



July 30, 2012

Analytical Report for Service Request No: K1206781

Craig Schwyn  
Schwyn Environmental Services  
4621 South Custer Court  
Spokane, WA 99223

**RE: Sudbury Road Landfill Remedial Investigation**

Dear Craig:


Enclosed are the results of the samples submitted to our laboratory on July 13, 2012. For your reference, these analyses have been assigned our service request number K1206781.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at [www.caslab.com](http://www.caslab.com). All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3363. You may also contact me via Email at [Lisa.Domenighini@alsglobal.com](mailto:Lisa.Domenighini@alsglobal.com).

Respectfully submitted,

**Columbia Analytical Services, Inc.**

  
Lisa Domenighini  
Project Manager

LD/tj

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cc: Dennis Rakestraw, City of Walla Walla (Walla Walla, WA)



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Columbia Analytical Services, Inc.

Part of the ALS Group A Campbell Brothers Limited Company

Environmental 

[www.caslab.com](http://www.caslab.com) ■ [www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

### Inorganic Data Qualifiers

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition*: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

### Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition*: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

### Organic Data Qualifiers

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition*: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

### Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**Columbia Analytical Services, Inc. dba ALS Environmental (ALS) - Kelso  
State Certifications, Accreditations, and Licenses**

<b>Agency</b>	<b>Web Site</b>	<b>Number</b>
Alaska DEC UST	<a href="http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx">http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx</a>	UST-040
Arizona DHS	<a href="http://www.azdhs.gov/lab/license/env.htm">http://www.azdhs.gov/lab/license/env.htm</a>	AZ0339
Arkansas - DEQ	<a href="http://www.adeq.state.ar.us/techsvs/labcert.htm">http://www.adeq.state.ar.us/techsvs/labcert.htm</a>	88-0637
California DHS (ELAP)	<a href="http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx">http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx</a>	2286
DOD ELAP	<a href="http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm">http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm</a>	L12-28
Florida DOH	<a href="http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm">http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm</a>	E87412
Georgia DNR	<a href="http://www.gaepd.org/Documents/techguide_pcb.html#cel">http://www.gaepd.org/Documents/techguide_pcb.html#cel</a>	881
Hawaii DOH	Not available	-
Idaho DHW	<a href="http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx">http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx</a>	-
Indiana DOH	<a href="http://www.in.gov/isdh/24859.htm">http://www.in.gov/isdh/24859.htm</a>	C-WA-01
ISO 17025	<a href="http://www.pjllabs.com/">http://www.pjllabs.com/</a>	L12-27
Louisiana DEQ	<a href="http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx">http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx</a>	3016
Louisiana DHH	Not available	LA110003
Maine DHS	Not available	WA0035
Michigan DEQ	<a href="http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156---,00.html">http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156---,00.html</a>	9949
Minnesota DOH	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	053-999-368
Montana DPHHS	<a href="http://www.dphhs.mt.gov/publichealth/">http://www.dphhs.mt.gov/publichealth/</a>	CERT0047
Nevada DEP	<a href="http://ndep.nv.gov/bsdwlabservice.htm">http://ndep.nv.gov/bsdwlabservice.htm</a>	WA35
New Jersey DEP	<a href="http://www.nj.gov/dep/oqa/">http://www.nj.gov/dep/oqa/</a>	WA005
New Mexico ED	<a href="http://www.nmenv.state.nm.us/dwb/Index.htm">http://www.nmenv.state.nm.us/dwb/Index.htm</a>	-
North Carolina DWQ	<a href="http://www.dwqlab.org/">http://www.dwqlab.org/</a>	605
Oklahoma DEQ	<a href="http://www.deq.state.ok.us/CSDnew/labcert.htm">http://www.deq.state.ok.us/CSDnew/labcert.htm</a>	9801
Oregon – DEQ (NELAP)	<a href="http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	WA200001
South Carolina DHEC	<a href="http://www.scdhec.gov/environment/envserv/">http://www.scdhec.gov/environment/envserv/</a>	61002
Texas CEQ	<a href="http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html</a>	704427-08-TX
Washington DOE	<a href="http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html">http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html</a>	C1203
Wisconsin DNR	<a href="http://dnr.wi.gov/">http://dnr.wi.gov/</a>	998386840
Wyoming (EPA Region 8)	<a href="http://www.epa.gov/region8/water/dwhome/wyomingdi.html">http://www.epa.gov/region8/water/dwhome/wyomingdi.html</a>	-
Kelso Laboratory Website	<a href="http://www.caslab.com">www.caslab.com</a>	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at [www.caslab.com](http://www.caslab.com) or at the accreditation bodies web site

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

ALS ENVIRONMENTAL

Client: Schwyn Environmental Services Service Request No.: K1206781
Project: Sudbury Road Landfill Remedial Investigation Date Received: 07/13/12
Sample Matrix: Water

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Matrix/Duplicate Matrix Spike (MS/DMS), and Laboratory/Duplicate Laboratory Control Sample (LCS/DLCS).

Sample Receipt

Eighteen water samples and a trip blank sample were received for analysis at ALS Environmental on 07/13/12. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

General Chemistry Parameters

No anomalies associated with the analysis of these samples were observed.

Total Metals

Matrix Spike Recovery Exceptions:

The control criteria for matrix spike recovery of Calcium and Magnesium for the Batch QC sample were not applicable. The analyzed concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

No other anomalies associated with the analysis of these samples were observed.

Volatile Organic Compounds by EPA Method 8260

Calibration Verification Exceptions:

The following analytes were flagged as outside the lower control criterion for Continuing Calibration Verification (CCV) J:\MS18\0717F004.D: Dichlorodifluoromethane, trans-1,3-Dichloropropene, Dibromochloromethane, Bromoform, cis-1,4-Dichloro-2-butene, trans-1,4-Dichloro-2-butene, 1,2,3-Trichloropropane, and 1,2-Dibromo-3-chloropropane. J:\MS04\0718F005.D: Dichlorodifluoromethane and Iodomethane J:\MS18\0719F038.D: Acetone, Vinyl Acetate, trans-1,3-Dichloropropene, Dibromochloromethane, Bromoform, cis-1,4-Dichloro-2-butene, trans-1,4-Dichloro-2-butene, and 1,2-Dibromo-3-chloropropane In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The CAS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

The following analyte was flagged as outside the upper control criterion for Continuing Calibration Verification (CCV) J:\MS04\0718F005.D: 1,2-Dichloroethane (EDC). In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The CAS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

Approved by [Signature] Date 7/31/12

The CAS control criterion for the following analyte was not met in Continuing Calibration Verification (CCV) J:\MS04\0718F005.D: Bromomethane. In accordance with CAS standard operating procedures, an MRL check standard containing the analyte of concern was analyzed each day of analysis. The MRL check standard verifies instrument sensitivity was adequate to detect the analyte at the MRL on the day of analysis. Because the sensitivity was shown to be adequate to detect the compound in question, and the field samples analyzed in this sequence did not contain the analyte in question, the data quality has not been significantly affected. No further corrective action was feasible.

**Lab Control Sample Exceptions:**

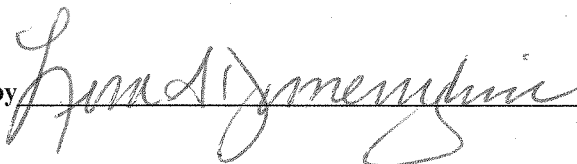
The advisory criterion was exceeded for tran-1,3-Dichloropropane and Dibromochloromethane in Laboratory Control Sample (LCS) KWG1208068-3. As per the CAS/Kelso Standard Operating Procedure (SOP) for this method, these compounds are not included in the subset of analytes used to control the analysis. The recovery information reported for these analytes is for advisory purposes only (i.e. to provide additional detail related to the performance of each individual compound). No further corrective action was required.

No other anomalies associated with the analysis of these samples were observed.

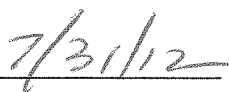
**Volatile Organic Compounds by EPA Method 8260-SIM**

No anomalies associated with the analysis of these samples were observed.

Approved by



Date



Project Name: City of Walla Walla Sudbury Road Landfill Remedial Investigation

Project Manager: Craig Schwyn

Company: Schwyn Environmental Services  
 4621 South Custer Court  
 Spokane, Washington 99223  
 509-448-3187: Craig@schwynenviro.com

Sampler's Signature: Craig Schwyn

Sample I.D.	Date	Time	LAB ID	Matrix
Selmsitt	7/16/12	15:10		Water
Kuwanan		15:30		
Comp		16:00		
Small		16:25		
SR		16:25		
MW-10		17:15		
MW-9		18:00		
MW-5	7/16/12	9:50		
MW-14b		14:30		
MW-15D		16:15		

REMARKS	Number of Containers	VOCs (8260B special list)	Vinyl Chloride by 8260 SIM	[Chloride, Nitrate, Sulfate (Method 300.0)] [Ca, Fe, Mg, Mn, K, Na (Method 6010C)] [Alkalinity (Method 2320B)] [Ammonia (SM 4500)] [TOC (Method 415.1)] [TDS (SM 2540C)]	Appendix III Parameters (see below)	MS/MSD
	6	X	X			
	6	X	X			X
	12	X	X			
	6	X	X			
	6	X	X			
	6	X	X			
	6	X	X			
	6	X	X			
	10	X	X			
	10	X	X			
	10	X	X			

Shipped in  
 three coolers

REMARKS/ROUND REQUIREMENTS

24 hr \_\_\_\_\_ 48 hr \_\_\_\_\_ 5 day \_\_\_\_\_  
 Standard (21 days)  
 Provide FAX Preliminary Results

Requested Report Date: \_\_\_\_\_

Invoice Information  
 P.O. # \_\_\_\_\_

Bill to: Schwyn Environmental Services

RELINQUISHED BY:  
 Signature: Craig Schwyn

Printed Name: Craig Schwyn

Firm: Schwyn Environmental Services  
 Date/Time: 7/12/12 1:00

REPORT REQUIREMENTS

I. Routine Report: Results, Method Blank, Surrogate, as required  
 II. Report Dup., MS, MSD as required  
 III. Data Validation Report (includes raw data)  
 IV. CLP Deliverable Report  
 V. EDD

RECEIVED BY:  
 Signature: Foley

Printed Name: \_\_\_\_\_

Firm: \_\_\_\_\_  
 Date/Time: \_\_\_\_\_

Appendix III Parameters

Dissolved Metals: Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Se, Ag, Ti, Sn, V, and Zn by USEPA Method 6010C  
 Total Metals: Ni, Hg by USEPA Method 6010C, and 7470A  
 Organochlorine pesticides by USEPA Method 8081A  
 PCBs (Aroclors) by USEPA Method 8082  
 Organophosphorus compounds by USEPA Method 8141A  
 Chlorinated herbicides by USEPA Method 8151A  
 SVOCs USEPA Method 8270D  
 Total cyanide by SM 4500 S2 D and Total sulfide by EPA 335.4

RELINQUISHED BY:  
 Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Firm: \_\_\_\_\_  
 Date/Time: \_\_\_\_\_

RECEIVED BY:  
 Signature: MSD

Printed Name: MSD

Firm: ACS  
 Date/Time: 7/13/12 0819

Project Name: City of Walla Walla Sudbury Road Landfill Remedial Investigation

Project Manager: Craig Schwyn

Company: Schwyn Environmental Services  
4621 South Custer Court  
Spokane, Washington 99223  
509-488-3187; Craig@schwynenviro.com

Sampler's Signature: *Craig Schwyn*

Sample ID	Date	Time	LAB ID	MATRIX	Number of Containers	VOCs (8260B special list)	Vinyl Chloride by 8260 SIM	[Chloride, Nitrate, Sulfate (Method 300.0)] [Ca, Fe, Mg, Mn, K, Na (Method 6010C)] [Alkalinity (Method 2320B)] [Ammonia (SM 4500)] [TOC (Method 415.1)] [TDS (SM 2540C)]	Appendix III Parameters (see below)	MS/MSD	REMARKS
MW-3	7/11/12	17:00		Water	10	X	X	X			
MW-19		17:30			10	X	X	X			
D-19		17:30			10	X	X	X			
MW-16	7/12/12	9:00			10	X	X	X			
MW-15		9:45			10	X	X	X			
MW-20		10:15			10	X	X	X			
MW-12b		12:00			10	X	X	X			
MW-18	7/11/12	15:15			10	X	X	X			

**IRNAROUND REQUIREMENTS**

24 hr \_\_\_\_\_ 48 hr \_\_\_\_\_ 5 day \_\_\_\_\_

Standard (21 days)

Provide FAX Preliminary Results

Requested Report Date: \_\_\_\_\_

Invoice Information

Q.O. # \_\_\_\_\_

Bill to: Schwyn Environmental Services

**REPORT REQUIREMENTS**

I. Routine Report: Results, Method Blank, Surrogate, as required

H. Report Dup., MS, MSD as required

III. Data Validation Report (includes raw data)

IV. CLP Deliverable Report

V. EDD

**RELINQUISHED BY:**

Signature: *Craig Schwyn*

Printed Name: Craig Schwyn

Firm: Schwyn Environmental Services

Date/Time: 7/12/12 1:00

**RECEIVED BY:**

Signature: *Felix*

Printed Name: \_\_\_\_\_

Firm: \_\_\_\_\_

Date/Time: \_\_\_\_\_

**RELINQUISHED BY:**

Signature: *Bob*

Printed Name: Bob

Firm: AS

Date/Time: 7/13/12 0819

**RECEIVED BY:**

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Firm: \_\_\_\_\_

Date/Time: \_\_\_\_\_





### Cooler Receipt and Preservation Form

Client / Project: City of Walla Walla Service Request K12 06781

Received: 7/13/12 Opened: 7/13/12 By: BT Unloaded: 7/13/12 By: BT

- 1. Samples were received via? *Mail*  *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
- 2. Samples were received in: (circle)  *Cooler* *Box* *Envelope* *Other* NA
- 3. Were custody seals on coolers? *NA* *Y*  *N* If yes, how many and where? \_\_\_\_\_
- If present, were custody seals intact? *Y* *N* If present, were they signed and dated? *Y* *N*

Cooler Temp °C	Temp Blank °C	Thermometer ID	Cooler/COC ID	Tracking Number	NA	Filed
0.5	0.7	307	<input checked="" type="radio"/> NA	8277 8324 3040		
1.0	1.7	321		3030		

- 7. Packing material: *Inserts* *Baggies*  *Bubble Wrap*  *Gel Packs* *Wet Ice* *Dry Ice* *Sleeves* \_\_\_\_\_
- 8. Were custody papers properly filled out (ink, signed, etc.)? *NA*  *Y* *N*
- 9. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* *NA*  *Y* *N*
- 10. Were all sample labels complete (i.e analysis, preservation, etc.)? *NA*  *Y* *N*
- 11. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* *NA*  *Y* *N*
- 12. Were appropriate bottles/containers and volumes received for the tests indicated? *NA*  *Y* *N*
- 13. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* *NA*  *Y* *N*
- 14. Were VOA vials received without headspace? *Indicate in the table below.* *NA*  *Y* *N*
- 15. Was C12/Res negative?  *NA* *Y* *N*

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: Rec'd 2 of 3 coolers - Did not receive 7/13/12

# SHORT HOLD TIME



PC Lesa

### Cooler Receipt and Preservation Form

Client / Project: City of Walla Walla Service Request K12 06781

Received: 7/14/12 Opened: 7/14/12 By: BT Unloaded: 7/14/12 By: BT

- 1. Samples were received via? Mail  Fed Ex  UPS  DHL  PDX  Courier  Hand Delivered
- 2. Samples were received in: (circle)  Cooler  Box  Envelope  Other  NA
- 3. Were custody seals on coolers?  NA  Y  N If yes, how many and where? \_\_\_\_\_
- If present, were custody seals intact?  Y  N If present, were they signed and dated?  Y  N

Cooler Temp °C	Temp Blank °C	Thermometer ID	Cooler/COC ID	Tracking Number	NA	Filed
<u>2.4</u>	<u>0.0</u>	<u>312</u>	<u>NA</u>			<input checked="" type="checkbox"/>

- 7. Packing material:  Inserts  Baggies  Bubble Wrap  Get Packs  Wet Ice  Dry Ice  Sleeves \_\_\_\_\_
- 8. Were custody papers properly filled out (ink, signed, etc.)?  NA  Y  N
- 9. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.*  NA  Y  N
- 10. Were all sample labels complete (i.e analysis, preservation, etc.)?  NA  Y  N
- 11. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.*  NA  Y  N \*
- 12. Were appropriate bottles/containers and volumes received for the tests indicated?  NA  Y  N
- 13. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below*  NA  Y  N
- 14. Were VOA vials received without headspace? *Indicate in the table below.*  NA  Y  N
- 15. Was C12/Res negative?  NA  Y  N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: missing cooler from 7/13/12 BT 7/14/12  
\* need a Trip Blank VOA (2) not on COC

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water  
**Analysis Method:** 300.0

**Service Request:** K1206781  
**Date Collected:** 07/11/12 - 07/12/12  
**Date Received:** 07/13/12

**Units:** mg/L  
**Basis:** NA

**Chloride**

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
MW-14b	K1206781-009	147	4.0	20	07/13/12 10:30	
MW-15D	K1206781-010	135	4.0	20	07/13/12 10:44	
MW-3	K1206781-011	138	4.0	20	07/13/12 10:57	
MW-19	K1206781-012	138	4.0	20	07/13/12 11:11	
D-19	K1206781-013	134	4.0	20	07/13/12 11:24	
MW-16	K1206781-014	146	4.0	20	07/13/12 12:04	
MW-15	K1206781-015	117	4.0	20	07/13/12 12:18	
MW-20	K1206781-016	152	4.0	20	07/13/12 12:31	
MW-12b	K1206781-017	138	4.0	20	07/13/12 12:45	
MW-18	K1206781-018	153	4.0	20	07/13/12 12:58	
Method Blank	K1206781-MB1	ND U	0.20	1	07/13/12 07:49	
Method Blank	K1206781-MB2	ND U	0.20	1	07/13/12 14:46	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Walla Walla, City of  
Project: Sudbury Road Landfill Remedial Investigation  
Sample Matrix: Water

Service Request: K1206781  
Date Collected: 07/11/12  
Date Received: 07/13/12  
Date Analyzed: 07/13/12

Replicate Sample Summary  
General Chemistry Parameters

Sample Name: MW-14b  
Lab Code: K1206781-009

Units: mg/L  
Basis: NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample K1206781-009DUP40 Result	Average	RPD	RPD Limit
Chloride	300.0	4.0	147	147	147	<1	20

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/12  
**Date Received:** 07/13/12  
**Date Analyzed:** 07/13/12

**Duplicate Matrix Spike Summary  
Chloride**

**Sample Name:** MW-14b  
**Lab Code:** K1206781-009  
**Analysis Method:** 300.0

**Units:** mg/L  
**Basis:** NA

Analyte Name	Sample Result	Result	Matrix Spike K1206781-009MS7		Duplicate Matrix Spike K1206781-009DMS7		% Rec Limits	RPD	RPD Limit	
			Spike Amount	% Rec	Result	Spike Amount				% Rec
Chloride	147	241	100	95	242	100	96	90-110	<1	20

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Analyzed:** 07/13/12

**Lab Control Sample Summary**  
**Chloride**

**Analysis Method:** 300.0

**Units:** mg/L

**Basis:** NA

**Analysis Lot:** 300061

<b>Sample Name</b>	<b>Lab Code</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Lab Control Sample	K1206781-LCS1	4.81	5.00	96	90-110
Lab Control Sample	K1206781-LCS2	4.83	5.00	97	90-110

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water  
**Analysis Method:** 300.0

**Service Request:** K1206781  
**Date Collected:** 07/11/12 - 07/12/12  
**Date Received:** 07/13/12  
**Units:** mg/L  
**Basis:** NA

**Nitrate as Nitrogen**

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
MW-14b	K1206781-009	9.0	1.0	20	07/13/12 10:30	
MW-15D	K1206781-010	11.0	1.0	20	07/13/12 10:44	
MW-3	K1206781-011	10.5	1.0	20	07/13/12 10:57	
MW-19	K1206781-012	10.0	1.0	20	07/13/12 11:11	
D-19	K1206781-013	9.8	1.0	20	07/13/12 11:24	
MW-16	K1206781-014	8.9	1.0	20	07/13/12 12:04	
MW-15	K1206781-015	6.2	1.0	20	07/13/12 12:18	
MW-20	K1206781-016	10.3	1.0	20	07/13/12 12:31	
MW-12b	K1206781-017	9.9	1.0	20	07/13/12 12:45	
MW-18	K1206781-018	9.7	1.0	20	07/13/12 12:58	
Method Blank	K1206781-MB1	ND U	0.050	1	07/13/12 07:49	
Method Blank	K1206781-MB2	ND U	0.050	1	07/13/12 14:46	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Walla Walla, City of  
Project: Sudbury Road Landfill Remedial Investigation  
Sample Matrix: Water

Service Request: K1206781  
Date Collected: 07/11/12  
Date Received: 07/13/12  
Date Analyzed: 07/13/12

