APPENDIX A

GEOCON
CONSULTANTS, INC.

GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS

Proposal No. LS-07-195
September 11, 2007

Mr. Marc de la Vergne
Capitol Area Development Manager
Capitol Area Development Authority
1522 14th Street
Sacramento, California 95814-5958

Subject: MERCURY CLEANERS
1419 16TH STREET — LISTED AS 1417 16TH W/ CO. ASSESSOR
SACRAMENTO, CALIFORNIA
PROPOSAL FOR ADDITIONAL SOIL, SOIL GAS AND GROUNDWATER INVESTIGATION

Dear Mr. de la Vergne:

In response to your request, we have prepared this proposal for conducting an additional site investigation at the Mercury Cleaners facility (the Site) located at 1419 16th Street in Sacramento, California, for the Capitol Area Development Authority (CADA). CADA has requested additional investigation of the Site based on the results of a Phase II Environmental Site Assessment (ESA) performed by Ninyo & Moore in November 2005. The Phase II ESA was performed as a follow-up to a Phase I ESA in order to assess potential impacts from past uses of the Site as an auto repair facility and dry cleaners and included collection and analysis of soil, soil gas and groundwater samples. Soil and groundwater samples collected during the Phase II ESA were analyzed for total petroleum hydrocarbons (TPH) as gasoline (g), diesel (d) and motor oil (mo), volatile organic compounds (VOCs) and metals (chromium, cadmium, lead, nickel and zinc). Soil gas samples were analyzed for VOCs. Laboratory analysis of soil samples detected TPHd and TPHmo, the VOCs cis-1,2-dichloroethene (cis-1,2-DCE), tetrachloroethene (PCE), total xylenes, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, naphthalene, and lead. Analysis of groundwater samples detected TPHg and cis-1,2-DCE, PCE and trichloroethene (TCE). Analysis of soil gas samples detected several VOCs. However, only PCE was detected at concentrations that exceed regulatory health screening criteria.

The results of the Phase II ESA were presented in Ninyo & Moore's report: *Limited Phase II Environmental Site Assessment, 1419 16th Street, Sacramento, California* dated September 21, 2006. Based on the results of the Phase II ESA, Ninyo & Moore recommended additional investigation of soil, soil gas and groundwater in their report: We were retained by the Sacramento Business Environmental Resource Center (BERC) under an agreement with CADA to review and provide comments on the draft Phase II ESA report and concurred with the recommendation for further investigation.

A Phase II ESA is also planned to be performed for CADA at the nearby Enterprise Rent-a-Car facility located approximately 100 feet north of the Site. This Phase II ESA will be funded by the Sacramento Business Environmental Resource Center under their Brownfields petroleum site assessment grant and is intended to assess potential impacts from previous operation of a gas station at this facility. This Phase II ESA may also provide data that is pertinent to the Mercury Cleaners investigation such as upgradient groundwater quality.

3160 Gold Valley Drive, Suite 800 ■ Rancho Cordova, California 95742 ■ Telephone (916)852-9118 ■ Fax (916)852-9132

PURPOSE AND OBJECTIVE

The purpose of the additional site investigation will be to assess the extent of VOCs in soil gas and groundwater and TPH in soil and groundwater. The primary objective will be to collect soil, soil gas and groundwater samples from appropriate locations given the site constraints and analyze these samples to provide a better understanding of the extent of impacts.

SCOPE OF SERVICES

The scope of services will consist of the following tasks:

- Task 1 – Pre-field activities;
- Task 2 – Field activities: advance borings and collect samples;
- Task 3 – Laboratory sample analysis; and
- Task 4 – Preparation of an Additional Site Investigation Report.

Each of the tasks is described in greater detail below.

Task 1 – Pre-field Activities

Pre-field activities will include:

- Providing at least five working-day notification to CADA and the site occupants prior to beginning field sampling activities;
- Contacting Underground Service Alert (USA) a minimum of 48 hours prior to the start of drilling activities. USA will notify subscribing public utilities so that they can attempt to delineate utilities and conduits in proximity to the Sites. Prior to contacting USA, the proposed boring locations will be marked with white paint as required by law;
- Retaining the services of Cruz Brothers Locators, to further assess the potential presence of subsurface public and private utilities and conduits in proximity to the proposed exploration locations as a supplement to the USA notifications;
- Obtaining a boring permit from Sacramento County Department of Environmental Management (SCDEM) and an encroachment permit from the City of Sacramento for drilling on city property prior to the start of drilling activities;
- Retaining the services of Resonant Sonic International (RSI), a California C57-licensed drilling subcontractor, to perform the drilling activities using direct-push techniques;
- Retaining the services of Advanced Technology Laboratories (ATL), a California-certified analytical laboratory located in Signal Hill, California, to perform chemical analysis of soil and groundwater samples; and
- Retaining the services of LA Testing., a California-certified analytical laboratory and fully AIHA accredited laboratory located in Los Alamitos, California, to perform chemical analysis of soil gas samples and indoor air industrial hygiene samples.

The health and safety plan (HSP) developed for the Phase II ESA at the Enterprise facility will be used for this project as well. The HSP will describe the project health and safety objectives and

rationale, the procedures followed to monitor worker safety, and the controls that will be implemented to protect workers from hazards relating to the field activities.

Task 2 – Field Activities

Field activities will include advancing, logging and sampling of ~~five~~ six direct-push borings at the Site and collection of indoor air samples. A limited-access, direct-push sampling rig will be used to advance two borings inside the site building and a larger, truck-mounted rig will be used to advance three borings outside the building. Figure 1 shows the proposed boring locations. The possibility exists that a cemented hardpan layer could be present in soil beneath the Site that would be too difficult for direct-push equipment to penetrate. If this is the case, then a hollow-stem auger rig may need to be brought in to complete the borings.

The locations of the three borings to be advanced outside the site building were selected to assess concentrations of VOCs in soil gas and groundwater and TPHg in soil and groundwater downgradient of the previous sampling locations. Data from the Enterprise Phase II ESA will provide information on upgradient locations. The locations of the two indoor borings were selected to assess concentrations of VOCs in soil gas and groundwater in other possible source areas within the building – adjacent to a floor drain and beneath a room with dry cleaning equipment not previously assessed. Indoor air sampling locations will be selected to assess concentrations of VOCs in indoor air in three locations within the site building.

Soil cores will be collected in each boring primarily for purposes of logging soil type according to the Unified Soil Classification System (USCS). Soil samples are not proposed to be collected for analysis unless evidence of impacts is observed in the soil cores (i.e., staining, odors or elevated photoionization detector (PID) readings). If such evidence is noted, then a soil sample may be collected for laboratory analysis.

A soil gas sample will be collected from each boring at a depth of 5 feet below ground surface (bgs) in accordance with the Department of Toxic Substances Control (DTSC) advisory on active soil gas investigations. The reason for following DTSC protocol for collection of soil gas samples is to be able to address potential intrusion of VOCs to indoor air within the site building. In accordance with the DTSC protocol, soil gas samples will be collected through a retractable tip (threaded point holder) sampling device on the end of the drive rods. Once the desired sampling depth is reached, a 10-foot-long section of 1/4-inch-diameter polyethylene tubing with a stainless steel post-run tubing on the end of the tubing will be inserted through the hollow rods and threaded to the sampling tip. A three-way valve will be attached to the other end of the tubing to allow extraction of gas using a 60-cubic-centimeter (cc) syringe. The top of the boring will be sealed with hydrated bentonite to ensure that ambient air on the surface does not seep into the boring. The hollow rods will then be retracted up to a maximum of 3 feet above the bottom of the boring to allow for soil gas to enter the polyethylene tubing. Prior to purging, ambient air in the boring will be allowed to equilibrate for a minimum of 20 minutes. Prior to sample collection, ambient air will be evacuated from the tubing by hand purging approximately 180 cc (three tubing volumes) of soil gas with a 60 cc syringe. Following purging, a soil gas sample will be collected directly from the tubing attached to a pre-cleaned, laboratory-provided, one-liter vacuum summa canister. During sampling, a leak check will be performed by spraying 1,1-difluoroethane around the bentonite seal and on the sample tubing exposed on the surface. Each of the sample containers will be labeled with a unique sample identification number, sample time and date, and project number with an indelible marker.

Upon reaching groundwater a groundwater grab sample will also be collected from each boring.

Groundwater samples will be collected with a bailer lowered through the interior of the direct-push rods. The bailer will be cleaned prior to each sample collection. Samples will be decanted into laboratory supplied containers, labeled and placed in a chilled cooler for transportation to the laboratory.

Each boring will be backfilled with a cement/bentonite grout to the ground surface in accordance with SCEMD requirements following completion of logging and sampling.

Indoor air samples will be collected in Summa canisters fitted with flow regulators. The canisters will be placed in three locations in the site building and the valves opened. The regulators will be set to allow filling of the canister over a 4 to 8-hour period.

Task 3 – Laboratory Sample Analysis

Soil gas and indoor air samples will be submitted to LA Testing of Los Alamitos, California. Soil gas samples will be analyzed for VOCs by method TO-14 and indoor air samples will be analyzed for VOCs by National Institute for Occupational Safety and Health (NIOSH) method 1003. Groundwater samples and soil samples (if any) will be submitted to ATL of Signal Hill, California, and analyzed on a standard turn-around-time for TPHg by United States Environmental Protection Agency (USEPA) Method 8015 and VOCs by USEPA Method 8260B.

Task 4 – Report Preparation

An Additional Site Investigation Report will be prepared and will include an introduction, background section, and a description of the site geology and hydrogeology based on our observations during drilling. The report will also include a summary of the scope of work and methodology, and tabular presentation of the analytical results. A site plan showing current site features and boring locations will be presented in the report. Conclusions and recommendations for additional work, if warranted, will also be presented in the report. Analytical laboratory reports, boring logs and other relevant field data will be appended to the report as appropriate.

PROPOSED FEES AND CONDITIONS

We propose to perform the scope of services outlined herein for an estimated fee of [redacted] A breakdown of these costs is provided on the Cost Estimate Worksheet included as an attachment to this letter. This fee is valid for a period of 60 days from the date of this proposal. Our services would be provided on a time and materials basis in accordance with the enclosed *2006 Schedule of Fees for Environmental Services/Terms and Conditions,* which are incorporated into and made a part of this proposal.

Invoices will be submitted at four-week intervals and will be itemized to reflect only the actual time and costs incurred. If unanticipated conditions are encountered which require a significant modification to the recommended scope of services and/or which require an increase in the contract amount, we will not proceed with the modified scope or increased amount without obtaining your verbal authorization. Additional subcontracted work beyond the scope or volume stated in this agreement will be billed at cost plus 15 percent and will be additive to the proposed fee. Consultation services rendered after the issuance of the report will be billed on a "time and materials" basis in accordance with our attached *2006 Schedule of Fees for Environmental Services* and will be additive to the proposed fee.

SCHEDULE

We can begin performing the work described herein immediately upon receipt of your authorization to proceed. Total time from receipt of notification to proceed to submittal of the report will be approximately eight weeks if laboratory analysis is performed on a standard turn-around-time of 10 to 15 working days.

We appreciate the opportunity to provide you with a proposal for this project. Please contact us if you have any questions regarding this proposal or if we may be of further service.

Sincerely,

GEOCON CONSULTANTS, INC.

Jim Brake, PG
Project Manager

JB:jaj

(1) Addressee

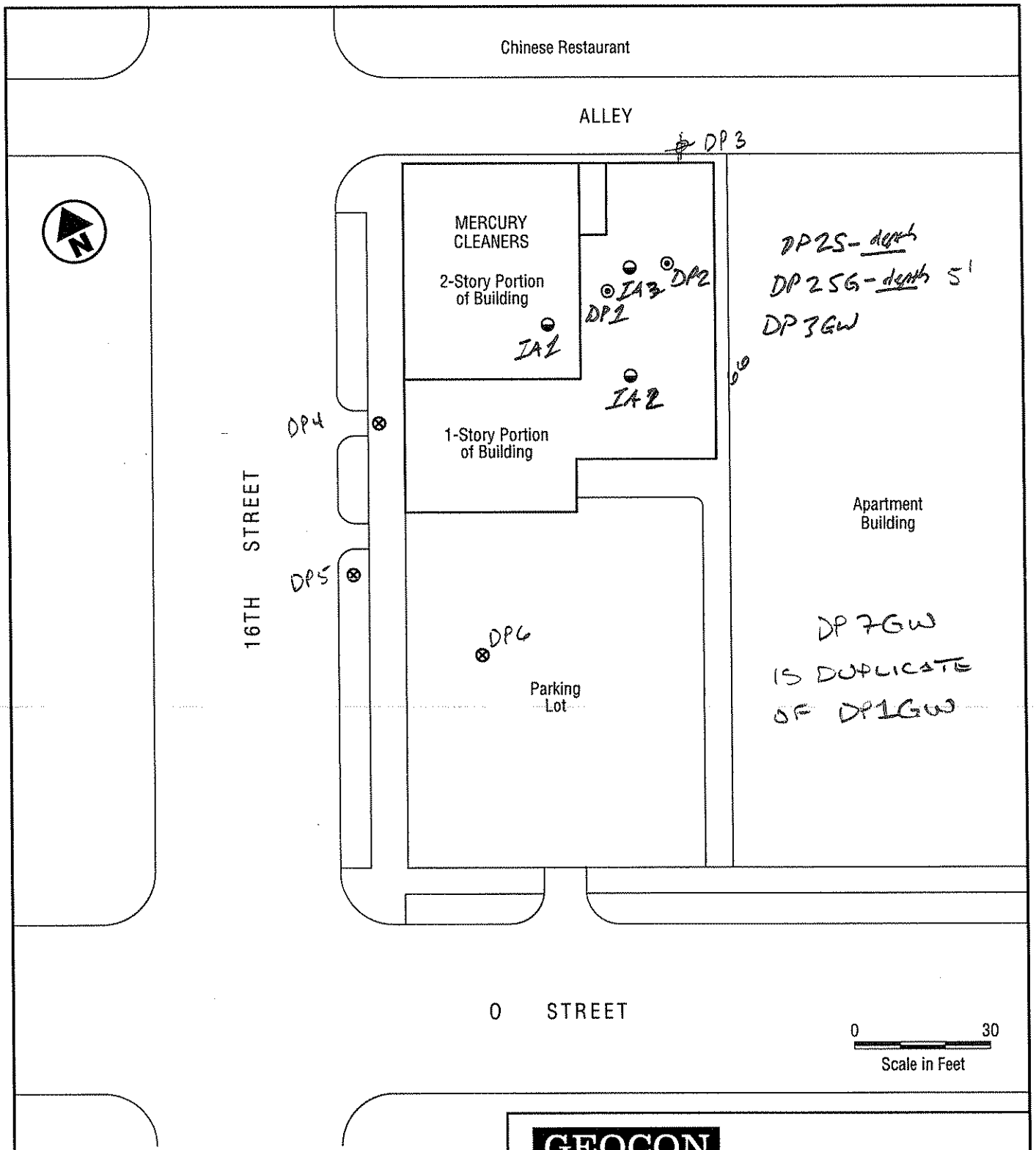
Attachments: Cost Estimate Worksheet
Figure 1, Proposed Sampling Locations
2006 Schedule of Fees for Environmental Services

COST ESTIMATE WORKSHEET

Project Name	Mercury Cleaners Additional Site Investigation
Proposal No.	LS-07-195
Project Scope	Advance five direct-push soil borings, collect soil, soil gas, groundwater and indoor air samples. Analyze samples and prepare report.

TASK	QUANTITY	UNITS	RATE	MARKUP	AMOUNT
TASK 1: PRE-FIELD ACTIVITIES					
UTILITIES CLEARANCE					
Staff Geologist	2	HRS	$ 89.00	1.00	$ 178.00
Cable Locator	1	LUMP	$ 400.00	1.15	$ 460.00
Mileage	30	MILES	$ 0.60	1.00	$ 18.00
PERMITTING					
Staff Geologist	8	HRS	$ 89.00	1.00	$ 712.00
Sac County EMD Well Permit Fee	1	LUMP	$ 755.00	1.15	$ 868.25
City of Sac Encroachment Permit	1	LUMP	$ 600.00	1.15	$ 690.00
				Subtotal	$ 2,926.25
TASK 2: FIELD ACTIVITIES					
Direct-Push Subcontractor	1	JOB	$ 4,628.00	1.15	$ 5,322.20
Staff Geologist	20	HRS	$ 89.00	1.00	$ 1,780.00
Water Level Indicator	3	DAY	$ 32.00	1.00	$ 96.00
D.I. Water (5-gals.)	6	EACH	$ 14.00	1.00	$ 84.00
Mileage	60	MILES	$ 0.60	1.00	$ 36.00
				Subtotal	$ 7,318.20
TASK 3: LABORATORY ANALYSIS					
Staff Geologist	2	HRS	$ 89.00	1.00	$ 178.00
Summa cannisters and flow controllers	6	EACH	$ 60.00	1.15	$ 414.00
Soil - TPHg by EPA 8015	4	TEST	$ 34.50	1.15	$ 158.70
Soil Gas - VOCs by TO-14	6	TEST	$ 165.00	1.15	$ 1,138.50
Groundwater - VOCs by EPA 8260	7	TEST	$ 100.00	1.15	$ 805.00
Groundwater - TPHg by EPA 8015	7	TEST	$ 34.50	1.15	$ 277.73
Indoor Air - VOCs by NIOSH 1003	3	TEST	$ 200.00	1.15	$ 690.00
				Subtotal	3,661.93
TASK 4: REPORT PREPARATION					
Senior Geologist	4	HRS	$ 134.00	1.00	$ 536.00
Certified Industrial Hygienist	4	HRS	$ 150.00	1.00	$ 600.00
Staff Geologist	24	HRS	$ 89.00	1.00	$ 2,136.00
Technical Editor	5	HRS	$ 89.00	1.00	$ 445.00
Drafting	8	HRS	$ 69.00	1.00	$ 552.00
Word Processing	2	HRS	$ 59.00	1.00	$ 118.00
				Subtotal	$ 4,387.00
			PROJECT TOTAL:		**$ 18,293.38**

V BUILDING FOOTPRINT ≈ 4662 ft²



LEGEND:

- ⊗ Approximate Soil & Groundwater Sampling Location
- ⊙ Approximate Soil Gas & Groundwater Sampling Location
- ◒ Approximate Indoor Air Sampling Location

Ref: Ninyo & Moore, 9/06

GEOCON CONSULTANTS, INC.
3160 GOLD VALLEY DR. – SUITE 800 – RANCHO CORDOVA, CA. 95742
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Mercury Cleaners

1419 16th Street
Sacramento, California

PROPOSED SAMPLING LOCATIONS

LS-07-195	September 2007	Figure 1

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G E O T E C H N I C A L ▪ E N V I R O N M E N T A L ▪ M A T E R I A L S

2006 SCHEDULE OF FEES
ENVIRONMENTAL SERVICES

PROFESSIONAL SERVICES

Word Processing/Technical Editor	$65/hr.
Engineering Assistant/Technical Illustrator	70/hr.
Engineering Field Technician	*75/hr.
Senior Engineering Field Technician	*85/hr.
Staff Engineer/Geologist/Scientist	95/hr.
Senior Staff Engineer/Geologist/Scientist	105/hr.
Project Engineer/Geologist/Scientist	115/hr.
Senior Project Engineer/Geologist/Scientist	125/hr.
Senior Engineer/Geologist/Scientist	140/hr.
Associate Engineer/Geologist/Scientist	175/hr.
Principal Engineer/Geologist/Scientist/Litigation Support	195/hr.
Deposition or Court Appearance	350/hr.
*Prevailing Wage Hourly Surcharge per California Labor Code §720, et. Seq.	25/hr.
Minimum Professional Fee	$500.00/Project

EQUIPMENT, MATERIALS AND LABORATORY TESTS

EQUIPMENT AND MATERIALS

Pick-up Truck	$110/day
Equipment Truck	175/day
Vehicle Mileage	0.60/mile
Per Diem	125/day
Direct-Push Rig/Operator	125/hour
Drive-Tube Sampler	37/day
Hand-Auger	37/day
Soil Sample Tube (Brass)	8/ea.
Soil Sample Tube (Stainless)	11/ea.
Bailer (Reusable)	33/day
Bailer (Disposable)	13/ea.
Stainless Sampling Pump	110/day
Battery-Powered Pump	55/day
Water Level Indicator	32/day
Interface Probe	58/day
Photo-Ionization Meter	115/day
Combustible Gas Meter	80/day
pH/Conductivity/Temperature Meter	44/day
Turbidity Meter	80/day
Level D PPE/Decon Rinse Equipment	44/day
De-Ionized Water (5-gallon)	14/ea.
Generator or Air Compressor	85/day
Concrete Coring Equipment	165/day
Equipment or Water Trailer	100/day
55-Gallon Drum	49/ea.
Visqueen (6 mil 20x100')	84/roll
Traffic Cones/Barricades	35/day
GPS Unit	160/day
Portable Copier	45/day

MONITORING WELL MATERIALS

	2-inch-diameter	4-inch-diameter
5' PVC 0.02 Slotted Casing	$32/ea.	$58/ea.
10' PVC 0.02 Slotted Casing	58/ea.	110/ea.
5' PVC Blank Casing	27/ea.	47/ea.
10' PVC Blank Casing	42/ea.	74/ea.
Threaded Casing Plug	16/ea.	22/ea.
Locking Cap	32/ea.	37/ea.
Security Well Head Cover	99/ea.	116/ea.

Silica Sand, 100-lb. Bag	$18/ea.
Cement, 94-lb. Bag	17/ea.
Ready Mix Concrete, 60-lb. Bag	17/ea.
Bentonite Chips, 50-lb. Bag	17/ea.
Bentonite Pellets, 50-lb. Bucket	84/ea.
Asphalt Patch, 60-lb Bag	17/ea.

ANALYTICAL TESTS

TPHg/BTEX (EPA 8015M/8021B)	$69/test
TPHg/BTEX/MTBE (EPA 8015M/8021B/8260B)	99/test
TPHd/TPHmo (EPA 8015M)	74/test
Fuel Oxygenate Compounds (EPA 8260B)	94/test
Volatile Organic Compounds (EPA 8260B)	150/test
Semi-Volatile Organic Compounds (EPA 8270)	300/test
CAM 17 Metals (EPA 6010)	168/test
Single Metal (EPA 6010)	20/test
WET or TCLP Extraction	69/test
Soil pH (EPA 9045)	20/test
48-Hour Turn-Around-Time	60% surcharge

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TERMS AND CONDITIONS

1. *Listed are typical charges for the services most frequently performed by Geocon. Prices for unlisted services as well as special quotations for programs involving volume work will be provided upon request.*

2. *Saturday and overtime hours are charged at time and one-half; Sundays and holidays at double time. Per diem is $125.00 per day when location of work dictates.*

3. *Field services including monitoring well installation, groundwater sampling, pump testing, remedial system pilot testing and other special services will be charged at standard engineering rates plus equipment charges.*

4. *A surcharge of $25.00 per hour will be added to the Professional Services classifications indicated with an asterisk (*) on the Schedule of Fees in order to comply with the prevailing wage requirements of California Labor Code §720, et. seq.*

5. *Hourly services are billed portal to portal from closest office in accordance with the stated hourly rates herein, with a minimum two-hour charge. Mileage is charged at $0.60/mile.*

6. *Outside services including subcontractors and rental of special equipment are billed at cost plus 15 percent.*

7. *Invoices will be submitted at four-week intervals. Terms of payment are net upon presentation of invoice. Invoices become delinquent thirty (30) days from invoice date and subject to one and one-half percent (1-1/2%) service charge per month, or the maximum rate allowed by law, whichever is lower. If Client objects to all or any portion of any invoice, Client will so notify Geocon in writing within fourteen (14) calendar days of the invoice date, identify the cause of disagreement, and pay that portion of the invoice not in dispute. The parties will immediately make every effort to settle the disputed portion of the invoice. Payment on delinquent invoices will first be applied to accrued interest and then to the principal amount. All time spent and expenses incurred (including any attorney's fees and costs) in connection with collection of any delinquent amount will be paid by Client to Geocon per Geocon's current fee schedule.*

8. *Many risks potentially affect Geocon by virtue of entering into this agreement to perform professional engineering services on behalf of Client. The principal risk is the potential for human error by Geocon. For Client to obtain the benefit of a fee which includes a nominal allowance for dealing with our liability, Client agrees to limit our liability to Client and to all other parties for claims arising out of our performance of the services described in the agreement. The aggregate liability of Geocon will not exceed $50,000 for negligent professional acts, errors, or omissions, including attorney's fees and costs which may be awarded to the prevailing party, and Client agrees to indemnify and hold harmless Geocon from and against all liabilities in excess of the monetary limit established above.*

APPENDIX B

PROJECT NO. **S9322-06-01**

BORING NO. DP1

DATE DRILLED 12/8/2007 WATER LEVEL (ATD) 18.0'

EQUIPMENT DIRECT-PUSH DRILLER GEOCON

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	SOIL (USCS)	HEADSPACE (PPM)
1				**6 INCHES CONCRETE**		
				Medium dense, moist, grayish brown (5YR 3/2), Sandy SILT	ML	
2						
3						
4						
5		DP1-4.5				
6						
7				Medium dense, damp, pale yellowish brown (10YR 6/2), SAND	SP	
8				Stiff, moist, moderate brown (5YR 4/4), Clayey SILT	ML	
9					CL	
10						
11						
12				- silty clay		
13						
14						
15						
16						
17						
18				▼		
19				- wet		
20				BORING TERMINATED AT 20 FEET		

Figure 1, Log of Boring DP1, page 1 of 1

ENV_NO_WELL MERCURY BORINGS.GPJ 01/07/08

BORING ELEVATION:	ENGINEER/GEOLOGIST: **RICH BROWN**

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

PROJECT NO. **S9322-06-01**

BORING NO. DP2

DATE DRILLED 12/8/2007 WATER LEVEL (ATD) 18.0'

EQUIPMENT DIRECT-PUSH DRILLER GEOCON

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	SOIL (USCS)	HEADSPACE (PPM)
1				**6 INCHES CONCRETE**		
				Medium dense, dry, dark yellowish brown (10YR 4/2), Sandy SILT	ML	
2						
3						
4						
5		DP2-5				
6						
7						
8						
9				Very stiff, damp, dark yellowish brown (10YR 4/2), Clayey SILT	ML	
10						
11						0
12						
13						
14						
15				Soft, damp, grayish olive (10Y 4/2), Clayey SILT, hydrocarbon odor	ML	
16		DP2-15,5 1455				170
17						
18		DP2-18.0 1515		▼		
19				- medium stiff		
20				BORING TERMINATED AT 20 FEET		

Figure 2, Log of Boring DP2, page 1 of 1

ENV_NO_WELL MERCURY BORINGS.GPJ 01/07/08

BORING ELEVATION:	ENGINEER/GEOLOGIST: **RICH BROWN**

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

PROJECT NO. **S9322-06-01**

BORING NO. DP3

DATE DRILLED 12/8/2007 WATER LEVEL (ATD) 18.0'

EQUIPMENT DIRECT-PUSH DRILLER GEOCON

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	SOIL (USCS)	HEADSPACE (PPM)
				6 INCHES CONCRETE		
1				Stiff, moist, dark yellowish brown (10YR 4/2), Silty CLAY	CL	
2						
3						
4						
5		DP3-5				
6						
7						
8				- damp		
9						
10						
11						0
12						
13				Very stiff, damp, grayish olive (10Y 4/2), Silty CLAY, hydrocarbon odor		
14					CL	
15						
16						
17						253
18				▼		
19				- wet		
20				BORING TERMINATED AT 20 FEET		

Figure 3, Log of Boring DP3, page 1 of 1

ENV_NO_WELL MERCURY BORINGS.GPJ 01/07/08

BORING ELEVATION:

ENGINEER/GEOLOGIST: **RICH BROWN**

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

PROJECT NO. **S9322-06-01**

BORING NO. DP4

DATE DRILLED 12/8/2007 WATER LEVEL (ATD)

EQUIPMENT DIRECT-PUSH DRILLER GEOCON

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	SOIL (USCS)	HEADSPACE (PPM)
				6 INCHES CONCRETE		
1				Medium dense, dry, moderate yellowish brown (10YR 5/4), Sandy SILT	ML	
2				- clayey silt	ML	
3						
4				Dense, moist, dusky yellowish brown (10YR 2/2), Clayey SAND	SC	
5						
6						
7						0
8				- damp		
9						
10						
11						
12						
13						
14						
15						0
16						
17						
18						
19				- wet		
20				BORING TERMINATED AT 20 FEET		

Figure 4, Log of Boring DP4, page 1 of 1

ENV_NO_WELL MERCURY BORINGS.GPJ 01/07/08

BORING ELEVATION:

ENGINEER/GEOLOGIST: **RICH BROWN**

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

PROJECT NO. **S9322-06-01**

BORING NO. DP5

DATE DRILLED 12/8/2007 WATER LEVEL (ATD)

EQUIPMENT DIRECT-PUSH DRILLER GEOCON

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	SOIL (USCS)	HEADSPACE (PPM)
1				Medium stiff, moist, dark yellowish brown (10YR 4/2), Clayey SILT	ML	
2						
3				Medium stiff, dry, moderate yellowish brown (10YR 5/4), Clayey SILT	ML	
4						
5				Medium stiff, moist, dark yellowish brown (10YR 4/2), Clayey SILT	ML	
6						
7						
8						
9						
10						
11						0
12				- stiff		
13						
14				- very stiff		
15						
16				- silty clay		
17						0
18						
19				- medium stiff		
20				BORING TERMINATED AT 20 FEET		

Figure 5, Log of Boring DP5, page 1 of 1

ENV_NO_WELL MERCURY BORINGS.GPJ 01/07/08

BORING ELEVATION:

ENGINEER/GEOLOGIST: **RICH BROWN**

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

PROJECT NO. **S9322-06-01**

BORING NO. DP6

DATE DRILLED 12/8/2007 WATER LEVEL (ATD)

EQUIPMENT DIRECT-PUSH DRILLER GEOCON

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	SOIL (USCS)	HEADSPACE (PPM)
1				**2 INCHES ASPHALT**	SP	
				FILL Medium dense, dry, moderate yellowish brown (10YR 5/4), Gravelly SAND		
2				Stiff, moist, moderate brown (5YR 4/4), Clayey SILT	ML	
3						
4				Very stiff, damp, dark yellowish brown (10YR 4/2), Clayey SILT	ML	
5						
6						
7						0
8				Very stiff, damp, moderate yellowish brown (10YR 5/4), Silty CLAY	CL	
9						
10						
11						
12						
13						
14						
15						0
16						
17				Stiff, moist, moderate yellowish brown (10YR 5/4), CLAY	CL	
18						
19				- wet		0
20				BORING TERMINATED AT 20 FEET		

Figure 6, Log of Boring DP6, page 1 of 1

ENV_NO_WELL MERCURY BORINGS.GPJ 01/07/08

BORING ELEVATION:

ENGINEER/GEOLOGIST: **RICH BROWN**

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

APPENDIX C

LA TESTING, TO-15 Laboratory, 10772 Noel St., Los Alamitos, CA 90720 (800)755-1794
Fax: (714)828-4944
losalamitoslab@latesting.com

12/13/07

Attn: Rich Brown
Geocon Consultants, Inc.
3160 Gold Valley Drive, Suite 800
Rancho Cordova, CA 95623
Phone: 916-852-9118

Lab ID No. 330710110
RE: TO-15 Results
Project: Mercury Cleaners

Dear Mr Brown,

Attached please find the lab report and associated results for the above referenced analysis.
If you have any questions or need further information please do not hesitate to contact LA Testing at the above listed number.

