MANN+HUMMEL

MANN+HUMMEL
93 S. La Patera Ln
Goleta, CA 93117

Santa Barbara County Air Pollution Control District
variance@sbcapcd.org

April 17, 2025

To Whom It May Concern:

Please find attached the monitoring and recordkeeping documentation for the thermal oxidizer (TO) for the month of April. Laboratory analysis indicates that the estimated TO Control Efficiency is calculated as 1 – (348/4944) resulting in an efficiency of approximately 93%.

There were no deviations, malfunctions or repair activities reported during the TO's operational period.

If you have any questions or require information, please feel free to contact me at (805) 803-3898 or via email at johnpaolo.quinto@mann-hummel.com.

Sincerely,

John Paolo Quinto, REHS
HSE Specialist

Thermal Oxidizer Operation Tracking Chart

Date	Run Time (Hours)	Operating Temp.	Operational Status	Deviations (if any)	Cause of Deviation	Repair Actions	Comments
1-Mar							
2-Mar							
3-Mar	10	1,406	Operational	None	N/A	None	Setup
4-Mar	20	1,406	Operational	None	N/A	None	
5-Mar	12	1,407	Operational	None	N/A	None	
6-Mar	20	1,408	Operational	None	N/A	None	
7-Mar	18	1,406	Operational	None	N/A	None	
8-Mar							
9-Mar				80			
10-Mar	8	1,405	Operational	None	N/A	None	Setup
11-Mar	20	1,407	Operational	None	N/A	None	
12-Mar	11	1,406	Operational	None	N/A	None	
13-Mar	20	1,406	Operational	None	N/A	None	
14-Mar	20	1,406	Operational	None	N/A	None	
15-Mar							
16-Mar				79			
17-Mar	9.5	1,406	Operational	None	N/A	None	Setup
18-Mar	12	1,406	Operational	None	N/A	None	
19-Mar	20	1,407	Operational	None	N/A	None	
20-Mar	20	1,406	Operational	None	N/A	None	
21-Mar	19	1,406	Operational	None	N/A	None	
22-Mar							
23-Mar				80.5			
24-Mar	11	1,406	Operational	None	N/A	None	Setup
25-Mar	20	1,407	Operational	None	N/A	None	
26-Mar	20	1,407	Operational	None	N/A	None	
27-Mar	12	1,403	Operational	None	N/A	None	

28-Mar	19	1,406	Operational	None	N/A	None	
29-Mar							
30-Mar				82			
31-Mar	0	640	Operational	None	N/A	None	Setup; Nothing Scheduled To Run

CLIENT	: Geosyntec Consultants
PROJECT NAME	: Mann + Hammel
PROJECT NUMBER	: SB1250
AAC PROJECT NO.	: 250843 Rev.1
REPORT DATE	: 04/17/2025

On April 2, 2025, Atmospheric Analysis & Consulting, Inc. received two (2) Six-Liter Summa Canisters and one (1) Tedlar Bag for Hydrocarbon analysis by EPA 18 Modified. Upon receipt, the samples were assigned unique Laboratory ID numbers as follows:

Client ID	Lab No.	Return Pressure (mmHg)
Inlet-1-20250402	250843-73635	588.5
Outlet-1-20250402	250843-73636	592.7
Scrubber-Inlet-4_2_2025	250843-73637	-

This analysis is performed in accordance with AAC's Quality Manual. Test results apply to the sample(s) as received. For detailed information pertaining to specific EPA, NCASI, ASTM and SCAQMD accreditations (Methods & Analytes), please visit our website at www.aaclab.com.

I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. No problems were encountered during receiving, preparation, and/or analysis of these samples. The Technical Director or his/her designee, as verified by the following signature, has authorized release of the data.

If you have any questions or require further explanation of data results, please contact the undersigned.

Sucha Parmar, Ph.D.
Technical Director

This report consists of 4 pages.

Amended Report 250843 Rev 1 supersedes Original Report 250843. The amended report was issued on 04/17/2025. Per Client request, sample "Scrubber-Inlet-4_2_2025" was not reported.

2225 Sperry Ave., Ventura, CA 93003 www.aaclab.com (805) 650-1642

LABORATORY ANALYSIS REPORT

CLIENT : Geosyntec Consultants
PROJECT NO. : 250843 Rev. 1
MATRIX : Air
UNITS : ppmV

SAMPLING DATE : 04/02/2025
RECEIVING DATE : 04/02/2025
ANALYSIS DATE : 04/03/2025
REPORT DATE : 04/17/2025

C_1 to C_6+ Hydrocarbons by EPA 18 Modified

Client ID	Inlet-1-20250402		SRL (RL x DF's)	Outlet-1-20250402		SRL (RL x DF's)	Reporting Limit (RL)
AAC ID	250843-73635			250843-73636			
Canister Dil. Fac.	1.5			1.8			
Analyte	Result	Analysis Dil. Fac.		Result	Analysis Dil. Fac.		
Methane	3.3	1	0.8	8.6	1	0.8	0.5
C_2 (as Ethane)	<SRL	1	0.8	33.7	1	0.8	0.5
C_3 (as Propane)	<SRL	1	0.8	26.1	1	0.8	0.5
C_4 (as Butane)	<SRL	1	0.8	27.3	1	0.8	0.5
C_5 (as Pentane)	<SRL	1	0.8	12.6	1	0.8	0.5
C_6 (as Hexane)	<SRL	1	0.8	5.7	1	0.8	0.5
C_6+ (as Hexane)	840	1	0.8	11.3	1	0.8	0.5
THC (as Methane)	4947	1	0.8	424	1	0.8	0.5
TNMHC (as Methane)	4944	1	0.8	416	1	0.8	0.5
TNMNEHC (as Methane)	4944	1	0.8	348	1	0.8	0.5

Sample Reporting Limit (SRL) is equal to Reporting Limit (RL) x Canister Dilution Factor x Analysis Dilution Factor (if applicable)

THC - Total Hydrocarbons Reported as Methane

TNMHC - Total Non-Methane Hydrocarbons Reported as Methane

TNMNEHC - Total Non-Methane Non-Ethane Hydrocarbons Reported as Methane

2225 Sperry Ave., Ventura, CA 93003 www.aaclab.com (805) 650-1642

Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

Date Analyzed : 04/03/2025
Analyst : SS
Units : ppmv

Instrument ID : FID#6
Calb Date : 11/18/2024
Reporting Limit : 0.5 ppmv

I - Opening Continuing Calibration Verification - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
CCV	Spike Conc	99.7	98.2	100.0	99.8	99.9	100.1
	Result	98.2	96.5	99.2	100.2	100.5	102.4
	% Rec *	98.5	98.2	99.2	100.4	100.6	102.4

II - Method Blank - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
MB	Concentration	ND	ND	ND	ND	ND	ND

III - Laboratory Control Spike & Duplicate - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
Lab Control Standards	Sample Conc	0.0	0.0	0.0	0.0	0.0	0.0
	Spike Conc	99.7	98.2	100.0	99.8	99.9	100.1
	LCS Result	108.7	106.4	110.7	110.9	110.8	112.4
	LCSD Result	105.5	102.5	105.9	106.7	106.8	107.8
	LCS % Rec **	109.1	108.3	110.8	111.2	111.0	112.3
	LCSD % Rec **	105.9	104.3	106.0	106.9	106.9	107.7
	% RPD ***	3.0	3.8	4.4	3.9	3.7	4.2

IV -Sample & Sample Duplicate - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
242803-67210	Sample	0.0	0.0	0.0	0.0	0.0	0.0
	Sample Dup	0.0	0.0	0.0	0.0	0.0	0.0
	Mean	0.0	0.0	0.0	0.0	0.0	0.0
	% RPD ***	0.0	0.0	0.0	0.0	0.0	0.0

V - Matrix Spike & Duplicate- EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
242803-67210	Sample Conc	0.0	0.0	0.0	0.0	0.0	0.0
	Spike Conc	49.8	49.1	50.0	49.9	49.9	50.0
	MS Result	51.5	49.2	50.7	51.0	51.3	51.9
	MSD Result	51.8	50.0	52.1	52.2	52.3	53.6
	MS % Rec **	103.3	100.2	101.4	102.2	102.7	103.6
	MSD % Rec **	104.0	101.8	104.3	104.7	104.7	107.1
	% RPD ***	0.7	1.5	2.9	2.4	1.8	3.3

VI - Closing Continuing Calibration Verification - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
CCV	Spike Conc	99.7	98.2	100.0	99.8	99.9	100.1
	Result	99.0	96.6	100.3	100.5	100.8	102.0
	% Rec *	99.3	98.4	100.3	100.7	100.9	101.9

** Must be 85-115%*

*** Must be 75-125%*

**** Must be < 25%*

ND = Not Detected

<RL = less than Reporting Limit

2225 Sperry Ave., Ventura, CA 93003 www.aaclab.com (805) 650-1642

250843

CHAIN OF CUSTODY AND ANALYSIS REQUEST – Chain of Custody is a LEGAL DOCUMENT. Complete all relevant fields.

Atmospheric Analysis and Consulting · Phone: 805-650-1642 · Email: info@aaclab.com · 2225 Sperry Ave, Ventura, CA 93003

AAC Project No.:

Client/Company Name GEOSYNTEC CONSULTANTS	**Project Name** MANN + HUMMEL
Project Manager Name MATT DUNN	**Project Number** SB1250
Turnaround Time ☐ Rush 24 h ☐ Same Day ☐ Rush 48 h ☐ 5 Days ☐ Rush 72 h ☒ Normal	**Sampler Name** Print: LEAH MICHAELOFF. Signature: LM

Send Report To (Name/Email/Address): MATTHEW.DUNN@GEOSYNTEC.COM

Send Invoice To (Name/Email/Address):

PO Number

Analysis Requested

Client Sample Name	Sample ID	Sampling Date	Sampling Time	Container Type/Qty	EPA METHOD 18					Lab ID
INLET-1-20250402	VEN-600	4/2/25	1000-1030		X	73635				
OUTLET-1-20250402	000278	4/2/25	1000-1030		X	73636				
SCRUBBER-INLET-4_2_2025	BAG	4/2/25	1017		X	73637				

LAB USE ONLY

Sample Received via: ☐FedEx ☐UPS ☐Courier ☐Other

Temperature °C

Thermometer ID

Initials

Returned Eqmt

Total cans:

Unused cans:

Flow Controllers:

Client Notes/Special Instructions:

EDD? ☐Yes ☐No

LAB USE ONLY Notes:

Relinquished By Print: LEAH MICHAELOFF Signature: LM	**Date** 4/2/25 **Time** 1655	**Received By** Print: Signature:	**Date** 4/2/25 **Time** 1655
Relinquished By Print: Signature:	**Date** **Time**	**Received By** Print: Signature:	**Date** **Time**

D/O – 2x cans + 2x 25-3 FC 5

MANN+HUMMEL
93 S. La Patera Ln
Goleta, CA 93117

Santa Barbara County Air Pollution Control District
variance@sbcapcd.org

May 20, 2025

To Whom It May Concern:

Please find attached the monitoring and recordkeeping documentation for the thermal oxidizer (TO) for the month of April. Laboratory analysis indicates that the estimated TO Control Efficiency is calculated as 1- (348/4944) resulting in an efficiency of approximately 91%.

There were no deviations, malfunctions or repair activities reported during the TO's operational period.

If you have any questions or require information, please feel free to contact me at (805) 803-3898 or via email at johnpaolo.quinto@mann-hummel.com.

Sincerely,

5/20/2025

X John Paolo Quinto

John Paolo Quinto

Signed by: JohnPaolo.Quinto

Thermal Oxidizer Operation Tracking Chart

Day	Date	Rune Time (Hours)	Operating Temp.	Status (Operational,	Deviations (if any)	Cause of Deviation	Repair Actions	Comments
T	1-Apr	20 (hours)	1,406	Operational	None	N/A	None	
W	2-Apr	20	1,406	Operational	None	N/A	None	
TH	3-Apr	20	1407	Operational	None	N/A	None	
F	3-Apr	20	1408	Operational	None	N/A	None	
Saturday	5-Apr							
Sunday	6-Apr							
M	7-Apr	0	696	Operational	None	N/A	None	Setup. Nothing scheduled to run
T	8-Apr	5	1425	Operational	None	N/A	None	
W	9-Apr	19	1,406	Operational	None	N/A	None	
TH	10-Apr	20	1,406	Operational	None	N/A	None	
F	11-Apr	7	1,406	Operational	None	N/A	None	
Saturday	12-Apr							
Sunday	13-Apr							
M	14-Apr	0	686	Operational	None	N/A	None	Setup. Nothing scheduled to run
T	15-Apr	20	1,406	Operational	None	N/A	None	
W	16-Apr	19	1,407	Operational	None	N/A	None	
TH	17-Apr	20	1,406	Operational	None	N/A	None	
F	18-Apr	0	670	Operational	None	N/A	None	Nothing scheduled to run
Saturday	19-Apr							
Sunday	20-Apr							
M	21-Apr	10	1,406	Operational	None	N/A	None	Setup
T	22-Apr	18	1,406	Operational	None	N/A	None	
W	23-Apr	20	1,406	Operational	None	N/A	None	
TH	24-Apr	16	1,406	Operational	None	N/A	None	
F	25-Apr	19	1,407	Operational	None	N/A	None	
Saturday	26-Apr							
Sunday	27-Apr							
M	28-Apr	0	668	Operational	None	N/A	None	Setup
T	29-Apr	6	1,407	Operational	None	N/A	None	
W	30-Apr	13	1,406	Operational	None	N/A	None	

Atmospheric Analysis & Consulting, Inc.

CLIENT	: Geosyntec Consultants
PROJECT NAME	: Mann+Hummel
PROJECT NUMBER	: SB1250
AAC PROJECT NO.	: 251075
REPORT DATE	: 05/07/2025

On April 30, 2025, Atmospheric Analysis & Consulting, Inc. received two (2) Six-Liter Summa Canisters for Hydrocarbon analysis by EPA 18 Modified. Upon receipt, the samples were assigned unique Laboratory ID numbers as follows:

Client ID	Lab No.	Return Pressure (mmHg)
Inlet-1-20250430	251075-74687	638.4
Outlet-1-20250430	251075-74688	643.4

This analysis is performed in accordance with AAC's Quality Manual. Test results apply to the sample(s) as received. For detailed information pertaining to specific EPA, NCASI, ASTM and SCAQMD accreditations (Methods & Analytes), please visit our website at www.aaclab.com.

I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. No problems were encountered during receiving, preparation, and/or analysis of these samples. The Technical Director or his/her designee, as verified by the following signature, has authorized release of the data.

If you have any questions or require further explanation of data results, please contact the undersigned.

Sudha Parmar, Ph.D.
Technical Director

This report consists of 4 pages.