Replicate Sample Summary  
General Chemistry Parameters

Sample Name: MW-14b  
Lab Code: K1206781-009

Units: mg/L  
Basis: NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample K1206781-009DUP40 Result	Average	RPD	RPD Limit
Nitrate as Nitrogen	300.0	1.0	9.0	9.0	9.02	<1	20

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COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/12  
**Date Received:** 07/13/12  
**Date Analyzed:** 07/13/12

**Duplicate Matrix Spike Summary**  
**Nitrate as Nitrogen**

**Sample Name:** MW-14b  
**Lab Code:** K1206781-009  
**Analysis Method:** 300.0

**Units:** mg/L  
**Basis:** NA

Analyte Name	Sample Result	Result	Matrix Spike K1206781-009MS7		Result	Duplicate Matrix Spike K1206781-009DMS7		% Rec Limits	RPD	RPD Limit
			Spike Amount	% Rec		Spike Amount	% Rec			
Nitrate as Nitrogen	9.0	111	100	102	110	100	101	90-110	<1	20

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781

**Date Analyzed:** 07/13/12

**Lab Control Sample Summary**  
**Nitrate as Nitrogen**

**Analysis Method:** 300.0

**Units:** mg/L

**Basis:** NA

**Analysis Lot:** 300061

<b>Sample Name</b>	<b>Lab Code</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Lab Control Sample	K1206781-LCS1	18.8	17.7	106	90-110
Lab Control Sample	K1206781-LCS2	18.9	17.7	107	90-110

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water  
**Analysis Method:** 300.0

**Service Request:** K1206781  
**Date Collected:** 07/11/12 - 07/12/12  
**Date Received:** 07/13/12  
**Units:** mg/L  
**Basis:** NA

**Sulfate**

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
MW-14b	K1206781-009	39.9	4.0	20	07/13/12 10:30	
MW-15D	K1206781-010	31.6	4.0	20	07/13/12 10:44	
MW-3	K1206781-011	32.7	4.0	20	07/13/12 10:57	
MW-19	K1206781-012	43.2	4.0	20	07/13/12 11:11	
D-19	K1206781-013	42.3	4.0	20	07/13/12 11:24	
MW-16	K1206781-014	36.1	4.0	20	07/13/12 12:04	
MW-15	K1206781-015	41.3	4.0	20	07/13/12 12:18	
MW-20	K1206781-016	33.9	4.0	20	07/13/12 12:31	
MW-12b	K1206781-017	33.9	4.0	20	07/13/12 12:45	
MW-18	K1206781-018	33.2	4.0	20	07/13/12 12:58	
Method Blank	K1206781-MB1	ND U	0.20	1	07/13/12 07:49	
Method Blank	K1206781-MB2	ND U	0.20	1	07/13/12 14:46	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Walla Walla, City of  
Project: Sudbury Road Landfill Remedial Investigation  
Sample Matrix: Water

Service Request: K1206781  
Date Collected: 07/11/12  
Date Received: 07/13/12  
Date Analyzed: 07/13/12

Replicate Sample Summary  
General Chemistry Parameters

Sample Name: MW-14b  
Lab Code: K1206781-009

Units: mg/L  
Basis: NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample K1206781-009DUP40 Result	Average	RPD	RPD Limit
Sulfate	300.0	4.0	39.9	38.7	39.3	3	20

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/12  
**Date Received:** 07/13/12  
**Date Analyzed:** 07/13/12

**Duplicate Matrix Spike Summary  
Sulfate**

**Sample Name:** MW-14b  
**Lab Code:** K1206781-009  
**Analysis Method:** 300.0

**Units:** mg/L  
**Basis:** NA

Analyte Name	Sample Result	Result	Matrix Spike K1206781-009MS7		Duplicate Matrix Spike K1206781-009DMS7		% Rec Limits	RPD	RPD Limit	
			Spike Amount	% Rec	Result	Spike Amount				% Rec
Sulfate	39.9	139	100	99	139	100	99	90-110	<1	20

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Analyzed:** 07/13/12

**Lab Control Sample Summary**  
**Sulfate**

**Analysis Method:** 300.0

**Units:** mg/L  
**Basis:** NA  
**Analysis Lot:** 300061

<b>Sample Name</b>	<b>Lab Code</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Lab Control Sample	K1206781-LCS1	4.79	5.00	96	90-110
Lab Control Sample	K1206781-LCS2	4.82	5.00	96	90-110

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water  
**Analysis Method:** 350.1

**Service Request:** K1206781  
**Date Collected:** 07/11/12 - 07/12/12  
**Date Received:** 07/13/12  
**Units:** mg/L  
**Basis:** NA

**Ammonia as Nitrogen**

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
MW-14b	K1206781-009	ND U	0.050	1	07/20/12 06:55	
MW-15D	K1206781-010	ND U	0.050	1	07/20/12 06:55	
MW-3	K1206781-011	ND U	0.050	1	07/20/12 06:55	
MW-19	K1206781-012	ND U	0.050	1	07/20/12 06:55	
D-19	K1206781-013	ND U	0.050	1	07/20/12 06:55	
MW-16	K1206781-014	ND U	0.050	1	07/20/12 06:55	
MW-15	K1206781-015	ND U	0.050	1	07/20/12 06:55	
MW-20	K1206781-016	ND U	0.050	1	07/20/12 06:55	
MW-12b	K1206781-017	ND U	0.050	1	07/20/12 06:55	
MW-18	K1206781-018	ND U	0.050	1	07/20/12 06:55	
Method Blank	K1206781-MB1	ND U	0.050	1	07/20/12 06:55	
Method Blank	K1206781-MB2	ND U	0.050	1	07/20/12 06:55	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Walla Walla, City of  
Project: Sudbury Road Landfill Remedial Investigation  
Sample Matrix: Water

Service Request: K1206781  
Date Collected: NA  
Date Received: NA  
Date Analyzed: 07/20/12

Replicate Sample Summary  
General Chemistry Parameters

Sample Name: Batch QC  
Lab Code: K1206689-009

Units: mg/L  
Basis: NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample K1206689-009DUP12 Result	Average	RPD	RPD Limit
Ammonia as Nitrogen	350.1	0.050	0.428	0.427	0.427	<1	20

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** N/A  
**Date Received:** N/A  
**Date Analyzed:** 07/20/12

**Duplicate Matrix Spike Summary  
 Ammonia as Nitrogen**

**Sample Name:** Batch QC  
**Lab Code:** K1206689-009  
**Analysis Method:** 350.1

**Units:** mg/L  
**Basis:** NA

Analyte Name	Matrix Spike K1206689-009MS1				Duplicate Matrix Spike K1206689-009DMS1				RPD	RPD Limit
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits		
Ammonia as Nitrogen	0.428	2.29	2.00	93	2.33	2.00	95	90-110	2	20

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Analyzed:** 07/20/12

**Lab Control Sample Summary**  
**Ammonia as Nitrogen**

**Analysis Method:** 350.1

**Units:** mg/L

**Basis:** NA

**Analysis Lot:** 301036

<b>Sample Name</b>	<b>Lab Code</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Lab Control Sample	K1206781-LCS1	14.1	13.9	102	90-110
Lab Control Sample	K1206781-LCS2	14.0	13.9	101	90-110

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water  
**Analysis Method:** SM 2320 B

**Service Request:** K1206781  
**Date Collected:** 07/11/12 - 07/12/12  
**Date Received:** 07/13/12

**Units:** mg/L  
**Basis:** NA

**Alkalinity as CaCO<sub>3</sub>, Total**

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
MW-14b	K1206781-009	318	90	10	07/18/12 16:29	
MW-15D	K1206781-010	318	90	10	07/18/12 16:29	
MW-3	K1206781-011	300	90	10	07/18/12 16:29	
MW-19	K1206781-012	387	90	10	07/18/12 16:29	
D-19	K1206781-013	375	90	10	07/18/12 16:29	
MW-16	K1206781-014	312	90	10	07/18/12 16:29	
MW-15	K1206781-015	620	90	10	07/18/12 16:29	
MW-20	K1206781-016	348	90	10	07/18/12 16:29	
MW-12b	K1206781-017	311	90	10	07/18/12 16:29	
MW-18	K1206781-018	337	90	10	07/18/12 16:29	
Method Blank	K1206781-MB1	ND U	9.0	1	07/18/12 16:29	
Method Blank	K1206781-MB2	ND U	9.0	1	07/18/12 16:29	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water  
**Analysis Method:** SM 2320 B

**Service Request:** K1206781  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** mg/L  
**Basis:** NA

**Duplicate Sample Summary**  
**Alkalinity as CaCO<sub>3</sub>, Total**

<u>Sample Name:</u>	<u>Lab Code:</u>	<u>MRL</u>	<u>Sample Result</u>	<u>Duplicate Result</u>	<u>Average</u>	<u>RPD</u>	<u>RPD Limit</u>	<u>Date Analyzed</u>
Batch QC	K1206723-004DUP18	90	307	309	308	<1	20	07/18/12
Batch QC	KQ1208271-12DUP51	9.0	62.9	64.7	63.8	3	20	07/18/12

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Analyzed:** 07/18/12

**Lab Control Sample Summary**  
**Alkalinity as CaCO<sub>3</sub>, Total**

**Analysis Method:** SM 2320 B

**Units:** mg/L  
**Basis:** NA  
**Analysis Lot:** 300916

<u>Sample Name</u>	<u>Lab Code</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Lab Control Sample	K1206781-LCS1	64.8	64.9	100	94-106
Lab Control Sample	K1206781-LCS2	64.5	64.9	99	94-106

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water  
**Analysis Method:** SM 2540 C

**Service Request:** K1206781  
**Date Collected:** 07/11/12 - 07/12/12  
**Date Received:** 07/13/12

**Units:** mg/L  
**Basis:** NA

**Solids, Total Dissolved**

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
MW-14b	K1206781-009	723	10	1	07/16/12 12:00	
MW-15D	K1206781-010	731	10	1	07/16/12 12:00	
MW-3	K1206781-011	745	10	1	07/16/12 12:00	
MW-19	K1206781-012	790	10	1	07/16/12 12:00	
D-19	K1206781-013	759	10	1	07/16/12 12:00	
MW-16	K1206781-014	771	10	1	07/16/12 12:00	
MW-15	K1206781-015	917	10	1	07/16/12 12:00	
MW-20	K1206781-016	822	10	1	07/16/12 12:00	
MW-12b	K1206781-017	770	10	1	07/16/12 12:00	
MW-18	K1206781-018	837	10	1	07/16/12 12:00	
Method Blank	K1206781-MB1	ND U	5.0	1	07/16/12 12:00	
Method Blank	K1206781-MB2	ND U	5.0	1	07/16/12 12:00	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Walla Walla, City of  
Project: Sudbury Road Landfill Remedial Investigation  
Sample Matrix: Water

Service Request: K1206781  
Date Collected: 07/11/12  
Date Received: 07/13/12  
Date Analyzed: 07/16/12

Replicate Sample Summary  
General Chemistry Parameters

Sample Name: MW-19  
Lab Code: K1206781-012

Units: mg/L  
Basis: NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample K1206781-012DUP43 Result	Average	RPD	RPD Limit
Solids, Total Dissolved	SM 2540 C	10	790	731	761	8	10

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781

**Date Analyzed:** 07/16/12

**Lab Control Sample Summary**  
**Solids, Total Dissolved**

**Analysis Method:** SM 2540 C

**Units:** mg/L

**Basis:** NA

**Analysis Lot:** 300349

<u>Sample Name</u>	<u>Lab Code</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Lab Control Sample	K1206781-LCS1	1290	1240	104	90-108



**COLUMBIA ANALYTICAL SERVICES, INC.**

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Analytical Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water  
**Analysis Method:** SM 5310 C

**Service Request:** K1206781  
**Date Collected:** 07/11/12 - 07/12/12  
**Date Received:** 07/13/12  
**Units:** mg/L  
**Basis:** NA

**Carbon, Total Organic**

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
MW-14b	K1206781-009	ND U	0.50	1	07/13/12 21:00	
MW-15D	K1206781-010	ND U	0.50	1	07/13/12 21:00	
MW-3	K1206781-011	ND U	0.50	1	07/13/12 21:00	
MW-19	K1206781-012	ND U	0.50	1	07/13/12 21:00	
D-19	K1206781-013	<b>0.51</b>	0.50	1	07/13/12 21:00	
MW-16	K1206781-014	ND U	0.50	1	07/13/12 21:00	
MW-15	K1206781-015	<b>1.15</b>	0.50	1	07/13/12 21:00	
MW-20	K1206781-016	ND U	0.50	1	07/13/12 21:00	
MW-12b	K1206781-017	ND U	0.50	1	07/13/12 21:00	
MW-18	K1206781-018	ND U	0.50	1	07/13/12 21:00	
Method Blank	K1206781-MB1	ND U	0.50	1	07/13/12 21:00	
Method Blank	K1206781-MB2	ND U	0.50	1	07/13/12 21:00	
Method Blank	K1206781-MB3	ND U	0.50	1	07/13/12 21:00	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water  
**Analysis Method:** SM 5310 C

**Service Request:** K1206781  
**Date Collected:** 07/11/12 - 07/12/12  
**Date Received:** 07/13/12  
**Units:** mg/L  
**Basis:** NA

**Duplicate Sample Summary**  
**Carbon, Total Organic**

<b>Sample Name:</b>	<b>Lab Code:</b>	<b>MRL</b>	<b>Sample Result</b>	<b>Duplicate Result</b>	<b>Average</b>	<b>RPD</b>	<b>RPD Limit</b>	<b>Date Analyzed</b>
MW-14b	K1206781-009DUP40	0.50	ND	ND	NC	NC	10	07/13/12
MW-15D	K1206781-010DUP41	0.50	ND	ND	NC	NC	10	07/13/12
MW-3	K1206781-011DUP42	0.50	ND	ND	NC	NC	10	07/13/12
MW-19	K1206781-012DUP43	0.50	ND	ND	NC	NC	10	07/13/12
D-19	K1206781-013DUP44	0.50	0.51	0.50	0.508	2	10	07/13/12
MW-16	K1206781-014DUP45	0.50	ND	ND	NC	NC	10	07/13/12
MW-15	K1206781-015DUP46	0.50	1.15	1.09	1.12	5	10	07/13/12
MW-20	K1206781-016DUP47	0.50	ND	ND	NC	NC	10	07/13/12
MW-12b	K1206781-017DUP48	0.50	ND	ND	NC	NC	10	07/13/12
MW-18	K1206781-018DUP49	0.50	ND	0.55	NC	NC	10	07/13/12

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** N/A  
**Date Received:** N/A  
**Date Analyzed:** 07/13/12

**Matrix Spike Summary**  
**Carbon, Total Organic**

**Sample Name:** Batch QC  
**Lab Code:** K1206723-001  
**Analysis Method:** SM 5310 C

**Units:** mg/L  
**Basis:** NA

**Matrix Spike**  
K1206723-001MS2

<u>Analyte Name</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Carbon, Total Organic	10.4	36.2	25.0	103	83-117

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** N/A  
**Date Received:** N/A  
**Date Analyzed:** 07/13/12

**Matrix Spike Summary**  
**Carbon, Total Organic**

**Sample Name:** Batch QC  
**Lab Code:** K1206741-001  
**Analysis Method:** SM 5310 C

**Units:** mg/L  
**Basis:** NA

**Matrix Spike**  
K1206741-001MS3

<u>Analyte Name</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Carbon, Total Organic	1.30	25.7	25.0	97	83-117

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** N/A  
**Date Received:** N/A  
**Date Analyzed:** 07/13/12

**Matrix Spike Summary**  
**Carbon, Total Organic**

**Sample Name:** Batch QC  
**Lab Code:** K1206749-002  
**Analysis Method:** SM 5310 C

**Units:** mg/L  
**Basis:** NA

**Matrix Spike**  
K1206749-002MS4

<u>Analyte Name</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Carbon, Total Organic	16.2	65.7	50.0	99	83-117

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** N/A  
**Date Received:** N/A  
**Date Analyzed:** 07/13/12

**Matrix Spike Summary**  
**Carbon, Total Organic**

**Sample Name:** Batch QC  
**Lab Code:** K1206775-001  
**Analysis Method:** SM 5310 C

**Units:** mg/L  
**Basis:** NA

**Matrix Spike**  
K1206775-001MS5

<u>Analyte Name</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Carbon, Total Organic	1.02	25.2	25.0	97	83-117

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781

**Date Analyzed:** 07/13/12

**Lab Control Sample Summary**  
**Carbon, Total Organic**

**Analysis Method:** SM 5310 C

**Units:** mg/L

**Basis:** NA

**Analysis Lot:** 300151

<b>Sample Name</b>	<b>Lab Code</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Lab Control Sample	K1206781-LCS1	21.4	22.7	94	83-117
Lab Control Sample	K1206781-LCS2	21.0	22.7	93	83-117
Lab Control Sample	K1206781-LCS3	20.1	22.7	89	83-117

**COLUMBIA ANALYTICAL SERVICES, INC.**  
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**- Cover Page -**  
**INORGANIC ANALYSIS DATA PACKAGE**

**Client:** Walla Walla, City of  
**Project Name:** Sudbury Road Landfill Remedial Investigation  
**Project No.:**

**Service Request:** K1206781

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<u>Sample Name:</u>	<u>Lab Code:</u>
<u>Batch QCD</u>	<u>K1206646-005D</u>
<u>Batch QCS</u>	<u>K1206646-005S</u>
<u>MW-14b</u>	<u>K1206781-009</u>
<u>MW-15D</u>	<u>K1206781-010</u>
<u>MW-3</u>	<u>K1206781-011</u>
<u>MW-19</u>	<u>K1206781-012</u>
<u>D-19</u>	<u>K1206781-013</u>
<u>MW-16</u>	<u>K1206781-014</u>
<u>MW-15</u>	<u>K1206781-015</u>
<u>MW-20</u>	<u>K1206781-016</u>
<u>MW-12b</u>	<u>K1206781-017</u>
<u>MW-18</u>	<u>K1206781-018</u>
<u>Method Blank</u>	<u>K1206781-MB</u>

**Comments:**





























**COLUMBIA ANALYTICAL SERVICES, INC.**

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**Metals**

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**DUPLICATES**

Client: Walla Walla, City of

Service Request: K1206781

Project No.: NA

Units: UG/L

Project Name: Sudbury Road Landfill Remedial I

Basis:

Matrix: WATER

Sample Name: Batch QCD

Lab Code: K1206646-005D

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Calcium	20	107000		106000		0.9		6010C
Iron		20.0	U	20.0	U			6010C
Magnesium	20	42500		42400		0.2		6010C
Manganese		5.5		5.5		0.0		6010C
Potassium	20	8500		8490		0.1		6010C
Sodium	20	35600		35500		0.3		6010C

An empty field in the Control Limit column indicates the control limit is not applicable.

