

SCS ENGINEERS

November 3, 2003
File No. 04203016.01

Mr. Frank Jensen
Griffin & Jensen Tenancy in Common
4957 Lakemont Boulevard SE C-4
PMB #163
Bellevue, Washington 98006

COPY

**Subject: First Quarterly Groundwater Monitoring Report: October 1, 2003,
Former Sooper Dry Cleaners Site, Normandy Park Shopping Center,
Normandy Park, Washington**

Dear Mr. Jensen:

This letter report presents the results of the October 2003 groundwater monitoring event for the former Sooper Dry Cleaners site. The project site is located in the Normandy Park Shopping Center at 17835 First Avenue South in Normandy Park, Washington (Figure 1).

Historical releases of dry cleaning solvents contaminated the shallow soils beneath the Former Sooper Dry Cleaners and along adjacent utility lines with perchloroethylene (PCE), which subsequently leached PCE into the shallow groundwater. Site cleanup activities were initiated on the property in March 2003. The remedial actions included focused soil excavation to remove suspected sources of PCE soil and groundwater contamination followed by the implementation of engineered and institutional controls to further isolate any remaining residual soil contamination. These independent cleanup activities were completed under the Washington Department of Ecology's Voluntary Cleanup Program. The state identification number for the site is TCP #NW0614.

Following the onsite remedial actions, a one-year groundwater monitoring program is being conducted at the Normandy Park Shopping Center. As detailed in the site remedial plan (SCS Engineers, June 2002) and Ecology's opinion letter (Ecology Correspondence, January 6, 2003), the groundwater monitoring program incorporates both an annual site-wide sampling event, as well as three quarters of sampling at selected onsite and off-site groundwater monitoring wells.

A total of ten groundwater wells (7 onsite and 3 offsite) will be monitored on a quarterly basis. The seven onsite wells (MW-2, MW-8, MW-10, MW-11, MW-3, MW-5A, and MW-12) were selected for quarterly monitoring to provide coverage within the residual plume of PCE contaminated groundwater and along the western property border. All three offsite wells (MW-13, MW-14, and MW-15) were also selected for quarterly monitoring to provide coverage downgradient of the observed PCE contamination. To provide a site-wide snapshot of groundwater conditions, four additional onsite groundwater wells (MW-6, MW-1, MW-4, and MW-5B) will be monitored along with the ten primary well locations during the annual groundwater monitoring event.

The annual site-wide monitoring event was initially scheduled to be completed as part of the first quarterly sampling event (conducted October 2003). However, as subsequently detailed in this report, the local water table was observed to have dropped significantly as a result of the unseasonably dry condition experienced during 2003. As a result, six of the onsite monitoring wells (including all four of the annual sampling wells) were found to be dry during the October monitoring event. Because of the low water table

RECEIVED
APR 19 2004
DEPT OF ECOLOGY

conditions, the annual site-wide monitoring event has been rescheduled for one of the wet-season sampling quarters (January or March 2004) when higher water table conditions can be expected.

SAMPLING METHODS

The initial round of quarterly groundwater monitoring was completed at the Normandy Park shopping center on October 1, 2003. Permission was obtained from the City of Normandy Park prior to sampling the offsite groundwater wells located in Marivista Park.

The depth to the water table was measured in each of the wells in the monitoring network before commencing well purging and groundwater sampling activities. The groundwater elevation was measured to the nearest 0.01 foot using an electronic water level meter. These data were used for calculation of the local groundwater flow direction and gradient. Six of the 11 onsite groundwater monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5A, and MW-6) were observed to be dry and therefore could not be sampled during this event.

Well purging and groundwater sampling was performed using a submersible QED bladder pump system and low-flow/low-volume well sampling techniques. Low-flow sampling can control sample turbidity and minimize sample chemistry alteration by pumping at very low flow rates from the well screen zone, avoiding disturbance to the water column in the well and minimizing stress on the surrounding formation. Samples obtained in this manner will best represent the ground-water chemistry at each location beneath the site.

Field measurements for specific conductance, pH, dissolved oxygen, Eh, turbidity, and groundwater temperature were taken throughout all well purging activities to ensure the collection of representative groundwater samples. An accurate record of all sampling activities, field measurements and site observations made during the monitoring event were maintained on separate field sampling forms (see Appendix B).

All non-disposable sampling equipment (bladder pump, water level probe) was thoroughly decontaminated with non-phosphate detergent (TSP-substitute) and clean tap water washes followed by a final distilled water rinse before each use. A new pair of disposable sampling gloves was used during the collection of each sample, and then discarded. Groundwater samples were collected directly from the pump discharge tubing into 40-milliliter (ml) glass VOA vials.

Low flow sampling methods minimized the volume of purge water that was generated during the monitoring event. The small volume of purge water generated during the sampling event was accumulated in a 55-gallon drum currently located on the shopping center property. Water that does not contain detectable PCE concentrations was discharged at the site. Water that contains PCE concentrations in excess of regulatory criteria will be retained at the site until proper disposal can be arranged.

The groundwater samples collected during the October monitoring event were submitted to a Washington Department of Ecology accredited laboratory (Severn Trent Laboratories, Tacoma, WA) and analyzed for PCE and related volatile organic compounds (VOCs) using EPA Method 8260. The samples were delivered to the laboratory the day after sample collection. Severn Trent performed all analyses within the appropriate holding time (14 days for EPA method 8260). The laboratory also performed method-specific quality control activities, including surrogate recoveries, matrix spike, duplicates, and blanks. One field

duplicate was also collected and submitted to the testing laboratory to provide field and analytical quality assurance/quality control.

HYDROLOGICAL RESULTS

The depth to groundwater was measured in each of the monitoring wells sampled during the October 1, 2003 monitoring event. The groundwater elevation in each well was determined by subtracting the measured depth to groundwater from the surveyed elevation of the top of the wellhead (Table 1). The groundwater elevation contours were then plotted on a site map to indicate the local groundwater flow direction, and are illustrated on Figure 1 in Appendix A.

TABLE 1
Summary of Water Level Measurements, October 2003

Well Location	Date	Wellhead Elevation ¹ (ft)	Depth to Groundwater ² (ft)	Groundwater Elevation (ft)
MW-1	10/1/2003	270.49	DRY	--
MW-2	10/1/2003	270.78	DRY	--
MW-3	10/1/2003	271.67	DRY	--
MW-4	10/1/2003	272.01	DRY	--
MW-5A	10/1/2003	271.29	DRY	--
MW-5B	10/1/2003	271.10	46.42	224.68
MW-6	10/1/2003	272.27	DRY	--
MW-8	10/1/2003	271.06	46.63	224.43
MW-10	10/1/2003	270.58	57.02	213.56
MW-11	10/1/2003	271.30	51.82	219.48
MW-12	10/1/2003	269.56	46.04	223.52
MW-13	10/1/2003	321.72	113.30	208.42
MW-14	10/1/2003	316.22	107.74	208.48
MW-15	10/1/2003	319.14	109.52	209.62

1 Elevation of the top of the well casing based on the USC&GS datum for geodetic mean sea level.
 2 Referenced from the top of wellhead.
 -- Water table elevation not available.

The groundwater flow direction and gradient beneath the site were calculated using a standard three-point geometric model. Using the October 1, 2003 elevation data, groundwater flow was calculated to be towards the west-southwest, with an estimated average hydraulic gradient of 0.023 ft/ft. A similar hydraulic gradient (0.020 ft/ft) was calculated for the site using the water table elevation measurements obtained during the most recent previous (July 2001) groundwater investigation. On average, groundwater elevations measured at the site during October 2003 were almost 3 feet lower than those recorded for the July 2001 sampling period.

ANALYTICAL RESULTS

Field parameters were recorded at each monitoring well location before the collection of groundwater samples. Groundwater temperatures measured during the October 2003 sampling event in the onsite wells ranged from 12.25 to 14.31°C. Similar temperatures, ranging from 11.47 to 12.32°C were observed in the three offsite wells. Groundwater pH in the onsite wells was slightly acidic, ranging between 5.96 to 6.77 standard units. In the offsite wells pH was generally closer to neutral; readings from the offsite wells ranged from 6.72 to 7.19.

Specific conductivity across the site ranged from 140 to 532 μ S, with the most elevated readings being measured in onsite well MW-10 (532 μ S) and offsite well MW-15 (377 μ S). Dissolved oxygen levels in the onsite wells were generally high (ranging from 5.90 to 8.55 mg/L) with the exception of well MW-12 which had an anomalously low DO of 0.47 mg/L. Lower dissolved oxygen levels were observed at the offsite monitoring wells, ranging between 0.58 to 2.71 mg/L.

The measured field parameters generally remained consistent with previous measurements obtained during the previous remedial investigations. All of the current field parameter data collected from the groundwater monitoring wells are recorded on the Groundwater Sampling Data Sheets in Appendix B.

The analytical results for the October 2003 quarterly groundwater monitoring event are summarized below on Table 2.

TABLE 2

Summary of Analytical Data for Halogenated and Aromatic VOCs in Groundwater October 2003 Groundwater Sampling Event

Sample Location	Sampling Date	EPA Method 8260 Analytes (μ g/L)	
		PCE	TCE
MW-5B	10/01/03	215	ND
MW-8	10/01/03	68.8	ND
MW-10	10/01/03	1240	ND
MW-11	10/01/03	2.36	ND
MW-12	10/01/03	ND	ND
MW-13	10/01/03	ND	ND
MW-14	10/01/03	ND	ND
MW-15	10/01/03	ND	ND
MTCA Method A GW Standard		5	5

^{bold} Analytical results exceed the Model Toxics Control Act Method A standard for this compound.

PCE Tetrachloroethylene

TCE Trichloroethene;

ND Analyte not detected.

Detectable PCE concentrations were reported in four (MW-5B, MW-8, MW-10 and MW-11) of the eight groundwater monitoring wells sampled during the October 2003 quarterly event. As shown on Table 2, these PCE concentrations ranged from 2.36 to 1,240 μ g/L, with three onsite wells (MW-5B, MW-8 and MW-10) exceeding the 5 μ g/L MTCA Method A groundwater standard. The most elevated PCE levels (1,240 μ g/L at MW-10 and 215 μ g/L at MW-5B) continue to be observed near the western property

border in the area immediately downgradient of the former dry cleaner tenant space. The PCE concentration in onsite well MW-11 (2.36 $\mu\text{g/L}$) remained below the MTCA Method A groundwater standard.

PCE was not detected the remaining onsite monitoring well MW-12 or in any of the three offsite (MW-13, MW-14 and MW-15) monitoring wells. Chlorinated compounds trichloroethene (TCE), dichloroethene (DCE) and vinyl chloride, which are commonly associated with the breakdown of PCE, were not detected in the groundwater monitoring wells during the October 2003 event. The PCE concentrations reported for the October 2003 monitoring event are illustrated on Figure 2 (in Appendix A).

