TEST REPORT

COMPLIANCE EMISSION TEST PROGRAM

SRU NO. 1 TAILGAS INCINERATOR: EPN SRU1-INCIN

TCEQ AIR PERMIT NO. 2937 AND PSD-TX-1023M1

TCEQ ACCOUNT NO. NE-0043-A

REGULATED ENTITY NO. RN100211663

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CORPUS CHRISTI, TEXAS

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Valero P.O. No. 4501908488
Test Dates: April 27 and 28, 2010

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REPORT CERTIFICATION

STATEMENT OF CONFORMANCE AND TEST REPORT CERTIFICATION

I certify, to the best of my knowledge, that this test program was conducted in a manner conforming to the criteria set forth in ASTM D 7036-04: Standard Practice for Competence of Air Emission Testing Bodies, and that project management and supervision of all project related activities were performed by qualified individuals as defined by this practice.

I further certify that this test report and all attachments were prepared under my direction or supervision in accordance with the ARI Environmental, Inc. quality management system designed to ensure that qualified personnel gathered and evaluated the test information submitted. Based on my inquiry of the person or persons who performed the sampling and analysis relating to this performance test, the information submitted in this test report is, to the best of my knowledge and belief, true, accurate, and complete.

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ARI Environmental, Inc.

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ARI Environmental, Inc.

SECTION ONE Introduction and Summary

ARI Environmental, Inc. (ARI) was retained by Valero Refining - Texas, L.P. (Valero) to conduct a compliance emission test program on the SRU No. 1 Tailgas Incinerator at the East Plant of Valero's Bill Greehey Refinery located in Corpus Christi, Texas.

Compliance testing at the SRU No. 1 Tailgas Incinerator exhaust was conducted to determine the concentrations and mass emission rates of particulate matter (PM), sulfur dioxide (SO_2), nitrogen oxides (NO_x), carbon monoxide (CO), hydrogen sulfide (H_2S), carbonyl sulfide (COS), carbon disulfide (CS_2) and reduced sulfur compounds (RSC) as H_2S. The test program followed the regulatory requirements and sampling procedures listed below:

- Code of Federal Regulations, Title 40, Part 51 (40 CFR 51), Appendix M, Method 205.
- 40 CFR 60, Appendix A, Methods 1-5, 6C, 7E, 10 and 15.
- 40 CFR 60, Subpart J, Standards of Performance for Petroleum Refineries.
- Quality Assurance Handbook for Air Pollution Measurement Systems, Volume III, Stationary Source Specific Methods.
- Texas Commission on Environmental Quality (TCEQ) Sampling Procedures Manual.
- TCEQ Laboratory Methods Manual, Method 23

Under the direction of Mr. Bill Pearce, the ARI field test team consisted of Messrs. Zack McCain, Brian Johnson and Jeff Goldfine. Mr. Ralph Horton of Valero coordinated the test activities with plant operations and provided process data to ARI for inclusion in this report. The test program was performed on April 27 and 28, 2010. Each run consisted of the following parameters:

One - 180-minute run for moisture, volumetric flow and PM
One - 240-minute run for H_2S and RSC
Four - 60-minute runs for O_2, CO_2, SO_2, NO_x and CO

The results of the compliance test program are summarized in Table 1-1.

TABLE 1-1. SUMMARY OF SRU NO. 1 TAILGAS INCINERATOR COMPLIANCE TEST RESULTS

RUN NO. :	SRU1-1	SRU1-2	SRU1-3		
TEST DATE :	4/27/2010	4/27/2010	4/28/2010		
TEST TIME :	09:45 - 13:45	14:15 - 18:15	08:45 - 12:45	Average	Allowable
Particulate Matter					
lb/hr	0.34	0.51	0.45	0.43	
Sulfur Dioxide					
lb/hr	3.493	2.334	1.803	2.543	
Nitrogen Oxides as NO_2					
lb/hr	2.734	2.381	2.457	2.524	
Carbon Monoxide					
lb/hr	<0.055	<0.055	<0.055	<0.055	
Hydrogen Sulfide					
lb/hr	< 0.049	< 0.049	< 0.050	< 0.049	
Carbonyl Sulfide					
lb/hr	< 0.046	< 0.045	< 0.046	< 0.046	
Carbon Disulfide					
lb/hr	< 0.056	< 0.056	< 0.056	< 0.056	
RSC as H_2S					
ppmv db @ 3% O_2	< 3.52	< 3.57	< 3.57	< 3.55	5
lb/hr	< 0.240	< 0.238	< 0.243	< 0.240	
Firebox Temperature					
°F	1,459.6	1,460.4	1,451.6	1,457.2	>1,200
Stack Oxygen Content					
% by vol db	2.91	3.01	2.77	2.90	>3.0

Values represented as less than are calculated by using the analytical detection limit. If these constituents were present in the exhaust gas stream, they existed at concentrations and mass emission rates below the reported values.

SECTION TWO Testing and Analytical Procedures

2.1 OVERVIEW

ARI conducted a compliance emission test on the SRU No. 1 Tailgas Incinerator exhaust at Valero's East Plant of the Bill Greehey Refinery located in Corpus Christi, Texas. The purpose of the test program was to determine various pollutant concentrations and mass emission rates to atmosphere. Three 4-hour test runs were conducted on April 27 and 28, 2010.

Test methods followed those as detailed in 40 CFR 60, Appendix A, Methods 1-5, 6C, 7E, 10 and 15; and 40 CFR 51, Appendix M, Method 205 as detailed in Table 2-1.

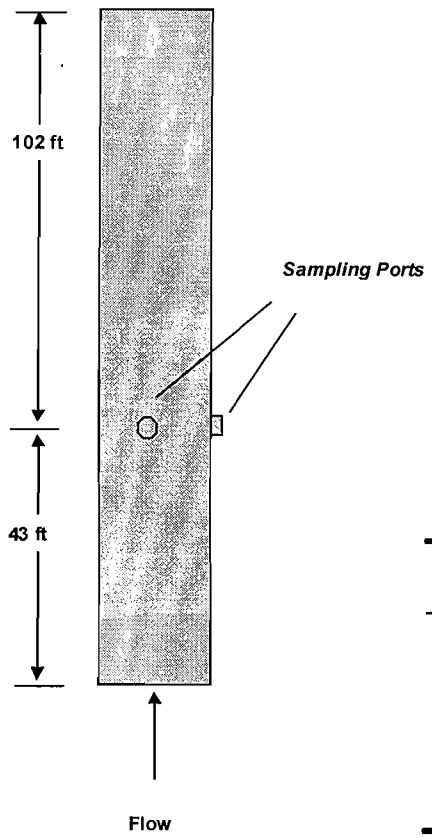
TABLE 2-1. USEPA TEST METHODS

USEPA Method	Description
1	Sample and Velocity Traverses for Stationary Sources
2	Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)
3A	Determination of Oxygen and Carbon Dioxide Concentrations in Emissions from Stationary Sources (Instrumental Analyzer Procedure)
4	Determination of Moisture Content in Stack Gases
5	Determination of Particulate Matter Emissions from Stationary Sources
6C	Determination of Sulfur Dioxide Emissions from Stationary Sources (Instrumental Analyzer Procedure)
7E	Determination of Nitrogen Oxides Emissions from Stationary Sources (Instrumental Analyzer Procedure)
10	Determination of Carbon Monoxide Emissions from Stationary Sources
15	Determination of Hydrogen Sulfide, Carbonyl Sulfide and Carbon Disulfide Emissions from Stationary Sources
205	Verification of Gas Dilution Systems for Field Instrument Calibrations

2.2 USEPA METHOD 1 - SAMPLE AND VELOCITY TRAVERSE LOCATIONS

Sampling at the incinerator exhaust was conducted using the two 4-inch diameter sampling ports provided on the exhaust duct. The sampling port locations on the 42.5-inch diameter duct are located approximately 1,224 inches (28.8 duct diameters) upstream and approximately 516 inches (12.1 duct diameters) downstream from the nearest flow disturbances. The sampling point locations were determined following USEPA Method 1 procedures. Specifically, six sampling points were used for each sample port for a total of twelve sampling points as presented in Figure 2-1.

A pre-test cyclonic flow check was performed prior to the pollutant sampling and the average angle of flow was measured at less than 20 degrees.



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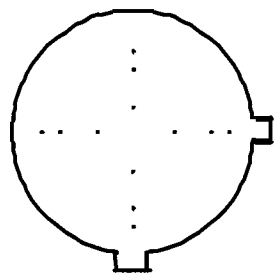


TRAVERSE POINTS: 12
NUMBER OF PORTS: 2
POINTS/PORT: 6
STACK ID: 42.5 in.
PORT LENGTH: 8 in.

TRAVERSE POINT NO.	DISTANCE FROM INSIDE WALL, in.
1	1-3/4
2	5-5/8
3	11-5/8
4	28-1/8
5	34-1/8
6	38-1/4

FIGURE 2-1. VALERO REFINING – TEXAS L.P.
SRU NO. 1 TAILGAS INCINERATOR EXHAUST SAMPLING LOCATION

2.3 USEPA METHOD 2 – VELOCITY AND VOLUMETRIC FLOW RATE DETERMINATION

Velocity traverses were performed using a Type "S" Pitot tube with the velocity head pressure measured on a Dwyer oil gauge inclined manometer to the nearest 0.01 in. H_2O. Temperature measurements in the ducts were performed with a Chromel-Alumel thermocouple connected to a digital direct read-out potentiometer.

2.4 USEPA METHOD 3A - CO_2, O_2 AND MOLECULAR WEIGHT DETERMINATION

The molecular weight of the stack gas was determined following USEPA Method 3A. Specifically, for each sampling run, the exhaust gas was analyzed for carbon dioxide (CO_2), oxygen (O_2) and nitrogen (N_2) (by difference) using the analyzers described in Subsection 2.7.

2.5 USEPA METHOD 4 – STACK GAS MOISTURE CONTENT

Stack gas moisture determination was conducted in accordance with USEPA Method 4 procedures and in conjunction with the USEPA Method 5 sampling train. Specifically, stack gas was extracted at an isokinetic rate through a series of chilled impingers. The first two impingers contained deionized/distilled water, the third was initially empty and the final impinger contained silica gel for final water vapor removal. Total moisture collected was determined based upon the weight gains of impingers one through four. Stack gas moisture was determined from the weight of water vapor condensed from the stack gas and the standard volume of gas sampled.

2.6 USEPA METHOD 5/TCEQ 23 - PARTICULATE MATTER DETERMINATION

The sampling procedures for this test program were those described in USEPA Method 5 and TCEQ Method 23. The front half filter catch was analyzed for particulate in accordance with USEPA Method 5 and TCEQ 23 using an Apex Instruments, Inc. particulate sampling train. The back half impinger catch was analyzed for particulate in accordance with TCEQ Method 23 procedures for condensible particulate determination. Analysis of the collected samples was performed by ARI's laboratory located in Wauconda, Illinois (Texas NELAP Certificate No. T104704428-08A-TX). Three 180-minute sample runs were conducted.

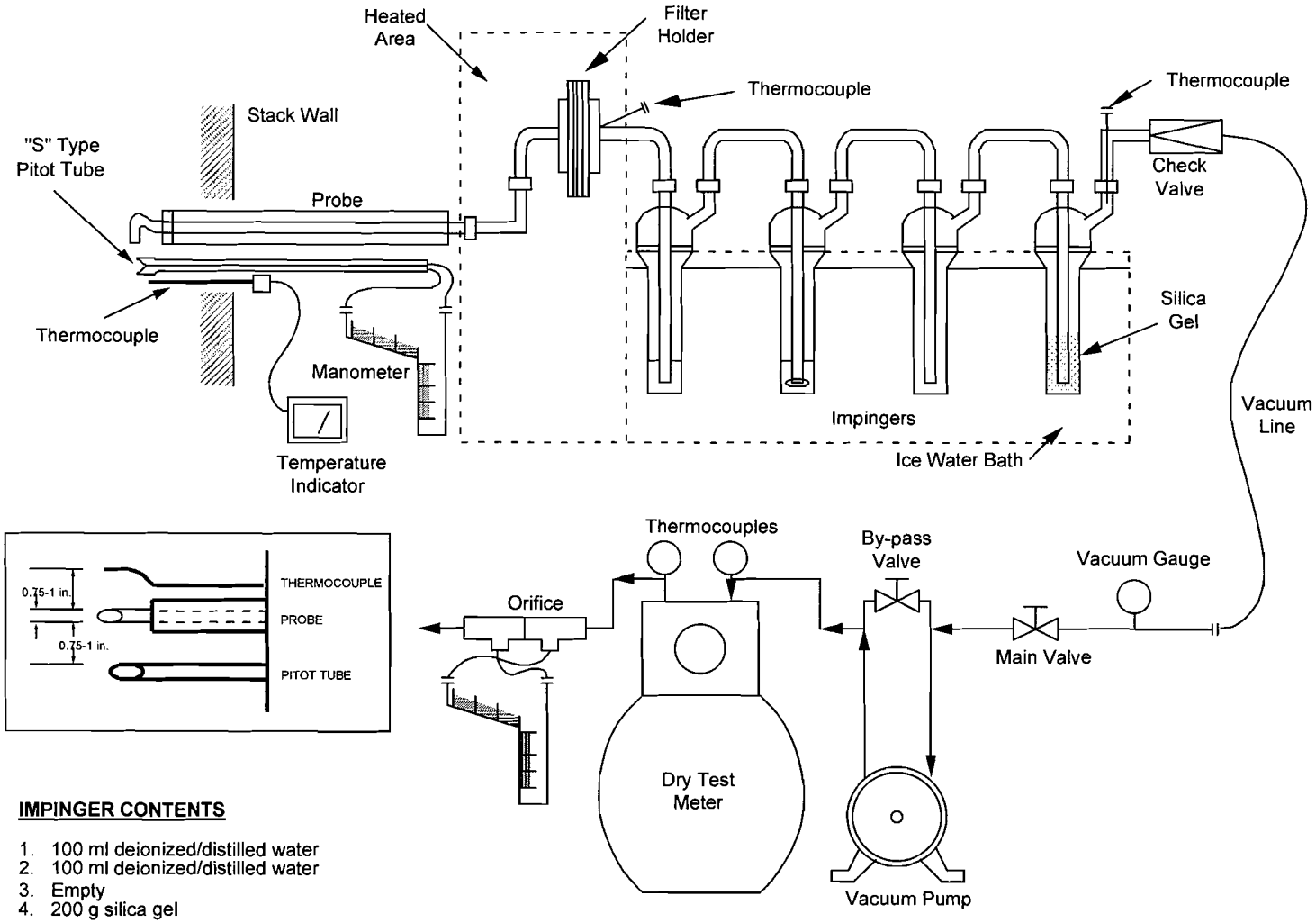
2.6.1 Sampling Apparatus

The particulate sampling train, as shown in Figure 2-2, used at the exit stack during the test program met the design specifications established by the USEPA. The sample train consisted of the following:

Nozzle – Quartz with sharp, tapered, leading edge and accurately measured round opening.

Probe – Inconel (300 grade) outer sheath with a 5/8-in. O.D. quartz inner liner for sample transport.

Pitot Tube - A Type-S Pitot tube that meets all geometric standards; attached to the probe to monitor stack gas velocity.



IMPINGER CONTENTS

1. 100 ml deionized/distilled water
2. 100 ml deionized/distilled water
3. Empty
4. 200 g silica gel

FIGURE 2-2. USEPA METHOD 5/TCEQ 23 PARTICULATE MATTER SAMPLING TRAIN

Filter Holder - Borosilicate glass with a heating system capable of maintaining a filter temperature of 248°F ± 25°F. A thermocouple is placed in the back-half of the filter support in direct contact with the sample stream.

Filter – Fisher Brand G6 quartz-fiber, 4-in. diameter.

Draft Gauge - A dual-inclined manometer made by Dwyer with a readability of 0.01 in. H_2O in the 0 to 1-in. range and 0.1 in. H_2O in the 1 to 10-in. range.

Impingers - Four impingers connected in series with glass ball joints. The second impinger was of the Greenburg-Smith design. The first, third and fourth impingers were of the Greenburg-Smith design but modified by replacing the tip with a 1/2-in. i.d. glass tube extending to 1/2-in. from the bottom of the flask.

Metering System - Vacuum gauge, leak-free pump, thermometers capable of measuring temperature to within 5°F, dry gas meter with 2 percent accuracy, and related equipment to maintain an isokinetic sampling rate and to determine sample volume.

Barometer - Aneroid type to measure atmospheric pressure to ±0.1 in. Hg.

2.6.2 Sampling Procedures

The sample train was assembled as shown in Figure 2-2. Glass-fiber filters were initially desiccated for at least 24 hours and weighed to the nearest 0.1 mg on an analytical balance. One hundred milliliters (mL) of deionized/distilled water were placed in each of the first two impingers; the third impinger was initially empty; and the fourth impinger contained approximately 200 grams of silica gel. The sampling train was leak-checked at the sampling site prior to each test run by plugging the inlet to the nozzle and pulling a 15-in. Hg vacuum; and at the conclusion of the test, by plugging the inlet to the nozzle and pulling a vacuum equal to at least the highest vacuum reached during the test run.

The pitot tube and lines were leak-checked at the test site prior to and at the conclusion of each test run. The check was made by blowing into the impact opening of the pitot tube until 3 or more inches of water was recorded on the manometer and then capping the impact opening and holding it for 15 seconds to assure it was leak-free. The negative pressure side of the pitot tube was leak-checked by the same procedure, except suction was used to obtain the 3-in. H_2O manometer reading. Crushed ice was placed around the impingers to keep the temperature of the gases leaving the last impinger at 68°F or less.

During sampling, stack gas and sampling train data were recorded and isokinetic sampling rates were set at each sampling point. All sampling data was recorded on the field data sheets provided in Appendix B.

The sample ports were located on a circular horizontal duct that required the sampling probe to access the duct horizontally from the side and vertically from the top. This required the probe and filter holder assembly to be disassembled and reassembled at port change. A port change sample train leak check was performed prior to disassembly and again after reassembly.

2.6.3 Sample Recovery Procedures

After sampling was completed, the sampling train was then moved carefully from the test site to the recovery area. The sample fractions were recovered as follows:

Container 1 - The filter holder was sealed.

Container 2 - Loose particulate and acetone washings from all sample-exposed surfaces prior to the filter were placed in a glass bottle, sealed, and labeled. Particulate was removed from the probe with the aid of a brush and acetone rinsing. The liquid level was marked after the container was sealed.

Container 3 – The contents of the first three impingers were measured volumetrically and recorded on the field data sheet. The contents and subsequent H_2O rinse of the impingers and connecting glassware were placed in a polyethylene jar.

The silica gel from the fourth impinger was weighed, and this value was recorded on the field data sheet. An unused filter, acetone and distilled water were taken as blanks.

2.6.4 Analytical Procedures

The analytical procedures followed were those described in USEPA Method 5 and TCEQ 23.

Container 1 - The filter and any loose PM from this sample container were placed in a tared glass weighing dish, placed in a desiccator for 24 hours and weighed to a constant weight to the nearest 0.1 mg.

Container 2 - The acetone washings were transferred to a tared beaker and evaporated to dryness at ambient temperature and pressure. The contents were placed in a desiccator for 24 hours and weighed to a constant weight to the nearest 0.1 mg.

Container 3 - The impinger contents and associated rinse were transferred to a tared beaker and evaporated to dryness on a hot plate by heating to 95°C. Once dryness was achieved, the beaker and the contents were placed in a desiccator for 24 hours and weighed to a constant weight to the nearest 0.1 mg.

The filter, acetone and water blanks were analyzed in the same way as their respective sample fractions.

The term "constant weight" means a difference of no more than 0.5 mg or 1 percent of the total weight less tare weight, whichever is greater between two consecutive readings, with no less than 6 hours of desiccation between weighings.

2.7 USEPA METHODS 3A, 6C, 7E AND 10 - O_2, CO_2, SO_2, NO_x AND CO

Sampling for O_2, CO_2, SO_2, NO_x and CO was performed following procedures from USEPA Methods 3A, 6C, 7E and 10. ARI's gaseous reference method (RM) sampling system consisted of a heated probe with an in-stack filter followed by a calibration tee connected to a heated Teflon sample line. The Teflon sample line was used to transport the sample to an electronic sample conditioner

(Universal Analyzer Model No. 3082) to condition the sample by cooling and removing moisture. A sample manifold was connected to the exhaust side of the sample conditioner with intake lines for ARI's O_2, CO_2, SO_2, NO_x and CO analyzers as presented in Figure 2-3.

USEPA Method 3A was used for RM sampling of O_2 and CO_2 using ARI's Servomex Model 1440 combination analyzer. For the analysis of O_2 in the sample stream, a paramagnetic detector was utilized. For the measurement of CO_2, a non-dispersive infrared detector was utilized. USEPA Method 6C was used for RM sampling of SO_2 using ARI's Bovar Western Research Model 721-ATM non-dispersive ultraviolet SO_2 analyzer. USEPA Method 7E was used for RM sampling of NO_x using ARI's California Analytical Instruments Model 600 chemiluminescent analyzer. USEPA Method 10 was used for CO analysis of the sample stream using ARI's Thermo Environmental Instruments, Inc. Model 48i gas filter correlation infrared analyzer.

Prior to the test, initial calibration error checks were performed for each constituent using zero gas (N_2), followed by high and mid level standards prepared from an EPA Protocol standard diluted with N_2 following the procedures from USEPA Method 205 as detailed in Subsection 2.9. The analyzer response for each calibration gas introduced was less than 2% of the corresponding span value as determined by the span gas concentration.

Following the calibration error test and prior to sampling, a NO_2 converter test was performed using a certified NO_2 standard of approximately 50 ppm. The results were within 10% of the cylinder certified concentration.

Immediately before and after each test run, system bias checks were performed for each RM analyzer. This bias check consisted of introducing calibration gases into the sample system at a calibration tee placed between the sample probe and the heated sample line. The sample gas was introduced at a rate slightly higher than the sample rate to ensure excess gas flows out the tip of the probe, preventing stack gas from entering the sample system during calibrations. System bias checks were performed using a zero gas and either the mid or span level calibration gas (whichever is closer to the actual stack gas concentrations).

The pre-test and post-test system bias results were within the 5% of span allowed for each calibration gas. The system bias results were also used to calculate system drift during each run. The drift test results were within the 3% of span allowed for each test run.

Prior to the first run, response times were determined upscale and downscale for each analyzer. The start of each run was delayed for a period of at least twice the length of the longest response time following calibrations.

Data was recorded and archived on ARI's data acquisition system consisting of a data recorder/logger linked to a computer for digital data archives and reduction. All calibration data, including calibration gas specifications, calibration span values, recorded responses, and certifications relevant to this test program are presented in the appendices of this report.

All calibration gases were certified by USEPA Protocol 1 procedures. ARI's Environics Model 4040 Gas Dilution System introduced calibration gases to the analyzers. The gas dilution system was determined to be acceptable following the procedures described in USEPA Method 205. The procedures and results are discussed in Subsection 2.9.

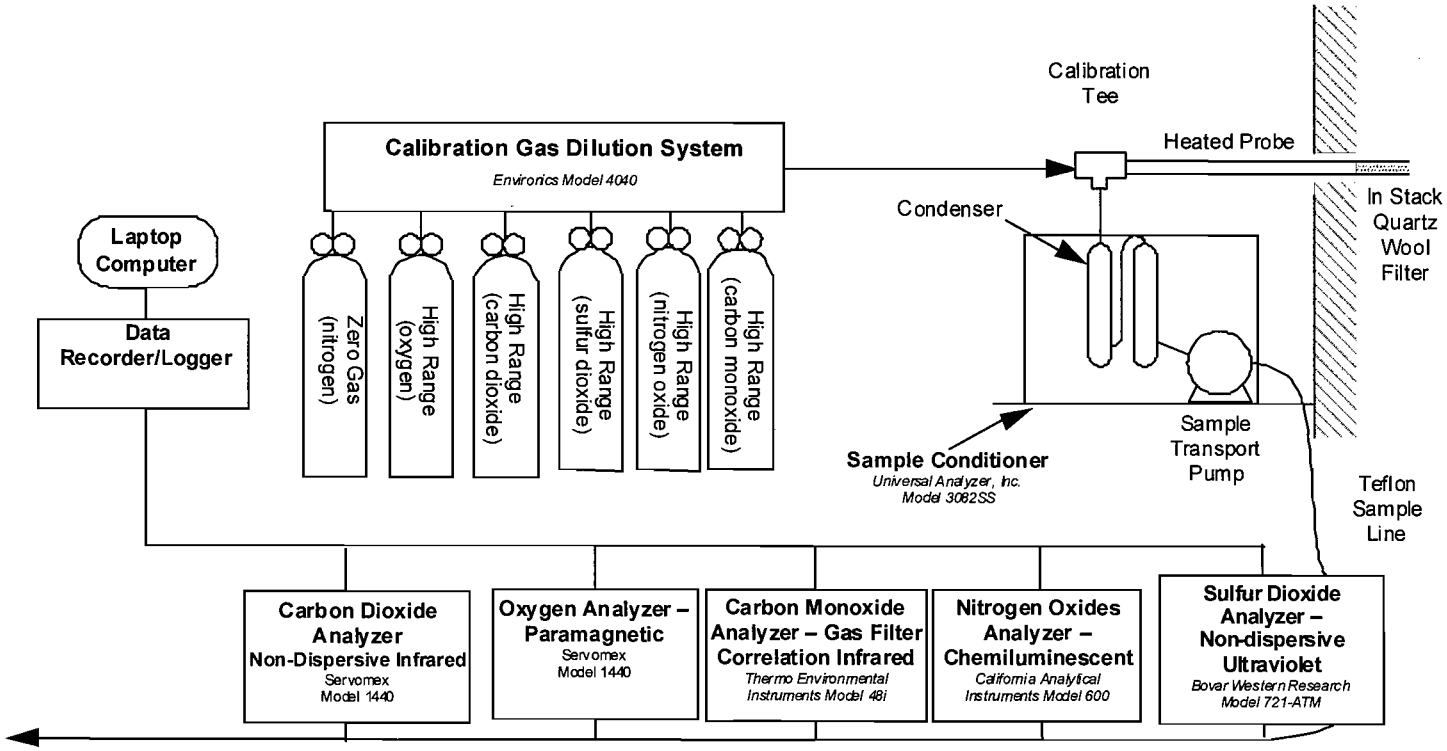


FIGURE 2-3. ARI REFERENCE METHOD O_2, CO_2, SO_2, NO_X AND CO SAMPLING SYSTEM

2.8 USEPA METHOD 15 – COS, CS_2 AND H_2S

Determination of RSC was conducted in accordance with USEPA Method 15 using a gas chromatograph (GC) for separation of sulfur compounds and measurement by a flame photometric detector (FPD).

Modifications and improvements to USEPA Method 15 during the testing included the following:

1. No sample dilution was required (GC range ~50 ppm RSC)
2. USEPA Protocol 1 calibration gases were used to calibrate the GC (no permeation tubes used)
3. During pre and post-test calibrations, gas standards were injected through the entire sample transport system. Therefore, a line loss study was not applicable.

The RSC gas sampling system consisted of a heated glass lined probe connected to a heated Teflon sampling line. The exhaust gas was then conveyed through a series of Teflon impingers located on the sampling platform containing a citrate buffer solution to remove SO_2 from the sample stream.

A Teflon lined sample pump transported the sample through 0.375-inch OD Teflon tubing to the ARI monitoring trailer located at grade approximately 25 feet from the sampling location. The sample was transported to a manifold system at a flow rate of approximately 3 liters per minute from which a sample was introduced to the GC-FPD.

The GC-FPD system consisted of an SRI Model 9300B field GC containing a heated gas sampling valve, column oven and detector. A computer based integrator utilizing Peak Simple W95 software was used for data acquisition and integration.

The GC-FPD was calibrated with a USEPA Protocol 1 RSC gas standard obtained from Specialty Gas Products. The gas standard was generated using an Environics Model 4040 Gas Dilution System. The dilution system was verified onsite in accordance with USEPA Method 205 (see Subsection 2.9).

The RSC results were converted to equivalent H_2S concentration in parts per million (ppmv) using the following equation:

$$\Sigma\ H_2S = COS + H_2S + 2CS_2$$

During each compliance test run, there were 18 injections to the GC-FPD.

2.9 USEPA METHOD 205 - GAS DILUTION SYSTEM VERIFICATION

All diluted calibration standards were prepared using an Environics Model 4040 Gas Dilution System, which was verified by a field evaluation at the job site prior to testing following the requirements of USEPA Method 205.

ARI's Servomex Model 1440 paramagnetic O_2 gas analyzer was calibrated following USEPA Method 3A procedures. After the calibration procedure was complete, diluted mid and high range standards

and a mid-range USEPA Protocol 1 standard were alternately introduced in triplicate and an average instrument response was calculated for each standard. No single response differed by more than ±2% from the average response for each standard.

The difference between the instrument average and the predicted concentration was less than ±2% for each diluted standard. The difference between the certified gas concentration and the average instrument response for the mid-range USEPA Protocol 1 standard was less than ±2%. Complete documentation of the USEPA Method 205 Gas Dilution System Verification is presented in Appendix E.

SECTION THREE Results

The data collected for the compliance emission testing on the SRU No. 1 Tailgas Incinerator exhaust is presented in Table 3-1.

Appendix A presents example calculations and computer generated printouts of calculated values from the field data. Appendix B presents the field data. The analytical data is presented in Appendix C. Appendix D contains the 15-second interval data recorded from each of ARI's reference method analyzers. Appendix E presents the calibration data and cylinder gas certification sheets. The data supplied by plant personnel for the process operating levels are presented in Appendix F. Appendix G presents test program qualifications. Appendix H presents the compliance tables.

TABLE 3-1. SRU NO. 1 TAILGAS INCINERATOR TEST RESULTS

Company :	Valero Refining - Texas, L.P.
Location :	Corpus Christi, Texas
Source :	SRU No. 1 Tailgas Incinerator
Operators :	B. Pearce, J. Goldfine, Z. McCain, B. Johnson

Test Run :	SRU1-1	SRU1-2	SRU1-3	
Test Date :	4/27/2010	4/27/2010	4/28/2010	
Test Time :	09:45 - 13:45	14:15 - 18:15	08:45 - 12:45	Average
PROCESS DATA				
TGI Firebox Temperature, °F	1,459.6	1,460.4	1,451.6	1,457.2
Sulfur Production, ltpd (calculated)	215.8	215.8	215.6	215.7
STACK GAS PARAMETERS				
Temperature, av. °F	1,448.6	1,447.4	1,440.0	1,445.3
Velocity, ft/sec	88.88	88.54	89.31	88.91
Volume flow, acfm	52,534	52,337	52,792	52,554
Volume flow, scfh	870,512	867,572	878,524	872,203
Volume flow, dscfh	756,778	751,982	761,985	756,915
Moisture, % vol	13.07	13.32	13.27	13.22
CO_2, % vol, db	4.53	4.47	4.41	4.47
O_2, % vol, db	2.90	3.15	3.02	3.02
PARTICULATE MATTER				
Sample Volume, dscf	128.193	127.601	125.537	
% Isokinetic	104.8	105.0	101.9	
Filterable Particulate, mg	3.1	4.4	5.4	
Condensible Particulate, mg	23.2	34.6	28.5	
Total Particulate, mg	26.3	39.0	33.9	
Total Concentration				
gr/dscf	0.003	0.005	0.004	0.004
lb/dscf x 10^{-6}	0.452	0.673	0.596	0.574
Total Emission rate				
lb/hr	0.34	0.51	0.45	0.43
NITROGEN OXIDES as NO_2				
Concentration				
ppmv db	30.3	26.5	27.3	28.0
lb/dscf x 10^{-6}	3.613	3.167	3.254	3.345
Emission rate				
lb/hr	2.734	2.381	2.479	2.532

TABLE 3-1 (CONTINUED): SRU NO. 1 TAILGAS INCINERATOR TEST RESULTS

Test Run	SRU1-1	SRU1-2	SRU1-3	
Test Date	4/27/2010	4/27/2010	4/28/2010	
Test Time	09:45 - 13:45	14:15 - 18:15	08:45 - 12:45	Average
CARBON MONOXIDE				
Concentration				
ppmv db	<1.0	<1.0	<1.0	<1.0
lb/dscf x 10^{-6}	<0.073	<0.073	<0.073	<1.2
Emission rate				
lb/hr	<0.055	<0.055	<0.055	<0.055
SULFUR DIOXIDE				
Concentration	27.8	18.7	14.2	20.2
ppmv db				
lb/dscf x 10^{-6}	4.616	3.103	2.366	3.362
Emission rate				
lb/hr	3.493	2.334	1.803	2.543
CARBONYL SULFIDE				
Concentration				
ppmv db	< 0.39	< 0.39	< 0.39	< 0.39
lb/dscf x 10^{-6}	< 0.060	< 0.060	< 0.060	< 0.060
Emission rate				
lb/hr	< 0.046	< 0.045	< 0.046	< 0.046
CARBON DISULFIDE				
Concentration				
ppmv db	< 0.38	< 0.38	< 0.38	< 0.38
lb/dscf x 10^{-6}	< 0.074	< 0.074	< 0.074	< 0.074
Emission rate				
lb/hr	< 0.056	< 0.056	< 0.056	< 0.056
HYDROGEN SULFIDE				
Concentration				
ppmv db	< 0.74	< 0.74	< 0.74	< 0.74
lb/dscf x 10^{-6}	< 0.065	< 0.065	< 0.065	< 0.065
Emission rate				
lb/hr	< 0.049	< 0.049	< 0.050	< 0.049
RSC as H_2S				
Concentration				
ppmv db @ 3% O_2	< 1.85	< 1.87	< 1.86	< 1.86
ppmv db	< 1.88	< 1.88	< 1.88	< 1.88
lb/dscf x 10^{-6}	< 0.166	< 0.166	< 0.166	< 0.166
Emission rate				
lb/hr	< 0.126	< 0.125	< 0.127	< 0.126

APPENDIX A

Calculation Summaries

ARI ENVIRONMENTAL, INC.
MOISTURE CALCULATION SUMMARY

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
TEST DATE: 4/27/2010
RUN NUMBER: SRU1-1

γ FACTOR:	1.000	**STACK DIAM:**	42.5 **inches**
BAROMETRIC:	29.95 **in. Hg**	**METER VOLUME:**	130.650 **ft^3**
STATIC PRES:	-1.10 **$in.H_2O$**	**METER TEMP:**	80.8 **°F**
STACK TEMP:	1448.6 **°F**	**LIQUID COLL:**	409.3 **milliliters**
SQ.RT ΔP:	0.8108 **$in.H_2O$**	**CO_2:**	4.53 **% by volume**
ΔH:	1.62 **$in.H_2O$**	**O_2:**	2.90 **% by volume**

ENGLISH UNITS
(29.92 in.Hg & 68 °F)

VOLUME OF SAMPLE
@ STANDARD CONDITIONS, DRY BASIS

$$V_{mstd} = \left(\frac{528}{29.92}\right) \times V_m \times \gamma \left[\frac{P_{bar} + \frac{\Delta H}{13.6}}{T_m}\right] = 128.193 \text{ dscf}$$

γ = 1.000

VOLUME OF WATER IN SAMPLE
@ STANDARD CONDITIONS

$$V_{wstd} = 0.04707 \times V_{lc} = 19.266 \text{ scf}$$

V_{lc} = 409.3 mL

FRACTIONAL MOISTURE CONTENT OF STACK GAS AS MEASURED

$$B_{ws} = \frac{V_{wstd}}{V_{wstd} + V_{mstd}} = 0.1307$$

FRACTIONAL MOISTURE CONTENT OF STACK GAS @ SATURATION

$$MF = \frac{\left(10^{\left[8.361 - \left(\frac{1893.5}{T - 27.65}\right)\right]}\right) - 0.5}{P} = 1.000$$

T = 1060.0 °K
P = 758.7 mmHg

FRACTIONAL MOISTURE CONTENT USED IN CALCULATIONS

B_{ws} = 0.1307

ARI ENVIRONMENTAL, INC.
FLOW RATE CALCULATION SUMMARY

COMPANY:	Valero Refining - Texas	**SOURCE:**	SRU No. 1 TGI Exhaust
LOCATION:	Corpus Christi, TX	**TEST DATE:**	4/27/2010
RUN NUMBER:	SRU1-1		

BAROMETRIC:	29.95 **in. Hg**	**STACK DIAM:**	42.5 **inches**
STATIC PRES:	-1.1 **in.H_2O**	**CO_2:**	4.53 **% by volume**
STACK TEMP:	1448.6 **°F**	**O_2:**	2.90 **% by volume**
SQ.RT ΔP:	0.8108 **in.H_2O**		

DRY MOLECULAR WEIGHT OF STACK GAS

$$M_d = 0.44(\%CO_2) + 0.32(\%O_2) + 0.28(\%N_2 + \%CO)$$ = 28.84 **lb/lb-mole**

MOLECULAR WEIGHT OF STACK GAS, wet basis

$$M_s = M_d(1 - B_{ws}) + 18B_{ws}$$ = 27.42 **lb/lb-mole**

PITOT TUBE COEFFICIENT

C_p (from calibration curve or geometric specifications) = 0.84

AVERAGE VELOCITY HEAD OF STACK GAS, in. H_2O

$$\overline{\sqrt{\Delta P}} = \frac{1}{n}\sum_{i=1}^{n}\sqrt{\Delta p}$$ = 0.8108 **in. H_2O**

AVERAGE ABSOLUTE STACK GAS TEMPERATURE

T_s = 1448.6 °F + 460 = 1,908.6 **°R**

ABSOLUTE STACK GAS PRESSURE

$$P_s = P_{bar} + \frac{P_{static}}{13.6}$$ = 29.87 **in.Hg**

STACK GAS VELOCITY

$$V_s = (85.49)(C_p)\left(\text{avg}\sqrt{\Delta P}\right)\sqrt{\frac{T_s}{(P_s)(M_s)}}$$ = 88.877 **ft/sec**

STACK GAS VOLUMETRIC FLOW RATE, actual

$$Q_s = 60 \times V_s \times A_s$$ = 52,534 **acfm**

Stack Area = 9.8516 ft^2

STACK GAS VOLUMETRIC FLOW RATE,
standard conditions, wet basis

$$Q_{stdw} = \left(\frac{528}{29.92}\right)(Q_s)\left(\frac{P_s}{T_s}\right)$$ = 14,508.5 **scfm, wb**
870,512 **scfh, wb**

STACK GAS VOLUMETRIC FLOW RATE,
standard conditions, dry basis

$$Q_{std} = \left(\frac{528}{29.92}\right)(Q_s)\left(\frac{P_s}{T_s}\right)(1 - B_{ws})$$ = 12,613.0 **dscfm**
756,778 **dscfh**

ARI ENVIRONMENTAL, INC.
TOTAL PARTICULATE CALCULATION SUMMARY

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
TEST DATE: 4/27/2010
RUN NUMBER: SRU1-1

INPUT

V_m:	130.65	ft^3	Q_s:	12,613	dscfm
γ FACTOR:	1		T_s:	1448.6	°F
P_{bar}:	29.95	in.Hg	Runtime:	180	minutes
ΔH:	1.62	$in.H_2O$	V_s:	88.877	ft/sec
T_m:	80.8	°F	P_s:	29.87	in.Hg
V_{lc}:	409.3	mL	Noz. diam:	0.312	inches
M_n front:	3.13	mg			
M_n back:	23.15	mg			

ENGLISH UNITS
(29.92 in.Hg & 68 °F)

VOLUME OF SAMPLE @ STANDARD CONDITIONS, DRY BASIS

$$V_{mstd} = \left(\frac{528}{29.92}\right) \times V_m \times \gamma \left(\frac{P_{bar} + \frac{\Delta H}{13.6}}{T_m}\right) = 128.193 \text{ dscf}$$

$\gamma =$ 1.000

VOLUME OF WATER IN SAMPLE @ STANDARD CONDITIONS

$$V_{wstd} = 0.04707 \times V_{lc} = 19.266 \text{ scf}$$

FRACTIONAL MOISTURE CONTENT OF STACK GAS

$$B_{ws} = \frac{V_{wstd}}{V_{wstd} + V_{mstd}} \times 100 = 13.07 \ \%$$

PARTICULATE CONCENTRATION IN STACK GAS ON A DRY BASIS

$$C_s = (0.01543)\left(\frac{M_n}{V_{mstd}}\right)$$

Front	=	0.0003767	gr/dscf
Back	=	0.0027864	gr/dscf
Total	=	0.0031632	gr/dscf

$$C_s' = \left(2.205 \times 10^{-6}\right)\left(\frac{M_n}{V_{mstd}}\right)$$

C's Front	=	0.05384	x 10^{-6} lbs/dscf
C's Back	=	0.39819	x 10^{-6} lbs/dscf
C's Total	=	0.45203	x 10^{-6} lbs/dscf

EMISSION RATE

$$pmr = \left(\frac{C_s}{7000}\right)(Q_{std})(60)$$

Front	=	0.04073	lbs/hr
Back	=	0.30125	lbs/hr
Total	=	0.34198	lbs/hr

ISOKINETIC SAMPLING RATE

$$\%ISO = \frac{(100)(T_s)\left[(0.002669 \times V_{lc}) + \left(\frac{V_m}{T_m}\right)(\gamma)\left(P_{bar} + \left(\frac{\Delta H}{13.6}\right)\right)\right]}{(60)(\theta)(V_s)(P_s)(A_n)} = 104.78 \ \%I$$

$A_n =$ 0.00053093 ft^2 Runtime = 180 minutes

MONITOR DATA SUMMARY

COMPANY : Valero Refining - Texas, L.P.
SOURCE : SRU No. 1 TGI Exhaust
REPETITION : SRU1-1
TEST DATE : 4/27/2010
START TIME : 9:45
END TIME : 13:45

GAS ANALYZER **NO_x**

SCALE : 0 - 90.0 ppm
AVERAGE CAL. BIAS (C_m): 43.76
AVERAGE ZERO BIAS (C_o): 0.39

CALIBRATION GAS: EPA Protocol NO_x
CALIBRATION PPM (C_{ma}): 45.0
PPM CORRECTED (C_{gas}): 30.3

GAS ANALYZER **CO**

SCALE : 0 - 88.3 ppm
AVERAGE CAL. BIAS (C_m): 44.98
AVERAGE ZERO BIAS (C_o): 0.17

CALIBRATION GAS: EPA Protocol CO
CALIBRATION PPM (C_{ma}): 44.2
PPM CORRECTED (C_{gas}): -1.0
detection limit : 1.0

GAS ANALYZER **O_2**

SCALE : 0 - 10.00 %
AVERAGE CAL. BIAS (C_m): 4.974
AVERAGE ZERO BIAS (C_o): 0.064

CALIBRATION GAS: EPA Protocol O_2
CALIBRATION PPM (C_{ma}): 5.00
PPM CORRECTED (C_{gas}): 2.90

GAS ANALYZER **CO_2**

SCALE : 0 - 8.65 %
AVERAGE CAL. BIAS (C_m): 4.361
AVERAGE ZERO BIAS (C_o): 0.053

CALIBRATION GAS: EPA Protocol CO_2
CALIBRATION % (C_{ma}): 4.32
% CORRECTED (C_{gas}): 4.53

GAS ANALYZER **SO_2**

SCALE : 0 - 90.0 ppm
AVERAGE CAL. BIAS (C_m): 42.784
AVERAGE ZERO BIAS (C_o): -0.191

CALIBRATION GAS: EPA Protocol SO_2
CALIBRATION ppm (C_{ma}): 45.0
PPM CORRECTED (C_{gas}): 27.76

Example Calculation =

$$C_{gas} = \left(\overline{C} - C_o\right)\frac{C_{ma}}{C_m - C_o}$$

NO_x, ppm @ 0% O_2 = 35.1
CO, ppm @ 0% O_2 = 1.2
SO_2, ppm @ 0% O_2 = 32.2

$$C_{gas}@0\%O_2 = C_{gas}\frac{20.9}{20.9 - O_2}$$

CLOCK TIME	ELAPSED TIME	Uncorrected O_2 % vol db	CO_2 % vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db
9:45	0	-------	-------		-------	-------
9:46	1	2.53	4.52	26.30	39.65	1.62
9:47	2	2.54	4.55	26.80	38.25	1.43
9:48	3	2.56	4.55	25.82	36.75	1.14
9:49	4	2.58	4.56	25.76	35.92	1.53
9:50	5	2.53	4.58	26.09	36.41	1.40
9:51	6	2.44	4.61	26.28	35.78	0.79
9:52	7	2.46	4.60	26.87	36.73	1.03
9:53	8	2.31	4.68	27.43	37.33	1.21
9:54	9	2.29	4.68	26.57	35.25	0.99
9:55	10	2.48	4.60	26.01	34.74	0.73
9:56	11	2.45	4.58	25.85	34.52	1.13
9:57	12	2.45	4.59	25.94	35.22	0.52
9:58	13	2.46	4.59	25.65	35.83	0.36
9:59	14	2.53	4.57	25.73	37.10	0.46
10:00	15	2.48	4.61	26.09	37.42	0.56
10:01	16	2.45	4.59	25.95	37.47	0.21
10:02	17	2.47	4.63	25.88	37.29	0.29
10:03	18	2.50	4.60	25.40	36.18	0.44
10:04	19	2.50	4.59	25.54	35.09	0.45
10:05	20	2.52	4.61	25.75	34.27	0.20
10:06	21	2.50	4.58	25.70	33.58	0.04
10:07	22	2.51	4.60	25.63	33.34	0.57
10:08	23	2.49	4.61	25.88	33.11	0.34
10:09	24	2.39	4.62	26.58	33.18	-0.16
10:10	25	2.41	4.62	26.00	32.45	0.37
10:11	26	2.42	4.61	25.64	32.31	0.11
10:12	27	2.51	4.59	25.59	32.80	-0.06
10:13	28	2.47	4.60	25.84	33.59	-0.29
10:14	29	2.42	4.61	25.84	34.59	-0.04
10:15	30	2.39	4.63	26.91	35.72	-0.09
10:16	31	2.38	4.65	25.87	33.96	-0.33
10:17	32	2.49	4.59	25.16	32.65	-0.27
10:18	33	2.55	4.54	24.50	31.86	-0.21
10:19	34	2.57	4.53	24.72	31.55	-0.19
10:20	35	2.68	4.51	23.75	30.17	-0.31
10:21	36	2.98	4.44	23.78	30.11	-0.42
10:22	37	3.02	4.46	23.77	30.22	-0.47
10:23	38	2.99	4.47	23.98	30.62	-0.24
10:24	39	2.94	4.49	24.16	30.36	-0.29
10:25	40	2.86	4.51	24.21	29.80	-0.69
10:26	41	2.86	4.52	24.03	29.05	-0.09
10:27	42	2.91	4.51	24.15	28.88	-0.26
10:28	43	2.87	4.53	24.49	29.16	-0.64
10:29	44	2.83	4.54	24.28	29.19	-0.56
10:30	45	2.89	4.53	24.32	29.43	-0.41
10:31	46	2.87	4.55	24.68	29.45	-0.51
10:32	47	2.85	4.55	24.43	29.67	-0.81
10:33	48	2.84	4.54	24.52	29.62	-0.67
10:34	49	2.83	4.54	24.42	29.83	-0.53
10:35	50	2.86	4.54	24.21	29.78	-0.64
10:36	51	2.87	4.55	24.36	30.04	-0.88
10:37	52	2.87	4.55	24.32	29.67	-0.54
10:38	53	2.90	4.54	24.41	30.18	-0.62
10:39	54	2.80	4.56	24.76	30.58	-0.74
10:40	55	2.77	4.58	24.75	30.63	-0.93
10:41	56	2.80	4.57	24.84	30.46	-0.53
10:42	57	2.83	4.58	24.94	31.04	-0.80
10:43	58	2.81	4.58	24.92	31.24	-0.80
10:44	59	2.81	4.59	24.88	31.08	-1.00
10:45	60	2.81	4.59	24.83	30.78	-0.59
10:46	61	2.81	4.57	24.71	30.53	-0.77
10:47	62	2.82	4.58	24.68	30.87	-0.99
10:48	63	2.81	4.57	24.63	30.40	-0.87
10:49	64	2.87	4.57	24.75	30.63	-0.53
10:50	65	2.77	4.57	24.72	29.65	-0.86
10:51	66	3.05	4.51	24.43	29.13	-0.96
10:52	67	3.14	4.51	24.24	29.03	-0.75
10:53	68	3.12	4.50	24.38	29.11	-0.61
10:54	69	3.10	4.53	24.52	29.64	-0.80
10:55	70	3.03	4.52	24.26	28.79	-1.10
10:56	71	3.08	4.50	24.07	27.97	-0.62
10:57	72	3.10	4.54	24.31	27.76	-0.65
10:58	73	3.06	4.53	24.55	27.43	-0.75
10:59	74	3.07	4.55	24.61	27.15	-0.90
11:00	75	3.06	4.55	24.59	26.98	-0.62
11:01	76	2.99	4.54	24.71	27.12	-0.71
11:02	77	3.00	4.58	24.73	26.79	-0.94
11:03	78	2.98	4.57	24.86	27.06	-0.65
11:04	79	3.01	4.58	24.63	27.29	-0.65
11:05	80	3.02	4.57	24.57	27.78	-0.94
11:06	81	3.05	4.57	24.69	28.45	-1.08
11:07	82	3.04	4.57	24.81	29.50	-0.72
11:08	83	3.02	4.57	25.76	30.05	-0.84
11:09	84	3.04	4.56	25.06	30.27	-1.02
11:10	85	3.02	4.55	25.23	29.58	-1.12
11:11	86	3.09	4.55	25.08	29.47	-0.74
11:12	87	2.98	4.58	25.22	28.74	-0.78
11:13	88	3.00	4.58	25.36	28.05	-0.89
11:14	89	3.00	4.59	25.30	27.85	-0.98
11:15	90	2.94	4.58	25.31	27.62	-0.56

CLOCK TIME	ELAPSED TIME	Uncorrected O_2 % vol db	CO_2 % vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db
11:16	91	2.91	4.62	25.39	27.33	-0.75
11:17	92	2.91	4.59	25.15	27.09	-0.99
11:18	93	2.94	4.58	25.28	27.15	-0.73
11:19	94	2.95	4.59	25.20	27.28	-0.54
11:20	95	3.00	4.54	25.07	27.67	-0.92
11:21	96	3.04	4.56	25.32	28.46	-1.15
11:22	97	3.03	4.57	25.31	29.20	-0.83
11:23	98	2.99	4.55	25.60	30.11	-0.86
11:24	99	2.95	4.60	25.67	30.15	-0.99
11:25	100	2.96	4.59	25.72	30.06	-1.12
11:26	101	2.96	4.58	25.56	29.68	-0.59
11:27	102	2.95	4.57	25.55	29.74	-0.87
11:28	103	3.00	4.55	25.46	29.56	-0.98
11:29	104	2.97	4.55	25.70	29.44	-1.13
11:30	105	2.98	4.55	25.65	29.57	-0.71
11:31	106	2.96	4.56	25.96	29.75	-0.93
11:32	107	2.96	4.57	26.47	29.94	-1.05
11:33	108	2.91	4.57	26.34	30.29	-1.16
11:34	109	2.96	4.57	26.47	30.03	-0.77
11:35	110	2.96	4.57	26.75	31.11	-0.82
11:36	111	2.83	4.64	27.82	31.92	-1.13
11:37	112	2.85	4.63	26.84	30.85	-1.12
11:38	113	2.98	4.58	26.37	30.40	-0.79
11:39	114	3.01	4.56	26.01	30.06	-0.94
11:40	115	3.05	4.53	26.00	30.21	-1.28
11:41	116	3.07	4.53	26.21	29.89	-1.07
11:42	117	3.03	4.54	26.63	29.52	-0.88
11:43	118	3.05	4.53	25.61	28.77	-1.00
11:44	119	3.06	4.54	26.07	28.44	-1.14
11:45	120	3.10	4.53	25.82	28.26	-1.21
11:46	121	3.09	4.54	26.18	28.79	-0.68
11:47	122	3.05	4.56	26.40	28.71	-0.91
11:48	123	3.02	4.54	25.78	28.86	-1.11
11:49	124	3.02	4.56	26.24	29.55	-1.11
11:50	125	2.93	4.57	26.16	29.29	-0.90
11:51	126	2.97	4.56	26.04	29.01	-0.94
11:52	127	3.06	4.55	25.86	28.73	-1.10
11:53	128	3.02	4.54	25.88	28.49	-1.17
11:54	129	3.03	4.56	26.05	28.87	-0.85
11:55	130	3.03	4.54	26.11	29.00	-1.02
11:56	131	3.32	4.48	25.44	28.86	-1.20
11:57	132	3.22	4.53	26.07	29.45	-1.14
11:58	133	3.05	4.56	26.00	29.23	-0.87
11:59	134	3.09	4.55	26.27	29.12	-1.03
12:00	135	3.17	4.52	26.14	29.24	-1.17
12:01	136	3.13	4.54	26.21	29.35	-1.06
12:02	137	3.11	4.54	26.94	29.68	-0.90
12:03	138	3.06	4.54	26.84	29.91	-1.08
12:04	139	3.12	4.54	26.39	29.97	-1.26
12:05	140	3.08	4.54	26.44	29.74	-1.17
12:06	141	3.09	4.51	26.12	29.53	-0.75
12:07	142	3.10	4.55	26.39	29.56	-1.14
12:08	143	3.05	4.53	26.34	29.70	-1.35
12:09	144	3.08	4.53	26.04	29.43	-0.98
12:10	145	3.13	4.52	26.13	29.53	-0.91
12:11	146	3.07	4.50	26.05	29.14	-1.21
12:12	147	3.08	4.52	26.17	29.59	-1.24
12:13	148	3.04	4.55	26.08	29.50	-1.13
12:14	149	3.04	4.53	26.14	29.13	-1.05
12:15	150	3.09	4.53	26.06	29.18	-1.15
12:16	151	3.06	4.52	26.19	29.06	-1.31
12:17	152	3.07	4.54	26.42	29.30	-1.11
12:18	153	3.00	4.53	26.58	29.30	-1.02
12:19	154	3.05	4.53	26.59	29.44	-1.20
12:20	155	3.02	4.55	26.70	29.26	-1.39
12:21	156	3.00	4.54	26.61	28.95	-1.21
12:22	157	3.03	4.57	26.63	28.70	-1.04
12:23	158	3.05	4.53	26.42	28.72	-1.24
12:24	159	3.08	4.55	26.66	28.77	-1.52
12:25	160	3.05	4.55	27.07	29.06	-1.10
12:26	161	2.99	4.56	27.11	28.79	-1.05
12:27	162	2.99	4.57	27.10	28.90	-1.24
12:28	163	2.95	4.54	27.15	29.03	-1.44
12:29	164	2.96	4.57	27.16	29.28	-1.45
12:30	165	2.99	4.57	27.41	29.39	-1.13
12:31	166	2.98	4.56	27.60	28.66	-1.24
12:32	167	2.95	4.55	27.79	27.89	-1.39
12:33	168	2.98	4.54	27.55	27.70	-1.36
12:34	169	2.97	4.54	27.32	27.72	-1.20
12:35	170	3.01	4.55	27.31	27.61	-1.24
12:36	171	2.94	4.58	27.54	27.81	-1.31
12:37	172	2.91	4.58	27.40	27.47	-1.48
12:38	173	2.98	4.57	27.15	27.43	-1.17
12:39	174	2.95	4.58	27.33	27.47	-1.15
12:40	175	2.91	4.59	27.19	27.22	-1.35
12:41	176	3.01	4.55	27.00	27.13	-1.43
12:42	177	3.02	4.55	27.29	27.14	-1.12
12:43	178	3.00	4.55	27.10	27.19	-1.11
12:44	179	3.04	4.54	27.03	26.96	-1.31
12:45	180	3.01	4.55	26.77	27.57	-1.44
12:46	181	2.96	4.58	28.26	27.41	-1.17
12:47	182	3.03	4.57	27.08	27.26	-1.10

		Uncorrected				
	ELAPSED	O_2	CO_2	SO_2	NO_x	CO
CLOCK TIME	TIME	% vol db	% vol db	ppmv db	ppmv db	ppmv db
12:48	183	3.02	4.58	27.06	27.56	-1.26
12:49	184	2.97	4.60	26.98	27.86	-1.45
12:50	185	2.89	4.61	27.32	27.86	-1.08
12:51	186	2.94	4.60	27.34	28.32	-1.30
12:52	187	2.93	4.62	27.60	28.39	-1.38
12:53	188	2.92	4.62	27.42	28.13	-1.47
12:54	189	2.94	4.60	27.15	27.80	-1.19
12:55	190	3.00	4.58	27.33	28.11	-0.95
12:56	191	2.94	4.60	27.36	28.06	-1.43
12:57	192	2.93	4.60	27.35	27.97	-1.40
12:58	193	2.97	4.60	27.28	27.82	-1.23
12:59	194	2.98	4.60	27.41	27.61	-1.15
13:00	195	3.02	4.60	27.60	27.96	-1.27
13:01	196	2.91	4.59	27.59	27.83	-1.39
13:02	197	2.94	4.60	27.54	27.98	-1.13
13:03	198	2.96	4.61	28.14	28.47	-1.15
13:04	199	2.86	4.60	28.11	28.28	-1.30
13:05	200	2.87	4.61	28.57	27.95	-1.41
13:06	201	2.92	4.63	28.62	28.18	-1.23
13:07	202	2.90	4.60	28.61	28.12	-1.13
13:08	203	2.87	4.59	28.76	28.34	-1.21
13:09	204	2.85	4.63	28.43	28.24	-1.50
13:10	205	2.96	4.58	28.32	27.78	-1.29
13:11	206	3.02	4.58	28.62	27.87	-1.06
13:12	207	3.02	4.57	28.20	27.48	-1.18
13:13	208	3.07	4.54	27.94	27.26	-1.42
13:14	209	3.09	4.56	27.97	27.57	-1.26
13:15	210	3.08	4.55	28.21	27.96	-1.04
13:16	211	3.03	4.58	28.09	27.98	-1.34
13:17	212	3.03	4.59	28.04	27.97	-1.45
13:18	213	2.99	4.61	28.09	27.64	-1.39
13:19	214	3.02	4.62	27.96	26.94	-1.21
13:20	215	3.00	4.61	28.35	26.94	-1.27
13:21	216	2.97	4.61	28.33	26.58	-1.51
13:22	217	2.93	4.62	28.43	26.56	-1.41
13:23	218	2.96	4.61	28.53	26.34	-1.13
13:24	219	3.01	4.60	28.69	26.69	-1.40
13:25	220	2.95	4.63	28.68	26.24	-1.49
13:26	221	3.05	4.60	28.89	26.55	-1.52
13:27	222	2.99	4.63	28.47	26.46	-1.19
13:28	223	3.03	4.61	28.12	26.12	-1.18
13:29	224	3.03	4.59	27.74	26.35	-1.84
13:30	225	3.06	4.58	27.90	27.99	-1.29
13:31	226	3.01	4.59	28.19	27.99	-1.16
13:32	227	2.99	4.62	27.96	27.14	-1.40
13:33	228	3.02	4.61	28.15	26.95	-1.52
13:34	229	2.98	4.62	28.36	26.71	-1.28
13:35	230	2.98	4.61	28.26	26.76	-1.36
13:36	231	3.02	4.62	27.96	26.94	-1.21
13:37	232	3.02	4.60	28.20	27.01	-1.27
13:38	233	3.09	4.56	27.97	27.57	-1.26
13:39	234	3.08	4.55	28.21	27.96	-1.04
13:40	235	3.03	4.58	28.09	27.98	-1.34
13:41	236	3.03	4.59	28.04	27.97	-1.45
13:42	237	3.06	4.60	28.47	27.60	-1.36
13:43	238	3.09	4.60	30.04	27.08	-1.20
13:44	239	3.08	4.60	29.08	27.32	-1.22
13:45	240	3.00	4.63	28.89	27.26	-1.48
	Uncorrected Average =	2.91	4.57	26.32	29.56	-0.83

SO_2 CALCULATION DATA SHEET
USEPA METHOD 6C

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
MONITOR ID: Bovar
RUN NO: SRU1-1
TEST DATE: 4/27/2010

INPUT

SO_2 AVERAGE READING (C): 27.8 ppmv

STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 756,778 dscfh

CALCULATIONS

STACK SO_2 CONCENTRATION

SO_2 CONC.(lbs/dscf) =

$$C_{gas,lb/dscf} = \left(C_{gas,ppm}\right)\left(\frac{64.07 lb/lb-mole}{385.26 \times 10^6 ft^3/lb-mole}\right) = 4.6160 \times 10^{-6} \text{ lbs/dscf}$$

SO_2 EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 756,778 dscfh

STACK SO_2 EMISSION RATE =

$$SO_{2pmr} = \left(C_{gas,lb/dscf}\right)\left(Q_{std}\right) = 3.4933 \text{ lbs/hr}$$
$$= 15.301 \text{ ton/yr}$$

NO_x CALCULATION DATA SHEET
USEPA METHOD 7E

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
MONITOR ID: California Analytical Instruments Model 600
RUN NO: SRU1-1
TEST DATE: 4/27/2010

INPUT

NO_x AVERAGE READING (C): 30.3 ppmv

STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 756,778 dscfh

CALCULATIONS

STACK NO_x CONCENTRATION

NO_x CONC.(lbs/dscf) =

$$C_{gas,lb/dscf} = \left(C_{gas,ppm}\right)\left(\frac{46 lb/lb-mole}{385.26\times10^6 ft^3/lb-mole}\right) = 3.6133 \times 10^{-6} \text{ lbs/dscf}$$

NO_x EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 756,778 dscfh

STACK NO_x EMISSION RATE =

$$NO_{xpmr} = \left(C_{gas,lb/dscf}\right)\left(Q_{std}\right) = 2.7345 \text{ lbs/hr}$$
$$= 11.977 \text{ ton/yr}$$

CO CALCULATION DATA SHEET
USEPA METHOD 10

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
MONITOR ID: Thermo Environmental Model 48i
RUN NO: SRU1-1
TEST DATE: 4/27/2010

INPUT

CO AVERAGE READING (C): <1.0 ppmv

STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 756,778 dscfh

CALCULATIONS

STACK CO CONCENTRATION

CO CONC.(lbs/dscf) =

$$C_{gas,lb/dscf} = \left(C_{gas,ppm}\right)\left(\frac{28 lb/lb-mole}{385.26 \times 10^6 ft^3/lb-mole}\right) = <0.0727 \times 10^{-6} \text{ lbs/dscf}$$

CO EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 756,778 dscfh

STACK CO EMISSION RATE =

$$CO_{pmr} = \left(C_{gas,lb/dscf}\right)\left(Q_{std}\right) = <0.0550 \text{ lbs/hr} = <0.241 \text{ ton/yr}$$

CARBONYL SULFIDE EMISSION RATE CALCULATION SHEET
USEPA METHOD 15

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU1-1
TEST DATE: 4/27/2010

INPUT

COS CONCENTRATION (C):	< 0.39	ppmv
STACK GAS VOLUMETRIC FLOW RATE (Q_{std}):	756,778	dscfh

CALCULATIONS

STACK COS AVERAGE CHART READING = < 0.39 ppmv

COS CONCENTRATION (lbs/dscf) =

$$C_{gas,lb/dscf} = \left(C_{gas,ppm}\right)\left(\frac{60.07 lb/lb-mole}{385.26 \times 10^{-6} ft^3/lb-mole}\right)$$

= < 0.060 x 10^{-6} lbs/dscf

COS EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 756,778 dscfh

STACK COS EMISSION RATE =

$$COS_{pmr} = \left(C_{gas,lb/dscf}\right)\left(Q_{std}\right)$$

= < 0.0458 lbs/hr
= < 0.201 ton/yr

HYDROGEN SULFIDE EMISSION RATE CALCULATION SHEET
USEPA METHOD 15

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU1-1
TEST DATE: 4/27/2010

INPUT

H_2S CONCENTRATION (C):	< 0.74	ppmv
STACK GAS VOLUMETRIC FLOW RATE (Q_{std}):	756,778	dscfh

CALCULATIONS

STACK H_2S AVERAGE CHART READING = < 0.74 ppmv

H_2S CONCENTRATION (lbs/dscf) =

$$C_{gas,lb/dscf} = \left(C_{gas,ppm}\right)\left(\frac{34.08 lb/lb-mole}{385.26 \times 10^{-6} ft^3/lb-mole}\right)$$

= < 0.065 x 10^{-6} lbs/dscf

H_2S EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 756,778 dscfh

STACK H_2S EMISSION RATE =

$$H_2S_{pmr} = \left(C_{gas,lb/dscf}\right)\left(Q_{std}\right)$$

= < 0.0495 lbs/hr
= < 0.217 ton/yr

CARBON DISULFIDE EMISSION RATE CALCULATION SHEET
USEPA METHOD 15

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU1-1
TEST DATE: 4/27/2010

INPUT

CS_2 CONCENTRATION (C):	< 0.38	ppmv
STACK GAS VOLUMETRIC FLOW RATE (Q_{std}):	756,778	dscfh

CALCULATIONS

STACK CS_2 AVERAGE CHART READING = < 0.38 ppmv

CS_2 CONCENTRATION (lbs/dscf) =

$$C_{gas,lb/dscf} = \left(C_{gas,ppm}\right)\left(\frac{76.1 lb/lb-mole}{385.26 \times 10^{-6} ft^3/lb-mole}\right)$$

= < 0.074 x 10^{-6} lbs/dscf

CS_2 EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 756,778 dscfh

STACK CS_2 EMISSION RATE =

$$CS_{2pmr} = \left(C_{gas,lb/dscf}\right)\left(Q_{std}\right)$$

= < 0.0561 lbs/hr
= < 0.246 ton/yr

RSC as H_2S EMISSION RATE CALCULATION SHEET
USEPA METHOD 15

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU1-1
TEST DATE: 4/27/2010

INPUT

COS CONCENTRATION (C):	< 0.39	ppmv
CS_2 CONCENTRATION (C):	< 0.38	ppmv
H_2S CONCENTRATION (C):	< 0.74	ppmv
STACK GAS VOLUMETRIC FLOW RATE (Q_{std}):	756,778	dscfh
STACK OXYGEN CONTENT (%O_2):	2.90	%

CALCULATIONS

AVERAGE STACK RSC as H_2S = < 1.88 ppmv

AVERAGE STACK RSC as H_2S @ 3% O_2

$$C_{gas,ppm@3\%O_2} = \left(C_{gas,ppm}\right)\left(\frac{17.9}{20.9 - \%O_2}\right)$$

= < 1.85 ppmv @ 3% O_2

RSC as H_2S CONCENTRATION (lbs/dscf) =

$$C_{gas,lb/dscf} = \left(C_{gas,ppm}\right)\left(\frac{34.08 lb/lb-mole}{385.26 \times 10^{-6} ft^3/lb-mole}\right)$$

= < 0.166 x 10^{-6} lbs/dscf

RSC as H_2S EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 756,778 dscfh

STACK RSC as H_2S EMISSION RATE =

$$RSC_{pmr} = \left(C_{gas,lb/dscf}\right)\left(Q_{std}\right)$$

= < 0.1257 lbs/hr
= < 0.550 ton/yr

ARI ENVIRONMENTAL, INC.
MOISTURE CALCULATION SUMMARY

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
TEST DATE: 4/27/2010
RUN NUMBER: SRU1-2

γ FACTOR:	1.000	**STACK DIAM:**	42.5 **inches**
BAROMETRIC:	29.95 **in. Hg**	**METER VOLUME:**	131.630 **ft^3**
STATIC PRES:	-1.20 **$in.H_2O$**	**METER TEMP:**	87.4 **°F**
STACK TEMP:	1447.4 **°F**	**LIQUID COLL:**	416.7 **milliliters**
SQ.RT ΔP:	0.8075 **$in.H_2O$**	**CO_2:**	4.47 **% by volume**
ΔH:	1.63 **$in.H_2O$**	**O_2:**	3.15 **% by volume**

ENGLISH UNITS
(29.92 in.Hg & 68 °F)

VOLUME OF SAMPLE
@ STANDARD CONDITIONS, DRY BASIS

$$V_{mstd} = \left(\frac{528}{29.92}\right) \times V_m \times \gamma \left[\frac{P_{bar} + \frac{\Delta H}{13.6}}{T_m}\right] = 127.601 \text{ dscf}$$

γ = 1.000

VOLUME OF WATER IN SAMPLE
@ STANDARD CONDITIONS

$$V_{wstd} = 0.04707 \times V_{lc} = 19.614 \text{ scf}$$

V_{lc} = 416.7 mL

FRACTIONAL MOISTURE CONTENT OF STACK GAS AS MEASURED

$$B_{ws} = \frac{V_{wstd}}{V_{wstd} + V_{mstd}} = 0.1332$$

FRACTIONAL MOISTURE CONTENT OF STACK GAS @ SATURATION

$$MF = \frac{\left(10^{\left[8.361 - \left(\frac{1893.5}{T - 27.65}\right)\right]}\right) - 0.5}{P} = 1.000$$

T = 1059.3 °K
P = 758.5 mmHg

FRACTIONAL MOISTURE CONTENT USED IN CALCULATIONS

B_{ws} = 0.1332

ARI ENVIRONMENTAL, INC.
FLOW RATE CALCULATION SUMMARY

COMPANY: Valero Refining - Texas
LOCATION: Corpus Christi, TX
RUN NUMBER: SRU1-2
SOURCE: SRU No. 1 TGI Exhaust
TEST DATE: 4/27/2010

BAROMETRIC:	29.95 **in. Hg**	**STACK DIAM:**	42.5 **inches**
STATIC PRES:	-1.2 **in.H_2O**	**CO_2:**	4.47 **% by volume**
STACK TEMP:	1447.4 **°F**	**O_2:**	3.15 **% by volume**
SQ.RT ΔP:	0.8075 **in.H_2O**		

DRY MOLECULAR WEIGHT OF STACK GAS			
$M_d = 0.44(\%CO_2) + 0.32(\%O_2) + 0.28(\%N_2 + \%CO)$	=	28.84	**lb/lb-mole**
MOLECULAR WEIGHT OF STACK GAS, wet basis			
$M_s = M_d(1 - B_{ws}) + 18B_{ws}$	=	27.40	**lb/lb-mole**
PITOT TUBE COEFFICIENT			
C_p (from calibration curve or geometric specifications)	=	0.84	
AVERAGE VELOCITY HEAD OF STACK GAS, in. H_2O			
$\overline{\sqrt{\Delta P}} = \frac{1}{n}\sum_{i=1}^{n}\sqrt{\Delta p}$	=	0.8075	**in. H_2O**
AVERAGE ABSOLUTE STACK GAS TEMPERATURE			
$T_s =$ 1447.4 °F + 460	=	1,907.4	**°R**
ABSOLUTE STACK GAS PRESSURE			
$P_s = P_{bar} + \frac{P_{static}}{13.6}$	=	29.86	**in.Hg**
STACK GAS VELOCITY			
$V_s = (85.49)(C_p)(\text{avg}\sqrt{\Delta P})\sqrt{\frac{T_s}{(P_s)(M_s)}}$	=	88.543	**ft/sec**
STACK GAS VOLUMETRIC FLOW RATE, actual			
$Q_s = 60 \times V_s \times A_s$	=	52,337	**acfm**
Stack Area = 9.8516 ft^2			
STACK GAS VOLUMETRIC FLOW RATE, standard conditions, wet basis			
$Q_{stdw} = \left(\frac{528}{29.92}\right)(Q_s)\left(\frac{P_s}{T_s}\right)$	=	14,459.5 867,572	**scfm, wb** **scfh, wb**
STACK GAS VOLUMETRIC FLOW RATE, standard conditions, dry basis			
$Q_{std} = \left(\frac{528}{29.92}\right)(Q_s)\left(\frac{P_s}{T_s}\right)(1 - B_{ws})$	=	12,533.0 751,982	**dscfm** **dscfh**

ARI ENVIRONMENTAL, INC.
TOTAL PARTICULATE CALCULATION SUMMARY

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
TEST DATE: 4/27/2010
RUN NUMBER: SRU1-2

INPUT

V_m:	131.63	ft^3	Q_s:	12,533	dscfm
γ FACTOR:	1		T_s:	1447.4	°F
P_{bar}:	29.95	in.Hg	Runtime:	180	minutes
ΔH:	1.63	$in.H_2O$	V_s:	88.543	ft/sec
T_m:	87.4	°F	P_s:	29.86	in.Hg
V_{lc}:	416.7	mL	Noz. diam:	0.312	inches
M_n front:	4.40	mg			
M_n back:	34.55	mg			

ENGLISH UNITS
(29.92 in.Hg & 68 °F)

VOLUME OF SAMPLE @ STANDARD CONDITIONS, DRY BASIS

$$V_{mstd} = \left(\frac{528}{29.92}\right) \times V_m \times \gamma \left(\frac{P_{bar} + \frac{\Delta H}{13.6}}{T_m}\right) = 127.601 \text{ dscf}$$

$\gamma =$ 1.000

VOLUME OF WATER IN SAMPLE @ STANDARD CONDITIONS

$$V_{wstd} = 0.04707 \times V_{lc} = 19.614 \text{ scf}$$

FRACTIONAL MOISTURE CONTENT OF STACK GAS

$$B_{ws} = \frac{V_{wstd}}{V_{wstd} + V_{mstd}} \times 100 = 13.32 \ \%$$

PARTICULATE CONCENTRATION IN STACK GAS ON A DRY BASIS

$$C_s = (0.01543)\left(\frac{M_n}{V_{mstd}}\right)$$

Front	=	0.0005321	gr/dscf
Back	=	0.0041779	gr/dscf
Total	=	0.0047100	gr/dscf

$$C_s' = \left(2.205 \times 10^{-6}\right)\left(\frac{M_n}{V_{mstd}}\right)$$

C's Front	=	0.07603	x 10^{-6} lbs/dscf
C's Back	=	0.59704	x 10^{-6} lbs/dscf
C's Total	=	0.67307	x 10^{-6} lbs/dscf

EMISSION RATE

$$pmr = \left(\frac{C_s}{7000}\right)(Q_{std})(60)$$

Front	=	0.05716	lbs/hr
Back	=	0.44882	lbs/hr
Total	=	0.50598	lbs/hr

ISOKINETIC SAMPLING RATE

$$\%ISO = \frac{(100)(T_s)\left[(0.002669 \times V_{lc}) + \left(\frac{V_m}{T_m}\right)(\gamma)\left(P_{bar} + \left(\frac{\Delta H}{13.6}\right)\right)\right]}{(60)(\theta)(V_s)(P_s)(A_n)} = 104.96 \ \%I$$

$A_n =$ 0.00053093 ft^2 Runtime = 180 minutes

MONITOR DATA SUMMARY

COMPANY : Valero Refining - Texas, L.P.
SOURCE : SRU No. 1 TGI Exhaust
REPETITION : SRU1-2
TEST DATE : 4/27/2010
START TIME : 14:15
END TIME : 18:15

GAS ANALYZER NO_x

SCALE : 0 - 90.0 ppm
AVERAGE CAL. BIAS (C_m): 42.94
AVERAGE ZERO BIAS (C_o): 0.28

CALIBRATION GAS: EPA Protocol NO_x
CALIBRATION PPM (C_{ma}): 45.0
PPM CORRECTED (C_{gas}): 26.5

GAS ANALYZER CO

SCALE : 0 - 88.3 ppm
AVERAGE CAL. BIAS (C_m): 43.50
AVERAGE ZERO BIAS (C_o): -0.11

CALIBRATION GAS: EPA Protocol CO
CALIBRATION PPM (C_{ma}): 44.2
PPM CORRECTED (C_{gas}): -1.1
detection limit : 1.0

GAS ANALYZER O_2

SCALE : 0 - 10.00 %
AVERAGE CAL. BIAS (C_m): 4.966
AVERAGE ZERO BIAS (C_o): 0.066

CALIBRATION GAS: EPA Protocol O_2
CALIBRATION PPM (C_{ma}): 5.00
PPM CORRECTED (C_{gas}): 3.15

GAS ANALYZER CO_2

SCALE : 0 - 8.65 %
AVERAGE CAL. BIAS (C_m): 4.374
AVERAGE ZERO BIAS (C_o): 0.071

CALIBRATION GAS: EPA Protocol CO_2
CALIBRATION % (C_{ma}): 4.32
% CORRECTED (C_{gas}): 4.47

GAS ANALYZER SO_2

SCALE : 0 - 90.0 ppm
AVERAGE CAL. BIAS (C_m): 0.283
AVERAGE ZERO BIAS (C_o): 43.660

CALIBRATION GAS: EPA Protocol SO_2
CALIBRATION ppm (C_{ma}): 45.00
PPM CORRECTED (C_{gas}): 18.66

Example Calculation =

$$C_{gas} = \left(\overline{C} - C_o\right)\frac{C_{ma}}{C_m - C_o}$$

NO_x, ppm @ 0% O_2 = 31.2
CO, ppm @ 0% O_2 = 1.2
SO_2, ppm @ 0% O_2 = 22.0

$$C_{gas}@0\%O_2 = C_{gas}\frac{20.9}{20.9 - O_2}$$

CLOCK TIME	ELAPSED TIME	Uncorrected O_2 % vol db	CO_2 % vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db
14:15	0	------	-------		-------	-------
14:16	1	3.00	4.62	27.27	24.27	-1.40
14:17	2	3.02	4.61	27.00	24.31	-1.40
14:18	3	2.99	4.63	27.11	24.27	-1.50
14:19	4	2.90	4.64	27.35	24.52	-1.59
14:20	5	2.87	4.65	27.30	24.37	-1.41
14:21	6	2.92	4.65	27.43	24.55	-1.28
14:22	7	2.89	4.65	27.38	24.37	-1.42
14:23	8	2.91	4.63	27.64	24.79	-1.56
14:24	9	2.82	4.65	28.04	24.96	-1.27
14:25	10	2.80	4.66	28.26	24.66	-1.25
14:26	11	2.87	4.64	28.17	25.13	-1.31
14:27	12	2.77	4.68	28.61	25.51	-1.50
14:28	13	2.76	4.69	28.29	24.70	-1.19
14:29	14	2.92	4.63	28.60	25.62	-1.24
14:30	15	2.88	4.65	28.26	25.50	-1.38
14:31	16	2.91	4.64	28.27	26.46	-1.44
14:32	17	2.81	4.65	27.79	26.05	-1.26
14:33	18	2.88	4.64	28.11	25.32	-1.19
14:34	19	2.97	4.62	28.39	25.20	-1.25
14:35	20	3.01	4.62	27.76	25.39	-1.33
14:36	21	3.02	4.60	27.21	25.72	-1.32
14:37	22	3.04	4.58	27.22	25.91	-1.04
14:38	23	2.95	4.62	27.02	25.75	-1.15
14:39	24	2.96	4.62	27.29	25.65	-1.40
14:40	25	2.98	4.61	27.16	25.41	-1.34
14:41	26	2.95	4.61	27.04	25.52	-1.05
14:42	27	2.95	4.61	27.13	25.61	-1.16
14:43	28	3.00	4.59	26.83	25.49	-1.32
14:44	29	2.98	4.59	26.66	25.40	-1.18
14:45	30	3.02	4.59	26.49	25.21	-1.06
14:46	31	3.02	4.58	26.41	25.33	-1.05
14:47	32	2.95	4.61	26.42	24.90	-1.25
14:48	33	3.13	4.55	25.89	24.43	-1.23
14:49	34	3.11	4.55	26.27	24.92	-0.89
14:50	35	3.03	4.58	26.48	25.16	-1.17
14:51	36	3.01	4.57	26.99	25.18	-1.27
14:52	37	3.02	4.58	27.12	25.07	-1.12
14:53	38	3.02	4.58	27.23	25.40	-0.90
14:54	39	3.02	4.57	27.41	25.55	-1.03
14:55	40	2.97	4.58	27.39	25.74	-1.25
14:56	41	3.03	4.57	27.23	26.05	-1.17
14:57	42	3.09	4.55	27.36	26.43	-0.95
14:58	43	3.04	4.56	27.17	24.96	-1.07
14:59	44	3.08	4.56	26.94	26.54	-1.19
15:00	45	3.06	4.57	26.99	27.09	-1.03
15:01	46	2.87	4.61	26.33	26.01	-0.84
15:02	47	3.03	4.56	26.85	25.91	-0.96
15:03	48	2.98	4.59	26.82	25.96	-1.17
15:04	49	2.95	4.61	26.92	25.52	-1.10
15:05	50	3.09	4.55	26.67	25.09	-0.85
15:06	51	3.09	4.55	27.15	25.51	-0.96
15:07	52	2.99	4.58	27.00	25.62	-1.16
15:08	53	2.94	4.58	27.11	25.32	-0.92
15:09	54	3.06	4.55	27.33	25.71	-0.98
15:10	55	2.92	4.59	26.91	25.41	-0.73
15:11	56	3.10	4.54	26.76	25.55	-1.11
15:12	57	3.06	4.56	26.99	25.54	-1.07
15:13	58	3.11	4.55	26.95	25.67	-0.66
15:14	59	3.02	4.57	26.90	25.51	-0.95
15:15	60	3.13	4.54	26.52	25.42	-1.30
15:16	61	3.10	4.56	26.90	26.31	-1.07
15:17	62	2.98	4.59	26.78	26.78	-1.00
15:18	63	3.04	4.57	26.44	26.67	-0.97
15:19	64	3.06	4.55	26.93	27.36	-1.26
15:20	65	2.93	4.59	27.09	27.06	-1.20
15:21	66	3.02	4.56	27.15	26.77	-1.01
15:22	67	3.09	4.53	26.71	26.42	-1.05
15:23	68	3.16	4.52	26.48	26.66	-0.94
15:24	69	3.12	4.52	26.22	26.39	-1.02
15:25	70	3.23	4.50	25.89	26.19	-1.04
15:26	71	3.24	4.50	25.60	25.86	-0.75
15:27	72	3.22	4.51	25.48	25.17	-0.71
15:28	73	3.18	4.51	25.67	25.48	-0.91
15:29	74	3.05	4.54	25.62	24.79	-0.83
15:30	75	3.12	4.53	25.83	24.84	-0.86
15:31	76	3.13	4.53	25.75	24.76	-0.72
15:32	77	3.08	4.55	26.17	25.48	-0.74
15:33	78	2.99	4.58	25.99	25.16	-0.94
15:34	79	3.02	4.57	26.67	25.44	-0.84
15:35	80	2.91	4.60	26.79	25.43	-0.51
15:36	81	2.92	4.59	27.05	25.29	-0.77
15:37	82	3.03	4.55	26.79	25.15	-1.00
15:38	83	3.11	4.54	26.64	25.18	-0.59
15:39	84	3.14	4.53	26.68	25.66	-0.76
15:40	85	3.12	4.53	26.85	26.01	-0.95
15:41	86	3.09	4.53	26.74	26.55	-1.13
15:42	87	3.05	4.53	26.89	26.86	-0.90
15:43	88	2.97	4.55	26.78	26.22	-0.75
15:44	89	3.16	4.51	26.69	26.10	-0.96
15:45	90	3.17	4.52	26.79	26.33	-1.00

MONITOR DATA SUMMARY

CLOCK TIME	ELAPSED TIME	Uncorrected O_2 % vol db	CO_2 % vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db
15:46	91	3.05	4.55	26.56	26.51	-1.18
15:47	92	3.06	4.52	26.50	26.66	-0.89
15:48	93	3.02	4.53	26.31	26.29	-0.88
15:49	94	3.11	4.52	26.86	26.45	-0.92
15:50	95	3.05	4.54	27.06	26.43	-1.06
15:51	96	2.85	4.58	27.34	25.85	-0.95
15:52	97	2.90	4.56	26.77	25.26	-0.86
15:53	98	2.94	4.53	26.87	25.67	-0.72
15:54	99	2.83	4.57	27.03	25.37	-1.00
15:55	100	2.98	4.54	26.90	25.44	-1.01
15:56	101	2.93	4.55	26.98	25.56	-0.74
15:57	102	2.98	4.52	26.20	24.89	-0.70
15:58	103	3.10	4.47	26.13	25.12	-0.88
15:59	104	3.10	4.50	26.07	25.47	-1.02
16:00	105	3.08	4.52	25.81	25.44	-0.83
16:01	106	3.12	4.50	26.35	26.12	-0.74
16:02	107	2.96	4.54	26.13	26.27	-1.00
16:03	108	2.99	4.53	25.94	26.29	-1.11
16:04	109	3.01	4.54	26.56	26.42	-1.15
16:05	110	3.00	4.54	26.36	26.60	-0.95
16:06	111	3.02	4.54	26.19	26.56	-0.92
16:07	112	3.11	4.52	26.35	26.87	-1.03
16:08	113	2.96	4.55	26.47	27.27	-1.10
16:09	114	2.89	4.56	26.54	27.08	-1.01
16:10	115	2.91	4.55	26.55	27.12	-0.94
16:11	116	2.92	4.55	26.39	26.44	-0.94
16:12	117	2.93	4.55	26.15	25.51	-0.87
16:13	118	3.02	4.51	26.07	25.12	-1.15
16:14	119	3.10	4.51	26.31	25.55	-0.88
16:15	120	2.99	4.54	26.05	25.60	-0.73
16:16	121	2.99	4.54	26.01	25.76	-0.85
16:17	122	2.98	4.54	26.15	25.76	-1.08
16:18	123	2.99	4.54	25.79	25.74	-0.86
16:19	124	3.11	4.51	25.67	25.90	-0.84
16:20	125	3.05	4.52	25.44	26.42	-0.93
16:21	126	2.99	4.54	25.63	26.79	-1.07
16:22	127	3.00	4.54	25.61	26.78	-1.11
16:23	128	3.01	4.53	25.33	26.36	-0.98
16:24	129	3.16	4.49	25.20	26.23	-0.99
16:25	130	3.79	4.30	19.88	18.99	-1.05
16:26	131	8.69	3.15	17.51	20.85	-1.02
16:27	132	6.51	3.77	24.38	26.67	-1.02
16:28	133	3.31	4.44	24.61	26.63	-1.15
16:29	134	3.33	4.45	24.68	25.75	-1.08
16:30	135	3.35	4.44	24.69	24.83	-1.03
16:31	136	3.31	4.44	24.23	23.88	-1.24
16:32	137	3.41	4.40	23.76	23.46	-1.17
16:33	138	3.41	4.41	23.66	23.46	-0.92
16:34	139	3.36	4.43	23.80	23.48	-1.00
16:35	140	3.27	4.49	24.52	23.77	-1.28
16:36	141	3.21	4.50	23.98	23.79	-1.28
16:37	142	3.31	4.46	23.89	24.20	-1.10
16:38	143	3.33	4.44	23.80	24.81	-1.29
16:39	144	3.27	4.46	24.02	25.09	-1.30
16:40	145	3.31	4.45	24.11	25.36	-1.47
16:41	146	3.35	4.45	24.11	25.75	-1.26
16:42	147	3.28	4.46	23.78	25.57	-1.22
16:43	148	3.37	4.43	23.78	25.79	-1.42
16:44	149	3.39	4.42	23.90	26.05	-1.36
16:45	150	3.35	4.44	23.88	26.05	-1.44
16:46	151	3.27	4.46	24.23	25.47	-1.28
16:47	152	3.31	4.44	24.27	24.78	-1.21
16:48	153	3.36	4.44	24.77	24.48	-1.26
16:49	154	3.31	4.46	24.99	24.58	-1.34
16:50	155	3.30	4.46	24.68	24.17	-1.33
16:51	156	3.33	4.44	24.64	24.32	-1.19
16:52	157	3.37	4.42	24.33	24.44	-1.05
16:53	158	3.36	4.43	24.27	24.57	-1.22
16:54	159	3.35	4.43	23.87	24.64	-1.48
16:55	160	3.37	4.43	23.83	24.67	-0.98
16:56	161	3.32	4.45	23.79	24.77	-1.23
16:57	162	3.31	4.46	24.27	25.23	-1.28
16:58	163	3.19	4.50	24.43	25.01	-1.39
16:59	164	3.29	4.48	24.42	25.43	-1.43
17:00	165	3.31	4.48	24.37	25.67	-1.33
17:01	166	3.29	4.48	24.65	25.69	-1.31
17:02	167	3.26	4.46	24.38	25.62	-1.47
17:03	168	3.34	4.45	24.43	25.66	-1.34
17:04	169	3.38	4.45	24.20	25.14	-1.52
17:05	170	3.37	4.45	23.85	24.52	-1.23
17:06	171	3.39	4.43	23.44	24.40	-1.25
17:07	172	3.39	4.43	23.63	24.45	-1.37
17:08	173	3.36	4.44	24.64	24.85	-1.39
17:09	174	3.08	4.52	24.69	25.27	-1.24
17:10	175	3.12	4.50	24.72	24.93	-1.20
17:11	176	3.26	4.47	24.74	24.89	-1.28
17:12	177	3.23	4.47	24.30	24.92	-1.45
17:13	178	3.24	4.46	23.98	24.81	-1.31
17:14	179	3.31	4.46	24.24	24.52	-1.19
17:15	180	3.31	4.46	24.12	24.79	-1.33
17:16	181	3.30	4.46	24.00	24.87	-1.50
17:17	182	3.29	4.46	24.21	25.10	-1.59

MONITOR DATA SUMMARY

CLOCK TIME	ELAPSED TIME	Uncorrected O_2 % vol db	CO_2 % vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db
17:18	183	3.25	4.47	24.22	25.35	-1.33
17:19	184	3.25	4.48	24.13	25.45	-1.33
17:20	185	3.27	4.48	23.72	25.55	-1.55
17:21	186	3.32	4.49	23.56	25.47	-1.60
17:22	187	3.30	4.49	23.58	25.14	-1.47
17:23	188	3.21	4.52	23.81	24.02	-1.22
17:24	189	3.20	4.52	24.02	23.30	-1.28
17:25	190	3.29	4.50	24.21	23.00	-1.33
17:26	191	3.26	4.50	24.71	23.06	-1.48
17:27	192	3.19	4.51	24.37	22.26	-1.11
17:28	193	3.49	4.43	24.30	22.09	-1.16
17:29	194	3.33	4.48	24.89	22.28	-1.44
17:30	195	3.30	4.49	24.64	23.06	-1.41
17:31	196	3.34	4.48	24.65	23.81	-1.33
17:32	197	3.28	4.50	24.42	24.55	-1.47
17:33	198	3.26	4.49	24.54	25.26	-1.60
17:34	199	3.29	4.48	24.61	25.33	-1.55
17:35	200	3.33	4.45	24.88	25.92	-1.34
17:36	201	3.26	4.48	24.93	26.27	-1.57
17:37	202	3.23	4.48	24.96	26.26	-1.52
17:38	203	3.25	4.49	24.87	25.26	-1.46
17:39	204	3.33	4.47	24.60	24.27	-1.33
17:40	205	3.32	4.48	24.65	23.77	-1.26
17:41	206	3.30	4.49	24.43	23.21	-1.38
17:42	207	3.38	4.47	24.00	22.61	-1.40
17:43	208	3.52	4.44	24.39	22.86	-1.28
17:44	209	3.14	4.52	24.41	23.40	-1.15
17:45	210	3.06	4.54	24.60	24.14	-1.36
17:46	211	3.02	4.55	24.64	24.68	-1.54
17:47	212	2.97	4.56	25.20	24.86	-1.42
17:48	213	2.99	4.54	25.37	25.58	-1.25
17:49	214	3.07	4.52	25.20	26.11	-1.54
17:50	215	3.00	4.55	25.54	26.95	-1.63
17:51	216	2.97	4.57	25.49	26.48	-1.64
17:52	217	3.09	4.54	25.75	26.66	-1.50
17:53	218	3.06	4.54	25.51	26.73	-1.55
17:54	219	3.11	4.53	25.51	27.34	-1.56
17:55	220	3.07	4.57	25.26	27.22	-1.69
17:56	221	3.08	4.57	25.20	26.78	-1.49
17:57	222	3.09	4.56	25.11	26.27	-1.30
17:58	223	3.04	4.58	25.04	25.85	-1.47
17:59	224	3.36	4.50	24.44	25.80	-1.51
18:00	225	3.16	4.54	25.16	26.25	-1.59
18:01	226	3.06	4.57	25.16	26.35	-1.42
18:02	227	3.09	4.57	24.91	26.40	-1.34
18:03	228	3.12	4.57	24.66	26.30	-1.46
18:04	229	3.15	4.57	24.63	26.44	-1.63
18:05	230	3.07	4.58	24.89	26.86	-1.30
18:06	231	2.97	4.61	24.78	26.54	-1.44
18:07	232	3.04	4.58	24.91	26.70	-1.50
18:08	233	3.00	4.59	24.90	26.84	-1.56
18:09	234	3.01	4.59	24.68	26.81	-1.61
18:10	235	3.04	4.58	25.43	27.00	-1.65
18:11	236	3.06	4.57	25.77	27.46	-1.51
18:12	237	3.04	4.57	25.24	27.50	-1.54
18:13	238	3.00	4.58	25.02	27.54	-1.59
18:14	239	3.05	4.57	25.11	26.99	-1.56
18:15	240	3.05	4.58	25.16	26.25	-1.40
	Uncorrected Average =	3.15	4.52	25.67	25.42	-1.19

SO_2 CALCULATION DATA SHEET
USEPA METHOD 6C

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
MONITOR ID: Bovar
RUN NO: SRU1-2
TEST DATE: 4/27/2010

INPUT

SO_2 AVERAGE READING (C): 18.7 ppmv

STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 751,982 dscfh

CALCULATIONS

STACK SO_2 CONCENTRATION

SO_2 CONC.(lbs/dscf) =

$$C_{gas,lb/dscf} = \left(C_{gas,ppm}\right)\left(\frac{64.07 lb/lb-mole}{385.26\times10^6 ft^3/lb-mole}\right) = 3.1034 \times 10^{-6} \text{ lbs/dscf}$$

SO_2 EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 751,982 dscfh

STACK SO_2 EMISSION RATE =

$$SO_{2pmr} = \left(C_{gas,lb/dscf}\right)\left(Q_{std}\right) = 2.3337 \text{ lbs/hr}$$
$$= 10.222 \text{ ton/yr}$$

NO_x CALCULATION DATA SHEET
USEPA METHOD 7E

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
MONITOR ID: California Analytical Instruments Model 600
RUN NO: SRU1-2
TEST DATE: 4/27/2010

INPUT

NO_x AVERAGE READING (C): 26.5 ppmv

STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 751,982 dscfh

CALCULATIONS

STACK NO_x CONCENTRATION

NO_x CONC.(lbs/dscf) =

$$C_{gas,lb/dscf} = \left(C_{gas,ppm}\right)\left(\frac{46 lb/lb-mole}{385.26 \times 10^6 ft^3/lb-mole}\right) = 3.1666 \times 10^{-6} \text{ lbs/dscf}$$

NO_x EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 751,982 dscfh

STACK NO_x EMISSION RATE =

$$NO_{xpmr} = \left(C_{gas,lb/dscf}\right)\left(Q_{std}\right) = 2.3812 \text{ lbs/hr}$$
$$= 10.430 \text{ ton/yr}$$

CO CALCULATION DATA SHEET
USEPA METHOD 10

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
MONITOR ID: Thermo Environmental Model 48i
RUN NO: SRU1-2
TEST DATE: 4/27/2010

INPUT

CO AVERAGE READING (C): <1.0 ppmv

STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 751,982 dscfh

CALCULATIONS

STACK CO CONCENTRATION

CO CONC.(lbs/dscf) =

$$C_{gas,lb/dscf} = \left(C_{gas,ppm}\right)\left(\frac{28 lb/lb-mole}{385.26 \times 10^6 ft^3/lb-mole}\right) = <0.0727 \times 10^{-6} \text{ lbs/dscf}$$

CO EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 751,982 dscfh

STACK CO EMISSION RATE =

$$CO_{pmr} = \left(C_{gas,lb/dscf}\right)\left(Q_{std}\right) = <0.0547 \text{ lbs/hr} = <0.239 \text{ ton/yr}$$

CARBONYL SULFIDE EMISSION RATE CALCULATION SHEET
USEPA METHOD 15

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU1-2
TEST DATE: 4/27/2010

INPUT

COS CONCENTRATION (C):	< 0.39	ppmv
STACK GAS VOLUMETRIC FLOW RATE (Q_{std}):	751,982	dscfh

CALCULATIONS

STACK COS AVERAGE CHART READING = < 0.39 ppmv

COS CONCENTRATION (lbs/dscf) =

$$C_{gas,lb/dscf} = (C_{gas,ppm})\left(\frac{60.07 lb/lb-mole}{385.26 \times 10^{-6} ft^3/lb-mole}\right)$$

= < 0.060 x 10^{-6} lbs/dscf

COS EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 751,982 dscfh

STACK COS EMISSION RATE =

$$COS_{pmr} = (C_{gas,lb/dscf})(Q_{std})$$

= < 0.0455 lbs/hr
= < 0.199 ton/yr

HYDROGEN SULFIDE CALIBRATION CORRECTION DATA SHEET
USEPA METHOD 15

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU1-2
TEST DATE: 4/27/2010

INPUT

H_2S CONCENTRATION (C):	< 0.74	ppmv
STACK GAS VOLUMETRIC FLOW RATE (Q_{std}):	751,982	dscfh

CALCULATIONS

STACK H_2S AVERAGE CHART READING = < 0.74 ppmv

H_2S CONCENTRATION (lbs/dscf) =

$$C_{gas,lb/dscf} = \left(C_{gas,ppm}\right)\left(\frac{34.08 lb/lb-mole}{385.26 \times 10^{-6} ft^3/lb-mole}\right)$$

= < 0.065 x 10^{-6} lbs/dscf

H_2S EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 751,982 dscfh

STACK H_2S EMISSION RATE =

$$H_2S_{pmr} = \left(C_{gas,lb/dscf}\right)\left(Q_{std}\right)$$

= < 0.0492 lbs/hr
= < 0.215 ton/yr

CARBON DISULFIDE EMISSION RATE CALCULATION SHEET
USEPA METHOD 15

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU1-2
TEST DATE: 4/27/2010

INPUT

CS_2 CONCENTRATION (C):	< 0.38	ppmv
STACK GAS VOLUMETRIC FLOW RATE (Q_{std}):	751,982	dscfh

CALCULATIONS

STACK CS_2 AVERAGE CHART READING = < 0.38 ppmv

CS_2 CONCENTRATION (lbs/dscf) =

$$C_{gas,lb/dscf} = \left(C_{gas,ppm}\right)\left(\frac{76.1 lb/lb-mole}{385.26 \times 10^{-6} ft^3/lb-mole}\right)$$

= < 0.074 x 10^{-6} lbs/dscf

CS_2 EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 751,982 dscfh

STACK CS_2 EMISSION RATE =

$$CS_{2pmr} = \left(C_{gas,lb/dscf}\right)\left(Q_{std}\right)$$

= < 0.0557 lbs/hr
= < 0.244 ton/yr

RSC as H_2S EMISSION RATE CALCULATION SHEET
USEPA METHOD 15

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU1-2
TEST DATE: 4/27/2010

INPUT

COS CONCENTRATION (C):	< 0.39	ppmv
CS_2 CONCENTRATION (C):	< 0.38	ppmv
H_2S CONCENTRATION (C):	< 0.74	ppmv
STACK GAS VOLUMETRIC FLOW RATE (Q_{std}):	751,982	dscfh
STACK OXYGEN CONTENT (%O_2):	3.15	%

CALCULATIONS

AVERAGE STACK RSC as H_2S = < 1.88 ppmv

AVERAGE STACK RSC as H_2S @ 3% O_2

$$C_{gas,ppm@3\%O_2} = \left(C_{gas,ppm}\right)\left(\frac{17.9}{20.9 - \%O_2}\right)$$

= < 1.87 ppmv @ 3% O_2

RSC as H_2S CONCENTRATION (lbs/dscf) =

$$C_{gas,lb/dscf} = \left(C_{gas,ppm}\right)\left(\frac{34.08 lb/lb-mole}{385.26 \times 10^{-6} ft^3/lb-mole}\right)$$

= < 0.166 x 10^{-6} lbs/dscf

RSC as H_2S EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 751,982 dscfh

STACK RSC as H_2S EMISSION RATE =

$$RSC_{pmr} = \left(C_{gas,lb/dscf}\right)\left(Q_{std}\right)$$

= < 0.1249 lbs/hr
= < 0.547 ton/yr

ARI ENVIRONMENTAL, INC.
MOISTURE CALCULATION SUMMARY

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
TEST DATE: 4/28/2010
RUN NUMBER: SRU1-3

γ FACTOR:	1.000	**STACK DIAM:**	42.5 **inches**
BAROMETRIC:	29.95 **in. Hg**	**METER VOLUME:**	129.020 **ft^3**
STATIC PRES:	-1.20 **$in.H_2O$**	**METER TEMP:**	85.3 **°F**
STACK TEMP:	1440.0 **°F**	**LIQUID COLL:**	407.9 **milliliters**
SQ.RT ΔP:	0.8160 **$in.H_2O$**	**CO_2:**	4.41 **% by volume**
ΔH:	1.58 **$in.H_2O$**	**O_2:**	3.02 **% by volume**

ENGLISH UNITS
(29.92 in.Hg & °F)

VOLUME OF SAMPLE
@ STANDARD CONDITIONS, DRY BASIS

$$V_{mstd} = \left(\frac{528}{29.92}\right) \times V_m \times \gamma \left[\frac{P_{bar} + \frac{\Delta H}{13.6}}{T_m}\right] = 125.537 \text{ dscf}$$

γ = 1.000

VOLUME OF WATER IN SAMPLE
@ STANDARD CONDITIONS

$$V_{wstd} = 0.04707 \times V_{lc} = 19.200 \text{ scf}$$

V_{lc} = 407.9 mL

FRACTIONAL MOISTURE CONTENT OF STACK GAS AS MEASURED

$$B_{ws} = \frac{V_{wstd}}{V_{wstd} + V_{mstd}} = 0.1327$$

FRACTIONAL MOISTURE CONTENT OF STACK GAS @ SATURATION

$$MF = \frac{\left(10^{\left[8.361 - \left(\frac{1893.5}{T - 27.65}\right)\right]}\right) - 0.5}{P} = 1.000$$

T = 1055.2 °K
P = 758.5 mmHg

FRACTIONAL MOISTURE CONTENT USED IN CALCULATIONS

B_{ws} = 0.1327

ARI ENVIRONMENTAL, INC.
FLOW RATE CALCULATION SUMMARY

COMPANY:	Valero Refining - Texas	**SOURCE:**	SRU No. 1 TGI Exhaust
LOCATION:	Corpus Christi, TX	**TEST DATE:**	4/28/2010
RUN NUMBER:	SRU1-3		

BAROMETRIC:	29.95 **in. Hg**	**STACK DIAM:**	42.5 **inches**
STATIC PRES:	-1.2 **in.H_2O**	**CO_2:**	4.41 **% by volume**
STACK TEMP:	1440.0 **°F**	**O_2:**	3.02 **% by volume**
SQ.RT ΔP:	0.816 **in.H_2O**		

DRY MOLECULAR WEIGHT OF STACK GAS			
$M_d = 0.44(\%CO_2) + 0.32(\%O_2) + 0.28(\%N_2 + \%CO)$	=	28.83	**lb/lb-mole**
MOLECULAR WEIGHT OF STACK GAS, wet basis			
$M_s = M_d(1 - B_{ws}) + 18B_{ws}$	=	27.39	**lb/lb-mole**
PITOT TUBE COEFFICIENT			
C_p (from calibration curve or geometric specifications)	=	0.84	
AVERAGE VELOCITY HEAD OF STACK GAS, in. H_2O			
$\overline{\sqrt{\Delta P}} = \frac{1}{n}\sum_{i=1}^{n}\sqrt{\Delta p}$	=	0.8160	**in. H_2O**
AVERAGE ABSOLUTE STACK GAS TEMPERATURE			
$T_s =$ 1440.0 °F + 460	=	1,900.0	**°R**
ABSOLUTE STACK GAS PRESSURE			
$P_s = P_{bar} + \frac{P_{static}}{13.6}$	=	29.86	**in.Hg**
STACK GAS VELOCITY			
$V_s = (85.49)(C_p)(\text{avg}\sqrt{\Delta P})\sqrt{\frac{T_s}{(P_s)(M_s)}}$	=	89.312	**ft/sec**
STACK GAS VOLUMETRIC FLOW RATE, actual			
$Q_s = 60 \times V_s \times A_s$	=	52,792	**acfm**
Stack Area = 9.8516 ft^2			
STACK GAS VOLUMETRIC FLOW RATE, standard conditions, wet basis			
$Q_{stdw} = \left(\frac{528}{29.92}\right)(Q_s)\left(\frac{P_s}{T_s}\right)$	=	14,642.1 878,524	**scfm, wb** **scfh, wb**
STACK GAS VOLUMETRIC FLOW RATE, standard conditions, dry basis			
$Q_{std} = \left(\frac{528}{29.92}\right)(Q_s)\left(\frac{P_s}{T_s}\right)(1 - B_{ws})$	=	12,699.7 761,985	**dscfm** **dscfh**

ARI ENVIRONMENTAL, INC.
TOTAL PARTICULATE CALCULATION SUMMARY

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
TEST DATE: 4/28/2010
RUN NUMBER: SRU1-3

INPUT

V_m:	129.02	ft^3	Q_s:	12,700	dscfm
γ FACTOR:	1		T_s:	1440	°F
P_{bar}:	29.95	in.Hg	Runtime:	180	minutes
ΔH:	1.58	in.H_2O	V_s:	89.312	ft/sec
T_m:	85.3	°F	P_s:	29.86	in.Hg
V_{lc}:	407.9	mL	Noz. diam:	0.312	inches
M_n front:	5.43	mg			
M_n back:	28.50	mg			

ENGLISH UNITS
(29.92 in.Hg & 68 °F)

VOLUME OF SAMPLE @ STANDARD CONDITIONS, DRY BASIS

$$V_{mstd} = \left(\frac{528}{29.92}\right) \times V_m \times \gamma \left(\frac{P_{bar} + \frac{\Delta H}{13.6}}{T_m}\right) = 125.537 \text{ dscf}$$

γ = 1.000

VOLUME OF WATER IN SAMPLE @ STANDARD CONDITIONS

$$V_{wstd} = 0.04707 \times V_{lc} = 19.200 \text{ scf}$$

FRACTIONAL MOISTURE CONTENT OF STACK GAS

$$B_{ws} = \frac{V_{wstd}}{V_{wstd} + V_{mstd}} \times 100 = 13.27 \ \%$$

PARTICULATE CONCENTRATION IN STACK GAS ON A DRY BASIS

$$C_s = (0.01543)\left(\frac{M_n}{V_{mstd}}\right)$$

Front	=	0.0006674	gr/dscf
Back	=	0.0035030	gr/dscf
Total	=	0.0041704	gr/dscf

$$C_s' = (2.205 \times 10^{-6})\left(\frac{M_n}{V_{mstd}}\right)$$

C's Front	=	0.09538	x 10^{-6} lbs/dscf
C's Back	=	0.50059	x 10^{-6} lbs/dscf
C's Total	=	0.59596	x 10^{-6} lbs/dscf

EMISSION RATE

$$pmr = \left(\frac{C_s}{7000}\right)(Q_{std})(60)$$

Front	=	0.07265	lbs/hr
Back	=	0.38132	lbs/hr
Total	=	0.45397	lbs/hr

ISOKINETIC SAMPLING RATE

$$\%ISO = \frac{(100)(T_s)\left[(0.002669 \times V_{lc}) + \left(\frac{V_m}{T_m}\right)(\gamma)\left(P_{bar} + \left(\frac{\Delta H}{13.6}\right)\right)\right]}{(60)(\theta)(V_s)(P_s)(A_n)} = 101.91 \ \%I$$

A_n = 0.00053093 ft^2 Runtime = 180 minutes

MONITOR DATA SUMMARY

COMPANY :	Valero Refining - Texas, L.P.
SOURCE :	SRU No. 1 TGI Exhaust
REPETITION :	SRU1-3
TEST DATE :	4/28/2010
START TIME :	8:45
END TIME :	12:45

