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Audit Results for RCRA Testing on Group I Compounds

Requestor	Audit #	Audit Results for 7 to 90 ppb Gas (Percent Accuracy)					Portion of Measurement System Audited	
		A	B	C	D	E		
EMSL/EPA	1A	-50	0	+17	+31	-50	VOST collection; GC/MS analysis	
EMSL/EPA	1B*	+60	+34	+31	+18	-33	Bag collection; GC/FID-ECD analysis	
EMSL/EPA	2A	+27	+28	+34	+32	-66	VOST collection; GC/MS analysis	
EMSL/EPA	2B*	-13	-16	-44	-27	-34	Bag collection; GC/ECD-PID analysis	
EMSL/EPA	3	+10	+20	NA	-9	NA	VOST collection; GC/PID-Hall Detector analysis	
EMSL/EPA	4	-14	-20	+17	+6	-10	VOST collection; GC/MS analysis	
EMSL/EPA	11	+5	+3	+5	-7	-85	VOST collection; GC/MS analysis	
EMSL/EPA	12	+21	+12	+56	+47	-52	VOST collection; GC/MS analysis	
EMSL/EPA	17	-19	-32	-14	-21	-41	VOST collection; GC/MS analysis	
EMSL/EPA	19	+28	NA	NA	NA	NA	VOST collection; GC/MS analysis	
EMSL/EPA	29	+5	+8	+20	+23	NA	VOST collection; GC/MS analysis	
EMSL/EPA	32	-1	+11	-18	+7	NA	VOST collection; GC/MS analysis	
EMSL/EPA	33	-25	-24	-17	-26	NA	VOST collection; GC/MS analysis	
EMSL/EPA	71	+30	NA	NA	NA	NA	VOST collection; GC/MS analysis	
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HWERL/EPA	6	+31	+20	NA	NA	+7	VOST collection; GC/MS analysis	
HWERL/EPA	86	----- Audit currently in progress -----						VOST collection; GC/ECD analysis
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Code: A = Carbon tetrachloride; B = Chloroform; C = Perchloroethylene; D = Benzene; E = Vinyl chloride;  
 NA = No analysis; % Accuracy = (Auditee Conc-RTI Conc)/RTI Conc x 100.

\*Concentration of audit cylinder for this audit was 90 to 430 ppb rather than 7 to 90 ppb for other audits shown in this table.



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Audit Results for RCRA Testing on Group I Compounds

<u>Requestor</u>	<u>Audit #</u>	<u>Audit Results for 7 to 90 ppb Gas (Percent Accuracy)</u>					<u>Portion of Measurement System Audited</u>	
		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>		
Region 2	28	+22	+9	+16	+17	-13	VOST collection; GC/MS analysis	
Region 2	79	-34	-75	NA	NA	NA	VOST collection; GC/MS analysis	
Region 2	88	+33	NA	+33	NA	NA	VOST collection; GC/MS analysis	
Region 4	68	-43	+15	NA	NA	NA	Bag collection; GC/ECD analysis	
Region 4	83*	+7	NA	NA	NA	NA	Bag collection; GC/FID analysis	
Region 4	89	- - - - - Audit currently in progress - - - - -						Bag collection; GC/ECD analysis
Region 5	5	-31	+220	NA	NA	+7	VOST collection; GC/MS analysis	
Region 6	7	-3	+86	NA	NA	NA	GC/ECD analysis only	
Region 6	13	+11	+100	NA	NA	NA	GC/ECD analysis only	
Region 6	14	-25	+31	NA	NA	NA	GC/ECD analysis only	
Region 6	44	- - - Audit complete; auditee did not analyze - - -						VOST collection; GC/MS analysis
Region 7	53	+24	NA	NA	NA	NA	VOST collection; GC/MS analysis	
Texas ACB	22	-21	-27	-44	-63	-81	VOST collection; GC/MS analysis	
Oklahoma DH	82	-5	+9	NA	NA	NA	VOST collection; GC/MS analysis	

Code: A = Carbon tetrachloride; B = Chloroform, C = Perchloroethylene, D = Benzene, E = Vinyl chloride;  
 NA = No analysis; % Accuracy = (Auditee Conc-RTI Conc)/RTI Conc x 100.

\*Concentration of audit cylinder for this audit was 90 to 430 ppb rather than 7 to 90 ppb for other audits shown in this table.