2225 Sperry Ave., Ventura, CA 93003 www.aaclab.com (805) 650-1642

LABORATORY ANALYSIS REPORT

CLIENT : Geosyntec Consultants
PROJECT NO. : 251075
MATRIX : Air
UNITS : ppmV

SAMPLING DATE : 04/30/2025
RECEIVING DATE : 04/30/2025
ANALYSIS DATE : 05/06/2025
REPORT DATE : 05/07/2025

C_1 to C_6+ Hydrocarbons by EPA 18 Modified

Client ID	Inlet-1-20250430		SRL (RL x DF's)	Outlet-1-20250430		SRL (RL x DF's)	Reporting Limit (RL)
AAC ID	251075-74687			251075-74688			
Canister Dil. Fac.	1.4			1.4			
Analyte	Result	Analysis Dil. Fac.		Result	Analysis Dil. Fac.		
Methane	2.6	1	0.7	7.8	1	0.7	0.5
C_2 (as Ethane)	<SRL	1	0.7	28.9	1	0.7	0.5
C_3 (as Propane)	<SRL	1	0.7	25.2	1	0.7	0.5
C_4 (as Butane)	<SRL	1	0.7	22.6	1	0.7	0.5
C_5 (as Pentane)	<SRL	1	0.7	9.7	1	0.7	0.5
C_6 (as Hexane)	<SRL	1	0.7	3.3	1	0.7	0.5
C_6+ (as Hexane)	429	1	0.7	<SRL	1	0.7	0.5
THC (as Methane)	2409	1	0.7	287	1	0.7	0.5
TNMHC (as Methane)	2406	1	0.7	279	1	0.7	0.5
TNMNEHC (as Methane)	2406	1	0.7	223	1	0.7	0.5

Sample Reporting Limit (SRL) is equal to Reporting Limit (RL) x Canister Dilution Factor x Analysis Dilution Factor (if applicable)
THC - Total Hydrocarbons Reported as Methane
TNMHC - Total Non-Methane Hydrocarbons Reported as Methane
TNMNEHC - Total Non-Methane Non-Ethane Hydrocarbons Reported as Methane

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Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

Date Analyzed : 05/06/2025
Analyst : DG
Units : ppmv

Instrument ID : FID #3
Calb Date : 11/09/24
Reporting Limit : 0.5 ppmv

I - Opening Continuing Calibration Verification - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
CCV	Spike Conc	99.7	98.2	100.0	99.6	99.9	100.1
	Result	86.0	84.4	86.4	86.3	86.7	87.6
	% Rec *	86.3	86.0	86.5	86.6	86.8	87.5

II - Method Blank - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
MB	Concentration	ND	ND	ND	ND	ND	ND

III - Laboratory Control Spike & Duplicate - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
LCS	Sample Conc	0.0	0.0	0.0	0.0	0.0	0.0
	Spike Conc	99.7	98.2	100.0	99.6	99.9	100.1
	LCS Result	86.3	86.5	89.1	89.0	89.7	93.3
	LCSD Result	91.0	89.9	92.1	92.9	94.7	100.7
	LCS % Rec **	86.6	88.1	89.1	89.4	89.8	93.3
	LCSD % Rec **	91.3	91.5	92.1	93.3	94.8	100.6
	% RPD ***	5.2	3.8	3.4	4.3	5.4	7.6

IV -Sample & Sample Duplicate - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
250961-74175	Sample	3.0	0.0	0.0	0.0	0.0	0.0
	Sample Dup	3.1	0.0	0.0	0.0	0.0	0.0
	Mean	3.1	0.0	0.0	0.0	0.0	0.0
	% RPD ***	3.0	0.0	0.0	0.0	0.0	0.0

V - Matrix Spike & Duplicate- EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
250961-74175	Sample Conc	1.5	0.0	0.0	0.0	0.0	0.0
	Spike Conc	49.8	49.1	50.0	49.8	49.9	50.0
	MS Result	48.4	46.4	47.4	48.1	49.2	52.8
	MSD Result	50.8	48.2	49.0	49.3	49.7	53.2
	MS % Rec **	94.1	94.5	94.9	96.5	98.5	105.6
	MSD % Rec **	98.9	98.1	98.1	99.0	99.5	106.3
	% RPD ***	5.0	3.7	3.4	2.5	1.0	0.7

VI - Closing Continuing Calibration Verification - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
CCV	Spike Conc	99.7	98.2	100.0	99.6	99.9	100.1
	Result	92.4	85.8	88.8	89.7	90.2	92.8
	% Rec *	92.7	87.3	88.8	90.0	90.3	92.8

** Must be 85-115%*

*** Must be 75-125%*

**** Must be < 25%*

ND = Not Detected

<RL = less than Reporting Limit

2225 Sperry Ave., Ventura, CA 93003 www.aaclab.com (805) 650-1642

251075

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Atmospheric Analysis and Consulting · Phone: 805-650-1642 · Email: info@aaclab.com · 2225 Sperry Ave, Ventura, CA 93003

AAC Project No.:

Client/Company Name Geosyntec Consultants	**Project Name** Mann + Hummel
Project Manager Name Matt Dunn	**Project Number** SB1250
Turnaround Time ☐ Rush 24 h ☐ Same Day ☐ Rush 48 h ☐ 5 Days ☐ Rush 72 h ☒ Normal	**Sampler Name** Print: Leah Michaeloff Signature: LM

Send Report To (Name/Email/Address): MATTHEW.DUNN@GEOSYNTEC.COM

Send Invoice To (Name/Email/Address):

PO Number

Analysis Requested

Client Sample Name	Sample ID	Sampling Date	Sampling Time	Container Type/Qty	EPA METHOD 18					Lab ID
INLET-1-20250430	001267	4/30/25	1201-1231		X	74687				
OUTLET-1-20250430	002221	4/30/25	1201-1231		X	74688				

LAB USE ONLY

Sample Received via: ☐FedEx ☐UPS ☐Courier ☐Other

Temperature ____ °C

Thermometer ID ____

Initials ____

Returned Eqmt

Total cans: ____

Unused cans: ____

Flow Controllers: ____

Client Notes/Special Instructions:

EDD? ☐Yes ☐No

LAB USE ONLY Notes:

Relinquished By Print: Leah Michaeloff (GSC) Signature: LM	**Date** 4/30/25 **Time** 1334	**Received By** Print: Signature:	**Date** 4/30/25 **Time** 1339
Relinquished By Print: Signature:	**Date** **Time**	**Received By** Print: Signature:	**Date** **Time**

0/0 - 2x cans + 2x 25.3 fc

MANN+HUMMEL
93 S. La Patera Ln
Goleta, CA 93117

Santa Barbara County Air Pollution Control District
variance@sbcapcd.org

June 16, 2025

To Whom It May Concern:

Please find attached the monitoring and recordkeeping documentation for the thermal oxidizer (TO) for the month of May. Laboratory analysis indicates that the estimated TO Control Efficiency is calculated as 1- (348/4944) resulting in an efficiency of approximately 80.7%.

There were no deviations, malfunctions or repair activities reported during the TO's operational period.

If you have any questions or require information, please feel free to contact me at (805) 803-3898 or via email at johnpaolo.quinto@mann-hummel.com.

Sincerely,

6/16/2025

X John Paolo Quinto

John Paolo Quinto

Signed by: JohnPaolo.Quinto

Thermal Oxidizer Operation Tracking Chart

Day	Date	Run Time (Hours)	Operating Temp.	Status (Operational,	Deviations (if any)	Cause of Deviation	Repair Actions	Comments
TH	1-May	10	1,406	Operational	None	N/A	None	
F	2-May	20	1,407	Operational	None	N/A	None	
Saturday	3-May							
Sunday	4-May							
M	5-May	15	1,406	Operational	None	N/A	None	
T	6-May	21	1,407	Operational	None	N/A	None	
W	7-May	0	825	Operational	None	N/A	None	Nothing scheduled to run
TH	8-May	0	810	Operational	None	N/A	None	Nothing scheduled to run
F	9-May	0	806	Operational	None	N/A	None	Nothing scheduled to run
Saturday	10-May							
Sunday	11-May							
M	12-May	0	765	Operational	None	N/A	None	Setup. Nothing scheduled to run
T	13-May	4	1,406	Operational	None	N/A	None	R&D Department Trial Run
W	14-May	0	826	Operational	None	N/A	None	Nothing scheduled to run
TH	15-May	0	790	Operational	None	N/A	None	Nothing scheduled to run
F	16-May	20	1,406	Operational	None	N/A	None	
Saturday	17-May							
Sunday	18-May							
M	19-May	15	1,406	Operational	None	N/A	None	
T	20-May	21	1,407	Operational	None	N/A	None	
W	21-May	20	1,407	Operational	None	N/A	None	
TH	22-May	19	1,407	Operational	None	N/A	None	
F	23-May	8	1,408	Operational	None	N/A	None	
Saturday	24-May							
Sunday	25-May							
M	26-May	0	0	Operational	None	N/A	None	Setup. Nothing scheduled to run
T	27-May	8	1,407	Operational	None	N/A	None	
W	28-May	20.5	1,406	Operational	None	N/A	None	
TH	29-May	20	1,406	Operational	None	N/A	None	
F	30-May	17	1,407	Operational	None	N/A	None	
Saturday	31-May							

June 16, 2025

To: John Paolo Quinto, Mann-Hummel FMS

From: Matt Dunn, Geosyntec Consultants, Inc.

Subject: Sampling Results for monthly ROC destruction efficiency of oxidizer Variance 04R from Santa Barbara County Air Pollution Control District

On Thursday May 29, Geosyntec came to your facility and obtained process gas samples of influent and effluent streams of the thermal oxidizer (TO) to quantify the approximate control efficiency for reactive organic compounds (ROCs) leaving the ACM-VI casting process. This monitoring is part of the monthly monitoring to meet the requirements of the Variance obtained from the Santa Barbara County Air Pollution Control District (SBCAPCD).

Method: We contracted with Atmospheric Analysis and Consulting (AAC) to obtain two Summa cannisters and used the cannisters to gather a process gas sample in and out of the TO. We used the 30-minute flow controllers for sampling and conducted the process samples simultaneously between 10:15 am and 10:45 am. Stainless steel tubing was used to convey the sample from the hot effluent and conventional Teflon tubing used to the inlet process side. Beginning and ending pressures of the cannisters were recorded. It was reported to Geosyntec the ACM-VI casting process was continuous during the day and the sampling period. A graphic of the sampling is presented in Figure 1.

The summa cannisters were returned to AAC on May 30th. Method 18 was performed on the two samples and results provided to Geosyntec on normal ten-day turnaround on June 16th

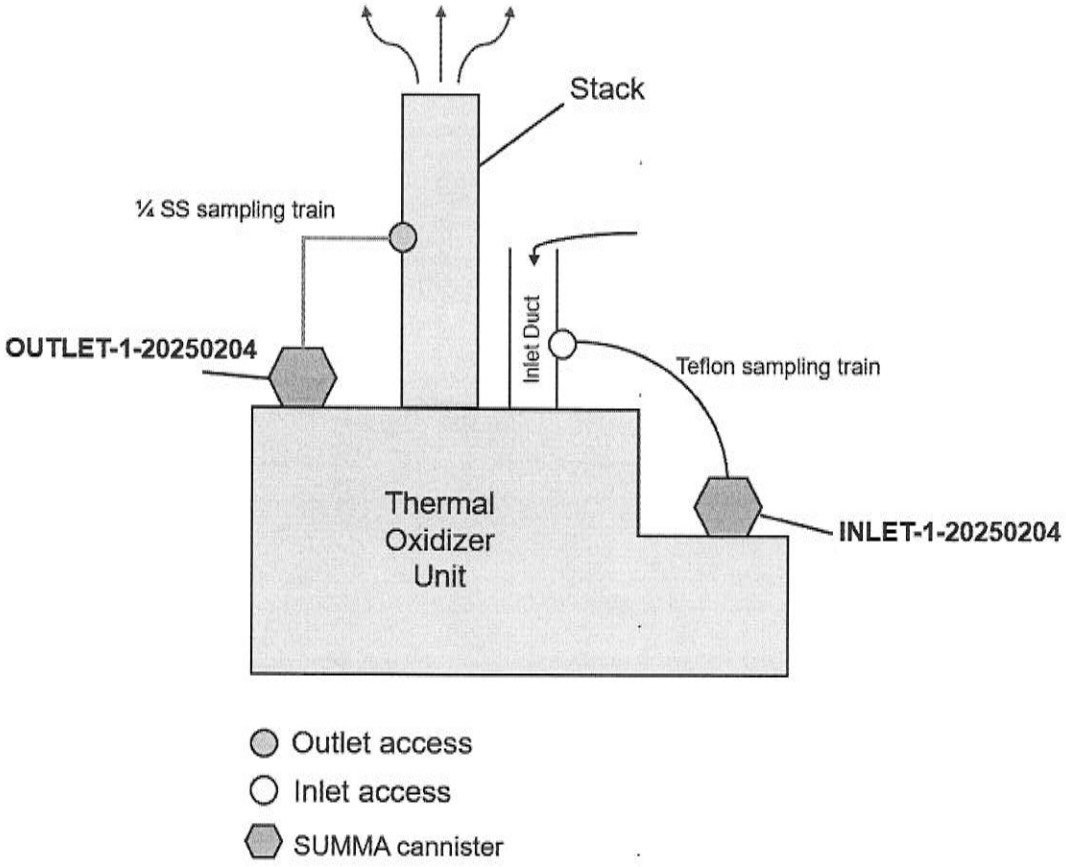

Figure 1 Sampling Configuration

Results: Attachment A to this memo provides the analytical results of the samples quantified by AAC. The results show a significant degree of destruction by the TO. Vapor concentrations of incoming non-methane, non-ethane hydrocarbons (aka reactive organic compounds or ROC) were quantified at 2,047 parts per million (ppm) as methane. The effluent concentrations of non-methane, non-ethane hydrocarbons (30-minute average) were measured at 394 ppm as methane. These one-hour average concentrations are total (wet) and are not adjusted for water content. This sampling data shows the destruction efficiency is around 80.8%. These results are not directly related to results from an official source test method prescribed by the SBCAPCD permit but provides a good indication.

ATTACHEMENT A

Test Report

Atmospheric Analysis & Consulting, Inc.

CLIENT	: Geosyntec
PROJECT NAME	: Mann + Hummel
PROJECT NUMBER	: SB1250
AAC PROJECT NO.	: 251350
REPORT DATE	: 06/12/2025

On May 30, 2025, Atmospheric Analysis & Consulting, Inc. received two (2) Six-Liter Summa Canisters for Hydrocarbon analysis by EPA 18 Modified. Upon receipt, the samples were assigned unique Laboratory ID numbers as follows:

Client ID	Lab No.	Return Pressure (mmHg)
TO-Inlet-250529	251350-75961	710.1
TO-Outlet-250529	251350-75962	536.5

This analysis is performed in accordance with AAC's Quality Manual. Test results apply to the sample(s) as received. For detailed information pertaining to specific EPA, NCASI, ASTM and SCAQMD accreditations (Methods & Analytes), please visit our website at www.aaclab.com.

I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. No problems were encountered during receiving, preparation, and/or analysis of these samples. The Technical Director or his/her designee, as verified by the following signature, has authorized release of the data.

If you have any questions or require further explanation of data results, please contact the undersigned.

Sucha Parmar, Ph.D.
Technical Director

This report consists of 4 pages.