Low, but detectable, concentrations of several volatile organic compounds, including sec-butylbenzene (1.8 $\mu\text{g/L}$), isopropylbenzene (1.88 $\mu\text{g/L}$), m,p-xylene (2.22 $\mu\text{g/L}$), and toluene (1.23 $\mu\text{g/L}$) were reported in onsite well MW-12. As detailed on the analytical laboratory data sheets, these results have all been J qualified because the reported concentrations remained below the practical quantitation limits for EPA method 8260. The reported VOC concentrations are well below the applicable MTCA groundwater standards.

Overall, the PCE concentrations detected in the groundwater samples collected from the former Sooper Cleaners site during the October 2003 monitoring event are significantly lower than those previously reported for the site. Onsite wells MW-11, MW-8, MW-10 were most recently monitored in July 2001, when the PCE concentrations were 18 $\mu\text{g/L}$, 180 $\mu\text{g/L}$, and 5,900 $\mu\text{g/L}$, respectively. Well MW-5B was most recently monitored in August 2000, when the PCE concentration was 1,100 $\mu\text{g/L}$. Offsite well MW-13, which was also previously monitored during July 2001, continued to report non-detects for all the contaminants of concern.

DISCUSSION

The results of the October 2003 groundwater monitoring at the Former Sooper Dry Cleaners are generally consistent with the field and chemical data previously reported for the site. Local groundwater flow was towards the west-southwest with a gradient of approximately 0.023 ft/ft. During the current reporting period the water table was noted to be unseasonably low, and remained below the base of several of the shallower onsite monitoring wells. As a result, the site-wide annual groundwater monitoring event has been rescheduled for one of the following wet-season quarters.

As illustrated on Figure 2, PCE levels in excess of the 5 $\mu\text{g/L}$ MTCA Method A groundwater standard continue to be reported in onsite monitoring wells MW-5B, MW-8 and MW-10. However, the PCE concentrations at the site appear to have been significantly reduced since the last round of groundwater sampling (July 2001). These reductions are likely related to the remedial efforts completed at the site earlier this year.

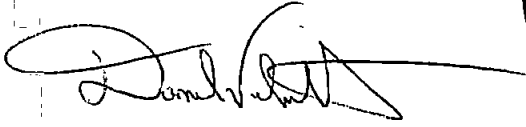
In addition, neither PCE nor any of its associated breakdown products were detected in any of the offsite monitoring wells (MW-13, MW-14, or MW-15) located downgradient of the shopping center property. The latter results continue to suggest that the plume of residual PCE groundwater contamination has not migrated a significant distance downgradient (i.e. west-southwest) of the western border of the shopping center property.

The next quarterly monitoring event for the site is scheduled for January 2004.

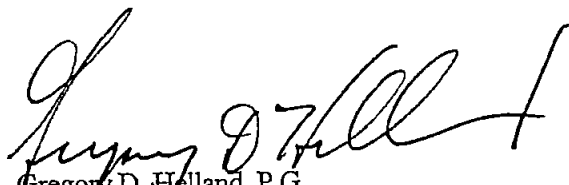
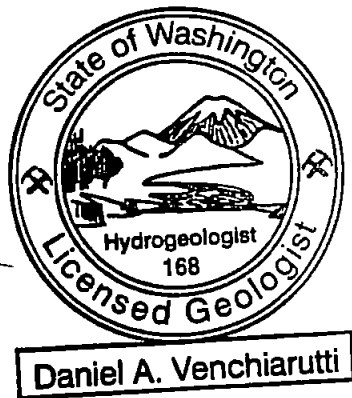
Mr. Frank Jensen
November 3, 2003
Page 6

Thank you for the opportunity to continue to provide our services. If you have any questions about the information presented above, please do not hesitate to call.

Very truly yours,



Daniel A. Venchiarutti, P.G.
Project Manager
SCS ENGINEERS





Gregory D. Helland, P.G.
Project Director
SCS ENGINEERS

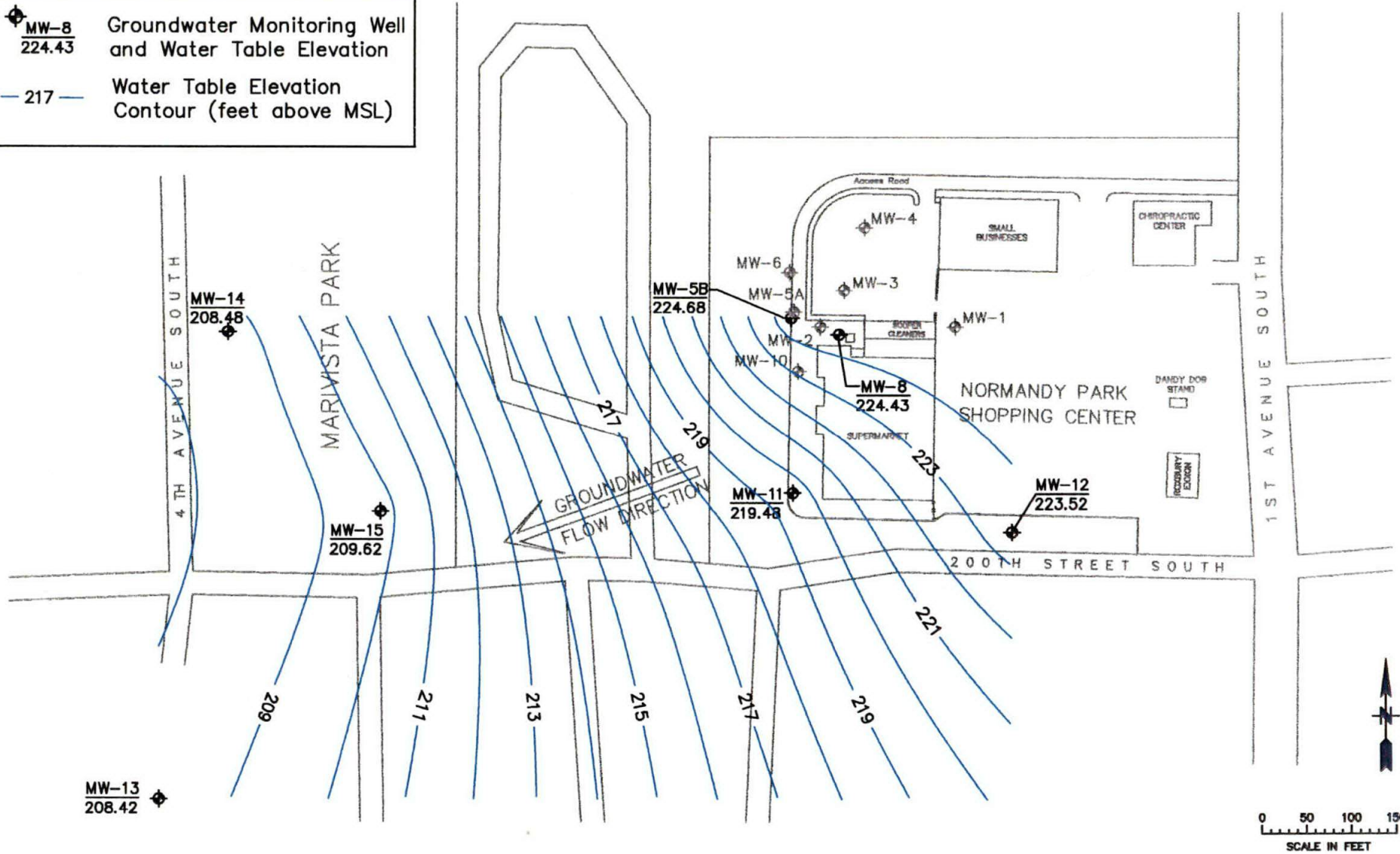
Attachments

CC: Agnes Griffin, Griffin & Jensen Tenancy in Common
Bradley Helland, Washington Department of Ecology
Mark Schuster, The Schuster Group

APPENDIX A
SITE FIGURES

LEGEND

- 
MW-8
 224.43 Groundwater Monitoring Well and Water Table Elevation
- 
 217 — Water Table Elevation Contour (feet above MSL)




SCS ENGINEERS
 STEARNS, CONRAD AND SCHMIDT
 CONSULTING ENGINEERS
 2405 140TH AVE NE, SUITE 107, BELLEVUE, WA 98005 (425) 746-4800


PROJECT NO.	04203016.01	DES BY	E.D.
SCALE	AS SHOWN	CHK BY	D.V.
CAD FILE	Figure 1	APP BY	G.H.

