AUGEAS

June 9, 1995

Mr. Barney Chan
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

RE: Request for Technical Reports for Subsurface Investigation at Young's Cleaners, 10700 MacArthur Boulevard, Oakland

Dear Mr. Chan:

Thank you for speaking with me on June 7, 1995 concerning Young's Cleaners. Pursuant to your correspondence dated May 3, 1995, I have enclosed the following two technical reports for the Young's Cleaners site:

(1) The quarterly ground water monitoring report for existing wells AMW-1 through AMW-3.

(2) The monitoring well installation report for the installation of wells AMW-4 and AMW-5;

The enclosed documents are responsive to the first two questions posed in your May 3 correspondence. Concerning your third request for a time schedule for the excavation activities proposed in our December, 1994 report, the excavation will occur immediately upon authorization from our client.

Concerning the additional data discussed at the pre-enforcement hearing, we will install the additional well you requested. Its location is midway down the brick walkway shown in Figure 2 of the enclosed Subsurface Investigation Report. We have recommended to our client the installation of another well in this vicinity. This well's purpose is to investigate the ground water conditions in the deeper aquifer that has been identified by ARCO in several of their reports. Analyses of ground water samples collected from both the shallow and the deep aquifers in this vicinity will deny or confirm the extent of contamination of these aquifers by PCE from Young's Cleaners. The data generated from these additional wells will answer the questions relevant to the existing PCE contamination in and around ARCO's site. This was the main issue debated during the pre-enforcement hearing in March.

Therefore, we reserve the right to submit our interpretation of the site, its hydrogeology, and the contamination of its soil and ground water after these data are collected and incorporated into our model. Any professional opinion absent these data would be incomplete and so speculative in nature as to confuse rather than clarify the issues.

Please call me at (415) 726-7700 if you have any questions. Your continued courtesy and professionalism are appreciated.

Sincerely,

Charles D. Conway

Charles D. Conway, R.G.
Augeas Corporation

w/enclosures

cc: Client, w/o enclosures
Gil Jensen, District Attorney, w/o enclosures
John Kaiser, RWQCB, San Francisco Bay Region, with enclosures

AUGEAS

Subsurface Investigation Report

for

Young's Cleaners
Foothill Square Shopping Center
10700 MacArthur Boulevard, #9
Oakland, Calfornia

June, 1995

Augeas Corporation
P.O. Box 940
780 Purissima Street
Half Moon Bay, CA 94019
Telephone: (415) 726-7700
Facsimile: (415) 726-1217

AUGEAS

This report was prepared under the supervision of a registered geologist. All statements, conclusions and recommendations are based solely upon field observations and informational reviews related to work performed by Augeas Corporation.

Site conditions are subject to change with time; therefore, our conclusions result only from the interpretation of present conditions and available site information. This report was prepared in accordance with accepted professional standards and technical procedures as certified below.

Reviewed by:

Charles D. Conway

Charles D. Conway, R.G. 4530
Chief Project Geologist

REGISTERED GEOLOGIST
CHARLES D. CONWAY
No. 4530
STATE OF CALIFORNIA

June 9, 1995
Date

AUGEAS

1.0 INTRODUCTION

The subject property (site) is located at 10700 MacArthur Boulevard, Unit #9, Oakland, California. The site location is shown on Figure 1, "Site Location Map". Figure 2, "Site and Boring Location Plan", shows the footprints of existing buildings and the locations of on-site wells related to this investigation. This report describes the activities and results of the field investigation performed at the site from December 1994 until May, 1995. All of the work to date has been performed in accordance with a County-approved Phase II work plan prepared in August, 1994 by Augeas Corporation, and with subsequent directives of the Alameda County Health Care Services Agency.

1.1 Purpose and Scope of Work

The purpose of this investigation was to continue to assess the lateral and vertical extent of soil and ground water contamination caused by the release of chlorinated volatile organic compounds suspected to have originated from the operation of a dry cleaner located on the shopping center property in accordance with Alameda County Health Care Services Agency (ACHSA) directives.

2.0 SITE BACKGROUND

2.1 Regional Geology and Hydrogeology

The site is located within the East Bay plain, situated in the San Francisco Bay depression. The entire region is part of an irregular downdropped block bordered by northwest-trending faults (Alameda County Flood Control and Water Conservation District [ACFCWCD], 1988). The site is located about 1/2 mile west of the Hayward fault zone, the principal fault in the area. According to recent geologic mapping (USGS, 1991), the subsurface soils in the vicinity consist of permeable Pleistocene alluvium derived from the erosion of bedrock underlying the foothills of the Diablo Range (Oakland Hills) and deposited as coalescing alluvial fans (ACFCWCD, 1988). This alluvium consist of clayey silts with layers of sandy gravels that were deposited in ancient stream channels.

AUGEAS

The topography in the area slopes generally westward toward San Francisco Bay, and the direction of ground water flow in the area is generally believed to be westward, although local anomalous northward and eastward ground water flow directions have been documented (RESNA, 1993). These are believed to be related to the presence of recharge areas or ground water flow barriers along the nearby Hayward fault (EMCON, 1994).

2.2 History

Aerial photographs and site use records indicate that the site has been in continuous commercial use since the early 1900's. The site was used for a truck manufacturing plant from about 1916 until 1960, when development of the property as a shopping center began.

A dry cleaning plant has operated at the current location of Young's Cleaners since 1962. Young's Cleaners itself has operated at this site since 1984. In December, 1980, the cleaners was placed on the CALSITES list for further evaluation. On October 1, 1993, Augeas Corporation contacted Mr. Don Cox, Unit Chief, Site Mitigation Branch, Site Evaluation Unit, Department of Toxic Substances Control, Berkeley, California concerning the status of the investigation. Mr. Cox indicated that the original site inspection "checklist" that had been filed showed that the site had been placed on the CALSITES list because of its classification as a generator of hazardous wastes, and not because of any identified contamination problems.

2.3 Previous Work

In January 1989, Western Geologic Resources (WGR) was contracted by a prospective purchaser of the shopping center to install five monitoring wells in order to characterize subsurface conditions. Three of these wells (WGR MW-2 and WGR MW-3) are identified on Figure 2. Ground water samples have been collected regularly from WGR MW-3, located near the ARCO station (Figure 2), since 1991. This well has been monitored in conjunction with an on-going soil and ground water investigation at the ARCO station (Figure 2). Ground water samples have also been collected from WGR MW-2, located about 100 feet west of the dry cleaners.

AUGEAS

Ground water samples collected from WGR MW3 have contained detectable concentrations of benzene and chlorinated solvents during each monitoring event of record (RESNA, 1993; Augeas Corporation, 1994). None of the ground water samples collected from well WGR MW-2 have contained detectable contaminant concentrations (Augeas Corporation, 1994).

RESNA, Inc. (RESNA) has been investigating the ARCO station since 1991 to define the extent of gasoline contamination resulting from leakage of petroleum fuels. ARCO reported that they installed a soil vapor extraction system at the station in 1992, and that this site has been under active remediation since then (RESNA, 1992, 1994).

Chlorinated solvents have been detected in several soil borings and wells on both sides of the property line separating ARCO from the Foothill Square property (RESNA, 1992). On March 23, 1993, Alameda County Health Care Services Agency (ACHSA) requested a site investigation to define the extent of perchloroethylene (PCE) contamination discovered on the shopping center site by ARCO while investigating its own contaminant release from their underground tanks. The correspondence from ACHSA implied that the PCE detected in ARCO's wells on the Foothill Square property came from the shopping center.

2.4 Previous Site Investigations by Augeas Corporation

To verify the source and extent of PCE in the soil and ground water originating from the dry cleaner, Augeas Corporation submitted a Work Plan to ACHSA in August, 1994, to conduct an investigation at the subject site. This investigation, with some additional follow-on investigations, were conducted between September and December of 1994. Based on the report of this investigation (Augeas Corporation, 1994), ACHSA requested an assessment of the full lateral and vertical extent of PCE contamination by installing additional monitoring wells and borings. Full details of the previous site investigation are contained in the December, 1994 report.

AUGEAS

3.0 FIELD ACTIVITIES

Augeas Corporation's field work at the subject site during the current phase of investigation consisted of the following:

- Install two additional monitoring wells, AMW-4 and AMW-5, to 25 feet and 30 feet, respectively, below grade, and collect soil and grab ground water samples for analysis. Grab ground water samples are defined as those collected directly from ground water that seeps into a borehole or an excavation without first installing a properly screened and developed monitoring well for sample collection. Grab ground water analytical results can be affected by the presence of sediments from the formation and from near surface runoff. They are not generally considered to be as reliable as analytical data from ground water samples collected from properly constructed and developed wells. However, grab ground water analyses are sometimes used as preliminary indicators of the approximate extent of ground water contamination at a site.

- Install a shallow soil boring, B-8, in the pedestrian walkway shown in Figure 2, and collect one soil and one grab ground water sample from it for analysis for the presence of PCE. This boring was originally requested as a monitoring well by the Alameda County Health Services Agency (personal communication, 1995) to assist in assessing the lateral and vertical extent of perchloroethene contamination from the dry cleaners. However, on March 23, 1995, the day we were to install the well, relatively heavy rains and a plugged storm drain caused considerable backup of drainage water at the proposed location of the well. A significant volume of storm water began to enter the hole at about five feet below grade. Augeas Corporation personnel decided at this point not to complete the boring as a well, because of the potential for contaminating the ground water with surface runoff as we deepened the hole. However, we did collect one sample of soil at the depth of the boring, and we collected a grab ground water sample for analysis for the presence of dry cleaning solvents. Augeas Corporation plans to return to the site to complete this boring as a well as soon as we can arrange it with our client.

AUGEAS

- Develop wells AMW-4 and AMW-5, and collect ground water samples for analysis.

The locations of the additional wells and the soil boring are presented in Figure 2, "Site and Boring Location Plan". The field locations of the wells and the shallow soil boring with respect to the footprint of the buildings and the property line were established by a licensed land surveyor. The MSL elevations of the well casings were also established by a licensed land surveyor, and they were referenced to a local benchmark.

3.1 Rationale for Placement of the Wells and the Soil Boring

Wells AMW-4 and AMW-5 were located to further identify the lateral extent of soil and ground water contamination from the past operations of Young's Dry Cleaners. They were placed as shown, in the downstream flow direction of the sewer main plotted on Figure 2. These locations were selected, because we know from past experience at this and at other dry cleaner sites that operators sometimes dispose of their waste solutions into the sanitary sewer. The sewer then becomes a conduit to channel waste water flow from the cleaners away from the discharge site. However, since many sewer lines leak, the contaminant can sometimes be transported through the sewer line and into the subsurface for significant distances away from the cleaner site.

From available analytical data, ground water from wells AMW-2, AMW-3, and AMW-4, located at the front of the dry cleaners, contain detectable concentrations of PCE above its maximum contaminant level. However, soil and ground water samples collected from well AMW-1, and ground water samples collected from well WGR-MW-2 (Augeas Corporation, 1994, and this report), both located at the rear of the dry cleaners (Figure 2), contain no detectable PCE. Relatively little contaminant data are available between the wells at the front and the back. Boring B-8 was located to provide analytical data to cover the approximately 150-ft gap between the wells at the front and at the rear of the dry cleaners (Figure 2). As we discussed in the preceding section, we plan to install a monitoring well where B-8 is now located in order to provide more complete soil and ground water analytical data.

AUGEAS

3.2 Drilling Permits and Utility Clearance

In accordance with the Alameda County Zone 7 Water Agency regulations, Augeas Corporation obtained soil boring installation permits for wells AMW-4 through AMW-5. Copies of the permits are enclosed in Appendix A.

About one week prior to drilling, Augeas Corporation personnel visited the site and marked the boring locations on the ground. Underground Service Alert (USA) was then notified to help identify and locate public utilities in the areas to be investigated. We also obtained the services of a private utility locator to further identify utilities that USA could have overlooked and to clearly locate the center line of the sewer main down the mall.

3.3 Soil Boring and Well Installation

Ground water monitoring wells AMW-4 and AMW-5 were installed on March 22, 1995. Boring logs and construction details for the monitoring wells are presented in Appendix A. The wells were installed by Gregg Drilling, Inc., of Martinez, California. An Augeas Corporation geologist was present during drilling to assist in obtaining relatively undisturbed samples of the subsurface materials, to maintain a log of borings, to field screen samples with a device capable of detecting volatile organic hydrocarbons as a trace gas, and to make observations of the site conditions.

