

ANALYTICAL REPORT


Prepared by
LOCKHEED MARTIN, Inc.

Mills Gap Road
Asheville, North Carolina

September 2008

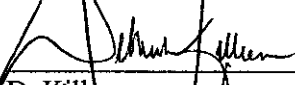
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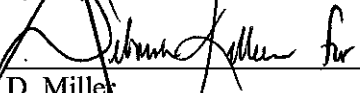
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Introduction

REAC, in response to WA# 0-296, provided analytical support for environmental samples collected from Mills Gap Road located in Asheville, North Carolina, as described in the following table. The support also included QA/QC, data review and preparation of an analytical report containing analytical and QA/QC results.

The samples were treated with the procedures consistent with those specified in REAC SOP# 1008.

COC #	Number of Samples	Sampling Start Date	Date Received	Matrix	Analysis/ Method	Laboratory	Data Package
0-296-08/07/08-0011	2	8/708	8/8/08	Air	VOC/ REAC SOP 1814	REAC ¹	T 255
0-296-08/07/08-0012	2						
0-296-08/07/08-0013	2						
0-296-08/07/08-0014	2						
0-296-08/07/08-0015	2						
0-296-08/07/08-0016	2						
0-296-08/07/08-0017	2						
0-296-08/07/08-0018	2						
0-296-08/07/08-0019	2						
0-296-08/07/08-0020	1						
	1						
0-296-08/07/08-0021	1			Soil Gas			
		Trip Blank					

¹ REAC is NELAC certified for VOC in air

Case Narrative

The laboratory reported the data to three significant figures. Any other representation of the data is the responsibility of the user. All data validation flags have been inserted into the results tables. The laboratory did not report results less than the RL. At the request of the Work Assignment Manager, seventeen chlorinated compounds were analyzed and validated.

VOC in Air Package T 255

High non-target interferences in sample 4534 interfered with the analysis of the sample at the standard volume. The sample was analyzed at reduced volume resulting in higher RLs.

Trichlorofluoromethane was found in all samples except the trip blank. For samples 4517, 4518, 4520, 4522, 4523, 4524, 4525, 4526, 4529 and 4530 a second apparent trichlorofluoromethane peak was observed. The

laboratory reported the first peak as trichlorofluoromethane because its retention time matched the retention time in the corresponding calibration standard.

The data were examined and found to be acceptable.

Summary of Abbreviations

BFB	Bromofluorobenzene
C	Centigrade
CLP	Contract Laboratory Program
COC	Chain of Custody
conc	concentration
cont	continued
CRDL	Contract Required Detection Limit
CRQL	Contract Required Quantitation Limit
D	(Surrogate Table) value is from a diluted sample and was not calculated
Dioxin	Polychlorinated dibenzo-p-dioxins (PCDD) and Polychlorinated dibenzofurans (PCDF)
DFTPP	Decafluorotriphenylphosphine
EMPC	Estimated maximum possible concentration
GC/MS	Gas Chromatography/ Mass Spectrometry
IS	Internal Standard
LCS	Laboratory Control Sample
LCS D	Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MS (BS)	Matrix Spike (Blank Spike)
MSD (BSD)	Matrix Spike Duplicate (Blank Spike Duplicate)
MW	Molecular Weight
NA	Not Applicable or Not Available
NAD	Normalized Absolute Difference
NC	Not Calculated
NR	Not Requested/Not Reported
NS	Not Spiked
% D	Percent Difference
% REC	Percent Recovery
SOP	Standard Operating Procedure
ppbv	parts per billion by volume
ppm	parts per million
pptv	parts per trillion by volume
PQL	Practical Quantitation Limit
QA/QC	Quality Assurance/Quality Control
QL	Quantitation Limit
REAC	Response Engineering and Analytical Contract
RL	Reporting Limit
RPD	Relative Percent Difference
RSD	Relative Standard Deviation
SIM	Selected Ion Monitoring
Sur	Surrogate
TIC	Tentatively Identified Compound
TCLP	Toxicity Characteristic Leaching Procedure
VOC	Volatile Organic Compound
*	Value exceeds the acceptable QC limits.

m ³	cubic meter	g	gram	kg	kilogram	L	liter
μg	microgram	μL	microliter	mg	milligram	mL	milliliter
ng	nanogram	pg	picogram	pCi	picocurie	s	sigma