GROUNDWATER ELEVATION CONTOUR MAP
 OCTOBER 1, 2003
 NORMANDY PARK SHOPPING CENTER
 NORMANDY PARK, WA

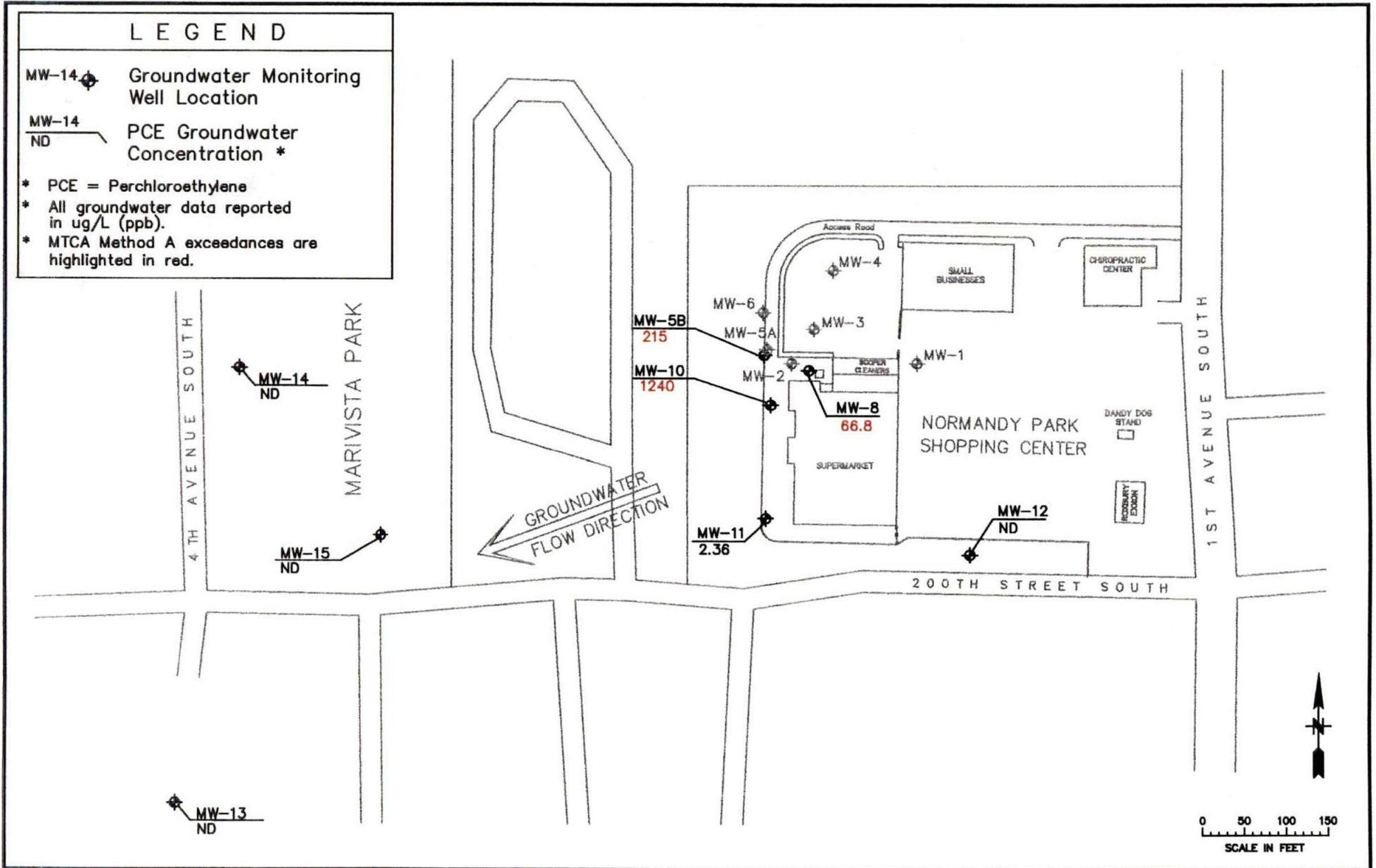
DATE	OCT 2003
FIGURE	1

LEGEND

MW-14  Groundwater Monitoring Well Location

MW-14
ND  PCE Groundwater Concentration *

- * PCE = Perchloroethylene
- * All groundwater data reported in ug/L (ppb).
- * MTCA Method A exceedances are highlighted in red.



SCS ENGINEERS

STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS

2405 140TH AVE NE, SUITE 107, BELLEVUE, WA 98005 (425) 746-4600

PROJECT NO.	04203016.01	DES BY	E.D.
SCALE	AS SHOWN	CHK BY	D.V.
CAD FILE	Figure 2	APP BY	G.H.

PCE GROUNDWATER MONITORING RESULTS
OCTOBER 1, 2003
NORMANDY PARK SHOPPING CENTER
NORMANDY PARK, WA

DATE OCT 2003

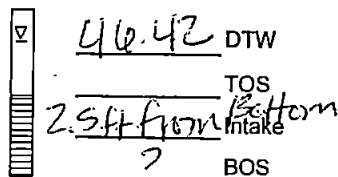
FIGURE

2

APPENDIX B

GROUNDWATER SAMPLING DATA SHEETS

SITE: Normandy Park
 WELL ID: MWS-B
 DATE: 10-1-03
 WEATHER: Sunny
 WELL CONDITIONS: Locked? N Water in Protector? Y
 Comments: 3 VOAS for Primary
3 VOAS for DUPA
 SAMPLE CONTAINERS: _____



CONTROL SETTINGS:
 Refill 9.5
 Discharge 10.5
 Pressure 40psi
 Damage? N

Well Location

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q
1451	start							
1453		15.70	.256	9.51	6.65	175	>1000	35ml/min
1455	46.53	14.31	.258	8.41	6.73	184	>1000	"
1457	46.53	13.91	.257	8.90	6.68	194	>1000	"
1459	46.53	13.85	.257	8.81	6.69	197		"
1501	46.53	13.78	.256	8.72	6.72	199	656	"
1503	46.49	13.78	.255	8.66	6.74	206	395	"
1505	46.53	13.74	.255	8.63	6.75	201	345	"
1507	46.53	13.73	.255	8.64	6.76	202	250	"
1509	46.50	13.72	.255	8.54	6.75	204	169	"
1511	46.53	13.73	.254	8.58	6.76	205	136	"
1513	46.54	13.71	.254	8.57	6.77	206	88.6	"
1515	46.50	13.72	.254	8.55	6.77	208	77.3	"
1517	46.53	13.74	.254	8.55	6.77	208	84.0	"
1519	sample							"
1521	sample complete @ 1521							"

Observations (color, odor, anomalies, etc)

Collected duplicate at this well.
 DUP A Time = 1530
 ← Turbidity = 322

SAMPLER: Hayley Brown
 Printed Name

Hayley Brown
 Signature

110 / 100 119 / 100

119 / 175

SITE: Normandy Park
 WELL ID: MW-8
 DATE: 10-1-03
 WEATHER: Sunny



46.63 DTW
~557 TOS
~57.5? Intake
~60? BOS

CONTROL SETTINGS:
 Refill 9
 Discharge 11
 Pressure 60
 Damage? Y N

Well Location

WELL CONDITIONS: Locked? Y N Water in Protector? Y N

Comments: _____

SAMPLE CONTAINERS: 3 VOCs (8260)


TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q
1538	Start	purge						
1544	46.70	15.38	0.209	9.60	6.73	178	515	330
1547	46.76	14.46	0.210	6.61	6.44	201	487	"
1550	46.79	14.43	0.211	6.25	6.44	205	475	"
1553	46.82	14.38	0.212	6.09	6.46	207	338	"
1555	46.83	14.42	0.212	6.04	6.47	210	274	"
1557	46.85	14.42	0.214	6.02	6.47	211	222	"
1559	46.75	14.38	0.213	6.02	6.47	214	194	"
1602	46.83	14.34	0.214	5.96	6.46	216	178	"
1604	46.87	14.31	0.214	5.90	6.46	217	160	"

Observations (color, odor, anomalies, etc)

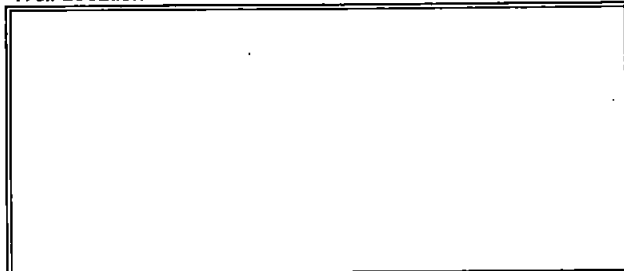
SAMPLER: Elaine Dille
 Printed Name

Elaine Dille
 Signature

SITE: Norwintony Park
 WELL ID: MW-12
 DATE: 10-1-03
 WEATHER: Sunny
 WELL CONDITIONS: Locked? Y N
 Comments: _____
 SAMPLE CONTAINERS: 3 VOA (HCL PRESERVED)

 46.04 DTW
~65' TOS
2.5ft from bottom Intake
~90/00? BOS

CONTROL SETTINGS:
 Refill 12
 Discharge 8
 Pressure 40psi
 Damage? Y N

Well Location


TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q
1245	Start							
1247	46.12	14.54	.500	3.57	6.54	149		315ml/min
1249	46.12	14.06	.508	1.35	6.34	155	669	"
1251	46.12	13.91	.522	1.01	6.33	153	401	"
1253	46.12	13.83	.527	0.82	6.33	151	251	"
1255	46.12	13.81	.532	0.70	6.34	149	161	"
1257	46.12	13.79	.530	0.66	6.34	148	128	"
1259	46.12	13.80	.530	0.58	6.35	146	104	"
1301	46.12	13.80	.530	0.54	6.37	143	83	"
1303	46.12	13.79	.530	0.51	6.36	142	69	"
1305	46.12	13.79	.532	0.49	6.32	143	49	"
1307	46.12	13.78	.532	0.47	6.37	138	41	"
1309	46.12	13.79	.532	0.47	6.32	146	39	"
1311	sample complete @ 13:13							

Observations (color, odor, anomalies, etc)
Water has a gasoline-like
urce smell.

SAMPLER: Hayley Brown
 Printed Name

Hayley Brown
 Signature

SITE: Normandy Park
 WELL ID: MW-14
 DATE: 10-01-03
 WEATHER: Cloudy
 WELL CONDITIONS: Locked? Y N Water in Protector? Y N
 Comments: _____
 SAMPLE CONTAINERS: 3 VOA (HCL preserved)

107.74' DTW
 175 TOS
 -177.5 Intake
 180 BOS

CONTROL SETTINGS:
 Refill 7
 Discharge 13
 Pressure 105 psi
 Damage? Y N

Well Location
 0.2 mg/L DO
 0.2 units
 0.5°C temp
 5% spc

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q
10:13	Start							
10:14	108.11	13.91	0.211	3.47	7.12	183	>1000	300 mL/min
10:18	108.11	12.74	.212	1.52	7.10	194	71000	"
10:20	108.11	12.52	.213	1.18	7.10	199	>1000	"
10:22	108.12	12.45	.213	0.99	7.11	201	>1000	"
10:21	108.14	12.40	.213	0.86	7.19	200	>1000	"
10:26	108.27	12.37	.214	0.80	7.16	202	>1000	"
10:28	108.18	12.33	0.213	0.73	7.16	204	>1000	"
10:30	108.18	12.33	0.214	0.109	7.14	206	573	"
10:32	108.18	12.43	.213	0.68	7.14	206	473	"
10:34	108.18	12.56	.214	0.67	7.12	205	391	"
10:38	108.18	12.39	.213	0.83	7.18	204	216	"
10:40	108.18	12.34	.213	6.78	7.17	203	157	"
10:42	108.18	12.30	.214	0.60	7.17	202	99	"
10:44	108.18	12.32	.214	0.58	7.16	201	93	"

Observations (color, odor, anomalies, etc)

SAMPLER: Hayley Brown
 Printed Name

Hayley Brown
 Signature

	Temp.	Conductivity	pH	ORP/Eh	DO	Turbidity	Comments/Exceptions
Date		9/11/03	10/11/03		10/11/03	10/11/03	and pH standard 10/11/03
Time			8:56		8:59	9:09	8:58
Weather (sky or precip, temp)			foggy				→
Barometric Pressure (*)			760				→
Type of Calibration			buffer solution		saturated secondary air standards		buffer solution
Standard Value			7.00		100%	5.49 53.7 533	4.01
Pre-Cal Reading			6.96		100%	5.39 51.9 522	3.99
Post Cal Reading			7.00		100%	5.39 51.9 522	4.01
Discrepancy			0		0	0.10 1.8 11	0
Calib. Successful?			yes				→
Calibration by			EJD				→
Instrument Type, ID			MP70		MP70	HACH 2100	MP70
Calibration Location			Field (M113)				→

* If Direct Reading is Unavailable, Assume pressure = 760 mm - 2.5 (altitude in ft/100)

APPENDIX C
ANALYTICAL LABORATORY REPORTS



STL

STL Seattle
5755 8th Street East
Tacoma, WA 98424

Tel: 253 922 2310
Fax: 253 922 5047
www.stl-inc.com

TRANSMITTAL MEMORANDUM

DATE: October 16, 2003

TO: Daniel Venchiarutti
SCS Engineers
2405 140th Ave. N. E., Suite 107
Bellevue, WA 98005

PROJECT: Sooper Cleaners Normady Park (WA)

REPORT NUMBER: 116596

TOTAL NUMBER OF PAGES: 30

Enclosed are the test results for ten samples received at STL Seattle on October 2, 2003.