GAS ANALYZER — **NO_x**

SCALE :	0 - 90.0 ppm
AVERAGE CAL. BIAS (C_m):	43.00
AVERAGE ZERO BIAS (C_o):	0.16
CALIBRATION GAS:	EPA Protocol NO_x
CALIBRATION PPM (C_{ma}):	45.0
PPM CORRECTED (C_{gas}):	**27.3**

GAS ANALYZER — **CO**

SCALE :	0 - 88.3 ppm
AVERAGE CAL. BIAS (C_m):	44.90
AVERAGE ZERO BIAS (C_o):	1.13
CALIBRATION GAS:	EPA Protocol CO
CALIBRATION PPM (C_{ma}):	44.2
PPM CORRECTED (C_{gas}):	**-1.5**
detection limit :	**1.0**

GAS ANALYZER — **O_2**

SCALE :	0 - 10.00 %
AVERAGE CAL. BIAS (C_m):	4.969
AVERAGE ZERO BIAS (C_o):	0.060
CALIBRATION GAS:	EPA Protocol O_2
CALIBRATION PPM (C_{ma}):	5.00
PPM CORRECTED (C_{gas}):	**3.02**

GAS ANALYZER — **CO_2**

SCALE :	0 - 8.65 %
AVERAGE CAL. BIAS (C_m):	4.310
AVERAGE ZERO BIAS (C_o):	0.043
CALIBRATION GAS:	EPA Protocol CO_2
CALIBRATION % (C_{ma}):	4.32
% CORRECTED (C_{gas}):	**4.41**

GAS ANALYZER — **SO_2**

SCALE :	0 - 90.0 ppm
AVERAGE CAL. BIAS (C_m):	0.159
AVERAGE ZERO BIAS (C_o):	43.882
CALIBRATION GAS:	EPA Protocol SO_2
CALIBRATION ppm (C_{ma}):	45.00
PPM CORRECTED (C_{gas}):	**14.22**

Example Calculation =

$$C_{gas} = \left(\overline{C} - C_o\right)\frac{C_{ma}}{C_m - C_o}$$

NO_x, ppm @ 0% O_2 =	**31.9**
CO, ppm @ 0% O_2 =	**1.2**
SO_2, ppm @ 0% O_2 =	**16.6**

$$C_{gas}@0\%O_2 = C_{gas}\frac{20.9}{20.9 - O_2}$$

CLOCK TIME	ELAPSED TIME	Uncorrected O_2 % vol db	CO_2 % vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db
8:45	0	------	-------		------	-------
8:46	1	2.88	4.42	32.29	26.43	-0.88
8:47	2	2.87	4.43	31.83	26.18	-0.75
8:48	3	2.89	4.41	31.56	26.47	-0.64
8:49	4	2.80	4.44	31.82	26.54	-0.70
8:50	5	2.80	4.44	31.70	26.67	-0.96
8:51	6	2.81	4.44	31.48	26.55	-0.81
8:52	7	2.84	4.44	31.68	26.73	-0.63
8:53	8	2.80	4.44	31.31	26.60	-0.71
8:54	9	2.86	4.43	31.09	27.37	-0.91
8:55	10	2.79	4.45	30.72	27.64	-1.02
8:56	11	2.82	4.43	30.78	27.83	-0.80
8:57	12	2.85	4.43	30.40	27.31	-0.72
8:58	13	2.82	4.44	29.64	26.04	-0.94
8:59	14	2.83	4.44	30.12	25.49	-0.84
9:00	15	2.81	4.44	30.23	25.23	-0.69
9:01	16	2.81	4.44	30.16	25.00	-0.74
9:02	17	2.80	4.44	30.57	24.78	-0.86
9:03	18	2.80	4.44	30.98	24.64	-1.01
9:04	19	2.83	4.42	30.61	24.71	-0.68
9:05	20	2.86	4.41	30.50	25.03	-0.81
9:06	21	2.84	4.41	30.68	25.35	-1.07
9:07	22	2.82	4.41	30.80	25.42	-1.12
9:08	23	2.79	4.42	30.63	26.09	-0.74
9:09	24	2.79	4.42	30.33	26.35	-1.04
9:10	25	2.78	4.43	30.67	26.95	-1.09
9:11	26	2.76	4.43	30.44	26.94	-1.25
9:12	27	2.79	4.43	30.69	27.17	-1.08
9:13	28	2.79	4.43	30.85	26.85	-0.97
9:14	29	2.83	4.43	30.56	26.47	-0.93
9:15	30	2.87	4.42	30.43	26.50	-1.18
9:16	31	2.82	4.43	30.39	26.55	-1.36
9:17	32	2.84	4.42	30.04	26.30	-1.03
9:18	33	2.83	4.41	30.25	26.47	-1.00
9:19	34	2.74	4.43	30.22	26.42	-1.11
9:20	35	2.75	4.43	30.25	26.47	-1.13
9:21	36	2.73	4.43	30.05	26.58	-1.33
9:22	37	2.78	4.43	30.10	26.34	-0.99
9:23	38	2.75	4.44	30.10	26.16	-1.11
9:24	39	2.80	4.43	29.61	25.82	-1.28
9:25	40	2.80	4.42	29.43	26.02	-1.30
9:26	41	2.74	4.43	29.53	26.54	-1.12
9:27	42	2.70	4.44	29.71	26.28	-1.16
9:28	43	2.77	4.43	29.71	26.15	-1.19
9:29	44	2.83	4.43	29.36	26.36	-1.34
9:30	45	2.78	4.43	29.61	26.81	-1.33
9:31	46	2.74	4.44	29.70	26.77	-1.29
9:32	47	2.76	4.45	29.60	26.29	-1.13
9:33	48	2.76	4.45	29.59	26.12	-1.39
9:34	49	2.76	4.45	29.62	25.73	-1.35
9:35	50	2.76	4.45	29.76	25.71	-1.33
9:36	51	2.76	4.45	30.09	25.65	-1.26
9:37	52	2.78	4.45	30.11	25.50	-1.30
9:38	53	2.77	4.43	30.21	25.47	-1.29
9:39	54	2.77	4.42	30.33	25.47	-1.53
9:40	55	2.78	4.42	30.39	25.42	-1.28
9:41	56	2.79	4.42	30.41	25.48	-1.39
9:42	57	2.80	4.42	30.52	25.52	-1.46
9:43	58	2.84	4.41	30.48	26.00	-1.43
9:44	59	2.82	4.43	30.95	26.48	-1.48
9:45	60	2.82	4.44	30.49	26.07	-1.53
9:46	61	2.87	4.41	30.55	26.28	-1.41
9:47	62	2.75	4.43	30.68	25.62	-1.30
9:48	63	2.79	4.42	30.56	25.23	-1.43
9:49	64	2.81	4.41	30.28	25.20	-1.49
9:50	65	2.80	4.42	30.30	25.42	-1.38
9:51	66	2.76	4.43	30.16	25.22	-1.33
9:52	67	2.81	4.41	30.29	25.40	-1.36
9:53	68	2.81	4.42	30.14	25.34	-1.49
9:54	69	2.83	4.42	30.09	25.27	-1.58
9:55	70	2.84	4.42	30.26	25.64	-1.46
9:56	71	2.85	4.42	28.68	23.60	-1.46
9:57	72	4.73	3.95	26.16	23.03	-1.51
9:58	73	5.14	3.89	26.36	23.33	-1.50
9:59	74	4.96	3.92	26.67	23.15	-1.57
10:00	75	4.94	3.92	26.75	22.61	-1.53
10:01	76	4.89	3.94	26.85	22.46	-1.41
10:02	77	4.96	3.93	26.49	22.47	-1.45
10:03	78	5.11	3.89	26.01	22.48	-1.45
10:04	79	5.20	3.87	25.99	22.16	-1.67
10:05	80	5.31	3.85	25.84	22.21	-1.42
10:06	81	5.38	3.85	25.73	22.00	-1.34
10:07	82	5.56	3.81	25.57	21.87	-1.46
10:08	83	5.73	3.77	25.22	21.93	-1.48
10:09	84	5.80	3.75	24.98	22.29	-1.55
10:10	85	5.74	3.76	25.36	22.83	-1.46
10:11	86	5.57	3.79	25.04	22.69	-1.44
10:12	87	5.60	3.78	24.98	22.18	-1.29
10:13	88	5.51	3.81	26.76	24.22	-1.40
10:14	89	3.45	4.31	30.04	25.30	-1.64
10:15	90	2.85	4.42	30.07	25.15	-1.30

MONITOR DATA SUMMARY

CLOCK TIME	ELAPSED TIME	O_2 % vol db	CO_2 % vol db	Uncorrected SO_2 ppmv db	Uncorrected NO_x ppmv db	Uncorrected CO ppmv db
10:16	91	2.88	4.42	29.70	24.74	-1.42
10:17	92	2.89	4.40	29.95	25.36	-1.59
10:18	93	2.83	4.41	29.77	25.57	-1.84
10:19	94	2.87	4.40	29.85	25.83	-1.47
10:20	95	2.86	4.42	29.89	25.84	-1.37
10:21	96	2.85	4.42	29.20	25.62	-1.65
10:22	97	2.91	4.41	29.61	26.12	-1.78
10:23	98	2.89	4.41	29.69	26.43	-1.67
10:24	99	2.91	4.40	29.77	26.44	-1.55
10:25	100	2.91	4.40	29.81	26.27	-1.66
10:26	101	2.83	4.41	30.13	25.81	-1.68
10:27	102	2.90	4.39	30.27	25.55	-1.54
10:28	103	2.90	4.41	30.69	25.41	-0.41
10:29	104	2.87	4.41	30.71	25.51	-0.12
10:30	105	2.83	4.42	30.62	25.13	-0.38
10:31	106	2.87	4.40	30.76	25.22	-0.42
10:32	107	2.87	4.41	30.74	25.17	-0.51
10:33	108	2.88	4.41	30.83	25.17	-0.34
10:34	109	2.83	4.42	30.63	25.49	-0.29
10:35	110	2.84	4.42	30.62	25.64	-0.38
10:36	111	2.79	4.43	30.63	25.88	-0.49
10:37	112	2.82	4.43	30.21	26.02	-0.34
10:38	113	2.81	4.44	30.01	26.41	-0.19
10:39	114	2.80	4.44	30.17	26.42	-0.40
10:40	115	2.85	4.42	30.22	26.39	-0.52
10:41	116	2.84	4.43	30.55	26.49	-0.42
10:42	117	2.80	4.44	30.60	26.78	-0.42
10:43	118	2.79	4.43	30.30	26.87	-0.38
10:44	119	2.83	4.43	30.39	27.27	-0.25
10:45	120	2.84	4.44	30.21	27.11	0.17
10:46	121	2.88	4.43	30.22	26.50	0.45
10:47	122	2.86	4.44	30.24	26.14	0.43
10:48	123	2.87	4.45	30.25	25.94	0.48
10:49	124	2.90	4.43	30.10	25.93	0.33
10:50	125	2.90	4.43	30.29	26.01	0.34
10:51	126	2.92	4.41	30.47	26.01	0.44
10:52	127	2.80	4.45	31.02	26.44	0.50
10:53	128	2.72	4.46	30.82	26.45	0.36
10:54	129	2.73	4.45	30.49	26.45	0.28
10:55	130	2.76	4.44	30.41	26.44	0.40
10:56	131	2.80	4.44	30.68	26.91	0.29
10:57	132	2.80	4.46	30.77	26.76	0.29
10:58	133	2.81	4.46	30.65	26.29	0.18
10:59	134	2.82	4.45	30.75	26.17	0.27
11:00	135	2.76	4.44	30.75	26.47	0.55
11:01	136	2.70	4.46	30.89	26.73	0.47
11:02	137	2.71	4.47	31.28	26.83	0.20
11:03	138	2.71	4.47	31.20	26.95	0.31
11:04	139	2.72	4.46	31.02	26.95	0.62
11:05	140	2.76	4.45	30.94	26.96	0.40
11:06	141	2.79	4.44	30.46	26.76	0.13
11:07	142	3.00	4.37	30.15	26.91	0.22
11:08	143	3.02	4.36	30.32	26.95	0.37
11:09	144	3.12	4.34	30.51	27.06	0.46
11:10	145	2.96	4.37	30.40	26.47	0.41
11:11	146	2.95	4.37	30.30	25.93	0.16
11:12	147	2.96	4.36	30.14	26.21	0.42
11:13	148	2.94	4.38	29.87	26.43	0.43
11:14	149	2.97	4.37	29.95	26.22	0.45
11:15	150	3.00	4.37	30.07	26.41	0.24
11:16	151	3.03	4.38	30.24	26.42	0.41
11:17	152	3.01	4.38	30.27	26.52	0.52
11:18	153	3.01	4.39	30.53	26.68	0.36
11:19	154	2.98	4.40	30.65	26.65	0.31
11:20	155	3.01	4.38	30.30	26.67	-0.01
11:21	156	2.98	4.37	29.82	26.32	0.51
11:22	157	3.01	4.36	29.69	26.18	0.49
11:23	158	3.01	4.36	30.09	26.01	0.32
11:24	159	3.04	4.35	30.33	25.89	0.27
11:25	160	3.02	4.38	30.82	25.92	0.47
11:26	161	3.02	4.37	30.27	25.89	0.38
11:27	162	3.04	4.35	30.22	25.77	0.44
11:28	163	3.02	4.35	30.18	25.67	0.25
11:29	164	3.02	4.35	30.09	25.99	0.24
11:30	165	2.98	4.39	30.98	26.94	0.40
11:31	166	2.78	4.44	30.92	26.96	0.37
11:32	167	2.80	4.43	30.99	26.55	0.23
11:33	168	2.83	4.43	30.84	26.46	0.27
11:34	169	2.83	4.44	31.02	26.27	0.50
11:35	170	2.80	4.45	30.95	26.36	0.45
11:36	171	2.85	4.44	30.97	26.47	0.37
11:37	172	2.80	4.45	31.07	26.87	0.26
11:38	173	2.77	4.45	31.01	26.81	0.41
11:39	174	2.81	4.45	31.27	26.79	0.57
11:40	175	2.81	4.46	31.27	27.20	0.38
11:41	176	2.83	4.47	31.35	27.68	0.28
11:42	177	2.76	4.49	31.35	27.98	0.19
11:43	178	2.76	4.49	31.38	27.69	0.54
11:44	179	2.77	4.48	31.03	26.73	0.53
11:45	180	2.85	4.46	31.06	27.04	0.36
11:46	181	2.81	4.47	30.48	26.70	0.34
11:47	182	2.88	4.45	30.22	26.70	0.50

MONITOR DATA SUMMARY

CLOCK TIME	ELAPSED TIME	O_2 % vol db	CO_2 % vol db	Uncorrected SO_2 ppmv db	Uncorrected NO_x ppmv db	Uncorrected CO ppmv db
11:48	183	2.86	4.46	30.15	26.80	0.60
11:49	184	2.86	4.47	30.02	26.95	0.47
11:50	185	2.88	4.47	29.76	26.91	0.28
11:51	186	2.86	4.47	29.89	27.26	0.39
11:52	187	2.85	4.48	30.15	27.28	0.50
11:53	188	2.85	4.48	30.28	27.67	0.42
11:54	189	2.86	4.49	30.54	27.36	0.40
11:55	190	2.82	4.48	30.64	27.09	0.37
11:56	191	2.84	4.48	30.63	26.67	0.53
11:57	192	2.88	4.47	30.80	27.06	0.62
11:58	193	2.84	4.49	30.73	27.00	0.48
11:59	194	2.84	4.48	30.82	27.20	0.37
12:00	195	2.82	4.49	30.82	27.13	0.41
12:01	196	2.81	4.48	30.69	27.01	0.59
12:02	197	2.82	4.48	31.20	27.24	0.59
12:03	198	2.82	4.48	30.43	27.00	0.38
12:04	199	2.89	4.46	30.66	27.39	0.24
12:05	200	2.83	4.46	30.49	27.37	0.47
12:06	201	2.88	4.44	30.42	26.66	0.60
12:07	202	2.92	4.44	30.41	26.58	0.48
12:08	203	2.92	4.46	29.97	26.57	0.27
12:09	204	2.92	4.46	30.08	26.60	0.33
12:10	205	2.92	4.45	30.20	26.86	0.61
12:11	206	2.93	4.46	30.31	27.00	0.55
12:12	207	2.85	4.48	30.33	27.02	0.32
12:13	208	2.90	4.46	30.14	27.28	0.21
12:14	209	2.90	4.46	29.88	27.69	0.30
12:15	210	2.87	4.46	29.58	27.89	0.44
12:16	211	2.86	4.46	30.11	28.16	0.35
12:17	212	2.83	4.48	30.26	27.33	0.24
12:18	213	2.82	4.48	30.17	26.81	0.25
12:19	214	2.83	4.47	30.31	26.33	0.55
12:20	215	2.85	4.46	30.50	26.23	0.45
12:21	216	2.87	4.46	30.16	26.31	0.28
12:22	217	2.95	4.46	30.06	26.59	0.22
12:23	218	2.90	4.48	29.96	26.53	0.27
12:24	219	2.94	4.47	29.59	26.69	0.51
12:25	220	2.90	4.48	29.71	26.81	0.31
12:26	221	2.91	4.48	29.78	27.06	0.07
12:27	222	2.89	4.48	29.89	27.26	0.26
12:28	223	2.85	4.49	30.15	27.29	0.26
12:29	224	2.83	4.49	29.92	26.78	0.31
12:30	225	2.88	4.46	30.07	26.44	0.23
12:31	226	2.84	4.47	29.79	25.88	0.18
12:32	227	2.90	4.47	30.02	25.72	0.22
12:33	228	2.92	4.47	30.15	25.66	0.42
12:34	229	2.93	4.48	30.01	25.60	0.32
12:35	230	2.91	4.48	29.96	25.62	0.11
12:36	231	2.94	4.46	29.83	25.93	0.17
12:37	232	2.91	4.47	30.14	26.42	0.33
12:38	233	2.84	4.48	29.94	26.72	0.23
12:39	234	2.82	4.48	30.12	27.19	0.02
12:40	235	2.78	4.48	30.42	27.28	-0.03
12:41	236	2.86	4.47	30.20	27.38	0.27
12:42	237	2.85	4.49	30.34	27.54	0.14
12:43	238	2.83	4.50	30.31	27.36	0.09
12:44	239	2.78	4.51	30.12	26.34	0.10
12:45	240	2.79	4.48	29.92	26.20	0.04
	Uncorrected Average =	3.02	4.39	30.06	26.10	-0.38

SO_2 CALCULATION DATA SHEET
USEPA METHOD 6C

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
MONITOR ID: Bovar
RUN NO: SRU1-3
TEST DATE: 4/28/2010

INPUT

SO_2 AVERAGE READING (C): 14.2 ppmv

STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 761,985 dscfh

CALCULATIONS

STACK SO_2 CONCENTRATION

SO_2 CONC.(lbs/dscf) =

$$C_{gas,lb/dscf} = \left(C_{gas,ppm}\right)\left(\frac{64.07 lb/lb-mole}{385.26 \times 10^6 ft^3/lb-mole}\right) = 2.3656 \times 10^{-6} \text{ lbs/dscf}$$

SO_2 EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 761,985 dscfh

STACK SO_2 EMISSION RATE =

$$SO_{2pmr} = \left(C_{gas,lb/dscf}\right)\left(Q_{std}\right) = 1.8026 \text{ lbs/hr}$$
$$= 7.895 \text{ ton/yr}$$

NO_x CALCULATION DATA SHEET
USEPA METHOD 7E

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
MONITOR ID: California Analytical Instruments Model 600
RUN NO: SRU1-3
TEST DATE: 4/28/2010

INPUT

NO_x AVERAGE READING (C): 27.0 ppmv

STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 761,985 dscfh

CALCULATIONS

STACK NO_x CONCENTRATION

NO_x CONC.(lbs/dscf) =

$$C_{gas,lb/dscf} = \left(C_{gas,ppm}\right)\left(\frac{46 lb/lb-mole}{385.26 \times 10^6 ft^3/lb-mole}\right) = 3.2238 \times 10^{-6} \text{ lbs/dscf}$$

NO_x EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 761,985 dscfh

STACK NO_x EMISSION RATE =

$$NO_{xpmr} = \left(C_{gas,lb/dscf}\right)\left(Q_{std}\right) = 2.4565 \text{ lbs/hr}$$
$$= 10.760 \text{ ton/yr}$$

CO CALCULATION DATA SHEET
USEPA METHOD 10

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
MONITOR ID: Thermo Environmental Model 48i
RUN NO: SRU1-3
TEST DATE: 4/28/2010

INPUT

CO AVERAGE READING (C): <1.0 ppmv

STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 761,985 dscfh

CALCULATIONS

STACK CO CONCENTRATION

CO CONC.(lbs/dscf) =

$$C_{gas,lb/dscf} = \left(C_{gas,ppm}\right)\left(\frac{28 lb/lb-mole}{385.26 \times 10^6 ft^3/lb-mole}\right) = <0.0727 \times 10^{-6} \text{ lbs/dscf}$$

CO EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 761,985 dscfh

STACK CO EMISSION RATE =

$$CO_{pmr} = \left(C_{gas,lb/dscf}\right)\left(Q_{std}\right) = <0.0554 \text{ lbs/hr} = <0.243 \text{ ton/yr}$$

CARBONYL SULFIDE EMISSION RATE CALCULATION SHEET
USEPA METHOD 15

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU1-3
TEST DATE: 4/28/2010

INPUT

COS CONCENTRATION (C):	< 0.39	ppmv
STACK GAS VOLUMETRIC FLOW RATE (Q_{std}):	761,985	dscfh

CALCULATIONS

STACK COS AVERAGE CHART READING = < 0.39 ppmv

COS CONCENTRATION (lbs/dscf) =

$$C_{gas,lb/dscf} = \left(C_{gas,ppm}\right)\left(\frac{60.07 lb/lb-mole}{385.26 \times 10^{-6} ft^3/lb-mole}\right)$$

= < 0.060 x 10^{-6} lbs/dscf

COS EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 761,985 dscfh

STACK COS EMISSION RATE =

$$COS_{pmr} = \left(C_{gas,lb/dscf}\right)\left(Q_{std}\right)$$

= < 0.0461 lbs/hr
= < 0.202 ton/yr

HYDROGEN SULFIDE CALIBRATION CORRECTION DATA SHEET
USEPA METHOD 15

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU1-3
TEST DATE: 4/28/2010

INPUT

H_2S CONCENTRATION (C):	< 0.74	ppmv
STACK GAS VOLUMETRIC FLOW RATE (Q_{std}):	761,985	dscfh

CALCULATIONS

STACK H_2S AVERAGE CHART READING = < 0.74 ppmv

H_2S CONCENTRATION (lbs/dscf) =

$$C_{gas,lb/dscf} = \left(C_{gas,ppm}\right)\left(\frac{34.08 lb/lb-mole}{385.26 \times 10^{-6} ft^3/lb-mole}\right)$$

= < 0.065 x 10^{-6} lbs/dscf

H_2S EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 761,985 dscfh

STACK H_2S EMISSION RATE =

$$H_2S_{pmr} = \left(C_{gas,lb/dscf}\right)\left(Q_{std}\right)$$

= < 0.0498 lbs/hr
= < 0.218 ton/yr

CARBON DISULFIDE EMISSION RATE CALCULATION SHEET
USEPA METHOD 15

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU1-3
TEST DATE: 4/28/2010

INPUT

CS_2 CONCENTRATION (C):	< 0.38	ppmv
STACK GAS VOLUMETRIC FLOW RATE (Q_{std}):	761,985	dscfh

CALCULATIONS

STACK CS_2 AVERAGE CHART READING = < 0.38 ppmv

CS_2 CONCENTRATION (lbs/dscf) =

$$C_{gas,lb/dscf} = \left(C_{gas,ppm}\right)\left(\frac{76.1 lb/lb-mole}{385.26 \times 10^{-6} ft^3/lb-mole}\right)$$

= < 0.074 x 10^{-6} lbs/dscf

CS_2 EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 761,985 dscfh

STACK CS_2 EMISSION RATE =

$$CS_{2pmr} = \left(C_{gas,lb/dscf}\right)\left(Q_{std}\right)$$

= < 0.0564 lbs/hr
= < 0.247 ton/yr

RSC as H_2S EMISSION RATE CALCULATION SHEET
USEPA METHOD 15

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU1-3
TEST DATE: 4/28/2010

INPUT

COS CONCENTRATION (C):	< 0.39	ppmv
CS_2 CONCENTRATION (C):	< 0.38	ppmv
H_2S CONCENTRATION (C):	< 0.74	ppmv
STACK GAS VOLUMETRIC FLOW RATE (Q_{std}):	761,985	dscfh
STACK OXYGEN CONTENT (%O_2):	3.02	%

CALCULATIONS

AVERAGE STACK RSC as H_2S = < 1.88 ppmv

AVERAGE STACK RSC as H_2S @ 3% O_2

$$C_{gas,ppm@3\%O_2} = \left(C_{gas,ppm}\right)\left(\frac{17.9}{20.9 - \%O_2}\right)$$

= < 1.86 ppmv @ 3% O_2

RSC as H_2S CONCENTRATION (lbs/dscf) =

$$C_{gas,lb/dscf} = \left(C_{gas,ppm}\right)\left(\frac{34.08 lb/lb-mole}{385.26 \times 10^{-6} ft^3/lb-mole}\right)$$

= < 0.166 x 10^{-6} lbs/dscf

RSC as H_2S EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 761,985 dscfh

STACK RSC as H_2S EMISSION RATE =

$$RSC_{pmr} = \left(C_{gas,lb/dscf}\right)\left(Q_{std}\right)$$

= < 0.1265 lbs/hr
= < 0.554 ton/yr

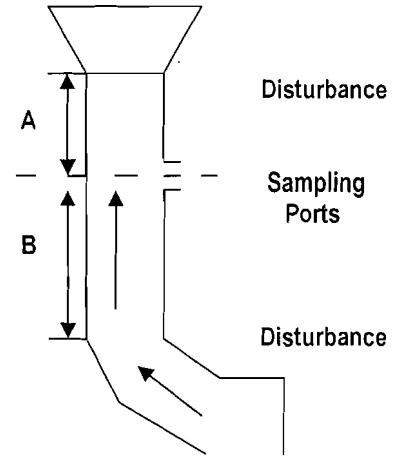
APPENDIX B

Field Data

TRAVERSE POINT LOCATION FOR CIRCULAR AND RECTANGULAR DUCTS

Facility Valero
Date 4/27/10
Sampling Location SRW 2
Inside Of Far Wall To
Outside Of Port (Distance C) 48 1/2" in.
Inside Of Near Wall To
Outside Of Port (Distance D) 6" in.
Stack ID 42 1/2" in.
Port Distance Downstream From Disturbance (B) ≥ 50ft 600" in.
Port Distance Upstream From Disturbance (A) ≥ 100ft 1200" in.
Calculator

Equivalent Diameters Downstream From Disturbance (B) 14.1
Equivalent Diameters Upstream From Disturbance (A) 28.2



Sketch of Sampling Location

1	2	3	4	5	6
TRAVERSE POINT NUMBER	FRACTION OF STACK I.D.	STACK I.D.	PRODUCT OF COLUMNS 2 AND 3 (TO NEAREST1/8 INCH)	DISTANCE D (PORT DEPTH)	TRAVERSE POINT LOCATION FROM OUTSIDE OF PORT(SUM OF COLUMNS 4 AND 5)
1	0.044	42 1/2	1.87	6"	7.87
2	0.146		6.20		12.20
3	0.296		12.58		18.58
4	0.704		29.92		35.92
5	0.854		36.30		42.30
6	0.956		40.63		46.63
7					
8					
9					
10					
11					
12					

Location of Traverse Points in Circular Stacks

Pts	4	6	8	10	12
1	6.7	4.4	3.2	2.6	2.1
2	25.0	14.6	10.5	8.2	6.7
3	75.0	29.6	19.4	14.6	11.8
4	93.3	70.4	32.3	22.6	17.7
5		85.4	67.7	34.2	25.0
6		95.6	80.6	65.8	35.6
7			89.5	77.4	64.4
8			96.8	85.4	75.0
9				91.8	82.3
10				97.4	88.2
11					93.3
12					97.9

Location of Traverse Points in Rectangular Stacks

cems*

Pts	2	3	4	5	6	7	8	9
1	25.0	16.7	12.5	10.0	8.3	7.1	6.3	5.6
2	75.0	50.0	37.5	30.0	25.0	21.4	18.8	16.7
3		83.3	62.5	50.0	41.7	35.7	31.3	27.8
4			87.5	70.0	58.3	50.0	43.8	38.9
5				90.0	75.0	64.3	56.3	50.0
6					91.7	78.6	68.8	61.1
7						92.9	81.3	72.2
8							93.8	83.3
9								94.4

*3 point CEMS RATA traverse point locations

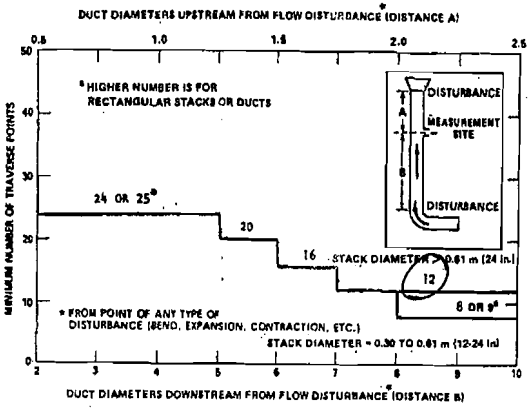


Figure 1-1. Minimum number of traverse points for particulate traverses.

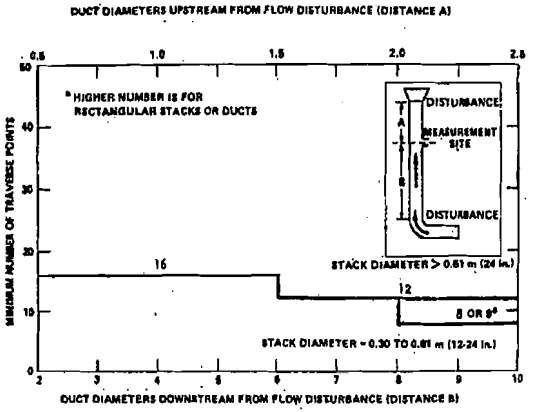


Figure 1-2. Minimum number of traverse points for velocity (nonparticulate) traverses.

Note: For Stacks / Ducts ≤ 24 inches ID – No traverse point shall be located less than 0.5 inches from the stack wall.

For Stacks / Ducts > 24 inches ID – No traverse point shall be located less than 1.0 inch from the stack wall.

Rectangular Duct Equivalent Diameter = 2(L x W) / (L + W)

Field Supervisor Signature _____

FIELD DATA

ARI ENVIRONMENTAL INC

CLIENT	Valero	AMBIENT TEMPERATURE	70	PROBE HEATER SETTING	250
DATE	9/27/10	BAROMETRIC PRESSURE	29.95	HEATER BOX SETTING	—
LOCATION	Corpus Christi TX	ASSUMED MOISTURE, %	10%	METER $H_@$	~~1.00~~ 1.75
OPERATOR	JR	PROBE LENGTH, in.	6ft	C, FACTOR	.84
STACK NO	SRU #1	NOZZLE DIAMETER, in	0.312	Y_d FACTOR	~~1.00~~ 1.00
RUN NO	1	STACK DIAMETER, in.	42.5"	PITOT/THERM #	122
SAMPLE BOX NO	APEX	MINUTES PER POINT	15		
METER BOX NO	901605	NUMBER OF POINTS	12pts		
START TIME	1015	NUMBER OF PORTS	2		

WEIGHT OF PARTICULATE, mg	
Filter No.	59037
Sample	
Final wt	
Tare wt	779.0
Wt. gain	
TOTAL	mg

A# ____ D# ____

CROSS SECTION

CLOCK TIME	TRAVERSE POINT NUMBER	SAMPLING TIME (θ) min.	STATIC PRESSURE (in. H_2O)	STACK TEMP (T_s) °F	VELOCITY HEAD (ΔP_s)	VELOCITY HEAD ($\sqrt{\Delta P_s}$)	PRESSURE DIFFERENTIAL ACROSS ORIFICE METER (ΔH) in. H_2O ACTUAL	PRESSURE DIFFERENTIAL ACROSS ORIFICE METER (ΔH) in. H_2O DESIRED	GAS SAMPLE VOLUME (Vm) ft^3	GAS SAMPLE TEMP AT DRY GAS METER INLET (Tm_{in}) °F	GAS SAMPLE TEMP AT DRY GAS METER OUTLET (Tm_{out}) °F	Filter ~~Sample~~ BOX TEMP. °F	COND. EXIT TEMP °F	SORBENT MODULE TEMP. °F	LAST IMPINGER OUTLET TEMP. °F	PUMP VACUUM in. Hg
1015	S-6	0	-1.1	1443	0.58		1.40	1.39	86.800	70	70	251			51	2
1030	5	15		1452	0.65		1.6	1.58	96.41	84	73	253			47	2
1045	4	30		1445	0.66		1.6	1.62	107.92	87	75	264			54	2
1100	3	45		1449	0.62		1.5	1.52	118.75	87	75	267			56	2
1115	2	60		1435	0.55		1.4	1.36	129.07	87	75	271			57	2
1130	1	75		1427	0.50		1.2	1.24	139.41	89	76	264			58	2
45/1156	E-6	90		1460	0.78		1.9	1.89	148.67	78	77	250			59	2
1211	5	105		1458	0.80		2.0	1.96	160.13	88	77	262			59	2
1226	4	120		1460	0.79		1.9	1.93	172.51	89	77	272			60	2
1241	3	135		1455	0.74		1.8	1.82	184.82	90	78	274			51	2
1256	2	150		1456	0.68		1.7	1.67	196.07	91	79	271			53	2
1311	1	165		1443	0.58		1.4	1.43	206.21	88	79	265			55	2
1326		180							217.450							
AVERAGE	12pts	180 MIN	-1.1	1448.6	0.8108		1.62		130.650	80.8		~250			268	MAX 2

VOLUME OR WEIGHT OF LIQUID WATER COLLECTED	IMPINGER VOLUME (ml) OR WEIGHT (g) #1	#2	#3	#4	SILICA GEL WEIGHT g
FINAL					
INITIAL					
LIQUID COLLECTED					
TOTAL	COLLECTED (specify ml or g)				

ORSAT DATA	TIME	CO_2	O_2
TRIAL 1			
TRIAL 2			
TRIAL 3			
Average			

LEAK CHECK		
SYSTEM PRE:	1000	CFM@15"Hg
POST:	0013	CFM@15"Hg
PITOT PRE:	Y-OK	@ > 3" H_2O
POST:	Y-OK	@ > 3" H_2O

IMPINGER RECOVERY DATA SHEET

ARI ENVIRONMENTAL INC.

Company:	Valero CC	Date Set-up:	4/27/10
Location:	ST Campus Christi, TX	Test Date:	4/27/10
Source:	SRU No. 1	Date Recovered:	
Run No.:	SRU1 – 1	USEPA Method:	TCEQ – 23
		Corresponding Filter No:	39037
		Filter ~~Container No~~ Tare:	779.0

Measurement Method: Weight or Volume

Impinger No.	Impinger Contents	Initial wt/vol g/mL	Final wt/vol g/mL	Difference wt/vol g/mL	Sample Container No.
1	100 ml DI H_2O	718.7	999.7	281.0	
2	100 ml DI H_2O	674.0	768.3	94.3	
3	Empty	599.9	610.8	10.9	
4	Silica Gel	798.3	821.4	23.1	
5					
6					
			Total	409.3	

FIELD DATA

ARI ENVIRONMENTAL INC.

B-4

CLIENT	Valero	AMBIENT TEMPERATURE	75	PROBE HEATER SETTING	—
DATE	4/27/16	BAROMETRIC PRESSURE	29.95	HEATER BOX SETTING	250
LOCATION	Corpus Christi, TX	ASSUMED MOISTURE, %	10%	METER $H_@$	1.75
OPERATOR	JC	PROBE LENGTH, in.	6ft	C_p FACTOR	.84
STACK NO	SRU #1	NOZZLE DIAMETER, in.	0.312	Y_d FACTOR	1.00
RUN NO	2	STACK DIAMETER, in.	42 12 ft	PITOT/THERM #	122
SAMPLE BOX NO	Apex	MINUTES PER POINT	15		
METER BOX NO	801005	NUMBER OF POINTS	12pts		
START TIME	1445	NUMBER OF PORTS	2		

WEIGHT OF PARTICULATE, mg	
Filter No.	38237
Sample	
Final wt	
Tare wt	787.4
Wt. gain	
TOTAL	mg

A= ____ B= ____

CROSS SECTION

CLOCK TIME	TRAVERSE POINT NUMBER	SAMPLING TIME (Θ) min.	STATIC PRESSURE (in. H_2O)	STACK TEMP (T_s) °F	VELOCITY HEAD (ΔP_s)	VELOCITY HEAD ($\sqrt{\Delta P_s}$)	PRESSURE DIFFERENTIAL ACROSS ORIFICE METER (ΔH) in. H_2O ACTUAL	PRESSURE DIFFERENTIAL ACROSS ORIFICE METER (ΔH) in. H_2O DESIRED	GAS SAMPLE VOLUME (V_m) ft^3	GAS SAMPLE TEMP AT DRY GAS METER INLET ($T_{m_{in}}$) °F	GAS SAMPLE TEMP AT DRY GAS METER OUTLET ($T_{m_{out}}$) °F	SAMPLE BOX TEMP. °F	COND. EXIT TEMP °F	SORBENT MODULE TEMP. °F	LAST IMPINGER OUTLET TEMP. °F	PUMP VACUUM in. Hg
1445	S- 6	0	-1.2	1441	0.64		1.6	1.57	218.800	81	77	252			65	2
1500	5	15		1451	0.67		1.7	1.66	228.74	93	81	263			54	2
1515	4	30		1455	0.69		1.7	1.71	239.78	96	82	271			59	2
1530	3	45		1455	0.58		1.5	1.45	250.27	98	83	273			60	2
1545	2	60		1437	0.53		1.3	1.32	261.56	95	82	271			62	2
1600	1	75		1431	0.52		1.3	1.30	271.51	93	82	267			63	2
1615/1627	E- 6	90		1454	0.80		2.0	1.95	281.13	80	79	270			65	2
1642	5	105		1457	0.81		2.0	1.99	293.46	95	80	272			60	2
1657	4	120		1458	0.77		1.9	1.91	305.63	98	82	275			58	2
1712	3	135		1455	0.71		1.8	1.76	317.47	95	83	271			58	2
1727	2	150		1448	0.62		1.5	1.54	328.78	96	83	268			59	2
1742	1	165		1437	0.53		1.3	1.33	339.67	99	84	264			59	2
1757		180							349.630							
AVERAGE	12pts	180min	-1.2	1447.4	0.8075		1.63		131.630	87.4		≈250			60.8	MAX 2

VOLUME OR WEIGHT OF LIQUID WATER COLLECTED	IMPINGER VOLUME (ml) OR WEIGHT (g) #1	#2	#3	#4	SILICA GEL WEIGHT g
FINAL					
INITIAL					
LIQUID COLLECTED					
TOTAL	COLLECTED (specify ml or g)				

ORSAT DATA	TIME	CO_2	O_2
TRIAL 1			
TRIAL 2			
TRIAL 3			
Average			

LEAK CHECK		
SYSTEM PRE:	.000	CFM@15"Hg
POST:	.000	CFM@15"Hg
PITOT PRE:	OK	@ > 3"H_2O
POST:	OK	@ > 3"H_2O

IMPINGER RECOVERY DATA SHEET

ARI ENVIRONMENTAL INC.

Company:	Valero CC	Date Set-up:	4/27/10
Location:	Corpus Christi, TX	Test Date:	4/27/10
Source:	SRU No. 1	Date Recovered:	4/
Run No.:	SRU1-2	USEPA Method:	TCEQ-23
		Corresponding Filter No:	38237
		Filter ~~Container No~~ Tare:	787.4

Measurement Method: Weight or Volume

Impinger No.	Impinger Contents	Initial wt/vol g/mL	Final wt/vol g/mL	Difference wt/vol g/mL	Sample Container No.
1	100 ml DI H_2O	713.9	991.1	285.2	
2	100 ml DI H_2O	673.2	760.7	87.5	
3	empty	584.8	599.1	14.3	
4	Silica Gel	732.0	761.7	29.7	
5					
6					
			Total	416.7	

FIELD DATA

ARI ENVIRONMENTAL INC

CLIENT	Valero	AMBIENT TEMPERATURE	70	PROBE HEATER SETTING	25
DATE	4/28/10	BAROMETRIC PRESSURE	29.95	HEATER BOX SETTING	250
LOCATION	Corpus Christi, TX	ASSUMED MOISTURE, %	10%	METER $H_@$	1.75
OPERATOR	JG	PROBE LENGTH, in.	6ft	C_p FACTOR	.84
STACK NO	SRU #1	NOZZLE DIAMETER, in.	0.312	Y_d FACTOR	1.00
RUN NO	3	STACK DIAMETER, in.	42.5	PITOT/THERM #	122
SAMPLE BOX NO	APEX	MINUTES PER POINT	15		
METER BOX NO	80100X	NUMBER OF POINTS	12 pts		
START TIME	900	NUMBER OF PORTS	2		

WEIGHT OF PARTICULATE, mg	
Filter No.	39036
Sample	
Final wt	
Tare wt	779.5
Wt. gain	
TOTAL	mg

A= ____ B= ____

CROSS SECTION

CLOCK TIME	TRAVERSE POINT NUMBER	SAMPLING TIME (θ) min.	STATIC PRESSURE (in. H_2O)	STACK TEMP (T_s) °F	VELOCITY HEAD (ΔP_s)	VELOCITY HEAD ($\sqrt{\Delta P_s}$)	PRESSURE DIFFERENTIAL ACROSS ORIFICE METER (ΔH) in. H_2O ACTUAL	PRESSURE DIFFERENTIAL ACROSS ORIFICE METER (ΔH) in. H_2O DESIRED	GAS SAMPLE VOLUME (V_m) ft^3	GAS SAMPLE TEMP AT DRY GAS METER INLET (Tm_{in}) °F	GAS SAMPLE TEMP AT DRY GAS METER OUTLET (Tm_{out}) °F	~~SAMPLE BOX~~ Filter TEMP. °F	COND. EXIT TEMP °F	SORBENT MODULE TEMP. °F	LAST IMPINGER OUTLET TEMP. °F	PUMP VACUUM in. Hg
900	E-6	0	-1.2	1451	0.80		1.8	1.84	352.600	79	79	252			67	2
915	5	15		1448	0.81		1.9	1.88	364.26	87	79	263			59	2
930	4	30		1452	0.78		1.8	1.82	375.93	92	79	271			66	2
945	3	45		1447	0.72		1.7	1.69	387.75	93	81	275			58	2
1000	2	60		1437	0.64		1.5	1.51	398.82	91	81	291			56	2
1015	1	75		1425	0.51		1.2	1.21	409.32	91	82	270			57	2
1030/1037	5-	90		1437	0.67		1.6	1.57	418.88	84	82	261			59	2
1052	5	105		1441	0.68		1.6	1.60	429.53	92	82	266			54	2
1107	4	120		1443	0.66		1.6	1.55	440.35	92	82	272			56	2
1122	3	135		1441	0.64		1.5	1.50	451.34	92	82	273			57	2
1137	2	150		1431	0.57		1.4	1.35	461.93	91	82	272			59	2
1152	1	165		1427	0.55		1.3	1.30	471.86	91	81	268			59	2
1207		180							481.620							
AVERAGE	12 pts	180 min	-1.2	1440.0	0.3160		1.58		429.020	85.3		≈250			268	max 2

VOLUME OR WEIGHT OF LIQUID WATER COLLECTED	IMPINGER VOLUME (ml) OR WEIGHT (g) #1	#2	#3	#4	SILICA GEL WEIGHT g
FINAL					
INITIAL					
LIQUID COLLECTED					
TOTAL	COLLECTED (specify ml or g)				

ORSAT DATA	TIME	CO_2	O_2
TRIAL 1			
TRIAL 2			
TRIAL 3			
Average			

LEAK CHECK		
SYSTEM PRE:	.000	CFM@15"Hg
POST:	.000	CFM@15"Hg
PITOT PRE:	+/- OK	@ > 3"H_2O
POST:	+/- OK	@ > 3"H_2O

IMPINGER RECOVERY DATA SHEET

ARI ENVIRONMENTAL INC.

Company:	Valero CC	Date Set-up:	4/27/10
Location:	Corpus Christi, TX	Test Date:	4/28/10
Source:	SRU No. 1	Date Recovered:	4/28/10
Run No.:	SRU1-3	USEPA Method:	TCEQ-23
		Corresponding Filter No:	39036
		Filter ~~Container No~~: Tare:	779.5

Measurement Method: Weight or Volume

Impinger No.	Impinger Contents	Initial wt/vol g/mL	Final wt/vol g/mL	Difference wt/vol g/mL	Sample Container No.
1	100 ml DI H_2O	724.0	972.2	248.2	26420
2	100 ml DI H_2O	679.1	798.8	119.7	26421
3	empty	603.2	619.0	15.8	
4	Silica Gel	811.6	835.8	24.2	
5					
6					
			Total	407.9	

APPENDIX C

Analytical Data

ANALYTICAL SUMMARY

CLIENT: Valero
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 1
SAMPLE DATE: 4/27 & 4/28/2010
ANALYSIS: Particulates
METHOD: USEPA M5/TCEQ M23

Run		Mass (g)	Tare (mg)	WT 1 (mg)	WT 2 (mg)	WT 1 - Wt 2 (mg)	Particulate (mg)	Blank Corrected WT (mg)
SRU1-1	Filter	-	779.0	782.4	782.2	0.2	3.30	
SRU1-2	Filter	-	787.4	792.1	791.7	0.4	4.50	
SRU1-3	Filter	-	779.5	784.2	783.9	0.3	4.55	
SRU1-1	PW	132.4	109364.3	109368.2	109368.0	0.2	3.80	3.13
SRU1-2	PW	138.0	114355.3	114360.3	114360.5	-0.2	5.10	4.40
SRU1-3	PW	113.2	104145.8	104151.9	104151.7	0.2	6.00	5.43
Acetone Blank	PW	118.3	112015.0	112015.7	112015.5	0.2	0.60	
SRU1-1	Imps	629	113339.7	113362.9	113362.8	0.1	23.15	
SRU1-2	Imps	694	115596.4	115631.2	115630.7	0.5	34.55	
SRU1-3	Imps	605	104999.2	105027.8	105027.6	0.2	28.50	
DI Water Blank	Imps	308	114546.1	114548.3	114548.0	0.3	2.05	
Beaker Blank	Imps	0	109887.8	109888.1	109887.8	0.3	0.15	

Analyst: E. Vogt
Date: 05/30/10

TRS STANDARDS PRETEST DATA

Client: Valero CC
Location: Corpus Christi, TX
Source: SRU No. 1
Date sampled: 4/27/2010
Run Number: Run 1 & 2
Compound Analyzed: TRS
Method: USEPA Method 15
Instrument: SRI-9300B
Detector GC-FPD
Units of Detection: ppm

Carbonyl Sulfide Standards			
Standard No	**Concentration**	**Area**	**Sq Rt Area Counts**
1	0.0	0.0	0.0
2	25.0	2897.39	53.8
3	50.0	8371.68	91.5
4	75.0	14,239.4	119.3

Hydrogen Sulfide Standards			
Standard No	**Concentration**	**Area**	**Sq Rt Area Counts**
1	0.0	0.0	0.0
2	25.0	1,808.4	42.5
3	50.0	6,161.0	78.5
4	75.0	11,179.1	105.7

Carbon Disulfide Standards			
Standard No	**Concentration**	**Area**	**Sq Rt Area Counts**
1	0.0	0.0	0.0
2	25.0	5,746.5	75.8
3	50.0	14,667.5	121.1
4	75.0	23,305.8	152.7

Analytical Calculation Summary

Calibration Standards Area Linear Regression Fit

Client:	Valero CC
Location:	Corpus Christi, TX
Source:	SRU No. 1
Date sampled:	4/27/2010
Run Number:	Run 1 & 2
Compound Analyzed:	Hydrogen Sulfide
Method:	USEPA Method 15
Instrument:	SRI-9300B
Detector	GC-FPD
Units of Detection:	ppm

Calibration Standards

Standard #	Standard Peak Area (mv)	Square Root Peak Area (mv)	Standard Concentration (ppm)
1	0.0	0.0	0.0
2	1,808.4	42.5	25.0
3	6,161.0	78.5	50.0
4	11,179.1	105.7	75.0

Statistical Analysis Summary

Σxy:	12917.6
Σx:	226.7
Σy:	150.0
Σx^2:	19148
$\Sigma(x)^2$:	51415
N:	4
m:	0.7013
b:	-2.25447

Analytical Calculation Summary

Calibration Standards Area Linear Regression Fit

Client: Valero CC
Location: Corpus Christi, TX
Source: SRU No. 1
Date sampled: 4/27/2010
Run Number: Run 1 & 2
Compound Analyzed: Carbonyl Sulfide
Method: USEPA Method 15
Instrument: SRI-9300B
Detector GC-FPD
Units of Detection: ppm

Calibration Standards

Standard #	Standard Peak Area (mv)	Square Root Peak Area (mv)	Standard Concentration (ppm)
1	0.0	0.0	0.0
2	2,897.4	53.8	25.0
3	8,371.7	91.5	50.0
4	14,239.4	119.3	75.0

Statistical Analysis Summary

Σxy:	14870.2
Σx:	264.7
Σy:	150.0
Σx^2:	25508
$\Sigma(x)^2$:	70041
N:	4
m:	0.61836
b:	-3.41258

Analytical Calculation Summary

Calibration Standards Area Linear Regression Fit

Client:	Valero CC
Location:	Corpus Christi, TX
Source:	SRU No. 1
Date sampled:	4/27/2010
Run Number:	Run 1 & 2
Compound Analyzed:	Carbon Disulfide
Method:	USEPA Method 15
Instrument:	SRI-9300B
Detector	GC-FPD
Units of Detection:	ppm

Calibration Standards

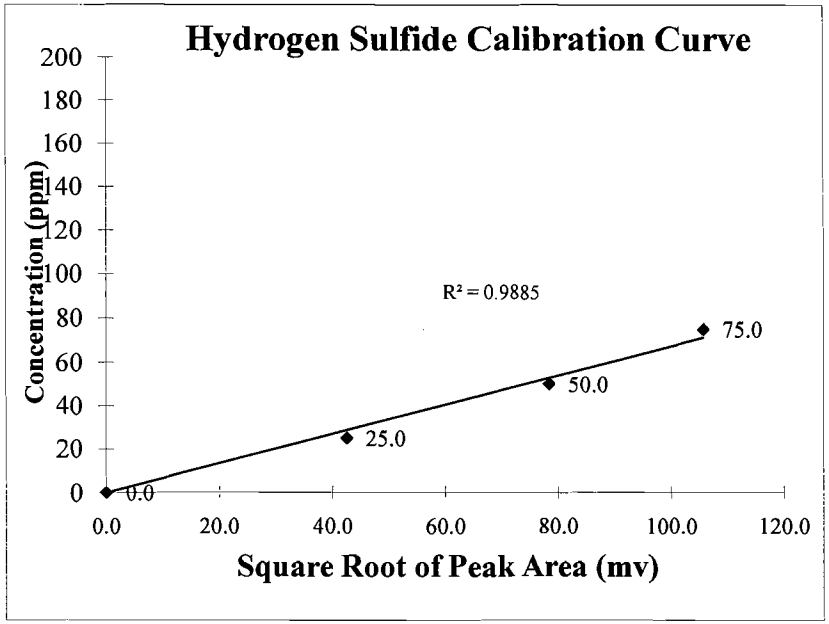
Standard #	Standard Peak Area (mv)	Square Root Peak Area (mv)	Standard Concentration (ppm)
1	0.0	0.0	0.0
2	5,746.5	75.8	25.0
3	14,667.5	121.1	50.0
4	23,305.8	152.7	75.0

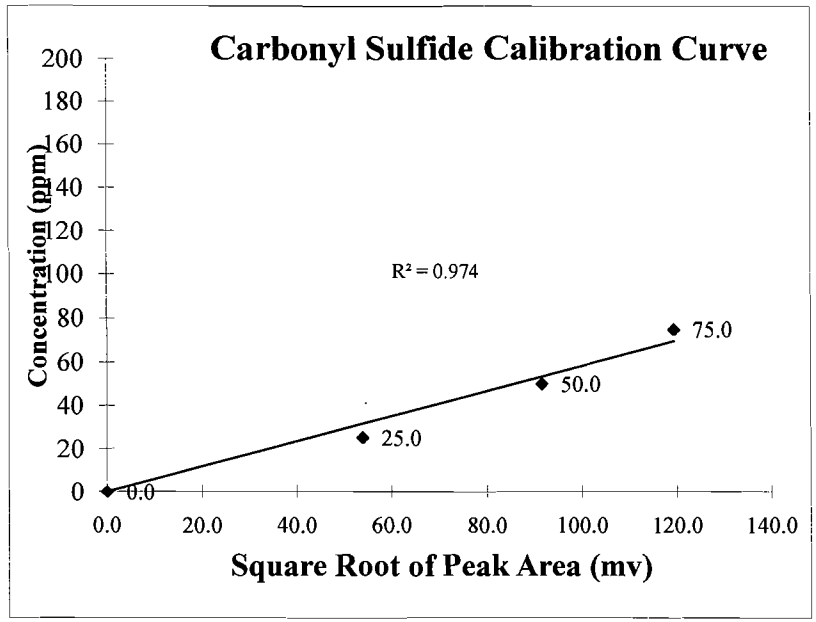
Statistical Analysis Summary

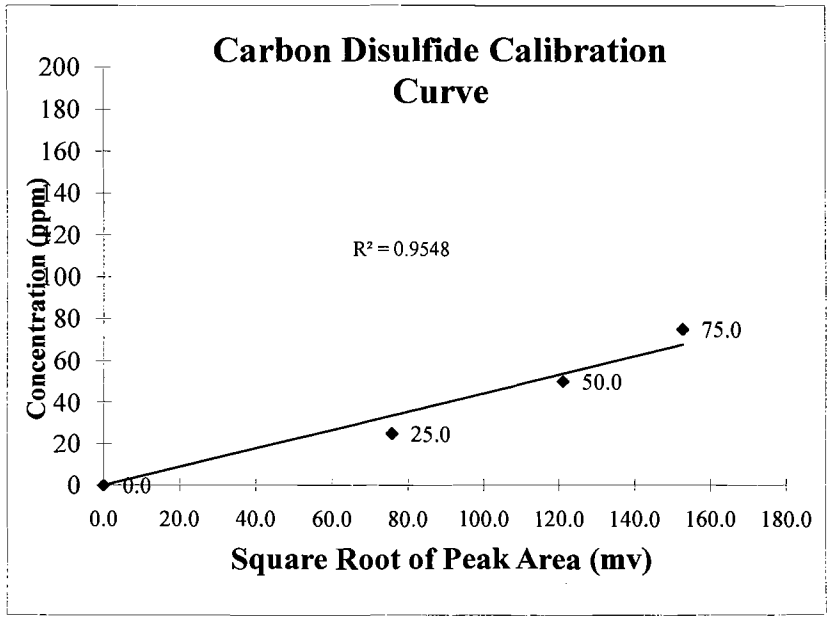
Σxy:	19400.3
Σx:	349.6
Σy:	150.0
Σx^2:	43720
$\Sigma(x)^2$:	122204
N:	4
m:	0.47773
b:	-4.25127

Calibration Curves

April 27, 2010







TRS STANDARDS POSTTEST DATA

Client: Valero CC
Location: Corpus Christi, TX
Source: SRU No. 1
Date sampled: 4/27/2010
Run Number: Run 1 & 2
Compound Analyzed: TRS
Method: USEPA Method 15
Instrument: SRI-9300B
Detector GC-FPD
Units of Detection: ppm

Carbonyl Sulfide Standards				Drift
Standard No	**Concentration**	**Area**	**Sq Rt Area Counts**	**%**
1	0.0	0.0	0.0	0.0
2	25.0	2,970.7	54.5	-1.3
3	50.0	8,845.8	94.1	-2.8
4	75.0	15,149.0	123.1	-3.1

Hydrogen Sulfide Standards				Drift
Standard No	**Concentration**	**Area**	**Sq Rt Area Counts**	**%**
1	0.0	0.0	0.0	0.0
2	25.0	1,876.3	43.3	-1.9
3	50.0	6,088.6	78.0	0.6
4	75.0	11,986.4	109.5	-3.5

Carbon Disulfide Standards				Drift
Standard No	**Concentration**	**Area**	**Sq Rt Area Counts**	**%**
1	0.0	0.0	0.0	0.0
2	25.0	5,772.5	76.0	-0.2
3	50.0	15,464.5	124.4	-2.7
4	75.0	24,951.2	158.0	-3.5

SUMMARY OF TOTAL REDUCED SULFUR COMPOUNDS

Company: Valero CC
Location: Corpus Christi, TX
Source: SRU No. 1
Date: 4/27/10
Run No.: SRU1-1

Line Loss Ratios

COS=	1.000
H2S=	1.000
CS2=	1.000

Run	Date	Time	COS Area (mV)	COS Conc (ppm v db)	H2S Area (mV)	H2S Conc (ppm v db)	CS2 Area (mV)	CS2 Conc (ppm v db)	Injection
Valero18.CHR	4/27/2010	9:44:59	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-1**
Valero19.CHR	4/27/2010	9:54:59	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-2**
Valero20.CHR	4/27/2010	10:04:59	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-3**
Valero21.CHR	4/27/2010	10:15:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-4**
Valero22.CHR	4/27/2010	10:25:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-5**
Valero23.CHR	4/27/2010	10:35:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-6**
Valero24.CHR	4/27/2010	10:45:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-7**
Valero25.CHR	4/27/2010	10:55:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-8**
Valero26.CHR	4/27/2010	11:05:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-9**
Valero27.CHR	4/27/2010	11:15:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-10**
Valero28.CHR	4/27/2010	11:25:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-11**
Valero29.CHR	4/27/2010	11:35:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-12**
Valero30.CHR	4/27/2010	11:45:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-13**
Valero31.CHR	4/27/2010	11:55:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-14**
Valero32.CHR	4/27/2010	12:05:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-15**
Valero33.CHR	4/27/2010	12:15:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-16**
Valero34.CHR	4/27/2010	12:25:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-17**
Valero35.CHR	4/27/2010	12:35:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-18**
Valero36.CHR	4/27/2010	12:45:01	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-19**
Valero37.CHR	4/27/2010	12:55:01	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-20**
Valero38.CHR	4/27/2010	13:05:01	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-21**
Valero39.CHR	4/27/2010	13:15:01	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-22**
Valero40.CHR	4/27/2010	13:25:01	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-23**
Valero41.CHR	4/27/2010	13:35:01	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**<0.87**	**1-24**
			Average Values	**<0.96**		**<0.88**		**<0.87**	

SUMMARY OF TOTAL REDUCED SULFUR COMPOUNDS

Company: Valero CC
Location: Corpus Christi, TX
Source: SRU No. 1
Date: 4/27/2010
Run No.: SRU1-2

Line Loss Ratios

COS=	1.000
H2S=	1.000
CS2=	1.000

Run	Date	Time	COS Area (mV)	COS Conc (ppm v db)	H2S Area (mV)	H2S Conc (ppm v db)	CS2 Area (mV)	Injection
Valero42.CHR	4/27/2010	14:14:59	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-1**
Valero43.CHR	4/27/2010	14:25:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-2**
Valero44.CHR	4/27/2010	14:35:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-3**
Valero45.CHR	4/27/2010	14:45:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-4**
Valero46.CHR	4/27/2010	14:55:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-5**
Valero47.CHR	4/27/2010	15:05:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-6**
Valero48.CHR	4/27/2010	15:15:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-7**
Valero49.CHR	4/27/2010	15:25:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-8**
Valero50.CHR	4/27/2010	15:35:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-9**
Valero51.CHR	4/27/2010	15:45:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-10**
Valero52.CHR	4/27/2010	15:55:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-11**
Valero53.CHR	4/27/2010	16:05:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-12**
Valero54.CHR	4/27/2010	16:15:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-13**
Valero55.CHR	4/27/2010	16:25:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-14**
Valero56.CHR	4/27/2010	16:35:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-15**
Valero57.CHR	4/27/2010	16:45:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-16**
Valero58.CHR	4/27/2010	16:55:00	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-17**
Valero59.CHR	4/27/2010	17:05:01	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-18**
Valero60.CHR	4/27/2010	17:15:01	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-19**
Valero61.CHR	4/27/2010	17:25:01	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-20**
Valero62.CHR	4/27/2010	17:35:01	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-21**
Valero63.CHR	4/27/2010	17:45:01	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-22**
Valero64.CHR	4/27/2010	17:55:01	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-23**
Valero65.CHR	4/27/2010	18:05:01	<50.00	**<0.96**	<20.00	**<0.88**	<115.00	**2-24**
			Average Values	**<0.96**		**<0.88**		

TRS STANDARDS PRETEST DATA

Client: Valero CC
Location: Corpus Christi, TX
Source: SRU No. 1
Date sampled: 4/28/2010
Run Number: Run 3
Compound Analyzed: TRS
Method: USEPA Method 15
Instrument: SRI-9300B
Detector GC-FPD
Units of Detection: ppm

Carbonyl Sulfide Standards			
Standard No	**Concentration**	**Area**	**Sq Rt Area Counts**
1	0.0	0.0	0.0
2	25.0	3068.56	55.4
3	50.0	9205.95	95.9
4	75.0	15,171.2	123.2

Hydrogen Sulfide Standards			
Standard No	**Concentration**	**Area**	**Sq Rt Area Counts**
1	0.0	0.0	0.0
2	25.0	1,882.7	43.4
3	50.0	6,783.2	82.4
4	75.0	11,937.9	109.3

Carbon Disulfide Standards			
Standard No	**Concentration**	**Area**	**Sq Rt Area Counts**
1	0.0	0.0	0.0
2	25.0	5,866.4	76.6
3	50.0	16,290.2	127.6
4	75.0	25,413.9	159.4

Analytical Calculation Summary

Calibration Standards Area Linear Regression Fit

Client: Valero CC
Location: Corpus Christi, TX
Source: SRU No. 1
Date sampled: 4/28/2010
Run Number: Run 3
Compound Analyzed: Hydrogen Sulfide
Method: USEPA Method 15
Instrument: SRI-9300B
Detector GC-FPD
Units of Detection: ppm

Calibration Standards

Standard #	Standard Peak Area (mv)	Square Root Peak Area (mv)	Standard Concentration (ppm)
1	0.0	0.0	0.0
2	1,882.7	43.4	25.0
3	6,783.2	82.4	50.0
4	11,937.9	109.3	75.0

Statistical Analysis Summary

Σxy:	13397.3
Σx:	235.0
Σy:	150.0
Σx^2:	20604
$\Sigma(x)^2$:	55230
N:	4
m:	0.67455
b:	-2.13158

Analytical Calculation Summary

Calibration Standards Area Linear Regression Fit

Client:	Valero CC
Location:	Corpus Christi, TX
Source:	SRU No. 1
Date sampled:	4/28/2010
Run Number:	Run 3
Compound Analyzed:	Carbonyl Sulfide
Method:	USEPA Method 15
Instrument:	SRI-9300B
Detector	GC-FPD
Units of Detection:	ppm

Calibration Standards

Standard #	Standard Peak Area (mv)	Square Root Peak Area (mv)	Standard Concentration (ppm)
1	0.0	0.0	0.0
2	3,068.6	55.4	25.0
3	9,205.9	95.9	50.0
4	15,171.2	123.2	75.0

Statistical Analysis Summary

Σxy:	15420.1
Σx:	274.5
Σy:	150.0
Σx^2:	27446
$\Sigma(x)^2$:	75358
N:	4
m:	0.59559
b:	-3.37463

Analytical Calculation Summary

Calibration Standards Area Linear Regression Fit

Client:	Valero CC
Location:	Corpus Christi, TX
Source:	SRU No. 1
Date sampled:	4/28/2010
Run Number:	Run 3
Compound Analyzed:	Carbon Disulfide
Method:	USEPA Method 15
Instrument:	SRI-9300B
Detector	GC-FPD
Units of Detection:	ppm

Calibration Standards

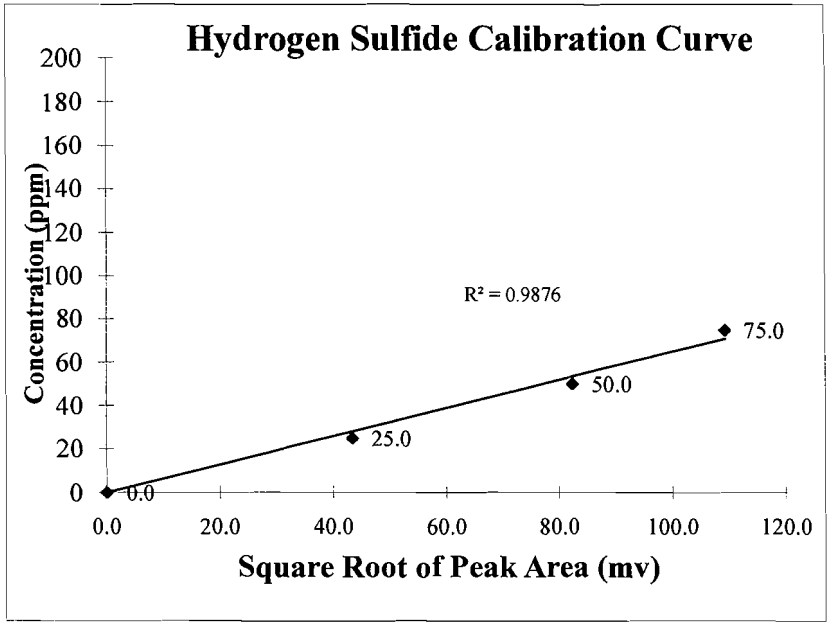
Standard #	Standard Peak Area (mv)	Square Root Peak Area (mv)	Standard Concentration (ppm)
1	0.0	0.0	0.0
2	5,866.4	76.6	25.0
3	16,290.2	127.6	50.0
4	25,413.9	159.4	75.0

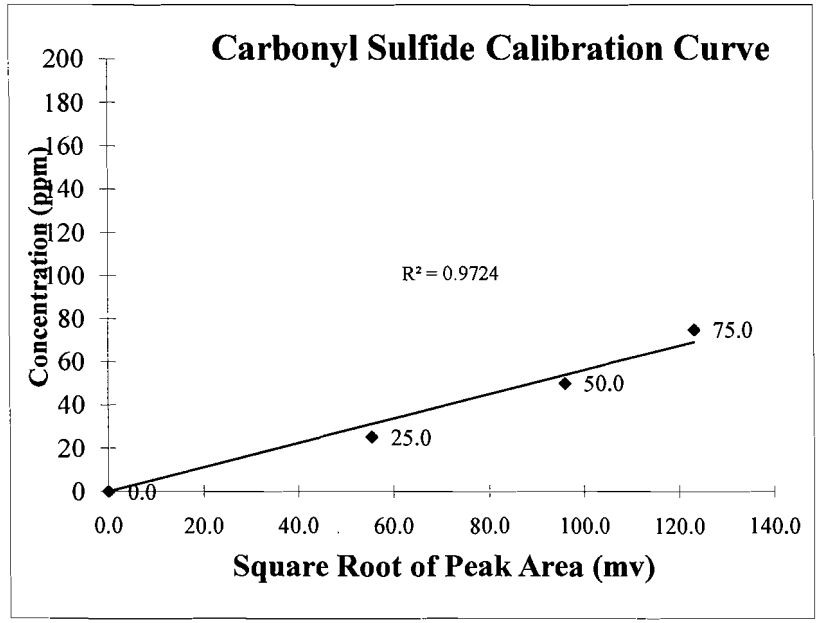
Statistical Analysis Summary

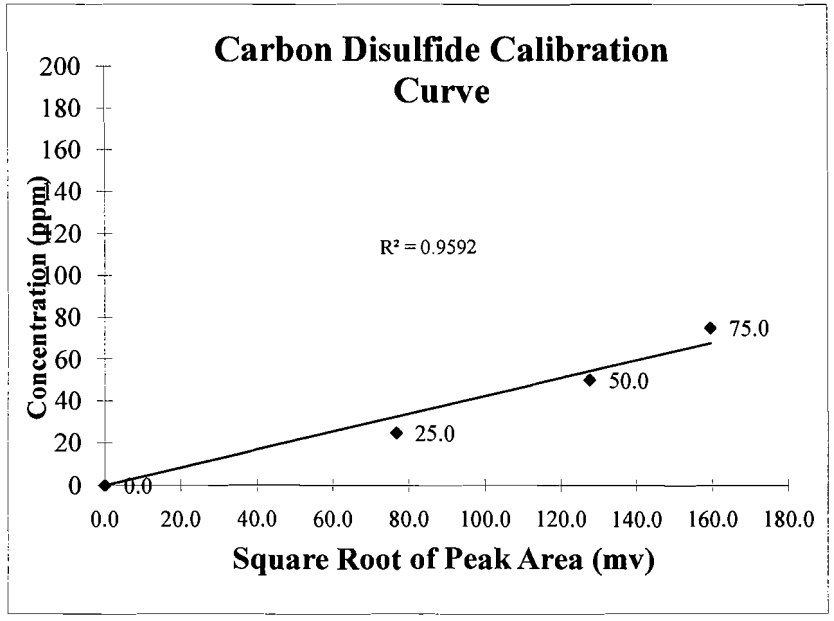
Σxy:	20252.8
Σx:	363.6
Σy:	150.0
Σx^2:	47571
$\Sigma(x)^2$:	132236
N:	4
m:	0.45593
b:	-3.94863

Calibration Curves

April 28, 2010







TRS STANDARDS POSTTEST DATA

Client: Valero CC
Location: Corpus Christi, TX
Source: SRU No. 1
Date sampled: 4/28/2010
Run Number: Run 3
Compound Analyzed: TRS
Method: USEPA Method 15
Instrument: SRI-9300B
Detector GC-FPD
Units of Detection: ppm

Carbonyl Sulfide Standards				Drift
Standard No	**Concentration**	**Area**	**Sq Rt Area Counts**	**%**
1	0.0	0.0	0.0	0.0
2	25.0	2,846.5	53.4	3.7
3	50.0	8,377.0	91.5	4.6
4	75.0	14,029.6	118.4	3.8

Hydrogen Sulfide Standards				Drift
Standard No	**Concentration**	**Area**	**Sq Rt Area Counts**	**%**
1	0.0	0.0	0.0	0.0
2	25.0	1,820.5	42.7	1.7
3	50.0	6,305.3	79.4	3.6
4	75.0	11,144.8	105.6	3.4

Carbon Disulfide Standards				Drift
Standard No	**Concentration**	**Area**	**Sq Rt Area Counts**	**%**
1	0.0	0.0	0.0	0.0
2	25.0	5,430.4	73.7	3.8
3	50.0	15,039.8	122.6	3.9
4	75.0	23,310.2	152.7	4.2

SUMMARY OF TOTAL REDUCED SULFUR COMPOUNDS

Company: Valero CC
Location: Corpus Christi, TX
Source: SRU No. 1
Date: 4/28/10
Run No.: SRU1-3

Line Loss Ratios

COS=	1.000
H2S=	1.000
CS2=	1.000

Run	Date	Time	COS Area (mV)	COS Conc (ppm v db)	H2S Area (mV)	H2S Conc (ppm v db)	CS2 Area (mV)	CS2 Conc (ppm v db)	Injection
Valero92.CHR	4/28/2010	8:45:01	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-1**
Valero93.CHR	4/28/2010	8:55:01	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-2**
Valero94.CHR	4/28/2010	9:05:01	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-3**
Valero95.CHR	4/28/2010	9:15:01	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-4**
Valero96.CHR	4/28/2010	9:25:01	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-5**
Valero97.CHR	4/28/2010	9:35:01	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-6**
Valero98.CHR	4/28/2010	9:45:01	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-7**
Valero99.CHR	4/28/2010	9:55:01	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-8**
Valero100.CHR	4/28/2010	10:05:01	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-9**
Valero101.CHR	4/28/2010	10:15:01	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-10**
Valero102.CHR	4/28/2010	10:25:01	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-11**
Valero103.CHR	4/28/2010	10:35:01	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-12**
Valero104.CHR	4/28/2010	10:45:02	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-13**
Valero105.CHR	4/28/2010	10:55:02	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-14**
Valero106.CHR	4/28/2010	11:05:02	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-15**
Valero107.CHR	4/28/2010	11:15:02	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-16**
Valero108.CHR	4/28/2010	11:25:02	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-17**
Valero109.CHR	4/28/2010	11:35:02	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-18**
Valero110.CHR	4/28/2010	11:45:02	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-19**
Valero111.CHR	4/28/2010	11:55:02	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-20**
Valero112.CHR	4/28/2010	12:05:02	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-21**
Valero113.CHR	4/28/2010	12:15:02	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-22**
Valero114.CHR	4/28/2010	12:25:02	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-23**
Valero115.CHR	4/28/2010	12:35:02	<50.00	**<0.84**	<20.00	**<0.89**	<115.00	**<0.94**	**1-24**
			Average Values	**<0.84**		**<0.89**		**<0.94**	

Reference Monitor Detection Limits

Monitor: GC
Manufacturer: SRI
Model: 8610C
S/N: N7350
Condition: Instrument Only
Date: 4/29/2010
Operator: B. Pearce
Compound: Hydrogen Sulfide

Target Concentration, ppm v 5.0

Repetition	Average Reading (ppm v)
1	3.450
2	3.580
3	3.640
4	3.680
5	3.570
6	3.730
7	3.630
8	3.760
9	
10	
11	
12	
13	
14	

Total Population	**8**
t-Test Population (n-1)	**7**
Average RM reading	**3.63**
Standard Deviation	**0.099**
Student t- Test Value	**2.998**
LOD	**0.295**
LOQ (2.5 times LOD)	**0.739**

The USEPA defines MDL as "the minimum concentration that can be determined with 99% confidence that the true concentration is greater than zero." This procedure is outlined in 40CFR 136 and TTN EMC.
The NELAC Standard (TNI) define detection limits as limit of detection - LOD and limit of quantification - LOQ.
These terms were historically known as method detection limit - MDL and practical quantification limit - PQL.

LOD = Student's t value x the standard deviation
LOQ = LOD x 2.5

Student t-Test Values	
t-Test Population	**t-Test Value**
7	2.998
8	2.896
9	2.821
10	2.764
11	2.718
12	2.681

Reference Monitor Detection Limits

Monitor: GC
Manufacturer: SRI
Model: 8610C
S/N: N7350
Condition: Instrument Only
Date: 4/29/2010
Operator: B. Pearce
Compound: Carbonyl Sulfide

Target Concentration, ppm v 5.0

Repetition	Average Reading (ppm v)
1	3.640
2	3.700
3	3.710
4	3.730
5	3.640
6	3.770
7	3.670
8	3.770
9	
10	
11	
12	
13	
14	

Total Population	**8**
t-Test Population (n-1)	**7**
Average RM reading	**3.70**
Standard Deviation	**0.052**
Student t- Test Value	**2.998**
LOD	**0.155**
LOQ (2.5 times LOD)	**0.388**

The USEPA defines MDL as "the minimum concentration that can be determined with 99% confidence that the true concentration is greater than zero." This procedure is outlined in 40CFR 136 and TTN EMC.
The NELAC Standard (TNI) define detection limits as limit of detection - LOD and limit of quantification - LOQ.
These terms were historically known as method detection limit - MDL and practical quantification limit - PQL.

LOD = Student's t value x the standard deviation
LOQ = LOD x 2.5

Student t-Test Values	
t-Test Population	t-Test Value
7	2.998
8	2.896
9	2.821
10	2.764
11	2.718
12	2.681

Reference Monitor Detection Limits

Monitor: GC
Manufacturer: SRI
Model: 8610C
S/N: N7350
Condition: Instrument Only
Date: 4/29/2010
Operator: B. Pearce
Compound: Carbon Disulfide

Target Concentration, ppm v 5.0

Repetition	Average Reading (ppm v)
1	3.880
2	3.950
3	3.960
4	3.990
5	3.910
6	4.040
7	3.940
8	3.990
9	
10	
11	
12	
13	
14	

Total Population	**8**
t-Test Population (n-1)	**7**
Average RM reading	**3.96**
Standard Deviation	**0.050**
Student t- Test Value	**2.998**
LOD	**0.150**
LOQ (2.5 times LOD)	**0.375**

The USEPA defines MDL as "the minimum concentration that can be determined with 99% confidence that the true concentration is greater than zero." This procedure is outlined in 40CFR 136 and TTN EMC.
The NELAC Standard (TNI) define detection limits as limit of detection - LOD and limit of quantification - LOQ.
These terms were historically known as method detection limit - MDL and practical quantification limit - PQL.

LOD = Student's t value x the standard deviation
LOQ = LOD x 2.5

Student t-Test Values	
t-Test Population	t-Test Value
7	2.998
8	2.896
9	2.821
10	2.764
11	2.718
12	2.681

TRS STANDARDS PRETEST DATA

Client: Valero CC
Location: Corpus Christi, TX
Source: SRU #2
Date sampled: 4/29/2010
Run Number: MDL Study
Compound Analyzed: TRS
Method: USEPA Method 15
Instrument: SRI-9300B
Detector GC-FPD
Units of Detection: ppm

Carbonyl Sulfide Standards			
Standard No	Concentration	Area	Sq Rt Area Counts
1	0.0	0.0	0.0
2	25.0	3090.59	55.6
3	50.0	8878.04	94.2
4	75.0	15,279.7	123.6

Hydrogen Sulfide Standards			
Standard No	Concentration	Area	Sq Rt Area Counts
1	0.0	0.0	0.0
2	25.0	1,919.7	43.8
3	50.0	6,797.9	82.4
4	75.0	12,252.2	110.7

Carbon Disulfide Standards			
Standard No	Concentration	Area	Sq Rt Area Counts
1	0.0	0.0	0.0
2	25.0	6,005.6	77.5
3	50.0	15,838.0	125.8
4	75.0	25,105.4	158.4

Analytical Calculation Summary

Calibration Standards Area Linear Regression Fit

Client:	Valero CC
Location:	Corpus Christi, TX
Source:	SRU #2
Date sampled:	4/29/2010
Run Number:	MDL Study
Compound Analyzed:	Hydrogen Sulfide
Method:	USEPA Method 15
Instrument:	SRI-9300B
Detector	GC-FPD
Units of Detection:	ppm

Calibration Standards

Standard #	Standard Peak Area (mv)	Square Root Peak Area (mv)	Standard Concentration (ppm)
1	0.0	0.0	0.0
2	1,919.7	43.8	25.0
3	6,797.9	82.4	50.0
4	12,252.2	110.7	75.0

Statistical Analysis Summary

Σxy:	13519.6
Σx:	237.0
Σy:	150
Σx^2:	20970
$\Sigma(x)^2$:	56147
N:	4
m:	0.66836
b:	-2.0927

Analytical Calculation Summary

Calibration Standards Area Linear Regression Fit

Client:	Valero CC
Location:	Corpus Christi, TX
Source:	SRU #2
Date sampled:	4/29/2010
Run Number:	MDL Study
Compound Analyzed:	Carbonyl Sulfide
Method:	USEPA Method 15
Instrument:	SRI-9300B
Detector	GC-FPD
Units of Detection:	ppm

Calibration Standards

Standard #	Standard Peak Area (mv)	Square Root Peak Area (mv)	Standard Concentration (ppm)
1	0.0	0.0	0.0
2	3,090.6	55.6	25.0
3	8,878.0	94.2	50.0
4	15,279.7	123.6	75.0

Statistical Analysis Summary

Σxy:	15371.8
Σx:	273.4
Σy:	150.0
Σx^2:	27248
$\Sigma(x)^2$:	74763
N:	4
m:	0.59809
b:	-3.38381

Analytical Calculation Summary

Calibration Standards Area Linear Regression Fit

Client: Valero CC
Location: Corpus Christi, TX
Source: SRU #2
Date sampled: 4/29/2010
Run Number: MDL Study
Compound Analyzed: Carbon Disulfide
Method: USEPA Method 15
Instrument: SRI-9300B
Detector GC-FPD
Units of Detection: ppm

Calibration Standards

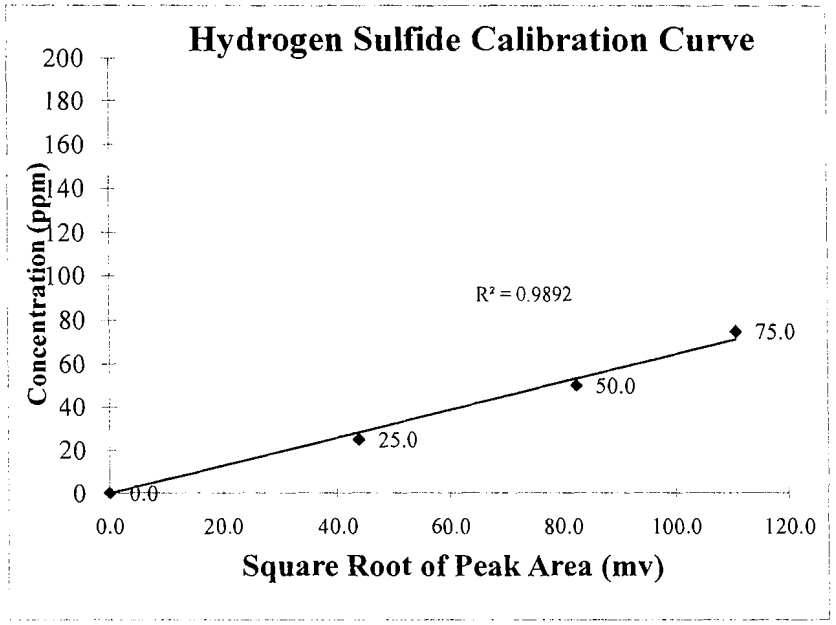
Standard #	Standard Peak Area (mv)	Square Root Peak Area (mv)	Standard Concentration (ppm)
1	0.0	0.0	0.0
2	6,005.6	77.5	25.0
3	15,838.0	125.8	50.0
4	25,105.4	158.4	75.0

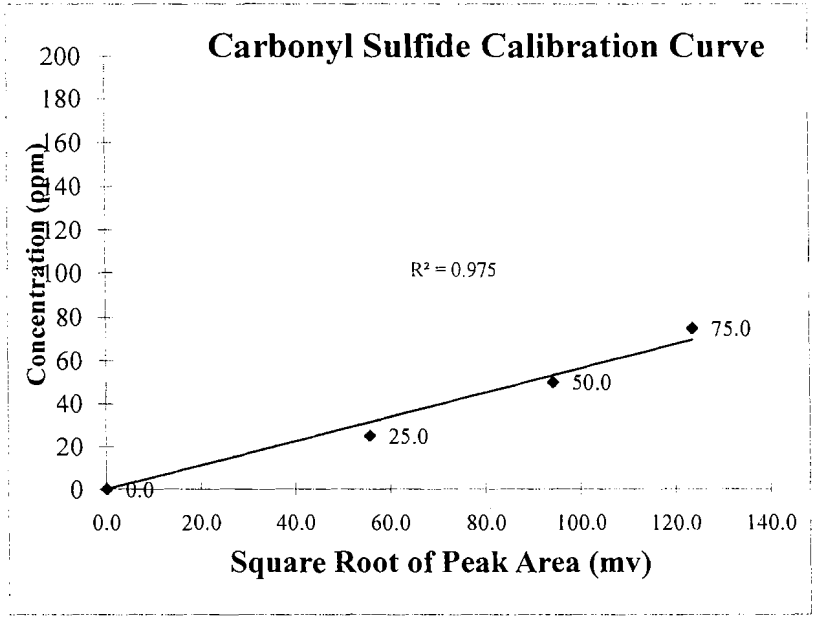
Statistical Analysis Summary

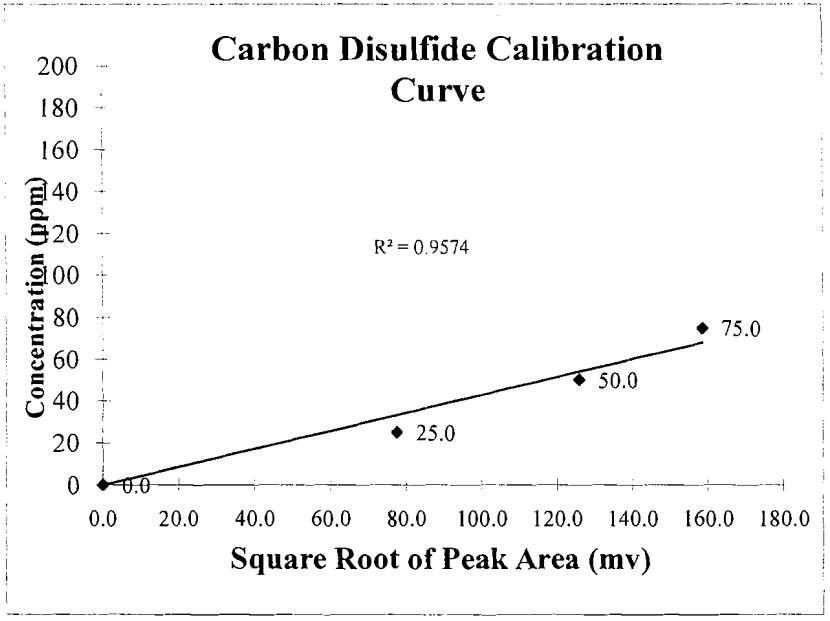
Σxy:	20113.4
Σx:	361.8
Σy:	150.0
Σx^2:	46949
$\Sigma(x)^2$:	130893
N:	4
m:	0.46017
b:	-4.12108

Calibration Curves

April 29, 2010







SUMMARY OF TOTAL REDUCED SULFUR COMPOUNDS

Company: Valero CC
Location: Corpus Christi, TX
Source: SRU No. 1 & 2
Date: 4/29/10
Run No.: MDL Study

Line Loss Ratios

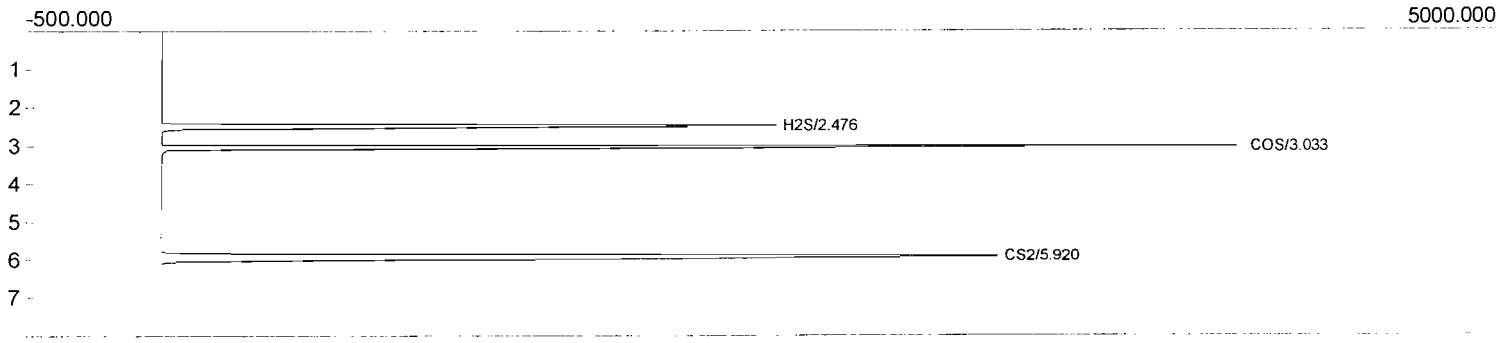
COS=	1.000
H2S=	1.000
CS2=	1.000

Run	Date	Time	COS Area (mV)	COS Conc (ppm v db)	H2S Area (mV)	H2S Conc (ppm v db)	CS2 Area (mV)	CS2 Conc (ppm v db)	TRS Conc (as SO_2)	Injection
Valero155.CHR	4/29/2010	12:11:02	<138.04	**<3.64**	<68.81	**<3.45**	<302.21	**<3.88**	**<7.09**	**1-1**
Valero156.CHR	4/29/2010	12:20:02	<140.37	**<3.70**	<72.13	**<3.58**	<307.44	**<3.95**	**<7.29**	**1-2**
Valero157.CHR	4/29/2010	12:29:02	<140.57	**<3.71**	<73.58	**<3.64**	<308.70	**<3.96**	**<7.35**	**1-3**
Valero158.CHR	4/29/2010	12:38:02	<141.42	**<3.73**	<74.67	**<3.68**	<311.00	**<3.99**	**<7.41**	**1-4**
Valero159.CHR	4/29/2010	12:47:02	<137.82	**<3.64**	<71.68	**<3.57**	<304.86	**<3.91**	**<7.20**	**1-5**
Valero160.CHR	4/29/2010	12:56:02	<143.26	**<3.77**	<75.97	**<3.73**	<314.59	**<4.04**	**<7.51**	**1-6**
Valero161.CHR	4/29/2010	13:05:02	<139.07	**<3.67**	<73.34	**<3.63**	<307.23	**<3.94**	**<7.30**	**1-7**
Valero162.CHR	4/29/2010	13:14:02	<143.12	**<3.77**	<76.56	**<3.76**	<310.52	**<3.99**	**<7.53**	**1-8**

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 06:30:53
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero142.CHR (C:\Valero SRU1)
Sample: 0 ppm pre test
Operator: BP

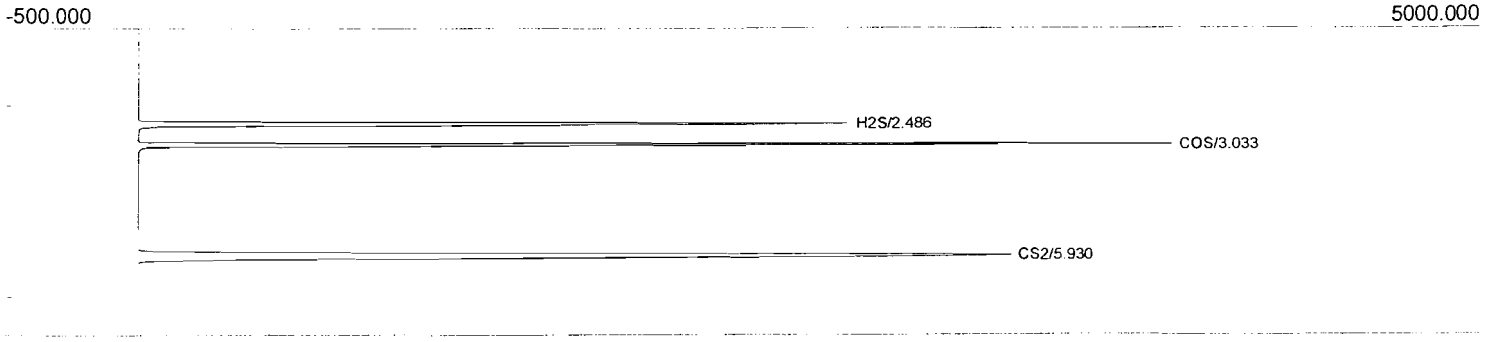
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 06:39:04
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero143.CHR (C:\Valero SRU1)
Sample: 75 ppm pre test
Operator: BP



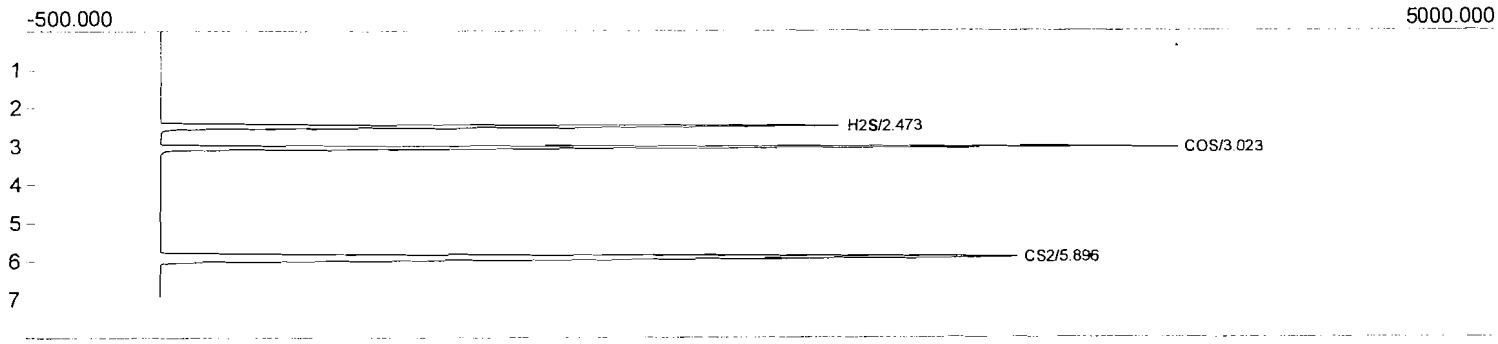
Component	Area
H2S	11717.5165
COS	15215.9312
CS2	24549.9172
	51483.3649

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 06:47:36
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero144.CHR (C:\Valero SRU1)
Sample: 75 ppm pre test
Operator: BP



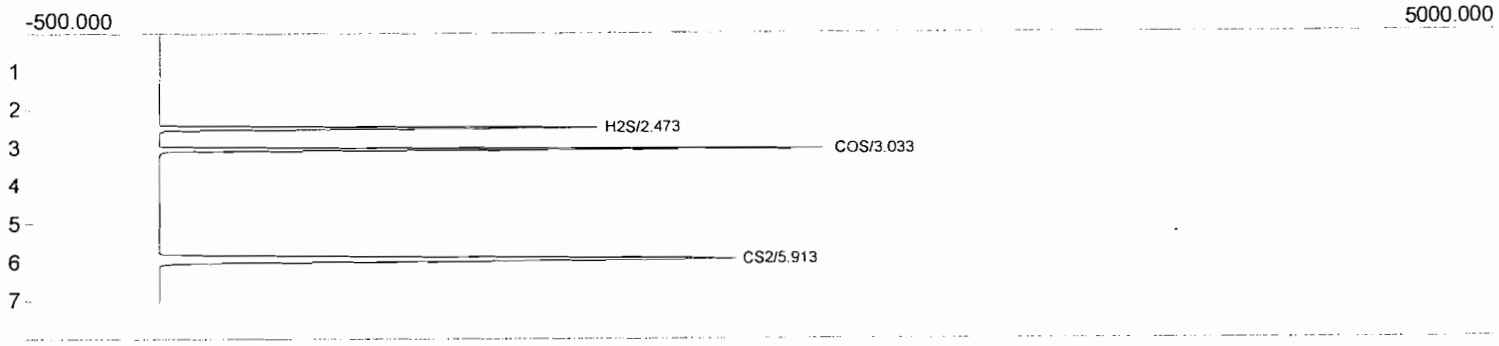
Component	Area
H2S	12599.8298
COS	15406.1960
CS2	25593.8829
	53599.9087

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 06:56:54
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero145.CHR (C:\Valero SRU1)
Sample: 75 ppm pre test
Operator: BP



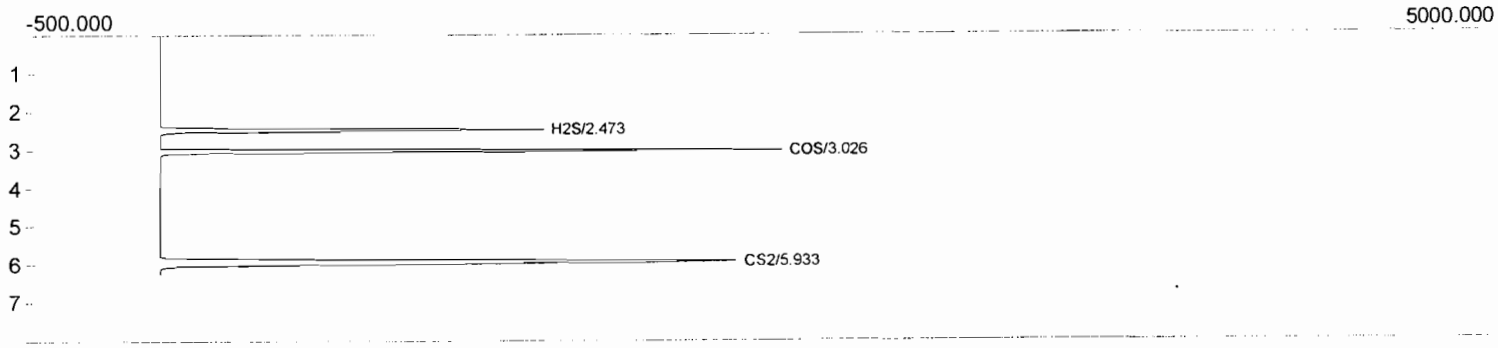
Component	Area
H2S	12439.3261
COS	15217.0058
CS2	25172.3209
	52828.6528

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 07:14:10
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero147.CHR (C:\Valero SRU1)
Sample: 50 ppm pre test
Operator: BP



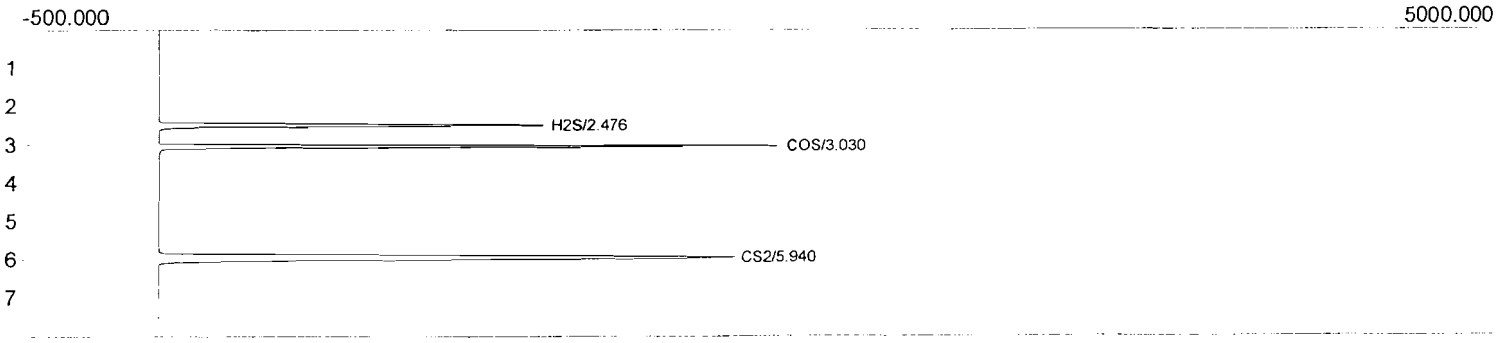
Component	Area
H2S	7001.7029
COS	9030.0040
CS2	15789.9198
	31821.6267

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 07:23:23
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero148.CHR (C:\Valero SRU1)
Sample: 50 ppm pre test
Operator: BP



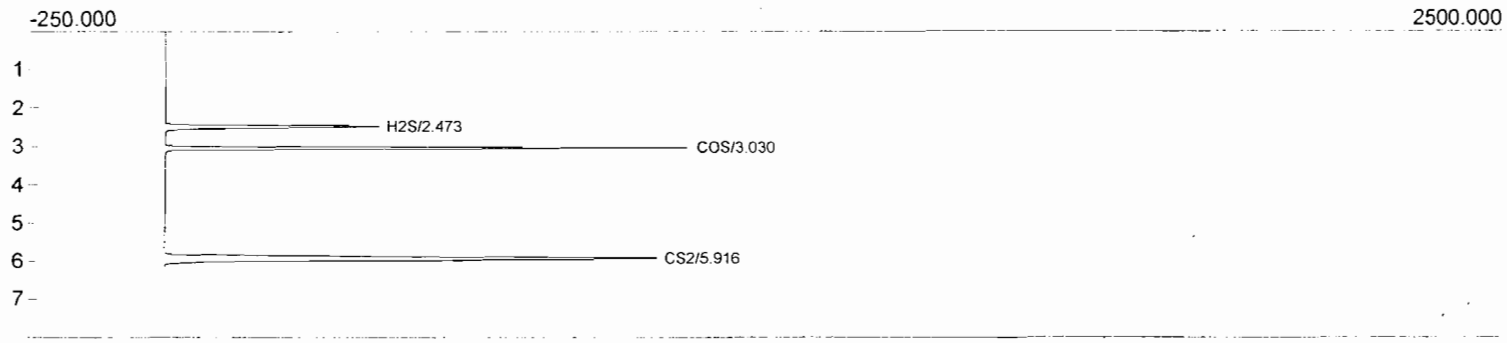
Component	Area
H2S	6681.2301
COS	8798.7692
CS2	15835.9598
	31315.9591

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 07:32:52
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero149.CHR (C:\Valero SRU1)
Sample: 50 ppm pre test
Operator: BP



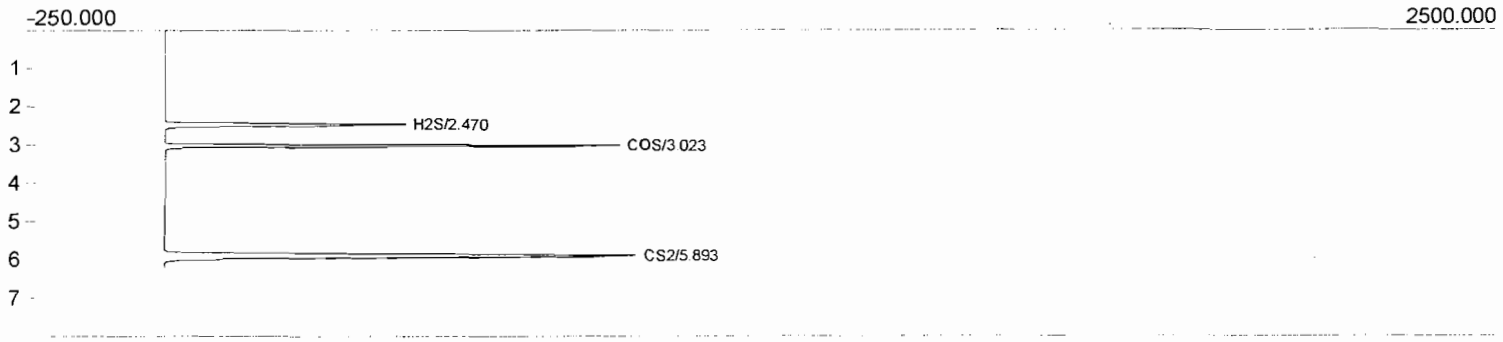
Component	Area
H2S	6710.7666
COS	8805.3392
CS2	15888.0966
	31404.2024

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 07:41:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero150.CHR (C:\Valero SRU1)
Sample: 25 ppm pre test
Operator: BP



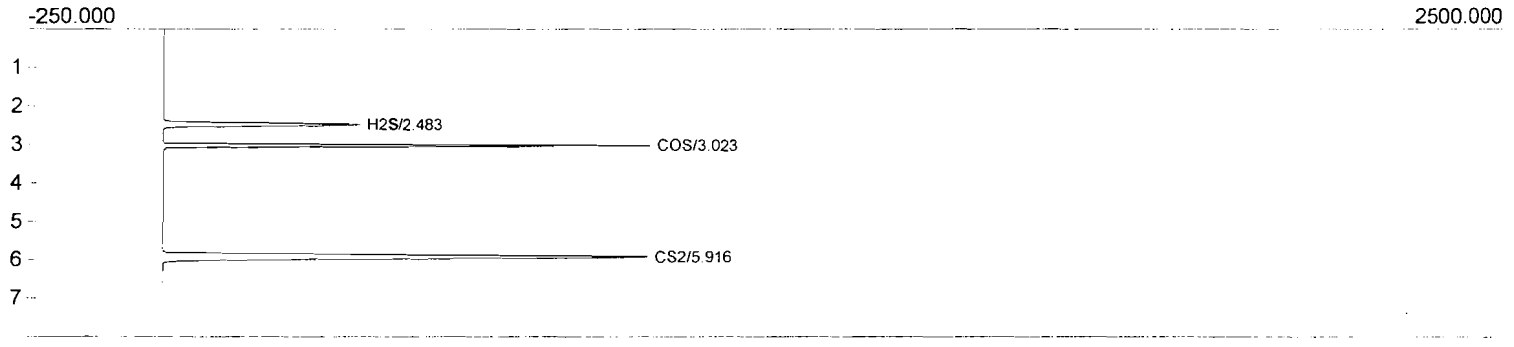
Component	Area
H2S	1947.8779
COS	3236.3992
CS2	6143.7903
	11328.0674

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 07:50:06
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero151.CHR (C:\Valero SRU1)
Sample: 25 ppm pre test
Operator: BP



Component	Area
H2S	1984.0518
COS	2970.1072
CS2	5877.4202
	10831.5792

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 07:58:22
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero152.CHR (C:\Valero SRU1)
Sample: 25 ppm pre test
Operator: BP

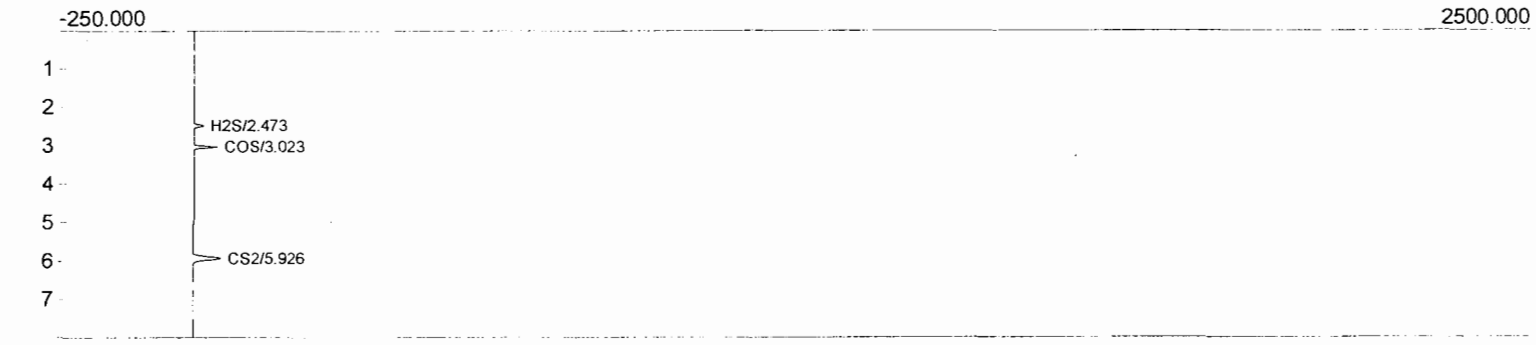


Component	Area
H2S	1827.2254
COS	3065.2531
CS2	5995.6950
	10888.1735

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 12:11:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero155.CHR (C:\Valero SRU1)
Sample: 5 ppm
Operator: BP

Component	Area
H2S	68.8146
COS	138.0442
CS2	302.3489
	509.2077

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 12:20:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero156.CHR (C:\Valero SRU1)
Sample: 5 ppm
Operator: BP



Component	Area
H2S	72.1258
COS	140.3714
CS2	307.4404
	519.9376

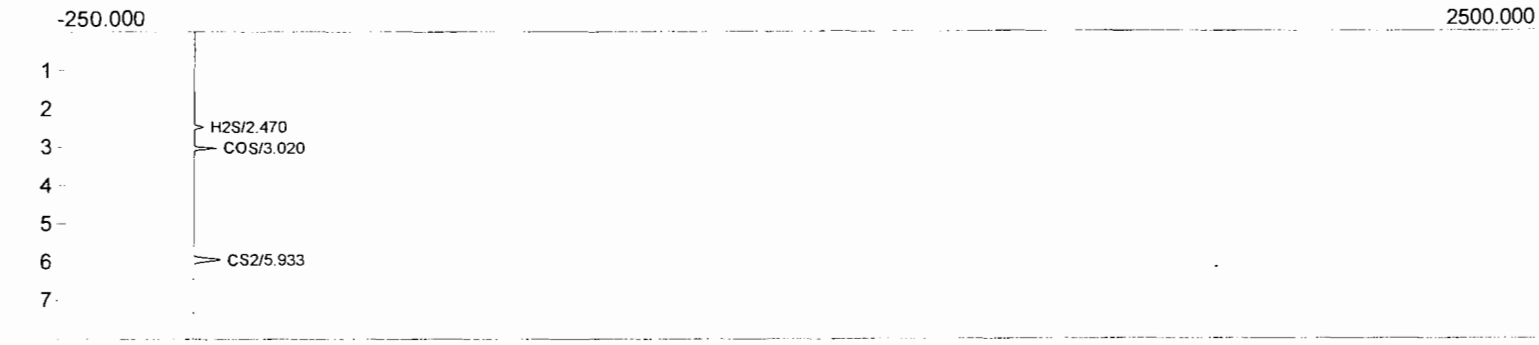
Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 12:29:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero157.CHR (C:\Valero SRU1)
Sample: 5 ppm
Operator: BP