**Metals**

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**LABORATORY CONTROL SAMPLE**

Client: Walla Walla, City of

Service Request: K1206781

Project No.: NA

Project Name: Sudbury Road Landfill Remedial I

Aqueous LCS Source: Inorganic Ventures

Solid LCS Source:

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Calcium	12500	12800	102.4					
Iron	2500	2500	100.0					
Magnesium	12500	12500	100.0					
Manganese	1250	1290	103.2					
Potassium	12500	12400	99.2					
Sodium	12500	12600	100.8					

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/10/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** Schmidt  
**Lab Code:** K1206781-001  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
Chloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Vinyl Chloride	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromomethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Chloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Trichlorofluoromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Acetone	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Iodomethane	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
Carbon Disulfide	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Methylene Chloride	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	
Acrylonitrile	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1-Dichloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Vinyl Acetate	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
cis-1,2-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
2-Butanone (MEK)	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Bromochloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Chloroform	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Carbon Tetrachloride	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Benzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Trichloroethene (TCE)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichloropropane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Dibromomethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromodichloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Toluene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,1,2-Trichloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Tetrachloroethene (PCE)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/10/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** Schmidt  
**Lab Code:** K1206781-001  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Dibromochloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	
Chlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Ethylbenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
m,p-Xylenes	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
o-Xylene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Styrene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromoform	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/17/12	07/17/12	KWG1207915	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/17/12	07/17/12	KWG1207915	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,4-Dichlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	77	73-122	07/17/12	Acceptable
Toluene-d8	88	65-144	07/17/12	Acceptable
4-Bromofluorobenzene	78	68-117	07/17/12	Acceptable

Comments: \_\_\_\_\_



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/10/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** Kinman  
**Lab Code:** K1206781-002  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
Chloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Vinyl Chloride	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromomethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Chloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Trichlorofluoromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Acetone	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Iodomethane	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
Carbon Disulfide	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Methylene Chloride	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	
Acrylonitrile	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1-Dichloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Vinyl Acetate	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
cis-1,2-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
2-Butanone (MEK)	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Bromochloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Chloroform	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Carbon Tetrachloride	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Benzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Trichloroethene (TCE)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichloropropane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Dibromomethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromodichloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Toluene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,1,2-Trichloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Tetrachloroethene (PCE)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/10/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** Kinman  
**Lab Code:** K1206781-002  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Dibromochloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	
Chlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Ethylbenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
m,p-Xylenes	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
o-Xylene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Styrene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromoform	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/17/12	07/17/12	KWG1207915	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/17/12	07/17/12	KWG1207915	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,4-Dichlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	75	73-122	07/17/12	Acceptable
Toluene-d8	89	65-144	07/17/12	Acceptable
4-Bromofluorobenzene	77	68-117	07/17/12	Acceptable

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/10/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** Camp  
**Lab Code:** K1206781-003  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
Chloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Vinyl Chloride	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromomethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Chloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Trichlorofluoromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Acetone	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Iodomethane	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
Carbon Disulfide	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Methylene Chloride	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	
Acrylonitrile	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1-Dichloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Vinyl Acetate	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
cis-1,2-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
2-Butanone (MEK)	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Bromochloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Chloroform	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Carbon Tetrachloride	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Benzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Trichloroethene (TCE)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichloropropane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Dibromomethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromodichloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Toluene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,1,2-Trichloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Tetrachloroethene (PCE)	<b>0.88</b>		0.50	1	07/17/12	07/17/12	KWG1207915	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/10/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** Camp  
**Lab Code:** K1206781-003  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Dibromochloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	
Chlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Ethylbenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
m,p-Xylenes	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
o-Xylene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Styrene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromoform	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/17/12	07/17/12	KWG1207915	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/17/12	07/17/12	KWG1207915	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,4-Dichlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	78	73-122	07/17/12	Acceptable
Toluene-d8	90	65-144	07/17/12	Acceptable
4-Bromofluorobenzene	77	68-117	07/17/12	Acceptable

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/10/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** Small  
**Lab Code:** K1206781-004  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	*
Chloromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Vinyl Chloride	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Bromomethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	*
Chloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Trichlorofluoromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,1-Dichloroethene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Acetone	ND	U	20	1	07/18/12	07/18/12	KWG1207991	
Iodomethane	ND	U	5.0	1	07/18/12	07/18/12	KWG1207991	*
Carbon Disulfide	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Methylene Chloride	ND	U	2.0	1	07/18/12	07/18/12	KWG1207991	
Acrylonitrile	ND	U	5.0	1	07/18/12	07/18/12	KWG1207991	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,1-Dichloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Vinyl Acetate	ND	U	5.0	1	07/18/12	07/18/12	KWG1207991	
cis-1,2-Dichloroethene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
2-Butanone (MEK)	ND	U	20	1	07/18/12	07/18/12	KWG1207991	
Bromochloromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Chloroform	<b>0.57</b>		0.50	1	07/18/12	07/18/12	KWG1207991	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Carbon Tetrachloride	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Benzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Trichloroethene (TCE)	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dichloropropane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Dibromomethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Bromodichloromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/18/12	07/18/12	KWG1207991	
Toluene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,1,2-Trichloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Tetrachloroethene (PCE)	<b>1.2</b>		0.50	1	07/18/12	07/18/12	KWG1207991	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/10/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** Small  
**Lab Code:** K1206781-004  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/18/12	07/18/12	KWG1207991	
Dibromochloromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/18/12	07/18/12	KWG1207991	
Chlorobenzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Ethylbenzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
m,p-Xylenes	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
o-Xylene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Styrene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Bromoform	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/18/12	07/18/12	KWG1207991	
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/18/12	07/18/12	KWG1207991	
1,2,3-Trichloropropane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,4-Dichlorobenzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dichlorobenzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/18/12	07/18/12	KWG1207991	

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	99	73-122	07/18/12	Acceptable
Toluene-d8	113	65-144	07/18/12	Acceptable
4-Bromofluorobenzene	107	68-117	07/18/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/10/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** S2  
**Lab Code:** K1206781-005  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	*
Chloromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Vinyl Chloride	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Bromomethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	*
Chloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Trichlorofluoromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,1-Dichloroethene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Acetone	ND	U	20	1	07/18/12	07/18/12	KWG1207991	
Iodomethane	ND	U	5.0	1	07/18/12	07/18/12	KWG1207991	*
Carbon Disulfide	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Methylene Chloride	ND	U	2.0	1	07/18/12	07/18/12	KWG1207991	
Acrylonitrile	ND	U	5.0	1	07/18/12	07/18/12	KWG1207991	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,1-Dichloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Vinyl Acetate	ND	U	5.0	1	07/18/12	07/18/12	KWG1207991	
cis-1,2-Dichloroethene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
2-Butanone (MEK)	ND	U	20	1	07/18/12	07/18/12	KWG1207991	
Bromochloromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Chloroform	0.61		0.50	1	07/18/12	07/18/12	KWG1207991	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Carbon Tetrachloride	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Benzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Trichloroethene (TCE)	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dichloropropane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Dibromomethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Bromodichloromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/18/12	07/18/12	KWG1207991	
Toluene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,1,2-Trichloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Tetrachloroethene (PCE)	1.4		0.50	1	07/18/12	07/18/12	KWG1207991	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/10/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** S2  
**Lab Code:** K1206781-005  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/18/12	07/18/12	KWG1207991	
Dibromochloromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/18/12	07/18/12	KWG1207991	
Chlorobenzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Ethylbenzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
m,p-Xylenes	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
o-Xylene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Styrene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Bromoform	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/18/12	07/18/12	KWG1207991	
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/18/12	07/18/12	KWG1207991	
1,2,3-Trichloropropane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,4-Dichlorobenzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dichlorobenzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/18/12	07/18/12	KWG1207991	

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	100	73-122	07/18/12	Acceptable
Toluene-d8	114	65-144	07/18/12	Acceptable
4-Bromofluorobenzene	106	68-117	07/18/12	Acceptable

**Comments:** \_\_\_\_\_



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/10/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-10  
**Lab Code:** K1206781-006  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	*
Chloromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Vinyl Chloride	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Bromomethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	*
Chloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Trichlorofluoromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,1-Dichloroethene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Acetone	ND	U	20	1	07/18/12	07/18/12	KWG1207991	
Iodomethane	ND	U	5.0	1	07/18/12	07/18/12	KWG1207991	*
Carbon Disulfide	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Methylene Chloride	ND	U	2.0	1	07/18/12	07/18/12	KWG1207991	
Acrylonitrile	ND	U	5.0	1	07/18/12	07/18/12	KWG1207991	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,1-Dichloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Vinyl Acetate	ND	U	5.0	1	07/18/12	07/18/12	KWG1207991	
cis-1,2-Dichloroethene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
2-Butanone (MEK)	ND	U	20	1	07/18/12	07/18/12	KWG1207991	
Bromochloromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Chloroform	2.1		0.50	1	07/18/12	07/18/12	KWG1207991	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Carbon Tetrachloride	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Benzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Trichloroethene (TCE)	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dichloropropane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Dibromomethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Bromodichloromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/18/12	07/18/12	KWG1207991	
Toluene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,1,2-Trichloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Tetrachloroethene (PCE)	0.72		0.50	1	07/18/12	07/18/12	KWG1207991	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/10/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-10  
**Lab Code:** K1206781-006  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/18/12	07/18/12	KWG1207991	
Dibromochloromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/18/12	07/18/12	KWG1207991	
Chlorobenzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Ethylbenzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
m,p-Xylenes	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
o-Xylene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Styrene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Bromoform	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/18/12	07/18/12	KWG1207991	
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/18/12	07/18/12	KWG1207991	
1,2,3-Trichloropropane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,4-Dichlorobenzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dichlorobenzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/18/12	07/18/12	KWG1207991	

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	101	73-122	07/18/12	Acceptable
Toluene-d8	113	65-144	07/18/12	Acceptable
4-Bromofluorobenzene	104	68-117	07/18/12	Acceptable

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/10/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-9  
**Lab Code:** K1206781-007  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	*
Chloromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Vinyl Chloride	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Bromomethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	*
Chloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Trichlorofluoromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,1-Dichloroethene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Acetone	ND	U	20	1	07/18/12	07/18/12	KWG1207991	
Iodomethane	ND	U	5.0	1	07/18/12	07/18/12	KWG1207991	*
Carbon Disulfide	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Methylene Chloride	ND	U	2.0	1	07/18/12	07/18/12	KWG1207991	
Acrylonitrile	ND	U	5.0	1	07/18/12	07/18/12	KWG1207991	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,1-Dichloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Vinyl Acetate	ND	U	5.0	1	07/18/12	07/18/12	KWG1207991	
cis-1,2-Dichloroethene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
2-Butanone (MEK)	ND	U	20	1	07/18/12	07/18/12	KWG1207991	
Bromochloromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Chloroform	1.0		0.50	1	07/18/12	07/18/12	KWG1207991	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Carbon Tetrachloride	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Benzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Trichloroethene (TCE)	1.7		0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dichloropropane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Dibromomethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Bromodichloromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/18/12	07/18/12	KWG1207991	
Toluene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,1,2-Trichloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Tetrachloroethene (PCE)	0.62		0.50	1	07/18/12	07/18/12	KWG1207991	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/10/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-9  
**Lab Code:** K1206781-007  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/18/12	07/18/12	KWG1207991	
Dibromochloromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/18/12	07/18/12	KWG1207991	
Chlorobenzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Ethylbenzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
m,p-Xylenes	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
o-Xylene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Styrene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Bromoform	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/18/12	07/18/12	KWG1207991	
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/18/12	07/18/12	KWG1207991	
1,2,3-Trichloropropane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,4-Dichlorobenzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dichlorobenzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/18/12	07/18/12	KWG1207991	

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	99	73-122	07/18/12	Acceptable
Toluene-d8	113	65-144	07/18/12	Acceptable
4-Bromofluorobenzene	105	68-117	07/18/12	Acceptable

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-5  
**Lab Code:** K1206781-008  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Chloromethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Vinyl Chloride	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Bromomethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Chloroethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Trichlorofluoromethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,1-Dichloroethene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Acetone	ND	U	20	1	07/19/12	07/19/12	KWG1208068	*
Iodomethane	ND	U	5.0	1	07/19/12	07/19/12	KWG1208068	
Carbon Disulfide	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Methylene Chloride	ND	U	2.0	1	07/19/12	07/19/12	KWG1208068	
Acrylonitrile	ND	U	5.0	1	07/19/12	07/19/12	KWG1208068	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,1-Dichloroethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Vinyl Acetate	ND	U	5.0	1	07/19/12	07/19/12	KWG1208068	*
cis-1,2-Dichloroethene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
2-Butanone (MEK)	ND	U	20	1	07/19/12	07/19/12	KWG1208068	
Bromochloromethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Chloroform	<b>0.54</b>		0.50	1	07/19/12	07/19/12	KWG1208068	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Carbon Tetrachloride	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Benzene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Trichloroethene (TCE)	<b>1.7</b>		0.50	1	07/19/12	07/19/12	KWG1208068	
1,2-Dichloropropane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Dibromomethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Bromodichloromethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/19/12	07/19/12	KWG1208068	
Toluene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	*
1,1,2-Trichloroethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Tetrachloroethene (PCE)	<b>0.65</b>		0.50	1	07/19/12	07/19/12	KWG1208068	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-5  
**Lab Code:** K1206781-008  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/19/12	07/19/12	KWG1208068	
Dibromochloromethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	*
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/19/12	07/19/12	KWG1208068	
Chlorobenzene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Ethylbenzene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
m,p-Xylenes	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
o-Xylene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Styrene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Bromoform	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/19/12	07/19/12	KWG1208068	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/19/12	07/19/12	KWG1208068	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,4-Dichlorobenzene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,2-Dichlorobenzene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/19/12	07/19/12	KWG1208068	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	76	73-122	07/19/12	Acceptable
Toluene-d8	90	65-144	07/19/12	Acceptable
4-Bromofluorobenzene	78	68-117	07/19/12	Acceptable

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-14b  
**Lab Code:** K1206781-009  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	0.56		0.50	1	07/19/12	07/19/12	KWG1208068	
Chloromethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Vinyl Chloride	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Bromomethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Chloroethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Trichlorofluoromethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,1-Dichloroethene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Acetone	ND	U	20	1	07/19/12	07/19/12	KWG1208068	*
Iodomethane	ND	U	5.0	1	07/19/12	07/19/12	KWG1208068	
Carbon Disulfide	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Methylene Chloride	ND	U	2.0	1	07/19/12	07/19/12	KWG1208068	
Acrylonitrile	ND	U	5.0	1	07/19/12	07/19/12	KWG1208068	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,1-Dichloroethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Vinyl Acetate	ND	U	5.0	1	07/19/12	07/19/12	KWG1208068	*
cis-1,2-Dichloroethene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
2-Butanone (MEK)	ND	U	20	1	07/19/12	07/19/12	KWG1208068	
Bromochloromethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Chloroform	0.78		0.50	1	07/19/12	07/19/12	KWG1208068	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Carbon Tetrachloride	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Benzene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Trichloroethene (TCE)	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,2-Dichloropropane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Dibromomethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Bromodichloromethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/19/12	07/19/12	KWG1208068	
Toluene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	*
1,1,2-Trichloroethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Tetrachloroethene (PCE)	0.68		0.50	1	07/19/12	07/19/12	KWG1208068	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-14b  
**Lab Code:** K1206781-009  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/19/12	07/19/12	KWG1208068	
Dibromochloromethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	*
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/19/12	07/19/12	KWG1208068	
Chlorobenzene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Ethylbenzene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
m,p-Xylenes	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
o-Xylene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Styrene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Bromoform	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/19/12	07/19/12	KWG1208068	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/19/12	07/19/12	KWG1208068	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,4-Dichlorobenzene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,2-Dichlorobenzene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/19/12	07/19/12	KWG1208068	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	76	73-122	07/19/12	Acceptable
Toluene-d8	91	65-144	07/19/12	Acceptable
4-Bromofluorobenzene	78	68-117	07/19/12	Acceptable

Comments: \_\_\_\_\_



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-15D  
**Lab Code:** K1206781-010  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Chloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Vinyl Chloride	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromomethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Chloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Trichlorofluoromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Acetone	ND	U	20	1	07/20/12	07/20/12	KWG1208068	*
Iodomethane	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	
Carbon Disulfide	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Methylene Chloride	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	
Acrylonitrile	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1-Dichloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Vinyl Acetate	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	*
cis-1,2-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
2-Butanone (MEK)	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Bromochloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Chloroform	<b>0.54</b>		0.50	1	07/20/12	07/20/12	KWG1208068	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Carbon Tetrachloride	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Benzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Trichloroethene (TCE)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichloropropane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Dibromomethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromodichloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Toluene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
1,1,2-Trichloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Tetrachloroethene (PCE)	<b>0.89</b>		0.50	1	07/20/12	07/20/12	KWG1208068	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-15D  
**Lab Code:** K1206781-010  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Dibromochloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	
Chlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Ethylbenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
m,p-Xylenes	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
o-Xylene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Styrene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromoform	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/20/12	07/20/12	KWG1208068	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/20/12	07/20/12	KWG1208068	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,4-Dichlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	74	73-122	07/20/12	Acceptable
Toluene-d8	90	65-144	07/20/12	Acceptable
4-Bromofluorobenzene	77	68-117	07/20/12	Acceptable

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-3  
**Lab Code:** K1206781-011  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Chloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Vinyl Chloride	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromomethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Chloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Trichlorofluoromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Acetone	ND	U	20	1	07/20/12	07/20/12	KWG1208068	*
Iodomethane	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	
Carbon Disulfide	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Methylene Chloride	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	
Acrylonitrile	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1-Dichloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Vinyl Acetate	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	*
cis-1,2-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
2-Butanone (MEK)	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Bromochloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Chloroform	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Carbon Tetrachloride	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Benzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Trichloroethene (TCE)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichloropropane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Dibromomethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromodichloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Toluene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
1,1,2-Trichloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Tetrachloroethene (PCE)	<b>0.89</b>		0.50	1	07/20/12	07/20/12	KWG1208068	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-3  
**Lab Code:** K1206781-011  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Dibromochloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	
Chlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Ethylbenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
m,p-Xylenes	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
o-Xylene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Styrene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromoform	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/20/12	07/20/12	KWG1208068	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/20/12	07/20/12	KWG1208068	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,4-Dichlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	77	73-122	07/20/12	Acceptable
Toluene-d8	91	65-144	07/20/12	Acceptable
4-Bromofluorobenzene	77	68-117	07/20/12	Acceptable

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-19  
**Lab Code:** K1206781-012  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	1.2		0.50	1	07/20/12	07/20/12	KWG1208068	
Chloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Vinyl Chloride	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromomethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Chloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Trichlorofluoromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Acetone	ND	U	20	1	07/20/12	07/20/12	KWG1208068	*
Iodomethane	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	
Carbon Disulfide	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Methylene Chloride	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	
Acrylonitrile	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1-Dichloroethane	0.94		0.50	1	07/20/12	07/20/12	KWG1208068	
Vinyl Acetate	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	*
cis-1,2-Dichloroethene	9.5		0.50	1	07/20/12	07/20/12	KWG1208068	
2-Butanone (MEK)	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Bromochloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Chloroform	0.50		0.50	1	07/20/12	07/20/12	KWG1208068	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Carbon Tetrachloride	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Benzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Trichloroethene (TCE)	1.3		0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichloropropane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Dibromomethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromodichloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Toluene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
1,1,2-Trichloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Tetrachloroethene (PCE)	1.6		0.50	1	07/20/12	07/20/12	KWG1208068	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-19  
**Lab Code:** K1206781-012  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Dibromochloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	
Chlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Ethylbenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
m,p-Xylenes	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
o-Xylene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Styrene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromoform	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/20/12	07/20/12	KWG1208068	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/20/12	07/20/12	KWG1208068	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,4-Dichlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	78	73-122	07/20/12	Acceptable
Toluene-d8	91	65-144	07/20/12	Acceptable
4-Bromofluorobenzene	77	68-117	07/20/12	Acceptable

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** D-19  
**Lab Code:** K1206781-013  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	1.2		0.50	1	07/20/12	07/20/12	KWG1208068	
Chloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Vinyl Chloride	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromomethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Chloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Trichlorofluoromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Acetone	ND	U	20	1	07/20/12	07/20/12	KWG1208068	*
Iodomethane	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	
Carbon Disulfide	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Methylene Chloride	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	
Acrylonitrile	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1-Dichloroethane	0.91		0.50	1	07/20/12	07/20/12	KWG1208068	
Vinyl Acetate	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	*
cis-1,2-Dichloroethene	9.3		0.50	1	07/20/12	07/20/12	KWG1208068	
2-Butanone (MEK)	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Bromochloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Chloroform	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Carbon Tetrachloride	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Benzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Trichloroethene (TCE)	1.2		0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichloropropane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Dibromomethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromodichloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Toluene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
1,1,2-Trichloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Tetrachloroethene (PCE)	1.6		0.50	1	07/20/12	07/20/12	KWG1208068	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** D-19  
**Lab Code:** K1206781-013  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Dibromochloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	
Chlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Ethylbenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
m,p-Xylenes	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
o-Xylene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Styrene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromoform	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/20/12	07/20/12	KWG1208068	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/20/12	07/20/12	KWG1208068	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,4-Dichlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	76	73-122	07/20/12	Acceptable
Toluene-d8	90	65-144	07/20/12	Acceptable
4-Bromofluorobenzene	78	68-117	07/20/12	Acceptable

**Comments:** \_\_\_\_\_



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/12/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-16  
**Lab Code:** K1206781-014  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	0.50		0.50	1	07/20/12	07/20/12	KWG1208068	
Chloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Vinyl Chloride	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromomethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Chloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Trichlorofluoromethane	0.69		0.50	1	07/20/12	07/20/12	KWG1208068	
1,1-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Acetone	ND	U	20	1	07/20/12	07/20/12	KWG1208068	*
Iodomethane	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	
Carbon Disulfide	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Methylene Chloride	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	
Acrylonitrile	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1-Dichloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Vinyl Acetate	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	*
cis-1,2-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
2-Butanone (MEK)	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Bromochloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Chloroform	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Carbon Tetrachloride	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Benzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Trichloroethene (TCE)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichloropropane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Dibromomethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromodichloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Toluene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
1,1,2-Trichloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Tetrachloroethene (PCE)	0.68		0.50	1	07/20/12	07/20/12	KWG1208068	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/12/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-16  
**Lab Code:** K1206781-014  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Dibromochloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	
Chlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Ethylbenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
m,p-Xylenes	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
o-Xylene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Styrene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromoform	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/20/12	07/20/12	KWG1208068	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/20/12	07/20/12	KWG1208068	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,4-Dichlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	78	73-122	07/20/12	Acceptable
Toluene-d8	90	65-144	07/20/12	Acceptable
4-Bromofluorobenzene	78	68-117	07/20/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/12/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-15  
**Lab Code:** K1206781-015  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	2.2		0.50	1	07/20/12	07/20/12	KWG1208068	
Chloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Vinyl Chloride	0.92		0.50	1	07/20/12	07/20/12	KWG1208068	
Bromomethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Chloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Trichlorofluoromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Acetone	ND	U	20	1	07/20/12	07/20/12	KWG1208068	*
Iodomethane	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	
Carbon Disulfide	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Methylene Chloride	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	
Acrylonitrile	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1-Dichloroethane	3.8		0.50	1	07/20/12	07/20/12	KWG1208068	
Vinyl Acetate	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	*
cis-1,2-Dichloroethene	12		0.50	1	07/20/12	07/20/12	KWG1208068	
2-Butanone (MEK)	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Bromochloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Chloroform	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Carbon Tetrachloride	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Benzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Trichloroethene (TCE)	1.9		0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichloropropane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Dibromomethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromodichloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Toluene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
1,1,2-Trichloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Tetrachloroethene (PCE)	5.5		0.50	1	07/20/12	07/20/12	KWG1208068	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/12/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-15  
**Lab Code:** K1206781-015  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Dibromochloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	
Chlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Ethylbenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
m,p-Xylenes	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
o-Xylene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Styrene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromoform	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/20/12	07/20/12	KWG1208068	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/20/12	07/20/12	KWG1208068	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,4-Dichlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	77	73-122	07/20/12	Acceptable
Toluene-d8	89	65-144	07/20/12	Acceptable
4-Bromofluorobenzene	79	68-117	07/20/12	Acceptable