Data Validation Flags

J	Value is estimated	R	Value is unusable
J+	Value is estimated high (metals only)	U	Not detected
J-	Value is estimated low (metals only)	UJ	Not detected and RL is estimated

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Table 1.1a(cont.) Results of the Analysis for VOC (ppbv) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

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Sample Number Sample Location	Method Blank 081408-1		4530 MG10RE-AMB		4531 MGSC10RE		4532 MG46-AMB		4533 MG46-AMB Dup	
	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv
Analyte										
Chloromethane	U	0.0667	0.548	0.0667	0.492	0.0667	U	0.0667	U	0.0667
Vinyl Chloride	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Chloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Trichlorofluoromethane	U	0.0667	0.146	0.0667	0.229	0.0667	U	0.0667	U	0.0667
1,1-Dichloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Methylene Chloride	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
trans-1,2-Dichloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,1-Dichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
cis-1,2-Dichloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Chloroform	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,2-Dichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,1,1-Trichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Carbon Tetrachloride	U	0.0667	0.0775	0.0667	0.0856	0.0667	U	0.0667	U	0.0667
Trichloroethene	U	0.0667	0.183	0.0667	0.0972	0.0667	U	0.0667	U	0.0667
1,1,2-Trichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Tetrachloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,1,2,2-Tetrachloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667

Table 1.1a(cont.) Results of the Analysis for VOC (ppbv) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

Sample Number Sample Location	4534 MGSG25	
	Results ppbv	RL ppbv
Analyte		
Chloromethane	U	2.00
Vinyl Chloride	U	2.00
Chloroethane	U	2.00
Trichlorofluoromethane	U	2.00
1,1-Dichloroethene	U	2.00
Methylene Chloride	U	2.00
trans-1,2-Dichloroethene	U	2.00
1,1-Dichloroethane	U	2.00
cis-1,2-Dichloroethene	U	2.00
Chloroform	20.2	2.00
1,2-Dichloroethane	U	2.00
1,1,1-Trichloroethane	U	2.00
Carbon Tetrachloride	U	2.00
Trichloroethene	U	2.00
1,1,2-Trichloroethane	U	2.00
Tetrachloroethene	U	2.00
1,1,2,2-Tetrachloroethane	U	2.00

Table 1.1a(cont.) Results of the Analysis for VOC (ppbv) in Air
WA# 0-296 Mills Gap Road

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Sample Number Sample Location	4523 MGSC25		4524 MGIA25		4525 MG17-AMB		4526 MGSC10OW		4527 MG10OW-AMB	
	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv
Analyte										
Chloromethane	0.729	0.0667	1.18	0.0667	0.690	0.0667	0.490	0.0667	0.564	0.0667
Vinyl Chloride	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Chloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Trichlorofluoromethane	0.399	0.0667	0.359	0.0667	0.181	0.0667	0.446	0.0667	0.288	0.0667
1,1-Dichloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Methylene Chloride	U	0.0667	0.0740	0.0667	0.143	0.0667	0.847	0.0667	U	0.0667
trans-1,2-Dichloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,1-Dichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
cis-1,2-Dichloroethene	0.386	0.0667	0.377	0.0667	0.0841	0.0667	U	0.0667	U	0.0667
Chloroform	0.124	0.0667	0.128	0.0667	U	0.0667	0.194	0.0667	U	0.0667
1,2-Dichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,1,1-Trichloroethane	0.0954	0.0667	0.0850	0.0667	U	0.0667	U	0.0667	U	0.0667
Carbon Tetrachloride	0.0865	0.0667	0.0865	0.0667	0.0858	0.0667	0.0989	0.0667	0.0927	0.0667
Trichloroethene	1.38	0.0667	1.27	0.0667	0.975	0.0667	0.0708	0.0667	0.0779	0.0667
1,1,2-Trichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Tetrachloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,1,2,2-Tetrachloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667

Table 1.1a(cont.) Results of the Analysis for VOC (ppbv) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

