa Canister ID: 64676 Initial Gauge Pressure: 21.5 Initial Reg. Pressure: 21.5 Initial Gauge Flow Control ID: 23747 Flow Control Rate: 11.5 Flow Control Canister Start Time/Date: 1/29/2020 1045 Summa Canister Canister Start Time/Date: 1.5 Canister Start Time/Date: 1/29/2020 1045	mple ID:
Flow Control ID: 23747 Flow Control Rate: 11.5 Canister Start Time/Date: 1/29/2020 1045 Flow Control Rate: 1/29/2020 1045 Canister Start Time/Date: 1/29/2020 1045	nister ID:
Flow Control Rate: 11.5 Flow Control Canister Start Time/Date: 1/29/2020 1045 Canister Start Start Time/Date: 1/29/2020 1045 Flow Control Canister Start Time/Date: 1/29/2020 1045 Canister Start Time/Date: 1/29/2020	e Pressure: Initial Reg. Pressure:
Canister Start Time/Date: 1/29/2020 1045 Canister Start	ol Rate:
Canister End Time/Date: 1/29/2620 1845 Canister En	art Time/Date:
	d Time/Date:
Final Canister Gauge Pressure: Final Canis	ter Gauge Pressure:
Comments/Observations:	

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Site ID

Copper Point EA Project #: Client:

Site:

Sample Type /Analysis:	National Indoor Air
	☐ Sub-Slab
	☐ Outdoor Air
	☐ Crawl Space Air
TO15 TO15 LL TO15 SI	M
Duplicate: ☐ Yes ☐ No.	
Duplicate	
Summa Sample ID: TA-A	$-\phi$ 3D
Initial Gauge Pressure: -22,5	Initial Reg. Pressure: 22.5
Flow Control ID: 23244	
Flow Control Rate: _//_5	
Canister Start Time/Date:_	1/29/2020 1053
Canister End Time/Date:	129/2020 1853
	Duplicate: Summa Sample ID: TA-A Summa Canister ID: GL

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Site ID

Copper Point

EA Project #: Client:

Site:

ocation ID (Address): <u>JA-A-</u> <u>0</u> 4	Sample Type /Analysis: XIndoor Air
Probe Installation Date/Time:	
Slab Thickness:Probe Length:	□ Outdoor Air
Helium Leak Check Date/Time:	☐ Crawl Space Air
He% Shroud He% Tedlar BagVOC Purge Shut in Check PSI drop in 1 minute:	1013 1013 EE 1013 31W
	Duplicate: ☐ Yes ☒No.
Pressure recorded in Inches of Hg	Duplicate
Summa Sample ID: TA-A- \$4	Summa Sample ID:
Summa Canister ID: 625 \$ 5	Summa Canister ID:
nitial Gauge Pressure: -24.5 Initial Reg. Pressure: -24.5	Initial Gauge Pressure: Initial Reg. Pressure:
Flow Control ID: 2436 p	Flow Control ID:
Flow Control Rate: 11-5	Flow Control Rate:
Canister Start Time/Date: 1/29/2020 1056	Canister Start Time/Date:
Canister End Time/Date: 1/29/2020 1856	Canister End Time/Date:
Final Canister Gauge Pressure:	Final Canister Gauge Pressure:
Comments/Observations:	

FIELD SAMPLING FORM FOR VIASSESS	SMEN	VI.I
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	Samplers:
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Site ID Copper Point

EA Project #:
Client:
Site:
Description: Vapor Intrusion Assessment Sampling

Location ID (Address): TA - A - ϕ 5	Sample Type /Analysis: Indoor Air
Probe Installation Date/Time:	☐ Sub-Slab
Slab Thickness:Probe Length:	□ Outdoor Air
Helium Leak Check Date/Time:	☐ Crawl Space Air
He% Shroud He% Tedlar Bag V O C Purge	TOTO TOTO EL TOTO OTAL
Shut in Check PSI drop in 1 minute:	
A	Duplicate: Yes No.
Pressure recorded in Inches of Hg	Duplicate
Summa Sample ID: TA - A - \$\phi 5	Summa Sample ID:
Summa Canister ID: 6L1511	Summa Canister ID:
Initial Gauge Pressure: 25 Initial Reg. Pressure: 25	Initial Gauge Pressure: Initial Reg. Pressure:
Flow Control ID: 234 07	Flow Control ID:
Flow Control Rate: 11.5	Flow Control Rate:
Canister Start Time/Date: 1/29/2620 1161	
Canister End Time/Date: 1/29/2020 1819	Canister End Time/Date:
Final Canister Gauge Pressure:	Final Canister Gauge Pressure:
Comments/Observations:	

	FIELD SAM	PLING FORM FOR	VI ASSESSMENT
®	Samplers:	Site ID	EA Project #:
	EJA/NP	COPPER	Client: Site:

EA Project #: Client: Site:

Location ID (Address): TA-C- Ø I	Sample Type /Analysis:	XIndoor Air
Probe Installation Date/Time:		☐ Sub-Slab
Slab Thickness:Probe Length:		☐ Outdoor Air
Helium Leak Check Date/Time:		☐ Crawl Space Air
He% Shroud He% Tedlar Bag V O C Purge Shut in Check PSI drop in 1 minute:	TO15 TO15 LL TO15 S	IM
	Duplicate: Yes No	
Pressure recorded in Inches of Hg	Duplicate	
Summa Sample ID: <u>TA-C-ØI</u>	Summa Sample ID:	
Summa Canister ID: 6LZ5 (\$\phi\$	Summa Canister ID:	
Initial Gauge Pressure: -25 Initial Reg. Pressure: -25	Initial Gauge Pressure:	_ Initial Reg. Pressure:_
Flow Control ID: 23799	Flow Control ID:	
Flow Control Rate: 11.5	Flow Control Rate:	
Canister Start Time/Date: 1-29-2020 08/5	Canister Start Time/Date:_	
Canister End Time/Date: 1-29-2020 4415 1615	Canister End Time/Date:	
Final Canister Gauge Pressure:	Final Canister Gauge Pres	
Comments/Observations:		
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Site ID Corper POINT EA Project #: Client: Site:

Location ID (Address):	Sample Type /Analysis:	☐ Sub-Slab☐ Outdoor Air☐ Crawl Space Air
Shut in Check PSI drop in 1 minute:	TO15 TO15 LL TO15 SI	
	Daphotto. Li 100 Aino	
Pressure recorded in Inches of Hg	Duplicate	
Summa Sample ID: TA-C- ØI	Summa Sample ID:	
Summa Canister ID: 612565	Summa Canister ID:	•1
Initial Gauge Pressure: -25 Initial Reg. Pressure: -25	Initial Gauge Pressure:	Initial Reg. Pressure:
Flow Control ID: 23393		7000
Flow Control Rate: //,5	Flow Control Rate:	
Canister Start Time/Date: 1-29-2020 /0825	Canister Start Time/Date:_	
Canister End Time/Date: 1-29-2020 / 1533	Canister End Time/Date:	
Final Canister Gauge Pressure:		sure:
Comments/Observations:		
		A CONTRACT OF THE PARTY OF THE
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A ALVANDA	137.7.1411		VIVIVI			

Site ID EJA/NP

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EA Project #: Client:

Site:

Location ID (Address): <u>TA-C-Ø3</u>	Sample Type /Analysis: Andoor Air
Probe Installation Date/Time:	□ Sub-Slab
Slab Thickness:Probe Length:	□ Outdoor Air
Helium Leak Check Date/Time:	☐ Crawl Space Air
He% Shroud He% Tedlar Bag V O C Purge	TO15 TO15 LL (TO15 SIM)
Shut in Check PSI drop in 1 minute:	
	Duplicate: Yes YNo.
Pressure recorded in Inches of Hg	Duplicate
Summa Sample ID: <u>TA-C- Ø3</u>	Summa Sample ID:
Summa Canister ID: 6L25Ø9	Summa Canister ID:
Initial Gauge Pressure: Initial Reg. Pressure:	Initial Gauge Pressure: Initial Reg. Pressure:
Flow Control ID: 2346¢	Flow Control ID:
Flow Control Rate: 11.5	Flow Control Rate:
Canister Start Time/Date: 1/29/2030 0837	Canister Start Time/Date:
Canister End Time/Date: 1/29/2020 /637	Canister End Time/Date:
Final Canister Gauge Pressure:	
Comments/Observations:	
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EA Project #: Client: Site:

Probe Installation Date/Time:	Sample Type /Analysis:	☐ Sub-Slab	
Slab Thickness:Probe Length:		☐ Outdoor Air	
Helium Leak Check Date/Time:		☐ Crawl Space Air	
He% Shroud He% Tedlar Bag V O C Purge	TO15 TO15 LL TO15 S	IM	
Shut in Check PSI drop in 1 minute:			
	Duplicate: ☐ Yes XNo		
Pressure recorded in Inches of Hg	Duplicate		
Summa Sample ID: TA- C- Ø4	Summa Sample ID:	manus de la companya	
Summa Canister ID: ETAZE 6LZ634	Summa Canister ID:	The state of the s	
nitial Gauge Pressure: <u>-74.5</u> Initial Reg. Pressure: <u>-74.5</u>	Initial Gauge Pressure: Initial Reg. Pressure:_		
Flow Control ID: 23566	Flow Control ID:	u nie	
Flow Control Rate://. 5	Flow Control Rate:	W-140-0	
Canister Start Time/Date: /- z9-zozo 0843	Canister Start Time/Date:_		
Canister End Time/Date: / - 79-7070 1546	Canister End Time/Date:		
Final Canister Gauge Pressure:	Final Canister Gauge Press		
Comments/Observations: ROGM HAS SCICHT FRES	H PAINT ODOR.		
		*	

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1	11.7	11.3	DA	UVI	LIVET	PURIV	PULL	VI A	1.5.35.33	

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EA Project #: Client:

Site:

Location ID (Address): <u>TA - C - Ø5</u>	Sample Type /Analysis: Indoor Air			
Probe Installation Date/Time:	☐ Sub-Slab			
Slab Thickness:Probe Length:	☐ Outdoor Air			
Helium Leak Check Date/Time:	☐ Crawl Space Air			
He% Shroud He% Tedlar Bag V O C Purge Shut in Check PSI drop in 1 minute:	TO15 TO15 LL TO15 SIM			
	Duplicate: Yes No.			
Pressure recorded in Inches of Hg	Duplicate			
Summa Sample ID: <u>TA-C-</u> \$5	Summa Sample ID:			
Summa Canister ID: 612552	Summa Canister ID:			
Initial Gauge Pressure: -24.5 Initial Reg. Pressure: -24.5	Initial Gauge Pressure: Initial Reg. Pressure			
Flow Control ID: 2420.3	Flow Control ID:			
Flow Control Rate:	Flow Control Rate:			
Canister Start Time/Date: /- 29 - 2020 0850	Canister Start Time/Date:			
Canister End Time/Date: /-29-7070 /650	Canister End Time/Date:			
Final Canister Gauge Pressure:6.0	Final Canister Gauge Pressure:			
Comments/Observations:				
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Site ID Copper Point EA Project #: Client: Site:

Location ID (Address): TA-C-\$\phi_0	Sample Type /Analysis:	☑Indoor Air			
Probe Installation Date/Time:		☐ Sub-Slab			
Slab Thickness:Probe Length:		☐ Outdoor Air			
Helium Leak Check Date/Time:		☐ Crawl Space Air			
He% Shroud He% Tedlar Bag V O C Purge	TO15 TO15 LL (TO15 SIM				
Shut in Check PSI drop in 1 minute:	•				
	Duplicate: ☐ Yes 尽 No.).			
Pressure recorded in Inches of Hg	Duplicate				
Summa Sample ID:	Summa Sample ID:				
Summa Canister ID: <u>0L1294</u>	Summa Canister ID:				
Initial Gauge Pressure: 25.0 Initial Reg. Pressure: 25.0	·				
Flow Control ID: 24392	Flow Control ID:				
Flow Control Rate: 11.5					
Canister Start Time/Date: 1/24/2020 0856					
Canister End Time/Date: 1/29/2026 1656	Canister End Time/Date:				
Final Canister Gauge Pressure:5					
Comments/Observations:					
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Site ID Copper Point EA Project #: Client: Site:

Location ID (Address):Probe Installation Date/Time:Probe Length:Helium Leak Check Date/Time:	☐ Sub-Slab ☐ Outdoor Air ☐ Crawl Space Air
He% Shroud He% Tedlar Bag V O C Purge Shut in Check PSI drop in 1 minute:	TOTO TOTO EL TOTO CHAI
Pressure recorded in Inches of Hg	Duplicate
Summa Sample ID: TA-C-\$7	Summa Sample ID:
Summa Canister ID: 6L1730	
Initial Gauge Pressure: 25.0 Initial Reg. Pressure: Flow Control ID: 24306	
Flow Control Rate: 11.5	
Canister Start Time/Date: 1/29/2020 690	Canister Start Time/Date:
Canister End Time/Date: 1/29/2020 /44/	Canister End Time/Date:
Final Canister Gauge Pressure:	Final Canister Gauge Pressure:
Comments/Observations:	

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Site ID

Copper Point

EA Project #:
Client:
Site:
Description: Vapor Intrusion Assessment Sampling

Location ID (Address): TA-C- \$\phi 8\$	Sample Type /Analysis:
Probe Installation Date/Time:	□ Sub-Slab
Slab Thickness:Probe Length:	☐ Outdoor Air
Helium Leak Check Date/Time:	☐ Crawl Space Air
He% Shroud He% Tedlar Bag V O C Purge	TO15 TO15 LL TO15 SIM
Shut in Check PSI drop in 1 minute:	
	Duplicate: XYes D No.
Pressure recorded in Inches of Hg	Duplicate
Summa Sample ID: IA-L- #8	Summa Sample ID: IA-C-08D
Summa Canister ID:	Summa Canister ID: 612662
Initial Gauge Pressure: - 24.0 Initial Reg. Pressure: - 24.0	Initial Gauge Pressure: -23 Initial Reg. Pressure: -23
Flow Control ID: 23219	Flow Control ID: 24681
Flow Control Rate: 11.5	Flow Control Rate: //. 5
Canister Start Time/Date: 1/29/2020 0907	Canister Start Time/Date: 1/29/3020 0967
Canister End Time/Date: 1/24/2020 1707	Canister End Time/Date: 1/29/2020 1707
Final Canister Gauge Pressure:5	Final Canister Gauge Pressure: -4.5
Comments/Observations:	

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Site ID Copper Point

EA Project #: Client:

ocation ID (Address): <u>TA-C-69</u>	Sample Type /Analysis:	A Indoor Air	
Probe Installation Date/Time:		☐ Sub-Slab	
Slab Thickness:Probe Length:		☐ Outdoor Air	
Helium Leak Check Date/Time:		☐ Crawl Space Air	
He% Shroud He% Tedlar Bag V O C Purge	1010 TOTOLL TOTO	IM)	
Shut in Check PSI drop in 1 minute:			
	Duplicate: ☐ Yes ⊠ No		
Pressure recorded in Inches of Hg	Duplicate		
Summa Sample ID: <u>IA-C-</u> \$9	Summa Canister ID:		
Summa Canister ID: 6L4458			
nitial Gauge Pressure: -24.0 Initial Reg. Pressure: -24.0			
Flow Control ID: 2317 \$	Flow Control ID:		
Flow Control Rate: 11.5			
Canister Start Time/Date: 1/29/2020 0917			
Canister End Time/Date: 1/29/2020 1658			
Final Canister Gauge Pressure:			
Comments/Observations:			

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Site ID COPPER POINT EA Project #: Client: Site:

ocation ID (Address): TA-C-IØ	Sample Type /Analysis:	XIndoor Air
Probe Installation Date/Time:		☐ Sub-Slab
Slab Thickness:Probe Length:		☐ Outdoor Air
Helium Leak Check Date/Time:		☐ Crawl Space Air
He% Shroud He% Tedlar Bag V O C Purge Shut in Check PSI drop in 1 minute:	TO15 TO15 LL (TO15 S	IM
	Duplicate:).
Pressure recorded in Inches of Hg	Duplicate	
Summa Sample ID: <u>TA-c-lp</u>	Summa Sample ID:	
Summa Canister ID: 622564	Summa Canister ID:	
nitial Gauge Pressure: -24 Initial Reg. Pressure: -24	Initial Gauge Pressure:	_ Initial Reg. Pressure:_
Flow Control ID: 24695	Flow Control ID:	
Flow Control Rate: 11.5	Flow Control Rate:	
Canister Start Time/Date: 1-29-7070 0922	Canister Start Time/Date:_	
Canister End Time/Date: /-29-2020 1714 1722	Canister End Time/Date:	and the state of t
Final Canister Gauge Pressure:	Final Canister Gauge Pres	
Comments/Observations:	8 -	
- : ·		

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Site ID

EA Project #: Client: Site:

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Copper Point

Location ID (Address): <u>TA-C-11</u>	Sample Type /Analysis: Indoor Air		
Probe Installation Date/Time:			
Slab Thickness:Probe Length:	□ Outdoor Air		
Helium Leak Check Date/Time:	☐ Crawl Space Air		
He% Shroud He% Tedlar Bag V O C Purge	TOTO TOTO EL (TOTO OTIVI)		
Shut in Check PSI drop in 1 minute:			
	Duplicate: ☐ Yes 尽No.		
Pressure recorded in Inches of Hg	Duplicate		
Summa Sample ID: TA-C-11	Summa Canister ID: Initial Reg. Pressure: Initial Reg. Pressure:		
Summa Canister ID: 6L1712			
Initial Gauge Pressure: -25.0 Initial Reg. Pressure: -25.0			
Flow Control ID: 23734			
Flow Control Rate: 1).5	Flow Control Rate:		
Canister Start Time/Date: 1/29/2020 0976	Canister Start Time/Date:		
Canister End Time/Date: 1/29/2020 1726	Canister End Time/Date:		
Final Canister Gauge Pressure:			
Comments/Observations:			
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Samplers:

Site ID

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EA Project #: Client: Site:

Description: Vapor Intrusion Assessment Sampling

Location ID (Address): <u>TA-C-12</u>	Sample Type /Analysis:	Indoor Air
Probe Installation Date/Time:		☐ Sub-Slab
Slab Thickness:Probe Length:		☐ Outdoor Air
Helium Leak Check Date/Time:		☐ Crawl Space Air
He% Shroud He% Tedlar Bag V O C Purge	TO15 TO15 LL 7015 SIM	A)
Shut in Check PSI drop in 1 minute:		
	Duplicate: ☐ Yes X No.	
Pressure recorded in Inches of Hg	Duplicate	
Summa Sample ID: TA-C-IZ	Summa Sample ID:	
Summa Canister ID: 6L\$149	Summa Canister ID:	W
Initial Gauge Pressure: -23 Initial Reg. Pressure: -23	Initial Gauge Pressure:	Initial Reg. Pressure:
Flow Control ID: Z35/Z	Flow Control ID:	
Flow Control Rate: //,5		
Canister Start Time/Date: /- Z9 - Z0 Z0 0933	Canister Start Time/Date:	
Canister End Time/Date: /-29-2020 1733		
Final Canister Gauge Pressure:		
Comments/Observations:	* *	
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Samplers:

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Site ID

Copper POINT EA Project #: Client:

Site:
Description: Vapor Intrusion Assessment Sampling

Location ID (Address): <u>TA-C-(3</u>	Sample Type /Analysis: XIndoor Air
Probe Installation Date/Time:	
Slab Thickness:Probe Length:	☐ Outdoor Air
Helium Leak Check Date/Time:	
He% Shroud He% Tedlar Bag V O C Purge	1013 1013 EL (1013 SIM)
Shut in Check PSI drop in 1 minute:	
	Duplicate: Yes No.
Pressure recorded in Inches of Hg	Duplicate
Summa Sample ID: <u>TA-C-13</u>	Summa Sample ID:
Summa Canister ID: 6LZ396	Summa Canister ID:
Initial Gauge Pressure: -26 Initial Reg. Pressure: -26	Initial Gauge Pressure: Initial Reg. Pressure:
Flow Control ID: 24217	
Flow Control Rate: 11.5	
Canister Start Time/Date: 1-29-2020 6947	
Canister End Time/Date: /-29-7020 1719	Canister End Time/Date:
Final Canister Gauge Pressure:6	Final Canister Gauge Pressure:
Comments/Observations:	

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Site ID

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EA Project #:
Client:
Site:
Description: Vapor Intrusion Assessment Sampling

Location ID (Address): TA-C-14	Sample Type /Analysis:	Indoor Air
Probe Installation Date/Time:		☐ Sub-Slab
Slab Thickness:Probe Length:		☐ Outdoor Air
Helium Leak Check Date/Time:		☐ Crawl Space Air
He% Shroud He% Tedlar Bag V O C Purge	TO15 TO15 LL TO15 S	IM
Shut in Check PSI drop in 1 minute:		
7	Duplicate: Yes No.	
Pressure recorded in Inches of Hg	Duplicate	
Summa Sample ID: <u>IA-C-14</u>	Summa Sample ID:	
Summa Canister ID:	Summa Canister ID:	
Initial Gauge Pressure:24.5 Initial Reg. Pressure:24.5	Initial Gauge Pressure:	Initial Reg. Pressure:
Flow Control ID: 23654	Flow Control ID:	
Flow Control Rate: 11.5	Flow Control Rate:	
Canister Start Time/Date: HNP 1/29/2020 0948	Canister Start Time/Date:_	
Canister End Time/Date: 1/29/2020 1748	Canister End Time/Date:	
Final Canister Gauge Pressure:	Final Canister Gauge Pres	sure:
Comments/Observations:		
n./		

	FIELD SAM	IPLING FORM	M FOR VI AS	SESSMENT	
	Samplers:	Site ID Copper Point		EA Project #: Client: Site:	ntrusion Assessment Sampling
Location ID (Address): OA-			Sample T	ype /Analysis:	☐ Indoor Air
Probe Installation Date/Time					☐ Sub-Slab
Slab Thickness: Helium Leak Check Date/Tir					Coutdoor Air Coutdoor Air Coutdoor Air
He% Shroud He% Tedlar			T045 T	0.511/ =0.45 0.11	☐ Crawl Space Air
Shut in Check PSI drop in 1 m			1015	015 LK T015 SII	M)
		-	Duplicate	e: 🗆 Yes 🖟 No.	
Pressure recorded in Inc	ches of Hg			Duplicate	
Summa Sample ID:CA-	ϕ 1		Summa Sa	ample ID:	
Summa Canister ID:	223				· .
Initial Gauge Pressure: -34.5				*	_ Initial Reg. Pressure:
Flow Control ID: 234 8 9			Flow Cont	rol ID:	
Flow Control Rate: 11-5					
Canister Start Time/Date:					
Canister End Time/Date:			Canister E	ind Time/Date:	
Final Canister Gauge Pressur	e:6.5		Final Cani	ster Gauge Pressi	ure:
Comments/Observations:	WIND FROM	NNW			



BUILDING INVENTORY AND INDOOR AIR SAMPLING QUESTIONNAIRE

This form should be prepared by a person familiar with indoor air assessments with assistance from a person knowledgeable about the building. Complete this form for each building where interior samples (e.g., indoor air, crawl space, or subslab soil gas samples) will be collected. Section I of this form should be used to assist in choosing an investigative strategy during workplan development. Section II should be used to assist in identification of complicating factors during a presampling building walk-through.

Pre	eparer's Name Itugo Itinojosa Date/Time Prepared 1-29-2020 9:300
Pre	eparer's Affiliation Admin Manager Phone No. 505-699-5700
Pu	rpose of Investigation Arr Sampling
SE	ECTION I: BUILDING INVENTORY
1.	OCCUPANT OR BUILDING PERSONNEL:
	Interviewed VN
	Last Name Hinojosa First Name Hugo
	Address
	City
	Phone No
	Number of Occupants/people at this locationAge of Occupants
2.	OWNER or LANDLORD: (Check if same as occupant)
	Interviewed: Y/N
	Last Name MW Development LC First Name_
	Address 190 Central Park Sq #301
	City Los Alamos, NM 87544
	Phone No. 505-661-4869
3.	BUILDING CHARACTERISTICS
	Type of Building: (Circle appropriate response.)
	Residential School Commercial/Multi-lise Other



If the property is residential, what type? (Circle appropriate response.) Ranch 2-Family 3-Family Raised Ranch Split Level Colonial Cape Cod Contemporary Mobile Home Duplex Apartment House Townhouse/Condo Modular Log Home Other If multiple units, how many?_ If the property is commercial, what type? Business types(s) Office Does it include residences (i.e., multi-use)? Y If yes, how many? Other characteristics: 20+ Number of floors 1 Building age_ Is the building insulated? (Y) N How airtight? Tight Average / Not Tight YN Have occupants noticed chemical odors in the building? If yes, please describe:_ AIRFLOW HILLS Use air current tubes, tracer smoke, or knowledge about the building to evaluate airflow patterns and qualitatively describe: Airflow between floors Airflow in building near suspected source Outdoor air infiltration Infiltration into air ducts

d. Basement floor: unsealed sealed sealed with	
c. Basement floor: concrete dirt stone other d. Basement floor: unsealed sealed sealed with	
d. Basement floor: unsealed sealed sealed with	
e. Foundation walls: poured block stone other	
f. Foundation walls: unsealed sealed sealed with	
g. The basement is: wet damp dry	
h. The basement is: finished unfinished partially finished	
i. Sump present? Y/N	
j. Water in sump? Y/N/not applicable	
sement or lowest level depth below grade(feet).	
HEATING, VENTING, and AIR CONDITIONING (Circle all that apply.)	
Type of heating system(s) used in this building: (Circle all that apply – not just primary.) Hot air circulation Heat pump Hot water baseboard Space heaters Stream radiation Radiant floor Electric baseboard Wood stove Outdoor wood boiler Other The primary type of fuel used is:	RTU
Hot air circulation Heat pump Hot water baseboard Radiant floor Electric baseboard Wood stove Outdoor wood boiler Other The primary type of fuel used is: Natural gas Fuel oil Kerosene Electric Propane Solar Wood Coal	RTU
Hot air circulation Heat pump Hot water baseboard Radiant floor Electric baseboard Wood stove Outdoor wood boiler Other The primary type of fuel used is: Natural gas Fuel oil Kerosene Solar Wood Coal Domestic hot water tank is fueled by: Natural gas	RTU
Hot air circulation Heat pump Hot water baseboard Radiant floor Electric baseboard Wood stove Outdoor wood boiler Other The primary type of fuel used is: Natural gas Fuel oil Kerosene Electric Propane Solar Wood Coal	PTU Other_
Hot air circulation Heat pump Hot water baseboard Radiant floor Outdoor wood boiler Other The primary type of fuel used is: Natural gas Fuel oil Kerosene Solar Wood Coal Domestic hot water tank is fueled by: Natural gas	
Hot air circulation Heat pump Space heaters Stream radiation Radiant floor Outdoor wood boiler Other The primary type of fuel used is: Natural gas Fuel oil Kerosene Solar Electric Propane Solar Coal Domestic hot water tank is fueled by: Natural gas Boiler/furnace is located in: Natural gas	

Are	there	air	distribution	ducts	present?
ALC:	there	411	distribution	uutto	Di cacitt.

7.

8.



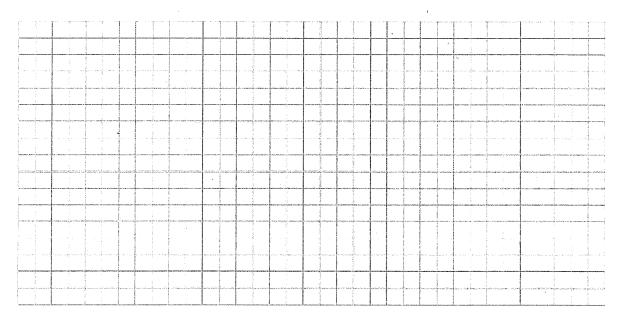
Describe the ventilation system in the building, its condition where visible, and the tightness of duct joints. Indicate the location of air supply and exhaust points on the floor plan.

HVAC plans attac		100			
Is there a radon mitigation system fo	or the building/s	structure? Y N	ate of Installatio	n	
Is the system active or passive?	Active/Passive	ė			
OCCUPANCY					
Is basement/lowest level occupied?	Full-time	Occasionally	Seldom	Almost never	
Level General Use of Each Flo	oor (e.g., family	room, bedroom,	laundry, worksh	nop, or storage).	
Basement					
j st					Floor
2 nd					
Floor					
S rd Floor					
WATER AND SEWAGE					
Water supply: Public water	Drilled well	Driven well	Dug well	Other	
Sewage disposal: Public sewer	Septic tank	Leach field	Dry well	Other	

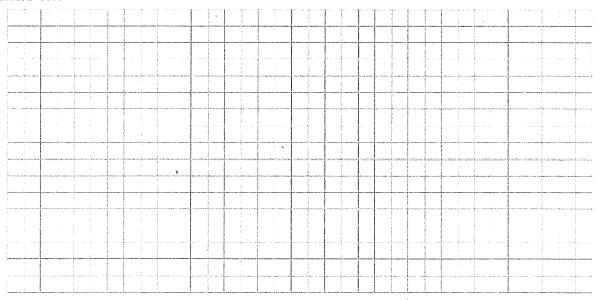
9. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note that.

Basement:



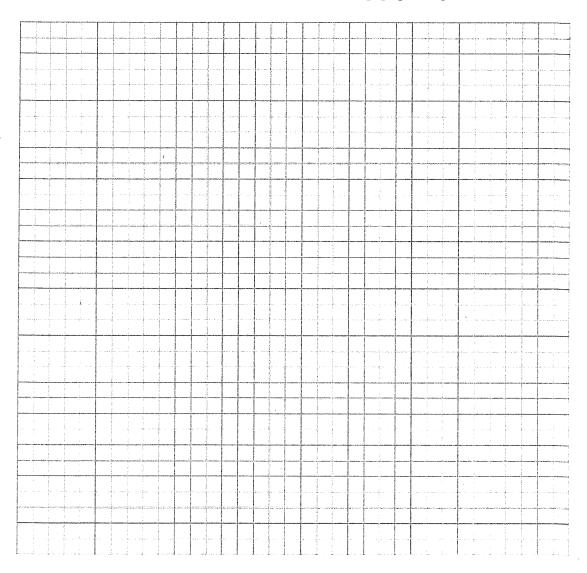
First Floor:



10. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (e.g., industries, gas stations, repair shops, landfills, etc.), outdoor air sampling locations and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the location of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



SECTION II: INDOOR AIR SAMPLING OUESTIONNAIRE

This section should be completed during a presampling walk-through. If indoor air sources of COCs are identified and removed, consider ventilating the building prior to sampling. However, ventilation and heating systems should be operating normally for 24 hours prior to sampling.

a)	1. FACTORS THAT MAY INFLUENCE INDOOR AT	IR QUALI	TY
	Is there an attached garage?	YO	
	Does the garage have a separate heating unit?	Y/N	
	Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, ATV, or car)	Y/N	
		Pleases	specify
	Has the building ever had a fire? to my knowle	dge 100	When?
	Is a kerosene or unvented gas space heater present?	YN	Where?
	Is there a workshop or hobby/craft area?	YN	Where and type
	Is there smoking in the building?	YN	How frequently?
	Has painting/staining been done in the last six months?	Y/N	Where and when?
	Is there new carpet, drapes or other textiles?	YN	Where and when?
	Is there a kitchen exhaust fan?	YIN	If yes, where is it vented?
	Is there a bathroom exhaust fan?	1 N	If yes, where is it vented?
	Is there a clothes dryer?	YIN	If yes, is it vented outside? Y/N
	Are cleaning products, cosmetic products, or pesticides u	sed that co	ould interfere with indoor air sampling? Y/N
	If yes, please describe		
	Do any of the building occupants use solvents at work?	()/N	Peraton
	(For example, is the building used for chemical manufacturing shop, fuel oil delivery area, or do any of the occupants work		
	If yes, what types of solvents are used?		
	If yes, are his/her/their clothes washed at work?	/N	
	Do any of the building occupants regularly use or work a	t a dry-cle	aning service? (Circle appropriate response)
	Yes, use dry cleaning regularly (weekly)	No	
	Yes, use dry cleaning infrequently (monthly or less)	Un	known

Yes, work at a dry cleaning services

۷.	PRODUCT INVENTORY FORM (For use during build)	ng waik-through.)	
	Make and model of field instrument used:		

List specific products found in the residence that have the potential to affect indoor air quality:

Location	Product Description	Site (units)	Condition ¹	Chemical Ingredients	Field Instrument Reading (units)	Photo ² <u>Y/N</u>
	<u>:</u>					
		,				
	· · · · · · · · · · · · · · · · · · ·					
.				•		

Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**.

This form was modified from:

ITRC (Interstate Technology and Regulatory Council). 2007. *Vapor Intrusion Pathway: A Practical Guideline*. VI-1. Washington, D.C.: Interstate Technology and Regulatory Council, Vapor Intrusion Team. Available at: www.itrcweb.org.

Photographs of the front and back of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

BUILDING INVENTORY AND INDOOR AIR SAMPLING QUESTIONNAIRE

Unit C

This form should be prepared by a person familiar with indoor air assessments with assistance from a person knowledgeable about the building. Complete this form for each building where interior samples (e.g., indoor air, crawl space, or subslab soil gas samples) will be collected. Section I of this form should be used to assist in choosing an investigative strategy during workplan development. Section II should be used to assist in identification of complicating factors during a presampling building walk-through.

Preparer's Name Hugo Himb	Josa Date/	Time Prepared	1.29.2020	9:00
Preparer's Affiliation Admin Ma				
Purpose of Investigation Av San				
SECTION I: BUILDING INVENT	TORY			
1. OCCUPANT OR BUILDING PERS	ONNEL;			
Interviewed V N				
Last Name Hinojosa	First Name_	Hugo		_
Address			~	
City				
Phone No				
Number of Occupants/people at this lo	cationAge	of Occupants_		-
2. OWNER or LANDLORD: (Check if	same as occupant)			
Interviewed: Y / N				
Last Name MW Develop	ment LLC First Name_			
Address 190 Central				
City Los Alamos N	1. 07544			
Phone No. 505 - 661 -				
3. BUILDING CHARACTERISTICS				
Type of Building: (Circle appropriate	response.)			
Residential School Industrial Church	Commercial Multi	ti-use		

Ranch Raised Ranch Cape Cod Duplex Modular	2-Family Split Level Contemporary Apartment House Log Home	3-Family Colonial Mobile Home Townhouse/Condo Other
If multiple units, how man	y?	
If the property is commerc	rial, what type?	
Business types(s)	FIEC	
Does it include residence	ces (i.e., multi-use)? Y	If yes, how many?
Other characteristics:		
Number of floors 2		Building age 20 +
Is the building insulated	12 (N) N	How airtight? Tight Average / Not Tight
Have occupants noticed ch	emical odors in the building	? Y (N)
If you places describes		
AIRFLOW Use air current tubes, trace describe:		ut the building to evaluate airflow patterns and qualitative
AIRFLOW Use air current tubes, tracedescribe:		ut the building to evaluate airflow patterns and qualitative
AIRFLOW Use air current tubes, trace describe: Airflow between floors	er smoke, or knowledge about	ut the building to evaluate airflow patterns and qualitative
AIRFLOW Use air current tubes, tracedescribe:	er smoke, or knowledge about	ut the building to evaluate airflow patterns and qualitative

a. Above-grade construction:	wood frame	log	concrete	brick
a. Above-grade construction.			concrete	OTICK
	constructed or with enclosed		constructed on with open air s	
	with enclosed			
b. Basement type:	full	crawlspace	slab-on-grade	other
c. Basement floor:	concrete	dirt	stone	other
d. Basement floor:	unsealed	sealed	sealed with	
e. Foundation walls:	poured	block	stone	other
f. Foundation walls:	unsealed	sealed	sealed with	
g. The basement is:	wet	damp	dry	
h. The basement is:	finished	unfinished	partially finish	ed
i. Sump present?	Y/N			
j. Water in sump?	Y/N/not app	plicable		
sement or lowest level depth bel			10.11	
			ergi, cracks, um	ty ports, and drains).
HEATING, VENTING, and A	IR CONDITIC			ty ports, and drams).
HEATING, VENTING, and A Type of heating system(s) used		ONING (Circle	all that apply.)	
Type of heating system(s) used		ONING (Circle g: (Circle all th	all that apply.)	
Type of heating system(s) used Hot air circulation Space heaters	I in this buildin Heat pump Stream radiation	ONING (Circle g: (Circle all th Hot Rad	all that apply.) at apply – not jus water baseboard iant floor	t primary.)
Hot air circulation Space heaters Selectric baseboard	I in this buildin Heat pump Stream radiation Wood stove	ONING (Circle g: (Circle all th Hot Rad	all that apply.) nat apply – not jus water baseboard	
Type of heating system(s) used Hot air circulation Space heaters Electric baseboard The primary type of fuel used	I in this buildin Heat pump Stream radiation Wood stove is:	ONING (Circle g: (Circle all th Hot Rad Out	all that apply.) at apply – not jus water baseboard iant floor door wood boiler	t primary.)
Type of heating system(s) used Hot air circulation Space heaters Electric baseboard The primary type of fuel used Natural gas	I in this buildin Heat pump Stream radiation Wood stove is:	ONING (Circle g: (Circle all the Hot Rad Oute	all that apply.) nat apply – not jus water baseboard iant floor door wood boiler	t primary.)
Hot air circulation Space heaters Electric baseboard The primary type of fuel used Natural gas	I in this buildin Heat pump Stream radiation Wood stove is:	ONING (Circle g: (Circle all th Hot Rad Out	all that apply.) nat apply – not jus water baseboard iant floor door wood boiler	t primary.)
Hot air circulation Space heaters Electric baseboard The primary type of fuel used Natural gas	I in this buildin Heat pump Stream radiation Wood stove is: Fuel oil Propane Coal	ONING (Circle g: (Circle all th Hot Rad Out Ker Sola	all that apply.) nat apply – not jus water baseboard iant floor door wood boiler	t primary.)
Hot air circulation Space heaters Electric baseboard The primary type of fuel used Natural gas Electric Wood	Heat pump Stream radiation Wood stove is: Fuel oil Propane Coal	ONING (Circle g: (Circle all the Hot Rad Oute Kere Sola	all that apply.) nat apply – not jus water baseboard iant floor door wood boiler osene ar	t primary.)
Hot air circulation Space heaters Electric baseboard The primary type of fuel used Natural gas Electric Wood Domestic hot water tank is fue	Heat pump Stream radiation Wood stove is: Fuel oil Propane Coal led by: Base ses have cold-ai	ONING (Circle g: (Circle all the Hot Rad Out Kere Sola ment O r intakes? Y	all that apply.) at apply – not jus water baseboard iant floor door wood boiler osene ur utdoors	t primary.) Other_RTU
Hot air circulation Space heaters Electric baseboard The primary type of fuel used Natural gas Electric Wood Domestic hot water tank is fue Boiler/furnace is located in: Do any of the heating appliance Type of air conditioning or ver	Heat pump Stream radiation Wood stove is: Fuel oil Propane Coal led by: Base ses have cold-ai	ONING (Circle g: (Circle all the Hot Rad Out Kerr Sola ment Or intakes? Y this building:	all that apply.) at apply – not jus water baseboard iant floor door wood boiler osene ur utdoors	t primary.) Other_RTU

Are	there	air	distribution	ducts	present?
	FILLE	***	CARDEL AD MELOIS	CAMPER	DI COCILE

8.



Describe the ventilation system in the building, its condition where visible, and the tightness of duct joints. Indicate

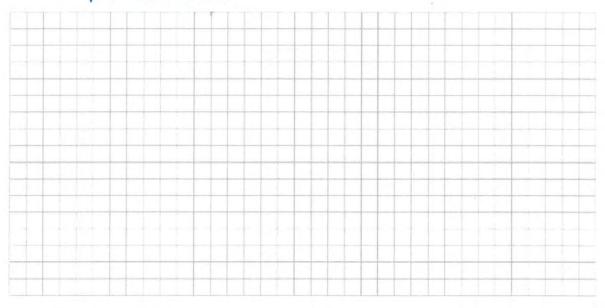
	HVAC Plan					
	radon mitigation systetem active or passive?		and the same of the same	ate of Installatio	n	
OCCUPA	ANCY	HD				
Is basem	ent/lowest level occupie	ed? Full-time	Occasionally	Seldom	Almost never	
Is baseme		ed? Full-time				
	General Use of Eac					
<u>Level</u>	General Use of Eac					Floor
Level Basement	General Use of Eac					Floor
Level Basement	General Use of Eac					Floor
Level Basement	General Use of Eac					Floor
Level Basement 1st Floor 3rd Floor	General Use of Eac					Floor

9. FLOOR PLANS

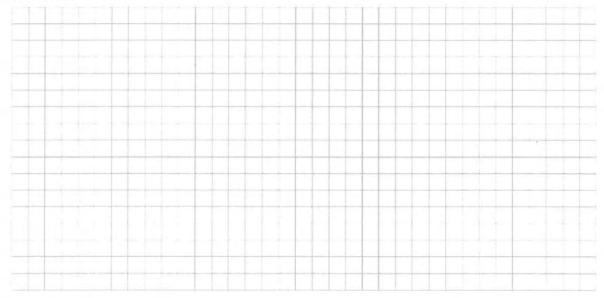
Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note that.

