

Report to: UT Arlington


Invoice to: UT Arlington

ANALYSIS REQUESTED

Turn Around Time

Company: UT Arlington
 Address: 1221 W. Mitchell St.
Room 139, TX 76019

Company: UT Arlington
 Address: 1221 W. Mitchell St.
Room 139, TX 76019

Sampler Name: Dr. Sadm Jones
 Sampler's signature: 

Standard 10 Days:
 Same Day: (rate + 200%)
 1 Day: (rate + 100%)
 2 Day: (rate + 50%)
 3-5 Day: (rate + 25%)

18 TOTAL PAGES
 PAGE 1 OF 18

Contact: Dr. Mohammad Najafi
 Phone: 817 292 9177
 Fax: _____
 Email: Cuife@uta.edu

Contact: Dr. Y. Najafi
 Phone: 817 292 9177
 PO/SO: _____

TO-14VOCs

TO-15VOCs

TO-1 and/or TO-2

FIXED GASSES (CO₂, CO, O₂, N₂, CH₄)

Light Hydrocarbons (C₁-C₆)

Headspace (Please specify compounds)

Mercaptans & Organic Sulfur Compounds

TICs by GC/MS SCAN

RSK-175 (Methane, ethane, ethene)

3-5 Day: (rate + 25%)
 Please initial selection for TAT subject to lab approval
 Lab Approval: _____

Date	Time	Can #	Identifying Marks of Sample(s)	TO-14VOCs	TO-15VOCs	TO-1 and/or TO-2	FIXED GASSES (CO ₂ , CO, O ₂ , N ₂ , CH ₄)	Light Hydrocarbons (C ₁ -C ₆)	Headspace (Please specify compounds)	Mercaptans & Organic Sulfur Compounds	TICs by GC/MS SCAN	RSK-175 (Methane, ethane, ethene)	MOLD	OTHER	Lab Sample ID (Lab Use Only)
3/13	13:30	A10689	Baseline-UPwind	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	G023-066-1
3/13	13:30	A10688	Baseline-downwind	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-2
3/13	13:30	A10685	Baseline-Manhole	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	03
3/14	10:50	A10970	UPwind D1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-4
3/14	10:50	R3405	Downwind D1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-5
3/14	10:48	R3408	Terminal Manhole Baseline	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-6
3/14	15:30	R3391	Insertion Manhole D1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-7
Relinquished by: (Signature) _____				Date	Time	Received by: (Signature) _____	Date	Time	Remarks						
Relinquished by: (Signature) _____				Date	Time	Received by: (Signature) _____	3/21/23	1430	Samples G023-066-3-4, 5-6 Failed to take a valid sample. Not analyzed. Any change for Analysis Request should be submitted by a written document 3/21/23						

GD Air Testing Inc. 1825 Summit Ave, Suite 200, Plano, Texas, 75074 Tel: (972) 480-8908 Fax: (972) 480-8308



CLIENT: **Dr. Sasha Jones**
UT Arlington
1221 W. Mitchell St, Rm 139
Arlington, TX 76019
sasha.jones2@uta.edu

GD Air Testing Lab. ID: **GD23-066-1**
 Report Date: **03/23/23**
 Date Analyzed: **03/22/23**
 Analyzed by: **JA**
 GD Air QC Batch: **QC-032223**
 Method: **EPA TO15**
 NELAP ID: **T104704364-22-17**

Project Name.: **NA**

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLE BY	SAMPLED DATE /RECEIVED			
Baseline - Upwind	Air	Dr. Sasha Jones	03/13/23	03/21/23		
CONSTITUENT	MW	CAS	PQL*	RESULT	NOTE	
			ppbv	ppbv	ug/m ³	
Acetone	58	67-64-1	0.71	3.22	7.64	T
Benzene	78	71-43-2	0.71	ND	ND	
Benzylchloride	126.6	100-44-7	0.71	ND	ND	
Bromodichloromethane	164	75-27-4	0.71	ND	ND	
Bromoform	253	75-25-2	0.71	ND	ND	J
Bromomethane (Methyl Bromide)	94.9	74-83-9	0.71	ND	ND	
1,3-Butadiene	54	106-99-0	0.71	ND	ND	
Carbon disulfide	76	75-15-0	0.71	ND	ND	T
Carbon tetrachloride	153.8	56-23-5	0.71	ND	ND	
Chlorobenzene	112.6	108-90-7	0.71	ND	ND	
Chloroethane (Ethyl Chloride)	64.5	75-00-3	0.71	ND	ND	
Chloroform	119	67-66-3	0.71	ND	ND	
Chloromethane (Methyl Chloride)	50.4	74-87-3	0.71	ND	ND	
3-Chloro-1-Propene (Allyl Chloride)	77	107-05-1	0.71	ND	ND	T
Cyclohexane	84	110-82-7	0.71	ND	ND	
Dibromochloromethane	208	124-48-1	0.71	ND	ND	
1,2-Dibromoethane (EDB)	187.9	106-93-4	0.71	ND	ND	
1,2-Dichlorobenzene	147	95-50-1	0.71	ND	ND	
1,3-Dichlorobenzene	147	541-73-1	0.71	ND	ND	
1,4-Dichlorobenzene	147	106-46-7	0.71	ND	ND	
1,1-Dichloroethane	99	75-34-3	0.71	ND	ND	
1,1-Dichloroethene	97	75-35-4	0.71	ND	ND	
Dichlorodifluoromethane (F12)	120.9	75-71-8	0.71	ND	ND	
Dichlorotetrafluoroethane (F114)	170.9	76-14-2	0.71	ND	ND	
1,2-Dichloroethane (EDC)	99	107-06-2	0.71	ND	ND	
cis-1,2-Dichloroethene	97	156-59-2	0.71	ND	ND	
trans-1,2-Dichloroethene	97	156-60-5	0.71	ND	ND	
Dichloromethane (Methylene chloride)	84.9	75-09-2	0.71	ND	ND	
1,2-Dichloropropane	113	78-87-5	0.71	ND	ND	
cis-1,3-Dichloropropene	111	10061-01-5	0.71	ND	ND	
trans-1,3-Dichloropropene	111	10061-02-6	0.71	ND	ND	
1,4-Dioxane	88	123-91-1	0.71	ND	ND	
Ethyl acetate	88	141-78-6	0.71	ND	ND	T
Ethylbenzene	106	100-41-4	0.71	ND	ND	