Analytical Narrative: Sample 116596-5 was diluted*based on screening analysis results. Both dilution analyses were reported.

The report consists of this transmittal memo, analytical results, quality control reports, a copy of the chain-of-custody, a list of data qualifiers and analytical narrative when applicable, and a copy of any requested raw data.

Should there be any questions regarding this report, please contact me at (253) 922-2310.

Sincerely,

Darla Powell
Project Manager

STL Seattle is a part of Severn Trent Laboratories, Inc.

This report is issued solely for the use of the person or company to whom it is addressed. Any use, copying or disclosure other than by the intended recipient is unauthorized. If you have received this report in error, please notify the sender immediately at 253-922-2310 and destroy this report immediately.

STL Seattle

Sample Identification:

<u>Lab. No.</u>	<u>Client ID</u>	<u>Date/Time Sampled</u>	<u>Matrix</u>
116596-1	MW-5B	10-01-03 15:19	Liquid
116596-2	MW-8	10-01-03 16:04	Liquid
116596-3	MW-10	10-01-03 16:41	Liquid
116596-4	MW-11	10-01-03 14:22	Liquid
116596-5	MW-12	10-01-03 13:11	Liquid
116596-6	MW-13	10-01-03 09:47	Liquid
116596-7	MW-14	10-01-03 10:44	Liquid
116596-8	MW-15	10-01-03 11:48	Liquid
116596-9	DUP A	10-01-03 15:30	Liquid
116596-10	Trip Blank	10-01-03 *	Liquid

* - Sampling time not specified for this sample

STL Seattle is a part of Severn Trent Laboratories, Inc.

This report is issued solely for the use of the person or company to whom it is addressed. Any use, copying or disclosure other than by the intended recipient is unauthorized. If you have received this report in error, please notify the sender immediately at 253-922-2310 and destroy this report immediately.

STL Seattle

Client Name	SCS Engineers
Client ID:	MW-5B
Lab ID:	116596-01
Date Received:	10/2/2003
Date Prepared:	10/8/2003
Date Analyzed:	10/8/2003
% Solids	-
Dilution Factor	10

Volatile Organics by USEPA Method 5030/8260B

SMC / Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	95.2		80	120
Fluorobenzene	99.6		80	120
Toluene-D8	106		80	120
Ethylbenzene-d10	104		80	120
Bromofluorobenzene	95.7		80	120
Trifluorotoluene	109		80	120

Analyte	Result (ug/L)	PQL	MRL	Flags
Dichlorodifluoromethane	ND	10	5	
Chloromethane	ND	20	10	
Vinyl chloride	ND	4	2	
Bromomethane	ND	25	12.5	
Chloroethane	ND	10	5	
Trichlorofluoromethane	ND	10	5	
1,1-Dichloroethene	ND	10	5	
Methylene chloride	ND	20	10	
trans-1,2-Dichloroethene	ND	10	5	
1,1-Dichloroethane	ND	10	5	
2,2-Dichloropropane	ND	10	5	
cis-1,2-Dichloroethene	ND	10	5	
Bromochloromethane	ND	10	5	
Chloroform	ND	10	5	
1,1,1-Trichloroethane	ND	10	5	
Carbon Tetrachloride	ND	10	5	
1,1-Dichloropropene	ND	10	5	
Benzene	ND	10	5	
1,2-Dichloroethane	ND	10	5	
Trichloroethene	ND	10	5	
1,2-Dichloropropane	ND	10	5	
Dibromomethane	ND	10	5	
Bromodichloromethane	ND	10	5	
cis-1,3-Dichloropropene	ND	10	5	
Toluene	ND	10	5	
trans-1,3-Dichloropropene	ND	10	5	

STL Seattle

Volatile Organics by USEPA Method 5030/8260B data for 116596-01 continued...

Analyte	Result (ug/L)	PQL	MRL
1,1,2-Trichloroethane	ND	10	5
Tetrachloroethene	215	10	5
1,3-Dichloropropane	ND	10	5
Dibromochloromethane	ND	10	5
1,2-Dibromoethane	ND	10	5
Chlorobenzene	ND	10	5
Ethylbenzene	ND	10	5
1,1,1,2-Tetrachloroethane	ND	10	5
m,p-Xylene	ND	20	10
o-Xylene	ND	10	5
Styrene	ND	10	5
Bromoform	ND	10	5
Isopropylbenzene	ND	10	5
Bromobenzene	ND	10	5
n-Propylbenzene	ND	10	5
1,1,2,2-Tetrachloroethane	ND	10	5
1,2,3-Trichloropropane	ND	10	5
2-Chlorotoluene	ND	10	5
1,3,5-Trimethylbenzene	ND	10	5
4-Chlorotoluene	ND	10	5
t-Butylbenzene	ND	10	5
1,2,4-Trimethylbenzene	ND	10	5
sec-Butylbenzene	ND	10	5
1,3-Dichlorobenzene	ND	10	5
4-Isopropyltoluene	ND	10	5
1,4-Dichlorobenzene	ND	10	5
n-Butylbenzene	ND	10	5
1,2-Dichlorobenzene	ND	10	5
1,2-Dibromo-3-chloropropane	ND	10	5
1,2,4-Trichlorobenzene	ND	10	5
Hexachlorobutadiene	ND	10	5
Naphthalene	ND	20	10
1,2,3-Trichlorobenzene	ND	10	5

STL Seattle

Client Name	SCS Engineers
Client ID:	MW-8
Lab ID:	116596-02
Date Received:	10/2/2003
Date Prepared:	10/8/2003
Date Analyzed:	10/8/2003
% Solids	-
Dilution Factor	10

Volatile Organics by USEPA Method 5030/8260B

SMC / Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	92.9		80	120
Fluorobenzene	99.1		80	120
Toluene-D8	108		80	120
Ethylbenzene-d10	104		80	120
Bromofluorobenzene	94.1		80	120
Trifluorotoluene	109		80	120

Analyte	Result (ug/L)	PQL	MRL	Flags
Dichlorodifluoromethane	ND	10	5	
Chloromethane	ND	20	10	
Vinyl chloride	ND	4	2	
Bromomethane	ND	25	12.5	
Chloroethane	ND	10	5	
Trichlorofluoromethane	ND	10	5	
1,1-Dichloroethene	ND	10	5	
Methylene chloride	ND	20	10	
trans-1,2-Dichloroethene	ND	10	5	
1,1-Dichloroethane	ND	10	5	
2,2-Dichloropropane	ND	10	5	
cis-1,2-Dichloroethene	ND	10	5	
Bromochloromethane	ND	10	5	
Chloroform	ND	10	5	
1,1,1-Trichloroethane	ND	10	5	
Carbon Tetrachloride	ND	10	5	
1,1-Dichloropropene	ND	10	5	
Benzene	ND	10	5	
1,2-Dichloroethane	ND	10	5	
Trichloroethene	ND	10	5	
1,2-Dichloropropane	ND	10	5	
Dibromomethane	ND	10	5	
Bromodichloromethane	ND	10	5	
cis-1,3-Dichloropropene	ND	10	5	
Toluene	ND	10	5	
trans-1,3-Dichloropropene	ND	10	5	

STL Seattle

Volatile Organics by USEPA Method 5030/8260B data for 116596-02 continued...

Analyte	Result (ug/L)	PQL	MRL
1,1,2-Trichloroethane	ND	10	5
Tetrachloroethene	68.8	10	5
1,3-Dichloropropane	ND	10	5
Dibromochloromethane	ND	10	5
1,2-Dibromoethane	ND	10	5
Chlorobenzene	ND	10	5
Ethylbenzene	ND	10	5
1,1,1,2-Tetrachloroethane	ND	10	5
m,p-Xylene	ND	20	10
o-Xylene	ND	10	5
Styrene	ND	10	5
Bromoform	ND	10	5
Isopropylbenzene	ND	10	5
Bromobenzene	ND	10	5
n-Propylbenzene	ND	10	5
1,1,2,2-Tetrachloroethane	ND	10	5
1,2,3-Trichloropropane	ND	10	5
2-Chlorotoluene	ND	10	5
1,3,5-Trimethylbenzene	ND	10	5
4-Chlorotoluene	ND	10	5
t-Butylbenzene	ND	10	5
1,2,4-Trimethylbenzene	ND	10	5
sec-Butylbenzene	ND	10	5
1,3-Dichlorobenzene	ND	10	5
4-Isopropyltoluene	ND	10	5
1,4-Dichlorobenzene	ND	10	5
n-Butylbenzene	ND	10	5
1,2-Dichlorobenzene	ND	10	5
1,2-Dibromo-3-chloropropane	ND	10	5
1,2,4-Trichlorobenzene	ND	10	5
Hexachlorobutadiene	ND	10	5
Naphthalene	ND	20	10
1,2,3-Trichlorobenzene	ND	10	5

STL Seattle

Client Name	SCS Engineers
Client ID:	MW-10
Lab ID:	116596-03
Date Received:	10/2/2003
Date Prepared:	10/8/2003
Date Analyzed:	10/8/2003
% Solids	-
Dilution Factor	100

Volatile Organics by USEPA Method 5030/8260B

SMC / Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	92.3		80	120
Fluorobenzene	101		80	120
Toluene-D8	107		80	120
Ethylbenzene-d10	113		80	120
Bromofluorobenzene	99.6		80	120
Trifluorotoluene	105		80	120

Analyte	Result (ug/L)	PQL	MRL	Flags
Dichlorodifluoromethane	ND	100	50	
Chloromethane	ND	200	100	
Vinyl chloride	ND	40	20	
Bromomethane	ND	250	125	
Chloroethane	ND	100	50	
Trichlorofluoromethane	ND	100	50	
1,1-Dichloroethene	ND	100	50	
Methylene chloride	ND	200	100	
trans-1,2-Dichloroethene	ND	100	50	
1,1-Dichloroethane	ND	100	50	
2,2-Dichloropropane	ND	100	50	
cis-1,2-Dichloroethene	ND	100	50	
Bromochloromethane	ND	100	50	
Chloroform	ND	100	50	
1,1,1-Trichloroethane	ND	100	50	
Carbon Tetrachloride	ND	100	50	
1,1-Dichloropropene	ND	100	50	
Benzene	ND	100	50	
1,2-Dichloroethane	ND	100	50	
Trichloroethene	ND	100	50	
1,2-Dichloropropane	ND	100	50	
Dibromomethane	ND	100	50	
Bromodichloromethane	ND	100	50	
cis-1,3-Dichloropropene	ND	100	50	
Toluene	ND	100	50	
trans-1,3-Dichloropropene	ND	100	50	

STL Seattle

Volatile Organics by USEPA Method 5030/8260B data for 116596-03 continued...