2225 Sperry Ave., Ventura, CA 93003 www.aaclab.com (805) 650-1642

LABORATORY ANALYSIS REPORT

CLIENT : Geosyntec
PROJECT NO. : 251350
MATRIX : Air
UNITS : ppmV

SAMPLING DATE : 05/29/2025
RECEIVING DATE : 05/30/2025
ANALYSIS DATE : 06/11/2025
REPORT DATE : 06/12/2025

C_1 to C_6+ Hydrocarbons by EPA 18 Modified

Client ID	TO-Inlet-250529		SRL (RL x DF's)	TO-Outlet-250529		SRL (RL x DF's)	Reporting Limit (RL)
AAC ID	251350-75961			251350-75962			
Canister Dil. Fac.	1.3			1.7			
Analyte	Result	Analysis Dil. Fac.		Result	Analysis Dil. Fac.		
Methane	2.5	1	0.6	13.0	1	0.8	0.5
C_2 (as Ethane)	<SRL	1	0.6	46.2	1	0.8	0.5
C_3 (as Propane)	<SRL	1	0.6	36.6	1	0.8	0.5
C_4 (as Butane)	<SRL	1	0.6	37.8	1	0.8	0.5
C_5 (as Pentane)	<SRL	1	0.6	17.2	1	0.8	0.5
C_6 (as Hexane)	<SRL	1	0.6	7.1	1	0.8	0.5
C_6+ (as Hexane)	365	1	0.6	4.1	1	0.8	0.5
THC (as Methane)	2049	1	0.6	497	1	0.8	0.5
TNMHC (as Methane)	2047	1	0.6	484	1	0.8	0.5
TNMNEHC (as Methane)	2047	1	0.6	394	1	0.8	0.5

Sample Reporting Limit (SRL) is equal to Reporting Limit (RL) x Canister Dilution Factor x Analysis Dilution Factor (if applicable)

THC - Total Hydrocarbons Reported as Methane

TNMHC - Total Non-Methane Hydrocarbons Reported as Methane

TNMNEHC - Total Non-Methane Non-Ethane Hydrocarbons Reported as Methane

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Quality Control/Quality Assurance Report

Date Analyzed : 06/11/2025
Analyst : DG/RSF
Units : ppmv

Instrument ID : FID #3
Calb Date : 11/09/24
Reporting Limit : 0.5 ppmv

I - Opening Continuing Calibration Verification - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
CCV	Spike Conc	96.1	95.7	96.8	96.3	101.5	101.9
	Result	83.3	93.8	95.9	99.3	108.4	116.8
	% Rec *	86.7	98.0	99.1	103.1	106.9	114.7

II - Method Blank - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
MB	Concentration	ND	ND	ND	ND	ND	ND

III - Laboratory Control Spike & Duplicate - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
LCS	Sample Conc	0.0	0.0	0.0	0.0	0.0	0.0
	Spike Conc	96.1	95.7	96.8	96.3	101.5	101.9
	LCS Result	90.2	89.6	90.3	92.3	95.0	100.0
	LCSD Result	90.9	90.2	91.3	92.8	93.3	98.7
	LCS % Rec **	93.9	93.6	93.3	95.8	93.7	98.2
	LCSD % Rec **	94.5	94.2	94.3	96.4	91.9	96.9
	% RPD ***	0.7	0.6	1.1	0.6	1.9	1.3

IV -Sample & Sample Duplicate - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
250961-74178	Sample	3.2	0.0	0.0	0.0	0.0	0.0
	Sample Dup	2.9	0.0	0.0	0.0	0.0	0.0
	Mean	3.0	0.0	0.0	0.0	0.0	0.0
	% RPD ***	11.1	0.0	0.0	0.0	0.0	0.0

V - Matrix Spike & Duplicate- EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
250961-74178	Sample Conc	1.5	0.0	0.0	0.0	0.0	0.0
	Spike Conc	48.1	47.9	48.4	48.2	50.7	50.9
	MS Result	50.6	48.3	49.8	49.9	50.6	55.1
	MSD Result	50.4	48.0	49.5	50.8	51.9	54.6
	MS % Rec **	102.2	101.0	103.0	103.7	99.7	108.2
	MSD % Rec **	101.8	100.4	102.2	105.4	102.2	107.2
	% RPD ***	0.4	0.6	0.8	1.7	2.5	0.9

VI - Closing Continuing Calibration Verification - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
CCV	Spike Conc	96.1	95.7	96.8	96.3	101.5	101.9
	Result	89.0	87.7	89.2	91.1	92.3	96.7
	% Rec *	92.5	91.7	92.2	94.6	91.0	94.9

** Must be 85-115%*

*** Must be 75-125%*

**** Must be < 25%*

ND = Not Detected

<RL = less than Reporting Limit

2225 Sperry Ave., Ventura, CA 93003 www.aaclab.com (805) 650-1642

251350

CHAIN OF CUSTODY AND ANALYSIS REQUEST – Chain of Custody is a LEGAL DOCUMENT. Complete all relevant fields.

Atmospheric Analysis and Consulting · Phone: 805-650-1642 · Email: info@aaclab.com · 2225 Sperry Ave, Ventura, CA 93003

AAC Project No.:

Client/Company Name: Matt Dunn / Geosyntec
Project Manager Name: Matt Dunn
Project Name: Mann + Hummel
Project Number: SB1250

Send Report To (Name/Email/Address): Matt Dunn → Matthew.Dunn@geosyntec.com
Send Invoice To (Name/Email/Address): SAA
PO Number:

Turnaround Time: ☐ Rush 24 h ☐ Rush 48 h ☐ Rush 72 h ☐ Same Day ☐ 5 Days ☒ Normal

Sampler Name Print: Cameron Blaul Signature: [signature]

Analysis Requested: Method 18

Client Sample Name	Sample ID	Sampling Date	Sampling Time	Container Type/Qty	Method 18					Lab ID
TO-INLET-250529	TO-INLET	5/29/25	1015/1045		X	75961				
TO-OUTLET-250529	TO-OUTLET	5/29/25	1015/1045		X	75962				

CB 5/29/25 CB 5/29/25

LAB USE ONLY
Sample Received via: ☐FedEx ☐UPS ☐Courier ☐Other ____
Temperature ____ °C
Thermometer ID ____
Initials ____
Returned Eqmt
Total cans: ____
Unused cans: ____
Flow Controllers: ____

Client Notes/Special Instructions:
TO-INLET Can#: 001447, FC#: FC149
TO-OUTLET Can#: 001405, FC#: FC152
* FC152 collected slow.

EDD? ☐Yes ☒No

LAB USE ONLY Notes:

Relinquished By	Date / Time	Received By	Date / Time
Print: Cameron Blaul Signature: [signature]	Date 5/29/25 Time 1100	Print: Matt Dunn Signature: [signature]	Date 5/29/25 Time 1100
Print: Signature:	Date Time	Print: Jonas Colcolqrason Signature: [signature]	Date 5/30/25 Time 8:39

2x can + 2x 25.3 style FCs

MANN+HUMMEL
93 S. La Patera Ln
Goleta, CA 93117

Santa Barbara County Air Pollution Control District
variance@sbcapcd.org

July 14, 2025

To Whom It May Concern:

Please find attached the monitoring and recordkeeping documentation for the thermal oxidizer (TO) for the month of June. Laboratory analysis indicates that the estimated TO Control Efficiency is calculated as 1- (348/4944) resulting in an efficiency of approximately 94.3 %.

There were no deviations, malfunctions or repair activities reported during the TO's operational period.

If you have any questions or require information, please feel free to contact me at (805) 803-3898 or via email at johnpaolo.quinto@mann-hummel.com.

Sincerely,

X John Paolo Quinto

John Paolo Quinto

Thermal Oxidizer Operation Tracking Chart

Day	Date	Run Time (Hours)	Operating Temp.	Operational Status (Operational, Shutdown)	Deviations (if any)	Cause of Deviation	Repair Actions	Comments
Sun	1-Jun							
M	2-Jun	14	1,406	Operational	None	N/A	None	
T	3-Jun	20	1406	Operational	None	N/A	None	
W	4-Jun	12	1406	Operational	None	N/A	None	
TH	5-Jun	0	826	Operational	None	N/A	None	Nothing Scheduled To Run
F	6-Jun	0	796	Operational	None	N/A	None	Nothing Scheduled To Run
Sat	7-Jun							
Sun	8-Jun							
M	9-Jun	15	1406	Operational	None	N/A	None	
T	10-Jun	20	1406	Operational	None	N/A	None	
W	11-Jun	20	1407	Operational	None	N/A	None	
TH	12-Jun	20	1406	Operational	None	N/A	None	
F	13-Jun	17	1406	Operational	None	N/A	None	
Sat	14-Jun							
Sun	15-Jun							
M	16-Jun	15	1407	Operational	None	N/A	None	
T	17-Jun	20	1407	Operational	None	N/A	None	
W	18-Jun	20	1406	Operational	None	N/A	None	
TH	19-Jun	0	687	Operational	None	N/A	None	Nothing Scheduled To Run
F	20-Jun	5	1406	Operational	None	N/A	None	
Sat	21-Jun							
Sun	22-Jun							
M	23-Jun	10	1406	Operational	None	N/A	None	
T	24-Jun	20	1406	Operational	None	N/A	None	
W	25-Jun	20	1406	Operational	None	N/A	None	
TH	26-Jun	9	1407	Operational	None	N/A	None	
F	27-Jun	19.5	1406	Operational	None	N/A	None	
Sat	28-Jun							
Sun	29-Jun							
M	30-Jun	15	1406	Operational	None	N/A	None	

July 14, 2025

To: John Paolo Quinto, Mann-Hummel FMS

From: Matt Dunn, Geosyntec Consultants, Inc.

Subject: Sampling Results for monthly ROC destruction efficiency of oxidizer Variance 04R from Santa Barbara County Air Pollution Control District

On Tuesday, June 24th, Geosyntec came to your facility and obtained process gas samples of influent and effluent streams of the thermal oxidizer (TO) to quantify the approximate control efficiency for reactive organic compounds (ROCs) leaving the ACM-VI casting process. This monitoring is part of the monthly monitoring to meet the requirements of the Variance obtained from the Santa Barbara County Air Pollution Control District (SBCAPCD).

Method: We contracted with Atmospheric Analysis and Consulting (AAC) to obtain two Summa cannisters and used the cannisters to gather a process gas sample in and out of the TO. We used the 30-minute flow controllers for sampling and conducted the process samples simultaneously between 2:50 pm and 3:20 pm. The outlet cannister did not fill as fast as the inlet. However, adequate volumes were collected for Method 18 analysis.

Stainless steel tubing was used to convey the sample from the hot effluent and conventional Teflon tubing used to the inlet process side. Beginning and ending pressures of the cannisters were recorded. It was reported to Geosyntec the ACM-VI casting process was continuous during the day and the sampling period. A graphic of the sampling configuration is presented in Figure 1.

The summa cannisters were returned to AAC on June24th. Method 18 analysis was performed on the two samples and results were provided to Geosyntec on a normal ten-day turnaround on July 7th.

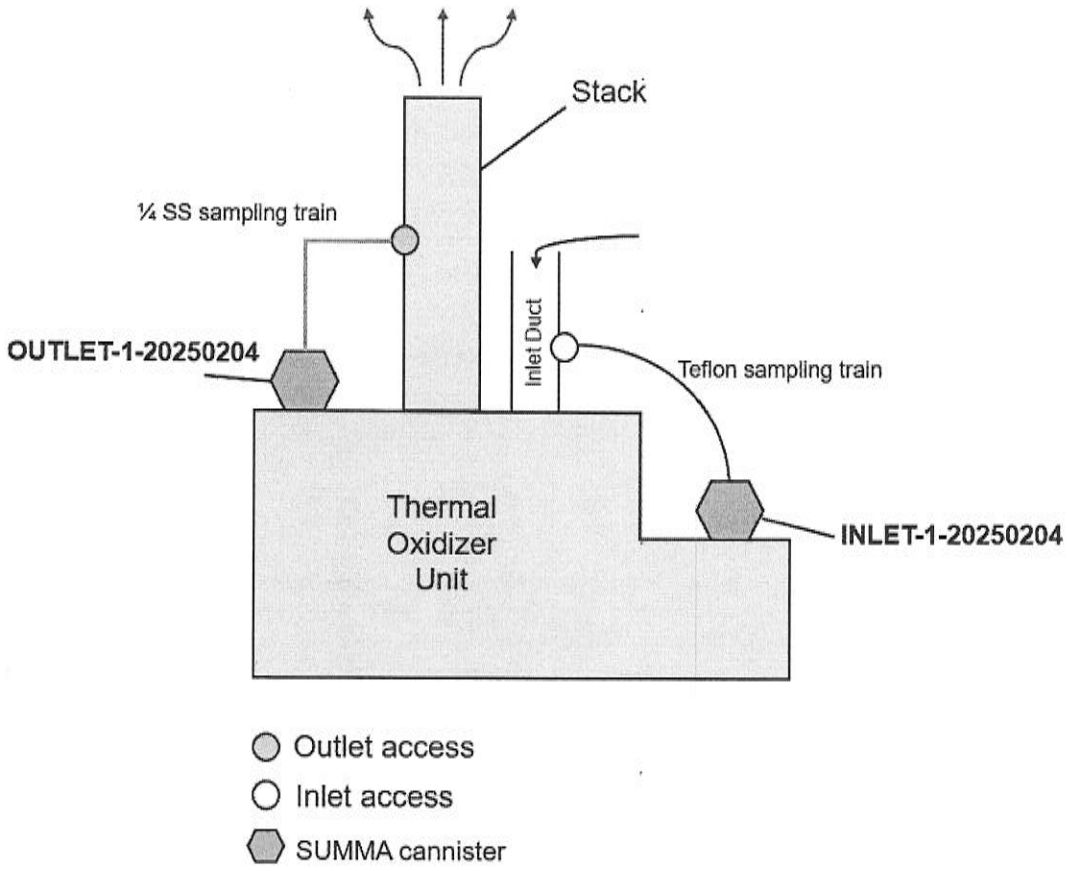

Figure 1 Sampling Configuration

Results: Attachment A to this memo provides the analytical results of the samples quantified by AAC. The results show a significant degree of destruction by the TO. Vapor concentrations of incoming non-methane, non-ethane hydrocarbons (aka reactive organic compounds or ROC) were quantified at 5,822 parts per million (ppm) as methane. The effluent concentrations of non-methane, non-ethane hydrocarbons (30-minute average) were measured at 331 ppm as methane. These one-hour average concentrations are total (wet) and are not adjusted for water content. This sampling data shows the destruction efficiency is around 94.3%. These results are not directly related to results from an official source test method prescribed by the SBCAPCD permit but provides a good indication.

ATTACHEMENT A

Test Report

CLIENT	: Geosyntec Consultants
PROJECT NAME	: Mann+Hummel
PROJECT NUMBER	: SB1250
AAC PROJECT NO.	: 251567
REPORT DATE	: 07/07/2025

On June 25, 2025, Atmospheric Analysis & Consulting, Inc. received two (2) Six-Liter Summa Canisters for Hydrocarbon analysis by EPA 18 Modified. Upon receipt, the samples were assigned unique Laboratory ID numbers as follows:

Client ID	Lab No.	Return Pressure (mmHg)
Inlet-1-20250624	251567-76977	616.5
Outlet-1-20250624	251567-76978	339.5

This analysis is performed in accordance with AAC's Quality Manual. Test results apply to the sample(s) as received. For detailed information pertaining to specific EPA, NCASI, ASTM and SCAQMD accreditations (Methods & Analytes), please visit our website at www.aaclab.com.