Basement:





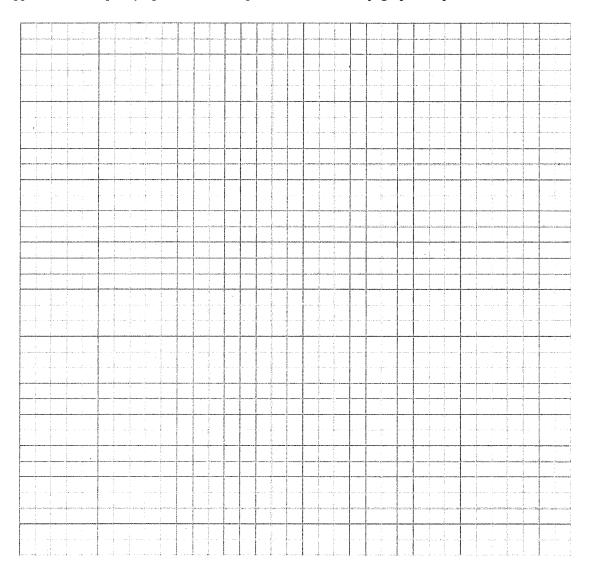
First Floor:



10. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (e.g., industries, gas stations, repair shops, landfills, etc.), outdoor air sampling locations and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the location of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



SECTION II: INDOOR AIR SAMPLING OUESTIONNAIRE

This section should be completed during a presampling walk-through. If indoor air sources of COCs are identified and removed, consider ventilating the building prior to sampling. However, ventilation and heating systems should be operating normally for 24 hours prior to sampling.

1. FACTORS THAT MAY INFLUENCE INDOOR AI	IR QUALITY
Is there an attached garage?	YN
Does the garage have a separate heating unit?	Y/N/NA
Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, ATV, or car)	Y / N NA Please specify
Has the building ever had a fire? to my knowled	% Y When?
Is a kerosene or unvented gas space heater present?	Y N Where?
Is there a workshop or hobby/craft area?	Y N Where and type
Is there smoking in the building?	Y N How frequently?
Has painting/staining been done in the last six months?	Y N Where and when?
Is there new carpet, drapes or other textiles?	Y N Where and when?
Is there a kitchen exhaust fan?	Y N If yes, where is it vented?
Is there a bathroom exhaust fan?	N If yes, where is it vented?
Is there a clothes dryer?	Y N If yes, is it vented outside? Y/N
Are cleaning products, cosmetic products, or pesticides u	sed that could interfere with indoor air sampling? Y/N
If yes, please describe	
Do any of the building occupants use solvents at work?	ON Peraton
	ng or a laboratory, auto mechanic or auto body shop, painting as a boiler mechanic, pesticide applicator, or cosmetologist?)
If yes, what types of solvents are used?	
If yes, are his/her/their clothes washed at work?	
Do any of the building occupants regularly use or work a	t a dry-cleaning service? (Circle appropriate response)
Yes, use dry cleaning regularly (weekly)	No
Yes, use dry cleaning infrequently (monthly or less)	Unknown
Ves work at a dry cleaning services	

2.	PRODUCT INVENTORY FORM	(For use during building walk-through.)

Make and model of field instrument used:		
List specific products found in the residence that have the potentia	al to affect indoor air quality:	

Location	Product Description	Site (units)	Condition ¹	Chemical Ingredients	Field Instrument Reading (units)	Photo ² Y/N
-						

Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**.

This form was modified from:

ITRC (Interstate Technology and Regulatory Council). 2007. *Vapor Intrusion Pathway: A Practical Guideline*. VI-1. Washington, D.C.: Interstate Technology and Regulatory Council, Vapor Intrusion Team. Available at: www.itrcweb.org.

Photographs of the front and back of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.





2/13/2020 Mr. Tyler Curley EA Engineering 320 Gold Avenue, SW Suite 1300 Albuquerque NM 87102

Project Name: COPPER POINTE

Project #: 20146

Workorder #: 2001745B

Dear Mr. Tyler Curley

The following report includes the data for the above referenced project for sample(s) received on 1/31/2020 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Brian Whittaker at 916-985-1000 if you have any questions regarding the data in this report.

Brian Whittaker

Regards,

Brian Whittaker

Project Manager



WORK ORDER #: 2001745B

Work Order Summary

CLIENT: Mr. Tyler Curley BILL TO: Accounts Payable - Lewisville

EA Engineering
320 Gold Avenue, SW
405 S. Highway 121
Suite 1300
Suite C-100

Albuquerque, NM 87102 Lewisville, TX 75067

PHONE: (505) 224-9013 **P.O.** # 20146

FAX: (505) 224-9016 **PROJECT** # 20146 COPPER POINTE

DATE RECEIVED: 01/31/2020 CONTACT: Brian Whittaker DATE COMPLETED: 02/13/2020

FINAL RECEIPT **FRACTION# NAME TEST** VAC./PRES. **PRESSURE** IA-C-05 Modified TO-15 11A 9.8 "Hg 5.3 psi Modified TO-15 9.8 "Hg 11B IA-C-05 5.3 psi 5.3 psi 12A IA-C-06 Modified TO-15 9.8 "Hg 12B IA-C-06 Modified TO-15 9.8 "Hg 5.3 psi 13A IA-C-07 Modified TO-15 8.2 "Hg 5.1 psi 13B Modified TO-15 8.2 "Hg IA-C-07 5.1 psi IA-C-08 Modified TO-15 9.8 "Hg 14A 5.1 psi 14B IA-C-08 Modified TO-15 9.8 "Hg 5.1 psi 15A IA-C-09 Modified TO-15 9.2 "Hg 5.3 psi 15B IA-C-09 Modified TO-15 9.2 "Hg 5.3 psi 16A IA-C-10 Modified TO-15 9.6 "Hg 5.1 psi 16B IA-C-10 Modified TO-15 9.6 "Hg 5.1 psi 17A IA-C-11 Modified TO-15 9.6 "Hg 5.2 psi IA-C-11 Modified TO-15 9.6 "Hg 17B 5.2 psi 18A IA-C-12 Modified TO-15 10.8 "Hg 5.2 psi 18B IA-C-12 Modified TO-15 10.8 "Hg 5.2 psi 19A IA-C-13 Modified TO-15 9.8 "Hg 4.9 psi IA-C-13 Modified TO-15 4.9 psi 19B 9.8 "Hg 20A IA-C-14 Modified TO-15 10.2 "Hg 5.2 psi 20B IA-C-14 Modified TO-15 10.2 "Hg 5.2 psi OA-01 Modified TO-15 9.6 "Hg 5.4 psi 21A 9.6 "Hg 21B OA-01 Modified TO-15 5.4 psi 22A IA-C-08-D Modified TO-15 10.8 "Hg 5 psi

Continued on next page



WORK ORDER #: 2001745B

Work Order Summary

CLIENT: Mr. Tyler Curley BILL TO: Accounts Payable - Lewisville

EA Engineering
320 Gold Avenue, SW
405 S. Highway 121
Suite 1300
Suite C-100

Suite 1300 Suite C-100
Albuquerque, NM 87102 Lewisville, TX 75067

PHONE: (505) 224-9013 **P.O.** # 20146

FAX: (505) 224-9016 **PROJECT** # 20146 COPPER POINTE

DATE RECEIVED: 01/31/2020 CONTACT: Brian Whittaker DATE COMPLETED: 02/13/2020

FINAL RECEIPT **TEST** VAC./PRES. FRACTION# **PRESSURE NAME** 22B IA-C-08-D Modified TO-15 10.8 "Hg 5 psi 23A Lab Blank Modified TO-15 NA NA 23B Lab Blank Modified TO-15 NA NA 23C Lab Blank Modified TO-15 NA NA 23D Lab Blank Modified TO-15 NA NA 23E Lab Blank Modified TO-15 NA NA 23F Lab Blank Modified TO-15 NA NA 24A **CCV** Modified TO-15 NA NA 24B **CCV** Modified TO-15 NA NA 24C **CCV** Modified TO-15 NA NA 24D **CCV** Modified TO-15 NA NA 24E **CCV** Modified TO-15 NA NA 24F **CCV** Modified TO-15 NA NA Modified TO-15 25A LCS NA NA Modified TO-15 25AA **LCSD** NA NA 25B LCS Modified TO-15 NA NA 25BB **LCSD** Modified TO-15 NA NA 25C LCS Modified TO-15 NA NA 25CC **LCSD** Modified TO-15 NA NA 25D LCS Modified TO-15 NA NA 25DD **LCSD** Modified TO-15 NA NA LCS Modified TO-15 NA NA 25E Modified TO-15 25EE LCSD NA NA

Continued on next page



WORK ORDER #: 2001745B

Work Order Summary

CLIENT: Mr. Tyler Curley BILL TO: Accounts Payable - Lewisville

EA Engineering
320 Gold Avenue, SW
405 S. Highway 121

Suite 1300 Suite C-100

Albuquerque, NM 87102 Lewisville, TX 75067

PHONE: (505) 224-9013 **P.O.** # 20146

FAX: (505) 224-9016 **PROJECT** # 20146 COPPER POINTE

DATE RECEIVED: 01/31/2020 CONTACT: Brian Whittaker DATE COMPLETED: 02/13/2020

FINAL RECEIPT **TEST** VAC./PRES. **PRESSURE FRACTION# NAME** 25F LCS Modified TO-15 NA NA 25FF **LCSD** Modified TO-15 NA NA

CEDTIFIED BV	Ju	eide Ju	ayes	02/13/20	
CERTIFIED BY:				DATE: <u>92/18/20</u>	

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209218, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-18-13, UT NELAP – CA009332019-11, VA NELAP - 460197, WA NELAP - C935

Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program) Accreditation number: CA300005-011, Effective date: 10/18/2019, Expiration date: 10/17/2020.

Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.



LABORATORY NARRATIVE Modified TO-15 Full Scan/SIM EA Engineering Workorder# 2001745B

Twelve 6 Liter Summa Canister (100% SIM Ambient) samples were received on January 31, 2020. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the EATL modifications.

Requirement	TO-15	ATL Modifications
ICAL %RSD acceptance criteria	=30% RSD with 2<br compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD For SIM: Project specific; default criteria is =30% RSD with 10% of compounds allowed out to < 40% RSD</td
Daily Calibration	+- 30% Difference	For Full Scan: = 30% Difference with four allowed out up to </=40%.; flag and narrate outliers For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers</td
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

As per client project requirements, the laboratory has reported estimated values for Trichloroethene hit

that is below the Reporting Limit but greater than the Method Detection Limit in sample OA-01. Concentrations that are below the level at which the canister was certified may be false positives.

Dilution was performed on samples IA-C-05, IA-C-06, IA-C-07, IA-C-08, IA-C-09, IA-C-10, IA-C-11, IA-C-12, IA-C-13, IA-C-14 and IA-C-08-D due to the presence of high level target species.

The Relative Percent Difference (RPD) of the LCS/LCSD exceeded acceptance limits for 1,2,4-Trichlorobenzene (analytical batch from instrument MSDV).

Definition of Data Qualifying Flags

Nine qualifiers may have been used on the data analysis sheets and indicates as follows:

- B Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
 - J Estimated value.
 - E Exceeds instrument calibration range.
 - S Saturated peak.
 - Q Exceeds quality control limits.
 - U Compound analyzed for but not detected above the reporting limit.
 - UJ- Non-detected compound associated with low bias in the CCV
 - N The identification is based on presumptive evidence.
 - CN See case narrative explanation

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector
- r1-File was requantified for the purpose of reissue



Client Sample ID: IA-C-05 Lab ID#: 2001745B-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	2.5	390 E	4.8	730 E
Acetone	5.0	36	12	86
2-Propanol	2.5	4.4	6.2	11
2-Butanone (Methyl Ethyl Ketone)	2.5	3.8	7.4	11

Client Sample ID: IA-C-05

Lab ID#: 2001745B-11B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	0.47	0.50	2.3
1,1,1-Trichloroethane	0.10	0.22	0.55	1.2
Benzene	0.25	0.28	0.81	0.89
Trichloroethene	0.10	0.18	0.54	0.96
Toluene	0.25	1.0	0.95	3.8
Ethyl Benzene	0.10	12	0.44	53
m,p-Xylene	0.20	65	0.88	280
o-Xylene	0.10	22	0.44	94

Client Sample ID: IA-C-06

Lab ID#: 2001745B-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	2.5	420 E	4.8	800 E
Acetone	5.0	20	12	48
2-Propanol	2.5	3.6	6.2	8.8

Client Sample ID: IA-C-06

Lab ID#: 2001745B-12B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	0.48	0.50	2.4
1,1,1-Trichloroethane	0.10	0.24	0.55	1.3



Lab ID#: 2001745B-12B	
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Benzene	0.25	0.28	0.81	0.91
Trichloroethene	0.10	0.28	0.54	1.5
Toluene	0.25	1.0	0.95	3.8
Ethyl Benzene	0.10	13	0.44	55
m,p-Xylene	0.20	69	0.88	300
o-Xylene	0.10	23	0.44	98

Client Sample ID: IA-C-07

Lab ID#: 2001745B-13A

Compound	Rpt. Limit (ppbv)	(ppbv)	(ug/m3)	(ug/m3)
Ethanol	2.3	360 E	4.4	690 E
Acetone	4.6	18	11	42
2-Propanol	2.3	3.4	5.7	8.2

Client Sample ID: IA-C-07

Lab ID#: 2001745B-13B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.092	0.48	0.46	2.4
1,1,1-Trichloroethane	0.092	0.24	0.50	1.3
Benzene	0.23	0.26	0.74	0.84
Trichloroethene	0.092	0.18	0.50	0.96
Toluene	0.23	1.0	0.87	3.8
Ethyl Benzene	0.092	13	0.40	58
m,p-Xylene	0.18	74	0.80	320
o-Xylene	0.092	24	0.40	100

Client Sample ID: IA-C-08

Lab ID#: 2001745B-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	2.5	510 E	4.7	950 E
Acetone	5.0	33	12	78



Client Sample ID: IA-C-08

Lab ID#: 2001745B-14A

 2-Propanol
 2.5
 4.7
 6.1
 12

 2-Butanone (Methyl Ethyl Ketone)
 2.5
 3.3
 7.4
 9.8

Client Sample ID: IA-C-08

Lab ID#: 2001745B-14B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	0.50	0.49	2.4
1,1,1-Trichloroethane	0.10	0.25	0.54	1.4
Benzene	0.25	0.30	0.80	0.96
Trichloroethene	0.10	0.19	0.54	1.0
Toluene	0.25	1.0	0.94	3.9
Ethyl Benzene	0.10	13	0.43	56
m,p-Xylene	0.20	70	0.87	300
o-Xylene	0.10	23	0.43	100

Client Sample ID: IA-C-09

Lab ID#: 2001745B-15A

Compound	Rpt. Limit (ppbv)	(ppbv)	(ug/m3)	(ug/m3)	
Ethanol	3.3	680 E	6.2	1300 E	
Acetone	6.5	18	16	44	
2-Propanol	3.3	3.6	8.0	8.8	

Client Sample ID: IA-C-09

Lab ID#: 2001745B-15B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.13	0.50	0.64	2.5
1,1,1-Trichloroethane	0.13	0.25	0.71	1.4
Trichloroethene	0.13	0.19	0.70	1.0
Toluene	0.33	1.0	1.2	3.9
Ethyl Benzene	0.13	12	0.57	54
m,p-Xylene	0.26	66	1.1	290



Client Sample ID: IA-C-09

Lab ID#: 2001745B-15B

o-Xylene 0.13 22 0.57 98

Client Sample ID: IA-C-10 Lab ID#: 2001745B-16A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)	
Ethanol	3.3	980 E	6.2	1800 E	
Acetone	6.6	35	16	83	
2-Propanol	3.3	4.9	8.1	12	

Client Sample ID: IA-C-10

Lab ID#: 2001745B-16B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.13	0.48	0.65	2.4
1,1,1-Trichloroethane	0.13	0.17	0.72	0.94
Trichloroethene	0.13	0.20	0.71	1.0
Toluene	0.33	1.1	1.2	4.1
Ethyl Benzene	0.13	13	0.57	56
m,p-Xylene	0.26	70	1.1	300
o-Xylene	0.13	24	0.57	100

Client Sample ID: IA-C-11

Lab ID#: 2001745B-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	3.3	1000 E	6.2	1900 E
Acetone	6.6	18	16	42
2-Propanol	3.3	4.2	8.1	10

Client Sample ID: IA-C-11

Lab ID#: 2001745B-17B

	Rpt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)



Client Sample ID: IA-C-11 Lab ID#: 2001745B-17B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.13	0.48	0.66	2.4
1,1,1-Trichloroethane	0.13	0.16	0.72	0.87
Trichloroethene	0.13	0.18	0.71	0.95
Toluene	0.33	1.1	1.2	4.2
Ethyl Benzene	0.13	12	0.58	53
m,p-Xylene	0.26	66	1.2	290
o-Xylene	0.13	23	0.58	99

Client Sample ID: IA-C-12 Lab ID#: 2001745B-18A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	2.6	1000 E	5.0	1900 E
Acetone	5.3	22	12	52
2-Propanol	2.6	5.6	6.5	14

Client Sample ID: IA-C-12 Lab ID#: 2001745B-18B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.11	0.47	0.52	2.3
1,1,1-Trichloroethane	0.11	0.13	0.58	0.71
Benzene	0.26	0.34	0.85	1.1
Trichloroethene	0.11	0.21	0.57	1.1
Toluene	0.26	0.98	1.0	3.7
Ethyl Benzene	0.11	9.9	0.46	43
m,p-Xylene	0.21	48	0.92	210
o-Xylene	0.11	16	0.46	72

Client Sample ID: IA-C-13 Lab ID#: 2001745B-19A



Client Sample ID: IA-C-13 Lab ID#: 2001745B-19A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	3.3	960 E	6.2	1800 E
Acetone	6.6	16	16	37

Client Sample ID: IA-C-13

Lab ID#: 2001745B-19B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.13	0.49	0.65	2.4
1,1,1-Trichloroethane	0.13	0.13 J	0.72	0.70 J
Benzene	0.33	0.38	1.0	1.2
Trichloroethene	0.13	0.23	0.71	1.2
Toluene	0.33	1.1	1.2	4.3
Ethyl Benzene	0.13	10	0.57	44
m,p-Xylene	0.26	67	1.1	290
o-Xylene	0.13	17	0.57	72

Client Sample ID: IA-C-14

Lab ID#: 2001745B-20A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	3.4	1600 E	6.4	2900 E
Acetone	6.8	25	16	60
2-Propanol	3.4	5.8	8.4	14

Client Sample ID: IA-C-14

Lab ID#: 2001745B-20B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.46	0.68	2.3
Benzene	0.34	0.36	1.1	1.2
Trichloroethene	0.14	0.18	0.73	0.94
Toluene	0.34	1.1	1.3	4.2



Client Sample ID: IA-C-14

Lab ID#: 2001745B-20B

Ethyl Benzene	0.14	9.1	0.59	39
m,p-Xylene	0.27	44	1.2	190
o-Xylene	0.14	15	0.59	67

Client Sample ID: OA-01

Lab ID#: 2001745B-21A

	Rpt. Limit	Amount	Rpt. Limit	Amount	
Compound	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)	_
Freon 11	0.20	0.21	1.1	1.2	
Ethanol	1.0	2.1	1.9	3.9	
Acetone	2.0	3.9	4.8	9.3	

Client Sample ID: OA-01

Lab ID#: 2001745B-21B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.040	0.47	0.20	2.3
Carbon Tetrachloride	0.040	0.061	0.25	0.38
Benzene	0.10	0.20	0.32	0.66
Toluene	0.10	0.33	0.38	1.2
Ethyl Benzene	0.040	0.052	0.17	0.23
m,p-Xylene	0.080	0.14	0.35	0.61
o-Xylene	0.040	0.057	0.17	0.25

Client Sample ID: IA-C-08-D

Lab ID#: 2001745B-22A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	2.6	520 E	4.9	970 E
Acetone	5.2	41	12	98
2-Propanol	2.6	4.8	6.4	12

Client Sample ID: IA-C-08-D

Lab ID#: 2001745B-22B



Client Sample ID: IA-C-08-D

Lab ID#: 2001745B-22B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	0.46	0.52	2.3
1,1,1-Trichloroethane	0.10	0.23	0.57	1.2
Benzene	0.26	0.31	0.84	1.0
Trichloroethene	0.10	0.17	0.56	0.91
Toluene	0.26	0.92	0.99	3.5
Ethyl Benzene	0.10	10	0.46	45
m,p-Xylene	0.21	49	0.91	210
o-Xylene	0.10	17	0.46	73



Client Sample ID: IA-C-05 Lab ID#: 2001745B-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021217 Date of Collection: 1/29/20 4:50:00 PM
Dil. Factor: 5.05 Date of Analysis: 2/12/20 08:07 PM

	3.03	Date	Ol Allalysis. Zi IZi	20 00.07 1 10
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	2.5	Not Detected	9.8	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.5	390 E	4.8	730 E
Freon 113	0.50	Not Detected	3.9	Not Detected
Acetone	5.0	36	12	86
2-Propanol	2.5	4.4	6.2	11
Carbon Disulfide	2.5	Not Detected	7.9	Not Detected
3-Chloropropene	2.5	Not Detected	7.9	Not Detected
Methylene Chloride	1.0	Not Detected	3.5	Not Detected
Hexane	2.5	Not Detected	8.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.5	3.8	7.4	11
Tetrahydrofuran	2.5	Not Detected	7.4	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
2,2,4-Trimethylpentane	2.5	Not Detected	12	Not Detected
Heptane	2.5	Not Detected	10	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	0.50	Not Detected	1.8	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.1	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
2-Hexanone	2.5	Not Detected	10	Not Detected
Dibromochloromethane	0.50	Not Detected	4.3	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Styrene	0.50	Not Detected	2.2	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.5	Not Detected
Propylbenzene	0.50	Not Detected	2.5	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.5	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.5	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.5	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.5	Not Detected	19	Not Detected
Hexachlorobutadiene	2.5	Not Detected	27	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

Surrogates Method
Limits



Client Sample ID: IA-C-05 Lab ID#: 2001745B-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021217 Date of Collection: 1/29/20 4:50:00 PM
Dil. Factor: 5.05 Date of Analysis: 2/12/20 08:07 PM

		Wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	101	70-130	
Toluene-d8	91	70-130	
4-Bromofluorobenzene	107	70-130	



Client Sample ID: IA-C-05 Lab ID#: 2001745B-11B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021217sim Date of Collection: 1/29/20 4:50:00 PM
Dil. Factor: 5.05 Date of Analysis: 2/12/20 08:07 PM

DII. Factor.	5.05	Date	of Analysis: 2/12/	20 00.01 PIVI
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	0.47	0.50	2.3
Freon 114	0.10	Not Detected	0.71	Not Detected
Chloromethane	2.5	Not Detected	5.2	Not Detected
Vinyl Chloride	0.050	Not Detected	0.13	Not Detected
Chloroethane	0.25	Not Detected	0.67	Not Detected
1,1-Dichloroethene	0.050	Not Detected	0.20	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.41	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	0.22	0.55	1.2
Carbon Tetrachloride	0.10	Not Detected	0.64	Not Detected
Benzene	0.25	0.28	0.81	0.89
1,2-Dichloroethane	0.10	Not Detected	0.41	Not Detected
Trichloroethene	0.10	0.18	0.54	0.96
Toluene	0.25	1.0	0.95	3.8
1,1,2-Trichloroethane	0.10	Not Detected	0.55	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.78	Not Detected
Ethyl Benzene	0.10	12	0.44	53
m,p-Xylene	0.20	65	0.88	280
o-Xylene	0.10	22	0.44	94
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.61	Not Detected

		wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	94	70-130	
Toluene-d8	94	70-130	
4-Bromofluorobenzene	111	70-130	



Client Sample ID: IA-C-06 Lab ID#: 2001745B-12A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021218 Date of Collection: 1/29/20 4:56:00 PM
Dil. Factor: 5.05 Date of Analysis: 2/12/20 08:46 PM

	3.03	Date	Ol Allalysis. Zi izi	20 00.70 1 111
_	Rpt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	2.5	Not Detected	9.8	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.5	420 E	4.8	800 E
Freon 113	0.50	Not Detected	3.9	Not Detected
Acetone	5.0	20	12	48
2-Propanol	2.5	3.6	6.2	8.8
Carbon Disulfide	2.5	Not Detected	7.9	Not Detected
3-Chloropropene	2.5	Not Detected	7.9	Not Detected
Methylene Chloride	1.0	Not Detected	3.5	Not Detected
Hexane	2.5	Not Detected	8.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.5	Not Detected	7.4	Not Detected
Tetrahydrofuran	2.5	Not Detected	7.4	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
2,2,4-Trimethylpentane	2.5	Not Detected	12	Not Detected
Heptane	2.5	Not Detected	10	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	0.50	Not Detected	1.8	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.1	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
2-Hexanone	2.5	Not Detected	10	Not Detected
Dibromochloromethane	0.50	Not Detected	4.3	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Styrene	0.50	Not Detected	2.2	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.5	Not Detected
Propylbenzene	0.50	Not Detected	2.5	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.5	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.5	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.5	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.5	Not Detected	19	Not Detected
Hexachlorobutadiene	2.5	Not Detected	27	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

Surrogates Method
Limits



Client Sample ID: IA-C-06 Lab ID#: 2001745B-12A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021218 Date of Collection: 1/29/20 4:56:00 PM Dil. Factor: 5.05 Date of Analysis: 2/12/20 08:46 PM

		wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	97	70-130	
Toluene-d8	92	70-130	
4-Bromofluorobenzene	109	70-130	



Client Sample ID: IA-C-06 Lab ID#: 2001745B-12B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	20021218sim	Date of Collection: 1/29/20 4:56:00 PM
Dil. Factor:	5.05	Date of Analysis: 2/12/20 08:46 PM

Dii. i dotor.	3.03	Date	OI Alialysis. Zi izi	20 00.40 F W
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	0.48	0.50	2.4
Freon 114	0.10	Not Detected	0.71	Not Detected
Chloromethane	2.5	Not Detected	5.2	Not Detected
Vinyl Chloride	0.050	Not Detected	0.13	Not Detected
Chloroethane	0.25	Not Detected	0.67	Not Detected
1,1-Dichloroethene	0.050	Not Detected	0.20	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.41	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	0.24	0.55	1.3
Carbon Tetrachloride	0.10	Not Detected	0.64	Not Detected
Benzene	0.25	0.28	0.81	0.91
1,2-Dichloroethane	0.10	Not Detected	0.41	Not Detected
Trichloroethene	0.10	0.28	0.54	1.5
Toluene	0.25	1.0	0.95	3.8
1,1,2-Trichloroethane	0.10	Not Detected	0.55	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.78	Not Detected
Ethyl Benzene	0.10	13	0.44	55
m,p-Xylene	0.20	69	0.88	300
o-Xylene	0.10	23	0.44	98
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.61	Not Detected

		Wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	94	70-130	
Toluene-d8	94	70-130	
4-Bromofluorobenzene	111	70-130	



Client Sample ID: IA-C-07 Lab ID#: 2001745B-13A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

 File Name:
 20021219
 Date of Collection: 1/29/20 2:41:00 PM

 Dil. Factor:
 4.62
 Date of Analysis: 2/12/20 09:25 PM

= ··· · · · · · · · · · · · · · · · · ·	7.02	Date	Ol Allalysis. Zi izi	20 00.20 1 111
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.46	Not Detected	1.0	Not Detected
Bromomethane	2.3	Not Detected	9.0	Not Detected
Freon 11	0.46	Not Detected	2.6	Not Detected
Ethanol	2.3	360 E	4.4	690 E
Freon 113	0.46	Not Detected	3.5	Not Detected
Acetone	4.6	 18	11	42
2-Propanol	2.3	3.4	5.7	8.2
Carbon Disulfide	2.3	Not Detected	7.2	Not Detected
3-Chloropropene	2.3	Not Detected	7.2	Not Detected
Methylene Chloride	0.92	Not Detected	3.2	Not Detected
Hexane	2.3	Not Detected	8.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.3	Not Detected	6.8	Not Detected
Tetrahydrofuran	2.3	Not Detected	6.8	Not Detected
Cyclohexane	0.46	Not Detected	1.6	Not Detected
2,2,4-Trimethylpentane	2.3	Not Detected	11	Not Detected
Heptane	2.3	Not Detected	9.5	Not Detected
1,2-Dichloropropane	0.46	Not Detected	2.1	Not Detected
1,4-Dioxane	0.46	Not Detected	1.7	Not Detected
Bromodichloromethane	0.46	Not Detected	3.1	Not Detected
cis-1,3-Dichloropropene	0.46	Not Detected	2.1	Not Detected
4-Methyl-2-pentanone	0.46	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.46	Not Detected	2.1	Not Detected
2-Hexanone	2.3	Not Detected	9.5	Not Detected
Dibromochloromethane	0.46	Not Detected	3.9	Not Detected
Chlorobenzene	0.46	Not Detected	2.1	Not Detected
Styrene	0.46	Not Detected	2.0	Not Detected
Bromoform	0.46	Not Detected	4.8	Not Detected
Cumene	0.46	Not Detected	2.3	Not Detected
Propylbenzene	0.46	Not Detected	2.3	Not Detected
4-Ethyltoluene	0.46	Not Detected	2.3	Not Detected
1,3,5-Trimethylbenzene	0.46	Not Detected	2.3	Not Detected
1,2,4-Trimethylbenzene	0.46	Not Detected	2.3	Not Detected
1,3-Dichlorobenzene	0.46	Not Detected	2.8	Not Detected
alpha-Chlorotoluene	0.46	Not Detected	2.4	Not Detected
1,2-Dichlorobenzene	0.46	Not Detected	2.8	Not Detected
1,2,4-Trichlorobenzene	2.3	Not Detected	17	Not Detected
Hexachlorobutadiene	2.3	Not Detected	25	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

Surrogates %Recovery Limits



Client Sample ID: IA-C-07 Lab ID#: 2001745B-13A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021219 Date of Collection: 1/29/20 2:41:00 PM
Dil. Factor: 4.62 Date of Analysis: 2/12/20 09:25 PM

		Wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	93	70-130	
Toluene-d8	91	70-130	
4-Bromofluorobenzene	111	70-130	



Client Sample ID: IA-C-07 Lab ID#: 2001745B-13B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	20021219sim	Date of Collection: 1/29/20 2:41:00 PM
Dil. Factor:	4.62	Date of Analysis: 2/12/20 09:25 PM

	7.02	Date	of Allaryold. Little	20 00.20 i iii
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.092	0.48	0.46	2.4
Freon 114	0.092	Not Detected	0.64	Not Detected
Chloromethane	2.3	Not Detected	4.8	Not Detected
Vinyl Chloride	0.046	Not Detected	0.12	Not Detected
Chloroethane	0.23	Not Detected	0.61	Not Detected
1,1-Dichloroethene	0.046	Not Detected	0.18	Not Detected
trans-1,2-Dichloroethene	0.46	Not Detected	1.8	Not Detected
Methyl tert-butyl ether	0.46	Not Detected	1.7	Not Detected
1,1-Dichloroethane	0.092	Not Detected	0.37	Not Detected
cis-1,2-Dichloroethene	0.092	Not Detected	0.37	Not Detected
Chloroform	0.092	Not Detected	0.45	Not Detected
1,1,1-Trichloroethane	0.092	0.24	0.50	1.3
Carbon Tetrachloride	0.092	Not Detected	0.58	Not Detected
Benzene	0.23	0.26	0.74	0.84
1,2-Dichloroethane	0.092	Not Detected	0.37	Not Detected
Trichloroethene	0.092	0.18	0.50	0.96
Toluene	0.23	1.0	0.87	3.8
1,1,2-Trichloroethane	0.092	Not Detected	0.50	Not Detected
Tetrachloroethene	0.092	Not Detected	0.63	Not Detected
1,2-Dibromoethane (EDB)	0.092	Not Detected	0.71	Not Detected
Ethyl Benzene	0.092	13	0.40	58
m,p-Xylene	0.18	74	0.80	320
o-Xylene	0.092	24	0.40	100
1,1,2,2-Tetrachloroethane	0.092	Not Detected	0.63	Not Detected
1,4-Dichlorobenzene	0.092	Not Detected	0.56	Not Detected

		wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	95	70-130	
Toluene-d8	94	70-130	
4-Bromofluorobenzene	111	70-130	



Client Sample ID: IA-C-08 Lab ID#: 2001745B-14A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	20021223	Date of Collection: 1/29/20 5:07:00 PM
Dil. Factor:	5.00	Date of Analysis: 2/13/20 05:25 AM

2	3.00	Date	Ol Allalysis. Zi isi	20 03.23 AM
O	Rpt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	2.5	Not Detected	9.7	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.5	510 E	4.7	950 E
Freon 113	0.50	Not Detected	3.8	Not Detected
Acetone	5.0	33	12	78
2-Propanol	2.5	4.7	6.1	12
Carbon Disulfide	2.5	Not Detected	7.8	Not Detected
3-Chloropropene	2.5	Not Detected	7.8	Not Detected
Methylene Chloride	1.0	Not Detected	3.5	Not Detected
Hexane	2.5	Not Detected	8.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.5	3.3	7.4	9.8
Tetrahydrofuran	2.5	Not Detected	7.4	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
2,2,4-Trimethylpentane	2.5	Not Detected	12	Not Detected
Heptane	2.5	Not Detected	10	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	0.50	Not Detected	1.8	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
2-Hexanone	2.5	Not Detected	10	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.5	Not Detected	18	Not Detected
Hexachlorobutadiene	2.5	Not Detected	27	Not Detected

E = Exceeds instrument calibration range.

		Method
Surrogates	%Recovery	Limits



Client Sample ID: IA-C-08 Lab ID#: 2001745B-14A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021223 Date of Collection: 1/29/20 5:07:00 PM
Dil. Factor: 5.00 Date of Analysis: 2/13/20 05:25 AM

		Wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	100	70-130	
Toluene-d8	94	70-130	
4-Bromofluorobenzene	112	70-130	



Client Sample ID: IA-C-08 Lab ID#: 2001745B-14B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	20021223sim	Date of Collection: 1/29/20 5:07:00 PM
Dil. Factor:	5.00	Date of Analysis: 2/13/20 05:25 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	0.50	0.49	2.4
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	2.5	Not Detected	5.2	Not Detected
Vinyl Chloride	0.050	Not Detected	0.13	Not Detected
Chloroethane	0.25	Not Detected	0.66	Not Detected
1,1-Dichloroethene	0.050	Not Detected	0.20	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	0.25	0.54	1.4
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
Benzene	0.25	0.30	0.80	0.96
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Trichloroethene	0.10	0.19	0.54	1.0
Toluene	0.25	1.0	0.94	3.9
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Ethyl Benzene	0.10	13	0.43	56
m,p-Xylene	0.20	70	0.87	300
o-Xylene	0.10	23	0.43	100
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected

		wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	94	70-130	
Toluene-d8	96	70-130	
4-Bromofluorobenzene	113	70-130	



Client Sample ID: IA-C-09 Lab ID#: 2001745B-15A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021224 Date of Collection: 1/29/20 4:58:00 PM
Dil. Factor: 6.53 Date of Analysis: 2/13/20 06:04 AM

	0.55	Date	Ol Allalysis. Zi isi	20 00.07 AN
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.65	Not Detected	1.4	Not Detected
Bromomethane	3.3	Not Detected	13	Not Detected
Freon 11	0.65	Not Detected	3.7	Not Detected
Ethanol	3.3	680 E	6.2	1300 E
Freon 113	0.65	Not Detected	5.0	Not Detected
Acetone	6.5	 18	16	44
2-Propanol	3.3	3.6	8.0	8.8
Carbon Disulfide	3.3	Not Detected	10	Not Detected
3-Chloropropene	3.3	Not Detected	10	Not Detected
Methylene Chloride	1.3	Not Detected	4.5	Not Detected
Hexane	3.3	Not Detected	12	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.3	Not Detected	9.6	Not Detected
Tetrahydrofuran	3.3	Not Detected	9.6	Not Detected
Cyclohexane	0.65	Not Detected	2.2	Not Detected
2,2,4-Trimethylpentane	3.3	Not Detected	15	Not Detected
Heptane	3.3	Not Detected	13	Not Detected
1,2-Dichloropropane	0.65	Not Detected	3.0	Not Detected
1,4-Dioxane	0.65	Not Detected	2.4	Not Detected
Bromodichloromethane	0.65	Not Detected	4.4	Not Detected
cis-1,3-Dichloropropene	0.65	Not Detected	3.0	Not Detected
4-Methyl-2-pentanone	0.65	Not Detected	2.7	Not Detected
trans-1,3-Dichloropropene	0.65	Not Detected	3.0	Not Detected
2-Hexanone	3.3	Not Detected	13	Not Detected
Dibromochloromethane	0.65	Not Detected	5.6	Not Detected
Chlorobenzene	0.65	Not Detected	3.0	Not Detected
Styrene	0.65	Not Detected	2.8	Not Detected
Bromoform	0.65	Not Detected	6.8	Not Detected
Cumene	0.65	Not Detected	3.2	Not Detected
Propylbenzene	0.65	Not Detected	3.2	Not Detected
4-Ethyltoluene	0.65	Not Detected	3.2	Not Detected
1,3,5-Trimethylbenzene	0.65	Not Detected	3.2	Not Detected
1,2,4-Trimethylbenzene	0.65	Not Detected	3.2	Not Detected
1,3-Dichlorobenzene	0.65	Not Detected	3.9	Not Detected
alpha-Chlorotoluene	0.65	Not Detected	3.4	Not Detected
1,2-Dichlorobenzene	0.65	Not Detected	3.9	Not Detected
1,2,4-Trichlorobenzene	3.3	Not Detected	24	Not Detected
Hexachlorobutadiene	3.3	Not Detected	35	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

Surrogates %Recovery Limits



Client Sample ID: IA-C-09 Lab ID#: 2001745B-15A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021224 Date of Collection: 1/29/20 4:58:00 PM
Dil. Factor: 6.53 Date of Analysis: 2/13/20 06:04 AM

		Wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	106	70-130	
Toluene-d8	89	70-130	
4-Bromofluorobenzene	110	70-130	



Client Sample ID: IA-C-09 Lab ID#: 2001745B-15B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	20021224sim	Date of Collection: 1/29/20 4:58:00 PM
Dil. Factor:	6.53	Date of Analysis: 2/13/20 06:04 AM

	0.00	Date	of Allaryold. Ellor	20 00.04 7.111
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.13	0.50	0.64	2.5
Freon 114	0.13	Not Detected	0.91	Not Detected
Chloromethane	3.3	Not Detected	6.7	Not Detected
Vinyl Chloride	0.065	Not Detected	0.17	Not Detected
Chloroethane	0.33	Not Detected	0.86	Not Detected
1,1-Dichloroethene	0.065	Not Detected	0.26	Not Detected
trans-1,2-Dichloroethene	0.65	Not Detected	2.6	Not Detected
Methyl tert-butyl ether	0.65	Not Detected	2.4	Not Detected
1,1-Dichloroethane	0.13	Not Detected	0.53	Not Detected
cis-1,2-Dichloroethene	0.13	Not Detected	0.52	Not Detected
Chloroform	0.13	Not Detected	0.64	Not Detected
1,1,1-Trichloroethane	0.13	0.25	0.71	1.4
Carbon Tetrachloride	0.13	Not Detected	0.82	Not Detected
Benzene	0.33	Not Detected	1.0	Not Detected
1,2-Dichloroethane	0.13	Not Detected	0.53	Not Detected
Trichloroethene	0.13	0.19	0.70	1.0
Toluene	0.33	1.0	1.2	3.9
1,1,2-Trichloroethane	0.13	Not Detected	0.71	Not Detected
Tetrachloroethene	0.13	Not Detected	0.88	Not Detected
1,2-Dibromoethane (EDB)	0.13	Not Detected	1.0	Not Detected
Ethyl Benzene	0.13	12	0.57	54
m,p-Xylene	0.26	66	1.1	290
o-Xylene	0.13	22	0.57	98
1,1,2,2-Tetrachloroethane	0.13	Not Detected	0.90	Not Detected
1,4-Dichlorobenzene	0.13	Not Detected	0.78	Not Detected

		wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	94	70-130	
Toluene-d8	94	70-130	
4-Bromofluorobenzene	111	70-130	