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GD Air Testing Lab. ID: GD23-066-1
Report Date: 03/23/23
Date Analyzed: 03/22/23
Analyzed by: JA
GD Air QC Batch: QC-032223
Method: EPA TO15
NELAP ID: T104704364-22-17

Project Name.: NA

REPORT OF ANALYTICAL RESULTS

Table with columns: SAMPLE DESCRIPTION, MATRIX, SAMPLE BY, SAMPLED DATE /RECEIVED, CONSTITUENT, MW, CAS, PQL*, RESULT, NOTE. Rows include Baseline - Upwind and various chemical constituents like 4-Ethyltoluene, Heptane, Hexachlorobutadiene, etc.



CLIENT: Dr. Sasha Jones
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GD Air Testing Lab. ID: GD23-066-1
Report Date: 03/23/23
Date Analyzed: 03/22/23
Analyzed by: JA
GD Air QC Batch: QC-032223
Method: EPA TO15
NELAP ID: T104704364-22-17

Project Name.: NA

REPORT OF ANALYTICAL RESULTS

Table with 4 columns: SAMPLE DESCRIPTION, MATRIX, SAMPLE BY, SAMPLED DATE /RECEIVED. Row 1: Baseline - Upwind, Air, Dr. Sasha Jones, 03/13/23, 03/21/23

Tentatively Identified Compounds (TIC)

Table with 7 columns: Compound Name, Concentration, Sample ID, Recovery, Found, ND, N. Rows: Cumene, Acetophenone

Surrogate Recovery Report

Table with 6 columns: Compound Name, Concentration, Sample ID, Spiked ppbv, Found ppbv, R%. Rows: 1,4-Difluorobenzene (SS1), Bromofluorobenzene (SS2)

*Comparison with the method blank this sample run with a dilution factor of: 1.42
Canister #A10689 was received at an initial pressure of -1.88psi and pressurized to 4.34psi.
N: Instrument calibration not performed for this analyte. Analyte determined as TIC and concentration is an estimate.
T: The State of Texas (TCEQ) does not offer accreditation for this compound.
J: Estimated value; compound failed QA/QC or method criteria.
E: Estimated value; the compound was over the calibration range.
Z: Surrogate recovery was outside acceptable limits.
*RESULTS Listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit).
* The control limit for Surrogate Recovery % of all spiked compound is 70% - 130%. Only one is required to pass.
*Concentrations in ug/cu M reported at 760 mm Hg pressure and 298 deg.K.
*QA/QC reports followed this report include: Method blank, Blank spike (BS) and Blank spike duplicate (BSD)

Respectfully submitted
GD Air Testing, Inc.

Signature: George Dai, Ph.D.
Laboratory Director

Data File: 03222305.D
Report File: Reports\GD23-066-1



CLIENT: Dr. Sasha Jones
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GD Air Testing Lab. ID: GD23-066-2
Report Date: 03/23/23
Date Analyzed: 03/22/23
Analyzed by: JA
GD Air QC Batch: QC-032223
Method: EPA TO15
NELAP ID: T104704364-22-17

Project Name.: NA

REPORT OF ANALYTICAL RESULTS

Table with columns: SAMPLE DESCRIPTION, MATRIX, SAMPLE BY, SAMPLED DATE /RECEIVED, CONSTITUENT, MW, CAS, PQL*, RESULT, NOTE. Includes data for various chemical constituents like Acetone, Benzene, etc.



CLIENT: Dr. Sasha Jones
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GD Air Testing Lab. ID: GD23-066-2
Report Date: 03/23/23
Date Analyzed: 03/22/23
Analyzed by: JA
GD Air QC Batch: QC-032223
Method: EPA TO15
NELAP ID: T104704364-22-17

Project Name.: NA

REPORT OF ANALYTICAL RESULTS

Table with columns: SAMPLE DESCRIPTION, MATRIX, SAMPLE BY, SAMPLED DATE /RECEIVED, MW, CAS, PQL*, RESULT, NOTE. Rows include various chemical constituents like 4-Ethyltoluene, Heptane, Hexachlorobutadiene, etc.



