

rw 73

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Rec'd 1/30/04
(resent)

December 4, 2003

Barney Chan
Hazardous Materials Specialist
ALAMEDA COUNTY HEALTH CARE SERVICES
1131 Harbor Bay Parkway
Alameda, California 94502-6577

Clayton Project No.70-03365.05

Subject: **Groundwater Monitoring Well Installation Report and the Fourth Quarter 2003 Groundwater Monitoring Results**
Former Dunne Paint Facility
1007 41st Street
Oakland, California

Dear Mr. Chan:

Clayton Group Services, Inc. is pleased to present the enclosed report documenting the results of the Groundwater Monitoring Well Installation and the Fourth Quarter 2003 Groundwater Monitoring at the above-referenced property. If you have any questions, please contact us at (925) 426-2600.

Sincerely,

Mike Krzeminski
Environmental Consultant
Environmental Services

Jon Rosso, P.E.
Director
Environmental Services

JR/mpk

6920 Koll Center Parkway
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**Groundwater Monitoring Well Installation
Report and the Fourth Quarter 2003
Groundwater Monitoring Results**

**Former Dunne Paint Facility
1007 41st Street
Oakland, California**

**Prepared for:
Green City Lofts, LLC**

Clayton Project No. 70-03365.05

December 4, 2003

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1. INTRODUCTION

Clayton Group Services, Inc. (Clayton), has prepared this report to document the results of the Groundwater Monitoring Well Installation and the Fourth Quarter 2003 Groundwater Monitoring performed at the Former Dunne Paints Facility located at 1007 41st Street in Oakland, California (the site) (Figure 1).

1.1. SITE HISTORY

The site was formerly operated as a paint manufacturing and distribution facility; six (now removed) underground storage tanks (UST) that contained mineral spirits were located in the sidewalk along the north side of the property. The subject property is assigned Alameda County Health Care Services (ACHCS) fuel leak case number RO000073.

Several previous site investigations have been performed at the subject property and their results, along with a description of the site history, were recently presented in the Clayton reports "*Offsite Groundwater Investigation Report of the Former Dunne Paint facility at 1007 41st Street in Oakland, California*" dated September 29, 2003, "*Predevelopment Investigation Report of the Former Dunne Paint facility at 1007 41st Street in Oakland/Emeryville and 4050 Adeline Street in Emeryville, California*" dated December 23, 2002, and "*Supplemental Investigation of the Former Dunne Paint Facility, 1007 41st Street in Oakland/Emeryville and 4050 Adeline Street in Emeryville, California,*" dated May 23, 2003. The subject property is currently undergoing redevelopment as loft style apartments, which includes site wide dewatering and soil excavation to install foundations.

1.2. SCOPE OF WORK

The scope of work was performed in accordance with the "*Work plan to Install Four (4) Offsite Groundwater Monitoring Wells*" prepared by Clayton on September 29, 2003. The work plan was approved by ACHCS on October 30, 2003 on the condition that the two existing monitoring wells, MW-D1 and MW-D2, installed within the former UST pit, should be included in the monitoring schedule for the site. The scope of work consisted of the following components:

- Obtain drilling and encroachment permits and perform underground utility clearance;
- Install, develop, survey, and sample groundwater monitoring wells in order to determine the groundwater flow conditions and water quality beneath the site; and
- Prepare this report.

2. GROUNDWATER MONITORING WELL INSTALLATION

Although four groundwater monitoring wells were originally proposed at the site, only three were actually installed due to refusal from unknown subsurface obstructions. Monitoring wells CW-1 and CW-2 were originally proposed on the east side of Adeline Street; however, after three soil boring attempts were terminated due to unknown subsurface obstruction at 5 feet below ground surface (bgs), CW-1 was relocated further north where the soil boring was successfully completed. Due to the numerous obstructions, CW-2 was deemed not feasible for construction, and was eliminated. CW-3

was then subsequently renamed CW-2, and CW-4 renamed CW-3. The revised locations and names of the three monitoring wells (CW-1 through CW-3) are shown in Figure 2. The following sections present the details of the field activities performed.

2.1. PREFIELD ACTIVITIES

Clayton obtained drilling permits from the Alameda County Public Works Agency (ACPWA) in order to install the monitoring wells. The ACPWA issued permit numbers W03-0832 through W03-0835. Clayton also obtained an encroachment permit from the City of Emeryville, Department of Public Works (CEDPW) in order to install the monitoring wells in the city street. The CEDPW issued permit number PW031001.

Clayton contacted Underground Service Alert (USA) at least 48 hours prior to drilling activities to report the proposed drilling schedule and request the location of publicly owned utilities to be marked in the vicinity of the boring locations.

Clayton prepared a Site Health and Safety Plan (SHSP) to reflect the work proposed at the site. The SHSP detailed the work to be performed, safety precautions, chemical exposure concerns, emergency response procedures, nearest hospital location, and onsite personnel responsible for managing an emergency situation. A tailgate safety meeting was held onsite prior to commencing the work and included all personnel involved in the monitoring well installation.

2.2. MONITORING WELL INSTALLATION

On October 30th and 31st, 2003, three soil borings were installed and completed as groundwater monitoring wells CW-1 through CW-3. The monitoring wells were installed to obtain information on site stratigraphy, groundwater flow conditions, and groundwater quality beneath the site.

Clear Heart Drilling, Inc. of Santa Rosa, California performed the soil boring drilling and monitoring well installation using a truck-mounted drill rig equipped with 8-inch diameter hollow stem augers. While drilling the boreholes, an 18-inch long California modified split spoon sampler lined with three two-inch diameter, six-inch long brass sleeves was used to collect soil samples from the boreholes. In general, one sample drive was performed every five-foot of borehole penetration, except CW-2, in which sample drives were advanced continuously from 5.0 to 15.5 feet bgs in order to record and accurate description of lithology in the boring.

Soil cores retained from the split spoon sampler were examined for soil properties such as color, relative moisture content, competency, and other observable distinguishing characteristics (for example, rootlets or odor) and described on the monitoring well construction logs in general conformance with the Unified Soil Classification System. Soil cores were screened for volatile compounds using an organic vapor meter (OVM), and OVM readings along with lithological details and other field observations (such as blow counts) were also recorded on the monitoring well construction logs. Copies of the monitoring well construction logs are provided in Appendix A. Soil samples submitted for laboratory analysis were retained in the brass sleeves, capped with Teflon tape and plastic end caps, labeled with identifying information, and placed in an ice-chilled cooler awaiting transportation to the laboratory.

All hollow stem augers and downhole sampling equipment was either steam cleaned or washed in a solution of non-phosphate detergent and double rinsed with tap water after each use. The soil cuttings and decontamination water was containerized in separate DOT approved 55-gallon drums. The drums were sealed, labeled with content information and generation date, and stored onsite pending future disposal.

2.3. MONITORING WELL CONSTRUCTION

The monitoring wells were constructed as 2-inch diameter wells within an eight-inch diameter borehole. The well screen section was constructed with two-inch diameter schedule 40 polyvinyl chloride (PVC) casing perforated with 0.020-inch slots and fitted with a PVC end cap. The monitoring well screen casing (totaling 20 feet) was set from fifteen feet below first encountered water to five feet above first encountered groundwater (from 25 to 5 feet bgs) to account for seasonal variation in groundwater levels. The well screen casing was flush threaded to five feet of schedule 40 PVC blank pipe (from 5 feet bgs to ground surface) to complete the well casing to surface.

The well screen filter pack was constructed by pouring Lonestar number 3 graded sand from the bottom of the borehole annular space to two feet above the top of the well screen casing (from 25 to 4 feet bgs). A one-foot interval of 3/8-inch bentonite pellets was placed in the annular space above the top of the sand filter pack (from 4 to 3 feet bgs), and the bentonite was hydrated and allowed to swell. The remaining annular space (from 3 to approximately one-foot bgs) was filled with a neat cement grout containing approximately five percent bentonite powder. A traffic rated 8-inch Christy box was placed around the top of the wells and secured in place with concrete. A lockable expanding well cap was placed in each well to secure the well head. A V-notch was placed on the top of the north facing portion of each monitoring well casing for use as a surveying and depth to water measurement reference point. Well construction details were recorded onto the monitoring well construction logs (Appendix A). A representative from the CEDPW was present at the site and approved the completion of the monitoring wells and the restoration of the city street.

2.4. WELL DEVELOPMENT

On November 7, 2003, Clayton developed the monitoring wells in order to remove fine-grained materials inside the filter pack and casing, to stabilize the filter pack around the well screen, and to produce representative water samples from the water-bearing zone. Well development was accomplished by removing the groundwater from the well casing using a submersible pump. The pump was run up and down the well screen casing in order to evacuate water from the entire formation surrounding the well casing. With the removal of each well casing volume, water quality parameters, including pH, specific conductivity and temperature were measured and recorded. Pumping activities continued until a minimum of ten (10) well casing volumes of water had been removed from each well casing or the well was purged dry. Monitoring well development logs are presented in Appendix B.

Well development equipment was cleaned with an Alconox solution and rinsed with water after each use. Well development purge water generated during field activities was placed into DOT approved 55-gallon drums and left onsite pending disposal.

2.5. MONITORING WELL SURVEYING

On November 22, 2003, Virgil Chavez Land Surveying of Vallejo, California surveyed the wellhead locations and elevations for monitoring wells CW-1 through CW-3 and MW-D1 and MW-D2. Wellhead elevations (top of PVC well casing) were surveyed with respect to the small V-notch cut into the top of the north side of each PVC casing. The wellhead lateral co-ordinates and elevations were measured using a global positioning system (GPS). All top of casing elevations are referenced to mean sea level (msl) and measured with reference to a City of Oakland benchmark located at the intersection of 35th and Market Streets. The monitoring well survey data is presented in Appendix C.

2.6. LABORATORY ANALYSES

Soil samples collected from the monitoring well installation were transported to Curtis & Tompkins, Ltd. a State of California certified laboratory located in Berkeley, California. Samples were analyzed by the following United States Environmental Protection Agency (USEPA) approved methods:

- USEPA Method 8015M for Total Petroleum Hydrocarbons as mineral spirits (TPH-ms); and
- USEPA Method 8260 for Volatile Organic Compounds (VOCs).

The certified laboratory analytical data sheets and chain-of-custody documentation from the soil samples collected during the monitoring well installation are included in Appendix D.

2.7. FINDINGS

2.7.1. Geology

Based on soil types encountered during the groundwater monitoring well installation, the Native soil types encountered consisted predominantly of silty clays with varying gravel contents from approximately 2 to 25 feet bgs, and was consistent with previous investigations. However, in boring CW-1 and CW-2, a gravelly clay layer was encountered from approximately 10 to 12 feet bgs, and gravelly sands and sandy gravels were encountered from approximately 12 to 25 feet bgs. The gravel and sands found in these borings were saturated and constituted the first encountered water bearing zone. Groundwater was encountered at approximately 10 feet bgs in the soil borings.

2.7.2. Soil Analytical Results

Three soil samples were submitted for laboratory analysis (CW-1@10.5, CW-2@10.0, and CW-3@11.0). The samples were selected based on the highest OVM readings and/or most permeable soil type encountered within each boring.

Concentrations of TPH-ms were detected in sample CW-1@10.5 at 2,000 milligrams per kilogram (mg/kg), and in sample CW-2@10.0 at 36 mg/kg. Concentrations of TPH-ms were not detected above the laboratory reporting limits in sample CW-3@11.0. Additionally, VOCs were not detected above the laboratory reporting limits in any of the samples tested.

A summary of the soil sampling analytical data is presented in Table 1.

3. FOURTH QUARTER 2003 GROUNDWATER MONITORING

This Fourth Quarter 2003 Groundwater Monitoring Report documents field activities and presents data used to determine the site's groundwater gradient and flow direction, and groundwater quality beneath the site. At the request of the ACHCSA, two monitoring wells (MW-D1 and MW-D2), which were installed within the former underground storage tank pits, were included in the quarterly monitoring schedule.

3.1. GROUNDWATER MONITORING FIELD ACTIVITIES

On November 12, 2003, groundwater monitoring wells CW-1 through CW-3, and MW-D1 and MW-D2 were sampled. The following sections present the details of the groundwater monitoring field activities.

3.2. GROUNDWATER LEVEL MEASUREMENTS

Within each monitoring well, depth to water measurements were made using an electronic water level probe. The depth to water in each monitoring well was measured from the surveyed reference elevation, represented as a V-notch at the top of the well casing (TOC), to the water surface within the well casing. The depth to water measurements for each monitoring well are presented in Table 2

3.3. GROUNDWATER PURGING

Prior to collecting a groundwater sample from each monitoring well, approximately four well casing volumes of water were removed from each well. The purge volume from each monitoring well was determined from multiplying the nominal cross-sectional area of the well casing by the water column within each well casing. The wells were purged with either a Teflon disposable bailer or an electric submersible pump and water quality parameters (pH, specific conductivity, oxidation-reduction potential [ORP], temperature, and visual turbidity) were measured and recorded onto field sampling data sheets (included in Appendix E). Water quality parameter measurements were made prior to purging and after removing each well casing volume of water from the monitoring well.

Groundwater purged from monitoring wells during sampling was placed in DOT approved 55-gallon drums, labeled with proper identification information, and left onsite pending disposal.

3.4. GROUNDWATER SAMPLING

Prior to collecting groundwater samples, each well was allowed to recharge to 80-percent of the pre-purged well casing water volume. Groundwater samples for laboratory analyses were retrieved using either a Teflon disposable bailer or an electric submersible pump. The groundwater retrieved for analyses was transferred into appropriately sized and preserved laboratory supplied containers. Sample containers were sealed, labeled with identifying information, logged onto the chain-of-custody, and stored in a pre-chilled ice-chest while awaiting transportation to the laboratory.