3.4 Soil Sampling

Drilling soil borings and wells were performed utilizing a limited access track-mounted drill rig equipped with continuous flight hollow-stem augers. The augers were steam-cleaned prior to drilling each borehole to reduce the possibility of introducing down-hole or cross-hole contamination. The cuttings generated from the drilling and water generated from the steam cleaning operation were placed in DOT approved 55-gallon drums and left at the site pending permanent disposal.

Soils were sampled at approximately 5-foot vertical intervals commencing at an approximate depth of five feet below the existing grade. Samples were obtained by

AUGEAS

means of a California Modified sampler which was lined with stainless steel sleeves. The samples were advanced by blows from a pneumatic hammer designed for the limited access drill rig.

The samples were promptly sealed in their stainless steel sleeves with Teflon(TM) sheeting and covered with plastic end caps. The end caps were secured to the sleeves with adhesive tape. The samples were labeled and placed in a cooled ice chest for transport to a California-certified analytical laboratory for chemical testing. A chain of custody record, initiated in the field, accompanied each shipment of samples to the laboratory. Copies of the completed chain of custody records for the samples are presented in Appendix B.

Soils encountered during drilling were logged and classified according to the Unified Soil Classification System. Samples were inspected for visual or olfactory evidence of contamination, including product discoloration and/or noticeable product odor.

A hand-held photo ionization detector (PID) calibrated for sensitivity to the presence of chlorinated volatile organics was used to measure the organic vapor concentrations in soil samples from each interval as a pre-screening device. The PID readings and olfactory evidence at each depth are summarized in the right-hand columns of the boring logs.

The procedure used to measure the organic vapor concentrations in air involved removing at least 50 grams of soil from the center of the sample sleeve located adjacent to the sleeve selected for laboratory analysis, placing the soil in a plastic zip lock bag, sealing the bag, and allowing the sample to sit in the sunlight for at least 15 minutes. The bag was then punctured with the probe tip of the PID detector to assess potential relative concentrations of volatile constituents. This procedure is commonly known as "head space analysis".

All of the ground water and soil samples collected were submitted to Hull Development Labs, Inc., a State-certified analytical laboratory in San Jose, to be analyzed for the presence of chlorinated volatile organic compounds by EPA Method 8010. This analysis is sensitive to the presence of perchloroethene (PCE), which is the dry cleaning solvent known to have been in use at the subject site, and the only

AUGEAS

contaminant we detected in significant concentrations during our past investigations (Augeas Corporation, 1994).

3.5 Ground Water Sampling

The newly installed wells were developed and sampled on May 15, 1995. They were initially developed by surging them with a 1.5-inch-diameter stainless steel bailer to loosen sediment that had accumulated during installation in order to improve ground water production. They were then purged until the water quality parameters of temperature, electrical conductance, and pH had stabilized. This procedure helps ensure that the samples represent water freshly derived from the formation. All purge water was secured on site in DOE-approved, labeled storage drums pending proper disposal.

Well AMW-4 was surged and then purged of about 8 well volumes of water (60 liters) before it was sampled. Well AMW-5 was surged with the stainless steel bailer, and then it was also purged of about 8 well volumes (80 liters) of water before sampling it. The water quality parameters in both wells had stabilized before they were sampled. Ground water sampling field logs for these wells are presented in Appendix B.

4.0 GEOLOGIC AND HYDROGEOLOGIC CONDITIONS

The logs of the wells and soil borings (Appendix A) indicate that wells AMW-4 and AMW-5 are installed in a fine grained substrate consisting primarily of silty clay.

The depths to ground water and the surveyed elevations of the well heads indicate that wells AMW-4 and AMW-5 are installed in the same aquifer as wells AMW-2 and AMW-3. The depths to ground water and the surveyed elevations of wells AMW-1 and WGR-MW-2 (Augeas Corporation, 1994, and current data) suggest that these wells are installed in a separate, deeper aquifer from wells AMW-2 through AMW-5. We will be better able to comment in detail on the possible implications of this finding after we have installed the well originally proposed for the location of existing boring B-8 (Figure 2). We will present a detailed discussion

AUGEAS

of the ground water elevations and their implications for the hydrogeologic regime at the subject site under separate cover.

5.0 LABORATORY SAMPLE ANALYSES

Soil and ground water analytical results obtained are presented in Tables 1 and 2, "Summary of Soil Analytical Results", and "Summary of Ground Water Analytical Results" respectively. Certified analytical reports and chain of custody documentation for soil and ground water samples are presented in Appendix B.

In the following discussion, we will refer to "high" concentrations of volatile organic compounds in soil as those at or above 1.0 part per million (ppm) by weight, and "low" concentrations as those below 1.0 ppm. The basis for this distinction is the informal guideline developed by the State Regional Water Quality Control Board (RWQCB), San Francisco Bay Region, in Oakland. Currently, the RWQCB will generally allow soil affected with less than 1 ppm of volatile organic compounds to remain in place.

5.1 Discussion of Analytical Results

5.1.1 Soil

By the definition of high soil contamination discussed above, none of the soil samples analyzed from wells AMW-4 or AMW-5 are considered to contain high concentrations of contaminants (Table 1). The distribution of the VOCs in the soil shows that the most significant contamination at the subject site is centered in the vicinity of the sanitary sewer line at five feet below grade (AMW-4), but that at a greater distance from the sewer line (AMW-5), detectable PCE concentrations still occur.

5.1.2 Ground Water

Shown in Table 2, analytical data from the wells show that the ground water is most affected in the vicinity of the sanitary sewer line (AMW-4). Downstream and away

AUGEAS

from the main sewer line (AMW-5), the aqueous PCE concentrations are significantly lower. The ground water sample collected from AMW-4 contains PCE at a concentration approximately 480 times the maximum contaminant level of 5 µg/L for PCE defined by the State.

6.0 CONCLUSIONS

Our conclusions, based upon this site investigation, are summarized as follows:

- The ground water in well AMW-4 has been impacted with PCE at a concentration above the State maximum contaminant level.
- The vertical and horizontal distribution of PCE in soil and ground water at the subject site suggests that much of the contamination originated from disposal of PCE into the sanitary sewer system.

These conclusions are supported by correlation of laboratory data and field data obtained from soil and ground water samples collected during this and other site investigations at the shopping center.

7.0 RECOMMENDATIONS

Augeas Corporation's recommendations are summarized below as follows:

- Remove the shallow contaminated soil near the dry cleaners by excavation. This will remove the primary contaminant source, and we believe that it will result in significant improvement of ground water quality over time;
- Conduct confirmatory soil sampling while the excavation work is in progress to verify that the lateral and vertical extents of contamination have been defined;
- Install additional monitoring well in the location of existing boring B-8, as previously proposed, to assess soil and ground water conditions in this part of the site. The installation of an additional well at this location will also enhance

AUGEAS

our understanding of the relatively complex hydrogeologic conditions at the subject site;

- Continue quarterly monitoring of site-associated wells. Ground water samples collected from these wells will document improvements in ground water conditions after the contaminated soil has been removed.

Table 1, Summary of Soil Analytical Results

EPA Method 8010
(all results expressed in micrograms per kilogram)

Young's Cleaners
Foothill Square Shopping Center
10700 MacArthur Boulevard
Oakland, CA

Sample Identification	Sample Date	Analysis Date	Tetra-chloroethene (PCE)	Tri-chloroethene	Chloroform	Other* Purgeable Halocarbons
B-8 5.5'-6'	3-23-95	3-23-95	<0.5	<0.5	<0.5	ND
AMW-4 5.5'-6'	3-22-95	3-23-95	870	<0.5	24	ND
AMW-4 10.5'-11'	3-22-95	3-23-95	13	<0.5	<0.5	ND
AMW-4 15.5'-16'	3-22-95	3-23-95	7.5	<0.5	<0.5	ND
AMW-4 20.5'-21'	3-22-95	3-23-95	5.3	<0.5	<0.5	ND
AMW-4 25.5'-26'	3-22-95	3-23-95	<0.5	21	<0.5	ND
AMW-5 5.5'-6'	3-22-95	3-23-95	1.1	<0.5	1.2	ND
AMW-5 10.5'-11'	3-22-95	3-23-95	<0.5	<0.5	1.2	ND
AMW-5 15.5'-16'	3-22-95	3-23-95	<0.5	<0.5	1.6	ND
AMW-5 20.5'-21'	3-22-95	3-23-95	<0.5	<0.5	1.4	ND
AMW-5 25.5'-26'	3-22-95	3-23-95	<0.5	<0.5	1.5	ND
AMW-5 30.5'-31'	3-22-95	3-23-95	<0.5	<0.5	1.2	ND

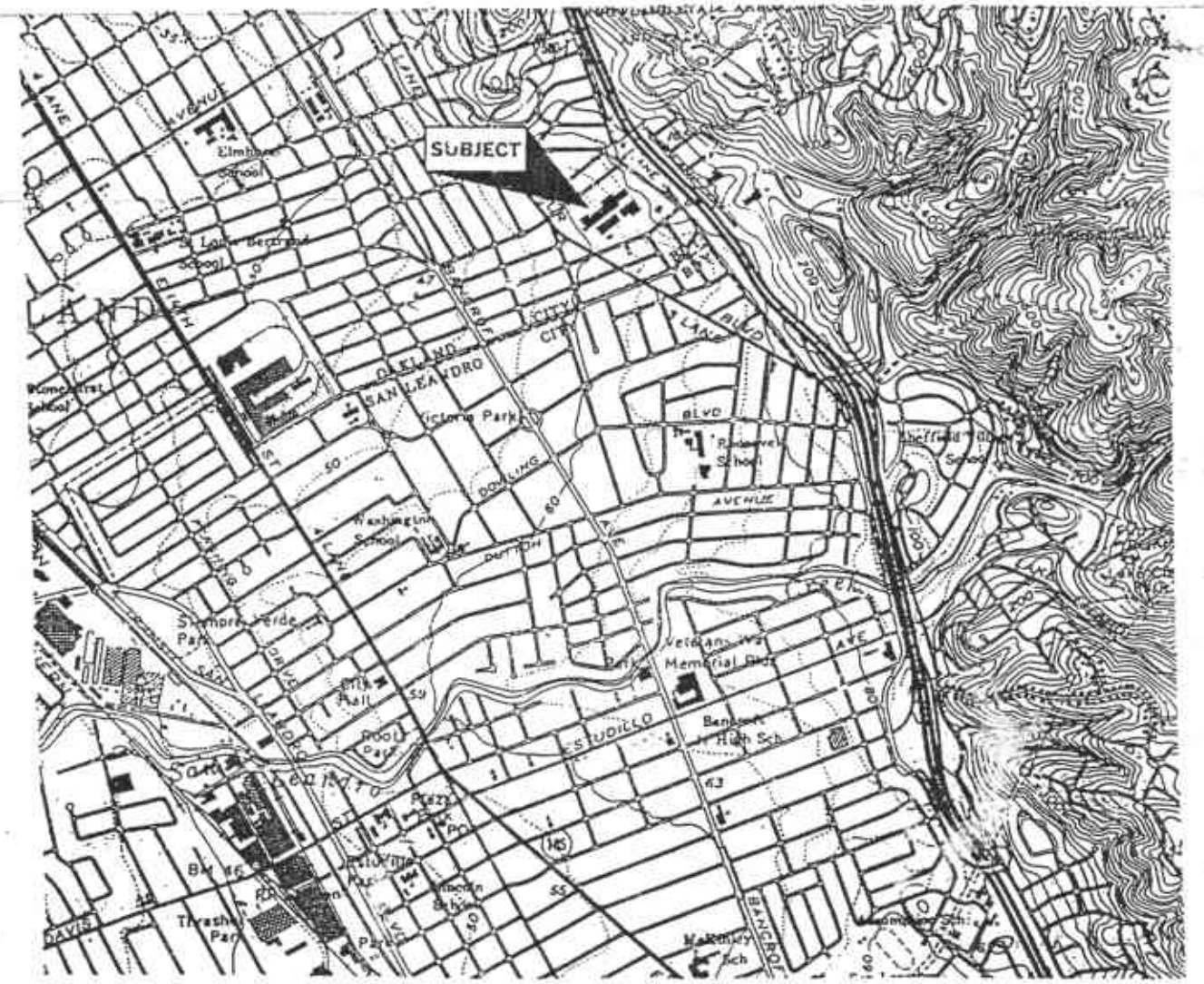
Table 2, Summary of Ground Water Analytical Results

EPA Method 8010
(all results expressed in micrograms per liter)

Young's Cleaners
Foothill Square Shopping Center
10700 MacArthur Boulevard
Oakland, CA

Sample Identification	Sample Date	Analysis Date	Tetra-chloroethene (PCE)	Tri-chloroethene	Chloroform	Other* Purgeable Halocarbons
AMW-4 (Grab Sample)	3/22/95	3/23/95	33	<0.5	<0.5	ND
AMW-4 (Developed Well)	5/15/95	5/18/95	2,400	<0.5	<0.5	ND
AMW-5 (Grab Sample)	3/22/95	3/23/95	1.2	<0.5	<0.5	ND
AMW-5 (Developed Well)	5/15/95	5/18/95	1.2	<0.5	<0.5	ND
B-8 (Grab Sample)	3/23/95	3/24/95	1.1	<0.5	<0.5	ND

ND : Non-Detect
*Note: Please see analytical reports for specific compounds and detection limits.