Sincerely,

Zalen Liley
TO-15 Chemist
IH Laboratory
zliley@latesting.com

Reviewed By: _____
Mike Chapman

Approved By: _____
Jaime Steedman-Lyde, CIH

VOLATILE ORGANICS DATA ANALYSIS SUMMARY
EPA COMPENDIUM TO-15

Lab Name:	LA TESTING	**Air Results for Project:**	Mercury Cleaners
Lab City:	LOS ALAMITOS,CA	**Field ID Number:**	IA1
Instrument ID:	701555	**Laboratory ID Number:**	330710110-01
GC Column:	RTX-502.2 60m 0.25mm 1.4um	**Sampling Date:**	12/07/2007
Acquisition Method:	100107.M	**Lab File ID:**	T2259.D
Calibration Date:	10/01/07	**Analysis Date:**	12/11/07
Matrix:	Air	**Time Acquired:**	23:24
Latest MDL Date:	02/22/07	**Sample Volume(mL):**	250
Analyst:	ZL	**Dilution Factor:**	1
		Can ID:	7379

Compound	CAS Number	Molecular Weight	Results ppbv	Q		Reporting Limit(PQL) ppbv at 250mL
Propylene	115-07-1	42	**1.5**			1.0
Freon 12(Dichlorodifluoromethane)	75-71-8	121	ND	U		0.5
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	171	ND	U		0.5
Chloromethane	74-87-3	50	**0.6**			0.5
Vinyl chloride	75-01-4	63	ND	U		0.5
1,3-Butadiene	106-99-0	54	ND	U		0.5
Bromomethane	74-83-9	95	ND	U		0.5
Chloroethane	75-00-3	65	ND	U		0.5
Ethanol	64-17-5	46	**27**	**D**		1.5
Freon 11(Trichlorofluoromethane)	75-69-4	137	ND	U		0.5
Isopropyl alcohol(2-Propanol)	67-63-0	60	ND	U		1.5
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187	ND	U		0.5
Acetone	67-64-1	58	**12**			3.0
1,1-Dichloroethene	75-35-4	97	ND	U		0.5
Carbon disulfide	75-15-0	76	ND	U		1.0
Methylene chloride	75-09-2	85	ND	U		1.5
Methyl-tert-butyl ether(MTBE)	1634-04-4	88	ND	U		0.5
trans-1,2-Dichloroethene	156-60-5	97	ND	U		0.5
n-Hexane	110-54-3	86	ND	U		0.5
1,1-Dichloroethane	75-34-3	99	ND	U		0.5
Vinyl acetate	108-05-4	86	ND	U		0.5
2-Butanone(MEK)	78-93-3	72	**2.5**			1.5
cis-1,2-Dichloroethene	156-59-2	97	ND	U		0.5
Ethyl acetate	141-78-6	88	ND	U		0.5
Chloroform	67-66-3	119	ND	U		0.5
Tetrahydrofuran	109-99-9	72	ND	U		0.5
1,1,1-Trichloroethane	71-55-6	133	ND	U		0.5
Cyclohexane	110-82-7	84	ND	U		0.5
Carbon tetrachloride	56-23-5	154	ND	U		0.5
n-Heptane	142-82-5	100	ND	U		0.5
1,2-Dichloroethane	107-06-2	99	ND	U		0.5
Benzene	71-43-2	78	ND	U		0.5
Trichloroethene	79-01-6	131	ND	U		0.5
1,2-Dichloropropane	78-87-5	113	ND	U		0.5
Bromodichloromethane	75-27-4	164	ND	U		0.5
1,4-Dioxane	123-91-1	88	ND	U		0.5
4-Methyl-2-pentanone(MIBK)	108-10-1	100	ND	U		0.5
cis-1,3-Dichloropropene	10061-01-5	111	ND	U		0.5
Toluene	108-88-3	92	**0.7**			0.5
trans-1,3-Dichloropropene	10061-02-6	111	ND	U		0.5

VOLATILE ORGANICS DATA ANALYSIS SUMMARY
EPA COMPENDIUM TO-15

Lab Name:	LA TESTING	**Air Results for Project:**	Mercury Cleaners
Lab City:	LOS ALAMITOS,CA	**Field ID Number:**	IA1
Instrument ID:	701555	**Laboratory ID Number:**	330710110-01
GC Column:	RTX-502.2 60m 0.25mm 1.4um	**Sampling Date:**	12/07/2007
Acquisition Method:	100107.M	**Lab File ID:**	T2259.D
Calibration Date:	10/01/07	**Analysis Date:**	12/11/07
Matrix:	Air	**Time Acquired:**	23:24
Latest MDL Date:	02/22/07	**Sample Volume(mL):**	250
Analyst:	ZL	**Dilution Factor:**	1
		Can ID:	7379

Compound	CAS Number	Molecular Weight	Results ppbv	Q		Reporting Limit(PQL) ppbv at 250mL
1,1,2-Trichloroethane	79-00-5	133	ND	U		0.5
2-Hexanone(MBK)	591-78-6	100	ND	U		1.5
Tetrachloroethene	127-18-4	166	**2.4**			0.5
Dibromochloromethane	124-48-1	208	ND	U		0.5
1,2-Dibromoethane	106-93-4	188	ND	U		0.5
Chlorobenzene	108-90-7	113	ND	U		0.5
Ethylbenzene	100-41-4	106	ND	U		0.5
Xylene (para & meta)	1330-20-7	106	ND	U		1.0
Xylene (Ortho)	95-47-6	106	ND	U		0.5
Styrene	100-42-5	104	ND	U		0.5
Bromoform	75-25-2	253	ND	U		0.5
1,1,2,2-Tetrachloroethane	79-34-5	168	ND	U		0.5
4-Ethyltoluene	622-96-8	120	ND	U		0.5
1,3,5-Trimethylbenzene	108-67-8	120	ND	U		0.5
1,2,4-Trimethylbenzene	95-63-6	120	ND	U		0.5
1,3-Dichlorobenzene	541-73-1	147	ND	U		0.5
1,4-Dichlorobenzene	106-46-7	147	ND	U		0.5
Benzyl chloride	100-44-7	179	ND	U		0.5
1,2-Dichlorobenzene	95-50-1	147	ND	U		0.5
1,2,4-Trichlorobenzene	120-82-1	182	ND	U		1.0
Hexachloro-1,3-butadiene	87-68-3	261	ND	U		0.5

Surrogate	Result(ppbv)	True(ppbv)	%Recovery	Limits %
4-Bromofluorobenzene	10.61	10.00	106	70 - 130

= COMPOUND DETECTED AT REPORTED CONCENTRATION IN PPBV AND UG/M3.
U= UNDETECTED
D = DILUTED. REPORTED FROM DILUTION RUN.
B= DETECTED IN BLANK
E = ESTIMATED CONCENTRATION. EXCEEDED CALIBRATION LIMIT.
J= DETECTED BELOW PRACTICAL QUANTITATION LEVEL, BUT ABOVE MDL.

VOLATILE ORGANICS DATA ANALYSIS SUMMARY
EPA COMPENDIUM TO-15

Lab Name:	LA TESTING	**Air Results for Project:**	Mercury Cleaners
Lab City:	LOS ALAMITOS,CA	**Field ID Number:**	IA2
Instrument ID:	701555	**Laboratory ID Number:**	330710110-02
GC Column:	RTX-502.2 60m 0.25mm 1.4um	**Sampling Date:**	12/07/2007
Acquisition Method:	100107.M	**Lab File ID:**	T2260.D
Calibration Date:	10/01/07	**Analysis Date:**	12/11/07
Matrix:	Air	**Time Acquired:**	00:14
Latest MDL Date:	02/22/07	**Sample Volume(mL):**	250
Analyst:	ZL	**Dilution Factor:**	1
		Can ID:	7407

Compound	CAS Number	Molecular Weight	Results ppbv	Q		Reporting Limit(PQL) ppbv at 250mL
Propylene	115-07-1	42	**1.2**			1.0
Freon 12(Dichlorodifluoromethane)	75-71-8	121	ND	U		0.5
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	171	ND	U		0.5
Chloromethane	74-87-3	50	ND	U		0.5
Vinyl chloride	75-01-4	63	ND	U		0.5
1,3-Butadiene	106-99-0	54	ND	U		0.5
Bromomethane	74-83-9	95	ND	U		0.5
Chloroethane	75-00-3	65	ND	U		0.5
Ethanol	64-17-5	46	**18**	**D**		1.5
Freon 11(Trichlorofluoromethane)	75-69-4	137	ND	U		0.5
Isopropyl alcohol(2-Propanol)	67-63-0	60	ND	U		1.5
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187	ND	U		0.5
Acetone	67-64-1	58	**7.9**			3.0
1,1-Dichloroethene	75-35-4	97	ND	U		0.5
Carbon disulfide	75-15-0	76	ND	U		1.0
Methylene chloride	75-09-2	85	ND	U		1.5
Methyl-tert-butyl ether(MTBE)	1634-04-4	88	ND	U		0.5
trans-1,2-Dichloroethene	156-60-5	97	ND	U		0.5
n-Hexane	110-54-3	86	ND	U		0.5
1,1-Dichloroethane	75-34-3	99	ND	U		0.5
Vinyl acetate	108-05-4	86	ND	U		0.5
2-Butanone(MEK)	78-93-3	72	ND	U		1.5
cis-1,2-Dichloroethene	156-59-2	97	ND	U		0.5
Ethyl acetate	141-78-6	88	ND	U		0.5
Chloroform	67-66-3	119	ND	U		0.5
Tetrahydrofuran	109-99-9	72	ND	U		0.5
1,1,1-Trichloroethane	71-55-6	133	ND	U		0.5
Cyclohexane	110-82-7	84	ND	U		0.5
Carbon tetrachloride	56-23-5	154	ND	U		0.5
n-Heptane	142-82-5	100	ND	U		0.5
1,2-Dichloroethane	107-06-2	99	ND	U		0.5
Benzene	71-43-2	78	ND	U		0.5
Trichloroethene	79-01-6	131	ND	U		0.5
1,2-Dichloropropane	78-87-5	113	ND	U		0.5
Bromodichloromethane	75-27-4	164	ND	U		0.5
1,4-Dioxane	123-91-1	88	ND	U		0.5
4-Methyl-2-pentanone(MIBK)	108-10-1	100	ND	U		0.5
cis-1,3-Dichloropropene	10061-01-5	111	ND	U		0.5
Toluene	108-88-3	92	**0.6**			0.5
trans-1,3-Dichloropropene	10061-02-6	111	ND	U		0.5

VOLATILE ORGANICS DATA ANALYSIS SUMMARY
EPA COMPENDIUM TO-15

Lab Name:	LA TESTING	**Air Results for Project:**	Mercury Cleaners
Lab City:	LOS ALAMITOS,CA	**Field ID Number:**	IA2
Instrument ID:	701555	**Laboratory ID Number:**	330710110-02
GC Column:	RTX-502.2 60m 0.25mm 1.4um	**Sampling Date:**	12/07/2007
Acquisition Method:	100107.M	**Lab File ID:**	T2260.D
Calibration Date:	10/01/07	**Analysis Date:**	12/11/07
Matrix:	Air	**Time Acquired:**	00:14
Latest MDL Date:	02/22/07	**Sample Volume(mL):**	250
Analyst:	ZL	**Dilution Factor:**	1
		Can ID:	7407

Compound	CAS Number	Molecular Weight	Results ppbv	Q		Reporting Limit(PQL) ppbv at 250mL
1,1,2-Trichloroethane	79-00-5	133	ND	U		0.5
2-Hexanone(MBK)	591-78-6	100	ND	U		1.5
Tetrachloroethene	127-18-4	166	**5.2**			0.5
Dibromochloromethane	124-48-1	208	ND	U		0.5
1,2-Dibromoethane	106-93-4	188	ND	U		0.5
Chlorobenzene	108-90-7	113	ND	U		0.5
Ethylbenzene	100-41-4	106	ND	U		0.5
Xylene (para & meta)	1330-20-7	106	ND	U		1.0
Xylene (Ortho)	95-47-6	106	ND	U		0.5
Styrene	100-42-5	104	ND	U		0.5
Bromoform	75-25-2	253	ND	U		0.5
1,1,2,2-Tetrachloroethane	79-34-5	168	ND	U		0.5
4-Ethyltoluene	622-96-8	120	ND	U		0.5
1,3,5-Trimethylbenzene	108-67-8	120	ND	U		0.5
1,2,4-Trimethylbenzene	95-63-6	120	ND	U		0.5
1,3-Dichlorobenzene	541-73-1	147	ND	U		0.5
1,4-Dichlorobenzene	106-46-7	147	ND	U		0.5
Benzyl chloride	100-44-7	179	ND	U		0.5
1,2-Dichlorobenzene	95-50-1	147	ND	U		0.5
1,2,4-Trichlorobenzene	120-82-1	182	ND	U		1.0
Hexachloro-1,3-butadiene	87-68-3	261	ND	U		0.5

Surrogate	Result(ppbv)	True(ppbv)	%Recovery	Limits %
4-Bromofluorobenzene	10.35	10.00	104	70 - 130

= COMPOUND DETECTED AT REPORTED CONCENTRATION IN PPBV AND UG/M3.
U= UNDETECTED
D = DILUTED. REPORTED FROM DILUTION RUN.
B= DETECTED IN BLANK
E = ESTIMATED CONCENTRATION. EXCEEDED CALIBRATION LIMIT.
J= DETECTED BELOW PRACTICAL QUANTITATION LEVEL, BUT ABOVE MDL.

VOLATILE ORGANICS DATA ANALYSIS SUMMARY
EPA COMPENDIUM TO-15

Lab Name:	LA TESTING	**Air Results for Project:**	Mercury Cleaners
Lab City:	LOS ALAMITOS,CA	**Field ID Number:**	IA3
Instrument ID:	701555	**Laboratory ID Number:**	330710110-03
GC Column:	RTX-502.2 60m 0.25mm 1.4um	**Sampling Date:**	12/07/2007
Acquisition Method:	100107.M	**Lab File ID:**	T2261.D
Calibration Date:	10/01/07	**Analysis Date:**	12/11/07
Matrix:	Air	**Time Acquired:**	1:03
Latest MDL Date:	02/22/07	**Sample Volume(mL):**	250
Analyst:	ZL	**Dilution Factor:**	1
		Can ID:	7387

Compound	CAS Number	Molecular Weight	Results ppbv	Q		Reporting Limit(PQL) ppbv at 250mL
Propylene	115-07-1	42	**1.1**			1.0
Freon 12(Dichlorodifluoromethane)	75-71-8	121	ND	U		0.5
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	171	ND	U		0.5
Chloromethane	74-87-3	50	**1.8**			0.5
Vinyl chloride	75-01-4	63	ND	U		0.5
1,3-Butadiene	106-99-0	54	ND	U		0.5
Bromomethane	74-83-9	95	ND	U		0.5
Chloroethane	75-00-3	65	ND	U		0.5
Ethanol	64-17-5	46	**15**			1.5
Freon 11(Trichlorofluoromethane)	75-69-4	137	ND	U		0.5
Isopropyl alcohol(2-Propanol)	67-63-0	60	ND	U		1.5
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187	ND	U		0.5
Acetone	67-64-1	58	**12**			3.0
1,1-Dichloroethene	75-35-4	97	ND	U		0.5
Carbon disulfide	75-15-0	76	ND	U		1.0
Methylene chloride	75-09-2	85	ND	U		1.5
Methyl-tert-butyl ether(MTBE)	1634-04-4	88	ND	U		0.5
trans-1,2-Dichloroethene	156-60-5	97	ND	U		0.5
n-Hexane	110-54-3	86	ND	U		0.5
1,1-Dichloroethane	75-34-3	99	ND	U		0.5
Vinyl acetate	108-05-4	86	ND	U		0.5
2-Butanone(MEK)	78-93-3	72	**2.4**			1.5
cis-1,2-Dichloroethene	156-59-2	97	ND	U		0.5
Ethyl acetate	141-78-6	88	ND	U		0.5
Chloroform	67-66-3	119	ND	U		0.5
Tetrahydrofuran	109-99-9	72	ND	U		0.5
1,1,1-Trichloroethane	71-55-6	133	ND	U		0.5
Cyclohexane	110-82-7	84	ND	U		0.5
Carbon tetrachloride	56-23-5	154	ND	U		0.5
n-Heptane	142-82-5	100	ND	U		0.5
1,2-Dichloroethane	107-06-2	99	ND	U		0.5
Benzene	71-43-2	78	ND	U		0.5
Trichloroethene	79-01-6	131	ND	U		0.5
1,2-Dichloropropane	78-87-5	113	ND	U		0.5
Bromodichloromethane	75-27-4	164	ND	U		0.5
1,4-Dioxane	123-91-1	88	ND	U		0.5
4-Methyl-2-pentanone(MIBK)	108-10-1	100	ND	U		0.5
cis-1,3-Dichloropropene	10061-01-5	111	ND	U		0.5
Toluene	108-88-3	92	**0.7**			0.5
trans-1,3-Dichloropropene	10061-02-6	111	ND	U		0.5

VOLATILE ORGANICS DATA ANALYSIS SUMMARY
EPA COMPENDIUM TO-15

Lab Name:	LA TESTING	**Air Results for Project:**	Mercury Cleaners
Lab City:	LOS ALAMITOS,CA	**Field ID Number:**	IA3
Instrument ID:	701555	**Laboratory ID Number:**	330710110-03
GC Column:	RTX-502.2 60m 0.25mm 1.4um	**Sampling Date:**	12/07/2007
Acquisition Method:	100107.M	**Lab File ID:**	T2261.D
Calibration Date:	10/01/07	**Analysis Date:**	12/11/07
Matrix:	Air	**Time Acquired:**	1:03
Latest MDL Date:	02/22/07	**Sample Volume(mL):**	250
Analyst:	ZL	**Dilution Factor:**	1
		Can ID:	7387

Compound	CAS Number	Molecular Weight	Results ppbv	Q		Reporting Limit(PQL) ppbv at 250mL
1,1,2-Trichloroethane	79-00-5	133	ND	U		0.5
2-Hexanone(MBK)	591-78-6	100	ND	U		1.5
Tetrachloroethene	127-18-4	166	**20**			0.5
Dibromochloromethane	124-48-1	208	ND	U		0.5
1,2-Dibromoethane	106-93-4	188	ND	U		0.5
Chlorobenzene	108-90-7	113	ND	U		0.5
Ethylbenzene	100-41-4	106	ND	U		0.5
Xylene (para & meta)	1330-20-7	106	ND	U		1.0
Xylene (Ortho)	95-47-6	106	ND	U		0.5
Styrene	100-42-5	104	ND	U		0.5
Bromoform	75-25-2	253	ND	U		0.5
1,1,2,2-Tetrachloroethane	79-34-5	168	ND	U		0.5
4-Ethyltoluene	622-96-8	120	ND	U		0.5
1,3,5-Trimethylbenzene	108-67-8	120	ND	U		0.5
1,2,4-Trimethylbenzene	95-63-6	120	ND	U		0.5
1,3-Dichlorobenzene	541-73-1	147	ND	U		0.5
1,4-Dichlorobenzene	106-46-7	147	ND	U		0.5
Benzyl chloride	100-44-7	179	ND	U		0.5
1,2-Dichlorobenzene	95-50-1	147	ND	U		0.5
1,2,4-Trichlorobenzene	120-82-1	182	ND	U		1.0
Hexachloro-1,3-butadiene	87-68-3	261	ND	U		0.5

Surrogate	Result(ppbv)	True(ppbv)	%Recovery	Limits %
4-Bromofluorobenzene	10.12	10.00	101	70 - 130

= COMPOUND DETECTED AT REPORTED CONCENTRATION IN PPBV AND UG/M3.
U= UNDETECTED
D = DILUTED. REPORTED FROM DILUTION RUN.
B= DETECTED IN BLANK
E = ESTIMATED CONCENTRATION. EXCEEDED CALIBRATION LIMIT.
J= DETECTED BELOW PRACTICAL QUANTITATION LEVEL, BUT ABOVE MDL.

LA TESTING

10772 Noel St.
Los Alamitos, CA 90720
800-755-1794
714-828-4944 or
zliley@latesting.com

External

Chain of Custody / Analysis Request Form

Lab Project # 33071011D
Client PO#

Note: Please complete all required information. Incomplete shaded areas may hinder processing samples.

Project Name: MERCURY CLEANERS

(Weather conditions (if known): Bar. Pressure: Temp.: % Humidity:

Custody and Sample Information - Print ALL information. Write N/A in blanks not applicable.

1. Report to:
GEOCON CONSULTANTS
3160 GOLD VALLEY DR.
SUITE 800
RANCHO CORDOVA, CA
95742

2. Bill To: GEOCON
[redacted] 3160 GOLD VALLEY DR
SUITE 800
RANCHO CORDOVA, CA
95742

Contact Person
Name: RICH BROWN
E-mail: R.BROWN@GEOCONINC.COM
Tel.#: (916) 704-0388
FAX #: (916) 852-9132

Sample Shipping and Transport Notice
The individual signing this document to relinquish the sample(s) is indicating that the sample(s) is/are being shipped in compliance with all applicable local, state or Federal as well as international laws, regulations and ordinances. LA TESTING assumes no liability with respect to sampling, handling or shipping of the samples included in this shipment. The relinquishing signature in addition indicates agreement to hold harmless, defend and indemnify LA TESTING against any claim, demand, or action, related to the sampling, handling, or shipping of samples. Call the D.O.T. Hotline at -(800) 467-4922 for questions about regulations.

3. Sampled by (Signature) [signature]
4. # of Samples in Shipment 3
5. Date of Sample Shipment 12/10/07
6. Date/Time Results Needed 12/17/07

Item #	Lab Sample ID	Canister ID	Client Sample ID	Sampling Date / Time Start		Sampling Date / Time Stop		Regulator ID	Analyses Requested	Field Test Values (ppm)	Canister / Vacuum Initial "Hg	Final "Hg	Receipt "Hg
1		17379	IA1	12/7/07	0925	12/7/07	1614	143470	TO-15		28	4	
2		17407	IA2	12/7/07	0916	12/7/07	1617	151283			30	5.5	
3		17387	IA3	12/7/07	0920	12/7/07	1619	W0114574			30	6.5	
4													
5													
6													

Sample Type: [X] Indoor Air Quality [ ] Soil Gas [ ] Vent Gas [ ] Other_____

Library Search needed: [ ]Yes [X]No, required if you will need help interpreting your report.

Do you want your results e-mailed? [X] Yes [ ] No

Relinquished by (print/sign): ZALEN LILEY / [signature]	Company: LA TESTING	Date/Time 11/16/07 / 1230	Affixed Custody Seal No.
Received by (print/sign):	Company:	Date/Time /	Was Custody Seal Broken? [ ]Yes [ ]No
Relinquished by (print/sign): RICH BROWN / [signature]	Company: GEOCON	Date/Time 12/10/07 / 1230	Affixed Custody Seal No.
Received by (print/sign): [signature]	Company: LAT	Date/Time 12/11/07	Was Custody Seal Broken? [ ]Yes [ ]No
Relinquished by (print/sign):	Company:	Date/Time 9:50am	Affixed Custody Seal No.
Received by (print/sign):	Company:	Date/Time (680)	Was Custody Seal Broken? [ ]Yes [ ]No
Relinquished by (print/sign):	Company:	Date/Time	Affixed Custody Seal No.
Received by (print/sign):	Company:	Date/Time	Was Custody Seal Broken? [ ]Yes [ ]No

Please indicate Turn Around Time needed: [ ] 5-10 Days [ ] *96-Hour [ ] *72- [ ] *48-Hour [ ] *24-Hour
ONE WEEK
*TAT subject to laboratory workload.

Comments:

Please indicate reporting requirements:
1) Results only [ ] 2) Other (Attach a copy of requirements) [ ]

TO-15 IH COC new.doc

TO-15: - How To Read and Interpret Your Report

When scanning your results, look at the "Q" column first. If there is a "U" in the "Q" column next to a substance, it was not detected. If there is a "D" (dilution) or "E" (estimated) qualifier, or is blank, then the compound was detected. If you look to the left of the qualifier, the concentration of the compound in parts per billion volume (ppbv) is given, if you look to the right, the concentration in weight of the substance per volume of air is expressed in micrograms per cubic meter (ug/m3).

Common Indoor Contaminants;

Chemical	Common Indoor Uses	Typical Concentrations	OSHA PELs
Ethanol	beverages, cleaners, disinfectants, perfumes, paints, and lacquers	25 to 400 ppb.	1,000,000 ppb
Isopropanol	cleaners, disinfectants, quick drying inks, alcohol swabs, and perfumes	50 - 200 ppb	400,000 ppb
Acetone	cleaners, inks, nail polish remover	2 to 20 ppb	1,000,000 ppb
2-Butanone (MEK)	cleaners, disinfectants	2 to 20 ppb	200,000 ppb
Ethyl Acetate	cleaners, disinfectants	2 to 20 ppb	400,000 ppb
Freons, various	Refrigerants, propellants, foam blowing agents	1 to 10 ppb	1,000,000 ppb
Toluene	Paints, inks, solvents, gasoline	2 to 10 ppb	200,000 ppb
Xylenes	Paints, inks, solvents, gasoline	2 to 10 ppb	100,000 ppb

Freons are common refrigerants and often seen in air samples. Elevated levels of Freons can indicate leaks from refrigerators and air conditioners. Aerosol sprays and foam products also contribute Freons and / or propanes and butanes to indoor air.

Benzene, toluene, ethylbenzene, and xylenes are components of gasoline. Toluene and xylenes can be found in solvent based products such as oil based paints.

If a Library search is indicated, normal and substituted hydrocarbons in the octane to dodecane (C8 to C12) range can indicate the presence of diesel oil, fuel oil, or mineral spirits. Unknown hydrocarbons often indicate weathered petroleum compounds from old spills. Aldehydes, many of which have objectionable odors at low levels, can be a result of incomplete natural gas or LP gas combustion, used in building and furnishing materials, or the presence of decaying organic matter. Limonene and Pinene are found in citrus and pine-based cleaners.

If you wish to compare your data with NIOSH or OSHA exposure limits, please consult the following links and search for the individual compound of interest;

http://www.cdc.gov/niosh/nmam/nmammenu.html
http://www.osha.gov/dts/sltc/methods/toc.html

If you have additional questions about your report, please do not hesitate to contact Jaime Steedman-Lyde CIH, Industrial Hygiene Project Manager or Michael Chapman, IH Group Leader at (800)755-1794.

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 .FAX (916) 985-1020
Hours 8:00 A.M to 6:00 P.M. Pacific

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0712185

Work Order Summary

CLIENT:	Mr. Rich Brown Geocon Consultants, Inc. 3160 Gold Valley Drive Suite 800 Rancho Cordova, CA 95742-7207	**BILL TO:**	Mr. Rich Brown Geocon Consultants, Inc. 3160 Gold Valley Drive Suite 800 Rancho Cordova, CA 95742-7207
PHONE:	916-852-9118	**P.O. #**	
FAX:	916-852-9132	**PROJECT #**	S9322-06-01 MERCURY CLEANERS
DATE RECEIVED:	12/10/2007	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	12/18/2007		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	DP1SG-5	Modified TO-15	2.5 "Hg	15 psi
02A	DP2SG-5	Modified TO-15	3.0 "Hg	15 psi
02AA	DP2SG-5 Lab Duplicate	Modified TO-15	3.0 "Hg	15 psi
03A	DP3SG-5	Modified TO-15	1.0 "Hg	15 psi
04A	Lab Blank	Modified TO-15	NA	NA
05A	CCV	Modified TO-15	NA	NA
06A	LCS	Modified TO-15	NA	NA

CERTIFIED BY: Linda L. Freeman DATE: 12/18/07

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/07, Expiration date: 06/30/08
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15
Geocon Consultants, Inc.
Workorder# 0712185

LUMEN DATA VALIDATED

Three 1 Liter Summa Canister samples were received on December 10, 2007. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	*TO-15*	*ATL Modifications*
Daily CCV	+- 30% Difference	</= 30% Difference with two allowed out up to </=40%.; flag and narrate outliers
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The RPD of duplicate sample DP2SG-5 exceeded acceptance limits for Methylene Chloride due to possible Laboratory contamination. There is no effect on data quality.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: DP1SG-5

Lab ID#: 0712185-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Ethanol	4400	13000	8300	24000
Acetone	4400	10000	10000	24000
Methylene Chloride	1100	3700	3800	13000
trans-1,2-Dichloroethene	1100	2600	4400	10000
Hexane	1100	2200	3900	7700
cis-1,2-Dichloroethene	1100	170000	4400	670000
1,2-Dichloroethane	1100	1700	4400	6700
Trichloroethene	1100	88000	5900	480000
Toluene	1100	1300	4100	5100
Tetrachloroethene	1100	390000	7500	2600000

Client Sample ID: DP2SG-5

Lab ID#: 0712185-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Ethanol	450	1100	840	2200
Acetone	450	1200	1100	2800
Methylene Chloride	110	920	390	3200
trans-1,2-Dichloroethene	110	180	440	720
Hexane	110	200	390	700
cis-1,2-Dichloroethene	110	9300	440	37000
1,2-Dichloroethane	110	500	450	2000
Trichloroethene	110	3900	600	21000
Toluene	110	290	420	1100
Tetrachloroethene	110	30000	760	200000

Client Sample ID: DP2SG-5 Lab Duplicate

Lab ID#: 0712185-02AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Ethanol	900	1300	1700	2500
Acetone	900	1200	2100	2700
Methylene Chloride	220	1700	780	5900
Hexane	220	230	790	820
cis-1,2-Dichloroethene	220	9100	890	36000
1,2-Dichloroethane	220	460	910	1900

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: DP2SG-5 Lab Duplicate

Lab ID#: 0712185-02AA

Trichloroethene	220	3800	1200	20000
Toluene	220	280	840	1100
Tetrachloroethene	220	26000	1500	180000

Client Sample ID: DP3SG-5

Lab ID#: 0712185-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Ethanol	84	130	160	240
cis-1,2-Dichloroethene	21	280	83	1100
Chloroform	21	23	100	110
Trichloroethene	21	270	110	1400
Tetrachloroethene	21	5700	140	39000

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: DP1SG-5

Lab ID#: 0712185-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	1121514	Date of Collection:	12/8/07
Dil. Factor:	2200	Date of Analysis:	12/15/07 05:49 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	1100	Not Detected	5400	Not Detected
Freon 114	1100	Not Detected	7700	Not Detected
Chloromethane	4400	Not Detected	9100	Not Detected
Vinyl Chloride	1100	Not Detected	2800	Not Detected
1,3-Butadiene	1100	Not Detected	2400	Not Detected
Bromomethane	1100	Not Detected	4300	Not Detected
Chloroethane	1100	Not Detected	2900	Not Detected
Freon 11	1100	Not Detected	6200	Not Detected
Ethanol	4400	13000	8300	24000
Freon 113	1100	Not Detected	8400	Not Detected
1,1-Dichloroethene	1100	Not Detected	4400	Not Detected
Acetone	4400	10000	10000	24000
2-Propanol	4400	Not Detected	11000	Not Detected
Carbon Disulfide	1100	Not Detected	3400	Not Detected
3-Chloropropene	4400	Not Detected	14000	Not Detected
Methylene Chloride	1100	3700	3800	13000
Methyl tert-butyl ether	1100	Not Detected	4000	Not Detected
trans-1,2-Dichloroethene	1100	2600	4400	10000
Hexane	1100	2200	3900	7700
1,1-Dichloroethane	1100	Not Detected	4400	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1100	Not Detected	3200	Not Detected
cis-1,2-Dichloroethene	1100	170000	4400	670000
Tetrahydrofuran	1100	Not Detected	3200	Not Detected
Chloroform	1100	Not Detected	5400	Not Detected
1,1,1-Trichloroethane	1100	Not Detected	6000	Not Detected
Cyclohexane	1100	Not Detected	3800	Not Detected
Carbon Tetrachloride	1100	Not Detected	6900	Not Detected
2,2,4-Trimethylpentane	1100	Not Detected	5100	Not Detected
Benzene	1100	Not Detected	3500	Not Detected
1,2-Dichloroethane	1100	1700	4400	6700
Heptane	1100	Not Detected	4500	Not Detected
Trichloroethene	1100	88000	5900	480000
1,2-Dichloropropane	1100	Not Detected	5100	Not Detected
1,4-Dioxane	4400	Not Detected	16000	Not Detected
Bromodichloromethane	1100	Not Detected	7400	Not Detected
cis-1,3-Dichloropropene	1100	Not Detected	5000	Not Detected
4-Methyl-2-pentanone	1100	Not Detected	4500	Not Detected
Toluene	1100	1300	4100	5100
trans-1,3-Dichloropropene	1100	Not Detected	5000	Not Detected

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: DP1SG-5

Lab ID#: 0712185-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	1121514	Date of Collection:	12/8/07
Dil. Factor:	2200	Date of Analysis:	12/15/07 05:49 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,1,2-Trichloroethane	1100	Not Detected	6000	Not Detected
Tetrachloroethene	1100	390000	7500	2600000
2-Hexanone	4400	Not Detected	18000	Not Detected
Dibromochloromethane	1100	Not Detected	9400	Not Detected
1,2-Dibromoethane (EDB)	1100	Not Detected	8400	Not Detected
Chlorobenzene	1100	Not Detected	5100	Not Detected
Ethyl Benzene	1100	Not Detected	4800	Not Detected
m,p-Xylene	1100	Not Detected	4800	Not Detected
o-Xylene	1100	Not Detected	4800	Not Detected
Styrene	1100	Not Detected	4700	Not Detected
Bromoform	1100	Not Detected	11000	Not Detected
Cumene	1100	Not Detected	5400	Not Detected
1,1,2,2-Tetrachloroethane	1100	Not Detected	7600	Not Detected
Propylbenzene	1100	Not Detected	5400	Not Detected
4-Ethyltoluene	1100	Not Detected	5400	Not Detected
1,3,5-Trimethylbenzene	1100	Not Detected	5400	Not Detected
1,2,4-Trimethylbenzene	1100	Not Detected	5400	Not Detected
1,3-Dichlorobenzene	1100	Not Detected	6600	Not Detected
1,4-Dichlorobenzene	1100	Not Detected	6600	Not Detected
alpha-Chlorotoluene	1100	Not Detected	5700	Not Detected
1,2-Dichlorobenzene	1100	Not Detected	6600	Not Detected
1,2,4-Trichlorobenzene	4400	Not Detected	33000	Not Detected
Hexachlorobutadiene	4400	Not Detected	47000	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	110	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: DP2SG-5