3.5. LABORATORY ANALYSES

Groundwater samples were transported to Curtis & Tompkins, Ltd. a State of California certified laboratory located in Berkeley, California. Samples were analyzed by the following United States Environmental Protection Agency (USEPA) approved methods:

- USEPA Method 8015M for Total Petroleum Hydrocarbons as mineral spirits (TPH-ms); and
- USEPA Method 8260 for Volatile Organic Compounds (VOCs).

The certified laboratory analytical data sheets and chain-of-custody documentation for the Fourth Quarter 2003 Groundwater Monitoring event are included in Appendix F.

3.6. FINDINGS

The following discussion presents an interpretation of groundwater flow and water quality conditions at the site based on the results obtained from groundwater monitoring field measurements and laboratory analyses of groundwater samples.

3.6.1. Groundwater Flow Conditions

During the field activities, a dewatering system associated with the site redevelopment project was actively operating. The draw down of local groundwater most likely is influencing the groundwater elevations within some of the groundwater monitoring wells. Since the dewatering is probably influencing groundwater elevations, an accurate potentiometric surface map showing groundwater flow conditions was not created. Groundwater elevations in monitoring wells are shown in Figure 3.

3.6.2. Groundwater Analyses

Laboratory analyses detected dissolved concentrations of TPH-ms at 85 micrograms per liter (ug/L) in CW-1 and MW-D1, and at 1,400 ug/L in MW-D2. TPH-ms was not detected above the laboratory reporting limit of 1.0 ug/L in CW-2 or CW-3.

Laboratory analyses did not detect any concentrations of VOCs above the laboratory reporting limit in any of the groundwater samples tested, except for Trichloroethene (TCE) which was detected at 5.1 ug/L in CW-3.

The groundwater analytical results are summarized in Table 3. Concentrations of TPH-ms in groundwater are shown in Figure 3.

3.7. CONCLUSIONS AND RECOMMENDATIONS

Concentrations of TPH-ms in groundwater were present in 3 of the 5 monitoring wells sampled, and were greatest along the northern portion of the property where the former USTs were located. Only one offsite monitoring well (CW-1) contained concentrations of TPH-ms.

Clayton recommends continued groundwater monitoring for a period of three additional quarters. At that point, based on the results of the sampling, a review for site closure may be warranted.

4. LIMITATIONS

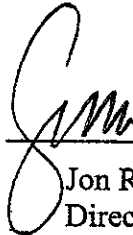
The information and opinions rendered in this report are exclusively for use by Green City Development Group, Inc. Clayton Group Services, Inc. will not distribute this report without the consent of Green City Development Group, Inc. except as may be required by law or court order. The information and opinions expressed in this report are given in response to our limited assignment and should be evaluated and implemented only in light of that assignment. We accept responsibility for the competent performance of our duties in executing the assignment and preparing this report in accordance with the normal standards of our profession but disclaim any responsibility for consequential damages.

This report was prepared by:



Mike Krzeminski
Environmental Consultant
Environmental Services

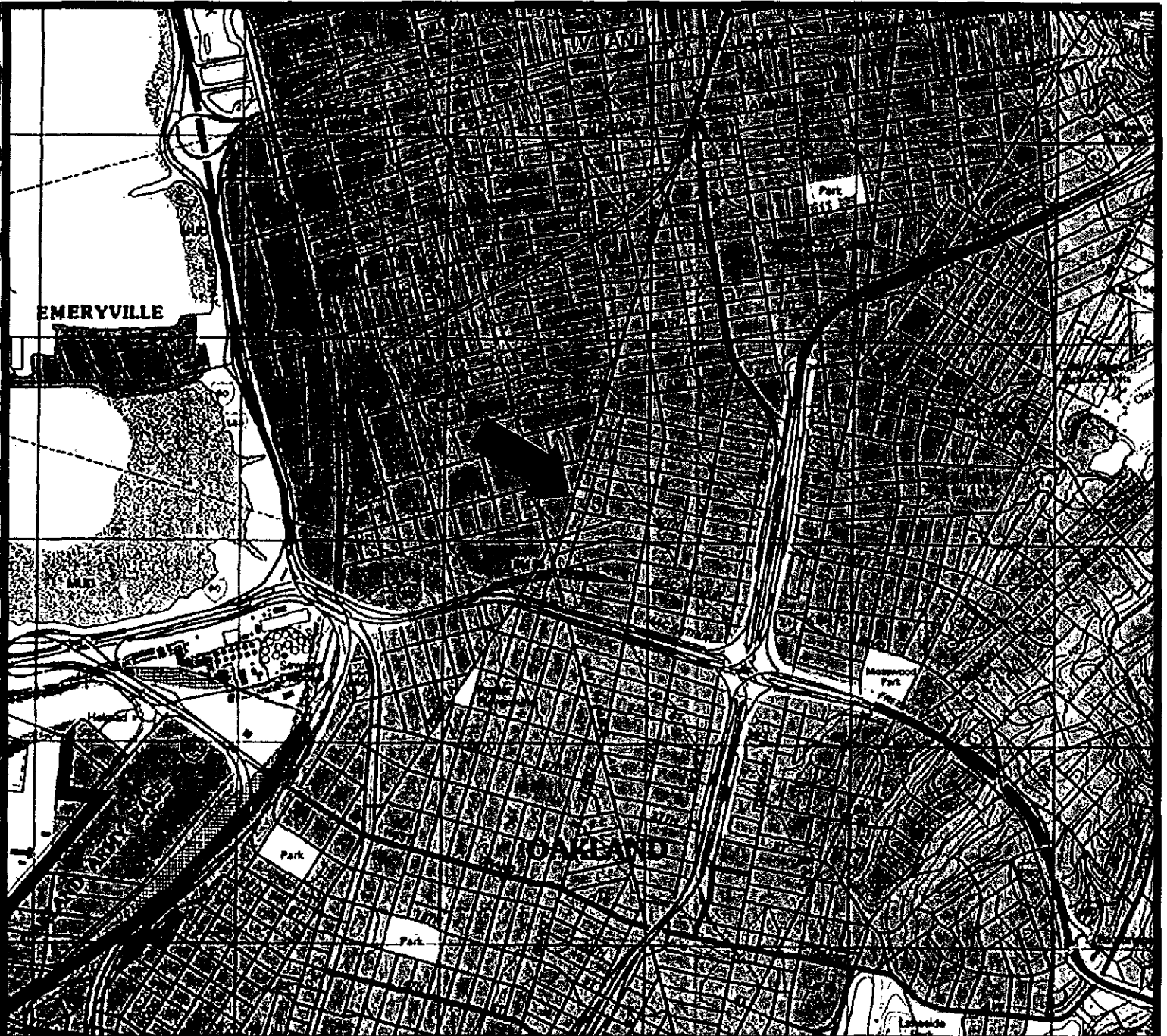
This report was reviewed by:



Jon Rosso, P.E.
Director
Environmental Services

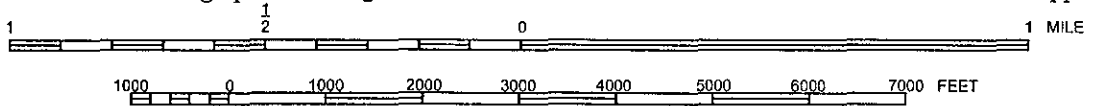
December 4, 2003

FIGURES



Map Source: TOPO!© 2000 National Geographic Holdings

Note: Boundaries and Location Information is Approximate



Portion of the 7.5-Minute Series Oakland West, California
 Quadrangle Topographic Map (Datum: NAD 27)
 United States Department of the Interior
 Geological Survey
 1997

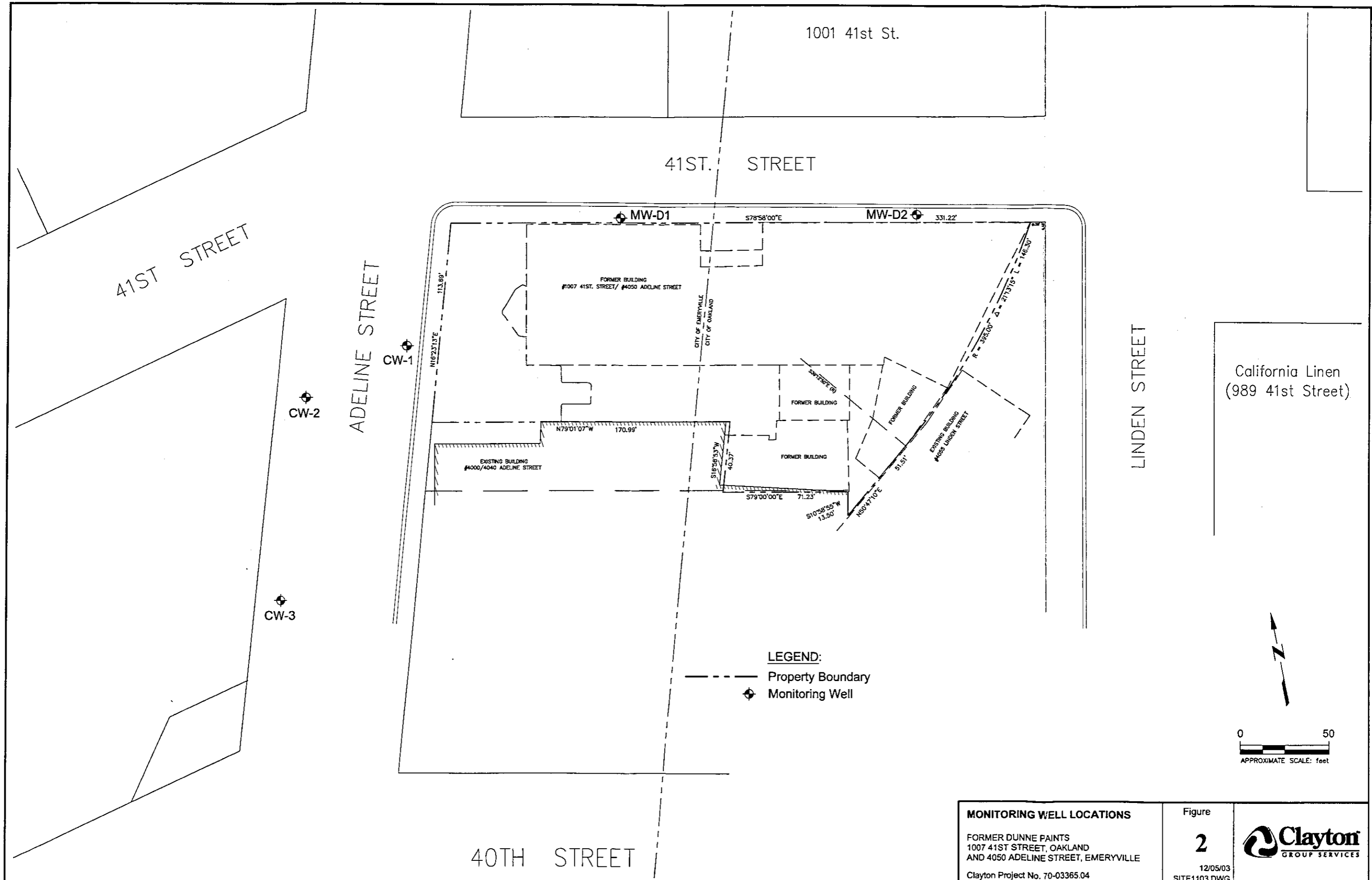


PROPERTY LOCATION MAP
 1007 41st Street
 Emeryville/Oakland, California and
 4050 Adeline Street
 Emeryville, California
 Clayton Project No. 70-03365.00

Figure

1





<p>MONITORING WELL LOCATIONS</p> <p>FORMER DUNNE PAINTS 1007 41ST STREET, OAKLAND AND 4050 ADELINE STREET, EMERYVILLE</p> <p>Clayton Project No. 70-03365.04</p>	<p>Figure 2</p> <p>12/05/03 SITE1103.DWG</p>	
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1001 41st St.