SCALE 1:24 000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

SAN LEANDRO, CALIF.

NW/4 HAYWARD 15' QUADRANGLE

N3737.5—W12207.5/7.5

1959

PHOTOREVISED 1980

DMA 1559 II NW-SERIES V895

QUADRANGLE LOCATION

AUGEAS CORPORATION	Figure 1 - Site Location Map
	Site Address - 10700 MacArthur Boulevard, Oakland, California

AUGEAS

APPENDIX A

Well Permits
Boring Logs
Well Construction Details

A[illegible] COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE [illegible] PLEASANTON, CALIFORNIA 94588-5127 PHONE (510) 484-2600 FAX (510) 462-3914

[illegible]

Augeas Corporation
780 Purissima Street
Half Moon Bay, CA 94019

Gentlemen:

Enclosed is drilling permit 95149 for a monitoring well construction project at 10700 MacArthur Boulevard in Oakland [illegible] Richard Gilcrease.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the wo[illegible] The report should include drilling and completion logs, [illegible] sketch [illegible]

If you have any questions, please contact Wyman Hong at [illegible] 235 or me at extension 233.

Very truly yours,

Craig A. Mayfield

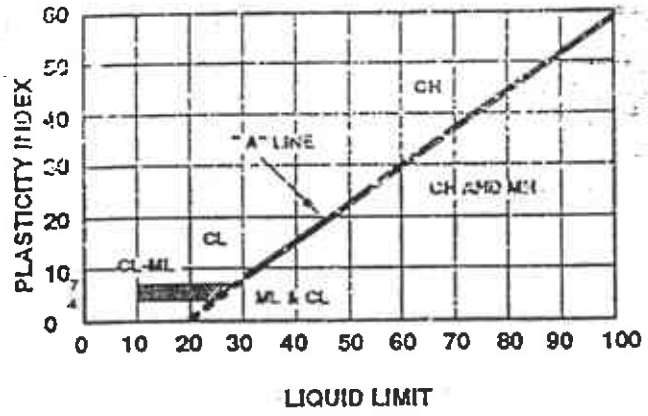
Craig A. Mayfield
Water Resources Engineer III

WH:mm
Enc.

SAMPLE CLASSIFICATION CHART

UNIFIED SOIL CLASSIFICATION SCHEME			
MAJOR DIVISIONS		SYMBOLS	TYPICAL NAMES
COARSE GAINED SOIL (More than 1/2 of soil >no. 200 sieve size)	GRAVELS (More than 1/2 of coarse fraction > no. 4 sieve size)	GW	Well-graded gravels and gravel and mixtures, little or no fines
		GP	Poorly-graded gravel or gravel-sand mixtures, little or no fines
		GM	Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
	SAND (More than 1/2 of coarse fraction < no. 4 sieve size)	SW	Well-graded sands or gravelly sands, little or no fines
		SP	Poorly-graded sands or gravelly sands, little or no fines
		SM	Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
FINE GAINED SOIL (More than 1/2 of soil <no. 200 sieve size)	SILTS & CLAYS Liquid Limit < 50	ML	Inorganic silts and very fine sands, rock flour, silty or clayey, fine sands or clayey silts with slight plasticity
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
		OL	Organic silts and organic silty clays of low plasticity
	SILTS & CLAYS Liquid Limit > 50	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS		Pt	Peat and other highly organic soils

PLASTICITY CHART



GRAIN SIZE CLASSIFICATION		
CLASSIFICATION	RANGE OF GRAIN SIZES	
	U.S. Standard Sieve Size	Grain Size in Millimeters
BOULDERS	Above 12"	Above 305
COBBLES	12" to 3"	305 to 76.2
GRAVEL coarse (c) fine (f)	3" to No. 4 3" to 3/4" 3/4" to No. 4	76.2 to 4.76 76.2 to 19.1 19.1 to 4.76
SAND coarse (c) medium (m) fine (f)	No. 4 to No. 200 No. 4 to No. 10 No. 10 to No. 40 No. 40 to No. 200	4.76 to 0.074 4.76 to 2.00 2.00 to 0.420 0.420 to 0.074
SILT & CLAY	Below No. 200	Below 0.074

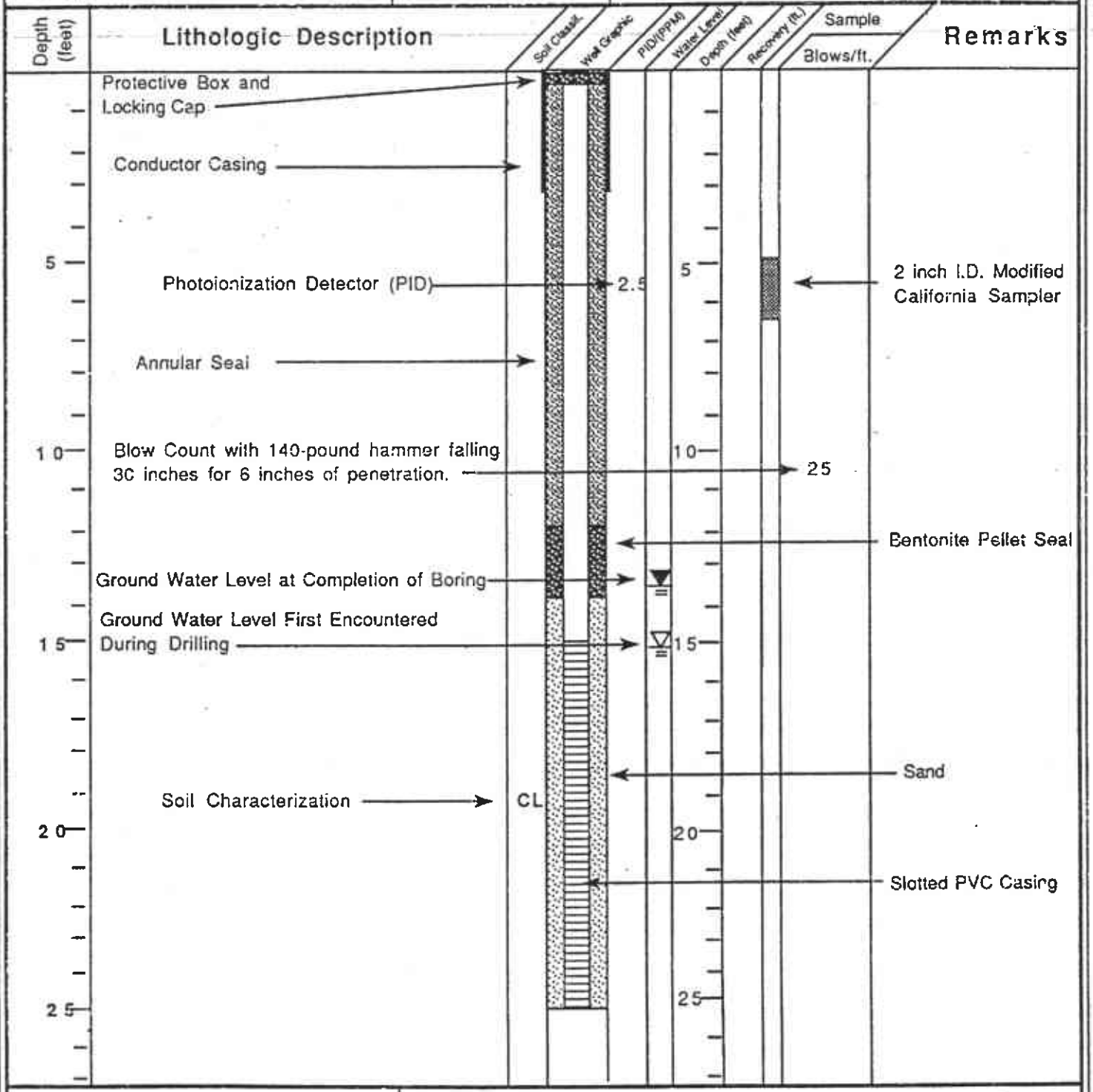
SOIL CONSISTENCY/RELATIVE DENSITY				
SILT, SAND AND GRAVEL	BLOWS/FT	SILT OR CLAY	UNCONFINED COMPRESSIVE STRENGTH (psf)	THUMB PENETRATION
Very loose	<4	Very Soft	< 500	Very easily - inches
Loose	5-10	Soft	500 - 1000	Easily - inches
Medium Dense	11-30	Medium (firm)	1000 - 2000	Moderate effort - inches
Dense	31-50	Stiff	2000 - 4000	Indented easily
Very Dense	>50	Very Stiff	4000 - 8000	Indented by nail
		Hard	> 8000	Difficult by nail

CLASSIFICATION MODIFIERS	
TRACE	0 - 10%
LITTLE	10 - 20%
SOME	20 - 35%
AND	35 - 50%
± MODIFIERS	

Augeas Corporation

FIGURE:

Project: WELL CONSTRUCTION DETAIL		Well I.D.:	Page: of
Drilling Agency:	Driller:	Date Started:	Date Finished:
Drilling Equipment:	Logged By:	Completion Depth:	Hammer:
Drilling Method:	Drill Bit (Dia.):	No. of Samples:	Sampler:
Size/Type of Casing:	Water Depth: First encountered:		at Completion:
Type of Perforation:	From: to	Annular seal: from:	to
Size/Type of Pack:	From: to	Bentonite seal: from:	to



AUGEAS CORPORATION	Site Address:

Project: Young's Cleaners		Well I.D.: AMW-4	Page: 1 of 1
Drilling Agency: Gregg Drilling Co.	Driller: Ted	Date Started: 3-22-95	Date Finished: 3-22-95
Drilling Equipment: Limited Access	Logged By: C. Conway	Completion Depth: 25'	Hammer: pneumatic
Drilling Method: HSA	Drill Bit (Dia.): 7" .	No. of Samples: 5	Sampler: Cal Mod .
Size/Type of Casing: 2" PVC .	Water Depth: First encountered: 15 feet	at Completion: 13.6 feet	
Type of Perforation: 0.020"	From: 15' to 25'	Annular seal: from: 0' to 12'	
Size/Type of Pack: 2/12 Sand	From: 14' to 25'	Bentonite seal: from: 12' to 14'	

Depth (feet)	Lithologic Description	Soil Classif.	PID/(PPM)	Depth (feet)	Recovery (ft.)	Sample Blows/ft.	Remarks
	3" to 4" concrete slab						
5	Light brown silty clay (CL), moist, sticky to six feet; below six feet; dark gray silty clay; moist; sticky; organic odor.	CL	2.5	5	1.5		Driller reported first water at approximately 15 feet.
10	Light brown silty clay (CL), moist, sticky to 11'; below 11', medium brown silty clay, trace sand.	CL	0	10	1.5		
15	Light brown clay (CL-CH); moist; soft; sticky; medium to high plasticity; trace sand.	CL-CH	0	15	1.5		
20	Light brown clayey silt (ML); moist; low plasticity; stiff.	ML	0	20	1.5		
	Light brown silty clay; very moist; low plasticity to 23.5 feet; Below 23.5 feet; silty sand.	CL	0		1.5		
25	Base of Boring at 25 ft.	SP		25			Base of boring at 25' 3/22/95