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GD Air Testing Lab. ID: GD23-066-2
Report Date: 03/23/23
Date Analyzed: 03/22/23
Analyzed by: JA
GD Air QC Batch: QC-032223
Method: EPA TO15
NELAP ID: T104704364-22-17

Project Name.: NA

REPORT OF ANALYTICAL RESULTS

Page 3 of 3

Table with 4 columns: SAMPLE DESCRIPTION, MATRIX, SAMPLE BY, SAMPLED DATE /RECEIVED. Row 1: Baseline - Downwind, Air, Dr. Sasha Jones, 03/13/23, 03/21/23

Tentatively Identified Compounds (TIC)

Table with 6 columns: Compound Name, Concentration, Sample ID, Spiked, Found, N. Rows: Cumene, Acetophenone

Surrogate Recovery Report

Table with 6 columns: Compound Name, Concentration, Sample ID, Spiked (ppbv), Found (ppbv), R%. Rows: 1,4-Difluorobenzene (SS1), Bromofluorobenzene (SS2)

*Comparison with the method blank this sample run with a dilution factor of: 1.40
Canister #A10686 was received at an initial pressure of -1.29psi and pressurized to 4.15psi.
N: Instrument calibration not performed for this analyte. Analyte determined as TIC and concentration is an estimate.
T: The State of Texas (TCEQ) does not offer accreditation for this compound.
J: Estimated value; compound failed QA/QC or method criteria.
E: Estimated value; the compound was over the calibration range.
Z: Surrogate recovery was outside acceptable limits.
*RESULTS Listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit).
* The control limit for Surrogate Recovery % of all spiked compound is 70% - 130%. Only one is required to pass.
*Concentrations in ug/cu M reported at 760 mm Hg pressure and 298 deg.K.
*QA/QC reports followed this report include: Method blank, Blank spike (BS) and Blank spike duplicate (BSD)

Respectfully submitted
GD Air Testing, Inc.

Signature: QA for Day Dai
George Dai, Ph.D.
Laboratory Director

Data File: 03222306.D
Report File: Reports\GD23-066-2



CLIENT: **Dr. Sasha Jones**
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GD Air Testing Lab. ID: **GD23-066-5**
 Report Date: 03/23/23
 Date Analyzed: 03/22/23
 Analyzed by: JA
 GD Air QC Batch: QC-032223
 Method: EPA TO15
 NELAP ID: T104704364-22-17

Project Name.: **NA**

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLE BY	SAMPLED DATE /RECEIVED		NOTE
			03/14/23	03/21/23	
Downwind - D1	Air	Dr. Sasha Jones			
CONSTITUENT	MW	CAS	PQL*	RESULT	
			ppbv	ppbv	ug/m ³
Acetone	58	67-64-1	0.84	2.34	5.55 T
Benzene	78	71-43-2	0.84	ND	ND
Benzylchloride	126.6	100-44-7	0.84	ND	ND
Bromodichloromethane	164	75-27-4	0.84	ND	ND
Bromoform	253	75-25-2	0.84	ND	ND J
Bromomethane (Methyl Bromide)	94.9	74-83-9	0.84	ND	ND
1,3-Butadiene	54	106-99-0	0.84	ND	ND
Carbon disulfide	76	75-15-0	0.84	ND	ND T
Carbon tetrachloride	153.8	56-23-5	0.84	ND	ND
Chlorobenzene	112.6	108-90-7	0.84	ND	ND
Chloroethane (Ethyl Chloride)	64.5	75-00-3	0.84	ND	ND
Chloroform	119	67-66-3	0.84	ND	ND
Chloromethane (Methyl Chloride)	50.4	74-87-3	0.84	ND	ND
3-Chloro-1-Propene (Allyl Chloride)	77	107-05-1	0.84	ND	ND T
Cyclohexane	84	110-82-7	0.84	ND	ND
Dibromochloromethane	208	124-48-1	0.84	ND	ND
1,2-Dibromoethane (EDB)	187.9	106-93-4	0.84	ND	ND
1,2-Dichlorobenzene	147	95-50-1	0.84	ND	ND
1,3-Dichlorobenzene	147	541-73-1	0.84	ND	ND
1,4-Dichlorobenzene	147	106-46-7	0.84	ND	ND
1,1-Dichloroethane	99	75-34-3	0.84	ND	ND
1,1-Dichlorethene	97	75-35-4	0.84	ND	ND
Dichlorodifluoromethane (F12)	120.9	75-71-8	0.84	ND	ND
Dichlorotetrafluoroethane (F114)	170.9	76-14-2	0.84	ND	ND
1,2-Dichloroethane (EDC)	99	107-06-2	0.84	ND	ND
cis-1,2-Dichloroethene	97	156-59-2	0.84	ND	ND
trans-1,2-Dichloroethene	97	156-60-5	0.84	ND	ND
Dichloromethane (Methylene chloride)	84.9	75-09-2	0.84	ND	ND
1,2-Dichloropropane	113	78-87-5	0.84	ND	ND
cis-1,3-Dichloropropene	111	10061-01-5	0.84	ND	ND
trans-1,3-Dichloropropene	111	10061-02-6	0.84	ND	ND
1,4-Dioxane	88	123-91-1	0.84	ND	ND
Ethyl acetate	88	141-78-6	0.84	ND	ND T
Ethylbenzene	106	100-41-4	0.84	ND	ND



CLIENT: **Dr. Sasha Jones**
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GD Air Testing Lab. ID: **GD23-066-5**
 Report Date: **03/23/23**
 Date Analyzed: **03/22/23**
 Analyzed by: **JA**
 GD Air QC Batch: **QC-032223**
 Method: **EPA TO15**
 NELAP ID: **T104704364-22-17**