Lab ID#: 0712185-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	1121520	Date of Collection:	12/8/07
Dil. Factor:	224	Date of Analysis:	12/16/07 12:05 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	110	Not Detected	550	Not Detected
Freon 114	110	Not Detected	780	Not Detected
Chloromethane	450	Not Detected	920	Not Detected
Vinyl Chloride	110	Not Detected	290	Not Detected
1,3-Butadiene	110	Not Detected	250	Not Detected
Bromomethane	110	Not Detected	430	Not Detected
Chloroethane	110	Not Detected	300	Not Detected
Freon 11	110	Not Detected	630	Not Detected
Ethanol	450	1100	840	2200
Freon 113	110	Not Detected	860	Not Detected
1,1-Dichloroethene	110	Not Detected	440	Not Detected
Acetone	450	1200	1100	2800
2-Propanol	450	Not Detected	1100	Not Detected
Carbon Disulfide	110	Not Detected	350	Not Detected
3-Chloropropene	450	Not Detected	1400	Not Detected
Methylene Chloride	110	920	390	3200
Methyl tert-butyl ether	110	Not Detected	400	Not Detected
trans-1,2-Dichloroethene	110	180	440	720
Hexane	110	200	390	700
1,1-Dichloroethane	110	Not Detected	450	Not Detected
2-Butanone (Methyl Ethyl Ketone)	110	Not Detected	330	Not Detected
cis-1,2-Dichloroethene	110	9300	440	37000
Tetrahydrofuran	110	Not Detected	330	Not Detected
Chloroform	110	Not Detected	550	Not Detected
1,1,1-Trichloroethane	110	Not Detected	610	Not Detected
Cyclohexane	110	Not Detected	380	Not Detected
Carbon Tetrachloride	110	Not Detected	700	Not Detected
2,2,4-Trimethylpentane	110	Not Detected	520	Not Detected
Benzene	110	Not Detected	360	Not Detected
1,2-Dichloroethane	110	500	450	2000
Heptane	110	Not Detected	460	Not Detected
Trichloroethene	110	3900	600	21000
1,2-Dichloropropane	110	Not Detected	520	Not Detected
1,4-Dioxane	450	Not Detected	1600	Not Detected
Bromodichloromethane	110	Not Detected	750	Not Detected
cis-1,3-Dichloropropene	110	Not Detected	510	Not Detected
4-Methyl-2-pentanone	110	Not Detected	460	Not Detected
Toluene	110	290	420	1100
trans-1,3-Dichloropropene	110	Not Detected	510	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: DP2SG-5

Lab ID#: 0712185-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	1121520	Date of Collection:	12/8/07
Dil. Factor:	224	Date of Analysis:	12/16/07 12:05 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,1,2-Trichloroethane	110	Not Detected	610	Not Detected
Tetrachloroethene	110	30000	760	200000
2-Hexanone	450	Not Detected	1800	Not Detected
Dibromochloromethane	110	Not Detected	950	Not Detected
1,2-Dibromoethane (EDB)	110	Not Detected	860	Not Detected
Chlorobenzene	110	Not Detected	520	Not Detected
Ethyl Benzene	110	Not Detected	490	Not Detected
m,p-Xylene	110	Not Detected	490	Not Detected
o-Xylene	110	Not Detected	490	Not Detected
Styrene	110	Not Detected	480	Not Detected
Bromoform	110	Not Detected	1200	Not Detected
Cumene	110	Not Detected	550	Not Detected
1,1,2,2-Tetrachloroethane	110	Not Detected	770	Not Detected
Propylbenzene	110	Not Detected	550	Not Detected
4-Ethyltoluene	110	Not Detected	550	Not Detected
1,3,5-Trimethylbenzene	110	Not Detected	550	Not Detected
1,2,4-Trimethylbenzene	110	Not Detected	550	Not Detected
1,3-Dichlorobenzene	110	Not Detected	670	Not Detected
1,4-Dichlorobenzene	110	Not Detected	670	Not Detected
alpha-Chlorotoluene	110	Not Detected	580	Not Detected
1,2-Dichlorobenzene	110	Not Detected	670	Not Detected
1,2,4-Trichlorobenzene	450	Not Detected	3300	Not Detected
Hexachlorobutadiene	450	Not Detected	4800	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	113	70-130
4-Bromofluorobenzene	108	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: DP2SG-5 Lab Duplicate

Lab ID#: 0712185-02AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	1121519	Date of Collection:	12/8/07
Dil. Factor:	448	Date of Analysis:	12/15/07 11:14 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	220	Not Detected	1100	Not Detected
Freon 114	220	Not Detected	1600	Not Detected
Chloromethane	900	Not Detected	1800	Not Detected
Vinyl Chloride	220	Not Detected	570	Not Detected
1,3-Butadiene	220	Not Detected	500	Not Detected
Bromomethane	220	Not Detected	870	Not Detected
Chloroethane	220	Not Detected	590	Not Detected
Freon 11	220	Not Detected	1200	Not Detected
Ethanol	900	1300	1700	2500
Freon 113	220	Not Detected	1700	Not Detected
1,1-Dichloroethene	220	Not Detected	890	Not Detected
Acetone	900	1200	2100	2700
2-Propanol	900	Not Detected	2200	Not Detected
Carbon Disulfide	220	Not Detected	700	Not Detected
3-Chloropropene	900	Not Detected	2800	Not Detected
Methylene Chloride	220	1700	780	5900
Methyl tert-butyl ether	220	Not Detected	810	Not Detected
trans-1,2-Dichloroethene	220	Not Detected	890	Not Detected
Hexane	220	230	790	820
1,1-Dichloroethane	220	Not Detected	910	Not Detected
2-Butanone (Methyl Ethyl Ketone)	220	Not Detected	660	Not Detected
cis-1,2-Dichloroethene	220	9100	890	36000
Tetrahydrofuran	220	Not Detected	660	Not Detected
Chloroform	220	Not Detected	1100	Not Detected
1,1,1-Trichloroethane	220	Not Detected	1200	Not Detected
Cyclohexane	220	Not Detected	770	Not Detected
Carbon Tetrachloride	220	Not Detected	1400	Not Detected
2,2,4-Trimethylpentane	220	Not Detected	1000	Not Detected
Benzene	220	Not Detected	720	Not Detected
1,2-Dichloroethane	220	460	910	1900
Heptane	220	Not Detected	920	Not Detected
Trichloroethene	220	3800	1200	20000
1,2-Dichloropropane	220	Not Detected	1000	Not Detected
1,4-Dioxane	900	Not Detected	3200	Not Detected
Bromodichloromethane	220	Not Detected	1500	Not Detected
cis-1,3-Dichloropropene	220	Not Detected	1000	Not Detected
4-Methyl-2-pentanone	220	Not Detected	920	Not Detected
Toluene	220	280	840	1100
trans-1,3-Dichloropropene	220	Not Detected	1000	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: DP2SG-5 Lab Duplicate

Lab ID#: 0712185-02AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	1121519	Date of Collection:	12/8/07
Dil. Factor:	448	Date of Analysis:	12/15/07 11:14 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,1,2-Trichloroethane	220	Not Detected	1200	Not Detected
Tetrachloroethene	220	26000	1500	180000
2-Hexanone	900	Not Detected	3700	Not Detected
Dibromochloromethane	220	Not Detected	1900	Not Detected
1,2-Dibromoethane (EDB)	220	Not Detected	1700	Not Detected
Chlorobenzene	220	Not Detected	1000	Not Detected
Ethyl Benzene	220	Not Detected	970	Not Detected
m,p-Xylene	220	Not Detected	970	Not Detected
o-Xylene	220	Not Detected	970	Not Detected
Styrene	220	Not Detected	950	Not Detected
Bromoform	220	Not Detected	2300	Not Detected
Cumene	220	Not Detected	1100	Not Detected
1,1,2,2-Tetrachloroethane	220	Not Detected	1500	Not Detected
Propylbenzene	220	Not Detected	1100	Not Detected
4-Ethyltoluene	220	Not Detected	1100	Not Detected
1,3,5-Trimethylbenzene	220	Not Detected	1100	Not Detected
1,2,4-Trimethylbenzene	220	Not Detected	1100	Not Detected
1,3-Dichlorobenzene	220	Not Detected	1300	Not Detected
1,4-Dichlorobenzene	220	Not Detected	1300	Not Detected
alpha-Chlorotoluene	220	Not Detected	1200	Not Detected
1,2-Dichlorobenzene	220	Not Detected	1300	Not Detected
1,2,4-Trichlorobenzene	900	Not Detected	6600	Not Detected
Hexachlorobutadiene	900	Not Detected	9600	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	112	70-130
4-Bromofluorobenzene	111	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: DP3SG-5

Lab ID#: 0712185-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	1121512	Date of Collection:	12/8/07
Dil. Factor:	41.8	Date of Analysis:	12/15/07 04:09 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	21	Not Detected	100	Not Detected
Freon 114	21	Not Detected	150	Not Detected
Chloromethane	84	Not Detected	170	Not Detected
Vinyl Chloride	21	Not Detected	53	Not Detected
1,3-Butadiene	21	Not Detected	46	Not Detected
Bromomethane	21	Not Detected	81	Not Detected
Chloroethane	21	Not Detected	55	Not Detected
Freon 11	21	Not Detected	120	Not Detected
Ethanol	84	130	160	240
Freon 113	21	Not Detected	160	Not Detected
1,1-Dichloroethene	21	Not Detected	83	Not Detected
Acetone	84	Not Detected	200	Not Detected
2-Propanol	84	Not Detected	200	Not Detected
Carbon Disulfide	21	Not Detected	65	Not Detected
3-Chloropropene	84	Not Detected	260	Not Detected
Methylene Chloride	21	Not Detected	73	Not Detected
Methyl tert-butyl ether	21	Not Detected	75	Not Detected
trans-1,2-Dichloroethene	21	Not Detected	83	Not Detected
Hexane	21	Not Detected	74	Not Detected
1,1-Dichloroethane	21	Not Detected	85	Not Detected
2-Butanone (Methyl Ethyl Ketone)	21	Not Detected	62	Not Detected
cis-1,2-Dichloroethene	21	280	83	1100
Tetrahydrofuran	21	Not Detected	62	Not Detected
Chloroform	21	23	100	110
1,1,1-Trichloroethane	21	Not Detected	110	Not Detected
Cyclohexane	21	Not Detected	72	Not Detected
Carbon Tetrachloride	21	Not Detected	130	Not Detected
2,2,4-Trimethylpentane	21	Not Detected	98	Not Detected
Benzene	21	Not Detected	67	Not Detected
1,2-Dichloroethane	21	Not Detected	84	Not Detected
Heptane	21	Not Detected	86	Not Detected
Trichloroethene	21	270	110	1400
1,2-Dichloropropane	21	Not Detected	96	Not Detected
1,4-Dioxane	84	Not Detected	300	Not Detected
Bromodichloromethane	21	Not Detected	140	Not Detected
cis-1,3-Dichloropropene	21	Not Detected	95	Not Detected
4-Methyl-2-pentanone	21	Not Detected	86	Not Detected
Toluene	21	Not Detected	79	Not Detected
trans-1,3-Dichloropropene	21	Not Detected	95	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: DP3SG-5

Lab ID#: 0712185-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	1121512	Date of Collection:	12/8/07
Dil. Factor:	41.8	Date of Analysis:	12/15/07 04:09 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,1,2-Trichloroethane	21	Not Detected	110	Not Detected
Tetrachloroethene	21	5700	140	39000
2-Hexanone	84	Not Detected	340	Not Detected
Dibromochloromethane	21	Not Detected	180	Not Detected
1,2-Dibromoethane (EDB)	21	Not Detected	160	Not Detected
Chlorobenzene	21	Not Detected	96	Not Detected
Ethyl Benzene	21	Not Detected	91	Not Detected
m,p-Xylene	21	Not Detected	91	Not Detected
o-Xylene	21	Not Detected	91	Not Detected
Styrene	21	Not Detected	89	Not Detected
Bromoform	21	Not Detected	220	Not Detected
Cumene	21	Not Detected	100	Not Detected
1,1,2,2-Tetrachloroethane	21	Not Detected	140	Not Detected
Propylbenzene	21	Not Detected	100	Not Detected
4-Ethyltoluene	21	Not Detected	100	Not Detected
1,3,5-Trimethylbenzene	21	Not Detected	100	Not Detected
1,2,4-Trimethylbenzene	21	Not Detected	100	Not Detected
1,3-Dichlorobenzene	21	Not Detected	120	Not Detected
1,4-Dichlorobenzene	21	Not Detected	120	Not Detected
alpha-Chlorotoluene	21	Not Detected	110	Not Detected
1,2-Dichlorobenzene	21	Not Detected	120	Not Detected
1,2,4-Trichlorobenzene	84	Not Detected	620	Not Detected
Hexachlorobutadiene	84	Not Detected	890	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	111	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0712185-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	1121504	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/15/07 09:33 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0712185-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	1121504	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/15/07 09:33 AM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	106	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0712185-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	1121502	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/15/07 08:07 AM	

Compound	%Recovery
Freon 12	114
Freon 114	105
Chloromethane	111
Vinyl Chloride	105
1,3-Butadiene	106
Bromomethane	121
Chloroethane	105
Freon 11	108
Ethanol	100
Freon 113	115
1,1-Dichloroethene	108
Acetone	104
2-Propanol	114
Carbon Disulfide	99
3-Chloropropene	106
Methylene Chloride	99
Methyl tert-butyl ether	80
trans-1,2-Dichloroethene	100
Hexane	124
1,1-Dichloroethane	114
2-Butanone (Methyl Ethyl Ketone)	111
cis-1,2-Dichloroethene	109
Tetrahydrofuran	101
Chloroform	106
1,1,1-Trichloroethane	120
Cyclohexane	115
Carbon Tetrachloride	119
2,2,4-Trimethylpentane	115
Benzene	104
1,2-Dichloroethane	104
Heptane	112
Trichloroethene	104
1,2-Dichloropropane	102
1,4-Dioxane	104
Bromodichloromethane	110
cis-1,3-Dichloropropene	104
4-Methyl-2-pentanone	111
Toluene	101
trans-1,3-Dichloropropene	108

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0712185-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	1121502	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/15/07 08:07 AM	

Compound	%Recovery
1,1,2-Trichloroethane	104
Tetrachloroethene	109
2-Hexanone	108
Dibromochloromethane	115
1,2-Dibromoethane (EDB)	105
Chlorobenzene	102
Ethyl Benzene	104
m,p-Xylene	106
o-Xylene	107
Styrene	110
Bromoform	116
Cumene	111
1,1,2,2-Tetrachloroethane	103
Propylbenzene	110
4-Ethyltoluene	122
1,3,5-Trimethylbenzene	115
1,2,4-Trimethylbenzene	118
1,3-Dichlorobenzene	123
1,4-Dichlorobenzene	126
alpha-Chlorotoluene	122
1,2-Dichlorobenzene	128
1,2,4-Trichlorobenzene	114
Hexachlorobutadiene	125

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	108	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0712185-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	1121503	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/15/07 08:49 AM

Compound	%Recovery
Freon 12	103
Freon 114	98
Chloromethane	101
Vinyl Chloride	96
1,3-Butadiene	95
Bromomethane	109
Chloroethane	96
Freon 11	103
Ethanol	78
Freon 113	125
1,1-Dichloroethene	116
Acetone	93
2-Propanol	78
Carbon Disulfide	96
3-Chloropropene	96
Methylene Chloride	104
Methyl tert-butyl ether	79
trans-1,2-Dichloroethene	98
Hexane	123
1,1-Dichloroethane	114
2-Butanone (Methyl Ethyl Ketone)	102
cis-1,2-Dichloroethene	107
Tetrahydrofuran	82
Chloroform	108
1,1,1-Trichloroethane	118
Cyclohexane	116
Carbon Tetrachloride	117
2,2,4-Trimethylpentane	114
Benzene	101
1,2-Dichloroethane	103
Heptane	110
Trichloroethene	101
1,2-Dichloropropane	100
1,4-Dioxane	82
Bromodichloromethane	106
cis-1,3-Dichloropropene	101
4-Methyl-2-pentanone	87
Toluene	102
trans-1,3-Dichloropropene	100

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0712185-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	1121503	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/15/07 08:49 AM	

Compound	%Recovery
1,1,2-Trichloroethane	98
Tetrachloroethene	105
2-Hexanone	76
Dibromochloromethane	109
1,2-Dibromoethane (EDB)	95
Chlorobenzene	96
Ethyl Benzene	95
m,p-Xylene	99
o-Xylene	98
Styrene	100
Bromoform	106
Cumene	105
1,1,2,2-Tetrachloroethane	94
Propylbenzene	103
4-Ethyltoluene	111
1,3,5-Trimethylbenzene	103
1,2,4-Trimethylbenzene	105
1,3-Dichlorobenzene	106
1,4-Dichlorobenzene	109
alpha-Chlorotoluene	106
1,2-Dichlorobenzene	107
1,2,4-Trichlorobenzene	74
Hexachlorobutadiene	80

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	108	70-130

December 27, 2007

ELAP No.: 1838
NELAP No.: 02107CA
NEVADA.: CA-401
Arizona: AZ0689
CSDLAC No.: 10196
Workorder No.: 095865

Rich Brown
Geocon Consultants, Inc.
3160 Gold Valley Drive, Suite 800
Rancho Cordova, CA 95742
TEL: (916) 852-9116
FAX: (916) 852-9132

RE: Mercury Cleaners, S9322-06-01

Attention: Rich Brown

Enclosed are the results for sample(s) received on December 12, 2007 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,

for Eddie F. Rodriguez
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories.

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

ANALYTICAL RESULTS
Print Date: *27-Dec-07*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	DP1GW
Lab Order:	095865	**Collection Date:**	12/8/2007 4:15:00 PM
Project:	Mercury Cleaners, S9322-06-01	**Matrix:**	GROUND WATER
Lab ID:	095865-001A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
			EPA 8260B			
RunID: MS11_071216A	QC Batch: A07VW342			PrepDate:		Analyst: **DWK**
1,1,1,2-Tetrachloroethane	ND	0.50		µg/L	1	12/17/2007 02:53 AM
1,1,1-Trichloroethane	ND	0.50		µg/L	1	12/17/2007 02:53 AM
1,1,2,2-Tetrachloroethane	ND	0.50		µg/L	1	12/17/2007 02:53 AM
1,1,2-Trichloroethane	ND	0.50		µg/L	1	12/17/2007 02:53 AM
1,1-Dichloroethane	ND	0.50		µg/L	1	12/17/2007 02:53 AM
1,1-Dichloroethene	6.6	0.50		µg/L	1	12/17/2007 02:53 AM
1,1-Dichloropropene	ND	0.50		µg/L	1	12/17/2007 02:53 AM
1,2,3-Trichlorobenzene	ND	0.50		µg/L	1	12/17/2007 02:53 AM
1,2,3-Trichloropropane	ND	0.50		µg/L	1	12/17/2007 02:53 AM
1,2,4-Trichlorobenzene	ND	0.50		µg/L	1	12/17/2007 02:53 AM
1,2,4-Trimethylbenzene	ND	0.50		µg/L	1	12/17/2007 02:53 AM
1,2-Dibromo-3-chloropropane	ND	0.50		µg/L	1	12/17/2007 02:53 AM
1,2-Dibromoethane	ND	0.50		µg/L	1	12/17/2007 02:53 AM
1,2-Dichlorobenzene	ND	0.50		µg/L	1	12/17/2007 02:53 AM
1,2-Dichloroethane	ND	0.50		µg/L	1	12/17/2007 02:53 AM
1,2-Dichloropropane	ND	0.50		µg/L	1	12/17/2007 02:53 AM
1,3,5-Trimethylbenzene	ND	0.50		µg/L	1	12/17/2007 02:53 AM
1,3-Dichlorobenzene	ND	0.50		µg/L	1	12/17/2007 02:53 AM
1,3-Dichloropropane	ND	0.50		µg/L	1	12/17/2007 02:53 AM
1,4-Dichlorobenzene	ND	0.50		µg/L	1	12/17/2007 02:53 AM
2,2-Dichloropropane	ND	0.50		µg/L	1	12/17/2007 02:53 AM
2-Chlorotoluene	ND	0.50		µg/L	1	12/17/2007 02:53 AM
4-Chlorotoluene	ND	0.50		µg/L	1	12/17/2007 02:53 AM
4-Isopropyltoluene	1.1	0.50		µg/L	1	12/17/2007 02:53 AM
Benzene	8.2	0.50		µg/L	1	12/17/2007 02:53 AM
Bromobenzene	ND	0.50		µg/L	1	12/17/2007 02:53 AM
Bromodichloromethane	ND	0.50		µg/L	1	12/17/2007 02:53 AM
Bromoform	ND	0.50		µg/L	1	12/17/2007 02:53 AM
Bromomethane	ND	0.50		µg/L	1	12/17/2007 02:53 AM
Carbon tetrachloride	ND	0.50		µg/L	1	12/17/2007 02:53 AM
Chlorobenzene	ND	0.50		µg/L	1	12/17/2007 02:53 AM
Chloroethane	ND	0.50		µg/L	1	12/17/2007 02:53 AM
Chloroform	0.65	0.50		µg/L	1	12/17/2007 02:53 AM
Chloromethane	ND	0.50		µg/L	1	12/17/2007 02:53 AM
cis-1,2-Dichloroethene	14000	100		µg/L	200	12/19/2007 06:56 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS
Print Date: *27-Dec-07*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	DP1GW
Lab Order:	095865	**Collection Date:**	12/8/2007 4:15:00 PM
Project:	Mercury Cleaners, S9322-06-01	**Matrix:**	GROUND WATER
Lab ID:	095865-001A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
			EPA 8260B			
RunID: MS11_071216A	QC Batch: A07VW342			PrepDate:		Analyst: **DWK**
cis-1,3-Dichloropropene	ND	0.50		µg/L	1	12/17/2007 02:53 AM
Dibromochloromethane	ND	0.50		µg/L	1	12/17/2007 02:53 AM
Dibromomethane	ND	0.50		µg/L	1	12/17/2007 02:53 AM
Dichlorodifluoromethane	ND	0.50		µg/L	1	12/17/2007 02:53 AM
Ethylbenzene	2.1	0.50		µg/L	1	12/17/2007 02:53 AM
Hexachlorobutadiene	ND	0.50		µg/L	1	12/17/2007 02:53 AM
Isopropylbenzene	9.4	0.50		µg/L	1	12/17/2007 02:53 AM
m,p-Xylene	ND	1.0		µg/L	1	12/17/2007 02:53 AM
Methylene chloride	ND	1.0		µg/L	1	12/17/2007 02:53 AM
n-Butylbenzene	ND	0.50		µg/L	1	12/17/2007 02:53 AM
n-Propylbenzene	ND	0.50		µg/L	1	12/17/2007 02:53 AM
Naphthalene	ND	0.50		µg/L	1	12/17/2007 02:53 AM
o-Xylene	ND	0.50		µg/L	1	12/17/2007 02:53 AM
sec-Butylbenzene	9.6	0.50		µg/L	1	12/17/2007 02:53 AM
Styrene	ND	0.50		µg/L	1	12/17/2007 02:53 AM
tert-Butylbenzene	1.1	0.50		µg/L	1	12/17/2007 02:53 AM
Tetrachloroethene	920	10		µg/L	20	12/19/2007 07:11 PM
Toluene	1.9	0.50		µg/L	1	12/17/2007 02:53 AM
trans-1,2-Dichloroethene	100	10		µg/L	20	12/19/2007 07:11 PM
Trichloroethene	1400	10		µg/L	20	12/19/2007 07:11 PM
Trichlorofluoromethane	ND	0.50		µg/L	1	12/17/2007 02:53 AM
Vinyl chloride	2.0	0.50		µg/L	1	12/17/2007 02:53 AM
Surr: 1,2-Dichloroethane-d4	86.7	70-130		%REC	1	12/17/2007 02:53 AM
Surr: 4-Bromofluorobenzene	116	70-130		%REC	1	12/17/2007 02:53 AM
Surr: Dibromofluoromethane	90.2	70-130		%REC	1	12/17/2007 02:53 AM
Surr: Toluene-d8	91.6	70-130		%REC	1	12/17/2007 02:53 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *27-Dec-07*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	DP1GW
Lab Order:	095865	**Collection Date:**	12/8/2007 4:15:00 PM
Project:	Mercury Cleaners, S9322-06-01	**Matrix:**	GROUND WATER
Lab ID:	095865-001B		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS BY GC/FID						
			EPA 8015B(M)			
RunID: GC6_071213A	QC Batch: I07VW269			PrepDate:		Analyst: **EA**
GRO	8.7	0.20		mg/L	4	12/13/2007 12:56 PM
Surr: Bromofluorobenzene (FID)	120	76-127		%REC	4	12/13/2007 12:56 PM

Qualifiers:				
	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *27-Dec-07*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	DP2GW
Lab Order:	095865	**Collection Date:**	12/8/2007 3:40:00 PM
Project:	Mercury Cleaners, S9322-06-01	**Matrix:**	GROUND WATER
Lab ID:	095865-002A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				EPA 8260B		
RunID: MS11_071216A	QC Batch: A07VW342				PrepDate:	Analyst: **DWK**
1,1,1,2-Tetrachloroethane	ND	0.50		µg/L	1	12/17/2007 03:12 AM
1,1,1-Trichloroethane	ND	0.50		µg/L	1	12/17/2007 03:12 AM
1,1,2,2-Tetrachloroethane	ND	0.50		µg/L	1	12/17/2007 03:12 AM
1,1,2-Trichloroethane	ND	0.50		µg/L	1	12/17/2007 03:12 AM
1,1-Dichloroethane	ND	0.50		µg/L	1	12/17/2007 03:12 AM
1,1-Dichloroethene	6.9	0.50		µg/L	1	12/17/2007 03:12 AM
1,1-Dichloropropene	ND	0.50		µg/L	1	12/17/2007 03:12 AM
1,2,3-Trichlorobenzene	ND	0.50		µg/L	1	12/17/2007 03:12 AM
1,2,3-Trichloropropane	ND	0.50		µg/L	1	12/17/2007 03:12 AM
1,2,4-Trichlorobenzene	ND	0.50		µg/L	1	12/17/2007 03:12 AM
1,2,4-Trimethylbenzene	4.5	0.50		µg/L	1	12/17/2007 03:12 AM
1,2-Dibromo-3-chloropropane	ND	0.50		µg/L	1	12/17/2007 03:12 AM
1,2-Dibromoethane	ND	0.50		µg/L	1	12/17/2007 03:12 AM
1,2-Dichlorobenzene	ND	0.50		µg/L	1	12/17/2007 03:12 AM
1,2-Dichloroethane	ND	0.50		µg/L	1	12/17/2007 03:12 AM
1,2-Dichloropropane	ND	0.50		µg/L	1	12/17/2007 03:12 AM
1,3,5-Trimethylbenzene	ND	0.50		µg/L	1	12/17/2007 03:12 AM
1,3-Dichlorobenzene	ND	0.50		µg/L	1	12/17/2007 03:12 AM
1,3-Dichloropropane	ND	0.50		µg/L	1	12/17/2007 03:12 AM
1,4-Dichlorobenzene	ND	0.50		µg/L	1	12/17/2007 03:12 AM
2,2-Dichloropropane	ND	0.50		µg/L	1	12/17/2007 03:12 AM
2-Chlorotoluene	ND	0.50		µg/L	1	12/17/2007 03:12 AM
4-Chlorotoluene	ND	0.50		µg/L	1	12/17/2007 03:12 AM
4-Isopropyltoluene	ND	0.50		µg/L	1	12/17/2007 03:12 AM
Benzene	5.4	0.50		µg/L	1	12/17/2007 03:12 AM
Bromobenzene	ND	0.50		µg/L	1	12/17/2007 03:12 AM
Bromodichloromethane	ND	0.50		µg/L	1	12/17/2007 03:12 AM
Bromoform	ND	0.50		µg/L	1	12/17/2007 03:12 AM
Bromomethane	ND	0.50		µg/L	1	12/17/2007 03:12 AM
Carbon tetrachloride	ND	0.50		µg/L	1	12/17/2007 03:12 AM
Chlorobenzene	ND	0.50		µg/L	1	12/17/2007 03:12 AM
Chloroethane	ND	0.50		µg/L	1	12/17/2007 03:12 AM
Chloroform	1.4	0.50		µg/L	1	12/17/2007 03:12 AM
Chloromethane	ND	0.50		µg/L	1	12/17/2007 03:12 AM
cis-1,2-Dichloroethene	16000	100		µg/L	200	12/21/2007 07:29 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *27-Dec-07*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	DP2GW
Lab Order:	095865	**Collection Date:**	12/8/2007 3:40:00 PM
Project:	Mercury Cleaners, S9322-06-01	**Matrix:**	GROUND WATER
Lab ID:	095865-002A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				EPA 8260B		
RunID: MS11_071216A	QC Batch:	A07VW342			PrepDate:	Analyst: **DWK**
cis-1,3-Dichloropropene	ND	0.50		µg/L	1	12/17/2007 03:12 AM
Dibromochloromethane	ND	0.50		µg/L	1	12/17/2007 03:12 AM
Dibromomethane	ND	0.50		µg/L	1	12/17/2007 03:12 AM
Dichlorodifluoromethane	ND	0.50		µg/L	1	12/17/2007 03:12 AM
Ethylbenzene	5.8	0.50		µg/L	1	12/17/2007 03:12 AM
Hexachlorobutadiene	ND	0.50		µg/L	1	12/17/2007 03:12 AM
Isopropylbenzene	12	0.50		µg/L	1	12/17/2007 03:12 AM
m,p-Xylene	3.8	1.0		µg/L	1	12/17/2007 03:12 AM
Methylene chloride	ND	1.0		µg/L	1	12/17/2007 03:12 AM
n-Butylbenzene	3.3	0.50		µg/L	1	12/17/2007 03:12 AM
n-Propylbenzene	5.8	0.50		µg/L	1	12/17/2007 03:12 AM
Naphthalene	ND	0.50		µg/L	1	12/17/2007 03:12 AM
o-Xylene	1.5	0.50		µg/L	1	12/17/2007 03:12 AM
sec-Butylbenzene	9.0	0.50		µg/L	1	12/17/2007 03:12 AM
Styrene	ND	0.50		µg/L	1	12/17/2007 03:12 AM
tert-Butylbenzene	1.0	0.50		µg/L	1	12/17/2007 03:12 AM
Tetrachloroethene	3600	100		µg/L	200	12/21/2007 07:29 PM
Toluene	5.2	0.50		µg/L	1	12/17/2007 03:12 AM
trans-1,2-Dichloroethene	260	100		µg/L	200	12/21/2007 07:29 PM
Trichloroethene	1400	10		µg/L	20	12/19/2007 07:49 PM
Trichlorofluoromethane	ND	0.50		µg/L	1	12/17/2007 03:12 AM
Vinyl chloride	2.7	0.50		µg/L	1	12/17/2007 03:12 AM
Surr: 1,2-Dichloroethane-d4	72.1	70-130		%REC	1	12/17/2007 03:12 AM
Surr: 4-Bromofluorobenzene	120	70-130		%REC	1	12/17/2007 03:12 AM
Surr: Dibromofluoromethane	94.0	70-130		%REC	1	12/17/2007 03:12 AM
Surr: Toluene-d8	87.2	70-130		%REC	1	12/17/2007 03:12 AM

Qualifiers:				
	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *27-Dec-07*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	DP2GW
Lab Order:	095865	**Collection Date:**	12/8/2007 3:40:00 PM
Project:	Mercury Cleaners, S9322-06-01	**Matrix:**	GROUND WATER
Lab ID:	095865-002B		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS BY GC/FID						
			EPA 8015B(M)			
RunID: GC6_071212B	QC Batch: I07VW268			PrepDate:		Analyst: **EA**
GRO	78	0.50		mg/L	10	12/13/2007 04:10 AM
Surr: Bromofluorobenzene (FID)	85.5	76-127		%REC	10	12/13/2007 04:10 AM