AUGEAS CORPORATION

Site Address: 10700 MacArthur Blvd., Oakland, CA

Project: Young's Cleaners		Well I.D.: AMW-5	Page: 1 of 1
Drilling Agency: Gregg Drilling Co.	Driller: Ted	Date Started: 3-22-95	Date Finished: 3-22-95
Drilling Equipment: Limited Access	Logged By: C. Conway	Completion Depth: 30'	Hammer: pneumatic
Drilling Method: HSA	Drill Bit (Dia.): 7" .	No. of Samples: 6	Sampler: Cal Mod .
Size/Type of Casing: 2" PVC	Water Depth: First encountered: 20 feet	at Completion: 20 feet	
Type of Perforation: 0.020"	From: 20' to 30'	Annular seal: from: 0' to 17.5'	
Size/Type of Pack: 2/12 Sand	From: 19' to 30'	Bentonite seal: from: 17.5' to 19'	

Depth (feet)	Lithologic Description	Soil Classif.	PID/(PPM)	Depth (feet)	Recovery (ft.)	Sample Blows/ft.	Remarks
	3"-4" Concrete Slab						
5	Medium brown silty clay (CL); moist; trace sand; sticky to 6.2 feet; below 6.2 feet dark brown silty clay (CL); moist; trace coarse to medium sand.	CL	0	5	1.5		
10	Dark brown silty clay (CL); moist; trace roots to 11 feet; below 11 feet light brown silty clay; moist; medium plasticity.	CL	2.5	10	1.5		
15	Light to medium brown silty clay (CL); moist; medium plasticity.	CL	0	15	1.5		
20	Yellowish brown silty clay (CL); wet; sticky; trace burrows.	CL	2.5	20	1.5		Driller reports water at 20 feet because of softer drilling.
25	Yellowish brown silty clay (CL); moist to wet; homogeneous; sticky.	CL	0	25	1.5		Base of boring at 30' 3/22/95
	Base of Boring at 30 ft.		0		1.5		

AUGEAS CORPORATION | Site Address: 10700 MacArthur Blvd., Oakland, CA

AUGEAS

APPENDIX B

Ground Water Sampling Field Logs
Chain of Custody
Certified Analytical Reports

Augeas Corporation
Groundwater Sampling Field Log

Project Name/ No: Young's Cleaners
Client: JAYPHARES O/ GILCREASE
Project Manager: C COWAN
Sampler: WS
Casing Diameter: 2 inch X 3 inch ____ 4 inch ____ 6 inch ____ Other: ____
Sample Depth (feet): 13.21
Depth of Well (feet): 25.00
Depth to Water (feet): 12.60 12.4 7.6

Lab I.D.: AMW-4
Date: 5-15-95
Sample Location I.D.: AMW-4
Start TIme: 10:15
Calculated Purge Vol. (gal.) 60 L
Actual Purge Vol. (gal.) 60 L
12:10

Field Measurements floaters Ø sinkers Ø no odor/sheen

Time	Cum	Volume (gal.) L	pH (units)	E.C. (umhos/cm)	Temperature Degrees C	Color (visual)	Other
11:27	10	10	7.62	18.89	53.2	Clear	no odor/sheen
11:39	20	10	7.74	18.12	48.3	Silty	
11:46	30	10	7.84	17.97	48.5	Brown	
11:53	40	10	7.91	18.02	49.4	Lt Brown	
12:00	50	10	7.91	18.08	50.1	Clearer	
12:06	60	10	7.96	17.89	50.9	Clearer	

Purge Method

____ 2" Bladder Pump ✓ Bailer (Teflon) ____ Well Wizard ____ Dedicated
____ Submersible Pump ____ Cenetrifugal Pump ____ Dipper ____ Other
____ Pneumatic Displacement Pump

Sample Method

____ 2" Bladder Pump ✓ Bailer (Teflon) ____ Well Wizard ____ Dedicated
____ Surface Sampler ____ Dipper ____ Fultz Pump ____ Other

Well Integrity: Good
Remarks: Purged 8 well volumes, sampled at 80% recovery

Signature: [signature]

Volumes Per Unit Length Selected Well Casing Diameters

Well Casing I.D. (inches)	Volume Per Unit Length Gal/ft	Cubic Ft/ft	L/M	L/Ft
1.5	0.0918	0.0123	1.140	0.3475
2.0	0.1632	0.0218	2.027	0.6178
3.0	0.3672	0.0491	4.560	1.3900
4.0	0.6528	0.0873	8.107	2.4710
6.0	1.4690	0.1963	18.240	5.5600

Conversion Factors

To Convert	Into	Multiply
Ft. of Water	Lbs/sq.in.	0.4335
Lbs/Sq. inch	Ft. of Water	2.3070
Cubic feet	Gallons	7.4800
Gallons	Liters	3.7850
Feet	Meters	0.30048
Inches	Centimeters	2.5400

Augeas Corporation
Groundwater Sampling Field Log

Project Name/ No: Yang's Cleaners
Client: _____
Project Manager: C CONWAY
Sampler: WS
Casing Diameter: 2 inch ✓ 3 inch _____ 4 inch _____ 6 inch _____ Other: _____
Sample Depth (feet): 15.21
Depth of Well (feet): 30.32
Depth to Water (feet): 13.71
116.61 x .6178
10.26

Lab I.D.: AMW-5
Date: 5-15-95
Sample Location I.D.: AMW-5
Start TIme: 12:30
Calculated Purge Vol. (gal.) 80 L
Actual Purge Vol. (gal.) _____
floaters = Ø no odor/sh.
sinkers = Ø

Field Measurements

Time	Cum	Volume (gal.)	pH (units)	E.C. x1000 (umhos/cm)	Temperature Degrees C	Color (visual)	Other
12:40	15	15	7.87	2.38	47.9	Clear	No odor
12:52	30	15	8.05	2.50	51.9	Silty br	or well
1:20	33	3	8.04	2.34	51.0		sheen dewatered.
1:36	48	15	8.14	2.52	52.9		
1:48	63	15	7.96	2.57	51.2		
1:50	83	20	8.15	2.43	49.8		well dewatered

2:00 sample

Purge Method

_____ 2" Bladder Pump ✓ Bailer (Teflon) _____ Well Wizard _____ Dedicated
_____ Submersible Pump _____ Cenetrifugal Pump _____ Dipper _____ Other
_____ Pneumatic Displacement Pump

Sample Method

_____ 2" Bladder Pump ✓ Bailer (Teflon) _____ Well Wizard _____ Dedicated
_____ Surface Sampler _____ Dipper _____ Fultz Pump _____ Other

Well Integrity: Good
Remarks: Purged 8 well volumes sampled at 80% recovery

Signature: [signature]

Volumes Per Unit Length Selected Well Casing Diameters

Well Casing I.D. (inches)	Volume Per Unit Length Gal/ft	Cubic Ft/ft	L/M	L/Ft
1.5	0.0918	0.0123	1.140	0.3475
2.0	0.1632	0.0218	2.027	0.6178
3.0	0.3672	0.0491	4.560	1.3900
4.0	0.6528	0.0873	8.107	2.4710
6.0	1.4690	0.1963	18.240	5.5600

Conversion Factors

To Convert	Into	Multiply
Ft of Water	Lbs/sq in.	0.4335
Lbs/Sq. inch	Ft of Water	2.3070
Cubic feet	Gallons	7.4800
Gallons	Liters	3.7850
Feet	Meters	0.30048
Inches	Centimeters	2.5400

Hull Development Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Attn: Charles Conway
Augeas Corporation
780 Purissima
Half Moon Bay, CA 94019

Date:	03/24/95
Date Received:	03/22/95
Date Analyzed:	03/23/95
Lab #:	See Table
Project Name:	Young's Cleaners
Sampled By:	Charles Conway

Certified Analytical Report

Soil Sample Analysis:

Sample ID	*Sample Date*	*Sample Time*	*Lab #*	**Purgeable Halocarbons**
AMW-4, 5.5'-6'	03/22/95	0937	B3485	**894**
AMW-4, 10.5'-11'	03/22/95	0948	B3486	**13**
AMW-4, 15.5'-16'	03/22/95	1003	B3487	**7.5**
AMW-4, 20.5'-21'	03/22/95	1015	B3488	**5.3**
AMW-4, 25.5'-26'	03/22/95	1040	B3489	**21**

1. Above values in µg/kg (ppb)
2. See Organic Analysis Work Sheets for individual compounds, detection limits and analysis dates.
3. Analysis performed by Hull Development Labs, Inc. (CAELAP # 1369).

Test Methods:

Test	*EPA Method #*	*Units*	*Method Detection Limit*
Purgeable Halocarbons	8010	µg/kg	See Work Sheets

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

Hull Development Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Attn: Charles Conway
Augeas Corporation
780 Purissima
Half Moon Bay, CA 94019

Date:	03/24/95
Date Received:	03/22/95
Date Analyzed:	03/23/95
Lab #:	See Table
Project Name:	Young's Cleaners
Sampled By:	Charles Conway

Certified Analytical Report

Water Sample Analysis:

Sample ID	*Sample Date*	*Sample Time*	*Lab #*	**Purgeable Halocarbons**
AMW-4	03/22/95	1125	B3490	33

1. Above values in µg/liter (ppb)
2. See Organic Analysis Work Sheets for individual compounds, detection limits and analysis dates.
3. Analysis performed by Hull Development Labs, Inc. (CAELAP # 1369).

Test Methods:

Test	*EPA Method #*	*Units*	*Method Detection Limit*
Purgeable Halocarbons	8010	µg/liter	See Work Sheets

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

Hull Development Labs, Inc.

Organic Analysis Worksheet: EPA Method #8010

Sample ID:	Augeas
Sample Matrix:	Soil
Lab #:	B3485
Client ID:	AMW-4, 5.5'-6'

Date:	03/24/95
Date Received:	03/22/95
Date Analyzed	03/23/95
Dilution Factor	10

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	**ND**	0.5 ppb	**trans-1,2-Dichloroethene**	**ND**	0.5 ppb
Bromoform	**ND**	1.0 ppb	**1,2-Dichloropropane**	**ND**	0.5 ppb
Bromomethane	**ND**	1.0 ppb	**cis-1,3-Dichloropropene**	**ND**	0.5 ppb
Carbon Tetrachloride	**ND**	0.5 ppb	**trans-1,3-Dichloropropene**	**ND**	0.5 ppb
Chlorobenzene	**ND**	0.5 ppb	**Methylene Chloride**	**ND**	0.5 ppb
Chloroethane	**ND**	1.0 ppb	**1,1,2,2-Tetrachloroethane**	**ND**	0.5 ppb
2-Chloroethyl Vinyl Ether	**ND**	0.5 ppb	**Tetrachloroethene**	**870**	0.5 ppb
Chloroform	24	0.5 ppb	**1,1,1-Trichloroethane**	**ND**	0.5 ppb
Chloromethane	**ND**	1.0 ppb	**1,1,2-Trichloroethane**	**ND**	0.5 ppb
Dibromochloromethane	**ND**	0.5 ppb	**Trichloroethene**	**ND**	0.5 ppb
Dichlorodifluoromethane	**ND**	0.5 ppb	**Trichlorofluoromethane**	**ND**	0.5 ppb
1:2 Dichlorobenzene	**ND**	0.5 ppb	**Vinyl Chloride**	**ND**	1.0 ppb
1:3 Dichlorobenzene	**ND**	0.5 ppb			
1:4 Dichlorobenzene	**ND**	0.5 ppb			
1,1-Dichloroethane	**ND**	0.5 ppb			
1,2-Dichloroethane	**ND**	0.5 ppb			
1,1-Dichloroethene (cis)	**ND**	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	110

1. PQL= Detection Limit x Dilution Factor
2. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
3. This worksheet is an integral part of the Certified Analytical Report for Lab #B3485 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

1149 MINNESOTA AVENUE • SAN JOSE, CALIFORNIA 95125 • (408) 287-1777

Hull Development Labs, Inc.