Sample Number Sample Location	4528 MGSC28		4529 MG28-AMB	
	Results ppbv	RL ppbv	Results ppbv	RL ppbv
Analyte				
Chloromethane	0.640	0.0667	0.735	0.0667
Vinyl Chloride	U	0.0667	U	0.0667
Chloroethane	U	0.0667	U	0.0667
Trichlorofluoromethane	0.249	0.0667	0.229	0.0667
1,1-Dichloroethene	U	0.0667	U	0.0667
Methylene Chloride	U	0.0667	0.147	0.0667
trans-1,2-Dichloroethene	U	0.0667	U	0.0667
1,1-Dichloroethane	U	0.0667	U	0.0667
cis-1,2-Dichloroethene	U	0.0667	U	0.0667
Chloroform	U	0.0667	U	0.0667
1,2-Dichloroethane	U	0.0667	U	0.0667
1,1,1-Trichloroethane	U	0.0667	U	0.0667
Carbon Tetrachloride	0.0978	0.0667	0.0987	0.0667
Trichloroethene	0.275	0.0667	U	0.0667
1,1,2-Trichloroethane	U	0.0667	U	0.0667
Tetrachloroethene	U	0.0667	U	0.0667
1,1,2,2-Tetrachloroethane	U	0.0667	U	0.0667

Table 1.1a Results of the Analysis for VOC (ppbv) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

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Sample Number	Method Blank		4535		4515		4516		4517	
Sample Location	081308-1		Trip Blank		MGSC01		MG01-AMB		MG04-AMB	
Analyte	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv
Chloromethane	U	0.0667	U	0.0667	0.658	0.0667	0.633	0.0667	0.696	0.0667
Vinyl Chloride	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Chloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Trichlorofluoromethane	U	0.0667	U	0.0667	0.257	0.0667	0.241	0.0667	0.215	0.0667
1,1-Dichloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Methylene Chloride	U	0.0667	U	0.0667	0.137	0.0667	U	0.0667	U	0.0667
trans-1,2-Dichloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,1-Dichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
cis-1,2-Dichloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	0.103	0.0667
Chloroform	U	0.0667	U	0.0667	0.0806	0.0667	U	0.0667	U	0.0667
1,2-Dichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,1,1-Trichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Carbon Tetrachloride	U	0.0667	U	0.0667	0.0941	0.0667	0.0951	0.0667	0.0958	0.0667
Trichloroethene	U	0.0667	U	0.0667	0.214	0.0667	0.184	0.0667	0.594	0.0667
1,1,2-Trichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Tetrachloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,1,2,2-Tetrachloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667

Table 1.1a(cont.) Results of the Analysis for VOC (ppbv) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

Sample Number	4518		4519		4520		4521		4522	
Sample Location	MG16-AMB		MG1A29		MG29-AMB		MG25-AMB1		MG25-AMB2	
Analyte	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv
Chloromethane	0.749	0.0667	0.776	0.0667	0.684	0.0667	0.564	0.0667	0.675	0.0667
Vinyl Chloride	U	0.0667	U	0.0667	U	0.0667	0.270	0.0667	U	0.0667
Chloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Trichlorofluoromethane	0.125	0.0667	0.571	0.0667	0.205	0.0667	0.272	0.0667	0.151	0.0667
1,1-Dichloroethene	U	0.0667	U	0.0667	U	0.0667	1.12	0.0667	U	0.0667
Methylene Chloride	0.157	0.0667	0.205	0.0667	0.169	0.0667	0.141	0.0667	0.191	0.0667
trans-1,2-Dichloroethene	U	0.0667	U	0.0667	U	0.0667	1.43	0.0667	U	0.0667
1,1-Dichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
cis-1,2-Dichloroethene	U	0.0667	U	0.0667	U	0.0667	90.9	1.00	0.578	0.0667
Chloroform	U	0.0667	0.267	0.0667	U	0.0667	0.132	0.0667	U	0.0667
1,2-Dichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,1,1-Trichloroethane	U	0.0667	U	0.0667	U	0.0667	3.53	0.0667	0.0994	0.0667
Carbon Tetrachloride	0.0968	0.0667	0.0895	0.0667	0.0940	0.0667	0.103	0.0667	0.0918	0.0667
Trichloroethene	U	0.0667	U	0.0667	U	0.0667	277	1.00	1.60	0.0667
1,1,2-Trichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Tetrachloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,1,2,2-Tetrachloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667

Table 1.1b Results of the Analysis for VOC ($\mu\text{g}/\text{m}^3$) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