Client Sample ID: IA-C-10 Lab ID#: 2001745B-16A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021225 Date of Collection: 1/29/20 5:22:00 PM
Dil. Factor: 6.59 Date of Analysis: 2/13/20 06:43 AM

	0.55	Date	Ol Allalysis. Zi isi	20 00.70 AN
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.66	Not Detected	1.4	Not Detected
Bromomethane	3.3	Not Detected	13	Not Detected
Freon 11	0.66	Not Detected	3.7	Not Detected
Ethanol	3.3	980 E	6.2	1800 E
Freon 113	0.66	Not Detected	5.0	Not Detected
Acetone	6.6	35	16	83
2-Propanol	3.3	4.9	8.1	12
Carbon Disulfide	3.3	Not Detected	10	Not Detected
3-Chloropropene	3.3	Not Detected	10	Not Detected
Methylene Chloride	1.3	Not Detected	4.6	Not Detected
Hexane	3.3	Not Detected	12	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.3	Not Detected	9.7	Not Detected
Tetrahydrofuran	3.3	Not Detected	9.7	Not Detected
Cyclohexane	0.66	Not Detected	2.3	Not Detected
2,2,4-Trimethylpentane	3.3	Not Detected	15	Not Detected
Heptane	3.3	Not Detected	14	Not Detected
1,2-Dichloropropane	0.66	Not Detected	3.0	Not Detected
1,4-Dioxane	0.66	Not Detected	2.4	Not Detected
Bromodichloromethane	0.66	Not Detected	4.4	Not Detected
cis-1,3-Dichloropropene	0.66	Not Detected	3.0	Not Detected
4-Methyl-2-pentanone	0.66	Not Detected	2.7	Not Detected
trans-1,3-Dichloropropene	0.66	Not Detected	3.0	Not Detected
2-Hexanone	3.3	Not Detected	13	Not Detected
Dibromochloromethane	0.66	Not Detected	5.6	Not Detected
Chlorobenzene	0.66	Not Detected	3.0	Not Detected
Styrene	0.66	Not Detected	2.8	Not Detected
Bromoform	0.66	Not Detected	6.8	Not Detected
Cumene	0.66	Not Detected	3.2	Not Detected
Propylbenzene	0.66	Not Detected	3.2	Not Detected
4-Ethyltoluene	0.66	Not Detected	3.2	Not Detected
1,3,5-Trimethylbenzene	0.66	Not Detected	3.2	Not Detected
1,2,4-Trimethylbenzene	0.66	Not Detected	3.2	Not Detected
1,3-Dichlorobenzene	0.66	Not Detected	4.0	Not Detected
alpha-Chlorotoluene	0.66	Not Detected	3.4	Not Detected
1,2-Dichlorobenzene	0.66	Not Detected	4.0	Not Detected
1,2,4-Trichlorobenzene	3.3	Not Detected	24	Not Detected
Hexachlorobutadiene	3.3	Not Detected	35	Not Detected
	3.0		30	

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

Surrogates Method
Limits



Client Sample ID: IA-C-10 Lab ID#: 2001745B-16A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021225 Date of Collection: 1/29/20 5:22:00 PM
Dil. Factor: 6.59 Date of Analysis: 2/13/20 06:43 AM

		Wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	95	70-130	
Toluene-d8	94	70-130	
4-Bromofluorobenzene	108	70-130	



Client Sample ID: IA-C-10 Lab ID#: 2001745B-16B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	20021225sim	Date of Collection: 1/29/20 5:22:00 PM
Dil. Factor:	6.59	Date of Analysis: 2/13/20 06:43 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.13	0.48	0.65	2.4
Freon 114	0.13	Not Detected	0.92	Not Detected
Chloromethane	3.3	Not Detected	6.8	Not Detected
Vinyl Chloride	0.066	Not Detected	0.17	Not Detected
Chloroethane	0.33	Not Detected	0.87	Not Detected
1,1-Dichloroethene	0.066	Not Detected	0.26	Not Detected
trans-1,2-Dichloroethene	0.66	Not Detected	2.6	Not Detected
Methyl tert-butyl ether	0.66	Not Detected	2.4	Not Detected
1,1-Dichloroethane	0.13	Not Detected	0.53	Not Detected
cis-1,2-Dichloroethene	0.13	Not Detected	0.52	Not Detected
Chloroform	0.13	Not Detected	0.64	Not Detected
1,1,1-Trichloroethane	0.13	0.17	0.72	0.94
Carbon Tetrachloride	0.13	Not Detected	0.83	Not Detected
Benzene	0.33	Not Detected	1.0	Not Detected
1,2-Dichloroethane	0.13	Not Detected	0.53	Not Detected
Trichloroethene	0.13	0.20	0.71	1.0
Toluene	0.33	1.1	1.2	4.1
1,1,2-Trichloroethane	0.13	Not Detected	0.72	Not Detected
Tetrachloroethene	0.13	Not Detected	0.89	Not Detected
1,2-Dibromoethane (EDB)	0.13	Not Detected	1.0	Not Detected
Ethyl Benzene	0.13	13	0.57	56
m,p-Xylene	0.26	70	1.1	300
o-Xylene	0.13	24	0.57	100
1,1,2,2-Tetrachloroethane	0.13	Not Detected	0.90	Not Detected
1,4-Dichlorobenzene	0.13	Not Detected	0.79	Not Detected

		wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	94	70-130	
Toluene-d8	94	70-130	
4-Bromofluorobenzene	112	70-130	



Client Sample ID: IA-C-11 Lab ID#: 2001745B-17A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	20021226	Date of Collection: 1/29/20 5:26:00 PM
Dil. Factor:	6.63	Date of Analysis: 2/13/20 07:31 AM

DII. Factor.	0.03	Date	te of Analysis: 2/13/20 07:31 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.66	Not Detected	1.5	Not Detected
Bromomethane	3.3	Not Detected	13	Not Detected
Freon 11	0.66	Not Detected	3.7	Not Detected
Ethanol	3.3	1000 E	6.2	1900 E
Freon 113	0.66	Not Detected	5.1	Not Detected
Acetone	6.6	 18	16	42
2-Propanol	3.3	4.2	8.1	10
Carbon Disulfide	3.3	Not Detected	10	Not Detected
3-Chloropropene	3.3	Not Detected	10	Not Detected
Methylene Chloride	1.3	Not Detected	4.6	Not Detected
Hexane	3.3	Not Detected	12	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.3	Not Detected	9.8	Not Detected
Tetrahydrofuran	3.3	Not Detected	9.8	Not Detected
Cyclohexane	0.66	Not Detected	2.3	Not Detected
2,2,4-Trimethylpentane	3.3	Not Detected	15	Not Detected
Heptane	3.3	Not Detected	14	Not Detected
1,2-Dichloropropane	0.66	Not Detected	3.1	Not Detected
1,4-Dioxane	0.66	Not Detected	2.4	Not Detected
Bromodichloromethane	0.66	Not Detected	4.4	Not Detected
cis-1,3-Dichloropropene	0.66	Not Detected	3.0	Not Detected
4-Methyl-2-pentanone	0.66	Not Detected	2.7	Not Detected
trans-1,3-Dichloropropene	0.66	Not Detected	3.0	Not Detected
2-Hexanone	3.3	Not Detected	14	Not Detected
Dibromochloromethane	0.66	Not Detected	5.6	Not Detected
Chlorobenzene	0.66	Not Detected	3.0	Not Detected
Styrene	0.66	Not Detected	2.8	Not Detected
Bromoform	0.66	Not Detected	6.8	Not Detected
Cumene	0.66	Not Detected	3.2	Not Detected
Propylbenzene	0.66	Not Detected	3.2	Not Detected
4-Ethyltoluene	0.66	Not Detected	3.2	Not Detected
1,3,5-Trimethylbenzene	0.66	Not Detected	3.2	Not Detected
1,2,4-Trimethylbenzene	0.66	Not Detected	3.2	Not Detected
1,3-Dichlorobenzene	0.66	Not Detected	4.0	Not Detected
alpha-Chlorotoluene	0.66	Not Detected	3.4	Not Detected
1,2-Dichlorobenzene	0.66	Not Detected	4.0	Not Detected
1,2,4-Trichlorobenzene	3.3	Not Detected	25	Not Detected
Hexachlorobutadiene	3.3	Not Detected	35	Not Detected

E = Exceeds instrument calibration range.

		Method
Surrogates	%Recovery	Limits



Client Sample ID: IA-C-11 Lab ID#: 2001745B-17A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021226 Date of Collection: 1/29/20 5:26:00 PM
Dil. Factor: 6.63 Date of Analysis: 2/13/20 07:31 AM

		Metnoa	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	90	70-130	
Toluene-d8	94	70-130	
4-Bromofluorobenzene	113	70-130	



Client Sample ID: IA-C-11 Lab ID#: 2001745B-17B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	20021226sim	Date of Collection: 1/29/20 5:26:00 PM
Dil. Factor:	6.63	Date of Analysis: 2/13/20 07:31 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.13	0.48	0.66	2.4
Freon 114	0.13	Not Detected	0.93	Not Detected
Chloromethane	3.3	Not Detected	6.8	Not Detected
Vinyl Chloride	0.066	Not Detected	0.17	Not Detected
Chloroethane	0.33	Not Detected	0.87	Not Detected
1,1-Dichloroethene	0.066	Not Detected	0.26	Not Detected
trans-1,2-Dichloroethene	0.66	Not Detected	2.6	Not Detected
Methyl tert-butyl ether	0.66	Not Detected	2.4	Not Detected
1,1-Dichloroethane	0.13	Not Detected	0.54	Not Detected
cis-1,2-Dichloroethene	0.13	Not Detected	0.52	Not Detected
Chloroform	0.13	Not Detected	0.65	Not Detected
1,1,1-Trichloroethane	0.13	0.16	0.72	0.87
Carbon Tetrachloride	0.13	Not Detected	0.83	Not Detected
Benzene	0.33	Not Detected	1.0	Not Detected
1,2-Dichloroethane	0.13	Not Detected	0.54	Not Detected
Trichloroethene	0.13	0.18	0.71	0.95
Toluene	0.33	1.1	1.2	4.2
1,1,2-Trichloroethane	0.13	Not Detected	0.72	Not Detected
Tetrachloroethene	0.13	Not Detected	0.90	Not Detected
1,2-Dibromoethane (EDB)	0.13	Not Detected	1.0	Not Detected
Ethyl Benzene	0.13	12	0.58	53
m,p-Xylene	0.26	66	1.2	290
o-Xylene	0.13	23	0.58	99
1,1,2,2-Tetrachloroethane	0.13	Not Detected	0.91	Not Detected
1,4-Dichlorobenzene	0.13	Not Detected	0.80	Not Detected

		wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	94	70-130	
Toluene-d8	95	70-130	
4-Bromofluorobenzene	111	70-130	



Client Sample ID: IA-C-12 Lab ID#: 2001745B-18A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: v021226 Date of Collection: 1/29/20 5:33:00 PM
Dil. Factor: 5.30 Date of Analysis: 2/13/20 08:09 AM

	3.30	Date	Ol Allalysis. 2/15/	20 00.03 AW
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.53	Not Detected	1.2	Not Detected
Bromomethane	2.6	Not Detected	10	Not Detected
Freon 11	0.53	Not Detected	3.0	Not Detected
Ethanol	2.6	1000 E	5.0	1900 E
Freon 113	0.53	Not Detected	4.1	Not Detected
Acetone	5.3	<u>2</u> 2	12	52
2-Propanol	2.6	5.6	6.5	14
Carbon Disulfide	2.6	Not Detected	8.2	Not Detected
3-Chloropropene	2.6	Not Detected	8.3	Not Detected
Methylene Chloride	1.1	Not Detected	3.7	Not Detected
Hexane	2.6	Not Detected	9.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.6	Not Detected	7.8	Not Detected
Tetrahydrofuran	2.6	Not Detected	7.8	Not Detected
Cyclohexane	0.53	Not Detected	1.8	Not Detected
2,2,4-Trimethylpentane	2.6	Not Detected	12	Not Detected
Heptane	2.6	Not Detected	11	Not Detected
1,2-Dichloropropane	0.53	Not Detected	2.4	Not Detected
1,4-Dioxane	0.53	Not Detected	1.9	Not Detected
Bromodichloromethane	0.53	Not Detected	3.6	Not Detected
cis-1,3-Dichloropropene	0.53	Not Detected	2.4	Not Detected
4-Methyl-2-pentanone	0.53	Not Detected	2.2	Not Detected
trans-1,3-Dichloropropene	0.53	Not Detected	2.4	Not Detected
2-Hexanone	2.6	Not Detected	11	Not Detected
Dibromochloromethane	0.53	Not Detected	4.5	Not Detected
Chlorobenzene	0.53	Not Detected	2.4	Not Detected
Styrene	0.53	Not Detected	2.2	Not Detected
Bromoform	0.53	Not Detected	5.5	Not Detected
Cumene	0.53	Not Detected	2.6	Not Detected
Propylbenzene	0.53	Not Detected	2.6	Not Detected
4-Ethyltoluene	0.53	Not Detected	2.6	Not Detected
1,3,5-Trimethylbenzene	0.53	Not Detected	2.6	Not Detected
1,2,4-Trimethylbenzene	0.53	Not Detected	2.6	Not Detected
1,3-Dichlorobenzene	0.53	Not Detected	3.2	Not Detected
alpha-Chlorotoluene	0.53	Not Detected	2.7	Not Detected
1,2-Dichlorobenzene	0.53	Not Detected	3.2	Not Detected
1,2,4-Trichlorobenzene	2.6	Not Detected	20	Not Detected
Hexachlorobutadiene	2.6	Not Detected	28	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

Surrogates Method
Limits



Client Sample ID: IA-C-12 Lab ID#: 2001745B-18A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: v021226 Date of Collection: 1/29/20 5:33:00 PM
Dil. Factor: 5.30 Date of Analysis: 2/13/20 08:09 AM

		Wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	117	70-130	
Toluene-d8	101	70-130	
4-Bromofluorobenzene	93	70-130	



Client Sample ID: IA-C-12 Lab ID#: 2001745B-18B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v021226sim	Date of Collection: 1/29/20 5:33:00 PM
Dil. Factor:	5.30	Date of Analysis: 2/13/20 08:09 AM

Amount (ug/m3)
2.3
Not Detected
0.71
Not Detected
1.1
Not Detected
1.1
3.7
Not Detected
Not Detected
Not Detected
43
210
72
Not Detected
Not Detected

		wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	116	70-130	
Toluene-d8	104	70-130	
4-Bromofluorobenzene	89	70-130	



Client Sample ID: IA-C-13 Lab ID#: 2001745B-19A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

 File Name:
 22021223
 Date of Collection: 1/29/20 5:14:00 PM

 Dil. Factor:
 6.60
 Date of Analysis: 2/13/20 06:58 AM

	0.00	Date	O Allalysis. Zi isi	20 00.00 AM
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.66	Not Detected	1.5	Not Detected
Bromomethane	3.3	Not Detected	13	Not Detected
Freon 11	0.66	Not Detected	3.7	Not Detected
Ethanol	3.3	960 E	6.2	1800 E
Freon 113	0.66	Not Detected	5.0	Not Detected
Acetone	6.6	 16	16	37
2-Propanol	3.3	Not Detected	8.1	Not Detected
Carbon Disulfide	3.3	Not Detected	10	Not Detected
3-Chloropropene	3.3	Not Detected	10	Not Detected
Methylene Chloride	1.3	Not Detected	4.6	Not Detected
Hexane	3.3	Not Detected	12	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.3	Not Detected	9.7	Not Detected
Tetrahydrofuran	3.3	Not Detected	9.7	Not Detected
Cyclohexane	0.66	Not Detected	2.3	Not Detected
2,2,4-Trimethylpentane	3.3	Not Detected	15	Not Detected
Heptane	3.3	Not Detected	14	Not Detected
1,2-Dichloropropane	0.66	Not Detected	3.0	Not Detected
1,4-Dioxane	0.66	Not Detected	2.4	Not Detected
Bromodichloromethane	0.66	Not Detected	4.4	Not Detected
cis-1,3-Dichloropropene	0.66	Not Detected	3.0	Not Detected
4-Methyl-2-pentanone	0.66	Not Detected	2.7	Not Detected
trans-1,3-Dichloropropene	0.66	Not Detected	3.0	Not Detected
2-Hexanone	3.3	Not Detected	14	Not Detected
Dibromochloromethane	0.66	Not Detected	5.6	Not Detected
Chlorobenzene	0.66	Not Detected	3.0	Not Detected
Styrene	0.66	Not Detected	2.8	Not Detected
Bromoform	0.66	Not Detected	6.8	Not Detected
Cumene	0.66	Not Detected	3.2	Not Detected
Propylbenzene	0.66	Not Detected	3.2	Not Detected
4-Ethyltoluene	0.66	Not Detected	3.2	Not Detected
1,3,5-Trimethylbenzene	0.66	Not Detected	3.2	Not Detected
1,2,4-Trimethylbenzene	0.66	Not Detected	3.2	Not Detected
1,3-Dichlorobenzene	0.66	Not Detected	4.0	Not Detected
alpha-Chlorotoluene	0.66	Not Detected	3.4	Not Detected
1,2-Dichlorobenzene	0.66	Not Detected	4.0	Not Detected
1,2,4-Trichlorobenzene	3.3	Not Detected	24	Not Detected
Hexachlorobutadiene	3.3	Not Detected	35	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

Surrogates Method
Limits



Client Sample ID: IA-C-13 Lab ID#: 2001745B-19A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 22021223 Date of Collection: 1/29/20 5:14:00 PM
Dil. Factor: 6.60 Date of Analysis: 2/13/20 06:58 AM

		Wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	124	70-130	
Toluene-d8	103	70-130	
4-Bromofluorobenzene	104	70-130	



Client Sample ID: IA-C-13 Lab ID#: 2001745B-19B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 22021223sim Date of Collection: 1/29/20 5:14:00 PM
Dil. Factor: 6.60 Date of Analysis: 2/13/20 06:58 AM

*****	0.00	Date	Ol Allalysis. Zi isi	20 00.00 AW
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.13	0.49	0.65	2.4
Freon 114	0.13	Not Detected	0.92	Not Detected
Chloromethane	3.3	Not Detected	6.8	Not Detected
Vinyl Chloride	0.066	Not Detected	0.17	Not Detected
Chloroethane	0.33	Not Detected	0.87	Not Detected
1,1-Dichloroethene	0.066	Not Detected	0.26	Not Detected
trans-1,2-Dichloroethene	0.66	Not Detected	2.6	Not Detected
Methyl tert-butyl ether	0.66	Not Detected	2.4	Not Detected
1,1-Dichloroethane	0.13	Not Detected	0.53	Not Detected
cis-1,2-Dichloroethene	0.13	Not Detected	0.52	Not Detected
Chloroform	0.13	Not Detected	0.64	Not Detected
1,1,1-Trichloroethane	0.13	0.13 J	0.72	0.70 J
Carbon Tetrachloride	0.13	Not Detected	0.83	Not Detected
Benzene	0.33	0.38	1.0	1.2
1,2-Dichloroethane	0.13	Not Detected	0.53	Not Detected
Trichloroethene	0.13	0.23	0.71	1.2
Toluene	0.33	1.1	1.2	4.3
1,1,2-Trichloroethane	0.13	Not Detected	0.72	Not Detected
Tetrachloroethene	0.13	Not Detected	0.90	Not Detected
1,2-Dibromoethane (EDB)	0.13	Not Detected	1.0	Not Detected
Ethyl Benzene	0.13	10	0.57	44
m,p-Xylene	0.26	67	1.1	290
o-Xylene	0.13	17	0.57	72
1,1,2,2-Tetrachloroethane	0.13	Not Detected	0.91	Not Detected
1,4-Dichlorobenzene	0.13	Not Detected	0.79	Not Detected

J = Estimated value.

•		Method
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	111	70-130



Client Sample ID: IA-C-14 Lab ID#: 2001745B-20A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: v021225 Date of Collection: 1/29/20 5:48:00 PM
Dil. Factor: 6.83 Date of Analysis: 2/13/20 07:30 AM

	0.03	Date	Ol Allalysis. Zi isi	20 07.00 AW
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.68	Not Detected	1.5	Not Detected
Bromomethane	3.4	Not Detected	13	Not Detected
Freon 11	0.68	Not Detected	3.8	Not Detected
Ethanol	3.4	1600 E	6.4	2900 E
Freon 113	0.68	Not Detected	5.2	Not Detected
Acetone	6.8	25	16	60
2-Propanol	3.4	5.8	8.4	14
Carbon Disulfide	3.4	Not Detected	11	Not Detected
3-Chloropropene	3.4	Not Detected	11	Not Detected
Methylene Chloride	1.4	Not Detected	4.7	Not Detected
Hexane	3.4	Not Detected	12	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.4	Not Detected	10	Not Detected
Tetrahydrofuran	3.4	Not Detected	10	Not Detected
Cyclohexane	0.68	Not Detected	2.4	Not Detected
2,2,4-Trimethylpentane	3.4	Not Detected	16	Not Detected
Heptane	3.4	Not Detected	14	Not Detected
1,2-Dichloropropane	0.68	Not Detected	3.2	Not Detected
1,4-Dioxane	0.68	Not Detected	2.5	Not Detected
Bromodichloromethane	0.68	Not Detected	4.6	Not Detected
cis-1,3-Dichloropropene	0.68	Not Detected	3.1	Not Detected
4-Methyl-2-pentanone	0.68	Not Detected	2.8	Not Detected
trans-1,3-Dichloropropene	0.68	Not Detected	3.1	Not Detected
2-Hexanone	3.4	Not Detected	14	Not Detected
Dibromochloromethane	0.68	Not Detected	5.8	Not Detected
Chlorobenzene	0.68	Not Detected	3.1	Not Detected
Styrene	0.68	Not Detected	2.9	Not Detected
Bromoform	0.68	Not Detected	7.1	Not Detected
Cumene	0.68	Not Detected	3.4	Not Detected
Propylbenzene	0.68	Not Detected	3.4	Not Detected
4-Ethyltoluene	0.68	Not Detected	3.4	Not Detected
1,3,5-Trimethylbenzene	0.68	Not Detected	3.4	Not Detected
1,2,4-Trimethylbenzene	0.68	Not Detected	3.4	Not Detected
1,3-Dichlorobenzene	0.68	Not Detected	4.1	Not Detected
alpha-Chlorotoluene	0.68	Not Detected	3.5	Not Detected
1,2-Dichlorobenzene	0.68	Not Detected	4.1	Not Detected
1,2,4-Trichlorobenzene	3.4	Not Detected	25	Not Detected
Hexachlorobutadiene	3.4	Not Detected	36	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

Surrogates Method
Limits



Client Sample ID: IA-C-14 Lab ID#: 2001745B-20A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: v021225 Date of Collection: 1/29/20 5:48:00 PM
Dil. Factor: 6.83 Date of Analysis: 2/13/20 07:30 AM

		Method	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	117	70-130	
Toluene-d8	102	70-130	
4-Bromofluorobenzene	92	70-130	



Client Sample ID: IA-C-14 Lab ID#: 2001745B-20B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v021225sim	Date of Collection: 1/29/20 5:48:00 PM
Dil. Factor:	6.83	Date of Analysis: 2/13/20 07:30 AM

	Rpt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
Freon 12	0.14	0.46	0.68	2.3
Freon 114	0.14	Not Detected	0.95	Not Detected
Chloromethane	3.4	Not Detected	7.0	Not Detected
Vinyl Chloride	0.068	Not Detected	0.17	Not Detected
Chloroethane	0.34	Not Detected	0.90	Not Detected
1,1-Dichloroethene	0.068	Not Detected	0.27	Not Detected
trans-1,2-Dichloroethene	0.68	Not Detected	2.7	Not Detected
Methyl tert-butyl ether	0.68	Not Detected	2.5	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.55	Not Detected
cis-1,2-Dichloroethene	0.14	Not Detected	0.54	Not Detected
Chloroform	0.14	Not Detected	0.67	Not Detected
1,1,1-Trichloroethane	0.14	Not Detected	0.74	Not Detected
Carbon Tetrachloride	0.14	Not Detected	0.86	Not Detected
Benzene	0.34	0.36	1.1	1.2
1,2-Dichloroethane	0.14	Not Detected	0.55	Not Detected
Trichloroethene	0.14	0.18	0.73	0.94
Toluene	0.34	1.1	1.3	4.2
1,1,2-Trichloroethane	0.14	Not Detected	0.74	Not Detected
Tetrachloroethene	0.14	Not Detected	0.93	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.0	Not Detected
Ethyl Benzene	0.14	9.1	0.59	39
m,p-Xylene	0.27	44	1.2	190
o-Xylene	0.14	15	0.59	67
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.94	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.82	Not Detected

		Wetnoa	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	115	70-130	
Toluene-d8	104	70-130	
4-Bromofluorobenzene	90	70-130	



Air Toxics

Client Sample ID: OA-01 Lab ID#: 2001745B-21A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v021216	Date of Collection: 1/29/20 5:58:00 PM
Dil. Factor:	2.01	Date of Analysis: 2/12/20 08:23 PM

= ··· · · · · · · · · · · · · · · · · ·	2.01	Date	Ol Allalysis. Zi izi	20 00.20 1 10
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.20	Not Detected	0.44	Not Detected
Bromomethane	1.0	Not Detected	3.9	Not Detected
Freon 11	0.20	0.21	1.1	1.2
Ethanol	1.0	2.1	1.9	3.9
Freon 113	0.20	Not Detected	1.5	Not Detected
Acetone	2.0	3.9	4.8	9.3
2-Propanol	1.0	Not Detected	2.5	Not Detected
Carbon Disulfide	1.0	Not Detected	3.1	Not Detected
3-Chloropropene	1.0	Not Detected	3.1	Not Detected
Methylene Chloride	0.40	Not Detected	1.4	Not Detected
Hexane	1.0	Not Detected	3.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.0	Not Detected	3.0	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Cyclohexane	0.20	Not Detected	0.69	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.7	Not Detected
Heptane	1.0	Not Detected	4.1	Not Detected
1,2-Dichloropropane	0.20	Not Detected	0.93	Not Detected
1,4-Dioxane	0.20	Not Detected	0.72	Not Detected
Bromodichloromethane	0.20	Not Detected	1.3	Not Detected
cis-1,3-Dichloropropene	0.20	Not Detected	0.91	Not Detected
4-Methyl-2-pentanone	0.20	Not Detected	0.82	Not Detected
trans-1,3-Dichloropropene	0.20	Not Detected	0.91	Not Detected
2-Hexanone	1.0	Not Detected	4.1	Not Detected
Dibromochloromethane	0.20	Not Detected	1.7	Not Detected
Chlorobenzene	0.20	Not Detected	0.92	Not Detected
Styrene	0.20	Not Detected	0.86	Not Detected
Bromoform	0.20	Not Detected	2.1	Not Detected
Cumene	0.20	Not Detected	0.99	Not Detected
Propylbenzene	0.20	Not Detected	0.99	Not Detected
4-Ethyltoluene	0.20	Not Detected	0.99	Not Detected
1,3,5-Trimethylbenzene	0.20	Not Detected	0.99	Not Detected
1,2,4-Trimethylbenzene	0.20	Not Detected	0.99	Not Detected
1,3-Dichlorobenzene	0.20	Not Detected	1.2	Not Detected
alpha-Chlorotoluene	0.20	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.20	Not Detected	1.2	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected	7.4	Not Detected
Hexachlorobutadiene	1.0	Not Detected	11	Not Detected

		Method
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	124	70-130



Client Sample ID: OA-01 Lab ID#: 2001745B-21A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: v021216 Date of Collection: 1/29/20 5:58:00 PM
Dil. Factor: 2.01 Date of Analysis: 2/12/20 08:23 PM

Surrogates	%Recovery	Limits
Toluene-d8	105	70-130
4-Bromofluorobenzene	90	70-130



Client Sample ID: OA-01 Lab ID#: 2001745B-21B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v021216sim	Date of Collection: 1/29/20 5:58:00 PM
Dil. Factor:	2.01	Date of Analysis: 2/12/20 08:23 PM

Dii. i actor.	2.01	Date	OI Alialysis. Zi i Zi	ZU UU.ZJ 1 WI
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.040	0.47	0.20	2.3
Freon 114	0.040	Not Detected	0.28	Not Detected
Chloromethane	1.0	Not Detected	2.1	Not Detected
Vinyl Chloride	0.020	Not Detected	0.051	Not Detected
Chloroethane	0.10	Not Detected	0.26	Not Detected
1,1-Dichloroethene	0.020	Not Detected	0.080	Not Detected
trans-1,2-Dichloroethene	0.20	Not Detected	0.80	Not Detected
Methyl tert-butyl ether	0.20	Not Detected	0.72	Not Detected
1,1-Dichloroethane	0.040	Not Detected	0.16	Not Detected
cis-1,2-Dichloroethene	0.040	Not Detected	0.16	Not Detected
Chloroform	0.040	Not Detected	0.20	Not Detected
1,1,1-Trichloroethane	0.040	Not Detected	0.22	Not Detected
Carbon Tetrachloride	0.040	0.061	0.25	0.38
Benzene	0.10	0.20	0.32	0.66
1,2-Dichloroethane	0.040	Not Detected	0.16	Not Detected
Trichloroethene	0.040	Not Detected	0.22	Not Detected
Toluene	0.10	0.33	0.38	1.2
1,1,2-Trichloroethane	0.040	Not Detected	0.22	Not Detected
Tetrachloroethene	0.040	Not Detected	0.27	Not Detected
1,2-Dibromoethane (EDB)	0.040	Not Detected	0.31	Not Detected
Ethyl Benzene	0.040	0.052	0.17	0.23
m,p-Xylene	0.080	0.14	0.35	0.61
o-Xylene	0.040	0.057	0.17	0.25
1,1,2,2-Tetrachloroethane	0.040	Not Detected	0.28	Not Detected
1,4-Dichlorobenzene	0.040	Not Detected	0.24	Not Detected

		wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	119	70-130	
Toluene-d8	105	70-130	
4-Bromofluorobenzene	89	70-130	



Client Sample ID: IA-C-08-D Lab ID#: 2001745B-22A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: v021217 Date of Collection: 1/29/20 5:07:00 PM
Dil. Factor: 5.25 Date of Analysis: 2/12/20 09:02 PM

	J.23 Date of Analysis. 2/12/20 03:02 i W			
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.52	Not Detected	1.2	Not Detected
Bromomethane	2.6	Not Detected	10	Not Detected
Freon 11	0.52	Not Detected	2.9	Not Detected
Ethanol	2.6	520 E	4.9	970 E
Freon 113	0.52	Not Detected	4.0	Not Detected
Acetone	5.2	 41	12	98
2-Propanol	2.6	4.8	6.4	12
Carbon Disulfide	2.6	Not Detected	8.2	Not Detected
3-Chloropropene	2.6	Not Detected	8.2	Not Detected
Methylene Chloride	1.0	Not Detected	3.6	Not Detected
Hexane	2.6	Not Detected	9.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.6	Not Detected	7.7	Not Detected
Tetrahydrofuran	2.6	Not Detected	7.7	Not Detected
Cyclohexane	0.52	Not Detected	1.8	Not Detected
2,2,4-Trimethylpentane	2.6	Not Detected	12	Not Detected
Heptane	2.6	Not Detected	11	Not Detected
1,2-Dichloropropane	0.52	Not Detected	2.4	Not Detected
1,4-Dioxane	0.52	Not Detected	1.9	Not Detected
Bromodichloromethane	0.52	Not Detected	3.5	Not Detected
cis-1,3-Dichloropropene	0.52	Not Detected	2.4	Not Detected
4-Methyl-2-pentanone	0.52	Not Detected	2.2	Not Detected
trans-1,3-Dichloropropene	0.52	Not Detected	2.4	Not Detected
2-Hexanone	2.6	Not Detected	11	Not Detected
Dibromochloromethane	0.52	Not Detected	4.5	Not Detected
Chlorobenzene	0.52	Not Detected	2.4	Not Detected
Styrene	0.52	Not Detected	2.2	Not Detected
Bromoform	0.52	Not Detected	5.4	Not Detected
Cumene	0.52	Not Detected	2.6	Not Detected
Propylbenzene	0.52	Not Detected	2.6	Not Detected
4-Ethyltoluene	0.52	Not Detected	2.6	Not Detected
1,3,5-Trimethylbenzene	0.52	Not Detected	2.6	Not Detected
1,2,4-Trimethylbenzene	0.52	Not Detected	2.6	Not Detected
1,3-Dichlorobenzene	0.52	Not Detected	3.2	Not Detected
alpha-Chlorotoluene	0.52	Not Detected	2.7	Not Detected
1,2-Dichlorobenzene	0.52	Not Detected	3.2	Not Detected
1,2,4-Trichlorobenzene	2.6	Not Detected	19	Not Detected
Hexachlorobutadiene	2.6	Not Detected	28	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

Surrogates Method
Limits



Client Sample ID: IA-C-08-D Lab ID#: 2001745B-22A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: v021217 Date of Collection: 1/29/20 5:07:00 PM
Dil. Factor: 5.25 Date of Analysis: 2/12/20 09:02 PM

		Wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	118	70-130	
Toluene-d8	103	70-130	
4-Bromofluorobenzene	91	70-130	



Client Sample ID: IA-C-08-D Lab ID#: 2001745B-22B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v021217sim	Date of Collection: 1/29/20 5:07:00 PM
Dil. Factor:	5.25	Date of Analysis: 2/12/20 09:02 PM

	0.20	Date	of Allaryold. Little	20 00:02 i iii
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	0.46	0.52	2.3
Freon 114	0.10	Not Detected	0.73	Not Detected
Chloromethane	2.6	Not Detected	5.4	Not Detected
Vinyl Chloride	0.052	Not Detected	0.13	Not Detected
Chloroethane	0.26	Not Detected	0.69	Not Detected
1,1-Dichloroethene	0.052	Not Detected	0.21	Not Detected
trans-1,2-Dichloroethene	0.52	Not Detected	2.1	Not Detected
Methyl tert-butyl ether	0.52	Not Detected	1.9	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.42	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.42	Not Detected
Chloroform	0.10	Not Detected	0.51	Not Detected
1,1,1-Trichloroethane	0.10	0.23	0.57	1.2
Carbon Tetrachloride	0.10	Not Detected	0.66	Not Detected
Benzene	0.26	0.31	0.84	1.0
1,2-Dichloroethane	0.10	Not Detected	0.42	Not Detected
Trichloroethene	0.10	0.17	0.56	0.91
Toluene	0.26	0.92	0.99	3.5
1,1,2-Trichloroethane	0.10	Not Detected	0.57	Not Detected
Tetrachloroethene	0.10	Not Detected	0.71	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.81	Not Detected
Ethyl Benzene	0.10	10	0.46	45
m,p-Xylene	0.21	49	0.91	210
o-Xylene	0.10	17	0.46	73
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.72	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.63	Not Detected

		wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	116	70-130	
Toluene-d8	103	70-130	
4-Bromofluorobenzene	89	70-130	



Client Sample ID: Lab Blank Lab ID#: 2001745B-23A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	22021207	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/12/20 12:40 PM

	1.00	Date	Date of Affaiysis. 2/12/20 12.40 f W	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
Acetone	1.0	Not Detected	2.4	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected

Container Type: NA - Not Applicable

		Method
Surrogates	%Recovery	Limits
4.0 D: 11	405	70.400

1,2-Dichloroethane-d4 125 70-130



Client Sample ID: Lab Blank Lab ID#: 2001745B-23A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	22021207	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/12/20 12:40 PM

-		Method
Surrogates	%Recovery	Limits
Toluene-d8	104	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: Lab Blank Lab ID#: 2001745B-23B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	22021207sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/12/20 12:40 PM

	Rpt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
Freon 12	0.020	Not Detected	0.099	Not Detected
Freon 114	0.020	Not Detected	0.14	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Chloroethane	0.050	Not Detected	0.13	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
1,1-Dichloroethane	0.020	Not Detected	0.081	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
1,1,1-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected
Toluene	0.050	Not Detected	0.19	Not Detected
1,1,2-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
1,2-Dibromoethane (EDB)	0.020	Not Detected	0.15	Not Detected
Ethyl Benzene	0.020	Not Detected	0.087	Not Detected
m,p-Xylene	0.040	Not Detected	0.17	Not Detected
o-Xylene	0.020	Not Detected	0.087	Not Detected
1,1,2,2-Tetrachloroethane	0.020	Not Detected	0.14	Not Detected
1,4-Dichlorobenzene	0.020	Not Detected	0.12	Not Detected

		Wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	117	70-130	
Toluene-d8	104	70-130	
4-Bromofluorobenzene	103	70-130	



Air Toxics

Client Sample ID: Lab Blank Lab ID#: 2001745B-23C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

1.00	Dui	• • · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
1.00	Date of Analysis: 2/12/20 11:36 AM		
20021206	Dat	e of Collection: NA	

	Date of Affaiysis. 2/12/20 11:30 Airi			20 11.00 AW
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
Acetone	1.0	Not Detected	2.4	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Limits
1 2-Dichloroethane-d4	102	70-130

Method



Client Sample ID: Lab Blank Lab ID#: 2001745B-23C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021206 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 11:36 AM

Surrogates	%Recovery	Limits
Toluene-d8	94	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: Lab Blank Lab ID#: 2001745B-23D

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	20021206sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/12/20 11:36 AM

	Rpt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
Freon 12	0.020	Not Detected	0.099	Not Detected
Freon 114	0.020	Not Detected	0.14	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Chloroethane	0.050	Not Detected	0.13	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
1,1-Dichloroethane	0.020	Not Detected	0.081	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
1,1,1-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected
Toluene	0.050	Not Detected	0.19	Not Detected
1,1,2-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
1,2-Dibromoethane (EDB)	0.020	Not Detected	0.15	Not Detected
Ethyl Benzene	0.020	Not Detected	0.087	Not Detected
m,p-Xylene	0.040	Not Detected	0.17	Not Detected
o-Xylene	0.020	Not Detected	0.087	Not Detected
1,1,2,2-Tetrachloroethane	0.020	Not Detected	0.14	Not Detected
1,4-Dichlorobenzene	0.020	Not Detected	0.12	Not Detected

		wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	102	70-130	
Toluene-d8	100	70-130	
4-Bromofluorobenzene	98	70-130	



Air Toxics

Client Sample ID: Lab Blank Lab ID#: 2001745B-23E

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v021206	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/12/20 01:28 PM

Dil. Factor:	1.00	Date	of Analysis: 2/12	/20 01:28 PM
	Rpt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
Acetone	1.0	Not Detected	2.4	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected

		Method	
Surrogates	%Recovery	Limits	
4.0.00:11	407	70.100	



Client Sample ID: Lab Blank Lab ID#: 2001745B-23E

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: v021206 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 01:28 PM

Surrogates	%Recovery	Limits
Toluene-d8	106	70-130
4-Bromofluorobenzene	93	70-130



Client Sample ID: Lab Blank Lab ID#: 2001745B-23F

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v021206sima	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/12/20 01:28 PM