Component	Area
H2S	73.5783
COS	140.5684
CS2	308.6964
	522.8431

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 12:38:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero158.CHR (C:\Valero SRU1)
Sample: 5 ppm
Operator: BP

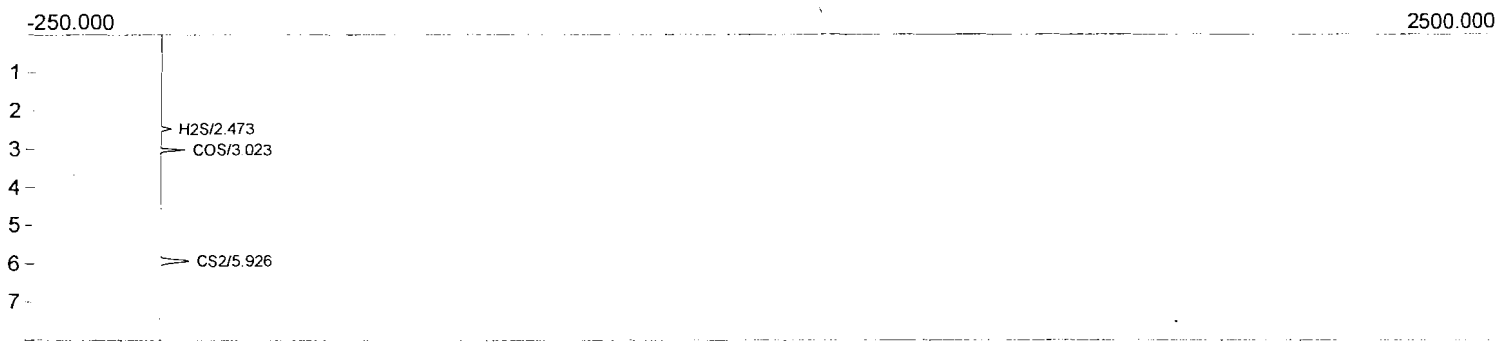
Component	Area
H2S	74.6666
COS	141.4237
CS2	311.0040
	527.0943

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 12:47:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero159.CHR (C:\Valero SRU1)
Sample: 5 ppm
Operator: BP



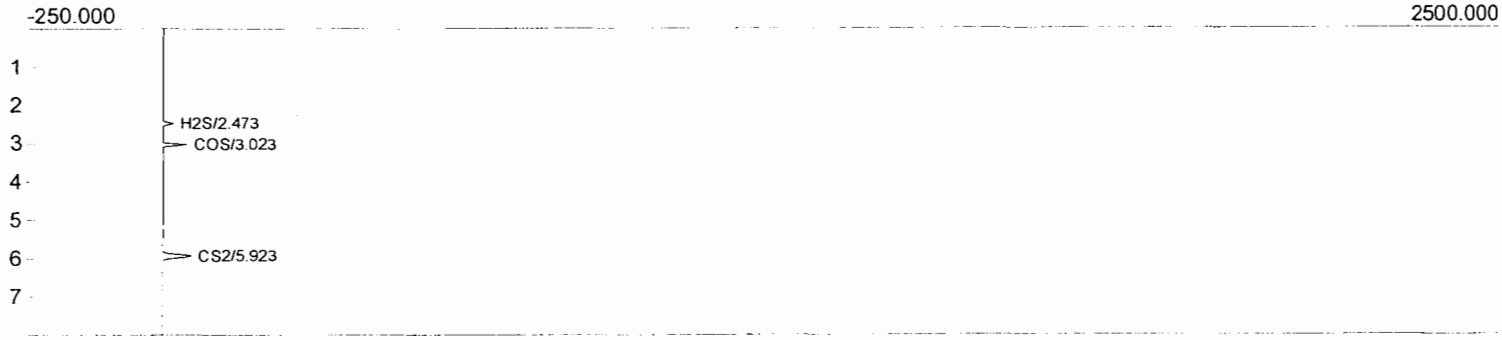
Component	Area
H2S	71.6775
COS	137.8189
CS2	304.8562
	514.3526

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 12:56:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero160.CHR (C:\Valero SRU1)
Sample: 5 ppm
Operator: BP



Component	Area
H2S	75.9684
COS	143.2620
CS2	314.5891
	533.8195

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 13:05:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero161.CHR (C:\Valero SRU1)
Sample: 5 ppm
Operator: BP



Component	Area
H2S	73.3371
COS	139.0728
CS2	307.2321
	519.6420

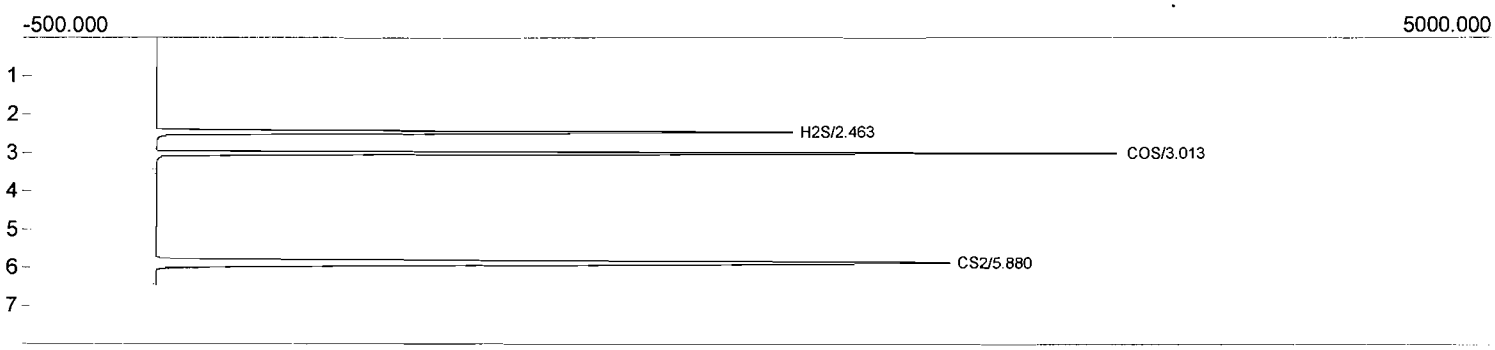
Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 13:14:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero162.CHR (C:\Valero SRU1)
Sample: 5 ppm
Operator: BP

Component	Area
H2S	76.5587
COS	143.1168
CS2	310.5242
	530.1997

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 06:43:49
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero04.CHR (C:\Valero SRU1)
Sample: 75 ppm Pre cal
Operator: BP

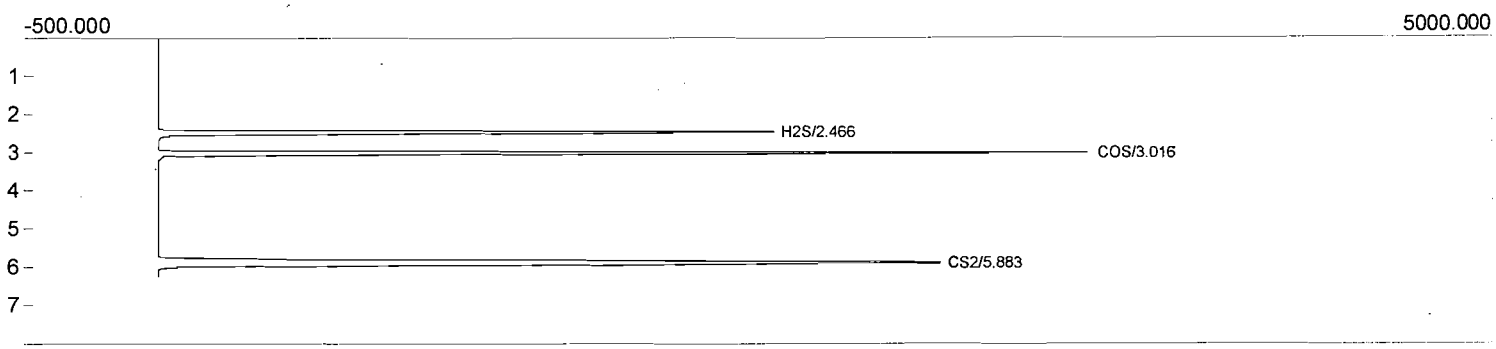
Component	Area
H2S	11185.3164
COS	14367.6270
CS2	23356.3492
	48909.2926

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 06:52:44
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero05.CHR (C:\Valero SRU1)
Sample: 75 ppm Pre cal
Operator: BP



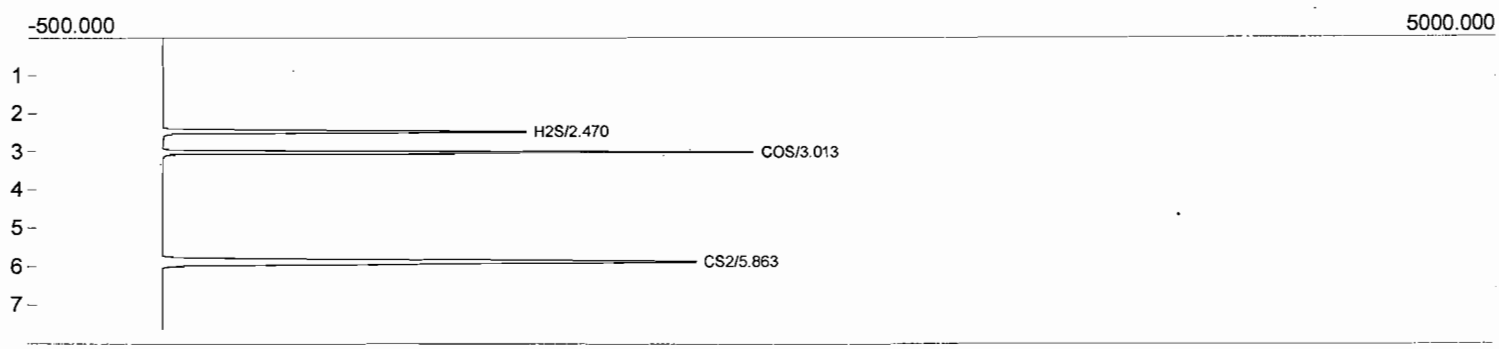
Component	Area
H2S	11282.8234
COS	14352.5184
CS2	23464.9085
	49100.2503

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 07:02:56
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero06.CHR (C:\Valero SRU1)
Sample: 75 ppm Pre cal
Operator: BP



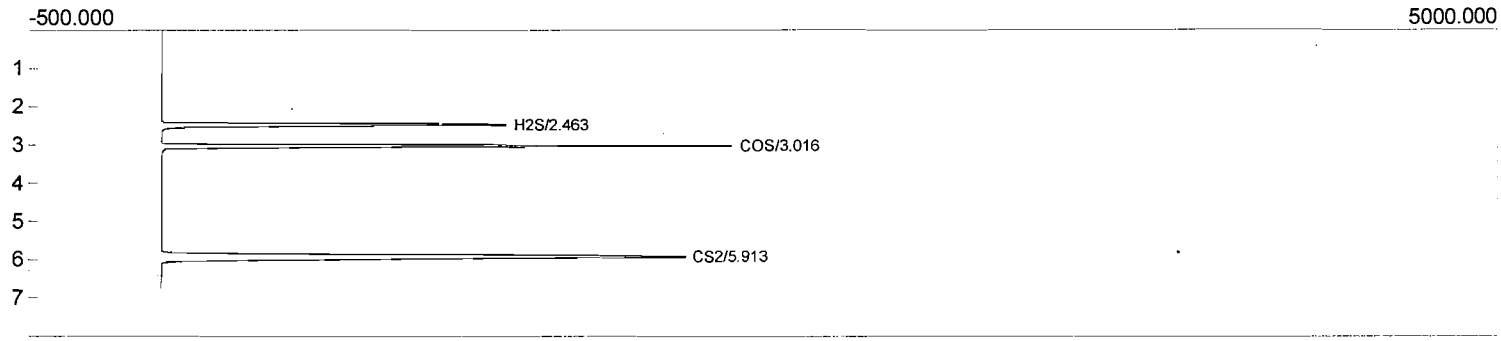
Component	Area
H2S	11069.1166
COS	13997.9736
CS2	23096.2719
	48163.3621

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 07:11:30
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero07.CHR (C:\Valero SRU1)
Sample: 50 ppm Pre cal
Operator: BP



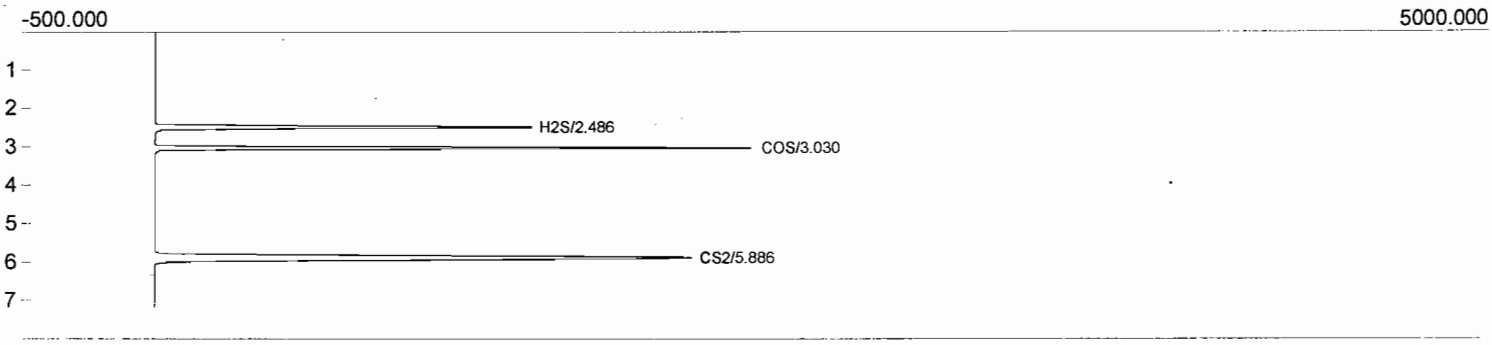
Component	Area
H2S	6180.8400
COS	8426.3380
CS2	14724.6257
	29331.8037

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 07:21:16
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero08.CHR (C:\Valero SRU1)
Sample: 50 ppm Pre cal
Operator: BP



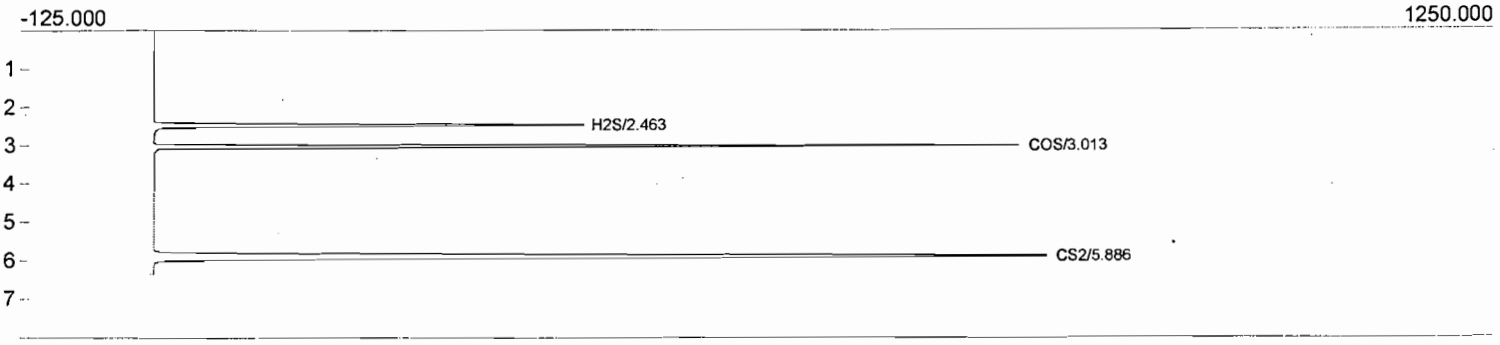
Component	Area
H2S	5962.1447
COS	8159.1836
CS2	14467.2423
	28588.5706

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 07:29:49
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero09.CHR (C:\Valero SRU1)
Sample: 50 ppm Pre cal
Operator: BP



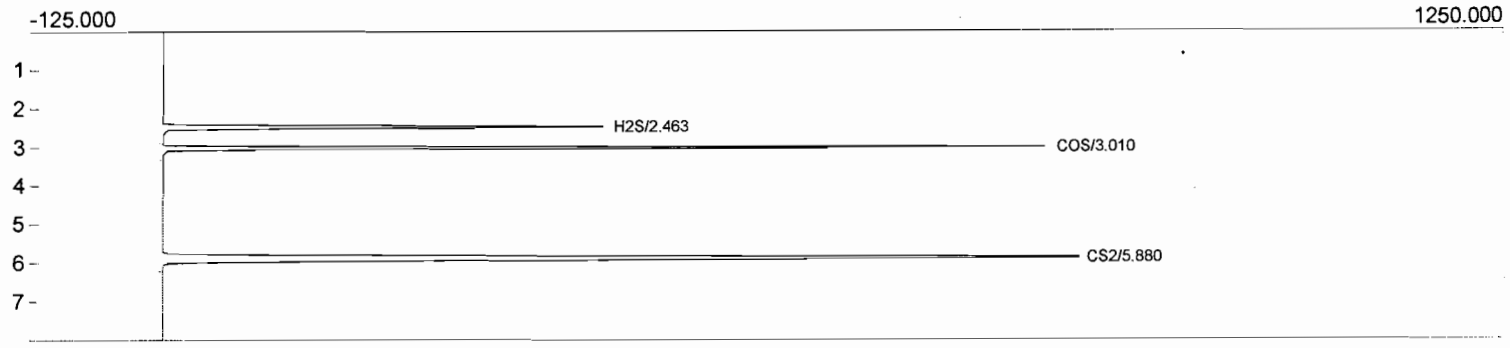
Component	Area
H2S	6340.0228
COS	8529.5084
CS2	14810.6336
	29680.1648

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 07:39:15
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero10.CHR (C:\Valero SRU1)
Sample: 25 ppm Pre cal
Operator: BP



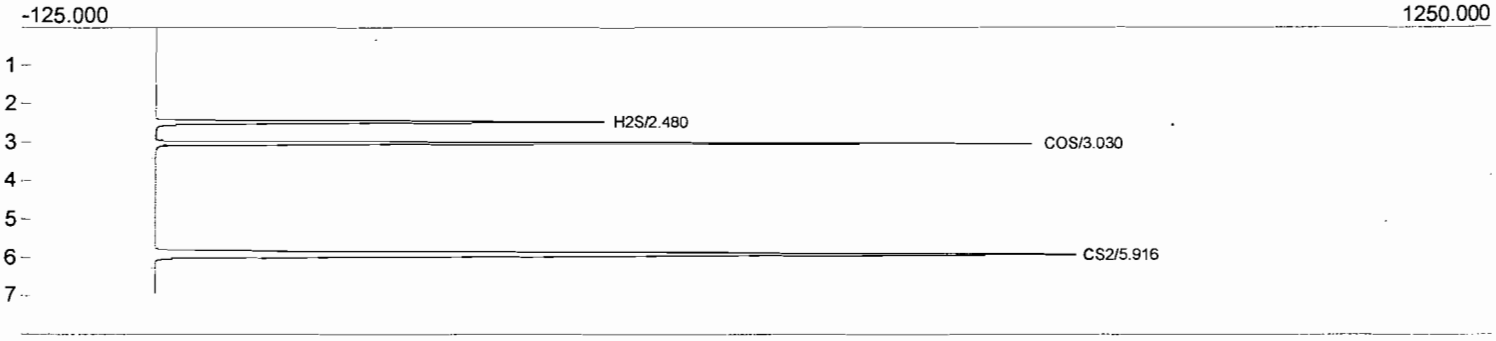
Component	Area
H2S	1780.6263
COS	2869.4540
CS2	5612.8038
	10262.8841

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 07:48:19
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero11.CHR (C:\Valero SRU1)
Sample: 25 ppm Pre cal
Operator: BP



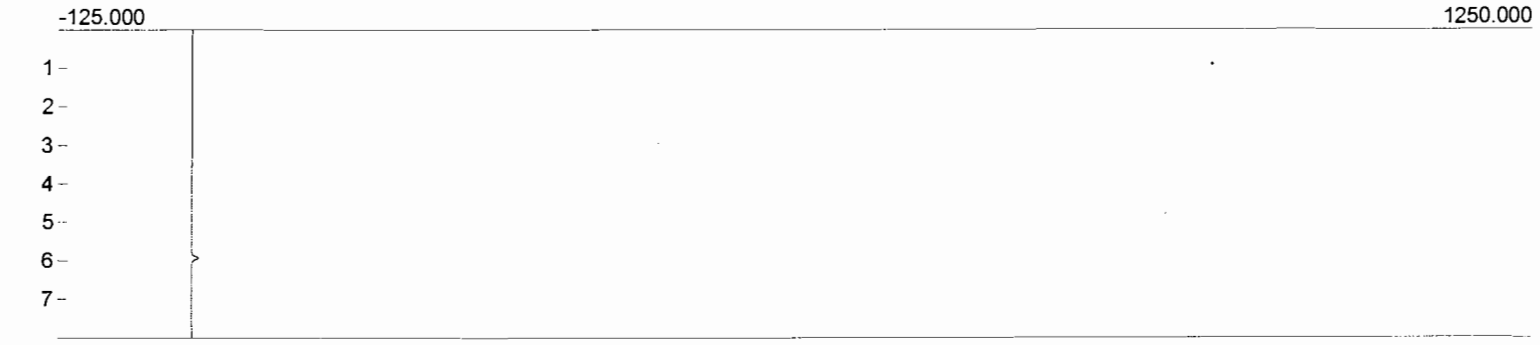
Component	Area
H2S	1813.4544
COS	2910.0426
CS2	5776.6128
	10500.1098

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 07:58:50
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero12.CHR (C:\Valero SRU1)
Sample: 25 ppm Pre cal
Operator: BP



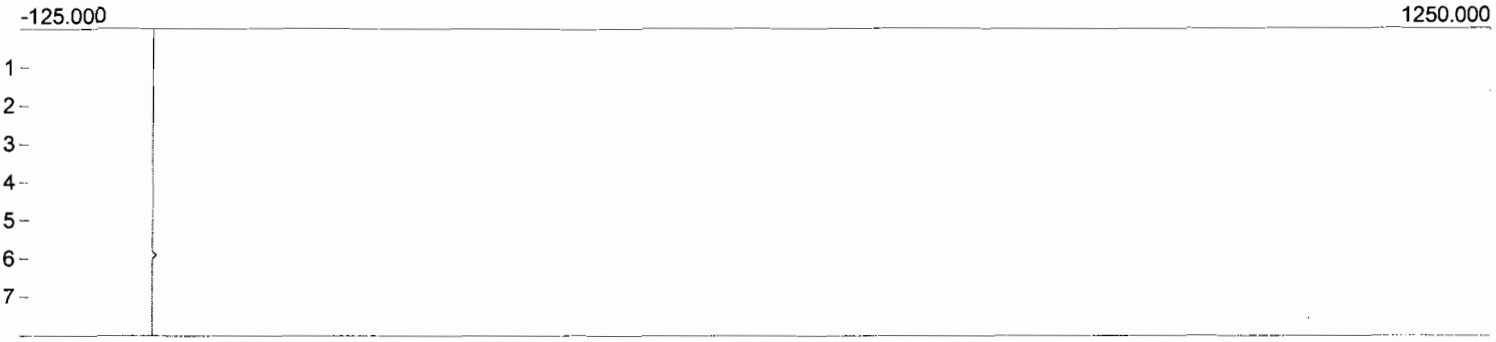
Component	Area
H2S	1831.0210
COS	2912.6782
CS2	5850.0312
	10593.7304

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 08:25:03
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero14.CHR (C:\Valero SRU1)
Sample: 0 ppm Pre cal
Operator: BP



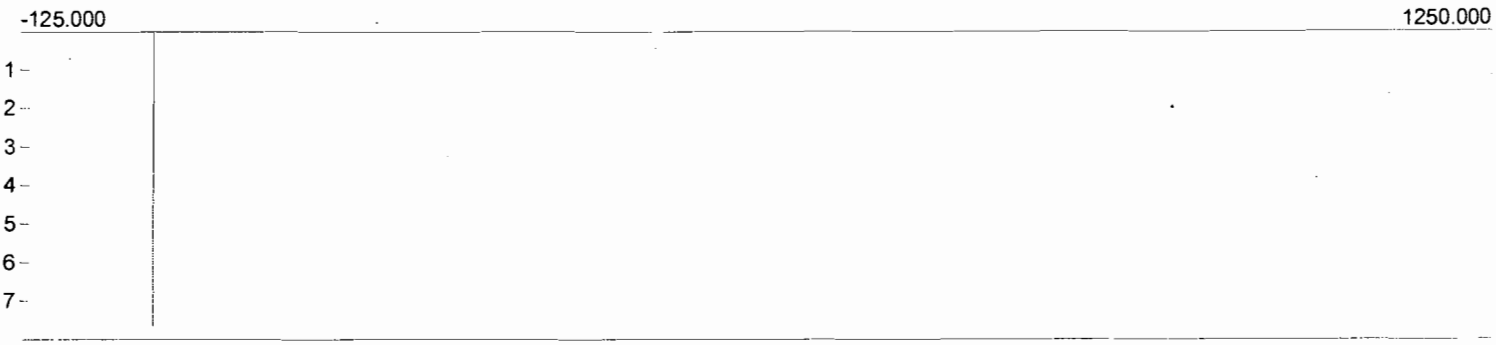
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 08:39:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero15.CHR (C:\Valero SRU1)
Sample: 0 ppm Pre cal
Operator: BP



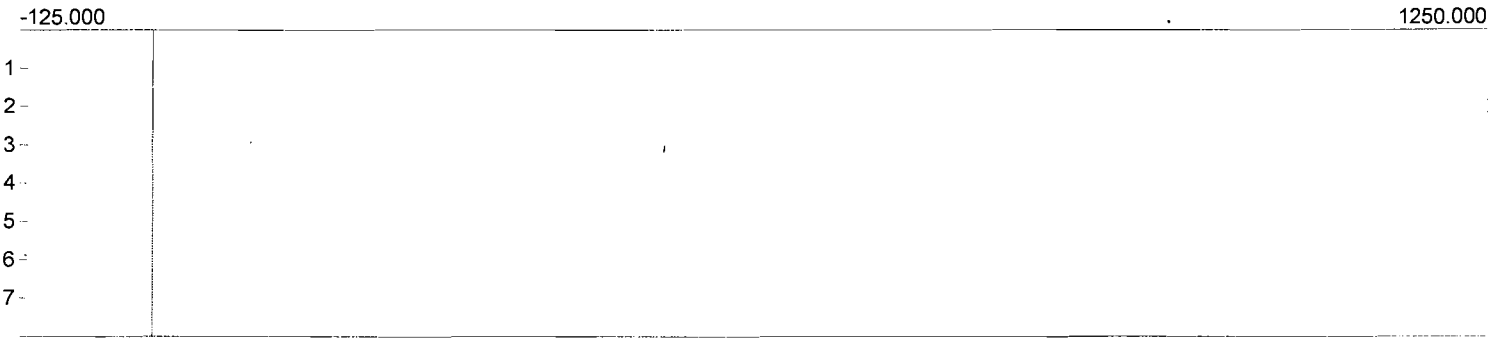
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 08:48:16
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero16.CHR (C:\Valero SRU1)
Sample: 0 ppm Pre cal
Operator: BP



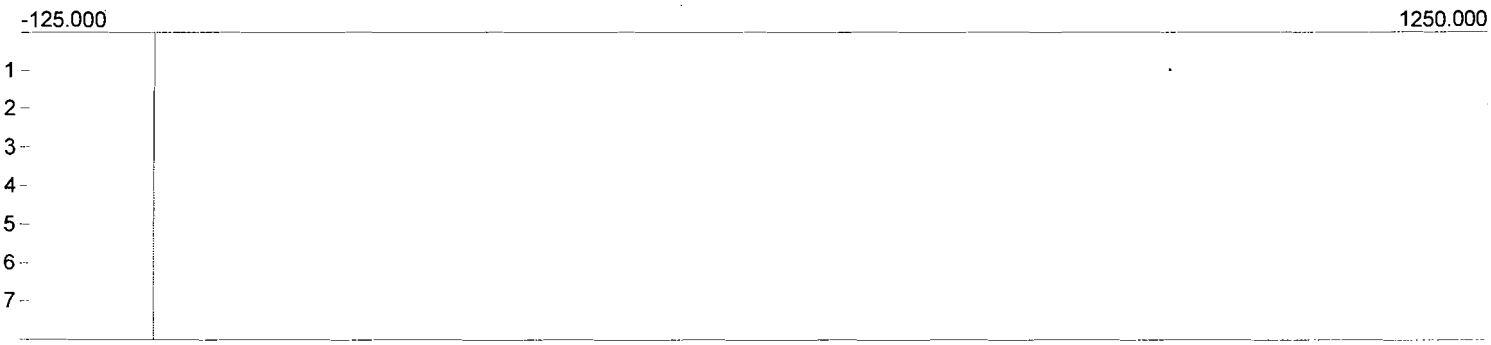
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 09:44:59
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero18.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP



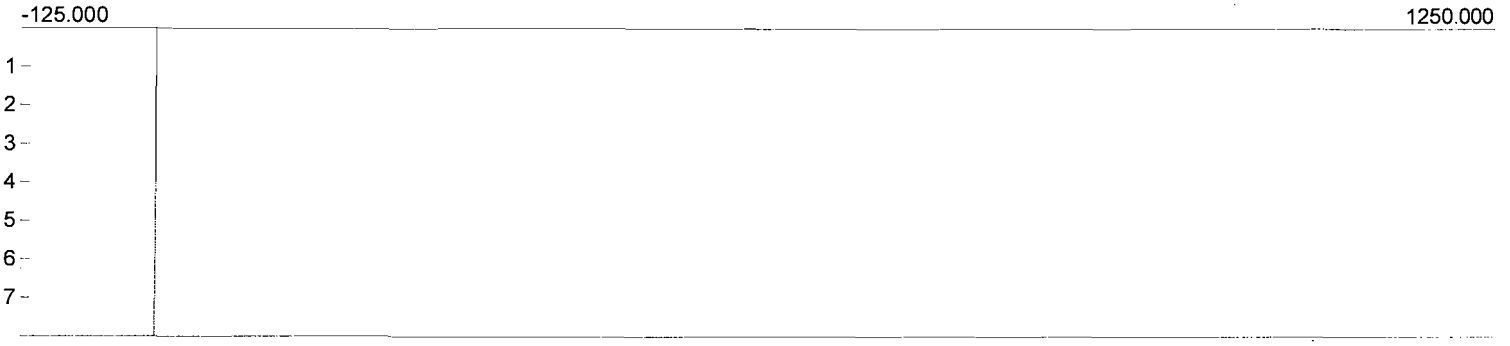
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 09:54:59
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero19.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP



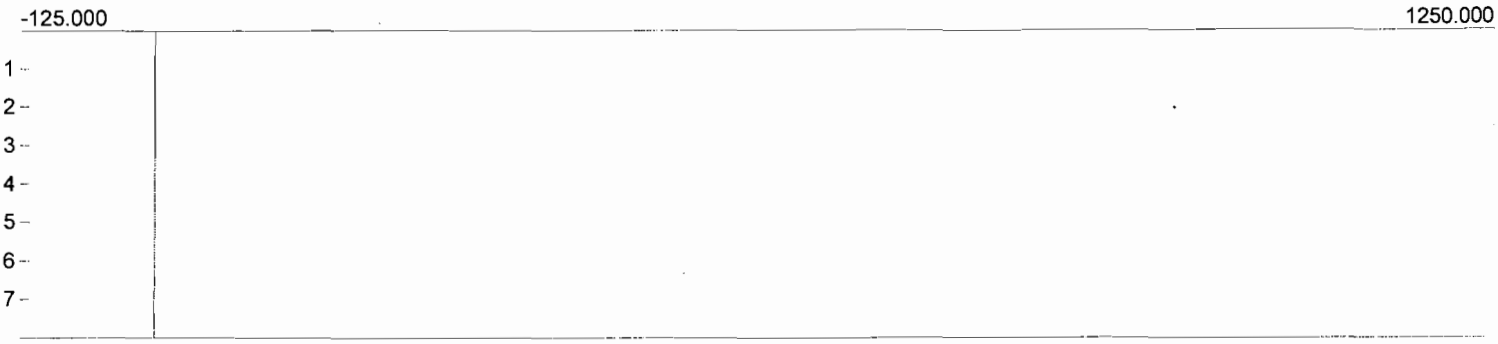
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 10:04:59
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero20.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP



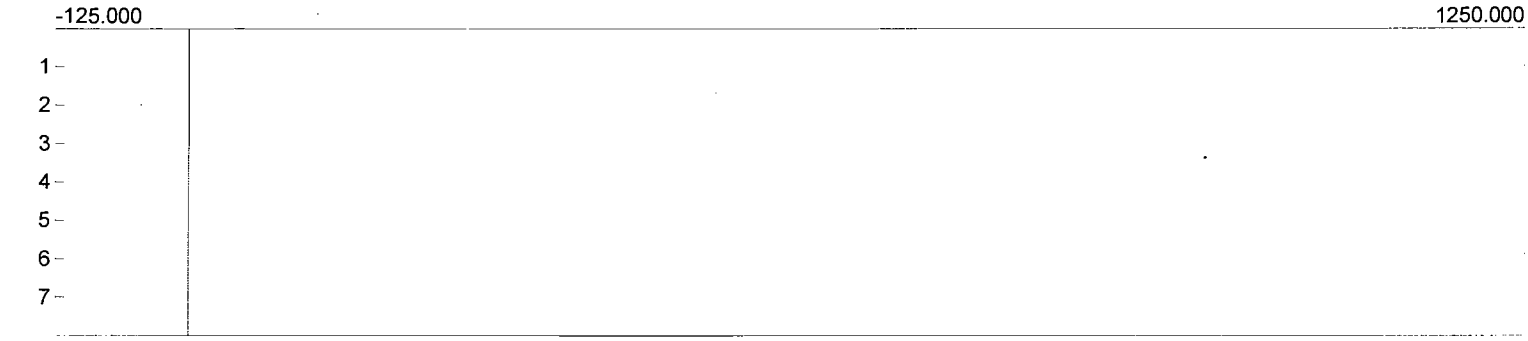
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 10:15:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero21.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP



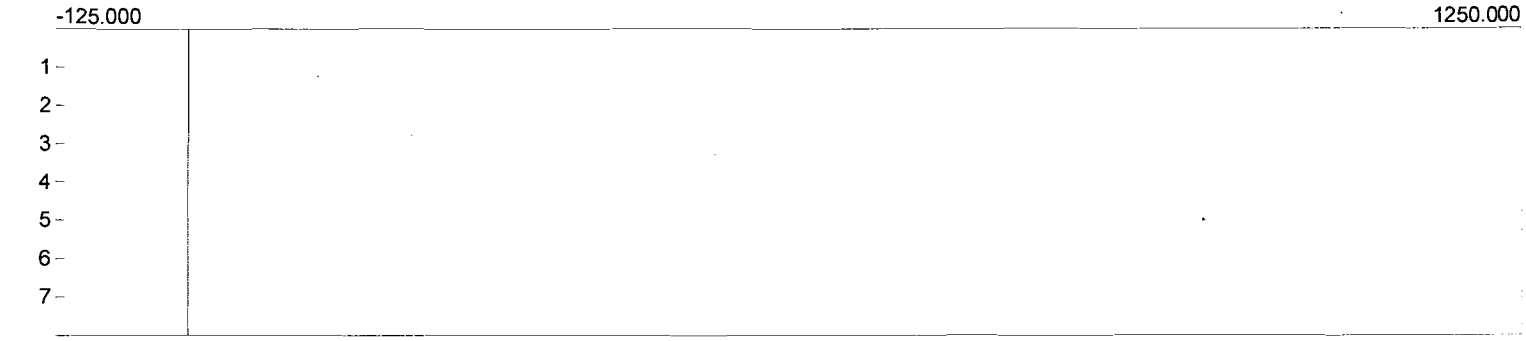
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 10:25:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero22.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP



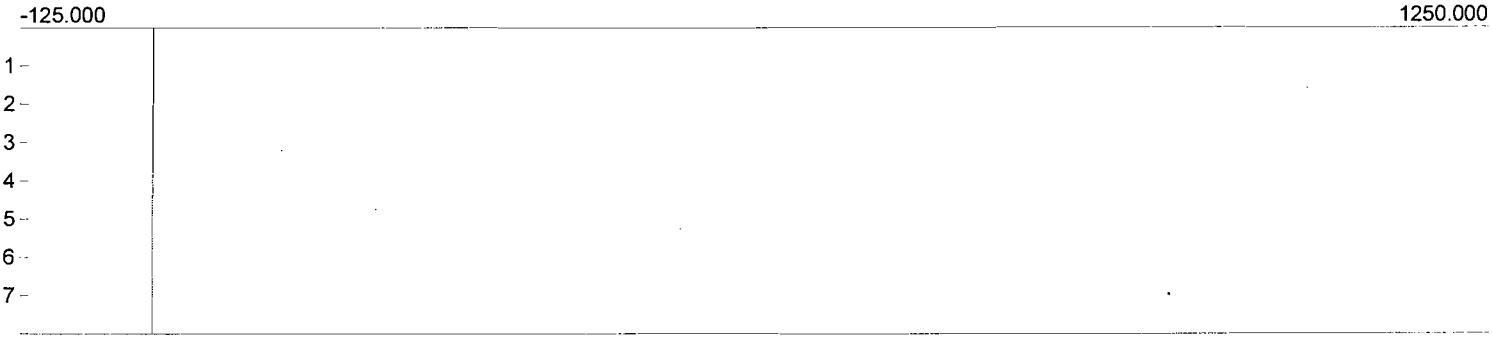
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 10:35:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero23.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP



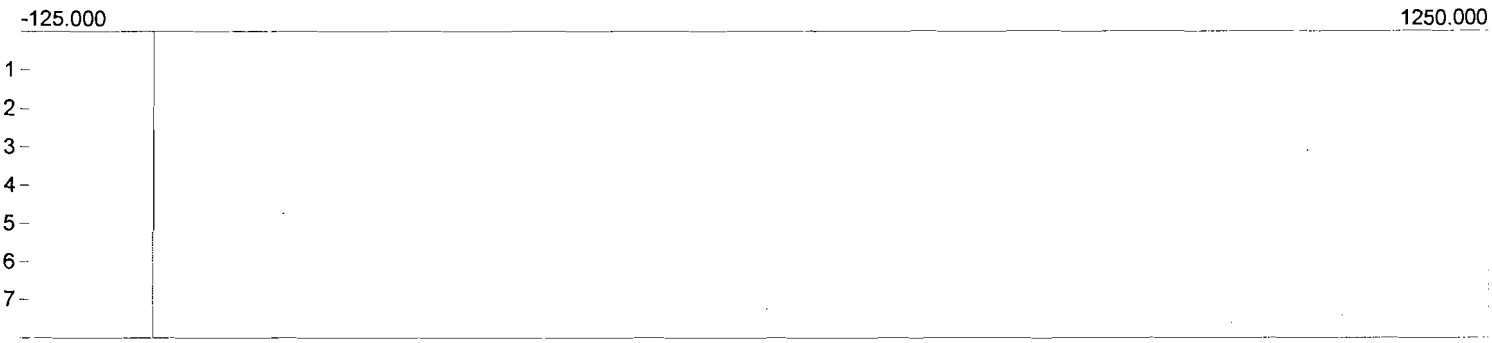
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 10:45:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero24.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP



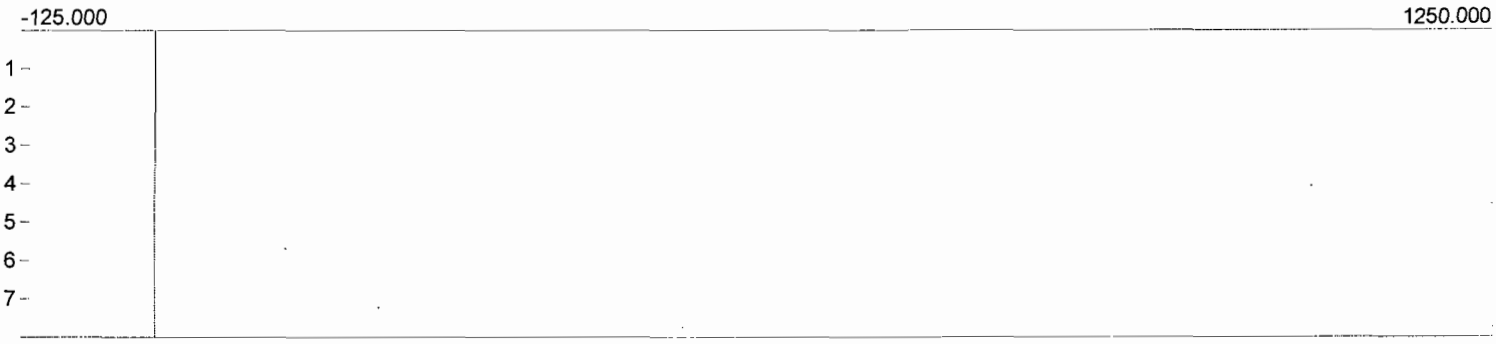
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 10:55:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero25.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP



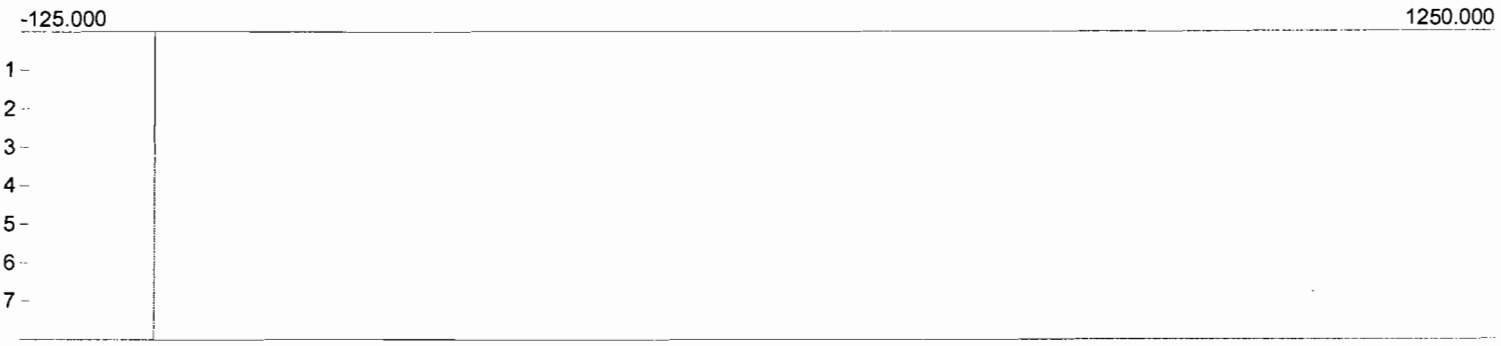
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 11:05:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero26.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP



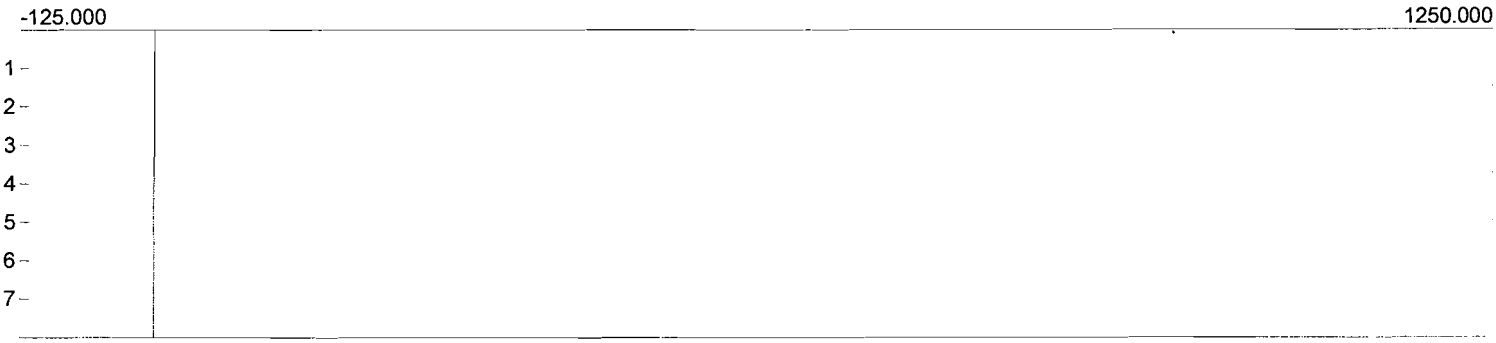
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 11:15:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero27.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP



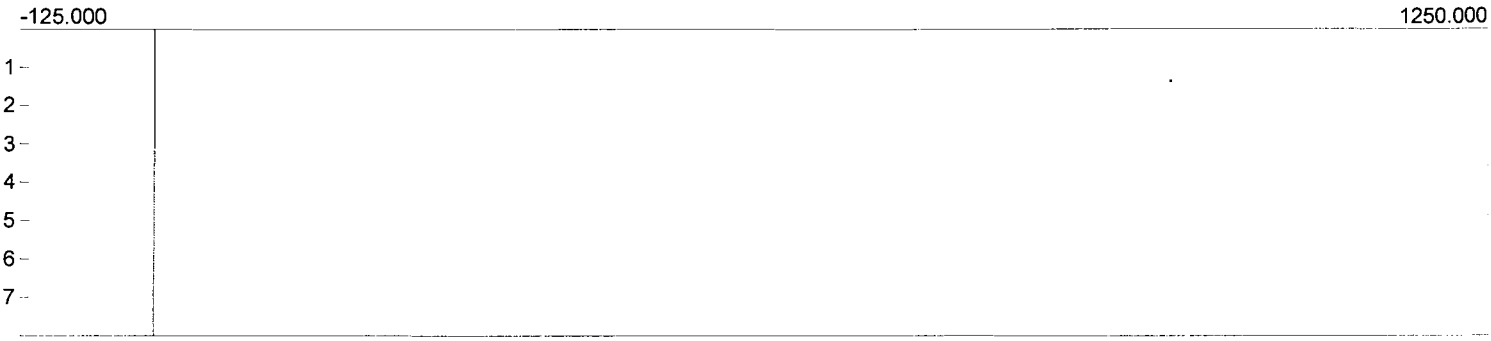
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 11:25:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero28.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP



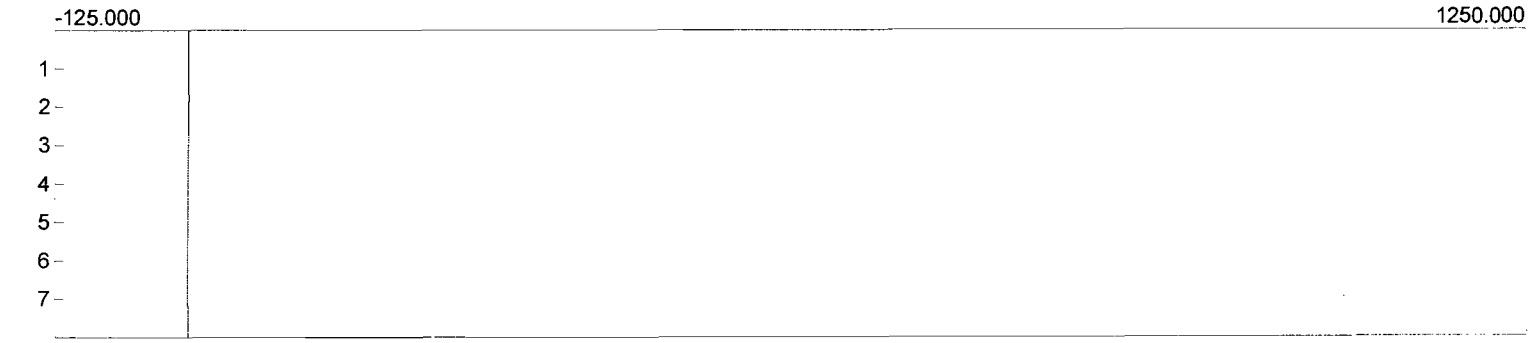
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 11:35:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero29.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP



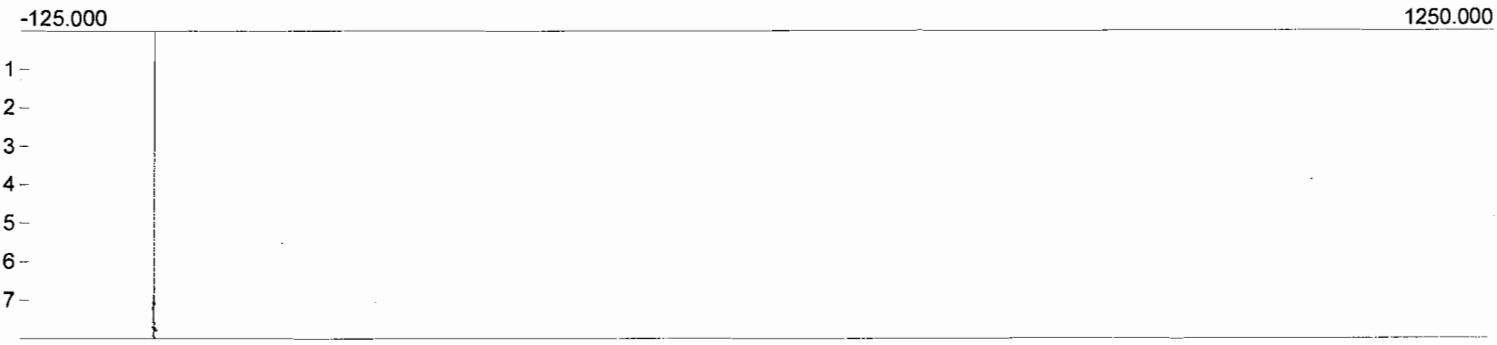
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 11:45:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero30.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP



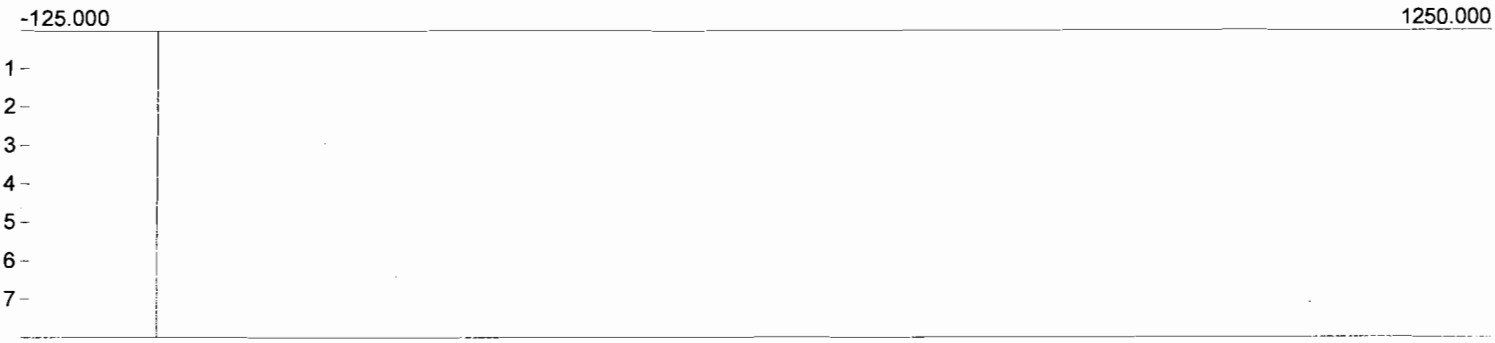
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 11:55:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero31.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP



Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 12:05:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero32.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP

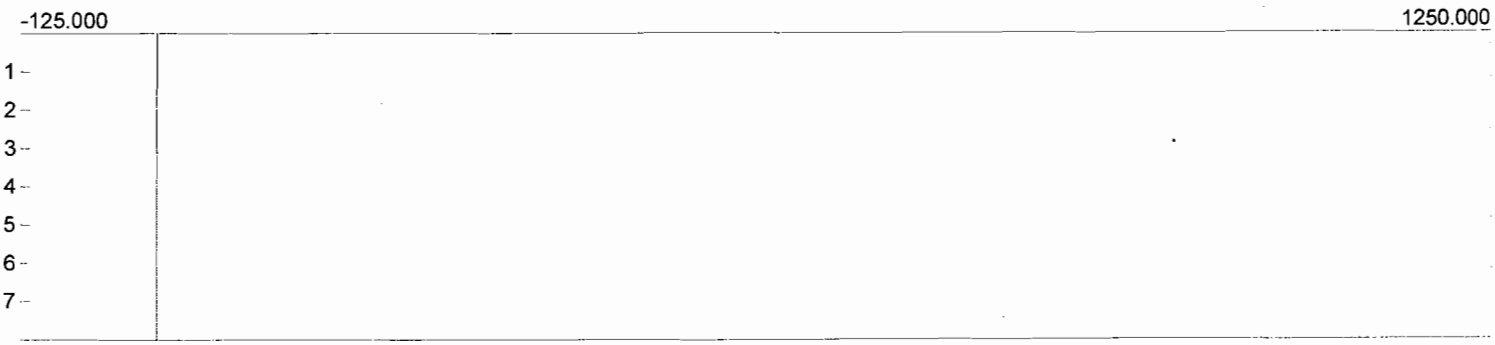


Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 12:15:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero33.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP

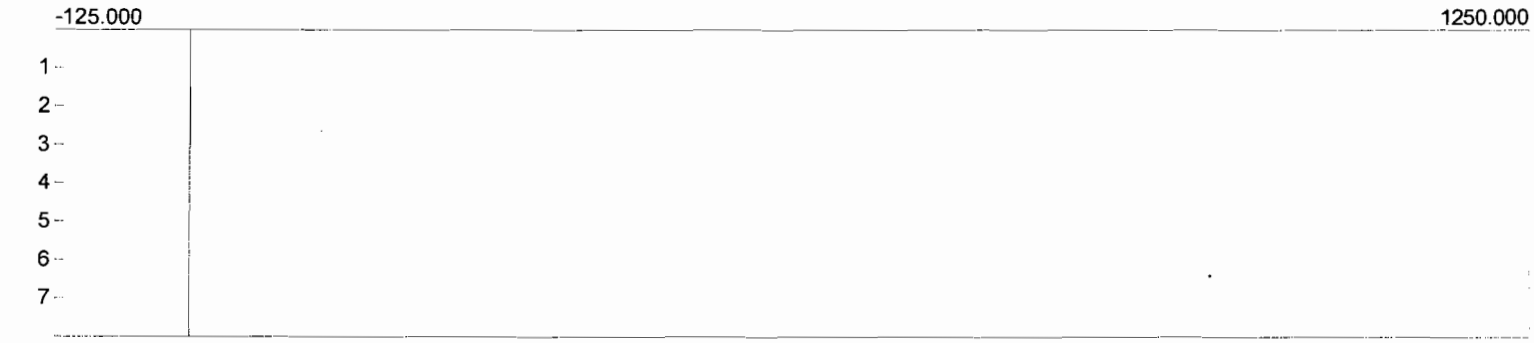
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 12:25:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero34.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP



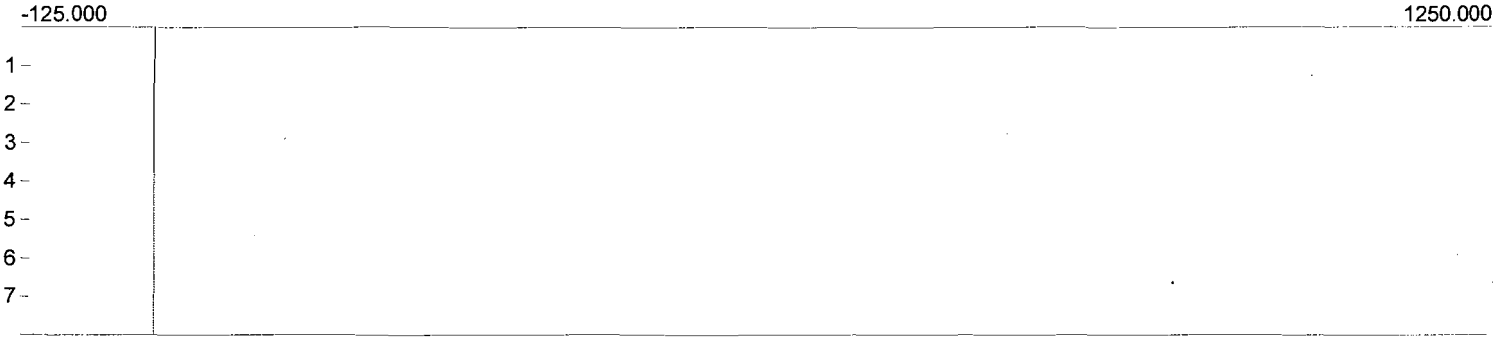
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 12:35:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero35.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP



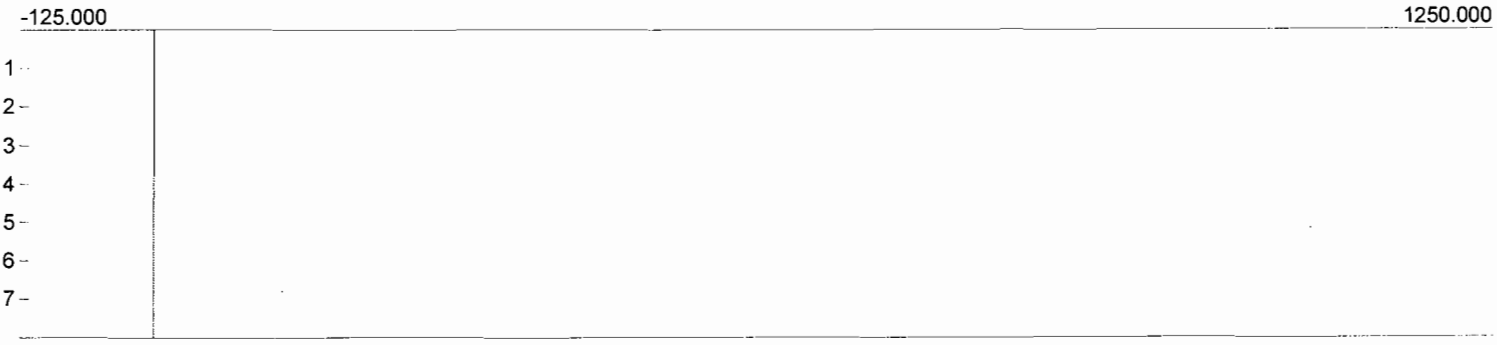
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 12:45:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero36.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP



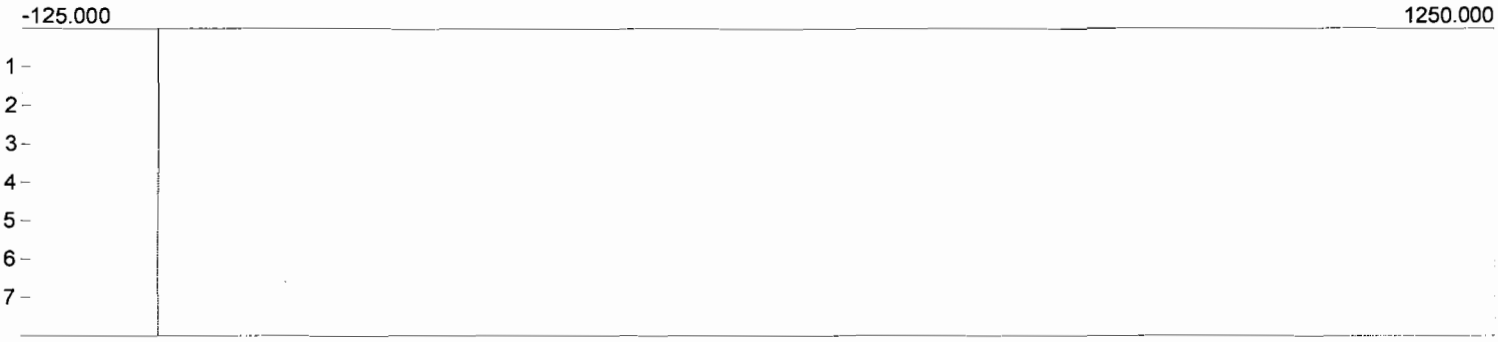
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 12:55:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero37.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP



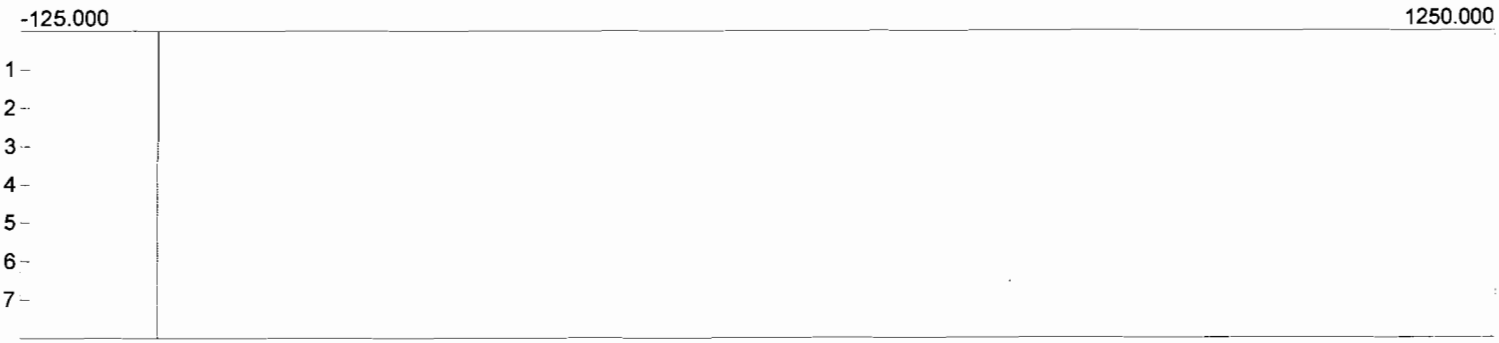
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 13:05:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero38.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP



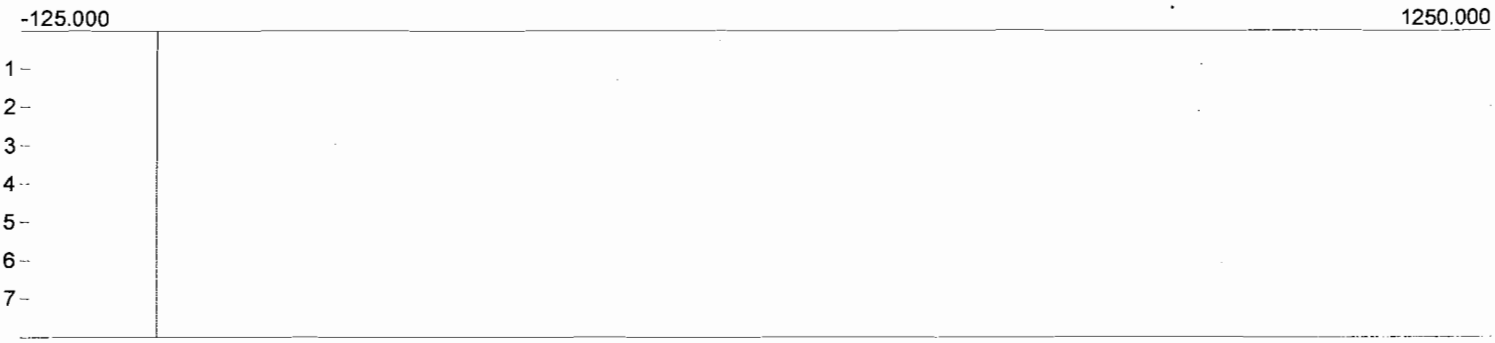
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 13:15:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero39.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP



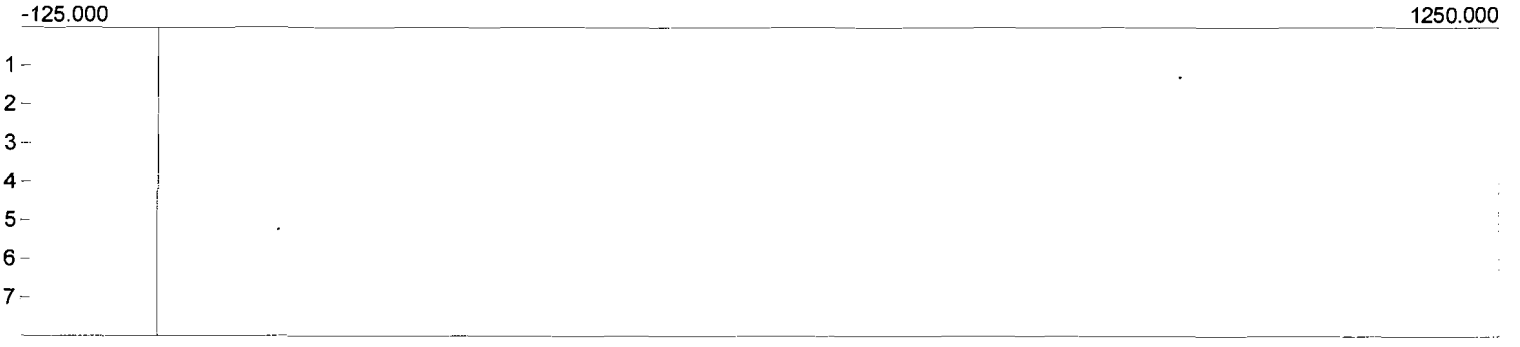
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 13:25:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero40.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP



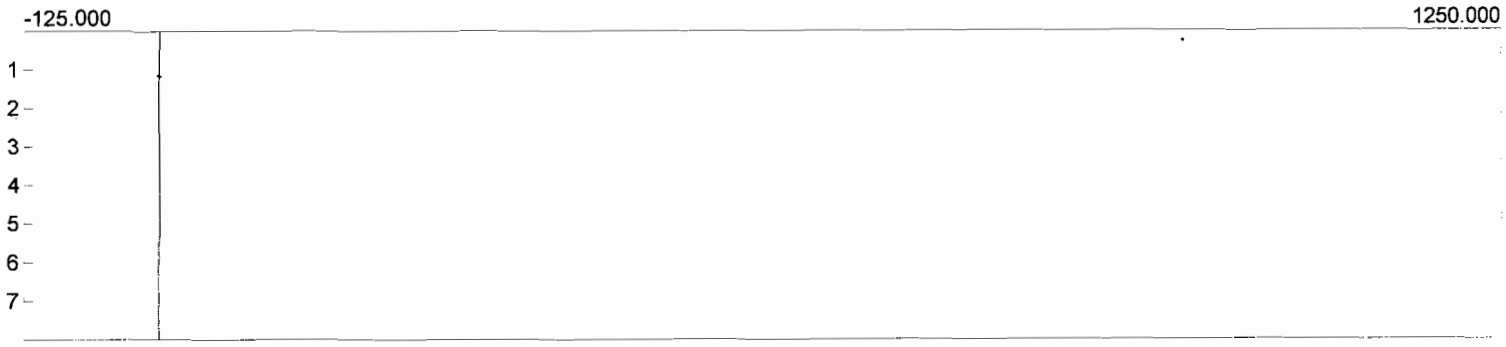
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 13:35:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero41.CHR (C:\Valero SRU1)
Sample: SRU1 -1
Operator: BP



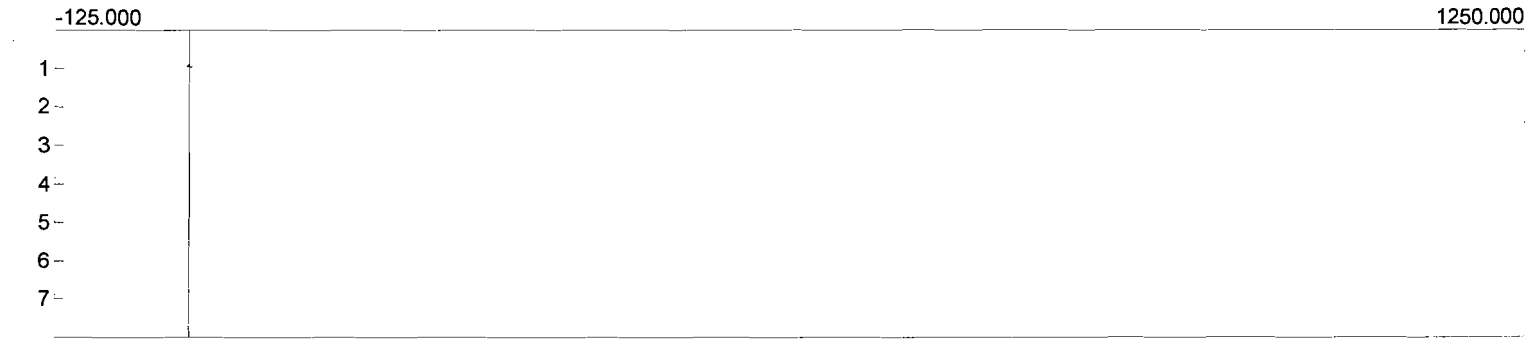
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 14:14:59
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero42.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP



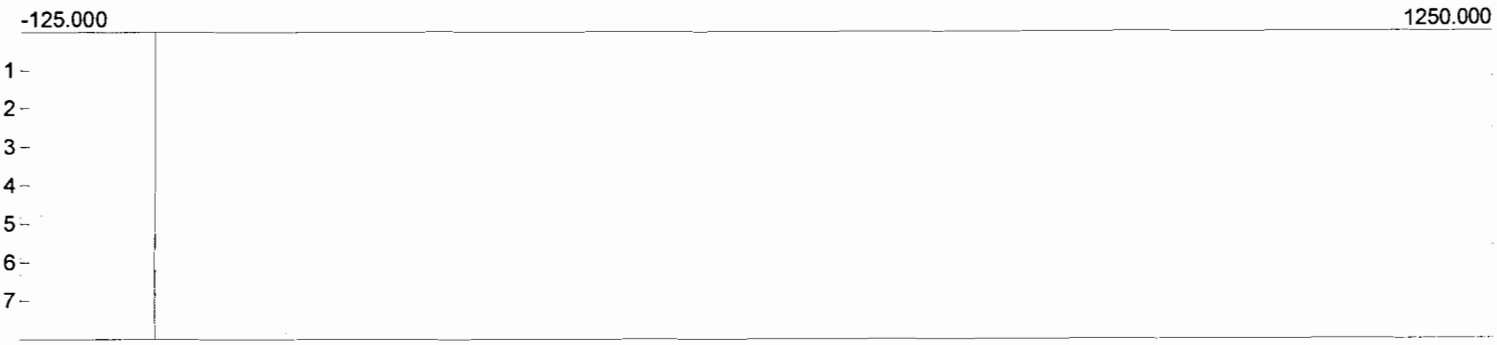
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 14:25:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero43.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP



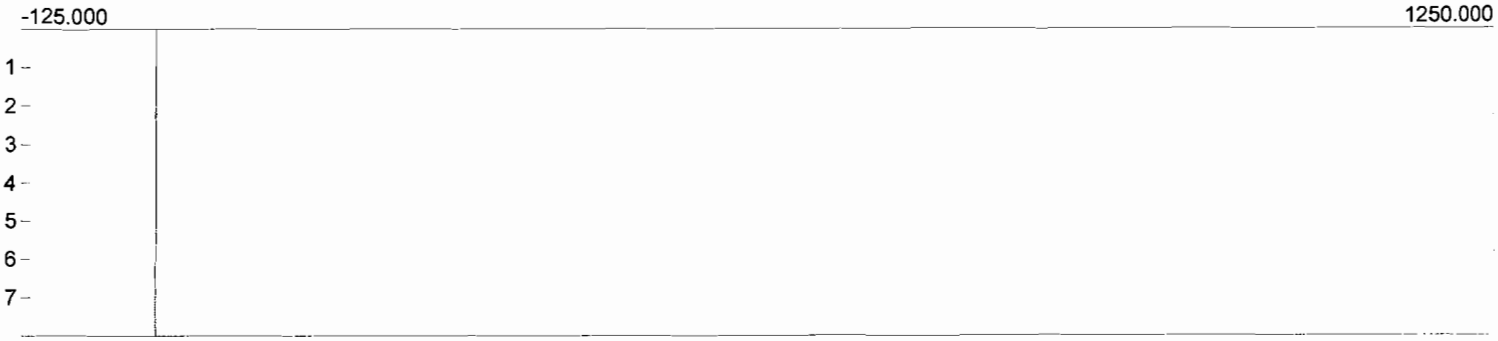
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 14:35:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero44.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP



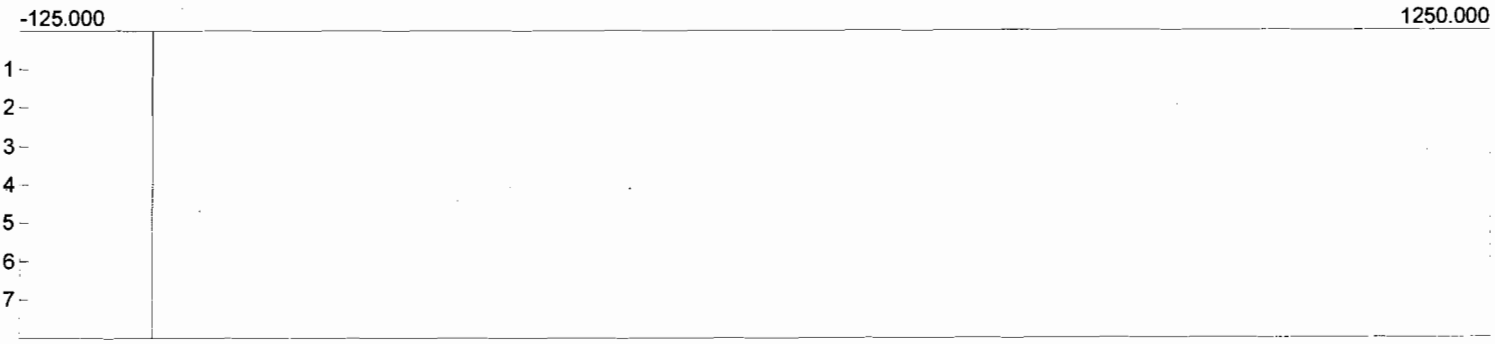
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 14:45:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero45.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP



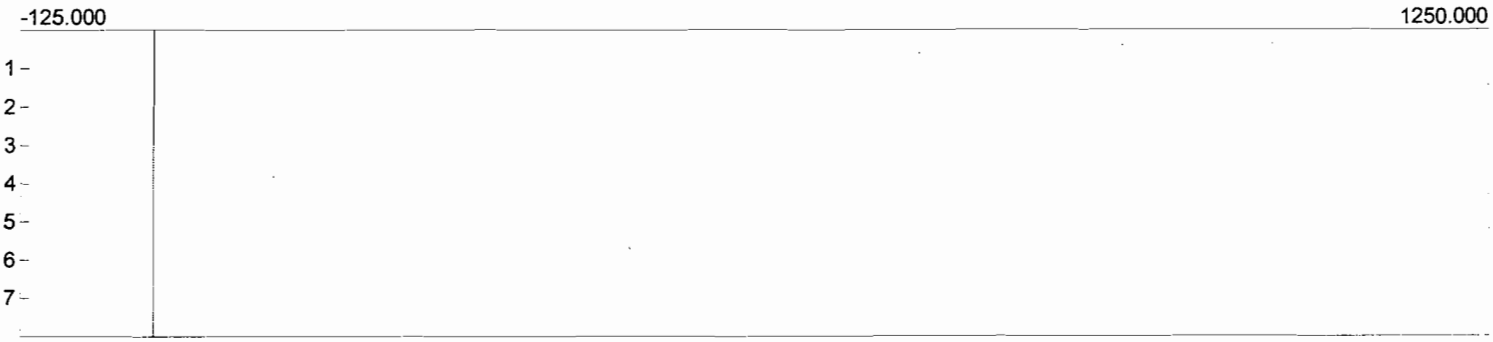
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 14:55:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero46.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP



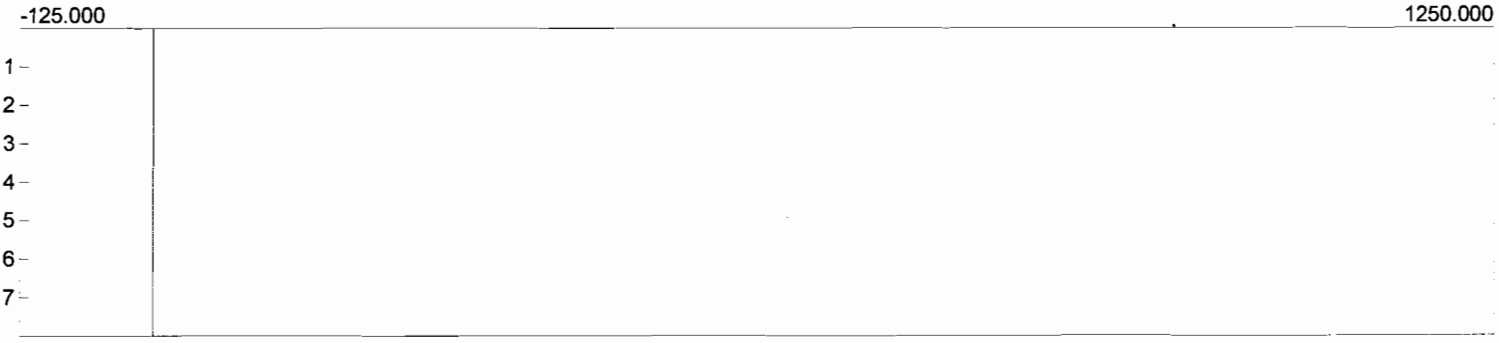
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 15:05:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero47.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP



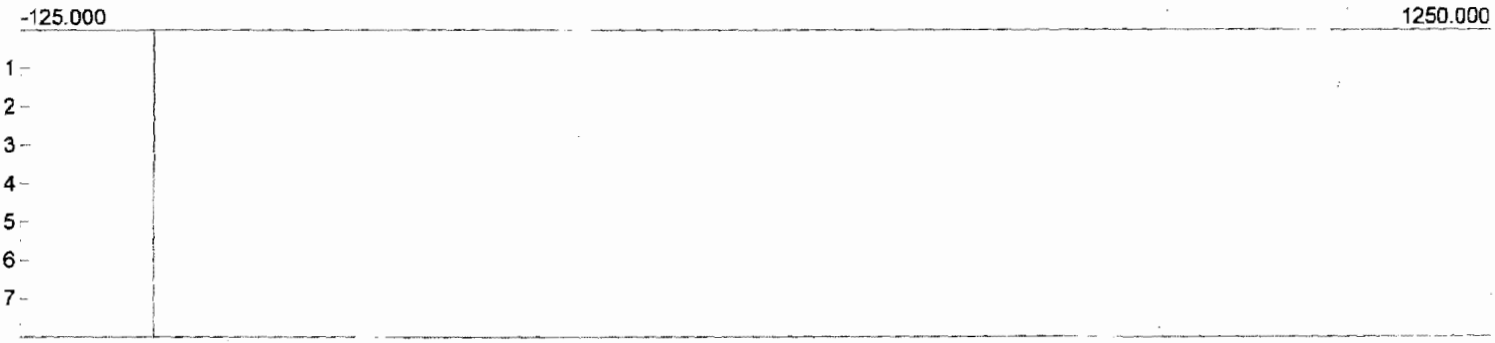
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 15:15:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero48.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP



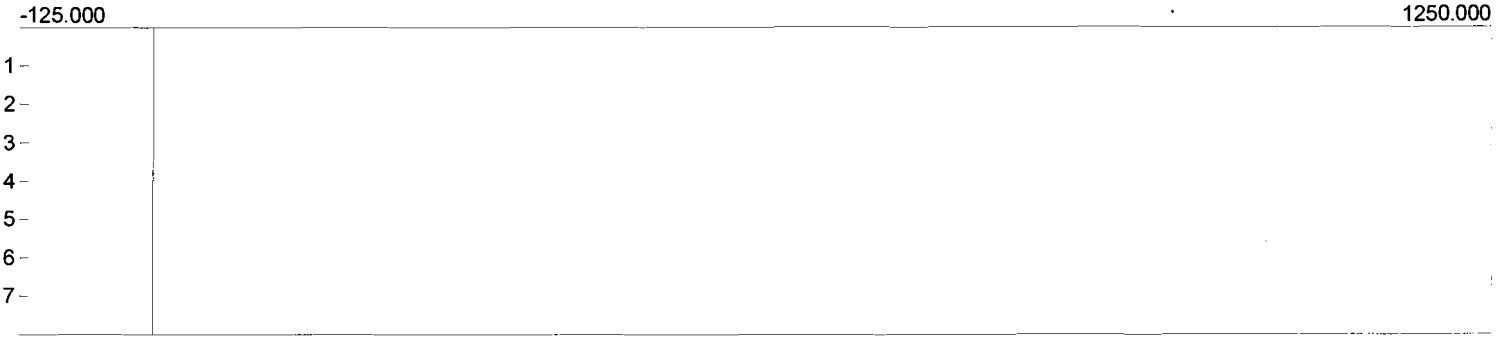
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 15:25:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero49.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP



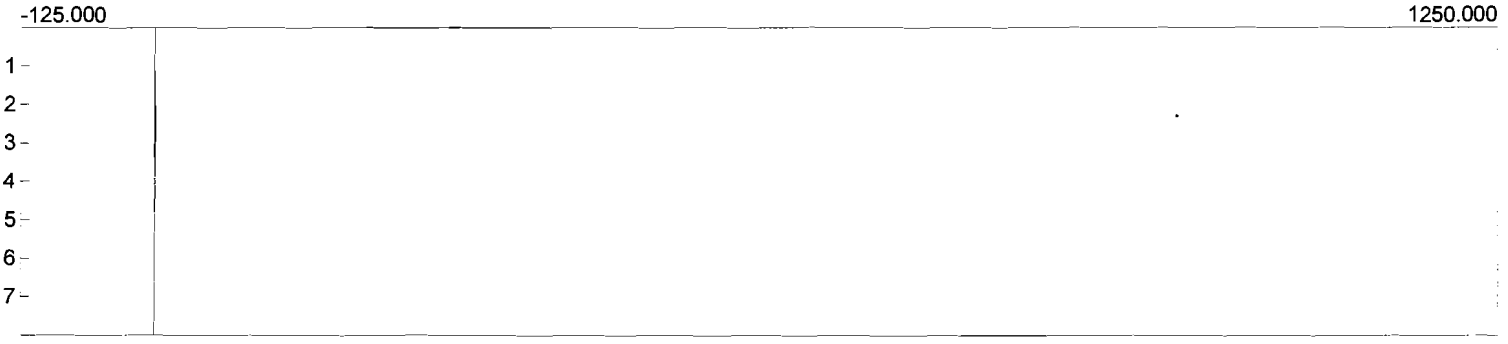
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 15:35:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero50.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP



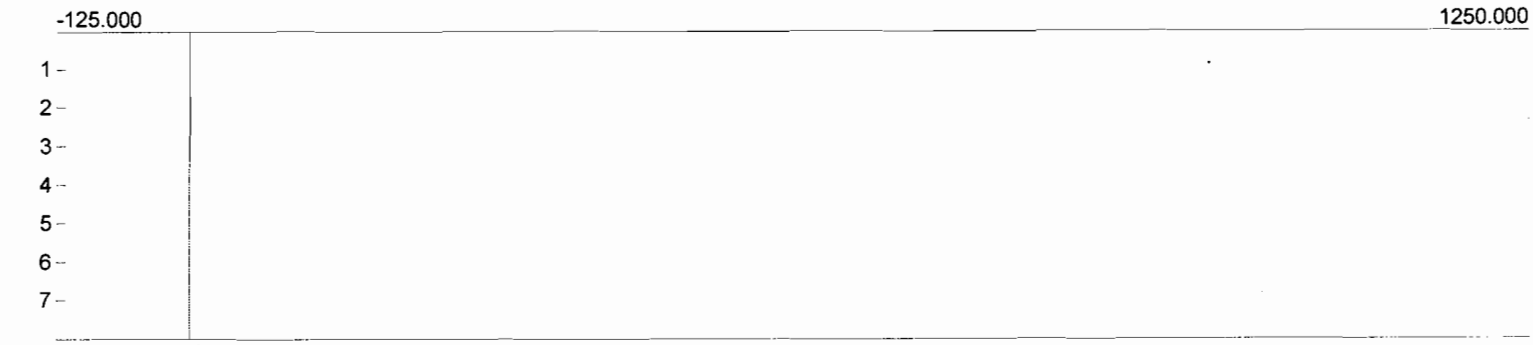
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 15:45:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero51.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP



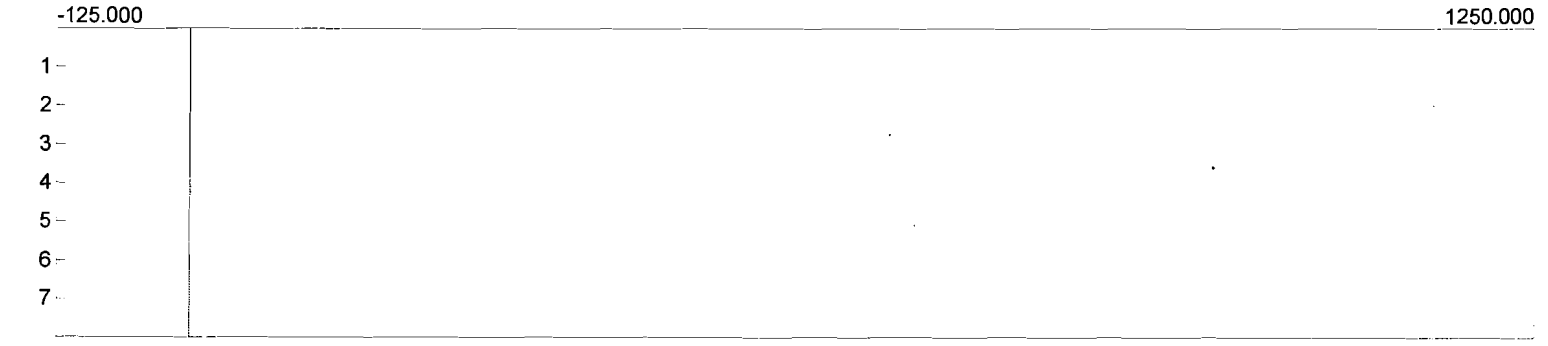
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 15:55:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero52.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP



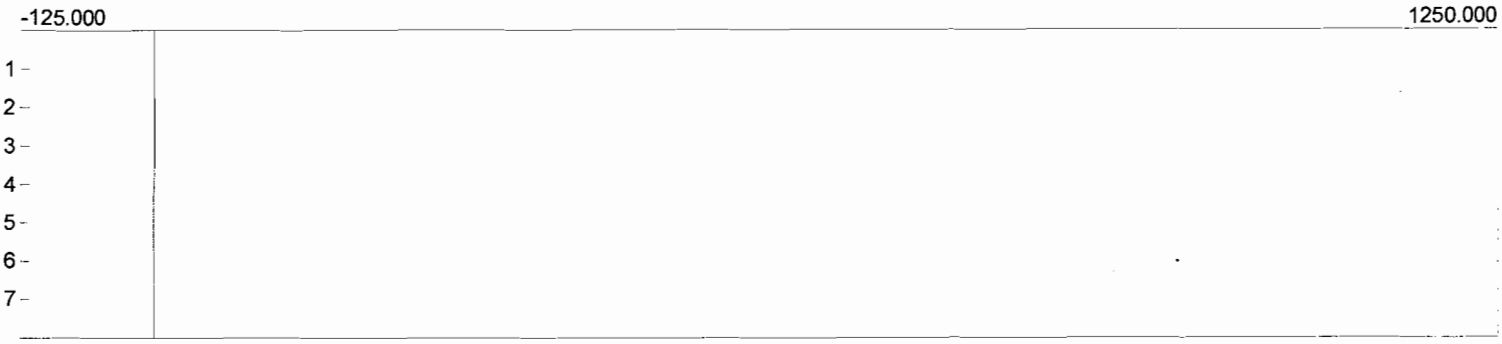
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 16:05:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero53.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP



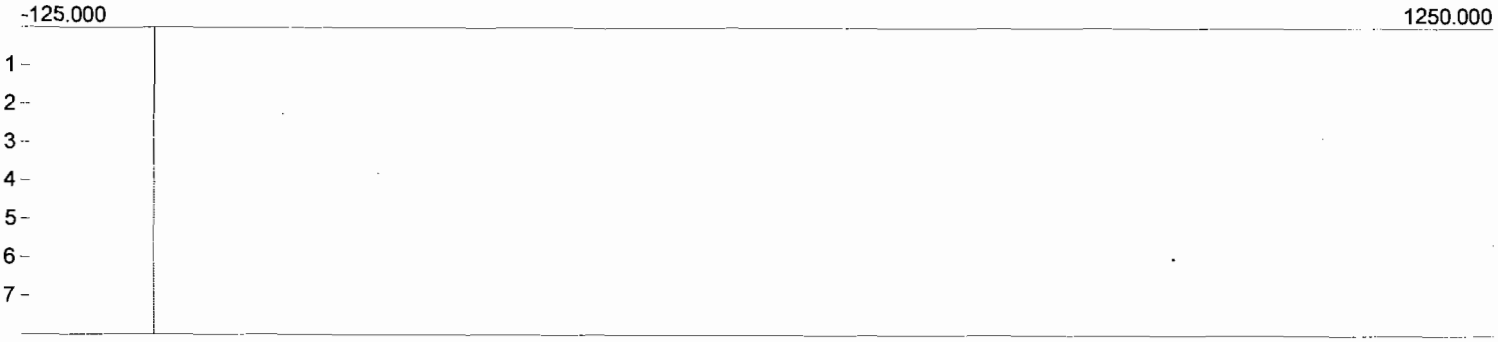
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 16:15:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero54.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP



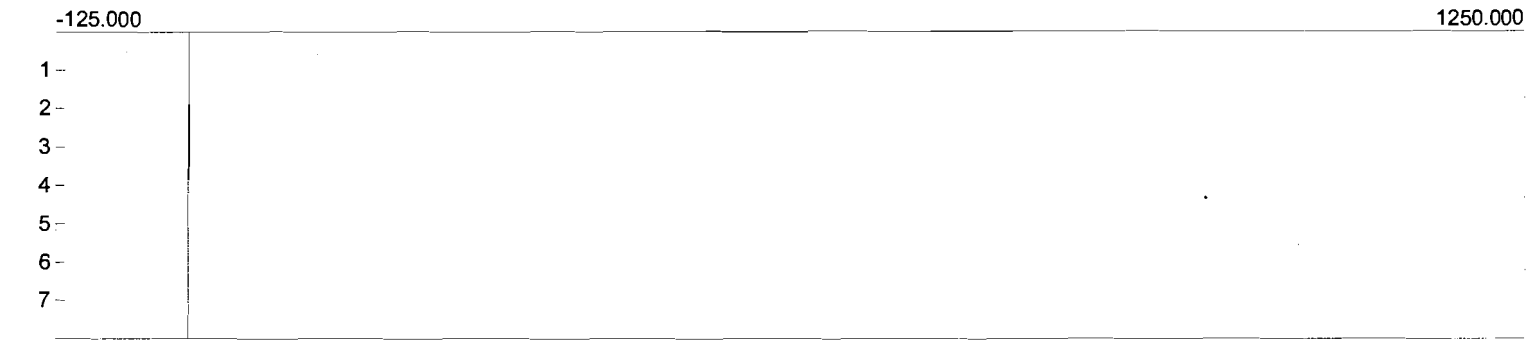
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 16:25:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero55.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP



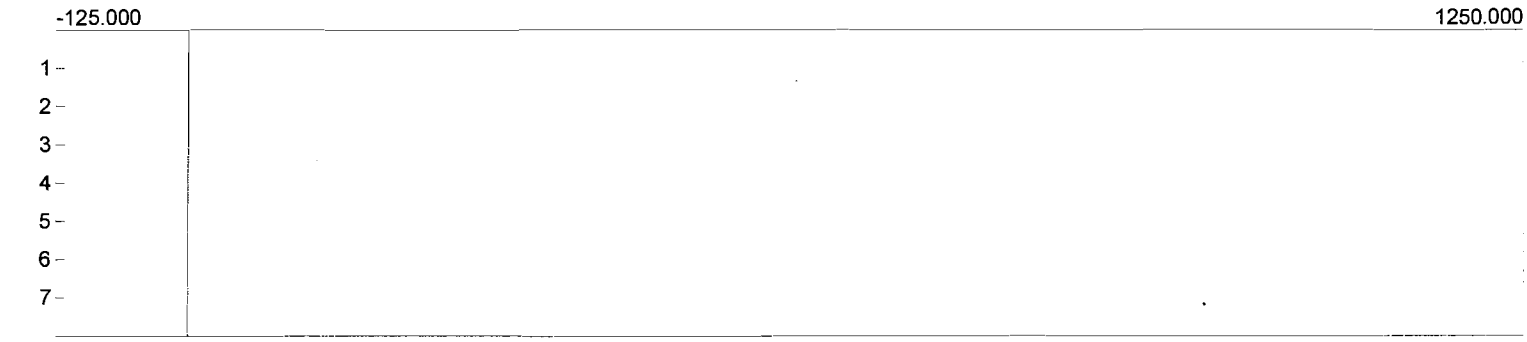
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 16:35:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero56.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP



Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 16:45:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero57.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP

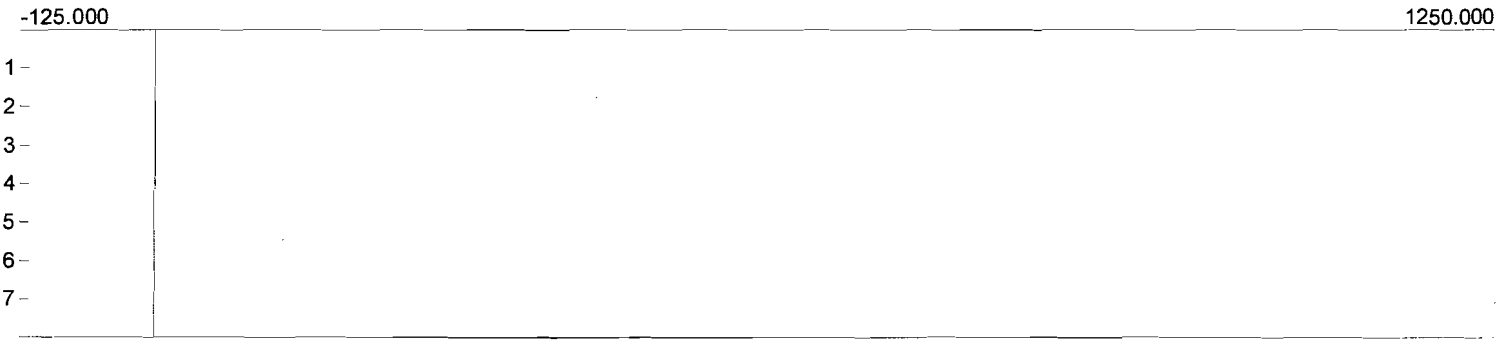


Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 16:55:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero58.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP

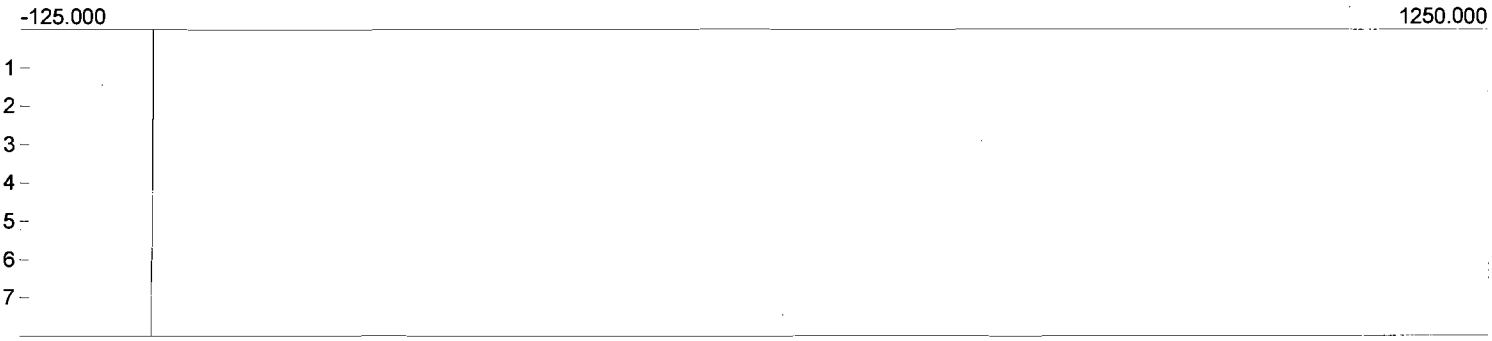
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 17:05:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero59.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP



Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 17:15:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero60.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP

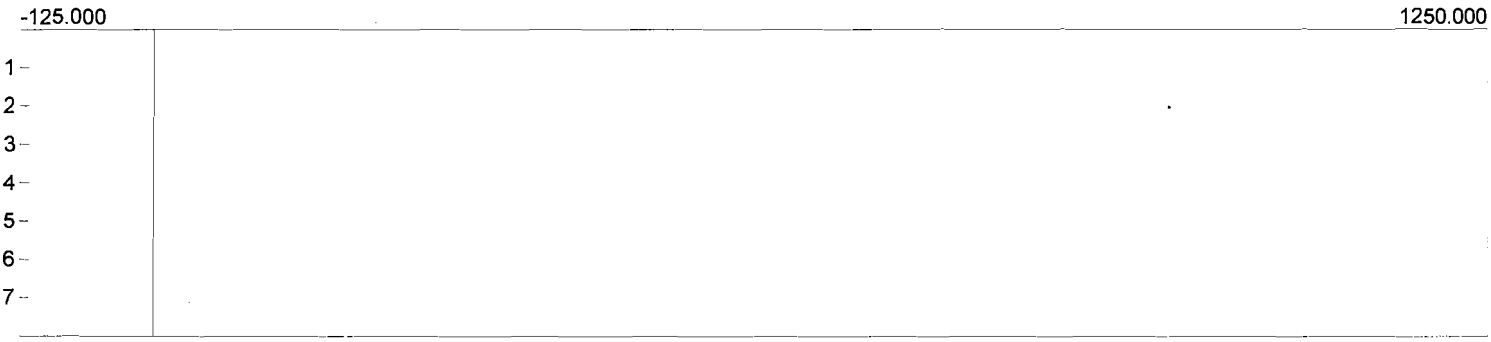


Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 17:25:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero61.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP

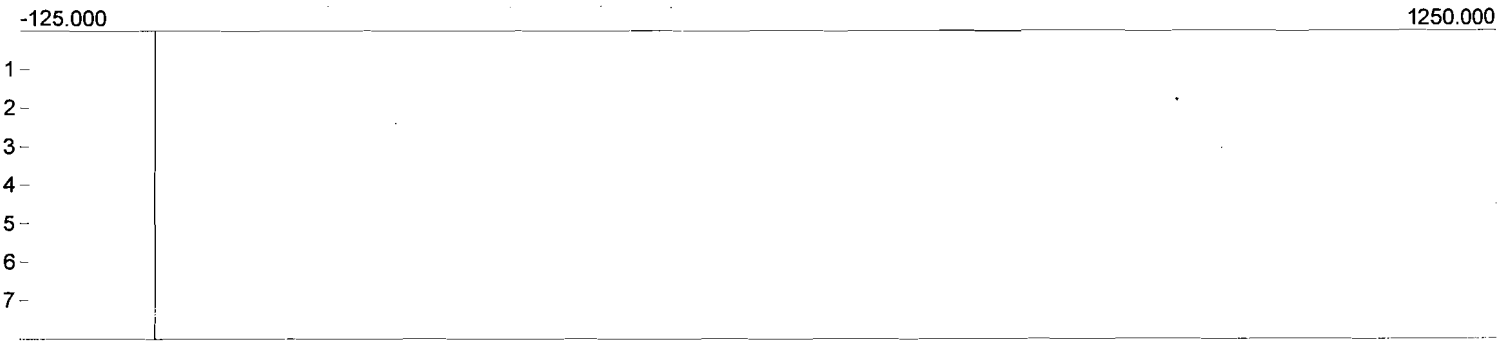
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 17:35:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero62.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP



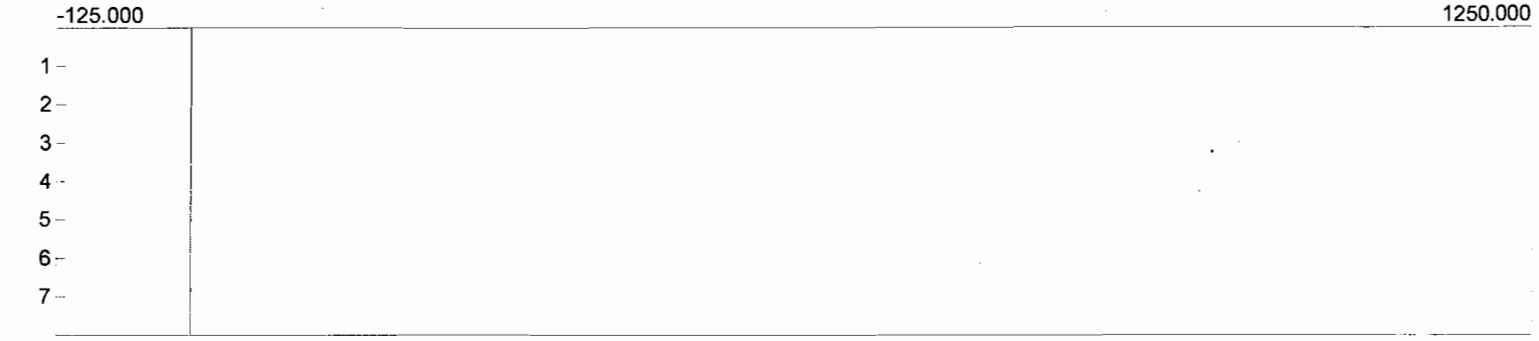
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 17:45:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero63.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP



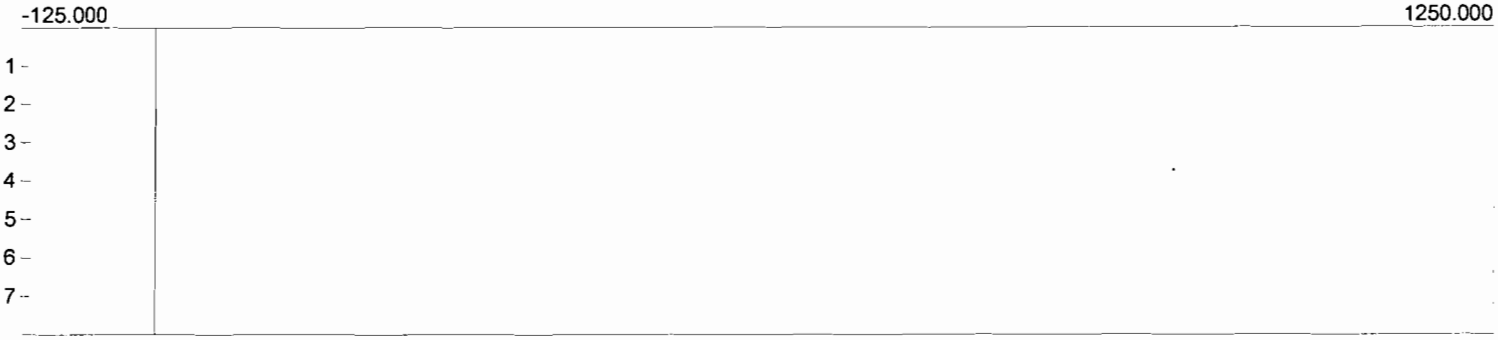
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 17:55:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero64.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP



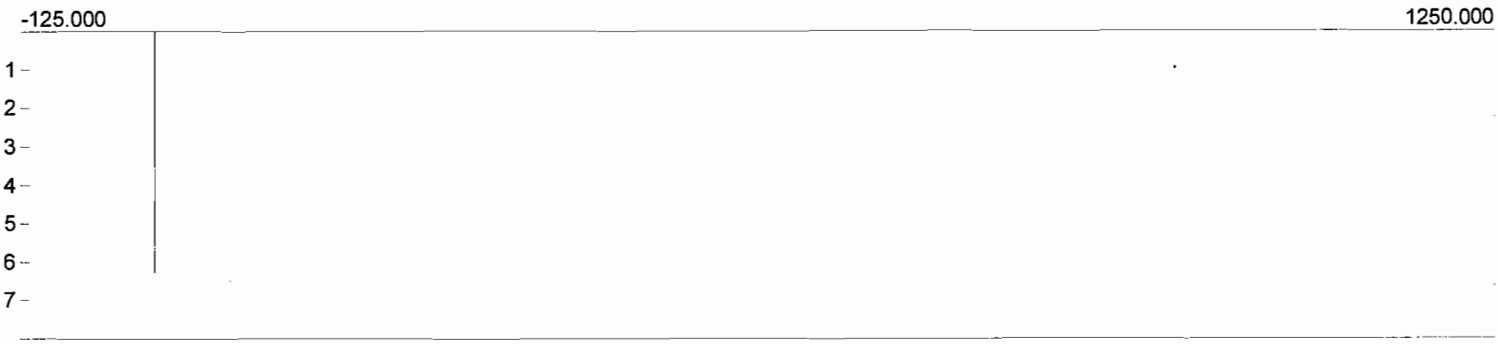
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 18:05:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero65.CHR (C:\Valero SRU1)
Sample: SRU1 -2
Operator: BP



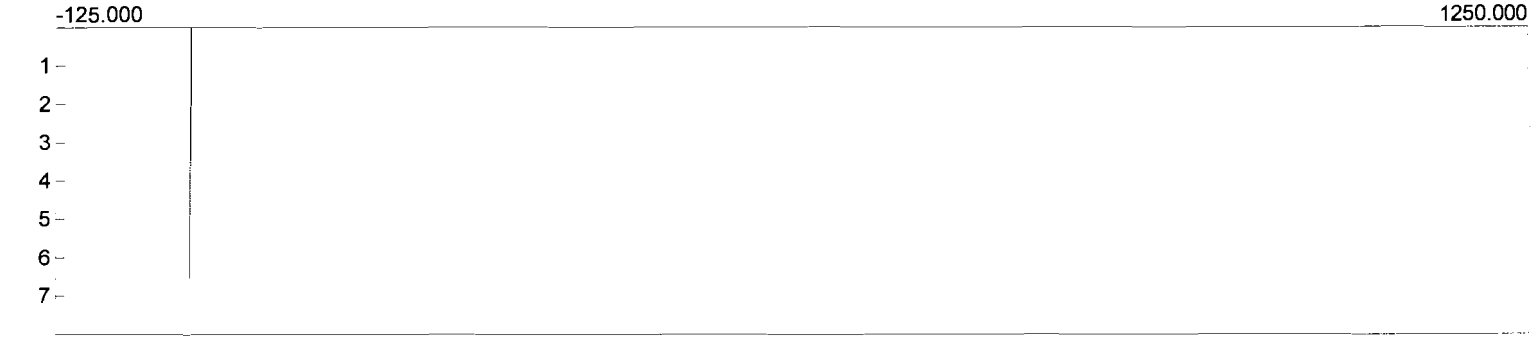
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 18:13:18
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero66.CHR (C:\Valero SRU1)
Sample: 0 ppm post cal
Operator: BP