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Sample Number Sample Location	Method Blank 081308-1		4535 Trip Blank		4515 MGSC01		4516 MG01-AMB		4517 MG04-AMB	
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$
Chloromethane	U	0.138	U	0.138	1.36	0.138	1.31	0.138	1.44	0.138
Vinyl Chloride	U	0.171	U	0.171	U	0.171	U	0.171	U	0.171
Chloroethane	U	0.176	U	0.176	U	0.176	U	0.176	U	0.176
Trichlorofluoromethane	U	0.375	U	0.375	1.44	0.375	1.35	0.375	1.21	0.375
1,1-Dichloroethene	U	0.264	U	0.264	U	0.264	U	0.264	U	0.264
Methylene Chloride	U	0.232	U	0.232	0.476	0.232	U	0.232	U	0.232
trans-1,2-Dichloroethene	U	0.264	U	0.264	U	0.264	U	0.264	U	0.264
1,1-Dichloroethane	U	0.270	U	0.270	U	0.270	U	0.270	U	0.270
cis-1,2-Dichloroethene	U	0.264	U	0.264	U	0.264	U	0.264	0.408	0.264
Chloroform	U	0.326	U	0.326	0.394	0.326	U	0.326	U	0.326
1,2-Dichloroethane	U	0.270	U	0.270	U	0.270	U	0.270	U	0.270
1,1,1-Trichloroethane	U	0.364	U	0.364	U	0.364	U	0.364	U	0.364
Carbon Tetrachloride	U	0.420	U	0.420	0.592	0.420	0.598	0.420	0.603	0.420
Trichloroethene	U	0.358	U	0.358	1.15	0.358	0.989	0.358	3.19	0.358
1,1,2-Trichloroethane	U	0.364	U	0.364	U	0.364	U	0.364	U	0.364
Tetrachloroethene	U	0.452	U	0.452	U	0.452	U	0.452	U	0.452
1,1,2,2-Tetrachloroethane	U	0.458	U	0.458	U	0.458	U	0.458	U	0.458

Table 1.1b(cont.) Results of the Analysis for VOC ($\mu\text{g}/\text{m}^3$) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

Sample Number Sample Location	4518 MG16-AMB		4519 MG1A29		4520 MG29-AMB		4521 MG25-AMB1		4522 MG25-AMB2	
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$
Chloromethane	1.55	0.138	1.60	0.138	1.41	0.138	1.16	0.138	1.39	0.138
Vinyl Chloride	U	0.171	U	0.171	U	0.171	0.690	0.171	U	0.171
Chloroethane	U	0.176	U	0.176	U	0.176	U	0.176	U	0.176
Trichlorofluoromethane	0.702	0.375	3.21	0.375	1.15	0.375	1.53	0.375	0.848	0.375
1,1-Dichloroethene	U	0.264	U	0.264	U	0.264	4.44	0.264	U	0.264
Methylene Chloride	0.545	0.232	0.712	0.232	0.587	0.232	0.490	0.232	0.663	0.232
trans-1,2-Dichloroethene	U	0.264	U	0.264	U	0.264	5.67	0.264	U	0.264
1,1-Dichloroethane	U	0.270	U	0.270	U	0.270	U	0.270	U	0.270
cis-1,2-Dichloroethene	U	0.264	U	0.264	U	0.264	360	3.96	2.29	0.264
Chloroform	U	0.326	1.30	0.326	U	0.326	0.645	0.326	U	0.326
1,2-Dichloroethane	U	0.270	U	0.270	U	0.270	U	0.270	U	0.270
1,1,1-Trichloroethane	U	0.364	U	0.364	U	0.364	19.3	0.364	0.542	0.364
Carbon Tetrachloride	0.609	0.420	0.563	0.420	0.591	0.420	0.648	0.420	0.578	0.420
Trichloroethene	U	0.358	U	0.358	U	0.358	1490	5.37	8.60	0.358
1,1,2-Trichloroethane	U	0.364	U	0.364	U	0.364	U	0.364	U	0.364
Tetrachloroethene	U	0.452	U	0.452	U	0.452	U	0.452	U	0.452
1,1,2,2-Tetrachloroethane	U	0.458	U	0.458	U	0.458	U	0.458	U	0.458

Table 1.1b(cont.) Results of the Analysis for VOC ($\mu\text{g}/\text{m}^3$) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