Qualifiers:				
	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS
Print Date: *27-Dec-07*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	DP3GW
Lab Order:	095865	**Collection Date:**	12/8/2007 1:20:00 PM
Project:	Mercury Cleaners, S9322-06-01	**Matrix:**	GROUND WATER
Lab ID:	095865-003A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
			EPA 8260B			
RunID: MS2_071219A	QC Batch: Q07VW162			PrepDate:		Analyst: **DWK**
1,1,1,2-Tetrachloroethane	ND	10		µg/L	20	12/19/2007 08:15 PM
1,1,1-Trichloroethane	ND	10		µg/L	20	12/19/2007 08:15 PM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	20	12/19/2007 08:15 PM
1,1,2-Trichloroethane	ND	10		µg/L	20	12/19/2007 08:15 PM
1,1-Dichloroethane	ND	10		µg/L	20	12/19/2007 08:15 PM
1,1-Dichloroethene	ND	10		µg/L	20	12/19/2007 08:15 PM
1,1-Dichloropropene	ND	10		µg/L	20	12/19/2007 08:15 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	20	12/19/2007 08:15 PM
1,2,3-Trichloropropane	ND	10		µg/L	20	12/19/2007 08:15 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	20	12/19/2007 08:15 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	20	12/19/2007 08:15 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	20	12/19/2007 08:15 PM
1,2-Dibromoethane	ND	10		µg/L	20	12/19/2007 08:15 PM
1,2-Dichlorobenzene	ND	10		µg/L	20	12/19/2007 08:15 PM
1,2-Dichloroethane	ND	10		µg/L	20	12/19/2007 08:15 PM
1,2-Dichloropropane	ND	10		µg/L	20	12/19/2007 08:15 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	20	12/19/2007 08:15 PM
1,3-Dichlorobenzene	ND	10		µg/L	20	12/19/2007 08:15 PM
1,3-Dichloropropane	ND	10		µg/L	20	12/19/2007 08:15 PM
1,4-Dichlorobenzene	ND	10		µg/L	20	12/19/2007 08:15 PM
2,2-Dichloropropane	ND	10		µg/L	20	12/19/2007 08:15 PM
2-Chlorotoluene	ND	10		µg/L	20	12/19/2007 08:15 PM
4-Chlorotoluene	ND	10		µg/L	20	12/19/2007 08:15 PM
4-Isopropyltoluene	ND	10		µg/L	20	12/19/2007 08:15 PM
Benzene	ND	10		µg/L	20	12/19/2007 08:15 PM
Bromobenzene	ND	10		µg/L	20	12/19/2007 08:15 PM
Bromodichloromethane	ND	10		µg/L	20	12/19/2007 08:15 PM
Bromoform	ND	10		µg/L	20	12/19/2007 08:15 PM
Bromomethane	ND	10		µg/L	20	12/19/2007 08:15 PM
Carbon tetrachloride	ND	10		µg/L	20	12/19/2007 08:15 PM
Chlorobenzene	ND	10		µg/L	20	12/19/2007 08:15 PM
Chloroethane	ND	10		µg/L	20	12/19/2007 08:15 PM
Chloroform	ND	10		µg/L	20	12/19/2007 08:15 PM
Chloromethane	ND	10		µg/L	20	12/19/2007 08:15 PM
cis-1,2-Dichloroethene	1800	10		µg/L	20	12/19/2007 08:15 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS
Print Date: *27-Dec-07*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	DP3GW
Lab Order:	095865	**Collection Date:**	12/8/2007 1:20:00 PM
Project:	Mercury Cleaners, S9322-06-01	**Matrix:**	GROUND WATER
Lab ID:	095865-003A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
			EPA 8260B			
RunID: MS2_071219A	QC Batch: Q07VW162			PrepDate:		Analyst: **DWK**
cis-1,3-Dichloropropene	ND	10		µg/L	20	12/19/2007 08:15 PM
Dibromochloromethane	ND	10		µg/L	20	12/19/2007 08:15 PM
Dibromomethane	ND	10		µg/L	20	12/19/2007 08:15 PM
Dichlorodifluoromethane	ND	10		µg/L	20	12/19/2007 08:15 PM
Ethylbenzene	ND	10		µg/L	20	12/19/2007 08:15 PM
Hexachlorobutadiene	ND	10		µg/L	20	12/19/2007 08:15 PM
Isopropylbenzene	ND	10		µg/L	20	12/19/2007 08:15 PM
m,p-Xylene	ND	20		µg/L	20	12/19/2007 08:15 PM
Methylene chloride	ND	20		µg/L	20	12/19/2007 08:15 PM
n-Butylbenzene	ND	10		µg/L	20	12/19/2007 08:15 PM
n-Propylbenzene	ND	10		µg/L	20	12/19/2007 08:15 PM
Naphthalene	ND	10		µg/L	20	12/19/2007 08:15 PM
o-Xylene	ND	10		µg/L	20	12/19/2007 08:15 PM
sec-Butylbenzene	ND	10		µg/L	20	12/19/2007 08:15 PM
Styrene	ND	10		µg/L	20	12/19/2007 08:15 PM
tert-Butylbenzene	ND	10		µg/L	20	12/19/2007 08:15 PM
Tetrachloroethene	2600	50		µg/L	100	12/19/2007 07:36 PM
Toluene	ND	10		µg/L	20	12/19/2007 08:15 PM
trans-1,2-Dichloroethene	19	10		µg/L	20	12/19/2007 08:15 PM
Trichloroethene	550	10		µg/L	20	12/19/2007 08:15 PM
Trichlorofluoromethane	ND	10		µg/L	20	12/19/2007 08:15 PM
Vinyl chloride	ND	10		µg/L	20	12/19/2007 08:15 PM
Surr: 1,2-Dichloroethane-d4	99.7	70-130		%REC	20	12/19/2007 08:15 PM
Surr: 4-Bromofluorobenzene	96.7	70-130		%REC	20	12/19/2007 08:15 PM
Surr: Dibromofluoromethane	101	70-130		%REC	20	12/19/2007 08:15 PM
Surr: Toluene-d8	95.8	70-130		%REC	20	12/19/2007 08:15 PM

Qualifiers:				
	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *27-Dec-07*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	DP3GW
Lab Order:	095865	**Collection Date:**	12/8/2007 1:20:00 PM
Project:	Mercury Cleaners, S9322-06-01	**Matrix:**	GROUND WATER
Lab ID:	095865-003B		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS BY GC/FID						
			EPA 8015B(M)			
RunID: GC6_071212B	QC Batch: I07VW268			PrepDate:		Analyst: **EA**
GRO	16	0.050		mg/L	1	12/13/2007 04:36 AM
Surr: Bromofluorobenzene (FID)	112	76-127		%REC	1	12/13/2007 04:36 AM

Qualifiers:				
	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *27-Dec-07*

CLIENT: Geocon Consultants, Inc.
Lab Order: 095865
Project: Mercury Cleaners, S9322-06-01
Lab ID: 095865-004A

Client Sample ID: DP4GW
Collection Date: 12/8/2007 10:30:00 AM
Matrix: GROUND WATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				EPA 8260B		
RunID: MS11_071220C	QC Batch: A07VW351				PrepDate:	Analyst: **DWK**
1,1,1,2-Tetrachloroethane	ND	0.50		µg/L	1	12/21/2007 01:02 PM
1,1,1-Trichloroethane	ND	0.50		µg/L	1	12/21/2007 01:02 PM
1,1,2,2-Tetrachloroethane	ND	0.50		µg/L	1	12/21/2007 01:02 PM
1,1,2-Trichloroethane	ND	0.50		µg/L	1	12/21/2007 01:02 PM
1,1-Dichloroethane	ND	0.50		µg/L	1	12/21/2007 01:02 PM
1,1-Dichloroethene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
1,1-Dichloropropene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
1,2,3-Trichlorobenzene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
1,2,3-Trichloropropane	ND	0.50		µg/L	1	12/21/2007 01:02 PM
1,2,4-Trichlorobenzene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
1,2,4-Trimethylbenzene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
1,2-Dibromo-3-chloropropane	ND	0.50		µg/L	1	12/21/2007 01:02 PM
1,2-Dibromoethane	ND	0.50		µg/L	1	12/21/2007 01:02 PM
1,2-Dichlorobenzene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
1,2-Dichloroethane	ND	0.50		µg/L	1	12/21/2007 01:02 PM
1,2-Dichloropropane	ND	0.50		µg/L	1	12/21/2007 01:02 PM
1,3,5-Trimethylbenzene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
1,3-Dichlorobenzene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
1,3-Dichloropropane	ND	0.50		µg/L	1	12/21/2007 01:02 PM
1,4-Dichlorobenzene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
2,2-Dichloropropane	ND	0.50		µg/L	1	12/21/2007 01:02 PM
2-Chlorotoluene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
4-Chlorotoluene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
4-Isopropyltoluene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
Benzene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
Bromobenzene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
Bromodichloromethane	ND	0.50		µg/L	1	12/21/2007 01:02 PM
Bromoform	ND	0.50		µg/L	1	12/21/2007 01:02 PM
Bromomethane	ND	0.50		µg/L	1	12/21/2007 01:02 PM
Carbon tetrachloride	ND	0.50		µg/L	1	12/21/2007 01:02 PM
Chlorobenzene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
Chloroethane	ND	0.50		µg/L	1	12/21/2007 01:02 PM
Chloroform	0.94	0.50		µg/L	1	12/21/2007 01:02 PM
Chloromethane	ND	0.50		µg/L	1	12/21/2007 01:02 PM
cis-1,2-Dichloroethene	44	0.50		µg/L	1	12/21/2007 01:02 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS
Print Date: *27-Dec-07*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	DP4GW
Lab Order:	095865	**Collection Date:**	12/8/2007 10:30:00 AM
Project:	Mercury Cleaners, S9322-06-01	**Matrix:**	GROUND WATER
Lab ID:	095865-004A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				EPA 8260B		
RunID: MS11_071220C	QC Batch: A07VW351				PrepDate:	Analyst: **DWK**
cis-1,3-Dichloropropene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
Dibromochloromethane	ND	0.50		µg/L	1	12/21/2007 01:02 PM
Dibromomethane	ND	0.50		µg/L	1	12/21/2007 01:02 PM
Dichlorodifluoromethane	ND	0.50		µg/L	1	12/21/2007 01:02 PM
Ethylbenzene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
Hexachlorobutadiene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
Isopropylbenzene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
m,p-Xylene	ND	1.0		µg/L	1	12/21/2007 01:02 PM
Methylene chloride	2.0	1.0		µg/L	1	12/21/2007 01:02 PM
n-Butylbenzene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
n-Propylbenzene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
Naphthalene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
o-Xylene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
sec-Butylbenzene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
Styrene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
tert-Butylbenzene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
Tetrachloroethene	120	5.0		µg/L	10	12/22/2007 01:53 PM
Toluene	ND	0.50		µg/L	1	12/21/2007 01:02 PM
trans-1,2-Dichloroethene	1.1	0.50		µg/L	1	12/21/2007 01:02 PM
Trichloroethene	22	0.50		µg/L	1	12/21/2007 01:02 PM
Trichlorofluoromethane	ND	0.50		µg/L	1	12/21/2007 01:02 PM
Vinyl chloride	ND	0.50		µg/L	1	12/21/2007 01:02 PM
Surr: 1,2-Dichloroethane-d4	106	70-130		%REC	1	12/21/2007 01:02 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	12/21/2007 01:02 PM
Surr: Dibromofluoromethane	102	70-130		%REC	1	12/21/2007 01:02 PM
Surr: Toluene-d8	97.0	70-130		%REC	1	12/21/2007 01:02 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *27-Dec-07*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	DP4GW
Lab Order:	095865	**Collection Date:**	12/8/2007 10:30:00 AM
Project:	Mercury Cleaners, S9322-06-01	**Matrix:**	GROUND WATER
Lab ID:	095865-004B		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS BY GC/FID						
			EPA 8015B(M)			
RunID: GC6_071212B	QC Batch: I07VW268			PrepDate:		Analyst: **EA**
GRO	2.8	0.050		mg/L	1	12/13/2007 05:02 AM
Surr: Bromofluorobenzene (FID)	122	76-127		%REC	1	12/13/2007 05:02 AM

Qualifiers:				
	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *27-Dec-07*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	DP5GW
Lab Order:	095865	**Collection Date:**	12/8/2007 8:50:00 AM
Project:	Mercury Cleaners, S9322-06-01	**Matrix:**	GROUND WATER
Lab ID:	095865-005A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
			EPA 8260B			
RunID: MS11_071220C	QC Batch: A07VW351			PrepDate:		Analyst: **DWK**
1,1,1,2-Tetrachloroethane	ND	0.50		µg/L	1	12/21/2007 01:22 PM
1,1,1-Trichloroethane	ND	0.50		µg/L	1	12/21/2007 01:22 PM
1,1,2,2-Tetrachloroethane	ND	0.50		µg/L	1	12/21/2007 01:22 PM
1,1,2-Trichloroethane	ND	0.50		µg/L	1	12/21/2007 01:22 PM
1,1-Dichloroethane	ND	0.50		µg/L	1	12/21/2007 01:22 PM
1,1-Dichloroethene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
1,1-Dichloropropene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
1,2,3-Trichlorobenzene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
1,2,3-Trichloropropane	ND	0.50		µg/L	1	12/21/2007 01:22 PM
1,2,4-Trichlorobenzene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
1,2,4-Trimethylbenzene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
1,2-Dibromo-3-chloropropane	ND	0.50		µg/L	1	12/21/2007 01:22 PM
1,2-Dibromoethane	ND	0.50		µg/L	1	12/21/2007 01:22 PM
1,2-Dichlorobenzene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
1,2-Dichloroethane	ND	0.50		µg/L	1	12/21/2007 01:22 PM
1,2-Dichloropropane	ND	0.50		µg/L	1	12/21/2007 01:22 PM
1,3,5-Trimethylbenzene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
1,3-Dichlorobenzene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
1,3-Dichloropropane	ND	0.50		µg/L	1	12/21/2007 01:22 PM
1,4-Dichlorobenzene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
2,2-Dichloropropane	ND	0.50		µg/L	1	12/21/2007 01:22 PM
2-Chlorotoluene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
4-Chlorotoluene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
4-Isopropyltoluene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
Benzene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
Bromobenzene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
Bromodichloromethane	ND	0.50		µg/L	1	12/21/2007 01:22 PM
Bromoform	ND	0.50		µg/L	1	12/21/2007 01:22 PM
Bromomethane	ND	0.50		µg/L	1	12/21/2007 01:22 PM
Carbon tetrachloride	ND	0.50		µg/L	1	12/21/2007 01:22 PM
Chlorobenzene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
Chloroethane	ND	0.50		µg/L	1	12/21/2007 01:22 PM
Chloroform	1.6	0.50		µg/L	1	12/21/2007 01:22 PM
Chloromethane	ND	0.50		µg/L	1	12/21/2007 01:22 PM
cis-1,2-Dichloroethene	12	0.50		µg/L	1	12/21/2007 01:22 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS
Print Date: *27-Dec-07*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	DP5GW
Lab Order:	095865	**Collection Date:**	12/8/2007 8:50:00 AM
Project:	Mercury Cleaners, S9322-06-01	**Matrix:**	GROUND WATER
Lab ID:	095865-005A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				EPA 8260B		
RunID: MS11_071220C	QC Batch: A07VW351			PrepDate:		Analyst: **DWK**
cis-1,3-Dichloropropene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
Dibromochloromethane	ND	0.50		µg/L	1	12/21/2007 01:22 PM
Dibromomethane	ND	0.50		µg/L	1	12/21/2007 01:22 PM
Dichlorodifluoromethane	ND	0.50		µg/L	1	12/21/2007 01:22 PM
Ethylbenzene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
Hexachlorobutadiene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
Isopropylbenzene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
m,p-Xylene	ND	1.0		µg/L	1	12/21/2007 01:22 PM
Methylene chloride	ND	1.0		µg/L	1	12/21/2007 01:22 PM
n-Butylbenzene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
n-Propylbenzene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
Naphthalene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
o-Xylene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
sec-Butylbenzene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
Styrene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
tert-Butylbenzene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
Tetrachloroethene	98	0.50		µg/L	1	12/21/2007 01:22 PM
Toluene	ND	0.50		µg/L	1	12/21/2007 01:22 PM
trans-1,2-Dichloroethene	0.59	0.50		µg/L	1	12/21/2007 01:22 PM
Trichloroethene	8.2	0.50		µg/L	1	12/21/2007 01:22 PM
Trichlorofluoromethane	ND	0.50		µg/L	1	12/21/2007 01:22 PM
Vinyl chloride	ND	0.50		µg/L	1	12/21/2007 01:22 PM
Surr: 1,2-Dichloroethane-d4	106	70-130		%REC	1	12/21/2007 01:22 PM
Surr: 4-Bromofluorobenzene	94.5	70-130		%REC	1	12/21/2007 01:22 PM
Surr: Dibromofluoromethane	104	70-130		%REC	1	12/21/2007 01:22 PM
Surr: Toluene-d8	98.6	70-130		%REC	1	12/21/2007 01:22 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *27-Dec-07*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	DP5GW
Lab Order:	095865	**Collection Date:**	12/8/2007 8:50:00 AM
Project:	Mercury Cleaners, S9322-06-01	**Matrix:**	GROUND WATER
Lab ID:	095865-005B		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS BY GC/FID						
			EPA 8015B(M)			
RunID: GC6_071212B	QC Batch: I07VW268			PrepDate:		Analyst: **EA**
GRO	0.26	0.050		mg/L	1	12/13/2007 05:28 AM
Surr: Bromofluorobenzene (FID)	121	76-127		%REC	1	12/13/2007 05:28 AM

Qualifiers:				
	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS
Print Date: *27-Dec-07*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	DP6GW
Lab Order:	095865	**Collection Date:**	12/8/2007 9:45:00 AM
Project:	Mercury Cleaners, S9322-06-01	**Matrix:**	GROUND WATER
Lab ID:	095865-006A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
			EPA 8260B			
RunID: MS11_071220C	QC Batch: A07VW351			PrepDate:		Analyst: **DWK**
1,1,1,2-Tetrachloroethane	ND	0.50		µg/L	1	12/21/2007 01:41 PM
1,1,1-Trichloroethane	ND	0.50		µg/L	1	12/21/2007 01:41 PM
1,1,2,2-Tetrachloroethane	ND	0.50		µg/L	1	12/21/2007 01:41 PM
1,1,2-Trichloroethane	ND	0.50		µg/L	1	12/21/2007 01:41 PM
1,1-Dichloroethane	ND	0.50		µg/L	1	12/21/2007 01:41 PM
1,1-Dichloroethene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
1,1-Dichloropropene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
1,2,3-Trichlorobenzene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
1,2,3-Trichloropropane	ND	0.50		µg/L	1	12/21/2007 01:41 PM
1,2,4-Trichlorobenzene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
1,2,4-Trimethylbenzene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
1,2-Dibromo-3-chloropropane	ND	0.50		µg/L	1	12/21/2007 01:41 PM
1,2-Dibromoethane	ND	0.50		µg/L	1	12/21/2007 01:41 PM
1,2-Dichlorobenzene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
1,2-Dichloroethane	ND	0.50		µg/L	1	12/21/2007 01:41 PM
1,2-Dichloropropane	ND	0.50		µg/L	1	12/21/2007 01:41 PM
1,3,5-Trimethylbenzene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
1,3-Dichlorobenzene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
1,3-Dichloropropane	ND	0.50		µg/L	1	12/21/2007 01:41 PM
1,4-Dichlorobenzene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
2,2-Dichloropropane	ND	0.50		µg/L	1	12/21/2007 01:41 PM
2-Chlorotoluene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
4-Chlorotoluene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
4-Isopropyltoluene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
Benzene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
Bromobenzene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
Bromodichloromethane	ND	0.50		µg/L	1	12/21/2007 01:41 PM
Bromoform	ND	0.50		µg/L	1	12/21/2007 01:41 PM
Bromomethane	ND	0.50		µg/L	1	12/21/2007 01:41 PM
Carbon tetrachloride	ND	0.50		µg/L	1	12/21/2007 01:41 PM
Chlorobenzene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
Chloroethane	ND	0.50		µg/L	1	12/21/2007 01:41 PM
Chloroform	2.1	0.50		µg/L	1	12/21/2007 01:41 PM
Chloromethane	ND	0.50		µg/L	1	12/21/2007 01:41 PM
cis-1,2-Dichloroethene	23	0.50		µg/L	1	12/21/2007 01:41 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS
Print Date: *27-Dec-07*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	DP6GW
Lab Order:	095865	**Collection Date:**	12/8/2007 9:45:00 AM
Project:	Mercury Cleaners, S9322-06-01	**Matrix:**	GROUND WATER
Lab ID:	095865-006A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				EPA 8260B		
RunID: MS11_071220C	QC Batch: A07VW351			PrepDate:		Analyst: **DWK**
cis-1,3-Dichloropropene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
Dibromochloromethane	ND	0.50		µg/L	1	12/21/2007 01:41 PM
Dibromomethane	ND	0.50		µg/L	1	12/21/2007 01:41 PM
Dichlorodifluoromethane	ND	0.50		µg/L	1	12/21/2007 01:41 PM
Ethylbenzene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
Hexachlorobutadiene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
Isopropylbenzene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
m,p-Xylene	ND	1.0		µg/L	1	12/21/2007 01:41 PM
Methylene chloride	ND	1.0		µg/L	1	12/21/2007 01:41 PM
n-Butylbenzene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
n-Propylbenzene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
Naphthalene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
o-Xylene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
sec-Butylbenzene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
Styrene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
tert-Butylbenzene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
Tetrachloroethene	79	0.50		µg/L	1	12/21/2007 01:41 PM
Toluene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
trans-1,2-Dichloroethene	ND	0.50		µg/L	1	12/21/2007 01:41 PM
Trichloroethene	5.8	0.50		µg/L	1	12/21/2007 01:41 PM
Trichlorofluoromethane	ND	0.50		µg/L	1	12/21/2007 01:41 PM
Vinyl chloride	ND	0.50		µg/L	1	12/21/2007 01:41 PM
Surr: 1,2-Dichloroethane-d4	106	70-130		%REC	1	12/21/2007 01:41 PM
Surr: 4-Bromofluorobenzene	92.7	70-130		%REC	1	12/21/2007 01:41 PM
Surr: Dibromofluoromethane	105	70-130		%REC	1	12/21/2007 01:41 PM
Surr: Toluene-d8	98.7	70-130		%REC	1	12/21/2007 01:41 PM

Qualifiers:				
	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *27-Dec-07*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	DP6GW
Lab Order:	095865	**Collection Date:**	12/8/2007 9:45:00 AM
Project:	Mercury Cleaners, S9322-06-01	**Matrix:**	GROUND WATER
Lab ID:	095865-006B		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS BY GC/FID						
			EPA 8015B(M)			
RunID: GC6_071212B	QC Batch: I07VW268			PrepDate:		Analyst: **EA**
GRO	0.17	0.050		mg/L	1	12/13/2007 05:53 AM
Surr: Bromofluorobenzene (FID)	108	76-127		%REC	1	12/13/2007 05:53 AM

Qualifiers:				
	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS
Print Date: *27-Dec-07*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	DP7GW
Lab Order:	095865	**Collection Date:**	12/8/2007 5:15:00 PM
Project:	Mercury Cleaners, S9322-06-01	**Matrix:**	GROUND WATER
Lab ID:	095865-007A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
			EPA 8260B			
RunID: MS2_071219A	QC Batch: Q07VW162			PrepDate:		Analyst: **DWK**
1,1,1,2-Tetrachloroethane	ND	10		µg/L	20	12/19/2007 09:08 PM
1,1,1-Trichloroethane	ND	10		µg/L	20	12/19/2007 09:08 PM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	20	12/19/2007 09:08 PM
1,1,2-Trichloroethane	64	10		µg/L	20	12/19/2007 09:08 PM
1,1-Dichloroethane	ND	10		µg/L	20	12/19/2007 09:08 PM
1,1-Dichloroethene	ND	10		µg/L	20	12/19/2007 09:08 PM
1,1-Dichloropropene	ND	10		µg/L	20	12/19/2007 09:08 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	20	12/19/2007 09:08 PM
1,2,3-Trichloropropane	ND	10		µg/L	20	12/19/2007 09:08 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	20	12/19/2007 09:08 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	20	12/19/2007 09:08 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	20	12/19/2007 09:08 PM
1,2-Dibromoethane	ND	10		µg/L	20	12/19/2007 09:08 PM
1,2-Dichlorobenzene	ND	10		µg/L	20	12/19/2007 09:08 PM
1,2-Dichloroethane	ND	10		µg/L	20	12/19/2007 09:08 PM
1,2-Dichloropropane	ND	10		µg/L	20	12/19/2007 09:08 PM
1,3,5-Trimethylbenzene	23	10		µg/L	20	12/19/2007 09:08 PM
1,3-Dichlorobenzene	ND	10		µg/L	20	12/19/2007 09:08 PM
1,3-Dichloropropane	ND	10		µg/L	20	12/19/2007 09:08 PM
1,4-Dichlorobenzene	ND	10		µg/L	20	12/19/2007 09:08 PM
2,2-Dichloropropane	ND	10		µg/L	20	12/19/2007 09:08 PM
2-Chlorotoluene	ND	10		µg/L	20	12/19/2007 09:08 PM
4-Chlorotoluene	ND	10		µg/L	20	12/19/2007 09:08 PM
4-Isopropyltoluene	ND	10		µg/L	20	12/19/2007 09:08 PM
Benzene	11	10		µg/L	20	12/19/2007 09:08 PM
Bromobenzene	ND	10		µg/L	20	12/19/2007 09:08 PM
Bromodichloromethane	ND	10		µg/L	20	12/19/2007 09:08 PM
Bromoform	ND	10		µg/L	20	12/19/2007 09:08 PM
Bromomethane	ND	10		µg/L	20	12/19/2007 09:08 PM
Carbon tetrachloride	ND	10		µg/L	20	12/19/2007 09:08 PM
Chlorobenzene	ND	10		µg/L	20	12/19/2007 09:08 PM
Chloroethane	ND	10		µg/L	20	12/19/2007 09:08 PM
Chloroform	ND	10		µg/L	20	12/19/2007 09:08 PM
Chloromethane	ND	10		µg/L	20	12/19/2007 09:08 PM
cis-1,2-Dichloroethene	17000	100		µg/L	200	12/19/2007 07:55 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS
Print Date: *27-Dec-07*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	DP7GW
Lab Order:	095865	**Collection Date:**	12/8/2007 5:15:00 PM
Project:	Mercury Cleaners, S9322-06-01	**Matrix:**	GROUND WATER
Lab ID:	095865-007A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
			EPA 8260B			
RunID: MS2_071219A	QC Batch: Q07VW162			PrepDate:		Analyst: **DWK**
cis-1,3-Dichloropropene	ND	10		µg/L	20	12/19/2007 09:08 PM
Dibromochloromethane	ND	10		µg/L	20	12/19/2007 09:08 PM
Dibromomethane	ND	10		µg/L	20	12/19/2007 09:08 PM
Dichlorodifluoromethane	ND	10		µg/L	20	12/19/2007 09:08 PM
Ethylbenzene	ND	10		µg/L	20	12/19/2007 09:08 PM
Hexachlorobutadiene	ND	10		µg/L	20	12/19/2007 09:08 PM
Isopropylbenzene	23	10		µg/L	20	12/19/2007 09:08 PM
m,p-Xylene	ND	20		µg/L	20	12/19/2007 09:08 PM
Methylene chloride	ND	20		µg/L	20	12/19/2007 09:08 PM
n-Butylbenzene	ND	10		µg/L	20	12/19/2007 09:08 PM
n-Propylbenzene	ND	10		µg/L	20	12/19/2007 09:08 PM
Naphthalene	ND	10		µg/L	20	12/19/2007 09:08 PM
o-Xylene	ND	10		µg/L	20	12/19/2007 09:08 PM
sec-Butylbenzene	23	10		µg/L	20	12/19/2007 09:08 PM
Styrene	ND	10		µg/L	20	12/19/2007 09:08 PM
tert-Butylbenzene	ND	10		µg/L	20	12/19/2007 09:08 PM
Tetrachloroethene	1300	10		µg/L	20	12/19/2007 09:08 PM
Toluene	ND	10		µg/L	20	12/19/2007 09:08 PM
trans-1,2-Dichloroethene	96	10		µg/L	20	12/19/2007 09:08 PM
Trichloroethene	1500	10		µg/L	20	12/19/2007 09:08 PM
Trichlorofluoromethane	ND	10		µg/L	20	12/19/2007 09:08 PM
Vinyl chloride	ND	10		µg/L	20	12/19/2007 09:08 PM
Surr: 1,2-Dichloroethane-d4	86.4	70-130		%REC	20	12/19/2007 09:08 PM
Surr: 4-Bromofluorobenzene	99.2	70-130		%REC	20	12/19/2007 09:08 PM
Surr: Dibromofluoromethane	91.6	70-130		%REC	20	12/19/2007 09:08 PM
Surr: Toluene-d8	84.0	70-130		%REC	20	12/19/2007 09:08 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *27-Dec-07*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	DP7GW
Lab Order:	095865	**Collection Date:**	12/8/2007 5:15:00 PM
Project:	Mercury Cleaners, S9322-06-01	**Matrix:**	GROUND WATER
Lab ID:	095865-007B		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS BY GC/FID						
			EPA 8015B(M)			
RunID: GC6_071212B	QC Batch: I07VW268			PrepDate:		Analyst: **EA**
GRO	22	0.50		mg/L	10	12/13/2007 06:20 AM
Surr: Bromofluorobenzene (FID)	81.5	76-127		%REC	10	12/13/2007 06:20 AM

Qualifiers:				
	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *27-Dec-07*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	DP2S-15.5
Lab Order:	095865	**Collection Date:**	12/8/2007 2:55:00 PM
Project:	Mercury Cleaners, S9322-06-01	**Matrix:**	SOIL
Lab ID:	095865-008A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS BY GC/FID						
				EPA 8015B(M)		
RunID: GC2_071218A	QC Batch:	E07VS368		PrepDate:		Analyst: **AAH**
GRO	1400	50		mg/Kg	50	12/18/2007 10:41 PM
Surr: Bromofluorobenzene (FID)	47.4	42-142		%REC	50	12/18/2007 10:41 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS
Print Date: *27-Dec-07*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	DP2S-18.0
Lab Order:	095865	**Collection Date:**	12/8/2007 3:15:00 PM
Project:	Mercury Cleaners, S9322-06-01	**Matrix:**	SOIL
Lab ID:	095865-009A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS BY GC/FID						
			EPA 8015B(M)			
RunID: GC2_071218A	QC Batch: E07VS368			PrepDate:		Analyst: **AAH**
GRO	5500	100		mg/Kg	100	12/18/2007 11:05 PM
Surr: Bromofluorobenzene (FID)	120	42-142		%REC	100	12/18/2007 11:05 PM

Qualifiers:				
	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

Advanced Technology Laboratories

Date: *27-Dec-07*

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_GAS

Sample ID: **E071218MB2** SampType: **MBLK** TestCode: **8015_S_GAS** Units: **mg/Kg** Prep Date: RunNo: **88830**
Client ID: **PBS** Batch ID: **E07VS368** TestNo: **EPA 8015B(M** Analysis Date: **12/18/2007** SeqNo: **1355479**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	1.0									
Surr: Bromofluorobenzene (FID)	93.340		100.0		93.3	42	142				

Sample ID: **095888-001AMS** SampType: **MS** TestCode: **8015_S_GAS** Units: **mg/Kg** Prep Date: RunNo: **88830**
Client ID: **ZZZZZZ** Batch ID: **E07VS368** TestNo: **EPA 8015B(M** Analysis Date: **12/18/2007** SeqNo: **1355483**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	2.271	1.0	5.000	0.3640	38.1	33	120				
Surr: Bromofluorobenzene (FID)	84.975		100.0		85.0	42	142				

Sample ID: **095888-001AMSD** SampType: **MSD** TestCode: **8015_S_GAS** Units: **mg/Kg** Prep Date: RunNo: **88830**
Client ID: **ZZZZZZ** Batch ID: **E07VS368** TestNo: **EPA 8015B(M** Analysis Date: **12/19/2007** SeqNo: **1355484**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	2.281	1.0	5.000	0.3640	38.3	33	120	2.271	0.439	20	
Surr: Bromofluorobenzene (FID)	82.759		100.0		82.8	42	142		0	20	

Sample ID: **E071218LCS1** SampType: **LCS** TestCode: **8015_S_GAS** Units: **mg/Kg** Prep Date: RunNo: **88830**
Client ID: **LCSS** Batch ID: **E07VS368** TestNo: **EPA 8015B(M** Analysis Date: **12/19/2007** SeqNo: **1355497**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	4.510	1.0	5.000	0	90.2	74	118				
Surr: Bromofluorobenzene (FID)	90.999		100.0		91.0	42	142				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_GP LL