Project Name.: **NA**

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLE BY	SAMPLED DATE /RECEIVED		NOTE
			03/14/23	03/21/23	
Downwind - D1	Air	Dr. Sasha Jones			
CONSTITUENT	MW	CAS	PQL* ppbv	RESULT ppbv	ug/m ³
4-Ethyltoluene	120	622-96-8	0.84	ND	ND
Heptane	100	142-82-5	0.84	ND	ND
Hexachlorobutadiene	260.8	87-68-3	0.84	ND	ND
Hexane	86	110-54-3	0.84	ND	ND
Isopropanol	60	67-63-0	0.84	ND	ND
Methyl t-butyl ether (MTBE)	88	1634-04-4	0.84	ND	ND
Methyl butyl ketone (2-Hexanone)	100	591-78-6	0.84	ND	ND
Methyl ethyl ketone (2-Butanone)	72	78-93-3	0.84	ND	ND
Methyl isobutyl ketone (MIBK)	100	108-10-1	0.84	ND	ND
Propene	44	115-07-1	0.84	ND	ND
Styrene	104	100-42-5	0.84	14.2	60.4
1,1,2,2-Tetrachloroethane	167.9	79-34-5	0.84	ND	ND
Tetrachloroethene (PCE)	165.8	127-18-4	0.84	ND	ND
Tetrahydrofuran (THF)	72	109-99-9	0.84	ND	ND
Toluene	92	108-88-3	0.84	ND	ND
1,1,1-Trichloroethane (TCA)	133.4	71-55-6	0.84	ND	ND
1,1,2-Trichloroethane	133.4	79-00-5	0.84	ND	ND
1,3,5-Trimethylbenzene	120.2	108-67-8	0.84	ND	ND
1,2,4-Trimethylbenzene	120.2	95-63-6	0.84	ND	ND
2,2,4-Trimethylpentane	114	540-84-1	0.84	ND	ND
1,2,4-Trichlorobenzene	181.5	120-82-1	0.84	ND	ND
Trichloroethene (TCE)	131.3	79-01-6	0.84	ND	ND
Trichlorofluoromethane (F-11)	137.4	75-69-4	0.84	ND	ND
Trichlorotrifluoroethane (F-113)	187.4	76-13-1	0.84	ND	ND
Vinyl acetate	86	108-05-4	0.84	ND	ND
Vinyl Bromide (Bromoethene)	107	593-60-2	0.84	ND	ND
Vinyl chloride	62.5	75-01-4	0.84	ND	ND
m&p-Xylenes	106	1330-20-7	1.67	ND	ND
o-Xylene	106	95-47-6	0.84	ND	ND



CLIENT: Dr. Sasha Jones
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GD Air Testing Lab. ID: GD23-066-5
Report Date: 03/23/23
Date Analyzed: 03/22/23
Analyzed by: JA
GD Air QC Batch: QC-032223
Method: EPA TO15
NELAP ID: T104704364-22-17

Project Name.: NA

REPORT OF ANALYTICAL RESULTS

Table with 4 columns: SAMPLE DESCRIPTION, MATRIX, SAMPLE BY, SAMPLED DATE /RECEIVED. Row 1: Downwind - D1, Air, Dr. Sasha Jones, 03/14/23, 03/21/23

Tentatively Identified Compounds (TIC)

Table with 6 columns: Compound Name, Concentration, ID, Spiked, Found, N. Rows: Cumene, Acetophenone

Surrogate Recovery Report

Table with 6 columns: Compound Name, Concentration, ID, Spiked (ppbv), Found (ppbv), R%. Rows: 1,4-Difluorobenzene (SS1), Bromofluorobenzene (SS2)

*Comparison with the method blank this sample run with a dilution factor of: 1.67
Canister #R3405 was received at an initial pressure of -3.35psi and pressurized to 4.23psi.
N: Instrument calibration not performed for this analyte. Analyte determined as TIC and concentration is an estimate.
T: The State of Texas (TCEQ) does not offer accreditation for this compound.
J: Estimated value; compound failed QA/QC or method criteria.
E: Estimated value; the compound was over the calibration range.
Z: Surrogate recovery was outside acceptable limits.
*RESULTS Listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit).
* The control limit for Surrogate Recovery % of all spiked compound is 70% - 130%. Only one is required to pass.
*Concentrations in ug/cu M reported at 760 mm Hg pressure and 298 deg.K.
*QA/QC reports followed this report include: Method blank, Blank spike (BS) and Blank spike duplicate (BSD)

Respectfully submitted
GD Air Testing, Inc.

Signature: GA for Dr. Dai
George Dai, Ph.D.
Laboratory Director

Data File: 03222307.D
Report File: Reports\GD23-066-5



CLIENT: **Dr. Sasha Jones**
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sasha.jones2@uta.edu

GD Air Testing Lab. ID: **GD23-066-7**
 Report Date: **03/23/23**
 Date Analyzed: **03/22/23**
 Analyzed by: **JA**
 GD Air QC Batch: **QC-032223**
 Method: **EPA TO15**
 NELAP ID: **T104704364-22-17**