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/12/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-20  
**Lab Code:** K1206781-016  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	0.51		0.50	1	07/20/12	07/20/12	KWG1208068	
Chloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Vinyl Chloride	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromomethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Chloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Trichlorofluoromethane	0.68		0.50	1	07/20/12	07/20/12	KWG1208068	
1,1-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Acetone	ND	U	20	1	07/20/12	07/20/12	KWG1208068	*
Iodomethane	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	
Carbon Disulfide	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Methylene Chloride	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	
Acrylonitrile	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1-Dichloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Vinyl Acetate	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	*
cis-1,2-Dichloroethene	0.59		0.50	1	07/20/12	07/20/12	KWG1208068	
2-Butanone (MEK)	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Bromochloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Chloroform	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Carbon Tetrachloride	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Benzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Trichloroethene (TCE)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichloropropane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Dibromomethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromodichloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Toluene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
1,1,2-Trichloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Tetrachloroethene (PCE)	1.0		0.50	1	07/20/12	07/20/12	KWG1208068	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/12/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-20  
**Lab Code:** K1206781-016  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Dibromochloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	
Chlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Ethylbenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
m,p-Xylenes	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
o-Xylene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Styrene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromoform	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/20/12	07/20/12	KWG1208068	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/20/12	07/20/12	KWG1208068	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,4-Dichlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	79	73-122	07/20/12	Acceptable
Toluene-d8	91	65-144	07/20/12	Acceptable
4-Bromofluorobenzene	78	68-117	07/20/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/12/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-12b  
**Lab Code:** K1206781-017  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Chloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Vinyl Chloride	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromomethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Chloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Trichlorofluoromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Acetone	ND	U	20	1	07/20/12	07/20/12	KWG1208068	*
Iodomethane	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	
Carbon Disulfide	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Methylene Chloride	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	
Acrylonitrile	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1-Dichloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Vinyl Acetate	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	*
cis-1,2-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
2-Butanone (MEK)	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Bromochloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Chloroform	0.79		0.50	1	07/20/12	07/20/12	KWG1208068	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Carbon Tetrachloride	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Benzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Trichloroethene (TCE)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichloropropane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Dibromomethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromodichloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Toluene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
1,1,2-Trichloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Tetrachloroethene (PCE)	0.74		0.50	1	07/20/12	07/20/12	KWG1208068	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/12/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-12b  
**Lab Code:** K1206781-017  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Dibromochloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	
Chlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Ethylbenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
m,p-Xylenes	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
o-Xylene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Styrene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromoform	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/20/12	07/20/12	KWG1208068	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/20/12	07/20/12	KWG1208068	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,4-Dichlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	77	73-122	07/20/12	Acceptable
Toluene-d8	90	65-144	07/20/12	Acceptable
4-Bromofluorobenzene	77	68-117	07/20/12	Acceptable

Comments: \_\_\_\_\_



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-18  
**Lab Code:** K1206781-018  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Chloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Vinyl Chloride	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromomethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Chloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Trichlorofluoromethane	<b>0.89</b>		0.50	1	07/20/12	07/20/12	KWG1208068	
1,1-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Acetone	ND	U	20	1	07/20/12	07/20/12	KWG1208068	*
Iodomethane	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	
Carbon Disulfide	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Methylene Chloride	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	
Acrylonitrile	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1-Dichloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Vinyl Acetate	ND	U	5.0	1	07/20/12	07/20/12	KWG1208068	*
cis-1,2-Dichloroethene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
2-Butanone (MEK)	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Bromochloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Chloroform	<b>0.50</b>		0.50	1	07/20/12	07/20/12	KWG1208068	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Carbon Tetrachloride	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Benzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Trichloroethene (TCE)	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichloropropane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Dibromomethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromodichloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Toluene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
1,1,2-Trichloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Tetrachloroethene (PCE)	<b>0.97</b>		0.50	1	07/20/12	07/20/12	KWG1208068	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-18  
**Lab Code:** K1206781-018  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/20/12	07/20/12	KWG1208068	
Dibromochloromethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	
Chlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Ethylbenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
m,p-Xylenes	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
o-Xylene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Styrene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
Bromoform	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/20/12	07/20/12	KWG1208068	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/20/12	07/20/12	KWG1208068	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,4-Dichlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dichlorobenzene	ND	U	0.50	1	07/20/12	07/20/12	KWG1208068	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/20/12	07/20/12	KWG1208068	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	78	73-122	07/20/12	Acceptable
Toluene-d8	90	65-144	07/20/12	Acceptable
4-Bromofluorobenzene	77	68-117	07/20/12	Acceptable

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG1207915-4  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
Chloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Vinyl Chloride	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromomethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Chloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Trichlorofluoromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Acetone	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Iodomethane	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
Carbon Disulfide	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Methylene Chloride	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	
Acrylonitrile	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1-Dichloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Vinyl Acetate	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
cis-1,2-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
2-Butanone (MEK)	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Bromochloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Chloroform	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Carbon Tetrachloride	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Benzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Trichloroethene (TCE)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichloropropane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Dibromomethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromodichloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Toluene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,1,2-Trichloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Tetrachloroethene (PCE)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG1207915-4  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Dibromochloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	
Chlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Ethylbenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
m,p-Xylenes	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
o-Xylene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Styrene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromoform	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/17/12	07/17/12	KWG1207915	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/17/12	07/17/12	KWG1207915	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,4-Dichlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	75	73-122	07/17/12	Acceptable
Toluene-d8	91	65-144	07/17/12	Acceptable
4-Bromofluorobenzene	76	68-117	07/17/12	Acceptable

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG1207991-4  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	*
Chloromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Vinyl Chloride	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Bromomethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	*
Chloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Trichlorofluoromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,1-Dichloroethene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Acetone	ND	U	20	1	07/18/12	07/18/12	KWG1207991	
Iodomethane	ND	U	5.0	1	07/18/12	07/18/12	KWG1207991	*
Carbon Disulfide	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Methylene Chloride	ND	U	2.0	1	07/18/12	07/18/12	KWG1207991	
Acrylonitrile	ND	U	5.0	1	07/18/12	07/18/12	KWG1207991	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,1-Dichloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Vinyl Acetate	ND	U	5.0	1	07/18/12	07/18/12	KWG1207991	
cis-1,2-Dichloroethene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
2-Butanone (MEK)	ND	U	20	1	07/18/12	07/18/12	KWG1207991	
Bromochloromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Chloroform	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Carbon Tetrachloride	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Benzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Trichloroethene (TCE)	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dichloropropane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Dibromomethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Bromodichloromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/18/12	07/18/12	KWG1207991	
Toluene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,1,2-Trichloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Tetrachloroethene (PCE)	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG1207991-4  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/18/12	07/18/12	KWG1207991	
Dibromochloromethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/18/12	07/18/12	KWG1207991	
Chlorobenzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Ethylbenzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
m,p-Xylenes	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
o-Xylene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Styrene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
Bromoform	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/18/12	07/18/12	KWG1207991	
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/18/12	07/18/12	KWG1207991	
1,2,3-Trichloropropane	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,4-Dichlorobenzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dichlorobenzene	ND	U	0.50	1	07/18/12	07/18/12	KWG1207991	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/18/12	07/18/12	KWG1207991	

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	97	73-122	07/18/12	Acceptable
Toluene-d8	114	65-144	07/18/12	Acceptable
4-Bromofluorobenzene	106	68-117	07/18/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG1208068-4  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Chloromethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Vinyl Chloride	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Bromomethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Chloroethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Trichlorofluoromethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,1-Dichloroethene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Acetone	ND	U	20	1	07/19/12	07/19/12	KWG1208068	*
Iodomethane	ND	U	5.0	1	07/19/12	07/19/12	KWG1208068	
Carbon Disulfide	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Methylene Chloride	ND	U	2.0	1	07/19/12	07/19/12	KWG1208068	
Acrylonitrile	ND	U	5.0	1	07/19/12	07/19/12	KWG1208068	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,1-Dichloroethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Vinyl Acetate	ND	U	5.0	1	07/19/12	07/19/12	KWG1208068	*
cis-1,2-Dichloroethene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
2-Butanone (MEK)	ND	U	20	1	07/19/12	07/19/12	KWG1208068	
Bromochloromethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Chloroform	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Carbon Tetrachloride	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Benzene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Trichloroethene (TCE)	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,2-Dichloropropane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Dibromomethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Bromodichloromethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/19/12	07/19/12	KWG1208068	
Toluene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	*
1,1,2-Trichloroethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Tetrachloroethene (PCE)	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG1208068-4  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/19/12	07/19/12	KWG1208068	
Dibromochloromethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	*
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/19/12	07/19/12	KWG1208068	
Chlorobenzene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Ethylbenzene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
m,p-Xylenes	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
o-Xylene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Styrene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
Bromoform	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/19/12	07/19/12	KWG1208068	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/19/12	07/19/12	KWG1208068	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,4-Dichlorobenzene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,2-Dichlorobenzene	ND	U	0.50	1	07/19/12	07/19/12	KWG1208068	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/19/12	07/19/12	KWG1208068	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	73	73-122	07/19/12	Acceptable
Toluene-d8	90	65-144	07/19/12	Acceptable
4-Bromofluorobenzene	78	68-117	07/19/12	Acceptable

Comments: \_\_\_\_\_



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781

**Surrogate Recovery Summary  
 Volatile Organic Compounds**

**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** PERCENT  
**Level:** Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>	<u>Sur3</u>
Schmidt	K1206781-001	77	88	78
Kinman	K1206781-002	75	89	77
Camp	K1206781-003	78	90	77
Small	K1206781-004	99	113	107
S2	K1206781-005	100	114	106
MW-10	K1206781-006	101	113	104
MW-9	K1206781-007	99	113	105
MW-5	K1206781-008	76	90	78
MW-14b	K1206781-009	76	91	78
MW-15D	K1206781-010	74	90	77
MW-3	K1206781-011	77	91	77
MW-19	K1206781-012	78	91	77
D-19	K1206781-013	76	90	78
MW-16	K1206781-014	78	90	78
MW-15	K1206781-015	77	89	79
MW-20	K1206781-016	79	91	78
MW-12b	K1206781-017	77	90	77
MW-18	K1206781-018	78	90	77
Method Blank	KWG1207915-4	75	91	76
Method Blank	KWG1207991-4	97	114	106
Method Blank	KWG1208068-4	73	90	78
CampMS	KWG1207915-1	84	95	85
CampDMS	KWG1207915-2	85	95	85
Lab Control Sample	KWG1207915-3	84	95	85
Lab Control Sample	KWG1207991-3	97	114	108
Lab Control Sample	KWG1208068-3	82	95	84

**Surrogate Recovery Control Limits (%)**

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Sur1 = Dibromofluoromethane	73-122
Sur2 = Toluene-d8	65-144
Sur3 = 4-Bromofluorobenzene	68-117

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Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

**COLUMBIA ANALYTICAL SERVICES, INC.**

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QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Extracted:** 07/17/2012  
**Date Analyzed:** 07/17/2012

**Matrix Spike/Duplicate Matrix Spike Summary  
 Volatile Organic Compounds**

**Sample Name:** Camp  
**Lab Code:** K1206781-003  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG1207915

Analyte Name	Sample Result	CampMS KWG1207915-1 Matrix Spike			CampDMS KWG1207915-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
Vinyl Chloride	ND	7.52	10.0	75	7.35	10.0	74	49-136	2	30
1,1-Dichloroethene	ND	11.2	10.0	112	11.1	10.0	111	59-171	1	30
Chloroform	ND	8.83	10.0	88	8.70	10.0	87	64-133	1	30
Carbon Tetrachloride	ND	7.02	10.0	70	6.84	10.0	68	53-161	3	30
Benzene	ND	9.00	10.0	90	8.85	10.0	89	63-144	2	30
Trichloroethene (TCE)	ND	8.56	10.0	86	8.68	10.0	87	53-139	1	30
Bromodichloromethane	ND	7.51	10.0	75	7.22	10.0	72	61-134	4	30
Toluene	ND	8.82	10.0	88	8.59	10.0	86	71-136	3	30
1,1,2-Trichloroethane	ND	9.08	10.0	91	9.13	10.0	91	74-124	1	30
2-Hexanone	ND	43.1	50.0	86	43.4	50.0	87	53-132	1	30
Chlorobenzene	ND	9.00	10.0	90	9.03	10.0	90	69-126	0	30
Ethylbenzene	ND	8.67	10.0	87	8.64	10.0	86	66-136	0	30
1,2,3-Trichloropropane	ND	7.76	10.0	78	7.90	10.0	79	71-127	2	30
1,2-Dichlorobenzene	ND	8.40	10.0	84	8.43	10.0	84	72-119	0	30

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Extracted:** 07/17/2012  
**Date Analyzed:** 07/17/2012

**Lab Control Spike Summary  
 Volatile Organic Compounds**

**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG1207915

Lab Control Sample  
 KWG1207915-3  
 Lab Control Spike

Analyte Name	Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
Dichlorodifluoromethane	6.61	10.0	66	32-124
Chloromethane	8.81	10.0	88	34-130
Vinyl Chloride	7.46	10.0	75	55-123
Bromomethane	8.20	10.0	82	35-113
Chloroethane	9.27	10.0	93	58-134
Trichlorofluoromethane	6.94	10.0	69	52-141
1,1-Dichloroethene	11.2	10.0	112	66-129
Acetone	44.2	50.0	88	68-135
Iodomethane	40.7	30.0	136	51-164
Carbon Disulfide	15.7	20.0	78	46-144
Methylene Chloride	9.94	10.0	99	71-122
Acrylonitrile	35.5	40.0	89	65-129
trans-1,2-Dichloroethene	9.56	10.0	96	67-125
1,1-Dichloroethane	8.51	10.0	85	68-132
Vinyl Acetate	41.6	50.0	83	44-156
cis-1,2-Dichloroethene	8.71	10.0	87	71-118
2-Butanone (MEK)	47.4	50.0	95	71-149
Bromochloromethane	9.81	10.0	98	75-131
Chloroform	8.46	10.0	85	70-129
1,1,1-Trichloroethane (TCA)	7.14	10.0	71	59-136
Carbon Tetrachloride	7.04	10.0	70	55-140
Benzene	8.74	10.0	87	69-124
1,2-Dichloroethane (EDC)	8.11	10.0	81	56-142
Trichloroethene (TCE)	8.15	10.0	82	67-128
1,2-Dichloropropane	8.24	10.0	82	67-126
Dibromomethane	8.81	10.0	88	69-128
Bromodichloromethane	7.01	10.0	70	63-129
cis-1,3-Dichloropropene	7.16	10.0	72	62-132
4-Methyl-2-pentanone (MIBK)	44.3	50.0	89	64-134
Toluene	8.58	10.0	86	69-124
trans-1,3-Dichloropropene	6.08	10.0	61	59-125
1,1,2-Trichloroethane	8.63	10.0	86	74-118
Tetrachloroethene (PCE)	8.71	10.0	87	62-126
2-Hexanone	41.4	50.0	83	59-131
Dibromochloromethane	6.69	10.0	67	67-126

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Extracted:** 07/17/2012  
**Date Analyzed:** 07/17/2012

**Lab Control Spike Summary  
 Volatile Organic Compounds**

**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG1207915

Lab Control Sample  
 KWG1207915-3  
 Lab Control Spike

Analyte Name	Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
1,2-Dibromoethane (EDB)	8.30	10.0	83	74-118
Chlorobenzene	8.72	10.0	87	72-116
Ethylbenzene	8.45	10.0	85	67-121
1,1,1,2-Tetrachloroethane	7.65	10.0	77	66-124
m,p-Xylenes	17.1	20.0	86	69-121
o-Xylene	8.25	10.0	83	71-119
Styrene	8.90	10.0	89	74-121
Bromoform	5.73	10.0	57	52-144
cis-1,4-Dichloro-2-butene	19.0	30.0	63	26-171
1,1,2,2-Tetrachloroethane	7.67	10.0	77	70-127
trans-1,4-Dichloro-2-butene	20.3	30.0	68	46-170
1,2,3-Trichloropropane	7.73	10.0	77	69-123
1,4-Dichlorobenzene	8.03	10.0	80	73-115
1,2-Dichlorobenzene	7.96	10.0	80	72-115
1,2-Dibromo-3-chloropropane	6.00	10.0	60	55-132

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Extracted:** 07/18/2012  
**Date Analyzed:** 07/18/2012

**Lab Control Spike Summary  
 Volatile Organic Compounds**

**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG1207991

Lab Control Sample  
 KWG1207991-3  
 Lab Control Spike

Analyte Name	Result	Expected	%Rec	%Rec Limits
Dichlorodifluoromethane	8.50	10.0	85	32-124
Chloromethane	9.59	10.0	96	34-130
Vinyl Chloride	10.3	10.0	103	55-123
Bromomethane	6.37	10.0	64	35-113
Chloroethane	10.7	10.0	107	58-134
Trichlorofluoromethane	8.36	10.0	84	52-141
1,1-Dichloroethene	12.8	10.0	128	66-129
Acetone	59.2	50.0	118	68-135
Iodomethane	28.9	30.0	96	51-164
Carbon Disulfide	21.3	20.0	106	46-144
Methylene Chloride	10.6	10.0	106	71-122
Acrylonitrile	41.5	40.0	104	65-129
trans-1,2-Dichloroethene	11.5	10.0	115	67-125
1,1-Dichloroethane	11.2	10.0	112	68-132
Vinyl Acetate	47.5	50.0	95	44-156
cis-1,2-Dichloroethene	10.7	10.0	107	71-118
2-Butanone (MEK)	53.5	50.0	107	71-149
Bromochloromethane	10.3	10.0	103	75-131
Chloroform	11.1	10.0	111	70-129
1,1,1-Trichloroethane (TCA)	10.4	10.0	104	59-136
Carbon Tetrachloride	9.95	10.0	100	55-140
Benzene	10.8	10.0	108	69-124
1,2-Dichloroethane (EDC)	10.8	10.0	108	56-142
Trichloroethene (TCE)	11.1	10.0	111	67-128
1,2-Dichloropropane	10.9	10.0	109	67-126
Dibromomethane	10.3	10.0	103	69-128
Bromodichloromethane	10.6	10.0	106	63-129
cis-1,3-Dichloropropene	10.9	10.0	109	62-132
4-Methyl-2-pentanone (MIBK)	50.3	50.0	101	64-134
Toluene	10.9	10.0	109	69-124
trans-1,3-Dichloropropene	9.86	10.0	99	59-125
1,1,2-Trichloroethane	10.5	10.0	105	74-118
Tetrachloroethene (PCE)	9.88	10.0	99	62-126
2-Hexanone	55.2	50.0	110	59-131
Dibromochloromethane	9.00	10.0	90	67-126

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Extracted:** 07/18/2012  
**Date Analyzed:** 07/18/2012

**Lab Control Spike Summary  
 Volatile Organic Compounds**

**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG1207991

Lab Control Sample  
 KWG1207991-3  
 Lab Control Spike

Analyte Name	Result	Expected	%Rec	%Rec Limits
1,2-Dibromoethane (EDB)	10.2	10.0	102	74-118
Chlorobenzene	10.4	10.0	104	72-116
Ethylbenzene	10.4	10.0	104	67-121
1,1,1,2-Tetrachloroethane	9.74	10.0	97	66-124
m,p-Xylenes	21.7	20.0	108	69-121
o-Xylene	10.8	10.0	108	71-119
Styrene	10.8	10.0	108	74-121
Bromoform	8.41	10.0	84	52-144
cis-1,4-Dichloro-2-butene	31.0	30.0	103	26-171
1,1,2,2-Tetrachloroethane	10.3	10.0	103	70-127
trans-1,4-Dichloro-2-butene	31.5	30.0	105	46-170
1,2,3-Trichloropropane	9.84	10.0	98	69-123
1,4-Dichlorobenzene	10.1	10.0	101	73-115
1,2-Dichlorobenzene	9.98	10.0	100	72-115
1,2-Dibromo-3-chloropropane	8.54	10.0	85	55-132

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Extracted:** 07/19/2012  
**Date Analyzed:** 07/19/2012