Sample ID: **I121207LCS4** SampType: **LCS** TestCode: **8015_W_GP** Units: **mg/L** Prep Date: RunNo: **88467**
Client ID: **LCSW** Batch ID: **I07VW268** TestNo: **EPA 8015B(M** Analysis Date: **12/12/2007** SeqNo: **1349179**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	0.989	0.050	1.000	0	98.9	77	122				
Surr: Bromofluorobenzene (FID)	120.200		100.0		120	76	127				

Sample ID: **I121207MB4MS** SampType: **MS** TestCode: **8015_W_GP** Units: **mg/L** Prep Date: RunNo: **88467**
Client ID: **ZZZZZZ** Batch ID: **I07VW268** TestNo: **EPA 8015B(M** Analysis Date: **12/12/2007** SeqNo: **1349180**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	1.126	0.050	1.000	0	113	77	122				
Surr: Bromofluorobenzene (FID)	115.299		100.0		115	76	127				

Sample ID: **I121207MB4MSD** SampType: **MSD** TestCode: **8015_W_GP** Units: **mg/L** Prep Date: RunNo: **88467**
Client ID: **ZZZZZZ** Batch ID: **I07VW268** TestNo: **EPA 8015B(M** Analysis Date: **12/12/2007** SeqNo: **1349181**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	0.999	0.050	1.000	0	99.9	77	122	1.126	12.0	20	
Surr: Bromofluorobenzene (FID)	112.096		100.0		112	76	127		0	0	

Sample ID: **I121207MB4** SampType: **MBLK** TestCode: **8015_W_GP** Units: **mg/L** Prep Date: RunNo: **88467**
Client ID: **PBW** Batch ID: **I07VW268** TestNo: **EPA 8015B(M** Analysis Date: **12/12/2007** SeqNo: **1349183**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	0.050									
Surr: Bromofluorobenzene (FID)	125.730		100.0		126	76	127				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_GP LL

Sample ID: **I121307LCS2** SampType: **LCS** TestCode: **8015_W_GP** Units: **mg/L** Prep Date: RunNo: **88505**
Client ID: **LCSW** Batch ID: **I07VW269** TestNo: **EPA 8015B(M** Analysis Date: **12/13/2007** SeqNo: **1349667**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	1.115	0.050	1.000	0	112	77	122				
Surr: Bromofluorobenzene (FID)	99.983		100.0		100	76	127				

Sample ID: **I121307MB2MS** SampType: **MS** TestCode: **8015_W_GP** Units: **mg/L** Prep Date: RunNo: **88505**
Client ID: **ZZZZZZ** Batch ID: **I07VW269** TestNo: **EPA 8015B(M** Analysis Date: **12/13/2007** SeqNo: **1349668**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	1.115	0.050	1.000	0	112	77	122				
Surr: Bromofluorobenzene (FID)	100.553		100.0		101	76	127				

Sample ID: **I121307MB2MSD** SampType: **MSD** TestCode: **8015_W_GP** Units: **mg/L** Prep Date: RunNo: **88505**
Client ID: **ZZZZZZ** Batch ID: **I07VW269** TestNo: **EPA 8015B(M** Analysis Date: **12/13/2007** SeqNo: **1349669**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	1.065	0.050	1.000	0	106	77	122	1.115	4.59	20	
Surr: Bromofluorobenzene (FID)	90.028		100.0		90.0	76	127		0	0	

Sample ID: **I121307MB2** SampType: **MBLK** TestCode: **8015_W_GP** Units: **mg/L** Prep Date: RunNo: **88505**
Client ID: **PBW** Batch ID: **I07VW269** TestNo: **EPA 8015B(M** Analysis Date: **12/13/2007** SeqNo: **1349670**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	0.050									
Surr: Bromofluorobenzene (FID)	112.393		100.0		112	76	127				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **A12160707LC1** SampType: **LCS** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **88676**
Client ID: **LCSW** Batch ID: **A07VW342** TestNo: **EPA 8260B** Analysis Date: **12/16/2007** SeqNo: **1352613**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20.900	0.50	20.00	0	104	70	130				
Benzene	19.950	0.50	20.00	0	99.8	70	130				
Chlorobenzene	19.720	0.50	20.00	0	98.6	70	130				
MTBE	19.520	0.50	20.00	0	97.6	70	130				
Toluene	19.320	0.50	20.00	0	96.6	70	130				
Trichloroethene	19.310	0.50	20.00	0	96.6	70	130				
Surr: 1,2-Dichloroethane-d4	25.600		25.00		102	70	130				
Surr: 4-Bromofluorobenzene	23.450		25.00		93.8	70	130				
Surr: Dibromofluoromethane	23.720		25.00		94.9	70	130				
Surr: Toluene-d8	24.760		25.00		99.0	70	130				

Sample ID: **A121607MB4MS** SampType: **MS** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **88676**
Client ID: **ZZZZZZ** Batch ID: **A07VW342** TestNo: **EPA 8260B** Analysis Date: **12/16/2007** SeqNo: **1352614**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21.400	0.50	20.00	0	107	70	130				
Benzene	20.840	0.50	20.00	0	104	70	130				
Chlorobenzene	20.170	0.50	20.00	0	101	70	130				
Toluene	19.940	0.50	20.00	0	99.7	70	130				
Trichloroethene	20.010	0.50	20.00	0	100	70	130				
Surr: 1,2-Dichloroethane-d4	25.460		25.00		102	70	130				
Surr: 4-Bromofluorobenzene	23.290		25.00		93.2	70	130				
Surr: Dibromofluoromethane	24.190		25.00		96.8	70	130				
Surr: Toluene-d8	24.930		25.00		99.7	70	130				

Sample ID: **A1216707MB4MSD** SampType: **MSD** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **88676**
Client ID: **ZZZZZZ** Batch ID: **A07VW342** TestNo: **EPA 8260B** Analysis Date: **12/16/2007** SeqNo: **1352615**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21.740	0.50	20.00	0	109	70	130	21.40	1.58	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **A1216707MB4MSD** SampType: **MSD** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **88676**
Client ID: **ZZZZZZ** Batch ID: **A07VW342** TestNo: **EPA 8260B** Analysis Date: **12/16/2007** SeqNo: **1352615**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.970	0.50	20.00	0	105	70	130	20.84	0.622	20	
Chlorobenzene	20.020	0.50	20.00	0	100	70	130	20.17	0.746	20	
Toluene	20.070	0.50	20.00	0	100	70	130	19.94	0.650	20	
Trichloroethene	20.070	0.50	20.00	0	100	70	130	20.01	0.299	20	
Surr: 1,2-Dichloroethane-d4	25.040		25.00		100	70	130		0	20	
Surr: 4-Bromofluorobenzene	23.230		25.00		92.9	70	130		0	20	
Surr: Dibromofluoromethane	24.090		25.00		96.4	70	130		0	20	
Surr: Toluene-d8	24.880		25.00		99.5	70	130		0	20	

Sample ID: **A121607MB4** SampType: **MBLK** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **88676**
Client ID: **PBW** Batch ID: **A07VW342** TestNo: **EPA 8260B** Analysis Date: **12/16/2007** SeqNo: **1352616**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
1,1-Dichloropropene	ND	0.50									
1,2,3-Trichlorobenzene	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
1,2,4-Trichlorobenzene	ND	0.50									
1,2,4-Trimethylbenzene	ND	0.50									
1,2-Dibromo-3-chloropropane	ND	0.50									
1,2-Dibromoethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	0.50									
1,3,5-Trimethylbenzene	ND	0.50									

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **A121607MB4** SampType: **MBLK** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **88676**
Client ID: **PBW** Batch ID: **A07VW342** TestNo: **EPA 8260B** Analysis Date: **12/16/2007** SeqNo: **1352616**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	0.50									
1,3-Dichloropropane	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
2,2-Dichloropropane	ND	0.50									
2-Chlorotoluene	ND	0.50									
4-Chlorotoluene	ND	0.50									
4-Isopropyltoluene	ND	0.50									
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	0.50									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									
Chloroethane	ND	0.50									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethylbenzene	ND	0.50									
Hexachlorobutadiene	ND	0.50									
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									
Methylene chloride	ND	1.0									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									
Naphthalene	ND	0.50									

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **A121607MB4** SampType: **MBLK** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **88676**
Client ID: **PBW** Batch ID: **A07VW342** TestNo: **EPA 8260B** Analysis Date: **12/16/2007** SeqNo: **1352616**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	ND	0.50									
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
tert-Butylbenzene	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	28.380		25.00		114	70	130				
Surr: 4-Bromofluorobenzene	22.890		25.00		91.6	70	130				
Surr: Dibromofluoromethane	24.360		25.00		97.4	70	130				
Surr: Toluene-d8	24.220		25.00		96.9	70	130				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **A12190707LC1** SampType: **LCS** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **88888**
Client ID: **LCSW** Batch ID: **A07VW347** TestNo: **EPA 8260B** Analysis Date: **12/19/2007** SeqNo: **1356591**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	23.230	0.50	20.00	0	116	70	130				
Benzene	19.940	0.50	20.00	0	99.7	70	130				
Chlorobenzene	18.450	0.50	20.00	0	92.2	70	130				
MTBE	21.350	0.50	20.00	0	107	70	130				
Toluene	19.930	0.50	20.00	0	99.7	70	130				
Trichloroethene	19.720	0.50	20.00	0	98.6	70	130				
Surr: 1,2-Dichloroethane-d4	28.970		25.00		116	70	130				
Surr: 4-Bromofluorobenzene	23.970		25.00		95.9	70	130				
Surr: Dibromofluoromethane	27.150		25.00		109	70	130				
Surr: Toluene-d8	26.980		25.00		108	70	130				

Sample ID: **095951-004AMS** SampType: **MS** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **88888**
Client ID: **ZZZZZZ** Batch ID: **A07VW347** TestNo: **EPA 8260B** Analysis Date: **12/19/2007** SeqNo: **1356592**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	30.770	0.50	20.00	0	154	70	130				S
Benzene	25.730	0.50	20.00	0	129	70	130				
Chlorobenzene	23.670	0.50	20.00	0	118	70	130				
Toluene	25.240	0.50	20.00	0	126	70	130				
Trichloroethene	25.520	0.50	20.00	0	128	70	130				
Surr: 1,2-Dichloroethane-d4	30.160		25.00		121	70	130				
Surr: 4-Bromofluorobenzene	24.240		25.00		97.0	70	130				
Surr: Dibromofluoromethane	27.850		25.00		111	70	130				
Surr: Toluene-d8	26.410		25.00		106	70	130				

Sample ID: **095951-004AMSD** SampType: **MSD** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **88888**
Client ID: **ZZZZZZ** Batch ID: **A07VW347** TestNo: **EPA 8260B** Analysis Date: **12/19/2007** SeqNo: **1356593**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	30.650	0.50	20.00	0	153	70	130	30.77	0.391	20	S

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **095951-004AMSD** SampType: **MSD** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **88888**
Client ID: **ZZZZZZ** Batch ID: **A07VW347** TestNo: **EPA 8260B** Analysis Date: **12/19/2007** SeqNo: **1356593**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	26.190	0.50	20.00	0	131	70	130	25.73	1.77	20	S
Chlorobenzene	24.060	0.50	20.00	0	120	70	130	23.67	1.63	20	
Toluene	25.590	0.50	20.00	0	128	70	130	25.24	1.38	20	
Trichloroethene	25.880	0.50	20.00	0	129	70	130	25.52	1.40	20	
Surr: 1,2-Dichloroethane-d4	29.580		25.00		118	70	130		0	20	
Surr: 4-Bromofluorobenzene	24.210		25.00		96.8	70	130		0	20	
Surr: Dibromofluoromethane	28.020		25.00		112	70	130		0	20	
Surr: Toluene-d8	26.220		25.00		105	70	130		0	20	

Sample ID: **A121907MB2** SampType: **MBLK** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **88888**
Client ID: **PBW** Batch ID: **A07VW347** TestNo: **EPA 8260B** Analysis Date: **12/19/2007** SeqNo: **1356594**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
1,1-Dichloropropene	ND	0.50									
1,2,3-Trichlorobenzene	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
1,2,4-Trichlorobenzene	ND	0.50									
1,2,4-Trimethylbenzene	ND	0.50									
1,2-Dibromo-3-chloropropane	ND	0.50									
1,2-Dibromoethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	0.50									
1,3,5-Trimethylbenzene	ND	0.50									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **A121907MB2** SampType: **MBLK** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **88888**
Client ID: **PBW** Batch ID: **A07VW347** TestNo: **EPA 8260B** Analysis Date: **12/19/2007** SeqNo: **1356594**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	0.50									
1,3-Dichloropropane	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
2,2-Dichloropropane	ND	0.50									
2-Chlorotoluene	ND	0.50									
4-Chlorotoluene	ND	0.50									
4-Isopropyltoluene	ND	0.50									
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	0.50									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									
Chloroethane	ND	0.50									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethylbenzene	ND	0.50									
Hexachlorobutadiene	ND	0.50									
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									
Methylene chloride	ND	1.0									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									
Naphthalene	ND	0.50									

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **A121907MB2** SampType: **MBLK** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **88888**
Client ID: **PBW** Batch ID: **A07VW347** TestNo: **EPA 8260B** Analysis Date: **12/19/2007** SeqNo: **1356594**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	ND	0.50									
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
tert-Butylbenzene	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	28.580		25.00		114	70	130				
Surr: 4-Bromofluorobenzene	23.500		25.00		94.0	70	130				
Surr: Dibromofluoromethane	28.440		25.00		114	70	130				
Surr: Toluene-d8	26.180		25.00		105	70	130				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **A12200707LC3** SampType: **LCS** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **89001**
Client ID: **LCSW** Batch ID: **A07VW351** TestNo: **EPA 8260B** Analysis Date: **12/21/2007** SeqNo: **1358584**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	17.100	0.50	20.00	0	85.5	70	130				
Benzene	16.930	0.50	20.00	0	84.6	70	130				
Chlorobenzene	16.740	0.50	20.00	0	83.7	70	130				
MTBE	17.400	0.50	20.00	0	87.0	70	130				
Toluene	16.530	0.50	20.00	0	82.6	70	130				
Trichloroethene	16.170	0.50	20.00	0	80.9	70	130				
Surr: 1,2-Dichloroethane-d4	24.660		25.00		98.6	70	130				
Surr: 4-Bromofluorobenzene	23.560		25.00		94.2	70	130				
Surr: Dibromofluoromethane	23.260		25.00		93.0	70	130				
Surr: Toluene-d8	25.280		25.00		101	70	130				

Sample ID: **A12200707MB6MS** SampType: **MS** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **89001**
Client ID: **ZZZZZZ** Batch ID: **A07VW351** TestNo: **EPA 8260B** Analysis Date: **12/21/2007** SeqNo: **1358585**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	16.600	0.50	20.00	0	83.0	70	130				
Benzene	16.510	0.50	20.00	0	82.6	70	130				
Chlorobenzene	16.540	0.50	20.00	0	82.7	70	130				
Toluene	16.130	0.50	20.00	0	80.6	70	130				
Trichloroethene	15.710	0.50	20.00	0	78.6	70	130				
Surr: 1,2-Dichloroethane-d4	24.660		25.00		98.6	70	130				
Surr: 4-Bromofluorobenzene	23.490		25.00		94.0	70	130				
Surr: Dibromofluoromethane	25.010		25.00		100	70	130				
Surr: Toluene-d8	24.930		25.00		99.7	70	130				

Sample ID: **A12200707MB6MSD** SampType: **MSD** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **89001**
Client ID: **ZZZZZZ** Batch ID: **A07VW351** TestNo: **EPA 8260B** Analysis Date: **12/21/2007** SeqNo: **1358586**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	17.080	0.50	20.00	0	85.4	70	130	16.60	2.85	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **A12200707MB6MSD** SampType: **MSD** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **89001**
Client ID: **ZZZZZZ** Batch ID: **A07VW351** TestNo: **EPA 8260B** Analysis Date: **12/21/2007** SeqNo: **1358586**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	16.760	0.50	20.00	0	83.8	70	130	16.51	1.50	20	
Chlorobenzene	16.720	0.50	20.00	0	83.6	70	130	16.54	1.08	20	
Toluene	16.350	0.50	20.00	0	81.8	70	130	16.13	1.35	20	
Trichloroethene	16.060	0.50	20.00	0	80.3	70	130	15.71	2.20	20	
Surr: 1,2-Dichloroethane-d4	25.190		25.00		101	70	130		0	20	
Surr: 4-Bromofluorobenzene	23.820		25.00		95.3	70	130		0	20	
Surr: Dibromofluoromethane	25.270		25.00		101	70	130		0	20	
Surr: Toluene-d8	25.230		25.00		101	70	130		0	20	

Sample ID: **A122007MB6** SampType: **MBLK** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **89001**
Client ID: **PBW** Batch ID: **A07VW351** TestNo: **EPA 8260B** Analysis Date: **12/21/2007** SeqNo: **1358587**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
1,1-Dichloropropene	ND	0.50									
1,2,3-Trichlorobenzene	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
1,2,4-Trichlorobenzene	ND	0.50									
1,2,4-Trimethylbenzene	ND	0.50									
1,2-Dibromo-3-chloropropane	ND	0.50									
1,2-Dibromoethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	0.50									
1,3,5-Trimethylbenzene	ND	0.50									

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **A122007MB6** SampType: **MBLK** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **89001**
Client ID: **PBW** Batch ID: **A07VW351** TestNo: **EPA 8260B** Analysis Date: **12/21/2007** SeqNo: **1358587**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	0.50									
1,3-Dichloropropane	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
2,2-Dichloropropane	ND	0.50									
2-Chlorotoluene	ND	0.50									
4-Chlorotoluene	ND	0.50									
4-Isopropyltoluene	ND	0.50									
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	0.50									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									
Chloroethane	ND	0.50									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethylbenzene	ND	0.50									
Hexachlorobutadiene	ND	0.50									
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									
Methylene chloride	ND	1.0									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									
Naphthalene	ND	0.50									

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **A122007MB6** SampType: **MBLK** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **89001**
Client ID: **PBW** Batch ID: **A07VW351** TestNo: **EPA 8260B** Analysis Date: **12/21/2007** SeqNo: **1358587**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	ND	0.50									
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
tert-Butylbenzene	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	25.010		25.00		100	70	130				
Surr: 4-Bromofluorobenzene	23.060		25.00		92.2	70	130				
Surr: Dibromofluoromethane	25.060		25.00		100	70	130				
Surr: Toluene-d8	24.700		25.00		98.8	70	130				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **A12200707LC1** SampType: **LCS** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **89000**
Client ID: **LCSW** Batch ID: **A07VW352** TestNo: **EPA 8260B** Analysis Date: **12/21/2007** SeqNo: **1359311**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	17.750	0.50	20.00	0	88.8	70	130				
Benzene	16.860	0.50	20.00	0	84.3	70	130				
Chlorobenzene	17.050	0.50	20.00	0	85.2	70	130				
MTBE	18.230	0.50	20.00	0	91.2	70	130				
Toluene	16.630	0.50	20.00	0	83.2	70	130				
Trichloroethene	16.020	0.50	20.00	0	80.1	70	130				
Surr: 1,2-Dichloroethane-d4	26.420		25.00		106	70	130				
Surr: 4-Bromofluorobenzene	23.950		25.00		95.8	70	130				
Surr: Dibromofluoromethane	25.540		25.00		102	70	130				
Surr: Toluene-d8	25.190		25.00		101	70	130				

Sample ID: **A12200707MB2MS** SampType: **MS** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **89000**
Client ID: **ZZZZZZ** Batch ID: **A07VW352** TestNo: **EPA 8260B** Analysis Date: **12/21/2007** SeqNo: **1359312**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	18.030	0.50	20.00	0	90.2	70	130				
Benzene	17.160	0.50	20.00	0	85.8	70	130				
Chlorobenzene	17.290	0.50	20.00	0	86.5	70	130				
Toluene	16.850	0.50	20.00	0	84.2	70	130				
Trichloroethene	16.490	0.50	20.00	0	82.5	70	130				
Surr: 1,2-Dichloroethane-d4	25.610		25.00		102	70	130				
Surr: 4-Bromofluorobenzene	23.680		25.00		94.7	70	130				
Surr: Dibromofluoromethane	25.470		25.00		102	70	130				
Surr: Toluene-d8	25.160		25.00		101	70	130				

Sample ID: **A12200707MB2MSD** SampType: **MSD** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **89000**
Client ID: **ZZZZZZ** Batch ID: **A07VW352** TestNo: **EPA 8260B** Analysis Date: **12/21/2007** SeqNo: **1359313**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	17.210	0.50	20.00	0	86.1	70	130	18.69	8.25	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **A12200707MB2MSD** SampType: **MSD** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **89000**
Client ID: **ZZZZZZ** Batch ID: **A07VW352** TestNo: **EPA 8260B** Analysis Date: **12/21/2007** SeqNo: **1359313**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	16.250	0.50	20.00	0	81.2	70	130	17.61	8.03	20	
Chlorobenzene	16.640	0.50	20.00	0	83.2	70	130	17.64	5.83	20	
Toluene	16.100	0.50	20.00	0	80.5	70	130	17.25	6.90	20	
Trichloroethene	15.470	0.50	20.00	0	77.4	70	130	17.14	10.2	20	
Surr: 1,2-Dichloroethane-d4	25.620		25.00		102	70	130		0	20	
Surr: 4-Bromofluorobenzene	23.960		25.00		95.8	70	130		0	20	
Surr: Dibromofluoromethane	25.460		25.00		102	70	130		0	20	
Surr: Toluene-d8	25.130		25.00		101	70	130		0	20	

Sample ID: **A12200707MB2** SampType: **MBLK** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **89000**
Client ID: **PBW** Batch ID: **A07VW352** TestNo: **EPA 8260B** Analysis Date: **12/21/2007** SeqNo: **1359314**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
1,1-Dichloropropene	ND	0.50									
1,2,3-Trichlorobenzene	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
1,2,4-Trichlorobenzene	ND	0.50									
1,2,4-Trimethylbenzene	ND	0.50									
1,2-Dibromo-3-chloropropane	ND	0.50									
1,2-Dibromoethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	0.50									
1,3,5-Trimethylbenzene	ND	0.50									

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **A12200707MB2** SampType: **MBLK** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **89000**
Client ID: **PBW** Batch ID: **A07VW352** TestNo: **EPA 8260B** Analysis Date: **12/21/2007** SeqNo: **1359314**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	0.50									
1,3-Dichloropropane	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
2,2-Dichloropropane	ND	0.50									
2-Chlorotoluene	ND	0.50									
4-Chlorotoluene	ND	0.50									
4-Isopropyltoluene	ND	0.50									
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	0.50									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									
Chloroethane	ND	0.50									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethylbenzene	ND	0.50									
Hexachlorobutadiene	ND	0.50									
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									
Methylene chloride	ND	1.0									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									
Naphthalene	ND	0.50									

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **A12200707MB2** SampType: **MBLK** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **89000**
Client ID: **PBW** Batch ID: **A07VW352** TestNo: **EPA 8260B** Analysis Date: **12/21/2007** SeqNo: **1359314**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	ND	0.50									
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
tert-Butylbenzene	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	25.700		25.00		103	70	130				
Surr: 4-Bromofluorobenzene	23.380		25.00		93.5	70	130				
Surr: Dibromofluoromethane	25.700		25.00		103	70	130				
Surr: Toluene-d8	24.780		25.00		99.1	70	130				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **A12220707LC1** SampType: **LCS** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **89002**
Client ID: **LCSW** Batch ID: **A07VW354** TestNo: **EPA 8260B** Analysis Date: **12/22/2007** SeqNo: **1360303**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20.610	0.50	20.00	0	103	70	130				
Benzene	19.590	0.50	20.00	0	98.0	70	130				
Chlorobenzene	18.940	0.50	20.00	0	94.7	70	130				
MTBE	19.600	0.50	20.00	0	98.0	70	130				
Toluene	19.020	0.50	20.00	0	95.1	70	130				
Trichloroethene	18.690	0.50	20.00	0	93.5	70	130				
Surr: 1,2-Dichloroethane-d4	25.170		25.00		101	70	130				
Surr: 4-Bromofluorobenzene	23.360		25.00		93.4	70	130				
Surr: Dibromofluoromethane	25.940		25.00		104	70	130				
Surr: Toluene-d8	25.350		25.00		101	70	130				

Sample ID: **A12220707MB4MS** SampType: **MS** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **89002**
Client ID: **ZZZZZZ** Batch ID: **A07VW354** TestNo: **EPA 8260B** Analysis Date: **12/22/2007** SeqNo: **1360304**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21.250	0.50	20.00	0	106	70	130				
Benzene	19.550	0.50	20.00	0	97.8	70	130				
Chlorobenzene	18.820	0.50	20.00	0	94.1	70	130				
Toluene	18.770	0.50	20.00	0	93.8	70	130				
Trichloroethene	18.860	0.50	20.00	0	94.3	70	130				
Surr: 1,2-Dichloroethane-d4	24.920		25.00		99.7	70	130				
Surr: 4-Bromofluorobenzene	23.300		25.00		93.2	70	130				
Surr: Dibromofluoromethane	25.800		25.00		103	70	130				
Surr: Toluene-d8	25.310		25.00		101	70	130				

Sample ID: **A12220707MB4MSD** SampType: **MSD** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **89002**
Client ID: **ZZZZZZ** Batch ID: **A07VW354** TestNo: **EPA 8260B** Analysis Date: **12/22/2007** SeqNo: **1360305**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20.960	0.50	20.00	0	105	70	130	21.25	1.37	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **A12220707MB4MSD** SampType: **MSD** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **89002**
Client ID: **ZZZZZZ** Batch ID: **A07VW354** TestNo: **EPA 8260B** Analysis Date: **12/22/2007** SeqNo: **1360305**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.610	0.50	20.00	0	98.0	70	130	19.55	0.306	20	
Chlorobenzene	18.770	0.50	20.00	0	93.8	70	130	18.82	0.266	20	
Toluene	18.700	0.50	20.00	0	93.5	70	130	18.77	0.374	20	
Trichloroethene	18.790	0.50	20.00	0	94.0	70	130	18.86	0.372	20	
Surr: 1,2-Dichloroethane-d4	24.820		25.00		99.3	70	130		0	20	
Surr: 4-Bromofluorobenzene	23.260		25.00		93.0	70	130		0	20	
Surr: Dibromofluoromethane	25.430		25.00		102	70	130		0	20	
Surr: Toluene-d8	25.230		25.00		101	70	130		0	20	

Sample ID: **A12220707MB2** SampType: **MBLK** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **89002**
Client ID: **PBW** Batch ID: **A07VW354** TestNo: **EPA 8260B** Analysis Date: **12/22/2007** SeqNo: **1360306**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
1,1-Dichloropropene	ND	0.50									
1,2,3-Trichlorobenzene	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
1,2,4-Trichlorobenzene	ND	0.50									
1,2,4-Trimethylbenzene	ND	0.50									
1,2-Dibromo-3-chloropropane	ND	0.50									
1,2-Dibromoethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	0.50									
1,3,5-Trimethylbenzene	ND	0.50									

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **A12220707MB2** SampType: **MBLK** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **89002**
Client ID: **PBW** Batch ID: **A07VW354** TestNo: **EPA 8260B** Analysis Date: **12/22/2007** SeqNo: **1360306**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	0.50									
1,3-Dichloropropane	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
2,2-Dichloropropane	ND	0.50									
2-Chlorotoluene	ND	0.50									
4-Chlorotoluene	ND	0.50									
4-Isopropyltoluene	ND	0.50									
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	0.50									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									
Chloroethane	ND	0.50									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethylbenzene	ND	0.50									
Hexachlorobutadiene	ND	0.50									
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									
Methylene chloride	ND	1.0									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									
Naphthalene	ND	0.50									

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **A12220707MB2** SampType: **MBLK** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **89002**
Client ID: **PBW** Batch ID: **A07VW354** TestNo: **EPA 8260B** Analysis Date: **12/22/2007** SeqNo: **1360306**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	ND	0.50									
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
tert-Butylbenzene	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	24.700		25.00		98.8	70	130				
Surr: 4-Bromofluorobenzene	23.120		25.00		92.5	70	130				
Surr: Dibromofluoromethane	25.400		25.00		102	70	130				
Surr: Toluene-d8	25.200		25.00		101	70	130				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **Q121907LC2** SampType: **LCS** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **88925**
Client ID: **LCSW** Batch ID: **Q07VW162** TestNo: **EPA 8260B** Analysis Date: **12/19/2007** SeqNo: **1357099**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21.280	0.50	20.00	0	106	70	130				
Benzene	20.930	0.50	20.00	0	105	70	130				
Chlorobenzene	20.870	0.50	20.00	0	104	70	130				
MTBE	22.370	0.50	20.00	0	112	70	130				
Toluene	20.520	0.50	20.00	0	103	70	130				
Trichloroethene	21.240	0.50	20.00	0	106	70	130				
Surr: 1,2-Dichloroethane-d4	23.480		25.00		93.9	70	130				
Surr: 4-Bromofluorobenzene	25.620		25.00		102	70	130				
Surr: Dibromofluoromethane	24.440		25.00		97.8	70	130				
Surr: Toluene-d8	24.070		25.00		96.3	70	130				

Sample ID: **Q121907MB2MS** SampType: **MS** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **88925**
Client ID: **ZZZZZZ** Batch ID: **Q07VW162** TestNo: **EPA 8260B** Analysis Date: **12/19/2007** SeqNo: **1357100**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	24.510	0.50	20.00	0	123	70	130				
Benzene	25.070	0.50	20.00	0	125	70	130				
Chlorobenzene	23.340	0.50	20.00	0	117	70	130				
Toluene	22.460	0.50	20.00	0	112	70	130				
Trichloroethene	23.980	0.50	20.00	0	120	70	130				
Surr: 1,2-Dichloroethane-d4	24.040		25.00		96.2	70	130				
Surr: 4-Bromofluorobenzene	26.480		25.00		106	70	130				
Surr: Dibromofluoromethane	25.340		25.00		101	70	130				
Surr: Toluene-d8	23.700		25.00		94.8	70	130				

Sample ID: **Q121907MB2MSD** SampType: **MSD** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **88925**
Client ID: **ZZZZZZ** Batch ID: **Q07VW162** TestNo: **EPA 8260B** Analysis Date: **12/19/2007** SeqNo: **1357101**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	23.000	0.50	20.00	0	115	70	130	24.51	6.36	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **Q121907MB2MSD** SampType: **MSD** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **88925**
Client ID: **ZZZZZZ** Batch ID: **Q07VW162** TestNo: **EPA 8260B** Analysis Date: **12/19/2007** SeqNo: **1357101**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	23.870	0.50	20.00	0	119	70	130	25.07	4.90	20	
Chlorobenzene	22.940	0.50	20.00	0	115	70	130	23.34	1.73	20	
Toluene	23.190	0.50	20.00	0	116	70	130	22.46	3.20	20	
Trichloroethene	23.440	0.50	20.00	0	117	70	130	23.98	2.28	20	
Surr: 1,2-Dichloroethane-d4	22.020		25.00		88.1	70	130		0	20	
Surr: 4-Bromofluorobenzene	26.370		25.00		105	70	130		0	20	
Surr: Dibromofluoromethane	23.310		25.00		93.2	70	130		0	20	
Surr: Toluene-d8	24.220		25.00		96.9	70	130		0	20	

Sample ID: **Q121907MB2** SampType: **MBLK** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **88925**
Client ID: **PBW** Batch ID: **Q07VW162** TestNo: **EPA 8260B** Analysis Date: **12/19/2007** SeqNo: **1357102**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
1,1-Dichloropropene	ND	0.50									
1,2,3-Trichlorobenzene	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
1,2,4-Trichlorobenzene	ND	0.50									
1,2,4-Trimethylbenzene	ND	0.50									
1,2-Dibromo-3-chloropropane	ND	0.50									
1,2-Dibromoethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	0.50									
1,3,5-Trimethylbenzene	ND	0.50									

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **Q121907MB2** SampType: **MBLK** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **88925**
Client ID: **PBW** Batch ID: **Q07VW162** TestNo: **EPA 8260B** Analysis Date: **12/19/2007** SeqNo: **1357102**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	0.50									
1,3-Dichloropropane	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
2,2-Dichloropropane	ND	0.50									
2-Chlorotoluene	ND	0.50									
4-Chlorotoluene	ND	0.50									
4-Isopropyltoluene	ND	0.50									
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	0.50									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									
Chloroethane	ND	0.50									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethylbenzene	ND	0.50									
Hexachlorobutadiene	ND	0.50									
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									
Methylene chloride	ND	1.0									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									
Naphthalene	ND	0.50									

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Geocon Consultants, Inc.
Work Order: 095865
Project: Mercury Cleaners, S9322-06-01