Project Name.: **NA**

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLE BY	SAMPLED DATE /RECEIVED		NOTE
			03/14/23	03/21/23	
Insertion Manhole D1	Air	Dr. Sasha Jones			
CONSTITUENT	MW	CAS	PQL* ppbv	RESULT ppbv	ug/m ³
Acetone	58	67-64-1	1.32	6.79	16.1 T
Benzene	78	71-43-2	1.32	ND	ND
Benzylchloride	126.6	100-44-7	1.32	ND	ND
Bromodichloromethane	164	75-27-4	1.32	ND	ND
Bromoform	253	75-25-2	1.32	ND	ND J
Bromomethane (Methyl Bromide)	94.9	74-83-9	1.32	ND	ND
1,3-Butadiene	54	106-99-0	1.32	ND	ND
Carbon disulfide	76	75-15-0	1.32	ND	ND T
Carbon tetrachloride	153.8	56-23-5	1.32	ND	ND
Chlorobenzene	112.6	108-90-7	1.32	ND	ND
Chloroethane (Ethyl Chloride)	64.5	75-00-3	1.32	ND	ND
Chloroform	119	67-66-3	1.32	ND	ND
Chloromethane (Methyl Chloride)	50.4	74-87-3	1.32	ND	ND
3-Chloro-1-Propene (Allyl Chloride)	77	107-05-1	1.32	ND	ND T
Cyclohexane	84	110-82-7	1.32	ND	ND
Dibromochloromethane	208	124-48-1	1.32	ND	ND
1,2-Dibromoethane (EDB)	187.9	106-93-4	1.32	ND	ND
1,2-Dichlorobenzene	147	95-50-1	1.32	ND	ND
1,3-Dichlorobenzene	147	541-73-1	1.32	ND	ND
1,4-Dichlorobenzene	147	106-46-7	1.32	ND	ND
1,1-Dichloroethane	99	75-34-3	1.32	ND	ND
1,1-Dichlorethene	97	75-35-4	1.32	ND	ND
Dichlorodifluoromethane (F12)	120.9	75-71-8	1.32	ND	ND
Dichlorotetrafluoroethane (F114)	170.9	76-14-2	1.32	ND	ND
1,2-Dichloroethane (EDC)	99	107-06-2	1.32	ND	ND
cis-1,2-Dichloroethene	97	156-59-2	1.32	ND	ND
trans-1,2-Dichloroethene	97	156-60-5	1.32	ND	ND
Dichloromethane (Methylene chloride)	84.9	75-09-2	1.32	ND	ND
1,2-Dichloropropane	113	78-87-5	1.32	ND	ND
cis-1,3-Dichloropropene	111	10061-01-5	1.32	ND	ND
trans-1,3-Dichloropropene	111	10061-02-6	1.32	ND	ND
1,4-Dioxane	88	123-91-1	1.32	ND	ND
Ethyl acetate	88	141-78-6	1.32	ND	ND T
Ethylbenzene	106	100-41-4	1.32	1.61	6.98



CLIENT: **Dr. Sasha Jones**
UT Arlington
1221 W. Mitchell St, Rm 139
Arlington, TX 76019
sasha.jones2@uta.edu

GD Air Testing Lab. ID: **GD23-066-7**
 Report Date: **03/23/23**
 Date Analyzed: **03/22/23**
 Analyzed by: **JA**
 GD Air QC Batch: **QC-032223**
 Method: **EPA TO15**
 NELAP ID: **T104704364-22-17**

Project Name.: **NA**

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLE BY	SAMPLED DATE /RECEIVED		NOTE	
			03/14/23	03/21/23		
Insertion Manhole D1	Air	Dr. Sasha Jones				
CONSTITUENT	MW	CAS	PQL* ppbv	RESULT ppbv	ug/m ³	
4-Ethyltoluene	120	622-96-8	1.32	ND	ND	
Heptane	100	142-82-5	1.32	1.64	6.71	
Hexachlorobutadiene	260.8	87-68-3	1.32	ND	ND	
Hexane	86	110-54-3	1.32	ND	ND	
Isopropanol	60	67-63-0	1.32	3.56	8.74	T
Methyl t-butyl ether (MTBE)	88	1634-04-4	1.32	ND	ND	
Methyl butyl ketone (2-Hexanone)	100	591-78-6	1.32	ND	ND	T
Methyl ethyl ketone (2-Butanone)	72	78-93-3	1.32	ND	ND	
Methyl isobutyl ketone (MIBK)	100	108-10-1	1.32	ND	ND	
Propene	44	115-07-1	1.32	4.94	8.89	
Styrene	104	100-42-5	1.32	2.95	12.5	
1,1,2,2-Tetrachloroethane	167.9	79-34-5	1.32	ND	ND	
Tetrachloroethene (PCE)	165.8	127-18-4	1.32	ND	ND	
Tetrahydrofuran (THF)	72	109-99-9	1.32	ND	ND	T
Toluene	92	108-88-3	1.32	ND	ND	
1,1,1-Trichloroethane (TCA)	133.4	71-55-6	1.32	ND	ND	
1,1,2-Trichloroethane	133.4	79-00-5	1.32	ND	ND	
1,3,5-Trimethylbenzene	120.2	108-67-8	1.32	ND	ND	
1,2,4-Trimethylbenzene	120.2	95-63-6	1.32	ND	ND	
2,2,4-Trimethylpentane	114	540-84-1	1.32	ND	ND	
1,2,4-Trichlorobenzene	181.5	120-82-1	1.32	ND	ND	
Trichloroethene (TCE)	131.3	79-01-6	1.32	ND	ND	
Trichlorofluoromethane (F-11)	137.4	75-69-4	1.32	ND	ND	
Trichlorotrifluoroethane (F-113)	187.4	76-13-1	1.32	ND	ND	
Vinyl acetate	86	108-05-4	1.32	ND	ND	
Vinyl Bromide (Bromoethene)	107	593-60-2	1.32	ND	ND	
Vinyl chloride	62.5	75-01-4	1.32	ND	ND	
m&p-Xylenes	106	1330-20-7	2.64	3.51	15.2	
o-Xylene	106	95-47-6	1.32	1.37	5.94	