Page 2 of 3

Sample Number	4523		4524		4525		4526		4527	
Sample Location	MGSC25		MGIA25		MG17-AMB		MGSC10OW		MG10OW-AMB	
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$
Chloromethane	1.51	0.138	2.44	0.138	1.42	0.138	1.01	0.138	1.16	0.138
Vinyl Chloride	U	0.171	U	0.171	U	0.171	U	0.171	U	0.171
Chloroethane	U	0.176	U	0.176	U	0.176	U	0.176	U	0.176
Trichlorofluoromethane	2.24	0.375	2.02	0.375	1.02	0.375	2.51	0.375	1.62	0.375
1,1-Dichloroethene	U	0.264	U	0.264	U	0.264	U	0.264	U	0.264
Methylene Chloride	U	0.232	0.257	0.232	0.497	0.232	2.94	0.232	U	0.232
trans-1,2-Dichloroethene	U	0.264	U	0.264	U	0.264	U	0.264	U	0.264
1,1-Dichloroethane	U	0.270	U	0.270	U	0.270	U	0.270	U	0.270
cis-1,2-Dichloroethene	1.53	0.264	1.49	0.264	0.333	0.264	U	0.264	U	0.264
Chloroform	0.605	0.326	0.625	0.326	U	0.326	0.947	0.326	U	0.326
1,2-Dichloroethane	U	0.270	U	0.270	U	0.270	U	0.270	U	0.270
1,1,1-Trichloroethane	0.521	0.364	0.464	0.364	U	0.364	U	0.364	U	0.364
Carbon Tetrachloride	0.544	0.420	0.544	0.420	0.540	0.420	0.622	0.420	0.583	0.420
Trichloroethene	7.42	0.358	6.82	0.358	5.24	0.358	0.380	0.358	0.419	0.358
1,1,2-Trichloroethane	U	0.364	U	0.364	U	0.364	U	0.364	U	0.364
Tetrachloroethene	U	0.452	U	0.452	U	0.452	U	0.452	U	0.452
1,1,2,2-Tetrachloroethane	U	0.458	U	0.458	U	0.458	U	0.458	U	0.458

Table 1.1b(cont.) Results of the Analysis for VOC ($\mu\text{g}/\text{m}^3$) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

Sample Number	4528		4529	
Sample Location	MGSC28		MG28-AMB	
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$
Chloromethane	1.32	0.138	1.52	0.138
Vinyl Chloride	U	0.171	U	0.171
Chloroethane	U	0.176	U	0.176
Trichlorofluoromethane	1.40	0.375	1.29	0.375
1,1-Dichloroethene	U	0.264	U	0.264
Methylene Chloride	U	0.232	0.511	0.232
trans-1,2-Dichloroethene	U	0.264	U	0.264
1,1-Dichloroethane	U	0.270	U	0.270
cis-1,2-Dichloroethene	U	0.264	U	0.264
Chloroform	U	0.326	U	0.326
1,2-Dichloroethane	U	0.270	U	0.270
1,1,1-Trichloroethane	U	0.364	U	0.364
Carbon Tetrachloride	0.615	0.420	0.621	0.420
Trichloroethene	1.48	0.358	U	0.358
1,1,2-Trichloroethane	U	0.364	U	0.364
Tetrachloroethene	U	0.452	U	0.452
1,1,2,2-Tetrachloroethane	U	0.458	U	0.458

Table 1.1b(cont.) Results of the Analysis for VOC ($\mu\text{g}/\text{m}^3$) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