**Lab Control Spike Summary  
 Volatile Organic Compounds**

**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG1208068

Lab Control Sample  
 KWG1208068-3  
 Lab Control Spike

Analyte Name	Result	Expected	%Rec	%Rec Limits
Dichlorodifluoromethane	6.78	10.0	68	32-124
Chloromethane	9.87	10.0	99	34-130
Vinyl Chloride	7.72	10.0	77	55-123
Bromomethane	10.3	10.0	103	35-113
Chloroethane	9.33	10.0	93	58-134
Trichlorofluoromethane	7.05	10.0	71	52-141
1,1-Dichloroethene	10.9	10.0	109	66-129
Acetone	46.1	50.0	92	68-135
Iodomethane	40.5	30.0	135	51-164
Carbon Disulfide	15.5	20.0	77	46-144
Methylene Chloride	10.1	10.0	101	71-122
Acrylonitrile	35.9	40.0	90	65-129
trans-1,2-Dichloroethene	9.61	10.0	96	67-125
1,1-Dichloroethane	8.65	10.0	87	68-132
Vinyl Acetate	34.1	50.0	68	44-156
cis-1,2-Dichloroethene	8.91	10.0	89	71-118
2-Butanone (MEK)	47.6	50.0	95	71-149
Bromochloromethane	9.67	10.0	97	75-131
Chloroform	8.75	10.0	88	70-129
1,1,1-Trichloroethane (TCA)	7.09	10.0	71	59-136
Carbon Tetrachloride	7.02	10.0	70	55-140
Benzene	9.06	10.0	91	69-124
1,2-Dichloroethane (EDC)	8.41	10.0	84	56-142
Trichloroethene (TCE)	8.50	10.0	85	67-128
1,2-Dichloropropane	8.63	10.0	86	67-126
Dibromomethane	8.84	10.0	88	69-128
Bromodichloromethane	7.17	10.0	72	63-129
cis-1,3-Dichloropropene	7.15	10.0	72	62-132
4-Methyl-2-pentanone (MIBK)	45.3	50.0	91	64-134
Toluene	8.87	10.0	89	69-124
trans-1,3-Dichloropropene	5.72	10.0	57 *	59-125
1,1,2-Trichloroethane	8.56	10.0	86	74-118
Tetrachloroethene (PCE)	8.55	10.0	86	62-126
2-Hexanone	40.2	50.0	80	59-131
Dibromochloromethane	6.61	10.0	66 *	67-126

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Extracted:** 07/19/2012  
**Date Analyzed:** 07/19/2012

**Lab Control Spike Summary  
 Volatile Organic Compounds**

**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG1208068

Lab Control Sample  
 KWG1208068-3  
 Lab Control Spike

Analyte Name	Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
1,2-Dibromoethane (EDB)	8.16	10.0	82	74-118
Chlorobenzene	9.00	10.0	90	72-116
Ethylbenzene	8.56	10.0	86	67-121
1,1,1,2-Tetrachloroethane	7.74	10.0	77	66-124
m,p-Xylenes	17.6	20.0	88	69-121
o-Xylene	8.44	10.0	84	71-119
Styrene	9.05	10.0	91	74-121
Bromoform	5.61	10.0	56	52-144
cis-1,4-Dichloro-2-butene	17.7	30.0	59	26-171
1,1,2,2-Tetrachloroethane	7.75	10.0	78	70-127
trans-1,4-Dichloro-2-butene	20.2	30.0	67	46-170
1,2,3-Trichloropropane	7.73	10.0	77	69-123
1,4-Dichlorobenzene	8.36	10.0	84	73-115
1,2-Dichlorobenzene	8.24	10.0	82	72-115
1,2-Dibromo-3-chloropropane	5.59	10.0	56	55-132

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/10/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** Schmidt  
**Lab Code:** K1206781-001  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND U	20	1	07/17/12	07/17/12	KWG1207913	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	97	77-123	07/17/12	Acceptable
Toluene-d8	100	74-112	07/17/12	Acceptable
4-Bromofluorobenzene	77	46-118	07/17/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/10/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** Kinman  
**Lab Code:** K1206781-002  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND U	20	1	07/17/12	07/17/12	KWG1207913	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	99	77-123	07/17/12	Acceptable
Toluene-d8	99	74-112	07/17/12	Acceptable
4-Bromofluorobenzene	76	46-118	07/17/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/10/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** Camp  
**Lab Code:** K1206781-003  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND U	20	1	07/17/12	07/17/12	KWG1207913	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	99	77-123	07/17/12	Acceptable
Toluene-d8	99	74-112	07/17/12	Acceptable
4-Bromofluorobenzene	76	46-118	07/17/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/10/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** S2  
**Lab Code:** K1206781-005  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND U	20	1	07/17/12	07/17/12	KWG1207913	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	102	77-123	07/17/12	Acceptable
Toluene-d8	97	74-112	07/17/12	Acceptable
4-Bromofluorobenzene	76	46-118	07/17/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/10/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-10  
**Lab Code:** K1206781-006  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND U	20	1	07/17/12	07/17/12	KWG1207913	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	103	77-123	07/17/12	Acceptable
Toluene-d8	97	74-112	07/17/12	Acceptable
4-Bromofluorobenzene	75	46-118	07/17/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/10/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-9  
**Lab Code:** K1206781-007

**Units:** ng/L

**Basis:** NA

**Extraction Method:** EPA 5030B

**Level:** Low

**Analysis Method:** 8260C SIM

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND U	20	1	07/17/12	07/17/12	KWG1207913	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	102	77-123	07/17/12	Acceptable
Toluene-d8	96	74-112	07/17/12	Acceptable
4-Bromofluorobenzene	76	46-118	07/17/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-5  
**Lab Code:** K1206781-008  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND U	20	1	07/17/12	07/17/12	KWG1207913	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	103	77-123	07/17/12	Acceptable
Toluene-d8	97	74-112	07/17/12	Acceptable
4-Bromofluorobenzene	75	46-118	07/17/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-14b  
**Lab Code:** K1206781-009  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	20	1	07/17/12	07/17/12	KWG1207913	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	103	77-123	07/17/12	Acceptable
Toluene-d8	97	74-112	07/17/12	Acceptable
4-Bromofluorobenzene	75	46-118	07/17/12	Acceptable

**Comments:** \_\_\_\_\_



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-15D  
**Lab Code:** K1206781-010  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND U	20	1	07/17/12	07/17/12	KWG1207913	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	105	77-123	07/17/12	Acceptable
Toluene-d8	97	74-112	07/17/12	Acceptable
4-Bromofluorobenzene	74	46-118	07/17/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-3  
**Lab Code:** K1206781-011  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	20	1	07/17/12	07/17/12	KWG1207913	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	104	77-123	07/17/12	Acceptable
Toluene-d8	96	74-112	07/17/12	Acceptable
4-Bromofluorobenzene	74	46-118	07/17/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-19  
**Lab Code:** K1206781-012  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND U	20	1	07/17/12	07/17/12	KWG1207913	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	105	77-123	07/17/12	Acceptable
Toluene-d8	96	74-112	07/17/12	Acceptable
4-Bromofluorobenzene	75	46-118	07/17/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** D-19  
**Lab Code:** K1206781-013  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND U	20	1	07/17/12	07/17/12	KWG1207913	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	105	77-123	07/17/12	Acceptable
Toluene-d8	96	74-112	07/17/12	Acceptable
4-Bromofluorobenzene	74	46-118	07/17/12	Acceptable

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/12/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-16  
**Lab Code:** K1206781-014  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	20	1	07/17/12	07/17/12	KWG1207913	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	105	77-123	07/17/12	Acceptable
Toluene-d8	96	74-112	07/17/12	Acceptable
4-Bromofluorobenzene	74	46-118	07/17/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

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Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/12/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-15  
**Lab Code:** K1206781-015  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	1000	20	1	07/17/12	07/17/12	KWG1207913	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	107	77-123	07/17/12	Acceptable
Toluene-d8	97	74-112	07/17/12	Acceptable
4-Bromofluorobenzene	74	46-118	07/17/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/12/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-20  
**Lab Code:** K1206781-016  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND U	20	1	07/17/12	07/17/12	KWG1207913	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	77-123	07/17/12	Acceptable
Toluene-d8	97	74-112	07/17/12	Acceptable
4-Bromofluorobenzene	75	46-118	07/17/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/12/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-12b  
**Lab Code:** K1206781-017  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND U	20	1	07/17/12	07/17/12	KWG1207913	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	107	77-123	07/17/12	Acceptable
Toluene-d8	96	74-112	07/17/12	Acceptable
4-Bromofluorobenzene	75	46-118	07/17/12	Acceptable

**Comments:** \_\_\_\_\_



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** 07/11/2012  
**Date Received:** 07/13/2012

**Volatile Organic Compounds**

**Sample Name:** MW-18  
**Lab Code:** K1206781-018  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	20	1	07/17/12	07/17/12	KWG1207913	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	107	77-123	07/17/12	Acceptable
Toluene-d8	97	74-112	07/17/12	Acceptable
4-Bromofluorobenzene	74	46-118	07/17/12	Acceptable

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG1207913-4  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	20	1	07/17/12	07/17/12	KWG1207913	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	96	77-123	07/17/12	Acceptable
Toluene-d8	100	74-112	07/17/12	Acceptable
4-Bromofluorobenzene	77	46-118	07/17/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

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QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781

**Surrogate Recovery Summary  
 Volatile Organic Compounds**

**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** PERCENT  
**Level:** Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>	<u>Sur3</u>
Schmidt	K1206781-001	97	100	77
Kinman	K1206781-002	99	99	76
Camp	K1206781-003	99	99	76
S2	K1206781-005	102	97	76
MW-10	K1206781-006	103	97	75
MW-9	K1206781-007	102	96	76
MW-5	K1206781-008	103	97	75
MW-14b	K1206781-009	103	97	75
MW-15D	K1206781-010	105	97	74
MW-3	K1206781-011	104	96	74
MW-19	K1206781-012	105	96	75
D-19	K1206781-013	105	96	74
MW-16	K1206781-014	105	96	74
MW-15	K1206781-015	107	97	74
MW-20	K1206781-016	106	97	75
MW-12b	K1206781-017	107	96	75
MW-18	K1206781-018	107	97	74
Method Blank	KWG1207913-4	96	100	77
CampMS	KWG1207913-1	95	103	94
CampDMS	KWG1207913-2	95	103	93
Lab Control Sample	KWG1207913-3	95	102	95

**Surrogate Recovery Control Limits (%)**

---

Sur1 = Dibromofluoromethane	77-123
Sur2 = Toluene-d8	74-112
Sur3 = 4-Bromofluorobenzene	46-118

---

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

**COLUMBIA ANALYTICAL SERVICES, INC.**

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QA/QC Report

**Client:** Walla Walla, City of  
**Project:** Sudbury Road Landfill Remedial Investigation  
**Sample Matrix:** Water

**Service Request:** K1206781  
**Date Extracted:** 07/17/2012  
**Date Analyzed:** 07/17/2012

**Matrix Spike/Duplicate Matrix Spike Summary  
 Volatile Organic Compounds**

**Sample Name:** Camp  
**Lab Code:** K1206781-003  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG1207913

Analyte Name	Sample Result	CampMS KWG1207913-1 Matrix Spike			CampDMS KWG1207913-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
Vinyl Chloride	ND	2110	2000	106	2010	2000	100	70-130	5	30

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Walla Walla, City of  
Project: Sudbury Road Landfill Remedial Investigation  
Sample Matrix: Water

Service Request: K1206781  
Date Extracted: 07/17/2012  
Date Analyzed: 07/17/2012

Lab Control Spike Summary  
Volatile Organic Compounds

Extraction Method: EPA 5030B  
Analysis Method: 8260C SIM

Units: ng/L  
Basis: NA  
Level: Low  
Extraction Lot: KWG1207913

Analyte Name	Lab Control Sample KWG1207913-3 Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
Vinyl Chloride	2100	2000	105	70-136

Results flagged with an asterisk (\*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



July 30, 2012

Analytical Report for Service Request No: K1206646

Craig Schwyn  
Schwyn Environmental Services  
4621 South Custer Court  
Spokane, WA 99223

**RE: City of Walla Walla Sudbury Road Landfill RI**

Dear Craig:

Enclosed are the results of the samples submitted to our laboratory on July 11, 2012. For your reference, these analyses have been assigned our service request number K1206646.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at [www.caslab.com](http://www.caslab.com). All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3363. You may also contact me via Email at [Lisa.Domenighini@alsglobal.com](mailto:Lisa.Domenighini@alsglobal.com).

Respectfully submitted,

**Columbia Analytical Services, Inc.**

Lisa Domenighini  
Project Chemist

LD/jw

Page 1 of 74



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Columbia Analytical Services, Inc.

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Environmental

[www.caslab.com](http://www.caslab.com) ■ [www.alsglobal.com](http://www.alsglobal.com)

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## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

### Inorganic Data Qualifiers

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition*: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

### Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition*: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

### Organic Data Qualifiers

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition*: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

### Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.



**Columbia Analytical Services, Inc. dba ALS Environmental (ALS) - Kelso  
State Certifications, Accreditations, and Licenses**

<b>Agency</b>	<b>Web Site</b>	<b>Number</b>
Alaska DEC UST	<a href="http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx">http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx</a>	UST-040
Arizona DHS	<a href="http://www.azdhs.gov/lab/license/env.htm">http://www.azdhs.gov/lab/license/env.htm</a>	AZ0339
Arkansas - DEQ	<a href="http://www.adeq.state.ar.us/techsvs/labcert.htm">http://www.adeq.state.ar.us/techsvs/labcert.htm</a>	88-0637
California DHS (ELAP)	<a href="http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx">http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx</a>	2286
DOD ELAP	<a href="http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm">http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm</a>	L12-28
Florida DOH	<a href="http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm">http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm</a>	E87412
Georgia DNR	<a href="http://www.gaepd.org/Documents/techguide_pcb.html#cel">http://www.gaepd.org/Documents/techguide_pcb.html#cel</a>	881
Hawaii DOH	Not available	-
Idaho DHW	<a href="http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx">http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx</a>	-
Indiana DOH	<a href="http://www.in.gov/isdh/24859.htm">http://www.in.gov/isdh/24859.htm</a>	C-WA-01
ISO 17025	<a href="http://www.pjllabs.com/">http://www.pjllabs.com/</a>	L12-27
Louisiana DEQ	<a href="http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx">http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx</a>	3016
Louisiana DHH	Not available	LA110003
Maine DHS	Not available	WA0035
Michigan DEQ	<a href="http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156---,00.html">http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156---,00.html</a>	9949
Minnesota DOH	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	053-999-368
Montana DPHHS	<a href="http://www.dphhs.mt.gov/publichealth/">http://www.dphhs.mt.gov/publichealth/</a>	CERT0047
Nevada DEP	<a href="http://ndep.nv.gov/bsdw/labservice.htm">http://ndep.nv.gov/bsdw/labservice.htm</a>	WA35
New Jersey DEP	<a href="http://www.nj.gov/dep/oqa/">http://www.nj.gov/dep/oqa/</a>	WA005
New Mexico ED	<a href="http://www.nmenv.state.nm.us/dwb/Index.htm">http://www.nmenv.state.nm.us/dwb/Index.htm</a>	-
North Carolina DWQ	<a href="http://www.dwqlab.org/">http://www.dwqlab.org/</a>	605
Oklahoma DEQ	<a href="http://www.deq.state.ok.us/CSDnew/labcert.htm">http://www.deq.state.ok.us/CSDnew/labcert.htm</a>	9801
Oregon – DEQ (NELAP)	<a href="http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	WA200001
South Carolina DHEC	<a href="http://www.scdhec.gov/environment/envserv/">http://www.scdhec.gov/environment/envserv/</a>	61002
Texas CEQ	<a href="http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html</a>	704427-08-TX
Washington DOE	<a href="http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html">http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html</a>	C1203
Wisconsin DNR	<a href="http://dnr.wi.gov/">http://dnr.wi.gov/</a>	998386840
Wyoming (EPA Region 8)	<a href="http://www.epa.gov/region8/water/dwhome/wyomingdi.html">http://www.epa.gov/region8/water/dwhome/wyomingdi.html</a>	-
Kelso Laboratory Website	<a href="http://www.caslab.com">www.caslab.com</a>	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at [www.caslab.com](http://www.caslab.com) or at the accreditation bodies web site

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

## ALS ENVIRONMENTAL

**Client:** Schwyn Environmental Services      **Service Request No.:** K1206646  
**Project:** City of Walla Walla Sudbury Road Landfill RI      **Date Received:** 07/11/11  
**Sample Matrix:** Water

### CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Matrix/Duplicate Matrix Spike (MS/DMS), and Laboratory/Duplicate Laboratory Control Sample (LCS/DLCS).

#### Sample Receipt

Ten water samples and one trip blank sample were received for analysis at ALS Environmental on 07/11/11. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

#### General Chemistry Parameters

No anomalies associated with the analysis of these samples were observed.

#### Total Metals

No anomalies associated with the analysis of these samples were observed.

#### Volatile Organic Compounds by EPA Method 8260

##### **Calibration Verification Exceptions:**

The following analytes were flagged as outside the lower control criterion for Continuing Calibration Verification (CCV) J:\MS18\0716F008.D: Dichlorodifluoromethane, Bromoform, cis-1,4-Dichloro-2-butene, trans-1,4-Dichloro-2-butene, and 1,2-Dibromo-3-chloropropane. In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The CAS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

The following analyte was flagged as outside the upper control criterion for Continuing Calibration Verification (CCV) J:\MS18\0716F008.D: 1,1-Dichloroethene. In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The CAS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

The following analytes were flagged as outside the lower control criterion for Continuing Calibration Verification (CCV) J:\MS18\0717F004.D: Dichlorodifluoromethane, trans-1,3-Dichloropropene, Dibromochloromethane, Bromoform, cis-1,4-Dichloro-2-butene, trans-1,4-Dichloro-2-butene, 1,2,3-Trichloropropane, and 1,2-Dibromo-3-chloropropane. In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The CAS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

Approved by *Ana D. J. [Signature]* Date 7/30/12

Volatile Organic Compounds by EPA Method 8260-SIM

No anomalies associated with the analysis of these samples were observed.