I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. No problems were encountered during receiving, preparation, and/or analysis of these samples. The Technical Director or his/her designee, as verified by the following signature, has authorized release of the data.

If you have any questions or require further explanation of data results, please contact the undersigned.

Sucha Parmar, Ph.D.
Technical Director

This report consists of 4 pages.

2225 Sperry Ave., Ventura, CA 93003 www.aaclab.com (805) 650-1642

LABORATORY ANALYSIS REPORT

CLIENT : Geosyntec Consultants
PROJECT NO. : 251567
MATRIX : Air
UNITS : ppmV

SAMPLING DATE : 06/24/2025
RECEIVING DATE : 06/25/2025
ANALYSIS DATE : 07/03/2025
REPORT DATE : 07/07/2025

C_1 to C_6+ Hydrocarbons by EPA 18 Modified

Client ID	Inlet-1-20250624		SRL (RL x DF's)	Outlet-1-20250624		SRL (RL x DF's)	Reporting Limit (RL)
AAC ID	251567-76977			251567-76978			
Canister Dil. Fac.	1.5			2.7			
Analyte	Result	Analysis Dil. Fac.		Result	Analysis Dil. Fac.		
Methane	11.9	1	0.7	19.9	1	1.3	0.5
C_2 (as Ethane)	<SRL	1	0.7	44.1	1	1.3	0.5
C_3 (as Propane)	<SRL	1	0.7	30.7	1	1.3	0.5
C_4 (as Butane)	<SRL	1	0.7	30.3	1	1.3	0.5
C_5 (as Pentane)	<SRL	1	0.7	13.7	1	1.3	0.5
C_6 (as Hexane)	<SRL	1	0.7	5.5	1	1.3	0.5
C_6+ (as Hexane)	989	1	0.7	3.2	1	1.3	0.5
THC (as Methane)	5834	1	0.7	439	1	1.3	0.5
TNMHC (as Methane)	5822	1	0.7	419	1	1.3	0.5
TNMNEHC (as Methane)	5822	1	0.7	331	1	1.3	0.5

Sample Reporting Limit (SRL) is equal to Reporting Limit (RL) x Canister Dilution Factor x Analysis Dilution Factor (if applicable)

THC - Total Hydrocarbons Reported as Methane

TNMHC - Total Non-Methane Hydrocarbons Reported as Methane

TNMNEHC - Total Non-Methane Non-Ethane Hydrocarbons Reported as Methane

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Quality Control/Quality Assurance Report

Cal Verification Date : 07/03/2025
Analyst : NR
Units : ppmv

Instrument ID : FID#6
Initial Cal Date : 11/18/2024
Reporting Limit : 0.5 ppmv

I - Opening Continuing Calibration Verification - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
CCV	Spike Conc	96.1	95.7	96.8	96.3	96.9	101.9
	Result	109.9	100.1	103.5	104.1	104.5	104.2
	% Rec *	114.3	104.6	107.0	108.1	107.8	102.3

II - Method Blank - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
MB	Concentration	ND	ND	ND	ND	ND	ND

III - Laboratory Control Spike & Duplicate - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
Lab Control Standards	Sample Conc	0.0	0.0	0.0	0.0	0.0	0.0
	Spike Conc	96.1	95.7	96.8	96.3	96.9	101.9
	LCS Result	95.9	93.3	95.4	96.8	96.8	96.8
	LCSD Result	103.8	101.4	104.8	106.0	105.8	106.4
	LCS % Rec **	99.7	97.5	98.6	100.5	99.9	95.0
	LCSD % Rec **	108.0	105.9	108.3	110.0	109.2	104.4
	% RPD ***	8.0	8.3	9.4	9.1	8.9	9.4

IV -Sample & Sample Duplicate - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
250961-74176	Sample	3.3	0.0	0.0	0.0	0.0	0.0
	Sample Dup	3.3	0.0	0.0	0.0	0.0	0.0
	Mean	3.3	0.0	0.0	0.0	0.0	0.0
	% RPD ***	1.6	0.0	0.0	0.0	0.0	0.0

V - Matrix Spike & Duplicate- EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
250961-74176	Sample Conc	1.6	0.0	0.0	0.0	0.0	0.0
	Spike Conc	48.1	47.9	48.4	48.2	48.4	50.9
	MS Result	52.1	48.6	50.8	50.9	52.5	52.8
	MSD Result	53.5	51.1	52.1	52.9	53.7	54.7
	MS % Rec **	104.9	101.5	104.9	105.7	108.3	103.6
	MSD % Rec **	107.8	106.7	107.7	109.8	110.9	107.5
	% RPD ***	2.7	5.0	2.7	3.8	2.3	3.7

VI - Closing Continuing Calibration Verification - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
CCV	Spike Conc	96.1	95.7	96.8	96.3	96.9	101.9
	Result	100.3	97.6	100.6	101.9	101.9	102.3
	% Rec *	104.4	102.0	103.9	105.8	105.2	100.4

** Must be 85-115%*

*** Must be 75-125%*

**** Must be < 25%*

ND = Not Detected

<RL = less than Reporting Limit

2225 Sperry Ave., Ventura, CA 93003 www.aaclab.com (805) 650-1642

ATMOSPHERIC ANALYSIS & CONSULTING, INC.
2225 Sperry Avenue
Ventura, California 93003
Phone (805) 650-1642
E-mail: info@aaclab.com

AAC Project No. 251567

CHAIN OF CUSTODY/ ANALYSIS REQUEST FORM

Client Name: Geosyntec Consultants
Project Name: Mann + Hummel
Project Mgr (Print Name): Matt Dunn
Project Number: SB1250
Sampler's Name (Print Name): Leah Michaeloff
Sampler's Signature: LM

Send report: Matthew.Dunn@Geosyntec.com
Attn:
Phone#:
Fax#
Send invoice to:
Attn:
P.O. #

AAC Sample No.	Date Sampled	Time Sampled	Sample Type	Client Sample ID/Description	Type/No. of Containers	EPA Method 18					
76977	6/24/25	1450-1520		INLET-1-20250624		X					
76978	6/24/25	1450-1520		OUTLET-1-20250624		X					

Turnaround Time
24-Hr ___ 48-Hr ___
5 Day ___ Normal ✓
Other (Specify) ___

Special Instructions/remarks:

Relinquished by (Signature):	Print Name:	Date/Time	Received by (signature):	Print Name
Leah Michaeloff (LM)	Leah Michaeloff	6/24/25	6/25/25	0821
Relinquished by (Signature):	Print Name:	Date/Time	Received by (signature):	Print Name

D/O - 2x cans + 2x 25.3F = 5

MANN+HUMMEL
93 S. La Patera Ln
Goleta, CA 93117

Santa Barbara County Air Pollution Control District
variance@sbcapcd.org

August 15, 2025

To Whom It May Concern:

Please find attached the monitoring and recordkeeping documentation for the thermal oxidizer (TO) for the month of July. Lower inlet readings were observed due to samples being collected while the machine was offline during that time. A resample has been scheduled to ensure accurate data for the month of July.

There were no deviations, malfunctions or repair activities reported during the TO's operational period.

If you have any questions or require information, please feel free to contact me at (805) 803-3898 or via email at johnpaolo.quinto@mann-hummel.com.

Sincerely,

X John Paolo Quinto

John Paolo Quinto

Atmospheric Analysis & Consulting, Inc.

CLIENT	: Geosyntec
PROJECT NAME	: Mann + Hummel
PROJECT NUMBER	: SB1250
AAC PROJECT NO.	: 251845
REPORT DATE	: 07/29/2025

On July 23, 2025, Atmospheric Analysis & Consulting, Inc. received two (2) Six-Liter Summa Canisters for Hydrocarbon analysis by EPA 18 Modified. Upon receipt, the samples were assigned unique Laboratory ID numbers as follows:

Client ID	Lab No.	Return Pressure (mmHg)
TO-INLET-250722	251845-78208	612.5
TO-OUTLET-250722	251845-78209	621.0

This analysis is performed in accordance with AAC's Quality Manual. Test results apply to the sample(s) as received. For detailed information pertaining to specific EPA, NCASI, ASTM and SCAQMD accreditations (Methods & Analytes), please visit our website at www.aaclab.com.

I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. No problems were encountered during receiving, preparation, and/or analysis of these samples. The Technical Director or his/her designee, as verified by the following signature, has authorized release of the data.

If you have any questions or require further explanation of data results, please contact the undersigned.

Sucha Parmar, Ph.D.
Technical Director

This report consists of **4** pages.

2225 Sperry Ave., Ventura, CA 93003 www.aaclab.com (805) 650-1642

LABORATORY ANALYSIS REPORT

CLIENT : Geosyntec
PROJECT NO. : 251845
MATRIX : Air
UNITS : ppmV

SAMPLING DATE : 07/22/2025
RECEIVING DATE : 07/23/2025
ANALYSIS DATE : 07/28/2025
REPORT DATE : 07/29/2025

C_1 to C_6+ Hydrocarbons by EPA 18 Modified

Client ID	TO-INLET-250722		SRL (RL x DF's)	TO-OUTLET-250722		SRL (RL x DF's)	Reporting Limit (RL)
AAC ID	251845-78208			251845-78209			
Canister Dil. Fac.	1.5			1.4			
Analyte	Result	Analysis Dil. Fac.		Result	Analysis Dil. Fac.		
Methane	2.2	1	0.7	6.6	1	0.7	0.5
C_2 (as Ethane)	<SRL	1	0.7	12.7	1	0.7	0.5
C_3 (as Propane)	<SRL	1	0.7	10.8	1	0.7	0.5
C_4 (as Butane)	<SRL	1	0.7	8.9	1	0.7	0.5
C_5 (as Pentane)	<SRL	1	0.7	3.6	1	0.7	0.5
C_6 (as Hexane)	<SRL	1	0.7	<SRL	1	0.7	0.5
C_6+ (as Hexane)	<SRL	1	0.7	<SRL	1	0.7	0.5
THC (as Methane)	2.2	1	0.7	114	1	0.7	0.5
TNMHC (as Methane)	<SRL	1	0.7	107	1	0.7	0.5
TNMNEHC (as Methane)	<SRL	1	0.7	82.1	1	0.7	0.5

Sample Reporting Limit (SRL) is equal to Reporting Limit (RL) x Canister Dilution Factor x Analysis Dilution Factor (if applicable)
THC - Total Hydrocarbons Reported as Methane
TNMHC - Total Non-Methane Hydrocarbons Reported as Methane
TNMNEHC - Total Non-Methane Non-Ethane Hydrocarbons Reported as Methane

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Quality Control/Quality Assurance Report

Cal Verification Date : 07/28/2025
Analyst : DG/RSF
Units : ppmv

Instrument ID : FID #3
Initial Cal Date : 11/09/24
Reporting Limit : 0.5 ppmv

I - Opening Continuing Calibration Verification - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
CCV	Spike Conc	96.1	95.7	96.8	96.3	101.5	101.9
	Result	91.7	89.2	91.8	91.1	90.9	94.0
	% Rec *	95.4	93.2	94.9	94.6	89.6	92.3

II - Method Blank - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
MB	Concentration	ND	ND	ND	ND	ND	ND

III - Laboratory Control Spike & Duplicate - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
LCS	Sample Conc	0.0	0.0	0.0	0.0	0.0	0.0
	Spike Conc	96.1	95.7	96.8	96.3	101.5	101.9
	LCS Result	92.1	91.0	92.6	93.5	92.6	94.0
	LCSD Result	93.2	90.5	91.0	91.9	91.5	93.4
	LCS % Rec *	95.8	95.1	95.7	97.1	91.3	92.3
	LCSD % Rec *	96.9	94.6	94.1	95.4	90.2	91.7
	% RPD ***	1.1	0.5	1.7	1.7	1.2	0.7

IV -Sample & Sample Duplicate - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
250961-74179	Sample	3.4	0.0	0.0	0.0	0.0	0.0
	Sample Dup	3.2	0.0	0.0	0.0	0.0	0.0
	Mean	3.3	0.0	0.0	0.0	0.0	0.0
	% RPD ***	3.9	0.0	0.0	0.0	0.0	0.0

V - Matrix Spike & Duplicate- EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
250961-74179	Sample Conc	1.6	0.0	0.0	0.0	0.0	0.0
	Spike Conc	48.1	47.9	48.4	48.2	50.7	50.9
	MS Result	50.2	47.9	49.2	49.7	49.6	52.1
	MSD Result	53.1	50.8	51.7	52.9	52.4	56.4
	MS % Rec **	101.0	100.1	101.6	103.3	97.7	102.3
	MSD % Rec **	107.1	106.2	106.9	109.9	103.2	110.8
	% RPD ***	5.9	5.9	5.1	6.2	5.5	7.9

VI - Closing Continuing Calibration Verification - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
CCV	Spike Conc	96.1	95.7	96.8	96.3	101.5	101.9
	Result	92.2	91.0	93.0	95.2	95.8	100.9
	% Rec *	95.9	95.1	96.1	98.9	94.4	99.1

** Must be 85-115%*
*** Must be 75-125%*
**** Must be < 25%*
ND = Not Detected
<RL = less than Reporting Limit

2225 Sperry Ave., Ventura, CA 93003 www.aaclab.com (805) 650-1642

ATMOSPHERIC ANALYSIS & CONSULTING, INC.
2225 Sperry Avenue
Ventura, California 93003
Phone (805) 650-1642
E-mail: info@aaclab.com

AAC Project No. 251845

CHAIN OF CUSTODY/ ANALYSIS REQUEST FORM

Client Name	Project Name	Analysis Requested	Send report:
Matt Dunn	Mann + Hummel		
Project Mgr (Print Name)	Project Number		
Matt Dunn	SB1250		
Sampler's Name (Print Name)	Sampler's Signature		
Cameron Blaul	Cameron Blaul		

AAC Sample No.	Date Sampled	Time Sampled	Sample Type	Client Sample ID/Description	Type/No. of Containers	Method 18						
1470	7/22/25	1650-1720	G	TO-INLET-250722-78208		X						
1271	7/22/25	1650-1720	G	TO-OUTLET-250722-78209		X						

Attn: Matt Dunn
Phone#: 8054520905
Fax#

Send invoice to:
Attn: Matt Dunn
P.O. #

Turnaround Time
24-Hr ____ 48-Hr ____
5 Day ____ Normal ✓
Other (Specify) ____

Special Instructions/remarks:
Canister # in 'AAC Sample No.' cell.