Organic Analysis Worksheet: EPA Method #8010

Sample ID:	Augeas
Sample Matrix:	Soil
Lab #:	B3486
Client ID:	AMW-4, 10.5'-11'

Date:	03/24/95
Date Received:	03/22/95
Date Analyzed	03/23/95
Dilution Factor	1

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	ND	0.5 ppb	**trans-1,2-Dichloroethene**	ND	0.5 ppb
Bromoform	ND	1.0 ppb	**1,2-Dichloropropane**	ND	0.5 ppb
Bromomethane	ND	1.0 ppb	**cis-1,3-Dichloropropene**	ND	0.5 ppb
Carbon Tetrachloride	ND	0.5 ppb	**trans-1,3-Dichloropropene**	ND	0.5 ppb
Chlorobenzene	ND	0.5 ppb	**Methylene Chloride**	ND	0.5 ppb
Chloroethane	ND	1.0 ppb	**1,1,2,2-Tetrachloroethane**	ND	0.5 ppb
2-Chloroethyl Vinyl Ether	ND	0.5 ppb	**Tetrachloroethene**	13	0.5 ppb
Chloroform	ND	0.5 ppb	**1,1,1-Trichloroethane**	ND	0.5 ppb
Chloromethane	ND	1.0 ppb	**1,1,2-Trichloroethane**	ND	0.5 ppb
Dibromochloromethane	ND	0.5 ppb	**Trichloroethene**	ND	0.5 ppb
Dichlorodifluoromethane	ND	0.5 ppb	**Trichlorofluoromethane**	ND	0.5 ppb
1:2 Dichlorobenzene	ND	0.5 ppb	**Vinyl Chloride**	ND	1.0 ppb
1:3 Dichlorobenzene	ND	0.5 ppb			
1:4 Dichlorobenzene	ND	0.5 ppb			
1,1-Dichloroethane	ND	0.5 ppb			
1,2-Dichloroethane	ND	0.5 ppb			
1,1-Dichloroethene (cis)	ND	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	83

1. PQL= Detection Limit x Dilution Factor
2. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
3. This worksheet is an integral part of the Certified Analytical Report for Lab #B3486 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

1149 MINNESOTA AVENUE • SAN JOSE, CALIFORNIA 95125 • (408) 287-1777

Hull Development Labs, Inc.

Organic Analysis Worksheet: EPA Method #8010

Sample ID:	Augeas
Sample Matrix:	Soil
Lab #:	B3487
Client ID:	AMW-4, 15.5'-16'

Date:	03/24/95
Date Received:	03/22/95
Date Analyzed	03/23/95
Dilution Factor	1

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	ND	0.5 ppb	trans-1,2-Dichloroethene	ND	0.5 ppb
Bromoform	ND	1.0 ppb	1,2-Dichloropropane	ND	0.5 ppb
Bromomethane	ND	1.0 ppb	cis-1,3-Dichloropropene	ND	0.5 ppb
Carbon Tetrachloride	ND	0.5 ppb	trans-1,3-Dichloropropene	ND	0.5 ppb
Chlorobenzene	ND	0.5 ppb	Methylene Chloride	ND	0.5 ppb
Chloroethane	ND	1.0 ppb	1,1,2,2-Tetrachloroethane	ND	0.5 ppb
2-Chloroethyl Vinyl Ether	ND	0.5 ppb	Tetrachloroethene	7.5	0.5 ppb
Chloroform	ND	0.5 ppb	1,1,1-Trichloroethane	ND	0.5 ppb
Chloromethane	ND	1.0 ppb	1,1,2-Trichloroethane	ND	0.5 ppb
Dibromochloromethane	ND	0.5 ppb	Trichloroethene	ND	0.5 ppb
Dichlorodifluoromethane	ND	0.5 ppb	Trichlorofluoromethane	ND	0.5 ppb
1:2 Dichlorobenzene	ND	0.5 ppb	Vinyl Chloride	ND	1.0 ppb
1:3 Dichlorobenzene	ND	0.5 ppb			
1:4 Dichlorobenzene	ND	0.5 ppb			
1,1-Dichloroethane	ND	0.5 ppb			
1,2-Dichloroethane	ND	0.5 ppb			
1,1-Dichloroethene (cis)	ND	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	100

1. PQL= Detection Limit x Dilution Factor
2. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
3. This worksheet is an integral part of the Certified Analytical Report for Lab #B3487 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

1149 MINNESOTA AVENUE • SAN JOSE, CALIFORNIA 95125 • (408) 287-1777

Hull Development Labs, Inc.

Organic Analysis Worksheet: EPA Method #8010

Sample ID:	Augeas
Sample Matrix:	Soil
Lab #:	B3488
Client ID:	AMW-4, 20.5'-21'

Date:	03/24/95
Date Received:	03/22/95
Date Analyzed	03/23/95
Dilution Factor	1

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	ND	0.5 ppb	trans-1,2-Dichloroethene	ND	0.5 ppb
Bromoform	ND	1.0 ppb	1,2-Dichloropropane	ND	0.5 ppb
Bromomethane	ND	1.0 ppb	cis-1,3-Dichloropropene	ND	0.5 ppb
Carbon Tetrachloride	ND	0.5 ppb	trans-1,3-Dichloropropene	ND	0.5 ppb
Chlorobenzene	ND	0.5 ppb	Methylene Chloride	ND	0.5 ppb
Chloroethane	ND	1.0 ppb	1,1,2,2-Tetrachloroethane	ND	0.5 ppb
2-Chloroethyl Vinyl Ether	ND	0.5 ppb	Tetrachloroethene	5.3	0.5 ppb
Chloroform	ND	0.5 ppb	1,1,1-Trichloroethane	ND	0.5 ppb
Chloromethane	ND	1.0 ppb	1,1,2-Trichloroethane	ND	0.5 ppb
Dibromochloromethane	ND	0.5 ppb	Trichloroethene	ND	0.5 ppb
Dichlorodifluoromethane	ND	0.5 ppb	Trichlorofluoromethane	ND	0.5 ppb
1:2 Dichlorobenzene	ND	0.5 ppb	Vinyl Chloride	ND	1.0 ppb
1:3 Dichlorobenzene	ND	0.5 ppb			
1:4 Dichlorobenzene	ND	0.5 ppb			
1,1-Dichloroethane	ND	0.5 ppb			
1,2-Dichloroethane	ND	0.5 ppb			
1,1-Dichloroethene (cis)	ND	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	100

1. PQL= Detection Limit x Dilution Factor
2. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
3. This worksheet is an integral part of the Certified Analytical Report for Lab #B3488 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

1149 MINNESOTA AVENUE • SAN JOSE, CALIFORNIA 95125 • (408) 287-1777

Hull Development Labs, Inc.

Organic Analysis Worksheet: EPA Method #8010

Sample ID:	Augeas
Sample Matrix:	Soil
Lab #:	B3489
Client ID:	AMW-4, 25.5'-26'

Date:	03/24/95
Date Received:	03/22/95
Date Analyzed	03/23/95
Dilution Factor	1

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	ND	0.5 ppb	trans-1,2-Dichloroethene	ND	0.5 ppb
Bromoform	ND	1.0 ppb	1,2-Dichloropropane	ND	0.5 ppb
Bromomethane	ND	1.0 ppb	cis-1,3-Dichloropropene	ND	0.5 ppb
Carbon Tetrachloride	ND	0.5 ppb	trans-1,3-Dichloropropene	ND	0.5 ppb
Chlorobenzene	ND	0.5 ppb	Methylene Chloride	ND	0.5 ppb
Chloroethane	ND	1.0 ppb	1,1,2,2-Tetrachloroethane	ND	0.5 ppb
2-Chloroethyl Vinyl Ether	ND	0.5 ppb	Tetrachloroethene	ND	0.5 ppb
Chloroform	ND	0.5 ppb	1,1,1-Trichloroethane	ND	0.5 ppb
Chloromethane	ND	1.0 ppb	1,1,2-Trichloroethane	ND	0.5 ppb
Dibromochloromethane	ND	0.5 ppb	Trichloroethene	21	0.5 ppb
Dichlorodifluoromethane	ND	0.5 ppb	Trichlorofluoromethane	ND	0.5 ppb
1:2 Dichlorobenzene	ND	0.5 ppb	Vinyl Chloride	ND	1.0 ppb
1:3 Dichlorobenzene	ND	0.5 ppb			
1:4 Dichlorobenzene	ND	0.5 ppb			
1,1-Dichloroethane	ND	0.5 ppb			
1,2-Dichloroethane	ND	0.5 ppb			
1,1-Dichloroethene (cis)	ND	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	83

1. PQL= Detection Limit x Dilution Factor
2. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
3. This worksheet is an integral part of the Certified Analytical Report for Lab #B3489 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

1149 MINNESOTA AVENUE • SAN JOSE, CALIFORNIA 95125 • (408) 287-1777

Hull Development Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Organic Analysis Worksheet: EPA Method #8010

Sample ID:	Augeas
Sample Matrix:	Water
Lab #:	B3490
Client ID:	AMW-4,

Date:	03/24/95
Date Received:	03/22/95
Date Analyzed	03/23/95
Dilution Factor	1

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	**ND**	0.5 ppb	**trans-1,2-Dichloroethene**	**ND**	0.5 ppb
Bromoform	**ND**	1.0 ppb	**1,2-Dichloropropane**	**ND**	0.5 ppb
Bromomethane	**ND**	1.0 ppb	**cis-1,3-Dichloropropene**	**ND**	0.5 ppb
Carbon Tetrachloride	**ND**	0.5 ppb	**trans-1,3-Dichloropropene**	**ND**	0.5 ppb
Chlorobenzene	**ND**	0.5 ppb	**Methylene Chloride**	**ND**	0.5 ppb
Chloroethane	**ND**	1.0 ppb	**1,1,2,2-Tetrachloroethane**	**ND**	0.5 ppb
2-Chloroethyl Vinyl Ether	**ND**	0.5 ppb	**Tetrachloroethene**	**33**	0.5 ppb
Chloroform	**ND**	0.5 ppb	**1,1,1-Trichloroethane**	**ND**	0.5 ppb
Chloromethane	**ND**	1.0 ppb	**1,1,2-Trichloroethane**	**ND**	0.5 ppb
Dibromochloromethane	**ND**	0.5 ppb	**Trichloroethene**	**ND**	0.5 ppb
Dichlorodifluoromethane	**ND**	0.5 ppb	**Trichlorofluoromethane**	**ND**	0.5 ppb
1:2 Dichlorobenzene	**ND**	0.5 ppb	**Vinyl Chloride**	**ND**	1.0 ppb
1:3 Dichlorobenzene	**ND**	0.5 ppb			
1:4 Dichlorobenzene	**ND**	0.5 ppb			
1,1-Dichloroethane	**ND**	0.5 ppb			
1,2-Dichloroethane	**ND**	0.5 ppb			
1,1-Dichloroethene (cis)	**ND**	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	83

1. PQL= Detection Limit x Dilution Factor
2. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
3. This worksheet is an integral part of the Certified Analytical Report for Lab #B3490 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

HULL DEVELOPMENT LABS INC.
1149 Minnesota ave
San Jose. CA 95125

QUALITY CONTROL RESULTS SUMMARY
VOLATILE ORGANICS ANALYSIS

QC sample No.: BLANK SPIKE & DUP Date analyzed: 03-22-94

Matrix: WATER

Units: ug/L Dilution factor: 1

COMPOUND	SA ug/L	SR ug/L	MS ug/L	MS %R	MSD ug/L	MSD %R	RPD	QC LIMITS (ADVISORY) RPD	QC LIMITS (ADVISORY) %R
BENZENE	20	0	20	100	20	100	0	25	50-150
CHLOROBENZENE	20	0	20	100	19	95	5	25	50-150
1,1-DCA	20	0	20	100	20	100	0	25	50-150
TOLUENE	20	0	20	100	20	100	0	25	50-150
TCE	20	0	20	100	18	90	11	25	50-150

MS = Spike sample
MSD = Spike sample duplicate
SR = Sample result
SA = Spike added

NC = Not calculated

** = Out of limits

RPD = 100 x (MS-MSD)/((MS+MSD)/2)

PR = 100 x ((MS or MSD) - SR)/SA

AUGEAS CORPORATION
780 PURISSIMA
HALF MOON BAY, CALIFORNIA 94019
(415) 726-7700
(415) 726-1217 (FAX)

Chain of Custody

Page 1 of ____

• PLEASE PRINT IN PEN

Client: Richard Gilcrease	Contact: Charles Conway	Phone #: (415) 726-7700	FAX #: (415) 726-121[illegible]
Address:	City:	State:	Zip:
Project Name/Number: Gurney's Cleaners			Project MGR: Charles Conway
Bill (If different than above): Augeas Corp.	Address: 780 Purissima St		
Sampler (Print and sign): Charles Conway, Charles Conway	Due Date: 3/24	Circle for RUSH*:	Copies To: / Auth. Init.