41ST. STREET

85
(43.34)

1,400
(41.00)

MW-D1

MW-D2

41ST STREET

ADELINE STREET

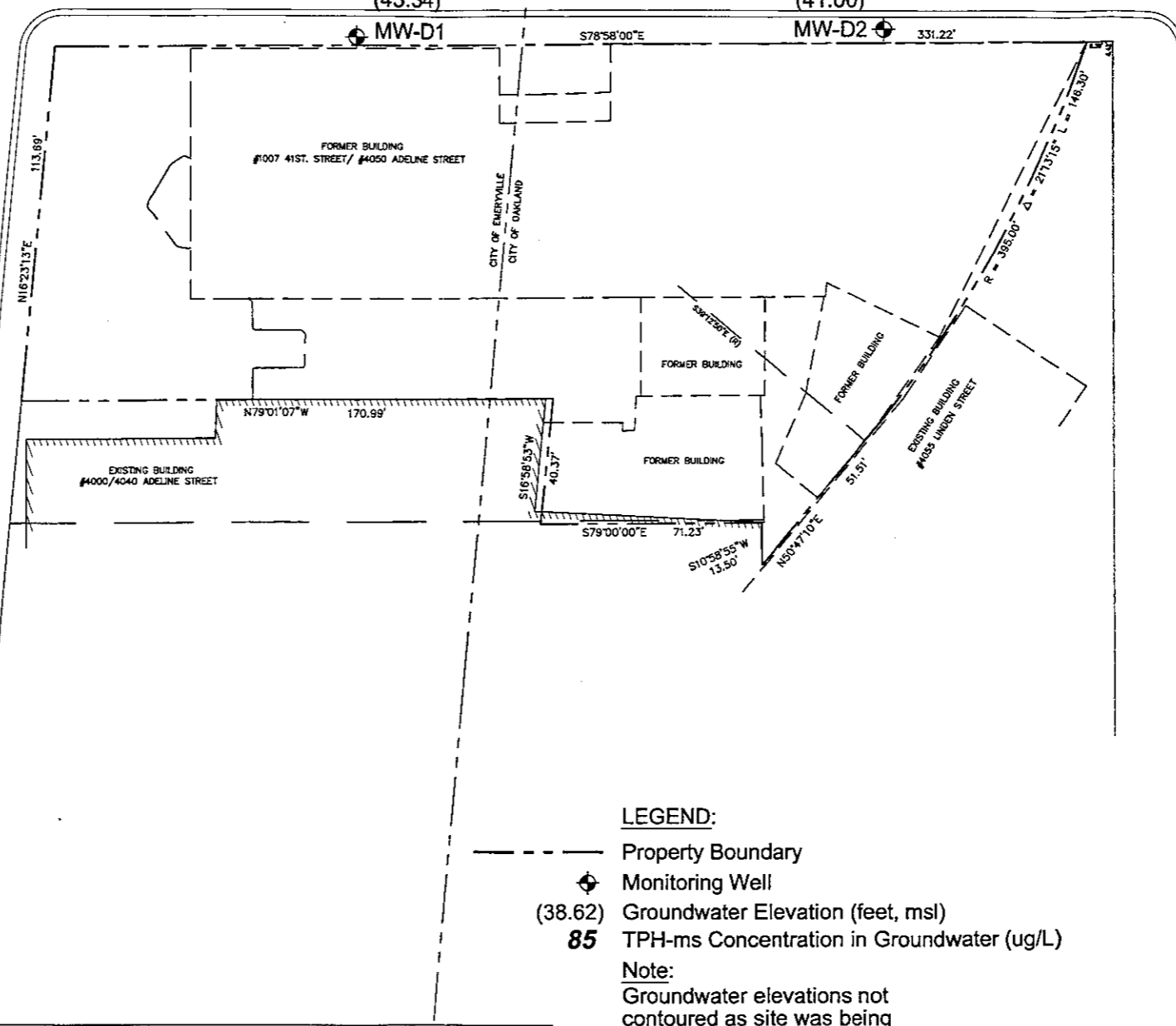
CW-1
(38.62)
85

CW-2
(33.84)
<50

CW-3
(38.09)
<50

LINDEN STREET

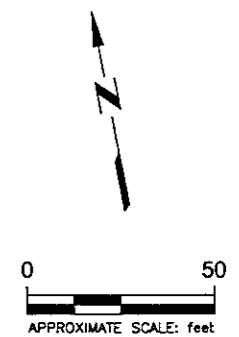
California Linen
(989 41st Street)



LEGEND:

- Property Boundary
- ◆ Monitoring Well
- (38.62) Groundwater Elevation (feet, msl)
- 85 TPH-ms Concentration in Groundwater (ug/L)

Note:
Groundwater elevations not contoured as site was being dewatered at time of measurements.



40TH STREET

**GROUNDWATER ELEVATIONS AND
TPH-ms CONCENTRATION MAP
(NOVEMBER 12, 2003)**
FORMER DUNNE PAINTS
1007 41ST STREET, OAKLAND
AND 4050 ADELINE STREET, EMERYVILLE
Clayton Project No. 70-03365.04

Figure
3
12/05/03
SITE1103.DWG



TABLES

Table 1
Summary of Groundwater Monitoring Well Soil Sampling Data
Former Dunne Paint Facility
1007 41st Street
Oakland, California

Sample Location	Date Sampled	TPH-ms	VOCs
CW-1	10/31/2003	2,000	ND
CW-2	10/30/2003	36	ND
CW-3	10/30/2003	<1.0	ND

Notes:

1. All results in milligrams per kilogram (mg/kg).
2. TPH-ms = Total Petroleum Hydrocarbons as Mineral Spirits
3. VOCs = Volatile Organic Compounds analyzed by 8260
4. ND = Not Detected

Table 2

Summary of Groundwater Elevation Data
Former Dunne Paint Facility
1007 41st Street
Oakland, California

Well Identification	Date Measured	Top of Casing Elevation (ft.msl)	Depth to Water (feet)	Groundwater Elevation (ft.msl)
CW-1	11/12/2003	47.55	8.93	38.62
CW-2	11/12/2003	47.59	9.25	38.34
CW-3	11/12/2003	46.39	8.30	38.09
MW-D1	11/12/2003	49.32	5.98	43.34
MW-D2	11/12/2003	50.52	9.52	41.00

Notes:

1. All top of casing elevations referenced to mean sea level (msl) and measured with reference to the benchmark located at the intersection of 35th and Market Streets.

APPENDIX A

MONITORING WELL CONSTRUCTION LOGS



LOG OF BORING CW-1

(Page 1 of 1)

Former Dunne Paint Facility
1007 41st Street
Oakland, California

Date Started : 10/31/03
Date Completed : 10/31/03
Hole Diameter : 8-inch
Drilling Method : Hollow Stem Auger
Sampling Method : Cal Modified Split Spoon

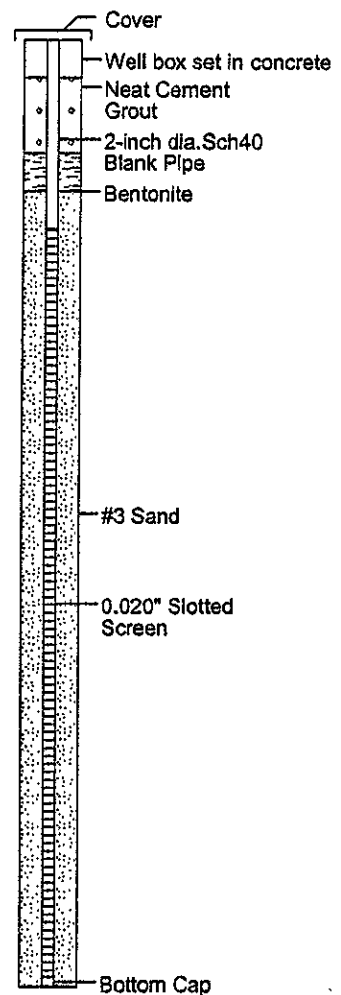
Driller : Clear Heart Drilling
Logged by : Mike Krzeminski
Surveyor : V. Chavez
Top of Casing : 47.55 ft, msl

Clayton Project No.: 70-03365.05

Depth in FEET	Samples	Blow Count	OVM (mg/kg)	USCS	GRAPHIC	DESCRIPTION
---------------	---------	------------	-------------	------	---------	-------------

Well: CW-1
Elev.: 47.55 ft msl

0						Asphalt and Baserock
0 - 10				CL		Silty Clay (CL) (0,0,30,70), dark brown, dry.
10	9 12 17	478		CL		Gravelly Clay with trace sand (CL) (30,10,0,60), greenish gray, medium stiff, fine angular gravel, moist, hydrocarbon odor present.
15	10 13 16	4.8		GW/SW		Gravelly Sand (GW/SW) (50,50,0,0), light brown, medium dense, fine gravel, medium sands, saturated, no odor.
25	Total Depth of Boring = 25 feet					



Notes:



LOG OF BORING CW-2

(Page 1 of 1)

Former Dunne Paint Facility
1007 41st Street
Oakland, California

Date Started : 10/30/03
Date Completed : 10/30/03
Hole Diameter : 8-inch
Drilling Method : Hollow Stem Auger
Sampling Method : Cal Modified Split Spoon

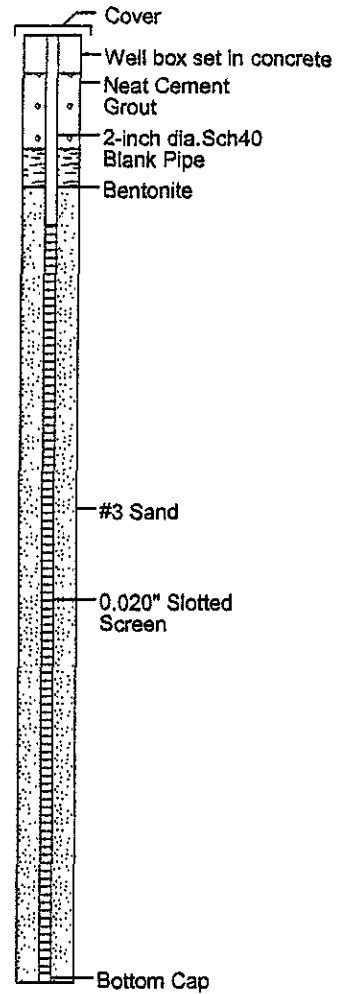
Driller : Clear Heart Drilling
Logged by : Mike Krzeminski
Surveyor : V. Chavez
Top of Casing : 47.59 ft, msl

Clayton Project No.: 70-03365.05

Depth in FEET	Samples	Blow Count	OVM (mg/kg)	USCS	GRAPHIC	DESCRIPTION
---------------	---------	------------	-------------	------	---------	-------------

Well: CW-2
Elev.: 47.59 ft, msl

0						Asphalt and Baseroack
0-5						Silty Clay trace gravel (CL) (5,0,40,55), dark brown, very stiff, fine subangular gravel, dry, rootlets.
5-10	X	7 10 15 6 9 13 6 19 20 7	0.3 0.3 445	CL		
10-15	X	13 17 8 10 15 9 16 19 8 15 17	782 25.1	CL GW/SW		Gravelly Clay trace sand (CL) (30,10,10,50), greenish gray, stiff, coarse gravel, moist, hydrocarbon odor present. Gravelly Sand (GW/SW) (50,50,0,0), light brown, medium dense, coarse gravel, medium sands, saturated, no odor.
15-20	X	8 15 17	0.9	GW/SW		
20-25		13 17 20	0.3	GW		Sandy Gravel (GW) (60,40,0,0) light brown, medium dense, coarse gravel, medium sands, saturated.



Total Depth of Boring = 25 feet

Notes:



LOG OF BORING CW-3

(Page 1 of 1)

Former Dunne Paint Facility
1007 41st Street
Oakland, California

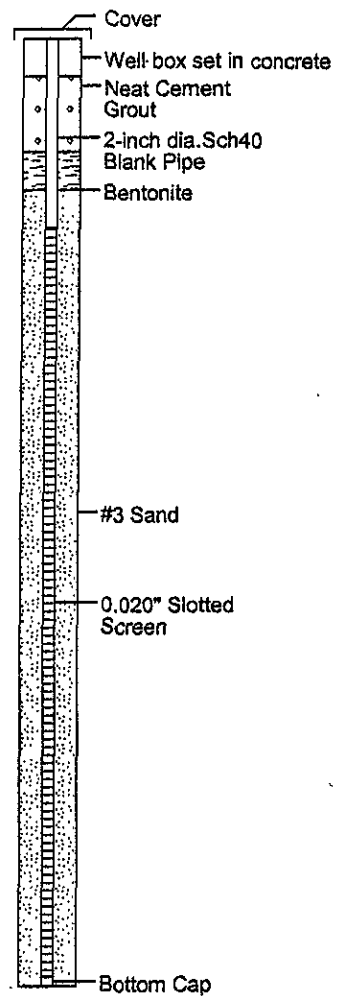
Clayton Project No.: 70-03365.05

Date Started : 10/30/03
Date Completed : 10/30/03
Hole Diameter : 8-inch
Drilling Method : Hollow Stem Auger
Sampling Method : Cal Modified Split Spoon

Driller : Clear Heart Drilling
Logged by : Mike Krzeminski
Surveyor : V. Chavez
Top of Casing : 46.39 ft, msl

Well: CW-3
Elev.: 46.39 ft, msl

Depth in FEET	Samples	Blow Count	OVM (mg/kg)	USCS	GRAPHIC	DESCRIPTION
0						Asphalt and Baserock
0 - 5				CL		Silty Clay (CL) (0,0,30,70), dark brown, stiff, dry, rootlets.
5 - 10				CL		Gravelly Clay with trace sand (CL) (30,10,0,60), light brown, medium stiff, fine angular gravel, moist.
10 - 15				CL		Silty Clay trace gravel (CL) (10,0,30,60), light brown, medium stiff, fine angular gravel, saturated.
15 - 20				GW/SW		
20 - 25				GW/SW		
25						Total Depth of Boring = 25 feet
30						



12-01-2003 s:\ESBORING LOGS\p03365\CW-3 bor

Notes:

APPENDIX B

MONITORING WELL DEVELOPMENT LOGS

WELL DEVELOPMENT LOG

Job Location: <u>Green Lakes</u>	Top of Casing: _____ (ft, msl)
_____	Depth to Water: <u>9.20</u>
<u>Emeryville</u> , California	Groundwater Elevation _____
Job # <u>70-03665-05</u>	Well Bottom: <u>25 Feet</u> (ft, msl)
Well ID: <u>CW-2</u>	Water Column: <u>15.00</u>
Date Developed: <u>11-7-03</u>	Well Casing Volume: <u>2.52</u> (WC* 0.16)
Purge Method: <u>submersible pump</u>	Casing Volumes Purged: <u>10</u>
Conditions: <u>overcast</u>	Purge Rate: _____
Field Tech: <u>MLK</u>	_____