1.00	Date	Ol Allalysis. Zi izi	20 01.20 1 W
Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
			Not Detected
***=*			Not Detected
		-	Not Detected
0.010	Not Detected	0.026	Not Detected
0.050	Not Detected	0.13	Not Detected
0.010	Not Detected	0.040	Not Detected
0.10	Not Detected	0.40	Not Detected
0.10	Not Detected	0.36	Not Detected
0.020	Not Detected	0.081	Not Detected
0.020	Not Detected	0.079	Not Detected
0.020	Not Detected	0.098	Not Detected
0.020	Not Detected	0.11	Not Detected
0.020	Not Detected	0.12	Not Detected
0.050	Not Detected	0.16	Not Detected
0.020	Not Detected	0.081	Not Detected
0.020	Not Detected	0.11	Not Detected
0.050	Not Detected	0.19	Not Detected
0.020	Not Detected	0.11	Not Detected
0.020	Not Detected	0.14	Not Detected
0.020	Not Detected	0.15	Not Detected
0.020	Not Detected	0.087	Not Detected
0.040	Not Detected	0.17	Not Detected
0.020	Not Detected	0.087	Not Detected
0.020	Not Detected	0.14	Not Detected
0.020	Not Detected	0.12	Not Detected
	Rpt. Limit (ppbv) 0.020 0.020 0.50 0.010 0.050 0.010 0.10 0.10 0.10	Rpt. Limit (ppbv) Amount (ppbv) 0.020 Not Detected 0.020 Not Detected 0.50 Not Detected 0.010 Not Detected 0.050 Not Detected 0.010 Not Detected 0.10 Not Detected 0.10 Not Detected 0.020 Not Detected 0.050 Not Detected 0.020 Not Detected <	Rpt. Limit (ppbv) Amount (ppbv) Rpt. Limit (ug/m3) 0.020 Not Detected 0.099 0.020 Not Detected 0.14 0.50 Not Detected 1.0 0.010 Not Detected 0.026 0.050 Not Detected 0.13 0.010 Not Detected 0.40 0.10 Not Detected 0.36 0.020 Not Detected 0.081 0.020 Not Detected 0.098 0.020 Not Detected 0.11 0.020 Not Detected 0.12 0.020 Not Detected 0.12 0.050 Not Detected 0.081 0.020 Not Detected 0.16 0.020 Not Detected 0.11 0.050 Not Detected 0.11 0.050 Not Detected 0.11 0.050 Not Detected 0.11 0.050 Not Detected 0.11 0.020 Not Detected 0.14 0.020 <

		Wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	121	70-130	
Toluene-d8	106	70-130	
4-Bromofluorobenzene	90	70-130	



Client Sample ID: CCV Lab ID#: 2001745B-24A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 22021203 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 09:51 AM

Compound	%Recovery
1,3-Butadiene	113
Bromomethane	105
Freon 11	102
Ethanol	76
Freon 113	100
Acetone	91
2-Propanol	82
Carbon Disulfide	107
3-Chloropropene	98
Methylene Chloride	96
Hexane	104
2-Butanone (Methyl Ethyl Ketone)	96
Tetrahydrofuran	101
Cyclohexane	105
2,2,4-Trimethylpentane	108
Heptane	127
1,2-Dichloropropane	117
1,4-Dioxane	109
Bromodichloromethane	112
cis-1,3-Dichloropropene	111
4-Methyl-2-pentanone	120
trans-1,3-Dichloropropene	110
2-Hexanone	98
Dibromochloromethane	113
Chlorobenzene	112
Styrene	126
Bromoform	122
Cumene	126
Propylbenzene	129
4-Ethyltoluene	120
1,3,5-Trimethylbenzene	128
1,2,4-Trimethylbenzene	128
1,3-Dichlorobenzene	116
alpha-Chlorotoluene	108
1,2-Dichlorobenzene	109
1,2,4-Trichlorobenzene	118
Hexachlorobutadiene	126

		Method
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	114	70-130



Client Sample ID: CCV Lab ID#: 2001745B-24A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 22021203 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 09:51 AM

		wethod	
Surrogates	%Recovery	Limits	
Toluene-d8	114	70-130	
4-Bromofluorobenzene	103	70-130	



Client Sample ID: CCV Lab ID#: 2001745B-24B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 22021203sim Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 09:51 AM

Compound	%Recovery	
Freon 12	94	
Freon 114	87	
Chloromethane	100	
Vinyl Chloride	97	
Chloroethane	95	
1,1-Dichloroethene	83	
trans-1,2-Dichloroethene	90	
Methyl tert-butyl ether	93	
1,1-Dichloroethane	92	
cis-1,2-Dichloroethene	86	
Chloroform	91	
1,1,1-Trichloroethane	92	
Carbon Tetrachloride	107	
Benzene	100	
1,2-Dichloroethane	109	
Trichloroethene	104	
Toluene	98	
1,1,2-Trichloroethane	103	
Tetrachloroethene	110	
1,2-Dibromoethane (EDB)	101	
Ethyl Benzene	106	
m,p-Xylene	106	
o-Xylene	108	
1,1,2,2-Tetrachloroethane	108	
1,4-Dichlorobenzene	103	

		Wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	103	70-130	
Toluene-d8	110	70-130	
4-Bromofluorobenzene	105	70-130	



Client Sample ID: CCV Lab ID#: 2001745B-24C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021202 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 08:57 AM

Compound	%Recovery
1,3-Butadiene	99
Bromomethane	115
Freon 11	104
Ethanol	95
Freon 113	96
Acetone	90
2-Propanol	90
Carbon Disulfide	100
3-Chloropropene	109
Methylene Chloride	87
Hexane	103
2-Butanone (Methyl Ethyl Ketone)	105
Tetrahydrofuran	100
Cyclohexane	116
2,2,4-Trimethylpentane	93
Heptane	106
1,2-Dichloropropane	92
1,4-Dioxane	107
Bromodichloromethane	97
cis-1,3-Dichloropropene	96
4-Methyl-2-pentanone	96
trans-1,3-Dichloropropene	95
2-Hexanone	102
Dibromochloromethane	101
Chlorobenzene	102
Styrene	114
Bromoform	101
Cumene	112
Propylbenzene	109
4-Ethyltoluene	116
1,3,5-Trimethylbenzene	112
1,2,4-Trimethylbenzene	113
1,3-Dichlorobenzene	99
alpha-Chlorotoluene	102
1,2-Dichlorobenzene	102
1,2,4-Trichlorobenzene	92
Hexachlorobutadiene	102

Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	94	70-130



Client Sample ID: CCV Lab ID#: 2001745B-24C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021202 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 08:57 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: CCV Lab ID#: 2001745B-24D

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021202sim Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 08:57 AM

Compound	%Recovery	
Freon 12	93	
Freon 114	95	
Chloromethane	76	
Vinyl Chloride	93	
Chloroethane	94	
1,1-Dichloroethene	93	
trans-1,2-Dichloroethene	102	
Methyl tert-butyl ether	116	
1,1-Dichloroethane	96	
cis-1,2-Dichloroethene	104	
Chloroform	102	
1,1,1-Trichloroethane	97	
Carbon Tetrachloride	107	
Benzene	97	
1,2-Dichloroethane	92	
Trichloroethene	95	
Toluene	105	
1,1,2-Trichloroethane	92	
Tetrachloroethene	100	
1,2-Dibromoethane (EDB)	97	
Ethyl Benzene	114	
m,p-Xylene	118	
o-Xylene	116	
1,1,2,2-Tetrachloroethane	85	
1,4-Dichlorobenzene	101	

		Method	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	92	70-130	
Toluene-d8	105	70-130	
4-Bromofluorobenzene	107	70-130	



Client Sample ID: CCV Lab ID#: 2001745B-24E

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: v021202 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 10:46 AM

Compound	%Recovery
1,3-Butadiene	117
Bromomethane	111
Freon 11	107
Ethanol	114
Freon 113	86
Acetone	114
2-Propanol	120
Carbon Disulfide	116
3-Chloropropene	112
Methylene Chloride	105
Hexane	117
2-Butanone (Methyl Ethyl Ketone)	112
Tetrahydrofuran	129
Cyclohexane	107
2,2,4-Trimethylpentane	123
Heptane	135 Q
1,2-Dichloropropane	129
1,4-Dioxane	114
Bromodichloromethane	113
cis-1,3-Dichloropropene	113
4-Methyl-2-pentanone	134 Q
trans-1,3-Dichloropropene	109
2-Hexanone	117
Dibromochloromethane	102
Chlorobenzene	102
Styrene	97
Bromoform	96
Cumene	96
Propylbenzene	108
4-Ethyltoluene	114
1,3,5-Trimethylbenzene	112
1,2,4-Trimethylbenzene	106
1,3-Dichlorobenzene	94
alpha-Chlorotoluene	102
1,2-Dichlorobenzene	96
1,2,4-Trichlorobenzene	72
Hexachlorobutadiene	75

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates %Recovery Limits



Client Sample ID: CCV Lab ID#: 2001745B-24E

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: v021202 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 10:46 AM

		Method	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	114	70-130	
Toluene-d8	109	70-130	
4-Bromofluorobenzene	84	70-130	



Client Sample ID: CCV Lab ID#: 2001745B-24F

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: v021202sim Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 10:46 AM

Compound	%Recovery	
Freon 12	103	
Freon 114	91	
Chloromethane	123	
Vinyl Chloride	110	
Chloroethane	120	
1,1-Dichloroethene	93	
trans-1,2-Dichloroethene	101	
Methyl tert-butyl ether	108	
1,1-Dichloroethane	119	
cis-1,2-Dichloroethene	100	
Chloroform	109	
1,1,1-Trichloroethane	101	
Carbon Tetrachloride	112	
Benzene	109	
1,2-Dichloroethane	120	
Trichloroethene	94	
Toluene	99	
1,1,2-Trichloroethane	106	
Tetrachloroethene	88	
1,2-Dibromoethane (EDB)	99	
Ethyl Benzene	94	
m,p-Xylene	85	
o-Xylene	87	
1,1,2,2-Tetrachloroethane	111	
1,4-Dichlorobenzene	81	

		Wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	117	70-130	
Toluene-d8	109	70-130	
4-Bromofluorobenzene	82	70-130	



Client Sample ID: LCS Lab ID#: 2001745B-25A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 22021204 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 10:44 AM

Compound	%Recovery	Method Limits
1,3-Butadiene	119	70-130
Bromomethane	113	70-130
Freon 11	107	70-130
Ethanol	99	70-130
Freon 113	105	70-130
Acetone	99	70-130
2-Propanol	96	70-130
Carbon Disulfide	114	70-130
3-Chloropropene	111	70-130
Methylene Chloride	101	70-130
Hexane	115	70-130
2-Butanone (Methyl Ethyl Ketone)	107	70-130
Tetrahydrofuran	113	70-130
Cyclohexane	116	70-130
2,2,4-Trimethylpentane	119	70-130
Heptane	133 Q	70-130
1,2-Dichloropropane	125	70-130
1,4-Dioxane	122	70-130
Bromodichloromethane	119	70-130
cis-1,3-Dichloropropene	126	70-130
4-Methyl-2-pentanone	134 Q	70-130
trans-1,3-Dichloropropene	114	70-130
2-Hexanone	113	70-130
Dibromochloromethane	119	70-130
Chlorobenzene	112	70-130
Styrene	128	70-130
Bromoform	130	70-130
Cumene	127	70-130
Propylbenzene	131 Q	70-130
4-Ethyltoluene	126	70-130
1,3,5-Trimethylbenzene	128	70-130
1,2,4-Trimethylbenzene	132 Q	70-130
1,3-Dichlorobenzene	116	70-130
alpha-Chlorotoluene	124	70-130
1,2-Dichlorobenzene	109	70-130
1,2,4-Trichlorobenzene	117	70-130
Hexachlorobutadiene	119	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates Method Limits



Client Sample ID: LCS Lab ID#: 2001745B-25A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 22021204 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 10:44 AM

		wetnoa	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	118	70-130	
Toluene-d8	114	70-130	
4-Bromofluorobenzene	104	70-130	



Client Sample ID: LCSD Lab ID#: 2001745B-25AA

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 22021205 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 11:26 AM

_		Method
Compound	%Recovery	Limits
1,3-Butadiene	117	70-130
Bromomethane	111	70-130
Freon 11	106	70-130
Ethanol	103	70-130
Freon 113	103	70-130
Acetone	100	70-130
2-Propanol	97	70-130
Carbon Disulfide	113	70-130
3-Chloropropene	112	70-130
Methylene Chloride	101	70-130
	114	70-130
2-Butanone (Methyl Ethyl Ketone)	108	70-130
Tetrahydrofuran	113	70-130
Cyclohexane	115	70-130
2,2,4-Trimethylpentane	118	70-130
Heptane	131 Q	70-130
1,2-Dichloropropane	122	70-130
1,4-Dioxane	119	70-130
Bromodichloromethane	117	70-130
cis-1,3-Dichloropropene	123	70-130
	133 Q	70-130
trans-1,3-Dichloropropene	115	70-130
2-Hexanone	116	70-130
Dibromochloromethane	118	70-130
Chlorobenzene	112	70-130
	127	70-130
Bromoform	126	70-130
Cumene	126	70-130
Propylbenzene	131 Q	70-130
4-Ethyltoluene	125	70-130
1,3,5-Trimethylbenzene	127	70-130
1,2,4-Trimethylbenzene	131 Q	70-130
1,3-Dichlorobenzene	116	70-130
alpha-Chlorotoluene	129	70-130
1,2-Dichlorobenzene	108	70-130
1,2,4-Trichlorobenzene	113	70-130
Hexachlorobutadiene	119	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates %Recovery Limits



Client Sample ID: LCSD Lab ID#: 2001745B-25AA

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 22021205 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 11:26 AM

		wetnoa	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	114	70-130	
Toluene-d8	112	70-130	
4-Bromofluorobenzene	104	70-130	



Client Sample ID: LCS Lab ID#: 2001745B-25B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 22021204sim Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 10:44 AM

		Method
Compound	%Recovery	Limits
Freon 12	102	70-130
Freon 114	94	70-130
Chloromethane	109	70-130
Vinyl Chloride	108	70-130
Chloroethane	105	70-130
1,1-Dichloroethene	89	70-130
trans-1,2-Dichloroethene	103	70-130
Methyl tert-butyl ether	95	70-130
1,1-Dichloroethane	95	70-130
cis-1,2-Dichloroethene	83	70-130
Chloroform	96	70-130
1,1,1-Trichloroethane	99	70-130
Carbon Tetrachloride	124	60-140
Benzene	104	70-130
1,2-Dichloroethane	112	70-130
Trichloroethene	108	70-130
Toluene	101	70-130
1,1,2-Trichloroethane	108	70-130
Tetrachloroethene	110	70-130
1,2-Dibromoethane (EDB)	104	70-130
Ethyl Benzene	110	70-130
m,p-Xylene	107	70-130
o-Xylene	112	70-130
1,1,2,2-Tetrachloroethane	109	70-130
1,4-Dichlorobenzene	106	70-130

		Method	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	107	70-130	
Toluene-d8	110	70-130	
4-Bromofluorobenzene	103	70-130	



Client Sample ID: LCSD Lab ID#: 2001745B-25BB

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 22021205sim Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 11:26 AM

		Method
Compound	%Recovery	Limits
Freon 12	101	70-130
Freon 114	94	70-130
Chloromethane	112	70-130
Vinyl Chloride	108	70-130
Chloroethane	104	70-130
1,1-Dichloroethene	89	70-130
trans-1,2-Dichloroethene	104	70-130
Methyl tert-butyl ether	97	70-130
1,1-Dichloroethane	95	70-130
cis-1,2-Dichloroethene	84	70-130
Chloroform	95	70-130
1,1,1-Trichloroethane	98	70-130
Carbon Tetrachloride	122	60-140
Benzene	102	70-130
1,2-Dichloroethane	108	70-130
Trichloroethene	106	70-130
Toluene	100	70-130
1,1,2-Trichloroethane	106	70-130
Tetrachloroethene	108	70-130
1,2-Dibromoethane (EDB)	103	70-130
Ethyl Benzene	111	70-130
m,p-Xylene	108	70-130
o-Xylene	112	70-130
1,1,2,2-Tetrachloroethane	109	70-130
1,4-Dichlorobenzene	105	70-130

		Wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	106	70-130	
Toluene-d8	110	70-130	
4-Bromofluorobenzene	106	70-130	



Client Sample ID: LCS Lab ID#: 2001745B-25C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021203 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 09:37 AM

_		Method
Compound	%Recovery	Limits
1,3-Butadiene	102	70-130
Bromomethane	109	70-130
Freon 11	106	70-130
Ethanol	106	70-130
Freon 113	98	70-130
Acetone	92	70-130
2-Propanol	99	70-130
Carbon Disulfide	102	70-130
3-Chloropropene	118	70-130
Methylene Chloride	88	70-130
Hexane	107	70-130
2-Butanone (Methyl Ethyl Ketone)	102	70-130
Tetrahydrofuran	100	70-130
Cyclohexane	110	70-130
2,2,4-Trimethylpentane	88	70-130
Heptane	105	70-130
1,2-Dichloropropane	92	70-130
1,4-Dioxane	115	70-130
Bromodichloromethane	100	70-130
cis-1,3-Dichloropropene	102	70-130
4-Methyl-2-pentanone	106	70-130
trans-1,3-Dichloropropene	100	70-130
2-Hexanone	110	70-130
Dibromochloromethane	106	70-130
Chlorobenzene	99	70-130
Styrene	111	70-130
Bromoform	106	70-130
Cumene	112	70-130
Propylbenzene	108	70-130
4-Ethyltoluene	117	70-130
1,3,5-Trimethylbenzene	114	70-130
1,2,4-Trimethylbenzene	114	70-130
1,3-Dichlorobenzene	96	70-130
alpha-Chlorotoluene	110	70-130
1,2-Dichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	89	70-130
Hexachlorobutadiene	93	70-130

		Method
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	90	70-130



Client Sample ID: LCS Lab ID#: 2001745B-25C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021203 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 09:37 AM

Surrogates	%Recovery	Limits
Toluene-d8	100	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: LCSD Lab ID#: 2001745B-25CC

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021204 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 10:17 AM

1,3-Butadiene 102 70-130 Bromomethane 110 70-130 Bromomethane 1110 70-130 Freon 11 105 70-130 Ethanol 115 70-130 Ethanol 115 70-130 Ethanol 115 70-130 Ethanol 115 70-130 Acetone 94 70-130 Acetone 94 70-130 Acetone 94 70-130 Acetone 98 70-130 Acetone 99 8 70-130 Acetone 99 99 99 99 99 99 99 99 99 99 99 99 99			Method
Bromomethane 110 70-130 Freon 11 105 70-130 Ethanol 115 70-130 Freon 113 95 70-130 Acetone 94 70-130 2-Propanol 98 70-130 Carbon Disulfide 100 70-130 3-Chloropropene 111 70-130 Methylene Chloride 88 70-130 Hexane 107 70-130 2-Butanone (Methyl Ethyl Ketone) 104 70-130 2-Butanone (Methyl Ethyl Ketone) 105 70-130 2-Butanone (Methyl Ethyl Ketone) 104 70-130 2-Levanone 114 70-130 2-Levanone 114 70-130 2-Levanone 104 70-130 Bromodichloromethane 99 70-130 13-4-Dichloropropene 103 70-130 2-Hexanone 101 70-130 14-Methyl-2-pentanone 110 70-130 14-Methyl-2-pentanone 100 70-130	Compound	%Recovery	Limits
Freon 11 105 70-130 Ethanol 115 70-130 Freon 113 95 70-130 Acetone 94 70-130 2-Propanol 98 70-130 Carbon Disulfide 100 70-130 3-Chloropropene 111 70-130 Methylene Chloride 88 70-130 Hexane 107 70-130 2-Butanone (Methyl Ethyl Ketone) 104 70-130 Etertarhydrofuran 105 70-130 Cyclohexane 114 70-130 Cyclohexane 114 70-130 Leptanen 104 70-130 L-2-Lirchloropropane 91 70-130 Heptane 104 70-130 1,2-Dichloropropane 109 70-130 1,2-Dichloropropane 109 70-130 Bromodichloromethane 109 70-130 Bromodichloromethane 101 70-130 Erhasnone 101 70-130 Dibromochlorometh	1,3-Butadiene		70-130
Ethanol 115 70-130 Freon 113 95 70-130 Acetone 94 70-130 2-Propanol 98 70-130 2-Propanol 100 70-130 3-Chloropropene 111 70-130 Methylene Chloride 88 70-130 Hexane 107 70-130 2-Butanone (Methyl Ethyl Ketone) 104 70-130 Cyclohexane 114 70-130 Cyclohexane 114 70-130 Cyclohexane 114 70-130 Cyclohexane 104 70-130 Cyclohexane 104 70-130 Ly2-Lyrimethylpentane 93 70-130 Heptane 104 70-130 Ly2-Dichloropropane 109 70-130 1.4-Dioxane 109 70-130 Bromodichloromethane 109 70-130 Ethasanone 101 70-130 Ethasanone 101 70-130 Dibromochloromethane 1	Bromomethane		
Freon 113 95 70-130 Acetone 94 70-130 2-Propanol 98 70-130 Carbon Disulfide 100 70-130 3-Chloropropene 111 70-130 Methylene Chloride 88 70-130 Hexane 107 70-130 2-Butanone (Methyl Ethyl Ketone) 104 70-130 Tetrahydrofuran 105 70-130 Cyclohexane 114 70-130 Cyclohexane 114 70-130 Leptane 104 70-130 Heptane 104 70-130 Heptane 104 70-130 1,2-Dichloropropane 91 70-130 1,2-Dichloropropane 91 70-130 1,2-Dichloropropene 109 70-130 4-Methyl-2-pentanone 103 70-130 4-Methyl-2-pentanone 101 70-130 4-Methyl-2-pentanone 101 70-130 4-Hexanone 101 70-130 Dibromoch	Freon 11	105	
Acetone 94 70-130 2-Propanol 98 70-130 Carbon Disulfide 100 70-130 3-Chloropropene 1111 70-130 Methylene Chloride 88 70-130 Hexane 107 70-130 1-2-Butanone (Methyl Ethyl Ketone) 104 70-130 Cyclohexane 114 70-130 Cyclohexane 114 70-130 Cyclohexane 114 70-130 Cyclohexane 114 70-130 Cyclohexane 104 70-130 Cyclohexane 109 70-130 Cyclohexane 100 70-130 Cyclohexane 101 70-130 Cyclohexane 102 70-130 Cyclohexane 103 70-130 Cyclohexane 104 70-130 Cyclohexane 105 70-130 Cyclohexane 108 70-130 Cyclohexane 108 70-130 Cyclohexane 108 70-130 Cyclohexane 108 70-130 Cyclohexane 109 70-130 Cyclohexane 109 70-130 Cyclohexane 100 70	Ethanol	_	
2-Propanol 98 70-130 Carbon Disulfide 100 70-130 3-Chloropropene 111 70-130 Methylene Chloride 88 70-130 Hexane 107 70-130 2-Butanone (Methyl Ethyl Ketone) 104 70-130 Tetrahydrofuran 105 70-130 Cyclohexane 114 70-130 2,2,4-Trimethylpentane 93 70-130 Heptane 104 70-130 1,2-Dichloropropane 109 70-130 1,2-Dichloropropane 109 70-130 1,4-Dioxane 109 70-130 Bromodichloromethane 99 70-130 cis-1,3-Dichloropropene 103 70-130 4-Methyl-2-pentanone 101 70-130 trans-1,3-Dichloropropene 98 70-130 2-Hexanone 110 70-130 2-Hexanone 110 70-130 Styrene 101 70-130 Bromoform 104 70-130 Chlorobenzene 107 70-130 Propylbenz	Freon 113		
Carbon Disulfide 100 70-130 3-Chloropropene 1111 70-130 Methylene Chloride 88 70-130 Hexane 107 70-130 2-Butanone (Methyl Ethyl Ketone) 104 70-130 2-Butanone (Methyl Ethyl Ketone) 105 70-130 Cyclohexane 114 70-130 Cyclohexane 114 70-130 2,2,4-Trimethylpentane 93 70-130 Heptane 104 70-130 1,2-Dichloropropane 91 70-130 1,2-Dichloropropane 91 70-130 1,4-Dioxane 109 70-130 Bromodichloromethane 103 70-130 Bromodichloropropene 103 70-130 4-Methyl-2-pentanone 101 70-130 trans-1,3-Dichloropropene 98 70-130 2-Hexanone 110 70-130 Chlorobenzene 96 70-130 Styrene 107 70-130 Bromoform 104 70-130	Acetone		
3-Chloropropene 111 70-130 Methylene Chloride 88 70-130 Methylene Chloride 88 70-130 107 70-130 107 70-130 107 70-130 108 109	2-Propanol	98	70-130
Methylene Chloride 88 70-130 Hexane 107 70-130 2-Butanone (Methyl Ethyl Ketone) 104 70-130 Tetrahydrofuran 105 70-130 Cyclohexane 114 70-130 2,2,4-Trimethylpentane 93 70-130 Heptane 104 70-130 1,2-Dichloropropane 19 70-130 1,4-Dioxane 109 70-130 Bromodichloromethane 99 70-130 cis-1,3-Dichloropropene 103 70-130 4-Methyl-2-pentanone 101 70-130 trans-1,3-Dichloropropene 98 70-130 2-Hexanone 110 70-130 Chlorobenzene 96 70-130 Styrene 107 70-130 Bromoform 104 70-130 Cumene 107 70-130 Propylbenzene 104 70-130 4-Ethyltoluene 113 70-130 1,3,5-Trimethylbenzene 108 70-130 1,3,2-Trimethylbenzene 110 70-130 1,3-Dichlorobenzene 96 70-130 1,3-Dichlorobenzene 96 70-130 1,2,4-Triinethylbenzene 109 70-130 </td <td>Carbon Disulfide</td> <td></td> <td>70-130</td>	Carbon Disulfide		70-130
Hexane 107 70-130 2-Butanone (Methyl Ethyl Ketone) 104 70-130 Tetrahydrofuran 105 70-130 Cyclohexane 114 70-130 Cyclohexane 114 70-130 Heptane 104 70-130 1,2-Dichloropropane 91 70-130 1,4-Dioxane 109 70-130 Bromodichloromethane 99 70-130 cis-1,3-Dichloropropene 103 70-130 4-Methyl-2-pentanone 101 70-130 trans-1,3-Dichloropropene 98 70-130 2-Hexanone 110 70-130 2-Hexanone 101 70-130 Chlorobenzene 96 70-130 Styrene 107 70-130 Bromoform 104 70-130 Propylbenzene 107 70-130 4-Ethyltoluene 113 70-130 1,2,4-Trimethylbenzene 108 70-130 1,3-Dichlorobenzene 96 70-130 1,3-Dichlorobenzene 109 70-130 1,2,4-Trimet	3-Chloropropene		70-130
2-Butanone (Methyl Ethyl Ketone) 104 70-130 Tetrahydrofuran 105 70-130 Cyclohexane 114 70-130 2,2,4-Trimethylpentane 93 70-130 Heptane 104 70-130 1,2-Dichloropropane 191 70-130 1,2-Dichloropropane 109 70-130 1,4-Dioxane 109 70-130 Bromodichloromethane 99 70-130 cis-1,3-Dichloropropene 103 70-130 4-Methyl-2-pentanone 101 70-130 2-Hexanone 110 70-130 2-Hexanone 110 70-130 2-Hexanone 101 70-130 Chlorobenzene 96 70-130 Styrene 107 70-130 Bromoform 104 70-130 Propylbenzene 107 70-130 4-Ethyltoluene 113 70-130 1,2,4-Trimethylbenzene 108 70-130 1,3-Dichlorobenzene 100 70-130 1,3-Dichlorobenzene 100 70-130 1	Methylene Chloride	88	70-130
Tetrahydrofuran 105 70-130 Cyclohexane 114 70-130 2,2,4-Trimethylpentane 93 70-130 Heptane 104 70-130 1,2-Dichloropropane 91 70-130 1,4-Dioxane 109 70-130 Bromodichloromethane 99 70-130 cis-1,3-Dichloropropene 103 70-130 4-Methyl-2-pentanone 101 70-130 trans-1,3-Dichloropropene 98 70-130 2-Hexanone 110 70-130 Dibromochloromethane 101 70-130 Chlorobenzene 96 70-130 Styrene 107 70-130 Bromoform 104 70-130 Cumene 107 70-130 Propylbenzene 104 70-130 4-Ethyltoluene 113 70-130 1,3,5-Trimethylbenzene 110 70-130 1,2,4-Trimethylbenzene 110 70-130 1,3-Dichlorobenzene 96 70-130 1,2-Dichlorobenzene 100 70-130 1,	Hexane	107	70-130
Cyclohexane 114 70-130 2,2,4-Trimethylpentane 93 70-130 Heptane 104 70-130 1,2-Dichloropropane 91 70-130 1,4-Dioxane 109 70-130 Bromodichloromethane 99 70-130 cis-1,3-Dichloropropene 103 70-130 4-Methyl-2-pentanone 101 70-130 trans-1,3-Dichloropropene 98 70-130 2-Hexanone 110 70-130 2-Hexanone 101 70-130 Chlorobenzene 96 70-130 Styrene 107 70-130 Bromoform 104 70-130 Cumene 107 70-130 Propylbenzene 104 70-130 4-Ethyltoluene 113 70-130 1,3,5-Trimethylbenzene 108 70-130 1,2,4-Trimethylbenzene 110 70-130 1,3-Dichlorobenzene 96 70-130 1,2-Dichlorobenzene 109 70-130 1,2-Dichlorobenzene 100 70-130 1,2-Dich	2-Butanone (Methyl Ethyl Ketone)	104	70-130
2,2,4-Trimethylpentane 93 70-130 Heptane 104 70-130 1,2-Dichloropropane 91 70-130 1,4-Dioxane 109 70-130 Bromodichloromethane 99 70-130 cis-1,3-Dichloropropene 103 70-130 4-Methyl-2-pentanone 101 70-130 4-Methyl-2-pentanone 198 70-130 2-Hexanone 110 70-130 2-Hexanone 110 70-130 Chlorobenzene 96 70-130 Chlorobenzene 96 70-130 Styrene 107 70-130 Bromoform 104 70-130 Cumene 107 70-130 Propylbenzene 104 70-130 4-Ethyltoluene 113 70-130 1,3,5-Trimethylbenzene 108 70-130 1,3-Dichlorobenzene 108 70-130 1,3-Dichlorobenzene 96 70-130 1,2-A-Trimethylbenzene 109 70-130 1,2-Dichlorobenzene 100 70-130 1,2-Dichlor	Tetrahydrofuran	105	70-130
Heptane 104 70-130 1,2-Dichloropropane 91 70-130 1,4-Dioxane 109 70-130 Bromodichloromethane 99 70-130 cis-1,3-Dichloropropene 103 70-130 4-Methyl-2-pentanone 101 70-130 trans-1,3-Dichloropropene 98 70-130 2-Hexanone 110 70-130 2-Hexanone 101 70-130 Chlorobenzene 96 70-130 Styrene 107 70-130 Bromoform 104 70-130 Cumene 107 70-130 Propylbenzene 104 70-130 4-Ethyltoluene 113 70-130 1,3,5-Trimethylbenzene 108 70-130 1,2,4-Trimethylbenzene 110 70-130 1,2,4-Trimethylbenzene 109 70-130 1,2-Dichlorobenzene 109 70-130 1,2-Dichlorobenzene 100 70-130 1,2,4-Trichlorobenzene 100 70-130 1,2,4-Trichlorobenzene 109 70-130	Cyclohexane	114	70-130
1,2-Dichloropropane 91 70-130 1,4-Dioxane 109 70-130 Bromodichloromethane 99 70-130 cis-1,3-Dichloropropene 103 70-130 4-Methyl-2-pentanone 101 70-130 trans-1,3-Dichloropropene 98 70-130 2-Hexanone 110 70-130 2-Hexanone 101 70-130 Dibromochloromethane 101 70-130 Chlorobenzene 96 70-130 Styrene 107 70-130 Bromoform 104 70-130 Cumene 107 70-130 Propylbenzene 104 70-130 4-Ethyltoluene 113 70-130 1,3,5-Trimethylbenzene 108 70-130 1,2,4-Trimethylbenzene 110 70-130 1,3-Dichlorobenzene 96 70-130 1,2-Dichlorobenzene 109 70-130 1,2-Dichlorobenzene 100 70-130 1,2-Dichlorobenzene 100 70-130 1,2,4-Trichlorobenzene 99 70-130 <td>2,2,4-Trimethylpentane</td> <td>93</td> <td>70-130</td>	2,2,4-Trimethylpentane	93	70-130
1,4-Dioxane 109 70-130 Bromodichloromethane 99 70-130 cis-1,3-Dichloropropene 103 70-130 4-Methyl-2-pentanone 101 70-130 trans-1,3-Dichloropropene 98 70-130 2-Hexanone 110 70-130 Dibromochloromethane 101 70-130 Chlorobenzene 96 70-130 Styrene 107 70-130 Bromoform 104 70-130 Cumene 107 70-130 Propylbenzene 104 70-130 4-Ethyltoluene 113 70-130 1,3,5-Trimethylbenzene 108 70-130 1,2,4-Trimethylbenzene 110 70-130 1,3-Dichlorobenzene 96 70-130 1,2-Dichlorobenzene 109 70-130 1,2-Dichlorobenzene 100 70-130 1,2,4-Trichlorobenzene 99 70-130	Heptane	104	70-130
Bromodichloromethane 99 70-130 cis-1,3-Dichloropropene 103 70-130 4-Methyl-2-pentanone 101 70-130 trans-1,3-Dichloropropene 98 70-130 2-Hexanone 110 70-130 Dibromochloromethane 101 70-130 Chlorobenzene 96 70-130 Styrene 107 70-130 Bromoform 104 70-130 Cumene 107 70-130 Propylbenzene 104 70-130 4-Ethyltoluene 113 70-130 1,3,5-Trimethylbenzene 108 70-130 1,2,4-Trimethylbenzene 110 70-130 1,3-Dichlorobenzene 96 70-130 1,2-Dichlorobenzene 109 70-130 1,2-Dichlorobenzene 100 70-130 1,2,4-Trichlorobenzene 99 70-130	1,2-Dichloropropane	91	70-130
cis-1,3-Dichloropropene 103 70-130 4-Methyl-2-pentanone 101 70-130 trans-1,3-Dichloropropene 98 70-130 2-Hexanone 110 70-130 Dibromochloromethane 101 70-130 Chlorobenzene 96 70-130 Styrene 107 70-130 Bromoform 104 70-130 Cumene 107 70-130 Propylbenzene 104 70-130 4-Ethyltoluene 113 70-130 1,3,5-Trimethylbenzene 108 70-130 1,2,4-Trimethylbenzene 110 70-130 1,3-Dichlorobenzene 96 70-130 1,3-Dichlorobenzene 109 70-130 1,2-Dichlorobenzene 100 70-130 1,2,4-Trichlorobenzene 100 70-130 1,2,4-Trichlorobenzene 99 70-130	1,4-Dioxane	109	70-130
4-Methyl-2-pentanone 101 70-130 trans-1,3-Dichloropropene 98 70-130 2-Hexanone 110 70-130 Dibromochloromethane 101 70-130 Chlorobenzene 96 70-130 Styrene 107 70-130 Bromoform 104 70-130 Cumene 107 70-130 Propylbenzene 104 70-130 4-Ethyltoluene 113 70-130 1,3,5-Trimethylbenzene 108 70-130 1,2,4-Trimethylbenzene 110 70-130 1,3-Dichlorobenzene 96 70-130 1,3-Dichloroblenzene 109 70-130 1,2-Dichlorobenzene 100 70-130 1,2,4-Trichlorobenzene 99 70-130	Bromodichloromethane	99	70-130
trans-1,3-Dichloropropene 98 70-130 2-Hexanone 110 70-130 Dibromochloromethane 101 70-130 Chlorobenzene 96 70-130 Styrene 107 70-130 Bromoform 104 70-130 Cumene 107 70-130 Propylbenzene 104 70-130 4-Ethyltoluene 113 70-130 1,3,5-Trimethylbenzene 108 70-130 1,2,4-Trimethylbenzene 110 70-130 1,3-Dichlorobenzene 96 70-130 alpha-Chlorotoluene 109 70-130 1,2-Dichlorobenzene 100 70-130 1,2,4-Triichlorobenzene 99 70-130	cis-1,3-Dichloropropene	103	70-130
trans-1,3-Dichloropropene 98 70-130 2-Hexanone 110 70-130 Dibromochloromethane 101 70-130 Chlorobenzene 96 70-130 Styrene 107 70-130 Bromoform 104 70-130 Cumene 107 70-130 Propylbenzene 104 70-130 4-Ethyltoluene 113 70-130 1,3,5-Trimethylbenzene 108 70-130 1,2,4-Trimethylbenzene 110 70-130 1,3-Dichlorobenzene 96 70-130 alpha-Chlorotoluene 109 70-130 1,2-Dichlorobenzene 100 70-130 1,2,4-Triichlorobenzene 99 70-130	4-Methyl-2-pentanone	101	70-130
2-Hexanone 110 70-130 Dibromochloromethane 101 70-130 Chlorobenzene 96 70-130 Styrene 107 70-130 Bromoform 104 70-130 Cumene 107 70-130 Propylbenzene 104 70-130 4-Ethyltoluene 113 70-130 1,3,5-Trimethylbenzene 108 70-130 1,2,4-Trimethylbenzene 110 70-130 1,3-Dichlorobenzene 96 70-130 alpha-Chlorotoluene 109 70-130 1,2-Dichlorobenzene 100 70-130 1,2,4-Trichlorobenzene 99 70-130		98	70-130
Chlorobenzene 96 70-130 Styrene 107 70-130 Bromoform 104 70-130 Cumene 107 70-130 Propylbenzene 104 70-130 4-Ethyltoluene 113 70-130 1,3,5-Trimethylbenzene 108 70-130 1,2,4-Trimethylbenzene 110 70-130 1,3-Dichlorobenzene 96 70-130 1,2-Dichlorotoluene 109 70-130 1,2-Dichlorobenzene 100 70-130 1,2,4-Trichlorobenzene 99 70-130	2-Hexanone	110	70-130
Styrene 107 70-130 Bromoform 104 70-130 Cumene 107 70-130 Propylbenzene 104 70-130 4-Ethyltoluene 113 70-130 1,3,5-Trimethylbenzene 108 70-130 1,2,4-Trimethylbenzene 110 70-130 1,3-Dichlorobenzene 96 70-130 alpha-Chlorotoluene 109 70-130 1,2-Dichlorobenzene 100 70-130 1,2,4-Trichlorobenzene 99 70-130	Dibromochloromethane	101	70-130
Bromoform 104 70-130 Cumene 107 70-130 Propylbenzene 104 70-130 4-Ethyltoluene 113 70-130 1,3,5-Trimethylbenzene 108 70-130 1,2,4-Trimethylbenzene 110 70-130 1,3-Dichlorobenzene 96 70-130 alpha-Chlorotoluene 109 70-130 1,2-Dichlorobenzene 100 70-130 1,2,4-Trichlorobenzene 99 70-130	Chlorobenzene	96	70-130
Bromoform 104 70-130 Cumene 107 70-130 Propylbenzene 104 70-130 4-Ethyltoluene 113 70-130 1,3,5-Trimethylbenzene 108 70-130 1,2,4-Trimethylbenzene 110 70-130 1,3-Dichlorobenzene 96 70-130 1,2-Dichlorobenzene 109 70-130 1,2-Dichlorobenzene 100 70-130 1,2,4-Trichlorobenzene 99 70-130		107	70-130
Propylbenzene 104 70-130 4-Ethyltoluene 113 70-130 1,3,5-Trimethylbenzene 108 70-130 1,2,4-Trimethylbenzene 110 70-130 1,3-Dichlorobenzene 96 70-130 alpha-Chlorotoluene 109 70-130 1,2-Dichlorobenzene 100 70-130 1,2,4-Trichlorobenzene 99 70-130	Bromoform	104	70-130
4-Ethyltoluene 113 70-130 1,3,5-Trimethylbenzene 108 70-130 1,2,4-Trimethylbenzene 110 70-130 1,3-Dichlorobenzene 96 70-130 alpha-Chlorotoluene 109 70-130 1,2-Dichlorobenzene 100 70-130 1,2,4-Trichlorobenzene 99 70-130	Cumene	107	70-130
1,3,5-Trimethylbenzene 108 70-130 1,2,4-Trimethylbenzene 110 70-130 1,3-Dichlorobenzene 96 70-130 alpha-Chlorotoluene 109 70-130 1,2-Dichlorobenzene 100 70-130 1,2,4-Trichlorobenzene 99 70-130	Propylbenzene	104	70-130
1,3,5-Trimethylbenzene 108 70-130 1,2,4-Trimethylbenzene 110 70-130 1,3-Dichlorobenzene 96 70-130 alpha-Chlorotoluene 109 70-130 1,2-Dichlorobenzene 100 70-130 1,2,4-Trichlorobenzene 99 70-130	4-Ethyltoluene	113	70-130
1,2,4-Trimethylbenzene 110 70-130 1,3-Dichlorobenzene 96 70-130 alpha-Chlorotoluene 109 70-130 1,2-Dichlorobenzene 100 70-130 1,2,4-Trichlorobenzene 99 70-130		108	70-130
1,3-Dichlorobenzene 96 70-130 alpha-Chlorotoluene 109 70-130 1,2-Dichlorobenzene 100 70-130 1,2,4-Trichlorobenzene 99 70-130	•	110	70-130
alpha-Chlorotoluene 109 70-130 1,2-Dichlorobenzene 100 70-130 1,2,4-Trichlorobenzene 99 70-130	1,3-Dichlorobenzene	96	70-130
1,2-Dichlorobenzene 100 70-130 1,2,4-Trichlorobenzene 99 70-130	alpha-Chlorotoluene	109	70-130
	·	100	70-130
	1,2,4-Trichlorobenzene	99	70-130