CLIENT: Dr. Sasha Jones
UT Arlington
1221 W. Mitchell St, Rm 139
Arlington, TX 76019
sasha.jones2@uta.edu

GD Air Testing Lab. ID: GD23-066-7
Report Date: 03/23/23
Date Analyzed: 03/22/23
Analyzed by: JA
GD Air QC Batch: QC-032223
Method: EPA TO15
NELAP ID: T104704364-22-17

Project Name.: NA

REPORT OF ANALYTICAL RESULTS

Table with 5 columns: SAMPLE DESCRIPTION, MATRIX, SAMPLE BY, SAMPLED DATE /RECEIVED. Row 1: Insertion Manhole D1, Air, Dr. Sasha Jones, 03/14/23, 03/21/23

Tentatively Identified Compounds (TIC)

Table with 7 columns: Compound Name, Concentration, ID, Spiked, Found, R%, N. Rows: Cumene, Acetophenone

Surrogate Recovery Report

Table with 6 columns: Compound Name, Concentration, ID, Spiked (ppbv), Found (ppbv), R%. Rows: 1,4-Difluorobenzene (SS1), Bromofluorobenzene (SS2)

*Comparison with the method blank this sample run with a dilution factor of: 2.64
Canister #R3391 was received at an initial pressure of -7.57psi and pressurized to 4.13psi.
N: Instrument calibration not performed for this analyte. Analyte determined as TIC and concentration is an estimate.
T: The State of Texas (TCEQ) does not offer accreditation for this compound.
J: Estimated value; compound failed QA/QC or method criteria.
E: Estimated value; the compound was over the calibration range.
Z: Surrogate recovery was outside acceptable limits.
*RESULTS Listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit).
* The control limit for Surrogate Recovery % of all spiked compound is 70% - 130%. Only one is required to pass.
*Concentrations in ug/cu M reported at 760 mm Hg pressure and 298 deg.K.
*QA/QC reports followed this report include: Method blank, Blank spike (BS) and Blank spike duplicate (BSD)

Respectfully submitted
GD Air Testing, Inc.

Signature: George Dai, Ph.D.
Laboratory Director

Data File: 03222308.D
Report File: Reports\GD23-066-7



CLIENT: GD Air Testing, Inc.

GD Air Testing Lab. ID:

Method Blank

Report Date:

03/23/23

Date Analyzed:

03/22/23

Analyzed by:

JA

GD Air QC Batch:

QC-032223

Project No.: QC

Method:

EPA TO15

NELAP Certification #

T104704364-22-17

REPORT OF METHOD BLANK RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLE BY		SAMPLED DATE /RECEIVED		
BLANK	Air					
CONSTITUENT	MW	CAS	PQL*	RESULT	NOTE	
			ppbv	ppbv ug/cu M		
Acetone	58	67641	0.50	ND	ND	T
Benzene	78	71432	0.50	ND	ND	
Benzychloride	127	100447	0.50	ND	ND	
Bromodichloromethane	164	75274	0.50	ND	ND	
Bromoform	253	75252	0.50	ND	ND	
Bromomethane (Methyl Bromide)	95	74839	0.50	ND	ND	
1,3-Butadiene	54	106990	0.50	ND	ND	
Carbon disulfide	76	75150	0.50	ND	ND	T
Carbon tetrachloride	154	56235	0.50	ND	ND	
Chlorobenzene	113	108907	0.50	ND	ND	
Chloroethane (Ethyl Chloride)	65	75003	0.50	ND	ND	
Chloroform	119	67663	0.50	ND	ND	
Chloromethane (Methyl Chloride)	50	74873	0.50	ND	ND	
3-Chloro-1-Propene (Allyl Chloride)	77	107051	0.50	ND	ND	T
Cyclohexane	84	110827	0.50	ND	ND	
Dibromochloromethane	208	124481	0.50	ND	ND	
1,2-Dibromoethane (EDB)	188	106934	0.50	ND	ND	
1,2-Dichlorobenzene	147	95501	0.50	ND	ND	
1,3-Dichlorobenzene	147	541731	0.50	ND	ND	
1,4-Dichlorobenzene	147	106467	0.50	ND	ND	
1,1-Dichloroethane	99	75343	0.50	ND	ND	
1,1-Dichlorethene	97	75354	0.50	ND	ND	
Dichlorodifluoromethane (F12)	121	75718	0.50	ND	ND	
Dichlorotetrafluoroethane (F114)	171	76142	0.50	ND	ND	
1,2-Dichloroethane (EDC)	99	107062	0.50	ND	ND	
cis-1,2-Dichloroethene	97	156592	0.50	ND	ND	
trans-1,2-Dichloroethene	97	156605	0.50	ND	ND	
Dichloromethane (Methylene chloride)	85	75092	0.50	ND	ND	
1,2-Dichloropropane	113	78875	0.50	ND	ND	
cis-1,3-Dichloropropene	111	10061015	0.50	ND	ND	
trans-1,3-Dichloropropene	111	10061026	0.50	ND	ND	
1,4-Dioxane	88	123911	0.50	ND	ND	
Ethyl acetate	88	141786	0.50	ND	ND	T
Ethylbenzene	106	100414	0.50	ND	ND	



CLIENT: GD Air Testing, Inc.