Time	Volume Removed (gal)	pH	Specific Conductivity (µmhos/cm)	Redox Potential (mVolts)	Temperature (°F or °C)	Turbidity (visual)
7:50	0	6.58	0.760 (m)	48 48	17.8	clear
7:52	2.5	6.37	0.729 (m)	54	19.4	cloudy bottom
7:55	2.5	6.05	0.639 (m)	53	14.4	11
7:59	2.5	6.50	0.580 (m)	50	20.1	11
8:01	2.5	6.42	0.580 "	51	14.4	11
8:05	2.5	6.53	0.587 (m)	47	20.0	11
8:10	2.5	6.53	0.337 (m)	45	14.4	Slightly Turbid Light Brown
8:12	2.5	6.66	0.464 (m)	40	20.1	11
8:15	2.5	6.61	0.594 (m)	43	20.1	11
8:14	2.5	6.47	0.638 (m)	34	14.4	11
8:22	2.5	6.65	0.671 (m)	36	20.1	11
:						
:						
:						
:						
:						

Field Notes: only sub. pump used to develop. pump was run up & down well casing in order to pull water from entire formation

WELL DEVELOPMENT LOG

Job Location: <u>Green Cities</u>	Top of Casing: _____ (ft, msl)
_____	Depth to Water: <u>9.46</u>
<u>Emeryville</u> , California	Groundwater Elevation _____
Job # <u>70-01465.05</u>	Well Bottom: <u>25'</u> (ft, msl)
Well ID: <u>CW-2</u>	Water Column: <u>15.54</u>
Date Developed: <u>11-7-03</u>	Well Casing Volume: <u>2.46</u> (WC* 0.16)
Purge Method: <u>Submersible Pump</u>	Casing Volumes Purged: <u>10</u>
Conditions: <u>Overcast</u>	Purge Rate: _____
Field Tech: <u>MLC</u>	_____

Time	Volume Removed (gal)	pH	Specific Conductivity (µmhos/cm)	Redox Potential (mVolts)	Temperature (°F or °C)	Turbidity (visual)
8:40	0	6.82	28 ← → 0.340 (m)		14.7	clear
8:42	2.5	6.85	0.552 (m)	31	20.5	slightly turbid
8:45	2.5	6.77	0.573 (m)	31	20.4	
8:47	2.5	6.74	56.3	38	21.0	
8:50	2.5	6.67	53.5	37	21.1	
8:52	2.5	6.90	52.1	27	21.1	
8:55	2.5	6.87	49.5	29	21.3	slightly turbid
8:58	2.5	6.89	44.4	28	21.0	
9:02	2.5	6.86	41.4	30	21.2	
9:05	2.5	6.72	43.8	35	20.4	
9:07	2.5	6.74	43.2	34	20.8	
:						
:						
:						
:						
:						

Field Notes: city sub pump used to develop. Pump was run up + down well casing inside to pull water from entire Annular

WELL DEVELOPMENT LOG

Job Location: <u>Green Cities</u>	Top of Casing: _____ (ft. msl)
	Depth to Water: <u>8.12</u>
<u>Comeryville</u> , California	Groundwater Elevation _____
Job # <u>70-01665-05</u>	Well Bottom: <u>25'</u> (ft. msl)
Well ID: <u>CW-7</u>	Water Column: <u>16.88</u>
Date Developed: <u>11-7-03</u>	Well Casing Volume: <u>2.70</u> (WC* 0.16)
Purge Method: <u>Submersible pump</u>	Casing Volumes Purged: <u>10</u>
Conditions: <u>overcast</u>	Purge Rate: _____
Field Tech: <u>MLK</u>	

Time	Volume Removed (gal)	pH	Specific Conductivity (µmhos/cm)	Redox Potential (mVolts)	Temperature (°F or °C)	Turbidity (visual)
9:32	0	6.71	0.434 (m)	36	19.8	Clear
9:34	2.5	6.45	0.415 (m)	34	20.0	Turbid Brown
9:37	2.5	6.84	1.120	30	19.9	"
9:40	2.5	6.82	154.2	28	19.7	"
9:42	2.5	6.98	174.3	22	19.5	"
9:45	2.5	7.28	109.6	10	18.4	"
9:48	2.5	7.09	1.252 (m)	14	14.1	"
:	pumped dry @ 9:50					
10:00	2.5	7.18	86.7	8	19.6	"
10:03	2.5	7.07	74.9	18	19.6	Slightly Turbid Light Green
10:05	2.5	7.04	16.20	17	19.5	"
10:08	2.5	7.01	59.4	21	19.4	Turbid Brown
:						
:						
:						
:						

Field Notes: _____

APPENDIX C
MONITORING WELL SURVEY DATA

Virgil Chavez Land Surveying

312 Georgia Street, Suite 225
Vallejo, California 94590-5907
(707) 553-2476 • Fax (707) 553-8698

November 26, 2003
Project No.: 2325-01

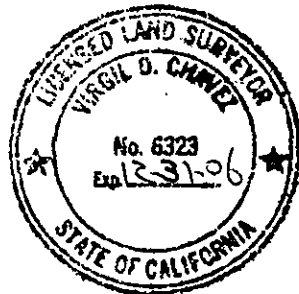
Mike Krzeminski
Clayton Group Services
6920 Koll Center Parkway, Suite 216
Pleasanton, CA 94566

Subject: Monitoring Well Survey
Former Dunne Paints
1007 41st Street
Oakland, CA

Dear Mike:

This is to confirm that we have proceeded at your request to survey the ground water monitoring wells located at the above referenced location. The survey was completed on November 22, 2003. The benchmark for this survey was a City of Oakland benchmark, being a pin in monument at 35th Street and Market Street. The latitude, longitude and coordinates are for top of casings and are based on the California State Coordinate System, Zone III (NAD83). Benchmark Elevation = 37.71 feet (NGVD 29).

<u>Latitude</u>	<u>Longitude</u>	<u>Northing</u>	<u>Easting</u>	<u>Elev.</u>	<u>Desc.</u>
37.8321985	-122.2774764	2130358.98	6048364.36	49.54	RIM MW-D1
				49.32	TOC MW-D1
				51.04	RIM MW-D2
37.8321296	-122.2770226	2130331.44	6048494.91	50.52	TOC MW-D2
				47.81	RIM CW-1
37.8320975	-122.2778409	2130324.21	6048258.41	47.55	TOC CW-1
				47.89	RIM CW-2
37.8320597	-122.2780107	2130311.40	6048209.10	47.59	TOC CW-2
				46.68	RIM CW-3
37.8318216	-122.2781112	2130225.25	6048178.44	46.39	TOC CW-3



Sincerely,

Virgil D. Chavez

 Virgil D. Chavez, PLS 6323

APPENDIX D

**LABORATORY ANALYTICAL SHEETS AND CHAIN-OF-
CUSTODY DOCUMENTATION FOR THE MONITORING WELL
INSTALLATION ACTIVITIES**

Total Volatile Hydrocarbons			
Lab #:	168559	Location:	Green Cities
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03665.05	Analysis:	8015B
Matrix:	Soil	Batch#:	85849
Units:	mg/Kg	Received:	10/31/03
Basis:	as received		

Field ID: CW-1@10.5' Diln Fac: 100.0
 Type: SAMPLE Sampled: 10/31/03
 Lab ID: 168559-001 Analyzed: 11/05/03

Analyte	Result	RL
Mineral Spirits C7-C12	2,000	100
Surrogate	%REC	Limits
Trifluorotoluene (FID)	91	56-144
Bromofluorobenzene (FID)	261 *	>LR b 51-142

Field ID: CW-2@10.0' Diln Fac: 1.000
 Type: SAMPLE Sampled: 10/30/03
 Lab ID: 168559-002 Analyzed: 11/04/03

Analyte	Result	RL
Mineral Spirits C7-C12	36	2.0
Surrogate	%REC	Limits
Trifluorotoluene (FID)	94	56-144
Bromofluorobenzene (FID)	242 *	>LR b 51-142

Field ID: CW-3@11.0' Diln Fac: 1.000
 Type: SAMPLE Sampled: 10/30/03
 Lab ID: 168559-003 Analyzed: 11/04/03

Analyte	Result	RL
Mineral Spirits C7-C12	ND	1.1
Surrogate	%REC	Limits
Trifluorotoluene (FID)	89	56-144
Bromofluorobenzene (FID)	102	51-142

Type: BLANK Diln Fac: 1.000
 Lab ID: QC230944 Analyzed: 11/04/03

Analyte	Result	RL
Mineral Spirits C7-C12	ND	1.0
Surrogate	%REC	Limits
Trifluorotoluene (FID)	92	56-144
Bromofluorobenzene (FID)	97	51-142

*= Value outside of QC limits; see narrative
 b= See narrative
 ND= Not Detected
 RL= Reporting Limit
 >LR= Response exceeds instrument's linear range
 Page 1 of 1

Total Volatile Hydrocarbons

Lab #:	168559	Location:	Green Cities
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03665.05	Analysis:	8015B
Type:	LCS	Basis:	as received
Lab ID:	QC230946	Diln Fac:	1.000
Matrix:	Soil	Batch#:	85849
Units:	mg/Kg	Analyzed:	11/04/03

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	10.57	106	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	109	56-144
Bromofluorobenzene (FID)	102	51-142

Total Volatile Hydrocarbons			
Lab #:	168559	Location:	Green Cities
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03665.05	Analysis:	8015B
Field ID:	CW-3@11.0'	Diln Fac:	1.000
MSS Lab ID:	168559-003	Batch#:	85849
Matrix:	Soil	Sampled:	10/30/03
Units:	mg/Kg	Received:	10/31/03
Basis:	as received	Analyzed:	11/05/03

Type: MS Lab ID: QC231046

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.2800	10.10	10.81	104	24-134

Surrogate	%REC	Limits
Trifluorotoluene (FID)	112	56-144
Bromofluorobenzene (FID)	118	51-142

Type: MSD Lab ID: QC231047

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	9.901	9.745	96	24-134	8	32

Surrogate	%REC	Limits
Trifluorotoluene (FID)	109	56-144
Bromofluorobenzene (FID)	102	51-142

Purgeable Organics by GC/MS

Lab #:	168559	Location:	Green Cities
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03665.05	Analysis:	EPA 8260B
Field ID:	CW-1@10.5'	Diln Fac:	500.0
Lab ID:	168559-001	Batch#:	85943
Matrix:	Soil	Sampled:	10/31/03
Units:	ug/Kg	Received:	10/31/03
Basis:	as received	Analyzed:	11/07/03

Analyte	Result	RL
Freon 12	ND	5,000
Chloromethane	ND	5,000
Vinyl Chloride	ND	5,000
Bromomethane	ND	5,000
Chloroethane	ND	5,000
Trichlorofluoromethane	ND	2,500
Acetone	ND	10,000
Freon 113	ND	2,500
1,1-Dichloroethene	ND	2,500
Methylene Chloride	ND	10,000
Carbon Disulfide	ND	2,500
MTBE	ND	2,500
trans-1,2-Dichloroethene	ND	2,500
Vinyl Acetate	ND	25,000
1,1-Dichloroethane	ND	2,500
2-Butanone	ND	5,000
cis-1,2-Dichloroethene	ND	2,500
2,2-Dichloropropane	ND	2,500
Chloroform	ND	2,500
Bromochloromethane	ND	2,500
1,1,1-Trichloroethane	ND	2,500
1,1-Dichloropropene	ND	2,500
Carbon Tetrachloride	ND	2,500
1,2-Dichloroethane	ND	2,500
Benzene	ND	2,500
Trichloroethene	ND	2,500
1,2-Dichloropropane	ND	2,500
Bromodichloromethane	ND	2,500
Dibromomethane	ND	2,500
4-Methyl-2-Pentanone	ND	5,000
cis-1,3-Dichloropropene	ND	2,500
Toluene	ND	2,500
trans-1,3-Dichloropropene	ND	2,500
1,1,2-Trichloroethane	ND	2,500
2-Hexanone	ND	5,000
1,3-Dichloropropane	ND	2,500
Tetrachloroethene	ND	2,500

ND= Not Detected
RL= Reporting Limit
Page 1 of 2

Purgeable Organics by GC/MS

Lab #:	168559	Location:	Green Cities
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03665.05	Analysis:	EPA 8260B
Field ID:	CW-1@10.5'	Diln Fac:	500.0
Lab ID:	168559-001	Batch#:	85943
Matrix:	Soil	Sampled:	10/31/03
Units:	ug/Kg	Received:	10/31/03
Basis:	as received	Analyzed:	11/07/03

Analyte	Result	RL
Dibromochloromethane	ND	2,500
1,2-Dibromoethane	ND	2,500
Chlorobenzene	ND	2,500
1,1,1,2-Tetrachloroethane	ND	2,500
Ethylbenzene	ND	2,500
m,p-Xylenes	ND	2,500
o-Xylene	ND	2,500
Styrene	ND	2,500
Bromoform	ND	2,500
Isopropylbenzene	ND	2,500
1,1,2,2-Tetrachloroethane	ND	2,500
1,2,3-Trichloropropane	ND	2,500
Propylbenzene	ND	2,500
Bromobenzene	ND	2,500
1,3,5-Trimethylbenzene	ND	2,500
2-Chlorotoluene	ND	2,500
4-Chlorotoluene	ND	2,500
tert-Butylbenzene	ND	2,500
1,2,4-Trimethylbenzene	ND	2,500
sec-Butylbenzene	ND	2,500
para-Isopropyl Toluene	ND	2,500
1,3-Dichlorobenzene	ND	2,500
1,4-Dichlorobenzene	ND	2,500
n-Butylbenzene	ND	2,500
1,2-Dichlorobenzene	ND	2,500
1,2-Dibromo-3-Chloropropane	ND	2,500
1,2,4-Trichlorobenzene	ND	2,500
Hexachlorobutadiene	ND	2,500
Naphthalene	ND	2,500
1,2,3-Trichlorobenzene	ND	2,500