		Method
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	93	70-130



Client Sample ID: LCSD Lab ID#: 2001745B-25CC

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021204 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 10:17 AM

		wethod	
Surrogates	%Recovery	Limits	
Toluene-d8	99	70-130	
4-Bromofluorobenzene	105	70-130	



Client Sample ID: LCS Lab ID#: 2001745B-25D

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021203sim Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 09:37 AM

		Method
Compound	%Recovery	Limits
Freon 12	98	70-130
Freon 114	99	70-130
Chloromethane	82	70-130
Vinyl Chloride	100	70-130
Chloroethane	100	70-130
1,1-Dichloroethene	97	70-130
trans-1,2-Dichloroethene	112	70-130
Methyl tert-butyl ether	113	70-130
1,1-Dichloroethane	94	70-130
cis-1,2-Dichloroethene	94	70-130
Chloroform	104	70-130
1,1,1-Trichloroethane	102	70-130
Carbon Tetrachloride	120	60-140
Benzene	96	70-130
1,2-Dichloroethane	90	70-130
Trichloroethene	96	70-130
Toluene	104	70-130
1,1,2-Trichloroethane	93	70-130
Tetrachloroethene	97	70-130
1,2-Dibromoethane (EDB)	97	70-130
Ethyl Benzene	112	70-130
m,p-Xylene	116	70-130
o-Xylene	113	70-130
1,1,2,2-Tetrachloroethane	83	70-130
1,4-Dichlorobenzene	99	70-130

		Method	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	93	70-130	
Toluene-d8	104	70-130	
4-Bromofluorobenzene	105	70-130	



Client Sample ID: LCSD Lab ID#: 2001745B-25DD

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021204sim Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 10:17 AM

		Method
Compound	%Recovery	Limits
Freon 12	97	70-130
Freon 114	98	70-130
Chloromethane	81	70-130
Vinyl Chloride	100	70-130
Chloroethane	101	70-130
1,1-Dichloroethene	97	70-130
trans-1,2-Dichloroethene	111	70-130
Methyl tert-butyl ether	114	70-130
1,1-Dichloroethane	94	70-130
cis-1,2-Dichloroethene	94	70-130
Chloroform	103	70-130
1,1,1-Trichloroethane	101	70-130
Carbon Tetrachloride	120	60-140
Benzene	94	70-130
1,2-Dichloroethane	88	70-130
Trichloroethene	94	70-130
Toluene	102	70-130
1,1,2-Trichloroethane	93	70-130
Tetrachloroethene	96	70-130
1,2-Dibromoethane (EDB)	96	70-130
Ethyl Benzene	113	70-130
m,p-Xylene	115	70-130
o-Xylene	115	70-130
1,1,2,2-Tetrachloroethane	83	70-130
1,4-Dichlorobenzene	101	70-130

		Method	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	93	70-130	
Toluene-d8	104	70-130	
4-Bromofluorobenzene	106	70-130	



Client Sample ID: LCS Lab ID#: 2001745B-25E

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: v021203 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 11:25 AM

_		Method
Compound	%Recovery	Limits
1,3-Butadiene	104	70-130
Bromomethane	107	70-130
Freon 11	98	70-130
Ethanol	103	70-130
Freon 113	80	70-130
Acetone	107	70-130
2-Propanol	115	70-130
Carbon Disulfide	109	70-130
3-Chloropropene	97	70-130
Methylene Chloride	96	70-130
Hexane	111	70-130
2-Butanone (Methyl Ethyl Ketone)	105	70-130
Tetrahydrofuran	121	70-130
Cyclohexane	98	70-130
2,2,4-Trimethylpentane	112	70-130
Heptane	115	70-130
1,2-Dichloropropane	113	70-130
1,4-Dioxane	105	70-130
Bromodichloromethane	103	70-130
cis-1,3-Dichloropropene	105	70-130
4-Methyl-2-pentanone	122	70-130
trans-1,3-Dichloropropene	96	70-130
2-Hexanone	114	70-130
Dibromochloromethane	91	70-130
Chlorobenzene	90	70-130
Styrene	86	70-130
Bromoform	87	70-130
Cumene	85	70-130
Propylbenzene	96	70-130
4-Ethyltoluene	105	70-130
1,3,5-Trimethylbenzene	99	70-130
1,2,4-Trimethylbenzene	94	70-130
1,3-Dichlorobenzene	83	70-130
alpha-Chlorotoluene	87	70-130
1,2-Dichlorobenzene	82	70-130
1,2,4-Trichlorobenzene	64 Q	70-130
Hexachlorobutadiene	68 Q	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates %Recovery Limits



Client Sample ID: LCS Lab ID#: 2001745B-25E

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: v021203 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 11:25 AM

		Wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	113	70-130	
Toluene-d8	106	70-130	
4-Bromofluorobenzene	82	70-130	



Client Sample ID: LCSD Lab ID#: 2001745B-25EE

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: v021204 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 12:04 PM

	%Recovery	Method Limits
Compound		
1,3-Butadiene	108	70-130
Bromomethane	108	70-130
Freon 11	99	70-130
Ethanol	104	70-130
Freon 113	79	70-130
Acetone	109	70-130
2-Propanol	117	70-130
Carbon Disulfide	111	70-130
3-Chloropropene	100	70-130
Methylene Chloride	98	70-130
Hexane	112	70-130
2-Butanone (Methyl Ethyl Ketone)	104	70-130
Tetrahydrofuran	121	70-130
Cyclohexane	100	70-130
2,2,4-Trimethylpentane	112	70-130
Heptane	118	70-130
1,2-Dichloropropane	114	70-130
1,4-Dioxane	107	70-130
Bromodichloromethane	106	70-130
cis-1,3-Dichloropropene	107	70-130
4-Methyl-2-pentanone	127	70-130
trans-1,3-Dichloropropene	100	70-130
2-Hexanone	116	70-130
Dibromochloromethane	95	70-130
Chlorobenzene	92	70-130
Styrene	90	70-130
Bromoform	91	70-130
Cumene	88	70-130
Propylbenzene	100	70-130
4-Ethyltoluene	108	70-130
1,3,5-Trimethylbenzene	104	70-130
1,2,4-Trimethylbenzene	100	70-130
1,3-Dichlorobenzene	86	70-130
alpha-Chlorotoluene	95	70-130
1,2-Dichlorobenzene	88	70-130
1,2,4-Trichlorobenzene	84	70-130
Hexachlorobutadiene	84	70-130

		Method
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	112	70-130



Client Sample ID: LCSD Lab ID#: 2001745B-25EE

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: v021204 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 12:04 PM

Surrogates	%Recovery	Limits
Toluene-d8	106	70-130
4-Bromofluorobenzene	87	70-130



Client Sample ID: LCS Lab ID#: 2001745B-25F

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: v021203sim Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 11:25 AM

	%Recovery	Method	
Compound		Limits	
Freon 12	96	70-130	
Freon 114	84	70-130	
Chloromethane	115	70-130	
Vinyl Chloride	104	70-130	
Chloroethane	114	70-130	
1,1-Dichloroethene	84	70-130	
trans-1,2-Dichloroethene	99	70-130	
Methyl tert-butyl ether	95	70-130	
1,1-Dichloroethane	105	70-130	
cis-1,2-Dichloroethene	82	70-130	
Chloroform	98	70-130	
1,1,1-Trichloroethane	92	70-130	
Carbon Tetrachloride	69	60-140	
Benzene	96	70-130	
1,2-Dichloroethane	106	70-130	
Trichloroethene	85	70-130	
Toluene	87	70-130	
1,1,2-Trichloroethane	98	70-130	
Tetrachloroethene	81	70-130	
1,2-Dibromoethane (EDB)	92	70-130	
Ethyl Benzene	85	70-130	
m,p-Xylene	75	70-130	
o-Xylene	76	70-130	
1,1,2,2-Tetrachloroethane	100	70-130	
1,4-Dichlorobenzene	74	70-130	

Surrogates		Metnoa	
	%Recovery	Limits	
1,2-Dichloroethane-d4	115	70-130	
Toluene-d8	107	70-130	
4-Bromofluorobenzene	81	70-130	



Client Sample ID: LCSD Lab ID#: 2001745B-25FF

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: v021204sim Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 12:04 PM

Commonad	%Recovery	Method Limits
Compound		
Freon 12	95	70-130
Freon 114	85	70-130
Chloromethane	114	70-130
Vinyl Chloride	104	70-130
Chloroethane	114	70-130
1,1-Dichloroethene	85	70-130
trans-1,2-Dichloroethene	100	70-130
Methyl tert-butyl ether	96	70-130
1,1-Dichloroethane	106	70-130
cis-1,2-Dichloroethene	83	70-130
Chloroform	99	70-130
1,1,1-Trichloroethane	92	70-130
Carbon Tetrachloride	69	60-140
Benzene	96	70-130
1,2-Dichloroethane	106	70-130
Trichloroethene	86	70-130
Toluene	88	70-130
1,1,2-Trichloroethane	98	70-130
Tetrachloroethene	80	70-130
1,2-Dibromoethane (EDB)	92	70-130
Ethyl Benzene	87	70-130
m,p-Xylene	76	70-130
o-Xylene	77	70-130
1,1,2,2-Tetrachloroethane	103	70-130
1,4-Dichlorobenzene	76	70-130

		Wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	115	70-130	
Toluene-d8	107	70-130	
4-Bromofluorobenzene	81	70-130	



2/13/2020 Mr. Tyler Curley EA Engineering 320 Gold Avenue, SW Suite 1300 Albuquerque NM 87102

Project Name: COPPER POINTE

Project #: 20146

Workorder #: 2001745A

Dear Mr. Tyler Curley

The following report includes the data for the above referenced project for sample(s) received on 1/31/2020 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Brian Whittaker at 916-985-1000 if you have any questions regarding the data in this report.

Brian Whittaker

Regards,

Brian Whittaker

Project Manager



WORK ORDER #: 2001745A

Work Order Summary

CLIENT: Mr. Tyler Curley **BILL TO:** Accounts Payable - Lewisville

EA Engineering **EA** Engineering 405 S. Highway 121 320 Gold Avenue, SW **Suite 1300** Suite C-100

Albuquerque, NM 87102 Lewisville, TX 75067

PHONE: (505) 224-9013 **P.O.** # 20146

FAX: (505) 224-9016 PROJECT # 20146 COPPER POINTE

DATE RECEIVED: 01/31/2020 **CONTACT:** Brian Whittaker

DATE COMPLETED: 02/13/2020

			RECEIPT	FINAL
FRACTION #	<u>NAME</u>	<u>TEST</u>	VAC./PRES.	PRESSURE
01A	IA-A-01	Modified TO-15	10.5 "Hg	5 psi
01B	IA-A-01	Modified TO-15	10.5 "Hg	5 psi
02A	IA-A-02	Modified TO-15	10.0 "Hg	5 psi
02B	IA-A-02	Modified TO-15	10.0 "Hg	5 psi
03A	IA-A-03	Modified TO-15	10.5 "Hg	5 psi
03B	IA-A-03	Modified TO-15	10.5 "Hg	5 psi
04A	IA-A-03-D	Modified TO-15	10.5 "Hg	5 psi
04B	IA-A-03-D	Modified TO-15	10.5 "Hg	5 psi
05A	IA-A-04	Modified TO-15	10.5 "Hg	5 psi
05B	IA-A-04	Modified TO-15	10.5 "Hg	5 psi
06A	IA-A-05	Modified TO-15	10.0 "Hg	5 psi
06B	IA-A-05	Modified TO-15	10.0 "Hg	5 psi
07A	IA-C-01	Modified TO-15	11.0 "Hg	5 psi
07B	IA-C-01	Modified TO-15	11.0 "Hg	5 psi
08A	IA-C-02	Modified TO-15	10.0 "Hg	5 psi
08B	IA-C-02	Modified TO-15	10.0 "Hg	5 psi
09A	IA-C-03	Modified TO-15	11.5 "Hg	5 psi
09B	IA-C-03	Modified TO-15	11.5 "Hg	5 psi
10A	IA-C-04	Modified TO-15	9.5 "Hg	5 psi
10B	IA-C-04	Modified TO-15	9.5 "Hg	5 psi
11A	Lab Blank	Modified TO-15	NA	NA
11B	Lab Blank	Modified TO-15	NA	NA
12A	CCV	Modified TO-15	NA	NA

Continued on next page



WORK ORDER #: 2001745A

Work Order Summary

CLIENT: Mr. Tyler Curley BILL TO: Accounts Payable - Lewisville

EA Engineering
320 Gold Avenue, SW
405 S. Highway 121
Spite 1300
Spite C 100

Suite 1300 Suite C-100 Albuquerque, NM 87102 Lewisville, TX 75067

PHONE: (505) 224-9013 **P.O.** # 20146

FAX: (505) 224-9016 **PROJECT** # 20146 COPPER POINTE

DATE RECEIVED: 01/31/2020 CONTACT: Brian Whittaker DATE COMPLETED: 02/13/2020

			RECEIPT	FINAL
FRACTION #	<u>NAME</u>	<u>TEST</u>	VAC./PRES.	PRESSURE
12B	CCV	Modified TO-15	NA	NA
13A	LCS	Modified TO-15	NA	NA
13AA	LCSD	Modified TO-15	NA	NA
13B	LCS	Modified TO-15	NA	NA
13BB	LCSD	Modified TO-15	NA	NA

	1	ede flages		
CERTIFIED BY:	0	00	DATE: $\frac{02/13/20}{}$	

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209218, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-18-13, UT NELAP – CA009332019-11, VA NELAP - 460197, WA NELAP - C935

Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program) Accreditation number: CA300005-011, Effective date: 10/18/2019, Expiration date: 10/17/2020.

Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE Modified TO-15 Full Scan/SIM EA Engineering Workorder# 2001745A

Ten 6 Liter Summa Canister (100% SIM Ambient) samples were received on January 31, 2020. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the EATL modifications.

Requirement	TO-15	ATL Modifications
ICAL %RSD acceptance criteria	=30% RSD with 2<br compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD For SIM: Project specific; default criteria is =30% RSD with 10% of compounds allowed out to < 40% RSD</td
Daily Calibration	+- 30% Difference	For Full Scan: = 30% Difference with four allowed out up to </=40%.; flag and narrate outliers For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers</td
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

Dilution was performed on samples IA-C-01, IA-C-02, IA-C-03 and IA-C-04 due to the presence of high level target species.

The reported result for 4-Ethyltoluene in samples IA-A-01, IA-A-03, IA-A-03-D, IA-A-04 and IA-A-05 may be biased high due to co-elution with a non target compound with similar characteristic ions. Both the primary and secondary ion for 4-Ethyltoluene exhibited potential interference.

2-Propanol was detected at concentrations less than 5 times the reporting limit in sample IA-C-01. Because the preceding sample contained concentrations of 2-Propanol exceeding the calibration range, the result for this compound in sample IA-C-01 may be biased high.

Definition of Data Qualifying Flags

Nine qualifiers may have been used on the data analysis sheets and indicates as follows:

- B Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
 - J Estimated value.
 - E Exceeds instrument calibration range.
 - S Saturated peak.
 - Q Exceeds quality control limits.
 - U Compound analyzed for but not detected above the reporting limit.
 - UJ- Non-detected compound associated with low bias in the CCV
 - N The identification is based on presumptive evidence.
 - CN See case narrative explanation

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector
- r1-File was requantified for the purpose of reissue



Client Sample ID: IA-A-01 Lab ID#: 2001745A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.21	0.27	1.2	1.5
Ethanol	1.0	300 E	1.9	560 E
Freon 113	0.21	0.49	1.6	3.8
Acetone	2.1	46	4.9	110
2-Propanol	1.0	280 E	2.5	680 E
Hexane	1.0	1.1	3.6	4.0
2-Butanone (Methyl Ethyl Ketone)	1.0	2.2	3.0	6.6
Cyclohexane	0.21	0.52	0.71	1.8
4-Ethyltoluene	0.21	0.39	1.0	1.9
1,2,4-Trimethylbenzene	0.21	0.41	1.0	2.0

Client Sample ID: IA-A-01 Lab ID#: 2001745A-01B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.041	0.49	0.20	2.4
1,1-Dichloroethene	0.021	0.030	0.082	0.12
Carbon Tetrachloride	0.041	0.074	0.26	0.47
Benzene	0.10	0.67	0.33	2.1
Trichloroethene	0.041	0.28	0.22	1.5
Toluene	0.10	2.7	0.39	10
Ethyl Benzene	0.041	2.0	0.18	8.9
m,p-Xylene	0.082	4.7	0.36	20
o-Xylene	0.041	1.6	0.18	6.8

Client Sample ID: IA-A-02

Lab ID#: 2001745A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.20	0.26	1.1	1.5
Ethanol	1.0	350 E	1.9	660 E
Freon 113	0.20	0.53	1.5	4.1
Acetone	2.0	25	4.8	59



Client Sample ID: IA-A-02

Lab ID#: 2001745A-02A				
2-Propanol	1.0	110 E	2.5	260 E
Cyclohexane	0.20	0.26	0.69	0.89
4-Ethyltoluene	0.20	0.28	0.99	1.4
1,2,4-Trimethylbenzene	0.20	0.29	0.99	1.4

Client Sample ID: IA-A-02 Lab ID#: 2001745A-02B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.040	0.51	0.20	2.5
1,1-Dichloroethene	0.020	0.031	0.080	0.12
Carbon Tetrachloride	0.040	0.074	0.25	0.46
Benzene	0.10	0.54	0.32	1.7
Trichloroethene	0.040	0.27	0.22	1.4
Toluene	0.10	2.0	0.38	7.7
Ethyl Benzene	0.040	0.86	0.17	3.7
m,p-Xylene	0.080	2.6	0.35	11
o-Xylene	0.040	0.89	0.17	3.9

Client Sample ID: IA-A-03

Lab ID#: 2001745A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.21	0.22	1.2	1.3
Ethanol	1.0	340 E	1.9	640 E
Freon 113	0.21	0.42	1.6	3.2
Acetone	2.1	47	4.9	110
2-Propanol	1.0	100 E	2.5	260 E
2-Butanone (Methyl Ethyl Ketone)	1.0	2.3	3.0	6.7
4-Ethyltoluene	0.21	0.31	1.0	1.5
1,2,4-Trimethylbenzene	0.21	0.28	1.0	1.4

Client Sample ID: IA-A-03 Lab ID#: 2001745A-03B



Client Sample ID: IA-A-03 Lab ID#: 2001745A-03B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.041	0.49	0.20	2.4
1,1-Dichloroethene	0.021	0.033	0.082	0.13
Carbon Tetrachloride	0.041	0.072	0.26	0.46
Benzene	0.10	0.52	0.33	1.6
Trichloroethene	0.041	0.26	0.22	1.4
Toluene	0.10	1.9	0.39	7.3
Ethyl Benzene	0.041	0.87	0.18	3.8
m,p-Xylene	0.082	2.5	0.36	11
o-Xylene	0.041	0.84	0.18	3.7

Client Sample ID: IA-A-03-D

Lab ID#: 2001745A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.21	0.23	1.2	1.3
Ethanol	1.0	330 E	1.9	630 E
Freon 113	0.21	0.46	1.6	3.5
Acetone	2.1	30	4.9	71
2-Propanol	1.0	100 E	2.5	240 E
Cyclohexane	0.21	0.27	0.71	0.92
4-Ethyltoluene	0.21	0.24	1.0	1.2
1,2,4-Trimethylbenzene	0.21	0.23	1.0	1.1

Client Sample ID: IA-A-03-D

Lab ID#: 2001745A-04B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.041	0.51	0.20	2.5
1,1-Dichloroethene	0.021	0.031	0.082	0.12
Carbon Tetrachloride	0.041	0.072	0.26	0.45
Benzene	0.10	0.52	0.33	1.7
Trichloroethene	0.041	0.25	0.22	1.4
Toluene	0.10	2.1	0.39	7.9



Client Sample ID: IA-A-03-D

Lab ID#: 2001745A-04B

Tetrachloroethene	0.041	0.043	0.28	0.29
Ethyl Benzene	0.041	0.86	0.18	3.7
m,p-Xylene	0.082	2.5	0.36	11
o-Xylene	0.041	0.86	0.18	3.7

Client Sample ID: IA-A-04

Lab ID#: 2001745A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.21	0.25	1.2	1.4
Ethanol	1.0	360 E	1.9	670 E
Freon 113	0.21	0.46	1.6	3.6
Acetone	2.1	61	4.9	140
2-Propanol	1.0	100 E	2.5	250 E
2-Butanone (Methyl Ethyl Ketone)	1.0	2.0	3.0	6.0
Cyclohexane	0.21	0.30	0.71	1.0
4-Ethyltoluene	0.21	0.26	1.0	1.3
1,2,4-Trimethylbenzene	0.21	0.28	1.0	1.4

Client Sample ID: IA-A-04

Lab ID#: 2001745A-05B

Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
0.041	0.48	0.20	2.4
0.021	0.029	0.082	0.11
0.041	0.073	0.26	0.46
0.10	0.51	0.33	1.6
0.041	0.24	0.22	1.3
0.10	1.9	0.39	7.0
0.041	0.81	0.18	3.5
0.082	2.4	0.36	10
0.041	0.82	0.18	3.6
	(ppbv) 0.041 0.021 0.041 0.10 0.041 0.10 0.041 0.0041 0.082	(ppbv) (ppbv) 0.041 0.48 0.021 0.029 0.041 0.073 0.10 0.51 0.041 0.24 0.10 1.9 0.041 0.81 0.082 2.4	(ppbv) (ppbv) (ug/m3) 0.041 0.48 0.20 0.021 0.029 0.082 0.041 0.073 0.26 0.10 0.51 0.33 0.041 0.24 0.22 0.10 1.9 0.39 0.041 0.81 0.18 0.082 2.4 0.36



Client Sample ID: IA-A-05 Lab ID#: 2001745A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.20	0.24	1.1	1.3
Ethanol	1.0	330 E	1.9	620 E
Freon 113	0.20	0.42	1.5	3.2
Acetone	2.0	25	4.8	60
2-Propanol	1.0	84 E	2.5	210 E
Cyclohexane	0.20	0.23	0.69	0.78
4-Ethyltoluene	0.20	0.24	0.99	1.2
1,2,4-Trimethylbenzene	0.20	0.24	0.99	1.2

Client Sample ID: IA-A-05 Lab ID#: 2001745A-06B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.040	0.50	0.20	2.5
1,1-Dichloroethene	0.020	0.026	0.080	0.10
Carbon Tetrachloride	0.040	0.075	0.25	0.47
Benzene	0.10	0.53	0.32	1.7
Trichloroethene	0.040	0.24	0.22	1.3
Toluene	0.10	1.9	0.38	7.3
Ethyl Benzene	0.040	0.72	0.17	3.1
m,p-Xylene	0.080	2.1	0.35	9.2
o-Xylene	0.040	0.72	0.17	3.1

Client Sample ID: IA-C-01

Lab ID#: 2001745A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	3.5	570 E	6.7	1100 E
Acetone	7.1	29	17	68
2-Propanol	3.5	5.3	8.7	13



Client Sample ID: IA-C-01 Lab ID#: 2001745A-07B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.48	0.70	2.4
1,1,1-Trichloroethane	0.14	0.22	0.77	1.2
Trichloroethene	0.14	0.16	0.76	0.88
Toluene	0.35	1.1	1.3	4.0
Ethyl Benzene	0.14	14	0.61	59
m,p-Xylene	0.28	72	1.2	310
o-Xylene	0.14	24	0.61	110

Client Sample ID: IA-C-02 Lab ID#: 2001745A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)	
Ethanol	2.5	400 E	4.7	760 E	
Acetone	5.0	35	12	84	
2-Propanol	2.5	4.4	6.2	11	
2-Butanone (Methyl Ethyl Ketone)	2.5	3.0	7.4	8.9	

Client Sample ID: IA-C-02 Lab ID#: 2001745A-08B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)	
Freon 12	0.10	0.48	0.50	2.4	
1,1,1-Trichloroethane	0.10	0.21	0.55	1.2	
Benzene	0.25	0.26	0.80	0.85	
Trichloroethene	0.10	0.16	0.54	0.86	
Toluene	0.25	1.0	0.94	3.8	
Ethyl Benzene	0.10	14	0.44	59	
m,p-Xylene	0.20	75	0.87	320	
o-Xylene	0.10	24	0.44	110	

Client Sample ID: IA-C-03 Lab ID#: 2001745A-09A



Client Sample ID: IA-C-03 Lab ID#: 2001745A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)	
Ethanol	2.7	600 E	5.1	1100 E	
Acetone	5.4	32	13	77	
2-Propanol	2.7	6.0	6.7	15	
2-Butanone (Methyl Ethyl Ketone)	2.7	3.3	8.0	9.8	

Client Sample ID: IA-C-03

Lab ID#: 2001745A-09B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.11	0.47	0.54	2.3
1,1,1-Trichloroethane	0.11	0.17	0.59	0.95
Benzene	0.27	0.32	0.86	1.0
Trichloroethene	0.11	0.17	0.58	0.90
Toluene	0.27	1.0	1.0	3.9
Ethyl Benzene	0.11	13	0.47	58
m,p-Xylene	0.22	72	0.94	310
o-Xylene	0.11	24	0.47	100

Client Sample ID: IA-C-04

Lab ID#: 2001745A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)	_
Ethanol	3.3	840 E	6.2	1600 E	
Acetone	6.5	27	16	64	
2-Propanol	3.3	4.8	8.0	12	

Client Sample ID: IA-C-04

Lab ID#: 2001745A-10B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.13	0.47	0.64	2.3
1,1,1-Trichloroethane	0.13	0.16	0.71	0.85



Client Sample ID: IA-C-04

Lab ID#: 2001745A-10B

Trichloroethene	0.13	0.15	0.70	0.83
Toluene	0.33	1.1	1.2	4.1
Ethyl Benzene	0.13	14	0.57	60
m,p-Xylene	0.26	75	1.1	330
o-Xylene	0.13	26	0.57	110



Client Sample ID: IA-A-01 Lab ID#: 2001745A-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021207 Date of Collection: 1/29/20 6:35:00 PM Date of Analysis: 2/12/20 12:49 PM

	2.00	Date	Ol Allalysis. Zi izi	20 12.73 1 10
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.21	Not Detected	0.46	Not Detected
Bromomethane	1.0	Not Detected	4.0	Not Detected
Freon 11	0.21	0.27	1.2	1.5
Ethanol	1.0	300 E	1.9	560 E
Freon 113	0.21	0.49	1.6	3.8
Acetone	2.1	 46	4.9	110
2-Propanol	1.0	280 E	2.5	680 E
Carbon Disulfide	1.0	Not Detected	3.2	Not Detected
3-Chloropropene	1.0	Not Detected	3.2	Not Detected
Methylene Chloride	0.41	Not Detected	1.4	Not Detected
Hexane	1.0	1.1	3.6	4.0
2-Butanone (Methyl Ethyl Ketone)	1.0	2.2	3.0	6.6
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Cyclohexane	0.21	0.52	0.71	1.8
2,2,4-Trimethylpentane	1.0	Not Detected	4.8	Not Detected
Heptane	1.0	Not Detected	4.2	Not Detected
1,2-Dichloropropane	0.21	Not Detected	0.95	Not Detected
1,4-Dioxane	0.21	Not Detected	0.74	Not Detected
Bromodichloromethane	0.21	Not Detected	1.4	Not Detected
cis-1,3-Dichloropropene	0.21	Not Detected	0.93	Not Detected
4-Methyl-2-pentanone	0.21	Not Detected	0.84	Not Detected
trans-1,3-Dichloropropene	0.21	Not Detected	0.93	Not Detected
2-Hexanone	1.0	Not Detected	4.2	Not Detected
Dibromochloromethane	0.21	Not Detected	1.8	Not Detected
Chlorobenzene	0.21	Not Detected	0.95	Not Detected
Styrene	0.21	Not Detected	0.88	Not Detected
Bromoform	0.21	Not Detected	2.1	Not Detected
Cumene	0.21	Not Detected	1.0	Not Detected
Propylbenzene	0.21	Not Detected	1.0	Not Detected
4-Ethyltoluene	0.21	0.39	1.0	1.9
1,3,5-Trimethylbenzene	0.21	Not Detected	1.0	Not Detected
1,2,4-Trimethylbenzene	0.21	0.41	1.0	2.0
1,3-Dichlorobenzene	0.21	Not Detected	1.2	Not Detected
alpha-Chlorotoluene	0.21	Not Detected	1.1	Not Detected
1,2-Dichlorobenzene	0.21	Not Detected	1.2	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected	7.6	Not Detected
Hexachlorobutadiene	1.0	Not Detected	11	Not Detected
	- · · ·			

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

Surrogates Method
Limits



Client Sample ID: IA-A-01 Lab ID#: 2001745A-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021207 Date of Collection: 1/29/20 6:35:00 PM
Dil. Factor: 2.06 Date of Analysis: 2/12/20 12:49 PM

		Method	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	99	70-130	
Toluene-d8	97	70-130	
4-Bromofluorobenzene	115	70-130	



Client Sample ID: IA-A-01 Lab ID#: 2001745A-01B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	20021207sim	Date of Collection: 1/29/20 6:35:00 PM
Dil. Factor:	2.06	Date of Analysis: 2/12/20 12:49 PM

	2.00 Date of Analysis. 2/12/20 12.43 i iii			20 12.73 1 141
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.041	0.49	0.20	2.4
Freon 114	0.041	Not Detected	0.29	Not Detected
Chloromethane	1.0	Not Detected	2.1	Not Detected
Vinyl Chloride	0.021	Not Detected	0.053	Not Detected
Chloroethane	0.10	Not Detected	0.27	Not Detected
1,1-Dichloroethene	0.021	0.030	0.082	0.12
trans-1,2-Dichloroethene	0.21	Not Detected	0.82	Not Detected
Methyl tert-butyl ether	0.21	Not Detected	0.74	Not Detected
1,1-Dichloroethane	0.041	Not Detected	0.17	Not Detected
cis-1,2-Dichloroethene	0.041	Not Detected	0.16	Not Detected
Chloroform	0.041	Not Detected	0.20	Not Detected
1,1,1-Trichloroethane	0.041	Not Detected	0.22	Not Detected
Carbon Tetrachloride	0.041	0.074	0.26	0.47
Benzene	0.10	0.67	0.33	2.1
1,2-Dichloroethane	0.041	Not Detected	0.17	Not Detected
Trichloroethene	0.041	0.28	0.22	1.5
Toluene	0.10	2.7	0.39	10
1,1,2-Trichloroethane	0.041	Not Detected	0.22	Not Detected
Tetrachloroethene	0.041	Not Detected	0.28	Not Detected
1,2-Dibromoethane (EDB)	0.041	Not Detected	0.32	Not Detected
Ethyl Benzene	0.041	2.0	0.18	8.9
m,p-Xylene	0.082	4.7	0.36	20
o-Xylene	0.041	1.6	0.18	6.8
1,1,2,2-Tetrachloroethane	0.041	Not Detected	0.28	Not Detected
1,4-Dichlorobenzene	0.041	Not Detected	0.25	Not Detected

		wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	98	70-130	
Toluene-d8	96	70-130	
4-Bromofluorobenzene	114	70-130	



Client Sample ID: IA-A-02 Lab ID#: 2001745A-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

 File Name:
 20021208
 Date of Collection: 1/29/20 6:45:00 PM

 Dil. Factor:
 2.01
 Date of Analysis: 2/12/20 01:40 PM

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Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.20	Not Detected	0.44	Not Detected
Bromomethane	1.0	Not Detected	3.9	Not Detected
Freon 11	0.20	0.26	1.1	1.5
Ethanol	1.0	350 E	1.9	660 E
Freon 113	0.20	0.53	1.5	4.1
Acetone	2.0	25	4.8	59
2-Propanol	1.0	110 E	2.5	260 E
Carbon Disulfide	1.0	Not Detected	3.1	Not Detected
3-Chloropropene	1.0	Not Detected	3.1	Not Detected
Methylene Chloride	0.40	Not Detected	1.4	Not Detected
Hexane	1.0	Not Detected	3.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.0	Not Detected	3.0	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Cyclohexane	0.20	0.26	0.69	0.89
2,2,4-Trimethylpentane	1.0	Not Detected	4.7	Not Detected
Heptane	1.0	Not Detected	4.1	Not Detected
1,2-Dichloropropane	0.20	Not Detected	0.93	Not Detected
1,4-Dioxane	0.20	Not Detected	0.72	Not Detected
Bromodichloromethane	0.20	Not Detected	1.3	Not Detected
cis-1,3-Dichloropropene	0.20	Not Detected	0.91	Not Detected
4-Methyl-2-pentanone	0.20	Not Detected	0.82	Not Detected
trans-1,3-Dichloropropene	0.20	Not Detected	0.91	Not Detected
2-Hexanone	1.0	Not Detected	4.1	Not Detected
Dibromochloromethane	0.20	Not Detected	1.7	Not Detected
Chlorobenzene	0.20	Not Detected	0.92	Not Detected
Styrene	0.20	Not Detected	0.86	Not Detected
Bromoform	0.20	Not Detected	2.1	Not Detected
Cumene	0.20	Not Detected	0.99	Not Detected
Propylbenzene	0.20	Not Detected	0.99	Not Detected
4-Ethyltoluene	0.20	0.28	0.99	1.4
1,3,5-Trimethylbenzene	0.20	Not Detected	0.99	Not Detected
1,2,4-Trimethylbenzene	0.20	0.29	0.99	1.4
1,3-Dichlorobenzene	0.20	Not Detected	1.2	Not Detected
alpha-Chlorotoluene	0.20	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.20	Not Detected	1.2	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected	7.4	Not Detected
Hexachlorobutadiene	1.0	Not Detected	11	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

Surrogates Method
Limits



Client Sample ID: IA-A-02 Lab ID#: 2001745A-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021208 Date of Collection: 1/29/20 6:45:00 PM
Dil. Factor: 2.01 Date of Analysis: 2/12/20 01:40 PM

		Wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	103	70-130	
Toluene-d8	93	70-130	
4-Bromofluorobenzene	110	70-130	



Client Sample ID: IA-A-02 Lab ID#: 2001745A-02B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	20021208sim	Date of Collection: 1/29/20 6:45:00 PM
Dil. Factor:	2.01	Date of Analysis: 2/12/20 01:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)	
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Freon 12	0.040	0.51	0.20	2.5	
Freon 114	0.040	Not Detected	0.28	Not Detected	
Chloromethane	1.0	Not Detected	2.1	Not Detected	
Vinyl Chloride	0.020	Not Detected	0.051	Not Detected	
Chloroethane	0.10	Not Detected	0.26	Not Detected	
1,1-Dichloroethene	0.020	0.031	0.080	0.12	
trans-1,2-Dichloroethene	0.20	Not Detected	0.80	Not Detected	
Methyl tert-butyl ether	0.20	Not Detected	0.72	Not Detected	
1,1-Dichloroethane	0.040	Not Detected	0.16	Not Detected	
cis-1,2-Dichloroethene	0.040	Not Detected	0.16	Not Detected	
Chloroform	0.040	Not Detected	0.20	Not Detected	
1,1,1-Trichloroethane	0.040	Not Detected	0.22	Not Detected	
Carbon Tetrachloride	0.040	0.074	0.25	0.46	
Benzene	0.10	0.54	0.32	1.7	
1,2-Dichloroethane	0.040	Not Detected	0.16	Not Detected	
Trichloroethene	0.040	0.27	0.22	1.4	
Toluene	0.10	2.0	0.38	7.7	
1,1,2-Trichloroethane	0.040	Not Detected	0.22	Not Detected	
Tetrachloroethene	0.040	Not Detected	0.27	Not Detected	
1,2-Dibromoethane (EDB)	0.040	Not Detected	0.31	Not Detected	
Ethyl Benzene	0.040	0.86	0.17	3.7	
m,p-Xylene	0.080	2.6	0.35	11	
o-Xylene	0.040	0.89	0.17	3.9	
1,1,2,2-Tetrachloroethane	0.040	Not Detected	0.28	Not Detected	
1,4-Dichlorobenzene	0.040	Not Detected	0.24	Not Detected	

		wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	99	70-130	
Toluene-d8	96	70-130	
4-Bromofluorobenzene	117	70-130	



Client Sample ID: IA-A-03 Lab ID#: 2001745A-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	20021210	Date of Collection: 1/29/20 6:53:00 PM
Dil. Factor:	2.06	Date of Analysis: 2/12/20 03:31 PM

	2.00 Date of Affaiysis. 2/12/20 00.01 Fill				
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)	
1,3-Butadiene	0.21	Not Detected	0.46	Not Detected	
Bromomethane	1.0	Not Detected	4.0	Not Detected	
Freon 11	0.21	0.22	1.2	1.3	
Ethanol	1.0	340 E	1.9	640 E	
Freon 113	0.21	0.42	1.6	3.2	
Acetone	2.1	 47	4.9	110	
2-Propanol	1.0	100 E	2.5	260 E	
Carbon Disulfide	1.0	Not Detected	3.2	Not Detected	
3-Chloropropene	1.0	Not Detected	3.2	Not Detected	
Methylene Chloride	0.41	Not Detected	1.4	Not Detected	
Hexane	1.0	Not Detected	3.6	Not Detected	
2-Butanone (Methyl Ethyl Ketone)	1.0	2.3	3.0	6.7	
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected	
Cyclohexane	0.21	Not Detected	0.71	Not Detected	
2,2,4-Trimethylpentane	1.0	Not Detected	4.8	Not Detected	
Heptane	1.0	Not Detected	4.2	Not Detected	
1,2-Dichloropropane	0.21	Not Detected	0.95	Not Detected	
1,4-Dioxane	0.21	Not Detected	0.74	Not Detected	
Bromodichloromethane	0.21	Not Detected	1.4	Not Detected	
cis-1,3-Dichloropropene	0.21	Not Detected	0.93	Not Detected	
4-Methyl-2-pentanone	0.21	Not Detected	0.84	Not Detected	
trans-1,3-Dichloropropene	0.21	Not Detected	0.93	Not Detected	
2-Hexanone	1.0	Not Detected	4.2	Not Detected	
Dibromochloromethane	0.21	Not Detected	1.8	Not Detected	
Chlorobenzene	0.21	Not Detected	0.95	Not Detected	
Styrene	0.21	Not Detected	0.88	Not Detected	
Bromoform	0.21	Not Detected	2.1	Not Detected	
Cumene	0.21	Not Detected	1.0	Not Detected	
Propylbenzene	0.21	Not Detected	1.0	Not Detected	
4-Ethyltoluene	0.21	0.31	1.0	1.5	
1,3,5-Trimethylbenzene	0.21	Not Detected	1.0	Not Detected	
1,2,4-Trimethylbenzene	0.21	0.28	1.0	1.4	
1,3-Dichlorobenzene	0.21	Not Detected	1.2	Not Detected	
alpha-Chlorotoluene	0.21	Not Detected	1.1	Not Detected	
1,2-Dichlorobenzene	0.21	Not Detected	1.2	Not Detected	
1,2,4-Trichlorobenzene	1.0	Not Detected	7.6	Not Detected	
Hexachlorobutadiene	1.0	Not Detected	11	Not Detected	
			-		

E = Exceeds instrument calibration range.