GD Air Testing Lab. ID:

Method Blank

Report Date:

03/23/23

Date Analyzed:

03/22/23

Analyzed by:

JA

GD Air QC Batch:

QC-032223

Project No.: QC

Method:

EPA TO15

NELAP Certification #

T104704364-22-17

REPORT OF METHOD BLANK RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLE BY		SAMPLED DATE /RECEIVED		
BLANK	Air					
CONSTITUENT	MW	CAS	PQL*	RESULT	NOTE	
			ppbv	ppbv	ug/cu M	
4-Ethyltoluene	120	622968	0.50	ND	ND	
Heptane	100	142825	0.50	ND	ND	
Hexachlorobutadiene	261	87683	0.50	ND	ND	
Hexane	86	110543	0.50	ND	ND	
Isopropanol	60	67630	0.50	ND	ND	T
Methyl t-butyl ether (MTBE)	88	1634044	0.50	ND	ND	
Methyl butyl ketone (2-Hexanone)	100	591786	0.50	ND	ND	T
Methyl ethyl ketone (MEK)	72	78933	0.50	ND	ND	
Methyl isobutyl ketone (MIBK)	100	108101	0.50	ND	ND	
Propene	44	115071	0.50	ND	ND	
Styrene	104	100425	0.50	ND	ND	
1,1,2,2-Tetrachloroethane	168	79345	0.50	ND	ND	
Tetrachloroethene (PCE)	166	127184	0.50	ND	ND	
Tetrahydrofuran (THF)	72	109999	0.50	ND	ND	T
Toluene	92	108883	0.50	ND	ND	
1,1,1-Trichloroethane (TCA)	133	71556	0.50	ND	ND	
1,1,2-Trichloroethane	133	79005	0.50	ND	ND	
1,3,5-Trimethylbenzene	120	108678	0.50	ND	ND	
1,2,4-Trimethylbenzene	120	95636	0.50	ND	ND	
2,2,4-Trimethylpentane	114	540841	0.50	ND	ND	
1,2,4-Trichlorobenzene	182	120821	1.00	ND	ND	
Trichloroethene (TCE)	131	79016	0.50	ND	ND	
Trichlorofluoromethane (F-11)	137	75694	0.50	ND	ND	
Trichlorotrifluoroethane (F-113)	187	76131	0.50	ND	ND	
Vinyl acetate	86	108054	0.50	ND	ND	
Vinyl bromide (Bromoethene)	107	593602	0.50	ND	ND	
Vinyl chloride	63	75014	0.50	ND	ND	
m&p-Xylenes	106	1330207	1.00	ND	ND	
o-Xylene	106	95476	0.50	ND	ND	



CLIENT: GD Air Testing, Inc.

GD Air Testing Lab. ID:

Method Blank

Report Date:

03/23/23

Date Analyzed:

03/22/23

Analyzed by:

JA

GD Air QC Batch:

QC-032223

Project No.: QC

Method:

EPA TO15

NELAP Certification #

T104704364-22-17

REPORT OF METHOD BLANK RESULTS

Surrogate Recovery Report

			Spiked ppbv	Found ppbv	R%
1,4-Difluorobenzene (SS1)	118.1	540363	1.00	1.02	102
Bromofluorobenzene (SS2)	175	460004	1.00	0.91	91

*Comparison with the method blank this sample run with a dilution factor of:

1.0

J: Estimated value, compound failed the initial calibration criteria.

T: The State of Texas (TCEQ) does not offer accreditation for this compound.

Z: Surrogate recovery was outside acceptable limits.

*RESULTS Listed as 'ND' were not detected at or above the listed PQL (Practical Quantitation Limit).

* The control limit for Surrogate Recovery % of all spiked compound is 70% - 130%. Only one is required to pass.

*Concentrations in ug/cu M reported at 760 mm Hg pressure and 298 deg.K.

Respectfully submitted

GD Air Testing, Inc.

JA for Dr. Dai

George Dai, Ph.D.

Laboratory Director

Data File: 03222304-TO15.D

Report File: QC-23-TO15\Blank



**Blank Spike/Blank Spike Duplicate Results
(BS/BSD)**

Lab: GD Air Testing, Inc.
1825 Summit Ave, Suite 200
Plano, TX 75074

Date Analyzed:
Analyzed by:
GD Air QC Batch:
Method:
NELAP Certification #:

03/22/23
JA
QC-032223
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T104704364-22-17
Page 1 of 2

