

### Technical Report for

### Providence Engineering

Valero-CAMS, Baton Rouge, LA

712-001

SGS Accutest Job Number: JC38133

Sampling Date: 02/17/17

#### Report to:

Providence Engineering

kevincalhoun@providenceeng.com

ATTN: Kevin Calhoun

Total number of pages in report: 10



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy Cole  
Laboratory Director

Client Service contact: Victoria Pushkova 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (L-A-B L2248)

This report shall not be reproduced, except in its entirety, without the written approval of SGS Accutest.  
Test results relate only to samples analyzed.

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## Sample Summary

**Providence Engineering**

**Job No: JC38133**

**Valero-CAMS, Baton Rouge, LA**  
**Project No: 712-001**

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
JC38133-1	02/17/17	13:00 KH	03/02/17	AIR	Ambient Air Grab	CAMS 335

**Sample Results**

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**Report of Analysis**

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### Report of Analysis

<b>Client Sample ID:</b> CAMS 335		<b>Date Sampled:</b> 02/17/17
<b>Lab Sample ID:</b> JC38133-1		<b>Date Received:</b> 03/02/17
<b>Matrix:</b> AIR - Ambient Air Grab	<b>Summa ID:</b> A184	<b>Percent Solids:</b> n/a
<b>Method:</b> TO-15		
<b>Project:</b> Valero-CAMS, Baton Rouge, LA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3W58784.D	1	03/14/17	TCH	n/a	n/a	V3W2234
Run #2							

Run #	Initial Volume
Run #1	400 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	ND	0.20	0.036	ppbv		ND	0.48	0.086	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	0.062	ug/m3
71-43-2	78.11	Benzene	0.56	0.20	0.031	ppbv		1.8	0.64	0.099	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	0.26	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	0.17	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	0.070	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	0.079	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	0.14	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	0.26	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	0.095	ug/m3
67-66-3	119.4	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	0.083	ug/m3
74-87-3	50.49	Chloromethane	0.51	0.20	0.052	ppbv		1.1	0.41	0.11	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	0.085	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	0.088	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	0.20	ug/m3
110-82-7	84.16	Cyclohexane	1.2	0.20	0.016	ppbv		4.1	0.69	0.055	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	0.061	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
106-93-4	187.9	1,2-Dibromoethane	3.3	0.20	0.042	ppbv		25	1.5	0.32	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	0.073	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	0.10	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	0.16	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.40	0.20	0.019	ppbv		2.0	0.99	0.094	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	0.45	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	0.11	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	0.068	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	0.12	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	0.096	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	0.082	ug/m3

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

### Report of Analysis

<b>Client Sample ID:</b> CAMS 335		
<b>Lab Sample ID:</b> JC38133-1		<b>Date Sampled:</b> 02/17/17
<b>Matrix:</b> AIR - Ambient Air Grab	<b>Summa ID:</b> A184	<b>Date Received:</b> 03/02/17
<b>Method:</b> TO-15		<b>Percent Solids:</b> n/a
<b>Project:</b> Valero-CAMS, Baton Rouge, LA		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	1.6	0.50	0.075	ppbv		3.0	0.94	0.14	ug/m3
100-41-4	106.2	Ethylbenzene	0.20	0.20	0.042	ppbv		0.87	0.87	0.18	ug/m3
141-78-6	88	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	0.27	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	0.084	ug/m3
76-13-1	187.4	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	0.16	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	0.22	ug/m3
142-82-5	100.2	Heptane	0.76	0.20	0.020	ppbv		3.1	0.82	0.082	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	0.21	ug/m3
110-54-3	86.17	Hexane	2.5	0.20	0.023	ppbv		8.8	0.70	0.081	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	0.18	ug/m3
67-63-0	60.1	Isopropyl Alcohol	0.24	0.20	0.16	ppbv		0.59	0.49	0.39	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	0.087	ug/m3
78-93-3	72.11	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	0.14	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	0.072	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	0.16	ug/m3
115-07-1	42	Propylene	ND	0.50	0.032	ppbv		ND	0.86	0.055	ug/m3
100-42-5	104.1	Styrene	ND	0.20	0.015	ppbv		ND	0.85	0.064	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	0.11	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	0.21	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	0.42	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	0.17	0.20	0.015	ppbv	J	0.84	0.98	0.074	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	0.048	0.20	0.045	ppbv	J	0.24	0.98	0.22	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	0.28	0.20	0.023	ppbv		1.3	0.93	0.11	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	0.16	ug/m3
127-18-4	165.8	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	0.16	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	0.13	ug/m3
108-88-3	92.14	Toluene	1.6	0.20	0.012	ppbv		6.0	0.75	0.045	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	0.10	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.21	0.20	0.022	ppbv		1.2	1.1	0.12	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	0.054	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	0.19	ug/m3
	106.2	m,p-Xylene	0.72	0.20	0.068	ppbv		3.1	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	0.26	0.20	0.051	ppbv		1.1	0.87	0.22	ug/m3
1330-20-7	106.2	Xylenes (total)	0.98	0.20	0.051	ppbv		4.3	0.87	0.22	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	100%		65-128%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