Analyte	Result (ug/L)	PQL	MRL
1,1,2-Trichloroethane	ND	100	50
Tetrachloroethene	1240	100	50
1,3-Dichloropropane	ND	100	50
Dibromochloromethane	ND	100	50
1,2-Dibromoethane	ND	100	50
Chlorobenzene	ND	100	50
Ethylbenzene	ND	100	50
1,1,1,2-Tetrachloroethane	ND	100	50
m,p-Xylene	ND	200	100
o-Xylene	ND	100	50
Styrene	ND	100	50
Bromoform	ND	100	50
Isopropylbenzene	ND	100	50
Bromobenzene	ND	100	50
n-Propylbenzene	ND	100	50
1,1,2,2-Tetrachloroethane	ND	100	50
1,2,3-Trichloropropane	ND	100	50
2-Chlorotoluene	ND	100	50
1,3,5-Trimethylbenzene	ND	100	50
4-Chlorotoluene	ND	100	50
t-Butylbenzene	ND	100	50
1,2,4-Trimethylbenzene	ND	100	50
sec-Butylbenzene	ND	100	50
1,3-Dichlorobenzene	ND	100	50
4-Isopropyltoluene	ND	100	50
1,4-Dichlorobenzene	ND	100	50
n-Butylbenzene	ND	100	50
1,2-Dichlorobenzene	ND	100	50
1,2-Dibromo-3-chloropropane	ND	100	50
1,2,4-Trichlorobenzene	ND	100	50
Hexachlorobutadiene	ND	100	50
Naphthalene	ND	200	100
1,2,3-Trichlorobenzene	ND	100	50

STL Seattle

Client Name	SCS Engineers
Client ID:	MW-11
Lab ID:	116596-04
Date Received:	10/2/2003
Date Prepared:	10/8/2003
Date Analyzed:	10/8/2003
% Solids	-
Dilution Factor	1

Volatile Organics by USEPA Method 5030/8260B

SMC / Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	93.9		80	120
Fluorobenzene	101		80	120
Toluene-D8	106		80	120
Ethylbenzene-d10	104		80	120
Bromofluorobenzene	97.5		80	120
Trifluorotoluene	107		80	120

Analyte	Result (ug/L)	PQL	MRL	Flags
Dichlorodifluoromethane	ND	1	0.5	
Chloromethane	ND	2	1	
Vinyl chloride	ND	0.4	0.2	
Bromomethane	ND	2.5	1.25	
Chloroethane	ND	1	0.5	
Trichlorofluoromethane	ND	1	0.5	
1,1-Dichloroethene	ND	1	0.5	
Methylene chloride	ND	2	1	
trans-1,2-Dichloroethene	ND	1	0.5	
1,1-Dichloroethane	ND	1	0.5	
2,2-Dichloropropane	ND	1	0.5	
cis-1,2-Dichloroethene	ND	1	0.5	
Bromochloromethane	ND	1	0.5	
Chloroform	ND	1	0.5	
1,1,1-Trichloroethane	ND	1	0.5	
Carbon Tetrachloride	ND	1	0.5	
1,1-Dichloropropene	ND	1	0.5	
Benzene	ND	1	0.5	
1,2-Dichloroethane	ND	1	0.5	
Trichloroethene	ND	1	0.5	
1,2-Dichloropropane	ND	1	0.5	
Dibromomethane	ND	1	0.5	
Bromodichloromethane	ND	1	0.5	
cis-1,3-Dichloropropene	ND	1	0.5	
Toluene	ND	1	0.5	
trans-1,3-Dichloropropene	ND	1	0.5	

STL Seattle

Volatile Organics by USEPA Method 5030/8260B data for 116596-04 continued...

Analyte	Result (ug/L)	PQL	MRL
1,1,2-Trichloroethane	ND	1	0.5
Tetrachloroethene	2.36	1	0.5
1,3-Dichloropropane	ND	1	0.5
Dibromochloromethane	ND	1	0.5
1,2-Dibromoethane	ND	1	0.5
Chlorobenzene	ND	1	0.5
Ethylbenzene	ND	1	0.5
1,1,1,2-Tetrachloroethane	ND	1	0.5
m,p-Xylene	ND	2	1
o-Xylene	ND	1	0.5
Styrene	ND	1	0.5
Bromoform	ND	1	0.5
Isopropylbenzene	ND	1	0.5
Bromobenzene	ND	1	0.5
n-Propylbenzene	ND	1	0.5
1,1,2,2-Tetrachloroethane	ND	1	0.5
1,2,3-Trichloropropane	ND	1	0.5
2-Chlorotoluene	ND	1	0.5
1,3,5-Trimethylbenzene	ND	1	0.5
4-Chlorotoluene	ND	1	0.5
t-Butylbenzene	ND	1	0.5
1,2,4-Trimethylbenzene	ND	1	0.5
sec-Butylbenzene	ND	1	0.5
1,3-Dichlorobenzene	ND	1	0.5
4-Isopropyltoluene	ND	1	0.5
1,4-Dichlorobenzene	ND	1	0.5
n-Butylbenzene	ND	1	0.5
1,2-Dichlorobenzene	ND	1	0.5
1,2-Dibromo-3-chloropropane	ND	1	0.5
1,2,4-Trichlorobenzene	ND	1	0.5
Hexachlorobutadiene	ND	1	0.5
Naphthalene	ND	2	1
1,2,3-Trichlorobenzene	ND	1	0.5

STL Seattle

Client Name	SCS Engineers
Client ID:	MW-12
Lab ID:	116596-05
Date Received:	10/2/2003
Date Prepared:	10/8/2003
Date Analyzed:	10/8/2003
% Solids	-
Dilution Factor	10

Volatile Organics by USEPA Method 5030/8260B

SMC / Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	94.7		80	120
Fluorobenzene	101		80	120
Toluene-D8	111		80	120
Ethylbenzene-d10	102		80	120
Bromofluorobenzene	91.7		80	120
Trifluorotoluene	108		80	120

Analyte	Result (ug/L)	PQL	MRL	Flags
Dichlorodifluoromethane	ND	10	5	
Chloromethane	ND	20	10	
Vinyl chloride	ND	4	2	
Bromomethane	ND	25	12.5	
Chloroethane	ND	10	5	
Trichlorofluoromethane	ND	10	5	
1,1-Dichloroethene	ND	10	5	
Methylene chloride	ND	20	10	
trans-1,2-Dichloroethene	ND	10	5	
1,1-Dichloroethane	ND	10	5	
2,2-Dichloropropane	ND	10	5	
cis-1,2-Dichloroethene	ND	10	5	
Bromochloromethane	ND	10	5	
Chloroform	ND	10	5	
1,1,1-Trichloroethane	ND	10	5	
Carbon Tetrachloride	ND	10	5	
1,1-Dichloropropene	ND	10	5	
Benzene	ND	10	5	
1,2-Dichloroethane	ND	10	5	
Trichloroethene	ND	10	5	
1,2-Dichloropropane	ND	10	5	
Dibromomethane	ND	10	5	
Bromodichloromethane	ND	10	5	
cis-1,3-Dichloropropene	ND	10	5	
Toluene	ND	10	5	
trans-1,3-Dichloropropene	ND	10	5	

STL Seattle

Volatile Organics by USEPA Method 5030/8260B data for 116596-05 continued...

Analyte	Result (ug/L)	PQL	MRL
1,1,2-Trichloroethane	ND	10	5
Tetrachloroethene	ND	10	5
1,3-Dichloropropane	ND	10	5
Dibromochloromethane	ND	10	5
1,2-Dibromoethane	ND	10	5
Chlorobenzene	ND	10	5
Ethylbenzene	ND	10	5
1,1,1,2-Tetrachloroethane	ND	10	5
m,p-Xylene	ND	20	10
o-Xylene	ND	10	5
Styrene	ND	10	5
Bromoform	ND	10	5
Isopropylbenzene	ND	10	5
Bromobenzene	ND	10	5
n-Propylbenzene	ND	10	5
1,1,2,2-Tetrachloroethane	ND	10	5
1,2,3-Trichloropropane	ND	10	5
2-Chlorotoluene	ND	10	5
1,3,5-Trimethylbenzene	ND	10	5
4-Chlorotoluene	ND	10	5
t-Butylbenzene	ND	10	5
1,2,4-Trimethylbenzene	ND	10	5
sec-Butylbenzene	ND	10	5
1,3-Dichlorobenzene	ND	10	5
4-Isopropyltoluene	ND	10	5
1,4-Dichlorobenzene	ND	10	5
n-Butylbenzene	ND	10	5
1,2-Dichlorobenzene	ND	10	5
1,2-Dibromo-3-chloropropane	ND	10	5
1,2,4-Trichlorobenzene	ND	10	5
Hexachlorobutadiene	ND	10	5
Naphthalene	ND	20	10
1,2,3-Trichlorobenzene	ND	10	5

STL Seattle

Client Name	SCS Engineers
Client ID:	
Lab ID:	116596X05
Date Received:	-
Date Prepared:	10/9/2003
Date Analyzed:	10/9/2003
% Solids	-
Dilution Factor	2

Volatile Organics by USEPA Method 5030/8260B

SMC / Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	93.7		80	120
Fluorobenzene	99.5		80	120
Toluene-D8	110		80	120
Ethylbenzene-d10	125	X9	80	120
Bromofluorobenzene	102		80	120
Trifluorotoluene	104		80	120

Analyte	Result (ug/L)	PQL	MRL	Flags
Dichlorodifluoromethane	ND	2	1	
Chloromethane	ND	4	2	
Vinyl chloride	ND	0.8	0.4	
Bromomethane	ND	5	2.5	
Chloroethane	ND	2	1	
Trichlorofluoromethane	ND	2	1	
1,1-Dichloroethene	ND	2	1	
Methylene chloride	ND	4	2	
trans-1,2-Dichloroethene	ND	2	1	
1,1-Dichloroethane	ND	2	1	
2,2-Dichloropropane	ND	2	1	
cis-1,2-Dichloroethene	ND	2	1	
Bromochloromethane	ND	2	1	
Chloroform	ND	2	1	
1,1,1-Trichloroethane	ND	2	1	
Carbon Tetrachloride	ND	2	1	
1,1-Dichloropropene	ND	2	1	
Benzene	ND	2	1	
1,2-Dichloroethane	ND	2	1	
Trichloroethene	ND	2	1	
1,2-Dichloropropane	ND	2	1	
Dibromomethane	ND	2	1	
Bromodichloromethane	ND	2	1	
cis-1,3-Dichloropropene	ND	2	1	
Toluene	1.23	2	1	J
trans-1,3-Dichloropropene	ND	2	1	

STL Seattle

Volatile Organics by USEPA Method 5030/8260B data for 116596X05 continued...