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: **Q121907MB2** SampType: **MBLK** TestCode: **8260_WP_LL** Units: **µg/L** Prep Date: RunNo: **88925**
Client ID: **PBW** Batch ID: **Q07VW162** TestNo: **EPA 8260B** Analysis Date: **12/19/2007** SeqNo: **1357102**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	ND	0.50									
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
tert-Butylbenzene	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	23.860		25.00		95.4	70	130				
Surr: 4-Bromofluorobenzene	24.530		25.00		98.1	70	130				
Surr: Dibromofluoromethane	24.430		25.00		97.7	70	130				
Surr: Toluene-d8	24.150		25.00		96.6	70	130				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

FOR LABORATORY USE ONLY

P.O. #: _____
Logged By: [illegible] Date: 12/12/07

Method of Transport: Client ☐ ATL ☐ CA OverN ☐ FedEx ☐ Other: GSO

Sample Condition Upon Receipt:
1. CHILLED 1.2 Y ☐ N ☐
2. HEADSPACE (VOA) Y ☐ N ☐
3. CONTAINER INTACT Y ☐ N ☐
4. SEALED Y ☐ N ☐
5. # OF SPLS MATCH COC Y ☐ N ☐
6. PRESERVED Y ☐ N ☐

Client: GEOCON Consultants, Inc
Attention: Rich Brown
Address: 3160 Gold Valley Drive, Suite 800
City: Rancho Cordova State: CA Zip Code: 95742
Tel: 916.852.9118
Fax: 916.852.9132

Project Name: Mercury Cleaners
Project #: S9322-06-01
Sampler: (Printed Name) Rich Brown (Signature) [signature]

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
RICH BROWN [signature]	12/10/07		[signature]	12/12/07	940
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Rich Brown 12/10/2007
Print Name Date
[signature] 12/10/07
Signature

Send Report To:
Attn: _____
Co: SAME AS ABOVE
Addr: _____
City: State: Zip:

Bill To:
Attn: _____
Co: SAME AS ABOVE
Addr: _____
City: State: Zip:

Special Instructions/Comments:

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

Storage Fees (applies when storage is requested):
- Sample :$2.00 / sample /mo (after 45 days)
- Records: $1 /ATL workorder /mo (after 1 year)

Circle or Add Analysis(es) Requested

SPECIFY APPROPRIATE MATRIX

QA/QC: RTNE ☑ CT ☐ SWRCB ☐ Logcode _____ OTHER _____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample ID / Location	Date	Time	8081A (Pesticides)	8082 (PCB)	8260B (Volatiles)	8270C (BNA)	6010B (Total Metal)	8015B (GRO) + 8020 (BTEX)	8015B (DRO)	8021 (BTEX)	TITLE 22 / CAM 17 (6010 / 7000)	SOIL	WATER	GROUND WATER	WASTEWATER	CARBON	TAT	Container(s) #	Type	PRESERVATION	REMARKS
1	0958G5-001	DP1GW	12/8/07	1615			X		X							X			E	3	VG	H	
2	2	DP2GW		1540			X		X							X				3	VG	H	
3	3	DP3GW		1320			X		X							X				3	VG	H	
4	4	DP4GW		1030			X		X							X				3	VG	H	
5	5	DP5GW		0850			X		X							X				3	VG	H	
6	6	DP6GW		0945			X		X							X				3	VG	H	
7	7	DP7GW	1715	~~1615~~			X		X							X				3	VG	H	
8	8	DP2S-15.5		1455					X					X						1	TP		
9	9	DP2S-18.0		1515					X					X						1	TP		

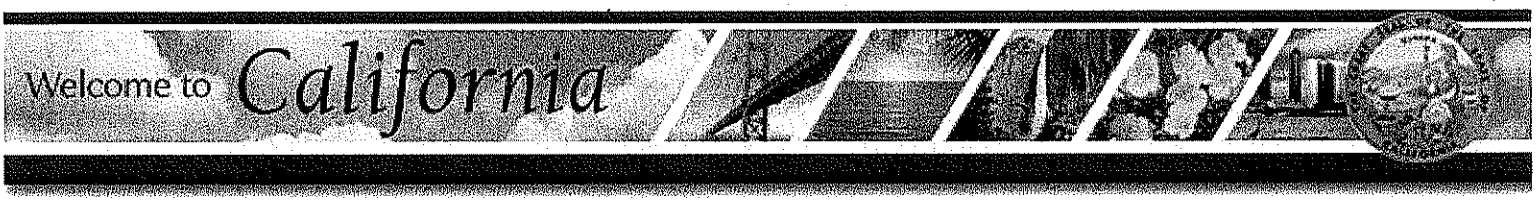
- TAT starts 8AM the following day if samples received after 3 PM

TAT: A = Overnight ≤ 24 hrs; B = Emergency Next Workday; C = Critical 2 Workdays; D = Urgent 3 Workdays; E = Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=HCl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

APPENDIX D



Cancer Potency Information

Toxicity Criteria Database: Cancer Potency

New Search:

Chemical Name

Tetrachloroethylene

OR

CAS Number

127184

New Search

Inhalation Unit Risk (µg/cubic meter)$^{-1}$	0.0000059
Inhalation Slope Factor (mg/kg-day)$^{-1}$	0.021
Oral Slope Factor (mg/kg-day)$^{-1}$	0.54
USEPA Classification	-
IARC Classification	2B: The agent is possibly carcinogenic to humans
Comments	A change was made on 9/13/02, see history log for an explanation. Number based on calculation from PHG
Reference	OEHHA, 2002 Technical Support Document for Describing Available Cancer Potency Factors Public Health Goal for Tetrachloroethylene in Drinking Water, Aug. 2001

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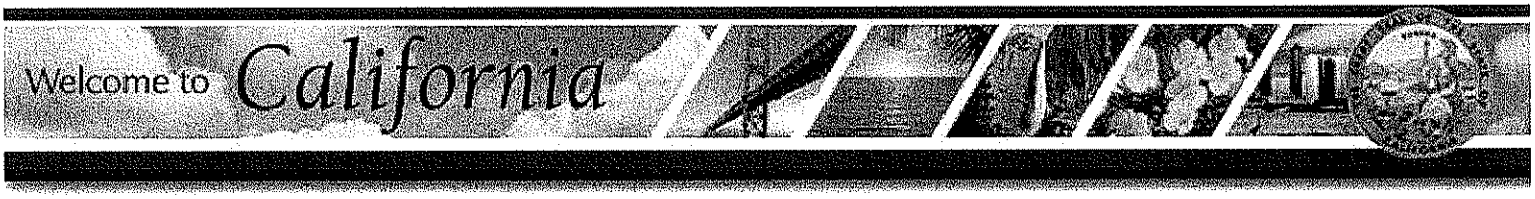

Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Toxicity Criteria Database: Chemicals with PHGs

New Search:

Chemical Name

Tetrachloroethylene

OR

CAS Number

127184

New Search

Health Risk Category:	cancer
California PHG (mg/L):	0.00006
Cancer Risk @ PHG:	0.000001
California MCL (mg/L):	0.005
Cancer Risk @ MCL:	0.00008
Comments:	

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Integrated Risk Information System (IRIS)

Tetrachloroethylene Quickview (CASRN 127-18-4)

- view Tetrachloroethylene Summary
- view Tetrachloroethylene Assessment Status

Health assessment information on a chemical substance is included in IRIS only after a comprehensive review of toxicity data by U.S. EPA health scientists from several Program Offices, Regional Offices, and the Office of Research and Development.

Disclaimer: This QuickView represents a snapshot of key information. We suggest that you read the IRIS Summary to put this information into complete context.

For definitions of terms in the IRIS Web site, refer to the IRIS Glossary.

Status of Data for Tetrachloroethylene

File First On-Line: 01/31/1987
Last Significant Revision: 03/01/1988

Category (section)	Status	Last Revised
Oral RfD Assessment	On-line	03/01/1988
Inhalation RfC Assessment	No data	
Carcinogenicity Assessment	No data	

Chronic Health Hazard Assessments for Noncarcinogenic Effects

Reference Dose for Chronic Oral Exposure (RfD)

Critical Effect	Point of Departure	UF	MF	RfD
Hepatotoxicity in mice, weight gain in rats	NOAEL : 14 mg/kg-day	1000	1	1×10^{-2} mg/kg-day

The Point of Departure listed serves as a basis from which the Oral RfD was derived. See Discussion of Conversion Factors and Assumptions for more details.

Principal and Supporting Studies (Oral RfD)

- 6-week mouse gavage study, Buben and O'Flaherty, 1985

Confidence in the Oral RfD

- Study -- Low
- Database -- Medium
- RfD -- Medium

Reference Concentration for Chronic Inhalation Exposure (RfC)

Not Assessed under the IRIS Program.

Carcinogenicity Assessment for Lifetime Exposure

Weight-of-Evidence Characterization

Not Assessed under the IRIS Program.

Quantitative Estimate of Carcinogenic Risk from Oral Exposure

Not Assessed under the IRIS Program.

Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure

Not Assessed under the IRIS Program.

Revision History

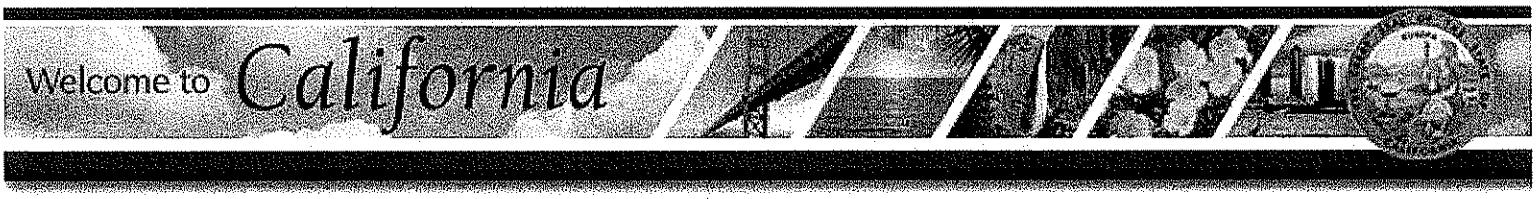
Review IRIS Summary for complete Revision History.

Synonyms

- Carbon dichloride
- Didokene
- PCE
- PER
- PERC
- Perchloroethylene
- Perchloraethylen, per
- Tetlen
- Tetrachlorethylene
- Tetraleno
- Wln: gyguygg
- Antisal 1
- Dee-Solv
- Perchlorethylene
- Tetrachloroethene
- Tetrachloroethylene

- 127-18-4
- Ankilostin
- Antisol 1
- Carbon bichloride
- Czterochloroetylen
- Didakene
- Dowclene ec
- ENT 1,860
- Ethylene, tetrachloro-
- Fedal-UN
- NCI-C04580
- Nema
- Perawin
- Perchlor
- Perchlorethylene, per
- Perclene
- Percloroetilene
- Percosolv
- Percosolve
- Perk
- Perklone
- Persec
- Tetracap
- Tetrachlooretheen
- Tetrachloraethen
- 1,1,2,2-Tetrachloroethylene.
- Tetracloroetene
- Tetraguer
- Tetralex
- Tetravec
- Tetropil
- Tetrachlroethylene
- Ethene, tetrachloro-
- Dow-Per
- Ethylene tetrachloride
- Perchloorethyleen, per
- Tetroguer

Quickview Navigation
+ Expand navigation:



Cancer Potency Information

Toxicity Criteria Database: Cancer Potency

New Search:

Chemical Name

Trichloroethylene

OR

CAS Number

79016

New Search

Inhalation Unit Risk (µg/cubic meter)$^{-1}$	0.000002
Inhalation Slope Factor (mg/kg-day)$^{-1}$	0.007
Oral Slope Factor (mg/kg-day)$^{-1}$	0.013
USEPA Classification	-
IARC Classification	2A: The agent is probably carcinogenic to humans
Comments	A change was made on 9/24/03, see history log for an explanation.
Reference	OEHHA, 2002 Technical Support Document for Describing Available Cancer Potency Factors OEHHA, 1999 Public Health Goal for Trichloroethylene in Drinking Water

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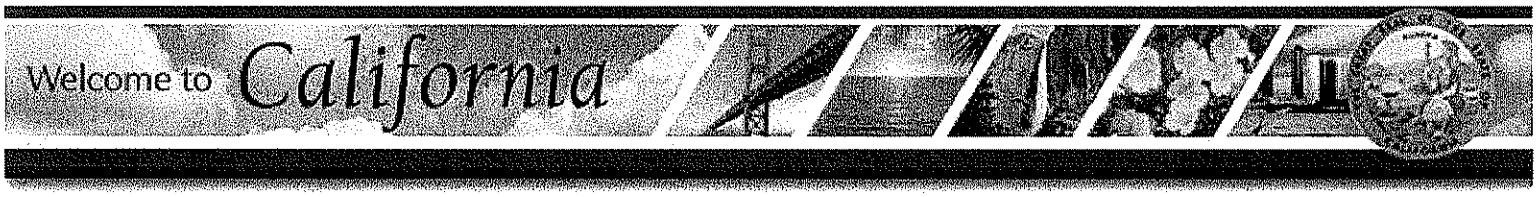

Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Toxicity Criteria Database: Chemicals with PHGs

New Search:

Chemical Name

Trichloroethylene

OR

CAS Number

79016

New Search

Health Risk Category:	carcinogenicity
California PHG (mg/L):	0.0008
Cancer Risk @ PHG:	0.000001
California MCL (mg/L):	0.005
Cancer Risk @ MCL:	0.00006
Comments:	CA MCL to be reviewed for possible revision.

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Integrated Risk Information System (IRIS)

Trichloroethylene Quickview (CASRN 79-01-6)

- view Trichloroethylene Summary
- view Trichloroethylene Assessment Status

Health assessment information on a chemical substance is included in IRIS only after a comprehensive review of toxicity data by U.S. EPA health scientists from several Program Offices, Regional Offices, and the Office of Research and Development.

Disclaimer: This QuickView represents a snapshot of key information. We suggest that you read the IRIS Summary to put this information into complete context.

For definitions of terms in the IRIS Web site, refer to the IRIS Glossary.

Status of Data for Trichloroethylene

File First On-Line: 03/31/1987
Last Significant Revision: 07/01/1989

Category (section)	Status	Last Revised
Oral RfD Assessment	No data	08/01/1992
Inhalation RfC Assessment	No data	
Carcinogenicity Assessment	Withdrawn	07/01/1989

Chronic Health Hazard Assessments for Noncarcinogenic Effects

Reference Dose for Chronic Oral Exposure (RfD)

Not Assessed under the IRIS Program.

Reference Concentration for Chronic Inhalation Exposure (RfC)

Not Assessed under the IRIS Program.

Carcinogenicity Assessment for Lifetime Exposure

Weight-of-Evidence Characterization

Information reviewed but value not estimated. Refer to IRIS Summary.

Quantitative Estimate of Carcinogenic Risk from Oral Exposure

Not Assessed under the IRIS Program.

Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure

Not Assessed under the IRIS Program.

Revision History

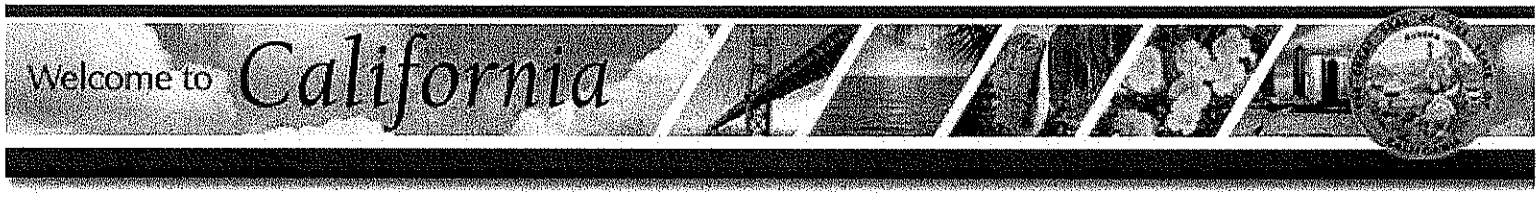
Review IRIS Summary for complete Revision History.

Synonyms

- Anamenth
- Cecolene
- Chlorylen
- 1,1-Dichloro-2-chloroethylene
- Lanadin
- Perm-a-chlor
- Threthylene
- Trichloraethen
- Trichloroethene
- Trielina
- Tri-plus
- Ethylene, trichloro-
- Gemalgene
- Lethurin
- Narkogen
- Nialk
- Perm-a-clor
- RCRA Waste Number U228
- Tri
- Triad
- Triasol
- Trichloorethyleen, tri
- Trichlorethene
- Trichloroethylene
- Tricloretene
- Trielin
- Trilen
- Triline
- Triol
- Tri-plus m
- Vestrol
- 79-01-6
- Acetylene trichloride
- Benzinol
- Blacosolv
- Chlorilen

- 1-Chloro-2,2-dichloroethylene
- Chorylen
- Crawhaspol
- Densinfluat
- Dukeron
- Ethylene trichloride
- Fleck-flip
- Flock flip
- Germalgene
- Narkosoid
- NCI-C04546
- Philex
- Threthylen
- Trial
- Trichlooretheen
- Trichloran
- Trichloren
- Trichlorethylene, tri
- 1,1,2-Trichloroethylene
- Tri-Clene
- Tricloroetilene
- Trielene
- Trilene
- Trimar
- Vitran
- Algylen
- Blancosolv
- Chlorylea
- Circosolv
- Dow-tri
- Ethinyl trichloride
- Fluate
- Narcogen
- Petzinol
- TCE
- Trethylene
- Trichloraethylen, tri
- Trichlorethylene
- 1,2,2-Trichloroethylene
- TrikloneTM 'Triklone' is a trade mark of INEOS Chlor Limited.
- UN 1710
- Westrosol

Quickview Navigation
+ Expand navigation:



Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Toxicity Criteria Database: Chemicals with PHGs

New Search:

Chemical Name

Toluene

OR

CAS Number

26471625

New Search

Health Risk Category:	chronic toxicity
California PHG (mg/L):	0.15
Cancer Risk @ PHG:	
California MCL (mg/L):	0.15
Cancer Risk @ MCL:	
Comments:	No cancer risk calculated for noncarcinogens.For noncarcinogens, an exact numerical public health risk cannot be calculated.The PHG for these chemicals is set at a level which is believed to be without significant public health risk to individuals exposed to that chemical over a lifetime.

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Integrated Risk Information System (IRIS)

Toluene Quickview (CASRN 108-88-3)

- view Toluene Summary
- view Toxicological Review of Toluene (PDF)

Health assessment information on a chemical substance is included in IRIS only after a comprehensive review of toxicity data by U.S. EPA health scientists from several Program Offices, Regional Offices, and the Office of Research and Development.

Disclaimer: This QuickView represents a snapshot of key information. We suggest that you read the IRIS Summary to put this information into complete context.

For definitions of terms in the IRIS Web site, refer to the IRIS Glossary.

Status of Data for Toluene

File First On-Line: 01/31/1987
Last Significant Revision: 09/23/2005

Category (section)	Status	Last Revised
Oral RfD Assessment	On-line	09/23/2005
Inhalation RfC Assessment	On-line	09/23/2005
Carcinogenicity Assessment	On-line	09/23/2005

Chronic Health Hazard Assessments for Noncarcinogenic Effects

Reference Dose for Chronic Oral Exposure (RfD)

Critical Effect	Point of Departure	UF	MF	RfD
Increased kidney weight	BMDL : 238 mg/kg-day	3000	1	.08 mg/kg-day

The Point of Departure listed serves as a basis from which the Oral RfD was derived. See Discussion of Conversion Factors and Assumptions for more details.

Principal and Supporting Studies (Oral RfD)

- 13-week gavage study in rats, NTP, 1990

Confidence in the Oral RfD

- Study -- Medium
- Database -- Medium
- RfD -- Medium

Reference Concentration for Chronic Inhalation Exposure (RfC)

Critical Effect	Point of Departure	UF	MF	RfC
Neurological effects in occupationally-exposed workers	NOAEL (ADJ): 46 mg/m3	10	1	5 mg/m3

The Point of Departure listed serves as a basis from which the Inhalation RfC was derived. See Discussion of Conversion Factors and Assumptions for more details.

Principal and Supporting Studies (Inhalation RfC)

- Multiple human studies, Abbate et al., 1993, Boey et al., 1997, Cavalleri et al., 2000, Eller et al., 1999, Foo et al., 1990, Murata et al., 1993, Nakatsuka et al., 1992, Neubert et al., 2001, Vrca et al., 1995, Zavalic et al., 1998a

Confidence in the Inhalation RfC

- Study -- High
- Database -- High
- RfC -- High

Carcinogenicity Assessment for Lifetime Exposure

Weight-of-Evidence Characterization

Weight-of-Evidence (1986 US EPA Guidelines):

Not applicable. This substance was not assessed using the 1986 cancer guidelines (U.S. EPA, 1986).

Weight-of-Evidence Narrative:

Under the Guidelines for Carcinogen Risk Assessment (U.S. EPA, 2005), there is inadequate information to assess the carcinogenic potential of toluene because studies of humans chronically exposed to toluene are inconclusive, toluene was not carcinogenic in adequate inhalation cancer bioassays of rats and mice exposed for life (CIIT, 1980 NTP, 1990 Huff, 2003), and increased incidences of mammary cancer and leukemia were reported in a lifetime rat oral bioassay at a dose level of 500 mg/kg-day but not at 800 mg/kg-day (Maltoni et al., 1997).

This may be a synopsis of the full weight-of-evidence narrative. See IRIS Summary.

Quantitative Estimate of Carcinogenic Risk from Oral Exposure

Not Assessed under the IRIS Program.

Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure

Not Assessed under the IRIS Program.

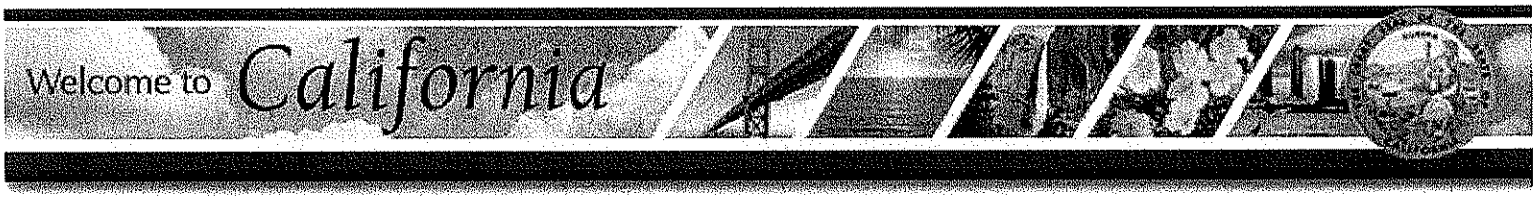
Revision History

Review IRIS Summary for complete Revision History.

Synonyms

- 108-88-3
- Methylbenzene
- Toluen
- Toluolo
- Antisal 1a
- Benzene, methyl
- Methacide
- Methylbenzol
- NCI-C07272
- Phenylmethane
- RCRA Waste Number U220
- Tolueen
- Toluene
- Toluol
- Tolu-sol
- UN 1294
- Monomethylbenzene

Quickview Navigation
+ Expand navigation:



Cancer Potency Information

Toxicity Criteria Database: Cancer Potency

New Search:

Chemical Name

1,2-Dichloroethane

OR

CAS Number

107062

New Search

Inhalation Unit Risk (µg/cubic meter)$^{-1}$	0.000021
Inhalation Slope Factor (mg/kg-day)$^{-1}$	0.072
Oral Slope Factor (mg/kg-day)$^{-1}$	0.047
USEPA Classification	B2
IARC Classification	2B: The agent is possibly carcinogenic to humans
Comments	A change was made on 5/1/02, see history log for an explanation.
Reference	OEHHA, 1999 Public Health Goal for 1,2-Dichloroethane in Drinking Water OEHHA, 2002 Technical Support Document for Describing Available Cancer Potency Factors

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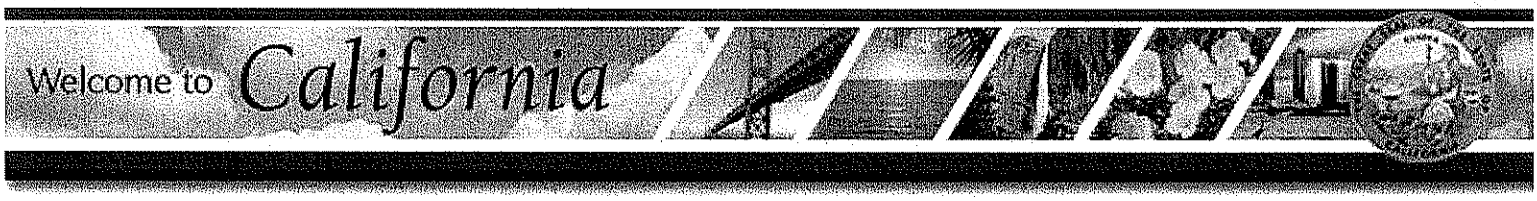

Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Toxicity Criteria Database: Chemicals with PHGs

New Search:

Chemical Name
1,2-Dichloroethane

OR

CAS Number
107062

New Search

Health Risk Category:	carcinogenicity
California PHG (mg/L):	0.0004
Cancer Risk @ PHG:	9.99999997475243E-07
California MCL (mg/L):	0.0005
Cancer Risk @ MCL:	0.000001
Comments:	

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1,2-Dichloroethane Quickview (CASRN 107-06-2)

- view 1,2-Dichloroethane Summary

Health assessment information on a chemical substance is included in IRIS only after a comprehensive review of toxicity data by U.S. EPA health scientists from several Program Offices, Regional Offices, and the Office of Research and Development.

Disclaimer: This QuickView represents a snapshot of key information. We suggest that you read the IRIS Summary to put this information into complete context.

For definitions of terms in the IRIS Web site, refer to the IRIS Glossary.

Status of Data for 1,2-Dichloroethane

File First On-Line: 03/31/1987
Last Significant Revision: 01/01/1991

Category (section)	Status	Last Revised
Oral RfD Assessment	No data	
Inhalation RfC Assessment	No data	
Carcinogenicity Assessment	On-line	01/01/1991

Chronic Health Hazard Assessments for Noncarcinogenic Effects

Reference Dose for Chronic Oral Exposure (RfD)

Not Assessed under the IRIS Program.

Reference Concentration for Chronic Inhalation Exposure (RfC)

Not Assessed under the IRIS Program.

Carcinogenicity Assessment for Lifetime Exposure

Weight-of-Evidence Characterization

Weight-of-Evidence (1986 US EPA Guidelines):

B2 (Probable human carcinogen - based on sufficient evidence of carcinogenicity in animals)

Weight-of-Evidence Narrative:

Based on the induction of several tumor types in rats and mice treated by gavage and lung papillomas in mice after topical application

This may be a synopsis of the full weight-of-evidence narrative. See IRIS Summary.

Quantitative Estimate of Carcinogenic Risk from Oral Exposure

Oral Slope Factor (s)	Extrapolation Method
9.1×10^{-2} per mg/kg-day	Linearized multistage procedure with time-to-death analysis, extra risk

Drinking Water Unit Risks

2.6×10^{-6} per ug/L

Risk Level	Concentration
E-4 (1 in 10,000)	4×10^{1} ug/L
E-5 (1 in 100,000)	4 ug/L
E-6 (1 in 1,000,000)	4×10^{-1} ug/L

Dose-Response Data (Carcinogenicity, Oral Exposure)

Tumor Type: Hemangiosarcomas
Test Species: Rat/ Osborne-Mendel, male
Route: Oral, Gavage
Reference: NCI, 1978

Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure

Inhalation Unit Risk(s)	Extrapolation Method
2.6×10^{-5} per ug/m3	Linearized multistage procedure, extra risk

Inhalation Concentrations at Specified Risk Levels

Risk Level	Concentration
E-4 (1 in 10,000)	4 ug/m3
E-5 (1 in 100,000)	4×10^{-1} ug/m3
E-6 (1 in 1,000,000)	4×10^{-2} ug/m3

Dose-Response Data (Carcinogenicity, Inhalation Exposure)

Tumor Type: Hemangiosarcomas
Test Species: Rat/ Osborne-Mendel, male
Route: Oral, Gavage
Reference: NCI, 1978

Revision History

Review IRIS Summary for complete Revision History.

Synonyms

- 107-06-2
- Dichloroethane, 1,2-
- Caswell No. 440
- Dichlor-mulsion
- Dutch oil
- Ethane, 1,2-dichloro-
- Sym-Dichloroethane
- 1,2-Ethylene dichloride
- Di-Chlor-Mulsion
- Ethane, 1,2-dichloro-
- 1,2-Dichloroethane
- Aethylenchlorid [German]
- AI3-01656
- Bichlorure d'ethylene [French]
- Borer Sol
- Brocide
- CCRIS 225
- Cloruro di ethene [Italian]
- Destruxol Borer-Sol
- Dichloremulsion
- Dichloro-1,2-ethane [French]
- Dichlorure d'ethylene [French]
- Dicloruro de etileno [Spanish]
- Dutch liquid
- EDC
- ENT 1,656
- EPA Pesticide Chemical Code 042003
- Ethane dichloride
- Ethyleendichloride [Dutch]
- Ethylene chloride
- Glycol dichloride
- HSDB 65
- NCI-C00511
- RCRA Waste Number u077
- 1,2-Bichloroethane
- 1,2-DCE
- 1,2-Dichloorethaan [Dutch]
- 1,2-Dichlor-aethan [German]
- 1,2-Dichlorethane
- 1,2-Dicloroetano [Italian]
- Dichloroethane
- Ethylene dichloride
- alpha,beta-Dichloroethane

cis-1,2-Dichloroethylene Quickview (CASRN 156-59-2)

- view cis-1,2-Dichloroethylene Summary
- view cis-1,2-Dichloroethylene Assessment Status

Health assessment information on a chemical substance is included in IRIS only after a comprehensive review of toxicity data by U.S. EPA health scientists from several Program Offices, Regional Offices, and the Office of Research and Development.

Disclaimer: This QuickView represents a snapshot of key information. We suggest that you read the IRIS Summary to put this information into complete context.

For definitions of terms in the IRIS Web site, refer to the IRIS Glossary.

Status of Data for cis-1,2-Dichloroethylene

File First On-Line: 12/01/1990
Last Significant Revision: 12/01/1990

Category (section)	Status	Last Revised
Oral RfD Assessment	No data	
Inhalation RfC Assessment	No data	
Carcinogenicity Assessment	On-line	02/01/1995

Chronic Health Hazard Assessments for Noncarcinogenic Effects

Reference Dose for Chronic Oral Exposure (RfD)

Not Assessed under the IRIS Program.

Reference Concentration for Chronic Inhalation Exposure (RfC)

Not Assessed under the IRIS Program.

Carcinogenicity Assessment for Lifetime Exposure

Weight-of-Evidence Characterization

Weight-of-Evidence (1986 US EPA Guidelines):

D (Not classifiable as to human carcinogenicity)

Weight-of-Evidence Narrative:

Based on no data in humans or animals and generally nonpositive results in mutagenicity assays.

This may be a synopsis of the full weight-of-evidence narrative. See IRIS Summary.

Quantitative Estimate of Carcinogenic Risk from Oral Exposure

Not Assessed under the IRIS Program.

Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure

Not Assessed under the IRIS Program.

Revision History

Review IRIS Summary for complete Revision History.

Synonyms

- cis-1,2-Dichloroethylene
- cis-Dichloroethylene
- Ethylene, 1,2-dichloro-, (Z)-
- 156-59-2
- Ethene, 1,2-dichloro-, (Z)-
- (Z)-1,2-Dichloroethylene
- cis-1,2-Dichlorethylene
- cis-1,2-Dichloroethene
- Ethene, 1,2-dichloro-, (Z)-
- NSC 6149
- 1,2-cis-Dichloroethylene
- Dichloroethylene
- (Z)-1,2-Dichloroethene
- HSDB 5656

Quickview Navigation
+ Expand navigation:

Integrated Risk Information System (IRIS)

trans-1,2-Dichloroethylene Quickview (CASRN 156-60-5)

- view trans-1,2-Dichloroethylene Summary
- view trans-1,2-Dichloroethylene Assessment Status

Health assessment information on a chemical substance is included in IRIS only after a comprehensive review of toxicity data by U.S. EPA health scientists from several Program Offices, Regional Offices, and the Office of Research and Development.

Disclaimer: This QuickView represents a snapshot of key information. We suggest that you read the IRIS Summary to put this information into complete context.

For definitions of terms in the IRIS Web site, refer to the IRIS Glossary.

Status of Data for trans-1,2-Dichloroethylene

File First On-Line: 09/26/1988
Last Significant Revision: 09/26/1988

Category (section)	Status	Last Revised
Oral RfD Assessment	On-line	01/01/1989
Inhalation RfC Assessment	No data	
Carcinogenicity Assessment	No data	

Chronic Health Hazard Assessments for Noncarcinogenic Effects

Reference Dose for Chronic Oral Exposure (RfD)

Critical Effect	Point of Departure	UF	MF	RfD
Increased serum alkaline phosphatase in male mice	NOAEL : 17 mg/kg-day	1000	1	2×10^{-2} mg/kg-day

The Point of Departure listed serves as a basis from which the Oral RfD was derived. See Discussion of Conversion Factors and Assumptions for more details.

