



**SAN DIEGO AIR POLLUTION CONTROL DISTRICT  
COMPLIANCE DIVISION  
10124 OLD GROVE ROAD  
SAN DIEGO CA 92131-1649  
PHONE (858) 586-2650 FAX (858) 586-2651**

APCD USE ONLY
SECTOR
ID#
NOV#

**VAPOR TO LIQUID VOLUME RATIO FOR HEALY PHASE II EVR SYSTEMS**  
Exhibit 5 of ARB E.O. VR-201-XX and VR 202-XX

Facility Name: \_\_\_\_\_ A/C or PO Number: \_\_\_\_\_ Start Time of Test: \_\_\_\_\_  
(Record exact time of test in order to demonstrate proper test sequencing as required in Attachment A)

**For ISD Alarm Response Purposes only:** Hanging hardware visually inspected at the affected dispenser(s): Yes  No

Tee Connection Test Result ( Section 6.1): _____ ft <sup>3</sup>	Correction Factor for Gas Volume Meter (y): _____
Date of Last Gas Volume Meter Calibration: _____	Date of Last Pressure Measurement Device Calibration: _____
Gas Volume Meter Serial #:	<b>Post-Test Leak Check:</b> Initial/Final Pressures: _____ / _____ ("w.c.) List grade points tested since last check <sup>12</sup> _____ Pressure _____ / _____ grade points _____ Pressure _____ / _____ grade points _____ Pressure _____ / _____ grade points _____
<b>Pre-Test Leak Check:</b> Initial/Final Pressures: _____ / _____ ("w.c.)	
Are at least 2 gallons of product introduced into the system through each dispenser riser prior to conducting this test? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>This test may be conducted in lieu of TP-201.4, Dynamic Back Pressure, provided that at least 2 gallons of product are introduced into the system through each dispenser riser prior to conducting the test.</i>	

Time of Day <sup>1</sup>	Grade Point <sup>2</sup>	Nozzle <sup>3</sup>	Initial Dispenser Totalizer <sup>4</sup> G <sub>i</sub> (Gallons)	Final Dispenser Totalizer <sup>5</sup> G <sub>f</sub> (Gallons)	Time <sup>6</sup> t (Sec.)	Dispensing Rate <sup>7</sup> Q <sub>g</sub> (GPM)	Initial Gas Meter Reading <sup>8</sup> V <sub>i</sub> (ft <sup>3</sup> )	Final Gas Meter Reading <sup>9</sup> V <sub>f</sub> (ft <sup>3</sup> )	V/L <sup>10</sup>	V/L Average <sup>11</sup> (if applicable)	Pass/Fail <sup>12</sup>



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**Exhibit 5 of ARB E.O. VR-201-A and VR 202-A**

**Facility Name:** \_\_\_\_\_ **A/C or PO Number:** \_\_\_\_\_ **Start Time of Test:** \_\_\_\_\_  
(Record exact time of test in order to demonstrate proper test sequencing as required in Attachment A)

Time of Day <sup>1</sup>	Grade Point <sup>2</sup>	Nozzle <sup>3</sup>	Initial Dispenser Totalizer <sup>4</sup> G <sub>i</sub> (Gallons)	Final Dispenser Totalizer <sup>5</sup> G <sub>f</sub> (Gallons)	Time <sup>6</sup> t (Sec.)	Dispensing Rate <sup>7</sup> Q <sub>g</sub> (GPM)	Initial Gas Meter Reading <sup>8</sup> V <sub>i</sub> (ft <sup>3</sup> )	Final Gas Meter Reading <sup>9</sup> V <sub>f</sub> (ft <sup>3</sup> )	V/L <sup>10</sup>	V/L Average <sup>11</sup> (if applicable)	Pass/Fail <sup>12</sup>

<sup>1</sup> Record the time of test (Time piece shall be synchronized with time on TLS console) (Only required when conducting test in conjunction with Ex 9 ISD Operability Test with VR 202-XX)

<sup>2</sup> Grade point: This test shall be performed for all grade points

<sup>3</sup> Serial Number of the nozzle

<sup>4</sup> Initial totalizer reading from the dispenser (G<sub>i</sub>), in gallons

<sup>5</sup> Final totalizer reading from the dispenser (G<sub>f</sub>), in gallons

<sup>6</sup> Elapsed time during dispensing (t), in seconds

<sup>7</sup> Dispensing Rate:  $Q_g = \left[ \frac{G_f - G_i}{t} \right] \times 60$ , in gallons per minute

<sup>8</sup> Initial gas volume meter reading (V<sub>i</sub>), in cubic feet

<sup>9</sup> Final gas volume meter reading (V<sub>f</sub>), in cubic feet

<sup>10</sup>  $V / L = \left[ \frac{y(V_f - V_i)}{G_f - G_i} \right] \times 7.481$

<sup>11</sup> If the V/L Volumetric Ratio is between 0.76 – 0.94, or greater than or equal to 1.16, conduct the test two additional times. Do not make adjustments to the gasoline dispensing or vapor recovery lines until all three test runs have been completed. Adjustments of the V/L test equipment, including the V/L adaptor and nozzle, are allowed as may be necessary to ensure measurement accuracy. If the V/L test equipment is adjusted, then the prior test run results for that grade point tested should not be used. Calculate the numerical average of the three test runs. If the average V/L value of these three test runs is within the allowable limits, compliance has been verified.

<sup>12</sup> If the V/L Volumetric Ratio is between 0.95 – 1.15, the grade point complies with the specifications.

<sup>13</sup> The District recommends leak checking equipment during test to minimize lost data due to failure of post test leak check.