Approved by

*Lara L. Jameson*

Date

*7/30/12*

# Columbia Analytical Services

1317 South 13th, Kelso, WA 98626 (360) 577-7222 FAX (360) 636-1068

SR# K1206646  
PAGE 1 OF 1

Project Name: City of Walla Walla Sudbury Road Landfill Remedial Investigation

Project Manager: Craig Schwyn

Company: Schwyn Environmental Services  
4621 South Custer Court  
Spokane, Washington 99223  
509-448-3187: Craig@schwynenviro.com

Sampler's Signature: Craig Schwyn

Sample ID	Date	Time	LAB ID	Matrix	Number of Containers	VOCs (8260B special list)	Vinyl Chloride by 8260 SIM	[Chloride, Nitrate, Sulfate (Method 300.0)] [Ca, Fe, Mg, Mn, K, Na (Method 6010C)] [Alkalinity (Method 2320B)] [Ammonia (SM 4500)] [TOC (Method 415.1)] [TDS (SM 2540C)]	Appendix III Parameters (see below)	MS/MSD	REMARKS
MW-25	7-9-12	14:00		Water	10	X	X	X			
MW-17		15:15			10	X	X	X			
MW-24		17:00			10	X	X	X			
MW-23		17:30			10	X	X	X			
MW-26		19:15			20	X	X	X		X	
MW-11		20:00			10	X	X	X			
MW-215	7-10-12	07:30			10	X	X	X			
MW-21D		10:15			10	X	X	X			
MW-225		10:30			10	X	X	X			
MW-22D		11:00			10	X	X	X			

**IR/NAR/OND REQUIREMENTS**  
 24 hr  48 hr  5 day  
 Standard (21 days)  
 Provide FAX Preliminary Results  
 Requested Report Date: \_\_\_\_\_

**REPORT REQUIREMENTS**  
 I. Routine Report: Results, Method Blank, Surrogate, as required  
 II. Report Dup., MS, MSD as required  
 III. Data Validation Report (includes raw data)  
 IV. CLP Deliverable Report  
 V. EDD

Invoice Information  
 P.O. # \_\_\_\_\_  
 Bill to: Schwyn Environmental Services

**Appendix III Parameters**  
 Dissolved Metals: Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Se, Ag, Ti, Sn, V, and Zn by USEPA Method 6010C  
 Total Metals: Ni, Hg by USEPA Method 6010C, and 7470A  
 Organochlorine pesticides by USEPA Method 8081A  
 PCBs (Aroclors) by USEPA Method 8082  
 Organophosphorus compounds by USEPA Method 8141A  
 Chlorinated herbicides by USEPA Method 8151A  
 SVOCs USEPA Method 8270D  
 Total cyanide by SM 4500 S2 D and Total sulfide by EPA 335.4

**RELINQUISHED BY:**  
 Signature: Craig Schwyn  
 Printed Name: Craig Schwyn  
 Firm: Schwyn Environmental Services  
 Date/Time: \_\_\_\_\_

**RECEIVED BY:**  
 Signature: Brad Davis  
 Printed Name: Brad Davis  
 Firm: ALS-Kelso  
 Date/Time: 7/11/12

Project Name: City of Walla Walla Sudbury Road Landfill Remedial Investigation

Project Manager: Craig Schwyn

Company: Schwyn Environmental Services  
4621 South Custer Court  
Spokane, Washington 99223  
509-448-3187; Craig@schwynenviro.com

Sampler's Signature: *Craig Schwyn*

Sample ID.	Date	Time	LAB ID	Matrix
MW-25	7-9-12	14:00		Water
MW-17		15:15		
MW-24		17:00		
MW-23		17:30		
MW-26		19:15		
MW-11		20:00		
MW-215	7-10-12	9:30		
MW-21D		10:15		
MW-225		10:30		
MW-22D		11:00		

**URNAROUND REQUIREMENTS**

24 hr \_\_\_\_\_ 48 hr \_\_\_\_\_ 5 day \_\_\_\_\_

Standard (21 days)

Provide FAX Preliminary Results

Requested Report Date: \_\_\_\_\_

**Invoice Information**

P.O. # \_\_\_\_\_

Bill to: Schwyn Environmental Services

**RELINQUISHED BY:**

Signature: *Craig Schwyn*

Printed Name: Craig Schwyn

Firm: Schwyn Environmental Services

Date/Time: \_\_\_\_\_

Number of Containers	VOCs (8260B special list)	Vinyl Chloride by 8260 SIM	[Chloride, Nitrate, Sulfate (Method 300.0)] [Ca, Fe, Mg, Mn, K, Na (Method 6010C)] [Alkalinity (Method 2320B)] [Ammonia (SM 4500)] [TOC (Method 415.1)] [TDS (SM 2540C)]	Appendix III Parameters (see below)	MS/MSD	REMARKS
10	X	X	X			
10	X	X	X			
10	X	X	X			
10	X	X	X			
20	X	X	X		X	
10	X	X	X			
10	X	X	X			
10	X	X	X			
10	X	X	X			

**REPORT REQUIREMENTS**

I. Routine Report: Results, Method Blank, Surrogate, as required

II. Report Dup., MS, MSD as required

III. Data Validation Report (includes raw data)

IV. CLP Deliverable Report

V. EDD

**Appendix III Parameters**

Dissolved Metals: Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Se, Ag, Ti, Sn, V, and Zn by USEPA Method 6010C

Total Metals: Ni, Hg by USEPA Method 6010C, and 7470A

Organochlorine pesticides by USEPA Method 8081A

PCBs (Aroclors) by USEPA Method 8082

Organophosphorus compounds by USEPA Method 8141A

Chlorinated herbicides by USEPA Method 8151A

SVOCS USEPA Method 8270D

Total cyanide by SM 4500 S2 D and Total sulfide by EPA 335.4

**RECEIVED BY:**

Signature: *Brad Tolva*

Printed Name: Brad Tolva

Firm: ALS-Kelso

Date/Time: 7/12/12 845



PC Lisa

### Cooler Receipt and Preservation Form

Client / Project: City of Walla Walla Service Request K12 06646  
 Received: 7/11/12 Opened: 7/11/12 By: BT Unloaded: 7/11/12 By: BT

- Samples were received via?  Mail  ~~Fed Ex~~  UPS  DHL  PDX  Courier  Hand Delivered
- Samples were received in: (circle)  Cooler  Box  Envelope  Other \_\_\_\_\_ NA
- Were custody seals on coolers? NA  Y  N If yes, how many and where? \_\_\_\_\_  
 If present, were custody seals intact? Y  N  If present, were they signed and dated? Y  N

Cooler Temp °C	Temp Blank °C	Thermometer ID	Cooler/COC ID	Tracking Number	NA	Filed
1.0	2.4	276	NA			X

- Packing material:  Inserts  Baggies  Bubble Wrap  Gel Packs  Wet Ice  Dry Ice  Sleeves \_\_\_\_\_
- Were custody papers properly filled out (ink, signed, etc.)? NA  Y  N
- Did all bottles arrive in good condition (unbroken)? Indicate in the table below. NA  Y  N
- Were all sample labels complete (i.e analysis, preservation, etc.)? NA  Y  N
- Did all sample labels and tags agree with custody papers? Indicate major discrepancies in the table on page 2. NA  Y  N
- Were appropriate bottles/containers and volumes received for the tests indicated? NA  Y  N\*
- Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below. NA  Y  N
- Were VOA vials received without headspace? Indicate in the table below.  NA  Y  N
- Was C12/Res negative?  NA  Y  N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: \*only received one cooler - second cooler will arrive later according to fedex tracking.

**SHORT HOLD TIME**



PC Lisa

### Cooler Receipt and Preservation Form

Client / Project: City of Walla Walla Service Request K12 06646  
 Received: 7/12/12 Opened: 7/12/12 By: BT Unloaded: 7/12/12 By: BT

- Samples were received via? Mail Fed Ex UPS DHL PDX Courier Hand Delivered
- Samples were received in: (circle) Cooler Box Envelope Other NA
- Were custody seals on coolers? NA Y (N) If yes, how many and where? \_\_\_\_\_  
 If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Cooler Temp °C	Temp Blank °C	Thermometer ID	Cooler/COC ID <u>(NA)</u>	Tracking Number	NA	Filed
1.4	1.2	318		8677 8934 7859		

- Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves
- Were custody papers properly filled out (ink, signed, etc.)? NA (Y) N
- Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* NA (Y) N
- Were all sample labels complete (i.e analysis, preservation, etc.)? NA (Y) N
- Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y (N)
- Were appropriate bottles/containers and volumes received for the tests indicated? NA Y (N)\*\*\*
- Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA (Y) N
- Were VOA vials received without headspace? *Indicate in the table below.* NA Y (N)
- Was C12/Res negative? (NA) Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head- space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time
MW - 210	1x40ml		X							

Notes, Discrepancies, & Resolutions: Second cooler received 1 day after first.

\* Rec'd 2 trips not listed on COC.  
**SHORT HOLD TIME**

\*\* CUC indicates there should be a dissolved metals bottle - did not receive one  
JA 7/12/12 10 Page      of

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Report

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water  
**Analysis Method:** 300.0

**Service Request:** K1206646  
**Date Collected:** 07/09/12 - 07/10/12  
**Date Received:** 07/11/12

**Units:** mg/L

**Basis:** NA

**Chloride**

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
MW-25	K1206646-001	61.8	4.0	20	07/11/12 13:25	
MW-17	K1206646-002	139	4.0	20	07/11/12 13:38	
MW-24	K1206646-003	103	4.0	20	07/11/12 11:10	
MW-23	K1206646-004	122	4.0	20	07/11/12 11:24	
MW-26	K1206646-005	108	4.0	20	07/11/12 12:04	
MW-11	K1206646-006	85.5	4.0	20	07/11/12 11:37	
MW-21S	K1206646-007	143	4.0	20	07/12/12 09:20	
MW-21D	K1206646-008	151	4.0	20	07/12/12 09:33	
MW-22S	K1206646-009	154	4.0	20	07/12/12 09:47	
MW-22D	K1206646-010	155	4.0	20	07/12/12 10:00	
Method Blank	K1206646-MB1	ND U	0.20	1	07/11/12 07:14	
Method Blank	K1206646-MB2	ND U	0.20	1	07/12/12 07:43	
Method Blank	K1206646-MB3	ND U	0.20	1	07/12/12 17:25	



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Report

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water  
**Analysis Method:** 300.0

**Service Request:** K1206646  
**Date Collected:** 07/09/12 - 07/10/12  
**Date Received:** 07/11/12  
**Units:** mg/L  
**Basis:** NA

**Nitrate as Nitrogen**

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
MW-25	K1206646-001	9.0	1.0	20	07/11/12 13:25	
MW-17	K1206646-002	10.4	1.0	20	07/11/12 13:38	
MW-24	K1206646-003	10.5	1.0	20	07/11/12 11:10	
MW-23	K1206646-004	10.5	1.0	20	07/11/12 11:24	
MW-26	K1206646-005	8.4	1.0	20	07/11/12 12:04	
MW-11	K1206646-006	8.0	1.0	20	07/11/12 11:37	
MW-21S	K1206646-007	9.9	1.0	20	07/12/12 09:20	
MW-21D	K1206646-008	10.7	1.0	20	07/12/12 09:33	
MW-22S	K1206646-009	9.4	1.0	20	07/12/12 09:47	
MW-22D	K1206646-010	10.4	1.0	20	07/12/12 10:00	
Method Blank	K1206646-MB1	ND U	0.050	1	07/11/12 07:14	
Method Blank	K1206646-MB2	ND U	0.050	1	07/12/12 07:43	
Method Blank	K1206646-MB3	ND U	0.050	1	07/12/12 17:25	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Report

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water  
**Analysis Method:** 300.0

**Service Request:** K1206646  
**Date Collected:** 07/09/12 - 07/10/12  
**Date Received:** 07/11/12

**Units:** mg/L  
**Basis:** NA

**Sulfate**

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
MW-25	K1206646-001	25.3	4.0	20	07/11/12 13:25	
MW-17	K1206646-002	29.8	4.0	20	07/11/12 13:38	
MW-24	K1206646-003	30.8	4.0	20	07/11/12 11:10	
MW-23	K1206646-004	31.7	4.0	20	07/11/12 11:24	
MW-26	K1206646-005	30.4	4.0	20	07/11/12 12:04	
MW-11	K1206646-006	27.8	4.0	20	07/11/12 11:37	
MW-21S	K1206646-007	33.9	4.0	20	07/12/12 09:20	
MW-21D	K1206646-008	31.7	4.0	20	07/12/12 09:33	
MW-22S	K1206646-009	34.5	4.0	20	07/12/12 09:47	
MW-22D	K1206646-010	32.9	4.0	20	07/12/12 10:00	
Method Blank	K1206646-MB1	ND U	0.20	1	07/11/12 07:14	
Method Blank	K1206646-MB2	ND U	0.20	1	07/12/12 07:43	
Method Blank	K1206646-MB3	ND U	0.20	1	07/12/12 17:25	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water  
**Analysis Method:** 350.1

**Service Request:** K1206646  
**Date Collected:** 07/09/12 - 07/10/12  
**Date Received:** 07/11/12  
**Units:** mg/L  
**Basis:** NA

Ammonia as Nitrogen

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
MW-25	K1206646-001	ND U	0.050	1	07/16/12 11:51	
MW-17	K1206646-002	ND U	0.050	1	07/16/12 11:51	
MW-24	K1206646-003	ND U	0.050	1	07/16/12 11:51	
MW-23	K1206646-004	ND U	0.050	1	07/16/12 11:51	
MW-26	K1206646-005	ND U	0.050	1	07/16/12 11:51	
MW-11	K1206646-006	ND U	0.050	1	07/16/12 11:51	
MW-21S	K1206646-007	ND U	0.050	1	07/16/12 11:51	
MW-21D	K1206646-008	ND U	0.050	1	07/16/12 11:51	
MW-22S	K1206646-009	ND U	0.050	1	07/16/12 11:51	
MW-22D	K1206646-010	ND U	0.050	1	07/16/12 11:51	
Method Blank	K1206646-MB1	ND U	0.050	1	07/16/12 11:51	
Method Blank	K1206646-MB2	ND U	0.050	1	07/16/12 11:51	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Report

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water  
**Analysis Method:** SM 2320 B

**Service Request:** K1206646  
**Date Collected:** 07/09/12 - 07/10/12  
**Date Received:** 07/11/12  
**Units:** mg/L  
**Basis:** NA

**Alkalinity as CaCO<sub>3</sub>, Total**

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
MW-25	K1206646-001	230	9.0	1	07/16/12 12:53	
MW-17	K1206646-002	297	9.0	1	07/16/12 12:53	
MW-24	K1206646-003	279	9.0	1	07/16/12 12:53	
MW-23	K1206646-004	290	9.0	1	07/16/12 12:53	
MW-26	K1206646-005	317	9.0	1	07/16/12 12:53	
MW-11	K1206646-006	271	9.0	1	07/16/12 12:53	
MW-21S	K1206646-007	308	9.0	1	07/16/12 12:53	
MW-21D	K1206646-008	297	9.0	1	07/16/12 12:53	
MW-22S	K1206646-009	314	9.0	1	07/16/12 12:53	
MW-22D	K1206646-010	305	9.0	1	07/16/12 12:53	
Method Blank	K1206646-MB1	ND U	9.0	1	07/16/12 12:53	
Method Blank	K1206646-MB2	ND U	9.0	1	07/16/12 12:53	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Report

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water  
**Analysis Method:** SM 2540 C

**Service Request:** K1206646  
**Date Collected:** 07/09/12 - 07/10/12  
**Date Received:** 07/11/12  
**Units:** mg/L  
**Basis:** NA

**Solids, Total Dissolved**

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
MW-25	K1206646-001	469	10	1	07/11/12 00:00	
MW-17	K1206646-002	698	10	1	07/11/12 00:00	
MW-24	K1206646-003	594	10	1	07/11/12 00:00	
MW-23	K1206646-004	601	10	1	07/11/12 00:00	
MW-26	K1206646-005	596	10	1	07/11/12 00:00	
MW-11	K1206646-006	493	10	1	07/11/12 00:00	
MW-21S	K1206646-007	621	10	1	07/12/12 15:45	
MW-21D	K1206646-008	655	10	1	07/12/12 15:45	
MW-22S	K1206646-009	686	10	1	07/12/12 15:45	
MW-22D	K1206646-010	714	10	1	07/12/12 15:45	
Method Blank	K1206646-MB1	ND U	5.0	1	07/11/12 00:00	
Method Blank	K1206646-MB2	ND U	5.0	1	07/11/12 00:00	
Method Blank	K1206646-MB3	ND U	5.0	1	07/12/12 15:45	
Method Blank	K1206646-MB4	ND U	5.0	1	07/12/12 15:45	

**COLUMBIA ANALYTICAL SERVICES, INC.**

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Analytical Report

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water  
**Analysis Method:** SM 5310 C

**Service Request:** K1206646  
**Date Collected:** 07/09/12 - 07/10/12  
**Date Received:** 07/11/12

**Units:** mg/L  
**Basis:** NA

**Carbon, Total Organic**

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
MW-25	K1206646-001	0.54	0.50	1	07/13/12 21:00	
MW-17	K1206646-002	0.67	0.50	1	07/13/12 21:00	
MW-24	K1206646-003	0.63	0.50	1	07/13/12 21:00	
MW-23	K1206646-004	0.56	0.50	1	07/13/12 21:00	
MW-26	K1206646-005	0.50	0.50	1	07/13/12 21:00	
MW-11	K1206646-006	0.60	0.50	1	07/13/12 21:00	
MW-21S	K1206646-007	0.55	0.50	1	07/13/12 21:00	
MW-21D	K1206646-008	0.77	0.50	1	07/13/12 21:00	
MW-22S	K1206646-009	0.71	0.50	1	07/13/12 21:00	
MW-22D	K1206646-010	0.53	0.50	1	07/13/12 21:00	
Method Blank	K1206646-MB1	ND U	0.50	1	07/13/12 21:00	
Method Blank	K1206646-MB2	ND U	0.50	1	07/13/12 21:00	
Method Blank	K1206646-MB3	ND U	0.50	1	07/13/12 21:00	

**COLUMBIA ANALYTICAL SERVICES, INC.**

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- Cover Page -

**INORGANIC ANALYSIS DATA PACKAGE**

**Client:** Walla Walla, City of  
**Project Name:** City of Walla Walla Sudbury Road Landfill RI  
**Project No.:**

**Service Request:** K1206646

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<u>Sample Name:</u>	<u>Lab Code:</u>
MW-25	K1206646-001
MW-17	K1206646-002
MW-24	K1206646-003
MW-23	K1206646-004
MW-26	K1206646-005
MW-26D	K1206646-005D
MW-26S	K1206646-005S
MW-11	K1206646-006
MW-21S	K1206646-007
MW-21D	K1206646-008
MW-22S	K1206646-009
MW-22D	K1206646-010
Method Blank	K1206646-MB

**Comments:**





**Metals**

- 1 -

**INORGANIC ANALYSIS DATA PACKAGE**

**Client:** Walla Walla, City of                      **Service Request:** K1206646  
**Project No.:** NA                                      **Date Collected:** 7/9/2012  
**Project Name:** City of Walla Walla Sudbury Roa      **Date Received:** 7/11/2012  
**Matrix:** WATER                                      **Units:** ug/L  
    **Basis:** NA

**Sample Name:** MW-17                                      **Lab Code:** K1206646-002

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Calcium	6010C	50.0	1.0	07/16/12	07/25/12	114000		
Iron	6010C	20.0	1.0	07/16/12	07/25/12	28.2		
Magnesium	6010C	20.0	1.0	07/16/12	07/25/12	49800		
Manganese	6010C	5.0	1.0	07/16/12	07/25/12	27.1		
Potassium	6010C	400	1.0	07/16/12	07/25/12	8070		
Sodium	6010C	200	1.0	07/16/12	07/25/12	30300		

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**  
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**Metals**

- 1 -

**INORGANIC ANALYSIS DATA PACKAGE**

Client: Walla Walla, City of    Service Request: K1206646  
Project No.: NA    Date Collected: 7/9/2012  
Project Name: City of Walla Walla Sudbury Roa                                  Date Received: 7/11/2012  
Matrix: WATER    Units: ug/L  
Basis: NA

---

Sample Name: MW-24    Lab Code: K1206646-003

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Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Calcium	6010C	50.0	1.0	07/16/12	07/25/12	101000		
Iron	6010C	20.0	1.0	07/16/12	07/25/12	20.0	U	
Magnesium	6010C	20.0	1.0	07/16/12	07/25/12	43100		
Manganese	6010C	5.0	1.0	07/16/12	07/25/12	40.0		
Potassium	6010C	400	1.0	07/16/12	07/25/12	7390		
Sodium	6010C	200	1.0	07/16/12	07/25/12	25600		

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**  
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**Metals**

- 1 -

**INORGANIC ANALYSIS DATA PACKAGE**

Client: Walla Walla, City of Service Request: K1206646  
Project No.: NA Date Collected: 7/9/2012  
Project Name: City of Walla Walla Sudbury Roa Date Received: 7/11/2012  
Matrix: WATER Units: ug/L  
Basis: NA

Sample Name: MW-23 Lab Code: K1206646-004

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Calcium	6010C	50.0	1.0	07/16/12	07/25/12	113000		
Iron	6010C	20.0	1.0	07/16/12	07/25/12	20.0	U	
Magnesium	6010C	20.0	1.0	07/16/12	07/25/12	46600		
Manganese	6010C	5.0	1.0	07/16/12	07/25/12	8.3		
Potassium	6010C	400	1.0	07/16/12	07/25/12	7750		
Sodium	6010C	200	1.0	07/16/12	07/25/12	26000		

Comments:

**Metals**

- 1 -

**INORGANIC ANALYSIS DATA PACKAGE**

Client: Walla Walla, City of Service Request: K1206646  
 Project No.: NA Date Collected: 7/9/2012  
 Project Name: City of Walla Walla Sudbury Roa Date Received: 7/11/2012  
 Matrix: WATER Units: ug/L  
 Basis: NA

Sample Name: MW-26 Lab Code: K1206646-005

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Calcium	6010C	50.0	1.0	07/16/12	07/25/12	107000		
Iron	6010C	20.0	1.0	07/16/12	07/25/12	20.0	U	
Magnesium	6010C	20.0	1.0	07/16/12	07/25/12	42500		
Manganese	6010C	5.0	1.0	07/16/12	07/25/12	5.5		
Potassium	6010C	400	1.0	07/16/12	07/25/12	8500		
Sodium	6010C	200	1.0	07/16/12	07/25/12	35600		

Comments:



**Metals**

- 1 -

**INORGANIC ANALYSIS DATA PACKAGE**

Client: Walla Walla, City of

Service Request: K1206646

Project No.: NA

Date Collected: 7/10/2012

Project Name: City of Walla Walla Sudbury Roa

Date Received: 7/11/2012

Matrix: WATER

Units: ug/L

Basis: NA

Sample Name: MW-21S

Lab Code: K1206646-007

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Calcium	6010C	50.0	1.0	07/16/12	07/25/12	118000		
Iron	6010C	20.0	1.0	07/16/12	07/25/12	20.0	U	
Magnesium	6010C	20.0	1.0	07/16/12	07/25/12	49600		
Manganese	6010C	5.0	1.0	07/16/12	07/25/12	106		
Potassium	6010C	400	1.0	07/16/12	07/25/12	7730		
Sodium	6010C	200	1.0	07/16/12	07/25/12	25300		

Comments:

**Metals**

- 1 -

**INORGANIC ANALYSIS DATA PACKAGE**

Client: Walla Walla, City of Service Request: K1206646  
Project No.: NA Date Collected: 7/10/2012  
Project Name: City of Walla Walla Sudbury Roa Date Received: 7/11/2012  
Matrix: WATER Units: ug/L  
Basis: NA