* Subject to Availability: 48 hr

Sample Description	Date/Time Coll'd	*Matrix	# of Containers	Pres.	Filt. y/n	Analysis	Remarks	Lab ID #
AMW-4, 5.5'-6'	3-22-95 9:37	S	1	no	no	EPA 8010	B3485	
AMW-4, 10.5'-11'	3-22-95 9:48	S	1	no	no	EPA 8010	B3486	
AMW-4, 15.5'-16'	3-22-95 10:03	S	1	no	no	EPA 8010	B3487	
AMW-4, 20.5'-21'	3-22-95 10:15	S	1	no	no	EPA 8010	B3488	
AMW-4, 25.5'-26'	3-22-95 10:40	S	1	no	no	EPA 8010	B3489	
AMW-4	3-22-95 11:15	W	2	y	n	EPA 8010	B3490	

Relinquished By	Date/Time	Received By	Relinquished By	Date/Time	Received By
Charles Conway	3-22-95 16:[illegible]	VIC #614	VIC #614		

FOR LAB USE ONLY

Shipping Method	Shipping #	Received By	Date/Time	Condition (See Remarks) Cold	Sealed	Intact
aero		Shellie Weeks	3/22/95 1738	✓	✓	✓

REMARKS

* Matrix:
DW - Drinking Water
WW - Wastewater
GW - Groundwater
SW - Surface Water
IM - Impinger
FI - Filter
FP - Free Product
A/G - Air/Gas
SL - Sludge/Soil/Solid
OT - Other

Hull Development Labs, Inc.

Attn: Charles Conway
Augeas Corporation
780 Purissima
Half Moon Bay, CA 94019

Date:	03/27/95
Date Received:	03/23/95
Date Analyzed:	03/23/95
Lab #:	See Table
Project Name:	Youngs Cleaners
Sampled By:	Charles Conway

Certified Analytical Report

Soil Sample Analysis:

Sample ID	*Sample Date*	*Sample Time*	*Lab #*	**Purgeable Halocarbons**
AMW-5, 5.5'-6'	03/22/95	1444	B3514	**2.3**
AMW-5, 10.5'-11'	03/22/95	1455	B3515	**1.2**
AMW-5, 15.5'-16'	03/22/95	1504	B3516	**1.6**
AMW-5, 20.5'-21'	03/22/95	1522	B3517	**1.4**
AMW-5, 25.5'-26'	03/22/95	1531	B3518	**1.5**
AMW-5, 30.5'-31'	03/22/95	1558	B3519	**1.2**
B-8, 5.5'-6'	03/23/95	1120	B3520	**ND**

1. Above values in µg/kg (ppb)
2. See Organic Analysis Work Sheets for individual compounds, detection limits and analysis dates.
3. Analysis performed by Hull Development Labs, Inc. (CAELAP # 1369).

Test Methods:

Test	*EPA Method #*	*Units*	*Method Detection Limit*
Purgeable Halocarbons	8010	µg/kg	See Work Sheets

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

Hull Development Labs, Inc.

Attn: Charles Conway
Augeas Corporation
780 Purissima
Half Moon Bay, CA 94019

Date:	03/27/95
Date Received:	03/23/95
Date Analyzed:	03/24/95
Lab #:	See Table
Project Name:	Youngs Cleaners
Sampled By:	Charles Conway

Certified Analytical Report

Water Sample Analysis:

Sample ID	*Sample Date*	*Sample Time*	*Lab #*	**Purgeable Halocarbons**
B-8	03/23/95	1110	B3521	**1.1**
AMW-5	03/22/95	1630	B3522	**1.2**

1. Above values in µg/liter (ppb)
2. See Organic Analysis Work Sheets for individual compounds, detection limits and analysis dates.
3. Analysis performed by Hull Development Labs, Inc. (CAELAP # 1369).

Test Methods:

Test	*EPA Method #*	*Units*	*Method Detection Limit*
Purgeable Halocarbons	8010	µg/liter	See Work Sheets

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

Hull Development Labs, Inc.

Organic Analysis Worksheet: EPA Method #8010

Client:	Augeas
Sample Matrix:	Soil
Lab #:	B3514
Sample ID:	AMW-5, 5.5'-6'

Date:	03/27/95
Date Received:	03/23/95
Date Analyzed	03/23/95
Dilution Factor	1

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	ND	0.5 ppb	trans-1,2-Dichloroethene	ND	0.5 ppb
Bromoform	ND	1.0 ppb	1,2-Dichloropropane	ND	0.5 ppb
Bromomethane	ND	1.0 ppb	cis-1,3-Dichloropropene	ND	0.5 ppb
Carbon Tetrachloride	ND	0.5 ppb	trans-1,3-Dichloropropene	ND	0.5 ppb
Chlorobenzene	ND	0.5 ppb	Methylene Chloride	ND	0.5 ppb
Chloroethane	ND	1.0 ppb	1,1,2,2-Tetrachloroethane	ND	0.5 ppb
2-Chloroethyl Vinyl Ether	ND	0.5 ppb	Tetrachloroethene	1.1	0.5 ppb
Chloroform	1.2	0.5 ppb	1,1,1-Trichloroethane	ND	0.5 ppb
Chloromethane	ND	1.0 ppb	1,1,2-Trichloroethane	ND	0.5 ppb
Dibromochloromethane	ND	0.5 ppb	Trichloroethene	ND	0.5 ppb
Dichlorodifluoromethane	ND	0.5 ppb	Trichlorofluoromethane	ND	0.5 ppb
1:2 Dichlorobenzene	ND	0.5 ppb	Vinyl Chloride	ND	1.0 ppb
1:3 Dichlorobenzene	ND	0.5 ppb			
1:4 Dichlorobenzene	ND	0.5 ppb			
1,1-Dichloroethane	ND	0.5 ppb			
1,2-Dichloroethane	ND	0.5 ppb			
1,1-Dichloroethene (cis)	ND	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	100

1. PQL= Detection Limit x Dilution Factor
2. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
3. This worksheet is an integral part of the Certified Analytical Report for Lab #B3514 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

1149 MINNESOTA AVENUE • SAN JOSE, CALIFORNIA 95125 • (408) 287-1777

Hull Development Labs, Inc.

Organic Analysis Worksheet: EPA Method #8010

Client:	Augeas
Sample Matrix:	Soil
Lab #:	B3515
Sample ID:	AMW-5, 10.5'-11'

Date:	03/27/95
Date Received:	03/23/95
Date Analyzed	03/23/95
Dilution Factor	1

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	ND	0.5 ppb	trans-1,2-Dichloroethene	ND	0.5 ppb
Bromoform	ND	1.0 ppb	1,2-Dichloropropane	ND	0.5 ppb
Bromomethane	ND	1.0 ppb	cis-1,3-Dichloropropene	ND	0.5 ppb
Carbon Tetrachloride	ND	0.5 ppb	trans-1,3-Dichloropropene	ND	0.5 ppb
Chlorobenzene	ND	0.5 ppb	Methylene Chloride	ND	0.5 ppb
Chloroethane	ND	1.0 ppb	1,1,2,2-Tetrachloroethane	ND	0.5 ppb
2-Chloroethyl Vinyl Ether	ND	0.5 ppb	Tetrachloroethene	ND	0.5 ppb
Chloroform	1.2	0.5 ppb	1,1,1-Trichloroethane	ND	0.5 ppb
Chloromethane	ND	1.0 ppb	1,1,2-Trichloroethane	ND	0.5 ppb
Dibromochloromethane	ND	0.5 ppb	Trichloroethene	ND	0.5 ppb
Dichlorodifluoromethane	ND	0.5 ppb	Trichlorofluoromethane	ND	0.5 ppb
1:2 Dichlorobenzene	ND	0.5 ppb	Vinyl Chloride	ND	1.0 ppb
1:3 Dichlorobenzene	ND	0.5 ppb			
1:4 Dichlorobenzene	ND	0.5 ppb			
1,1-Dichloroethane	ND	0.5 ppb			
1,2-Dichloroethane	ND	0.5 ppb			
1,1-Dichloroethene (cis)	ND	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	92

1. PQL= Detection Limit x Dilution Factor
2. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
3. This worksheet is an integral part of the Certified Analytical Report for Lab #B3515 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

1149 MINNESOTA AVENUE • SAN JOSE, CALIFORNIA 95125 • (408) 287-1777

Hull Development Labs, Inc.

Organic Analysis Worksheet: EPA Method #8010

Client:	Augeas
Sample Matrix:	Soil
Lab #:	B3516
Sample ID:	AMW-5, 15.5'-16'

Date:	03/27/95
Date Received:	03/23/95
Date Analyzed	03/23/95
Dilution Factor	1

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	ND	0.5 ppb	trans-1,2-Dichloroethene	ND	0.5 ppb
Bromoform	ND	1.0 ppb	1,2-Dichloropropane	ND	0.5 ppb
Bromomethane	ND	1.0 ppb	cis-1,3-Dichloropropene	ND	0.5 ppb
Carbon Tetrachloride	ND	0.5 ppb	trans-1,3-Dichloropropene	ND	0.5 ppb
Chlorobenzene	ND	0.5 ppb	Methylene Chloride	ND	0.5 ppb
Chloroethane	ND	1.0 ppb	1,1,2,2-Tetrachloroethane	ND	0.5 ppb
2-Chloroethyl Vinyl Ether	ND	0.5 ppb	Tetrachloroethene	ND	0.5 ppb
Chloroform	1.6	0.5 ppb	1,1,1-Trichloroethane	ND	0.5 ppb
Chloromethane	ND	1.0 ppb	1,1,2-Trichloroethane	ND	0.5 ppb
Dibromochloromethane	ND	0.5 ppb	Trichloroethene	ND	0.5 ppb
Dichlorodifluoromethane	ND	0.5 ppb	Trichlorofluoromethane	ND	0.5 ppb
1:2 Dichlorobenzene	ND	0.5 ppb	Vinyl Chloride	ND	1.0 ppb
1:3 Dichlorobenzene	ND	0.5 ppb			
1:4 Dichlorobenzene	ND	0.5 ppb			
1,1-Dichloroethane	ND	0.5 ppb			
1,2-Dichloroethane	ND	0.5 ppb			
1,1-Dichloroethene (cis)	ND	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	92

1. PQL= Detection Limit x Dilution Factor
2. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
3. This worksheet is an integral part of the Certified Analytical Report for Lab #B3516 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

1149 MINNESOTA AVENUE • SAN JOSE, CALIFORNIA 95125 • (408) 287-1777

Hull Development Labs, Inc.

Organic Analysis Worksheet: EPA Method #8010

Client:	Augeas
Sample Matrix:	Soil
Lab #:	B3517
Sample ID:	AMW-5, 20.5'-21'

Date:	03/27/95
Date Received:	03/23/95
Date Analyzed	03/23/95
Dilution Factor	1

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	ND	0.5 ppb	**trans-1,2-Dichloroethene**	ND	0.5 ppb
Bromoform	ND	1.0 ppb	**1,2-Dichloropropane**	ND	0.5 ppb
Bromomethane	ND	1.0 ppb	**cis-1,3-Dichloropropene**	ND	0.5 ppb
Carbon Tetrachloride	ND	0.5 ppb	**trans-1,3-Dichloropropene**	ND	0.5 ppb
Chlorobenzene	ND	0.5 ppb	**Methylene Chloride**	ND	0.5 ppb
Chloroethane	ND	1.0 ppb	**1,1,2,2-Tetrachloroethane**	ND	0.5 ppb
2-Chloroethyl Vinyl Ether	ND	0.5 ppb	**Tetrachloroethene**	ND	0.5 ppb
Chloroform	1.4	0.5 ppb	**1,1,1-Trichloroethane**	ND	0.5 ppb
Chloromethane	ND	1.0 ppb	**1,1,2-Trichloroethane**	ND	0.5 ppb
Dibromochloromethane	ND	0.5 ppb	**Trichloroethene**	ND	0.5 ppb
Dichlorodifluoromethane	ND	0.5 ppb	**Trichlorofluoromethane**	ND	0.5 ppb
1:2 Dichlorobenzene	ND	0.5 ppb	**Vinyl Chloride**	ND	1.0 ppb
1:3 Dichlorobenzene	ND	0.5 ppb			
1:4 Dichlorobenzene	ND	0.5 ppb			
1,1-Dichloroethane	ND	0.5 ppb			
1,2-Dichloroethane	ND	0.5 ppb			
1,1-Dichloroethene (cis)	ND	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	83

1. PQL= Detection Limit x Dilution Factor
2. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
3. This worksheet is an integral part of the Certified Analytical Report for Lab #B3517 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

1149 MINNESOTA AVENUE • SAN JOSE, CALIFORNIA 95125 • (408) 287-1777

Hull Development Labs, Inc.