Surrogate	%REC	Limits
Dibromofluoromethane	112	74-128
1,2-Dichloroethane-d4	100	76-130
Toluene-d8	105	80-120
Bromofluorobenzene	100	76-125

ND= Not Detected
 RL= Reporting Limit
 Page 2 of 2

Purgeable Organics by GC/MS

Lab #:	168559	Location:	Green Cities
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03665.05	Analysis:	EPA 8260B
Field ID:	CW-2@10.0'	Diln Fac:	25.00
Lab ID:	168559-002	Batch#:	85891
Matrix:	Soil	Sampled:	10/30/03
Units:	ug/Kg	Received:	10/31/03
Basis:	as received	Analyzed:	11/06/03

Analyte	Result	RL
Freon 12	ND	250
Chloromethane	ND	250
Vinyl Chloride	ND	250
Bromomethane	ND	250
Chloroethane	ND	250
Trichlorofluoromethane	ND	130
Acetone	ND	500
Freon 113	ND	130
1,1-Dichloroethene	ND	130
Methylene Chloride	ND	500
Carbon Disulfide	ND	130
MTBE	ND	130
trans-1,2-Dichloroethene	ND	130
Vinyl Acetate	ND	1,300
1,1-Dichloroethane	ND	130
2-Butanone	ND	250
cis-1,2-Dichloroethene	ND	130
2,2-Dichloropropane	ND	130
Chloroform	ND	130
Bromochloromethane	ND	130
1,1,1-Trichloroethane	ND	130
1,1-Dichloropropene	ND	130
Carbon Tetrachloride	ND	130
1,2-Dichloroethane	ND	130
Benzene	ND	130
Trichloroethene	ND	130
1,2-Dichloropropane	ND	130
Bromodichloromethane	ND	130
Dibromomethane	ND	130
4-Methyl-2-Pentanone	ND	250
cis-1,3-Dichloropropene	ND	130
Toluene	ND	130
trans-1,3-Dichloropropene	ND	130
1,1,2-Trichloroethane	ND	130
2-Hexanone	ND	250
1,3-Dichloropropane	ND	130
Tetrachloroethene	ND	130

ND= Not Detected
RL= Reporting Limit
Page 1 of 2

Purgeable Organics by GC/MS

Lab #:	168559	Location:	Green Cities
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03665.05	Analysis:	EPA 8260B
Field ID:	CW-2@10.0'	Diln Fac:	25.00
Lab ID:	168559-002	Batch#:	85891
Matrix:	Soil	Sampled:	10/30/03
Units:	ug/Kg	Received:	10/31/03
Basis:	as received	Analyzed:	11/06/03

Analyte	Result	RL
Dibromochloromethane	ND	130
1,2-Dibromoethane	ND	130
Chlorobenzene	ND	130
1,1,1,2-Tetrachloroethane	ND	130
Ethylbenzene	ND	130
m,p-Xylenes	ND	130
o-Xylene	ND	130
Styrene	ND	130
Bromoform	ND	130
Isopropylbenzene	ND	130
1,1,2,2-Tetrachloroethane	ND	130
1,2,3-Trichloropropane	ND	130
Propylbenzene	ND	130
Bromobenzene	ND	130
1,3,5-Trimethylbenzene	ND	130
2-Chlorotoluene	ND	130
4-Chlorotoluene	ND	130
tert-Butylbenzene	ND	130
1,2,4-Trimethylbenzene	ND	130
sec-Butylbenzene	ND	130
para-Isopropyl Toluene	ND	130
1,3-Dichlorobenzene	ND	130
1,4-Dichlorobenzene	ND	130
n-Butylbenzene	ND	130
1,2-Dichlorobenzene	ND	130
1,2-Dibromo-3-Chloropropane	ND	130
1,2,4-Trichlorobenzene	ND	130
Hexachlorobutadiene	ND	130
Naphthalene	ND	130
1,2,3-Trichlorobenzene	ND	130

Surrogate	%REC	Limits
Dibromofluoromethane	100	74-128
1,2-Dichloroethane-d4	110	76-130
Toluene-d8	93	80-120
Bromofluorobenzene	104	76-125

ND= Not Detected
 RL= Reporting Limit
 Page 2 of 2

Purgeable Organics by GC/MS

Lab #:	168559	Location:	Green Cities
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03665.05	Analysis:	EPA 8260B
Field ID:	CW-3@11.0'	Diln Fac:	0.9434
Lab ID:	168559-003	Batch#:	85842
Matrix:	Soil	Sampled:	10/30/03
Units:	ug/Kg	Received:	10/31/03
Basis:	as received	Analyzed:	11/03/03

Analyte	Result	RL
Freon 12	ND	9.4
Chloromethane	ND	9.4
Vinyl Chloride	ND	9.4
Bromomethane	ND	9.4
Chloroethane	ND	9.4
Trichlorofluoromethane	ND	4.7
Acetone	ND	19
Freon 113	ND	4.7
1,1-Dichloroethene	ND	4.7
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.7
MTBE	ND	4.7
trans-1,2-Dichloroethene	ND	4.7
Vinyl Acetate	ND	47
1,1-Dichloroethane	ND	4.7
2-Butanone	ND	9.4
cis-1,2-Dichloroethene	ND	4.7
2,2-Dichloropropane	ND	4.7
Chloroform	ND	4.7
Bromochloromethane	ND	4.7
1,1,1-Trichloroethane	ND	4.7
1,1-Dichloropropene	ND	4.7
Carbon Tetrachloride	ND	4.7
1,2-Dichloroethane	ND	4.7
Benzene	ND	4.7
Trichloroethene	ND	4.7
1,2-Dichloropropane	ND	4.7
Bromodichloromethane	ND	4.7
Dibromomethane	ND	4.7
4-Methyl-2-Pentanone	ND	9.4
cis-1,3-Dichloropropene	ND	4.7
Toluene	ND	4.7
trans-1,3-Dichloropropene	ND	4.7
1,1,2-Trichloroethane	ND	4.7
2-Hexanone	ND	9.4
1,3-Dichloropropane	ND	4.7
Tetrachloroethene	ND	4.7

ND= Not Detected
 RL= Reporting Limit
 Page 1 of 2

Purgeable Organics by GC/MS

Lab #:	168559	Location:	Green Cities
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03665.05	Analysis:	EPA 8260B
Field ID:	CW-3@11.0'	Diln Fac:	0.9434
Lab ID:	168559-003	Batch#:	85842
Matrix:	Soil	Sampled:	10/30/03
Units:	ug/Kg	Received:	10/31/03
Basis:	as received	Analyzed:	11/03/03

Analyte	Result	RL
Dibromochloromethane	ND	4.7
1,2-Dibromoethane	ND	4.7
Chlorobenzene	ND	4.7
1,1,1,2-Tetrachloroethane	ND	4.7
Ethylbenzene	ND	4.7
m,p-Xylenes	ND	4.7
o-Xylene	ND	4.7
Styrene	ND	4.7
Bromoform	ND	4.7
Isopropylbenzene	ND	4.7
1,1,2,2-Tetrachloroethane	ND	4.7
1,2,3-Trichloropropane	ND	4.7
Propylbenzene	ND	4.7
Bromobenzene	ND	4.7
1,3,5-Trimethylbenzene	ND	4.7
2-Chlorotoluene	ND	4.7
4-Chlorotoluene	ND	4.7
tert-Butylbenzene	ND	4.7
1,2,4-Trimethylbenzene	ND	4.7
sec-Butylbenzene	ND	4.7
para-Isopropyl Toluene	ND	4.7
1,3-Dichlorobenzene	ND	4.7
1,4-Dichlorobenzene	ND	4.7
n-Butylbenzene	ND	4.7
1,2-Dichlorobenzene	ND	4.7
1,2-Dibromo-3-Chloropropane	ND	4.7
1,2,4-Trichlorobenzene	ND	4.7
Hexachlorobutadiene	ND	4.7
Naphthalene	ND	4.7
1,2,3-Trichlorobenzene	ND	4.7

Surrogate	%REC	Limits
Dibromofluoromethane	106	74-128
1,2-Dichloroethane-d4	98	76-130
Toluene-d8	107	80-120
Bromofluorobenzene	107	76-125

ND= Not Detected
 RL= Reporting Limit
 Page 2 of 2

Purgeable Organics by GC/MS

Lab #:	168559	Location:	Green Cities
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03665.05	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC230911	Diln Fac:	1.000
Matrix:	Soil	Batch#:	85842
Units:	ug/Kg	Analyzed:	11/03/03

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	47.56	95	72-125
Benzene	50.00	46.19	92	78-120
Trichloroethene	50.00	47.17	94	76-127
Toluene	50.00	47.93	96	79-120
Chlorobenzene	50.00	48.02	96	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	103	74-128
1,2-Dichloroethane-d4	94	76-130
Toluene-d8	109	80-120
Bromofluorobenzene	98	76-125

Purgeable Organics by GC/MS

Lab #:	168559	Location:	Green Cities
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03665.05	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC230912	Diln Fac:	1.000
Matrix:	Soil	Batch#:	85842
Units:	ug/Kg	Analyzed:	11/03/03

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

Page 1 of 2

Purgeable Organics by GC/MS

Lab #:	168559	Location:	Green Cities
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03665.05	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC230912	Diln Fac:	1.000
Matrix:	Soil	Batch#:	85842
Units:	ug/Kg	Analyzed:	11/03/03

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	105	74-128
1,2-Dichloroethane-d4	94	76-130
Toluene-d8	107	80-120
Bromofluorobenzene	101	76-125

ND= Not Detected
 RL= Reporting Limit
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Purgeable Organics by GC/MS

Lab #:	168559	Location:	Green Cities
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03665.05	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	85891
Units:	ug/L	Analyzed:	11/05/03
Diln Fac:	1.000		

Type: BS Lab ID: QC231094

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	44.22	88	72-125
Benzene	50.00	43.53	87	78-120
Trichloroethene	50.00	48.45	97	76-127
Toluene	50.00	44.24	88	79-120
Chlorobenzene	50.00	51.37	103	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	102	74-128
1,2-Dichloroethane-d4	103	76-130
Toluene-d8	95	80-120
Bromofluorobenzene	98	76-125

Type: BSD Lab ID: QC231095

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	41.95	84	72-125	5	20
Benzene	50.00	42.85	86	78-120	2	20
Trichloroethene	50.00	47.23	94	76-127	3	20
Toluene	50.00	44.22	88	79-120	0	20
Chlorobenzene	50.00	50.49	101	80-120	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	104	74-128
1,2-Dichloroethane-d4	103	76-130
Toluene-d8	97	80-120
Bromofluorobenzene	93	76-125

Purgeable Organics by GC/MS

Lab #:	168559	Location:	Green Cities
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03665.05	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC231096	Batch#:	85891
Matrix:	Water	Analyzed:	11/05/03
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS			
Lab #:	168559	Location:	Green Cities
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03665.05	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC231096	Batch#:	85891
Matrix:	Water	Analyzed:	11/05/03
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	101	74-128
1,2-Dichloroethane-d4	106	76-130
Toluene-d8	94	80-120
Bromofluorobenzene	97	76-125

ND= Not Detected
 RL= Reporting Limit
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Purgeable Organics by GC/MS

Lab #:	168559	Location:	Green Cities
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03665.05	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC231097	Batch#:	85891
Matrix:	Water	Analyzed:	11/05/03
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected
RL= Reporting Limit
Page 1 of 2

Purgeable Organics by GC/MS

Lab #:	168559	Location:	Green Cities
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03665.05	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC231097	Batch#:	85891
Matrix:	Water	Analyzed:	11/05/03
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	105	74-128
1,2-Dichloroethane-d4	105	76-130
Toluene-d8	89	80-120
Bromofluorobenzene	99	76-125

ND= Not Detected
 RL= Reporting Limit
 Page 2 of 2

Purgeable Organics by GC/MS			
Lab #:	168559	Location:	Green Cities
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03665.05	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	85943
Units:	ug/L	Analyzed:	11/06/03
Diln Fac:	1.000		

Type: BS Lab ID: QC231289

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	48.75	98	72-125
Benzene	50.00	47.12	94	78-120
Trichloroethene	50.00	47.53	95	76-127
Toluene	50.00	48.40	97	79-120
Chlorobenzene	50.00	50.14	100	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	104	74-128
1,2-Dichloroethane-d4	94	76-130
Toluene-d8	106	80-120
Bromofluorobenzene	102	76-125

Type: BSD Lab ID: QC231290

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	52.02	104	72-125	6	20
Benzene	50.00	50.31	101	78-120	7	20
Trichloroethene	50.00	51.74	103	76-127	8	20
Toluene	50.00	50.67	101	79-120	5	20
Chlorobenzene	50.00	53.88	108	80-120	7	20

Surrogate	%REC	Limits
Dibromofluoromethane	101	74-128
1,2-Dichloroethane-d4	92	76-130
Toluene-d8	103	80-120
Bromofluorobenzene	100	76-125

Purgeable Organics by GC/MS

Lab #:	168559	Location:	Green Cities
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03665.05	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC231293	Batch#:	85943
Matrix:	Water	Analyzed:	11/06/03
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected
 RL= Reporting Limit
 Page 1 of 2