Analyte	Result (ug/L)	PQL	MRL	
1,1,2-Trichloroethane	ND	2	1	
Tetrachloroethene	ND	2	1	
1,3-Dichloropropane	ND	2	1	
Dibromochloromethane	ND	2	1	
1,2-Dibromoethane	ND	2	1	
Chlorobenzene	ND	2	1	
Ethylbenzene	ND	2	1	
1,1,1,2-Tetrachloroethane	ND	2	1	
m,p-Xylene	2.22	4	2	J
o-Xylene	ND	2	1	
Styrene	ND	2	1	
Bromoform	ND	2	1	
Isopropylbenzene	1.88	2	1	J
Bromobenzene	ND	2	1	
n-Propylbenzene	ND	2	1	
1,1,2,2-Tetrachloroethane	ND	2	1	
1,2,3-Trichloropropane	ND	2	1	
2-Chlorotoluene	ND	2	1	
1,3,5-Trimethylbenzene	ND	2	1	
4-Chlorotoluene	ND	2	1	
t-Butylbenzene	ND	2	1	
1,2,4-Trimethylbenzene	ND	2	1	
sec-Butylbenzene	1.8	2	1	J
1,3-Dichlorobenzene	ND	2	1	
4-Isopropyltoluene	ND	2	1	
1,4-Dichlorobenzene	ND	2	1	
n-Butylbenzene	ND	2	1	
1,2-Dichlorobenzene	ND	2	1	
1,2-Dibromo-3-chloropropane	ND	2	1	
1,2,4-Trichlorobenzene	ND	2	1	
Hexachlorobutadiene	ND	2	1	
Naphthalene	ND	4	2	
1,2,3-Trichlorobenzene	ND	2	1	

STL Seattle

Client Name	SCS Engineers
Client ID:	MW-13
Lab ID:	116596-06
Date Received:	10/2/2003
Date Prepared:	10/8/2003
Date Analyzed:	10/8/2003
% Solids	-
Dilution Factor	1

Volatile Organics by USEPA Method 5030/8260B

SMC / Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	94.4		80	120
Fluorobenzene	102		80	120
Toluene-D8	103		80	120
Ethylbenzene-d10	107		80	120
Bromofluorobenzene	95.9		80	120
Trifluorotoluene	105		80	120

Analyte	Result (ug/L)	PQL	MRL	Flags
Dichlorodifluoromethane	ND	1	0.5	
Chloromethane	ND	2	1	
Vinyl chloride	ND	0.4	0.2	
Bromomethane	ND	2.5	1.25	
Chloroethane	ND	1	0.5	
Trichlorofluoromethane	ND	1	0.5	
1,1-Dichloroethene	ND	1	0.5	
Methylene chloride	ND	2	1	
trans-1,2-Dichloroethene	ND	1	0.5	
1,1-Dichloroethane	ND	1	0.5	
2,2-Dichloropropane	ND	1	0.5	
cis-1,2-Dichloroethene	ND	1	0.5	
Bromochloromethane	ND	1	0.5	
Chloroform	ND	1	0.5	
1,1,1-Trichloroethane	ND	1	0.5	
Carbon Tetrachloride	ND	1	0.5	
1,1-Dichloropropene	ND	1	0.5	
Benzene	ND	1	0.5	
1,2-Dichloroethane	ND	1	0.5	
Trichloroethene	ND	1	0.5	
1,2-Dichloropropane	ND	1	0.5	
Dibromomethane	ND	1	0.5	
Bromodichloromethane	ND	1	0.5	
cis-1,3-Dichloropropene	ND	1	0.5	
Toluene	ND	1	0.5	
trans-1,3-Dichloropropene	ND	1	0.5	

STL Seattle

Volatile Organics by USEPA Method 5030/8260B data for 116596-06 continued...

Analyte	Result (ug/L)	PQL	MRL
1,1,2-Trichloroethane	ND	1	0.5
Tetrachloroethene	ND	1	0.5
1,3-Dichloropropane	ND	1	0.5
Dibromochloromethane	ND	1	0.5
1,2-Dibromoethane	ND	1	0.5
Chlorobenzene	ND	1	0.5
Ethylbenzene	ND	1	0.5
1,1,1,2-Tetrachloroethane	ND	1	0.5
m,p-Xylene	ND	2	1
o-Xylene	ND	1	0.5
Styrene	ND	1	0.5
Bromoform	ND	1	0.5
Isopropylbenzene	ND	1	0.5
Bromobenzene	ND	1	0.5
n-Propylbenzene	ND	1	0.5
1,1,2,2-Tetrachloroethane	ND	1	0.5
1,2,3-Trichloropropane	ND	1	0.5
2-Chlorotoluene	ND	1	0.5
1,3,5-Trimethylbenzene	ND	1	0.5
4-Chlorotoluene	ND	1	0.5
t-Butylbenzene	ND	1	0.5
1,2,4-Trimethylbenzene	ND	1	0.5
sec-Butylbenzene	ND	1	0.5
1,3-Dichlorobenzene	ND	1	0.5
4-Isopropyltoluene	ND	1	0.5
1,4-Dichlorobenzene	ND	1	0.5
n-Butylbenzene	ND	1	0.5
1,2-Dichlorobenzene	ND	1	0.5
1,2-Dibromo-3-chloropropane	ND	1	0.5
1,2,4-Trichlorobenzene	ND	1	0.5
Hexachlorobutadiene	ND	1	0.5
Naphthalene	ND	2	1
1,2,3-Trichlorobenzene	ND	1	0.5

STL Seattle

Client Name	SCS Engineers
Client ID:	MW-14
Lab ID:	116596-07
Date Received:	10/2/2003
Date Prepared:	10/8/2003
Date Analyzed:	10/8/2003
% Solids	-
Dilution Factor	1

Volatile Organics by USEPA Method 5030/8260B

SMC / Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	95.1		80	120
Fluorobenzene	97.8		80	120
Toluene-D8	107		80	120
Ethylbenzene-d10	111		80	120
Bromofluorobenzene	97.7		80	120
Trifluorotoluene	111		80	120

Analyte	Result (ug/L)	PQL	MRL	Flags
Dichlorodifluoromethane	ND	1	0.5	
Chloromethane	ND	2	1	
Vinyl chloride	ND	0.4	0.2	
Bromomethane	ND	2.5	1.25	
Chloroethane	ND	1	0.5	
Trichlorofluoromethane	ND	1	0.5	
1,1-Dichloroethene	ND	1	0.5	
Methylene chloride	ND	2	1	
trans-1,2-Dichloroethene	ND	1	0.5	
1,1-Dichloroethane	ND	1	0.5	
2,2-Dichloropropane	ND	1	0.5	
cis-1,2-Dichloroethene	ND	1	0.5	
Bromochloromethane	ND	1	0.5	
Chloroform	ND	1	0.5	
1,1,1-Trichloroethane	ND	1	0.5	
Carbon Tetrachloride	ND	1	0.5	
1,1-Dichloropropene	ND	1	0.5	
Benzene	ND	1	0.5	
1,2-Dichloroethane	ND	1	0.5	
Trichloroethene	ND	1	0.5	
1,2-Dichloropropane	ND	1	0.5	
Dibromomethane	ND	1	0.5	
Bromodichloromethane	ND	1	0.5	
cis-1,3-Dichloropropene	ND	1	0.5	
Toluene	ND	1	0.5	
trans-1,3-Dichloropropene	ND	1	0.5	

STL Seattle

Volatile Organics by USEPA Method 5030/8260B data for 116596-07 continued...

Analyte	Result (ug/L)	PQL	MRL
1,1,2-Trichloroethane	ND	1	0.5
Tetrachloroethene	ND	1	0.5
1,3-Dichloropropane	ND	1	0.5
Dibromochloromethane	ND	1	0.5
1,2-Dibromoethane	ND	1	0.5
Chlorobenzene	ND	1	0.5
Ethylbenzene	ND	1	0.5
1,1,1,2-Tetrachloroethane	ND	1	0.5
m,p-Xylene	ND	2	1
o-Xylene	ND	1	0.5
Styrene	ND	1	0.5
Bromoform	ND	1	0.5
Isopropylbenzene	ND	1	0.5
Bromobenzene	ND	1	0.5
n-Propylbenzene	ND	1	0.5
1,1,2,2-Tetrachloroethane	ND	1	0.5
1,2,3-Trichloropropane	ND	1	0.5
2-Chlorotoluene	ND	1	0.5
1,3,5-Trimethylbenzene	ND	1	0.5
4-Chlorotoluene	ND	1	0.5
t-Butylbenzene	ND	1	0.5
1,2,4-Trimethylbenzene	ND	1	0.5
sec-Butylbenzene	ND	1	0.5
1,3-Dichlorobenzene	ND	1	0.5
4-Isopropyltoluene	ND	1	0.5
1,4-Dichlorobenzene	ND	1	0.5
n-Butylbenzene	ND	1	0.5
1,2-Dichlorobenzene	ND	1	0.5
1,2-Dibromo-3-chloropropane	ND	1	0.5
1,2,4-Trichlorobenzene	ND	1	0.5
Hexachlorobutadiene	ND	1	0.5
Naphthalene	ND	2	1
1,2,3-Trichlorobenzene	ND	1	0.5

STL Seattle

Client Name	SCS Engineers
Client ID:	MW-15
Lab ID:	116596-08
Date Received:	10/2/2003
Date Prepared:	10/8/2003
Date Analyzed:	10/8/2003
% Solids	-
Dilution Factor	1

Volatile Organics by USEPA Method 5030/8260B

SMC / Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	90		80	120
Fluorobenzene	100		80	120
Toluene-D8	108		80	120
Ethylbenzene-d10	100		80	120
Bromofluorobenzene	97.5		80	120
Trifluorotoluene	107		80	120

Analyte	Result (ug/L)	PQL	MRL	Flags
Dichlorodifluoromethane	ND	1	0.5	
Chloromethane	ND	2	1	
Vinyl chloride	ND	0.4	0.2	
Bromomethane	ND	2.5	1.25	
Chloroethane	ND	1	0.5	
Trichlorofluoromethane	ND	1	0.5	
1,1-Dichloroethene	ND	1	0.5	
Methylene chloride	ND	2	1	
trans-1,2-Dichloroethene	ND	1	0.5	
1,1-Dichloroethane	ND	1	0.5	
2,2-Dichloropropane	ND	1	0.5	
cis-1,2-Dichloroethene	ND	1	0.5	
Bromochloromethane	ND	1	0.5	
Chloroform	ND	1	0.5	
1,1,1-Trichloroethane	ND	1	0.5	
Carbon Tetrachloride	ND	1	0.5	
1,1-Dichloropropene	ND	1	0.5	
Benzene	ND	1	0.5	
1,2-Dichloroethane	ND	1	0.5	
Trichloroethene	ND	1	0.5	
1,2-Dichloropropane	ND	1	0.5	
Dibromomethane	ND	1	0.5	
Bromodichloromethane	ND	1	0.5	
cis-1,3-Dichloropropene	ND	1	0.5	
Toluene	ND	1	0.5	
trans-1,3-Dichloropropene	ND	1	0.5	

STL Seattle

Volatile Organics by USEPA Method 5030/8260B data for 116596-08 continued...