Spike Control Compounds	Spiked ppbv	Found and Recovery				% RPD	Recovery Limits (%)
		BS/ppbv	BS R%	BSD/ppbv	BSD R%		
Propene	8.00	7.46	93	7.64	96	2.4	50-150
Difluorodichloromethane	4.00	3.68	92	3.78	95	2.7	70-130
Chloromethane	4.00	3.59	90	3.62	91	0.8	70-130
Dichlorotetrafluoroethane	4.00	3.71	93	3.74	94	0.8	70-130
Vinyl Chloride	4.00	3.68	92	3.79	95	2.9	70-130
1,3-Butadiene	4.00	3.70	93	3.89	97	5.0	70-130
Bromomethane	4.00	3.59	90	3.73	93	3.8	70-130
Chloroethane	4.00	3.66	92	3.85	96	5.1	70-130
Bromoethene	4.00	3.71	93	3.82	96	2.9	70-130
Acetone	4.00	3.48	87	3.51	88	0.9	50-150
Isopropanol	4.00	3.59	90	3.73	93	3.8	50-150
Trichlorofluoromethane	4.00	3.57	89	3.69	92	3.3	70-130
1,1-Dichloroethene	4.00	3.58	90	3.77	94	5.2	70-130
Methylene chloride	4.00	3.38	85	3.67	92	8.2	70-130
3-Chloro-1-Propene	4.00	3.60	90	3.77	94	4.6	70-130
Trichlorotrifluoroethane	4.00	3.55	89	3.74	94	5.2	70-130
Carbon Disulfide	4.00	3.69	92	3.78	95	2.4	70-130
trans-1,2-Dichloroethene	4.00	3.60	90	3.81	95	5.7	70-130
1,1-Dichloroethane	4.00	3.55	89	3.76	94	5.7	70-130
MTBE	4.00	3.64	91	3.79	95	4.0	70-130
Vinyl Acetate	4.00	3.75	94	3.70	93	1.3	50-150
2-Butanone (MEK)	4.00	3.36	84	3.54	89	5.2	50-150
cis-1,2-Dichloroethene	4.00	3.60	90	3.81	95	5.7	70-130
Ethyl Acetate	4.00	3.70	93	3.80	95	2.7	50-150
Hexane	8.00	7.78	97	8.02	100	3.0	70-130
Chloroform	4.00	3.70	93	3.82	96	3.2	70-130
Tetrahydrofuran	4.00	3.69	92	3.82	96	3.5	50-150
1,2-Dichloroethane (EDC)	4.00	3.58	90	3.75	94	4.6	70-130
1,1,1-Trichloroethane	4.00	3.67	92	3.79	95	3.2	70-130
Benzene	8.00	7.50	94	7.82	98	4.2	70-130
Carbon tetrachloride	4.00	3.75	94	3.84	96	2.4	70-130
Cyclohexane	8.00	7.74	97	7.79	97	0.6	70-130
1,2-Dichloropropane	4.00	3.59	90	3.71	93	3.3	70-130
Bromodichloromethane	4.00	3.70	93	3.82	96	3.2	70-130
1,4-Dioxane	4.00	3.89	97	4.03	101	3.5	50-150
2,2,4-Trimethylpentane	8.00	7.65	96	7.85	98	2.6	70-130



Blank Spike/Blank Spike Duplicate Results

Lab: GD Air Testing, Inc.
1825 Summit Ave, Suite 200
Plano, TX 75074

Date Analyzed:
Analyzed by:
GD Air QC Batch:
Method:
NELAP Certification #:

03/22/23
JA
QC-032223
EPA TO15
T104704364-22-17
Page 2 of 2

Spike Control Compounds	Spiked ppbv	Found and Recovery				% RPD	Recovery Limits (%)
		BS/ppbv	BS R%	BSD/ppbv	BSD R%		
Trichloroethene (TCE)	4.00	3.66	92	3.79	95	3.5	70-130
Heptane	8.00	7.59	95	7.77	97	2.3	50-150
4-Methyl-2-Pentanone (MiBK)	4.00	3.87	97	3.98	100	2.8	60-140
trans-1,3-Dichloropropene	4.00	3.83	96	4.02	101	4.8	70-130
cis-1,3-Dichloropropene	4.00	3.88	97	3.91	98	0.8	70-130
1,1,2-Trichloroethane	4.00	3.62	91	3.77	94	4.1	70-130
Toluene	8.00	7.64	96	7.93	99	3.7	70-130
2-Hexanone (MBK)	4.00	3.84	96	4.00	100	4.1	50-150
Dibromochloromethane	4.00	4.17	104	4.30	108	3.1	70-130
1,2-Dibromoethane	4.00	3.59	90	3.70	93	3.0	70-130
Tetrachloroethene	4.00	3.68	92	3.78	95	2.7	70-130
Chlorobenzene	4.00	3.70	93	3.86	97	4.2	70-130
Ethylbenzene	8.00	7.82	98	8.09	101	3.4	70-130
m&p-Xylenes	16.00	15.35	96	15.85	99	3.2	70-130
Bromoform	4.00	4.34	109	4.38	110	0.9	70-130
Styrene	8.00	7.73	97	8.01	100	3.6	70-130
1,1,2,2-Tetrachloroethane	4.00	3.62	91	3.79	95	4.6	70-130
o-Xylene	8.00	7.53	94	7.80	98	3.5	70-130
4-Ethyltoluene	8.00	7.56	95	7.81	98	3.3	70-130
1,3,5-Trimethylbenzene	8.00	7.54	94	7.73	97	2.5	70-130
1,2,4-Trimethylbenzene	8.00	7.42	93	7.66	96	3.2	70-130
Benzyl Chloride	4.00	3.98	100	4.05	101	1.7	50-150
1,3-Dichlorobenzene	4.00	3.74	94	3.89	97	3.9	70-130
1,4-Dichlorobenzene	4.00	3.80	95	3.87	97	1.8	70-130
1,2-Dichlorobenzene	4.00	3.78	95	3.86	97	2.1	70-130
1,2,4-Trichlorobenzene	4.00	3.87	97	4.01	100	3.6	50-150
Hexachlorobutadiene	4.00	3.68	92	3.93	98	6.6	50-150
Surrogate Recovery Report							
1,4-Difluorobenzene (SS1)	1.0	1.00	100	0.99	99	1.0	70-130
Bromofluorobenzene (SS2)	1.0	0.97	97	1.01	101	4.0	70-130

* Compound failed BS/BSD criteria. If detected in the sample, results should be considered as an estimated value.

The control limit for the %RPD of BS/BSD is 30%.

Z: Surrogate recovery was outside acceptable limits.

Respectfully Submitted

George Dai
George Dai, Ph.D.
Laboratory Director

Data File: 03222302,-03-TO15.D
Report File: D:\QC-TO15\BS-BSD