Page 3 of 3

Sample Number	Method Blank		4530		4531		4532		4533	
Sample Location	081408-1		MG10RE-AMB		MGSC10RE		MG46-AMB		MG46-AMB Dup	
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$
Chloromethane	U	0.138	1.13	0.138	1.02	0.138	U	0.138	U	0.138
Vinyl Chloride	U	0.171	U	0.171	U	0.171	U	0.171	U	0.171
Chloroethane	U	0.176	U	0.176	U	0.176	U	0.176	U	0.176
Trichlorofluoromethane	U	0.375	0.820	0.375	1.29	0.375	U	0.375	U	0.375
1,1-Dichloroethene	U	0.264	U	0.264	U	0.264	U	0.264	U	0.264
Methylene Chloride	U	0.232	U	0.232	U	0.232	U	0.232	U	0.232
trans-1,2-Dichloroethene	U	0.264	U	0.264	U	0.264	U	0.264	U	0.264
1,1-Dichloroethane	U	0.270	U	0.270	U	0.270	U	0.270	U	0.270
cis-1,2-Dichloroethene	U	0.264	U	0.264	U	0.264	U	0.264	U	0.264
Chloroform	U	0.326	U	0.326	U	0.326	U	0.326	U	0.326
1,2-Dichloroethane	U	0.270	U	0.270	U	0.270	U	0.270	U	0.270
1,1,1-Trichloroethane	U	0.364	U	0.364	U	0.364	U	0.364	U	0.364
Carbon Tetrachloride	U	0.420	0.488	0.420	0.539	0.420	U	0.420	U	0.420
Trichloroethene	U	0.358	0.983	0.358	0.522	0.358	U	0.358	U	0.358
1,1,2-Trichloroethane	U	0.364	U	0.364	U	0.364	U	0.364	U	0.364
Tetrachloroethene	U	0.452	U	0.452	U	0.452	U	0.452	U	0.452
1,1,2,2-Tetrachloroethane	U	0.458	U	0.458	U	0.458	U	0.458	U	0.458

Table 1.1b(cont.) Results of the Analysis for VOC ($\mu\text{g}/\text{m}^3$) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

Sample Number	4534	
Sample Location	MGSG25	
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$
Chloromethane	U	4.13
Vinyl Chloride	U	5.11
Chloroethane	U	5.28
Trichlorofluoromethane	U	11.2
1,1-Dichloroethene	U	7.93
Methylene Chloride	U	6.95
trans-1,2-Dichloroethene	U	7.93
1,1-Dichloroethane	U	8.09
cis-1,2-Dichloroethene	U	7.93
Chloroform	98.6	9.77
1,2-Dichloroethane	U	8.09
1,1,1-Trichloroethane	U	10.9
Carbon Tetrachloride	U	12.6
Trichloroethene	U	10.7
1,1,2-Trichloroethane	U	10.9
Tetrachloroethene	U	13.6
1,1,2,2-Tetrachloroethane	U	13.7

Table 2.1 Results of the LCS Analysis for VOC in Air
WA# 0-296 Mills Gap Road

Page 1 of 1

LCS: AT 139

Analyte	Spike Amount ppbv	Recovered Amount ppbv	% Recovery	QC Limits % Recovery
Chloromethane	1.03	0.929	90	70-130
Vinyl Chloride	1.03	0.969	94	70-130
Chloroethane	1.05	0.973	93	70-130
Trichlorofluoromethane	1.06	1.03	97	70-130
1,1-Dichloroethene	1.05	0.934	89	70-130
Methylene Chloride	1.05	0.899	86	70-130
trans-1,2-Dichloroethene	1.05	0.771	73	70-130
1,1-Dichloroethane	1.05	0.827	79	70-130
cis-1,2-Dichloroethene	1.05	0.786	75	70-130
Chloroform	1.02	0.788	77	70-130
1,2-Dichloroethane	1.05	0.789	75	70-130
1,1,1-Trichloroethane	1.05	0.878	84	70-130
Carbon Tetrachloride	1.04	0.874	84	70-130
Trichloroethene	1.04	0.884	85	70-130
1,1,2-Trichloroethane	1.03	0.818	79	70-130
Tetrachloroethene	1.04	0.816	78	70-130
1,1,2,2-Tetrachloroethane	1.01	0.924	92	70-130

LCS: AT 141

Analyte	Spike Amount ppbv	Recovered Amount ppbv	% Recovery	QC Limits % Recovery
Chloromethane	1.03	1.16	112	70-130
Vinyl Chloride	1.03	1.21	118	70-130
Chloroethane	1.05	1.28	122	70-130
Trichlorofluoromethane	1.06	1.29	121	70-130
1,1-Dichloroethene	1.05	1.17	111	70-130
Methylene Chloride	1.05	1.12	107	70-130
trans-1,2-Dichloroethene	1.05	0.750	71	70-130
1,1-Dichloroethane	1.05	0.823	78	70-130
cis-1,2-Dichloroethene	1.05	0.762	73	70-130
Chloroform	1.02	0.770	76	70-130
1,2-Dichloroethane	1.05	0.767	73	70-130
1,1,1-Trichloroethane	1.05	0.908	87	70-130
Carbon Tetrachloride	1.04	0.897	86	70-130
Trichloroethene	1.04	0.915	88	70-130
1,1,2-Trichloroethane	1.03	0.864	84	70-130
Tetrachloroethene	1.04	0.827	79	70-130
1,1,2,2-Tetrachloroethane	1.01	1.05	104	70-130