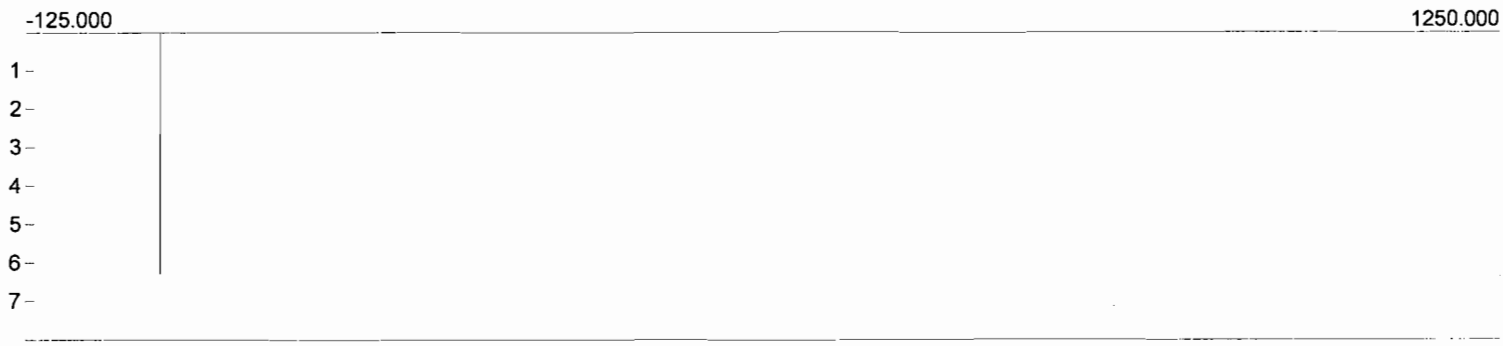
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 18:24:18
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero67.CHR (C:\Valero SRU1)
Sample: 0 ppm post cal
Operator: BP



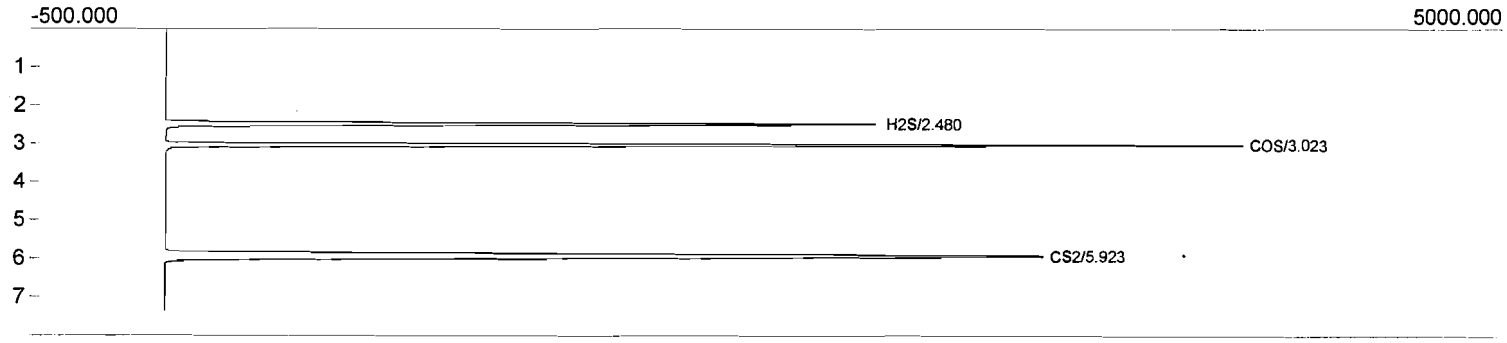
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 18:31:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero68.CHR (C:\Valero SRU1)
Sample: 0 ppm post cal
Operator: BP



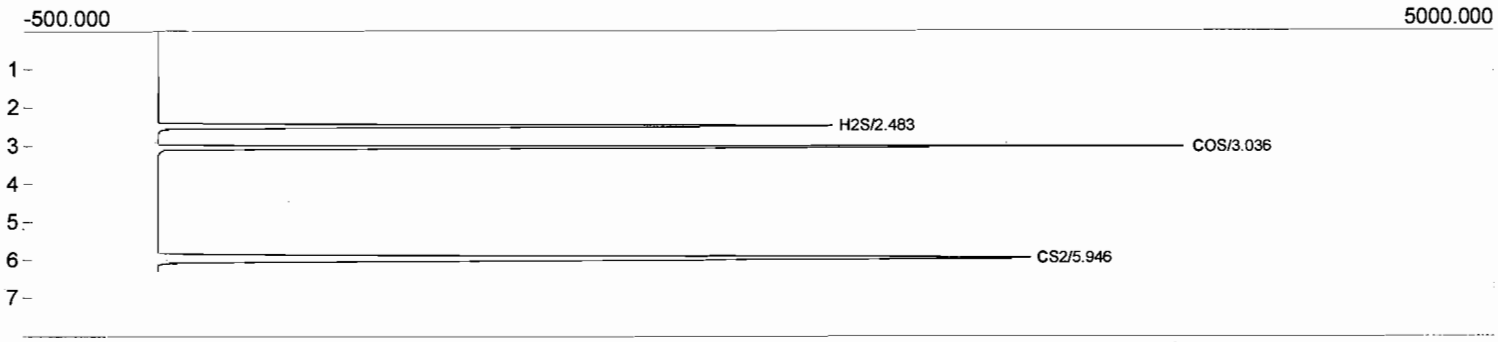
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 18:54:43
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero71.CHR (C:\Valero SRU1)
Sample: 75 ppm post cal
Operator: BP



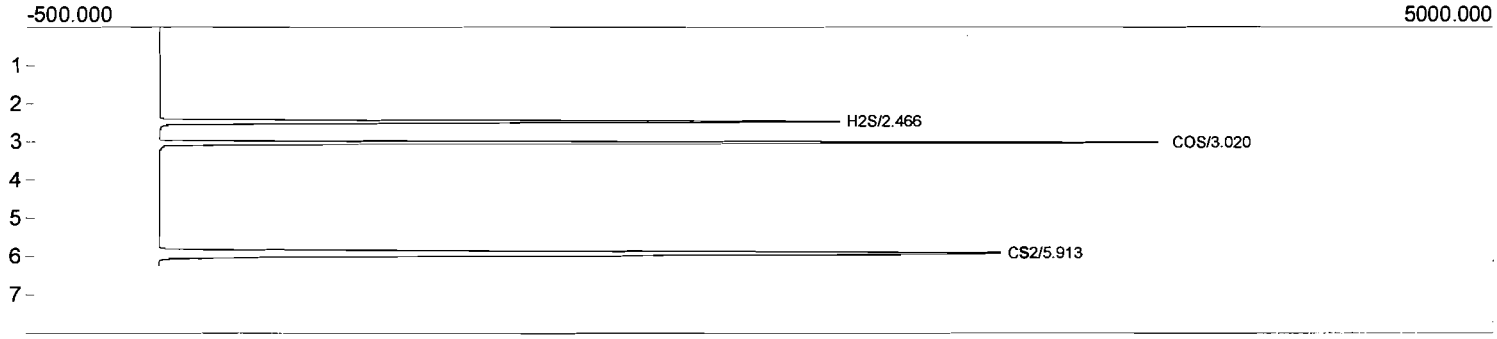
Component	Area
H2S	11952.6484
COS	15368.5698
CS2	24993.9384
	52315.1566

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 19:05:35
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero72.CHR (C:\Valero SRU1)
Sample: 75 ppm post cal
Operator: BP



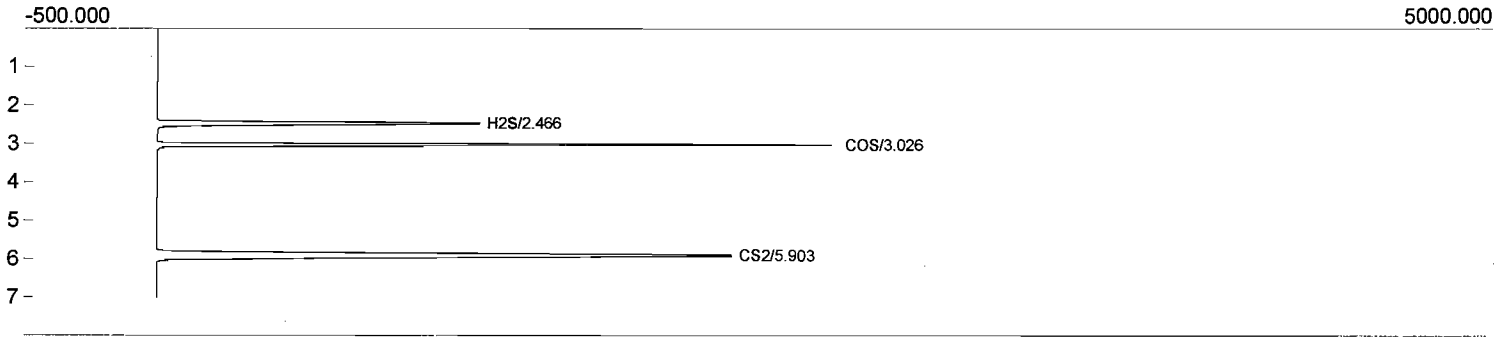
Component	Area
H2S	12224.0508
COS	15352.3931
CS2	25162.5168
	52738.9607

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 19:14:16
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero73.CHR (C:\Valero SRU1)
Sample: 75 ppm post cal
Operator: BP



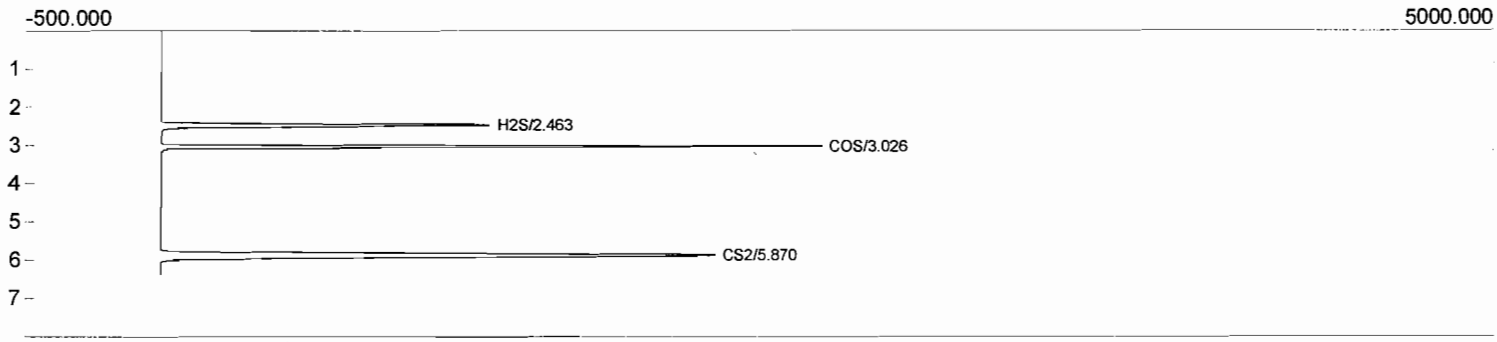
Component	Area
H2S	11782.6438
COS	14725.9811
CS2	24697.1358
	51205.7607

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 19:22:21
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero74.CHR (C:\Valero SRU1)
Sample: 50 ppm post cal
Operator: BP



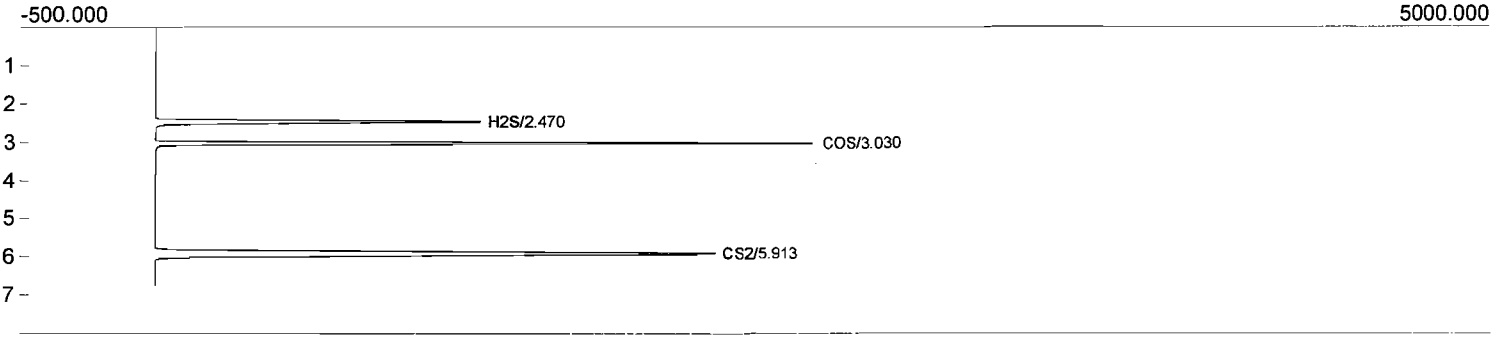
Component	Area
H2S	6201.8150
COS	9057.7412
CS2	15829.1342
	31088.6904

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 19:30:26
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero75.CHR (C:\Valero SRU1)
Sample: 50 ppm post cal
Operator: BP



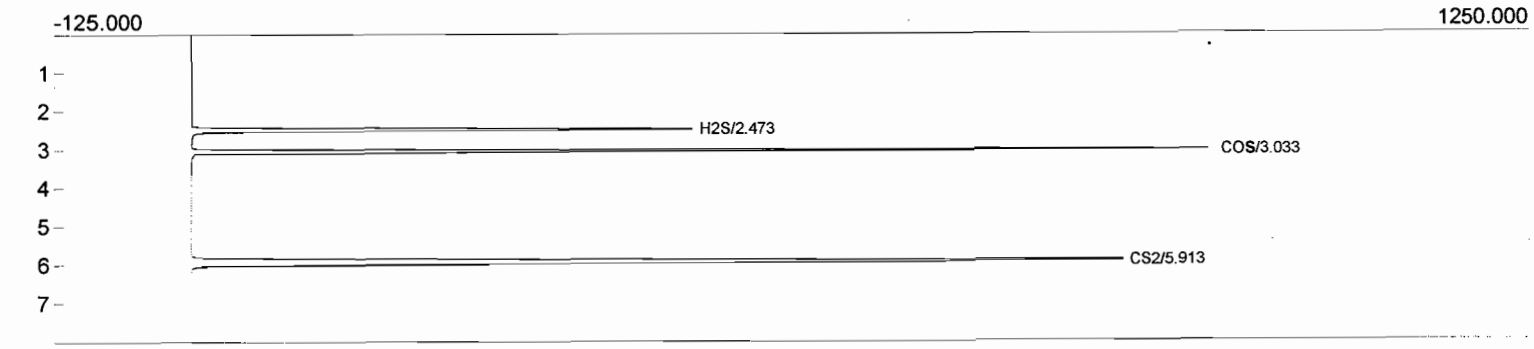
Component	Area
H2S	6027.1978
COS	8742.8608
CS2	15225.7564
	29995.8150

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 19:38:33
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero76.CHR (C:\Valero SRU1)
Sample: 50 ppm post cal
Operator: BP



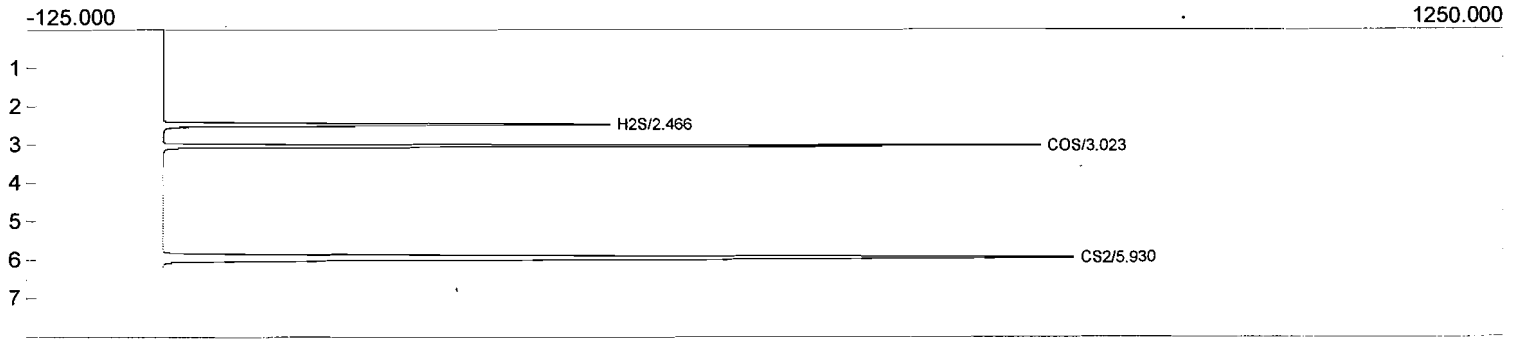
Component	Area
H2S	6036.9255
COS	8736.9262
CS2	15338.6928
	30112.5445

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 19:46:35
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero77.CHR (C:\Valero SRU1)
Sample: 25 ppm post cal
Operator: BP



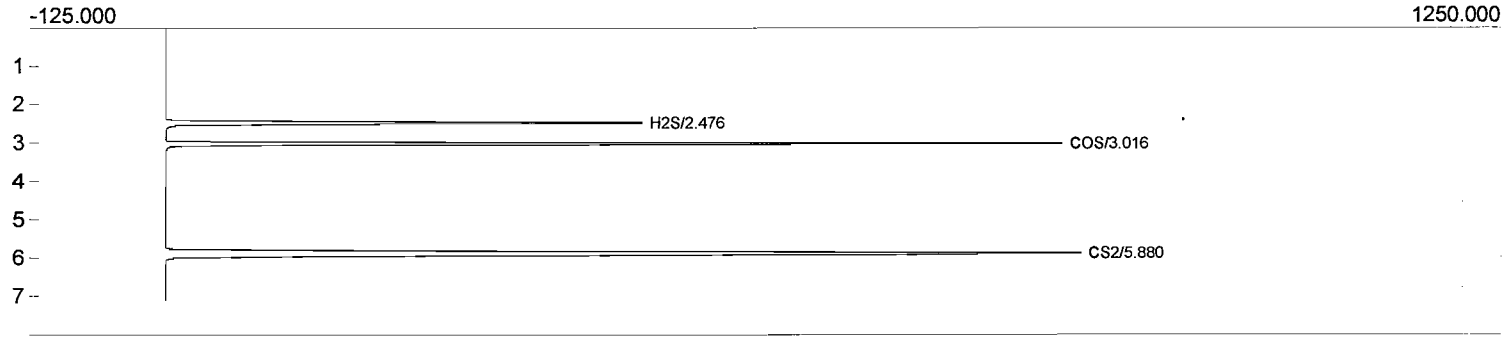
Component	Area
H2S	1922.0651
COS	3116.1317
CS2	5879.2628
	10917.4596

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 19:55:44
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero78.CHR (C:\Valero SRU1)
Sample: 25 ppm post cal
Operator: BP



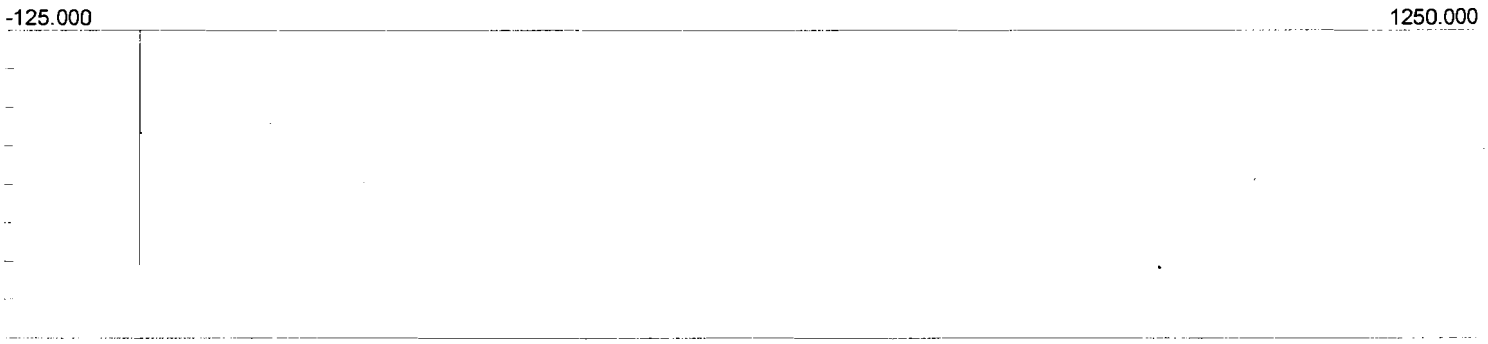
Component	Area
H2S	1817.4734
COS	2872.1211
CS2	5712.1071
	10401.7016

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/27/2010 20:04:08
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero79.CHR (C:\Valero SRU1)
Sample: 25 ppm post cal
Operator: BP



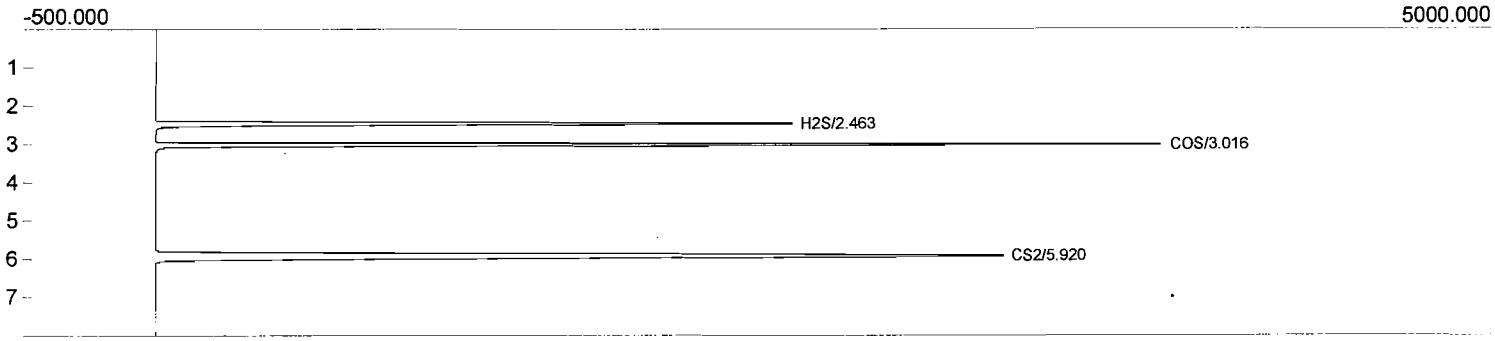
Component	Area
H2S	1889.3068
COS	2923.9725
CS2	5725.9873
	10539.2666

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 06:23:29
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero80.CHR (C:\Valero SRU1)
Sample: 0 ppm pre cal
Operator: BP



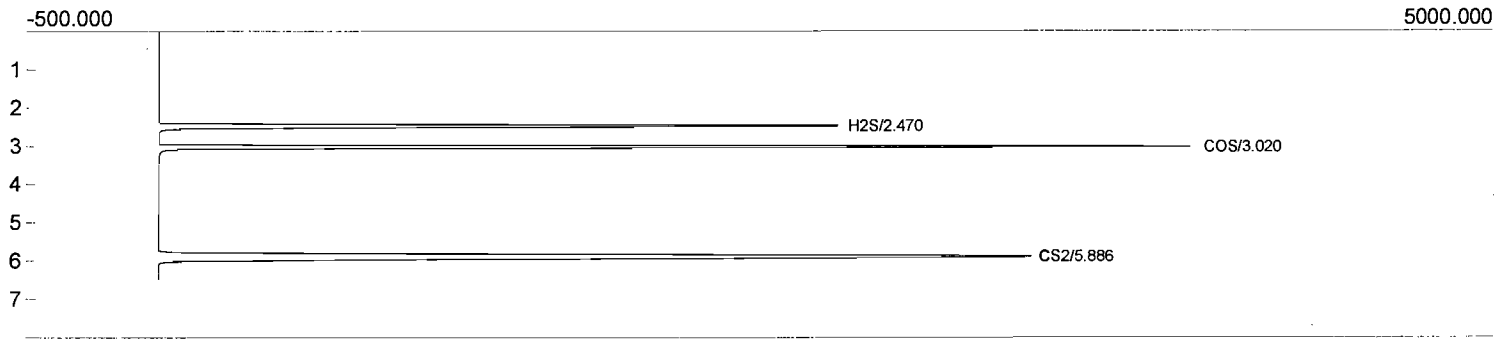
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 06:32:14
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero81.CHR (C:\Valero SRU1)
Sample: 75 ppm pre cal
Operator: BP



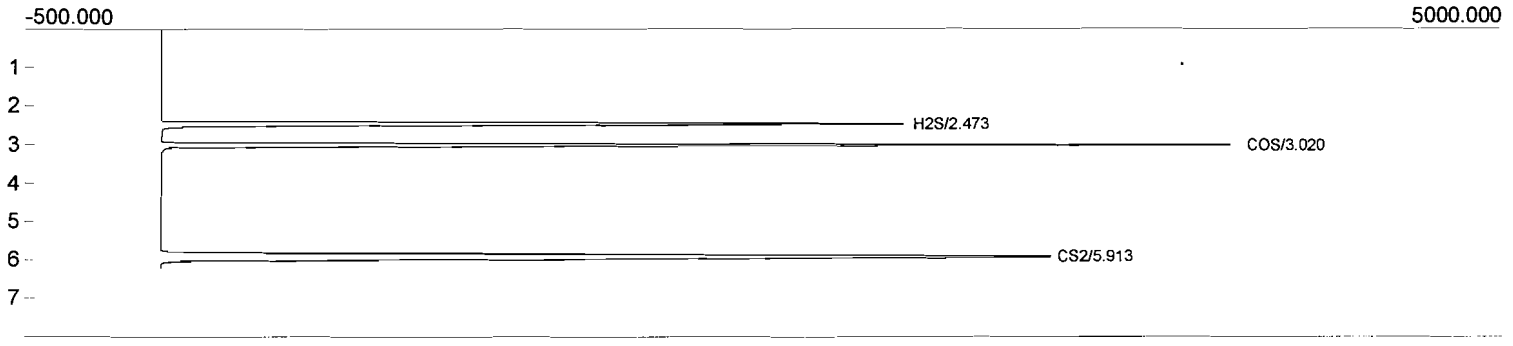
Component	Area
H2S	11176.7865
COS	14733.0194
CS2	24719.4898
	50629.2957

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 06:41:10
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero82.CHR (C:\Valero SRU1)
Sample: 75 ppm pre cal
Operator: BP



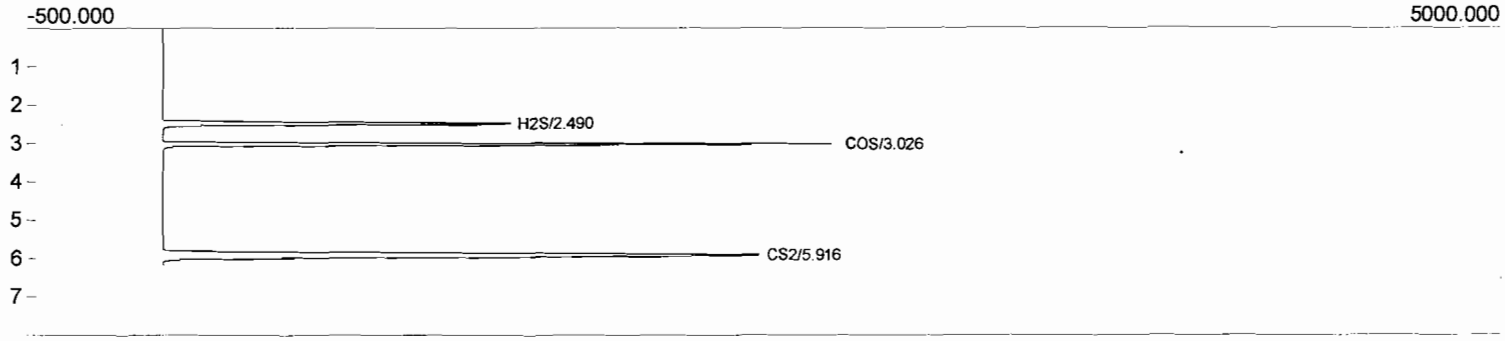
Component	Area
H2S	12028.2969
COS	15212.5674
CS2	25423.2210
	52664.0853

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 06:49:45
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero83.CHR (C:\Valero SRU1)
Sample: 75 ppm pre cal
Operator: BP



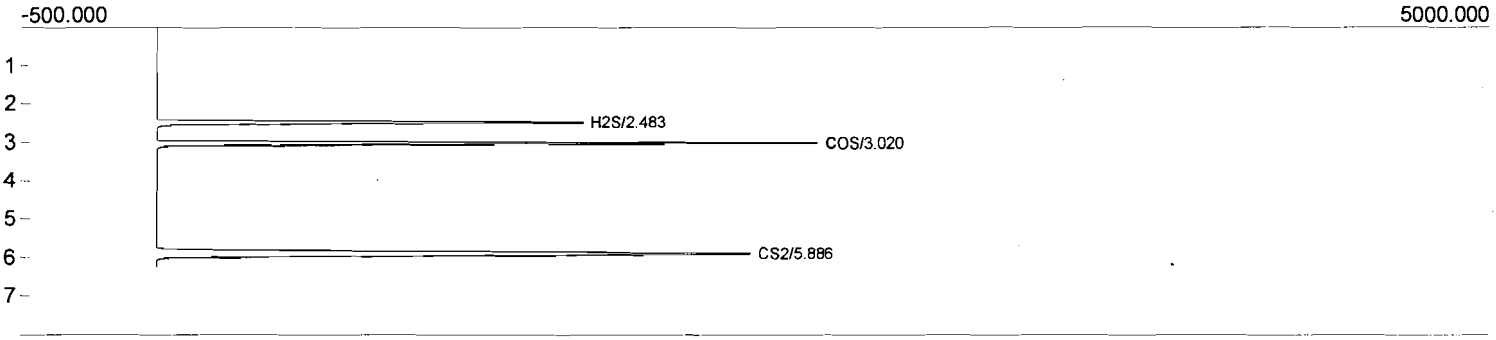
Component	Area
H2S	12608.5952
COS	15568.1334
CS2	26098.9410
	54275.6696

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 06:57:59
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero84.CHR (C:\Valero SRU1)
Sample: 50 ppm pre cal
Operator: BP



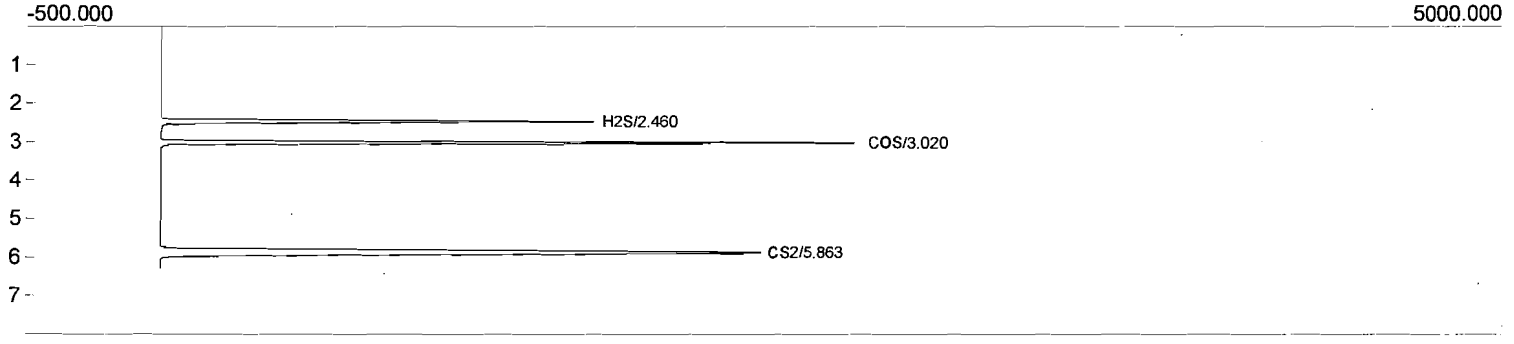
Component	Area
H2S	6454.8052
COS	9194.2486
CS2	16335.9404
	31984.9942

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 07:06:23
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero85.CHR (C:\Valero SRU1)
Sample: 50 ppm pre cal
Operator: BP



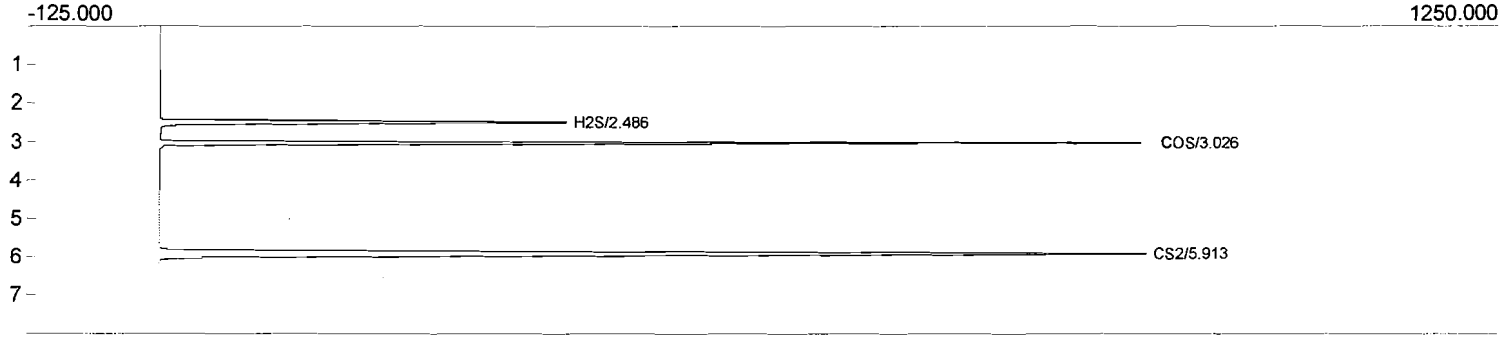
Component	Area
H2S	6952.4980
COS	9167.0694
CS2	16318.7865
	32438.3539

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 07:14:26
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero86.CHR (C:\Valero SRU1)
Sample: 50 ppm pre cal
Operator: BP



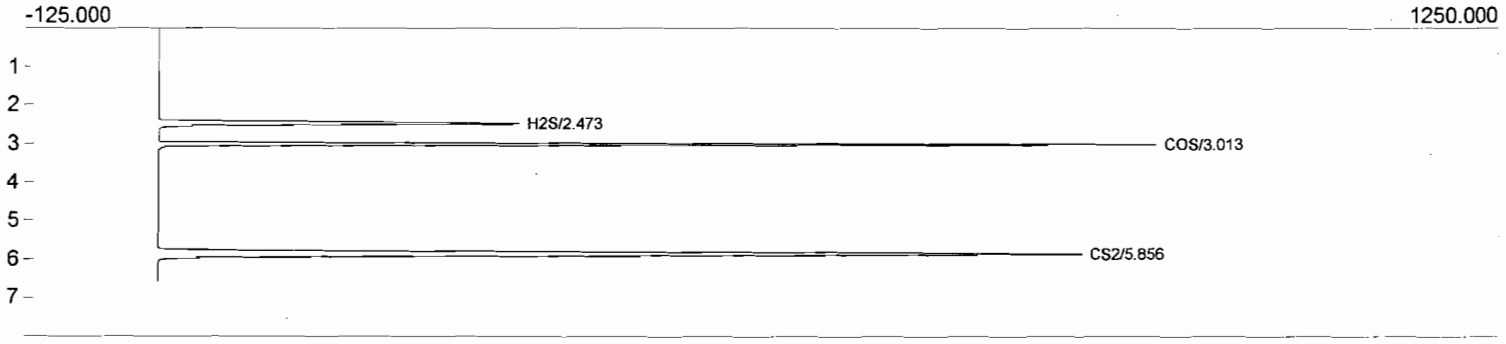
Component	Area
H2S	6942.1750
COS	9256.5250
CS2	16215.8068
	32414.5068

Lab name: ARI Environmnetal, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 07:22:41
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero87.CHR (C:\Valero SRU1)
Sample: 25 ppm pre cal
Operator: BP



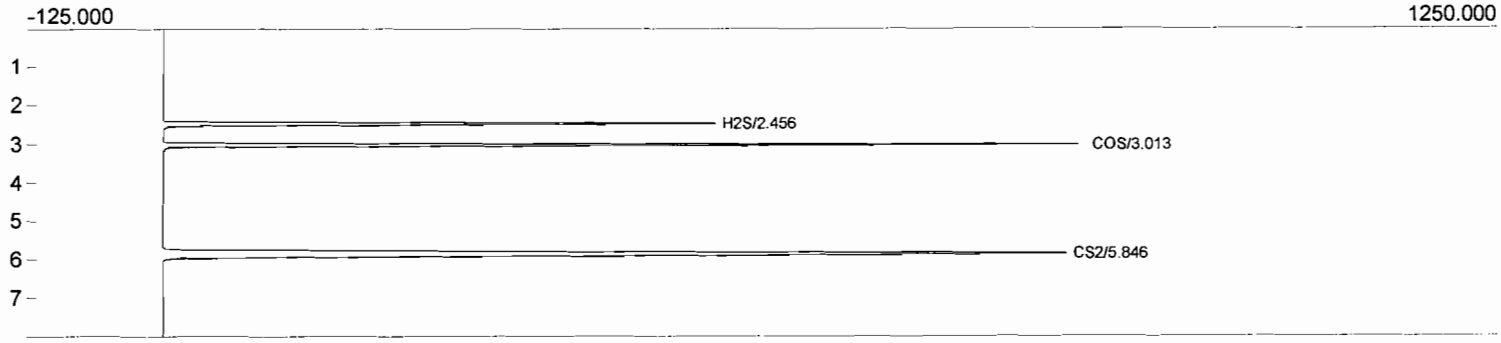
Component	Area
H2S	1849.1421
COS	3162.0220
CS2	6203.2290
	11214.3931

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 07:30:53
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero88.CHR (C:\Valero SRU1)
Sample: 25 ppm pre cal
Operator: BP



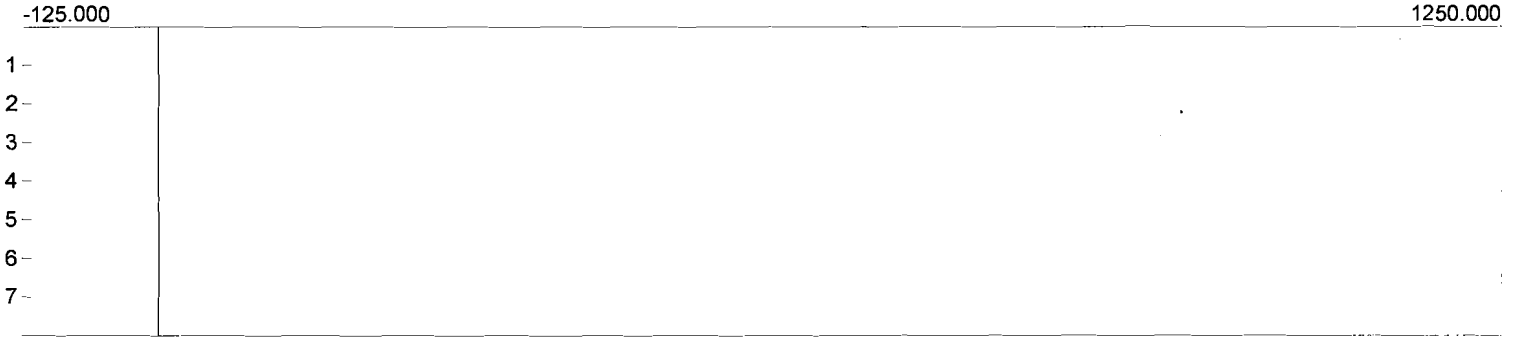
Component	Area
H2S	1763.8328
COS	3094.9296
CS2	5759.1358
	10617.8982

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 07:38:57
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero89.CHR (C:\Valero SRU1)
Sample: 25 ppm pre cal
Operator: BP



Component	Area
H2S	2035.1708
COS	2948.7220
CS2	5636.9507
	10620.8435

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 07:47:29
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero90.CHR (C:\Valero SRU1)
Sample: 0 ppm pre cal
Operator: BP

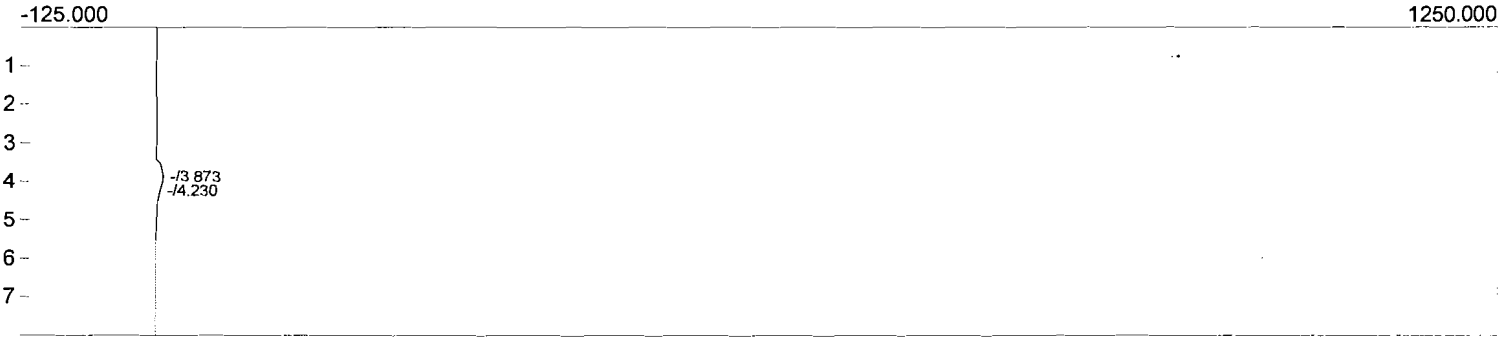


Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 07:56:12
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero91.CHR (C:\Valero SRU1)
Sample: 0 ppm pre cal
Operator: BP

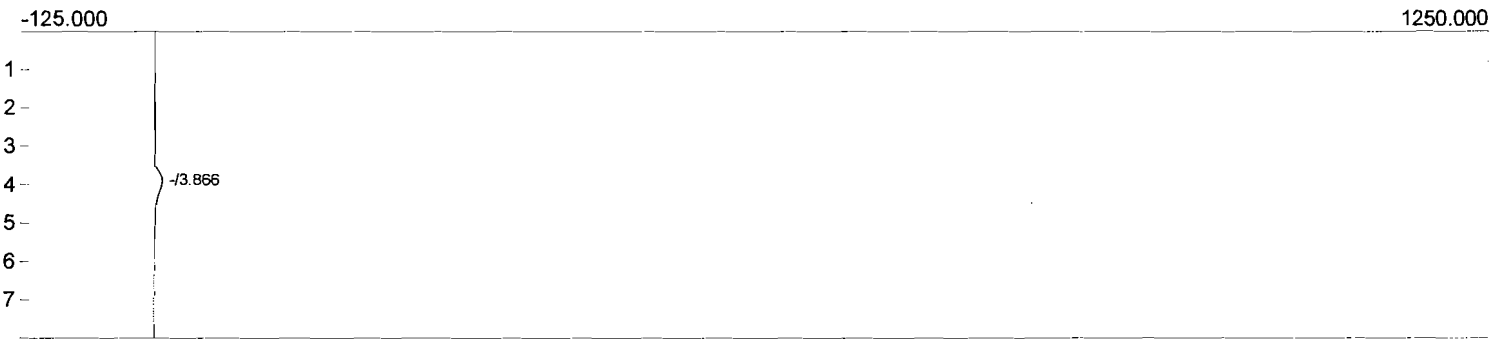
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 08:45:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero92.CHR (C:\Valero SRU1)
Sample: ~~0 ppm pre cal~~ SRU1-3
Operator: BP



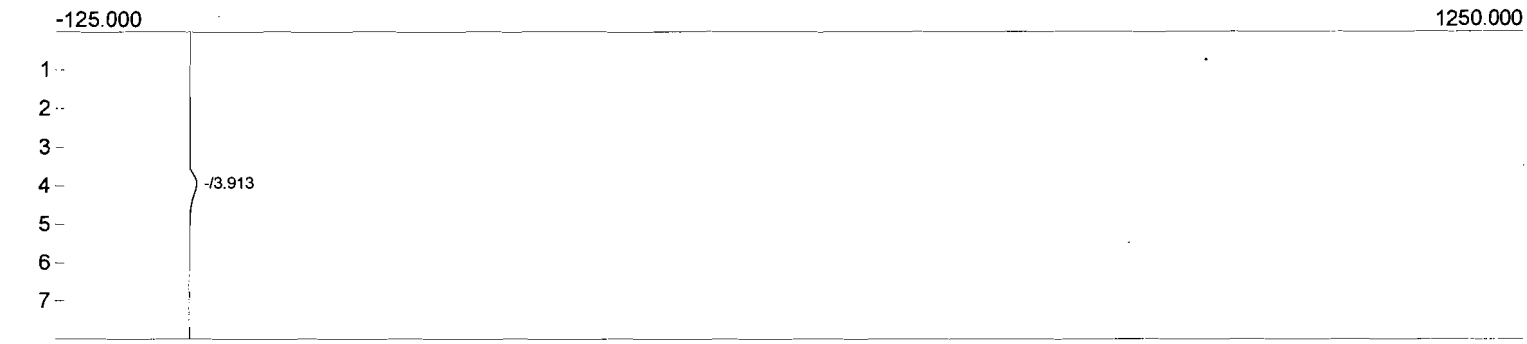
Component	Area
H2S	0.0000
COS	0.0000
-	228.6820
-	59.7672
CS2	0.0000
	288.4492

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 08:55:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero93.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP



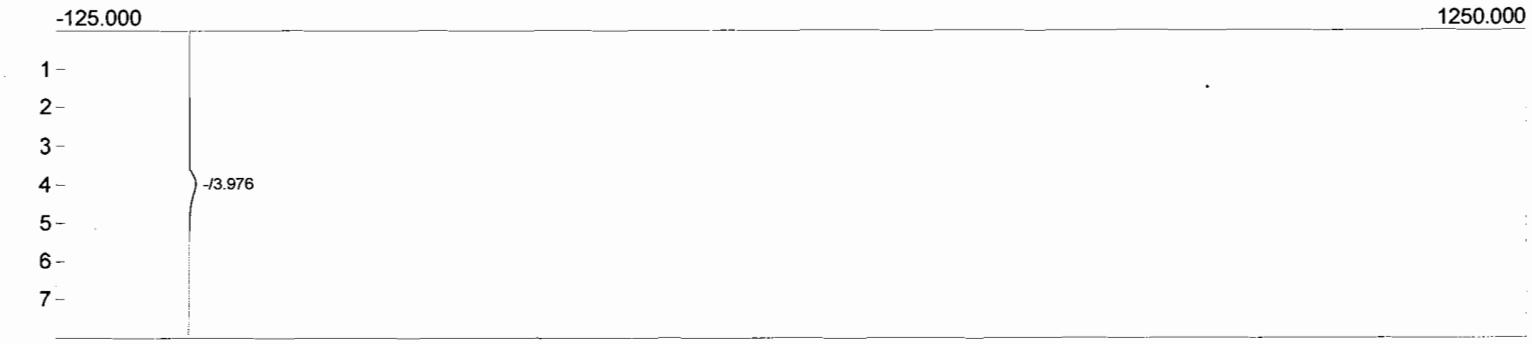
Component	Area
H2S	0.0000
COS	0.0000
-	285.9392
CS2	0.0000
	285.9392

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 09:05:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero94.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP



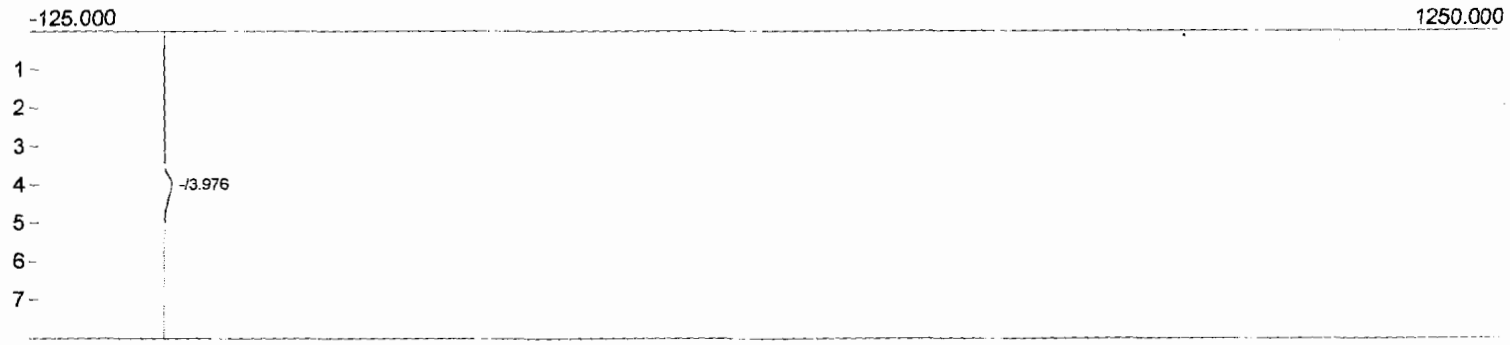
Component	Area
H2S	0.0000
COS	0.0000
-	264.0346
CS2	0.0000
	264.0346

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 09:15:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero95.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP



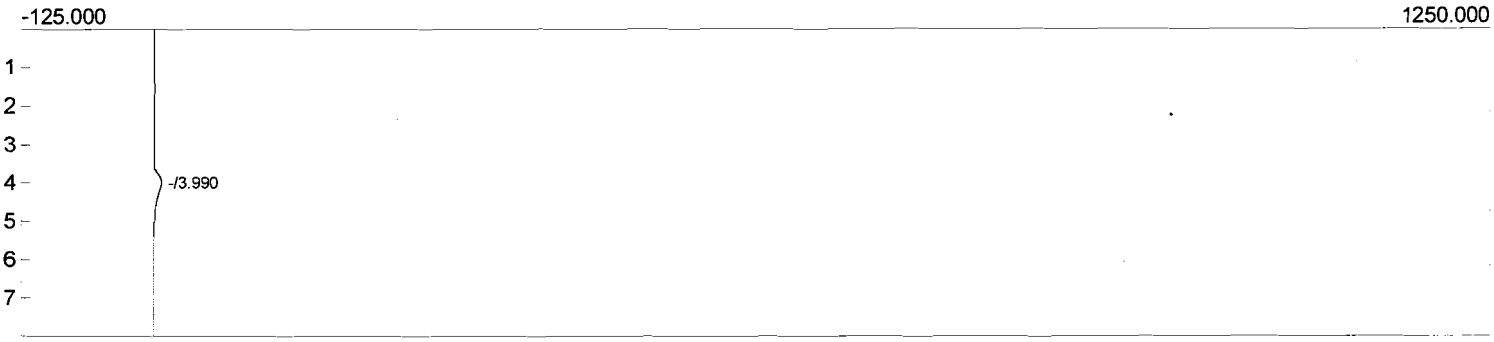
Component	Area
H2S	0.0000
COS	0.0000
-	250.5090
CS2	0.0000
	250.5090

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 09:25:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero96.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP



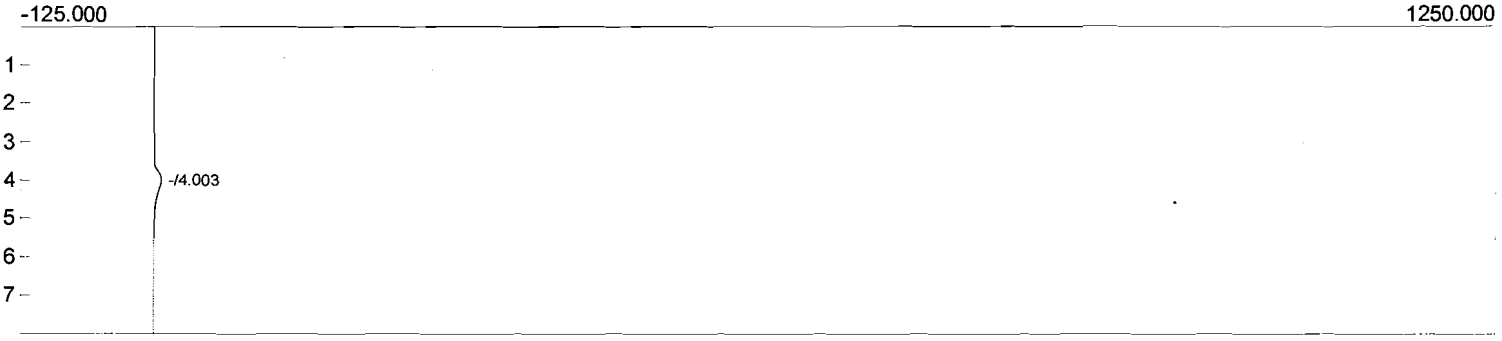
Component	Area
H2S	0.0000
COS	0.0000
-	262.6218
CS2	0.0000
	262.6218

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 09:35:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero97.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP



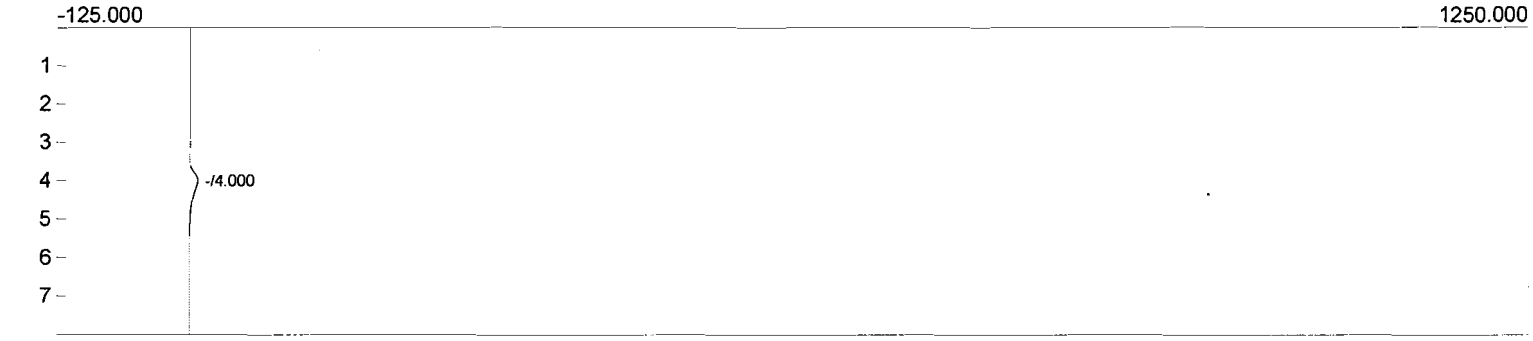
Component	Area
H2S	0.0000
COS	0.0000
-	268.8100
CS2	0.0000
	268.8100

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 09:45:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero98.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP



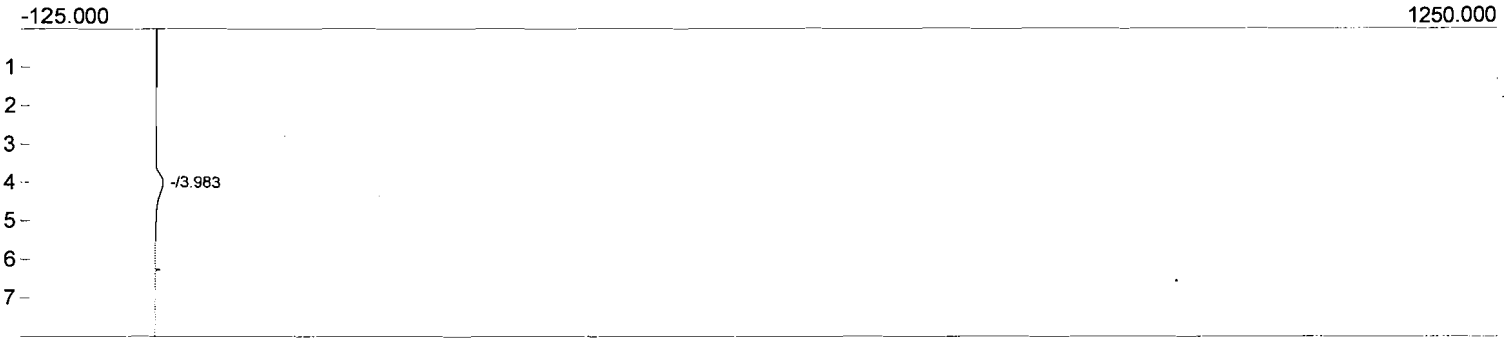
Component	Area
H2S	0.0000
COS	0.0000
-	275.7515
CS2	0.0000
	275.7515

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 09:55:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero99.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP



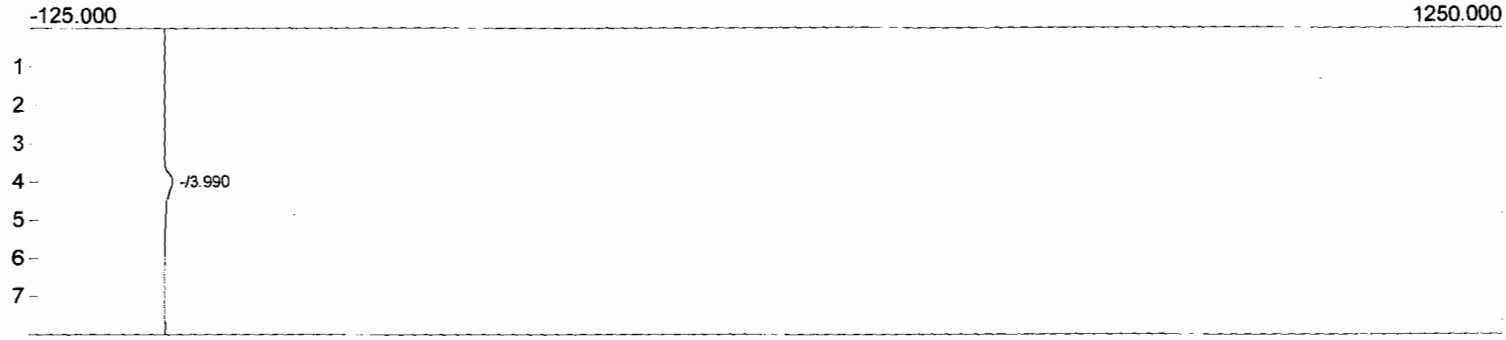
Component	Area
H2S	0.0000
COS	0.0000
-	272.7255
CS2	0.0000
	272.7255

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 10:05:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero100.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP



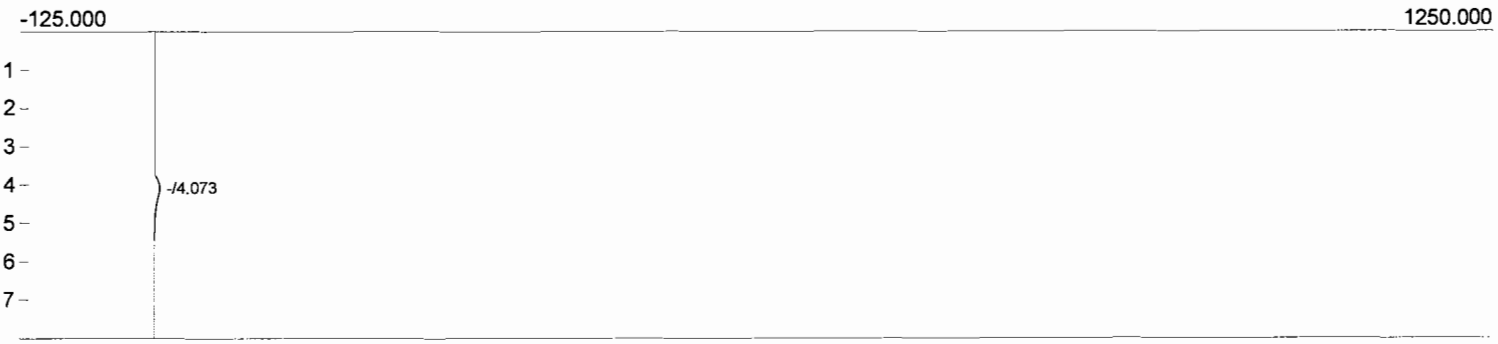
Component	Area
H2S	0.0000
COS	0.0000
-	275.9182
CS2	0.0000
	275.9182

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 10:15:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero101.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP



Component	Area
H2S	0.0000
COS	0.0000
-	255.7316
CS2	0.0000
	255.7316

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 10:25:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero102.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP

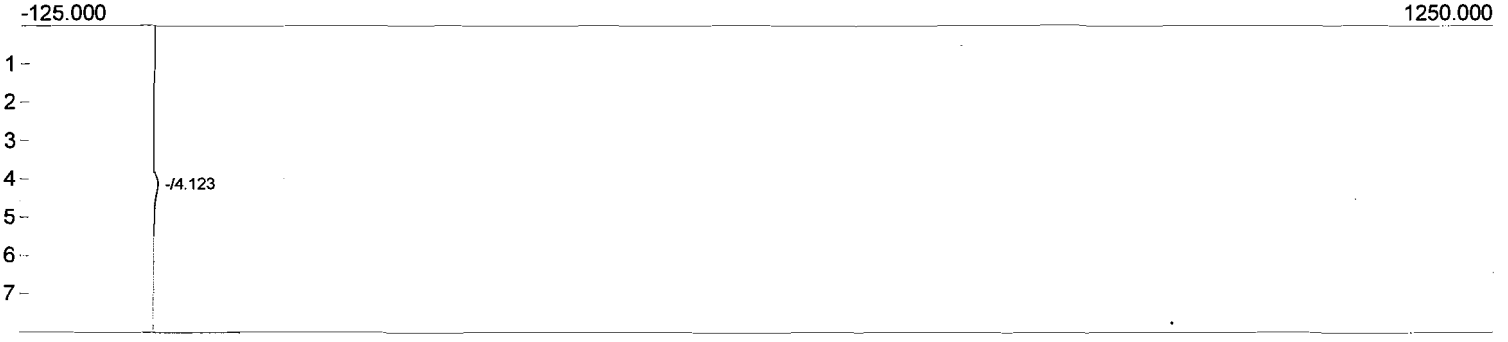


Component	Area
H2S	0.0000
COS	0.0000
-	186.7958
CS2	0.0000
	186.7958

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 10:35:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero103.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP

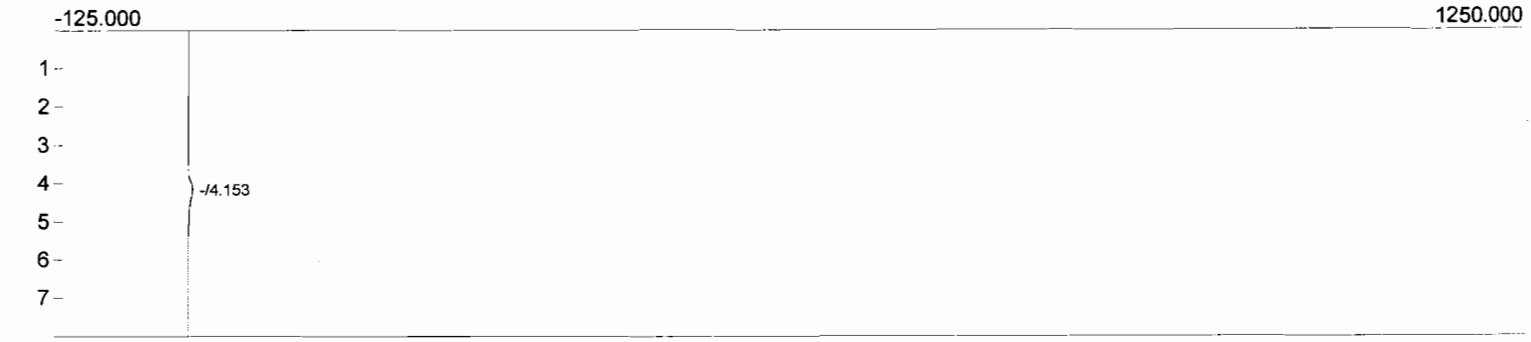
Component	Area
H2S	0.0000
COS	0.0000
-	162.1915
CS2	0.0000
	162.1915

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 10:45:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero104.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP



Component	Area
H2S	0.0000
COS	0.0000
-	140.5842
CS2	0.0000
	140.5842

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 10:55:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero105.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP

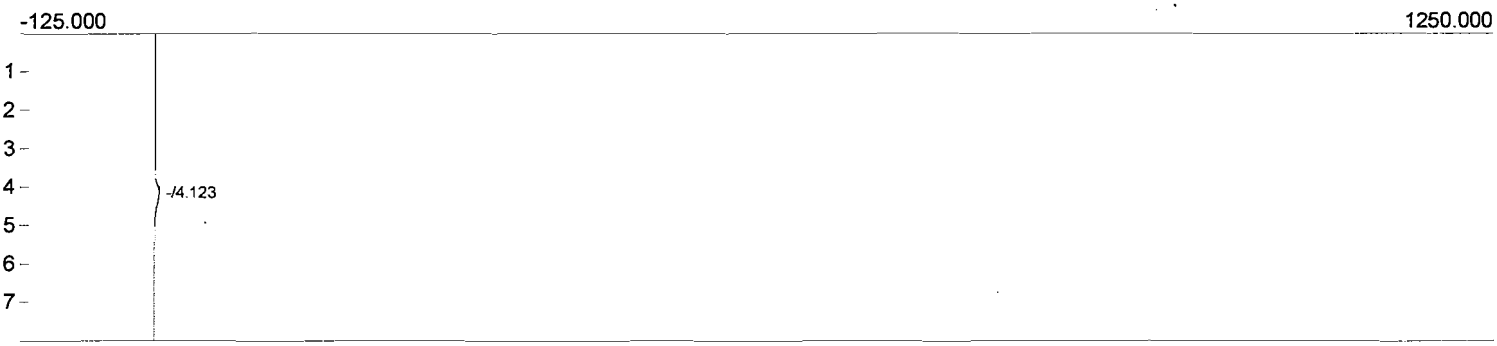


Component	Area
H2S	0.0000
COS	0.0000
-	89.2004
CS2	0.0000
	89.2004

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 11:05:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero106.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP

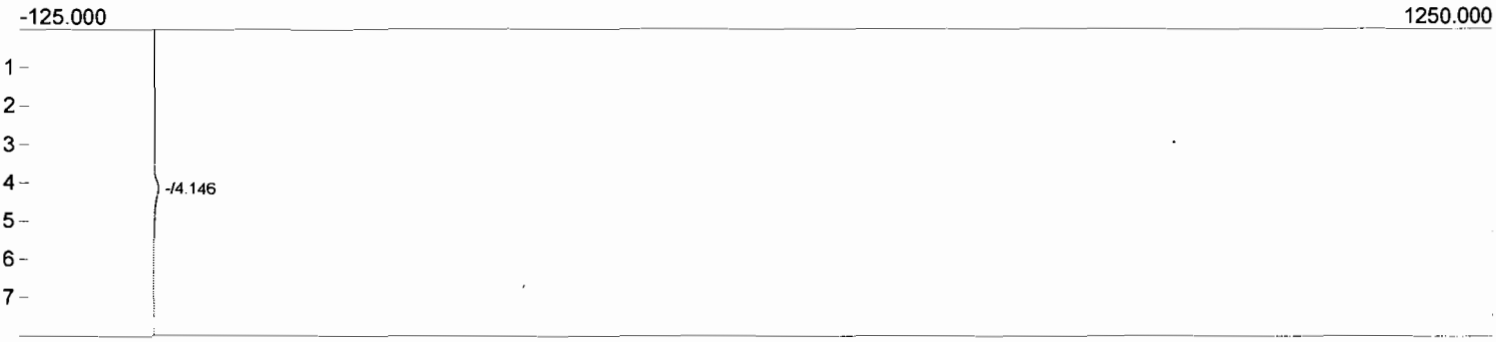
Component	Area
H2S	0.0000
COS	0.0000
-	138.6154
CS2	0.0000
	138.6154

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 11:15:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero107.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP



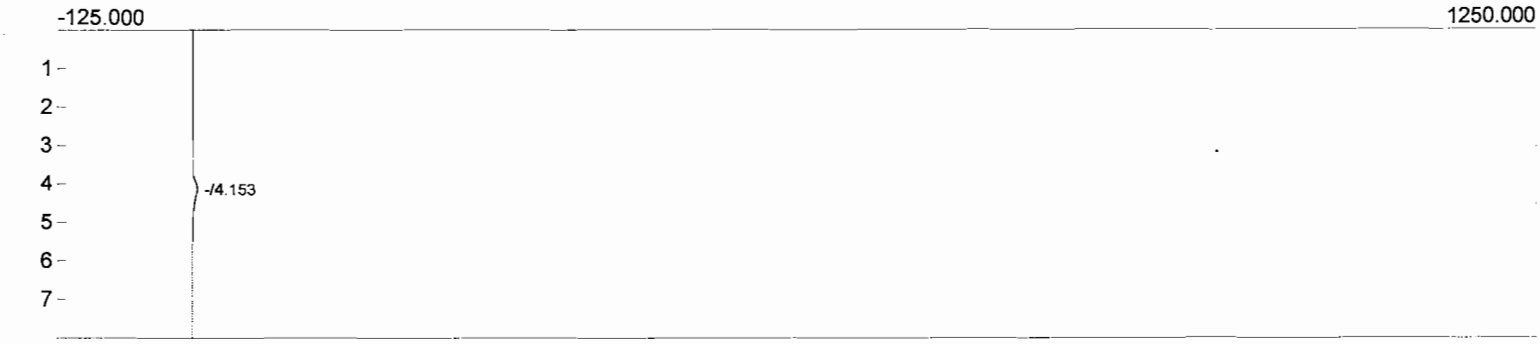
Component	Area
H2S	0.0000
COS	0.0000
-	147.3121
CS2	0.0000
	147.3121

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 11:25:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero108.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP



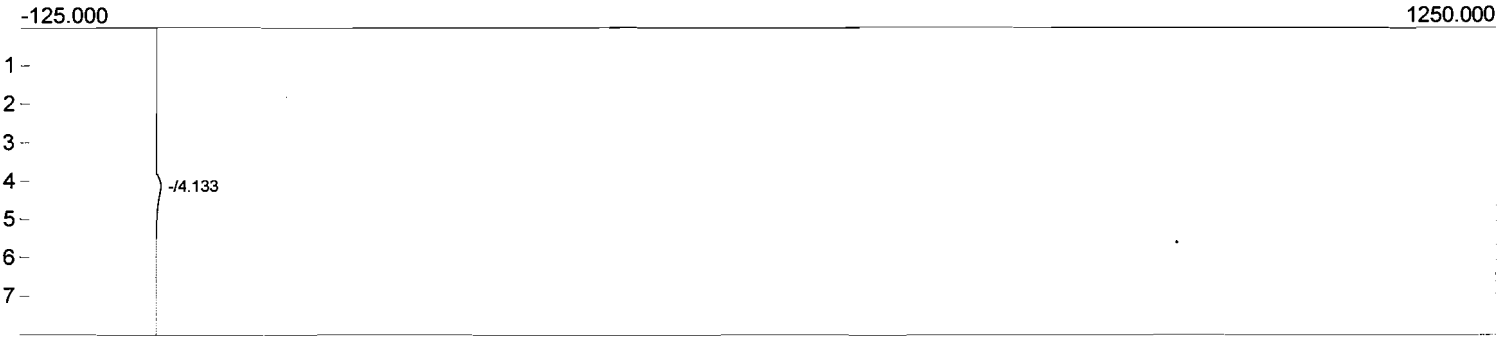
Component	Area
H2S	0.0000
COS	0.0000
-	190.9455
CS2	0.0000
	190.9455

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 11:35:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero109.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP



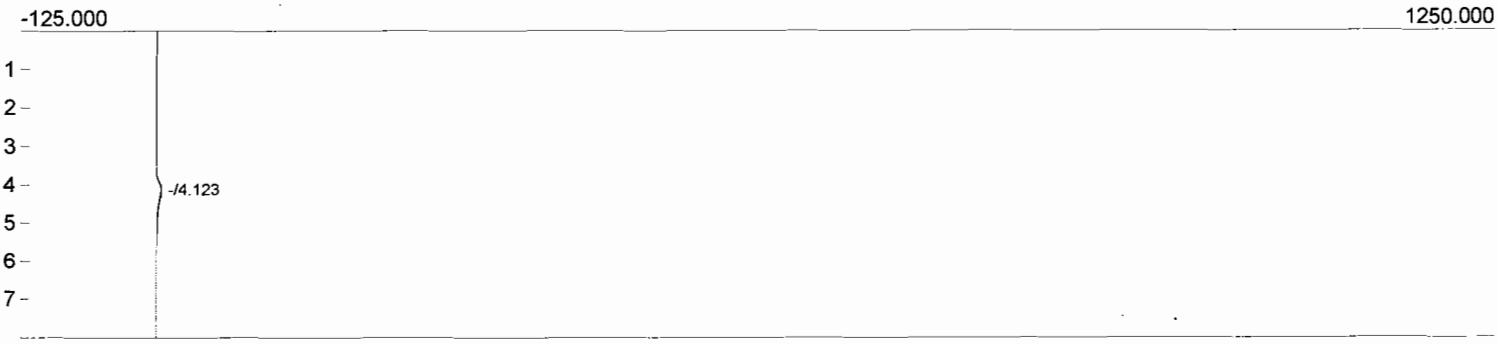
Component	Area
H2S	0.0000
COS	0.0000
-	142.3494
CS2	0.0000
	142.3494

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 11:45:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero110.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP



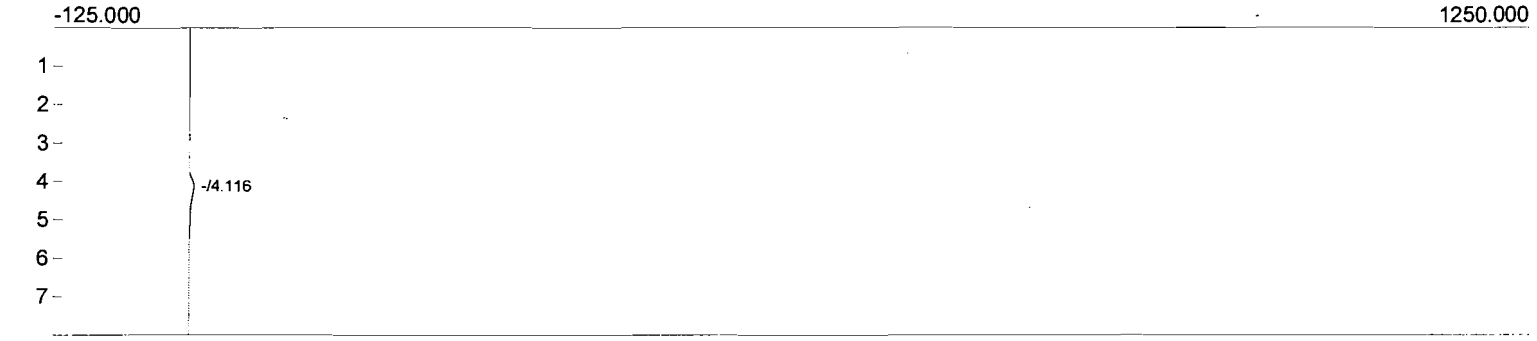
Component	Area
H2S	0.0000
COS	0.0000
-	149.2307
CS2	0.0000
	149.2307

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 11:55:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero111.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP



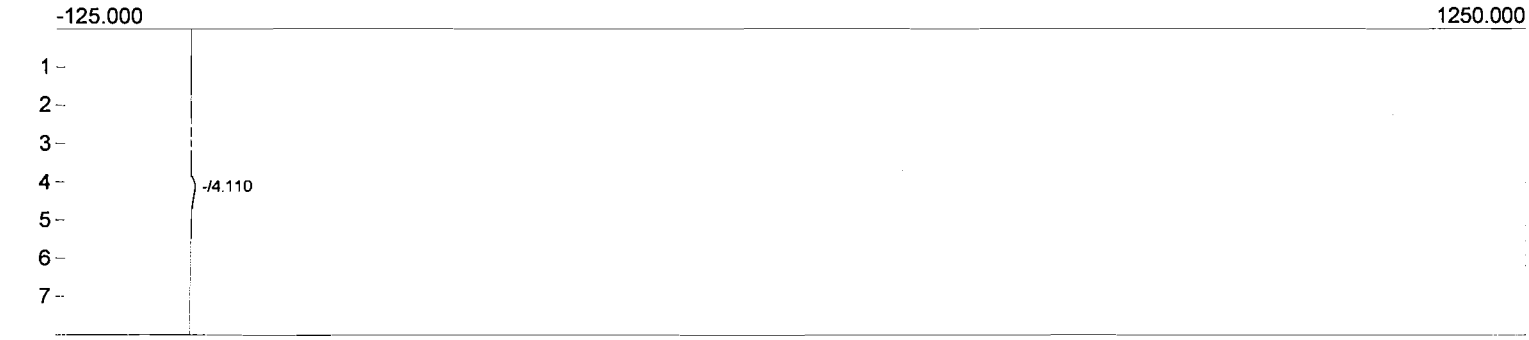
Component	Area
H2S	0.0000
COS	0.0000
-	147.4504
CS2	0.0000
	147.4504

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 12:05:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero112.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP



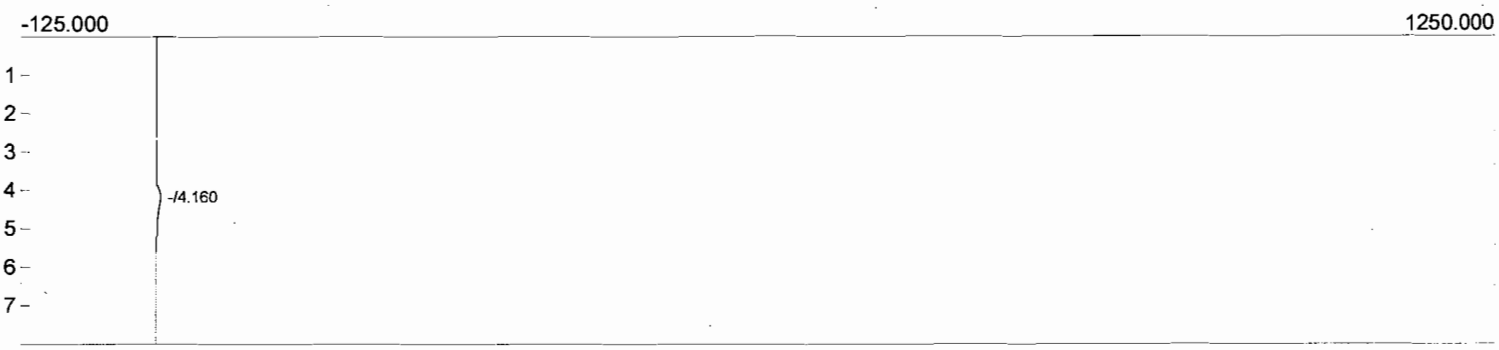
Component	Area
H2S	0.0000
COS	0.0000
-	150.5719
CS2	0.0000
	150.5719

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 12:15:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero113.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP



Component	Area
H2S	0.0000
COS	0.0000
-	139.3044
CS2	0.0000
	139.3044

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 12:25:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero114.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP

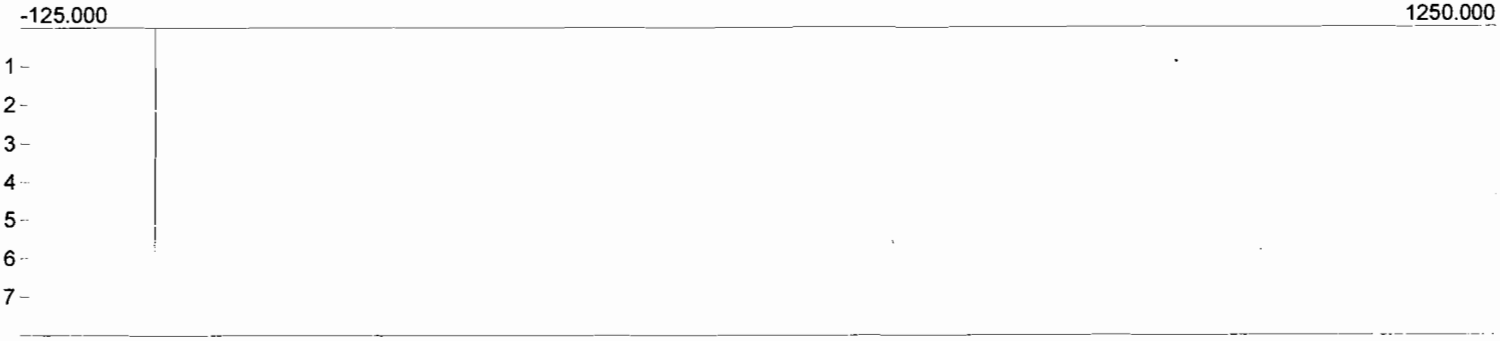


Component	Area
H2S	0.0000
COS	0.0000
-	84.6354
CS2	0.0000
	84.6354

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 12:35:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero115.CHR (C:\Valero SRU1)
Sample: SRU1-3
Operator: BP

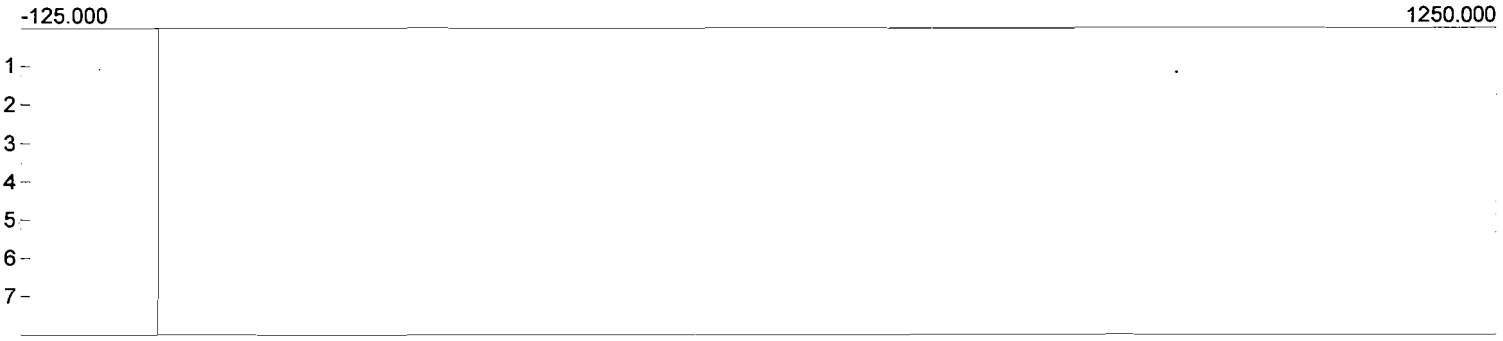
Component	Area
H2S	0.0000
COS	0.0000
-	133.4528
CS2	0.0000
	133.4528

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 13:02:37
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero116.CHR (C:\Valero SRU1)
Sample: 0 ppm post cal
Operator: BP



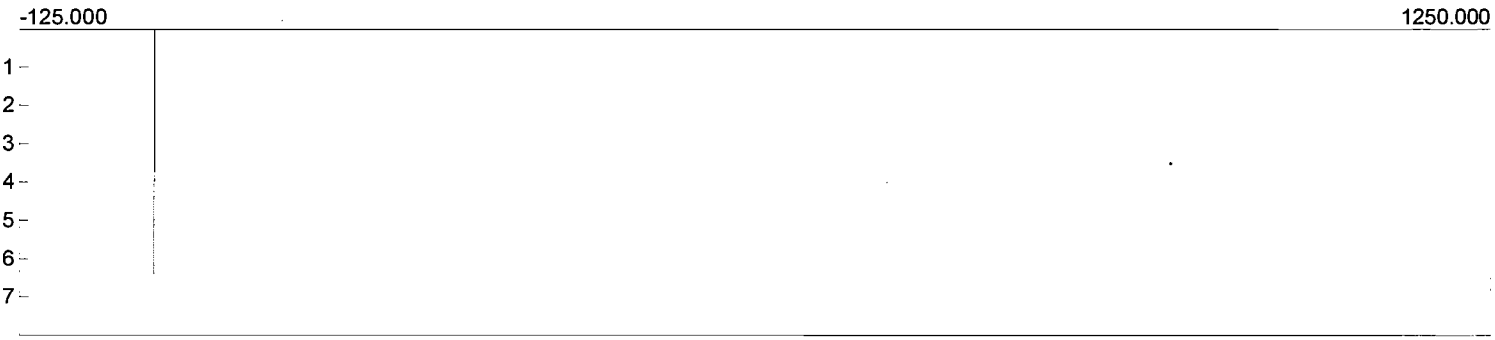
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 13:08:35
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero117.CHR (C:\Valero SRU1)
Sample: 0 ppm post cal
Operator: BP



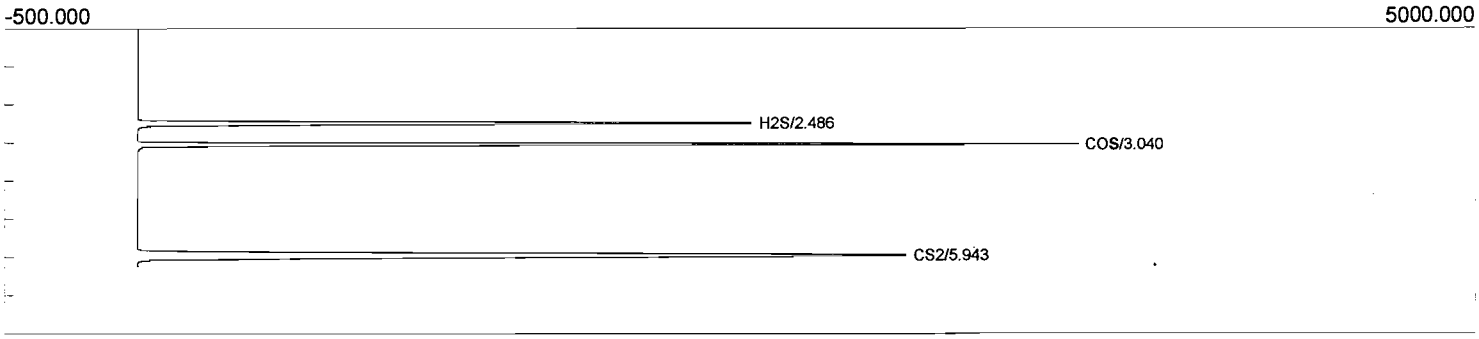
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 13:17:53
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero118.CHR (C:\Valero SRU1)
Sample: 0 ppm post cal
Operator: BP



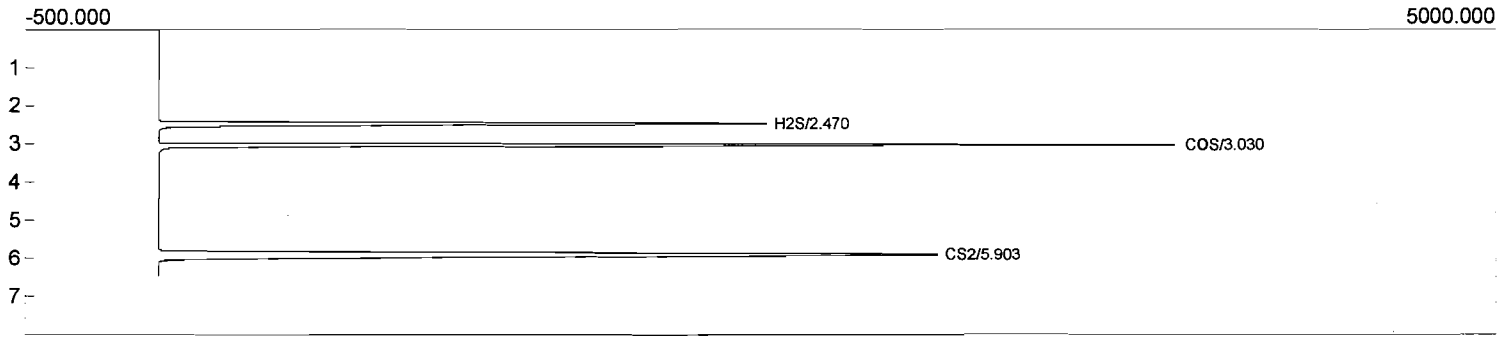
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 13:32:59
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero120.CHR (C:\Valero SRU1)
Sample: 75 ppm post cal
Operator: BP



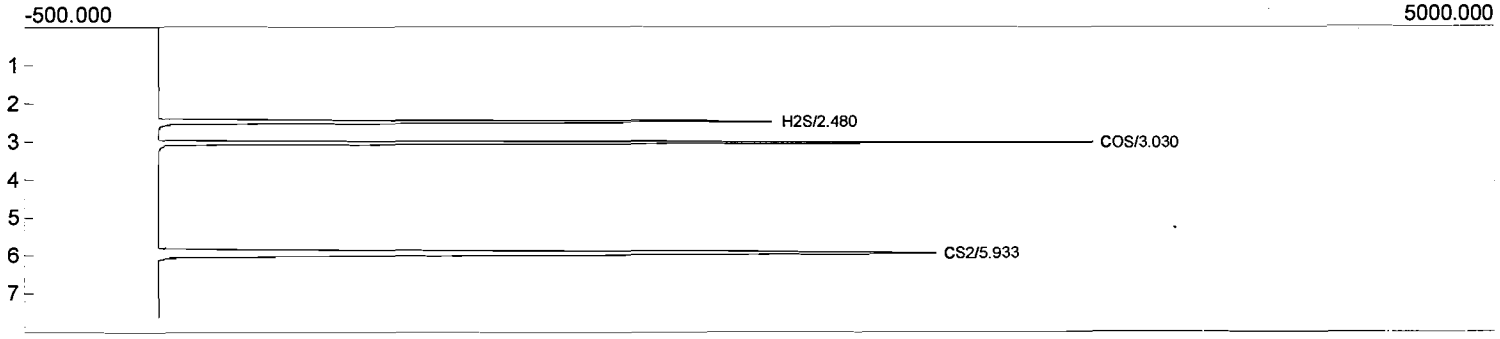
Component	Area
H2S	10964.9792
COS	13921.2908
CS2	23981.3678
	48867.6378

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 13:41:13
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero121.CHR (C:\Valero SRU1)
Sample: 75 ppm post cal
Operator: BP



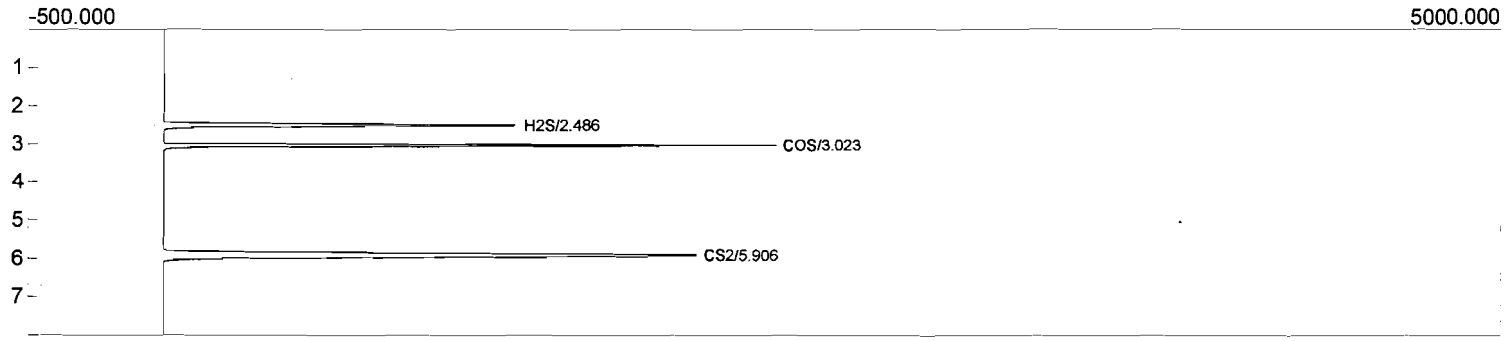
Component	Area
H2S	11264.3278
COS	14344.1124
CS2	23070.4808
	48678.9210

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 13:51:31
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero122.CHR (C:\Valero SRU1)
Sample: 75 ppm post cal
Operator: BP



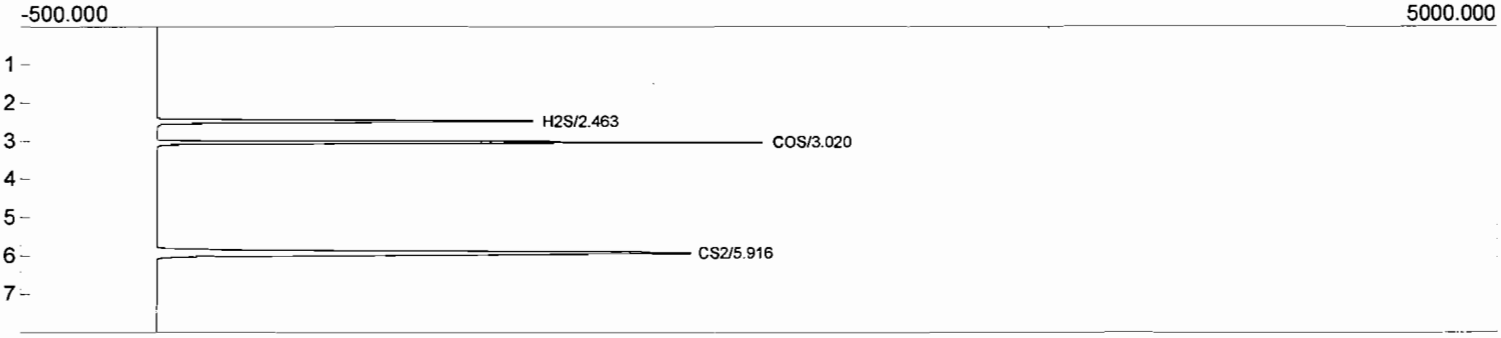
Component	Area
H2S	11205.1231
COS	13823.3802
CS2	22878.6154
	47907.1187

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 13:59:55
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero123.CHR (C:\Valero SRU1)
Sample: 50 ppm post cal
Operator: BP



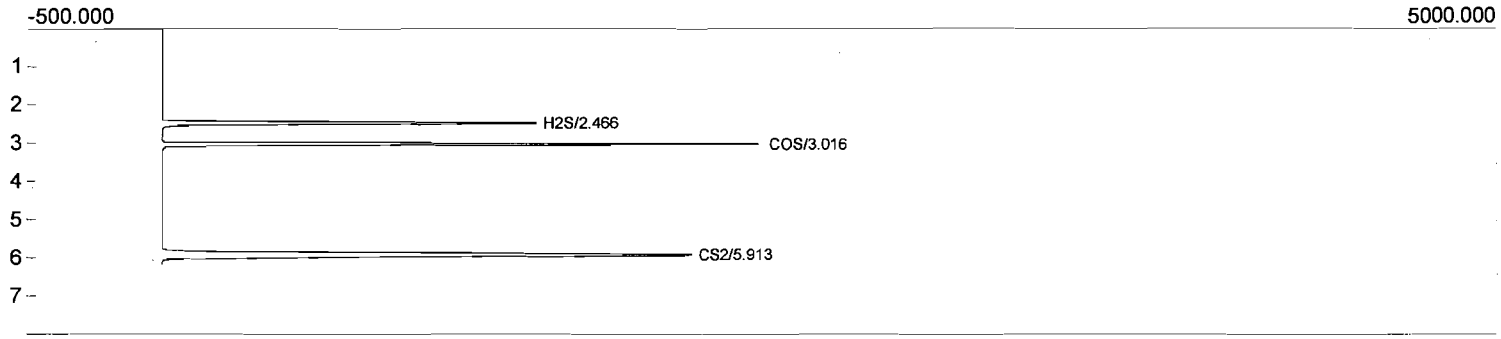
Component	Area
H2S	6169.3332
COS	8400.8618
CS2	15315.2114
	29885.4064

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 14:17:55
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero125.CHR (C:\Valero SRU1)
Sample: 50 ppm post cal
Operator: BP



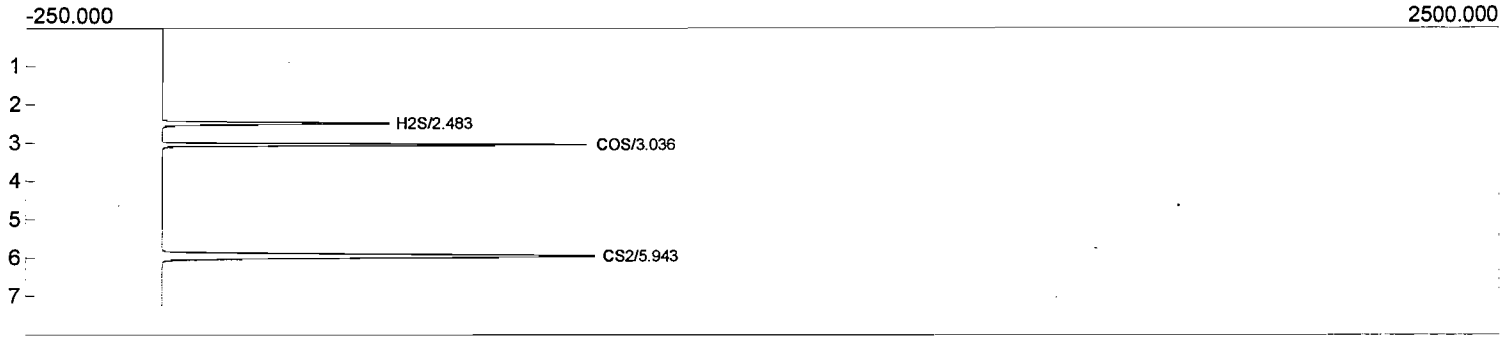
Component	Area
H2S	6397.2248
COS	8402.6874
CS2	14704.5524
	29504.4646

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 14:26:55
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero126.CHR (C:\Valero SRU1)
Sample: 50 ppm post cal
Operator: BP



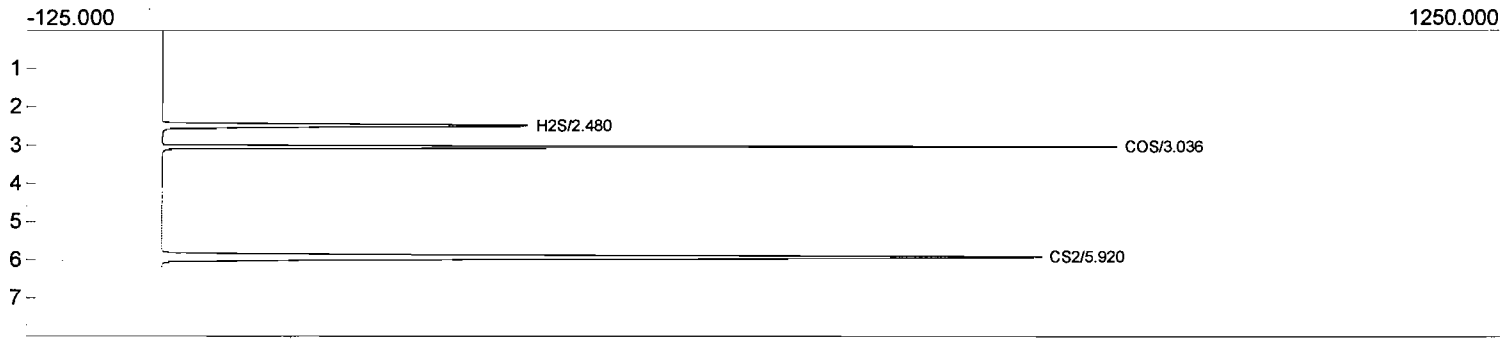
Component	Area
H2S	6349.3084
COS	8327.3838
CS2	15099.6626
	29776.3548

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 14:37:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero127.CHR (C:\Valero SRU1)
Sample: 25 ppm post cal
Operator: BP



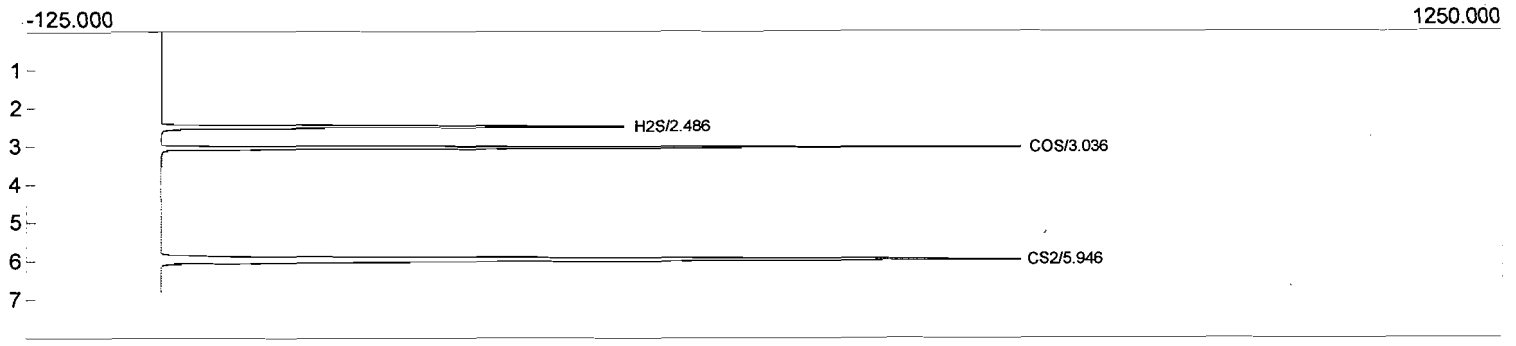
Component	Area
H2S	1843.1630
COS	2784.3130
CS2	5431.2941
	10058.7701

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 14:53:36
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero129.CHR (C:\Valero SRU1)
Sample: 25 ppm post cal
Operator: BP



Component	Area
H2S	1756.2538
COS	2973.5306
CS2	5506.6413
	10236.4257

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/28/2010 15:04:43
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero130.CHR (C:\Valero SRU1)
Sample: 25 ppm post cal
Operator: BP