Sample Name: MW-21D Lab Code: K1206646-008

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Calcium	6010C	50.0	1.0	07/16/12	07/25/12	122000		
Iron	6010C	20.0	1.0	07/16/12	07/25/12	20.0	U	
Magnesium	6010C	20.0	1.0	07/16/12	07/25/12	54300		
Manganese	6010C	5.0	1.0	07/16/12	07/25/12	5.0	U	
Potassium	6010C	400	1.0	07/16/12	07/25/12	7730		
Sodium	6010C	200	1.0	07/16/12	07/25/12	19300		

Comments:

**Metals**

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**INORGANIC ANALYSIS DATA PACKAGE**

Client: Walla Walla, City of Service Request: K1206646  
 Project No.: NA Date Collected: 7/10/2012  
 Project Name: City of Walla Walla Sudbury Roa Date Received: 7/11/2012  
 Matrix: WATER Units: ug/L  
 Basis: NA

Sample Name: MW-22S Lab Code: K1206646-009

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Calcium	6010C	50.0	1.0	07/16/12	07/25/12	123000		
Iron	6010C	20.0	1.0	07/16/12	07/25/12	20.0	U	
Magnesium	6010C	20.0	1.0	07/16/12	07/25/12	53400		
Manganese	6010C	5.0	1.0	07/16/12	07/25/12	10.4		
Potassium	6010C	400	1.0	07/16/12	07/25/12	7970		
Sodium	6010C	200	1.0	07/16/12	07/25/12	25800		

Comments:



**Metals**

- 1 -

**INORGANIC ANALYSIS DATA PACKAGE**

<b>Client:</b>	Walla Walla, City of	<b>Service Request:</b>	K1206646
<b>Project No.:</b>	NA	<b>Date Collected:</b>	7/10/2012
<b>Project Name:</b>	City of Walla Walla Sudbury Roa	<b>Date Received:</b>	7/11/2012
<b>Matrix:</b>	WATER	<b>Units:</b>	ug/L
		<b>Basis:</b>	NA

**Sample Name:** MW-22D

**Lab Code:** K1206646-010

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Calcium	6010C	50.0	1.0	07/16/12	07/25/12	120000		
Iron	6010C	20.0	1.0	07/16/12	07/25/12	20.0	U	
Magnesium	6010C	20.0	1.0	07/16/12	07/25/12	53900		
Manganese	6010C	5.0	1.0	07/16/12	07/25/12	141		
Potassium	6010C	400	1.0	07/16/12	07/25/12	7640		
Sodium	6010C	200	1.0	07/16/12	07/25/12	18800		

Comments:



**Metals**  
**- 5A -**  
**SPIKE SAMPLE RECOVERY**

**Client:** Walla Walla, City of                      **Service Request:** K1206646  
**Project No.:** NA    **Units:** UG/L  
**Project Name:** City of Walla Walla Sudbury Roa                      **Basis:** NA  
**Matrix:** WATER

**Sample Name:** MW-26S                                      **Lab Code:** K1206646-005S

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Calcium		117000		107000		10000.00	100.0		6010C
Iron	75 - 125	1010		20.0	U	1000.00	101.0		6010C
Magnesium		51500		42500		10000.00	90.0		6010C
Manganese	84 - 121	505		5.5		500.00	99.9		6010C
Potassium	75 - 125	18200		8500		10000.00	97.0		6010C
Sodium	75 - 125	45100		35600		10000.00	95.0		6010C

An empty field in the Control Limit column indicates the control limit is not applicable

**COLUMBIA ANALYTICAL SERVICES, INC.**

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**Metals**

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**DUPLICATES**

Client: Walla Walla, City of

Service Request: K1206646

Project No.: NA

Units: UG/L

Project Name: City of Walla Walla Sudbury Roa

Basis: NA

Matrix: WATER

Sample Name: MW-26D

Lab Code: K1206646-005D

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Calcium	20	107000		106000		0.9		6010C
Iron		20.0	U	20.0	U			6010C
Magnesium	20	42500		42400		0.2		6010C
Manganese		5.5		5.5		0.0		6010C
Potassium	20	8500		8490		0.1		6010C
Sodium	20	35600		35500		0.3		6010C

An empty field in the Control Limit column indicates the control limit is not applicable.

**Metals**

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**LABORATORY CONTROL SAMPLE**

Client: Walla Walla, City of

Service Request: K1206646

Project No.: NA

Project Name: City of Walla Walla Sudbury Roa

Aqueous LCS Source: Inorganic Ventures

Solid LCS Source:

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Calcium	12500	12800	102.4					
Iron	2500	2500	100.0					
Magnesium	12500	12500	100.0					
Manganese	1250	1290	103.2					
Potassium	12500	12400	99.2					
Sodium	12500	12600	100.8					

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/09/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-25  
**Lab Code:** K1206646-001  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	*
Chloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Vinyl Chloride	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Bromomethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Chloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Trichlorofluoromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1-Dichloroethene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Acetone	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Iodomethane	ND	U	5.0	1	07/16/12	07/16/12	KWG1207856	
Carbon Disulfide	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Methylene Chloride	ND	U	2.0	1	07/16/12	07/16/12	KWG1207856	
Acrylonitrile	ND	U	5.0	1	07/16/12	07/16/12	KWG1207856	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1-Dichloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Vinyl Acetate	ND	U	5.0	1	07/16/12	07/16/12	KWG1207856	
cis-1,2-Dichloroethene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
2-Butanone (MEK)	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Bromochloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Chloroform	<b>1.2</b>		0.50	1	07/16/12	07/16/12	KWG1207856	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Carbon Tetrachloride	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Benzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Trichloroethene (TCE)	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dichloropropane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Dibromomethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Bromodichloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Toluene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1,2-Trichloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Tetrachloroethene (PCE)	<b>0.51</b>		0.50	1	07/16/12	07/16/12	KWG1207856	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/09/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-25  
**Lab Code:** K1206646-001  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Dibromochloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/16/12	07/16/12	KWG1207856	
Chlorobenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Ethylbenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
m,p-Xylenes	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
o-Xylene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Styrene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Bromoform	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/16/12	07/16/12	KWG1207856	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/16/12	07/16/12	KWG1207856	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,4-Dichlorobenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dichlorobenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/16/12	07/16/12	KWG1207856	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	78	73-122	07/16/12	Acceptable
Toluene-d8	89	65-144	07/16/12	Acceptable
4-Bromofluorobenzene	77	68-117	07/16/12	Acceptable

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results:

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/09/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-17  
**Lab Code:** K1206646-002  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	*
Chloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Vinyl Chloride	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Bromomethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Chloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Trichlorofluoromethane	<b>0.68</b>		0.50	1	07/16/12	07/16/12	KWG1207856	
1,1-Dichloroethene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Acetone	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Iodomethane	ND	U	5.0	1	07/16/12	07/16/12	KWG1207856	
Carbon Disulfide	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Methylene Chloride	ND	U	2.0	1	07/16/12	07/16/12	KWG1207856	
Acrylonitrile	ND	U	5.0	1	07/16/12	07/16/12	KWG1207856	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1-Dichloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Vinyl Acetate	ND	U	5.0	1	07/16/12	07/16/12	KWG1207856	
cis-1,2-Dichloroethene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
2-Butanone (MEK)	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Bromochloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Chloroform	<b>0.50</b>		0.50	1	07/16/12	07/16/12	KWG1207856	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Carbon Tetrachloride	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Benzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Trichloroethene (TCE)	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dichloropropane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Dibromomethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Bromodichloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Toluene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1,2-Trichloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Tetrachloroethene (PCE)	<b>1.3</b>		0.50	1	07/16/12	07/16/12	KWG1207856	

**Comments:** \_\_\_\_\_



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/09/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-17  
**Lab Code:** K1206646-002

**Units:** ug/L

**Basis:** NA

**Extraction Method:** EPA 5030B

**Level:** Low

**Analysis Method:** 8260C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Dibromochloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/16/12	07/16/12	KWG1207856	
Chlorobenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Ethylbenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
m,p-Xylenes	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
o-Xylene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Styrene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Bromoform	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/16/12	07/16/12	KWG1207856	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/16/12	07/16/12	KWG1207856	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,4-Dichlorobenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dichlorobenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/16/12	07/16/12	KWG1207856	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	79	73-122	07/16/12	Acceptable
Toluene-d8	90	65-144	07/16/12	Acceptable
4-Bromofluorobenzene	79	68-117	07/16/12	Acceptable

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/09/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-24  
**Lab Code:** K1206646-003  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	*
Chloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Vinyl Chloride	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Bromomethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Chloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Trichlorofluoromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1-Dichloroethene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Acetone	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Chloroform	ND	U	5.0	1	07/16/12	07/16/12	KWG1207856	
Carbon Disulfide	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Methylene Chloride	ND	U	2.0	1	07/16/12	07/16/12	KWG1207856	
Acrylonitrile	ND	U	5.0	1	07/16/12	07/16/12	KWG1207856	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1-Dichloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Vinyl Acetate	ND	U	5.0	1	07/16/12	07/16/12	KWG1207856	
cis-1,2-Dichloroethene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
2-Butanone (MEK)	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Bromochloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Chloroform	<b>0.57</b>		0.50	1	07/16/12	07/16/12	KWG1207856	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Carbon Tetrachloride	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Benzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Trichloroethene (TCE)	<b>0.66</b>		0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dichloropropane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Dibromomethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Bromodichloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Toluene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1,2-Trichloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Tetrachloroethene (PCE)	<b>0.89</b>		0.50	1	07/16/12	07/16/12	KWG1207856	

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

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Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/09/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-24  
**Lab Code:** K1206646-003  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Dibromochloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/16/12	07/16/12	KWG1207856	
Chlorobenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Ethylbenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
m,p-Xylenes	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
o-Xylene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Styrene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Bromoform	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/16/12	07/16/12	KWG1207856	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/16/12	07/16/12	KWG1207856	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,4-Dichlorobenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dichlorobenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/16/12	07/16/12	KWG1207856	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	78	73-122	07/16/12	Acceptable
Toluene-d8	90	65-144	07/16/12	Acceptable
4-Bromofluorobenzene	80	68-117	07/16/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/09/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-23  
**Lab Code:** K1206646-004  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	0.79		0.50	1	07/16/12	07/16/12	KWG1207856	*
Chloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Vinyl Chloride	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Bromomethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Chloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Trichlorofluoromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1-Dichloroethene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Acetone	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Iodomethane	ND	U	5.0	1	07/16/12	07/16/12	KWG1207856	
Carbon Disulfide	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Methylene Chloride	ND	U	2.0	1	07/16/12	07/16/12	KWG1207856	
Acrylonitrile	ND	U	5.0	1	07/16/12	07/16/12	KWG1207856	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1-Dichloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Vinyl Acetate	ND	U	5.0	1	07/16/12	07/16/12	KWG1207856	
cis-1,2-Dichloroethene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
2-Butanone (MEK)	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Bromochloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Chloroform	0.55		0.50	1	07/16/12	07/16/12	KWG1207856	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Carbon Tetrachloride	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Benzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Trichloroethene (TCE)	0.66		0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dichloropropane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Dibromomethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Bromodichloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Toluene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1,2-Trichloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Tetrachloroethene (PCE)	1.1		0.50	1	07/16/12	07/16/12	KWG1207856	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/09/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-23  
**Lab Code:** K1206646-004  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Dibromochloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/16/12	07/16/12	KWG1207856	
Chlorobenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Ethylbenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
m,p-Xylenes	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
o-Xylene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Styrene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Bromoform	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/16/12	07/16/12	KWG1207856	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/16/12	07/16/12	KWG1207856	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,4-Dichlorobenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dichlorobenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/16/12	07/16/12	KWG1207856	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	77	73-122	07/16/12	Acceptable
Toluene-d8	89	65-144	07/16/12	Acceptable
4-Bromofluorobenzene	80	68-117	07/16/12	Acceptable

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/09/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-26  
**Lab Code:** K1206646-005

**Units:** ug/L  
**Basis:** NA

**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	0.51		0.50	1	07/16/12	07/16/12	KWG1207856	*
Chloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Vinyl Chloride	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Bromomethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Chloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Trichlorofluoromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1-Dichloroethene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Acetone	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Iodomethane	ND	U	5.0	1	07/16/12	07/16/12	KWG1207856	
Carbon Disulfide	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Methylene Chloride	ND	U	2.0	1	07/16/12	07/16/12	KWG1207856	
Acrylonitrile	ND	U	5.0	1	07/16/12	07/16/12	KWG1207856	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1-Dichloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Vinyl Acetate	ND	U	5.0	1	07/16/12	07/16/12	KWG1207856	
cis-1,2-Dichloroethene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
2-Butanone (MEK)	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Bromochloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Chloroform	0.88		0.50	1	07/16/12	07/16/12	KWG1207856	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Carbon Tetrachloride	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Benzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Trichloroethene (TCE)	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dichloropropane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Dibromomethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Bromodichloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Toluene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1,2-Trichloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Tetrachloroethene (PCE)	1.2		0.50	1	07/16/12	07/16/12	KWG1207856	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/09/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-26  
**Lab Code:** K1206646-005

**Units:** ug/L

**Basis:** NA

**Extraction Method:** EPA 5030B

**Level:** Low

**Analysis Method:** 8260C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Dibromochloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/16/12	07/16/12	KWG1207856	
Chlorobenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Ethylbenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
m,p-Xylenes	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
o-Xylene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Styrene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Bromoform	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/16/12	07/16/12	KWG1207856	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/16/12	07/16/12	KWG1207856	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,4-Dichlorobenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dichlorobenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/16/12	07/16/12	KWG1207856	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	76	73-122	07/16/12	Acceptable
Toluene-d8	90	65-144	07/16/12	Acceptable
4-Bromofluorobenzene	79	68-117	07/16/12	Acceptable

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/09/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-11  
**Lab Code:** K1206646-006

**Units:** ug/L

**Basis:** NA

**Extraction Method:** EPA 5030B

**Level:** Low

**Analysis Method:** 8260C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	*
Chloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Vinyl Chloride	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Bromomethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Chloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Trichlorofluoromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1-Dichloroethene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Acetone	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Iodomethane	ND	U	5.0	1	07/16/12	07/16/12	KWG1207856	
Carbon Disulfide	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Methylene Chloride	ND	U	2.0	1	07/16/12	07/16/12	KWG1207856	
Acrylonitrile	ND	U	5.0	1	07/16/12	07/16/12	KWG1207856	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1-Dichloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Vinyl Acetate	ND	U	5.0	1	07/16/12	07/16/12	KWG1207856	
cis-1,2-Dichloroethene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
2-Butanone (MEK)	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Bromochloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Chloroform	1.1		0.50	1	07/16/12	07/16/12	KWG1207856	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Carbon Tetrachloride	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Benzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Trichloroethene (TCE)	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dichloropropane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Dibromomethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Bromodichloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Toluene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1,2-Trichloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Tetrachloroethene (PCE)	1.2		0.50	1	07/16/12	07/16/12	KWG1207856	

Comments:



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/09/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-11  
**Lab Code:** K1206646-006  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Dibromochloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/16/12	07/16/12	KWG1207856	
Chlorobenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Ethylbenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
m,p-Xylenes	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
o-Xylene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Styrene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Bromoform	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/16/12	07/16/12	KWG1207856	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/16/12	07/16/12	KWG1207856	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,4-Dichlorobenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dichlorobenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/16/12	07/16/12	KWG1207856	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	76	73-122	07/16/12	Acceptable
Toluene-d8	89	65-144	07/16/12	Acceptable
4-Bromofluorobenzene	77	68-117	07/16/12	Acceptable

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/10/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-21S  
**Lab Code:** K1206646-007  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	0.51	0.50	1	07/17/12	07/17/12	KWG1207915	*
Chloromethane	ND U	0.50	1	07/17/12	07/17/12	KWG1207915	
Vinyl Chloride	ND U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromomethane	ND U	0.50	1	07/17/12	07/17/12	KWG1207915	
Chloroethane	ND U	0.50	1	07/17/12	07/17/12	KWG1207915	
Trichlorofluoromethane	0.84	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1-Dichloroethene	ND U	0.50	1	07/17/12	07/17/12	KWG1207915	
Acetone	ND U	20	1	07/17/12	07/17/12	KWG1207915	
Iodomethane	ND U	5.0	1	07/17/12	07/17/12	KWG1207915	
Carbon Disulfide	ND U	0.50	1	07/17/12	07/17/12	KWG1207915	
Methylene Chloride	ND U	2.0	1	07/17/12	07/17/12	KWG1207915	
Acrylonitrile	ND U	5.0	1	07/17/12	07/17/12	KWG1207915	
trans-1,2-Dichloroethene	ND U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1-Dichloroethane	ND U	0.50	1	07/17/12	07/17/12	KWG1207915	
Vinyl Acetate	ND U	5.0	1	07/17/12	07/17/12	KWG1207915	
cis-1,2-Dichloroethene	ND U	0.50	1	07/17/12	07/17/12	KWG1207915	
2-Butanone (MEK)	ND U	20	1	07/17/12	07/17/12	KWG1207915	
Bromochloromethane	ND U	0.50	1	07/17/12	07/17/12	KWG1207915	
Chloroform	0.51	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	07/17/12	07/17/12	KWG1207915	
Carbon Tetrachloride	ND U	0.50	1	07/17/12	07/17/12	KWG1207915	
Benzene	ND U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichloroethane (EDC)	ND U	0.50	1	07/17/12	07/17/12	KWG1207915	
Trichloroethene (TCE)	ND U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichloropropane	ND U	0.50	1	07/17/12	07/17/12	KWG1207915	
Dibromomethane	ND U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromodichloromethane	ND U	0.50	1	07/17/12	07/17/12	KWG1207915	
cis-1,3-Dichloropropene	ND U	0.50	1	07/17/12	07/17/12	KWG1207915	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	07/17/12	07/17/12	KWG1207915	
Toluene	ND U	0.50	1	07/17/12	07/17/12	KWG1207915	
trans-1,3-Dichloropropene	ND U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,1,2-Trichloroethane	ND U	0.50	1	07/17/12	07/17/12	KWG1207915	
Tetrachloroethene (PCE)	0.80	0.50	1	07/17/12	07/17/12	KWG1207915	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/10/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-21S  
**Lab Code:** K1206646-007  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Dibromochloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	
Chlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Ethylbenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
m,p-Xylenes	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
o-Xylene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Styrene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromoform	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/17/12	07/17/12	KWG1207915	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/17/12	07/17/12	KWG1207915	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,4-Dichlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	89	73-122	07/17/12	Acceptable
Toluene-d8	90	65-144	07/17/12	Acceptable
4-Bromofluorobenzene	78	68-117	07/17/12	Acceptable

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/10/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-21D  
**Lab Code:** K1206646-008  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
Chloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Vinyl Chloride	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromomethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Chloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Trichlorofluoromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Acetone	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Iodomethane	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
Carbon Disulfide	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Methylene Chloride	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	
Acrylonitrile	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1-Dichloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Vinyl Acetate	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
cis-1,2-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
2-Butanone (MEK)	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Bromochloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Chloroform	<b>0.55</b>		0.50	1	07/17/12	07/17/12	KWG1207915	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Carbon Tetrachloride	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Benzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Trichloroethene (TCE)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichloropropane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Dibromomethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromodichloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Toluene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,1,2-Trichloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Tetrachloroethene (PCE)	<b>0.90</b>		0.50	1	07/17/12	07/17/12	KWG1207915	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/10/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-21D  
**Lab Code:** K1206646-008  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Dibromochloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	
Chlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Ethylbenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
m,p-Xylenes	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
o-Xylene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Styrene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromoform	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/17/12	07/17/12	KWG1207915	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/17/12	07/17/12	KWG1207915	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,4-Dichlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	87	73-122	07/17/12	Acceptable
Toluene-d8	90	65-144	07/17/12	Acceptable
4-Bromofluorobenzene	76	68-117	07/17/12	Acceptable

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/10/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-22S  
**Lab Code:** K1206646-009  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	0.59		0.50	1	07/17/12	07/17/12	KWG1207915	*
Chloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Vinyl Chloride	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromomethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Chloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Trichlorofluoromethane	0.87		0.50	1	07/17/12	07/17/12	KWG1207915	
1,1-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Acetone	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Iodomethane	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
Carbon Disulfide	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Methylene Chloride	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	
Acrylonitrile	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1-Dichloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Vinyl Acetate	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
cis-1,2-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
2-Butanone (MEK)	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Bromochloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Chloroform	0.58		0.50	1	07/17/12	07/17/12	KWG1207915	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Carbon Tetrachloride	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Benzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Trichloroethene (TCE)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichloropropane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Dibromomethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromodichloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Toluene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,1,2-Trichloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Tetrachloroethene (PCE)	0.88		0.50	1	07/17/12	07/17/12	KWG1207915	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/10/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-22S  
**Lab Code:** K1206646-009

**Units:** ug/L  
**Basis:** NA

**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Dibromochloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	
Chlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Ethylbenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
m,p-Xylenes	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
o-Xylene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Styrene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromoform	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/17/12	07/17/12	KWG1207915	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/17/12	07/17/12	KWG1207915	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,4-Dichlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	86	73-122	07/17/12	Acceptable
Toluene-d8	90	65-144	07/17/12	Acceptable
4-Bromofluorobenzene	75	68-117	07/17/12	Acceptable

