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## Technical Report for

### Providence Engineering

Valero-CAMS, Baton Rouge, LA

712-001

Accutest Job Number: JC11685

Sampling Date: 12/19/15

#### Report to:

Providence Engineering

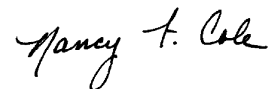
kevincalhoun@providenceeng.com

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, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TN, TX, VA, WV, DoD ELAP (L-A-B L2248)

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Test results relate only to samples analyzed.

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## Sample Summary

**Providence Engineering**

**Job No: JC11685**

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

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JC11685-1	12/19/15	13:00 KH	12/29/15	AIR	Ambient Air Grab	CAMS 264

**Sample Results**

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**Report of Analysis**

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## Report of Analysis

Client Sample ID:	CAMS 264	Date Sampled:	12/19/15
Lab Sample ID:	JC11685-1	Date Received:	12/29/15
Matrix:	AIR - Ambient Air Grab Summa ID: A1054	Percent Solids:	n/a
Method:	TO-15		
Project:	Valero-CAMS, Baton Rouge, LA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W15448.D	1.48	12/30/15	TCH	n/a	n/a	V5W618
Run #2							

Run #	Initial Volume
Run #1	592 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	14.5	0.20	0.032	ppbv		34.4	0.48	0.076	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.031	ppbv		ND	0.44	0.069	ug/m3
71-43-2	78.11	Benzene	0.28	0.20	0.030	ppbv		0.89	0.64	0.096	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.032	ppbv		ND	1.3	0.21	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.020	ppbv		ND	2.1	0.21	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.022	ppbv		ND	0.78	0.085	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.020	ppbv		ND	0.87	0.087	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.026	ppbv		ND	1.0	0.13	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.20	0.029	ppbv		ND	0.62	0.090	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.032	ppbv		ND	0.92	0.15	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.022	ppbv		ND	0.53	0.058	ug/m3
67-66-3	119.4	Chloroform	ND	0.20	0.031	ppbv		ND	0.98	0.15	ug/m3
74-87-3	50.49	Chloromethane	1.6	0.20	0.029	ppbv		3.3	0.41	0.060	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.028	ppbv		ND	0.63	0.088	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.033	ppbv		ND	1.0	0.17	ug/m3
56-23-5	153.8	Carbon tetrachloride	0.12	0.20	0.025	ppbv	J	0.75	1.3	0.16	ug/m3
110-82-7	84.16	Cyclohexane	0.26	0.20	0.032	ppbv		0.89	0.69	0.11	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.031	ppbv		ND	0.81	0.13	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	0.11	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.20	0.035	ppbv		ND	1.5	0.27	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.026	ppbv		ND	0.81	0.11	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.050	ppbv		ND	0.92	0.23	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.063	ppbv		ND	0.72	0.23	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.87	0.20	0.037	ppbv		4.3	0.99	0.18	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.041	ppbv		ND	1.7	0.35	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.020	ppbv		ND	0.79	0.079	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.025	ppbv		ND	0.79	0.099	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.035	ppbv		ND	0.91	0.16	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.028	ppbv		ND	1.2	0.17	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.030	ppbv		ND	1.2	0.18	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.20	0.019	ppbv		ND	1.2	0.11	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.020	ppbv		ND	0.91	0.091	ug/m3