		Method
Surrogates	%Recovery	Limits



Client Sample ID: IA-A-03 Lab ID#: 2001745A-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021210 Date of Collection: 1/29/20 6:53:00 PM
Dil. Factor: 2.06 Date of Analysis: 2/12/20 03:31 PM

		Method	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	99	70-130	
Toluene-d8	94	70-130	
4-Bromofluorobenzene	111	70-130	



Client Sample ID: IA-A-03 Lab ID#: 2001745A-03B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	20021210sim	Date of Collection: 1/29/20 6:53:00 PM
Dil. Factor:	2.06	Date of Analysis: 2/12/20 03:31 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.041	0.49	0.20	2.4
Freon 114	0.041	Not Detected	0.29	Not Detected
Chloromethane	1.0	Not Detected	2.1	Not Detected
Vinyl Chloride	0.021	Not Detected	0.053	Not Detected
Chloroethane	0.10	Not Detected	0.27	Not Detected
1,1-Dichloroethene	0.021	0.033	0.082	0.13
trans-1,2-Dichloroethene	0.21	Not Detected	0.82	Not Detected
Methyl tert-butyl ether	0.21	Not Detected	0.74	Not Detected
1,1-Dichloroethane	0.041	Not Detected	0.17	Not Detected
cis-1,2-Dichloroethene	0.041	Not Detected	0.16	Not Detected
Chloroform	0.041	Not Detected	0.20	Not Detected
1,1,1-Trichloroethane	0.041	Not Detected	0.22	Not Detected
Carbon Tetrachloride	0.041	0.072	0.26	0.46
Benzene	0.10	0.52	0.33	1.6
1,2-Dichloroethane	0.041	Not Detected	0.17	Not Detected
Trichloroethene	0.041	0.26	0.22	1.4
Toluene	0.10	1.9	0.39	7.3
1,1,2-Trichloroethane	0.041	Not Detected	0.22	Not Detected
Tetrachloroethene	0.041	Not Detected	0.28	Not Detected
1,2-Dibromoethane (EDB)	0.041	Not Detected	0.32	Not Detected
Ethyl Benzene	0.041	0.87	0.18	3.8
m,p-Xylene	0.082	2.5	0.36	11
o-Xylene	0.041	0.84	0.18	3.7
1,1,2,2-Tetrachloroethane	0.041	Not Detected	0.28	Not Detected
1,4-Dichlorobenzene	0.041	Not Detected	0.25	Not Detected

		wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	97	70-130	
Toluene-d8	96	70-130	
4-Bromofluorobenzene	114	70-130	



Client Sample ID: IA-A-03-D Lab ID#: 2001745A-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021209 Date of Collection: 1/29/20 6:53:00 PM
Dil. Factor: 2.06 Date of Analysis: 2/12/20 02:51 PM

= ···· · • • • • • • • • • • • • • • • •	2.00	Date	Ol Allalysis. Zi izi	20 02.011 10
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.21	Not Detected	0.46	Not Detected
Bromomethane	1.0	Not Detected	4.0	Not Detected
Freon 11	0.21	0.23	1.2	1.3
Ethanol	1.0	330 E	1.9	630 E
Freon 113	0.21	0.46	1.6	3.5
Acetone	2.1	30	4.9	71
2-Propanol	1.0	100 E	2.5	240 E
Carbon Disulfide	1.0	Not Detected	3.2	Not Detected
3-Chloropropene	1.0	Not Detected	3.2	Not Detected
Methylene Chloride	0.41	Not Detected	1.4	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.0	Not Detected	3.0	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Cyclohexane	0.21	0.27	0.71	0.92
2,2,4-Trimethylpentane	1.0	Not Detected	4.8	Not Detected
Heptane	1.0	Not Detected	4.2	Not Detected
1,2-Dichloropropane	0.21	Not Detected	0.95	Not Detected
1,4-Dioxane	0.21	Not Detected	0.74	Not Detected
Bromodichloromethane	0.21	Not Detected	1.4	Not Detected
cis-1,3-Dichloropropene	0.21	Not Detected	0.93	Not Detected
4-Methyl-2-pentanone	0.21	Not Detected	0.84	Not Detected
trans-1,3-Dichloropropene	0.21	Not Detected	0.93	Not Detected
2-Hexanone	1.0	Not Detected	4.2	Not Detected
Dibromochloromethane	0.21	Not Detected	1.8	Not Detected
Chlorobenzene	0.21	Not Detected	0.95	Not Detected
Styrene	0.21	Not Detected	0.88	Not Detected
Bromoform	0.21	Not Detected	2.1	Not Detected
Cumene	0.21	Not Detected	1.0	Not Detected
Propylbenzene	0.21	Not Detected	1.0	Not Detected
4-Ethyltoluene	0.21	0.24	1.0	1.2
1,3,5-Trimethylbenzene	0.21	Not Detected	1.0	Not Detected
1,2,4-Trimethylbenzene	0.21	0.23	1.0	1.1
1,3-Dichlorobenzene	0.21	Not Detected	1.2	Not Detected
alpha-Chlorotoluene	0.21	Not Detected	1.1	Not Detected
1,2-Dichlorobenzene	0.21	Not Detected	1.2	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected	7.6	Not Detected
Hexachlorobutadiene	1.0	Not Detected	11	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

Surrogates Method
Limits



Client Sample ID: IA-A-03-D Lab ID#: 2001745A-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021209 Date of Collection: 1/29/20 6:53:00 PM
Dil. Factor: 2.06 Date of Analysis: 2/12/20 02:51 PM

		Wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	96	70-130	
Toluene-d8	95	70-130	
4-Bromofluorobenzene	114	70-130	



Client Sample ID: IA-A-03-D Lab ID#: 2001745A-04B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	20021209sim	Date of Collection: 1/29/20 6:53:00 PM
Dil. Factor:	2.06	Date of Analysis: 2/12/20 02:51 PM

	Dot Limit	Amount	Dat Limit	Amaunt
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Compound		(bbpa)		
Freon 12	0.041	0.51	0.20	2.5
Freon 114	0.041	Not Detected	0.29	Not Detected
Chloromethane	1.0	Not Detected	2.1	Not Detected
Vinyl Chloride	0.021	Not Detected	0.053	Not Detected
Chloroethane	0.10	Not Detected	0.27	Not Detected
1,1-Dichloroethene	0.021	0.031	0.082	0.12
trans-1,2-Dichloroethene	0.21	Not Detected	0.82	Not Detected
Methyl tert-butyl ether	0.21	Not Detected	0.74	Not Detected
1,1-Dichloroethane	0.041	Not Detected	0.17	Not Detected
cis-1,2-Dichloroethene	0.041	Not Detected	0.16	Not Detected
Chloroform	0.041	Not Detected	0.20	Not Detected
1,1,1-Trichloroethane	0.041	Not Detected	0.22	Not Detected
Carbon Tetrachloride	0.041	0.072	0.26	0.45
Benzene	0.10	0.52	0.33	1.7
1,2-Dichloroethane	0.041	Not Detected	0.17	Not Detected
Trichloroethene	0.041	0.25	0.22	1.4
Toluene	0.10	2.1	0.39	7.9
1,1,2-Trichloroethane	0.041	Not Detected	0.22	Not Detected
Tetrachloroethene	0.041	0.043	0.28	0.29
1,2-Dibromoethane (EDB)	0.041	Not Detected	0.32	Not Detected
Ethyl Benzene	0.041	0.86	0.18	3.7
m,p-Xylene	0.082	2.5	0.36	11
o-Xylene	0.041	0.86	0.18	3.7
1,1,2,2-Tetrachloroethane	0.041	Not Detected	0.28	Not Detected
1,4-Dichlorobenzene	0.041	Not Detected	0.25	Not Detected

		wetnoa	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	98	70-130	
Toluene-d8	96	70-130	
4-Bromofluorobenzene	116	70-130	



Client Sample ID: IA-A-04 Lab ID#: 2001745A-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

 File Name:
 20021211
 Date of Collection: 1/29/20 6:56:00 PM

 Dil. Factor:
 2.06
 Date of Analysis: 2/12/20 04:10 PM

	Rpt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
·	0.21	Not Detected	0.46	
1,3-Butadiene	1.0	Not Detected	4.0	Not Detected Not Detected
Bromomethane	0.21	0.25	4.0 1.2	1.4
Freon 11	_			
Ethanol	1.0	360 E	1.9	670 E
Freon 113	0.21	0.46	1.6	3.6
Acetone	2.1	61	4.9	140
2-Propanol	1.0	100 E	2.5	250 E
Carbon Disulfide	1.0	Not Detected	3.2	Not Detected
3-Chloropropene	1.0	Not Detected	3.2	Not Detected
Methylene Chloride	0.41	Not Detected	1.4	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.0	2.0	3.0	6.0
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Cyclohexane	0.21	0.30	0.71	1.0
2,2,4-Trimethylpentane	1.0	Not Detected	4.8	Not Detected
Heptane	1.0	Not Detected	4.2	Not Detected
1,2-Dichloropropane	0.21	Not Detected	0.95	Not Detected
1,4-Dioxane	0.21	Not Detected	0.74	Not Detected
Bromodichloromethane	0.21	Not Detected	1.4	Not Detected
cis-1,3-Dichloropropene	0.21	Not Detected	0.93	Not Detected
4-Methyl-2-pentanone	0.21	Not Detected	0.84	Not Detected
trans-1,3-Dichloropropene	0.21	Not Detected	0.93	Not Detected
2-Hexanone	1.0	Not Detected	4.2	Not Detected
Dibromochloromethane	0.21	Not Detected	1.8	Not Detected
Chlorobenzene	0.21	Not Detected	0.95	Not Detected
Styrene	0.21	Not Detected	0.88	Not Detected
Bromoform	0.21	Not Detected	2.1	Not Detected
Cumene	0.21	Not Detected	1.0	Not Detected
Propylbenzene	0.21	Not Detected	1.0	Not Detected
4-Ethyltoluene	0.21	0.26	1.0	1.3
1,3,5-Trimethylbenzene	0.21	Not Detected	1.0	Not Detected
1,2,4-Trimethylbenzene	0.21	0.28	1.0	1.4
1,3-Dichlorobenzene	0.21	Not Detected	1.2	Not Detected
alpha-Chlorotoluene	0.21	Not Detected	1.1	Not Detected
1,2-Dichlorobenzene	0.21	Not Detected	1.2	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected	7.6	Not Detected
Hexachlorobutadiene	1.0	Not Detected	11	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

Surrogates Method
Limits



Client Sample ID: IA-A-04 Lab ID#: 2001745A-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021211 Date of Collection: 1/29/20 6:56:00 PM
Dil. Factor: 2.06 Date of Analysis: 2/12/20 04:10 PM

		Method	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	103	70-130	
Toluene-d8	91	70-130	
4-Bromofluorobenzene	114	70-130	



Client Sample ID: IA-A-04 Lab ID#: 2001745A-05B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	20021211sim	Date of Collection: 1/29/20 6:56:00 PM
Dil. Factor:	2.06	Date of Analysis: 2/12/20 04:10 PM

DII. Factor.	2.06	Date	of Analysis: 2/12/	20 04. TO FIVE
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.041	0.48	0.20	2.4
Freon 114	0.041	Not Detected	0.29	Not Detected
Chloromethane	1.0	Not Detected	2.1	Not Detected
Vinyl Chloride	0.021	Not Detected	0.053	Not Detected
Chloroethane	0.10	Not Detected	0.27	Not Detected
1,1-Dichloroethene	0.021	0.029	0.082	0.11
trans-1,2-Dichloroethene	0.21	Not Detected	0.82	Not Detected
Methyl tert-butyl ether	0.21	Not Detected	0.74	Not Detected
1,1-Dichloroethane	0.041	Not Detected	0.17	Not Detected
cis-1,2-Dichloroethene	0.041	Not Detected	0.16	Not Detected
Chloroform	0.041	Not Detected	0.20	Not Detected
1,1,1-Trichloroethane	0.041	Not Detected	0.22	Not Detected
Carbon Tetrachloride	0.041	0.073	0.26	0.46
Benzene	0.10	0.51	0.33	1.6
1,2-Dichloroethane	0.041	Not Detected	0.17	Not Detected
Trichloroethene	0.041	0.24	0.22	1.3
Toluene	0.10	1.9	0.39	7.0
1,1,2-Trichloroethane	0.041	Not Detected	0.22	Not Detected
Tetrachloroethene	0.041	Not Detected	0.28	Not Detected
1,2-Dibromoethane (EDB)	0.041	Not Detected	0.32	Not Detected
Ethyl Benzene	0.041	0.81	0.18	3.5
m,p-Xylene	0.082	2.4	0.36	10
o-Xylene	0.041	0.82	0.18	3.6
1,1,2,2-Tetrachloroethane	0.041	Not Detected	0.28	Not Detected
1,4-Dichlorobenzene	0.041	Not Detected	0.25	Not Detected

		Wethod
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	114	70-130



Client Sample ID: IA-A-05 Lab ID#: 2001745A-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021212 Date of Collection: 1/29/20 6:19:00 PM
Dil. Factor: 2.01 Date of Analysis: 2/12/20 04:49 PM

= ···· · • • • • • • • • • • • • • • • •	2.01	Date	Ol Allalysis. Zi izi	20 07.70 10
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.20	Not Detected	0.44	Not Detected
Bromomethane	1.0	Not Detected	3.9	Not Detected
Freon 11	0.20	0.24	1.1	1.3
Ethanol	1.0	330 E	1.9	620 E
Freon 113	0.20	0.42	1.5	3.2
Acetone	2.0	25	4.8	60
2-Propanol	1.0	84 E	2.5	210 E
Carbon Disulfide	1.0	Not Detected	3.1	Not Detected
3-Chloropropene	1.0	Not Detected	3.1	Not Detected
Methylene Chloride	0.40	Not Detected	1.4	Not Detected
Hexane	1.0	Not Detected	3.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.0	Not Detected	3.0	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Cyclohexane	0.20	0.23	0.69	0.78
2,2,4-Trimethylpentane	1.0	Not Detected	4.7	Not Detected
Heptane	1.0	Not Detected	4.1	Not Detected
1,2-Dichloropropane	0.20	Not Detected	0.93	Not Detected
1,4-Dioxane	0.20	Not Detected	0.72	Not Detected
Bromodichloromethane	0.20	Not Detected	1.3	Not Detected
cis-1,3-Dichloropropene	0.20	Not Detected	0.91	Not Detected
4-Methyl-2-pentanone	0.20	Not Detected	0.82	Not Detected
trans-1,3-Dichloropropene	0.20	Not Detected	0.91	Not Detected
2-Hexanone	1.0	Not Detected	4.1	Not Detected
Dibromochloromethane	0.20	Not Detected	1.7	Not Detected
Chlorobenzene	0.20	Not Detected	0.92	Not Detected
Styrene	0.20	Not Detected	0.86	Not Detected
Bromoform	0.20	Not Detected	2.1	Not Detected
Cumene	0.20	Not Detected	0.99	Not Detected
Propylbenzene	0.20	Not Detected	0.99	Not Detected
4-Ethyltoluene	0.20	0.24	0.99	1.2
1,3,5-Trimethylbenzene	0.20	Not Detected	0.99	Not Detected
1,2,4-Trimethylbenzene	0.20	0.24	0.99	1.2
1,3-Dichlorobenzene	0.20	Not Detected	1.2	Not Detected
alpha-Chlorotoluene	0.20	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.20	Not Detected	1.2	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected	7.4	Not Detected
Hexachlorobutadiene	1.0	Not Detected	11	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

Surrogates Method
Limits



Client Sample ID: IA-A-05 Lab ID#: 2001745A-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021212 Date of Collection: 1/29/20 6:19:00 PM
Dil. Factor: 2.01 Date of Analysis: 2/12/20 04:49 PM

_		Wethod
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	111	70-130



Client Sample ID: IA-A-05 Lab ID#: 2001745A-06B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021212sim Date of Collection: 1/29/20 6:19:00 PM
Dil. Factor: 2.01 Date of Analysis: 2/12/20 04:49 PM

Dii. I actor.	2.01	Date	OI Allalysis. Zi i Zi	20 04.43 F W
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.040	0.50	0.20	2.5
Freon 114	0.040	Not Detected	0.28	Not Detected
Chloromethane	1.0	Not Detected	2.1	Not Detected
Vinyl Chloride	0.020	Not Detected	0.051	Not Detected
Chloroethane	0.10	Not Detected	0.26	Not Detected
1,1-Dichloroethene	0.020	0.026	0.080	0.10
trans-1,2-Dichloroethene	0.20	Not Detected	0.80	Not Detected
Methyl tert-butyl ether	0.20	Not Detected	0.72	Not Detected
1,1-Dichloroethane	0.040	Not Detected	0.16	Not Detected
cis-1,2-Dichloroethene	0.040	Not Detected	0.16	Not Detected
Chloroform	0.040	Not Detected	0.20	Not Detected
1,1,1-Trichloroethane	0.040	Not Detected	0.22	Not Detected
Carbon Tetrachloride	0.040	0.075	0.25	0.47
Benzene	0.10	0.53	0.32	1.7
1,2-Dichloroethane	0.040	Not Detected	0.16	Not Detected
Trichloroethene	0.040	0.24	0.22	1.3
Toluene	0.10	1.9	0.38	7.3
1,1,2-Trichloroethane	0.040	Not Detected	0.22	Not Detected
Tetrachloroethene	0.040	Not Detected	0.27	Not Detected
1,2-Dibromoethane (EDB)	0.040	Not Detected	0.31	Not Detected
Ethyl Benzene	0.040	0.72	0.17	3.1
m,p-Xylene	0.080	2.1	0.35	9.2
o-Xylene	0.040	0.72	0.17	3.1
1,1,2,2-Tetrachloroethane	0.040	Not Detected	0.28	Not Detected
1,4-Dichlorobenzene	0.040	Not Detected	0.24	Not Detected

		wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	99	70-130	
Toluene-d8	95	70-130	
4-Bromofluorobenzene	114	70-130	



Client Sample ID: IA-C-01 Lab ID#: 2001745A-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021213 Date of Collection: 1/29/20 4:15:00 PM
Dil. Factor: 7.07 Date of Analysis: 2/12/20 05:29 PM

	1.01	Date	Ol Allalysis. Zi izi	20 00.23 i ivi
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.71	Not Detected	1.6	Not Detected
Bromomethane	3.5	Not Detected	14	Not Detected
Freon 11	0.71	Not Detected	4.0	Not Detected
Ethanol	3.5	570 E	6.7	1100 E
Freon 113	0.71	Not Detected	5.4	Not Detected
Acetone	7.1	 29	17	68
2-Propanol	3.5	5.3	8.7	13
Carbon Disulfide	3.5	Not Detected	11	Not Detected
3-Chloropropene	3.5	Not Detected	11	Not Detected
Methylene Chloride	1.4	Not Detected	4.9	Not Detected
Hexane	3.5	Not Detected	12	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.5	Not Detected	10	Not Detected
Tetrahydrofuran	3.5	Not Detected	10	Not Detected
Cyclohexane	0.71	Not Detected	2.4	Not Detected
2,2,4-Trimethylpentane	3.5	Not Detected	16	Not Detected
Heptane	3.5	Not Detected	14	Not Detected
1,2-Dichloropropane	0.71	Not Detected	3.3	Not Detected
1,4-Dioxane	0.71	Not Detected	2.5	Not Detected
Bromodichloromethane	0.71	Not Detected	4.7	Not Detected
cis-1,3-Dichloropropene	0.71	Not Detected	3.2	Not Detected
4-Methyl-2-pentanone	0.71	Not Detected	2.9	Not Detected
trans-1,3-Dichloropropene	0.71	Not Detected	3.2	Not Detected
2-Hexanone	3.5	Not Detected	14	Not Detected
Dibromochloromethane	0.71	Not Detected	6.0	Not Detected
Chlorobenzene	0.71	Not Detected	3.2	Not Detected
Styrene	0.71	Not Detected	3.0	Not Detected
Bromoform	0.71	Not Detected	7.3	Not Detected
Cumene	0.71	Not Detected	3.5	Not Detected
Propylbenzene	0.71	Not Detected	3.5	Not Detected
4-Ethyltoluene	0.71	Not Detected	3.5	Not Detected
1,3,5-Trimethylbenzene	0.71	Not Detected	3.5	Not Detected
1,2,4-Trimethylbenzene	0.71	Not Detected	3.5	Not Detected
1,3-Dichlorobenzene	0.71	Not Detected	4.2	Not Detected
alpha-Chlorotoluene	0.71	Not Detected	3.7	Not Detected
1,2-Dichlorobenzene	0.71	Not Detected	4.2	Not Detected
1,2,4-Trichlorobenzene	3.5	Not Detected	26	Not Detected
Hexachlorobutadiene	3.5	Not Detected	38	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

Surrogates Method
Limits



Client Sample ID: IA-C-01 Lab ID#: 2001745A-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021213 Date of Collection: 1/29/20 4:15:00 PM
Dil. Factor: 7.07 Date of Analysis: 2/12/20 05:29 PM

		wetnoa	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	96	70-130	
Toluene-d8	94	70-130	
4-Bromofluorobenzene	111	70-130	



Client Sample ID: IA-C-01 Lab ID#: 2001745A-07B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	20021213sim	Date of Collection: 1/29/20 4:15:00 PM
Dil. Factor:	7.07	Date of Analysis: 2/12/20 05:29 PM

Dii. i dotor.	1.01	Date	OI Alialysis. Zi izi	20 03.23 F W
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.48	0.70	2.4
Freon 114	0.14	Not Detected	0.99	Not Detected
Chloromethane	3.5	Not Detected	7.3	Not Detected
Vinyl Chloride	0.071	Not Detected	0.18	Not Detected
Chloroethane	0.35	Not Detected	0.93	Not Detected
1,1-Dichloroethene	0.071	Not Detected	0.28	Not Detected
trans-1,2-Dichloroethene	0.71	Not Detected	2.8	Not Detected
Methyl tert-butyl ether	0.71	Not Detected	2.5	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.57	Not Detected
cis-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Chloroform	0.14	Not Detected	0.69	Not Detected
1,1,1-Trichloroethane	0.14	0.22	0.77	1.2
Carbon Tetrachloride	0.14	Not Detected	0.89	Not Detected
Benzene	0.35	Not Detected	1.1	Not Detected
1,2-Dichloroethane	0.14	Not Detected	0.57	Not Detected
Trichloroethene	0.14	0.16	0.76	0.88
Toluene	0.35	1.1	1.3	4.0
1,1,2-Trichloroethane	0.14	Not Detected	0.77	Not Detected
Tetrachloroethene	0.14	Not Detected	0.96	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Ethyl Benzene	0.14	14	0.61	59
m,p-Xylene	0.28	72	1.2	310
o-Xylene	0.14	24	0.61	110
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected

		Limits	
Surrogates	%Recovery		
1,2-Dichloroethane-d4	94	70-130	
Toluene-d8	94	70-130	
4-Bromofluorobenzene	110	70-130	



Client Sample ID: IA-C-02 Lab ID#: 2001745A-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021214 Date of Collection: 1/29/20 3:33:00 PM
Dil. Factor: 5.02 Date of Analysis: 2/12/20 06:08 PM

2	3.02	Date of Analysis. 2/12/20 00:00 1 W		20 00.001 10
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
				<u>`</u>
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	2.5	Not Detected	9.7	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.5	400 E	4.7	760 E
Freon 113	0.50	Not Detected	3.8	Not Detected
Acetone	5.0	35	12	84
2-Propanol	2.5	4.4	6.2	11
Carbon Disulfide	2.5	Not Detected	7.8	Not Detected
3-Chloropropene	2.5	Not Detected	7.8	Not Detected
Methylene Chloride	1.0	Not Detected	3.5	Not Detected
Hexane	2.5	Not Detected	8.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.5	3.0	7.4	8.9
Tetrahydrofuran	2.5	Not Detected	7.4	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
2,2,4-Trimethylpentane	2.5	Not Detected	12	Not Detected
Heptane	2.5	Not Detected	10	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	0.50	Not Detected	1.8	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
2-Hexanone	2.5	Not Detected	10	Not Detected
Dibromochloromethane	0.50	Not Detected	4.3	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.5	Not Detected
Propylbenzene	0.50	Not Detected	2.5	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.5	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.5	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.5	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.5	Not Detected	19	Not Detected
Hexachlorobutadiene	2.5	Not Detected	27	Not Detected
	=.0		- •	= 0.00.00

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

Surrogates Method
Limits



Client Sample ID: IA-C-02 Lab ID#: 2001745A-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021214 Date of Collection: 1/29/20 3:33:00 PM
Dil. Factor: 5.02 Date of Analysis: 2/12/20 06:08 PM

		Method Limits	
Surrogates	%Recovery		
1,2-Dichloroethane-d4	95	70-130	
Toluene-d8	91	70-130	
4-Bromofluorobenzene	108	70-130	



Client Sample ID: IA-C-02 Lab ID#: 2001745A-08B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	20021214sim	Date of Collection: 1/29/20 3:33:00 PM
Dil. Factor:	5.02	Date of Analysis: 2/12/20 06:08 PM

	0.02	Date	of Allaryold. Little	20 00.00 1 111
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	0.48	0.50	2.4
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	2.5	Not Detected	5.2	Not Detected
Vinyl Chloride	0.050	Not Detected	0.13	Not Detected
Chloroethane	0.25	Not Detected	0.66	Not Detected
1,1-Dichloroethene	0.050	Not Detected	0.20	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.41	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	0.21	0.55	1.2
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
Benzene	0.25	0.26	0.80	0.85
1,2-Dichloroethane	0.10	Not Detected	0.41	Not Detected
Trichloroethene	0.10	0.16	0.54	0.86
Toluene	0.25	1.0	0.94	3.8
1,1,2-Trichloroethane	0.10	Not Detected	0.55	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Ethyl Benzene	0.10	14	0.44	59
m,p-Xylene	0.20	75	0.87	320
o-Xylene	0.10	24	0.44	110
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

		wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	94	70-130	
Toluene-d8	94	70-130	
4-Bromofluorobenzene	110	70-130	



Client Sample ID: IA-C-03 Lab ID#: 2001745A-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021215 Date of Collection: 1/29/20 4:37:00 PM
Dil. Factor: 5.42 Date of Analysis: 2/12/20 06:48 PM

	J.72	Date	Ol Allalysis. Zi izi	20 00.70 1 10
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.54	Not Detected	1.2	Not Detected
Bromomethane	2.7	Not Detected	10	Not Detected
Freon 11	0.54	Not Detected	3.0	Not Detected
Ethanol	2.7	600 E	5.1	1100 E
Freon 113	0.54	Not Detected	4.2	Not Detected
Acetone	5.4	32	13	77
2-Propanol	2.7	6.0	6.7	15
Carbon Disulfide	2.7	Not Detected	8.4	Not Detected
3-Chloropropene	2.7	Not Detected	8.5	Not Detected
Methylene Chloride	1.1	Not Detected	3.8	Not Detected
Hexane	2.7	Not Detected	9.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.7	3.3	8.0	9.8
Tetrahydrofuran	2.7	Not Detected	8.0	Not Detected
Cyclohexane	0.54	Not Detected	1.9	Not Detected
2,2,4-Trimethylpentane	2.7	Not Detected	13	Not Detected
Heptane	2.7	Not Detected	11	Not Detected
1,2-Dichloropropane	0.54	Not Detected	2.5	Not Detected
1,4-Dioxane	0.54	Not Detected	2.0	Not Detected
Bromodichloromethane	0.54	Not Detected	3.6	Not Detected
cis-1,3-Dichloropropene	0.54	Not Detected	2.4	Not Detected
4-Methyl-2-pentanone	0.54	Not Detected	2.2	Not Detected
trans-1,3-Dichloropropene	0.54	Not Detected	2.4	Not Detected
2-Hexanone	2.7	Not Detected	11	Not Detected
Dibromochloromethane	0.54	Not Detected	4.6	Not Detected
Chlorobenzene	0.54	Not Detected	2.5	Not Detected
Styrene	0.54	Not Detected	2.3	Not Detected
Bromoform	0.54	Not Detected	5.6	Not Detected
Cumene	0.54	Not Detected	2.7	Not Detected
Propylbenzene	0.54	Not Detected	2.7	Not Detected
4-Ethyltoluene	0.54	Not Detected	2.7	Not Detected
1,3,5-Trimethylbenzene	0.54	Not Detected	2.7	Not Detected
1,2,4-Trimethylbenzene	0.54	Not Detected	2.7	Not Detected
1,3-Dichlorobenzene	0.54	Not Detected	3.2	Not Detected
alpha-Chlorotoluene	0.54	Not Detected	2.8	Not Detected
1,2-Dichlorobenzene	0.54	Not Detected	3.2	Not Detected
1,2,4-Trichlorobenzene	2.7	Not Detected	20	Not Detected
Hexachlorobutadiene	2.7	Not Detected	29	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

Surrogates %Recovery Limits



Client Sample ID: IA-C-03 Lab ID#: 2001745A-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021215 Date of Collection: 1/29/20 4:37:00 PM Dil. Factor: 5.42 Date of Analysis: 2/12/20 06:48 PM

		Method	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	104	70-130	
Toluene-d8	92	70-130	
4-Bromofluorobenzene	114	70-130	



Client Sample ID: IA-C-03 Lab ID#: 2001745A-09B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	20021215sim	Date of Collection: 1/29/20 4:37:00 PM
Dil. Factor:	5.42	Date of Analysis: 2/12/20 06:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.11	0.47	0.54	2.3
	0.11	Not Detected	0.76	Not Detected
Freon 114				
Chloromethane	2.7	Not Detected	5.6	Not Detected
Vinyl Chloride	0.054	Not Detected	0.14	Not Detected
Chloroethane	0.27	Not Detected	0.72	Not Detected
1,1-Dichloroethene	0.054	Not Detected	0.21	Not Detected
trans-1,2-Dichloroethene	0.54	Not Detected	2.1	Not Detected
Methyl tert-butyl ether	0.54	Not Detected	2.0	Not Detected
1,1-Dichloroethane	0.11	Not Detected	0.44	Not Detected
cis-1,2-Dichloroethene	0.11	Not Detected	0.43	Not Detected
Chloroform	0.11	Not Detected	0.53	Not Detected
1,1,1-Trichloroethane	0.11	0.17	0.59	0.95
Carbon Tetrachloride	0.11	Not Detected	0.68	Not Detected
Benzene	0.27	0.32	0.86	1.0
1,2-Dichloroethane	0.11	Not Detected	0.44	Not Detected
Trichloroethene	0.11	0.17	0.58	0.90
Toluene	0.27	1.0	1.0	3.9
1,1,2-Trichloroethane	0.11	Not Detected	0.59	Not Detected
Tetrachloroethene	0.11	Not Detected	0.74	Not Detected
1,2-Dibromoethane (EDB)	0.11	Not Detected	0.83	Not Detected
Ethyl Benzene	0.11	13	0.47	58
m,p-Xylene	0.22	72	0.94	310
o-Xylene	0.11	24	0.47	100
1,1,2,2-Tetrachloroethane	0.11	Not Detected	0.74	Not Detected
1,4-Dichlorobenzene	0.11	Not Detected	0.65	Not Detected

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

		wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	94	70-130	
Toluene-d8	95	70-130	
4-Bromofluorobenzene	112	70-130	



Client Sample ID: IA-C-04 Lab ID#: 2001745A-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021216 Date of Collection: 1/29/20 3:46:00 PM
Dil. Factor: 6.53 Date of Analysis: 2/12/20 07:27 PM

2	0.00 Date of Aliatysis. 2/12/20 07.2/ 1 in			20 07.27 1 10
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
T				
1,3-Butadiene	0.65	Not Detected	1.4	Not Detected
Bromomethane	3.3	Not Detected	13	Not Detected
Freon 11	0.65	Not Detected	3.7	Not Detected
Ethanol	3.3	840 E	6.2	1600 E
Freon 113	0.65	Not Detected	5.0	Not Detected
Acetone	6.5	27	16	64
2-Propanol	3.3	4.8	8.0	12
Carbon Disulfide	3.3	Not Detected	10	Not Detected
3-Chloropropene	3.3	Not Detected	10	Not Detected
Methylene Chloride	1.3	Not Detected	4.5	Not Detected
Hexane	3.3	Not Detected	12	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.3	Not Detected	9.6	Not Detected
Tetrahydrofuran	3.3	Not Detected	9.6	Not Detected
Cyclohexane	0.65	Not Detected	2.2	Not Detected
2,2,4-Trimethylpentane	3.3	Not Detected	15	Not Detected
Heptane	3.3	Not Detected	13	Not Detected
1,2-Dichloropropane	0.65	Not Detected	3.0	Not Detected
1,4-Dioxane	0.65	Not Detected	2.4	Not Detected
Bromodichloromethane	0.65	Not Detected	4.4	Not Detected
cis-1,3-Dichloropropene	0.65	Not Detected	3.0	Not Detected
4-Methyl-2-pentanone	0.65	Not Detected	2.7	Not Detected
trans-1,3-Dichloropropene	0.65	Not Detected	3.0	Not Detected
2-Hexanone	3.3	Not Detected	13	Not Detected
Dibromochloromethane	0.65	Not Detected	5.6	Not Detected
Chlorobenzene	0.65	Not Detected	3.0	Not Detected
Styrene	0.65	Not Detected	2.8	Not Detected
Bromoform	0.65	Not Detected	6.8	Not Detected
Cumene	0.65	Not Detected	3.2	Not Detected
Propylbenzene	0.65	Not Detected	3.2	Not Detected
4-Ethyltoluene	0.65	Not Detected	3.2	Not Detected
1,3,5-Trimethylbenzene	0.65	Not Detected	3.2	Not Detected
1,2,4-Trimethylbenzene	0.65	Not Detected	3.2	Not Detected
1,3-Dichlorobenzene	0.65	Not Detected	3.9	Not Detected
alpha-Chlorotoluene	0.65	Not Detected	3.4	Not Detected
1,2-Dichlorobenzene	0.65	Not Detected	3.9	Not Detected
1,2,4-Trichlorobenzene	3.3	Not Detected	24	Not Detected
Hexachlorobutadiene	3.3	Not Detected	35	Not Detected
1 10/100 III OD ULUUIO II	0.0	. 101 20100104		.101 20100104

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

Surrogates Method
Limits



Client Sample ID: IA-C-04 Lab ID#: 2001745A-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021216 Date of Collection: 1/29/20 3:46:00 PM
Dil. Factor: 6.53 Date of Analysis: 2/12/20 07:27 PM

		Metnoa	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	101	70-130	
Toluene-d8	91	70-130	
4-Bromofluorobenzene	109	70-130	



Client Sample ID: IA-C-04 Lab ID#: 2001745A-10B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	20021216sim	Date of Collection: 1/29/20 3:46:00 PM
Dil. Factor:	6.53	Date of Analysis: 2/12/20 07:27 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.13	0.47	0.64	2.3
		• • • • • • • • • • • • • • • • • • • •		
Freon 114	0.13	Not Detected	0.91	Not Detected
Chloromethane	3.3	Not Detected	6.7	Not Detected
Vinyl Chloride	0.065	Not Detected	0.17	Not Detected
Chloroethane	0.33	Not Detected	0.86	Not Detected
1,1-Dichloroethene	0.065	Not Detected	0.26	Not Detected
trans-1,2-Dichloroethene	0.65	Not Detected	2.6	Not Detected
Methyl tert-butyl ether	0.65	Not Detected	2.4	Not Detected
1,1-Dichloroethane	0.13	Not Detected	0.53	Not Detected
cis-1,2-Dichloroethene	0.13	Not Detected	0.52	Not Detected
Chloroform	0.13	Not Detected	0.64	Not Detected
1,1,1-Trichloroethane	0.13	0.16	0.71	0.85
Carbon Tetrachloride	0.13	Not Detected	0.82	Not Detected
Benzene	0.33	Not Detected	1.0	Not Detected
1,2-Dichloroethane	0.13	Not Detected	0.53	Not Detected
Trichloroethene	0.13	0.15	0.70	0.83
Toluene	0.33	1.1	1.2	4.1
1,1,2-Trichloroethane	0.13	Not Detected	0.71	Not Detected
Tetrachloroethene	0.13	Not Detected	0.88	Not Detected
1,2-Dibromoethane (EDB)	0.13	Not Detected	1.0	Not Detected
Ethyl Benzene	0.13	14	0.57	60
m,p-Xylene	0.26	75	1.1	330
o-Xylene	0.13	26	0.57	110
1,1,2,2-Tetrachloroethane	0.13	Not Detected	0.90	Not Detected
1,4-Dichlorobenzene	0.13	Not Detected	0.78	Not Detected

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

		wetnoa	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	93	70-130	
Toluene-d8	95	70-130	
4-Bromofluorobenzene	110	70-130	



Air Toxics

Client Sample ID: Lab Blank Lab ID#: 2001745A-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	20021206	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/12/20 11:36 AM

DII. Factor.	1.00	Date	Of Analysis: 2/12/	20 11.30 AW
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
Acetone	1.0	Not Detected	2.4	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected

		Method
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	102	70-130



Client Sample ID: Lab Blank Lab ID#: 2001745A-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021206 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 11:36 AM

Surrogates	%Recovery	Limits
Toluene-d8	94	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: Lab Blank Lab ID#: 2001745A-11B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	20021206sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/12/20 11:36 AM

J 1 401011	1.00	Date of Analysis. 2/12/20 11:30 AW		20 11.00 AW
Compound	Rpt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
Freon 12	0.020	Not Detected	0.099	Not Detected
Freon 114	0.020	Not Detected	0.14	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Chloroethane	0.050	Not Detected	0.13	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
1,1-Dichloroethane	0.020	Not Detected	0.081	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
1,1,1-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected
Toluene	0.050	Not Detected	0.19	Not Detected
1,1,2-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
1,2-Dibromoethane (EDB)	0.020	Not Detected	0.15	Not Detected
Ethyl Benzene	0.020	Not Detected	0.087	Not Detected
m,p-Xylene	0.040	Not Detected	0.17	Not Detected
o-Xylene	0.020	Not Detected	0.087	Not Detected
1,1,2,2-Tetrachloroethane	0.020	Not Detected	0.14	Not Detected
1,4-Dichlorobenzene	0.020	Not Detected	0.12	Not Detected

		wethod	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	102	70-130	
Toluene-d8	100	70-130	
4-Bromofluorobenzene	98	70-130	



Client Sample ID: CCV Lab ID#: 2001745A-12A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021202 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 08:57 AM

Compound	%Recovery
1,3-Butadiene	99
Bromomethane	115
Freon 11	104
Ethanol	95
Freon 113	96
Acetone	90
2-Propanol	90
Carbon Disulfide	100
3-Chloropropene	109
Methylene Chloride	87
Hexane	103
2-Butanone (Methyl Ethyl Ketone)	105
Tetrahydrofuran	100
Cyclohexane	116
2,2,4-Trimethylpentane	93
Heptane	106
1,2-Dichloropropane	92
1,4-Dioxane	107
Bromodichloromethane	97
cis-1,3-Dichloropropene	96
4-Methyl-2-pentanone	96
trans-1,3-Dichloropropene	95
2-Hexanone	102
Dibromochloromethane	101
Chlorobenzene	102
Styrene	114
Bromoform	101
Cumene	112
Propylbenzene	109
4-Ethyltoluene	116
1,3,5-Trimethylbenzene	112
1,2,4-Trimethylbenzene	113
1,3-Dichlorobenzene	99
alpha-Chlorotoluene	102
1,2-Dichlorobenzene	102
1,2,4-Trichlorobenzene	92
Hexachlorobutadiene	102

		Method
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	94	70-130



Client Sample ID: CCV Lab ID#: 2001745A-12A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021202 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 08:57 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: CCV Lab ID#: 2001745A-12B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021202sim Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 08:57 AM

Compound	%Recovery
Freon 12	93
Freon 114	95
Chloromethane	76
Vinyl Chloride	93
Chloroethane	94
1,1-Dichloroethene	93
trans-1,2-Dichloroethene	102
Methyl tert-butyl ether	116
1,1-Dichloroethane	96
cis-1,2-Dichloroethene	104
Chloroform	102
1,1,1-Trichloroethane	97
Carbon Tetrachloride	107
Benzene	97
1,2-Dichloroethane	92
Trichloroethene	95
Toluene	105
1,1,2-Trichloroethane	92
Tetrachloroethene	100
1,2-Dibromoethane (EDB)	97
Ethyl Benzene	114
m,p-Xylene	118
o-Xylene	116
1,1,2,2-Tetrachloroethane	85
1,4-Dichlorobenzene	101

		Metnoa	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	92	70-130	
Toluene-d8	105	70-130	
4-Bromofluorobenzene	107	70-130	



Client Sample ID: LCS Lab ID#: 2001745A-13A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021203 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 09:37 AM

		Method
Compound	%Recovery	Limits
1,3-Butadiene	102	70-130
Bromomethane	109	70-130
Freon 11	106	70-130
Ethanol	106	70-130
Freon 113	98	70-130
Acetone	92	70-130
2-Propanol	99	70-130
Carbon Disulfide	102	70-130
3-Chloropropene	118	70-130
Methylene Chloride	88	70-130
	107	70-130
2-Butanone (Methyl Ethyl Ketone)	102	70-130
Tetrahydrofuran	100	70-130
Cyclohexane	110	70-130
2,2,4-Trimethylpentane	88	70-130
	105	70-130
1,2-Dichloropropane	92	70-130
1,4-Dioxane	115	70-130
Bromodichloromethane	100	70-130
cis-1,3-Dichloropropene	102	70-130
4-Methyl-2-pentanone	106	70-130
trans-1,3-Dichloropropene	100	70-130
2-Hexanone	110	70-130
Dibromochloromethane	106	70-130
Chlorobenzene	99	70-130
Styrene	111	70-130
Bromoform	106	70-130
Cumene	112	70-130
Propylbenzene	108	70-130
4-Ethyltoluene	117	70-130
1,3,5-Trimethylbenzene	114	70-130
1,2,4-Trimethylbenzene	114	70-130
1,3-Dichlorobenzene	96	70-130
alpha-Chlorotoluene	110	70-130
1,2-Dichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	89	70-130
Hexachlorobutadiene	93	70-130

		Method
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	90	70-130



Client Sample ID: LCS Lab ID#: 2001745A-13A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021203 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 09:37 AM

		wethod	
Surrogates	%Recovery	Limits	
Toluene-d8	100	70-130	
4-Bromofluorobenzene	104	70-130	



Client Sample ID: LCSD Lab ID#: 2001745A-13AA

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021204 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 10:17 AM

217	Method
%Recovery	Limits
102	70-130
	70-130
	70-130
	70-130
	70-130
94	70-130
98	70-130
100	70-130
111	70-130
88	70-130
107	70-130
104	70-130
105	70-130
114	70-130
93	70-130
104	70-130
91	70-130
109	70-130
99	70-130
103	70-130
101	70-130
98	70-130
110	70-130
101	70-130
96	70-130
107	70-130
104	70-130
107	70-130
104	70-130
113	70-130
108	70-130
110	70-130
96	70-130
109	70-130
100	70-130
99	70-130
102	70-130
	110 105 115 95 94 98 100 111 88 107 104 105 114 93 104 91 109 99 103 101 98 110 101 96 107 104 107 104 107 104 113 108 110 96 109 100 99

		Method
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	93	70-130



Client Sample ID: LCSD Lab ID#: 2001745A-13AA

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021204 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 10:17 AM

		wethod	
Surrogates	%Recovery	Limits	
Toluene-d8	99	70-130	
4-Bromofluorobenzene	105	70-130	



Client Sample ID: LCS Lab ID#: 2001745A-13B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021203sim Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 09:37 AM

		Method
Compound	%Recovery	Limits
Freon 12	98	70-130
Freon 114	99	70-130
Chloromethane	82	70-130
Vinyl Chloride	100	70-130
Chloroethane	100	70-130
1,1-Dichloroethene	97	70-130
trans-1,2-Dichloroethene	112	70-130
Methyl tert-butyl ether	113	70-130
1,1-Dichloroethane	94	70-130
cis-1,2-Dichloroethene	94	70-130
Chloroform	104	70-130
1,1,1-Trichloroethane	102	70-130
Carbon Tetrachloride	120	60-140
Benzene	96	70-130
1,2-Dichloroethane	90	70-130
Trichloroethene	96	70-130
Toluene	104	70-130
1,1,2-Trichloroethane	93	70-130
Tetrachloroethene	97	70-130
1,2-Dibromoethane (EDB)	97	70-130
Ethyl Benzene	112	70-130
m,p-Xylene	116	70-130
o-Xylene	113	70-130
1,1,2,2-Tetrachloroethane	83	70-130
1,4-Dichlorobenzene	99	70-130

		Method	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	93	70-130	
Toluene-d8	104	70-130	
4-Bromofluorobenzene	105	70-130	



Client Sample ID: LCSD Lab ID#: 2001745A-13BB

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 20021204sim Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 2/12/20 10:17 AM

		Method
Compound	%Recovery	Limits
Freon 12	97	70-130
Freon 114	98	70-130
Chloromethane	81	70-130
Vinyl Chloride	100	70-130
Chloroethane	101	70-130
1,1-Dichloroethene	97	70-130
trans-1,2-Dichloroethene	111	70-130
Methyl tert-butyl ether	114	70-130
1,1-Dichloroethane	94	70-130
cis-1,2-Dichloroethene	94	70-130
Chloroform	103	70-130
1,1,1-Trichloroethane	101	70-130
Carbon Tetrachloride	120	60-140
Benzene	94	70-130
1,2-Dichloroethane	88	70-130
Trichloroethene	94	70-130
Toluene	102	70-130
1,1,2-Trichloroethane	93	70-130
Tetrachloroethene	96	70-130
1,2-Dibromoethane (EDB)	96	70-130
Ethyl Benzene	113	70-130
m,p-Xylene	115	70-130
o-Xylene	115	70-130
1,1,2,2-Tetrachloroethane	83	70-130
1,4-Dichlorobenzene	101	70-130

		Method	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	93	70-130	
Toluene-d8	104	70-130	
4-Bromofluorobenzene	106	70-130	

APPENDIX C

BEACON SAMPLING INSTRUCTION AND TECHNICAL MEMORANDUM



FIELD KIT GUIDE FOR COLLECTION OF SAMPLES USING SORBENT TUBES

[PLEASE READ ENTIRE GUIDE BEFORE STARTING SURVEY]

I. General Information

- A. BEACON is providing this sampling equipment to **CLIENT** for use on the **Site in City, State.** To meet project objectives, retrieve samples after a **## day exposure period**.
- B. Before going to the field take inventory of the shipment received by using the contents list to verify counts.
- C. As part of collection of the samples, **CLIENT** must complete the <u>Chain-of-Custody Record</u> and submit it with the Samples. Keep a copy for your records.
- D. When sampling is complete verify the caps on the Sorbent Tubes are tight, package the Sorbent Tubes securely in the bags provided, and put them in a sturdy box for return shipment to BEACON along with a copy of the Chain-of-Custody Record.