Relinquished by (Signature):	Print Name:	Date/Time	Received by (signature):	Print Name
Cameron Blaul	Cameron Blaul	7/22/25 1745		
Relinquished by (Signature):	Print Name:	Date/Time	Received by (signature):	Print Name
Matt Dunn	Matt Dunn	7/23/25	7/23/25	1556

010 – 2x cans + 2x 25.5 RC's

Thermal Oxidizer Operation Tracking Chart

Day	Date	Run Time (Hours)	Operating Temp.	Operational Status (Operational, Shutdown)	Deviations (if any)	Cause of Deviation	Repair Actions	Comments
Tues	1-Jul	21	1,406	Operational	None	N/A	None	
Wed	2-Jul	5	1,406	Operational	None	N/A	None	
Thurs	3-Jul			Operational	None	N/A	None	Nothing Scheduled To Run; No Chemicals available
Fri	4-Jul			Operational	None	N/A	None	Nothing Scheduled To Run; No Chemicals available
Sat	5-Jul							
Sun	6-Jul							
Mon	7-Jul			Operational	None	N/A	None	Nothing Scheduled To Run; No Chemicals available
Tues	8-Jul			Operational	None	N/A	None	Nothing Scheduled To Run; No Chemicals available
Wed	9-Jul			Operational	None	N/A	None	Nothing Scheduled To Run; No Chemicals available
Thurs	10-Jul			Operational	None	N/A	None	Nothing Scheduled To Run; No Chemicals available
Fri	11-Jul			Operational	None	N/A	None	Nothing Scheduled To Run; No Chemicals available
Sat	12-Jul							
Sun	13-Jul							
Mon	14-Jul	20	1406	Operational	None	N/A	None	
Tues	15-Jul	21	1406	Operational	None	N/A	None	
Wed	16-Jul	21	1407	Operational	None	N/A	None	
Thurs	17-Jul	11	1406	Operational	None	N/A	None	
Fri	18-Jul	5	1406	Operational	None	N/A	None	
Sat	19-Jul							
Sun	20-Jul							
Mon	21-Jul	21.5	1406	Operational	None	N/A	None	
Tues	22-Jul	22	1406	Operational	None	N/A	None	
Wed	23-Jul	22	1406	Operational	None	N/A	None	
Thurs	24-Jul	13	1406	Operational	None	N/A	None	
Fri	25-Jul		684	Operational	None	N/A	None	Nothing Scheduled To Run; No Chemicals available
Sat	26-Jul							
Sun	27-Jul							
Mon	28-Jul	12	1406	Operational	None	N/A	None	
Tues	29-Jul	10	1406	Operational	None	N/A	None	
Wed	30-Jul	13	1407	Operational	None	N/A	None	
Thurs	31-Jul	19	1406	Operational	None	N/A	None	

MANN+HUMMEL
93 S. La Patera Ln
Goleta, CA 93117

Santa Barbara County Air Pollution Control District
variance@sbcapcd.org

September 17, 2025

To Whom It May Concern:

Please find attached the monitoring and recordkeeping documentation for the thermal oxidizer (TO) for the month of August. Laboratory analysis indicates that the estimated TO Control Efficiency is calculated as 1 – (348/4944) resulting in an efficiency of approximately 90%.

There were no deviations, malfunctions or repair activities reported during the TO's operational period.

If you have any questions or require information, please feel free to contact me at (805) 803-3898 or via email at johnpaolo.quinto@mann-hummel.com.

Sincerely,

X John Paolo Quinto

John Paolo Quinto

Thermal Oxidizer Operation Tracking Chart

Day	Date	Run Time (Hours)	Operating Temp.	Operational Status (Operational, Shutdown)	Deviations (if any)	Cause of Deviation	Repair Actions	Comments
Friday	1-Aug	17	1,406	Operational	None	N/A	None	
Sat	2-Aug							
Sun	3-Aug							
Mon	4-Aug	0	865	Operational	None	N/A	None	Nothing Scheduled To Run; No Chemicals available
Tues	5-Aug	4	1406	Operational	None	N/A	None	
Wed	6-Aug	19	1405	Operational	None	N/A	None	
Thurs	7-Aug	12	1405	Operational	None	N/A	None	
Friday	8-Aug	12	1405	Operational	None	N/A	None	
Sat	9-Aug							
Sun	10-Aug							
Mon	11-Aug	10	1406	Operational	None	N/A	None	
Tues	12-Aug	13	1406	Operational	None	N/A	None	
Wed	13-Aug	20	1407	Operational	None	N/A	None	
Thurs	14-Aug	21	1406	Operational	None	N/A	None	
Friday	15-Aug	14	1406	Operational	None	N/A	None	
Sat	16-Aug							
Sun	17-Aug							
Mon	18-Aug	17	1406	Operational	None	N/A	None	
Tues	19-Aug	20	1407	Operational	None	N/A	None	
Wed	20-Aug	20	1406	Operational	None	N/A	None	
Thurs	21-Aug	19.5	1406	Operational	None	N/A	None	
Friday	22-Aug	15	1407	Operational	None	N/A	None	
Sat	23-Aug							
Sun	24-Aug							
Mon	25-Aug	13	1406	Operational	None	N/A	None	
Tues	26-Aug	20	1406	Operational	None	N/A	None	
Wed	27-Aug	11	1406	Operational	None	N/A	None	
Thurs	28-Aug	19.5	1406	Operational	None	N/A	None	
Friday	29-Aug	17	1406	Operational	None	N/A	None	
Sat	30-Aug							
Sun	31-Aug							

September 15, 2025

To: John Paolo Quinto, Mann-Hummel

From: Matt Dunn, Geosyntec Consultants, Inc.

Subject: Sampling Results for monthly ROC destruction efficiency of oxidizer Variance 04R from Santa Barbara County Air Pollution Control District

On Tuesday, August 26th, 2025, Geosyntec came to your facility and obtained process gas samples of influent and effluent streams of the thermal oxidizer (TO) to quantify the approximate control efficiency for reactive organic compounds (ROCs) leaving the ACM-VI casting process. This monitoring is part of the monthly monitoring to meet the requirements of the Variance obtained from the Santa Barbara County Air Pollution Control District (SBCAPCD).

Method: We contracted with Atmospheric Analysis and Consulting (AAC) to obtain two Summa cannisters and used the cannisters to gather a process gas sample in and out of the TO. We used the 30-minute flow controllers for sampling and conducted the process samples simultaneously between 10:15 pm and 10:45 pm. Adequate volumes were collected for Method 18 analysis.

Stainless steel tubing was used to convey the sample from the hot effluent and conventional Teflon tubing used to the inlet process side. Beginning and ending pressures of the cannisters were recorded. It was reported to Geosyntec the ACM-VI casting process was continuous during the day and the sampling period. A graphic of the sampling configuration is presented in Figure 1.

The summa cannisters were returned to AAC on August 26th, 2025. Method 18 analysis was performed on the two samples and results were provided to Geosyntec on a normal ten-day turnaround on September 9th, 2025.

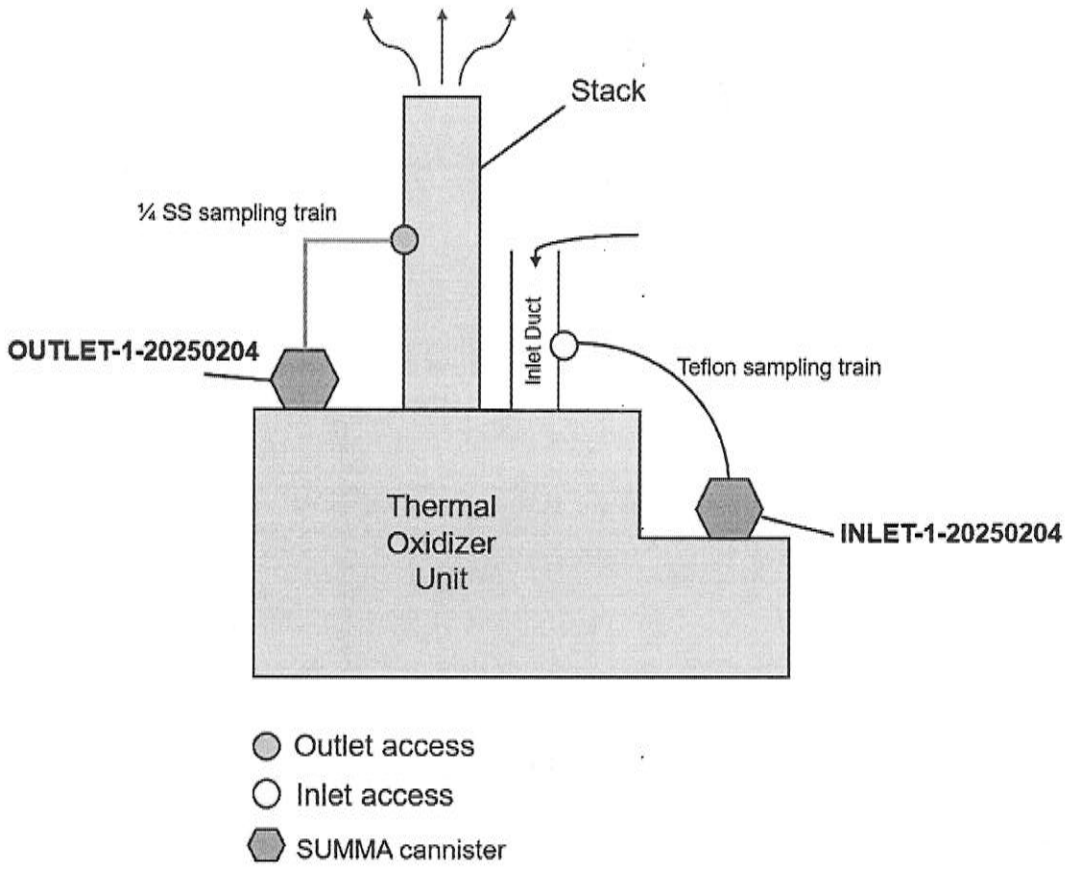

Figure 1 Sampling Configuration

Results: Attachment A to this memo provides the analytical results of the samples quantified by AAC. The results show a significant degree of destruction by the TO. Vapor concentrations of incoming non-methane, non-ethane hydrocarbons (aka reactive organic compounds or ROC) were quantified at 3,908 parts per million (ppm) as methane. The effluent concentrations of non-methane, non-ethane hydrocarbons (30-minute average) were measured at 386 ppm as methane. These one-hour average concentrations are total (wet) and are not adjusted for water content. This sampling data shows the destruction efficiency is around 90% without compensation for the increased outlet flow due to combustion. With an estimated 10% additional flow, the efficiency would be 89%. These results are not directly related to results from an official source test method prescribed by the SBCAPCD permit but provides a good indication.

ATTACHEMENT A

Test Report

Atmospheric Analysis & Consulting, Inc.

CLIENT	: Geosyntec
PROJECT NAME	: Mann + Hummel
PROJECT NUMBER	: SB1250
AAC PROJECT NO.	: 252156
REPORT DATE	: 09/09/2025

On August 26th 2025, Atmospheric Analysis & Consulting, Inc. received two (2) Six-Liter Summa Canisters for Hydrocarbon analysis by EPA 18 Modified. Upon receipt, the samples were assigned unique Laboratory ID numbers as follows:

Client ID	Lab No.	Return Pressure (mmHg)
Inlet -1-20250826	252156-79661	608.0
Outlet -1-20250826	252156-79662	654.0

This analysis is performed in accordance with AAC's Quality Manual. Test results apply to the sample(s) as received. For detailed information pertaining to specific EPA, NCASI, ASTM and SCAQMD accreditations (Methods & Analytes), please visit our website at www.aaclab.com.

I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. No problems were encountered during receiving, preparation, and/or analysis of these samples. The Technical Director or his/her designee, as verified by the following signature, has authorized release of the data.

If you have any questions or require further explanation of data results, please contact the undersigned.

Sucha Parmar, Ph.D.
Technical Director

This report consists of 4 pages.

2225 Sperry Ave., Ventura, CA 93003 www.aaclab.com (805) 650-1642

LABORATORY ANALYSIS REPORT

CLIENT : Geosyntec
PROJECT NO. : 252156
MATRIX : Air
UNITS : ppmV

SAMPLING DATE : 08/26/2025
RECEIVING DATE : 08/26/2025
ANALYSIS DATE : 09/08/2025
REPORT DATE : 09/09/2025

C_1 to C_6+ Hydrocarbons by EPA 18 Modified

Client ID	Inlet -1-20250826		SRL (RL x DF's)	Outlet -1-20250826		SRL (RL x DF's)	Reporting Limit (RL)
AAC ID	252156-79661			252156-79662			
Canister Dil. Fac.	1.48			1.39			
Analyte	Result	Analysis Dil. Fac.		Result	Analysis Dil. Fac.		
Methane	2.2	1	0.7	10.8	1	0.7	0.5
C_2 (as Ethane)	<SRL	1	0.7	37.9	1	0.7	0.5
C_3 (as Propane)	<SRL	1	0.7	26.7	1	0.7	0.5
C_4 (as Butane)	<SRL	1	0.7	25.2	1	0.7	0.5
C_5 (as Pentane)	1.0	1	0.7	13.2	1	0.7	0.5
C_6 (as Hexane)	<SRL	1	0.7	11.7	1	0.7	0.5
C_6+ (as Hexane)	696	1	0.7	15.1	1	0.7	0.5
THC (as Methane)	3910	1	0.7	470	1	0.7	0.5
TNMHC (as Methane)	3908	1	0.7	459	1	0.7	0.5
TNMNEHC (as Methane)	3908	1	0.7	386	1	0.7	0.5

Sample Reporting Limit (SRL) is equal to Reporting Limit (RL) x Canister Dilution Factor x Analysis Dilution Factor (if applicable)

THC - Total Hydrocarbons Reported as Methane

TNMHC - Total Non-Methane Hydrocarbons Reported as Methane

TNMNEHC - Total Non-Methane Non-Ethane Hydrocarbons Reported as Methane

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Quality Control/Quality Assurance Report

Cal Verification Date : 09/08/2025
Analyst : DG/RSF
Units : ppmv

Instrument ID : FID #3
Initial Cal Date : 11/09/24
Reporting Limit : 0.5 ppmv

I - Opening Continuing Calibration Verification - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
CCV	Spike Conc	96.1	95.7	96.8	96.3	101.5	101.9
	Result	88.8	87.9	90.7	90.2	92.0	95.1
	% Rec *	92.3	91.8	93.7	93.6	90.7	93.4

II - Method Blank - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
MB	Concentration	ND	ND	ND	ND	ND	ND

III - Laboratory Control Spike & Duplicate - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
LCS	Sample Conc	0.0	0.0	0.0	0.0	0.0	0.0
	Spike Conc	96.1	95.7	96.8	96.3	101.5	101.9
	LCS Result	93.6	92.7	95.0	95.7	98.1	102.1
	LCSD Result	91.2	89.2	91.8	91.6	93.8	92.3
	LCS % Rec *	97.3	96.9	98.2	99.3	96.7	100.3
	LCSD % Rec *	94.8	93.2	94.9	95.0	92.4	90.6
	% RPD ***	2.6	3.8	3.4	4.4	4.5	10.2

IV -Sample & Sample Duplicate - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
250961-74179	Sample	1.9	0.0	0.0	0.0	0.0	0.0
	Sample Dup	1.9	0.0	0.0	0.0	0.0	0.0
	Mean	1.9	0.0	0.0	0.0	0.0	0.0
	% RPD ***	0.4	0.0	0.0	0.0	0.0	0.0

V - Matrix Spike & Duplicate- EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
250961-74179	Sample Conc	0.9	0.0	0.0	0.0	0.0	0.0
	Spike Conc	48.1	47.9	48.4	48.2	50.7	50.9
	MS Result	47.1	44.1	45.7	45.6	47.0	48.4
	MSD Result	46.5	47.1	48.2	49.3	52.2	54.2
	MS % Rec **	96.1	92.1	94.5	94.6	92.6	94.9
	MSD % Rec **	94.7	98.4	99.7	102.5	103.0	106.4
	% RPD ***	1.5	6.6	5.4	8.0	10.6	11.3