Audit Results for RCRA Testing on Group II Compounds

<u>Requestor</u>	<u>Audit #</u>	<u>Audit Results for 7 to 90 ppb Gas (Percent Accuracy)</u>									<u>Portion of Measurement System Audited</u>
		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>I</u>	
EMSL/EPA	37	+380	NA	+40	NA	+3	NA	NA	+1	+8	VOST collection; GC/FID analysis
EMSL/EPA	72	NA	NA	NA	NA	NA	NA	NA	NA	+31	VOST collection; GC/MS analysis
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HWERL/EPA	70	NA	NA	+92	+27	-26	-57	+260	NA	+71	VOST collection; GC/MS analysis
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Region 2	80	NA	NA	+20	NA	NA	NA	NA	NA	+20	VOST collection; GC/MS analysis
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Region 4	47	- - - Audit complete; auditee did not analyze - - -									VOST collection; GC/MS analysis
Region 4	69	NA	NA	-6	NA	NA	NA	NA	NA	NA	Bag collection; GC/ECD analysis
Region 4	85	- - - Audit complete; auditee did not analyze - - -									Bag collection; GC/FID analysis
Region 4	90	- - - - - Audit currently in progress - - - - -									Bag collection; GC/ECD analysis
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Region 6	45	- - - Audit complete; auditee did not analyze - - -									VOST collection; GC/MS analysis
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Kentucky DWM	26	NA	NA	NA	NA	-42	NA	-10	NA	NA	Glass bulb collection; GC/Hall detector analysis

Code: A = Acetonitrile; B = Methyl ethyl ketone; C = Trichloroethylene; D = 1,2-dichloroethane;  
 E = Trichlorofluoromethane (F-11); F = Bromomethane; G = Dichlorodifluoromethane (F-12);  
 H = 1,2-dibromoethane; I = 1,1,1-trichloroethane; NA - Not analyzed;  
 % Accuracy = (Auditee Conc-RTI Conc)/RTI Conc x 100).

Audit Results for RCRA Testing on Group III Compounds

<u>Requestor</u>	<u>Audit #</u>	<u>Audit Results for 7 to 90 ppb Gas (Percent Accuracy)</u>							<u>Portion of Measurement System Audited</u>
		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	
EMSL/QAD	73	NA	NA	NA	NA	+21	NA	NA	VOST collection; GC/MS analysis
Region 4	81	+131	0	-16	-18	+78	-79	+49	VOST collection; GC/MS analysis
Region 4	84	NA	NA	NA	NA	+11	NA	NA	Bag collection; GC/FID analysis

Code: A = F-114 (1,2-dichloro-1,1,2,2-tetrafluoroethane); B = F-113 (1,1,2-trichloro-1,2,2-trifluoroethane);  
 C = Vinylidene chloride; D = Acetone; E = Toluene; F = 1-4 Dioxane; G = Chlorobenzene;  
 NA = Not analyzed; % Accuracy = (Auditee Conc.-RTI Conc./RTI Conc x 100).

Organic Gases in the ppb Audit Repository

Group I	Group II	Group III	Group IV
<p>5 Organics in N<sub>2</sub>:  <u>Carbon tetrachloride</u>  <u>Chloroform</u>  <u>Perchloroethylene</u>  <u>Vinyl Chloride</u>  <u>Benzene</u></p>	<p>9 Organics in N<sub>2</sub>:  Trichloroethylene  1,2-Dichloroethane  1,2-Dibromoethane  F-12  F-11  Bromomethane  Methyl ethyl ketone  1,1,1-Trichloroethane  Acetronitrile</p>	<p>7 Organics in N<sub>2</sub>:  Vinylidene chloride  F-113  F-114  Acetone  1,4-Dioxane  Toluene  Chlorobenzene</p>	<p>6 Organics in N<sub>2</sub>:  Acrylonitrile  1,3-Butadiene  Ethylene Oxide  Methylene chloride  Propylene oxide  Ortho-xylene</p>
<p>Ranges cylinders  currently available:  7 - 90 ppb  90 - 430 ppb  430 - 10,000 ppb</p>	<p>Ranges cylinders  currently available:  7 - 90 ppb  90 - 430 ppb</p>	<p>Ranges cylinders  currently available:  7 - 90 ppb  90 - 430 ppb</p>	<p>Ranges cylinders  under development:  (available  December 1986)  7 - 90  430 - 10,000</p>