Purgeable Organics by GC/MS

Lab #:	168559	Location:	Green Cities
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	70-03665.05	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC231293	Batch#:	85943
Matrix:	Water	Analyzed:	11/06/03
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	106	74-128
1,2-Dichloroethane-d4	96	76-130
Toluene-d8	103	80-120
Bromofluorobenzene	108	76-125

ND= Not Detected
 RL= Reporting Limit
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APPENDIX E

GROUNDWATER MONITORING FIELD SAMPLING DATA

SHEETS

FIELD SAMPLING DATA SHEET

Job Location:	Former Dunne Paint Facility	Job #:	70-03365.05
	1007 41st Street	Date Purged:	11-12-03
	Oakland, California	Purge Method:	Submersible pump
Sampling Location:	CW-1	Date & Time Sampled:	11-13
Top of Casing:	47.55 (ft, msl)	Sampling Method:	Sub Comp
Depth to Water:	8.93 6:58	Sample Type:	TPH-ms/ 8260
Groundwater Elevation:	38.62	Preservatives:	HCL
Well Bottom:	25' bgs	# of Containers:	1
Water Column:	16.07	Field Tech:	MK
Well Casing Volume:	2.57 (WC* 0.16)	Weather Conditions:	nic
Casing Volumes Purged:	4		
Purge Rate:			3" dia well

Time	Volume Removed (gal)	pH	Specific Conductivity (µmhos/cm)	Redox Potential (mVolts)	Temperature (°F or °C)	Turbidity (Visual)
13:48	0	6.97	0.460	23	20.8	clear
13:50	2.5	6.97	0.264	24	20.9	Slightly Turbid Light Brown
13:52	2.5	6.89	0.433	26	20.8	11
13:54	2.5	6.93	0.499	25	20.8	clear
13:56	2.5	6.91	0.503	25	20.9	11
:						
14:10	SAMPLED					
:						
:						
:						
:						
:						

Field Notes:
 odor in water

FIELD SAMPLING DATA SHEET

Job Location:	Former Dunne Paint Facility	Job #:	70-03365.05
	1007 41st Street	Date Purged:	Submersible pump
	Oakland, California	Purge Method:	11-12-03
Sampling Location:	CW-2	Date & Time Sampled:	11-12
Top of Casing:	47.59 (ft, msl)	Sampling Method:	S.M. pump
Depth to Water:	9.25 - 1.00	Sample Type:	TPH-ms / 8260
Groundwater Elevation	38.34	Preservatives:	HCL
Well Bottom	25' bgs	# of Containers:	6
Water Column:	15.75	Field Tech:	MK
Well Casing Volume:	2.03 (WC*0.86)	Weather Conditions:	Partly
Casing Volumes Purged:	4		
Purge Rate:			34" dia well

Time	Volume Removed (gal)	pH	Specific Conductivity (µmhos/cm)	Redox Potential (mVolts)	Temperature (°F or °C)	Turbidity (Visual)
13:22	0	7.15	0.507	14	20.5	clear
13:24	2.5	7.11	0.481	15	20.7	Slightly turbid light brown
13:26	2.5	7.08	0.492	17	20.9	"
13:28	2.5	7.04	0.485	18	20.7	clear
13:30	2.5	7.00	0.473	21	21.0	"
:						
13:40	SAMPLED					
:						
:						
:						
:						
:						

Field Notes:

FIELD SAMPLING DATA SHEET

Job Location:	Former Dunne Paint Facility	Job #:	70-03365.05
	1007 41st Street	Date Purged:	1-11-03
	Oakland, California	Purge Method:	Submersible pump
Sampling Location:	CW-3	Date & Time Sampled:	11-11
Top of Casing:	46.39 (ft, msl)	Sampling Method:	Sub pump
Depth to Water:	7.50 7.05	Sample Type:	TPH-ms / 8260
Groundwater Elevation	38.09	Preservatives:	HCL
Well Bottom	151 ft	# of Containers:	6
Water Column:	16.70	Field Tech:	MK
Well Casing Volume:	2.67 (WC* 0.16)	Weather Conditions:	Nice
Casing Volumes Purged:	4		
Purge Rate:			3" dia well

Time	Volume Removed (gal)	pH	Specific Conductivity (µmhos/cm)	Redox Potential (mVolts)	Temperature (°F or °C)	Turbidity (Visual)
12:56	0	6.93	1.026 (m)	26	20.4	Clear
12:59	2.5	7.00	0.476 (m)	22	20.5	11
13:01	2.5	6.97	0.475 (m)	24	19.9	Slightly Turbid Light Brown
13:03	2.5	6.89	0.719 (m)	26	19.8	11
13:05	2.5	6.87	0.485 (m)	28	19.5	11
:						
13:15	SAMPLED					
:						
:						
:						
:						
:						

Field Notes:

FIELD SAMPLING DATA SHEET

Job Location: Former Dunne Paint Facility	Job #: 70-03365.05
1007 41st Street	Date Purged: 11-18-03
Oakland, California	Purge Method: Sub. pump
Sampling Location: MW-D1	Date & Time Sampled:
Top of Casing: 49.32 (ft, msl)	Sampling Method: Sub. pump
Depth to Water: 5.96 6.53 Am	Sample Type: TPH-ms / 8260
Groundwater Elevation 43.34	Preservatives: HCL
Well Bottom 13' by 5	# of Containers: 6
Water Column: 7.02	Field Tech: MK
Well Casing Volume: 4.56 (WC* 0.65)	Weather Conditions: nice
Casing Volumes Purged:	
Purge Rate:	4" dia well

Time	Volume Removed (gal)	pH	Specific Conductivity $\mu\text{S}/\text{cm}$	Redox Potential (mVolts)	Temperature (°F or °C)	Turbidity (Visual)
14:20	0	7.09	0.506	18	21.0	clear
14:23	4.5	7.13	0.554	14	21.6	1)
14:27	4.5	7.17	0.488	12	21.8	1)
14:30	4.5	7.29	0.566	6	21.6	1)
14:33	4.5	7.35	0.547	5	21.4	1)
:						
14:40	SAMPLED					
:						
:						
:						
:						
:						

Field Notes:

FIELD SAMPLING DATA SHEET

Job Location: Former Dunne Paint Facility	Job #: 70-03365.05
1007 41st Street	Date Purged: 11-12-03
Oakland, California	Purge Method: Butler
Sampling Location: MW-D2	Date & Time Sampled:
Top of Casing: 52.52 (ft, msl)	Sampling Method: Butler
Depth to Water: 9.52 6:50 Am	Sample Type: TPH-ms / 8260
Groundwater Elevation 41.00	Preservatives: HCL
Well Bottom 13' bgs	# of Containers: 6
Water Column: 3.48	Field Tech: MK
Well Casing Volume: 2.26 (WC* 0.65)	Weather Conditions: nice
Casing Volumes Purged:	
Purge Rate:	4" dia well

Time	Volume Removed (gal)	pH	Specific Conductivity (µmhos/cm)	Redox Potential (mVolts)	Temperature (°F or °C)	Turbidity (Visual)
15:08	0	7.54	85.1 (v)	0	22.6	Clear
15:12	2.2	7.41	0.476 (m)	3	22.4	Turbid-Grey
15:15	2.2	7.27	0.208 (m)	8	22.5	11
15:18	2.2	7.21	44.2 (v)	9	22.3	11
15:22	2.2	7.24	0.208 (m)	7	22.7	11
15:25	SAMPLED					
:						
:						
:						
:						
:						
:						

Field Notes: well near deventery wells - and deventery affecting water level in well

APPENDIX F

**LABORATORY ANALYTICAL SHEETS AND CHAIN-OF-
CUSTODY DOCUMENTATION FOR THE FOURTH QUARTER**

2003 GROUNDWATER MONITORING EVENT



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L R E P O R T


Prepared for:

Clayton Group Services
6920 Koll Center Parkway
Suite 216
Pleasanton, CA 94566

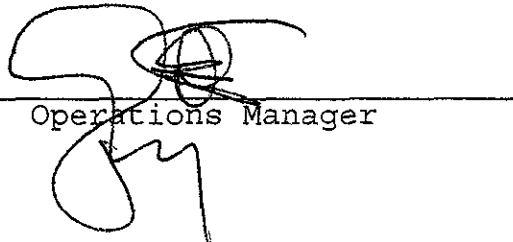
Date: 22-NOV-03
Lab Job Number: 168819
Project ID: STANDARD
Location: FormerDunnePaintFacility

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis.

Reviewed by:


Project Manager

Reviewed by:


Operations Manager

This package may be reproduced only in its entirety.

Laboratory Number: 168819
Client: **Clayton Group Services**
Project Name: **Former Dunne Paint Facility**
Project Number: 70-03365.05

Order Date: 11/12/03

CASE NARRATIVE

This hardcopy data package contains sample and QC results for five water samples that were received on November 12, 2003. Samples were received cold and intact.

TVH – Mineral Spirits by EPA 8015B: High surrogate recovery was observed for Bromofluorobenzene in sample ID MW-02 (168819-005) due to coelution with a hydrocarbon peak. No other analytical problems were encountered.

Purgeable Organics by EPA 8260B: No analytical problems were encountered.

Gasoline Oxygenates by GC/MS EPA 8260B: No analytical problems were encountered.

106879
CHAIN OF CUSTODY



Lab: C&T

TAT: Standard

Report results to:

Name: Mike Krzeminski
 Company: Clayton Group Services
 Mailing Address: 6920 Koll Center Parkway, Ste. 216
 City, State, Zip: Pleasanton, California 94566
 Telephone No.: (925) 426-2600
 Fax No.: (925) 426-0106
 E-mail: mkrzeminski@claytongrp.com

Project Information

Project No.: 70-03365.05
 Name: Former Dunne Paint Facility
 Location: 1007 41st Street
 City: Oakland, California
 Log code: _____

Analyses Requested

Special instructions and/or specific regulatory requirements:

Sample Identification	Sample Date	Sample Time	Matrix/Media	No. of Conts.	Analyses Requested										Sample Condition/Comments	Preservative	
					TPH-ms by 8015M	VOC's by 8260 w/ fuel oxygenates											
-1 CW-1	11-12-03	14:10	W	6	X	X											HCL
-2 CW-2		15:40	W	6	X	X											HCL
3 CW-3		13:15	W	6	X	X											HCL
-4 MW-D1		14:40	W	6	X	X											HCL
-5 MW-D2		15:25	W	6	X	X											HCL

Received Cold Ambient On ice Intact

-1
-2
3
-4
-5

Collected by: MK Date/Time: 11/10 15:45
 Relinquished by: [Signature] Date/Time: 11/12 15:45
 Relinquished by: _____ Date/Time: _____
 Method of Shipment: _____

Collector's Signature: [Signature] Date/Time: 11/12 15:45
 Received by: [Signature] Date/Time: 11/12-03 3:
 Received by: [Signature] Date/Time: _____
 Sample Condition on Rcpt: [Signature]

Total Volatile Hydrocarbons

Lab #:	168819	Location:	FormerDunnePaintFacility
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	8015B
Matrix:	Water	Sampled:	11/12/03
Units:	ug/L	Received:	11/12/03
Diln Fac:	1.000	Analyzed:	11/13/03
Batch#:	86142		

Field ID: CW-1 Lab ID: 168819-001
Type: SAMPLE

Analyte	Result	RL
Mineral Spirits C7-C12	85	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	57-150
Bromofluorobenzene (FID)	121	65-144

Field ID: CW-2 Lab ID: 168819-002
Type: SAMPLE

Analyte	Result	RL
Mineral Spirits C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	97	57-150
Bromofluorobenzene (FID)	114	65-144

Field ID: CW-3 Lab ID: 168819-003
Type: SAMPLE

Analyte	Result	RL
Mineral Spirits C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	98	57-150
Bromofluorobenzene (FID)	114	65-144