VI - Closing Continuing Calibration Verification - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
CCV	Spike Conc	96.1	95.7	96.8	96.3	101.5	101.9
	Result	87.5	86.1	88.6	89.0	90.9	89.9
	% Rec *	91.0	90.0	91.5	92.4	89.6	88.2

** Must be 85-115%*

*** Must be 75-125%*

**** Must be < 25%*

ND = Not Detected

<RL = less than Reporting Limit

2225 Sperry Ave., Ventura, CA 93003 www.aaclab.com (805) 650-1642

ATMOSPHERIC ANALYSIS & CONSULTING, INC.
2225 Sperry Avenue
Ventura, California 93003
Phone (805) 650-1642
E-mail: info@aaclab.com

AAC Project No. 252156

CHAIN OF CUSTODY/ ANALYSIS REQUEST FORM

Client Name: Geosyntec
Project Name: Mann + Hummel
Project Mgr (Print Name): Matt Dunn
Project Number: SB1250
Sampler's Name (Print Name): Leah Michaeloff
Sampler's Signature: LM

AAC Sample No.	Date Sampled	Time Sampled	Sample Type	Client Sample ID/Description	Type/No. of Containers	EPA Methods					
000108	8/26/25	1015-1045	Air	INLET-1-20250826 (79661)		X					
001476	8/26/25	1015-1045	Air	OUTLET-1-20250826 (79662)		X					

Analysis Requested

Send report:
Attn: matthew.dunn@geosyntec.com
Phone#: 805-979-9175
Fax#

Send invoice to:
Attn: Matthew.Dunn@Geosyntec.com
P.O. #

Turnaround Time
24-Hr ____ 48-Hr ____
5 Day ____ Normal ✓
Other (Specify) ____

Special Instructions/remarks:

Relinquished by (Signature):	Print Name:	Date/Time	Received by (signature):	Print Name
LM	Leah Michaeloff	8/26/25 1205	[signature] 8/26/25	1203
Relinquished by (Signature):	Print Name:	Date/Time	Received by (signature):	Print Name

0/0 - 2c [illegible] 25.3 [illegible]

MANN+HUMMEL
93 S. La Patera Ln
Goleta, CA 93117

Santa Barbara County Air Pollution Control District
variance@sbcapcd.org

October 16, 2025

To Whom It May Concern:

Please find attached the monitoring and recordkeeping documentation for the thermal oxidizer (TO) for the month of September. Laboratory analysis indicates that the estimated TO Control Efficiency is calculated as 1 – (348/4944) resulting in an efficiency of approximately 42%.

There were no deviations, malfunctions or repair activities reported during the TO's operational period.

If you have any questions or require information, please feel free to contact me at (805) 803-3898 or via email at johnpaolo.quinto@mann-hummel.com.

Sincerely,

X John Paolo Quinto

John Paolo Quinto

Thermal Oxidizer Operation Tracking Chart

Day	Date	Run Time (Hours)	Operating Temp.	Operational Status (Operational, Shutdown)	Deviations (if any)	Cause of Deviation	Repair Actions	Comments
Mon	1-Sep							HOLIDAY
Tues	2-Sep	8	1406	Operational	None	N/A	None	
Wed	3-Sep	19.5	1406	Operational	None	N/A	None	
Thurs	4-Sep	20	1406	Operational	None	N/A	None	
Friday	5-Sep	20	1406	Operational	None	N/A	None	
Sat	6-Sep							
Sun	7-Sep							
Mon	8-Sep		806	Operational	None	N/A	None	Nothing Scheduled To Run
Tues	9-Sep		776	Operational	None	N/A	None	Nothing Scheduled To Run
Wed	10-Sep	8.5	1406	Operational	None	N/A	None	
Thurs	11-Sep	14	1406	Operational	None	N/A	None	
Friday	12-Sep		846	Operational	None	N/A	None	Nothing Scheduled To Run
Sat	13-Sep							
Sun	14-Sep							
Mon	15-Sep		810	Operational	None	N/A	None	Nothing Scheduled To Run
Tues	16-Sep	7	1406	Operational	None	N/A	None	
Wed	17-Sep	22	1406	Operational	None	N/A	None	
Thurs	18-Sep		836	Operational	None	N/A	None	Nothing Scheduled To Run
Friday	19-Sep		802	Operational	None	N/A	None	Nothing Scheduled To Run
Sat	20-Sep							
Sun	21-Sep							
Mon	22-Sep	16	1407	Operational	None	N/A	None	
Tues	23-Sep	19.5	1406	Operational	None	N/A	None	
Wed	24-Sep	20.5	1406	Operational	None	N/A	None	
Thurs	25-Sep	19	1406	Operational	None	N/A	None	
Friday	26-Sep	19	1406	Operational	None	N/A	None	
Sat	27-Sep							
Sun	28-Sep							
Mon	29-Sep	17	1406	Operational	None	N/A	None	
Tues	30-Sep	20	1406	Operational	None	N/A	None	

October 10, 2025

To: John Paolo Quinto, Mann-Hummel

From: Matt Dunn, Geosyntec Consultants, Inc.

Subject: Sampling Results for monthly ROC destruction efficiency of oxidizer Variance 04R from Santa Barbara County Air Pollution Control District

On Tuesday, September 25th, 2025, Geosyntec came to your facility and obtained process gas samples of influent and effluent streams of the thermal oxidizer (TO) to quantify the approximate control efficiency for reactive organic compounds (ROCs) leaving the ACM-VI casting process. This monitoring is part of the monthly monitoring to meet the requirements of the Variance obtained from the Santa Barbara County Air Pollution Control District (SBCAPCD).

Method: We contracted with Atmospheric Analysis and Consulting (AAC) to obtain two Summa cannisters and used the cannisters to gather a process gas sample in and out of the TO. We used the 30-minute flow controllers for sampling and conducted the process samples simultaneously between 10:17 am and 10:47 am. Adequate volumes were collected for Method 18 analysis.

Stainless steel tubing was used to convey the sample from the hot effluent and conventional Teflon tubing used to the inlet process side. Beginning and ending pressures of the cannisters were recorded. It was reported to Geosyntec the ACM-VI casting process was continuous during the day and the sampling period. A graphic of the sampling configuration is presented in Figure 1.

The summa cannisters were returned to AAC on the afternoon October 25th, 2025. Method 18 analysis was performed on the two samples and results were provided to Geosyntec on a normal ten-day turnaround on October 8th, 2025.

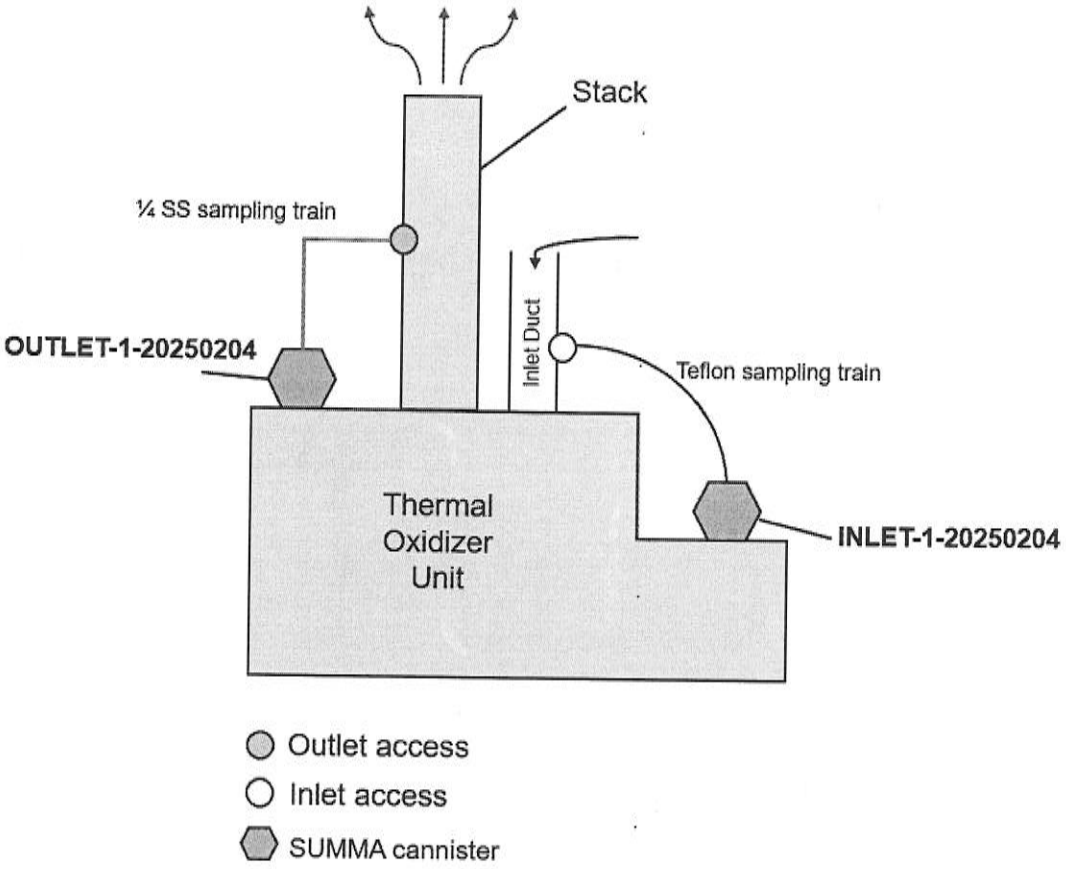

Figure 1 Sampling Configuration

Results: Attachment A to this memo provides the analytical results of the samples quantified by AAC. The results show a significant degree of destruction by the TO. Vapor concentrations of incoming non-methane, non-ethane hydrocarbons (aka reactive organic compounds or ROC) were quantified at 521 parts per million (ppm) as methane. The effluent concentrations of non-methane, non-ethane hydrocarbons (30-minute average) were measured at 303 ppm as methane. These one-hour average concentrations are total (wet) and are not adjusted for water content. This sampling data shows the destruction efficiency is around 42% without compensation for the increased outlet flow due to combustion. With an estimated 10% additional flow, the efficiency would be less than 40%. These results are not directly related to results from an official source test method prescribed by the SBCAPCD permit but provides a good indication.

ATTACHEMENT A

Test Report

Atmospheric Analysis & Consulting, Inc.

CLIENT	: Geosyntec Consultants
PROJECT NAME	: Mann + Hummel
PROJECT NUMBER	: SB1250
AAC PROJECT NO.	: 252408
REPORT DATE	: 10/08/2025

On September 25th 2025, Atmospheric Analysis & Consulting, Inc. received two (2) Six-Liter Summa Canisters for Hydrocarbon analysis by EPA 18 Modified. Upon receipt, the samples were assigned unique Laboratory ID numbers as follows:

Client ID	AAC ID	Return Pressure (mmHg)
Inlet-1-20250925	252408-80695	633.0
Outlet-1-20250925	252408-80696	640.5

This analysis is performed in accordance with AAC's Quality Manual. Test results apply to the sample(s) as received. For detailed information pertaining to specific EPA, NCASI, ASTM and SCAQMD accreditations (Methods & Analytes), please visit our website at www.aaclab.com.

I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. No problems were encountered during receiving, preparation, and/or analysis of these samples. The Technical Director or his/her designee, as verified by the following signature, has authorized release of the data.

If you have any questions or require further explanation of data results, please contact the undersigned.

Sucha Parmar, Ph.D.
Technical Director

This report consists of 4 pages.

2225 Sperry Ave., Ventura, CA 93003 www.aaclab.com (805) 650-1642

ATMOSPHERIC ANALYSIS & CONSULTING, INC.
2225 Sperry Avenue
Ventura, California 93003
Phone (805) 650-1642
E-mail: info@aaclab.com

AAC Project No. 252408

CHAIN OF CUSTODY/ ANALYSIS REQUEST FORM

Client Name: Geosyntec Consultants
Project Name: Mann + Hummel
Project Mgr (Print Name): Matt Dunn
Project Number: SB1250
Sampler's Name (Print Name): Leah Michaeloff
Sampler's Signature: LM

AAC Sample No.	Date Sampled	Time Sampled	Sample Type	Client Sample ID/Description	Type/No. of Containers	EPA METHOD 18					
80695	9/25/25	1017-1047	Air	INLET-1-20250925		X					
80696	9/25/25	1017-1047	Air	OUTLET-1-20250925		X					

Send report: MATTHEW.DUNN@GEOSYNTEC.COM
Attn:
Phone#: 805-979-9175
Fax#

Send invoice to: MATTHEW.DUNN@GEOSYNTEC.COM
Attn:
P.O. #

Turnaround Time
24-Hr ___ 48-Hr ___
5 Day ___ Normal ✓
Other (Specify) ___

Special Instructions/remarks:

Relinquished by (Signature):	Print Name:	Date/Time	Received by (signature):	Print Name
LM	Leah Michaeloff	9/25/25 12:25	[illegible] 9/25/25	1220
Relinquished by (Signature):	Print Name:	Date/Time	Received by (signature):	Print Name

D6 – 2+ m18s + 2+ 25-3

MANN+HUMMEL
93 S. La Patera Ln
Goleta, CA 93117

Santa Barbara County Air Pollution Control District
variance@sbcapcd.org

November 17, 2025

To Whom It May Concern:

Please find attached the monitoring and recordkeeping documentation for the thermal oxidizer (TO) for the month of September. Laboratory analysis indicates that the estimated TO Control Efficiency is calculated as 1 – (348/4944) resulting in an efficiency of approximately 36%.

There were no deviations, malfunctions or repair activities reported during the TO's operational period.

If you have any questions or require information, please feel free to contact me at (805) 803-3898 or via email at johnpaolo.quinto@mann-hummel.com.

Sincerely,

X John Paolo Quinto

John Paolo Quinto

Thermal Oxidizer Operation Tracking Chart

Day	Date	Run Time (Hours)	Operating Temp.	Operational Status (Operational, Shutdown)	Deviations (if any)	Cause of Deviation	Repair Actions	Comments
Wed	1-Oct	20	1,406	Operational	None	N/A	None	
Thurs	2-Oct	20	1,407	Operational	None	N/A	None	
Fri	3-Oct	20.5	1,405	Operational	None	N/A	None	
Sat	4-Oct	10	1,406	Operational	None	N/A	None	
Sun	5-Oct							
Mon	6-Oct	12	1,406	Operational	None	N/A	None	
Tue	7-Oct	13	1,406	Operational	None	N/A	None	
Wed	8-Oct	15	1,406	Operational	None	N/A	None	
Thurs	9-Oct	18.5	1,407	Operational	None	N/A	None	
Fri	10-Oct	6	1,407	Operational	None	N/A	None	
Sat	11-Oct	5	1,407	Operational	None	N/A	None	
Sun	12-Oct							
Mon	13-Oct	13	1,406	Operational	None	N/A	None	
Tues	14-Oct	15	1,406	Operational	None	N/A	None	
Wed	15-Oct	20.5	1,406	Operational	None	N/A	None	
Thurs	16-Oct	19.5	1,406	Operational	None	N/A	None	
Fri	17-Oct	20	1,405	Operational	None	N/A	None	
Sat	18-Oct	7	1,407	Operational	None	N/A	None	
Sun	19-Oct							
Mon	20-Oct	20	1,405	Operational	None	N/A	None	
Tues	21-Oct	20	1,407	Operational	None	N/A	None	
Wed	22-Oct	20	1,407	Operational	None	N/A	None	
Thurs	23-Oct	20	1,406	Operational	None	N/A	None	
Fri	24-Oct	20	1,406	Operational	None	N/A	None	
Sat	25-Oct	9	1,406	Operational	None	N/A	None	
Sun	26-Oct	5	1,406	Operational	None	N/A	None	
Mon	27-Oct	13	1,406	Operational	None	N/A	None	
Tues	28-Oct	18.5	1,406	Operational	None	N/A	None	
Wed	29-Oct	20	1,406	Operational	None	N/A	None	
Thurs	30-Oct	20	1,406	Operational	None	N/A	None	
Fri	31-Oct	17	1,406	Operational	None	N/A	None	

November 17, 2025

To: John Paolo Quinto, Mann-Hummel

From: Matt Dunn, Geosyntec Consultants, Inc.