Component	Area
H2S	1861.9352
COS	2781.5890
CS2	5353.4078
	9996.9320

APPENDIX D ARI Reference Method Monitoring Data

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 8:03:15	20.97	0.10	0.3	0.1	12.7	
4/27/10 8:03:30	20.97	0.10	0.4	0.1	12.3	
4/27/10 8:03:45	20.96	0.10	0.3	0.1	11.0	
4/27/10 8:04:00	19.88	0.09	0.1	0.1	9.6	
4/27/10 8:04:15	12.78	0.07	-0.1	0.1	6.8	
4/27/10 8:04:30	5.00	0.05	-0.1	0.1	3.5	
4/27/10 8:04:45	1.09	0.04	-0.2	0.1	-1.0	
4/27/10 8:05:00	0.22	0.04	0.0	0.1	-1.2	Calibration Error
4/27/10 8:05:15	0.11	0.04	**-0.3**	0.1	-0.7	
4/27/10 8:05:30	0.05	0.04	**-0.3**	0.1	-0.4	
4/27/10 8:05:45	0.04	0.04	**-0.3**	0.1	0.4	-0.28 Zero SO_2
4/27/10 8:06:00	0.04	0.04	**-0.3**	0.1	0.1	
4/27/10 8:06:15	**0.03**	**0.04**	-0.3	**0.1**	**-0.4**	0.03 Zero O_2
4/27/10 8:06:30	0.03	**0.04**	0.1	**0.1**	**-0.7**	0.04 Zero CO_2
4/27/10 8:06:45	**0.04**	**0.04**	13.7	**0.1**	**-0.5**	
4/27/10 8:07:00	**0.02**	**0.04**	8.3	**0.1**	**-0.4**	0.1 Zero NO_x
4/27/10 8:07:15	0.14	0.04	0.6	0.1	8.3	-0.5 Zero CO
4/27/10 8:07:30	1.49	0.38	-0.3	0.1	19.4	
4/27/10 8:07:45	4.66	2.66	-0.3	0.1	40.6	
4/27/10 8:08:00	7.23	5.08	-0.3	0.1	57.5	
4/27/10 8:08:15	8.77	7.01	-0.1	0.1	76.1	
4/27/10 8:08:30	9.58	8.11	-0.4	0.1	83.0	
4/27/10 8:08:45	9.87	8.53	-0.3	0.1	86.2	
4/27/10 8:09:00	9.93	8.62	-0.2	0.1	86.8	
4/27/10 8:09:15	9.95	8.64	-0.3	0.1	87.1	
4/27/10 8:09:30	9.96	8.66	-0.4	0.1	87.6	
4/27/10 8:09:45	9.96	8.67	-0.2	0.1	88.5	
4/27/10 8:10:00	9.97	8.67	-0.3	0.1	88.2	
4/27/10 8:10:15	9.97	8.68	-0.5	0.1	87.6	
4/27/10 8:10:30	9.97	8.68	-0.5	0.1	87.3	
4/27/10 8:10:45	9.98	8.69	-0.3	0.1	87.5	
4/27/10 8:11:00	9.98	8.69	-0.2	0.1	88.2	
4/27/10 8:11:15	9.98	8.69	-0.5	0.1	88.2	
4/27/10 8:11:30	9.98	8.69	-0.5	0.1	87.8	Calibration Error
4/27/10 8:11:45	**9.98**	**8.70**	-0.4	0.1	**88.4**	9.99 10.00% O_2
4/27/10 8:12:00	**9.99**	**8.70**	-0.6	0.1	**88.4**	8.70 8.65% CO_2
4/27/10 8:12:15	**9.99**	**8.70**	-0.6	0.1	**88.3**	
4/27/10 8:12:30	**9.99**	**8.70**	-0.4	0.1	**88.4**	
4/27/10 8:12:45	9.99	8.69	-0.6	0.1	84.2	88.4 88.3 ppm CO
4/27/10 8:13:00	9.41	7.89	-0.5	0.1	78.0	
4/27/10 8:13:15	7.44	6.20	-0.4	0.1	66.7	
4/27/10 8:13:30	5.78	4.90	-0.5	0.1	58.8	
4/27/10 8:13:45	5.09	4.46	-0.5	0.1	50.5	
4/27/10 8:14:00	4.96	4.39	-0.4	0.1	46.7	
4/27/10 8:14:15	4.95	4.38	-0.4	0.1	44.1	
4/27/10 8:14:30	4.94	4.37	-0.6	0.1	43.5	Calibration Error
4/27/10 8:14:45	**4.94**	**4.37**	-0.6	0.1	**43.7**	4.94 5.00% O_2
4/27/10 8:15:00	**4.94**	**4.38**	-0.6	0.1	**44.5**	4.37 4.32% CO_2
4/27/10 8:15:15	**4.94**	**4.38**	-0.5	0.1	**44.5**	
4/27/10 8:15:30	**4.94**	**4.37**	1.2	0.1	**44.3**	
4/27/10 8:15:45	4.95	4.37	18.2	0.5	43.8	44.2 44.2 ppm CO
4/27/10 8:16:00	4.94	4.37	10.3	0.2	43.2	
4/27/10 8:16:15	5.12	4.42	1.9	81.2	39.1	
4/27/10 8:16:30	4.69	3.36	2.0	83.9	33.4	
4/27/10 8:16:45	2.72	1.62	0.9	79.8	22.2	
4/27/10 8:17:00	1.72	0.48	0.5	81.5	13.4	
4/27/10 8:17:15	0.75	0.13	0.3	83.3	4.7	
4/27/10 8:17:30	0.18	0.07	0.3	83.2	1.9	
4/27/10 8:17:45	0.04	0.06	0.3	83.0	1.0	
4/27/10 8:18:00	0.02	0.06	0.1	83.1	0.5	
4/27/10 8:18:15	0.01	0.06	0.2	89.8	-0.1	Calibration Error
4/27/10 8:18:30	0.01	0.06	0.1	**90.0**	-0.3	
4/27/10 8:18:45	0.01	0.06	-0.2	**90.0**	-0.2	
4/27/10 8:19:00	0.01	0.06	-0.2	**89.9**	0.4	
4/27/10 8:19:15	0.01	0.06	-0.3	**90.0**	0.3	90.0 90.0 ppm NO_x
4/27/10 8:19:30	0.01	0.06	-0.3	85.9	-0.1	
4/27/10 8:19:45	0.01	0.06	-0.3	45.2	-0.5	
4/27/10 8:20:00	0.00	0.06	-0.4	45.9	-0.5	
4/27/10 8:20:15	0.00	0.06	-0.4	46.1	0.3	
4/27/10 8:20:30	0.00	0.06	-0.5	46.3	0.7	
4/27/10 8:20:45	0.00	0.06	-0.5	45.4	0.2	
4/27/10 8:21:00	0.00	0.06	-0.4	45.6	-0.3	
4/27/10 8:21:15	0.00	0.05	-0.5	45.4	-0.6	
4/27/10 8:21:30	0.00	0.05	-0.4	45.3	-0.4	
4/27/10 8:21:45	0.00	0.05	-0.4	45.4	0.5	
4/27/10 8:22:00	0.00	0.05	-0.4	45.6	0.4	
4/27/10 8:22:15	0.00	0.05	-0.5	45.7	-0.2	
4/27/10 8:22:30	0.00	0.05	-0.6	45.8	-0.5	
4/27/10 8:22:45	0.00	0.05	-0.6	46.0	-0.4	
4/27/10 8:23:00	0.00	0.05	-0.5	45.9	0.2	
4/27/10 8:23:15	-0.01	0.05	-0.6	45.9	0.4	
4/27/10 8:23:30	-0.01	0.05	-0.6	46.1	0.0	
4/27/10 8:23:45	-0.01	0.05	-0.4	46.3	-0.4	
4/27/10 8:24:00	-0.01	0.05	-0.5	46.5	-0.6	
4/27/10 8:24:15	-0.01	0.05	-0.6	46.6	0.1	
4/27/10 8:24:30	-0.01	0.05	-0.6	46.3	0.7	
4/27/10 8:24:45	-0.01	0.04	-0.6	46.5	0.3	
4/27/10 8:25:00	-0.01	0.04	-0.5	46.3	-0.1	Calibration Error
4/27/10 8:25:15	-0.01	0.04	-0.6	**46.3**	-0.5	
4/27/10 8:25:30	-0.01	0.04	-0.9	**46.3**	-0.4	
4/27/10 8:25:45	-0.01	0.04	-0.6	**46.0**	0.5	
4/27/10 8:26:00	-0.01	0.04	-0.7	**46.0**	0.6	46.1 45.0 ppm NO_x
4/27/10 8:26:15	-0.01	0.04	-0.6	45.4	0.1	
4/27/10 8:26:30	-0.01	0.04	-0.3	71.8	-0.3	
4/27/10 8:26:45	-0.01	0.04	-0.5	7.1	-0.4	
4/27/10 8:27:00	0.00	0.05	17.5	2.1	0.1	
4/27/10 8:27:15	0.29	0.06	60.7	1.2	0.9	
4/27/10 8:27:30	0.94	0.06	74.3	0.9	0.6	
4/27/10 8:27:45	0.75	0.05	76.9	0.7	-0.1	
4/27/10 8:28:00	0.24	0.05	77.6	0.6	-0.4	
4/27/10 8:28:15	0.05	0.05	77.9	0.5	-0.3	
4/27/10 8:28:30	0.01	0.05	78.1	0.6	0.4	
4/27/10 8:28:45	0.00	0.05	78.2	0.7	0.8	
4/27/10 8:29:00	0.00	0.05	78.0	0.8	0.4	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 8:29:15	-0.01	0.05	77.8	0.9	-0.2	
4/27/10 8:29:30	-0.01	0.05	77.8	1.0	-0.4	
4/27/10 8:29:45	-0.01	0.05	77.7	1.1	0.1	
4/27/10 8:30:00	-0.01	0.05	87.2	1.1	0.8	
4/27/10 8:30:15	-0.01	0.05	90.3	1.2	0.7	
4/27/10 8:30:30	-0.01	0.05	90.2	1.2	0.2	
4/27/10 8:30:45	-0.01	0.05	90.1	1.2	-0.3	
4/27/10 8:31:00	-0.01	0.05	89.9	1.2	-0.4	Calibration Error
4/27/10 8:31:15	-0.01	0.05	89.8	1.2	0.5	
4/27/10 8:31:30	-0.01	0.05	89.7	1.3	0.9	
4/27/10 8:31:45	-0.01	0.05	89.6	1.3	0.4	89.70 90.0 ppm SO_2
4/27/10 8:32:00	-0.01	0.05	89.7	1.2	-0.1	
4/27/10 8:32:15	-0.01	0.05	82.5	0.8	-0.4	
4/27/10 8:32:30	-0.01	0.05	51.4	0.7	-0.2	
4/27/10 8:32:45	-0.01	0.05	45.3	0.7	0.7	
4/27/10 8:33:00	-0.01	0.05	44.6	0.7	0.8	
4/27/10 8:33:15	-0.01	0.05	44.3	0.7	0.1	
4/27/10 8:33:30	-0.01	0.05	44.2	0.7	-0.2	
4/27/10 8:33:45	-0.01	0.05	44.1	0.7	-0.4	Calibration Error
4/27/10 8:34:00	-0.01	0.04	44.3	0.7	0.1	
4/27/10 8:34:15	-0.01	0.04	44.2	0.7	0.9	
4/27/10 8:34:30	-0.01	0.04	44.3	0.7	0.7	44.26 45.0 ppm SO_2
4/27/10 8:34:45	-0.01	0.04	44.2	0.7	0.0	
4/27/10 8:35:00	-0.01	0.04	35.5	13.4	-0.3	
4/27/10 8:35:15	0.01	0.04	7.0	36.5	-0.1	
4/27/10 8:35:30	2.21	0.05	16.1	10.4	0.6	
4/27/10 8:35:45	9.33	0.05	45.8	1.7	1.2	
4/27/10 8:36:00	16.23	0.04	57.8	4.1	0.8	
4/27/10 8:36:15	19.44	0.05	57.8	8.5	0.2	
4/27/10 8:36:30	19.22	0.08	55.4	9.5	0.0	
4/27/10 8:36:45	18.41	0.09	51.4	18.7	0.4	
4/27/10 8:37:00	18.87	0.10	15.8	42.9	1.0	
4/27/10 8:37:15	19.84	0.09	1.3	34.9	0.8	
4/27/10 8:37:30	20.50	0.07	0.2	35.5	0.2	
4/27/10 8:37:45	20.81	0.05	-0.1	34.8	-0.5	
4/27/10 8:38:00	20.90	0.04	-0.1	34.9	-0.6	
4/27/10 8:38:15	20.91	0.04	0.1	35.4	0.2	
4/27/10 8:38:30	20.91	0.04	0.0	35.9	0.8	
4/27/10 8:38:45	20.91	0.04	-0.2	36.4	0.5	
4/27/10 8:39:00	20.91	0.04	-0.1	36.9	0.0	
4/27/10 8:39:15	20.91	0.05	-0.1	37.4	-0.4	
4/27/10 8:39:30	20.91	0.05	-0.1	37.9	-0.4	
4/27/10 8:39:45	20.92	0.05	-0.2	38.6	0.5	
4/27/10 8:40:00	20.92	0.05	-0.1	39.2	0.8	
4/27/10 8:40:15	20.92	0.05	-0.2	39.8	0.2	
4/27/10 8:40:30	20.93	0.05	-0.3	40.3	-0.3	
4/27/10 8:40:45	20.93	0.05	-0.1	40.9	-0.7	
4/27/10 8:41:00	20.93	0.05	-0.1	41.4	-0.4	
4/27/10 8:41:15	20.94	0.05	-0.2	41.9	0.6	
4/27/10 8:41:30	20.94	0.05	-0.2	42.3	0.6	
4/27/10 8:41:45	20.94	0.05	-0.2	42.6	0.0	
4/27/10 8:42:00	20.94	0.05	-0.1	43.0	-0.4	
4/27/10 8:42:15	20.94	0.05	-0.2	43.2	-0.5	
4/27/10 8:42:30	20.95	0.05	-0.1	43.4	0.1	
4/27/10 8:42:45	20.95	0.05	0.0	43.7	1.0	
4/27/10 8:43:00	20.95	0.05	-0.1	43.9	0.7	
4/27/10 8:43:15	20.95	0.05	0.0	44.2	-0.1	
4/27/10 8:43:30	20.95	0.05	-0.2	44.6	-0.4	
4/27/10 8:43:45	20.95	0.05	-0.1	44.9	-0.3	
4/27/10 8:44:00	20.95	0.05	-0.3	45.2	0.3	NO_2 Converter Check
4/27/10 8:44:15	20.95	0.04	-0.1	45.5	0.7	45.9 49.62 ppm NO_2
4/27/10 8:44:30	20.95	0.04	-0.3	45.8	0.2	Cyl# ALM021775
4/27/10 8:44:45	20.95	0.04	-0.2	46.0	-0.2	
4/27/10 8:45:00	20.96	0.04	-0.2	46.3	-0.4	92.54 % Conversion
4/27/10 8:45:15	20.96	0.04	-0.4	46.7	0.2	
4/27/10 8:45:30	20.96	0.04	-0.3	42.5	0.7	
4/27/10 8:45:45	20.96	0.04	-0.3	7.7	2.8	
4/27/10 8:46:00	20.96	0.04	-0.3	0.6	9.5	
4/27/10 8:46:15	20.94	0.06	0.2	1.9	21.9	
4/27/10 8:46:30	20.90	0.11	0.6	0.4	37.4	
4/27/10 8:46:45	18.87	0.13	0.2	0.3	48.7	
4/27/10 8:47:00	11.14	0.11	0.1	0.3	49.6	
4/27/10 8:47:15	4.21	0.08	0.0	0.3	39.1	
4/27/10 8:47:30	0.97	0.05	0.0	0.3	25.8	
4/27/10 8:47:45	0.28	0.05	0.0	0.2	13.8	
4/27/10 8:48:00	0.17	0.05	0.1	0.2	8.1	
4/27/10 8:48:15	0.14	0.05	0.0	0.2	5.8	
4/27/10 8:48:30	0.13	0.05	0.1	0.2	4.5	
4/27/10 8:48:45	0.12	0.05	0.0	0.2	0.7	
4/27/10 8:49:00	0.11	0.05	-0.1	0.2	0.3	
4/27/10 8:49:15	0.11	0.05	0.2	0.2	0.6	
4/27/10 8:49:30	0.10	0.05	0.1	0.2	1.4	
4/27/10 8:49:45	0.09	0.05	0.2	0.2	1.2	
4/27/10 8:50:00	0.09	0.05	0.2	0.2	0.6	
4/27/10 8:50:15	0.09	0.05	8.8	4.6	0.1	SO_2 Response Time - UP = 105 seconds
4/27/10 8:50:30	0.09	0.05	96.1	3.0	-0.1	
4/27/10 8:50:45	0.09	0.05	97.6	0.6	0.6	
4/27/10 8:51:00	0.12	0.06	58.2	0.6	1.3	
4/27/10 8:51:15	0.11	0.05	47.2	0.6	1.0	
4/27/10 8:51:30	0.09	0.05	44.8	0.6	0.4	
4/27/10 8:51:45	0.08	0.05	43.7	0.6	0.0	System Bias
4/27/10 8:52:00	0.08	0.05	43.1	0.5	-0.1	
4/27/10 8:52:15	0.07	0.05	42.6	0.5	0.7	
4/27/10 8:52:30	0.07	0.05	42.5	0.4	1.0	42.6 45.0 ppm SO_2
4/27/10 8:52:45	0.07	0.05	42.4	0.4	0.5	
4/27/10 8:53:00	0.07	0.05	41.3	0.4	-0.1	0.5 Zero CO
4/27/10 8:53:15	0.07	0.05	28.5	83.2	-0.3	
4/27/10 8:53:30	0.69	0.05	18.9	110.6	0.1	
4/27/10 8:53:45	4.28	0.06	6.4	110.6	1.1	SO_2 Response Time - Down = 105 seconds
4/27/10 8:54:00	4.55	0.06	3.1	110.6	1.4	
4/27/10 8:54:15	1.70	0.05	1.8	110.6	0.8	
4/27/10 8:54:30	0.40	0.05	1.4	107.0	0.2	NO_x Response Time - Up = 75 seconds
4/27/10 8:54:45	0.15	0.05	3.8	49.7	-0.1	
4/27/10 8:55:00	0.10	0.05	1.7	47.0	0.4	

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SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 8:55:15	0.09	0.05	0.8	46.1	1.1	
4/27/10 8:55:30	0.08	0.05	0.6	45.7	1.1	
4/27/10 8:55:45	0.07	0.05	0.5	45.3	0.5	
4/27/10 8:56:00	0.07	0.05	0.3	45.1	0.0	System Bias
4/27/10 8:56:15	0.07	0.05	0.4	45.1	0.0	0.07 Zero O_2
4/27/10 8:56:30	0.07	0.05	0.4	45.1	0.7	0.05 Zero CO_2
4/27/10 8:56:45	0.07	0.04	0.5	45.0	1.3	
4/27/10 8:57:00	0.07	0.04	0.2	45.0	1.1	45.1 45.0 ppm NO_x
4/27/10 8:57:15	0.07	0.05	0.3	46.0	0.6	
4/27/10 8:57:30	0.07	0.05	0.6	15.2	0.3	
4/27/10 8:57:45	0.11	0.05	0.6	28.9	0.6	
4/27/10 8:58:00	3.16	0.06	1.5	8.2	2.2	NO_x Response Time - Down = 75 seconds
4/27/10 8:58:15	8.66	0.09	0.6	1.3	6.5	
4/27/10 8:58:30	7.92	1.05	0.2	1.0	15.7	
4/27/10 8:58:45	5.39	2.77	0.3	0.8	24.4	
4/27/10 8:59:00	4.94	3.77	0.3	0.7	32.2	
4/27/10 8:59:15	4.93	4.15	0.1	0.6	39.5	CO_2 Response Time - Up = 75 seconds
4/27/10 8:59:30	4.95	4.27	0.0	0.6	44.5	O_2 Response Time - Up = 90 seconds
4/27/10 8:59:45	4.96	4.31	0.0	0.5	46.2	CO Response Time - Up = 90 seconds
4/27/10 9:00:00	4.96	4.33	0.1	0.5	46.2	
4/27/10 9:00:15	4.97	4.34	0.1	0.5	45.9	
4/27/10 9:00:30	4.97	4.34	0.1	0.4	45.8	System Bias
4/27/10 9:00:45	4.98	4.35	0.0	0.4	46.4	4.98 5.00% O_2
4/27/10 9:01:00	4.98	4.35	-0.3	0.4	46.5	4.35 4.32% CO_2
4/27/10 9:01:15	4.98	4.36	-0.2	0.4	46.9	-0.1 Zero SO_2
4/27/10 9:01:30	4.99	4.36	0.0	0.3	46.1	0.4 Zero NO_x
4/27/10 9:01:45	4.99	4.36	0.1	0.3	43.4	46.5 45.0 ppm CO
4/27/10 9:02:00	4.74	3.96	0.0	0.3	38.1	
4/27/10 9:02:15	3.07	2.36	-0.2	0.3	30.0	
4/27/10 9:02:30	1.25	0.90	-0.3	0.3	20.2	
4/27/10 9:02:45	0.34	0.27	-0.2	0.2	11.4	CO_2 Response Time - Down = 75 seconds
4/27/10 9:03:00	0.12	0.12	-0.1	0.3	7.0	O_2 Response Time - Down = 90 seconds
4/27/10 9:03:15	0.09	0.10	-0.3	0.3	4.8	CO Response Time - Down = 90 seconds
4/27/10 9:03:30	0.08	0.08	-0.4	0.2	4.6	
4/27/10 9:03:45	0.08	0.08	-0.2	0.2	4.7	
4/27/10 9:04:00	0.08	0.07	-0.3	0.2	2.3	
4/27/10 9:04:15	0.07	0.07	-0.2	0.5	-0.3	
4/27/10 9:04:30	0.07	0.07	-0.1	0.5	-0.5	
4/27/10 9:04:45	0.32	0.07	0.1	0.3	0.0	
4/27/10 9:05:00	5.13	0.08	0.0	0.3	0.9	
4/27/10 9:05:15	12.87	0.09	0.2	0.3	0.9	
4/27/10 9:05:30	18.31	0.10	0.2	0.3	0.3	
4/27/10 9:05:45	20.43	0.10	0.2	0.2	-0.1	
4/27/10 9:06:00	20.86	0.10	0.0	0.2	-0.3	
4/27/10 9:06:15	20.93	0.10	-0.2	0.2	0.3	
4/27/10 9:06:30	20.94	0.10	-0.1	0.2	1.0	
4/27/10 9:06:45	20.95	0.09	0.1	0.2	0.6	
4/27/10 9:07:00	20.95	0.09	0.0	0.2	-0.1	
4/27/10 9:07:15	20.96	0.09	-0.1	0.2	-0.5	
4/27/10 9:07:30	20.96	0.09	0.0	0.2	-0.5	
4/27/10 9:07:45	20.96	0.09	0.0	0.2	0.4	
4/27/10 9:08:00	20.96	0.09	0.1	0.2	0.9	
4/27/10 9:08:15	20.96	0.09	0.0	0.2	0.4	
4/27/10 9:08:30	20.96	0.09	-0.1	0.2	-0.2	
4/27/10 9:08:45	20.96	0.09	0.1	0.2	-0.5	
4/27/10 9:09:00	20.96	0.09	0.1	0.2	-0.3	
4/27/10 9:09:15	20.96	0.09	0.0	0.2	0.5	
4/27/10 9:09:30	20.96	0.09	0.2	0.2	0.7	
4/27/10 9:09:45	20.96	0.09	0.2	0.2	0.2	
4/27/10 9:10:00	20.96	0.10	0.2	0.2	-0.3	
4/27/10 9:10:15	20.96	0.10	0.1	0.2	-0.4	
4/27/10 9:10:30	20.96	0.10	-0.1	0.2	0.1	
4/27/10 9:10:45	20.96	0.10	-0.2	0.2	0.8	
4/27/10 9:11:00	20.96	0.10	-0.2	0.2	0.5	
4/27/10 9:11:15	20.96	0.10	-0.1	0.2	-0.1	
4/27/10 9:11:30	20.96	0.10	-0.1	0.2	-0.5	
4/27/10 9:11:45	20.96	0.10	0.1	0.2	-0.4	
4/27/10 9:12:00	20.96	0.10	0.0	0.2	0.4	
4/27/10 9:12:15	20.96	0.10	0.0	0.2	0.9	
4/27/10 9:12:30	20.97	0.10	0.1	0.2	0.5	
4/27/10 9:12:45	20.96	0.10	0.0	0.2	-0.1	
4/27/10 9:13:00	20.96	0.10	0.1	0.2	-0.4	
4/27/10 9:13:15	20.96	0.10	-0.2	0.2	-0.3	
4/27/10 9:13:30	20.97	0.10	-0.2	0.2	0.5	
4/27/10 9:13:45	20.97	0.10	-0.1	0.2	0.7	
4/27/10 9:14:00	20.97	0.10	-0.1	0.2	0.2	
4/27/10 9:14:15	20.96	0.10	-0.1	0.2	-0.4	
4/27/10 9:14:30	20.97	0.10	-0.1	0.2	-0.6	
4/27/10 9:14:45	20.97	0.10	-0.1	0.2	-0.2	
4/27/10 9:15:00	20.96	0.10	-0.2	0.2	0.7	
4/27/10 9:15:15	20.97	0.09	0.1	0.1	0.8	
4/27/10 9:15:30	20.97	0.09	0.1	0.2	0.2	
4/27/10 9:15:45	20.97	0.09	0.0	0.2	-0.3	
4/27/10 9:16:00	20.97	0.09	0.0	0.2	-0.6	
4/27/10 9:16:15	20.97	0.09	-0.1	0.1	-0.1	
4/27/10 9:16:30	20.97	0.09	-0.2	0.2	0.7	
4/27/10 9:16:45	20.97	0.09	-0.1	0.2	0.5	
4/27/10 9:17:00	20.97	0.09	-0.3	0.2	0.0	
4/27/10 9:17:15	20.97	0.09	-0.2	0.2	-0.4	
4/27/10 9:17:30	20.97	0.09	-0.1	0.2	-0.5	
4/27/10 9:17:45	20.97	0.09	-0.2	0.2	0.2	
4/27/10 9:18:00	20.97	0.09	-0.2	0.2	0.7	
4/27/10 9:18:15	20.97	0.09	-0.3	0.1	0.3	
4/27/10 9:18:30	20.97	0.09	-0.1	0.1	-0.3	
4/27/10 9:18:45	20.97	0.09	0.1	0.1	-0.6	
4/27/10 9:19:00	20.97	0.09	0.0	0.2	-0.3	
4/27/10 9:19:15	20.97	0.09	0.0	0.2	0.3	
4/27/10 9:19:30	20.97	0.09	0.0	0.1	0.2	
4/27/10 9:19:45	20.97	0.09	0.0	0.2	-0.3	
4/27/10 9:20:00	20.97	0.09	0.0	0.2	-0.7	
4/27/10 9:20:15	20.97	0.10	0.3	17.5	-0.6	
4/27/10 9:20:30	20.97	0.10	10.4	54.0	0.1	
4/27/10 9:20:45	20.81	0.20	22.8	51.8	0.3	
4/27/10 9:21:00	16.78	1.58	23.8	50.2	-0.2	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
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ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 9:21:15	8.19	3.58	20.9	49.7	-0.7	
4/27/10 9:21:30	3.72	4.38	20.3	49.0	-0.9	
4/27/10 9:21:45	2.67	4.56	20.9	47.2	-0.3	
4/27/10 9:22:00	2.50	4.58	21.6	46.4	0.5	
4/27/10 9:22:15	2.50	4.57	21.9	45.3	0.3	
4/27/10 9:22:30	2.54	4.55	22.3	44.6	-0.3	
4/27/10 9:22:45	2.58	4.53	22.9	44.2	-0.7	
4/27/10 9:23:00	2.64	4.51	22.7	43.9	-0.7	
4/27/10 9:23:15	2.69	4.48	23.1	43.7	-0.1	
4/27/10 9:23:30	2.73	4.45	23.6	43.6	0.1	
4/27/10 9:23:45	2.72	4.45	23.9	43.0	-0.3	
4/27/10 9:24:00	2.66	4.46	24.0	42.9	-0.7	
4/27/10 9:24:15	2.66	4.45	24.5	44.1	-0.7	
4/27/10 9:24:30	2.73	4.44	24.8	44.3	-0.1	
4/27/10 9:24:45	2.75	4.45	24.6	45.3	0.3	
4/27/10 9:25:00	2.71	4.46	24.9	45.1	0.0	
4/27/10 9:25:15	2.68	4.46	24.9	43.6	-0.5	
4/27/10 9:25:30	2.64	4.48	23.7	41.3	-0.7	
4/27/10 9:25:45	2.66	4.46	22.4	40.7	-0.3	
4/27/10 9:26:00	3.09	4.34	22.2	39.4	0.5	
4/27/10 9:26:15	3.77	4.19	22.0	39.1	0.5	
4/27/10 9:26:30	4.25	4.09	22.0	38.1	-0.1	
4/27/10 9:26:45	4.58	4.01	21.6	37.7	-0.6	
4/27/10 9:27:00	4.78	3.98	21.4	36.7	-0.7	
4/27/10 9:27:15	4.81	3.97	21.3	36.6	-0.1	
4/27/10 9:27:30	4.91	3.94	21.0	36.2	0.5	
4/27/10 9:27:45	5.10	3.89	20.9	35.0	0.2	
4/27/10 9:28:00	5.30	3.84	20.9	34.6	-0.3	
4/27/10 9:28:15	5.53	3.79	20.7	34.6	-0.5	
4/27/10 9:28:30	5.73	3.76	20.8	34.9	-0.3	
4/27/10 9:28:45	5.75	3.77	21.0	36.8	0.4	
4/27/10 9:29:00	5.72	3.78	22.7	43.3	0.4	
4/27/10 9:29:15	5.64	3.80	26.4	44.9	-0.1	
4/27/10 9:29:30	4.92	4.02	34.8	44.8	-0.5	
4/27/10 9:29:45	3.49	4.37	36.6	44.7	-0.4	
4/27/10 9:30:00	2.64	4.55	33.1	43.1	0.3	
4/27/10 9:30:15	2.37	4.60	30.3	43.2	1.0	
4/27/10 9:30:30	2.33	4.61	28.9	41.8	0.8	
4/27/10 9:30:45	2.38	4.60	27.6	41.5	0.4	
4/27/10 9:31:00	2.42	4.60	26.9	42.3	0.1	
4/27/10 9:31:15	2.45	4.59	26.5	40.5	0.3	
4/27/10 9:31:30	2.46	4.58	26.5	38.6	1.1	
4/27/10 9:31:45	2.44	4.58	26.3	37.7	1.3	
4/27/10 9:32:00	2.50	4.53	25.9	37.6	0.8	
4/27/10 9:32:15	2.61	4.48	25.7	37.2	0.3	
4/27/10 9:32:30	2.68	4.45	25.3	38.0	0.1	
4/27/10 9:32:45	2.71	4.44	26.1	37.2	0.6	
4/27/10 9:33:00	2.72	4.46	25.6	36.9	1.3	
4/27/10 9:33:15	2.70	4.48	25.1	37.2	1.0	
4/27/10 9:33:30	2.72	4.48	24.9	37.8	0.4	
4/27/10 9:33:45	2.75	4.48	25.0	37.8	0.1	
4/27/10 9:34:00	2.74	4.47	25.0	38.2	0.1	
4/27/10 9:34:15	2.69	4.48	24.9	37.6	0.9	
4/27/10 9:34:30	2.64	4.48	25.3	39.2	1.3	
4/27/10 9:34:45	2.61	4.48	25.8	38.8	0.9	
4/27/10 9:35:00	2.61	4.47	26.1	39.6	0.3	
4/27/10 9:35:15	2.59	4.47	26.0	39.1	0.0	
4/27/10 9:35:30	2.57	4.48	25.9	39.6	0.1	
4/27/10 9:35:45	2.54	4.52	27.1	40.3	0.7	
4/27/10 9:36:00	2.56	4.54	26.7	39.5	0.7	
4/27/10 9:36:15	2.56	4.56	26.1	39.3	0.2	
4/27/10 9:36:30	2.51	4.58	26.1	39.3	-0.2	
4/27/10 9:36:45	2.48	4.58	26.2	39.9	-0.2	
4/27/10 9:37:00	2.48	4.57	26.5	38.9	0.5	
4/27/10 9:37:15	2.49	4.57	25.8	38.3	1.2	
4/27/10 9:37:30	2.46	4.57	25.7	38.3	1.1	
4/27/10 9:37:45	2.48	4.55	25.6	38.3	0.7	
4/27/10 9:38:00	2.54	4.53	25.7	39.0	0.4	
4/27/10 9:38:15	2.56	4.54	25.6	39.0	0.5	
4/27/10 9:38:30	2.54	4.56	26.0	41.6	1.3	
4/27/10 9:38:45	2.51	4.58	26.9	42.3	1.6	
4/27/10 9:39:00	2.49	4.60	27.2	42.1	1.1	
4/27/10 9:39:15	2.38	4.65	27.4	42.0	0.8	
4/27/10 9:39:30	2.28	4.67	27.3	41.2	0.6	
4/27/10 9:39:45	2.28	4.65	26.8	40.8	1.2	
4/27/10 9:40:00	2.29	4.65	26.4	40.1	1.9	
4/27/10 9:40:15	2.29	4.63	26.2	39.6	1.6	
4/27/10 9:40:30	2.32	4.62	25.9	39.7	1.3	
4/27/10 9:40:45	2.37	4.61	25.8	39.7	1.0	
4/27/10 9:41:00	2.43	4.60	25.7	39.5	1.2	
4/27/10 9:41:15	2.45	4.59	25.8	39.1	1.9	
4/27/10 9:41:30	2.47	4.58	25.7	39.7	2.0	
4/27/10 9:41:45	2.52	4.57	25.8	38.8	1.5	
4/27/10 9:42:00	2.54	4.57	25.9	39.4	1.1	
4/27/10 9:42:15	2.50	4.56	25.9	39.2	1.2	
4/27/10 9:42:30	2.50	4.55	25.7	39.3	1.8	
4/27/10 9:42:45	2.49	4.55	25.6	39.0	2.2	
4/27/10 9:43:00	2.48	4.55	25.6	38.5	1.9	
4/27/10 9:43:15	2.49	4.56	25.8	38.7	1.4	
4/27/10 9:43:30	2.52	4.56	26.0	38.5	1.1	
4/27/10 9:43:45	2.53	4.56	25.6	38.7	1.4	
4/27/10 9:44:00	2.50	4.56	25.8	39.5	2.1	
4/27/10 9:44:15	2.51	4.55	26.1	39.5	2.0	
4/27/10 9:44:30	2.52	4.54	26.0	38.9	1.5	
4/27/10 9:44:45	2.50	4.53	25.8	38.2	1.1	Start Run # SRU1-1
4/27/10 9:45:00	**2.49**	**4.52**	**25.6**	**38.5**	**1.1**	
4/27/10 9:45:15	**2.51**	**4.51**	**25.8**	**39.8**	**1.8**	
4/27/10 9:45:30	**2.54**	**4.52**	**26.6**	**41.2**	**2.0**	
4/27/10 9:45:45	**2.56**	**4.53**	**27.3**	**39.0**	**1.6**	
4/27/10 9:46:00	**2.54**	**4.54**	**27.3**	**38.9**	**1.2**	
4/27/10 9:46:15	**2.52**	**4.55**	**26.8**	**38.3**	**1.0**	
4/27/10 9:46:30	**2.55**	**4.54**	**26.6**	**38.0**	**1.5**	
4/27/10 9:46:45	**2.56**	**4.55**	**26.5**	**37.8**	**2.0**	
4/27/10 9:47:00	**2.57**	**4.55**	**26.3**	**36.9**	**1.8**	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 9:47:15	2.57	4.55	25.8	36.8	1.2	
4/27/10 9:47:30	2.55	4.55	25.6	36.2	0.7	
4/27/10 9:47:45	2.56	4.55	25.5	37.1	0.8	
4/27/10 9:48:00	2.59	4.55	25.7	36.1	1.6	
4/27/10 9:48:15	2.60	4.55	25.8	36.3	1.9	
4/27/10 9:48:30	2.56	4.57	25.8	35.9	1.5	
4/27/10 9:48:45	2.55	4.57	25.8	35.3	1.1	
4/27/10 9:49:00	2.54	4.57	25.6	36.1	0.8	
4/27/10 9:49:15	2.54	4.57	26.0	36.4	1.2	
4/27/10 9:49:30	2.54	4.58	26.4	37.0	1.9	
4/27/10 9:49:45	2.50	4.59	26.4	36.1	1.7	
4/27/10 9:50:00	2.46	4.61	26.5	35.4	1.0	
4/27/10 9:50:15	2.42	4.62	26.2	36.0	0.6	
4/27/10 9:50:30	2.42	4.61	26.1	36.1	0.5	
4/27/10 9:50:45	2.47	4.60	26.2	35.6	1.1	
4/27/10 9:51:00	2.48	4.60	26.1	35.6	1.6	
4/27/10 9:51:15	2.46	4.61	26.8	36.2	1.2	
4/27/10 9:51:30	2.46	4.60	27.3	37.3	0.8	
4/27/10 9:51:45	2.45	4.60	27.3	37.9	0.6	
4/27/10 9:52:00	2.41	4.62	27.6	37.9	0.9	
4/27/10 9:52:15	2.33	4.67	27.5	37.4	1.6	
4/27/10 9:52:30	2.27	4.71	27.4	37.4	1.5	
4/27/10 9:52:45	2.22	4.72	27.2	36.6	0.9	
4/27/10 9:53:00	2.21	4.71	26.9	36.2	0.5	
4/27/10 9:53:15	2.27	4.69	26.9	35.6	0.5	
4/27/10 9:53:30	2.33	4.67	26.4	35.0	1.2	
4/27/10 9:53:45	2.34	4.66	26.0	34.3	1.8	
4/27/10 9:54:00	2.38	4.64	25.8	34.4	1.5	
4/27/10 9:54:15	2.47	4.61	25.9	34.7	0.8	
4/27/10 9:54:30	2.54	4.58	26.1	34.9	0.3	
4/27/10 9:54:45	2.54	4.58	26.2	35.0	0.3	
4/27/10 9:55:00	2.49	4.58	26.1	34.4	1.1	
4/27/10 9:55:15	2.45	4.58	25.8	34.4	1.6	
4/27/10 9:55:30	2.43	4.57	25.7	34.6	1.3	
4/27/10 9:55:45	2.42	4.57	25.8	34.6	0.6	
4/27/10 9:56:00	2.44	4.58	25.9	35.0	0.1	
4/27/10 9:56:15	2.47	4.58	26.2	35.0	0.1	
4/27/10 9:56:30	2.47	4.59	25.9	35.3	0.8	
4/27/10 9:56:45	2.44	4.60	25.8	35.6	1.1	
4/27/10 9:57:00	2.44	4.60	25.8	35.7	0.6	
4/27/10 9:57:15	2.45	4.59	25.6	35.8	0.2	
4/27/10 9:57:30	2.45	4.59	25.7	35.7	0.0	
4/27/10 9:57:45	2.48	4.57	25.5	36.1	0.5	
4/27/10 9:58:00	2.51	4.56	25.4	36.2	1.1	
4/27/10 9:58:15	2.52	4.57	25.5	37.2	0.8	
4/27/10 9:58:30	2.54	4.57	26.0	37.3	0.1	
4/27/10 9:58:45	2.54	4.59	26.0	37.8	-0.2	
4/27/10 9:59:00	2.49	4.61	26.2	37.5	-0.1	
4/27/10 9:59:15	2.47	4.62	26.0	37.1	0.7	
4/27/10 9:59:30	2.48	4.62	26.2	37.5	1.1	
4/27/10 9:59:45	2.47	4.61	26.0	37.6	0.6	
4/27/10 10:00:00	2.49	4.59	26.0	37.9	0.1	
4/27/10 10:00:15	2.48	4.58	26.1	37.5	-0.2	
4/27/10 10:00:30	2.44	4.59	25.9	37.3	0.1	
4/27/10 10:00:45	2.41	4.61	25.8	37.1	0.8	
4/27/10 10:01:00	2.43	4.62	25.8	37.8	0.8	
4/27/10 10:01:15	2.48	4.62	26.0	37.1	0.3	
4/27/10 10:01:30	2.51	4.63	25.9	37.0	0.0	
4/27/10 10:01:45	2.47	4.63	25.8	37.2	0.0	
4/27/10 10:02:00	2.47	4.62	25.7	36.4	0.7	
4/27/10 10:02:15	2.48	4.62	25.3	36.8	0.8	
4/27/10 10:02:30	2.50	4.60	25.2	36.3	0.3	
4/27/10 10:02:45	2.54	4.58	25.4	35.3	0.0	
4/27/10 10:03:00	2.53	4.58	25.5	35.6	-0.1	
4/27/10 10:03:15	2.50	4.59	25.5	35.0	0.5	
4/27/10 10:03:30	2.50	4.60	25.3	35.0	0.9	
4/27/10 10:03:45	2.50	4.61	25.8	34.7	0.5	
4/27/10 10:04:00	2.52	4.62	25.8	34.5	0.0	
4/27/10 10:04:15	2.52	4.62	25.9	34.4	-0.2	
4/27/10 10:04:30	2.53	4.61	25.7	34.3	0.1	
4/27/10 10:04:45	2.50	4.60	25.6	33.9	0.8	
4/27/10 10:05:00	2.48	4.59	25.7	33.8	0.7	
4/27/10 10:05:15	2.49	4.58	25.6	33.5	0.1	
4/27/10 10:05:30	2.52	4.58	25.7	33.6	-0.3	
4/27/10 10:05:45	2.52	4.58	25.8	33.4	-0.3	
4/27/10 10:06:00	2.53	4.59	25.5	33.6	0.4	
4/27/10 10:06:15	2.51	4.60	25.6	33.4	1.0	
4/27/10 10:06:30	2.50	4.60	25.6	33.1	0.7	
4/27/10 10:06:45	2.50	4.61	25.7	33.3	0.2	
4/27/10 10:07:00	2.50	4.60	25.7	33.1	-0.2	
4/27/10 10:07:15	2.51	4.60	26.0	33.3	0.0	
4/27/10 10:07:30	2.49	4.61	25.9	33.2	0.7	
4/27/10 10:07:45	2.45	4.61	25.9	32.9	0.7	
4/27/10 10:08:00	2.41	4.62	26.2	33.2	0.2	
4/27/10 10:08:15	2.40	4.62	26.4	33.6	-0.3	
4/27/10 10:08:30	2.38	4.62	27.1	33.4	-0.5	
4/27/10 10:08:45	2.36	4.63	26.6	32.6	0.1	
4/27/10 10:09:00	2.37	4.63	26.3	32.3	0.9	
4/27/10 10:09:15	2.40	4.62	26.1	32.3	0.8	
4/27/10 10:09:30	2.43	4.61	25.8	32.3	0.2	
4/27/10 10:09:45	2.43	4.61	25.8	32.8	-0.3	
4/27/10 10:10:00	2.42	4.61	25.9	32.2	-0.5	
4/27/10 10:10:15	2.41	4.61	25.5	32.1	0.1	
4/27/10 10:10:30	2.38	4.61	25.5	32.2	0.6	
4/27/10 10:10:45	2.45	4.60	25.6	32.8	0.3	
4/27/10 10:11:00	2.52	4.58	25.7	32.6	-0.2	
4/27/10 10:11:15	2.52	4.58	25.7	32.4	-0.4	
4/27/10 10:11:30	2.50	4.59	25.5	33.0	-0.1	
4/27/10 10:11:45	2.50	4.59	25.5	33.1	0.4	
4/27/10 10:12:00	2.50	4.59	25.8	33.1	0.3	
4/27/10 10:12:15	2.48	4.60	25.9	33.5	-0.3	
4/27/10 10:12:30	2.45	4.60	25.8	33.7	-0.6	
4/27/10 10:12:45	2.44	4.60	25.9	34.1	-0.5	
4/27/10 10:13:00	2.42	4.61	25.9	34.3	0.2	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 10:13:15	2.41	4.62	26.0	33.8	0.3	
4/27/10 10:13:30	2.42	4.62	25.7	34.4	-0.1	
4/27/10 10:13:45	2.41	4.61	25.8	35.8	-0.5	
4/27/10 10:14:00	2.44	4.59	26.9	36.3	-0.6	
4/27/10 10:14:15	2.44	4.60	27.0	36.1	-0.1	
4/27/10 10:14:30	2.37	4.64	26.9	35.7	0.4	
4/27/10 10:14:45	2.32	4.67	26.8	34.8	0.0	Start M5
4/27/10 10:15:00	2.33	4.68	26.4	34.6	-0.5	
4/27/10 10:15:15	2.36	4.66	26.2	33.9	-0.7	
4/27/10 10:15:30	2.41	4.64	25.5	33.8	-0.3	
4/27/10 10:15:45	2.42	4.63	25.4	33.5	0.2	
4/27/10 10:16:00	2.46	4.61	25.5	33.1	0.1	
4/27/10 10:16:15	2.48	4.60	25.2	32.8	-0.3	
4/27/10 10:16:30	2.50	4.58	25.1	32.8	-0.5	
4/27/10 10:16:45	2.52	4.57	24.9	31.9	-0.3	
4/27/10 10:17:00	2.52	4.56	24.4	31.9	0.2	
4/27/10 10:17:15	2.51	4.56	24.3	31.9	0.0	
4/27/10 10:17:30	2.57	4.53	24.5	31.8	-0.4	
4/27/10 10:17:45	2.61	4.52	24.7	31.8	-0.7	
4/27/10 10:18:00	2.58	4.52	24.9	31.9	-0.5	
4/27/10 10:18:15	2.56	4.53	24.8	31.8	0.1	
4/27/10 10:18:30	2.56	4.53	24.8	31.5	0.1	
4/27/10 10:18:45	2.55	4.54	24.3	31.0	-0.4	
4/27/10 10:19:00	2.54	4.55	23.9	30.4	-0.7	
4/27/10 10:19:15	2.62	4.52	23.8	30.1	-0.7	
4/27/10 10:19:30	2.73	4.49	23.6	30.0	0.0	
4/27/10 10:19:45	2.83	4.47	23.7	30.2	0.1	
4/27/10 10:20:00	2.92	4.45	23.6	30.3	-0.3	
4/27/10 10:20:15	2.98	4.44	23.9	29.9	-0.6	
4/27/10 10:20:30	3.01	4.44	23.8	30.1	-0.7	
4/27/10 10:20:45	3.03	4.44	23.8	30.2	-0.1	
4/27/10 10:21:00	3.04	4.44	23.6	30.3	0.1	
4/27/10 10:21:15	3.01	4.45	23.8	30.3	-0.3	
4/27/10 10:21:30	3.00	4.46	23.9	30.1	-0.8	
4/27/10 10:21:45	3.01	4.46	23.8	30.2	-0.9	
4/27/10 10:22:00	3.01	4.46	24.0	30.6	-0.5	
4/27/10 10:22:15	3.00	4.46	24.1	30.7	0.1	
4/27/10 10:22:30	2.98	4.47	24.0	30.5	-0.1	
4/27/10 10:22:45	2.95	4.48	23.8	30.7	-0.5	
4/27/10 10:23:00	2.94	4.49	24.0	30.6	-0.9	
4/27/10 10:23:15	2.96	4.49	24.2	30.4	-0.7	
4/27/10 10:23:30	2.94	4.49	24.3	30.2	0.1	
4/27/10 10:23:45	2.90	4.50	24.1	30.2	0.3	
4/27/10 10:24:00	2.86	4.51	24.2	29.9	-0.2	
4/27/10 10:24:15	2.86	4.51	24.2	30.0	-0.8	
4/27/10 10:24:30	2.86	4.52	24.3	29.7	-1.1	
4/27/10 10:24:45	2.85	4.52	24.2	29.6	-0.7	
4/27/10 10:25:00	2.83	4.52	24.0	29.2	0.2	
4/27/10 10:25:15	2.84	4.52	24.0	29.2	0.3	
4/27/10 10:25:30	2.88	4.52	24.0	29.1	-0.2	
4/27/10 10:25:45	2.89	4.52	24.1	28.7	-0.7	
4/27/10 10:26:00	2.89	4.51	24.2	28.7	-1.0	
4/27/10 10:26:15	2.90	4.51	24.2	28.7	-0.5	
4/27/10 10:26:30	2.92	4.50	24.1	29.1	0.3	
4/27/10 10:26:45	2.91	4.51	24.1	29.1	0.1	
4/27/10 10:27:00	2.93	4.51	24.4	29.2	-0.5	
4/27/10 10:27:15	2.91	4.52	24.5	29.3	-0.9	
4/27/10 10:27:30	2.85	4.53	24.7	29.2	-0.9	
4/27/10 10:27:45	2.81	4.54	24.4	28.9	-0.3	
4/27/10 10:28:00	2.80	4.55	24.2	29.1	0.0	
4/27/10 10:28:15	2.82	4.54	24.3	29.4	-0.4	
4/27/10 10:28:30	2.85	4.53	24.3	29.0	-0.8	
4/27/10 10:28:45	2.85	4.53	24.3	29.2	-1.0	
4/27/10 10:29:00	2.85	4.54	24.4	29.2	-0.5	
4/27/10 10:29:15	2.88	4.53	24.4	29.2	-0.1	
4/27/10 10:29:30	2.91	4.53	24.2	29.7	-0.3	
4/27/10 10:29:45	2.92	4.53	24.3	29.6	-0.7	
4/27/10 10:30:00	2.92	4.54	24.7	29.5	-1.1	
4/27/10 10:30:15	2.88	4.55	24.7	29.6	-0.8	
4/27/10 10:30:30	2.84	4.56	24.9	29.5	-0.1	
4/27/10 10:30:45	2.84	4.56	24.5	29.2	-0.1	
4/27/10 10:31:00	2.84	4.56	24.4	29.7	-0.6	
4/27/10 10:31:15	2.84	4.56	24.5	29.6	-1.0	
4/27/10 10:31:30	2.86	4.55	24.4	29.9	-1.1	
4/27/10 10:31:45	2.85	4.55	24.4	29.5	-0.5	
4/27/10 10:32:00	2.84	4.55	24.4	29.6	-0.1	
4/27/10 10:32:15	2.84	4.54	24.6	29.7	-0.5	
4/27/10 10:32:30	2.85	4.54	24.6	29.6	-1.0	
4/27/10 10:32:45	2.85	4.54	24.4	29.5	-1.2	
4/27/10 10:33:00	2.84	4.54	24.3	29.5	-0.9	
4/27/10 10:33:15	2.83	4.55	24.4	29.8	-0.2	
4/27/10 10:33:30	2.83	4.54	24.5	30.1	-0.3	
4/27/10 10:33:45	2.84	4.54	24.5	29.9	-0.8	
4/27/10 10:34:00	2.84	4.54	24.2	29.5	-1.1	
4/27/10 10:34:15	2.83	4.54	24.1	29.9	-1.0	
4/27/10 10:34:30	2.87	4.54	24.2	29.9	-0.3	
4/27/10 10:34:45	2.89	4.53	24.4	29.8	-0.1	
4/27/10 10:35:00	2.88	4.54	24.4	29.9	-0.5	
4/27/10 10:35:15	2.86	4.54	24.4	29.9	-1.0	
4/27/10 10:35:30	2.87	4.55	24.4	30.1	-1.3	
4/27/10 10:35:45	2.86	4.55	24.2	30.3	-0.8	
4/27/10 10:36:00	2.85	4.55	24.4	29.8	-0.1	
4/27/10 10:36:15	2.87	4.55	24.3	29.5	-0.2	
4/27/10 10:36:30	2.87	4.55	24.2	29.4	-0.8	
4/27/10 10:36:45	2.89	4.54	24.3	29.9	-1.1	
4/27/10 10:37:00	2.92	4.53	24.2	29.9	-1.2	
4/27/10 10:37:15	2.91	4.54	24.4	29.9	-0.6	
4/27/10 10:37:30	2.90	4.54	24.4	30.3	-0.2	
4/27/10 10:37:45	2.87	4.55	24.6	30.6	-0.4	
4/27/10 10:38:00	2.84	4.55	24.7	30.3	-0.9	
4/27/10 10:38:15	2.81	4.56	24.7	30.7	-1.1	
4/27/10 10:38:30	2.78	4.56	24.8	30.7	-0.7	
4/27/10 10:38:45	2.78	4.56	24.8	30.6	-0.2	
4/27/10 10:39:00	2.77	4.57	24.8	30.5	-0.5	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 10:39:15	2.76	4.58	24.6	30.6	-0.9	
4/27/10 10:39:30	2.77	4.58	24.9	30.7	-1.2	
4/27/10 10:39:45	2.79	4.57	24.7	30.7	-1.2	
4/27/10 10:40:00	2.80	4.57	24.9	30.2	-0.3	
4/27/10 10:40:15	2.79	4.57	24.9	30.1	-0.2	
4/27/10 10:40:30	2.79	4.58	24.8	30.5	-0.6	
4/27/10 10:40:45	2.82	4.57	24.8	31.0	-1.1	
4/27/10 10:41:00	2.85	4.56	24.9	30.9	-1.3	
4/27/10 10:41:15	2.83	4.58	25.0	30.9	-0.9	
4/27/10 10:41:30	2.82	4.59	25.0	31.4	-0.4	
4/27/10 10:41:45	2.81	4.60	24.9	31.0	-0.7	
4/27/10 10:42:00	2.83	4.59	24.8	31.3	-1.1	
4/27/10 10:42:15	2.81	4.58	25.0	31.1	-1.2	
4/27/10 10:42:30	2.80	4.58	25.0	31.1	-0.8	
4/27/10 10:42:45	2.78	4.58	24.9	31.4	-0.1	
4/27/10 10:43:00	2.79	4.59	24.8	31.2	-0.3	
4/27/10 10:43:15	2.82	4.59	24.9	30.8	-0.9	
4/27/10 10:43:30	2.82	4.60	24.9	31.1	-1.4	
4/27/10 10:43:45	2.82	4.60	24.8	31.2	-1.4	
4/27/10 10:44:00	2.83	4.59	24.7	31.0	-0.5	
4/27/10 10:44:15	2.81	4.59	24.8	30.9	-0.1	
4/27/10 10:44:30	2.79	4.59	25.0	30.8	-0.6	
4/27/10 10:44:45	2.79	4.58	24.8	30.4	-1.1	
4/27/10 10:45:00	2.79	4.57	24.7	30.4	-1.5	
4/27/10 10:45:15	2.80	4.56	24.8	30.7	-1.3	
4/27/10 10:45:30	2.82	4.56	24.7	30.3	-0.2	
4/27/10 10:45:45	2.82	4.58	24.7	30.6	-0.1	
4/27/10 10:46:00	2.81	4.59	24.6	31.2	-0.7	
4/27/10 10:46:15	2.85	4.58	24.8	31.2	-1.1	
4/27/10 10:46:30	2.83	4.58	24.6	30.9	-1.3	
4/27/10 10:46:45	2.77	4.59	24.8	30.3	-0.8	
4/27/10 10:47:00	2.76	4.58	24.7	30.5	-0.3	
4/27/10 10:47:15	2.78	4.57	24.7	30.3	-0.6	
4/27/10 10:47:30	2.83	4.56	24.4	30.4	-1.2	
4/27/10 10:47:45	2.87	4.56	24.7	30.5	-1.4	
4/27/10 10:48:00	2.89	4.56	24.7	30.5	-1.0	
4/27/10 10:48:15	2.88	4.57	24.8	30.9	-0.2	
4/27/10 10:48:30	2.87	4.58	24.7	30.7	-0.2	
4/27/10 10:48:45	2.82	4.59	24.8	30.5	-0.7	
4/27/10 10:49:00	2.75	4.59	24.9	30.5	-1.2	
4/27/10 10:49:15	2.75	4.58	25.0	29.8	-1.4	
4/27/10 10:49:30	2.78	4.56	24.7	29.3	-0.6	
4/27/10 10:49:45	2.81	4.55	24.3	29.0	-0.2	
4/27/10 10:50:00	2.91	4.53	24.3	29.0	-0.7	
4/27/10 10:50:15	3.03	4.52	24.3	29.3	-1.0	
4/27/10 10:50:30	3.12	4.50	24.6	29.1	-1.3	
4/27/10 10:50:45	3.14	4.51	24.5	29.1	-0.9	
4/27/10 10:51:00	3.13	4.52	24.3	29.1	-0.2	
4/27/10 10:51:15	3.13	4.52	24.2	28.8	-0.5	
4/27/10 10:51:30	3.14	4.52	24.2	29.2	-1.0	
4/27/10 10:51:45	3.14	4.50	24.3	29.1	-1.3	
4/27/10 10:52:00	3.15	4.49	24.4	28.9	-1.1	
4/27/10 10:52:15	3.14	4.49	24.5	29.1	-0.4	
4/27/10 10:52:30	3.10	4.50	24.4	29.1	-0.3	
4/27/10 10:52:45	3.09	4.51	24.3	29.2	-0.7	
4/27/10 10:53:00	3.10	4.52	24.4	30.0	-1.1	
4/27/10 10:53:15	3.12	4.52	24.5	29.7	-1.2	
4/27/10 10:53:30	3.12	4.53	24.5	29.6	-0.5	
4/27/10 10:53:45	3.07	4.54	24.6	29.3	-0.3	
4/27/10 10:54:00	3.03	4.54	24.4	29.2	-0.8	
4/27/10 10:54:15	3.02	4.53	24.5	28.7	-1.2	
4/27/10 10:54:30	3.04	4.51	24.1	28.7	-1.4	
4/27/10 10:54:45	3.04	4.50	24.1	28.5	-1.0	
4/27/10 10:55:00	3.05	4.49	24.0	27.8	-0.1	
4/27/10 10:55:15	3.06	4.50	24.0	27.8	-0.2	
4/27/10 10:55:30	3.08	4.51	24.1	28.0	-0.9	
4/27/10 10:55:45	3.14	4.51	24.2	28.3	-1.3	
4/27/10 10:56:00	3.15	4.52	24.2	28.3	-1.2	
4/27/10 10:56:15	3.13	4.54	24.2	27.4	-0.6	
4/27/10 10:56:30	3.08	4.55	24.3	27.8	-0.2	
4/27/10 10:56:45	3.05	4.55	24.5	27.6	-0.5	
4/27/10 10:57:00	3.08	4.53	24.5	27.6	-1.0	
4/27/10 10:57:15	3.07	4.53	24.4	27.8	-1.2	
4/27/10 10:57:30	3.06	4.52	24.7	27.3	-0.6	
4/27/10 10:57:45	3.03	4.53	24.6	27.1	-0.2	
4/27/10 10:58:00	3.02	4.54	24.5	27.3	-0.5	
4/27/10 10:58:15	3.06	4.54	24.6	27.1	-0.9	
4/27/10 10:58:30	3.11	4.54	24.7	27.0	-1.2	
4/27/10 10:58:45	3.10	4.56	24.7	27.1	-1.0	
4/27/10 10:59:00	3.07	4.56	24.6	27.0	-0.1	
4/27/10 10:59:15	3.06	4.55	24.6	27.0	-0.2	
4/27/10 10:59:30	3.06	4.54	24.6	26.9	-0.9	
4/27/10 10:59:45	3.05	4.53	24.6	27.0	-1.3	
4/27/10 11:00:00	3.01	4.53	24.8	27.1	-1.5	
4/27/10 11:00:15	2.99	4.53	24.8	27.1	-0.9	
4/27/10 11:00:30	2.98	4.54	24.6	27.1	-0.1	
4/27/10 11:00:45	2.99	4.55	24.7	27.2	-0.4	
4/27/10 11:01:00	3.01	4.57	24.7	26.8	-1.0	
4/27/10 11:01:15	3.00	4.58	24.7	26.7	-1.3	
4/27/10 11:01:30	2.98	4.58	24.9	26.8	-1.1	
4/27/10 11:01:45	3.00	4.57	24.7	26.9	-0.4	
4/27/10 11:02:00	3.00	4.57	24.8	27.1	0.0	
4/27/10 11:02:15	3.00	4.57	24.8	27.0	-0.4	
4/27/10 11:02:30	2.98	4.57	24.9	26.9	-1.0	
4/27/10 11:02:45	2.96	4.58	24.9	27.2	-1.2	
4/27/10 11:03:00	2.97	4.58	24.7	27.3	-0.9	
4/27/10 11:03:15	3.01	4.58	24.7	26.9	-0.3	
4/27/10 11:03:30	3.03	4.58	24.6	27.4	-0.5	
4/27/10 11:03:45	3.03	4.59	24.6	27.5	-0.9	
4/27/10 11:04:00	3.04	4.58	24.8	27.6	-1.4	
4/27/10 11:04:15	3.02	4.57	24.5	27.3	-1.4	
4/27/10 11:04:30	3.00	4.57	24.4	28.0	-0.6	
4/27/10 11:04:45	3.02	4.56	24.5	28.3	-0.3	
4/27/10 11:05:00	3.08	4.55	24.7	28.3	-0.8	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 11:05:15	3.08	4.56	24.7	28.2	-1.2	
4/27/10 11:05:30	3.03	4.58	24.8	28.4	-1.4	
4/27/10 11:05:45	3.00	4.59	24.6	28.8	-1.0	
4/27/10 11:06:00	3.03	4.58	24.5	29.0	-0.2	
4/27/10 11:06:15	3.05	4.57	24.7	29.5	-0.3	
4/27/10 11:06:30	3.05	4.57	24.9	29.3	-1.0	
4/27/10 11:06:45	3.04	4.56	25.2	30.2	-1.4	
4/27/10 11:07:00	3.01	4.56	25.8	30.1	-1.3	
4/27/10 11:07:15	3.00	4.56	26.1	29.9	-0.7	
4/27/10 11:07:30	3.01	4.57	25.7	29.8	-0.5	
4/27/10 11:07:45	3.04	4.56	25.4	30.3	-0.9	
4/27/10 11:08:00	3.05	4.56	25.0	30.0	-1.4	
4/27/10 11:08:15	3.04	4.56	25.1	30.6	-1.6	
4/27/10 11:08:30	3.03	4.56	25.2	30.4	-0.9	
4/27/10 11:08:45	3.03	4.56	24.9	30.1	-0.2	
4/27/10 11:09:00	3.00	4.56	24.8	29.9	-0.5	
4/27/10 11:09:15	3.00	4.56	25.6	29.5	-1.0	
4/27/10 11:09:30	3.02	4.55	25.6	29.3	-1.5	
4/27/10 11:09:45	3.06	4.54	24.9	29.6	-1.4	
4/27/10 11:10:00	3.11	4.54	24.9	29.7	-0.6	
4/27/10 11:10:15	3.12	4.54	25.2	29.5	-0.4	
4/27/10 11:10:30	3.09	4.56	25.1	29.5	-0.9	
4/27/10 11:10:45	3.04	4.57	25.1	29.2	-1.2	
4/27/10 11:11:00	3.00	4.58	25.1	29.0	-1.3	
4/27/10 11:11:15	2.97	4.58	24.9	28.6	-0.9	
4/27/10 11:11:30	2.97	4.57	24.9	28.7	-0.3	
4/27/10 11:11:45	2.97	4.57	25.9	28.7	-0.6	
4/27/10 11:12:00	2.98	4.56	25.9	28.1	-1.1	
4/27/10 11:12:15	2.99	4.57	25.4	28.1	-1.3	
4/27/10 11:12:30	2.99	4.58	25.0	27.9	-0.9	
4/27/10 11:12:45	3.02	4.58	25.1	28.0	-0.2	
4/27/10 11:13:00	3.03	4.58	25.3	28.1	-0.4	
4/27/10 11:13:15	3.02	4.59	25.3	27.9	-0.8	
4/27/10 11:13:30	2.99	4.59	25.4	27.7	-1.3	
4/27/10 11:13:45	2.96	4.60	25.2	27.6	-1.4	
4/27/10 11:14:00	2.95	4.59	25.2	27.7	-0.6	
4/27/10 11:14:15	2.95	4.58	25.3	27.6	-0.1	
4/27/10 11:14:30	2.94	4.57	25.4	27.5	-0.5	
4/27/10 11:14:45	2.93	4.58	25.4	27.7	-1.0	
4/27/10 11:15:00	2.92	4.60	25.2	27.5	-1.3	
4/27/10 11:15:15	2.90	4.62	25.4	27.5	-1.2	
4/27/10 11:15:30	2.89	4.63	25.5	27.3	-0.3	
4/27/10 11:15:45	2.93	4.62	25.4	27.0	-0.2	
4/27/10 11:16:00	2.93	4.61	25.3	26.9	-0.8	
4/27/10 11:16:15	2.90	4.60	25.0	27.3	-1.1	
4/27/10 11:16:30	2.90	4.58	25.1	27.2	-1.3	
4/27/10 11:16:45	2.93	4.57	25.2	27.0	-0.8	
4/27/10 11:17:00	2.92	4.57	25.2	27.1	-0.2	
4/27/10 11:17:15	2.93	4.58	25.3	27.3	-0.5	
4/27/10 11:17:30	2.95	4.58	25.2	27.1	-1.0	
4/27/10 11:17:45	2.95	4.59	25.4	27.1	-1.2	
4/27/10 11:18:00	2.95	4.59	25.3	27.5	-1.0	
4/27/10 11:18:15	2.95	4.59	25.1	27.2	-0.3	
4/27/10 11:18:30	2.95	4.59	25.2	27.3	-0.2	
4/27/10 11:18:45	2.95	4.57	25.2	27.1	-0.7	
4/27/10 11:19:00	2.98	4.55	25.1	27.4	-1.2	
4/27/10 11:19:15	3.00	4.53	25.2	27.7	-1.4	
4/27/10 11:19:30	3.01	4.53	24.9	27.8	-0.7	
4/27/10 11:19:45	3.00	4.55	25.1	27.8	-0.3	
4/27/10 11:20:00	3.01	4.56	25.3	27.9	-0.8	
4/27/10 11:20:15	3.03	4.57	25.2	28.6	-1.2	
4/27/10 11:20:30	3.05	4.56	25.4	28.8	-1.4	
4/27/10 11:20:45	3.07	4.56	25.4	28.6	-1.2	
4/27/10 11:21:00	3.05	4.57	25.2	28.7	-0.4	
4/27/10 11:21:15	3.02	4.58	25.3	29.0	-0.5	
4/27/10 11:21:30	3.02	4.57	25.3	29.4	-1.1	
4/27/10 11:21:45	3.02	4.55	25.3	29.7	-1.4	
4/27/10 11:22:00	3.01	4.54	25.4	30.1	-1.3	
4/27/10 11:22:15	2.99	4.54	25.8	29.9	-0.6	
4/27/10 11:22:30	2.98	4.54	25.6	30.2	-0.6	
4/27/10 11:22:45	2.98	4.56	25.6	30.3	-1.0	
4/27/10 11:23:00	2.97	4.58	25.6	30.1	-1.4	
4/27/10 11:23:15	2.96	4.59	25.6	29.9	-1.5	
4/27/10 11:23:30	2.94	4.60	25.6	30.3	-0.7	
4/27/10 11:23:45	2.93	4.60	25.9	30.3	-0.3	
4/27/10 11:24:00	2.94	4.59	25.6	30.1	-0.7	
4/27/10 11:24:15	2.93	4.60	25.7	30.4	-1.1	
4/27/10 11:24:30	2.96	4.59	25.8	29.8	-1.4	
4/27/10 11:24:45	2.98	4.58	25.7	29.8	-1.2	
4/27/10 11:25:00	2.95	4.59	25.7	29.5	-0.2	
4/27/10 11:25:15	2.96	4.58	25.6	29.3	-0.2	
4/27/10 11:25:30	2.97	4.57	25.5	29.8	-0.8	
4/27/10 11:25:45	2.97	4.57	25.5	30.1	-1.2	
4/27/10 11:26:00	2.99	4.56	25.6	29.9	-1.3	
4/27/10 11:26:15	2.95	4.57	25.5	29.9	-0.8	
4/27/10 11:26:30	2.92	4.57	25.5	29.5	-0.5	
4/27/10 11:26:45	2.93	4.57	25.6	29.7	-0.9	
4/27/10 11:27:00	2.98	4.56	25.5	29.5	-1.3	
4/27/10 11:27:15	3.00	4.55	25.4	29.5	-1.5	
4/27/10 11:27:30	3.00	4.55	25.4	29.6	-0.8	
4/27/10 11:27:45	3.02	4.55	25.4	29.6	-0.3	
4/27/10 11:28:00	3.00	4.55	25.8	29.7	-0.6	
4/27/10 11:28:15	2.97	4.55	25.9	29.1	-1.1	
4/27/10 11:28:30	2.95	4.56	25.5	29.3	-1.5	
4/27/10 11:28:45	2.96	4.55	25.6	29.7	-1.3	
4/27/10 11:29:00	2.99	4.55	25.7	29.4	-0.3	
4/27/10 11:29:15	2.99	4.55	25.7	29.5	-0.2	
4/27/10 11:29:30	2.96	4.56	25.5	29.5	-0.9	
4/27/10 11:29:45	2.97	4.55	25.6	30.0	-1.4	
4/27/10 11:30:00	2.98	4.55	25.6	29.6	-1.6	
4/27/10 11:30:15	2.97	4.56	25.7	29.5	-1.1	
4/27/10 11:30:30	2.93	4.57	26.0	30.1	-0.4	
4/27/10 11:30:45	2.94	4.56	26.5	29.8	-0.6	
4/27/10 11:31:00	2.96	4.56	26.3	29.8	-1.2	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 11:31:15	2.95	4.56	26.4	29.9	-1.4	
4/27/10 11:31:30	2.96	4.57	26.7	29.8	-1.1	
4/27/10 11:31:45	2.96	4.57	26.4	30.2	-0.5	
4/27/10 11:32:00	2.95	4.57	26.4	30.4	-0.7	
4/27/10 11:32:15	2.92	4.57	26.5	30.4	-1.1	
4/27/10 11:32:30	2.89	4.58	26.3	30.3	-1.4	
4/27/10 11:32:45	2.89	4.58	26.1	30.1	-1.4	
4/27/10 11:33:00	2.93	4.57	26.4	29.8	-0.5	
4/27/10 11:33:15	2.97	4.57	26.5	29.9	-0.4	
4/27/10 11:33:30	2.97	4.57	26.4	30.3	-0.9	
4/27/10 11:33:45	2.97	4.56	26.6	30.1	-1.3	
4/27/10 11:34:00	2.98	4.55	26.5	30.4	-1.5	
4/27/10 11:34:15	2.96	4.56	26.6	30.2	-1.0	
4/27/10 11:34:30	2.95	4.57	26.7	31.5	-0.3	
4/27/10 11:34:45	2.93	4.57	27.2	32.3	-0.6	
4/27/10 11:35:00	2.92	4.58	27.8	32.5	-1.2	
4/27/10 11:35:15	2.86	4.62	28.0	32.0	-1.5	
4/27/10 11:35:30	2.78	4.67	27.9	31.7	-1.3	
4/27/10 11:35:45	2.76	4.68	27.6	31.5	-0.6	
4/27/10 11:36:00	2.80	4.66	27.1	31.2	-0.6	
4/27/10 11:36:15	2.84	4.64	26.9	31.0	-1.0	
4/27/10 11:36:30	2.87	4.62	26.8	30.8	-1.4	
4/27/10 11:36:45	2.90	4.61	26.7	30.4	-1.5	
4/27/10 11:37:00	2.92	4.60	26.3	30.9	-0.7	
4/27/10 11:37:15	2.95	4.59	26.3	30.2	-0.4	
4/27/10 11:37:30	3.02	4.57	26.5	30.4	-0.9	
4/27/10 11:37:45	3.03	4.57	26.4	30.0	-1.2	
4/27/10 11:38:00	3.03	4.56	26.1	30.1	-1.5	
4/27/10 11:38:15	3.00	4.56	26.0	30.1	-1.2	
4/27/10 11:38:30	3.00	4.56	26.0	29.9	-0.4	
4/27/10 11:38:45	3.00	4.55	25.9	30.2	-0.7	
4/27/10 11:39:00	3.01	4.54	25.9	30.3	-1.3	
4/27/10 11:39:15	3.04	4.53	26.1	30.3	-1.6	
4/27/10 11:39:30	3.07	4.53	26.0	30.2	-1.5	
4/27/10 11:39:45	3.08	4.53	25.9	30.2	-0.7	
4/27/10 11:40:00	3.09	4.53	26.1	30.1	-0.5	
4/27/10 11:40:15	3.10	4.52	26.1	29.9	-0.9	
4/27/10 11:40:30	3.07	4.53	26.1	29.9	-1.4	
4/27/10 11:40:45	3.04	4.53	26.5	29.6	-1.6	
4/27/10 11:41:00	3.03	4.54	26.9	30.4	-0.9	
4/27/10 11:41:15	3.02	4.54	27.1	29.6	-0.5	
4/27/10 11:41:30	3.04	4.54	26.6	29.2	-0.9	
4/27/10 11:41:45	3.04	4.54	26.0	28.8	-1.3	
4/27/10 11:42:00	3.02	4.54	25.4	28.7	-1.6	
4/27/10 11:42:15	3.03	4.54	25.5	28.9	-1.3	
4/27/10 11:42:30	3.06	4.53	25.6	28.7	-0.5	
4/27/10 11:42:45	3.09	4.53	26.0	28.8	-0.6	
4/27/10 11:43:00	3.08	4.53	26.2	28.4	-1.1	
4/27/10 11:43:15	3.06	4.54	26.1	28.4	-1.4	
4/27/10 11:43:30	3.04	4.54	26.0	28.4	-1.3	
4/27/10 11:43:45	3.06	4.54	26.0	28.5	-0.7	
4/27/10 11:44:00	3.09	4.54	25.8	28.2	-0.7	
4/27/10 11:44:15	3.10	4.53	25.7	28.1	-1.1	
4/27/10 11:44:30	3.10	4.53	25.9	28.1	-1.5	
4/27/10 11:44:45	3.10	4.52	25.8	28.7	-1.5	
4/27/10 11:45:00	3.12	4.52	26.1	28.4	-0.7	Stop M5 for port change
4/27/10 11:45:15	3.10	4.53	26.0	28.6	-0.3	
4/27/10 11:45:30	3.07	4.55	26.2	28.9	-0.7	
4/27/10 11:45:45	3.07	4.54	26.4	29.2	-1.1	
4/27/10 11:46:00	3.08	4.55	26.5	28.9	-1.4	
4/27/10 11:46:15	3.07	4.56	26.4	28.6	-1.1	
4/27/10 11:46:30	3.02	4.57	26.4	28.8	-0.5	
4/27/10 11:46:45	3.01	4.56	26.3	28.5	-0.7	
4/27/10 11:47:00	3.01	4.55	25.7	28.6	-1.2	
4/27/10 11:47:15	2.99	4.54	25.4	28.9	-1.4	
4/27/10 11:47:30	3.02	4.53	25.9	28.8	-1.2	
4/27/10 11:47:45	3.05	4.53	26.1	29.2	-0.6	
4/27/10 11:48:00	3.07	4.54	26.2	29.3	-0.5	
4/27/10 11:48:15	3.05	4.56	26.2	29.4	-1.0	
4/27/10 11:48:30	3.00	4.57	26.2	29.6	-1.4	
4/27/10 11:48:45	2.97	4.58	26.4	29.8	-1.5	
4/27/10 11:49:00	2.95	4.58	26.2	29.4	-0.8	
4/27/10 11:49:15	2.93	4.58	26.2	29.6	-0.5	
4/27/10 11:49:30	2.92	4.57	26.1	29.1	-1.0	
4/27/10 11:49:45	2.92	4.56	26.2	29.1	-1.3	
4/27/10 11:50:00	2.91	4.56	26.2	29.3	-1.5	
4/27/10 11:50:15	2.95	4.56	26.2	29.1	-1.1	
4/27/10 11:50:30	3.00	4.56	25.9	28.8	-0.4	
4/27/10 11:50:45	3.01	4.57	25.8	28.9	-0.7	
4/27/10 11:51:00	3.04	4.57	25.8	28.5	-1.2	
4/27/10 11:51:15	3.07	4.56	25.7	28.6	-1.4	
4/27/10 11:51:30	3.07	4.55	26.0	28.8	-1.2	
4/27/10 11:51:45	3.06	4.54	26.0	29.0	-0.6	
4/27/10 11:52:00	3.05	4.53	25.9	28.7	-0.7	
4/27/10 11:52:15	3.02	4.53	25.8	28.3	-1.1	
4/27/10 11:52:30	3.00	4.54	25.8	28.3	-1.4	
4/27/10 11:52:45	3.00	4.55	26.1	28.6	-1.5	
4/27/10 11:53:00	3.03	4.55	25.9	28.8	-0.6	
4/27/10 11:53:15	3.04	4.55	26.2	29.1	-0.4	
4/27/10 11:53:30	3.02	4.56	26.2	29.0	-1.0	
4/27/10 11:53:45	3.01	4.57	25.8	28.7	-1.4	
4/27/10 11:54:00	3.02	4.56	26.1	29.1	-1.7	
4/27/10 11:54:15	3.05	4.55	26.3	29.5	-1.3	
4/27/10 11:54:30	3.06	4.53	26.2	29.3	-0.5	
4/27/10 11:54:45	3.01	4.54	25.8	28.0	-0.6	
4/27/10 11:55:00	2.98	4.55	24.7	27.7	-1.2	
4/27/10 11:55:15	3.02	4.55	24.8	29.1	-1.5	
4/27/10 11:55:30	3.45	4.43	25.9	29.4	-1.4	
4/27/10 11:55:45	3.83	4.39	26.3	29.3	-0.7	Re-start M5
4/27/10 11:56:00	3.51	4.48	26.2	29.4	-0.6	
4/27/10 11:56:15	3.17	4.54	26.0	29.5	-1.0	
4/27/10 11:56:30	3.09	4.55	26.0	29.3	-1.4	
4/27/10 11:56:45	3.09	4.55	26.2	29.6	-1.6	
4/27/10 11:57:00	3.06	4.56	26.0	29.3	-0.9	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 11:57:15	3.05	4.56	26.0	29.4	-0.5	
4/27/10 11:57:30	3.04	4.55	25.9	29.1	-0.9	
4/27/10 11:57:45	3.06	4.55	26.1	29.1	-1.2	
4/27/10 11:58:00	3.07	4.55	26.2	29.6	-1.5	
4/27/10 11:58:15	3.09	4.55	26.4	28.9	-1.3	
4/27/10 11:58:30	3.10	4.55	26.3	28.9	-0.6	
4/27/10 11:58:45	3.10	4.55	26.2	29.1	-0.8	
4/27/10 11:59:00	3.15	4.54	26.0	29.0	-1.3	
4/27/10 11:59:15	3.19	4.52	26.0	29.2	-1.5	
4/27/10 11:59:30	3.17	4.52	26.1	29.4	-1.3	
4/27/10 11:59:45	3.17	4.51	26.4	29.4	-0.6	
4/27/10 12:00:00	3.15	4.53	26.3	29.2	-0.4	
4/27/10 12:00:15	3.11	4.54	26.2	29.4	-0.8	
4/27/10 12:00:30	3.11	4.55	26.2	29.5	-1.4	
4/27/10 12:00:45	3.13	4.55	26.2	29.3	-1.6	
4/27/10 12:01:00	3.12	4.55	26.2	29.5	-1.0	
4/27/10 12:01:15	3.11	4.55	26.6	29.4	-0.5	
4/27/10 12:01:30	3.12	4.54	26.8	29.9	-0.8	
4/27/10 12:01:45	3.09	4.53	28.2	29.9	-1.2	
4/27/10 12:02:00	3.07	4.52	27.7	30.3	-1.6	
4/27/10 12:02:15	3.07	4.53	26.8	29.8	-1.4	
4/27/10 12:02:30	3.06	4.54	26.5	29.7	-0.6	
4/27/10 12:02:45	3.05	4.55	26.4	29.8	-0.7	
4/27/10 12:03:00	3.08	4.55	26.4	29.9	-1.2	
4/27/10 12:03:15	3.14	4.54	26.4	29.9	-1.5	
4/27/10 12:03:30	3.14	4.54	26.3	29.9	-1.5	
4/27/10 12:03:45	3.12	4.55	26.4	30.1	-0.8	
4/27/10 12:04:00	3.12	4.55	26.5	30.1	-0.5	
4/27/10 12:04:15	3.10	4.54	26.5	30.2	-1.0	
4/27/10 12:04:30	3.08	4.54	26.5	29.6	-1.5	
4/27/10 12:04:45	3.04	4.53	26.3	29.1	-1.7	
4/27/10 12:05:00	3.03	4.52	26.0	29.0	-1.0	
4/27/10 12:05:15	3.07	4.51	26.0	29.4	-0.3	
4/27/10 12:05:30	3.13	4.51	26.1	29.7	-0.6	
4/27/10 12:05:45	3.15	4.52	26.3	30.0	-1.1	
4/27/10 12:06:00	3.15	4.54	26.5	29.6	-1.5	
4/27/10 12:06:15	3.11	4.56	26.3	29.4	-1.6	
4/27/10 12:06:30	3.07	4.57	26.4	29.5	-0.8	
4/27/10 12:06:45	3.07	4.56	26.4	29.7	-0.6	
4/27/10 12:07:00	3.07	4.55	26.3	29.6	-1.2	
4/27/10 12:07:15	3.05	4.54	26.4	29.9	-1.5	
4/27/10 12:07:30	3.04	4.53	26.4	29.8	-1.6	
4/27/10 12:07:45	3.04	4.52	26.3	29.6	-1.1	
4/27/10 12:08:00	3.03	4.53	26.1	29.3	-0.4	
4/27/10 12:08:15	3.06	4.53	25.9	29.6	-0.7	
4/27/10 12:08:30	3.10	4.53	26.2	29.5	-1.3	
4/27/10 12:08:45	3.14	4.52	26.0	29.3	-1.6	
4/27/10 12:09:00	3.15	4.53	26.1	29.5	-1.3	
4/27/10 12:09:15	3.14	4.52	26.1	29.5	-0.7	
4/27/10 12:09:30	3.14	4.52	26.2	29.5	-0.6	
4/27/10 12:09:45	3.10	4.52	26.2	29.6	-1.1	
4/27/10 12:10:00	3.06	4.52	26.1	29.1	-1.6	
4/27/10 12:10:15	3.05	4.50	26.1	29.1	-1.7	
4/27/10 12:10:30	3.06	4.49	26.0	29.1	-1.0	
4/27/10 12:10:45	3.10	4.48	26.0	29.2	-0.6	
4/27/10 12:11:00	3.11	4.49	26.1	29.5	-1.0	
4/27/10 12:11:15	3.09	4.51	26.1	29.7	-1.3	
4/27/10 12:11:30	3.07	4.53	26.3	29.6	-1.5	
4/27/10 12:11:45	3.06	4.54	26.2	29.6	-1.1	
4/27/10 12:12:00	3.04	4.55	26.2	29.6	-0.5	
4/27/10 12:12:15	3.04	4.56	26.0	29.5	-0.8	
4/27/10 12:12:30	3.05	4.55	26.1	29.6	-1.4	
4/27/10 12:12:45	3.06	4.54	26.1	29.3	-1.7	
4/27/10 12:13:00	3.04	4.53	26.2	29.3	-1.5	
4/27/10 12:13:15	3.03	4.53	26.3	29.3	-0.8	
4/27/10 12:13:30	3.04	4.53	26.1	29.0	-0.7	
4/27/10 12:13:45	3.06	4.53	26.0	29.0	-1.2	
4/27/10 12:14:00	3.08	4.54	26.1	28.8	-1.6	
4/27/10 12:14:15	3.10	4.54	25.7	29.1	-1.7	
4/27/10 12:14:30	3.09	4.53	26.1	29.2	-0.9	
4/27/10 12:14:45	3.11	4.52	26.3	29.6	-0.4	
4/27/10 12:15:00	3.11	4.51	26.4	29.2	-0.9	
4/27/10 12:15:15	3.06	4.51	26.2	29.0	-1.3	
4/27/10 12:15:30	3.01	4.52	26.1	29.0	-1.6	
4/27/10 12:15:45	3.04	4.52	26.1	29.1	-1.4	
4/27/10 12:16:00	3.08	4.52	26.3	29.3	-0.6	
4/27/10 12:16:15	3.09	4.53	26.5	29.5	-0.8	
4/27/10 12:16:30	3.07	4.54	26.5	29.1	-1.4	
4/27/10 12:16:45	3.04	4.55	26.4	29.3	-1.7	
4/27/10 12:17:00	2.99	4.56	26.6	29.2	-1.5	
4/27/10 12:17:15	2.99	4.54	26.4	29.3	-0.9	
4/27/10 12:17:30	3.00	4.52	26.6	29.5	-0.6	
4/27/10 12:17:45	3.02	4.51	26.7	29.1	-1.0	
4/27/10 12:18:00	3.03	4.52	26.7	29.4	-1.5	
4/27/10 12:18:15	3.04	4.53	26.6	29.3	-1.6	
4/27/10 12:18:30	3.06	4.53	26.5	29.4	-1.0	
4/27/10 12:18:45	3.06	4.54	26.5	29.7	-0.6	
4/27/10 12:19:00	3.06	4.55	26.7	29.5	-1.0	
4/27/10 12:19:15	3.04	4.55	26.7	29.2	-1.4	
4/27/10 12:19:30	3.01	4.56	26.7	29.2	-1.7	
4/27/10 12:19:45	2.99	4.56	26.6	29.1	-1.4	
4/27/10 12:20:00	2.98	4.55	26.6	28.9	-0.7	
4/27/10 12:20:15	2.99	4.54	26.7	28.8	-0.9	
4/27/10 12:20:30	3.01	4.54	26.6	29.1	-1.5	
4/27/10 12:20:45	3.03	4.55	26.5	29.0	-1.7	
4/27/10 12:21:00	3.04	4.56	26.8	28.9	-1.5	
4/27/10 12:21:15	3.04	4.57	26.7	28.4	-0.8	
4/27/10 12:21:30	3.02	4.58	26.6	28.9	-0.7	
4/27/10 12:21:45	3.03	4.56	26.5	28.5	-1.1	
4/27/10 12:22:00	3.06	4.53	26.4	28.6	-1.6	
4/27/10 12:22:15	3.05	4.52	26.3	28.8	-1.7	
4/27/10 12:22:30	3.05	4.53	26.3	28.6	-1.0	
4/27/10 12:22:45	3.05	4.54	26.6	28.9	-0.7	
4/27/10 12:23:00	3.07	4.54	26.8	28.7	-1.2	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 12:23:15	3.09	4.55	26.7	28.8	-1.6	
4/27/10 12:23:30	3.08	4.56	26.5	28.8	-1.8	
4/27/10 12:23:45	3.07	4.56	26.6	28.8	-1.4	
4/27/10 12:24:00	3.06	4.56	26.7	28.9	-0.7	
4/27/10 12:24:15	3.04	4.55	27.2	29.2	-0.8	
4/27/10 12:24:30	3.05	4.54	27.3	29.0	-1.3	
4/27/10 12:24:45	3.06	4.53	27.1	29.2	-1.6	
4/27/10 12:25:00	3.02	4.54	27.3	28.8	-1.4	
4/27/10 12:25:15	2.99	4.55	27.2	28.7	-0.8	
4/27/10 12:25:30	2.97	4.56	27.1	28.7	-0.9	
4/27/10 12:25:45	2.97	4.57	27.0	28.9	-1.2	
4/27/10 12:26:00	3.00	4.57	26.9	28.7	-1.6	
4/27/10 12:26:15	3.01	4.58	27.2	29.1	-1.6	
4/27/10 12:26:30	2.99	4.58	27.1	29.0	-0.9	
4/27/10 12:26:45	2.98	4.57	27.2	28.8	-0.8	
4/27/10 12:27:00	2.97	4.55	27.2	29.1	-1.3	
4/27/10 12:27:15	2.96	4.54	27.2	28.9	-1.6	
4/27/10 12:27:30	2.95	4.53	27.2	28.9	-1.7	
4/27/10 12:27:45	2.94	4.54	27.0	29.2	-1.1	
4/27/10 12:28:00	2.95	4.55	27.1	29.5	-0.9	
4/27/10 12:28:15	2.97	4.56	27.1	29.2	-1.3	
4/27/10 12:28:30	2.97	4.58	27.2	29.1	-1.7	
4/27/10 12:28:45	2.95	4.59	27.2	29.3	-1.9	
4/27/10 12:29:00	2.97	4.58	27.3	29.5	-1.2	
4/27/10 12:29:15	2.99	4.58	27.4	29.3	-0.7	
4/27/10 12:29:30	2.99	4.57	27.5	29.5	-1.1	
4/27/10 12:29:45	3.01	4.55	27.5	29.2	-1.5	
4/27/10 12:30:00	3.01	4.55	27.5	28.8	-1.8	
4/27/10 12:30:15	2.97	4.56	27.4	29.0	-1.5	
4/27/10 12:30:30	2.98	4.55	27.8	28.6	-0.8	
4/27/10 12:30:45	2.97	4.56	27.7	28.2	-0.9	
4/27/10 12:31:00	2.94	4.56	27.7	27.9	-1.4	
4/27/10 12:31:15	2.93	4.55	27.9	28.0	-1.7	
4/27/10 12:31:30	2.96	4.54	27.9	28.0	-1.6	
4/27/10 12:31:45	2.97	4.54	27.7	27.7	-0.9	
4/27/10 12:32:00	2.98	4.54	27.5	27.8	-0.8	
4/27/10 12:32:15	2.98	4.54	27.6	27.9	-1.2	
4/27/10 12:32:30	3.00	4.54	27.8	27.5	-1.6	
4/27/10 12:32:45	2.98	4.54	27.3	27.7	-1.8	
4/27/10 12:33:00	2.97	4.54	27.2	27.8	-1.1	
4/27/10 12:33:15	2.97	4.54	27.5	27.9	-0.9	
4/27/10 12:33:30	2.98	4.54	27.4	27.5	-1.3	
4/27/10 12:33:45	2.98	4.55	27.2	27.6	-1.6	
4/27/10 12:34:00	3.00	4.55	27.2	27.6	-1.7	
4/27/10 12:34:15	3.02	4.55	27.2	27.6	-1.3	
4/27/10 12:34:30	3.02	4.55	27.2	27.6	-0.8	
4/27/10 12:34:45	3.02	4.56	27.7	27.6	-1.1	
4/27/10 12:35:00	2.97	4.57	27.6	27.9	-1.5	
4/27/10 12:35:15	2.94	4.57	27.4	27.7	-1.7	
4/27/10 12:35:30	2.92	4.58	27.4	27.9	-1.3	
4/27/10 12:35:45	2.91	4.58	27.7	27.7	-0.7	
4/27/10 12:36:00	2.92	4.58	27.8	27.6	-1.0	
4/27/10 12:36:15	2.89	4.59	27.2	27.5	-1.5	
4/27/10 12:36:30	2.88	4.59	27.3	27.4	-1.8	
4/27/10 12:36:45	2.93	4.57	27.3	27.3	-1.6	
4/27/10 12:37:00	2.99	4.57	27.2	27.7	-0.9	
4/27/10 12:37:15	2.99	4.56	27.2	27.4	-0.8	
4/27/10 12:37:30	3.00	4.56	27.1	27.3	-1.4	
4/27/10 12:37:45	2.96	4.57	27.1	27.3	-1.7	
4/27/10 12:38:00	2.97	4.57	27.2	27.4	-1.7	
4/27/10 12:38:15	2.97	4.57	27.4	27.5	-1.0	
4/27/10 12:38:30	2.94	4.58	27.4	27.4	-0.7	
4/27/10 12:38:45	2.92	4.58	27.3	27.5	-1.2	
4/27/10 12:39:00	2.89	4.59	27.3	27.5	-1.6	
4/27/10 12:39:15	2.90	4.59	27.3	27.2	-1.8	
4/27/10 12:39:30	2.91	4.59	27.1	27.1	-1.3	
4/27/10 12:39:45	2.92	4.58	27.1	27.1	-0.7	
4/27/10 12:40:00	2.95	4.57	27.0	26.8	-1.0	
4/27/10 12:40:15	2.99	4.55	26.9	27.1	-1.5	
4/27/10 12:40:30	3.03	4.54	27.0	27.4	-1.7	
4/27/10 12:40:45	3.06	4.53	27.1	27.2	-1.5	
4/27/10 12:41:00	3.04	4.54	27.4	27.2	-0.7	
4/27/10 12:41:15	3.02	4.55	27.4	27.2	-0.8	
4/27/10 12:41:30	3.00	4.55	27.2	26.9	-1.3	
4/27/10 12:41:45	2.99	4.55	27.3	27.3	-1.6	
4/27/10 12:42:00	3.01	4.55	27.3	27.3	-1.6	
4/27/10 12:42:15	3.01	4.55	27.0	27.4	-0.9	
4/27/10 12:42:30	2.99	4.56	27.1	27.3	-0.7	
4/27/10 12:42:45	3.00	4.56	27.1	26.8	-1.2	
4/27/10 12:43:00	3.01	4.56	26.8	27.0	-1.6	
4/27/10 12:43:15	3.02	4.55	27.3	26.8	-1.8	
4/27/10 12:43:30	3.06	4.54	27.2	26.9	-1.2	
4/27/10 12:43:45	3.09	4.53	26.9	27.1	-0.7	
4/27/10 12:44:00	3.07	4.53	26.7	27.4	-1.1	
4/27/10 12:44:15	3.03	4.54	26.8	27.7	-1.5	
4/27/10 12:44:30	2.99	4.56	26.8	27.6	-1.8	
4/27/10 12:44:45	2.96	4.58	26.7	27.5	-1.4	
4/27/10 12:45:00	2.94	4.58	26.6	27.5	-0.7	
4/27/10 12:45:15	2.95	4.58	28.6	27.6	-0.9	
4/27/10 12:45:30	2.98	4.57	30.1	27.3	-1.4	
4/27/10 12:45:45	2.99	4.57	27.8	27.3	-1.7	
4/27/10 12:46:00	3.00	4.57	27.1	27.3	-1.6	
4/27/10 12:46:15	3.03	4.57	26.9	27.4	-0.9	
4/27/10 12:46:30	3.04	4.57	27.0	27.2	-0.7	
4/27/10 12:46:45	3.03	4.57	27.3	27.2	-1.2	
4/27/10 12:47:00	3.04	4.57	27.3	27.9	-1.6	
4/27/10 12:47:15	3.06	4.57	27.1	27.6	-1.8	
4/27/10 12:47:30	3.04	4.58	27.1	27.3	-1.2	
4/27/10 12:47:45	2.96	4.60	26.8	27.3	-0.5	
4/27/10 12:48:00	2.94	4.60	26.6	27.7	-0.9	
4/27/10 12:48:15	2.97	4.59	27.0	28.0	-1.5	
4/27/10 12:48:30	3.00	4.59	27.0	27.8	-1.8	
4/27/10 12:48:45	2.96	4.60	27.2	28.0	-1.7	
4/27/10 12:49:00	2.91	4.61	27.4	27.8	-0.8	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 12:49:15	2.89	4.62	27.3	27.8	-0.6	
4/27/10 12:49:30	2.87	4.62	27.3	27.8	-1.2	
4/27/10 12:49:45	2.90	4.61	27.3	28.0	-1.7	
4/27/10 12:50:00	2.92	4.60	27.2	28.0	-1.9	
4/27/10 12:50:15	2.93	4.59	27.2	28.9	-1.4	
4/27/10 12:50:30	2.95	4.59	27.6	28.2	-0.8	
4/27/10 12:50:45	2.95	4.61	27.3	28.1	-1.1	
4/27/10 12:51:00	2.92	4.63	27.4	28.2	-1.5	
4/27/10 12:51:15	2.93	4.62	27.7	28.4	-1.8	
4/27/10 12:51:30	2.94	4.61	27.8	28.5	-1.5	
4/27/10 12:51:45	2.94	4.61	27.5	28.4	-0.8	
4/27/10 12:52:00	2.93	4.61	27.5	28.6	-0.9	
4/27/10 12:52:15	2.92	4.61	27.5	28.1	-1.4	
4/27/10 12:52:30	2.93	4.62	27.4	27.9	-1.8	
4/27/10 12:52:45	2.91	4.62	27.3	28.0	-1.8	
4/27/10 12:53:00	2.92	4.61	27.4	28.0	-1.1	
4/27/10 12:53:15	2.94	4.60	27.2	27.8	-0.9	
4/27/10 12:53:30	2.95	4.60	27.1	27.8	-1.3	
4/27/10 12:53:45	2.96	4.60	26.9	27.6	-1.5	
4/27/10 12:54:00	2.95	4.59	27.0	27.8	-1.5	
4/27/10 12:54:15	2.98	4.58	27.4	28.1	-0.8	
4/27/10 12:54:30	3.02	4.57	27.6	28.3	-0.5	
4/27/10 12:54:45	3.03	4.57	27.4	28.2	-1.0	
4/27/10 12:55:00	2.99	4.59	27.3	28.1	-1.6	
4/27/10 12:55:15	2.95	4.59	27.4	27.9	-1.9	
4/27/10 12:55:30	2.92	4.60	27.3	28.2	-1.5	
4/27/10 12:55:45	2.90	4.80	27.4	28.0	-0.7	
4/27/10 12:56:00	2.90	4.60	27.4	27.9	-0.9	
4/27/10 12:56:15	2.91	4.80	27.4	28.0	-1.4	
4/27/10 12:56:30	2.93	4.60	27.4	28.1	-1.7	
4/27/10 12:56:45	2.95	4.60	27.3	27.9	-1.7	
4/27/10 12:57:00	2.95	4.61	27.3	28.0	-1.0	
4/27/10 12:57:15	2.97	4.60	27.2	27.8	-0.9	
4/27/10 12:57:30	2.99	4.60	27.2	27.8	-1.4	
4/27/10 12:57:45	2.98	4.60	27.5	27.6	-1.7	
4/27/10 12:58:00	2.97	4.60	27.6	27.5	-1.8	
4/27/10 12:58:15	2.97	4.60	27.5	27.8	-1.1	
4/27/10 12:58:30	2.98	4.60	27.3	27.5	-0.6	
4/27/10 12:58:45	3.00	4.60	27.2	27.6	-1.0	
4/27/10 12:59:00	3.02	4.59	27.3	27.8	-1.5	
4/27/10 12:59:15	3.04	4.59	27.8	27.9	-1.7	
4/27/10 12:59:30	3.03	4.60	27.8	28.1	-1.3	
4/27/10 12:59:45	2.99	4.60	27.8	28.0	-0.6	
4/27/10 13:00:00	2.94	4.60	27.8	27.9	-0.9	
4/27/10 13:00:15	2.89	4.60	27.7	28.1	-1.4	
4/27/10 13:00:30	2.90	4.58	27.5	27.7	-1.7	
4/27/10 13:00:45	2.92	4.58	27.3	27.6	-1.6	
4/27/10 13:01:00	2.90	4.59	27.5	28.0	-0.9	
4/27/10 13:01:15	2.94	4.60	27.6	27.9	-0.8	
4/27/10 13:01:30	2.98	4.60	27.5	27.8	-1.3	
4/27/10 13:01:45	2.94	4.61	27.6	28.4	-1.6	
4/27/10 13:02:00	2.95	4.61	28.0	28.3	-1.6	
4/27/10 13:02:15	3.00	4.60	28.2	28.4	-1.0	
4/27/10 13:02:30	2.97	4.61	28.2	28.6	-0.8	
4/27/10 13:02:45	2.94	4.61	28.2	28.5	-1.2	
4/27/10 13:03:00	2.90	4.62	28.0	28.2	-1.6	
4/27/10 13:03:15	2.86	4.61	28.0	28.4	-1.7	
4/27/10 13:03:30	2.83	4.60	28.2	28.5	-1.1	
4/27/10 13:03:45	2.85	4.59	28.3	28.0	-0.8	
4/27/10 13:04:00	2.87	4.59	28.2	27.9	-1.2	
4/27/10 13:04:15	2.86	4.61	28.9	28.2	-1.6	
4/27/10 13:04:30	2.86	4.62	28.8	27.9	-1.7	
4/27/10 13:04:45	2.88	4.63	28.4	27.8	-1.2	
4/27/10 13:05:00	2.89	4.63	28.4	28.2	-0.6	
4/27/10 13:05:15	2.91	4.63	28.6	28.5	-1.0	
4/27/10 13:05:30	2.94	4.62	28.8	28.2	-1.5	
4/27/10 13:05:45	2.94	4.63	28.7	27.9	-1.8	
4/27/10 13:06:00	2.89	4.63	28.4	28.2	-1.5	
4/27/10 13:06:15	2.88	4.61	28.5	28.0	-0.7	
4/27/10 13:06:30	2.92	4.59	28.8	28.3	-0.9	
4/27/10 13:06:45	2.91	4.58	28.7	28.0	-1.4	
4/27/10 13:07:00	2.89	4.57	28.7	28.3	-1.7	
4/27/10 13:07:15	2.87	4.58	28.8	28.3	-1.6	
4/27/10 13:07:30	2.87	4.60	28.9	28.4	-0.8	
4/27/10 13:07:45	2.86	4.61	28.7	28.4	-0.7	
4/27/10 13:08:00	2.85	4.63	28.6	28.5	-1.3	
4/27/10 13:08:15	2.84	4.64	28.6	28.4	-1.7	
4/27/10 13:08:30	2.84	4.64	28.3	28.2	-1.8	
4/27/10 13:08:45	2.85	4.63	28.2	28.0	-1.2	
4/27/10 13:09:00	2.89	4.61	28.0	27.6	-0.8	
4/27/10 13:09:15	2.94	4.59	28.2	27.8	-1.1	
4/27/10 13:09:30	2.98	4.57	28.4	27.8	-1.5	
4/27/10 13:09:45	3.01	4.56	28.6	27.9	-1.7	
4/27/10 13:10:00	3.00	4.56	28.5	27.7	-1.3	
4/27/10 13:10:15	3.01	4.58	28.7	28.2	-0.7	
4/27/10 13:10:30	3.03	4.58	28.7	27.8	-0.9	
4/27/10 13:10:45	3.04	4.58	28.6	27.9	-1.4	
4/27/10 13:11:00	3.01	4.59	28.5	27.9	-1.7	
4/27/10 13:11:15	3.02	4.58	28.2	27.5	-1.5	
4/27/10 13:11:30	3.02	4.56	28.1	27.2	-0.8	
4/27/10 13:11:45	3.04	4.55	28.0	27.3	-0.8	
4/27/10 13:12:00	3.08	4.53	28.1	27.3	-1.3	
4/27/10 13:12:15	3.09	4.53	28.1	27.5	-1.7	
4/27/10 13:12:30	3.07	4.54	27.8	27.1	-1.7	
4/27/10 13:12:45	3.04	4.56	27.8	27.2	-1.0	
4/27/10 13:13:00	3.04	4.57	27.8	27.5	-0.6	
4/27/10 13:13:15	3.09	4.56	27.9	27.6	-1.1	
4/27/10 13:13:30	3.11	4.56	28.0	27.5	-1.5	
4/27/10 13:13:45	3.11	4.56	28.1	27.8	-1.8	
4/27/10 13:14:00	3.13	4.55	28.2	28.0	-1.3	
4/27/10 13:14:15	3.10	4.55	28.3	28.3	-0.6	
4/27/10 13:14:30	3.07	4.55	28.2	27.7	-0.9	
4/27/10 13:14:45	3.03	4.57	28.1	27.8	-1.4	
4/27/10 13:15:00	2.98	4.59	28.3	27.8	-1.8	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 13:15:15	3.01	4.58	28.2	28.0	-1.6	
4/27/10 13:15:30	3.06	4.58	27.9	28.1	-1.0	
4/27/10 13:15:45	3.06	4.58	27.9	28.1	-1.0	
4/27/10 13:16:00	3.07	4.59	27.7	27.9	-1.4	
4/27/10 13:16:15	3.05	4.59	28.0	27.9	-1.7	
4/27/10 13:16:30	3.01	4.59	28.2	28.0	-1.7	
4/27/10 13:16:45	3.01	4.58	28.2	28.0	-0.9	
4/27/10 13:17:00	3.03	4.58	28.2	27.9	-0.8	
4/27/10 13:17:15	2.99	4.60	28.1	28.0	-1.3	
4/27/10 13:17:30	2.97	4.62	28.1	27.4	-1.7	
4/27/10 13:17:45	2.98	4.63	28.0	27.3	-1.8	
4/27/10 13:18:00	3.00	4.63	27.9	27.0	-1.3	
4/27/10 13:18:15	3.01	4.63	28.0	26.9	-0.8	
4/27/10 13:18:30	3.02	4.61	27.9	27.1	-1.2	
4/27/10 13:18:45	3.03	4.60	28.1	26.8	-1.6	
4/27/10 13:19:00	3.02	4.60	28.2	27.1	-1.8	
4/27/10 13:19:15	3.00	4.61	28.5	26.8	-1.5	
4/27/10 13:19:30	3.01	4.62	28.4	27.0	-0.8	
4/27/10 13:19:45	2.97	4.62	28.3	26.9	-1.0	
4/27/10 13:20:00	2.97	4.62	28.3	26.4	-1.5	
4/27/10 13:20:15	2.97	4.62	28.4	26.6	-1.8	
4/27/10 13:20:30	2.98	4.61	28.2	26.6	-1.7	
4/27/10 13:20:45	2.98	4.61	28.4	26.6	-1.0	
4/27/10 13:21:00	2.97	4.61	28.5	26.5	-0.9	
4/27/10 13:21:15	2.94	4.62	28.5	26.5	-1.3	
4/27/10 13:21:30	2.90	4.63	28.5	26.6	-1.7	
4/27/10 13:21:45	2.92	4.62	28.4	26.7	-1.8	
4/27/10 13:22:00	2.95	4.62	28.6	26.5	-1.1	
4/27/10 13:22:15	2.97	4.61	28.7	26.5	-0.7	
4/27/10 13:22:30	2.97	4.62	28.5	26.1	-1.1	
4/27/10 13:22:45	2.95	4.62	28.3	26.2	-1.5	
4/27/10 13:23:00	2.98	4.60	28.3	26.7	-1.8	
4/27/10 13:23:15	3.03	4.59	28.8	26.8	-1.4	
4/27/10 13:23:30	3.05	4.59	29.0	26.3	-1.1	
4/27/10 13:23:45	3.00	4.61	28.7	26.9	-1.4	
4/27/10 13:24:00	2.93	4.63	28.8	26.5	-1.8	
4/27/10 13:24:15	2.94	4.63	28.6	26.0	-1.9	
4/27/10 13:24:30	2.94	4.64	28.6	26.2	-1.4	
4/27/10 13:24:45	2.99	4.62	28.8	26.3	-0.8	
4/27/10 13:25:00	3.08	4.59	28.9	26.6	-1.1	
4/27/10 13:25:15	3.10	4.69	28.9	26.5	-1.5	
4/27/10 13:25:30	3.04	4.61	29.0	26.8	-1.8	
4/27/10 13:25:45	2.98	4.63	28.8	26.3	-1.6	
4/27/10 13:26:00	2.99	4.63	28.6	26.4	-0.9	End M5
4/27/10 13:26:15	2.97	4.63	28.4	26.5	-0.9	
4/27/10 13:26:30	2.99	4.63	28.7	26.5	-1.3	
4/27/10 13:26:45	3.02	4.62	28.3	26.4	-1.6	
4/27/10 13:27:00	3.04	4.61	27.9	26.6	-1.6	
4/27/10 13:27:15	3.05	4.61	28.4	26.8	-0.9	
4/27/10 13:27:30	3.04	4.61	28.5	26.0	-0.8	
4/27/10 13:27:45	2.98	4.62	27.7	25.0	-1.4	
4/27/10 13:28:00	2.94	4.63	27.2	25.1	-1.9	
4/27/10 13:28:15	3.17	4.56	27.3	24.5	-2.1	
4/27/10 13:28:30	2.98	4.59	28.3	27.8	-1.8	
4/27/10 13:28:45	3.01	4.58	28.2	28.0	-1.6	
4/27/10 13:29:00	3.06	4.58	27.9	28.1	-1.0	
4/27/10 13:29:15	3.06	4.58	27.9	28.1	-1.0	
4/27/10 13:29:30	3.07	4.59	27.7	27.9	-1.4	
4/27/10 13:29:45	3.05	4.59	28.0	27.9	-1.7	
4/27/10 13:30:00	3.01	4.59	28.2	28.0	-1.7	
4/27/10 13:30:15	3.01	4.58	28.2	28.0	-0.9	
4/27/10 13:30:30	3.03	4.58	28.2	27.9	-0.8	
4/27/10 13:30:45	2.99	4.60	28.1	28.0	-1.3	
4/27/10 13:31:00	2.97	4.62	28.1	27.4	-1.7	
4/27/10 13:31:15	2.98	4.63	28.0	27.3	-1.8	
4/27/10 13:31:30	3.00	4.63	27.9	27.0	-1.3	
4/27/10 13:31:45	3.01	4.63	28.0	26.9	-0.8	
4/27/10 13:32:00	3.02	4.61	27.9	27.1	-1.2	
4/27/10 13:32:15	3.03	4.60	28.1	26.8	-1.6	
4/27/10 13:32:30	3.02	4.60	28.2	27.1	-1.8	
4/27/10 13:32:45	3.00	4.61	28.5	26.8	-1.5	
4/27/10 13:33:00	3.01	4.62	28.4	27.0	-0.8	
4/27/10 13:33:15	2.97	4.62	28.3	26.9	-1.0	
4/27/10 13:33:30	2.97	4.62	28.3	26.4	-1.5	
4/27/10 13:33:45	2.97	4.62	28.4	26.6	-1.8	
4/27/10 13:34:00	2.98	4.61	28.2	26.6	-1.7	
4/27/10 13:34:15	2.98	4.61	28.4	26.6	-1.0	
4/27/10 13:34:30	2.97	4.61	28.5	26.5	-0.9	
4/27/10 13:34:45	2.98	4.63	28.0	27.3	-1.8	
4/27/10 13:35:00	3.00	4.63	27.9	27.0	-1.3	
4/27/10 13:35:15	3.01	4.63	28.0	26.9	-0.8	
4/27/10 13:35:30	3.02	4.61	27.9	27.1	-1.2	
4/27/10 13:35:45	3.03	4.60	28.1	26.8	-1.6	
4/27/10 13:36:00	3.02	4.60	28.2	27.1	-1.8	
4/27/10 13:36:15	3.00	4.61	28.5	26.8	-1.5	
4/27/10 13:36:30	3.01	4.62	28.4	27.0	-0.8	
4/27/10 13:36:45	3.04	4.56	27.8	27.2	-1.0	
4/27/10 13:37:00	3.04	4.57	27.8	27.5	-0.6	
4/27/10 13:37:15	3.09	4.56	27.9	27.6	-1.1	
4/27/10 13:37:30	3.11	4.56	28.0	27.5	-1.5	
4/27/10 13:37:45	3.11	4.56	28.1	27.8	-1.8	
4/27/10 13:38:00	3.13	4.55	28.2	28.0	-1.3	
4/27/10 13:38:15	3.10	4.55	28.3	28.3	-0.6	
4/27/10 13:38:30	3.07	4.55	28.2	27.7	-0.9	
4/27/10 13:38:45	3.03	4.57	28.1	27.8	-1.4	
4/27/10 13:39:00	2.98	4.59	28.3	27.8	-1.8	
4/27/10 13:39:15	3.01	4.58	28.2	28.0	-1.6	
4/27/10 13:39:30	3.06	4.58	27.9	28.1	-1.0	
4/27/10 13:39:45	3.06	4.58	27.9	28.1	-1.0	
4/27/10 13:40:00	3.07	4.59	27.7	27.9	-1.4	
4/27/10 13:40:15	3.05	4.59	28.0	27.9	-1.7	
4/27/10 13:40:30	3.01	4.59	28.2	28.0	-1.7	
4/27/10 13:40:45	3.01	4.58	28.2	28.0	-0.9	
4/27/10 13:41:00	3.03	4.58	28.2	27.9	-0.8	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 13:41:15	2.99	4.60	28.1	28.0	-1.3	
4/27/10 13:41:30	2.97	4.62	28.1	27.4	-1.7	
4/27/10 13:41:45	3.25	4.59	29.5	27.1	-1.7	
4/27/10 13:42:00	3.08	4.61	30.4	27.1	-0.9	
4/27/10 13:42:15	3.09	4.60	30.4	27.0	-0.8	
4/27/10 13:42:30	3.09	4.60	30.0	27.2	-1.3	
4/27/10 13:42:45	3.08	4.60	29.5	27.1	-1.7	
4/27/10 13:43:00	3.09	4.60	29.1	27.3	-1.8	
4/27/10 13:43:15	3.10	4.59	29.2	27.4	-1.1	
4/27/10 13:43:30	3.08	4.60	29.1	27.3	-0.7	
4/27/10 13:43:45	3.03	4.61	29.1	27.3	-1.2	
4/27/10 13:44:00	3.01	4.62	28.9	27.4	-1.7	
4/27/10 13:44:15	2.99	4.63	29.0	27.2	-1.9	
4/27/10 13:44:30	2.99	4.63	29.0	27.2	-1.5	
4/27/10 13:44:45	3.00	4.63	28.7	27.2	-0.8	
4/27/10 13:45:00	3.00	4.63	28.5	27.2	-1.0	End Run # SRU1-1
4/27/10 13:45:15	3.00	4.63	28.6	27.0	-1.5	
4/27/10 13:45:30	3.00	4.63	28.2	20.2	-1.0	
4/27/10 13:45:45	3.01	4.62	38.7	7.3	16.7	
4/27/10 13:46:00	3.09	4.53	74.8	19.5	51.0	
4/27/10 13:46:15	3.78	3.33	98.6	28.4	84.9	
4/27/10 13:46:30	3.02	1.64	69.0	5.6	105.2	
4/27/10 13:46:45	1.27	0.57	30.1	4.8	92.1	
4/27/10 13:47:00	0.36	0.21	34.3	4.8	58.0	
4/27/10 13:47:15	0.15	0.13	33.6	4.8	26.9	
4/27/10 13:47:30	0.10	0.10	33.2	4.9	8.8	
4/27/10 13:47:45	0.08	0.09	33.4	5.0	2.3	
4/27/10 13:48:00	0.08	0.08	33.7	5.1	0.5	
4/27/10 13:48:15	0.07	0.08	34.1	5.2	-0.1	
4/27/10 13:48:30	0.07	0.08	34.5	5.2	0.0	
4/27/10 13:48:45	0.07	0.08	35.2	5.3	0.7	
4/27/10 13:49:00	0.07	0.08	35.6	5.3	0.7	
4/27/10 13:49:15	0.07	0.07	36.0	5.3	0.1	
4/27/10 13:49:30	0.07	0.07	36.4	5.3	-0.3	
4/27/10 13:49:45	0.07	0.07	36.7	5.3	-0.4	
4/27/10 13:50:00	0.07	0.07	37.5	5.3	0.3	
4/27/10 13:50:15	0.06	0.07	38.3	5.3	0.5	
4/27/10 13:50:30	0.06	0.07	39.2	5.3	0.0	
4/27/10 13:50:45	0.06	0.07	39.7	5.3	-0.4	
4/27/10 13:51:00	0.07	0.07	40.1	5.2	-0.5	
4/27/10 13:51:15	0.06	0.07	40.4	5.0	0.2	
4/27/10 13:51:30	0.06	0.07	41.0	4.8	0.6	
4/27/10 13:51:45	0.06	0.07	41.5	4.7	0.1	System Bias
4/27/10 13:52:00	0.06	0.07	42.1	4.5	-0.4	
4/27/10 13:52:15	0.06	0.07	42.9	4.3	-0.7	
4/27/10 13:52:30	0.06	0.07	43.5	4.2	-0.3	42.9 45.0 ppm SO_2
4/27/10 13:52:45	0.06	0.07	43.2	5.7	0.5	
4/27/10 13:53:00	0.06	0.07	42.1	52.3	0.4	-0.2 Zero CO
4/27/10 13:53:15	0.07	0.12	34.9	110.6	-0.2	
4/27/10 13:53:30	0.35	0.68	10.3	110.6	-0.7	
4/27/10 13:53:45	0.63	0.81	4.3	110.6	-0.7	
4/27/10 13:54:00	0.38	0.39	2.3	110.6	0.0	
4/27/10 13:54:15	0.15	0.14	1.5	110.6	0.2	
4/27/10 13:54:30	0.09	0.08	1.1	110.6	-0.1	
4/27/10 13:54:45	0.08	0.07	1.0	110.6	-0.4	
4/27/10 13:55:00	0.08	0.07	0.7	110.6	-0.4	
4/27/10 13:55:15	0.08	0.07	0.6	110.6	0.2	
4/27/10 13:55:30	0.08	0.07	0.4	110.6	0.7	
4/27/10 13:55:45	0.08	0.07	0.4	110.6	0.2	
4/27/10 13:56:00	0.08	0.07	0.3	110.6	-0.2	
4/27/10 13:56:15	0.08	0.07	0.3	110.6	-0.4	
4/27/10 13:56:30	0.08	0.07	1.7	76.2	0.0	
4/27/10 13:56:45	0.08	0.07	1.9	45.5	0.6	
4/27/10 13:57:00	0.08	0.06	0.3	44.0	0.3	
4/27/10 13:57:15	0.07	0.06	-0.1	43.4	-0.2	
4/27/10 13:57:30	0.06	0.06	-0.2	43.0	-0.5	
4/27/10 13:57:45	0.06	0.06	-0.1	42.8	-0.3	
4/27/10 13:58:00	0.06	0.06	-0.1	42.7	0.4	
4/27/10 13:58:15	0.06	0.06	-0.1	42.6	0.4	System Bias
4/27/10 13:58:30	0.06	0.06	-0.1	42.5	-0.2	0.06 Zero O_2
4/27/10 13:58:45	0.06	0.06	-0.3	42.5	-0.5	0.06 Zero CO_2
4/27/10 13:59:00	0.06	0.06	-0.2	42.5	-0.6	
4/27/10 13:59:15	0.06	0.06	0.0	42.5	0.3	42.5 45.0 ppm NO_x
4/27/10 13:59:30	0.06	0.06	-0.2	45.6	0.8	
4/27/10 13:59:45	0.06	0.06	3.1	44.0	0.3	
4/27/10 14:00:00	0.06	0.09	9.9	31.6	-0.4	
4/27/10 14:00:15	0.43	0.93	3.2	7.7	0.0	
4/27/10 14:00:30	1.15	1.88	0.8	1.3	4.2	
4/27/10 14:00:45	1.79	2.06	0.0	1.0	12.4	
4/27/10 14:01:00	3.36	2.87	-0.1	0.8	22.0	
4/27/10 14:01:15	4.44	3.65	-0.2	0.7	31.5	
4/27/10 14:01:30	4.82	4.08	-0.2	0.6	38.0	
4/27/10 14:01:45	4.91	4.27	-0.4	0.6	41.4	
4/27/10 14:02:00	4.93	4.32	-0.3	0.5	43.4	
4/27/10 14:02:15	4.95	4.34	-0.4	0.5	43.8	
4/27/10 14:02:30	4.95	4.35	-0.4	0.5	43.4	
4/27/10 14:02:45	4.96	4.36	-0.4	0.5	43.0	
4/27/10 14:03:00	4.96	4.36	-0.4	0.4	42.9	System Bias
4/27/10 14:03:15	4.96	4.36	-0.3	0.4	43.5	4.97 5.00% O_2
4/27/10 14:03:30	4.97	4.37	-0.2	0.4	43.8	4.37 4.32% CO_2
4/27/10 14:03:45	4.97	4.37	-0.3	0.4	43.5	-0.3 Zero SO_2
4/27/10 14:04:00	4.97	4.37	-0.2	0.4	43.2	0.4 Zero NO_x
4/27/10 14:04:15	4.97	4.37	5.9	24.3	42.3	43.5 45.0 ppm CO
4/27/10 14:04:30	4.97	4.38	19.8	26.3	39.1	
4/27/10 14:04:45	4.71	4.44	24.2	26.3	32.5	
4/27/10 14:05:00	3.80	4.57	25.4	26.3	22.2	
4/27/10 14:05:15	3.14	4.64	26.2	26.6	11.6	
4/27/10 14:05:30	2.97	4.65	26.7	26.6	3.9	
4/27/10 14:05:45	2.93	4.66	26.5	26.9	0.2	
4/27/10 14:06:00	2.93	4.66	26.7	27.1	-0.7	
4/27/10 14:06:15	2.92	4.66	26.7	26.8	-1.2	
4/27/10 14:06:30	2.95	4.65	26.8	27.1	-1.7	
4/27/10 14:06:45	2.95	4.65	26.8	26.9	-2.0	
4/27/10 14:07:00	2.96	4.64	26.9	26.9	-1.9	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 14:07:15	2.98	4.64	26.5	27.3	-1.1	
4/27/10 14:07:30	3.01	4.64	26.8	27.1	-1.0	
4/27/10 14:07:45	3.01	4.65	26.9	27.1	-1.5	
4/27/10 14:08:00	2.96	4.67	27.0	26.8	-1.9	
4/27/10 14:08:15	2.90	4.68	26.8	26.1	-2.0	
4/27/10 14:08:30	2.89	4.68	26.9	26.2	-1.3	
4/27/10 14:08:45	2.91	4.67	27.1	26.1	-1.0	
4/27/10 14:09:00	2.96	4.66	27.3	25.6	-1.4	
4/27/10 14:09:15	2.96	4.66	27.0	25.2	-1.9	
4/27/10 14:09:30	2.94	4.66	27.1	25.2	-2.1	
4/27/10 14:09:45	2.99	4.64	27.1	25.1	-1.6	
4/27/10 14:10:00	3.04	4.63	27.0	25.3	-1.0	
4/27/10 14:10:15	3.03	4.63	27.1	25.6	-1.3	
4/27/10 14:10:30	3.01	4.64	27.5	25.5	-1.7	
4/27/10 14:10:45	2.99	4.65	27.8	25.5	-2.0	
4/27/10 14:11:00	2.90	4.67	28.0	25.3	-1.7	
4/27/10 14:11:15	2.81	4.69	27.8	25.2	-1.0	
4/27/10 14:11:30	2.78	4.68	27.7	25.0	-1.1	
4/27/10 14:11:45	2.82	4.66	27.7	24.8	-1.6	
4/27/10 14:12:00	2.87	4.65	27.8	24.4	-2.0	
4/27/10 14:12:15	2.89	4.65	27.8	24.8	-1.9	
4/27/10 14:12:30	2.92	4.64	28.0	24.6	-1.2	
4/27/10 14:12:45	2.99	4.62	27.8	24.4	-1.0	
4/27/10 14:13:00	2.97	4.63	27.7	24.0	-1.4	
4/27/10 14:13:15	2.95	4.63	27.7	24.2	-1.8	
4/27/10 14:13:30	2.98	4.62	27.7	24.3	-2.0	
4/27/10 14:13:45	2.98	4.62	27.7	24.8	-1.5	
4/27/10 14:14:00	2.99	4.62	27.7	24.4	-1.0	
4/27/10 14:14:15	2.98	4.63	27.4	24.4	-1.4	
4/27/10 14:14:30	2.94	4.65	27.0	24.4	-1.8	
4/27/10 14:14:45	2.96	4.64	27.2	24.5	-2.0	Start Run # SRU1-2
4/27/10 14:15:00	3.01	4.62	27.4	24.3	-1.6	
4/27/10 14:15:15	3.02	4.62	27.3	24.2	-1.1	
4/27/10 14:15:30	2.98	4.63	27.3	24.3	-1.3	
4/27/10 14:15:45	3.00	4.62	27.1	24.3	-1.6	
4/27/10 14:16:00	3.01	4.62	26.9	24.4	-1.8	
4/27/10 14:16:15	3.00	4.62	27.2	24.4	-1.5	
4/27/10 14:16:30	3.03	4.61	27.1	24.2	-1.0	
4/27/10 14:16:45	3.04	4.61	26.9	24.2	-1.3	
4/27/10 14:17:00	3.01	4.62	27.0	24.3	-1.7	
4/27/10 14:17:15	3.02	4.62	27.2	24.3	-1.8	
4/27/10 14:17:30	2.98	4.63	27.2	24.2	-1.5	
4/27/10 14:17:45	2.93	4.64	27.0	24.3	-1.0	
4/27/10 14:18:00	2.88	4.64	27.3	24.5	-1.3	
4/27/10 14:18:15	2.92	4.63	27.3	24.6	-1.7	
4/27/10 14:18:30	2.93	4.63	27.3	24.4	-1.9	
4/27/10 14:18:45	2.89	4.65	27.5	24.6	-1.5	
4/27/10 14:19:00	2.86	4.65	27.6	24.2	-0.9	
4/27/10 14:19:15	2.86	4.65	27.2	24.5	-1.1	
4/27/10 14:19:30	2.87	4.65	27.2	24.3	-1.6	
4/27/10 14:19:45	2.90	4.65	27.2	24.4	-2.0	
4/27/10 14:20:00	2.91	4.65	27.3	24.4	-1.8	
4/27/10 14:20:15	2.93	4.64	27.3	24.5	-1.0	
4/27/10 14:20:30	2.94	4.65	27.5	24.7	-0.9	
4/27/10 14:20:45	2.92	4.65	27.6	24.6	-1.4	
4/27/10 14:21:00	2.90	4.65	27.3	24.4	-1.8	
4/27/10 14:21:15	2.87	4.66	27.3	24.3	-1.9	
4/27/10 14:21:30	2.88	4.65	27.4	24.5	-1.3	
4/27/10 14:21:45	2.90	4.63	27.5	24.4	-0.8	
4/27/10 14:22:00	2.92	4.62	27.5	24.8	-1.2	
4/27/10 14:22:15	2.93	4.62	27.6	25.2	-1.7	
4/27/10 14:22:30	2.93	4.62	27.7	24.8	-1.9	
4/27/10 14:22:45	2.86	4.64	27.8	24.4	-1.5	
4/27/10 14:23:00	2.80	4.65	27.8	24.8	-0.8	
4/27/10 14:23:15	2.82	4.64	28.0	25.1	-1.0	
4/27/10 14:23:30	2.84	4.63	28.1	24.9	-1.5	
4/27/10 14:23:45	2.82	4.65	28.2	25.0	-1.9	
4/27/10 14:24:00	2.79	4.66	28.3	24.7	-1.9	
4/27/10 14:24:15	2.79	4.66	28.5	24.7	-1.1	
4/27/10 14:24:30	2.81	4.66	28.2	24.5	-0.8	
4/27/10 14:24:45	2.82	4.66	28.1	24.7	-1.2	
4/27/10 14:25:00	2.83	4.65	28.0	24.7	-1.6	
4/27/10 14:25:15	2.88	4.63	28.1	25.2	-1.7	
4/27/10 14:25:30	2.89	4.63	28.4	25.2	-1.2	
4/27/10 14:25:45	2.87	4.65	28.3	25.4	-0.7	
4/27/10 14:26:00	2.83	4.66	28.2	25.5	-1.1	
4/27/10 14:26:15	2.79	4.67	28.8	25.5	-1.5	
4/27/10 14:26:30	2.75	4.68	28.8	25.7	-1.8	
4/27/10 14:26:45	2.72	4.70	28.7	25.3	-1.6	
4/27/10 14:27:00	2.73	4.71	28.4	24.9	-0.8	
4/27/10 14:27:15	2.74	4.71	28.2	24.4	-0.9	
4/27/10 14:27:30	2.75	4.69	28.2	24.6	-1.4	
4/27/10 14:27:45	2.82	4.66	28.2	24.9	-1.7	
4/27/10 14:28:00	2.93	4.62	28.5	25.7	-1.7	
4/27/10 14:28:15	2.98	4.60	28.7	25.6	-1.1	
4/27/10 14:28:30	2.94	4.62	28.6	25.7	-0.9	
4/27/10 14:28:45	2.83	4.66	28.5	25.4	-1.3	
4/27/10 14:29:00	2.82	4.67	28.5	25.2	-1.7	
4/27/10 14:29:15	2.85	4.67	28.2	25.4	-1.8	
4/27/10 14:29:30	2.89	4.65	28.2	25.5	-1.2	
4/27/10 14:29:45	2.95	4.62	28.1	25.9	-0.9	
4/27/10 14:30:00	2.96	4.62	28.0	26.6	-1.2	
4/27/10 14:30:15	2.95	4.63	28.6	26.5	-1.5	
4/27/10 14:30:30	2.92	4.64	28.5	26.2	-1.7	
4/27/10 14:30:45	2.83	4.67	28.0	26.6	-1.3	
4/27/10 14:31:00	2.79	4.66	27.8	26.3	-0.7	
4/27/10 14:31:15	2.81	4.65	27.7	26.1	-1.0	
4/27/10 14:31:30	2.83	4.65	27.8	25.9	-1.5	
4/27/10 14:31:45	2.83	4.65	27.8	25.9	-1.7	
4/27/10 14:32:00	2.84	4.65	28.1	25.4	-1.4	
4/27/10 14:32:15	2.89	4.65	28.1	25.5	-0.8	
4/27/10 14:32:30	2.89	4.64	28.2	25.4	-1.1	
4/27/10 14:32:45	2.90	4.63	28.1	25.0	-1.5	
4/27/10 14:33:00	2.91	4.63	28.2	25.1	-1.8	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 14:33:15	2.95	4.62	28.4	25.5	-1.7	
4/27/10 14:33:30	3.02	4.61	28.7	25.2	-0.8	
4/27/10 14:33:45	3.00	4.62	28.3	25.0	-0.7	
4/27/10 14:34:00	2.95	4.63	27.7	25.2	-1.2	
4/27/10 14:34:15	2.97	4.62	27.7	25.2	-1.5	
4/27/10 14:34:30	3.05	4.61	27.8	25.5	-1.6	
4/27/10 14:34:45	3.06	4.60	27.8	25.6	-1.0	
4/27/10 14:35:00	3.04	4.60	27.9	25.4	-0.7	
4/27/10 14:35:15	3.00	4.60	27.2	25.8	-1.2	
4/27/10 14:35:30	2.99	4.60	26.8	25.7	-1.6	
4/27/10 14:35:45	3.04	4.58	26.9	26.0	-1.8	
4/27/10 14:36:00	3.06	4.57	27.3	26.0	-1.2	
4/27/10 14:36:15	3.06	4.57	27.4	25.9	-0.6	
4/27/10 14:36:30	3.04	4.58	27.3	25.8	-1.0	
4/27/10 14:36:45	3.01	4.60	27.0	26.0	-1.4	
4/27/10 14:37:00	3.00	4.60	27.0	26.1	-1.7	
4/27/10 14:37:15	2.97	4.61	27.1	25.6	-1.5	
4/27/10 14:37:30	2.93	4.62	26.9	25.6	-0.6	
4/27/10 14:37:45	2.89	4.63	27.1	25.7	-0.7	
4/27/10 14:38:00	2.92	4.62	27.2	25.5	-1.3	
4/27/10 14:38:15	2.95	4.62	27.2	25.8	-1.6	
4/27/10 14:38:30	2.96	4.62	27.4	25.8	-1.6	
4/27/10 14:38:45	3.00	4.61	27.4	25.6	-1.0	
4/27/10 14:39:00	3.01	4.61	27.3	25.5	-0.8	
4/27/10 14:39:15	2.98	4.61	27.2	25.4	-1.2	
4/27/10 14:39:30	2.97	4.61	27.2	25.5	-1.7	
4/27/10 14:39:45	2.96	4.61	27.0	25.3	-1.8	
4/27/10 14:40:00	2.94	4.62	27.0	25.4	-1.0	
4/27/10 14:40:15	2.94	4.62	26.9	25.6	-0.6	
4/27/10 14:40:30	2.96	4.61	27.0	25.6	-1.1	
4/27/10 14:40:45	2.95	4.61	27.3	25.4	-1.4	
4/27/10 14:41:00	2.93	4.62	27.2	25.6	-1.7	
4/27/10 14:41:15	2.94	4.62	27.2	25.6	-1.4	
4/27/10 14:41:30	2.96	4.61	27.2	25.6	-0.6	
4/27/10 14:41:45	2.97	4.61	26.9	25.7	-0.8	
4/27/10 14:42:00	3.00	4.59	26.9	25.7	-1.4	
4/27/10 14:42:15	3.03	4.59	26.9	25.4	-1.6	
4/27/10 14:42:30	3.01	4.59	26.9	25.5	-1.5	
4/27/10 14:42:45	2.98	4.59	26.7	25.4	-0.8	
4/27/10 14:43:00	2.99	4.58	26.6	25.3	-0.6	
4/27/10 14:43:15	2.98	4.59	26.6	25.3	-1.0	
4/27/10 14:43:30	2.97	4.59	26.7	25.7	-1.5	
4/27/10 14:43:45	2.99	4.58	26.7	25.4	-1.6	
4/27/10 14:44:00	2.99	4.59	26.7	25.4	-1.0	
4/27/10 14:44:15	3.00	4.59	26.7	25.3	-0.7	
4/27/10 14:44:30	3.03	4.59	26.3	24.9	-1.1	
4/27/10 14:44:45	3.05	4.58	26.3	25.2	-1.5	Start M5
4/27/10 14:45:00	3.06	4.58	26.4	25.2	-1.7	
4/27/10 14:45:15	3.06	4.58	26.1	25.1	-1.2	
4/27/10 14:45:30	3.00	4.59	26.4	25.5	-0.5	
4/27/10 14:45:45	2.98	4.60	26.7	25.5	-0.8	
4/27/10 14:46:00	3.01	4.60	26.8	25.7	-1.3	
4/27/10 14:46:15	2.98	4.60	26.6	25.0	-1.6	
4/27/10 14:46:30	2.91	4.62	26.2	24.5	-1.4	
4/27/10 14:46:45	2.89	4.63	26.1	24.5	-0.7	
4/27/10 14:47:00	3.01	4.59	25.8	24.6	-0.7	
4/27/10 14:47:15	3.14	4.55	25.8	24.4	-1.1	
4/27/10 14:47:30	3.19	4.53	25.9	24.3	-1.6	
4/27/10 14:47:45	3.18	4.54	26.0	24.5	-1.6	
4/27/10 14:48:00	3.16	4.54	26.3	24.6	-0.8	
4/27/10 14:48:15	3.14	4.54	26.2	24.9	-0.4	
4/27/10 14:48:30	3.09	4.55	26.1	24.8	-0.9	
4/27/10 14:48:45	3.07	4.56	26.4	25.3	-1.4	
4/27/10 14:49:00	3.07	4.56	26.4	25.4	-1.8	
4/27/10 14:49:15	3.06	4.57	26.4	25.2	-1.5	
4/27/10 14:49:30	3.01	4.59	26.5	24.8	-0.7	
4/27/10 14:49:45	2.99	4.59	26.5	25.2	-0.7	
4/27/10 14:50:00	2.99	4.58	26.8	25.1	-1.3	
4/27/10 14:50:15	3.01	4.57	26.8	24.9	-1.5	
4/27/10 14:50:30	3.01	4.57	27.0	25.3	-1.5	
4/27/10 14:50:45	3.05	4.56	27.4	25.4	-0.8	
4/27/10 14:51:00	3.08	4.56	27.6	25.4	-0.5	
4/27/10 14:51:15	3.07	4.57	27.3	25.0	-1.0	
4/27/10 14:51:30	2.99	4.59	26.9	24.7	-1.4	
4/27/10 14:51:45	2.94	4.60	26.7	25.2	-1.6	
4/27/10 14:52:00	2.99	4.58	27.0	25.6	-1.0	
4/27/10 14:52:15	3.07	4.57	27.4	25.4	-0.5	
4/27/10 14:52:30	3.05	4.59	27.3	25.4	-0.9	
4/27/10 14:52:45	2.98	4.60	27.2	25.1	-1.2	
4/27/10 14:53:00	2.97	4.59	27.1	25.5	-1.5	
4/27/10 14:53:15	3.03	4.57	27.4	25.6	-1.3	
4/27/10 14:53:30	3.07	4.57	27.6	25.6	-0.6	
4/27/10 14:53:45	3.02	4.57	27.6	25.5	-0.7	
4/27/10 14:54:00	2.97	4.58	27.2	25.7	-1.3	
4/27/10 14:54:15	2.97	4.58	27.3	25.5	-1.5	
4/27/10 14:54:30	2.98	4.58	27.6	25.9	-1.4	
4/27/10 14:54:45	2.98	4.58	27.5	25.9	-0.8	
4/27/10 14:55:00	2.98	4.58	27.2	26.1	-0.6	
4/27/10 14:55:15	3.01	4.57	27.3	26.2	-1.0	
4/27/10 14:55:30	3.06	4.56	27.4	25.9	-1.5	
4/27/10 14:55:45	3.05	4.56	27.0	26.1	-1.6	
4/27/10 14:56:00	3.04	4.55	27.0	26.4	-0.9	
4/27/10 14:56:15	3.09	4.54	27.4	26.3	-0.5	
4/27/10 14:56:30	3.13	4.54	27.5	26.3	-1.0	
4/27/10 14:56:45	3.08	4.55	27.5	26.7	-1.5	
4/27/10 14:57:00	3.04	4.56	27.4	26.0	-1.8	
4/27/10 14:57:15	3.04	4.57	27.1	24.7	-1.5	
4/27/10 14:57:30	3.03	4.57	27.2	24.2	-0.5	
4/27/10 14:57:45	3.06	4.56	26.9	24.9	-0.5	
4/27/10 14:58:00	3.10	4.55	26.8	25.8	-1.1	
4/27/10 14:58:15	3.10	4.56	26.8	26.6	-1.4	
4/27/10 14:58:30	3.07	4.57	27.1	26.7	-1.4	
4/27/10 14:58:45	3.04	4.57	27.0	27.0	-0.9	
4/27/10 14:59:00	3.05	4.56	26.8	27.0	-0.5	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 14:59:15	3.09	4.56	27.0	27.2	-0.8	
4/27/10 14:59:30	3.09	4.57	27.2	27.2	-1.3	
4/27/10 14:59:45	3.01	4.59	27.0	26.9	-1.5	
4/27/10 15:00:00	2.89	4.61	26.6	26.4	-0.9	
4/27/10 15:00:15	2.83	4.62	26.3	25.8	-0.5	
4/27/10 15:00:30	2.84	4.61	26.1	25.8	-0.8	
4/27/10 15:00:45	2.92	4.58	26.3	26.1	-1.2	
4/27/10 15:01:00	3.02	4.55	26.6	26.0	-1.5	
4/27/10 15:01:15	3.07	4.55	26.8	25.8	-1.3	
4/27/10 15:01:30	3.04	4.57	27.0	25.8	-0.5	
4/27/10 15:01:45	3.00	4.58	27.0	26.0	-0.6	
4/27/10 15:02:00	2.99	4.58	26.8	25.7	-1.1	
4/27/10 15:02:15	2.99	4.58	26.7	25.7	-1.4	
4/27/10 15:02:30	2.98	4.59	26.7	26.0	-1.4	
4/27/10 15:02:45	2.99	4.59	27.0	26.4	-0.8	
4/27/10 15:03:00	2.97	4.60	27.0	25.9	-0.5	
4/27/10 15:03:15	2.92	4.62	27.0	25.3	-1.0	
4/27/10 15:03:30	2.91	4.62	26.9	25.5	-1.4	
4/27/10 15:03:45	2.98	4.59	26.7	25.3	-1.5	
4/27/10 15:04:00	3.06	4.56	26.7	25.3	-0.8	
4/27/10 15:04:15	3.09	4.55	26.6	25.0	-0.4	
4/27/10 15:04:30	3.11	4.55	26.5	24.9	-0.9	
4/27/10 15:04:45	3.12	4.55	26.8	25.2	-1.2	
4/27/10 15:05:00	3.12	4.54	27.2	25.4	-1.5	
4/27/10 15:05:15	3.12	4.54	27.3	25.4	-1.2	
4/27/10 15:05:30	3.09	4.55	27.1	25.4	-0.5	
4/27/10 15:05:45	3.03	4.57	27.1	25.8	-0.7	
4/27/10 15:06:00	2.99	4.58	26.9	25.3	-1.2	
4/27/10 15:06:15	2.97	4.58	26.7	25.4	-1.5	
4/27/10 15:06:30	2.97	4.58	27.0	25.7	-1.3	
4/27/10 15:06:45	3.02	4.57	27.3	26.0	-0.6	
4/27/10 15:07:00	2.99	4.57	27.3	25.4	-0.4	
4/27/10 15:07:15	2.90	4.59	26.9	25.4	-0.8	
4/27/10 15:07:30	2.89	4.59	26.9	25.2	-1.2	
4/27/10 15:07:45	2.98	4.57	27.3	25.3	-1.3	
4/27/10 15:08:00	3.06	4.55	27.0	25.3	-0.8	
4/27/10 15:08:15	3.08	4.54	27.3	25.5	-0.7	
4/27/10 15:08:30	3.06	4.55	27.3	26.0	-1.1	
4/27/10 15:08:45	3.04	4.56	27.7	26.1	-1.3	
4/27/10 15:09:00	3.01	4.57	27.6	26.1	-1.3	
4/27/10 15:09:15	2.93	4.59	27.1	25.3	-0.8	
4/27/10 15:09:30	2.87	4.61	26.6	25.1	-0.2	
4/27/10 15:09:45	2.88	4.60	26.3	25.1	-0.6	
4/27/10 15:10:00	3.01	4.56	26.6	25.5	-1.2	
4/27/10 15:10:15	3.12	4.53	26.8	25.7	-1.5	
4/27/10 15:10:30	3.14	4.53	26.8	25.8	-1.2	
4/27/10 15:10:45	3.11	4.54	26.9	25.2	-0.5	
4/27/10 15:11:00	3.06	4.56	26.8	25.5	-0.5	
4/27/10 15:11:15	3.04	4.56	27.2	25.8	-0.9	
4/27/10 15:11:30	3.09	4.54	27.2	25.4	-1.4	
4/27/10 15:11:45	3.06	4.55	26.8	25.5	-1.4	
4/27/10 15:12:00	3.05	4.56	26.9	25.6	-0.7	
4/27/10 15:12:15	3.13	4.55	26.7	25.5	-0.2	
4/27/10 15:12:30	3.15	4.55	27.0	25.9	-0.6	
4/27/10 15:12:45	3.12	4.54	27.2	25.8	-1.1	
4/27/10 15:13:00	3.08	4.55	27.0	25.7	-1.5	
4/27/10 15:13:15	2.99	4.58	27.0	25.6	-1.4	
4/27/10 15:13:30	2.97	4.59	27.0	25.4	-0.5	
4/27/10 15:13:45	3.02	4.57	26.6	25.4	-0.4	
4/27/10 15:14:00	3.07	4.55	26.4	25.0	-1.1	
4/27/10 15:14:15	3.12	4.54	26.3	25.3	-1.4	
4/27/10 15:14:30	3.14	4.54	26.6	25.5	-1.6	
4/27/10 15:14:45	3.17	4.53	26.7	25.9	-1.1	
4/27/10 15:15:00	3.16	4.53	26.8	26.4	-0.5	
4/27/10 15:15:15	3.12	4.54	26.8	25.9	-0.8	
4/27/10 15:15:30	3.08	4.57	27.0	26.3	-1.4	
4/27/10 15:15:45	3.02	4.58	27.0	26.6	-1.6	
4/27/10 15:16:00	3.03	4.58	27.1	27.1	-1.2	
4/27/10 15:16:15	3.00	4.58	26.9	26.7	-0.7	
4/27/10 15:16:30	2.96	4.59	26.6	26.6	-0.9	
4/27/10 15:16:45	2.94	4.60	26.5	26.7	-1.2	
4/27/10 15:17:00	3.00	4.59	26.7	26.8	-1.4	
4/27/10 15:17:15	3.04	4.57	26.5	26.6	-1.2	
4/27/10 15:17:30	3.05	4.56	26.2	26.4	-0.5	
4/27/10 15:17:45	3.07	4.55	26.3	26.9	-0.7	
4/27/10 15:18:00	3.13	4.54	26.8	27.4	-1.3	
4/27/10 15:18:15	3.14	4.53	27.1	27.1	-1.5	
4/27/10 15:18:30	3.04	4.56	26.9	27.4	-1.4	
4/27/10 15:18:45	2.93	4.58	26.9	27.5	-0.8	
4/27/10 15:19:00	2.93	4.58	27.2	27.5	-0.9	
4/27/10 15:19:15	2.96	4.59	27.2	27.5	-1.2	
4/27/10 15:19:30	2.94	4.60	27.1	26.7	-1.4	
4/27/10 15:19:45	2.88	4.61	26.6	26.5	-1.3	
4/27/10 15:20:00	2.91	4.58	26.9	27.0	-0.6	
4/27/10 15:20:15	3.04	4.55	27.2	26.9	-0.7	
4/27/10 15:20:30	3.10	4.54	27.2	26.6	-1.2	
4/27/10 15:20:45	3.01	4.56	27.2	26.6	-1.5	
4/27/10 15:21:00	3.00	4.54	26.9	26.4	-1.5	
4/27/10 15:21:15	3.08	4.53	26.5	26.2	-0.9	
4/27/10 15:21:30	3.11	4.52	26.7	26.6	-0.7	
4/27/10 15:21:45	3.16	4.52	26.8	26.5	-1.0	
4/27/10 15:22:00	3.18	4.52	26.6	26.6	-1.3	
4/27/10 15:22:15	3.16	4.52	26.5	26.5	-1.3	
4/27/10 15:22:30	3.16	4.52	26.3	26.7	-0.6	
4/27/10 15:22:45	3.15	4.52	26.5	26.7	-0.6	
4/27/10 15:23:00	3.15	4.52	26.5	26.4	-1.0	
4/27/10 15:23:15	3.09	4.53	26.4	26.5	-1.2	
4/27/10 15:23:30	3.09	4.52	26.1	26.4	-1.2	
4/27/10 15:23:45	3.15	4.50	25.9	26.3	-0.7	
4/27/10 15:24:00	3.21	4.50	25.9	26.2	-0.6	
4/27/10 15:24:15	3.23	4.50	25.9	26.2	-1.0	
4/27/10 15:24:30	3.23	4.50	26.0	26.0	-1.3	
4/27/10 15:24:45	3.25	4.49	25.7	26.3	-1.3	
4/27/10 15:25:00	3.24	4.49	25.6	26.0	-0.5	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 15:25:15	3.25	4.50	25.5	26.0	-0.5	
4/27/10 15:25:30	3.24	4.51	25.5	25.7	-0.9	
4/27/10 15:25:45	3.22	4.51	25.8	25.7	-1.1	
4/27/10 15:26:00	3.20	4.51	25.4	25.4	-1.1	
4/27/10 15:26:15	3.19	4.51	25.3	25.1	-0.5	
4/27/10 15:26:30	3.22	4.51	25.5	25.2	-0.4	
4/27/10 15:26:45	3.27	4.50	25.7	25.0	-0.8	
4/27/10 15:27:00	3.25	4.51	25.5	25.2	-1.3	
4/27/10 15:27:15	3.18	4.51	25.4	25.8	-1.3	
4/27/10 15:27:30	3.16	4.51	25.9	25.6	-0.7	
4/27/10 15:27:45	3.14	4.53	25.9	25.2	-0.4	
4/27/10 15:28:00	3.03	4.56	25.7	25.0	-0.7	
4/27/10 15:28:15	2.98	4.56	25.4	25.0	-1.0	
4/27/10 15:28:30	3.05	4.53	25.7	24.6	-1.0	
4/27/10 15:28:45	3.13	4.52	25.7	24.5	-0.6	
4/27/10 15:29:00	3.12	4.53	25.8	24.6	-0.2	
4/27/10 15:29:15	3.11	4.53	25.9	24.9	-0.6	
4/27/10 15:29:30	3.13	4.52	25.9	25.0	-1.2	
4/27/10 15:29:45	3.12	4.52	25.7	24.8	-1.4	
4/27/10 15:30:00	3.11	4.53	25.6	24.5	-0.9	
4/27/10 15:30:15	3.13	4.53	25.6	24.7	-0.4	
4/27/10 15:30:30	3.13	4.53	25.9	25.0	-0.6	
4/27/10 15:30:45	3.14	4.53	25.9	24.9	-1.0	
4/27/10 15:31:00	3.12	4.53	25.8	25.6	-1.3	
4/27/10 15:31:15	3.10	4.54	26.1	25.6	-1.1	
4/27/10 15:31:30	3.08	4.55	26.4	25.7	-0.3	
4/27/10 15:31:45	3.01	4.58	26.4	25.1	-0.3	
4/27/10 15:32:00	2.95	4.59	25.9	25.0	-0.8	
4/27/10 15:32:15	2.94	4.59	25.8	25.1	-1.1	
4/27/10 15:32:30	3.00	4.57	26.0	25.3	-1.2	
4/27/10 15:32:45	3.06	4.56	26.2	25.2	-0.6	
4/27/10 15:33:00	3.07	4.56	26.4	25.3	-0.2	
4/27/10 15:33:15	3.04	4.56	26.7	25.6	-0.6	
4/27/10 15:33:30	3.00	4.57	26.8	25.5	-1.2	
4/27/10 15:33:45	2.96	4.58	26.8	25.3	-1.3	
4/27/10 15:34:00	2.91	4.60	26.8	25.6	-0.8	
4/27/10 15:34:15	2.90	4.60	26.8	25.4	-0.1	
4/27/10 15:34:30	2.92	4.60	26.8	25.4	-0.3	
4/27/10 15:34:45	2.91	4.60	26.7	25.4	-0.8	
4/27/10 15:35:00	2.92	4.59	27.0	25.7	-1.3	
4/27/10 15:35:15	2.95	4.59	27.2	25.2	-1.3	
4/27/10 15:35:30	2.93	4.59	27.0	25.2	-0.4	
4/27/10 15:35:45	2.89	4.59	27.0	25.0	-0.1	
4/27/10 15:36:00	2.92	4.57	26.7	24.8	-0.6	
4/27/10 15:36:15	3.01	4.55	26.6	25.2	-1.0	
4/27/10 15:36:30	3.07	4.54	27.0	25.2	-1.3	
4/27/10 15:36:45	3.11	4.53	26.9	25.4	-1.0	
4/27/10 15:37:00	3.08	4.54	26.7	25.0	-0.2	
4/27/10 15:37:15	3.09	4.54	26.6	25.1	-0.3	
4/27/10 15:37:30	3.12	4.53	26.7	25.2	-0.8	
4/27/10 15:37:45	3.16	4.53	26.6	25.4	-1.1	
4/27/10 15:38:00	3.17	4.54	26.7	25.4	-1.1	
4/27/10 15:38:15	3.13	4.53	26.6	25.3	-0.6	
4/27/10 15:38:30	3.12	4.53	26.6	25.8	-0.4	
4/27/10 15:38:45	3.14	4.52	26.8	26.1	-0.9	
4/27/10 15:39:00	3.17	4.52	27.0	26.0	-1.3	
4/27/10 15:39:15	3.15	4.53	26.9	25.9	-1.4	
4/27/10 15:39:30	3.08	4.54	26.8	25.9	-0.7	
4/27/10 15:39:45	3.07	4.53	26.7	26.3	-0.4	
4/27/10 15:40:00	3.09	4.53	26.6	26.5	-0.9	
4/27/10 15:40:15	3.11	4.53	26.8	26.5	-1.2	
4/27/10 15:40:30	3.10	4.52	26.9	26.5	-1.4	
4/27/10 15:40:45	3.07	4.53	26.7	26.7	-1.0	
4/27/10 15:41:00	3.04	4.53	26.6	26.4	-0.5	
4/27/10 15:41:15	3.04	4.53	26.9	26.8	-0.7	
4/27/10 15:41:30	3.06	4.53	27.1	27.1	-1.1	
4/27/10 15:41:45	3.06	4.52	27.0	27.1	-1.3	
4/27/10 15:42:00	3.01	4.54	26.9	26.5	-0.8	
4/27/10 15:42:15	2.95	4.56	26.7	26.3	-0.4	
4/27/10 15:42:30	2.93	4.57	26.8	26.1	-0.7	
4/27/10 15:42:45	3.00	4.54	26.8	26.0	-1.1	
4/27/10 15:43:00	3.07	4.53	26.6	25.8	-1.4	
4/27/10 15:43:15	3.12	4.52	26.6	26.0	-1.2	
4/27/10 15:43:30	3.19	4.50	26.7	26.3	-0.5	
4/27/10 15:43:45	3.24	4.49	26.9	26.3	-0.6	
4/27/10 15:44:00	3.21	4.49	26.8	26.2	-1.1	
4/27/10 15:44:15	3.17	4.51	26.9	26.4	-1.3	
4/27/10 15:44:30	3.15	4.53	28.8	26.7	-1.1	
4/27/10 15:44:45	3.13	4.53	26.7	26.8	-0.5	
4/27/10 15:45:00	3.11	4.53	26.7	26.8	-0.7	
4/27/10 15:45:15	3.07	4.54	26.8	26.6	-1.1	
4/27/10 15:45:30	3.03	4.56	26.4	26.3	-1.5	
4/27/10 15:45:45	2.98	4.56	26.3	26.3	-1.4	
4/27/10 15:46:00	3.00	4.54	26.2	26.7	-0.6	
4/27/10 15:46:15	3.07	4.52	26.4	26.5	-0.5	
4/27/10 15:46:30	3.10	4.51	26.8	26.7	-1.1	
4/27/10 15:46:45	3.07	4.52	26.7	26.6	-1.4	
4/27/10 15:47:00	3.02	4.53	26.2	26.4	-1.4	
4/27/10 15:47:15	2.99	4.53	26.2	26.3	-0.8	
4/27/10 15:47:30	3.02	4.53	26.4	26.1	-0.4	
4/27/10 15:47:45	3.07	4.52	26.5	26.3	-0.8	
4/27/10 15:48:00	3.09	4.51	26.6	26.4	-1.3	
4/27/10 15:48:15	3.11	4.51	26.8	26.5	-1.4	
4/27/10 15:48:30	3.12	4.53	26.9	26.5	-0.7	
4/27/10 15:48:45	3.11	4.54	27.1	26.3	-0.3	
4/27/10 15:49:00	3.08	4.53	26.8	26.3	-0.8	
4/27/10 15:49:15	3.07	4.53	26.9	26.6	-1.1	
4/27/10 15:49:30	3.04	4.54	27.1	26.5	-1.3	
4/27/10 15:49:45	3.00	4.55	27.5	26.3	-1.0	
4/27/10 15:50:00	2.90	4.57	27.4	26.2	-0.5	
4/27/10 15:50:15	2.83	4.58	27.2	25.9	-0.8	
4/27/10 15:50:30	2.82	4.58	27.4	25.8	-1.2	
4/27/10 15:50:45	2.87	4.58	27.4	25.4	-1.4	
4/27/10 15:51:00	2.88	4.58	27.0	25.3	-0.9	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 15:51:15	2.85	4.57	26.7	25.1	-0.5	
4/27/10 15:51:30	2.91	4.55	26.6	25.2	-0.8	
4/27/10 15:51:45	2.97	4.53	26.7	25.3	-1.1	
4/27/10 15:52:00	3.00	4.52	26.7	25.6	-1.3	
4/27/10 15:52:15	2.98	4.52	26.7	25.5	-1.0	
4/27/10 15:52:30	2.91	4.54	27.0	26.0	-0.2	
4/27/10 15:52:45	2.86	4.55	27.1	25.7	-0.4	
4/27/10 15:53:00	2.83	4.57	27.2	25.7	-1.0	
4/27/10 15:53:15	2.81	4.58	27.1	25.5	-1.3	
4/27/10 15:53:30	2.84	4.57	27.1	25.3	-1.2	
4/27/10 15:53:45	2.85	4.57	26.7	25.0	-0.6	
4/27/10 15:54:00	2.91	4.56	26.7	25.1	-0.6	
4/27/10 15:54:15	2.97	4.54	26.9	25.1	-0.9	
4/27/10 15:54:30	3.02	4.52	26.8	25.5	-1.3	
4/27/10 15:54:45	3.03	4.52	27.2	26.0	-1.2	
4/27/10 15:55:00	3.02	4.53	27.3	25.7	-0.5	
4/27/10 15:55:15	2.95	4.56	27.2	25.6	-0.4	
4/27/10 15:55:30	2.87	4.57	26.7	25.6	-0.9	
4/27/10 15:55:45	2.88	4.55	26.6	25.4	-1.1	
4/27/10 15:56:00	2.95	4.55	26.4	24.9	-1.2	
4/27/10 15:56:15	2.96	4.54	26.2	25.2	-0.6	
4/27/10 15:56:30	2.97	4.52	26.2	24.7	-0.3	
4/27/10 15:56:45	3.05	4.49	26.0	24.7	-0.7	
4/27/10 15:57:00	3.06	4.48	26.2	25.0	-1.1	
4/27/10 15:57:15	3.11	4.47	26.3	25.0	-1.3	
4/27/10 15:57:30	3.13	4.47	26.0	25.3	-0.8	
4/27/10 15:57:45	3.12	4.47	26.0	25.3	-0.3	
4/27/10 15:58:00	3.13	4.48	26.1	25.3	-0.7	
4/27/10 15:58:15	3.12	4.50	26.1	25.7	-1.0	
4/27/10 15:58:30	3.09	4.50	26.1	25.4	-1.3	
4/27/10 15:58:45	3.07	4.51	25.9	25.4	-1.1	
4/27/10 15:59:00	3.05	4.51	25.9	25.2	-0.4	
4/27/10 15:59:15	3.07	4.52	26.0	25.5	-0.6	
4/27/10 15:59:30	3.09	4.52	25.8	25.4	-1.1	
4/27/10 15:59:45	3.11	4.50	25.6	25.6	-1.2	
4/27/10 16:00:00	3.13	4.49	26.0	26.2	-1.0	
4/27/10 16:00:15	3.17	4.49	26.5	26.1	-0.4	
4/27/10 16:00:30	3.15	4.50	26.8	26.2	-0.6	
4/27/10 16:00:45	3.04	4.52	26.2	26.1	-1.0	
4/27/10 16:01:00	2.95	4.53	26.0	26.6	-1.4	
4/27/10 16:01:15	2.94	4.54	26.4	26.2	-1.3	
4/27/10 16:01:30	2.98	4.54	26.2	26.0	-0.6	
4/27/10 16:01:45	2.96	4.55	25.9	26.4	-0.7	
4/27/10 16:02:00	2.95	4.54	25.6	26.3	-1.1	
4/27/10 16:02:15	3.00	4.52	25.9	26.3	-1.3	
4/27/10 16:02:30	3.01	4.52	26.0	26.2	-1.3	
4/27/10 16:02:45	3.02	4.52	26.3	26.5	-0.8	
4/27/10 16:03:00	3.01	4.53	26.4	26.3	-0.8	
4/27/10 16:03:15	3.02	4.53	26.3	26.4	-1.1	
4/27/10 16:03:30	3.00	4.54	26.6	26.7	-1.4	
4/27/10 16:03:45	3.01	4.54	26.9	26.3	-1.3	
4/27/10 16:04:00	3.00	4.55	26.4	26.5	-0.7	
4/27/10 16:04:15	2.96	4.55	26.3	26.7	-0.7	
4/27/10 16:04:30	3.00	4.53	26.3	26.4	-1.1	
4/27/10 16:04:45	3.05	4.53	26.5	26.8	-1.3	
4/27/10 16:05:00	3.05	4.54	26.6	27.0	-1.1	
4/27/10 16:05:15	3.03	4.54	26.2	26.5	-0.6	
4/27/10 16:05:30	3.00	4.55	26.1	26.3	-0.8	
4/27/10 16:05:45	3.01	4.54	25.9	26.5	-1.2	
4/27/10 16:06:00	3.08	4.52	26.2	26.4	-1.5	
4/27/10 16:06:15	3.15	4.51	26.3	26.5	-1.4	
4/27/10 16:06:30	3.13	4.51	26.4	27.3	-0.6	
4/27/10 16:06:45	3.08	4.52	26.5	27.3	-0.5	
4/27/10 16:07:00	3.06	4.53	26.4	27.3	-1.0	
4/27/10 16:07:15	2.98	4.56	26.5	27.3	-1.3	
4/27/10 16:07:30	2.92	4.56	26.5	27.2	-1.3	
4/27/10 16:07:45	2.87	4.57	26.4	27.2	-0.8	
4/27/10 16:08:00	2.84	4.57	26.2	26.8	-0.6	
4/27/10 16:08:15	2.87	4.56	26.3	27.2	-0.9	
4/27/10 16:08:30	2.91	4.55	26.9	27.1	-1.3	
4/27/10 16:08:45	2.96	4.54	26.8	27.3	-1.3	
4/27/10 16:09:00	2.91	4.55	26.6	27.5	-0.7	
4/27/10 16:09:15	2.89	4.55	26.4	27.3	-0.7	
4/27/10 16:09:30	2.91	4.55	26.6	27.0	-1.1	
4/27/10 16:09:45	2.92	4.55	26.6	26.7	-1.3	
4/27/10 16:10:00	2.93	4.55	26.2	26.6	-1.3	
4/27/10 16:10:15	2.92	4.55	26.4	26.8	-0.7	
4/27/10 16:10:30	2.91	4.55	26.6	26.3	-0.7	
4/27/10 16:10:45	2.90	4.56	26.3	26.1	-1.0	
4/27/10 16:11:00	2.88	4.56	26.3	25.9	-1.4	
4/27/10 16:11:15	2.91	4.55	26.3	25.5	-1.3	
4/27/10 16:11:30	2.95	4.55	26.1	25.1	-0.5	
4/27/10 16:11:45	2.96	4.54	26.0	25.5	-0.4	
4/27/10 16:12:00	2.99	4.52	26.1	25.2	-0.9	
4/27/10 16:12:15	3.02	4.51	26.2	25.1	-1.3	
4/27/10 16:12:30	3.02	4.51	26.1	25.3	-1.4	
4/27/10 16:12:45	3.06	4.51	26.0	24.9	-0.9	
4/27/10 16:13:00	3.11	4.51	26.0	25.1	-0.3	
4/27/10 16:13:15	3.10	4.51	26.5	25.7	-0.7	
4/27/10 16:13:30	3.10	4.51	26.5	25.9	-1.2	
4/27/10 16:13:45	3.08	4.52	26.2	25.5	-1.4	
4/27/10 16:14:00	3.02	4.54	26.1	25.5	-1.0	
4/27/10 16:14:15	2.97	4.55	26.2	25.8	-0.4	
4/27/10 16:14:30	2.99	4.54	26.0	25.6	-0.6	
4/27/10 16:14:45	2.99	4.54	25.9	25.5	-1.0	
4/27/10 16:15:00	2.97	4.55	25.7	25.8	-1.4	Stop M5 for port change
4/27/10 16:15:15	3.00	4.54	25.9	25.9	-1.2	
4/27/10 16:15:30	3.02	4.53	26.2	25.8	-0.4	
4/27/10 16:15:45	2.97	4.54	26.2	25.6	-0.4	
4/27/10 16:16:00	2.90	4.55	26.0	25.4	-1.0	
4/27/10 16:16:15	2.94	4.54	25.9	25.4	-1.3	
4/27/10 16:16:30	3.01	4.53	26.3	26.0	-1.3	
4/27/10 16:16:45	3.05	4.53	26.4	26.2	-0.8	
4/27/10 16:17:00	3.04	4.53	26.1	25.8	-0.3	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 16:17:15	2.95	4.55	25.9	25.5	-0.7	
4/27/10 16:17:30	2.94	4.55	25.6	25.7	-1.2	
4/27/10 16:17:45	3.04	4.53	25.4	25.9	-1.3	
4/27/10 16:18:00	3.09	4.52	25.6	25.5	-0.9	
4/27/10 16:18:15	3.11	4.51	25.5	25.9	-0.4	
4/27/10 16:18:30	3.12	4.50	25.8	26.2	-0.8	
4/27/10 16:18:45	3.13	4.50	25.8	25.9	-1.2	
4/27/10 16:19:00	3.10	4.52	25.6	26.2	-1.5	
4/27/10 16:19:15	3.02	4.53	25.3	26.2	-1.4	
4/27/10 16:19:30	3.02	4.52	25.4	26.6	-0.4	
4/27/10 16:19:45	3.05	4.51	25.5	26.7	-0.4	
4/27/10 16:20:00	3.06	4.52	25.6	27.0	-1.0	
4/27/10 16:20:15	3.01	4.54	25.8	26.9	-1.3	
4/27/10 16:20:30	2.96	4.55	25.7	26.7	-1.3	
4/27/10 16:20:45	2.93	4.55	25.5	26.6	-0.8	
4/27/10 16:21:00	2.96	4.55	25.6	26.8	-0.6	
4/27/10 16:21:15	3.01	4.54	25.6	26.5	-1.0	
4/27/10 16:21:30	3.02	4.53	25.5	27.0	-1.4	
4/27/10 16:21:45	3.00	4.54	25.8	26.8	-1.5	
4/27/10 16:22:00	3.01	4.53	25.6	26.3	-1.0	
4/27/10 16:22:15	2.99	4.54	25.2	26.4	-0.6	
4/27/10 16:22:30	2.97	4.54	25.2	26.5	-1.0	
4/27/10 16:22:45	3.06	4.51	25.4	26.2	-1.3	
4/27/10 16:23:00	3.13	4.49	25.2	26.6	-1.4	
4/27/10 16:23:15	3.13	4.49	25.4	26.4	-1.0	
4/27/10 16:23:30	3.17	4.49	25.4	26.2	-0.7	
4/27/10 16:23:45	3.19	4.49	24.9	25.7	-1.0	
4/27/10 16:24:00	3.21	4.49	24.3	23.0	-1.3	
4/27/10 16:24:15	3.30	4.45	20.5	17.1	-1.4	
4/27/10 16:24:30	3.61	4.35	17.5	17.7	-0.9	
4/27/10 16:24:45	5.04	3.90	17.2	18.2	-0.6	
4/27/10 16:25:00	7.74	3.31	17.0	18.1	-0.9	
4/27/10 16:25:15	8.87	3.13	16.6	17.1	-1.2	
4/27/10 16:25:30	9.01	3.11	16.3	21.3	-1.2	
4/27/10 16:25:45	9.15	3.06	20.2	26.9	-0.8	
4/27/10 16:26:00	9.33	3.05	23.9	27.4	-0.7	
4/27/10 16:26:15	7.90	3.52	24.7	26.5	-1.0	
4/27/10 16:26:30	5.16	4.12	24.6	26.2	-1.2	
4/27/10 16:26:45	3.63	4.40	24.4	26.6	-1.2	Re-start M5
4/27/10 16:27:00	3.30	4.44	24.5	26.6	-0.9	
4/27/10 16:27:15	3.30	4.44	24.6	26.5	-1.0	
4/27/10 16:27:30	3.32	4.44	24.6	26.8	-1.2	
4/27/10 16:27:45	3.33	4.44	24.7	26.6	-1.4	
4/27/10 16:28:00	3.35	4.44	24.8	26.3	-1.1	
4/27/10 16:28:15	3.32	4.45	24.5	26.0	-0.7	
4/27/10 16:28:30	3.31	4.46	24.6	25.5	-1.1	
4/27/10 16:28:45	3.34	4.45	24.9	25.2	-1.4	
4/27/10 16:29:00	3.37	4.44	24.9	25.1	-1.6	
4/27/10 16:29:15	3.37	4.43	24.8	24.9	-1.2	
4/27/10 16:29:30	3.33	4.43	24.6	24.8	-0.6	
4/27/10 15:29:45	3.32	4.44	24.5	24.6	-0.8	
4/27/10 16:30:00	3.33	4.44	24.4	24.5	-1.3	
4/27/10 16:30:15	3.30	4.45	24.3	24.1	-1.6	
4/27/10 16:30:30	3.29	4.44	24.1	23.5	-1.4	
4/27/10 16:30:45	3.33	4.43	24.1	23.4	-0.7	
4/27/10 16:31:00	3.37	4.41	23.9	23.6	-0.5	
4/27/10 16:31:15	3.41	4.40	23.7	23.3	-1.1	
4/27/10 16:31:30	3.43	4.39	23.7	23.5	-1.4	
4/27/10 16:31:45	3.43	4.39	23.7	23.5	-1.5	
4/27/10 16:32:00	3.42	4.40	23.6	23.4	-0.9	
4/27/10 16:32:15	3.42	4.41	23.7	23.7	-0.5	
4/27/10 16:32:30	3.41	4.42	23.8	23.3	-0.9	
4/27/10 16:32:45	3.39	4.42	23.5	23.4	-1.3	
4/27/10 16:33:00	3.34	4.43	23.7	23.4	-1.5	
4/27/10 16:33:15	3.34	4.42	23.4	23.0	-1.0	
4/27/10 16:33:30	3.38	4.43	23.8	23.6	-0.6	
4/27/10 16:33:45	3.37	4.43	24.3	23.9	-0.9	
4/27/10 16:34:00	3.35	4.44	24.5	23.8	-1.4	
4/27/10 16:34:15	3.27	4.48	24.6	23.8	-1.7	
4/27/10 16:34:30	3.23	4.51	24.5	23.8	-1.4	
4/27/10 16:34:45	3.23	4.52	24.4	23.7	-0.6	
4/27/10 16:35:00	3.23	4.52	24.4	23.6	-0.6	
4/27/10 16:35:15	3.20	4.51	24.1	23.8	-1.1	
4/27/10 16:35:30	3.19	4.50	23.8	23.7	-1.6	
4/27/10 16:35:45	3.24	4.48	23.6	24.1	-1.8	
4/27/10 16:36:00	3.30	4.47	23.8	24.1	-1.2	
4/27/10 16:36:15	3.32	4.47	24.1	24.1	-0.7	
4/27/10 16:36:30	3.32	4.46	23.9	24.4	-1.0	
4/27/10 16:36:45	3.31	4.46	23.6	24.1	-1.5	
4/27/10 16:37:00	3.32	4.45	23.5	24.6	-1.7	
4/27/10 16:37:15	3.32	4.45	23.9	24.9	-1.4	
4/27/10 16:37:30	3.35	4.43	24.0	24.9	-1.0	
4/27/10 16:37:45	3.33	4.44	23.9	24.9	-1.1	
4/27/10 16:38:00	3.28	4.46	23.9	25.1	-1.5	
4/27/10 16:38:15	3.28	4.46	24.1	24.9	-1.7	
4/27/10 16:38:30	3.27	4.46	24.1	25.0	-1.3	
4/27/10 16:38:45	3.23	4.46	23.9	25.2	-0.7	
4/27/10 16:39:00	3.28	4.45	24.1	25.3	-1.0	
4/27/10 16:39:15	3.32	4.45	24.1	25.4	-1.5	
4/27/10 16:39:30	3.32	4.45	24.1	25.3	-1.8	
4/27/10 16:39:45	3.33	4.45	24.1	25.5	-1.7	
4/27/10 16:40:00	3.37	4.43	24.1	25.6	-1.0	
4/27/10 16:40:15	3.37	4.44	24.2	25.5	-0.9	
4/27/10 16:40:30	3.33	4.45	24.0	25.9	-1.4	
4/27/10 16:40:45	3.32	4.46	24.2	25.9	-1.7	
4/27/10 16:41:00	3.33	4.45	24.1	25.6	-1.6	
4/27/10 16:41:15	3.26	4.47	23.9	25.6	-1.0	
4/27/10 16:41:30	3.22	4.47	23.7	25.6	-0.9	
4/27/10 16:41:45	3.29	4.45	23.4	25.5	-1.3	
4/27/10 16:42:00	3.35	4.44	23.7	25.8	-1.6	
4/27/10 16:42:15	3.38	4.43	23.9	25.8	-1.7	
4/27/10 16:42:30	3.39	4.43	23.9	25.7	-1.2	
4/27/10 16:42:45	3.38	4.43	23.5	25.8	-1.1	
4/27/10 16:43:00	3.37	4.43	23.7	26.0	-1.4	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 16:43:15	3.40	4.41	23.9	26.0	-1.6	
4/27/10 16:43:30	3.41	4.42	24.0	26.4	-1.4	
4/27/10 16:43:45	3.37	4.44	24.0	25.8	-1.0	
4/27/10 16:44:00	3.34	4.45	23.9	26.0	-1.1	
4/27/10 16:44:15	3.33	4.45	23.7	25.9	-1.5	
4/27/10 16:44:30	3.36	4.44	24.0	26.2	-1.7	
4/27/10 16:44:45	3.37	4.43	23.9	26.1	-1.4	
4/27/10 16:45:00	3.32	4.44	24.1	26.0	-1.0	
4/27/10 16:45:15	3.26	4.45	24.1	25.6	-1.1	
4/27/10 16:45:30	3.25	4.46	24.3	25.5	-1.4	
4/27/10 16:45:45	3.26	4.47	24.3	24.8	-1.6	
4/27/10 16:46:00	3.26	4.46	24.2	24.8	-1.3	
4/27/10 16:46:15	3.27	4.46	24.1	24.9	-0.9	
4/27/10 16:46:30	3.32	4.43	24.3	24.7	-1.1	
4/27/10 16:46:45	3.40	4.42	24.4	24.7	-1.5	
4/27/10 16:47:00	3.44	4.43	24.6	24.4	-1.7	
4/27/10 16:47:15	3.39	4.44	24.9	24.3	-1.5	
4/27/10 16:47:30	3.32	4.45	24.9	24.6	-0.9	
4/27/10 16:47:45	3.30	4.45	24.7	24.6	-1.0	
4/27/10 16:48:00	3.30	4.46	25.0	24.6	-1.4	
4/27/10 16:48:15	3.31	4.46	25.0	24.8	-1.7	
4/27/10 16:48:30	3.32	4.47	25.1	24.6	-1.4	
4/27/10 16:48:45	3.30	4.47	24.9	24.4	-0.8	
4/27/10 16:49:00	3.27	4.47	24.7	23.9	-0.9	
4/27/10 16:49:15	3.25	4.47	24.6	24.1	-1.3	
4/27/10 16:49:30	3.31	4.45	24.5	24.3	-1.6	
4/27/10 16:49:45	3.37	4.44	24.9	24.2	-1.5	
4/27/10 16:50:00	3.37	4.44	24.7	24.4	-1.0	
4/27/10 16:50:15	3.33	4.44	24.8	24.6	-0.9	
4/27/10 16:50:30	3.31	4.44	24.6	24.2	-1.3	
4/27/10 16:50:45	3.31	4.44	24.4	24.2	-1.6	
4/27/10 16:51:00	3.32	4.44	24.3	24.3	-1.4	
4/27/10 16:51:15	3.36	4.42	24.3	24.4	-0.8	
4/27/10 16:51:30	3.40	4.41	24.4	24.3	-0.8	
4/27/10 16:51:45	3.39	4.41	24.3	24.7	-1.2	
4/27/10 16:52:00	3.38	4.42	24.3	24.7	-1.6	
4/27/10 16:52:15	3.38	4.43	24.4	24.6	-1.7	
4/27/10 16:52:30	3.36	4.44	24.2	24.6	-1.0	
4/27/10 16:52:45	3.32	4.44	24.1	24.4	-0.6	
4/27/10 16:53:00	3.31	4.44	23.8	24.5	-1.0	
4/27/10 16:53:15	3.34	4.43	23.7	24.6	-1.6	
4/27/10 16:53:30	3.37	4.43	23.7	24.7	-1.8	
4/27/10 16:53:45	3.39	4.42	24.2	24.8	-1.5	
4/27/10 16:54:00	3.40	4.42	24.1	24.7	-0.7	
4/27/10 16:54:15	3.39	4.43	23.9	24.4	-0.6	
4/27/10 16:54:30	3.36	4.44	23.6	24.7	-1.1	
4/27/10 16:54:45	3.34	4.45	23.7	24.9	-1.5	
4/27/10 16:55:00	3.35	4.45	23.9	24.7	-1.6	
4/27/10 16:55:15	3.34	4.45	23.8	24.8	-1.1	
4/27/10 16:55:30	3.30	4.46	23.8	24.9	-1.0	
4/27/10 16:55:45	3.30	4.46	23.6	24.7	-1.2	
4/27/10 16:56:00	3.32	4.46	23.9	25.1	-1.5	
4/27/10 16:56:15	3.34	4.46	24.3	25.2	-1.6	
4/27/10 16:56:30	3.32	4.46	24.4	25.4	-1.1	
4/27/10 16:56:45	3.25	4.47	24.4	25.2	-0.9	
4/27/10 16:57:00	3.17	4.49	24.3	25.1	-1.3	
4/27/10 16:57:15	3.15	4.50	24.4	25.1	-1.6	
4/27/10 16:57:30	3.21	4.50	24.6	25.0	-1.6	
4/27/10 16:57:45	3.24	4.51	24.4	24.8	-1.1	
4/27/10 16:58:00	3.25	4.50	24.3	25.2	-1.1	
4/27/10 16:58:15	3.29	4.48	24.4	25.6	-1.4	
4/27/10 16:58:30	3.33	4.47	24.5	25.6	-1.6	
4/27/10 16:58:45	3.31	4.48	24.5	25.3	-1.6	
4/27/10 16:59:00	3.28	4.50	24.4	25.5	-1.1	
4/27/10 16:59:15	3.28	4.49	24.4	25.5	-1.1	
4/27/10 16:59:30	3.33	4.47	24.3	25.7	-1.4	
4/27/10 16:59:45	3.35	4.46	24.3	26.0	-1.7	
4/27/10 17:00:00	3.36	4.45	24.5	26.1	-1.6	
4/27/10 17:00:15	3.35	4.47	24.9	25.8	-1.0	
4/27/10 17:00:30	3.28	4.50	24.8	25.2	-1.1	
4/27/10 17:00:45	3.19	4.50	24.4	25.6	-1.5	
4/27/10 17:01:00	3.19	4.49	24.2	25.5	-1.8	
4/27/10 17:01:15	3.25	4.46	24.1	25.7	-1.8	
4/27/10 17:01:30	3.29	4.45	24.5	25.7	-1.2	
4/27/10 17:01:45	3.31	4.45	24.7	25.6	-1.0	
4/27/10 17:02:00	3.32	4.45	24.5	25.6	-1.3	
4/27/10 17:02:15	3.32	4.45	24.4	25.8	-1.6	
4/27/10 17:02:30	3.35	4.45	24.4	25.6	-1.5	
4/27/10 17:02:45	3.36	4.45	24.4	25.7	-1.0	
4/27/10 17:03:00	3.37	4.46	24.3	25.2	-1.1	
4/27/10 17:03:15	3.38	4.46	24.1	25.4	-1.5	
4/27/10 17:03:30	3.39	4.45	24.1	25.3	-1.8	
4/27/10 17:03:45	3.40	4.45	24.4	24.7	-1.7	
4/27/10 17:04:00	3.38	4.45	24.3	24.7	-1.0	
4/27/10 17:04:15	3.37	4.46	23.8	24.6	-0.9	
4/27/10 17:04:30	3.37	4.46	23.7	24.5	-1.3	
4/27/10 17:04:45	3.38	4.45	23.7	24.2	-1.7	
4/27/10 17:05:00	3.38	4.44	23.7	24.2	-1.7	
4/27/10 17:05:15	3.39	4.43	23.5	24.5	-1.1	
4/27/10 17:05:30	3.41	4.43	23.3	24.5	-0.9	
4/27/10 17:05:45	3.39	4.43	23.3	24.4	-1.3	
4/27/10 17:06:00	3.37	4.43	23.4	24.4	-1.7	
4/27/10 17:06:15	3.38	4.43	23.4	24.5	-1.8	
4/27/10 17:06:30	3.39	4.43	23.8	24.4	-1.2	
4/27/10 17:06:45	3.39	4.43	23.9	24.5	-0.8	
4/27/10 17:07:00	3.39	4.43	24.0	24.5	-1.1	
4/27/10 17:07:15	3.39	4.44	24.5	25.1	-1.5	
4/27/10 17:07:30	3.38	4.44	25.0	24.9	-1.7	
4/27/10 17:07:45	3.29	4.47	25.0	24.9	-1.3	
4/27/10 17:08:00	3.11	4.51	24.9	25.4	-0.9	
4/27/10 17:08:15	3.06	4.51	24.8	25.2	-1.1	
4/27/10 17:08:30	3.08	4.52	24.6	25.2	-1.4	
4/27/10 17:08:45	3.05	4.53	24.5	25.3	-1.6	
4/27/10 17:09:00	3.08	4.52	24.7	25.0	-1.3	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 17:09:15	3.12	4.51	24.7	25.0	-0.9	
4/27/10 17:09:30	3.13	4.50	24.7	24.8	-1.1	
4/27/10 17:09:45	3.16	4.48	24.8	25.0	-1.5	
4/27/10 17:10:00	3.24	4.47	24.8	25.1	-1.7	
4/27/10 17:10:15	3.29	4.46	24.7	24.9	-1.4	
4/27/10 17:10:30	3.28	4.47	24.8	24.8	-0.9	
4/27/10 17:10:45	3.24	4.47	24.7	24.8	-1.1	
4/27/10 17:11:00	3.23	4.48	24.5	24.7	-1.6	
4/27/10 17:11:15	3.23	4.47	24.4	24.9	-1.9	
4/27/10 17:11:30	3.23	4.47	24.3	25.0	-1.6	
4/27/10 17:11:45	3.25	4.47	24.0	25.0	-0.8	
4/27/10 17:12:00	3.26	4.47	24.1	24.9	-0.7	
4/27/10 17:12:15	3.26	4.46	23.9	24.5	-1.2	
4/27/10 17:12:30	3.23	4.46	23.9	24.9	-1.6	
4/27/10 17:12:45	3.23	4.46	24.0	24.9	-1.7	
4/27/10 17:13:00	3.31	4.46	24.2	24.7	-1.2	
4/27/10 17:13:15	3.32	4.47	24.2	24.4	-0.8	
4/27/10 17:13:30	3.31	4.47	24.3	24.5	-1.2	
4/27/10 17:13:45	3.32	4.46	24.2	24.4	-1.6	
4/27/10 17:14:00	3.33	4.45	24.2	25.0	-1.8	
4/27/10 17:14:15	3.32	4.45	24.3	25.0	-1.5	
4/27/10 17:14:30	3.31	4.46	24.0	24.4	-0.9	
4/27/10 17:14:45	3.29	4.48	24.0	24.8	-1.1	
4/27/10 17:15:00	3.31	4.47	24.1	24.4	-1.5	
4/27/10 17:15:15	3.33	4.46	23.8	24.8	-1.9	
4/27/10 17:15:30	3.28	4.46	24.0	25.2	-1.6	
4/27/10 17:15:45	3.29	4.45	24.2	25.1	-1.0	
4/27/10 17:16:00	3.31	4.46	24.2	25.1	-1.0	
4/27/10 17:16:15	3.29	4.47	24.1	25.0	-1.5	
4/27/10 17:16:30	3.28	4.47	24.3	25.1	-1.9	
4/27/10 17:16:45	3.28	4.46	24.3	25.2	-1.9	
4/27/10 17:17:00	3.29	4.45	24.2	25.3	-1.3	
4/27/10 17:17:15	3.26	4.46	24.2	25.5	-1.0	
4/27/10 17:17:30	3.23	4.48	24.2	25.3	-1.4	
4/27/10 17:17:45	3.24	4.48	24.3	25.3	-1.7	
4/27/10 17:18:00	3.25	4.48	24.5	25.1	-1.6	
4/27/10 17:18:15	3.24	4.48	24.0	25.5	-1.1	
4/27/10 17:18:30	3.24	4.48	24.0	25.5	-1.1	
4/27/10 17:18:45	3.26	4.48	24.1	25.7	-1.5	
4/27/10 17:19:00	3.27	4.49	23.9	25.5	-1.8	
4/27/10 17:19:15	3.26	4.49	23.7	25.3	-1.8	
4/27/10 17:19:30	3.25	4.48	23.8	25.5	-1.3	
4/27/10 17:19:45	3.29	4.47	23.5	25.8	-1.2	
4/27/10 17:20:00	3.32	4.47	23.5	25.7	-1.6	
4/27/10 17:20:15	3.32	4.49	23.6	25.7	-1.9	
4/27/10 17:20:30	3.32	4.50	23.6	25.1	-1.8	
4/27/10 17:20:45	3.31	4.50	23.6	25.3	-1.1	
4/27/10 17:21:00	3.30	4.50	23.4	25.4	-1.1	
4/27/10 17:21:15	3.31	4.48	23.4	25.3	-1.4	
4/27/10 17:21:30	3.30	4.48	23.6	25.3	-1.7	
4/27/10 17:21:45	3.28	4.50	23.9	24.7	-1.7	
4/27/10 17:22:00	3.24	4.51	24.0	24.0	-1.1	
4/27/10 17:22:15	3.20	4.52	23.8	24.1	-0.8	
4/27/10 17:22:30	3.18	4.52	23.7	24.1	-1.3	
4/27/10 17:22:45	3.20	4.51	23.8	23.9	-1.7	
4/27/10 17:23:00	3.22	4.51	23.9	23.7	-1.8	
4/27/10 17:23:15	3.19	4.52	24.1	23.3	-1.3	
4/27/10 17:23:30	3.17	4.52	24.1	23.3	-0.9	
4/27/10 17:23:45	3.19	4.51	24.0	22.9	-1.2	
4/27/10 17:24:00	3.25	4.50	23.9	23.0	-1.6	
4/27/10 17:24:15	3.27	4.50	24.1	23.1	-1.8	
4/27/10 17:24:30	3.31	4.49	24.4	23.1	-1.3	
4/27/10 17:24:45	3.32	4.49	24.4	22.8	-0.7	
4/27/10 17:25:00	3.28	4.50	24.6	23.0	-0.9	
4/27/10 17:25:15	3.24	4.50	24.7	23.1	-1.5	
4/27/10 17:25:30	3.25	4.50	24.7	23.2	-1.8	
4/27/10 17:25:45	3.25	4.51	24.8	23.0	-1.7	
4/27/10 17:26:00	3.21	4.51	24.5	22.4	-1.0	
4/27/10 17:26:15	3.17	4.52	24.4	22.5	-0.7	
4/27/10 17:26:30	3.16	4.51	24.3	22.6	-1.2	
4/27/10 17:26:45	3.20	4.50	24.2	21.5	-1.7	
4/27/10 17:27:00	3.26	4.49	23.4	21.4	-1.9	
4/27/10 17:27:15	3.32	4.47	24.1	22.3	-1.4	
4/27/10 17:27:30	3.61	4.38	24.7	22.4	-0.7	
4/27/10 17:27:45	3.78	4.36	25.0	22.2	-0.7	
4/27/10 17:28:00	3.50	4.44	25.0	22.5	-1.3	
4/27/10 17:28:15	3.31	4.48	25.2	22.1	-1.7	
4/27/10 17:28:30	3.25	4.49	24.8	22.2	-1.7	
4/27/10 17:28:45	3.24	4.49	24.6	22.4	-1.1	
4/27/10 17:29:00	3.27	4.48	24.6	23.0	-0.8	
4/27/10 17:29:15	3.30	4.48	24.4	23.0	-1.2	
4/27/10 17:29:30	3.31	4.49	24.7	23.1	-1.7	
4/27/10 17:29:45	3.32	4.50	24.8	23.1	-1.9	
4/27/10 17:30:00	3.32	4.49	24.6	23.2	-1.5	
4/27/10 17:30:15	3.33	4.49	24.5	23.8	-0.9	
4/27/10 17:30:30	3.35	4.47	24.7	24.1	-1.2	
4/27/10 17:30:45	3.38	4.47	24.7	24.1	-1.7	
4/27/10 17:31:00	3.32	4.50	24.6	24.3	-2.0	
4/27/10 17:31:15	3.27	4.51	24.5	24.4	-1.8	
4/27/10 17:31:30	3.26	4.51	24.3	24.8	-1.1	
4/27/10 17:31:45	3.27	4.51	24.3	24.7	-1.1	
4/27/10 17:32:00	3.28	4.50	24.5	24.8	-1.6	
4/27/10 17:32:15	3.26	4.50	24.6	25.2	-1.9	
4/27/10 17:32:30	3.26	4.49	24.6	25.6	-1.8	
4/27/10 17:32:45	3.26	4.49	24.4	25.4	-1.1	
4/27/10 17:33:00	3.25	4.50	24.5	25.0	-1.0	
4/27/10 17:33:15	3.28	4.49	24.4	25.3	-1.4	
4/27/10 17:33:30	3.31	4.48	24.8	25.5	-1.8	
4/27/10 17:33:45	3.33	4.46	24.8	25.5	-2.0	
4/27/10 17:34:00	3.31	4.45	24.8	25.8	-1.4	
4/27/10 17:34:15	3.32	4.45	24.7	26.2	-0.9	
4/27/10 17:34:30	3.34	4.45	25.1	25.9	-1.3	
4/27/10 17:34:45	3.35	4.46	24.9	25.8	-1.8	
4/27/10 17:35:00	3.28	4.48	25.0	26.2	-2.0	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 17:35:15	3.25	4.47	25.2	26.4	-1.7	
4/27/10 17:35:30	3.26	4.47	24.8	26.3	-1.2	
4/27/10 17:35:45	3.23	4.49	24.7	26.3	-1.3	
4/27/10 17:36:00	3.20	4.50	24.7	26.0	-1.7	
4/27/10 17:36:15	3.21	4.50	25.0	26.1	-1.9	
4/27/10 17:36:30	3.22	4.48	25.2	26.6	-1.5	
4/27/10 17:36:45	3.27	4.46	24.9	26.4	-1.0	
4/27/10 17:37:00	3.29	4.47	24.8	26.1	-1.2	
4/27/10 17:37:15	3.25	4.49	25.0	25.5	-1.5	
4/27/10 17:37:30	3.23	4.50	24.9	24.9	-1.7	
4/27/10 17:37:45	3.23	4.50	24.8	24.6	-1.4	
4/27/10 17:38:00	3.26	4.48	24.6	24.4	-0.9	
4/27/10 17:38:15	3.32	4.46	24.4	24.4	-1.0	
4/27/10 17:38:30	3.37	4.46	24.6	24.1	-1.5	
4/27/10 17:38:45	3.37	4.47	24.7	24.2	-1.9	
4/27/10 17:39:00	3.34	4.48	24.9	23.8	-1.7	
4/27/10 17:39:15	3.34	4.48	24.8	23.6	-1.0	
4/27/10 17:39:30	3.31	4.48	24.5	23.7	-1.0	
4/27/10 17:39:45	3.30	4.48	24.5	23.9	-1.4	
4/27/10 17:40:00	3.30	4.49	24.5	23.5	-1.8	
4/27/10 17:40:15	3.30	4.49	24.4	23.4	-1.8	
4/27/10 17:40:30	3.30	4.50	24.4	23.1	-1.2	
4/27/10 17:40:45	3.30	4.50	24.4	22.9	-0.7	
4/27/10 17:41:00	3.32	4.49	24.4	22.8	-1.1	
4/27/10 17:41:15	3.36	4.47	24.2	22.8	-1.5	
4/27/10 17:41:30	3.41	4.47	23.9	21.9	-1.7	
4/27/10 17:41:45	3.42	4.47	23.5	23.0	-1.3	
4/27/10 17:42:00	3.49	4.44	24.4	22.8	-0.8	
4/27/10 17:42:15	3.75	4.38	24.6	22.8	-1.0	
4/27/10 17:42:30	3.58	4.44	24.3	22.8	-1.5	
4/27/10 17:42:45	3.26	4.50	24.2	23.0	-1.8	
4/27/10 17:43:00	3.16	4.51	24.3	23.0	-1.6	
4/27/10 17:43:15	3.17	4.52	24.5	23.1	-0.9	
4/27/10 17:43:30	3.13	4.53	24.4	23.6	-0.9	
4/27/10 17:43:45	3.11	4.53	24.4	23.8	-1.3	
4/27/10 17:44:00	3.09	4.53	24.5	23.8	-1.7	
4/27/10 17:44:15	3.06	4.54	24.4	24.3	-1.7	
4/27/10 17:44:30	3.04	4.54	24.8	24.4	-1.1	
4/27/10 17:44:45	3.05	4.54	24.7	24.2	-0.9	
4/27/10 17:45:00	3.02	4.55	24.5	24.2	-1.3	
4/27/10 17:45:15	3.00	4.55	24.6	24.6	-1.7	
4/27/10 17:45:30	3.02	4.54	24.6	24.9	-1.8	
4/27/10 17:45:45	3.03	4.54	24.9	25.0	-1.3	
4/27/10 17:46:00	3.01	4.55	25.1	24.7	-0.9	
4/27/10 17:46:15	2.97	4.56	25.4	24.9	-1.2	
4/27/10 17:46:30	2.96	4.56	25.3	24.7	-1.7	
4/27/10 17:46:45	2.97	4.55	25.0	25.1	-1.9	
4/27/10 17:47:00	2.97	4.54	25.1	26.0	-1.5	
4/27/10 17:47:15	3.01	4.53	25.6	25.7	-0.9	
4/27/10 17:47:30	3.01	4.55	25.5	25.3	-1.1	
4/27/10 17:47:45	2.98	4.56	25.3	25.4	-1.6	
4/27/10 17:48:00	2.99	4.55	24.9	25.7	-1.9	
4/27/10 17:48:15	3.05	4.52	25.1	26.0	-1.8	
4/27/10 17:48:30	3.12	4.50	25.4	26.2	-1.2	
4/27/10 17:48:45	3.11	4.51	25.5	26.6	-1.3	
4/27/10 17:49:00	3.05	4.53	25.5	26.9	-1.7	
4/27/10 17:49:15	3.01	4.54	25.7	27.0	-1.9	
4/27/10 17:49:30	2.98	4.55	25.6	26.9	-1.8	
4/27/10 17:49:45	2.95	4.57	25.4	27.0	-1.2	
4/27/10 17:50:00	2.94	4.58	25.6	26.8	-1.2	
4/27/10 17:50:15	2.95	4.57	25.7	26.5	-1.6	
4/27/10 17:50:30	2.98	4.56	25.4	26.2	-1.9	
4/27/10 17:50:45	3.00	4.55	25.3	26.4	-1.8	
4/27/10 17:51:00	3.05	4.54	25.6	26.7	-1.2	
4/27/10 17:51:15	3.13	4.53	25.7	26.9	-1.2	
4/27/10 17:51:30	3.11	4.54	25.9	26.6	-1.6	
4/27/10 17:51:45	3.05	4.54	25.8	26.4	-2.0	
4/27/10 17:52:00	3.02	4.55	25.6	26.6	-1.9	
4/27/10 17:52:15	3.05	4.55	25.4	26.7	-1.4	
4/27/10 17:52:30	3.07	4.55	25.5	26.6	-1.3	
4/27/10 17:52:45	3.09	4.54	25.6	26.9	-1.6	
4/27/10 17:53:00	3.14	4.52	25.4	27.1	-1.9	
4/27/10 17:53:15	3.13	4.52	25.3	27.0	-1.9	
4/27/10 17:53:30	3.08	4.54	25.5	27.3	-1.3	
4/27/10 17:53:45	3.09	4.55	25.8	27.9	-1.2	
4/27/10 17:54:00	3.11	4.56	25.8	27.3	-1.6	
4/27/10 17:54:15	3.07	4.57	25.2	27.0	-2.0	
4/27/10 17:54:30	3.02	4.58	25.0	27.1	-1.9	
4/27/10 17:54:45	3.06	4.57	25.1	27.5	-1.3	
4/27/10 17:55:00	3.09	4.56	25.5	27.1	-1.0	
4/27/10 17:55:15	3.08	4.57	25.3	26.9	-1.4	
4/27/10 17:55:30	3.06	4.57	25.1	26.7	-1.7	
4/27/10 17:55:45	3.06	4.57	25.0	26.5	-1.9	
4/27/10 17:56:00	3.08	4.57	25.1	26.6	-1.3	
4/27/10 17:56:15	3.10	4.56	25.2	26.1	-0.9	
4/27/10 17:56:30	3.11	4.56	25.1	26.3	-1.3	
4/27/10 17:56:45	3.08	4.56	25.1	26.0	-1.7	
4/27/10 17:57:00	3.08	4.56	25.2	26.1	-2.0	End M5
4/27/10 17:57:15	3.04	4.58	25.2	26.3	-1.6	
4/27/10 17:57:30	3.02	4.58	25.0	26.0	-1.1	
4/27/10 17:57:45	3.01	4.58	24.8	25.0	-1.2	
4/27/10 17:58:00	2.99	4.59	23.4	25.3	-1.6	
4/27/10 17:58:15	3.02	4.57	24.2	26.0	-1.9	
4/27/10 17:58:30	3.57	4.42	25.1	25.8	-1.6	
4/27/10 17:58:45	3.84	4.41	25.1	26.1	-1.0	
4/27/10 17:59:00	3.37	4.51	25.1	26.0	-1.1	
4/27/10 17:59:15	3.13	4.54	25.1	26.2	-1.6	
4/27/10 17:59:30	3.07	4.55	25.2	26.3	-1.9	
4/27/10 17:59:45	3.08	4.56	25.3	26.5	-1.8	
4/27/10 18:00:00	3.07	4.57	25.4	26.4	-1.2	
4/27/10 18:00:15	3.05	4.57	25.2	26.3	-1.1	
4/27/10 18:00:30	3.05	4.57	25.1	26.4	-1.5	
4/27/10 18:00:45	3.06	4.57	25.1	26.2	-1.8	
4/27/10 18:01:00	3.07	4.57	25.0	26.3	-1.7	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 18:01:15	3.08	4.57	25.0	26.6	-1.1	
4/27/10 18:01:30	3.10	4.56	25.0	26.4	-1.1	
4/27/10 18:01:45	3.10	4.56	24.7	26.3	-1.5	
4/27/10 18:02:00	3.10	4.57	24.7	26.4	-1.8	
4/27/10 18:02:15	3.12	4.57	24.9	26.4	-1.9	
4/27/10 18:02:30	3.14	4.57	24.7	26.3	-1.2	
4/27/10 18:02:45	3.12	4.57	24.4	26.1	-0.9	
4/27/10 18:03:00	3.12	4.57	24.5	26.4	-1.3	
4/27/10 18:03:15	3.15	4.56	24.7	26.5	-1.8	
4/27/10 18:03:30	3.17	4.57	24.5	26.5	-1.9	
4/27/10 18:03:45	3.14	4.58	24.8	26.4	-1.5	
4/27/10 18:04:00	3.11	4.58	24.8	26.7	-0.9	
4/27/10 18:04:15	3.09	4.57	24.9	26.8	-1.1	
4/27/10 18:04:30	3.06	4.58	25.0	26.9	-1.5	
4/27/10 18:04:45	3.01	4.60	24.8	27.0	-1.8	
4/27/10 18:05:00	2.98	4.61	24.7	26.4	-1.6	
4/27/10 18:05:15	2.96	4.62	24.8	26.5	-1.2	
4/27/10 18:05:30	2.95	4.61	24.9	26.5	-1.3	
4/27/10 18:05:45	3.01	4.59	24.7	26.7	-1.7	
4/27/10 18:06:00	3.04	4.58	24.8	26.8	-1.9	
4/27/10 18:06:15	3.06	4.58	25.0	26.8	-1.6	
4/27/10 18:06:30	3.05	4.58	24.9	26.5	-1.2	
4/27/10 18:06:45	3.02	4.59	24.8	26.6	-1.3	
4/27/10 18:07:00	2.99	4.59	24.8	26.7	-1.7	
4/27/10 18:07:15	3.01	4.59	24.8	26.9	-1.9	
4/27/10 18:07:30	3.01	4.60	25.2	26.8	-1.6	
4/27/10 18:07:45	2.98	4.60	24.8	27.0	-1.1	
4/27/10 18:08:00	2.97	4.59	24.7	26.5	-1.3	
4/27/10 18:08:15	3.01	4.58	24.6	26.6	-1.7	
4/27/10 18:08:30	3.02	4.59	24.6	26.9	-1.8	
4/27/10 18:08:45	3.04	4.58	24.8	27.2	-1.6	
4/27/10 18:09:00	3.07	4.58	25.2	26.9	-1.3	
4/27/10 18:09:15	3.04	4.58	25.4	26.9	-1.5	
4/27/10 18:09:30	3.02	4.58	25.5	27.0	-1.8	
4/27/10 18:09:45	3.04	4.57	25.6	27.2	-2.0	
4/27/10 18:10:00	3.07	4.57	25.8	27.4	-1.6	
4/27/10 18:10:15	3.08	4.57	25.8	27.4	-1.2	
4/27/10 18:10:30	3.05	4.57	25.9	27.5	-1.5	
4/27/10 18:10:45	3.04	4.57	25.6	27.6	-1.8	
4/27/10 18:11:00	3.04	4.57	25.4	27.2	-2.0	
4/27/10 18:11:15	3.03	4.58	25.0	27.3	-1.6	
4/27/10 18:11:30	3.02	4.58	25.1	27.6	-1.2	
4/27/10 18:11:45	3.05	4.56	25.5	27.9	-1.4	
4/27/10 18:12:00	3.05	4.55	25.2	27.7	-1.8	
4/27/10 18:12:15	2.98	4.58	25.0	27.4	-1.9	
4/27/10 18:12:30	2.96	4.59	24.8	27.6	-1.5	
4/27/10 18:12:45	3.00	4.58	25.1	27.4	-1.1	
4/27/10 18:13:00	3.04	4.58	25.0	27.2	-1.3	
4/27/10 18:13:15	3.04	4.57	25.1	27.1	-1.7	
4/27/10 18:13:30	3.05	4.57	25.1	26.9	-1.8	
4/27/10 18:13:45	3.06	4.57	25.3	26.8	-1.5	
4/27/10 18:14:00	3.05	4.58	25.4	26.4	-0.9	
4/27/10 18:14:15	3.04	4.58	25.1	26.3	-1.2	
4/27/10 18:14:30	3.04	4.57	25.1	26.0	-1.6	
4/27/10 18:14:45	3.05	4.57	25.1	26.2	-1.9	
4/27/10 18:15:00	3.06	4.57	25.5	25.9	-1.7	End Run # SRU1-2
4/27/10 18:15:15	3.07	4.57	25.7	26.0	-1.1	
4/27/10 18:15:30	3.05	4.57	25.6	26.1	-1.2	
4/27/10 18:15:45	3.04	4.57	25.4	25.9	-1.6	
4/27/10 18:16:00	3.03	4.57	22.2	9.5	1.0	
4/27/10 18:16:15	3.05	4.56	9.0	2.0	34.2	
4/27/10 18:16:30	3.42	4.24	3.0	0.4	65.9	
4/27/10 18:16:45	4.45	3.32	1.3	0.3	107.2	
4/27/10 18:17:00	4.74	3.36	0.7	0.2	116.1	
4/27/10 18:17:15	4.86	3.81	0.4	0.2	104.1	
4/27/10 18:17:30	4.91	4.12	0.3	0.2	80.2	
4/27/10 18:17:45	4.92	4.28	0.3	0.2	56.4	
4/27/10 18:18:00	4.93	4.32	0.1	0.2	48.0	
4/27/10 18:18:15	4.93	4.34	0.1	0.2	44.3	
4/27/10 18:18:30	4.94	4.35	-0.1	0.2	43.6	
4/27/10 18:18:45	4.94	4.35	-0.2	0.2	43.2	
4/27/10 18:19:00	4.95	4.36	-0.4	0.2	43.6	
4/27/10 18:19:15	4.95	4.36	-0.3	0.2	43.8	
4/27/10 18:19:30	4.95	4.36	-0.4	0.2	43.5	
4/27/10 18:19:45	4.95	4.37	-0.5	0.2	43.1	
4/27/10 18:20:00	4.95	4.37	-0.5	0.2	43.0	
4/27/10 18:20:15	4.96	4.37	-0.5	0.2	43.6	
4/27/10 18:20:30	4.96	4.37	-0.7	0.2	44.1	
4/27/10 18:20:45	4.96	4.37	-0.9	0.2	43.8	
4/27/10 18:21:00	4.96	4.38	-0.8	0.2	43.4	
4/27/10 18:21:15	4.96	4.38	-0.6	0.1	43.1	System Bias
4/27/10 18:21:30	4.96	4.38	-0.6	0.2	43.3	4.96 5.00% O_2
4/27/10 18:21:45	4.96	4.38	-0.6	0.2	43.9	4.38 4.32% CO_2
4/27/10 18:22:00	4.96	4.38	-0.6	0.2	43.7	-0.6 Zero SO_2
4/27/10 18:22:15	4.96	4.38	-0.6	0.2	43.2	0.2 Zero NO_x
4/27/10 18:22:30	4.97	4.38	1.1	3.4	42.2	43.5 45.0 ppm CO
4/27/10 18:22:45	5.05	4.32	81.9	8.6	39.6	
4/27/10 18:23:00	7.18	3.58	100.8	11.8	35.9	
4/27/10 18:23:15	7.65	2.40	91.2	4.3	26.4	
4/27/10 18:23:30	3.85	1.18	42.1	2.2	18.5	
4/27/10 18:23:45	1.18	0.45	32.2	2.2	8.8	
4/27/10 18:24:00	0.29	0.20	30.3	2.2	4.2	
4/27/10 18:24:15	0.13	0.13	41.9	2.3	1.7	
4/27/10 18:24:30	0.09	0.11	42.0	2.3	0.8	
4/27/10 18:24:45	0.08	0.11	42.1	2.3	0.0	
4/27/10 18:25:00	0.08	0.10	42.2	2.4	-0.3	
4/27/10 18:25:15	0.08	0.10	42.5	2.4	-0.2	
4/27/10 18:25:30	0.07	0.10	42.8	2.5	0.2	
4/27/10 18:25:45	0.07	0.10	43.2	2.5	0.1	
4/27/10 18:26:00	0.07	0.09	43.8	2.6	-0.2	System Bias
4/27/10 18:26:15	0.07	0.09	44.5	2.7	-0.5	
4/27/10 18:26:30	0.07	0.09	44.5	2.7	-0.4	
4/27/10 18:26:45	0.07	0.09	44.4	2.8	0.4	44.4 45.0 ppm SO_2
4/27/10 18:27:00	0.07	0.09	44.2	2.4	0.4	