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	CAMS 264	Date Sampled:	12/19/15
Lab Sample ID:	JC11685-1	Date Received:	12/29/15
Matrix:	AIR - Ambient Air Grab	Summa ID:	A1054
Method:	TO-15	Percent Solids:	n/a
Project:	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	6.0	0.50	0.17	ppbv		11	0.94	0.32	ug/m3
100-41-4	106.2	Ethylbenzene	0.10	0.20	0.048	ppbv	J	0.43	0.87	0.21	ug/m3
141-78-6	88	Ethyl Acetate	0.11	0.20	0.064	ppbv	J	0.40	0.72	0.23	ug/m3
622-96-8	120.2	4-Ethyltoluene	0.10	0.20	0.022	ppbv	J	0.49	0.98	0.11	ug/m3
76-13-1	187.4	Freon 113	0.12	0.20	0.027	ppbv	J	0.92	1.5	0.21	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.025	ppbv		ND	1.4	0.17	ug/m3
142-82-5	100.2	Heptane	0.24	0.20	0.029	ppbv		0.98	0.82	0.12	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.033	ppbv		ND	2.1	0.35	ug/m3
110-54-3	86.17	Hexane	0.71	0.20	0.028	ppbv		2.5	0.70	0.099	ug/m3
591-78-6	100	2-Hexanone	0.66	0.20	0.044	ppbv		2.7	0.82	0.18	ug/m3
67-63-0	60.1	Isopropyl Alcohol	0.96	0.20	0.12	ppbv		2.4	0.49	0.29	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.20	0.13	ppbv		ND	0.69	0.45	ug/m3
78-93-3	72.11	Methyl ethyl ketone	2.5	0.20	0.049	ppbv		7.4	0.59	0.14	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.20	0.027	ppbv		ND	0.82	0.11	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.026	ppbv		ND	0.72	0.094	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.030	ppbv		ND	0.82	0.12	ug/m3
115-07-1	42	Propylene	ND	0.50	0.081	ppbv		ND	0.86	0.14	ug/m3
100-42-5	104.1	Styrene	ND	0.20	0.026	ppbv		ND	0.85	0.11	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.20	0.032	ppbv		ND	1.1	0.17	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.030	ppbv		ND	1.4	0.21	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.036	ppbv		ND	1.1	0.20	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.044	ppbv		ND	1.5	0.33	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	0.20	0.20	0.023	ppbv		0.98	0.98	0.11	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.20	0.030	ppbv		ND	0.98	0.15	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.20	0.021	ppbv		ND	0.93	0.098	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.20	0.050	ppbv		ND	0.61	0.15	ug/m3
127-18-4	165.8	Tetrachloroethylene	ND	0.040	0.024	ppbv		ND	0.27	0.16	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.20	0.043	ppbv		ND	0.59	0.13	ug/m3
108-88-3	92.14	Toluene	0.42	0.20	0.020	ppbv		1.6	0.75	0.075	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.040	0.025	ppbv		ND	0.21	0.13	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.43	0.20	0.020	ppbv		2.4	1.1	0.11	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.032	ppbv		ND	0.51	0.082	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.055	ppbv		ND	0.70	0.19	ug/m3
	106.2	m,p-Xylene	0.37	0.20	0.043	ppbv		1.6	0.87	0.19	ug/m3
95-47-6	106.2	o-Xylene	0.18	0.20	0.026	ppbv	J	0.78	0.87	0.11	ug/m3
1330-20-7	106.2	Xylenes (total)	0.55	0.20	0.026	ppbv		2.4	0.87	0.11	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	102%		65-128%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Misc. Forms

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### Custody Documents and Other Forms

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**Includes the following where applicable:**