Principal and Supporting Studies (Oral RfD)

- 90-day mouse drinking water study, Barnes et al., 1985

Confidence in the Oral RfD

- Study -- Medium
- Database -- Low
- RfD -- Low

Reference Concentration for Chronic Inhalation Exposure (RfC)

Not Assessed under the IRIS Program.

Carcinogenicity Assessment for Lifetime Exposure

Weight-of-Evidence Characterization

Not Assessed under the IRIS Program.

Quantitative Estimate of Carcinogenic Risk from Oral Exposure

Not Assessed under the IRIS Program.

Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure

Not Assessed under the IRIS Program.

Revision History

Review IRIS Summary for complete Revision History.

Synonyms

- 1,2-Dichloroethylene, trans-
- 156-60-5
- Acetylene dichloride, trans-
- Dichloroethylene, trans-
- Ethylene, 1,2-dichloro-, (E)-
- RCRA Waste Number u079
- trans-Acetylene dichloride
- trans-Dichloroethylene
- trans-1,2-Dichloroethylene
- Dichloroethylene

Quickview Navigation
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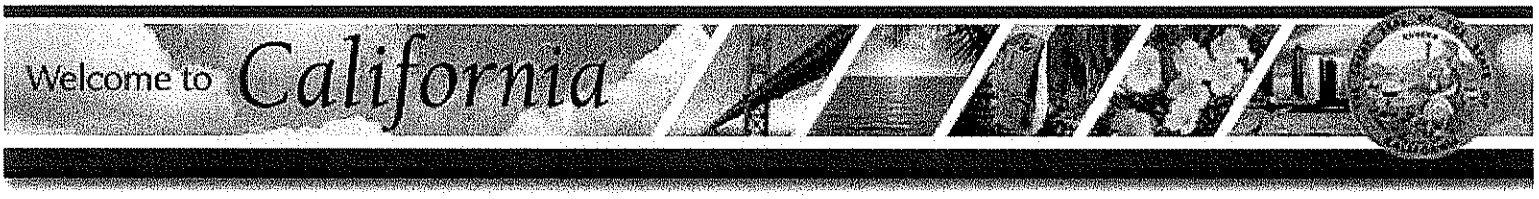

Cancer Potency Information

Toxicity Criteria Database: Cancer Potency

New Search:

Chemical Name

Methylene chloride

OR

CAS Number

75092

New Search

Inhalation Unit Risk (µg/cubic meter)$^{-1}$	0.000001
Inhalation Slope Factor (mg/kg-day)$^{-1}$	0.0035
Oral Slope Factor (mg/kg-day)$^{-1}$	0.014
USEPA Classification	B2
IARC Classification	2B: The agent is possibly carcinogenic to humans
Comments	
Reference	OEHHA, 2002 Technical Support Document for Describing Available Cancer Potency Factors CDHS, 1990 US EPA, 1985

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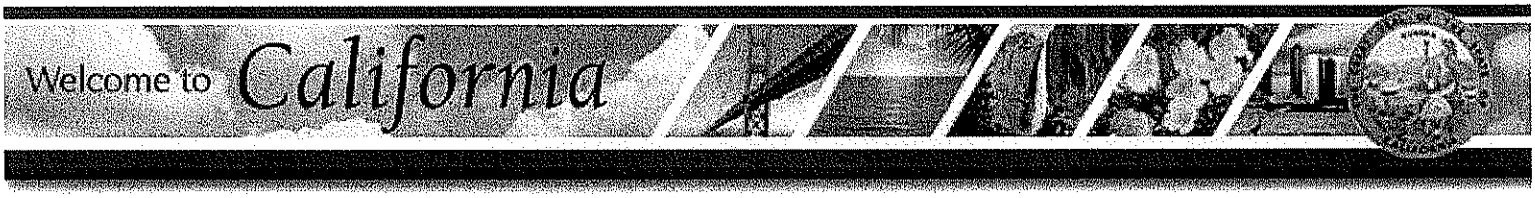

Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Toxicity Criteria Database: Chemicals with PHGs

New Search:

Chemical Name
Methylene chloride

OR

CAS Number
75092

New Search

Health Risk Category:	
California PHG (mg/L):	0.004
Cancer Risk @ PHG:	0.000001
California MCL (mg/L):	0.005
Cancer Risk @ MCL:	0.000001
Comments:	

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http://cfpub.epa.gov/ncea/iris/index.cfm?fuseaction=iris.showQuickView&substance_nmbr=0070
Last updated on Thursday, January 3rd, 2008.

Integrated Risk Information System (IRIS)

Dichloromethane Quickview (CASRN 75-09-2)

- view Dichloromethane Summary

Health assessment information on a chemical substance is included in IRIS only after a comprehensive review of toxicity data by U.S. EPA health scientists from several Program Offices, Regional Offices, and the Office of Research and Development.

Disclaimer: This QuickView represents a snapshot of key information. We suggest that you read the IRIS Summary to put this information into complete context.

For definitions of terms in the IRIS Web site, refer to the IRIS Glossary.

Status of Data for Dichloromethane

File First On-Line: 01/31/1987
Last Significant Revision: 01/01/1991

Category (section)	Status	Last Revised
Oral RfD Assessment	On-line	03/01/1988
Inhalation RfC Assessment	No data	09/01/1991
Carcinogenicity Assessment	On-line	02/01/1995

Chronic Health Hazard Assessments for Noncarcinogenic Effects

Reference Dose for Chronic Oral Exposure (RfD)

Critical Effect	Point of Departure	UF	MF	RfD
Liver toxicity	NOAEL : 5.85 mg/kg-day	100	1	6×10^{-2} mg/kg-day

The Point of Departure listed serves as a basis from which the Oral RfD was derived. See Discussion of Conversion Factors and Assumptions for more details.

Principal and Supporting Studies (Oral RfD)

- 2-year rat drinking water bioassay (NOAEL for males), National Coffee

Association, 1982

Confidence in the Oral RfD

- Study -- High
- Database -- Medium
- RfD -- Medium

Reference Concentration for Chronic Inhalation Exposure (RfC)

Not Assessed under the IRIS Program.

Carcinogenicity Assessment for Lifetime Exposure

Weight-of-Evidence Characterization

Weight-of-Evidence (1986 US EPA Guidelines):

B2 (Probable human carcinogen - based on sufficient evidence of carcinogenicity in animals)

Weight-of-Evidence Narrative:

Based on inadequate human data and sufficient evidence of carcinogenicity in animals; increased incidence of hepatocellular neoplasms and alveolar/bronchiolar neoplasms in male and female mice, and increased incidence of benign mammary tumors in both sexes of rats, salivary gland sarcomas in male rats and leukemia in female rats. This classification is supported by some positive genotoxicity data, although results in mammalian systems are generally negative.

This may be a synopsis of the full weight-of-evidence narrative. See IRIS Summary.

Quantitative Estimate of Carcinogenic Risk from Oral Exposure

Oral Slope Factor(s)	Extrapolation Method
7.5×10^{-3} per mg/kg-day	Linearized multistage procedure, extra risk

Drinking Water Unit Risks

2.1×10^{-7} per ug/L

Risk Level	Concentration
E-4 (1 in 10,000)	5×10^{2} ug/L
E-5 (1 in 100,000)	5×10^{1} ug/L
E-6 (1 in 1,000,000)	5 ug/L

Dose-Response Data (Carcinogenicity, Oral Exposure)

Tumor Type: Hepatocellular adenomas or carcinomas (NTP) and hepatocellular cancer and neoplastic nodules (NCA)
Test Species: Mouse/ B6C3F1 (female, NTP; male, NCA)
Route: Inhalation, (NTP); oral, drinking water (NCA)
Reference: NTP, 1986; National Coffee Association (NCA), 1983

Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure

Inhalation Unit Risk(s)	Extrapolation Method
4.7×10^{-7} per ug/m3	Linearized multistage procedure, extra risk

Inhalation Concentrations at Specified Risk Levels

Risk Level	Concentration
E-4 (1 in 10,000)	2×10^{2} ug/m3
E-5 (1 in 100,000)	2×10^{1} ug/m3
E-6 (1 in 1,000,000)	2 ug/m3

Dose-Response Data (Carcinogenicity, Inhalation Exposure)

Tumor Type: Combined adenomas and carcinomas
Test Species: Mouse/ B6C3F1, female
Route: Inhalation
Reference: NTP, 1986

Revision History

Review IRIS Summary for complete Revision History.

Synonyms

- Dichlormethan, uvasol
- Methylene chloride
- Solaesthin
- 75-09-2
- Aerothene MM
- Chlorure de methylene
- DCM
- Dichloromethane
- 1,1-Dichloromethane.
- Freon 30
- Methane dichloride
- Methane, dichloro-
- Methylene bichloride
- Methylene dichloride
- Metylenu chlorek
- Narkotil
- NCI-C50102
- R 30
- Solmethine

Integrated Risk Information System (IRIS)

n-Hexane Quickview (CASRN 110-54-3)

- view n-Hexane Summary
- view Toxicological Review of n-Hexane (PDF)

Health assessment information on a chemical substance is included in IRIS only after a comprehensive review of toxicity data by U.S. EPA health scientists from several Program Offices, Regional Offices, and the Office of Research and Development.

Disclaimer: This QuickView represents a snapshot of key information. We suggest that you read the IRIS Summary to put this information into complete context.

For definitions of terms in the IRIS Web site, refer to the IRIS Glossary.

Status of Data for n-Hexane

File First On-Line: 07/01/1990
Last Significant Revision: 12/23/2005

Category (section)	Status	Last Revised
Oral RfD Assessment	Discussion	12/23/2005
Inhalation RfC Assessment	On-line	12/23/2005
Carcinogenicity Assessment	Discussion	12/23/2005

Chronic Health Hazard Assessments for Noncarcinogenic Effects

Reference Dose for Chronic Oral Exposure (RfD)

Not Assessed under the IRIS Program.

Reference Concentration for Chronic Inhalation Exposure (RfC)

Critical Effect	Point of Departure	UF	MF	RfC
Peripheral neuropathy (decreased MCV at 12 weeks)	BMCL (HEC): 215 mg/m3	300	1	$7x10^{-1}$ mg/m3

The Point of Departure listed serves as a basis from which the Inhalation RfC was derived. See Discussion of Conversion Factors and Assumptions for more details.

Principal and Supporting Studies (Inhalation RfC)

- Rat subchronic inhalation study, Huang et al., 1989

Confidence in the Inhalation RfC

- Study -- Medium
- Database -- Medium
- RfC -- Medium

Carcinogenicity Assessment for Lifetime Exposure

Weight-of-Evidence Characterization

Weight-of-Evidence (1986 US EPA Guidelines):

Not applicable. This substance was not assessed using the 1986 cancer guidelines (U.S. EPA, 1986).

Weight-of-Evidence Narrative:

Under the *Guidelines for Carcinogen Risk Assessment* (U.S. EPA, 2005b), there is *inadequate information to assess the carcinogenic potential of n-hexane.*

This may be a synopsis of the full weight-of-evidence narrative. See IRIS Summary.

Quantitative Estimate of Carcinogenic Risk from Oral Exposure

Not Assessed under the IRIS Program.

Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure

Not Assessed under the IRIS Program.

Revision History

Review IRIS Summary for complete Revision History.

Synonyms

- n-Hexane
- Skellysolve B
- 110-54-3

http://cfpub.epa.gov/ncea/iris/index.cfm?fuseaction=iris.showQuickView&substance_nmbr=0025
Last updated on Thursday, January 3rd, 2008.

Integrated Risk Information System (IRIS)

Chloroform Quickview (CASRN 67-66-3)

- view Chloroform Summary
- view Toxicological Review of Chloroform (PDF)
- view Chloroform Assessment Status

Health assessment information on a chemical substance is included in IRIS only after a comprehensive review of toxicity data by U.S. EPA health scientists from several Program Offices, Regional Offices, and the Office of Research and Development.

Disclaimer: This QuickView represents a snapshot of key information. We suggest that you read the IRIS Summary to put this information into complete context.

For definitions of terms in the IRIS Web site, refer to the IRIS Glossary.

Status of Data for Chloroform

File First On-Line: 01/31/1987
Last Significant Revision: 10/19/2001

Category (section)	Status	Last Revised
Oral RfD Assessment	On-line	10/19/2001
Inhalation RfC Assessment	No data	
Carcinogenicity Assessment	On-line	10/19/2001

Chronic Health Hazard Assessments for Noncarcinogenic Effects

Reference Dose for Chronic Oral Exposure (RfD)

Critical Effect	Point of Departure	UF	MF	RfD
Moderate/marked fatty cyst formation in the liver and elevated SGPT	$BMDL_{10}$: 1.0 mg/kg-day	100	1	1×10^{-2} mg/kg-day

The Point of Departure listed serves as a basis from which the Oral RfD was derived. See Discussion of Conversion Factors and Assumptions for more details.

Principal and Supporting Studies (Oral RfD)

- Dog, chronic oral bioassay, Heywood et al., 1979

Confidence in the Oral RfD

- Study -- Medium
- Database -- Medium
- RfD -- Medium

Reference Concentration for Chronic Inhalation Exposure (RfC)

Not Assessed under the IRIS Program.

Carcinogenicity Assessment for Lifetime Exposure

Weight-of-Evidence Characterization

Weight-of-Evidence (1986 US EPA Guidelines):

B2 (Probable human carcinogen - based on sufficient evidence of carcinogenicity in animals)

Weight-of-Evidence Narrative:

Under the Proposed Guidelines for Carcinogen Risk Assessment (U.S. EPA, 1996; U.S. EPA, 1999), chloroform is likely to be carcinogenic to humans by all routes of exposure under high-exposure conditions that lead to cytotoxicity and regenerative hyperplasia in susceptible tissues (U.S. EPA, 1998a,b). Chloroform is not likely to be carcinogenic to humans by any route of exposure under exposure conditions that do not cause cytotoxicity and cell regeneration. This weight-of-evidence conclusion is based on: 1) observations in animals exposed by both oral and inhalation pathways which indicate that sustained or repeated cytotoxicity with secondary regenerative hyperplasia precedes, and is probably required for, hepatic and renal neoplasia; 2) there are no epidemiological data specific to chloroform and, at most, equivocal epidemiological data related to drinking water exposures that cannot necessarily be negative, although there are some scattered positive results that generally have limitations such as excessively high dose or with confounding factors. Thus, the weigh-of-evidence of the genotoxicity data on chloroform supports a conclusion that chloroform is not strongly mutagenic, and the genotoxicity is not likely to be the predominant mode of action underlying the carcinogenic potential of chloroform. Although no cancer data exist for exposures via the dermal pathway, the weight-of-evidence conclusion is considered to be applicable to this pathway as well, because chloroform absorbed through the skin and into the blood is expected to be metabolized and to cause toxicity in much the same way as chloroform absorbed by other exposure routes.

This may be a synopsis of the full weight-of-evidence narrative. See IRIS Summary.

Quantitative Estimate of Carcinogenic Risk from Oral Exposure

A dose of $1x10^{-2}$ mg/kg-day (equal to the RfD) can be considered protective against cancer risk.

Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure

Inhalation Unit Risk(s)	Extrapolation Method
$2.3 x10^{-5}$ per ug/m3	Linearized multistage procedure, extra risk

Inhalation Concentrations at Specified Risk Levels

Risk Level	Concentration
E-4 (1 in 10,000)	4 ug/m3
E-5 (1 in 100,000)	$4x10^{-1}$ ug/m3
E-6 (1 in 1,000,000)	$4x10^{-2}$ ug/m3

Dose-Response Data (Carcinogenicity, Inhalation Exposure)

Tumor Type: Hepatocellular carcinoma
Test Species: Mouse, B6C3F1, female
Route: Oral, Gavage
Reference: NCI, 1976

Revision History

Review IRIS Summary for complete Revision History.

Synonyms

- Freon 20
- Methenyl trichloride
- 67-66-3
- Chloroform
- Methane trichloride
- Methane, trichloro-
- Methenyl chloride
- NCI-C02686
- R-20
- TCM
- Trichloromethane
- Formyl trichloride
- Methyl trichloride
- Trichloroform

Quickview Navigation
+ Expand navigation:

Integrated Risk Information System (IRIS)

Acetone Quickview (CASRN 67-64-1)

- view Acetone Summary
- view Toxicological Review of Acetone (PDF)

Health assessment information on a chemical substance is included in IRIS only after a comprehensive review of toxicity data by U.S. EPA health scientists from several Program Offices, Regional Offices, and the Office of Research and Development.

Disclaimer: This QuickView represents a snapshot of key information. We suggest that you read the IRIS Summary to put this information into complete context.

For definitions of terms in the IRIS Web site, refer to the IRIS Glossary.

Status of Data for Acetone

File First On-Line: 03/31/1987
Last Significant Revision: 07/31/2003

Category (section)	Status	Last Revised
Oral RfD Assessment	On-line	07/31/2003
Inhalation RfC Assessment	Discussion	07/31/2003
Carcinogenicity Assessment	On-line	07/31/2003

Chronic Health Hazard Assessments for Noncarcinogenic Effects

Reference Dose for Chronic Oral Exposure (RfD)

Critical Effect	Point of Departure	UF	MF	RfD
Nephropathy	NOAEL : 900 mg/kg-day	1000	1	0.9 mg/kg-day

The Point of Departure listed serves as a basis from which the Oral RfD was derived. See Discussion of Conversion Factors and Assumptions for more details.

Principal and Supporting Studies (Oral RfD)

- Subchronic drinking water study in rats, Dietz, et., al, 1991; NTP, 1991

Confidence in the Oral RfD

- Study -- Medium
- Database -- Medium
- RfD -- Medium

Reference Concentration for Chronic Inhalation Exposure (RfC)

Information reviewed but value not estimated. Refer to IRIS Summary.

Carcinogenicity Assessment for Lifetime Exposure

Weight-of-Evidence Characterization

Weight-of-Evidence (1986 US EPA Guidelines):

Not applicable. This substance was not assessed using the 1986 cancer guidelines (U.S. EPA, 1986).

Weight-of-Evidence Narrative:

In accordance with the Draft Revised Guidelines for Carcinogen Risk Assessment (U.S. EPA, 1999) data are inadequate for an assessment of the human carcinogenic potential of acetone.

This may be a synopsis of the full weight-of-evidence narrative. See IRIS Summary.

Quantitative Estimate of Carcinogenic Risk from Oral Exposure

Not Assessed under the IRIS Program.

Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure

Not Assessed under the IRIS Program.

Revision History

Review IRIS Summary for complete Revision History.

Synonyms

- UN 1090
- Ketone, dimethyl
- Acetone
- Dimethylketal
- Ketone propane

- 2-Propanone
- RCRA Waste Number U002
- 67-64-1
- Dimethylformaldehyde
- Dimethyl ketone
- beta-Ketopropane
- Methyl ketone
- Propanone
- Pyroacetic acid
- Pyroacetic ether

Quickview Navigation
+ Expand navigation:

Cancer Potency Information

Toxicity Criteria Database: Cancer Potency

New Search:

Chemical Name

Benzene

OR

CAS Number

71432

New Search

Inhalation Unit Risk (µg/cubic meter)$^{-1}$	0.000029
Inhalation Slope Factor (mg/kg-day)$^{-1}$	0.1
Oral Slope Factor (mg/kg-day)$^{-1}$	0.1
USEPA Classification	A: Human carcinogen
IARC Classification	1
Comments	
Reference	OEHHA, 2002 Technical Support Document for Describing Available Cancer Potency Factors

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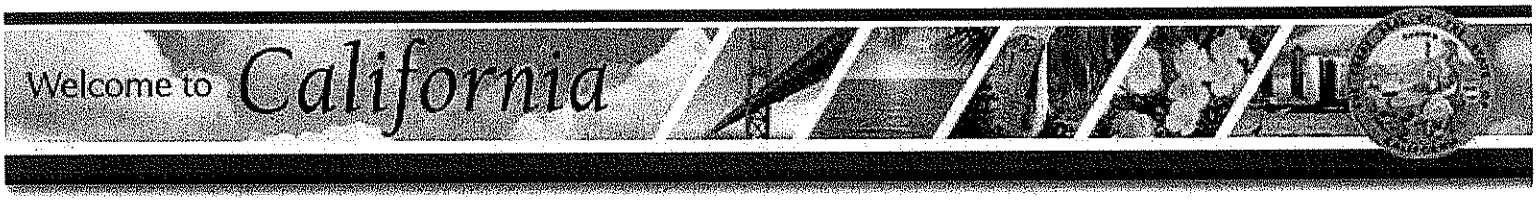

Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Toxicity Criteria Database: Chemicals with PHGs

New Search:

Chemical Name

Benzene

OR

CAS Number

71432

New Search

Health Risk Category:	carcinogenicity
California PHG (mg/L):	0.00015
Cancer Risk @ PHG:	0.000001
California MCL (mg/L):	0.001
Cancer Risk @ MCL:	0.000007
Comments:	

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http://cfpub.epa.gov/ncea/iris/index.cfm?fuseaction=iris.showQuickView&substance_nmbr=0276
Last updated on Thursday, January 3rd, 2008.

Integrated Risk Information System (IRIS)

Benzene Quickview (CASRN 71-43-2)

- view Benzene Summary
- view Toxicological Review of Benzene (PDF)
- view Benzene Support Documents

Health assessment information on a chemical substance is included in IRIS only after a comprehensive review of toxicity data by U.S. EPA health scientists from several Program Offices, Regional Offices, and the Office of Research and Development.

Disclaimer: This QuickView represents a snapshot of key information. We suggest that you read the IRIS Summary to put this information into complete context.

For definitions of terms in the IRIS Web site, refer to the IRIS Glossary.

Status of Data for Benzene

File First On-Line: 03/01/1988
Last Significant Revision: 04/17/2003

Category (section)	Status	Last Revised
Oral RfD Assessment	On-line	04/17/2003
Inhalation RfC Assessment	On-line	04/17/2003
Carcinogenicity Assessment	On-line	01/09/2000

Chronic Health Hazard Assessments for Noncarcinogenic Effects

Reference Dose for Chronic Oral Exposure (RfD)

Critical Effect	Point of Departure	UF	MF	RfD
Decreased lymphocyte count	BMDL : 1.2 mg/kg-day	300	1	4.0×10^{-3} mg/kg-day

The Point of Departure listed serves as a basis from which the Oral RfD was derived. See Discussion of Conversion Factors and Assumptions for more details.

Principal and Supporting Studies (Oral RfD)

- Human occupational inhalation study, Rothman et. al., 1996

Confidence in the Oral RfD

- Study -- Medium
- Database -- Medium
- RfD -- Medium

Reference Concentration for Chronic Inhalation Exposure (RfC)

Critical Effect	Point of Departure	UF	MF	RfC
Decreased lymphocyte count	BMCL : 8.2 mg/m3	300	1	$3x10^{-2}$ mg/m3

The Point of Departure listed serves as a basis from which the Inhalation RfC was derived. See Discussion of Conversion Factors and Assumptions for more details.

Principal and Supporting Studies (Inhalation RfC)

- Human occupational inhalation study, Rothman et. al., 1996

Confidence in the Inhalation RfC

- Study -- Medium
- Database -- Medium
- RfC -- Medium

Carcinogenicity Assessment for Lifetime Exposure

Weight-of-Evidence Characterization

Weight-of-Evidence (1986 US EPA Guidelines):

A (Human carcinogen)

Weight-of-Evidence Narrative:

Under the proposed revised Carcinogen Risk Assessment Guidelines (U.S. EPA, 1996), benzene is characterized as a known human carcinogen for all routes of exposure based upon convincing human evidence as well as supporting evidence from animal studies. (U.S. EPA, 1979, 1985, 1998; ATSDR, 1997).

This may be a synopsis of the full weight-of-evidence narrative. See IRIS Summary.

Quantitative Estimate of Carcinogenic Risk from Oral Exposure

Oral Slope Factor(s)	Extrapolation Method

1.5×10^{-2} per mg/kg-day[1]	Linear extrapolation of human occupational data
5.5×10^{-2} per mg/kg-day[1]	Linear extrapolation of human occupational data

[1] This is one endpoint in a range of oral slope factors/drinking water unit risks. See Additional Comments (Carcinogenicity, Oral Exposure).

Drinking Water Unit Risks

4.4×10^{-7} per ug/L[1]

1.6×10^{-6} per ug/L[1]

Risk Level	Concentration
E-4 (1 in 10,000)	1×10^{2} ug/L[1]
E-5 (1 in 100,000)	1×10^{1} ug/L[1]
E-6 (1 in 1,000,000)	1 ug/L[1]
E-4 (1 in 10,000)	1×10^{3} ug/L[1]
E-5 (1 in 100,000)	1×10^{2} ug/L[1]
E-6 (1 in 1,000,000)	1×10^{1} ug/L[1]

[1] This is one endpoint in a range of oral slope factors/drinking water unit risks. See Additional Comments (Carcinogenicity, Oral Exposure).

Dose-Response Data (Carcinogenicity, Oral Exposure)

Tumor Type: Leukemia
Test Species: Human
Route: Inhalation, Occupational exposure
Reference: Rinsky et al., 1981, 1987; Paustenbach et al., 1993; Crump, 1994; U. S. EPA, 1998; U.S. EPA, 1999

Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure

Inhalation Unit Risk (s)	Extrapolation Method
2.2×10^{-6} per ug/m3[1]	Low-dose linearity utilizing maximum likelihood estimates
7.8×10^{-6} per ug/m3[1]	Low-dose linearity utilizing maximum likelihood estimates

Inhalation Concentrations at Specified Risk Levels

Risk Level	Concentration
E-4 (1 in 10,000)	1.3×10^{1} ug/m3[1]
E-5 (1 in 100,000)	1.3 ug/m3[1]
E-6 (1 in 1,000,000)	1.3×10^{-1} ug/m3[1]
E-4 (1 in 10,000)	4.5×10^{1} ug/m3[1]

E-5 (1 in 100,000)	4.5 ug/m3[1]
E-6 (1 in 1,000,000)	4.5×10^{-1} ug/m3[1]

[1] This is one endpoint in a range of oral slope factors/drinking water unit risks. Additional Comments (Carcinogenicity, Inhalation Exposure).

Dose-Response Data (Carcinogenicity, Inhalation Exposure)

Tumor Type: Leukemia
Test Species: Human
Route: Inhalation
Reference: Rinsky et al., 1981, 1987; Paustenbach et al., 1993; Crump and Allen, 1984; Crump, 1992, 1994; U.S. EPA, 1998

Revision History

Review IRIS Summary for complete Revision History.

Synonyms

- Phene
- 71-43-2
- Benzol
- Cyclohexatriene
- Pyrobenzol
- Benzene
- Coal naphtha
- Phenyl hydride
- Polystream

Quickview Navigation
+ Expand navigation:

APPENDIX E

CIMIS (California Irrigation Management Information System)

Monthly Report

Rendered in ENGLISH Units.
February 1, 2006 - January 2, 2008
Printed on January 3, 2008
See the bottom of this report for a legend for all flag values.

Sacramento Valley - Fair Oaks - #131

Month Year	Tot ETo (in)	Tot Precip (in)	Avg Sol Rad (Ly/Day)	Avg Vap Pres (mBars)	Avg Max Air Tmp (F)	Avg Min Air Tmp (F)	Avg Air Tmp (F)	Avg Max Rel Hum (%)	Avg Min Rel Hum (%)	Avg Rel Hum (%)	Avg Dew Point (F)	Avg Wind Speed (mph)	Avg Soil Temp (F)
Feb 2006	2.05	2.44	284	8.9	63.9 K	40.7	51.4	89	44	68	40.8	3.3	51.8
Mar 2006	2.41 K	6.69 K	299 K	9.0 K	58.7 K	41.4	49.6 K	92 K	53 K	74	41.5	4.4 K	52.8 K
Apr 2006	2.52	4.03	285	12.0 K	67.3	48.5	57.4	92	55	74 K	49.0 K	3.7	59.9
May 2006	7.35	0.04 K	633 K	13.2	81.9	51.5 K	67.5	86	36	58	51.6	7.1 K	69.3
Jun 2006	8.38	0.00	651	15.0	90.3 K	59.2 K	74.6	80	31	52	55.3	7.4 K	73.6
Jul 2006	8.38 K	0.00	685	16.0 K	97.1 K	62.7 K	80.7 K	72 K	25 K	45 K	56.6 K	3.8	77.5
Aug 2006	7.10	0.00	622	14.1	90.8	57.9	73.6	80	28	50	53.8	3.8	73.7
Sep 2006	5.30	0.00	488	12.2 K	87.4 K	55.2	70.1	78	28	49 K	49.3 K	3.4 K	69.3
Oct 2006	3.30	0.00	352	10.4	75.1	46.6 K	60.3	85	36	59	45.1	3.0 K	62.3
Nov 2006	1.34	1.53	187 K	11.3 K	63.4	44.6 K	53.3	94	58	79 K	46.9 K	3.2	57.2
Dec 2006	1.13	3.67	158 K	8.4 K	56.8	37.7 K	46.7	92	55	76 K	39.2 K	3.4	49.8
Jan 2007	1.81	0.16 K	225	6.4 K	57.6	32.9	44.2	85	42	63 K	32.0 K	3.4	45.3
Feb 2007	1.58	5.69	223	9.5	60.1	42.4 K	50.5	91	55	76	42.8	3.9	50.6
Mar 2007	3.82	0.57	406 K	10.8	71.8 K	45.4	58.0	89	43	65	46.1	3.4	56.9
Apr 2007	4.85	1.72	494	10.5	72.8	47.4 K	59.8	86	37	59	45.2	4.0	61.1
May 2007	6.98	0.39	628	11.1	81.6	51.7	66.0	80	29	52	47.0	4.4	67.0
Jun 2007	7.70 K	0.00	698 K	12.6	88.2	55.9 K	72.4	76	25	47	50.3	4.2	71.1
Jul 2007	7.70 K	0.00	645	15.1	92.7 K	60.4 K	75.8	78	28	50	55.5	4.2	73.9
Aug 2007	7.13	0.00	589	14.2 K	92.7 K	59.9 K	75.6	75	27	47 K	53.7 K	4.0	73.4
Sep 2007	4.67 K	0.07	439	13.1 K	82.5 K	55.6 K	67.8	82	35	57 K	51.5 K	3.7	70.2
Oct 2007	2.90	1.08	313	11.4	73.5 K	49.5	60.3	87	42	64	47.6	3.1	62.4
Nov 2007	1.94	0.17 K	243 K	10.0	67.9 K	43.2	54.4	90	45	68	43.8	2.8	56.9
Dec 2007	1.19	2.74 K	160	7.7	54.3	37.6 K	45.7	87	54	73	36.8	3.6	48.6
Jan 2008	0.09	0.00 K	148	7.2	59.1	34.3	44.9	94	48	71	36.0	2.0	46.2
Totals/Avgs	101.62	30.99	411	11.3	74.5	48.4	60.9	85	40	61	46.6	3.9	61.7

M - All Daily Values Missing
K - One or More Daily Values Flagged
J - One or More Daily Values Missing
L - Missing and Flagged Daily Values

W/sq.m = Ly/day/2.065	inches * 25.4 = mm	C = 5/9 * (F - 32)
m/s = mph * 0.447	kPa = mBars * 0.1	

APPENDIX F

TABLE 4. CENTROID COMPOSITIONS, MEAN PARTICLE DIAMETERS AND DRY BULK DENSITY OF THE 12 SCS SOIL TEXTURAL CLASSIFICATIONS

Textural class	% clay	% silt	% sand	Arithmetic mean particle diameter, cm	Dry Bulk Density g/cm^3
Sand	3.33	5.00	91.67	0.044	1.66
Loamy sand	6.25	11.25	82.50	0.040	1.62
Sandy loam	10.81	27.22	61.97	0.030	1.62
Sandy clay loam	26.73	12.56	60.71	0.029	1.63
Sandy clay	41.67	6.67	51.66	0.025	1.63
Loam	18.83	41.01	40.16	0.020	1.59
Clay loam	33.50	34.00	32.50	0.016	1.48
Silt loam	12.57	65.69	21.74	0.011	1.49
Clay	64.83	16.55	18.62	0.0092	1.43
Silty clay loam	33.50	56.50	10.00	0.0056	1.63
Silt	6.00	87.00	7.00	0.0046	1.35
Silty clay	46.67	46.67	6.66	0.0039	1.38

APPENDIX G

DATA ENTRY SHEET

DP1SG-5
Tetrachloroethylene
Residential

SG-ADV
Version 3.1; 02/04

Reset to Defaults

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
127184	2.60E+06			Tetrachloroethylene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	sicl		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
sicl	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP (g/cm-s^2)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	0.5	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
1.15E-04	1.30E+00