Analyte	Result (ug/L)	PQL	MRL
1,1,2-Trichloroethane	ND	1	0.5
Tetrachloroethene	ND	1	0.5
1,3-Dichloropropane	ND	1	0.5
Dibromochloromethane	ND	1	0.5
1,2-Dibromoethane	ND	1	0.5
Chlorobenzene	ND	1	0.5
Ethylbenzene	ND	1	0.5
1,1,1,2-Tetrachloroethane	ND	1	0.5
m,p-Xylene	ND	2	1
o-Xylene	ND	1	0.5
Styrene	ND	1	0.5
Bromoform	ND	1	0.5
Isopropylbenzene	ND	1	0.5
Bromobenzene	ND	1	0.5
n-Propylbenzene	ND	1	0.5
1,1,2,2-Tetrachloroethane	ND	1	0.5
1,2,3-Trichloropropane	ND	1	0.5
2-Chlorotoluene	ND	1	0.5
1,3,5-Trimethylbenzene	ND	1	0.5
4-Chlorotoluene	ND	1	0.5
t-Butylbenzene	ND	1	0.5
1,2,4-Trimethylbenzene	ND	1	0.5
sec-Butylbenzene	ND	1	0.5
1,3-Dichlorobenzene	ND	1	0.5
4-Isopropyltoluene	ND	1	0.5
1,4-Dichlorobenzene	ND	1	0.5
n-Butylbenzene	ND	1	0.5
1,2-Dichlorobenzene	ND	1	0.5
1,2-Dibromo-3-chloropropane	ND	1	0.5
1,2,4-Trichlorobenzene	ND	1	0.5
Hexachlorobutadiene	ND	1	0.5
Naphthalene	ND	2	1
1,2,3-Trichlorobenzene	ND	1	0.5

STL Seattle

Client Name	SCS Engineers
Client ID:	DUP A
Lab ID:	116596-09
Date Received:	10/2/2003
Date Prepared:	10/8/2003
Date Analyzed:	10/8/2003
% Solids	-
Dilution Factor	10

Volatile Organics by USEPA Method 5030/8260B

SMC / Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	92.5		80	120
Fluorobenzene	99.2		80	120
Toluene-D8	106		80	120
Ethylbenzene-d10	110		80	120
Bromofluorobenzene	97.8		80	120
Trifluorotoluene	108		80	120

Analyte	Result (ug/L)	PQL	MRL	Flags
Dichlorodifluoromethane	ND	10	5	
Chloromethane	ND	20	10	
Vinyl chloride	ND	4	2	
Bromomethane	ND	25	12.5	
Chloroethane	ND	10	5	
Trichlorofluoromethane	ND	10	5	
1,1-Dichloroethene	ND	10	5	
Methylene chloride	ND	20	10	
trans-1,2-Dichloroethene	ND	10	5	
1,1-Dichloroethane	ND	10	5	
2,2-Dichloropropane	ND	10	5	
cis-1,2-Dichloroethene	ND	10	5	
Bromochloromethane	ND	10	5	
Chloroform	ND	10	5	
1,1,1-Trichloroethane	ND	10	5	
Carbon Tetrachloride	ND	10	5	
1,1-Dichloropropene	ND	10	5	
Benzene	ND	10	5	
1,2-Dichloroethane	ND	10	5	
Trichloroethene	ND	10	5	
1,2-Dichloropropane	ND	10	5	
Dibromomethane	ND	10	5	
Bromodichloromethane	ND	10	5	
cis-1,3-Dichloropropene	ND	10	5	
Toluene	ND	10	5	
trans-1,3-Dichloropropene	ND	10	5	

STL Seattle

Volatile Organics by USEPA Method 5030/8260B data for 116596-09 continued...

Analyte	Result (ug/L)	PQL	MRL
1,1,2-Trichloroethane	ND	10	5
Tetrachloroethene	219	10	5
1,3-Dichloropropane	ND	10	5
Dibromochloromethane	ND	10	5
1,2-Dibromoethane	ND	10	5
Chlorobenzene	ND	10	5
Ethylbenzene	ND	10	5
1,1,1,2-Tetrachloroethane	ND	10	5
m,p-Xylene	ND	20	10
o-Xylene	ND	10	5
Styrene	ND	10	5
Bromoform	ND	10	5
Isopropylbenzene	ND	10	5
Bromobenzene	ND	10	5
n-Propylbenzene	ND	10	5
1,1,2,2-Tetrachloroethane	ND	10	5
1,2,3-Trichloropropane	ND	10	5
2-Chlorotoluene	ND	10	5
1,3,5-Trimethylbenzene	ND	10	5
4-Chlorotoluene	ND	10	5
t-Butylbenzene	ND	10	5
1,2,4-Trimethylbenzene	ND	10	5
sec-Butylbenzene	ND	10	5
1,3-Dichlorobenzene	ND	10	5
4-Isopropyltoluene	ND	10	5
1,4-Dichlorobenzene	ND	10	5
n-Butylbenzene	ND	10	5
1,2-Dichlorobenzene	ND	10	5
1,2-Dibromo-3-chloropropane	ND	10	5
1,2,4-Trichlorobenzene	ND	10	5
Hexachlorobutadiene	ND	10	5
Naphthalene	ND	20	10
1,2,3-Trichlorobenzene	ND	10	5

STL Seattle

Client Name	SCS Engineers
Client ID:	TRIP BLANK
Lab ID:	116596-10
Date Received:	10/2/2003
Date Prepared:	10/8/2003
Date Analyzed:	10/8/2003
% Solids	-
Dilution Factor	1

Volatile Organics by USEPA Method 5030/8260B

SMC / Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	92		80	120
Fluorobenzene	102		80	120
Toluene-D8	104		80	120
Ethylbenzene-d10	104		80	120
Bromofluorobenzene	91.7		80	120
Trifluorotoluene	106		80	120

Analyte	Result (ug/L)	PQL	MRL	Flags
Dichlorodifluoromethane	ND	1	0.5	
Chloromethane	ND	2	1	
Vinyl chloride	ND	0.4	0.2	
Bromomethane	ND	2.5	1.25	
Chloroethane	ND	1	0.5	
Trichlorofluoromethane	ND	1	0.5	
1,1-Dichloroethene	ND	1	0.5	
Methylene chloride	ND	2	1	
trans-1,2-Dichloroethene	ND	1	0.5	
1,1-Dichloroethane	ND	1	0.5	
2,2-Dichloropropane	ND	1	0.5	
cis-1,2-Dichloroethene	ND	1	0.5	
Bromochloromethane	ND	1	0.5	
Chloroform	ND	1	0.5	
1,1,1-Trichloroethane	ND	1	0.5	
Carbon Tetrachloride	ND	1	0.5	
1,1-Dichloropropene	ND	1	0.5	
Benzene	ND	1	0.5	
1,2-Dichloroethane	ND	1	0.5	
Trichloroethene	ND	1	0.5	
1,2-Dichloropropane	ND	1	0.5	
Dibromomethane	ND	1	0.5	
Bromodichloromethane	ND	1	0.5	
cis-1,3-Dichloropropene	ND	1	0.5	
Toluene	ND	1	0.5	
trans-1,3-Dichloropropene	ND	1	0.5	

STL Seattle

Volatile Organics by USEPA Method 5030/8260B data for 116596-10 continued...

Analyte	Result (ug/L)	PQL	MRL
1,1,2-Trichloroethane	ND	1	0.5
Tetrachloroethene	ND	1	0.5
1,3-Dichloropropane	ND	1	0.5
Dibromochloromethane	ND	1	0.5
1,2-Dibromoethane	ND	1	0.5
Chlorobenzene	ND	1	0.5
Ethylbenzene	ND	1	0.5
1,1,1,2-Tetrachloroethane	ND	1	0.5
m,p-Xylene	ND	2	1
o-Xylene	ND	1	0.5
Styrene	ND	1	0.5
Bromoform	ND	1	0.5
Isopropylbenzene	ND	1	0.5
Bromobenzene	ND	1	0.5
n-Propylbenzene	ND	1	0.5
1,1,2,2-Tetrachloroethane	ND	1	0.5
1,2,3-Trichloropropane	ND	1	0.5
2-Chlorotoluene	ND	1	0.5
1,3,5-Trimethylbenzene	ND	1	0.5
4-Chlorotoluene	ND	1	0.5
t-Butylbenzene	ND	1	0.5
1,2,4-Trimethylbenzene	ND	1	0.5
sec-Butylbenzene	ND	1	0.5
1,3-Dichlorobenzene	ND	1	0.5
4-Isopropyltoluene	ND	1	0.5
1,4-Dichlorobenzene	ND	1	0.5
n-Butylbenzene	ND	1	0.5
1,2-Dichlorobenzene	ND	1	0.5
1,2-Dibromo-3-chloropropane	ND	1	0.5
1,2,4-Trichlorobenzene	ND	1	0.5
Hexachlorobutadiene	ND	1	0.5
Naphthalene	ND	2	1
1,2,3-Trichlorobenzene	ND	1	0.5

STL Seattle

Lab ID:	Method Blank - VOA473
Date Received:	-
Date Prepared:	10/8/2003
Date Analyzed:	10/8/2003
% Solids	-
Dilution Factor	1

Volatile Organics by USEPA Method 5030/8260B

SMC / Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	93.4		80	120
Fluorobenzene	102		80	120
Toluene-D8	108		80	120
Ethylbenzene-d10	111		80	120
Bromofluorobenzene	97.9		80	120
Trifluorotoluene	111		80	120

Analyte	Result (ug/L)	PQL	MRL	Flags
Dichlorodifluoromethane	ND	1	0.5	
Chloromethane	ND	2	1	
Vinyl chloride	ND	0.4	0.2	
Bromomethane	ND	2.5	1.25	
Chloroethane	ND	1	0.5	
Trichlorofluoromethane	ND	1	0.5	
1,1-Dichloroethene	ND	1	0.5	
Methylene chloride	ND	2	1	
trans-1,2-Dichloroethene	ND	1	0.5	
1,1-Dichloroethane	ND	1	0.5	
2,2-Dichloropropane	ND	1	0.5	
cis-1,2-Dichloroethene	ND	1	0.5	
Bromochloromethane	ND	1	0.5	
Chloroform	ND	1	0.5	
1,1,1-Trichloroethane	ND	1	0.5	
Carbon Tetrachloride	ND	1	0.5	
1,1-Dichloropropene	ND	1	0.5	
Benzene	ND	1	0.5	
1,2-Dichloroethane	ND	1	0.5	
Trichloroethene	ND	1	0.5	
1,2-Dichloropropane	ND	1	0.5	
Dibromomethane	ND	1	0.5	
Bromodichloromethane	ND	1	0.5	
cis-1,3-Dichloropropene	ND	1	0.5	
Toluene	ND	1	0.5	
trans-1,3-Dichloropropene	ND	1	0.5	

STL Seattle

Volatile Organics by USEPA Method 5030/8260B data for VOA473 continued...