*= Value outside of QC limits; see narrative

ND= Not Detected

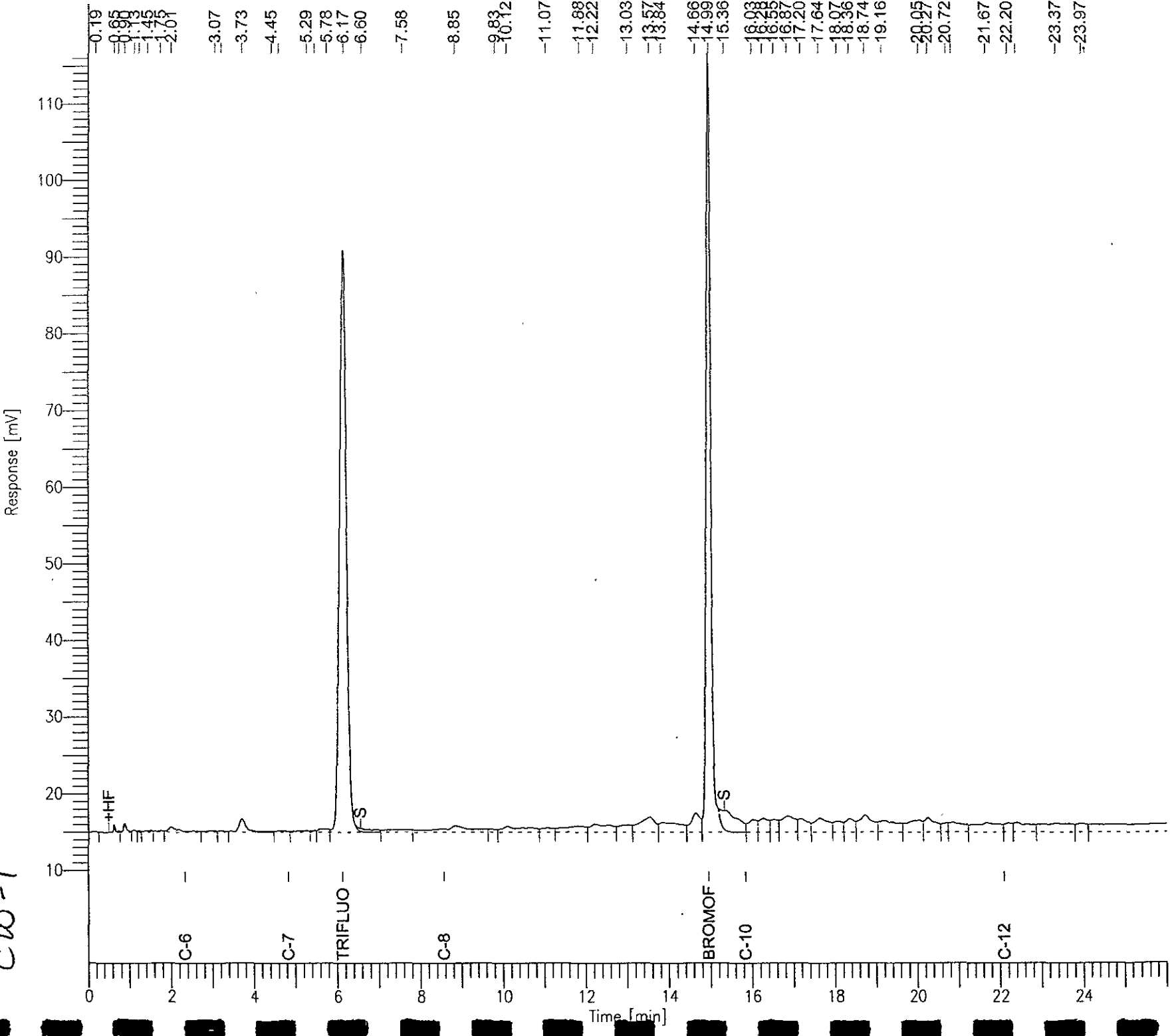
RL= Reporting Limit

Page 1 of 2

GC07 TVH 'A' Data File RTX 502

Sample Name : 168819-001,86142,tvh+minsp
File Name : G:\GC07\DATA\317A005.raw
Method : TVHBTXE
Start Time : 0.00 min
Scale Factor: 1.0
End Time : 26.00 min
Plot Offset: 10 mV
Sample #: a1.0
Date : 11/14/03 08:20 AM
Time of Injection: 11/13/03 02:54 PM
Low Point : 9.89 mV
Plot Scale: 106.8 mV
High Point : 116.72 mV

CW-1





Total Volatile Hydrocarbons

Lab #:	168819	Location:	FormerDunnePaintFacility
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	8015B
Matrix:	Water	Sampled:	11/12/03
Units:	ug/L	Received:	11/12/03
Diln Fac:	1.000	Analyzed:	11/13/03
Batch#:	86142		

Field ID: MW-01 Lab ID: 168819-004
 Type: SAMPLE

Analyte	Result	RL
Mineral Spirits C7-C12	85	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	98	57-150
Bromofluorobenzene (FID)	120	65-144

Field ID: MW-02 Lab ID: 168819-005
 Type: SAMPLE

Analyte	Result	RL
Mineral Spirits C7-C12	1,400	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	97	57-150
Bromofluorobenzene (FID)	199 *	65-144

Type: BLANK Lab ID: QC232075

Analyte	Result	RL
Mineral Spirits C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	92	57-150
Bromofluorobenzene (FID)	108	65-144

* = Value outside of QC limits; see narrative

ND = Not Detected

RL = Reporting Limit

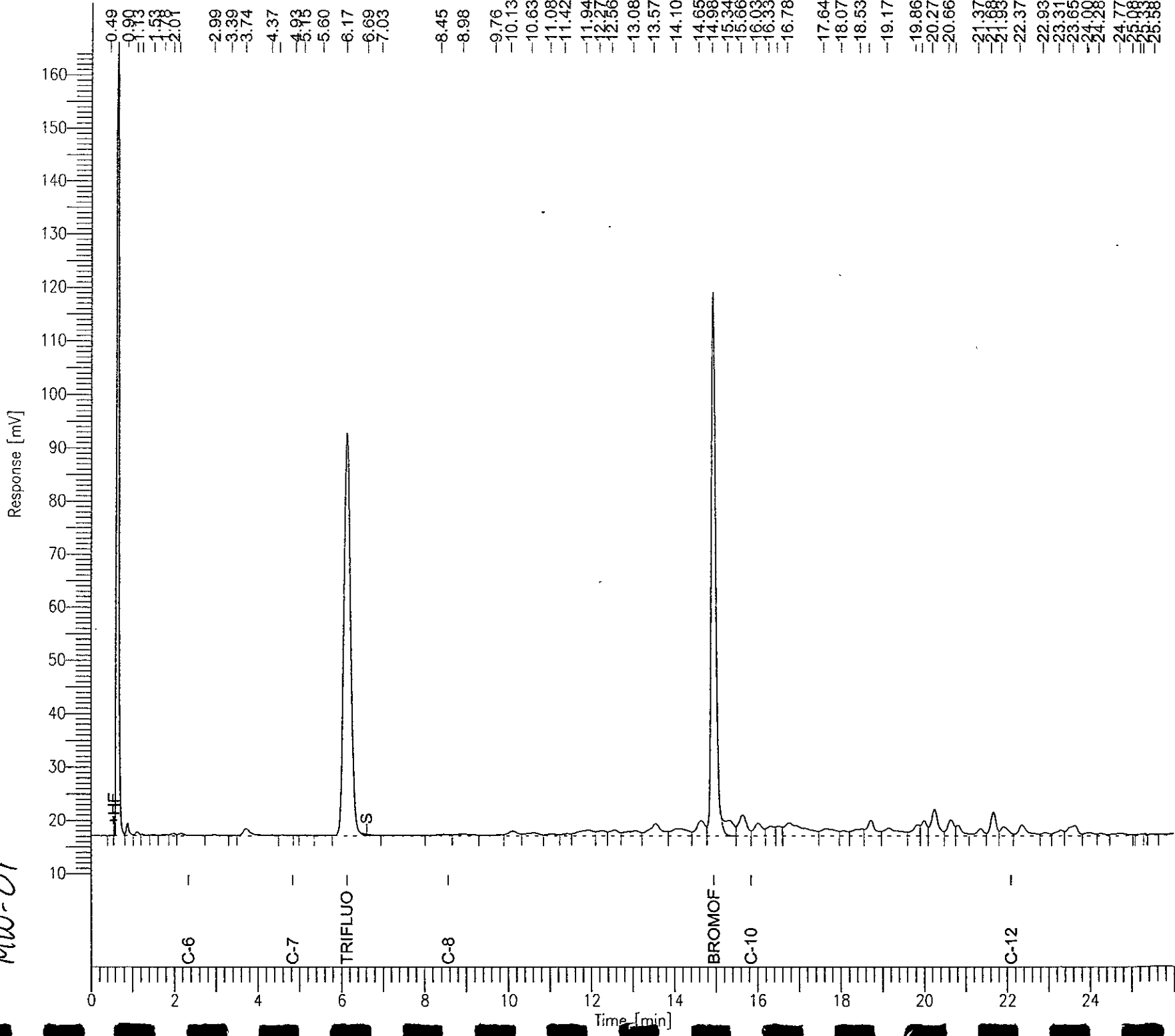
GC07 TVH 'A' Data File RTX 502

Sample Name : 168819-004, 86142, tvh+minsp
 FileName : G:\GC07\DATA\317A008.raw
 Method : TVHBTXE
 Start Time : 0.00 min
 Scale Factor: 1.0

End Time : 26.00 min
 Plot Offset: 10 mV

Sample #: a7
 Date : 11/14/03 08:20 AM
 Time of Injection: 11/13/03 04:40 PM
 Low Point : 9.74 mV
 Plot Scale: 154.5 mV
 High Point : 164.26 mV

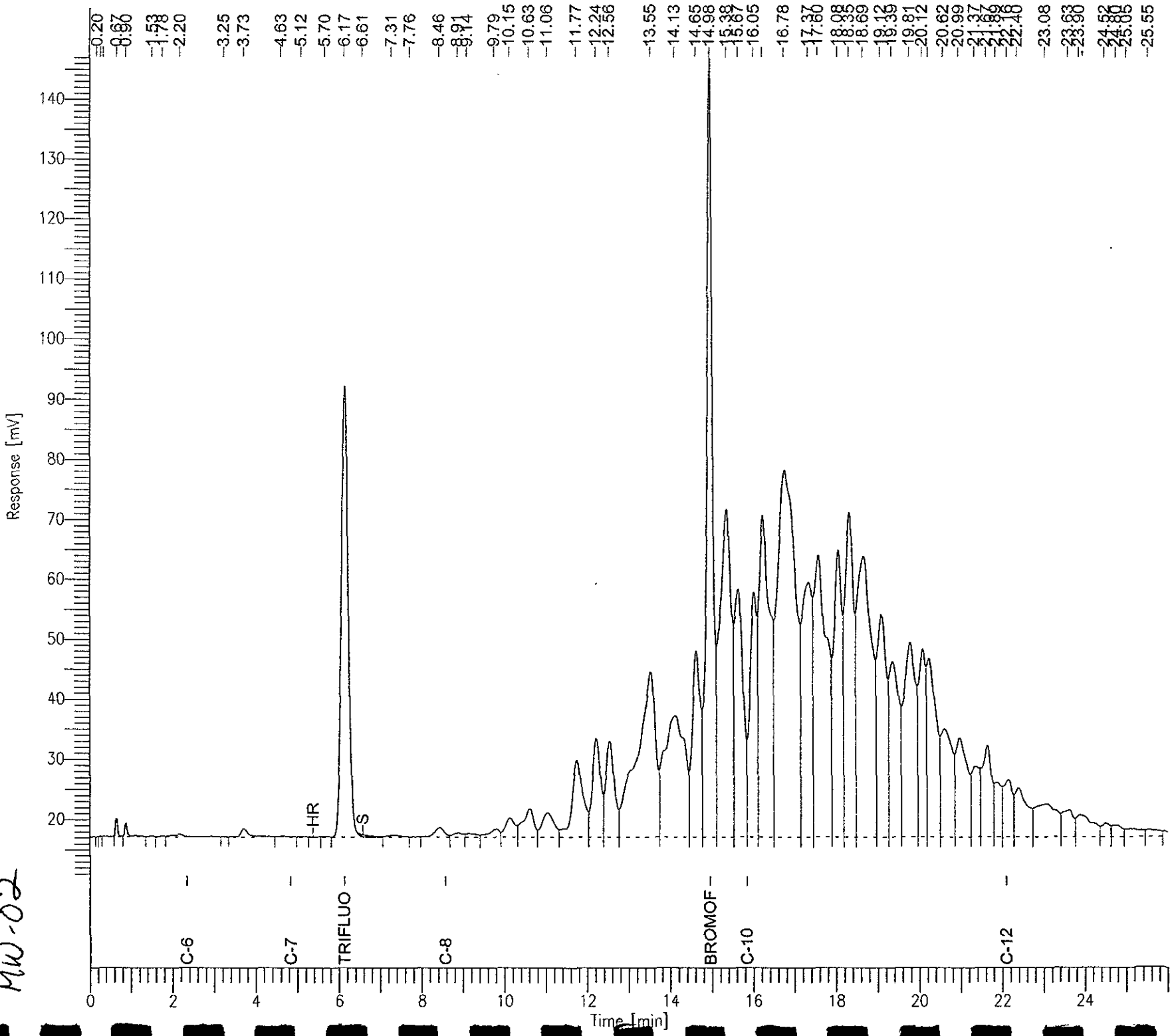
MW-01



GC07 TVH 'A' Data File RTX 502

Sample Name : 168819-005_86142_tvh+minsp
 File Name : G:\GC07\DATA\317A009.raw
 Method : TVHBTXE
 Start Time : 0.00 min
 Scale Factor: 1.0
 End Time : 26.00 min
 Plot Offset: 11 mV
 Sample #: a7
 Date : 11/14/03 08:20 AM
 Time of Injection: 11/13/03 05:15 PM
 Low Point : 10.63 mV
 Plot Scale: 136.4 mV
 High Point : 147.06 mV