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/10/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-22D  
**Lab Code:** K1206646-010  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
Chloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Vinyl Chloride	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromomethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Chloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Trichlorofluoromethane	0.57		0.50	1	07/17/12	07/17/12	KWG1207915	
1,1-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Acetone	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Iodomethane	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
Carbon Disulfide	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Methylene Chloride	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	
Acrylonitrile	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1-Dichloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Vinyl Acetate	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
cis-1,2-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
2-Butanone (MEK)	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Bromochloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Chloroform	0.56		0.50	1	07/17/12	07/17/12	KWG1207915	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Carbon Tetrachloride	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Benzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Trichloroethene (TCE)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichloropropane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Dibromomethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromodichloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Toluene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,1,2-Trichloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Tetrachloroethene (PCE)	0.87		0.50	1	07/17/12	07/17/12	KWG1207915	

Comments:



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/10/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-22D  
**Lab Code:** K1206646-010  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Dibromochloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	
Chlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Ethylbenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
m,p-Xylenes	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
o-Xylene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Styrene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromoform	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/17/12	07/17/12	KWG1207915	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/17/12	07/17/12	KWG1207915	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,4-Dichlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	85	73-122	07/17/12	Acceptable
Toluene-d8	89	65-144	07/17/12	Acceptable
4-Bromofluorobenzene	77	68-117	07/17/12	Acceptable

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG1207856-4

**Units:** ug/L  
**Basis:** NA

**Extraction Method:** EPA 5030B

**Level:** Low

**Analysis Method:** 8260C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	*
Chloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Vinyl Chloride	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Bromomethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Chloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Trichlorofluoromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1-Dichloroethene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Acetone	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Iodomethane	ND	U	5.0	1	07/16/12	07/16/12	KWG1207856	
Carbon Disulfide	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Methylene Chloride	ND	U	2.0	1	07/16/12	07/16/12	KWG1207856	
Acrylonitrile	ND	U	5.0	1	07/16/12	07/16/12	KWG1207856	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1-Dichloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Vinyl Acetate	ND	U	5.0	1	07/16/12	07/16/12	KWG1207856	
cis-1,2-Dichloroethene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
2-Butanone (MEK)	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Bromochloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Chloroform	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Carbon Tetrachloride	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Benzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Trichloroethene (TCE)	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dichloropropane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Dibromomethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Bromodichloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Toluene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1,2-Trichloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Tetrachloroethene (PCE)	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

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Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG1207856-4  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/16/12	07/16/12	KWG1207856	
Dibromochloromethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/16/12	07/16/12	KWG1207856	
Chlorobenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Ethylbenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
m,p-Xylenes	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
o-Xylene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Styrene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
Bromoform	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/16/12	07/16/12	KWG1207856	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/16/12	07/16/12	KWG1207856	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,4-Dichlorobenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dichlorobenzene	ND	U	0.50	1	07/16/12	07/16/12	KWG1207856	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/16/12	07/16/12	KWG1207856	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	76	73-122	07/16/12	Acceptable
Toluene-d8	90	65-144	07/16/12	Acceptable
4-Bromofluorobenzene	78	68-117	07/16/12	Acceptable

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG1207915-4  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
Chloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Vinyl Chloride	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromomethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Chloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Trichlorofluoromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Acetone	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Iodomethane	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
Carbon Disulfide	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Methylene Chloride	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	
Acrylonitrile	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
trans-1,2-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1-Dichloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Vinyl Acetate	ND	U	5.0	1	07/17/12	07/17/12	KWG1207915	
cis-1,2-Dichloroethene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
2-Butanone (MEK)	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Bromochloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Chloroform	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Carbon Tetrachloride	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Benzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Trichloroethene (TCE)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichloropropane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Dibromomethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromodichloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
cis-1,3-Dichloropropene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Toluene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
trans-1,3-Dichloropropene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,1,2-Trichloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Tetrachloroethene (PCE)	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG1207915-4  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2-Hexanone	ND	U	20	1	07/17/12	07/17/12	KWG1207915	
Dibromochloromethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,2-Dibromoethane (EDB)	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	
Chlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Ethylbenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
m,p-Xylenes	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
o-Xylene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Styrene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
Bromoform	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
cis-1,4-Dichloro-2-butene	ND	U	10	1	07/17/12	07/17/12	KWG1207915	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
trans-1,4-Dichloro-2-butene	ND	U	10	1	07/17/12	07/17/12	KWG1207915	*
1,2,3-Trichloropropane	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	*
1,4-Dichlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dichlorobenzene	ND	U	0.50	1	07/17/12	07/17/12	KWG1207915	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	07/17/12	07/17/12	KWG1207915	*

\* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	75	73-122	07/17/12	Acceptable
Toluene-d8	91	65-144	07/17/12	Acceptable
4-Bromofluorobenzene	76	68-117	07/17/12	Acceptable

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

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QA/QC Report

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646

**Surrogate Recovery Summary  
 Volatile Organic Compounds**

**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** PERCENT  
**Level:** Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>	<u>Sur3</u>
MW-25	K1206646-001	78	89	77
MW-17	K1206646-002	79	90	79
MW-24	K1206646-003	78	90	80
MW-23	K1206646-004	77	89	80
MW-26	K1206646-005	76	90	79
MW-11	K1206646-006	76	89	77
MW-21S	K1206646-007	89	90	78
MW-21D	K1206646-008	87	90	76
MW-22S	K1206646-009	86	90	75
MW-22D	K1206646-010	85	89	77
Method Blank	KWG1207856-4	76	90	78
Method Blank	KWG1207915-4	75	91	76
MW-26MS	KWG1207856-1	84	93	84
MW-26DMS	KWG1207856-2	86	96	84
Lab Control Sample	KWG1207856-3	84	92	82
Lab Control Sample	KWG1207915-3	84	95	85

**Surrogate Recovery Control Limits (%)**

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Sur1 = Dibromofluoromethane	73-122
Sur2 = Toluene-d8	65-144
Sur3 = 4-Bromofluorobenzene	68-117

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 Results flagged with a pound (#) indicate the control criteria is not applicable.

**COLUMBIA ANALYTICAL SERVICES, INC.**

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QA/QC Report

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Extracted:** 07/16/2012  
**Date Analyzed:** 07/16/2012

**Matrix Spike/Duplicate Matrix Spike Summary**  
**Volatile Organic Compounds**

**Sample Name:** MW-26  
**Lab Code:** K1206646-005  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG1207856

Analyte Name	Sample Result	MW-26MS KWG1207856-1 Matrix Spike			MW-26DMS KWG1207856-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
Vinyl Chloride	ND	7.40	10.0	74	7.71	10.0	77	49-136	4	30
1,1-Dichloroethene	ND	11.5	10.0	115	11.7	10.0	117	59-171	1	30
Chloroform	0.88	9.80	10.0	89	10.0	10.0	91	64-133	2	30
Carbon Tetrachloride	ND	7.44	10.0	74	7.88	10.0	79	53-161	6	30
Benzene	ND	9.05	10.0	91	9.36	10.0	94	63-144	3	30
Trichloroethene (TCE)	ND	8.83	10.0	88	9.04	10.0	90	53-139	2	30
Bromodichloromethane	ND	7.68	10.0	77	7.98	10.0	80	61-134	4	30
Toluene	ND	8.76	10.0	88	9.14	10.0	91	71-136	4	30
1,1,2-Trichloroethane	ND	8.82	10.0	88	9.33	10.0	93	74-124	6	30
2-Hexanone	ND	40.0	50.0	80	43.9	50.0	88	53-132	9	30
Chlorobenzene	ND	9.23	10.0	92	9.25	10.0	93	69-126	0	30
Ethylbenzene	ND	8.97	10.0	90	9.17	10.0	92	66-136	2	30
1,2,3-Trichloropropane	ND	7.68	10.0	77	8.36	10.0	84	71-127	8	30
1,2-Dichlorobenzene	ND	8.57	10.0	86	8.82	10.0	88	72-119	3	30

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Extracted:** 07/16/2012  
**Date Analyzed:** 07/16/2012

**Lab Control Spike Summary  
 Volatile Organic Compounds**

**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG1207856

Analyte Name	Lab Control Sample KWG1207856-3 Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
Dichlorodifluoromethane	5.92	10.0	59	32-124
Chloromethane	8.30	10.0	83	34-130
Vinyl Chloride	6.92	10.0	69	55-123
Bromomethane	7.50	10.0	75	35-113
Chloroethane	8.31	10.0	83	58-134
Trichlorofluoromethane	6.51	10.0	65	52-141
1,1-Dichloroethene	10.5	10.0	105	66-129
Acetone	46.4	50.0	93	68-135
Iodomethane	35.6	30.0	119	51-164
Carbon Disulfide	15.6	20.0	78	46-144
Methylene Chloride	9.67	10.0	97	71-122
Acrylonitrile	35.4	40.0	88	65-129
trans-1,2-Dichloroethene	9.00	10.0	90	67-125
1,1-Dichloroethane	8.42	10.0	84	68-132
Vinyl Acetate	34.0	50.0	68	44-156
cis-1,2-Dichloroethene	8.61	10.0	86	71-118
2-Butanone (MEK)	46.8	50.0	94	71-149
Bromochloromethane	9.42	10.0	94	75-131
Chloroform	8.27	10.0	83	70-129
1,1,1-Trichloroethane (TCA)	7.06	10.0	71	59-136
Carbon Tetrachloride	6.88	10.0	69	55-140
Benzene	8.41	10.0	84	69-124
1,2-Dichloroethane (EDC)	7.98	10.0	80	56-142
Trichloroethene (TCE)	7.88	10.0	79	67-128
1,2-Dichloropropane	8.17	10.0	82	67-126
Dibromomethane	8.60	10.0	86	69-128
Bromodichloromethane	7.42	10.0	74	63-129
cis-1,3-Dichloropropene	7.69	10.0	77	62-132
4-Methyl-2-pentanone (MIBK)	42.7	50.0	85	64-134
Toluene	8.27	10.0	83	69-124
trans-1,3-Dichloropropene	6.76	10.0	68	59-125
1,1,2-Trichloroethane	8.49	10.0	85	74-118
Tetrachloroethene (PCE)	7.91	10.0	79	62-126
2-Hexanone	42.1	50.0	84	59-131
Dibromochloromethane	7.23	10.0	72	67-126

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Extracted:** 07/16/2012  
**Date Analyzed:** 07/16/2012

**Lab Control Spike Summary  
 Volatile Organic Compounds**

**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG1207856

Analyte Name	Lab Control Sample KWG1207856-3 Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
1,2-Dibromoethane (EDB)	8.47	10.0	85	74-118
Chlorobenzene	8.60	10.0	86	72-116
Ethylbenzene	8.12	10.0	81	67-121
1,1,1,2-Tetrachloroethane	7.99	10.0	80	66-124
m,p-Xylenes	16.7	20.0	84	69-121
o-Xylene	8.14	10.0	81	71-119
Styrene	8.64	10.0	86	74-121
Bromoform	6.29	10.0	63	52-144
cis-1,4-Dichloro-2-butene	21.8	30.0	73	26-171
1,1,2,2-Tetrachloroethane	7.82	10.0	78	70-127
trans-1,4-Dichloro-2-butene	22.0	30.0	73	46-170
1,2,3-Trichloropropane	7.94	10.0	79	69-123
1,4-Dichlorobenzene	8.15	10.0	82	73-115
1,2-Dichlorobenzene	8.25	10.0	83	72-115
1,2-Dibromo-3-chloropropane	6.62	10.0	66	55-132

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Extracted:** 07/17/2012  
**Date Analyzed:** 07/17/2012

**Lab Control Spike Summary  
 Volatile Organic Compounds**

**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG1207915

Analyte Name	Lab Control Sample KWG1207915-3 Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
Dichlorodifluoromethane	6.61	10.0	66	32-124
Chloromethane	8.81	10.0	88	34-130
Vinyl Chloride	7.46	10.0	75	55-123
Bromomethane	8.20	10.0	82	35-113
Chloroethane	9.27	10.0	93	58-134
Trichlorofluoromethane	6.94	10.0	69	52-141
1,1-Dichloroethene	11.2	10.0	112	66-129
Acetone	44.2	50.0	88	68-135
Iodomethane	40.7	30.0	136	51-164
Carbon Disulfide	15.7	20.0	78	46-144
Methylene Chloride	9.94	10.0	99	71-122
Acrylonitrile	35.5	40.0	89	65-129
trans-1,2-Dichloroethene	9.56	10.0	96	67-125
1,1-Dichloroethane	8.51	10.0	85	68-132
Vinyl Acetate	41.6	50.0	83	44-156
cis-1,2-Dichloroethene	8.71	10.0	87	71-118
2-Butanone (MEK)	47.4	50.0	95	71-149
Bromochloromethane	9.81	10.0	98	75-131
Chloroform	8.46	10.0	85	70-129
1,1,1-Trichloroethane (TCA)	7.14	10.0	71	59-136
Carbon Tetrachloride	7.04	10.0	70	55-140
Benzene	8.74	10.0	87	69-124
1,2-Dichloroethane (EDC)	8.11	10.0	81	56-142
Trichloroethene (TCE)	8.15	10.0	82	67-128
1,2-Dichloropropane	8.24	10.0	82	67-126
Dibromomethane	8.81	10.0	88	69-128
Bromodichloromethane	7.01	10.0	70	63-129
cis-1,3-Dichloropropene	7.16	10.0	72	62-132
4-Methyl-2-pentanone (MIBK)	44.3	50.0	89	64-134
Toluene	8.58	10.0	86	69-124
trans-1,3-Dichloropropene	6.08	10.0	61	59-125
1,1,2-Trichloroethane	8.63	10.0	86	74-118
Tetrachloroethene (PCE)	8.71	10.0	87	62-126
2-Hexanone	41.4	50.0	83	59-131
Dibromochloromethane	6.69	10.0	67	67-126

Results flagged with an asterisk (\*) indicate values outside control criteria.

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Extracted:** 07/17/2012  
**Date Analyzed:** 07/17/2012

**Lab Control Spike Summary  
 Volatile Organic Compounds**

**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG1207915

Analyte Name	Lab Control Sample KWG1207915-3 Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
1,2-Dibromoethane (EDB)	8.30	10.0	83	74-118
Chlorobenzene	8.72	10.0	87	72-116
Ethylbenzene	8.45	10.0	85	67-121
1,1,1,2-Tetrachloroethane	7.65	10.0	77	66-124
m,p-Xylenes	17.1	20.0	86	69-121
o-Xylene	8.25	10.0	83	71-119
Styrene	8.90	10.0	89	74-121
Bromoform	5.73	10.0	57	52-144
cis-1,4-Dichloro-2-butene	19.0	30.0	63	26-171
1,1,2,2-Tetrachloroethane	7.67	10.0	77	70-127
trans-1,4-Dichloro-2-butene	20.3	30.0	68	46-170
1,2,3-Trichloropropane	7.73	10.0	77	69-123
1,4-Dichlorobenzene	8.03	10.0	80	73-115
1,2-Dichlorobenzene	7.96	10.0	80	72-115
1,2-Dibromo-3-chloropropane	6.00	10.0	60	55-132

Results flagged with an asterisk (\*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/09/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-25  
**Lab Code:** K1206646-001  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND U	20	1	07/16/12	07/16/12	KWG1207872	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	91	77-123	07/16/12	Acceptable
Toluene-d8	103	74-112	07/16/12	Acceptable
4-Bromofluorobenzene	80	46-118	07/16/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/09/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-17  
**Lab Code:** K1206646-002  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	20	1	07/16/12	07/16/12	KWG1207872	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	91	77-123	07/16/12	Acceptable
Toluene-d8	102	74-112	07/16/12	Acceptable
4-Bromofluorobenzene	80	46-118	07/16/12	Acceptable

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/09/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-24  
**Lab Code:** K1206646-003  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND U	20	1	07/16/12	07/16/12	KWG1207872	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	92	77-123	07/16/12	Acceptable
Toluene-d8	102	74-112	07/16/12	Acceptable
4-Bromofluorobenzene	79	46-118	07/16/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/09/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-23  
**Lab Code:** K1206646-004  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND U	20	1	07/16/12	07/16/12	KWG1207872	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	93	77-123	07/16/12	Acceptable
Toluene-d8	102	74-112	07/16/12	Acceptable
4-Bromofluorobenzene	79	46-118	07/16/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/09/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-26  
**Lab Code:** K1206646-005  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND U	20	1	07/16/12	07/16/12	KWG1207872	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	94	77-123	07/16/12	Acceptable
Toluene-d8	101	74-112	07/16/12	Acceptable
4-Bromofluorobenzene	79	46-118	07/16/12	Acceptable

**Comments:** \_\_\_\_\_



**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/09/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-11  
**Lab Code:** K1206646-006  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	20	1	07/16/12	07/16/12	KWG1207872	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	94	77-123	07/16/12	Acceptable
Toluene-d8	101	74-112	07/16/12	Acceptable
4-Bromofluorobenzene	78	46-118	07/16/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/10/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-21S  
**Lab Code:** K1206646-007  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND U	20	1	07/16/12	07/16/12	KWG1207872	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	95	77-123	07/16/12	Acceptable
Toluene-d8	100	74-112	07/16/12	Acceptable
4-Bromofluorobenzene	78	46-118	07/16/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/10/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-21D  
**Lab Code:** K1206646-008  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND U	20	1	07/16/12	07/16/12	KWG1207872	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	96	77-123	07/16/12	Acceptable
Toluene-d8	100	74-112	07/16/12	Acceptable
4-Bromofluorobenzene	78	46-118	07/16/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/10/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-22S  
**Lab Code:** K1206646-009  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	20	1	07/16/12	07/16/12	KWG1207872	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	97	77-123	07/16/12	Acceptable
Toluene-d8	100	74-112	07/16/12	Acceptable
4-Bromofluorobenzene	78	46-118	07/16/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** 07/10/2012  
**Date Received:** 07/11/2012

**Volatile Organic Compounds**

**Sample Name:** MW-22D  
**Lab Code:** K1206646-010  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND U	20	1	07/16/12	07/16/12	KWG1207872	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	98	77-123	07/16/12	Acceptable
Toluene-d8	100	74-112	07/16/12	Acceptable
4-Bromofluorobenzene	78	46-118	07/16/12	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

Analytical Results

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG1207872-14  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	20	1	07/16/12	07/16/12	KWG1207872	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	86	77-123	07/16/12	Acceptable
Toluene-d8	105	74-112	07/16/12	Acceptable
4-Bromofluorobenzene	81	46-118	07/16/12	Acceptable

**Comments:** \_\_\_\_\_

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Walla Walla, City of  
Project: City of Walla Walla Sudbury Road Landfill RI  
Sample Matrix: Water

Service Request: K1206646

Surrogate Recovery Summary  
Volatile Organic Compounds

Extraction Method: EPA 5030B  
Analysis Method: 8260C SIM

Units: PERCENT  
Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>	<u>Sur3</u>
MW-25	K1206646-001	91	103	80
MW-17	K1206646-002	91	102	80
MW-24	K1206646-003	92	102	79
MW-23	K1206646-004	93	102	79
MW-26	K1206646-005	94	101	79
MW-11	K1206646-006	94	101	78
MW-21S	K1206646-007	95	100	78
MW-21D	K1206646-008	96	100	78
MW-22S	K1206646-009	97	100	78
MW-22D	K1206646-010	98	100	78
Method Blank	KWG1207872-14	86	105	81
MW-26MS	KWG1207872-5	85	108	90
MW-26DMS	KWG1207872-6	85	107	90
Lab Control Sample	KWG1207872-13	84	108	90

Surrogate Recovery Control Limits (%)

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Sur1 = Dibromofluoromethane	77-123
Sur2 = Toluene-d8	74-112
Sur3 = 4-Bromofluorobenzene	46-118

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Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

**COLUMBIA ANALYTICAL SERVICES, INC.**

Now part of the ALS Group

QA/QC Report

**Client:** Walla Walla, City of  
**Project:** City of Walla Walla Sudbury Road Landfill RI  
**Sample Matrix:** Water

**Service Request:** K1206646  
**Date Extracted:** 07/16/2012  
**Date Analyzed:** 07/16/2012

**Matrix Spike/Duplicate Matrix Spike Summary  
 Volatile Organic Compounds**

**Sample Name:** MW-26  
**Lab Code:** K1206646-005  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260C SIM

**Units:** ng/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG1207872

Analyte Name	Sample Result	MW-26MS KWG1207872-5 Matrix Spike			MW-26DMS KWG1207872-6 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
Vinyl Chloride	ND	1350	2000	68 *	1300	2000	65 *	70-130	4	30

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Walla Walla, City of  
Project: City of Walla Walla Sudbury Road Landfill RI  
Sample Matrix: Water

Service Request: K1206646  
Date Extracted: 07/16/2012  
Date Analyzed: 07/16/2012

Lab Control Spike Summary  
Volatile Organic Compounds

Extraction Method: EPA 5030B  
Analysis Method: 8260C SIM

Units: ng/L  
Basis: NA  
Level: Low  
Extraction Lot: KWG1207872

Analyte Name	Lab Control Sample KWG1207872-13 Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
Vinyl Chloride	1780	2000	89	70-136

Results flagged with an asterisk (\*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.