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Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/27/10 18:27:15	0.06	0.09	34.8	49.2	-0.2	0.0 Zero CO
4/27/10 18:27:30	0.40	0.09	31.3	110.6	-0.5	
4/27/10 18:27:45	4.05	0.10	8.3	80.5	-0.4	
4/27/10 18:28:00	5.63	0.12	3.9	45.6	0.3	
4/27/10 18:28:15	2.58	0.11	1.3	43.5	0.8	
4/27/10 18:28:30	0.61	0.09	0.7	43.0	0.4	System Bias
4/27/10 18:28:45	**0.08**	**0.08**	0.5	**43.1**	-0.2	**0.07 Zero O_2**
4/27/10 18:29:00	**0.08**	**0.08**	0.0	**43.4**	-0.4	**0.08 Zero CO_2**
4/27/10 18:29:15	**0.07**	**0.08**	0.1	**43.5**	0.0	
4/27/10 18:29:30	**0.07**	**0.08**	-0.1	**43.6**	0.3	**43.4 45.0 ppm NO_x**
4/27/10 18:29:45	0.07	0.08	-0.2	41.5	0.0	
4/27/10 18:30:00	0.07	0.08	-0.3	9.3	-0.4	
4/27/10 18:30:15	0.21	0.08	-0.4	1.4	-0.6	

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Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/28/10 7:41:00	0.51	0.07	-1.2	0.1	-5.9	
4/28/10 7:41:15	0.10	0.07	-1.3	0.1	-6.0	
4/28/10 7:41:30	0.05	0.07	-1.1	0.1	-6.0	
4/28/10 7:41:45	0.03	0.07	-1.2	0.2	-5.7	
4/28/10 7:42:00	0.03	0.07	-1.4	0.1	-5.6	
4/28/10 7:42:15	0.02	0.07	-0.4	0.1	-1.7	Calibration Error
4/28/10 7:42:30	0.02	0.07	-0.4	0.1	-0.7	
4/28/10 7:42:45	0.02	0.06	-0.4	0.1	-0.8	
4/28/10 7:43:00	0.02	0.06	-0.1	-0.1	-0.1	-0.28 Zero SO_2
4/28/10 7:43:15	0.01	0.06	-0.2	0.1	0.1	
4/28/10 7:43:30	0.01	0.05	-0.1	0.1	-0.4	0.01 Zero O_2
4/28/10 7:43:45	0.01	0.03	-0.3	0.1	-0.7	0.03 Zero CO_2
4/28/10 7:44:00	0.01	0.03	-0.3	0.1	-0.9	
4/28/10 7:44:15	0.02	0.03	8.7	0.1	-0.7	0.1 Zero NO_x
4/28/10 7:44:30	0.02	0.03	20.8	0.8	0.5	-0.7 Zero CO
4/28/10 7:44:45	0.06	0.03	3.1	0.1	3.5	
4/28/10 7:45:00	1.66	1.05	0.3	0.1	15.2	
4/28/10 7:45:15	5.04	3.58	-0.1	0.1	28.1	
4/28/10 7:45:30	7.55	5.80	-0.3	0.1	50.7	
4/28/10 7:45:45	9.04	7.44	-0.2	0.1	66.1	
4/28/10 7:46:00	9.73	8.30	-0.1	0.1	79.7	
4/28/10 7:46:15	9.93	8.55	-0.1	0.1	84.3	
4/28/10 7:46:30	9.97	8.60	-0.1	0.0	86.7	
4/28/10 7:46:45	9.98	8.62	-0.1	0.1	87.2	
4/28/10 7:47:00	9.99	8.63	-0.1	0.1	88.1	
4/28/10 7:47:15	9.99	8.63	-0.3	0.1	89.1	
4/28/10 7:47:30	10.00	8.64	-0.3	0.0	89.1	
4/28/10 7:47:45	10.00	8.64	-0.2	0.0	88.5	
4/28/10 7:48:00	10.00	8.65	-0.2	0.0	87.8	
4/28/10 7:48:15	10.01	8.65	-0.1	0.1	87.5	
4/28/10 7:48:30	10.01	8.65	-0.1	0.0	88.3	
4/28/10 7:48:45	10.01	8.66	-0.2	0.0	89.3	
4/28/10 7:49:00	10.01	8.66	-0.2	0.1	89.4	
4/28/10 7:49:15	10.01	8.66	-0.2	0.0	88.8	Calibration Error
4/28/10 7:49:30	10.01	8.66	-0.2	0.0	88.1	10.02 10.00% O_2
4/28/10 7:49:45	10.02	8.67	-0.1	0.0	87.8	8.67 8.65% CO_2
4/28/10 7:50:00	10.02	8.67	-0.4	0.0	88.6	
4/28/10 7:50:15	10.02	8.67	-0.4	0.0	89.4	
4/28/10 7:50:30	10.02	8.67	-0.2	0.0	87.8	88.5 88.3 ppm CO
4/28/10 7:50:45	9.99	8.59	-0.2	0.1	83.7	
4/28/10 7:51:00	8.97	7.41	-0.3	0.0	74.2	
4/28/10 7:51:15	6.93	5.74	-0.3	0.0	65.8	
4/28/10 7:51:30	5.52	4.68	-0.3	0.1	55.3	
4/28/10 7:51:45	5.05	4.39	-0.2	0.0	49.8	
4/28/10 7:52:00	4.97	4.35	-0.2	0.0	45.2	
4/28/10 7:52:15	4.96	4.34	-0.5	0.0	43.8	Calibration Error
4/28/10 7:52:30	4.96	4.34	-0.5	0.0	43.3	4.96 5.00% O_2
4/28/10 7:52:45	4.96	4.34	-0.3	0.1	43.7	4.34 4.32% CO_2
4/28/10 7:53:00	4.96	4.34	-0.3	0.1	44.6	
4/28/10 7:53:15	4.96	4.34	-0.4	0.1	44.1	
4/28/10 7:53:30	4.96	4.34	12.2	2.0	44.0	43.9 44.2 ppm CO
4/28/10 7:53:45	4.96	4.34	7.4	59.1	42.5	
4/28/10 7:54:00	4.98	4.30	2.8	104.2	38.2	
4/28/10 7:54:15	4.34	3.29	0.8	88.3	33.1	
4/28/10 7:54:30	2.36	1.58	0.2	88.8	22.4	
4/28/10 7:54:45	0.80	0.49	0.0	88.4	13.6	
4/28/10 7:55:00	0.16	0.12	-0.1	88.2	4.7	
4/28/10 7:55:15	0.05	0.06	0.0	88.0	1.3	
4/28/10 7:55:30	0.03	0.05	-0.1	88.1	0.1	
4/28/10 7:55:45	0.02	0.05	-0.1	88.2	0.4	
4/28/10 7:56:00	0.02	0.04	-0.2	81.5	0.1	
4/28/10 7:56:15	0.01	0.04	-0.4	10.1	-0.3	
4/28/10 7:56:30	0.01	0.04	-0.2	63.2	-0.7	
4/28/10 7:56:45	0.01	0.04	-0.2	89.8	-0.7	
4/28/10 7:57:00	0.01	0.04	-0.2	90.0	0.2	
4/28/10 7:57:15	0.01	0.04	-0.3	89.2	0.4	Calibration Error
4/28/10 7:57:30	0.01	0.04	-0.2	89.4	-0.2	
4/28/10 7:57:45	0.01	0.04	-0.3	89.1	-0.6	
4/28/10 7:58:00	0.01	0.03	-0.1	90.8	-0.9	
4/28/10 7:58:15	0.01	0.03	0.0	90.0	-0.5	89.8 90.0 ppm NO_x
4/28/10 7:58:30	0.01	0.03	-0.3	65.6	0.4	
4/28/10 7:58:45	0.01	0.03	-0.3	43.3	0.3	Calibration Error
4/28/10 7:59:00	0.01	0.03	-0.2	43.7	-0.4	
4/28/10 7:59:15	0.00	0.03	-0.3	43.7	-0.7	
4/28/10 7:59:30	0.00	0.03	-0.5	43.7	-0.7	
4/28/10 7:59:45	0.00	0.03	-0.3	43.8	0.0	43.8 45.0 ppm NO_x
4/28/10 8:00:00	0.00	0.03	-0.3	40.1	0.3	
4/28/10 8:00:15	0.00	0.04	0.6	40.3	-0.1	
4/28/10 8:00:30	0.26	0.04	0.6	31.2	-0.6	
4/28/10 8:00:45	5.06	0.04	0.5	41.6	-0.7	
4/28/10 8:01:00	13.07	0.04	0.3	41.3	0.0	
4/28/10 8:01:15	18.51	0.04	0.4	41.7	0.7	
4/28/10 8:01:30	20.47	0.04	0.4	42.3	0.4	
4/28/10 8:01:45	20.85	0.04	0.2	42.8	-0.2	
4/28/10 8:02:00	20.90	0.04	0.2	43.4	-0.8	
4/28/10 8:02:15	20.90	0.04	0.3	43.9	-0.8	
4/28/10 8:02:30	20.90	0.04	0.3	44.4	0.1	
4/28/10 8:02:45	20.90	0.04	0.4	44.9	0.4	
4/28/10 8:03:00	20.90	0.04	0.5	45.4	-0.1	
4/28/10 8:03:15	20.91	0.04	0.3	45.7	-0.4	NO_2 Converter Check
4/28/10 8:03:30	20.92	0.04	0.2	46.0	-0.6	46.3 49.62 ppm NO_2
4/28/10 8:03:45	20.92	0.03	0.1	46.2	-0.1	Cyl# ALM021775
4/28/10 8:04:00	20.92	0.03	0.3	46.4	0.5	
4/28/10 8:04:15	20.93	0.03	0.4	46.5	0.2	93.25 % Conversion
4/28/10 8:04:30	20.93	0.03	0.2	31.6	-0.3	
4/28/10 8:04:45	20.93	0.03	1.6	10.3	-0.5	
4/28/10 8:05:00	20.47	0.03	16.5	3.7	-0.1	
4/28/10 8:05:15	15.24	0.04	30.1	2.3	0.8	
4/28/10 8:05:30	6.93	0.07	41.9	1.9	0.9	
4/28/10 8:05:45	1.84	0.08	39.6	1.8	0.5	
4/28/10 8:06:00	0.42	0.05	37.9	1.6	-0.1	
4/28/10 8:06:15	0.14	0.04	39.7	1.5	-0.4	
4/28/10 8:06:30	0.05	0.03	42.0	1.5	0.2	
4/28/10 8:06:45	0.03	0.03	76.9	6.9	0.8	