**Misc. Forms****Custody Documents and Other Forms**

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**Includes the following where applicable:**

- Chain of Custody
- Summa Canister and Flow Controller Log

**AIR CHAIN OF CUSTODY**

SGS Accutest - Dayton  
 2335 Route 130, Dayton, NJ 08810  
 TEL: 732-329-0200 FAX: 732-329-3499/3480  
 www.accutest.com

FED-EX Tracking #  
 Lab Quote # VP-10/31/2016-657  
 Lab Job # JC38133

Client / Reporting Information			Project Information					Weather Parameters					Requested Analysis																																																																																																																																											
Company Name: Providence Engr			Project Name: Valero Refining					Temperature (Fahrenheit)					Requested Analysis																																																																																																																																											
Address: 1201 Main St			Street					Start: Maximum:																																																																																																																																																
City: BR, State: CA, Zip: 70802			City: Meramx, State: LA					Stop: Minimum:																																																																																																																																																
Project Contact: Paul Hollis @ providenceengr			Project #: 712-001					Atmospheric Pressure (Inches of Hg)																																																																																																																																																
Phone #: 225-766-7460, Fax #: 714-40-7440			Client Purchase Order #					Start: Maximum:																																																																																																																																																
Sampler(s) Name(s): KLU								Stop: Minimum:					5-0-1																																																																																																																																											
Other weather comment:																																																																																																																																																								
Lab Sample #	Field ID / Point of Collection	Air Type				Start Sampling Information					Stop Sampling Information																																																																																																																																													
		Indoor(I) Soil Vap(SV) Ambient(A)	Canister Serial #	Canister Size 6L or 1L	Flow Controller Serial #	Date	Time (24hr clock)	Canister Pressure ("Hg)	Interior Temp (F)	Sampler Init.	Date	Time (24hr clock)	Canister Pressure ("Hg)	Interior Temp (F)	Sampler Init.																																																																																																																																									
1	Cams 335	A	A184	6L		2-16	1300	30	75	KLU	2-17	1300	5	75	KLU	✓																																																																																																																																								
<table border="1"> <tr> <th colspan="4">Turnaround / Time (Business days)</th> <th colspan="4">Data Deliverable Information</th> <th colspan="9">Comments / Remarks</th> </tr> <tr> <td>Standard - 15 Days</td> <td><input checked="" type="checkbox"/></td> <td>Approved By: _____</td> <td>Date: _____</td> <td colspan="4">All NJDEP TO-15 is mandatory Full T1</td> <td colspan="9">COC seal Fuel EX INITIAL ASSESSMENT 4/9/11 LABEL VERIFICATION 1/8</td> </tr> <tr> <td>10 Day</td> <td><input type="checkbox"/></td> <td colspan="2"></td> <td colspan="4"></td> <td colspan="9"></td> </tr> <tr> <td>5 Day</td> <td><input type="checkbox"/></td> <td colspan="2"></td> <td colspan="4"></td> <td colspan="9"></td> </tr> <tr> <td>3 Day</td> <td><input type="checkbox"/></td> <td colspan="2"></td> <td colspan="4"></td> <td colspan="9"></td> </tr> <tr> <td>2 Day</td> <td><input type="checkbox"/></td> <td colspan="2"></td> <td colspan="4"></td> <td colspan="9"></td> </tr> <tr> <td>1 Day</td> <td><input type="checkbox"/></td> <td colspan="2"></td> <td colspan="4"></td> <td colspan="9"></td> </tr> <tr> <td>Other</td> <td><input type="checkbox"/></td> <td colspan="2"></td> <td colspan="4"></td> <td colspan="9"></td> </tr> </table>																	Turnaround / Time (Business days)				Data Deliverable Information				Comments / Remarks									Standard - 15 Days	<input checked="" type="checkbox"/>	Approved By: _____	Date: _____	All NJDEP TO-15 is mandatory Full T1				COC seal Fuel EX INITIAL ASSESSMENT 4/9/11 LABEL VERIFICATION 1/8									10 Day	<input type="checkbox"/>																5 Day	<input type="checkbox"/>																3 Day	<input type="checkbox"/>																2 Day	<input type="checkbox"/>																1 Day	<input type="checkbox"/>																Other	<input type="checkbox"/>															
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<p>Sample Custody must be documented below each time samples change possession, including courier delivery.</p> <table border="1"> <tr> <td>Relinquished By: [Signature]</td> <td>Date/Time: 11/17/16 10:15</td> <td>Received By: FedEx</td> <td>Relinquished By: FedEx</td> <td>Date/Time:</td> <td>Received By:</td> </tr> <tr> <td>Relinquished By: [Signature]</td> <td>Date/Time: 3/1/17 1700</td> <td>Received By: FedEx</td> <td>Relinquished By: FedEx</td> <td>Date/Time: 3/1/17 0925</td> <td>Received By: [Signature]</td> </tr> <tr> <td>Relinquished By:</td> <td>Date/Time:</td> <td>Received By:</td> <td>Custody Seal #: 682 initial</td> <td></td> <td></td> </tr> </table>																	Relinquished By: [Signature]	Date/Time: 11/17/16 10:15	Received By: FedEx	Relinquished By: FedEx	Date/Time:	Received By:	Relinquished By: [Signature]	Date/Time: 3/1/17 1700	Received By: FedEx	Relinquished By: FedEx	Date/Time: 3/1/17 0925	Received By: [Signature]	Relinquished By:	Date/Time:	Received By:	Custody Seal #: 682 initial																																																																																																																								
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## SGS Accutest Sample Receipt Summary