Organic Analysis Worksheet: EPA Method #8010

Client:	Augeas
Sample Matrix:	Soil
Lab #:	B3518
Sample ID:	AMW-5, 25.5'-26'

Date:	03/27/95
Date Received:	03/23/95
Date Analyzed	03/23/95
Dilution Factor	1

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	ND	0.5 ppb	trans-1,2-Dichloroethene	ND	0.5 ppb
Bromoform	ND	1.0 ppb	1,2-Dichloropropane	ND	0.5 ppb
Bromomethane	ND	1.0 ppb	cis-1,3-Dichloropropene	ND	0.5 ppb
Carbon Tetrachloride	ND	0.5 ppb	trans-1,3-Dichloropropene	ND	0.5 ppb
Chlorobenzene	ND	0.5 ppb	Methylene Chloride	ND	0.5 ppb
Chloroethane	ND	1.0 ppb	1,1,2,2-Tetrachloroethane	ND	0.5 ppb
2-Chloroethyl Vinyl Ether	ND	0.5 ppb	Tetrachloroethene	ND	0.5 ppb
Chloroform	1.5	0.5 ppb	1,1,1-Trichloroethane	ND	0.5 ppb
Chloromethane	ND	1.0 ppb	1,1,2-Trichloroethane	ND	0.5 ppb
Dibromochloromethane	ND	0.5 ppb	Trichloroethene	ND	0.5 ppb
Dichlorodifluoromethane	ND	0.5 ppb	Trichlorofluoromethane	ND	0.5 ppb
1:2 Dichlorobenzene	ND	0.5 ppb	Vinyl Chloride	ND	1.0 ppb
1:3 Dichlorobenzene	ND	0.5 ppb			
1:4 Dichlorobenzene	ND	0.5 ppb			
1,1-Dichloroethane	ND	0.5 ppb			
1,2-Dichloroethane	ND	0.5 ppb			
1,1-Dichloroethene (cis)	ND	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	92

1. PQL= Detection Limit x Dilution Factor
2. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
3. This worksheet is an integral part of the Certified Analytical Report for Lab #B3518 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

1149 MINNESOTA AVENUE • SAN JOSE, CALIFORNIA 95125 • (408) 287-1777

Hull Development Labs, Inc.

Organic Analysis Worksheet: EPA Method #8010

Client:	Augeas
Sample Matrix:	Soil
Lab #:	B3519
Sample ID:	AMW-5, 30.5'-31'

Date:	03/27/95
Date Received:	03/23/95
Date Analyzed	03/23/95
Dilution Factor	1

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	ND	0.5 ppb	trans-1,2-Dichloroethene	ND	0.5 ppb
Bromoform	ND	1.0 ppb	1,2-Dichloropropane	ND	0.5 ppb
Bromomethane	ND	1.0 ppb	cis-1,3-Dichloropropene	ND	0.5 ppb
Carbon Tetrachloride	ND	0.5 ppb	trans-1,3-Dichloropropene	ND	0.5 ppb
Chlorobenzene	ND	0.5 ppb	Methylene Chloride	ND	0.5 ppb
Chloroethane	ND	1.0 ppb	1,1,2,2-Tetrachloroethane	ND	0.5 ppb
2-Chloroethyl Vinyl Ether	ND	0.5 ppb	Tetrachloroethene	ND	0.5 ppb
Chloroform	1.2	0.5 ppb	1,1,1-Trichloroethane	ND	0.5 ppb
Chloromethane	ND	1.0 ppb	1,1,2-Trichloroethane	ND	0.5 ppb
Dibromochloromethane	ND	0.5 ppb	Trichloroethene	ND	0.5 ppb
Dichlorodifluoromethane	ND	0.5 ppb	Trichlorofluoromethane	ND	0.5 ppb
1:2 Dichlorobenzene	ND	0.5 ppb	Vinyl Chloride	ND	1.0 ppb
1:3 Dichlorobenzene	ND	0.5 ppb			
1:4 Dichlorobenzene	ND	0.5 ppb			
1,1-Dichloroethane	ND	0.5 ppb			
1,2-Dichloroethane	ND	0.5 ppb			
1,1-Dichloroethene (cis)	ND	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	77

1. PQL= Detection Limit x Dilution Factor
2. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
3. This worksheet is an integral part of the Certified Analytical Report for Lab #B3519 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

1149 MINNESOTA AVENUE • SAN JOSE, CALIFORNIA 95125 • (408) 287-1777

Hull Development Labs, Inc.

Organic Analysis Worksheet: EPA Method #8010

Client:	Augeas
Sample Matrix:	Soil
Lab #:	B3520
Sample ID:	B-8, 5.5'-6'

Date:	03/27/95
Date Received:	03/23/95
Date Analyzed	03/23/95
Dilution Factor	1

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	ND	0.5 ppb	trans-1,2-Dichloroethene	ND	0.5 ppb
Bromoform	ND	1.0 ppb	1,2-Dichloropropane	ND	0.5 ppb
Bromomethane	ND	1.0 ppb	cis-1,3-Dichloropropene	ND	0.5 ppb
Carbon Tetrachloride	ND	0.5 ppb	trans-1,3-Dichloropropene	ND	0.5 ppb
Chlorobenzene	ND	0.5 ppb	Methylene Chloride	ND	0.5 ppb
Chloroethane	ND	1.0 ppb	1,1,2,2-Tetrachloroethane	ND	0.5 ppb
2-Chloroethyl Vinyl Ether	ND	0.5 ppb	Tetrachloroethene	ND	0.5 ppb
Chloroform	ND	0.5 ppb	1,1,1-Trichloroethane	ND	0.5 ppb
Chloromethane	ND	1.0 ppb	1,1,2-Trichloroethane	ND	0.5 ppb
Dibromochloromethane	ND	0.5 ppb	Trichloroethene	ND	0.5 ppb
Dichlorodifluoromethane	ND	0.5 ppb	Trichlorofluoromethane	ND	0.5 ppb
1:2 Dichlorobenzene	ND	0.5 ppb	Vinyl Chloride	ND	1.0 ppb
1:3 Dichlorobenzene	ND	0.5 ppb			
1:4 Dichlorobenzene	ND	0.5 ppb			
1,1-Dichloroethane	ND	0.5 ppb			
1,2-Dichloroethane	ND	0.5 ppb			
1,1-Dichloroethene (cis)	ND	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	50

1. PQL= Detection Limit x Dilution Factor
2. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
3. This worksheet is an integral part of the Certified Analytical Report for Lab #B3520 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

1149 MINNESOTA AVENUE • SAN JOSE, CALIFORNIA 95125 • (408) 287-1777

Hull Development Labs, Inc.

Organic Analysis Worksheet: EPA Method #8010

Client:	Augeas
Sample Matrix:	Water
Lab #:	B3521
Sample ID:	B-8

Date:	03/27/95
Date Received:	03/23/95
Date Analyzed	03/23/95
Dilution Factor	1

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	ND	0.5 ppb	**trans-1,2-Dichloroethene**	ND	0.5 ppb
Bromoform	ND	1.0 ppb	**1,2-Dichloropropane**	ND	0.5 ppb
Bromomethane	ND	1.0 ppb	**cis-1,3-Dichloropropene**	ND	0.5 ppb
Carbon Tetrachloride	ND	0.5 ppb	**trans-1,3-Dichloropropene**	ND	0.5 ppb
Chlorobenzene	ND	0.5 ppb	**Methylene Chloride**	ND	0.5 ppb
Chloroethane	ND	1.0 ppb	**1,1,2,2-Tetrachloroethane**	ND	0.5 ppb
2-Chloroethyl Vinyl Ether	ND	0.5 ppb	**Tetrachloroethene**	1.1	0.5 ppb
Chloroform	ND	0.5 ppb	**1,1,1-Trichloroethane**	ND	0.5 ppb
Chloromethane	ND	1.0 ppb	**1,1,2-Trichloroethane**	ND	0.5 ppb
Dibromochloromethane	ND	0.5 ppb	**Trichloroethene**	ND	0.5 ppb
Dichlorodifluoromethane	ND	0.5 ppb	**Trichlorofluoromethane**	ND	0.5 ppb
1:2 Dichlorobenzene	ND	0.5 ppb	**Vinyl Chloride**	ND	1.0 ppb
1:3 Dichlorobenzene	ND	0.5 ppb			
1:4 Dichlorobenzene	ND	0.5 ppb			
1,1-Dichloroethane	ND	0.5 ppb			
1,2-Dichloroethane	ND	0.5 ppb			
1,1-Dichloroethene (cis)	ND	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	83

1. PQL= Detection Limit x Dilution Factor
2. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
3. This worksheet is an integral part of the Certified Analytical Report for Lab #03/23/95 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

1149 MINNESOTA AVENUE • SAN JOSE, CALIFORNIA 95125 • (408) 287-1777

Hull Development Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Organic Analysis Worksheet: EPA Method #8010

Client:	Augeas
Sample Matrix:	Water
Lab #:	B3522
Sample ID:	AMW-5

Date:	03/27/95
Date Received:	03/23/95
Date Analyzed	03/24/95
Dilution Factor	1

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	**ND**	0.5 ppb	**trans-1,2-Dichloroethene**	**ND**	0.5 ppb
Bromoform	**ND**	1.0 ppb	**1,2-Dichloropropane**	**ND**	0.5 ppb
Bromomethane	**ND**	1.0 ppb	**cis-1,3-Dichloropropene**	**ND**	0.5 ppb
Carbon Tetrachloride	**ND**	0.5 ppb	**trans-1,3-Dichloropropene**	**ND**	0.5 ppb
Chlorobenzene	**ND**	0.5 ppb	**Methylene Chloride**	**ND**	0.5 ppb
Chloroethane	**ND**	1.0 ppb	**1,1,2,2-Tetrachloroethane**	**ND**	0.5 ppb
2-Chloroethyl Vinyl Ether	**ND**	0.5 ppb	**Tetrachloroethene**	**1.2**	0.5 ppb
Chloroform	**ND**	0.5 ppb	**1,1,1-Trichloroethane**	**ND**	0.5 ppb
Chloromethane	**ND**	1.0 ppb	**1,1,2-Trichloroethane**	**ND**	0.5 ppb
Dibromochloromethane	**ND**	0.5 ppb	**Trichloroethene**	**ND**	0.5 ppb
Dichlorodifluoromethane	**ND**	0.5 ppb	**Trichlorofluoromethane**	**ND**	0.5 ppb
1:2 Dichlorobenzene	**ND**	0.5 ppb	**Vinyl Chloride**	**ND**	1.0 ppb
1:3 Dichlorobenzene	**ND**	0.5 ppb			
1:4 Dichlorobenzene	**ND**	0.5 ppb			
1,1-Dichloroethane	**ND**	0.5 ppb			
1,2-Dichloroethane	**ND**	0.5 ppb			
1,1-Dichloroethene (cis)	**ND**	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	110

1. PQL=Dilution Factor x MDL
2. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
3. This worksheet is an integral part of the Certified Analytical Report for Lab #B3522 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

AUGEAS CORPORATION
780 PURISSIMA
HALF MOON BAY, CALIFORNIA 94019
(415) 726-7700
(415) 726-1217 (FAX)

Chain of Custody

Page _____ of _____

• PLEASE PRINT IN PEN

Client	Dirbond Gillrease	Contact	Charles Conway	Phone #	(415) 726-7700	FAX #	(415) 726-1217
Address		City		State		Zip	
Project Name/Number	Young's Cleaning			Project MGR			
Bill (If different than above)	Augeas	Address					
Sampler (Print and sign)	Charles Conway	Due Date		Circle for RUSH* (48hr)		Copies To:	Auth. Init.