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Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/28/10 8:07:00	0.02	0.03	100.8	3.7	0.5	
4/28/10 8:07:15	0.03	0.06	86.3	2.3	0.1	
4/28/10 8:07:30	0.08	0.10	68.1	1.9	-0.3	
4/28/10 8:07:45	0.04	0.06	65.7	2.0	-0.2	
4/28/10 8:08:00	0.01	0.04	81.6	1.8	0.6	
4/28/10 8:08:15	0.01	0.04	85.0	1.8	0.8	
4/28/10 8:08:30	0.01	0.04	86.2	1.7	0.1	
4/28/10 8:08:45	0.00	0.03	87.0	1.7	-0.3	
4/28/10 8:09:00	0.00	0.03	89.3	1.7	-0.5	
4/28/10 8:09:15	-0.01	0.03	91.8	1.8	-0.1	
4/28/10 8:09:30	-0.01	0.03	91.3	1.8	0.6	
4/28/10 8:09:45	-0.01	0.03	91.0	2.0	0.4	Calibration Error
4/28/10 8:10:00	-0.01	0.03	**90.6**	2.2	-0.2	
4/28/10 8:10:15	-0.01	0.03	**90.6**	2.4	-0.4	
4/28/10 8:10:30	-0.01	0.03	**90.8**	2.6	-0.1	90.69 90.0 ppm SO_2
4/28/10 8:10:45	-0.01	0.03	**90.7**	2.7	0.5	
4/28/10 8:11:00	-0.01	0.03	90.2	2.4	0.4	
4/28/10 8:11:15	-0.01	0.03	63.4	1.4	0.0	
4/28/10 8:11:30	-0.01	0.03	46.8	1.4	-0.5	
4/28/10 8:11:45	-0.02	0.03	45.4	1.4	-0.5	
4/28/10 8:12:00	-0.02	0.03	45.2	1.4	0.3	
4/28/10 8:12:15	-0.02	0.03	45.0	1.4	0.9	
4/28/10 8:12:30	-0.02	0.03	45.0	1.3	0.5	
4/28/10 8:12:45	-0.02	0.03	44.9	1.3	-0.1	Calibration Error
4/28/10 8:13:00	-0.02	0.03	**44.7**	1.3	-0.6	
4/28/10 8:13:15	-0.02	0.03	**44.6**	1.3	-0.6	
4/28/10 8:13:30	-0.02	0.03	**44.9**	1.2	0.4	44.77 45.0 ppm SO_2
4/28/10 8:13:45	-0.02	0.03	**44.8**	1.2	1.0	
4/28/10 8:14:00	-0.02	0.03	43.9	1.0	0.5	
4/28/10 8:14:15	-0.02	0.03	18.4	0.3	0.9	
4/28/10 8:14:30	0.02	0.03	2.7	1.2	10.1	
4/28/10 8:14:45	3.37	0.06	1.1	0.7	41.8	
4/28/10 8:15:00	11.02	0.12	1.0	0.1	103.2	
4/28/10 8:15:15	13.53	0.23	0.8	0.1	116.6	
4/28/10 8:15:30	7.87	0.19	0.7	0.1	116.6	
4/28/10 8:15:45	2.55	0.09	0.9	0.1	116.6	
4/28/10 8:16:00	0.53	0.04	0.7	0.1	86.8	
4/28/10 8:16:15	0.17	0.04	0.7	0.1	45.6	
4/28/10 8:16:30	0.11	0.03	0.8	0.1	14.7	
4/28/10 8:16:45	0.09	0.03	0.8	0.1	7.3	
4/28/10 8:17:00	0.08	0.03	0.7	0.1	4.7	
4/28/10 8:17:15	0.07	0.03	10.8	4.6	1.2	
4/28/10 8:17:30	0.07	0.03	100.8	9.0	1.1	
4/28/10 8:17:45	0.12	0.03	100.8	3.2	1.8	
4/28/10 8:18:00	0.16	0.03	100.1	0.6	2.0	
4/28/10 8:18:15	0.11	0.03	65.2	0.6	1.5	
4/28/10 8:18:30	0.07	0.03	51.4	0.6	0.8	
4/28/10 8:18:45	0.06	0.03	46.8	0.6	0.6	
4/28/10 8:19:00	0.06	0.03	45.8	0.6	1.0	
4/28/10 8:19:15	0.06	0.03	45.2	0.6	1.7	
4/28/10 8:19:30	0.06	0.03	45.2	0.6	1.5	
4/28/10 8:19:45	0.06	0.03	45.2	0.6	1.0	
4/28/10 8:20:00	0.06	0.03	45.0	0.6	0.4	System Bias
4/28/10 8:20:15	**0.05**	**0.03**	**44.8**	0.6	**0.2**	0.05 Zero O_2
4/28/10 8:20:30	**0.05**	**0.03**	**44.9**	0.6	**1.0**	0.03 Zero CO_2
4/28/10 8:20:45	**0.05**	0.03	**44.8**	0.6	**1.5**	44.8 45.0 ppm SO_2
4/28/10 8:21:00	**0.05**	**0.03**	**44.8**	0.6	**1.1**	
4/28/10 8:21:15	0.05	0.03	44.6	0.5	0.7	1.0 Zero CO
4/28/10 8:21:30	0.05	0.03	34.8	2.5	0.3	
4/28/10 8:21:45	0.34	0.04	25.3	31.1	0.4	
4/28/10 8:22:00	3.47	0.05	8.9	37.8	1.5	
4/28/10 8:22:15	4.56	0.05	3.9	39.6	1.7	
4/28/10 8:22:30	1.91	0.04	2.8	40.6	1.1	
4/28/10 8:22:45	0.43	0.04	2.3	40.1	0.7	
4/28/10 8:23:00	0.12	0.04	2.0	39.9	0.3	
4/28/10 8:23:15	0.07	0.04	1.8	39.7	0.7	
4/28/10 8:23:30	0.06	0.04	1.6	75.0	1.5	
4/28/10 8:23:45	0.06	0.04	4.6	96.1	1.3	
4/28/10 8:24:00	0.07	0.04	2.5	40.3	0.6	
4/28/10 8:24:15	0.12	0.04	1.4	44.7	0.3	System Bias
4/28/10 8:24:30	0.10	0.04	1.1	**44.3**	0.4	
4/28/10 8:24:45	0.06	0.04	1.1	**44.1**	1.0	
4/28/10 8:25:00	0.05	0.04	1.1	**44.0**	1.5	
4/28/10 8:25:15	0.05	0.04	1.0	**43.9**	1.1	44.1 45.0 ppm NO_x
4/28/10 8:25:30	0.05	0.04	1.0	43.6	0.4	
4/28/10 8:25:45	0.05	0.03	1.0	26.7	0.2	
4/28/10 8:26:00	0.06	0.03	1.6	20.6	0.7	
4/28/10 8:26:15	1.75	0.04	2.0	1.2	3.0	
4/28/10 8:26:30	5.15	0.31	1.3	0.6	9.1	
4/28/10 8:26:45	4.97	1.85	1.2	0.5	15.2	
4/28/10 8:27:00	4.71	3.29	1.1	0.4	25.9	
4/28/10 8:27:15	4.83	3.97	1.1	0.4	33.1	
4/28/10 8:27:30	4.91	4.19	1.0	0.3	40.5	
4/28/10 8:27:45	4.93	4.26	1.0	0.3	43.5	
4/28/10 8:28:00	4.94	4.28	1.0	0.2	44.4	
4/28/10 8:28:15	4.95	4.29	0.8	0.2	44.1	
4/28/10 8:28:30	4.96	4.30	0.6	0.3	43.8	
4/28/10 8:28:45	4.96	4.31	0.6	0.2	44.0	System Bias
4/28/10 8:29:00	**4.97**	**4.31**	**0.8**	**0.2**	**45.0**	4.97 5.00% O_2
4/28/10 8:29:15	**4.97**	**4.32**	**0.7**	**0.2**	**45.2**	4.32 4.32% CO_2
4/28/10 8:29:30	**4.97**	**4.32**	**0.6**	**0.3**	**44.6**	0.7 Zero SO_2
4/28/10 8:29:45	**4.98**	**4.32**	**0.7**	**0.2**	**44.3**	0.2 Zero NO_x
4/28/10 8:30:00	4.98	4.32	0.7	0.1	43.6	44.8 45.0 ppm CO
4/28/10 8:30:15	4.98	4.32	0.4	0.1	41.7	
4/28/10 8:30:30	4.54	3.69	0.5	0.1	34.8	
4/28/10 8:30:45	2.69	2.02	0.6	0.1	26.7	
4/28/10 8:31:00	1.00	0.70	0.7	0.1	14.5	
4/28/10 8:31:15	0.25	0.20	0.5	0.1	7.6	
4/28/10 8:31:30	0.10	0.09	0.3	0.1	2.6	
4/28/10 8:31:45	0.07	0.07	0.6	0.1	1.8	
4/28/10 8:32:00	0.06	0.06	0.6	0.1	1.2	
4/28/10 8:32:15	0.06	0.06	0.5	0.1	0.7	
4/28/10 8:32:30	0.06	0.06	0.4	0.4	0.2	
4/28/10 8:32:45	0.06	0.05	0.8	0.2	0.2	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/28/10 8:33:00	1.83	0.06	0.9	0.1	1.0	
4/28/10 8:33:15	9.07	0.07	0.8	0.1	1.4	
4/28/10 8:33:30	15.98	0.09	0.8	0.1	0.9	
4/28/10 8:33:45	19.69	0.09	0.7	0.1	0.5	
4/28/10 8:34:00	20.72	0.09	0.8	0.1	0.2	
4/28/10 8:34:15	20.90	0.09	0.7	0.1	0.5	
4/28/10 8:34:30	20.93	0.09	0.7	0.1	1.0	
4/28/10 8:34:45	20.94	0.09	0.6	0.1	0.7	
4/28/10 8:35:00	20.94	0.09	0.8	0.1	0.2	
4/28/10 8:35:15	20.94	0.08	0.6	0.1	-0.1	
4/28/10 8:35:30	20.95	0.08	0.6	0.1	0.3	
4/28/10 8:35:45	20.95	0.08	0.6	0.1	0.9	
4/28/10 8:36:00	20.95	0.08	0.5	0.1	0.7	
4/28/10 8:36:15	20.95	0.08	0.6	0.1	0.4	
4/28/10 8:36:30	20.95	0.08	0.7	0.1	0.1	
4/28/10 8:36:45	20.95	0.08	0.9	4.6	0.1	
4/28/10 8:37:00	20.95	0.08	11.1	27.4	0.9	
4/28/10 8:37:15	20.89	0.13	35.4	26.3	0.9	
4/28/10 8:37:30	18.05	1.17	44.4	26.7	0.4	
4/28/10 8:37:45	9.84	3.18	43.3	26.8	0.1	
4/28/10 8:38:00	4.62	4.13	39.8	26.1	0.0	
4/28/10 8:38:15	3.13	4.40	36.6	26.0	0.3	
4/28/10 8:38:30	2.85	4.45	34.5	25.9	-0.3	
4/28/10 8:38:45	2.85	4.44	33.6	25.9	-0.7	
4/28/10 8:39:00	2.90	4.43	33.3	25.9	-1.2	
4/28/10 8:39:15	2.90	4.43	32.6	26.2	-1.2	
4/28/10 8:39:30	2.90	4.43	32.7	26.1	-0.4	
4/28/10 8:39:45	2.89	4.43	32.5	25.7	-0.4	
4/28/10 8:40:00	2.85	4.44	32.0	25.2	-1.0	
4/28/10 8:40:15	2.86	4.44	31.7	25.3	-1.4	
4/28/10 8:40:30	2.93	4.41	31.7	25.3	-1.5	
4/28/10 8:40:45	3.01	4.39	31.6	25.6	-1.0	
4/28/10 8:41:00	2.99	4.39	31.3	25.7	-0.6	
4/28/10 8:41:15	2.94	4.40	31.3	25.9	-0.9	
4/28/10 8:41:30	2.94	4.40	31.6	26.0	-1.2	
4/28/10 8:41:45	2.94	4.40	31.3	25.8	-1.3	
4/28/10 8:42:00	2.90	4.41	31.1	25.8	-0.7	
4/28/10 8:42:15	2.87	4.41	30.8	26.1	-0.4	
4/28/10 8:42:30	2.90	4.40	31.1	25.8	-0.8	
4/28/10 8:42:45	2.91	4.41	31.2	26.3	-1.2	
4/28/10 8:43:00	2.89	4.42	31.4	26.2	-1.4	
4/28/10 8:43:15	2.88	4.43	31.5	26.2	-1.0	
4/28/10 8:43:30	2.84	4.44	31.5	26.0	-0.2	
4/28/10 6:43:45	2.82	4.44	31.3	26.1	-0.4	
4/28/10 8:44:00	2.83	4.44	31.3	26.0	-0.9	
4/28/10 8:44:15	2.86	4.43	31.6	26.0	-1.1	
4/28/10 8:44:30	2.87	4.42	31.6	25.8	-1.0	
4/28/10 8:44:45	2.89	4.42	31.5	26.3	-0.5	Start Run # SRU1-3
4/28/10 8:45:00	2.87	4.42	32.2	26.7	-0.5	
4/28/10 8:45:15	2.87	4.42	32.9	26.2	-0.9	
4/28/10 8:45:30	2.88	4.42	32.2	26.4	-1.1	
4/28/10 8:45:45	2.89	4.42	31.8	26.3	-1.0	
4/28/10 8:46:00	2.89	4.42	31.8	26.6	-0.3	
4/28/10 8:46:15	2.86	4.43	31.8	26.1	-0.5	
4/28/10 8:46:30	2.86	4.43	32.1	25.9	-1.0	
4/28/10 8:46:45	2.86	4.43	31.7	26.1	-1.2	
4/28/10 8:47:00	2.88	4.42	31.4	26.1	-1.0	
4/28/10 8:47:15	2.90	4.41	31.4	26.6	-0.4	
4/28/10 8:47:30	2.90	4.41	31.7	26.6	-0.4	
4/28/10 8:47:45	2.89	4.42	31.9	26.6	-0.8	
4/28/10 8:48:00	2.82	4.44	31.9	26.5	-1.1	
4/28/10 8:48:15	2.79	4.44	31.8	26.4	-1.1	
4/28/10 8:48:30	2.80	4.44	31.8	26.8	-0.3	
4/28/10 8:48:45	2.81	4.44	31.7	26.5	-0.2	
4/28/10 8:49:00	2.80	4.44	31.5	26.6	-0.8	
4/28/10 8:49:15	2.79	4.44	31.7	26.7	-1.1	
4/28/10 8:49:30	2.80	4.44	31.8	26.6	-1.3	
4/28/10 8:49:45	2.80	4.44	31.9	26.8	-0.7	
4/28/10 8:50:00	2.79	4.45	31.6	26.6	-0.2	
4/28/10 8:50:15	2.80	4.44	31.4	26.5	-0.6	
4/28/10 8:50:30	2.81	4.44	31.4	26.6	-1.1	
4/28/10 8:50:45	2.82	4.44	31.5	26.5	-1.3	
4/28/10 8:51:00	2.85	4.43	31.5	26.7	-0.9	
4/28/10 8:51:15	2.84	4.44	31.8	26.7	-0.3	
4/28/10 8:51:30	2.82	4.44	31.8	26.7	-0.5	
4/28/10 8:51:45	2.83	4.44	31.7	26.9	-0.9	
4/28/10 8:52:00	2.81	4.44	31.8	26.6	-1.3	
4/28/10 8:52:15	2.80	4.45	31.4	26.5	-1.2	
4/28/10 8:52:30	2.79	4.45	31.0	26.5	-0.3	
4/28/10 8:52:45	2.82	4.44	30.9	26.8	-0.2	
4/28/10 8:53:00	2.87	4.43	31.1	27.0	-0.7	
4/28/10 8:53:15	2.89	4.42	31.1	27.3	-1.1	
4/28/10 8:53:30	2.86	4.42	31.2	27.8	-1.2	
4/28/10 8:53:45	2.83	4.43	31.1	27.4	-0.7	
4/28/10 8:54:00	2.81	4.45	30.8	27.7	-0.5	
4/28/10 8:54:15	2.77	4.46	30.7	27.6	-0.8	
4/28/10 8:54:30	2.78	4.45	30.8	27.6	-1.3	
4/28/10 8:54:45	2.81	4.44	30.6	27.7	-1.5	
4/28/10 8:55:00	2.81	4.44	30.7	27.6	-0.8	
4/28/10 8:55:15	2.81	4.44	30.6	28.0	-0.5	
4/28/10 8:55:30	2.82	4.43	30.8	27.9	-0.8	
4/28/10 8:55:45	2.85	4.43	31.0	27.9	-1.1	
4/28/10 8:56:00	2.86	4.43	30.8	27.7	-1.3	
4/28/10 8:56:15	2.84	4.43	30.9	27.5	-0.9	
4/28/10 8:56:30	2.82	4.43	30.2	27.3	-0.2	
4/28/10 8:56:45	2.85	4.43	29.7	26.8	-0.5	
4/28/10 8:57:00	2.86	4.43	29.5	26.4	-1.0	
4/28/10 8:57:15	2.82	4.45	29.5	26.0	-1.3	
4/28/10 8:57:30	2.79	4.45	29.7	25.9	-1.0	
4/28/10 8:57:45	2.82	4.44	29.7	25.8	-0.4	
4/28/10 8:58:00	2.85	4.43	29.7	25.7	-0.4	
4/28/10 8:58:15	2.85	4.43	30.1	25.5	-0.8	
4/28/10 8:58:30	2.83	4.45	30.4	25.3	-1.1	
4/28/10 8:58:45	2.81	4.45	30.3	25.4	-1.1	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/28/10 8:59:00	2.81	4.45	30.4	25.4	-0.3	
4/28/10 8:59:15	2.82	4.44	30.3	25.3	-0.3	
4/28/10 8:59:30	2.81	4.44	30.1	25.3	-0.9	
4/28/10 8:59:45	2.78	4.45	30.2	24.9	-1.3	Start M5
4/28/10 9:00:00	2.78	4.45	30.1	24.9	-1.4	
4/28/10 9:00:15	2.80	4.44	30.1	24.9	-0.8	
4/28/10 9:00:30	2.82	4.44	30.1	25.3	-0.2	
4/28/10 9:00:45	2.83	4.43	30.3	24.9	-0.5	
4/28/10 9:01:00	2.83	4.43	30.4	24.9	-1.0	
4/28/10 9:01:15	2.79	4.44	30.5	24.8	-1.3	
4/28/10 9:01:30	2.78	4.44	30.7	24.8	-0.9	
4/28/10 9:01:45	2.78	4.44	30.7	24.6	-0.3	
4/28/10 9:02:00	2.77	4.44	30.8	24.4	-0.5	
4/28/10 9:02:15	2.79	4.44	30.9	24.4	-0.9	
4/28/10 9:02:30	2.81	4.43	31.1	24.7	-1.3	
4/28/10 9:02:45	2.82	4.43	31.2	25.0	-1.3	
4/28/10 9:03:00	2.83	4.43	30.9	24.7	-0.6	
4/28/10 9:03:15	2.83	4.43	30.7	24.5	-0.3	
4/28/10 9:03:30	2.81	4.43	30.3	24.8	-0.8	
4/28/10 9:03:45	2.83	4.41	30.6	24.9	-1.1	
4/28/10 9:04:00	2.86	4.40	30.5	24.9	-1.3	
4/28/10 9:04:15	2.86	4.41	30.5	25.0	-0.8	
4/28/10 9:04:30	2.87	4.41	30.5	24.9	-0.4	
4/28/10 9:04:45	2.87	4.40	30.5	25.3	-0.8	
4/28/10 9:05:00	2.87	4.40	30.7	25.2	-1.3	
4/28/10 9:05:15	2.84	4.40	30.9	25.4	-1.5	
4/28/10 9:05:30	2.82	4.41	30.6	25.3	-1.1	
4/28/10 9:05:45	2.84	4.41	30.6	25.5	-0.4	
4/28/10 9:06:00	2.84	4.41	30.9	25.4	-0.7	
4/28/10 9:06:15	2.83	4.41	30.8	25.4	-1.1	
4/28/10 9:06:30	2.81	4.41	30.8	25.3	-1.4	
4/28/10 9:06:45	2.79	4.42	30.6	25.6	-1.3	
4/28/10 9:07:00	2.78	4.42	30.7	25.7	-0.5	
4/28/10 9:07:15	2.80	4.42	30.7	26.0	-0.4	
4/28/10 9:07:30	2.80	4.42	30.7	26.3	-0.8	
4/28/10 9:07:45	2.80	4.42	30.5	26.3	-1.2	
4/28/10 9:08:00	2.80	4.42	30.5	26.3	-1.3	
4/28/10 9:08:15	2.78	4.43	30.2	26.3	-0.9	
4/28/10 9:08:30	2.77	4.43	30.4	26.2	-0.8	
4/28/10 9:08:45	2.79	4.42	30.2	26.5	-1.2	
4/28/10 9:09:00	2.80	4.43	30.6	26.8	-1.4	
4/28/10 9:09:15	2.79	4.43	30.7	26.9	-1.4	
4/28/10 9:09:30	2.77	4.43	30.7	27.0	-0.8	
4/28/10 9:09:45	2.75	4.43	30.7	27.0	-0.7	
4/28/10 9:10:00	2.76	4.43	30.5	27.2	-1.2	
4/28/10 9:10:15	2.76	4.44	30.5	26.8	-1.5	
4/28/10 9:10:30	2.76	4.44	30.5	26.9	-1.5	
4/28/10 9:10:45	2.76	4.43	30.3	26.9	-0.8	
4/28/10 9:11:00	2.77	4.43	30.4	27.1	-0.5	
4/28/10 9:11:15	2.79	4.43	30.7	27.2	-1.0	
4/28/10 9:11:30	2.81	4.43	30.9	27.1	-1.4	
4/28/10 9:11:45	2.79	4.43	30.8	27.2	-1.5	
4/28/10 9:12:00	2.78	4.43	30.5	26.9	-1.0	
4/28/10 9:12:15	2.78	4.43	30.9	26.7	-0.6	
4/28/10 9:12:30	2.78	4.43	31.1	27.0	-1.0	
4/28/10 9:12:45	2.81	4.43	30.9	26.8	-1.3	
4/28/10 9:13:00	2.83	4.43	30.8	26.4	-1.5	
4/28/10 9:13:15	2.80	4.44	30.5	26.5	-1.0	
4/28/10 9:13:30	2.80	4.43	30.5	26.6	-0.4	
4/28/10 9:13:45	2.86	4.42	30.4	26.3	-0.8	
4/28/10 9:14:00	2.88	4.41	30.1	26.4	-1.3	
4/28/10 9:14:15	2.88	4.42	30.4	26.7	-1.5	
4/28/10 9:14:30	2.87	4.42	30.5	26.5	-1.3	
4/28/10 9:14:45	2.86	4.43	30.6	26.5	-0.6	
4/28/10 9:15:00	2.82	4.44	30.4	26.7	-0.9	
4/28/10 9:15:15	2.82	4.43	30.3	26.6	-1.4	
4/28/10 9:15:30	2.82	4.43	30.5	26.4	-1.7	
4/28/10 9:15:45	2.81	4.44	30.3	26.4	-1.5	
4/28/10 9:16:00	2.81	4.43	30.2	26.3	-0.7	
4/28/10 9:16:15	2.82	4.43	30.0	26.1	-0.8	
4/28/10 9:16:30	2.85	4.42	30.0	26.3	-1.2	
4/28/10 9:16:45	2.88	4.41	30.0	26.5	-1.5	
4/28/10 9:17:00	2.87	4.41	30.2	26.6	-1.4	
4/28/10 9:17:15	2.85	4.41	30.4	26.5	-0.7	
4/28/10 9:17:30	2.82	4.41	30.3	26.4	-0.7	
4/28/10 9:17:45	2.77	4.42	30.2	26.3	-1.2	
4/28/10 9:18:00	2.75	4.43	30.3	26.6	-1.5	
4/28/10 9:18:15	2.75	4.43	30.4	26.5	-1.5	
4/28/10 9:18:30	2.75	4.43	30.3	26.1	-0.8	
4/28/10 9:18:45	2.72	4.44	30.0	26.4	-0.6	
4/28/10 9:19:00	2.73	4.44	30.1	26.5	-1.0	
4/28/10 9:19:15	2.76	4.43	30.2	26.4	-1.3	
4/28/10 9:19:30	2.77	4.43	30.4	26.5	-1.4	
4/28/10 9:19:45	2.75	4.43	30.3	26.5	-0.9	
4/28/10 9:20:00	2.74	4.43	30.1	26.6	-0.9	
4/28/10 9:20:15	2.74	4.43	29.9	26.9	-1.3	
4/28/10 9:20:30	2.73	4.43	30.2	26.7	-1.6	
4/28/10 9:20:45	2.73	4.44	30.0	26.2	-1.6	
4/28/10 9:21:00	2.73	4.44	29.8	26.1	-0.9	
4/28/10 9:21:15	2.76	4.44	29.8	26.2	-0.5	
4/28/10 9:21:30	2.81	4.43	30.3	26.6	-1.0	
4/28/10 9:21:45	2.81	4.42	30.5	26.4	-1.5	
4/28/10 9:22:00	2.79	4.42	30.5	26.4	-1.7	
4/28/10 9:22:15	2.74	4.44	30.4	26.3	-1.2	
4/28/10 9:22:30	2.73	4.45	29.9	26.0	-0.6	
4/28/10 9:22:45	2.74	4.45	29.7	25.9	-0.9	
4/28/10 9:23:00	2.77	4.44	29.5	25.9	-1.3	
4/28/10 9:23:15	2.80	4.43	29.8	25.7	-1.6	
4/28/10 9:23:30	2.82	4.43	29.4	25.9	-1.4	
4/28/10 9:23:45	2.83	4.43	29.7	25.8	-0.8	
4/28/10 9:24:00	2.85	4.42	29.5	26.0	-0.9	
4/28/10 9:24:15	2.81	4.42	29.4	26.0	-1.3	
4/28/10 9:24:30	2.78	4.43	29.5	26.0	-1.6	
4/28/10 9:24:45	2.77	4.42	29.3	26.2	-1.4	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/28/10 9:25:00	2.76	4.42	29.3	26.4	-0.7	
4/28/10 9:25:15	2.75	4.43	29.4	26.6	-0.8	
4/28/10 9:25:30	2.73	4.43	29.6	26.7	-1.3	
4/28/10 9:25:45	2.70	4.44	29.8	26.5	-1.6	
4/28/10 9:26:00	2.70	4.45	29.7	26.4	-1.6	
4/28/10 9:26:15	2.70	4.45	29.8	26.3	-0.9	
4/28/10 9:26:30	2.70	4.45	29.6	26.2	-0.8	
4/28/10 9:26:45	2.72	4.44	29.7	26.2	-1.3	
4/28/10 9:27:00	2.75	4.43	29.8	26.0	-1.6	
4/28/10 9:27:15	2.78	4.43	29.8	26.1	-1.6	
4/28/10 9:27:30	2.78	4.43	29.6	26.3	-0.9	
4/28/10 9:27:45	2.79	4.43	29.7	26.3	-0.7	
4/28/10 9:28:00	2.82	4.43	29.5	26.2	-1.1	
4/28/10 9:28:15	2.83	4.43	29.3	26.3	-1.5	
4/28/10 9:28:30	2.84	4.43	29.2	26.3	-1.6	
4/28/10 9:28:45	2.84	4.42	29.5	26.6	-1.1	
4/28/10 9:29:00	2.82	4.42	29.4	26.8	-0.9	
4/28/10 9:29:15	2.80	4.43	29.6	26.9	-1.2	
4/28/10 9:29:30	2.77	4.43	29.7	26.8	-1.6	
4/28/10 9:29:45	2.74	4.44	29.7	26.8	-1.6	
4/28/10 9:30:00	2.74	4.44	29.9	27.0	-1.1	
4/28/10 9:30:15	2.75	4.44	29.9	26.7	-1.0	
4/28/10 9:30:30	2.74	4.44	29.7	26.8	-1.4	
4/28/10 9:30:45	2.72	4.44	29.5	26.6	-1.7	
4/28/10 9:31:00	2.74	4.44	29.5	26.5	-1.7	
4/28/10 9:31:15	2.75	4.45	29.8	26.5	-1.0	
4/28/10 9:31:30	2.77	4.44	29.5	26.2	-0.7	
4/28/10 9:31:45	2.76	4.45	29.7	26.0	-1.1	
4/28/10 9:32:00	2.76	4.45	29.7	26.3	-1.5	
4/28/10 9:32:15	2.76	4.45	29.7	26.2	-1.8	
4/28/10 9:32:30	2.77	4.44	29.4	26.0	-1.3	
4/28/10 9:32:45	2.76	4.45	29.6	26.0	-0.9	
4/28/10 9:33:00	2.75	4.45	29.6	25.7	-1.2	
4/28/10 9:33:15	2.76	4.45	29.6	25.7	-1.5	
4/28/10 9:33:30	2.76	4.45	29.5	25.7	-1.6	
4/28/10 9:33:45	2.76	4.45	29.7	25.8	-1.2	
4/28/10 9:34:00	2.76	4.45	29.6	25.8	-0.8	
4/28/10 9:34:15	2.76	4.45	29.5	25.9	-1.2	
4/28/10 9:34:30	2.76	4.45	29.7	25.6	-1.6	
4/28/10 9:34:45	2.76	4.45	30.2	25.6	-1.7	
4/28/10 9:35:00	2.74	4.45	30.2	25.8	-1.3	
4/28/10 9:35:15	2.76	4.45	30.1	25.7	-0.9	
4/28/10 9:35:30	2.77	4.45	30.1	25.6	-1.3	
4/28/10 9:35:45	2.76	4.45	29.9	25.5	-1.6	
4/28/10 9:36:00	2.76	4.45	30.2	25.7	-1.8	
4/28/10 9:36:15	2.79	4.44	30.1	25.4	-1.3	
4/28/10 9:36:30	2.80	4.44	30.1	25.4	-0.9	
4/28/10 9:36:45	2.78	4.44	30.0	25.5	-1.2	
4/28/10 9:37:00	2.77	4.44	30.2	25.6	-1.6	
4/28/10 9:37:15	2.78	4.43	30.3	25.4	-1.7	
4/28/10 9:37:30	2.77	4.43	30.2	25.5	-1.2	
4/28/10 9:37:45	2.76	4.43	30.2	25.4	-0.7	
4/28/10 9:38:00	2.76	4.43	30.2	25.4	-1.1	
4/28/10 9:38:15	2.77	4.42	30.3	25.4	-1.6	
4/28/10 9:38:30	2.78	4.42	30.4	25.4	-1.9	
4/28/10 9:38:45	2.79	4.42	30.4	25.7	-1.5	
4/28/10 9:39:00	2.79	4.41	30.5	25.4	-0.8	
4/28/10 9:39:15	2.80	4.41	30.3	25.5	-1.0	
4/28/10 9:39:30	2.76	4.43	30.4	25.2	-1.5	
4/28/10 9:39:45	2.77	4.42	30.4	25.5	-1.9	
4/28/10 9:40:00	2.78	4.42	30.3	25.5	-1.8	
4/28/10 9:40:15	2.81	4.41	30.3	25.5	-1.1	
4/28/10 9:40:30	2.80	4.42	30.5	25.4	-1.1	
4/28/10 9:40:45	2.78	4.43	30.6	25.5	-1.5	
4/28/10 9:41:00	2.79	4.42	30.5	25.4	-1.8	
4/28/10 9:41:15	2.80	4.42	30.5	25.4	-1.7	
4/28/10 9:41:30	2.79	4.42	30.5	25.7	-1.2	
4/28/10 9:41:45	2.81	4.41	30.7	25.6	-1.2	
4/28/10 9:42:00	2.83	4.41	30.4	25.9	-1.5	
4/28/10 9:42:15	2.84	4.41	30.5	25.9	-1.7	
4/28/10 9:42:30	2.85	4.41	30.4	26.1	-1.5	
4/28/10 9:42:45	2.85	4.41	30.6	26.2	-0.9	
4/28/10 9:43:00	2.85	4.41	30.7	26.5	-1.1	
4/28/10 9:43:15	2.83	4.42	31.1	26.7	-1.5	
4/28/10 9:43:30	2.81	4.43	31.1	26.4	-1.8	
4/28/10 9:43:45	2.78	4.45	30.9	26.3	-1.6	
4/28/10 9:44:00	2.77	4.46	30.6	26.1	-1.2	
4/28/10 9:44:15	2.79	4.45	30.6	26.1	-1.4	
4/28/10 9:44:30	2.84	4.43	30.5	26.0	-1.7	
4/28/10 9:44:45	2.86	4.41	30.3	26.1	-1.9	
4/28/10 9:45:00	2.86	4.41	30.3	26.3	-1.5	
4/28/10 9:45:15	2.88	4.41	30.5	26.4	-1.1	
4/28/10 9:45:30	2.89	4.41	30.6	26.4	-1.3	
4/28/10 9:45:45	2.84	4.42	30.8	26.1	-1.7	
4/28/10 9:46:00	2.78	4.43	30.7	26.0	-1.9	
4/28/10 9:46:15	2.75	4.43	30.9	25.8	-1.4	
4/28/10 9:46:30	2.74	4.44	30.6	25.4	-0.8	
4/28/10 9:46:45	2.73	4.43	30.6	25.3	-1.1	
4/28/10 9:47:00	2.76	4.42	30.7	25.2	-1.5	
4/28/10 9:47:15	2.80	4.41	30.4	25.2	-1.7	
4/28/10 9:47:30	2.80	4.41	30.5	25.4	-1.5	
4/28/10 9:47:45	2.81	4.41	30.6	25.1	-1.0	
4/28/10 9:48:00	2.81	4.41	30.4	25.0	-1.2	
4/28/10 9:48:15	2.79	4.41	30.3	25.3	-1.6	
4/28/10 9:48:30	2.80	4.40	30.1	25.3	-1.8	
4/28/10 9:48:45	2.82	4.40	30.3	25.2	-1.4	
4/28/10 9:49:00	2.82	4.42	30.2	25.2	-1.0	
4/28/10 9:49:15	2.80	4.42	30.1	25.4	-1.2	
4/28/10 9:49:30	2.79	4.42	30.4	25.6	-1.6	
4/28/10 9:49:45	2.79	4.42	30.5	25.5	-1.8	
4/28/10 9:50:00	2.78	4.42	30.3	25.5	-1.5	
4/28/10 9:50:15	2.75	4.43	30.3	25.2	-1.0	
4/28/10 9:50:30	2.75	4.43	30.0	25.1	-1.3	
4/28/10 9:50:45	2.77	4.43	30.0	25.1	-1.6	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/28/10 9:51:00	2.80	4.41	30.1	25.4	-1.8	
4/28/10 9:51:15	2.81	4.41	30.4	25.4	-1.5	
4/28/10 9:51:30	2.82	4.41	30.4	25.4	-0.9	
4/28/10 9:51:45	2.80	4.42	30.3	25.4	-1.2	
4/28/10 9:52:00	2.80	4.42	30.3	25.1	-1.6	
4/28/10 9:52:15	2.81	4.42	30.1	25.3	-1.8	
4/28/10 9:52:30	2.81	4.42	30.1	25.4	-1.5	
4/28/10 9:52:45	2.82	4.42	30.1	25.5	-1.0	
4/28/10 9:53:00	2.81	4.42	30.2	25.2	-1.3	
4/28/10 9:53:15	2.82	4.42	30.1	25.1	-1.7	
4/28/10 9:53:30	2.83	4.43	30.1	25.3	-1.9	
4/28/10 9:53:45	2.84	4.42	30.0	25.4	-1.5	
4/28/10 9:54:00	2.85	4.42	30.0	25.5	-0.9	
4/28/10 9:54:15	2.84	4.42	30.3	25.7	-1.2	
4/28/10 9:54:30	2.83	4.42	30.4	25.7	-1.7	
4/28/10 9:54:45	2.82	4.43	30.4	25.7	-2.1	
4/28/10 9:55:00	2.82	4.43	30.1	25.7	-1.9	
4/28/10 9:55:15	2.81	4.43	30.0	24.0	-1.2	
4/28/10 9:55:30	2.82	4.43	28.3	22.4	-1.2	
4/28/10 9:55:45	2.94	4.38	26.4	22.4	-1.6	
4/28/10 9:56:00	3.70	4.15	25.9	22.7	-1.8	
4/28/10 9:56:15	4.77	3.93	26.2	23.2	-1.6	
4/28/10 9:56:30	5.23	3.86	26.3	23.1	-1.2	
4/28/10 9:56:45	5.22	3.87	26.2	23.2	-1.4	
4/28/10 9:57:00	5.13	3.89	26.3	23.0	-1.7	
4/28/10 9:57:15	5.14	3.89	26.1	23.2	-1.8	
4/28/10 9:57:30	5.13	3.89	26.3	23.6	-1.4	
4/28/10 9:57:45	5.16	3.88	26.7	23.5	-1.1	
4/28/10 9:58:00	5.12	3.89	26.7	23.4	-1.4	
4/28/10 9:58:15	4.94	3.93	26.4	23.1	-1.7	
4/28/10 9:58:30	4.88	3.94	26.5	23.3	-1.8	
4/28/10 9:58:45	4.90	3.93	27.1	22.8	-1.3	
4/28/10 9:59:00	4.98	3.91	26.9	22.7	-1.0	
4/28/10 9:59:15	4.93	3.93	26.6	22.6	-1.4	
4/28/10 9:59:30	4.90	3.92	26.7	22.6	-1.8	
4/28/10 9:59:45	4.96	3.91	26.9	22.6	-1.9	
4/28/10 10:00:00	4.95	3.92	27.0	22.4	-1.4	
4/28/10 10:00:15	4.89	3.94	26.8	22.4	-1.1	
4/28/10 10:00:30	4.84	3.95	26.8	22.3	-1.4	
4/28/10 10:00:45	4.88	3.94	26.8	22.8	-1.8	
4/28/10 10:01:00	4.91	3.93	26.9	22.5	-1.9	
4/28/10 10:01:15	4.96	3.92	26.5	22.6	-1.4	
4/28/10 10:01:30	4.97	3.92	26.5	22.5	-1.1	
4/28/10 10:01:45	4.98	3.92	26.1	22.2	-1.5	
4/28/10 10:02:00	5.02	3.91	26.1	22.3	-1.8	
4/28/10 10:02:15	5.08	3.90	26.1	22.6	-1.9	
4/28/10 10:02:30	5.16	3.88	25.9	22.4	-1.3	
4/28/10 10:02:45	5.20	3.88	26.0	22.6	-0.8	
4/28/10 10:03:00	5.18	3.88	26.0	22.3	-1.3	
4/28/10 10:03:15	5.19	3.88	26.0	22.0	-1.8	
4/28/10 10:03:30	5.22	3.87	26.1	22.0	-2.0	
4/28/10 10:03:45	5.24	3.86	26.0	22.3	-1.6	
4/28/10 10:04:00	5.27	3.85	25.7	22.1	-1.0	
4/28/10 10:04:15	5.31	3.85	25.7	22.3	-1.3	
4/28/10 10:04:30	5.32	3.86	26.0	22.1	-1.6	
4/28/10 10:04:45	5.35	3.85	26.0	22.3	-1.8	
4/28/10 10:05:00	5.37	3.85	26.1	22.0	-1.4	
4/28/10 10:05:15	5.38	3.85	25.7	22.0	-0.9	
4/28/10 10:05:30	5.34	3.85	25.5	22.1	-1.2	
4/28/10 10:05:45	5.41	3.84	25.7	22.0	-1.7	
4/28/10 10:06:00	5.47	3.83	25.7	21.7	-2.0	
4/28/10 10:06:15	5.51	3.82	25.6	21.8	-1.7	
4/28/10 10:06:30	5.58	3.80	25.4	21.9	-1.0	
4/28/10 10:06:45	5.68	3.78	25.5	22.1	-1.1	
4/28/10 10:07:00	5.75	3.77	25.6	21.8	-1.5	
4/28/10 10:07:15	5.76	3.77	25.3	22.0	-1.8	
4/28/10 10:07:30	5.69	3.78	25.1	21.9	-1.6	
4/28/10 10:07:45	5.73	3.77	24.9	22.0	-1.1	
4/28/10 10:08:00	5.78	3.76	25.0	22.1	-1.3	
4/28/10 10:08:15	5.81	3.75	24.9	22.3	-1.6	
4/28/10 10:08:30	5.82	3.75	24.8	22.5	-1.8	
4/28/10 10:08:45	5.80	3.75	25.2	22.3	-1.5	
4/28/10 10:09:00	5.80	3.75	25.0	22.6	-1.0	
4/28/10 10:09:15	5.75	3.76	25.3	23.0	-1.2	
4/28/10 10:09:30	5.73	3.76	25.4	23.1	-1.7	
4/28/10 10:09:45	5.68	3.78	25.7	22.6	-2.0	
4/28/10 10:10:00	5.56	3.80	25.4	22.6	-1.7	
4/28/10 10:10:15	5.49	3.81	25.0	22.9	-1.1	
4/28/10 10:10:30	5.56	3.78	24.9	22.7	-1.3	
4/28/10 10:10:45	5.66	3.76	24.9	22.5	-1.6	
4/28/10 10:11:00	5.65	3.77	25.0	22.5	-1.8	
4/28/10 10:11:15	5.61	3.78	25.0	22.4	-1.5	
4/28/10 10:11:30	5.60	3.78	25.0	22.1	-0.8	
4/28/10 10:11:45	5.54	3.79	24.9	21.7	-1.1	
4/28/10 10:12:00	5.52	3.80	24.8	21.9	-1.5	
4/28/10 10:12:15	5.54	3.79	25.4	23.9	-1.7	
4/28/10 10:12:30	5.59	3.79	27.5	25.5	-1.5	
4/28/10 10:12:45	5.41	3.85	29.4	25.6	-1.0	
4/28/10 10:13:00	4.55	4.09	30.1	25.3	-1.3	
4/28/10 10:13:15	3.42	4.34	30.0	25.5	-1.7	
4/28/10 10:13:30	2.96	4.41	30.1	25.1	-2.0	
4/28/10 10:13:45	2.89	4.42	30.0	25.3	-1.7	
4/28/10 10:14:00	2.86	4.42	30.1	25.4	-0.9	
4/28/10 10:14:15	2.86	4.42	30.2	25.2	-1.0	
4/28/10 10:14:30	2.85	4.42	30.0	25.1	-1.5	
4/28/10 10:14:45	2.84	4.42	30.0	24.9	-1.9	
4/28/10 10:15:00	2.85	4.43	29.9	24.5	-1.9	
4/28/10 10:15:15	2.87	4.42	29.7	24.7	-1.2	
4/28/10 10:15:30	2.89	4.41	29.5	24.7	-1.1	
4/28/10 10:15:45	2.92	4.40	29.7	25.0	-1.5	
4/28/10 10:16:00	2.94	4.39	29.8	25.3	-1.9	
4/28/10 10:16:15	2.93	4.39	29.9	25.2	-2.0	
4/28/10 10:16:30	2.87	4.41	30.0	25.5	-1.4	
4/28/10 10:16:45	2.83	4.42	30.2	25.5	-1.1	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/28/10 10:17:00	2.82	4.42	29.9	25.6	-1.5	
4/28/10 10:17:15	2.83	4.42	29.8	25.5	-2.0	
4/28/10 10:17:30	2.84	4.41	29.6	25.6	-2.2	
4/28/10 10:17:45	2.85	4.41	29.7	25.8	-1.6	
4/28/10 10:18:00	2.89	4.40	30.1	25.9	-1.0	
4/28/10 10:18:15	2.90	4.39	29.9	25.6	-1.2	
4/28/10 10:18:30	2.86	4.40	29.6	25.7	-1.7	
4/28/10 10:16:45	2.82	4.41	29.8	26.0	-2.0	
4/28/10 10:19:00	2.86	4.41	30.0	26.0	-1.8	
4/28/10 10:19:15	2.88	4.41	30.0	25.9	-1.0	
4/28/10 10:19:30	2.87	4.42	29.9	25.8	-1.1	
4/28/10 10:19:45	2.83	4.43	29.7	25.7	-1.6	
4/28/10 10:20:00	2.82	4.44	29.4	25.6	-2.0	
4/28/10 10:20:15	2.83	4.42	29.3	26.4	-2.0	
4/28/10 10:20:30	2.86	4.41	29.0	25.6	-1.4	
4/28/10 10:20:45	2.88	4.40	29.1	25.9	-1.3	
4/28/10 10:21:00	2.93	4.39	29.5	26.1	-1.7	
4/28/10 10:21:15	2.94	4.40	29.5	26.1	-2.0	
4/28/10 10:21:30	2.91	4.41	29.7	26.2	-2.1	
4/28/10 10:21:45	2.88	4.42	29.7	26.0	-1.4	
4/28/10 10:22:00	2.87	4.42	29.6	26.3	-1.1	
4/28/10 10:22:15	2.87	4.42	29.7	26.4	-1.6	
4/28/10 10:22:30	2.91	4.40	29.7	26.4	-1.9	
4/28/10 10:22:45	2.91	4.40	29.9	26.7	-2.0	
4/28/10 10:23:00	2.91	4.40	29.8	26.6	-1.5	
4/28/10 10:23:15	2.92	4.40	29.7	26.7	-1.2	
4/28/10 10:23:30	2.90	4.40	29.8	26.3	-1.6	
4/28/10 10:23:45	2.89	4.40	29.7	26.2	-2.0	
4/28/10 10:24:00	2.89	4.40	29.6	26.4	-2.1	
4/28/10 10:24:15	2.92	4.39	29.7	26.4	-1.5	
4/28/10 10:24:30	2.94	4.39	29.9	26.1	-1.3	
4/28/10 10:24:45	2.90	4.40	30.0	26.1	-1.7	
4/28/10 10:25:00	2.84	4.41	30.1	26.1	-2.0	
4/28/10 10:25:15	2.82	4.41	30.2	25.9	-2.1	
4/28/10 10:25:30	2.82	4.41	30.1	25.6	-1.5	
4/28/10 10:25:45	2.83	4.41	30.0	25.6	-1.2	
4/28/10 10:26:00	2.86	4.40	30.1	25.5	-1.5	
4/28/10 10:26:15	2.91	4.39	30.2	25.5	-1.9	
4/28/10 10:26:30	2.92	4.39	30.4	25.6	-2.0	
4/28/10 10:26:45	2.91	4.39	30.5	25.5	-0.8	
4/28/10 10:27:00	2.91	4.40	30.4	25.6	0.2	
4/28/10 10:27:15	2.90	4.41	30.8	25.5	-0.2	
4/28/10 10:27:30	2.90	4.41	30.8	25.2	-0.7	
4/28/10 10:27:45	2.88	4.42	30.8	25.3	-0.9	
4/28/10 10:28:00	2.87	4.42	30.6	25.5	-0.5	
4/28/10 10:28:15	2.89	4.41	30.9	25.7	0.3	
4/28/10 10:28:30	2.89	4.41	30.7	25.5	0.1	
4/28/10 10:28:45	2.85	4.41	30.6	25.4	-0.4	
4/28/10 10:29:00	2.83	4.42	30.6	25.5	-0.7	
4/28/10 10:29:15	2.84	4.42	30.7	25.0	-0.7	
4/28/10 10:29:30	2.83	4.42	30.8	24.9	0.0	
4/28/10 10:29:45	2.83	4.42	30.4	25.1	-0.1	
4/28/10 10:30:00	2.86	4.40	30.5	25.2	-0.5	Stop M5 for port change
4/28/10 10:30:15	2.88	4.40	30.8	25.3	-0.7	
4/28/10 10:30:30	2.87	4.40	30.9	25.2	-0.6	
4/28/10 10:30:45	2.85	4.41	30.8	25.3	0.1	
4/28/10 10:31:00	2.85	4.41	30.9	25.2	0.0	
4/28/10 10:31:15	2.87	4.41	30.7	25.1	-0.5	
4/28/10 10:31:30	2.87	4.41	30.6	25.2	-0.8	
4/28/10 10:31:45	2.88	4.41	30.8	25.2	-0.8	
4/28/10 10:32:00	2.89	4.41	30.9	25.3	-0.1	
4/28/10 10:32:15	2.89	4.41	30.6	25.0	-0.1	
4/28/10 10:32:30	2.88	4.41	30.9	25.0	-0.4	
4/28/10 10:32:45	2.85	4.42	31.0	25.3	-0.7	
4/28/10 10:33:00	2.83	4.42	30.9	25.6	-0.7	
4/28/10 10:33:15	2.83	4.41	30.7	25.3	-0.1	
4/28/10 10:33:30	2.83	4.42	30.5	25.4	0.0	
4/28/10 10:33:45	2.82	4.42	30.4	25.7	-0.4	
4/28/10 10:34:00	2.86	4.42	30.8	25.5	-0.8	
4/28/10 10:34:15	2.86	4.43	30.6	25.4	-0.8	
4/28/10 10:34:30	2.82	4.43	30.5	25.7	-0.1	
4/28/10 10:34:45	2.81	4.42	30.6	25.9	0.1	
4/28/10 10:35:00	2.82	4.42	30.7	26.0	-0.3	
4/28/10 10:35:15	2.79	4.43	30.8	25.7	-0.7	
4/28/10 10:35:30	2.77	4.44	30.7	25.8	-0.8	
4/28/10 10:35:45	2.76	4.44	30.3	26.0	-0.2	
4/28/10 10:36:00	2.79	4.43	30.2	25.8	0.3	
4/28/10 10:36:15	2.83	4.43	30.2	26.1	-0.1	
4/28/10 10:36:30	2.82	4.42	30.3	26.1	-0.6	
4/28/10 10:36:45	2.83	4.43	30.2	26.1	-0.9	Re-start M5
4/28/10 10:37:00	2.82	4.44	30.0	26.4	-0.6	
4/28/10 10:37:15	2.82	4.44	30.1	26.3	0.2	
4/28/10 10:37:30	2.82	4.44	30.0	26.4	0.0	
4/28/10 10:37:45	2.79	4.44	30.0	26.5	-0.4	
4/28/10 10:38:00	2.79	4.44	30.2	26.5	-0.8	
4/28/10 10:38:15	2.80	4.44	30.3	26.3	-0.8	
4/28/10 10:38:30	2.79	4.44	30.1	26.4	-0.1	
4/28/10 10:38:45	2.80	4.44	30.1	26.5	0.0	
4/28/10 10:39:00	2.83	4.43	30.3	26.4	-0.4	
4/28/10 10:39:15	2.85	4.42	30.1	26.3	-0.8	
4/28/10 10:39:30	2.85	4.42	30.2	26.4	-0.8	
4/28/10 10:39:45	2.87	4.42	30.3	26.4	-0.1	
4/28/10 10:40:00	2.86	4.42	30.7	26.5	0.2	
4/28/10 10:40:15	2.86	4.42	30.6	26.4	-0.3	
4/28/10 10:40:30	2.84	4.43	30.4	26.5	-0.7	
4/28/10 10:40:45	2.79	4.44	30.5	26.6	-0.9	
4/28/10 10:41:00	2.79	4.44	30.5	26.8	-0.5	
4/28/10 10:41:15	2.80	4.44	30.5	26.7	-0.1	
4/28/10 10:41:30	2.80	4.44	30.7	26.8	-0.4	
4/28/10 10:41:45	2.79	4.44	30.7	26.8	-0.8	
4/28/10 10:42:00	2.78	4.44	30.5	26.7	-0.9	
4/28/10 10:42:15	2.79	4.44	30.3	26.7	-0.5	
4/28/10 10:42:30	2.79	4.43	30.2	26.9	0.1	
4/28/10 10:42:45	2.82	4.42	30.3	27.2	-0.2	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/28/10 10:43:00	2.85	4.42	30.5	27.0	-0.7	
4/28/10 10:43:15	2.84	4.42	30.5	27.3	-0.9	
4/28/10 10:43:30	2.82	4.43	30.4	27.4	-0.1	
4/28/10 10:43:45	2.81	4.43	30.2	27.4	0.7	
4/28/10 10:44:00	2.81	4.44	30.3	27.2	0.5	
4/28/10 10:44:15	2.82	4.44	30.2	27.0	0.1	
4/28/10 10:44:30	2.85	4.45	30.1	27.0	-0.1	
4/28/10 10:44:45	2.87	4.44	30.2	27.1	0.2	
4/28/10 10:45:00	2.88	4.43	30.2	26.6	0.9	
4/28/10 10:45:15	2.88	4.43	30.2	26.7	0.7	
4/28/10 10:45:30	2.88	4.43	30.2	26.4	0.2	
4/28/10 10:45:45	2.90	4.42	30.3	26.2	-0.1	
4/28/10 10:46:00	2.88	4.43	30.3	26.2	-0.1	
4/28/10 10:46:15	2.85	4.43	30.1	26.1	0.7	
4/28/10 10:46:30	2.85	4.44	30.2	26.2	0.7	
4/28/10 10:46:45	2.85	4.45	30.4	26.1	0.4	
4/28/10 10:47:00	2.85	4.45	30.4	26.0	0.1	
4/28/10 10:47:15	2.86	4.45	30.3	25.8	0.1	
4/28/10 10:47:30	2.87	4.45	30.2	25.9	0.8	
4/28/10 10:47:45	2.90	4.44	30.2	26.0	0.9	
4/28/10 10:48:00	2.92	4.43	30.1	25.8	0.5	
4/28/10 10:48:15	2.90	4.44	30.0	25.9	0.1	
4/28/10 10:48:30	2.89	4.44	30.2	26.0	0.0	
4/28/10 10:48:45	2.91	4.43	30.1	26.1	0.7	
4/28/10 10:49:00	2.91	4.43	30.2	26.1	0.9	
4/28/10 10:49:15	2.90	4.43	30.4	25.8	0.5	
4/28/10 10:49:30	2.89	4.43	30.2	26.0	0.1	
4/28/10 10:49:45	2.91	4.42	30.4	26.2	-0.1	
4/28/10 10:50:00	2.94	4.41	30.3	26.0	0.4	
4/28/10 10:50:15	2.93	4.41	30.3	25.8	0.8	
4/28/10 10:50:30	2.90	4.41	30.5	26.0	0.5	
4/28/10 10:50:45	2.90	4.42	30.7	26.2	0.1	
4/28/10 10:51:00	2.88	4.43	31.0	26.4	-0.1	
4/28/10 10:51:15	2.81	4.44	30.9	26.6	0.4	
4/28/10 10:51:30	2.76	4.45	31.1	26.4	1.0	
4/28/10 10:51:45	2.74	4.46	31.1	26.4	0.7	
4/28/10 10:52:00	2.72	4.46	30.8	26.6	0.3	
4/28/10 10:52:15	2.72	4.46	30.8	26.5	0.0	
4/28/10 10:52:30	2.73	4.45	30.9	26.5	0.2	
4/28/10 10:52:45	2.72	4.45	30.8	26.2	0.9	
4/28/10 10:53:00	2.71	4.45	30.5	26.5	0.9	
4/28/10 10:53:15	2.72	4.45	30.5	26.6	0.3	
4/28/10 10:53:30	2.75	4.44	30.4	26.5	0.0	
4/28/10 10:53:45	2.74	4.45	30.5	26.2	-0.1	
4/28/10 10:54:00	2.73	4.45	30.4	26.1	0.6	
4/28/10 10:54:15	2.73	4.45	30.2	26.5	0.7	
4/28/10 10:54:30	2.76	4.44	30.3	26.4	0.3	
4/28/10 10:54:45	2.80	4.43	30.7	26.7	0.0	
4/28/10 10:55:00	2.80	4.44	30.5	26.8	0.0	
4/28/10 10:55:15	2.80	4.44	30.6	26.9	0.5	
4/28/10 10:55:30	2.80	4.44	30.8	27.0	0.5	
4/28/10 10:55:45	2.80	4.45	30.8	27.0	0.1	
4/28/10 10:56:00	2.78	4.46	30.8	27.1	-0.2	
4/28/10 10:56:15	2.79	4.46	30.8	26.8	-0.2	
4/28/10 10:56:30	2.81	4.46	30.8	26.6	0.6	
4/28/10 10:56:45	2.81	4.46	30.6	26.6	0.9	
4/28/10 10:57:00	2.82	4.45	30.5	26.5	0.4	
4/28/10 10:57:15	2.82	4.45	30.4	26.2	0.0	
4/28/10 10:57:30	2.79	4.46	30.8	26.2	-0.1	
4/28/10 10:57:45	2.82	4.45	30.8	26.2	0.3	
4/28/10 10:58:00	2.85	4.45	30.9	26.1	0.8	
4/28/10 10:58:15	2.84	4.45	31.0	26.2	0.5	
4/28/10 10:58:30	2.81	4.45	30.6	26.1	0.0	
4/28/10 10:58:45	2.79	4.45	30.6	26.3	-0.2	
4/28/10 10:59:00	2.77	4.45	30.7	26.4	0.3	
4/28/10 10:59:15	2.77	4.44	30.8	26.4	0.9	
4/28/10 10:59:30	2.75	4.44	30.8	26.4	0.7	
4/28/10 10:59:45	2.74	4.44	30.7	26.7	0.3	
4/28/10 11:00:00	2.72	4.44	30.8	26.8	0.0	
4/28/10 11:00:15	2.72	4.45	31.0	26.8	0.2	
4/28/10 11:00:30	2.70	4.46	30.9	26.6	0.9	
4/28/10 11:00:45	2.68	4.47	30.8	26.7	0.8	
4/28/10 11:01:00	2.68	4.47	31.1	26.6	0.2	
4/28/10 11:01:15	2.72	4.47	31.4	26.8	-0.1	
4/28/10 11:01:30	2.71	4.47	31.3	27.1	0.0	
4/28/10 11:01:45	2.72	4.46	31.3	26.8	0.7	
4/28/10 11:02:00	2.70	4.47	31.2	26.7	0.9	
4/28/10 11:02:15	2.69	4.48	31.2	26.9	0.5	
4/28/10 11:02:30	2.70	4.46	31.2	27.0	0.0	
4/28/10 11:02:45	2.74	4.45	31.2	27.2	-0.1	
4/28/10 11:03:00	2.74	4.46	31.1	27.0	0.5	
4/28/10 11:03:15	2.71	4.46	31.1	27.0	1.0	
4/28/10 11:03:30	2.70	4.47	30.9	27.0	0.6	
4/28/10 11:03:45	2.72	4.46	30.9	26.8	0.3	
4/28/10 11:04:00	2.73	4.46	31.1	27.0	0.0	
4/28/10 11:04:15	2.76	4.46	31.1	27.0	0.2	
4/28/10 11:04:30	2.77	4.45	30.7	26.8	0.8	
4/28/10 11:04:45	2.78	4.45	30.8	27.1	0.6	
4/28/10 11:05:00	2.79	4.44	30.9	27.1	0.0	
4/28/10 11:05:15	2.80	4.44	30.5	26.8	-0.2	
4/28/10 11:05:30	2.78	4.44	30.3	26.5	0.0	
4/28/10 11:05:45	2.80	4.43	30.2	26.7	0.7	
4/28/10 11:06:00	2.91	4.41	30.1	26.6	0.6	
4/28/10 11:06:15	3.03	4.38	30.1	26.9	0.2	
4/28/10 11:06:30	3.00	4.35	30.2	27.1	0.0	
4/28/10 11:06:45	3.05	4.35	30.3	27.1	0.1	
4/28/10 11:07:00	3.03	4.36	30.4	27.2	0.7	
4/28/10 11:07:15	3.00	4.36	30.6	27.1	0.6	
4/28/10 11:07:30	3.02	4.36	30.5	26.8	0.2	
4/28/10 11:07:45	3.03	4.36	29.9	26.8	0.0	
4/28/10 11:08:00	3.05	4.35	30.2	27.2	0.2	
4/28/10 11:08:15	3.16	4.32	30.6	27.1	0.8	
4/28/10 11:08:30	3.20	4.33	30.7	27.1	0.6	
4/28/10 11:08:45	3.09	4.35	30.6	26.8	0.2	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/28/10 11:09:00	2.98	4.37	30.6	26.5	-0.1	
4/28/10 11:09:15	2.94	4.37	30.4	26.6	0.0	
4/28/10 11:09:30	2.95	4.37	30.3	26.5	0.8	
4/28/10 11:09:45	2.97	4.37	30.3	26.3	0.9	
4/28/10 11:10:00	2.95	4.37	30.4	26.0	0.3	
4/28/10 11:10:15	2.93	4.37	30.4	26.0	0.0	
4/28/10 11:10:30	2.94	4.37	30.3	25.8	-0.1	
4/28/10 11:10:45	2.97	4.36	30.2	25.9	0.5	
4/28/10 11:11:00	2.96	4.37	30.1	26.1	1.0	
4/28/10 11:11:15	2.95	4.36	30.1	25.9	0.7	
4/28/10 11:11:30	2.97	4.36	30.2	26.3	0.1	
4/28/10 11:11:45	2.97	4.37	30.2	26.5	-0.1	
4/28/10 11:12:00	2.98	4.37	29.9	26.5	0.3	
4/28/10 11:12:15	2.95	4.38	29.8	26.7	0.8	
4/28/10 11:12:30	2.92	4.39	29.9	26.3	0.5	
4/28/10 11:12:45	2.92	4.38	29.8	26.2	0.1	
4/28/10 11:13:00	2.93	4.38	29.7	26.0	-0.2	
4/28/10 11:13:15	2.97	4.37	29.9	26.5	0.0	
4/28/10 11:13:30	2.98	4.36	30.1	26.5	0.9	
4/28/10 11:13:45	3.00	4.37	30.1	25.8	1.0	
4/28/10 11:14:00	2.97	4.38	30.1	26.1	0.4	
4/28/10 11:14:15	2.96	4.38	30.2	26.5	0.1	
4/28/10 11:14:30	3.00	4.37	29.9	26.5	0.0	
4/28/10 11:14:45	3.05	4.36	30.1	26.6	0.5	
4/28/10 11:15:00	3.07	4.37	30.2	26.5	0.9	
4/28/10 11:15:15	3.05	4.38	30.2	26.5	0.6	
4/28/10 11:15:30	3.01	4.39	30.1	26.3	0.1	
4/28/10 11:15:45	2.99	4.39	30.4	26.4	0.0	
4/28/10 11:16:00	3.00	4.39	30.4	26.3	0.4	
4/28/10 11:16:15	3.00	4.38	30.1	26.5	0.9	
4/28/10 11:16:30	3.00	4.38	30.2	26.6	0.6	
4/28/10 11:16:45	3.03	4.38	30.3	26.7	0.2	
4/28/10 11:17:00	3.02	4.39	30.4	26.5	0.0	
4/28/10 11:17:15	3.01	4.39	30.5	26.5	0.2	
4/28/10 11:17:30	2.99	4.39	30.4	26.9	0.7	
4/28/10 11:17:45	3.00	4.39	30.8	26.8	0.5	
4/28/10 11:18:00	3.02	4.39	30.8	26.6	0.1	
4/28/10 11:18:15	2.99	4.40	30.6	26.7	0.0	
4/28/10 11:18:30	2.95	4.41	30.6	26.7	0.4	
4/28/10 11:18:45	2.96	4.40	30.5	26.7	0.8	
4/28/10 11:19:00	2.98	4.39	30.2	26.7	0.3	
4/28/10 11:19:15	3.02	4.38	30.3	26.9	-0.1	
4/28/10 11:19:30	3.03	4.38	30.6	26.6	-0.3	
4/28/10 11:19:45	3.00	4.38	30.2	26.6	0.0	
4/28/10 11:20:00	2.97	4.38	30.1	26.6	0.9	
4/28/10 11:20:15	3.00	4.37	30.0	26.2	0.8	
4/28/10 11:20:30	2.98	4.37	29.7	26.2	0.3	
4/28/10 11:20:45	2.96	4.37	29.5	26.3	0.0	
4/28/10 11:21:00	3.01	4.36	29.5	26.2	0.0	
4/28/10 11:21:15	3.03	4.35	29.8	26.2	0.6	
4/28/10 11:21:30	3.01	4.36	29.6	26.1	0.9	
4/28/10 11:21:45	2.99	4.37	29.9	26.3	0.5	
4/28/10 11:22:00	3.00	4.36	30.0	26.1	0.0	
4/28/10 11:22:15	3.02	4.36	30.1	26.2	-0.1	
4/28/10 11:22:30	3.00	4.35	30.2	25.8	0.5	
4/28/10 11:22:45	3.01	4.35	30.1	25.9	0.9	
4/28/10 11:23:00	3.00	4.35	30.0	25.7	0.6	
4/28/10 11:23:15	3.03	4.35	30.2	25.8	0.2	
4/28/10 11:23:30	3.06	4.35	30.4	26.1	0.0	
4/28/10 11:23:45	3.07	4.35	30.8	25.9	0.3	
4/28/10 11:24:00	3.05	4.37	31.0	26.0	1.0	
4/28/10 11:24:15	3.02	4.38	30.8	25.9	0.8	
4/28/10 11:24:30	3.00	4.39	30.7	25.9	0.2	
4/28/10 11:24:45	2.99	4.38	30.7	25.8	-0.1	
4/28/10 11:25:00	3.01	4.37	30.4	26.0	0.0	
4/28/10 11:25:15	3.02	4.37	30.3	26.1	0.6	
4/28/10 11:25:30	3.02	4.36	30.3	25.8	0.6	
4/28/10 11:25:45	3.03	4.36	30.1	25.6	0.3	
4/28/10 11:26:00	3.01	4.36	30.2	25.9	0.1	
4/28/10 11:26:15	3.04	4.35	30.2	25.8	0.1	
4/28/10 11:26:30	3.07	4.34	30.3	25.8	0.8	
4/28/10 11:26:45	3.03	4.35	30.2	25.5	0.8	
4/28/10 11:27:00	3.00	4.36	30.1	25.5	0.3	
4/28/10 11:27:15	3.00	4.36	30.1	25.4	0.0	
4/28/10 11:27:30	3.02	4.35	30.2	25.8	0.1	
4/28/10 11:27:45	3.04	4.35	30.3	25.9	0.6	
4/28/10 11:28:00	3.04	4.35	30.0	25.8	0.8	
4/28/10 11:28:15	3.01	4.35	30.2	26.1	0.4	
4/28/10 11:28:30	3.01	4.35	30.1	25.8	-0.1	
4/28/10 11:28:45	3.02	4.36	30.0	26.2	-0.1	
4/28/10 11:29:00	3.00	4.36	30.5	26.9	0.5	
4/28/10 11:29:15	3.04	4.36	31.0	26.9	0.7	
4/28/10 11:29:30	3.06	4.40	31.3	26.9	0.3	
4/28/10 11:29:45	2.83	4.44	31.1	27.0	0.0	
4/28/10 11:30:00	2.76	4.45	31.1	27.0	-0.1	
4/28/10 11:30:15	2.77	4.44	30.9	27.0	0.4	
4/28/10 11:30:30	2.78	4.43	30.8	26.9	0.8	
4/28/10 11:30:45	2.79	4.43	30.9	27.0	0.4	
4/28/10 11:31:00	2.81	4.42	30.9	26.7	-0.1	
4/28/10 11:31:15	2.81	4.43	31.0	26.7	-0.2	
4/28/10 11:31:30	2.79	4.43	31.0	26.4	0.4	
4/28/10 11:31:45	2.79	4.44	31.0	26.4	0.8	
4/28/10 11:32:00	2.78	4.44	30.7	26.6	0.5	
4/28/10 11:32:15	2.83	4.43	30.8	26.5	0.2	
4/28/10 11:32:30	2.86	4.43	31.0	26.4	0.0	
4/28/10 11:32:45	2.84	4.44	30.9	26.3	0.4	
4/28/10 11:33:00	2.85	4.44	30.8	26.5	1.0	
4/28/10 11:33:15	2.86	4.43	31.2	26.3	0.7	
4/28/10 11:33:30	2.82	4.45	31.1	26.2	0.2	
4/28/10 11:33:45	2.79	4.46	31.0	26.2	0.0	
4/28/10 11:34:00	2.80	4.45	31.0	26.5	0.3	
4/28/10 11:34:15	2.82	4.45	31.1	26.4	0.8	
4/28/10 11:34:30	2.81	4.45	30.9	26.2	0.6	
4/28/10 11:34:45	2.79	4.45	30.9	26.4	0.2	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/28/10 11:35:00	2.82	4.44	30.9	26.5	-0.1	
4/28/10 11:35:15	2.87	4.43	30.9	26.5	0.0	
4/28/10 11:35:30	2.87	4.43	31.0	26.5	0.8	
4/28/10 11:35:45	2.84	4.44	31.1	26.4	0.8	
4/28/10 11:36:00	2.81	4.45	30.9	26.6	0.3	
4/28/10 11:36:15	2.81	4.45	31.0	26.9	0.0	
4/28/10 11:36:30	2.80	4.45	31.1	26.9	0.1	
4/28/10 11:36:45	2.78	4.45	31.2	27.0	0.7	
4/28/10 11:37:00	2.76	4.46	31.0	26.9	1.0	
4/28/10 11:37:15	2.77	4.45	30.9	26.9	0.6	
4/28/10 11:37:30	2.78	4.45	31.0	26.7	0.1	
4/28/10 11:37:45	2.79	4.45	31.1	26.7	0.0	
4/28/10 11:38:00	2.80	4.45	31.0	26.7	0.7	
4/28/10 11:38:15	2.80	4.45	31.2	26.9	1.0	
4/28/10 11:38:30	2.81	4.45	31.4	26.8	0.5	
4/28/10 11:38:45	2.81	4.46	31.5	26.8	0.1	
4/28/10 11:39:00	2.79	4.46	31.5	26.9	-0.1	
4/28/10 11:39:15	2.80	4.46	31.2	27.2	0.2	
4/28/10 11:39:30	2.81	4.46	31.2	27.2	0.8	
4/28/10 11:39:45	2.82	4.47	31.2	27.5	0.6	
4/28/10 11:40:00	2.82	4.47	31.3	27.4	0.1	
4/28/10 11:40:15	2.84	4.47	31.1	27.7	-0.1	
4/28/10 11:40:30	2.84	4.47	31.4	27.8	0.3	
4/28/10 11:40:45	2.83	4.47	31.6	27.9	0.8	
4/28/10 11:41:00	2.80	4.48	31.5	27.8	0.5	
4/28/10 11:41:15	2.75	4.49	31.5	28.0	0.2	
4/28/10 11:41:30	2.74	4.49	31.3	27.9	-0.1	
4/28/10 11:41:45	2.76	4.48	31.1	28.2	0.2	
4/28/10 11:42:00	2.77	4.48	31.3	28.2	1.0	
4/28/10 11:42:15	2.77	4.48	31.6	27.6	0.9	
4/28/10 11:42:30	2.76	4.49	31.3	27.6	0.3	
4/28/10 11:42:45	2.74	4.50	31.3	27.4	0.0	
4/28/10 11:43:00	2.74	4.49	31.1	26.5	0.0	
4/28/10 11:43:15	2.75	4.49	30.8	26.8	0.7	
4/28/10 11:43:30	2.76	4.48	31.1	26.9	0.9	
4/28/10 11:43:45	2.83	4.46	31.1	26.7	0.5	
4/28/10 11:44:00	2.86	4.46	30.9	27.1	0.0	
4/28/10 11:44:15	2.86	4.46	31.0	27.1	-0.2	
4/28/10 11:44:30	2.86	4.46	31.1	27.2	0.5	
4/28/10 11:44:45	2.83	4.48	31.2	26.8	1.1	
4/28/10 11:45:00	2.80	4.49	30.8	26.6	0.9	
4/28/10 11:45:15	2.78	4.49	30.1	26.6	0.4	
4/28/10 11:45:30	2.81	4.47	30.3	26.9	0.0	
4/28/10 11:45:45	2.87	4.45	30.7	26.7	0.0	
4/28/10 11:46:00	2.88	4.45	30.4	26.5	0.8	
4/28/10 11:46:15	2.86	4.45	30.1	26.8	0.8	
4/28/10 11:46:30	2.87	4.45	30.2	26.7	0.4	
4/28/10 11:46:45	2.89	4.45	30.1	26.8	0.1	
4/28/10 11:47:00	2.89	4.45	30.0	26.9	0.1	
4/28/10 11:47:15	2.87	4.46	30.1	26.9	0.7	
4/28/10 11:47:30	2.85	4.46	30.3	26.7	1.0	
4/28/10 11:47:45	2.84	4.46	30.2	26.8	0.6	
4/28/10 11:48:00	2.84	4.46	30.3	26.9	0.2	
4/28/10 11:48:15	2.86	4.46	30.1	26.9	0.1	
4/28/10 11:48:30	2.87	4.47	29.8	27.1	0.6	
4/28/10 11:48:45	2.87	4.47	29.8	26.9	1.0	
4/28/10 11:49:00	2.87	4.47	29.6	26.9	0.6	
4/28/10 11:49:15	2.87	4.47	29.8	27.0	0.2	
4/28/10 11:49:30	2.88	4.47	29.9	26.9	0.0	
4/28/10 11:49:45	2.88	4.47	29.8	26.8	0.3	
4/28/10 11:50:00	2.85	4.47	29.8	27.4	0.8	
4/28/10 11:50:15	2.87	4.47	29.8	27.6	0.6	
4/28/10 11:50:30	2.87	4.47	30.0	27.0	0.1	
4/28/10 11:50:45	2.83	4.46	29.9	27.0	0.0	
4/28/10 11:51:00	2.83	4.48	30.1	27.1	0.5	
4/28/10 11:51:15	2.86	4.48	30.3	27.2	0.8	
4/28/10 11:51:30	2.87	4.47	30.2	27.5	0.5	
4/28/10 11:51:45	2.86	4.47	30.0	27.3	0.2	
4/28/10 11:52:00	2.84	4.48	30.2	27.5	0.0	
4/28/10 11:52:15	2.83	4.49	30.3	27.8	0.4	
4/28/10 11:52:30	2.85	4.48	30.3	27.8	0.8	
4/28/10 11:52:45	2.88	4.49	30.4	27.6	0.5	
4/28/10 11:53:00	2.86	4.50	30.6	27.5	0.1	
4/28/10 11:53:15	2.85	4.50	30.7	27.2	0.0	
4/28/10 11:53:30	2.87	4.49	30.5	27.4	0.5	
4/28/10 11:53:45	2.86	4.48	30.4	27.3	1.0	
4/28/10 11:54:00	2.86	4.48	30.6	27.3	0.8	
4/28/10 11:54:15	2.84	4.48	30.5	27.1	0.4	
4/28/10 11:54:30	2.81	4.49	30.7	27.1	0.1	
4/28/10 11:54:45	2.79	4.49	30.8	26.8	0.3	
4/28/10 11:55:00	2.81	4.49	30.7	26.6	0.9	
4/28/10 11:55:15	2.82	4.49	30.6	26.7	0.7	
4/28/10 11:55:30	2.86	4.48	30.5	26.7	0.4	
4/28/10 11:55:45	2.88	4.47	30.7	26.6	0.2	
4/28/10 11:56:00	2.89	4.47	30.7	26.9	0.4	
4/28/10 11:56:15	2.90	4.46	30.8	27.3	0.9	
4/28/10 11:56:30	2.88	4.47	30.9	27.0	0.7	
4/28/10 11:56:45	2.86	4.48	30.8	27.0	0.4	
4/28/10 11:57:00	2.83	4.49	30.8	27.0	0.1	
4/28/10 11:57:15	2.82	4.49	30.7	27.0	0.2	
4/28/10 11:57:30	2.84	4.48	30.9	26.9	0.9	
4/28/10 11:57:45	2.85	4.48	30.7	27.1	0.7	
4/28/10 11:58:00	2.86	4.47	30.6	27.1	0.3	
4/28/10 11:58:15	2.85	4.47	30.7	27.2	0.1	
4/28/10 11:58:30	2.82	4.48	30.9	27.2	0.3	
4/28/10 11:58:45	2.82	4.49	30.9	27.2	0.9	
4/28/10 11:59:00	2.81	4.49	30.7	27.3	0.8	
4/28/10 11:59:15	2.82	4.49	30.8	27.2	0.5	
4/28/10 11:59:30	2.83	4.48	31.0	26.9	0.1	
4/28/10 11:59:45	2.81	4.49	30.8	27.1	0.2	
4/28/10 12:00:00	2.79	4.49	30.7	27.1	0.9	
4/28/10 12:00:15	2.80	4.48	30.7	27.0	0.9	
4/28/10 12:00:30	2.81	4.48	30.6	26.9	0.4	
4/28/10 12:00:45	2.83	4.47	30.9	27.0	0.2	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/28/10 12:01:00	2.83	4.47	31.0	27.2	0.2	
4/28/10 12:01:15	2.83	4.47	31.1	27.5	0.8	
4/28/10 12:01:30	2.82	4.48	31.5	27.4	0.9	
4/28/10 12:01:45	2.79	4.49	31.2	26.9	0.5	
4/28/10 12:02:00	2.75	4.50	30.9	26.8	0.0	
4/28/10 12:02:15	2.76	4.50	30.5	27.1	0.0	
4/28/10 12:02:30	2.85	4.47	30.1	27.0	0.7	
4/28/10 12:02:45	2.92	4.45	30.3	27.1	0.9	
4/28/10 12:03:00	2.92	4.45	30.2	27.4	0.4	
4/28/10 12:03:15	2.90	4.46	30.7	27.5	0.1	
4/28/10 12:03:30	2.89	4.46	30.9	27.4	0.0	
4/28/10 12:03:45	2.85	4.47	30.8	27.3	0.5	
4/28/10 12:04:00	2.81	4.47	30.6	27.6	1.0	
4/28/10 12:04:15	2.82	4.47	30.6	27.5	0.7	
4/28/10 12:04:30	2.84	4.45	30.5	27.3	0.2	
4/28/10 12:04:45	2.83	4.45	30.3	27.0	0.0	
4/28/10 12:05:00	2.84	4.45	30.5	26.9	0.5	
4/28/10 12:05:15	2.87	4.44	30.4	26.7	1.0	
4/28/10 12:05:30	2.89	4.44	30.3	26.4	0.7	
4/28/10 12:05:45	2.90	4.44	30.4	26.7	0.3	
4/28/10 12:06:00	2.92	4.44	30.6	26.5	-0.1	
4/28/10 12:06:15	2.93	4.44	30.5	26.4	0.1	
4/28/10 12:06:30	2.90	4.45	30.2	26.7	1.0	
4/28/10 12:06:45	2.92	4.45	30.3	26.7	0.9	
4/28/10 12:07:00	2.96	4.44	30.1	26.7	0.3	End M5
4/28/10 12:07:15	2.94	4.46	29.8	26.6	0.0	
4/28/10 12:07:30	2.90	4.47	29.9	26.5	0.1	
4/28/10 12:07:45	2.90	4.46	30.1	26.5	0.6	
4/28/10 12:08:00	2.92	4.46	30.3	26.4	0.7	
4/28/10 12:08:15	2.92	4.46	29.8	26.7	0.4	
4/28/10 12:08:30	2.91	4.45	30.1	26.6	0.1	
4/28/10 12:08:45	2.92	4.45	30.2	26.6	0.1	
4/28/10 12:09:00	2.91	4.45	30.0	26.8	0.9	
4/28/10 12:09:15	2.91	4.44	30.1	26.8	1.0	
4/28/10 12:09:30	2.93	4.44	30.4	27.0	0.4	
4/28/10 12:09:45	2.93	4.45	30.3	26.9	0.1	
4/28/10 12:10:00	2.94	4.46	30.3	26.9	0.0	
4/28/10 12:10:15	2.94	4.47	30.4	26.9	0.5	
4/28/10 12:10:30	2.93	4.47	30.3	27.0	1.0	
4/28/10 12:10:45	2.91	4.47	30.2	27.3	0.7	
4/28/10 12:11:00	2.90	4.46	30.5	27.4	0.2	
4/28/10 12:11:15	2.88	4.47	30.5	27.3	0.0	
4/28/10 12:11:30	2.83	4.49	30.1	26.7	0.4	
4/28/10 12:11:45	2.80	4.50	30.2	26.6	0.8	
4/28/10 12:12:00	2.84	4.48	29.9	27.2	0.5	
4/28/10 12:12:15	2.91	4.46	30.2	27.4	0.2	
4/28/10 12:12:30	2.93	4.45	30.5	27.2	-0.1	
4/28/10 12:12:45	2.90	4.46	30.0	27.3	0.3	
4/28/10 12:13:00	2.89	4.46	29.9	27.7	0.8	
4/28/10 12:13:15	2.92	4.45	30.1	27.9	0.5	
4/28/10 12:13:30	2.93	4.46	29.9	27.8	0.0	
4/28/10 12:13:45	2.87	4.47	29.6	27.3	-0.2	
4/28/10 12:14:00	2.84	4.48	29.6	27.6	0.2	
4/28/10 12:14:15	2.84	4.47	29.5	27.8	0.7	
4/28/10 12:14:30	2.88	4.46	29.5	27.9	0.6	
4/28/10 12:14:45	2.92	4.45	29.7	28.2	0.3	
4/28/10 12:15:00	2.92	4.45	30.0	28.3	0.0	
4/28/10 12:15:15	2.88	4.46	30.2	28.2	0.1	
4/28/10 12:15:30	2.83	4.47	30.1	28.1	0.7	
4/28/10 12:15:45	2.80	4.47	30.1	28.0	0.6	
4/28/10 12:16:00	2.81	4.48	30.1	27.3	0.1	
4/28/10 12:16:15	2.81	4.48	30.1	27.7	-0.1	
4/28/10 12:16:30	2.82	4.48	30.5	27.3	0.2	
4/28/10 12:16:45	2.87	4.47	30.3	27.0	0.8	
4/28/10 12:17:00	2.84	4.48	30.2	27.1	0.8	
4/28/10 12:17:15	2.82	4.48	30.2	26.8	0.4	
4/28/10 12:17:30	2.82	4.48	30.0	26.9	-0.1	
4/28/10 12:17:45	2.82	4.47	30.3	26.5	-0.1	
4/28/10 12:18:00	2.85	4.47	30.4	26.3	0.7	
4/28/10 12:18:15	2.83	4.48	30.1	26.3	1.0	
4/28/10 12:18:30	2.82	4.48	30.2	26.4	0.4	
4/28/10 12:18:45	2.85	4.47	30.6	26.3	0.1	
4/28/10 12:19:00	2.87	4.46	30.5	26.2	-0.1	
4/28/10 12:19:15	2.86	4.46	30.6	26.4	0.4	
4/28/10 12:19:30	2.84	4.46	30.5	26.1	0.9	
4/28/10 12:19:45	2.83	4.46	30.4	26.2	0.6	
4/28/10 12:20:00	2.83	4.46	30.2	26.1	0.1	
4/28/10 12:20:15	2.86	4.45	30.1	26.3	-0.1	
4/28/10 12:20:30	2.90	4.45	30.2	26.4	0.3	
4/28/10 12:20:45	2.91	4.46	30.1	26.4	0.9	
4/28/10 12:21:00	2.92	4.46	30.0	26.6	0.8	
4/28/10 12:21:15	2.96	4.46	30.1	26.7	0.3	
4/28/10 12:21:30	2.97	4.46	30.0	26.6	-0.1	
4/28/10 12:21:45	2.93	4.47	30.2	26.5	-0.1	
4/28/10 12:22:00	2.88	4.49	30.1	26.5	0.5	
4/28/10 12:22:15	2.86	4.49	30.1	26.9	0.5	
4/28/10 12:22:30	2.90	4.48	29.9	26.6	0.1	
4/28/10 12:22:45	2.94	4.48	29.7	26.1	-0.1	
4/28/10 12:23:00	2.94	4.48	29.5	26.8	0.0	
4/28/10 12:23:15	2.95	4.46	29.5	26.5	0.7	
4/28/10 12:23:30	2.96	4.46	29.6	26.7	0.9	
4/28/10 12:23:45	2.91	4.47	29.8	26.8	0.5	
4/28/10 12:24:00	2.89	4.48	29.8	26.6	0.1	
4/28/10 12:24:15	2.89	4.48	29.7	26.7	0.0	
4/28/10 12:24:30	2.89	4.48	29.7	27.0	0.5	
4/28/10 12:24:45	2.92	4.47	29.6	26.9	0.7	
4/28/10 12:25:00	2.92	4.47	29.8	27.0	0.2	
4/28/10 12:25:15	2.91	4.48	29.7	27.2	-0.1	
4/28/10 12:25:30	2.90	4.48	29.8	27.0	-0.2	
4/28/10 12:25:45	2.91	4.48	29.8	27.1	0.3	
4/28/10 12:26:00	2.91	4.48	29.7	27.2	0.6	
4/28/10 12:26:15	2.90	4.48	29.7	27.3	0.4	
4/28/10 12:26:30	2.89	4.48	29.9	27.4	0.0	
4/28/10 12:26:45	2.87	4.49	30.2	27.1	0.0	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/28/10 12:27:00	2.85	4.49	30.1	27.2	0.5	
4/28/10 12:27:15	2.84	4.49	30.2	27.4	0.5	
4/28/10 12:27:30	2.85	4.49	30.2	27.3	0.1	
4/28/10 12:27:45	2.84	4.50	30.1	27.3	-0.1	
4/28/10 12:28:00	2.81	4.50	30.1	27.1	-0.1	
4/28/10 12:28:15	2.81	4.49	29.9	27.1	0.4	
4/28/10 12:28:30	2.83	4.48	29.9	26.7	0.6	
4/28/10 12:28:45	2.85	4.48	29.8	26.3	0.3	
4/28/10 12:29:00	2.86	4.47	29.7	26.7	-0.1	
4/28/10 12:29:15	2.88	4.46	30.3	26.5	-0.2	
4/28/10 12:29:30	2.92	4.45	30.2	26.4	0.5	
4/28/10 12:29:45	2.87	4.46	30.0	26.2	0.8	
4/28/10 12:30:00	2.85	4.47	29.9	26.1	0.4	
4/28/10 12:30:15	2.85	4.47	29.8	25.9	0.1	
4/28/10 12:30:30	2.83	4.48	29.7	25.8	-0.1	
4/28/10 12:30:45	2.84	4.48	29.8	25.7	0.3	
4/28/10 12:31:00	2.87	4.47	29.8	25.9	0.7	
4/28/10 12:31:15	2.91	4.46	30.1	25.8	0.4	
4/28/10 12:31:30	2.92	4.46	30.2	25.6	0.0	
4/28/10 12:31:45	2.90	4.47	30.0	25.6	-0.1	
4/28/10 12:32:00	2.89	4.47	30.0	25.6	0.4	
4/28/10 12:32:15	2.91	4.46	30.2	25.6	0.8	
4/28/10 12:32:30	2.94	4.46	30.1	25.8	0.4	
4/28/10 12:32:45	2.94	4.47	30.3	25.7	0.1	
4/28/10 12:33:00	2.93	4.48	30.0	25.6	-0.2	
4/28/10 12:33:15	2.92	4.48	30.1	25.6	0.1	
4/28/10 12:33:30	2.93	4.48	30.0	25.6	0.8	
4/28/10 12:33:45	2.93	4.49	29.9	25.6	0.6	
4/28/10 12:34:00	2.93	4.49	30.1	25.8	0.1	
4/28/10 12:34:15	2.92	4.48	29.9	25.6	-0.2	
4/28/10 12:34:30	2.89	4.48	29.9	25.6	-0.1	
4/28/10 12:34:45	2.89	4.47	30.0	25.5	0.6	
4/28/10 12:35:00	2.92	4.47	29.9	25.7	0.7	
4/28/10 12:35:15	2.93	4.47	29.7	25.8	0.3	
4/28/10 12:35:30	2.94	4.46	29.8	25.9	-0.1	
4/28/10 12:35:45	2.96	4.46	29.9	26.4	-0.2	
4/28/10 12:36:00	2.95	4.46	30.1	26.2	0.4	
4/28/10 12:36:15	2.92	4.46	30.2	26.4	0.7	
4/28/10 12:36:30	2.88	4.47	30.2	26.3	0.3	
4/28/10 12:36:45	2.87	4.47	30.1	26.7	-0.1	
4/28/10 12:37:00	2.84	4.48	30.1	26.4	-0.3	
4/28/10 12:37:15	2.82	4.48	29.9	26.7	0.0	
4/28/10 12:37:30	2.82	4.48	29.9	26.7	0.7	
4/28/10 12:37:45	2.87	4.47	29.9	27.0	0.5	
4/28/10 12:38:00	2.88	4.47	30.0	27.2	0.0	
4/28/10 12:38:15	2.85	4.48	30.2	27.0	-0.3	
4/28/10 12:38:30	2.79	4.49	30.1	27.2	-0.1	
4/28/10 12:38:45	2.76	4.49	30.2	27.4	0.4	
4/28/10 12:39:00	2.79	4.48	30.8	27.3	0.3	
4/28/10 12:39:15	2.78	4.48	30.6	27.2	0.0	
4/28/10 12:39:30	2.75	4.49	30.3	27.4	-0.3	
4/28/10 12:39:45	2.78	4.48	30.1	27.2	-0.1	
4/28/10 12:40:00	2.83	4.48	30.1	27.4	0.7	
4/28/10 12:40:15	2.88	4.47	30.1	27.3	0.6	
4/28/10 12:40:30	2.88	4.47	30.2	27.3	0.0	
4/28/10 12:40:45	2.87	4.48	30.4	27.5	-0.2	
4/28/10 12:41:00	2.88	4.48	30.4	27.5	-0.2	
4/28/10 12:41:15	2.86	4.48	30.3	27.8	0.3	
4/28/10 12:41:30	2.83	4.49	30.4	27.4	0.4	
4/28/10 12:41:45	2.82	4.49	30.2	27.5	0.0	
4/28/10 12:42:00	2.81	4.49	30.0	27.6	-0.3	
4/28/10 12:42:15	2.83	4.49	30.4	27.5	-0.3	
4/28/10 12:42:30	2.86	4.50	30.4	27.2	0.4	
4/28/10 12:42:45	2.84	4.51	30.5	27.1	0.5	
4/28/10 12:43:00	2.82	4.52	30.3	26.6	0.1	
4/28/10 12:43:15	2.79	4.52	30.2	26.4	-0.1	
4/28/10 12:43:30	2.76	4.51	30.2	26.1	0.0	
4/28/10 12:43:45	2.76	4.49	29.8	26.3	0.4	
4/28/10 12:44:00	2.77	4.48	29.8	26.3	0.4	
4/28/10 12:44:15	2.78	4.48	29.8	26.3	0.1	
4/28/10 12:44:30	2.79	4.49	30.0	26.2	-0.2	
4/28/10 12:44:45	2.80	4.49	30.1	26.0	-0.1	
4/28/10 12:45:00	2.80	4.49	29.9	26.1	0.7	End Run # SRU1-3
4/28/10 12:45:15	2.81	4.49	29.9	26.4	0.7	
4/28/10 12:45:30	2.80	4.48	29.9	26.1	0.1	
4/28/10 12:45:45	2.78	4.48	29.8	26.1	-0.2	
4/28/10 12:46:00	2.77	4.48	29.9	26.0	-0.4	
4/28/10 12:46:15	2.82	4.47	29.9	26.7	0.2	
4/28/10 12:46:30	2.87	4.46	30.0	26.6	0.6	
4/28/10 12:46:45	2.90	4.46	29.4	14.3	1.6	
4/28/10 12:47:00	2.82	4.48	18.1	2.2	22.4	
4/28/10 12:47:15	2.91	4.27	7.2	0.3	45.7	
4/28/10 12:47:30	3.75	3.15	3.8	0.2	79.7	
4/28/10 12:47:45	4.30	3.01	2.6	0.2	96.9	
4/28/10 12:48:00	4.70	3.60	1.9	0.2	90.5	
4/28/10 12:48:15	4.88	3.99	1.6	0.1	75.3	
4/28/10 12:48:30	4.93	4.19	1.4	0.2	56.4	
4/28/10 12:48:45	4.94	4.26	1.3	0.1	48.2	
4/28/10 12:49:00	4.95	4.28	1.2	0.1	46.0	
4/28/10 12:49:15	4.95	4.29	1.1	0.1	45.8	
4/28/10 12:49:30	4.96	4.29	1.1	0.1	45.2	
4/28/10 12:49:45	4.96	4.30	0.9	0.1	44.8	System Bias
4/28/10 12:50:00	4.96	4.30	1.0	0.1	44.6	4.97 5.00% O_2
4/28/10 12:50:15	4.96	4.30	0.7	0.1	44.9	4.30 4.32% CO_2
4/28/10 12:50:30	4.97	4.31	0.8	0.1	45.4	0.8 Zero SO_2
4/28/10 12:50:45	4.97	4.31	0.8	0.1	45.2	0.1 Zero NO_x
4/28/10 12:51:00	4.97	4.31	1.3	12.4	44.6	45.0 45.0 ppm CO
4/28/10 12:51:15	4.97	4.31	6.5	4.8	42.9	
4/28/10 12:51:30	4.91	4.32	7.6	0.9	39.1	
4/28/10 12:51:45	4.27	3.94	19.2	1.0	32.6	
4/28/10 12:52:00	2.71	2.41	33.9	0.8	22.0	
4/28/10 12:52:15	1.21	0.96	42.5	0.8	14.1	
4/28/10 12:52:30	0.40	0.29	43.0	0.8	6.8	
4/28/10 12:52:45	0.16	0.12	43.2	0.8	3.7	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 1 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O_2 % by vol db	CO_2 % by vol db	SO_2 ppmv db	NO_x ppmv db	CO ppmv db	Comments
4/28/10 12:53:00	0.10	0.09	43.6	0.8	2.5	
4/28/10 12:53:15	0.08	0.07	43.7	0.8	1.6	
4/28/10 12:53:30	0.08	0.07	43.7	0.9	1.1	
4/28/10 12:53:45	0.07	0.06	43.8	0.9	1.0	
4/28/10 12:54:00	0.07	0.06	43.8	0.9	1.5	
4/28/10 12:54:15	0.07	0.06	43.6	0.9	1.8	
4/28/10 12:54:30	0.07	0.06	43.5	1.0	1.4	System Bias
4/28/10 12:54:45	**0.07**	**0.06**	**43.4**	1.1	**1.1**	**0.07 Zero O_2**
4/28/10 12:55:00	**0.07**	**0.05**	**43.0**	1.1	**0.9**	**0.05 Zero CO_2**
4/28/10 12:55:15	**0.07**	**0.05**	**42.8**	1.2	**1.3**	**42.9 45.0 ppm SO_2**
4/28/10 12:55:30	**0.07**	**0.05**	**42.6**	1.3	**1.8**	
4/28/10 12:55:45	0.07	0.05	42.3	1.4	1.6	**1.3 Zero CO**
4/28/10 12:56:00	0.07	0.05	32.3	1.4	1.2	
4/28/10 12:56:15	0.06	0.05	27.0	0.3	0.9	
4/28/10 12:56:30	0.30	0.05	15.2	91.0	1.3	
4/28/10 12:56:45	4.78	0.06	13.1	110.6	2.1	
4/28/10 12:57:00	9.75	0.11	6.2	110.6	2.1	
4/28/10 12:57:15	6.97	0.13	3.8	110.6	1.7	
4/28/10 12:57:30	2.31	0.09	2.6	110.6	1.4	
4/28/10 12:57:45	0.50	0.06	1.9	110.6	1.4	
4/28/10 12:58:00	0.16	0.05	1.4	110.6	2.0	
4/28/10 12:58:15	0.11	0.05	1.2	110.6	2.0	
4/28/10 12:58:30	0.09	0.05	1.2	110.6	1.5	
4/28/10 12:58:45	0.09	0.05	1.0	110.6	1.0	
4/28/10 12:59:00	0.09	0.05	1.0	110.6	0.9	
4/28/10 12:59:15	0.09	0.05	1.0	110.6	1.4	
4/28/10 12:59:30	0.09	0.04	1.0	110.6	1.8	
4/28/10 12:59:45	0.09	0.04	0.9	110.6	1.5	
4/28/10 13:00:00	0.08	0.04	0.7	110.6	1.0	
4/28/10 13:00:15	0.08	0.04	0.8	110.6	0.8	
4/28/10 13:00:30	0.08	0.04	0.7	110.6	1.3	
4/28/10 13:00:45	0.08	0.04	0.7	110.6	2.0	
4/28/10 13:01:00	0.08	0.04	0.8	110.6	1.7	
4/28/10 13:01:15	0.08	0.04	1.9	63.5	1.2	
4/28/10 13:01:30	0.08	0.04	2.4	44.8	0.9	
4/28/10 13:01:45	0.08	0.04	1.1	43.7	1.0	
4/28/10 13:02:00	0.07	0.04	0.9	43.2	1.7	
4/28/10 13:02:15	0.06	0.04	0.9	42.7	1.9	
4/28/10 13:02:30	0.06	0.04	0.7	42.3	1.5	
4/28/10 13:02:45	0.06	0.04	0.6	42.1	1.2	
4/28/10 13:03:00	0.06	0.04	0.7	42.0	1.1	System Bias
4/28/10 13:03:15	0.06	0.04	0.6	**41.9**	1.6	
4/28/10 13:03:30	0.06	0.04	0.5	**41.9**	1.7	
4/28/10 13:03:45	0.06	0.04	0.5	**41.9**	1.2	
4/28/10 13:04:00	0.06	0.04	0.5	**42.0**	0.8	**41.9 45.0 ppm NO_x**
4/28/10 13:04:15	0.06	0.04	0.7	40.6	0.7	
4/28/10 13:04:30	0.06	0.04	0.8	13.2	1.4	
4/28/10 13:04:45	0.18	0.04	0.7	2.1	1.9	
4/28/10 13:05:00	4.28	0.05	0.6	1.1	1.7	
4/28/10 13:05:15	12.05	0.07	0.5	0.8	1.3	
4/28/10 13:05:30	17.79	0.08	0.6	0.7	1.0	
4/28/10 13:05:45	20.22	0.08	0.5	0.5	1.2	
4/28/10 13:06:00	20.75	0.09	0.3	0.5	1.5	
4/28/10 13:06:15	20.84	0.09	0.5	0.4	1.3	
4/28/10 13:06:30	20.86	0.09	0.4	0.3	0.9	
4/28/10 13:06:45	20.87	0.09	0.2	0.3	0.7	
4/28/10 13:07:00	20.88	0.09	0.1	0.3	1.0	
4/28/10 13:07:15	20.89	0.09	0.4	0.2	1.5	
4/28/10 13:07:30	20.90	0.09	0.5	0.3	1.3	

APPENDIX E

Calibration Data

CEMS CALIBRATION DATA

Plant Name	Valero Refining - Texas, L.P.
Sampling Location	SRU No. 1 TGI Exhaust
Date	4/27/2010
Run Number	SRU1-1
Start Time	9:45
Stop Time	13:45

Plant Rep.	Ralph Horton
Team Leader	Bill Pearce
CEM Operator	Bill Pearce

Analyzer Span Values (% or ppm)		
CO	88.3	ppm
CO_2	8.65	%
O_2	10.00	%
SO_2	90.0	
NO_x	90.0	ppm

	CALIBRATION ERROR -		8:05 hrs		SYSTEM BIAS CHECK					Calibration
					Pretest: 8:52		Posttest: 13:52 hrs			Correction
	Cylinder Value (% or ppm)	Cylinder Number	Analyzer Calibration Response	Difference (% of Span)	System Response	Syst. Bias (% of Span)	System Response	Syst. Bias (% of Span)	Drift (% of Span)	Factors
CO Zero	0.0	EB0014177	-0.5	-0.6	0.5	1.2	-0.2	0.4	-0.8	Co=
CO Low		Diluted from								**0.17**
CO Mid	44.2	CC16839	44.2	0.1	46.5	2.5	43.5	-0.9	-3.4	Cm=
CO High	88.3	201.2 ppm	88.4	0.1						**44.98**
CO_2 Zero	0.00	EB0014177	0.04	0.5	0.05	0.1	0.06	0.2	0.2	Co=
CO_2 Low		Diluted from								**0.053**
CO_2 Mid	4.32	CC16839	4.37	0.6	4.35	-0.2	4.37	-0.1	0.2	Cm=
CO_2 High	8.65	19.70 %	8.70	0.6						**4.361**
O_2 Zero	0.00	EB0014177	0.03	0.3	0.07	0.4	0.06	0.3	-0.1	Co=
O_2 Low		Diluted from								**0.064**
O_2 Mid	5.00	CC16839	4.94	-0.6	4.98	0.4	4.97	0.3	-0.1	Cm=
O_2 High	10.00	22.78 %	9.99	-0.1						**4.974**
SO_2 Zero	0.0	EB0014177	-0.3	-0.3	-0.1	0.2	-0.3	0.0	-0.1	Co=
SO_2 Low		Diluted from								**-0.19**
SO_2 Mid	45.0	ALM056952	44.3	-0.8	42.6	-1.8	42.9	-1.5	0.3	Cm=
SO_2 High	90.0	1,010 ppm	89.7	-0.3						**42.78**
NO_x Zero	0.0	EB0014177	0.1	0.1	0.4	0.3	0.4	0.3	0.0	Co=
NO_x Low		Diluted from								**0.39**
NO_x Mid	45.0	CC233372	46.1	1.3	45.1	-1.2	42.5	-4.1	-2.9	Cm=
NO_x High	90.0	1,001 ppm	90.0	0.0						**43.76**

CEMS CALIBRATION DATA

Plant Name	Valero Refining - Texas, L.P.
Sampling Location	SRU No. 1 TGI Exhaust
Date	4/27/2010
Run Number	SRU1-2
Start Time	14:15
Stop Time	18:15

Plant Rep.	Ralph Horton
Team Leader	Bill Pearce
CEM Operator	Bill Pearce

Analyzer Span Values (% or ppm)		
CO	88.3	ppm
CO_2	8.65	%
O_2	10.00	%
SO_2	90.0	
NO_x	90.0	ppm

	CALIBRATION ERROR -		8:05 hrs		SYSTEM BIAS CHECK					Calibration
					Pretest: 13:52		Posttest: 18:21 hrs			Correction
	Cylinder Value (% or ppm)	Cylinder Number	Analyzer Calibration Response	Difference (% of Span)	System Response	Syst. Bias (% of Span)	System Response	(% of Span)	Drift (% of Span)	Factors
CO Zero	0.0	EB0014177	-0.5	-0.6	-0.2	0.4	0.0	0.6	0.2	Co=
CO Low		Diluted from								**-0.11**
CO Mid	44.2	CC16839	44.2	0.1	43.5	-0.9	43.5	-0.8	0.1	Cm=
CO High	88.3	201.2 ppm	88.4	0.1						**43.50**
CO_2 Zero	0.00	EB0014177	0.04	0.5	0.06	0.2	0.08	0.5	0.2	Co=
CO_2 Low		Diluted from								**0.071**
CO_2 Mid	4.32	CC16839	4.37	0.6	4.37	-0.1	4.38	0.1	0.1	Cm=
CO_2 High	8.65	19.70 %	8.70	0.6						**4.374**
O_2 Zero	0.00	EB0014177	0.03	0.3	0.06	0.3	0.07	0.4	0.2	Co=
O_2 Low		Diluted from								**0.066**
O_2 Mid	5.00	CC16839	4.94	-0.6	4.97	0.3	4.96	0.2	0.0	Cm=
O_2 High	10.00	22.78 %	9.99	-0.1						**4.966**
SO_2 Zero	0.0	EB0014177	-0.3	-0.3	-0.3	0.0	-0.6	-0.3	-0.4	Co=
SO_2 Low		Diluted from								**-0.42**
SO_2 Mid	45.0	ALM056952	44.3	-0.8	42.9	-1.5	44.4	0.1	1.6	Cm=
SO_2 High	90.0	1,010 ppm	89.7	-0.3						**43.66**
NO_x Zero	0.0	EB0014177	0.1	0.1	0.4	0.3	0.2	0.1	-0.2	Co=
NO_x Low		Diluted from								**0.28**
NO_x Mid	45.0	CC233372	46.1	1.3	42.5	-4.1	43.4	-3.0	1.0	Cm=
NO_x High	90.0	1,001 ppm	90.0	0.0						**42.94**

CEMS CALIBRATION DATA

Plant Name	Valero Refining - Texas, L.P.
Sampling Location	SRU No. 1 TGI Exhaust
Date	4/28/2010
Run Number	SRU1-3
Start Time	8:45
Stop Time	12:45

Plant Rep.	Ralph Horton
Team Leader	Bill Pearce
CEM Operator	Bill Pearce

Analyzer Span Values (% or ppm)		
CO	88.3	ppm
CO_2	8.65	%
O_2	10.00	%
	90.0	
NO_x	90.0	ppm

	CALIBRATION ERROR -		7:42 hrs		SYSTEM BIAS CHECK					Calibration
					Pretest: 8:20		Posttest: 12:50 hrs			Correction
	Cylinder Value (% or ppm)	Cylinder Number	Analyzer Calibration Response	Difference (% of Span)	System Response	Syst. Bias (% of Span)	System Response	(% of Span)	Drift (% of Span)	Factors
CO Zero	0.0	EB0014177	-0.7	-0.8	1.0	1.9	1.3	2.2	0.4	Co=
CO Low	.	Diluted from								**1.13**
CO Mid	44.2	CC16839	43.9	-0.3	44.8	1.0	45.0	1.2	0.3	Cm=
CO High	88.3	201.2 ppm	88.5	0.2						**44.90**
CO_2 Zero	0.00	EB0014177	0.03	0.4	0.03	0.0	0.05	0.3	0.3	Co=
CO_2 Low		Diluted from								**0.043**
CO_2 Mid	4.32	CC16839	4.34	0.2	4.32	-0.3	4.30	-0.4	-0.1	Cm=
CO_2 High	8.65	19.70 %	8.67	0.2						**4.310**
O_2 Zero	0.00	EB0014177	0.01	0.1	0.05	0.4	0.07	0.6	0.1	Co=
O_2 Low		Diluted from								**0.060**
O_2 Mid	5.00	CC16839	4.96	-0.4	4.97	0.1	4.97	0.1	0.0	Cm=
O_2 High	10.00	22.78 %	10.02	0.2						**4.969**
SO_2 Zero	0.0	EB0014177	-0.3	-0.3	0.7	1.1	0.8	1.2	0.2	Co=
SO_2 Low		Diluted from								**0.75**
SO_2 Mid	45.0	ALM056952	44.8	-0.3	44.8	0.0	42.9	-2.0	-2.1	Cm=
SO_2 High	90.0	1,010 ppm	90.7	0.8						**43.88**
NO_x Zero	0.0	EB0014177	0.1	0.1	0.2	0.2	0.1	0.0	-0.1	Co=
NO_x Low		Diluted from								**0.16**
NO_x Mid	45.0	CC233372	43.8	-1.4	44.1	0.4	41.9	-2.0	-2.4	Cm=
NO_x High	90.0	1,001 ppm	89.8	-0.2						**43.00**

ARI REFERENCE METHOD CEMS DATA
USEPA METHOD 205
DILUTION SYSTEM VERIFICATION

Company: Valero Refining - Texas, L.P.
Location: Corpus Christi, TX
Source: SRU No. 1
Dilution System ID: 4352
Dilution Flow Rate: 5.0 Lpm
Verification date: 4/28/2010

Analyzer Info

Monitor type: O_2
Monitor range: 22.78 %
Monitor Serial No.: 01440D1/4143

Initial Calibration Data

Calibration Concentration		Calibration results		% Difference	
Zero:	0.00	Zero:	0.02	Zero:	0.08%
Low:		Low:		Low:	
Mid:	11.50	Mid:	11.52	Mid:	0.10%
High:	22.78	High:	22.81	High:	0.14%

Dilution System Verification

Mid level gas type: EPA Protocol 1
Mid level concentration: 7.57 %
Mid level tank serial #: ALM013030

High level dilution gas type: O_2/N_2
High level concentration: 22.78%
High level tank serial #: CC16839
Target concentration No. 1: 7.50
Target concentration No. 2: 15.00

Dilution System Results

Target Concentration No. 1			Target Concentration No. 2		
	Instrument Response	% difference from average*		Instrument Response	% difference from average*
Trial No. 1:	7.46	0.10	Trial No. 1:	15.01	0.04
Trial No. 2:	7.46	0.05	Trial No. 2:	15.00	0.00
Trial No. 3:	7.44	0.14	Trial No. 3:	14.99	0.04
Average:	7.452		Average:	14.999	

% Difference from target concentration: 0.64%

% Difference from target concentration: 0.00%

Mid Level Calibration Gas Results

	Instrument Response
Trial No. 1:	7.62
Trial No. 2:	7.62
Trial No. 3:	7.62

Mid Level calibration gas concentration: 7.57 %
Average analyzer response: 7.62
Percent difference: 0.62 *

* Must be less than 2 %

Valero Refining - Texas, L.P. - Corpus Christi, Texas
ARI Reference Method 205 - Gas Dilution System Verification - 15 Second Data

Date/Time	O_2 % by vol db	Comments
4/28/10 16:41:30	0.09	
4/28/10 16:41:45	0.04	
4/28/10 16:42:00	0.01	
4/28/10 16:42:15	0.01	Calibration Error
4/28/10 16:42:30	**0.01**	**0.02 Zero O_2**
4/28/10 16:42:45	**0.02**	
4/28/10 16:43:00	**0.02**	
4/28/10 16:43:15	**0.01**	
4/28/10 16:43:30	1.65	
4/28/10 16:43:45	7.79	
4/28/10 16:44:00	13.09	
4/28/10 16:44:15	17.01	
4/28/10 16:44:30	19.81	
4/28/10 16:44:45	21.61	
4/28/10 16:45:00	22.51	
4/28/10 16:45:15	22.77	
4/28/10 16:45:30	22.81	
4/28/10 16:45:45	22.82	
4/28/10 16:46:00	22.83	
4/28/10 16:46:15	22.83	
4/28/10 16:46:30	22.84	
4/28/10 16:46:45	22.84	
4/28/10 16:47:00	22.84	
4/28/10 16:47:15	22.85	
4/28/10 16:47:30	22.85	
4/28/10 16:47:45	22.85	
4/28/10 16:48:00	22.86	
4/28/10 16:48:15	22.86	
4/28/10 16:48:30	22.86	
4/28/10 16:48:45	22.86	
4/28/10 16:49:00	22.86	
4/28/10 16:49:15	22.87	
4/28/10 16:49:30	22.87	
4/28/10 16:49:45	22.87	
4/28/10 16:50:00	22.87	
4/28/10 16:50:15	22.87	
4/28/10 16:50:30	22.87	
4/28/10 16:50:45	22.82	
4/28/10 16:51:00	22.80	
4/28/10 16:51:15	22.80	
4/28/10 16:51:30	22.80	
4/28/10 16:51:45	22.80	
4/28/10 16:52:00	22.80	
4/28/10 16:52:15	22.81	
4/28/10 16:52:30	22.81	
4/28/10 16:52:45	22.81	
4/28/10 16:53:00	22.81	
4/28/10 16:53:15	22.81	
4/28/10 16:53:30	22.81	
4/28/10 16:53:45	22.81	Calibration Error
4/28/10 16:54:00	**22.81**	**22.81 22.78% O_2**
4/28/10 16:54:15	**22.81**	
4/28/10 16:54:30	**22.81**	
4/28/10 16:54:45	**22.81**	
4/28/10 16:55:00	21.68	
4/28/10 16:55:15	18.18	
4/28/10 16:55:30	14.95	
4/28/10 16:55:45	12.82	
4/28/10 16:56:00	11.82	
4/28/10 16:56:15	11.59	
4/28/10 16:56:30	11.55	
4/28/10 16:56:45	11.54	
4/28/10 16:57:00	11.54	Calibration Error
4/28/10 16:57:15	**11.53**	**11.52 11.50% O_2**
4/28/10 16:57:30	**11.52**	
4/28/10 16:57:45	**11.52**	
4/28/10 16:58:00	**11.52**	
4/28/10 16:58:15	11.50	
4/28/10 16:58:30	10.82	
4/28/10 16:58:45	9.12	
4/28/10 16:59:00	7.93	
4/28/10 16:59:15	7.54	
4/28/10 16:59:30	7.48	
4/28/10 16:59:45	7.47	
4/28/10 17:00:00	7.47	
4/28/10 17:00:15	7.46	Target Concentration #1; Trial #1
4/28/10 17:00:30	**7.46**	**7.46 7.50% O_2**
4/28/10 17:00:45	**7.46**	
4/28/10 17:01:00	**7.46**	
4/28/10 17:01:15	**7.46**	
4/28/10 17:01:30	7.62	
4/28/10 17:01:45	9.53	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
ARI Reference Method 205 - Gas Dilution System Verification - 15 Second Data

4/28/10 17:02:00	12.02	
4/28/10 17:02:15	13.82	
4/28/10 17:02:30	14.72	
4/28/10 17:02:45	14.96	**Target Concentration #2; Trial #1**
4/28/10 17:03:00	**15.00**	**15.01 15.00% O_2**
4/28/10 17:03:15	**15.00**	
4/28/10 17:03:30	**15.01**	
4/28/10 17:03:45	**15.02**	
4/28/10 17:04:00	14.88	
4/28/10 17:04:15	12.71	
4/28/10 17:04:30	9.85	
4/28/10 17:04:45	8.24	
4/28/10 17:05:00	7.66	
4/28/10 17:05:15	7.60	
4/28/10 17:05:30	7.61	**Mid-Level Concentration; Trial #1**
4/28/10 17:05:45	**7.62**	**7.62 7.57% O_2**
4/28/10 17:06:00	**7.62**	
4/28/10 17:06:15	**7.62**	
4/28/10 17:06:30	**7.62**	
4/28/10 17:06:45	7.71	
4/28/10 17:07:00	7.46	
4/28/10 17:07:15	6.99	
4/28/10 17:07:30	7.14	
4/28/10 17:07:45	7.36	
4/28/10 17:08:00	7.43	
4/28/10 17:08:15	7.45	**Target Concentration #1; Trial #2**
4/28/10 17:08:30	**7.45**	**7.46 7.50% O_2**
4/28/10 17:08:45	**7.46**	
4/28/10 17:09:00	**7.46**	
4/28/10 17:09:15	**7.46**	
4/28/10 17:09:30	7.52	
4/28/10 17:09:45	9.09	
4/28/10 17:10:00	11.64	
4/28/10 17:10:15	13.57	
4/28/10 17:10:30	14.62	
4/28/10 17:10:45	14.94	
4/28/10 17:11:00	14.99	**Target Concentration #2; Trial #2**
4/28/10 17:11:15	**15.00**	**15.00 15.00% O_2**
4/28/10 17:11:30	**15.00**	
4/28/10 17:11:45	**15.00**	
4/28/10 17:12:00	**15.00**	
4/28/10 17:12:15	14.88	
4/28/10 17:12:30	13.29	
4/28/10 17:12:45	10.95	
4/28/10 17:13:00	9.14	
4/28/10 17:13:15	8.08	
4/28/10 17:13:30	7.69	
4/28/10 17:13:45	7.63	**Mid-Level Concentration; Trial #2**
4/28/10 17:14:00	**7.62**	**7.62 7.57% O_2**
4/28/10 17:14:15	**7.62**	
4/28/10 17:14:30	**7.62**	
4/28/10 17:14:45	**7.62**	
4/28/10 17:15:00	7.61	
4/28/10 17:15:15	7.81	
4/28/10 17:15:30	11.16	
4/28/10 17:15:45	15.91	
4/28/10 17:16:00	16.60	
4/28/10 17:16:15	15.54	
4/28/10 17:16:30	15.88	
4/28/10 17:16:45	15.96	
4/28/10 17:17:00	14.64	
4/28/10 17:17:15	15.79	
4/28/10 17:17:30	18.18	
4/28/10 17:17:45	19.58	
4/28/10 17:18:00	20.13	
4/28/10 17:18:15	20.24	
4/28/10 17:18:30	20.12	
4/28/10 17:18:45	16.61	
4/28/10 17:19:00	9.91	
4/28/10 17:19:15	7.73	
4/28/10 17:19:30	7.42	
4/28/10 17:19:45	7.42	
4/28/10 17:20:00	7.43	**Target Concentration #1; Trial #3**
4/28/10 17:20:15	**7.44**	**7.44 7.50% O_2**
4/28/10 17:20:30	**7.44**	
4/28/10 17:20:45	**7.44**	
4/28/10 17:21:00	**7.45**	
4/28/10 17:21:15	7.51	
4/28/10 17:21:30	9.05	
4/28/10 17:21:45	11.60	
4/28/10 17:22:00	13.55	
4/28/10 17:22:15	14.61	
4/28/10 17:22:30	14.93	
4/28/10 17:22:45	14.99	**Target Concentration #2; Trial #3**
4/28/10 17:23:00	**14.99**	**14.99 15.00% O_2**
4/28/10 17:23:15	**14.99**	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
ARI Reference Method 205 - Gas Dilution System Verification - 15 Second Data

4/28/10 17:23:30	**14.99**	
4/28/10 17:23:45	**14.99**	
4/28/10 17:24:00	14.82	
4/28/10 17:24:15	13.08	
4/28/10 17:24:30	10.77	
4/28/10 17:24:45	9.02	
4/28/10 17:25:00	8.02	
4/28/10 17:25:15	7.68	
4/28/10 17:25:30	7.62	**Mid-Level Concentration; Trial #3**
4/28/10 17:25:45	**7.62**	**7.62 7.57% O_2**
4/28/10 17:26:00	**7.62**	
4/28/10 17:26:15	**7.61**	
4/28/10 17:26:30	**7.62**	
4/28/10 17:26:45	7.60	

Model 600 HCLD
NO Interference Data

Interference Response

Date of Test 7/26/2006

Analyzer Type NO
Model No. 600-HCLD
Serial No. S050301

Calibration Span 3000ppm

Test Gas Type		Concentration		Analyzer Response	
		(ppm)		Wet	Dry
H2O		2.5%		0	0
CO2		5%		0	0
CO2		15%		0	0
CO		50		0	0
CH4		50		0	0
SO2		N/A		N/A	N/A
NH3		15		0	0
NO		N/A		N/A	N/A
N2O		9		0	0
NO2		N/A		N/A	N/A

Interference Response

Analyzer Type: Oxygen (O_2)
Manufacturer: Servomex
Detector Type: Paramagnetic
Model No.: 1440
Serial No.: 1420C/2765
Calibration Span (%): 11.27

Test Gas	Test Gas Conc.	High Standard			Zero			Maximum % Interference
		O_2 without interferent	O_2 with interferent	% Interference	Zero without interferent	Zero with interferent	% Interference	
NH_3	10 ppm	11.27	11.27	0.00	0.03	0.01	0.18	0.18
SO_2	20 ppm	11.25	11.25	0.00	0.01	0.01	0.00	0.00
CH_4	50 ppm	11.24	11.25	0.09	0.02	0.04	-0.18	0.18
CO	50 ppm	11.23	11.24	0.09	0.00	0.01	-0.09	0.09
CO_2	5%	11.23	11.26	0.27	0.00	-0.01	0.09	0.27
CO_2	12.55%	11.25	11.27	0.18	0.03	-0.02	0.44	0.44
NO_2	15 ppm	11.22	11.24	0.18	0.01	0.00	0.09	0.18
NO_x	15 ppm	11.22	11.25	0.27	0.01	0.01	0.00	0.27
H_2	1,020 ppm	11.24	11.23	-0.09	0.02	0.01	0.09	0.09
HCl	10 ppm	11.29	11.31	0.18	0.00	-0.01	0.09	0.18

Sum of the highest absolute value obtained with and without the pollutant present: 1.88 %
Allowable interference response: 2.5 %

Certification Date: 8/9/2006
Operator: [signature]

Interference Response

Analyzer Type:	Carbon Dioxide (CO_2)
Manufacturer:	Servomex
Detector Type:	NDIR
Model No.:	1440
Serial No.:	1415C
Calibration Span (%):	11.41

Test Gas	Test Gas Conc.	High Standard			Zero			Maximum % Interference
		CO_2 without interferent	CO_2 with interferent	% Interference	Zero without interferent	Zero with interferent	% Interference	
NH_3	10 ppm	11.41	11.39	-0.18	0.01	0.01	0.00	0.18
SO_2	20 ppm	11.37	11.37	0.00	0.01	0.01	0.00	0.00
CH_4	50 ppm	11.37	11.37	0.00	0.01	0.01	0.00	0.00
CO	50 ppm	11.41	11.41	0.00	0.01	0.01	0.00	0.00
NO_2	15 ppm	11.37	11.37	0.00	0.01	0.01	0.00	0.00
NO_x	15 ppm	11.37	11.37	0.00	0.01	0.01	0.00	0.00
H_2	1,020 ppm	11.37	11.37	0.00	0.01	0.01	0.00	0.00
HCl	10 ppm	11.41	11.38	-0.26	0.01	0.01	0.00	0.26

Sum of the highest absolute value obtained with and without the pollutant present: 0.44 %
Allowable interference response: 2.5 %

Certification Date: 8/9/2006
Operator: [signature]

Interference Response

Analyzer Type: Sulfur Dioxide (SO_2)
Manufacturer: Bovar Engineered Products (Western Research)
Detector Type: Pulsed Fluorescence
Model No.: 721-ATM
Serial No.: 92-721ATM-7947-1-1
Calibration Span (%): 100

Test Gas	Test Gas Conc.	High Standard			Zero			Maximum % Interference
		SO_2 without interferent	SO_2 with interferent	% Interference	Zero without interferent	Zero with interferent	% Interference	
NH_3	10 ppm	100.1	100.1	0.0	0.1	0.1	0.0	0.0
CH_4	50 ppm	102.6	103.1	0.5	0.1	0.3	0.2	0.5
CO	50 ppm	100.5	100.5	0.0	0.3	0.3	0.0	0.0
CO_2	5%	100.9	101.1	0.2	0.1	0.1	0.0	0.2
CO_2	12.55%	100.9	101.2	0.3	0.1	0.2	0.1	0.3
NO_2	15 ppm	101.6	102.2	0.6	0.3	0.5	0.2	0.6
NO_x	15 ppm	101.4	101.4	0.0	0.3	0.3	0.0	0.0
H_2	1020 ppm	100.6	100.6	0.0	0.4	0.4	0.0	0.0
HCl	10 ppm	100.8	100.6	-0.2	0.1	0.3	0.2	0.2

Sum of the highest absolute value obtained with and without the pollutant present: 1.80 %
Allowable interference response: 2.5 %

Certification Date: 8/9/2006
Operator: [signature]

Interference Response

Analyzer Type: Carbon Monoxide (CO)
Manufacturer: Thermo Environmental Instruments Inc.
Detector Type: Non-Dispersive Infrared (NDIR)
Model No.: 48H
Serial No.: 000632
Calibration Span (ppm): 100

Test Gas	Test Gas Conc.	High Standard			Zero			Maximum % Interference
		CO without interferent	CO with interferent	% Interference	Zero without interferent	Zero with interferent	% Interference	
NH_3	10 ppm	101.5	101.7	0.2	1.6	1.5	-0.1	0.2
SO_2	20 ppm	101.5	101.6	0.1	1.6	1.9	0.3	0.3
CH_4	50 ppm	101.5	101.6	0.1	1.6	1.8	0.2	0.2
CO_2	5%	101.5	101.4	-0.1	1.6	1.6	0.0	0.1
CO_2	12.55%	101.5	101.1	-0.4	1.6	1.4	-0.2	0.4
NO_2	15 ppm	101.5	101.6	0.1	1.6	1.6	0.0	0.1
NO_x	15 ppm	101.5	101.8	0.3	1.6	1.9	0.3	0.3
H_2	1,020 ppm	101.5	101.7	0.2	1.6	1.8	0.2	0.2
HCl	10 ppm	101.5	101.6	0.1	1.6	1.8	0.2	0.2

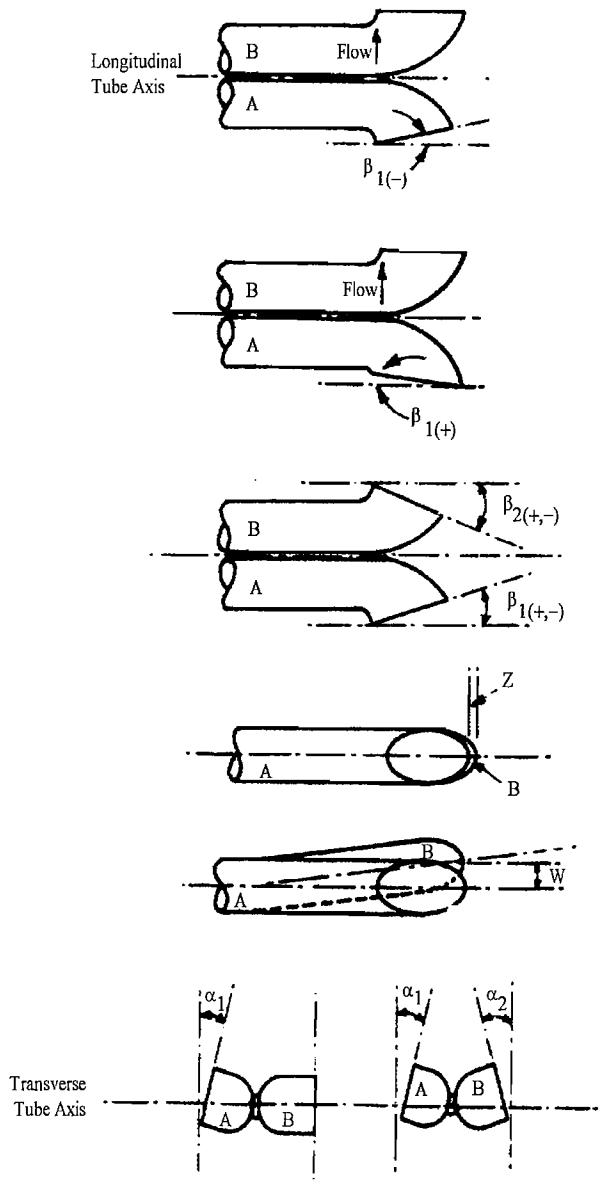
Sum of the highest absolute value obtained with and without the pollutant present: 2.0 %
Allowable interference response: 2.5 %

Certification Date: 8-9-06
Operator: [signature]

Pitot Tube Inspection Data

Client Name: Valero cc

	Pre-Sample		Post-Sample
Date:	10/3/2009	**Date:**	6/4/2010



y	**level?**	y
n	**obstructions?**	n
n	**damaged?**	n
1	**$-10° < \alpha_1 < +10°$**	1
4	**$-10° < \alpha_2 < +10°$**	4
0	**$-5° < \beta_1 < +5°$**	0
3	**$-5° < \beta_2 < +5°$**	3
0	**γ**	0
0	**θ**	0
0.910	**A**	0.91
0.455	**$0.39375 < P_A < 0.5625$**	0.455
0.455	**$0.39375 < P_B < 0.5625$**	0.455
0.375	**$0.1875 \leq D_t \leq 0.375$**	0.375
0.000	**A tan γ < 0.125"**	0.000
0.00000	**A tan θ < 0.03125"**	0.00000
TRUE	**$P_A = P_B$ +/- 0.063**	TRUE
PASS	**PASS/FAIL**	PASS

Comments:

Pitot tube/probe number P122 meets or exceeds all specifications and criteria and/or applicable design features (per 40CFR60 Appendix A; Method 2) and is heareby assigned a pitot tube calibration factor of 0.84.