Subject: Sampling Results for monthly ROC destruction efficiency of oxidizer Variance 04R from Santa Barbara County Air Pollution Control District

On Tuesday, October 29th, 2025, Geosyntec came to your facility and obtained process gas samples of influent and effluent streams of the thermal oxidizer (TO) to quantify the approximate control efficiency for reactive organic compounds (ROCs) leaving the ACM-VI casting process. This monitoring is part of the monthly monitoring to meet the requirements of the Variance obtained from the Santa Barbara County Air Pollution Control District (SBCAPCD).

Method: We contracted with Atmospheric Analysis and Consulting (AAC) to obtain two Summa cannisters and used the cannisters to gather a process gas sample in and out of the TO. We used the 30-minute flow controllers for sampling and conducted the process samples simultaneously between 11:10 am and 11:40 am. Adequate volumes were collected for Method 18 analysis.

Stainless steel tubing was used to convey the sample from the hot effluent and conventional Teflon tubing used to the inlet process side. Beginning and ending pressures of the cannisters were recorded. It was reported to Geosyntec the ACM-VI casting process was continuous during the day and the sampling period. A graphic of the sampling configuration is presented in Figure 1.

The summa cannisters were returned to AAC on the afternoon October 25th, 2025. Method 18 analysis was performed on the two samples and results were provided to Geosyntec on a normal ten-day turnaround on November 13th, 2025.

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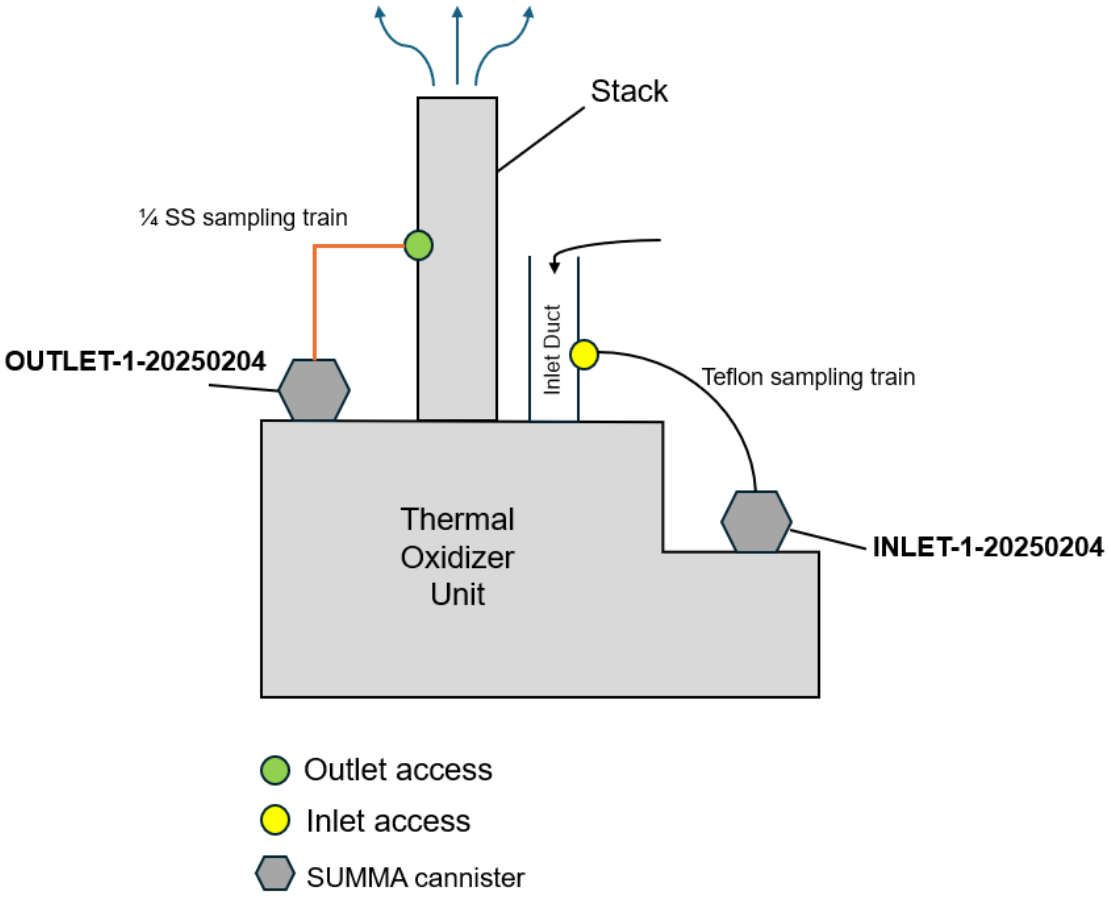

Figure 1 Sampling Configuration

Results: Attachment A to this memo provides the analytical results of the samples quantified by AAC. The results show a significant degree of destruction by the TO. Vapor concentrations of incoming non-methane, non-ethane hydrocarbons (aka reactive organic compounds or ROC) were quantified at 887 parts per million (ppm) as methane. The effluent concentrations of non-methane, non-ethane hydrocarbons (30-minute average) were measured at 564 ppm as methane. These half hour average concentrations are total (wet) and are not adjusted for water content. This sampling data shows the destruction efficiency is around 36% without compensation for the increased outlet flow due to combustion. With an estimated 10% additional flow, the efficiency would be less than 35%. These results are not directly related to results from an official source test method prescribed by the SBCAPCD permit but provides a good indication.

ATTACHEMENT A

Test Report

CLIENT	: Geosyntec
PROJECT NAME	: Mann + Hummel
AAC PROJECT NO.	: 252764
REPORT DATE	: 11/11/2025

On October 29th 2025, Atmospheric Analysis & Consulting, Inc. received two (2) Six-Liter Summa Canisters for Hydrocarbon analysis by EPA 18 Modified. Upon receipt, the samples were assigned unique Laboratory ID numbers as follows:

Client ID	AAC ID	Return Pressure (mmHg)
TO-IN-251029	252764-82165	624.5
TO-OUT-251029	252764-82166	630.5

This analysis is performed in accordance with AAC's Quality Manual. Test results apply to the sample(s) as received. For detailed information pertaining to specific EPA, NCASI, ASTM and SCAQMD accreditations (Methods & Analytes), please visit our website at www.aaclab.com.

I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. No problems were encountered during receiving, preparation, and/or analysis of these samples. The Technical Director or his/her designee, as verified by the following signature, has authorized release of the data.

If you have any questions or require further explanation of data results, please contact the undersigned.

Sucha Parmar, Ph.D.
Technical Director

This report consists of 4 pages.

2225 Sperry Ave., Ventura, CA 93003 www.aaclab.com (805) 650-1642

LABORATORY ANALYSIS REPORT

CLIENT : Geosyntec
PROJECT NO. : 252764
MATRIX : Air
UNITS : ppmV

SAMPLING DATE : 10/29/2025
RECEIVING DATE : 10/29/2025
ANALYSIS DATE : 11/05/2025
REPORT DATE : 11/11/2025

C_1 to C_6+ Hydrocarbons by EPA 18 Modified

Client ID	TO-1N-251029		SRL (RL x DF's)	TO-OUT-251029		SRL (RL x DF's)	Reporting Limit (RL)
AAC ID	252764-82165			252764-82166			
Canister Dil. Fac.	1.47			1.43			
Analyte	Result	Analysis Dil. Fac.		Result	Analysis Dil. Fac.		
Methane	2.3	1	0.7	11.6	1	0.7	0.5
C_2 (as Ethane)	<SRL	1	0.7	46.1	1	0.7	0.5
C_3 (as Propane)	<SRL	1	0.7	36.4	1	0.7	0.5
C_4 (as Butane)	<SRL	1	0.7	40.6	1	0.7	0.5
C_5 (as Pentane)	<SRL	1	0.7	26.3	1	0.7	0.5
C_6 (as Hexane)	<SRL	1	0.7	12.9	1	0.7	0.5
C_6+ (as Hexane)	158	1	0.7	19.2	1	0.7	0.5
THC (as Methane)	889	1	0.7	666	1	0.7	0.5
TNMHC (as Methane)	887	1	0.7	654	1	0.7	0.5
TNMNEHC (as Methane)	887	1	0.7	564	1	0.7	0.5

Sample Reporting Limit (SRL) is equal to Reporting Limit (RL) x Canister Dilution Factor x Analysis Dilution Factor (if applicable)

THC - Total Hydrocarbons Reported as Methane

TNMHC - Total Non-Methane Hydrocarbons Reported as Methane

TNMNEHC - Total Non-Methane Non-Ethane Hydrocarbons Reported as Methane

2225 Sperry Ave., Ventura, CA 93003 www.aaclab.com • (805) 650-1642

Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

Cal Verification Date : 11/05/2025
Analyst : MP
Units : ppmv

Instrument ID : FID #3
Initial Cal Date : 11/09/24
Reporting Limit : 0.5 ppmv

I - Opening Continuing Calibration Verification - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
CCV	Spike Conc	96.1	95.7	96.8	96.3	101.5	101.9
	Result	89.1	87.9	91.6	91.3	92.6	92.5
	% Rec *	92.6	91.9	94.6	94.8	91.3	90.8

II - Method Blank - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
MB	Concentration	ND	ND	ND	ND	ND	ND

III - Laboratory Control Spike & Duplicate - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
LCS	Sample Conc	0.0	0.0	0.0	0.0	0.0	0.0
	Spike Conc	96.1	95.7	96.8	96.3	101.5	101.9
	LCS Result	94.4	93.3	97.5	97.7	99.5	98.7
	LCSD Result	97.3	96.6	100.6	102.8	107.2	113.3
	LCS % Rec *	98.2	97.5	100.7	101.4	98.1	96.9
	LCSD % Rec *	101.2	100.9	104.0	106.7	105.6	111.2
	% RPD ***	3.0	3.5	3.2	5.0	7.5	13.8

IV -Sample & Sample Duplicate - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
250961-74180	Sample	2.0	0.0	0.0	0.0	0.0	0.0
	Sample Dup	2.0	0.0	0.0	0.0	0.0	0.0
	Mean	2.0	0.0	0.0	0.0	0.0	0.0
	% RPD ***	1.8	0.0	0.0	0.0	0.0	0.0

V - Matrix Spike & Duplicate- EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
250961-74180	Sample Conc	1.0	0.0	0.0	0.0	0.0	0.0
	Spike Conc	48.1	47.9	48.4	48.2	50.7	50.9
	MS Result	47.2	46.0	47.9	48.3	49.7	49.9
	MSD Result	48.0	46.8	49.3	50.2	52.1	53.3
	MS % Rec **	96.0	96.2	99.0	100.3	98.1	98.0
	MSD % Rec **	97.7	97.9	101.9	104.2	102.7	104.6
	% RPD ***	1.7	1.7	2.9	3.8	4.6	6.5

VI - Closing Continuing Calibration Verification - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
CCV	Spike Conc	96.1	95.7	96.8	96.3	101.5	101.9
	Result	87.5	87.4	97.7	99.8	104.3	103.6
	% Rec *	91.0	91.3	101.0	103.7	102.8	101.7

** Must be 85-115%*

*** Must be 75-125%*

**** Must be < 25%*

ND = Not Detected

<RL = less than Reporting Limit

2225 Sperry Ave., Ventura, CA 93003 www.aaclab.com (805) 650-1642

252764

CHAIN OF CUSTODY AND ANALYSIS REQUEST – Chain of Custody is a LEGAL DOCUMENT. Complete all relevant fields.

Atmospheric Analysis and Consulting · Phone: 805-650-1642 · Email: info@aaclab.com · 2225 Sperry Ave, Ventura, CA 93003

AAC Project No.:

Client/Company Name: Geosyntec

Project Manager Name: Matt Dunn

Project Name: Mann + Hummel

Project Number:

Send Report To (Name/Email/Address): Matt Dunn, matthew.dunn@geosyntec.com

Send Invoice To (Name/Email/Address): Matt Dunn, SAA

PO Number:

Turnaround Time

☐ Rush 24 h ☐ Same Day
☐ Rush 48 h ☐ 5 Days
☐ Rush 72 h ☑ Normal

Sampler Name

Print: Cameron Blaul

Signature: Cam Bla

Analysis Requested

Client Sample Name	Sample ID	Sampling Date	Sampling Time	Container Type/Qty	EPA 18					Lab ID	Sample Received via:
TO-IN-251029	82165	10/29/25	1110-1140		X						☐FedEx ☐UPS ☐Courier ☐Other
TO-OUT-251029	82166	10/29/25	1110-1140		X						
											Temperature °C
											Thermometer ID
											Initials
											Returned Eqmt
											Total cans:
											Unused cans:
											Flow Controllers:

LAB USE ONLY

Client Notes/Special Instructions:
TO-IN-251029: FC = FC254, can = 303
TO-OUT-251029: FC = FC136, can = 403

EDD? ☐Yes ☑No

LAB USE ONLY
Notes:

Relinquished By	Date	Received By	Date
Print: Cameron Blaul	10/29/25	Print: John Paolo Quinto	10/29/25
Signature: Cam Bla	Time 1154	Signature:	Time 1154
Relinquished By	Date	Received By	Date 10/29/25
Print:		Print: John Paolo Quinto	
Signature:	Time	Signature:	Time 16:2

2x 6L cans.

2x 25.3 FC

MANN+HUMMEL
93 S. La Patera Ln
Goleta, CA 93117

Santa Barbara County Air Pollution Control District
variance@sbcapcd.org

December 16, 2025

To Whom It May Concern:

Please find attached the monitoring and recordkeeping documentation for the thermal oxidizer (TO) for the month of September. Laboratory analysis indicates that the estimated TO Control Efficiency is calculated as 1 – (348/4944) resulting in an efficiency of approximately 90%.

There were no deviations, malfunctions or repair activities reported during the TO's operational period.

If you have any questions or require information, please feel free to contact me at (805) 803-3898 or via email at johnpaolo.quinto@mann-hummel.com.

Sincerely,

X John Paolo Quinto

John Paolo Quinto

December 8, 2025

To: John Paolo Quinto, Mann-Hummel

From: Matt Dunn, Geosyntec Consultants, Inc.