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

SG-ADV
Version 3.1; 02/04

Reset to Defaults

DP1SG-5
Tetrachloroethylene
Residential

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
127184	2.60E+06			Tetrachloroethylene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_s (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	sicl		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
sicl	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	1	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
5.75E-05	6.50E-01

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

SG-ADV
Version 3.1; 02/04

Reset to Defaults

DP1SG-5
Trichloroethylene
Residential

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
79016	4.80E+05			Trichloroethylene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	SICL		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SICL	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	0.5	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
7.22E-06	1.40E-02

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

SG-ADV
Version 3.1; 02/04

Reset to Defaults

DP1SG-5
Toluene
Residential

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
108883	5.10E+03			Toluene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	sicl		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
sicl	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	0.5	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	2.99E-04

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

SG-ADV
Version 3.1; 02/04

Reset to Defaults

DP1SG-5
1,2-Dichloroethane
Residential

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
107062	6.70E+03			1,2-Dichloroethane

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	sicl		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
sicl	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	0.5	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
1.07E-06	2.96E-04

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

SG-ADV
Version 3.1; 02/04

Reset to Defaults

DP1SG-5
cis-1,2-Dichloroethylene
Residential

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
156592	6.70E+05			cis-1,2-Dichloroethylene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	sicl		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
sicl	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP (g/cm-s^2)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	0.5	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	3.35E-01

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

SG-ADV
Version 3.1; 02/04

Reset to Defaults

DP1SG-5
trans-1,2-Dichloroethylene
Residential

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
156605	1.00E+04			trans-1,2-Dichloroethylene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	sicl		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
sicl	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	0.5	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	2.50E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

END

DATA ENTRY SHEET

DP1SG-5
Methylene chloride
Residential

SG-ADV
Version 3.1; 02/04

Reset to Defaults

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
75092	1.30E+04			Methylene chloride

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	sicl		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
sicl	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	0.5	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
9.84E-08	5.74E-04

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

SG-ADV
Version 3.1; 02/04

Reset to Defaults

DP1SG-5
Hexane
Residential

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
110543	7.70E+03			Hexane

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	sicl		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
sicl	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	0.5	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	7.28E-04

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

SG-ADV
Version 3.1; 02/04

Reset to Defaults

DP3SG-5
Chloroform
Residential

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
67663	1.10E+02			Chloroform

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	sicl		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
sicl	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	0.5	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
4.42E-09	6.48E-06

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

SG-ADV
Version 3.1; 02/04

Reset to Defaults

DP1SG-5
Acetone
Residential

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
67641	2.40E+04			Acetone

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	sicl		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
sicl	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	0.5	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	1.23E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

SG-ADV
Version 3.1; 02/04

Reset to Defaults

DP1SG-5
Benzene
Residential

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
71432	1.75E+03			Benzene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	sicl		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
sicl	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	0.5	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
3.83E-07	1.03E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

SG-ADV
Version 3.1; 02/04

Reset to Defaults

DP1SG-5
Tetrachloroethylene
Commercial

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
127184	2.60E+06			Tetrachloroethylene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	SICL		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SICL	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	0.83	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	25	25	250

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
4.13E-05	5.59E-01

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

SG-ADV
Version 3.1; 02/04

Reset to Defaults

DP1SG-5
Tetrachloroethylene
Commercial

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
127184	2.60E+06			Tetrachloroethylene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	SICL		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SICL	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\cdot s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	2	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	25	25	250

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
1.71E-05	2.32E-01

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

SG-ADV
Version 3.1; 02/04

Reset to Defaults

DP1SG-5
Trichloroethylene
Commercial

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
79016	4.80E+05			Trichloroethylene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	SICL		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SICL	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	0.83	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	25	25	250

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
2.59E-06	6.04E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

SG-ADV
Version 3.1; 02/04

Reset to Defaults

DP1SG-5
Toluene
Commercial

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
108883	5.10E+03			Toluene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_s (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	SICL		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SICL	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	0.83	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	25	25	250

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	1.29E-04

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

SG-ADV
Version 3.1; 02/04

Reset to Defaults

DP1SG-5
1,2-Dichloroethane
Commercial

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
107062	6.70E+03			1,2-Dichloroethane

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	SICL		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SICL	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	0.83	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	25	25	250

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
3.82E-07	1.27E-04

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

DP1SG-5
cis-1,2-Dichloroethylene
Commercial

SG-ADV
Version 3.1; 02/04

Reset to Defaults

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
156592	6.70E+05			cis-1,2-Dichloroethylene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	SICL		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SICL	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP (g/cm-s^2)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	0.83	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	25	25	250

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	1.44E-01

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

SG-ADV
Version 3.1; 02/04

Reset to Defaults

DP1SG-5
trans-1,2-Dichloroethylene
Commercial

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
156605	1.00E+04			trans-1,2-Dichloroethylene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	SICL		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SICL	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	0.83	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	25	25	250

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	1.08E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

DP1SG-5
Methylene chloride
Commercial

SG-ADV
Version 3.1; 02/04

Reset to Defaults

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
75092	1.30E+04			Methylene chloride

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	SICL		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SICL	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	0.83	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	25	25	250

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
3.53E-08	2.47E-04

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

SG-ADV
Version 3.1; 02/04

Reset to Defaults

DP1SG-5
Hexane
Commercial

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
110543	7.70E+03			Hexane

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	SICL		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SICL	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	0.83	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	25	25	250

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	3.13E-04

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

SG-ADV
Version 3.1; 02/04

Reset to Defaults

DP3SG-5
Chloroform
Commercial

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
67663	1.10E+02			Chloroform

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	SICL		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SICL	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	0.83	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	25	25	250

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
1.58E-09	2.79E-06

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

DP1SG-5
Acetone
Commercial

SG-ADV
Version 3.1; 02/04

Reset to Defaults

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
67641	2.40E+04			Acetone

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	SICL		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SICL	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	0.83	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	25	25	250

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	5.27E-04

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

SG-ADV
Version 3.1; 02/04

Reset to Defaults

DP1SG-5
Benzene
Commercial

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
71432	1.75E+03			Benzene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	16.5	152.4	0	0	SICL		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SICL	1.37	0.482	0.198		1.5	0.43			1.5	0.43	

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	2073	1981	274	0.1	0.83	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	25	25	250

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
1.37E-07	4.41E-04

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

VLOOKUP TABLES

SCS Soil Type	K_s (cm/h)	α_1 (1/cm)	N (unitless)	M (unitless)	n (cm^3/cm^3)	θ_r (cm^3/cm^3)	Mean Grain Diameter (cm)	Bulk Density (g/cm^3)	θ_w (cm^3/cm^3)	SCS Soil Name
	Soil Properties Lookup Table									
C	0.61	0.01496	1.253	0.2019	0.459	0.098	0.0092	1.43	0.215	Clay
CL	0.34	0.01581	1.416	0.2938	0.442	0.079	0.016	1.48	0.168	Clay Loam
L	0.50	0.01112	1.472	0.3207	0.399	0.061	0.020	1.59	0.148	Loam
LS	4.38	0.03475	1.746	0.4273	0.390	0.049	0.040	1.62	0.076	Loamy Sand
S	26.78	0.03524	3.177	0.6852	0.375	0.053	0.044	1.66	0.054	Sand
SC	0.47	0.03342	1.208	0.1722	0.385	0.117	0.025	1.63	0.197	Sandy Clay
SCL	0.55	0.02109	1.330	0.2481	0.384	0.063	0.029	1.63	0.146	Sandy Clay Loam
SI	1.82	0.00658	1.679	0.4044	0.489	0.050	0.0046	1.35	0.167	Silt
SIC	0.40	0.01622	1.321	0.2430	0.481	0.111	0.0039	1.38	0.216	Silty Clay
SICL	0.46	0.00839	1.521	0.3425	0.482	0.090	0.0056	1.37	0.198	Silty Clay Loam
SIL	0.76	0.00506	1.663	0.3987	0.439	0.065	0.011	1.49	0.180	Silt Loam
SL	1.60	0.02667	1.449	0.3099	0.387	0.039	0.030	1.62	0.103	Sandy Loam

Chemical Properties Lookup Table — CalEPA Toxicity Criteria in bold (last updated 1/21/05 DTSC/HERD)

CAS No.	Chemical	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Pure component water solubility, S (mg/L)	Henry's law constant H' (unitless)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (°C)	Normal boiling point, T_B (°K)	Critical temperature, T_C (°K)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	Molecular weight, MW (g/mol)	URF extrapolated (X)	RfC extrapolated (X)
56235	Carbon tetrachloride	1.74E+02	7.80E-02	8.80E-06	7.93E+02	1.24E+00	3.03E-02	25	349.90	556.60	7,127	**4.2E-05**	**4.0E-02**	1.54E+02		
57749	Chlordane	1.20E+05	1.18E-02	4.37E-06	5.60E-02	1.99E-03	4.85E-05	25	624.24	885.73	14,000	**3.4E-04**	7.0E-04	4.10E+02		
58899	gamma-HCH (Lindane)	1.07E+03	1.42E-02	7.34E-06	7.30E+00	5.73E-04	1.40E-05	25	596.55	839.36	15,000	**3.1E-04**	1.1E-03	2.91E+02	X	X
60297	Ethyl ether	5.73E+00	7.82E-02	8.61E-06	5.68E+04	1.35E+00	3.29E-02	25	307.50	466.74	6,338	0.0E+00	7.0E-01	7.41E+01		X
60571	Dieldrin	2.14E+04	1.25E-02	4.74E-06	1.95E-01	6.18E-04	1.51E-05	25	613.32	842.25	17,000	**4.6E-03**	1.8E-04	3.81E+02		X
67641	Acetone	5.75E-01	1.24E-01	1.14E-05	1.00E+06	1.59E-03	3.87E-05	25	329.20	508.10	6,955	0.0E+00	3.5E-01	5.81E+01		X
67663	Chloroform	3.98E+01	1.04E-01	1.00E-05	7.92E+03	1.50E-01	3.66E-03	25	334.32	536.40	6,988	**5.3E-06**	**3.0E-01**	1.19E+02		
67721	Hexachloroethane	1.78E+03	2.50E-03	6.80E-06	5.00E+01	1.59E-01	3.88E-03	25	458.00	695.00	9,510	**1.1E-05**	3.5E-03	2.37E+02		X
71432	Benzene	5.89E+01	8.80E-02	9.80E-06	1.79E+03	2.27E-01	5.54E-03	25	353.24	562.16	7,342	**2.9E-05**	3.0E-02	7.81E+01		
71556	1,1,1-Trichloroethane	1.10E+02	7.80E-02	8.80E-06	1.33E+03	7.03E-01	1.72E-02	25	347.24	545.00	7,136	0.0E+00	**1.0E+00**	1.33E+02		
72435	Methoxychlor	9.77E+04	1.56E-02	4.46E-06	1.00E-01	6.46E-04	1.58E-05	25	651.02	848.49	16,000	0.0E+00	1.8E-02	3.46E+02		X
72559	DDE	4.47E+06	1.44E-02	5.87E-06	1.20E-01	8.59E-04	2.09E-05	25	636.44	860.38	15,000	**9.7E-05**	0.0E+00	3.18E+02	X	
74839	Methyl bromide	1.05E+01	7.28E-02	1.21E-05	1.52E+04	2.55E-01	6.22E-03	25	276.71	467.00	5,714	0.0E+00	**5.0E-03**	9.49E+01		
74873	Methyl chloride (chloromethane)	2.12E+00	1.26E-01	6.50E-06	5.33E+03	3.61E-01	8.80E-03	25	249.00	416.25	5,115	1.0E-06	9.0E-02	5.05E+01		
74908	Hydrogen cyanide	3.80E+00	1.93E-01	2.10E-05	1.00E+06	5.44E-03	1.33E-04	25	299.00	456.70	6,676	0.0E+00	3.0E-03	2.70E+01		
74953	Methylene bromide	1.26E+01	4.30E-02	8.44E-06	1.19E+04	3.52E-02	8.59E-04	25	370.00	583.00	7,868	0.0E+00	3.5E-02	1.74E+02		X
75003	Chloroethane (ethyl chloride)	4.40E+00	2.71E-01	1.15E-05	5.68E+03	3.61E-01	8.80E-03	25	285.30	460.40	5,879	8.3E-07	1.0E+01	6.45E+01	X	
75014	Vinyl chloride (chloroethene)	1.86E+01	1.06E-01	1.23E-05	8.80E+03	1.10E+00	2.69E-02	25	259.25	432.00	5,250	**7.8E-05**	1.0E-01	6.25E+01		
75058	Acetonitrile	4.20E+00	1.28E-01	1.66E-05	1.00E+06	1.42E-03	3.45E-05	25	354.60	545.50	7,110	0.0E+00	6.0E-02	4.11E+01		
75070	Acetaldehyde	1.06E+00	1.24E-01	1.41E-05	1.00E+06	3.23E-03	7.87E-05	25	293.10	466.00	6,157	**2.7E-06**	**9.0E-03**	4.41E+01		
75092	Methylene chloride	1.17E+01	1.01E-01	1.17E-05	1.30E+04	8.96E-02	2.18E-03	25	313.00	510.00	6,706	**1.0E-06**	**4.0E-01**	8.49E+01		
75150	Carbon disulfide	4.57E+01	1.04E-01	1.00E-05	1.19E+03	1.24E+00	3.02E-02	25	319.00	552.00	6,391	0.0E+00	7.0E-01	7.61E+01		
75218	Ethylene oxide	1.33E+00	1.04E-01	1.45E-05	3.04E+05	2.27E-02	5.54E-04	25	283.60	469.00	6,104	**8.8E-05**	**3.0E-02**	4.41E+01		
75252	Bromoform	8.71E+01	1.49E-02	1.03E-05	3.10E+03	2.41E-02	5.88E-04	25	422.35	696.00	9,479	1.1E-06	7.0E-02	2.53E+02		X
75274	Bromodichloromethane	5.50E+01	2.98E-02	1.06E-05	6.74E+03	6.54E-02	1.60E-03	25	363.15	585.85	7,800	**3.7E-05**	7.0E-02	1.64E+02	X	X
75296	2-Chloropropane	9.14E+00	8.88E-02	1.01E-05	3.73E+03	5.93E-01	1.45E-02	25	308.70	485.00	6,286	0.0E+00	1.0E-01	7.85E+01		
75343	1,1-Dichloroethane	3.16E+01	7.42E-02	1.05E-05	5.06E+03	2.30E-01	5.61E-03	25	330.55	523.00	6,895	**1.6E-06**	5.0E-01	9.90E+01		
75354	1,1-Dichloroethylene	5.89E+01	9.00E-02	1.04E-05	2.25E+03	1.07E+00	2.60E-02	25	304.75	576.05	6,247	0.0E+00	**7.0E-02**	9.69E+01		
75456	Chlorodifluoromethane	4.79E+01	1.01E-01	1.28E-05	2.00E+00	1.10E+00	2.70E-02	25	232.40	369.30	4,836	0.0E+00	5.0E+01	8.65E+01		
75694	Trichlorofluoromethane	4.97E+02	8.70E-02	9.70E-06	1.10E+03	3.97E+00	9.68E-02	25	296.70	471.00	5,999	0.0E+00	7.0E-01	1.37E+02		
75718	Dichlorodifluoromethane	4.57E+02	6.65E-02	9.92E-06	2.80E+02	1.40E+01	3.42E-01	25	243.20	384.95	9,421	0.0E+00	2.0E-01	1.21E+02		
76131	1,1,2-Trichloro-1,2,2-trifluoroethane	1.11E+04	7.80E-02	8.20E-06	1.70E+02	1.97E+01	4.80E-01	25	320.70	487.30	6,463	0.0E+00	3.0E+01	1.87E+02		
76448	Heptachlor	1.41E+06	1.12E-02	5.69E-06	1.80E-01	6.05E+01	1.48E+00	25	603.69	846.31	13,000	**1.6E-03**	1.8E-03	3.73E+02		X
77474	Hexachlorocyclopentadiene	2.00E+05	1.61E-02	7.21E-06	1.80E+00	1.10E+00	2.69E-02	25	512.15	746.00	10,931	0.0E+00	2.0E-04	2.73E+02		
78831	Isobutanol	2.59E+00	8.60E-02	9.30E-06	8.50E+04	4.83E-04	1.18E-05	25	381.04	547.78	10,936	0.0E+00	1.1E+00	7.41E+01		X
78875	1,2-Dichloropropane	4.37E+01	7.82E-02	8.73E-06	2.80E+03	1.15E-01	2.79E-03	25	369.52	572.00	7,590	**1.0E-05**	4.0E-03	1.13E+02	X	
78933	Methylethylketone (2-butanone)	2.30E+00	8.08E-02	9.80E-06	2.23E+05	2.29E-03	5.58E-05	25	352.50	536.78	7,481	0.0E+00	5.0E+00	7.21E+01		
79005	1,1,2-Trichloroethane	5.01E+01	7.80E-02	8.80E-06	4.42E+03	3.73E-02	9.11E-04	25	386.15	602.00	8,322	**1.6E-05**	1.4E-02	1.33E+02		X
79016	Trichloroethylene	1.66E+02	7.90E-02	9.10E-06	1.47E+03	4.21E-01	1.03E-02	25	360.36	544.20	7,505	**2.0E-06**	**6.0E-01**	1.31E+02	X	
79209	Methyl acetate	3.26E+00	1.04E-01	1.00E-05	2.00E+03	4.84E-03	1.18E-04	25	329.80	506.70	7,260	0.0E+00	3.5E+00	7.41E+01		X
79345	1,1,2,2-Tetrachloroethane	9.33E+01	7.10E-02	7.90E-06	2.96E+03	1.41E-02	3.44E-04	25	419.60	661.15	8,996	**5.8E-05**	2.1E-01	1.68E+02		X
79469	2-Nitropropane	1.17E+01	9.23E-02	1.01E-05	1.70E+04	5.03E-03	1.23E-04	25	393.20	594.00	8,383	2.7E-03	2.0E-02	8.91E+01		

80626	Methylmethacrylate	6.98E+00	7.70E-02	8.60E-06	1.50E+04	1.38E-02	3.36E-04	25	373.50	567.00	8,975	0.0E+00	7.0E-01	1.00E+02		
83329	Acenaphthene	7.08E+03	4.21E-02	7.69E-06	3.57E+00	6.34E-03	1.55E-04	25	550.54	803.15	12,155	0.0E+00	2.1E-01	1.54E+02		X
86737	Fluorene	1.38E+04	3.63E-02	7.88E-06	1.98E+00	2.60E-03	6.34E-05	25	570.44	870.00	12,666	0.0E+00	1.4E-01	1.66E+02		X
87683	Hexachloro-1,3-butadiene	5.37E+04	5.61E-02	6.16E-06	3.20E+00	3.33E-01	8.13E-03	25	486.15	738.00	10,206	2.2E-05	7.0E-04	2.61E+02		X
88722	o-Nitrotoluene	3.24E+02	5.87E-02	8.67E-06	6.50E+02	5.11E-04	1.25E-05	25	495.00	720.00	12,239	0.0E+00	3.5E-02	1.37E+02		X
91203	Naphthalene	2.00E+03	5.90E-02	7.50E-06	3.10E+01	1.98E-02	4.82E-04	25	491.14	748.40	10,373	**3.4E-05**	3.0E-03	1.28E+02		
91576	2-Methylnaphthalene	2.81E+03	5.22E-02	7.75E-06	2.46E+01	2.12E-02	5.17E-04	25	514.26	761.00	12,600	0.0E+00	7.0E-02	1.42E+02		X
92524	Biphenyl	4.38E+03	4.04E-02	8.15E-06	7.45E+00	1.23E-02	2.99E-04	25	529.10	789.00	10,890	0.0E+00	1.8E-01	1.54E+02		X
95476	o-Xylene	3.63E+02	8.70E-02	1.00E-05	1.78E+02	2.12E-01	5.18E-03	25	417.60	630.30	8,661	0.0E+00	1.0E-01	1.06E+02		
95501	1,2-Dichlorobenzene	6.17E+02	6.90E-02	7.90E-06	1.56E+02	7.77E-02	1.90E-03	25	453.57	705.00	9,700	0.0E+00	2.0E-01	1.47E+02		
95578	2-Chlorophenol	3.88E+02	5.01E-02	9.46E-06	2.20E+04	1.60E-02	3.90E-04	25	447.53	675.00	9,572	0.0E+00	1.8E-02	1.29E+02		X
95636	1,2,4-Trimethylbenzene	1.35E+03	6.06E-02	7.92E-06	5.70E+01	2.52E-01	6.14E-03	25	442.30	649.17	9,369	0.0E+00	6.0E-03	1.20E+02		
96184	1,2,3-Trichloropropane	2.20E+01	7.10E-02	7.90E-06	1.75E+03	1.67E-02	4.08E-04	25	430.00	652.00	9,171	5.7E-04	4.9E-03	1.47E+02	X	
96333	Methyl acrylate	4.53E+00	9.76E-02	1.02E-05	6.00E+04	7.68E-03	1.87E-04	25	353.70	536.00	7,749	0.0E+00	1.1E-01	8.61E+01		X
97632	Ethylmethacrylate	2.95E+01	6.53E-02	8.37E-06	3.67E+03	3.44E-02	8.40E-04	25	390.00	571.00	10,957	0.0E+00	3.2E-01	1.14E+02		X
98066	tert-Butylbenzene	7.71E+02	5.65E-02	8.02E-06	2.95E+01	4.87E-01	1.19E-02	25	442.10	1220.00	8,980	0.0E+00	1.4E-01	1.34E+02		X
98828	Cumene	4.89E+02	6.50E-02	7.10E-06	6.13E+01	4.74E+01	1.46E-02	25	425.56	631.10	10,335	0.0E+00	4.0E-01	1.20E+02		
98862	Acetophenone	5.77E+01	6.00E-02	8.73E-06	6.13E+03	4.38E-04	1.07E-05	25	475.00	709.50	11,732	0.0E+00	3.5E-01	1.20E+02		X
98953	Nitrobenzene	6.46E+01	7.60E-02	8.60E-06	2.09E+03	9.82E-04	2.39E-05	25	483.95	719.00	10,566	0.0E+00	2.0E-03	1.23E+02		
100414	Ethylbenzene	3.63E+02	7.50E-02	7.80E-06	1.69E+02	3.22E-01	7.86E-03	25	409.34	617.20	8,501	0.0E+00	1.0E+00	1.06E+02		
100425	Styrene	7.76E+02	7.10E-02	8.00E-06	3.10E+02	1.12E-01	2.74E-03	25	418.31	636.00	8,737	0.0E+00	**9.0E-01**	1.04E+02		
100447	Benzylchloride	6.14E+01	7.50E-02	7.80E-06	5.25E+02	1.70E-02	4.14E-04	25	452.00	685.00	8,773	**4.9E-05**	0.0E+00	1.27E+02	X	
100527	Benzaldehyde	4.59E+01	7.21E-02	9.07E-06	3.30E+03	9.73E-04	2.37E-05	25	452.00	695.00	11,658	0.0E+00	3.5E-01	1.06E+02		X
103651	n-Propylbenzene	5.62E+02	6.01E-02	7.83E-06	6.00E+01	4.37E-01	1.07E-02	25	432.20	630.00	9,123	0.0E+00	1.4E-01	1.20E+02		X
104518	n-Butylbenzene	1.11E+03	5.70E-02	8.12E-06	2.00E+00	5.38E-01	1.31E-02	25	456.46	660.50	9,290	0.0E+00	1.4E-01	1.34E+02		X
106423	p-Xylene	3.89E+02	7.69E-02	8.44E-06	1.85E+02	3.13E-01	7.64E-03	25	411.52	616.20	8,525	0.0E+00	1.0E-01	1.06E+02		
106467	1,4-Dichlorobenzene	6.17E+02	6.90E-02	7.90E-06	7.90E+01	9.82E-02	2.39E-03	25	447.21	684.75	9,271	**1.1E-05**	**8.0E-01**	1.47E+02		
106934	1,2-Dibromoethane (ethylene dibror	2.50E+01	2.17E-02	1.19E-05	4.18E+03	3.04E-02	7.41E-04	25	404.60	583.00	8,310	**7.1E-05**	**8.0E-04**	1.88E+02		
106990	1,3-Butadiene	1.91E+01	2.49E-01	1.08E-05	7.35E+02	3.01E+00	7.34E-02	25	268.60	425.00	5,370	**1.7E-04**	2.0E-03	5.41E+01		
107028	Acrolein	2.76E+00	1.05E-01	1.22E-05	2.13E+05	4.99E-03	1.22E-04	25	325.60	506.00	6,731	0.0E+00	2.0E-05	5.61E+01		
107062	1,2-Dichloroethane	1.74E+01	1.04E-01	9.90E-06	8.52E+03	4.00E-02	9.77E-04	25	356.65	561.00	7,643	**2.1E-05**	**4.0E-01**	9.90E+01		
107131	Acrylonitrile	5.90E+00	1.22E-01	1.34E-05	7.40E+04	4.21E-03	1.03E-04	25	350.30	519.00	7,786	**2.9E-04**	2.0E-03	5.31E+01		
108054	Vinyl acetate	5.25E+00	8.50E-02	9.20E-06	2.00E+04	2.09E-02	5.10E-04	25	345.65	519.13	7,800	0.0E+00	**2.0E-01**	8.61E+01		
108101	Methylisobutylketone (4-methyl-2-pe	9.06E+00	7.50E-02	7.80E-06	1.90E+04	5.64E-03	1.38E-04	25	389.50	571.00	8,243	0.0E+00	8.0E-02	1.00E+02		
108383	m-Xylene	4.07E+02	7.00E-02	7.80E-06	1.61E+02	3.00E-01	7.32E-03	25	412.27	617.05	8,523	0.0E+00	1.0E-01	1.06E+02		
108678	1,3,5-Trimethylbenzene	1.35E+03	6.02E-02	8.67E-06	2.00E+00	2.41E-01	5.87E-03	25	437.89	637.25	9,321	0.0E+00	6.0E-03	1.20E+02		
108872	Methylcyclohexane	7.85E+01	7.35E-02	8.52E-06	1.40E+01	4.22E+00	1.03E-01	25	373.90	572.20	7,474	0.0E+00	3.0E+00	9.82E+01		
108883	Toluene	1.82E+02	8.70E-02	8.60E-06	5.26E+02	2.72E-01	6.62E-03	25	383.78	591.79	7,930	0.0E+00	**3.0E-01**	9.21E+01		
108907	Chlorobenzene	2.19E+02	7.30E-02	8.70E-06	4.72E+02	1.51E-01	3.69E-03	25	404.87	632.40	8,410	0.0E+00	**1.0E+00**	1.13E+02		
109693	1-Chlorobutane	1.72E+01	8.26E-02	1.00E-05	1.10E+03	6.93E-01	1.69E-02	25	351.60	542.00	7,263	0.0E+00	1.4E+00	9.26E+01		X
110009	Furan	1.86E+01	1.04E-01	1.22E-05	1.00E+04	2.21E-01	5.39E-03	25	304.60	490.20	6,477	0.0E+00	3.5E-03	6.81E+01		X
110543	Hexane	4.34E+01	2.00E-01	7.77E-06	1.24E+01	6.82E+01	1.66E+00	25	341.70	508.00	6,895	0.0E+00	2.0E-01	8.62E+01		
111444	Bis(2-chloroethyl)ether	1.55E+01	6.92E-02	7.53E-06	1.72E+04	7.36E-04	1.80E-05	25	451.15	659.79	10,803	**7.1E-04**	0.0E+00	1.43E+02		
115297	Endosulfan	2.14E+03	1.15E-02	4.55E-06	5.10E-01	4.58E-04	1.12E-05	25	674.43	942.94	14,000	0.0E+00	2.1E-02	4.07E+02		X
118741	Hexachlorobenzene	5.50E+04	5.42E-02	5.91E-06	5.00E-03	5.40E-02	1.32E-03	25	582.55	825.00	14,447	**5.1E-04**	2.8E-03	2.85E+02		X
120821	1,2,4-Trichlorobenzene	1.78E+03	3.00E-02	8.23E-06	4.88E+01	5.81E-02	1.42E-03	25	486.15	725.00	10,471	0.0E+00	2.0E-01	1.81E+02		
123739	Crotonaldehyde (2-butenal)	4.82E+00	9.56E-02	1.07E-05	3.69E+04	7.99E-04	1.95E-05	25	375.20	568.00	9	5.4E-04	0.0E+00	7.01E+01	X	
124481	Chlorodibromomethane	6.31E+01	1.96E-02	1.05E-05	2.60E+03	3.20E-02	7.81E-04	25	416.14	678.20	5,900	**2.7E-05**	7.0E-02	2.08E+02	X	X
126987	Methacrylonitrile	3.58E+01	1.12E-01	1.32E-05	2.54E+04	1.01E-02	2.46E-04	25	363.30	554.00	7,600	0.0E+00	7.0E-04	6.71E+01		
126998	2-Chloro-1,3-butadiene (chloropren	6.73E+01	8.58E-02	1.03E-05	2.12E+03	4.91E-01	1.20E-02	25	332.40	525.00	8,075	0.0E+00	7.0E-03	8.85E+01		
127184	Tetrachloroethylene	1.55E+02	7.20E-02	8.20E-06	2.00E+02	7.53E-01	1.84E-02	25	394.40	620.20	8,288	**5.9E-06**	**3.5E-02**	1.66E+02		
129000	Pyrene	1.05E+05	2.72E-02	7.24E-06	1.35E+00	4.50E-04	1.10E-05	25	667.95	936	14370	0.0E+00	1.1E-01	2.02E+02		X
132649	Dibenzofuran	5.15E+03	2.38E-02	6.00E-06	3.10E+00	5.15E-04	1.26E-05	25	560	824	66400	0.0E+00	1.4E-02	1.68E+02		X
135988	sec-Butylbenzene	9.66E+02	5.70E-02	8.12E-06	3.94E+00	5.68E-01	1.39E-02	25	446.5	679	88730	0.0E+00	1.4E-01	1.34E+02		X
141786	Ethylacetate	6.44E+00	7.32E-02	9.70E-06	8.03E+04	5.64E-03	1.38E-04	25	350.26	523.3	7633.66	0.0E+00	3.2E+00	8.81E+01		X
156592	cis-1,2-Dichloroethylene	3.55E+01	7.36E-02	1.13E-05	3.50E+03	1.67E-01	4.07E-03	25	333.65	544	7192	0.0E+00	3.5E-02	9.69E+01		X
156605	trans-1,2-Dichloroethylene	5.25E+01	7.07E-02	1.19E-05	6.30E+03	3.84E-01	9.36E-03	25	320.85	516.5	6717	0.0E+00	7.0E-02	9.69E+01		X
205992	Benzo(b)fluoranthene	1.23E+06	2.26E-02	5.56E-06	1.50E-03	4.54E-03	1.11E-04	25	715.9	969.27	17000	**1.1E-04**	0.0E+00	2.52E+02	X	
218019	Chrysene	3.98E+05	2.48E-02	6.21E-06	6.30E-03	3.87E-03	9.44E-05	25	714.15	979	16455	**1.1E-05**	0.0E+00	2.28E+02	X	
309002	Aldrin	2.45E+06	1.32E-02	4.86E-06	1.70E-02	6.95E-03	1.70E-04	25	603.01	839.37	15000	**4.9E-03**	1.1E-04	3.65E+02		X
319846	alpha-HCH (alpha-BHC)	1.23E+03	1.42E-02	7.34E-06	2.00E+00	4.34E-04	1.06E-05	25	596.55	839.36	15000	**7.7E-04**	0.0E+00	2.91E+02		
541731	1,3-Dichlorobenzene	1.98E+03	6.92E-02	7.86E-06	1.34E+02	1.27E-01	3.09E-03	25	446	684	9230.18	0.0E+00	1.1E-01	1.47E+02		X
542756	1,3-Dichloropropene	4.57E+01	6.26E-02	1.00E-05	2.80E+03	7.24E-01	1.77E-02	25	381.15	587.38	7900	**1.6E-05**	2.0E-02	1.11E+02		
630206	1,1,1,2-Tetrachloroethane	1.16E+02	7.10E-02	7.90E-06	1.10E+03	9.90E-02	2.41E-03	25	403.5	624	9768.282525	7.4E-06	1.1E-01	1.68E+02		X
1634044	MTBE	7.26E+00	1.02E-01	1.05E-05	5.10E+04	2.56E-02	6.23E-04	25	328.3	497.1	6677.66	**2.6E-07**	3.0E+00	8.82E+01		
7439976	Mercury (elemental)	5.20E+01	3.07E-02	6.30E-06	2.00E+01	4.40E-01	1.07E-02	25	629.88	1750	14127	0.0E+00	**9.0E-05**	2.01E+02		