Table 2.2 Results of the Duplicate Analysis for VOC in Air
WA# 0-296 Mills Gap Road

Page 1 of 1

Sample: 4516

Analyte	Sample Results ppbv	Duplicate Results ppbv	RPD	QC Limit RPD
Chloromethane	0.633	0.651	3	25
Vinyl Chloride	U	U	NC	25
Chloroethane	U	U	NC	25
Trichlorofluoromethane	0.241	0.212	13	25
1,1-Dichloroethene	U	U	NC	25
Methylene Chloride	U	0.147	NC	25
trans-1,2-Dichloroethene	U	U	NC	25
1,1-Dichloroethane	U	U	NC	25
cis-1,2-Dichloroethene	U	U	NC	25
Chloroform	U	U	NC	25
1,2-Dichloroethane	U	U	NC	25
1,1,1-Trichloroethane	U	U	NC	25
Carbon Tetrachloride	0.0951	0.0997	5	25
Trichloroethene	0.184	0.181	2	25
1,1,2-Trichloroethane	U	U	NC	25
Tetrachloroethene	U	U	NC	25
1,1,2,2-Tetrachloroethane	U	U	NC	25

Sample: 4528

Analyte	Sample Results ppbv	Duplicate Results ppbv	RPD	QC Limit RPD
Chloromethane	0.640	0.650	2	25
Vinyl Chloride	U	U	NC	25
Chloroethane	U	U	NC	25
Trichlorofluoromethane	0.249	0.266	7	25
1,1-Dichloroethene	U	U	NC	25
Methylene Chloride	U	U	NC	25
trans-1,2-Dichloroethene	U	U	NC	25
1,1-Dichloroethane	U	U	NC	25
cis-1,2-Dichloroethene	U	U	NC	25
Chloroform	U	U	NC	25
1,2-Dichloroethane	U	U	NC	25
1,1,1-Trichloroethane	U	U	NC	25
Carbon Tetrachloride	0.0978	0.0959	2	25
Trichloroethene	0.275	0.277	1	25
1,1,2-Trichloroethane	U	U	NC	25
Tetrachloroethene	U	U	NC	25
1,1,2,2-Tetrachloroethane	U	U	NC	25

Sample: 4533

Analyte	Sample Results ppbv	Duplicate Results ppbv	RPD	QC Limit RPD
Chloromethane	U	U	NC	25
Vinyl Chloride	U	U	NC	25
Chloroethane	U	U	NC	25
Trichlorofluoromethane	U	U	NC	25
1,1-Dichloroethene	U	U	NC	25
Methylene Chloride	U	U	NC	25
trans-1,2-Dichloroethene	U	U	NC	25
1,1-Dichloroethane	U	U	NC	25
cis-1,2-Dichloroethene	U	U	NC	25
Chloroform	U	U	NC	25
1,2-Dichloroethane	U	U	NC	25
1,1,1-Trichloroethane	U	U	NC	25
Carbon Tetrachloride	U	U	NC	25
Trichloroethene	U	U	NC	25
1,1,2-Trichloroethane	U	U	NC	25
Tetrachloroethene	U	U	NC	25
1,1,2,2-Tetrachloroethane	U	U	NC	25

0296-DAR REAC, Edison, NJ
(732) 321-4200
EP-C-04-032

CHAIN OF CUSTODY RECORD

Site #: 0-296

Contact Name: John Johnson

No: 0-296-08/07/08-0011

Lab: REAC

Lab Phone: 732-494-4000

[illegible]

Special Instructions: TO-15 / TCE detection limit as requested by PWA

GA 08/07/08

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
All analyses	J McCall	8/7/08	Tracy Martin	8/8/08	10:00	All Analyses	Tracy Martin	8/8/08	J. Ruiz	8/8/08	16:00