* Subject to Availability

Sample Description	Date/Time Coll'd	*Matrix	# of Containers	Pres.	Filt. y/n	Analysis	Remarks	Lab ID #
AMW-5, 5.5'-6'	3-22-95 14:44	S	1	n		EPA 8010		B3514
AMW-5, 10.5'-11'	3-22-95 14:55	S	1	n		EPA 8010		B3515
AMW-5, 15.5'-16'	3-22-95 15:09	S	1	n		EPA 8010		B3516
AMW-5, 20.5'-21'	3-22-95 15:22	S	1	no		EPA 8010		B3517
AMW-5, 25.5'-26'	3-22-95 15:31	S	1	no		EPA 8010		B3518
AMW-5, 30.5'-31'	3-22-95 15:58	S	1	no		EPA 8010		B3519
AMW-5	3-22-95 16:30	W	1	y	n	EPA 8010	Note: Analyze #1, not #2 (CC)	B3522

Relinquished By	Date/Time	Received By	Relinquished By	Date/Time	Received By
Charles Conway	3-23-95 12:37	[signature]	[signature]	3-23-95 2:13	

FOR LAB USE ONLY

Shipping Method	Shipping #	Received By	Date/Time	Condition (See Remarks) Cold	Sealed	Intact
Aero		Shellie Weeks	3/23/95 1413	✓	✓	✓

REMARKS ______________________________

* Matrix:
DW - Drinking Water
WW - Wastewater
GW - Groundwater
SW - Surface Water
IM - Impinger
FI - Filter
FP - Free Product
A/G - Air/Gas
SL - Sludge/Soil/Solid
OT - Other ______

AUGEAS CORPORATION
780 PURISSIMA
HALF MOON BAY, CALIFORNIA 94019
(415) 726-7700
(415) 726-1217 (FAX)

Chain of Custody

• PLEASE PRINT IN PEN

Client: Youngs Cleaners / Richard Gilkerson	Contact: C. Conway	Phone # (415) 726-7600	FAX # (415) 726-1217
Address	City	State	Zip
Project Name/Number		Project MGR: C. Conway	
Bill (If different than above): Augeas	Address		
Sampler (Print and sign): Charles Conway / Charles Conway	Due Date	Circle for RUSH*	Copies To: / Auth. Init.

* Subject to Availability

Sample Description	Date/Time Coll'd	*Matrix	# of Containers	Pres.	Filt. y/n	Analysis	Remarks	Lab ID #
~~AB-6~~ B-8, 5.5'-6'	3-23-95 11:20	S	1	n	n	EPA 8010		B3520
~~AB-6~~ B-8	3-23-95 11:10	W	1	y	n	EPA 8010		B3521

Relinquished By	Date/Time	Received By	Relinquished By	Date/Time	Received By
Charles Conway	3-23-95 12:37	[signature]	[signature]	3.23.95 2:14	

FOR LAB USE ONLY

Shipping Method	Shipping #	Received By	Date/Time	Condition (See Remarks) Cold	Sealed	Intact
aero		Phillia Hicks	3/23/95 1414	✓	✓	✓

REMARKS

* Matrix:
DW - Drinking Water
WW - Wastewater
GW - Groundwater
SW - Surface Water
IM - Impinger
FI - Filter
FP - Free Product
A/G - Air/Gas
SL - Sludge/Soil/Solid
OT - Other

Hull Development Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Attn: Charles Conway
Augeas Corporation
780 Purissima
Half Moon Bay, CA 94019

Date:	5/23/95
Date Received:	5/16/95
Date Analyzed:	5/18/95
Project:	Young's Cleaner
Sampled By:	Wendy Schrader

Certified Analytical Report

Water Sample Analysis:

Sample ID	*Sample Date*	*Sample Time*	*Lab #*	**Purgeable Halocarbons**
Trip Blank	5/15/95	9:30	B5175	**ND**
AMW-4	5/15/95	12:10	B5173	**2,400**
AMW-5	5/15/95	2:00	B5174	**1.2**

1. PQL=DF x MDL
2. See Organic Analysis Worksheet for individual compounds, detection limits, and analysis date
3. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)

Test Methods:

Test	*EPA Method #*	*Units*	*MDL*
Purgeable Halocarbons	8010	µg/liter	See Worksheets

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

Hull Development Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Organic Analysis Worksheet: EPA Method #8010

Client:	Augeas
Sample Matrix:	Water
Lab #:	B5173
Sample ID:	AMW-4

Date:	5/23/95
Date Received:	5/16/95
Date Analyzed	5/18/95
Dilution Factor	100

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	ND	0.5 ppb	trans-1,2-Dichloroethene	ND	0.5 ppb
Bromoform	ND	1.0 ppb	1,2-Dichloropropane	ND	0.5 ppb
Bromomethane	ND	1.0 ppb	cis-1,3-Dichloropropene	ND	0.5 ppb
Carbon Tetrachloride	ND	0.5 ppb	trans-1,3-Dichloropropene	ND	0.5 ppb
Chlorobenzene	ND	0.5 ppb	Methylene Chloride	ND	0.5 ppb
Chloroethane	ND	1.0 ppb	1,1,2,2-Tetrachloroethane	ND	0.5 ppb
2-Chloroethyl Vinyl Ether	ND	0.5 ppb	Tetrachloroethene	2,400	0.5 ppb
Chloroform	ND	0.5 ppb	1,1,1-Trichloroethane	ND	0.5 ppb
Chloromethane	ND	1.0 ppb	1,1,2-Trichloroethane	ND	0.5 ppb
Dibromochloromethane	ND	0.5 ppb	Trichloroethene	ND	0.5 ppb
Dichlorodifluoromethane	ND	0.5 ppb	Trichlorofluoromethane	ND	0.5 ppb
1:2 Dichlorobenzene	ND	0.5 ppb	Vinyl Chloride	ND	1.0 ppb
1:3 Dichlorobenzene	ND	0.5 ppb			
1:4 Dichlorobenzene	ND	0.5 ppb			
1,1-Dichloroethane	ND	0.5 ppb			
1,2-Dichloroethane	ND	0.5 ppb			
1,1-Dichloroethene (cis)	ND	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	100

1. PQL= Detection Limit x Dilution Factor
2. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
3. This worksheet is an integral part of the Certified Analytical Report for Lab #B5173 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

Hull Development Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Organic Analysis Worksheet: EPA Method #8010

Client:	Augeas
Sample Matrix:	Water
Lab #:	B5174
Sample ID:	AMW-5

Date:	5/23/95
Date Received:	5/16/95
Date Analyzed	5/18/95
Dilution Factor	1

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	ND	0.5 ppb	trans-1,2-Dichloroethene	ND	0.5 ppb
Bromoform	ND	1.0 ppb	1,2-Dichloropropane	ND	0.5 ppb
Bromomethane	ND	1.0 ppb	cis-1,3-Dichloropropene	ND	0.5 ppb
Carbon Tetrachloride	ND	0.5 ppb	trans-1,3-Dichloropropene	ND	0.5 ppb
Chlorobenzene	ND	0.5 ppb	Methylene Chloride	ND	0.5 ppb
Chloroethane	ND	1.0 ppb	1,1,2,2-Tetrachloroethane	ND	0.5 ppb
2-Chloroethyl Vinyl Ether	ND	0.5 ppb	Tetrachloroethene	1.2	0.5 ppb
Chloroform	ND	0.5 ppb	1,1,1-Trichloroethane	ND	0.5 ppb
Chloromethane	ND	1.0 ppb	1,1,2-Trichloroethane	ND	0.5 ppb
Dibromochloromethane	ND	0.5 ppb	Trichloroethene	ND	0.5 ppb
Dichlorodifluoromethane	ND	0.5 ppb	Trichlorofluoromethane	ND	0.5 ppb
1:2 Dichlorobenzene	ND	0.5 ppb	Vinyl Chloride	ND	1.0 ppb
1:3 Dichlorobenzene	ND	0.5 ppb			
1:4 Dichlorobenzene	ND	0.5 ppb			
1,1-Dichloroethane	ND	0.5 ppb			
1,2-Dichloroethane	ND	0.5 ppb			
1,1-Dichloroethene (cis)	ND	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	120

1. PQL= Detection Limit x Dilution Factor
2. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
3. This worksheet is an integral part of the Certified Analytical Report for Lab #B5174 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

Hull Development Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Organic Analysis Worksheet: EPA Method #8010

Client:	Augeas
Sample Matrix:	Water
Lab #:	B5175
Sample ID:	Trip Blank

Date:	5/23/95
Date Received:	5/16/95
Date Analyzed	5/18/95
Dilution Factor	1

Compound	*Concentration Found*	*MDL*	*Compound*	*Concentration Found*	*MDL*
Bromodichloromethane	ND	0.5 ppb	trans-1,2-Dichloroethene	ND	0.5 ppb
Bromoform	ND	1.0 ppb	1,2-Dichloropropane	ND	0.5 ppb
Bromomethane	ND	1.0 ppb	cis-1,3-Dichloropropene	ND	0.5 ppb
Carbon Tetrachloride	ND	0.5 ppb	trans-1,3-Dichloropropene	ND	0.5 ppb
Chlorobenzene	ND	0.5 ppb	Methylene Chloride	ND	0.5 ppb
Chloroethane	ND	1.0 ppb	1,1,2,2-Tetrachloroethane	ND	0.5 ppb
2-Chloroethyl Vinyl Ether	ND	0.5 ppb	Tetrachloroethene	ND	0.5 ppb
Chloroform	ND	0.5 ppb	1,1,1-Trichloroethane	ND	0.5 ppb
Chloromethane	ND	1.0 ppb	1,1,2-Trichloroethane	ND	0.5 ppb
Dibromochloromethane	ND	0.5 ppb	Trichloroethene	ND	0.5 ppb
Dichlorodifluoromethane	ND	0.5 ppb	Trichlorofluoromethane	ND	0.5 ppb
1:2 Dichlorobenzene	ND	0.5 ppb	Vinyl Chloride	ND	1.0 ppb
1:3 Dichlorobenzene	ND	0.5 ppb			
1:4 Dichlorobenzene	ND	0.5 ppb			
1,1-Dichloroethane	ND	0.5 ppb			
1,2-Dichloroethane	ND	0.5 ppb			
1,1-Dichloroethene (cis)	ND	0.5 ppb			

Surrogate	Recovery (%)
4-Bromofluorobenzene	99

1. PQL= Detection Limit x Dilution Factor
2. Analysis performed by Hull Development Labs, Inc. (CAELAP #1369)
3. This worksheet is an integral part of the Certified Analytical Report for Lab #B5175 and should not be reproduced except in full without the written consent of Hull Development Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
MDL=Method Detection Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above PQL

AUGEAS CORPORATION
780 PURISSIMA
HALF MOON BAY, CALIFORNIA 94019
(415) 726-7700
(415) 726-1217 (FAX)

Chain of Custody

• PLEASE PRINT IN PEN

Client	Contact	Phone #	FAX #
YOUNG'S CLEANERS		( )	( )

Address	City	State	Zip
10700 MacArthur Blvd	Oakland	CA	

Project Name/Number	Project MGR
	C. CONWAY

Bill (If different than above)	Address
	5-DAY TURNAROUND

Sampler (Print and sign)	Due Date	Circle for RUSH*	Copies To:	Auth. Init.
Wendy Schrader				

* Subject to Availability

Sample Description	Date/Time Coll'd	*Matrix	# of Containers	Pres.	Filt. y/n	Analysis	Remarks	Lab ID #
TRIP BLANK	5.15.95 9:30	W	2	HCl	/	EPA 8010	BS175	
AMW-4	5.15.95 12:10	W	2	HCl	/	↓	BS173	
AMW-5	5.15.95 2.00	W	2	HCl		↓	BS174	

Relinquished By	Date/Time	Received By	Relinquished By	Date/Time	Received By
Wendy Schrader	5-16-95 11:14	Charles Conway	Charles Conway	5-16-95 3:28PM	Nellie Weeks

FOR LAB USE ONLY

Shipping Method	Shipping #	Received By	Date/Time	Condition (See Remarks)		
				Cold	Sealed	Intact

REMARKS

* Matrix:
DW - Drinking Water
WW - Wastewater
GW - Groundwater
SW - Surface Water
IM - Impinger
FI - Filter
FP - Free Product
A/G - Air/Gas
SL - Sludge/Soil/Solid
OT - Other