How to Properly tighten the brass caps on Sorbent Tubes:

Slide the brass cap onto the end of the tube and stop at the base of the brass plug. Finger-tighten the brass cap so it is secure, then use the disc wrench to tighten the brass cap by $1/8^{th}$ of a turn.

Do not to over-tighten the brass cap — crimping the end of the tube will prevent a proper seal, damage the tube, and potentially ruin the sample. You should not be able to easily slide the caps off when properly tightened.

Send all sampling materials to:

Beacon Environmental Services, Inc.

Attn: Sample Receiving 2203A Commerce Rd Suite 1 Forest Hill, MD 21050 USA 1-410-838-8780

Replacement cost for Damaged or Lost Items: \$95 per Sorbent Tube, \$25 per Diffusion Cap, and \$50 for Disc Wrench Set.

NOTE: DO NOT PACK IN SHIPMENT BOX STYRENE PEANUTS, NEWSPAPER, OR OTHER MATERIALS THAT COULD CONTAMINATE THE SAMPLES. NO SMOKING BEFORE OR WHILE HANDLING SAMPLERS.

II. <u>Contents</u>

A. Verify the inventory before sampling. **CLIENT** will be responsible for the replacement cost of any lost or damaged Sorbent Tubes, Diffusion Caps, or Disc Wrenches.

Code	/Item	Quantity
(1)	SORBENT TUBES	10
(2)	RETURN SHIPMENT BAG	2
(3)	DISC WRENCH SET	1
(4)	DIFFUSION CAPS	10









- B. In addition to the materials found in the kit, field teams will need:
 - NITRILE GLOVES
 - HEAVY STRING (to suspend tubes)
 - BALL-POINT PEN and CLIPBOARD
 - BUBBBLE WRAP (for return shipment)

III. <u>Instructions</u>

SAMPLE DEPLOYMENT

1. At each sampling location you will need one individual Sample Bag containing a sorbent tube, one diffusion cap, one disc wrench set, and a length of heavy string or wire. Write the sample location and installation date on the Sample Bag.



TO-17 Beacon Sorbent Tube

BEACON

ENVIRONMENTAL

SERVICES, INC.

TUBE ID: 1066427

Install Date: 01/30/19 12:30

Retrieve Date:

Sample Location: Sample Location 1

2. Remove the sorbent tube from the protective case and, using the disc wrenches, remove the brass cap with the *green sticker* from the end of the tube. This is the sampling end of the tube, which has one or more grooved rings near the end of the tube (*A sample may only be collected from this end of the tube*). Place the removed brass cap in the protective case, seal the case with the red cap, and store in the Sample Bag. Store the Sample Bag with the other samplers.

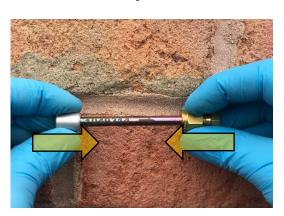






3. Push the Diffusion Cap on the open end of the tube until it will not slide any farther. Then, tie heavy string (or wire) around the brass cap and suspend the tube so the diffusion cap faces down.







4. On the Chain-of-Custody Record, record the following information: sample location ID, tube ID number (etched on side of each tube), starting date and time, and other relevant information such as temperature and sampling height.

Location ID	Start	Start Time		Stop Time		NIST traceable Thermometer ID:			
Tube ID	Date (mm/dd/yy)	Time (24 hr)	Date (mm/dd/yy)	Time (24 hr)	Temp. (F)	Notes			
Sample Location 1	01/30/19	12:30			75	4 ft from ground			
Tube ID ###									

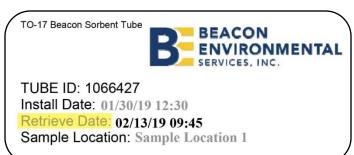
5. Repeat steps 1 through 4 until all Sorbent Tubes have been deployed.

Note: If the teflon ferrule in the nut of the brass cap is stuck on the end of the tube pull it off using the slotted disc wrench. The entire cap MUST be removed to sample.

SAMPLE COLLECTION

- 1. At each location, you will need a Disc Wrench set, the Sample Bag that matches the Sorbent Tube being collected, and a Return Shipment bag.
- 2. Verify the Sample Bag matches the Sorbent Tube ID being collected and take the brass cap out of the Sample Bag and protective case and place it in reach for easy access. Write the retrieve date and time on the Sample Bag.





- 3. Retrieve the Sorbent Tube, remove the Diffusion Cap, and slide the brass cap onto the end of the tube stopping at the base of the brass plug. Finger-tighten the brass cap so it is secure. Place the Diffusion Cap in the Sample Bag for return shipment to Beacon.
- 4. Use the disc wrenches to tighten the brass cap on the sorbent tube an additional 1/8th to 1/4 turn to ensure tightness. **Do not to over-tighten the brass cap** crimping the end of the tube will prevent a proper seal, damage the tube, and potentially ruin the sample. You should not be able to easily slide the caps off when properly tightened.







- 5. Place the Sorbent Tube in the protective case and seal with the red cap. Verify the Sorbent Tube ID and place it into the Sample Bag with the Diffusion Cap. Place the Sample Bag into the Return Shipment bag
- 6. On the Chain-of-Custody, Write the date and time the sampling ended for each tube and other relevant information.

Time	Date	Time	Temp.	
(24 hr)	(mm/dd/yy)		(F)	Notes
12:30	i.		75	4 ft from ground
	2/13/19	09:45	73	
	12:30			73

- 7. Repeat steps 1 through 6 until all tubes have been collected, sealed, and bagged.
- 8. Complete the sampler name section on the Chain-of-Custody and sign in the appropriate location. Enclose the Chain-of-Custody with the samples and if possible retain a photocopy.
- 9. Package the tubes and other items in the Shipment box, seal the box, and then send the samples via Express courier to Beacon Environmental at the address noted on the first page.



TECHNICAL MEMORANDUM

Updated: February 19, 2020

ChloroSorber™ - The Passive Sampler to Target Chlorinated Compounds in Air - Vinyl Chloride to Tetrachloroethene

Background

Beacon provides passive sorbent samplers internationally to accurately and reliably target volatile organic compounds (VOCs) in the indoor and ambient air. Beacon can analyze sorbent samplers with various adsorbents depending on which compounds are of concern; however, the performance of a sorbent tube with a select adsorbent preferred by Beacon was evaluated in a robust study completed by the Health and Safety Laboratory (HSL) in the United Kingdom and the validated uptake rates from that study are used to target a range of chlorinated compounds from vinyl chloride to tetrachloroethene (PCE).

Other passive samplers are known to use inexpensive and inferior adsorbents that are not appropriate for vinyl chloride and possibly the other more volatile compounds, resulting in false positives and at a minimum biased low results.¹ The ChloroSorber™ provided by Beacon overcomes these challenges and concerns.

Sampling Method

The passive sorbent tube sampler consists of a 6mm o.d. stainless steel tube packed with adsorbent with a demonstrated affinity for the target compounds. The tubes are shipped to the project site with Swagelok storage caps on both ends of the tubes. To sample air, the storage cap is removed from the sampling end of the tube and replaced with a diffusion cap that allows air to enter the tube and the VOCs present to be adsorbed onto the sorbent bed following the principles of diffusion. The sampler is suspended in the air by wire or string typically within the breathing zone. Following the sampling period, the diffusion cap is removed and replaced with the storage cap, which is tightened to be gas-tight for storage and transport. The sampler is returned to Beacon for analysis following analytical procedures described in U.S. EPA Method TO-17 and TO-15. The holding time from sample collection until analysis is 30 days.

Sampler Uptake Rates

In 2016, Beacon commissioned two consecutive studies at the Health and Safety Laboratory (HSL) in the United Kingdom. The studies set out to experimentally determine and validate the quantitative uptake rates of multiple passive samplers based on 7-, 14-, and 26-day exposure periods. Beacon Passive Samplers and sorbent tube samplers with various adsorbents were included in the studies.

The experiments were carried out in the HSL standard atmosphere generator based upon



procedures described in ISO 6145-4:2004². HSL is a renowned center of excellence for VOC sampling, and their methods for the determination of hazardous substances (MDHS) are the source of most of the published uptake rates in the relevant international standard methods (e.g., ISO 16017-2)³.

Quantitative uptake rates for 13 key chlorinated and aromatic VOCs were determined and verified for the passive samplers. In this six-replicate study, the devices showed excellent performance with great linearity and reproducibility. The uptake rates determined for the ChloroSorber to target chlorinated compounds from vinyl chloride to tetrachloroethene (PCE) are provided in **Table 1**.

Table 1: Validated Uptake Rates

COMPOUND	Uptake Rate (ml/min)
Vinyl Chloride	0.56
1,1-Dichloroethene	0.45
trans-1,2-Dichloroethene	0.70
1,1-Dichloroethane	0.74
cis-1,2-Dichloroethene	0.70
1,2-Dichloroethane	0.44
Trichloroethene	0.65
Tetrachloroethene	0.55

Analytical Method

The sorbent tube is analyzed using thermal desorption-gas chromatography/mass spectrometry (TD-GC/MS) instrumentation in accordance with the requirements of EPA Method TO-17 and TO-15. The masses measured of individual target compounds (in nanograms) are converted to a concentration (ug/m3) following the procedures and equations detailed in ISO 16017-2.

The equation below describes how the mass measured (nanograms) of individual compounds is multiplied by the dilution factor (if required), which is divided by the uptake rate (ml/min) and time of sample exposure (minutes) to calculate the time-weighted average concentration (ug/m3). Further, to provide the most accurate results, the uptake rates are corrected for the average temperature during the sampling period as compared to the average temperature when the uptake rates were verified during the HSL study.

The equations used to calculate the time-weighted average concentrations are provided below.

$$C = \frac{1000 \times M \times DF}{Uc \times t}$$

Uc = U x (
$$\frac{\text{Ts+273.15}}{\text{Tu+273.15}}$$
) $\frac{1}{2}$

Where: $C = concentration (ug/m^3)$

M = mass (ng) DF = dilution factor

Uc = uptake rate (ml/min), corrected

t = sampling time (minutes)

U = compound specific uptake rate
Ts = temperature - sampling period
Tu = temperature - uptake rate study

Table 2 provides the limits of quantitation (LOQs) for each of the chlorinated compounds with validated uptake rates based sampling periods from 8 hours to more than 3 weeks. The LOQ is at or above the low point of the initial calibration curve. In addition, results less than the LOQ but greater than the demonstrated limit of detection (LOD) may be reported as estimates and qualified with a "J" to achieve lower reporting limits.

Table 3 provides the limits of detection (LODs) for each of the chlorinated compounds. ■



Table 2: Limits of Quantitation (LOQs) based on Exposure Periods

COMPOUND	CAS	Uptake Rate (ml/min)	8 Hours	1 Day	3 Days	7 Days	14 Days	26 Days
			LOQ (ug/m3)	LOQ (ug/m3)	LOQ (ug/m3)	LOQ (ug/m3)	LOQ (ug/m3)	LOQ (ug/m3)
Vinyl Chloride	75-01-4	0.56	1.86	0.62	0.21	0.09	0.044	0.024
1,1-Dichloroethene	75-35-4	0.45	2.31	0.77	0.26	0.11	0.055	0.030
trans-1,2-Dichloroethene	156-60-5	0.70	1.49	0.50	0.17	0.07	0.035	0.019
1,1-Dichloroethane	75-34-3	0.74	1.41	0.47	0.16	0.07	0.034	0.018
cis-1,2-Dichloroethene	156-59-2	0.70	1.49	0.50	0.17	0.07	0.035	0.019
1,2-Dichloroethane	107-06-2	0.44	2.37	0.79	0.26	0.11	0.056	0.030
Trichloroethene	79-01-6	0.65	1.60	0.53	0.18	0.08	0.038	0.021
Tetrachloroethene	127-18-4	0.55	1.89	0.63	0.21	0.09	0.045	0.024

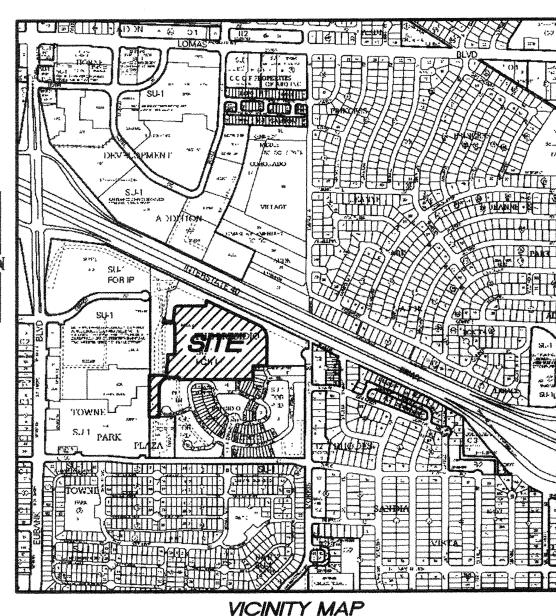
Table 3: Limits of Detection (LODs) based on Exposure Periods

		Uptake	8 Hours	1 Day	3 Days	7 Days	14 Days	26 Days
COMPOUND	CAS	Rate (ml/min)	LOD (ug/m3)	LOD (ug/m3)	LOD (ug/m3)	LOD (ug/m3)	LOD (ug/m3)	LOD (ug/m3)
Vinyl Chloride	75-01-4	0.56	0.74	0.25	0.08	0.04	0.018	0.010
1,1-Dichloroethene	75-35-4	0.45	0.93	0.31	0.10	0.04	0.022	0.012
trans-1,2-Dichloroethene	156-60-5	0.70	0.60	0.20	0.07	0.03	0.014	0.008
1,1-Dichloroethane	75-34-3	0.74	0.56	0.19	0.06	0.03	0.013	0.007
cis-1,2-Dichloroethene	156-59-2	0.70	0.60	0.20	0.07	0.03	0.014	0.008
1,2-Dichloroethane	107-06-2	0.44	0.95	0.32	0.11	0.05	0.023	0.012
Trichloroethene	79-01-6	0.65	0.64	0.21	0.07	0.03	0.015	0.008
Tetrachloroethene	127-18-4	0.55	0.76	0.25	0.08	0.04	0.018	0.010

¹ Karstoft, J., Mortensen, P. Measurement for Vinyl Chloride in Indoor Climate. NIRAS/Region Midtjylland, Denmark. November 13, 2018.

² ISO 6145-4:2004 Gas analysis — Preparation of calibration gas mixtures using dynamic volumetric methods — Part 4: Continuous syringe injection method ³ ISO 16017-2, Indoor, ambient and workplace air – Sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas chromatography – Part 2: Diffusive Sampling, 2003.

ATTACHMENT 2 VICINITY AND SITE MAP WITH LEGAL DESCRIPTION



NOT TO SCALE

KEYED EASEMENTS

- 1 Private Access Easement per Plat Filed 5-1-2001, Volume 2001C, Folio 124.
- Public Sanitary Sewer Easement per Plat Filed 5-1-2001, Volume (2) Public Sanitary Se 2001C, Folio 124.
- 7' Public Utility Easement per Plat Filed 5-1-2001, Volume
- Public Utility Easement per Plat Filed 5-1-2001, Volume 2001C, Folio 124.
- 10' Public Service Company of New Mexico Easement per Document 5) Filed 5-12-1971, Book Misc. 213, Page 816-817.
- 6 Ingress, Egress and Utilities Easement per Document Filed 10-24-2000, Book A11, Page 4868.
- Permanent Easement for Public Storm Sewer and Waterline per Document Filed 12-29-2000, Book A13, Page 7742.
- 8 20' Public Sanitary Sewer Easement granted to the City of Albuquerque per Plat Filed 3-19-2007, Volume 2007C, Folio 69.
- 9 25' Public Sanitary Sewer and Waterline Easement per Plat Filed 3-19-2007, Volume 2007C, Folio 69.
- 20' Private Storm Drain Easement per Plat Filed 3-19-2007, Volume 2007C, Folio 69.
- 15' Private Storm Drain Easement per Plat Filed 3-19-2007, Volume 2007C, Folio 69.
- Private Easement for Vehicular, Pedestrian Access and Underground Utilities per Document Filed 10-20-2006, Book A126,
- 10' Public Utility Easement per Plat Filed 10-10-2008, Volume 2008C, Folio 224.
- 35' x 15' Public Water Meter Easement granted to the (14) Albuquerque Bernalillo County Water Utility Authority per Plat Filed 10-10-2008, Volume 2008C, Folio 224.
- 10.5' portion of 75' Drainage and Utility Easement as shown on survey prepared by New Mexico Surveying Company Filed 3-17-97, Volume 97S, Folio 25.
- 10.5' portion of 20' Permanent Easement for Public Waterline per Document Filed 12-29-2000, Book A13, Page 7743.
- Mutual Access and Parking Easement per Document filed 5-1-2001, Book A18, Page 8538, and refiled 6-7-2001, Book A20, Page 4474.

FLOOD ZONE DETERMINATION

The subject property (as shown hereon) lies within Zone "X" (areas determined to be outside 0.2% annual chance flood plain) in accordance with the National Flood Insurance Program Rate Map No. 35001C0359 G, Effective Date September 26, 2008.

LEGAL DESCRIPTION - TRACT 5. COPPER POINTE SUBDIVISION

That certain parcel of land situate within Section 21, Township 10 North, Range 4 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico, comprising all of Tract 5, Copper Pointe Subdivision, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on October 10, 2008, in Volume 2008C, Folio 224, and being more particularly described by survey performed by Russ P. Hugg, New Mexico Professional Surveyor Number 9750 using New Mexico State Plane Grid Bearings (Central Zone - NAD 83) and ground distances as

Beginning at the Southeast corner of the parcel herein described, said point being the Southwest corner of Tract 4, Copper Pointe Subdivision, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on October 10, 2008, in Volume 2008C, Folio 224, and also being on the Northerly boundary line of The Presidio, Unit 2, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on June 7, 2007, in Volume 2007C, Folio 158, from whence the Albuquerque Control Survey Station "14-J22" bears N 46'31'34" E, 4247.26 feet distant; Thence along said Northerly boundary line of The Presidio, Unit 2, for the following seven (7) courses,

N 89'46'13" W, 131.86 feet to a point; Thence, S 0013'47" W, 130.00 feet to a point; Thence,

N 89'46'13" W. 696.06 feet to a point; Thence,

N 00°13'47" E,

Southwesterly,

S 00'14'09" W.

N 89°45'30" W,

N 0014'09" E,

N 89'46'13" W, 85.15 feet to a point of curvature; Thence,

20.00 feet to a point; Thence,

157.07 feet on the arc of a curve to the left (said curve having a radius of 100.00 feet, a central angle of 89*59'38" and a chord which bears S45"13'58" W, 141.41 feet) to a point of tangency; Thence,

275.32 feet to a point, said point being on the Northerly boundary line of Lot 4A, Towne Park Plaza, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on January 29, 2001, in Volume 2001C, Folio 36; Thence,

96.00 feet along said Northerly boundary line of said Lot 4A, Towne Park Plaza, to the Southwest corner of the parcel herein described, said point being the Northwest corner of said Lot 4A, Towne Park Plaza, and also being on the Easterly boundary line of Tract B-3A-1, Towne Park Plaza, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on January 29, 2001, in Volume 2001C, Folio 36; Thence,

395.29 feet to a point, said point being on the Westerly boundary line of Tract B-ZA-1, Towne Park Plaza, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on July 9, 2003, in Volume 2003C, Folio 204, and also being a point on the Southerly boundary line of Tract B-1A-1, Towne Park Plaza, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on July 9, 2003, in Volume 2003C, Folio 204; Thence,

162.51 feet along said Southerly boundary line of Tract B-1A-1, Towne Park Plaza, to a S 89'46'13" E, point, said point being the Southeast corner of said Tract B-1A-1, Towne Park Plaza; Thence along the Easterly boundary line of said Tract B-1A-1, Towne Park Plaza, for the following eight (8) courses,

78.04 feet to a point of curvature; Thence, N 0043'34" E, Northeasterly,

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SHEET 2 OF 12

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19.64 feet on the arc of a curve to the right (said curve having a radius of 38.00 feet, a central angle of 29°36'52" and a chord which bears N15°02'00" E, 19.42 feet) to a point of reverse curvature; Thence,

SHEET 4 OF 12 Site Information and easements

SHEET 9 OF 12 Reserved Development Rights Area

SHEET 8 OF 12 Horizontal Unit Boundaries

SHEET 1 OF 12 Legal Description, General Notes, Easement Legend...

First Floor Unit Information

Horizontal Unit Boundaries

SHEET 12 OF 12 Oversized Vehicle Access and Chico Access

Second Floor Unit Information

SHEET 10 OF 12 Reserved Development Rights Area— Lower Level Area

SHEET 11 OF 12 Reserved Development Rights Area-Upper Level and Walkway Area

Amended Reserved Development rights legal description

Amended Reserved Development rights legal description

Doc# 2012098089

09/21/2012 10:39 AM Page: 1 of 12 CONDO R:\$25.00 M. Toulouse Oliver, Bernalillo County

Northeasterly. 25.83 feet on the arc of a curve to the left (said curve having a radius of 50.00 feet, a central angle of 29°35'47" and a chord which bears N15°02'33" E, 25.54 feet) to a point of tangency; Thence,

N 0014'39" E, 71.73 feet to a point; Thence,

S 89°45'30" E, 63.93 feet to a point; Thence,

N 00°14'39" E, 294.21 feet to a point; Thence,

N 89'45'21" W, 109.92 feet to a point on curve; Thence,

Northeasterly,

48.05 feet on the arc of a curve to the left (said curve having a radius of 538.59 feet, a central angle of 05°06'42" and a chord which bears N16'47'39" E, 48.04 feet) to a point of non-tangent compound curvature and Northwest corner of the parcel herein described, said point being on the Westerly boundary line of Tract 1, Copper Pointe Subdivision, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on October 10, 2008, in Volume 2008C, Folio 224; Thence along the Southerly boundary line of said Tract 1, Copper Pointe Subdivision, for the following six (6) courses,

45.38 feet on the arc of a curve to the left Southeasterly, (said curve having a radius of 25.00 feet, a central angle of 103°59'39" and a chord which bears \$37.45'31" E, 39.40 feet) to a point of tangency; Thence,

47.35 feet to a point of curvature; Thence, S 89'45'21" E,

17.47 feet on the arc of a curve to the left Northeasterly, (said curve having a radius of 15.00 feet, a central angle of 66°44'04" and a chord which bears N56°52'37" E, 16.50 feet) to a point of tangency; Thence,

N 04°22'54" E, 105.27 feet to a point of curvature; Thence,

44.93 feet on the arc of a curve to the right Northeasterly, (said curve having a radius of 30.00 feet, a central angle of 85°48'09" and a chord which bears N4716'59" E, 40.84 feet) to a

269.13 feet to a point, said point being the S 89'48'57" E, Southeast corner of said Tract 1, Copper Pointe Subdivision; Thence along the Easterly

point of tangency; Thence,

boundary line of said Tract 1, Copper Pointe Subdivision, for the following two (2) courses.

N 00'11'03" E, 38.00 feet to a point; Thence,

N 24°57'56" E, 12.83 feet to a point, said point being on the Southerly boundary line of said Tract 4, Copper Pointe Subdivision; Thence along said Southerly boundary line of said Tract 4, Copper Pointe Subdivision, for the following three (3) courses,

S 64°51'04" E. 545.44 feet to a point of curvature; Thence,

147.66 feet on the arc of a curve to the Southeasterly, right (said curve having a radius of 130.00 feet, a central angle of 65°04'51" and a chord which bears \$321838" E, 139.85

S 0013'47" W, 256.48 feet to the point of beginning of the parcel herein described.

Said parcel contains 13.5261 acres (589,197 square feet), more or

feet) to a point of tangency; Thence,

FIRST AMENDMENT TO AMENDED AND RESTATED CONDOMINIUM PLAT OF

COPPER POINTE CONDOMINIUM COMPRISING ALL OF

TRACT 5 COPPER POINTE SUBDIVISION SITUATE WITHIN

SECTION 21, TOWNSHIP 10 NORTH, RANGE 4 EAST NEW MEXICO PRINCIPAL MERIDIAN CITY OF ALBUQUERQUE BERNALILLO COUNTY, NEW MEXICO

GENERAL NOTES

Bearings are New Mexico State Plane Grid Bearings (Central Zone - NAD 83) originated at the Albuquerque Control Survey Station "14-J22"

SEPTEMBER 2012

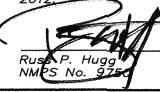
- Distances are ground.
- Vertical Datum is based upon the Albuquerque Control Survey Station "14-J22", Elevation = 5576.441 (NAVD 1988)
- Supplemental Field surveys of the building interior were performed during the month's of May, June and November, 2011.
- Documents used in the preparation of this survey:
 - Plat entitled "PLAT OF COPPER POINTE SUBDIVISION, BEING A REPLAT OF TRACT B, THE PRESIDIO, WITHIN SECTION 21, TOWNSHIP 10 NORTH, RANGE 4 EAST, NEW MEXICO PRINCIPAL MERIDIAN, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, FEBRUARY, 2008", filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on October 10, 2008, in Volume 2008Č, Folio 224.
 - Amended and Restated Condominium Plat entitled "AMENDED AND RESTATED CONDOMINIUM PLAT OF COPPER POINTE CONDOMINIUM, COMPRISING ALL OF TRACT 5. COPPER POINTE SUBDIVISION SITUATE WITHIN SECTION 21, TOWNSHIP 10 NORTH, RANGE 4 EAST, NEW MEXICO PRINCIPAL MERIDIAN, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on July 27, 2010, as Document Number 2010075208.
 - Amended and Restated Condominium Declaration for Copper Pointe Condominium, filed for record on July 30, 2010, as Document No. 2010076902, records of Bernalillo County, New Mexico (Restated Condominium Declaration).
 - First Amendment to Amended and Restated Condominium Declaration for Copper Pointe Condominium, filed for record concurrently herewith (First Amendment to the Restated Condominium Declaration).
 - Title Report prepared for this property by Commonwealth Land Title,Insurance Company Commitment for Title Insurance No. 6218004410, dated July 6, 2010.
- Unit square footages for Units I and J were computed from building plans provided by Rick Bennett Architects. The Units are defined by horizontal and vertical planes only.
- This First Amendment amends the Amended and Restated Condominium Plat for the purpose of subdividing Unit A into Unit A-1, Unit I and Unit J, increasing the size of Unit D, now identified as Unit D-1 and allocating appurtenant Common Elements and Limited Common Elements. The Condominium now consists of ten (10) Units identified as Unit A-1, Unit B, Unit C, Unit D-1, Unit E, Unit F, Unit G, Unit H, Unit I and Unit J. This First Amendment also describes the Development Rights Area identified as "RDR Lower Level Area", "RDR Upper Level Area" "RDR Walkway Area".

SURVEYOR'S CERTIFICATION

I, Russ P. Hugg, New Mexico Professional Surveyor Number 9750, hereby certify that this Amended and Restated Condominium Plat replaces all prior Plats and was prepared from an actual ground survey performed by me or under my supervision; that I am responsible for this survey; that this survey is true and correct to the best of my knowledge and belief; and that this Amended and Restated Condominium Plat and the field survey upon which it is based meet the Minimum Standards for Surveying in New Mexico and contains all the information required by Section 47-7B-9, N.M.S.A. 1978, and that this Amended and Restated Condominium Plat is not a land division or subdivision as defined in the New Mexico Subdivision Act and is a survey of one existing tract. IN WITNESS WHEREOF, this certificate is executed at Albuquerque, New Mexico, on this 18th day of September,

9384 Valley View Drive N.W. Albuquerque, New Mexico 87114 Fax: 505-897-3377

Phone: 505-897-3366



Consulting Surveyors

110248_9-18-12. DWG

SHEET 1 OF 12

P R O F ...

OHALSON

SATEON

No.

9750 O

100 P. HUGOS

LEGAL DESCRIPTION - RESERVED DEVELOPMENT RIGHTS AREA (RDR AREA)

That certain parcel of land situate within Section 21, Township That certain parcel of land situate within Section 21, Iownship 10 North, Range 4 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico, comprising all of Tract 5, Copper Pointe Subdivision, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on October 10, 2008, in Volume 2008C, Folio 224, and being more particularly described by survey performed by Russ P. Hugg, New Mexico Professional Surveyor Number 9750 using New Mexico State Plane Grid Regrings (Central Zone — NAD 83) and ground distances as Grid Bearings (Central Zone - NAD 83) and ground distances as

Beginning at the Southeast corner of the parcel herein described, said point being the Southwest corner of Tract 4, Copper Pointe Subdivision, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on October 10, 2008, in Volume 2008C, Folic 224, and also being on the Northerly boundary line of The Presidio, Unit 2, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on June 7, 2007, in Volume 2007C, Folio 158, from whence the Albuquerque Control Survey Station "14-J22" bears N 46'31'34" E, 4247.26 feet distant; Thence along said Northerly boundary line of The Presidio, Unit 2, for

the following seven (7) courses, N 89'46'13" W, 131.86 feet to a point; Thence, S 00°13'47" W. 130.00 feet to a point: Thence, N 89'46'13" W, 696.06 feet to a point; Thence,

S 89°46'13" E,

N 0073'34" E.

S 89°45'30" E,

Northeasterly,

N 0073'47" E, 20.00 feet to a point; Thence,

N 89'46'13" W. 85.15 feet to a point of curvature; Thence, 157.07 feet on the arc of a curve to the left Southwesterly.

(said curve having a radius of 100.00 feet, a central angle of 89*59'38" and a chord which bears \$4573'58" W, 141.41 feet) to a point of tangency; Thence,

S 0074'09" W. 275.32 feet to a point, said point being or the Northerly boundary line of Lot 4A, Towne Park Plaza, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on January 29, 2001, in Volume 2001C, Folio 36; Thence,

96.00 feet along said Northerly boundary line of said Lot 4A, Towne Park Plaza, to the Southwest corner of the parcel herein N 89'45'30" W, described, said point being the Northwest corner of said Lot 4A, Towne Park Plaza, and also being on the Easterly boundary line of Tract B-3A-1, Towne Park Plaza, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernaillio County, New Mexico, on January 29, 2001, in Volume 2001C, Folio 36; Thence,

N 0074'09" E, 395.29 feet to a point, said point being on the Westerly boundary line of Tract B—2A—1, Towne Park Plaza, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on July 9, 2003, in Volume 2003C, Folio 204, and also being a point on the Southerly boundary line of Trac B-1A-1, Towne Park Plaza, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on July 9, 2003, in Volume 2003C, Folio 204; Thence,

162.51 feet along said Southerly boundary line of Tract B-1A-1, Towne Park Plaza, to a point, said point being the Southeast corner of said Tract B-1A-1, Towne Park Plaza; Thence along the Easterly boundary line of said Tract B-1A-1, Towne Park Plaza, for the following eight (8) courses.

78.04 feet to a point of curvature; Thence, 19.64 feet on the arc of a curve to the right (said curve having a radius of 38.00 feet, a central angle of 29'36'52" and a chord which bears N15'02'00" E, 19.42 feet) to a point of reverse curvature; Thence,

25.83 feet on the arc of a curve to the left Northeasterly, (said curve having a radius of 50.00 feet, a central angle of 29'35'47" and a chord which bears N15'02'33" E, 25.54 feet) to a

63.93 feet to a point; Thence,

point of tangency: Thence. N 00"14'39" E, 71.73 feet to a point; Thence,

N 00°14'39" E. 294.21 feet to a point; Thence, N 89"45'21" W. 109.92 feet to a point on curve; Thence

48.05 feet on the arc of a curve to the left Northeasterly. (said curve having a radius of 538.59 feet, a central angle of 05°06'42" and a chord bears N16'47'39" E, 48.04 feet) to point of non-tangent compound curvature and Northwest corner of the parcel herein described, said point being on the Westerly boundary line of Tract 1, Copper Pointe Subdivision, as the same is shown and designated on said plat filed for record the office of the County Clerk of Bernaillo County, New Mexico, on October 10, 2008, in Volume 2008C, Folio 224; Thence along the

six (6) courses, Southeasterly, 45.38 feet on the arc of a curve to the left (said curve having a radius of 25.00 feet, a central angle of 103°59'39" and a chord which bears \$37.45'31" E, 39.40 feet) to a

Southerly boundary line of said Tract 1,

Copper Pointe Subdivision, for the following

point of tangency; Thence, S 89'45'21" E. 47.35 feet to a point of curvature; Thence,

17.47 feet on the arc of a curve to the left Northeasterly, (said curve having a radius of 15.00 feet. a central angle of 66°44'04" and a chord which bears N56'52'37" E, 16.50 feet) to a point of tangency; Thence,

105.27 feet to a point of curvature: Thence, N 04'22'54" E.

44.93 feet on the arc of a curve to the right Northeasterly, (said curve having a radius of 30.00 feet. a central angle of 85°48'09" and a chord which bears N4776'59" E, 40.84 feet) to a

S 89°48'57" E, 269.13 feet to a point, said point being the Southeast corner of said Tract 1, Copper Pointe Subdivision; Thence along the Easterly boundary line of said Tract 1, Copper Pointe Subdivision, for the following two (2)

N 0071'03" E, 38.00 feet to a point; Thence, N 24'57'56" E, 12.83 feet to a point, said point being on the Southerly boundary line of said Tract 4, Copper Pointe Subdivision; Thence along said Southerly boundary line of said Tract 4, Copper Pointe Subdivision, for the following

three (3) courses,

S 64"51'04" E, 545.44 feet to a point of curvature; Thence, 147.66 feet on the arc of a curve to the Southeasterly, right (said curve having a radius of 130.00 feet, a central angle of 65'04'51" and a chord which bears S32'18'38" E, 139.85

feet) to a point of tangency; Thence, S 0073'47" W. 256.48 feet to the point of beginning of the

Said parcel contains 13.5261 acres gross (589,197 square feet gross), more or less.

LESS AND EXCEPT

That certain parcel of land situate within Section 21, Township 10 North, Range 4 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico, comprising the land encompassed by the ground level exterior face of the building known as Copper Pointe Condominium, being a portion of Tract 5, Copper Pointe Subdivision, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on October 10, 2008, in Volume 2008C, Folio 224, and being more particularly described by survey performed by Russ P. Hugg, New Mexico Professional Surveyor Number 9750 using New Mexico State Plane Grid Bearings (Central Zone - NAD 83) and ground distances rounded to one tenth of a

Beginning at the Southeast corner of the parcel herein described, from whence the Southeast corner of said Tract 5, Copper Pointe Subdivision bears N 87'09'44" E, 323.88 feet distant; Thence,

N 89'46'29" W. 503.8 feet to a point; Thence, S 0072'23" W, 39.7 feet to a point; Thence, N 89'44'31" W. 78.8 feet to the Southwest corner of the parcel herein described; Thence, N 0076'27" E. 62.9 feet to a point; Thence,

S 89'45'37" E, 77.0 feet to a point; Thence, N 0072'23" E. 139.7 feet to a point; Thence, S 89'47'37" E. 20.7 feet to a point; Thence,

N 00°03'44" E, 9.5 feet to a point; Thence, S 89'47'37" E, 0.8 feet to a point: Thence. 23.3 feet to a point: Thence. N 00°03'44" E. S 89"56'16" E, 0.8 feet to a point: Thence,

N 00'03'44" E. 5.2 feet to a point; Thence, N 89'56'16" W. 21.2 feet to a point; Thence, N 0077'59" E. 79.3 feet to a point; Thence,

S 89°42'01" E, 0.5 feet to a point; Thence, 86.3 feet to the Northwest corner of the N 00'08'39" E,

parcel herein described; Thence, S 89'45'40" E. 86.4 feet to a point; Thence, S 00'22'00" W, 1.3 feet to a point: Thence, S 89'38'00" E, 18.8 feet to a point; Thence, S 00'08'22" W, 21.4 feet to a point: Thence.