MW-02



GC07 TVH 'A' Data File RTX 502

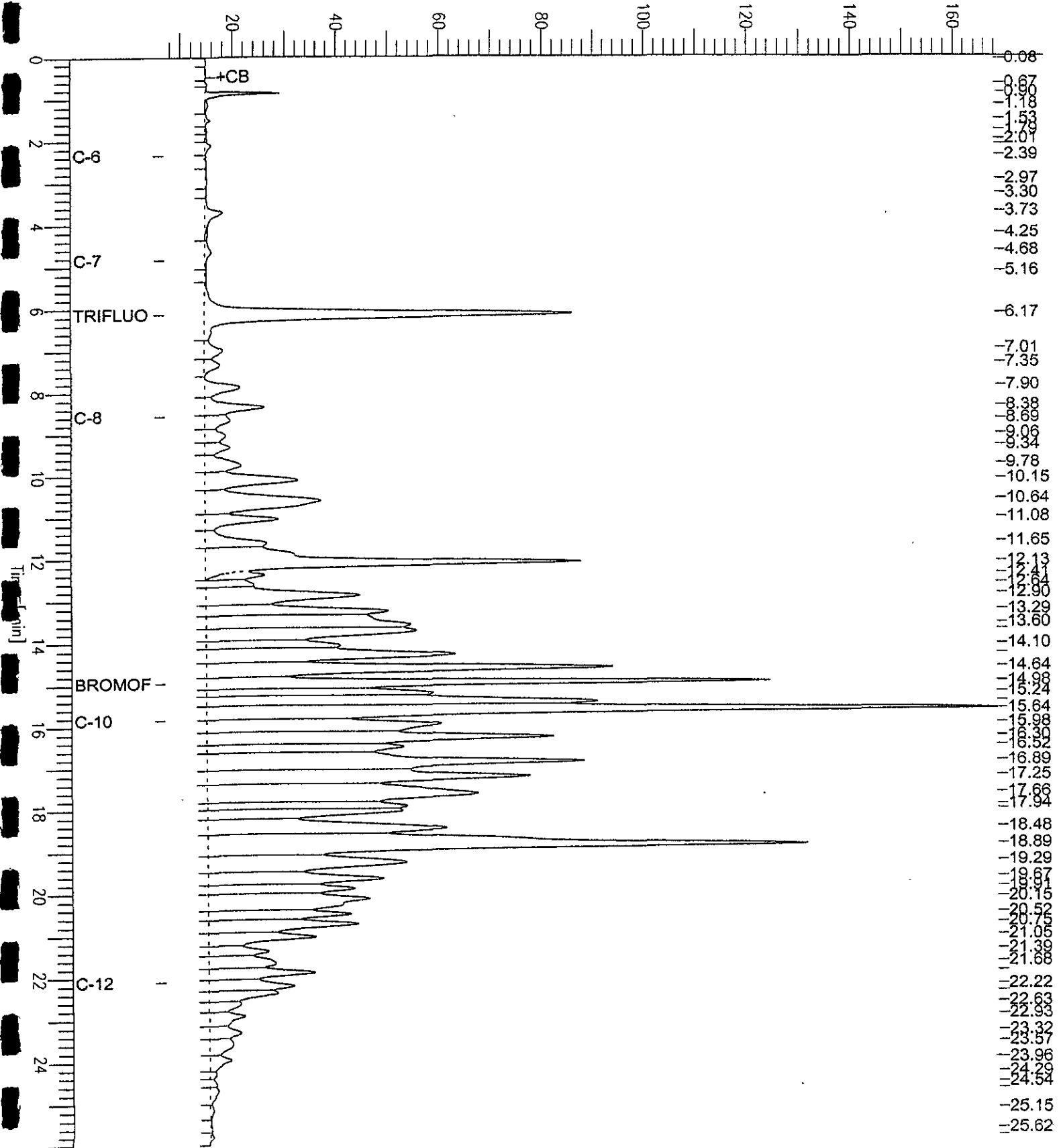
Sample Name : ccv,minsp,86142,03ws1757,5/5000
 File Name : G:\GC07\DATA\317A003.raw
 Method : TVHBTXE
 Start Time : 0.00 min
 Scale Factor: 1.0

End Time : 26.00 min
 Plot Offset: 7 mV

Sample #: Page 1 of 1
 Date : 11/13/03 01:56 PM
 Time of Injection: 11/13/03 01:29 PM
 Low Point : 6.90 mV
 High Point : 168.01 mV
 Plot Scale: 161.1 mV

Mineral Spirits

Response [mV]



Total Volatile Hydrocarbons

Lab #:	168819	Location:	FormerDunnePaintFacility
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC232076	Batch#:	86142
Matrix:	Water	Analyzed:	11/13/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	1,903	95	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	107	57-150
Bromofluorobenzene (FID)	105	65-144



Total Volatile Hydrocarbons

Lab #:	168819	Location:	FormerDunnePaintFacility
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	8015B
Field ID:	ZZZZZZZZZZ	Batch#:	86142
MSS Lab ID:	168812-004	Sampled:	11/11/03
Matrix:	Water	Received:	11/12/03
Units:	ug/L	Analyzed:	11/14/03
Diln Fac:	1.000		

Type: MS Lab ID: QC232078

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<18.00	2,000	1,865	93	76-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	110	57-150
Bromofluorobenzene (FID)	118	65-144

Type: MSD Lab ID: QC232079

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,826	91	76-120	2	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	113	57-150
Bromofluorobenzene (FID)	118	65-144

Purgeable Organics by GC/MS

Lab #:	168819	Location:	FormerDunnePaintFacility
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	CW-1	Batch#:	86178
Lab ID:	168819-001	Sampled:	11/12/03
Matrix:	Water	Received:	11/12/03
Units:	ug/L	Analyzed:	11/15/03
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	168819	Location:	FormerDunnePaintFacility
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	CW-1	Batch#:	86178
Lab ID:	168819-001	Sampled:	11/12/03
Matrix:	Water	Received:	11/12/03
Units:	ug/L	Analyzed:	11/15/03
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-121
1,2-Dichloroethane-d4	91	77-129
Toluene-d8	97	80-120
Bromofluorobenzene	98	80-123

ND= Not Detected
 RL= Reporting Limit
 Page 2 of 2



Purgeable Organics by GC/MS

Lab #:	168819	Location:	FormerDunnePaintFacility
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	CW-2	Batch#:	86178
Lab ID:	168819-002	Sampled:	11/12/03
Matrix:	Water	Received:	11/12/03
Units:	ug/L	Analyzed:	11/15/03
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

Page 1 of 2

Purgeable Organics by GC/MS

Lab #:	168819	Location:	FormerDunnePaintFacility
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	CW-2	Batch#:	86178
Lab ID:	168819-002	Sampled:	11/12/03
Matrix:	Water	Received:	11/12/03
Units:	ug/L	Analyzed:	11/15/03
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-121
1,2-Dichloroethane-d4	93	77-129
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-123

ND= Not Detected
 RL= Reporting Limit
 Page 2 of 2



Purgeable Organics by GC/MS

Lab #:	168819	Location:	FormerDunnePaintFacility
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	CW-3	Batch#:	86178
Lab ID:	168819-003	Sampled:	11/12/03
Matrix:	Water	Received:	11/12/03
Units:	ug/L	Analyzed:	11/15/03
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	5.1	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

Page 1 of 2

Purgeable Organics by GC/MS

Lab #:	168819	Location:	FormerDunnePaintFacility
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	CW-3	Batch#:	86178
Lab ID:	168819-003	Sampled:	11/12/03
Matrix:	Water	Received:	11/12/03
Units:	ug/L	Analyzed:	11/15/03
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-121
1,2-Dichloroethane-d4	91	77-129
Toluene-d8	98	80-120
Bromofluorobenzene	96	80-123

ND= Not Detected

RL= Reporting Limit



Purgeable Organics by GC/MS

Lab #:	168819	Location:	FormerDunnePaintFacility
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-01	Batch#:	86178
Lab ID:	168819-004	Sampled:	11/12/03
Matrix:	Water	Received:	11/12/03
Units:	ug/L	Analyzed:	11/15/03
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	168819	Location:	FormerDunnePaintFacility
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-01	Batch#:	86178
Lab ID:	168819-004	Sampled:	11/12/03
Matrix:	Water	Received:	11/12/03
Units:	ug/L	Analyzed:	11/15/03
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-121
1,2-Dichloroethane-d4	94	77-129
Toluene-d8	97	80-120
Bromofluorobenzene	98	80-123



Purgeable Organics by GC/MS

Lab #:	168819	Location:	FormerDunnePaintFacility
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-02	Batch#:	86178
Lab ID:	168819-005	Sampled:	11/12/03
Matrix:	Water	Received:	11/12/03
Units:	ug/L	Analyzed:	11/15/03
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	168819	Location:	FormerDunnePaintFacility
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-02	Batch#:	86178
Lab ID:	168819-005	Sampled:	11/12/03
Matrix:	Water	Received:	11/12/03
Units:	ug/L	Analyzed:	11/15/03
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%RBC	Limits
Dibromofluoromethane	97	80-121
1,2-Dichloroethane-d4	92	77-129
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-123

ND= Not Detected
 RL= Reporting Limit
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Purgeable Organics by GC/MS

Lab #:	168819	Location:	FormerDunnePaintFacility
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC232195	Batch#:	86178
Matrix:	Water	Analyzed:	11/15/03
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	168819	Location:	FormerDunnePaintFacility
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC232195	Batch#:	86178
Matrix:	Water	Analyzed:	11/15/03
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-121
1,2-Dichloroethane-d4	94	77-129
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-123



Purgeable Organics by GC/MS

Lab #:	168819	Location:	FormerDunnePaintFacility
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	86178
Units:	ug/L	Analyzed:	11/14/03
Diln Fac:	1.000		

Type: BS Lab ID: QC232192

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	46.87	94	73-126
Benzene	50.00	49.49	99	80-120
Trichloroethene	50.00	51.80	104	79-125
Toluene	50.00	49.98	100	80-120
Chlorobenzene	50.00	51.76	104	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-121
1,2-Dichloroethane-d4	96	77-129
Toluene-d8	96	80-120
Bromofluorobenzene	99	80-123

Type: BSD Lab ID: QC232193

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	44.08	88	73-126	6	20
Benzene	50.00	47.90	96	80-120	3	20
Trichloroethene	50.00	48.96	98	79-125	6	20
Toluene	50.00	49.20	98	80-120	2	20
Chlorobenzene	50.00	48.63	97	80-120	6	20

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-121
1,2-Dichloroethane-d4	94	77-129
Toluene-d8	99	80-120
Bromofluorobenzene	97	80-123

RPD= Relative Percent Difference



Gasoline Oxygenates by GC/MS

Lab #:	168819	Location:	FormerDunnePaintFacility
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	86178
Units:	ug/L	Sampled:	11/12/03
Diln Fac:	1.000	Received:	11/12/03

Field ID:	MW-01	Lab ID:	168819-004
Type:	SAMPLE	Analyzed:	11/15/03

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-121
1,2-Dichloroethane-d4	94	77-129
Toluene-d8	97	80-120
Bromofluorobenzene	98	80-123

Field ID:	MW-02	Lab ID:	168819-005
Type:	SAMPLE	Analyzed:	11/15/03

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-121
1,2-Dichloroethane-d4	92	77-129
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-123

Type:	BLANK	Analyzed:	11/14/03
Lab ID:	QC232194		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	NA	
MTBE	ND	0.5
Isopropyl Ether (DIPE)	NA	
Ethyl tert-Butyl Ether (ETBE)	NA	
Methyl tert-Amyl Ether (TAME)	NA	

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-121
1,2-Dichloroethane-d4	96	77-129
Toluene-d8	98	80-120
Bromofluorobenzene	100	80-123

NA= Not Analyzed
 ND= Not Detected
 RL= Reporting Limit
 Page 2 of 3



Gasoline Oxygenates by GC/MS

Lab #:	168819	Location:	FormerDunnePaintFacility
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	86178
Units:	ug/L	Sampled:	11/12/03
Diln Fac:	1.000	Received:	11/12/03

Type: BLANK Analyzed: 11/15/03
Lab ID: QC232195

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-121
1,2-Dichloroethane-d4	94	77-129
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-123



Gasoline Oxygenates by GC/MS

Lab #:	168819	Location:	FormerDunnePaintFacility
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	86178
Units:	ug/L	Analyzed:	11/14/03
Diln Fac:	1.000		

Type: BS Lab ID: QC232192

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)		NA		
MTBE	50.00	51.88	104	69-124
Isopropyl Ether (DIPE)		NA		
Ethyl tert-Butyl Ether (ETBE)		NA		
Methyl tert-Amyl Ether (TAME)		NA		

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-121
1,2-Dichloroethane-d4	96	77-129
Toluene-d8	96	80-120
Bromofluorobenzene	99	80-123

Type: BSD Lab ID: QC232193

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)		NA				
MTBE	50.00	47.13	94	69-124	10	20
Isopropyl Ether (DIPE)		NA				
Ethyl tert-Butyl Ether (ETBE)		NA				
Methyl tert-Amyl Ether (TAME)		NA				

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-121
1,2-Dichloroethane-d4	94	77-129
Toluene-d8	99	80-120
Bromofluorobenzene	97	80-123

NA= Not Analyzed

RPD= Relative Percent Difference



Gasoline Oxygenates by GC/MS

Lab #:	168819	Location:	FormerDunnePaintFacility
Client:	Clayton Group Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	86178
Units:	ug/L	Analyzed:	11/14/03
Diln Fac:	1.000		

Type: BS Lab ID: QC232278

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	250.0	275.6	110	70-130
MTBE	50.00	47.05	94	69-124
Isopropyl Ether (DIPE)	50.00	51.42	103	70-130
Ethyl tert-Butyl Ether (ETBE)	50.00	51.38	103	70-130
Methyl tert-Amyl Ether (TAME)	50.00	44.91	90	70-130

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-121
1,2-Dichloroethane-d4	94	77-129
Toluene-d8	98	80-120
Bromofluorobenzene	101	80-123

Type: BSD Lab ID: QC232279

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	250.0	264.3	106	70-130	4	20
MTBE	50.00	45.69	91	69-124	3	20
Isopropyl Ether (DIPE)	50.00	49.55	99	70-130	4	20
Ethyl tert-Butyl Ether (ETBE)	50.00	50.59	101	70-130	2	20
Methyl tert-Amyl Ether (TAME)	50.00	44.41	89	70-130	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	95	80-121
1,2-Dichloroethane-d4	92	77-129
Toluene-d8	98	80-120
Bromofluorobenzene	99	80-123