Job Number: JC38133

Client: \_\_\_\_\_

Project: \_\_\_\_\_

Date / Time Received: 3/2/2017 9:25:00 AM

Delivery Method: \_\_\_\_\_

Airbill #'s: \_\_\_\_\_

Cooler Temps (Raw Measured) °C:

Cooler Temps (Corrected) °C:

<u>Cooler Security</u>	<u>Y or N</u>		<u>Y or N</u>	<u>Y or N</u>	
1. Custody Seals Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<u>Cooler Temperature</u>	<u>Y or N</u>	
1. Temp criteria achieved:	<input type="checkbox"/>	<input type="checkbox"/>
2. Cooler temp verification:	N/A	
3. Cooler media:	N/A	
4. No. Coolers:	N/A	

<u>Quality Control Preservation</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Trip Blank listed on COC:	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. VOCs headspace free:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

<u>Sample Integrity - Documentation</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		<input type="checkbox"/>

<u>Sample Integrity - Condition</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample recvd within HT:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Condition of sample:	Intact		

<u>Sample Integrity - Instructions</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

SM089-02  
Rev. Date 12/1/16

JC38133: Chain of Custody

Page 2 of 2

# Summa Canister and Flow Controller Log

**Job Number:** JC38133  
**Account:** PROVLABR Providence Engineering  
**Project:** Valero-CAMS, Baton Rouge, LA  
**Received:** 03/02/17

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SUMMA CANISTERS													
Shipping							Receiving						
Summa ID	Vac L	Date " Hg	Date Out	By	SCC Batch	SCC FileID	Sample Number	Date In	By	Vac " Hg	Pres psig	Final psig	Dil Fact
A184	6	29.4	02/10/17	PC	CP8988	5W22695A	DJC38133-1	03/02/17	RD	5			1

**SGS Accutest Bottle Order(s):**  
 VP-2/10/2017-72

**Prep Date**      **Room Temp(F)**      **Bar Pres "Hg**  
 02/10/17          70                                  29.92