Analyte	Result (ug/L)	PQL	MRL
1,1,2-Trichloroethane	ND	1	0.5
Tetrachloroethene	ND	1	0.5
1,3-Dichloropropane	ND	1	0.5
Dibromochloromethane	ND	1	0.5
1,2-Dibromoethane	ND	1	0.5
Chlorobenzene	ND	1	0.5
Ethylbenzene	ND	1	0.5
1,1,1,2-Tetrachloroethane	ND	1	0.5
m,p-Xylene	ND	2	1
o-Xylene	ND	1	0.5
Styrene	ND	1	0.5
Bromoform	ND	1	0.5
Isopropylbenzene	ND	1	0.5
Bromobenzene	ND	1	0.5
n-Propylbenzene	ND	1	0.5
1,1,2,2-Tetrachloroethane	ND	1	0.5
1,2,3-Trichloropropane	ND	1	0.5
2-Chlorotoluene	ND	1	0.5
1,3,5-Trimethylbenzene	ND	1	0.5
4-Chlorotoluene	ND	1	0.5
t-Butylbenzene	ND	1	0.5
1,2,4-Trimethylbenzene	ND	1	0.5
sec-Butylbenzene	ND	1	0.5
1,3-Dichlorobenzene	ND	1	0.5
4-Isopropyltoluene	ND	1	0.5
1,4-Dichlorobenzene	ND	1	0.5
n-Butylbenzene	ND	1	0.5
1,2-Dichlorobenzene	ND	1	0.5
1,2-Dibromo-3-chloropropane	ND	1	0.5
1,2,4-Trichlorobenzene	ND	1	0.5
Hexachlorobutadiene	ND	1	0.5
Naphthalene	ND	2	1
1,2,3-Trichlorobenzene	ND	1	0.5

STL Seattle

Lab ID:	Method Blank - VOA477
Date Received:	-
Date Prepared:	10/9/2003
Date Analyzed:	10/9/2003
% Solids	-
Dilution Factor	1

Volatile Organics by USEPA Method 5030/8260B

SMC / Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Dibromofluoromethane	92.7		80	120
Fluorobenzene	101		80	120
Toluene-D8	108		80	120
Ethylbenzene-d10	108		80	120
Bromofluorobenzene	96		80	120
Trifluorotoluene	96.3		80	120

Analyte	Result (ug/L)	PQL	MRL	Flags
Dichlorodifluoromethane	ND	1	0.5	
Chloromethane	ND	2	1	
Vinyl chloride	ND	0.4	0.2	
Bromomethane	ND	2.5	1.25	
Chloroethane	ND	1	0.5	
Trichlorofluoromethane	ND	1	0.5	
1,1-Dichloroethene	ND	1	0.5	
Methylene chloride	ND	2	1	
trans-1,2-Dichloroethene	ND	1	0.5	
1,1-Dichloroethane	ND	1	0.5	
2,2-Dichloropropane	ND	1	0.5	
cis-1,2-Dichloroethene	ND	1	0.5	
Bromochloromethane	ND	1	0.5	
Chloroform	ND	1	0.5	
1,1,1-Trichloroethane	ND	1	0.5	
Carbon Tetrachloride	ND	1	0.5	
1,1-Dichloropropene	ND	1	0.5	
Benzene	ND	1	0.5	
1,2-Dichloroethane	ND	1	0.5	
Trichloroethene	ND	1	0.5	
1,2-Dichloropropane	ND	1	0.5	
Dibromomethane	ND	1	0.5	
Bromodichloromethane	ND	1	0.5	
cis-1,3-Dichloropropene	ND	1	0.5	
Toluene	ND	1	0.5	
trans-1,3-Dichloropropene	ND	1	0.5	

STL Seattle

Volatile Organics by USEPA Method 5030/8260B data for VOA477 continued...

Analyte	Result (ug/L)	PQL	MRL
1,1,2-Trichloroethane	ND	1	0.5
Tetrachloroethene	ND	1	0.5
1,3-Dichloropropane	ND	1	0.5
Dibromochloromethane	ND	1	0.5
1,2-Dibromoethane	ND	1	0.5
Chlorobenzene	ND	1	0.5
Ethylbenzene	ND	1	0.5
1,1,1,2-Tetrachloroethane	ND	1	0.5
m,p-Xylene	ND	2	1
o-Xylene	ND	1	0.5
Styrene	ND	1	0.5
Bromoform	ND	1	0.5
Isopropylbenzene	ND	1	0.5
Bromobenzene	ND	1	0.5
n-Propylbenzene	ND	1	0.5
1,1,2,2-Tetrachloroethane	ND	1	0.5
1,2,3-Trichloropropane	ND	1	0.5
2-Chlorotoluene	ND	1	0.5
1,3,5-Trimethylbenzene	ND	1	0.5
4-Chlorotoluene	ND	1	0.5
t-Butylbenzene	ND	1	0.5
1,2,4-Trimethylbenzene	ND	1	0.5
sec-Butylbenzene	ND	1	0.5
1,3-Dichlorobenzene	ND	1	0.5
4-Isopropyltoluene	ND	1	0.5
1,4-Dichlorobenzene	ND	1	0.5
n-Butylbenzene	ND	1	0.5
1,2-Dichlorobenzene	ND	1	0.5
1,2-Dibromo-3-chloropropane	ND	1	0.5
1,2,4-Trichlorobenzene	ND	1	0.5
Hexachlorobutadiene	ND	1	0.5
Naphthalene	ND	2	1
1,2,3-Trichlorobenzene	ND	1	0.5

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID: VOA473
Date Prepared: 10/8/2003
Date Analyzed: 10/8/2003
QC Batch ID: VOA473

Volatile Organics by USEPA Method 5030/8260B

Compound Name	Blank Result (ug/L)	Spike Amount (ug/L)	BS Result (ug/L)	BS % Rec.	BSD Result (ug/L)	BSD % Rec.	RPD	Flag
1,1-Dichloroethene	0	5	4.49	89.8	4.87	97.4	8.1	
Benzene	0	5	4.77	95.4	4.83	96.5	1.1	
1,2-Dichloroethene	0	5	4.76	95.2	4.8	95.9	0.73	
Toluene	0	5	5.05	101	4.95	99	-2	
Chlorobenzene	0	5	5	100	5.28	106	5.8	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID: VOA477
Date Prepared: 10/9/2003
Date Analyzed: 10/9/2003
QC Batch ID: VOA477

Volatile Organics by USEPA Method 5030/8260B

Compound Name	Blank Result (ug/L)	Spike Amount (ug/L)	BS Result (ug/L)	BS % Rec.	BSD Result (ug/L)	BSD % Rec.	RPD	Flag
1,1-Dichloroethene	0	5	4.67	93.3	4.67	93.3	0	
Benzene	0	5	4.69	93.7	4.77	95.4	1.8	
Trichloroethene	0	5	4.81	96.3	4.86	97.1	0.83	
Toluene	0	5	4.96	99.1	4.9	97.9	-1.2	
Chlorobenzene	0	5	4.66	93.3	4.91	98.1	5	



STL

STL Seattle
5755 8th Street East
Tacoma, WA 98424

Tel: 253 922 2310
Fax: 253 922 5047
www.stl-inc.com

DATA QUALIFIERS AND ABBREVIATIONS

- 31: This analyte was detected in the associated method blank. The analyte concentration was determined not to be significantly higher than the associated method blank (less than ten times the concentration reported in the blank).
- 32: This analyte was detected in the associated method blank. The analyte concentration in the sample was determined to be significantly higher than the method blank (greater than ten times the concentration reported in the blank).
- C1: Second column confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be < 40%.
- C2: Second column confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 40%. The higher result was reported unless anomalies were noted.
- C3: Second analysis confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be ≤ 30%.
- C4: Second analysis confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 30%. The original analysis was reported unless anomalies were noted.
- V1: GC/MS confirmation was performed. The result derived from the original analysis was reported.
- D: The reported result for this analyte was calculated based on a secondary dilution factor.
- E: The concentration of this analyte exceeded the instrument calibration range and should be considered an estimated quantity.
- J: The analyte was analyzed for and positively identified, but the associated numerical value is an estimated quantity.
- MCL: Maximum Contaminant Level
- MDL: Method Detection Limit
- MRL: Method Reporting Limit
- N: See analytical narrative
- ND: Not Detected
- PQL: Practical Quantitation Limit
- X1: Contaminant does not appear to be "typical" product. Elution pattern suggests it may be _____.
- X2: Contaminant does not appear to be "typical" product.
- X3: Identification and quantitation of the analyte or surrogate was complicated by matrix interference.
- X4: RPD for duplicates was outside advisory QC limits. The sample was re-analyzed with similar results. The sample matrix may be nonhomogeneous.
- X4a: RPD for duplicates outside advisory QC limits due to analyte concentration near the method practical quantitation limit/detection limit.
- X5: Matrix spike recovery was not determined due to the required dilution.
- X6: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Sample was re-analyzed with similar results.
- X7: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Matrix interference may be indicated based on acceptable blank spike recovery and/or RPD.
- X7a: Recovery and/or RPD values for this spiked analyte outside advisory QC limits due to high concentration of the analyte in the original sample.
- X8: Surrogate recovery was not determined due to the required dilution.
- X9: Surrogate recovery outside advisory QC limits due to matrix interference.

Chain of Custody Record

5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.stl-inc.com

SEVERIN
TRENT

STL

Client: **SCS Engineers** Project Manager: **Dan Venchiarutti** Date: **10-2-03** Chain of Custody Number: **04306**
 Address: **2405 140th Ave. NE, Ste 107** Telephone Number (Area Code)/Fax Number: **(425) 746-4600 / (425) 746-6747** Lab Number: **111596**
 Page **1** of **1**

City: **BelleVue** State: **WA** Zip Code: **98005** Site Contact: **Hayley Brown** Lab Contact: **Darla Powell**
 Project Name and Location (State): **Sooper Cleaners Normandy Park (WA)** Carrier/Waybill Number: _____
 Contract/Purchase Order/Quote No. _____

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix				Containers & Preservatives						Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt	
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH			
MW-5B	10-1-03	1519	X							X					Trip Blank is included.
MW-8		1604													
MW-10		1641													
MW-11		1422													
MW-12		1311													
MW-13		947													
MW-14		10:44													
MW-15		1148													
DUP A		1530													
Trip blank															

Cooler: Yes No Cooler Temp: _____ Possible Hazard Identification: Non-Hazard Flammable Skin Irritant Poison B Unknown
 Sample Disposal: Return To Client Disposal By Lab Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days): 24 Hours 48 Hours 5 Days 10 Days 15 Days Other _____ QC Requirements (Specify): _____

1. Relinquished By: Hayley Brown	Date: 10-2-03	Time: 10:06	1. Received By: C Leach ST	Date: 10/2/03	Time: 10:07
2. Relinquished By: C Leach ST	Date: 10/2/03	Time: 11:33	2. Received By: D Powell	Date: 10/2/03	Time: 11:38
3. Relinquished By: _____	Date: _____	Time: _____	3. Received By: _____	Date: _____	Time: _____

Comments: _____