Subject: Sampling Results for monthly ROC destruction efficiency of oxidizer Variance 04R from Santa Barbara County Air Pollution Control District

On Wednesday 19th, 2025, Geosyntec came to your facility and obtained process gas samples of influent and effluent streams of the thermal oxidizer (TO) to quantify the approximate control efficiency for reactive organic compounds (ROCs) leaving the ACM-VI casting process. This monitoring is part of the monthly monitoring to meet the requirements of the Variance obtained from the Santa Barbara County Air Pollution Control District (SBCAPCD).

Method: We contracted with Atmospheric Analysis and Consulting (AAC) to obtain two Summa cannisters and used the cannisters to gather a process gas sample in and out of the TO. We used the 30-minute flow controllers for sampling and conducted the process samples simultaneously between 12:50 am and 1:20 am. Flow into the summa canisters was stopped in the middle of the time period to allow a maintenance event to occur in the ACM<V1 process. Once the event ended, flow into the cannisters was restarted. Adequate volumes were collected for Method 18 analysis.

Stainless steel tubing was used to convey the sample from the hot effluent and conventional Teflon tubing used to the inlet process side. Beginning and ending pressures of the cannisters were recorded. It was reported to Geosyntec the ACM-VI casting process was continuous during the day and the sampling period. A graphic of the sampling configuration is presented in Figure 1.

The summa cannisters were returned to AAC on the afternoon November 20th, 2025. Method 18 analysis was performed on the two samples and results were provided to Geosyntec on a normal ten-day turnaround on December 3rd, 2025.

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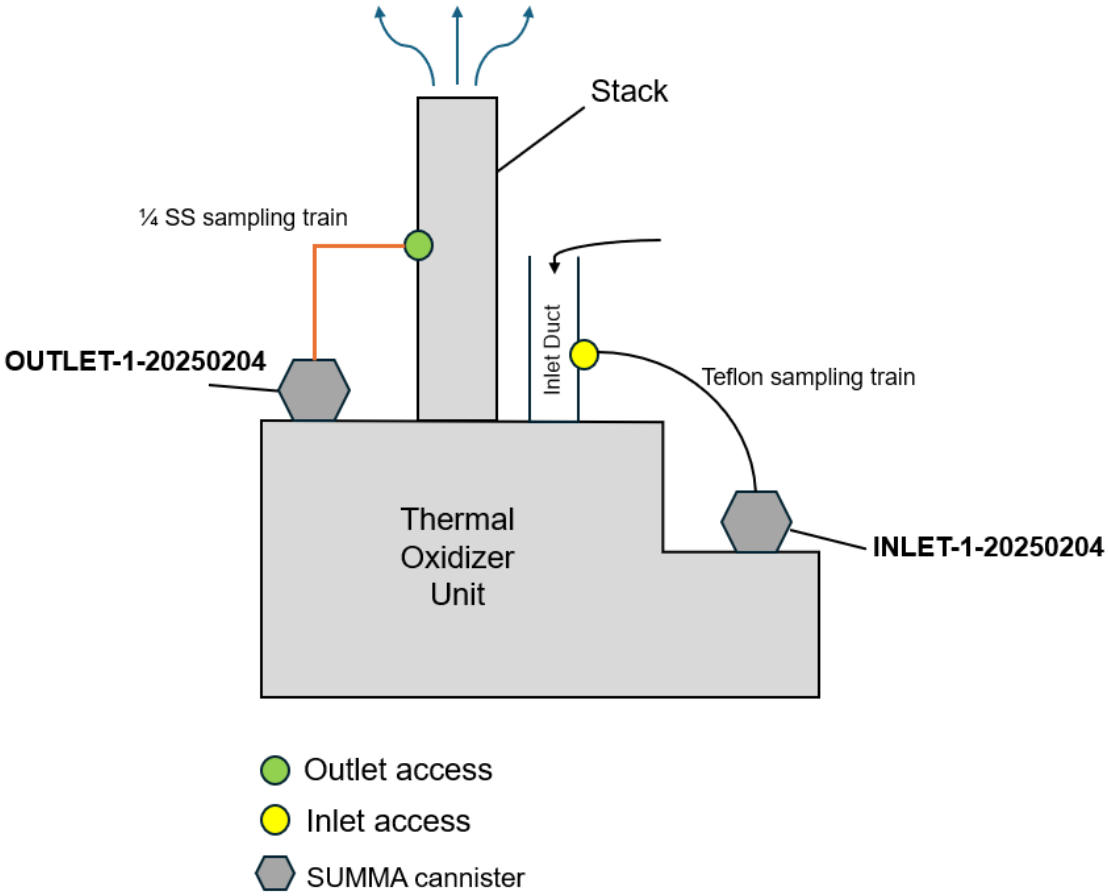

Figure 1 Sampling Configuration

Results: Attachment A to this memo provides the analytical results of the samples quantified by AAC. The results show a significant degree of destruction by the TO. Vapor concentrations of incoming non-methane, non-ethane hydrocarbons (aka reactive organic compounds or ROC) were quantified at 3,288 parts per million (ppm) as methane. The effluent concentrations of non-methane, non-ethane hydrocarbons (30-minute average) were measured at 345 ppm as methane. These half hour average concentrations are total (wet) and are not adjusted for water content. This sampling data shows the destruction efficiency is around 90% without compensation for the increased outlet flow due to combustion. With an estimated 10% additional flow, the efficiency would be less than 88%. These results are not directly related to results from an official source test method prescribed by the SBCAPCD permit but provides a good indication.

ATTACHEMENT A

Test Report

Atmospheric Analysis & Consulting, Inc.

CLIENT	:	Geosyntec
PROJECT NAME	:	Mann + Hummel
PROJECT NUMBER	:	SB1250
AAC PROJECT NO.	:	252987
REPORT DATE	:	12/03/2025

On November 20, 2025, Atmospheric Analysis & Consulting, Inc. received two (2) Six-Liter Summa Canisters for Hydrocarbon analysis by EPA 18 Modified. Upon receipt, the samples were assigned unique Laboratory ID numbers as follows:

Client ID	AAC ID	Return Pressure (mmHg)
TO-IN-251119	252987-83237	626.0
TO-OUT-251119	252987-83238	634.0

This analysis is performed in accordance with AAC's Quality Manual. Test results apply to the sample(s) as received. For detailed information pertaining to specific EPA, NCASI, ASTM and SCAQMD accreditations (Methods & Analytes), please visit our website at www.aaclab.com.

I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. No problems were encountered during receiving, preparation, and/or analysis of these samples. The Technical Director or his/her designee, as verified by the following signature, has authorized release of the data.

If you have any questions or require further explanation of data results, please contact the undersigned.

Sucha Parmar, Ph.D.
Technical Director

This report consists of 4 pages.

2225 Sperry Ave., Ventura, CA 93003 www.aaclab.com (805) 650-1642

LABORATORY ANALYSIS REPORT

CLIENT : Geosyntec
PROJECT NO. : 252987
MATRIX : Air
UNITS : ppmV

SAMPLING DATE : 11/19/2025
RECEIVING DATE : 11/20/2025
ANALYSIS DATE : 12/03/2025
REPORT DATE : 12/03/2025

C_1 to C_6+ Hydrocarbons by EPA 18 Modified

Client ID	TO-IN-251119		SRL (RL x DF's)	TO-OUT-251119		SRL (RL x DF's)	Reporting Limit (RL)
AAC ID	252987-83237			252987-83238			
Canister Dil. Fac.	1.5			1.6			
Analyte	Result	Analysis Dil. Fac.		Result	Analysis Dil. Fac.		
Methane	4.6	1	0.7	9.7	1	0.8	0.5
C_2 (as Ethane)	<SRL	1	0.7	32.3	1	0.8	0.5
C_3 (as Propane)	<SRL	1	0.7	28.5	1	0.8	0.5
C_4 (as Butane)	<SRL	1	0.7	27.6	1	0.8	0.5
C_5 (as Pentane)	1.2	1	0.7	12.2	1	0.8	0.5
C_6 (as Hexane)	<SRL	1	0.7	1.8	1	0.8	0.5
C_6+ (as Hexane)	585	1	0.7	16.0	1	0.8	0.5
THC (as Methane)	3293	1	0.7	418	1	0.8	0.5
TNMHC (as Methane)	3288	1	0.7	408	1	0.8	0.5
TNMNEHC (as Methane)	3288	1	0.7	345	1	0.8	0.5

Sample Reporting Limit (SRL) is equal to Reporting Limit (RL) x Canister Dilution Factor x Analysis Dilution Factor (if applicable)
THC - Total Hydrocarbons Reported as Methane
TNMHC - Total Non-Methane Hydrocarbons Reported as Methane
TNMNEHC - Total Non-Methane Non-Ethane Hydrocarbons Reported as Methane

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Quality Control/Quality Assurance Report

Cal Verification Date : 12/03/2025
Analyst : MP
Units : ppmv

Instrument ID : FID #3
Initial Cal Date : 11/09/24
Reporting Limit : 0.5 ppmv

I - Opening Continuing Calibration Verification - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
CCV	Spike Conc	96.1	95.7	96.8	96.3	101.5	101.9
	Result	89.8	90.0	93.9	94.1	95.4	100.8
	% Rec *	93.4	94.0	97.0	97.7	94.0	98.9

II - Method Blank - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
MB	Concentration	ND	ND	ND	ND	ND	ND

III - Laboratory Control Spike & Duplicate - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
LCS	Sample Conc	0.0	0.0	0.0	0.0	0.0	0.0
	Spike Conc	96.1	95.7	96.8	96.3	101.5	101.9
	LCS Result	91.4	90.8	94.2	95.1	96.4	99.0
	LCSD Result	92.1	91.5	95.2	94.6	96.0	94.9
	LCS % Rec *	95.1	94.9	97.4	98.7	95.0	97.2
	LCSD % Rec *	95.8	95.7	98.3	98.2	94.6	93.2
	% RPD ***	0.7	0.8	1.0	0.5	0.4	4.2

IV -Sample & Sample Duplicate - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
251859-78265	Sample	1.8	0.0	0.0	0.0	5.4	0.0
	Sample Dup	1.9	0.0	0.0	0.0	5.4	0.0
	Mean	1.8	0.0	0.0	0.0	0.0	0.0
	% RPD ***	4.3	0.0	0.0	0.0	0.0	0.0

V - Matrix Spike & Duplicate- EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
251859-7826	Sample Conc	0.9	0.0	0.0	0.0	0.0	0.0
	Spike Conc	48.1	47.9	48.4	48.2	50.7	50.9
	MS Result	48.7	46.9	53.4	54.4	58.4	56.8
	MSD Result	48.0	46.0	49.4	51.0	54.4	53.7
	MS % Rec **	99.5	98.1	110.3	112.9	115.1	111.4
	MSD % Rec **	98.0	96.1	102.1	105.9	107.2	105.5
	% RPD ***	1.5	2.0	7.8	6.4	7.1	5.5

VI - Closing Continuing Calibration Verification - EPA 18 Mod

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
CCV	Spike Conc	96.1	95.7	96.8	96.3	101.5	101.9
	Result	85.3	86.0	92.2	96.5	98.7	102.0
	% Rec *	88.7	89.9	95.3	100.2	97.2	100.1

** Must be 85-115%*

*** Must be 75-125%*

**** Must be < 25%*

ND = Not Detected

<RL = less than Reporting Limit

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CHAIN OF CUSTODY AND ANALYSIS REQUEST – Chain of Custody is a LEGAL DOCUMENT. Complete all relevant fields.

Atmospheric Analysis and Consulting · Phone: 805-650-1642 · Email: info@aaclab.com · 2225 Sperry Ave, Ventura, CA 93003

AAC Project No.:

Client/Company Name Geosyntec	**Project Name** Mann + Hummel
Project Manager Name Matt Dunn	**Project Number** SB1250
Turnaround Time ☐ Rush 24 h ☐ Same Day ☐ Rush 48 h ☐ 5 Days ☐ Rush 72 h ☑ Normal	**Sampler Name** Print: Cameron Blaul Signature: Cam Blaul

Send Report To (Name/Email/Address): Matt Dunn, matthew.dunn@geosyntec.com

Send Invoice To (Name/Email/Address): SAA

PO Number

Client Sample Name	Sample ID	Sampling Date	Sampling Time	Container Type/Qty	Analysis Requested: EPA 18	Lab ID
TO-IN-251119	83237	11/19/25	1250/1320		X	
TO-OUT-251119	83238	11/19/25	1250/1320		X	

LAB USE ONLY

Sample Received via: ☐FedEx ☐UPS ☑Courier ☐Other _____

Temperature _____ °C

Thermometer ID _____

Initials _____

Returned Eqmt

Total cans: _____

Unused cans: _____

Flow Controllers: _____

Client Notes/Special Instructions:

TO-IN-251119: FC = FC254, can = 001317

TO-OUT-251119: FC = FC136, can = 000202

EDD? ☐Yes ☑No

LAB USE ONLY Notes:

Relinquished By Print: Cameron Blaul Signature: Cam Blaul	**Date** 11/19/25 **Time** 1410	**Received By** Print: FedEx Signature:	**Date** 11/19/25 **Time** 1410
Relinquished By Print: Signature:	**Date** **Time**	**Received By** Print: Signature:	**Date** 11/20/25 **Time** 1118

FX 2X cans +2X 25.3 F<

Thermal Oxidizer Operation Tracking Chart

Day	Date	Run Time (Hours)	Operating Temp.	Operational Status (Operational, Shutdown)	Deviations (if any)	Cause of Deviation	Repair Actions	Comments
Sat	1-Nov							
Sun	2-Nov							
Mon	3-Nov	9	1406	Operational	None	N/A	None	
Tues	4-Nov	19.5	1406	Operational	None	N/A	None	
Wed	5-Nov	13	1406	Operational	None	N/A	None	
Thurs	6-Nov	10.5	1406	Operational	None	N/A	None	
Fri	7-Nov	6	1406	Operational	None	N/A	None	
Sat	8-Nov							
Sun	9-Nov							
Mon	10-Nov	5	1406	Operational	None	N/A	None	
Tues	11-Nov	19.5	1406	Operational	None	N/A	None	
Wed	12-Nov	19.5	1406	Operational	None	N/A	None	
Thurs	13-Nov	20	1406	Operational	None	N/A	None	
Fri	14-Nov	13	1406	Operational	None	N/A	None	
Sat	15-Nov							
Sun	16-Nov							
Mon	17-Nov	9	1406	Operational	None	N/A	None	
Tues	18-Nov	19	1406	Operational	None	N/A	None	
Wed	19-Nov	19	1406	Operational	None	N/A	None	
Thurs	20-Nov	17	1406	Operational	None	N/A	None	
Fri	21-Nov	11.5	1406	Operational	None	N/A	None	
Sat	22-Nov							
Sun	23-Nov							
Mon	24-Nov	11	1406	Operational	None	N/A	None	
Tues	25-Nov	19.5	1406	Operational	None	N/A	None	
Wed	26-Nov	12	1406	Operational	None	N/A	None	
Thurs	27-Nov							**HOLIDAY**
Fri	28-Nov							**HOLIDAY**
Sat	29-Nov							
Sun	30-Nov							