Signature:
Date: 6/4/10

ARI Environmental Inc.
Thermocouple Calibration Data Form

Calibrator:	DWM	ZRM
Thermocouple ID.	P122	p122
	pretest	**posttest**
Date:	10/3/2009	6/4/2010
Barometric:	29.63	29.74

Reference Thermometer = Mercury in glass

	Reference Point Number	Source	Reference Thermometer Temperature	Meter Readout Temperature	Difference (%)
Pre-Test	T.C	Ice Water	41.0	41.0	0.00
		Ambient	78.0	79.0	-0.19
		Hot Water	162.0	162.0	0.00
Post-Test	T.C	Ice Water	39.0	39.0	0.00
		Ambient	78.0	78.0	0.00
		Hot Water			0.00

a (temp. diff.) = (ref.temp + 460) - (Thermo. temp. + 460) / (ref. temp. +460) x 100

Where $-1.5 < a < 1.5$

ARI Environmental, Inc.
EPA METHOD 5
Initial Meter Box Calibration

Model No: Apex 522
Serial No. 801005

Operator: ZRM
Date: 10/28/2009

Pre-Test, Orifice Method
English Units

Barometric Pressure: 29.54 in.Hg

ΔH	Time		DRY GAS METER VOLUME			METER TEMPERATURE		ORIFICE		VAC.	AMBIENT TEMPERATURE		
						INLET	OUTLET						
						Initial	Initial						
in. H2O	Minutes	Seconds	Initial	Final	Total[1]	Final	Final	Number	K factor	in. Hg[2]	Inital	Final	Avg.
0.51	10	0	708.112	712.300	4.188	67 70	67 68	AJ47	0.3164	21.5	70	70	70.0
0.92	10	30	712.300	718.192	5.892	70 75	69 70	AJ55	0.4303	20.5	70	70	70.0
1.60	10	12	718.192	725.556	7.364	75 83	70 72	AJ63	0.5482	19.0	70	70	70.0
3.10	10	10	725.556	735.729	10.173	83 93	72 75	AJ73	0.7621	16.0	70	70	70.0
4.70	11	25	735.729	749.803	14.074	93 103	75 79	AJ81	0.9339	13.5	71	71	71.0

METER FLOW (cubic feet)	ORIFICE FLOW (cubic feet)	METER CALIBRATION FACTOR, Yc[3]	DH @[4]
4.140	4.060	0.9806	1.724
5.798	5.797	1.0000	1.675
7.204	7.259	1.0077	1.788
9.883	9.942	1.0060	1.787
13.557	13.668	1.0082	1.799

AVG. PRETEST METER CALIBRATION FACTOR: Y[5] = 1.000 ΔH@[6] = 1.75

1 Must pull at least 5 cubic feet per orifice
2 Vacuum must be 15" of Hg or greater
3 Individual Ys can not vary from +/-0.02Y of the average
4 Delta H@ can not be more than +/- 0.15 of average delta H
5 Ideal Y is 1.000 and can vary no more than +/- 0.05
6 Ideal Delta H@ is 1.84 and should not vary more than 0.2

ARI ENVIRONMENTAL, INC.
EPA METHOD 5
THERMOCOUPLE DIGITIAL INDICATOR CALIBRATION DATA SHEET

Operator: ZRM
Date: 10/28/2009

Meterbox No.: 801005
Calibrator No.: CL-300-21001

Calibrato	Digital Temperature Readout									
Setting	PROBE		STACK		FILTER		EXIT		AUX	
° F	Acutal	Diff.	Acutal	Diff.	Acutal	Diff.	Acutal	Diff.	Acutal	Diff.
0	-2	0.43	-2	0.43	-2	0.43	-3	0.65	-3	0.65
200	199	0.15	199	0.15	198	0.30	198	0.30	198	0.30
400	395	0.58	395	0.58	395	0.58	395	0.58	394	0.70
600	598	0.19	598	0.19	598	0.19	598	0.19	597	0.28
800	800	0.00	800	0.00	800	0.00	800	0.00	799	0.08
1000	999	0.07	1000	0.00	999	0.07	999	0.07	999	0.07
1200	1198	0.12	1198	0.12	1197	0.18	1197	0.18	1197	0.18
1400	1396	0.22	1396	0.22	1395	0.27	1396	0.22	1395	0.27
1600	1599	0.05	1598	0.10	1598	0.10	1598	0.10	1598	0.10
1800	1797	0.13	1797	0.13	1796	0.18	1796	0.18	1796	0.18

Actual Maximum Difference = 0.65 %
Allowable Maximum Difference = 1.50 %

ARI Environmental, Inc.
EPA METHOD 5
Post-test Meter Box Calibration

Model #: Apex 522
Serial #: 801005
Pretest Y: 1.000
Pretest ΔH@: 1.75

Operator: ZRM
Date: 5/13/2010

Post-Test, Orifice Method
English Units

Barometric Pressure: 30.00 in.Hg

ΔH	Time		DRY GAS METER VOLUME			METER TEMPERATURE		ORIFICE		VAC.	AMBIENT TEMPERATURE		
						INLET	OUTLET						
						Initial	Initial						
	Minutes	Seconds	Initial	Final	Total[1]	Final	Final	Number	K factor	in. Hg[2]	Inital	Final	Avg.
1.75	10	3	756.200	763.803	7.603	79 83	77 78	AJ63	0.5482	17.0	81	81	81.0
1.75	11	30	763.803	772.410	8.607	83 89	79 81	AJ63	0.5482	17.0	81	81	81.0
1.75	10	5	772.410	780.000	7.590	89 90	81 82	AJ63	0.5482	17.0	81	81	81.0

METER FLOW (cubic feet)	ORIFICE FLOW (cubic feet)	METER CALIBRATION FACTOR, Yc[3]	DH @[4]
7.496	7.106	0.9479	1.951
8.428	8.131	0.9648	1.938
7.398	7.130	0.9638	1.929
AVG. POST-TEST METER CALIBRATION FACTOR =		**0.959**	**1.94**

PERCENT DIFFERENCE FROM PRETEST Y= 4.12
MAXIMUM ALLOWABLE DIFFERENCE= 5.00

1 Must pull at least 5 cubic feet per orifice
2 Vacuum must be 15" of Hg or greater
3 Individual Ys can not vary from +/-0.02Y of the average
4 Delta H@ can not be more than +/- 0.15 of average dealta H

ARI ENVIRONMENTAL, INC.
EPA METHOD 5
THERMOCOUPLE DIGITIAL INDICATOR CALIBRATION DATA SHEET

Operator: ZRM
Date: 5/13/2010

Meterbox No.: 801005
Calibrator No.: CL-300-21001

Calibrator	Digital Temperature Readout									
Setting	PROBE		STACK		FILTER		EXIT		AUX	
° F	Acutal	Diff.	Acutal	Diff.	Acutal	Diff.	Acutal	Diff.	Acutal	Diff.
0	-2	0.43	-2	0.43	-3	0.65	-2	0.43	-3	0.65
200	199	0.15	199	0.15	199	0.15	198	0.30	198	0.30
400	396	0.47	395	0.58	395	0.58	395	0.58	395	0.58
600	599	0.09	598	0.19	598	0.19	598	0.19	598	0.19
800	801	0.08	800	0.00	800	0.00	800	0.00	800	0.00
1000	1000	0.00	1000	0.00	1000	0.00	1000	0.00	1000	0.00
1200	1198	0.12	1198	0.12	1198	0.12	1198	0.12	1198	0.12
1400	1397	0.16	1396	0.22	1396	0.22	1397	0.16	1396	0.22
1600	1599	0.05	1599	0.05	1599	0.05	1599	0.05	1599	0.05
1800	1797	0.13	1797	0.13	1797	0.13	1797	0.13	1797	0.13

Actual Maximum Difference = 0.65 %
Allowable Maximum Difference = 1.50 %

AIR LIQUIDE Air Liquide America Specialty Gases LLC SCOTT™

RATA CLASS

Dual-Analyzed Calibration Standard

11426 FAIRMONT PKWY, LA PORTE, TX 77571 Phone: 800-248-1427 Fax: 281-474-8419

CERTIFICATE™ OF ACCURACY: Interference Free Multi-Component EPA Protocol Gas

Assay Laboratory

AIR LIQUIDE AMERICA SPECIALTY GASES LLC
11426 FAIRMONT PKWY
LA PORTE, TX 77571

P.O. No.: 03-127-09
Project No.: 04-77649-001

Customer

ARI ENVIRONMENTAL, INC.

03-127-09
1710 C PRESTON RD
PASADENA TX 77503

ANALYTICAL INFORMATION

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: CC16839 **Certification Date:** 06Nov2009 **Exp. Date:** 06Nov2012
Cylinder Pressure*:** 1800 PSIG **Batch No:** LAP0004096

COMPONENT	CERTIFIED CONCENTRATION (Moles)		ACCURACY**	TRACEABILITY
CARBON DIOXIDE	19.70	%	+/- 1%	Direct NIST and VSL
CARBON MONOXIDE	201.2	PPM	+/- 1%	Direct NIST and VSL
OXYGEN	22.78	%	+/- 1%	Direct NIST and VSL
NITROGEN		BALANCE		

*** Do not use when cylinder pressure is below 150 psig.
** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION		COMPONENT
NTRM 1800	01Mar2013	K017950	17.87	%	CARBON DIOXIDE
NTRM 1679	02Oct2010	KAL003168	101.0	PPM	CARBON MONOXIDE
NTRM 2350	01Apr2012	A6820	23.51	%	OXYGEN

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
FTIR//MG-09-149	05Nov2009	FTIR
SIEMENS CO/ULTRAMAT 6E-HIGH/WO355	11Nov2009	NDIR
BIG SERVOMEX/1101-4605C/4605C	16Oct2009	PARAMAGNETIC

ANALYZER READINGS

(Z=Zero Gas R=Reference Gas T=Test Gas r=Correlation Coefficient)

First Triad Analysis	Second Triad Analysis	Calibration Curve
CARBON DIOXIDE		
Date: 06Nov2009 Response Unit: %		Concentration=A+Bx+Cx2+Dx3+Ex4
Z1=-0.00040 R1=17.79400 T1=19.64096		r=9.99996E-1
R2=17.84108 Z2=0.00067 T2=19.64872		Constants: A=0.00000E+0
Z3=0.00086 T3=19.67736 R3=17.84841		B=7.87997E-1 C=8.61000E-3
Avg. Concentration: 19.70 %		D=0.00000E+0 E=0.00000E+0
CARBON MONOXIDE		
Date: 04Nov2009 Response Unit: PPM	Date: 11Nov2009 Response Unit: PPM	Concentration=A+Bx+Cx2+Dx3+Ex4
Z1=0.00000 R1=101.0000 T1=201.7000	Z1=0.00000 R1=101.1000 T1=201.8000	r=0.9999973
R2=101.0000 Z2=0.00000 T2=201.8000	R2=101.2000 Z2=0.00000 T2=201.9000	Constants: A=0.680333084
Z3=0.00000 T3=201.8000 R3=101.1000	Z3=0.00000 T3=201.8000 R3=101.2000	B=1.000164866 C=
Avg. Concentration: 201.3 PPM	Avg. Concentration: 201.2 PPM	D= E=
OXYGEN		
Date: 09Nov2009 Response Unit: %		Concentration=A+Bx+Cx2+Dx3+Ex4
Z1=0.00000 R1=23.54000 T1=22.81000		r=0.9999997
R2=23.53000 Z2=0.01000 T2=22.81000		Constants: A=-0.00811775
Z3=0.00000 T3=22.81000 R3=23.52000		B=1.000029704 C=
Avg. Concentration: 22.78 %		D= E=

Special Notes: doc# 35079594

APPROVED BY: DAVID KELLY

AIR LIQUIDE Air Liquide America Specialty Gases LLC Scott

RATA CLASS

Dual-Analyzed Calibration Standard

9810 BAY AREA BLVD, PASADENA, TX 77507 Phone: 281-474-5800 Fax: 281-474-5857

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory

AIR LIQUIDE AMERICA SPECIALTY GASES LLC
9810 BAY AREA BLVD
PASADENA, TX 77507

P.O. No.: 03-048-09
Project No.: 04-73756-003

Customer

ARI ENVIRONMENTAL, INC.
03-048-09
1710 C PRESTON RD
PASADENA TX 77503

ANALYTICAL INFORMATION

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: ALM056952 **Certification Date:** 03Jun2009 **Exp. Date:** 03Jun2012
Cylinder Pressure*:** 1933 PSIG

COMPONENT	CERTIFIED CONCENTRATION (Moles)		ANALYTICAL ACCURACY**	TRACEABILITY
SULFUR DIOXIDE *	1,010	PPM	+/- 1%	Direct NIST and NMi
NITROGEN		BALANCE		

*** Do not use when cylinder pressure is below 150 psig.

** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

* This Protocol has been certified using corrected NIST SO2 standard values, per EPA guidance dated 7/24/96 and will not correlate with uncorrected Prot

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 1662	15May2010	KAL003254	975.0 PPM	SULFUR DIOXIDE

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
FTIR//000929060	14May2009	FTIR

ANALYZER READINGS

(Z=Zero Gas R=Reference Gas T=Test Gas r=Correlation Coefficient)

SULFUR DIOXIDE *

First Triad Analysis

Date: 27May2009 Response Unit:PPM

Z1=0.00463	R1=976.5903	T1=1009.681
R2=977.5889	Z2=1.35491	T2=1009.961
Z3=1.48178	T3=1010.578	R3=978.0646

Avg. Concentration: 1008. PPM

Second Triad Analysis

Date: 03Jun2009 Response Unit: PPM

Z1=-0.32369	R1=976.5912	T1=1009.184
R2=977.3916	Z2=1.06236	T2=1009.625
Z3=1.24748	T3=1010.600	R3=978.1589

Avg. Concentration: 1007. PPM

Calibration Curve

Concentration=A+Bx+Cx2+Dx3+Ex4
r=9.99991E-1

Constants:	A=0.00000E+0
B=1.00180E+0	C=3.00000E-6
D=0.00000E+0	E=0.00000E+0

APPROVED BY: _____
Ramien JR

AIR LIQUIDE Air Liquide America Specialty Gases LLC SCOTT™

RATA CLASS

Dual-Analyzed Calibration Standard

11426 FAIRMONT PKWY, LA PORTE, TX 77571 Phone: 800-248-1427 Fax: 281-474-8419

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory

AIR LIQUIDE AMERICA SPECIALTY GASES LLC
11426 FAIRMONT PKWY
LA PORTE, TX 77571

P.O. No.: 03-127-09
Project No.: 04-77649-002

Customer

ARI ENVIRONMENTAL, INC.
03-127-09
1710 C PRESTON RD
PASADENA TX 77503

ANALYTICAL INFORMATION

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: CC233372 **Certification Date:** 26Oct2009 **Exp. Date:** 26Oct2011
Cylinder Pressure*:** 1899 PSIG **Batch No:** LAP0003013

COMPONENT	CERTIFIED CONCENTRATION (Moles)		ANALYTICAL ACCURACY**	TRACEABILITY
NITRIC OXIDE	1,001	PPM	+/- 1%	Direct NIST and VSL
NITROGEN - OXYGEN FREE		BALANCE		
TOTAL OXIDES OF NITROGEN	1,001.	PPM		Reference Value Only

*** Do not use when cylinder pressure is below 150 psig.

** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 1687	02Oct2012	AAL070258	970.3 PPM	NITRIC OXIDE

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
FTIR//MG-09-149	03Oct2009	FTIR

ANALYZER READINGS

(Z = Zero Gas R = Reference Gas T = Test Gas r = Correlation Coefficient)

NITRIC OXIDE

First Triad Analysis

Date: 19Oct2009 Response Unit: PPM

Z1 = 0.10391	R1 = 963.4393	T1 = 990.8702
R2 = 964.2099	Z2 = 0.26809	T2 = 992.5639
Z3 = 0.68769	T3 = 992.6357	R3 = 964.7170

Avg. Concentration: 998.4 PPM

Second Triad Analysis

Date: 26Oct2009 Response Unit: PPM

Z1 = -0.04780	R1 = 956.1792	T1 = 991.3544
R2 = 959.2399	Z2 = 0.07077	T2 = 992.1119
Z3 = 0.32406	T3 = 992.5748	R3 = 963.0286

Avg. Concentration: 1003. PPM

Calibration Curve

Concentration = A + Bx + Cx2 + Dx3 + Ex4
r = 9.99987E-1

Constants:	A = 0.00000E+0
B = 9.87888E-1	C = 2.04000E-4
D = 0.00000E+0	E = 0.00000E+0

APPROVED BY: _____
Ramien JR

AIR LIQUIDE Air Liquide America Specialty Gases LLC SCOTT™

RATA CLASS

Dual-Analyzed Calibration Standard

9810 BAY AREA BLVD, PASADENA, TX 77507 Phone: 281-474-5800 Fax: 281-474-5857

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory

AIR LIQUIDE AMERICA SPECIALTY GASES LLC
9810 BAY AREA BLVD
PASADENA, TX 77507

P.O. No.: 03-029-09
Project No.: 04-72137-006

Customer

ARI ENVIRONMENTAL, INC.
1710 C PRESTON RD
PASADENA TX 77503

ANALYTICAL INFORMATION

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: ALM013030 **Certification Date:** 26Mar2009 **Exp. Date:** 26Mar2012
Cylinder Pressure*:** 1950 PSIG

COMPONENT	CERTIFIED CONCENTRATION (Moles)	ANALYTICAL ACCURACY**	TRACEABILITY
OXYGEN	7.57 %	+/- 1%	Direct NIST and NMi
NITROGEN	BALANCE		

*** Do not use when cylinder pressure is below 150 psig.

** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 2350	01Apr2012	A6820	23.51 %	OXYGEN

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
SERVOMEX/MODEL 244A/701/716	23Mar2009	PARAMAGNETIC

ANALYZER READINGS

(Z=Zero Gas R=Reference Gas T=Test Gas r=Correlation Coefficient)

OXYGEN

First Triad Analysis	Second Triad Analysis	Calibration Curve
Date: 26Mar2009 Response Unit:VOLTS		Concentration=A+Bx+Cx2+Dx3+Ex4
Z1=0.00000 R1=0.99000 T1=0.31950		r=0.9999978
R2=0.98970 Z2=0.00000 T2=0.31910		Constants: A=-0.00703813
Z3=0.00000 T3=0.31900 R3=0.98950		B=23.71576885 C=
Avg. Concentration: 7.567 %		D= E=

APPROVED BY: _____
DAVID KELLY

AIR LIQUIDE Air Liquide America Specialty Gases LLC SCOTT™

COMPLIANCE CLASS

Dual-Analyzed Calibration Standard

500 WEAVER PARK RD, LONGMONT, CO 80501 Phone: 888-253-1635 Fax: 303-772-7673

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory

AIR LIQUIDE AMERICA SPECIALTY GASES LLC
500 WEAVER PARK RD
LONGMONT, CO 80501

P.O. No.: 03-142-09
Project No.: 08-83148-007

Customer

ARI ENVIRONMENTAL, INC.
PO# 03-142-09
1710 C PRESTON RD
PASADENA TX 77503

ANALYTICAL INFORMATION

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: ALM021775 **Certification Date:** 21Dec2009 **Exp. Date:** 21Jun2010
Cylinder Pressure*:** 2015 PSIG

COMPONENT	CERTIFIED CONCENTRATION (Moles)		ANALYTICAL ACCURACY**	TRACEABILITY
NITROGEN DIOXIDE	49.62	PPM	+/- 2%	VSL and NIST
AIR		BALANCE		

*** Do not use when cylinder pressure is below 150 psig.

** Analytical accuracy is based on the requirements of EPA Protocol procedures , September 1997.

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NMI-PRM	23Jun2010	289178	50.00 PPM	NITROGEN DIOXIDE

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
HORIBA/CLA-220/D000423P	14Dec2009	CHEMILUMINESCENCE

APPROVED BY: _____
SAM BENNETT

APPENDIX F

Process Data

Process Data During SRU #1 Incinerator Stack Test

	Sulfur Production, Ltpd	TGI Firebox Temp, °F	TGI Fuel Gas Flow MSCFH	RAW O2 % O2
Run #1 4/27/2010 09:45 to 13:45	215.8	1460	19.80	2.91
Run #2 4/27/2010 14:15 to 18:15	215.8	1460	19.38	3.01
Run #3 4/28/2010 08:45 to 12:45	215.6	1452	19.44	2.77

SRU Efficiency 4/27/2010 = 99.98

SRU Efficiency 4/28/2010 = 99.98

*NOTE: Instrument Tech calibrating and tuning analyzers 09:30 to 10:03

	141FC1863 MEAS INCIN BURNER FUEL GAS M5CFH	141TC1867 MEAS INCIN STACK TEMP DEG F	141AI1875 PNT RAW O2 % O2	141AI1874A PNT RAW SO2 PPM	141AX1874A PNT SO2 CORRECTED TO 0% O2 PPM	141AX1874B PNT INCIN SO2 EMISSION RATE (CALCULATED) LB/HR
4/27/2010 9:45	19.08	1458	*22.13	11.57	448.25	1.33
4/27/2010 9:46	19.08	1456	*22.13	12.96	0.00	1.56
4/27/2010 9:47	19.11	1454	*22.13	0.99	-3.85	0.08
4/27/2010 9:48	19.05	1454	*22.11	0.51	-9.11	-0.01
4/27/2010 9:49	19.19	1454	*22.11	0.06	-1.05	-0.02
4/27/2010 9:50	19.35	1454	*22.09	0.03	4.86	-0.01
4/27/2010 9:51	19.41	1458	*22.12	-1.33	29.60	-0.12
4/27/2010 9:52	19.11	1462	*22.06	-0.13	-1.09	-0.02
4/27/2010 9:53	19.40	1462	*22.08	0.51	-4.01	0.10
4/27/2010 9:54	19.08	1462	*22.08	0.53	-3.96	-0.02
4/27/2010 9:55	19.40	1462	*20.29	-0.13	1.95	-0.02
4/27/2010 9:56	19.18	1462	*20.26	0.51	15.77	-0.02
4/27/2010 9:57	19.47	1460	*2.05	1.12	1.13	0.10
4/27/2010 9:58	19.09	1460	*0.42	190.29	193.93	23.21
4/27/2010 9:59	19.43	1460	*0.42	245.66	250.36	29.97
4/27/2010 10:00	19.11	1460	*0.42	259.06	264.02	31.50
4/27/2010 10:01	19.31	1460	*0.42	265.35	270.28	31.74
4/27/2010 10:02	19.19	1460	*10.83	142.48	295.04	17.24
4/27/2010 10:03	19.34	1460	*13.20	28.95	78.36	3.55
4/27/2010 10:04	19.37	1460	*13.23	12.80	34.83	1.68
4/27/2010 10:05	19.22	1460	*13.23	9.72	25.56	1.23
4/27/2010 10:06	19.38	1460	*3.52	8.06	9.68	0.97
4/27/2010 10:07	19.32	1460	2.38	15.27	17.22	1.87
4/27/2010 10:08	19.13	1462	2.52	13.27	15.26	1.62
4/27/2010 10:09	19.37	1462	2.46	13.27	15.35	1.61
4/27/2010 10:10	19.22	1462	2.46	11.42	12.94	1.40
4/27/2010 10:11	19.06	1462	2.43	11.42	13.46	1.40
4/27/2010 10:12	19.36	1462	2.37	12.65	14.65	1.52
4/27/2010 10:13	19.26	1464	2.27	13.89	15.36	1.72
4/27/2010 10:14	19.08	1466	2.40	13.25	15.36	1.62
4/27/2010 10:15	18.90	1466	2.47	11.44	12.97	1.05
4/27/2010 10:16	19.07	1466	2.60	12.03	13.39	1.27
4/27/2010 10:17	18.94	1462	2.51	10.82	12.28	1.15
4/27/2010 10:18	18.96	1460	2.80	11.44	13.01	1.27
4/27/2010 10:19	19.31	1456	2.98	11.42	13.14	1.25
4/27/2010 10:20	19.33	1452	2.96	10.82	12.61	1.14
4/27/2010 10:21	19.07	1450	2.89	10.82	13.11	1.25
4/27/2010 10:22	19.53	1450	2.82	10.82	12.55	1.12
4/27/2010 10:23	19.52	1450	2.81	10.82	12.13	1.12
4/27/2010 10:24	19.53	1450	2.86	10.80	12.70	1.22
4/27/2010 10:25	19.63	1450	2.88	12.05	13.78	1.35
4/27/2010 10:26	19.42	1450	2.77	12.67	14.95	1.35
4/27/2010 10:27	19.65	1450	2.83	12.03	13.73	1.35
4/27/2010 10:28	19.73	1450	2.88	12.03	14.33	1.34
4/27/2010 10:29	19.64	1452	2.82	10.80	12.67	1.22
4/27/2010 10:30	19.62	1452	2.82	12.03	13.74	1.32
4/27/2010 10:31	19.70	1452	2.82	12.65	14.82	1.43
4/27/2010 10:32	19.78	1452	2.82	12.65	15.14	1.43
4/27/2010 10:33	19.81	1452	2.85	12.67	14.47	1.44
4/27/2010 10:34	19.78	1454	2.82	12.03	13.91	1.32
4/27/2010 10:35	19.78	1454	2.86	12.03	14.31	1.31
4/27/2010 10:36	19.90	1454	2.83	12.05	13.75	1.32
4/27/2010 10:37	19.96	1454	2.76	12.65	14.37	1.34
4/27/2010 10:38	19.83	1454	2.76	13.89	15.97	1.54
4/27/2010 10:39	19.90	1456	2.79	13.29	14.97	1.38
4/27/2010 10:40	19.95	1456	2.79	13.89	15.99	1.48
4/27/2010 10:41	19.92	1456	2.74	13.27	15.35	1.35
4/27/2010 10:42	19.90	1458	2.78	11.44	13.19	1.23
4/27/2010 10:43	19.90	1458	2.75	13.27	15.50	1.47
4/27/2010 10:44	19.87	1458	2.79	13.27	15.47	1.47
4/27/2010 10:45	19.90	1458	2.72	13.27	15.45	1.69
4/27/2010 10:46	19.89	1458	2.82	13.27	15.34	1.71
4/27/2010 10:47	19.90	1458	2.78	13.89	15.76	1.72
4/27/2010 10:48	19.95	1458	2.83	12.67	14.54	1.60
4/27/2010 10:49	19.95	1458	3.12	12.67	14.55	1.60
4/27/2010 10:50	19.95	1458	3.12	13.25	15.77	1.68
4/27/2010 10:51	20.03	1456	3.06	13.89	16.25	1.68
4/27/2010 10:52	20.09	1454	3.03	13.27	15.72	1.66
4/27/2010 10:53	20.06	1454	2.99	13.89	16.37	1.77
4/27/2010 10:54	20.10	1454	3.15	12.05	14.00	1.55
4/27/2010 10:55	20.15	1454	3.02	11.44	13.35	1.45
4/27/2010 10:56	20.27	1454	2.99	12.67	14.97	1.51
4/27/2010 10:57	20.25	1454	3.09	13.25	16.12	1.73
4/27/2010 10:58	20.25	1454	3.02	13.87	16.02	1.71
4/27/2010 10:59	20.25	1454	2.98	13.25	15.43	1.70
4/27/2010 11:00	20.35	1454	2.98	12.05	14.06	1.48
4/27/2010 11:01	20.38	1454	2.95	13.25	15.06	1.71
4/27/2010 11:02	20.35	1456	3.01	12.67	14.41	1.60
4/27/2010 11:03	20.35	1456	3.04	13.89	16.00	1.70
4/27/2010 11:04	20.35	1456	2.98	13.27	15.46	1.69

	141FC1863	141TC1867	141AI1875	141AI1874A	141AX1874A	141AX1874B
	MEAS	MEAS	PNT	PNT	PNT	PNT
	INCIN BURNER FUEL GAS	INCIN STACK TEMP	RAW O2	RAW SO2	SO2 CORRECTED TO 0% O2	INCIN SO2 EMISSION RATE (CALCULATED)
	MSCFH	DEG F	% O2	PPM	PPM	LB/HR
4/27/2010 11:05	20.35	1456	3.04	13.89	16.08	1.81
4/27/2010 11:06	20.38	1456	3.07	13.89	16.59	1.71
4/27/2010 11:07	20.49	1456	3.04	13.87	16.03	1.72
4/27/2010 11:08	20.32	1456	3.07	12.67	14.97	1.60
4/27/2010 11:09	20.51	1456	3.01	14.48	17.16	1.81
4/27/2010 11:10	20.49	1456	2.99	13.89	16.01	1.81
4/27/2010 11:11	20.49	1456	3.05	14.50	17.30	1.84
4/27/2010 11:12	20.46	1458	2.93	13.89	16.16	1.73
4/27/2010 11:13	20.48	1458	2.93	14.48	17.23	1.84
4/27/2010 11:14	20.45	1460	2.93	12.67	14.38	1.61
4/27/2010 11:15	20.45	1462	2.92	13.89	16.00	1.71
4/27/2010 11:16	20.40	1462	2.95	13.89	16.68	1.83
4/27/2010 11:17	20.35	1462	2.92	14.50	17.23	1.81
4/27/2010 11:18	20.37	1462	2.99	14.50	16.74	1.81
4/27/2010 11:19	20.40	1462	3.08	13.87	16.10	1.81
4/27/2010 11:20	20.40	1462	3.02	13.10	15.28	1.71
4/27/2010 11:21	20.40	1462	2.99	13.12	15.29	1.58
4/27/2010 11:22	20.40	1462	2.93	14.95	17.94	1.96
4/27/2010 11:23	20.40	1462	2.99	14.97	17.44	1.95
4/27/2010 11:24	20.40	1462	2.95	14.97	17.41	1.92
4/27/2010 11:25	20.37	1462	2.93	14.97	17.37	1.92
4/27/2010 11:26	20.37	1462	3.02	14.97	17.33	1.92
4/27/2010 11:27	20.34	1462	2.96	12.98	15.44	1.71
4/27/2010 11:28	20.34	1462	2.96	14.20	16.72	1.81
4/27/2010 11:29	20.34	1462	2.90	14.79	17.20	1.81
4/27/2010 11:30	20.34	1462	2.96	15.41	18.34	1.97
4/27/2010 11:31	20.34	1462	2.88	15.41	18.20	1.97
4/27/2010 11:32	20.37	1462	2.97	14.79	17.23	1.86
4/27/2010 11:33	20.37	1462	2.90	14.18	16.16	1.75
4/27/2010 11:34	20.11	1462	2.76	14.81	16.87	1.88
4/27/2010 11:35	20.41	1464	2.92	16.04	18.45	2.02
4/27/2010 11:36	20.07	1464	3.02	16.04	18.93	2.12
4/27/2010 11:37	20.18	1464	2.99	16.06	18.91	2.01
4/27/2010 11:38	20.04	1464	3.08	16.65	19.28	2.11
4/27/2010 11:39	20.02	1462	3.05	14.33	16.94	1.86
4/27/2010 11:40	20.04	1462	3.06	15.10	17.64	1.86
4/27/2010 11:41	20.12	1460	3.11	16.34	19.41	2.12
4/27/2010 11:42	20.08	1460	3.06	15.12	17.33	1.92
4/27/2010 11:43	20.08	1460	3.14	15.72	18.51	1.92
4/27/2010 11:44	20.15	1458	3.08	15.12	18.04	1.92
4/27/2010 11:45	20.28	1458	3.01	14.48	17.29	1.91
4/27/2010 11:46	20.30	1458	3.06	13.87	16.24	1.69
4/27/2010 11:47	20.36	1458	2.94	15.10	17.42	1.90
4/27/2010 11:48	20.36	1458	2.91	16.34	19.14	2.12
4/27/2010 11:49	20.28	1460	3.00	16.95	19.80	2.12
4/27/2010 11:50	20.28	1460	3.07	16.34	18.62	1.99
4/27/2010 11:51	20.28	1460	3.01	14.50	16.75	1.78
4/27/2010 11:52	20.30	1460	2.98	14.50	16.73	1.78
4/27/2010 11:53	20.36	1460	2.97	14.46	16.77	1.78
4/27/2010 11:54	20.36	1460	2.94	14.97	17.93	2.00
4/27/2010 11:55	20.33	1460	2.94	14.93	17.21	1.87
4/27/2010 11:56	20.28	1460	2.91	15.57	17.72	1.98
4/27/2010 11:57	20.25	1462	2.98	16.18	18.66	2.09
4/27/2010 11:58	20.25	1462	3.04	14.35	16.96	1.85
4/27/2010 11:59	20.25	1462	3.04	14.93	17.98	1.96
4/27/2010 12:00	20.25	1462	2.91	16.20	19.04	2.07
4/27/2010 12:01	20.18	1462	2.88	18.02	20.77	2.30
4/27/2010 12:02	20.20	1462	2.98	16.80	19.63	2.09
4/27/2010 12:03	20.25	1462	2.92	15.59	18.48	1.98
4/27/2010 12:04	20.22	1462	3.05	15.57	17.95	1.98
4/27/2010 12:05	20.14	1462	2.95	14.95	17.07	1.82
4/27/2010 12:06	20.12	1462	2.92	16.20	18.83	2.06
4/27/2010 12:07	20.12	1462	3.04	16.18	19.48	2.05
4/27/2010 12:08	20.12	1462	2.94	16.20	18.35	2.05
4/27/2010 12:09	20.15	1462	2.97	15.57	18.51	2.05
4/27/2010 12:10	20.18	1462	2.91	15.57	17.90	1.95
4/27/2010 12:11	20.18	1462	2.91	14.95	17.40	1.94
4/27/2010 12:12	20.15	1462	2.93	15.59	18.44	2.03
4/27/2010 12:13	20.12	1462	2.99	16.20	18.90	2.02
4/27/2010 12:14	20.09	1462	2.93	15.57	18.39	2.02
4/27/2010 12:15	20.07	1462	2.89	15.57	17.93	1.91
4/27/2010 12:16	20.07	1462	2.89	15.59	17.86	1.91
4/27/2010 12:17	20.04	1462	2.92	15.59	17.90	1.93
4/27/2010 12:18	20.07	1462	2.86	16.80	20.01	2.15
4/27/2010 12:19	20.07	1462	2.89	17.42	20.61	2.27
4/27/2010 12:20	20.00	1462	2.89	16.82	19.53	2.17
4/27/2010 12:21	20.15	1462	2.93	16.18	18.98	2.05
4/27/2010 12:22	20.19	1462	2.92	16.20	18.48	2.05
4/27/2010 12:23	20.15	1462	2.91	14.95	17.56	1.91
4/27/2010 12:24	20.16	1462	2.88	16.80	19.27	2.12
4/27/2010 12:25	20.05	1462	2.85	17.54	20.02	2.09
4/27/2010 12:26	20.02	1462	2.86	17.54	19.93	2.19
4/27/2010 12:27	19.81	1462	2.85	16.97	19.93	2.19
4/27/2010 12:28	19.65	1462	2.96	16.36	19.34	2.09
4/27/2010 12:29	20.07	1462	2.88	15.70	18.24	1.99
4/27/2010 12:30	19.66	1462	2.88	15.72	18.40	2.00
4/27/2010 12:31	19.90	1462	2.87	16.95	19.27	2.10
4/27/2010 12:32	19.77	1462	2.90	17.57	20.38	2.22
4/27/2010 12:33	19.70	1462	2.92	18.19	20.91	2.32

	141FC1863	141TC1867	141AI1875	141AI1874A	141AX1874A	141AX1874B
	MEAS	MEAS	PNT	PNT	PNT	PNT
	INCIN BURNER FUEL GAS	INCIN STACK TEMP	RAW O2	RAW SO2	SO2 CORRECTED TO 0% O2	INCIN SO2 EMISSION RATE (CALCULATED)
	MSCFH	DEG F	% O2	PPM	PPM	LB/HR
4/27/2010 12:34	19.96	1462	2.93	17.57	20.37	2.19
4/27/2010 12:35	19.56	1462	2.95	16.97	19.39	2.12
4/27/2010 12:36	19.96	1462	2.91	16.93	19.93	2.12
4/27/2010 12:37	19.74	1462	2.89	17.57	20.41	2.11
4/27/2010 12:38	19.85	1462	2.91	17.57	20.42	2.22
4/27/2010 12:39	19.82	1462	3.01	17.11	20.41	2.22
4/27/2010 12:40	19.84	1460	2.97	17.13	19.78	2.11
4/27/2010 12:41	19.73	1460	3.01	15.27	17.98	1.99
4/27/2010 12:42	19.78	1460	3.08	16.51	19.08	2.12
4/27/2010 12:43	19.95	1460	2.92	17.72	20.44	2.22
4/27/2010 12:44	19.62	1460	2.96	16.49	19.36	2.10
4/27/2010 12:45	20.00	1460	3.02	18.35	21.28	2.34
4/27/2010 12:46	19.61	1460	2.85	16.95	19.34	2.10
4/27/2010 12:47	20.04	1460	2.89	15.74	18.54	1.99
4/27/2010 12:48	19.63	1460	2.89	16.34	19.12	2.08
4/27/2010 12:49	19.88	1462	2.95	18.81	21.88	2.30
4/27/2010 12:50	19.67	1462	2.94	17.59	20.65	2.21
4/27/2010 12:51	19.62	1464	2.86	18.15	20.69	2.23
4/27/2010 12:52	19.90	1464	2.96	16.97	19.50	2.13
4/27/2010 12:53	19.66	1464	3.02	16.80	19.44	2.11
4/27/2010 12:54	19.47	1464	2.89	16.18	19.31	2.10
4/27/2010 12:55	19.44	1464	2.97	18.02	20.93	2.34
4/27/2010 12:56	19.41	1464	2.93	18.54	21.61	2.24
4/27/2010 12:57	19.83	1464	2.99	18.02	20.95	2.24
4/27/2010 12:58	19.76	1464	2.93	17.42	20.32	2.24
4/27/2010 12:59	19.59	1464	2.93	16.82	19.83	2.13
4/27/2010 13:00	19.60	1464	2.89	15.57	17.93	1.97
4/27/2010 13:01	19.50	1464	2.92	16.82	19.70	2.10
4/27/2010 13:02	19.34	1464	2.86	18.04	20.88	2.22
4/27/2010 13:03	19.27	1464	2.86	18.02	20.89	2.20
4/27/2010 13:04	19.35	1464	2.89	18.65	21.49	2.33
4/27/2010 13:05	19.55	1464	2.84	18.04	20.90	2.32
4/27/2010 13:06	19.62	1464	2.82	17.42	20.31	2.20
4/27/2010 13:07	19.22	1464	2.82	18.50	21.34	2.41
4/27/2010 13:08	19.58	1464	2.95	19.08	22.08	2.41
4/27/2010 13:09	19.16	1464	2.98	18.52	21.44	2.41
4/27/2010 13:10	19.52	1462	2.98	19.12	22.82	2.46
4/27/2010 13:11	19.36	1460	2.97	18.00	20.82	2.24
4/27/2010 13:12	19.21	1460	3.07	16.80	20.24	2.15
4/27/2010 13:13	19.55	1458	2.96	18.65	21.92	2.40
4/27/2010 13:14	19.47	1458	2.99	19.27	22.48	2.51
4/27/2010 13:15	19.27	1458	2.96	18.65	21.89	2.37
4/27/2010 13:16	19.40	1458	2.86	20.06	23.79	2.57
4/27/2010 13:17	19.59	1458	2.94	17.42	19.90	2.15
4/27/2010 13:18	19.65	1458	2.88	16.80	19.75	2.10
4/27/2010 13:19	19.63	1458	2.93	18.67	21.50	2.34
4/27/2010 13:20	19.47	1458	2.86	19.27	22.10	2.47
4/27/2010 13:21	19.30	1460	2.91	19.27	22.10	2.41
4/27/2010 13:22	19.45	1460	2.86	19.27	22.66	2.50
4/27/2010 13:23	19.54	1460	2.92	18.67	21.49	2.37
4/27/2010 13:24	19.62	1460	2.88	18.63	21.39	2.33
4/27/2010 13:25	19.43	1460	2.96	18.65	22.06	2.44
4/27/2010 13:26	19.25	1460	2.86	19.89	23.14	2.56
4/27/2010 13:27	19.37	1460	2.82	19.89	22.99	2.52
4/27/2010 13:28	19.60	1462	2.83	19.29	21.91	2.39
4/27/2010 13:29	19.28	1462	2.90	18.04	20.92	2.30
4/27/2010 13:30	19.39	1462	3.03	18.67	21.50	2.30
4/27/2010 13:31	19.50	1462	2.99	18.02	21.02	2.27
4/27/2010 13:32	19.27	1462	2.94	18.81	21.67	2.38
4/27/2010 13:33	19.44	1462	2.95	18.81	21.73	2.42
4/27/2010 13:34	19.37	1462	2.85	19.42	22.26	2.42
4/27/2010 13:35	19.15	1462	2.88	18.79	21.67	2.42
4/27/2010 13:36	19.22	1462	2.88	18.19	21.28	2.30
4/27/2010 13:37	19.24	1462	2.94	18.81	21.82	2.41
4/27/2010 13:38	19.14	1462	2.93	18.79	21.91	2.37
4/27/2010 13:39	19.40	1462	2.94	19.40	22.63	2.48
4/27/2010 13:40	19.10	1462	2.94	18.19	21.18	2.26
4/27/2010 13:41	19.42	1462	3.05	17.57	19.97	2.15
4/27/2010 13:42	19.10	1462	2.96	17.57	20.56	2.25
4/27/2010 13:43	19.33	1460	2.99	18.79	21.94	2.36
4/27/2010 13:44	19.34	1460	3.00	19.42	23.02	2.47
4/27/2010 13:45	19.37	1460	2.98	17.59	20.66	2.26
4/27/2010 14:15	19.60	1458	2.99	18.35	21.60	2.37
4/27/2010 14:16	19.46	1458	2.84	18.35	21.20	2.26
4/27/2010 14:17	19.52	1458	2.84	18.95	21.72	2.39
4/27/2010 14:18	19.66	1458	2.86	17.09	19.49	2.12
4/27/2010 14:19	19.75	1458	2.86	17.72	20.38	2.26
4/27/2010 14:20	19.86	1458	2.87	18.33	21.43	2.34
4/27/2010 14:21	19.87	1458	2.75	18.35	20.94	2.32
4/27/2010 14:22	19.87	1458	2.74	18.33	21.56	2.33
4/27/2010 14:23	19.83	1460	2.79	18.96	22.03	2.44
4/27/2010 14:24	19.77	1460	2.86	17.71	20.49	2.29
4/27/2010 14:25	19.74	1460	2.71	18.33	21.60	2.35
4/27/2010 14:26	19.59	1462	2.85	19.58	22.65	2.35
4/27/2010 14:27	19.60	1462	2.75	19.56	22.68	2.49
4/27/2010 14:28	19.57	1462	2.95	20.20	23.33	2.48
4/27/2010 14:29	19.41	1462	2.73	19.58	22.33	2.38
4/27/2010 14:30	19.34	1462	2.77	18.35	20.68	2.33
4/27/2010 14:31	19.45	1462	2.88	18.33	20.72	2.21

	141FC1863	141TC1867	141AI1875	141AI1874A	141AX1874A	141AX1874B
	MEAS	MEA5	PNT	PNT	PNT	PNT
	INCIN BURNER FUEL GAS	INCIN 5TACK TEMP	RAW O2	RAW 5O2	5O2 CORRECTED TO 0% O2	INCIN SO2 EMI55ION RATE (CALCULATED)
	MSCFH	DEG F	% O2	PPM	PPM	LB/HR
4/27/2010 14:32	19.49	1462	2.94	19.74	22.95	2.49
4/27/2010 14:33	19.74	1462	3.02	19.58	22.86	2.35
4/27/2010 14:34	19.65	1462	3.05	19.58	22.42	2.50
4/27/2010 14:35	19.51	1460	2.99	18.67	21.16	2.28
4/27/2010 14:36	19.37	1460	2.80	17.44	20.11	2.28
4/27/2010 14:37	19.45	1460	3.00	17.54	20.28	2.25
4/27/2010 14:38	19.74	1460	2.89	18.19	21.49	2.37
4/27/2010 14:39	19.67	1460	2.95	18.19	21.56	2.37
4/27/2010 14:40	19.37	1460	2.90	18.19	21.13	2.28
4/27/2010 14:41	19.62	1460	2.92	18.19	21.11	2.29
4/27/2010 14:42	19.73	1460	2.96	16.95	19.44	2.08
4/27/2010 14:43	19.67	1460	3.02	16.34	19.46	2.07
4/27/2010 14:44	19.58	1460	2.97	17.13	19.77	2.13
4/27/2010 14:45	19.35	1460	2.86	17.72	20.35	2.23
4/27/2010 14:46	19.42	1460	3.10	17.13	20.30	2.24
4/27/2010 14:47	19.78	1458	3.03	17.11	20.20	2.24
4/27/2010 14:48	19.59	1458	2.97	17.11	20.12	2.17
4/27/2010 14:49	19.38	1458	3.08	17.74	20.94	2.28
4/27/2010 14:50	19.47	1458	2.93	18.35	21.65	2.38
4/27/2010 14:51	19.71	1458	2.91	18.33	21.76	2.39
4/27/2010 14:52	19.84	1458	2.94	18.96	21.67	2.40
4/27/2010 14:53	19.66	1458	2.95	18.33	21.00	2.26
4/27/2010 14:54	19.43	1458	3.02	17.74	20.77	2.23
4/27/2010 14:55	19.42	1458	2.97	17.71	21.22	2.24
4/27/2010 14:56	19.44	1458	3.02	18.95	21.81	2.36
4/27/2010 14:57	19.69	1458	2.98	18.33	21.20	2.36
4/27/2010 14:58	19.88	1458	2.97	17.72	20.56	2.16
4/27/2010 14:59	19.85	1458	2.96	17.11	19.97	2.15
4/27/2010 15:00	19.79	1458	2.96	16.49	19.38	2.09
4/27/2010 15:01	19.77	1460	2.97	17.72	20.64	2.26
4/27/2010 15:02	19.66	1460	3.01	18.31	21.72	2.27
4/27/2010 15:03	19.43	1460	3.07	18.33	21.51	2.35
4/27/2010 15:04	19.42	1460	2.94	17.74	20.85	2.23
4/27/2010 15:05	19.46	1460	3.03	16.47	19.81	2.13
4/27/2010 15:06	19.52	1460	3.01	17.11	19.81	2.13
4/27/2010 15:07	19.53	1460	3.02	18.35	21.44	2.24
4/27/2010 15:08	19.58	1460	2.87	18.35	21.63	2.37
4/27/2010 15:09	19.52	1460	3.02	17.71	20.59	2.16
4/27/2010 15:10	19.56	1460	2.93	17.71	21.14	2.35
4/27/2010 15:11	19.52	1460	3.08	17.71	21.00	2.25
4/27/2010 15:12	19.50	1460	3.02	17.11	19.75	2.16
4/27/2010 15:13	19.47	1460	3.16	17.09	20.14	2.16
4/27/2010 15:14	19.51	1460	2.93	18.33	21.35	2.27
4/27/2010 15:15	19.52	1460	2.90	18.95	21.84	2.39
4/27/2010 15:16	19.53	1462	3.05	17.72	20.59	2.29
4/27/2010 15:17	19.61	1462	2.86	17.13	19.47	2.18
4/27/2010 15:18	19.58	1462	2.81	17.11	19.50	2.11
4/27/2010 15:19	19.72	1462	2.89	18.35	21.11	2.36
4/27/2010 15:20	19.66	1462	3.17	18.95	22.27	2.38
4/27/2010 15:21	19.46	1460	3.10	18.35	21.62	2.23
4/27/2010 15:22	19.46	1460	3.15	18.95	22.26	2.45
4/27/2010 15:23	19.49	1458	3.23	16.97	19.85	2.07
4/27/2010 15:24	19.54	1458	3.20	16.82	19.85	2.21
4/27/2010 15:25	19.58	1458	3.26	17.42	21.00	2.18
4/27/2010 15:26	19.49	1456	3.05	18.04	21.11	2.29
4/27/2010 15:27	19.91	1456	3.11	17.40	20.55	2.27
4/27/2010 15:28	19.91	1456	3.06	17.40	20.59	2.27
4/27/2010 15:29	19.64	1458	3.10	16.20	18.81	2.03
4/27/2010 15:30	19.49	1458	2.91	16.80	19.37	2.14
4/27/2010 15:31	19.86	1460	3.02	17.42	20.37	2.14
4/27/2010 15:32	19.87	1460	2.89	18.04	20.95	2.24
4/27/2010 15:33	19.85	1462	2.86	18.67	21.65	2.38
4/27/2010 15:34	19.68	1462	2.86	18.04	20.99	2.31
4/27/2010 15:35	19.63	1462	3.10	18.02	21.08	2.21
4/27/2010 15:36	19.48	1462	3.19	17.42	20.96	2.23
4/27/2010 15:37	19.45	1462	3.13	18.65	21.69	2.36
4/27/2010 15:38	19.41	1462	3.03	18.65	21.62	2.36
4/27/2010 15:39	19.39	1462	3.03	18.02	21.05	2.26
4/27/2010 15:40	19.42	1462	3.04	18.02	21.08	2.21
4/27/2010 15:41	19.44	1462	3.02	18.04	21.07	2.25
4/27/2010 15:42	19.64	1462	3.23	17.40	20.77	2.25
4/27/2010 15:43	19.69	1462	3.10	18.65	21.86	2.35
4/27/2010 15:44	19.75	1462	2.89	19.27	22.40	2.47
4/27/2010 15:45	19.77	1462	2.98	18.02	21.30	2.24
4/27/2010 15:46	19.59	1462	3.05	18.04	21.09	2.26
4/27/2010 15:47	19.40	1462	3.04	17.40	20.55	2.14
4/27/2010 15:48	19.41	1462	2.93	17.42	20.55	2.13
4/27/2010 15:49	19.62	1462	2.87	18.04	21.03	2.25
4/27/2010 15:50	19.59	1462	2.94	18.65	21.61	2.35
4/27/2010 15:51	19.35	1462	2.86	19.27	22.05	2.33
4/27/2010 15:52	19.68	1462	2.79	18.65	20.98	2.22
4/27/2010 15:53	19.32	1462	2.99	18.04	21.61	2.22
4/27/2010 15:54	19.66	1462	2.89	17.42	20.58	2.11
4/27/2010 15:55	19.45	1462	3.04	19.27	22.90	2.44
4/27/2010 15:56	19.36	1460	3.08	18.67	21.65	2.29
4/27/2010 15:57	19.66	1460	3.01	18.02	21.13	2.29
4/27/2010 15:58	19.40	1460	3.10	18.52	21.51	2.26
4/27/2010 15:59	19.43	1460	2.96	17.25	20.31	2.15
4/27/2010 16:00	19.71	1460	2.89	16.65	19.17	2.04

	141FC1863	141TC1867	141AI1875	141AI1874A	141AX1874A	141AX1874B
	MEAS	MEAS	PNT	PNT	PNT	PNT
	INCIN BURNER FUEL GAS	INCIN STACK TEMP	RAW O2	RAW SO2	SO2 CORRECTED TO 0% O2	INCIN SO2 EMISSION RATE (CALCULATED)
	MSCFH	DEG F	% O2	PPM	PPM	LB/HR
4/27/2010 16:01	19.46	1460	2.99	18.02	20.98	2.30
4/27/2010 16:02	19.37	1460	2.99	18.17	21.14	2.29
4/27/2010 16:03	19.68	1460	3.01	18.15	21.10	2.27
4/27/2010 16:04	19.28	1460	3.01	18.19	21.06	2.28
4/27/2010 16:05	19.53	1460	3.01	16.95	19.44	2.13
4/27/2010 16:06	19.41	1460	2.80	16.34	19.32	2.01
4/27/2010 16:07	19.48	1462	2.93	18.19	21.02	2.29
4/27/2010 16:08	19.27	1462	2.91	18.79	21.60	2.29
4/27/2010 16:09	19.45	1462	2.85	18.17	21.06	2.28
4/27/2010 16:10	19.42	1462	2.93	18.79	21.51	2.29
4/27/2010 16:11	19.27	1462	3.09	17.57	20.53	2.17
4/27/2010 16:12	19.34	1462	3.05	17.57	20.52	2.17
4/27/2010 16:13	19.54	1462	2.93	18.19	21.03	2.28
4/27/2010 16:14	19.25	1462	2.86	18.81	21.55	2.27
4/27/2010 16:15	19.36	1462	3.05	18.81	21.47	2.26
4/27/2010 16:16	19.24	1462	3.00	18.02	21.49	2.25
4/27/2010 16:17	19.42	1462	3.12	16.82	19.83	2.11
4/27/2010 16:18	19.35	1462	3.07	16.82	19.43	2.11
4/27/2010 16:19	19.20	1462	2.96	17.40	20.61	2.22
4/27/2010 16:20	19.34	1462	2.98	18.04	20.49	2.21
4/27/2010 16:21	19.21	1462	3.05	18.04	20.97	2.30
4/27/2010 16:22	19.23	1462	3.13	17.42	20.50	2.28
4/27/2010 16:23	19.21	1462	3.15	16.82	19.86	2.16
4/27/2010 16:24	19.23	1462	2.84	16.18	18.72	2.05
4/27/2010 16:25	19.26	1462	2.93	18.04	20.96	2.27
4/27/2010 16:26	19.26	1462	3.07	17.40	20.88	2.17
4/27/2010 16:27	19.20	1462	3.11	17.42	20.76	2.27
4/27/2010 16:28	19.15	1462	3.04	16.82	19.53	2.09
4/27/2010 16:29	19.15	1462	3.08	16.18	18.95	2.09
4/27/2010 16:30	19.20	1460	3.17	15.59	18.34	1.96
4/27/2010 16:31	19.23	1460	3.14	16.82	19.41	2.06
4/27/2010 16:32	19.26	1460	3.08	17.42	20.61	2.19
4/27/2010 16:33	19.23	1460	2.98	17.42	20.64	2.21
4/27/2010 16:34	19.21	1462	3.02	16.82	19.61	2.08
4/27/2010 16:35	19.15	1462	3.08	15.59	18.41	2.00
4/27/2010 16:36	19.13	1462	3.02	14.35	16.76	1.79
4/27/2010 16:37	19.15	1462	2.95	16.80	19.53	2.13
4/27/2010 16:38	19.15	1462	3.08	16.20	18.98	2.04
4/27/2010 16:39	19.15	1462	3.09	15.57	18.41	1.93
4/27/2010 16:40	19.15	1462	3.07	16.20	18.41	1.93
4/27/2010 16:41	19.15	1462	3.13	15.57	17.93	1.89
4/27/2010 16:42	19.13	1460	3.10	14.97	17.93	1.89
4/27/2010 16:43	19.12	1460	3.11	16.82	19.56	2.12
4/27/2010 16:44	19.15	1460	2.95	17.29	20.08	2.14
4/27/2010 16:45	19.15	1460	3.18	17.27	20.10	2.10
4/27/2010 16:46	19.15	1460	3.05	16.65	19.67	2.10
4/27/2010 16:47	19.15	1460	3.02	17.29	20.19	2.10
4/27/2010 16:48	19.15	1460	3.14	16.04	19.05	2.00
4/27/2010 16:49	19.15	1460	3.01	17.27	20.25	2.10
4/27/2010 16:50	19.15	1460	3.10	17.29	20.28	2.20
4/27/2010 16:51	19.15	1460	3.04	17.25	20.15	2.05
4/27/2010 16:52	19.15	1460	3.16	17.88	20.76	2.18
4/27/2010 16:53	19.15	1460	3.10	15.43	18.24	1.96
4/27/2010 16:54	19.17	1460	3.07	16.04	18.69	1.96
4/27/2010 16:55	19.20	1460	2.90	16.65	19.33	2.06
4/27/2010 16:56	19.22	1460	2.96	17.29	19.83	2.17
4/27/2010 16:57	19.22	1460	2.99	17.29	19.87	2.16
4/27/2010 16:58	19.17	1460	3.10	16.20	18.77	2.08
4/27/2010 16:59	19.14	1460	2.87	16.20	18.77	2.08
4/27/2010 17:00	19.14	1462	3.08	16.82	19.88	2.07
4/27/2010 17:01	19.14	1462	3.07	17.42	20.40	2.19
4/27/2010 17:02	19.12	1462	3.13	17.44	20.54	2.20
4/27/2010 17:03	19.09	1462	3.13	16.82	20.13	2.17
4/27/2010 17:04	19.09	1462	3.07	16.20	19.17	2.05
4/27/2010 17:05	19.09	1460	3.16	15.57	18.13	1.93
4/27/2010 17:06	19.09	1460	3.01	15.59	18.16	1.93
4/27/2010 17:07	19.12	1460	2.89	17.42	19.89	2.15
4/27/2010 17:08	19.12	1460	3.01	17.42	20.45	2.26
4/27/2010 17:09	19.12	1460	3.10	18.04	20.96	2.24
4/27/2010 17:10	19.14	1460	3.01	16.20	19.28	2.00
4/27/2010 17:11	19.12	1460	3.07	17.44	20.41	2.11
4/27/2010 17:12	19.12	1460	3.17	16.82	19.82	2.11
4/27/2010 17:13	19.12	1460	3.05	17.40	20.26	2.13
4/27/2010 17:14	19.12	1460	3.11	18.02	20.84	2.24
4/27/2010 17:15	19.12	1460	3.09	17.42	20.29	2.23
4/27/2010 17:16	19.12	1460	3.06	16.80	19.68	2.12
4/27/2010 17:17	19.12	1460	3.09	16.20	19.18	2.01
4/27/2010 17:18	19.12	1460	3.18	15.57	18.00	1.90
4/27/2010 17:19	19.14	1460	3.12	16.82	19.63	2.12
4/27/2010 17:20	19.14	1460	3.09	17.40	20.31	2.10
4/27/2010 17:21	19.20	1460	3.05	16.20	19.16	1.98
4/27/2010 17:22	19.17	1460	2.99	16.80	19.17	2.12
4/27/2010 17:23	19.14	1460	3.18	15.59	18.19	2.02
4/27/2010 17:24	19.12	1460	3.06	16.18	18.83	2.02
4/27/2010 17:25	19.12	1460	3.11	17.40	20.73	2.26
4/27/2010 17:26	19.12	1460	3.04	18.54	21.11	2.37
4/27/2010 17:27	19.12	1460	2.98	18.52	21.61	2.32
4/27/2010 17:28	19.15	1460	3.07	17.11	20.04	2.17
4/27/2010 17:29	19.12	1460	3.16	16.49	19.29	2.06

	141FC1863	141TC1867	141AI1875	141AI1874A	141AX1874A	141AX1874B
	MEAS	MEAS	PNT	PNT	PNT	PNT
	INCIN BURNER FUEL GAS	INCIN STACK TEMP	RAW O2	RAW SO2	SO2 CORRECTED TO 0% O2	INCIN SO2 EMISSION RATE (CALCULATED)
	MSCFH	DEG F	% O2	PPM	PPM	LB/HR
4/27/2010 17:30	19.12	1460	3.04	17.72	20.60	2.18
4/27/2010 17:31	19.09	1460	3.02	17.72	21.07	2.21
4/27/2010 17:32	19.07	1462	3.11	17.71	20.28	2.20
4/27/2010 17:33	19.07	1462	3.09	17.11	20.50	2.20
4/27/2010 17:34	19.07	1462	2.97	16.49	19.24	2.07
4/27/2010 17:35	19.07	1462	3.06	15.89	18.67	1.97
4/27/2010 17:36	19.07	1462	3.00	17.57	20.34	2.20
4/27/2010 17:37	19.07	1460	3.15	17.57	20.67	2.22
4/27/2010 17:38	19.07	1460	3.12	17.54	20.45	2.20
4/27/2010 17:39	19.07	1460	3.12	17.44	20.47	2.20
4/27/2010 17:40	19.07	1458	3.22	15.57	18.42	1.97
4/27/2010 17:41	19.12	1458	3.10	15.57	18.49	1.96
4/27/2010 17:42	19.15	1458	3.08	16.80	19.62	2.07
4/27/2010 17:43	19.20	1458	3.05	17.29	20.23	2.18
4/27/2010 17:44	19.18	1458	3.02	17.27	20.37	2.13
4/27/2010 17:45	19.18	1458	2.96	17.88	20.27	2.26
4/27/2010 17:46	19.18	1458	2.97	16.65	19.03	2.03
4/27/2010 17:47	19.18	1458	3.08	17.27	20.11	2.17
4/27/2010 17:48	19.15	1458	2.92	17.88	20.65	2.17
4/27/2010 17:49	19.18	1458	2.99	17.90	20.68	2.28
4/27/2010 17:50	19.18	1458	2.99	17.90	21.33	2.28
4/27/2010 17:51	19.20	1458	3.11	16.04	19.17	2.05
4/27/2010 17:52	19.26	1458	3.12	16.65	19.18	2.05
4/27/2010 17:53	19.26	1458	3.09	16.03	18.98	2.07
4/27/2010 17:54	19.26	1458	3.06	17.27	20.04	2.07
4/27/2010 17:55	19.26	1460	3.06	16.63	19.29	2.08
4/27/2010 17:56	19.42	1460	3.00	17.27	19.76	2.20
4/27/2010 17:57	19.26	1462	2.97	16.04	18.69	2.07
4/27/2010 17:58	19.29	1462	3.08	16.04	18.59	1.98
4/27/2010 17:59	19.37	1462	3.08	17.88	20.75	2.21
4/27/2010 18:00	19.34	1462	3.11	17.27	19.74	2.07
4/27/2010 18:01	19.34	1462	3.08	16.63	19.74	2.07
4/27/2010 18:02	19.34	1462	3.08	16.63	19.37	2.07
4/27/2010 18:03	19.34	1462	2.96	16.04	18.11	1.94
4/27/2010 18:04	19.40	1462	3.04	16.06	18.76	2.05
4/27/2010 18:05	19.40	1464	2.98	15.43	18.34	1.93
4/27/2010 18:06	19.38	1464	2.95	16.65	19.42	2.15
4/27/2010 18:07	19.38	1464	3.04	16.65	19.56	2.05
4/27/2010 18:08	19.33	1466	3.07	16.04	18.96	2.05
4/27/2010 18:09	19.35	1466	3.04	16.03	18.40	2.05
4/27/2010 18:10	19.32	1466	3.07	14.20	16.78	1.84
4/27/2010 18:11	19.38	1466	3.01	14.79	17.27	1.87
4/27/2010 18:12	19.35	1466	3.04	15.43	17.84	1.87
4/27/2010 18:13	19.35	1466	3.04	15.43	17.84	1.87
4/27/2010 18:14	19.35	1466	3.00	16.06	18.94	2.01
4/27/2010 18:15	19.35	1466	3.00	15.41	17.83	1.90
4/28/2010 8:45	19.52	1451	2.84	26.18	30.37	2.96
4/28/2010 8:46	19.20	1449	2.79	24.81	28.59	2.79
4/28/2010 8:47	19.48	1449	2.75	24.81	28.60	2.91
4/28/2010 8:48	19.42	1449	2.76	26.03	30.24	3.05
4/28/2010 8:49	19.19	1449	2.80	25.41	29.56	2.94
4/28/2010 8:50	19.49	1449	2.74	26.65	30.74	3.06
4/28/2010 8:51	19.18	1451	2.84	26.65	30.76	3.06
4/28/2010 8:52	19.31	1451	2.77	25.41	29.35	2.91
4/28/2010 8:53	19.54	1451	2.77	26.01	29.96	3.03
4/28/2010 8:54	19.44	1451	2.83	26.04	30.11	2.96
4/28/2010 8:55	19.16	1451	2.74	26.04	29.93	3.34
4/28/2010 8:56	19.33	1451	2.79	24.81	28.95	3.16
4/28/2010 8:57	19.51	1451	2.76	24.18	27.72	3.02
4/28/2010 8:58	19.13	1451	2.73	22.32	25.34	2.80
4/28/2010 8:59	19.35	1451	2.79	21.12	24.22	2.67
4/28/2010 9:00	19.44	1451	2.73	23.10	26.74	2.96
4/28/2010 9:01	19.13	1451	2.80	24.95	28.55	3.17
4/28/2010 9:02	19.30	1451	2.80	24.35	27.65	3.02
4/28/2010 9:03	19.53	1451	2.81	23.73	27.74	3.03
4/28/2010 9:04	19.26	1451	2.79	23.12	26.15	2.91
4/28/2010 9:05	19.26	1451	2.69	20.64	23.94	2.61
4/28/2010 9:06	19.45	1451	2.75	22.48	25.59	2.74
4/28/2010 9:07	19.56	1451	2.76	23.59	27.17	3.02
4/28/2010 9:08	19.26	1451	2.72	24.18	27.75	3.02
4/28/2010 9:09	19.19	1451	2.70	24.18	27.73	3.13
4/28/2010 9:10	19.41	1451	2.73	24.18	27.78	3.04
4/28/2010 9:11	19.56	1451	2.82	22.34	25.46	2.83
4/28/2010 9:12	19.20	1451	2.84	22.94	26.49	2.80
4/28/2010 9:13	19.29	1451	2.75	23.57	27.21	2.95
4/28/2010 9:14	19.59	1451	2.74	22.94	26.60	2.91
4/28/2010 9:15	19.38	1451	2.83	23.55	27.14	2.90
4/28/2010 9:16	19.22	1451	2.70	22.96	26.48	2.94
4/28/2010 9:17	19.40	1451	2.65	22.32	25.79	2.86
4/28/2010 9:18	19.62	1451	2.68	21.74	25.14	2.76
4/28/2010 9:19	19.50	1451	2.68	22.96	26.34	2.88
4/28/2010 9:20	19.28	1451	2.74	23.57	26.91	2.82
4/28/2010 9:21	19.25	1451	2.71	23.57	26.93	2.91
4/28/2010 9:22	19.27	1451	2.78	22.96	26.30	2.90
4/28/2010 9:23	19.51	1451	2.73	22.96	26.37	2.82
4/28/2010 9:24	19.64	1451	2.66	22.34	25.61	2.82
4/28/2010 9:25	19.59	1451	2.71	23.57	27.17	3.04
4/28/2010 9:26	19.53	1451	2.78	22.96	26.39	2.95
4/28/2010 9:27	19.43	1451	2.75	24.16	27.57	2.98

	141FC1863	141TC1867	141AI1875	141AI1874A	141AX1874A	141AX1874B
	MEA5	MEA5	PNT	PNT	PNT	PNT
	INCIN BURNER FUEL GAS	INCIN STACK TEMP	RAW O2	RAW SO2	SO2 CORRECTED TO 0% O2	INCIN SO2 EMISSION RATE (CALCULATED)
	MSCFH	DEG F	% O2	PPM	PPM	LB/HR
4/28/2010 9:28	19.20	1451	2.65	24.18	27.56	3.10
4/28/2010 9:29	19.55	1451	2.68	23.59	26.95	2.87
4/28/2010 9:30	19.56	1453	2.71	23.44	26.87	2.96
4/28/2010 9:31	19.56	1453	2.68	24.04	27.96	3.10
4/28/2010 9:32	19.36	1453	2.72	24.66	28.42	3.17
4/28/2010 9:33	19.16	1453	2.66	25.27	29.19	3.14
4/28/2010 9:34	19.15	1453	2.70	24.66	28.59	3.14
4/28/2010 9:35	19.43	1453	2.69	23.44	27.42	2.97
4/28/2010 9:36	19.39	1453	2.70	22.21	26.05	2.84
4/28/2010 9:37	19.18	1453	2.76	22.82	26.58	2.84
4/28/2010 9:38	19.30	1453	2.73	24.66	28.34	3.12
4/28/2010 9:39	19.52	1453	2.71	24.66	28.48	3.11
4/28/2010 9:40	19.49	1453	2.76	24.02	27.52	3.01
4/28/2010 9:41	19.19	1451	2.81	24.02	27.50	3.01
4/28/2010 9:42	19.16	1451	2.69	22.80	26.01	2.88
4/28/2010 9:43	19.29	1451	2.78	22.80	26.01	2.92
4/28/2010 9:44	19.52	1451	2.68	24.02	27.24	2.90
4/28/2010 9:45	19.46	1451	2.71	24.66	27.90	3.03
4/28/2010 9:46	19.25	1451	2.75	24.04	27.85	2.99
4/28/2010 9:47	19.25	1451	2.73	24.66	28.35	3.04
4/28/2010 9:48	19.38	1451	2.71	24.66	28.36	3.02
4/28/2010 9:49	19.58	1451	2.74	23.42	27.33	3.03
4/28/2010 9:50	19.49	1451	2.74	24.64	28.39	3.02
4/28/2010 9:51	19.33	1451	2.74	25.27	28.53	3.10
4/28/2010 9:52	19.45	1449	2.78	24.64	28.60	3.09
4/28/2010 9:53	19.56	1449	2.75	25.41	29.21	3.14
4/28/2010 9:54	19.29	1449	2.76	23.57	27.31	2.82
4/28/2010 9:55	19.66	1449	2.75	23.57	26.80	2.91
4/28/2010 9:56	19.32	1449	2.74	22.96	26.73	2.82
4/28/2010 9:57	19.66	1449	2.67	24.18	27.35	2.95
4/28/2010 9:58	19.32	1449	2.71	24.79	28.57	3.05
4/28/2010 9:59	19.67	1449	2.73	24.18	28.03	2.96
4/28/2010 10:00	19.32	1449	2.69	23.57	26.70	2.87
4/28/2010 10:01	19.72	1451	2.67	21.74	25.09	2.65
4/28/2010 10:02	19.69	1451	2.74	23.57	26.84	2.90
4/28/2010 10:03	19.32	1451	2.69	23.57	26.70	2.86
4/28/2010 10:04	19.31	1451	2.72	25.39	28.62	3.02
4/28/2010 10:05	19.58	1451	2.73	24.79	28.69	3.00
4/28/2010 10:06	19.69	1451	2.74	23.57	27.46	2.84
4/28/2010 10:07	19.60	1451	2.77	23.59	27.45	2.85
4/28/2010 10:08	19.52	1453	2.68	24.16	27.55	2.96
4/28/2010 10:09	19.28	1453	2.79	25.43	29.21	3.07
4/28/2010 10:10	19.29	1453	2.73	25.43	29.20	3.08
4/28/2010 10:11	19.45	1453	2.73	24.18	27.41	2.85
4/28/2010 10:12	19.58	1453	2.72	24.81	28.54	2.85
4/28/2010 10:13	19.64	1453	2.76	25.43	28.87	2.97
4/28/2010 10:14	19.23	1453	2.84	26.04	30.07	2.94
4/28/2010 10:15	19.36	1453	2.70	26.63	30.58	3.15
4/28/2010 10:16	19.63	1453	2.80	26.03	30.07	3.13
4/28/2010 10:17	19.46	1453	2.78	24.79	28.42	2.83
4/28/2010 10:18	19.23	1453	2.68	23.57	26.91	2.82
4/28/2010 10:19	19.50	1453	2.80	21.74	24.65	2.49
4/28/2010 10:20	19.57	1453	2.76	22.96	26.46	2.66
4/28/2010 10:21	19.26	1453	2.77	23.57	27.04	2.74
4/28/2010 10:22	19.29	1453	2.73	22.96	26.47	2.58
4/28/2010 10:23	19.57	1451	2.68	23.73	27.38	2.76
4/28/2010 10:24	19.47	1451	2.72	23.10	26.30	2.77
4/28/2010 10:25	19.27	1451	2.79	22.96	26.85	2.61
4/28/2010 10:26	19.35	1451	2.71	22.96	26.25	2.71
4/28/2010 10:27	19.50	1451	2.71	24.18	27.87	2.91
4/28/2010 10:28	19.64	1451	2.74	24.81	28.37	2.96
4/28/2010 10:29	19.51	1451	2.71	23.55	26.56	2.85
4/28/2010 10:30	19.32	1451	2.74	22.96	26.57	2.89
4/28/2010 10:31	19.32	1451	2.77	22.96	26.70	2.57
4/28/2010 10:32	19.43	1451	2.80	24.18	28.46	2.68
4/28/2010 10:33	19.51	1451	2.82	24.18	27.98	2.87
4/28/2010 10:34	19.29	1451	2.79	25.41	29.11	2.87
4/28/2010 10:35	19.51	1451	2.82	24.18	27.65	2.73
4/28/2010 10:36	19.56	1451	2.74	23.57	27.62	2.63
4/28/2010 10:37	19.30	1451	2.83	23.57	27.10	2.63
4/28/2010 10:38	19.59	1451	2.80	24.81	28.29	2.73
4/28/2010 10:39	19.67	1451	2.74	25.41	29.57	2.85
4/28/2010 10:40	19.53	1451	2.71	25.41	29.00	2.84
4/28/2010 10:41	19.30	1451	2.80	25.41	29.33	2.86
4/28/2010 10:42	19.45	1451	2.72	24.81	28.72	2.76
4/28/2010 10:43	19.65	1451	2.85	24.04	27.66	2.78
4/28/2010 10:44	19.42	1451	2.85	25.27	29.06	2.78
4/28/2010 10:45	19.29	1451	2.79	24.04	27.35	2.65
4/28/2010 10:46	19.44	1451	2.86	23.42	27.37	2.65
4/28/2010 10:47	19.65	1451	2.86	24.02	27.47	2.63
4/28/2010 10:48	19.54	1451	2.89	22.21	25.77	2.56
4/28/2010 10:49	19.38	1451	2.83	22.82	26.92	2.56
4/28/2010 10:50	19.35	1451	2.67	24.66	28.08	2.78
4/28/2010 10:51	19.56	1451	2.64	25.88	30.03	2.88
4/28/2010 10:52	19.58	1451	2.67	25.27	28.99	2.86
4/28/2010 10:53	19.27	1451	2.74	24.66	28.21	2.75
4/28/2010 10:54	19.40	1451	2.71	24.04	27.62	2.64
4/28/2010 10:55	19.65	1451	2.78	24.66	28.25	2.73
4/28/2010 10:56	19.44	1451	2.83	24.66	28.90	3.07

	141FC1863	141TC1867	141AI1875	141AI1874A	141AX1874A	141AX1874B
	MEA5	MEA5	PNT	PNT	PNT	PNT
	INCIN BURNER FUEL GA5	INCIN STACK TEMP	RAW O2	RAW SO2	SO2 CORRECTED TO 0% O2	INCIN SO2 EMISSION RATE (CALCULATED)
	M5CFH	DEG F	% O2	PPM	PPM	LB/HR
4/28/2010 10:57	19.30	1451	2.71	25.88	29.42	3.08
4/28/2010 10:58	19.54	1451	2.67	24.66	28.26	3.04
4/28/2010 10:59	19.62	1451	2.61	24.04	27.63	2.94
4/28/2010 11:00	19.37	1451	2.65	24.02	27.12	2.85
4/28/2010 11:01	19.27	1453	2.69	25.27	29.01	3.15
4/28/2010 11:02	19.52	1453	2.68	25.27	28.97	3.19
4/28/2010 11:03	19.34	1453	2.75	25.88	29.61	3.20
4/28/2010 11:04	19.25	1453	2.79	25.27	29.18	3.10
4/28/2010 11:05	19.56	1453	2.72	24.64	28.20	3.09
4/28/2010 11:06	19.38	1453	2.69	24.64	28.14	2.98
4/28/2010 11:07	19.33	1453	2.66	25.27	28.75	3.13
4/28/2010 11:08	19.47	1453	2.71	27.13	31.18	3.35
4/28/2010 11:09	19.22	1453	2.77	26.47	30.72	3.33
4/28/2010 11:10	19.59	1453	2.75	26.49	30.18	3.21
4/28/2010 11:11	19.20	1453	2.69	25.86	29.54	3.15
4/28/2010 11:12	19.59	1453	2.70	23.87	27.18	2.92
4/28/2010 11:13	19.21	1453	2.83	25.12	28.84	3.02
4/28/2010 11:14	19.51	1453	2.74	25.10	28.93	3.12
4/28/2010 11:15	19.19	1453	2.77	24.48	28.39	3.01
4/28/2010 11:16	19.56	1453	2.75	25.10	29.48	3.02
4/28/2010 11:17	19.20	1453	2.74	24.50	27.85	3.04
4/28/2010 11:18	19.21	1453	2.73	25.25	28.64	3.12
4/28/2010 11:19	19.44	1453	2.75	25.12	29.12	3.13
4/28/2010 11:20	19.46	1453	2.72	24.35	28.15	3.00
4/28/2010 11:21	19.50	1453	2.69	24.33	28.16	3.11
4/28/2010 11:22	19.50	1453	2.78	24.33	28.16	2.98
4/28/2010 11:23	19.48	1453	2.77	23.73	27.50	3.00
4/28/2010 11:24	19.48	1453	2.74	23.12	26.63	2.90
4/28/2010 11:25	19.39	1451	2.77	23.69	27.85	2.90
4/28/2010 11:26	19.29	1451	2.83	24.93	28.83	2.97
4/28/2010 11:27	19.15	1451	2.72	24.93	28.10	3.05
4/28/2010 11:28	19.38	1451	2.72	24.35	27.65	2.93
4/28/2010 11:29	19.55	1451	2.79	23.73	27.54	2.93
4/28/2010 11:30	19.20	1449	2.72	24.91	28.63	3.06
4/28/2010 11:31	19.59	1449	2.83	24.95	29.21	3.07
4/28/2010 11:32	19.34	1449	2.79	25.57	29.85	3.12
4/28/2010 11:33	19.52	1449	2.79	24.93	28.75	3.01
4/28/2010 11:34	19.25	1449	2.80	24.35	27.72	2.97
4/28/2010 11:35	19.64	1449	2.73	23.73	27.12	2.94
4/28/2010 11:36	19.26	1449	2.80	23.12	26.51	2.84
4/28/2010 11:37	19.66	1449	2.74	25.59	29.17	3.07
4/28/2010 11:38	19.59	1449	2.77	25.57	29.53	3.13
4/28/2010 11:39	19.45	1449	2.77	25.59	29.48	3.13
4/28/2010 11:40	19.63	1449	2.73	24.78	28.42	3.02
4/28/2010 11:41	19.45	1451	2.74	24.18	27.78	2.92
4/28/2010 11:42	19.50	1451	2.83	24.79	28.48	2.91
4/28/2010 11:43	19.66	1451	2.75	25.39	29.05	3.11
4/28/2010 11:44	19.28	1451	2.86	25.91	29.58	3.08
4/28/2010 11:45	19.43	1451	2.86	25.88	30.18	3.18
4/28/2010 11:46	19.70	1451	2.80	25.25	29.00	3.06
4/28/2010 11:47	19.39	1451	2.86	24.02	28.36	2.95
4/28/2010 11:48	19.52	1451	2.78	24.02	27.95	2.92
4/28/2010 11:49	19.59	1451	2.77	25.27	29.24	3.02
4/28/2010 11:50	19.32	1451	2.82	24.64	28.66	2.94
4/28/2010 11:51	19.62	1451	2.80	25.27	29.18	3.03
4/28/2010 11:52	19.57	1451	2.85	23.44	27.31	2.87
4/28/2010 11:53	19.30	1451	2.81	23.42	26.82	2.84
4/28/2010 11:54	19.46	1451	2.86	24.02	27.47	2.83
4/28/2010 11:55	19.67	1451	2.78	25.25	29.18	2.98
4/28/2010 11:56	19.50	1451	2.84	25.25	29.19	3.07
4/28/2010 11:57	19.27	1451	2.77	25.25	29.09	3.06
4/28/2010 11:58	19.37	1453	2.73	22.92	26.28	2.65
4/28/2010 11:59	19.58	1453	2.79	22.96	26.88	2.77
4/28/2010 12:00	19.55	1453	2.74	23.57	26.91	2.75
4/28/2010 12:01	19.25	1453	2.89	24.79	28.60	2.99
4/28/2010 12:02	19.37	1453	2.75	24.79	28.55	2.85
4/28/2010 12:03	19.59	1453	2.81	24.18	28.04	2.95
4/28/2010 12:04	19.25	1453	2.93	24.18	28.04	2.80
4/28/2010 12:05	19.61	1453	2.98	24.18	28.04	2.77
4/28/2010 12:06	19.25	1451	2.91	24.79	28.53	2.91
4/28/2010 12:07	19.42	1451	2.87	25.41	29.14	3.03
4/28/2010 12:08	19.67	1451	2.89	24.18	28.04	2.80
4/28/2010 12:09	19.53	1451	2.86	25.41	29.24	3.03
4/28/2010 12:10	19.26	1451	2.83	24.78	29.05	3.04
4/28/2010 12:11	19.49	1451	2.84	23.59	27.46	2.92
4/28/2010 12:12	19.70	1451	2.81	25.39	28.94	3.07
4/28/2010 12:13	19.56	1451	2.87	24.79	28.43	3.05
4/28/2010 12:14	19.30	1451	2.80	25.43	29.65	3.18
4/28/2010 12:15	19.42	1451	2.76	24.91	28.40	2.93
4/28/2010 12:16	19.70	1451	2.84	24.35	27.74	2.93
4/28/2010 12:17	19.59	1451	2.85	24.95	29.08	3.04
4/28/2010 12:18	19.38	1451	2.79	25.57	29.55	3.19
4/28/2010 12:19	19.32	1451	2.88	25.57	29.58	3.15
4/28/2010 12:20	19.70	1451	2.80	25.59	29.30	3.16
4/28/2010 12:21	19.59	1451	2.89	24.93	29.17	3.02
4/28/2010 12:22	19.34	1451	2.89	23.73	27.34	2.88
4/28/2010 12:23	19.57	1451	2.85	23.71	27.39	2.95
4/28/2010 12:24	19.69	1451	2.87	23.71	27.53	2.89
4/28/2010 12:25	19.55	1451	2.84	24.33	28.67	3.04

	141FC1863	141TC1867	141AI1875	141AI1874A	141AX1874A	141AX1874B
	MEAS	MEAS	PNT	PNT	PNT	PNT
	INCIN BURNER FUEL GAS	INCIN STACK TEMP	RAW O2	RAW SO2	SO2 CORRECTED TO 0% O2	INCIN SO2 EMISSION RATE (CALCULATED)
	MSCFH	DEG F	% O2	PPM	PPM	LB/HR
4/28/2010 12:26	19.31	1451	2.75	26.34	30.46	3.15
4/28/2010 12:27	19.57	1451	2.83	26.34	30.41	3.18
4/28/2010 12:28	19.61	1451	2.83	25.72	29.72	3.07
4/28/2010 12:29	19.31	1451	2.89	26.95	31.01	3.20
4/28/2010 12:30	19.57	1451	2.86	26.34	30.51	3.20
4/28/2010 12:31	19.60	1451	2.90	26.93	31.12	3.20
4/28/2010 12:32	19.34	1451	2.89	25.74	29.97	2.96
4/28/2010 12:33	19.61	1451	2.92	23.12	27.14	2.82
4/28/2010 12:34	19.53	1451	2.94	23.10	26.55	2.77
4/28/2010 12:35	19.39	1451	2.76	24.33	28.06	2.93
4/28/2010 12:36	19.74	1451	2.83	24.95	28.55	3.06
4/28/2010 12:37	19.47	1451	2.80	25.57	29.09	3.06
4/28/2010 12:38	19.40	1451	2.80	24.95	28.63	3.06
4/28/2010 12:39	19.70	1451	2.89	23.12	26.90	2.83
4/28/2010 12:40	19.47	1451	2.77	22.48	26.19	2.81
4/28/2010 12:41	19.38	1451	2.78	23.10	26.65	2.82
4/28/2010 12:42	19.67	1453	2.71	23.71	27.17	2.93
4/28/2010 12:43	19.38	1453	2.76	23.73	27.68	2.92
4/28/2010 12:44	19.48	1453	2.70	22.48	26.03	2.77
4/28/2010 12:45	19.57	1453	2.77	22.50	26.00	2.71

APPENDIX G

Test Program Qualifications

ARI Environmental's offices in Wauconda, Illinois and Pasadena, Texas specialize in conducting stack emission, fugitive leak detection, ambient air and in-plant OSHA type testing for industrial clients.

ARI is organized so that its facilities and resources meet the requirements of ASTM D7036, Standard Practice for Competence of Air Emission Testing Bodies. ARI's laboratories in Pasadena, Texas and Wauconda, Illinois hold TCEQ NELAP Certificate No. T104704428-8A-TX.

During the past 25 years, ARI personnel have conducted over 5,000 separate stack emission tests for a variety of industrial clients throughout North America for the determination of degree of source compliance and to yield emissions data and control equipment performance data for in-house engineering purposes.

ARI presently has over 80 trained personnel for conducting source emission sampling, fugitive leak detection monitoring, ambient air monitoring and OSHA sampling programs. All test programs are supervised and conducted by onsite Qualified Individuals (QI) and/or Qualified Source Testing Individuals (QSTI) pursuant to ASTM D7036.

The key personnel involved in the test program were as follows:

Greg Burch

Mr. Burch is ARI's Source Testing Division South Central Regional Manager and is responsible for planning and managing sampling programs, sample analysis, data reduction, QA/QC reviews, and reporting activity for the regional office. He is certified as a QSTI through the Source Evaluation Society. Mr. Burch has been involved with source testing since 1990. He has accumulated extensive experience in flow stream characterization for engineering purposes; emissions sampling for regulatory compliance demonstration and emissions sampling for system audit requirements of CEMS and PEMS.

William Pearce

Mr. Pearce is a Project Manager with ARI. His experience since 2000 includes emission compliance and CEM certification testing for a wide variety of industries including petrochemical, steel mills, electric utilities, cement plants, asphalt plants and general manufacturing plants.

Mr. Pearce is presently certified as a QSTI by the Source Evaluation Society pursuant to the regulations of ASTM D7036-04.

Zack McCain

Mr. McCain is a Source Sampling Field Technician. Mr. McCain is well versed in the operation and maintenance of manual source sampling equipment and has performed these functions on numerous tests for various clients.

Mr. McCain's responsibilities include field sampling, sample analysis, data reduction and interpretation, and maintenance and calibration of continuous and manual source sampling equipment.

Brian Johnson

Mr. Johnson is a Source Sampling Field Technician. Mr. Johnson is well versed in the operation and maintenance of manual source sampling equipment and has performed these functions on numerous tests for various clients.

Mr. Johnson's responsibilities include field sampling, sample analysis, data reduction and interpretation, and maintenance and calibration of continuous and manual source sampling equipment.

Jeff Goldfine

Mr. Goldfine is a field technician specializing in sampling equipment preparation, maintenance and calibration, equipment setup, field sampling, sample recovery, and posttest equipment clean up. Mr. Goldfine has over 5 years experience in conducting various source emission test programs. Mr. Goldfine is presently certified as a Qualified Individual (QI) by the Source Evaluation Society (SES) pursuant to the requirements of ASTM D7036-04.

SOURCE EVALUATION SOCIETY

Qualified Source Test Individual

LET IT BE KNOWN THAT

GREG D. BURCH

HAS SUCCESSFULLY PASSED A COMPREHENSIVE EXAMINATION AND SATISFIED EXPERIENCE REQUIREMENTS IN ACCORDANCE WITH THE GUIDELINES ISSUED BY THE SES QUALIFIED SOURCE TEST INDIVIDUAL REVIEW BOARD FOR

BASIC KNOWLEDGE AND MANUAL PARTICULATE SAMPLING METHODS

ISSUED THIS 20TH DAY OF APRIL 2006 AND EFFECTIVE UNTIL APRIL 19TH, 2011

Peter R. Westlin
QSTI Review Board

Leroy F. Owens
QSTI Review Board

Glenn C. England
QSTI Review Board

APPLICATION NO. 2006-027

SOURCE EVALUATION SOCIETY

Qualified Source Test Individual

LET IT BE KNOWN THAT

GREG D. BURCH

HAS SUCCESSFULLY PASSED A COMPREHENSIVE EXAMINATION AND SATISFIED EXPERIENCE REQUIREMENTS IN ACCORDANCE WITH THE GUIDELINES ISSUED BY THE SES QUALIFIED SOURCE TEST INDIVIDUAL REVIEW BOARD FOR

MANUAL GAS SOURCE SAMPLING METHODS

ISSUED THIS 8TH DAY OF JUNE 2006 AND EFFECTIVE UNTIL JUNE 7TH, 2011

Peter R. Westlin
QSTI Review Board

LeRoy F. Owens
QSTI Review Board

Glenn C. England
QSTI Review Board

APPLICATION NO. 2006-027

SOURCE EVALUATION SOCIETY

Qualified Source Test Individual

LET IT BE KNOWN THAT

GREG D. BURCH

HAS SUCCESSFULLY PASSED A COMPREHENSIVE EXAMINATION AND SATISFIED EXPERIENCE REQUIREMENTS IN ACCORDANCE WITH THE GUIDELINES ISSUED BY THE SES QUALIFIED SOURCE TEST INDIVIDUAL REVIEW BOARD FOR

INSTRUMENTAL METHODS

ISSUED THIS 8TH DAY OF JUNE 2006 AND EFFECTIVE UNTIL JUNE 7TH, 2011

Peter R. Westlin
QSTI Review Board

LeRoy F. Owens
QSTI Review Board

Glenn C. England
QSTI Review Board

APPLICATION NO. 2006-027

SOURCE EVALUATION SOCIETY

Qualified Source Testing Individual

LET IT BE KNOWN THAT

GREG D. BURCH

HAS SUCCESSFULLY PASSED A COMPREHENSIVE EXAMINATION AND SATISFIED EXPERIENCE REQUIREMENTS IN ACCORDANCE WITH THE GUIDELINES ISSUED BY THE SES QUALIFIED SOURCE TEST INDIVIDUAL REVIEW BOARD FOR

HAZARDOUS METALS MEASUREMENT SAMPLING METHODS

ISSUED THIS 8TH DAY OF JULY 2009 AND EFFECTIVE UNTIL JULY 7TH 2014

Peter R. Westlin, QSTI/QSTO Review Board

Peter S. Pakalnis, QSTI/QSTO Review Board

C. David Bagwell, QSTI/QSTO Review Board

Karen D. Kajiya-Mills , QSTI/QSTO Review Board

John R. Smith, QSTI/QSTO Review Board

APPLICATION NO. 2006-027

SOURCE EVALUATION SOCIETY CORPORATE SEAL 1995 NORTH CAROLINA

SOURCE EVALUATION SOCIETY

Qualified Source Testing Individual

LET IT BE KNOWN THAT

WILLIAM H. PEARCE

HAS SUCCESSFULLY PASSED A COMPREHENSIVE EXAMINATION AND SATISFIED EXPERIENCE REQUIREMENTS IN ACCORDANCE WITH THE GUIDELINES ISSUED BY THE SES QUALIFIED SOURCE TEST INDIVIDUAL REVIEW BOARD FOR

MANUAL GAS VOLUME MEASUREMENTS AND ISOKINETIC PARTICULATE SAMPLING METHODS

ISSUED THIS 5TH DAY OF NOVEMBER 2008 AND EFFECTIVE UNTIL NOVEMBER 4TH, 2013

Peter R. Westlin, QSTI/QSTO Review Board

C. David Bagwell, QSTI/QSTO Review Board

Peter S. Pakalnis, QSTI/QSTO Review Board

John R. Smith, QSTI/QSTO Review Board

APPLICATION NO. 2008-221

SOURCE EVALUATION SOCIETY

Qualified Source Testing Individual

LET IT BE KNOWN THAT

WILLIAM H. PEARCE

HAS SUCCESSFULLY PASSED A COMPREHENSIVE EXAMINATION AND SATISFIED EXPERIENCE REQUIREMENTS IN ACCORDANCE WITH THE GUIDELINES ISSUED BY THE SES QUALIFIED SOURCE TEST INDIVIDUAL REVIEW BOARD FOR

MANUAL GASEOUS POLLUTANTS SOURCE SAMPLING METHODS

ISSUED THIS 5TH DAY OF NOVEMBER 2008 AND EFFECTIVE UNTIL NOVEMBER 4TH, 2013

Peter R. Westlin, QSTI/QSTO Review Board

C. David Bagwell, QSTI/QSTO Review Board

Peter S. Pakalnis, QSTI/QSTO Review Board

John R. Smith, QSTI/QSTO Review Board

APPLICATION NO. 2008-221

SOURCE EVALUATION SOCIETY CORPORATE SEAL 1995 NORTH CAROLINA

SOURCE EVALUATION SOCIETY

Qualified Source Testing Individual

LET IT BE KNOWN THAT

WILLIAM H. PEARCE

HAS SUCCESSFULLY PASSED A COMPREHENSIVE EXAMINATION AND SATISFIED EXPERIENCE REQUIREMENTS IN ACCORDANCE WITH THE GUIDELINES ISSUED BY THE SES QUALIFIED SOURCE TEST INDIVIDUAL REVIEW BOARD FOR

GASEOUS POLLUTANTS INSTRUMENTAL SAMPLING METHODS

ISSUED THIS 5TH DAY OF NOVEMBER 2008 AND EFFECTIVE UNTIL NOVEMBER 4H, 2013

Peter R. Westlin, QSTI/QSTO Review Board

C. David Bagwell, QSTI/QSTO Review Board

Peter S. Pakalnis, QSTI/QSTO Review Board

John R. Smith, QSTI/QSTO Review Board

APPLICATION NO. 2008-221

SOURCE EVALUATION SOCIETY CORPORATE SEAL 1995 NORTH CAROLINA

SOURCE EVALUATION SOCIETY

Qualified Source Testing Individual

LET IT BE KNOWN THAT

WILLIAM H. PEARCE

HAS SUCCESSFULLY PASSED A COMPREHENSIVE EXAMINATION AND SATISFIED EXPERIENCE REQUIREMENTS IN ACCORDANCE WITH THE GUIDELINES ISSUED BY THE SES QUALIFIED SOURCE TEST INDIVIDUAL REVIEW BOARD FOR

HAZARDOUS METALS MEASUREMENT SAMPLING METHODS

ISSUED THIS 6TH DAY OF JANUARY 2010 AND EFFECTIVE UNTIL JANUARY 5TH, 2015

Peter R. Westlin, QSTI/QSTO Review Board

Peter S. Pakalnis, QSTI/QSTO Review Board

C. David Bagwell, QSTI/QSTO Review Board

Karen D. Kajiya-Mills, QSTI/QSTO Review Board

Glenn C. England, QSTI/QSTO Review Board

APPLICATION NO. 2008-221

APPENDIX H

Compliance Tables