S 89'39'11" E, 12.8 feet to a point; Thence, S 00'08'22" W, 0.8 feet to a point; Thence, S 89'39'11" E. 32.6 feet to a point; Thence, N 00'20'49" E, 22.3 feet to a point; Thence,

S 89'39'11" E, 18.8 feet to a point; Thence, N 00'20'49" E, 1.5 feet to a point; Thence, S 89'39'11" E, 85.4 feet to a point; Thence,

S 89"26'53" E, 48.4 feet to a point; Thence N 0074'42" E, 0.7 feet to a point: Thence. S 89°45'18" E. 2.0 feet to a point: Thence.

S 0074'42" W. 0.7 feet to a point: Thence S 89°45'18" E, 49.5 feet to a point; Thence, N 0074'42" E. 0.7 feet to a point: Thence. S 89°45'18" E, 2.0 feet to a point: Thence.

S 0074'42" W, 0.7 feet to a point; Thence, S 89°45'18" E, 48.0 feet to a point; Thence, N 0074'42" E. 0.7 feet to a point: Thence.

S 89'45'18" E. 2.0 feet to a point; Thence, S 0014'42" W. 0.7 feet to a point: Thence.

S 89°45'18" E. 48.0 feet to a point; Thence, N 0074'42" E, 0.7 feet to a point; Thence, S 89°45′18" E, 2.0 feet to a point; Thence

S 0014'42" W, 0.7 feet to a point; Thence, S 89'45'18" E, 1.2 feet to a point; Thence, S 0074'42" W. 7.1 feet to a point: Thence,

S 89°45′18" E, 0.9 feet to a point; Thence, 12.4 feet to a point; Thence,

S 37'35'10" W, 0.6 feet to a point; Thence, S 52'24'50" E, 28.1 feet to a point; Thence, N 37'35'10" E, 0.6 feet to a point; Thence, S 52'24'50" E, 12.3 feet to a point; Thence,

S 22'38'08" E, 0.6 feet to a point; Thence, S 89°47'29" E, 6.6 feet to a point; Thence, 1.2 feet to a point; Thence, S 00'21'43" W,

S 89°38'17" E, 0.7 feet to a point; Thence, S 00°21'43" W. 2.0 feet to a point; Thence, N 89'38'17" W. 0.7 feet to a point: Thence.

S 89'38'17" E, 0.7 feet to a point; Thence, 2.0 feet to a point: Thence. S 00'21'43" W. 0.7 feet to a point; Thence, N 89'38'17" W,

S 00°21'43" W. 38.1 feet to a point; Thence,

S 00°21'43" W.

S 89'38'17" E, 0.7 feet to a point; Thence,

39.5 feet to a point; Thence,

S 00°21'43" W, 2.0 feet to a point; Thence,

N 89'38'17" W. 0.7 feet to a point: Thence. S 00°21'43" W. 1.2 feet to a point; Thence,

N 89'41'03" W. 21.8 feet to a point: Thence S 0012'42" W, 3.0 feet to a point; Thence,

0.7 feet to a point: Thence. N 89'41'03" W.

S 0012'42" W. 28.0 feet to a point: Thence. S 89°43'35" E, 0.7 feet to a point; Thence,

S 0072'42" W, 3.1 feet to a point; Thence,

S 89°43'35" E. 21.8 feet to a point; Thence 1.3 feet to a point: Thence.

0.7 feet to a point: Thence. S 89'42'46" E.

S 0077'14" W, 2.0 feet to a point; Thence, N 89'42'46" W. 0.7 feet to a point: Thence.

40.1 feet to a point; Thence, S 0017'14" W,

S 89'42'46" E. 0.5 feet to a point; Thence, S 0071'56" W, 25.6 feet to a point; Thence,

N 89'48'04" W. 1.5 feet to a point; Thence, S 0071'56" W, 115.2 feet to a point; Thence,

S 89'46'43" E,

22.3 feet to the point of beginning of the S 0073'17" W.

0.4 feet to a point; Thence,

Said parcel contains 4.2804 acres (186,454 square feet), more or

LESS THAN EXCEPTING THE FOLLOWING DESCRIBED PARCEL:

That certain parcel of land situate within Section 21, Township 10 North, Range 4 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico, comprising the land containing the volley ball courts for Units D and G being a portion of Tract 5, Copper Points Subdivision as the same is shown and designated on the plat thereof, filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on October 10, 2008 in Volume 2008C, Folio 224 more particularly described by survey performed by Russ P. Hugg, New Mexico Professional Surveyor Number 9750 using New Mexico State Plane Grid Bearings (Central Zone - NAD 83) and ground distances as follows:

Beginning at the Southeast corner of the parcel herein described, whence the Southeast corner of said Tract 5, Copper Pointe
Subdivision, as the same is shown and designated on said plat filed
for record in the office of the County Clerk of Bernalillo County,
New Mexico, on October 10, 2008, in Volume 2008C, Folio 224, and
also being an angle point in the Northerly boundary line of The
Presidio, Unit 2, as the same is shown and designated on said plat
filed for record in the office of the County Clerk of Bernalillo filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on June 7, 2007, in Volume 2007C, Folio 158 bears S 86° 18' 51" E, 596.31 feet distant; Thence,

N 89' 48' 48" W , 84.00 feet to the Southwest corner of the parcel herein described; Thence,

N 00° 11' 12" E , 72.00 feet to the Northwest corner of the

parcel herein described; Thence, S 89° 48' 48" E , 98.00 feet to the Northeast corner of the parcel herein described; Thence,

S 00° 11' 12" W , 14.00 feet to a point; Thence, N 89° 48' 48" W , 14.00 feet to a point; Thence,

S 00° 11' 12" W, 58.00 feet to the point of beginning of the parcel herein described. Said parcel contains 0.1433 acres (6,242 square feet), more or less.

AND LESS THAN EXCEPTING THE FOLLOWING DESCRIBED PARCEL:

That certain parcel of land situate within Section 21, Township 10 North, Range 4 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico, comprising the land containing the parking area north of the existing building, being a Northerly portion of Tract 5, Copper Points Subdivision as the same is shown and designated on the plat thereof, filled for record in the office of the County Clerk of Bernalillo County, New Mexico, on October 10, 2008 in Volume 2008C. Folio 224 more particularly described by survey performed by Russ P. Hugg, New Mexico Professional Surveyor Number 9750 using New Mexico State Plane Grid bearings and ground distances as follows:

Beginning at the Southwest corner of the parcel herein described, a point on the Westerly line of said Tract 5 whence the Southeast corner of said Tract 5, Copper Pointe Subdivision, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on October 10, 2008, in Volume 2008C, Folio 224, and also being an angle point in the Northerly boundary line of The Presidio, Unit 2, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on June 7, 2007, in Volume 2007C, Folio 158 bears \$56.47.25 E, 881.18 feet distant; Thence,

N 00° 14′ 38" E , 47.82 feet to a point; Thence,

N 89° 45' 21°W, 109.92 feet to a non-tangent point on curve; Thence, Northeasterly , 48.05 feet on the arc of a curve to the left (said curve having a radius of 538.59 feet, a central angle of 05° 06′ 42″ and a chord which bears N 16° 47′ 39″ E, 48.04 feet) to a point of non-tangent

45.38 feet on the arc of a curve to the left (said curve having a radius of 25.00 feet, a central angle of 103° 59' 39" and a chord which bears \$ 37° 45' Southeasterly . 31"E, 39.40 feet)to a point of tangency; Thence,

S 89" 45' 21"E , 47.35 feet to a point of curvature; Thence,

, 17.47 feet on the arc of a curve to the left (said curve having a radius of 15.00 feet, a central angle of 66° 44' 04" and a chord which bears N 56° 52' Northeasterly 37"E, 16.50 feet) to a point of tangency; Thence,

N 04° 22' 54"E, 105.27 feet to a point to a point of curvature;

44.93 feet on the arc of a curve to the right (said curve having a radius of 30.00 feet, a central angle of 85° 48' 09" and a chord which bears N 47° 16' 59"E, 40.84 feet) to a point of tangency; Thence, Northeasterly

S 89° 48' 57"E , 269.13 feet to a point; Thence, N 00° 11' 03"E , 38.00 feet to a point; Thence,

FIRST AMENDMENT TO AMENDED AND RESTATED CONDOMINIUM PLAT OF

COPPER POINTE CONDOMINIUM COMPRISING ALL OF

TRACT 5 COPPER POINTE SUBDIVISION

SECTION 21. TOWNSHIP 10 NORTH. RANGE 4 EAST NEW MEXICO PRINCIPAL MERIDIAN CITY OF ALBUQUERQUE BERNALILLO COUNTY, NEW MEXICO

SEPTEMBER 2012

SITUATE WITHIN

N 24° 57' 56"E , 12.83 feet to a point; Thence,

S 64° 51' 04"E, 545.44 feet to a point; Thence,

44.15 feet on the arc of a curve to the right (said curve having a radius of 130.00 feet, a central angle of 19° 27' 41" and a chord which bears \$ 55° 07' 13" E, 43.94 feet) to a non-tangent point on curve and the Southeast corner of the parcel herein described. Thence described: Thence,

N 89° 45' 18"W, 831,97 feet to the point of beginning of the parcel herein described.

Said parcel contains 3.0812 acres (134,218 square feet), more or less.

The Reserved Development Rights Area as described above now contains 6.0212 acres net (262,283 square feet net).

RESERVED DEVELOPMENT RIGHTS

- Right to subdivide any Unit created into additional Units of a size less than the Minimum Unit Size (as defined in the Restated Condominium Declaration), with or without appurtenant Limited Common Elements.
- Right to create Units by combining Units owned by Declarant by relocation of Unit boundaries between existing Units.
- Right to convert any Unit previously created into Common Elements.
- Right to create an additional five (5) Units on the Condominium Property, within portions of the building located on the Condominium Property owned by Declarant and identified on the Plat and Plans attached as RDR Lower Level Area, with or without appurtenant Limited Common Elements and Common Elements.
- Right to create on all or a portion of the Real Estate described as RDR Area up to five (5) additional Units.
- Right to create on all or a portion of the Real Estate described as RDR Walkway Area up to five (5) additional Units to be combined with Unit F or Unit G, or both Unit F and Unit G.
- 7. Right to create an additional five (5) Units on the Condominium Property, within portions of the building located on the Condominium Property owned by Declarant and identified on the Plat and Plans attached as RDR Upper Level Area, with or without appurtenant Limited Common Elements and Common Elements.
- 8. Right to create Common Elements to be used for storage or other uses within any portion of the Condominium Property.
- 9. Right to withdraw all or a portion of the Real Estate described as RDR Area from the Condominium.
- 10. Right to add all or any portion of the real property known as "Tract 1", "Tract 2", "Tract 3" and "Tract 4" as shown on the plat of survey titled: "COPPER POINTE SUBDIVISION (Being a Replat of Tract B, The Presidio), situate within Section 21, Township 10 North, Range 4 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico . . . ", filed in the office of the County Clerk of Bernalillo County, New Mexico on October 10, 2008, in Book 2008C, Page 0224, as Document No. 2008111348 to the Condominium and to create up to twenty—five (25) additional Units or create Common Elements or Limited Common Elements or any combination thereof.
- 11. Right to make improvements in any Limited Common Element in the form of the construction of portals, patios, walls, fences, storage facilities or areas and other improvements.



SHEET 2 OF 12

Consulting Surveyors

Phone: 505-897-3366 9384 Valley View Drive N.W. Albuquerque, New Mexico 87114 Fax: 505-897-3377

FIRST AMENDMENT TO AMENDED AND RESTATED CONDOMINIUM PLAT OF

COPPER POINTE CONDOMINIUM COMPRISING ALL OF

TRACT 5 COPPER POINTE SUBDIVISION SITUATE WITHIN

SECTION 21. TOWNSHIP 10 NORTH, RANGE 4 EAST NEW MEXICO PRINCIPAL MERIDIAN CITY OF ALBUQUERQUE

BERNALILLO COUNTY, NEW MEXICO SEPTEMBER 2012

LEGAL DESCRIPTION

RESERVED DEVELOPMENT RIGHTS AREA (RDR WALKWAY AREA)

That certain parcel of land situate within Section 21, Township 10 North, Range 4 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico, comprising the area containing the Second Story Walkway adjacent to and South of Unit F, being a portion of Tract 5, Copper Pointe Subdivision as the same is shown and designated on the plat thereof filed for record in the office of the County Clerk of Bernalillo County, New Mexico on October 10, 2008 in Volume 2008C, Folio 224 more particularly described by survey performed by Russ P. Hugg, New Mexico Professional Surveyor Number 9750 using New Mexico State Plane Grid bearings and ground distances as follows:

Beginning at the Northeast corner of the parcel herein described, said point being a point on the Southerly line of said Unit F whence the Southeast corner of said Tract 5, Copper Pointe Subdivision bears S 55° 56' 15" E, 710.84 feet distant; Thence,

S 00° 25' 00" W , 6.3 feet to a point; Thence,

N 89° 56' 38"W, 47.9 feet to a point; Thence,

S 00° 11' 15"W , 89.9 feet to a point; Thence,

N 89° 56' 16"W, 6.2 feet to a point; Thence,

N 00° 10' 03"E, 1.0 feet to a point; Thence,

N 89° 49' 58"W . 5.3 feet to a point: Thence.

N 00° 10' 03"E , 8.6 feet to a point; Thence,

S 89* 49' 56"E, 4.7 feet to a point; Thence,

N 00° 10' 03"E, 6.0 feet to a point; Thence,

N 00° 11' 15"E , 80.6 feet to a point; Thence,

S 89° 52' 23"E, 54.67 feet to to the point of beginning of the parcel herein described.

Said parcel contains 992 square feet, more or less.

LEGAL DESCRIPTION

RESERVED DEVELOPMENT RIGHTS AREA (RDR LOWER LEVEL AREA)

That certain parcel of land situate within Section 21, Township 10 North, Range 4 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico, comprising the First Floor Area lying between Units J, I and D-1, being a portion of Tract 5, Copper Pointe Subdivision as the same is shown and designated on the plat thereof filed for record in the office of the County Clerk of Bernalillo County, New Mexico on October 10, 2008 in Volume 2008C, Folio 224 more particularly described by survey performed by Russ P. Hugg, New Mexico Professional Surveyor Number 9750 using New Mexico State Plane Grid bearings and ground distances as follows:

Beginning at the Northwest corner of said Unit A-1 also being the Northeast corner of said Unit J whence the Southeast corner of said Tract 5, Copper Pointe Subdivision bears S 48' 44' 46"E, 529.44 feet distant; Thence,

S 89° 45' 18"E , 26.0 feet to a point; Thence,

S 00° 14' 42" W , 6.9 feet to a point; Thence,

S 89° 45' 18"E , 1.3 feet to a point; Thence,

S 52° 24' 50"E , 12.0 feet to a point; Thence,

N 37° 35' 10"E, 0.2 feet to a point; Thence,

S 52° 24' 50"E, 28.1 feet to a point; Thence,

S 37° 35' 10" W , 0.2 feet to a point; Thence, S 52° 24' 50"E, 12.0 feet to a point; Thence,

S 22° 38' 08"E, 0.7 feet to a point; Thence,

S 89° 47' 29"E, 6.1 feet to a point; Thence,

S 00° 21' 43"W, 84.4 feet to a point; Thence, S 00° 12' 42"W, 3.8 feet to a point; Thence,

\$ 89° 41' 03"E , 0.4 feet to a point; Thence,

S 00° 12' 42"W , 28.0 feet to a point; Thence,

N 89° 43' 55"W, 0.4 feet to a point; Thence,

S 00° 12' 42"W , 3.9 feet to a point; Thence,

S 89" 43' 35"E, 22.0 feet to a point; Thence,

S 00' 17' 14"W , 41.7 feet to a point; Thence,

N 89" 45' 48"W, 125.2 feet to a point; Thence, S 00° 14' 12" W . 19.5 feet to a point: Thence.

N 89° 45' 48"W, 28.3 feet to a point; Thence,

S 00° 14' 12"W, 62.7 feet to a point; Thence,

S 89° 45' 48"E, 24.1 feet to a point; Thence,

S 00° 14' 12"W, 80.0 feet to a point; Thence, N 89° 46' 29"W, 80.0 feet to a point; Thence,

N 00° 14' 29"E , 102.1 feet to a point; Thence,

N 40° 46' 17"W, 16.6 feet to a point; Thence,

N 00° 14' 29"E , 47.0 feet to a point; Thence.

S 89" 45' 31"E , 76.3 feet to a point; Thence,

N 00° 14' 29"E , 89.5 feet to a point; Thence,

S 89* 45' 31"E , 43.9 feet to a point; Thence,

N 00° 14' 29"E, 57.2 feet to a point; Thence, S 89° 45' 31"E . 26.0 feet to a point: Thence.

N 00° 14' 29"E, 54.8 feet to a point; Thence,

S 89" 45' 18"E, 26.0 feet to the point of beginning of the parcel herein described.

Said parcel contains 33,011 square feet, more or less.

LEGAL DESCRIPTION

RESERVED DEVELOPMENT RIGHTS AREA (RDR UPPER LEVEL AREA)

That certain parcel of land situate within Section 21, Township 10 North, Range 4 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico, comprising the Second Floor Area lying between Units J and I, being a portion of Tract 5, Copper Pointe Subdivision as the same is shown and designated on the plat thereof filed for record in the office of the County Clerk of Bernalillo County, New Mexico on October 10, 2008 in Volume 2008C, Folio 224 more particularly described by survey performed by Russ P. Hugg, New Mexico Professional Surveyor Number 9750 using New Mexico State Plane Grid bearings and ground distances as follows:

Beginning at the Northwest corner of said Unit A-1 also being the Northeast corner of said Unit J whence the Southeast corner of said Tract 5, Copper Pointe Subdivision bears S 48° 44' 46"E, 529.44 feet distant; Thence,

S 89° 45' 18"E . 26.0 feet to a point; Thence,

S 00° 14' 42"W . 6.9 feet to a point; Thence,

S 89° 45' 18"E , 1.3 feet to a point; Thence,

S 52' 24' 50"E , 12.0 feet to a point; Thence,

N 37° 35' 10"E , 0.2 feet to a point; Thence,

S 52* 24' 50"E, 28.1 feet to a point; Thence,

S 37° 35' 10"W, 0.2 feet to a point; Thence, S 52* 24' 50"E , 12.0 feet to a point; Thence,

S 22' 38' 08"E , 0.7 feet to a point; Thence,

S 89° 47' 29"E, 6.1 feet to a point; Thence,

S 00° 21' 43"W, 84.4 feet to a point; Thence,

N 89° 41' 03"W , 21.9 feet to a point; Thence,

S 00° 12' 42" W . 3.8 feet to a point; Thence,

S 89" 41' 03"E , 0.4 feet to a point; Thence,

S 00° 12′ 42″W , 28.0 feet to a point; Thence,

N 89° 43′ 55″W , 0.4 feet to a point; Thence,

S 00" 12' 42" W , 3.9 feet to a point; Thence,

S 89° 43′ 35"E , 21.9 feet to a point; Thence, S 00° 17' 14" W , 41.7 feet to a point; Thence,

N 89' 45' 48"W, 93.6 feet to a point; Thence,

S 00° 14' 12" W , 15.5 feet to a point; Thence,

N 89° 45' 48"W, 7.5 feet to a point; Thence,

N 00° 14' 12"E , 15.5 feet to a point; Thence,

S 89° 45' 48"E, 43.6 feet to a point; Thence,

N 00° 14' 29"E, 89.5 feet to a point; Thence, S 89° 45' 31"E, 43.9 feet to a point; Thence,

N 00° 14' 29"E, 57.2 feet to a point; Thence,

S 89° 45' 31"E, 26.0 feet to a point; Thence,

N 00' 14' 29"E , 54.8 feet to the point of

beginning of the parcel herein described.

Said parcel contains 21.023 square feet, more or less.

AND

That certain parcel of land situate within Section 21, Township 10 North, Range 4 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico, comprising the Second Floor Area lying between Units D-1 and I and South of Unit J, being a portion of Tract 5, Copper Pointe Subdivision as the same is shown and designated on the plat thereof filed for record in the office of the County Clerk of Bernalillo County, New Mexico on October 10, 2008 in Volume 2008C, Folio 224 more particularly described by survey performed by Russ P. Hugg, New Mexico Professional Surveyor Number 9750 using New Mexico State Plane Grid bearings and ground distances as

Beginning at the Southeast corner of said Unit A-1 whence the Southeast corner of said Tract 5, Copper Pointe Subdivision bears S 87° 28' 50" E, 325.90 feet distant;

N 89° 46' 29"W. 226.4 feet to a point: Thence.

N 00° 10' 03"E, 23.5 feet to a point; Thence,

N 44° 49' 57"W . 11.6 feet to a point; Thence,

N 45° 10' 03"E , 15.7 feet to a point; Thence,

S 89' 49' 57"E, 8.0 feet to a point; Thence, N 00' 10' 03"E, 57.7 feet to a point; Thence,

N 40° 50' 43"W. 18.2 feet to a point; Thence,

N 00° 10' 03"E , 47.3 feet to a point; Thence,

S 89° 45' 31"E, 84.0 feet to a point; Thence,

S 00° 14' 12"W, 81.4 feet to a point; Thence,

S 00° 14' 12"W, 4.8 feet to a point; Thence,

N 89* 45' 48"W, 5.7 feet to a point: Thence.

S 89° 45' 48"E, 24.1 feet to a point; Thence,

S 00° 14' 12" W , 20.5 feet to a point; Thence,

S 89° 45' 48"E , 5.7 feet to a point; Thence,

S 00° 14' 12"W . 22.5 feet to a point: Thence.

S 89° 45' 48"E , 42.2 feet to a point; Thence, N 00° 14' 12"E , 1.8 feet to a point; Thence,

S 89° 45' 48"E . 35.1 feet to a point: Thence.

N 00° 14' 12"E , 7.8 feet to a point; Thence,

S 89° 45' 48"E , 15.5 feet to a point; Thence,

N 00" 14' 12"E , 33.3 feet to a point; Thence,

N 89° 45' 48"W, 65.5 feet to a point; Thence, N 00° 14' 12"E , 5.0 feet to a point; Thence,

S 89° 45' 48"E, 100.8 feet to a point; Thence,

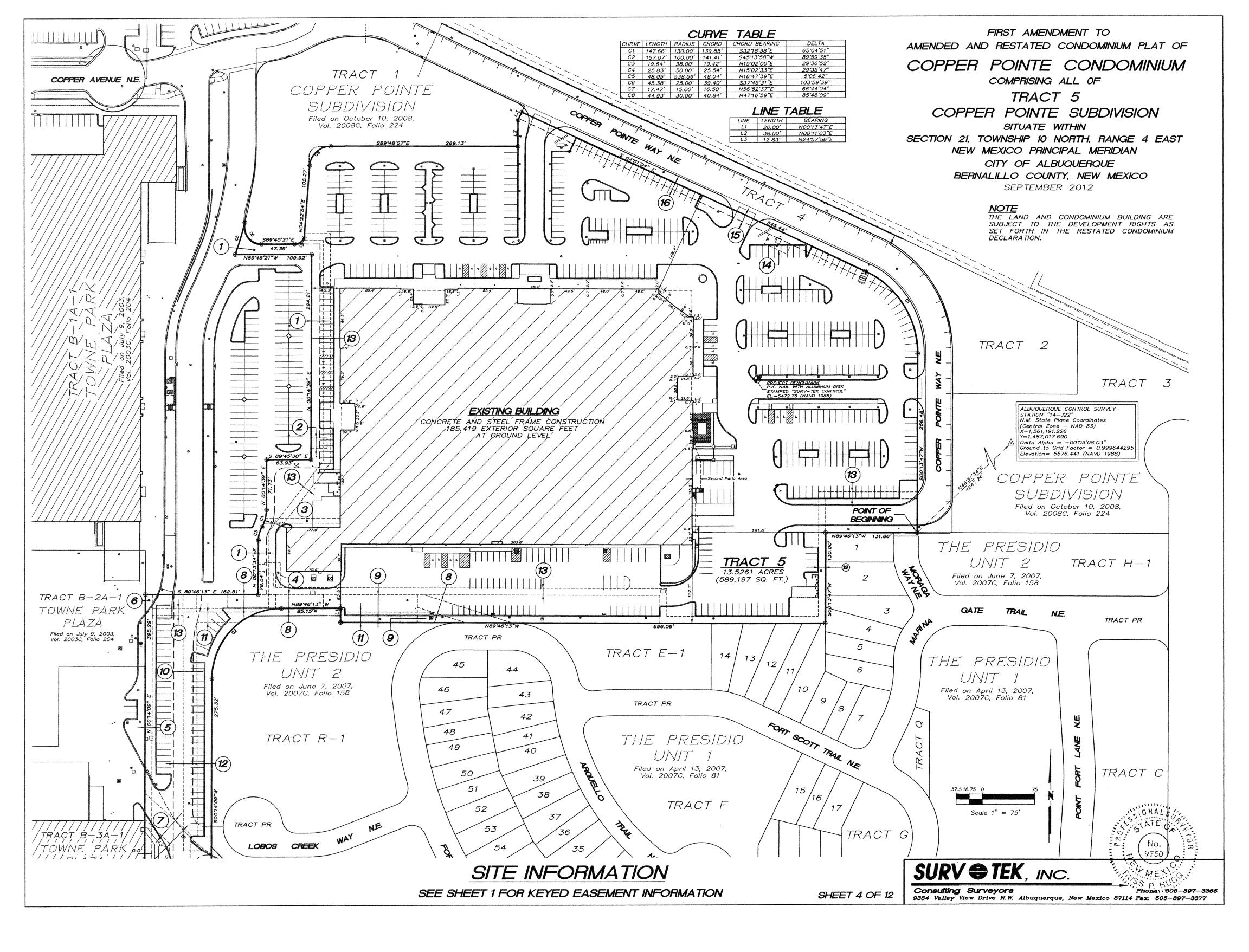
S 00° 11' 56"W, 80.2 feet to the point of beginning

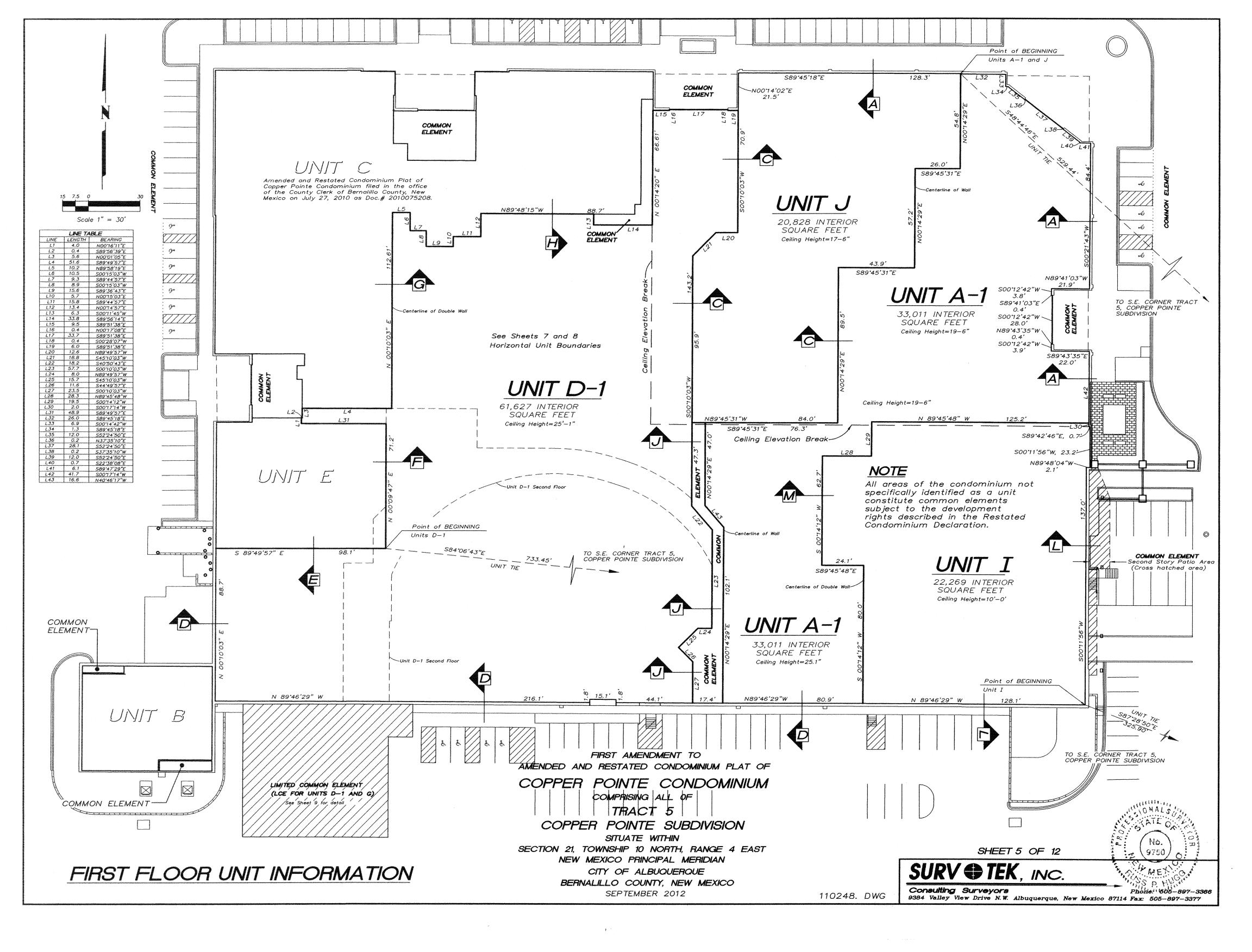
of the parcel herein described.

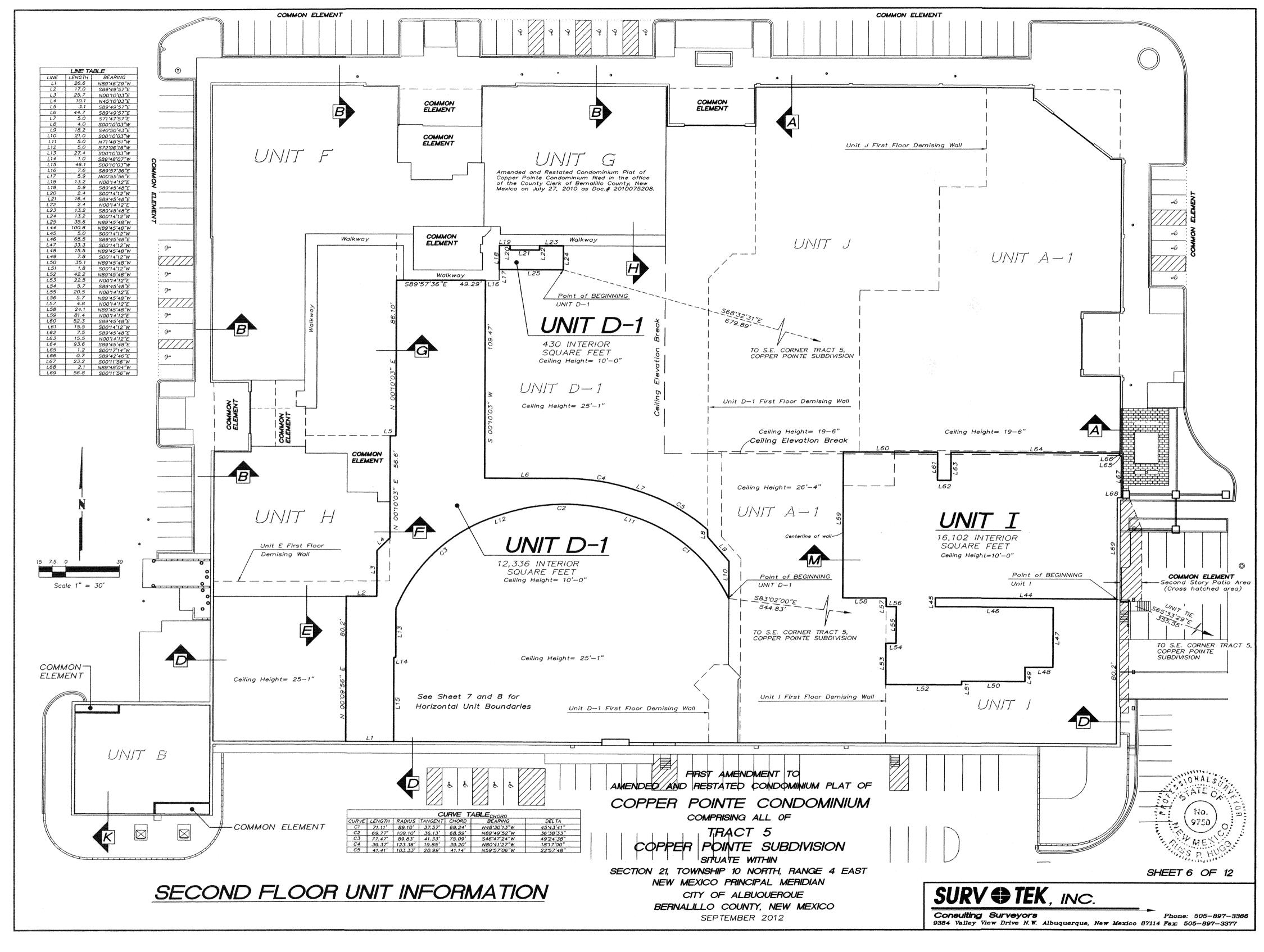
Said parcel contains 19,804 square feet, more or less.

SHEET 3 OF 12

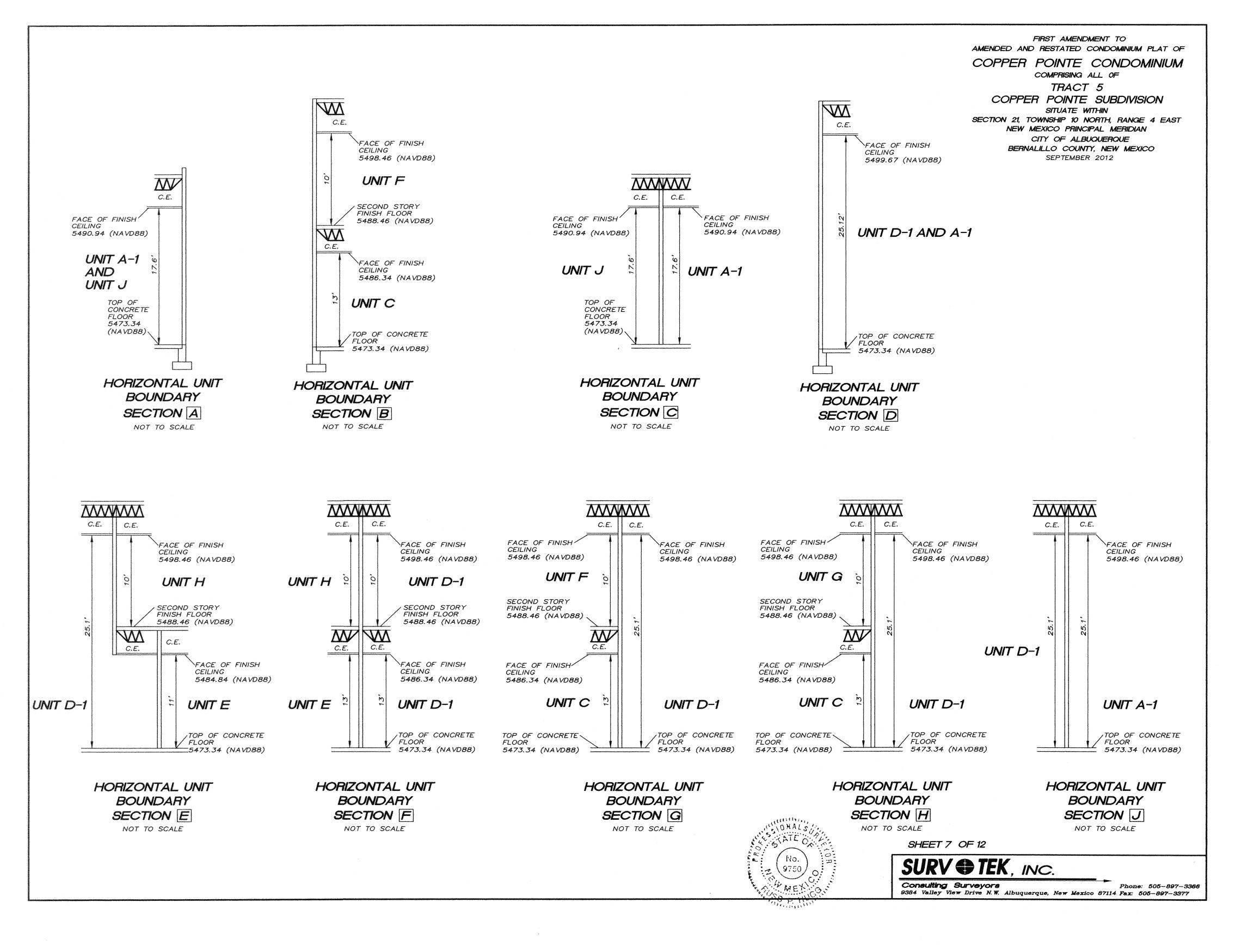
Consulting Surveyors Phone: 505-897-3366 9384 Valley View Drive N.W. Albuquerque, New Mexico 87114 Fax: 505-897-3377







A



FIRST AMENDMENT TO AMENDED AND RESTATED CONDOMINIUM PLAT OF

COPPER POINTE CONDOMINIUM

COMPRISING ALL OF TRACT 5

COPPER POINTE SUBDIVISION

SITUATE WITHIN

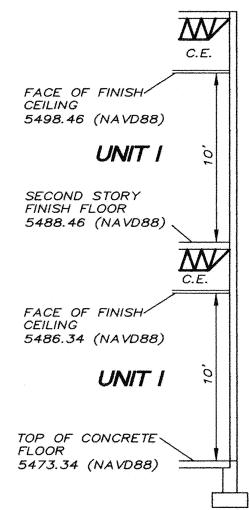
SECTION 21, TOWNSHIP 10 NORTH, RANGE 4 EAST NEW MEXICO PRINCIPAL MERIDIAN

CITY OF ALBUQUEROUE BERNALILLO COUNTY, NEW MEXICO SEPTEMBER 2012

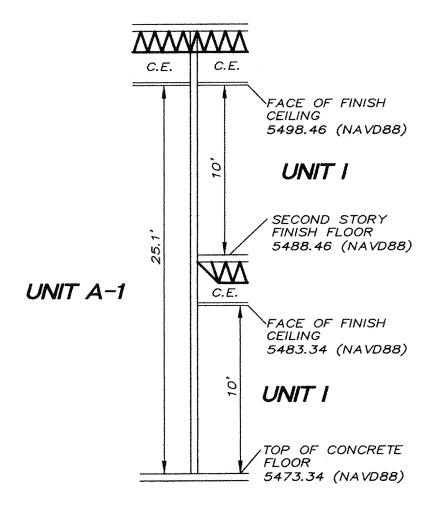
W FACE OF FINISH CEILING 5491.44 (NAVD88) UNIT B TOP OF CONCRETE FLOOR 5473.34 (NAVD88) HORIZONTAL UNIT **BOUNDARY**

SECTION K

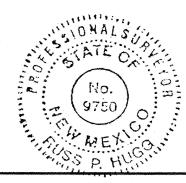
NOT TO SCALE



HORIZONTAL UNIT **BOUNDARY** SECTION L NOT TO SCALE



HORIZONTAL UNIT BOUNDARY SECTION M NOT TO SCALE



SHEET 8 OF 12