- Chain of Custody
- Summa Canister and Flow Controller Log

AVR



### CHAIN OF CUSTODY

#### Air Sampling Field Data Sheet

FEDEX Tracking # 168190621556  
Lab Quote #

Book Order Control # VP-712/2015-24  
Lab Job # JC11685

Client / Reporting Information							Weather Parameters					Requested Analysis				
Company Name: <u>Providence Engr</u>				Project Name: <u>Valero Refining</u>			Temperature (Fahrenheit)					Standard TO-15 Reporting List				
Address: <u>1201 Main St</u>				Street:			Start:		Maximum:							
City: <u>B12</u> State: <u>CA</u> Zip: <u>70802</u>				City: <u>Meramx</u> State: <u>CA</u>			Stop:		Minimum:							
Project Contact: <u>paul@providenceeng.com</u>				Project #: <u>712-001</u>			Atmospheric Pressure (inches of Hg)									
Phone #: <u>225-766-7400</u> Fax #: <u>-7440</u>				Client Purchase Order #:			Start:		Maximum:							
Sampler(s) Name(s): <u>Kan Hudson</u>				Other weather comment:			Stop:		Minimum:							
Lab Sample #	Field ID / Point of Collection	Air Type		Sampling Equipment Info			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 (Hhg)	Interior Temp (F)	Sampler Init.	Date	Time (24hr clock)	Canister Pressure (Hhg)	Interior Temp (F)	Sampler Init.	
1	CA11685 264	A	A1054	6L	-	12-18	1300	0.02	75	KH	12-19	1300	0.48	75	KH	✓
Turnaround Time (Business days)		Approved By:			Data Deliverable Information					Comments / Remarks						
Standard - 15 Days 10 Day 5 Day 3 Day 2 Day 1 Day Other		Date: _____			All NJDEP TO-15 is mandatory Full T1 Comm A Comm B Reduced T2 Full T1 Other:					INITIAL ASSESSMENT <u>HM/BV</u> LABEL VERIFICATION <u>BV</u>						
Sample Custody must be documented below each time samples change possession, including courier delivery.																
Relinquished by Lab #	Date/Time	Received By:	Relinquished By:	Date/Time	Received By:	Relinquished By:	Date/Time	Received By:	Relinquished By:	Date/Time	Received By:	SUMMARY				
1 <u>Ray Mansano</u>	<u>7/21/15 1600</u>	<u>FedEx</u>	<u>FedEx</u>		<u>FedEx</u>	<u>FedEx</u>										
3 <u>A. J.</u>		<u>FedEx</u>	<u>FedEx</u>		<u>FedEx</u>	<u>FedEx</u>										
5			Custody Seal #							<u>12/29/15 9:30</u>	<u>Bassalote</u>					

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JC11685: Chain of Custody



**Accutest Job Number:** JC11685      **Client:** \_\_\_\_\_      **Project:** \_\_\_\_\_  
**Date / Time Received:** 12/29/2015 9:30:00 AM      **Delivery Method:** \_\_\_\_\_      **Airbill #s:** \_\_\_\_\_

Cooler Temps (Raw Measured) °C: \_\_\_\_\_  
 Cooler Temps (Corrected) °C: \_\_\_\_\_

**Cooler Security**

<b>Y or N</b>	<b>Y or N</b>
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. Smp'l Dates/Time OK: <input checked="" type="checkbox"/> <input type="checkbox"/>

**Cooler Temperature**

<b>Y or N</b>	
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

**Quality Control Preservation**

	<b>Y</b>	<b>or</b>	<b>N</b>		<b>N/A</b>
1. Trip Blank present / cooler:	<input type="checkbox"/>		<input type="checkbox"/>		<input checked="" type="checkbox"/>
2. Trip Blank listed on COC:	<input type="checkbox"/>		<input type="checkbox"/>		<input checked="" 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"/>

**Sample Integrity - Documentation**

	<b>Y</b>	<b>or</b>	<b>N</b>
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"/>

**Sample Integrity - Condition**

	<b>Y</b>	<b>or</b>	<b>N</b>
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		

**Sample Integrity - Instructions**

	<b>Y</b>	<b>or</b>	<b>N</b>		<b>N/A</b>
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

# Summa Canister and Flow Controller Log

**Job Number:** JC11685  
**Account:** PROVLABR Providence Engineering  
**Project:** Valero-CAMS, Baton Rouge, LA  
**Received:** 12/29/15

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SUMMA CANISTERS													
Shipping							Receiving						
Summa ID	L	Vac " Hg	Date Out	By	SCC Batch	SCC FileID	Sample Number	Date In	By	Vac " Hg	Pres psig	Final psig	Dil Fact
A1054	6	29.4	12/02/15	RC	CP8081	3W51312.D	JC11685-1	12/29/15	RD	8		1.2	1.48

**Accutest Bottle Order(s):**  
 VP-12/2/2015-15

**Prep Date**      **Room Temp(F)**      **Bar Pres "Hg**  
 12/02/15          70                                  29.92