REAC, Edison, NJ

(732) 321-4200

EP-C-04-032

CHAIN OF CUSTODY RECORD

Site #: 0-296

Contact Name: John Johnson

No: 0-296-08/07/08-0012

Lab: REAC

Lab Phone: 732-494-4000

Lab #	Sample #	Location	Analyses	Matrix	Collected	Numb Cont	Container	Preservative	SUMMA	OrificeID	Stop Pressure
17532	4517	MG04-AMB	Volatiles (VOAs)	Air	8/7/2008	1	Summa Canister	None	000093	013184	-5
17533	4518	MG16-AMB	Volatiles (VOAs)	Air	8/7/2008	1	Summa Canister	None	001129	010381 013081	-9

Special Instructions: TO-15 / TCE detection limit as requested by PWA

08/07/08

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
All enduses	J. McCall	8/7/08	John Johnson	8/8/08	10:00	All Analysis	John Johnson	8/8/08	J. Deef	8/9/08	10:00

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0296-DAR REAC, Edison, NJ
(732) 321-4200
EP-C-04-032

CHAIN OF CUSTODY RECORD

Site #: 0-296

Contact Name: John Johnson

No: 0-296-08/07/08-0014

Lab: REAC

Lab Phone: 732-494-4000

[illegible]

Special Instructions: TO-15 / TCE detection limit as requested by PWA

CRV 08/07/08

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
All analyses	J McCall	8/7/08	James P. Davis	8/8/08	10:00	All Analysis	James P. Davis	8/8/08	J McCall	8/8/08	10:00

REAC, Edison, NJ
(732) 321-4200
EP-C-04-032

CHAIN OF CUSTODY RECORD

Site #: 0-296

Contact Name: John Johnson

No: 0-296-08/07/08-0015

Lab: REAC

Lab Phone: 732-494-4000

[illegible]

Special Instructions: TO-15 / TCE detection limit as requested by PWA

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
All analyses	J. McCall	8/7/08	Jimmy Potvin	8/8/08	10:00	All Analyses	Jimmy Potvin	8/8/08	J. McCall	8/8/08	10:50

EP-C-04-032

CHAIN OF CUSTODY RECORD

Site #: 0-296

Contact Name: John Johnson

No: 0-296-08/07/08-0016

Lab: REAC

Lab Phone: 732-494-4000

Lab #	Sample #	Location	Analyses	Matrix	Collected	Numb Cont	Container	Preservative	SUMMA	OrificeID	Stop Pressure
17540	4525	MG17-AMB	Volatiles (VOAs)	Air	8/7/2008	1	Summa Canister	None	000146	013182	-9
17541	4526	MGSC10OW	Volatiles (VOAs)	Air	8/7/2008	1	Summa Canister	None	000212	001065	-6

Special Instructions: TO-15 / TCE detection limit as requested by PWA

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

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REAC, Edison, NJ

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EP-C-04-032

CHAIN OF CUSTODY RECORD

Site #: 0~296

Contact Name: John Johnson

No: 0-296-08/07/08-0017

Lab: REAC

Lab Phone: 732-494-4000

Lab #	Sample #	Location	Analyses	Matrix	Collected	Numb Cont	Container	Preservative	SUMMA	OrificeID	Stop Pressure
17542	4527	MG10OW-AMB	Volatiles (VOAs)	Air	8/7/2008	1	Summa Canister	None	000165	013180	-11
17543	4528	MGSC28	Volatiles (VOAs)	Air	8/7/2008	1	Summa Canister	None	000033	013161	-8
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Special Instructions: TO-15 / TCE detection limit as requested by PWA

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

[illegible]

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REAC, Edison, NJ

(732) 321-4200

EP-C-04-032

CHAIN OF CUSTODY RECORD

Site #: 0-296

Contact Name: John Johnson

No: 0-296-08/07/08-0018

Lab: REAC

Lab Phone: 732-494-4000

[illegible]

Special Instructions: TO-15 / TCE detection limit as requested by PWA

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #



08/07/08

[illegible]

EP-C-04-032

Contact Name: John Johnson


Lab Phone: 732-494-4000

Special Instructions: TO-15 / TCE detection limit as requested by PWA	 	SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #
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[illegible]

Contact Name: John Johnson

Lab Phone: 732-494-4000

Special Instructions: TO-15 / TCE detection limit as requested by PWA	Sample # 4534 Grab Sample	 08/07/08	SAMPLES TRANSFERRED FROM
			CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
All analyses	J. McCall	8/7/08	Young/Parisi	8/8/08	10:00	All Analyses	Young/Parisi	8/8/08	J. Doherty	8/8/08	14:00

[illegible]